



SOIL BORING LOG

ROUTE I-74 over I-155 DESCRIPTION I-74 over I-155 LOGGED BY F. Bozga

SECTION (90-14)R LOCATION Morton, IL, SEC. 18, TWP. 25 N, RNG. 3 W, 3rd PM

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0012 (WB) EX 090-0013 (EB) Station 540+01.31

BORING NO. TB-102 Station 540+99.2 Offset 113ft RT Ground Surface Elev. 728.20 ft

DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)	Surface Water Elev.		Stream Bed Elev.		DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)
				NA	ft	NA	ft				
0				NA	ft	NA	ft				
1	1							3			
2	1.8							4	1.8		14
4	P							5	B		
725.20											
2								3			
3	1.9							4	1.9		11
4	B							4	B		
720.20											
1								2			
2	NP							4	1.6		16
3								5	B		
720.20											
1								2			
2	0.7							4	2.2		14
3	B							6	B		
715.20											
2								4			
3	1.9							5	2.7		14
4	B							6	B		
715.20											
2								3			
3	2.6							4	2.1		13
6	B							7	B		
715.20											
2								3			
3	2.2							5	2.1		13
5	B							6	B		
728.03											

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

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-74 over I-155 DESCRIPTION I-74 over I-155 LOGGED BY F. Bozga

SECTION (90-14)R LOCATION Morton, IL, SEC. 18, TWP. 25 N, RNG. 3 W, 3rd PM

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				NA	ft	NA	ft				
0				NA	ft	NA	ft				
2								4	2.3		13
4								6	B		
728.20											
3								5			
4	2.4							7	B		14
7	B										
728.20											
5								6	2.2		14
7	B							9	B		
728.20											
3								4			
4	2.1							6	B		13
7	B							7	B		
728.20											
4								9			
7	2.2							11	3.0		12
9	B							17	B		
728.20											

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

BBS, form 137 (Rev. 8-99)



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				NA	ft	NA	ft				
0				NA	ft	NA	ft				
6								15	3.3		11
15								15	B		
728.20											
5								11	2.6		11
7	B							13	B		
728.20											
12								12			
19								19	NP		11
23											
728.20											
8								11	2.7		12
14	B							14	B		
728.20											

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

BBS, form 137 (Rev. 8-99)



Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

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		CHECKED - MRB	REVISED -
		DRAWN - PRT	REVISED -
		CHECKED - MRB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 6 OF 6
STRUCTURE NO. 090-0165 / 0166

SHEET NO. SA37 OF SA47 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[I4R]14HB-4,14,14HB[BR]	TAZEWELL	2433	1901
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				

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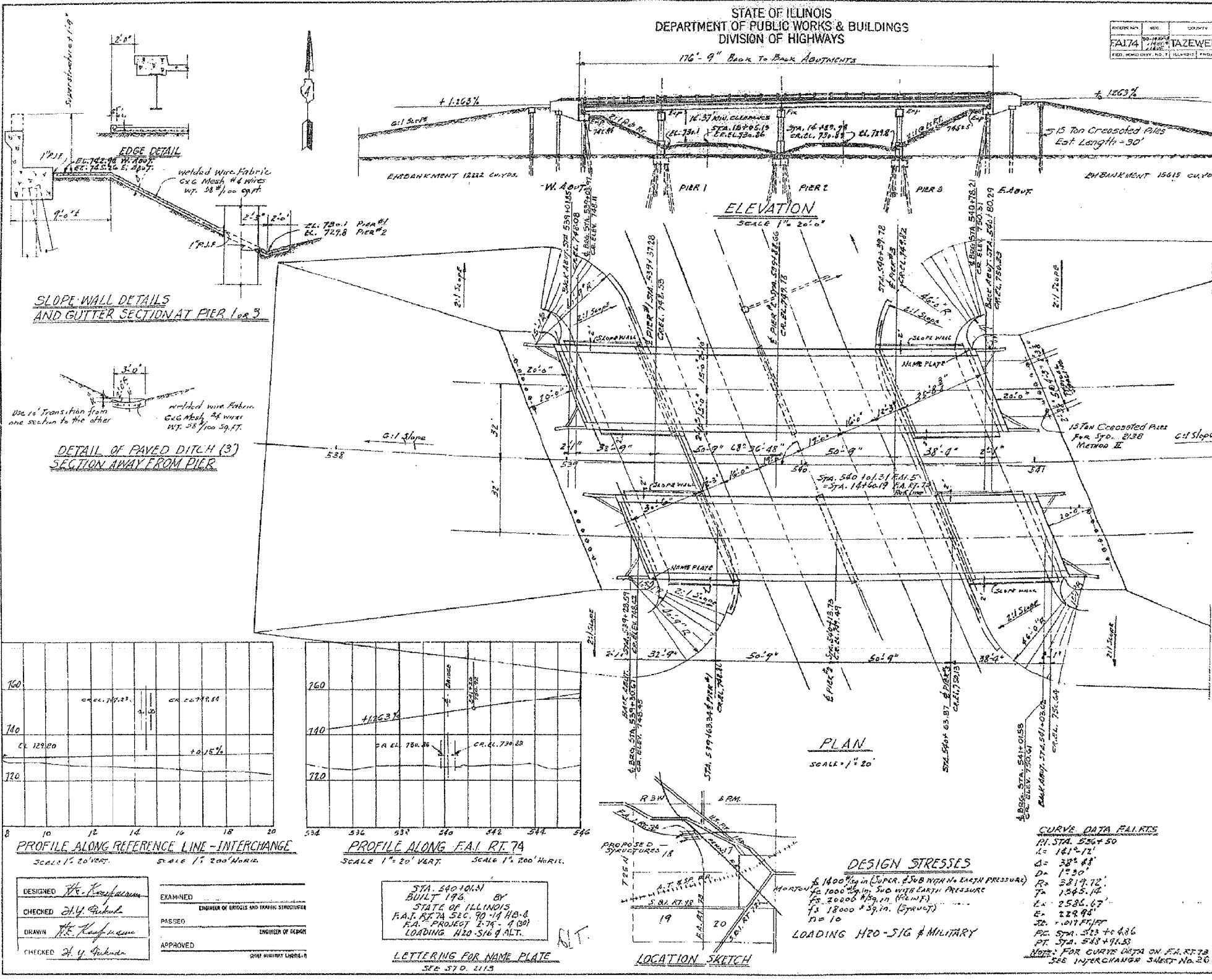
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7/16/2012

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

PROJECT NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA174	90-14	TAZEWELL	19	11

ROUTE NO.	SEC.	COUNTY	STATION	SHEET NO.
FA 174	90-14	TAZEWELL	89	30



GENERAL NOTES

Class X Concrete shall be used throughout except as noted.

The Concrete Floor shall be finished in accordance with applicable provisions of Article 31.19 of the Standard Specifications and shall be poured in one continuous operation between joints of construction joints shown.

All curbs and slab outside of longitudinal bonded construction joint shall be poured monolithically.

All anchors, bearing plates, wood plates, girdes and anchor bolts shall be fabricated and set in accordance with Article 31.15 of the Standard Specifications and are included in quantities of Structural Steel. Estimated Weight 21,400 Lbs.

Metal handrail posts shall be vertical.

Except as otherwise noted, all structural steel and metal handrail shall receive one (1) shop coat of red lead paint and two (2) field coats of aluminum paint. See Article 31.1 through 31.5 inclusive of the Standard Specifications. All paint shall be furnished and applied by the Contractor.

The Contractor shall drive two Reinforced Concrete Test Piles of permanent locations, one in West Abutment Right and one in East Abutment Left as directed by the Engineer before casting the remainder of the piles.

The Contractor shall drive two Sinker Test Piles, one near Pier #1 Left and one near Pier #3 Right as directed by the Engineer before casting the remainder of the piles.

Unless otherwise shown on the plans, reinforcement bars shall be lapped 24 bar diameters, but not less than 18 inches.

TOTAL BILL OF MATERIAL SEC. 90-14 HB-4

ITEM	SUPER ST	SUB ST	TOTAL
FURNISHING STRUCTURAL STEEL LBS.	293740		293740

TOTAL BILL OF MATERIAL SEC. 90-14 HB-4

ITEM	SUPER ST	SUB ST	70244
CLX Concrete	336.0	514.5	850.5
REINFORCEMENT BARS	87,850	48,620	136,470
Structural Steel	293740		293740
Furnishing B. Cropping			
Metal Handrail	762		762
Furnishing Conc. Piles	490		490
Driving Conc. Piles	490		490
Furnishing Creosoted Piles	3960		3960
Driving Timber Piles	3960		3960
TEST PILES (CONC.)	2		2
TEST PILES (TIMBER)	2		2
Slope Wall	228		228
Paved Ditch	128		128
CC's & Bagament for Spring	192		192
Name Plates	2		2

GENERAL PLAN & ELEVATION
F.A.I. ROUTE 74 - SECTION 90-14 HB-4

F.A.I. ROUTE 74 OVER F.A. ROUTE 73
STATION 540+01.31
TAZEWELL, COUNTY

WARREN AND VAN PRAAG, INC.
CONSULTING ENGINEERS - DECATUR, ILLINOIS

FOR INFORMATION ONLY



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		DRAWN - PRT	REVISED -
		CHECKED - MRB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
STRUCTURE NO. 090-0165 / 0166
SHEET NO. SA38 OF SA47 SHEETS

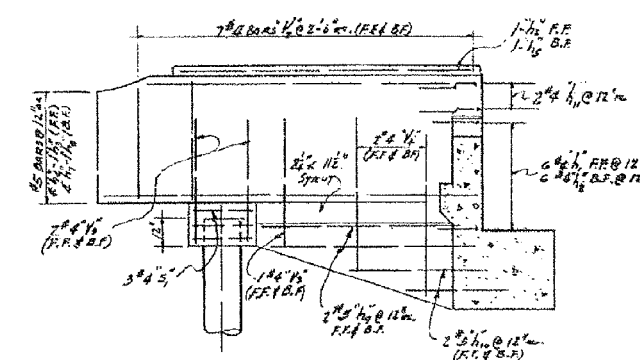
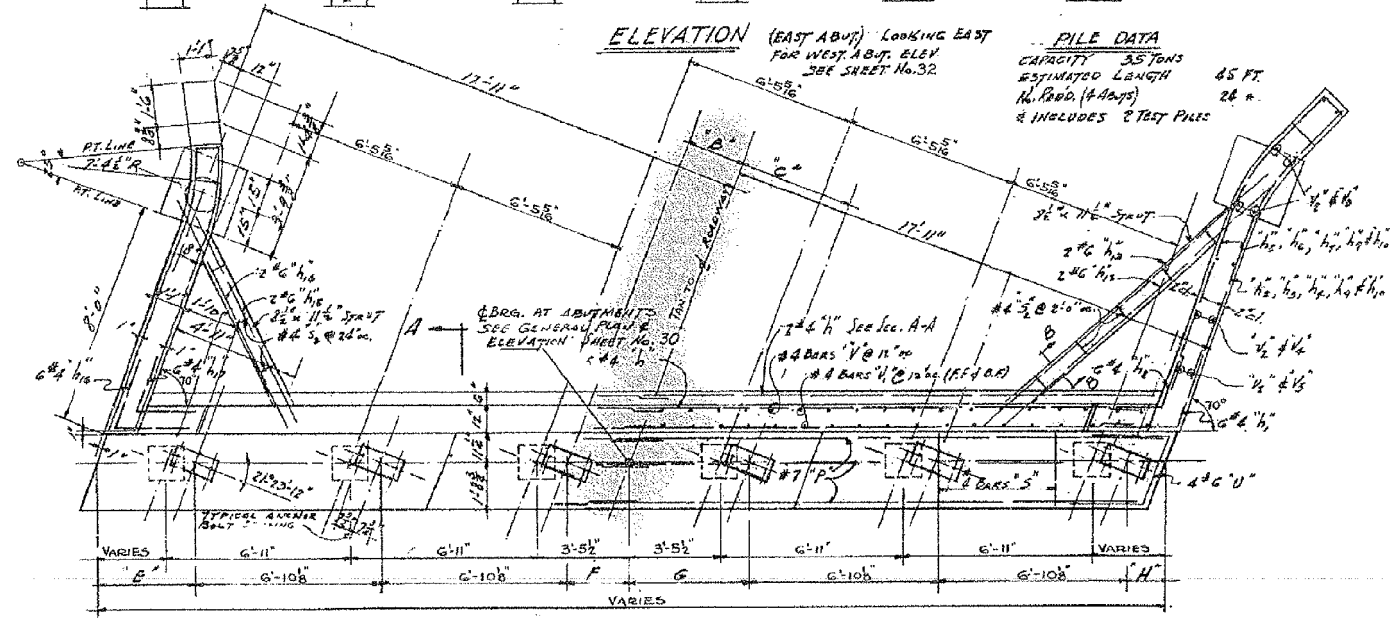
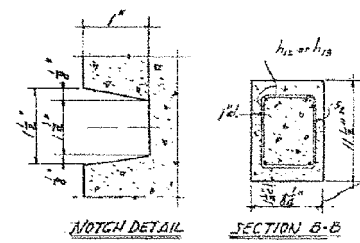
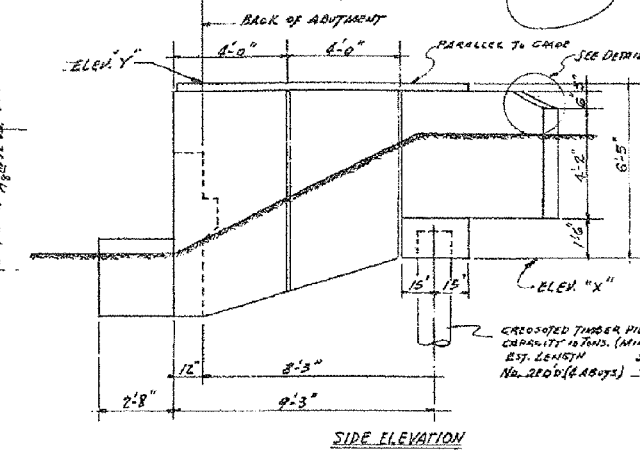
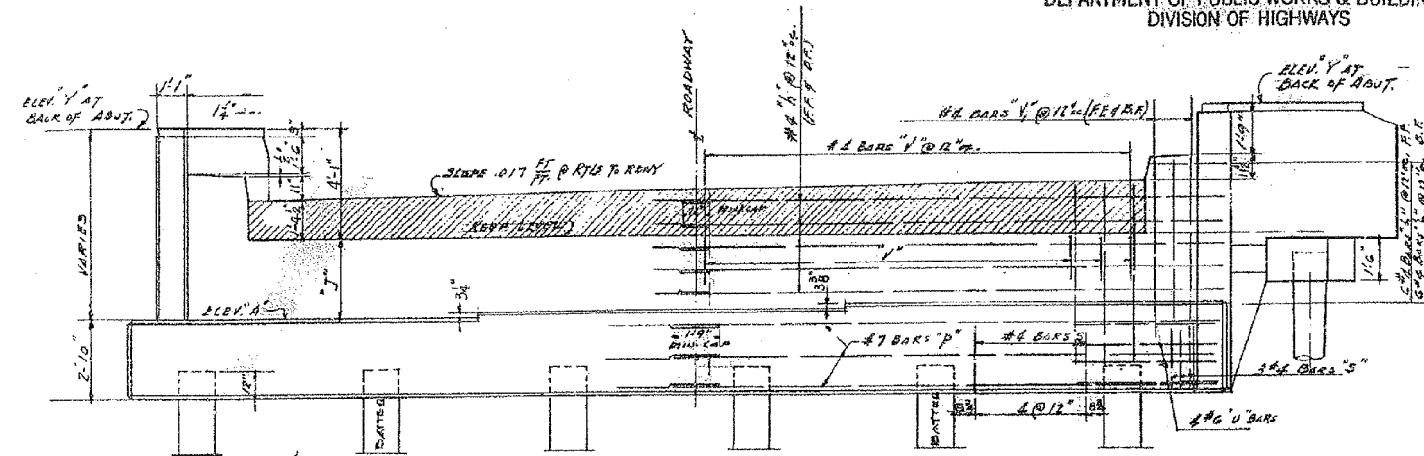
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-14R(14HB-4,14,14HBV)BRJ	TAZEWELL	2433	1902

CONTRACT NO. 68620
ILLINOIS FED. AID PROJECT

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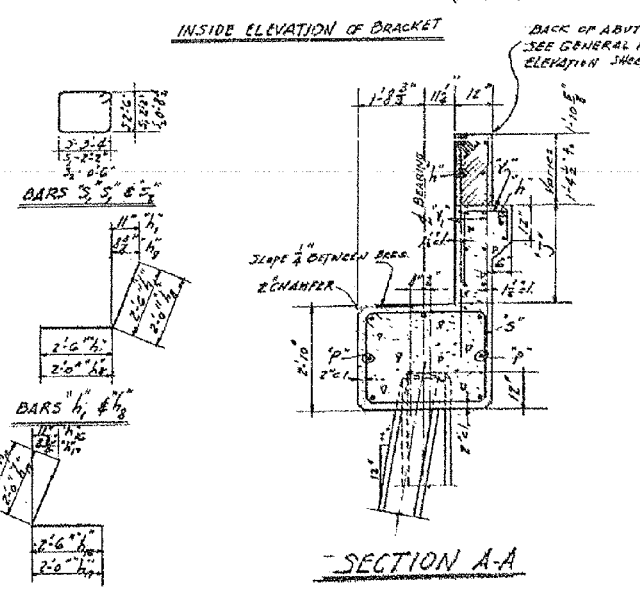
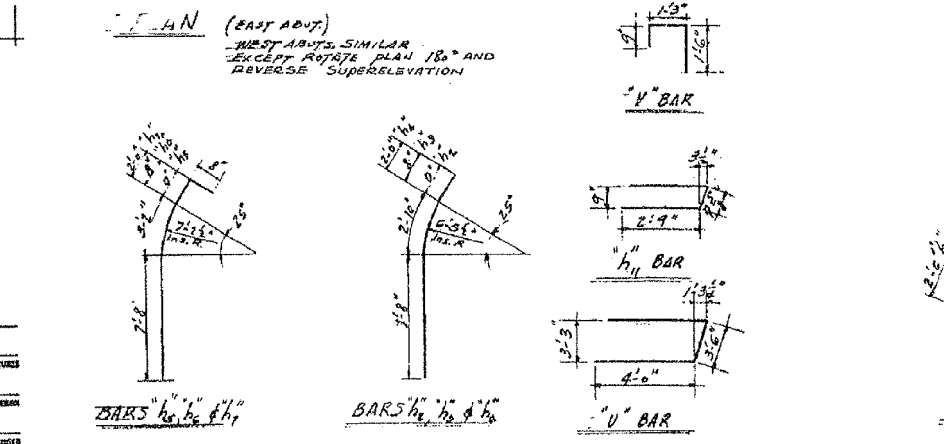
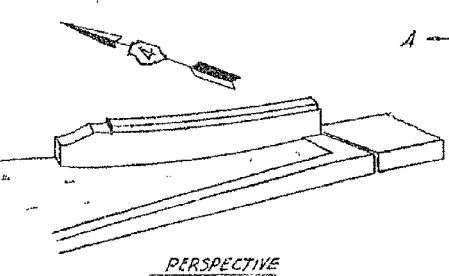
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE No.	SEC.	COUNTY	SECTION	SHEET
F.A. 174	90-14HB	TAZEWELL	89	31
FED. ROAD DIST. No. 7 ELEISS				



BILL OF MATERIAL - 4 ABUTMENTS

BAR	No.	SIZE	LENGTH	SHAPE
h	26	#4	18'-0"	—
h1	26	#4	5'-0"	—
h2	8	#5	10'-0"	—
h3	8	#5	11'-0"	—
h4	22	#5	12'-0"	—
h5	8	#5	11'-0"	—
h6	8	#5	12'-0"	—
h7	32	#5	13'-0"	—
h8	22	#4	4'-0"	—
h9	32	#5	7'-0"	—
h10	32	#5	5'-0"	—
h11	16	#4	6'-0"	—
h12	8	#6	12'-0"	—
h13	8	#6	13'-0"	—
h14	8	#6	9'-0"	—
h15	8	#6	10'-0"	—
h16	24	#6	5'-0"	—
h17	14	#6	2'-0"	—
P	36	#7	14'-10"	—



DESIGNED <i>H. K. P.</i>	EXAMINED
CHECKED <i>H.Y.P.</i>	ENGINEER OF BRIDGES AND TRUSS STRUCTURES
DRAWN <i>H. K. P.</i>	PASSED
CHECKED <i>H.Y.P.</i>	ENGINEER OF BRIDGES
	APPROVED
	CHIEF BRIDGE ENGINEER

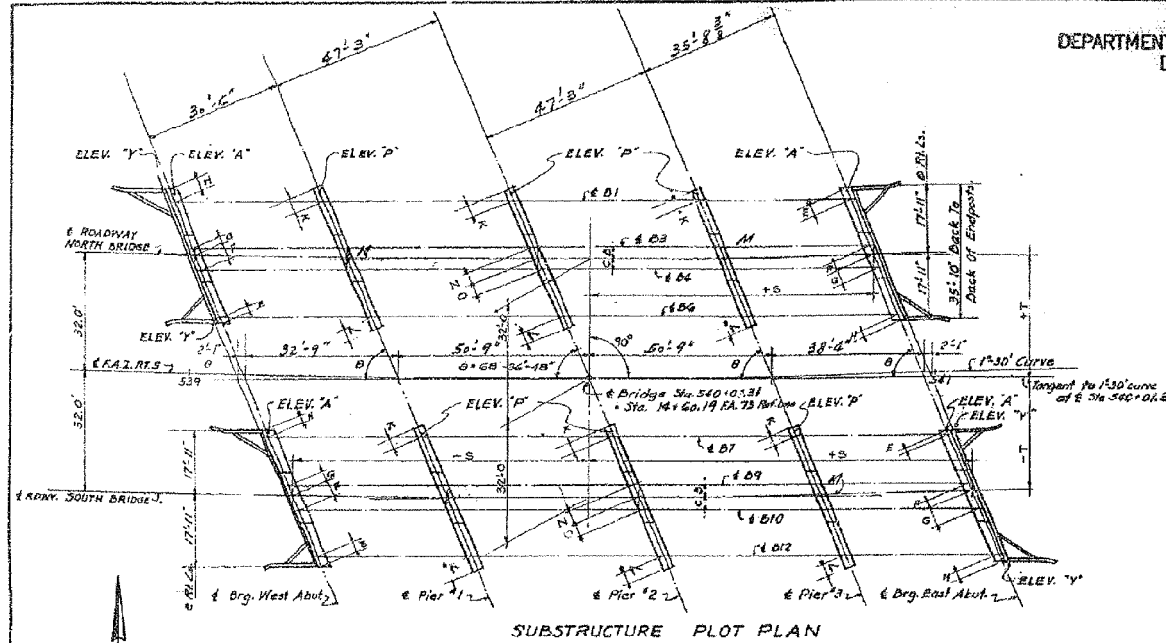
CL. Concrete	114.2 cu. yds
Reinforcement Bars	4870 lbs
Furnishing Concrete	240 cu. yds
Driving Timber Piles	300 cu. yds
Drinking Concrete	490 cu. yds
Test Piles (Concrete)	5 cu. yds

ABUTMENTS
F.A.I. ROUTE 74 - SECTION 90-14HB-4
F.A.I. ROUTE 74 OVER F.A. ROUTE 73
STATION 540+01.31
TAZEWELL COUNTY
WARREN AND VAN PRAAG, INC.
CONSULTING ENGINEERS - DECATUR, ILLINOIS

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE No.	SEC.	COUNTY	SECTION	SHEET
FA. 174		TAZEWELL	89	32
FED. ROAD DIST. No. 7		ILLINOIS		

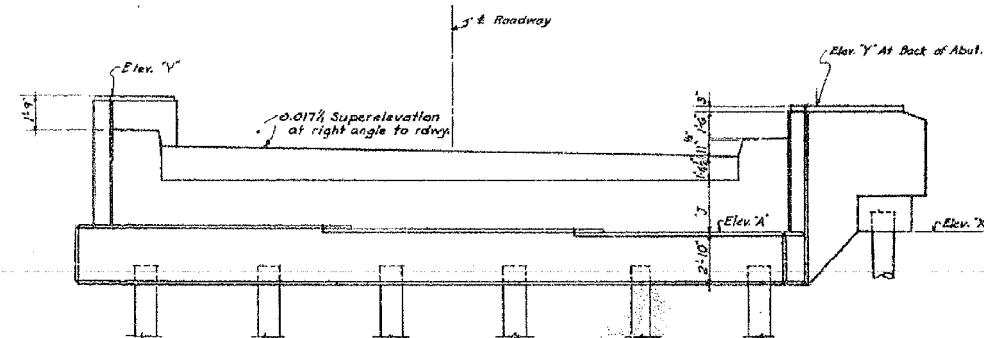


VARIABLES FOR ABUTMENTS

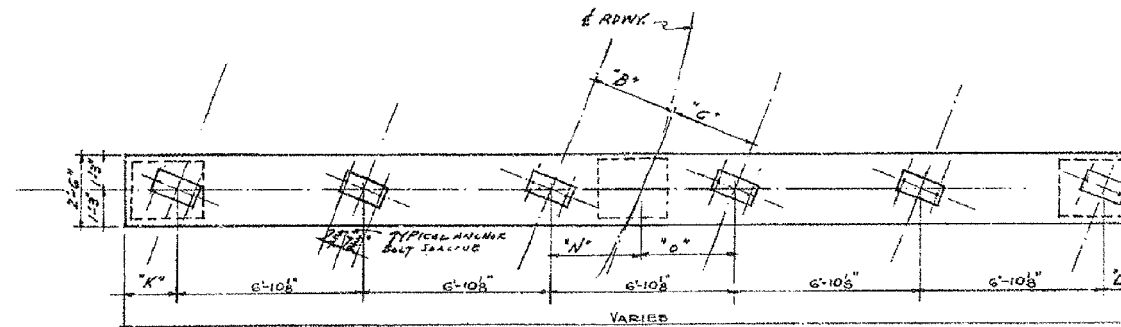
ABUTMENT	ELEV. 'A'	ELEV. 'Y'	ELEV. 'X'	E	F	G	H	J
EAST ABUTM'T. NORTH BRIDGE	745.76	North Side 752.70 South Side 753.36	746.61 747.07	1'-10 ³ / ₈ "	3'-5 ⁵ / ₈ "	3'-4 ¹ / ₂ "	1'-11 ³ / ₈ "	2'-10 ¹ / ₂ "
	746.07	North Side 753.00 South Side 753.66	746.32 747.38	2'-4 ¹ / ₂ "	2'-10 ⁷ / ₈ "	3'-11 ¹ / ₈ "	1'-3 ¹ / ₂ "	2'-10 ¹ / ₂ "
WEST ABUTM'T. NORTH BRIDGE	743.57	North Side 750.48 South Side 751.15	745.98 746.64	1'-9 ³ / ₈ "	3'-10 ¹ / ₈ "	2'-11 ¹ / ₈ "	2'-8 ⁵ / ₈ "	2'-10"
	743.90	North Side 750.81 South Side 751.49	744.59 744.95	2'-4"	3'-3 ³ / ₈ "	3'-7"	2'-0 ¹ / ₂ "	2'-10"

VARIABLES FOR PIERS

PIER	ELEV. 'P'	P	G	K	L	M	N	O
PIER #1 NORTH BRIDGE	743.92	3'-5 ⁵ / ₈ "	2'-10 ¹ / ₈ "	1'-10 ¹ / ₂ "	2'-5 ¹ / ₂ "	8'-6 ³ / ₈ "	3'-8 ¹ / ₈ "	3'-1 ¹ / ₂ "
PIER #2 NORTH BRIDGE	744.65	3'-11 ¹ / ₂ "	2'-4 ³ / ₂ "	1'-2 ⁵ / ₈ "	2'-10 ⁷ / ₈ "	9'-3 ¹ / ₂ "	4'-3 ¹ / ₂ "	2'-6 ⁷ / ₈ "
PIER #3 NORTH BRIDGE	745.22	3'-9 ³ / ₂ "	2'-6 ¹ / ₂ "	1'-3 ¹ / ₂ "	2'-7 ¹ / ₂ "	9'-10 ³ / ₈ "	4'-1 ¹ / ₈ "	2'-9 ¹ / ₈ "
PIER #1 SOUTH BRIDGE	744.25	3'-7 ³ / ₂ "	2'-6 ³ / ₂ "	1'-5 ³ / ₈ "	2'-9 ¹ / ₂ "	8'-10 ³ / ₈ "	4'-1 ¹ / ₈ "	2'-9 ¹ / ₈ "
PIER #2 SOUTH BRIDGE	744.97	3'-11 ³ / ₂ "	2'-4 ³ / ₂ "	1'-2"	2'-10 ⁵ / ₈ "	9'-7 ³ / ₈ "	4'-5 ¹ / ₄ "	2'-6 ³ / ₈ "
PIER #3 SOUTH BRIDGE	745.53	3'-5 ³ / ₄ "	2'-10 ¹ / ₈ "	1'-7 ⁵ / ₈ "	2'-2 ³ / ₈ "	10'-2"	3'-8 ¹ / ₈ "	3'-1 ¹ / ₂ "



ELEVATION WEST ABUTMENTS
Looking West
For detail see 'Abutments' sh. #31



TOP PLAN - PIERS #1 & #3

FOR INFORMATION ONLY

TABLE OF 'S' AND 'T'

	CL BRG. WEST ABUT.	CL PIER #1	CL PIER #2	CL PIER #3	CL BRG. EAST ABUT.
NORTH BRIDGE					
S	-96.51	-63.49	-12.54	38.14	76.25
T	33.23	32.53	32.02	32.19	32.77
SOUTH BRIDGE					
S	-71.23	-38.29	12.52	63.08	101.10
T	-31.34	-31.81	-31.92	-31.48	-30.67

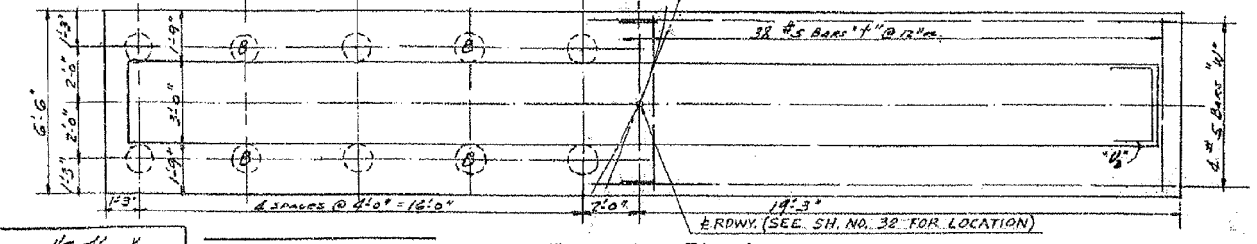
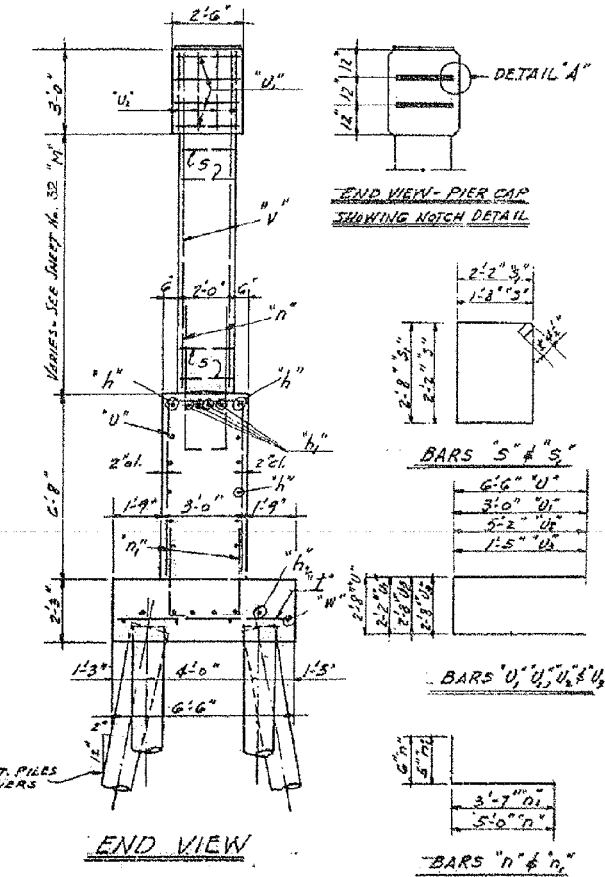
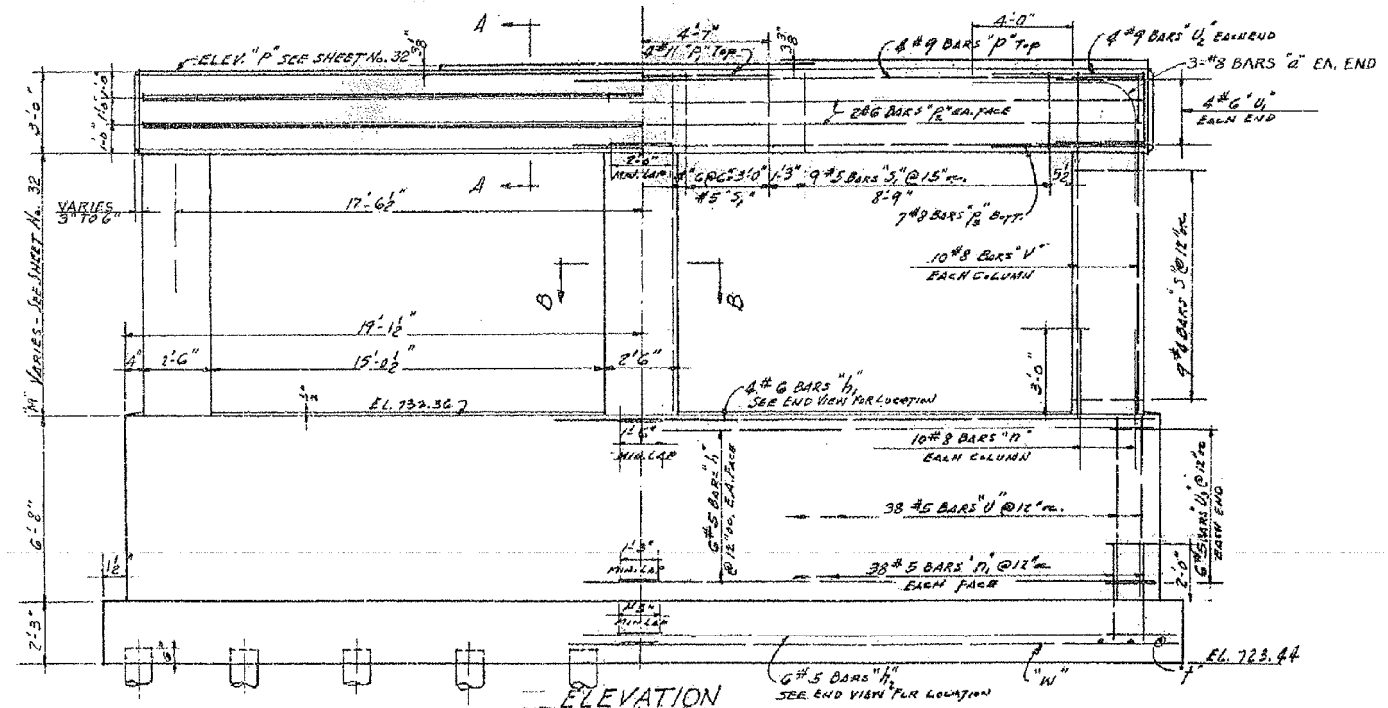
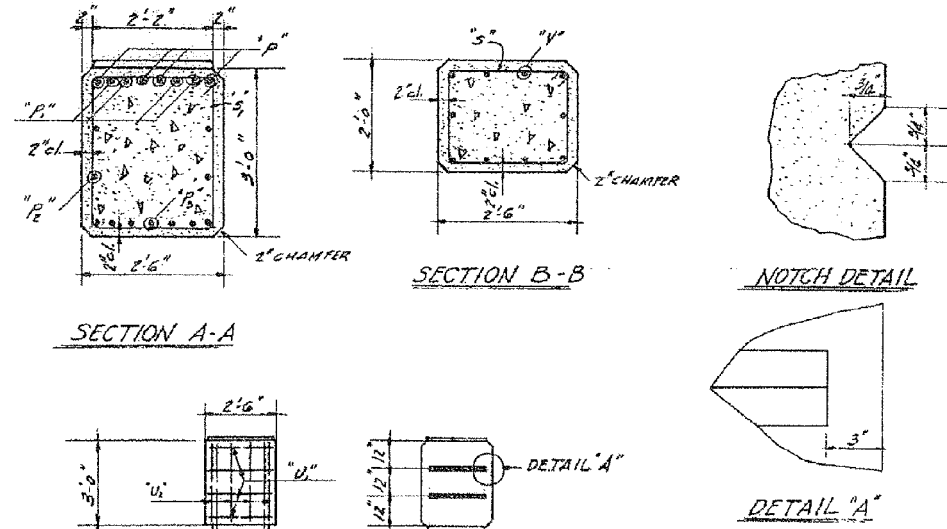
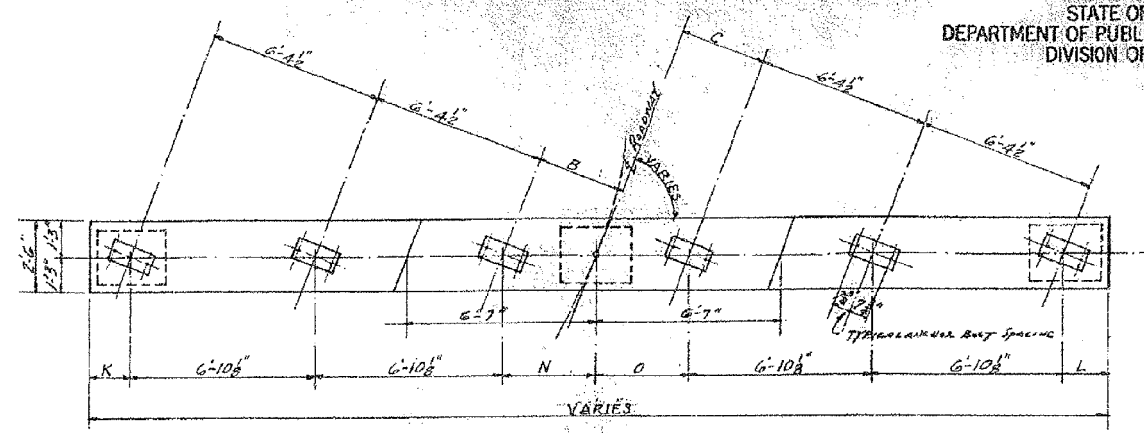
SUBSTRUCTURE DETAILS
F.A.I. ROUTE 74 - SECTION 90-14HB-4

F.A.I. ROUTE 74 OVER F.A. ROUTE 73
STATION 540+01.31

TAZEWELL COUNTY
WARREN AND VAN PRAAG, INC.
CONSULTING ENGINEERS - DECATUR, ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE No.	SEC.	COUNTY	STATION	SHEET
F.A. 74	90-144B	TAZEWELL	89	33
FED. ROAD DIST. No. 7		ILLINOIS		



BILL OF MATERIAL G PIERS

BAR	NO.	SIZE	LENGTH	SHAPE
a	36	#8	11'-6"	
b	184	#5	19'-9"	
b1	48	#6	19'-9"	
b2	72	#5	20'-0"	
n	180	#8	5'-6"	
n1	456	#5	4'-0"	
p	24	#9	30'-3"	
p1	24	#11	9'-6"	
p2	48	#6	14'-9"	
p3	24	#8	20'-3"	
s	162	#4	3'-3"	
s1	192	#5	10'-5"	
t	228	#5	6'-0"	
u	228	#5	15'-8"	
u1	48	#6	8'-3"	
u2	48	#9	15'-0"	
u3	72	#5	5'-6"	
v	180	#8	11'-0"	
w	48	#5	20'-0"	
ALL CONCRETE 395.3 CYRS				
REINFORCEMENT BARS 38,750 LBS				
C/A REINFORCEMENT 192 CYRS				
CREOSOTED PILES 3000 LBS				
TEST PILES (Timber) 2 EA.				

DESIGNED: H.S. Kaufmann
CHECKED: H.Y.F.
DRAWN: H.E.R.
CHECKED: H.Y.F.

EXAMINED: _____
ENGINEER OF BRIDGES AND TRAFFIC STRUCTURES
PASSED: _____
APPROVED: _____
CHIEF HIGHWAY ENGINEER

PILE DATA
TYPE: CA SOTED
CAPACITY: 20 TONS
ESTIMATED LENGTH: 25 FT.
No. REQD. G PIERS: 120 (2 Test Piles)

PIERS
F.A.I. ROUTE 74 - SECTION 90-144B-4
F.A.I. ROUTE 74 OVER F.A. ROUTE 73
STATION 540+01.31
TAZEWELL COUNTY
WARREN AND VAN PRAAG, INC.
CONSULTING ENGINEERS - DECATUR, ILLINOIS

FOR INFORMATION ONLY

benesch
engineers · scientists · planners
Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME: 0900165.68620.41.exist4.dgn	USER NAME: mbecker	DESIGNED: MFB	REVISED: -
		CHECKED: MRB	REVISED: -
		DRAWN: PRT	REVISED: -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

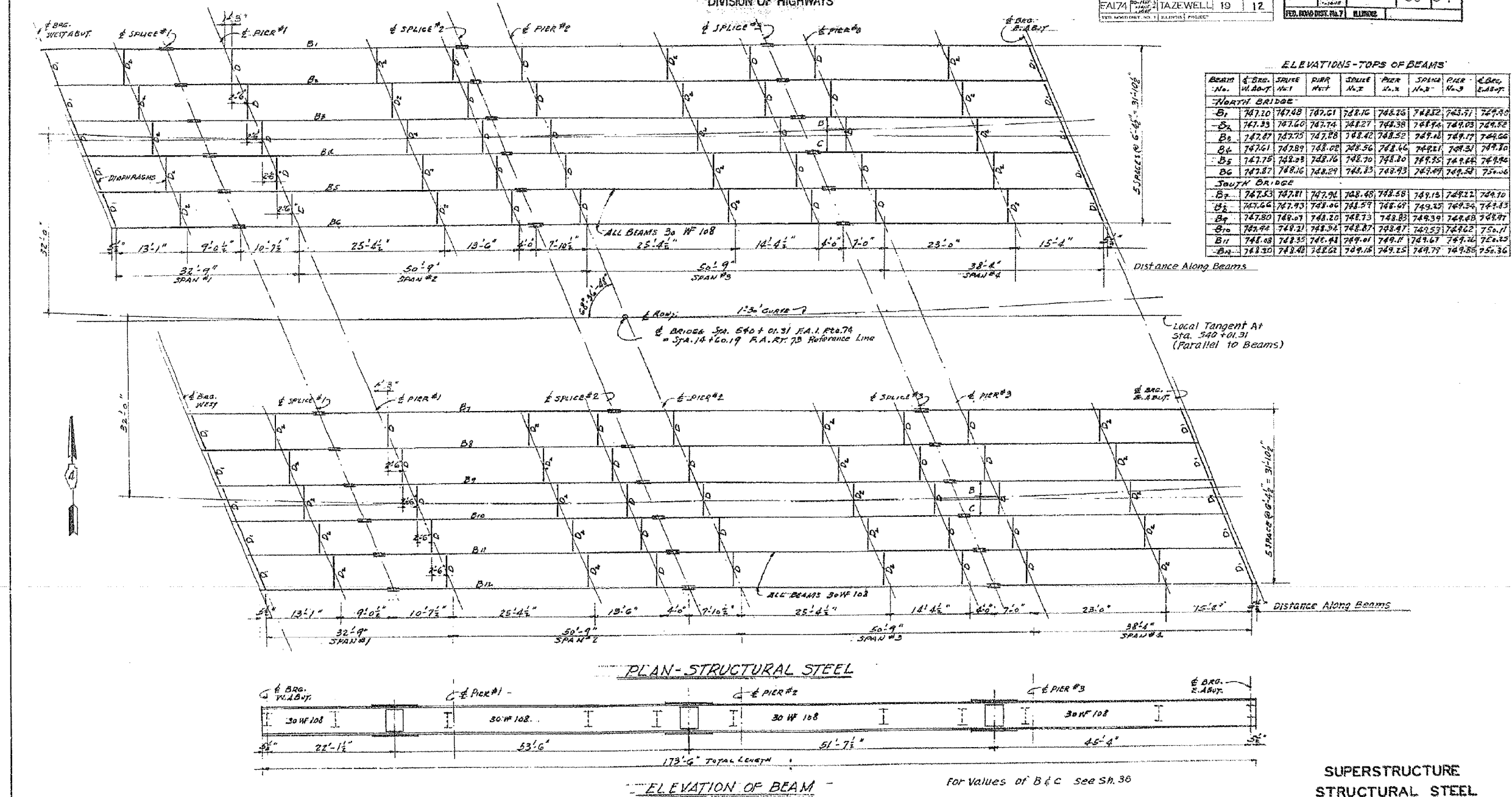
EXISTING PLANS
STRUCTURE NO. 090-0165 / 0166
SHEET NO. SA41 OF SA47 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-144R(144B-4,14,14HV8)BR	TAZEWELL	2433	1905
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

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STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE No.	SEC.	COUNTY	SECTION	SHEET
FAI 74	90-114R(14HB-4,14,14HBV)BR	TAZEWELL	89	34
FED. ROAD DIST. No. 7				



ELEVATIONS - TOPS OF BEAMS

BEAM No.	SPICE No. 1	PIER No. 1	SPICE No. 2	PIER No. 2	SPICE No. 3	PIER No. 3	END
NORTH BRIDGE							
B1	747.20	747.48	747.61	748.16	748.26	748.82	749.90
B2	747.33	747.60	747.74	748.27	748.38	748.94	749.52
B3	747.87	747.75	747.88	748.42	748.52	749.10	749.66
B4	747.61	747.89	748.02	748.56	748.66	749.21	749.80
B5	747.75	748.03	748.16	748.70	748.80	749.35	749.90
B6	747.87	748.16	748.29	748.83	748.93	749.49	750.06
SOUTH BRIDGE							
B1	747.53	747.81	747.94	748.48	748.58	749.13	749.72
B2	747.66	747.93	748.06	748.59	748.69	749.25	749.83
B3	747.80	748.07	748.20	748.73	748.83	749.39	749.97
B4	747.94	748.21	748.34	748.87	748.97	749.53	750.11
B5	748.08	748.35	748.48	749.01	749.11	749.67	750.25
B6	748.20	748.48	748.61	749.15	749.25	749.79	750.36

FOR INFORMATION ONLY

**SUPERSTRUCTURE
STRUCTURAL STEEL**
F.A.I. ROUTE 74 - SECTION 90-14HB-4

F.A.I. ROUTE 74 OVER F.A. ROUTE 73
STATION 540+03.31
TAZEWELL COUNTY
WARREN AND VAN PRAAG, INC.
CONSULTING ENGINEERS - DECATUR, ILLINOIS

DESIGNED	H.E.R.	EXAMINED	
CHECKED	H.Y.F.	PASSED	
DRAWN	H.E.R.	APPROVED	
CHECKED	H.Y.F.		

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Chicago, Illinois 60601
312-565-0450 Job No. 10056

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
STRUCTURE NO. 090-0165 / 0166
SHEET NO. SA42 OF SA47 SHEETS

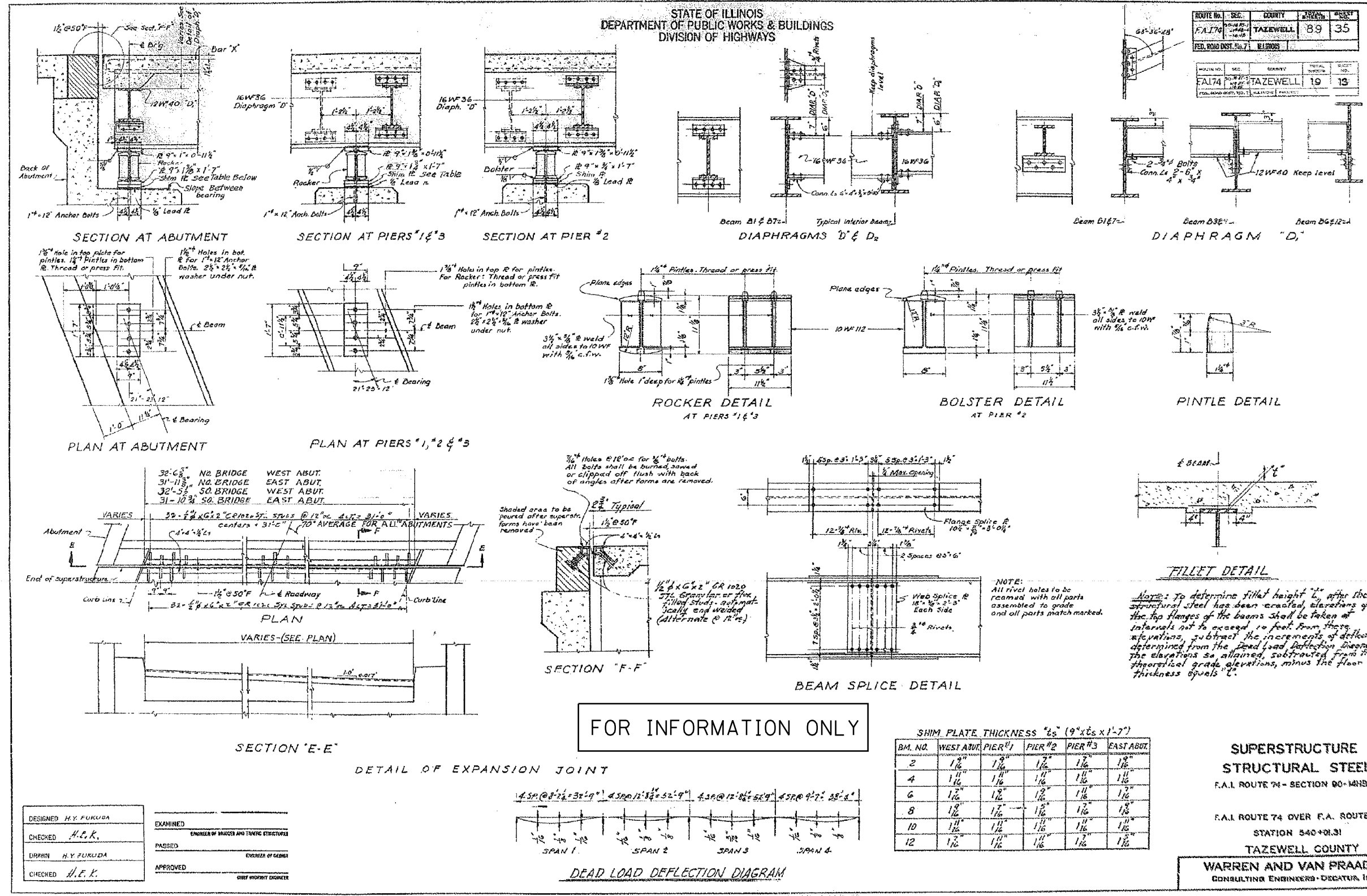
F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-114R(14HB-4,14,14HBV)BR	TAZEWELL	2433	1906
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

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STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	SHEET	TOTAL SHEETS
74	90	TAZEWELL	89	35

ROUTE NO.	SEC.	COUNTY	SHEET	TOTAL SHEETS
74	90	TAZEWELL	19	13



FOR INFORMATION ONLY

**SUPERSTRUCTURE
STRUCTURAL STEEL**
F.A.I. ROUTE 74 - SECTION 90-14NS-4
F.A.I. ROUTE 74 OVER F.A. ROUTE 73
STATION 540+01.31
TAZEWELL COUNTY
WARREN AND VAN PRAAG, INC.
CONSULTING ENGINEERS - DECATUR, ILLINOIS

DESIGNED H.Y. FUKUDA
CHECKED H.E.K.
DRAWN H.Y. FUKUDA
CHECKED H.E.K.

EXAMINED
PASSED
APPROVED

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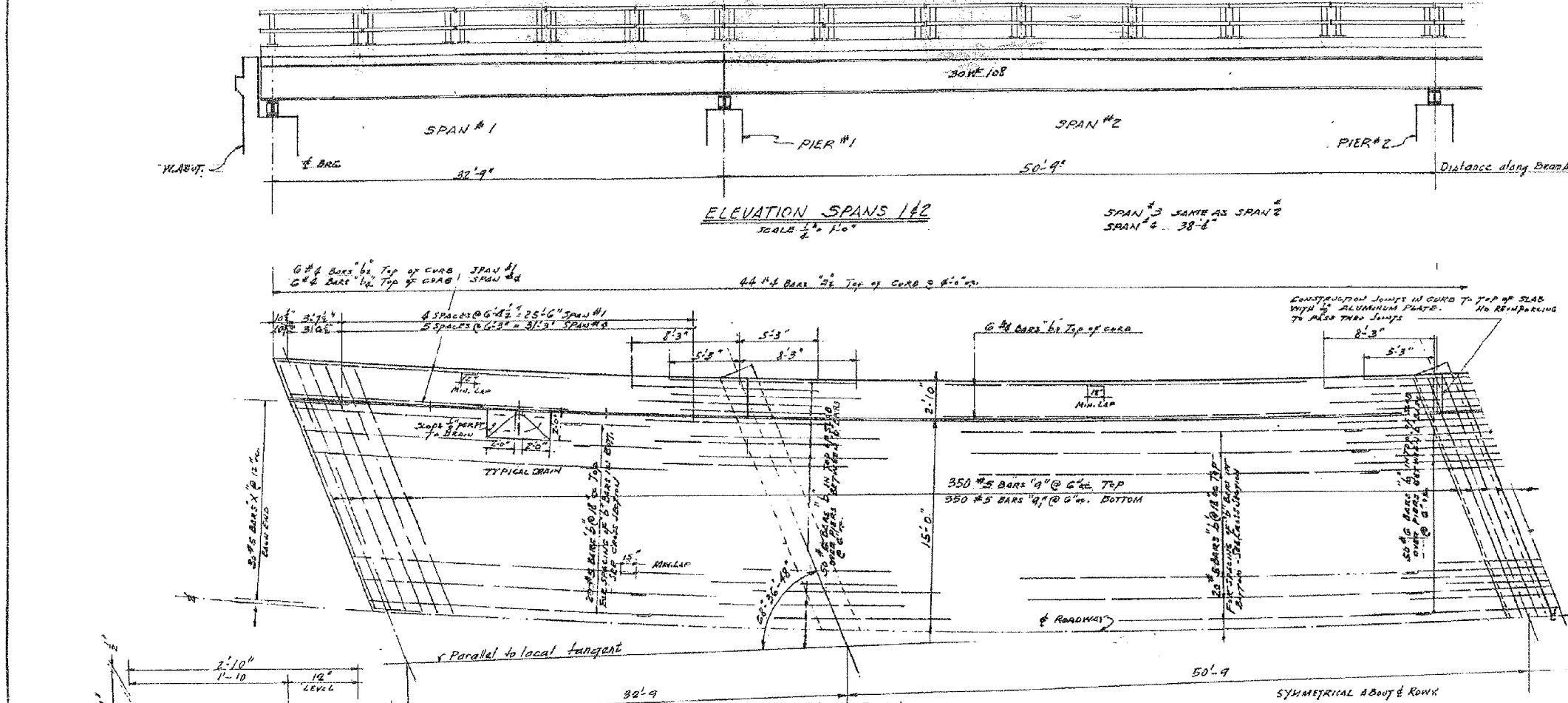
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
STRUCTURE NO. 090-0165 / 0166
SHEET NO. SA43 OF SA47 SHEETS

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-114R(14HB-4,14,14HB)BRJ	TAZEWELL	2433	1907
				CONTRACT NO. 68620
ILLINOIS FED. AID PROJECT				

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ROUTE NO.	SEC.	COUNTY	STATION	SHEET
FA174		TAZEWELL	89	36
FED. ROAD DIST. NO. 1	ILLINOIS			



DIMENSION SCHEDULE

LEFT LANE BRIDGE NORTH BRIDGE

LOCATION	DIMENSION 'ft'
W. ABUT.	2'-6 1/2"
PIER #1	1'-8 1/2"
PIER #2	1'-7 1/2"
PIER #3	1'-9 1/2"
E. ABUT.	1'-8 1/2"
DIMENSION 'ft'	
W. ABUT.	2'-9 1/4"
PIER #1	2'-5 1/4"
PIER #2	2'-8 3/4"
PIER #3	2'-9 1/2"
E. ABUT.	2'-2 1/4"
DIMENSION 'ft'	
W. ABUT.	3'-7 1/4"
PIER #1	2'-10 3/4"
PIER #2	2'-4 3/4"
PIER #3	2'-6 1/4"
E. ABUT.	2'-1 1/4"
DIMENSION 'ft'	
W. ABUT.	1'-8
PIER #1	2'-2 1/2"
PIER #2	2'-2 1/2"
PIER #3	2'-2 1/2"
E. ABUT.	1'-9 1/4"

RIGHT LANE BRIDGE SOUTH BRIDGE

LOCATION	DIMENSION 'ft'
W. ABUT.	1'-11 1/4"
PIER #1	1'-9 1/4"
PIER #2	1'-13 1/4"
PIER #3	1'-6
E. ABUT.	2'-2 3/4"
DIMENSION 'ft'	
W. ABUT.	2'-4 1/4"
PIER #1	2'-4 1/4"
PIER #2	2'-8 1/4"
PIER #3	2'-10 3/4"
E. ABUT.	2'-8 3/4"
DIMENSION 'ft'	
W. ABUT.	3'-0 1/4"
PIER #1	2'-6 1/4"
PIER #2	2'-4 1/4"
PIER #3	2'-10 3/4"
E. ABUT.	2'-8 3/4"
DIMENSION 'ft'	
W. ABUT.	2'-2 1/4"
PIER #1	2'-7
PIER #2	2'-8
PIER #3	2'-5
E. ABUT.	1'-2 3/4"

BILL OF MATERIAL - THIS SHEET 2 BRIDGES

BAR	SIZE	QUANTITY	LENGTH	WEIGHT
a	7/8"	44	65'-0"	1600
b	7/8"	44	65'-0"	1600
c	1 1/8"	8	21'-6"	280
d	1 1/8"	8	21'-6"	280
e	1 1/8"	8	21'-6"	280
f	1 1/8"	8	21'-6"	280
g	1 1/8"	8	21'-6"	280
x	7/8"	44	15'-0"	1100
y	7/8"	44	15'-0"	1100
z	7/8"	44	15'-0"	1100
total				6000

CLASS C CONCRETE 3000 C.U.P.S.
REINFORCEMENT BARS 60,000 P.S.I.
STRUCTURAL STEEL 33,000 P.S.I.
METAL HANDRAIL 76.8 LBS.

FOR INFORMATION ONLY

SUPERSTRUCTURE

F.A.I. ROUTE 74 - SECTION 90-14 NB-4

F.A.I. ROUTE 74 OVER F.A. ROUTE 73

STATION 540+01.31

TAZEWELL, COUNTY

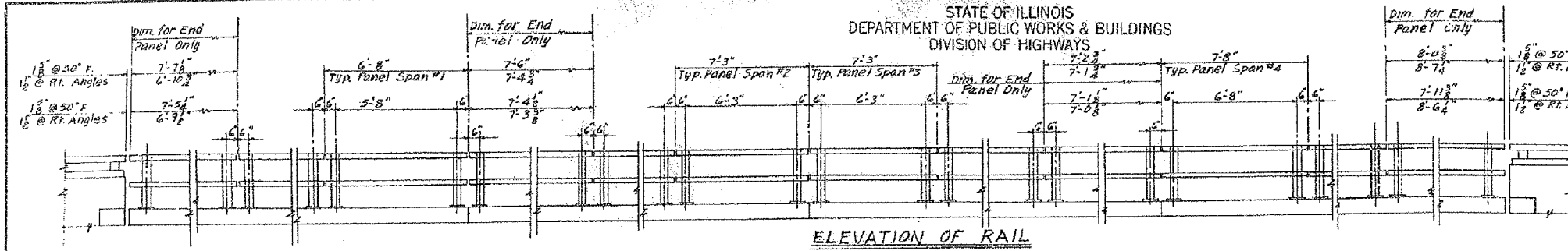
WARREN AND VAN PRAAG, INC.
CONSULTING ENGINEERS - DECATUR, ILLINOIS

DESIGNED <i>H.E. Kaufmann</i>	EXAMINED _____
CHECKED <i>H.Y.F.</i>	ENGINEER OF BRIDGES AND TRAFFIC STRUCTURES
DRAWN <i>H.E. Kaufmann</i>	APPROVED _____
CHECKED <i>H.Y.F.</i>	ENGINEER OF BRIDGES

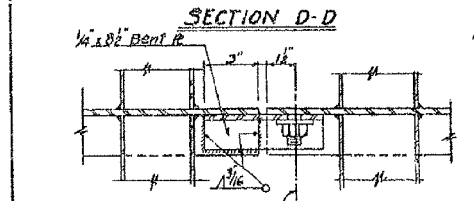
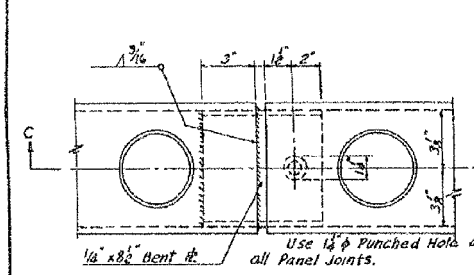
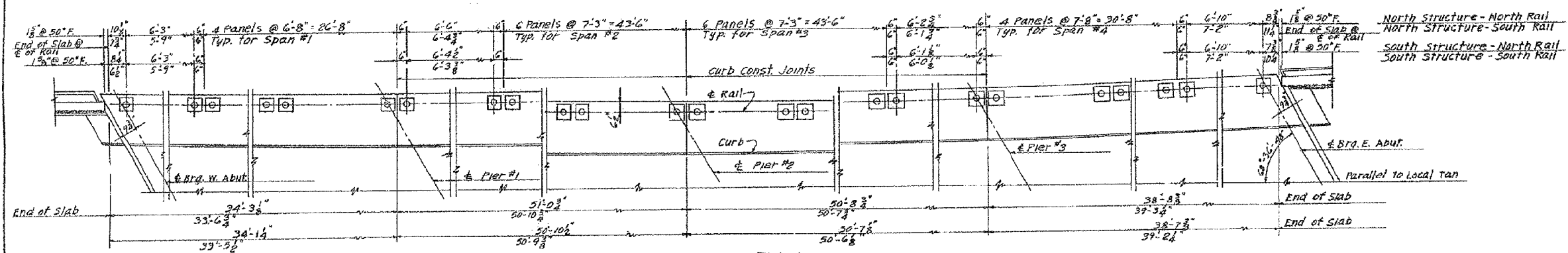
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		CHECKED - MRB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA.I. 74	90-14	TAZEWELL	89	38

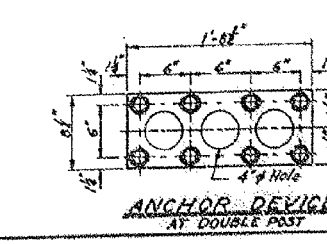
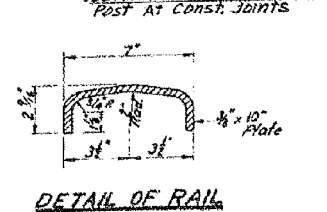
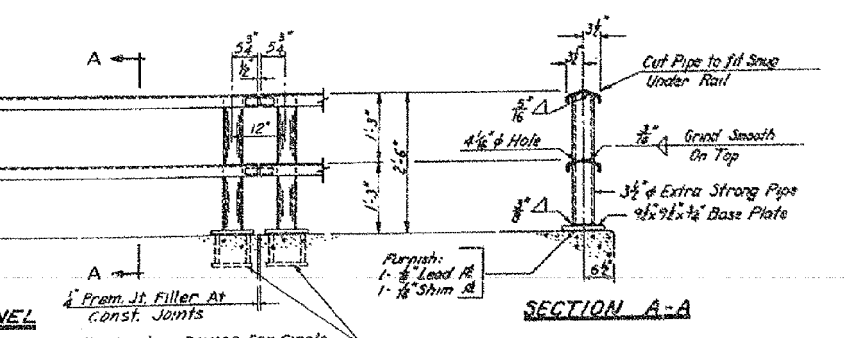
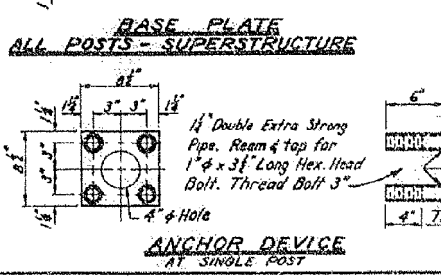
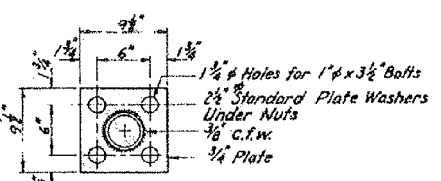
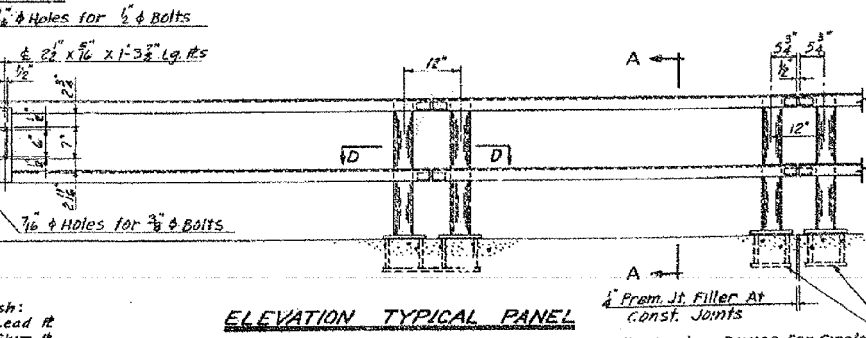
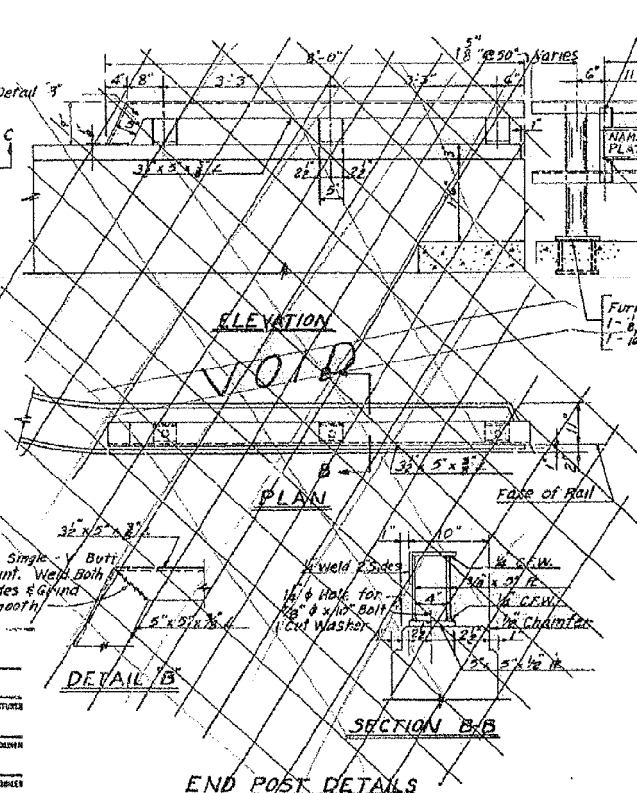


NOTE:
Railing As Shown is North Rail of North & South Structures. South Railing of North & South Structures is Similar by Rotation.



3/4" ϕ x 1 3/4" Granular or Solid Flux Filled Stud Threaded Full Length Automatically End Welded or 3/4" ϕ x 1 3/4" Fully Threaded Stud Welded With 1/8" C.F.W. Provide Washer & Locknut.

DESIGNED H.J.K.	EXAMINED
CHECKED H.Y.F.	PASSED
DRAWN H.J.K.	APPROVED
CHECKED H.Y.F.	



GENERAL NOTES
All Bolts & Washers shall be Hot Dipped Galvanized.

HANDRAIL DETAILS
F.A.I. ROUTE 74 SECTION 90-14 HB 4
F.A.I. ROUTE 74 OVER F.A. ROUTE 73
STATION 540+01.31
TAZEWELL COUNTY

WARREN AND VAN PRAAG, INC.
CONSULTING ENGINEERS - DECATUR, ILLINOIS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
STRUCTURE NO. 090-0165 / 0166

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-14R(14HB-4,14,14HB)BRJ	TAZEWELL	2433	1909
			CONTRACT NO. 68620	

SHEET NO. SA45 OF SA47 SHEETS

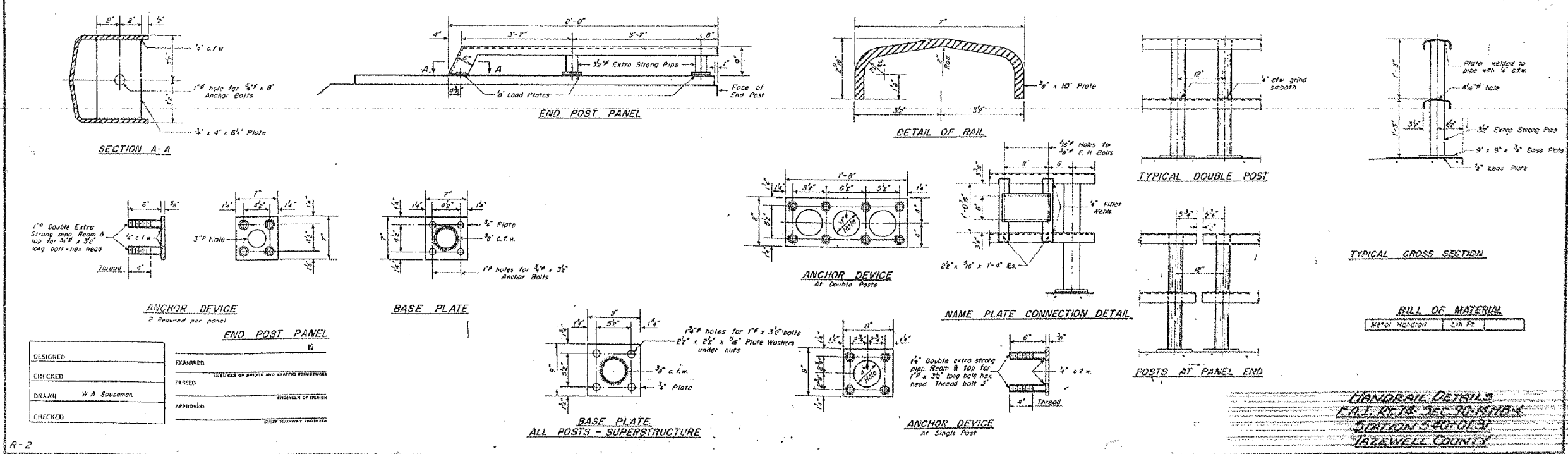
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STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.				38-A
FED. ROAD DIST. NO.	BLANKET	FEL. AID PROJECT	SHEETS	

FOR INFORMATION ONLY



DESIGNED	EXAMINED	19
CHECKED	PASSED	ENGINEER OF DESIGN
DRAWN	APPROVED	CHIEF HIGHWAY ENGINEER
CHECKED		

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205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

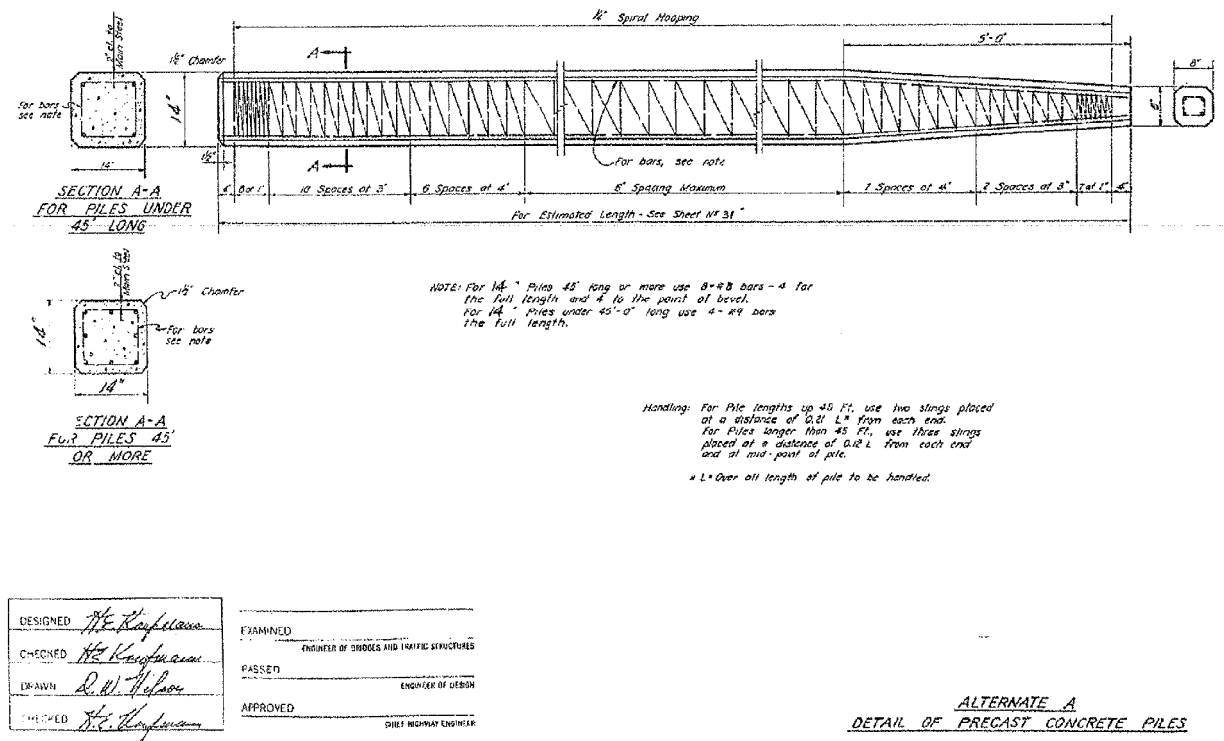
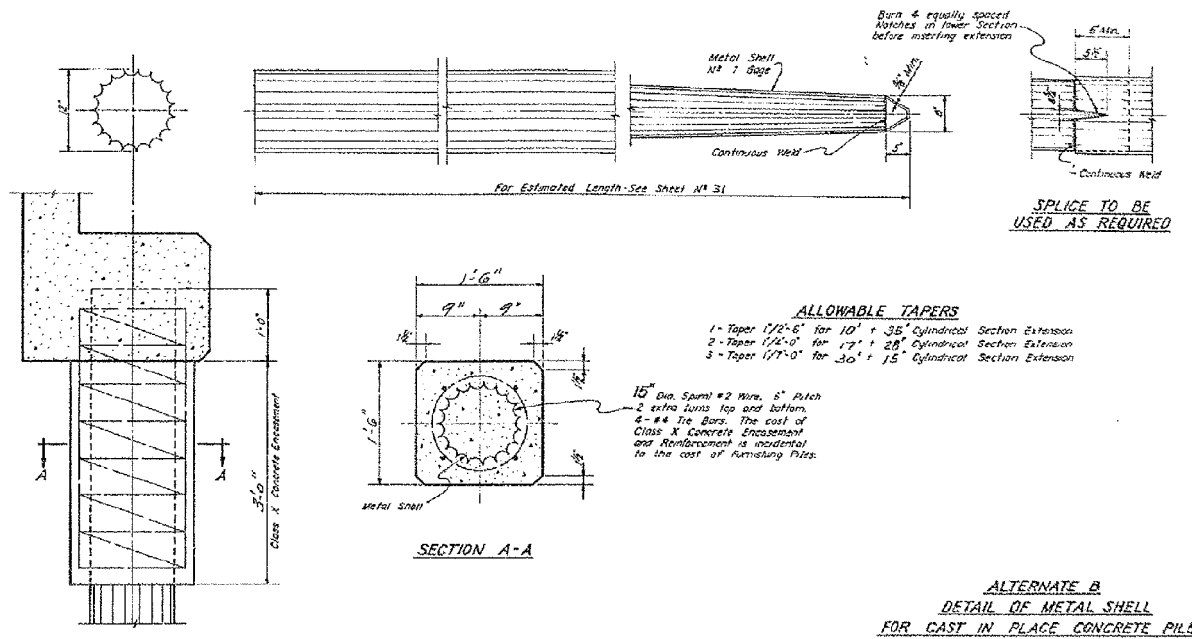
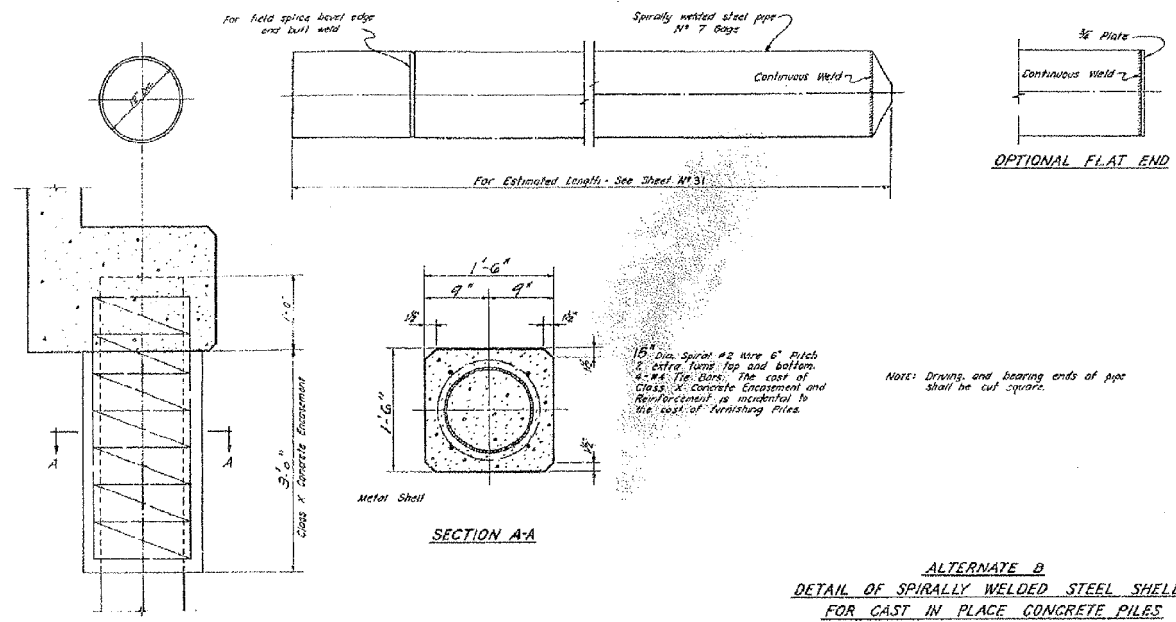
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STRUCTURE NO. 090-0165 / 0166
SHEET NO. SA46 OF SA47 SHEETS

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-114R(14HB-4,14,14HB)BRJ	TAZEVELL	2433	1910
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				

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STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 74	90-14HB-4	TAZEWELL	89	39
FED. ROAD DIST. NO. 7		ILLINOIS		



FOR INFORMATION ONLY

PILE DETAILS
F.A.I. ROUTE 74 - SECTION 90-14HB-4
F.A.I. ROUTE 74 OVER R.A. ROUTE 73
STATION 540+01.31
TAZEWELL COUNTY
WARREN AND VAN PRAAG, INC.
CONSULTING ENGINEERS - DECATUR, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-14R(14HB-4,14,14HB)BR	TAZEWELL	2433	1911
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				

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Bench Mark: Chiseled "□" on S.W. Parapet of E.B.L. I-74 bridge over U.S. Route 150 at Morton, IL. Elevation 749.62.

Existing Structure: S.N. 090-0016, built 1961 as F.A.I. Route 74, Section 90-14. Structure consists of dual parallel corrugated metal plate arches skewed 51°14'00". The center to center distance between arches is 26'-0" and each arch is 20'-7" wide, 16'-10" high and 345'-0" long with approximately 6'-6" of fill depth at the edge of the roadway. Concrete headwalls are located at each end. The contractor shall remove and replace these arches with a single span steel plate girder structure under stage construction. Jefferson Street shall be detoured during construction. I-74 traffic to be maintained with two lanes in each direction utilizing crossovers.

No salvage.

STATION 558+75.28
BUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RTE. 74
SEC. 90-14R;(14HB-4.14,14HVB)BR1
LOADING HL-93
STRUCTURE NO. 090-0167

NAME PLATE
(See Std. 515001)

LOADING HL-93
Allow 50#/sq. ft. for future wearing surface.

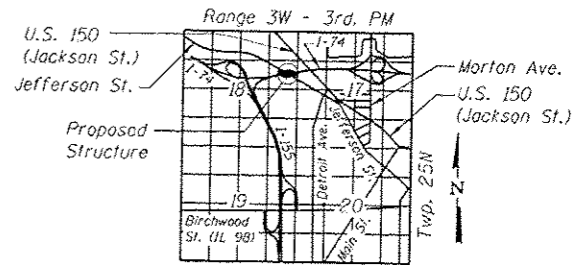
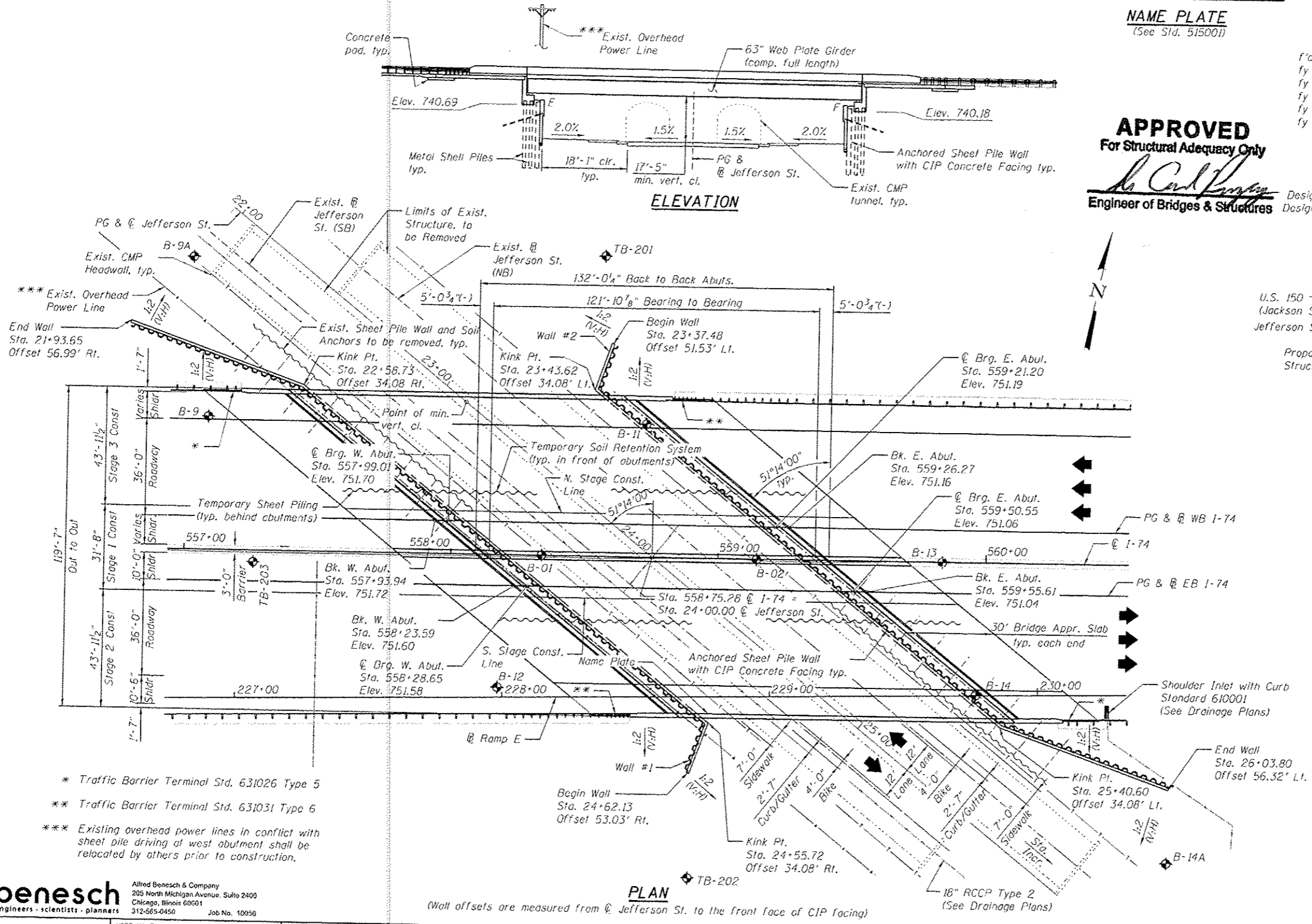
DESIGN SPECIFICATIONS
2010 AASHTO LRFD Bridge Design
Specifications with 2010 Interims

DESIGN STRESSES
FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 36,000 psi (Girders-M270 Grade 36)
fy = 50,000 psi (Girders-M270 Grade 50)
fy = 50,000 psi (Permanent Steel Sheet Piles-A572 Grade 50)
fy = 150,000 psi (Permanent Ground Anchors-A122 Grade 150)

APPROVED
For Structural Adequacy Only
[Signature]
Engineer of Bridges & Structures

SEISMIC DATA
Seismic Performance Zone (SPZ) - 1
Design Spectral Acceleration at 1.0 sec (SD1) = 0.115g
Design Spectral Acceleration at 0.2 sec (SDS) = 0.183g
Soil Site Class - D



NOTE:
B-1 Indicates Soil Boring Location and Number
All existing utilities that interfere with proposed work shall be relocated.

GENERAL PLAN AND ELEVATION
I-74 OVER JEFFERSON ST.
F.A.I. RTE. 74
SEC. 90-[14R;(14HB-4.14,14HVB)BR1]
TAZEWELL COUNTY
STATION 558+75.28
STRUCTURE NO. 090-0167

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Chicago, Illinois 60601
312-565-0450 Job No. 10056

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			REVISIONS:

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 090-0167
SHEET NO. S81 OF S865 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;(14HB-4.14,14HVB)BR1]	TAZEWELL	2433	1912
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				

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 8/17/2012

GENERAL NOTES:

- Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 3/4 in. dia., open holes 15/16 in. dia., unless otherwise noted.
- Calculated weight of Structural Steel:
M 270 Grade 36 = 57,340 pounds
M 270 Grade 50 = 492,660 pounds
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars designated (E) shall be epoxy coated.
- If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
- Concrete sealer shall be applied to the exposed surfaces of the abutment backwall, abutment seat, abutment cap, gutter in front of the abutment and concrete facing.
- The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Blue, Munsell No. 10B 3/6.
- The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
- The concrete for bridge decks finished according to Article 503.16(a) of the Standard Specifications shall be placed and compacted parallel to the skew in uniform increments along centerline of bridge. The machine used for finishing shall be set parallel to the skew for striking off and screeding the concrete.
- Slipforming of parapets is not allowed.
- The existing arch tunnels shall be internally braced if any portions of the tunnels are removed or if embankment is removed from around the tunnels creating an unbalanced loading condition. Any internal bracing design shall be reviewed and approved by the Engineer.
- Existing anchored sheet pile walls are located in front of the proposed abutments. The existing anchors shall be located and removed prior to installation of temporary or permanent sheet pile and abutment piles.

SUGGESTED SEQUENCE OF STAGE 1 WALL & ABUTMENT CONSTRUCTION:

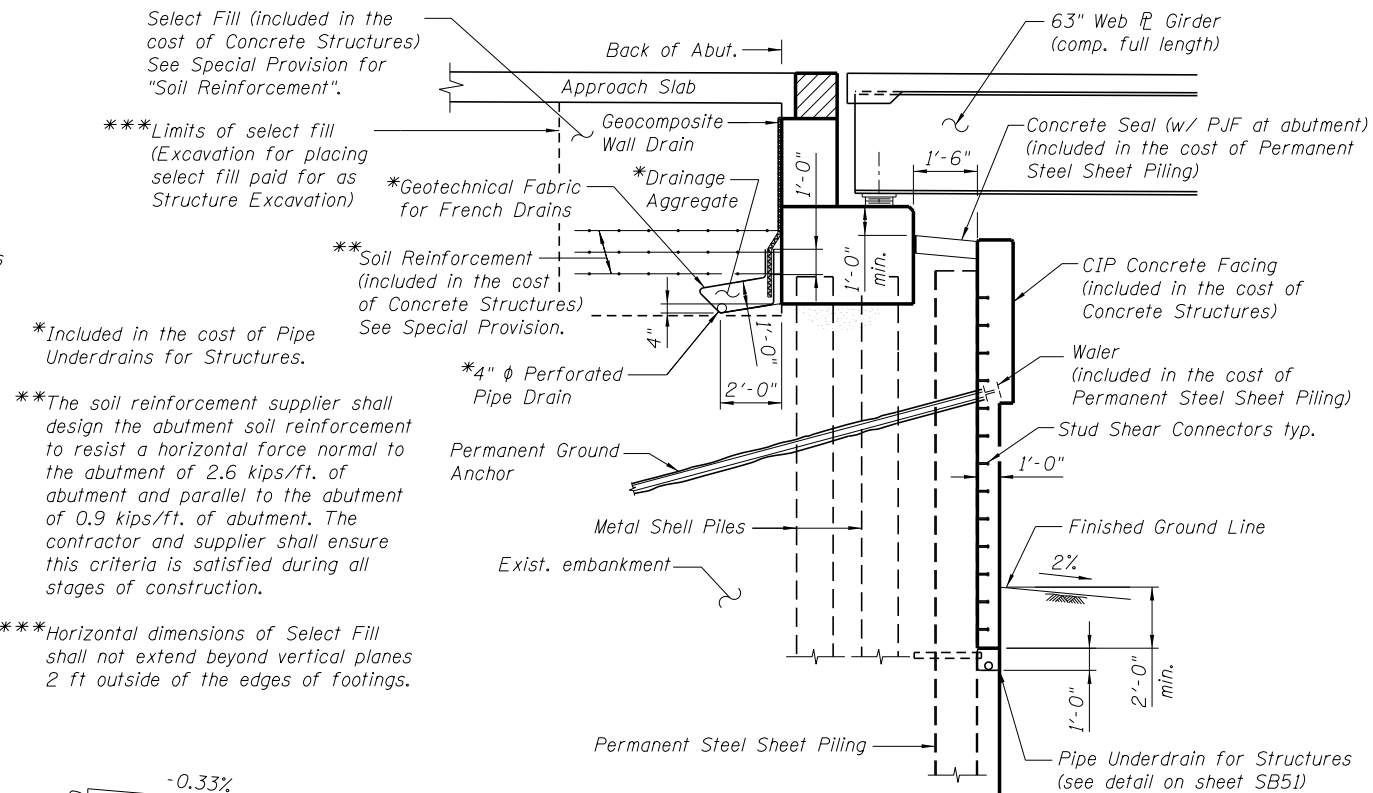
- Drive temporary sheet piling and install temporary soil retention system parallel to both the north and south stage construction lines in order to retain roadway north and south of Stage 1 while the area in between is excavated.
- Excavate existing soil within Stage 1 down to elevation of bottom of abutment.
- Drive permanent steel sheet piling between the two lines of temporary walls.
- Drive piles for the abutment.
- Cast abutments within Stage 1 limits as shown on Abutment sheets. A gap of approximately 1'-0" should be provided between the temporary shoring and the Stage 1 abutments for forms.
- Place backfill and embankment behind the Stage 1 abutment.
- Remove the temporary sheet piling located behind the abutment at the SW and NE locations to accommodate permanent ground anchor installation at the corner. Temporary soil retention system in front of the abutment at these locations shall remain in this stage. The temporary sheet piling to be removed will have to be replaced (avoiding interference with installed ground anchors) in Stages 2 or 3 in order to build the abutments in each respective stage. Cost of this additional temporary sheet piling shall be included in the cost of Temporary Sheet Piling.
- Install the waler in front of the permanent steel sheet piling.
- Install permanent ground anchors from front side of permanent sheet pile wall. Space permanent ground anchors to miss abutment piles.

INDEX OF SHEETS

SB1	General Plan and Elevation
SB2	General Data
SB3	Footing Layout
SB4	Stage Construction Details
SB5	Temporary Sheet Piling Details
SB6	Temporary Barrier Details
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SB8	Top of Slab Elevations 1 of 4
SB9	Top of Slab Elevations 2 of 4
SB10	Top of Slab Elevations 3 of 4
SB11	Top of Slab Elevations 4 of 4
SB12	Top of Approach Slab Elevation Layout
SB13	Top of West Approach Slab Elevations
SB14	Top of East Approach Slab Elevations
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SB18	Superstructure Details 3 of 3
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SB21	Bridge Approach Slab Details 3 of 3
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SB24	Framing Plan 2 of 2
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SB26	Girder Details 2 of 4
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SB28	Girder Details 4 of 4
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SB30	HLMR Guided Expansion Bearing Details
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SB32	West Abutment 2 of 5
SB33	West Abutment 3 of 5
SB34	West Abutment 4 of 5
SB35	West Abutment 5 of 5
SB36	West Abutment Details 1 of 2
SB37	West Abutment Details 2 of 2
SB38	East Abutment 1 of 5
SB39	East Abutment 2 of 5
SB40	East Abutment 3 of 5
SB41	East Abutment 4 of 5
SB42	East Abutment 5 of 5
SB43	East Abutment Details 1 of 2
SB44	East Abutment Details 2 of 2
SB45	Anchored Sheet Pile Wall Notes
SB46	West Abutment Sheet Pile Wall
SB47	East Abutment Sheet Pile Wall
SB48	West Abutment Facing
SB49	East Abutment Facing
SB50	Abutment Wall Details 1 of 2
SB51	Abutment Wall Details 2 of 2
SB52	Metal Shell Pile Details
SB53	Bar Splicer Assembly Details
SB54	Soil Boring Logs 1 of 10
SB55	Soil Boring Logs 2 of 10
SB56	Soil Boring Logs 3 of 10
SB57	Soil Boring Logs 4 of 10
SB58	Soil Boring Logs 5 of 10
SB59	Soil Boring Logs 6 of 10
SB60	Soil Boring Logs 7 of 10
SB61	Soil Boring Logs 8 of 10
SB62	Soil Boring Logs 9 of 10
SB63	Soil Boring Logs 10 of 10
SB64	Existing Plans
SB65	Existing Plans

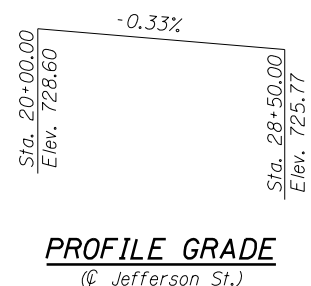
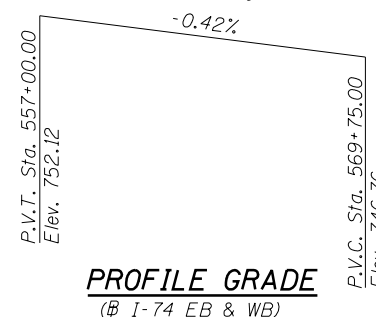
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures No. 3	Each			1
Structure Excavation	Cu. Yd.		1,748	1,748
Concrete Structures	Cu. Yd.		1,213.1	1,213.1
Concrete Superstructure	Cu. Yd.	856.0		856.0
Bridge Deck Grooving	Sq. Yd.	2,356		2,356
Form Liner Textured Surface	Sq. Ft.		8,943	8,943
Protective Coat	Sq. Yd.	2,761		2,761
Furnishing and Erecting Structural Steel	L Sum	0,20		0,20
Stud Shear Connectors	Each	5,838	2,398	8,236
Reinforcement Bars, Epoxy Coated	Pound	182,860	114,880	297,740
Bar Splicers	Each	1,272	526	1,798
Furnishing Metal Shell Piles 12" x 0.250"	Foot		5,134	5,134
Driving Piles	Foot		5,134	5,134
Test Pile Metal Shells	Each		2	2
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	378.5		378.5
Anchor Bolts, 1 1/2"	Each	112		112
Concrete Sealer	Sq. Ft.		13,811	13,811
Geocomposite Wall Drain	Sq. Yd.		434	434
Temporary Sheet Piling	Sq. Ft.		2,425	2,425
Pipe Underdrains for Structures 4"	Foot		1,007	1,007
Temporary Soil Retention System	Sq. Ft.		2,492	2,492
Permanent Ground Anchor	Each		86	86
Permanent Steel Sheet Piling	Sq. Ft.		24,711	24,711
High Load Multi-Rotational Bearings, Guided Expansion, 250K	Each	8		8
High Load Multi-Rotational Bearings, Non-Guided Expansion, 250K	Each	12		12



SECTION THRU ABUTMENT
(Horiz. dim. at Rt. L's)

Note:
All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls or 2'-0" from the end of the wingwalls when the wings are parallel to the abutment. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

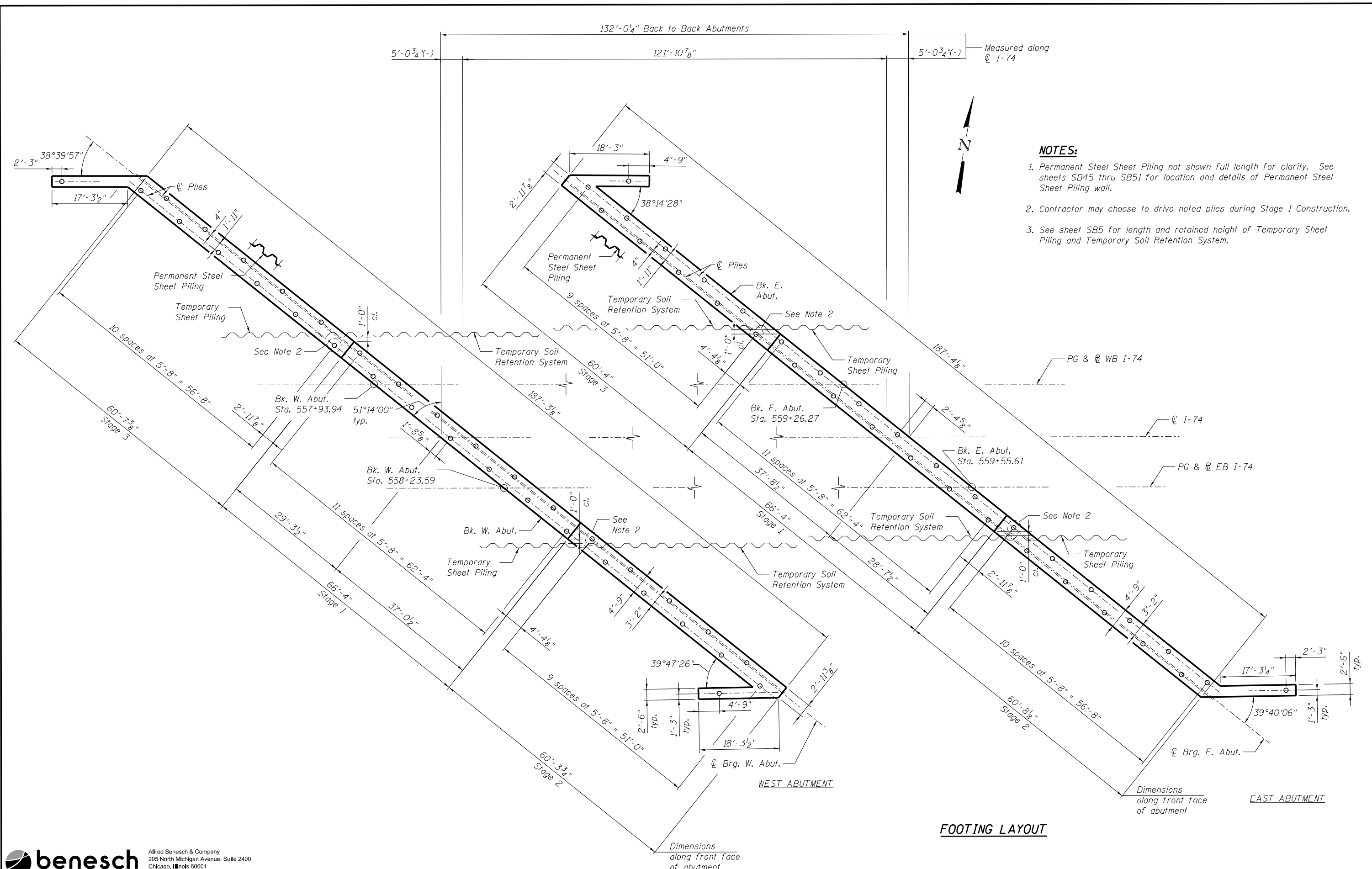


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STATE OF ILLINOIS
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GENERAL DATA
STRUCTURE NO. 090-0167
SHEET NO. SB2 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14Rz(14HB-4,14,14HB)BR]	TAZEWELL	2433	1913
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	



- NOTES:**
1. Permanent Steel Sheet Piling not shown full length for clarity. See sheets SB45 thru SB51 for location and details of Permanent Steel Sheet Piling wall.
 2. Contractor may choose to drive noted piles during Stage 1 Construction.
 3. See sheet SB5 for length and retained height of Temporary Sheet Piling and Temporary Soil Retention System.

FOOTING LAYOUT

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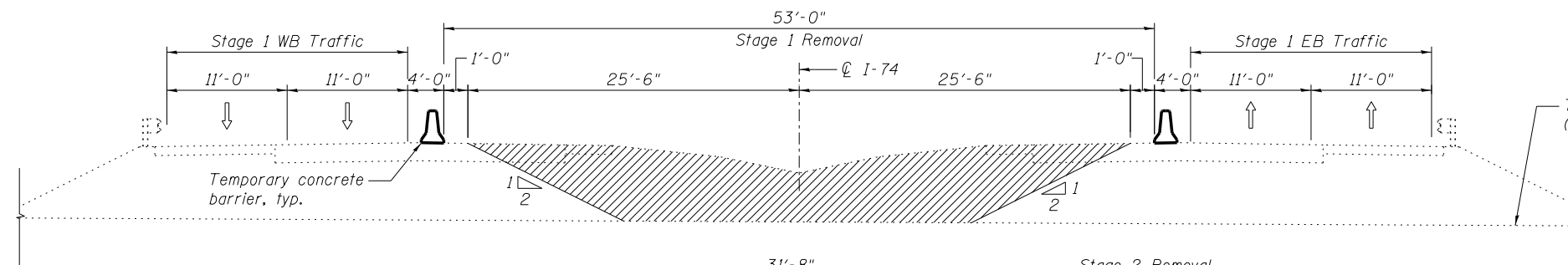
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FOOTING LAYOUT
STRUCTURE NO. 090-0167**

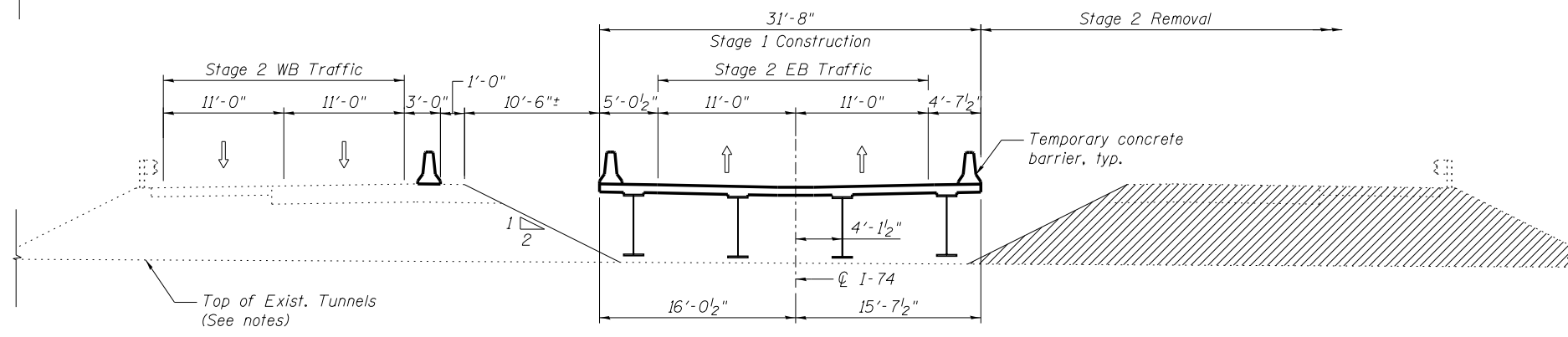
SHEET NO. SB3 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1914
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

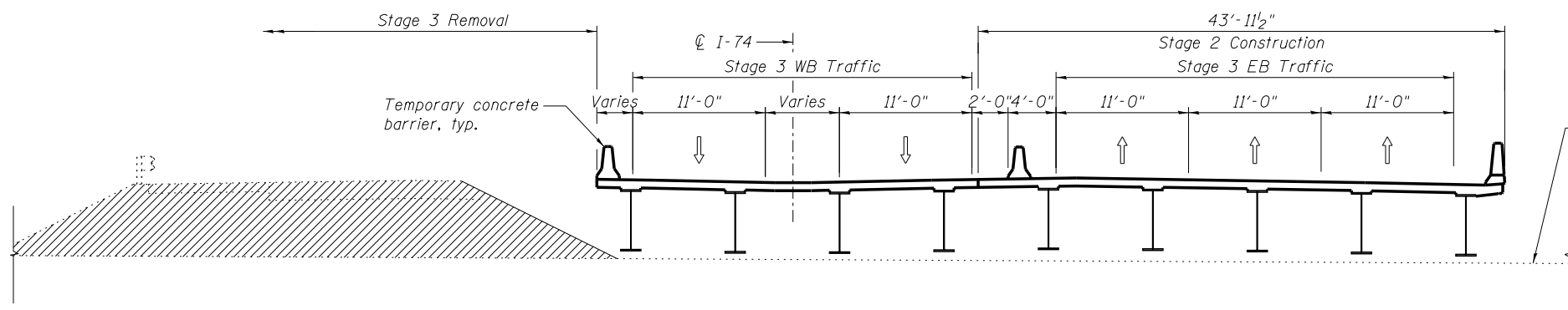
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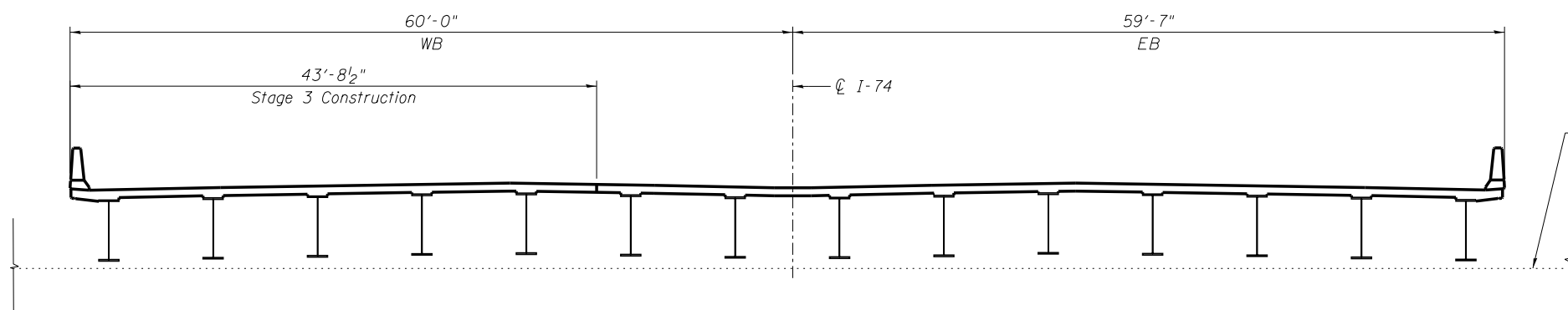
EXISTING STRUCTURE - STAGE 1 REMOVAL



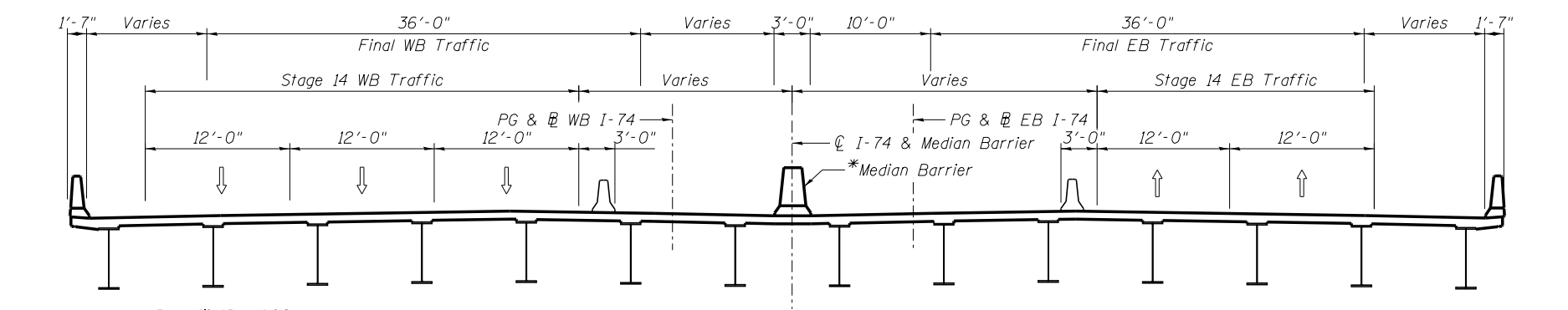
STAGE 1 CONSTRUCTION & STAGE 2 REMOVAL



STAGE 2 CONSTRUCTION & STAGE 3 REMOVAL



STAGE 3 CONSTRUCTION



STAGE 14 CONSTRUCTION & FINAL CROSS SECTION

- NOTES:**
1. All cross sections viewed in direction of increasing station.
 2. Cost of all existing embankment removal, tunnel removal and tunnel bracing shall be included in the cost of Removal of Existing Structures No. 2.
 3. The superstructure width built in each stage differs from the substructure width built. See sheets SB31 thru SB35 and SB38 thru SB42 for substructure stage widths.
 4. Temporary Concrete Barrier shall be utilized at various locations between Stage 3 and 14 to provide roadway separation between WB and EB traffic. See Maintenance of Traffic plans for location and quantity of Temporary Concrete Barrier.

*Median Barrier to be constructed at the same time as the roadway barrier.

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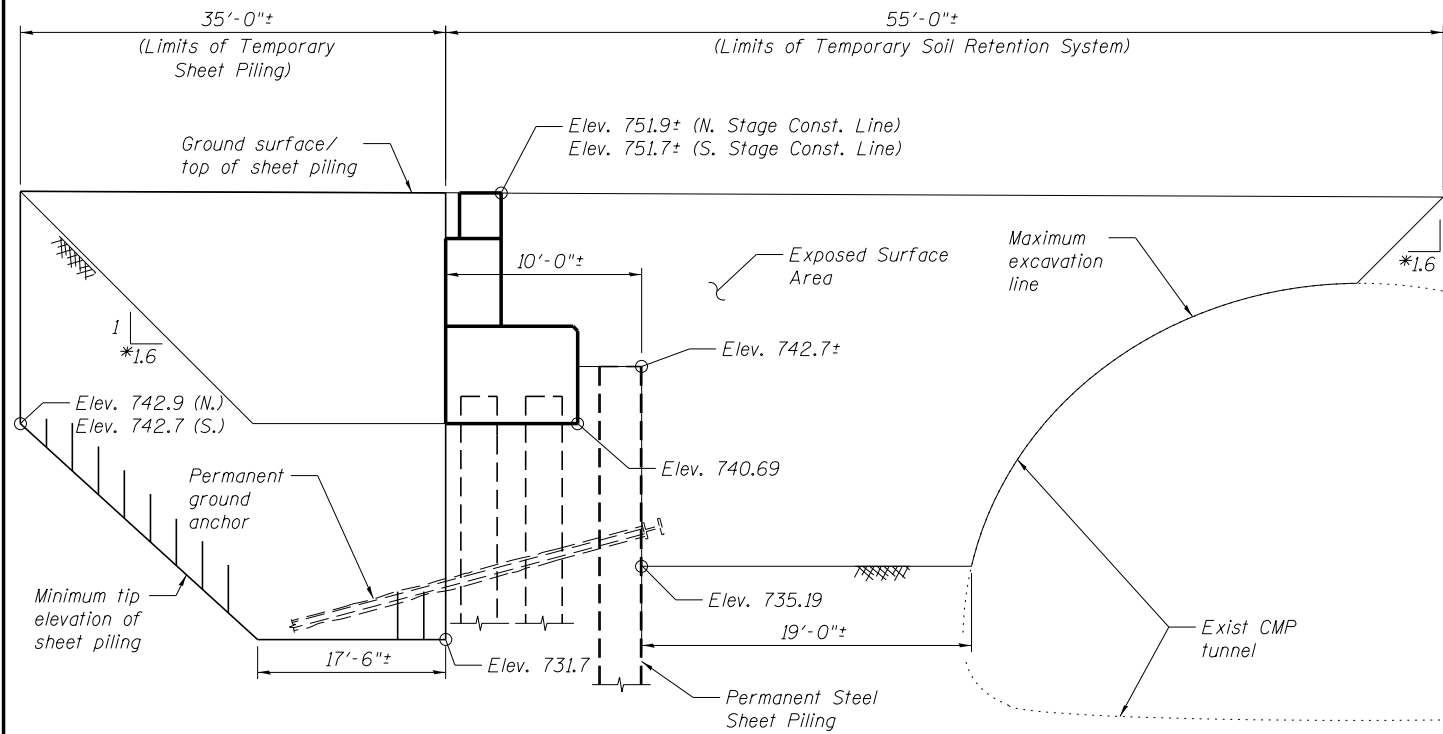
STATE OF ILLINOIS
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STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 090-0167
SHEET NO. SB4 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 68620				

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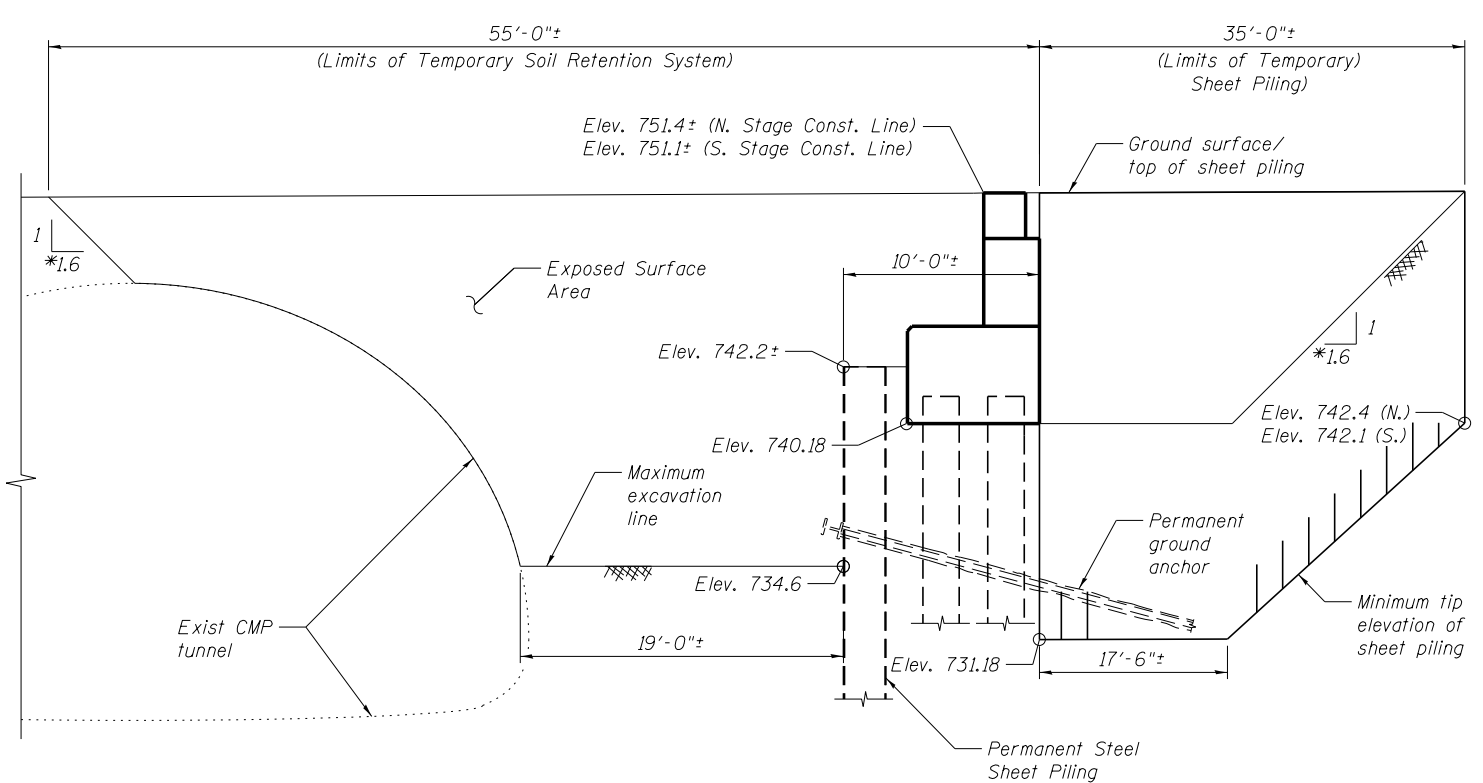
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TEMPORARY WALL ELEVATION AT WEST ABUTMENT

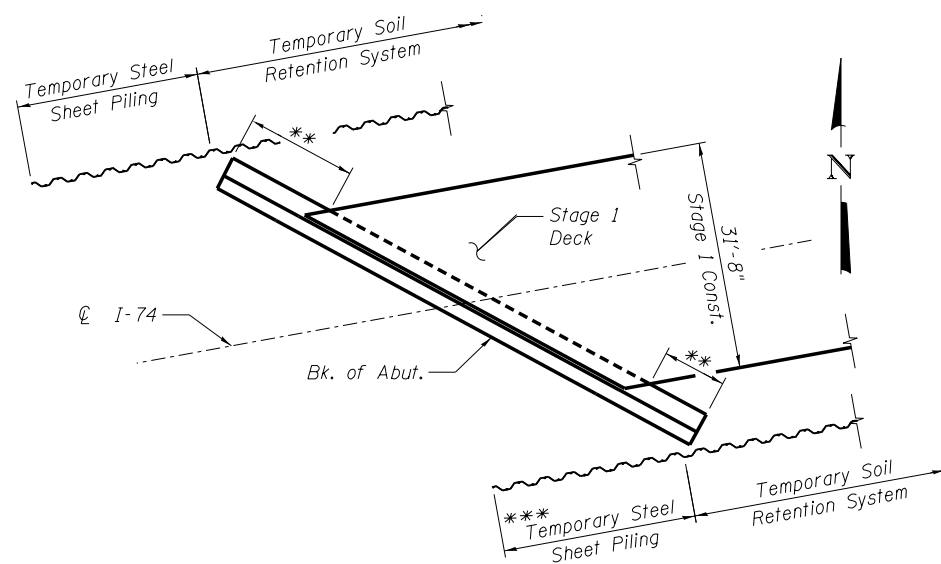
(Walls at North and South Stage Construction Lines are shown)
(Minimum Section Modulus for Temporary Sheet Piling = 10 in³/ft)

*Slope measured along \angle I-74
(Slope is 1:1 perpendicular to abutments)



TEMPORARY WALL ELEVATION AT EAST ABUTMENT

(Walls at North and South Stage Construction Lines are shown)
(Minimum Section Modulus for Temporary Sheet Piling = 10 in³/ft)

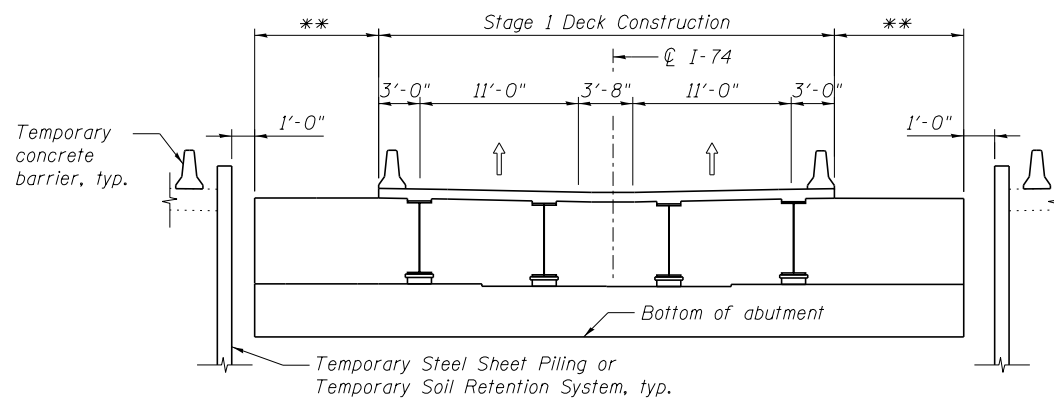


STAGE 1 CONSTRUCTION AT ABUTMENT

(West Abutment shown, East Abutment similar)

** Stage 1 Abutment construction limits shall extend beyond the limits of Stage 1 Deck construction limits to minimize work to be completed in subsequent stages. See Abutment sheets for construction width for each stage.

*** Temporary steel sheet piling behind the abutments shall be removed after the abutment cap and backwall have been cured to allow for permanent ground anchor installation at the south end of the west abutment and the north end of the east abutment. The constructed abutment cap and backwall shall act with the temporary soil retention system in front of the abutments to retain embankment. During Stages 2 and 3, sheeting will be replaced in order to build the Stage 2 and 3 abutments. This sheeting shall be driven perpendicular to the abutment to avoid Stage 1 anchors.



STAGE 1 CONSTRUCTION AT ABUTMENT

(West Abutment looking west, East Abutment opposite hand)

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Temporary Sheet Piling	Sq. Ft.	2,425
Temporary Soil Retention System	Sq. Ft.	2,492

NOTES:

- All dimensions on Temporary Wall Elevations are measured along \angle I-74. All temporary construction works shall be installed parallel to \angle I-74.
- See Sheet SB3 for location of Temporary Sheet Piling and Temporary Soil Retention System.
- If the Contractor chooses to alter the temporary cantilever sheet piling design requirement shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
- The existing arch tunnels shall be internally braced if any portions of the tunnels are removed or if embankment is removed from around the tunnels creating an unbalanced loading condition. Any internal bracing design shall be reviewed and approved by the Engineer.
- Cost of removing and replacing sheeting behind the south end of the west abutment and the north end of the east abutment shall be included in the cost of Temporary Sheet Piling.

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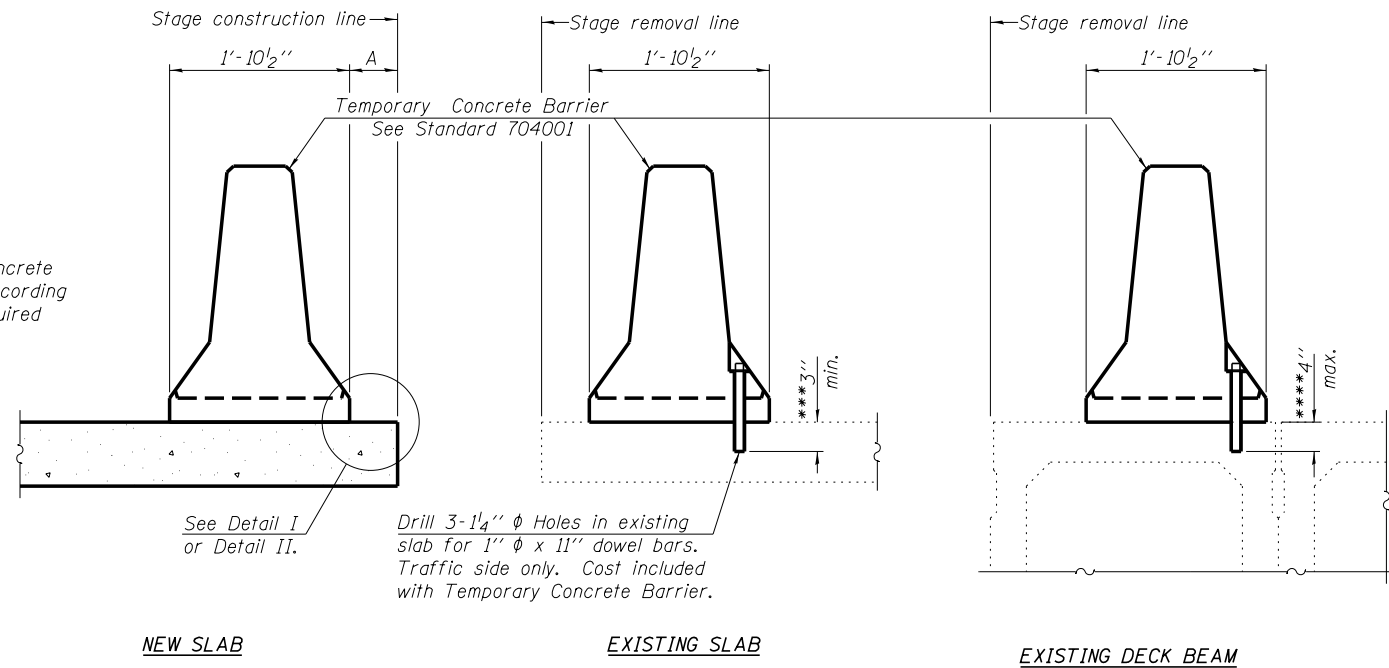
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DEPARTMENT OF TRANSPORTATION**

**TEMPORARY SHEETING DETAILS
STRUCTURE NO. 090-0167**

SHEET NO. SB5 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1916
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

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



SECTIONS THRU SLAB OR DECK BEAM

NOTES

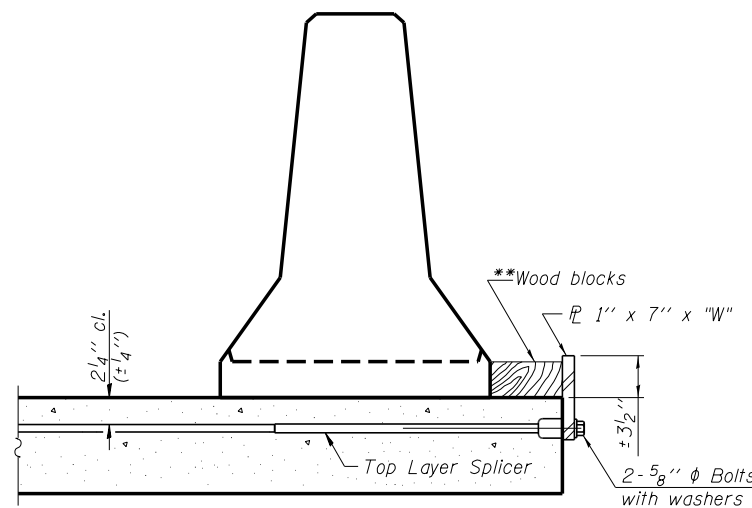
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

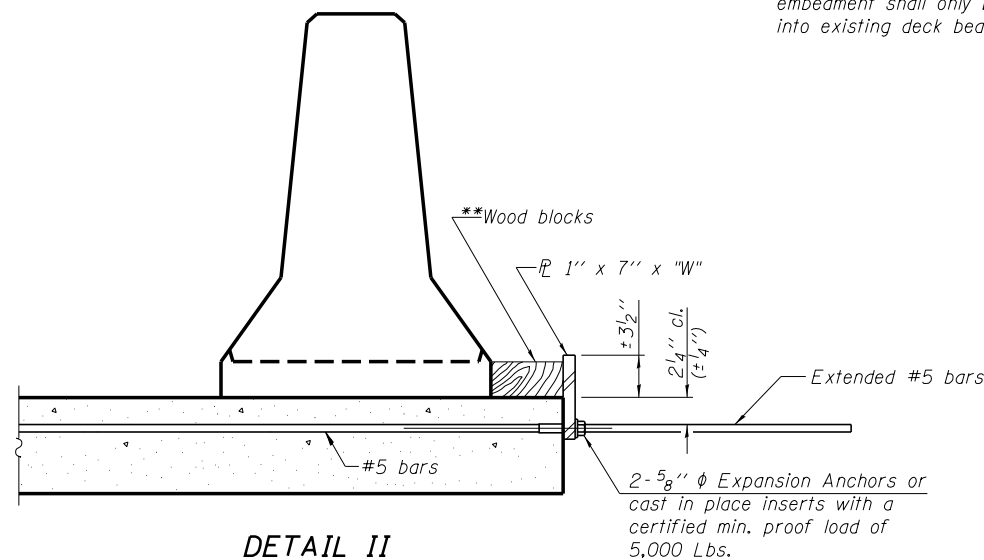
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

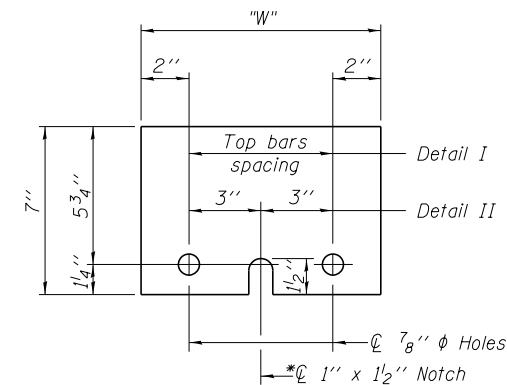
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x "W"

* Required only with Detail II

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

"W" = Top bars spacing + 4"

R-27

7-1-10



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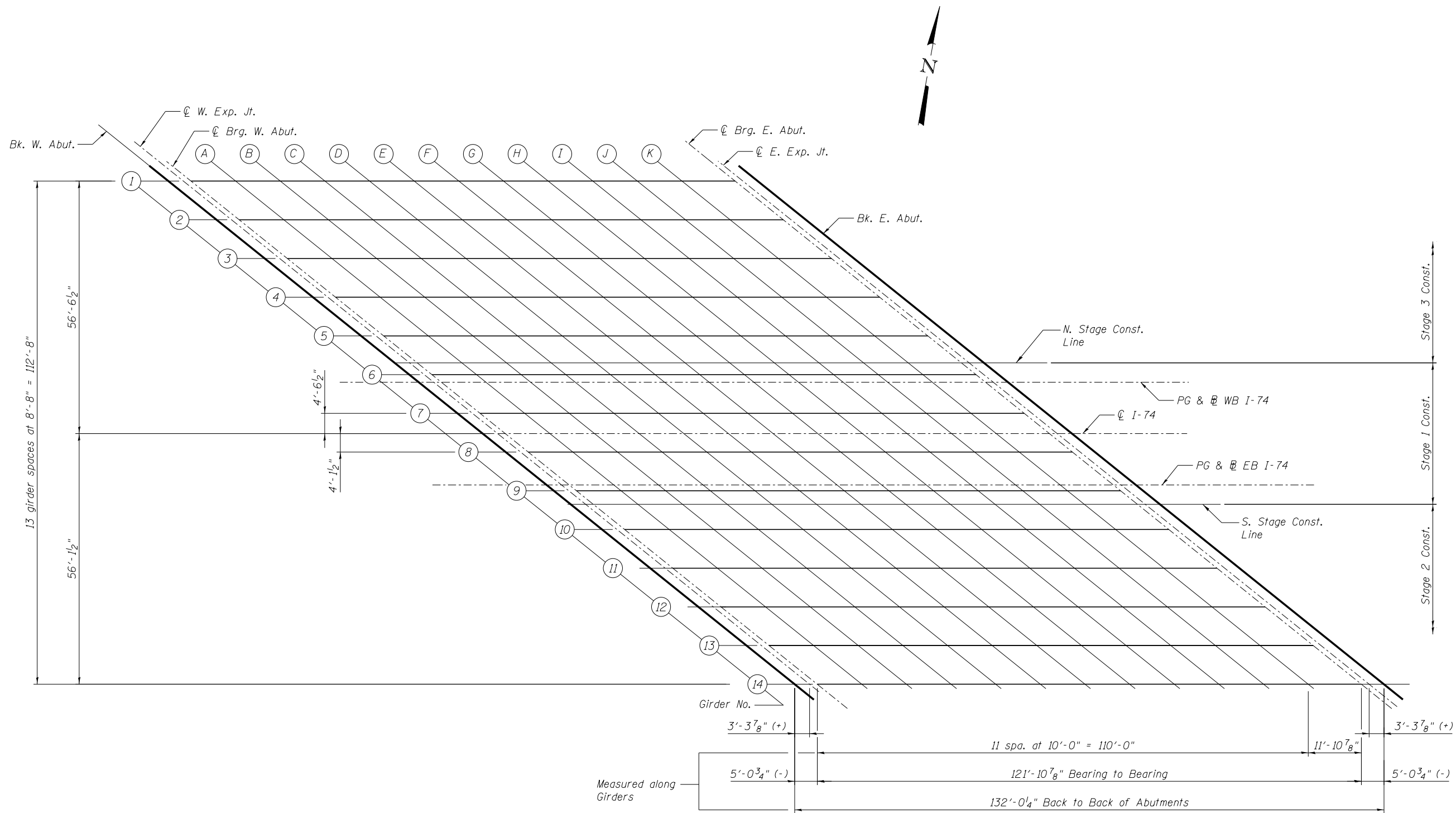
**STATE OF ILLINOIS
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**TEMPORARY BARRIER DETAILS
STRUCTURE NO. 090-0167**

SHEET NO. SB6 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1917
CONTRACT NO. 68620				

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PLAN



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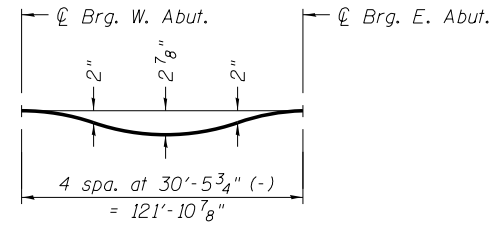
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATION LAYOUT
STRUCTURE NO. 090-0167**

SHEET NO. SB7 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1918
CONTRACT NO. 68620				

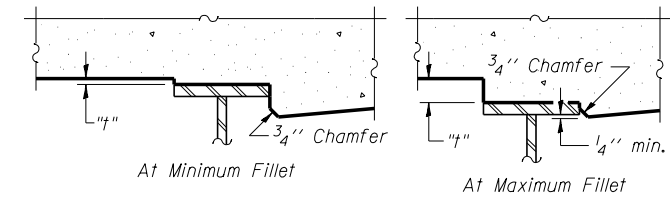
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DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)

Note: 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" as shown below and on sheets SB9 thru SB11.



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

FILLET HEIGHTS

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	557+38.86	-56.54	751.53	751.53
Q W. Exp. Jt.	557+42.19	-56.54	751.52	751.52
Q Brg. W. Abut.	557+43.92	-56.54	751.51	751.51
A	557+53.92	-56.54	751.47	751.53
B	557+63.92	-56.54	751.43	751.54
C	557+73.92	-56.54	751.38	751.55
D	557+83.92	-56.54	751.34	751.54
E	557+93.92	-56.54	751.30	751.52
F	558+03.92	-56.54	751.26	751.49
G	558+13.92	-56.54	751.21	751.44
H	558+23.92	-56.54	751.17	751.38
I	558+33.92	-56.54	751.13	751.30
J	558+43.92	-56.54	751.09	751.21
K	558+53.92	-56.54	751.05	751.12
Q Brg. E. Abut.	558+65.83	-56.54	750.99	750.99
Q E. Exp. Jt.	558+67.56	-56.54	750.99	750.99
Bk. E. Abut.	558+70.88	-56.54	750.97	750.97

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	557+49.65	-47.88	751.67	751.67
Q W. Exp. Jt.	557+52.98	-47.88	751.65	751.65
Q Brg. W. Abut.	557+54.71	-47.88	751.65	751.65
A	557+64.71	-47.88	751.60	751.66
B	557+74.71	-47.88	751.56	751.68
C	557+84.71	-47.88	751.52	751.68
D	557+94.71	-47.88	751.48	751.68
E	558+04.71	-47.88	751.43	751.66
F	558+14.71	-47.88	751.39	751.63
G	558+24.71	-47.88	751.35	751.58
H	558+34.71	-47.88	751.31	751.51
I	558+44.71	-47.88	751.26	751.44
J	558+54.71	-47.88	751.22	751.35
K	558+64.71	-47.88	751.18	751.25
Q Brg. E. Abut.	558+76.62	-47.88	751.13	751.13
Q E. Exp. Jt.	558+78.35	-47.88	751.12	751.12
Bk. E. Abut.	558+81.68	-47.88	751.11	751.11

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	557+60.44	-39.21	751.80	751.80
Q W. Exp. Jt.	557+63.77	-39.21	751.79	751.79
Q Brg. W. Abut.	557+65.50	-39.21	751.78	751.78
A	557+75.50	-39.21	751.74	751.80
B	557+85.50	-39.21	751.70	751.81
C	557+95.50	-39.21	751.65	751.82
D	558+05.50	-39.21	751.61	751.81
E	558+15.50	-39.21	751.57	751.79
F	558+25.50	-39.21	751.53	751.76
G	558+35.50	-39.21	751.48	751.71
H	558+45.50	-39.21	751.44	751.65
I	558+55.50	-39.21	751.40	751.57
J	558+65.50	-39.21	751.36	751.48
K	558+75.50	-39.21	751.31	751.39
Q Brg. E. Abut.	558+87.41	-39.21	751.26	751.26
Q E. Exp. Jt.	558+89.14	-39.21	751.26	751.26
Bk. E. Abut.	558+92.47	-39.21	751.24	751.24

NOTE:

All stations and offsets are measured from Q I-74.

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1919
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	557+71.24	-30.54	751.91	751.91
☉ W. Exp. Jt.	557+74.56	-30.54	751.89	751.89
☉ Brg. W. Abut.	557+76.29	-30.54	751.89	751.89
A	557+86.29	-30.54	751.84	751.90
B	557+96.29	-30.54	751.80	751.92
C	558+06.29	-30.54	751.76	751.92
D	558+16.29	-30.54	751.72	751.92
E	558+26.29	-30.54	751.67	751.90
F	558+36.29	-30.54	751.63	751.87
G	558+46.29	-30.54	751.59	751.82
H	558+56.29	-30.54	751.55	751.75
I	558+66.29	-30.54	751.51	751.68
J	558+76.29	-30.54	751.46	751.59
K	558+86.29	-30.54	751.42	751.49
☉ Brg. E. Abut.	558+98.20	-30.54	751.37	751.37
☉ E. Exp. Jt.	558+99.93	-30.54	751.36	751.36
Bk. E. Abut.	559+03.26	-30.54	751.35	751.35

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	557+82.03	-21.88	751.92	751.92
☉ W. Exp. Jt.	557+85.36	-21.88	751.91	751.91
☉ Brg. W. Abut.	557+87.09	-21.88	751.90	751.90
A	557+97.09	-21.88	751.86	751.92
B	558+07.09	-21.88	751.82	751.93
C	558+17.09	-21.88	751.77	751.94
D	558+27.09	-21.88	751.73	751.93
E	558+37.09	-21.88	751.69	751.91
F	558+47.09	-21.88	751.65	751.88
G	558+57.09	-21.88	751.61	751.83
H	558+67.09	-21.88	751.57	751.77
I	558+77.09	-21.88	751.52	751.69
J	558+87.09	-21.88	751.48	751.61
K	558+97.09	-21.88	751.44	751.51
☉ Brg. E. Abut.	559+09.00	-21.88	751.39	751.39
☉ E. Exp. Jt.	559+10.73	-21.88	751.38	751.38
Bk. E. Abut.	559+14.05	-21.88	751.37	751.37

N. STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	557+89.29	-16.04	751.80	751.80
☉ W. Exp. Jt.	557+92.62	-16.04	751.78	751.78
☉ Brg. W. Abut.	557+94.35	-16.04	751.78	751.78
A	558+04.35	-16.04	751.74	751.80
B	558+14.35	-16.04	751.69	751.81
C	558+24.35	-16.04	751.65	751.82
D	558+34.35	-16.04	751.61	751.81
E	558+44.35	-16.04	751.57	751.79
F	558+54.35	-16.04	751.53	751.76
G	558+64.35	-16.04	751.49	751.71
H	558+74.35	-16.04	751.44	751.65
I	558+84.35	-16.04	751.40	751.57
J	558+94.35	-16.04	751.36	751.49
K	559+04.35	-16.04	751.32	751.39
☉ Brg. E. Abut.	559+16.26	-16.04	751.27	751.27
☉ E. Exp. Jt.	559+17.99	-16.04	751.26	751.26
Bk. E. Abut.	559+21.32	-16.04	751.25	751.25

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	557+92.82	-13.21	751.74	751.74
☉ W. Exp. Jt.	557+96.15	-13.21	751.73	751.73
☉ Brg. W. Abut.	557+97.88	-13.21	751.72	751.72
A	558+07.88	-13.21	751.68	751.74
B	558+17.88	-13.21	751.64	751.75
C	558+27.88	-13.21	751.59	751.76
D	558+37.88	-13.21	751.55	751.75
E	558+47.88	-13.21	751.51	751.73
F	558+57.88	-13.21	751.47	751.70
G	558+67.88	-13.21	751.43	751.65
H	558+77.88	-13.21	751.38	751.59
I	558+87.88	-13.21	751.34	751.51
J	558+97.88	-13.21	751.30	751.43
K	559+07.88	-13.21	751.26	751.33
☉ Brg. E. Abut.	559+19.79	-13.21	751.21	751.21
☉ E. Exp. Jt.	559+21.52	-13.21	751.20	751.20
Bk. E. Abut.	559+24.84	-13.21	751.19	751.19

PG & WB I-74

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	557+93.94	-12.31	751.72	751.72
☉ W. Exp. Jt.	557+97.27	-12.31	751.71	751.71
☉ Brg. W. Abut.	557+99.01	-12.30	751.70	751.70
A	558+09.03	-12.28	751.66	751.72
B	558+19.05	-12.26	751.62	751.73
C	558+29.08	-12.25	751.57	751.74
D	558+39.10	-12.23	751.53	751.73
E	558+49.12	-12.21	751.49	751.71
F	558+59.15	-12.19	751.45	751.68
G	558+69.17	-12.17	751.40	751.63
H	558+79.19	-12.15	751.36	751.57
I	558+89.22	-12.13	751.32	751.49
J	558+99.24	-12.11	751.28	751.40
K	559+09.26	-12.10	751.24	751.31
☉ Brg. E. Abut.	559+21.20	-12.07	751.19	751.19
☉ E. Exp. Jt.	559+22.94	-12.07	751.18	751.18
Bk. E. Abut.	559+26.27	-12.06	751.16	751.16

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	558+03.61	-4.54	751.52	751.52
☉ W. Exp. Jt.	558+06.94	-4.54	751.51	751.51
☉ Brg. W. Abut.	558+08.67	-4.54	751.50	751.50
A	558+18.67	-4.54	751.46	751.52
B	558+28.67	-4.54	751.41	751.53
C	558+38.67	-4.54	751.37	751.54
D	558+48.67	-4.54	751.33	751.53
E	558+58.67	-4.54	751.29	751.51
F	558+68.67	-4.54	751.25	751.48
G	558+78.67	-4.54	751.21	751.43
H	558+88.67	-4.54	751.16	751.37
I	558+98.67	-4.54	751.12	751.29
J	559+08.67	-4.54	751.08	751.21
K	559+18.67	-4.54	751.04	751.11
☉ Brg. E. Abut.	559+30.58	-4.54	750.99	750.99
☉ E. Exp. Jt.	559+32.31	-4.54	750.98	750.98
Bk. E. Abut.	559+35.64	-4.54	750.97	750.97

NOTE:
All stations and offsets are measured from ☉ I-74.



Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME =	USER NAME = mbecker	DESIGNED - MFB	REVISED -
		CHECKED - MRB/TJJ	REVISED -
		DRAWN - LLR	REVISED -
		CHECKED - MRB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS 2 OF 4
STRUCTURE NO. 090-0167

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[I4R](I4HB-4,14,14HVB)BR	TAZEWELL	2433	1920
CONTRACT NO. 68620				

SHEET NO. SB9 OF SB65 SHEETS

ILLINOIS FED. AID PROJECT

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	558+14.40	4.13	751.48	751.48
☉ W. Exp. Jt.	558+17.73	4.13	751.47	751.47
☉ Brg. W. Abut.	558+19.46	4.13	751.46	751.46
A	558+29.46	4.13	751.42	751.48
B	558+39.46	4.13	751.38	751.49
C	558+49.46	4.13	751.33	751.50
D	558+59.46	4.13	751.29	751.49
E	558+69.46	4.13	751.25	751.47
F	558+79.46	4.13	751.21	751.44
G	558+89.46	4.13	751.17	751.39
H	558+99.46	4.13	751.12	751.33
I	559+09.46	4.13	751.08	751.25
J	559+19.46	4.13	751.04	751.17
K	559+29.46	4.13	751.00	751.07
☉ Brg. E. Abut.	559+41.37	4.13	750.95	750.95
☉ E. Exp. Jt.	559+43.10	4.13	750.94	750.94
Bk. E. Abut.	559+46.43	4.13	750.93	750.93

PG & EB I-74

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	558+23.59	11.50	751.60	751.60
☉ W. Exp. Jt.	558+26.92	11.50	751.58	751.58
☉ Brg. W. Abut.	558+28.65	11.50	751.58	751.58
A	558+38.65	11.50	751.53	751.59
B	558+48.65	11.50	751.49	751.61
C	558+58.65	11.50	751.45	751.61
D	558+68.65	11.50	751.41	751.61
E	558+78.65	11.50	751.37	751.59
F	558+88.65	11.50	751.32	751.56
G	558+98.65	11.50	751.28	751.51
H	559+08.65	11.50	751.24	751.44
I	559+18.65	11.50	751.20	751.37
J	559+28.65	11.50	751.15	751.28
K	559+38.65	11.50	751.11	751.18
☉ Brg. E. Abut.	559+50.55	11.50	751.06	751.06
☉ E. Exp. Jt.	559+52.28	11.50	751.06	751.06
Bk. E. Abut.	559+55.61	11.50	751.04	751.04

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	558+25.20	12.79	751.61	751.61
☉ W. Exp. Jt.	558+28.52	12.79	751.60	751.60
☉ Brg. W. Abut.	558+30.25	12.79	751.59	751.59
A	558+40.25	12.79	751.55	751.61
B	558+50.25	12.79	751.50	751.62
C	558+60.25	12.79	751.46	751.63
D	558+70.25	12.79	751.42	751.62
E	558+80.25	12.79	751.38	751.60
F	558+90.25	12.79	751.34	751.57
G	559+00.25	12.79	751.29	751.52
H	559+10.25	12.79	751.25	751.46
I	559+20.25	12.79	751.21	751.38
J	559+30.25	12.79	751.17	751.29
K	559+40.25	12.79	751.13	751.20
☉ Brg. E. Abut.	559+52.16	12.79	751.08	751.08
☉ E. Exp. Jt.	559+53.89	12.79	751.07	751.07
Bk. E. Abut.	559+57.22	12.79	751.05	751.05

S. STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	558+28.72	15.63	751.64	751.64
☉ W. Exp. Jt.	558+32.05	15.63	751.63	751.63
☉ Brg. W. Abut.	558+33.78	15.63	751.62	751.62
A	558+43.78	15.63	751.58	751.64
B	558+53.78	15.63	751.53	751.65
C	558+63.78	15.63	751.49	751.65
D	558+73.78	15.63	751.45	751.65
E	558+83.78	15.63	751.41	751.63
F	558+93.78	15.63	751.37	751.60
G	559+03.78	15.63	751.32	751.55
H	559+13.78	15.63	751.28	751.49
I	559+23.78	15.63	751.24	751.41
J	559+33.78	15.63	751.20	751.32
K	559+43.78	15.63	751.16	751.23
☉ Brg. E. Abut.	559+55.69	15.63	751.11	751.11
☉ E. Exp. Jt.	559+57.42	15.63	751.10	751.10
Bk. E. Abut.	559+60.75	15.63	751.08	751.08

GIRDER 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	558+35.99	21.46	751.70	751.70
☉ W. Exp. Jt.	558+39.32	21.46	751.69	751.69
☉ Brg. W. Abut.	558+41.05	21.46	751.68	751.68
A	558+51.05	21.46	751.64	751.70
B	558+61.05	21.46	751.59	751.71
C	558+71.05	21.46	751.55	751.72
D	558+81.05	21.46	751.51	751.71
E	558+91.05	21.46	751.47	751.69
F	559+01.05	21.46	751.43	751.66
G	559+11.05	21.46	751.38	751.61
H	559+21.05	21.46	751.34	751.55
I	559+31.05	21.46	751.30	751.47
J	559+41.05	21.46	751.26	751.38
K	559+51.05	21.46	751.22	751.29
☉ Brg. E. Abut.	559+62.95	21.46	751.17	751.17
☉ E. Exp. Jt.	559+64.69	21.46	751.16	751.16
Bk. E. Abut.	559+68.01	21.46	751.14	751.14

GIRDER 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	558+46.78	30.13	751.58	751.58
☉ W. Exp. Jt.	558+50.11	30.13	751.57	751.57
☉ Brg. W. Abut.	558+51.84	30.13	751.56	751.56
A	558+61.84	30.13	751.52	751.58
B	558+71.84	30.13	751.48	751.59
C	558+81.84	30.13	751.44	751.60
D	558+91.84	30.13	751.39	751.59
E	559+01.84	30.13	751.35	751.58
F	559+11.84	30.13	751.31	751.54
G	559+21.84	30.13	751.27	751.49
H	559+31.84	30.13	751.23	751.43
I	559+41.84	30.13	751.18	751.35
J	559+51.84	30.13	751.14	751.27
K	559+61.84	30.13	751.10	751.17
☉ Brg. E. Abut.	559+73.75	30.13	751.05	751.05
☉ E. Exp. Jt.	559+75.48	30.13	751.04	751.04
Bk. E. Abut.	559+78.80	30.13	751.03	751.03

NOTE:
All stations and offsets are measured from ☉ I-74.



Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME =	USER NAME = mbecker	DESIGNED - MFB	REVISED -
		CHECKED - MRB/TJJ	REVISED -
		DRAWN - LLR	REVISED -
		CHECKED - MRB	REVISED -
	PLOT SCALE =		
	PLOT DATE = 7/16/2012		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS 3 OF 4
STRUCTURE NO. 090-0167

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)]BR	TAZEWELL	2433	1921
				CONTRACT NO. 68620
				ILLINOIS FED. AID PROJECT

SHEET NO. SB10 OF SB65 SHEETS

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GIRDER 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	558+57.57	38.79	751.39	751.39
☉ W. Exp. Jt.	558+60.90	38.79	751.37	751.37
☉ Brg. W. Abut.	558+62.63	38.79	751.36	751.36
A	558+72.63	38.79	751.32	751.38
B	558+82.63	38.79	751.28	751.40
C	558+92.63	38.79	751.24	751.40
D	559+02.63	38.79	751.20	751.40
E	559+12.63	38.79	751.15	751.38
F	559+22.63	38.79	751.11	751.34
G	559+32.63	38.79	751.07	751.30
H	559+42.63	38.79	751.03	751.23
I	559+52.63	38.79	750.99	751.16
J	559+62.63	38.79	750.94	751.07
K	559+72.63	38.79	750.90	750.97
☉ Brg. E. Abut.	559+84.54	38.79	750.85	750.85
☉ E. Exp. Jt.	559+86.27	38.79	750.84	750.84
Bk. E. Abut.	559+89.60	38.79	750.83	750.83

GIRDER 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	558+68.36	47.46	751.16	751.16
☉ W. Exp. Jt.	558+71.69	47.46	751.15	751.15
☉ Brg. W. Abut.	558+73.42	47.46	751.14	751.14
A	558+83.42	47.46	751.10	751.16
B	558+93.42	47.46	751.05	751.17
C	559+03.42	47.46	751.01	751.17
D	559+13.42	47.46	750.97	751.17
E	559+23.42	47.46	750.93	751.15
F	559+33.42	47.46	750.89	751.12
G	559+43.42	47.46	750.84	751.07
H	559+53.42	47.46	750.80	751.01
I	559+63.42	47.46	750.76	750.93
J	559+73.42	47.46	750.72	750.84
K	559+83.42	47.46	750.68	750.75
☉ Brg. E. Abut.	559+95.33	47.46	750.63	750.63
☉ E. Exp. Jt.	559+97.06	47.46	750.62	750.62
Bk. E. Abut.	560+00.39	47.46	750.60	750.60

GIRDER 14

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	558+79.16	56.13	750.93	750.93
☉ W. Exp. Jt.	558+82.48	56.13	750.92	750.92
☉ Brg. W. Abut.	558+84.21	56.13	750.91	750.91
A	558+94.21	56.13	750.87	750.93
B	559+04.21	56.13	750.83	750.94
C	559+14.21	56.13	750.79	750.95
D	559+24.21	56.13	750.74	750.94
E	559+34.21	56.13	750.70	750.92
F	559+44.21	56.13	750.66	750.89
G	559+54.21	56.13	750.62	750.84
H	559+64.21	56.13	750.58	750.78
I	559+74.21	56.13	750.53	750.70
J	559+84.21	56.13	750.49	750.62
K	559+94.21	56.13	750.45	750.52
☉ Brg. E. Abut.	560+06.12	56.13	750.40	750.40
☉ E. Exp. Jt.	560+07.85	56.13	750.39	750.39
Bk. E. Abut.	560+11.18	56.13	750.38	750.38

NOTE:
All stations and offsets are measured from ☉ I-74.



FILE NAME = 0900167.68620.11.scrd4.dgn

USER NAME = mbecker	DESIGNED - MFB	REVISED -
	CHECKED - MRB/TJJ	REVISED -
PLOT SCALE =	DRAWN - LLR	REVISED -
PLOT DATE = 7/16/2012	CHECKED - MRB	REVISED -

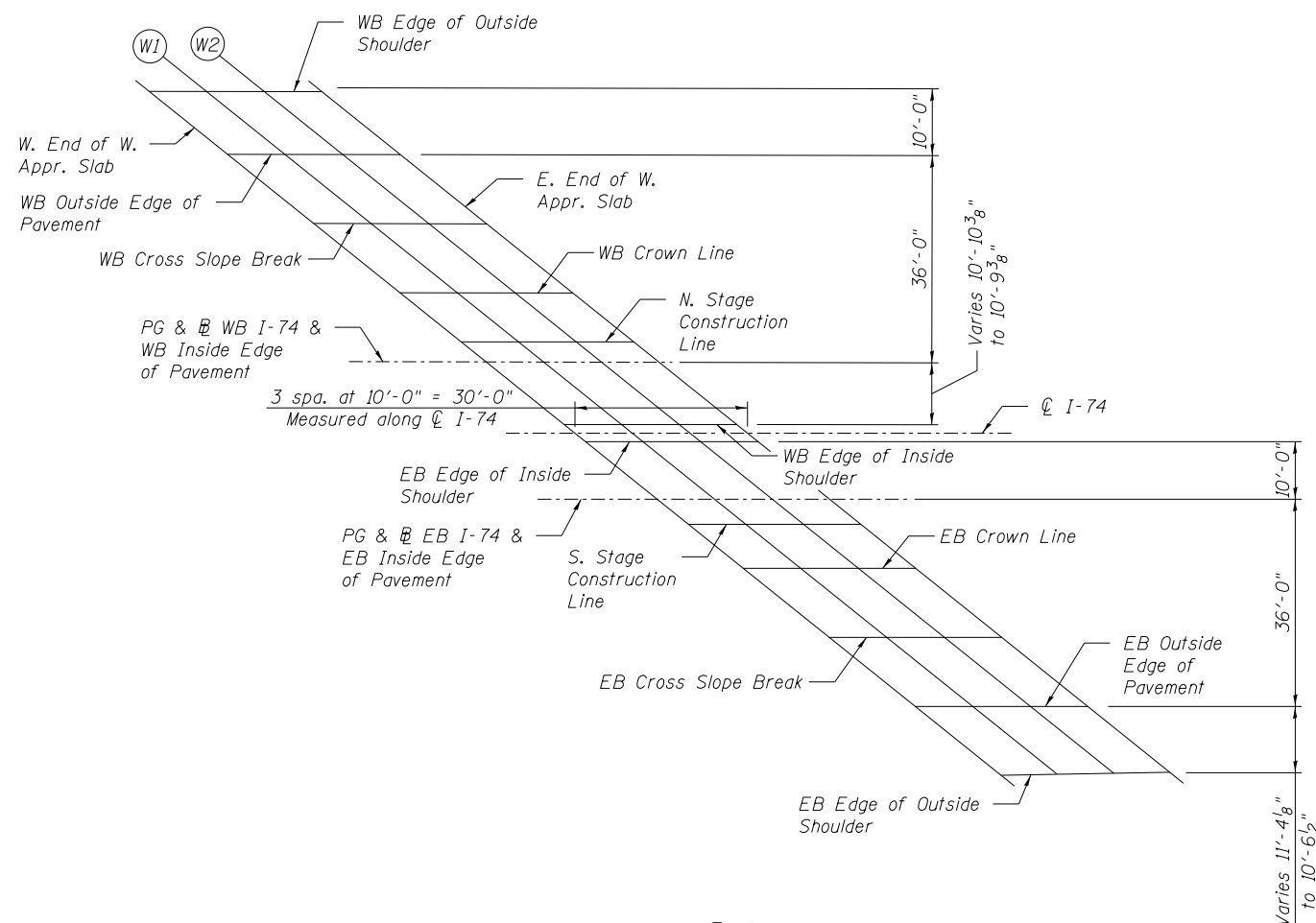
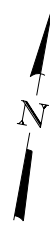
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS 4 OF 4
STRUCTURE NO. 090-0167**

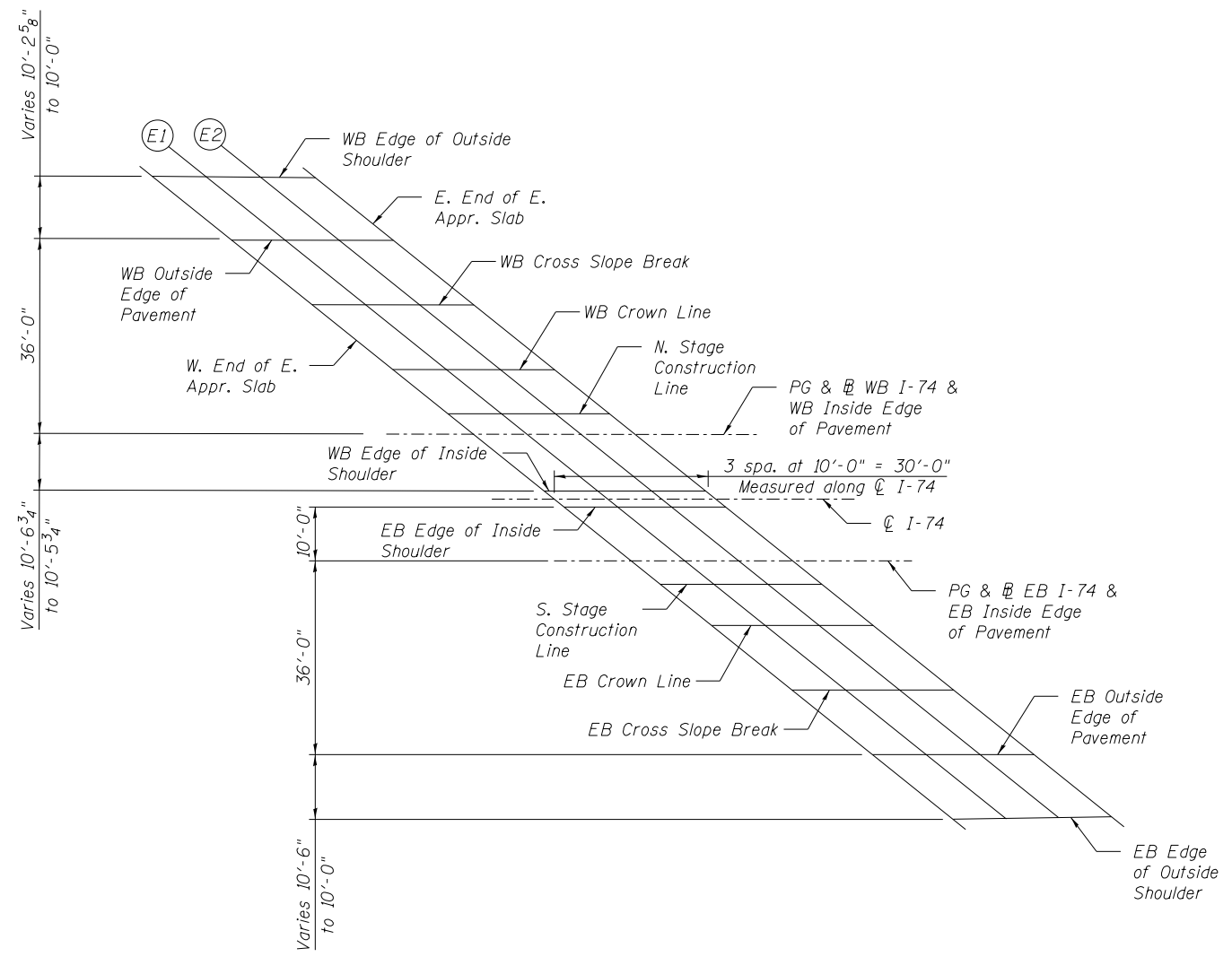
SHEET NO. SB11 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[I4Rz(I4HB-4,14,14HVB)BR]	TAZEWELL	2433	1922
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

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PLAN
(West Approach Slab)



PLAN
(East Approach Slab)

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Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME =	USER NAME = mbecker	DESIGNED - MFB	REVISED -
0900167.68620.12.apsbel.dgn		CHECKED - MRB/TJJ	REVISED -
	PLOT SCALE =	DRAWN - PRT	REVISED -
	PLOT DATE = 7/16/2012	CHECKED - MRB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF APPROACH SLAB ELEVATION LAYOUT
STRUCTURE NO. 090-0167

SHEET NO. SB12 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4;14,14HVB]BR	TAZEWELL	2433	1923
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				

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 7/16/2012

WB EDGE OF OUTSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	557+07.25	-58.47	751.63
W1	557+17.28	-58.46	751.58
W2	557+27.30	-58.44	751.54
E. End of W. Appr. Slab	557+37.32	-58.42	751.50

WB OUTSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	557+19.73	-48.45	751.78
W1	557+29.76	-48.43	751.74
W2	557+39.78	-48.41	751.70
E. End of W. Appr. Slab	557+49.81	-48.39	751.66

WB CROSS SLOPE BREAK

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	557+34.71	-36.42	751.97
W1	557+44.74	-36.40	751.93
W2	557+54.76	-36.38	751.89
E. End of W. Appr. Slab	557+64.78	-36.37	751.84

WB ROADWAY CROWN

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	557+49.69	-24.39	752.09
W1	557+59.71	-24.38	752.05
W2	557+69.74	-24.36	752.01
E. End of W. Appr. Slab	557+79.76	-24.34	751.97

N. STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	557+60.09	-16.01	751.92
W1	557+70.09	-16.04	751.88
W2	557+80.09	-16.04	751.84
E. End of W. Appr. Slab	557+90.09	-16.04	751.80

PG & EB WB I-74 & WB INSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	557+64.67	-12.37	751.84
W1	557+74.69	-12.35	751.80
W2	557+84.71	-12.33	751.76
E. End of W. Appr. Slab	557+94.74	-12.31	751.72

WB EDGE OF INSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	557+78.20	-1.50	751.56
W1	557+88.20	-1.50	751.52
W2	557+98.20	-1.50	751.48
E. End of W. Appr. Slab	558+08.20	-1.50	751.44

EB EDGE OF INSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	557+81.93	1.50	751.56
W1	557+91.93	1.50	751.52
W2	558+01.93	1.50	751.48
E. End of W. Appr. Slab	558+11.93	1.50	751.44

PG & EB EB I-74 & EB INSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	557+94.39	11.50	751.72
W1	558+04.39	11.50	751.68
W2	558+14.39	11.50	751.63
E. End of W. Appr. Slab	558+24.39	11.50	751.59

S. STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	557+99.52	15.63	751.76
W1	558+09.52	15.63	751.72
W2	558+19.52	15.63	751.68
E. End of W. Appr. Slab	558+29.52	15.63	751.64

EB ROADWAY CROWN

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	558+09.33	23.50	751.84
W1	558+19.33	23.50	751.80
W2	558+29.33	23.50	751.76
E. End of W. Appr. Slab	558+39.33	23.50	751.72

EB CROSS SLOPE BREAK

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	558+24.27	35.50	751.59
W1	558+34.27	35.50	751.55
W2	558+44.27	35.50	751.51
E. End of W. Appr. Slab	558+54.27	35.50	751.47

EB OUTSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	558+39.22	47.50	751.28
W1	558+49.22	47.50	751.24
W2	558+59.22	47.50	751.20
E. End of W. Appr. Slab	558+69.22	47.50	751.15

EB EDGE OF OUTSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	558+53.00	58.57	750.99
W1	558+62.78	58.39	750.95
W2	558+72.56	58.22	750.92
E. End of W. Appr. Slab	558+82.34	58.04	750.88

NOTE:

All stations and offsets are measured from \mathcal{C} I-74.



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF WEST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 090-0167**

SHEET NO. SB13 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[I4Rz(I4HB-4,14,14HVB)BR]	TAZEWELL	2433	1924
			CONTRACT NO. 68620	
			ILLINOIS FED. AID PROJECT	

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WB EDGE OF OUTSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	558+67.78	-58.39	750.95
E1	558+77.89	-58.30	750.91
E2	558+88.01	-58.21	750.87
E. End of E. Appr. Slab	558+98.13	-58.12	750.82

WB OUTSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	558+80.54	-48.15	751.11
E1	558+90.56	-48.13	751.06
E2	559+00.58	-48.11	751.02
E. End of E. Appr. Slab	559+10.61	-48.09	750.98

WB CROSS SLOPE BREAK

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	558+95.51	-36.12	751.29
E1	559+05.54	-36.10	751.25
E2	559+15.56	-36.08	751.21
E. End of E. Appr. Slab	559+25.58	-36.06	751.17

WB ROADWAY CROWN

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	559+10.49	-24.09	751.42
E1	559+20.52	-24.07	751.38
E2	559+30.54	-24.06	751.33
E. End of E. Appr. Slab	559+40.56	-24.04	751.29

N. STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	559+20.52	-16.04	751.25
E1	559+30.52	-16.04	751.21
E2	559+40.52	-16.04	751.17
E. End of E. Appr. Slab	559+50.52	-16.04	751.13

PG & WB I-74 & WB INSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	559+25.47	-12.06	751.17
E1	559+35.49	-12.05	751.13
E2	559+45.52	-12.03	751.08
E. End of E. Appr. Slab	559+55.54	-12.01	751.04

WB EDGE OF INSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	559+38.63	-1.50	750.89
E1	559+48.63	-1.50	750.85
E2	559+58.63	-1.50	750.81
E. End of E. Appr. Slab	559+68.63	-1.50	750.77

EB EDGE OF INSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	559+42.36	1.50	750.89
E1	559+52.36	1.50	750.85
E2	559+62.36	1.50	750.80
E. End of E. Appr. Slab	559+72.36	1.50	750.76

PG & EB I-74 & EB INSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	559+54.81	11.50	751.04
E1	559+64.81	11.50	751.00
E2	559+74.81	11.50	750.96
E. End of E. Appr. Slab	559+84.81	11.50	750.92

S. STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	559+59.95	15.63	751.09
E1	559+69.95	15.63	751.05
E2	559+79.95	15.63	751.00
E. End of E. Appr. Slab	559+89.95	15.63	750.96

EB ROADWAY CROWN

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	559+69.76	23.50	751.17
E1	559+79.76	23.50	751.13
E2	559+89.76	23.50	751.09
E. End of E. Appr. Slab	559+99.76	23.50	751.04

EB CROSS SLOPE BREAK

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	559+84.70	35.50	750.92
E1	559+94.70	35.50	750.88
E2	560+04.70	35.50	750.83
E. End of E. Appr. Slab	560+14.70	35.50	750.79

EB OUTSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	559+99.64	47.50	750.61
E1	560+09.64	47.50	750.56
E2	560+19.64	47.50	750.52
E. End of E. Appr. Slab	560+29.64	47.50	750.48

EB EDGE OF OUTSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	560+12.67	57.96	750.33
E1	560+22.48	57.81	750.30
E2	560+32.29	57.65	750.26
E. End of E. Appr. Slab	560+42.09	57.50	750.22

NOTE:

All stations and offsets are measured from \odot I-74.



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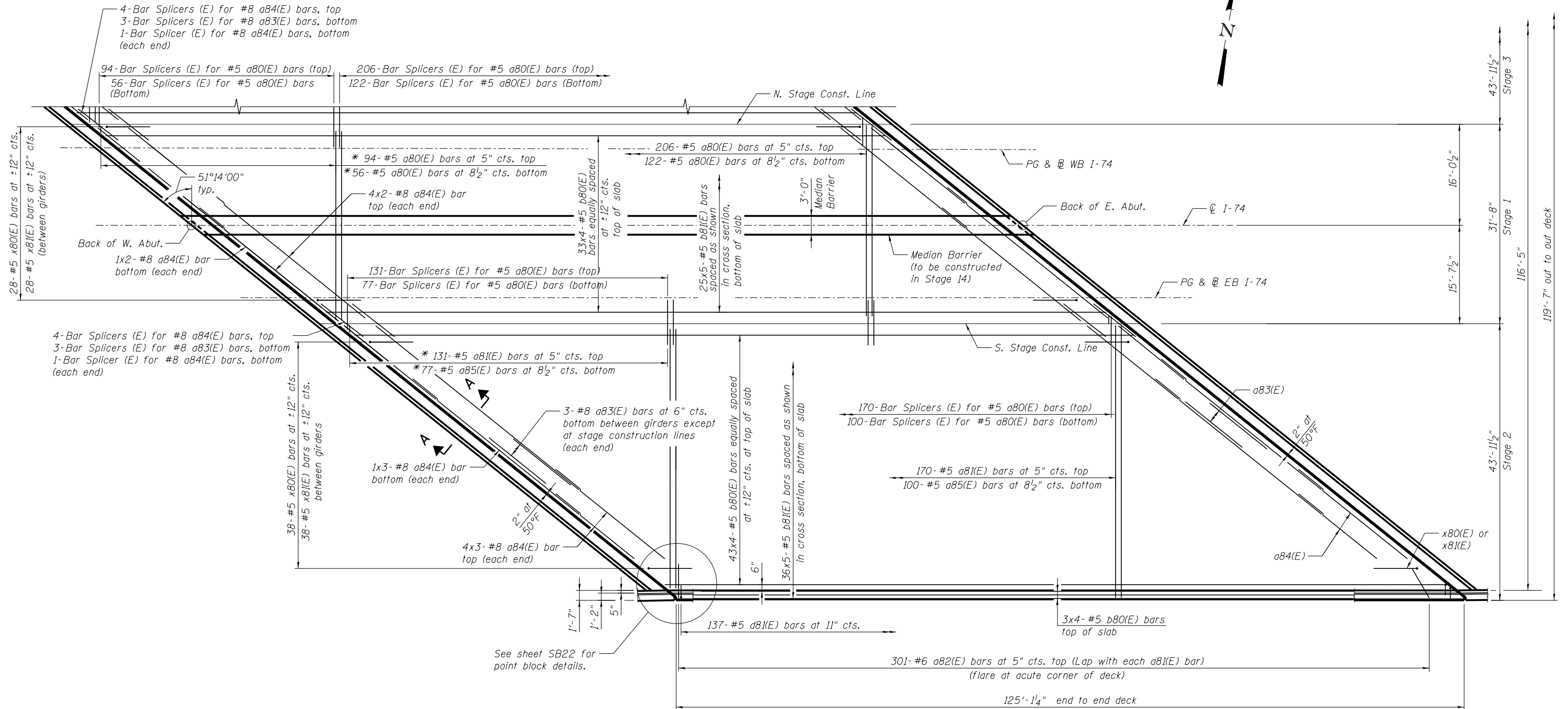
**STATE OF ILLINOIS
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**TOP OF EAST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 090-0167**

SHEET NO. SB14 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[I4Rz(I4HB-4,14,14HVB)BR]	TAZEWELL	2433	1925
			CONTRACT NO. 68620	
			ILLINOIS FED. AID PROJECT	

* Order a80(E), a81(E) and a85(E) bars full length.
Cut to fit skew and use remainder of bars in opposite end.



PLAN

(Stage 1 and Stage 2 shown. Stage 3 similar to Stage 2)

NOTES:

1. See sheet SB17 for superstructure details and Bill of Material.
2. Bars indicated thus 3x10-#5 etc. indicates 3 lines of bars with 10 lengths per line.
3. See sheet SB17 for parapet reinforcement.
4. See sheet SB18 for median barrier reinforcement.
5. See sheet SB18 for Section A-A.
6. See sheet SB53 for Bar Splicer Assembly to be used at Stage 1 construction joint for a83(E)

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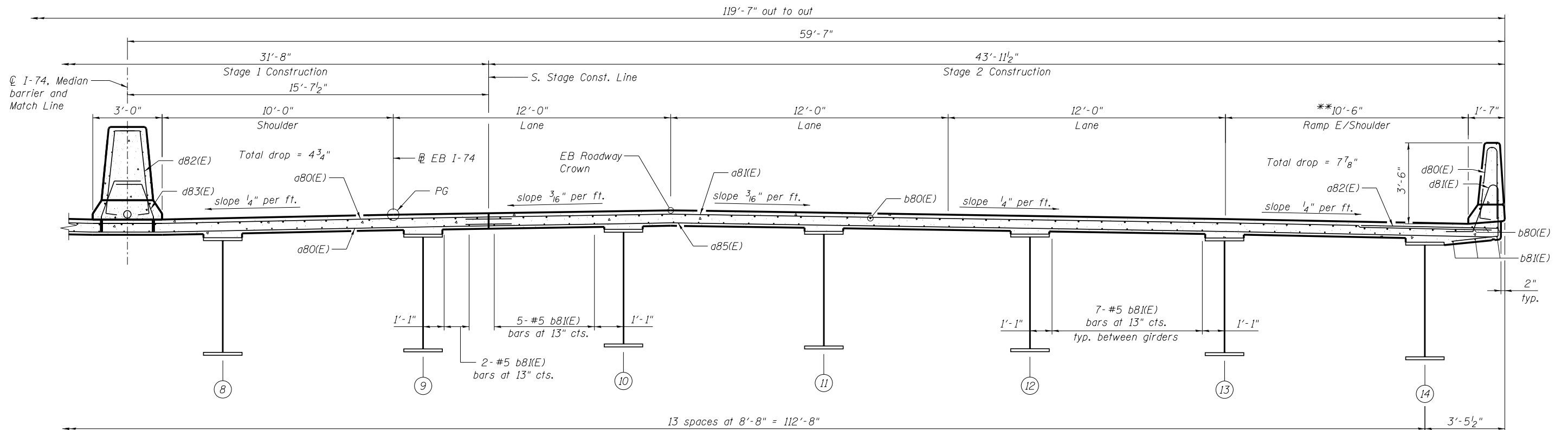
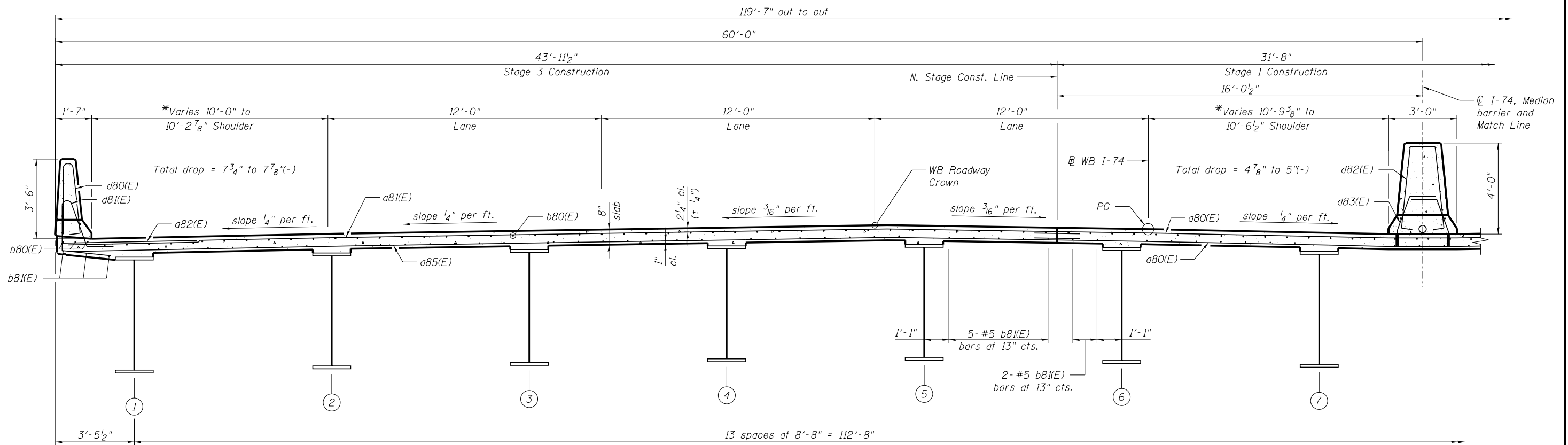
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**SUPERSTRUCTURE
STRUCTURE NO. 090-0167**

SHEET NO. SB15 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4,14,14HVB]BR	TAZEWELL	2433	1926
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				



CROSS SECTION
(Looking Upstation)

*Dimensions are taken at end of deck.
**Ramp E varies from 4'-6" to 1'-10 1/4" along bridge.

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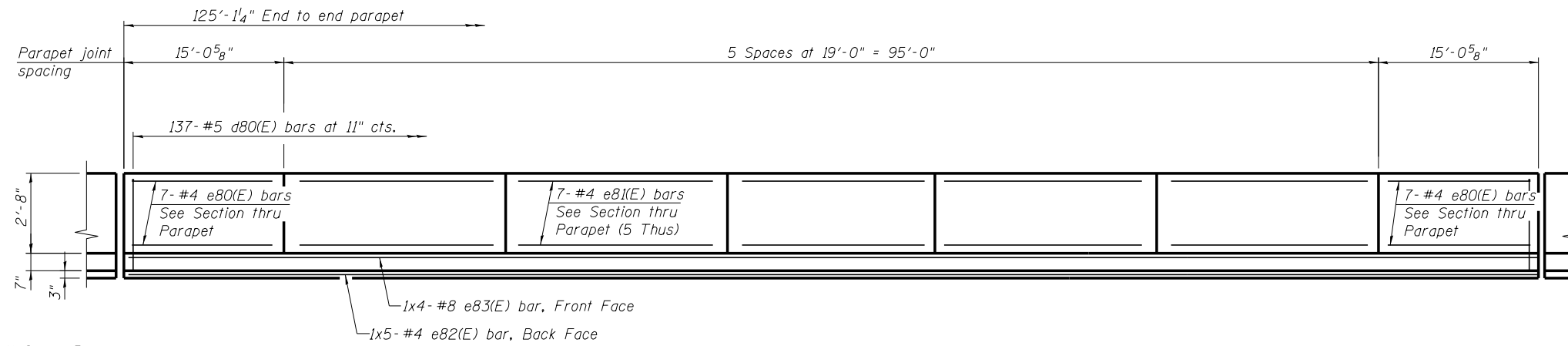
**STATE OF ILLINOIS
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**SUPERSTRUCTURE DETAILS 1 OF 3
STRUCTURE NO. 090-0167**

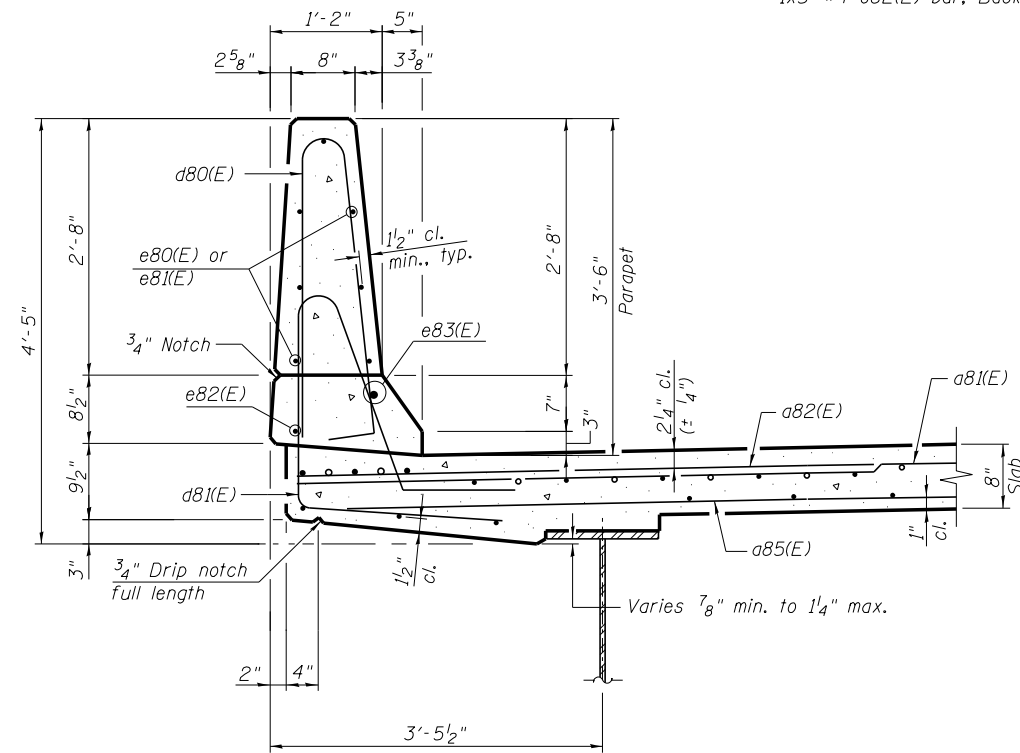
SHEET NO. SB16 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

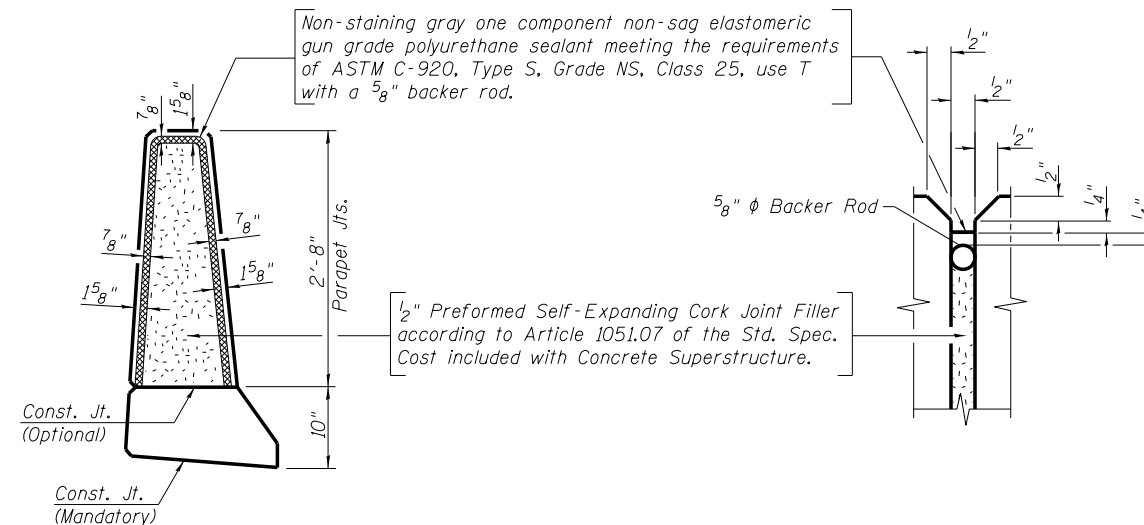
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INSIDE ELEVATION OF PARAPET
(2 Thus)



SECTION THRU PARAPET

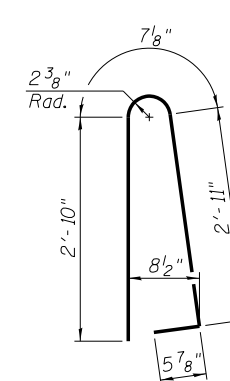


PARAPET JOINT DETAILS

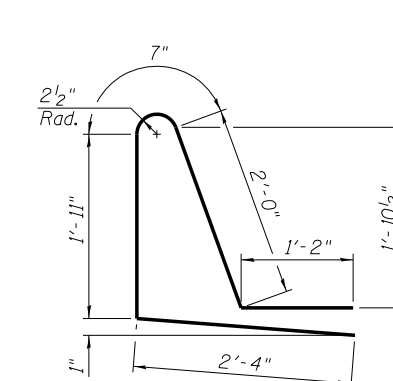
**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a80(E)	478	#5	31'-0"	—
a81(E)	602	#5	43'-4"	—
a82(E)	602	#6	6'-6"	—
a83(E)	66	#8	15'-5"	—
a84(E)	80	#8	27'-9"	—
a85(E)	354	#5	43'-0"	—
b80(E)	500	#5	33'-9"	—
b81(E)	485	#5	27'-9"	—
d80(E)	274	#5	6'-10"	—
d81(E)	274	#5	8'-0"	—
d82(E)	143	#5	9'-3"	—
d83(E)	286	#5	3'-5"	—
e80(E)	46	#4	14'-8"	—
e81(E)	115	#4	18'-8"	—
e82(E)	10	#4	26'-9"	—
e83(E)	16	#8	35'-3"	—
e84(E)	18	#4	2'-0"	—
e85(E)	4	#8	2'-0"	—
x80(E)	208	#5	7'-7"	—
x81(E)	208	#5	4'-1"	—
Concrete Superstructure		Cu. Yd.		503.1
Reinforcement Bars, Epoxy Coated		Pound		117,130

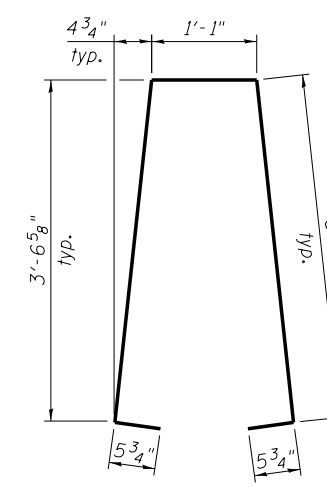
Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



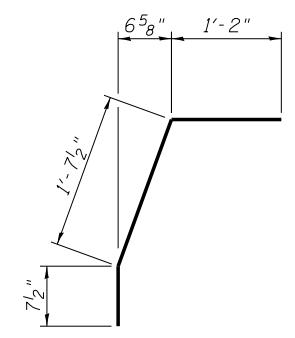
BAR d80(E)



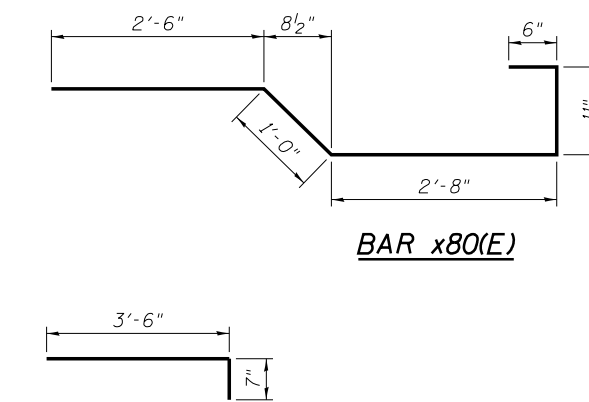
BAR d81(E)



BAR d82(E)



BAR d83(E)



BAR x80(E)

MINIMUM BAR LAP
(Deck)
#5 bar = 3'-3"
#8 bar = 5'-2"

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

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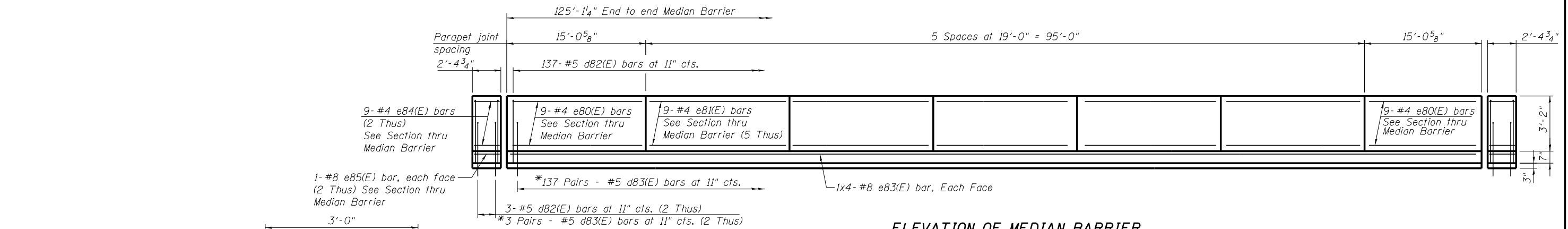
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**SUPERSTRUCTURE DETAILS 2 OF 3
STRUCTURE NO. 090-0167**

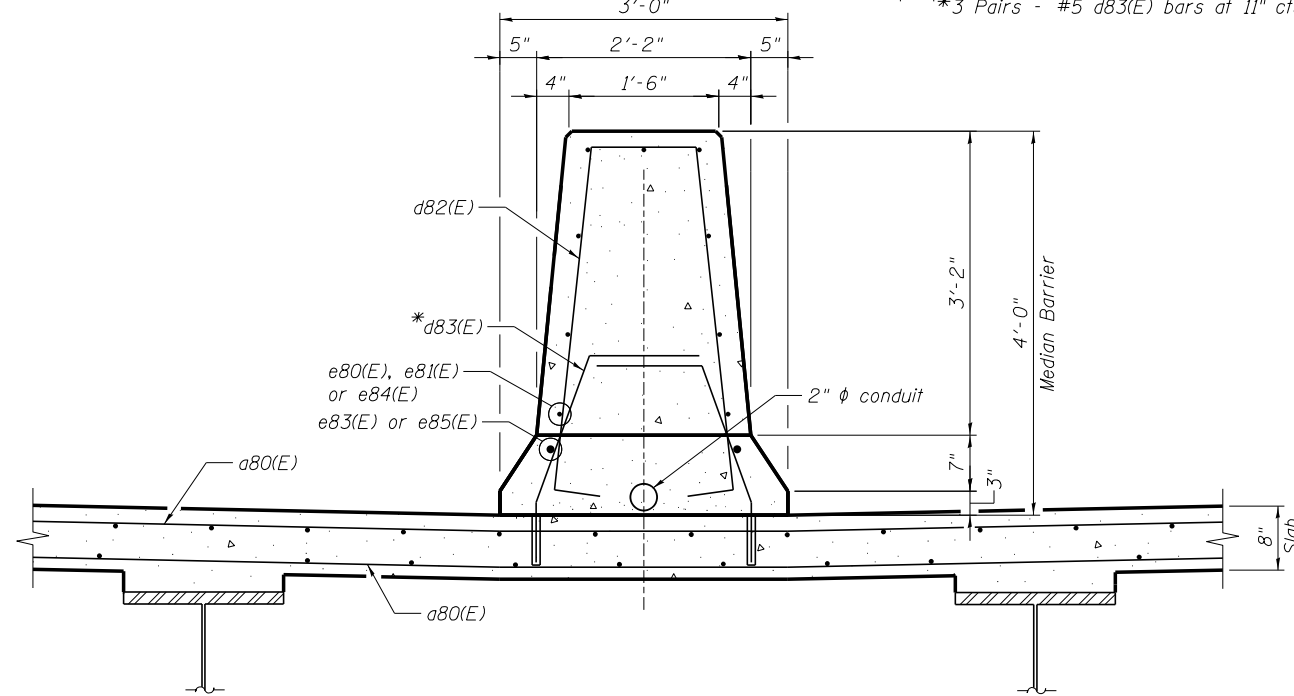
SHEET NO. SB17 OF SB65 SHEETS

F.A.I. RT.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4,14,14HV;B]BR	TAZEWELL	2433	1928
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				

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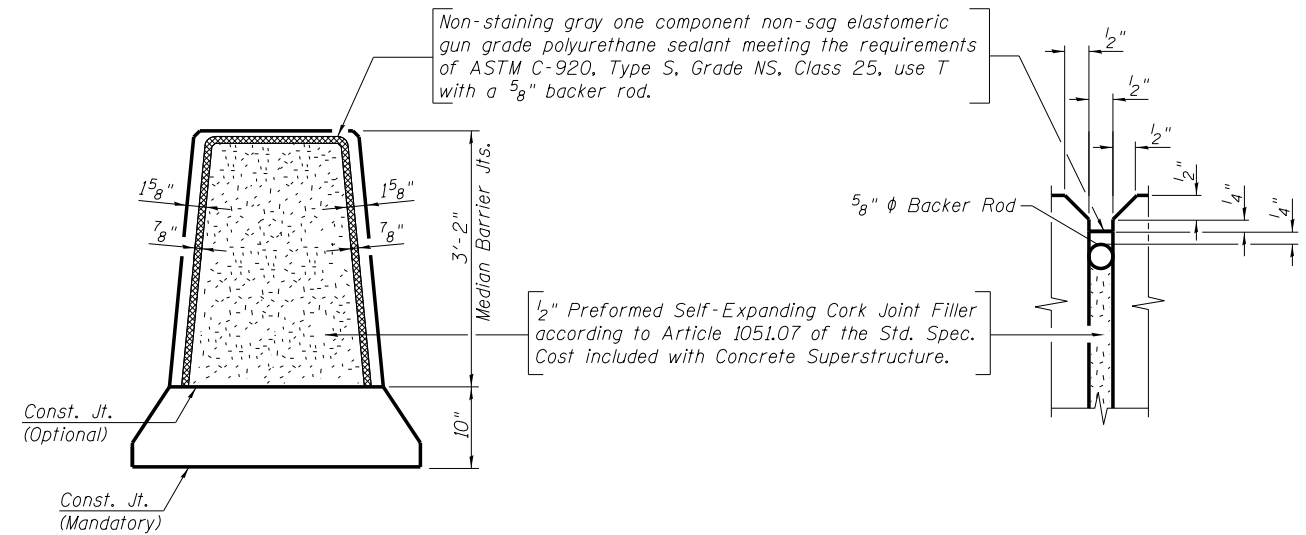


ELEVATION OF MEDIAN BARRIER
(Looking North)

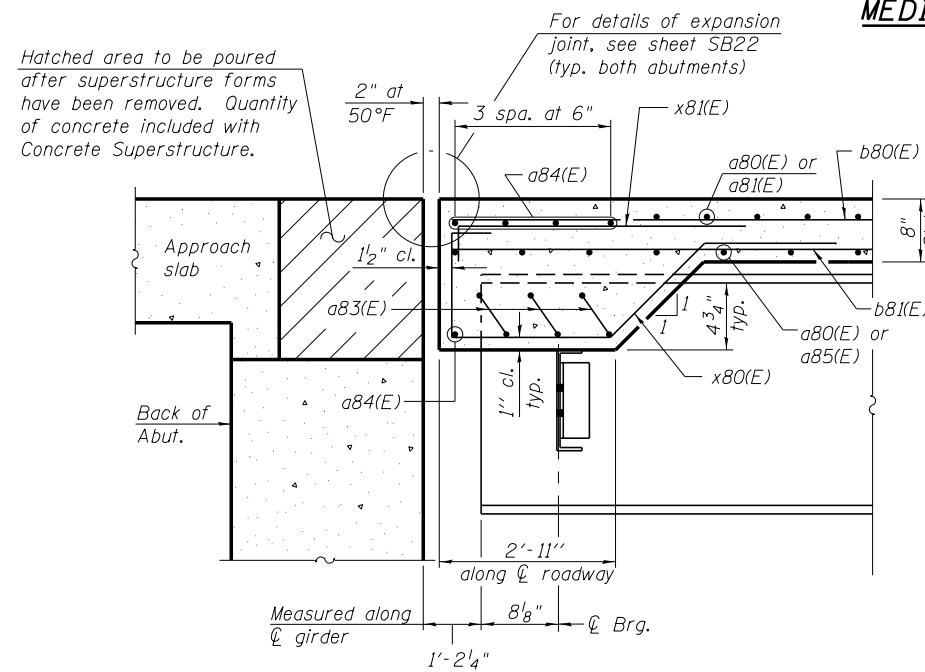


SECTION THRU MEDIAN BARRIER

*Core and set #5 d83(E) bars according to Article 509.06 of the Standard Specifications. Cored holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of hole shall not exceed 6". Cost to be included in Reinforcement Bars, Epoxy Coated.



MEDIAN BARRIER JOINT DETAILS



SECTION A-A

NOTE:
The concrete edge beams shall be placed from fascia beam to fascia beam and not on the overhangs of the structure.

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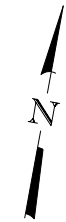
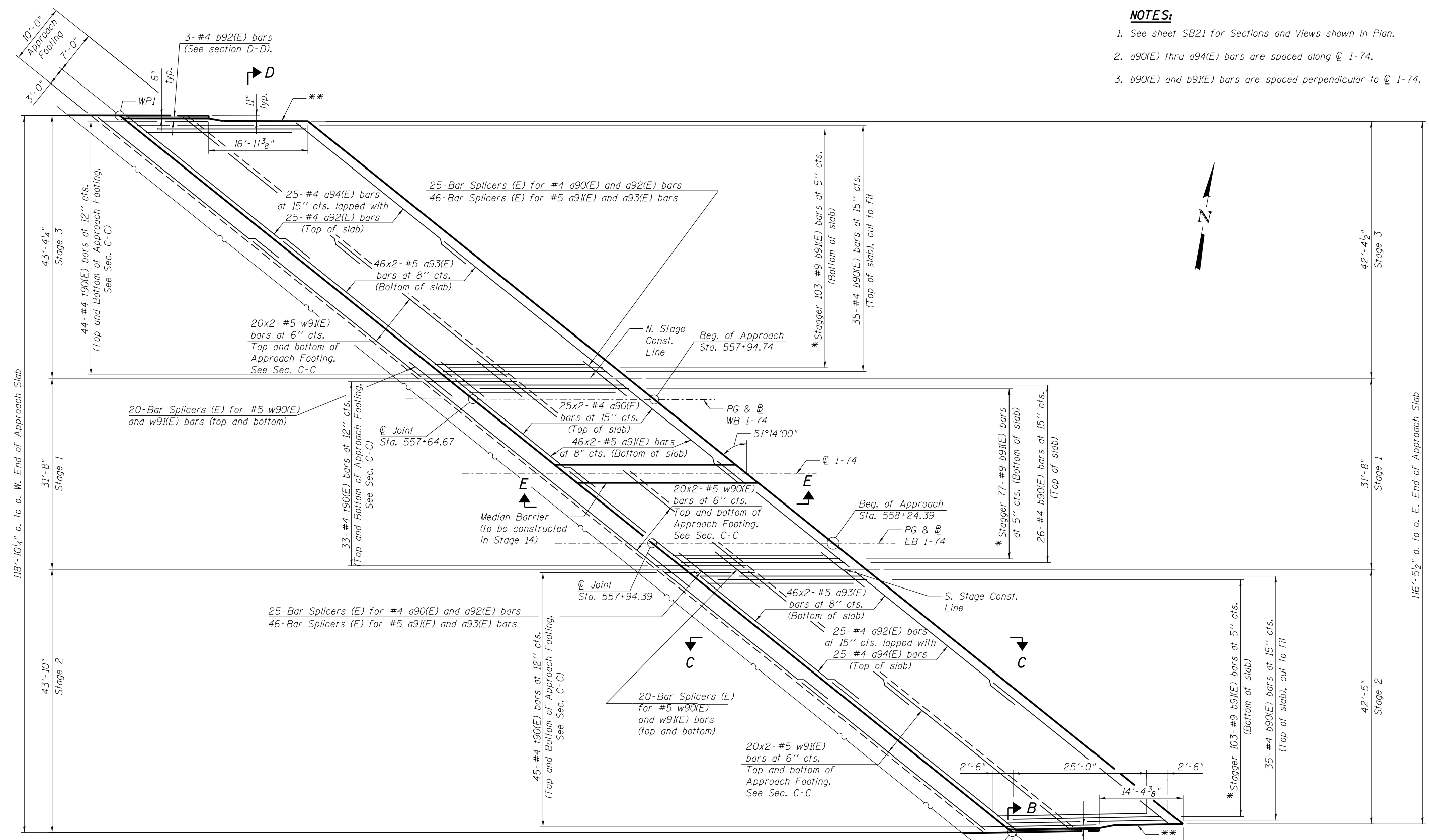
SUPERSTRUCTURE DETAILS 3 OF 3
STRUCTURE NO. 090-0167

SHEET NO. SB18 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1929
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68620	

NOTES:

1. See sheet SB21 for Sections and Views shown in Plan.
2. a90(E) thru a94(E) bars are spaced along C I-74 .
3. b90(E) and b91(E) bars are spaced perpendicular to C I-74 .



WORK POINTS

Point	Station	Offset
WP1	557+06.11	-59.39
WP2	558+54.11	59.46

*Tilt #9 b91(E) bars as required to maintain clearance.

** Closed cell joint filler according to Article 1051.08 of the Std. Specifications; full depth of slab, full length of parapet. Typ. each parapet.

PLAN

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS 1 OF 3
STRUCTURE NO. 090-0167**

SHEET NO. SB19 OF SB65 SHEETS

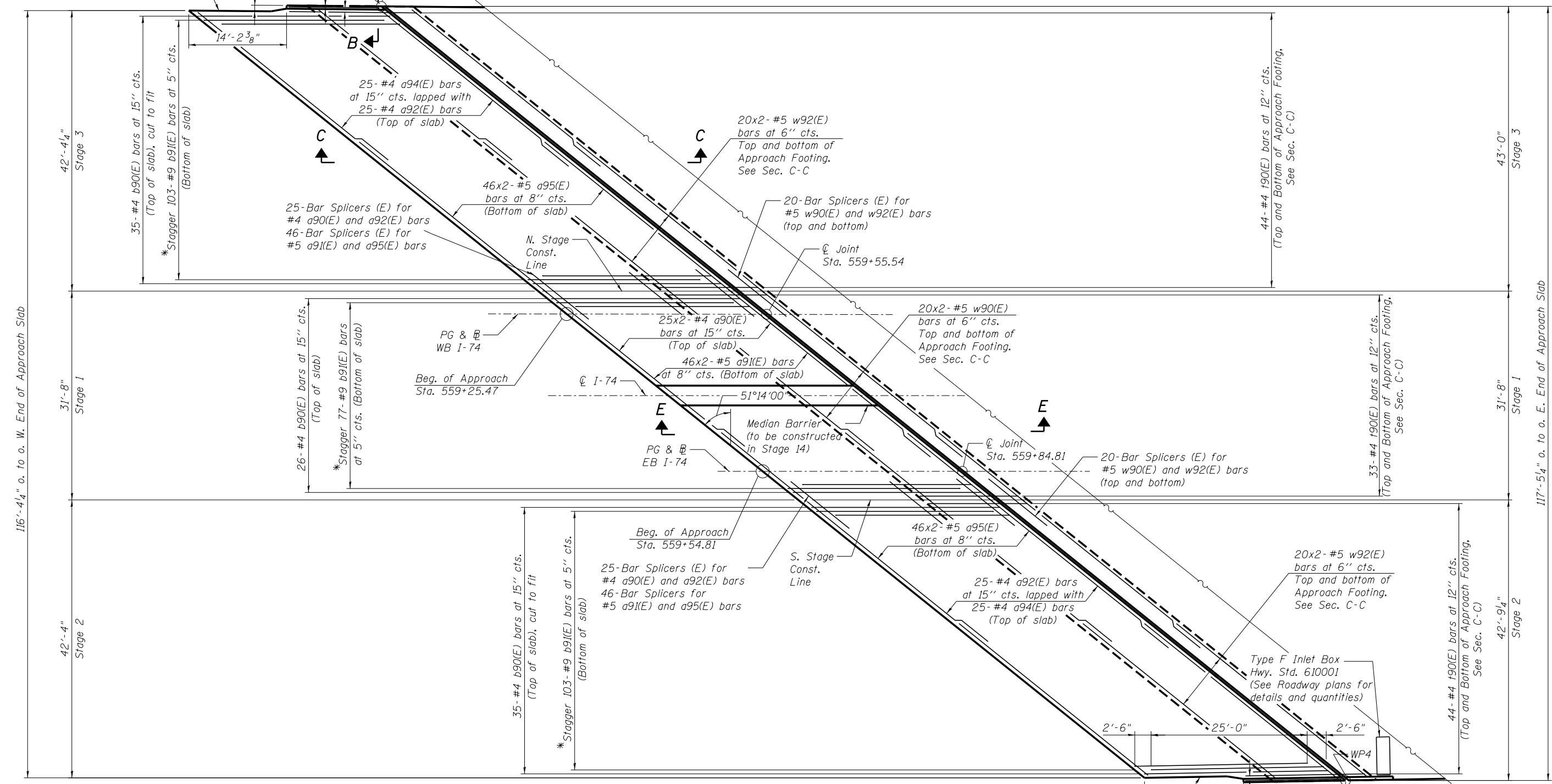
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4,14,14HV]BR	TAZEWELL	2433	1930
CONTRACT NO. 68620				

ILLINOIS FED. AID PROJECT



NOTES:

1. See sheet SB21 for Sections and Views shown in Plan.
2. a90(E), a91(E), a92(E), a94(E) and a95(E) bars are spaced along $\text{C} \perp$ I-74.
3. b90(E) and b91(E) bars are spaced perpendicular to $\text{C} \perp$ I-74.



*Tilt #9 b91(E) bars as required to maintain clearance.
 **Closed cell joint filler according to Article 1051.08 of the Std. Specifications; full depth of slab, full length of parapet. Typ. each parapet.

WORK POINTS

Point	Station	Offset
WP3	558+96.97	-59.04
WP4	560+43.21	58.40

PLAN

Measured along $\text{C} \perp$ I-74
 Measured along toe of parapet/outside edge of north shoulder
 Measured along toe of parapet/outside edge of south shoulder



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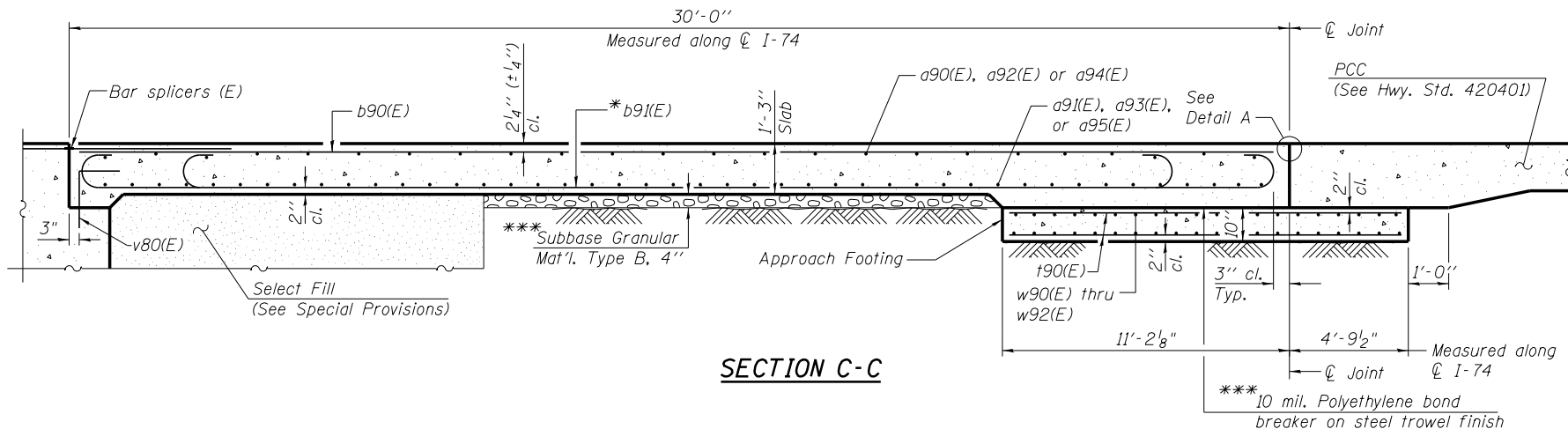
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS 2 OF 3
 STRUCTURE NO. 090-0167**

SHEET NO. SB20 OF SB65 SHEETS

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4,14,14HV;B]BR	TAZEWELL	2433	1931
CONTRACT NO. 68620				

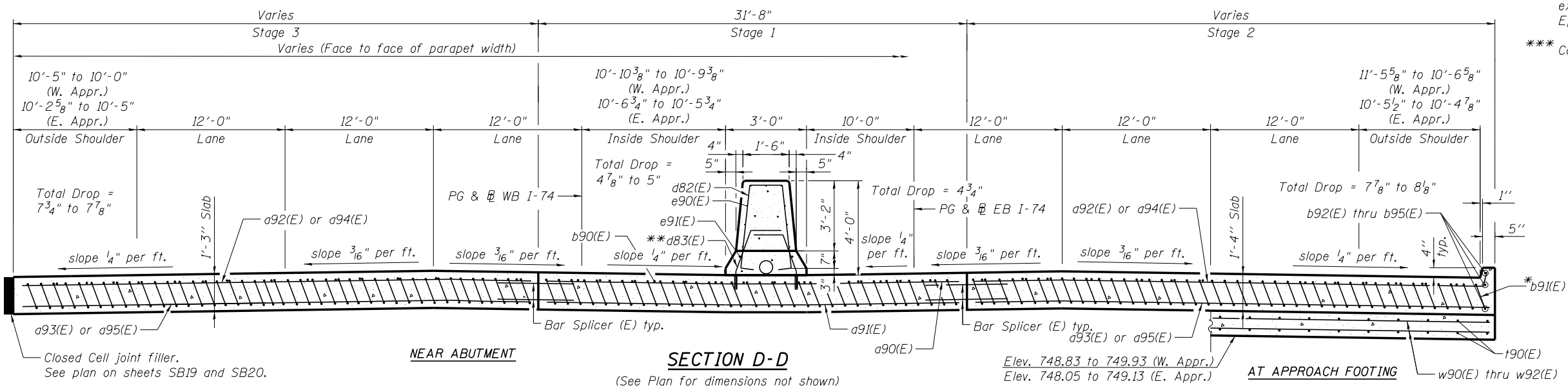
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NOTES:

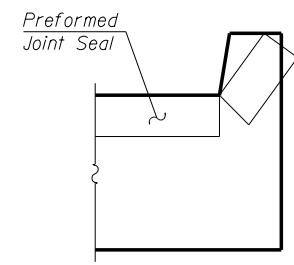
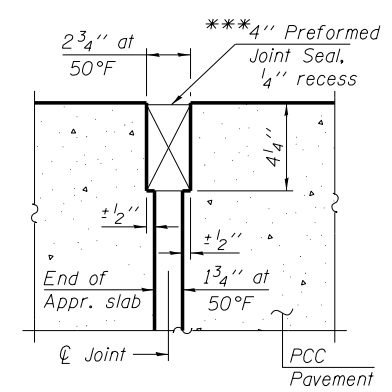
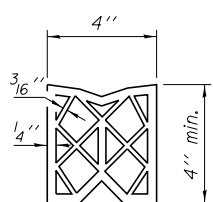
1. Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
2. Approach footing concrete shall be paid for as Concrete Structures.
3. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
4. For d82(E) and d83(E) bar details, see sheet SB17.
5. For v80(E) bar details, see sheet SB37.
6. The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
7. For bar splicer details, see sheet SB53.
8. Cost of excavation for approach footing included with Concrete Structures.
9. For select backfill and drainage treatment details, see sheet SB2.
10. For additional median barrier details, see sheets SB18.

- * Tilt #9 b91(E) bars as required to maintain clearance.
- ** Core and set #5 d83(E) bars according to Article 509.06 of the Standard Specifications. Cored holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of hole shall not exceed 6". Cost to be included in Reinforcement Bars, Epoxy Coated.
- *** Cost included with Concrete Superstructure.

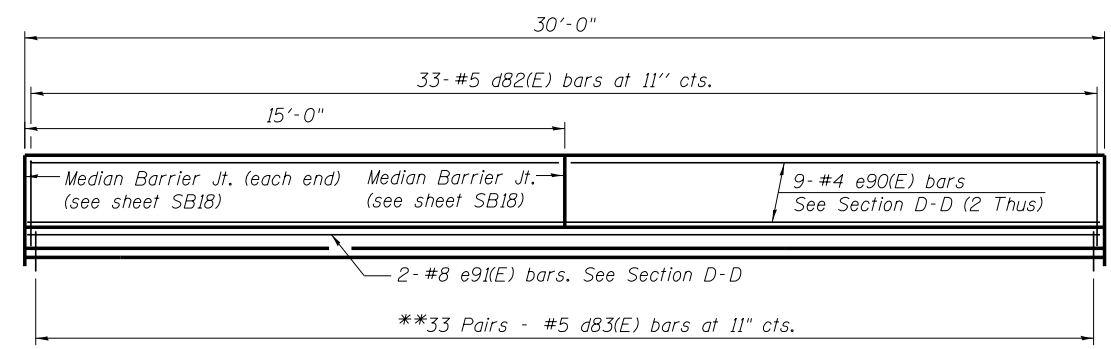


**TWO APPROACHES
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a90(E)	100	#4	26'-6"	
a91(E)	184	#5	26'-9"	
a92(E)	100	#4	36'-3"	
a93(E)	184	#5	36'-6"	
a94(E)	100	#4	36'-8"	
a95(E)	184	#5	36'-0"	
b90(E)	192	#4	29'-8"	
b91(E)	566	#9	29'-9"	
b92(E)	3	#4	13'-7"	
b93(E)	3	#4	13'-10"	
b94(E)	3	#4	14'-11"	
b95(E)	3	#4	12'-10"	
d82(E)	66	#5	9'-3"	
d83(E)	132	#5	3'-5"	
e90(E)	36	#4	14'-8"	
e91(E)	4	#8	29'-8"	
t90(E)	486	#4	15'-8"	
w90(E)	160	#5	26'-9"	
w91(E)	160	#5	36'-6"	
w92(E)	160	#5	35'-9"	
Concrete Superstructure		Cu. Yd.	352.9	
Concrete Structures		Cu. Yd.	116.5	
Reinforcement Bars, Epoxy Coated		Pound	87,340	

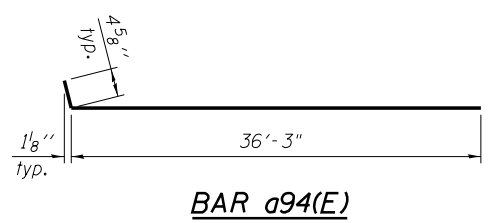


VIEW B-B
Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.

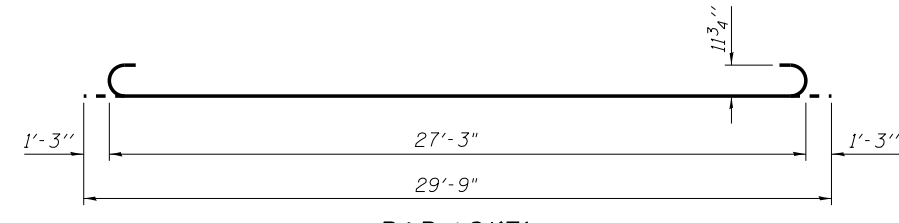


VIEW E-E

MINIMUM BAR LAP
(Approach Slab)
#4 bar = 2'-7"
#5 bar = 3'-3"



BAR a94(E)



BAR b91(E)

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		DRAWN - PRT	REVISED -
		CHECKED - AAY	REVISED -

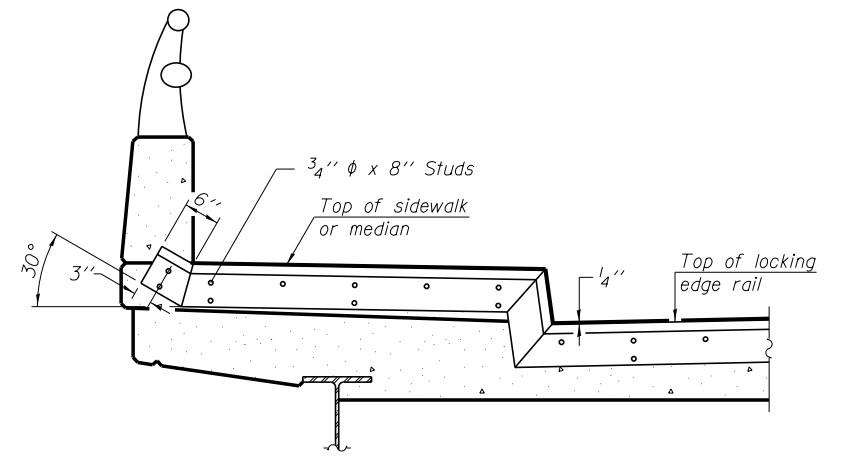
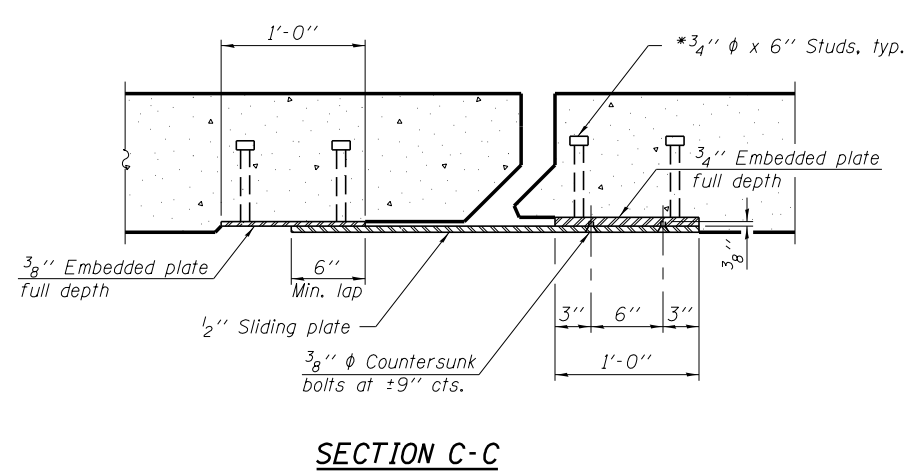
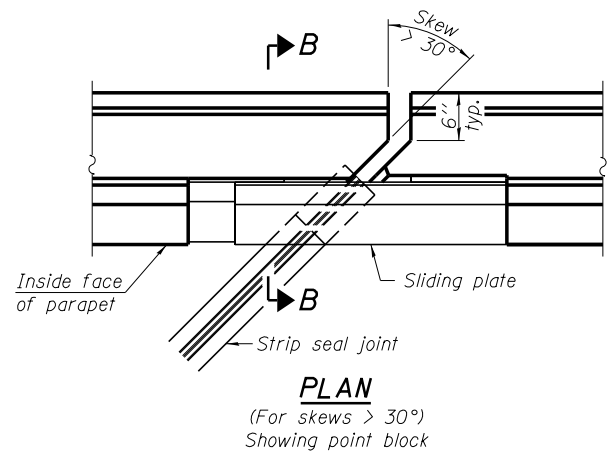
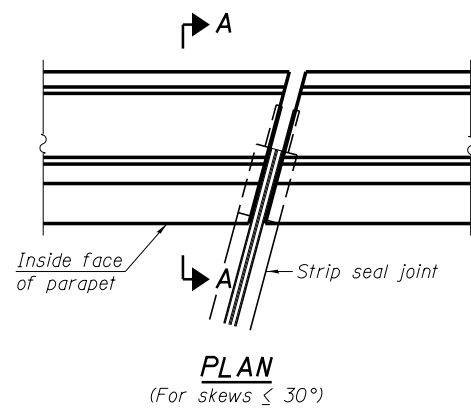
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS 3 OF 3
STRUCTURE NO. 090-0167**

SHEET NO. SB21 OF SB65 SHEETS

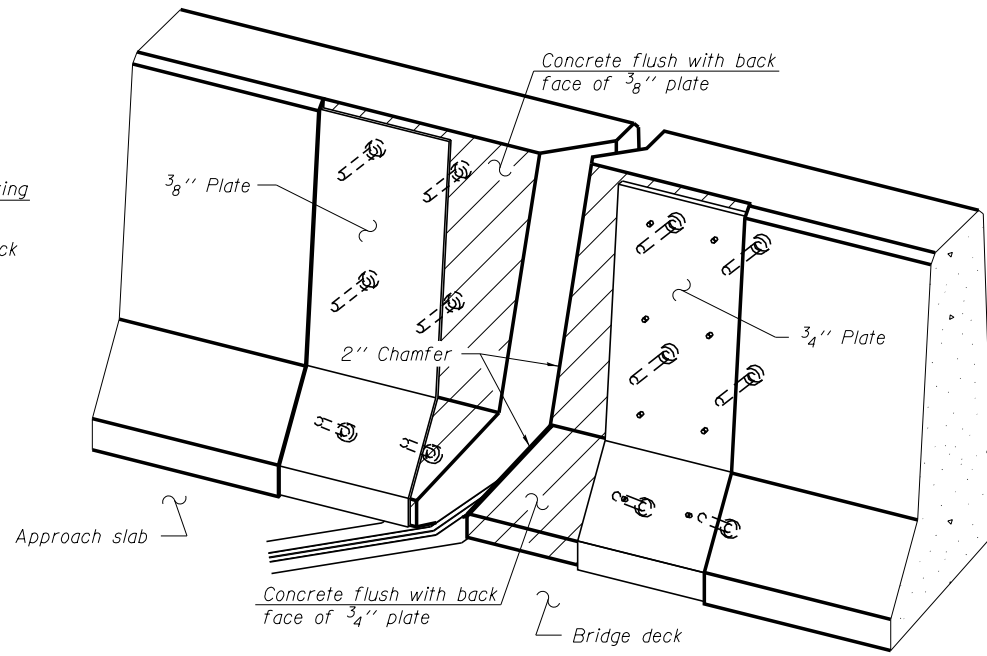
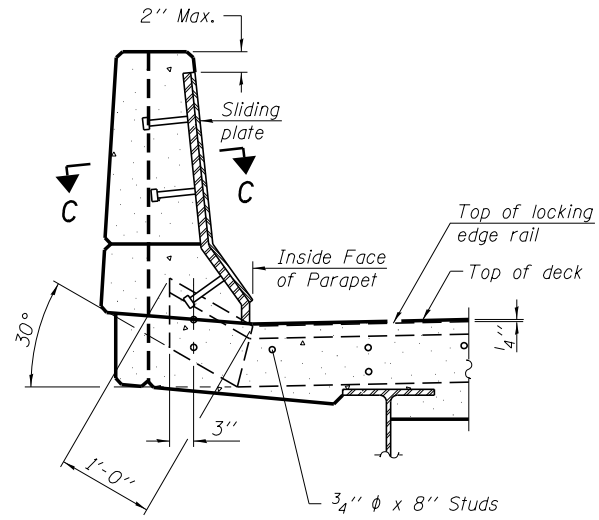
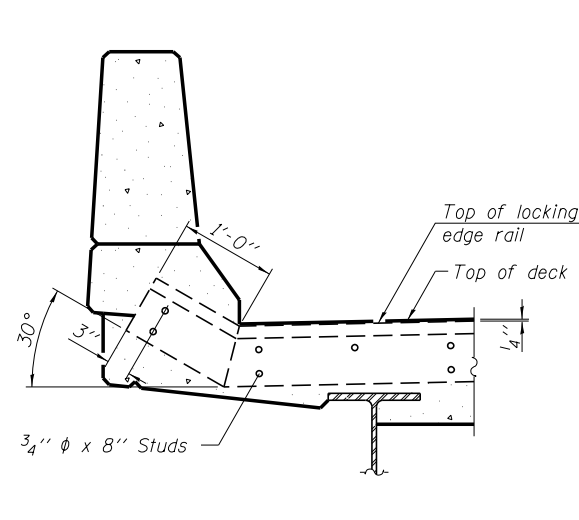
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4;14,14HV]BR	TAZEWELL	2433	1932
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				

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TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. 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. Locking Edge Rails may be spliced at slope discontinuities.

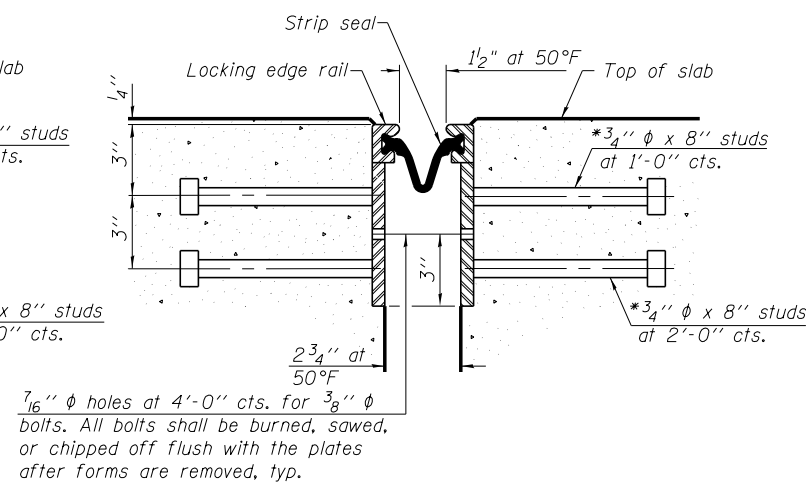
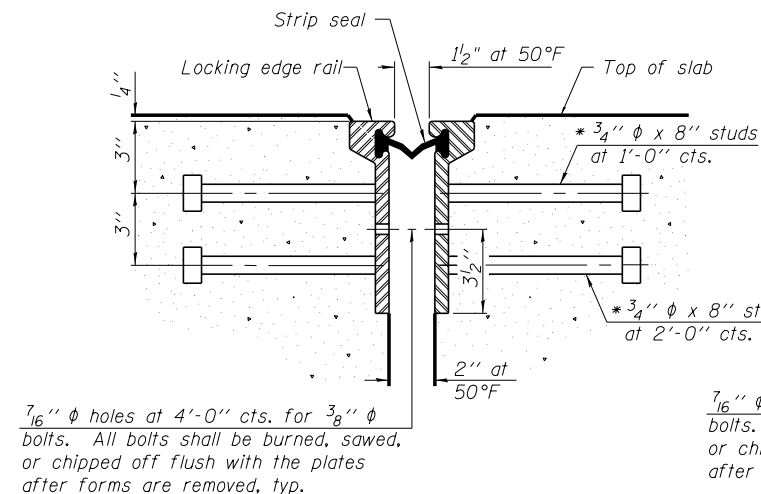
The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

Parapet plates and anchorage studs for skews $> 30^\circ$ included in the cost of Preformed Joint Strip Seal.



7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

ROLLED EXTRUDED RAIL **WELDED RAIL**

LOCKING EDGE RAIL SPLICE
The inside of the locking edge rail groove shall be free of weld residue.
Rolled rail shown, welded rail similar.

*** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	378.5

EJ-SSJ

1-27-12

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



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USER NAME = mbecker
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DRAWN - PRT
CHECKED - MRB

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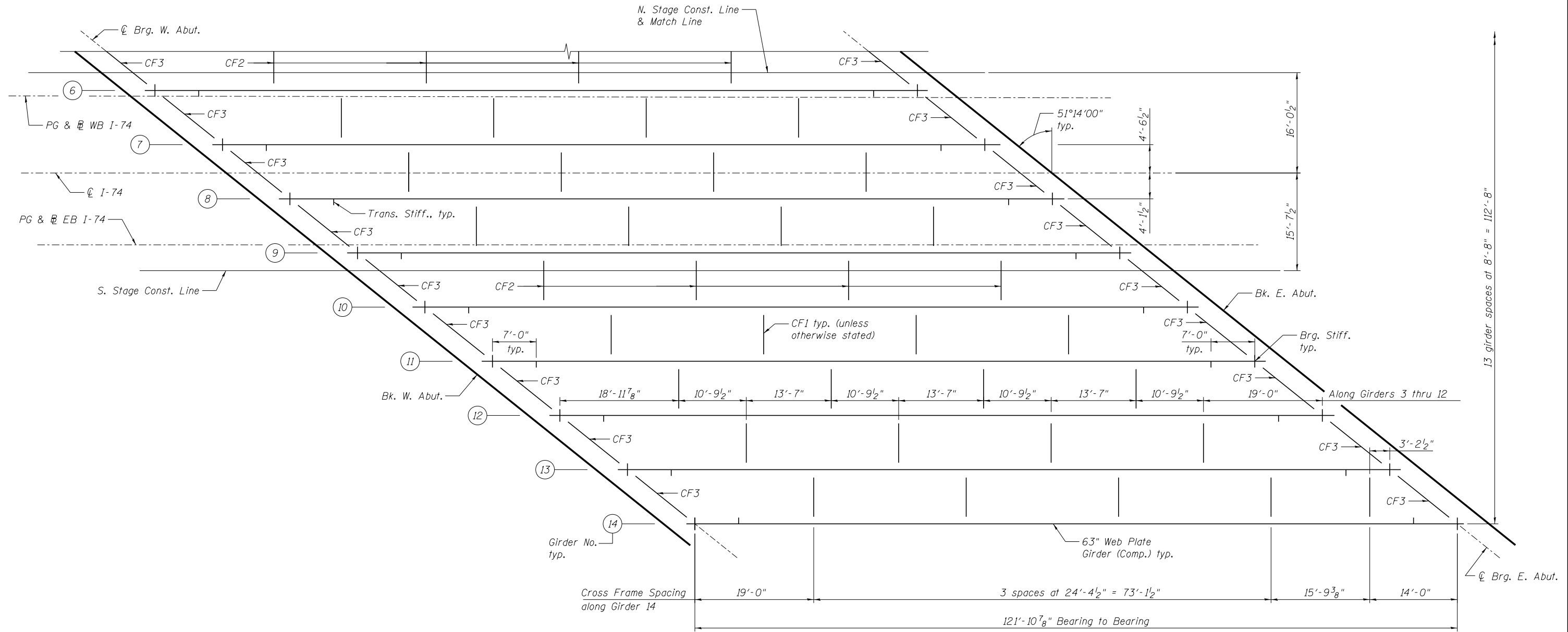
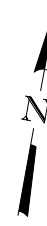
STATE OF ILLINOIS
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EXPANSION JOINT DETAILS
STRUCTURE NO. 090-0167

SHEET NO. SB22 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14Rr(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1933
CONTRACT NO. 68620				

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FRAMING PLAN

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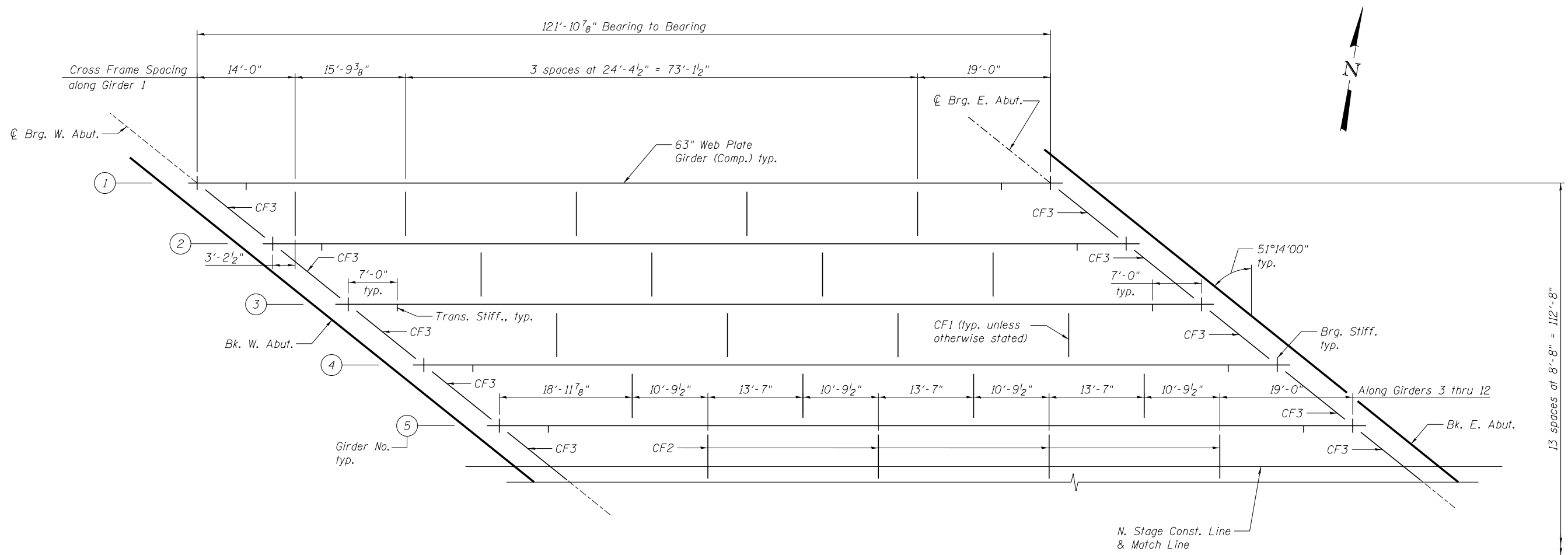
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FRAMING PLAN 1 OF 2
STRUCTURE NO. 090-0167**

SHEET NO. SB23 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4;14,14HVB]BR	TAZEWELL	2433	1934
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

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FRAMING PLAN

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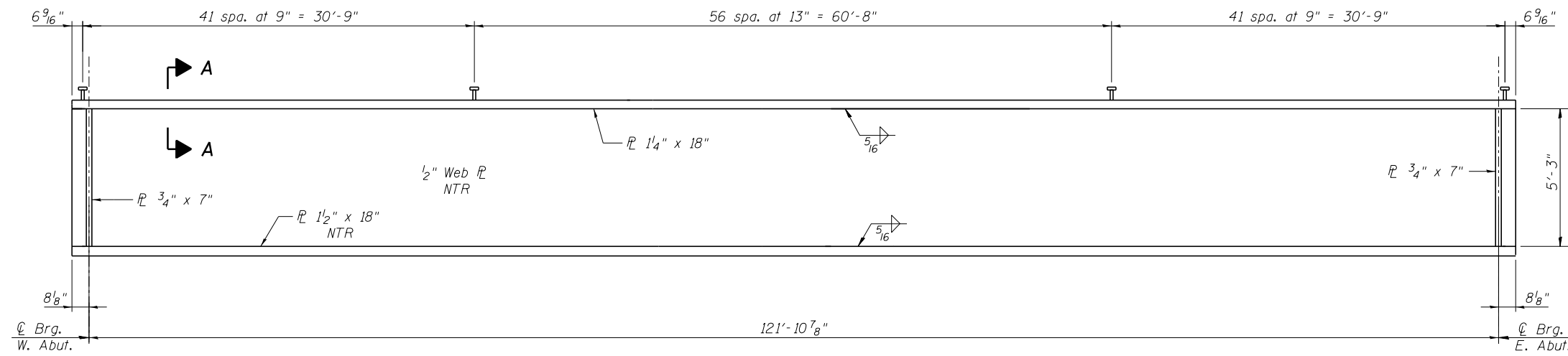
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FRAMING PLAN 2 OF 2
STRUCTURE NO. 090-0167**

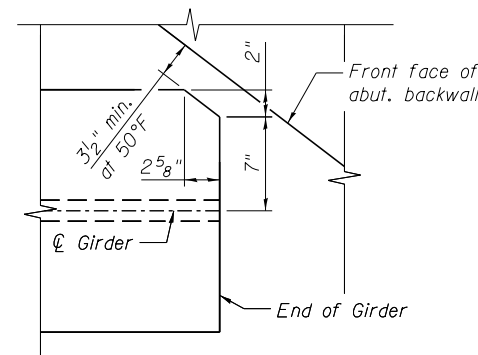
SHEET NO. SB24 OF SB65 SHEETS

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			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				

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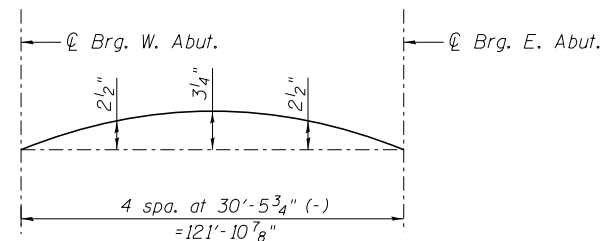


GIRDER ELEVATION

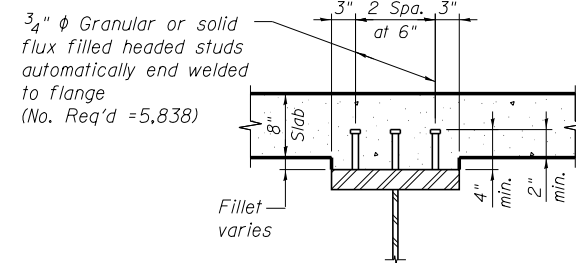


END OF GIRDER COPING DETAIL

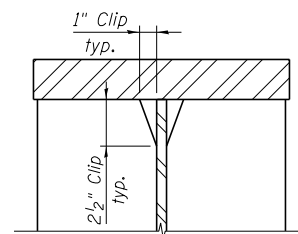
(Top Flange only, to accommodate deck edge beam)



CAMBER DIAGRAM

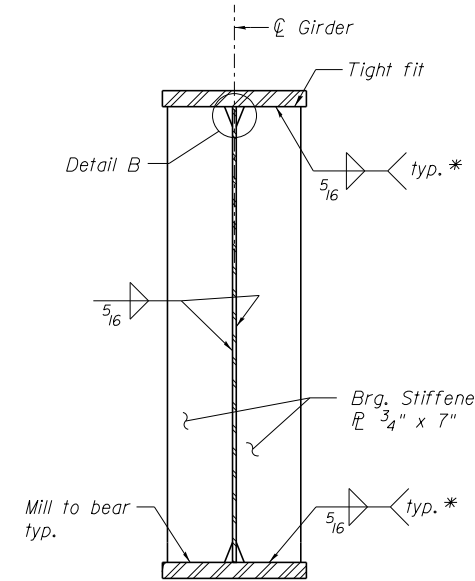


SECTION A-A



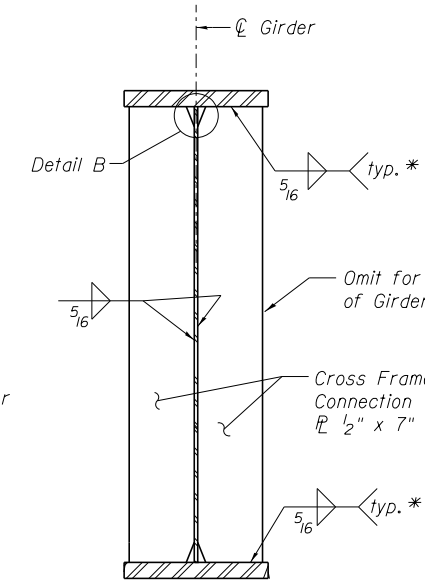
DETAIL B

(Typical top & bottom flanges)



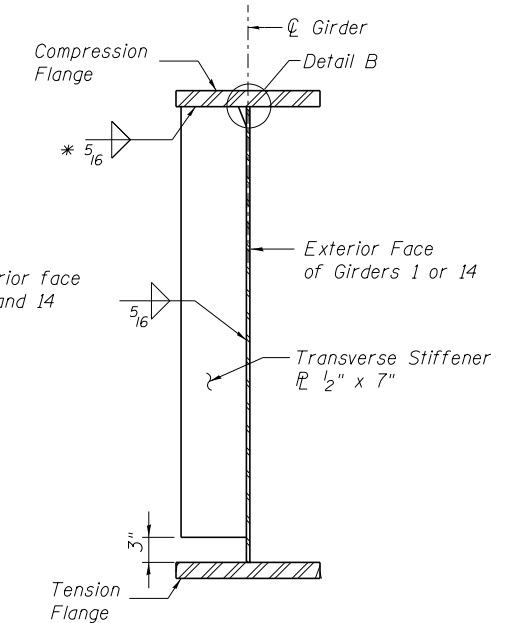
BEARING STIFFENER

(No. plates required = 56)



CONNECTION PLATE

(No. plates required = 108)



TRANSVERSE STIFFENER

(No. plates required = 28)

* Terminate weld 1/4" from outside edges of fls

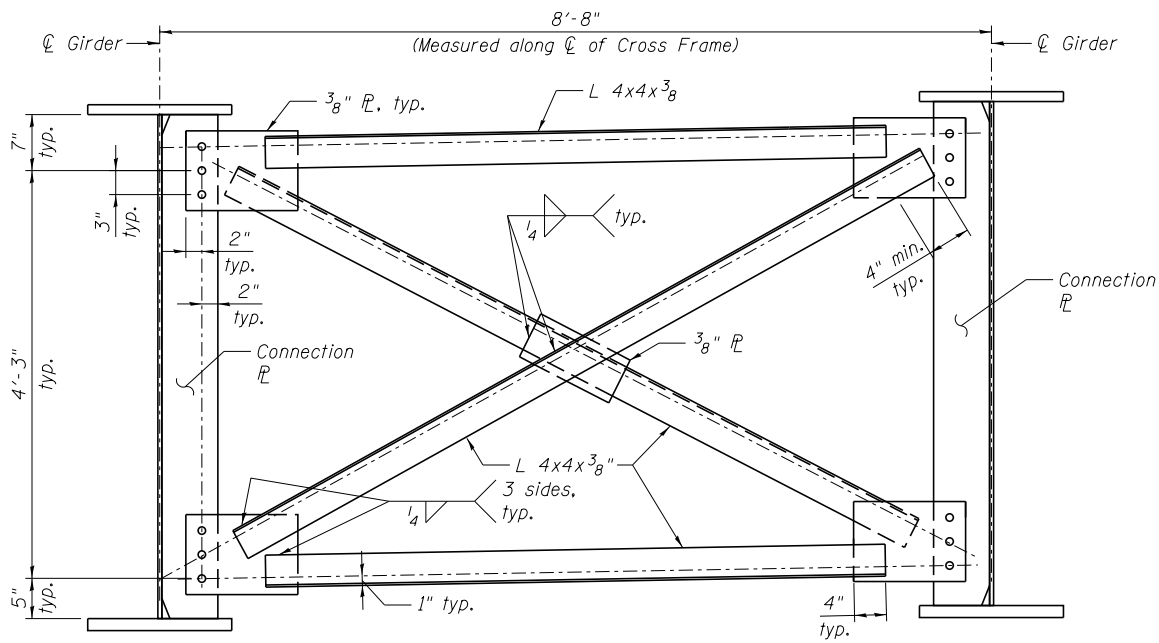
TOP OF WEB ELEVATIONS

Location	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6	Girder 7	Girder 8	Girder 9	Girder 10	Girder 11	Girder 12	Girder 13	Girder 14
Brg. W. Abut.	750.66	750.79	750.93	751.03	751.05	750.86	750.64	750.61	750.73	750.82	750.71	750.51	750.28	750.06
Brg. E. Abut.	750.14	750.28	750.41	750.52	750.54	750.36	750.14	750.09	750.22	750.31	750.20	750.00	749.77	749.55

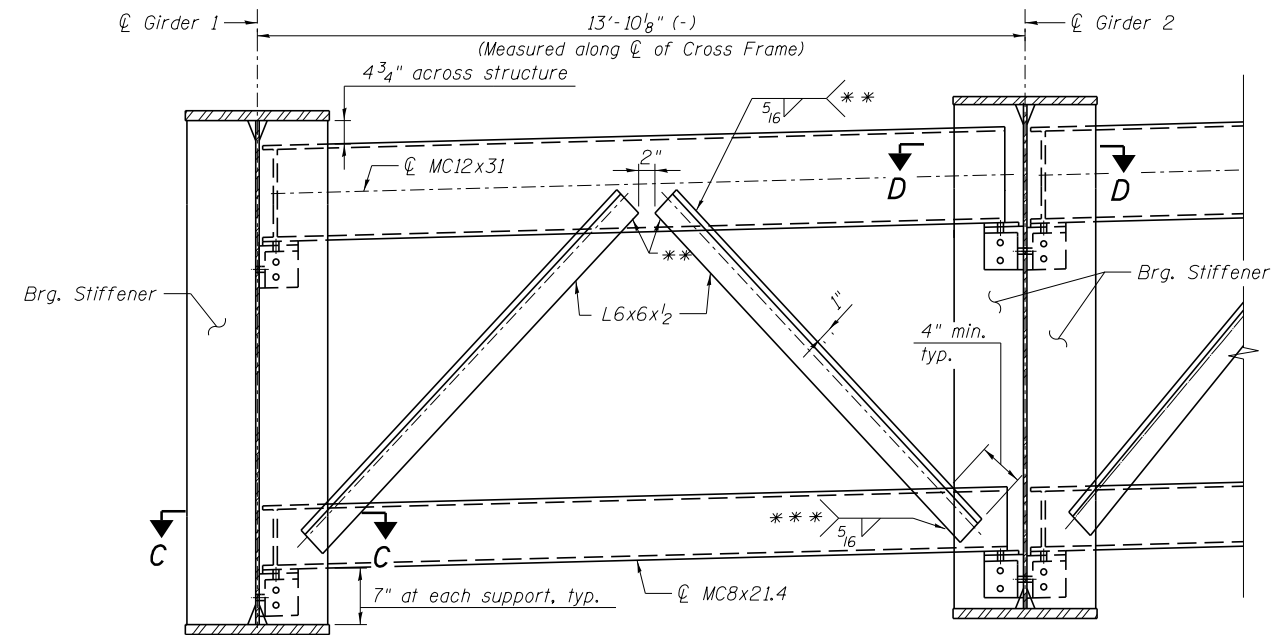
For fabricator use only.

NOTES:

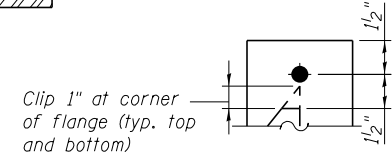
- All girder webs and flanges shall be AASHTO M270 Grade 50 steel.
- "NTR" denotes plates to which notch toughness requirements are applicable.
- Load carrying components designated "NTR" shall conform to the Impact Testing Requirements, Zone 2.



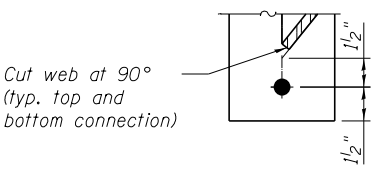
INTERIOR CROSS FRAME CF1
(No. cross frames required = 46)



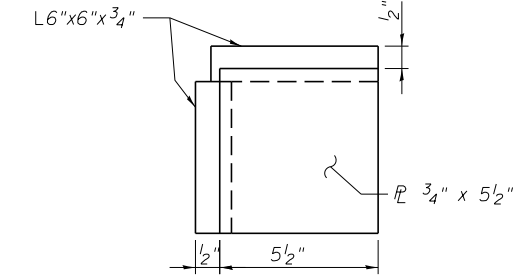
END CROSS FRAME CF3
(No. cross frames required = 26)



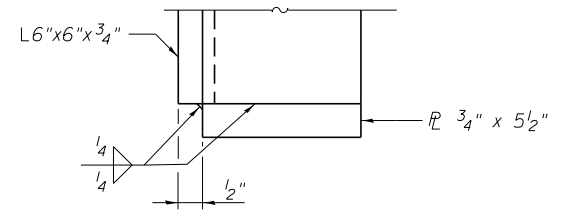
DETAIL E



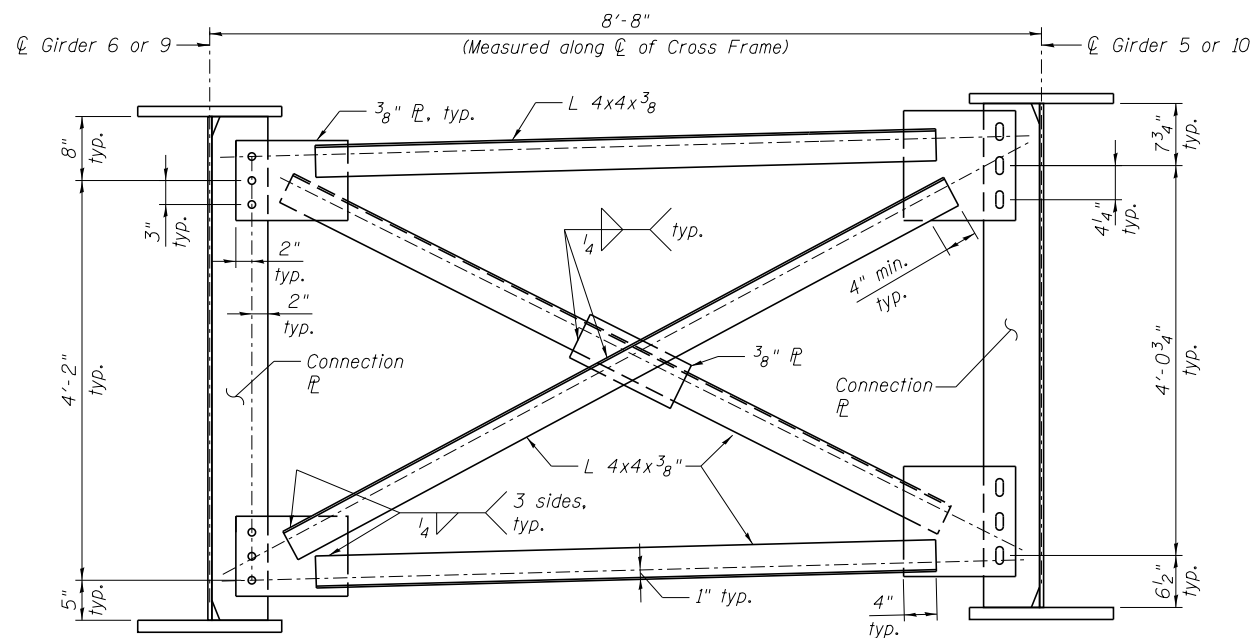
DETAIL F



DETAIL G

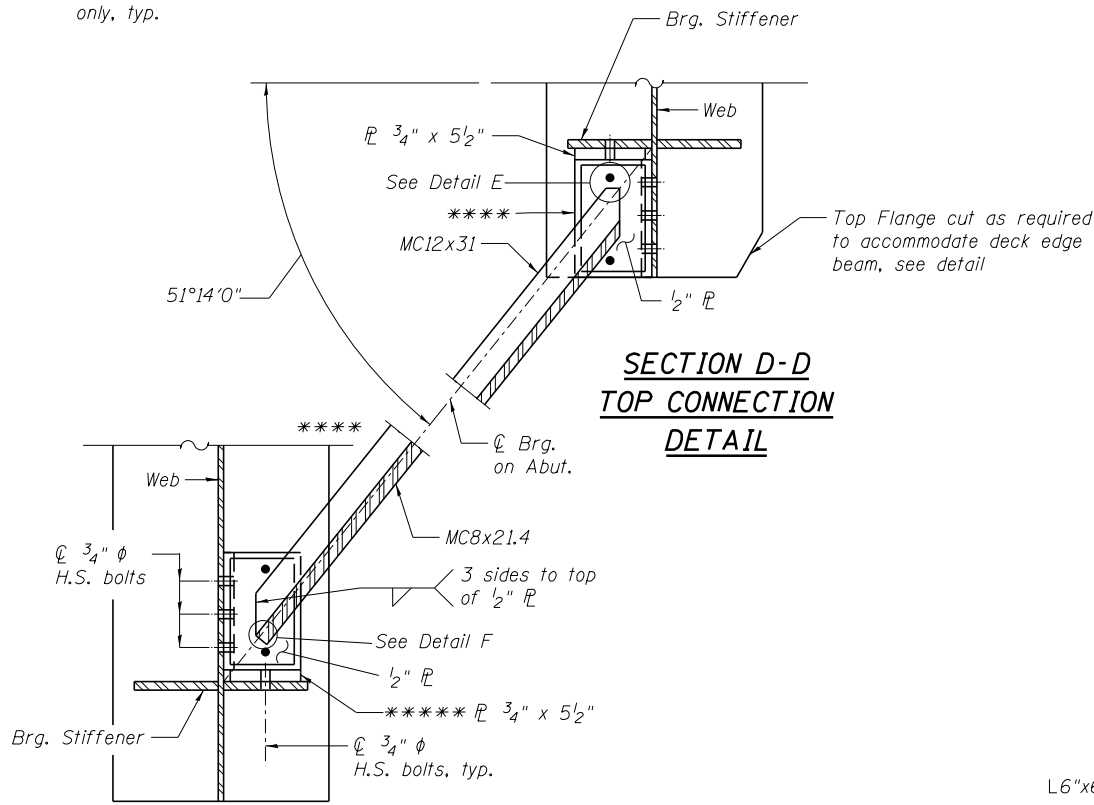


DETAIL H

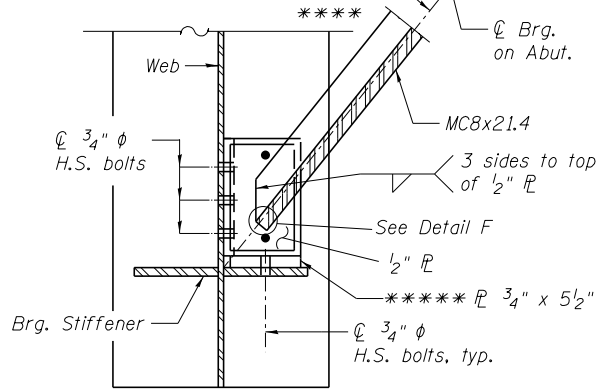


INTERIOR CROSS FRAME CF2
(No. cross frames required = 8)

** Use a minimum 2 bolt connection for stage construction
*** 3 sides, to back face of channel only, typ.



**SECTION D-D
TOP CONNECTION
DETAIL**



**SECTION C-C
BOTTOM CONNECTION
DETAIL**

**** Use L6"x6"x3/4"
***** Weld 3/4" x 5 1/2" plate to seat as shown in Detail G and Detail H

NOTES:

- All cross frames shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.
- Two hardened washers required for each set of oversized holes.
- Place diaphragm with channel flanges outward from abutment backwall.
- See sheet SB27 for slotted hole details related to Interior Cross Frame CF2.

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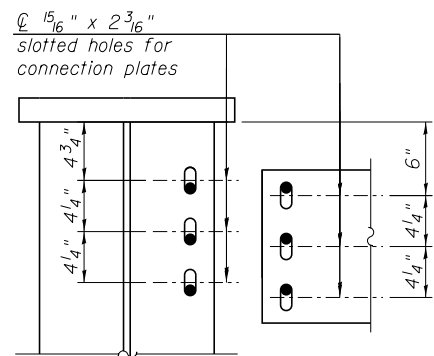
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PLOT SCALE =			
PLOT DATE = 7/16/2012			

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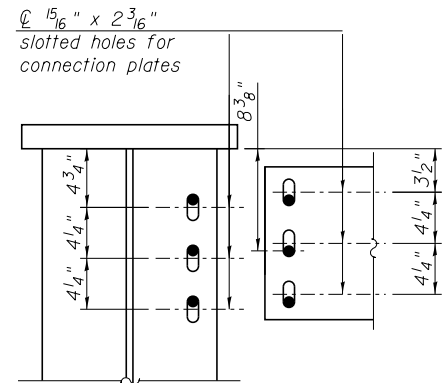
**GIRDER DETAILS 2 OF 4
STRUCTURE NO. 090-0167**

SHEET NO. SB26 OF SB65 SHEETS

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HV(B)BR]	TAZEWELL	2433	1937
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				



PRIOR TO DECK DEFLECTION
(steel weight only)

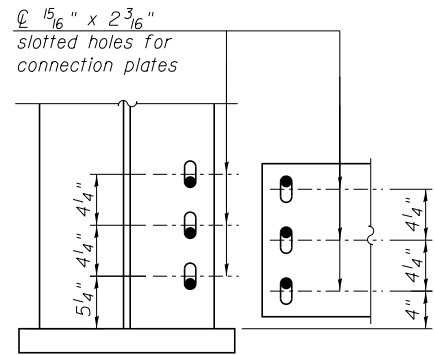


AFTER DECK DEFLECTION

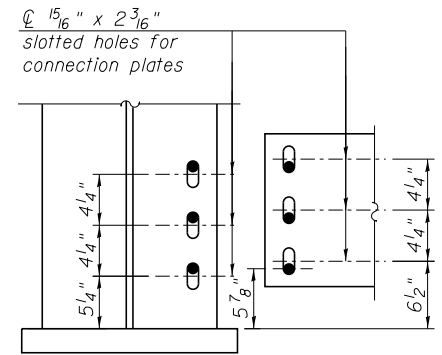
● Indicates bolt location
○ Indicates slotted hole

DETAIL J

(Connection plates shown disconnected for clarity)



PRIOR TO DECK DEFLECTION
(steel weight only)



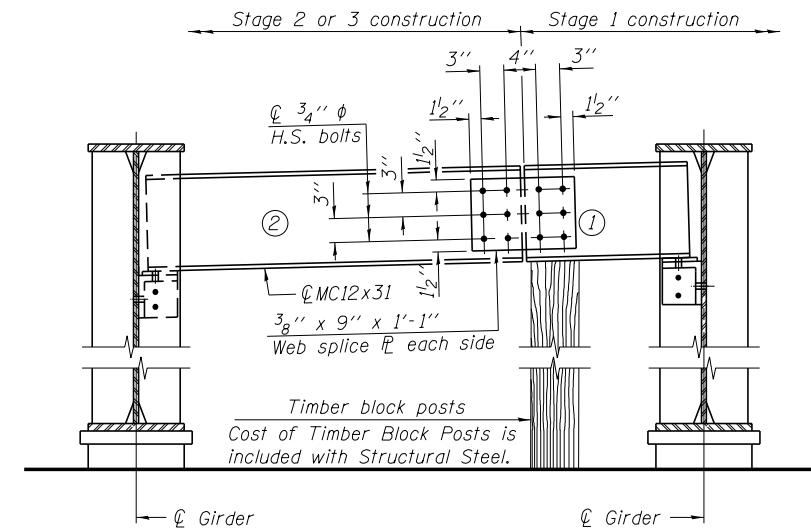
AFTER DECK DEFLECTION

DETAIL K

(Connection plates shown disconnected for clarity)

NOTE:

Bolts in slots shall be finger tight until the second stage pour is complete. Position slots so bolts start at one end with no concrete load and finish near the opposite end under deck load.

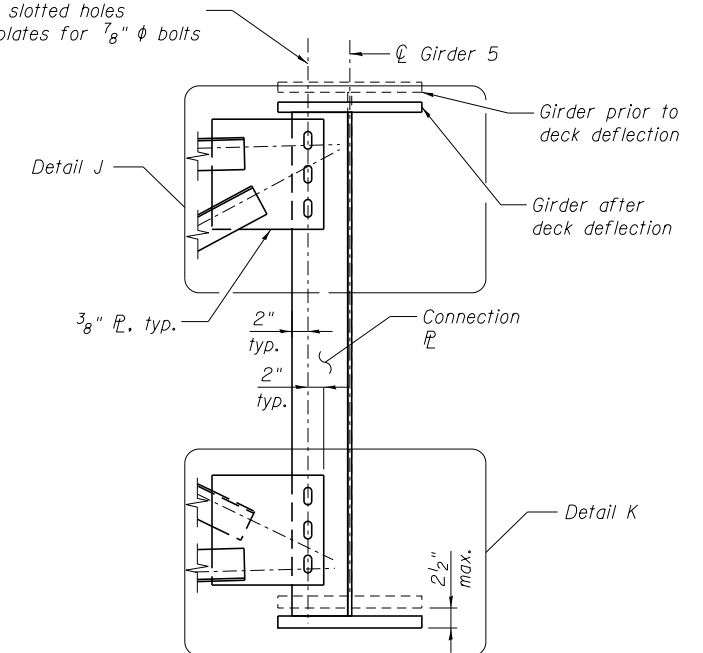


END DIAPHRAGM

END DIAPHRAGM STAGE CONSTRUCTION SEQUENCE

1. Order diaphragm in two sections.
2. Attach section ① of diaphragm to girder.
3. Place timber block posts between section ① of diaphragm and abutment bearing section.
4. Attach section ② of diaphragm to both girder and section ① of diaphragm during stage 2 or 3 construction with splice plates.
5. Remove timber block posts.

○ 15/16" x 2 3/16" slotted holes in connection plates for 7/8" φ bolts



CROSS FRAME DETAIL AT STAGE CONSTRUCTION

(Girders 5 shown looking upstation, Girder 10 opposite hand)
(Detail shown at maximum deflection location)

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0900167.68620.27.std3.dgn	PLOT SCALE =	DRAWN - PRT	REVISED -
	PLOT DATE = 7/16/2012	CHECKED - MRB	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GIRDER DETAILS 3 OF 4
STRUCTURE NO. 090-0167**

SHEET NO. SB27 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1938
CONTRACT NO. 68620				

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INTERIOR GIRDER MOMENT TABLE		
0.5 Span		
I_s	(in ⁴)	61458
$I_c(n)$	(in ⁴)	126198
$I_c(3n)$	(in ⁴)	94842
$I_c(cr)$	(in ⁴)	-----
S_s	(in ³)	1971
$S_c(n)$	(in ³)	2439
$S_c(3n)$	(in ³)	2269
$S_c(cr)$	(in ³)	-----
DC1	(k/')	1.207
M _{DC1}	(k)	2243
DC2	(k/')	0.157
M _{DC2}	(k)	292
DW	(k/')	0.405
M _{DW}	(k)	752
M _{ℓ + IM}	(k)	2405
M _u (Strength I)	(k)	8506
φ _r M _n	(k)	12288
f _s DC1	(ksi)	13.7
f _s DC2	(ksi)	1.5
f _s DW	(ksi)	4.0
f _s (ℓ + IM)	(ksi)	11.8
f _s (Service II)	(ksi)	34.6
0.95R _n F _y f	(ksi)	47.5
f _s (Total)(Strength I)	(ksi)	-----
φ _r F _n	(ksi)	-----
V _r	(k)	77.4

INTERIOR GIRDER REACTION TABLE			
		W. Abut.	E. Abut.
R _{DC1}	(k)	74.2	74.2
R _{DC2}	(k)	9.6	9.6
R _{DW}	(k)	24.7	24.7
R _{ℓ + IM}	(k)	137.0	137.0
R _{Total}	(k)	245.4	245.4

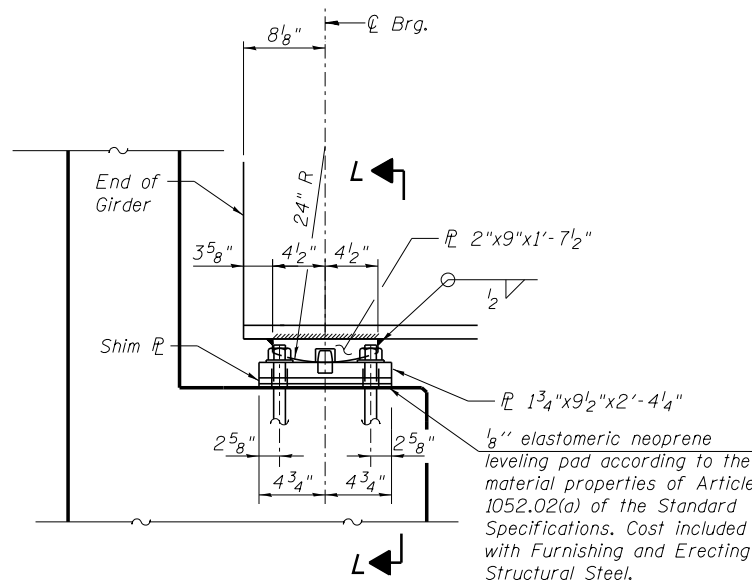
I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in⁴ and in³).

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

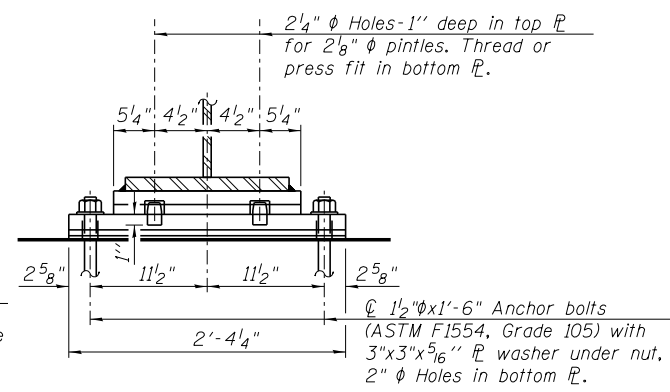
$I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in⁴ and in³).

$I_c(cr), S_c(cr)$: 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 dead loads (in⁴ and in³).

DC1: Un-factored non-composite dead load (kips/ft.).
M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).
DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
M_{ℓ + IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
M_u (Strength I): Factored design moment (kip-ft.).
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{ℓ + IM}$
φ_rM_n: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).
f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}
f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
M_{DC2} / S_{c(3n)} or M_{DC2} / S_{c(cr)} as applicable.
f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
M_{DW} / S_{c(3n)} or M_{DW} / S_{c(cr)} as applicable.
f_s (ℓ + IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).
M_{ℓ + IM} / S_{c(n)} or M_{ℓ + IM} / S_{c(cr)} as applicable.
f_s (Service II): Sum of stresses as computed below (ksi).
f_sDC1 + f_sDC2 + f_sDW + 1.3 f_s(ℓ + IM)
0.95R_nF_yf: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
 $1.25 (f_{sDC1} + f_{sDC2}) + 1.5 f_{sDW} + 1.75 f_{s(ℓ + IM)}$
φ_rF_n: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7.2 (ksi).
V_r: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.



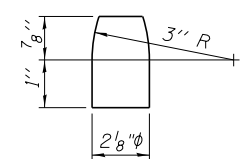
ELEVATION AT ABUTMENT



SECTION L-L

LOW PROFILE FIXED BEARING AT ABUTMENT

(E. Abut. Girders 4 thru 11)



PINTLE

FILL PLATE SCHEDULE

(In addition to adjustment shims, see General Notes)
Cost included with Structural Steel

Abutment	Girder	Plate Thickness t
East	5	1/4"
East	7	1/2"

BILL OF MATERIAL

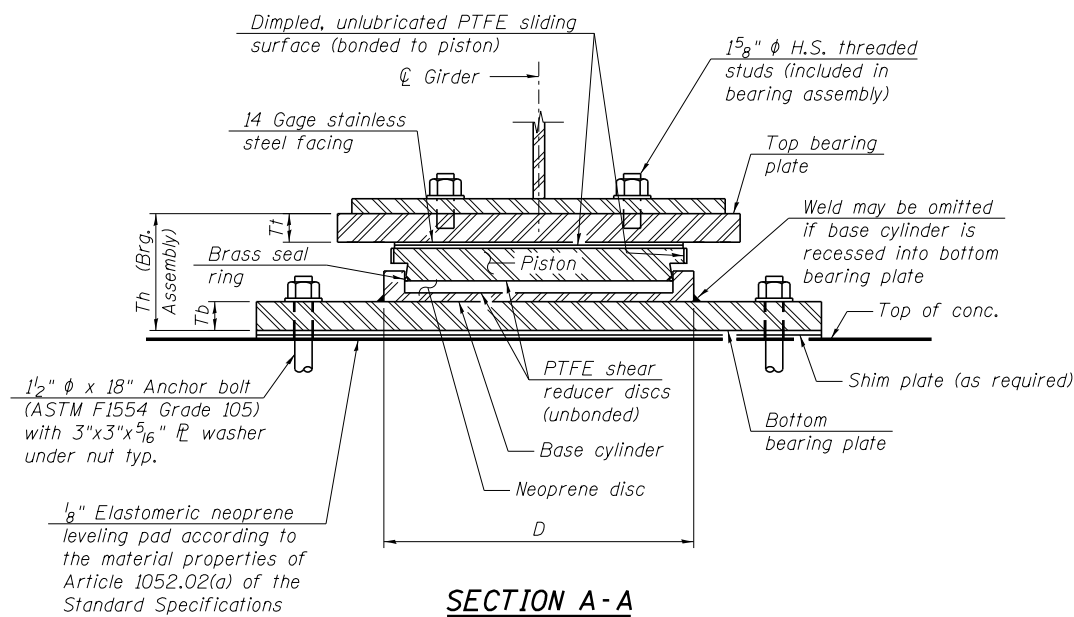
ITEM	UNIT	TOTAL
Anchor Bolts, 1 1/2"	Each	32

NOTES:

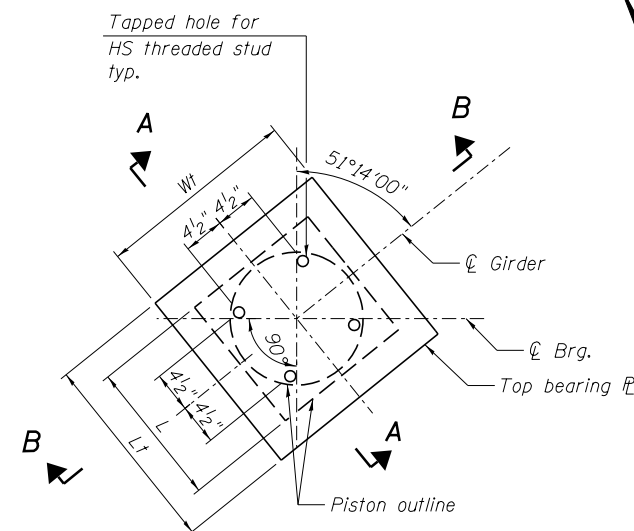
- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Anchor bolts at fixed bearings may be either cast in place or installed 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.
- The structural steel plates and pintles of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50.
- 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.
- Steel members required for bearing assembly shall be included in the cost of Furnishing and Erecting Structural Steel.
- All (embedded and separate) bearing plates, anchor bolts, nuts, washers, and pintles shall be galvanized according to AASHTO M111 or M232 as applicable.

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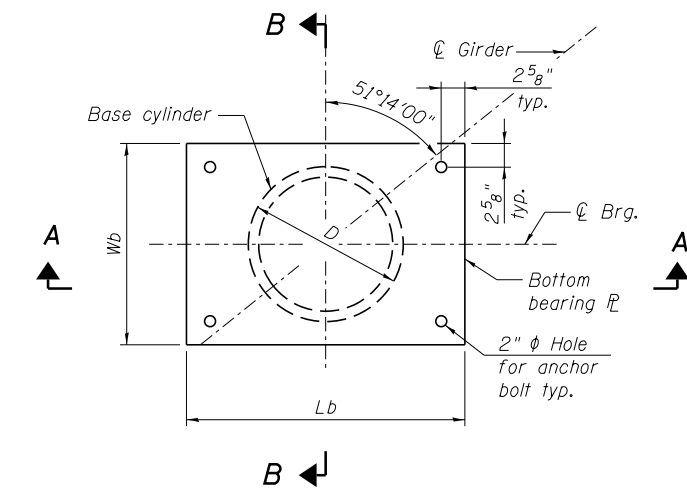
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			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				



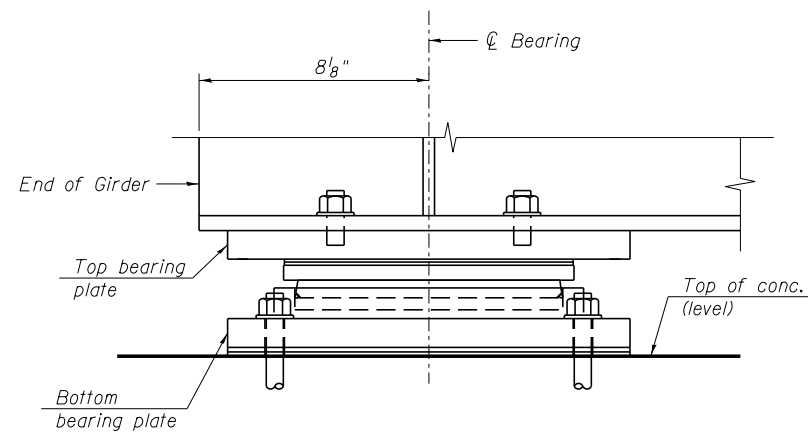
SECTION A-A



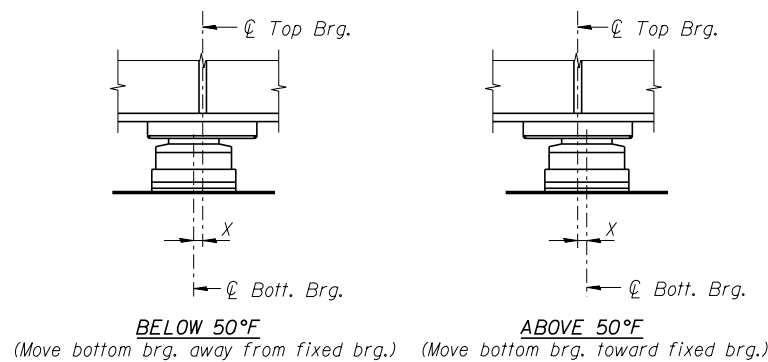
TOP BEARING ϕ AND PISTON PLAN



BOTTOM BEARING ϕ AND BASE CYLINDER PLAN



SECTION B-B



SETTING ANCHOR BOLTS AT EXP. BRG.

X = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

BEARING DIMENSIONS

Location	Pay Item Designation (kips)	**Verf. Design Load (kips)	** Horizontal Design Load (kips)	***Required Rotation Range (radians)	****Total Required Movement	Top Plate			Bearing Assembly		Bottom Plate			Total Ht.
						Wt	Lt	Tt	L	D	*Wb	*Lb	Tb	
E. Abut. Girders 1, 2, 3, 12, 13, 14	250	229	205	0.02	1/2"	1'-2 1/4"	1'-8"	1 3/4"	10 1/4"	11 3/4"	1'-4"	1'-11"	1 3/8"	5 7/8"
W. Abut. Girders 12, 13, 14	250	229	205	0.02	3/4"	1'-2 1/4"	1'-8"	1 3/4"	10 1/4"	11 3/4"	1'-4"	1'-11"	1 3/8"	5 7/8"
W. Abut. Girder 3	250	229	205	0.02	1"	1'-2 1/4"	1'-8"	1 3/4"	10 1/4"	11 3/4"	1'-4"	1'-11"	1 3/8"	5 7/8"
W. Abut. Girders 1, 2	250	229	205	0.02	1 1/4"	1'-2 1/4"	1'-8"	1 3/4"	10 1/4"	11 3/4"	1'-4"	1'-11"	1 3/8"	5 7/8"

* To be verified by the contractor for proper access of the drilling tool.
 ** Design Loads are the governing service loads.
 *** Rotation allowances for fabrication tolerances (0.005 radians) and installation uncertainties (0.005 radians) excluded.
 **** Total required movement is based on one way expansion (or contraction) of the superstructure perpendicular to the centerline of girder when bearings are set at 50°F. Bearing movement tolerances are excluded.

BILL OF MATERIAL

Item	Unit	Total
High Load Multi-Rotational Bearings, Non-Guided Expansion, 250K	Ea.	12
Anchor Bolts, 1 1/2"	Ea.	48

NOTES:

- All steel for bearings shall conform to the requirements of AASHTO M270 Grade 50, unless otherwise noted.
- 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 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.
- PTFE and stainless steel materials shall conform to AASHTO requirements and the Special Provision for High Load Multi-Rotational Bearings.
- All (embedded and separate) bearing components shall be galvanized according to AASHTO M111 or M232 as applicable.
- Bearings shall be assembled at the plant and delivered to the site as a complete unit. All bearings shall be marked prior to shipping. The marks shall include the bearing location on the bridge, an arrow indicating orientation, and the normal position of the bearing. All marks shall be permanent and be visible after the bearing is installed. All components of the bearing, including anchor bolts and sockets, shall be provided by a single manufacturer.
- Disc bearings will be permitted as a substitute at no additional cost. Inverted pot bearings are not allowed.
- Total bearing height (Th) is estimated based on manufacturer data. Actual bearing height may differ from contract plans. The Contractor shall be responsible for verifying bearing heights and adjusting seat elevations, if required, prior to placing pier concrete.
- Bearing assemblies shall be designed and assembled to allow for replacement by jacking the superstructure.
- 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.

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312-565-0450 Job No. 10056

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PLOT DATE = 7/16/2012	DRAWN - RMG	REVISED -
	CHECKED - MFB	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**HLMR NON-GUIDED EXPANSION BEARING DETAILS
STRUCTURE NO. 090-0167**

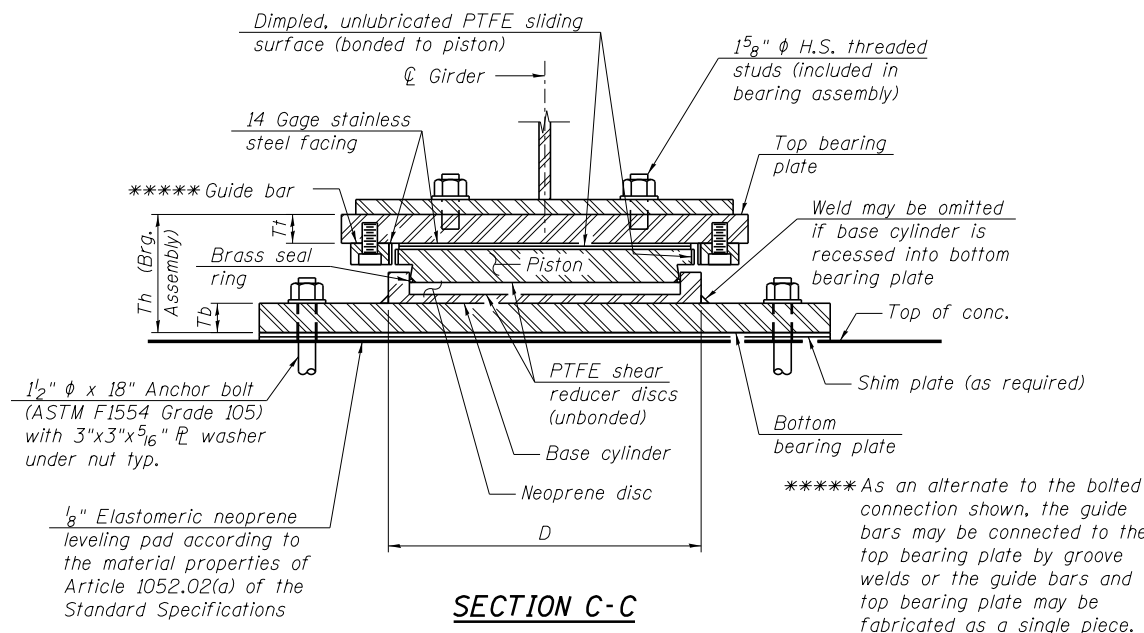
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CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

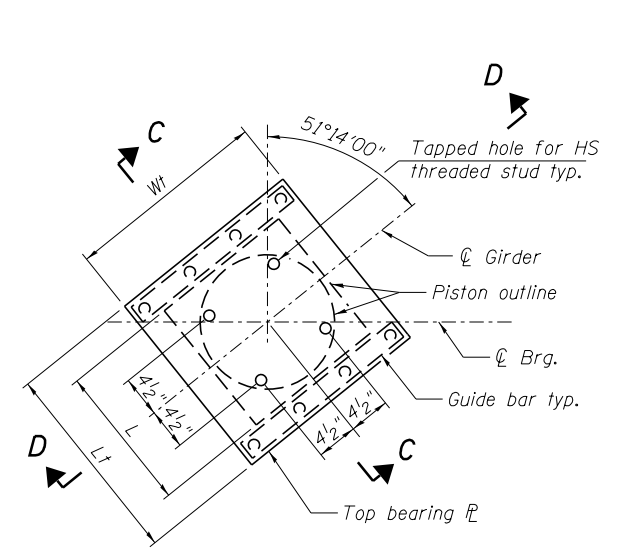
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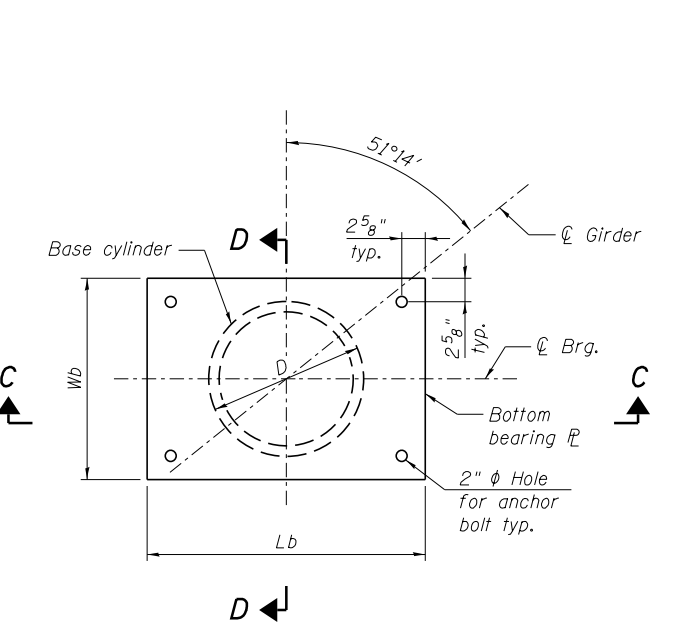
7/16/2012



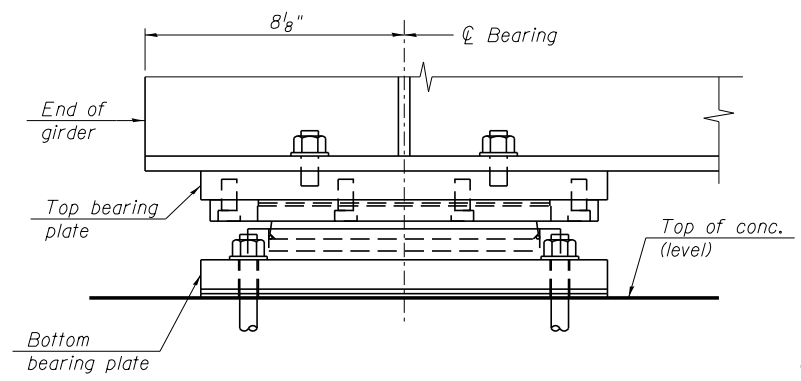
SECTION C-C



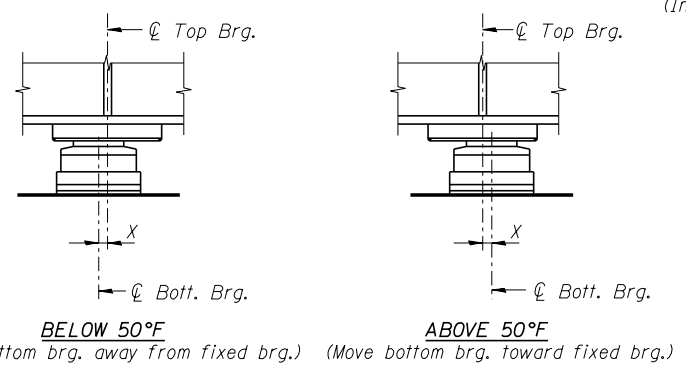
TOP BEARING PLATE AND PISTON PLAN



BOTTOM BEARING PLATE AND BASE CYLINDER PLAN



SECTION D-D



SETTING ANCHOR BOLTS AT EXP. BRG.

X = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

BEARING DIMENSIONS

Location	Pay Item Designation (kips)	** Ver. Design Load (kips)	** Horizontal Design Load (kips)	*** Required Rotation Range (radians)	**** Total Required Movement	Top Plate			Bearing Assembly		Bottom Plate			Total Ht.
						Wt	Lt	Tt	L	D	*Wb	*Lb	Tb	
W. Abut. Girders 7, 8, 9, 10, 11	250	229	205	0.02	3/4"	1'-2 1/4"	1'-8"	1 3/4"	10 1/4"	11 3/4"	1'-4"	1'-11"	1 3/8"	6 1/2"
W. Abut. Girders 4, 5, 6	250	229	205	0.02	1"	1'-2 1/4"	1'-8"	1 3/4"	10 1/4"	11 3/4"	1'-4"	1'-11"	1 3/8"	6 1/2"

* To be verified by the contractor for proper access of the drilling tool.
 ** Design Loads are the governing service loads.
 *** Rotation allowances for fabrication tolerances (0.005 radians) and installation uncertainties (0.005 radians) excluded.
 **** Total required movement is based on one way expansion (or contraction) of the superstructure perpendicular to the centerline of girder when bearings are set at 50°F. Bearing movement tolerances are excluded.

FILL PLATE SCHEDULE

(In addition to adjustment shims, see General Notes)
 Cost included with Structural Steel

Abutment	Girder	Plate Thickness t
West	4	3/4"
West	7	1/2"

NOTES:

- All steel for bearings shall conform to the requirements of AASHTO M270 Grade 50, unless otherwise noted.
- 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 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.
- PTFE and stainless steel materials shall conform to AASHTO requirements and the Special Provision for High Load Multi-Rotational Bearings.
- All (embedded and separate) bearing components shall be galvanized according to AASHTO M111 or M232 as applicable.
- Bearings shall be assembled at the plant and delivered to the site as a complete unit. All bearings shall be marked prior to shipping. The marks shall include the bearing location on the bridge, an arrow indicating orientation, and the normal position of the bearing. All marks shall be permanent and be visible after the bearing is installed. All components of the bearing, including anchor bolts and sockets, shall be provided by a single manufacturer.
- Disc bearings will be permitted as a substitute at no additional cost. Inverted pot bearings are not allowed.
- Total bearing height (Th) is estimated based on manufacturer data. Actual bearing height may differ from contract plans. The Contractor shall be responsible for verifying bearing heights and adjusting seat elevations, if required, prior to placing pier concrete.
- Bearing assemblies shall be designed and assembled to allow for replacement by jacking the superstructure.
- 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.

BILL OF MATERIAL

Item	Unit	Total
High Load Multi-Rotational Bearings, Guided Expansion, 250K	Ea.	8
Anchor Bolts, 1 1/2"	Ea.	32



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PLOT DATE = 7/16/2012	DRAWN - RMG	REVISED -
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**HLMR GUIDED EXPANSION BEARING DETAILS
 STRUCTURE NO. 090-0167**

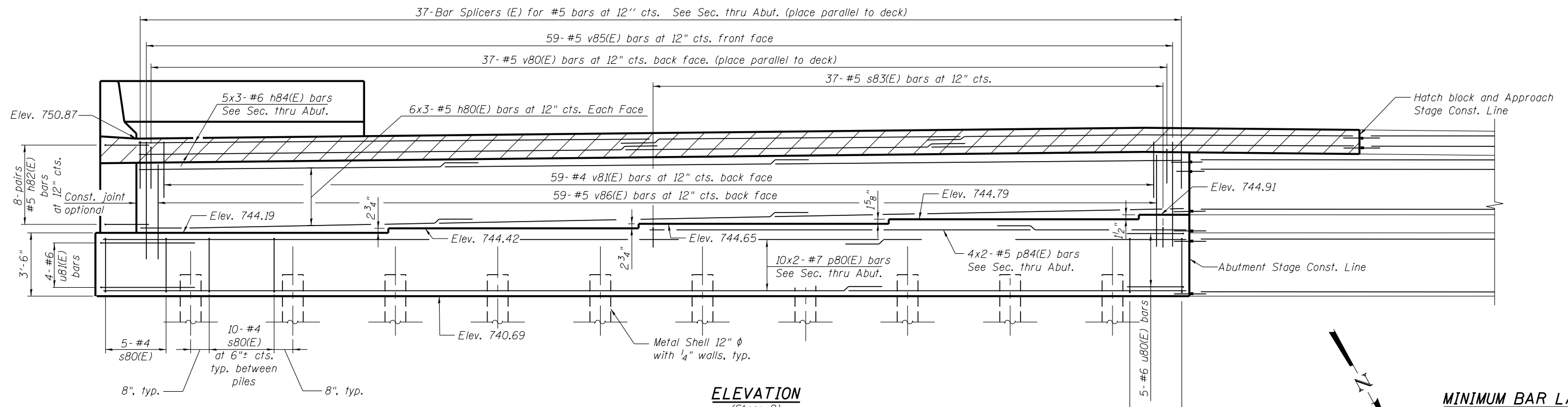
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CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

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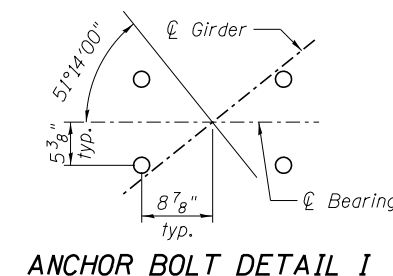
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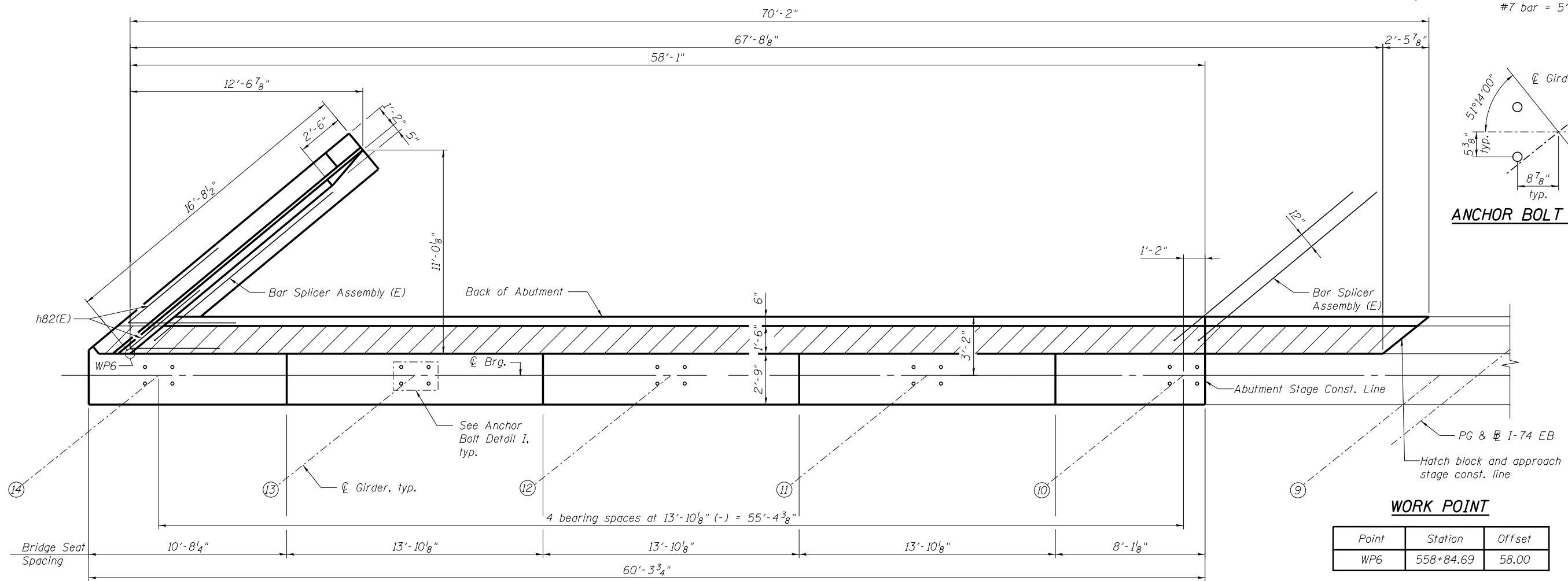


ELEVATION
(Stage 2)

MINIMUM BAR LAP
 #5 bar = 3'-3"
 #6 bar = 3'-10"
 #7 bar = 5'-2"



ANCHOR BOLT DETAIL I



PLAN-TOP VIEW
(Stage 2)

WORK POINT

Point	Station	Offset
WP6	558+84.69	58.00

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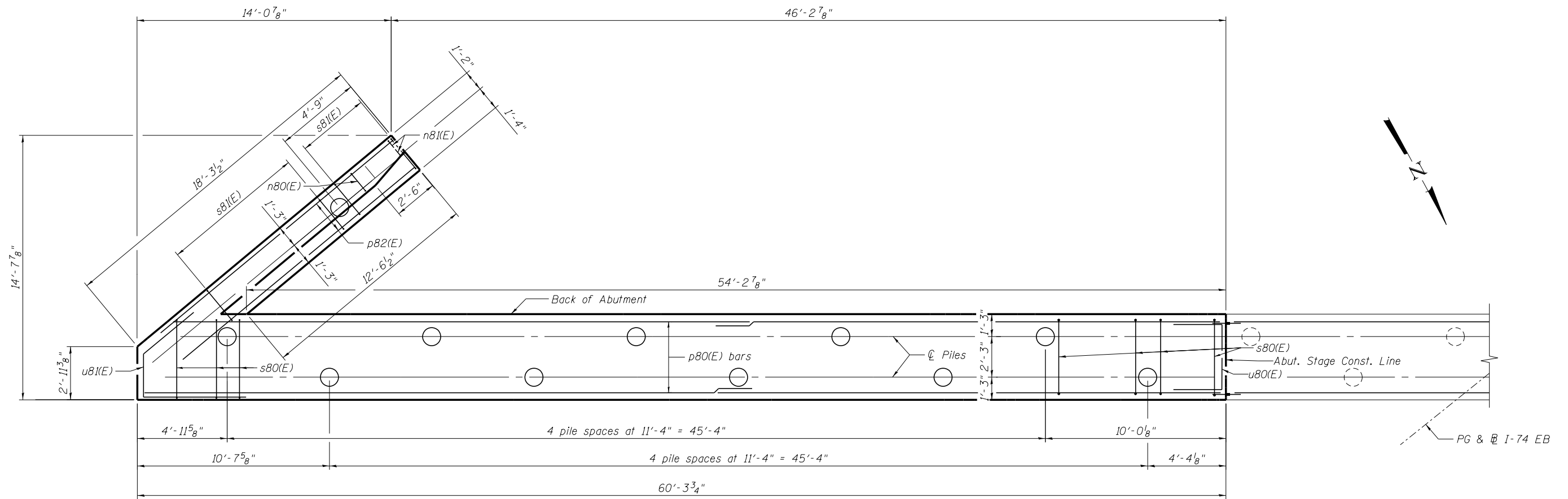
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WEST ABUTMENT 1 OF 5
STRUCTURE NO. 090-0167

SHEET NO. SB31 OF SB65 SHEETS

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74	90-[14R(14HB-4,14,14HB)BR]	TAZEWELL	2433	1942
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

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PLAN-PILE CAP
(Stage 2)

PILE DATA

Type: Metal Shell 12" ϕ with 1/4" walls
 Nominal Required Bearing: 351 kips
 Factored Resistance Available: 193 kips
 Est. Length: 80 feet
 No. Production Piles: 34
 No. Test Piles: 1

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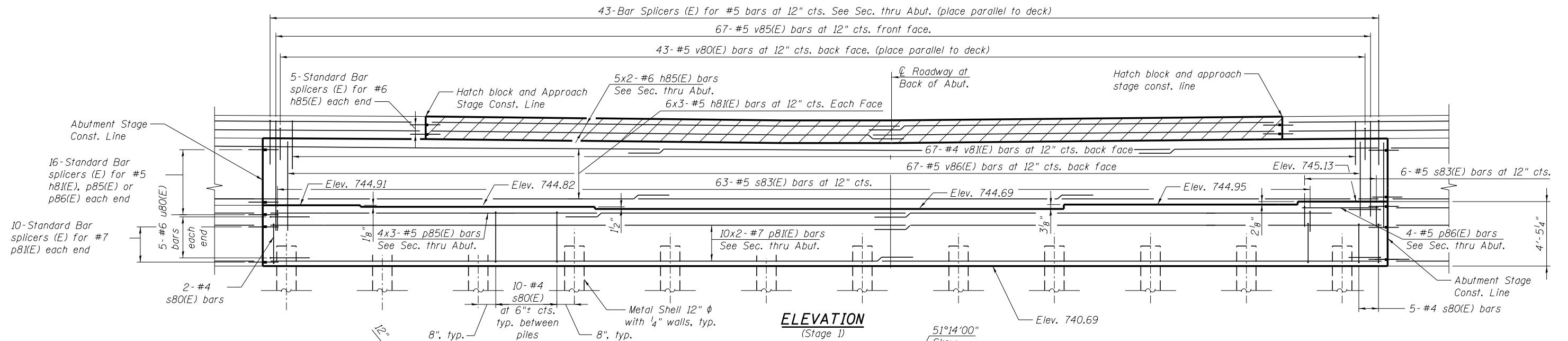
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WEST ABUTMENT 2 OF 5
STRUCTURE NO. 090-0167

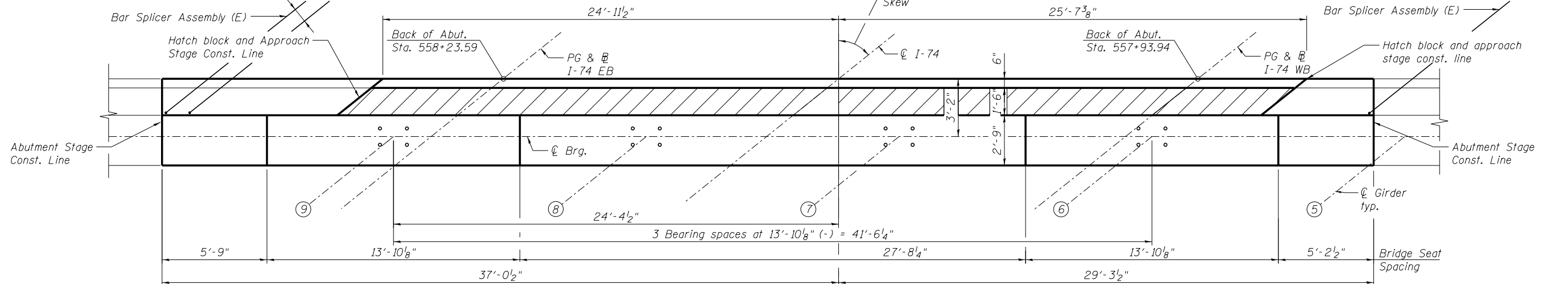
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CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

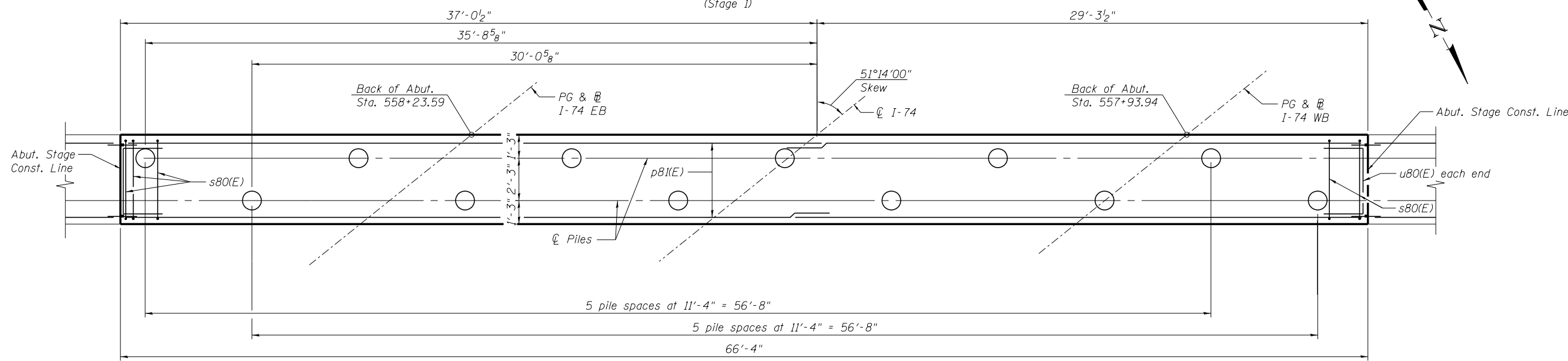
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ELEVATION
(Stage 1)



PLAN - TOP VIEW
(Stage 1)



PLAN - PILE CAP
(Stage 1)

MINIMUM BAR LAP
 #5 bar = 3'-3"
 #6 bar = 3'-10"
 #7 bar = 5'-2"

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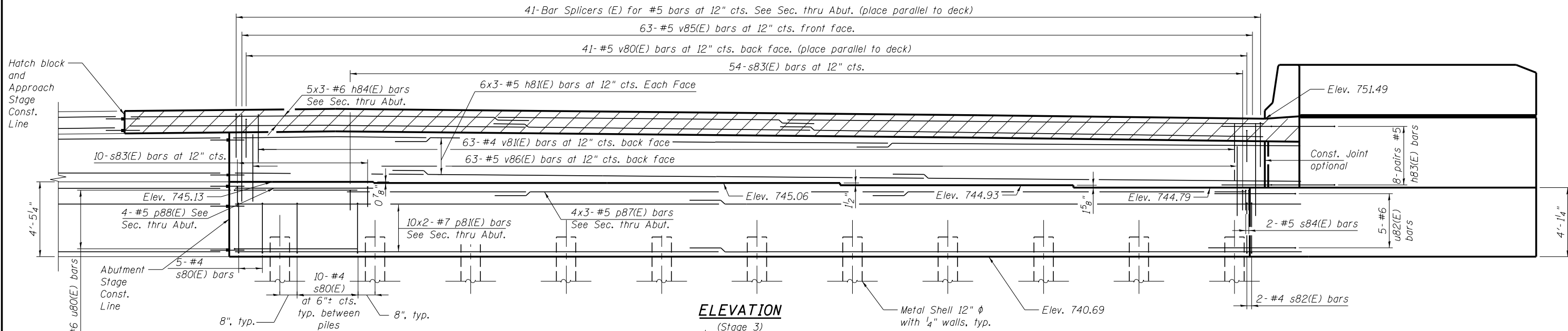
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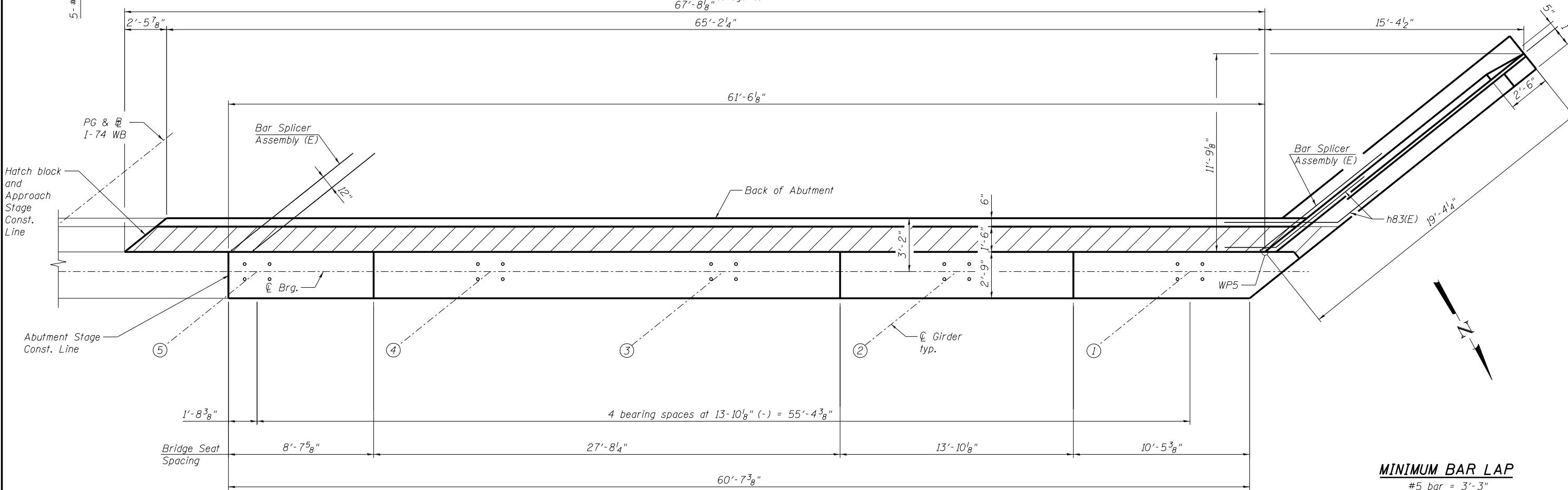
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CONTRACT NO. 68620				

ILLINOIS FED. AID PROJECT

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ELEVATION
(Stage 3)



PLAN-TOP VIEW
(Stage 3)

MINIMUM BAR LAP
 #5 bar = 3'-3"
 #6 bar = 3'-10"
 #7 bar = 5'-2"

WORK POINT

Point	Station	Offset
WP5	557+39.72	-58.42

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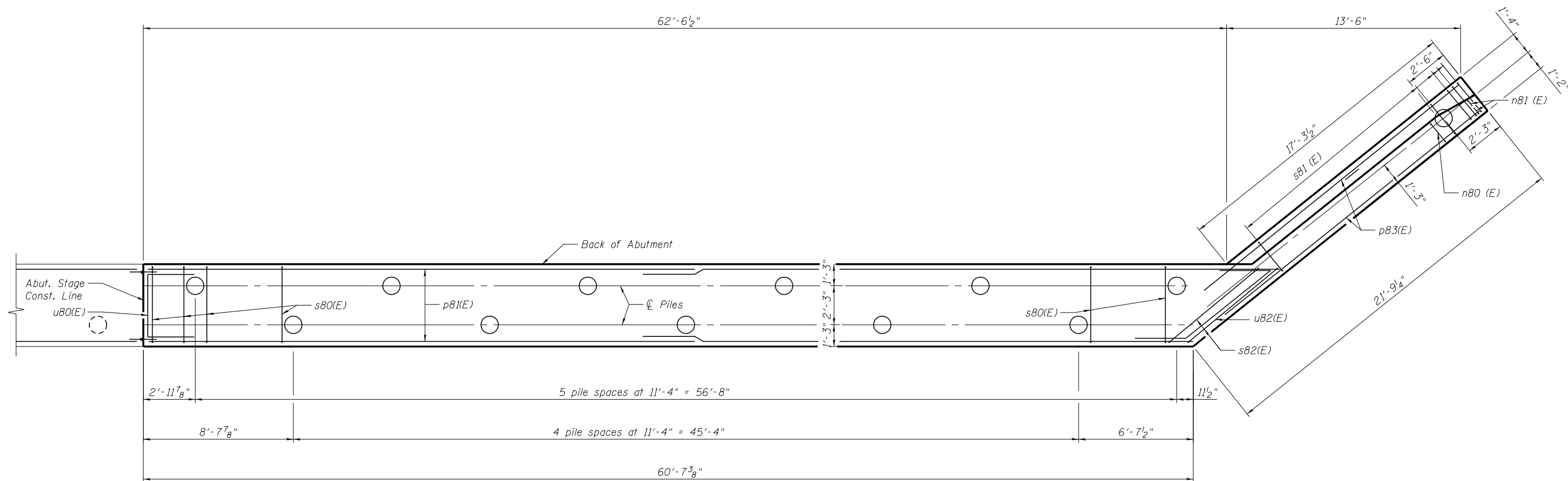
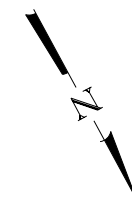
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	CHECKED - SLD	REVISED -

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WEST ABUTMENT 4 OF 5
STRUCTURE NO. 090-0167
SHEET NO. SB34 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HV)BR]	TAZEWELL	2433	1945
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

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PLAN-PILE CAP
(Stage 3)

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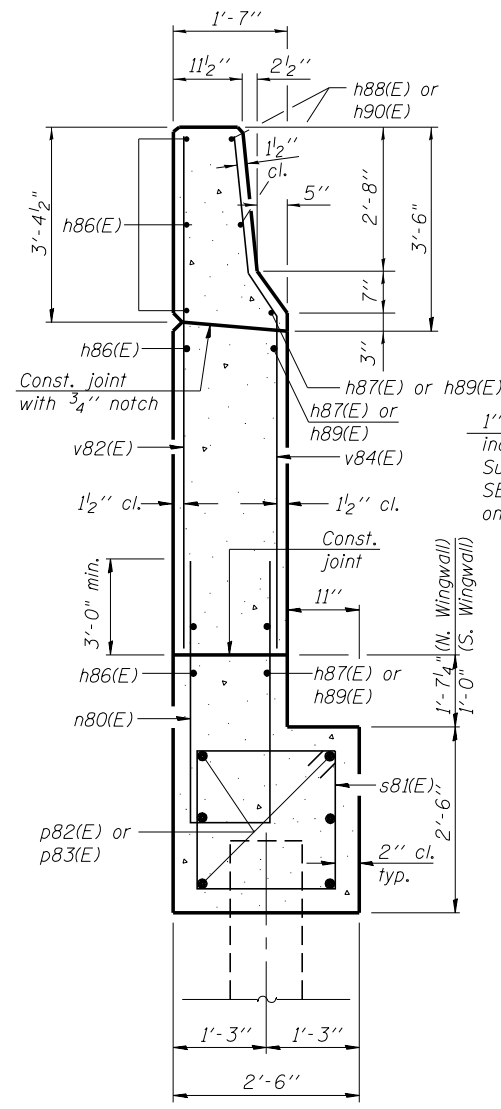
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WEST ABUTMENT 5 OF 5
STRUCTURE NO. 090-0167**

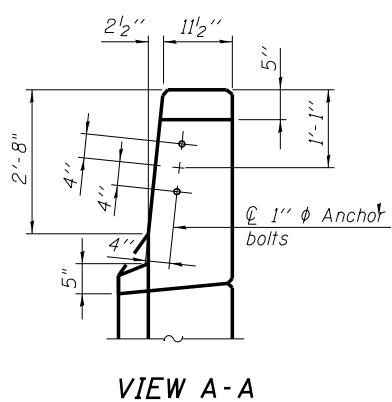
SHEET NO. SB35 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1946
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

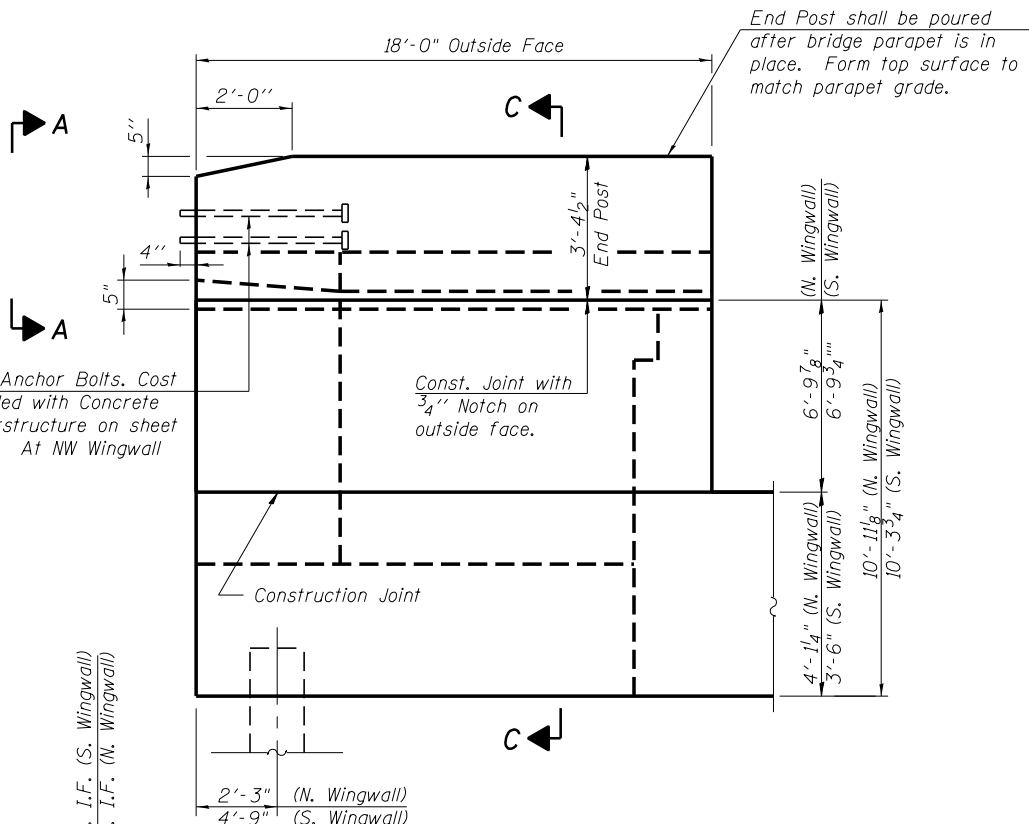
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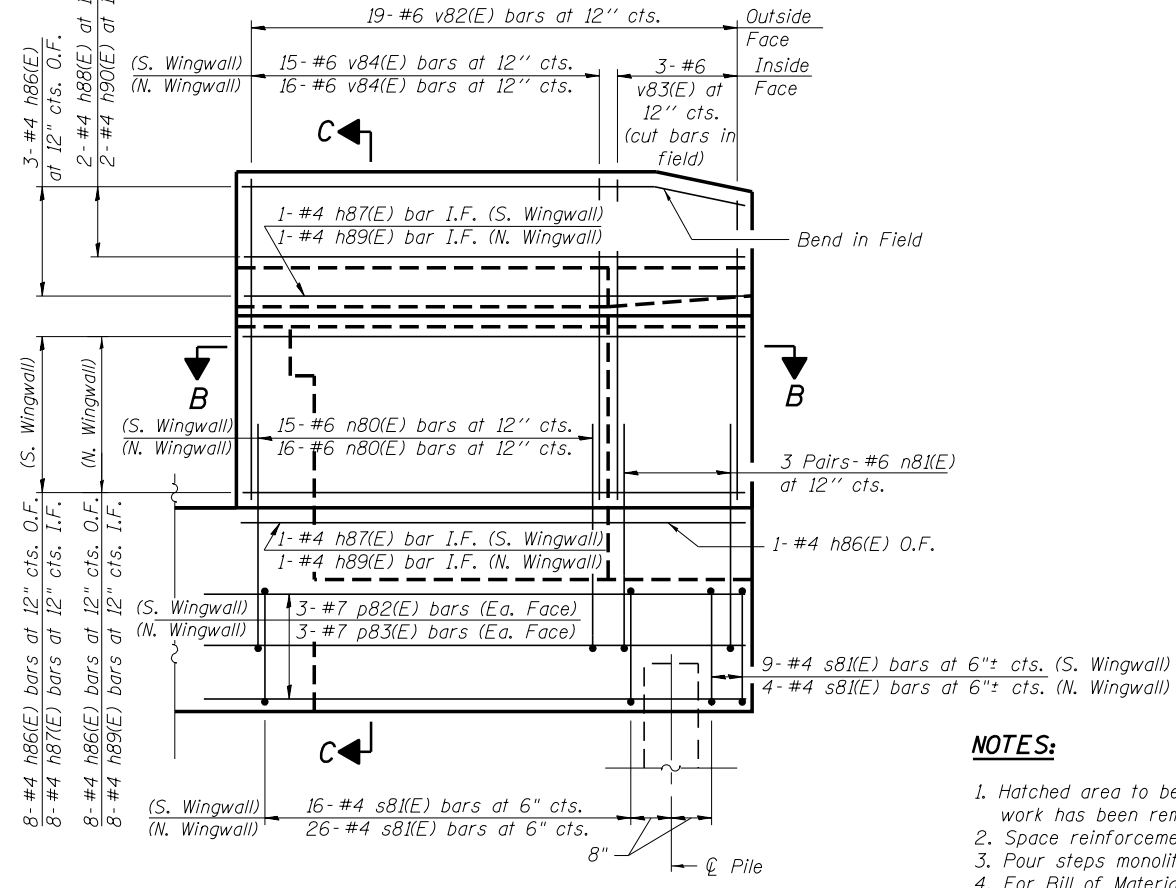
SECTION C-C



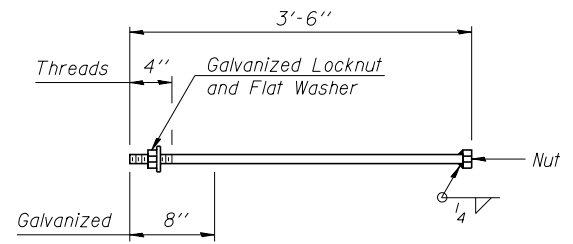
VIEW A-A



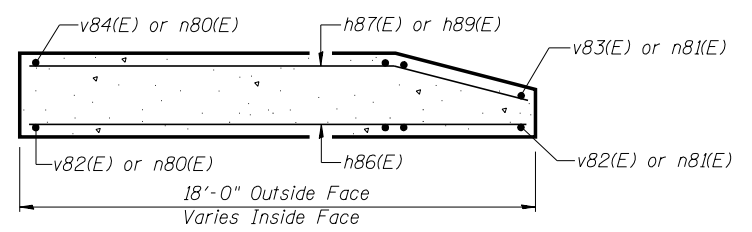
WING WALL ELEVATION
Showing Dimensions



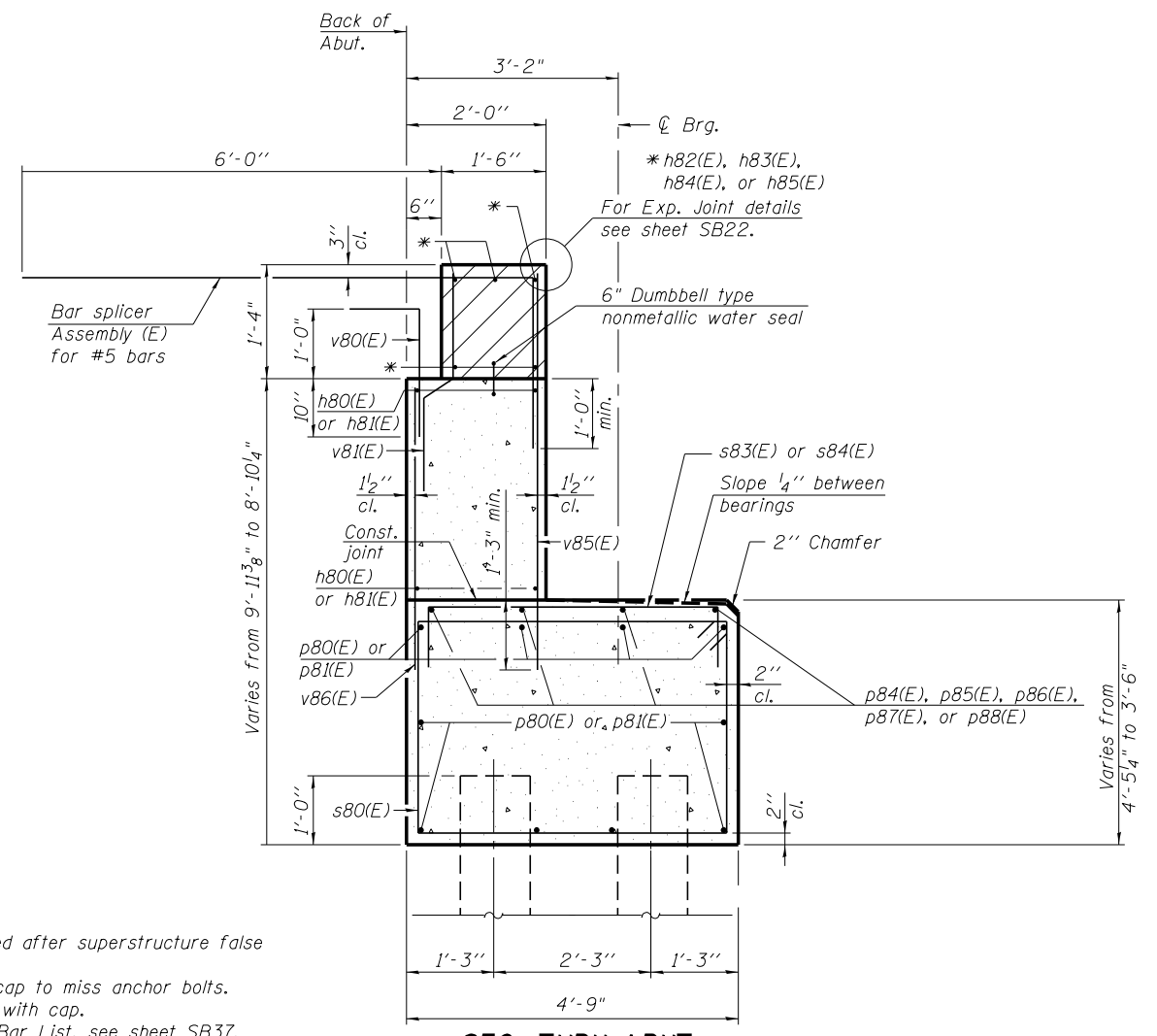
WING WALL ELEVATION
Showing Reinforcement



1" diameter ANCHOR BOLT
(Cost included with Concrete Superstructure)



SECTION B-B



SEC. THRU ABUT.

NOTES:

1. Hatched area to be poured after superstructure false work has been removed.
2. Space reinforcement in cap to miss anchor bolts.
3. Pour steps monolithically with cap.
4. For Bill of Material and Bar List, see sheet SB37.

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WEST ABUTMENT DETAILS 1 OF 2
STRUCTURE NO. 090-0167

SHEET NO. SB36 OF SB65 SHEETS

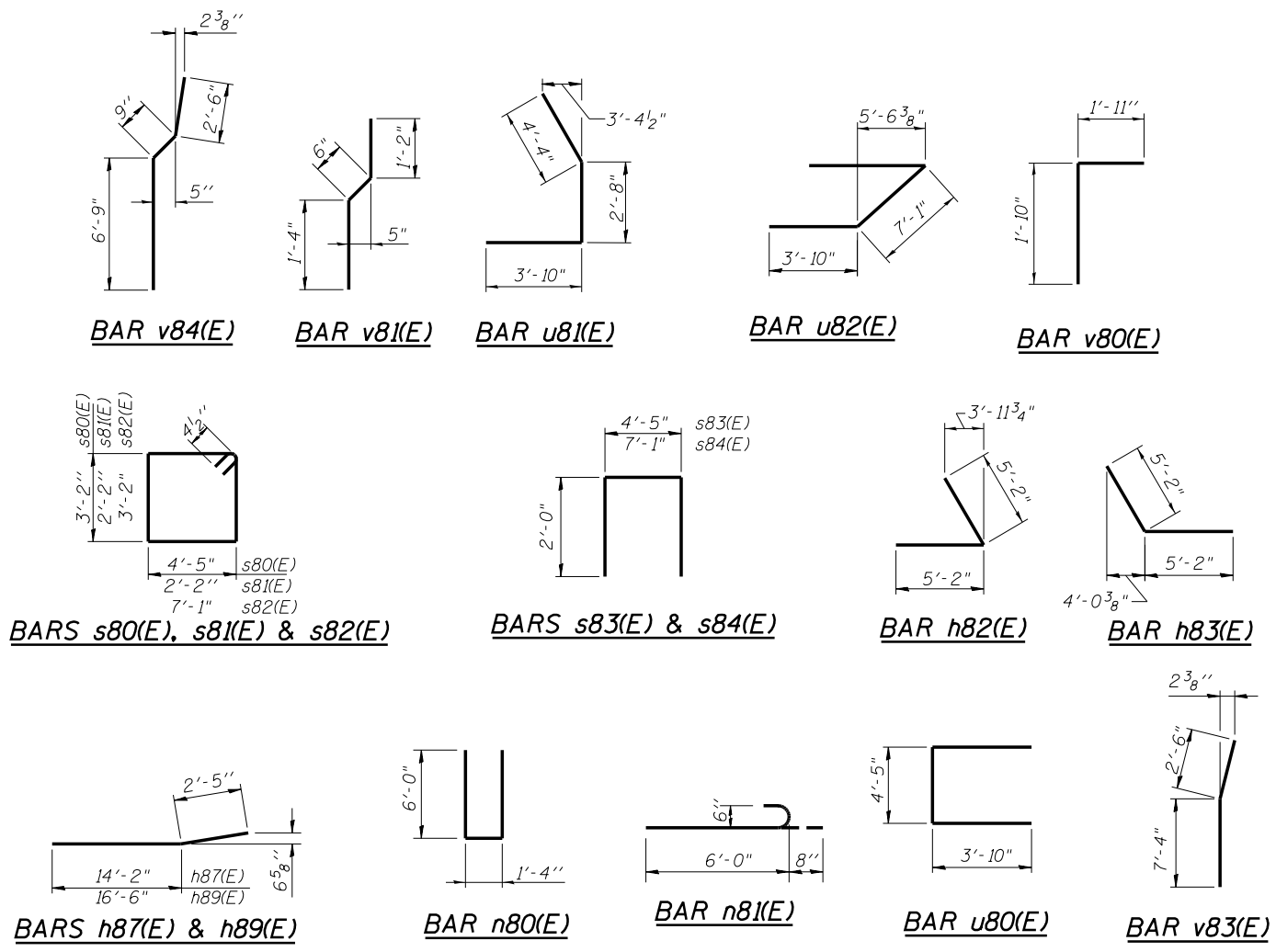
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4,14,14HVB]BR	TAZEWELL	2433	1947
				CONTRACT NO. 68620
ILLINOIS FED. AID PROJECT				

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WEST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h80(E)	42	#5	22'-3"	—
h81(E)	84	#5	24'-3"	—
h82(E)	16	#5	10'-4"	└
h83(E)	16	#5	10'-4"	└
h84(E)	30	#6	25'-3"	—
h85(E)	10	#6	27'-3"	—
h86(E)	24	#4	17'-8"	—
h87(E)	10	#4	16'-7"	—
h88(E)	2	#4	16'-4"	—
h89(E)	10	#4	18'-11"	—
h90(E)	2	#4	19'-0"	—
n80(E)	31	#6	13'-4"	—
n81(E)	12	#6	6'-8"	—
p80(E)	20	#7	32'-9"	—
p81(E)	40	#7	35'-9"	—
p82(E)	6	#7	17'-10"	—
p83(E)	6	#7	19'-6"	—
p84(E)	8	#5	19'-5"	—
p85(E)	12	#5	23'-6"	—
p86(E)	4	#5	4'-6"	—
p87(E)	12	#5	20'-4"	—
p88(E)	4	#5	8'-3"	—
s80(E)	325	#4	15'-11"	□
s81(E)	55	#4	9'-5"	□
s82(E)	2	#4	21'-3"	□
s83(E)	170	#5	8'-5"	□
s84(E)	2	#5	11'-1"	□
u80(E)	20	#6	12'-1"	—
u81(E)	4	#6	10'-10"	—
u82(E)	5	#6	14'-9"	—
v80(E)	121	#5	3'-9"	└
v81(E)	189	#4	3'-0"	└
v82(E)	38	#6	9'-10"	—
v83(E)	6	#6	9'-10"	—
v84(E)	31	#6	10'-0"	—
v85(E)	189	#5	8'-9"	—
v86(E)	189	#5	7'-5"	—
Structure Excavation	Cu. Yd.		874	
Concrete Structures	Cu. Yd.		234.5	
Reinforcement Bars, Epoxy Coated	Pound		22,830	
Furnishing Metal Shell Piles 12" x 0.250"	Foot		2,720	
Driving Piles	Foot		2,720	
Test Pile Metal Shells	Each		1	
Concrete Sealer	Sq. Ft.		1,738	

Bars indicated thus 10x2 - #7 etc. indicates 10 lines of bars with 2 lengths per line.

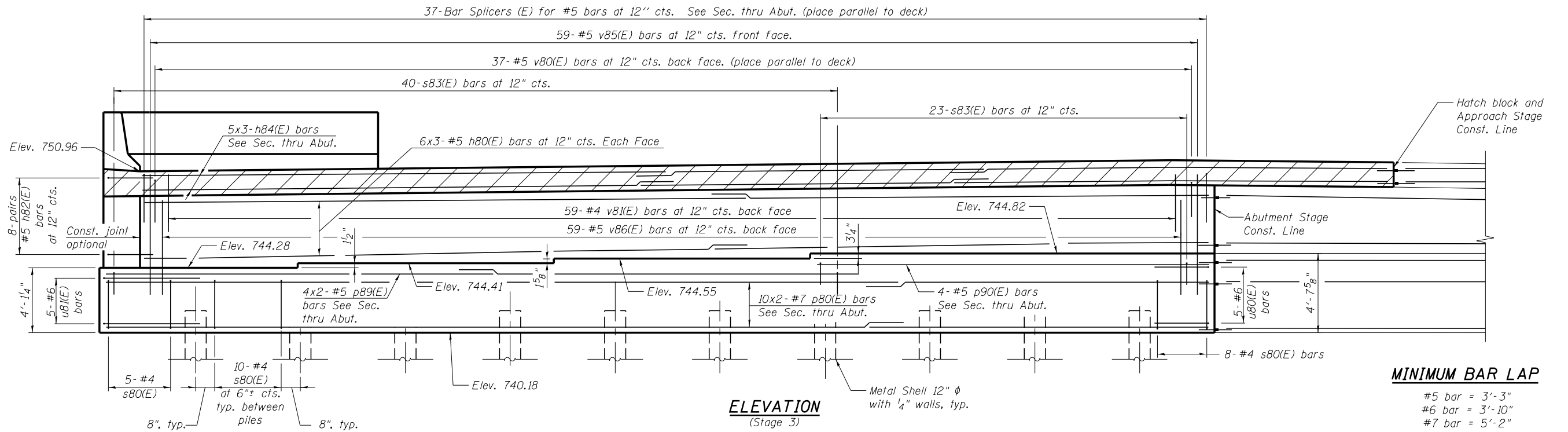


- NOTES:**
- Quantity of concrete in end post included with Concrete Superstructure on sheet SB17.
 - For details of Bar Splicers, see sheet SB53.
 - Quantity of concrete in hatch block included with Concrete Superstructure on sheet SB17.
 - For details of piles, see sheet SB52.

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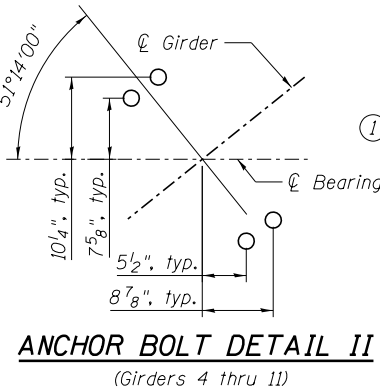
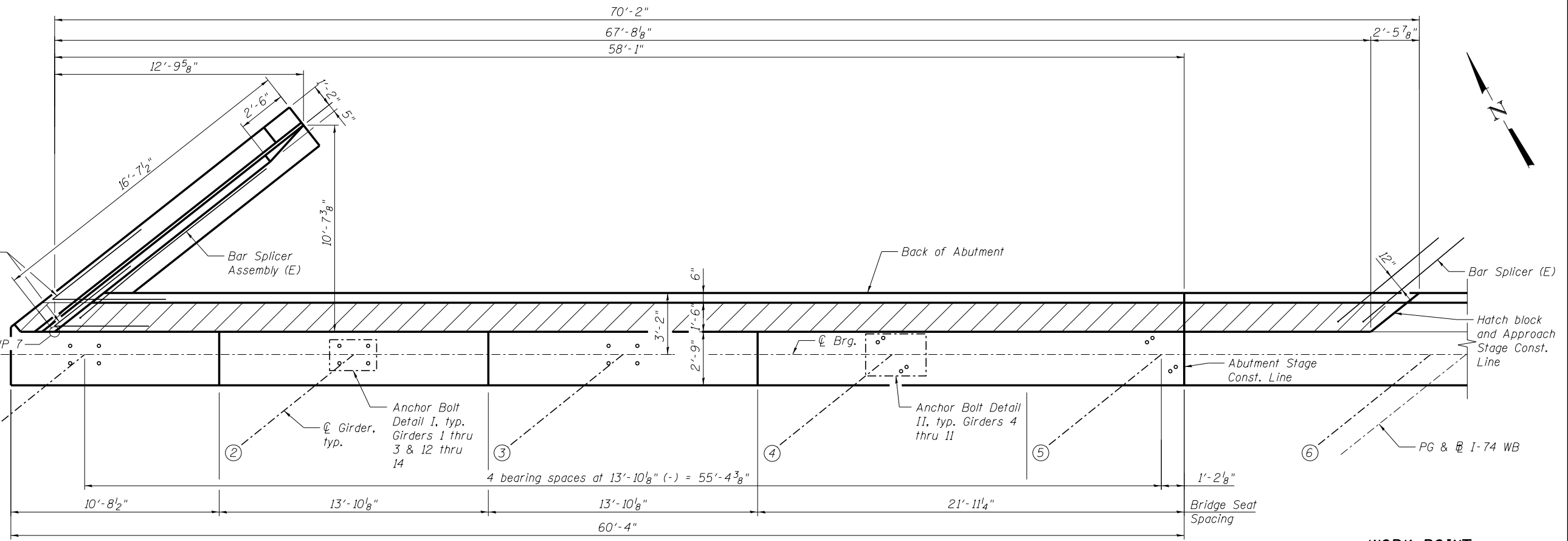
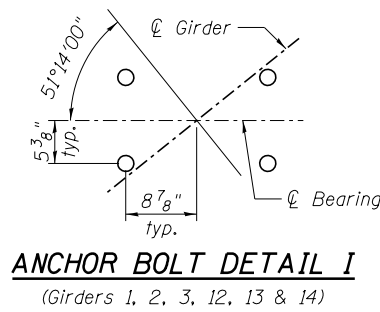
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4;14,14HVB]BR	TAZEWELL	2433	1948
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

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MINIMUM BAR LAP

#5 bar	= 3'-3"
#6 bar	= 3'-10"
#7 bar	= 5'-2"



WORK POINT

Point	Station	Offset
WP7	558+65.36	-58.42

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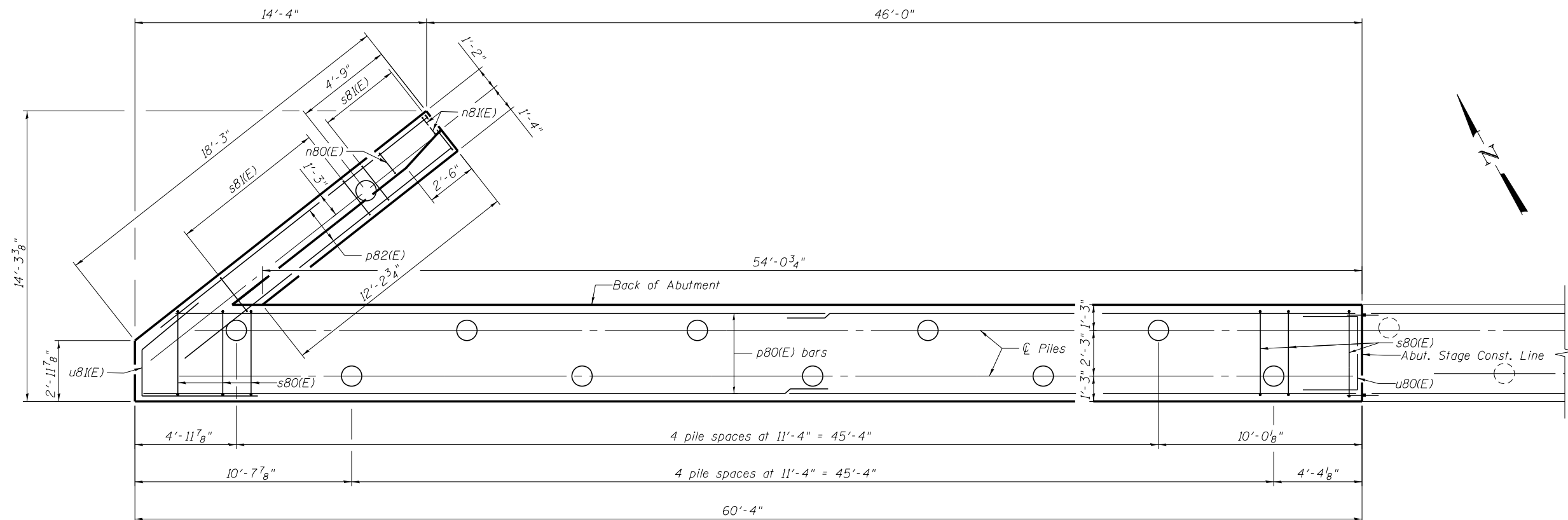
STATE OF ILLINOIS
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EAST ABUTMENT 1 OF 5
STRUCTURE NO. 090-0167

SHEET NO. SB38 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1949
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

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PLAN-PILE CAP
(Stage 3)

PILE DATA

Type: Metal Shell 12" ϕ with 1/4" walls
 Nominal Required Bearing: 338 kips
 Factored Resistance Available: 186 kips
 Est. Length: 71 feet
 No. Production Piles: 34
 No. Test Piles: 1

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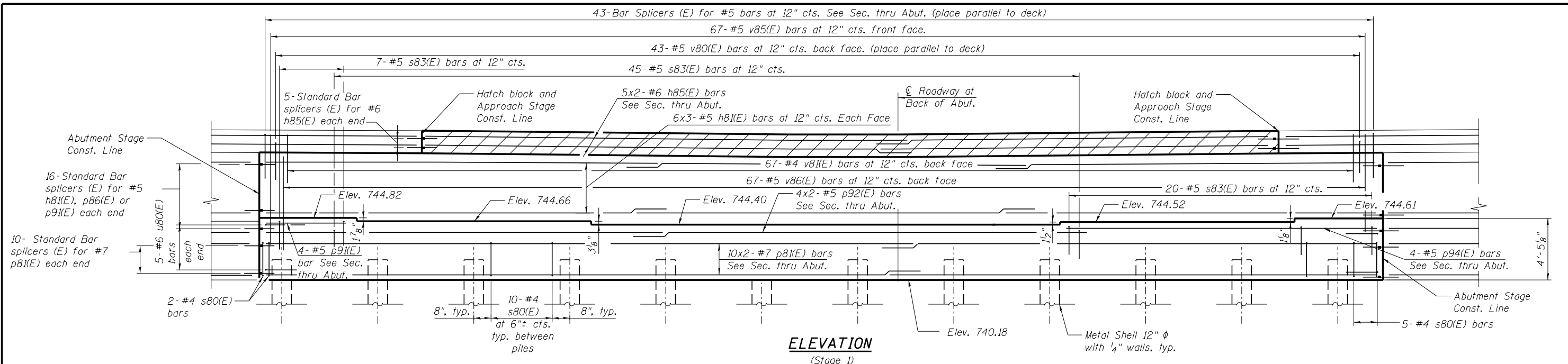
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EAST ABUTMENT 2 OF 5
STRUCTURE NO. 090-0167

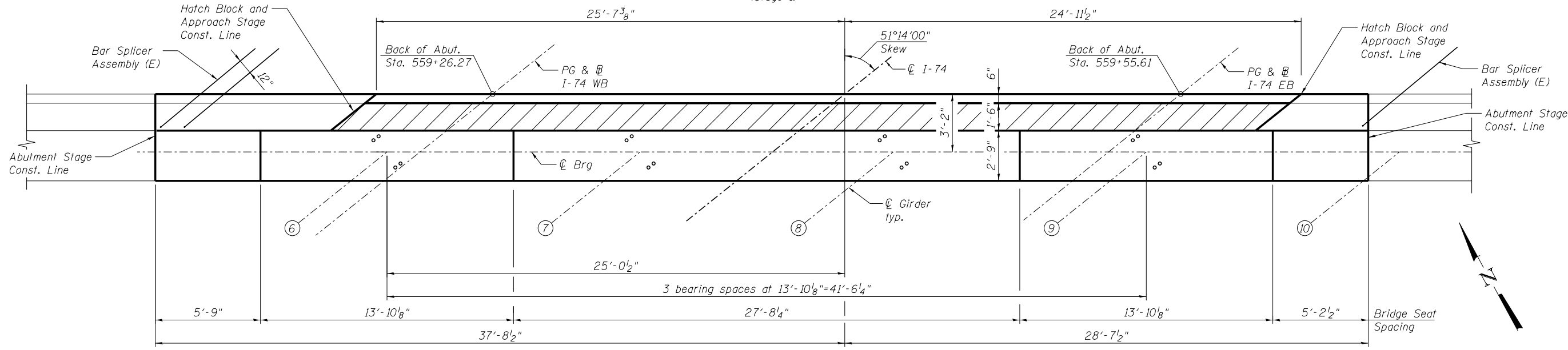
SHEET NO. SB39 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4;14,14HVB]BR	TAZEWELL	2433	1950
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

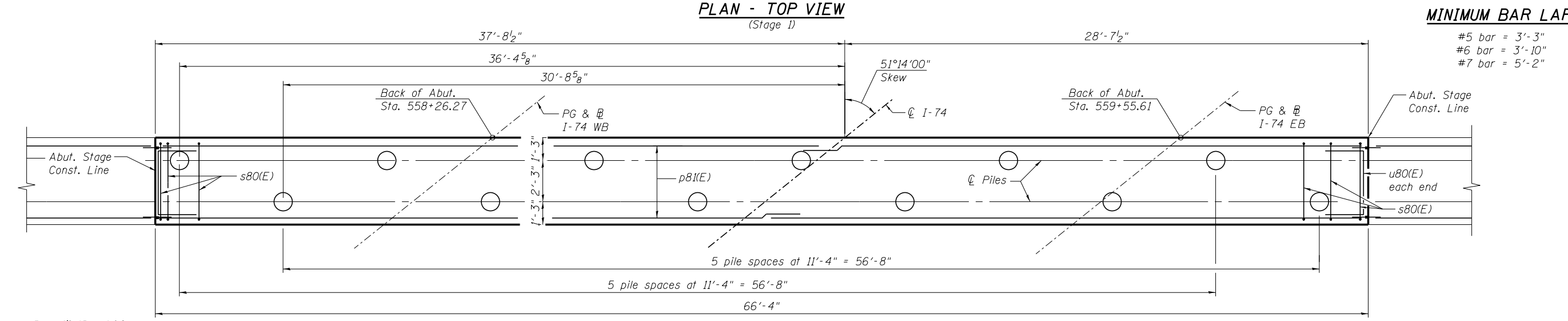
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ELEVATION
(Stage 1)



PLAN - TOP VIEW
(Stage 1)



PLAN - PILE CAP
(Stage 1)

MINIMUM BAR LAP

- #5 bar = 3'-3"
- #6 bar = 3'-10"
- #7 bar = 5'-2"

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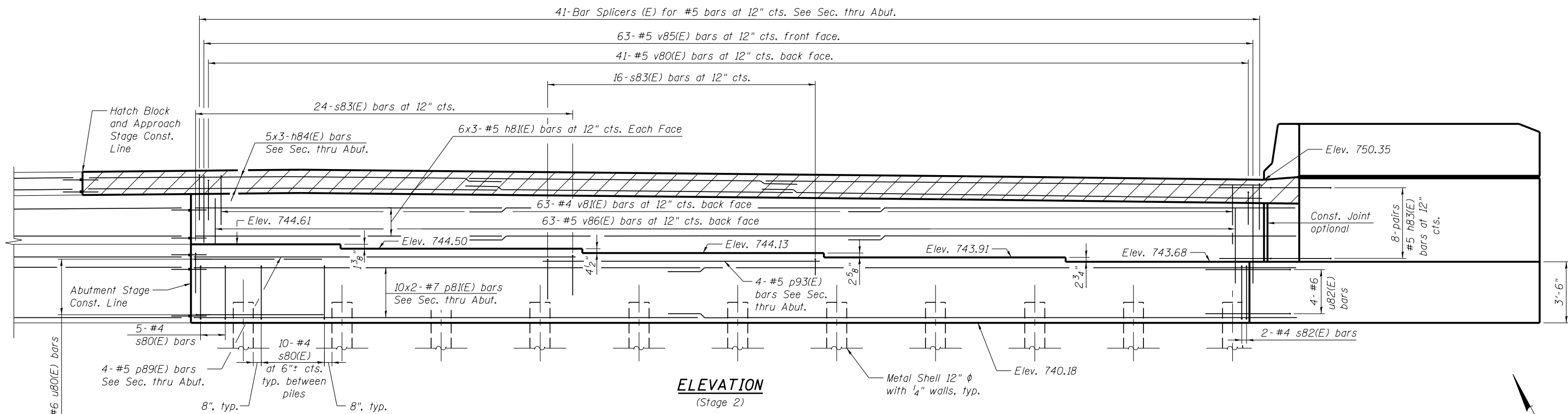
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EAST ABUTMENT 3 OF 5
STRUCTURE NO. 090-0167

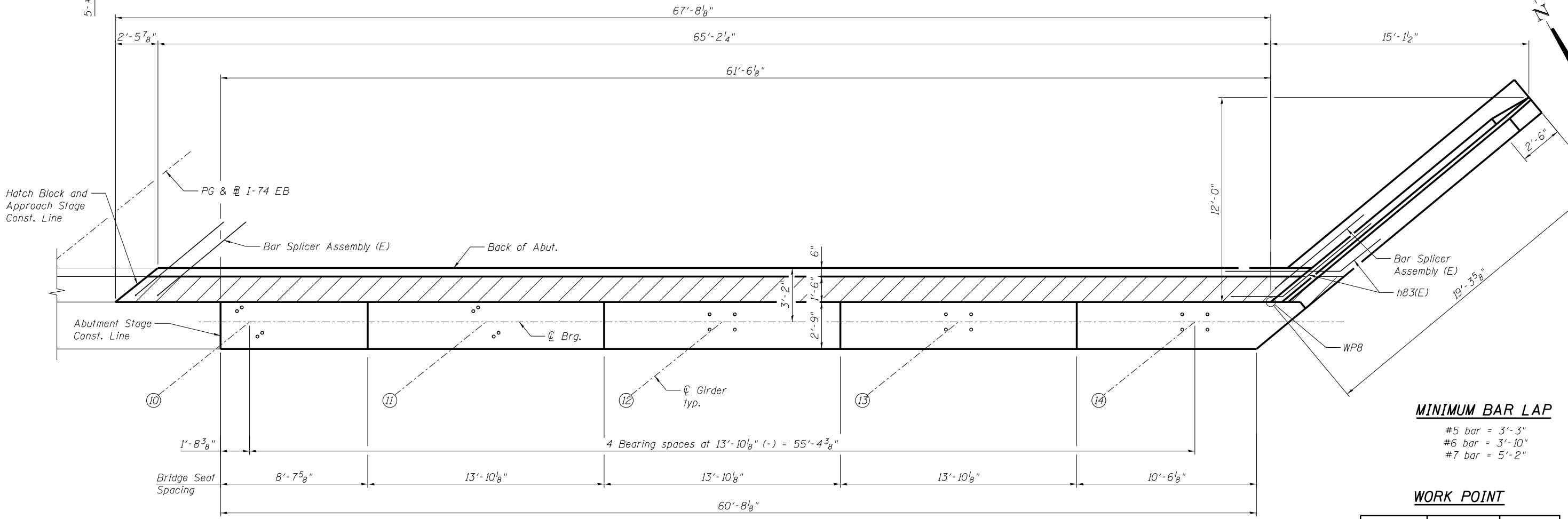
SHEET NO. SB40 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R]14HB-4,14,14HB[BR]	TAZEWELL	2433	1951
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

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ELEVATION
(Stage 2)



PLAN-TOP VIEW
(Stage 2)

MINIMUM BAR LAP

- #5 bar = 3'-3"
- #6 bar = 3'-10"
- #7 bar = 5'-2"

WORK POINT

Point	Station	Offset
WP8	560+10.32	58.00

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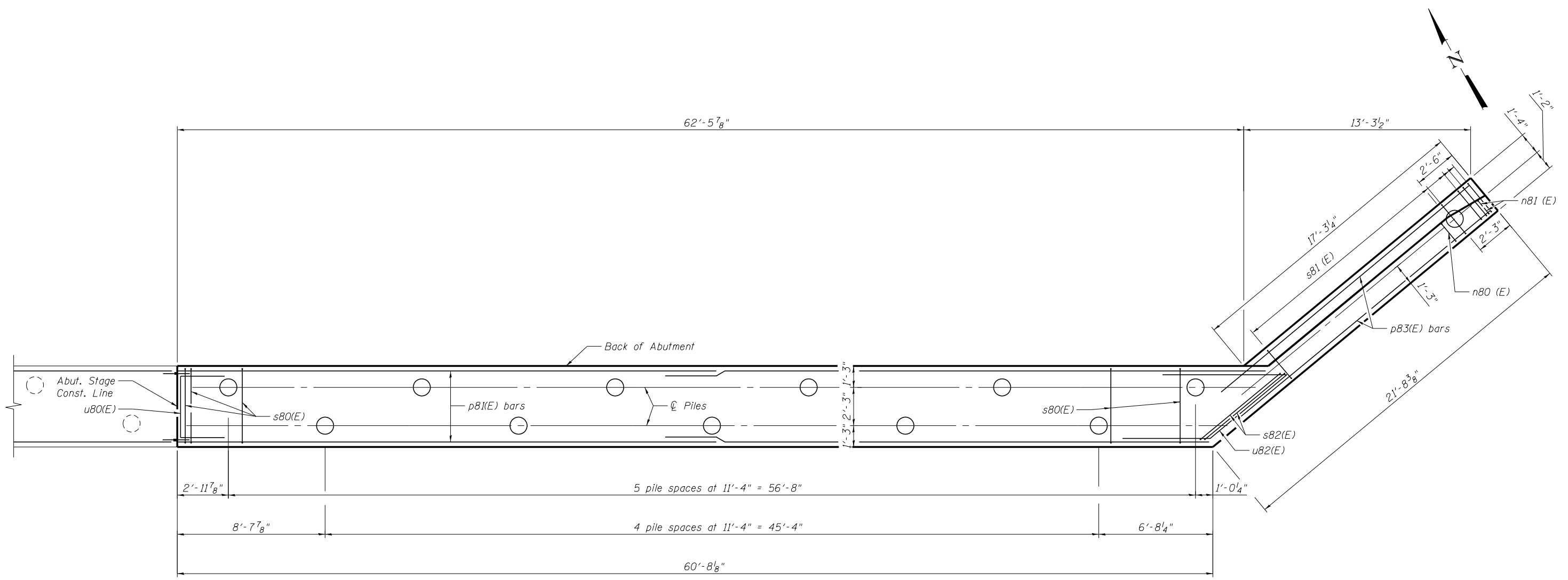
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EAST ABUTMENT 4 OF 5
STRUCTURE NO. 090-0167

SHEET NO. SB41 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4;14,14HV]BR	TAZEWELL	2433	1952
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

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PLAN-PILE CAP
(Stage 2)



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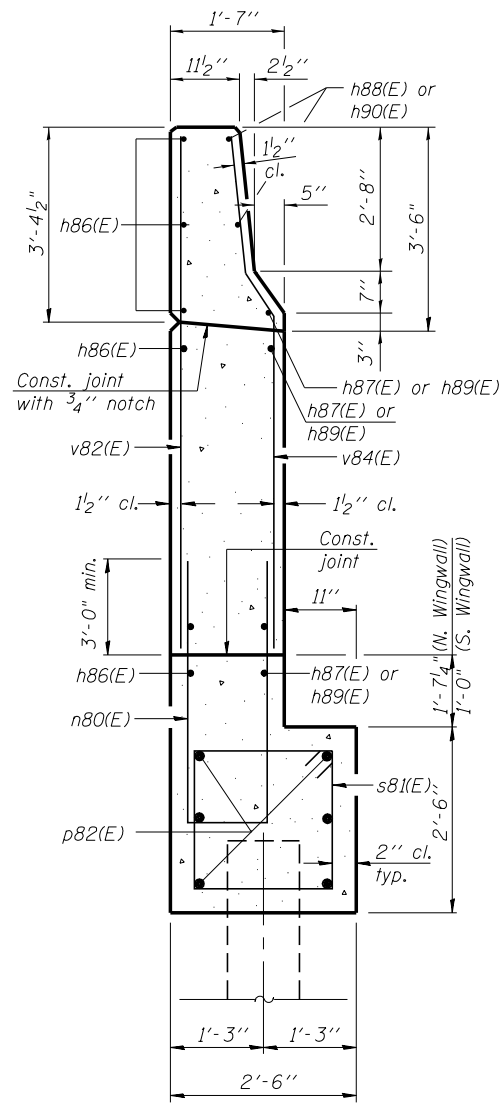
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**EAST ABUTMENT 5 OF 5
STRUCTURE NO. 090-0167**

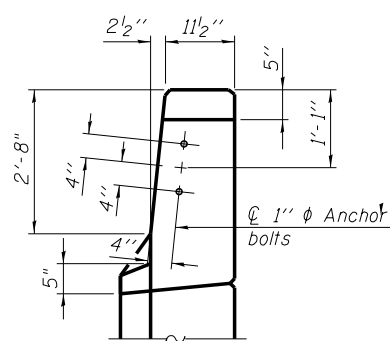
SHEET NO. SB42 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4,14,14HVB]BR	TAZEWELL	2433	1953
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

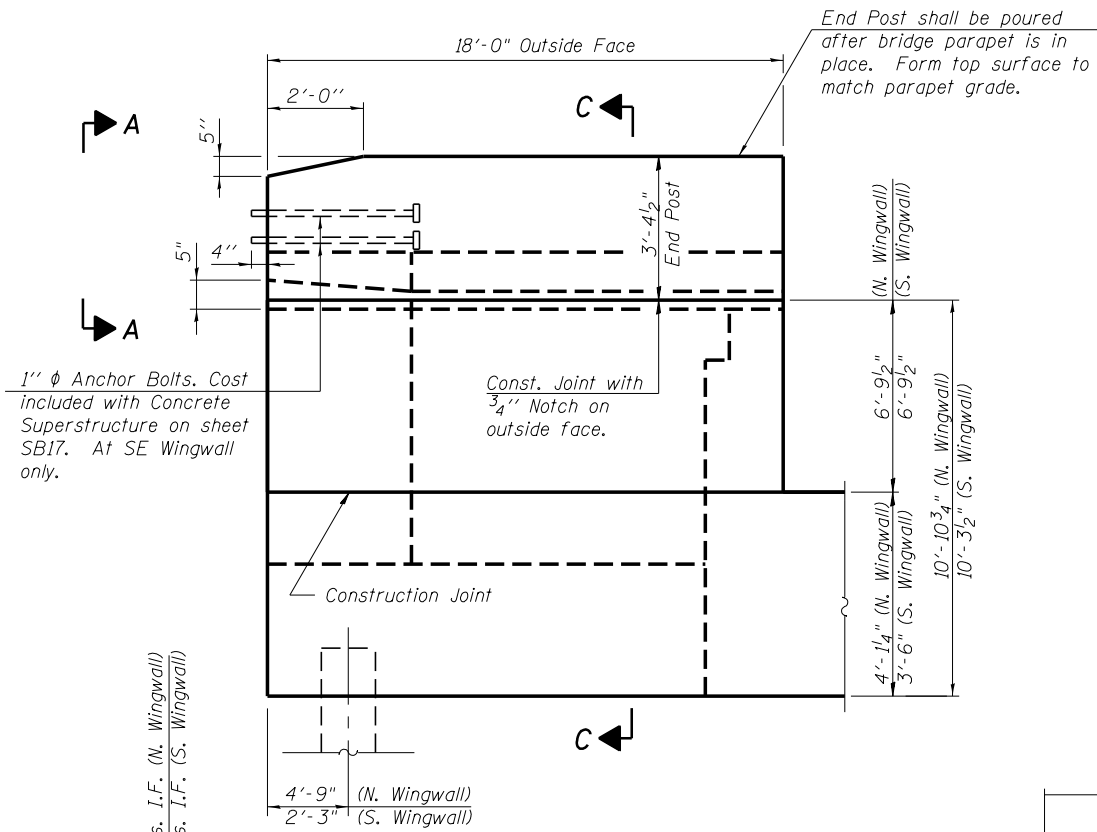
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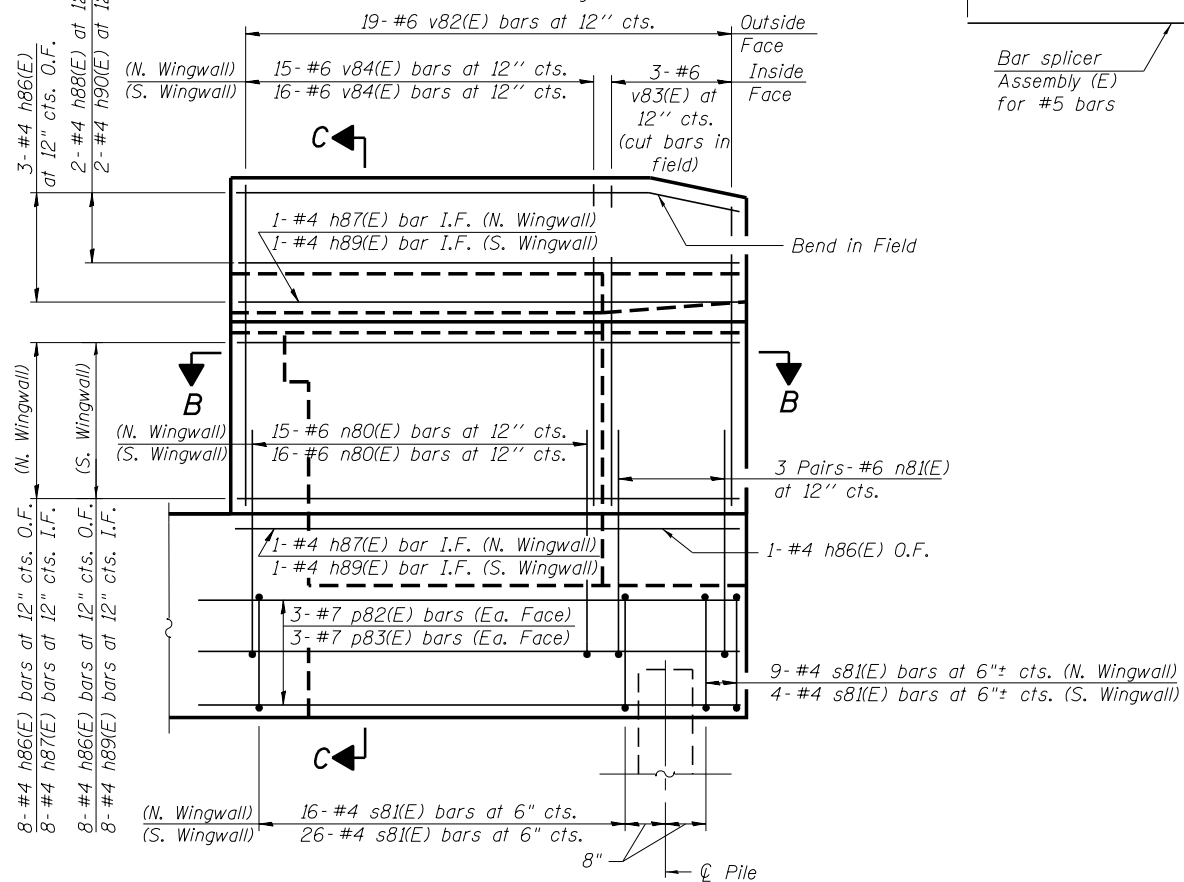
SECTION C-C



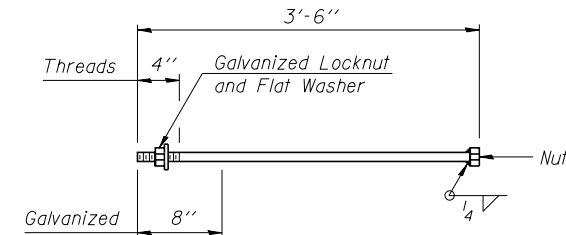
VIEW A-A



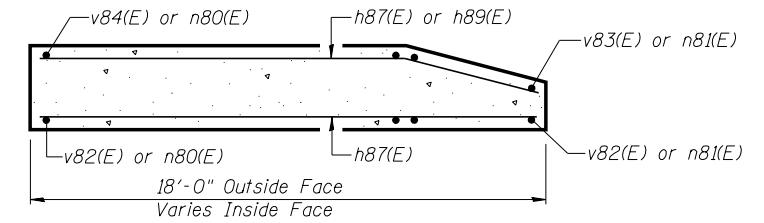
WING WALL ELEVATION
Showing Dimensions



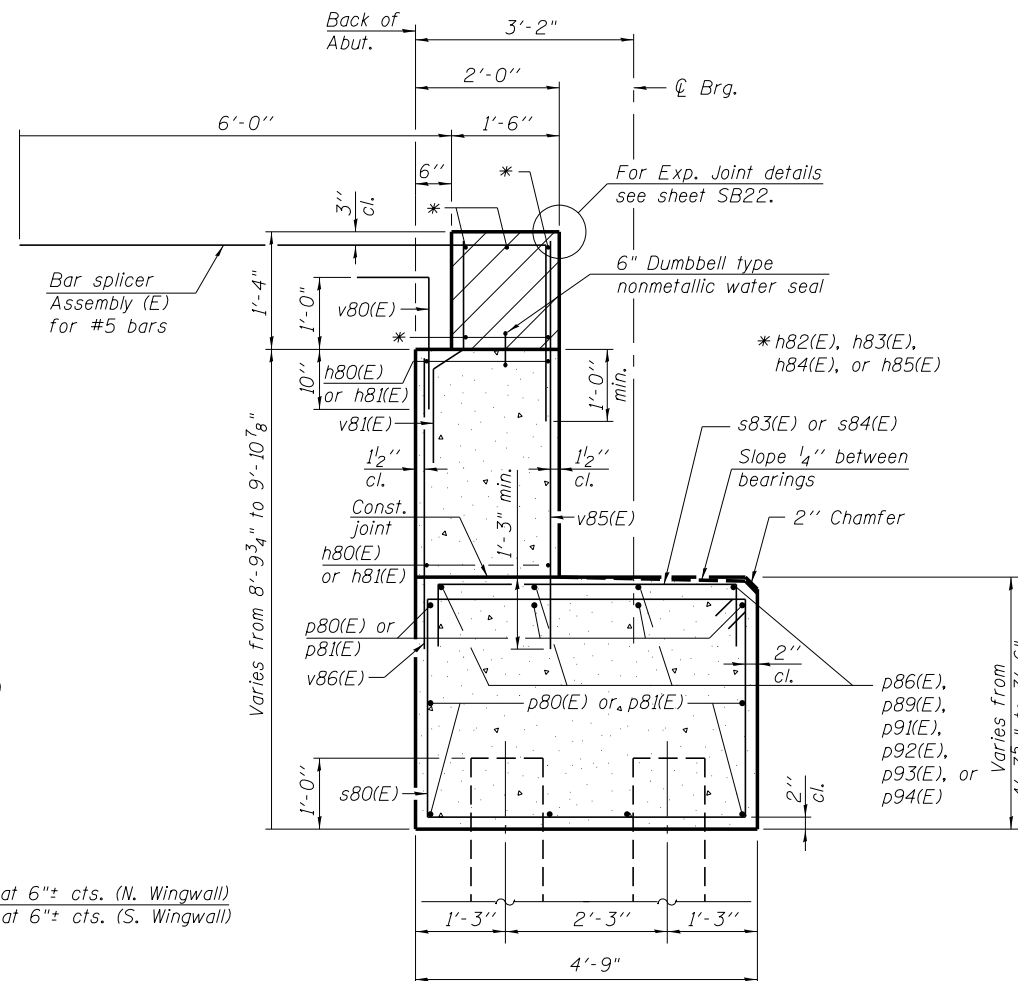
WING WALL ELEVATION
Showing Reinforcement



1" ϕ ANCHOR BOLT
(Cost included with Concrete Superstructure)



SECTION B-B



SEC. THRU ABUT.

NOTES:

1. Hatched area to be poured after superstructure false work has been removed.
2. Space reinforcement in cap to miss anchor bolts.
3. Pour steps monolithically with cap.
4. For Bill of Material and Bar List, see sheet SB44.

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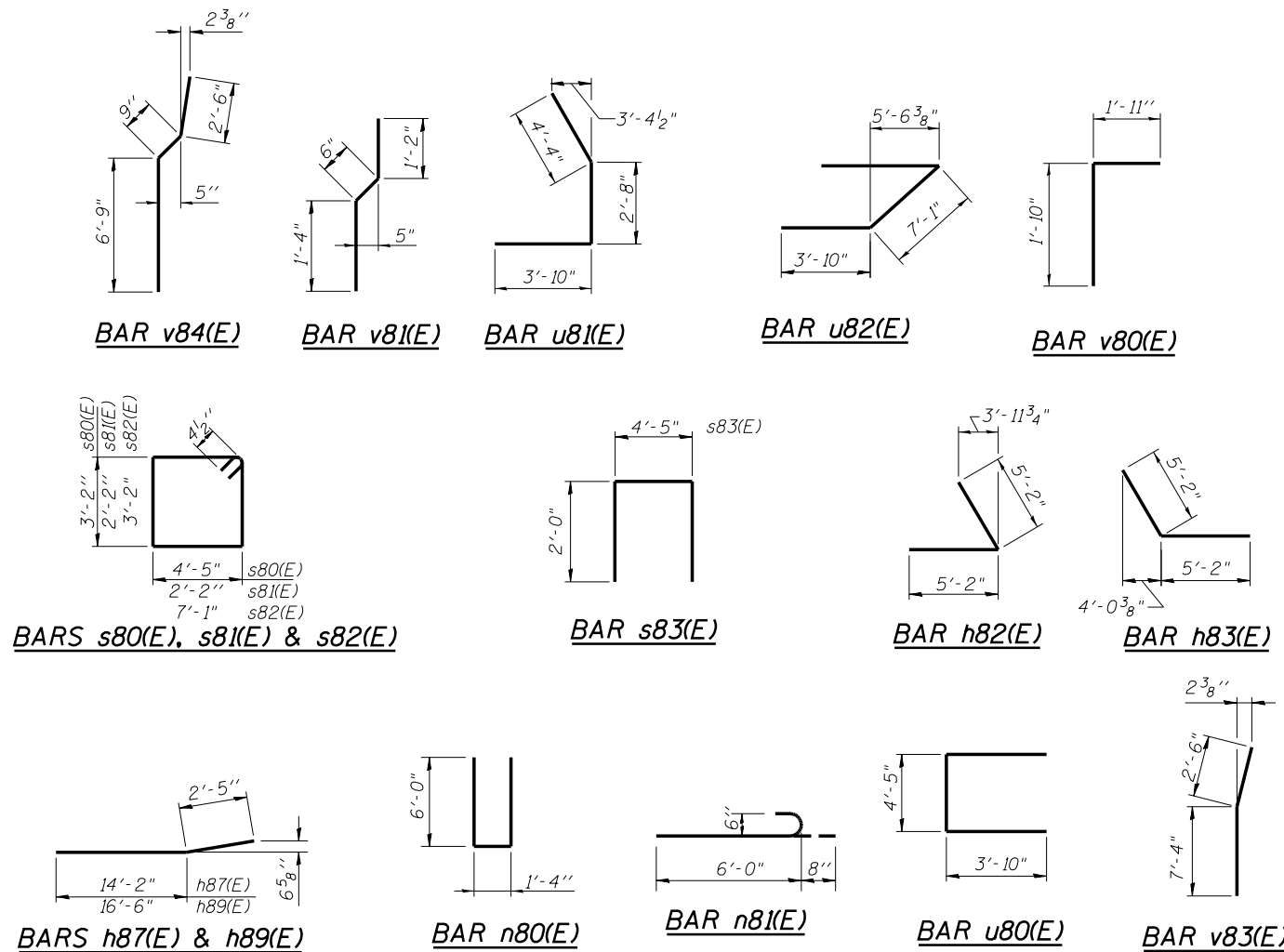
EAST ABUTMENT DETAILS 1 OF 2
STRUCTURE NO. 090-0167

SHEET NO. SB43 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;(14HB-4;14,14HV)BR]	TAZEWELL	2433	1954
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

EAST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h80(E)	42	#5	22'-3"	—
h81(E)	84	#5	24'-3"	—
h82(E)	16	#5	10'-4"	↙
h83(E)	16	#5	10'-4"	↘
h84(E)	30	#6	25'-3"	—
h85(E)	10	#6	27'-3"	—
h86(E)	24	#4	17'-8"	—
h87(E)	10	#4	16'-7"	—
h88(E)	2	#4	16'-4"	—
h89(E)	10	#4	18'-11"	—
h90(E)	2	#4	19'-0"	—
n80(E)	31	#6	13'-4"	—
n81(E)	12	#6	6'-8"	—
p80(E)	20	#7	32'-9"	—
p81(E)	40	#7	35'-9"	—
p82(E)	6	#7	17'-10"	—
p83(E)	6	#7	19'-6"	—
p89(E)	12	#5	22'-2"	—
p90(E)	4	#5	21'-8"	—
p91(E)	4	#5	5'-1"	—
p92(E)	8	#5	25'-9"	—
p93(E)	4	#5	16'-10"	—
p94(E)	4	#5	18'-5"	—
s80(E)	325	#4	15'-11"	□
s81(E)	55	#4	9'-5"	□
s82(E)	2	#4	21'-3"	□
s83(E)	175	#5	8'-5"	□
u80(E)	20	#6	12'-1"	—
u81(E)	5	#6	10'-10"	↙
u82(E)	4	#6	14'-9"	↘
v80(E)	121	#5	3'-9"	—
v81(E)	189	#4	3'-0"	—
v82(E)	38	#6	9'-10"	—
v83(E)	6	#6	9'-10"	—
v84(E)	31	#6	10'-0"	—
v85(E)	189	#5	8'-9"	—
v86(E)	189	#5	7'-5"	—
Structure Excavation		Cu. Yd.	874	
Concrete Structures		Cu. Yd.	236.3	
Reinforcement Bars, Epoxy Coated		Pound	22,770	
Furnishing Metal Shell Piles 12" x 0.250"		Foot	2,414	
Driving Piles		Foot	2,414	
Test Pile Metal Shells		Each	1	
Concrete Sealer		Sq. Ft.	1,711	



NOTES:

- Quantity of concrete in end post included with Concrete Superstructure on sheet SB17.
- For details of Bar Splicers, see sheet SB53.
- Quantity of concrete in hatch block included with Concrete Superstructure on sheet SB17.
- For details of piles, see sheet SB52.

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312-565-0450 Job No. 10056

FILE NAME =	USER NAME = mbecker	DESIGNED - DTS	REVISED -
		CHECKED - SLD	REVISED -
0900167.68620.44.eabut7.dgn		PLOT SCALE =	REVISED -
		PLOT DATE = 7/17/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EAST ABUTMENT DETAILS 2 OF 2
STRUCTURE NO. 090-0167**

SHEET NO. SB44 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HV)BR]	TAZEWELL	2433	1955
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

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GENERAL NOTES

This set of plans describes the Anchored Sheet Pile Retaining Wall at the I-74 Bridge over Jefferson St. near Morton, Illinois in Tazewell County. For more information see the Special Provision for "Permanent Ground Anchors".

GENERAL NOTES

1. Prior to earth retention work, call J.U.L.I.E.
2. Contractor to install Permanent Steel Sheet Piling to the limits shown on these plans.
3. Excavate (by Contractor) to approximately 2 feet below tieback grade in front of wall.
4. Install Permanent Ground Anchors as described in anchor installation procedures described below.
5. Excavate to finished ground line after completion of bridge in Stage 3.
6. Equivalent members may be substituted for those shown, all material used in construction of the wall shall be new, unused.

ANCHOR INSTALLATION PROCEDURE

Construct and maintain a 10-foot-wide bench approximately 2 feet below anchor elevation to allow for safe anchor operations. Anchor Schedule indicates anchor angle, tendon size, grade, length, and anchor design load. If admixtures are used in the cement, procedures below must be modified to suit properties of the admixture.

REGROUTABLE ANCHORS

1. Drill approximately a minimum 8-inch diameter hole to the lengths shown on the Anchor Schedule. Anchor locations and elevations are shown on plan and elevations. Tremie grout the anchor hole. Insert tendon after the anchor hole is filled with grout.
2. Regrout the bond length as necessary to develop the required anchor capacity.
3. Allow grout to harden a minimum of five (5) days. Then tension each anchor in accordance with the anchor testing procedures.

MATERIALS

Steel: ASTM A572, Grade 36 for walers and plates
 ASTM A572, Grade 50 for PZ-35 steel sheet piles.

Tendon: 1/4-inch-diameter, 150 ksi Grade, conforming to ASTM A722.

Grout: Neat cement grout having a 28-day compressive strength of 3,000 psi, consisting of portland cement Type I, II, or III, and conforming to Section 1001 of the Standard Specifications. Testing of grout is not required since grout will be tested with anchor stressing as part of system performance.

Welds: E70XX weld strength level, low hydrogen electrode. Testing of welds is not required since welds will be tested with tieback stressing as part of system performance.

Anchor And Waler Schedule							
Anchor No.	Anchor Elev.	Angle (Deg.)	Design Load (Kip)	Tendon Size Gr. 150	Unbonded Length (Ft.)	Bonded Length (Ft.)	Waler Size Grade 36
1	As Shown	35	93	1/4"	28	40	2-MC7x19.1
2	As Shown	35	58	1/4"	44	40	2-MC7x19.1
3 thru 36	As Shown	10	143	1/4"	15	40	2-MC7x19.1
37	As Shown	30	82	1/4"	15	40	2-MC7x19.1
38	As Shown	25	79	1/4"	15	40	2-MC7x19.1
39	As Shown	20	76	1/4"	15	40	2-MC7x19.1
40 thru 43	As Shown	10	72	1/4"	15	40	2-MC7x19.1
44	As Shown	35	93	1/4"	28	40	2-MC7x19.1
45	As Shown	35	58	1/4"	44	40	2-MC7x19.1
46 thru 79	As Shown	10	143	1/4"	15	40	2-MC7x19.1
80	As Shown	30	82	1/4"	15	40	2-MC7x19.1
81	As Shown	25	79	1/4"	15	40	2-MC7x19.1
82	As Shown	20	76	1/4"	15	40	2-MC7x19.1
83 thru 86	As Shown	10	72	1/4"	15	40	2-MC7x19.1

ANCHOR TESTING PROCEDURES

PERFORMANCE TEST

Two anchors at each abutment in Stage 1, one anchor at each abutment in Stage 2 and one anchor at each abutment in Stage 3 shall be tested in accordance with the following procedures. The remaining anchors must be tested according to the proof test procedures.

The performance test must be made by incrementally loading and unloading the anchor according to the following schedule. The load shall be raised from one increment to another immediately after recording the anchor movement. The anchor movement must be measured and recorded to the nearest 0.001 inches with respect to an independent fixed reference point at the alignment load and at each increment of load. The alignment load is a nominal load maintained on the anchor to keep the testing equipment in position. The load must be monitored with a pressure gauge. A reference gauge must be placed in series with the pressure gauge during the performance test. If the load determined by the reference pressure gauge and the load determined by the pressure gauge differ by more than ten (10) percent, the jack, pressure gauge and reference pressure gauge must be recalibrated. At load increments other than the maximum test load, the load shall be held long enough to obtain the movement reading, but no more than a minute.

PERFORMANCE TEST SCHEDULE

Load	Load
AL	AL
*0.17DL	0.17DL
AL	0.33DL
0.17DL	0.50DL
*0.33DL	0.67DL
AL	*0.80DL
0.17DL	AL
0.33DL	0.17DL
*0.50DL	0.33DL
AL	0.50DL
0.17DL	0.67DL
0.33DL	0.80DL
0.50DL	*0.89DL
*0.67DL	Reduce To Lock-Off Load (0.67DL)

Where: AL is the alignment load
 DL is the anchor design load

The maximum test load in a performance test shall be held for ten (10) minutes. The jack shall be re-pumped as necessary in order to maintain a constant load. The load-hold period shall start as soon as the maximum test load is applied and the anchor movement, with respect to a fixed reference, must be measured and recorded at 1 minute, 2, 3, 4, 5, 6, and 10 minutes. If the anchor movement between one (1) and ten (10) minutes exceeds 0.04 inches, the maximum test load shall be held for an additional 50 minutes. If the load hold is extended, the anchor movement must be recorded at 15 minutes, 20, 25, 30, 45, and 60 minutes.

Plot the anchor movement versus load for each load increment marked with an (*) in the performance test schedule and plot the residual movement of the tendon at each alignment load versus the highest previously applied load.

PROOF TEST

The proof test shall be performed by incrementally loading the anchor according to the following schedule. The load shall be raised from one increment to another immediately after recording the anchor movement. The anchor movement shall be measured and recorded to the nearest 0.001 inches with respect to an independent fixed reference point at the alignment load and at each increment of load. The alignment load is a normal load maintained on the anchor to keep the testing equipment in position. The load shall be monitored with a pressure gauge. At load increments other than the maximum test load, the load must be held long enough to obtain the movement reading.

The maximum test load in a proof test shall be held for ten (10) minutes. The jack shall be re-pumped as necessary in order to maintain a constant load. The load-hold period shall start as soon as the maximum test load is applied and the anchor movement, with respect to a fixed reference, must be measured and recorded at 1 minute, 2, 3, 4, 5, 6, and 10 minutes. If the anchor movement between one (1) and ten (10) minutes exceeds 0.04 inches, the maximum test load must be held for an additional 50 minutes. If the load hold is extended, the anchor movement must be recorded at 15 minutes, 20, 25, 30, 45, and 60 minutes.

PROOF TEST SCHEDULE

Load	Load
AL	0.67DL
0.17DL	0.80DL
0.33DL	0.89DL
0.50DL	Reduce To Lock-Off Load (0.67DL)

Where: AL is the alignment load
 DL is the anchor design load

Plot the anchor movement versus load for each load increment in the proof test.

ANCHOR LOAD TEST ACCEPTANCE CRITERIA:

A performance-tested or proof-tested anchor with a 10 minute load hold is acceptable if:

1. The anchor resists the maximum test load with less than 0.04 inches of movement between 1 minute and 10 minutes; and
2. The total movement at the maximum test load exceeds 80 percent of the theoretical elastic elongation of the unbonded length.

A performance-tested or proof-tested anchor with a 60 minute load hold is acceptable if:

1. The anchor resists the maximum load test with a creep rate that does not exceed 0.08 inches in the last log cycle of time; and
2. The total movement at the maximum test load exceeds 80 percent of the theoretical elastic elongation of the unbonded length.

Anchors that have a creep rate greater than 0.08 inches per log cycle of time can be incorporated in the finished work at a load equal to one-half its failure load. The failure load is the load carried by the anchor after the load has been allowed to stabilize for ten (10) minutes.

When an anchor fails, the design and/or the construction procedures may be modified. These modifications may include, but are not limited to, installing replacement anchors, reducing the design load by increasing the number of anchors, modifying the installation methods, increasing the bond length or changing the anchor type.

Lock-off: Upon completion of the anchor test, the load must be reduced to the lock-off load indicated on the performance and proof test schedules and transferred to the anchorage device. The anchor may be completely unloaded prior to lock-off. After transferring the load, and prior to removing the jack, a lift-off reading shall be taken. The lift-off reading shall be within 10 percent of the specified lock-off load. If the load is not within 10 percent of the specified lock-off load, the anchorage shall be reset and another lift-off reading shall be made.

PERFORMANCE TEST DATA

% DL	Load	Press.	Dial	% DL	Load	Press.	Dial
AL				AL			
*17				17			
AL				33			
17				50			
*33				67			
AL				*80			
17				AL			
33				17			
*50				33			
AL				50			
17				67			
33				80			
50				*89			
*67				L.O.			

PERFORMANCE TEST REMARKS:

Anchor No. _____
 Design Load. _____

PERFORMANCE TEST DATA

% DL	Load	Press.	Dial	Defl.	Remarks
AL					
17					
33					
50					
67					
80					
89					
L.O.					

PROOF & CREEP REMARKS:

Anchor No. _____



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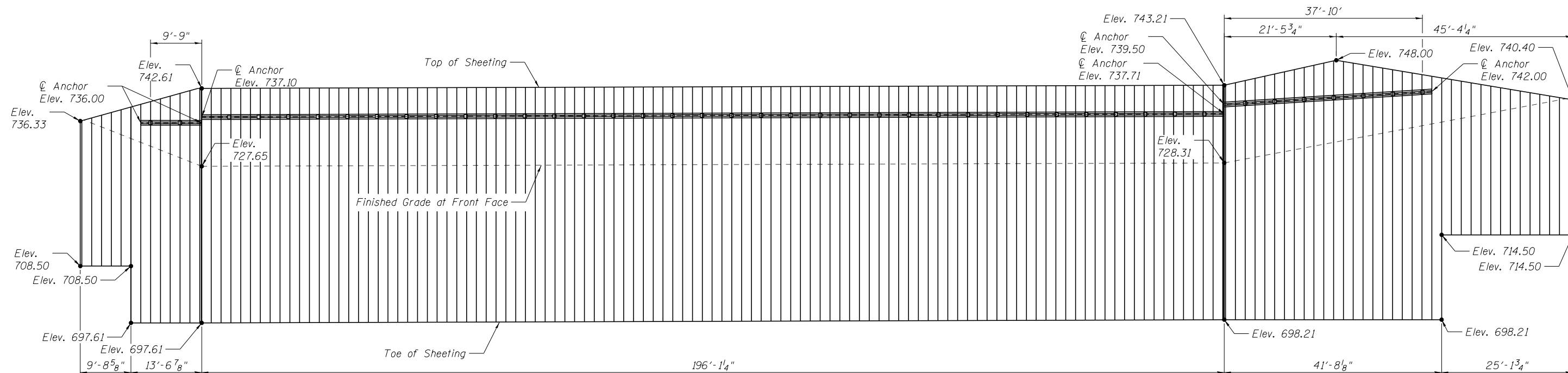
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STATE OF ILLINOIS
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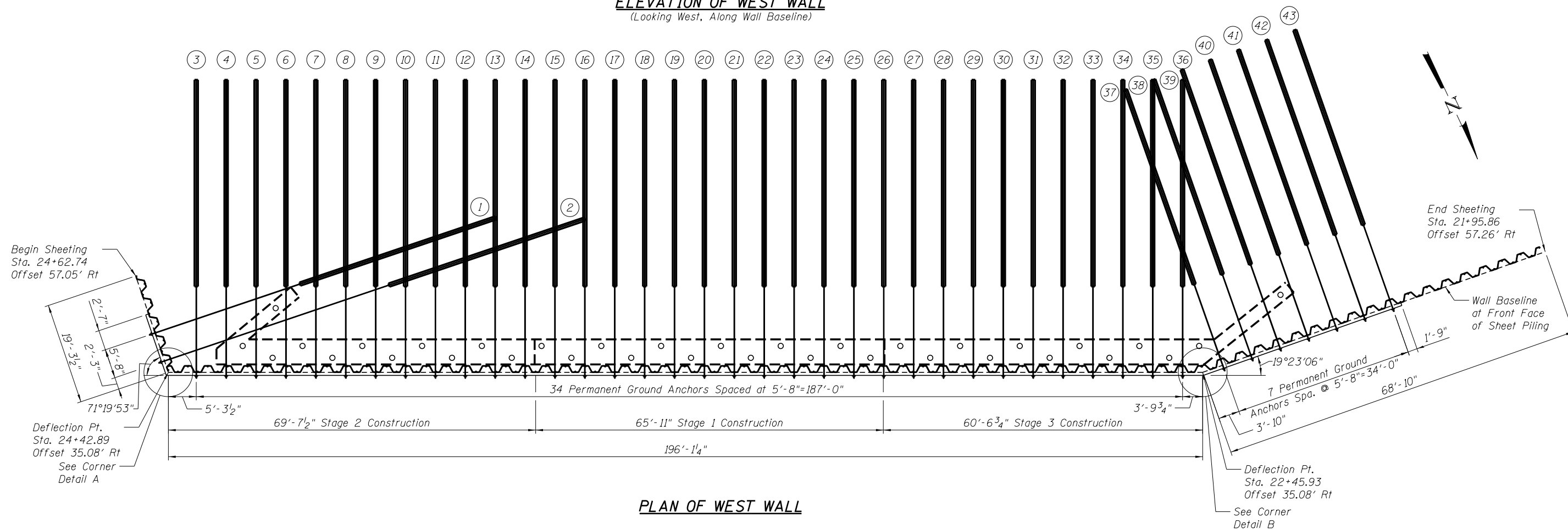
ANCHORED SHEET PILE WALL NOTES
 STRUCTURE NO. 090-0167

SHEET NO. SB45 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R]14HB-4,14,14HB[BR]	TAZEWELL	2433	1956
ILLINOIS			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				



ELEVATION OF WEST WALL
(Looking West, Along Wall Baseline)



PLAN OF WEST WALL

Notes:

1. Concrete facing not shown for clarity.
2. See sheet SB50 for Details A and B.

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REVISIED -

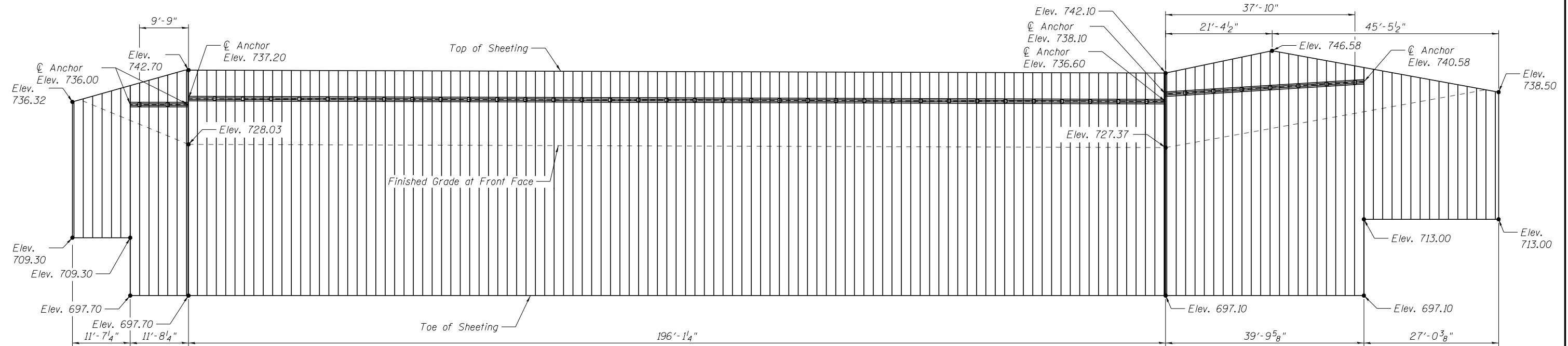
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WEST ABUTMENT SHEET PILE WALL
STRUCTURE NO. 090-0167**

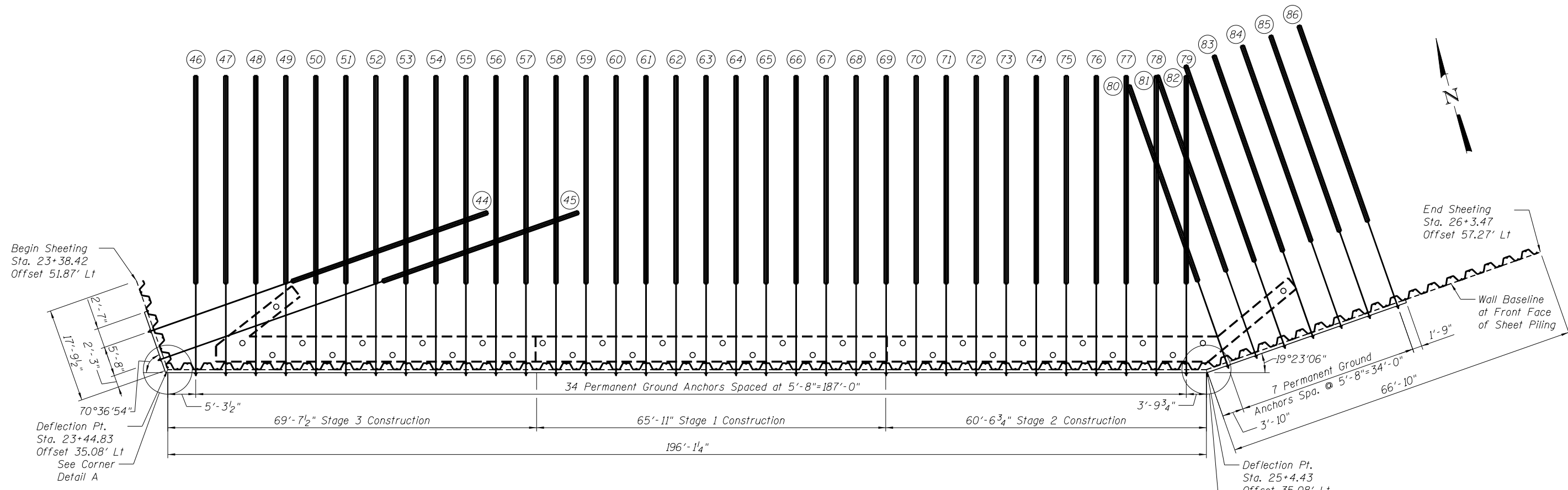
SHEET NO. SB46 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1957
CONTRACT NO. 68620				

ILLINOIS FED. AID PROJECT



ELEVATION OF EAST WALL
(Looking East, Along Wall Baseline)



PLAN OF EAST WALL

- Notes:**
- Concrete facing not shown for clarity.
 - See Sheet SB50 for Details A and B.

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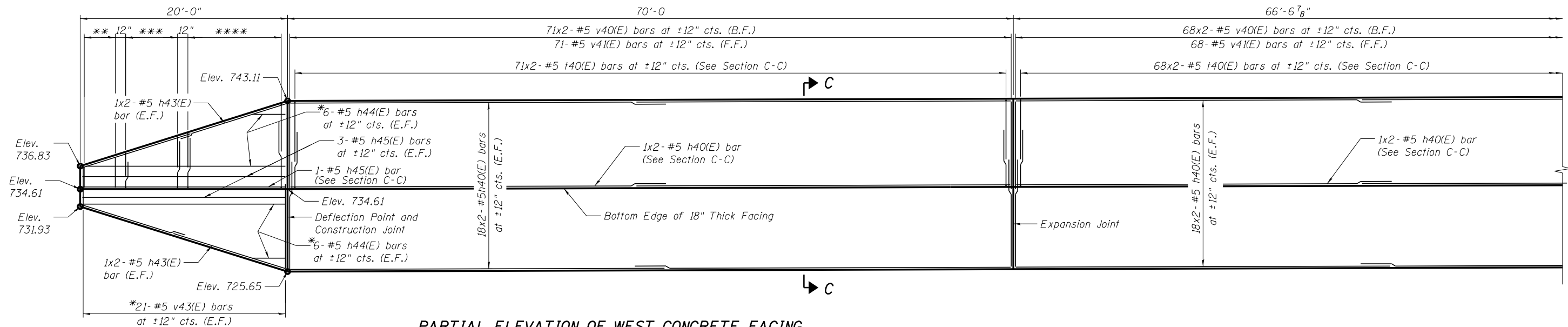
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT SHEET PILE WALL
STRUCTURE NO. 090-0167

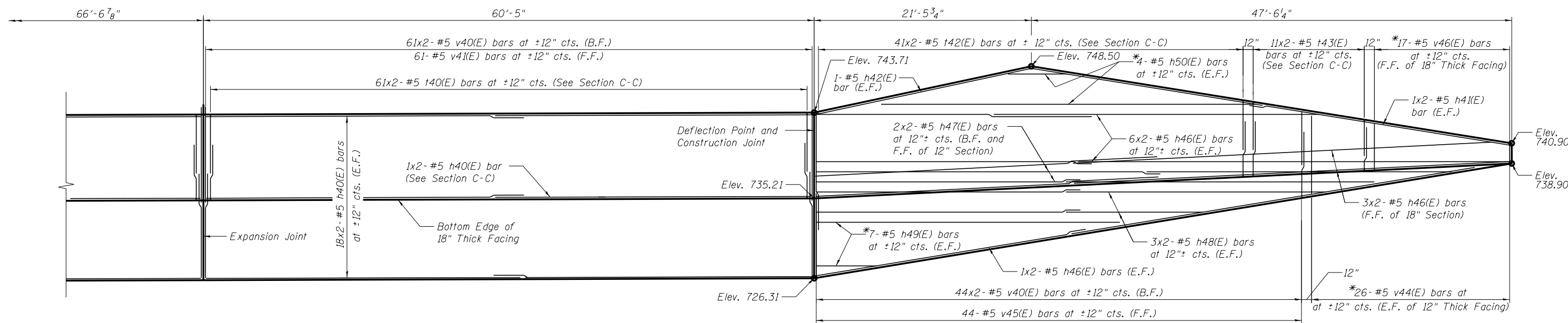
SHEET NO. SB47 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14Rz(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1958
CONTRACT NO. 68620				

ILLINOIS FED. AID PROJECT



PARTIAL ELEVATION OF WEST CONCRETE FACING
(Looking West, Along Wall Baseline)



PARTIAL ELEVATION OF WEST CONCRETE FACING
(Looking West, Along Wall Baseline)

- *Bars shall be cut to fit and remainder shall be used in other face. See cut diagram on sheet SB51.
- **9- #5 v42(E) bars at 12" cts. (F.F. of 18" Thick Facing)
Cut bars to fit in field.
- ***4x2- #5 t41(E) bars at 12" cts. (See Section C-C)
- ****8x2- #5 t40(E) bars at 12" cts. (Section C-C)

- NOTES:**
1. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 2. E.F. denotes Each Face
B.F. denotes Back Face
F.F. denotes Front Face
 3. See sheet SB50 for Section C-C.
 4. Finished grade not shown for clarity.

MINIMUM BAR LAP
#5 Bar = 3'-3"

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PLOT DATE = 7/16/2012			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

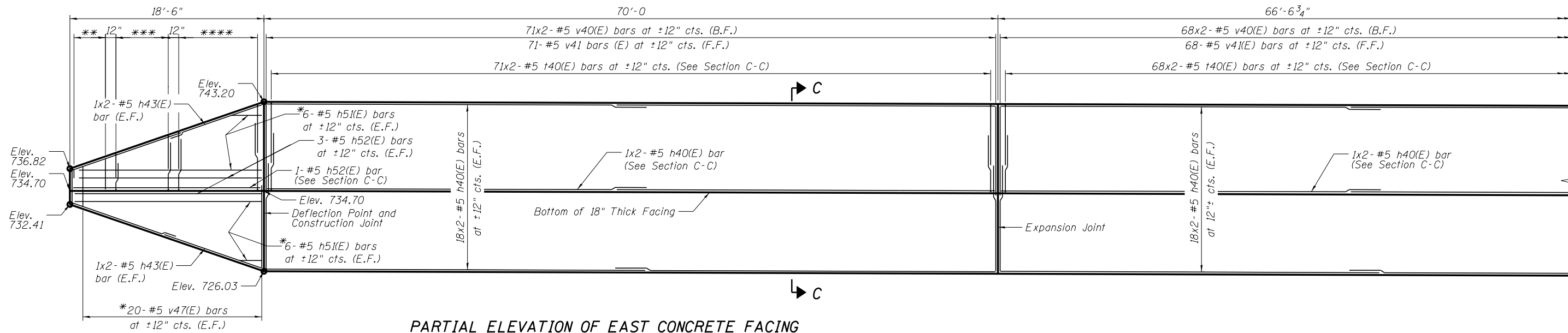
WEST ABUTMENT FACING
STRUCTURE NO. 090-0167

SHEET NO. SB48 OF SB65 SHEETS

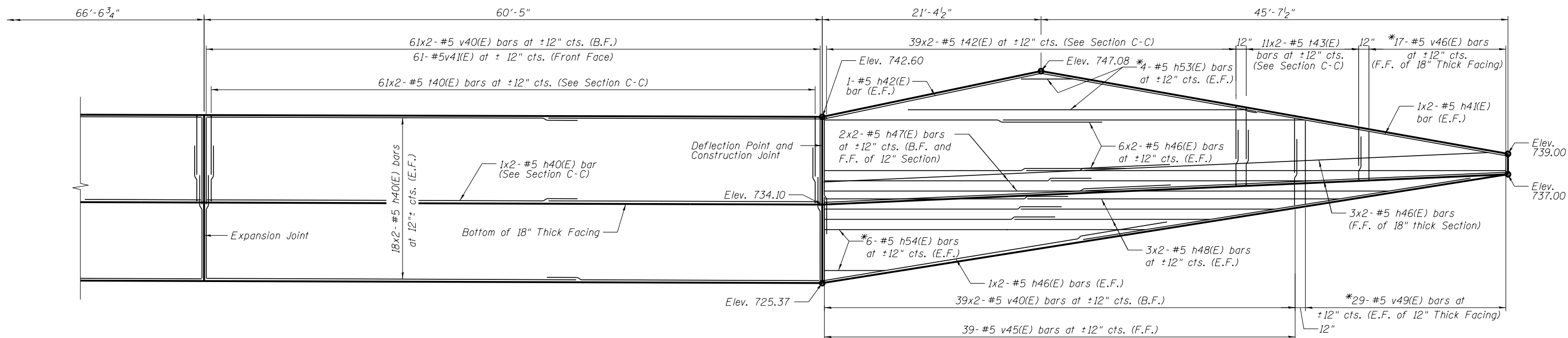
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74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1959
CONTRACT NO. 68620				

ILLINOIS FED. AID PROJECT

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PARTIAL ELEVATION OF EAST CONCRETE FACING
(Looking East, Along Wall Baseline)



PARTIAL ELEVATION OF EAST CONCRETE FACING
(Looking East, Along Wall Baseline)

- *Bars shall be cut to fit and remainder shall be used in other face. See cut diagram on sheet SB51.
- **8-#5 v48(E) bars at 12" cts. (F.F. of 18" thick facing)
Cut bars to fit in field.
- ***4x2-#5 t41(E) bars at 12" cts. (See Section C-C)
- ****8x2-#5 t40(E) bars at 12" cts. (Section C-C)

NOTES:

1. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
2. E.F. denotes Each Face
B.F. denotes Back Face
F.F. denotes Front Face
3. See sheet SB50 for Section C-C.
4. Finished Grade not shown for clarity.

MINIMUM BAR LAP
#5 Bar = 3'-3"

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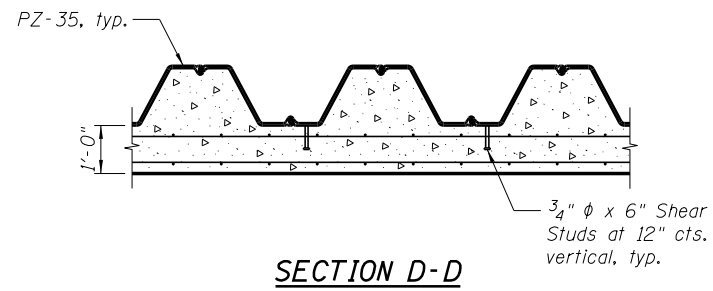
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

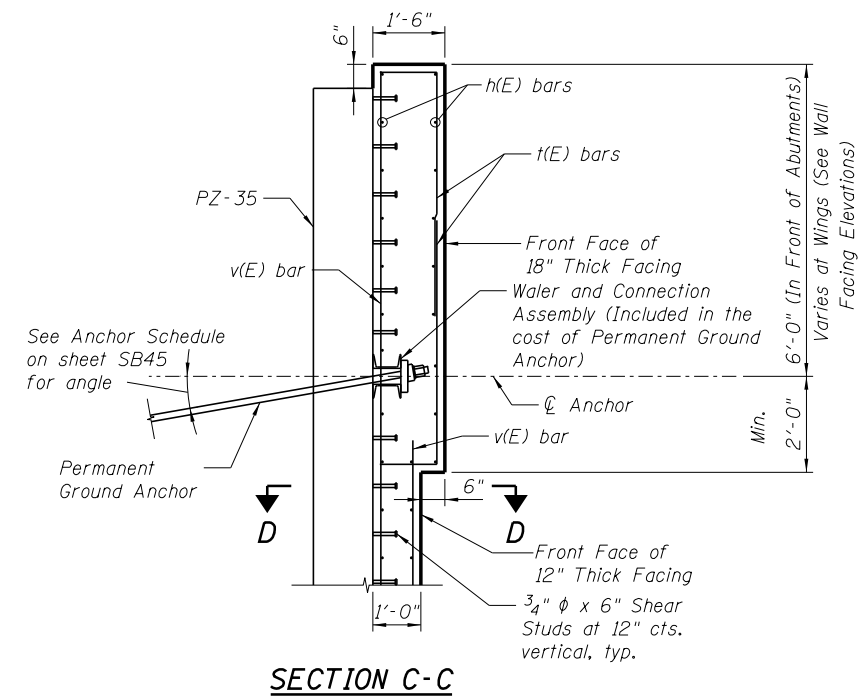
**EAST ABUTMENT FACING
STRUCTURE NO. 090-0167**

SHEET NO. SB49 OF SB65 SHEETS

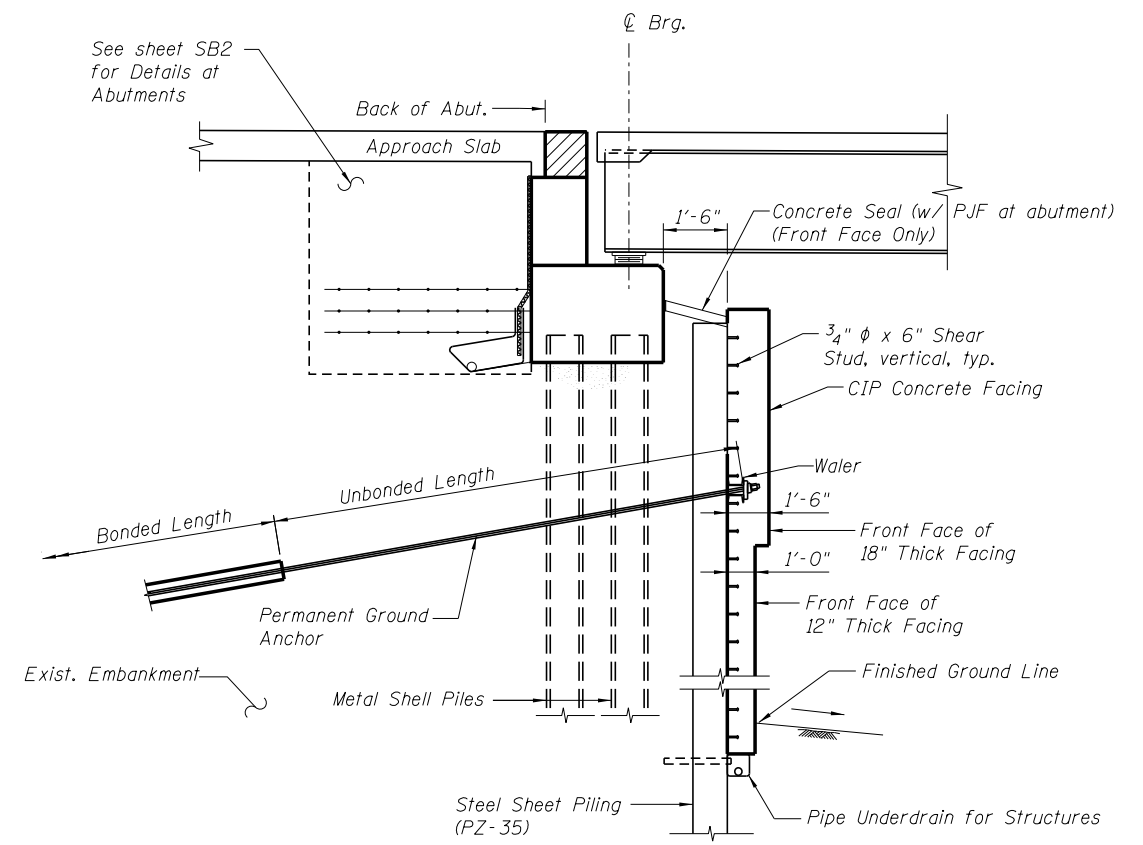
F.A.I. RT.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1960
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				



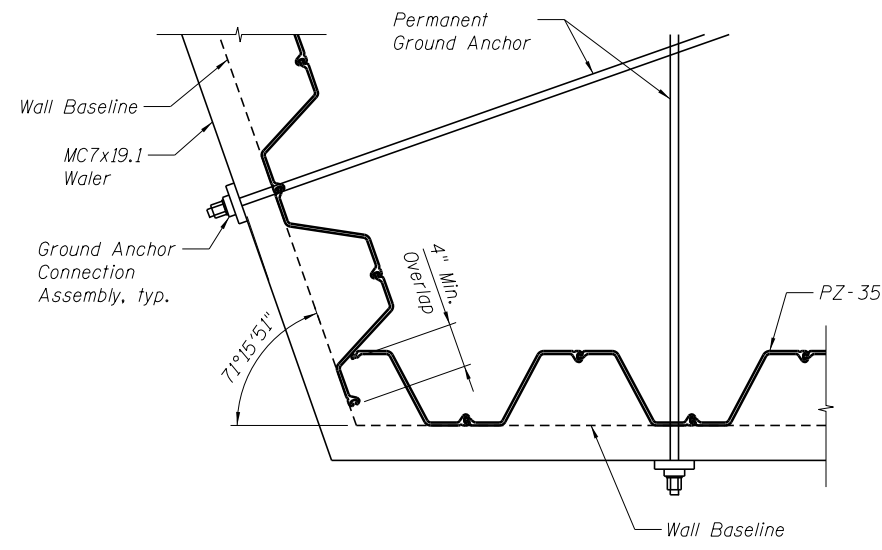
SECTION D-D



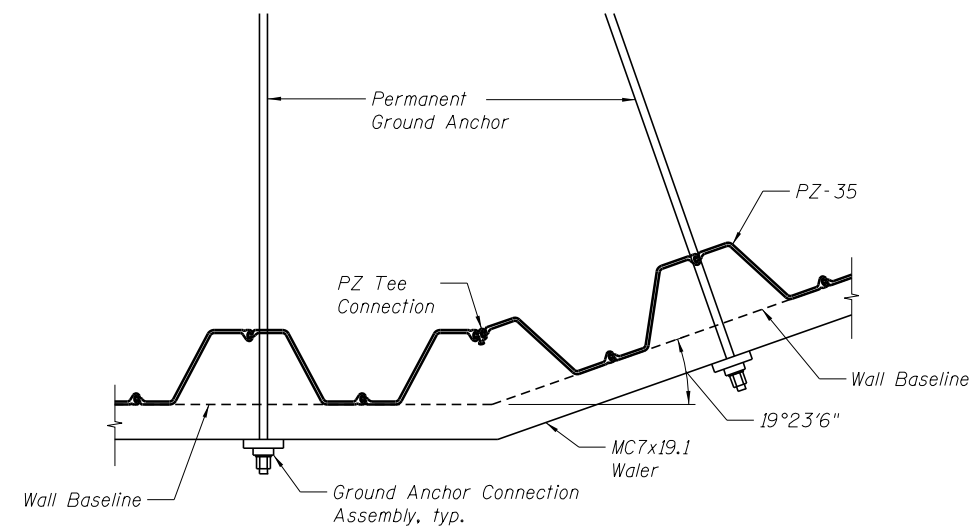
SECTION C-C



SECTION THRU ABUTMENT



CORNER DETAIL A



CORNER DETAIL B

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	PLOT DATE = 7/16/2012	CHECKED - MFB	REVISED -

**STATE OF ILLINOIS
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**ABUTMENT WALL DETAILS 1 OF 2
STRUCTURE NO. 090-0167**

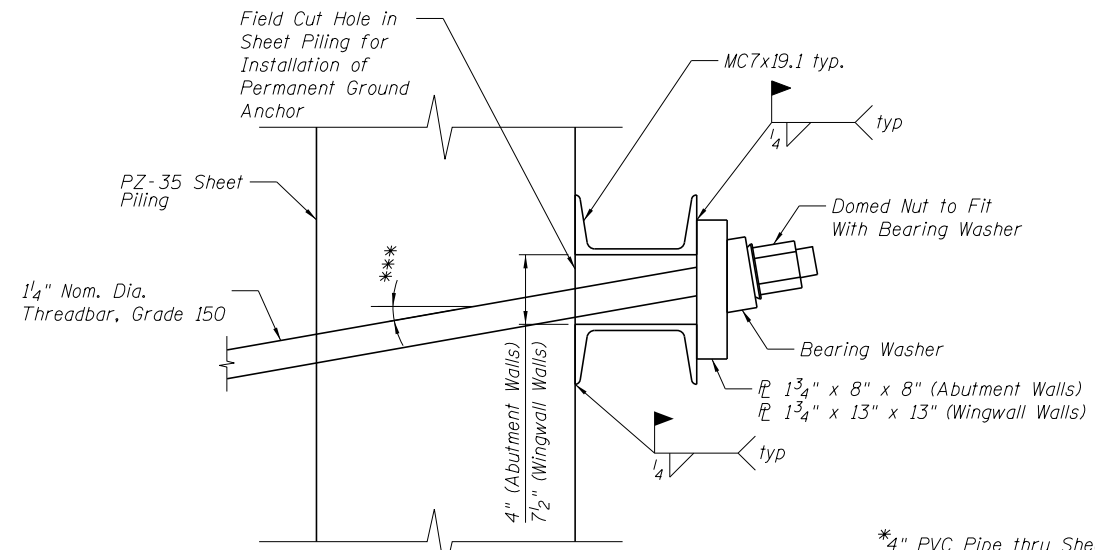
SHEET NO. SB50 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1961
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				

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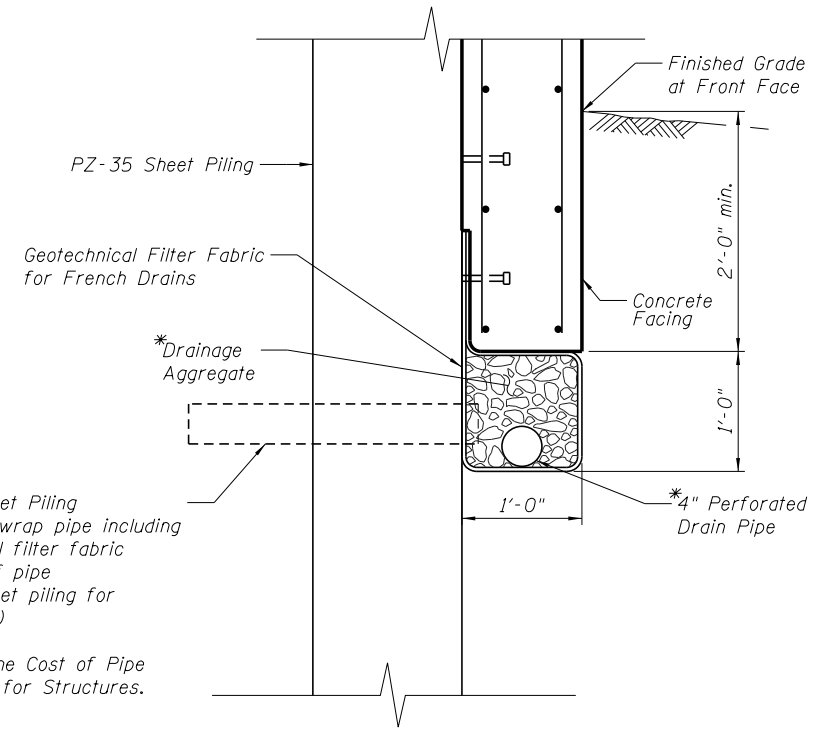
**TWO WALLS
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h40(E)	444	#5	36'-9"	
h41(E)	8	#5	25'-9"	
h42(E)	4	#5	21'-7"	
h43(E)	16	#5	12'-3"	
h44(E)	12	#5	23'-2"	
h45(E)	7	#5	19'-8"	
h46(E)	68	#5	36'-0"	
h47(E)	16	#5	33'-0"	
h48(E)	24	#5	26'-9"	
h49(E)	7	#5	37'-8"	
h50(E)	4	#5	48'-2"	
h51(E)	12	#5	21'-1"	
h52(E)	7	#5	18'-1"	
h53(E)	4	#5	40'-3"	
h54(E)	6	#5	34'-0"	
t40(E)	832	#5	6'-11"	
t41(E)	16	#5	5'-5"	
t42(E)	160	#5	8'-11"	
t43(E)	44	#5	6'-5"	
v40(E)	966	#5	10'-6"	
v41(E)	400	#5	8'-6"	
v42(E)	9	#5	4'-4"	
v43(E)	21	#5	21'-7"	
v44(E)	26	#5	11'-8"	
v45(E)	83	#5	10'-0"	
v46(E)	17	#5	6'-11"	
v47(E)	20	#5	20'-9"	
v48(E)	8	#5	4'-0"	
v49(E)	29	#5	12'-10"	
Concrete Structures		Cu. Yd.	625.8	
Form Liner Textured Surface		Sq. Ft.	8,943	
Stud Shear Connectors		Each	2,398	
Reinforcement Bars, Epoxy Coated		Pound	47,670	
Concrete Sealer		Sq. Ft.	10,362	
Permanent Ground Anchor		Each	86	
Permanent Steel Sheet Piling		Sq. Ft.	24,711	



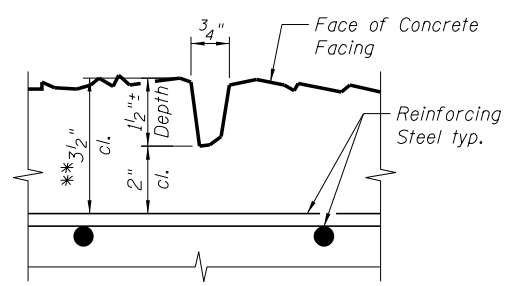
SECTION AT ANCHOR CONNECTION

*** See Anchor and Waler Schedule on sheet SB45.

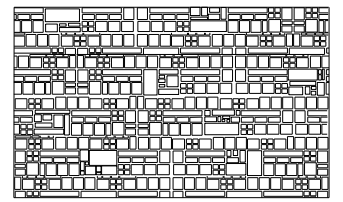


SECTION SHOWING UNDERDRAIN

*Include in the Cost of Pipe Underdrains for Structures.



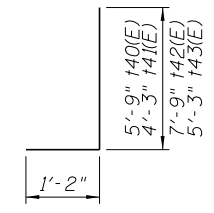
ASHLAR STONE RUSTICATION DETAIL



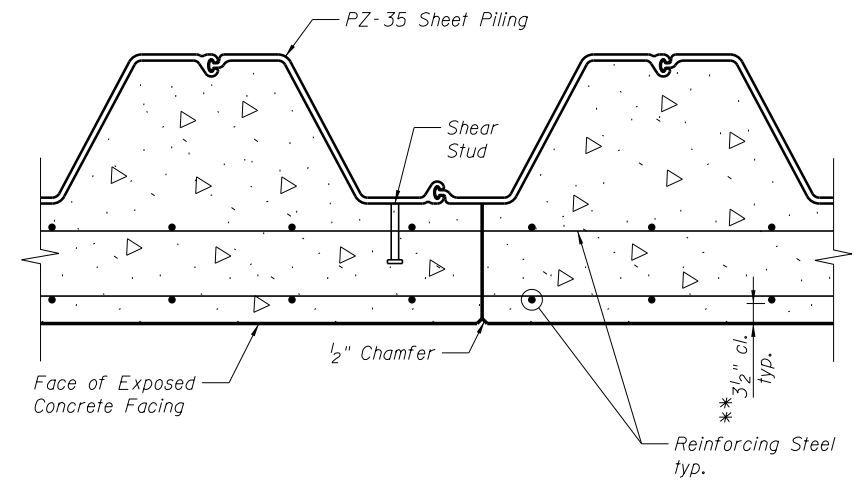
ASHLAR STONE RUSTICATION ARCHITECTURAL TREATMENT

Note: Architectural treatment is to be applied to the entire surface of the concrete facing. Cost shall be included with Form Liner Textured Surface. See Special Provision for "Rustication Finish for Retaining Walls". The form liner shall be Ashlar Stone Pattern equal to Scott Systems Texture #167C.

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

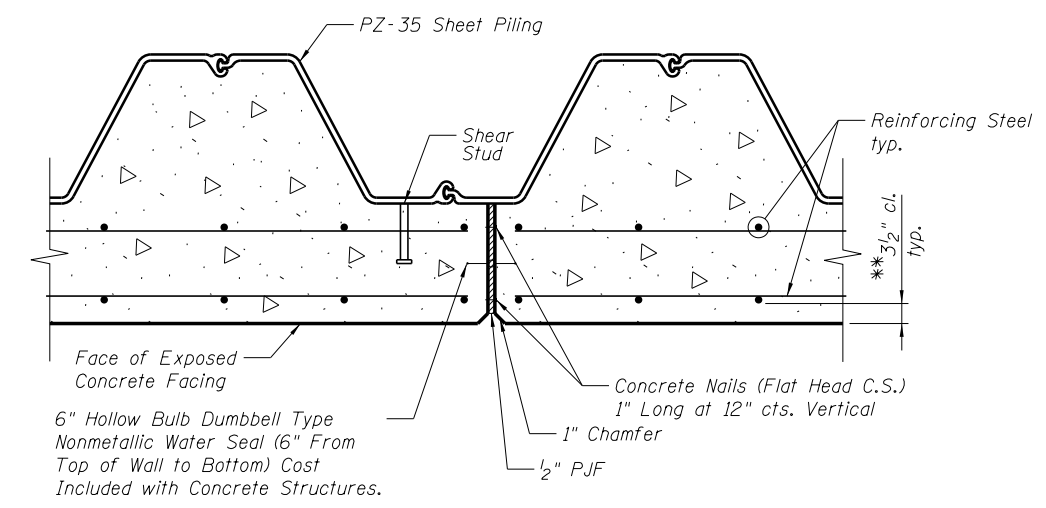


BARS t40(E), t41(E), t42(E) & t43(E)

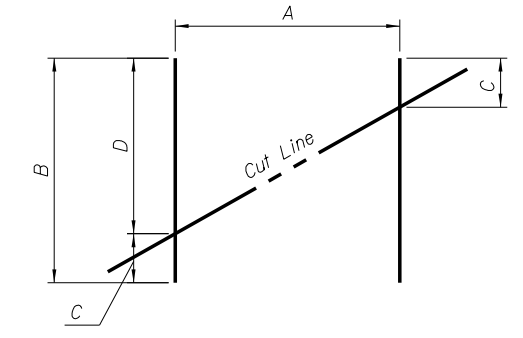


CONSTRUCTION JOINT

***Provide 3/2" clear to face of concrete facing (includes 1/2" depth of rustication).



EXPANSION JOINT



FIELD CUTTING DIAGRAM

Order bars in table below Full Length. Cut as Shown and Use Remainder of Bars in Opposite Face.

Bar	A	B	C	D
h44(E)	12	23'-2"	3'-6"	19'-8"
h49(E)	7	37'-8"	3'-6"	34'-2"
h50(E)	4	48'-2"	8'-0"	40'-2"
h51(E)	12	21'-1"	3'-0"	18'-1"
h53(E)	4	40'-3"	4'-6"	35'-9"
h54(E)	6	34'-0"	3'-0"	31'-0"
v43(E)	21	21'-7"	4'-7"	17'-0"
v44(E)	26	11'-8"	1'-8"	10'-0"
v46(E)	17	6'-11"	1'-8"	5'-3"
v47(E)	20	20'-9"	4'-1"	16'-8"
v49(E)	29	12'-10"	1'-7"	11'-3"

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Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME = 0900167.68620.51.psh7.dgn
PLOT SCALE =
PLOT DATE = 7/16/2012

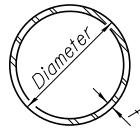
USER NAME = mbecker	DESIGNED - JJC/AMB	REVISIONS
CHECKED - LRB/MFB	CHECKED - LRB/MFB	REVISIONS
DRAWN - CBS	DRAWN - CBS	REVISIONS
CHECKED - MFB	CHECKED - MFB	REVISIONS

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ABUTMENT WALL DETAILS 2 OF 2
STRUCTURE NO. 090-0167**
SHEET NO. SB51 OF SB65 SHEETS

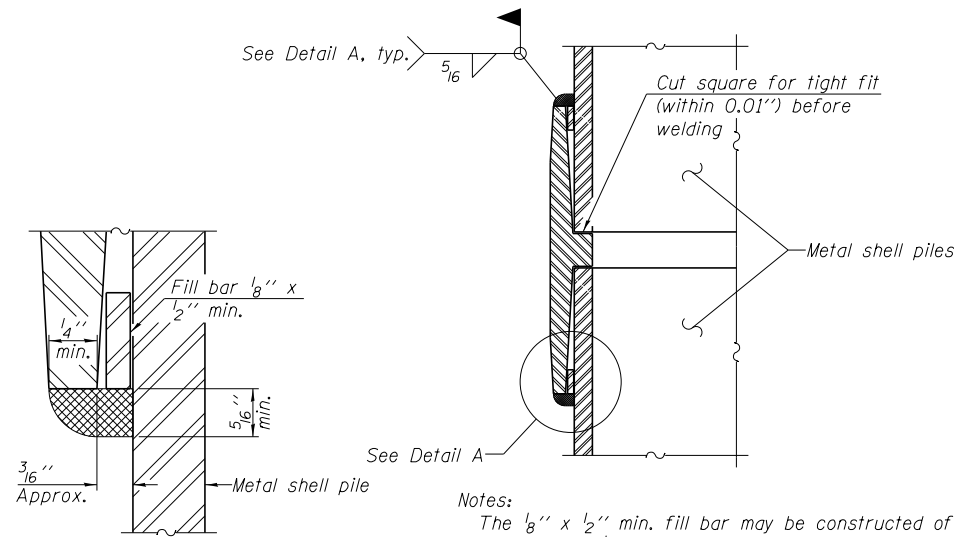
F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R]14HB-4,14,14HV[B]R	TAZEWELL	2433	1962
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

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METAL SHELL PILE TABLE

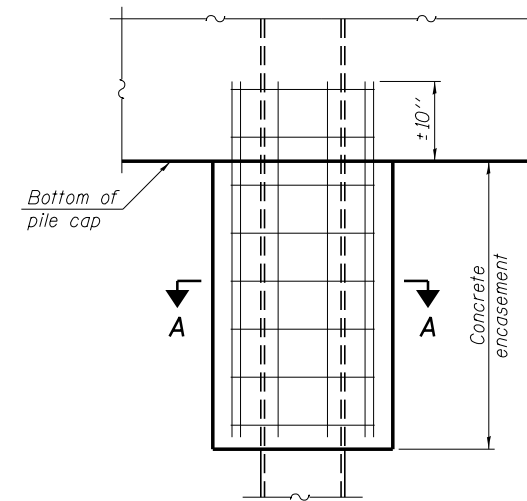
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



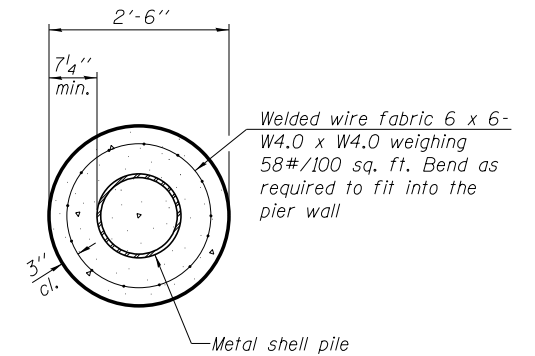
DETAIL A

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

WELDED COMMERCIAL SPLICE



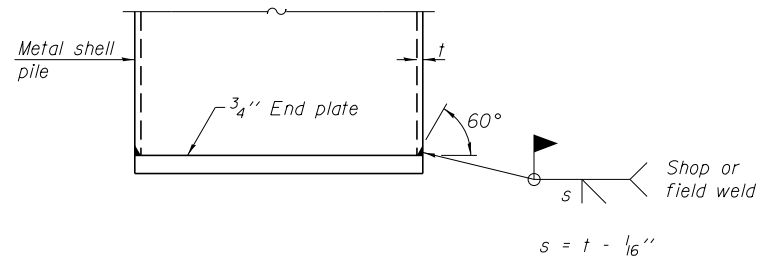
ELEVATION



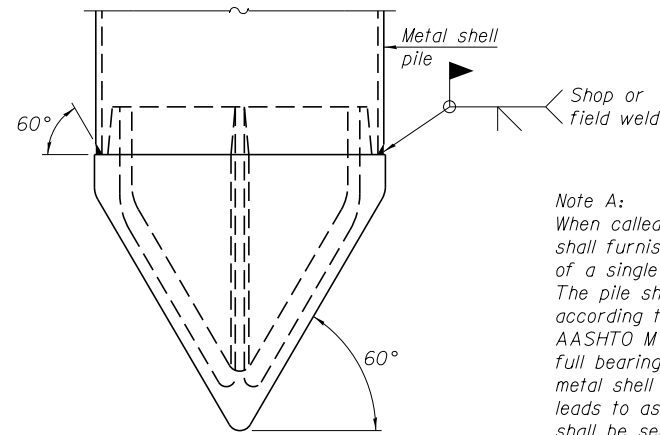
SECTION A-A

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

CONCRETE ENCASEMENT AT PIERS



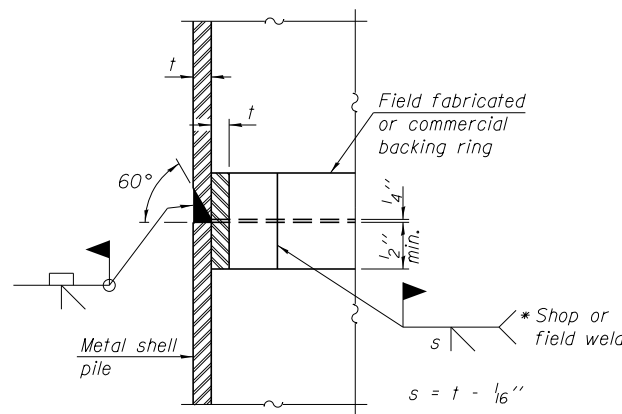
END PLATE ATTACHMENT



METAL SHELL PILE SHOE ATTACHMENT

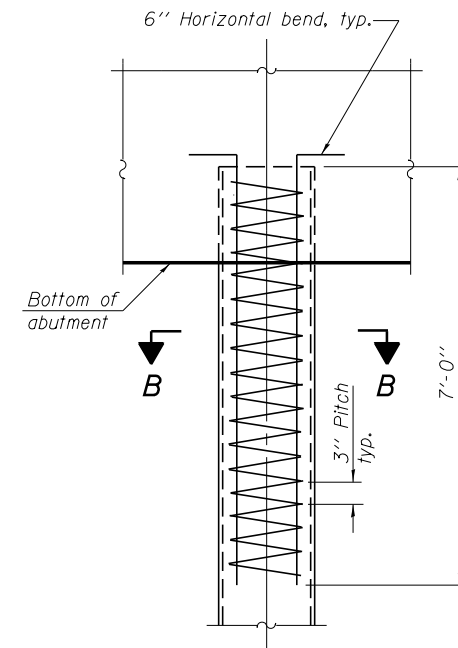
(See Note A)

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

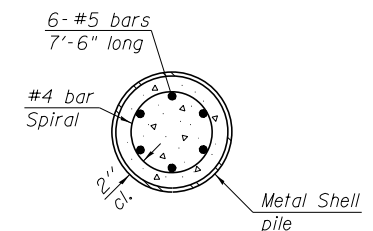


COMPLETE PENETRATION WELD SPLICE

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



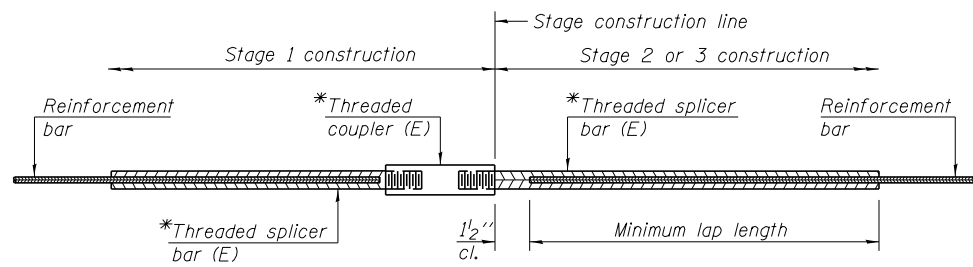
ELEVATION



SECTION B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS

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



STANDARD BAR SPLICER ASSEMBLY

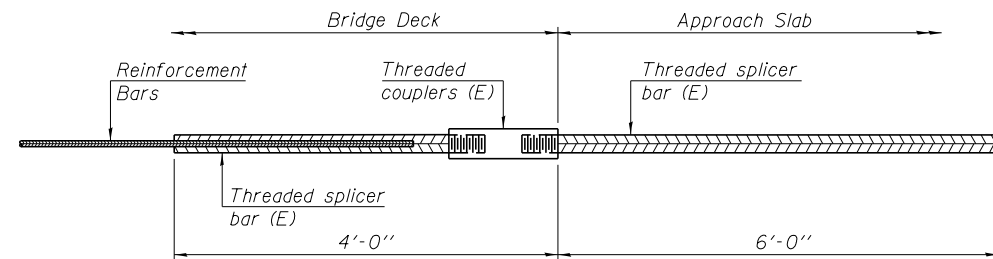
Bar size to be spliced	Minimum Lap Lengths					
	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

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

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

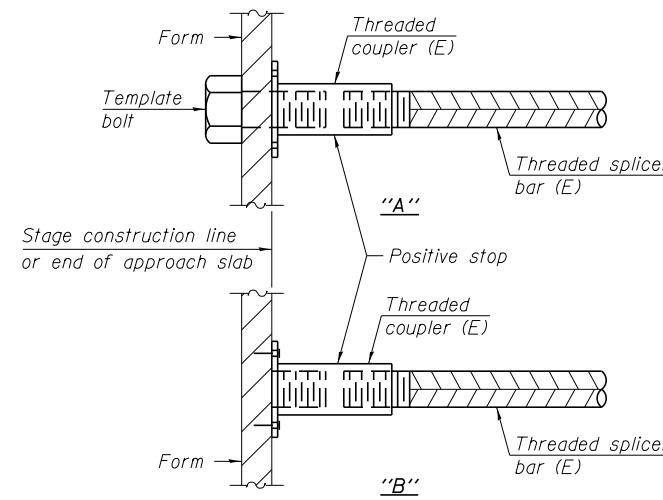
*Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#5	956	Table 5
Deck	#8	20	Table 5
W. Appr. Slab	#4	50	Table 5
W. Appr. Slab	#5	172	Table 5
E. Appr. Slab	#4	50	Table 5
E. Appr. Slab	#5	172	Table 5
W. Abut.	#5	32	Table 5
W. Abut.	#6	10	Table 5
W. Abut.	#7	20	Table 5
E. Abut.	#5	32	Table 5
E. Abut.	#6	10	Table 5
E. Abut.	#7	20	Table 5



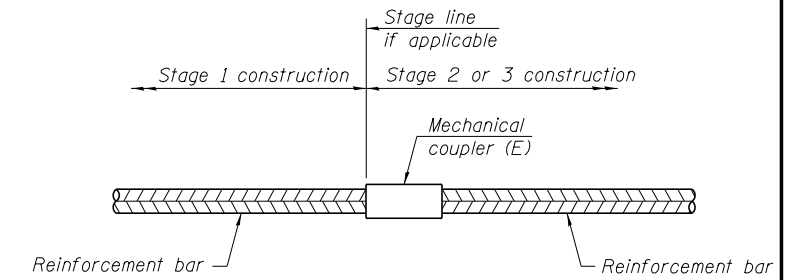
BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



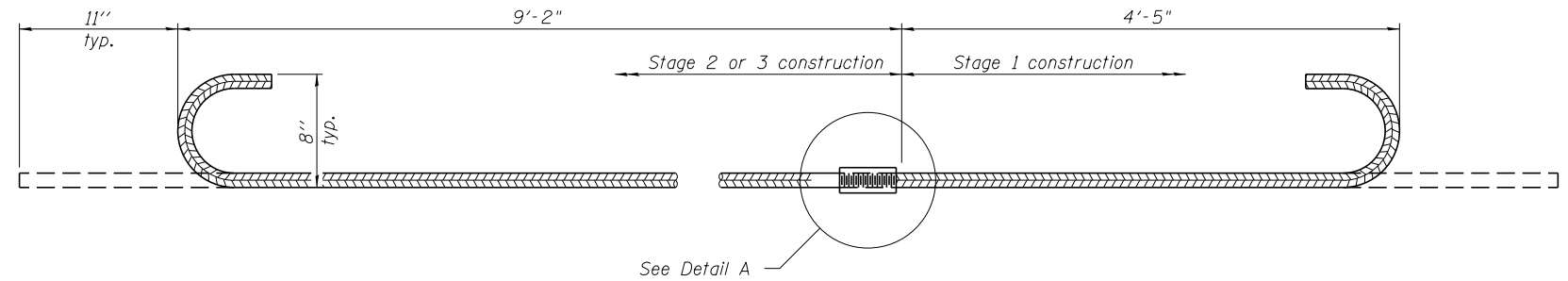
INSTALLATION AND SETTING METHODS

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



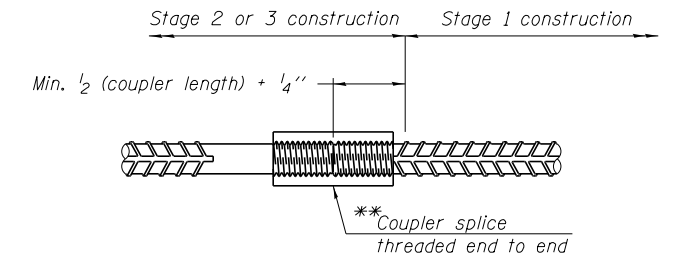
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

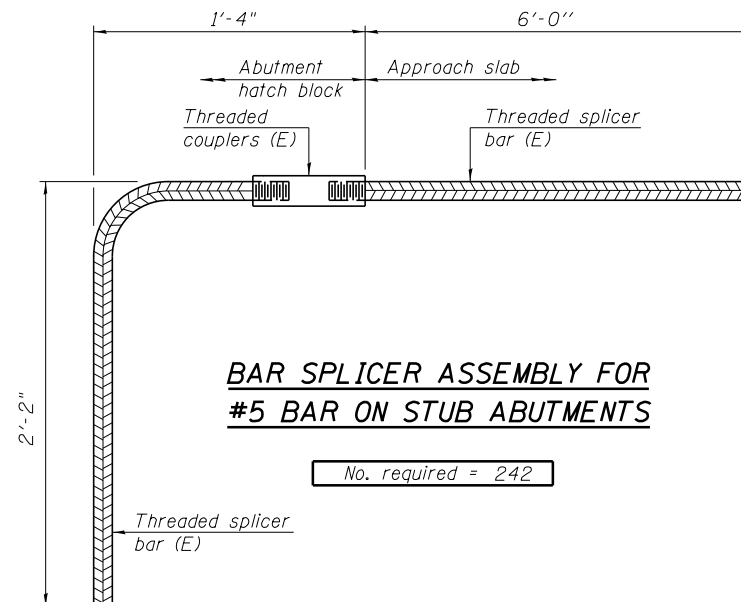


#8 #83(E) BAR SPLICER ASSEMBLY FOR EDGE BEAMS AT STAGE CONSTRUCTION JOINT

No. required = 12



DETAIL A



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 242

**The bar splicer assembly shall allow completion of the splice without turning of the hook bars. The Stage 2 or 3 splice bar shall be threaded such that the entire coupler can be threaded onto the splice bar.

NOTES:

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



SOIL BORING LOG

Page 1 of 3

Date 9/30/96

ROUTE FAI 74 (I-74) DESCRIPTION I-74 over Jefferson St. (CH 22) LOGGED BY D.Reents

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25N, RNG. 3W, 3rd PM

Latitude 40° 37' 17.18104" N, Longitude 89° 28' 41.52351" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0016 Station 558+75.28 BORING NO. 9 Station 557+07.5 Offset 49.5ft LT Ground Surface Elev. 752.29 ft

Table with columns for Depth (ft), Soil Description, and UCS Failure Mode (B, S, P). Includes soil types like Gray (Fill) CLAY LOAM, Brown, Crs. SAND (Fill), and Brown CLAY LOAM Till.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Page 2 of 3

Date 9/30/96

ROUTE FAI 74 (I-74) DESCRIPTION I-74 over Jefferson St. (CH 22) LOGGED BY D.Reents

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25N, RNG. 3W, 3rd PM

Latitude 40° 37' 17.18104" N, Longitude 89° 28' 41.52351" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0016 Station 558+75.28 BORING NO. 9 Station 557+07.5 Offset 49.5ft LT Ground Surface Elev. 752.29 ft

Table with columns for Depth (ft), Soil Description, and UCS Failure Mode (B, S, P). Includes soil types like Gray CLAY LOAM Till, Gray, Coarse (Some Fine) SAND w/ some Loam seams, and Gray, Coarse SAND w/ some Fine-Medium seams.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Page 3 of 3

Date 9/30/96

ROUTE FAI 74 (I-74) DESCRIPTION I-74 over Jefferson St. (CH 22) LOGGED BY D.Reents

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25N, RNG. 3W, 3rd PM

Latitude 40° 37' 17.18104" N, Longitude 89° 28' 41.52351" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0016 Station 558+75.28 BORING NO. 9 Station 557+07.5 Offset 49.5ft LT Ground Surface Elev. 752.29 ft

Table with columns for Depth (ft), Soil Description, and UCS Failure Mode (B, S, P). Includes soil types like Gray CLAY LOAM Till w/ Sand seams, Dark Brown PEAT, and Gray CLAY LOAM Till.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, form 137 (Rev. 8-99)



Alfred Benesch & Company 205 North Michigan Avenue, Suite 2400 Chicago, Illinois 60601 312-565-0450 Job No. 10056

Table with columns for USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISIONS.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 1 OF 10 STRUCTURE NO. 090-0167

SHEET NO. SB54 OF SB65 SHEETS

Table with columns for F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

ILLINOIS FED. AID PROJECT

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7/16/2012



SOIL BORING LOG

Page 1 of 4

Date 4/7/98

ROUTE FAI 74 (I-74) DESCRIPTION I-74 over Jefferson St. (CH 22) LOGGED BY: Scheuerman

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25N, RNG. 3W, 3rd PM, Latitude 40° 37' 17.74927" N, Longitude 89° 28' 41.73874" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

Table with columns for STRUCT. NO., BORING NO., Station, Offset, Ground Surface Elev., and soil data columns (D, B, U, M, etc.)

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Page 2 of 4

Date 4/7/98

ROUTE FAI 74 (I-74) DESCRIPTION I-74 over Jefferson St. (CH 22) LOGGED BY: Scheuerman

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25N, RNG. 3W, 3rd PM, Latitude 40° 37' 17.74927" N, Longitude 89° 28' 41.73874" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

Table with columns for STRUCT. NO., BORING NO., Station, Offset, Ground Surface Elev., and soil data columns (D, B, U, M, etc.)

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Page 3 of 4

Date 4/7/98

ROUTE FAI 74 (I-74) DESCRIPTION I-74 over Jefferson St. (CH 22) LOGGED BY: Scheuerman

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25N, RNG. 3W, 3rd PM, Latitude 40° 37' 17.74927" N, Longitude 89° 28' 41.73874" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

Table with columns for STRUCT. NO., BORING NO., Station, Offset, Ground Surface Elev., and soil data columns (D, B, U, M, etc.)

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, form 137 (Rev. 8-99)



Alfred Benesch & Company 205 North Michigan Avenue, Suite 2400 Chicago, Illinois 60601 312-565-0450 Job No. 10056

Table with columns for FILE NAME, USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, DRAWN, and REVISIONS

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 2 OF 10 STRUCTURE NO. 090-0167

SHEET NO. SB55 OF SB65 SHEETS

Table with columns for F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., and CONTRACT NO.

ILLINOIS FED. AID PROJECT

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SOIL BORING LOG

Date 9/27/96

ROUTE FAI 74 (I-74) DESCRIPTION I-74 over Jefferson St. (CH 22) LOGGED BY D.Reents

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25N, RNG. 3W, 3rd PM. Latitude 40° 37' 17.45866" N, Longitude 89° 28' 39.42827" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

Table with columns for Depth (ft), Diameter (in), Soil Type, and SPT (blows). Includes data for Gray CLAY LOAM Till, Dark Brown PEAT, and Peat and some Silt seams at 89 ft.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer). The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Date 9/24/96

ROUTE FAI 74 (I-74) DESCRIPTION I-74 over Jefferson St. (CH 22) LOGGED BY D.Reents

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25N, RNG. 3W, 3rd PM. Latitude 40° 37' 16.40350" N, Longitude 89° 28' 39.89823" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

Table with columns for Depth (ft), Diameter (in), Soil Type, and SPT (blows). Includes data for 0.0-1.5 ft Pavement and CA 06, Gray CLAY LOAM (Fill), and various soil layers like Gray and Brown CLAY LOAM.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer). The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Date 9/24/96

ROUTE FAI 74 (I-74) DESCRIPTION I-74 over Jefferson St. (CH 22) LOGGED BY D.Reents

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25N, RNG. 3W, 3rd PM. Latitude 40° 37' 16.40350" N, Longitude 89° 28' 39.89823" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

Table with columns for Depth (ft), Diameter (in), Soil Type, and SPT (blows). Includes data for Gray CLAY LOAM Till, Organic seam at 45.25 ft, and Organic seam at 50.5 ft.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer). The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, form 137 (Rev. 8-99)



Alfred Benesch & Company 205 North Michigan Avenue, Suite 2400 Chicago, Illinois 60601 312-565-0450 Job No. 10056

Table with columns for FILE NAME, USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, and their respective values.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 4 OF 10 STRUCTURE NO. 090-0167

SHEET NO. SB57 OF SB65 SHEETS

Table with columns for F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., and CONTRACT NO.

ILLINOIS FED. AID PROJECT

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SOIL BORING LOG

Date 9/24/96

ROUTE FAI 74 (I-74) DESCRIPTION I-74 over Jefferson St. (CH 22) LOGGED BY D.Reents

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25N, RNG. 3W, 3rd PM.
Latitude 40° 37' 16.40350" N, Longitude 89° 28' 39.89823" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. Station	BORING NO. Station Offset Ground Surface Elev.	D E P T H S	B L O W S	U C S Qu	M O I S T	Surface Water Elev.		Groundwater Elev.:	
						ft	(ft)	ft	(ft)
EX 090-0016 558+75.28	12 558+17.5 49.5R RT 751.73	7	3			NA	NA	715.2	696.3
Gray CLAY LOAM Till (continued)									
Organic seams at 81.5 ft to 85.5 ft									
Gray SILTY CLAY LOAM w/ organics									
* Groundwater El 719.8' @1 week **Unobtainable due to muddy conditions End of Boring									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Date 9/16/96

ROUTE FAI 74 (I-74) DESCRIPTION I-74 over Jefferson St. (CH 22) LOGGED BY D.Reents

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25N, RNG. 3W, 3rd PM.
Latitude 40° 37' 17.16552" N, Longitude 89° 28' 37.89379" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. Station	BORING NO. Station Offset Ground Surface Elev.	D E P T H S	B L O W S	U C S Qu	M O I S T	Surface Water Elev.		Groundwater Elev.:	
						ft	(ft)	ft	(ft)
EX 090-0016 558+75.28	13 559+83.0 0R CL 748.29	7	4.2	11		NA	NA	723.3	None
Brown/Gray CLAY LOAM (Fill)									
Gray and Brown CLAY LOAM (Fill)									
Silty seams at 11 ft to 15 ft									
Gray CLAY LOAM Till									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Date 9/16/96

ROUTE FAI 74 (I-74) DESCRIPTION I-74 over Jefferson St. (CH 22) LOGGED BY D.Reents

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25N, RNG. 3W, 3rd PM.
Latitude 40° 37' 17.16552" N, Longitude 89° 28' 37.89379" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. Station	BORING NO. Station Offset Ground Surface Elev.	D E P T H S	B L O W S	U C S Qu	M O I S T	Surface Water Elev.		Groundwater Elev.:	
						ft	(ft)	ft	(ft)
EX 090-0016 558+75.28	13 559+83.0 0R CL 748.29	4	2.7	17		NA	NA	723.3	None
Gray CLAY LOAM Till (continued)									
4 in. Peat @ 53.5 ft									
Gray CLAY LOAM Till (continued)									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Date 9/16/96

ROUTE FAI 74 (I-74) DESCRIPTION I-74 over Jefferson St. (CH 22) LOGGED BY D.Reents

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25N, RNG. 3W, 3rd PM, Latitude 40° 37' 17.16552" N, Longitude 89° 28' 37.89379" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0016
 Station 558+75.28

BORING NO. 13
 Station 559+83.0
 Offset 0ft CL
 Ground Surface Elev. 748.29 ft

Surface Water Elev. NA ft
 Stream Bed Elev. NA ft

Groundwater Elev.:
 First Encounter 723.3 ft
 Upon Completion None ft
 After 24 Hrs. None ft

DEPTH (ft)	BULGE (in)	UCS (tsf)	MOISTURE (%)	DESCRIPTION
0				Gray CLAY LOAM Till (continued)
3				
5	2.3	13		
6	B			
665.79				*Collapsed @ EL 678.3 ft End of Boring
-85				
-90				
-95				
-100				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Date 9/25/96

ROUTE FAI 74 (I-74) DESCRIPTION I-74 over Jefferson St. (CH 22) LOGGED BY D.Reents

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25N, RNG. 3W, 3rd PM, Latitude 40° 37' 16.70565" N, Longitude 89° 28' 37.61774" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0016
 Station 558+75.28

BORING NO. 14
 Station 559+96.0
 Offset 49.5ft RT
 Ground Surface Elev. 750.97 ft

Surface Water Elev. NA ft
 Stream Bed Elev. NA ft

Groundwater Elev.:
 First Encounter 728.0 ft
 Upon Completion None ft
 After 24 Hrs. 707.5 ft

DEPTH (ft)	BULGE (in)	UCS (tsf)	MOISTURE (%)	DESCRIPTION
0				Dark Gray w/ some Gray SILTY CLAY LOAM (Fill) (continued)
2				
3	1.2	14		
3	B			
Trace H2O				
2				
3	2.1	13		
7	B			
-25				
3				
5	2.7	11		
7	B			
10	S			
2				
3	1.1	31		
5	S			
-30				
2				
3	2.1	26		
5	B			
1				
4	2.3	14		
4	B			
2				
3	2.3	13		
3	B			
3				
1	0.8	26		
1	B			
3				
4	3.7	17		
4				
3	1.4	17		
4				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Date 9/25/96

ROUTE FAI 74 (I-74) DESCRIPTION I-74 over Jefferson St. (CH 22) LOGGED BY D.Reents

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25N, RNG. 3W, 3rd PM, Latitude 40° 37' 16.70565" N, Longitude 89° 28' 37.61774" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0016
 Station 558+75.28

BORING NO. 14
 Station 559+96.0
 Offset 49.5ft RT
 Ground Surface Elev. 750.97 ft

Surface Water Elev. NA ft
 Stream Bed Elev. NA ft

Groundwater Elev.:
 First Encounter 728.0 ft
 Upon Completion None ft
 After 24 Hrs. 707.5 ft

DEPTH (ft)	BULGE (in)	UCS (tsf)	MOISTURE (%)	DESCRIPTION
4				Gray CLAY LOAM Till (continued)
3				
4	2.3	13		
8	B			
2				
5	2.3	13		
6	B			
3				
5	2.7	13		
6	B			
3				
5	2.7	13		
7	B			
2				
5	2.5	13		
6	B			
4				
5	2.0	14		
8	P			
3				
3	2.1	14		
6	B			
2				
4	2.3	13		
4				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, form 137 (Rev. 8-99)



Alfred Benesch & Company
 205 North Michigan Avenue, Suite 2400
 Chicago, Illinois 60601
 312-565-0450 Job No. 10056

FILE NAME = 0900167.68620.59.1log6.dgn	USER NAME = mbecker	DESIGNED - MFB	REVISED -
		CHECKED - MRB	REVISED -
	PLOT SCALE =	DRAWN - PRT	REVISED -
	PLOT DATE = 7/16/2012	CHECKED - MRB	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 6 OF 10
 STRUCTURE NO. 090-0167

SHEET NO. SB59 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R]14HB-4,14,14HVB[BR]	TAZEWELL	2433	1970
CONTRACT NO. 68620				

ILLINOIS FED. AID PROJECT

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7/16/2012



SOIL BORING LOG

Page 3 of 4

Date 4/6/98

ROUTE FAI 74 (I-74) DESCRIPTION I-74 over Jefferson St. (CH 22) LOGGED BY: Scheuerman

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25N, RNG. 3W, 3rd PM

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0016
 Station 558+75.28

BORING NO. 14A
 Station 560+68.5
 Offset 111 ft RT
 Ground Surface Elev. 726.38 ft

Surface Water Elev. NA ft
 Stream Bed Elev. NA ft

Groundwater Elev.:
 First Encounter 705.4 ft
 Upon Completion * ft
 After 24 Hrs. 720.6 ft

DEPTH (ft)	SOIL TYPE	BLOWS	QUALITY	DEPTH (ft)	SOIL TYPE	BLOWS	QUALITY
0-9	Gray CLAY LOAM TILL (continued)	9	2.9	10-13	Gray CLAY LOAM TILL (continued)	10	3.7
9-13		13	B	13-15	Gray SILTY LOAM	15	S
13-15				15-19		19	
15-16	Organics @ 106 ft	15	3.1	19-23		23	B
16-18		18	B	23-24		24	
18-22	Brown SILTY LOAM w/ organics	22	5.6	24-25		25	S
22-23		23	B	25-26		26	
23-27	Green-Gray CLAY Sand seam @ 114.5 ft	27	3.1	26-28		28	B
27-31		31	B	28-31		31	
31-35	Brown and Gray CLAY	35		31-37		37	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Page 4 of 4

Date 4/6/98

ROUTE FAI 74 (I-74) DESCRIPTION I-74 over Jefferson St. (CH 22) LOGGED BY: Scheuerman

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25N, RNG. 3W, 3rd PM

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0016
 Station 558+75.28

BORING NO. 14A
 Station 560+68.5
 Offset 111 ft RT
 Ground Surface Elev. 726.38 ft

Surface Water Elev. NA ft
 Stream Bed Elev. NA ft

Groundwater Elev.:
 First Encounter 705.4 ft
 Upon Completion * ft
 After 24 Hrs. 720.6 ft

DEPTH (ft)	SOIL TYPE	BLOWS	QUALITY
12-19	Brown and Gray CLAY (continued)	12	6.2
19-23		19	B
23-24	Gray CLAY LOAM Till	23	6
24-26		26	1.5
26-27	Organics @ 106 ft	27	B
27-28		28	
28-31	*Unobtainable due to muddy conditions. End of Boring	31	
31-37		37	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Page 1 of 1

Date 6/3/97

ROUTE FAI 74 (I-74) DESCRIPTION I-74 over Jefferson St. (CH 22) LOGGED BY: D.Reents

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25N, RNG. 3W, 3rd PM

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0016
 Station 558+75.28

BORING NO. B-01
 Station 558+34
 Offset 0 ft CL
 Ground Surface Elev. 748.29 ft

Surface Water Elev. NA ft
 Stream Bed Elev. NA ft

Groundwater Elev.:
 First Encounter - ft
 Upon Completion None ft
 After 3* Hrs. 721.6 ft

DEPTH (ft)	SOIL TYPE	BLOWS	QUALITY
747.96-747.96	SILTY CLAY LOAM (Fill)		
747.29-747.29	Gray CLAY LOAM (Fill)		
747.29-747.29	Brown SAND (Fill)		
747.29-747.29	Brown CLAY LOAM / LOAM with some COARSE GRAVELS (Fill) (continued)		
724.29-724.29	Dark Gray CLAY LOAM		
719.29-719.29	* 726.6'@24 hr, 726.8'@48 hr, 748.29'@72 hr w/ rain, 729.7'@144 hr, 729.3'@168 hr, & 727.6'@192 hr End of Boring		
731.29-731.29	Brown CLAY LOAM / LOAM with some COARSE GRAVELS (Fill)		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, form 137 (Rev. 8-99)



Alfred Benesch & Company
 205 North Michigan Avenue, Suite 2400
 Chicago, Illinois 60601
 312-565-0450 Job No. 10056

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USER NAME =	mbecker
DESIGNED -	MFB
CHECKED -	MRB
REVISOR -	REVISOR
PLOT SCALE =	
DRAWN -	PRT
CHECKED -	MRB
PLOT DATE =	7/16/2012
CHECKED -	MRB
REVISOR -	REVISOR

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 8 OF 10
 STRUCTURE NO. 090-0167

SHEET NO. SB61 OF SB65 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1972
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

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SOIL BORING LOG

ROUTE FAI 74 (I-74) DESCRIPTION I-74 over Jefferson St. (CH 22) LOGGED BY D.Reents

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25N, RNG. 3W, 3rd PM, Latitude 40° 37' 17.04873" N, Longitude 89° 28' 38.77533" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

Table with columns for Soil Description, Depth (ft), and SPT values. Includes soil types like Dark Gray SILTY CLAY LOAM and Brown Gravelly SAND.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE FAI 74 (I-74)/FAI 155 (I-155) DESCRIPTION I-74 over Jefferson St. LOGGED BY C. Marin

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25 N, RNG. 3 W, 3rd PM, Latitude , Longitude

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

Table with columns for Soil Description, Depth (ft), and SPT values. Includes soil types like Black SILTY CLAY LOAM and Dark Gray SILTY CLAY LOAM.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE FAI 74 (I-74)/FAI 155 (I-155) DESCRIPTION I-74 over Jefferson St. LOGGED BY C. Marin

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25 N, RNG. 3 W, 3rd PM, Latitude , Longitude

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

Table with columns for Soil Description, Depth (ft), and SPT values. Includes soil types like 12-inch thick, dark brown, CLAY LOAM and Dark Gray SILTY CLAY LOAM.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, form 137 (Rev. 8-99)



Alfred Benesch & Company 205 North Michigan Avenue, Suite 2400 Chicago, Illinois 60601 312-565-0450 Job No. 10056

Table with columns for FILE NAME, USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, and REVISIONS.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 9 OF 10 STRUCTURE NO. 090-0167

SHEET NO. SB62 OF SB65 SHEETS

Table with columns for F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., and CONTRACT NO.

ILLINOIS FED. AID PROJECT

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Illinois Department of Transportation
Division of Highways
Wang Engineering, Inc.

SOIL BORING LOG

Page 1 of 2

Date 11/19/09

ROUTE FAI 74 (I-74)/FAI 155 (I-155) DESCRIPTION I-74 over Jefferson St. LOGGED BY C. Marin

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25 N, RNG. 3 W, 3rd PM.

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0168 (WB)
EX 090-0167 (EB)
Station 559+18.96

BORING NO. TB-203
Station 557+47.7
Offset 15.72 ft RT
Ground Surface Elev. 751.30 ft

DEPTH (ft)	BLOW COUNT (blows/6")	UNCONFINED COMPRESSIVE STRENGTH (tsf)	MOISTURE (%)	Surface Water Elev.		Stream Bed Elev.		DEPTH (ft)	BLOW COUNT (blows/6")	UNCONFINED COMPRESSIVE STRENGTH (tsf)	MOISTURE (%)
				NA	ft	NA	ft				
0											
1	3										
2	5	>4.5	17								
3	5	P									
4	2										
5	6	>4.5	11								
6	8	P									
7	2										
8	6	5.6	11								
9	6	B									
10	3										
11	5	7.5	11								
12	6	S									
13	3										
14	5	6.4	12								
15	6	S									
16	3										
17	5	4.5	13								
18	7	S									
19	3										
20	6	4.5	16								
21	7	P									

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

BBS, form 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
Wang Engineering, Inc.

SOIL BORING LOG

Page 2 of 2

Date 11/19/09

ROUTE FAI 74 (I-74)/FAI 155 (I-155) DESCRIPTION I-74 over Jefferson St. LOGGED BY C. Marin

SECTION (90-14)R LOCATION Morton, IL, SEC. 17, TWP. 25 N, RNG. 3 W, 3rd PM.

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0168 (WB)
EX 090-0167 (EB)
Station 559+18.96

BORING NO. TB-203
Station 557+47.7
Offset 15.72 ft RT
Ground Surface Elev. 751.30 ft

DEPTH (ft)	BLOW COUNT (blows/6")	UNCONFINED COMPRESSIVE STRENGTH (tsf)	MOISTURE (%)	Surface Water Elev.		Stream Bed Elev.		DEPTH (ft)	BLOW COUNT (blows/6")	UNCONFINED COMPRESSIVE STRENGTH (tsf)	MOISTURE (%)
				NA	ft	NA	ft				
0											
1	4										
2	4	NP	46								
3	7	S									
4	5										
5	7	>4.5	15								
6	8	P									
7	2										
8	6	5.6	11								
9	6	B									
10	3										
11	5	7.5	11								
12	6	S									
13	3										
14	5	6.4	12								
15	6	S									
16	3										
17	5	4.5	13								
18	7	S									
19	3										
20	6	4.5	16								
21	7	P									

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

BBS, form 137 (Rev. 8-99)



Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME =	USER NAME = mbecker	DESIGNED - MFB	REVISED -
		CHECKED - MRB	REVISED -
		DRAWN - PRT	REVISED -
		CHECKED - MRB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 10 OF 10
STRUCTURE NO. 090-0167

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4,14,14HB]BR	TAZEWELL	2433	1974
CONTRACT NO. 68620				

SHEET NO. SB63 OF SB65 SHEETS

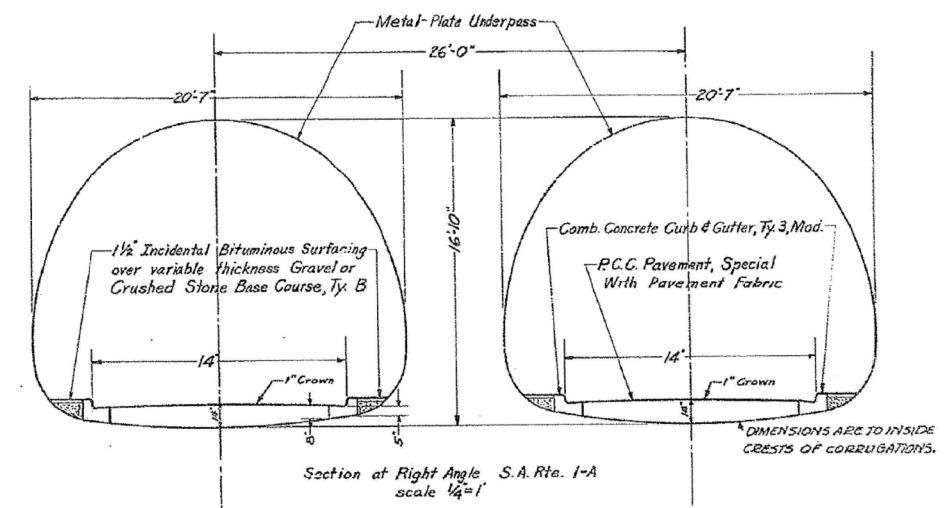
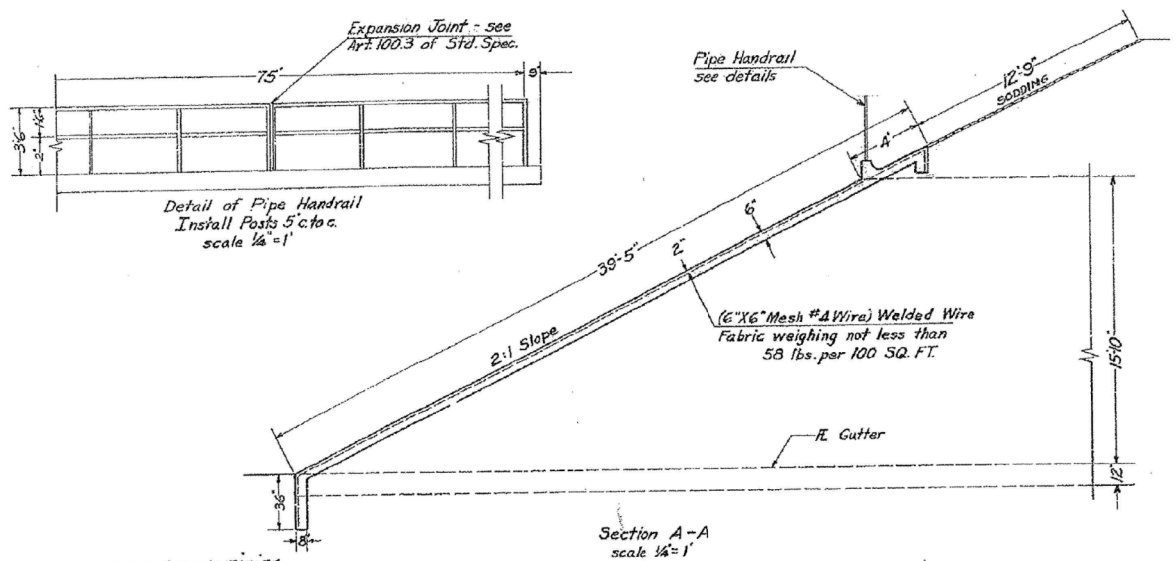
ILLINOIS FED. AID PROJECT

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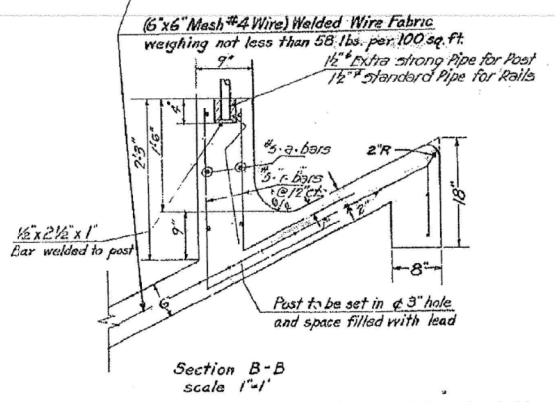
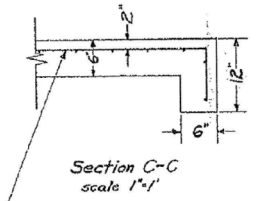
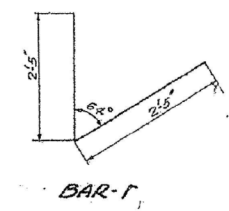
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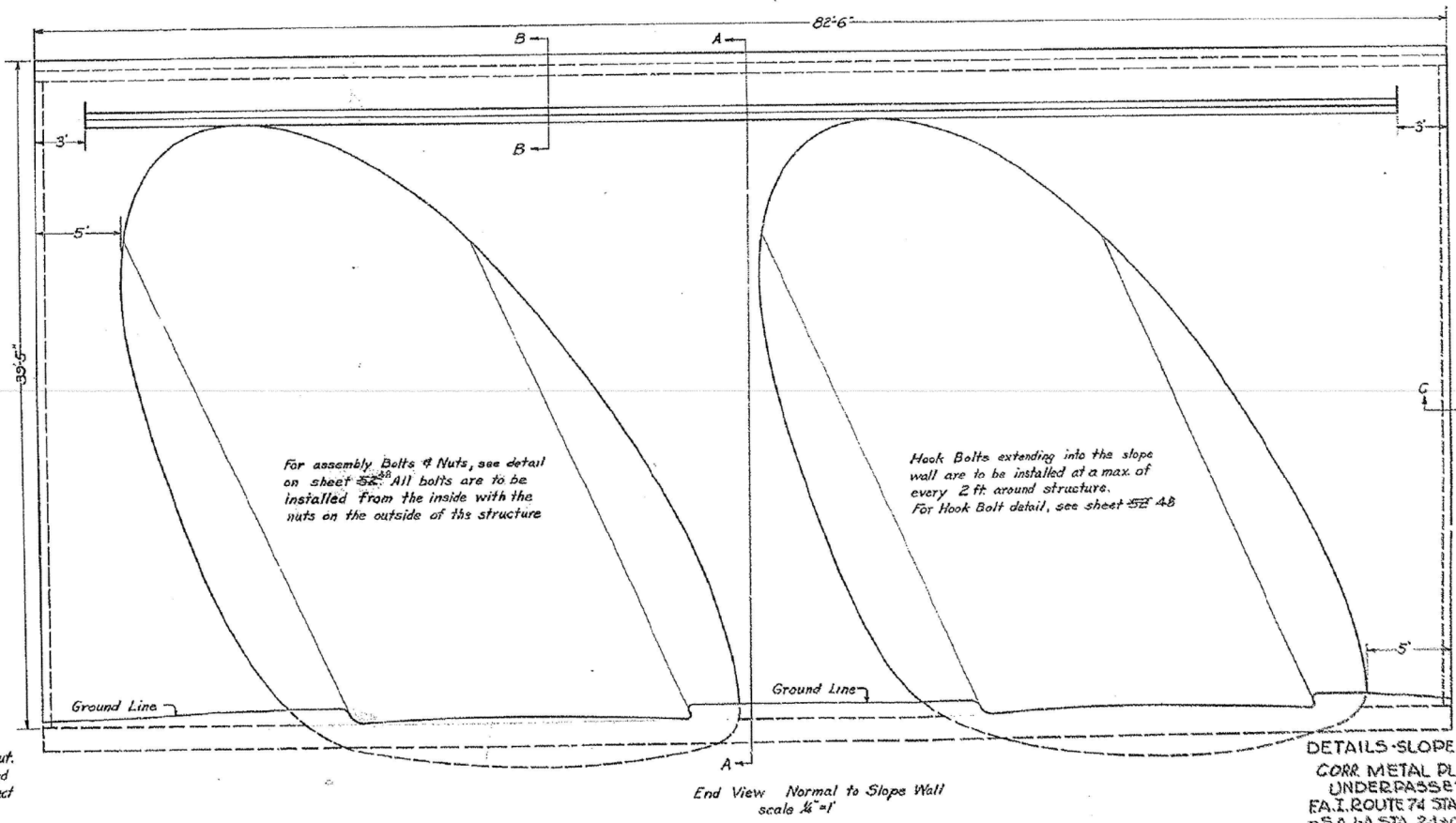
7/16/2012



LIST OF QUANTITIES
 SLOPE WALL 369 Sq. Yds.
 PIPE HANDRAIL 150 L.F.
 Reinforcement Bars 720 Lbs.

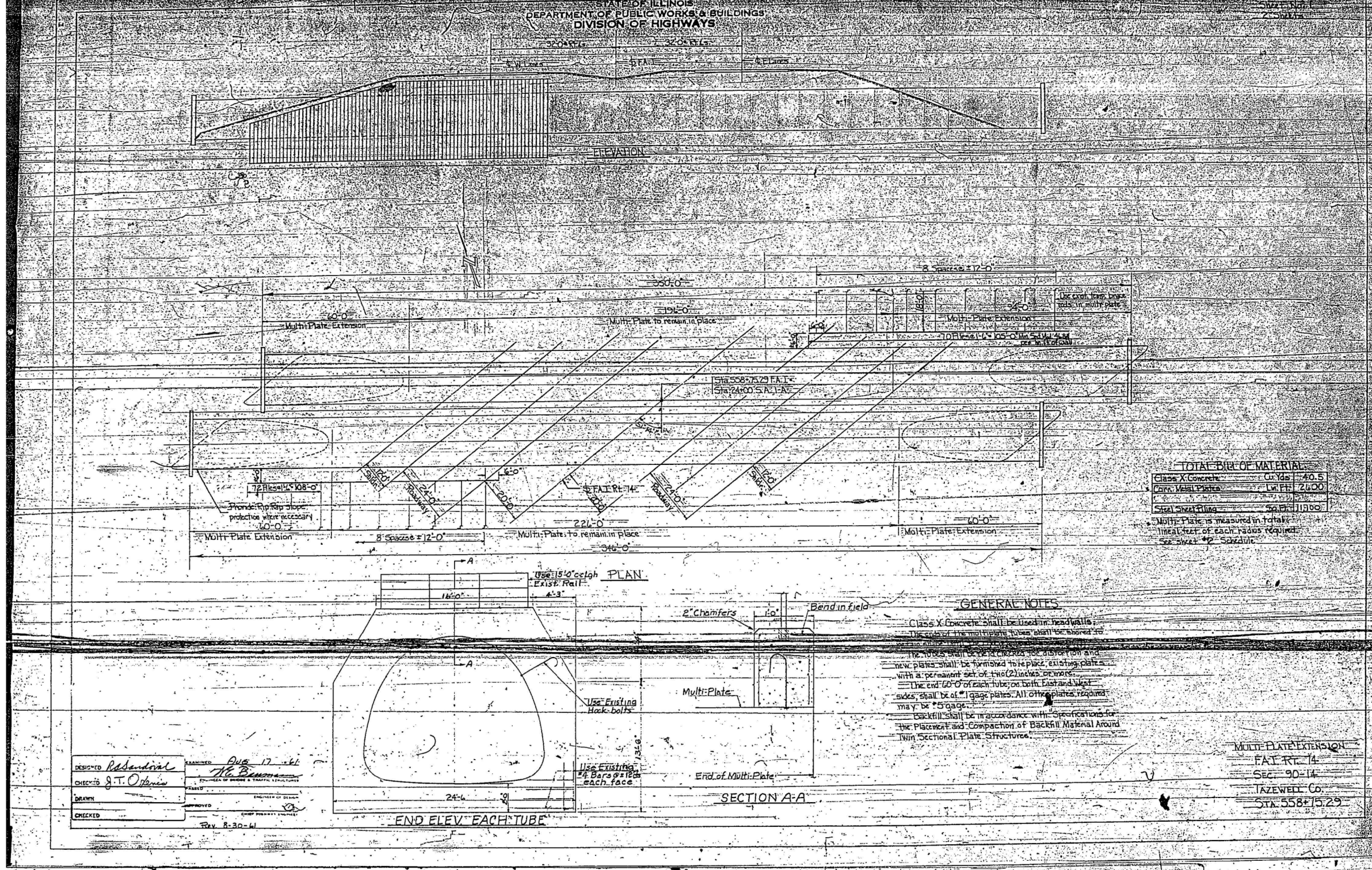


Note: Class X Concrete shall be used throughout. The cost of furnishing & installing the welded wire fabric shall be included in the Contract unit price per square yard for Slope wall.



DETAILS - SLOPE WALL FOR CORR METAL PLATE UNDERPASSES
 F.A.I. ROUTE 74 STA 558+75.29
 * S.A. 1-A STA. 24+00.
 090-00160

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS



TOTAL BILL OF MATERIAL

Class X Concrete	Cu Yds	40.5
Class V Reinforcing Steel	LW Ft	2600
Steel Sheet Piling	Sq Ft	11900

Multi-Plate is measured in total lineal feet of each radius required. See sheet #12 Schedule.

GENERAL NOTES

- Class X Concrete shall be used in head walls.
- The ends of the multiple tubes shall be sheared to 45 degrees.
- The tubes shall be field checked for distortion and new plates shall be furnished to replace existing plates with a permanent set of two (2) inches or more.
- The end 60'-0" of each tube on both East and West sides shall be of #1 gage plates. All other plates required may be #5 gage.
- Backfill shall be in accordance with Specifications for the Placement and Compaction of Backfill Material Around Twin Sectional Plate Structures.

DESIGNED *R. Sandral*
CHECKED *J.T. O'Brien*
DRAWN
CHECKED

EXAMINED *Aug 17 '61*
H. Benesch
ENGINEER OF DESIGN

APPROVED
CHIEF ENGINEER

Rev. 8-30-61

MULTI-PLATE EXTENSION
FAT RT. 14
SEC. 90-14
TAZEWELL CO.
STA. 558+15.29

FILE NAME =	USER NAME = mbecker	DESIGNED - MFB	REVISED -
0900167.68620.65.exist2.dgn		CHECKED - MRB	REVISED -
	PLOT SCALE =	DRAWN - PRT	REVISED -
	PLOT DATE = 7/16/2012	CHECKED - MRB	REVISED -

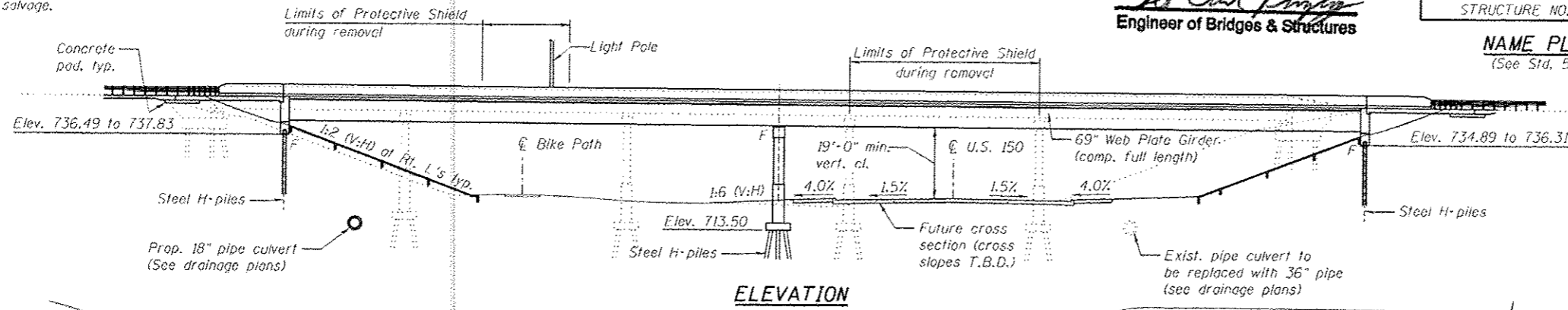
FOR INFORMATION ONLY

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-114R(14HB-4,14,14HVB)BRJ	TAZEWELL	2433	1976
			CONTRACT NO.	68620
ILLINOIS FED. AID PROJECT				

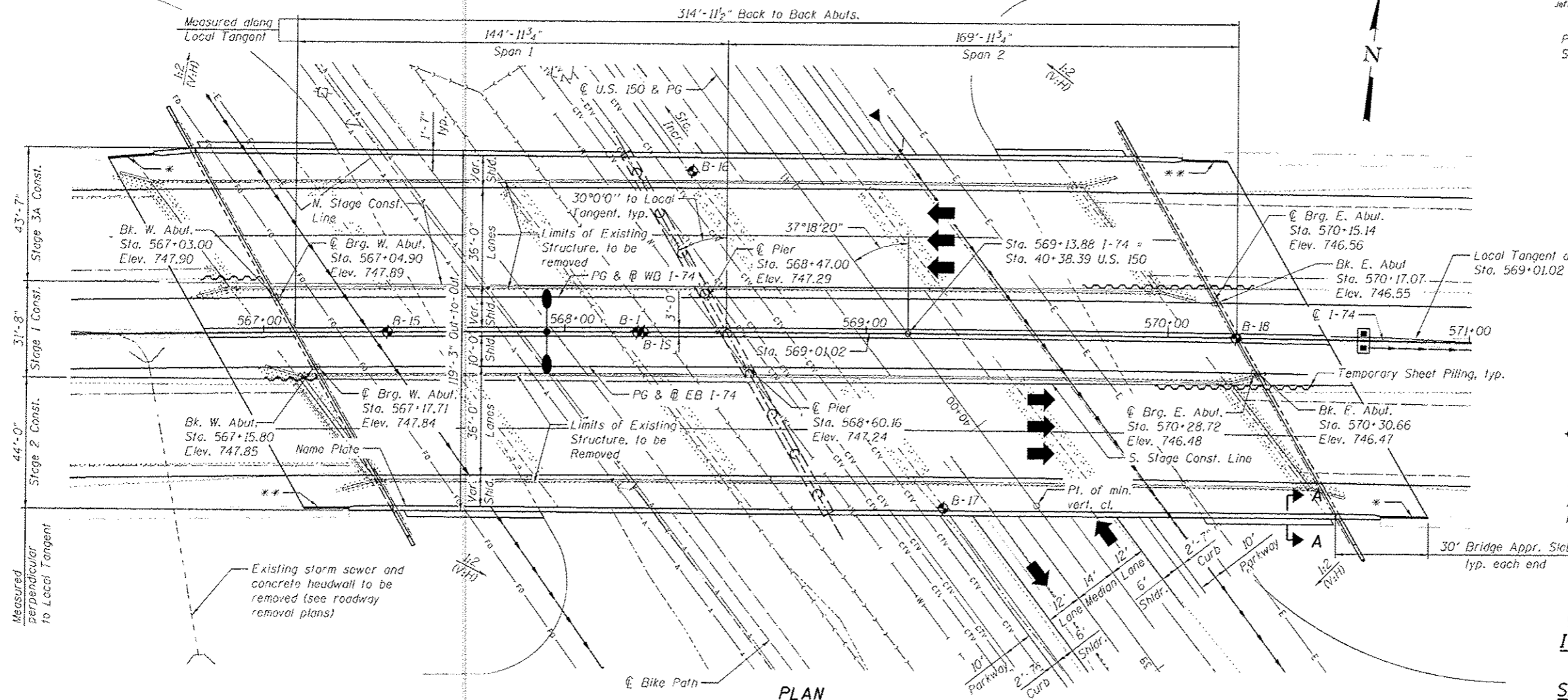
Bench Mark: Chiseled "□" on S.W. parapet of E.B.L. I-74 bridge over U.S. Route 150 (S.N. 090-0018). Elevation 749.62.

Existing Structures: S.N. 090-0017 (WB) and S.N. 090-0018 (EB). Built in 1961 as F.A.I. Route 74 over U.S. 150 & I.T.P.R., Section 90-14-HVB. Structures consist of dual 5 span WF superstructures, continuous from the West Abutment to Pier 4 and simple between Pier 4 and East Abutment. Substructures are reinforced concrete frame piers on piles and pile bent abutments. The existing total bridge lengths are 312'-2 1/4" (WB) and 313'-1 3/4" (EB) back to back of abutments measured along the profile grade lines. The superstructure widths are 36'-0" out-to-out measured radially. The Contractor shall remove and replace these bridges with a two-span steel plate girder structure under stage construction. One lane in each direction on U.S. 150 and Bike Path shall be maintained during construction. I-74 traffic to be maintained with two lanes in each direction utilizing crossovers. Jefferson Street shall be detoured during construction.

No salvage.



ELEVATION



PLAN

APPROVED
For Structural Adequacy Only
De Carl Long
Engineer of Bridges & Structures

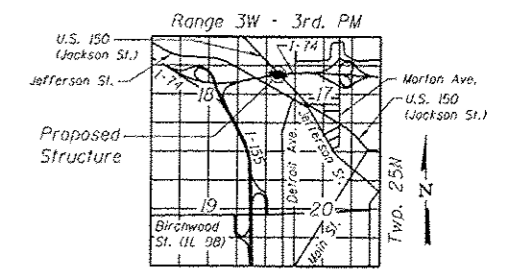
STATION 569+13.88
BUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RTE. 74
SEC. 90-[14R;(14HB-4.14,14HVB)BR]
LOADING HL-93
STRUCTURE NO. 090-0169

NAME PLATE
(See Std. 515001)

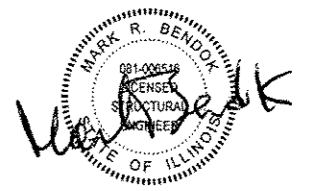
LOADING HL-93
Allow 50#/sq. ft. for future wearing surface.
DESIGN SPECIFICATIONS
2010 AASHTO LRFD Bridge Design Specifications
with 2010 Interims

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)
fy = 36,000 psi (M270 Grade 36)

SEISMIC DATA
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S₁) = 0.115g
Design Spectral Acceleration at 0.2 sec. (S_s) = 0.183g
Soil Site Class = D



LOCATION SKETCH



EXPIRATION DATE 11-30-2012
DATE: 8/17/12

◆ B-15 Indicates Soil Boring Location and Number

NOTE:
All existing utilities that interfere with proposed work shall be relocated.

GENERAL PLAN AND ELEVATION
I-74 OVER U.S. 150 (JACKSON ST.)
F.A.I. RTE. 74
SEC. 90-[14R;(14HB-4.14,14HVB)BR]
TAZEWELL COUNTY
STATION 569+13.88
STRUCTURE NO. 090-0169

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Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME: 0900169_66628_01.gpr.dgn	USER NAME: mbeckler	DESIGNED - MFB/DTS	REVISIONS -
		CHECKED - MRB/AAV	REVISIONS -
		DRAWN - PRT	REVISIONS -
		CHECKED - MRB	REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 090-0169
SHEET NO. SC1 OF SC63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;(14HB-4.14,14HVB)BR]	TAZEWELL	2433	1977
			CONTRACT NO. 66620	
ILLINOIS FED. AID PROJECT				

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GENERAL NOTES:

- Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 3/4 in. dia., open holes 15/16 in. dia., unless otherwise noted.
- Calculated weight of Structural Steel:
 M 270 Grade 36 = 107,820 pounds
 M 270 Grade 50 = 1,469,310 pounds
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars designated (E) shall be epoxy coated.
- If the Contractor elects to use cantilever forming brackets on the exterior girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior girder at each of these additional bracket locations.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimmed the bearings.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on the project.
- The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Blue, Munsell No. 10B 3/6.
- The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
- Slipforming of parapets is not allowed.
- Remove existing abutments and wingwalls to 5' below proposed ground. Remove existing piers to 2' below proposed ground. No temporary retention system is included in the plans for removal below grade of the existing creosoted timber piles under the approach slabs. These piles may be extracted or cut off by use of localized excavations. The piles adjacent to the stage construction line will require extraction. Cost included with the cost of Removal of Existing Structures No. 4 and No. 5. If pile deterioration is such that extraction becomes infeasible by determination of the Engineer, then localized earth retention with excavation and pile cutoff will be paid for according to Article 109.04 of the Standard Specifications.
- Areas of the existing bridge have permanent protective shield in place. If any part of the existing permanent protective shield system is to be re-used as temporary protective shield, the Contractor shall submit design calculations to the Engineer proving the system meets the requirements of Article 501.03 of the Standard Specifications. The calculations shall be prepared and sealed by an Illinois Licensed Structural Engineer.

INDEX OF SHEETS

SC1	General Plan and Elevation
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SC3	General Data 2 of 2
SC4	Footing Layout
SC5	Stage Construction Details 1 of 2
SC6	Stage Construction Details 2 of 2
SC7	Temporary Sheeting Details
SC8	Temporary Barrier Details
SC9	Top of Deck Elevation Layout
SC10	Top of Deck Elevations 1 of 6
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SC12	Top of Deck Elevations 3 of 6
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SC15	Top of Deck Elevations 6 of 6
SC16	Top of West Approach Slab Elevations
SC17	Top of East Approach Slab Elevations
SC18	Superstructure 1 of 3
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SC20	Superstructure 3 of 3
SC21	Superstructure Details 1 of 2
SC22	Superstructure Details 2 of 2
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SC51	Existing Plans
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SC58	Existing Plans
SC59	Existing Plans
SC60	Existing Plans
SC61	Existing Plans
SC62	Existing Plans
SC63	Existing Plans

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures No. 4	Each			1
Removal of Existing Structures No. 5	Each			1
Protective Shield	Sq. Yd.	512		512
Structure Excavation	Cu. Yd.		1,419	1,419
Concrete Structures	Cu. Yd.		671.4	671.4
Concrete Superstructure	Cu. Yd.	1,700.3		1,700.3
Bridge Deck Grooving	Sq. Yd.	4,722		4,722
Protective Coat	Sq. Yd.	5,552		5,552
Furnishing and Erecting Structural Steel	L Sum	0.60		0.60
Stud Shear Connectors	Each	12,348		12,348
Reinforcement Bars, Epoxy Coated	Pound	356,810	104,690	461,500
Bar Splicers	Each	2,698	320	3,018
Mechanical Splicers	Each	16	120	136
Slope Wall 4 Inch	Sq. Yd.		1,319	1,319
Furnishing Steel Piles HP12X53	Foot		4,118	4,118
Furnishing Steel Piles HP14X89	Foot		4,312	4,312
Driving Piles	Foot		8,430	8,430
Test Pile Steel HP12X53	Each		2	2
Test Pile Steel HP14X89	Each		1	1
Pile Shoes	Each		138	138
Name Plates	Each	1		1
Anchor Bolts, 1"	Each	56		56
Anchor Bolts, 1 1/2"	Each	36		36
Geocomposite Wall Drain	Sq. Yd.		348	348
Temporary Sheet Piling	Sq. Ft.		2,253	2,253
Pipe Underdrains for Structures 4"	Foot		343	343
High Load Multi-Rotational Bearings, Non-Guided Expansion, 600K	Each	4		4
Granular Backfill for Structures	Cu. Yd.		826	826



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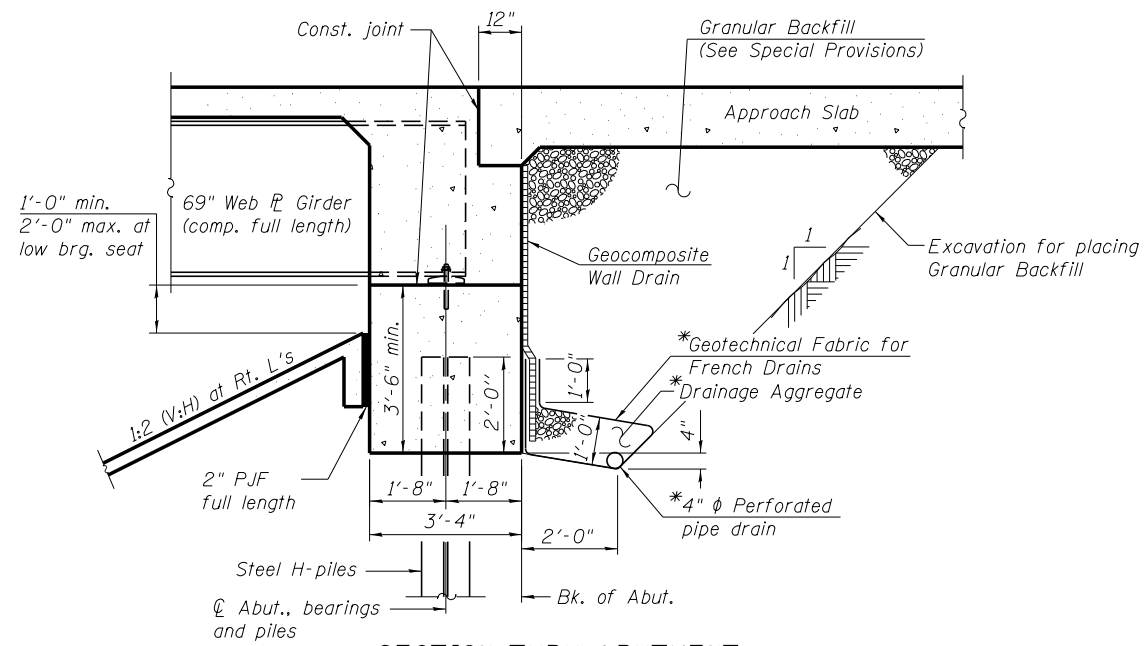
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**GENERAL DATA 1 OF 2
 STRUCTURE NO. 090-0169**

SHEET NO. SC2 OF SC63 SHEETS

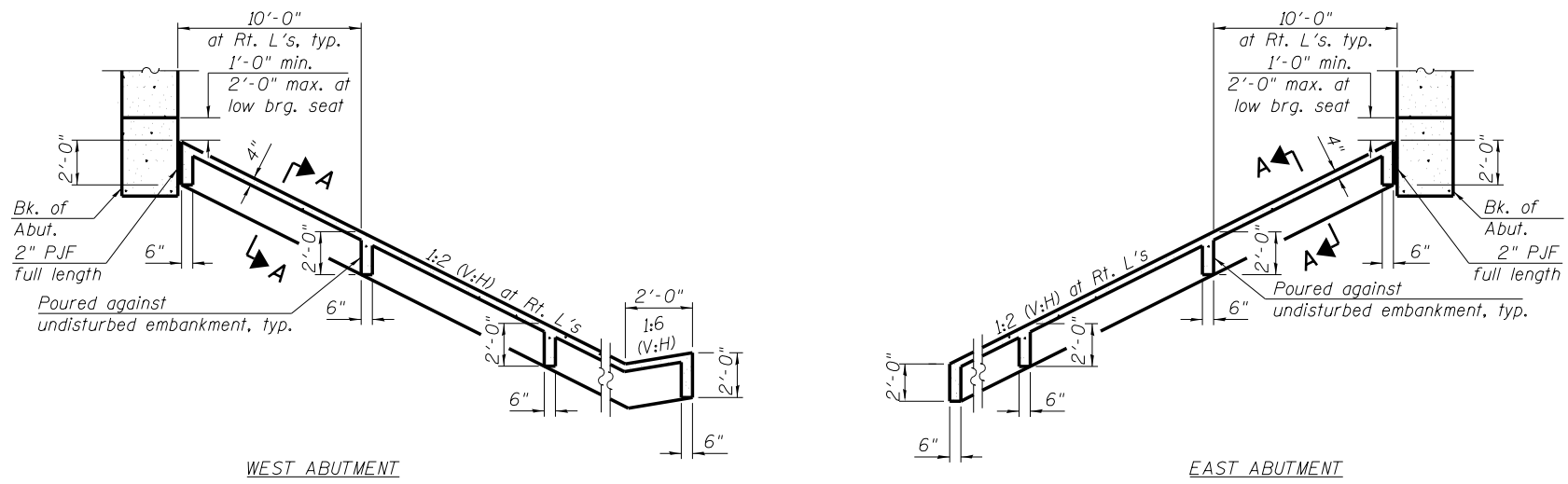
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1978
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				



SECTION THRU ABUTMENT
(Horizontal dim. at Rt. L's)

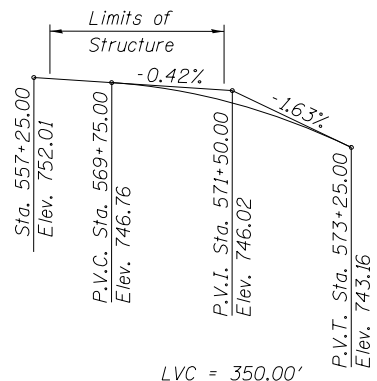
*Included in the cost of Pipe Underdrains for Structures.

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

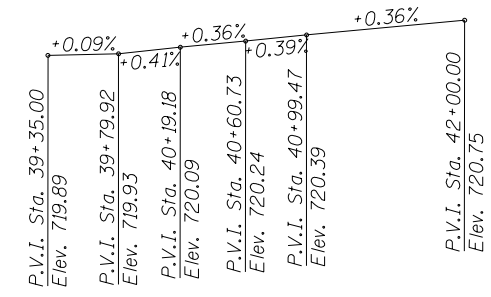


SLOPEWALL DETAILS

(Slope wall shall be reinforced with welded wire fabric, 6 in. x 6 in. - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.)



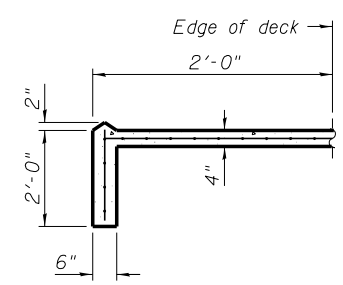
PROFILE GRADE
(@ I-74 EB & WB)



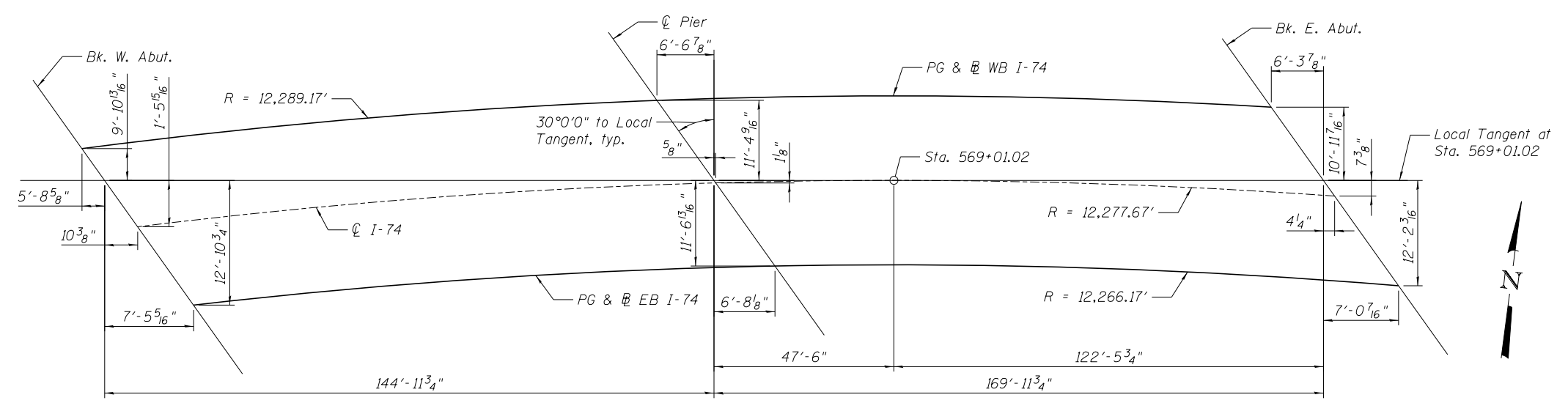
PROFILE GRADE
(@ US 150)

CURVE DATA @ I-74

$\Delta = 13^{\circ}36'59"$ (RT)
 $D = 0^{\circ}28'00"$
 $T = 1,465.80'$
 $L = 2,917.79'$
 $E = 87.19'$
 $R = 12,277.67'$
 $S.E. = RC$
 $P.C. = Sta. 562+26.87$
 $P.T. = Sta. 591+44.66$
 $P.I. = Sta. 576+92.67$



SECTION A-A



OFFSET SKETCH

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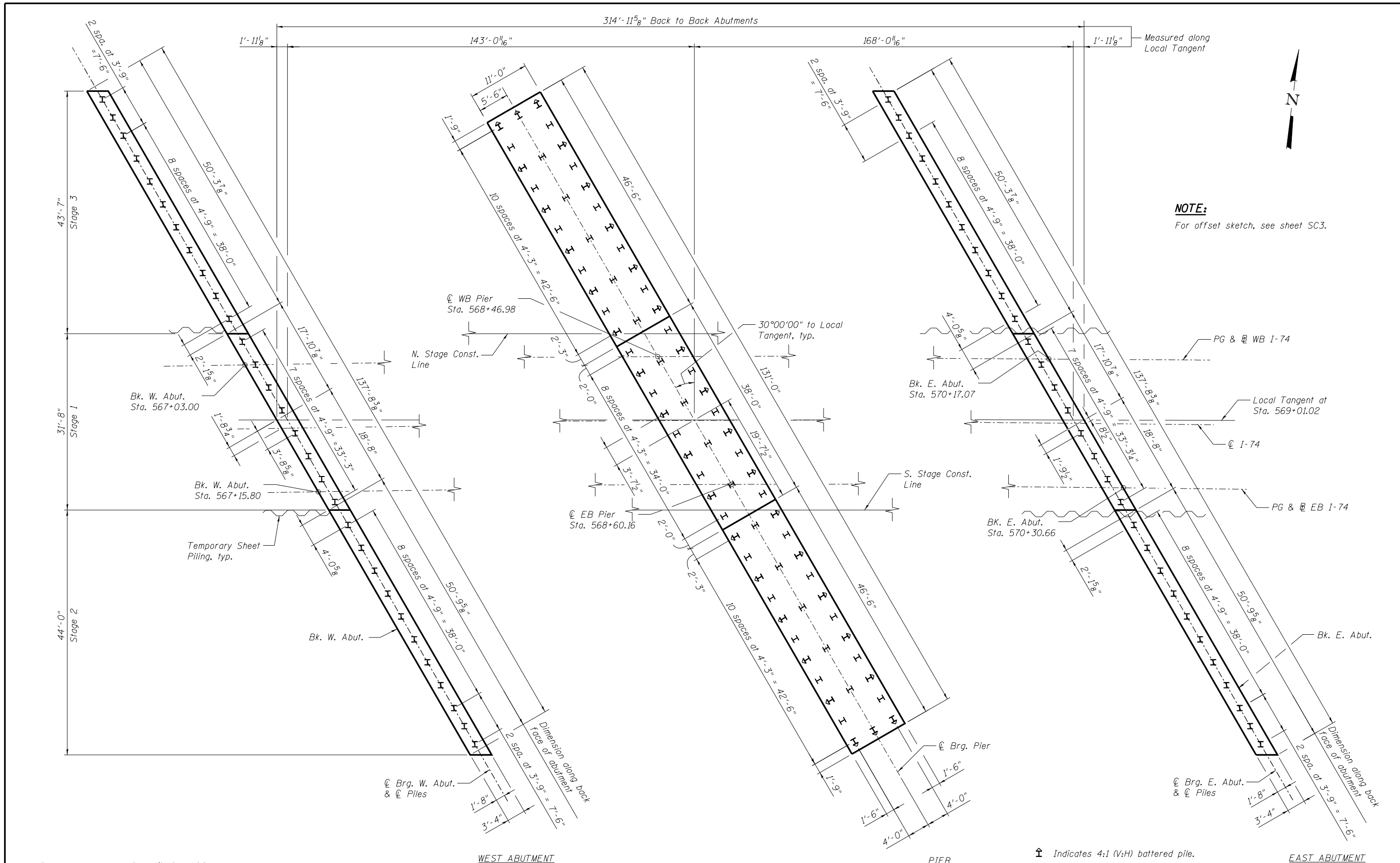
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA 2 OF 2
STRUCTURE NO. 090-0169

SHEET NO. SC3 OF SC63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4;14,14HVB]BR	TAZEWELL	2433	1979
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

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NOTE:
For offset sketch, see sheet SC3.

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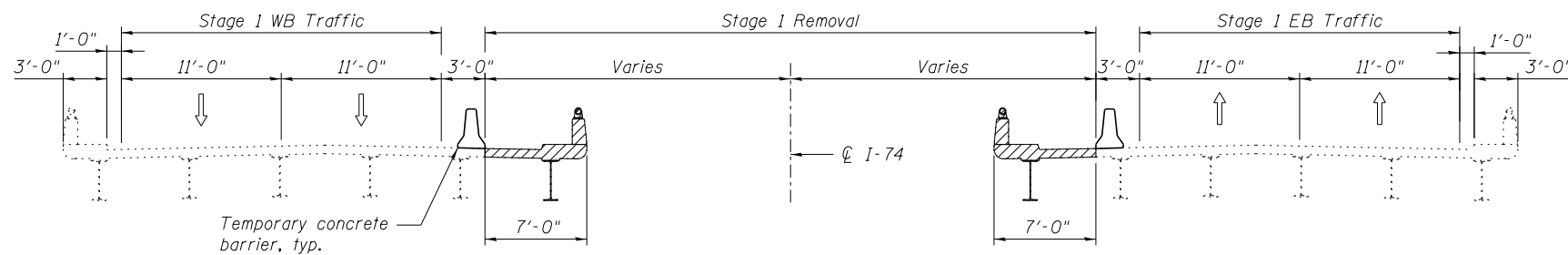
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FOOTING LAYOUT
STRUCTURE NO. 090-0169**

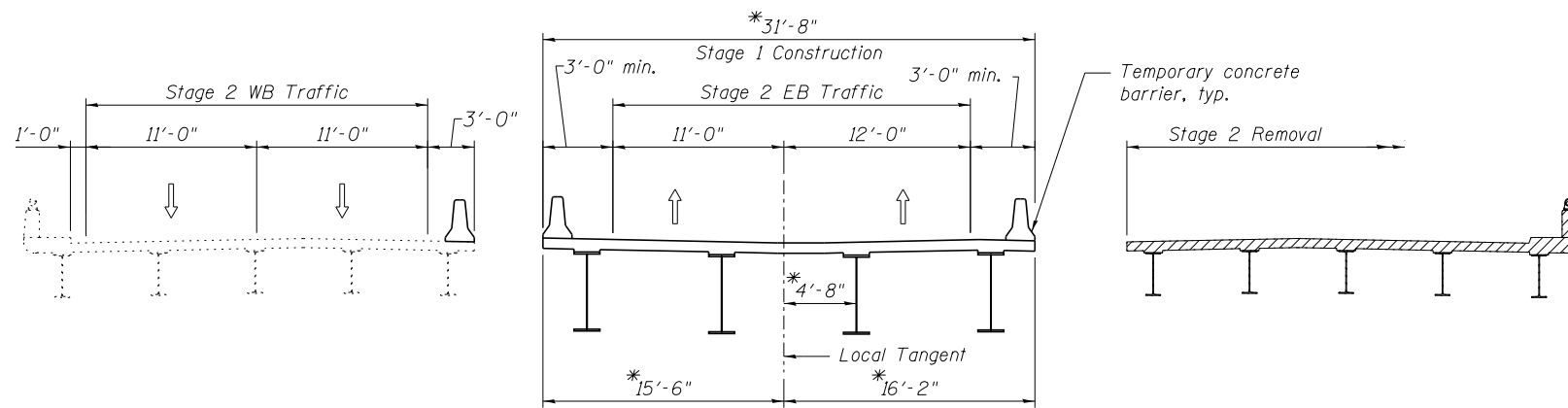
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CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

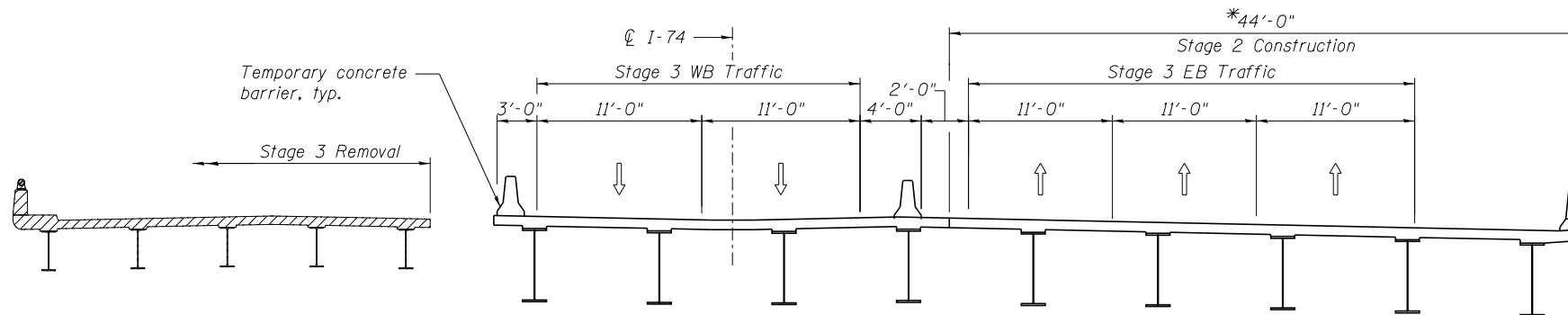
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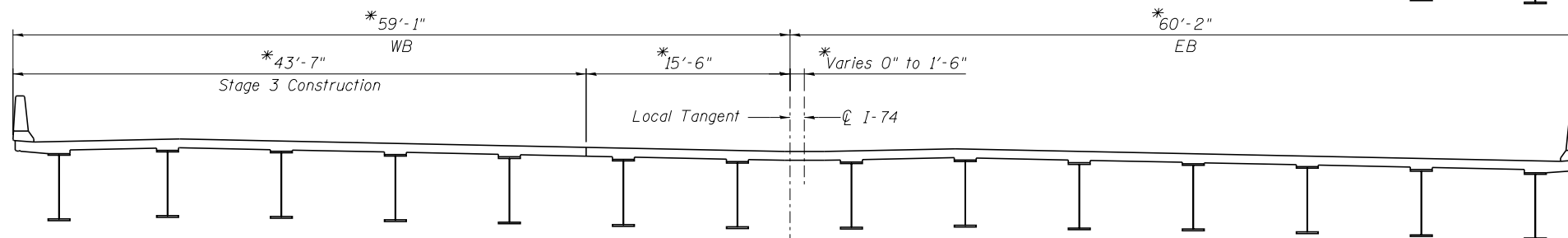
EXISTING STRUCTURE - STAGE 1 REMOVAL



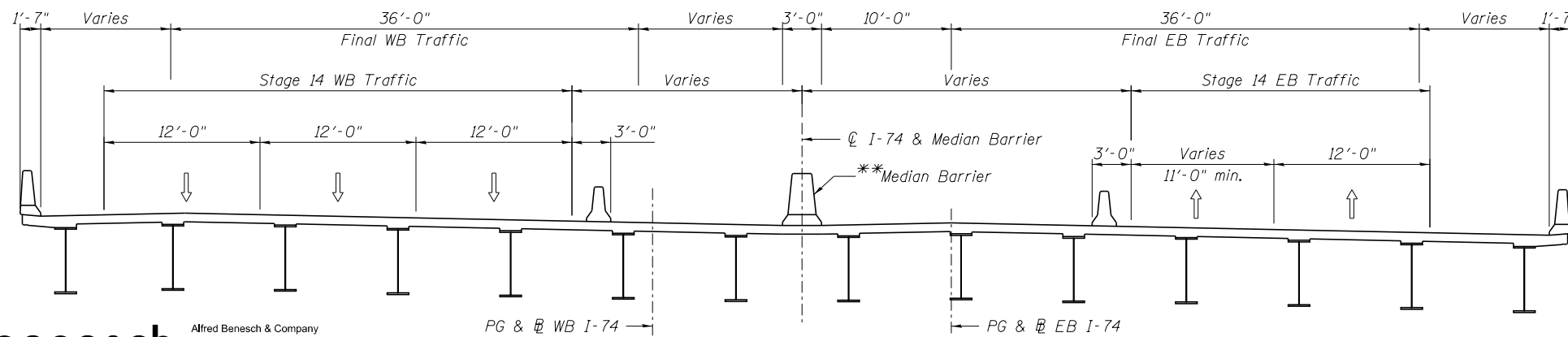
STAGE 1 CONSTRUCTION & STAGE 2 REMOVAL



STAGE 2 CONSTRUCTION & STAGE 3 REMOVAL



STAGE 3 CONSTRUCTION



STAGE 14 CONSTRUCTION & FINAL CROSS SECTION

*Dimension measured perpendicular to Local Tangent (Local Tangent to Sta. 569+01.02).

**Median Barrier to be constructed at the same time as the roadway barrier.

NOTES:

- All cross sections viewed in direction of increasing station.
- Temporary Concrete Barrier shall be utilized at various locations between Stage 3 and 14 to provide roadway separation between WB and EB traffic. See Maintenance of Traffic plans for location and quantity of Temporary Concrete Barrier.

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USER NAME = mbecker
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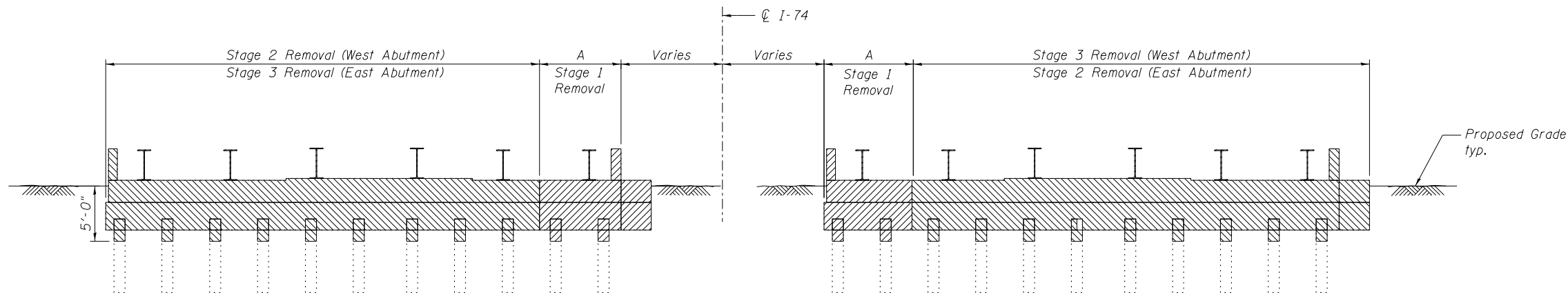
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION DETAILS 1 OF 2
STRUCTURE NO. 090-0169**

SHEET NO. SC5 OF SC63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4;14,14HVB]BR	TAZEWELL	2433	1981
CONTRACT NO. 68620				

ILLINOIS FED. AID PROJECT

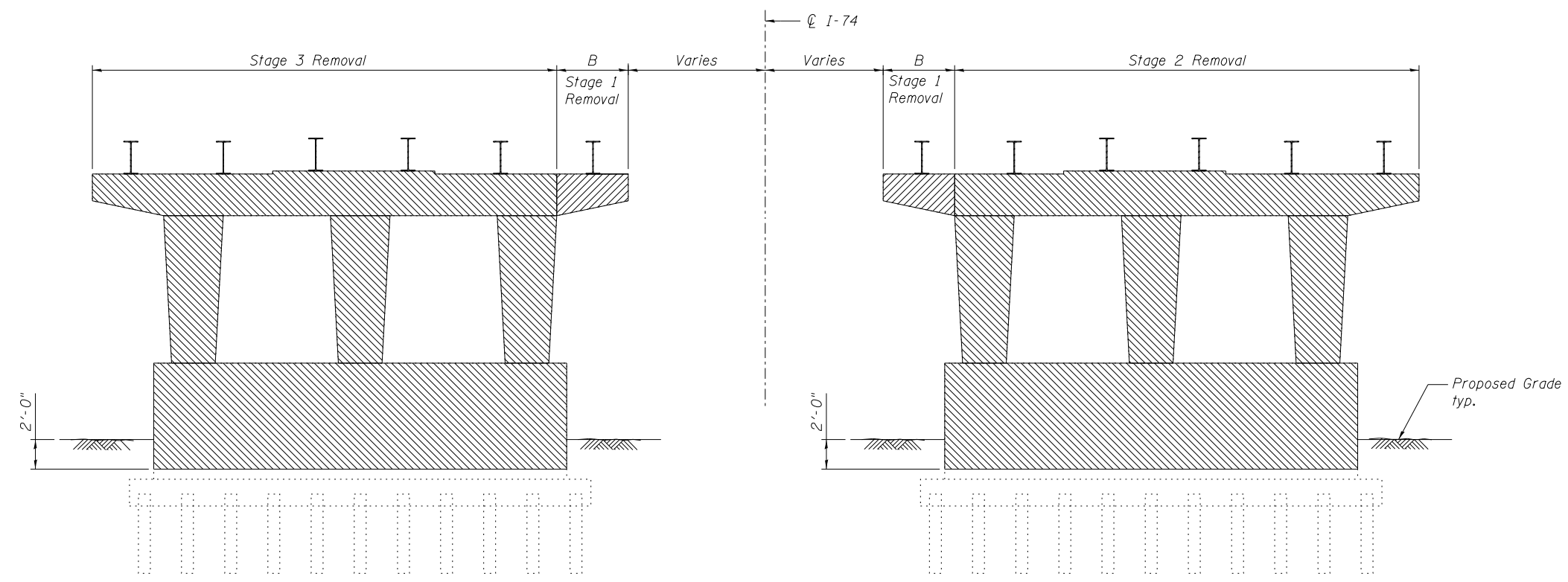
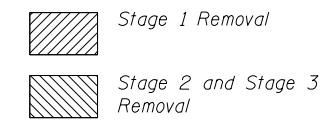


STAGE 1 ABUTMENT REMOVAL

Location	A
WB W. Abut.	6'-6"±
WB E. Abut.	4'-3"±
EB W. Abut.	3'-3"±
EB E. Abut.	3'-8"±

(Dimensions from end of abutment to stage removal line)

STAGE 1, 2, and 3 REMOVAL - ABUTMENTS
(Looking at Front Face of Abutment)



STAGE 1 PIER REMOVAL

Location	B
WB Pier 1	6'-0 ⁵ / ₈ "
EB Pier 1	6'-1 ¹ / ₄ "
WB Pier 2	6'-1 ¹ / ₆ "
EB Pier 2	6'-2 ⁵ / ₁₆ "
WB Pier 3	6'-2 ¹³ / ₁₆ "
EB Pier 3	6'-3 ⁷ / ₁₆ "
WB Pier 4	6'-3 ³ / ₄ "
EB Pier 4	6'-4 ³ / ₈ "

(Dimensions taken from existing plans)

Existing WB Pier
(SN 090-0017)

Existing EB Pier
(SN 090-0018)

STAGE 1, 2, & 3 REMOVAL - PIERS 1 THRU 4
(Looking Upstasion)

NOTES:

1. See existing plans for all existing abutment and pier dimensions.
2. Dimensions are measured along face of abutment or pier.

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0900169.68620.06.stg2.dgn		CHECKED - MRB	REVISED -
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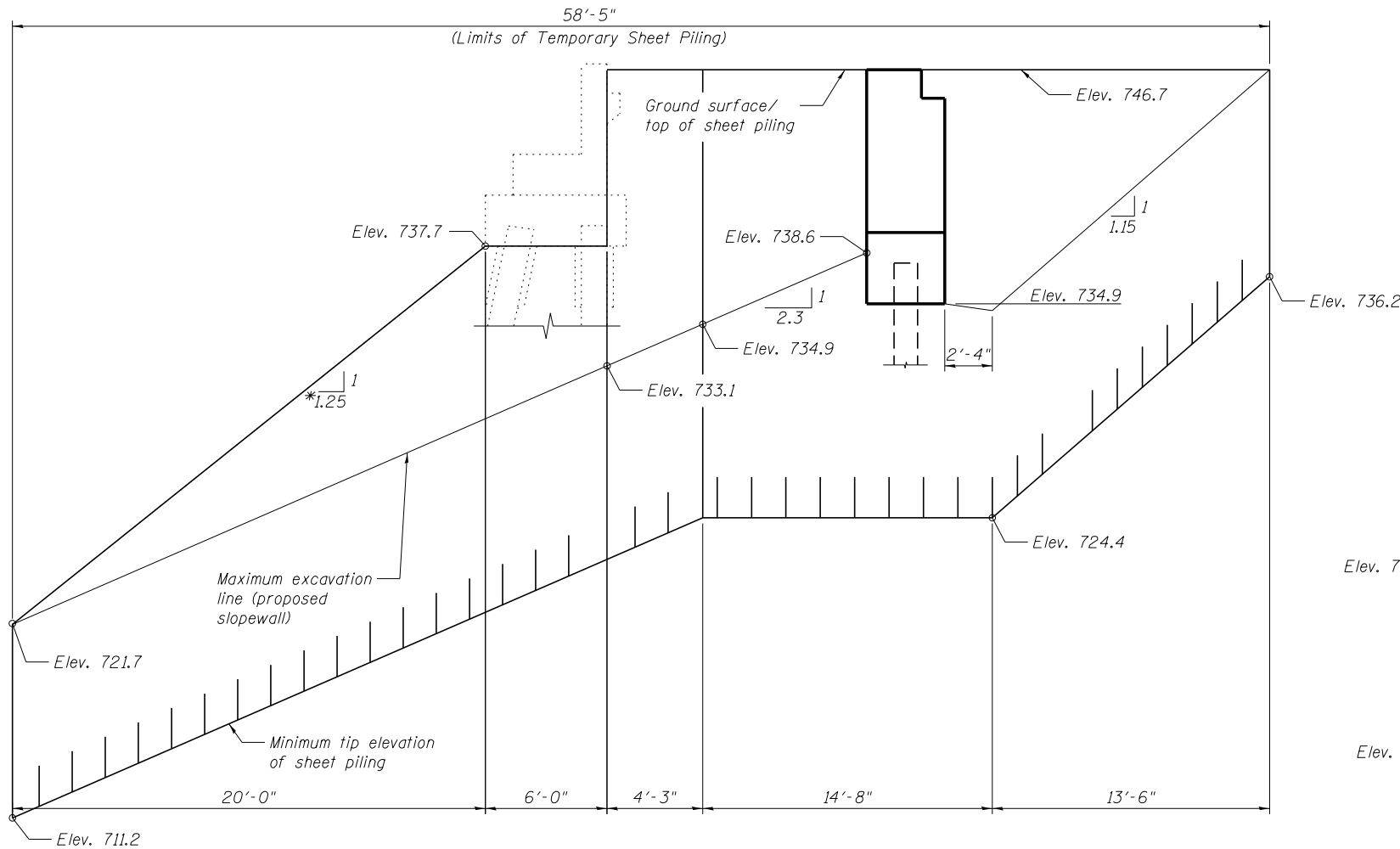
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS 2 OF 2
STRUCTURE NO. 090-0169

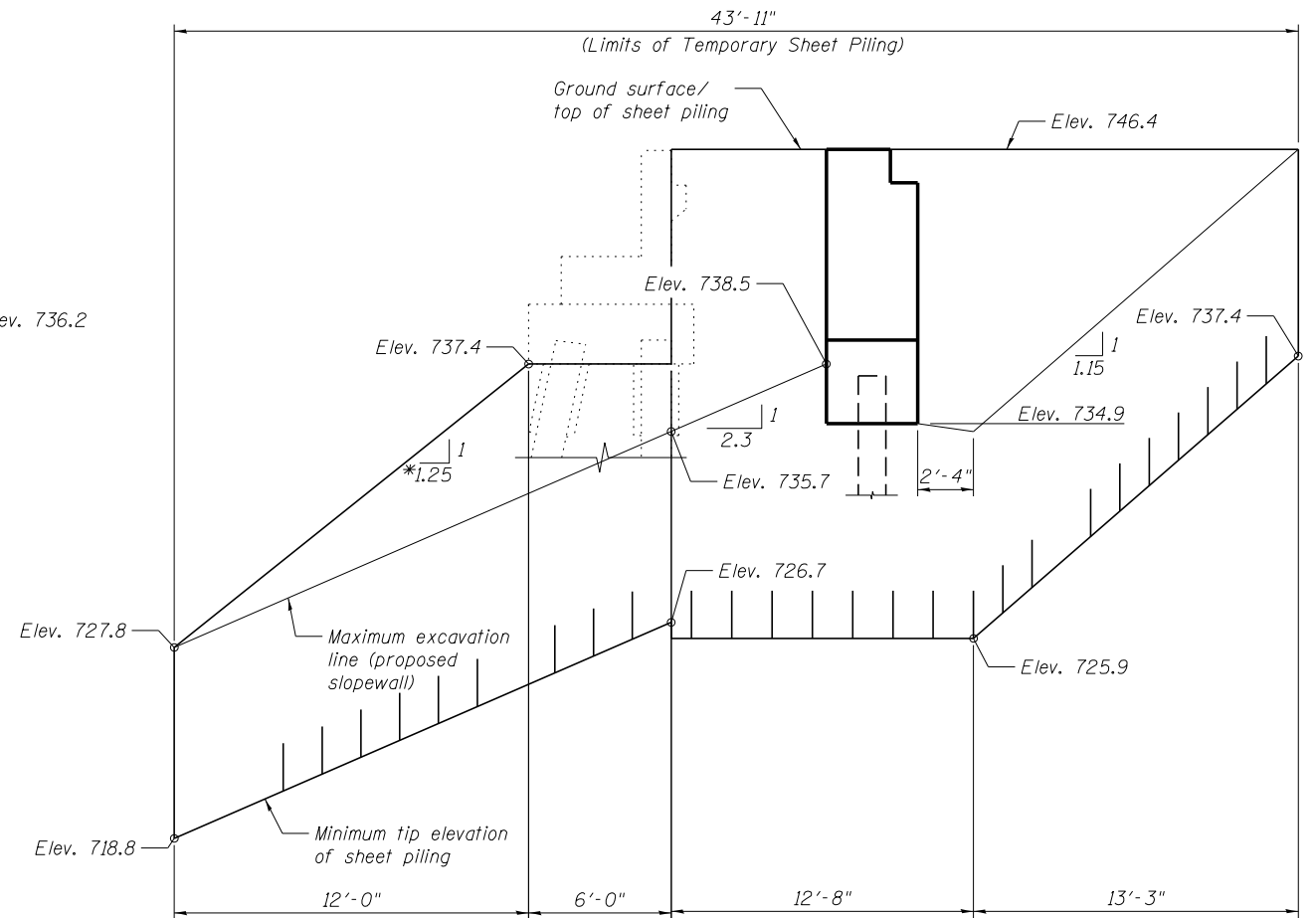
SHEET NO. SC6 OF SC63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

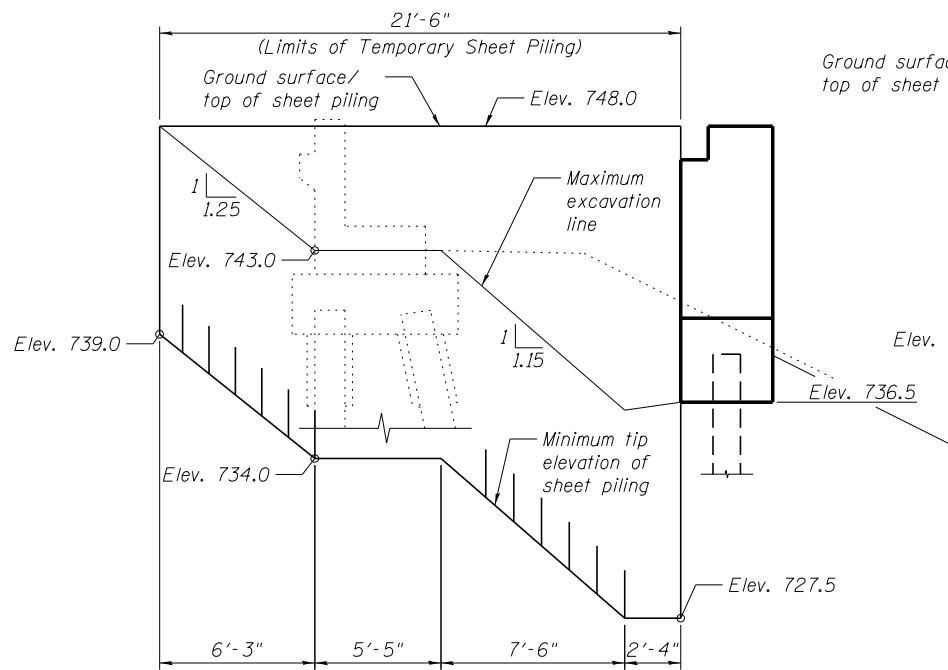
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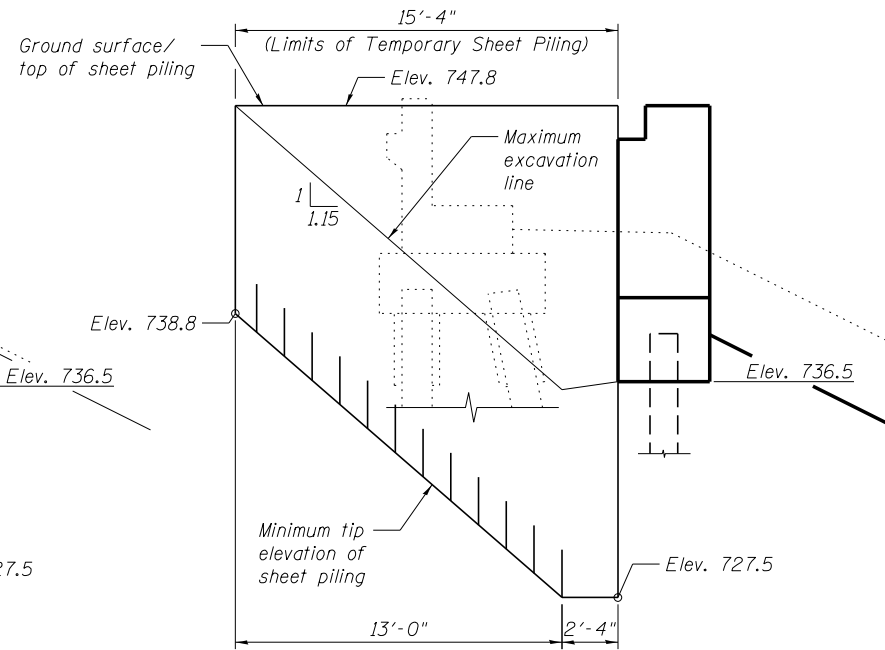
EAST ABUTMENT (N. STAGE CONST. LINE)
(Minimum Section Modulus = 15.9 cu. in./ft.)



EAST ABUTMENT (S. STAGE CONST. LINE)
(Minimum Section Modulus = 9.9 cu. in./ft.)



WEST ABUTMENT (N. STAGE CONST. LINE)
(Minimum Section Modulus = 9.9 cu. in./ft.)



WEST ABUTMENT (S. STAGE CONST. LINE)
(Minimum Section Modulus = 9.9 cu. in./ft.)

*Existing sloped wall elevation is higher than proposed sloped wall elevation at East Abutment. Assume that existing sloped wall north and south of Stage 1 will be graded away at 1:1 (V:H) in order to reduce sheeting.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Temporary Sheet Piling	Sq. Ft.	2,253

NOTES:

1. If the Contractor chooses to alter the temporary cantilever sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
2. All slope grades shown are measured along the length of the temporary sheet piling.
3. Existing bridge abutments are skewed approximately 37 degrees from the temporary sheet piling and the proposed bridge abutments are skewed 30 degrees from the temporary sheet piling.



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FILE NAME = 0900169.68620.07.sht.dgn
PLOT SCALE =
PLOT DATE = 7/16/2012

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CHECKED - MRB	REVISÉD -
DRAWN - MFB	REVISÉD -
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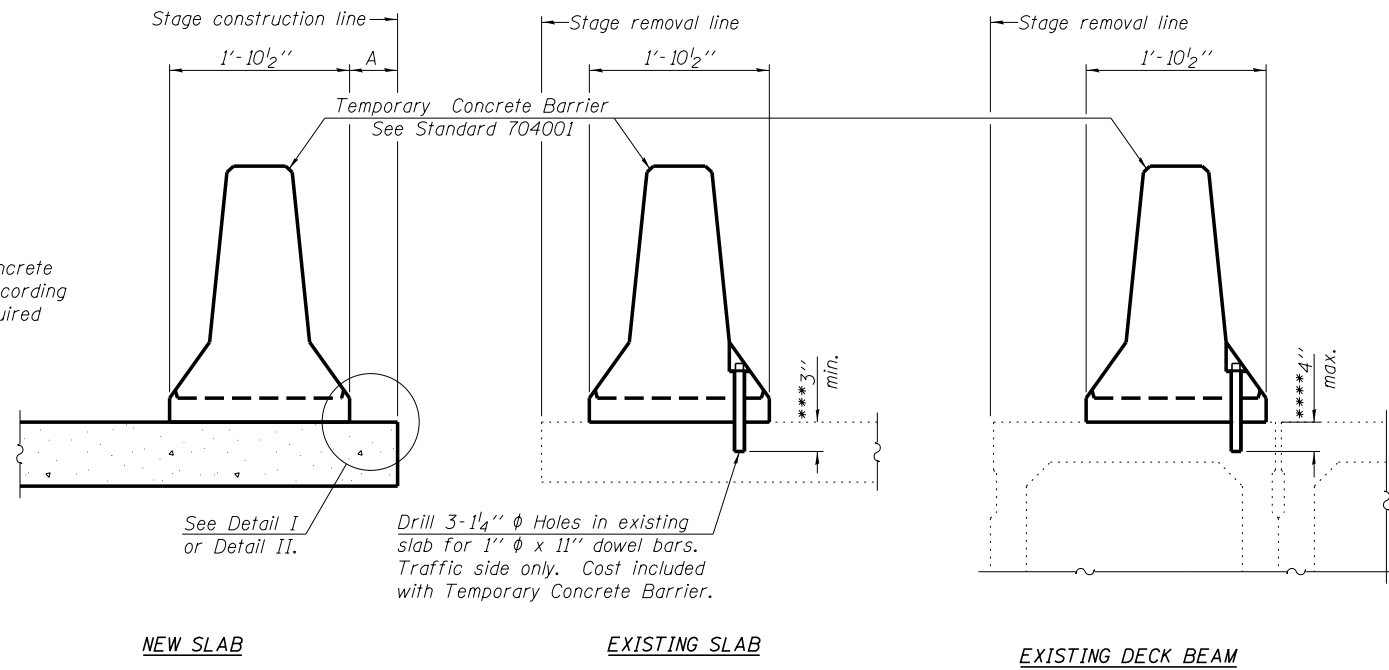
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY SHEETING DETAILS
STRUCTURE NO. 090-0169

SHEET NO. SC7 OF SC63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1983
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				

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



SECTIONS THRU SLAB OR DECK BEAM

NOTES

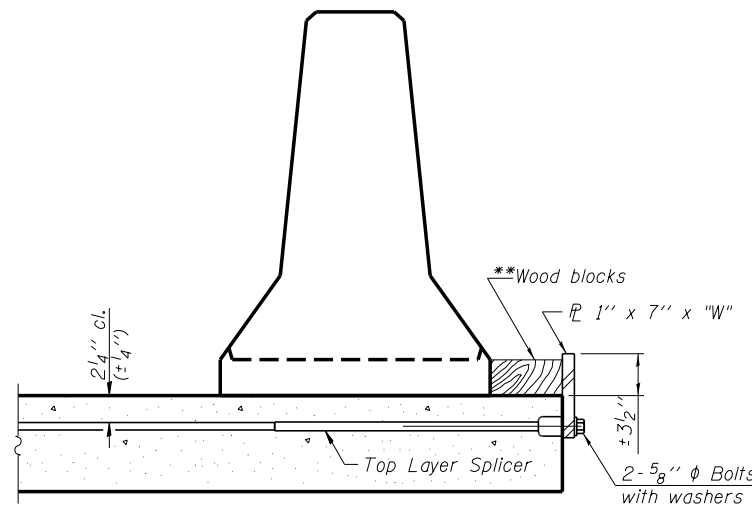
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" phi bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-5/8" phi Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

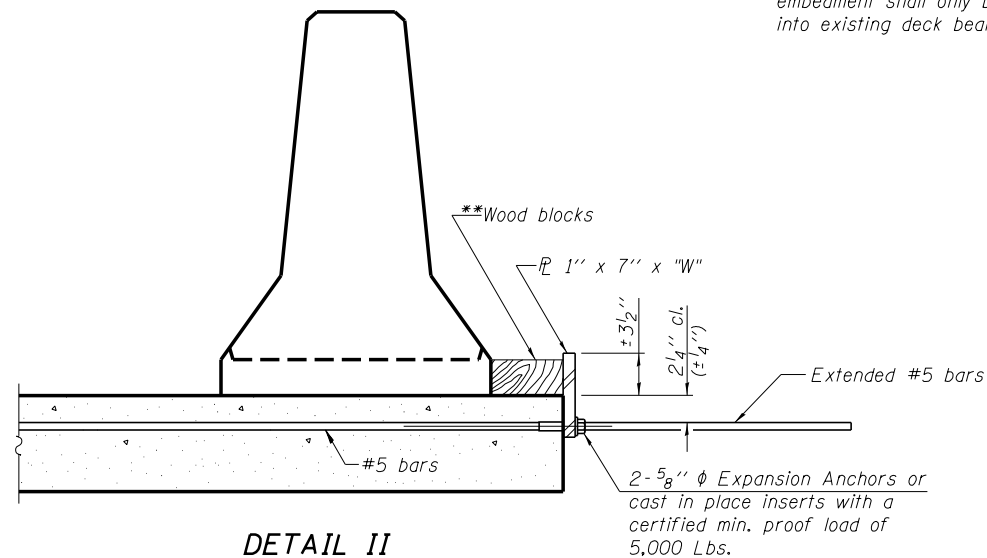
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

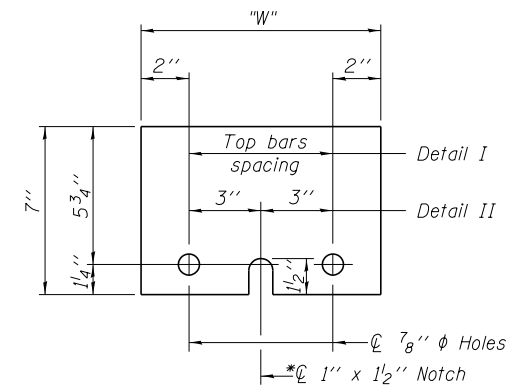
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x "W"

* Required only with Detail II

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

"W" = Top bars spacing + 4"

R-27

7-1-10



Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME =	USER NAME = mbecker	DESIGNED - MFB	REVISED -
		CHECKED - MRB	REVISED -
		DRAWN - PRT/LLR	REVISED -
		CHECKED - MRB	REVISED -
PLOT SCALE =			
PLOT DATE = 7/16/2012			

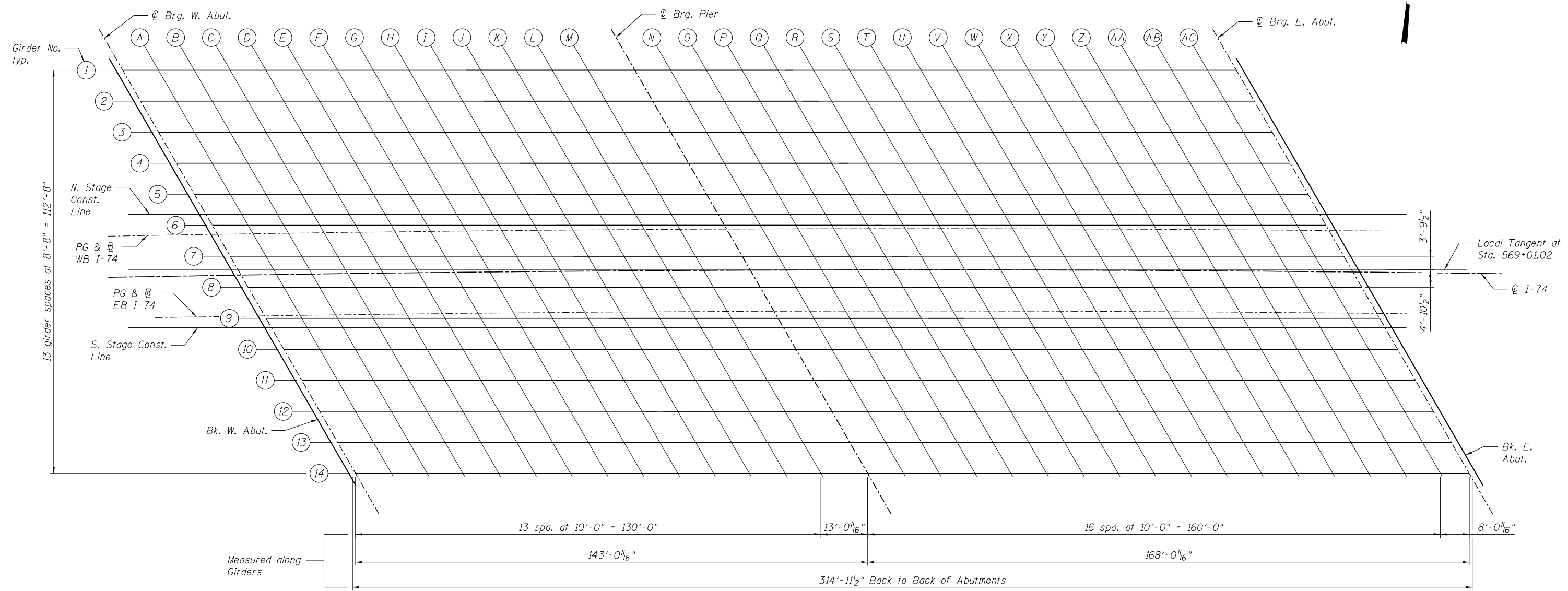
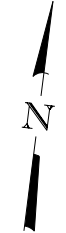
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY BARRIER DETAILS
STRUCTURE NO. 090-0169**

SHEET NO. SCB OF SC63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1984
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

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PLAN

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Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME =
0900169.68620.09.scr.dlyt.dgn

USER NAME = mbecker
DESIGNED - MFB
CHECKED - MRB
DRAWN - PRT
PLOT DATE = 7/16/2012

REVISIED -
REVISIED -
REVISIED -
REVISIED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

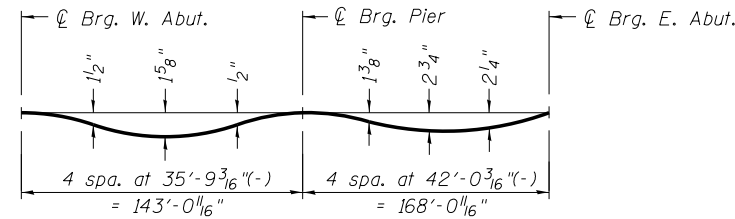
**TOP OF DECK ELEVATION LAYOUT
STRUCTURE NO. 090-0169**

SHEET NO. SC9 OF SC63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4,14,14HVB]BR	TAZEWELL	2433	1985
CONTRACT NO. 68620				

ILLINOIS FED. AID PROJECT

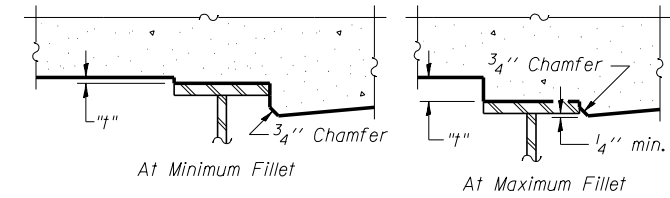
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DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)

Note: 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" as shown below and on sheets SC11 thru SC15.



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

FILLET HEIGHTS

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	566+77.37	-57.84	748.54	748.54
☉ Brg. W. Abut.	566+79.28	-57.80	748.53	748.53
A	566+89.24	-57.63	748.50	748.54
B	566+99.19	-57.46	748.46	748.54
C	567+09.14	-57.30	748.42	748.53
D	567+19.09	-57.15	748.38	748.51
E	567+29.04	-57.00	748.34	748.48
F	567+39.00	-56.87	748.30	748.44
G	567+48.95	-56.74	748.26	748.40
H	567+58.90	-56.62	748.22	748.34
I	567+68.86	-56.51	748.18	748.27
J	567+78.81	-56.40	748.15	748.21
K	567+88.77	-56.31	748.11	748.14
L	567+98.72	-56.22	748.07	748.08
M	568+08.67	-56.14	748.02	748.03
☉ Brg. Pier	568+21.67	-56.05	747.97	747.97
N	568+31.62	-55.99	747.93	747.95
O	568+41.58	-55.94	747.89	747.93
P	568+51.53	-55.89	747.85	747.93
Q	568+61.49	-55.86	747.81	747.92
R	568+71.44	-55.83	747.77	747.91
S	568+81.40	-55.81	747.73	747.90
T	568+91.35	-55.80	747.68	747.89
U	569+01.31	-55.79	747.64	747.87
V	569+11.26	-55.80	747.60	747.83
W	569+21.22	-55.81	747.56	747.80
X	569+31.17	-55.83	747.52	747.74
Y	569+41.13	-55.86	747.47	747.68
Z	569+51.08	-55.89	747.43	747.61
AA	569+61.04	-55.94	747.39	747.53
AB	569+70.99	-55.99	747.35	747.44
AC	569+80.94	-56.05	747.30	747.34
☉ Brg. E. Abut.	569+88.96	-56.11	747.26	747.26
Bk. E. Abut.	569+90.88	-56.12	747.25	747.25

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	566+82.19	-49.08	748.70	748.70
☉ Brg. W. Abut.	566+84.11	-49.05	748.70	748.70
A	566+94.07	-48.88	748.66	748.70
B	567+04.03	-48.71	748.62	748.70
C	567+13.99	-48.56	748.58	748.69
D	567+23.95	-48.41	748.54	748.67
E	567+33.91	-48.27	748.50	748.64
F	567+43.87	-48.13	748.46	748.60
G	567+53.83	-48.01	748.42	748.56
H	567+63.79	-47.89	748.39	748.50
I	567+73.75	-47.79	748.35	748.43
J	567+83.71	-47.69	748.31	748.37
K	567+93.67	-47.60	748.27	748.30
L	568+03.63	-47.51	748.23	748.24
M	568+13.59	-47.44	748.18	748.18
☉ Brg. Pier	568+26.60	-47.35	748.13	748.13
N	568+36.56	-47.29	748.08	748.10
O	568+46.52	-47.25	748.04	748.08
P	568+56.48	-47.21	748.00	748.07
Q	568+66.45	-47.17	747.96	748.07
R	568+76.41	-47.15	747.91	748.06
S	568+86.37	-47.13	747.87	748.05
T	568+96.33	-47.13	747.83	748.03
U	569+06.29	-47.13	747.79	748.01
V	569+16.25	-47.13	747.75	747.98
W	569+26.22	-47.15	747.70	747.94
X	569+36.18	-47.18	747.66	747.89
Y	569+46.14	-47.21	747.62	747.83
Z	569+56.10	-47.25	747.58	747.75
AA	569+66.06	-47.30	747.54	747.68
AB	569+76.02	-47.36	747.50	747.59
AC	569+85.98	-47.42	747.46	747.50
☉ Brg. E. Abut.	569+94.01	-47.48	747.42	747.42
Bk. E. Abut.	569+95.93	-47.49	747.41	747.41

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	566+87.03	-40.33	748.57	748.57
☉ Brg. W. Abut.	566+88.94	-40.30	748.56	748.56
A	566+98.91	-40.13	748.51	748.55
B	567+08.88	-39.97	748.47	748.54
C	567+18.84	-39.81	748.42	748.53
D	567+28.81	-39.67	748.38	748.51
E	567+38.78	-39.53	748.33	748.47
F	567+48.74	-39.41	748.29	748.43
G	567+58.71	-39.29	748.24	748.38
H	567+68.68	-39.17	748.20	748.31
I	567+78.65	-39.07	748.16	748.24
J	567+88.61	-38.97	748.11	748.17
K	567+98.58	-38.89	748.07	748.10
L	568+08.55	-38.81	748.02	748.04
M	568+18.52	-38.74	747.98	747.98
☉ Brg. Pier	568+31.53	-38.66	747.92	747.92
N	568+41.50	-38.60	747.88	747.90
O	568+51.47	-38.56	747.84	747.88
P	568+61.44	-38.52	747.80	747.87
Q	568+71.41	-38.49	747.75	747.86
R	568+81.38	-38.47	747.71	747.86
S	568+91.35	-38.46	747.67	747.85
T	569+01.32	-38.46	747.63	747.83
U	569+11.28	-38.46	747.59	747.81
V	569+21.25	-38.48	747.54	747.78
W	569+31.22	-38.50	747.50	747.74
X	569+41.19	-38.52	747.46	747.68
Y	569+51.16	-38.56	747.42	747.62
Z	569+61.13	-38.61	747.38	747.55
AA	569+71.10	-38.66	747.34	747.47
AB	569+81.06	-38.72	747.30	747.39
AC	569+91.03	-38.79	747.25	747.29
☉ Brg. E. Abut.	569+99.06	-38.85	747.21	747.21
Bk. E. Abut.	570+00.98	-38.87	747.20	747.20

NOTE:
All stations and offsets are measured from ☉ I-74.

FILE NAME =	0900169.68620.10.scrd1.dgn	USER NAME =	mbecker	DESIGNED -	MFB	REVISED -	
		CHECKED -	MRB/AA	CHECKED -	MRB/AA	REVISED -	
		PLOT SCALE =		DRAWN -	PRT	REVISED -	
		PLOT DATE =	7/16/2012	CHECKED -	MRB	REVISED -	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R](14HB-4,14,14HV)(BR)	TAZEWELL	2433	1986
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

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GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	566+91.87	-31.58	748.36	748.36
☉ Brg. W. Abut.	566+93.79	-31.55	748.36	748.36
A	567+03.76	-31.38	748.31	748.35
B	567+13.73	-31.22	748.26	748.34
C	567+23.71	-31.08	748.22	748.33
D	567+33.68	-30.93	748.18	748.30
E	567+43.65	-30.80	748.13	748.27
F	567+53.63	-30.68	748.09	748.23
G	567+63.60	-30.56	748.04	748.17
H	567+73.58	-30.45	748.00	748.11
I	567+83.55	-30.36	747.95	748.04
J	567+93.53	-30.26	747.91	747.97
K	568+03.50	-30.18	747.87	747.90
L	568+13.48	-30.10	747.82	747.84
M	568+23.45	-30.04	747.78	747.78
☉ Brg. & ☉ Pier	568+36.48	-29.96	747.72	747.72
N	568+46.45	-29.91	747.68	747.70
O	568+56.43	-29.87	747.64	747.68
P	568+66.40	-29.84	747.59	747.67
Q	568+76.38	-29.82	747.55	747.66
R	568+86.36	-29.80	747.51	747.66
S	568+96.33	-29.79	747.47	747.64
T	569+06.31	-29.79	747.43	747.63
U	569+16.28	-29.80	747.38	747.61
V	569+26.26	-29.82	747.34	747.57
W	569+36.23	-29.84	747.30	747.54
X	569+46.21	-29.88	747.26	747.48
Y	569+56.19	-29.92	747.22	747.42
Z	569+66.16	-29.96	747.18	747.35
AA	569+76.14	-30.02	747.14	747.27
AB	569+86.11	-30.09	747.09	747.19
AC	569+96.09	-30.16	747.05	747.09
☉ Brg. E. Abut.	570+04.12	-30.23	747.01	747.01
Bk. E. Abut.	570+06.04	-30.24	747.00	747.00

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	566+96.71	-22.83	748.16	748.16
☉ Brg. W. Abut.	566+98.63	-22.80	748.15	748.15
A	567+08.61	-22.64	748.11	748.15
B	567+18.59	-22.48	748.06	748.14
C	567+28.57	-22.34	748.02	748.13
D	567+38.56	-22.20	747.97	748.10
E	567+48.54	-22.07	747.93	748.07
F	567+58.52	-21.95	747.88	748.02
G	567+68.50	-21.84	747.84	747.97
H	567+78.48	-21.74	747.80	747.91
I	567+88.46	-21.64	747.75	747.84
J	567+98.45	-21.55	747.71	747.77
K	568+08.43	-21.47	747.66	747.70
L	568+18.41	-21.40	747.62	747.64
M	568+28.39	-21.34	747.58	747.58
☉ Brg. & ☉ Pier	568+41.43	-21.27	747.52	747.52
N	568+51.41	-21.23	747.48	747.50
O	568+61.39	-21.19	747.44	747.48
P	568+71.37	-21.16	747.39	747.47
Q	568+81.36	-21.14	747.35	747.46
R	568+91.34	-21.13	747.31	747.45
S	569+01.32	-21.13	747.27	747.44
T	569+11.31	-21.13	747.22	747.43
U	569+21.29	-21.14	747.18	747.41
V	569+31.27	-21.16	747.14	747.37
W	569+41.25	-21.19	747.10	747.34
X	569+51.24	-21.23	747.06	747.28
Y	569+61.22	-21.27	747.02	747.22
Z	569+71.20	-21.33	746.98	747.15
AA	569+81.18	-21.39	746.94	747.07
AB	569+91.17	-21.46	746.89	746.98
AC	570+01.15	-21.53	746.84	746.88
☉ Brg. E. Abut.	570+09.19	-21.60	746.80	746.80
Bk. E. Abut.	570+11.11	-21.62	746.79	746.79

N. STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	566+99.86	-17.15	748.03	748.03
☉ Brg. W. Abut.	567+01.78	-17.12	748.02	748.02
A	567+11.77	-16.96	747.98	748.02
B	567+21.75	-16.81	747.93	748.01
C	567+31.74	-16.67	747.89	747.99
D	567+41.72	-16.53	747.84	747.97
E	567+51.71	-16.41	747.80	747.94
F	567+61.70	-16.29	747.75	747.89
G	567+71.68	-16.18	747.71	747.84
H	567+81.67	-16.08	747.66	747.78
I	567+91.66	-15.99	747.62	747.71
J	568+01.64	-15.90	747.58	747.64
K	568+11.63	-15.83	747.53	747.57
L	568+21.62	-15.76	747.49	747.51
M	568+31.60	-15.70	747.45	747.45
☉ Brg. & ☉ Pier	568+44.64	-15.63	747.39	747.39
N	568+54.63	-15.59	747.35	747.37
O	568+64.62	-15.55	747.30	747.35
P	568+74.60	-15.53	747.26	747.34
Q	568+84.59	-15.51	747.22	747.33
R	568+94.58	-15.50	747.18	747.32
S	569+04.57	-15.50	747.14	747.31
T	569+14.55	-15.51	747.09	747.30
U	569+24.54	-15.52	747.05	747.27
V	569+34.53	-15.55	747.01	747.24
W	569+44.52	-15.58	746.97	747.20
X	569+54.50	-15.62	746.93	747.15
Y	569+64.49	-15.66	746.89	747.09
Z	569+74.48	-15.72	746.85	747.02
AA	569+84.46	-15.78	746.80	746.94
AB	569+94.45	-15.86	746.76	746.85
AC	570+04.44	-15.94	746.71	746.75
☉ Brg. E. Abut.	570+12.48	-16.01	746.67	746.67
Bk. E. Abut.	570+14.41	-16.02	746.66	746.66

NOTE:

All stations and offsets are measured from ☉ I-74.

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Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME = 0900169.68620.11.scrd2.dgn	USER NAME = mbecker	DESIGNED - MFB	REVISED -
		CHECKED - MRB/AAV	REVISED -
	PLOT SCALE =	DRAWN - PRT	REVISED -
	PLOT DATE = 7/16/2012	CHECKED - MRB	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS 2 OF 6
STRUCTURE NO. 090-0169**

SHEET NO. SC11 OF SC63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1987
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	567+01.57	-14.08	747.96	747.96
☉ Brg. W. Abut.	567+03.49	-14.05	747.95	747.95
A	567+13.48	-13.89	747.90	747.95
B	567+23.46	-13.74	747.86	747.94
C	567+33.45	-13.60	747.81	747.92
D	567+43.44	-13.47	747.77	747.90
E	567+53.43	-13.35	747.73	747.86
F	567+63.42	-13.23	747.68	747.82
G	567+73.40	-13.12	747.64	747.77
H	567+83.39	-13.02	747.59	747.70
I	567+93.38	-12.93	747.55	747.64
J	568+03.37	-12.85	747.51	747.57
K	568+13.36	-12.77	747.46	747.50
L	568+23.35	-12.70	747.42	747.43
M	568+33.34	-12.65	747.38	747.38
☉ Brg. & ☉ Pier	568+46.38	-12.58	747.32	747.32
N	568+56.37	-12.54	747.28	747.30
O	568+66.36	-12.51	747.23	747.28
P	568+76.35	-12.48	747.19	747.27
Q	568+86.34	-12.47	747.15	747.26
R	568+96.33	-12.46	747.11	747.25
S	569+06.32	-12.46	747.06	747.24
T	569+16.31	-12.47	747.02	747.23
U	569+26.30	-12.48	746.98	747.20
V	569+36.29	-12.51	746.94	747.17
W	569+46.28	-12.54	746.90	747.13
X	569+56.27	-12.58	746.86	747.08
Y	569+66.26	-12.63	746.82	747.02
Z	569+76.25	-12.69	746.78	746.95
AA	569+86.24	-12.75	746.73	746.87
AB	569+96.23	-12.83	746.69	746.78
AC	570+06.22	-12.91	746.64	746.68
☉ Brg. E. Abut.	570+14.27	-12.98	746.59	746.59
Bk. E. Abut.	570+16.19	-13.00	746.58	746.58

PG & ☉ WB I-74

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	567+03.00	-11.50	747.90	747.90
☉ Brg. W. Abut.	567+04.90	-11.50	747.89	747.89
A	567+14.81	-11.50	747.85	747.89
B	567+24.71	-11.50	747.81	747.89
C	567+34.63	-11.50	747.77	747.87
D	567+44.54	-11.50	747.72	747.85
E	567+54.46	-11.50	747.68	747.82
F	567+64.39	-11.50	747.64	747.78
G	567+74.32	-11.50	747.60	747.73
H	567+84.25	-11.50	747.56	747.67
I	567+94.19	-11.50	747.52	747.60
J	568+04.13	-11.50	747.47	747.54
K	568+14.08	-11.50	747.43	747.47
L	568+24.03	-11.50	747.39	747.41
M	568+33.99	-11.50	747.35	747.35
☉ Brg. & ☉ Pier	568+47.00	-11.50	747.29	747.29
N	568+56.97	-11.50	747.25	747.27
O	568+66.94	-11.50	747.21	747.25
P	568+76.92	-11.50	747.17	747.24
Q	568+86.90	-11.50	747.13	747.24
R	568+96.88	-11.50	747.08	747.23
S	569+06.88	-11.50	747.04	747.22
T	569+16.87	-11.50	747.00	747.20
U	569+26.87	-11.50	746.96	747.18
V	569+36.88	-11.50	746.92	747.15
W	569+46.89	-11.50	746.87	747.11
X	569+56.90	-11.50	746.83	747.06
Y	569+66.92	-11.50	746.79	747.00
Z	569+76.95	-11.50	746.75	746.92
AA	569+86.97	-11.50	746.70	746.84
AB	569+97.01	-11.50	746.65	746.75
AC	570+07.05	-11.50	746.60	746.65
☉ Brg. E. Abut.	570+15.14	-11.50	746.56	746.56
Bk. E. Abut.	570+17.07	-11.50	746.55	746.55

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	567+06.43	-5.33	747.76	747.76
☉ Brg. W. Abut.	567+08.35	-5.30	747.75	747.75
A	567+18.34	-5.15	747.70	747.74
B	567+28.34	-5.01	747.66	747.73
C	567+38.33	-4.87	747.61	747.72
D	567+48.33	-4.74	747.57	747.70
E	567+58.32	-4.62	747.52	747.66
F	567+68.32	-4.51	747.48	747.62
G	567+78.32	-4.41	747.43	747.57
H	567+88.31	-4.31	747.39	747.50
I	567+98.31	-4.22	747.35	747.44
J	568+08.30	-4.14	747.30	747.36
K	568+18.30	-4.07	747.26	747.30
L	568+28.30	-4.01	747.22	747.23
M	568+38.29	-3.95	747.17	747.17
☉ Brg. & ☉ Pier	568+51.35	-3.89	747.12	747.12
N	568+61.34	-3.86	747.07	747.09
O	568+71.34	-3.83	747.03	747.07
P	568+81.34	-3.81	746.99	747.06
Q	568+91.33	-3.80	746.95	747.06
R	569+01.33	-3.79	746.90	747.05
S	569+11.33	-3.80	746.86	747.04
T	569+21.32	-3.81	746.82	747.03
U	569+31.32	-3.83	746.78	747.00
V	569+41.32	-3.86	746.74	746.97
W	569+51.32	-3.89	746.70	746.93
X	569+61.31	-3.94	746.66	746.88
Y	569+71.31	-3.99	746.61	746.82
Z	569+81.30	-4.05	746.57	746.75
AA	569+91.30	-4.12	746.53	746.67
AB	570+01.30	-4.20	746.48	746.57
AC	570+11.29	-4.29	746.43	746.47
☉ Brg. E. Abut.	570+19.35	-4.36	746.39	746.39
Bk. E. Abut.	570+21.27	-4.38	746.38	746.38

NOTE:

All stations and offsets are measured from ☉ I-74.



Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME =	0900169.68620.12.scrd3.dgn	USER NAME =	mbecker	DESIGNED -	MFB	REVISED -	
		CHECKED -	MRB/AAAY	REVISIONS -			
		PLOT SCALE =		DRAWN -	PRT	REVISED -	
		PLOT DATE =	7/16/2012	CHECKED -	MRB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS 3 OF 6
STRUCTURE NO. 090-0169

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HB)BR]	TAZEWELL	2433	1988
			CONTRACT NO. 68620	
			ILLINOIS FED. AID PROJECT	

SHEET NO. SC12 OF SC63 SHEETS

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	567+11.29	3.41	747.70	747.70
☉ Brg. W. Abut.	567+13.22	3.44	747.69	747.69
A	567+23.22	3.59	747.65	747.69
B	567+33.22	3.73	747.61	747.69
C	567+43.22	3.86	747.57	747.68
D	567+53.23	3.99	747.53	747.66
E	567+63.23	4.10	747.49	747.63
F	567+73.23	4.21	747.45	747.59
G	567+83.23	4.31	747.41	747.54
H	567+93.24	4.40	747.37	747.48
I	568+03.24	4.49	747.33	747.42
J	568+13.24	4.56	747.29	747.35
K	568+23.25	4.63	747.25	747.29
L	568+33.25	4.69	747.21	747.23
M	568+43.26	4.74	747.17	747.17
☉ Brg. & ☉ Pier	568+56.32	4.79	747.11	747.11
N	568+66.32	4.83	747.07	747.09
O	568+76.32	4.85	747.03	747.07
P	568+86.33	4.87	746.99	747.07
Q	568+96.33	4.87	746.95	747.06
R	569+06.34	4.87	746.91	747.05
S	569+16.34	4.87	746.86	747.04
T	569+26.34	4.85	746.82	747.03
U	569+36.35	4.82	746.78	747.00
V	569+46.35	4.79	746.74	746.97
W	569+56.36	4.75	746.69	746.93
X	569+66.36	4.70	746.65	746.87
Y	569+76.36	4.64	746.61	746.81
Z	569+86.37	4.58	746.56	746.74
AA	569+96.37	4.50	746.51	746.65
AB	570+06.37	4.42	746.46	746.55
AC	570+16.38	4.33	746.40	746.44
☉ Brg. E. Abut.	570+24.44	4.25	746.35	746.35
Bk. E. Abut.	570+26.36	4.24	746.34	746.34

PG & ☉ EB I-74

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	567+15.80	11.50	747.85	747.85
☉ Brg. W. Abut.	567+17.71	11.50	747.84	747.84
A	567+27.64	11.50	747.80	747.84
B	567+37.57	11.50	747.75	747.83
C	567+47.51	11.50	747.71	747.82
D	567+57.45	11.50	747.67	747.80
E	567+67.39	11.50	747.63	747.77
F	567+77.34	11.50	747.59	747.73
G	567+87.30	11.50	747.54	747.68
H	567+97.26	11.50	747.50	747.62
I	568+07.22	11.50	747.46	747.55
J	568+17.19	11.50	747.42	747.48
K	568+27.16	11.50	747.38	747.41
L	568+37.14	11.50	747.34	747.35
M	568+47.12	11.50	747.29	747.30
☉ Brg. & ☉ Pier	568+60.16	11.50	747.24	747.24
N	568+70.15	11.50	747.20	747.22
O	568+80.15	11.50	747.15	747.20
P	568+90.15	11.50	747.11	747.19
Q	569+00.16	11.50	747.07	747.18
R	569+10.17	11.50	747.03	747.17
S	569+20.19	11.50	746.99	747.16
T	569+30.21	11.50	746.94	747.15
U	569+40.23	11.50	746.90	747.12
V	569+50.26	11.50	746.86	747.09
W	569+60.30	11.50	746.82	747.05
X	569+70.34	11.50	746.78	747.00
Y	569+80.38	11.50	746.73	746.94
Z	569+90.43	11.50	746.69	746.86
AA	570+00.49	11.50	746.64	746.77
AB	570+10.55	11.50	746.58	746.68
AC	570+20.61	11.50	746.53	746.57
☉ Brg. E. Abut.	570+28.72	11.50	746.48	746.48
Bk. E. Abut.	570+30.66	11.50	746.47	746.47

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	567+16.17	12.15	747.83	747.83
☉ Brg. W. Abut.	567+18.09	12.18	747.82	747.82
A	567+28.10	12.33	747.78	747.82
B	567+38.11	12.46	747.73	747.81
C	567+48.12	12.59	747.69	747.80
D	567+58.13	12.71	747.64	747.77
E	567+68.14	12.82	747.60	747.74
F	567+78.15	12.93	747.55	747.69
G	567+88.16	13.02	747.51	747.64
H	567+98.17	13.11	747.47	747.58
I	568+08.18	13.19	747.42	747.51
J	568+18.19	13.26	747.38	747.44
K	568+28.20	13.33	747.33	747.37
L	568+38.21	13.38	747.29	747.31
M	568+48.22	13.43	747.25	747.25
☉ Brg. & ☉ Pier	568+61.29	13.48	747.19	747.19
N	568+71.31	13.51	747.15	747.17
O	568+81.32	13.53	747.11	747.15
P	568+91.33	13.54	747.07	747.14
Q	569+01.34	13.54	747.02	747.13
R	569+11.35	13.54	746.98	747.13
S	569+21.36	13.52	746.94	747.12
T	569+31.37	13.50	746.90	747.10
U	569+41.38	13.48	746.86	747.08
V	569+51.39	13.44	746.81	747.05
W	569+61.40	13.39	746.77	747.01
X	569+71.42	13.34	746.73	746.96
Y	569+81.43	13.28	746.69	746.90
Z	569+91.44	13.21	746.65	746.82
AA	570+01.45	13.13	746.60	746.73
AB	570+11.46	13.05	746.55	746.64
AC	570+21.47	12.95	746.49	746.53
☉ Brg. E. Abut.	570+29.53	12.87	746.45	746.45
Bk. E. Abut.	570+31.46	12.85	746.44	746.44

NOTE:
All stations and offsets are measured from ☉ I-74.



Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME = 0900169.68620.13.scrd4.dgn	USER NAME = mbecker	DESIGNED - MFB	REVISED -
		CHECKED - MRB/AAV	REVISED -
	PLOT SCALE =	DRAWN - PRT	REVISED -
	PLOT DATE = 7/16/2012	CHECKED - MRB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS 4 OF 6
STRUCTURE NO. 090-0169

SHEET NO. SC13 OF SC63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1989
			CONTRACT NO. 68620	
			ILLINOIS FED. AID PROJECT	

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S. STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	567+17.64	14.80	747.77	747.77
☉ Brg. W. Abut.	567+19.57	14.83	747.76	747.76
A	567+29.58	14.97	747.72	747.76
B	567+39.59	15.11	747.67	747.75
C	567+49.61	15.23	747.63	747.73
D	567+59.62	15.35	747.58	747.71
E	567+69.63	15.46	747.54	747.68
F	567+79.64	15.57	747.49	747.63
G	567+89.65	15.66	747.45	747.58
H	567+99.67	15.75	747.40	747.52
I	568+09.68	15.83	747.36	747.45
J	568+19.69	15.90	747.32	747.38
K	568+29.70	15.96	747.27	747.31
L	568+39.72	16.01	747.23	747.25
M	568+49.73	16.06	747.19	747.19
☉ Brg. & ☉ Pier	568+62.80	16.11	747.13	747.13
N	568+72.82	16.13	747.09	747.11
O	568+82.83	16.15	747.05	747.09
P	568+92.84	16.16	747.00	747.08
Q	569+02.86	16.17	746.96	747.07
R	569+12.87	16.16	746.92	747.07
S	569+22.88	16.15	746.88	747.05
T	569+32.90	16.13	746.84	747.04
U	569+42.91	16.10	746.79	747.02
V	569+52.92	16.06	746.75	746.99
W	569+62.93	16.01	746.71	746.95
X	569+72.95	15.96	746.67	746.89
Y	569+82.96	15.89	746.63	746.83
Z	569+92.97	15.82	746.58	746.76
AA	570+02.99	15.74	746.54	746.67
AB	570+13.00	15.66	746.48	746.58
AC	570+23.01	15.56	746.43	746.47
☉ Brg. E. Abut.	570+31.08	15.48	746.38	746.38
Bk. E. Abut.	570+33.00	15.46	746.37	746.37

GIRDER 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	567+21.05	20.89	747.63	747.63
☉ Brg. W. Abut.	567+22.98	20.92	747.62	747.62
A	567+32.99	21.06	747.57	747.61
B	567+43.01	21.19	747.53	747.61
C	567+53.02	21.32	747.48	747.59
D	567+63.04	21.43	747.44	747.57
E	567+73.06	21.54	747.40	747.53
F	567+83.08	21.64	747.35	747.49
G	567+93.09	21.73	747.31	747.44
H	568+03.11	21.82	747.26	747.38
I	568+13.13	21.89	747.22	747.31
J	568+23.15	21.96	747.18	747.24
K	568+33.16	22.02	747.13	747.17
L	568+43.18	22.07	747.09	747.11
M	568+53.20	22.12	747.05	747.05
☉ Brg. & ☉ Pier	568+66.28	22.16	746.99	746.99
N	568+76.30	22.18	746.95	746.97
O	568+86.32	22.20	746.91	746.95
P	568+96.33	22.21	746.86	746.94
Q	569+06.35	22.21	746.82	746.93
R	569+16.37	22.20	746.78	746.93
S	569+26.39	22.18	746.74	746.91
T	569+36.41	22.16	746.70	746.90
U	569+46.42	22.12	746.65	746.88
V	569+56.44	22.08	746.61	746.85
W	569+66.46	22.03	746.57	746.81
X	569+76.48	21.98	746.53	746.75
Y	569+86.50	21.91	746.49	746.69
Z	569+96.51	21.84	746.44	746.62
AA	570+06.53	21.76	746.39	746.53
AB	570+16.55	21.67	746.34	746.43
AC	570+26.56	21.57	746.28	746.32
☉ Brg. E. Abut.	570+34.64	21.48	746.24	746.24
Bk. E. Abut.	570+36.56	21.46	746.22	746.22

GIRDER 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	567+25.94	29.63	747.43	747.43
☉ Brg. W. Abut.	567+27.87	29.66	747.42	747.42
A	567+37.89	29.79	747.37	747.41
B	567+47.91	29.92	747.33	747.40
C	567+57.94	30.04	747.28	747.39
D	567+67.96	30.16	747.24	747.37
E	567+77.98	30.26	747.19	747.33
F	567+88.01	30.36	747.15	747.29
G	567+98.03	30.44	747.11	747.24
H	568+08.06	30.52	747.06	747.17
I	568+18.08	30.60	747.02	747.11
J	568+28.11	30.66	746.97	747.04
K	568+38.13	30.71	746.93	746.97
L	568+48.16	30.76	746.89	746.90
M	568+58.18	30.80	746.84	746.85
☉ Brg. & ☉ Pier	568+71.27	30.84	746.79	746.79
N	568+81.30	30.86	746.75	746.77
O	568+91.32	30.87	746.70	746.75
P	569+01.35	30.88	746.66	746.74
Q	569+11.37	30.87	746.62	746.73
R	569+21.40	30.86	746.58	746.72
S	569+31.42	30.84	746.54	746.71
T	569+41.45	30.81	746.49	746.70
U	569+51.47	30.77	746.45	746.68
V	569+61.50	30.73	746.41	746.64
W	569+71.52	30.67	746.37	746.61
X	569+81.55	30.61	746.33	746.55
Y	569+91.57	30.54	746.28	746.49
Z	570+01.60	30.46	746.24	746.41
AA	570+11.62	30.38	746.19	746.32
AB	570+21.65	30.28	746.13	746.22
AC	570+31.67	30.18	746.07	746.11
☉ Brg. E. Abut.	570+39.75	30.09	746.02	746.02
Bk. E. Abut.	570+41.67	30.07	746.01	746.01

NOTE:
All stations and offsets are measured from ☉ I-74.



Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME = 0900169.68620.14.scrd5.dgn	USER NAME = mbecker	DESIGNED - MFB	REVISED -
		CHECKED - MRB/AAV	REVISED -
	PLOT SCALE =	DRAWN - PRT	REVISED -
	PLOT DATE = 7/16/2012	CHECKED - MRB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS 5 OF 6
STRUCTURE NO. 090-0169

SHEET NO. SC14 OF SC63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1990
			CONTRACT NO. 68620	
			ILLINOIS FED. AID PROJECT	

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GIRDER 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	567+30.83	38.37	747.22	747.22
☉ Brg. W. Abut.	567+32.76	38.39	747.21	747.21
A	567+42.79	38.53	747.17	747.21
B	567+52.82	38.65	747.12	747.20
C	567+62.85	38.77	747.08	747.19
D	567+72.88	38.88	747.04	747.16
E	567+82.92	38.98	746.99	747.13
F	567+92.95	39.07	746.95	747.09
G	568+02.98	39.15	746.90	747.03
H	568+13.01	39.23	746.86	746.97
I	568+23.04	39.29	746.82	746.90
J	568+33.07	39.35	746.77	746.83
K	568+43.11	39.41	746.73	746.76
L	568+53.14	39.45	746.69	746.70
M	568+63.17	39.48	746.64	746.64
☉ Brg. & ☉ Pier	568+76.27	39.52	746.59	746.59
N	568+86.30	39.53	746.54	746.56
O	568+96.33	39.54	746.50	746.54
P	569+06.37	39.54	746.46	746.54
Q	569+16.40	39.53	746.42	746.53
R	569+26.43	39.52	746.38	746.52
S	569+36.46	39.49	746.33	746.51
T	569+46.50	39.46	746.29	746.50
U	569+56.53	39.42	746.25	746.47
V	569+66.56	39.37	746.21	746.44
W	569+76.59	39.31	746.17	746.41
X	569+86.62	39.24	746.13	746.35
Y	569+96.66	39.17	746.08	746.29
Z	570+06.69	39.09	746.03	746.20
AA	570+16.72	39.00	745.98	746.11
AB	570+26.75	38.90	745.92	746.01
AC	570+36.78	38.79	745.86	745.90
☉ Brg. E. Abut.	570+44.86	38.70	745.81	745.81
Bk. E. Abut.	570+46.79	38.68	745.80	745.80

GIRDER 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	567+35.73	47.10	747.02	747.02
☉ Brg. W. Abut.	567+37.66	47.13	747.01	747.01
A	567+47.70	47.25	746.97	747.01
B	567+57.74	47.38	746.92	747.00
C	567+67.78	47.49	746.88	746.99
D	567+77.82	47.59	746.83	746.96
E	567+87.86	47.69	746.79	746.93
F	567+97.89	47.78	746.74	746.89
G	568+07.93	47.86	746.70	746.83
H	568+17.97	47.93	746.66	746.77
I	568+28.01	47.99	746.61	746.70
J	568+38.05	48.05	746.57	746.63
K	568+48.09	48.09	746.53	746.56
L	568+58.13	48.13	746.48	746.50
M	568+68.17	48.16	746.44	746.44
☉ Brg. & ☉ Pier	568+81.28	48.19	746.39	746.39
N	568+91.32	48.20	746.34	746.36
O	569+01.35	48.21	746.30	746.34
P	569+11.39	48.20	746.26	746.33
Q	569+21.43	48.19	746.22	746.33
R	569+31.47	48.17	746.17	746.32
S	569+41.51	48.14	746.13	746.31
T	569+51.55	48.10	746.09	746.30
U	569+61.59	48.06	746.05	746.27
V	569+71.63	48.01	746.01	746.24
W	569+81.67	47.94	745.97	746.20
X	569+91.71	47.87	745.92	746.15
Y	570+01.75	47.80	745.87	746.08
Z	570+11.79	47.71	745.82	746.00
AA	570+21.82	47.62	745.77	745.91
AB	570+31.86	47.51	745.71	745.80
AC	570+41.90	47.40	745.65	745.69
☉ Brg. E. Abut.	570+49.99	47.31	745.60	745.60
Bk. E. Abut.	570+51.92	47.28	745.58	745.58

GIRDER 14

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	567+40.64	55.83	746.82	746.82
☉ Brg. W. Abut.	567+42.58	55.86	746.81	746.81
A	567+52.62	55.98	746.76	746.80
B	567+62.67	56.10	746.72	746.80
C	567+72.71	56.21	746.67	746.78
D	567+82.76	56.31	746.63	746.76
E	567+92.80	56.40	746.59	746.73
F	568+02.85	56.48	746.54	746.68
G	568+12.89	56.56	746.50	746.63
H	568+22.94	56.63	746.45	746.57
I	568+32.99	56.69	746.41	746.50
J	568+43.03	56.74	746.37	746.43
K	568+53.08	56.78	746.32	746.36
L	568+63.12	56.82	746.28	746.30
M	568+73.17	56.84	746.24	746.24
☉ Brg. & ☉ Pier	568+86.29	56.87	746.18	746.18
N	568+96.34	56.87	746.14	746.16
O	569+06.38	56.87	746.10	746.14
P	569+16.43	56.87	746.06	746.13
Q	569+26.47	56.85	746.01	746.13
R	569+36.52	56.82	745.97	746.12
S	569+46.57	56.79	745.93	746.11
T	569+56.61	56.75	745.89	746.10
U	569+66.66	56.70	745.85	746.07
V	569+76.71	56.64	745.81	746.04
W	569+86.75	56.58	745.76	746.00
X	569+96.80	56.50	745.72	745.94
Y	570+06.84	56.42	745.67	745.87
Z	570+16.89	56.33	745.62	745.79
AA	570+26.94	56.23	745.56	745.70
AB	570+36.98	56.13	745.50	745.59
AC	570+47.03	56.01	745.44	745.48
☉ Brg. E. Abut.	570+55.12	55.91	745.38	745.38
Bk. E. Abut.	570+57.05	55.89	745.37	745.37

NOTE:
All stations and offsets are measured from ☉ I-74.



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PLOT SCALE =	
PLOT DATE =	7/16/2012

DESIGNED -	MFB	REVISED -	
CHECKED -	MRB/AAAY	REVISED -	
DRAWN -	PRT	REVISED -	
CHECKED -	MRB	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS 6 OF 6
STRUCTURE NO. 090-0169**

SHEET NO. SC15 OF SC63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1991
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68620	

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WB EDGE OF OUTSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	566+49.16	-57.50	748.67
W1	566+58.63	-58.17	748.61
W2	566+68.10	-58.85	748.56
E. End of W. Appr. Slab	566+77.57	-59.54	748.51

WB OUTSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	566+54.64	-47.50	748.85
W1	566+64.49	-47.50	748.81
W2	566+74.35	-47.50	748.77
E. End of W. Appr. Slab	566+84.21	-47.50	748.73

N. STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	566+71.06	-17.66	749.41
W1	566+81.05	-17.47	749.37
W2	566+91.03	-17.30	749.33
E. End of W. Appr. Slab	567+01.01	-17.13	749.29

PG & WB I-74 & WB INSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	566+74.46	-11.50	749.52
W1	566+84.35	-11.50	749.48
W2	566+94.24	-11.50	749.44
E. End of W. Appr. Slab	567+04.14	-11.50	749.39

WB EDGE OF INSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	566+79.99	-1.50	747.79
W1	566+89.89	-1.50	747.75
W2	566+99.80	-1.50	747.70
E. End of W. Appr. Slab	567+09.70	-1.50	747.66

EB EDGE OF INSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	566+81.65	1.50	747.78
W1	566+91.56	1.50	747.74
W2	567+01.46	1.50	747.70
E. End of W. Appr. Slab	567+11.37	1.50	747.66

PG & EB I-74 & EB INSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	566+87.20	11.50	747.97
W1	566+97.11	11.50	747.92
W2	567+07.03	11.50	747.88
E. End of W. Appr. Slab	567+16.95	11.50	747.84

S. STAGE CONSTRUCTION LINE

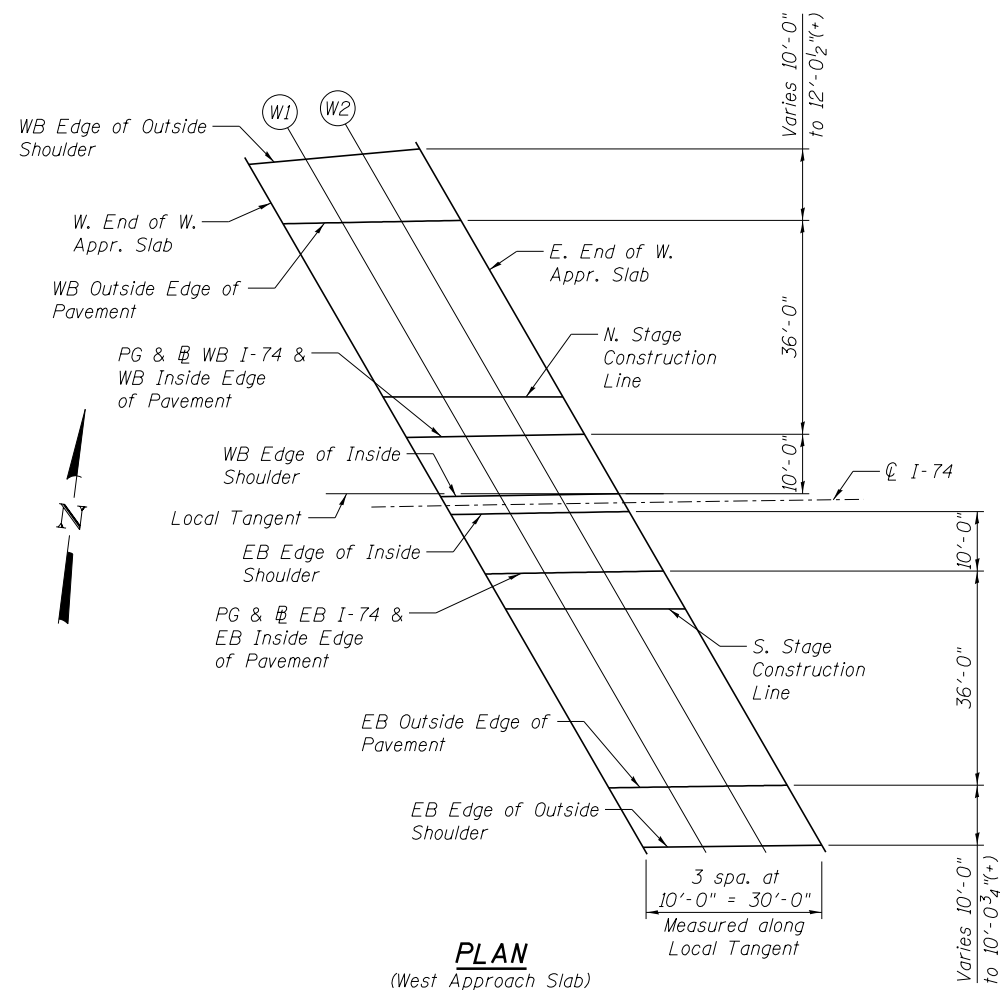
Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	566+88.77	14.33	747.90
W1	566+98.78	14.50	747.85
W2	567+08.79	14.66	747.81
E. End of W. Appr. Slab	567+18.80	14.82	747.76

EB OUTSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	567+07.24	47.50	747.13
W1	567+17.19	47.50	747.09
W2	567+27.15	47.50	747.05
E. End of W. Appr. Slab	567+37.11	47.50	747.01

EB EDGE OF OUTSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	567+12.83	57.50	746.90
W1	567+22.81	57.53	746.86
W2	567+32.79	57.55	746.81
E. End of W. Appr. Slab	567+42.77	57.57	746.77



PLAN
(West Approach Slab)

NOTE:
All stations and offsets are measured from C I-74 .

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		CHECKED - MRB/AAV	REVISED -
0900169.68620.16.apsbell.dgn		DRAWN - PRT	REVISED -
		CHECKED - MRB	REVISED -
	PLOT DATE = 7/16/2012		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 090-0169

SHEET NO. SC16 OF SC63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4,14,14HVB]BR	TAZEWELL	2433	1992
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				

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WB EDGE OF OUTSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	569+88.74	-57.81	747.23
E1	569+98.80	-57.70	747.18
E2	570+08.86	-57.60	747.13
E. End of E. Appr. Slab	570+18.93	-57.50	747.08

WB OUTSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	569+94.77	-47.50	747.42
E1	570+04.78	-47.50	747.37
E2	570+14.79	-47.50	747.31
E. End of E. Appr. Slab	570+24.79	-47.52	747.25

N. STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	570+13.25	-16.01	747.98
E1	570+23.24	-16.11	747.92
E2	570+33.23	-16.21	747.86
E. End of E. Appr. Slab	570+43.21	-16.32	747.79

PG & WB I-74 & WB INSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	570+15.91	-11.50	748.05
E1	570+25.94	-11.53	748.00
E2	570+35.97	-11.57	747.93
E. End of E. Appr. Slab	570+46.00	-11.62	747.87

WB EDGE OF INSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	570+21.81	-1.50	746.31
E1	570+31.87	-1.50	746.25
E2	570+41.93	-1.50	746.19
E. End of E. Appr. Slab	570+52.00	-1.50	746.12

EB EDGE OF INSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	570+23.58	1.50	746.30
E1	570+33.64	1.50	746.24
E2	570+43.71	1.50	746.18
E. End of E. Appr. Slab	570+53.78	1.50	746.11

PG & EB I-74 & EB INSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	570+29.50	11.50	746.48
E1	570+39.57	11.50	746.41
E2	570+49.65	11.50	746.35
E. End of E. Appr. Slab	570+59.73	11.50	746.28

S. STAGE CONSTRUCTION LINE

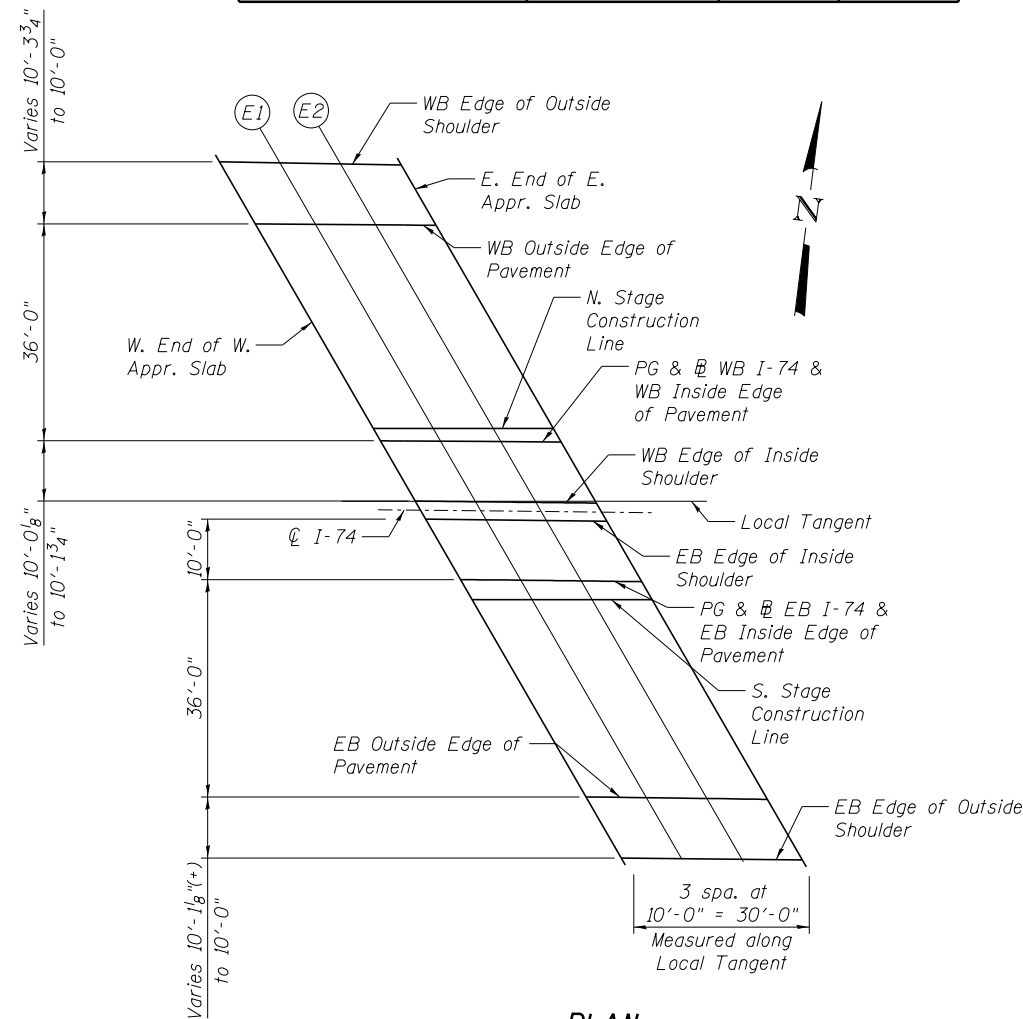
Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	570+31.85	15.47	746.38
E1	570+41.86	15.36	746.32
E2	570+51.87	15.24	746.25
E. End of E. Appr. Slab	570+61.88	15.11	746.18

EB OUTSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	570+50.88	47.50	745.59
E1	570+60.99	47.50	745.52
E2	570+71.11	47.50	745.44
E. End of E. Appr. Slab	570+81.23	47.50	745.36

EB EDGE OF OUTSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	570+56.91	57.60	745.33
E1	570+67.02	57.57	745.26
E2	570+77.12	57.54	745.19
E. End of E. Appr. Slab	570+87.23	57.50	745.11



PLAN
(East Approach Slab)

NOTE:

All stations and offsets are measured from \varnothing I-74.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

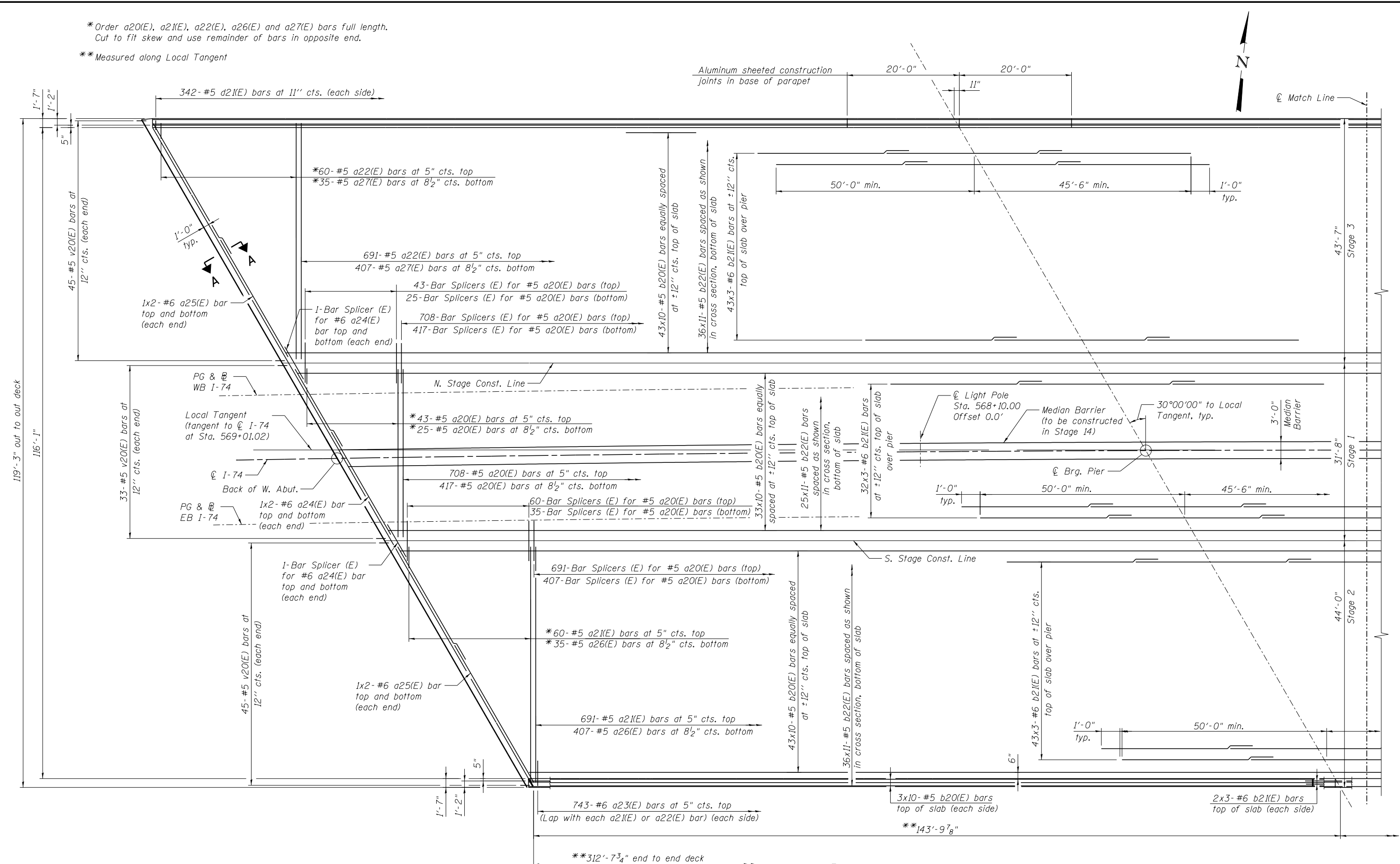
TOP OF EAST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 090-0169

SHEET NO. SC17 OF SC63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R]14HB-4,14,14HVB[BR]	TAZEWELL	2433	1993
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

*Order a20(E), a21(E), a22(E), a26(E) and a27(E) bars full length.
Cut to fit skew and use remainder of bars in opposite end.

** Measured along Local Tangent



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PLOT SCALE =
PLOT DATE = 7/16/2012

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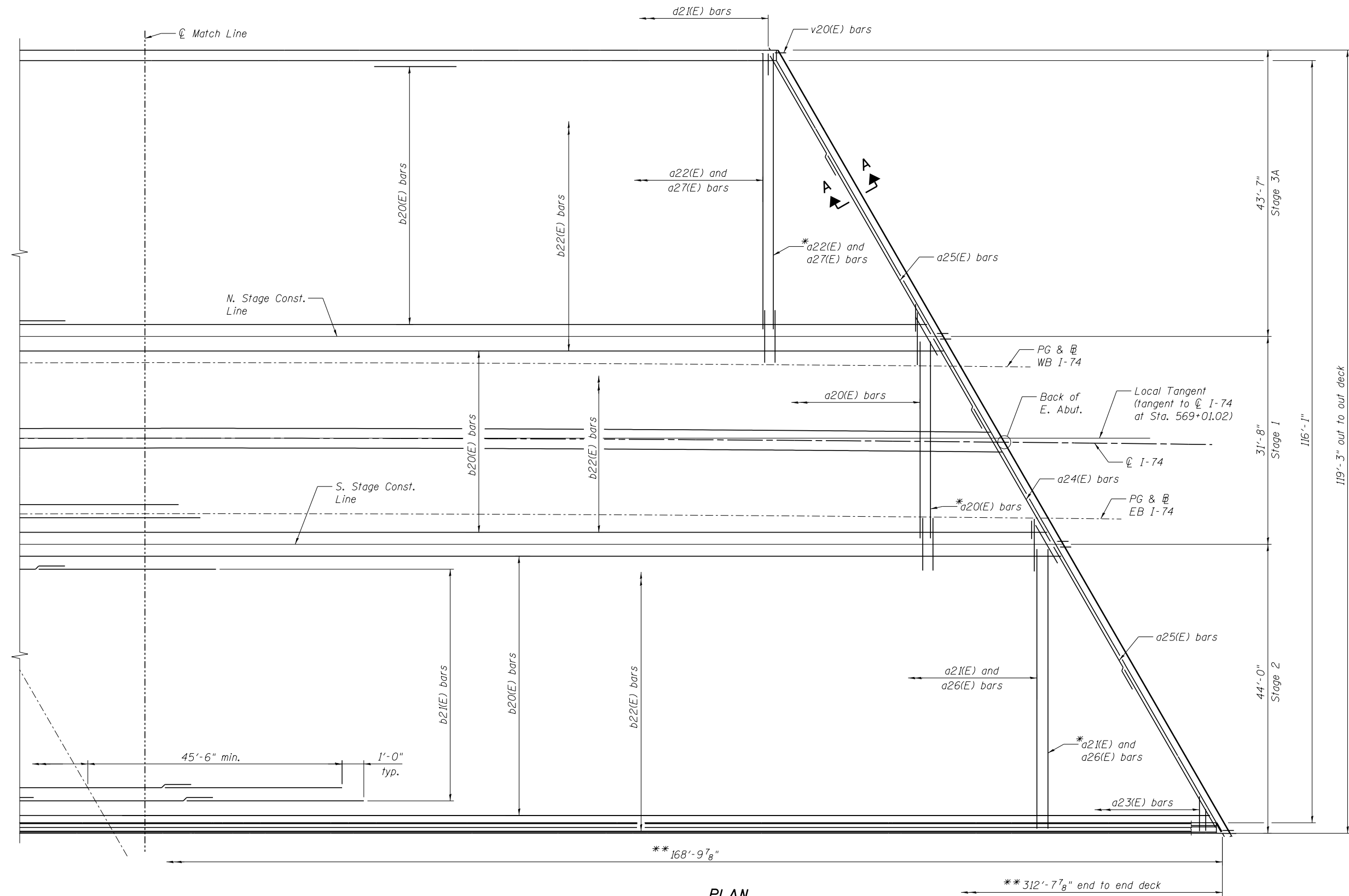
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE 1 OF 3
STRUCTURE NO. 090-0169

SHEET NO. SC18 OF SC63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14Rz(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1994
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

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*Order a20(E), a21(E), a22, a26(E) and a27(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

** Measured along Local Tangent

- NOTES:**
1. See sheet SC20 for superstructure details and Bill of Material.
 2. Bars indicated thus 3x10-#5 etc. indicates 3 lines of bars with 10 lengths per line.
 3. See sheet SC20 for parapet reinforcement.
 4. See sheet SC21 for median reinforcement.
 5. See sheets SC22 and SC23 for Section A-A.

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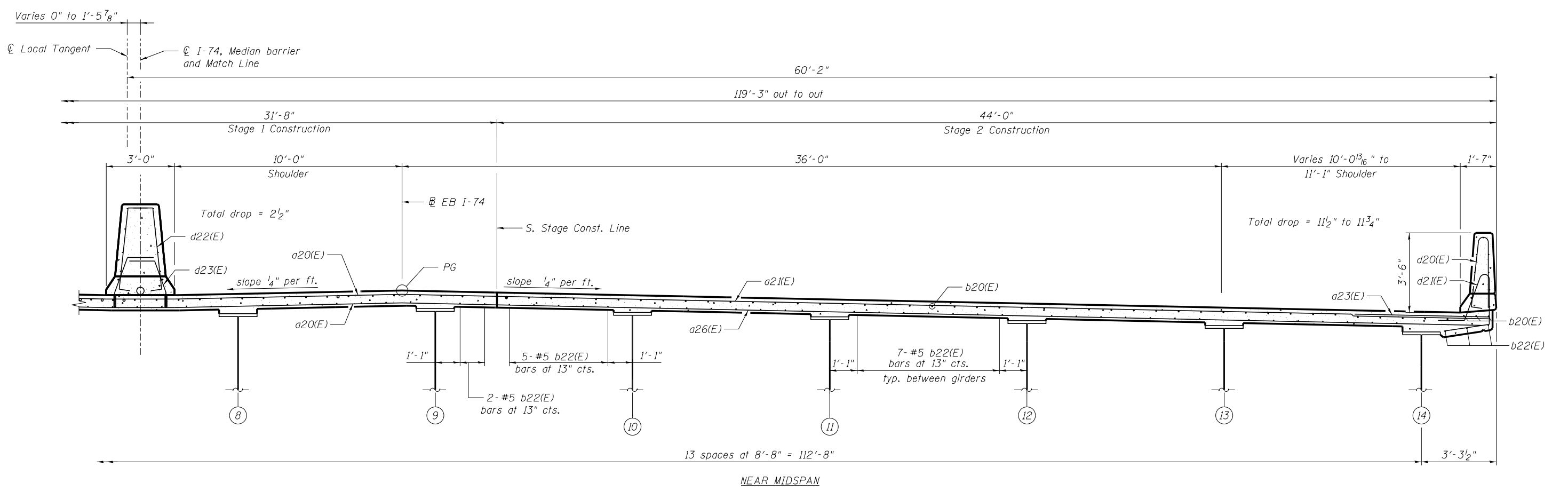
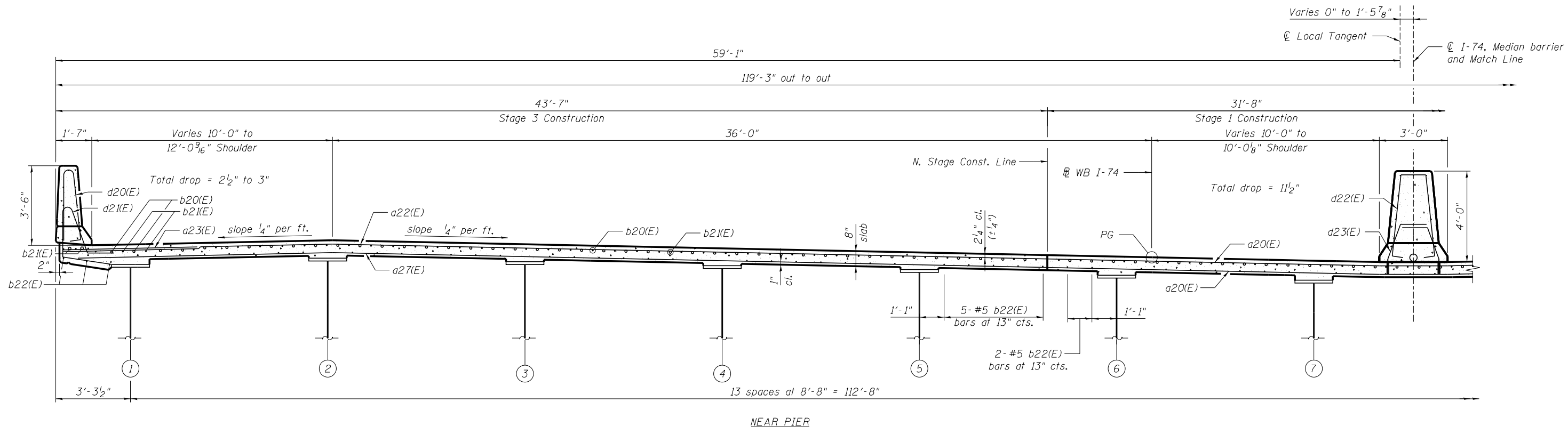
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE 2 OF 3
STRUCTURE NO. 090-0169**

SHEET NO. SC19 OF SC63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1995
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

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CROSS SECTION
(Looking Upstation)

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USER NAME = mbecker
PLOT SCALE =
PLOT DATE = 7/16/2012

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CHECKED - MRB	REVISED -
DRAWN - PRT	REVISED -
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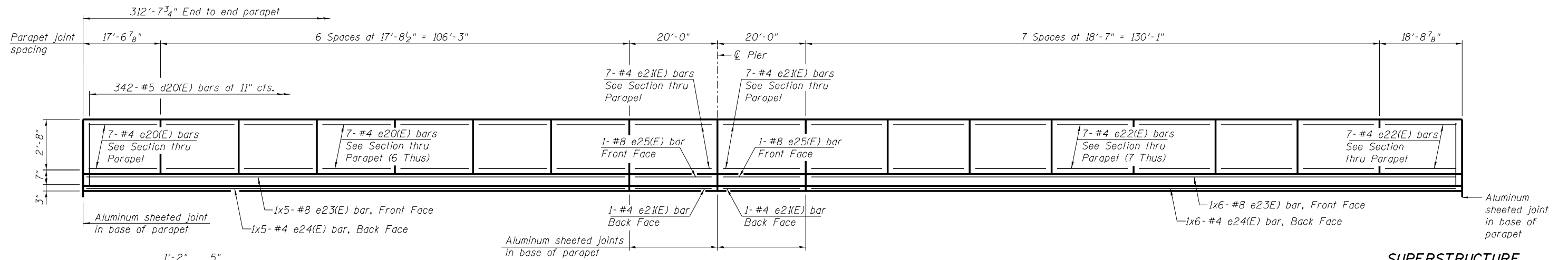
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE 3 OF 3
STRUCTURE NO. 090-0169

SHEET NO. SC20 OF SC63 SHEETS

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1996
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

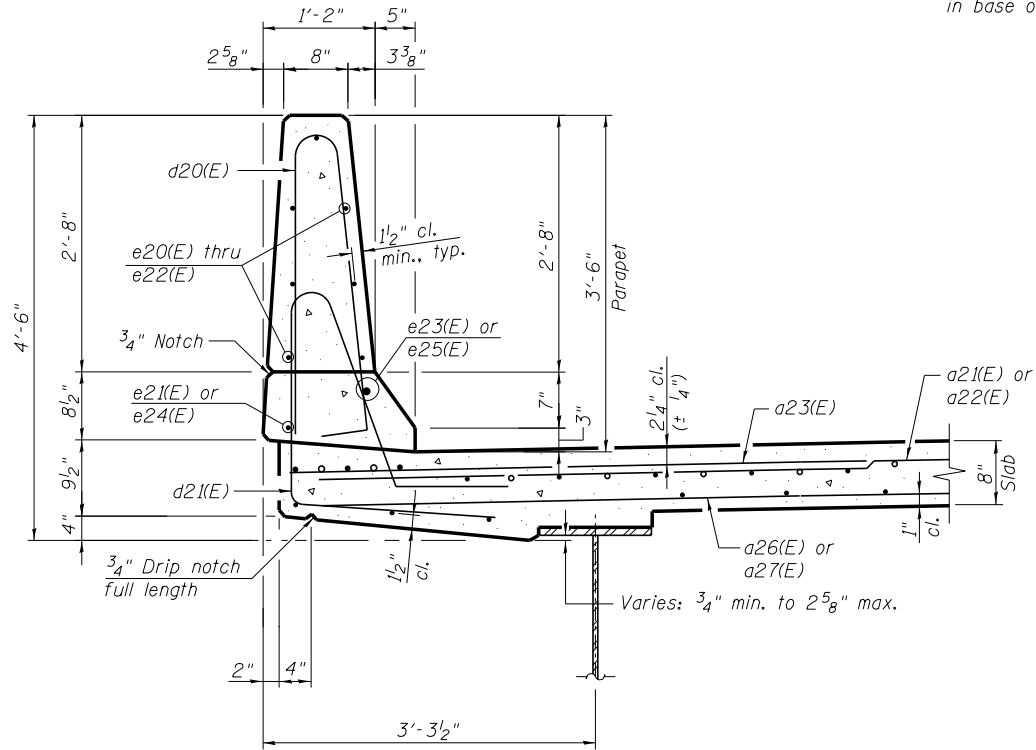
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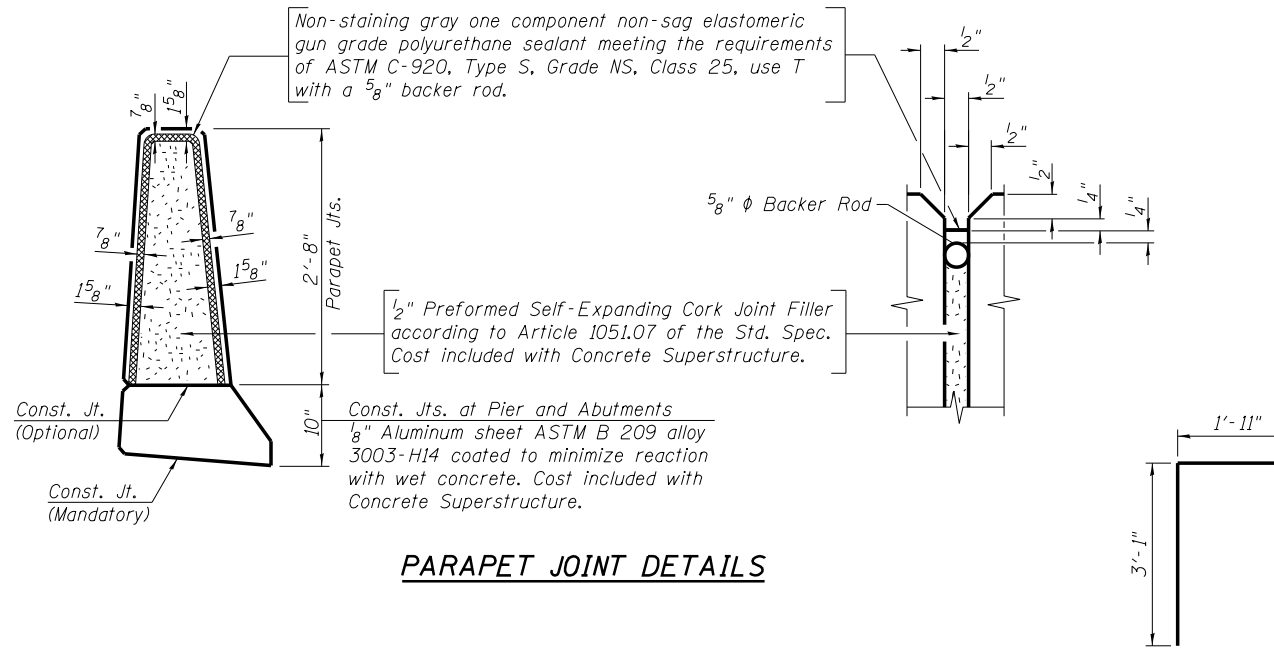
INSIDE ELEVATION OF PARAPET
(2 Thus)

SUPERSTRUCTURE BILL OF MATERIAL

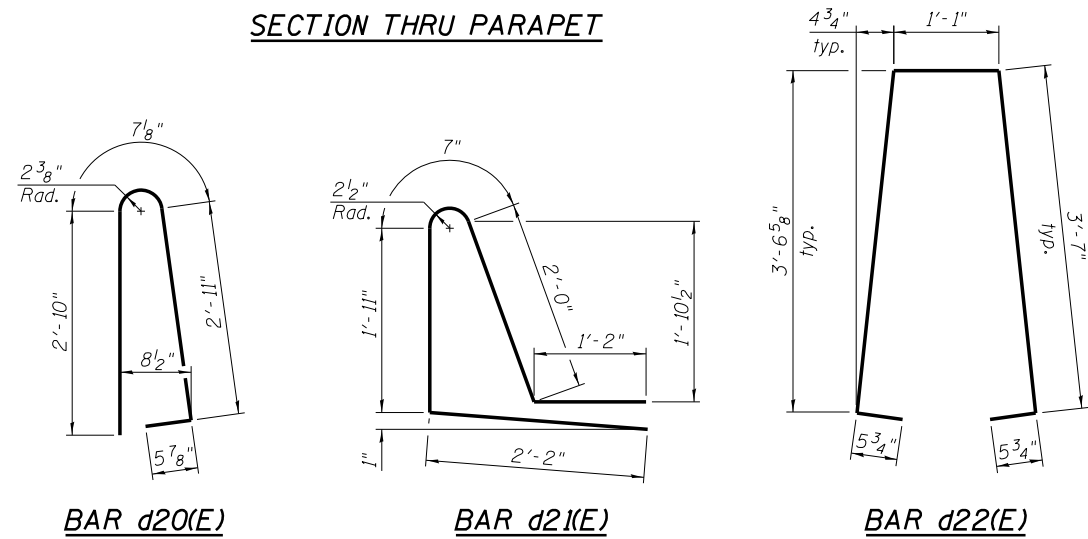
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a20(E)	1193	#5	31'-0"	—
a21(E)	751	#5	43'-4"	—
a22(E)	751	#5	42'-11"	—
a23(E)	1486	#6	6'-6"	—
a24(E)	8	#6	20'-3"	—
a25(E)	16	#6	27'-3"	—
a26(E)	442	#5	43'-1"	—
a27(E)	442	#5	42'-8"	—
b20(E)	1250	#5	34'-9"	—
b21(E)	366	#6	34'-9"	—
b22(E)	1067	#5	31'-6"	—
d20(E)	684	#5	6'-10"	⌒
d21(E)	684	#5	7'-10"	⌒
d22(E)	342	#5	9'-3"	⌒
d23(E)	684	#5	3'-5"	⌒
e20(E)	98	#4	17'-3"	—
e21(E)	32	#4	19'-8"	—
e22(E)	112	#4	18'-3"	—
e23(E)	26	#8	28'-6"	—
e24(E)	26	#4	26'-0"	—
e25(E)	4	#8	19'-8"	—
m20(E)	10	#6	35'-11"	—
m21(E)	40	#6	27'-0"	—
m22(E)	8	#6	6'-2"	—
m23(E)	88	#6	9'-8"	—
m24(E)	16	#6	3'-6"	—
m25(E)	112	#5	4'-0"	—
m26(E)	8	#6	3'-6"	—
m27(E)	8	#6	3'-1"	—
m28(E)	8	#6	6'-8"	—
s20(E)	246	#5	11'-10"	⌒
s21(E)	222	#5	17'-0"	⌒
v20(E)	246	#5	5'-0"	⌒
Concrete Superstructure		Cu. Yd.	1,339.8	
Reinforcement Bars, Epoxy Coated		Pound	294,260	



SECTION THRU PARAPET



PARAPET JOINT DETAILS



BAR d20(E)

BAR d21(E)

BAR d22(E)

BAR d23(E)

BAR s20(E)

BAR s21(E)

BAR v20(E)

MINIMUM BAR LAP (Deck)
#5 bar = 3'-3"
#6 bar = 3'-10"

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



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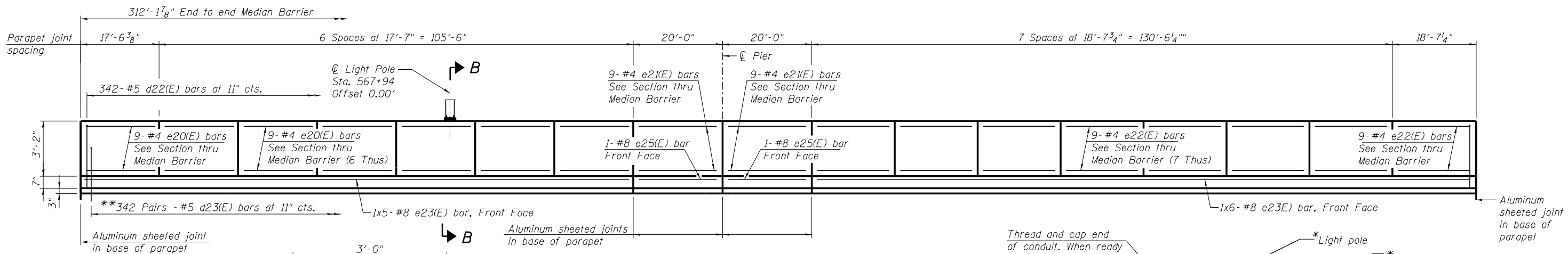
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SUPERSTRUCTURE DETAILS 1 OF 2
STRUCTURE NO. 090-0169

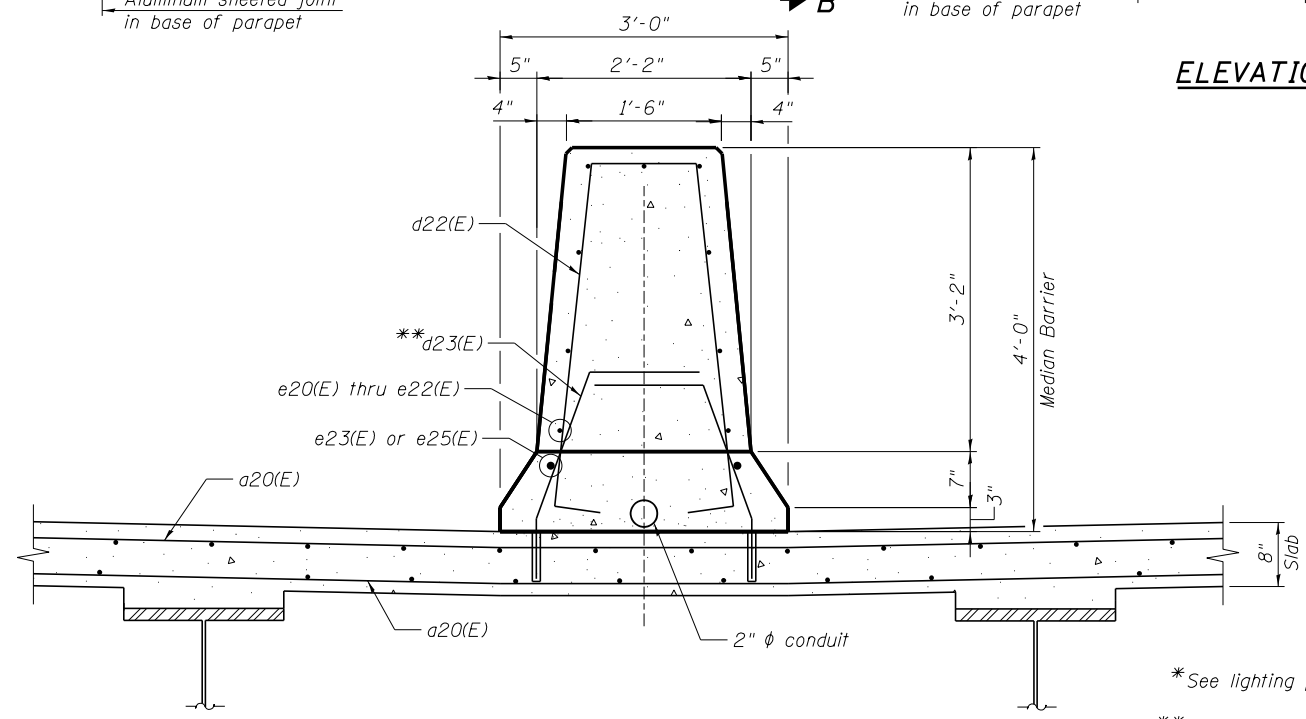
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CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

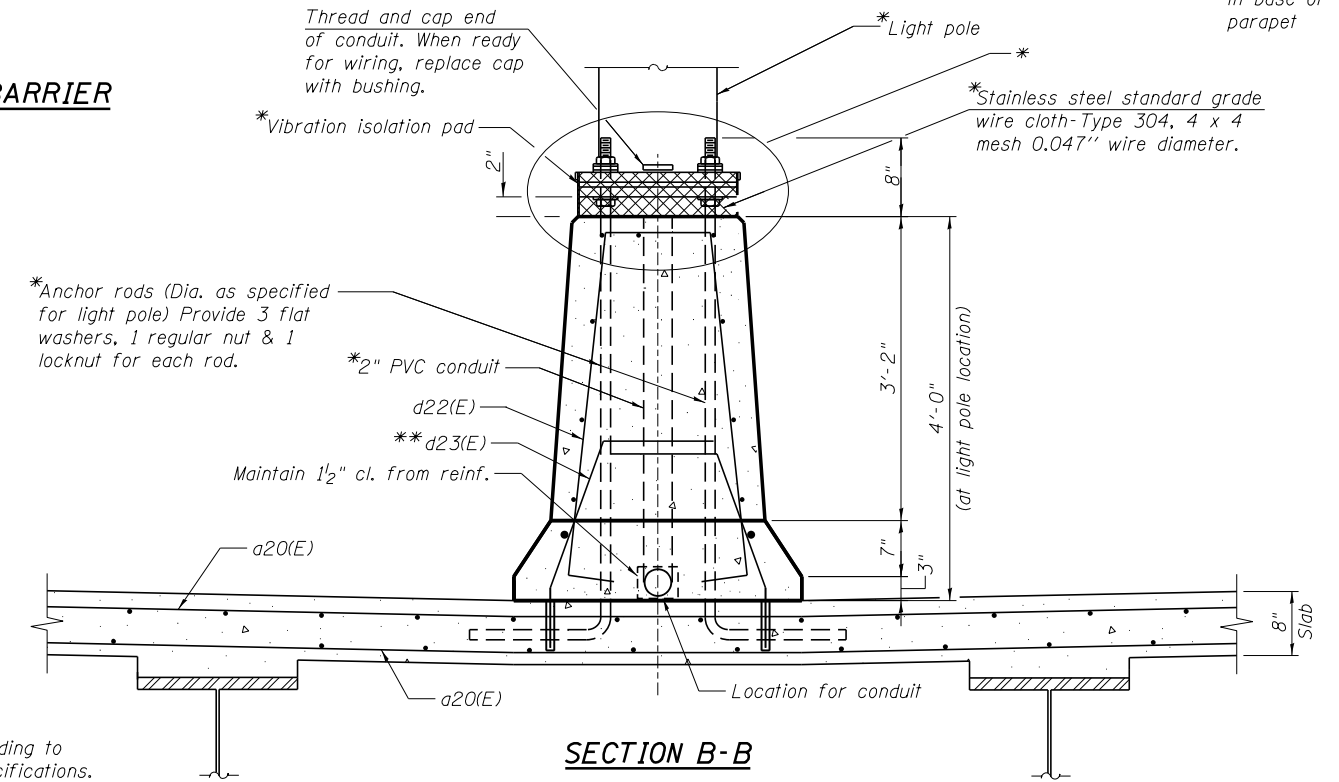
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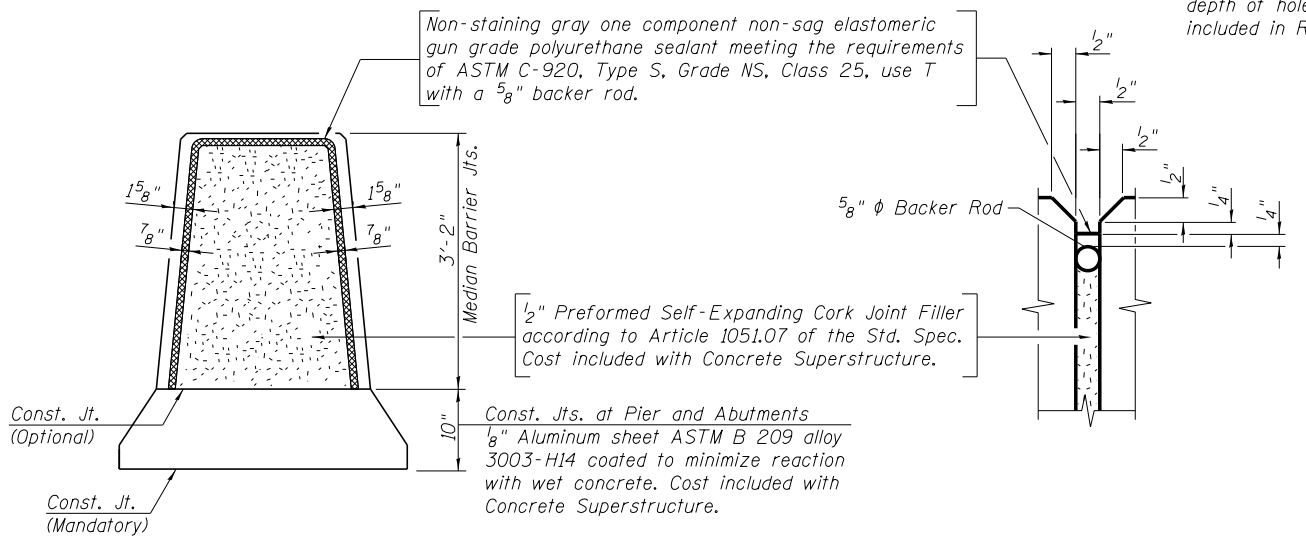
ELEVATION OF MEDIAN BARRIER
(Looking North)



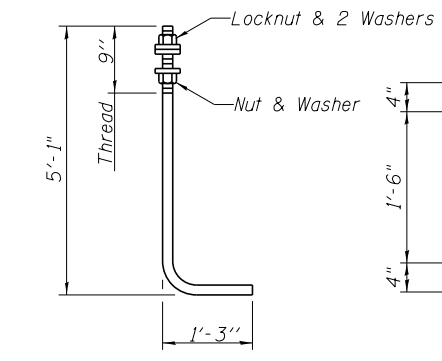
SECTION THRU MEDIAN BARRIER



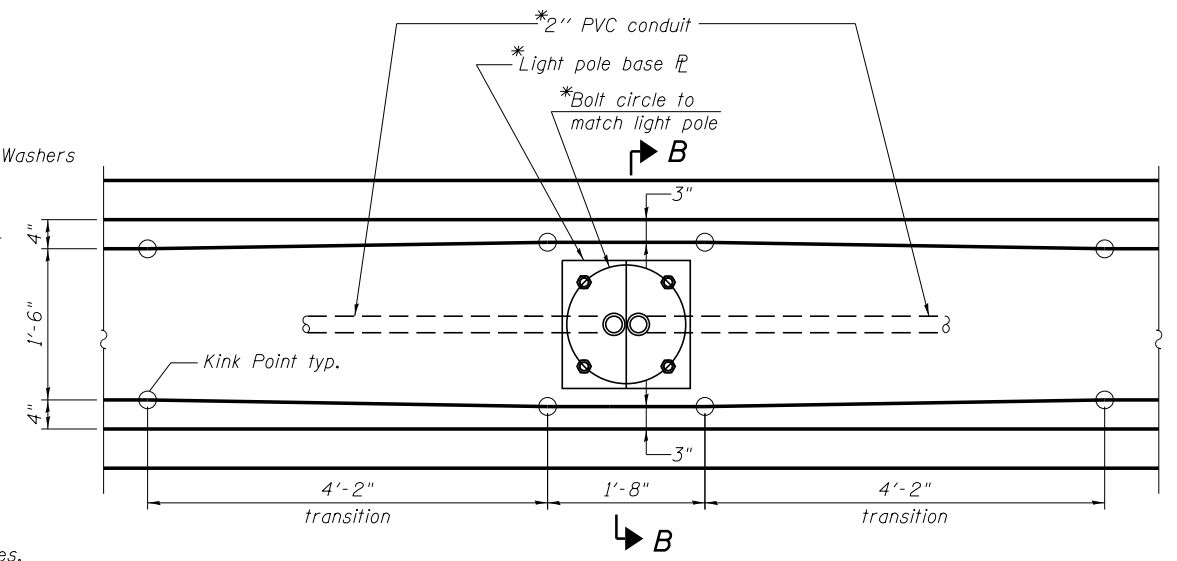
SECTION B-B



MEDIAN BARRIER JOINT DETAILS



ANCHOR ROD
*Diameter as specified for light poles.
(ASTM F 1554 Grade 105)



PLAN AT LIGHTPOLE

Note:
Cost of anchor rods and conduit is included with Concrete Superstructure.

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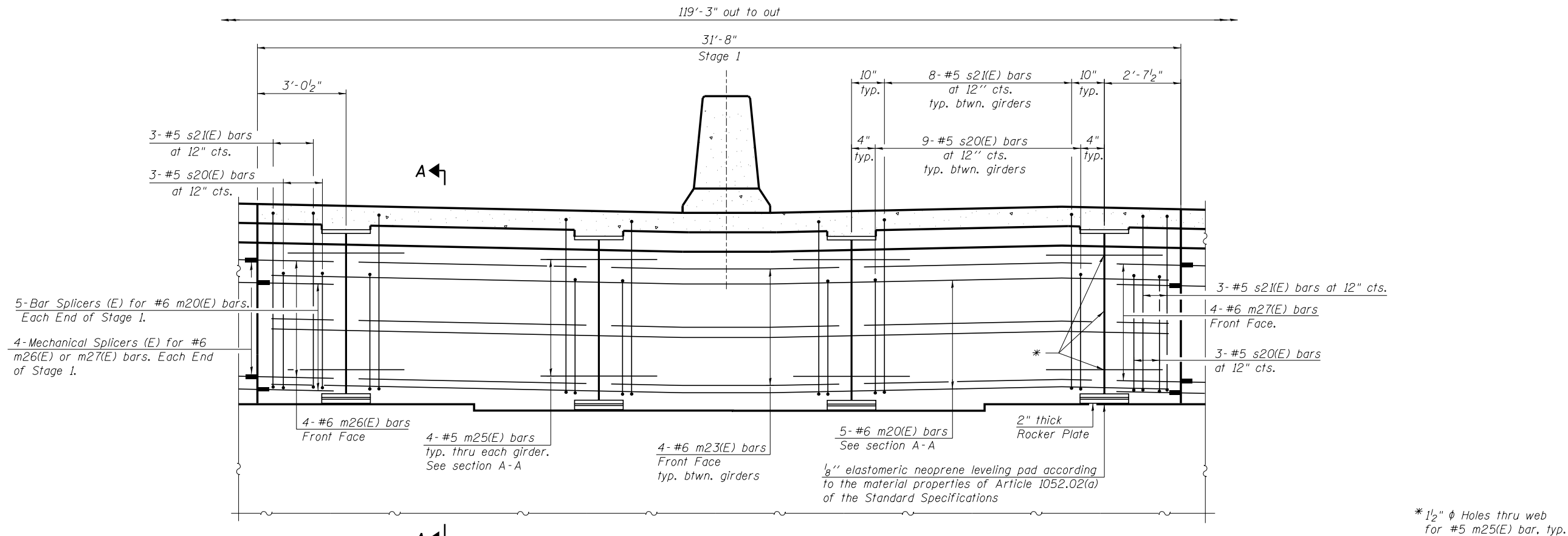
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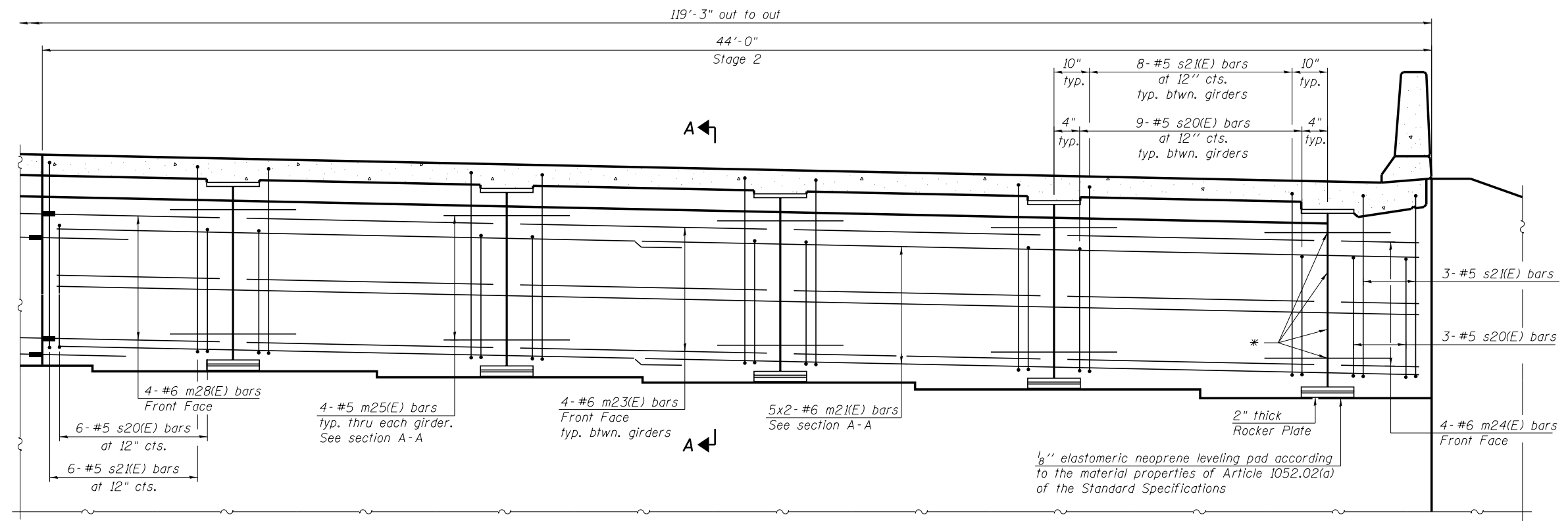
SUPERSTRUCTURE DETAILS 2 OF 2
STRUCTURE NO. 090-0169
SHEET NO. SC22 OF SC63 SHEETS

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DIAPHRAGM ELEVATION AT ABUTMENT - STAGE 1
(E. Abut. shown, W. Abut. opposite hand)



DIAPHRAGM ELEVATION AT ABUTMENT - STAGE 2
(E. Abut. shown, W. Abut. opposite hand)

NOTE:
All horizontal dimensions are perpendicular to girders.

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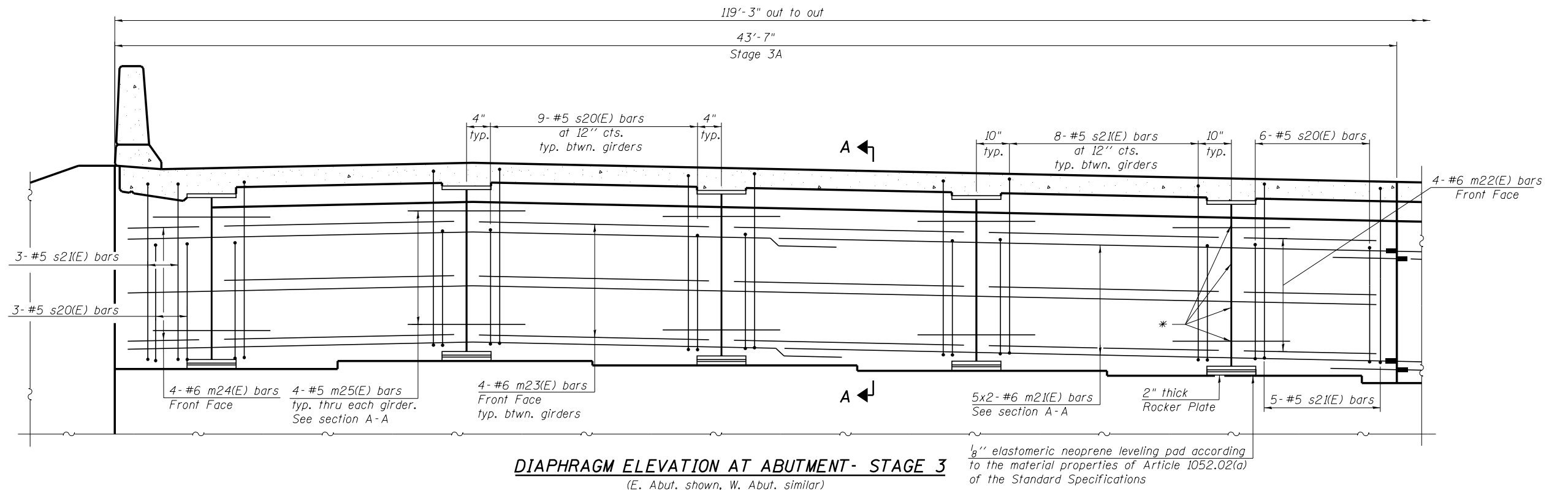
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DIAPHRAGM DETAILS 1 OF 2
STRUCTURE NO. 090-0169
SHEET NO. SC23 OF SC63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

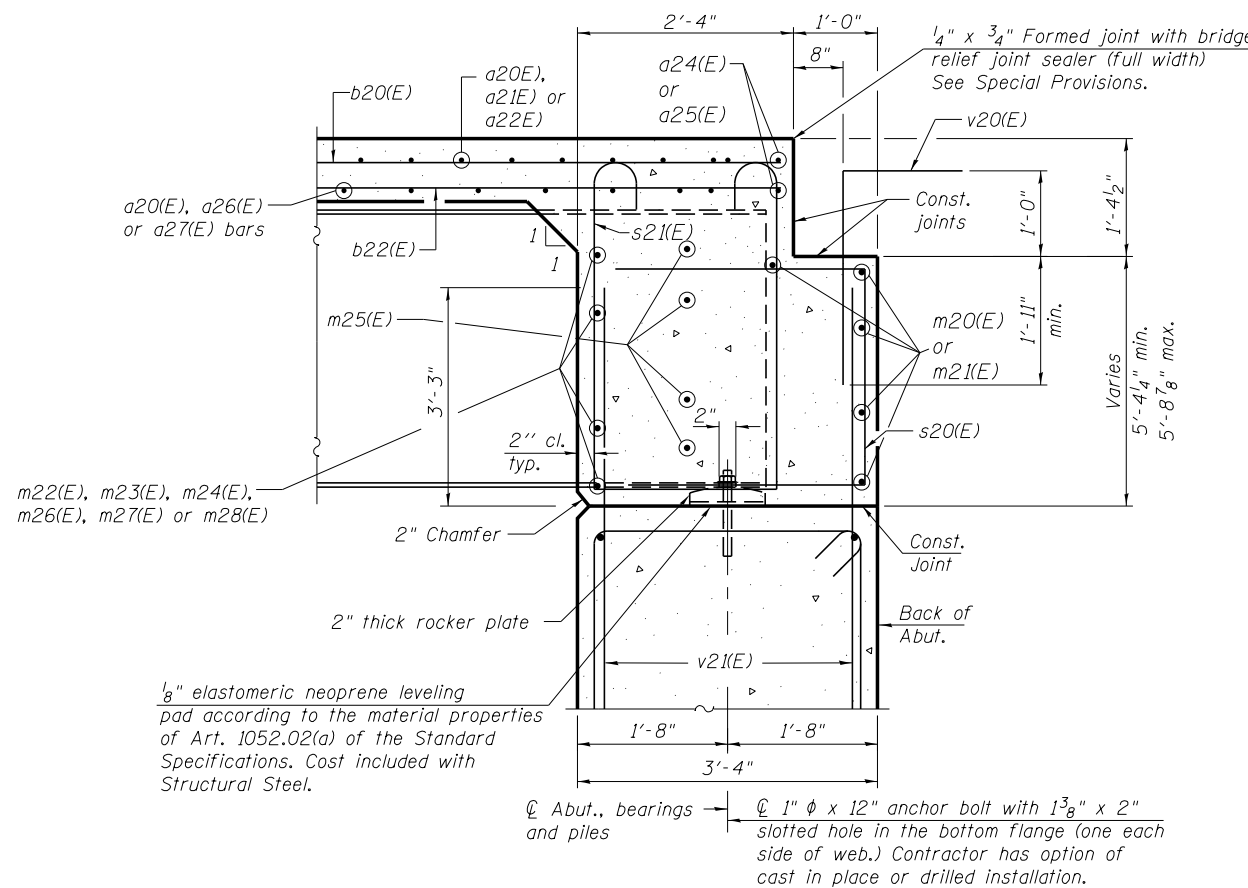
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DIAPHRAGM ELEVATION AT ABUTMENT- STAGE 3
(E. Abut. shown, W. Abut. similar)

1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications

* 1/2" ϕ Holes thru web for m25(E) bars, typ.



MINIMUM BAR LAP
#6 bar = 3'-4"

- NOTES:**
1. Reinforcement bars in diaphragm are billed with superstructure on sheet SC21.
 2. Concrete in diaphragm is included with Concrete Superstructure on sheet SC21.
 3. For details of bars s20(E) & s21(E) see sheet SC21.
 4. The s20(E) and s21(E) bars shall be placed parallel to the girders. Spacing for these bars shall be at right angles to the girders.
 5. All horizontal dimensions in the Elevation are perpendicular to the girders.

SECTION A-A
(Dimensions at right angles to abutment, except as noted)

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DIAPHRAGM DETAILS 2 OF 2
STRUCTURE NO. 090-0169
SHEET NO. SC24 OF SC63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

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