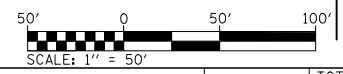
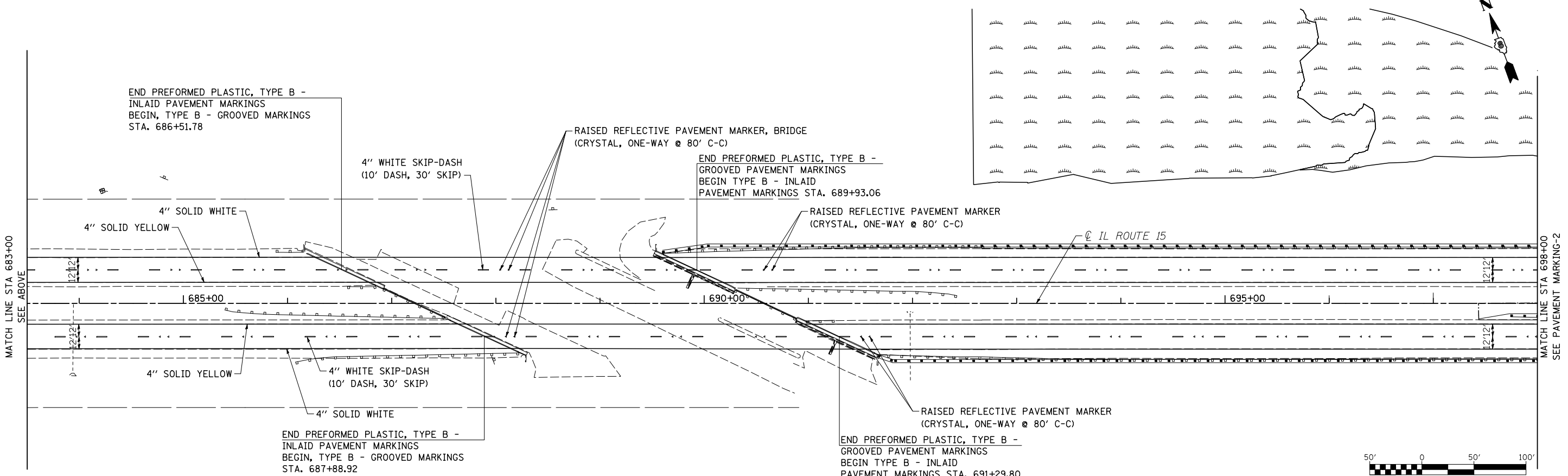


NOTE:
 1. PAVEMENT MARKINGS SHALL BE PREFORMED PLASTIC, TYPE B - INLAID ON HOT-MIX ASPHALT PAVEMENT AND PREFORMED PLASTIC TYPE B, GROOVED, ON PCC PAVEMENT.



FILE NAME =
 D876884-sh1-pr-pmk.dgn

USER NAME = thompsrd
 MODEL NAME = \$MODELNAME\$
 PLOT SCALE = 100.0000' / IN.
 PLOT DATE = 10/20/2011

DESIGNED RDT
 DRAWN RDT
 CHECKED JAP
 DATE 10-04-11

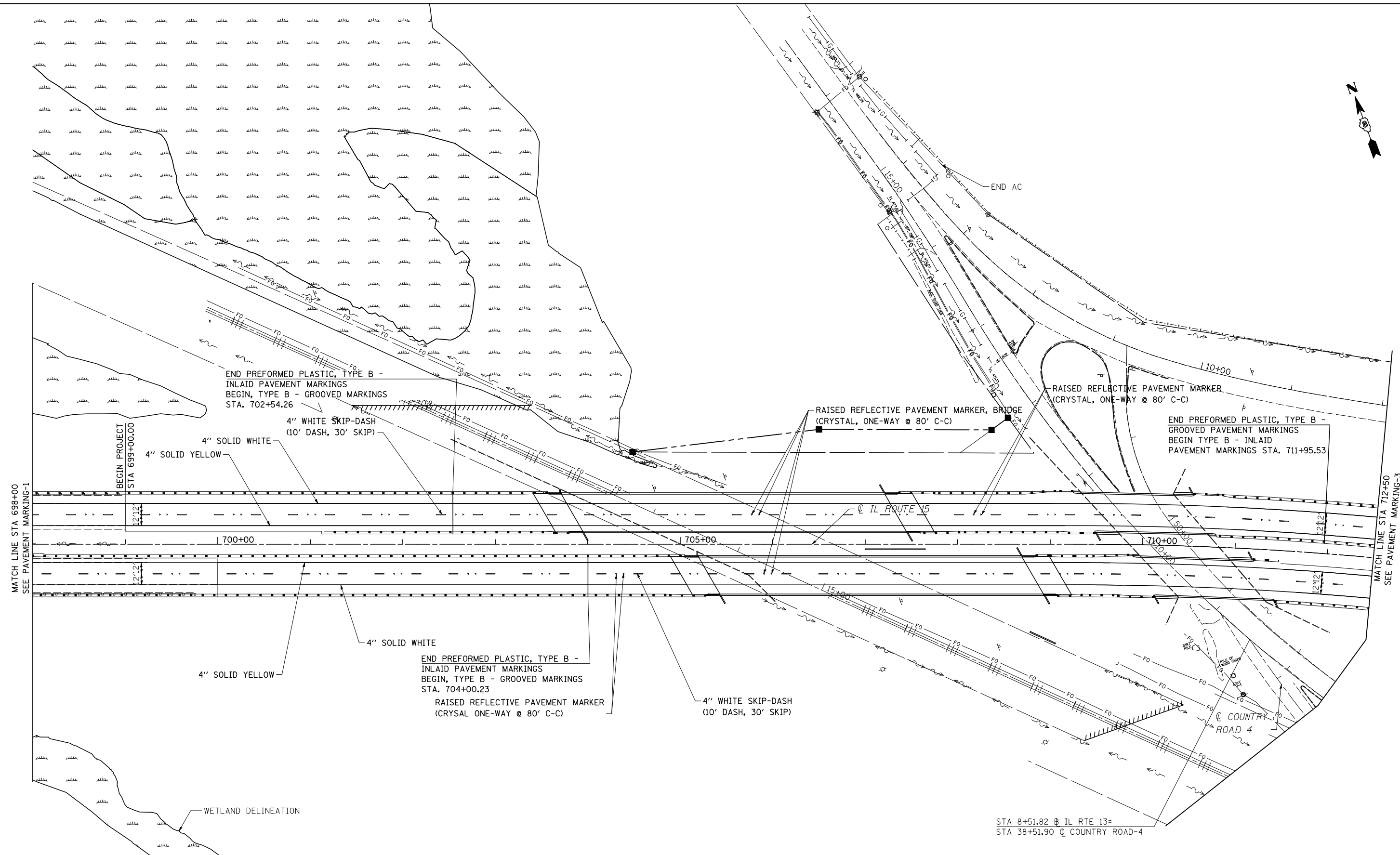
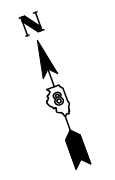
REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

PAVEMENT MARKING

SCALE: 1"=50' SHEET NO. 1 OF 4 SHEETS STA. 670+75.00 TO STA. 698+00.00

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	101
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



END PREFORMED PLASTIC, TYPE B -
INLAID PAVEMENT MARKINGS
BEGIN, TYPE B - GROOVED MARKINGS
STA. 702+54.26

4" WHITE SKIP-DASH
(10' DASH, 30' SKIP)

4" SOLID WHITE
4" SOLID YELLOW

BEGIN PROJECT
STA 699+00.00

RAISED REFLECTIVE PAVEMENT MARKER, BRIDGE
(CRYSTAL, ONE-WAY @ 80' C-C)

RAISED REFLECTIVE PAVEMENT MARKER
(CRYSTAL, ONE-WAY @ 80' C-C)

END PREFORMED PLASTIC, TYPE B -
GROOVED PAVEMENT MARKINGS
BEGIN TYPE B - INLAID
PAVEMENT MARKINGS STA. 711+95.53

END PREFORMED PLASTIC, TYPE B -
INLAID PAVEMENT MARKINGS
BEGIN, TYPE B - GROOVED MARKINGS
STA. 704+00.23

RAISED REFLECTIVE PAVEMENT MARKER
(CRYSTAL ONE-WAY @ 80' C-C)

4" WHITE SKIP-DASH
(10' DASH, 30' SKIP)

4" SOLID YELLOW

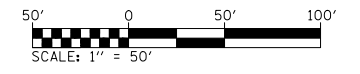
4" SOLID WHITE

WETLAND DELINEATION

STA 8+51.82 @ IL RTE 13=
STA 38+51.90 @ COUNTRY ROAD-4

NOTE:

- PAVEMENT MARKINGS SHALL BE PREFORMED PLASTIC, TYPE B - INLAID ON HOT-MIX ASPHALT PAVEMENT AND PREFORMED PLASTIC TYPE B, GROOVED, ON PCC PAVEMENT.



FILE NAME =
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PLOT SCALE = 100.0000' / IN.
PLOT DATE = 10/20/2011

DESIGNED RDT
DRAWN RDT
CHECKED JAP
DATE 10-04-11

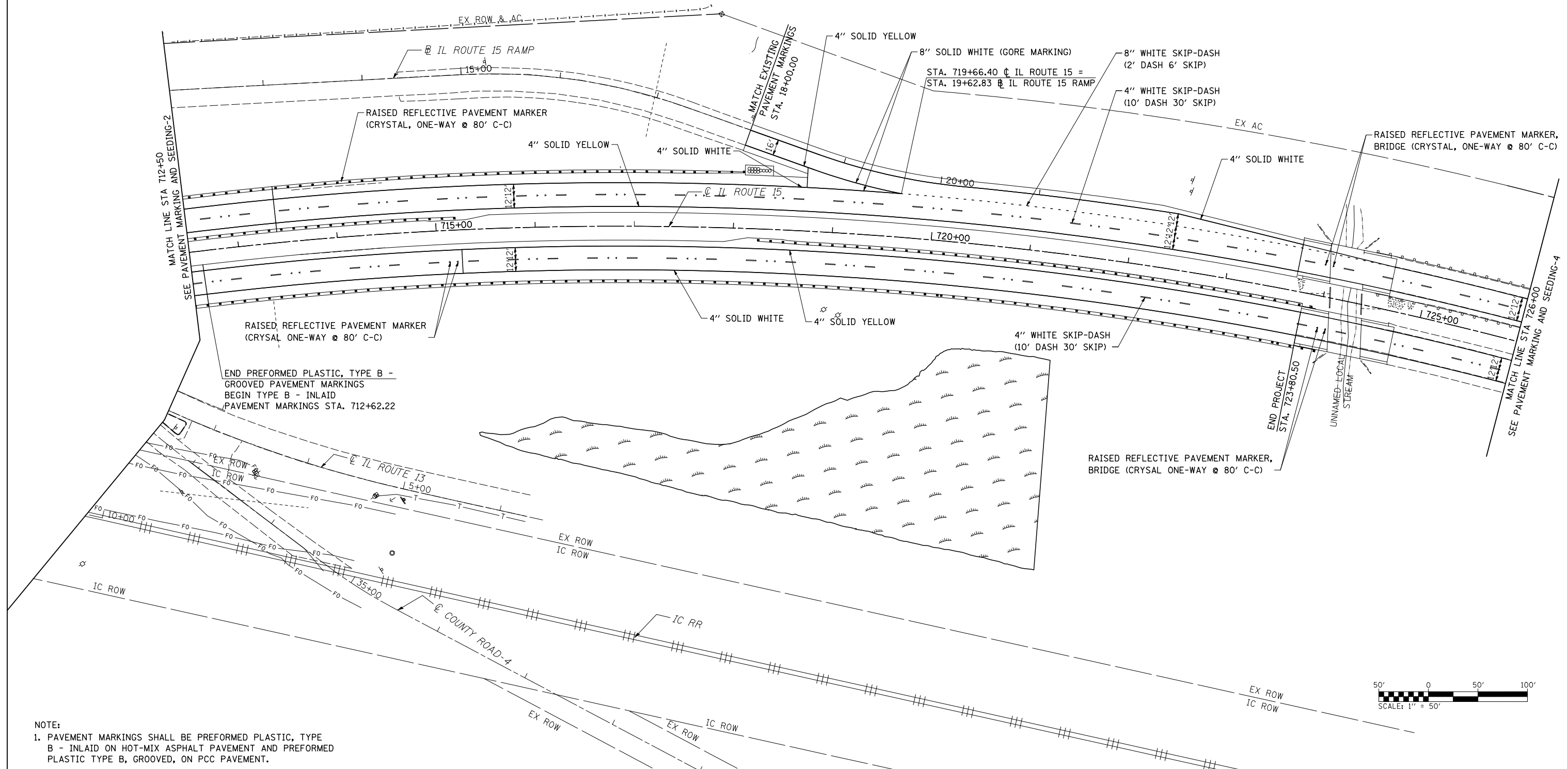
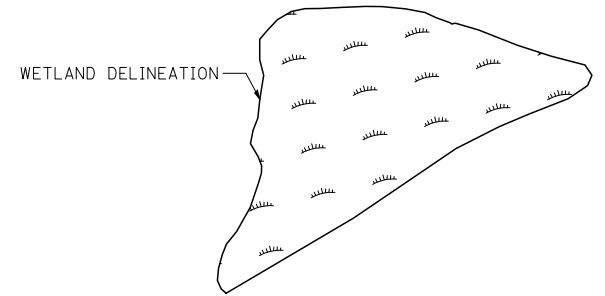
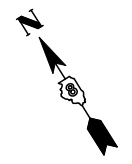
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

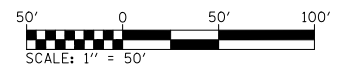
PAVEMENT MARKING

SCALE: 1"=50' SHEET NO. 2 OF 4 SHEETS STA. 698+00.00 TO STA. 712+50.00

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	102
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



NOTE:
 1. PAVEMENT MARKINGS SHALL BE PREFORMED PLASTIC, TYPE B - INLAID ON HOT-MIX ASPHALT PAVEMENT AND PREFORMED PLASTIC TYPE B, GROOVED, ON PCC PAVEMENT.



FILE NAME =
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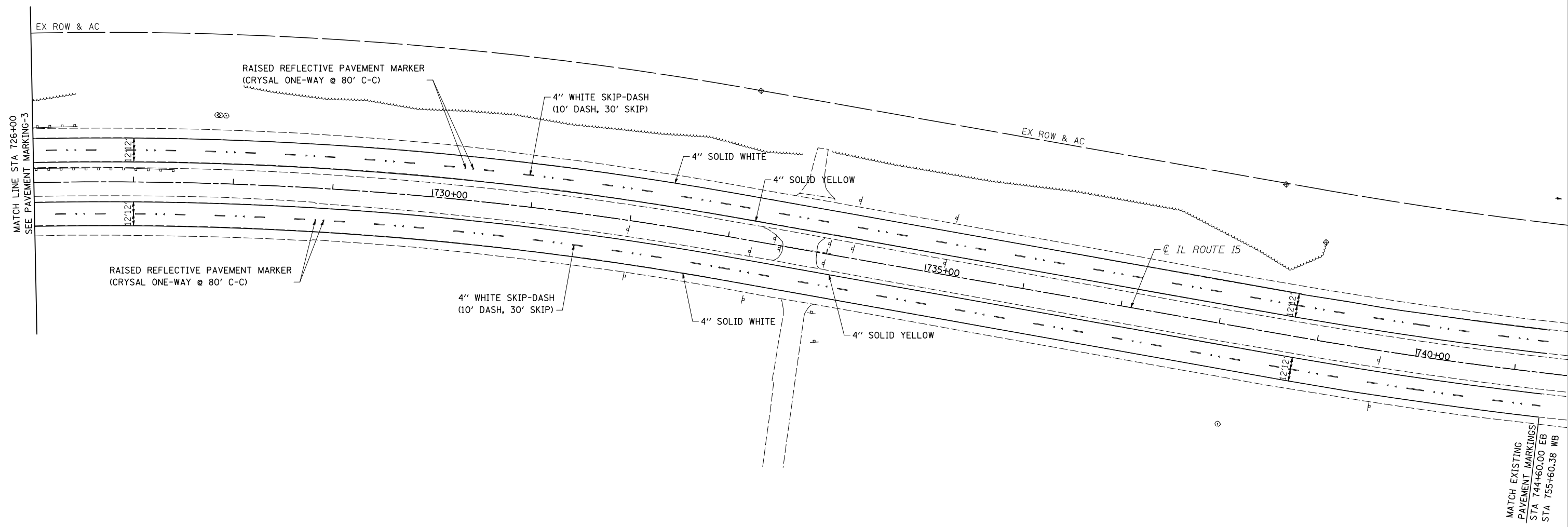
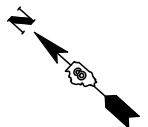
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PLOT DATE = 10/20/2011	DATE 10-04-11	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

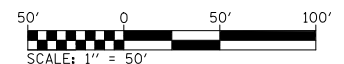
PAVEMENT MARKING

SCALE: 1"=50' SHEET NO. 3 OF 4 SHEETS STA. 712+50.00 TO STA. 726+00.00

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	103
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



NOTE:
 1. PAVEMENT MARKINGS SHALL BE PREFORMED PLASTIC, TYPE B - INLAID ON HOT-MIX ASPHALT PAVEMENT AND PREFORMED PLASTIC TYPE B, GROOVED, ON PCC PAVEMENT.



FILE NAME = D876884-sh1-pr-pmk.dgn	USER NAME = thompsrd	DESIGNED RDT	REVISED -
	MODEL NAME = \$MODELNAME\$	DRAWN RDT	REVISED -
	PLOT SCALE = 100.0000' / IN.	CHECKED JAP	REVISED -
	PLOT DATE = 10/20/2011	DATE 10-19-11	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

PAVEMENT MARKING

SCALE: 1"=50' SHEET NO. 4 OF 4 SHEETS STA. 726+00.00 TO STA. 741+15.00

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	104
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				

MATCH EXISTING
 PAVEMENT MARKINGS
 STA 744+60.00 EB
 STA 755+60.38 WB

GENERAL NOTES

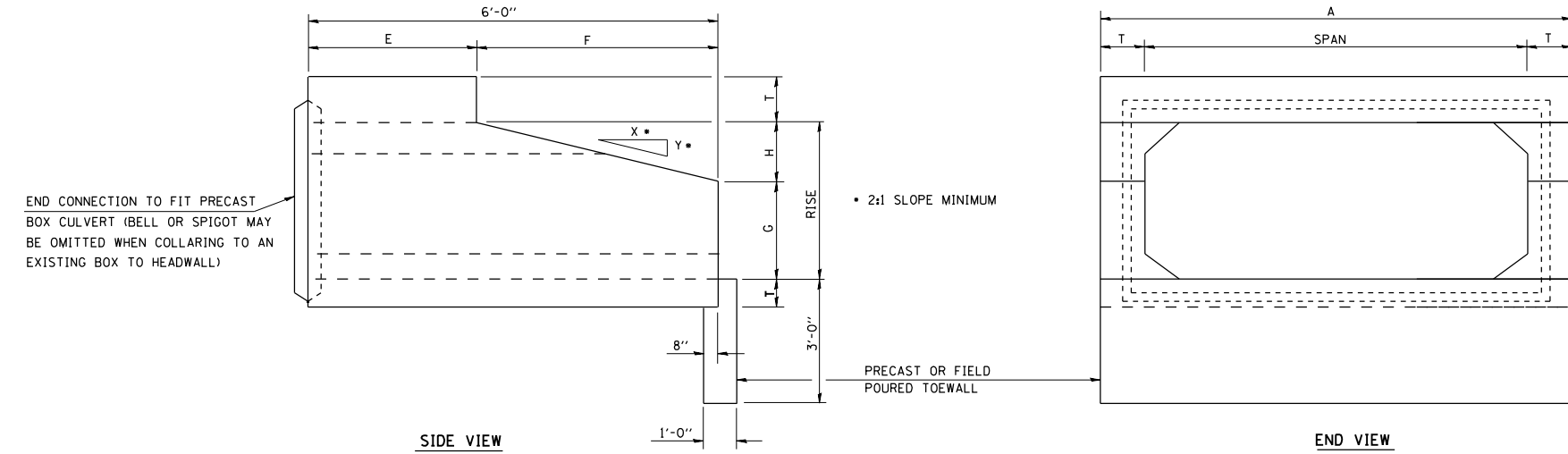
SHOP PLANS FOR THE REINFORCEMENT SHALL BE SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 504.04 (A) OF THE STANDARD SPECIFICATIONS.

MINIMUM CONCRETE STRENGTH SHALL BE 5000 PSI AFTER 28 DAYS.

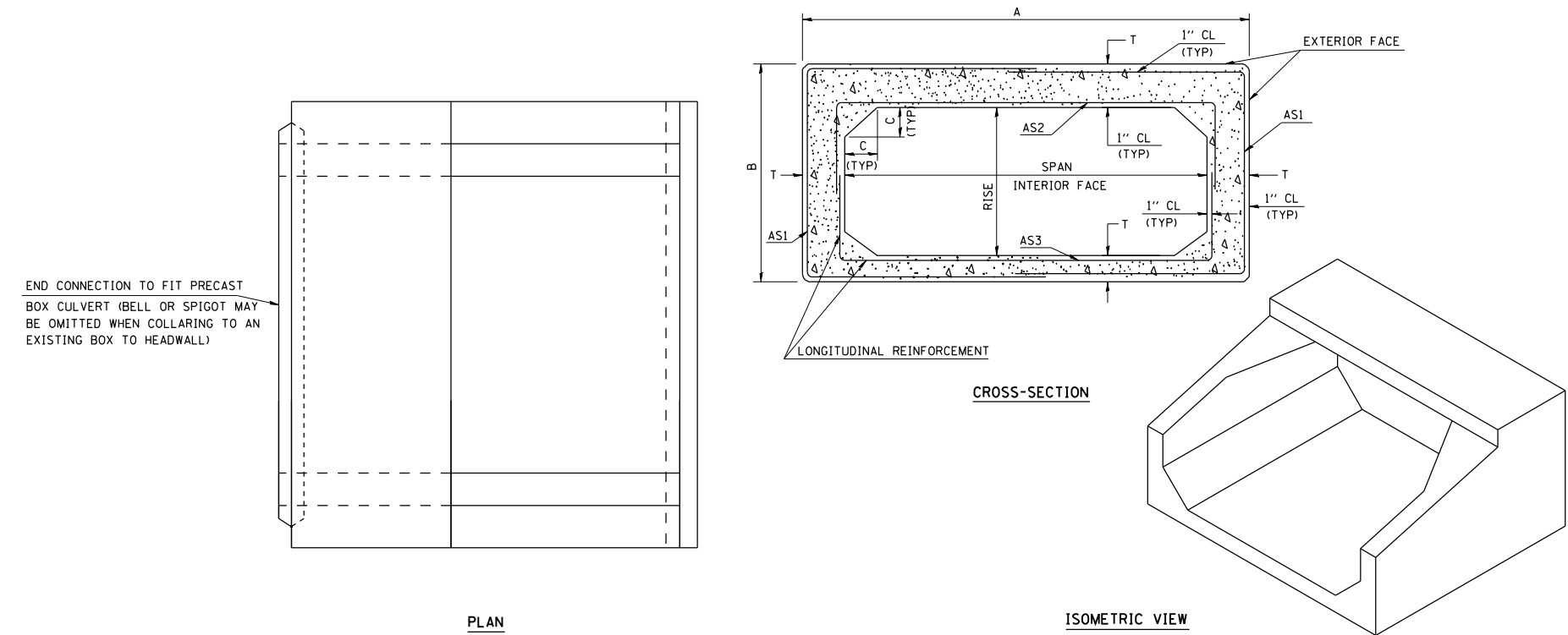
THE JOINTS OF THE PRECAST BOX SECTIONS SHALL BE SEALED WITH MASTIC IN ACCORDANCE WITH ARTICLE 755.01 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

THE TERMS AS1, AS2, AS3 AND AS4 DENOTES THE REQUIRED STEEL AREAS FOR REINFORCEMENTS AS SPECIFIED IN ASTM C 789. REINFORCEMENT SHALL BE WELDED WIRE FABRIC CONFORMING TO ASTM SPECIFICATIONS A 185.

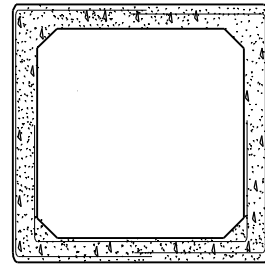
DETAIL OF PRECAST CONCRETE BOX CULVERT END SECTION



• NOTE: THE DIMENSIONS INDICATED ARE FOR END SECTIONS THAT ARE TO BE USED WITH PRECAST BOX CULVERT SECTIONS DESIGNED FOR 2' OR MORE OF FILL. THE DIMENSIONS MUST BE MODIFIED FOR THE END SECTION TO BE COMPATIBLE WITH PRECAST CULVERT SECTIONS DESIGNED FOR LESS THAN 2' OF FILL.

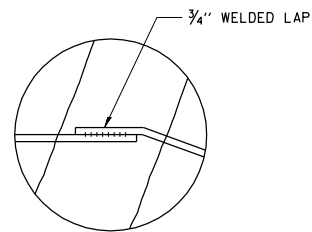


SPAN X RISE	T (INCHES)	A (FT-IN)	B (FT-IN)	C (INCHES)	E (FT-IN)	F (FT-IN)	G (FT-IN)	H (FT-IN)	SLOPE (X:Y)
2' X 2'	4	2-8	2-8	4	3-0	3-0	1-0	1-0	3:1
3' X 2'	4	3-8	2-8	4	3-0	3-0	1-0	1-0	3:1
3' X 3'	4	3-8	3-8	4	2-0	4-0	1-8	1-4	3:1
4' X 2'	5	4-10	2-10	5	3-0	3-0	1-0	1-0	3:1
4' X 3'	5	4-10	3-10	5	2-0	4-0	1-8	1-4	3:1
4' X 4'	5	4-10	4-10	5	2-0	4-0	2-0	2-0	2:1
5' X 2'	6	6-0	3-0	6	3-0	3-0	1-0	1-0	3:1
5' X 3'	6	6-0	4-0	6	2-0	4-0	1-8	1-4	3:1
5' X 4'	6	6-0	5-0	6	2-0	4-0	2-0	2-0	2:1
5' X 5'	6	6-0	6-0	6					
6' X 2'	7	7-2	3-2	7	3-0	3-0	1-0	1-0	3:1
6' X 3'	7	7-2	4-2	7	2-0	4-0	1-8	1-4	3:1
6' X 4'	7	7-2	5-2	7	2-0	4-0	2-0	2-0	2:1
6' X 5'	7	7-2	6-2	7					
6' X 6'	7	7-2	7-2	7					
7' X 4'	8	8-4	5-4	8	2-0	4-0	2-0	2-0	2:1
7' X 5'	8	8-4	6-4	8					
7' X 6'	8	8-4	7-4	8					
7' X 7'	8	8-4	8-4	8					
8' X 4'	8	9-4	5-4	8	2-0	4-0	2-0	2-0	2:1
8' X 5'	8	9-4	6-4	8					
8' X 6'	8	9-4	7-4	8					
8' X 7'	8	9-4	8-4	8					
8' X 8'	8	9-4	9-4	8					
9' X 5'	9	10-6	6-6	9					
9' X 6'	9	10-6	7-6	9					
9' X 7'	9	10-6	8-6	9					
9' X 8'	9	10-6	9-6	9					
9' X 9'	9	10-6	10-6	9					
10' X 4'	10	11-8	5-8	10					
10' X 5'	10	11-8	6-8	10					
10' X 6'	10	11-8	7-8	10					
10' X 7'	10	11-8	8-8	10					
10' X 8'	10	11-8	9-8	10					
10' X 9'	10	11-8	10-8	10					
10' X 10'	10	11-8	11-8	10					
11' X 4'	11	12-10	5-10	11					
11' X 6'	11	12-10	7-10	11					
11' X 8'	11	12-10	9-10	11					
11' X 10'	11	12-10	11-10	11					
11' X 11'	11	12-10	12-10	11					
12' X 4'	12	14-0	6-0	12					
12' X 6'	12	14-0	8-0	12					
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12' X 12'	12	14-0	14-0	12					

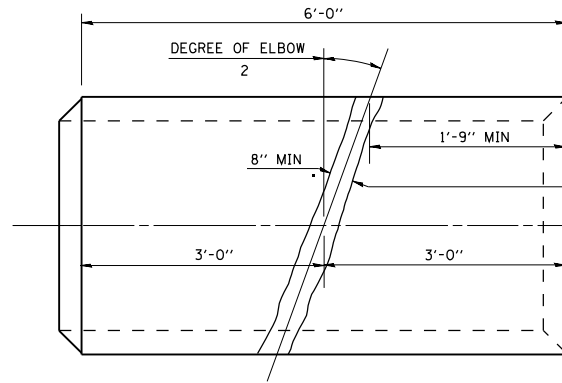


STANDARD REINFORCEMENT

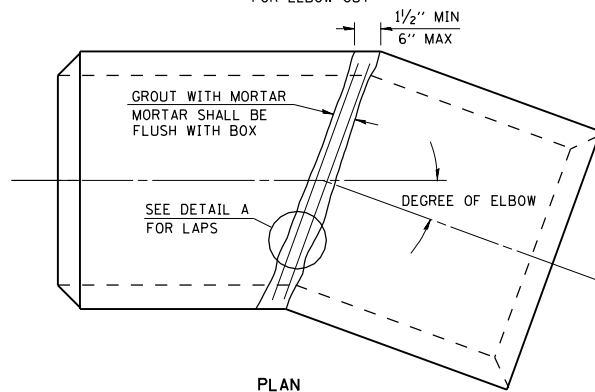
TRANSVERSE SECTION



DETAIL A



PLAN FOR ELBOW CUT



PLAN

REMOVE CONCRETE IN BOX ALONG THESE LINES. CLEAN REINFORCEMENT FOR WELDED LAPS OF LONGITUDINAL AND CIRCUMFERENTIAL REINFORCEMENT

GENERAL NOTES

- REINFORCED CONCRETE BOX CULVERT SHALL CONFORM TO AASHTO M-259 AND ASTM C 783.
- ADDITIONAL REINFORCEMENT SHALL CONFORM TO AASHTO M-31 OR M-53 GRADE 60
- CEMENT MORTAR WITH BONDING AGENT SHALL BE APPROVED BY THE ENGINEER.
- DEGREE OF ELBOW AND CULVERT SIZE REQUIRED SHALL BE AS INDICATED ON THE PLAN DETAIL FOR EACH INDIVIDUAL INSTALLATION.

PRECAST CONCRETE BOX CULVERT ELBOW

FILE NAME = boxcul.dgn	USER NAME = rjo	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 10/17/2011	DATE - 10/19/11	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PRECAST CONCRETE
BOX CULVERT ELBOW**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	107
CONTRACT NO. 76884				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

DETAIL OF PRECAST CONCRETE BOX CULVERT SECTION

(WITH COVER 2 FEET OR GREATER
ASTM DESIGNATION C-789)
DESIGN LOADING: HS-20-44

GENERAL NOTES

SHOP PLANS FOR THE REINFORCEMENT SHALL BE SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 504.04(A) OF THE STANDARD SPECIFICATIONS.

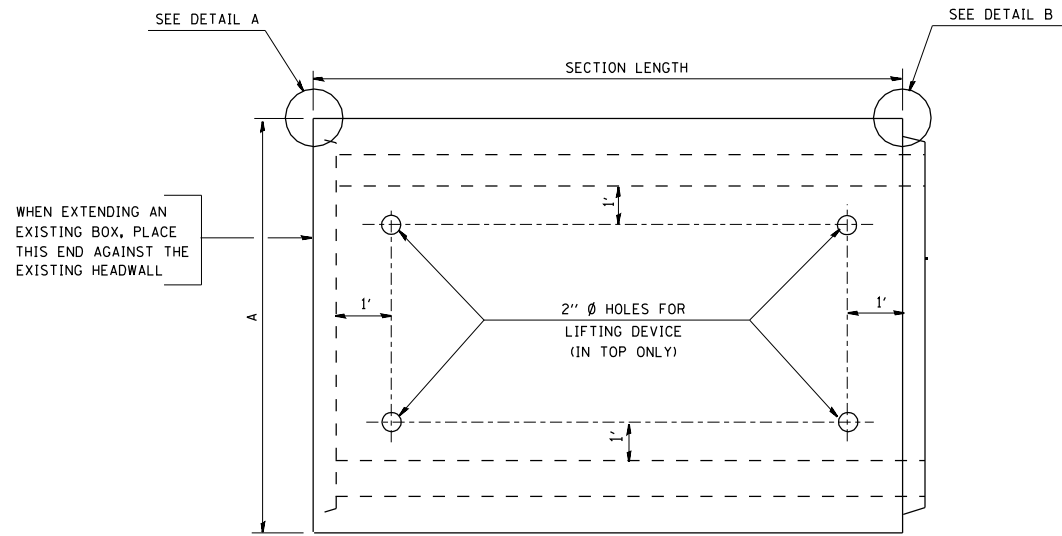
MINIMUM CONCRETE STRENGTH SHALL BE 5000 PSI AFTER 28 DAYS.

THE JOINTS OF THE PRECAST BOX SECTIONS SHALL BE SEALED WITH MASTIC IN ACCORDANCE WITH ARTICLE 755.01 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

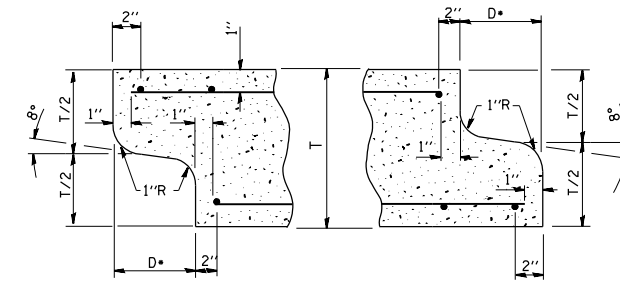
LIFTING HOLES SHALL BE FILLED WITH CONCRETE PLUGS AND MASTIC AFTER THE BOX SECTIONS ARE IN PLACE.

THE TERMS AS1, AS2, AND AS3 DENOTE THE REQUIRED STEEL AREAS FOR REINFORCEMENT AS SPECIFIED IN ASTM C 789. REINFORCEMENT SHALL BE OF WELDED WIRE FABRIC CONFORMING TO ASTM SPECIFICATIONS S 185.

DRAINAGE OPENINGS SHALL BE PROVIDED IN ACCORDANCE WITH ARTICLE 503.12 OF THE STANDARD SPECIFICATIONS. LOCATION AND SPACING OF THE OPENINGS SHALL BE SHOWN ON THE SHOP DRAWINGS.



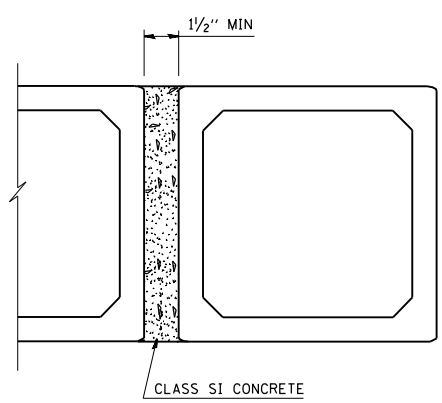
PLAN
LOCATION OF LIFTING HOLES MAY BE VARIED AS NEEDED TO CLEAR REINFORCEMENT.



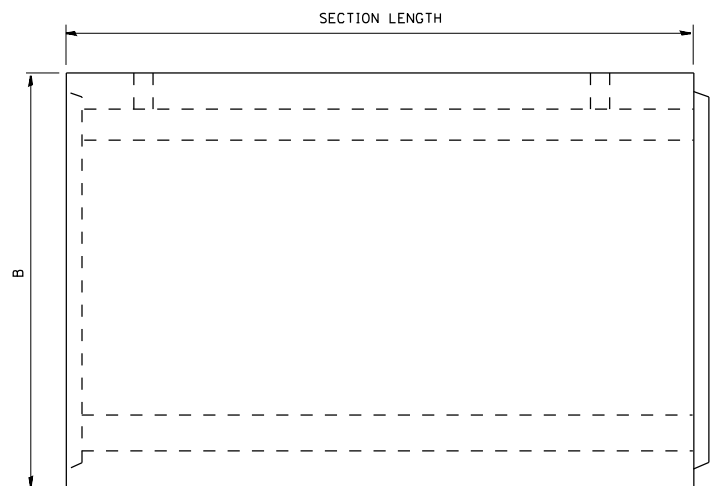
DETAIL A
(TYP INLET END)

DETAIL B
(TYP OUTLET END)

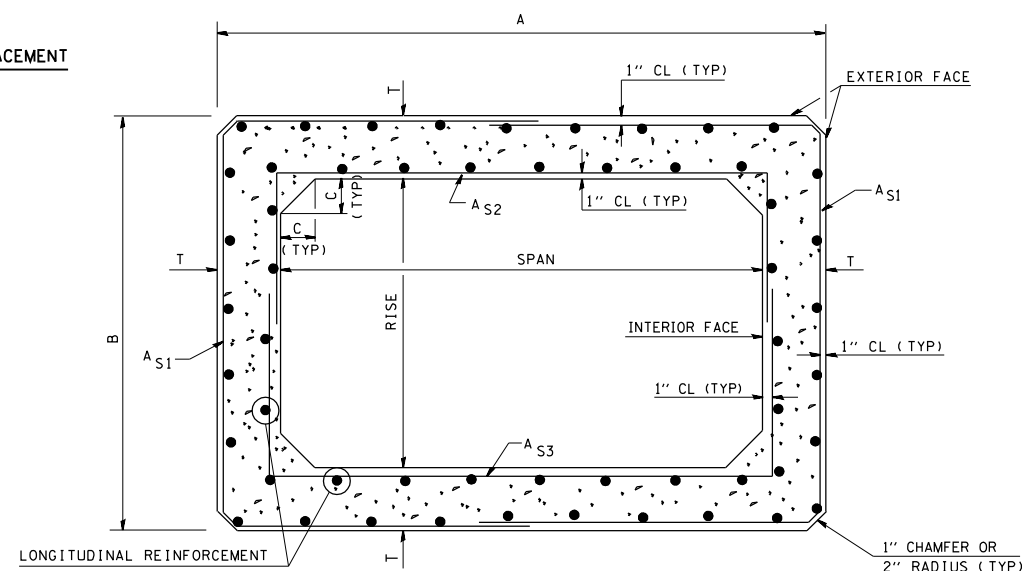
NOTE: INLET AND OUTLET ENDS SHALL BE COMPATIBLE
• THE D DIMENSION SHALL CONFORM TO THE MANUFACTURER'S STANDARDS.



MULTIPLE UNIT PLACEMENT



ELEVATION



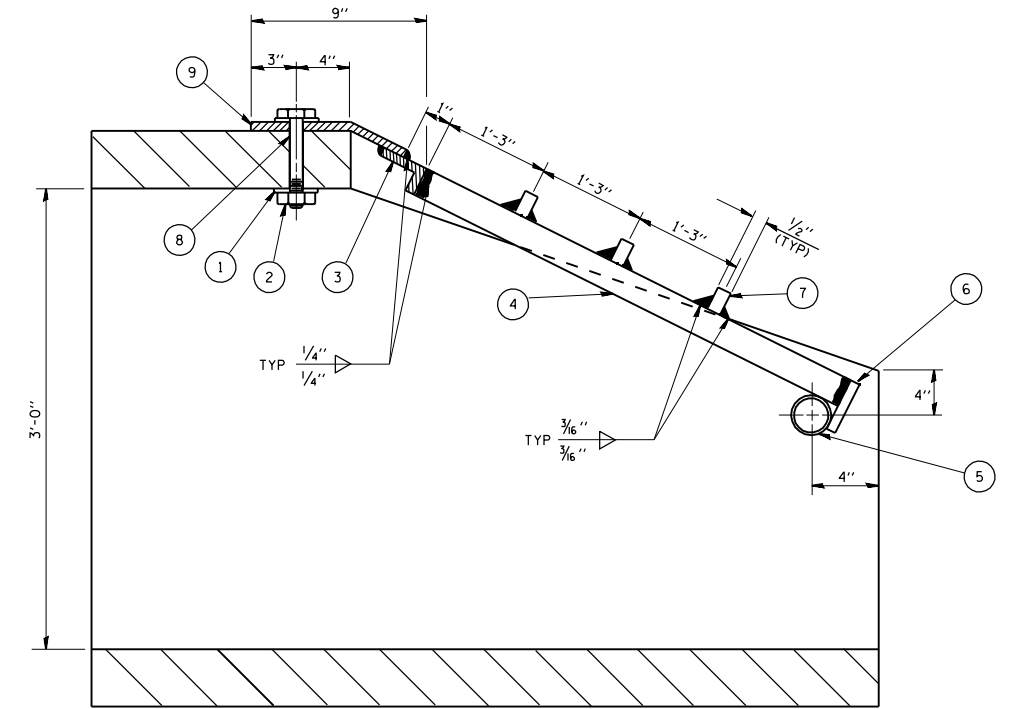
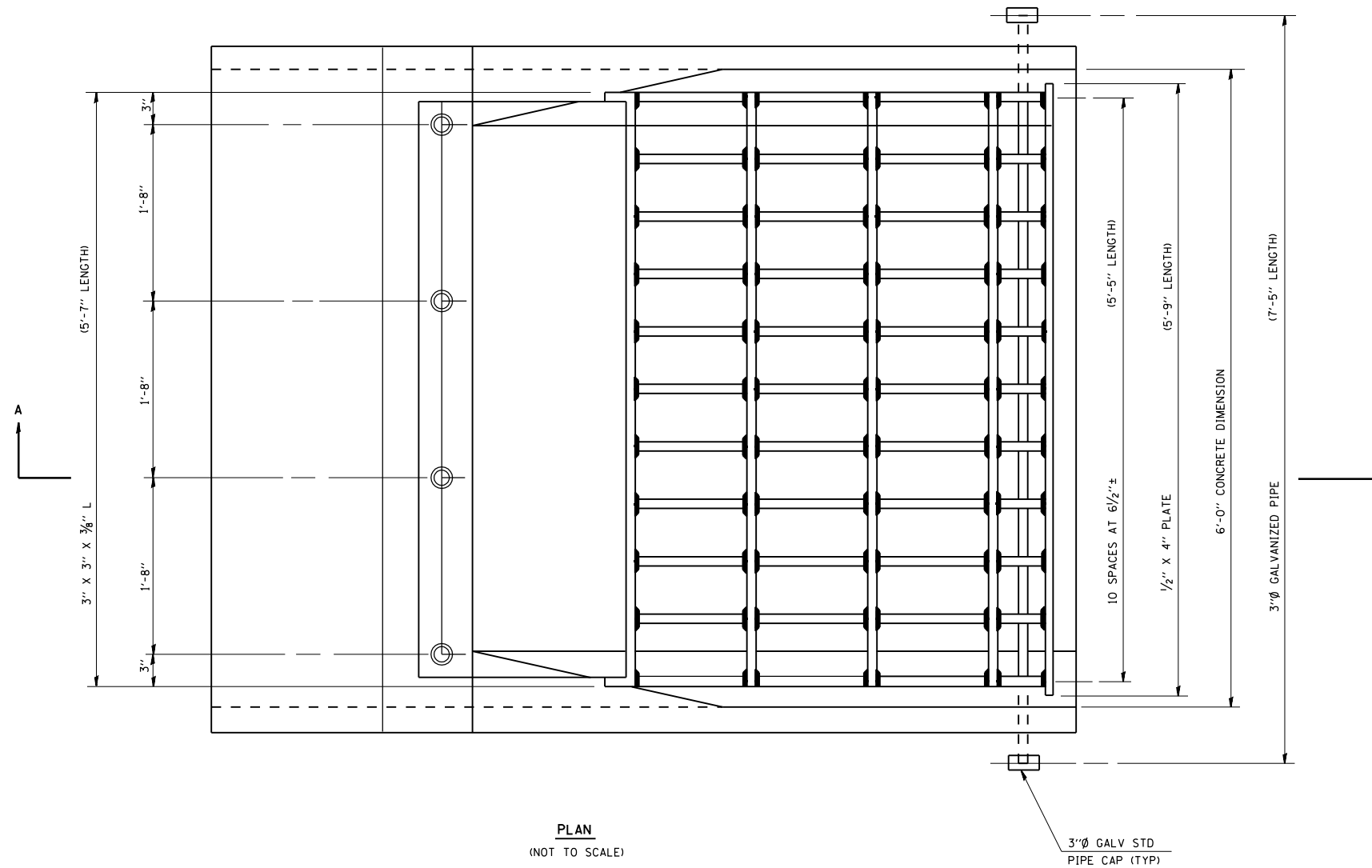
CROSS SECTION

DIMENSIONS

SPAN X RISE	T (INCHES)	A (FT-IN)	B (FT-IN)	C (INCHES)	SPAN X RISE	T (INCHES)	A (FT-IN)	B (FT-IN)	C (INCHES)
2' X2'	4	2-8	2-8	4	9' X5'	9	10-6	6-6	9
3' X2'	4	3-8	2-8	4	9' X6'	9	10-6	7-6	9
3' X3'	4	3-8	3-8	4	9' X7'	9	10-6	8-6	9
4' X2'	5	4-10	2-10	5	9' X8'	9	10-6	9-6	9
4' X3'	5	4-10	3-10	5	9' X9'	9	10-6	10-6	9
4' X4'	5	4-10	4-10	5					
5' X2'	6	6-0	3-0	6	10' X4'	10	11-8	5-8	10
5' X3'	6	6-0	4-0	6	10' X5'	10	11-8	6-8	10
5' X4'	6	6-0	5-0	6	10' X6'	10	11-8	7-8	10
5' X5'	6	6-0	6-0	6	10' X7'	10	11-8	8-8	10
6' X2'	7	7-2	3-2	7	10' X8'	10	11-8	9-8	10
6' X3'	7	7-2	4-2	7	10' X9'	10	11-8	10-8	10
6' X4'	7	7-2	5-2	7	10' X10'	10	11-8	11-8	10
6' X5'	7	7-2	6-2	7					
6' X6'	7	7-2	7-2	7	11' X4'	11	12-10	5-10	11
					11' X6"	11	12-10	7-10	11
					11' X8"	11	12-10	9-10	11
7' X4'	8	8-4	5-4	8	11' X10'	11	12-10	11-10	11
7' X5'	8	8-4	6-4	8	11' X11'	11	12-10	12-10	11
7' X6'	8	8-4	7-4	8					
7' X7'	8	8-4	8-4	8					
					12' X4'	12	14-0	6-0	12
8' X4'	8	9-4	5-4	8	12' X6'	12	14-0	8-0	12
8' X5'	8	9-4	6-4	8	12' X8'	12	14-0	10-0	12
8' X6'	8	9-4	7-4	8	12' X10'	12	14-0	12-0	12
8' X7'	8	9-4	8-4	8	12' X12'	12	14-0	14-0	12
8' X8'	8	9-4	9-4	8					

FILE NAME = boxcul.dgn	USER NAME = rjo	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PRECAST CONCRETE BOX CULVERT				F.A.P. RTE. 103	SECTION 27-1-VHB-1	COUNTY ST. CLAIR	TOTAL SHEETS 277	SHEET NO. 108
	PLOT SCALE = 100.0000' / IN.	DRAWN -	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 76884			
	PLOT DATE = 10/17/2011	CHECKED -	REVISED -							FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		
		DATE - 10/19/11	REVISED -										

GRATING FOR PRECAST CONCRETE BOX CULVERT END SECTION 6' X 3'



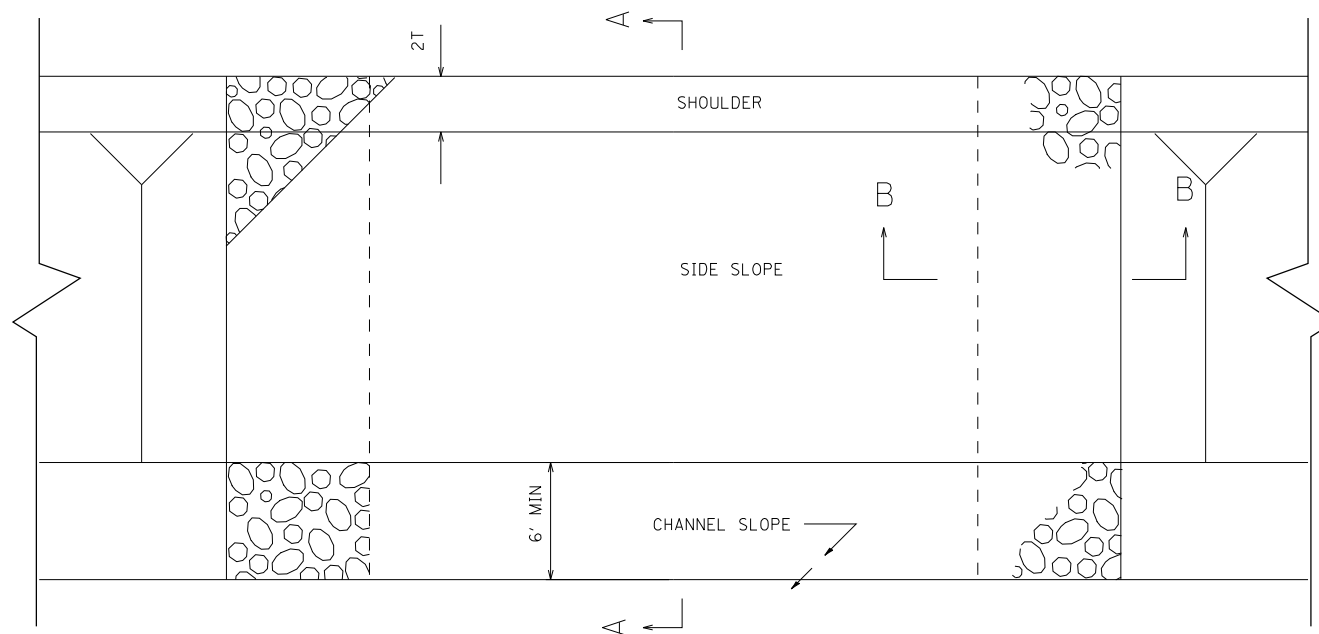
GENERAL NOTES

1. STRUCTURAL STEEL SHAPES AND PLATES SHALL BE IN ACCORDANCE WITH ARTICLE 706.04 OF THE STANDARD SPECIFICATIONS AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M-111.
2. GALVANIZED STEEL PIPE SHALL BE IN ACCORDANCE WITH ARTICLE 706.27(B) OF THE STANDARD SPECIFICATIONS AND SHALL MEET THE REQUIREMENTS OF ASTM A-53, GRADE B.
3. BOLTS, NUTS AND WASHERS SHALL BE IN ACCORDANCE WITH ARTICLE 706.27(F) OF THE STANDARD SPECIFICATIONS AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M-232.
4. ALL FABRICATION SHALL BE COMPLETE AND READY FOR ASSEMBLY BEFORE GALVANIZING.
5. THE CORED HOLES IN THE CONCRETE END SECTIONS SHALL BE TO THE DIAMETERS NOTED. IF CONE-OUT ON THE OTHER END OF THE HOLE OCCURS THE HOLE SHALL BE FILLED WITH GROUT TO CORRECT DIAMETER OF THE HOLE.
6. THE CONTRACT UNIT PRICE "EACH" FOR GRATED BOX CULVERT END SECTIONS, CULVERT NO. 01 OF THE SIZE INDICATED SHALL INCLUDE FABRICATION AND INSTALLATION OF THE GRATING AS DETAILED HEREON, INCLUDING FABRICATION OF NECESSARY MOUNTING HOLE IN THE SECTION.

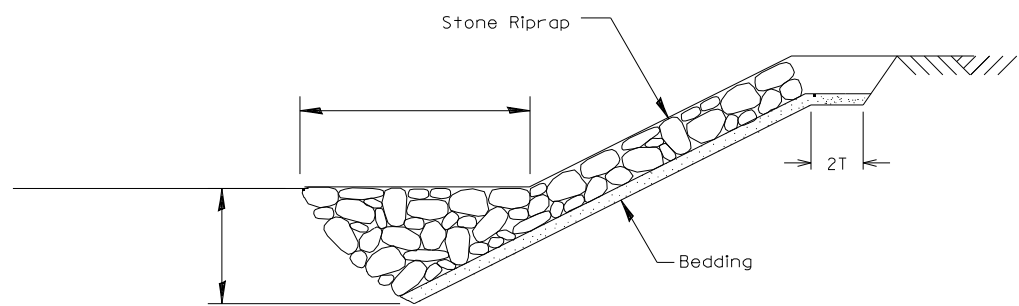
LEGEND

- ① 1/4" X 4" X 4" PLATE WASHER; 1 1/6" Ø HOLE
- ② 1" Ø BOLT WITH FLAT WASHER AND HEX NUT
- ③ L 3" X 3" X 3/8"
- ④ 1/2" X 3" BAR (TYP)
- ⑤ PROVIDE 3, 3/4" Ø HOLE THRU CONCRETE
- ⑥ 1/2" X 4" BAR
- ⑦ BARS 1/2" X 3/8" (TYP)
- ⑧ 1/8" Ø HOLE THRU 3/8" PLATE; 1/4" Ø HOLE THRU CONCRETE
- ⑨ 3/8" PLATE SHALL CONFORM TO SURFACE SHAPE OF CONCRETE END SECTION

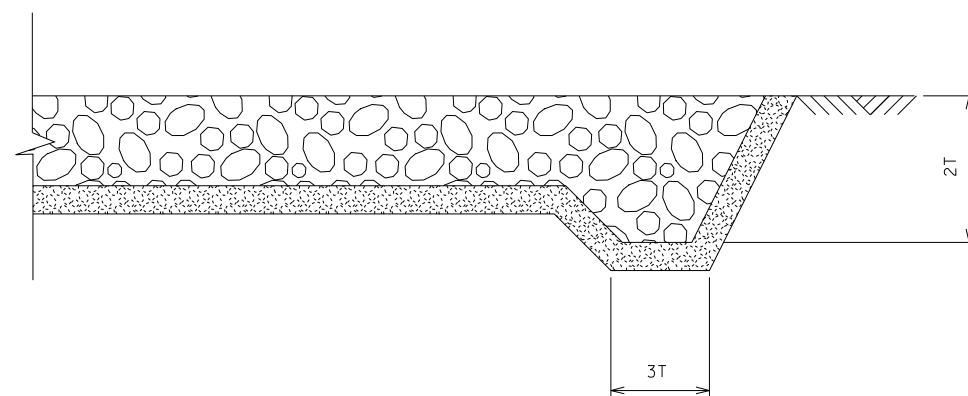
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	PLOT SCALE = 100.0000' / IN.	CHECKED -	REVISED -			SCALE:	SHEET NO. OF SHEETS STA. TO STA.	CONTRACT NO. 76884				
	PLOT DATE = 10/17/2011	DATE - 10/19/11	REVISED -									
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT												



PLAN VIEW

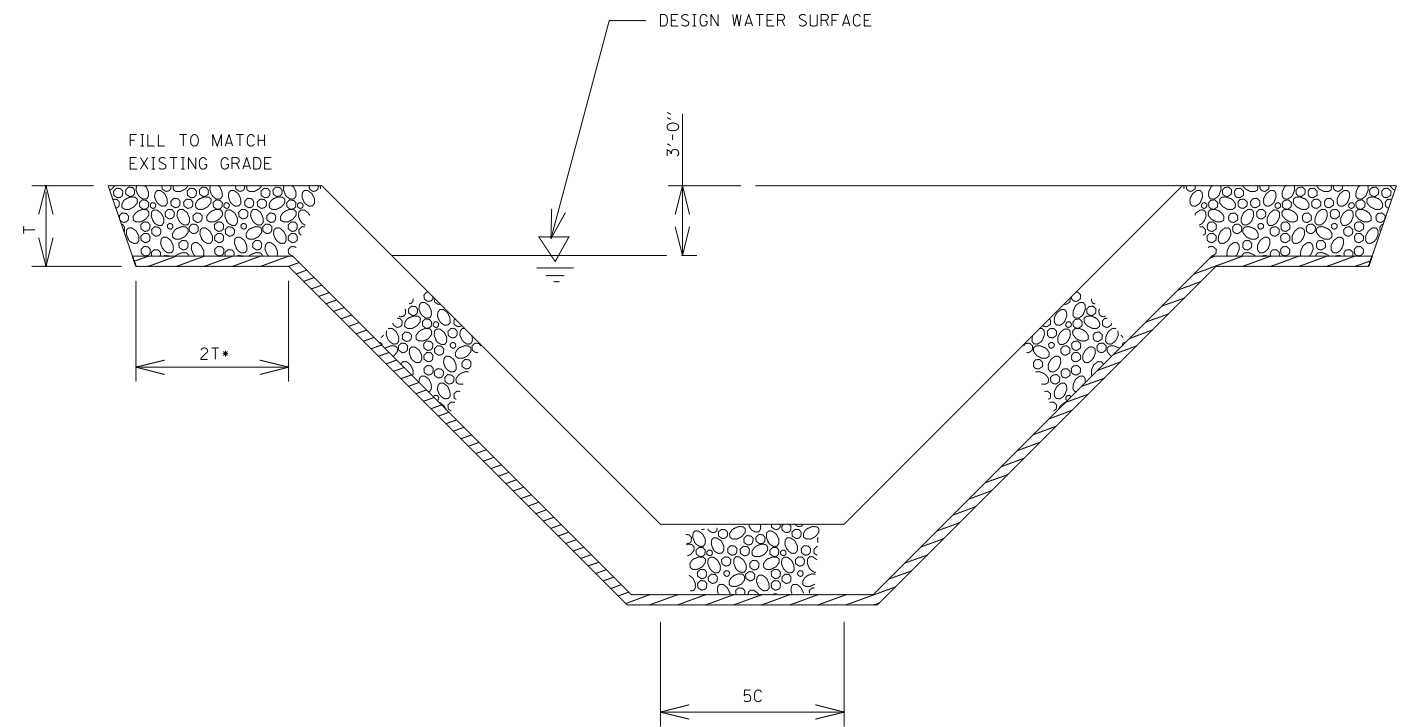


SECTION A-A



SECTION B-B

TOE AND FLANK RIPRAP DETAILS



TYPICAL CROSS SECTION OF CHANNEL

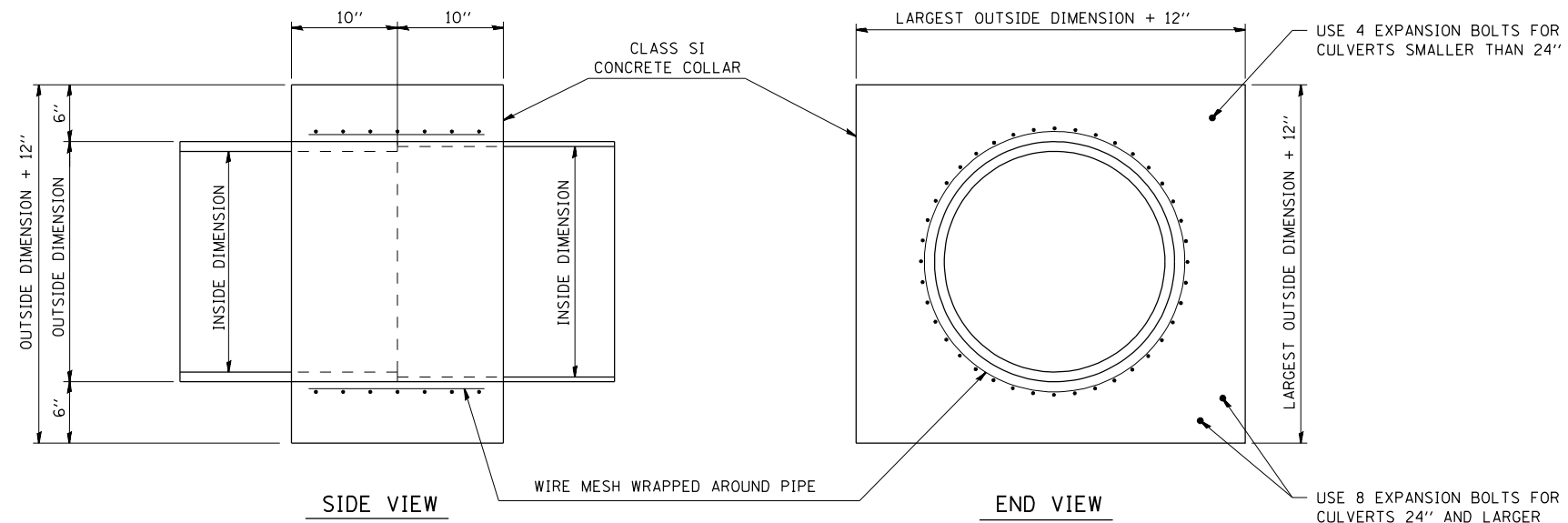
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		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE - 10/19/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOE AND FLANK
RIP RAP DETAILS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	111
CONTRACT NO. 76884				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



QUANTITIES FOR CONCRETE PIPES	
INSIDE DIAMETER OF PIPE	ESTIMATED CLASS SI CONCRETE REQUIRED 20" WIDTH CU.YD.
INCH	
4"	0.14
6"	0.16
8"	0.19
10"	0.22
12"	0.25
15"	0.30
18"	0.35
24"	0.45
30"	0.57
36"	0.69
42"	0.83
48"	0.97
54"	1.12
60"	1.28

QUANTITIES FOR METAL PIPES	
INSIDE DIAMETER OF PIPE	ESTIMATED CLASS SI CONCRETE REQUIRED 20" WIDTH CU.YD.
INCH	
4"	0.12
6"	0.14
8"	0.16
10"	0.19
12"	0.21
15"	0.25
18"	0.29
24"	0.38
30"	0.47
36"	0.59
42"	0.69
48"	0.81
54"	0.93
60"	1.05

GENERAL NOTES:

- CLASS SI CONCRETE SHALL BE USED THROUGHOUT.
- WHEN CONCRETE COLLARS ARE USED TO CONNECT PIPES OF DIFFERENT OUTSIDE DIMENSIONS, THE CONCRETE COLLAR SHALL BE FORMED USING THE LARGEST OUTSIDE DIMENSION. (SEE END VIEW)
- THE WIRE MESH SHALL WEIGHT NOT LESS THAN 54 POUNDS PER 100 SQ. FT.
- WHEN CONCRETE COLLARS ARE CONSTRUCTED AJACENT TO AN EXISTING CONCRETE STRUCTURE (HEADWALLS, ETC.) EXPANSION BOLTS SHALL BE USED AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE, EACH, FOR EXPANSION BOLTS OF THE SIZE SPECIFIED IN THE PLANS.
- CONCRETE COLLARS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE, CU. YD., FOR CONCRETE COLLAR INCLUDING ALL MATERIAL AND LABOR SPECIFIED TO COMPLETE THE WORK IN PLACE.
- ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.



LONE OAK INVESTMENTS, LLC
PARCEL NO. 08-35.0-100-033

LONE OAK INVESTMENTS LLC
PARCEL NO. 08-35.0-100-032

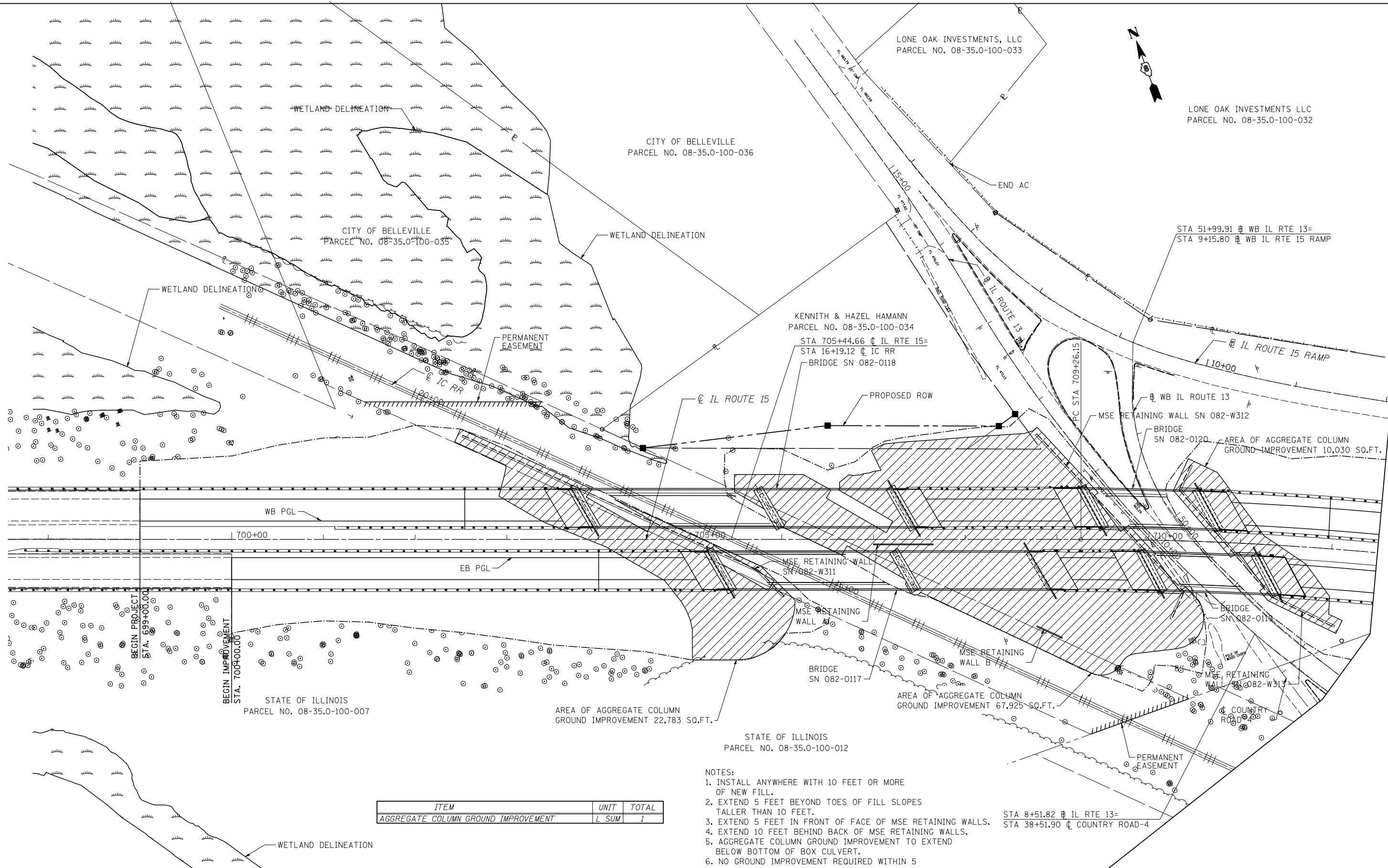
CITY OF BELLEVILLE
PARCEL NO. 08-35.0-100-036

CITY OF BELLEVILLE
PARCEL NO. 08-35.0-100-035

KENNETH & HAZEL HAMANN
PARCEL NO. 08-35.0-100-034

STATE OF ILLINOIS
PARCEL NO. 08-35.0-100-007

STATE OF ILLINOIS
PARCEL NO. 08-35.0-100-012



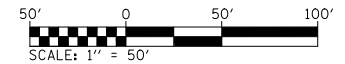
BEGIN PROJECT
STA. 699+00.00

BEGIN IMPROVEMENT
STA. 700+00.00

ITEM	UNIT	TOTAL
AGGREGATE COLUMN GROUND IMPROVEMENT	L SUM	1

- NOTES:
1. INSTALL ANYWHERE WITH 10 FEET OR MORE OF NEW FILL.
 2. EXTEND 5 FEET BEYOND TOES OF FILL SLOPES TALLER THAN 10 FEET.
 3. EXTEND 5 FEET IN FRONT OF FACE OF MSE RETAINING WALLS.
 4. EXTEND 10 FEET BEHIND BACK OF MSE RETAINING WALLS.
 5. AGGREGATE COLUMN GROUND IMPROVEMENT TO EXTEND BELOW BOTTOM OF BOX CULVERT.
 6. NO GROUND IMPROVEMENT REQUIRED WITHIN 5 FEET OF EXISTING DEEP FOUNDATIONS.
 7. FOR MSE WALL LOCATION SEE MECHANICALLY STABILIZED EARTH RETAINING WALL PLANS.
 8. FOR BOX CULVERT SEE DRAINAGE & UTILITIES PLANS.
 9. NO GROUND IMPROVEMENT WITHIN 3 FEET OF NEW PILE FOUNDATIONS.

STA 8+51.82 @ IL RTE 13=
STA 38+51.90 @ COUNTRY ROAD-4



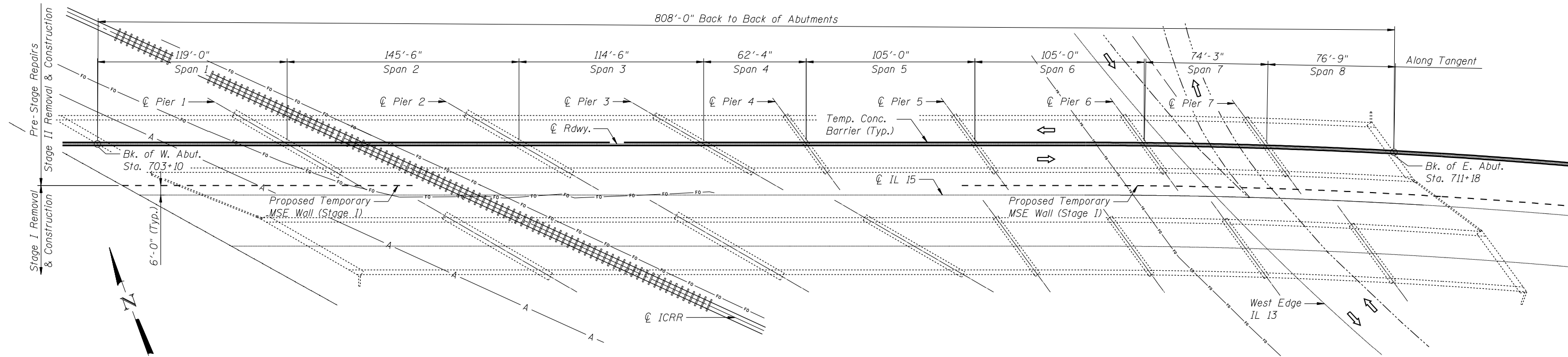
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D876884-sht-aggregate column improvement	MODEL NAME = \$MODELNAME\$	DRAWN RDT	REVISED -
	PLOT SCALE = 100.0000' / IN.	CHECKED JAN	REVISED -
	PLOT DATE = 10/20/2011	DATE 10-19-11	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

AGGREGATE COLUMN GROUND IMPROVEMENT LOCATIONS

SCALE: 1"=50' SHEET NO. 1 OF 1 SHEETS STA. 699+00.00 TO STA. 712+50.00

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	113
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



PLAN

GENERAL NOTES

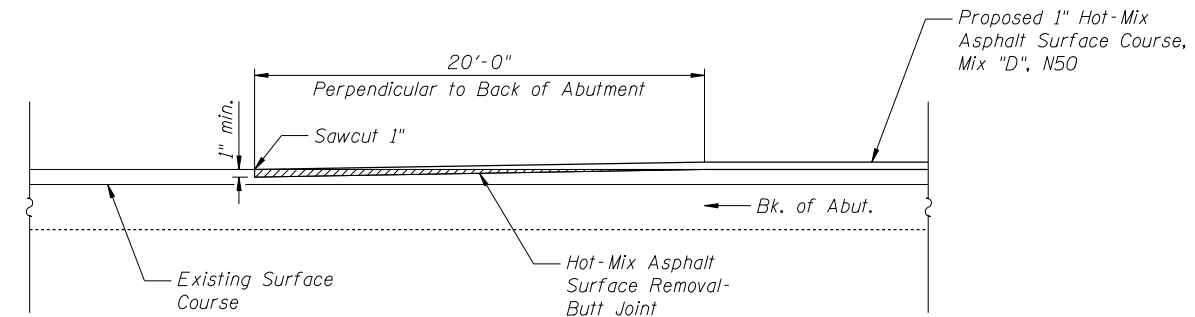
- 1) No field welding is permitted except as specified in the contract documents.
- 2) Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
- 3) Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- 4) Prior to Full Depth Repairs, the Contractor shall sound the entire bridge deck and identify locations where Type II Full Depth Repair is necessary. The Deck Repair Plan on Sht. PS-2 of PS-2 is for reference only. Reference Guide Bridge Special Provision 28.

PROPOSED WORK SEQUENCE

- ① Install Temporary Shoring at locations shown on Sht. PS-2 of PS-2
- ② Sound deck to determine deck slab repair locations
- ③ Perform Partial and Full Depth Repairs
- ④ Install Hot Mix Asphalt Surface Course, 1"
- ⑤ Place Temporary Concrete Barrier

INDEX OF SHEETS

- PS-1 Pre-Stage Existing Structures Repair Plan
- PS-2 Pre-Stage Repair and Temporary Shoring Details



HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

FILE NAME = 0820119-0120-76884-001-Pre-StagePlan.dgn



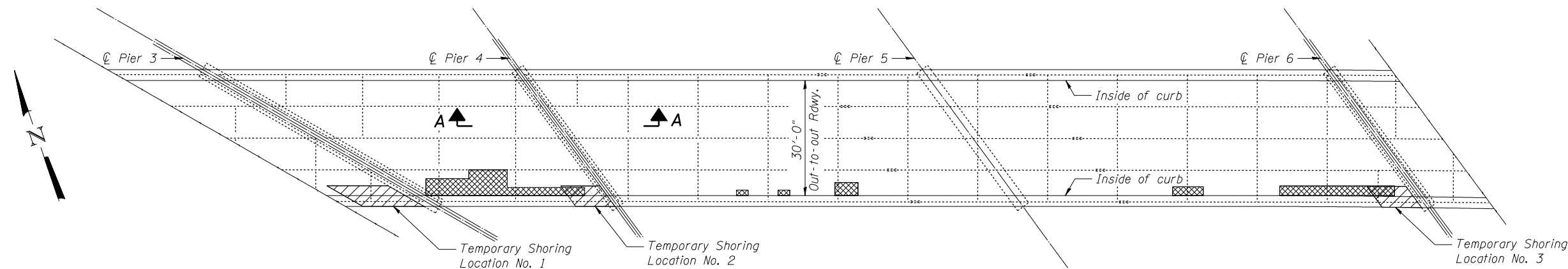
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	CHECKED - SAB	REVISED - -
PLOT SCALE = 64:0.0009 ' / IN.	DRAWN - RAB	REVISED - -
PLOT DATE = 10/19/2011	CHECKED - SAB	REVISED - -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PRE-STAGE EXISTING STRUCTURES REPAIR PLAN
SN. 082-0051 (W.B.) & 082-0052 (E.B.)**

SHEET NO. PS-1 OF PS-2 SHEETS

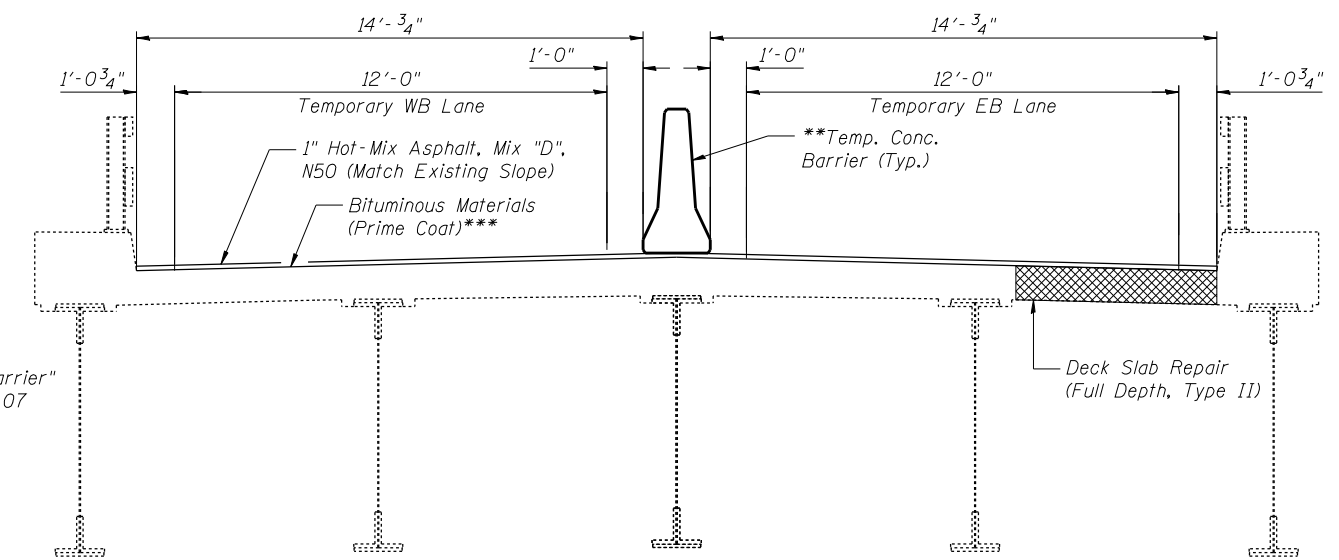
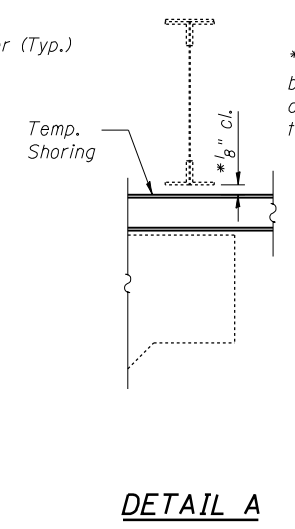
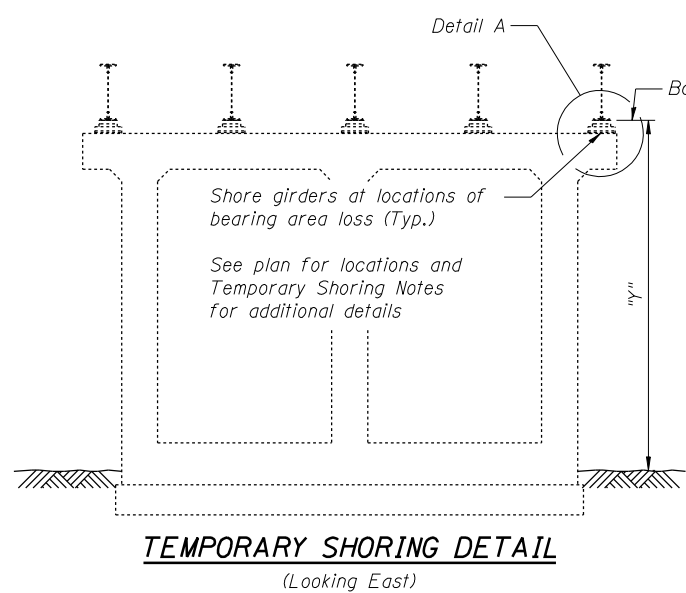
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	114
CONTRACT NO. 76884			ILLINOIS FED. AID PROJECT	



LEGEND

- Deck Slab Repair Locations (See Notes)
- Temporary Shoring locations

DECK REPAIR AND TEMPORARY SHORING PLAN



DECK CROSS SECTION (Looking East)

TEMPORARY SHORING NOTES

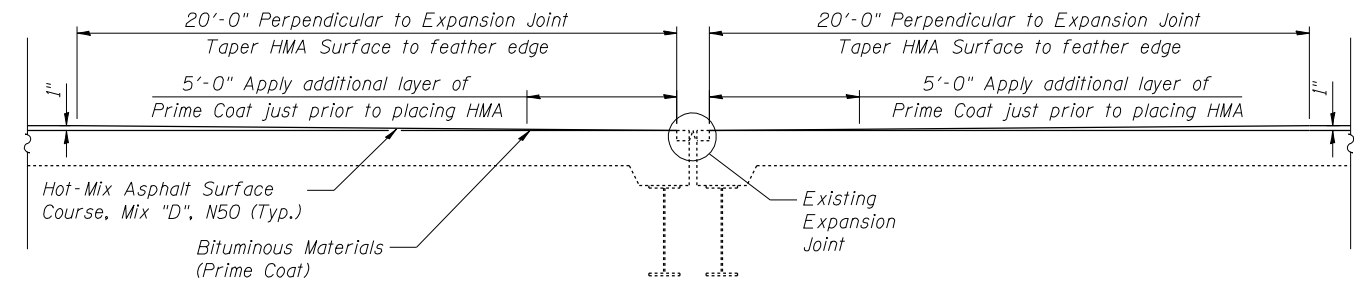
Provide Temporary Shoring for West Bearing of South Fascia Girder at Pier 3, Pier 4 and Pier 6 as shown on plan. See Temporary Shoring Special Provision.

Service Dead Loads and Live Loads (including Impact) and approximate height of Temporary Shoring at each location are as follows:

Location No.	"Y"	Dead Load	Live Load
1	±28'-6"	101.7 k	54.9 k
2	±27'-2"	48.3 k	50.3 k
3	±20'-2"	110.2 k	54.4 k

NOTES:

- 1) Deck slab repair locations are approximate. Actual locations shall be determined by sounding the deck during construction. See Special Provision for Deck Slab Repair for additional information.
- 2) Full depth patches shall be limited to 10 ft. lengths, with removal and replacement alternated to meet this requirement.
- 3) At least 72 hours shall have elapsed between concrete pours and the concrete shall have attained a minimum modulus of rupture of 650 psi or a minimum compressive strength of 3500 psi.
- 4) Protective Shield at locations over the ICRR or IL 13 shall be placed prior to any deck repair work.



SECTION A-A (Typical at expansion joints)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Bituminous Materials (Prime Coat)	GAL.	220
Hot-Mix Asphalt Surface Removal- Butt Joint	SQ. YD.	190
Hot-Mix Asphalt Surface Course, Mix "D", N50	TON	163
Deck Slab Repair (Full Depth, Type II)	SQ. YD.	141
Deck Slab Repair (Partial Depth)	SQ. YD.	47
Temporary Shoring	EA.	3

FILE NAME = 082011a-0120-76884-002-Pre-StageShoring.dgn



USER NAME = brazzera	DESIGNED - RAB	REVISED - -
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PLOT DATE = 10/19/2011	DRAWN - RAB	REVISED - -
	CHECKED - SAB	REVISED - -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PRE-STAGE REPAIR AND TEMPORARY SHORING DETAILS
S.N. 082-0051**

SHEET NO. PS-2 OF PS-2 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	115
CONTRACT NO. 76884				

ILLINOIS FED. AID PROJECT

BENCHMARK: Existing chiseled square on south end of northeast wingwall on Structure No. 082-0051. Elev. 493.11

EXISTING STRUCTURE: Structure numbers 082-0051 and 082-0052 were constructed in 1956. These structures consist of dual 8 span built-up steel girder spans: one three-span continuous, one simple span and two, two-span continuous. The riveted girders are supported on pile supported abutments and piers. The overall length of SN 082-0051 (Westbound) is 808 feet and SN 082-0052 (Eastbound) is 746 feet. Each structure is 35'-8" out-to-out of deck, with 30 feet of roadway width. Both structures were rehabilitated in 1985. Traffic will be maintained on SN 082-0051 while the new eastbound structures are constructed. Traffic will then be moved to the new eastbound structures until the westbound structures are complete.

Salvage: None

Traffic Barrier Terminal
Type 6 Std. 631031 (Appr. Ends)
Type 5 Std. 631026 (Exit Ends)

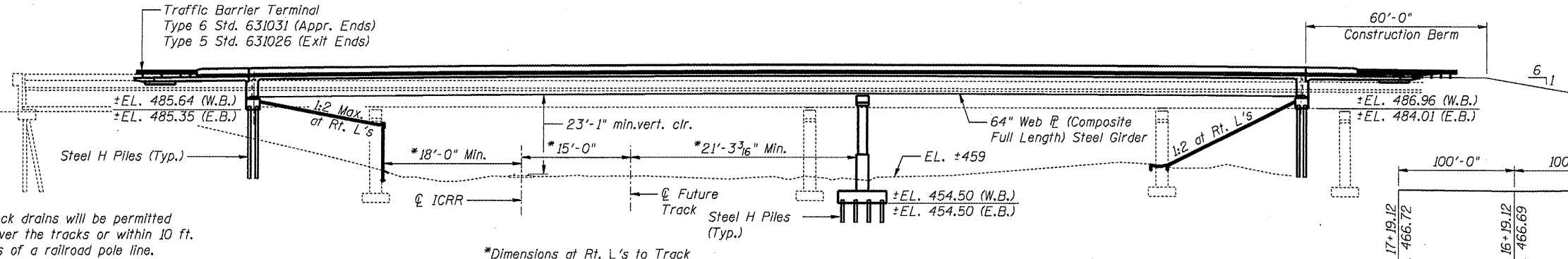
Note:
No freefall deck drains will be permitted in the span over the tracks or within 10 ft. of cross arms of a railroad pole line.

SEISMIC DATA

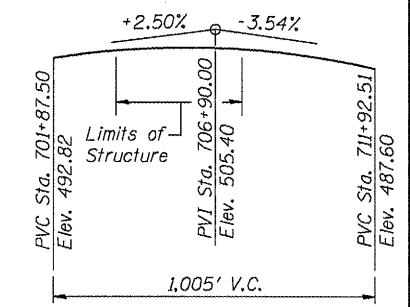
Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.253
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.582
Soil Site Class = D

DESIGN STRESSES

FIELD UNITS
 f'_c = 3,500 psi
 f_y = 60,000 psi (Reinforcement)
 f_y = 50,000 psi (M270 Grade 50)
 f_y = 36,000 psi (M270 Grade 36)

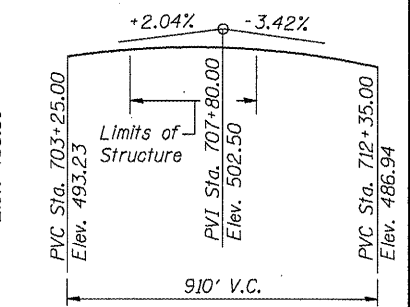


ELEVATION



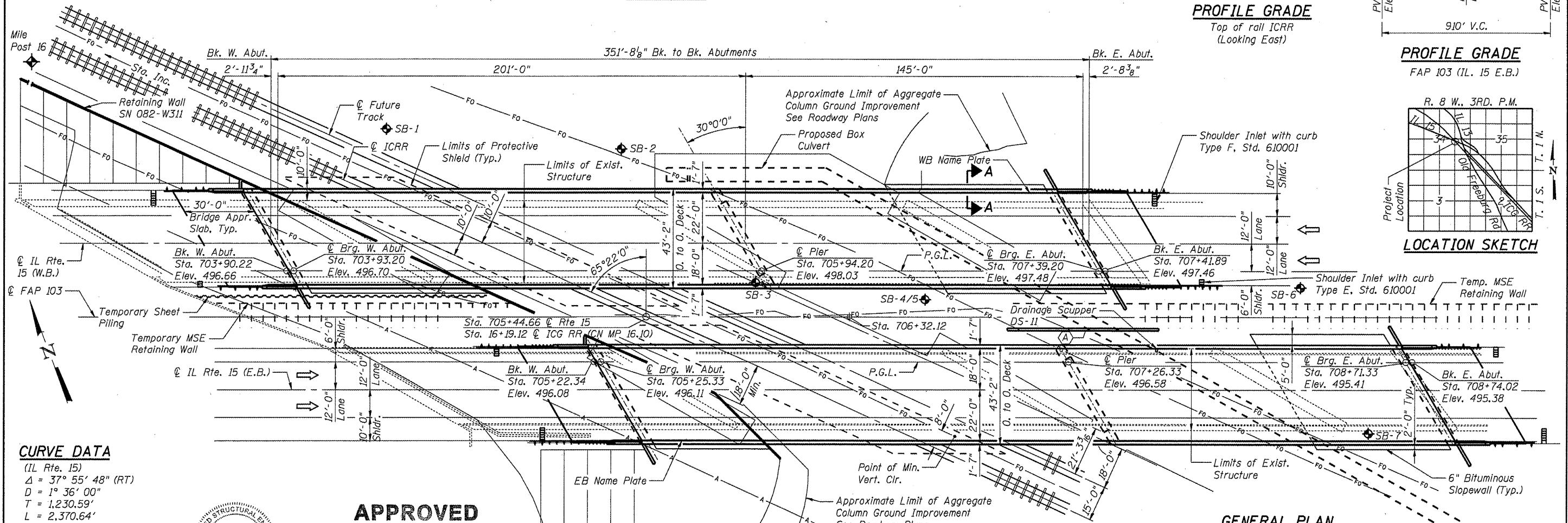
PROFILE GRADE

FAP 103 (IL 15 W.B.)



PROFILE GRADE

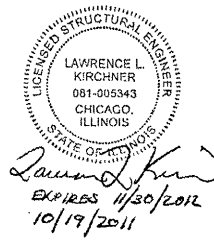
FAP 103 (IL 15 E.B.)



PLAN

CURVE DATA

(IL Rte. 15)
 $\Delta = 37^\circ 55' 48''$ (RT)
 $D = 1^\circ 36' 00''$
 $T = 1,230.59'$
 $L = 2,370.64'$
 $E = 205.54'$
 $R = 3,581.00'$
S.E. = 3.9%
P.C. = Sta. 709+26.15
P.T. = Sta. 732+96.79
P.I. = Sta. 721+56.75



APPROVED
For Structural Adequacy Only
Lawrence L. Kirchner
Engineer of Bridges & Structures

DESIGN SPECIFICATIONS
AASHTO LRFD Bridge Design Specifications
5th Edition, with 2010 Interims

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

GENERAL PLAN
ILLINOIS ROUTE 15 OVER ICRR
FAP 103 - SEC.27-1-VHB-1
ST. CLAIR COUNTY
STATION 706+32.12
STRUCTURE NO. 082-0117 (E.B.)
STRUCTURE NO. 082-0118 (W.B.)

(A) (B) Face of MSE Wall (height less than 7 feet)

See Sht. S-49 of S-62 for details



USER NAME = brozzere	DESIGNED - BTO	REVISD -
PLOT SCALE = 427.9999 1" = 100'	CHECKED - JAN	REVISD -
PLOT DATE = 10/19/2011	DRAWN - BTO	REVISD -
	CHECKED - JAN	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. S-1 OF S-62 SHEETS

F.A.P. RTE. 103	SECTION 27-1-VHB-1	COUNTY ST. CLAIR	TOTAL SHEETS 277	SHEET NO. 116
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76884	

GENERAL NOTES

- Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 7/8 in. ϕ , holes 15/16 in. ϕ , unless otherwise noted.
- Calculated weight of Structural Steel= 1,054,690 pounds (AASHTO M270 Grade 50, Both Structures) = 106,360 pounds (AASHTO M270 Grade 36, Both Structures)
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- 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.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this 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 gray, Munsell No. 5B 7/1. See Standard Specifications.
- The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
- 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.
- The Contractor is advised that the existing structure contains members that are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the existing structure when developing construction procedures for the complete or partial removal, or replacement of the structure. An Existing Structure Information Package is available upon request as noted in the special provisions.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Subbase Granular Material, Type C	CU YD	230		230
Removal of Existing Structures No. 1	EACH			1
Removal of Existing Structures No. 2	EACH			1
Protective Shield	SQ YD	592		592
Structure Excavation	CU YD		506	506
Concrete Structures	CU YD		881	881
Concrete Superstructure	CU YD	1,099		1,099
Bridge Deck Grooving	SQ YD	2,960		2,960
Protective Coat	SQ YD	3,695		3,695
Precast Concrete Bridge Slab	SQ FT	5,020		5,020
Furnishing and Erecting Structural Steel	L SUM	1		1
Stud Shear Connectors	EACH	10,440		10,440
Reinforcement Bars, Epoxy Coated	POUND	306,090	149,210	455,300
Mechanical Splicers	EACH		512	512
Slope Wall 4"	SQ YD		32	32
Furnishing Steel Piles HP12x53	FOOT		7,366	7,366
Driving Piles	FOOT		7,366	7,366
Test Pile Steel HP12x53	FOOT		6	6
Pile Shoes	EACH		132	132
Name Plates	EACH	2		2
Elastomeric Bearing Assembly, Type I	EACH		10	10
Elastomeric Bearing Assembly, Type II	EACH		10	10
Anchor Bolts, 1"	EACH		20	20
Anchor Bolts, 1 1/2"	EACH		40	40
Geocomposite Wall Drain	SQ YD		230	230
Temporary Mechanically Stabilized Earth Retaining Wall	SQ FT		7,228	7,228
Porous Granular Embankment, Special	CU YD		333	333
Concrete Wearing Surface, 5"	SQ YD	558		558
Drainage Scupper, DS-11	EACH	1		1
Drainage System	L SUM	1		1
Temporary Sheet Piling	SQ FT		1,458	1,458
Mechanically Stabilized Earth Retaining Wall	SQ FT		674	674
Pipe Underdrains for Structures, 4"	FOOT		180	180
Bituminous Coated Aggregate Slope Wall 6"	SQ FT		10,512	10,512

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- S-1. General Plan
- S-2. General Notes, B.O.M. & Index of Sheets
- S-3. Foundation Plan
- S-4. Temporary MSE Walls
- S-5. Stage Construction Deck Sections
- S-6. Temporary Concrete Barrier
- S-7. Deck Elevation Plan Eastbound
- S-8. Deck Elevations Eastbound
- S-9. Deck Elevations Eastbound
- S-10. Deck Elevation Plan Westbound
- S-11. Deck Elevations Westbound
- S-12. Deck Elevations Westbound
- S-13. West E.B. Approach Slab Elevations
- S-14. East E.B. Approach Slab Elevations
- S-15. West W.B. Approach Slab Elevations
- S-16. East W.B. Approach Slab Elevations
- S-17. Deck Plan Eastbound
- S-18. Deck Cross Section Eastbound
- S-19. Deck Plan Westbound
- S-20. Deck Cross Section Westbound
- S-21. West Superstructure Details
- S-22. East Superstructure Details
- S-23. Parapet Elevations, Details & B.O.M. Eastbound
- S-24. Parapet Elevations, Details & B.O.M. Westbound
- S-25. Drainage Scupper, DS-11
- S-26. Drainage System
- S-27. West Approach Slab Plan Eastbound
- S-28. East Approach Slab Plan Eastbound
- S-29. West Approach Slab Plan Westbound
- S-30. East Approach Slab Plan Westbound
- S-31. Eastbound Approach Slab Details
- S-32. Westbound Approach Slab Details
- S-33. Precast Concrete Bridge Slab
- S-34. Framing Plan & Girder Elevation
- S-35. Steel Details-Splices
- S-36. Steel Details & Moment Table
- S-37. Camber Diagram
- S-38. Bearings Details, Type I and Fixed
- S-39. Bearing Details, Type II
- S-40. West Abutment Plan and Elevation Eastbound
- S-41. East Abutment Plan and Elevation Eastbound
- S-42. West Abutment Plan and Elevation Westbound
- S-43. East Abutment Plan and Elevation Westbound
- S-44. Abutment Details
- S-45. Pier Plan and Elevation Eastbound
- S-46. Pier Details Eastbound
- S-47. Pier Plan and Elevation Westbound
- S-48. Pier Details Westbound
- S-49. Non-Structure Number Mechanically Stabilized Earth Retaining Wall
- S-50. Bar Splicer Assembly and Mechanical Splicer Details
- S-51. HP Pile Details
- S-52. Concrete Parapet Slipforming Option
- S-53. Boring Logs
- S-54. Boring Logs
- S-55. Boring Logs
- S-56. Boring Logs
- S-57. Boring Logs
- S-58. Boring Logs
- S-59. Boring Logs
- S-60. Boring Logs
- S-61. Boring Logs
- S-62. Boring Logs

CURRENT RATINGS ON FILE FOR EXISTING WESTBOUND STRUCTURE

Inventory: HS 25
 Operating: HS 41.8
 Live Load Restrictions: No

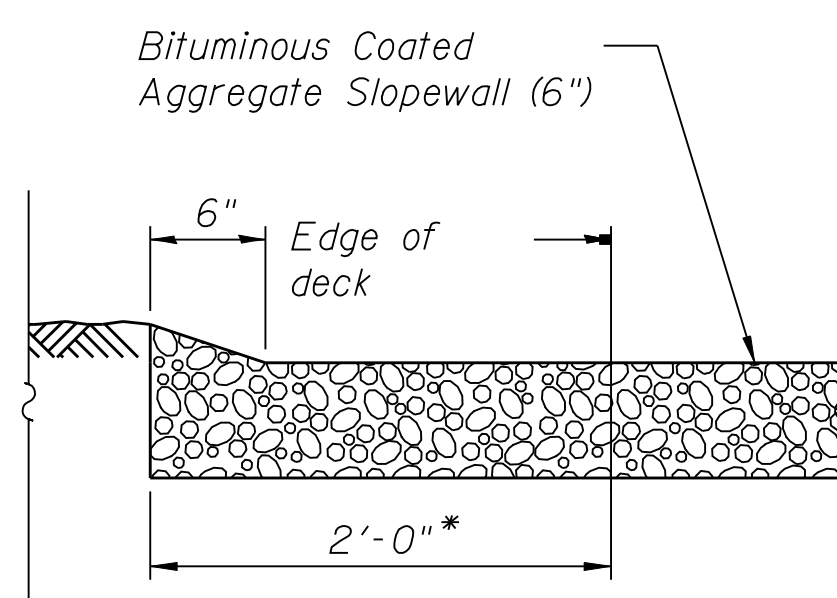
Inventory and Operating Ratings and Live Load Restrictions are provided for information only. Inventory and Operating Ratings are based on HS loading and configuration. Live Load Restrictions are based on Illinois legal loads and configurations. The Ratings and Live Load Restrictions are not necessarily representative of capacities to support the Contractor's equipment.

STATION 706+32.12
 BUILT 201_ BY
 STATE OF ILLINOIS
 F.A.P. RT. 103 SEC. 27-1-VHB-1
 LOADING HL-93
 STRUCTURE NO. 082-0117

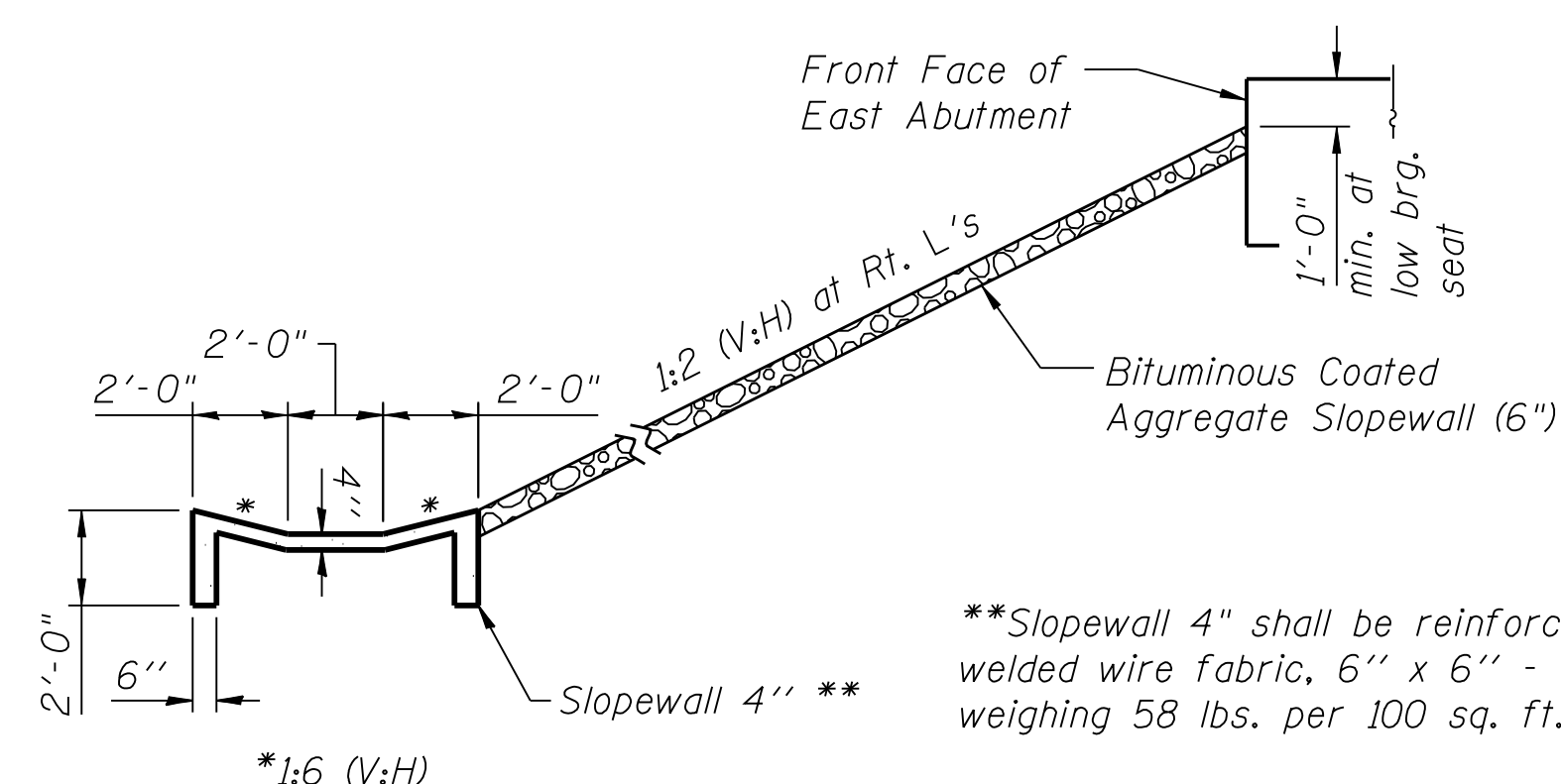
NAME PLATE (E.B.)
 See Std. 515001

STATION 706+32.12
 BUILT 201_ BY
 STATE OF ILLINOIS
 F.A.P. RT. 103 SEC. 27-1-VHB-1
 LOADING HL-93
 STRUCTURE NO. 082-0118

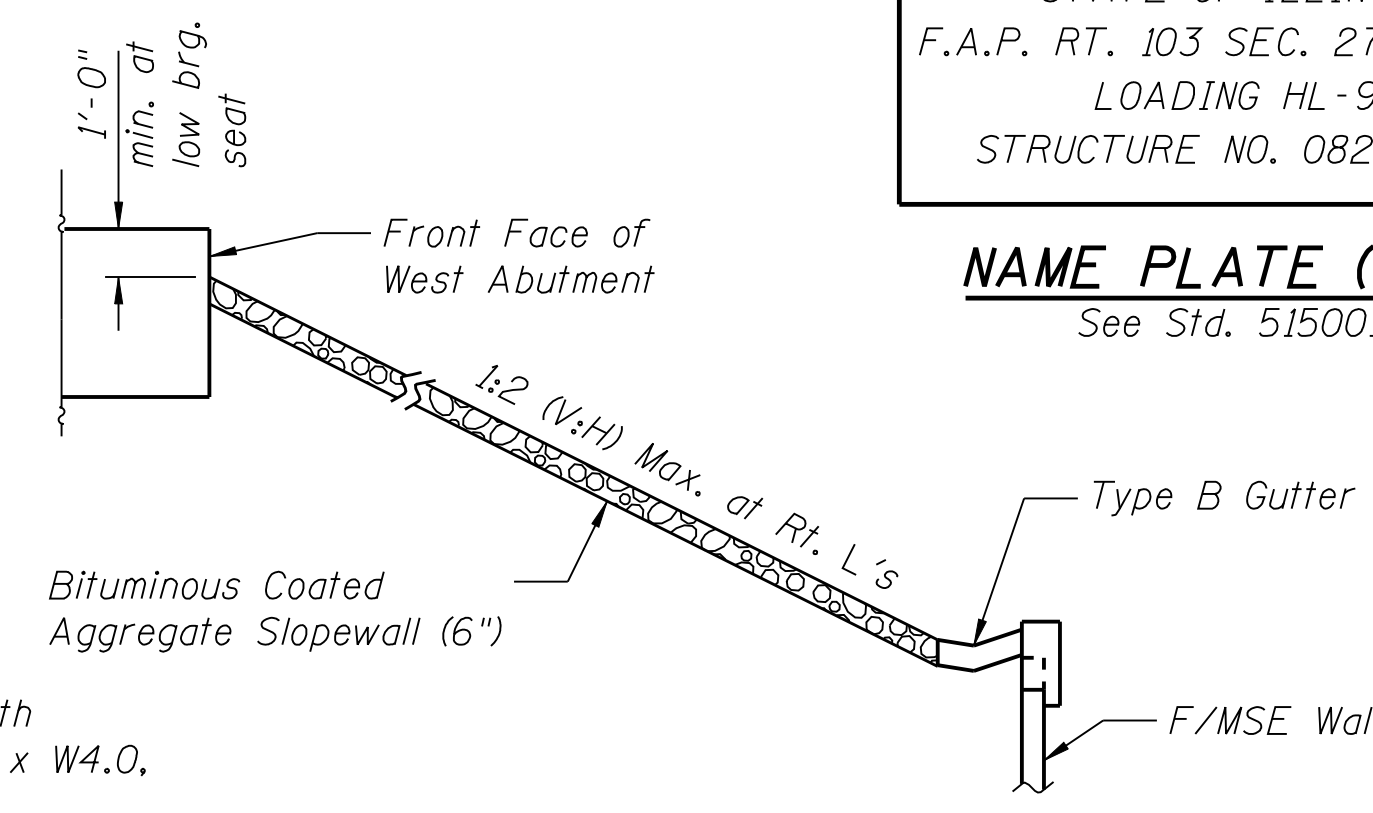
NAME PLATE (W.B.)
 See Std. 515001



SECTION A-A



SECTION THRU EAST SLOPEWALL



SECTION THRU WEST SLOPEWALL

**Slopewall 4" shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

FILE NAME = 0820117-0118-76884-002-GenNotes.dgn



USER NAME = brazzera	DESIGNED - BTO	REVISED -
PLOT SCALE = 0:1.0000 1" / IN.	CHECKED - JAN	REVISED -
PLOT DATE = 12/14/2011	DRAWN - RAB	REVISED -
	CHECKED - SAB	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

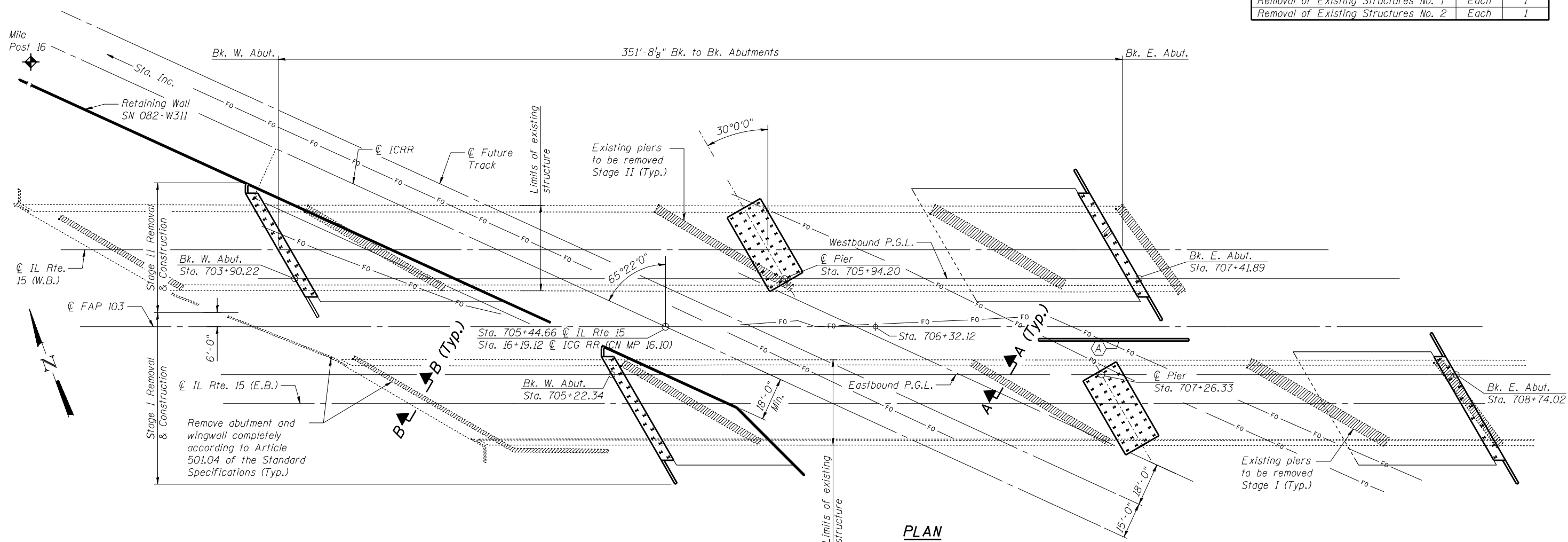
**GENERAL NOTES, B.O.M. & INDEX OF SHEETS
 STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-2 OF S-62 SHEETS

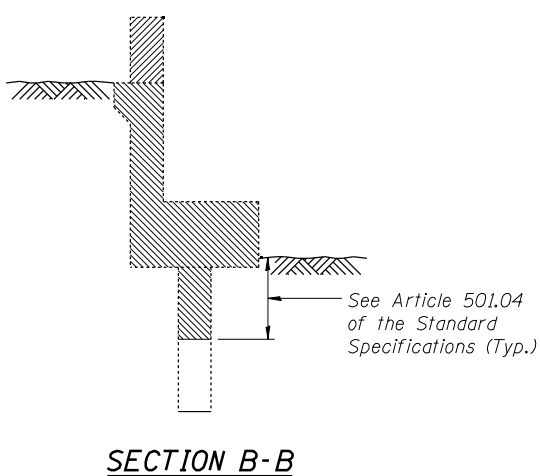
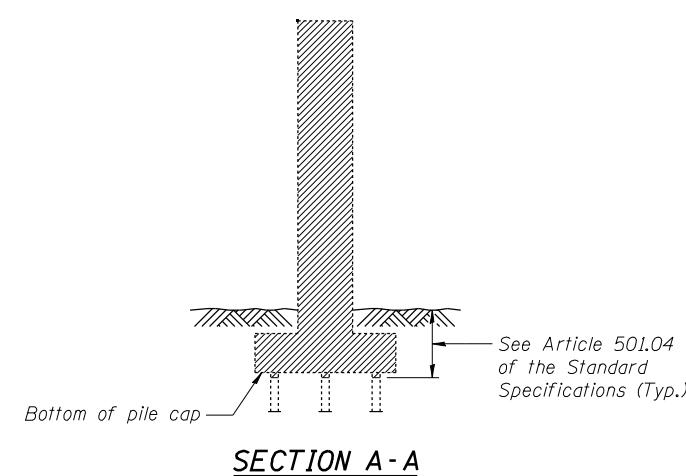
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	117
				CONTRACT NO. 76884
ILLINOIS FED. AID PROJECT				

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal of Existing Structures No. 1	Each	1
Removal of Existing Structures No. 2	Each	1



PLAN



(A) (B) Face of MSE Wall (height less than 7 feet)
See Sht. S-49 of S-62 for details

Note:
For abutment pile layout, see Sheets S-40 through S-43 of S-62.
For pier pile layout, see Sheets S-45 & S-47 of S-62.

LEGEND
Structure Removal

FILE NAME = 0820117-0118-76884-003-FOUNDATION.Plan.dgn



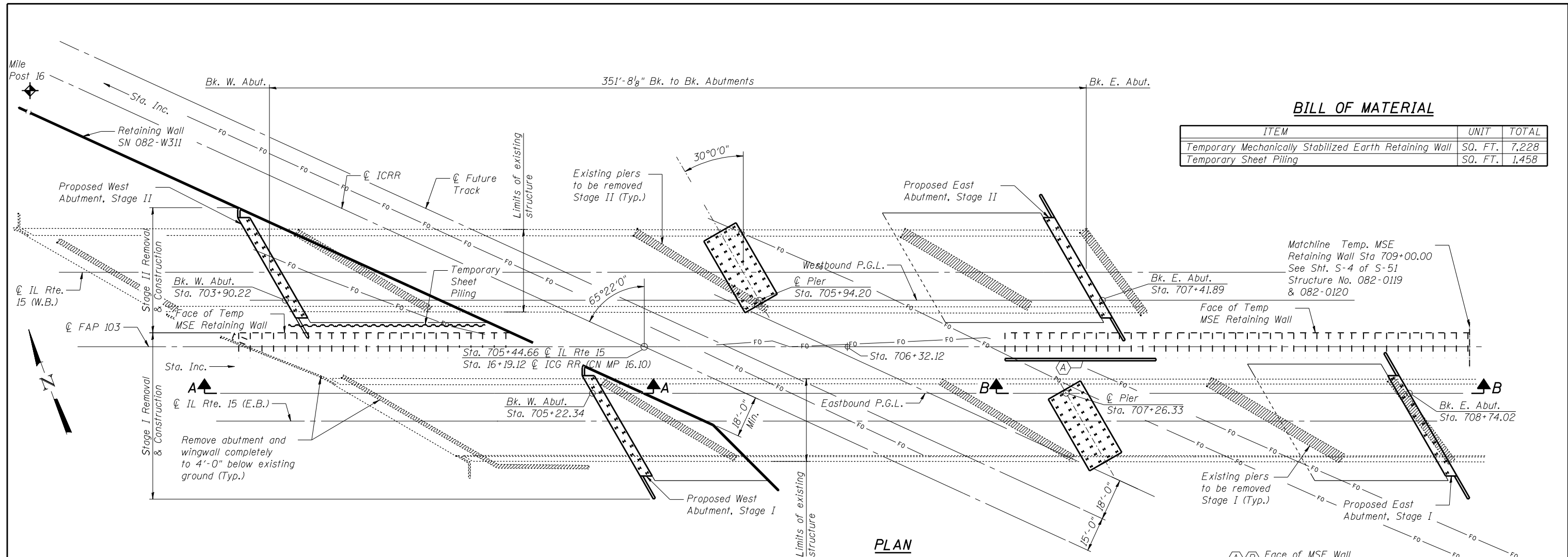
USER NAME = brazzera	DESIGNED - RAB	REVISED -
PLOT SCALE = 42x8.0000 '1' / IN.	CHECKED - BTO	REVISED -
PLOT DATE = 10/19/2011	DRAWN - RAB	REVISED -
	CHECKED - BTO	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FOUNDATION PLAN
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

F.A.P. RTE. 103	SECTION 27-1-VHB-1	COUNTY ST. CLAIR	TOTAL SHEETS 277	SHEET NO. 118
				CONTRACT NO. 76884
ILLINOIS FED. AID PROJECT				

SHEET NO. S-3 OF S-62 SHEETS

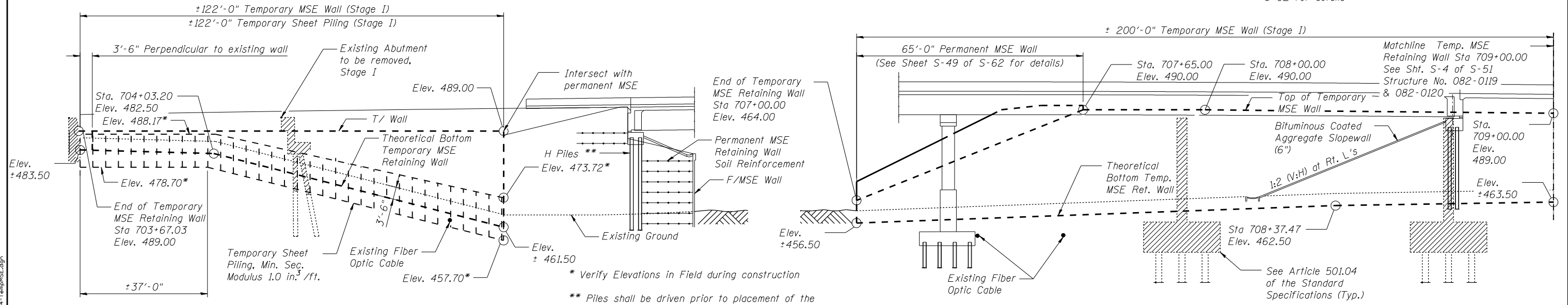


BILL OF MATERIAL

ITEM	UNIT	TOTAL
Temporary Mechanically Stabilized Earth Retaining Wall	SQ. FT.	7,228
Temporary Sheet Piling	SQ. FT.	1,458

PLAN

(A) (B) Face of MSE Wall (height less than 7 feet)
See Sht. S-49 of S-62 for details



SECTION A-A
(Distances along Temporary MSE Wall)

SECTION B-B
(Distances along Temporary MSE Wall)

* Verify Elevations in Field during construction
** Piles shall be driven prior to placement of the Select Fill. Pile liners shall be installed and backfilled with dry sand prior to placement of Select Fill.

FILE NAME = 0820117-0118-76884-004-TempMSE.dgn



USER NAME = brazzera
PLOT SCALE = 4217.9999 '1' / IN.
PLOT DATE = 12/02/2011

DESIGNED - RAB	REVISED -
CHECKED - BTO	REVISED -
DRAWN - RAB	REVISED -
CHECKED - SAB	REVISED -

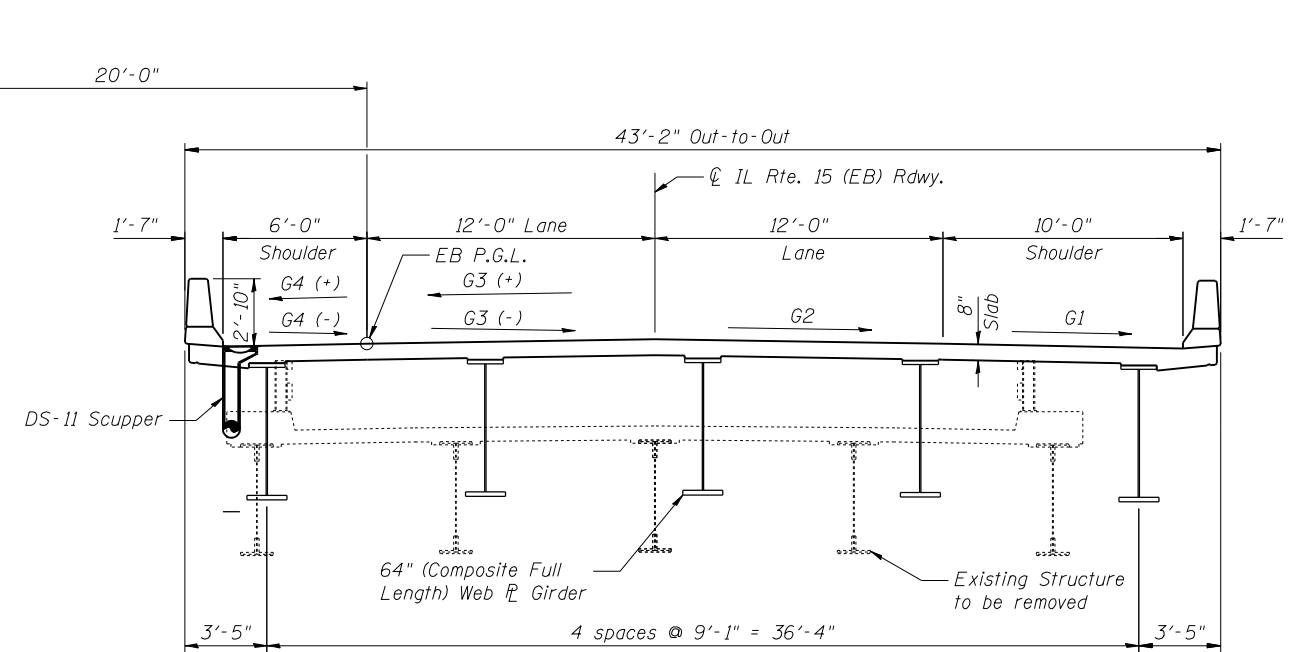
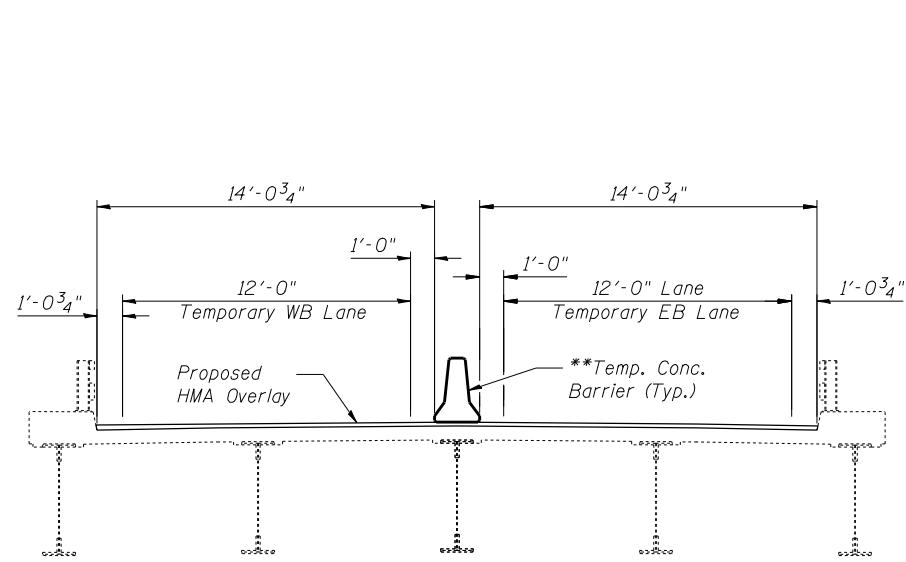
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY MSE RETAINING WALLS
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-4 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	119

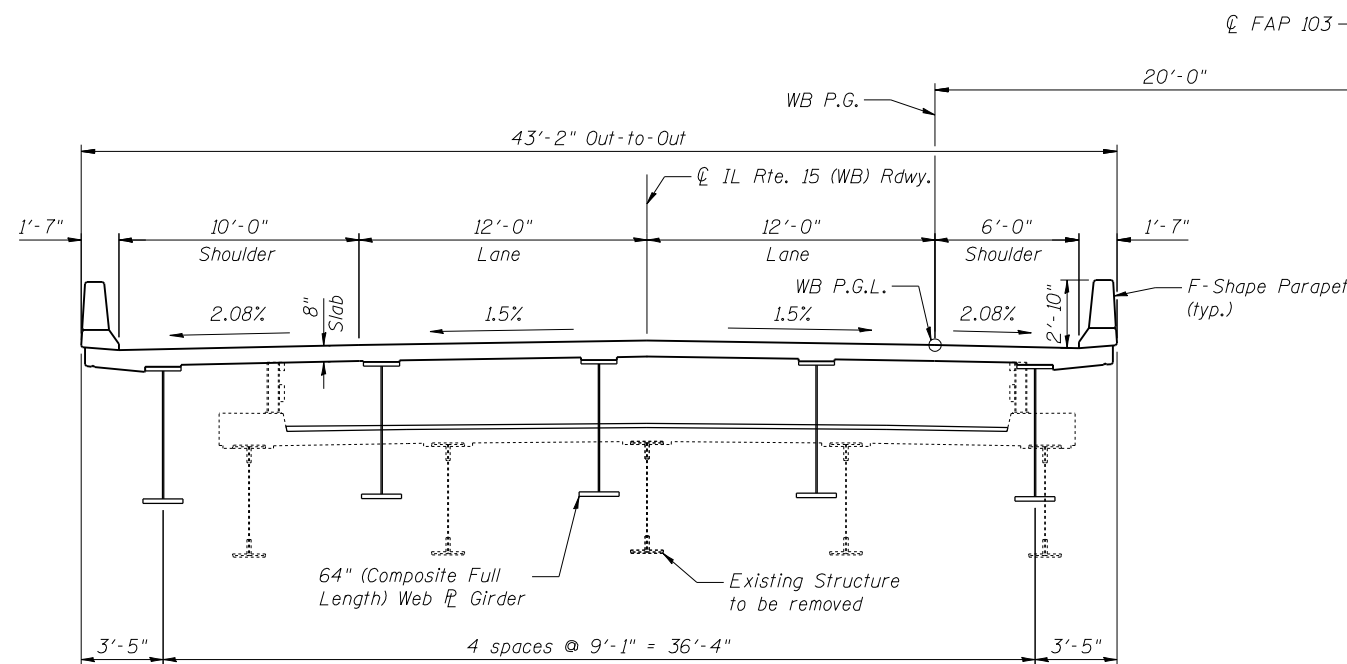
CONTRACT NO. 76884
ILLINOIS FED. AID PROJECT



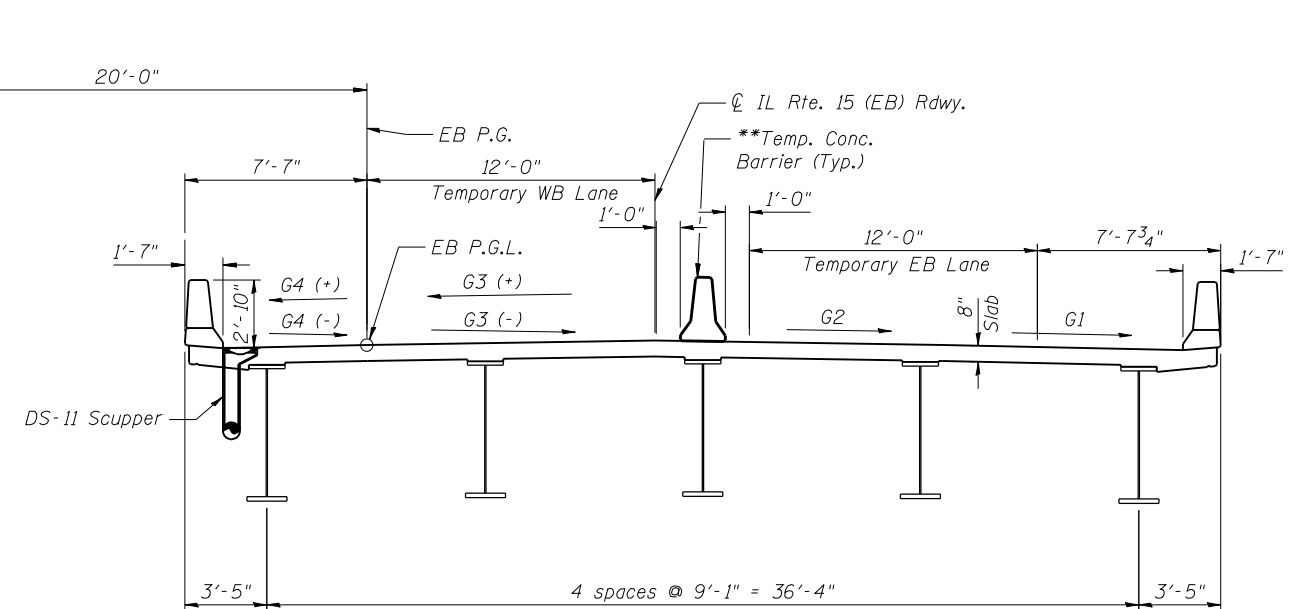
STAGE I REMOVAL & CONSTRUCTION
(Looking East)

STATION	G1	G2	G3	G4
Up to Sta. 707+64.2	2.08%	1.5%	1.5%	2.08%
Sta. 708+01.4	2.08%	1.5%	0%	
Sta. 708+61.4	2.08%	1.5%	-1.5%	*
Sta. 709+05.4	*	2.6%	-2.6%	
Sta. 709+57.4	3.9%	3.9%	-3.9%	-3.9%

*Uniform Transition



STAGE II REMOVAL & CONSTRUCTION
(Looking East)



**For "Temporary Concrete Barrier" see Standard 704001 & Roadway Plans

FILE NAME = 082017-0118-76884-005-StageConst.dgn



USER NAME = brazzano	DESIGNED - BTO	REVISED -
	CHECKED - RAB	REVISED -
PLOT SCALE = 8x0.0000 '1' / IN.	DRAWN - RAB	REVISED -
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED -

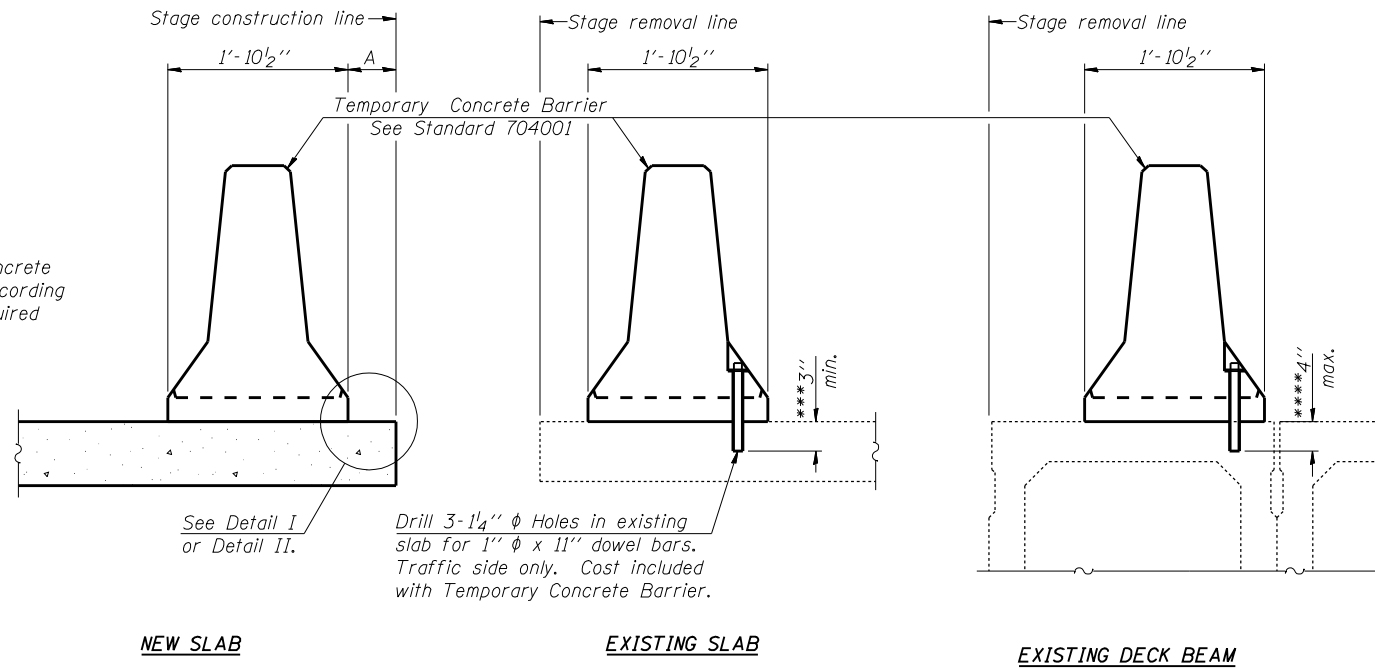
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION DECK SECTIONS
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-5 OF S-62 SHEETS

F.A.P. RTE. 103	SECTION 27-1-VHB-1	COUNTY ST. CLAIR	TOTAL SHEETS 277	SHEET NO. 120
			CONTRACT NO. 76884	
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

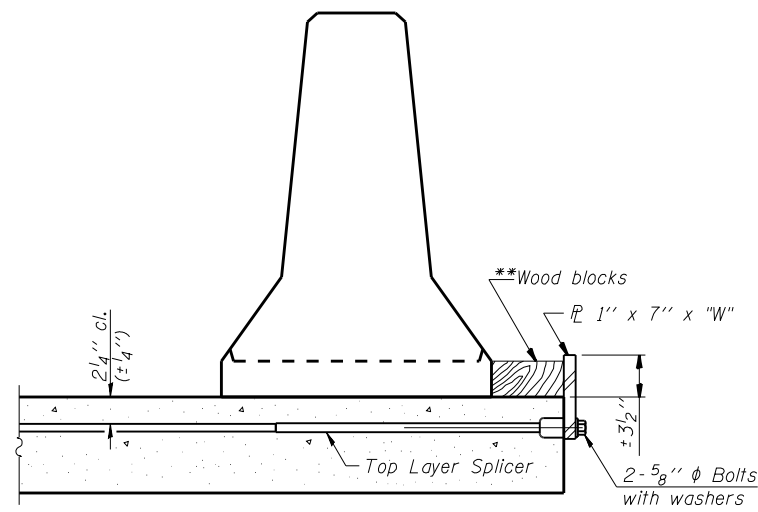
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" diameter bolts screwed to coupler at approximate center of each barrier panel.

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" diameter Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate center of each barrier panel.

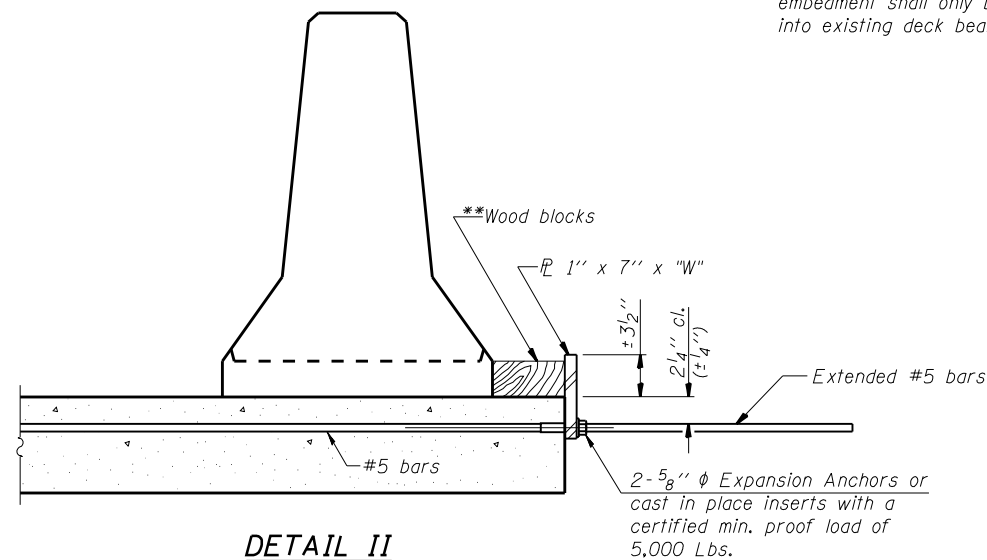
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** 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.

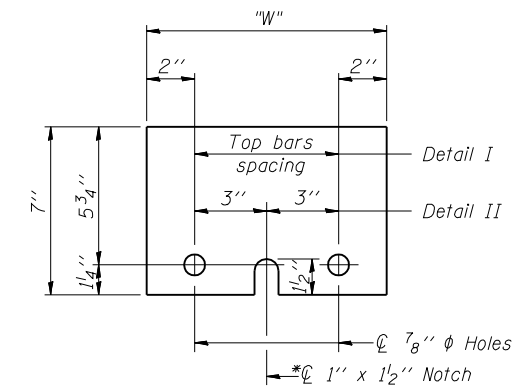
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



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



USER NAME = brazzara	DESIGNED - RAB	REVISED -
	CHECKED - JAN	REVISED -
PLOT SCALE = 0x2.0000 '1' / IN.	DRAWN - RAB	REVISED -
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED -

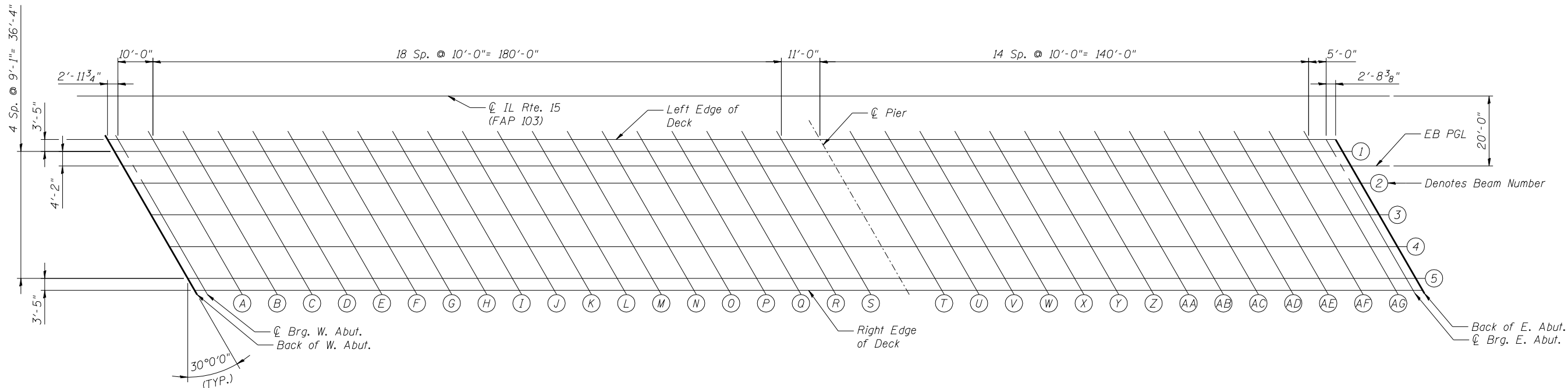
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

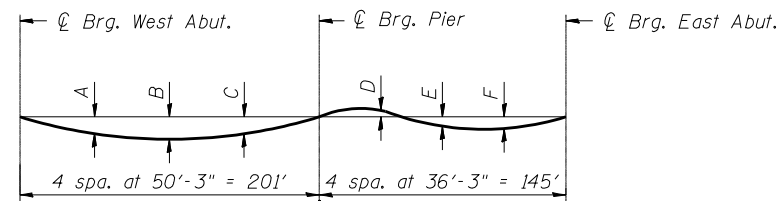
SHEET NO. S-6 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	121
			CONTRACT NO. 76884	
ILLINOIS FED. AID PROJECT				

FILE NAME = 0820117-0118-76884-006-TempConcreteBarrier.dgn



SCREED PLAN-EASTBOUND

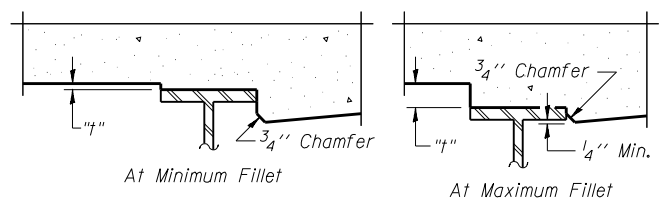


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection." Dimensions below are in inches.

GIRDER	A	B	C	D	E	F
② through ④	4 ³ / ₄	6	3 ¹ / ₈	3 ³ / ₈	1 ¹ / ₄	5 ⁵ / ₈
① and ⑤	4 ¹ / ₂	5 ⁵ / ₈	3	3 ³ / ₈	1 ¹ / ₈	1 ¹ / ₂



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets S-8 & S-9 of S-62, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

FILE NAME = 0820117-0118-76884-007-ScreedPlanEB.dgn



USER NAME = brozzano	DESIGNED - RAB	REVISED -
	CHECKED - BTO	REVISED -
PLOT SCALE = 32:0.0000 '1' / IN.	DRAWN - RAB	REVISED -
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK ELEVATION PLAN EASTBOUND
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-7 OF S-62 SHEETS

F.A.P. RTE. 103	SECTION 27-1-VHB-1	COUNTY ST. CLAIR	TOTAL SHEETS 277	SHEET NO. 122
			CONTRACT NO. 76884	
ILLINOIS FED. AID PROJECT				

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	705+19.93	15.83	495.97	495.97
€ Brg. W. Abut.	705+22.91	15.83	496.00	496.00
A	705+32.91	15.83	496.08	496.17
B	705+42.91	15.83	496.16	496.33
C	705+52.91	15.83	496.23	496.47
D	705+62.91	15.83	496.29	496.61
E	705+72.91	15.83	496.35	496.72
F	705+82.91	15.83	496.40	496.83
G	705+92.91	15.83	496.45	496.90
H	706+02.91	15.83	496.49	496.96
I	706+12.91	15.83	496.52	497.00
J	706+22.91	15.83	496.55	497.02
K	706+32.91	15.83	496.57	497.01
L	706+42.91	15.83	496.59	497.00
M	706+52.91	15.83	496.60	496.96
N	706+62.91	15.83	496.60	496.91
O	706+72.91	15.83	496.60	496.85
P	706+82.91	15.83	496.59	496.79
Q	706+92.91	15.83	496.58	496.72
R	707+02.91	15.83	496.56	496.64
S	707+12.91	15.83	496.53	496.58
€ Brg. Pier	707+23.92	15.83	496.50	496.50
T	707+33.92	15.83	496.46	496.44
U	707+43.92	15.83	496.41	496.38
V	707+53.92	15.83	496.36	496.33
W	707+63.92	15.83	496.31	496.28
X	707+73.92	15.83	496.26	496.24
Y	707+83.92	15.83	496.20	496.19
Z	707+93.92	15.83	496.14	496.15
AA	708+03.92	15.83	496.07	496.09
AB	708+13.92	15.83	496.00	496.03
AC	708+23.92	15.83	495.92	495.96
AD	708+33.92	15.83	495.83	495.87
AE	708+43.92	15.83	495.74	495.77
AF	708+53.92	15.83	495.64	495.67
AG	708+63.92	15.83	495.54	495.55
€ Brg. E. Abut.	708+68.92	15.83	495.49	495.49
Back of E. Abut.	708+71.61	15.83	495.46	495.46

PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	705+22.34	20.00	496.08	496.08
€ Brg. W. Abut.	705+25.32	20.00	496.11	496.11
A	705+35.32	20.00	496.19	496.28
B	705+45.32	20.00	496.26	496.44
C	705+55.32	20.00	496.33	496.59
D	705+65.32	20.00	496.39	496.73
E	705+75.32	20.00	496.45	496.85
F	705+85.32	20.00	496.50	496.95
G	705+95.32	20.00	496.54	497.02
H	706+05.32	20.00	496.58	497.09
I	706+15.32	20.00	496.62	497.12
J	706+25.32	20.00	496.64	497.14
K	706+35.32	20.00	496.66	497.13
L	706+45.32	20.00	496.68	497.11
M	706+55.32	20.00	496.69	497.07
N	706+65.32	20.00	496.69	497.02
O	706+75.32	20.00	496.68	496.95
P	706+85.32	20.00	496.68	496.88
Q	706+95.32	20.00	496.66	496.81
R	707+05.32	20.00	496.64	496.73
S	707+15.32	20.00	496.61	496.66
€ Brg. Pier	707+26.33	20.00	496.57	496.57
T	707+36.33	20.00	496.53	496.51
U	707+46.33	20.00	496.49	496.46
V	707+56.33	20.00	496.44	496.40
W	707+66.33	20.00	496.38	496.35
X	707+76.33	20.00	496.31	496.30
Y	707+86.33	20.00	496.24	496.25
Z	707+96.33	20.00	496.17	496.19
AA	708+06.33	20.00	496.09	496.12
AB	708+16.33	20.00	496.00	496.04
AC	708+26.33	20.00	495.91	495.96
AD	708+36.33	20.00	495.81	495.85
AE	708+46.33	20.00	495.70	495.74
AF	708+56.33	20.00	495.59	495.62
AG	708+66.33	20.00	495.47	495.48
€ Brg. E. Abut.	708+71.32	20.00	495.41	495.41
Back of E. Abut.	708+74.02	20.00	495.37	495.37

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	705+25.18	24.92	496.18	496.18
€ Brg. W. Abut.	705+28.16	24.92	496.20	496.20
A	705+38.16	24.92	496.28	496.37
B	705+48.16	24.92	496.35	496.54
C	705+58.16	24.92	496.42	496.68
D	705+68.16	24.92	496.48	496.82
E	705+78.16	24.92	496.54	496.93
F	705+88.16	24.92	496.59	497.04
G	705+98.16	24.92	496.63	497.11
H	706+08.16	24.92	496.67	497.17
I	706+18.16	24.92	496.70	497.20
J	706+28.16	24.92	496.72	497.22
K	706+38.16	24.92	496.74	497.21
L	706+48.16	24.92	496.75	497.19
M	706+58.16	24.92	496.76	497.14
N	706+68.16	24.92	496.76	497.09
O	706+78.16	24.92	496.76	497.03
P	706+88.16	24.92	496.75	496.95
Q	706+98.16	24.92	496.73	496.88
R	707+08.16	24.92	496.71	496.80
S	707+18.16	24.92	496.68	496.72
€ Brg. Pier	707+29.17	24.92	496.64	496.64
T	707+39.17	24.92	496.60	496.58
U	707+49.17	24.92	496.55	496.52
V	707+59.17	24.92	496.49	496.46
W	707+69.17	24.92	496.43	496.40
X	707+79.17	24.92	496.34	496.32
Y	707+89.17	24.92	496.25	496.25
Z	707+99.17	24.92	496.15	496.17
AA	708+09.17	24.92	496.05	496.09
AB	708+19.17	24.92	495.95	496.00
AC	708+29.17	24.92	495.84	495.89
AD	708+39.17	24.92	495.73	495.78
AE	708+49.17	24.92	495.61	495.65
AF	708+59.17	24.92	495.48	495.51
AG	708+69.17	24.92	495.35	495.36
€ Brg. E. Abut.	708+74.16	24.92	495.28	495.28
Back of E. Abut.	708+76.86	24.92	495.25	495.25

FILE NAME = 082017-0118-76884-008-DeckElev.EB.dgn



USER NAME = brozzano	DESIGNED - RAB	REVISED - ---
	CHECKED - BTO	REVISED - ---
PLOT SCALE = 0x2.0000 '1' / IN.	DRAWN - RAB	REVISED - ---
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED - ---

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK ELEVATIONS EASTBOUND
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-8 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	123
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	705+30.42	34.00	496.30	496.30
⊖ Brg. W. Abut.	705+33.40	34.00	496.32	496.32
A	705+43.40	34.00	496.40	496.49
B	705+53.40	34.00	496.47	496.65
C	705+63.40	34.00	496.53	496.79
D	705+73.40	34.00	496.59	496.93
E	705+83.40	34.00	496.64	497.04
F	705+93.40	34.00	496.69	497.14
G	706+03.40	34.00	496.73	497.20
H	706+13.40	34.00	496.76	497.26
I	706+23.40	34.00	496.79	497.29
J	706+33.40	34.00	496.81	497.31
K	706+43.40	34.00	496.82	497.29
L	706+53.40	34.00	496.83	497.27
M	706+63.40	34.00	496.84	497.22
N	706+73.40	34.00	496.84	497.17
O	706+83.40	34.00	496.83	497.10
P	706+93.40	34.00	496.81	497.02
Q	707+03.40	34.00	496.79	496.94
R	707+13.40	34.00	496.77	496.86
S	707+23.40	34.00	496.74	496.78
⊖ Brg. Pier	707+34.41	34.00	496.69	496.69
T	707+44.41	34.00	496.65	496.63
U	707+54.41	34.00	496.60	496.57
V	707+64.41	34.00	496.54	496.50
W	707+74.41	34.00	496.43	496.40
X	707+84.41	34.00	496.31	496.30
Y	707+94.41	34.00	496.19	496.19
Z	708+04.41	34.00	496.06	496.08
AA	708+14.41	34.00	495.95	495.98
AB	708+24.41	34.00	495.82	495.87
AC	708+34.41	34.00	495.70	495.75
AD	708+44.41	34.00	495.56	495.61
AE	708+54.41	34.00	495.42	495.46
AF	708+64.41	34.00	495.27	495.30
AG	708+74.41	34.00	495.11	495.12
⊖ Brg. E. Abut.	708+79.41	34.00	495.03	495.03
Back of E. Abut.	708+82.10	34.00	494.99	494.99

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	705+35.67	43.08	496.20	496.20
⊖ Brg. W. Abut.	705+38.65	43.08	496.23	496.23
A	705+48.65	43.08	496.30	496.39
B	705+58.65	43.08	496.36	496.55
C	705+68.65	43.08	496.43	496.69
D	705+78.65	43.08	496.48	496.82
E	705+88.65	43.08	496.53	496.93
F	705+98.65	43.08	496.57	497.02
G	706+08.65	43.08	496.61	497.09
H	706+18.65	43.08	496.64	497.14
I	706+28.65	43.08	496.66	497.16
J	706+38.65	43.08	496.68	497.18
K	706+48.65	43.08	496.69	497.16
L	706+58.65	43.08	496.70	497.14
M	706+68.65	43.08	496.70	497.08
N	706+78.65	43.08	496.70	497.03
O	706+88.65	43.08	496.68	496.95
P	706+98.65	43.08	496.67	496.87
Q	707+08.65	43.08	496.64	496.79
R	707+18.65	43.08	496.61	496.70
S	707+28.65	43.08	496.58	496.63
⊖ Brg. Pier	707+39.66	43.08	496.53	496.53
T	707+49.66	43.08	496.49	496.47
U	707+59.66	43.08	496.43	496.40
V	707+69.66	43.08	496.35	496.31
W	707+79.66	43.08	496.23	496.20
X	707+89.66	43.08	496.11	496.10
Y	707+99.66	43.08	495.98	495.98
Z	708+09.66	43.08	495.87	495.88
AA	708+19.66	43.08	495.75	495.78
AB	708+29.66	43.08	495.62	495.67
AC	708+39.66	43.08	495.49	495.54
AD	708+49.66	43.08	495.35	495.40
AE	708+59.66	43.08	495.21	495.25
AF	708+69.66	43.08	495.03	495.06
AG	708+79.66	43.08	494.85	494.86
⊖ Brg. E. Abut.	708+84.65	43.08	494.76	494.76
Back of E. Abut.	708+87.35	43.08	494.71	494.71

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	705+40.91	52.17	496.06	496.06
⊖ Brg. W. Abut.	705+43.89	52.17	496.08	496.08
A	705+53.89	52.17	496.15	496.24
B	705+63.89	52.17	496.21	496.39
C	705+73.89	52.17	496.27	496.52
D	705+83.89	52.17	496.32	496.64
E	705+93.89	52.17	496.37	496.74
F	706+03.89	52.17	496.41	496.83
G	706+13.89	52.17	496.44	496.89
H	706+23.89	52.17	496.47	496.95
I	706+33.89	52.17	496.49	496.96
J	706+43.89	52.17	496.51	496.98
K	706+53.89	52.17	496.51	496.96
L	706+63.89	52.17	496.52	496.93
M	706+73.89	52.17	496.52	496.88
N	706+83.89	52.17	496.51	496.82
O	706+93.89	52.17	496.49	496.75
P	707+03.89	52.17	496.47	496.67
Q	707+13.89	52.17	496.45	496.59
R	707+23.89	52.17	496.41	496.50
S	707+33.89	52.17	496.37	496.42
⊖ Brg. Pier	707+44.90	52.17	496.33	496.33
T	707+54.90	52.17	496.27	496.25
U	707+64.90	52.17	496.21	496.18
V	707+74.90	52.17	496.10	496.07
W	707+84.90	52.17	495.99	495.95
X	707+94.90	52.17	495.86	495.84
Y	708+04.90	52.17	495.74	495.73
Z	708+14.90	52.17	495.62	495.63
AA	708+24.90	52.17	495.50	495.52
AB	708+34.90	52.17	495.37	495.40
AC	708+44.90	52.17	495.23	495.27
AD	708+54.90	52.17	495.09	495.13
AE	708+64.90	52.17	494.93	494.96
AF	708+74.90	52.17	494.73	494.75
AG	708+84.90	52.17	494.53	494.54
⊖ Brg. E. Abut.	708+89.89	52.17	494.42	494.42
Back of E. Abut.	708+92.59	52.17	494.37	494.37

FILE NAME = 082017-0118-76884-009-DeckElev.EB.dgn

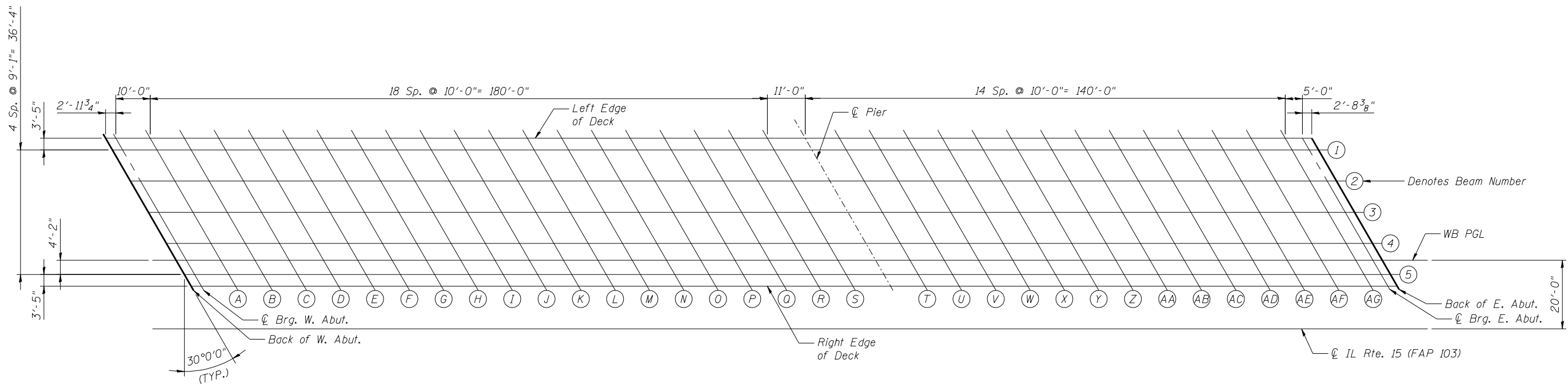


USER NAME = brazzera	DESIGNED - RAB	REVISED - ---
	CHECKED - BTO	REVISED - ---
PLOT SCALE = 0:2.0000 '1' / IN.	DRAWN - RAB	REVISED - ---
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED - ---

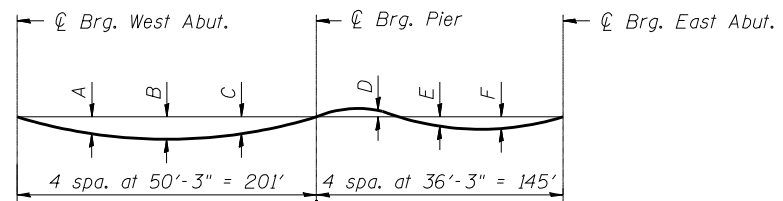
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK ELEVATIONS EASTBOUND
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	124
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



SCREED PLAN-WESTBOUND

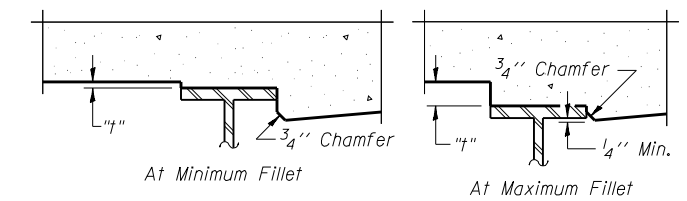


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection." Dimensions below are in inches.

GIRDER	A	B	C	D	E	F
② through ④	4 ³ / ₈	6	3 ¹ / ₈	3 ³ / ₈	1 ¹ / ₄	5 ⁵ / ₈
① and ⑤	4 ¹ / ₂	5 ⁵ / ₈	3	3 ³ / ₈	1 ¹ / ₈	1 ¹ / ₂



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets S-11 & S-12 of S-62, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

FILE NAME = 082017-0118-76884-010-ScreeedPlanWB.dgn



USER NAME = brozzano	DESIGNED - RAB	REVISED -
PLOT SCALE = 32:0.0000 '1' / IN.	CHECKED - BTO	REVISED -
PLOT DATE = 10/19/2011	DRAWN - RAB	REVISED -
	CHECKED - JAN	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK ELEVATION PLAN WESTBOUND
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-10 OF S-62 SHEETS

F.A.P. RTE. 103	SECTION 27-1-VHB-1	COUNTY ST. CLAIR	TOTAL SHEETS 277	SHEET NO. 125
CONTRACT NO. 76884				

ILLINOIS FED. AID PROJECT

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	703+71.65	-52.17	496.24	496.24
€ Brg. W. Abut.	703+74.63	-52.17	496.28	496.28
A	703+84.63	-52.17	496.42	496.51
B	703+94.63	-52.17	496.55	496.72
C	704+04.63	-52.17	496.67	496.92
D	704+14.63	-52.17	496.79	497.11
E	704+24.63	-52.17	496.90	497.27
F	704+34.63	-52.17	497.00	497.43
G	704+44.63	-52.17	497.10	497.55
H	704+54.63	-52.17	497.19	497.67
I	704+64.63	-52.17	497.28	497.75
J	704+74.63	-52.17	497.36	497.83
K	704+84.63	-52.17	497.43	497.88
L	704+94.63	-52.17	497.50	497.92
M	705+04.63	-52.17	497.57	497.93
N	705+14.63	-52.17	497.62	497.94
O	705+24.63	-52.17	497.67	497.93
P	705+34.63	-52.17	497.72	497.91
Q	705+44.63	-52.17	497.76	497.90
R	705+54.63	-52.17	497.79	497.87
S	705+64.63	-52.17	497.81	497.86
€ Brg. Pier	705+75.63	-52.17	497.84	497.84
T	705+85.63	-52.17	497.85	497.83
U	705+95.63	-52.17	497.86	497.83
V	706+05.63	-52.17	497.86	497.82
W	706+15.63	-52.17	497.86	497.83
X	706+25.63	-52.17	497.85	497.83
Y	706+35.63	-52.17	497.83	497.82
Z	706+45.63	-52.17	497.81	497.82
AA	706+55.63	-52.17	497.78	497.80
AB	706+65.63	-52.17	497.74	497.78
AC	706+75.63	-52.17	497.70	497.74
AD	706+85.63	-52.17	497.66	497.70
AE	706+95.63	-52.17	497.61	497.64
AF	707+05.63	-52.17	497.55	497.57
AG	707+15.63	-52.17	497.48	497.49
€ Brg. E. Abut.	707+20.63	-52.17	497.45	497.45
Back of E. Abut.	707+23.32	-52.17	497.43	497.43

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	703+76.89	-43.08	496.50	496.50
€ Brg. W. Abut.	703+79.87	-43.08	496.54	496.54
A	703+89.87	-43.08	496.67	496.76
B	703+99.87	-43.08	496.80	496.98
C	704+09.87	-43.08	496.92	497.18
D	704+19.87	-43.08	497.03	497.37
E	704+29.87	-43.08	497.14	497.53
F	704+39.87	-43.08	497.24	497.69
G	704+49.87	-43.08	497.33	497.81
H	704+59.87	-43.08	497.42	497.93
I	704+69.87	-43.08	497.51	498.01
J	704+79.87	-43.08	497.58	498.08
K	704+89.87	-43.08	497.66	498.12
L	704+99.87	-43.08	497.72	498.15
M	705+09.87	-43.08	497.78	498.16
N	705+19.87	-43.08	497.83	498.16
O	705+29.87	-43.08	497.88	498.15
P	705+39.87	-43.08	497.92	498.13
Q	705+49.87	-43.08	497.96	498.11
R	705+59.87	-43.08	497.99	498.08
S	705+69.87	-43.08	498.01	498.06
€ Brg. Pier	705+80.87	-43.08	498.03	498.03
T	705+90.87	-43.08	498.04	498.02
U	706+00.87	-43.08	498.04	498.01
V	706+10.87	-43.08	498.04	498.01
W	706+20.87	-43.08	498.03	498.01
X	706+30.87	-43.08	498.02	498.01
Y	706+40.87	-43.08	498.00	498.00
Z	706+50.87	-43.08	497.98	497.99
AA	706+60.87	-43.08	497.95	497.98
AB	706+70.87	-43.08	497.91	497.95
AC	706+80.87	-43.08	497.86	497.91
AD	706+90.87	-43.08	497.81	497.86
AE	707+00.87	-43.08	497.76	497.80
AF	707+10.87	-43.08	497.70	497.73
AG	707+20.87	-43.08	497.63	497.64
€ Brg. E. Abut.	707+25.87	-43.08	497.59	497.59
Back of E. Abut.	707+28.56	-43.08	497.57	497.57

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	703+82.14	-34.00	496.71	496.71
€ Brg. W. Abut.	703+85.12	-34.00	496.74	496.74
A	703+95.12	-34.00	496.87	496.97
B	704+05.12	-34.00	497.00	497.18
C	704+15.12	-34.00	497.11	497.37
D	704+25.12	-34.00	497.22	497.56
E	704+35.12	-34.00	497.33	497.72
F	704+45.12	-34.00	497.43	497.88
G	704+55.12	-34.00	497.52	498.00
H	704+65.12	-34.00	497.60	498.11
I	704+75.12	-34.00	497.68	498.19
J	704+85.12	-34.00	497.76	498.26
K	704+95.12	-34.00	497.83	498.29
L	705+05.12	-34.00	497.89	498.32
M	705+15.12	-34.00	497.94	498.33
N	705+25.12	-34.00	498.00	498.33
O	705+35.12	-34.00	498.04	498.31
P	705+45.12	-34.00	498.08	498.28
Q	705+55.12	-34.00	498.11	498.26
R	705+65.12	-34.00	498.14	498.23
S	705+75.12	-34.00	498.16	498.20
€ Brg. Pier	705+86.12	-34.00	498.17	498.17
T	705+96.12	-34.00	498.18	498.16
U	706+06.12	-34.00	498.18	498.15
V	706+16.12	-34.00	498.18	498.14
W	706+26.12	-34.00	498.16	498.14
X	706+36.12	-34.00	498.15	498.13
Y	706+46.12	-34.00	498.13	498.13
Z	706+56.12	-34.00	498.10	498.11
AA	706+66.12	-34.00	498.06	498.09
AB	706+76.12	-34.00	498.02	498.07
AC	706+86.12	-34.00	497.98	498.03
AD	706+96.12	-34.00	497.92	497.97
AE	707+06.12	-34.00	497.86	497.90
AF	707+16.12	-34.00	497.80	497.83
AG	707+26.12	-34.00	497.73	497.74
€ Brg. E. Abut.	707+31.12	-34.00	497.69	497.69
Back of E. Abut.	707+33.81	-34.00	497.67	497.67

FILE NAME = 082017-0118-76884-011-DeckElevWB.dgn



USER NAME = brozzera	DESIGNED - RAB	REVISED - ---
	CHECKED - BTO	REVISED - ---
PLOT SCALE = 0x2.0000 '1' / IN.	DRAWN - RAB	REVISED - ---
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED - ---

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK ELEVATIONS WESTBOUND
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-11 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	126
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	703+87.38	-24.92	496.70	496.70
⊕ Brg. W. Abut.	703+90.36	-24.92	496.74	496.74
A	704+00.36	-24.92	496.86	496.95
B	704+10.36	-24.92	496.98	497.17
C	704+20.36	-24.92	497.09	497.36
D	704+30.36	-24.92	497.20	497.54
E	704+40.36	-24.92	497.30	497.70
F	704+50.36	-24.92	497.40	497.85
G	704+60.36	-24.92	497.49	497.97
H	704+70.36	-24.92	497.57	498.08
I	704+80.36	-24.92	497.65	498.15
J	704+90.36	-24.92	497.72	498.22
K	705+00.36	-24.92	497.78	498.25
L	705+10.36	-24.92	497.84	498.28
M	705+20.36	-24.92	497.90	498.28
N	705+30.36	-24.92	497.94	498.27
O	705+40.36	-24.92	497.98	498.25
P	705+50.36	-24.92	498.02	498.23
Q	705+60.36	-24.92	498.05	498.20
R	705+70.36	-24.92	498.07	498.16
S	705+80.36	-24.92	498.09	498.13
⊕ Brg. Pier	705+91.36	-24.92	498.10	498.10
T	706+01.36	-24.92	498.10	498.08
U	706+11.36	-24.92	498.10	498.07
V	706+21.36	-24.92	498.09	498.06
W	706+31.36	-24.92	498.08	498.05
X	706+41.36	-24.92	498.06	498.05
Y	706+51.36	-24.92	498.04	498.04
Z	706+61.36	-24.92	498.00	498.02
AA	706+71.36	-24.92	497.97	498.00
AB	706+81.36	-24.92	497.92	497.97
AC	706+91.36	-24.92	497.87	497.92
AD	707+01.36	-24.92	497.82	497.86
AE	707+11.36	-24.92	497.75	497.80
AF	707+21.36	-24.92	497.69	497.71
AG	707+31.36	-24.92	497.61	497.62
⊕ Brg. E. Abut.	707+36.35	-24.92	497.57	497.57
Back of E. Abut.	707+39.05	-24.92	497.55	497.55

PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	703+90.22	-20.00	496.66	496.66
⊕ Brg. W. Abut.	703+93.20	-20.00	496.70	496.70
A	704+03.20	-20.00	496.82	496.91
B	704+13.20	-20.00	496.94	497.12
C	704+23.20	-20.00	497.05	497.31
D	704+33.20	-20.00	497.16	497.50
E	704+43.20	-20.00	497.26	497.65
F	704+53.20	-20.00	497.35	497.80
G	704+63.20	-20.00	497.44	497.92
H	704+73.20	-20.00	497.52	498.02
I	704+83.20	-20.00	497.59	498.10
J	704+93.20	-20.00	497.66	498.16
K	705+03.20	-20.00	497.73	498.19
L	705+13.20	-20.00	497.78	498.22
M	705+23.20	-20.00	497.84	498.22
N	705+33.20	-20.00	497.88	498.21
O	705+43.20	-20.00	497.92	498.19
P	705+53.20	-20.00	497.95	498.16
Q	705+63.20	-20.00	497.98	498.13
R	705+73.20	-20.00	498.00	498.09
S	705+83.20	-20.00	498.02	498.06
⊕ Brg. Pier	705+94.20	-20.00	498.03	498.03
T	706+04.20	-20.00	498.03	498.01
U	706+14.20	-20.00	498.03	498.00
V	706+24.20	-20.00	498.02	497.98
W	706+34.20	-20.00	498.00	497.97
X	706+44.20	-20.00	497.98	497.97
Y	706+54.20	-20.00	497.95	497.95
Z	706+64.20	-20.00	497.92	497.94
AA	706+74.20	-20.00	497.88	497.91
AB	706+84.20	-20.00	497.83	497.88
AC	706+94.20	-20.00	497.78	497.83
AD	707+04.20	-20.00	497.73	497.77
AE	707+14.20	-20.00	497.66	497.70
AF	707+24.20	-20.00	497.59	497.62
AG	707+34.20	-20.00	497.52	497.53
⊕ Brg. E. Abut.	707+39.20	-20.00	497.48	497.48
Back of E. Abut.	707+41.89	-20.00	497.45	497.45

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	703+92.63	-15.83	496.61	496.61
⊕ Brg. W. Abut.	703+95.61	-15.83	496.64	496.64
A	704+05.61	-15.83	496.76	496.85
B	704+15.61	-15.83	496.88	497.05
C	704+25.61	-15.83	496.99	497.24
D	704+35.61	-15.83	497.09	497.42
E	704+45.61	-15.83	497.19	497.57
F	704+55.61	-15.83	497.29	497.71
G	704+65.61	-15.83	497.37	497.82
H	704+75.61	-15.83	497.45	497.93
I	704+85.61	-15.83	497.53	498.00
J	704+95.61	-15.83	497.59	498.06
K	705+05.61	-15.83	497.65	498.10
L	705+15.61	-15.83	497.71	498.12
M	705+25.61	-15.83	497.76	498.12
N	705+35.61	-15.83	497.80	498.12
O	705+45.61	-15.83	497.84	498.10
P	705+55.61	-15.83	497.87	498.07
Q	705+65.61	-15.83	497.90	498.04
R	705+75.61	-15.83	497.92	498.01
S	705+85.61	-15.83	497.93	497.98
⊕ Brg. Pier	705+96.61	-15.83	497.94	497.94
T	706+06.61	-15.83	497.94	497.92
U	706+16.61	-15.83	497.94	497.91
V	706+26.61	-15.83	497.93	497.89
W	706+36.61	-15.83	497.91	497.88
X	706+46.61	-15.83	497.89	497.87
Y	706+56.61	-15.83	497.86	497.85
Z	706+66.61	-15.83	497.82	497.83
AA	706+76.61	-15.83	497.78	497.80
AB	706+86.61	-15.83	497.74	497.77
AC	706+96.61	-15.83	497.68	497.72
AD	707+06.61	-15.83	497.62	497.66
AE	707+16.61	-15.83	497.56	497.59
AF	707+26.61	-15.83	497.49	497.51
AG	707+36.61	-15.83	497.41	497.42
⊕ Brg. E. Abut.	707+41.61	-15.83	497.37	497.37
Back of E. Abut.	707+44.30	-15.83	497.35	497.35

FILE NAME = 082017-0118-76884-012-DeckElev.dgn



USER NAME = brazzera	DESIGNED - RAB	REVISED -
	CHECKED - BTO	REVISED -
PLOT SCALE = 0:2.0000 '1' / IN.	DRAWN - RAB	REVISED -
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK ELEVATIONS WESTBOUND
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. 5-12 OF 5-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	127
			CONTRACT NO. 76884	
ILLINOIS FED. AID PROJECT				

NORTH EDGE OF SHOULDER

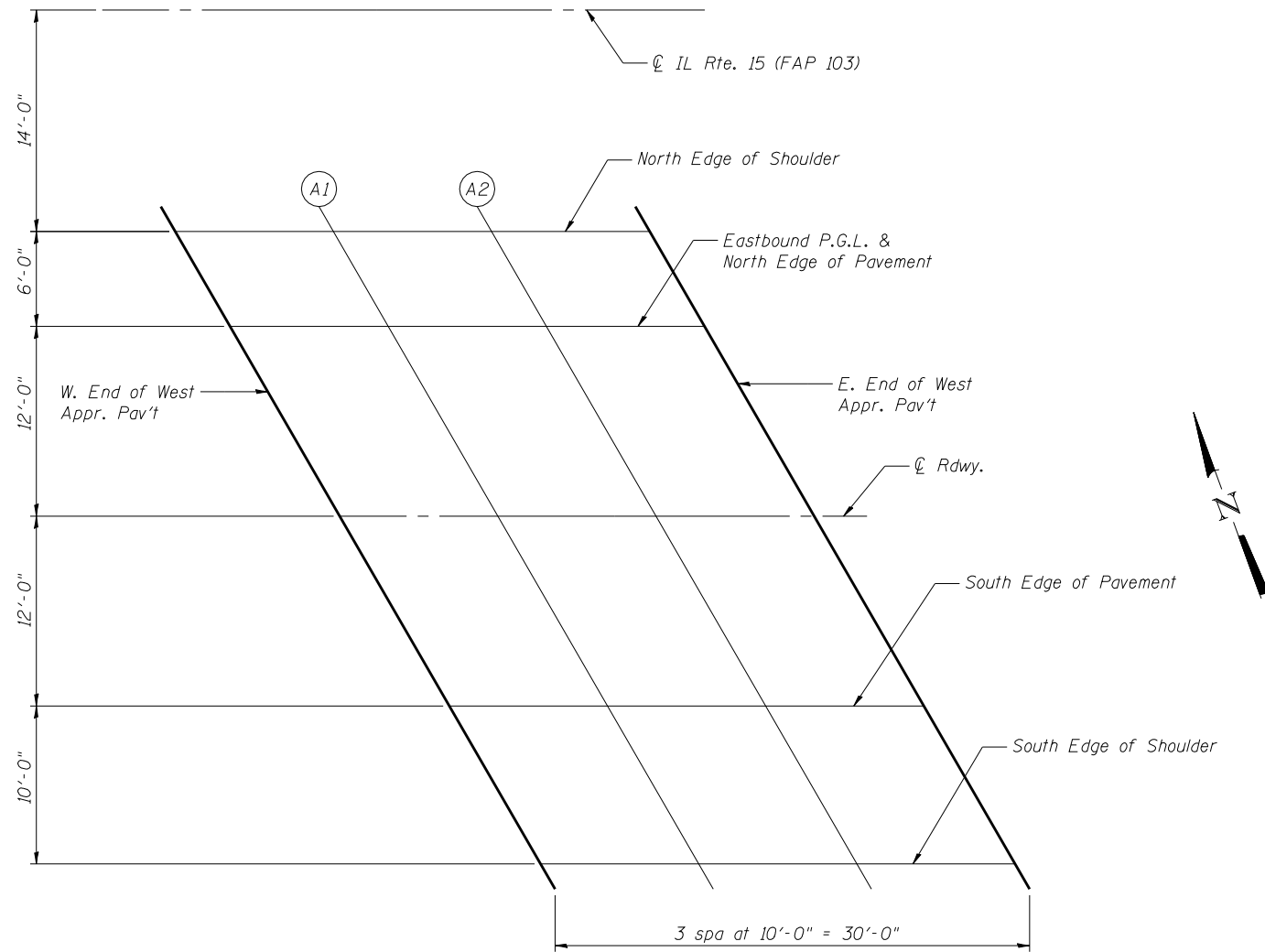
Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	704+89.84	14.00	495.65
A1	704+99.84	14.00	495.75
A2	705+09.84	14.00	495.84
E. End West Appr. Pav't	705+19.84	14.00	495.93

EASTBOUND PGL & NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	704+93.30	20.00	495.81
A1	705+03.30	20.00	495.91
A2	705+13.30	20.00	496.00
E. End West Appr. Pav't	705+23.30	20.00	496.09

☉ ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	705+00.23	32.00	496.06
A1	705+10.23	32.00	496.15
A2	705+20.23	32.00	496.24
E. End West Appr. Pav't	705+30.23	32.00	496.33



SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	705+07.16	44.00	495.94
A1	705+17.16	44.00	496.04
A2	705+27.16	44.00	496.12
E. End West Appr. Pav't	705+37.16	44.00	496.20

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	705+12.93	54.00	495.79
A1	705+22.93	54.00	495.88
A2	705+32.93	54.00	495.96
E. End West Appr. Pav't	705+42.93	54.00	496.04

PLAN
West Approach (E.B.)

E-AS1



USER NAME = brazzara	DESIGNED - RAB	REVISED -
	CHECKED - BTO	REVISED -
PLOT SCALE = 0x2.0000 '1' / IN.	DRAWN - RAB	REVISED -
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST E.B. APPROACH SLAB ELEVATIONS
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)

SHEET NO. 5-13 OF 5-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	128
			CONTRACT NO. 76884	
ILLINOIS FED. AID PROJECT				

FILE NAME = 0820117-0118-76884-013-East-Appr-ElevEB.dgn

NORTH EDGE OF SHOULDER

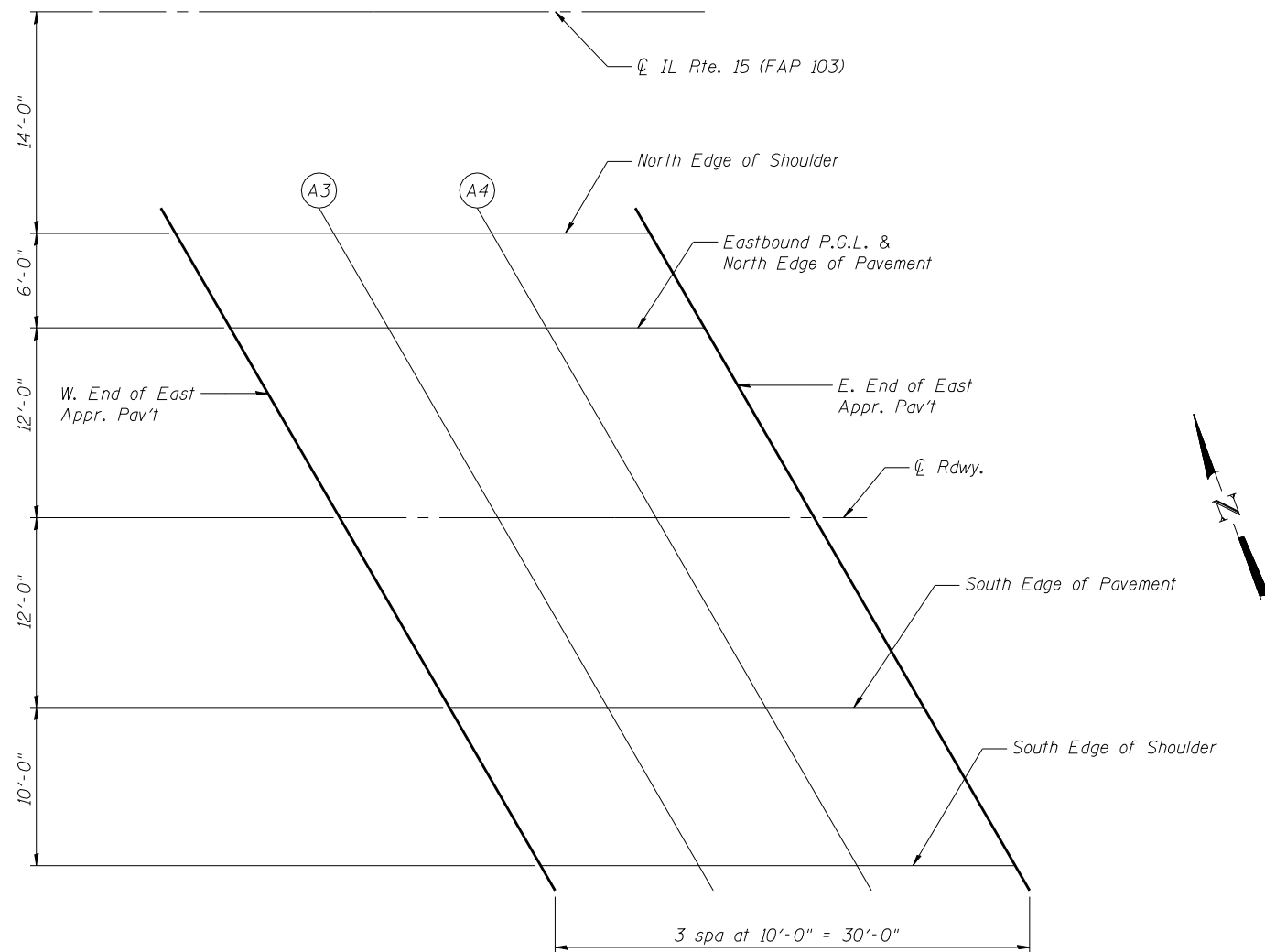
Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't	708+69.60	14.00	495.50
A3	708+79.60	14.00	495.39
A4	708+89.60	14.00	495.28
E. End East Appr. Pav't	708+99.60	14.00	495.16

EASTBOUND PGL & NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't	708+73.06	20.00	495.39
A3	708+83.06	20.00	495.26
A4	708+93.06	20.00	495.12
E. End East Appr. Pav't	709+03.06	20.00	494.98

CL ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't	708+79.99	32.00	495.06
A3	708+89.99	32.00	494.90
A4	708+99.99	32.00	494.73
E. End East Appr. Pav't	709+09.99	32.00	494.56



SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't	708+86.92	44.00	494.69
A3	708+96.92	44.00	494.50
A4	709+06.92	44.00	494.30
E. End East Appr. Pav't	709+16.92	44.00	494.09

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't	708+92.69	54.00	494.31
A3	709+02.69	54.00	494.10
A4	709+12.69	54.00	493.87
E. End East Appr. Pav't	709+22.69	54.00	493.64

PLAN
East Approach (E.B.)

E-ASI

FILE NAME = 082017-0118-76884-014-WestAppr-ElevE.B.dgn



USER NAME = brazzera	DESIGNED - RAB	REVISED -
	CHECKED - BTO	REVISED -
PLOT SCALE = 0x2.0000 '1' / IN.	DRAWN - RAB	REVISED -
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST E.B. APPROACH SLAB ELEVATIONS
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)

SHEET NO. S-14 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	129
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				

NORTH EDGE OF SHOULDER

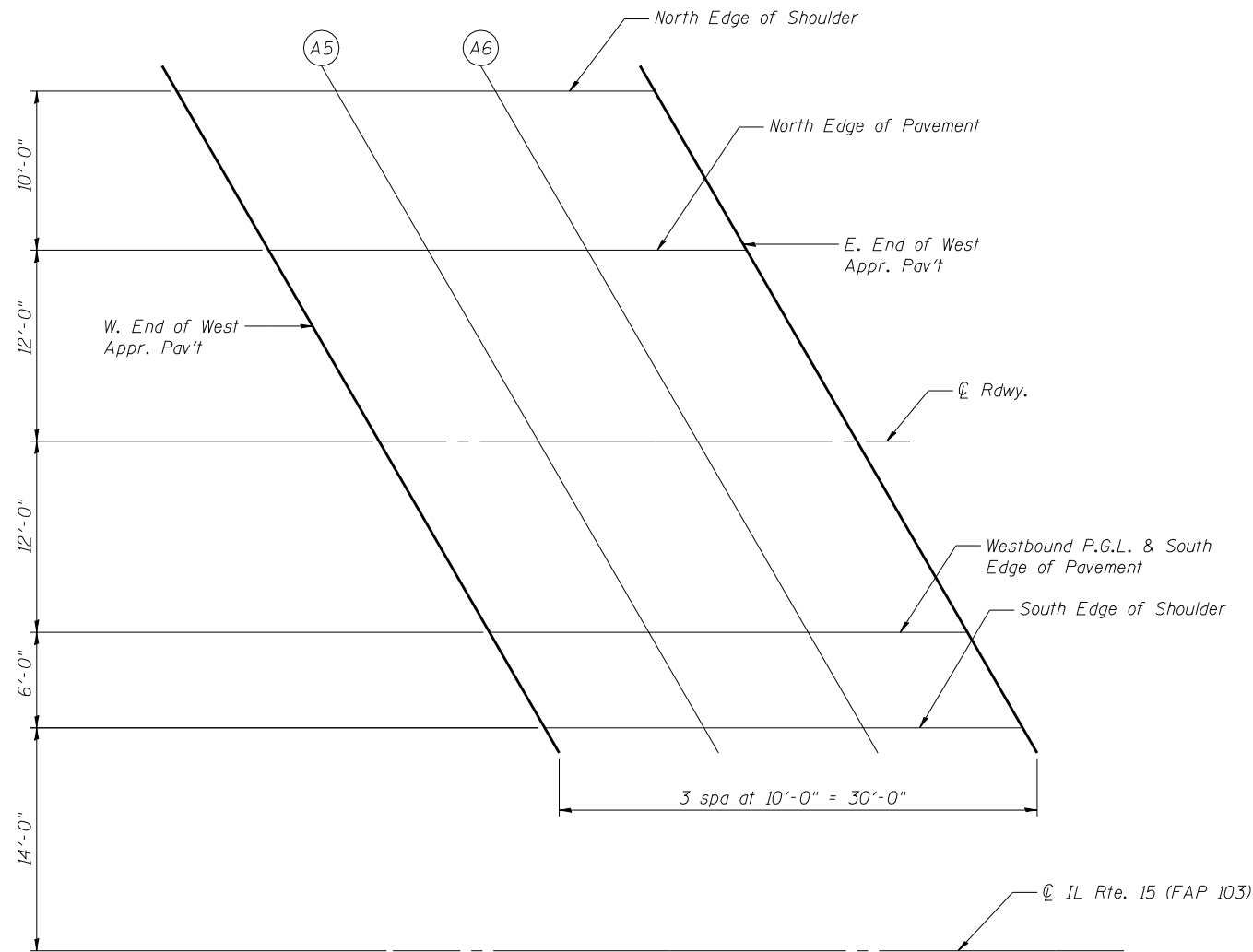
Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	703+41.55	-54.00	495.76
A5	703+51.55	-54.00	495.91
A6	703+61.55	-54.00	496.06
E. End West Appr. Pav't	703+71.55	-54.00	496.20

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	703+47.32	-44.00	496.06
A5	703+57.32	-44.00	496.21
A6	703+67.32	-44.00	496.35
E. End West Appr. Pav't	703+77.32	-44.00	496.49

CL ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	703+54.25	-32.00	496.34
A5	703+64.25	-32.00	496.49
A6	703+74.25	-32.00	496.63
E. End West Appr. Pav't	703+84.25	-32.00	496.76



WESTBOUND PGL & SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	703+61.18	-20.00	496.26
A5	703+71.18	-20.00	496.41
A6	703+81.18	-20.00	496.54
E. End West Appr. Pav't	703+91.18	-20.00	496.67

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	703+64.64	-14.00	496.19
A5	703+74.64	-14.00	496.33
A6	703+84.64	-14.00	496.46
E. End West Appr. Pav't	703+94.64	-14.00	496.59

PLAN
West Approach (W.B.)

E-ASI



USER NAME = brozzano	DESIGNED - RAB	REVISED -
	CHECKED - BTO	REVISED -
PLOT SCALE = 0x2.0000 '1' / IN.	DRAWN - BTO	REVISED -
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST W.B. APPROACH SLAB ELEVATIONS
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)

SHEET NO. 5-15 OF 5-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	130
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				

FILE NAME = 0820117-0118-76884-015-East-Appr-Elv-WB.dgn

NORTH EDGE OF SHOULDER

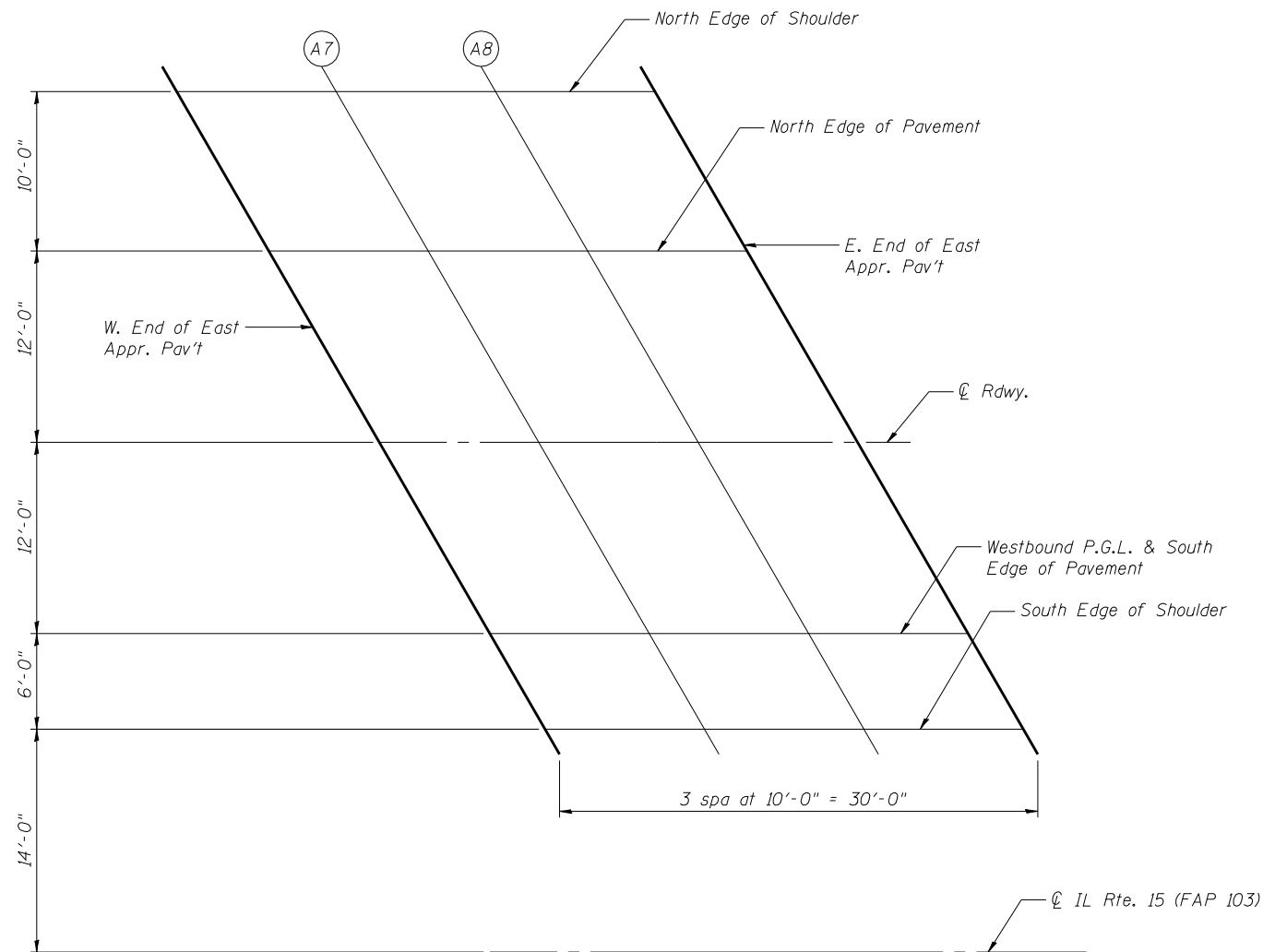
Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	707+21.30	-54.00	497.41
A7	707+31.30	-54.00	497.33
A8	707+41.30	-54.00	497.25
E. End West Appr. Pav't	707+51.30	-54.00	497.17

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	707+27.07	-44.00	497.57
A7	707+37.07	-44.00	497.49
A8	707+47.07	-44.00	497.41
E. End West Appr. Pav't	707+57.07	-44.00	497.32

CL ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	707+34.00	-32.00	497.70
A7	707+44.00	-32.00	497.62
A8	707+54.00	-32.00	497.53
E. End West Appr. Pav't	707+64.00	-32.00	497.44



WESTBOUND PGL & SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	707+40.93	-20.00	497.46
A7	707+50.93	-20.00	497.38
A8	707+60.93	-20.00	497.29
E. End West Appr. Pav't	707+70.93	-20.00	497.19

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	707+44.39	-14.00	497.31
A7	707+54.39	-14.00	497.22
A8	707+64.39	-14.00	497.13
E. End West Appr. Pav't	707+74.39	-14.00	497.03

PLAN
East Approach (W.B.)

E-AS1

FILE NAME = 0820117-0118-76884-016-WestAppr-ElvWB.dgn



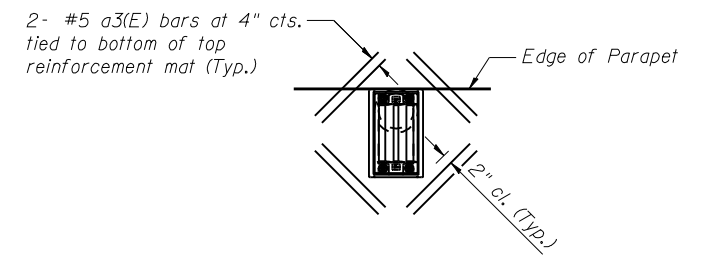
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PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

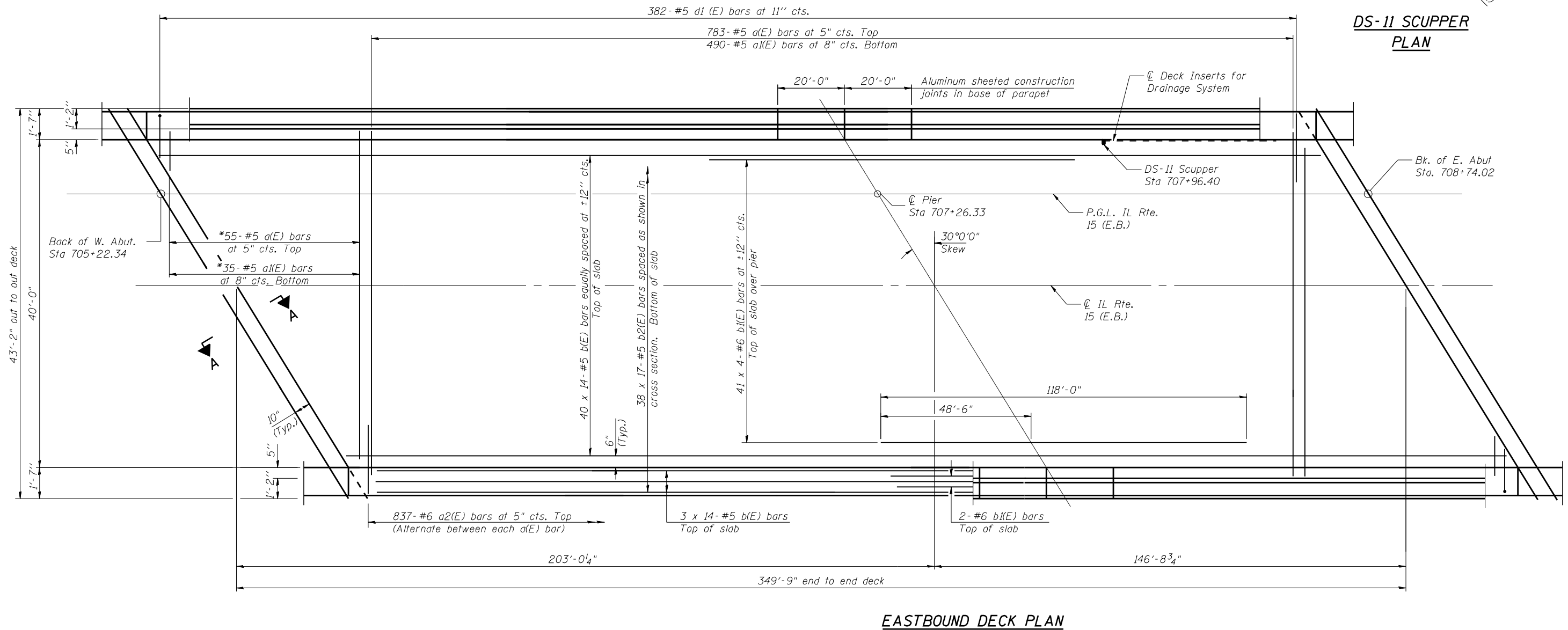
EAST W.B. APPROACH SLAB ELEVATIONS
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)

SHEET NO. 5-16 OF 5-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	131
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



**DS-II SCUPPER
PLAN**



EASTBOUND DECK PLAN

* Order a(E) and a1(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.

Min. Bar Lap
#5 Bars- 2'-7"
#6 Bars- 3'-1"

Notes:
See Sheet S-23 of S-62 for superstructure details and Bill of Material.
Bars indicated thus 40 x 14- #5 etc. indicates 40 lines of bars with 14 lengths per line.
See Sheet S-23 of S-62 for parapet reinforcement.
See Sheet S-25 of S-62 for drainage scupper details.
See Sheet S-26 of S-62 for Drainage System.
See Sheet S-21 & S-22 of S-62 for Sec. A-A and Diaphragm Details.

FILE NAME = 0820117-0118-76884-017-DeckPlanEB.dgn



USER NAME = brazzera	DESIGNED - RAB	REVISED -
	CHECKED - BTO	REVISED -
PLOT SCALE = 32:0.0000 '1' / IN.	DRAWN - RAB	REVISED -
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK PLAN EASTBOUND
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-17 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	132
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				

DECK SLOPE

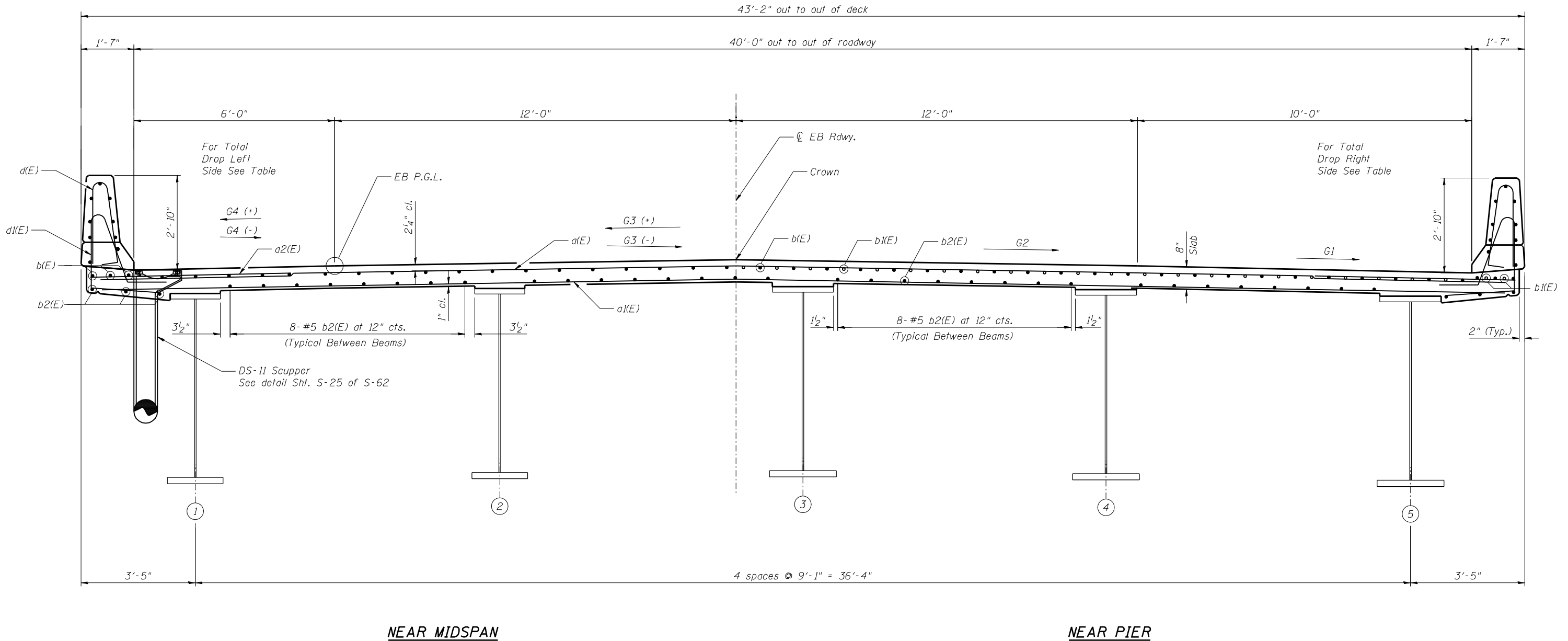
STATION	G1	G2	G3	G4
Up to Sta. 707+64.2	2.08%	1.5%	1.5%	2.08%
Sta. 708+01.4	2.08%	1.5%	0%	* ↓
Sta. 708+61.4	2.08%	1.5%	-1.5%	
Sta. 709+05.4	*	2.6%	-2.6%	
Sta. 709+57.4	3.9%	3.9%	-3.9%	-3.9%

* Uniform Transition

TOTAL DROP OF SLAB

("-" Number Indicates Rise)

STATION	LEFT SIDE	RIGHT SIDE
Up to Sta. 707+64.2	3 ⁵ / ₈ "	4 ⁵ / ₈ "
Sta. 708+01.4	5 ⁵ / ₈ "	4 ⁵ / ₈ "
Sta. 708+61.4	-2 ⁵ / ₈ "	4 ⁵ / ₈ "
Sta. 709+05.4	-5 ³ / ₈ "	7 ³ / ₈ "
Sta. 709+57.4	-8 ³ / ₈ "	10 ³ / ₈ "



EASTBOUND CROSS SECTION

(Looking East)

FILE NAME = 082017-0118-76884-01B-DeckSectionEB.dgn



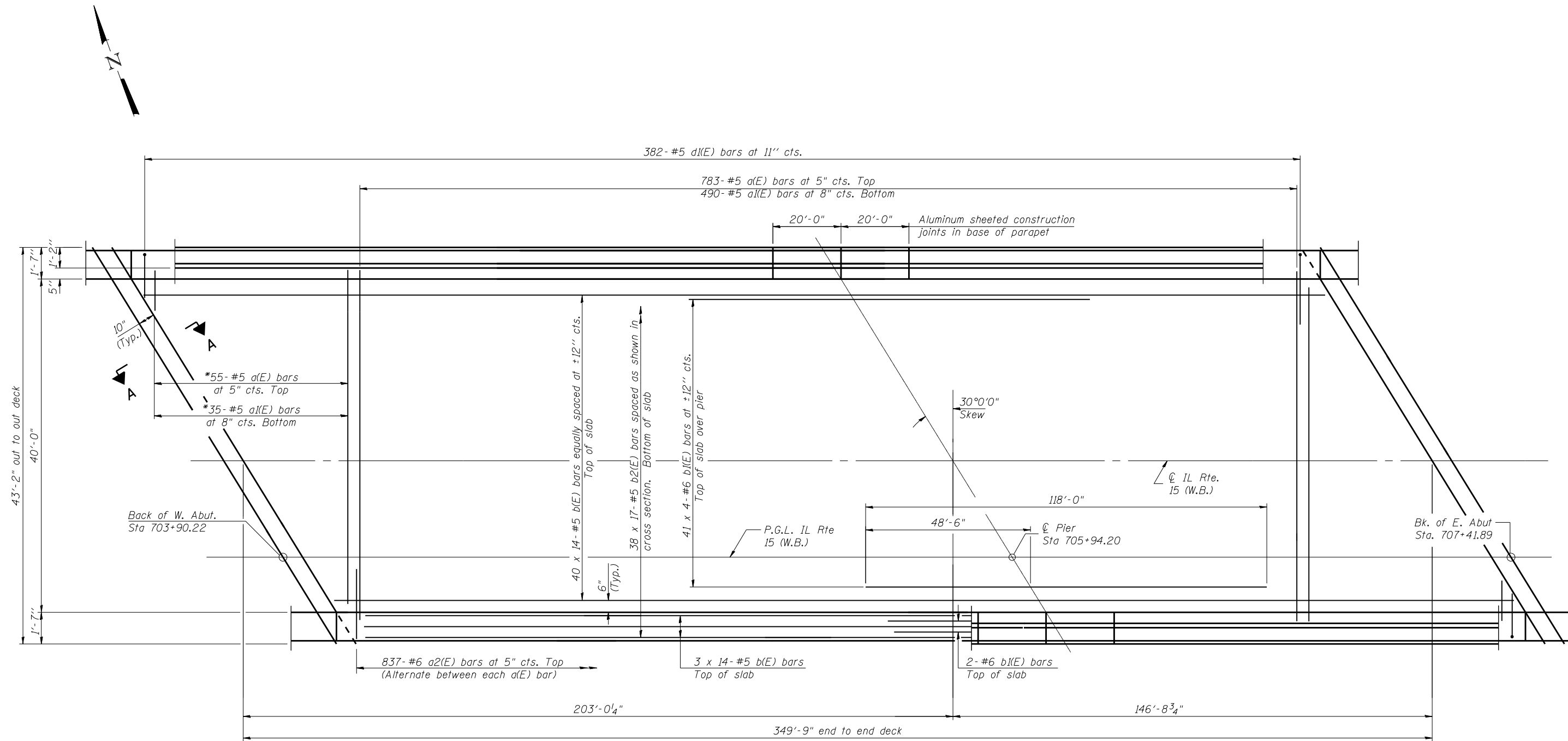
USER NAME = brazzano	DESIGNED - RAB	REVISED -
PLOT SCALE = 30.0000 '1' / IN.	CHECKED - BTO	REVISED -
PLOT DATE = 10/19/2011	DRAWN - RAB	REVISED -
	CHECKED - JAN	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK CROSS SECTION EASTBOUND
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. 5-18 OF 5-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	133
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



WESTBOUND DECK PLAN

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

Min. Bar Lap
#5 Bars- 2'-7"
#6 Bars- 3'-1"

Notes:
See Sheet S-24 of S-62 for superstructure details and Bill of Material.
Bars indicated thus 40 x 14- #5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet S-24 of S-62 for parapet reinforcement.
See Sheet S-21 & S-22 of S-62 for Sec. A-A and Diaphragm Details.

FILE NAME = 082017-0118-76884-01a-Deck PlanWB.dgn



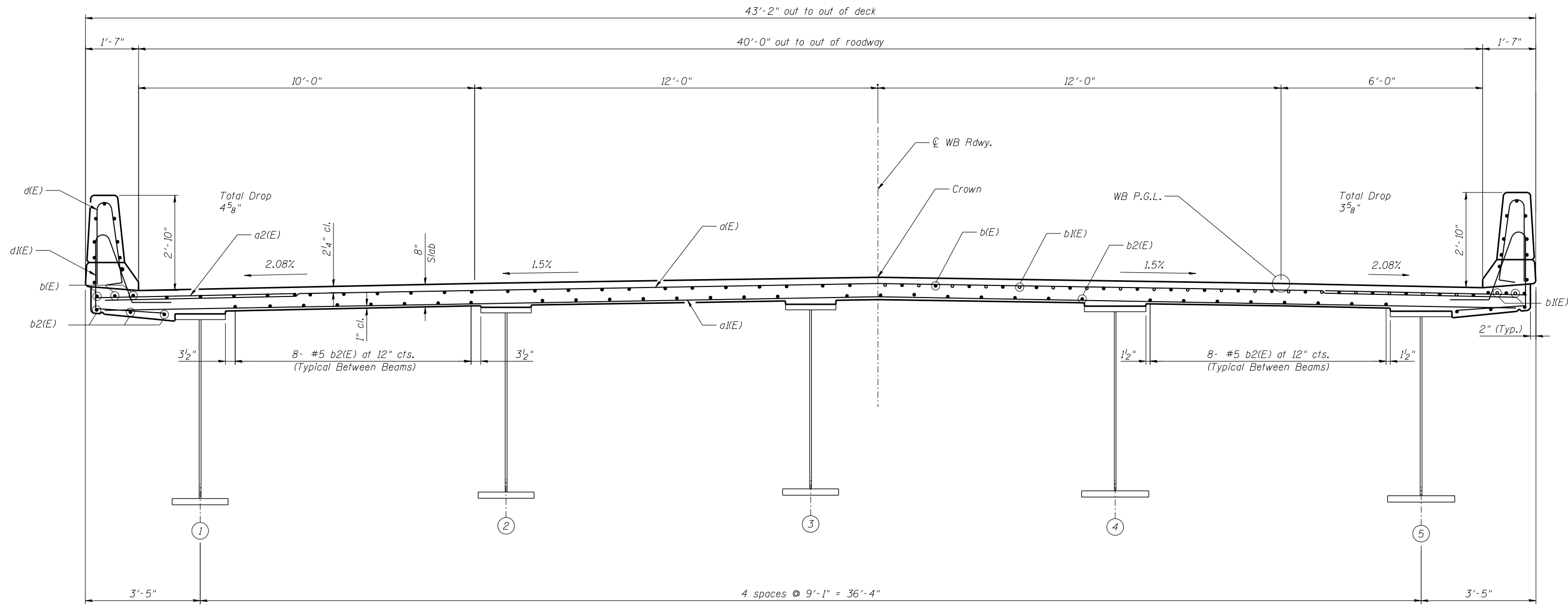
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PLOT SCALE = 32:0.0000 '1' / IN.	DRAWN - RAB	REVISED -
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK PLAN WESTBOUND
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-19 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	134
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



NEAR MIDSPAN

NEAR PIER

WESTBOUND CROSS SECTION

(Looking East)

FILE NAME = 0820117-0118-76884-020-DeckSectionWB.dgn



USER NAME = brozzaro	DESIGNED - RAB	REVISED -
	CHECKED - BTO	REVISED -
PLOT SCALE = 3/8" = 1' / IN.	DRAWN - RAB	REVISED -
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED -

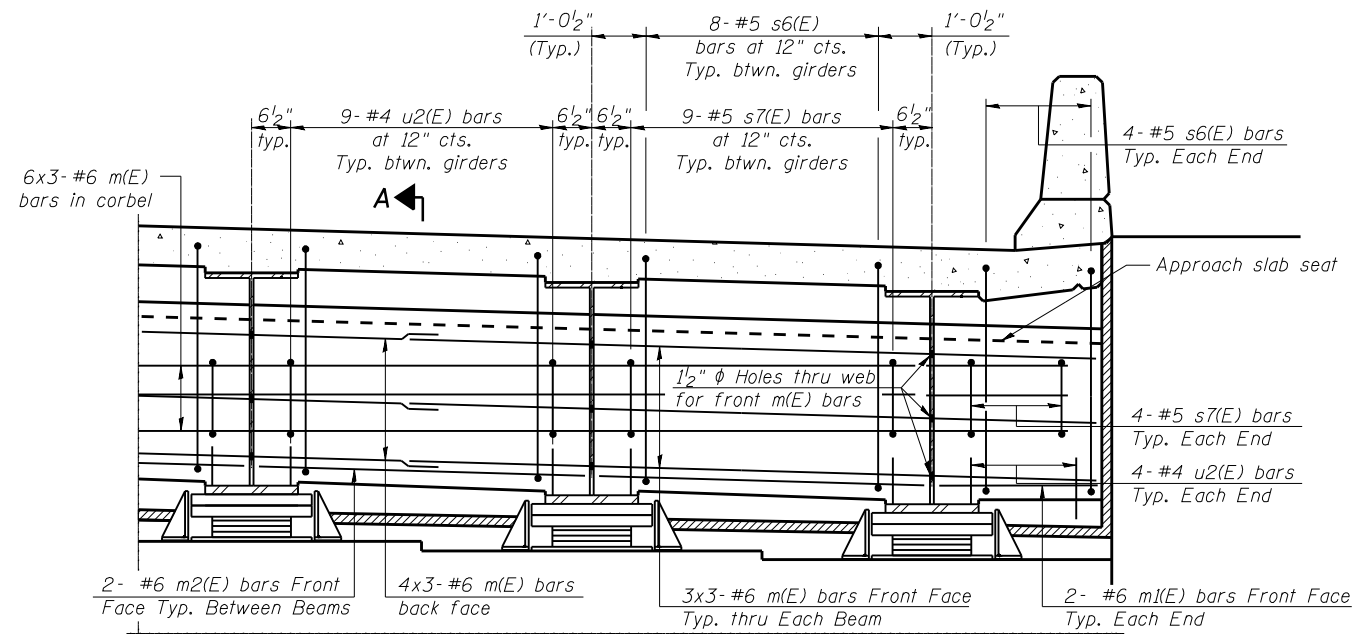
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK CROSS SECTION WESTBOUND
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

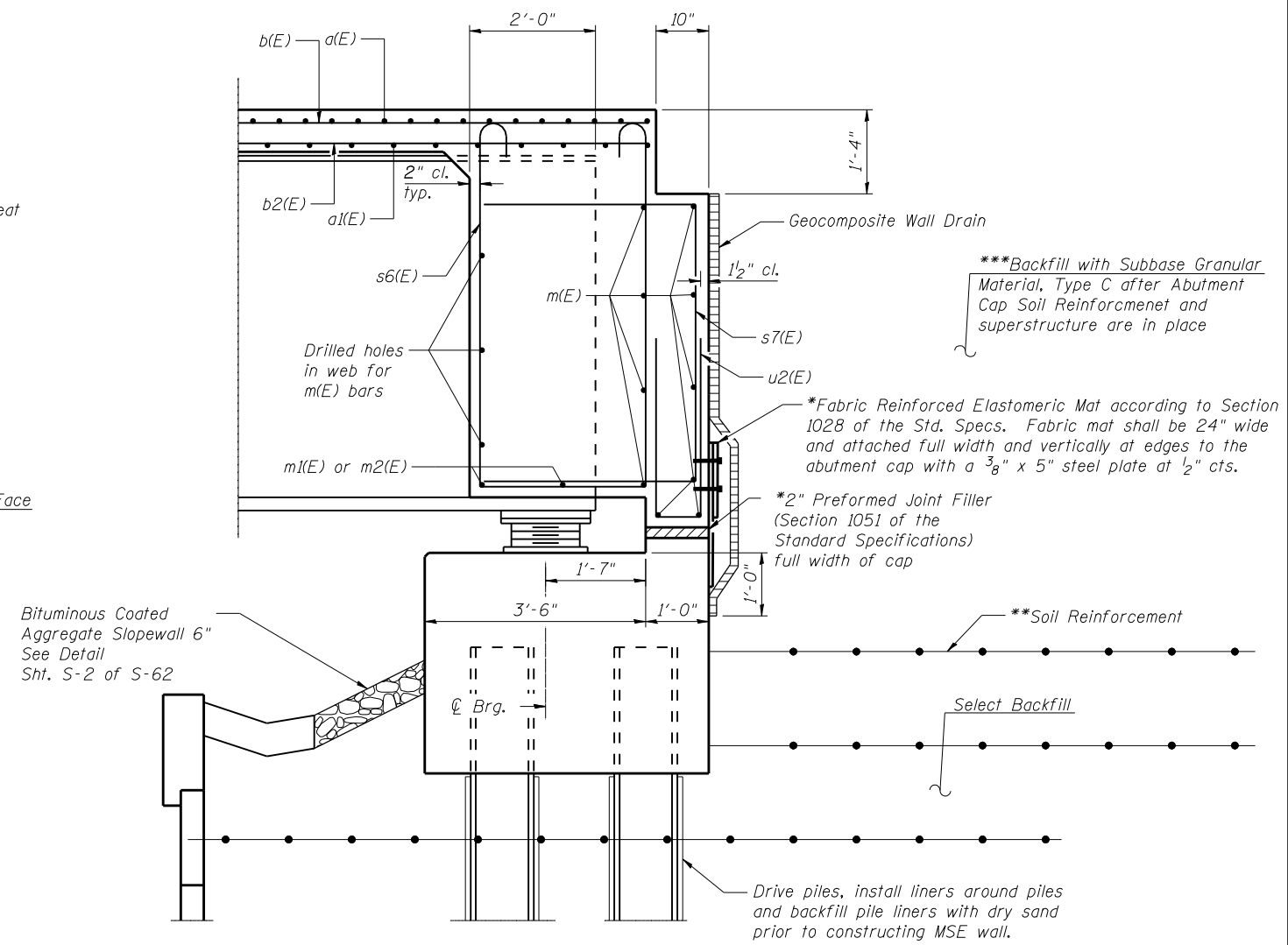
SHEET NO. S-20 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	135
CONTRACT NO. 76884				

ILLINOIS FED. AID PROJECT



DIAPHRAGM ELEVATION AT WEST ABUTMENT



SECTION A-A

Dimensions at right angles to abutment, except as shown.
* Cost included with Concrete Superstructure.

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet S-23 & S-24 of S-62.

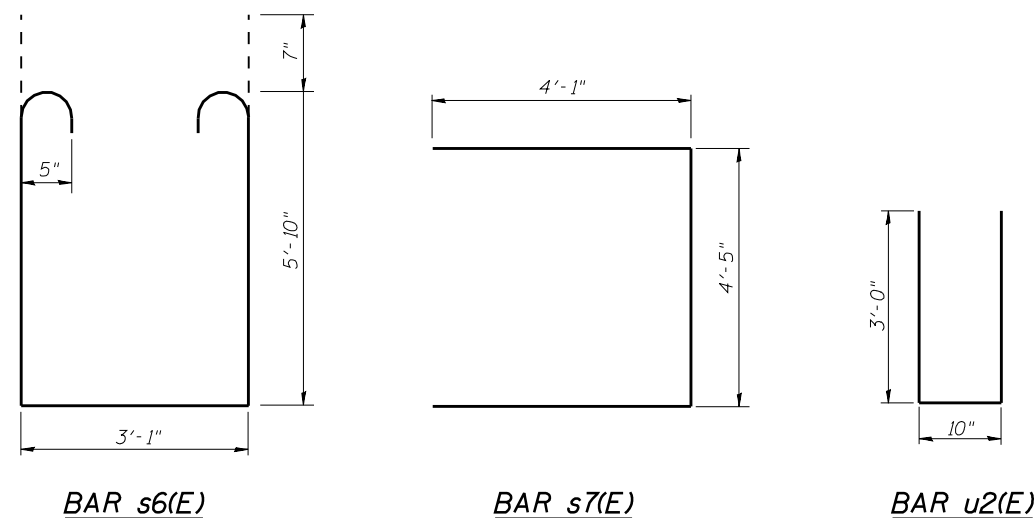
Concrete in diaphragm is included with Concrete Superstructure on sheet S-23 & S-24 of S-62.

The s6(E), s7(E) and u2(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

Bars indicated thus 4 x 3-#6 etc. indicates 4 lines of bars with 3 lengths per line.

** M.S.E. Wall Supplier shall design and supply abutment soil reinforcement to resist earth pressure of 40 pcf equivalent fluid weight applied to back of the abutment cap plus a longitudinal force of 0.7 kips per foot of abutment length transmitted by the bearings to the bridge seats.

***Subbase Granular Material, Type C shall remain uncompacted.



MIN. BAR LAP

#6 bar = 3'-10"

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Subbase Granular Material, Type C	Cu. Yd.	230

(Includes both Eastbound and Westbound Structures)

FILE NAME = 082017-0118-76884-021-WestSuperstr-Det.dgn



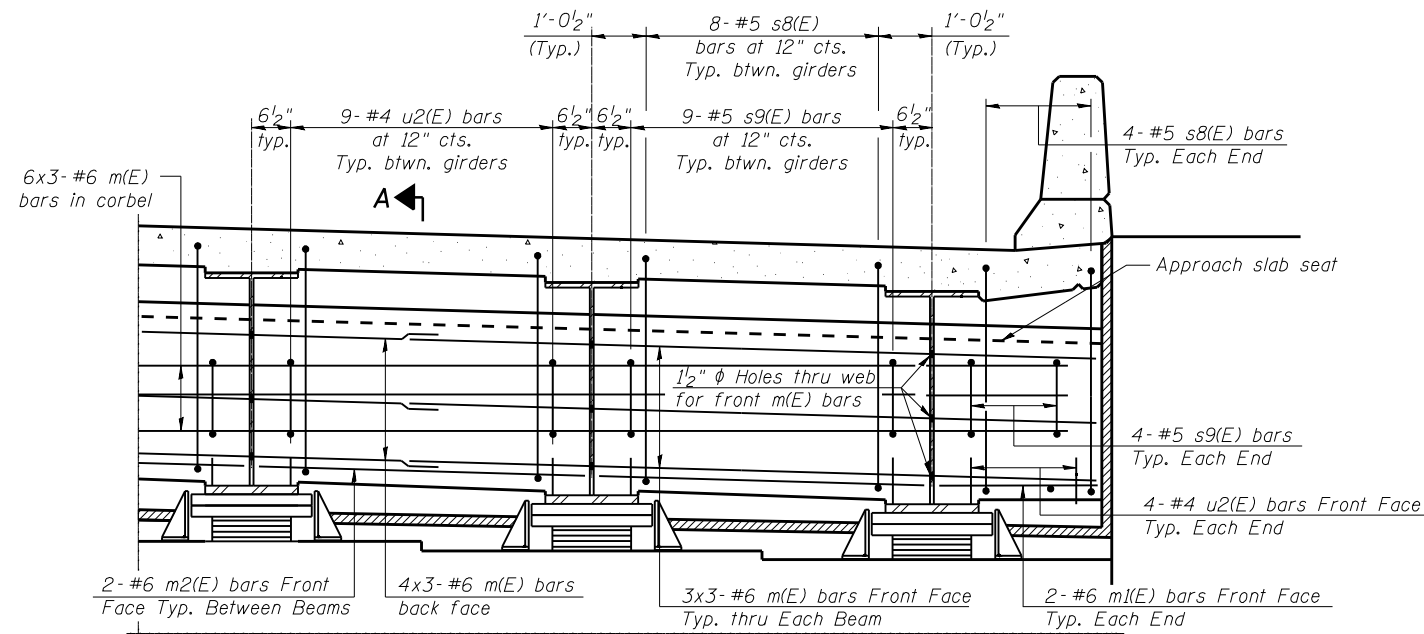
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	CHECKED - SAB	REVISED -
PLOT SCALE = 4x0.0000 '1' / IN.	DRAWN - RAB	REVISED -
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

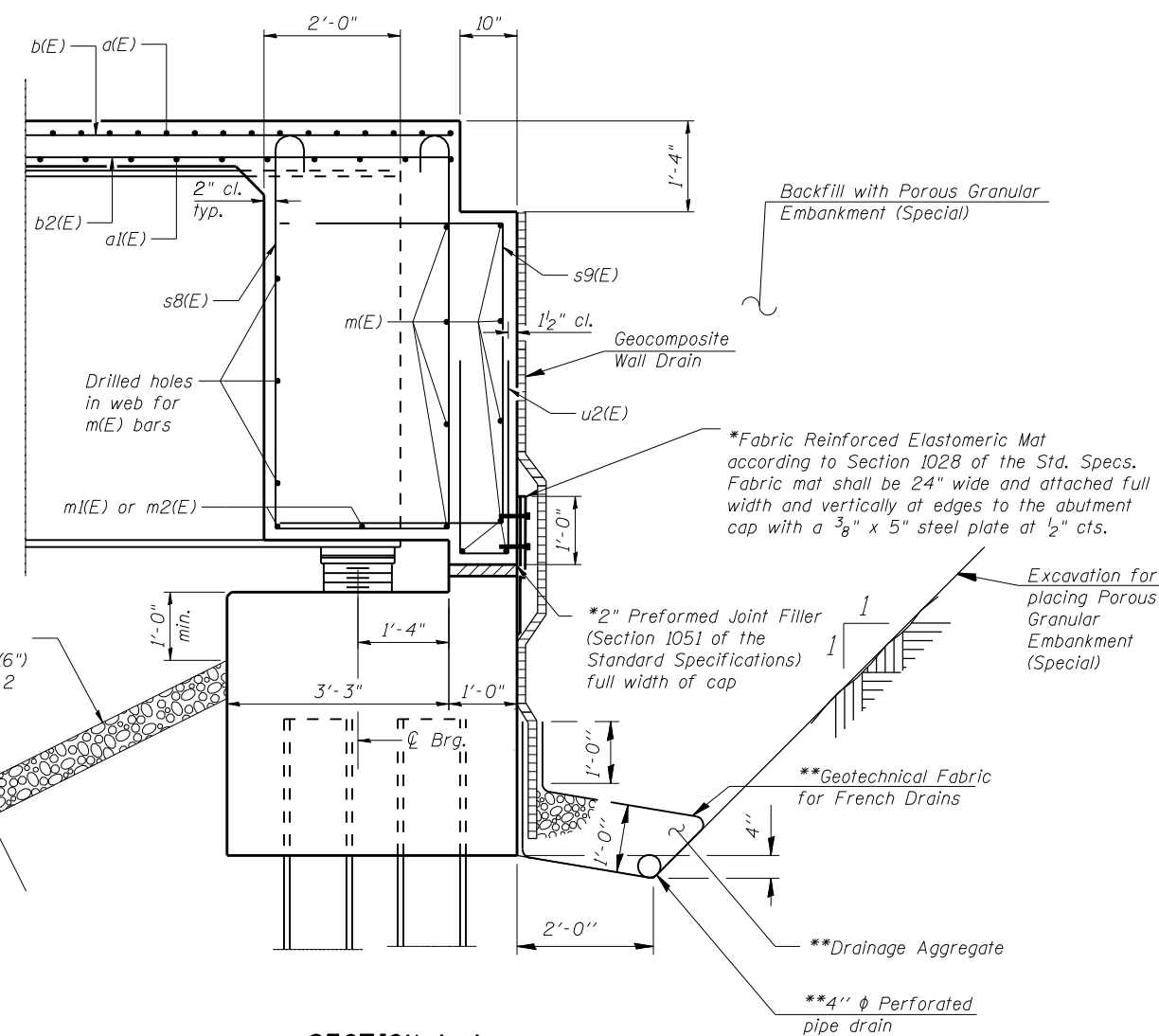
**WEST SUPERSTRUCTURE DETAILS
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-21 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	136
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



DIAPHRAGM ELEVATION AT EAST ABUTMENT



SECTION A-A

Dimensions at right angles to abutment, except as shown.
* Cost included with Concrete Superstructure.

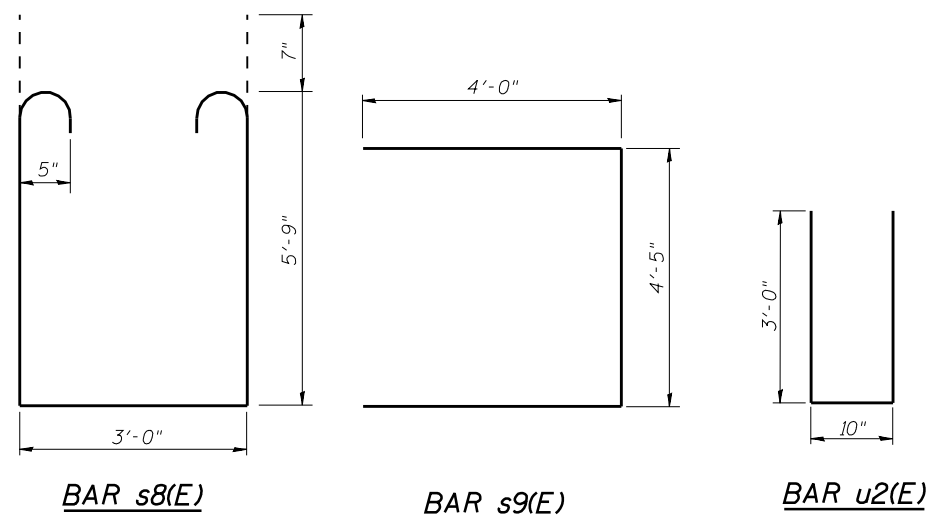
**Included in the cost of Pipe Underdrains for Structures

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet S-23 & S-24 of S-62.

Concrete in diaphragm is included with Concrete Superstructure on sheet S-23 & S-24 of S-62.

The s8(E), s9(E) and u2(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

Bars indicated thus 4 x 3-#6 etc. indicates 4 lines of bars with 3 lengths per line.



MIN. BAR LAP

#6 bar = 3'-10"

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Porous Granular Embankment, Special	Cu. Yd.	333

(Includes both Eastbound and Westbound Structures)

FILE NAME = 0820117-0118-76884-022-EastSuperstr-Des.dgn



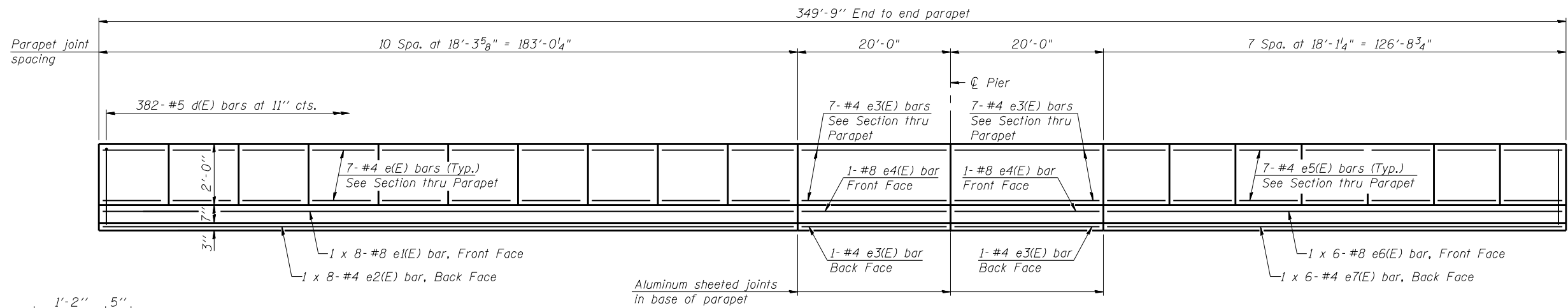
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	CHECKED - SAB	REVISED -
PLOT SCALE = 4:0.0000 '1' / IN.	DRAWN - RAB	REVISED -
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EAST SUPERSTRUCTURE DETAILS
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-22 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	137
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



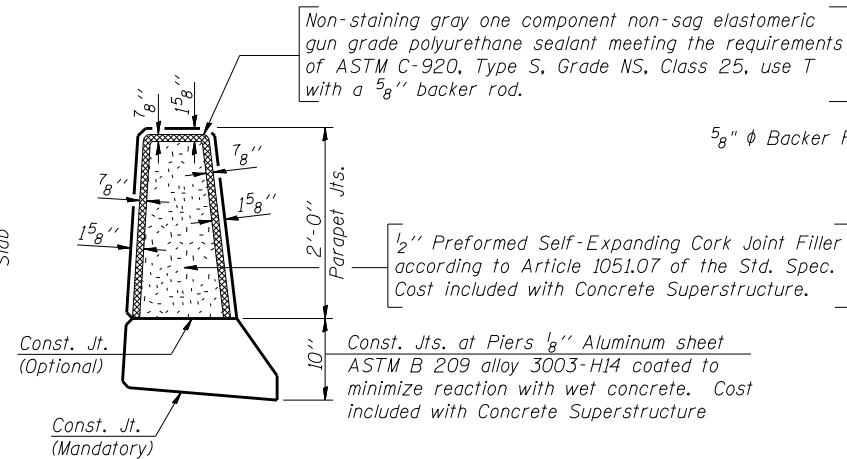
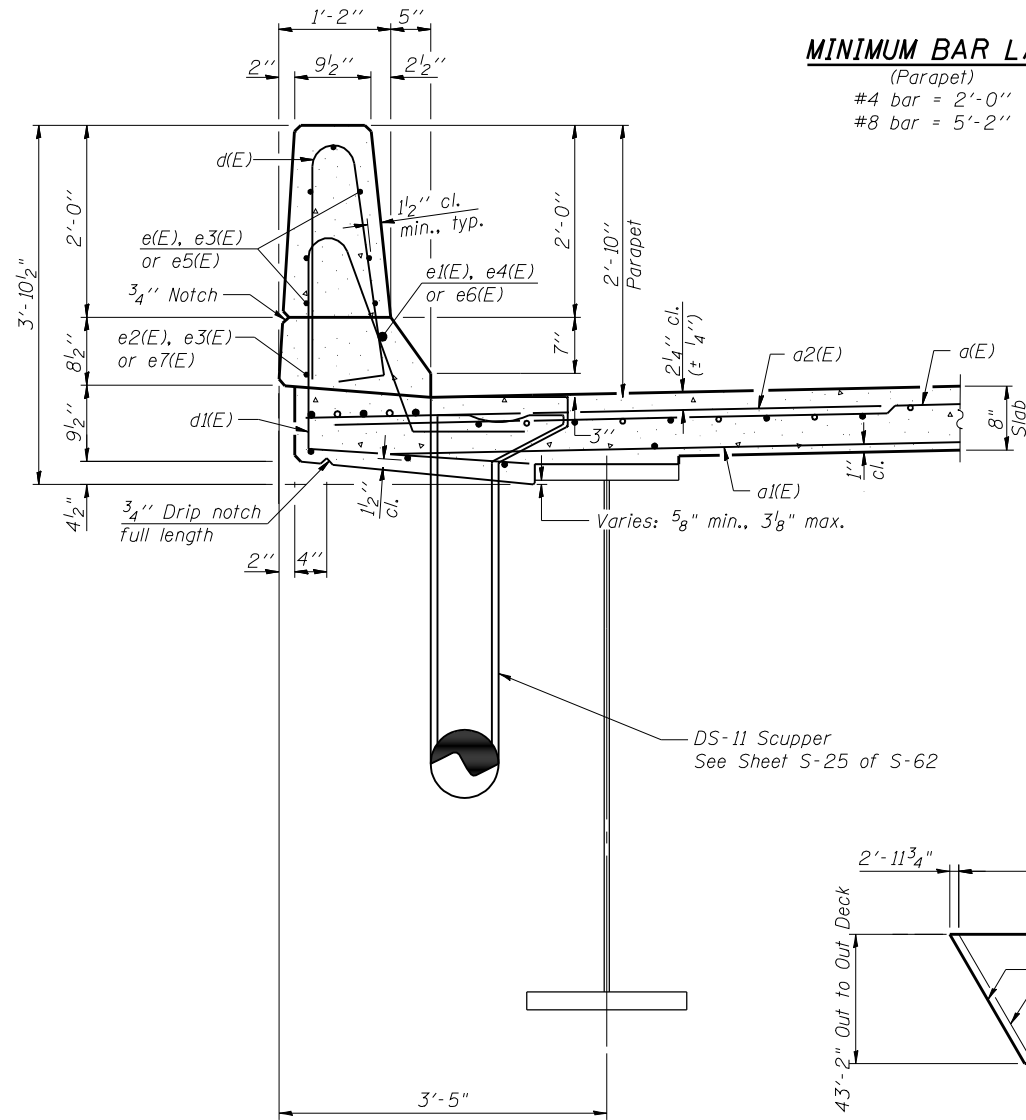
MINIMUM BAR LAP

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

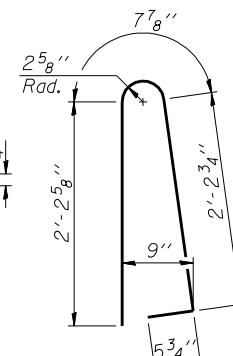
INSIDE ELEVATION OF PARAPET

MIN. BAR LAP

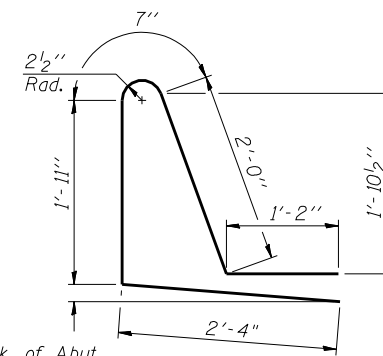
#4 Bars- 2'-7"
 #8 Bars- 6'-9"



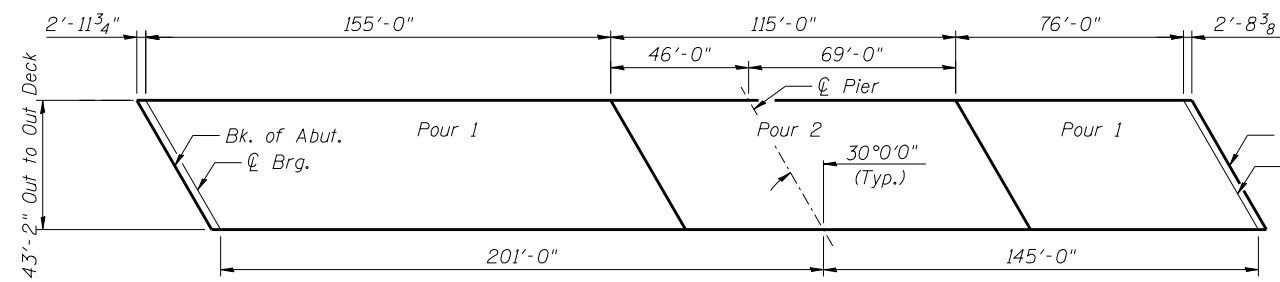
PARAPET JOINT DETAILS



BAR d(E)



BAR d1(E)



EASTBOUND PLAN-DECK POURING SEQUENCE

EASTBOUND SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	838	#5	42'-6"	—
a1(E)	525	#5	42'-2"	—
a2(E)	1,674	#6	6'-6"	—
a3(E)	8	#5	1'-6"	—
b(E)	644	#5	27'-6"	—
b1(E)	180	#6	32'-5"	—
b2(E)	646	#5	23'-0"	—
d(E)	764	#5	5'-7"	U
d1(E)	764	#5	8'-0"	U
e(E)	140	#4	18'-0"	—
e1(E)	16	#8	28'-9"	—
e2(E)	16	#4	25'-2"	—
e3(E)	32	#4	19'-8"	—
e4(E)	4	#8	19'-8"	—
e5(E)	98	#4	17'-10"	—
e6(E)	12	#8	26'-9"	—
e7(E)	12	#4	23'-3"	—
m(E)	78	#6	19'-1"	—
m1(E)	8	#6	3'-4"	—
m2(E)	16	#6	10'-2"	—
s6(E)	40	#5	15'-11"	U
s7(E)	44	#5	12'-7"	U
s8(E)	40	#5	15'-8"	U
s9(E)	44	#5	12'-5"	U
u2(E)	88	#4	6'-10"	U
Reinforcement Bars, Epoxy Coated		Pound	141,560	
Concrete Superstructure		Cu. Yds.	542.8	

Bars indicated thus 1 x 6-#5 etc. indicates 1 line of bars with 6 lengths per line.

NOTES:

When the deck pour is stopped for the day, at one or more of the transverse Bonded Construction Joints in the deck Pouring Sequence as shown, the next pour shall not be made until both of the following requirements are met:

1. At least 72 hours shall have elapsed from the end of the previous pour.
2. The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

FILE NAME = 0820117-0118-76884-023-EBP-ops.dgn



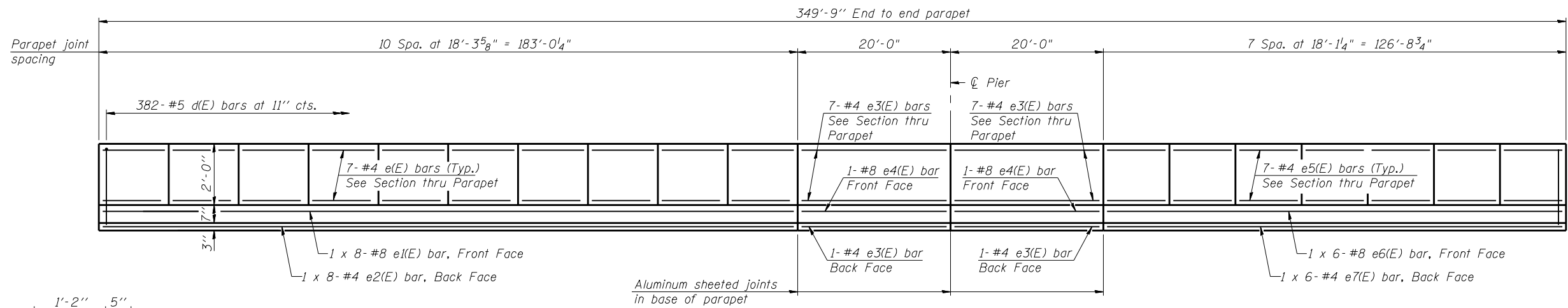
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PLOT DATE = 12/02/2011	DRAWN - RAB	REVISED -
	CHECKED - JAN	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

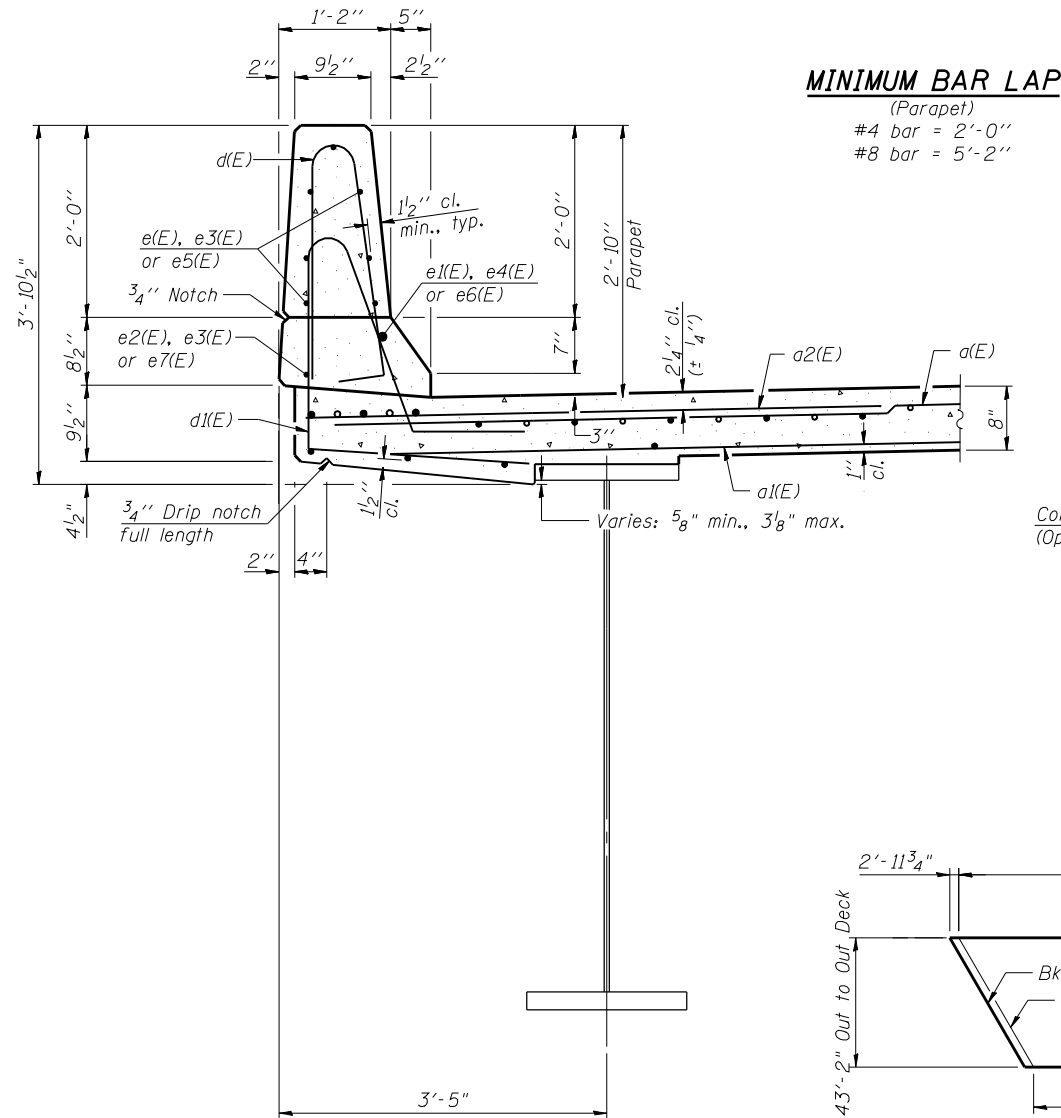
**PARAPET ELEVATION, DETAILS & B.O.M., EASTBOUND
 STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-23 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	138
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				

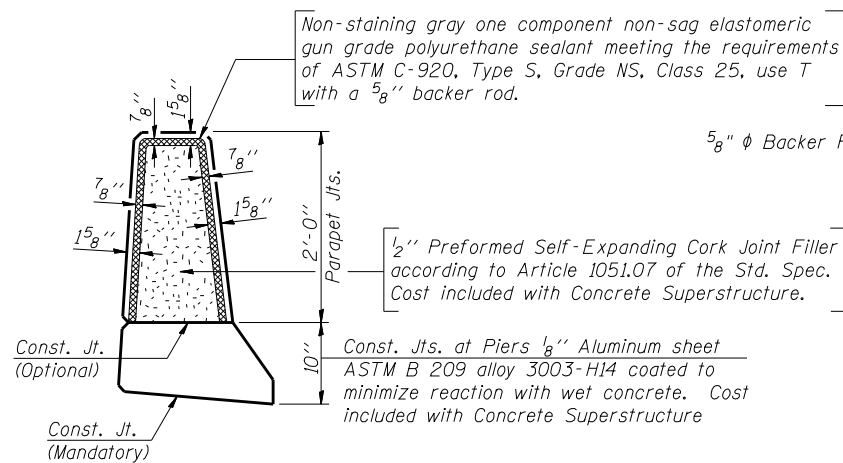


INSIDE ELEVATION OF PARAPET



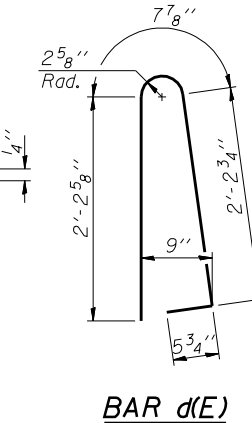
SECTION THRU PARAPET

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

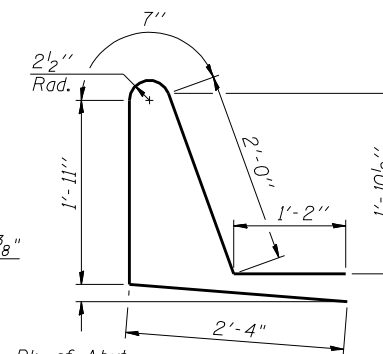


PARAPET JOINT DETAILS

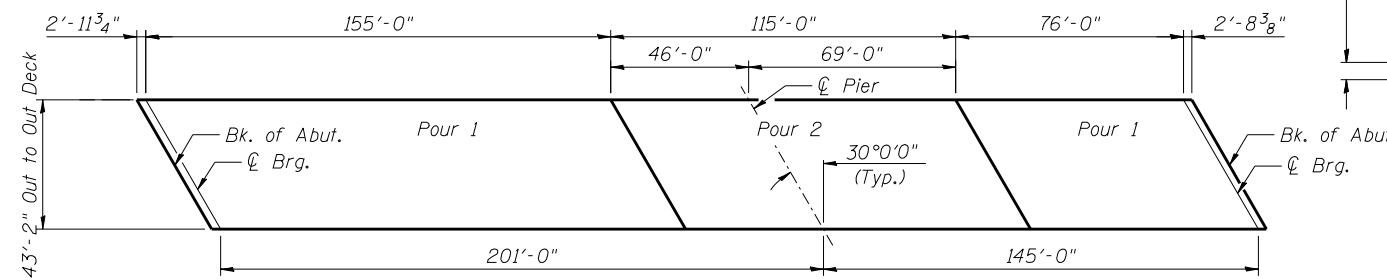
MIN. BAR LAP
#4 Bars- 2'-7"
#8 Bars- 6'-9"



BAR d(E)



BAR d1(E)



WESTBOUND PLAN-DECK POURING SEQUENCE

WESTBOUND SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	838	#5	42'-6"	—
a1(E)	525	#6	42'-2"	—
a2(E)	1,674	#6	6'-6"	—
b(E)	644	#5	27'-6"	—
b1(E)	180	#6	32'-5"	—
b2(E)	646	#5	23'-0"	—
d(E)	764	#5	5'-7"	U
d1(E)	764	#5	8'-0"	U
e(E)	140	#4	18'-0"	—
e1(E)	16	#8	28'-9"	—
e2(E)	16	#4	25'-2"	—
e3(E)	32	#4	19'-8"	—
e4(E)	4	#8	19'-8"	—
e5(E)	98	#4	17'-10"	—
e6(E)	12	#8	26'-9"	—
e7(E)	12	#4	23'-3"	—
m(E)	78	#6	19'-1"	—
m1(E)	8	#6	3'-4"	—
m2(E)	16	#6	10'-2"	—
s6(E)	40	#5	15'-11"	U
s7(E)	44	#5	12'-7"	U
s8(E)	40	#5	15'-8"	U
s9(E)	44	#5	12'-5"	U
u2(E)	88	#4	6'-10"	U
Reinforcement Bars, Epoxy Coated		Pound	141,550	
Concrete Superstructure		Cu. Yds.	542.8	

Bars indicated thus 1 x 6-#5 etc. indicates 1 line of bars with 6 lengths per line.

NOTES:

When the deck pour is stopped for the day, at one or more of the transverse Bonded Construction Joints in the deck Pouring Sequence as shown, the next pour shall not be made until both of the following requirements are met:

1. At least 72 hours shall have elapsed from the end of the previous pour.
2. The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

FILE NAME = 0820117-0118-76884-024-MBP-eps.dgn



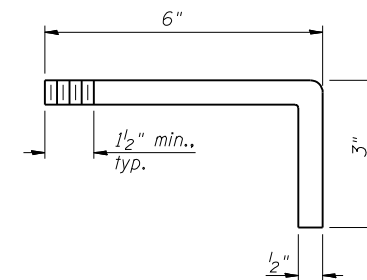
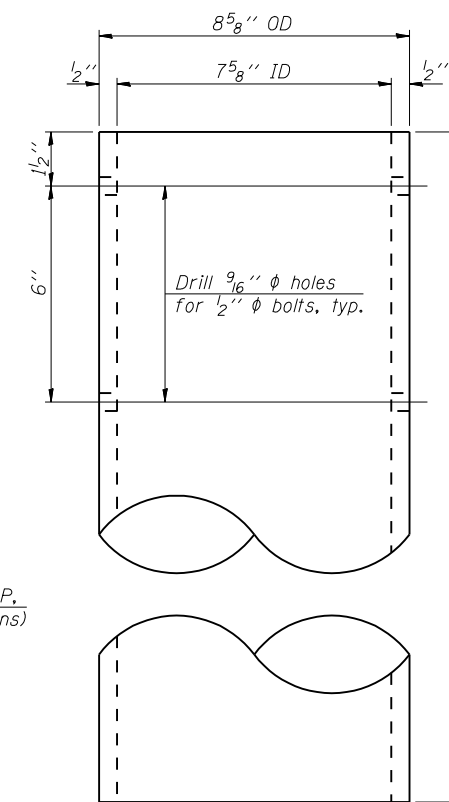
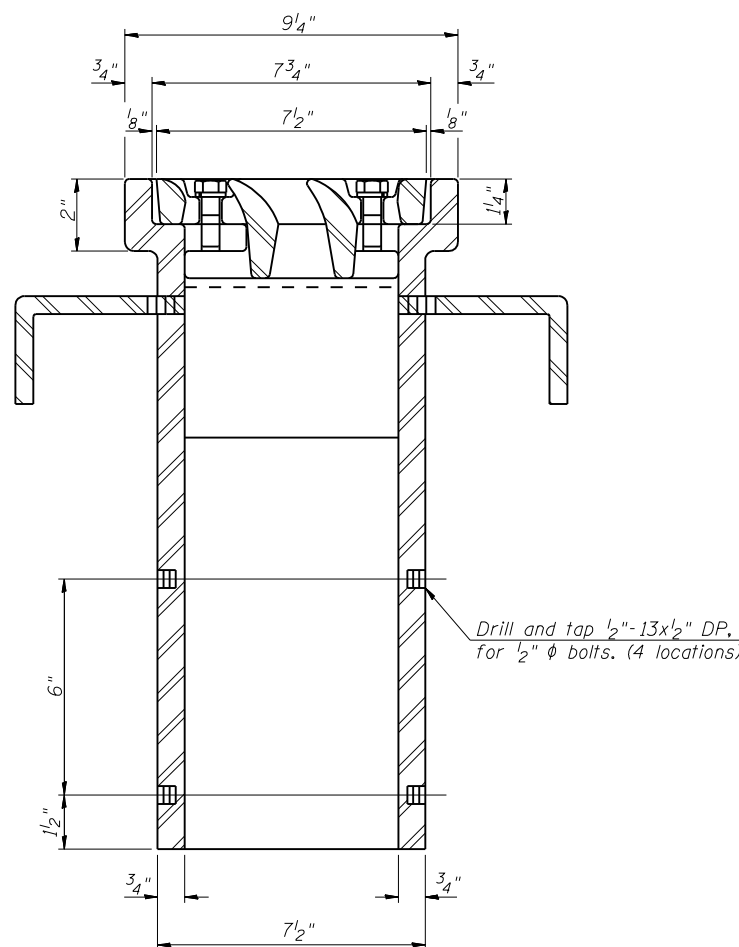
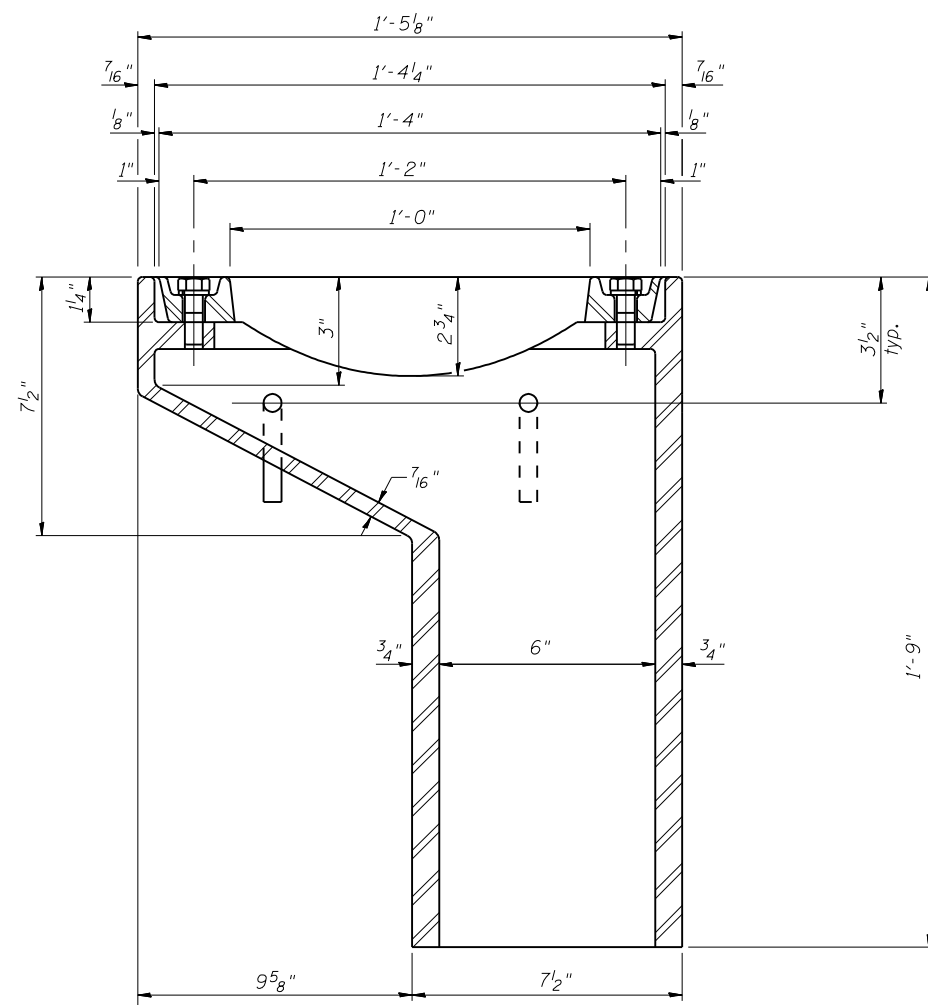
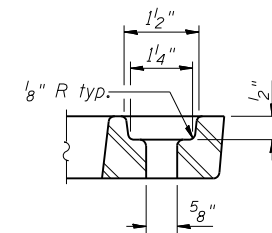
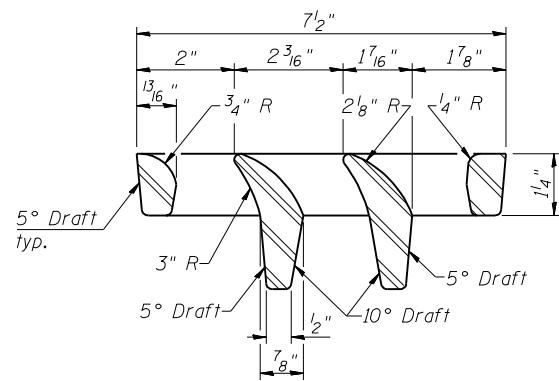
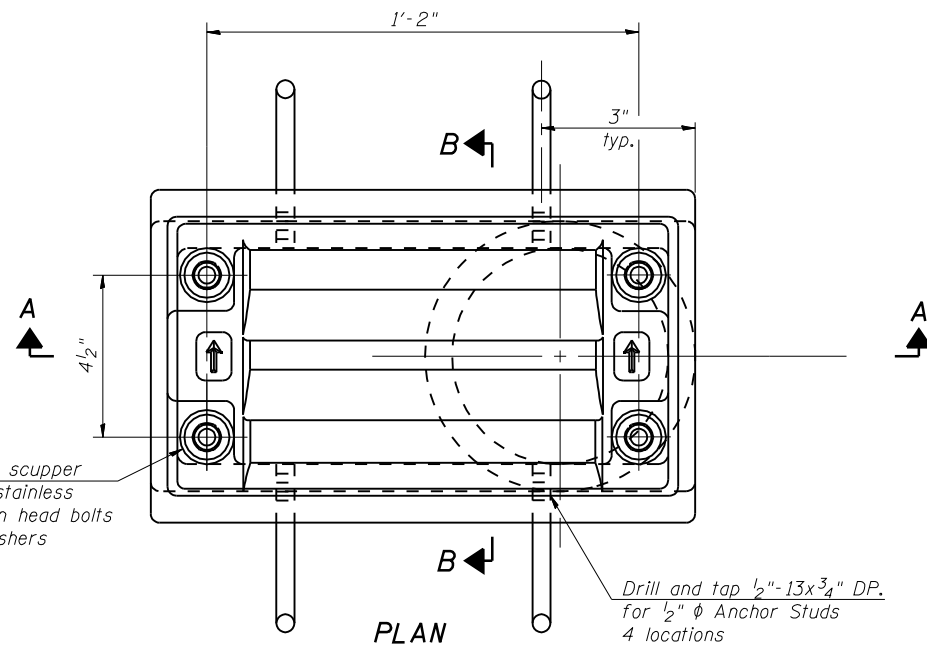
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PLOT DATE = 12/02/2011	DRAWN - RAB	REVISED -
	CHECKED - JAN	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PARAPET ELEVATION, DETAILS & B.O.M., WESTBOUND STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)

SHEET NO. S-24 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	139
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



Notes:
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.
 Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.
 As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
 Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.
 Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

SECTION A-A
 See sheet S-17 of S-62 for scupper location relative to parapet.

SECTION B-B

DOWNSPOUT

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	1

DS-11

7-1-10

FILE NAME = 0820117-0118-76884-025-Scupper-Details.dgn



USER NAME = brazzara
 PLOT SCALE = 0x2.0000 '1' / IN.
 PLOT DATE = 10/19/2011

DESIGNED - RAB
 CHECKED - BTO
 DRAWN - RAB
 CHECKED - JAN

REVISED - _____
 REVISED - _____
 REVISED - _____
 REVISED - _____

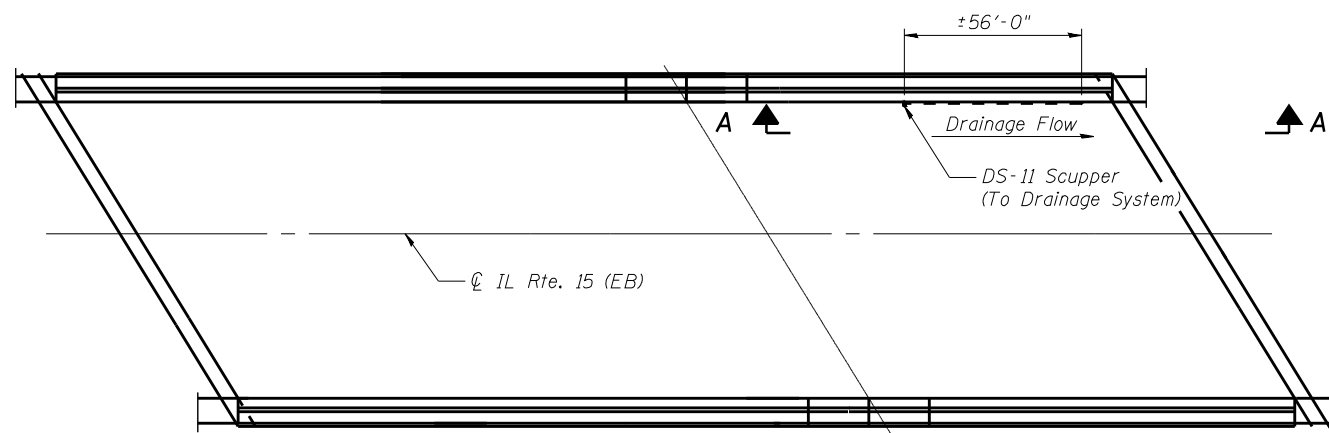
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER, DS-11
 STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)

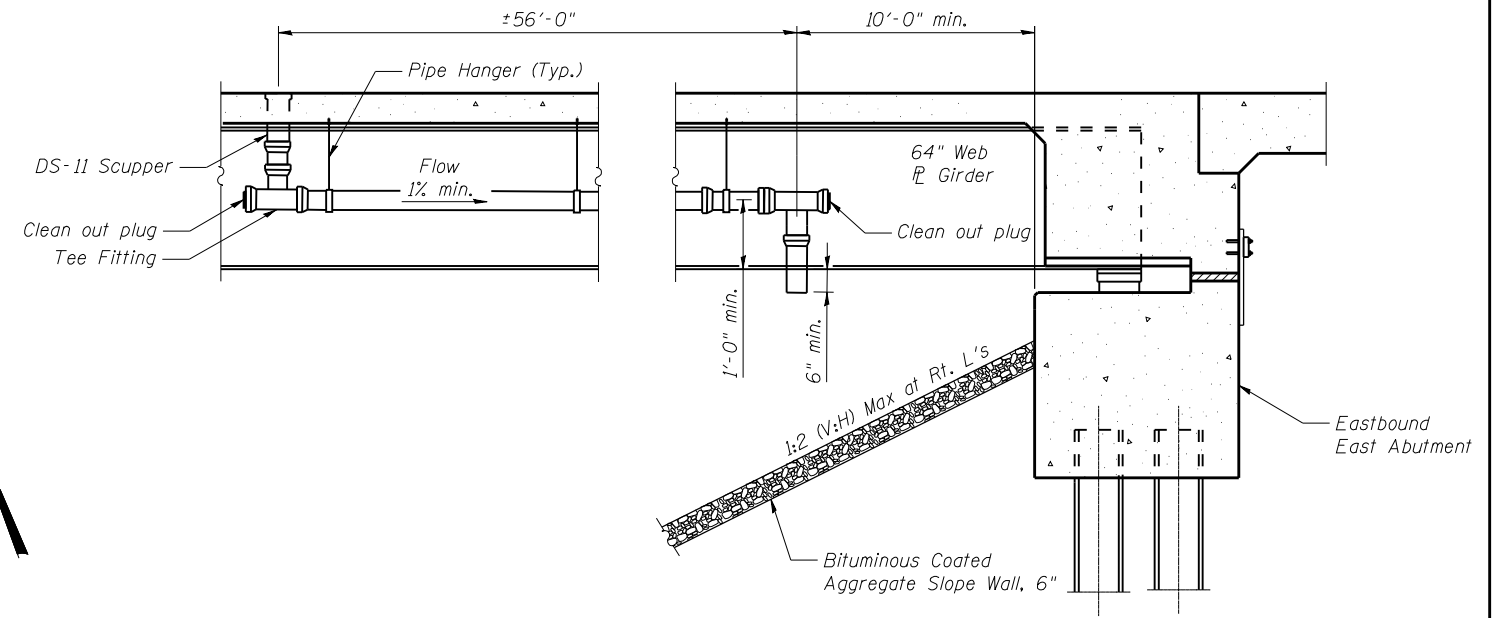
SHEET NO. S-25 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	140

CONTRACT NO. 76884
 ILLINOIS FED. AID PROJECT



DRAINAGE SYSTEM PLAN
 (See Deck Plan Sht. S-17 of S-62 for location of Drainage Pipe inserts)



VIEW A-A

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Drainage System	L. Sum	1

FILE NAME = 0820117-0118-76884-026-DrainageSystem.dgn



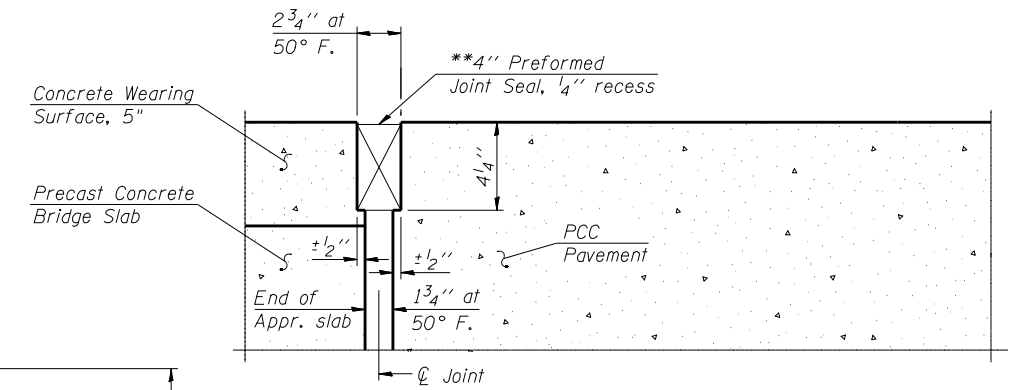
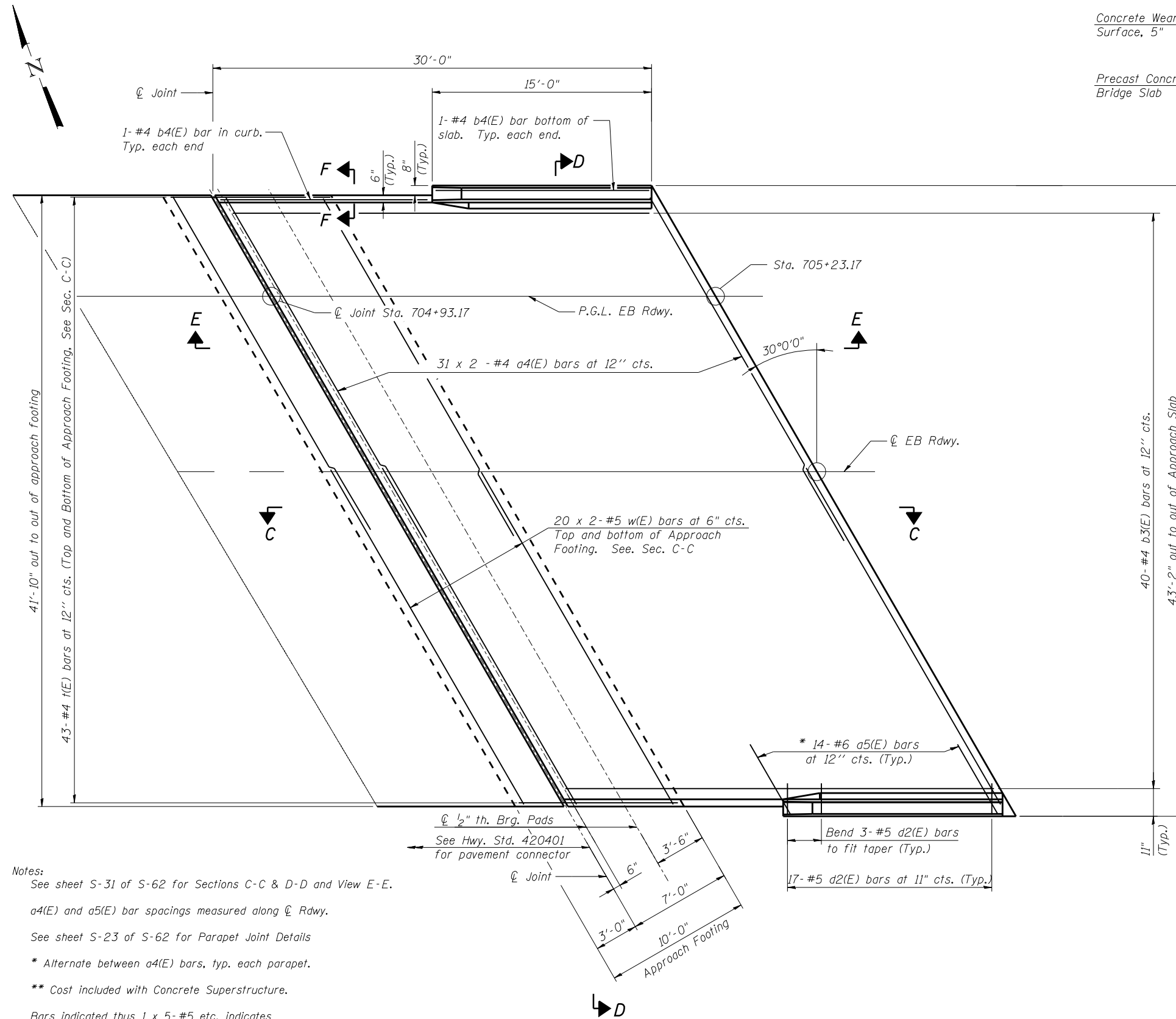
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

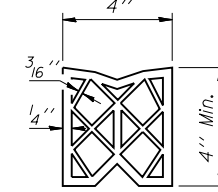
**DRAINAGE SYSTEM
 STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-26 OF S-62 SHEETS

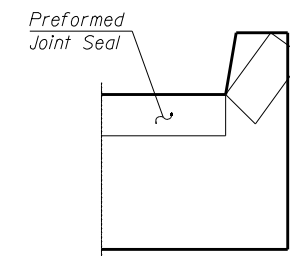
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	141
			CONTRACT NO. 76884	
ILLINOIS FED. AID PROJECT				



DETAIL A



PREFORMED JOINT SEAL



VIEW F-F

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

Notes:
 See sheet S-31 of S-62 for Sections C-C & D-D and View E-E.
 a4(E) and a5(E) bar spacings measured along \varnothing Rdwy.
 See sheet S-23 of S-62 for Parapet Joint Details
 * Alternate between a4(E) bars, typ. each parapet.
 ** Cost included with Concrete Superstructure.
 Bars indicated thus 1 x 5-#5 etc. indicates 1 line of bars with 5 lengths per line.

WEST EASTBOUND APPROACH SLAB
 (Showing Wearing Surface)

FILE NAME = 0820117-0118-76884-027-WestAppSlabEB.dgn



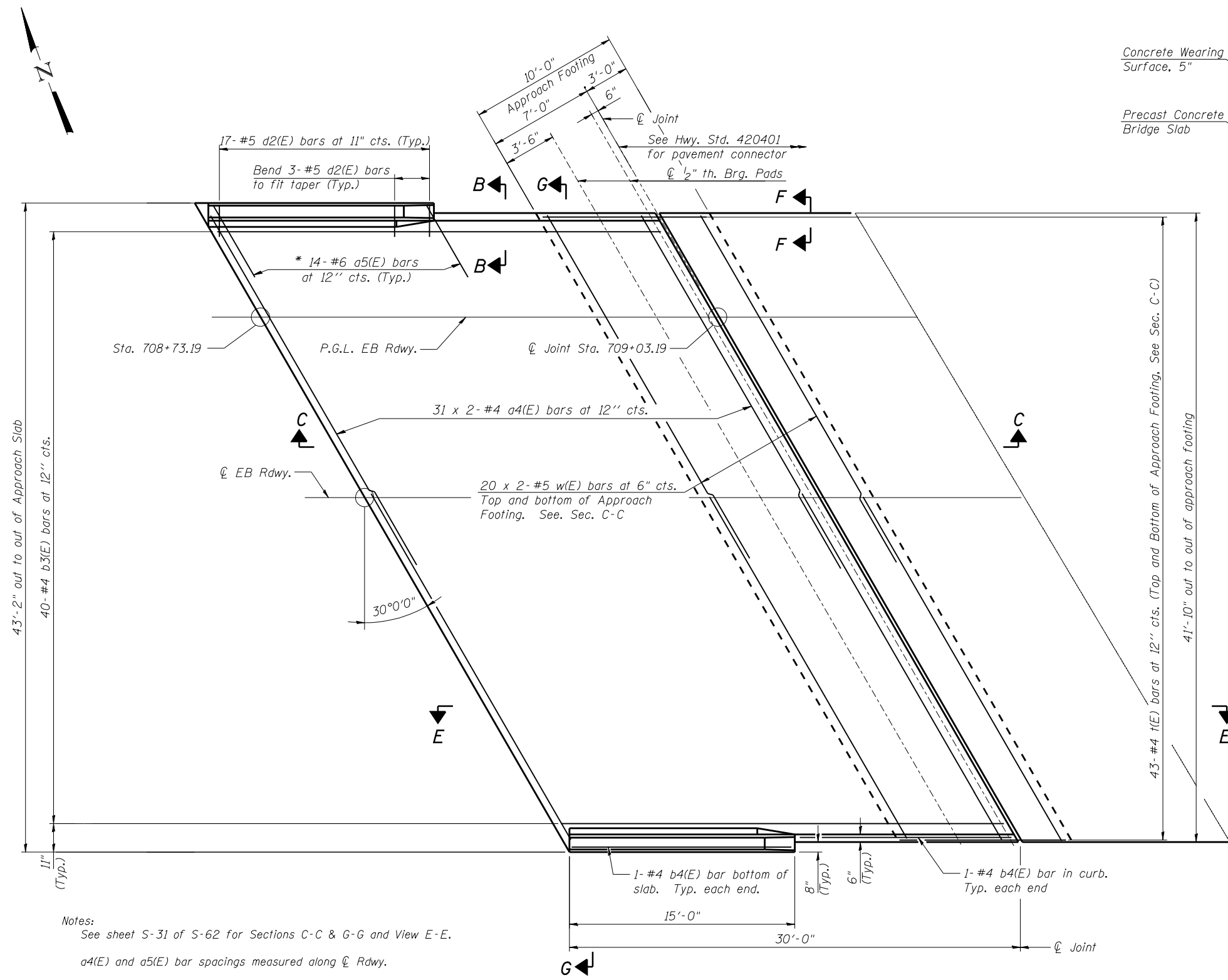
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PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED - -----

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST APPROACH SLAB PLAN EASTBOUND
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)

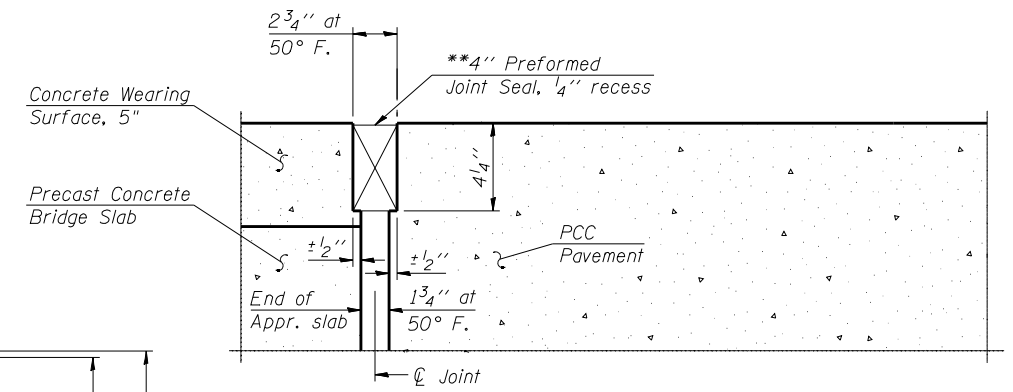
SHEET NO. S-27 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	142
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				

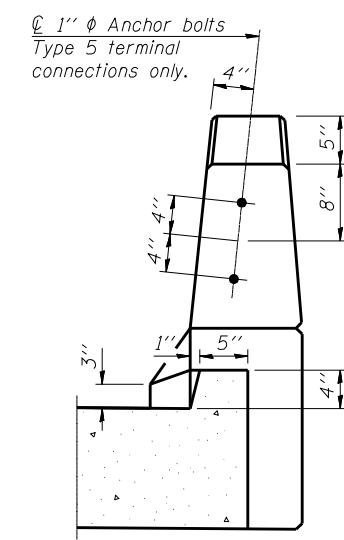
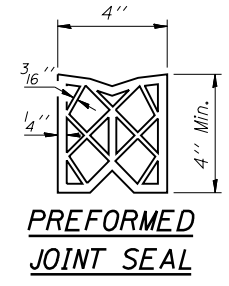


Notes:
 See sheet S-31 of S-62 for Sections C-C & G-G and View E-E.
 a4(E) and a5(E) bar spacings measured along \perp Rdwy.
 See sheet S-23 of S-62 for Parapet Joint Details
 * Alternate between a4(E) bars, typ. each parapet.
 ** Cost included with Concrete Superstructure.
 Bars indicated thus 1 x 5-#5 etc. indicates
 1 line of bars with 5 lengths per line.

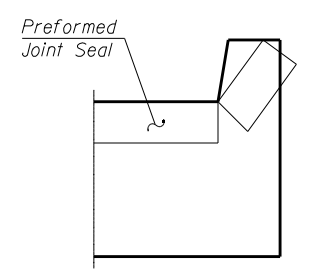
EAST EASTBOUND APPROACH SLAB
 (Showing Wearing Surface)



DETAIL A



VIEW B-B



VIEW F-F

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

FILE NAME = 0820117-0118-76884-028-EastAppSlabEB.dgn



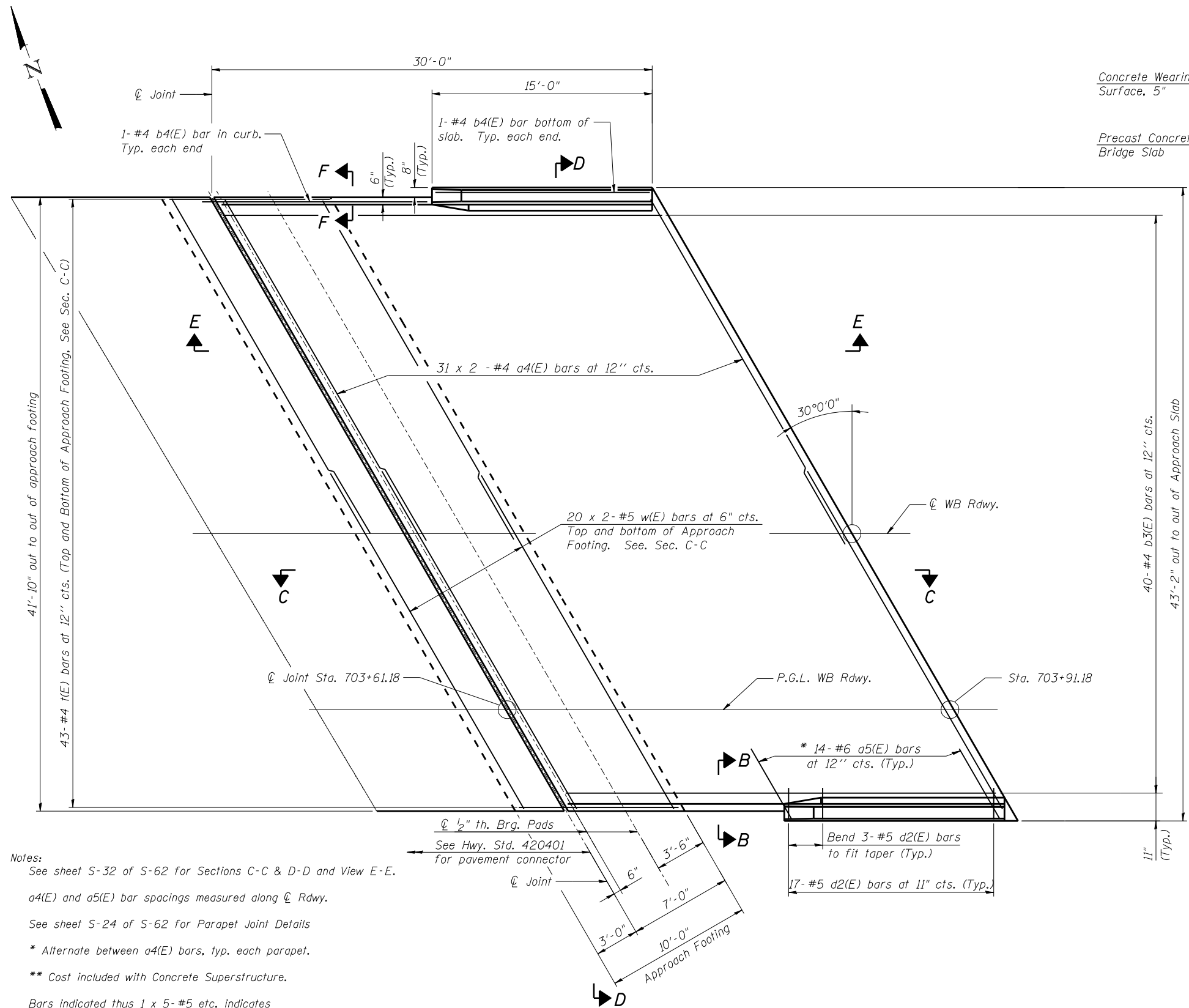
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

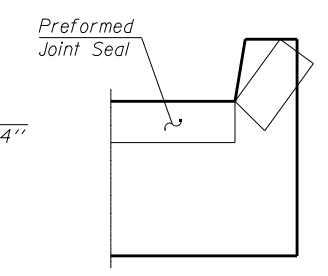
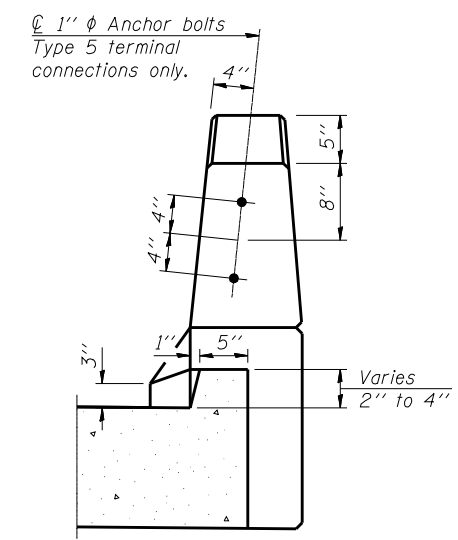
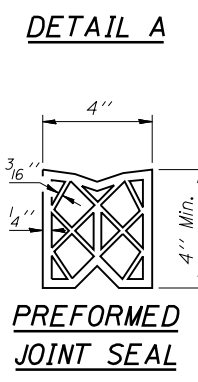
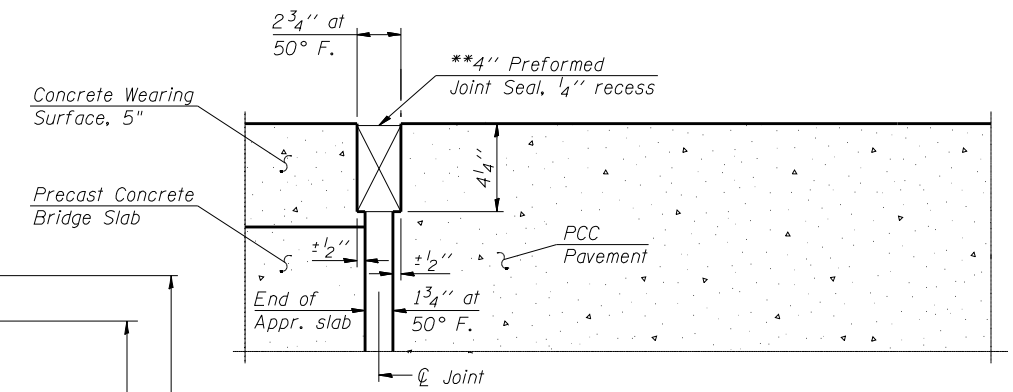
EAST APPROACH SLAB PLAN EASTBOUND
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)

SHEET NO. S-28 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	143
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



Notes:
 See sheet S-32 of S-62 for Sections C-C & D-D and View E-E.
 a4(E) and a5(E) bar spacings measured along \varnothing Rdwy.
 See sheet S-24 of S-62 for Parapet Joint Details
 * Alternate between a4(E) bars, typ. each parapet.
 ** Cost included with Concrete Superstructure.
 Bars indicated thus 1 x 5-#5 etc. indicates
 1 line of bars with 5 lengths per line.



WEST WESTBOUND APPROACH SLAB

FILE NAME = 0820117-0118-76884-029-WestAppSlabWB.dgn



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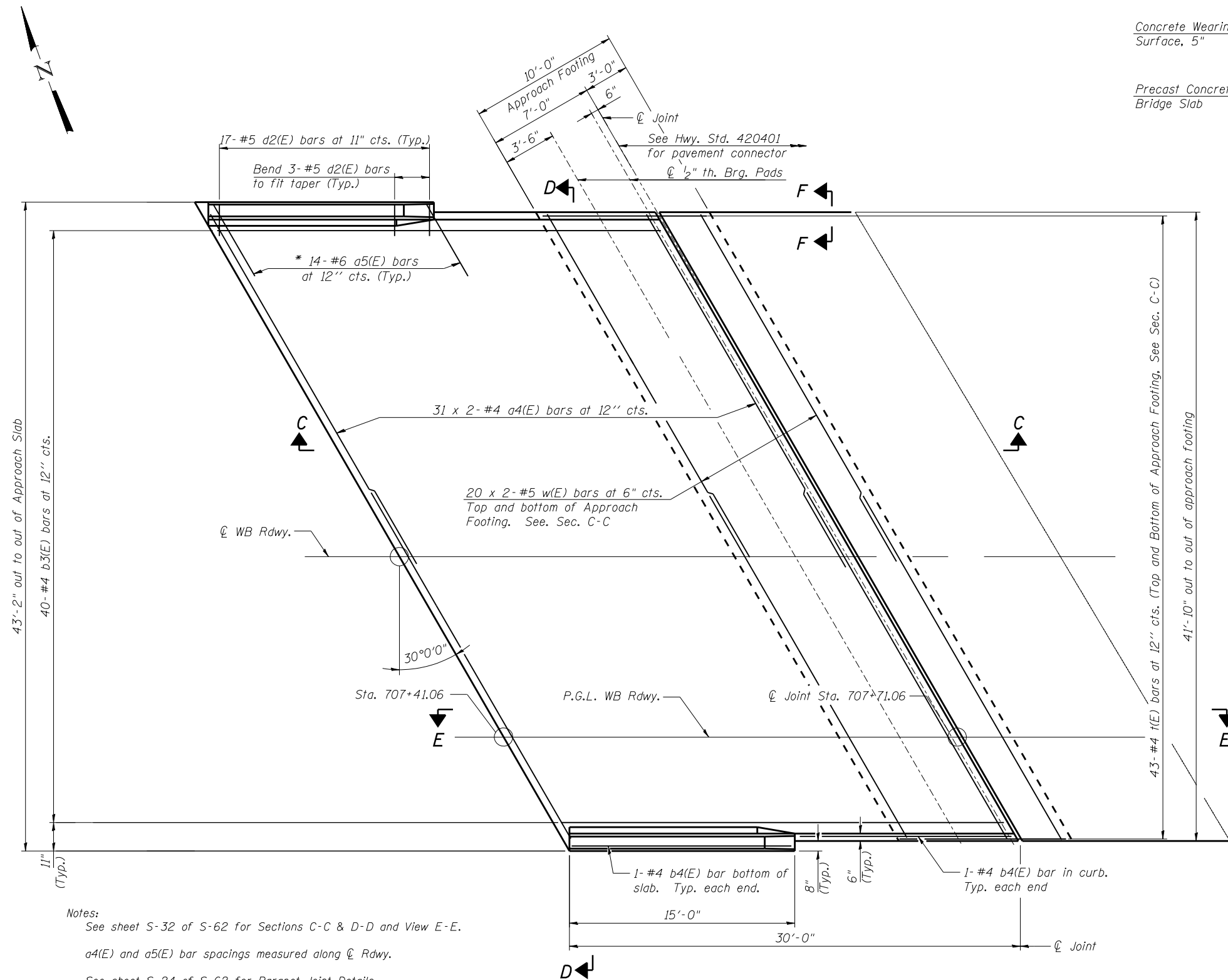
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**WEST APPROACH SLAB PLAN WESTBOUND
 STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-29 OF S-62 SHEETS

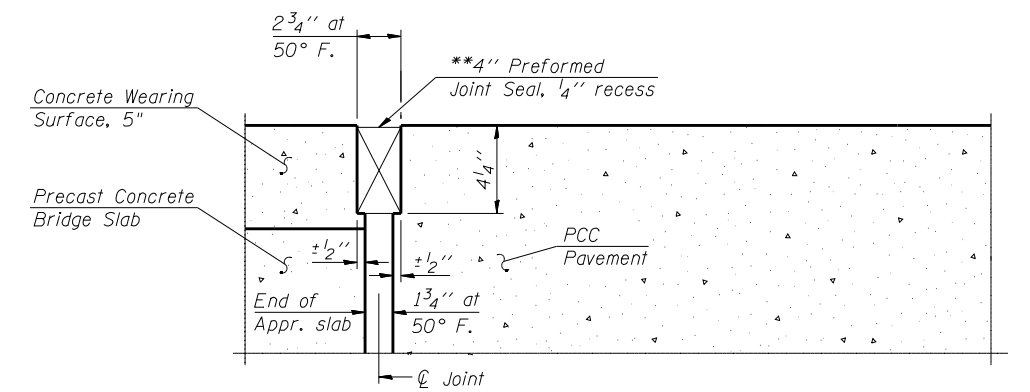
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	144
CONTRACT NO. 76884				

ILLINOIS FED. AID PROJECT

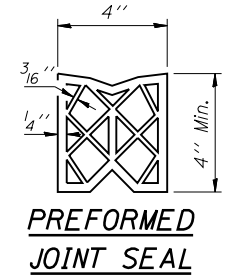


EAST EASTBOUND APPROACH SLAB

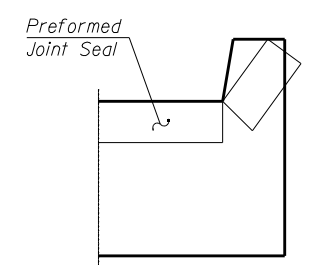
Notes:
 See sheet S-32 of S-62 for Sections C-C & D-D and View E-E.
 a4(E) and a5(E) bar spacings measured along \varnothing Rdwy.
 See sheet S-24 of S-62 for Parapet Joint Details
 * Alternate between a4(E) bars, typ. each parapet.
 ** Cost included with Concrete Superstructure.
 Bars indicated thus 1 x 5-#5 etc. indicates
 1 line of bars with 5 lengths per line.



DETAIL A



PREFORMED JOINT SEAL



VIEW F-F

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

FILE NAME = 082017-0118-76884-030-EastAppSlabWB.dgn



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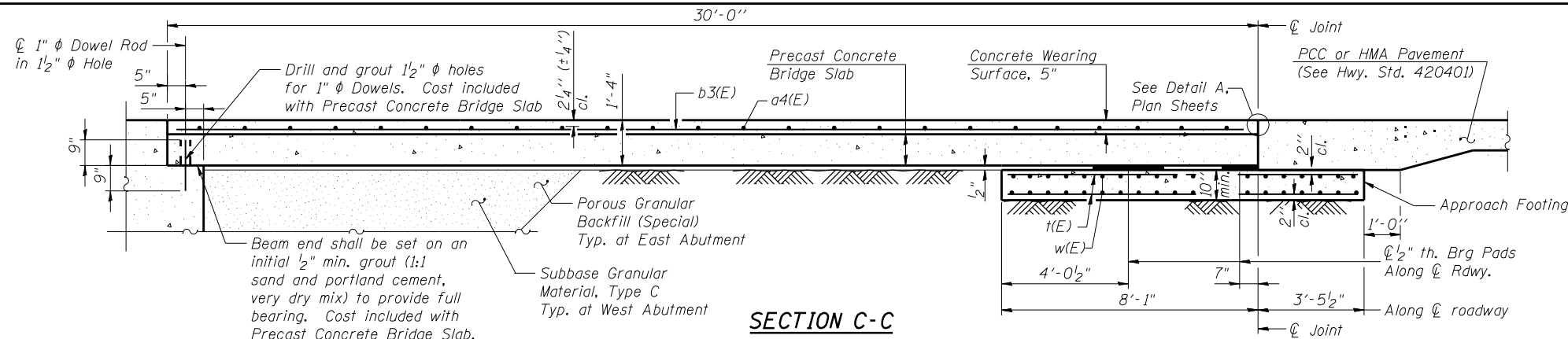
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**EAST APPROACH SLAB PLAN WESTBOUND
 STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-30 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	145
CONTRACT NO. 76884				

ILLINOIS FED. AID PROJECT



Notes:

See sheet S-27 & S-28 of S-62 for Detail A and View B-B.

Cast-in-place substitution of Precast Concrete Bridge Slab is now allowed.

Parapet concrete shall be paid for as Concrete Superstructure.

Parapet and wearing surface reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.

Approach footing concrete shall be paid for as Concrete Structures.

The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.

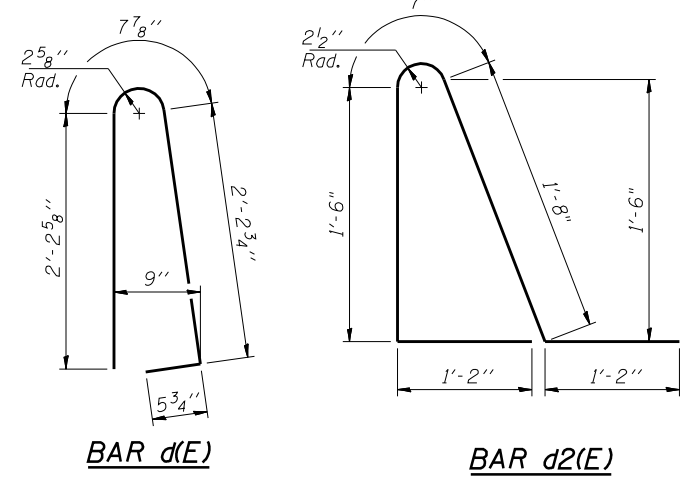
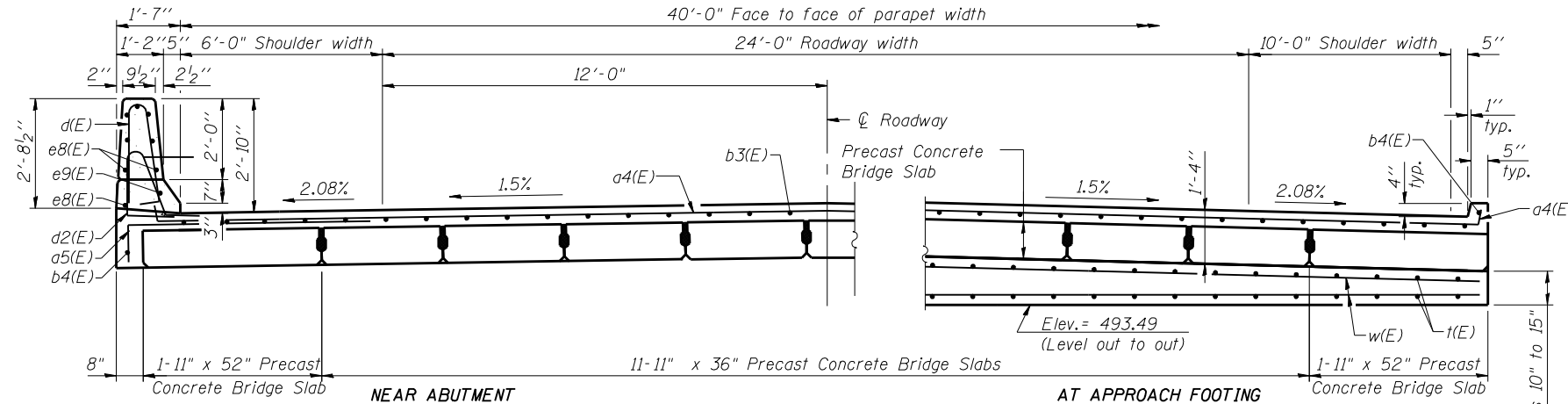
Cost of excavation for approach footing included with Concrete Structures.

For Porous Granular Embankment (Special) and drainage treatment details, see sheet S-21 & S-22 of S-62.

Any concrete poured monolithically with the wearing surface, such as curbs, will not be paid for separately, but will be included in the cost of Concrete Wearing Surface, 5".

For additional parapet details, see sheet S-23 of S-62.

For Precast Concrete Bridge Slab details, see sheet S-33 of S-62.

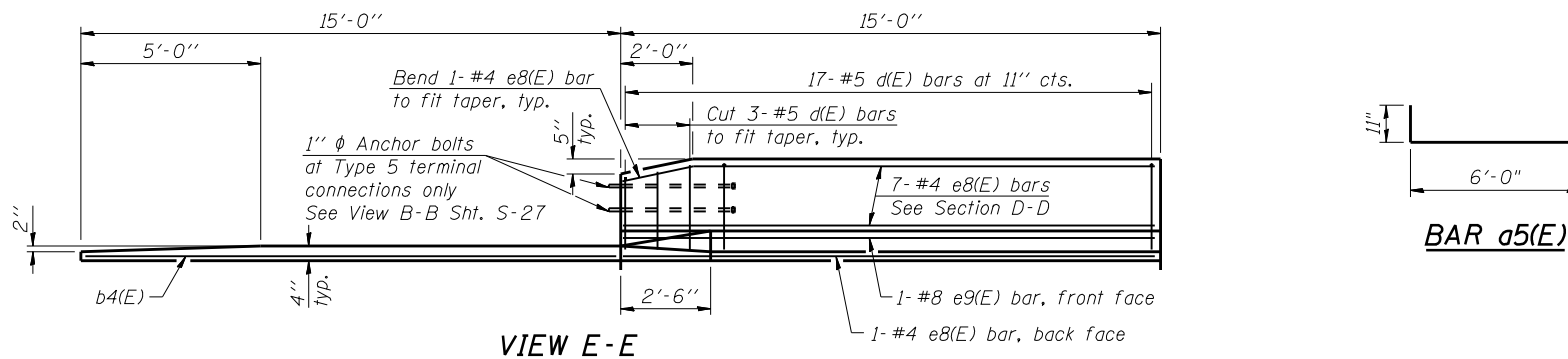
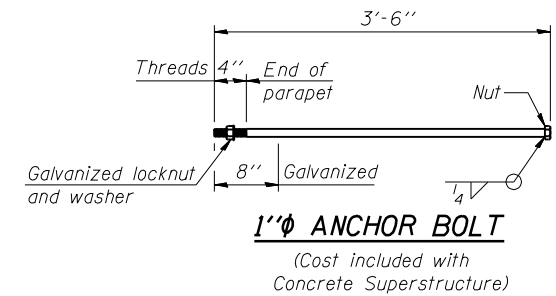
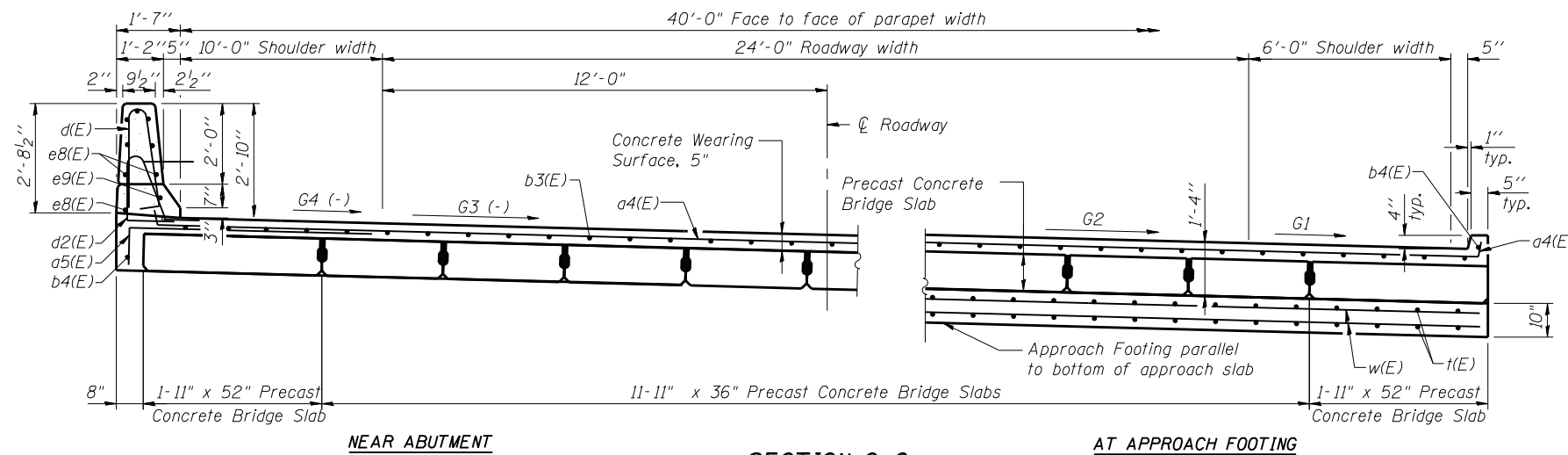


CROSS SLOPES

STATION	G1	G2	G3	G4
Up to Sta. 707+64.2	2.08%	1.5%	1.5%	2.08%
Sta. 708+01.4	2.08%	1.5%	0%	
Sta. 708+61.4	2.08%	1.5%	-1.5%	*
Sta. 709+05.4		2.6%	-2.6%	
Sta. 709+57.4	3.9%	3.9%	-3.9%	-3.9%

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a4(E)	124	#4	26'-10"	
a5(E)	56	#6	6'-11"	
b3(E)	80	#4	29'-8"	
b4(E)	8	#4	14'-8"	
d(E)	68	#5	5'-7"	
d2(E)	68	#5	6'-1"	
e8(E)	32	#4	14'-8"	
e9(E)	4	#8	14'-8"	
f(E)	172	#4	11'-3"	
w(E)	160	#5	26'-6"	
Concrete Superstructure		Cu. Yd.	6.7	
Concrete Structures		Cu. Yd.	33.5	
Reinforcement Bars, Epoxy Coated		Pound	11,490	
Precast Concrete Bridge Slab		Sq. Ft.	2,510	
Concrete Wearing Surface, 5"		Sq. Yd.	279	



FILE NAME = 0820117-0118-76884-031-EBAppr-Details.dgn



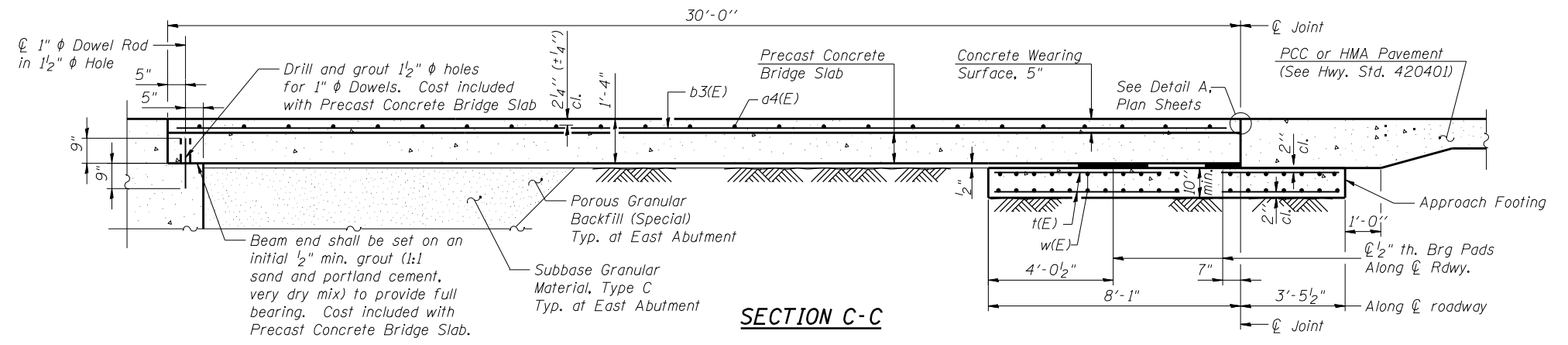
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

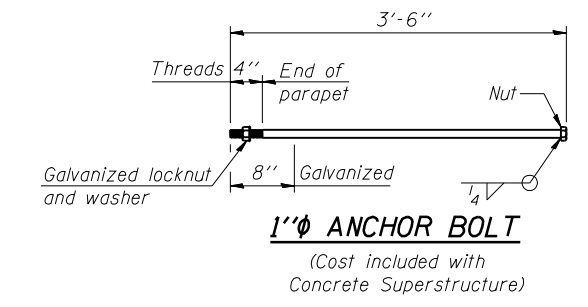
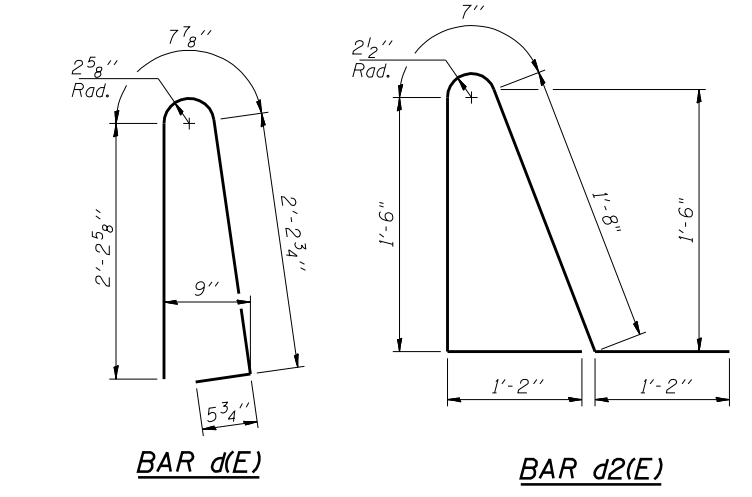
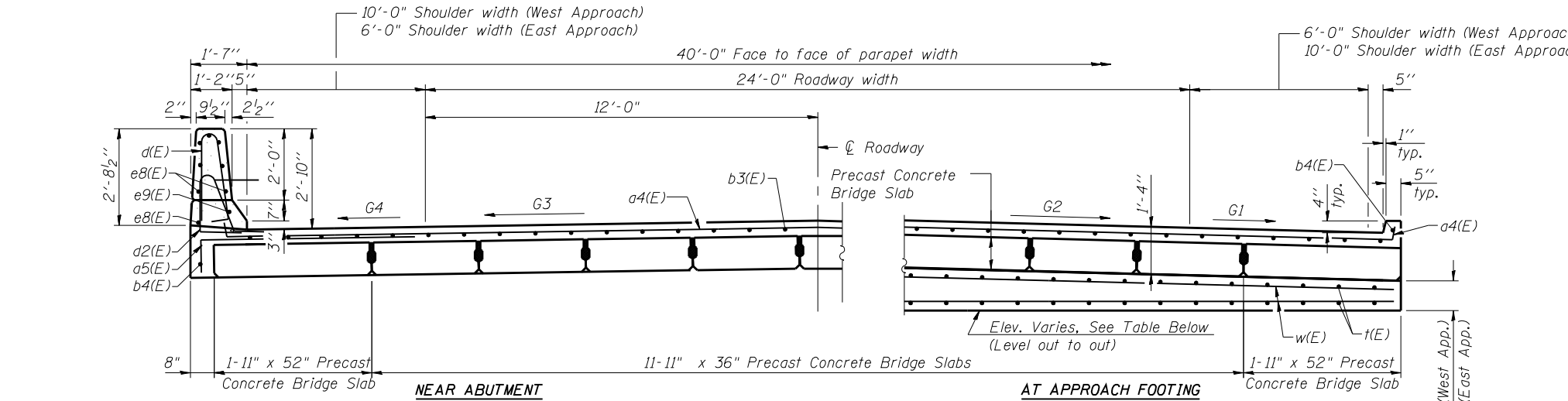
EASTBOUND COMPOSITE APPROACH SLAB DETAILS
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	146
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				

SHEET NO. S-31 OF S-62 SHEETS



Notes:
 See sheet S-29 & S-30 of S-62 for Detail A and View B-B.
 Cast-in-place substitution of Precast Concrete Bridge Slab is now allowed.
 Parapet concrete shall be paid for as Concrete Superstructure.
 Parapet and wearing surface reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
 Approach footing concrete shall be paid for as Concrete Structures.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
 Cost of excavation for approach footing included with Concrete Structures.
 For Porous Granular Embankment (Special) and drainage treatment details, see sheet S-21 & S-22 of S-62.
 Any concrete poured monolithically with the wearing surface, such as curbs, will not be paid for separately, but will be included in the cost of Concrete Wearing Surface, 5".
 For additional parapet details, see sheet S-24 of S-62.
 For Precast Concrete Bridge Slab details, see sheet S-33 of S-62.



**TWO APPROACHES
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a4(E)	124	#4	26'-10"	U
a5(E)	56	#6	6'-11"	U
b3(E)	80	#4	29'-8"	—
b4(E)	8	#4	14'-8"	—
d(E)	68	#5	5'-7"	U
d2(E)	68	#5	6'-1"	U
e8(E)	32	#4	14'-8"	—
e9(E)	4	#8	14'-8"	—
t(E)	172	#4	11'-3"	—
w(E)	160	#5	26'-6"	—
Concrete Superstructure		Cu. Yd.	6.7	
Concrete Structures		Cu. Yd.	38.8	
Reinforcement Bars, Epoxy Coated		Pound	11,490	
Precast Concrete Bridge Slab		Sq. Ft.	2,510	
Concrete Wearing Surface, 5"		Sq. Yd.	279	

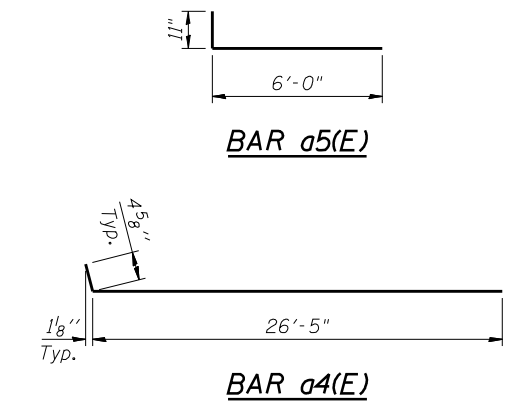
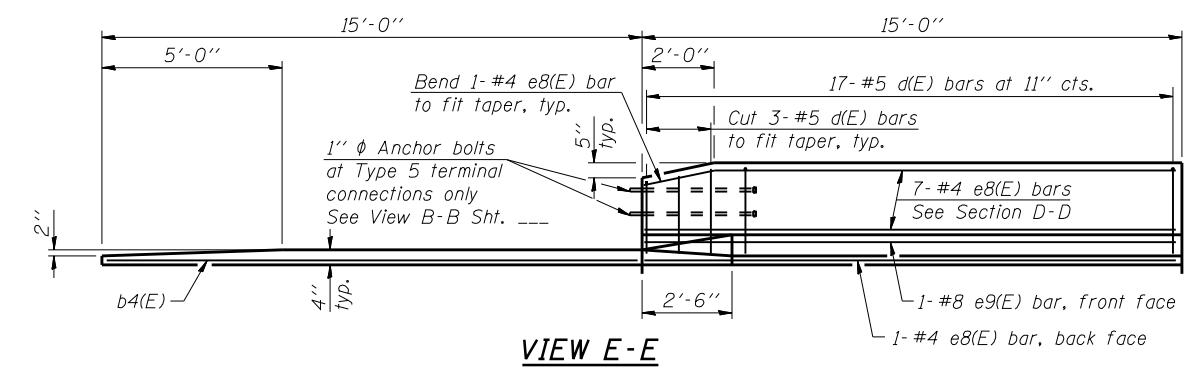
CROSS SLOPES

STATION	G1	G2	G3	G4
Up to Sta. 707+64.2	2.08%	1.5%	1.5%	2.08%
Sta. 708+01.4	2.08%	1.5%	0%	
Sta. 708+61.4	2.08%	1.5%	-1.5%	*
Sta. 709+05.4	*	2.6%	-2.6%	
Sta. 709+57.4	3.9%	3.9%	-3.9%	-3.9%

*Uniform Transition

APPROACH FOOTING ELEVATIONS

LOCATION	ELEV. BOT OF FTG.
West App. Slab	493.60
East App. Slab	494.87



FILE NAME = 082017-0118-76884-032-14BAppr-Details.dgn



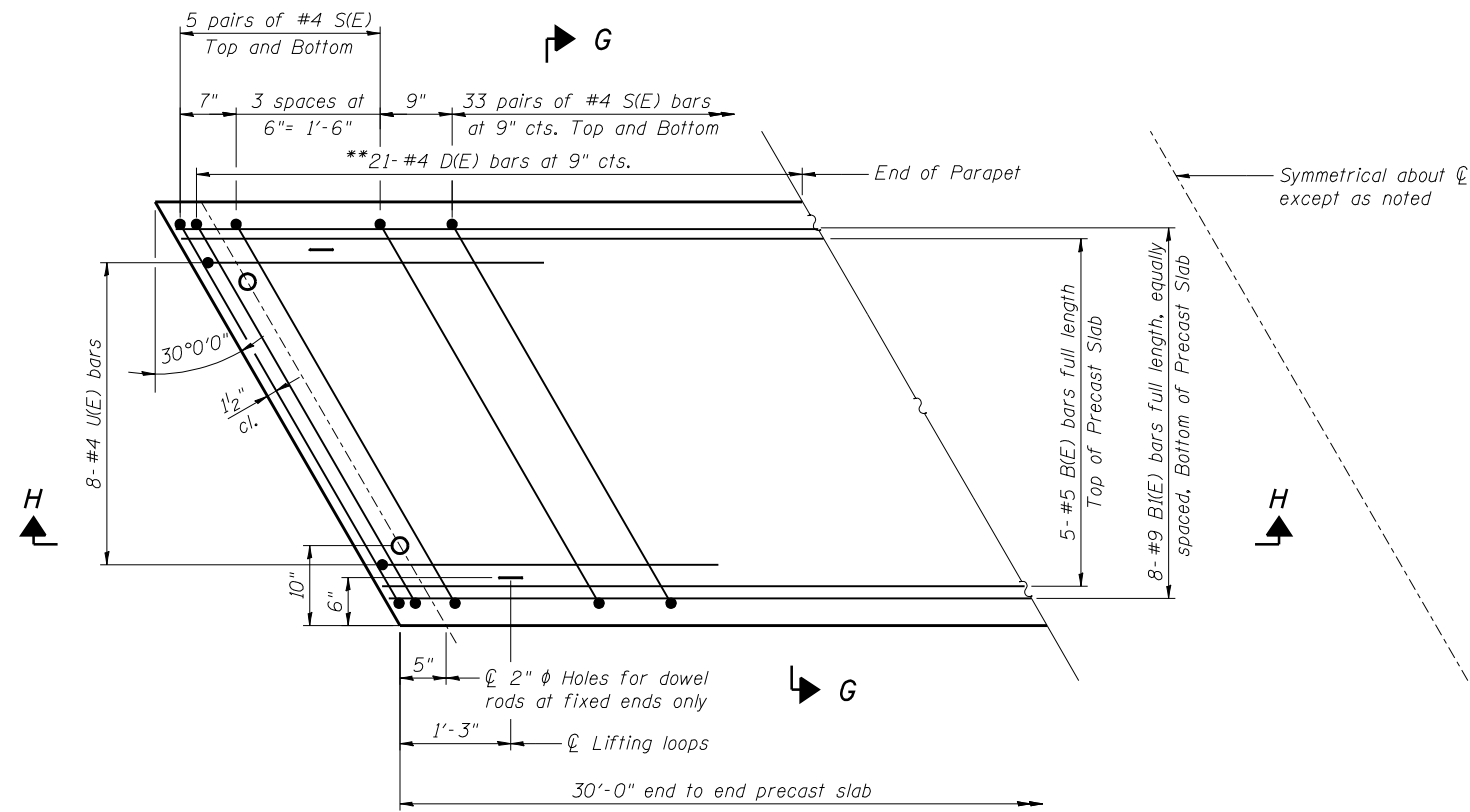
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PLOT DATE = 12/14/2011	DRAWN - RAB	REVISED -
	CHECKED - JAN	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WESTBOUND COMPOSITE APPROACH SLAB DETAILS
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

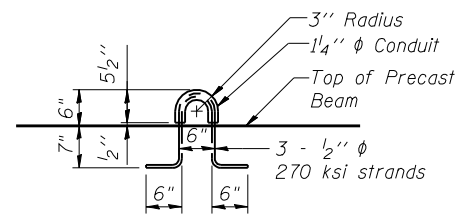
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	147
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				

SHEET NO. S-32 OF S-62 SHEETS



PRECAST CONCRETE BRIDGE SLAB PLAN

Notes:
 Cast-in-place substitution of Precast Concrete Bridge Slab is now allowed. The top surface of Precast Concrete Bridge Slabs shall be roughened to a depth of 1/4" according to the IDOT "Manual for Fabrication of Precast Prestressed Concrete Products".
 Precast Concrete Bridge Slabs shall be erected per Article 504.06 of the Standard Specifications.
 After Precast Concrete Bridge Slab has been erected, holes shall be drilled into corbel and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of Precast Slab and allowed to cure fully prior to grouting the longitudinal shear keys.
 Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. Cost included with Precast Concrete Bridge Slab. A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling. Compressive strength of precast concrete, f'c, shall be 6,000 psi. See Sheet S-31 and S-32 of S-62 for Precast Concrete Bridge Slab layout.

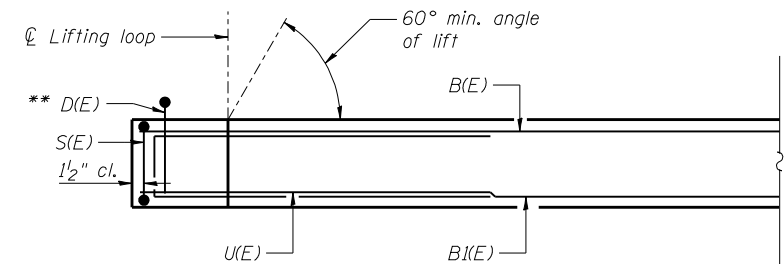


LIFTING LOOP DETAIL

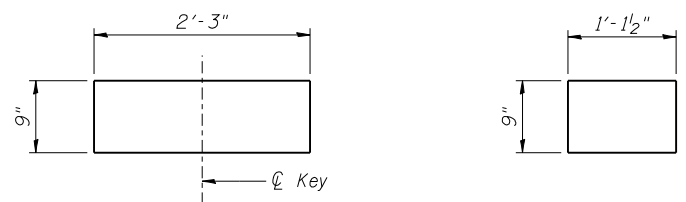
*** BAR LIST
(ONE PRECAST CONCRETE BRIDGE SLAB)**

Bar	No.	Size	Length	Shape
B(E)	5	#4	29'-8"	—
B(I(E)	8	#9	29'-8"	—
** D(E)	21	#4	5'-0"	⌊
S(E)	172	#4	3'-10"	└
U(E)	16	#4	7'-8"	⌊

* For information only
 ** Exterior Precast Slab only

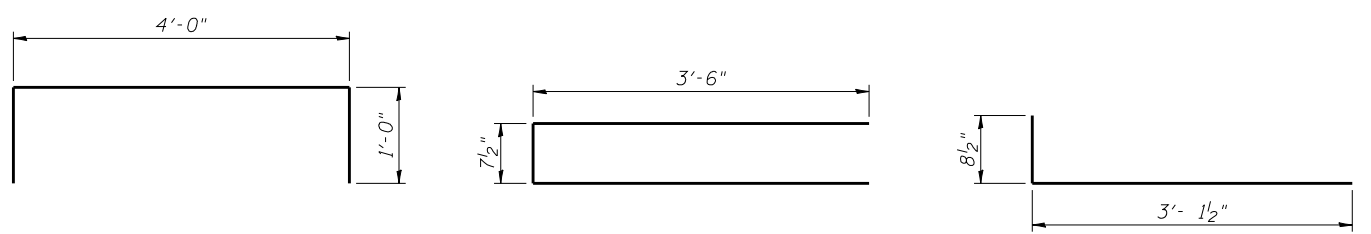


SECTION H-H

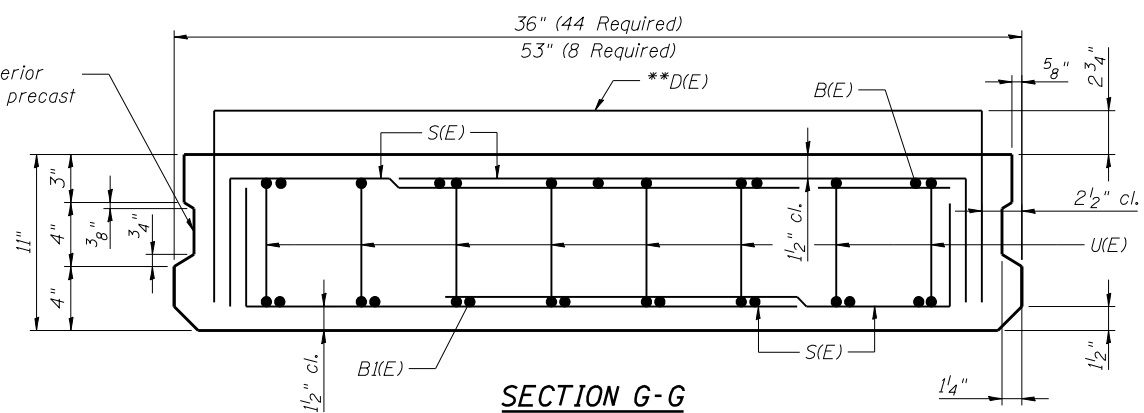


INTERIOR EXTERIOR

1/2" FABRIC BEARING PADS



BAR D(E) BAR U(E) BAR S(E)



SECTION G-G

(Showing Dimensions and Reinforcement)

FILE NAME = 0820117-0118-76884-033-Pre-cast-bridge-slabs.dgn



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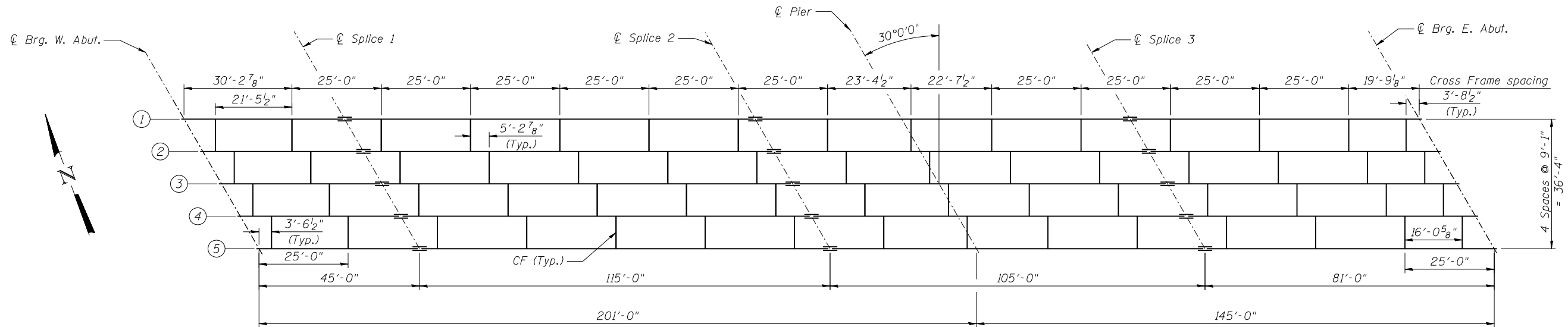
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PRECAST CONCRETE BRIDGE SLAB
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

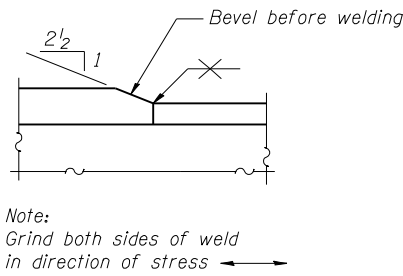
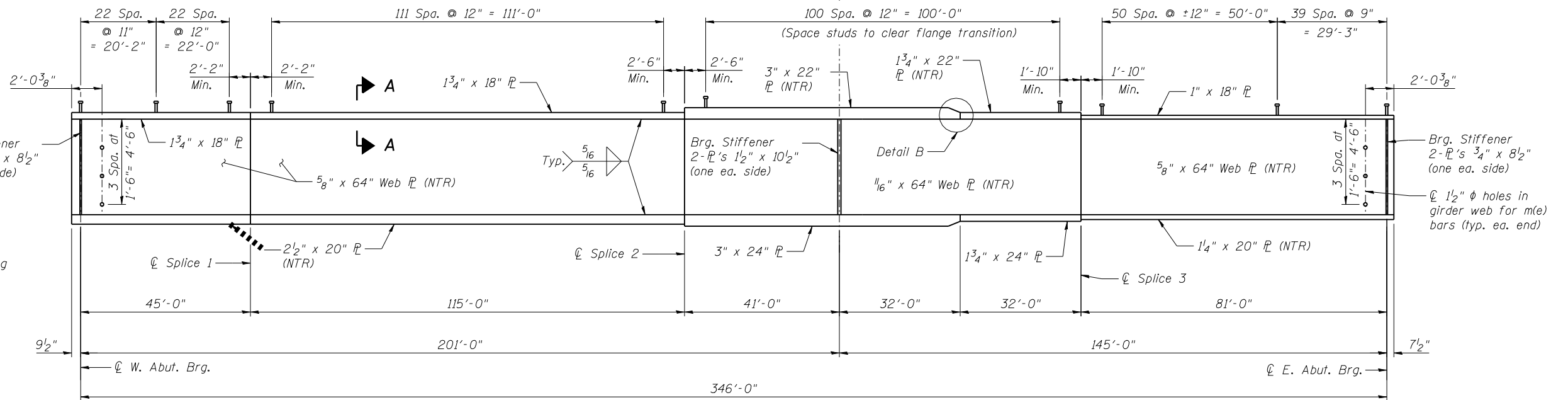
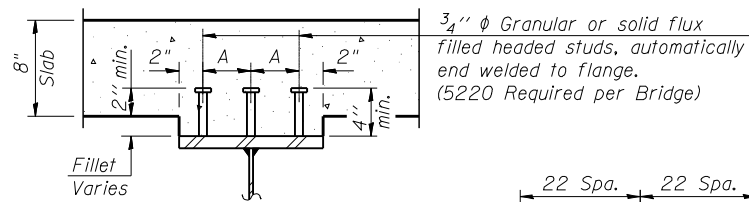
SHEET NO. S-33 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	148
			CONTRACT NO. 76884	

ILLINOIS FED. AID PROJECT



Flange width	Dim A
18"	7"
22"	9"



BILL OF MATERIAL
(For each structure)

Item	Unit	Total
Stud Shear Connectors	Each	5,220

- NOTES:
1. For Field Splice Details, see sheet S-35 of S-62.
 2. AASHTO M270 Grade 50 steel shall be used for all flanges, webs, bearing stiffeners & splice plates.
 3. Load Carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
 4. For cross frame and bearing stiffeners see Sht. S-36 of S-62.

FILE NAME = 082017-0118-76884-034-FramingPlan.dgn



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 CHECKED - JAN
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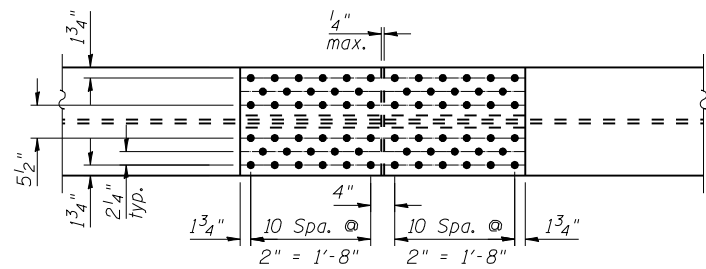
REVISIONS
 REVISED -
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

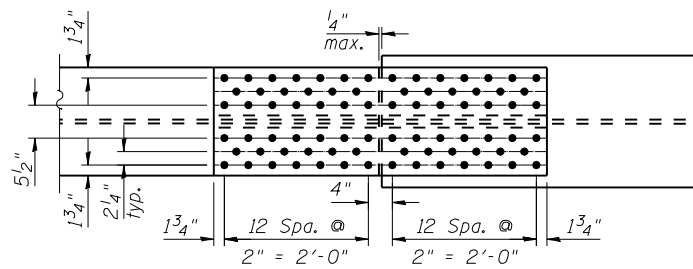
**FRAMING PLAN AND GIRDER ELEVATION
 STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-34 OF S-62 SHEETS

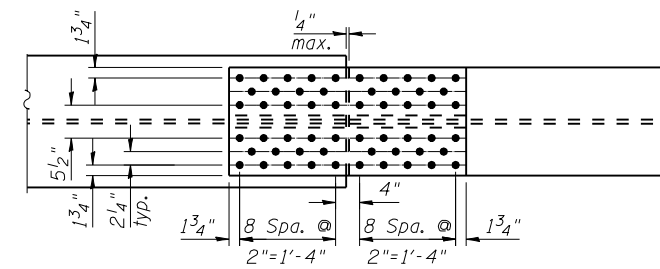
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	149
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



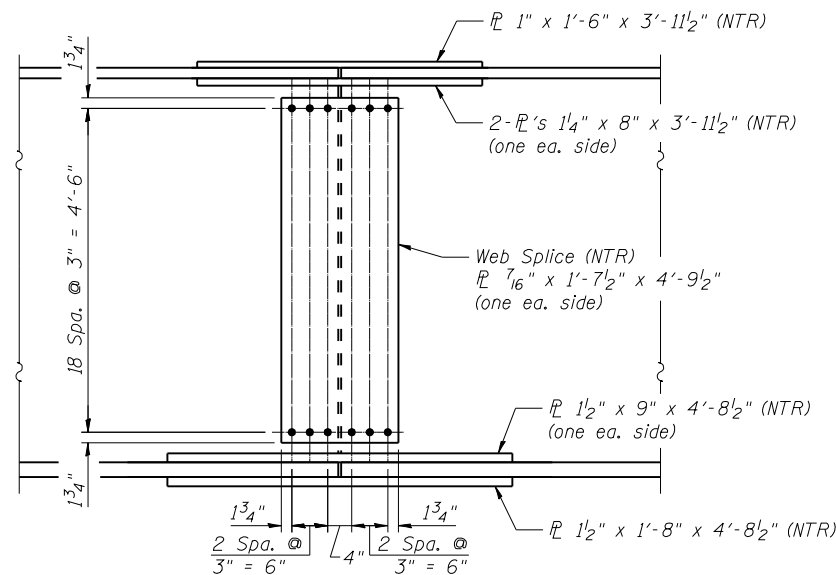
TOP FLANGE



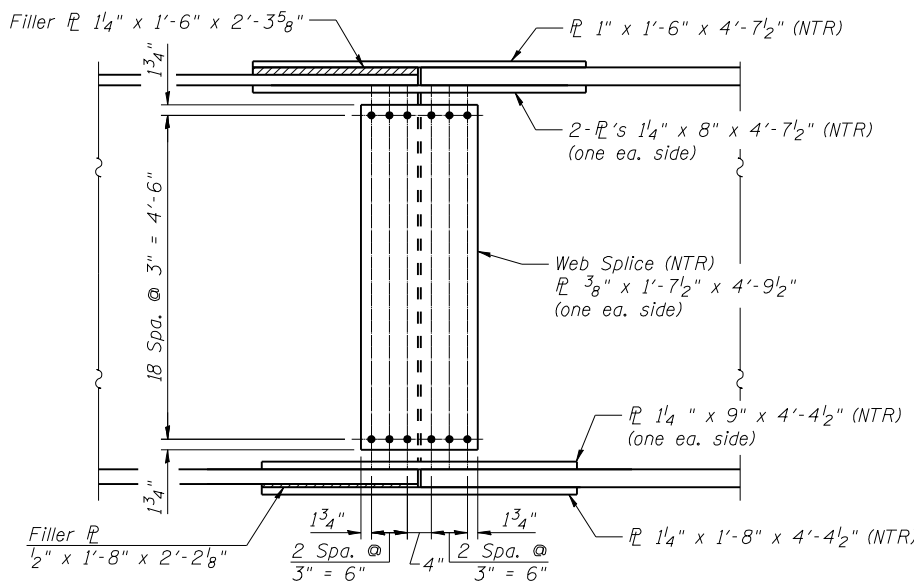
TOP FLANGE



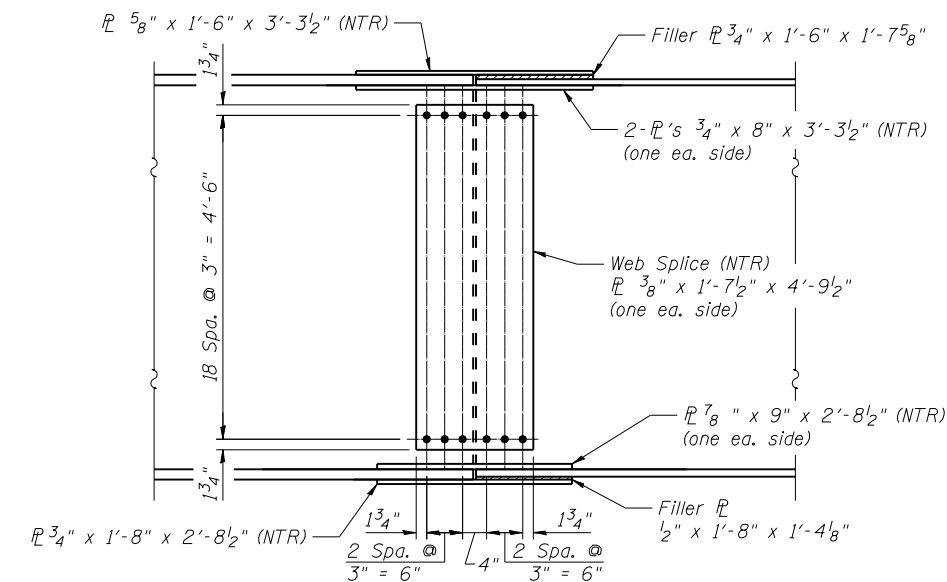
TOP FLANGE



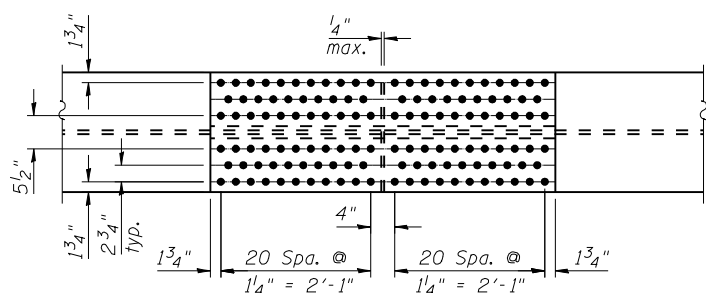
ELEVATION



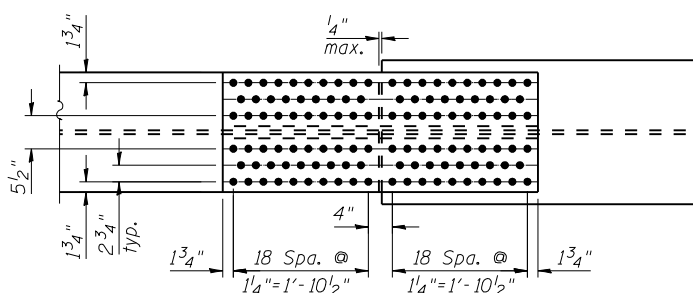
ELEVATION



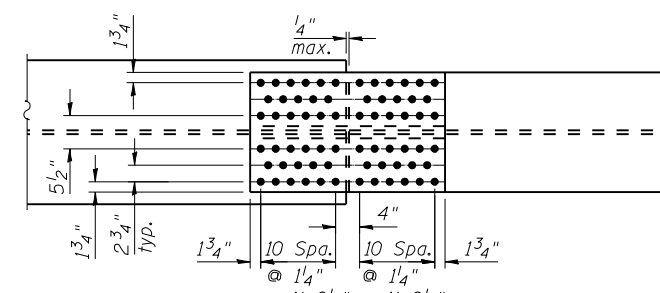
ELEVATION



BOTTOM FLANGE



BOTTOM FLANGE



BOTTOM FLANGE

FIELD SPLICE 1
(10-Required)

FIELD SPLICE 2
(10-Required)

FIELD SPLICE 3
(10-Required)

- NOTES:**
- Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts shall be 7/8" ϕ , holes 15/16" ϕ .
 - AASHTO M270 Grade 50 steel shall be used for all splice plates, except fill plates which may be AASHTO M270 Grade 36 or 50.
 - Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness (Zone 2), including all flange and web splice plates (except fill plates).
 - Shear connector studs shall not be placed on top of splice plates.

FILE NAME = 0820117-0118-76884-035-Splice.dgn



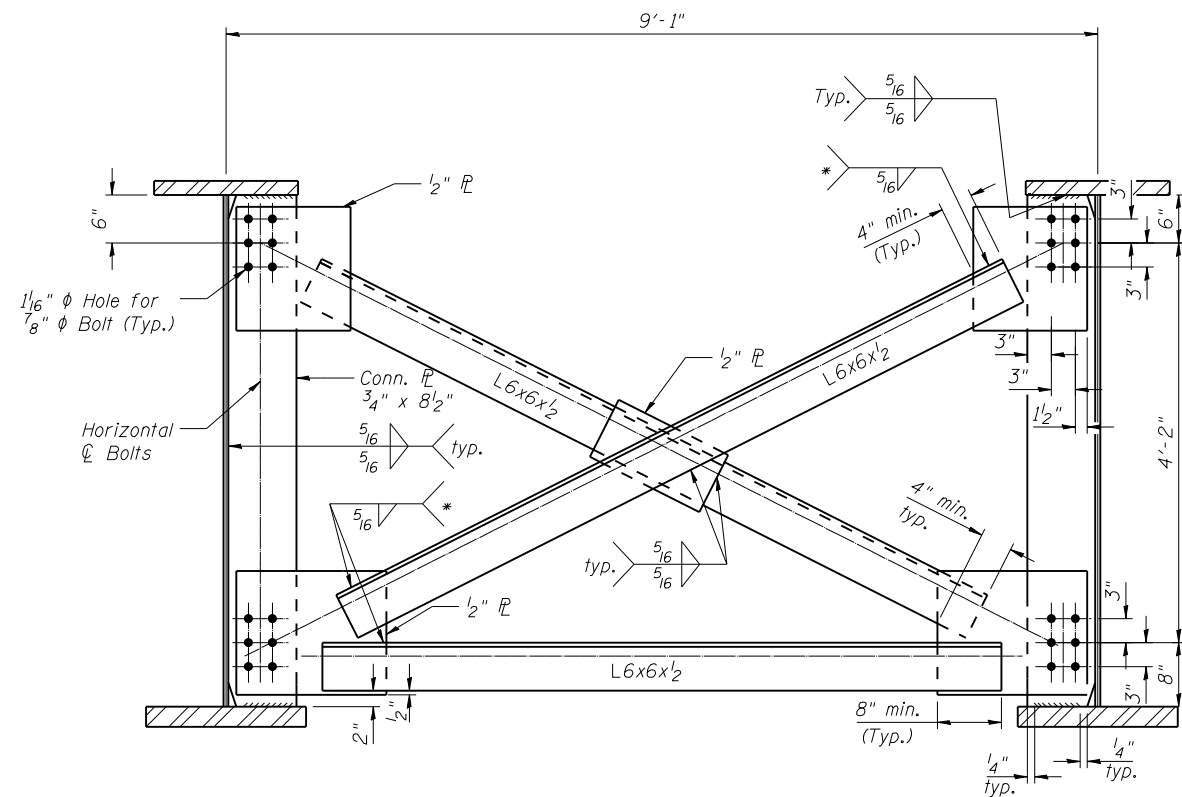
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PLOT DATE = 10/19/2011	DRAWN - BTO	REVISED -
	CHECKED - JAN	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STEEL DETAILS - SPLICES
STRUCTURE NO. 082-0117 (E.B.) & 082-0018 (W.B.)**

SHEET NO. S-35 OF S-62 SHEETS

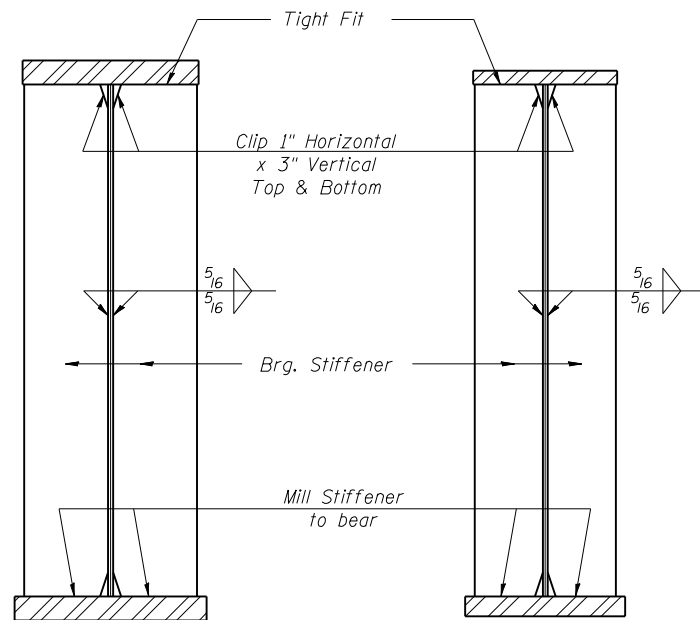
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	150
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



2 Hardened washers required for each set of oversized holes.
 * Fillet weld angles along 3 sides on one face of gusset plate.

CROSS FRAME - CF

(60-Required per Bridge)



SECTION AT PIER

SECTION AT ABUTMENT

BEARING STIFFENERS

INTERIOR GIRDER MOMENT TABLE			
	0.4 Sp. 1	Pier	0.6 Sp. 2
I_s	(in ⁴) 99,775	169,771	58,640
$I_c(n)$	(in ⁴) 203,043	275,821	132,586
$I_c(3n)$	(in ⁴) 148,582	215,724	97,001
$I_c(cr)$	(in ⁴) 110,127	184,611	67,330
S_s	(in ³) 3,401	4,702	1,924
$S_c(n)$	(in ³) 4,168	8,996	2,535
$S_c(3n)$	(in ³) 3,858	5,575	2,319
$S_c(cr)$	(in ³) 3,513	5,410	2,032
DC1	(k/ft.) 1.43	1.64	1.30
MDC1	(k) 4,224	6,913	693
DC2	(k/ft.) 0.180	0.180	0.180
MDC2	(k) 552	831	125
DW	(k/ft.) 0.400	0.400	0.400
MDW	(k) 1,219	1,836	276
$M_L + IM$	(k) 3,709	4,022	2,517
M_u (Strength I)	(k) 14,289	19,473	5,841
$\phi_r M_n$	(k) 18,875	21,429	13,081
f_s DC1	(ksi) 14.91	17.64	4.32
f_s DC2	(ksi) 1.59	1.84	0.59
f_s DW	(ksi) 3.79	4.07	1.43
f_s ($L + IM$)	(ksi) 10.68	8.92	11.91
f_s (Service II)	(ksi) 34.17	35.15	21.83
$0.95R_h F_y f$	(ksi) 47.50	47.50	47.50
f_s (Total)(Strength I)	(ksi) 44.99	46.08	29.13
$\phi_r F_n$	(ksi) 50.00	50.00	50.00
V_f	(k) 59.4	60.2	53.6

INTERIOR GIRDER REACTION TABLE			
	W. Abut.	Pier	E. Abut.
R_{DC1}	(k) 111.9	343.8	51.4
R_{DC2}	(k) 14.2	41.4	7.4
R_{DW}	(k) 31.5	91.4	16.3
$R_{L + IM}$	(k) 112.7	230.7	107.7
R_{Total}	(k) 270.3	707.3	182.8

For fabrication only

EASTBOUND TOP OF WEB ELEVATIONS						
Girder No.	Q Brg. W. Abut.	Q Splice 1	Q Splice 2	Q Brg. Pier	Q Splice 3	Q Brg. E. Abut.
1	495.11	495.43	495.60	495.51	495.29	494.67
2	495.31	495.62	495.76	495.65	495.33	494.45
3	495.43	495.72	495.82	495.70	495.25	494.20
4	495.34	495.61	495.68	495.54	495.05	493.92
5	495.19	495.45	495.48	495.34	494.80	493.59

For fabrication only

WESTBOUND TOP OF WEB ELEVATIONS						
Girder No.	Q Brg. W. Abut.	Q Splice 1	Q Splice 2	Q Brg. Pier	Q Splice 3	Q Brg. E. Abut.
1	495.39	495.95	496.73	496.85	496.93	496.62
2	495.65	496.19	496.93	497.04	497.10	496.77
3	495.85	496.38	497.09	497.18	497.22	496.87
4	495.85	496.36	497.03	497.11	497.13	496.75
5	495.75	496.25	496.88	496.95	496.95	496.54

- 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.).
- MDC1: 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.).
- MDC2: 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.).
- MDW: 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 ((kip-ft.)).
- M_u (Strength I): Factored design moment (kip-ft.).
- $\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.) 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).
- $MDC1 / S_{nc}$
- f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
- $MDC2 / S_c(3n)$ or $MDC2 / S_c(cr)$ 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).
- $MDW / S_c(3n)$ or $MDW / S_c(cr)$ 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).
- $f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s(L + IM)$
- $0.95R_h F_y f$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
- f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
- $1.25 (f_{sDC1} + f_{sDC2}) + 1.5 f_{sDW} + 1.75 f_s(L + IM)$
- $\phi_r F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7.2 (ksi).
- V_f : Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

- NOTES:
- AASHTO M270 Grade 36 steel shall be used for all cross frames and intermediate stiffeners
 - All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

FILE NAME = 0820117-0118-76884-036-CrossFrames.dgn



USER NAME = brazzera	DESIGNED - BTO	REVISED -
PLOT SCALE = 2x0.0000 '1' / IN.	CHECKED - JAN	REVISED -
PLOT DATE = 10/19/2011	DRAWN - BTO	REVISED -
	CHECKED - JAN	REVISED -

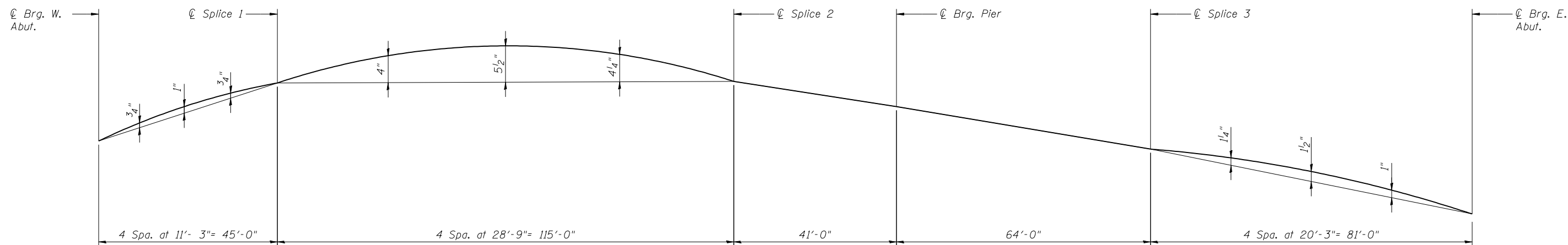
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STEEL DETAILS & MOMENT TABLE
STRUCTURE NO. 082-0117(E.B.) & 082-0118(W.B.)**

SHEET NO. S-36 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	151
CONTRACT NO. 76884				

ILLINOIS FED. AID PROJECT



CAMBER DIAGRAM

(For all Girders, both Structures 082-0117 & 082-0118)

FILE NAME = 0820117-0118-76884-037-CamberDia.dgn



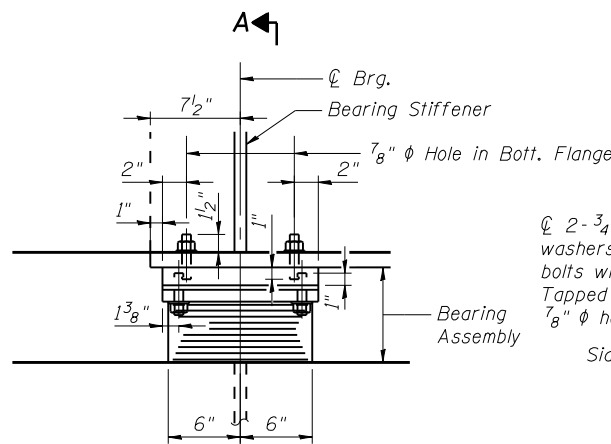
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PLOT DATE = 10/19/2011	CHECKED - SAB	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

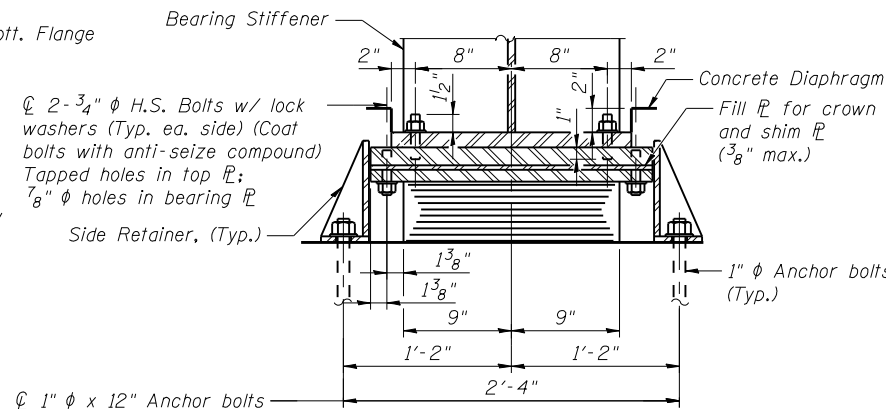
**CAMBER DIAGRAM
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-37 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	152
CONTRACT NO. 76884			ILLINOIS FED. AID PROJECT	

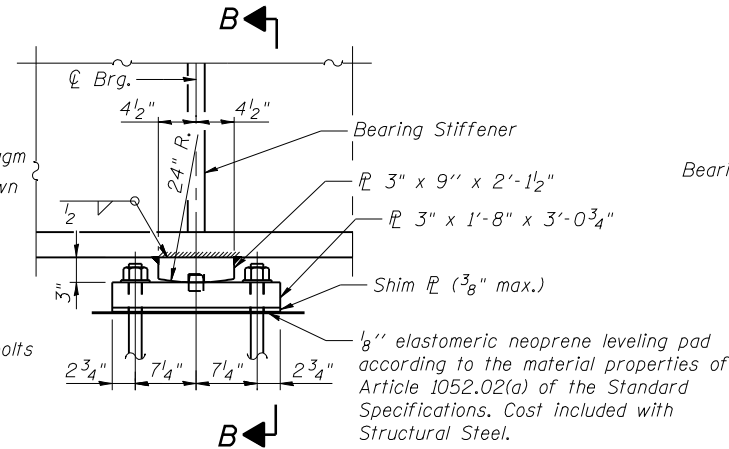


ELEVATION AT EAST ABUT.

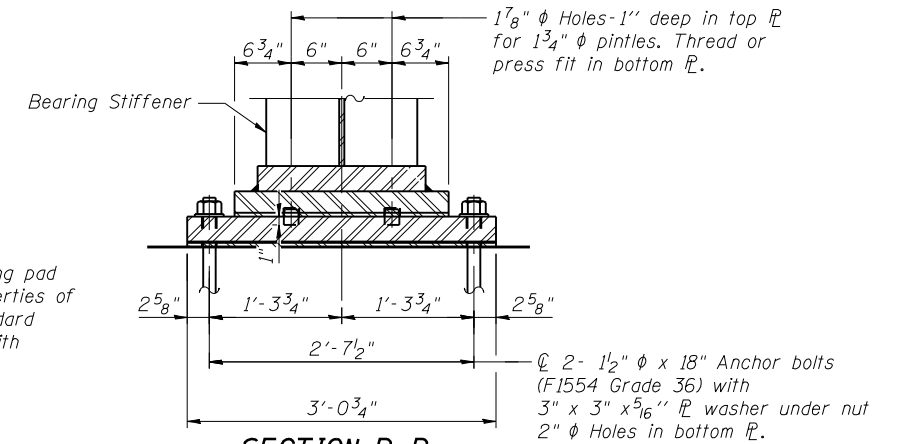


SECTION A-A

\varnothing 1" \varnothing x 12" Anchor bolts (F1554 Grade 36) with 2 $\frac{1}{4}$ " x 2 $\frac{1}{4}$ " x 5 $\frac{5}{16}$ " \mathbb{R} washer under nut

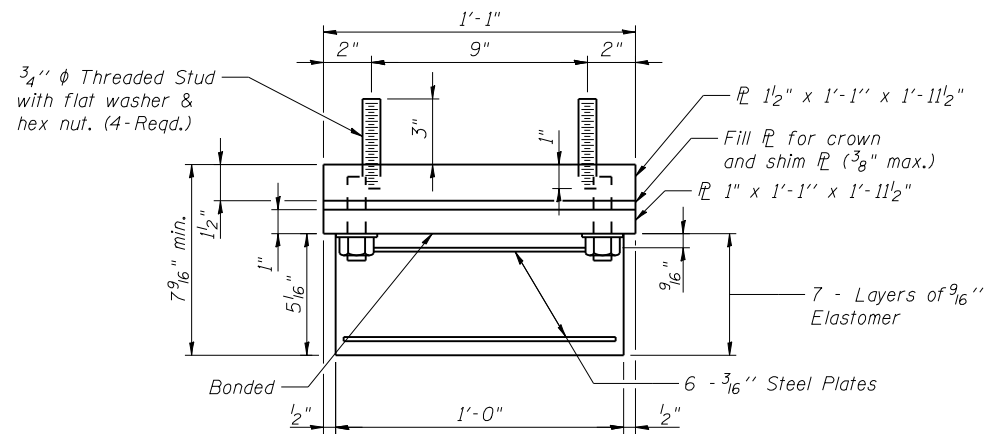


ELEVATION AT PIER



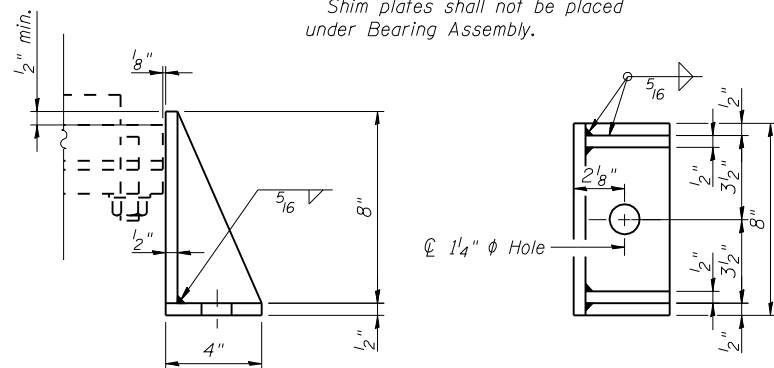
SECTION B-B

TYPE I ELASTOMERIC EXP. BRG.



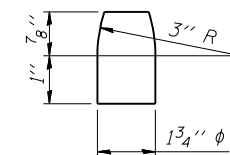
BEARING ASSEMBLY

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



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



PINTLE

FIXED BEARING

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

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

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

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

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

Steel for bearing plates shall be ASTM 572 Grade 50 (Fy=50 ksi)

The anchor bolt sizes and grades shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts will not be allowed.

BILL OF MATERIAL

(For each structure)

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	5
Anchor Bolts, 1" \varnothing	Each	10
Anchor Bolts, 1 $\frac{1}{2}$ " \varnothing	Each	20

FILE NAME = 0820117-0118-76884-038-BearingDetails1.dgn



USER NAME = brozzaro
 PLOT SCALE = 0:2.0000 '1' / IN.
 PLOT DATE = 10/19/2011

DESIGNED - RAB
 CHECKED - BTO
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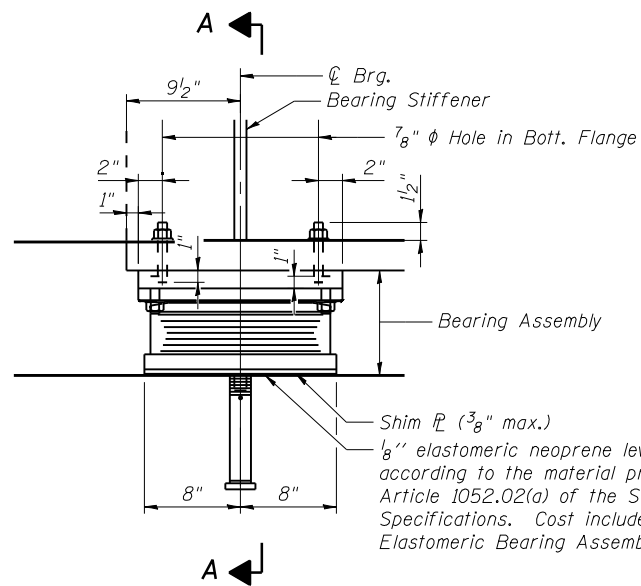
REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BEARING DETAILS, TYPE I ELASTOMERIC AND FIXED
 STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)

SHEET NO. S-38 OF S-62 SHEETS

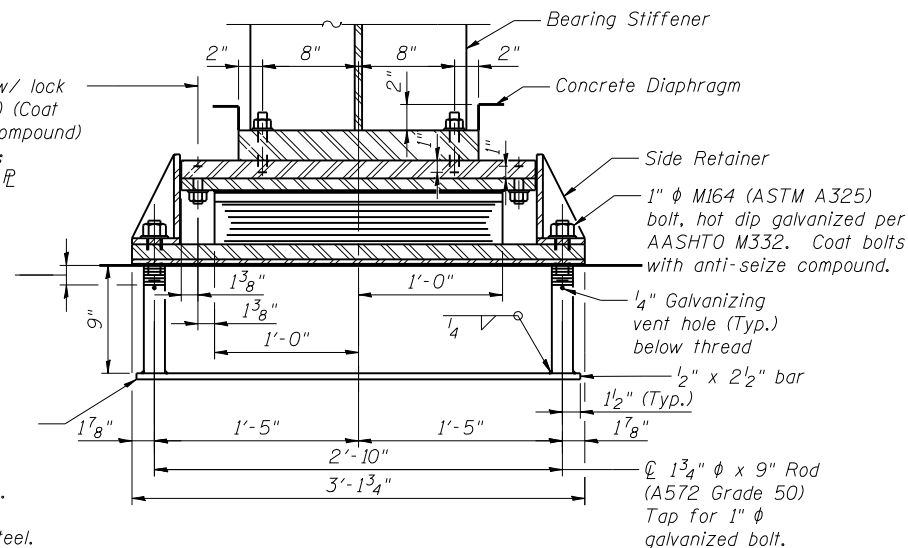
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	153
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



ELEVATION AT WEST ABUT.

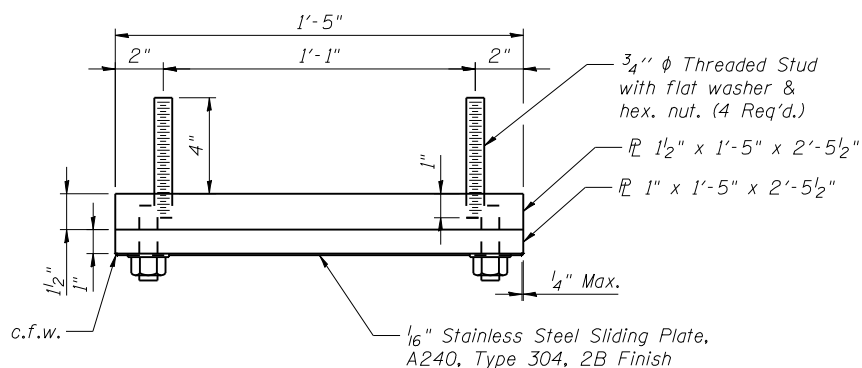
2-3/4" φ H.S. Bolts w/ lock washers (Typ. ea. side) (Coat bolts with anti-seize compound)
Tapped holes in top flange:
7/8" φ holes in bearing flange

Bolt engagement 1/4" min., 1 5/8" max., allowing up to 3/8" adjustment shims. Tap full threads in rod 1 3/4" deep. Provide 1/4" φ galvanizing vent hole below full thread. Anchorage assembly to be galvanized after fabrication according to AASHTO M111 or M232 (as applicable). Anchorage assembly shall be paid for as Structural Steel.

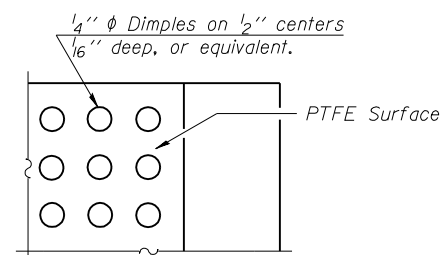


SECTION A-A

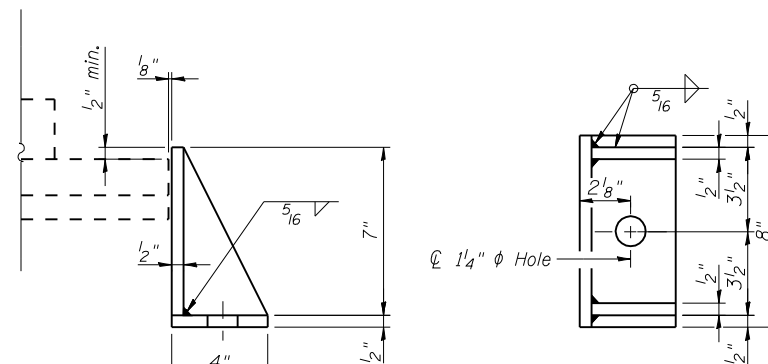
TYPE II ELASTOMERIC EXP. BRG.



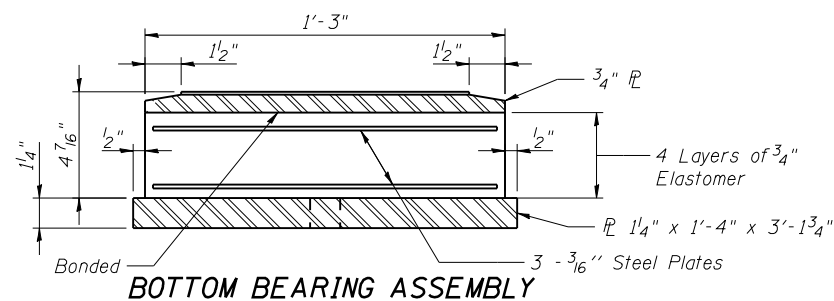
TOP BEARING ASSEMBLY



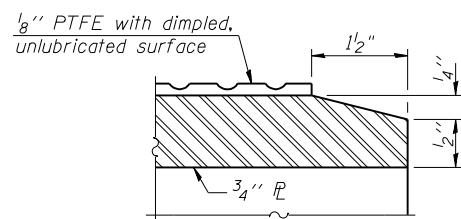
PLAN-PTFE SURFACE



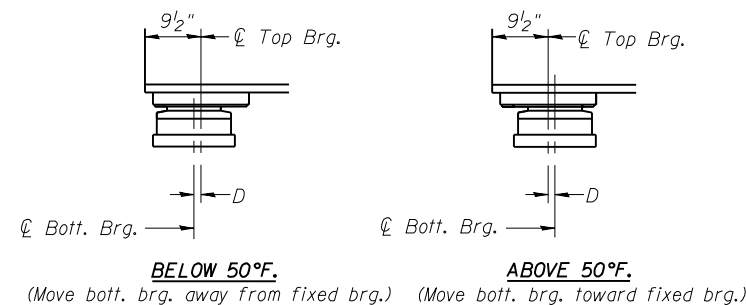
SIDE RETAINER
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



BOTTOM BEARING ASSEMBLY



SECTION THRU PTFE



SETTING ANCHOR BOLTS AT EXP. BRG.

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

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

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

The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type II. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

Steel for bearing plates shall be ASTM 572 Grade 50 (Fy=50 ksi)

The anchor bolt sizes and grades shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts will not be allowed.

BILL OF MATERIAL

(For each structure)

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	5
Anchor Bolts, 1" φ	Each	10

FILE NAME = 0820117-0118-76884-039-BearingDetailsTypeII.dgn



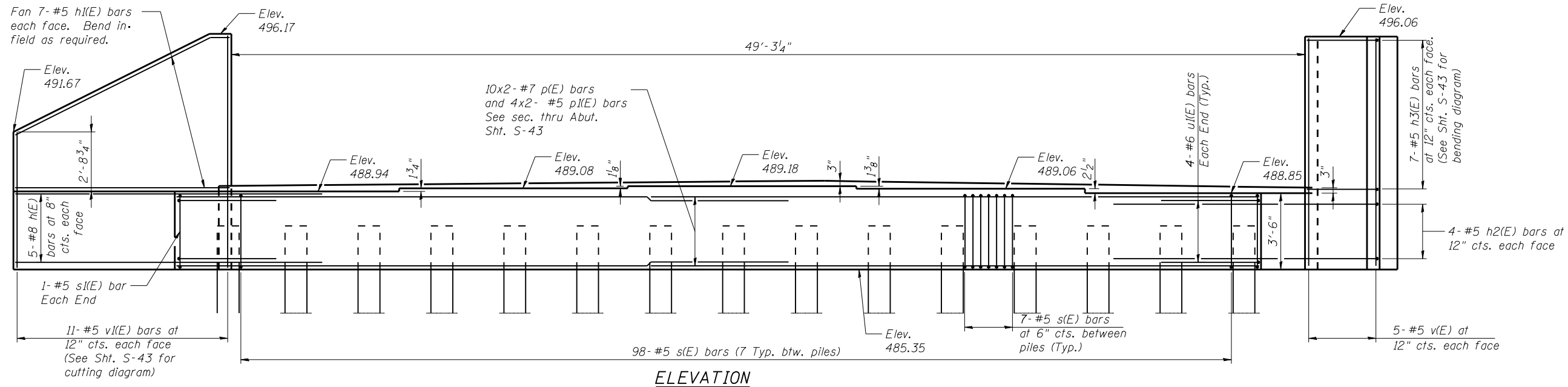
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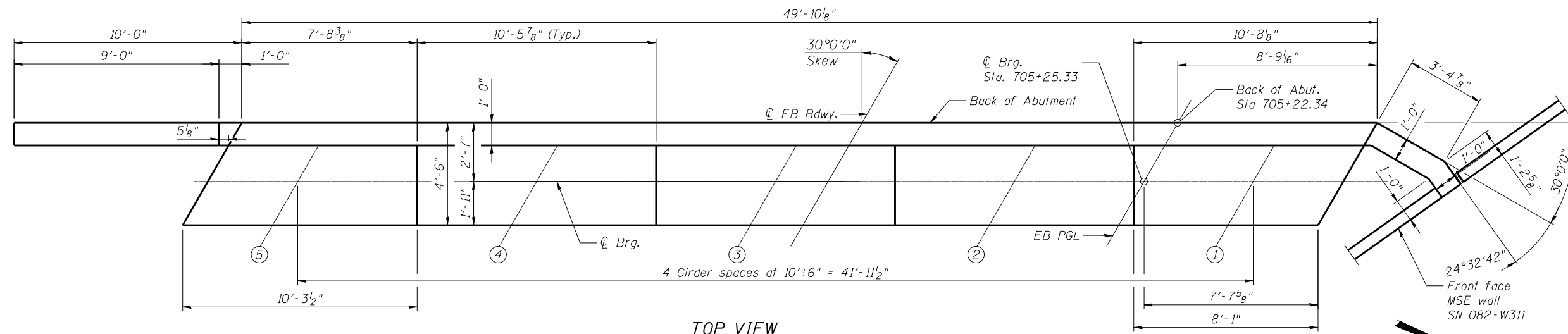
**BEARING DETAILS, TYPE II ELASTOMERIC
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-39 OF S-62 SHEETS

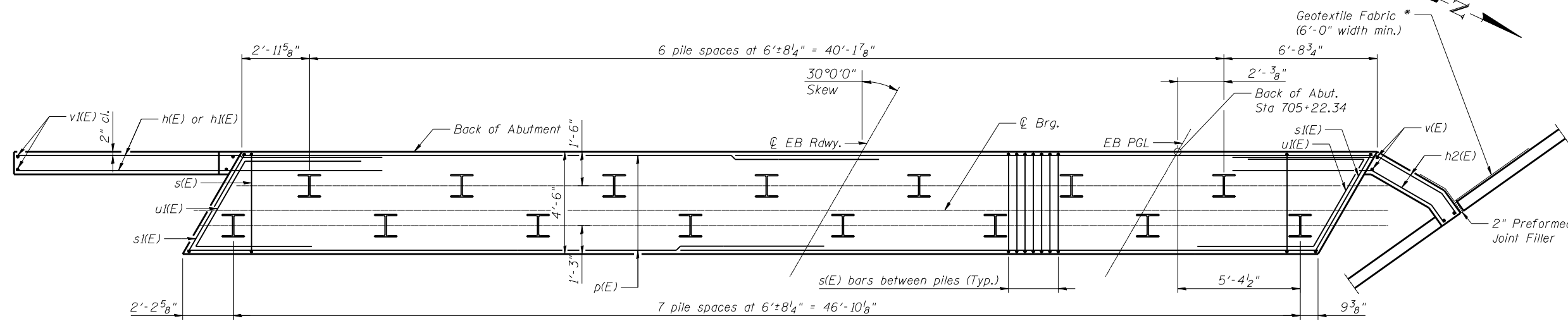
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	154
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



ELEVATION



TOP VIEW



PILE PLAN

BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
h(E)	10	#8	16'-7"	—	
h2(E)	14	#5	10'-8"	—	
h3(E)	8	#5	7'-6"	—	
h3(E)	14	#5	4'-2"	—	
p(E)	20	#7	27'-5"	—	
p(E)	8	#5	26'-5"	—	
s(E)	98	#5	15'-10"	—	
s(E)	2	#5	17'-0"	—	
u(E)	8	#6	12'-5"	—	
v(E)	10	#5	10'-4"	—	
v(E)	11	#5	16'-5"	—	
Concrete Structures				Cu. Yd.	67
Reinforcement Bars, Epoxy Coated				Pound	4,170
Furnishing Steel Piles, HP 12x53				Foot	644
Driving Piles				Foot	644
Test Pile Steel, HP 12x53				Each	1
Pile Shoes				Each	15

For details of piles see sheet S-51 of S-62.

*Item incidental to Concrete Structures

Cast steps monolithically with cap.

Space top reinforcement in cap to miss anchor bolts.

PILE DATA

Type: HP 12x53
 Nominal Required Bearing: 417 kip
 Factored Resistance Available: 229 kip
 Est. Length: 46'-0"
 No. Production Piles: 14
 No. Test Piles: 1

MIN BAR LAP

#5 = 3'-3"
 #7 = 5'-2"

FILE NAME = 0820117-0118-76884-040-WestAbutmentEB.dgn



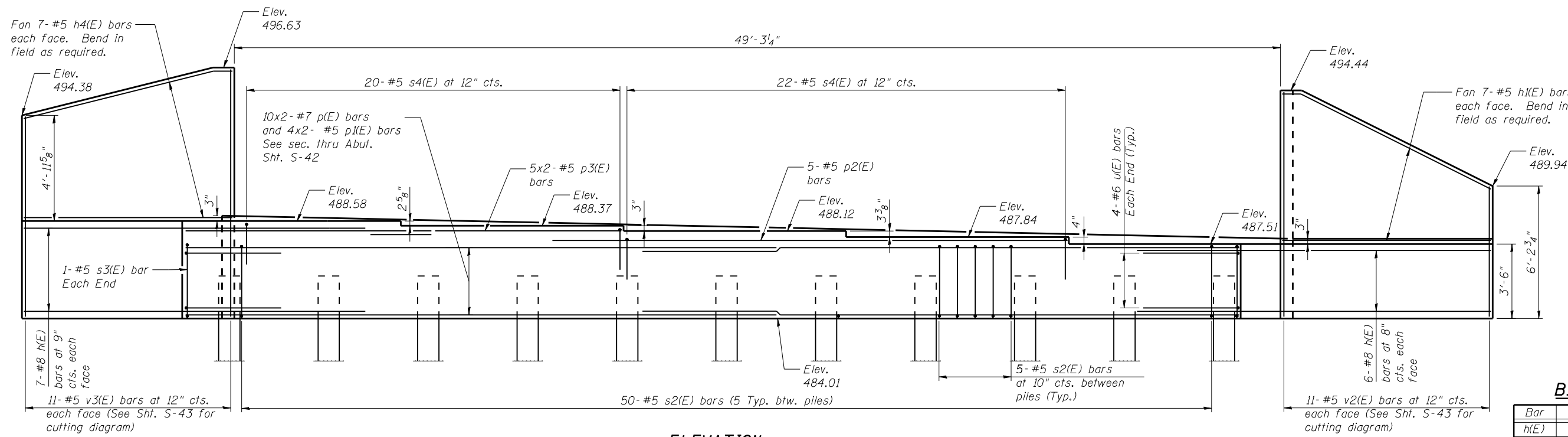
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	CHECKED - JAN	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

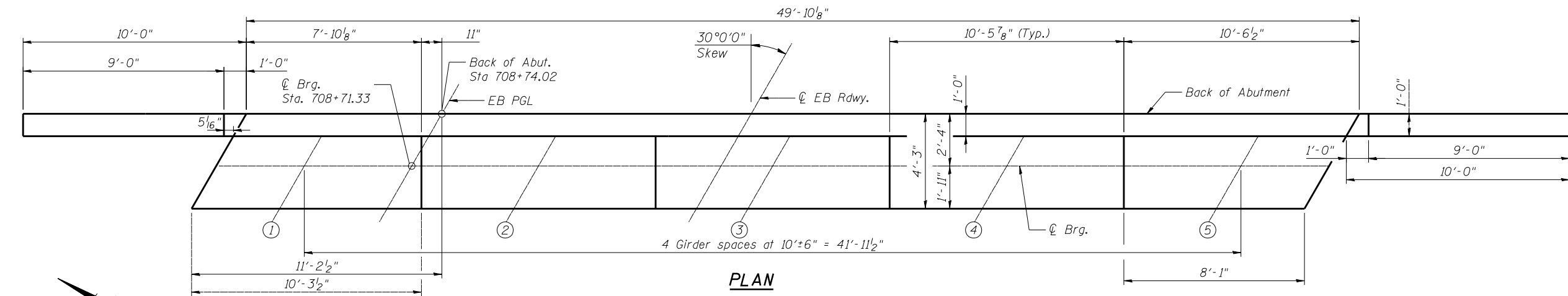
**WEST ABUTMENT PLAN & ELEVATION EASTBOUND
 STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-40 OF S-62 SHEETS

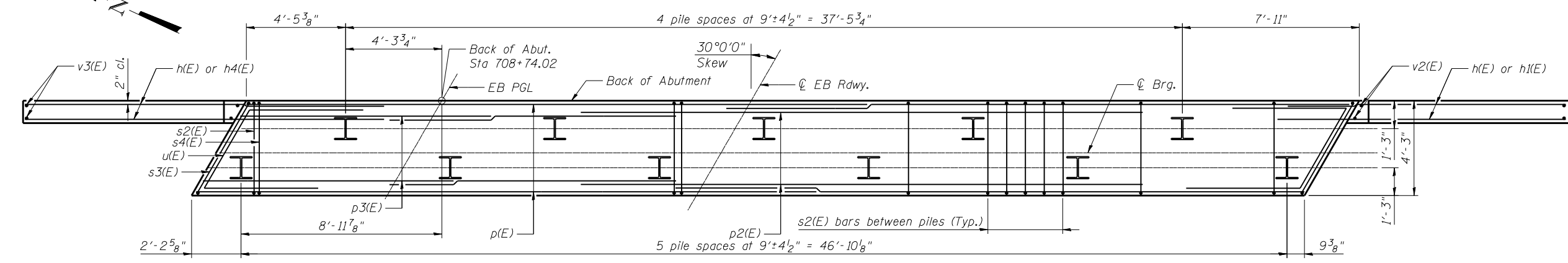
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	155
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



ELEVATION



PLAN



PILE PLAN

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	26	#8	16'-7"	—
h4(E)	14	#5	10'-8"	—
h4(E)	14	#5	9'-11"	—
p(E)	20	#7	27'-5"	—
p1(E)	8	#5	26'-5"	—
p2(E)	5	#5	24'-1"	—
p3(E)	10	#5	11'-11"	—
s2(E)	50	#5	15'-4"	□
s3(E)	2	#5	16'-6"	□
s4(E)	42	#5	7'-11"	□
u(E)	8	#6	12'-2"	┘
v3(E)	11	#5	21'-3"	—
v2(E)	11	#5	15'-8"	—
Concrete Structures	Cu. Yd.		72.3	
Reinforcement Bars, Epoxy Coated	Pound		4,800	
Furnishing - Piles, HP 12x53	Foot		810	
Driving Piles	Foot		810	
Test Pile Steel, HP 12x53	Each		1	
Pile Shoes	Each		11	
Structure Excavation	Cu. Yd.		76	

For details of piles see sheet S-51 of S-62.
 Cast steps monolithically with cap.
 Space top reinforcement in cap to miss anchor bolts.

PILE DATA

Type: HP 12x53
 Nominal Required Bearing: 399 kip
 Factored Resistance Available: 220 kip
 Est. Length: 81'-0"
 No. Production Piles: 10
 No. Test Piles: 1

MIN BAR LAP

#5 = 3'-3"
 #7 = 5'-2"

FILE NAME = 0820117-0118-76884-041-EastAbutEB.dgn



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	CHECKED - JAN	REVISED -

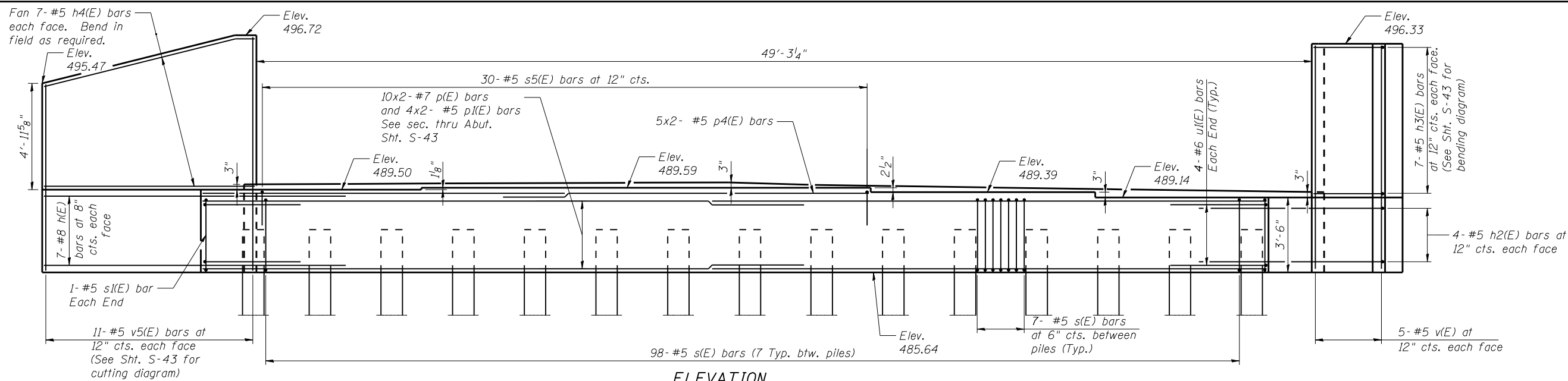
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**EAST ABUTMENT PLAN AND ELEVATION EASTBOUND
 STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

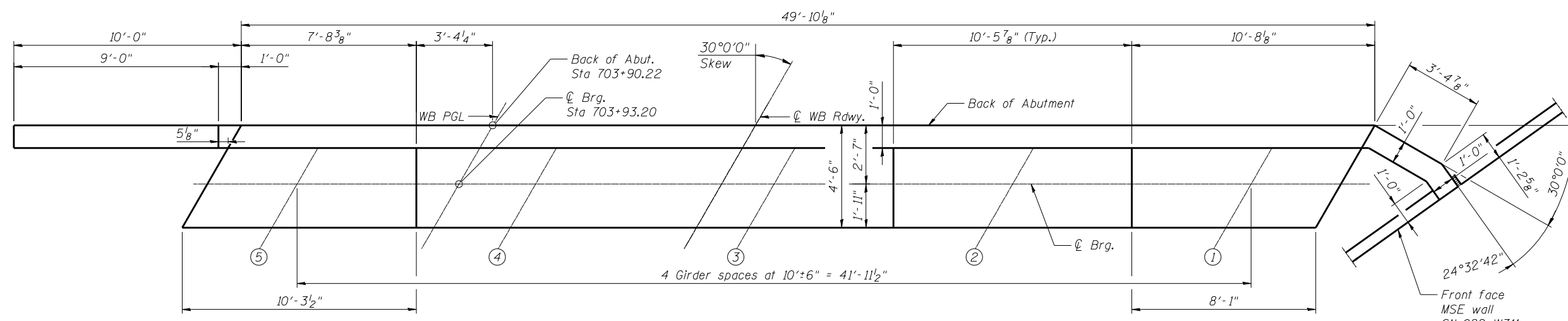
SHEET NO. S-41 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	156
CONTRACT NO. 76884				

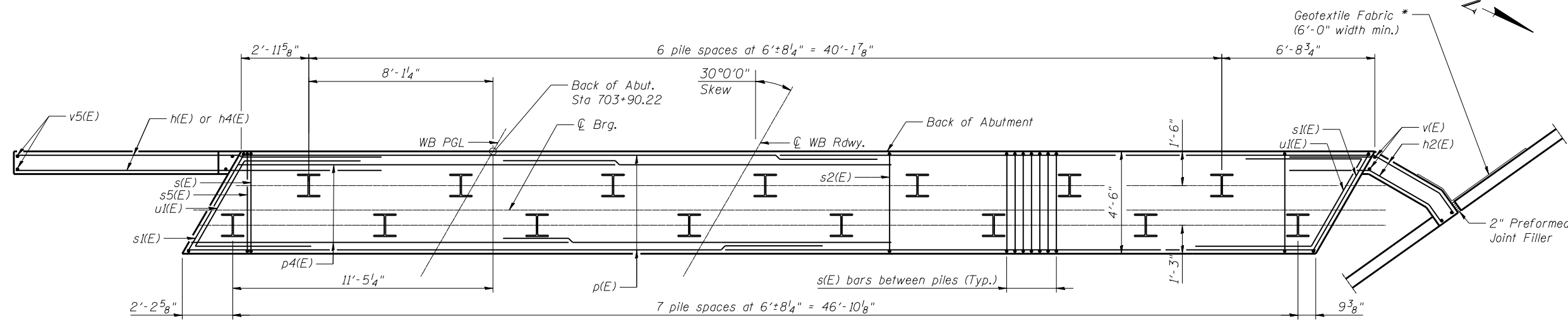
ILLINOIS FED. AID PROJECT



ELEVATION



TOP VIEW



PILE PLAN

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	14	#8	16'-7"	—
h2(E)	8	#5	7'-6"	—
h3(E)	14	#5	4'-2"	—
h4(E)	14	#5	9'-11"	—
p(E)	20	#7	27'-5"	—
p1(E)	8	#5	26'-5"	—
p4(E)	10	#5	17'-2"	—
s(E)	98	#5	15'-10"	□
s1(E)	2	#5	17'-0"	□
s5(E)	30	#5	8'-2"	□
u1(E)	8	#6	12'-5"	—
v(E)	10	#5	10'-4"	—
v5(E)	11	#5	19'-3"	—
Concrete Structures	Cu. Yd.		64.5	
Reinforcement Bars, Epoxy Coated	Pound		4,800	
Furnishing Steel Piles, HP 12x53	Foot		616	
Driving Piles	Foot		616	
Test Pile Steel, HP 12x53	Each		1	
Pile Shoes	Each		15	

For details of piles see sheet S-51 of S-62.

*Item incidental to Concrete Structures

Cast steps monolithically with cap.

Space top reinforcement in cap to miss anchor bolts.

PILE DATA

Type: HP 12x53
 Nominal Required Bearing: 406 kip
 Factored Resistance Available: 223 kip
 Est. Length: 44'-0"
 No. Production Piles: 14
 No. Test Piles: 1

MIN BAR LAP

#5 = 3'-3"
 #7 = 5'-2"

FILE NAME = 0820117-0118-76884-042-WestAbut.WB.dgn



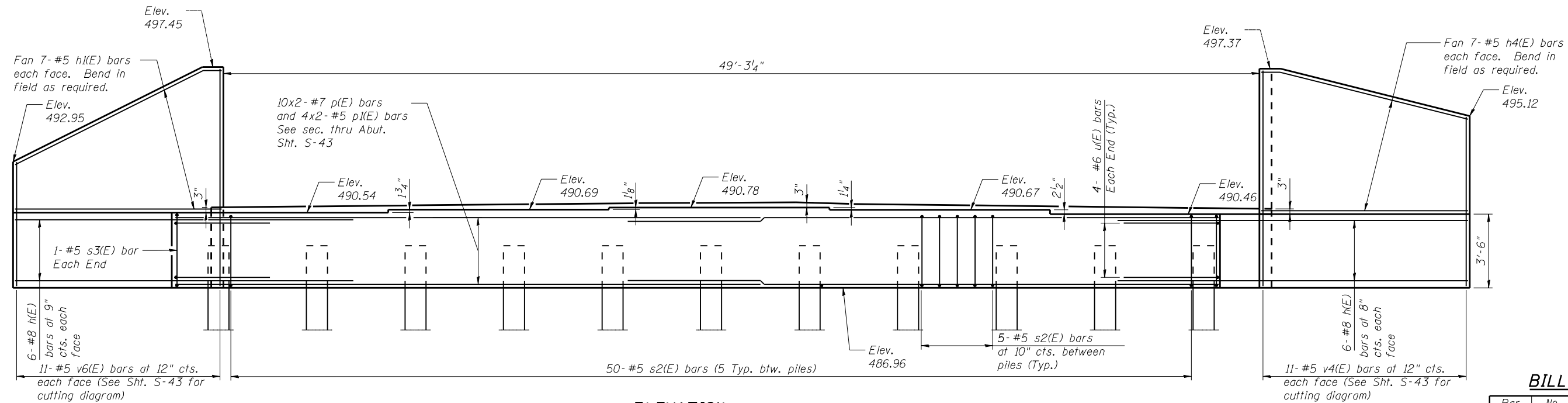
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**STATE OF ILLINOIS
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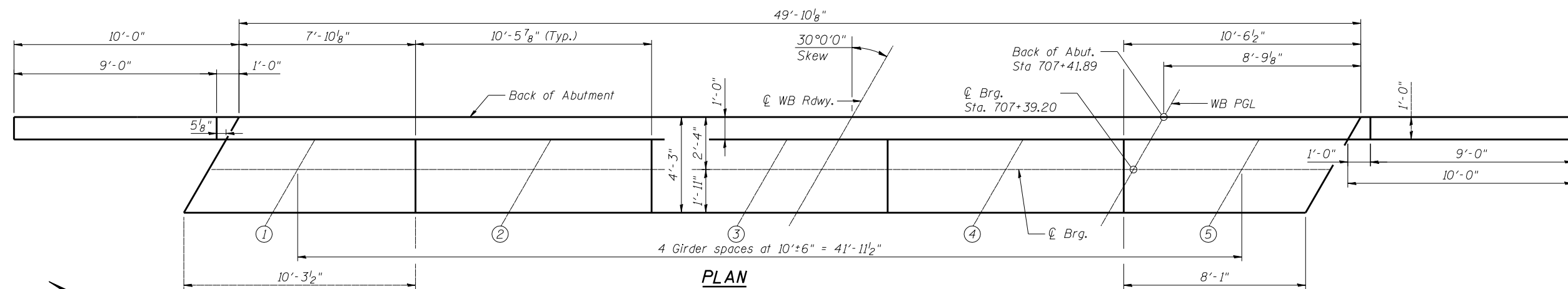
**WEST ABUTMENT PLAN AND ELEVATION WESTBOUND
 STRUCTURE NO 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-42 OF S-62 SHEETS

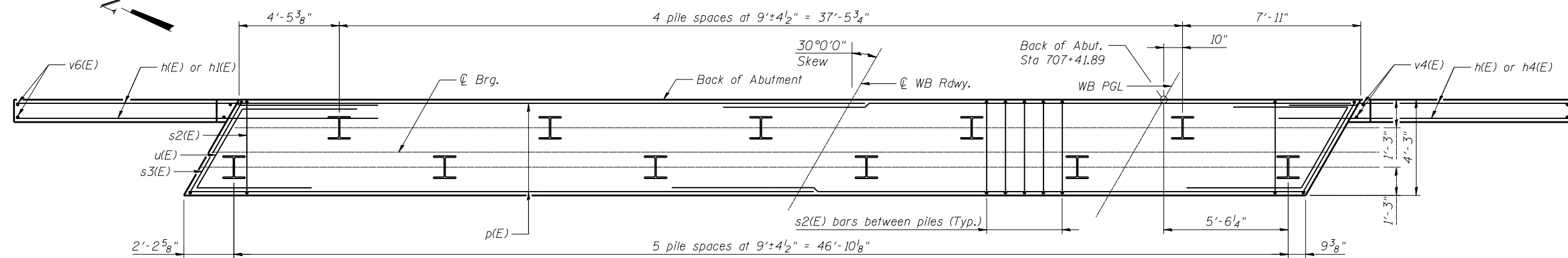
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	157
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



ELEVATION



PLAN



PILE PLAN

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	24	#8	16'-7"	—
h4(E)	14	#5	10'-8"	—
h4(E)	14	#5	9'-11"	—
p(E)	20	#7	27'-5"	—
p1(E)	4	#5	26'-5"	—
s2(E)	50	#5	15'-4"	□
s3(E)	2	#5	16'-6"	□
u(E)	8	#6	12'-2"	∩
v6(E)	11	#5	15'-10"	—
v4(E)	11	#5	17'-11"	—
Concrete Structures		Cu. Yd.	65.1	
Reinforcement Bars, Epoxy Coated		Pound	3,970	
Furnishing Steel Piles, HP 12x53		Foot	850	
Driving Piles		Foot	850	
Test Pile Steel, HP 12x53		Each	1	
Pile Shoes		Each	11	
Structure Excavation		Cu. Yd.	76	

For details of piles see sheet S-51 of S-62.

Cast steps monolithically with cap.

Space top reinforcement in cap to miss anchor bolts.

PILE DATA

Type: HP 12x53
 Nominal Required Bearing: 417 kip
 Factored Resistance Available: 229 kip
 Est. Length: 85'-0"
 No. Production Piles: 10
 No. Test Piles: 1

MIN BAR LAP

#5 = 3'-3"
 #7 = 5'-2"

FILE NAME = 0820117-0118-76884-043-EastAbutmentWB.dgn



USER NAME = brozzano	DESIGNED - RAB	REVISED -
PLOT SCALE = 5/4,0000 '1' / IN.	CHECKED - JAN	REVISED -
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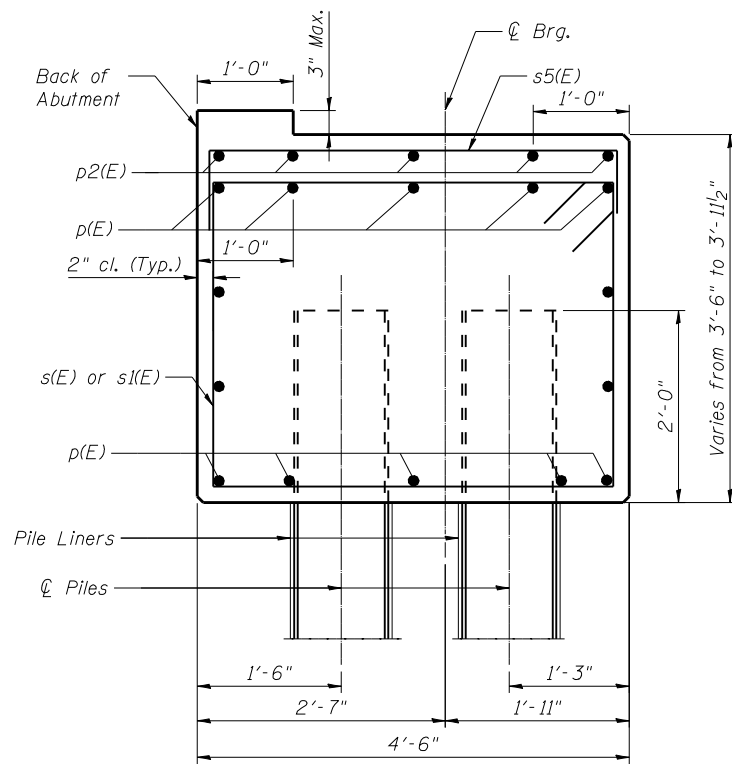
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**EAST ABUTMENT PLAN AND ELEVATION WESTBOUND
 STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

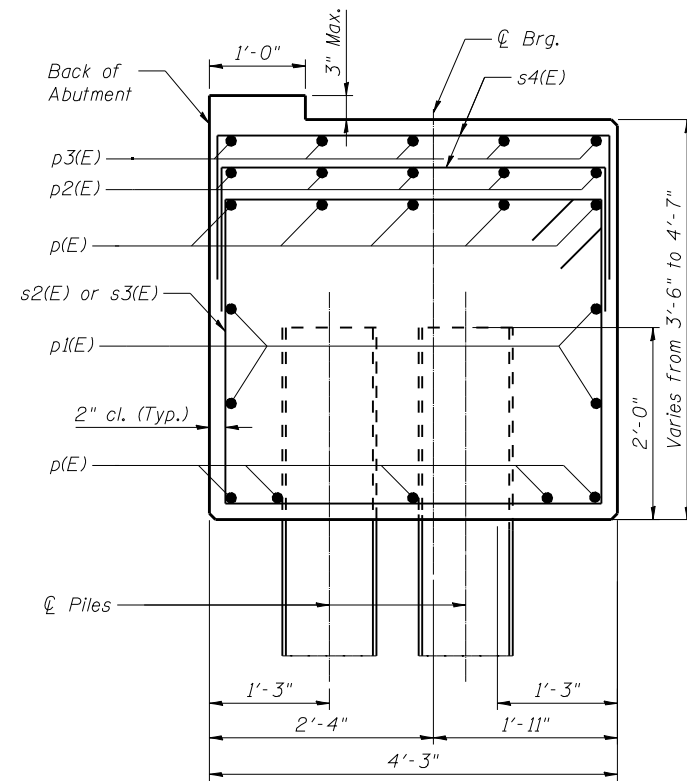
SHEET NO. S-43 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	158
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				

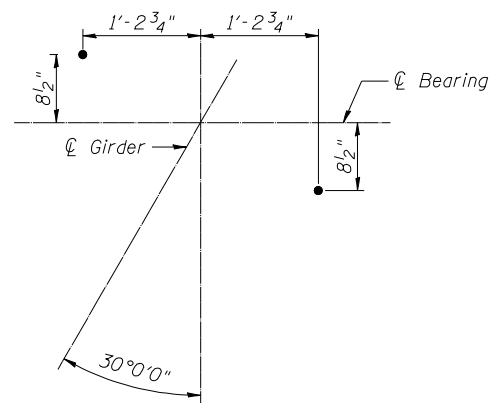
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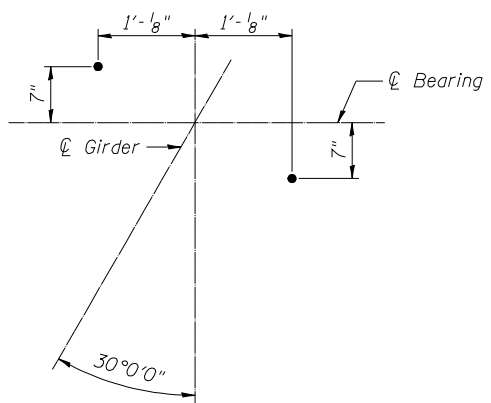
SECTION THRU WEST ABUT.



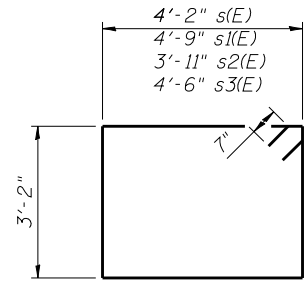
SECTION THRU EAST ABUT.



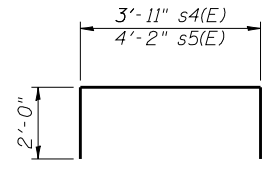
ANCHOR BOLT LAYOUT WEST ABUTMENT



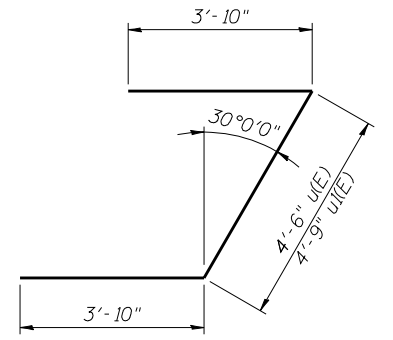
ANCHOR BOLT LAYOUT EAST ABUTMENT



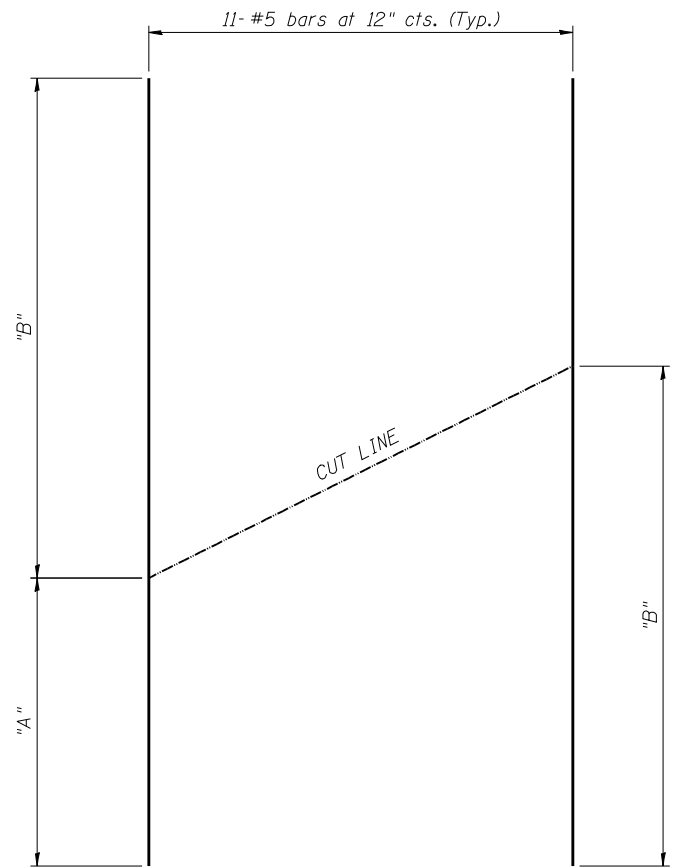
s(E), s1(E), s2(E) and s3(E)



s4(E) and s5(E)

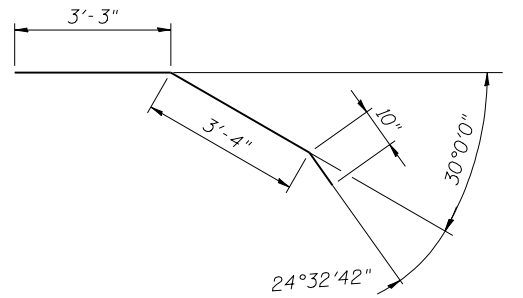


u(E) and u1(E)

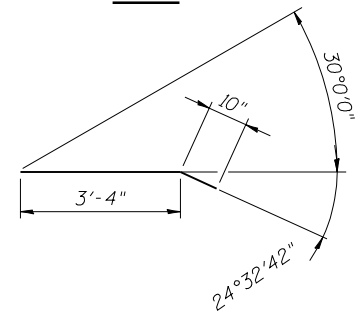


FIELD CUTTING DIAGRAM

Order v1(E), v2(E), v3(E), v4(E), v5(E) and v6(E) full length. Cut as shown and use remainder of bars in opposite face.



h2(E)



h2(E)

Bar	Length	"A"	"B"
v1(E)	16'-5"	6'-0"	10'-5"
v2(E)	15'-8"	5'-7"	10'-1"
v3(E)	21'-3"	9'-0"	12'-3"
v4(E)	17'-11"	7'-10"	10'-1"
v5(E)	19'-3"	8'-6"	10'-9"
v6(E)	15'-10"	5'-8"	10'-2"



USER NAME = brozzaro	DESIGNED - RAB	REVISD -
PLOT SCALE = 2:0.0000 '1' / IN.	CHECKED - JAN	REVISD -
PLOT DATE = 10/19/2011	DRAWN - RAB	REVISD -
	CHECKED - JAN	REVISD -

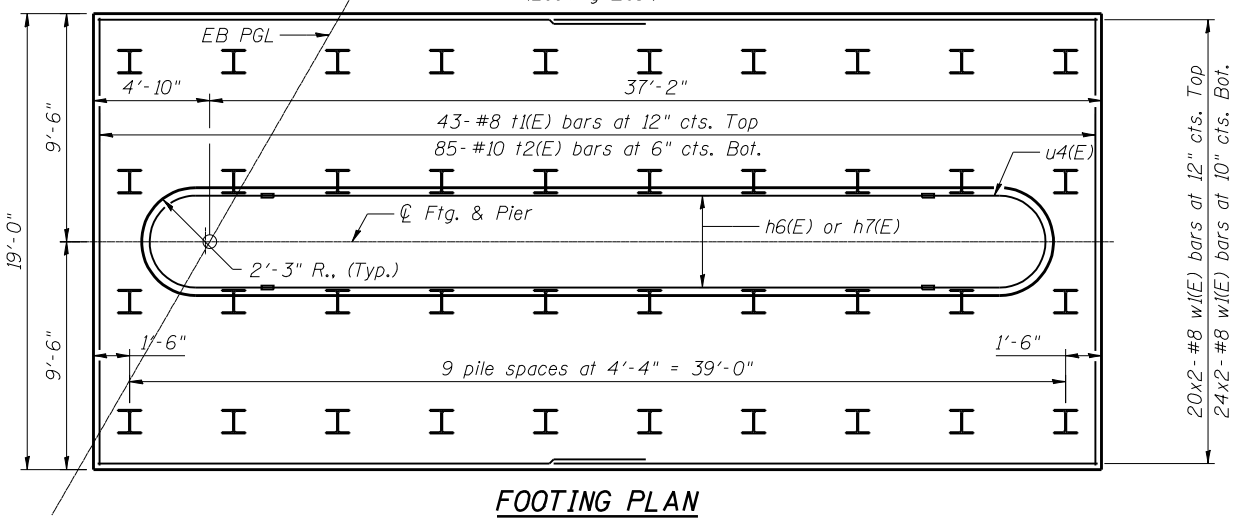
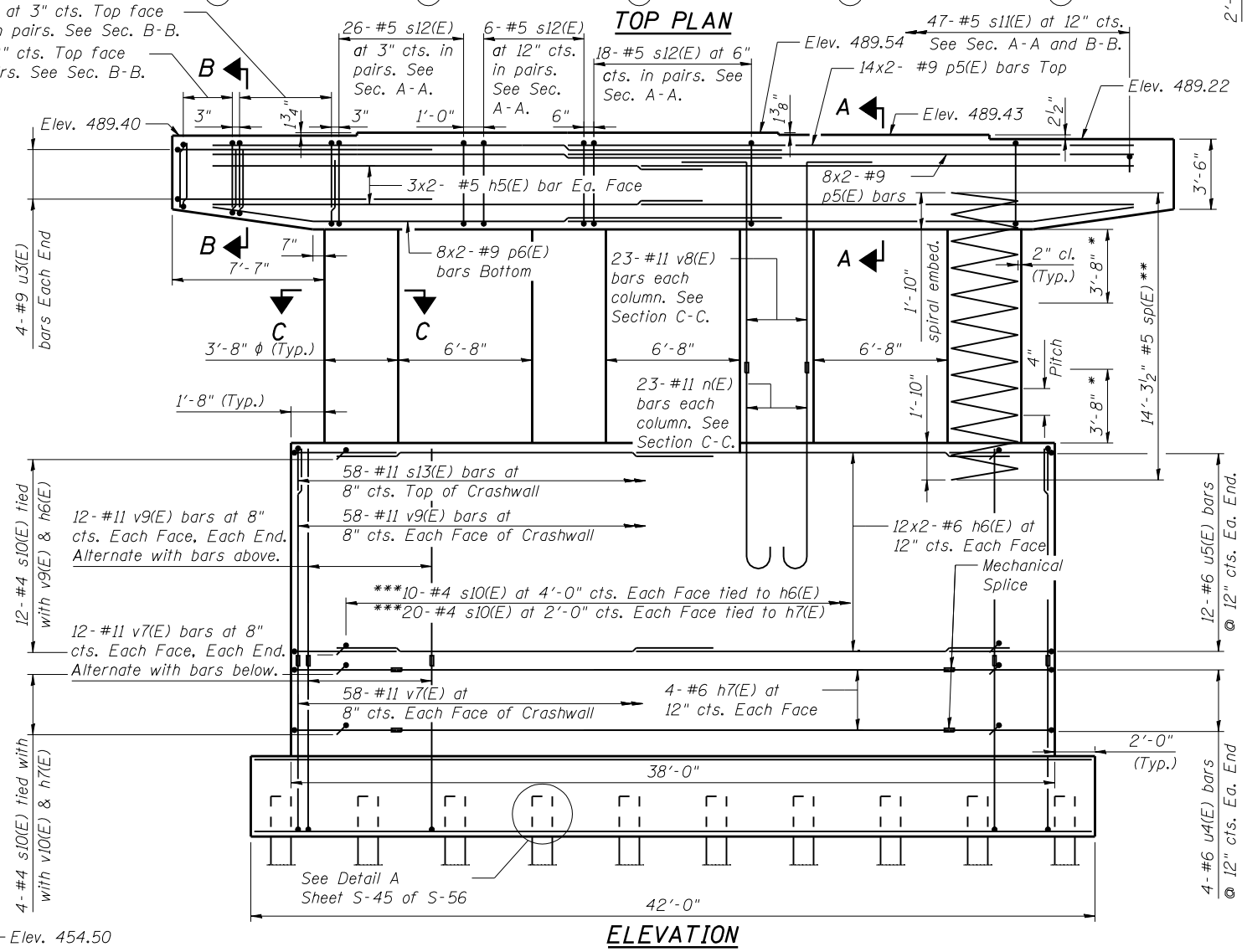
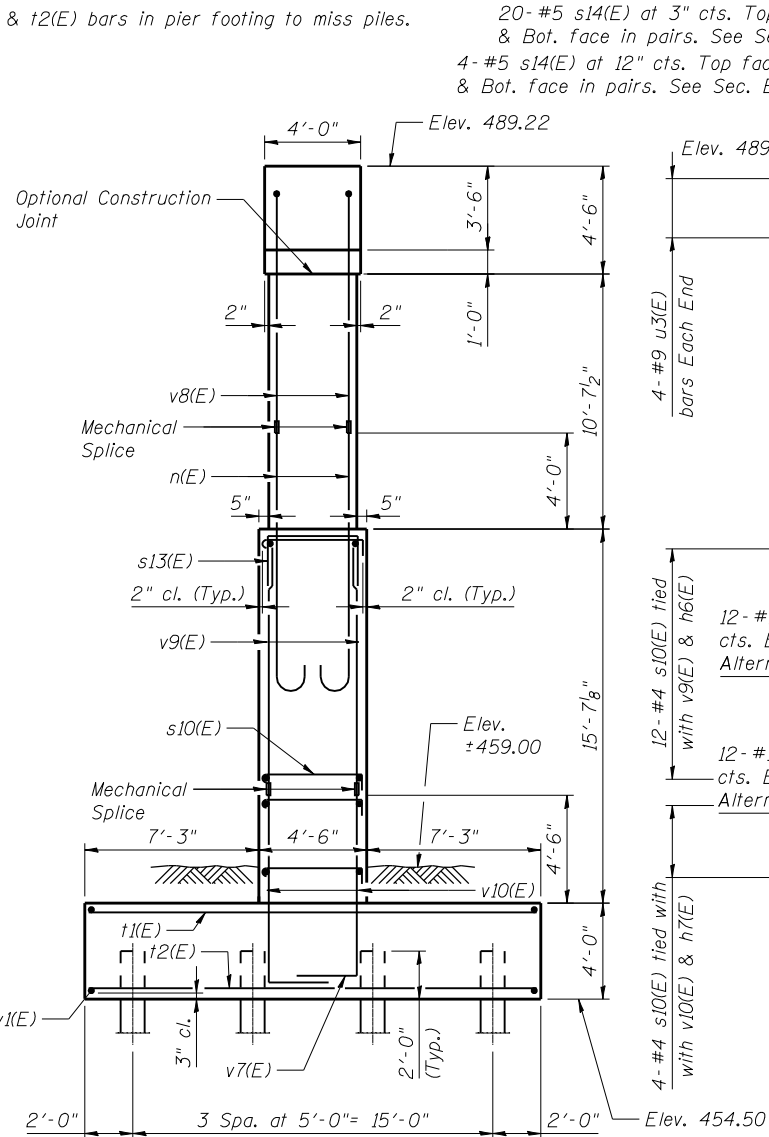
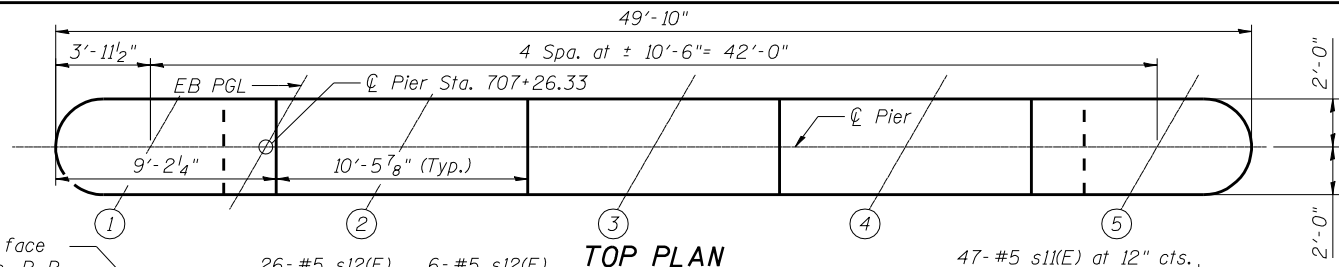
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ABUTMENT DETAILS
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-44 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	159
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				

Notes:
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of piles, see sheet S-46 & S-51 of S-62.
 Pier Cap Stirrup bar spacing and quantities are typical about centerline of pier.
 Space w1(E) & t2(E) bars in pier footing to miss piles.



* Splicing of Reinforcement not allowed in this region.
 ** When splicing of spiral reinforcement is necessary, the spirals shall be provided with 1/2 extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.
 *** s10(E) bars shall be located at bar grid intersections, and the hooks of all ties shall enclose both horizontal and vertical bars at the intersection. The 90° hooks of adjacent s10(E) bars shall be alternated end-for-end.

PILE DATA

Type: HP 12x53
 Nominal Required Bearing: 414 kips
 Factored Resistance Available: 228 kips
 Est. Length: 57 ft.
 No. Production Piles: 39
 No. Test Piles: 1

MIN. LAP LENGTH

- #5 = 3'-3"
- #6 = 3'-10"
- #8 = 6'-9"
- #9 = 8'-7"

FILE NAME = 0820117-0118-76884-045-PierEB.dgn



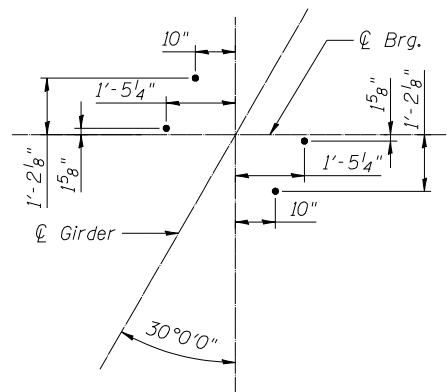
USER NAME = brazzera	DESIGNED - SAB	REVISED -
PLOT SCALE = 8x0.0000 '1' / IN.	CHECKED - MJK	REVISED -
PLOT DATE = 10/19/2011	DRAWN - RAB	REVISED -
	CHECKED - SAB	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

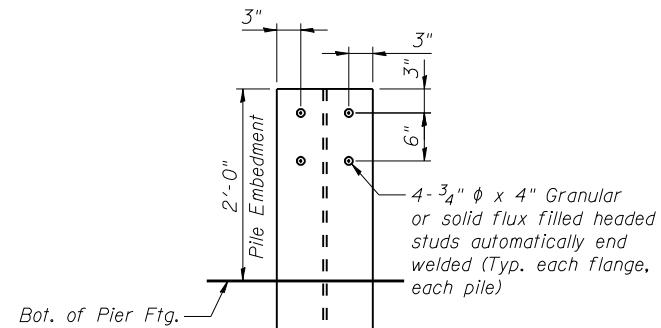
PIER PLAN AND ELEVATION EASTBOUND
 STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)

SHEET NO. S-45 OF S-62 SHEETS

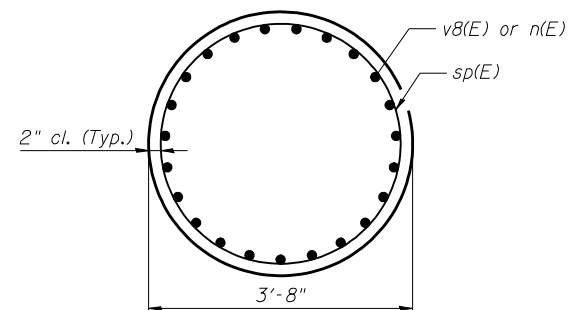
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	160
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



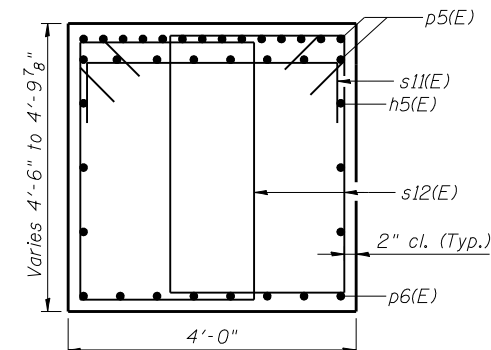
ANCHOR BOLT LAYOUT



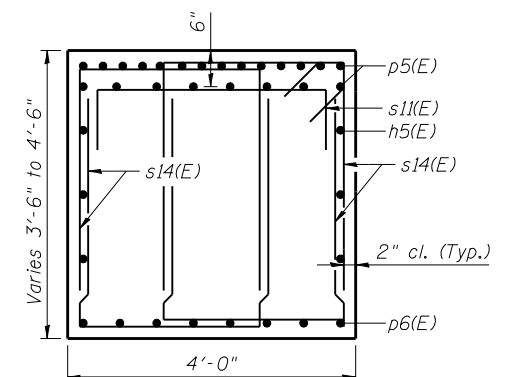
DETAIL A



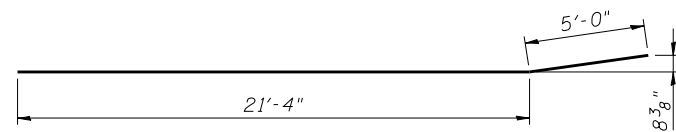
SEC. C-C



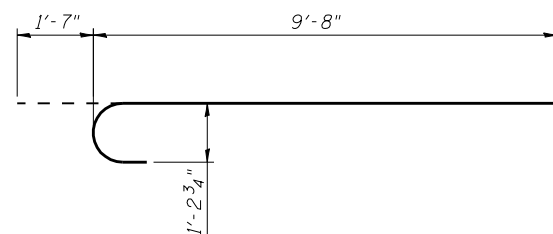
SEC. A-A



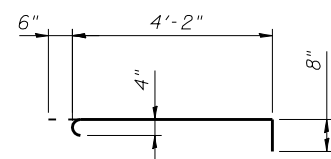
SEC. B-B



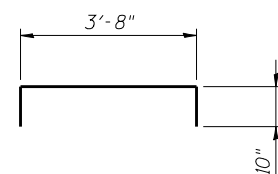
BAR p6(E)



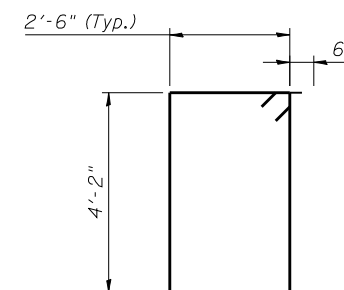
BAR n(E)



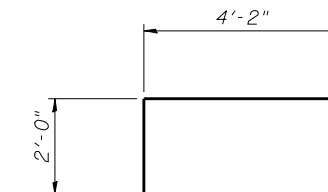
BAR s10(E)



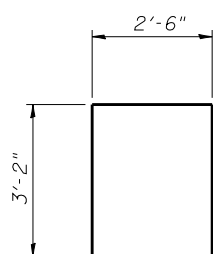
BAR s11(E)



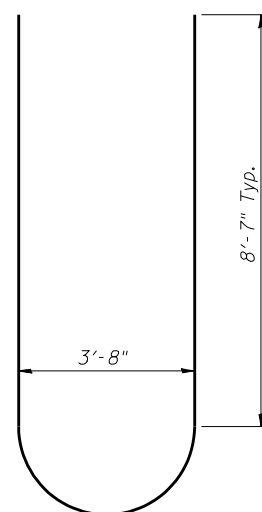
BAR s12(E)



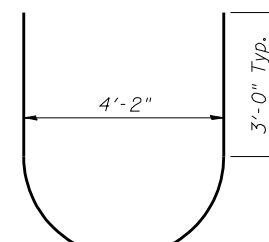
BAR s13(E)



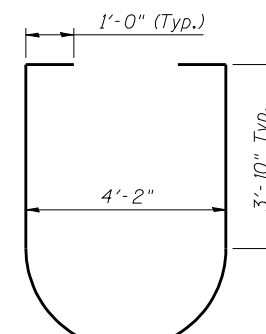
BAR s14(E)



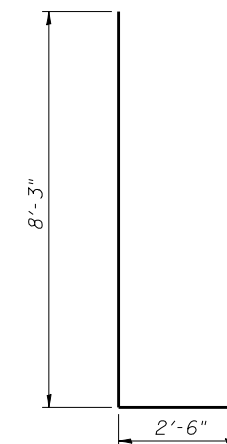
BAR u3(E)



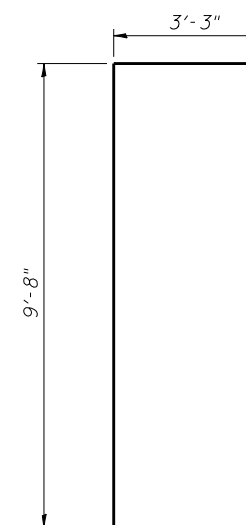
BAR u4(E)



BAR u5(E)



BAR v7(E)



BAR v8(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h5(E)	12	#5	24'-7"	—
h6(E)	48	#6	18'-8"	—
h7(E)	8	#6	27'-6"	—
n(E)	92	#11	11'-3"	U
p5(E)	44	#9	27'-3"	—
p6(E)	16	#9	26'-4"	—
s10(E)	200	#4	5'-4"	U
s11(E)	51	#5	5'-4"	U
s12(E)	248	#6	14'-4"	U
s13(E)	58	#11	8'-2"	U
s14(E)	192	#5	8'-10"	U
** sp(E)	4	#5	14'-3 1/2"	W
t1(E)	43	#8	18'-8"	—
t2(E)	85	#10	18'-8"	—
u3(E)	8	#9	22'-11"	U
u4(E)	8	#6	12'-6"	U
u5(E)	24	#6	16'-2"	U
v7(E)	164	#11	10'-9"	U
v8(E)	92	#11	12'-11"	U
v9(E)	164	#11	10'-11"	U
w1(E)	88	#8	24'-3"	—
Structure Excavation		Cu. Yd.	177	
Concrete Structures		Cu. Yd.	269.3	
Reinforcement Bars, Epoxy Coated		Pound	65,430	
Furnishing Steel Piles, HP 12x53		Foot	2,223	
Driving Piles		Foot	2,223	
Test Pile Steel, HP 12x53		Each	1	
Pile Shoes		Each	40	

** Length is height of spiral.
Bars indicated thus 1 x 5-#5 etc. indicates 1 line of bars with 5 lengths per line.

FILE NAME = 0820117-0118-76884-046-PierDetailsEB.dgn



USER NAME = brazzara	DESIGNED - SAB	REVISED -
PLOT SCALE = 8x0.0000 '1' / IN.	CHECKED - MJK	REVISED -
PLOT DATE = 10/19/2011	DRAWN - RAB	REVISED -
	CHECKED - SAB	REVISED -

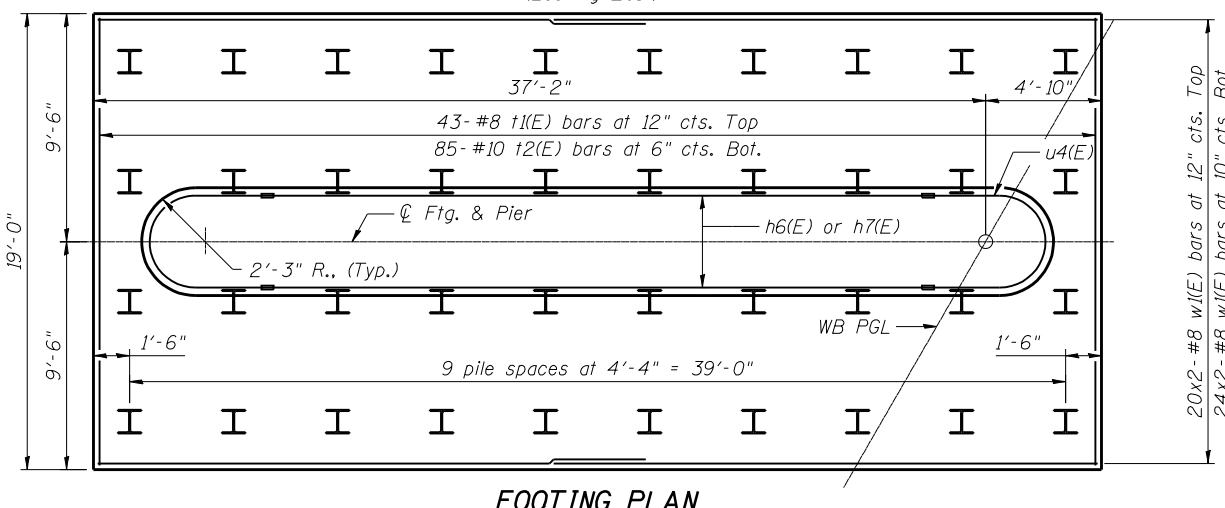
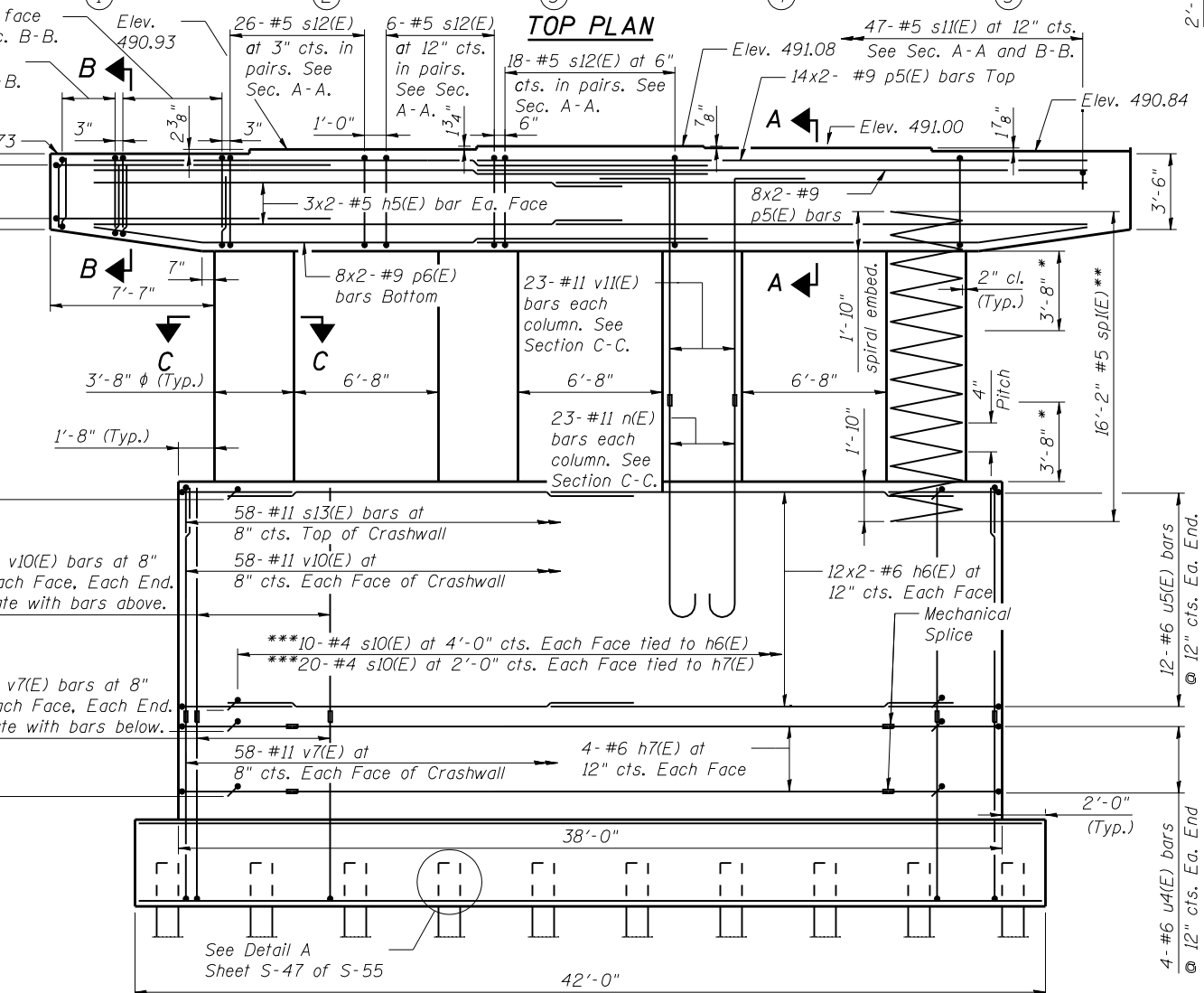
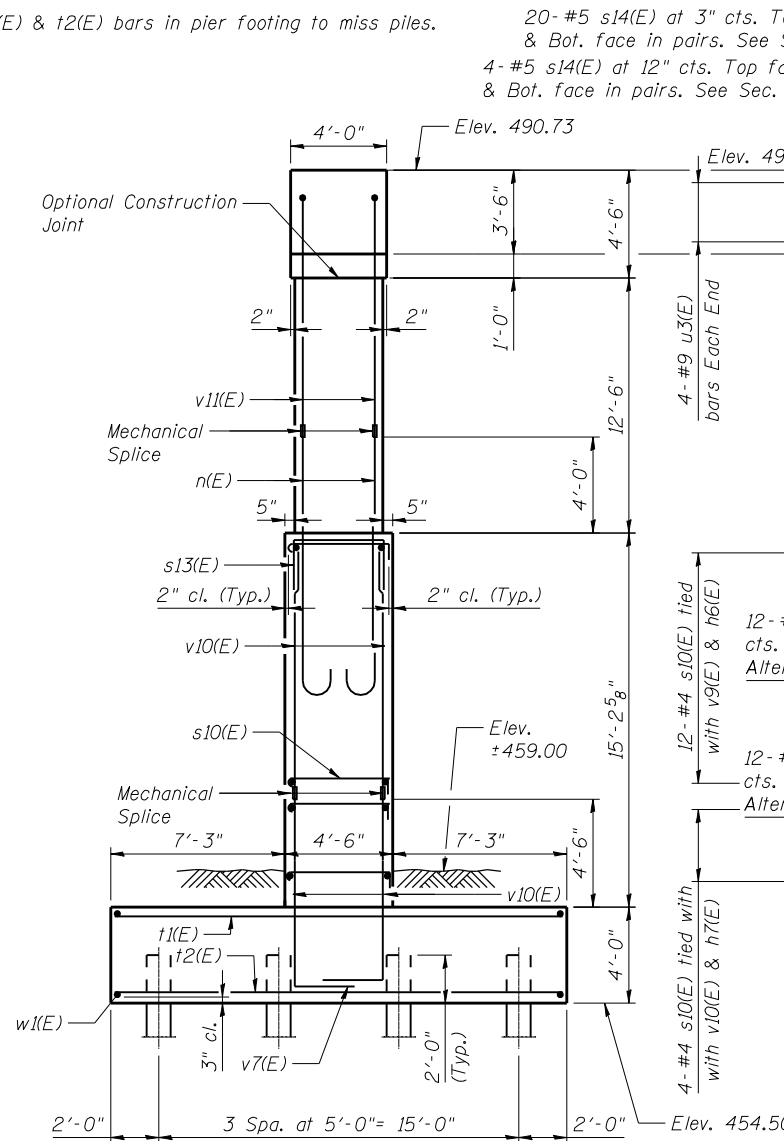
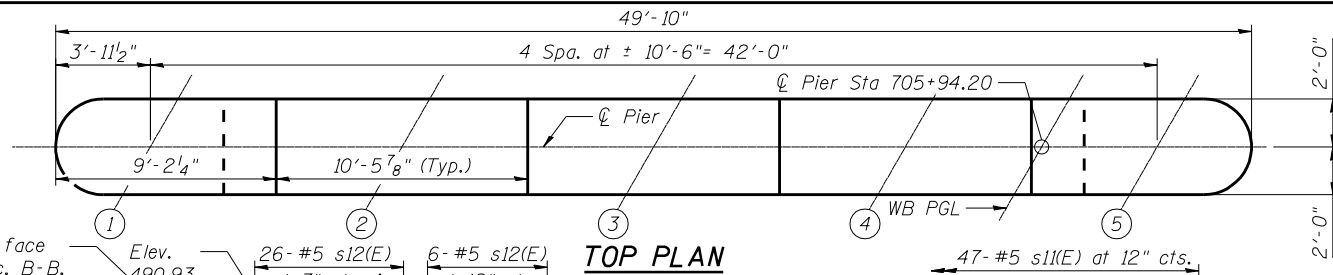
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PIER DETAILS EASTBOUND
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-46 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	161
				CONTRACT NO. 76884
ILLINOIS FED. AID PROJECT				

Notes:
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of piles, see sheet S-48 & S-51 of S-62.
 Pier Cap Stirrup bar spacing and quantities are typical about centerline of pier.
 Space w1(E) & t2(E) bars in pier footing to miss piles.



* Splicing of Reinforcement not allowed in this region.
 ** When splicing of spiral reinforcement is necessary, the spirals shall be provided with 1/2 extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.
 *** s10(E) bars shall be located at bar grid intersections, and the hooks of all ties shall enclose both horizontal and vertical bars at the intersection. The 90° hooks of adjacent s10(E) bars shall be alternated end-for-end.

PILE DATA

Type: HP 12x53
 Nominal Required Bearing: 395 kips
 Factored Resistance Available: 217 kips
 Est. Length: 57 ft.
 No. Production Piles: 39
 No. Test Piles: 1

MIN. LAP LENGTH

- #5 = 3'-3"
- #6 = 3'-10"
- #8 = 6'-9"
- #9 = 8'-7"

FILE NAME = 0820117-0118-76884-047-Pier-WB.dgn



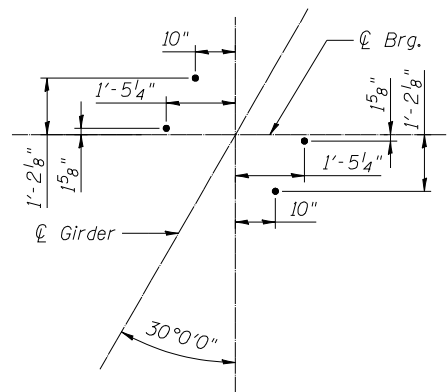
USER NAME = brazzera	DESIGNED - SAB	REVISIONS
PLOT SCALE = 8x0.0000 '1' / IN.	CHECKED - MJK	REVISIONS
PLOT DATE = 10/19/2011	DRAWN - RAB	REVISIONS
	CHECKED - SAB	REVISIONS

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

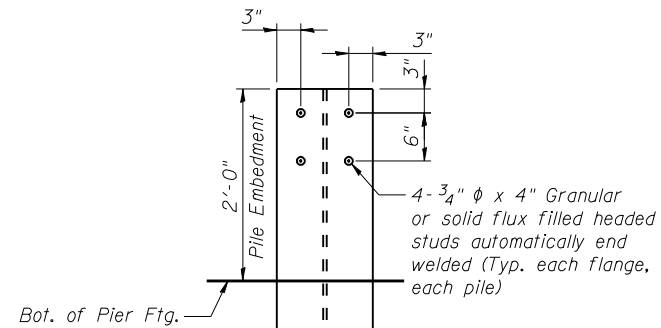
**PIER PLAN AND ELEVATION WESTBOUND
 STRUCTURE NO. 082-0117 (E.B.) 082-0118 (W.B.)**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	162
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				

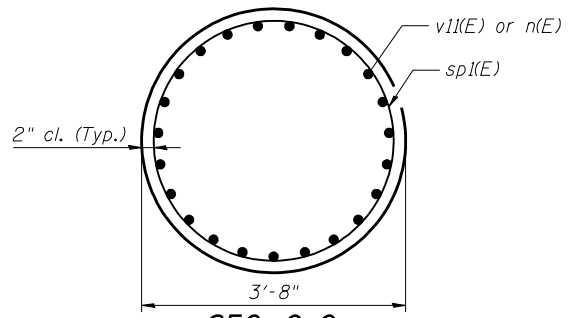
SHEET NO. S-47 OF S-62 SHEETS



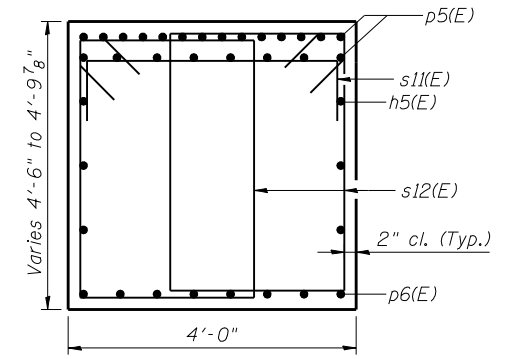
ANCHOR BOLT LAYOUT



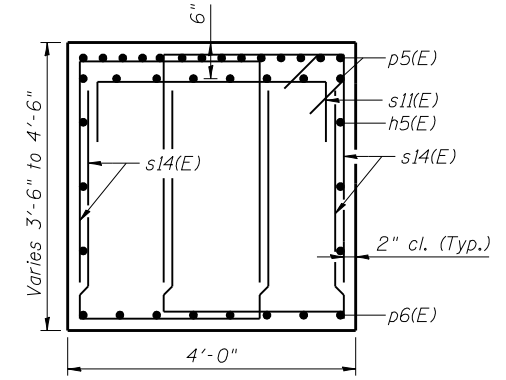
DETAIL A



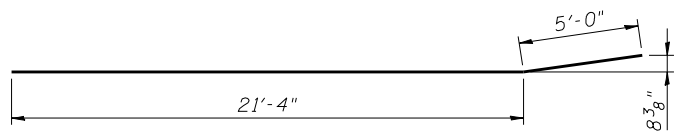
SEC. C-C



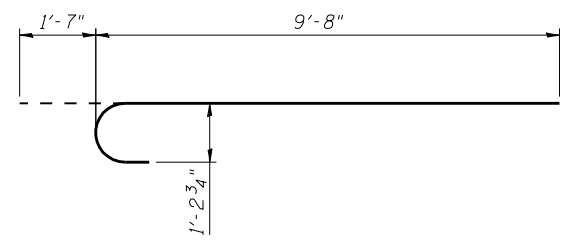
SEC. A-A



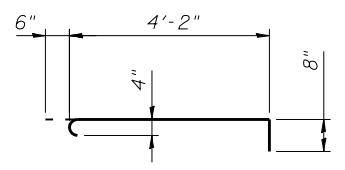
SEC. B-B



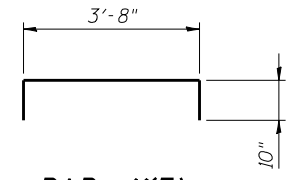
BAR p6(E)



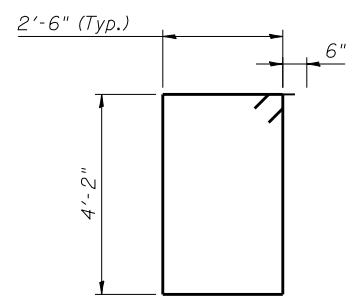
BAR n(E)



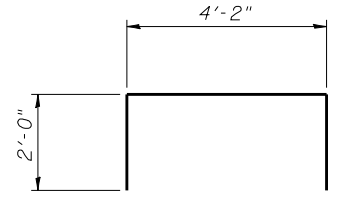
BAR s10(E)



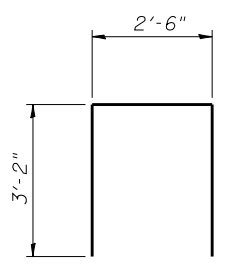
BAR s11(E)



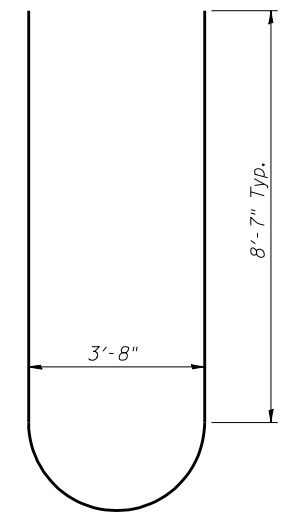
BAR s12(E)



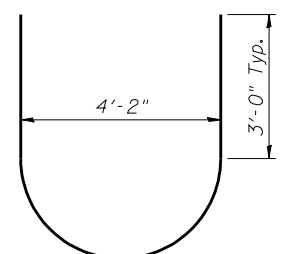
BAR s13(E)



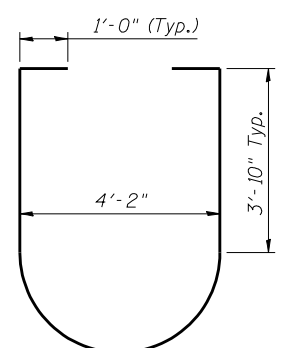
BAR s14(E)



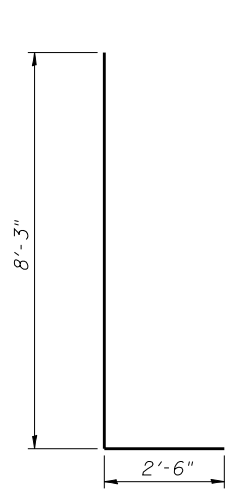
BAR u3(E)



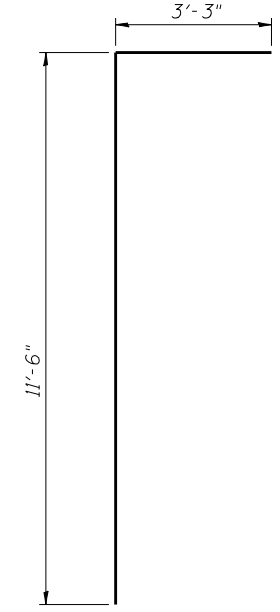
BAR u4(E)



BAR u5(E)



BAR v7(E)



BAR v11(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h5(E)	12	#5	24'-7"	—
h6(E)	48	#6	18'-8"	—
h7(E)	8	#6	27'-6"	—
n(E)	92	#11	11'-3"	U
p5(E)	44	#9	27'-3"	—
p6(E)	16	#9	26'-4"	—
s10(E)	200	#4	5'-4"	U
s11(E)	51	#5	5'-4"	U
s12(E)	248	#6	14'-4"	□
s13(E)	58	#11	8'-2"	U
s14(E)	192	#5	8'-10"	U
** sp1(E)	4	#5	16'-2"	W
t1(E)	43	#8	18'-8"	—
t2(E)	85	#10	18'-8"	—
u3(E)	8	#9	22'-11"	U
u4(E)	8	#6	12'-6"	U
u5(E)	24	#6	16'-2"	U
v7(E)	164	#11	10'-9"	U
v10(E)	164	#11	10'-6"	U
v11(E)	92	#11	14'-9"	—
w1(E)	88	#8	24'-3"	—
Structure Excavation		Cu. Yd.	177	
Concrete Structures		Cu. Yd.	270.4	
Reinforcement Bars, Epoxy Coated		Pound	66,040	
Furnishing Steel Piles, HP 12x53		Foot	2,223	
Driving Piles		Foot	2,223	
Test Pile Steel, HP 12x53		Each	1	
Pile Shoes		Each	40	

** Length is height of spiral.
Bars indicated thus 1 x 5-#5 etc. indicates 1 line of bars with 5 lengths per line.

FILE NAME = 0820117-0118-76884-048-PierDetailsWB.dgn



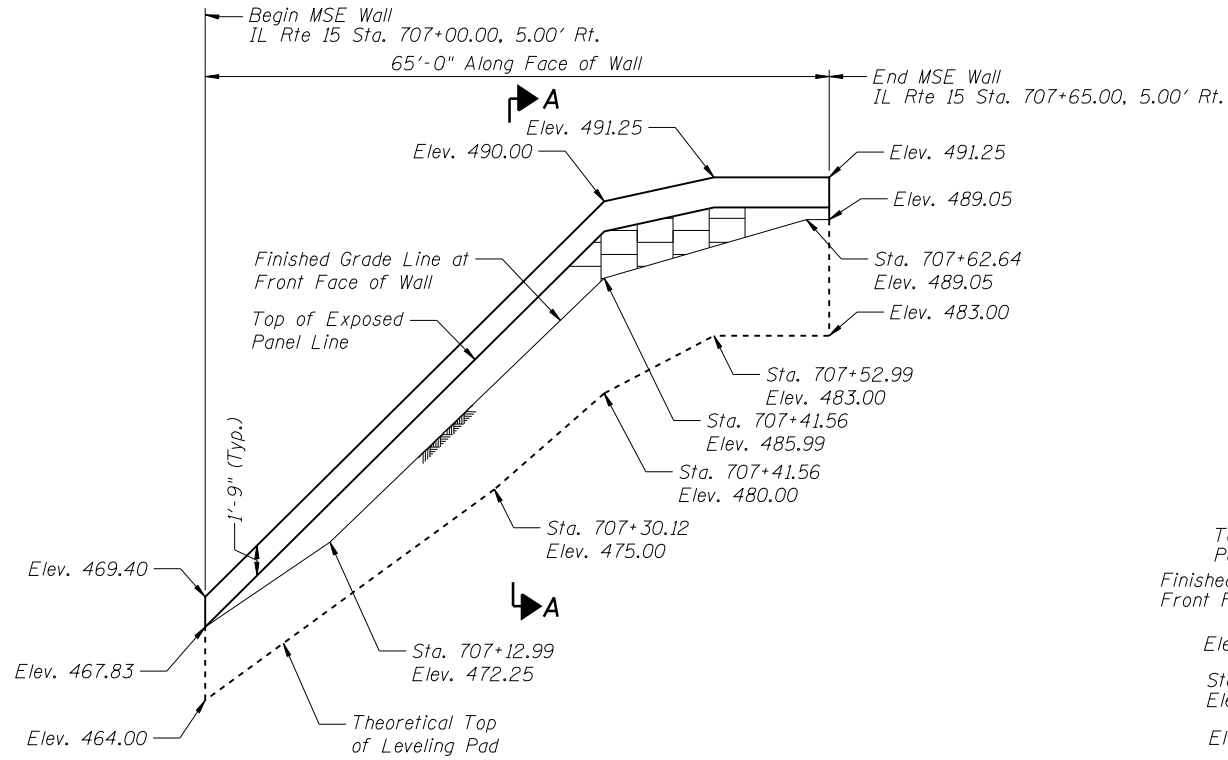
USER NAME = brazzara	DESIGNED - SAB	REVISED -
PLOT SCALE = 8x0.0000 '1' / IN.	CHECKED - MJK	REVISED -
PLOT DATE = 10/19/2011	DRAWN - RAB	REVISED -
	CHECKED - SAB	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

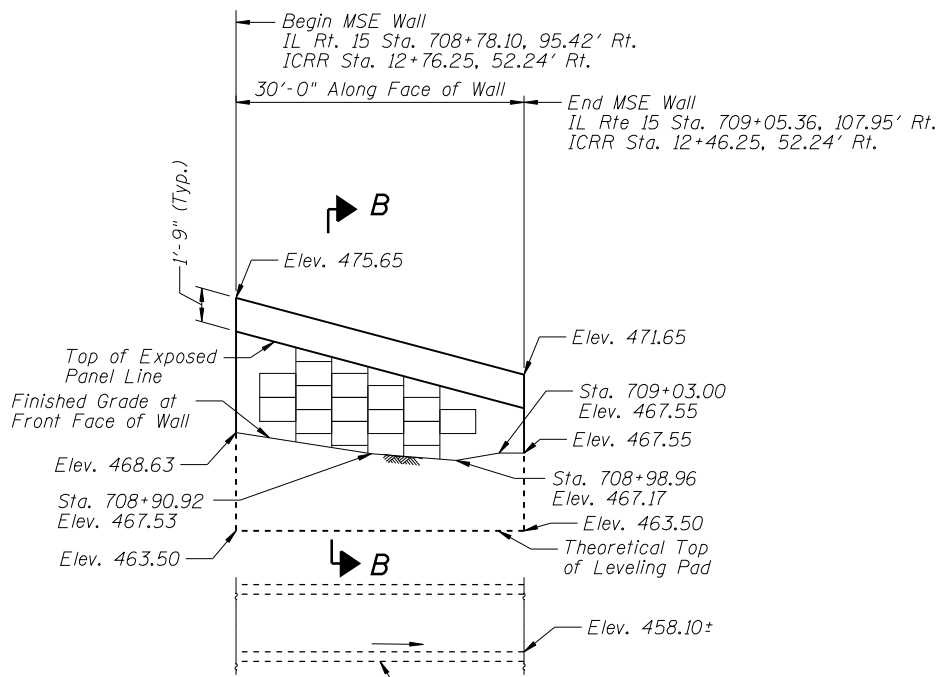
**PIER DETAILS WESTBOUND
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-48 OF S-62 SHEETS

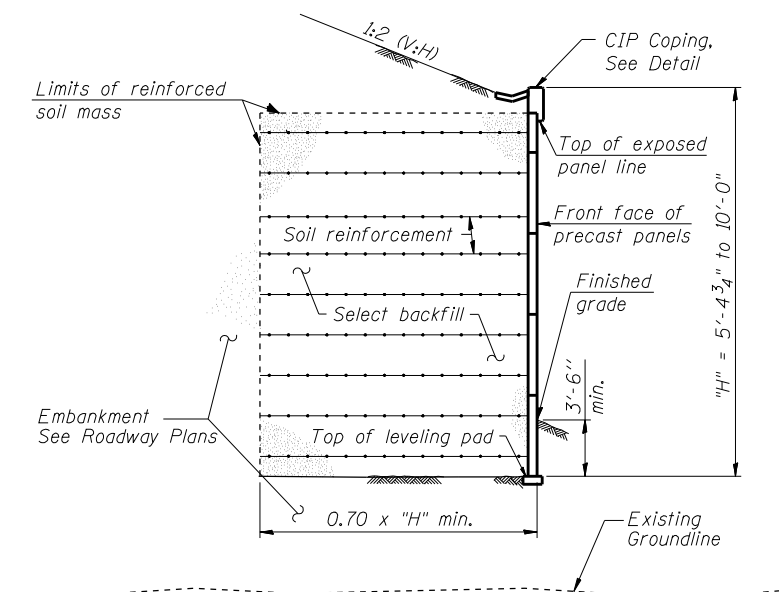
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	163
			CONTRACT NO. 76884	
ILLINOIS FED. AID PROJECT				



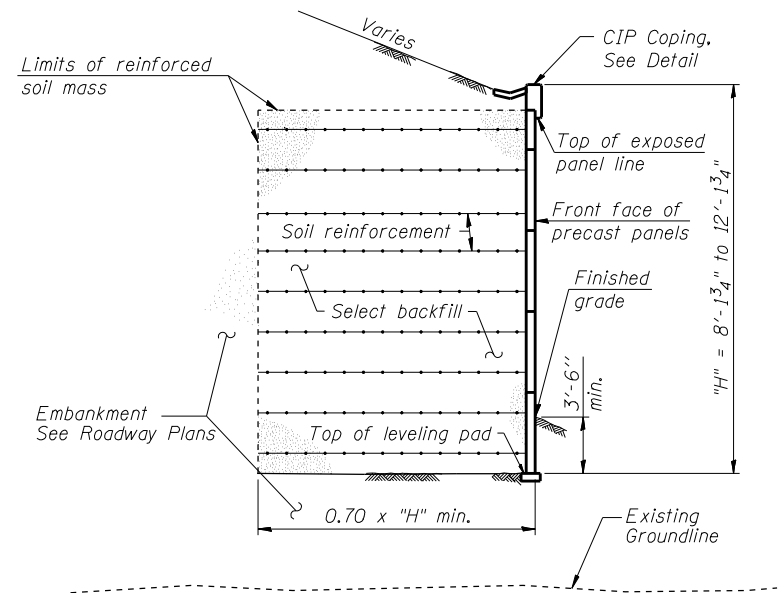
WALL A ELEVATION
Sta. 707+00 to Sta. 707+65



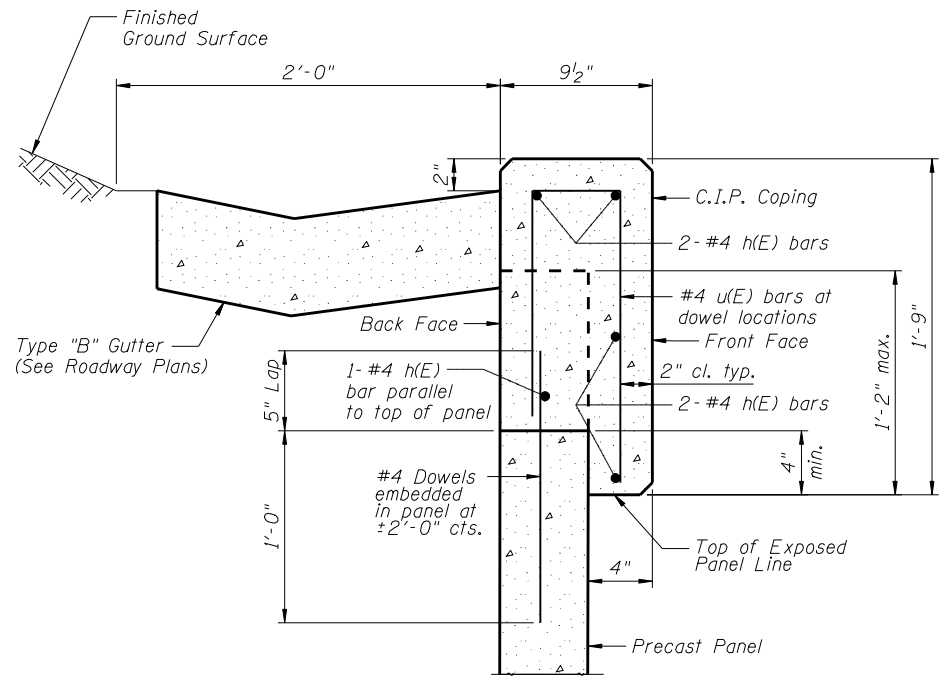
WALL B ELEVATION
Sta. 708+78.10 to Sta. 709+05.36



SECTION A-A



SECTION B-B



COPING DETAIL (TYPICAL)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	674

FILE NAME = 0820117-0118-76884-049-Show-MSE.dgn



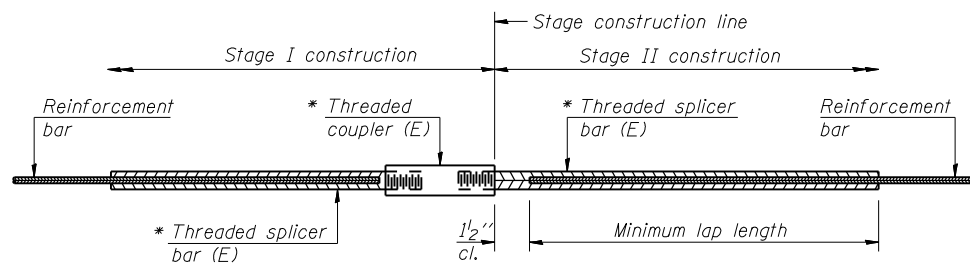
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PLOT SCALE = 20:0.0000 ' / IN.	CHECKED - DAZ	REVISED -
PLOT DATE = 10/19/2011	DRAWN - SAW	REVISED -
	CHECKED - PMM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MSE WALLS A & B
STRUCTURE NO. 082-0117 (EB) & 082-0118 (WB)

F.A.P. RTE. 103	SECTION 27-1-VHB-1	COUNTY ST. CLAIR	TOTAL SHEETS 277	SHEET NO. 164
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				

SHEET NO. S-49 OF S-62 SHEETS



STANDARD BAR SPLICER ASSEMBLY

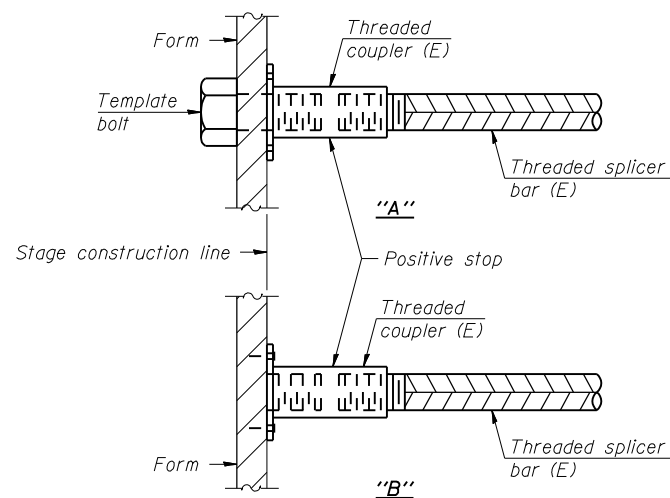
Bar size to be spliced	Minimum Lap Lengths				
	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

- 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, Top bar lap, Class B

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

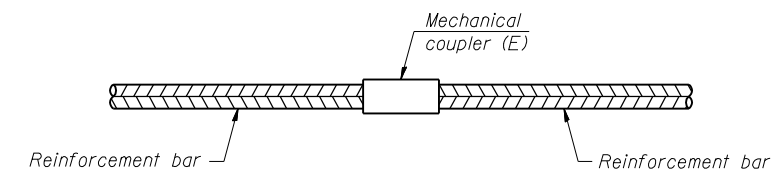
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



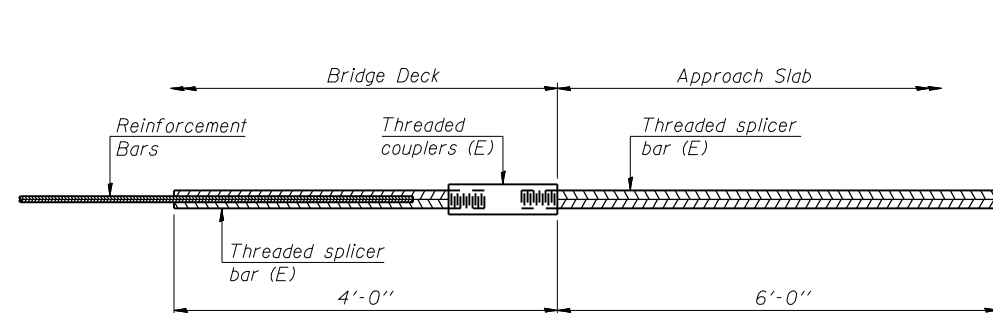
INSTALLATION AND SETTING METHODS

"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
Eastbound Pier	#11	256
Westbound Pier	#11	256

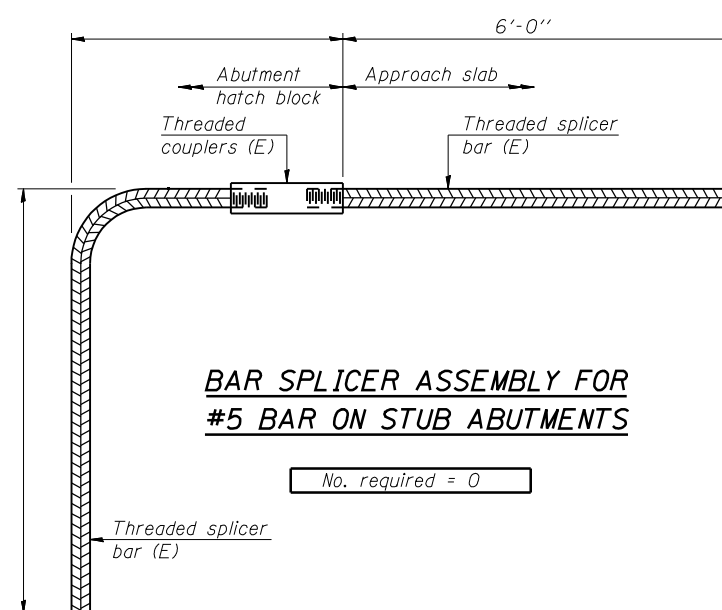


BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required = 0

BSD-1

7-1-10



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 0

NOTES

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

FILE NAME = 0820117-0118-76884-050-0-BarSplicer.dgn



USER NAME = brazzera	DESIGNED - RAB	REVISED -
PLOT SCALE = 0:2.0000 '1' / IN.	CHECKED - JAN	REVISED -
PLOT DATE = 10/19/2011	DRAWN - RAB	REVISED -
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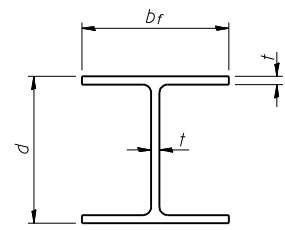
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

SHEET NO. S-50 OF S-62 SHEETS

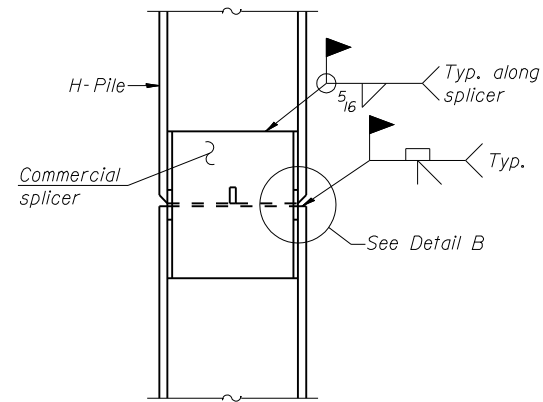
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	165
CONTRACT NO. 76884				

ILLINOIS FED. AID PROJECT

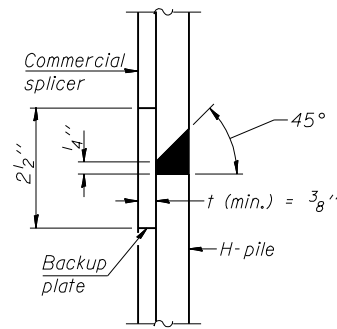


STEEL PILE TABLE

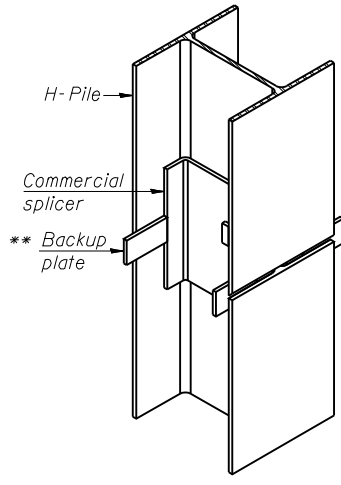
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"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



ELEVATION

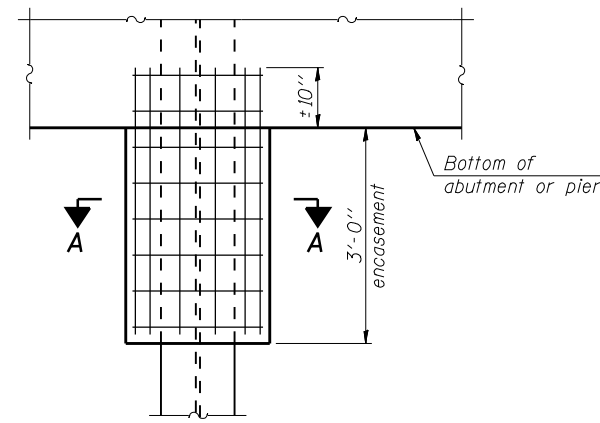


DETAIL "B"



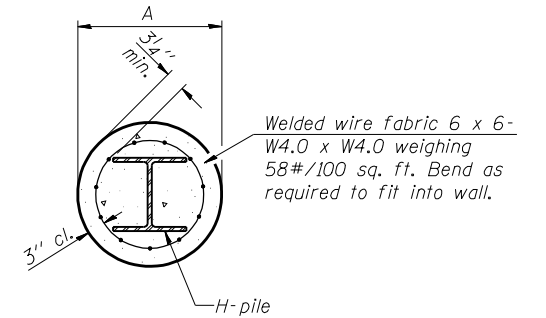
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



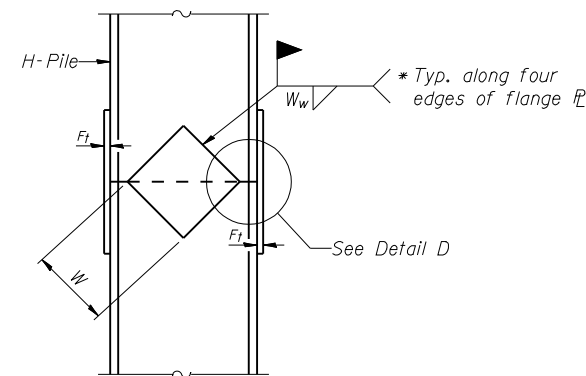
ELEVATION

PILE ENCASEMENT

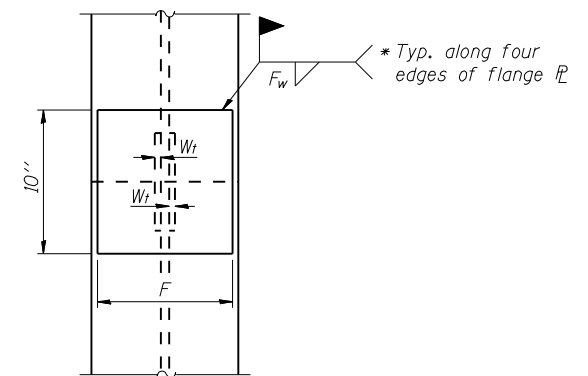


SECTION A-A

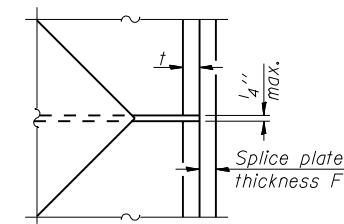
Note:
Forms for encasement may be omitted when soil conditions permit.



ELEVATION



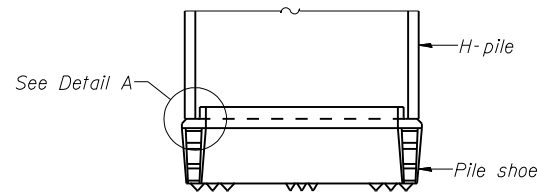
END VIEW



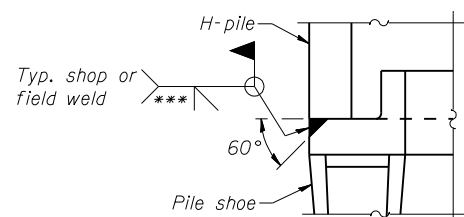
DETAIL D

WELDED PLATE FIELD SPLICE

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

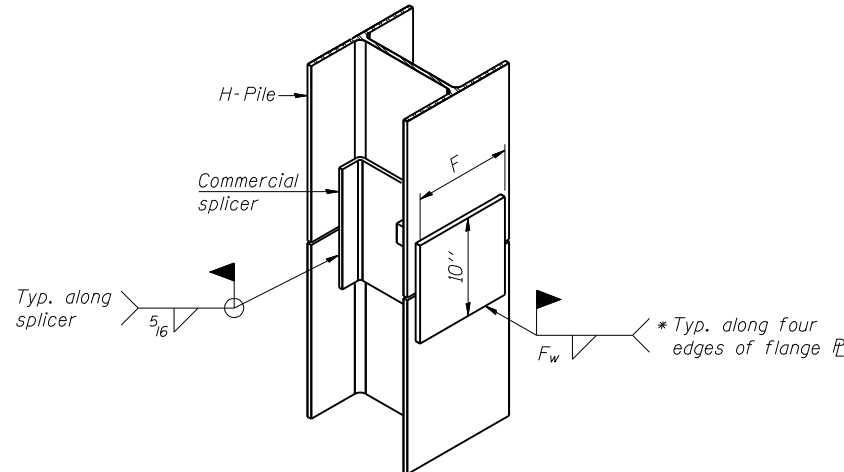


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

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

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

FILE NAME = 082017-0118-76884-051-F-1aDetails.dgn

F-HP 7-1-10



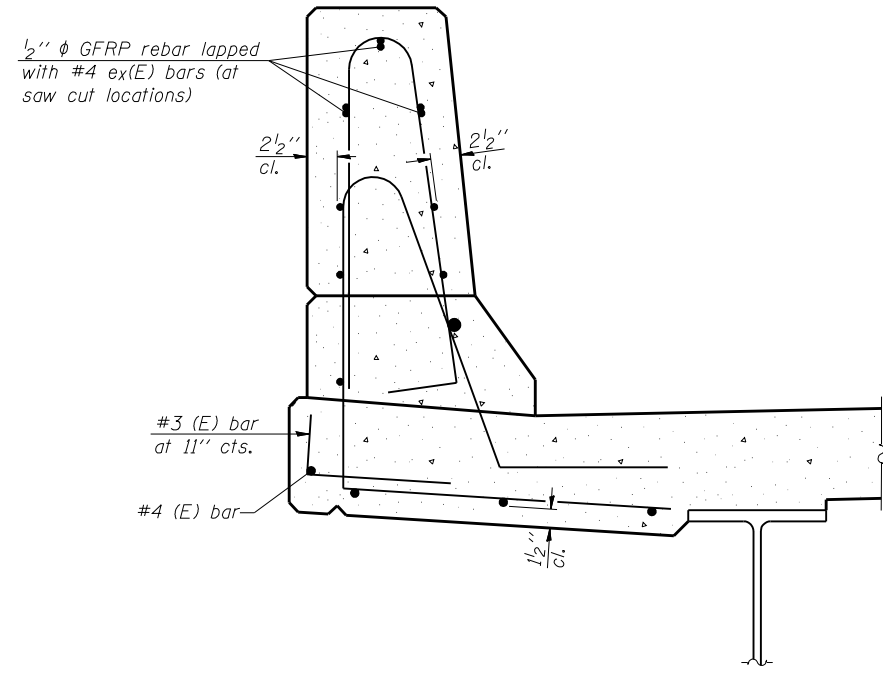
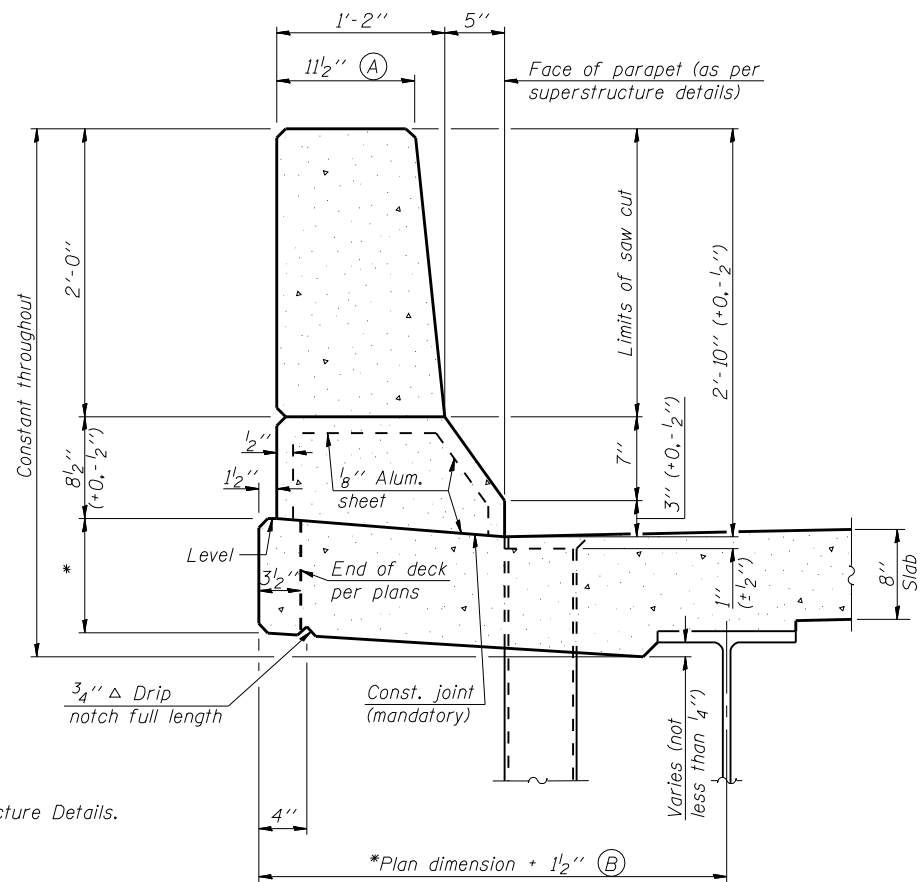
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

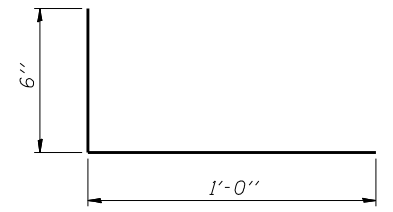
**HP PILE DETAILS
STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	166
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				

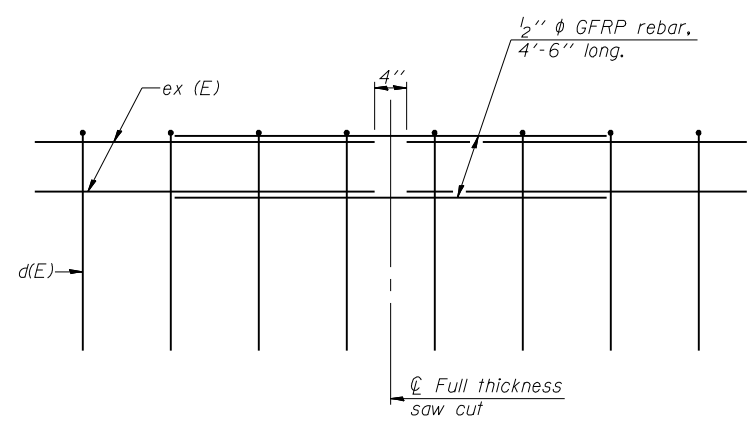
SHEET NO. S-51 OF S-62 SHEETS



GENERAL NOTES
 All dimensions shall remain the same as shown on superstructure details, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B = 0.0165 cu. yds./ft. of parapet.
 Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all joint locations in lieu of cork joint filler.
 Steel superstructure shown. Other superstructure types similar.



#3 (E) BAR



GFRP REBAR STIFFENING DETAIL
 (Place as shown in parapet section at each parapet joint location.)

SFP-34

7-1-10

FILE NAME = 0820117-0118-76884-052-Parapet51.prf.dwg



USER NAME = brazzara	DESIGNED - RAB	REVISED - ----
	CHECKED - JAN	REVISED - ----
PLOT SCALE = 0x2.0000 '1' / IN.	DRAWN - RAB	REVISED - ----
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED - ----

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CONCRETE PARAPET SLIPFORMING OPTION
 STRUCTURE NO. 082-0117(E.B.) & 082-0118 (W.B.)**

SHEET NO. S-52 OF S-62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	167
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

Date 6/14/10

ROUTE FA 14 DESCRIPTION IL 15 Bridge over IL 13 (Old Freeburg Rd) & ICG Railroad LOGGED BY KEG

SECTION 27-1-VHB LOCATION St. Clair Twp - 1.4m E of IL 159; W1/2

COUNTY St. Clair DRILLING METHOD CME 55 w/HSA & Mud Rotary HAMMER TYPE Automatic

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

Main soil log table with columns for depth (ft), soil description, and blow count data (D, B, U, M, S, T).

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 6/14/10

ROUTE FA 14 DESCRIPTION IL 15 Bridge over IL 13 (Old Freeburg Rd) & ICG Railroad LOGGED BY KEG

SECTION 27-1-VHB LOCATION St. Clair Twp - 1.4m E of IL 159; W1/2

COUNTY St. Clair DRILLING METHOD CME 55 w/HSA & Mud Rotary HAMMER TYPE Automatic

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

Main soil log table with columns for depth (ft), soil description, and blow count data (D, B, U, M, S, T).

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 6/15/10

ROUTE FA 14 DESCRIPTION IL 15 Bridge over IL 13 (Old Freeburg Rd) & ICG Railroad LOGGED BY KEG

SECTION 27-1-VHB LOCATION St. Clair Twp - 1.4m E of IL 159; W1/2

COUNTY St. Clair DRILLING METHOD CME 550 w/HSA & Mud Rotary HAMMER TYPE Automatic

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

Main soil log table with columns for depth (ft), soil description, and blow count data (D, B, U, M, S, T).

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)

FILE NAME = 0820117-0118-76884-0513-Boring_Logs.dgn



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

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.) SHEET NO. S-53 OF S-62 SHEETS

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



SOIL BORING LOG

Date 6/15/10

ROUTE FA 14 DESCRIPTION IL 15 Bridge over IL 13 (Old Freeburg Rd) & ICG Railroad LOGGED BY KEG

SECTION 27-1-VHB LOCATION St. Clair Twp - 1.4m E of IL 159; W1/2

COUNTY St. Clair DRILLING METHOD CME 550 w/HSA & Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 082-0051/0052 (existing) Station
BORING NO. SB-2 Station 704+62 Offset 13.5 ft LI Ground Surface Elev. 464.97 ft

Table with columns for Depth (ft), Blow Count (B), Unconfined Compressive Strength (U), Moisture Content (M), and Soil Description. Includes soil types like CLAY, SANDY CLAY, and Limestone.

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 6/11/10

ROUTE FA 14 DESCRIPTION IL 15 Bridge over IL 13 (Old Freeburg Rd) & ICG Railroad LOGGED BY KEG

SECTION 27-1-VHB LOCATION St. Clair Twp - 1.4m E of IL 159; W1/2

COUNTY St. Clair DRILLING METHOD CME 550 w/HSA & Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 082-0051/0052 (existing) Station
BORING NO. SB-3 Station 705+05 Offset 11.6 ft RI Ground Surface Elev. 467.57 ft

Table with columns for Depth (ft), Blow Count (B), Unconfined Compressive Strength (U), Moisture Content (M), and Soil Description. Includes soil types like NO RECOVERY, SANDY CLAY, and CLAYEY SILT.

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 6/11/10

ROUTE FA 14 DESCRIPTION IL 15 Bridge over IL 13 (Old Freeburg Rd) & ICG Railroad LOGGED BY KEG

SECTION 27-1-VHB LOCATION St. Clair Twp - 1.4m E of IL 159; W1/2

COUNTY St. Clair DRILLING METHOD CME 550 w/HSA & Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 082-0051/0052 (existing) Station
BORING NO. SB-3 Station 705+05 Offset 11.6 ft RI Ground Surface Elev. 467.57 ft

Table with columns for Depth (ft), Blow Count (B), Unconfined Compressive Strength (U), Moisture Content (M), and Soil Description. Includes soil types like CLAY, SANDY CLAY, and Limestone.

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)

FILE NAME = 0820117-0118-76884-054-Boring_Logs.dgn



Table with columns for USER NAME, DESIGNED, CHECKED, DRAWN, PLOT DATE, REVISED, and CHECKED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)

SHEET NO. S-54 OF S-62 SHEETS

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

ILLINOIS FED. AID PROJECT



SOIL BORING LOG

Page 1 of 2

Date 6/10/10

ROUTE FA 14 DESCRIPTION IL 15 Bridge over IL 13 (Old Freeburg Rd) & ICG Railroad LOGGED BY KEG

SECTION 27-1-VHB LOCATION St. Clair Twp - 1.4m E of IL 159; W1/2

COUNTY St. Clair DRILLING METHOD CME 550 w/HSA & Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 082-0051/0052 (existing) Station
BORING NO. SB-4/SB-5
Ground Surface Elev. 465.00 ft

Table with columns for Depth (ft), Blows (B), SPT (S), and Soil Description. Includes entries for TOPSOIL & CRUSHED ROCK, CLAY, SANDY CLAY, CLAYEY SAND, and SILTY CLAY.

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 2

Date 6/10/10

ROUTE FA 14 DESCRIPTION IL 15 Bridge over IL 13 (Old Freeburg Rd) & ICG Railroad LOGGED BY KEG

SECTION 27-1-VHB LOCATION St. Clair Twp - 1.4m E of IL 159; W1/2

COUNTY St. Clair DRILLING METHOD CME 550 w/HSA & Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 082-0051/0052 (existing) Station
BORING NO. SB-4/SB-5
Ground Surface Elev. 465.00 ft

Table with columns for Depth (ft), Blows (B), SPT (S), and Soil Description. Includes entries for CLAY, SILTY CLAY, SANDY CLAY, WEATHERED LIMESTONE, and SILTY CLAY.

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 2

Date 6/9/10

ROUTE FA 14 DESCRIPTION IL 15 Bridge over IL 13 (Old Freeburg Rd) & ICG Railroad LOGGED BY KEG

SECTION 27-1-VHB LOCATION St. Clair Twp - 1.4m E of IL 159; W1/2

COUNTY St. Clair DRILLING METHOD CME 55 w/HSA & Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 082-0051/0052 (existing) Station
BORING NO. SB-6
Ground Surface Elev. 466.46 ft

Table with columns for Depth (ft), Blows (B), SPT (S), and Soil Description. Includes entries for TOPSOIL & CRUSHED ROCK, SILTY CLAY, SANDY CLAY, CLAY, SILTY CLAY, and CLAY.

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)

FILE NAME = 0820117-0118-76884-0505-Boring_Logs.dgn



Table with columns for USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, and DRAWN.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.) SHEET NO. S-55 OF S-62 SHEETS

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



SOIL BORING LOG

Page 2 of 2

Date 6/9/10

ROUTE FA 14 DESCRIPTION IL 15 Bridge over IL 13 (Old Freeburg Rd) & ICG Railroad LOGGED BY KEG

SECTION 27-1-VHB LOCATION St. Clair Twp - 1.4m E of IL 159; W1/2

COUNTY St. Clair DRILLING METHOD CME 55 w/HSA & Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 082-0051/0052 (existing) Station 708+21 BORING NO. SB-6 Offset 32.0 ft LI Ground Surface Elev. 466.46 ft

Table with columns for Depth (ft), Blows (B), Unconfined Compressive Strength (tsf), Moisture Content (%), and Soil Description. Includes entries for Organic silt, clay, and limestone.

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 2

Date 6/10/10

ROUTE FA 14 DESCRIPTION IL 15 Bridge over IL 13 (Old Freeburg Rd) & ICG Railroad LOGGED BY KEG

SECTION 27-1-VHB LOCATION St. Clair Twp - 1.4m E of IL 159; W1/2

COUNTY St. Clair DRILLING METHOD CME 55 w/HSA & Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 082-0051/0052 (existing) Station 708+55 BORING NO. SB-7 Offset 50.8 ft RL Ground Surface Elev. 465.65 ft

Table with columns for Depth (ft), Blows (B), Unconfined Compressive Strength (tsf), Moisture Content (%), and Soil Description. Includes entries for fill, silty clay, and clay.

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 2

Date 6/10/10

ROUTE FA 14 DESCRIPTION IL 15 Bridge over IL 13 (Old Freeburg Rd) & ICG Railroad LOGGED BY KEG

SECTION 27-1-VHB LOCATION St. Clair Twp - 1.4m E of IL 159; W1/2

COUNTY St. Clair DRILLING METHOD CME 55 w/HSA & Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 082-0051/0052 (existing) Station 708+55 BORING NO. SB-7 Offset 50.8 ft RL Ground Surface Elev. 465.65 ft

Table with columns for Depth (ft), Blows (B), Unconfined Compressive Strength (tsf), Moisture Content (%), and Soil Description. Includes entries for clay, silty clay, and limestone.

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)

FILE NAME = 0820117-0118-76884-056-Boring_Logs.dgn



Table with columns for User Name, Designated, Revised, Checked, Drawn, and Plot Date.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)

SHEET NO. S-56 OF S-62 SHEETS

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

ILLINOIS FED. AID PROJECT



SOIL BORING LOG

Date 6/9/10

ROUTE FA 14 DESCRIPTION IL 15 Bridge over IL 13 (Old Freeburg Rd) & ICG Railroad LOGGED BY KEG

SECTION 27-1-VHB LOCATION St. Clair Twp - 1.4m E of IL 159; W1/2

COUNTY St. Clair DRILLING METHOD CME 55 w/HSA & Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 082-0051/0052 (existing) Station
BORING NO. SB-8 Station 710+14 Offset 51.3 ft RL Ground Surface Elev. 464.66 ft

Table with columns for Depth (ft), Blows (6"), (tsf), (%) and Soil Description. Includes entries for TOPSOIL, CLAYEY SILT, SILTY CLAY, and CLAY.

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 6/9/10

ROUTE FA 14 DESCRIPTION IL 15 Bridge over IL 13 (Old Freeburg Rd) & ICG Railroad LOGGED BY KEG

SECTION 27-1-VHB LOCATION St. Clair Twp - 1.4m E of IL 159; W1/2

COUNTY St. Clair DRILLING METHOD CME 55 w/HSA & Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 082-0051/0052 (existing) Station
BORING NO. SB-8 Station 710+14 Offset 51.3 ft RL Ground Surface Elev. 464.66 ft

Table with columns for Depth (ft), Blows (6"), (tsf), (%) and Soil Description. Includes entries for ORGANIC SILT, CLAYEY SILT, SILTY CLAY, SANDY CLAY, SANDY SILT, and WEATHERED LIMESTONE.

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 6/10/10

ROUTE FA 14 DESCRIPTION IL 15 Bridge over IL 13 (Old Freeburg Rd) & ICG Railroad LOGGED BY KEG

SECTION 27-1-VHB LOCATION St. Clair Twp - 1.4m E of IL 159; W1/2

COUNTY St. Clair DRILLING METHOD CME 550 w/HSA & Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 082-0051/0052 (existing) Station
BORING NO. SB-9 Station 710+78 Offset 13.0 ft LI Ground Surface Elev. 468.78 ft

Table with columns for Depth (ft), Blows (6"), (tsf), (%) and Soil Description. Includes entries for TOPSOIL, CLAY, SANDY CLAY, SILTY CLAY, and CLAYEY 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)

FILE NAME = 0820117-0118-76884-057-Boring_Logs.dgn



Table with columns for USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, and DRAWN.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)

SHEET NO. S-57 OF S-62 SHEETS

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

ILLINOIS FED. AID PROJECT



SOIL BORING LOG

Date 6/10/10

ROUTE FA 14 DESCRIPTION IL 15 Bridge over IL 13 (Old Freeburg Rd) & ICG Railroad LOGGED BY KEG

SECTION 27-1-VHB LOCATION St. Clair Twp - 1.4m E of IL 159; W1/2

COUNTY St. Clair DRILLING METHOD CME 550 w/HSA & Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 082-0051/0052 (existing) Station
BORING NO. SB-9 Station 710+78. Offset 13.0 ft LI Ground Surface Elev. 468.76 ft

Table with columns for Depth (ft), Blows (ft/6"), Unconfined Compressive Strength (tsf), Moisture Content (%), and Soil Description. Includes layers like SILTY CLAY, SILTY SAND, CLAY, and WEATHERED LIMESTONE.

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 5/19/11

ROUTE FAP 103 DESCRIPTION IL 15 over IL 13 (Freeburg Avenue) and CN-IC RR LOGGED BY KEG

SECTION 27-1-VHB-1 LOCATION Belleville, Illinois

COUNTY St. Clair DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

STRUCT. NO. 082-0051/0052 Station
BORING NO. SB-10 Station 710+71.52 Offset 1.1 ft RT Ground Surface Elev. 464.77 ft

Table with columns for Depth (ft), Blows (ft/6"), Unconfined Compressive Strength (tsf), Moisture Content (%), and Soil Description. Includes layers like TOPSOIL, CLAY, SILTY CLAY, and WEATHERED LIMESTONE.

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 5/19/11

ROUTE FAP 103 DESCRIPTION IL 15 over IL 13 (Freeburg Avenue) and CN-IC RR LOGGED BY KEG

SECTION 27-1-VHB-1 LOCATION Belleville, Illinois

COUNTY St. Clair DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

STRUCT. NO. 082-0051/0052 Station
BORING NO. SB-10 Station 710+71.52 Offset 1.1 ft RT Ground Surface Elev. 464.77 ft

Table with columns for Depth (ft), Blows (ft/6"), Unconfined Compressive Strength (tsf), Moisture Content (%), and Soil Description. Includes layers like CLAYEY SILT, CLAY, SILTY SAND, and WEATHERED LIMESTONE.

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)

FILE NAME = 0820117-0118-76884-058-Boring_Logs.dgn



Table with columns for USER NAME, DESIGNED, CHECKED, DRAWN, PLOT SCALE, PLOT DATE, REVISED, and CHECKED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.) SHEET NO. S-58 OF S-62 SHEETS

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



SOIL BORING LOG

Page 1 of 2

Date 5/18/11

ROUTE FAP 103 DESCRIPTION IL 15 over IL 13 (Freeburg Avenue) and CN-IC RR LOGGED BY KEG

SECTION 27-1-VHB-1 LOCATION Belleville, Illinois

COUNTY St. Clair DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

Table with columns: DEPTH, BLOW COUNT, LOCATION, SOIL TYPE, ELEVATION, etc.

Main soil log data table with columns for depth, blow count, soil description, and elevation.

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 2

Date 5/18/11

ROUTE FAP 103 DESCRIPTION IL 15 over IL 13 (Freeburg Avenue) and CN-IC RR LOGGED BY KEG

SECTION 27-1-VHB-1 LOCATION Belleville, Illinois

COUNTY St. Clair DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

Table with columns: DEPTH, BLOW COUNT, LOCATION, SOIL TYPE, ELEVATION, etc.

Main soil log data table with columns for depth, blow count, soil description, and elevation.

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 2

Date 5/18/11

ROUTE FAP 103 DESCRIPTION IL 15 over IL 13 (Freeburg Avenue) and CN-IC RR LOGGED BY KEG

SECTION 27-1-VHB-1 LOCATION Belleville, Illinois

COUNTY St. Clair DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

Table with columns: DEPTH, BLOW COUNT, LOCATION, SOIL TYPE, ELEVATION, etc.

Main soil log data table with columns for depth, blow count, soil description, and elevation.

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)

FILE NAME = 0820117-0118-76884-059-Boring_Logs.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, DRAWN, PLOT DATE, REVISED, etc.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)

SHEET NO. S-59 OF S-62 SHEETS

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

ILLINOIS FED. AID PROJECT



SOIL BORING LOG

Date 5/18/11

ROUTE FAP 103 DESCRIPTION IL 15 over IL 13 (Freeburg Avenue) and CN-IC RR LOGGED BY KEG
SECTION 27-1-VHB-1 LOCATION Belleville, Illinois
COUNTY St. Clair DRILLING METHOD CME 550 w/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

Date 5/17/11

ROUTE FAP 103 DESCRIPTION IL 15 over IL 13 (Freeburg Avenue) and CN-IC RR LOGGED BY KEG
SECTION 27-1-VHB-1 LOCATION Belleville, Illinois
COUNTY St. Clair DRILLING METHOD CME 550 w/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

Date 5/17/11

ROUTE FAP 103 DESCRIPTION IL 15 over IL 13 (Freeburg Avenue) and CN-IC RR LOGGED BY KEG
SECTION 27-1-VHB-1 LOCATION Belleville, Illinois
COUNTY St. Clair DRILLING METHOD CME 550 w/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)

FILE NAME = 0820117-0118-76884-060-Boring_Logs.dgn



Table with columns for USER NAME, DESIGNED, CHECKED, DRAWN, PLOT DATE, REVISED, etc.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)

SHEET NO. S-60 OF S-62 SHEETS

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



SOIL BORING LOG

Page 3 of 3 Date 5/17/11

ROUTE FAP 103 DESCRIPTION IL 15 over IL 13 (Freeburg Avenue) and CN-IC RR LOGGED BY KEG SECTION 27-1-VHB-1 LOCATION Belleville, Illinois COUNTY St. Clair DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

Table with columns for Depth (ft), Blows (6"), and Soil Description. Includes data for CLAYEY SHALE and End of Boring at 405.1 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

Page 1 of 1 Date 5/16/11

ROUTE FAP 103 DESCRIPTION IL 15 over IL 13 (Freeburg Avenue) and CN-IC RR LOGGED BY KEG SECTION 27-1-VHB-1 LOCATION Belleville, Illinois COUNTY St. Clair DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

Table with columns for Depth (ft), Blows (6"), and Soil Description. Includes data for ASPHALT, SILTY CLAY, and CLAY.

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 5/16/11

ROUTE FAP 103 DESCRIPTION IL 15 over IL 13 (Freeburg Avenue) and CN-IC RR LOGGED BY KEG SECTION 27-1-VHB-1 LOCATION Belleville, Illinois COUNTY St. Clair DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

Table with columns for Depth (ft), Blows (6"), and Soil Description. Includes data for SILT and CLAY.

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)

FILE NAME = 0820117-0118-76884-061-Boring_Logs.dgn



Table with columns for USER NAME, DESIGNED, CHECKED, DRAWN, PLOT SCALE, PLOT DATE, REVISED, and CHECKED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)

SHEET NO. 5-61 OF 5-62 SHEETS

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

ILLINOIS FED. AID PROJECT



SOIL BORING LOG

Page 1 of 1

Date 5/16/11

ROUTE FAP 103 DESCRIPTION IL 15 over IL 13 (Freeburg Avenue) and CN-IC RR LOGGED BY KEG

SECTION 27-1-VHB-1 LOCATION Belleville, Illinois

COUNTY St. Clair DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

Table with columns for Depth (ft), Blow Count (blows/6"), Unconfined Compressive Strength (tsf), and Moisture Content (%). Includes soil descriptions like ASPHALT, OIL & CHIP, CRUSHED ROCK, SILT, and SILTY CLAY.

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 5/16/11

ROUTE FAP 103 DESCRIPTION IL 15 over IL 13 (Freeburg Avenue) and CN-IC RR LOGGED BY KEG

SECTION 27-1-VHB-1 LOCATION Belleville, Illinois

COUNTY St. Clair DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

Table with columns for Depth (ft), Blow Count (blows/6"), Unconfined Compressive Strength (tsf), and Moisture Content (%). Includes soil descriptions like TOPSOIL, SILT, and SILTY CLAY.

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)

FILE NAME = 0820117-0118-76884-062-Boring_Logs.dgn



Table with columns for User Name, Designated, Revised, Checked, Drawn, and Plot Date.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS STRUCTURE NO. 082-0117 (E.B.) & 082-0118 (W.B.)

SHEET NO. S-62 OF S-62 SHEETS

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

ILLINOIS FED. AID PROJECT

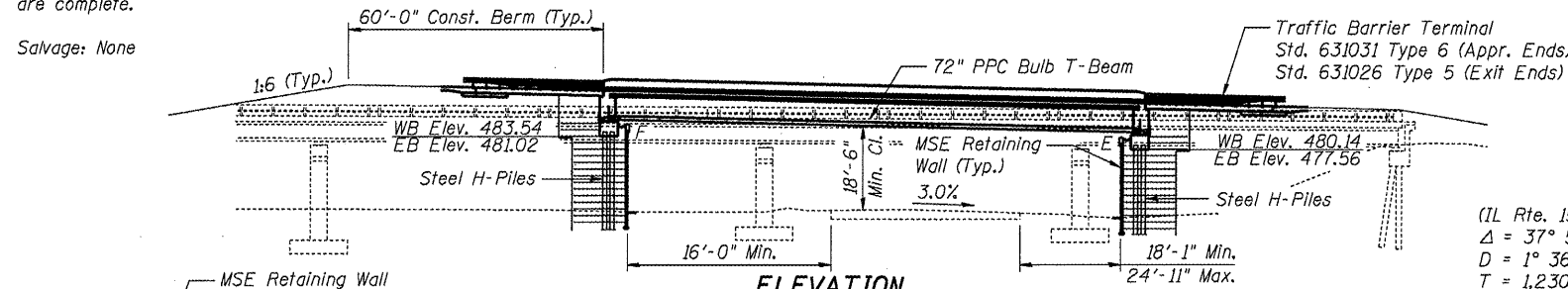
BENCHMARK: Existing chiseled square on south end of northeast wingwall, on SN 082-0051. Elev. 493.11

EXISTING STRUCTURE: Structure Numbers 082-0051 and 082-0052 were constructed in 1956. These structures consist of dual 8 span built-up steel girder spans: one three-span continuous, one simple span and two, two-span continuous. The riveted girders are supported on pile supported abutments and piers. The overall length of SN 082-0051 (Westbound) is 808 feet and SN 082-0052 (Eastbound) is 746 feet. Each structure is 35'-8" out-to-out of deck, with 30 feet of roadway width. Both structures were rehabilitated in 1985. Traffic will be maintained on SN 082-0051 while the new eastbound structures are constructed; traffic will then be moved to the new eastbound structures until the westbound structures are complete.

Salvage: None

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

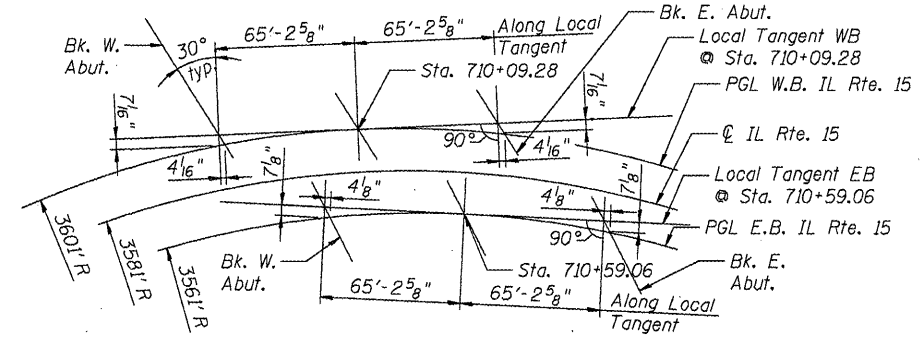
DESIGN SPECIFICATIONS
AASHTO LRFD Bridge Design Specifications
5th Edition with 2010 Interims



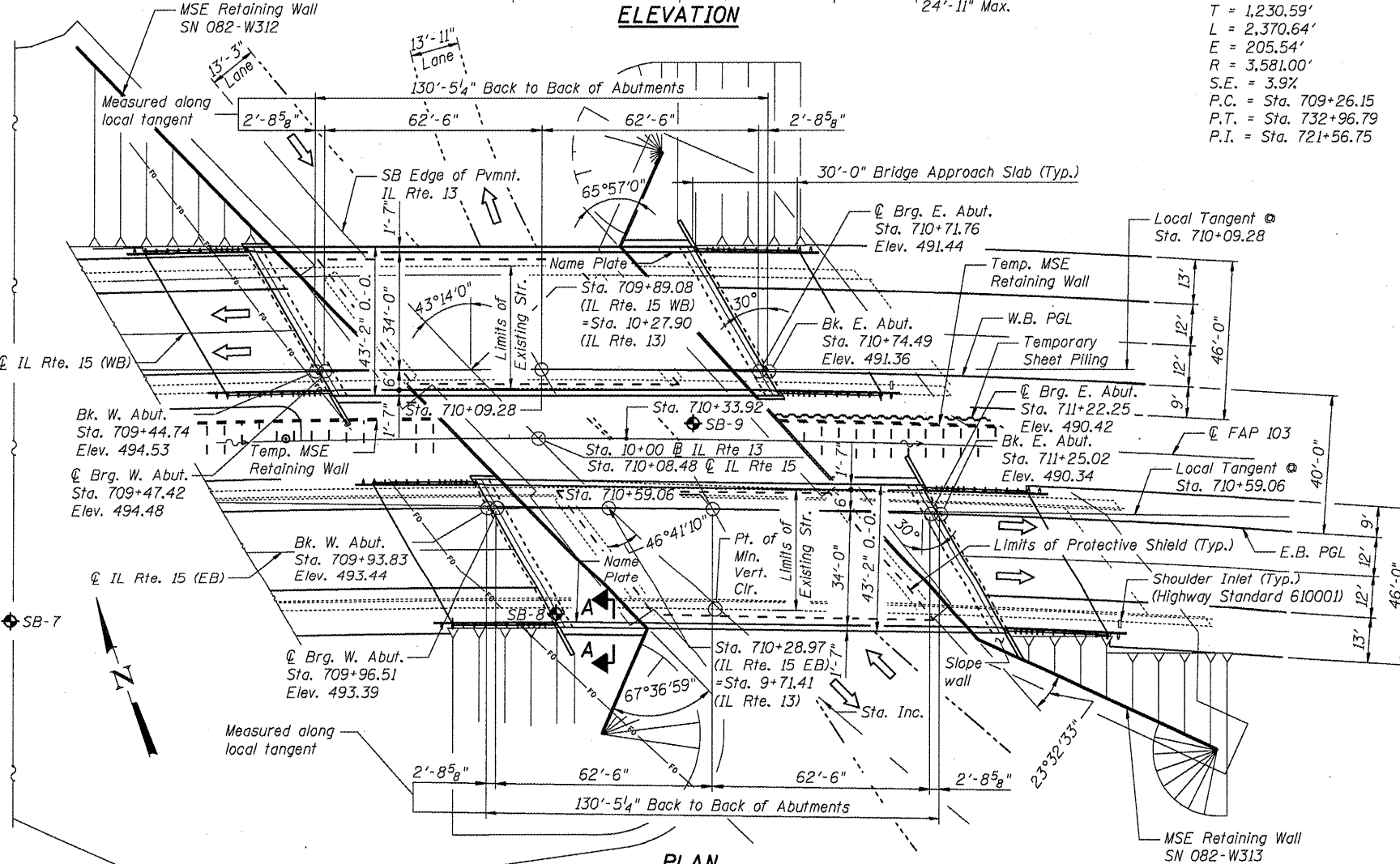
ELEVATION

CURVE DATA

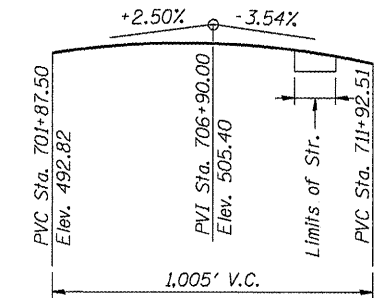
(IL Rte. 15)	(IL Rte. 13)
$\Delta = 37^\circ 55' 48''$ (RT)	$\Delta = 17^\circ 42' 18''$ (RT)
$D = 1^\circ 36' 00''$	$D = 3^\circ 49' 11''$
$T = 1,230.59'$	$T = 233.62'$
$L = 2,370.64'$	$L = 463.52'$
$E = 205.54'$	$E = 18.08'$
$R = 3,581.00'$	$R = 1,500.00'$
$S.E. = 3.9\%$	$S.E. = 3.0\%$
$P.C. = \text{Sta. } 709+26.15$	$P.C. = \text{Sta. } 8+72.98$
$P.T. = \text{Sta. } 732+96.79$	$P.T. = \text{Sta. } 13+36.50$
$P.I. = \text{Sta. } 721+56.75$	$P.I. = \text{Sta. } 11+06.60$



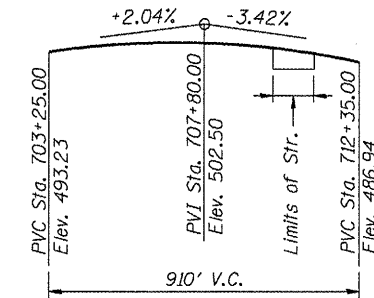
OFFSET SKETCH



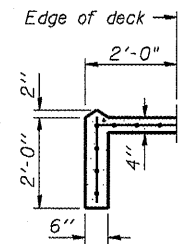
PLAN



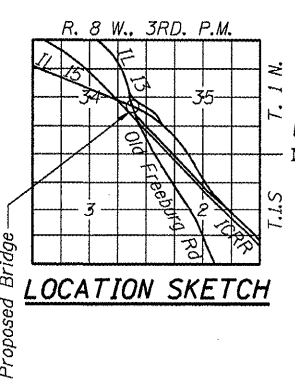
PROFILE GRADE
FAP 103 (IL 15 W.B.)



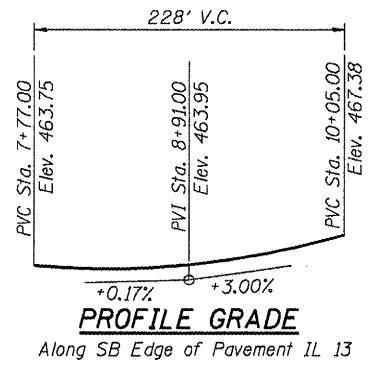
PROFILE GRADE
FAP 103 (IL 15 E.B.)



SECTION A-A



LOCATION SKETCH



PROFILE GRADE
Along SB Edge of Pavement IL 13

DESIGN STRESSES
FIELD UNITS

$f'_c = 3,500$ psi
$f_y = 60,000$ psi (Reinforcement)
PRECAST PRESTRESSED CONC. UNITS
$f'_c = 7,000$ psi
$f'_{ci} = 6,000$ psi
$f_{pu} = 270,000$ psi
$f_{pbt} = 201,960$ psi

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{d1}) = 0.253
Design Spectral Acceleration at 0.2 sec. (S_{d5}) = 0.582
Soil Site Class = D

Approximate Limit of Aggregate Column Ground Improvement See Roadway Plans



Lawrence L. Kirchner
EXPIRES 11/30/2011
10/19/2011

APPROVED
For Structural Adequacy Only
Lawrence L. Kirchner
Engineer of Bridges & Structures

GENERAL PLAN
ILLINOIS ROUTE 15 OVER ILLINOIS ROUTE 13
F.A.P. RTE. 103 - SEC. 27-1-VHB-1
ST. CLAIR COUNTY
STATION 710+33.92
STRUCTURE NO. 082-0119 (EB)
STRUCTURE NO. 082-0120 (WB)

FILE NAME = 0820119-0120-76884-001-09E.dgn



USER NAME = brazzera	DESIGNED - MJK	REVISED -
PLOT SCALE = 42.8 1" / IN.	CHECKED - JAN	REVISED -
PLOT DATE = 10/19/2011	DRAWN - MJK	REVISED -
	CHECKED - JAN	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. S-1 OF S-51 SHEETS

F.A.P. RTE. 103	SECTION 27-1-VHB-1	COUNTY ST. CLAIR	TOTAL SHEET NO. 277	SHEET NO. 178
			CONTRACT NO. 76884	
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
4. The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
5. Slipforming of parapets is allowed.
6. Slopewall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.
7. The Contractor is advised that the existing structure contains members that are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the existing structure when developing construction procedures for the complete or partial removal, or replacement of the structure. An Existing Structure Information Package is available upon request as noted in the special provisions.
8. Removal of Existing Structures No. 1 and Removal of Existing Structures No. 2 is included with the drawing set for SN 082-0117 and 082-0118.

CURRENT RATINGS ON FILE FOR EXISTING WESTBOUND STRUCTURE

Inventory: HS 25.0
 Operating: HS 41.8
 Live Load Restrictions: No

Inventory and Operating Ratings and Live Load Restrictions are provided for information only. Inventory and Operating Ratings are based on HS loading and configuration. Live Load Restrictions are based on Illinois legal loads and configurations. The Ratings and Live Load Restrictions are not necessarily representative of capacities to support the Contractor's equipment.

STATION 710+28.97
 BUILT 201_ BY
 STATE OF ILLINOIS
 F.A.P. RT. 103 SEC. 27-1-VHB-1
 LOADING HL-93
 STRUCTURE NO. 082-0119

NAME PLATE (E.B.)
 See Std. 515001

STATION 709+89.08
 BUILT 201_ BY
 STATE OF ILLINOIS
 F.A.P. RT. 103 SEC. 27-1-VHB-1
 LOADING HL-93
 STRUCTURE NO. 082-0120

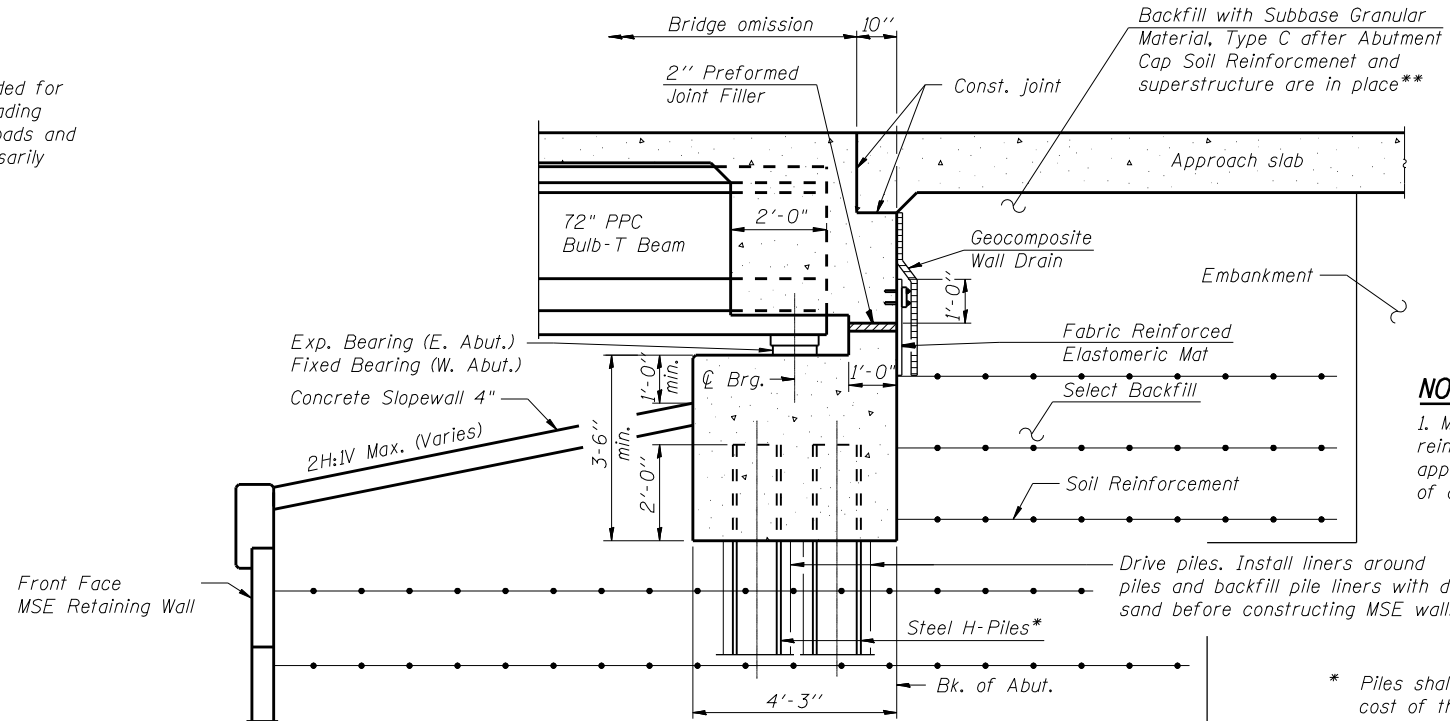
NAME PLATE (W.B.)
 See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Subbase Granular Material, Type C	CU YD	440		440
Protective Shield	SQ YD	687		687
Concrete Structures	CU YD		218.4	218.4
Concrete Superstructure	CU YD	786.2		786.2
Bridge Deck Grooving	SQ YD	1,082		1,082
Protective Coat	SQ YD	1,360		1,360
Furnishing and Erecting Precast Prestressed Concrete Bulb T-Beams 72"	FOOT	2,021.5		2,021.5
Reinforcement Bars, Epoxy Coated	POUND	156,720	17,400	174,120
Bar Splicers	EACH	180		180
Slope Wall 4"	SQ YD		341	341
Furnishing Steel Piles HP12x53	FOOT		3,012	3,012
Driving Piles	FOOT		3,012	3,012
Test Pile Steel HP12x53	EACH		4	4
Pile Shoes	EACH		52	52
Name Plates	EACH	2		2
Elastomeric Bearing Assembly, Type I	EACH	16		16
Anchor Bolts, 1"	EACH	32		32
Geocomposite Wall Drain	SQ YD	152		152
Temporary Mechanically Stabilized Earth Retaining Wall	SQ FT		3,218	3,218
Temporary Sheet Piling	SQ FT		695	695

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- S-2 General Notes, B.O.M. & Index of Sheets
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- S-4 Temporary MSE Retaining Wall
- S-5 Stage Construction Deck Sections
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- S-7 Deck Elevations Eastbound
- S-8 Deck Elevation Plan Westbound
- S-9 Deck Elevations Westbound
- S-10 East E.B. Bridge Approach Slab Elevations
- S-11 West E.B. Bridge Approach Slab Elevations
- S-12 East W.B. Bridge Approach Slab Elevations
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- S-14 Deck Plan Eastbound
- S-15 Deck Plan Westbound
- S-16 Deck Cross Section Eastbound
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- S-18 Superstructure Details Eastbound
- S-19 Superstructure Details Westbound
- S-20 Parapet Elevation, Details & B.O.M. Eastbound
- S-21 Parapet Elevation, Details & B.O.M. Westbound
- S-22 East E.B. Bridge Approach Slab Plan
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- S-46 Boring Logs
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- S-48 Boring Logs
- S-49 Boring Logs
- S-50 Boring Logs
- S-51 Boring Logs



TYPICAL SECTION THRU SEMI-INTEGRAL ABUTMENT
 (Horiz. dim. @ Rt. L's)

NOTE:
 1. MSE Retaining wall supplier shall design and supply abutment soil reinforcement to resist earth pressure of 40pcf equivalent fluid weight applied to back of abutment plus a longitudinal force of 6.6 kip/ft length of abutment.

* Piles shall be driven prior to placement of the reinforced select fill. The cost of the pile liners shall be included with the cost of Furnishing Steel Piles HP12x53.

** Subbase Granular Material, Type C shall remain uncompacted.

FILE NAME = 0820119-0120-76884-002-GeneralNotes.dgn



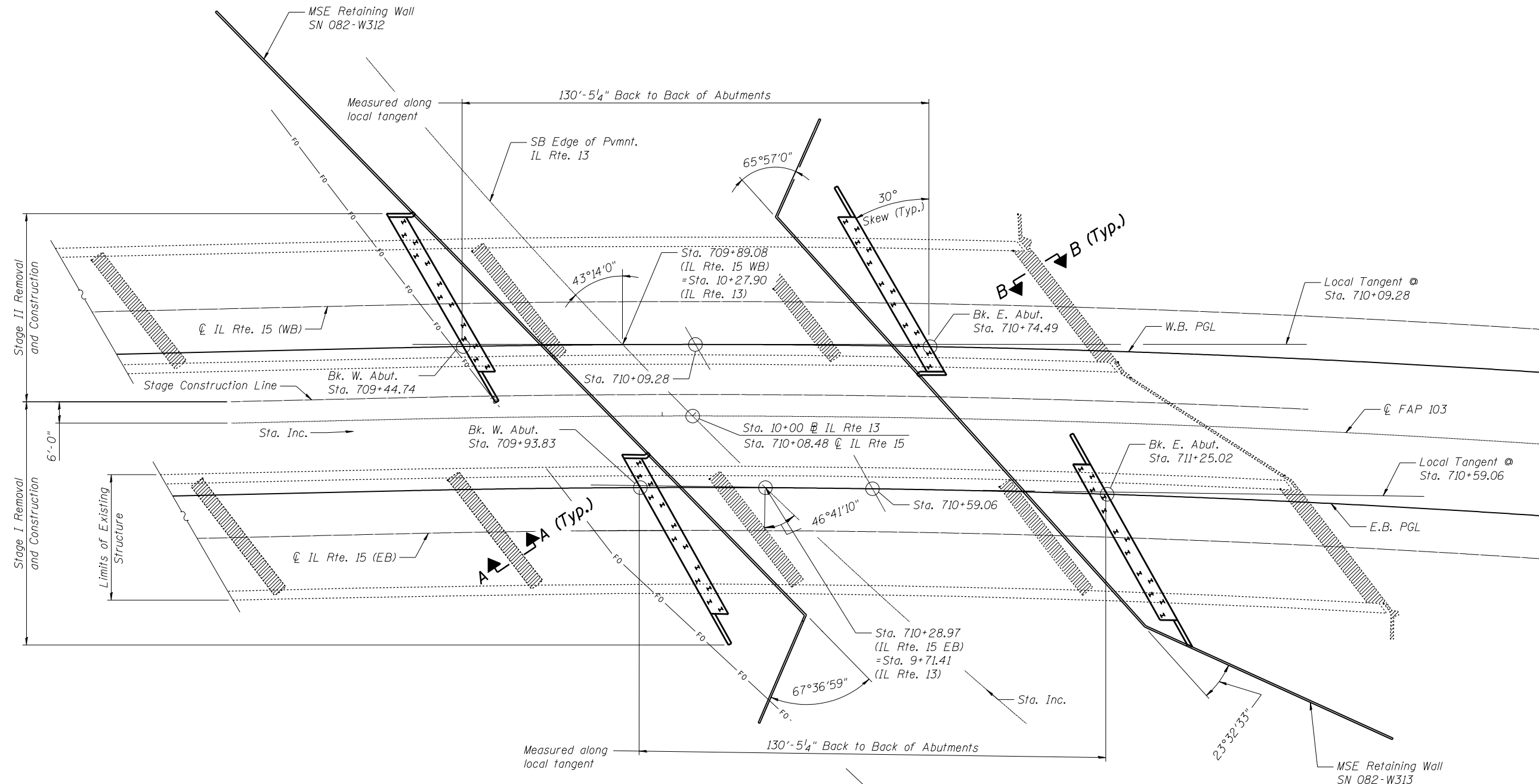
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

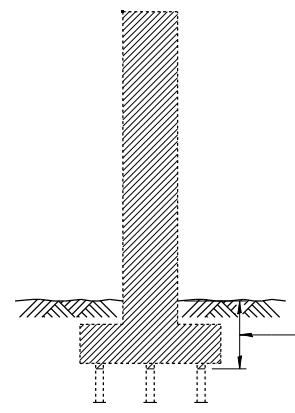
**GENERAL NOTES, B.O.M. & INDEX OF SHEETS
 STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)**

SHEET NO. S-2 OF S-51 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	179
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76884	

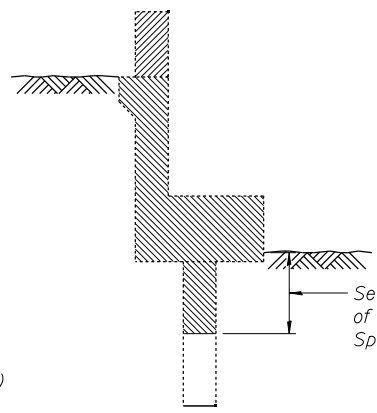


PLAN



SECTION A-A

See Article 501.04 of the Standard Specifications (Typ.)



SECTION B-B

See Article 501.04 of the Standard Specifications (Typ.)

NOTE:
For Abutment pile layout, see Shts. S-33, S-34, S-36 and S-37 of S-51.

LEGEND
 Structure Removal

FILE NAME = 0820119-0120-76884-003-FOUNDATIONPLAN.dgn



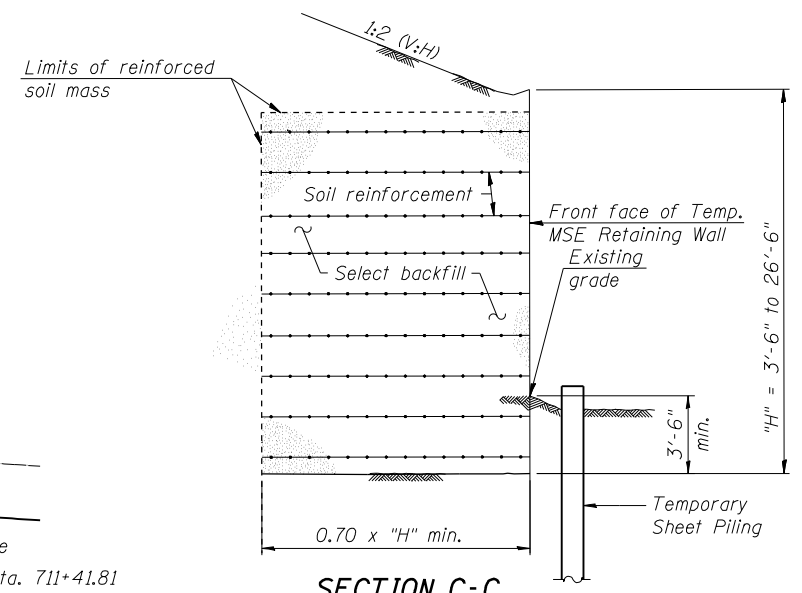
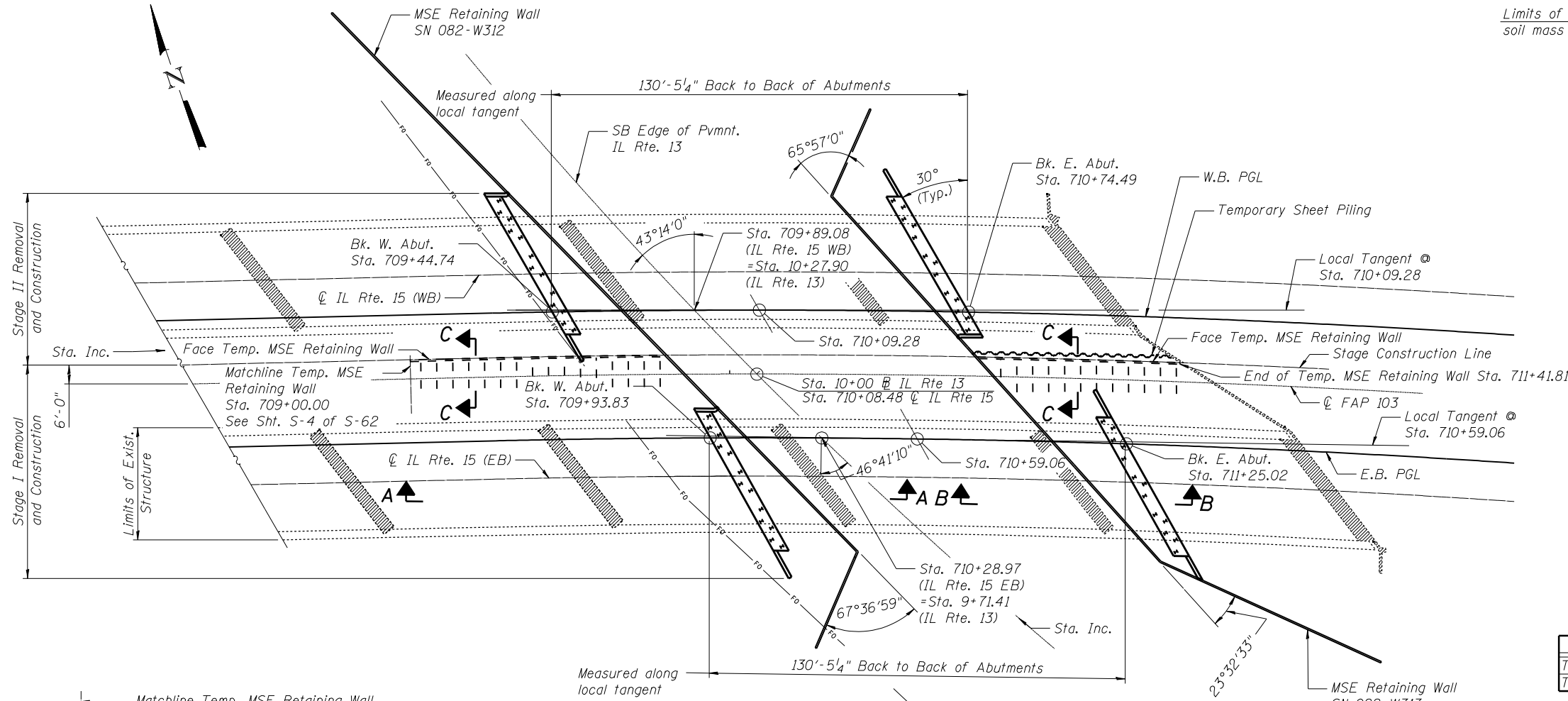
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PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED - -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FOUNDATION PLAN
STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)**

SHEET NO. S-3 OF S-51 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	180
CONTRACT NO. 76884			ILLINOIS FED. AID PROJECT	



SECTION C-C
Between Bridges

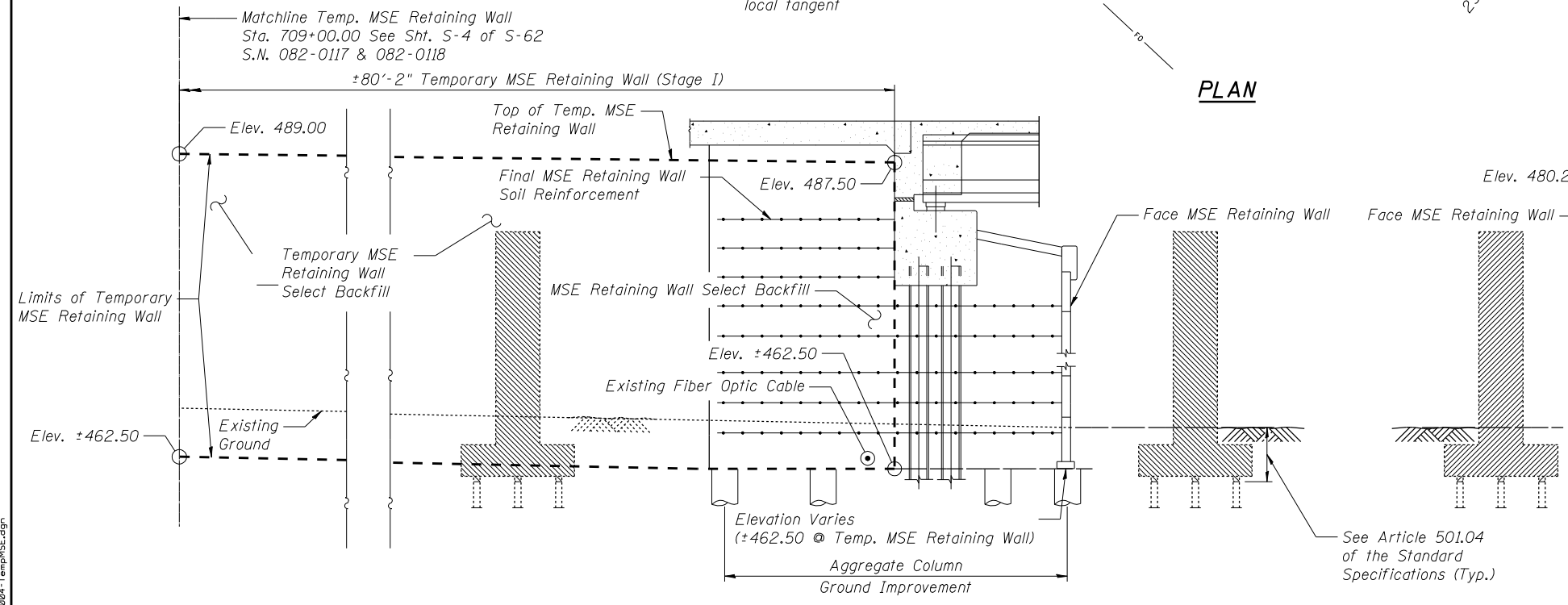
NOTE:
For Abutment pile layout, see Shts. S-33, S-34, S-36 and S-37 of S-51
For Structure Removal, see Sht. S-3

LEGEND
Structure Removal

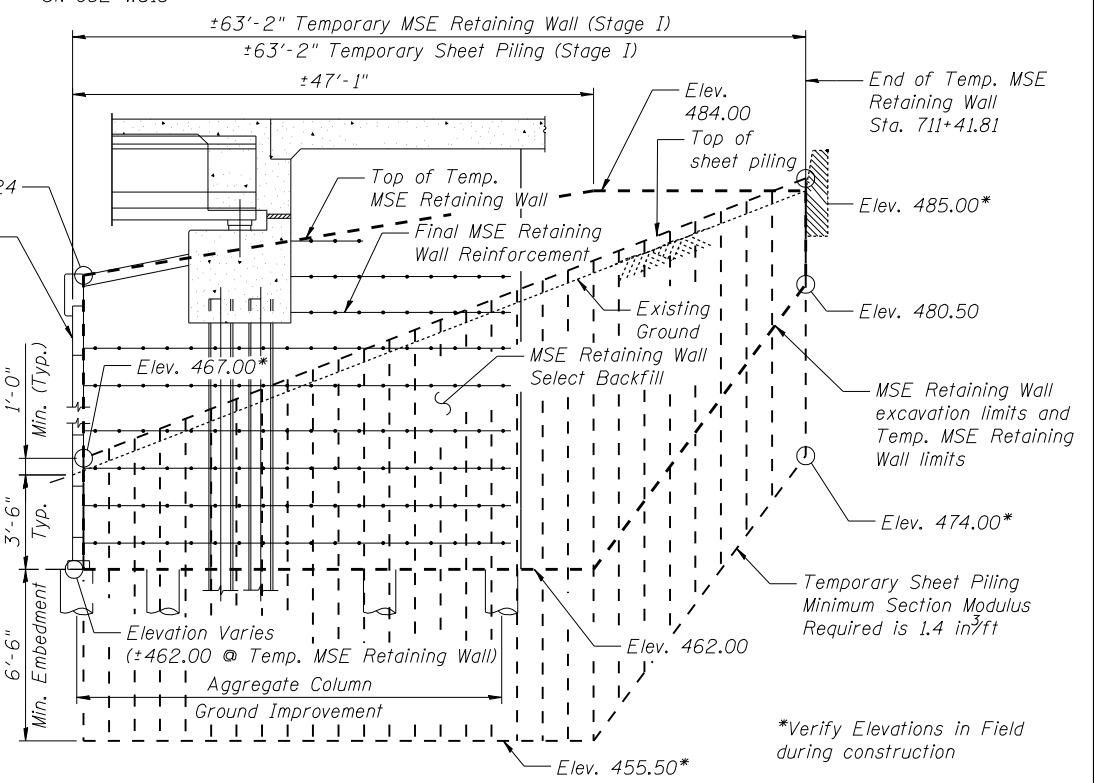
BILL OF MATERIAL

ITEM	UNIT	TOTAL
Temporary Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	3218
Temporary Sheet Piling	Sq. Ft.	695

PLAN



SECTION A-A
(Distances along Temp. MSE Retaining Wall)



SECTION B-B
(Distances along Temp. MSE Retaining Wall)

*Verify Elevations in Field during construction

FILE NAME = 0820119-0120-76884-004-TempMSE.dgn

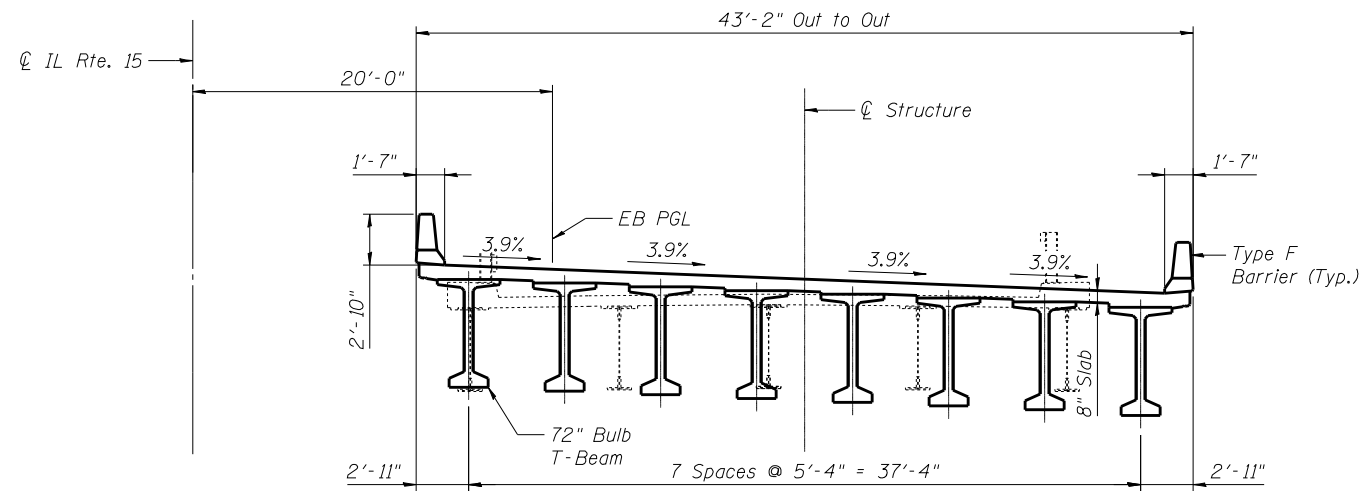
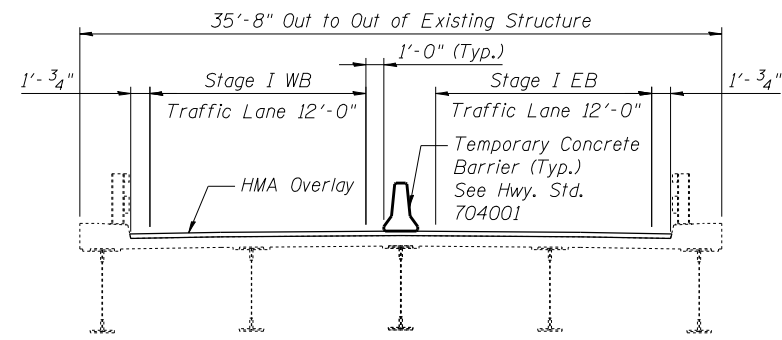


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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

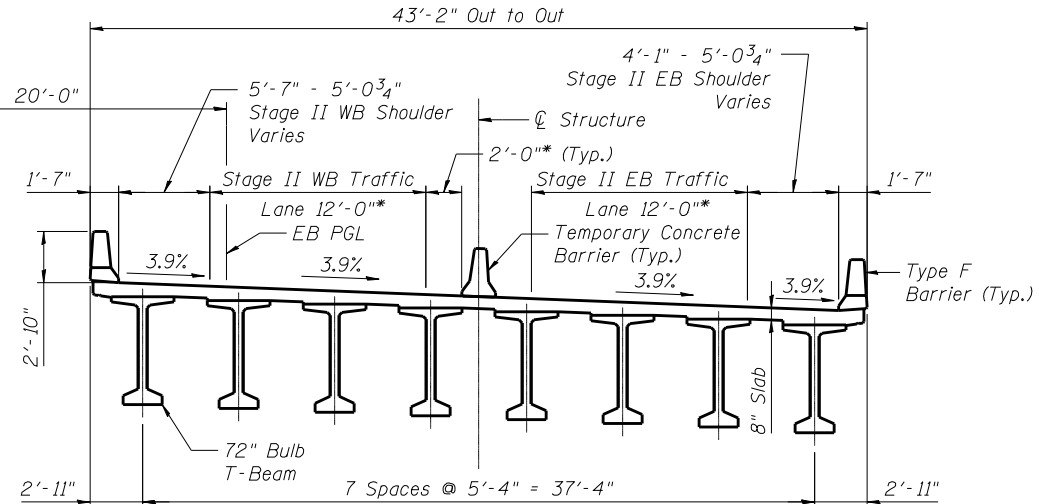
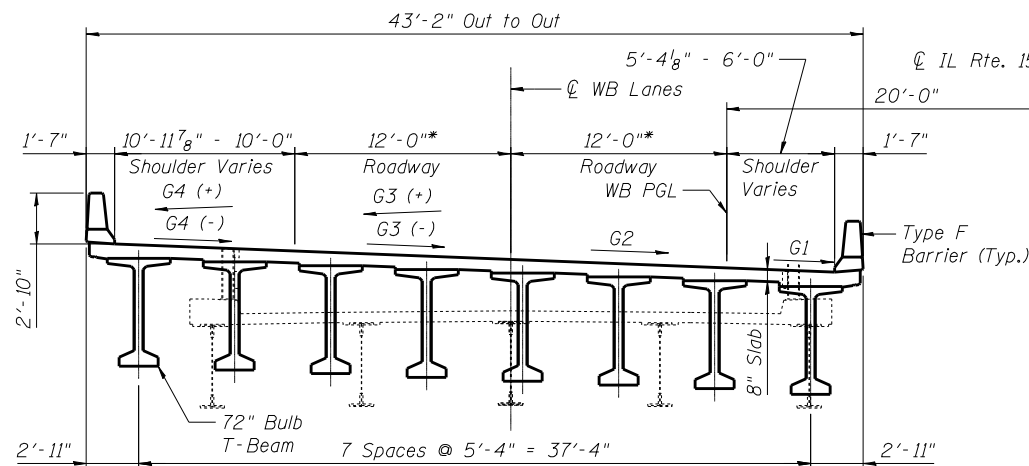
TEMPORARY MSE RETAINING WALL
STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)

F.A.P. RTE. 103	SECTION 27-1-VHB-1	COUNTY ST. CLAIR	TOTAL SHEETS 277	SHEET NO. 181
SHEET NO. S-4 OF S-51 SHEETS			CONTRACT NO. 76884	
ILLINOIS FED. AID PROJECT				



STAGE I REMOVAL AND CONSTRUCTION

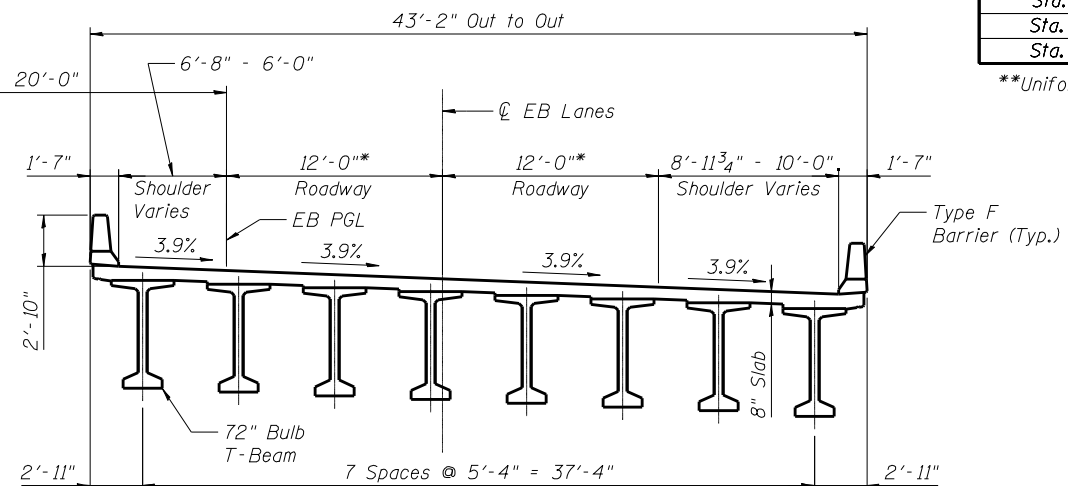
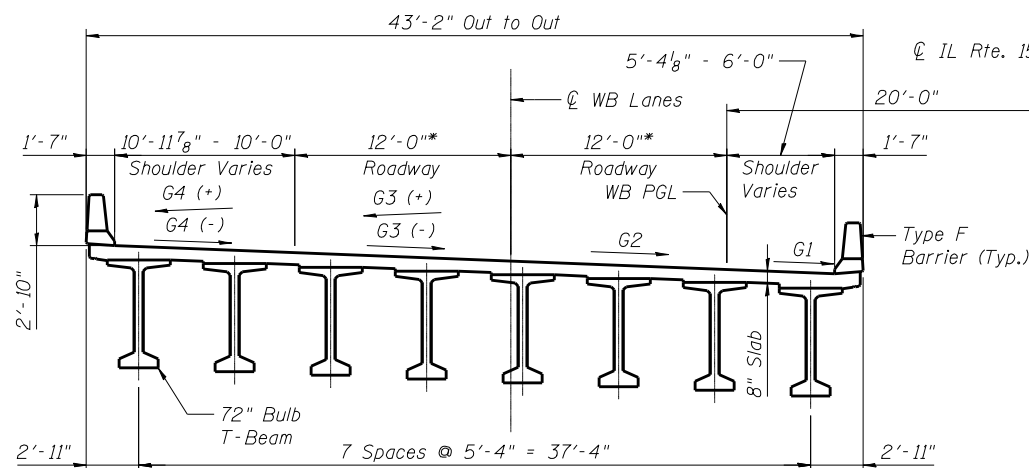
(Looking East)



STAGE II REMOVAL AND CONSTRUCTION

(Looking East)

*Radial Dimensions



FINAL CROSS SECTION

(Looking East)

*Radial Dimensions

STATION	G1	G2	G3	G4
Up to Sta. 707+64.2	2.08%	1.5%	1.5%	2.08%
Sta. 708+01.4	2.08%	1.5%	0%	
Sta. 708+61.4	2.08%	1.5%	-1.5%	**
Sta. 709+05.4	**	2.6%	-2.6%	
Sta. 709+57.4	3.9%	3.9%	-3.9%	-3.9%

**Uniform Transition

FILE NAME = 0820119-0120-76884-005-StageConst.dgn



USER NAME = brazzera
 PLOT SCALE = 428.0000 '1" / IN.
 PLOT DATE = 10/19/2011

DESIGNED - MJK
 CHECKED - JAN
 DRAWN - MJK
 CHECKED - JAN

REVISED - -
 REVISED - -
 REVISED - -
 REVISED - -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DECK SECTIONS
 STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)

SHEET NO. S-5 OF S-51 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	182

CONTRACT NO. 76884
 ILLINOIS FED. AID PROJECT

BEAM 1

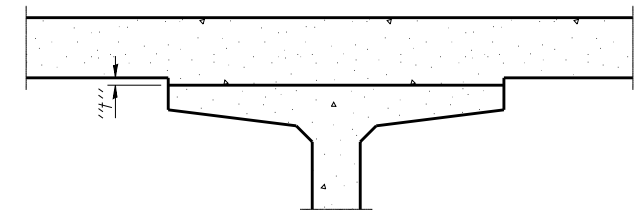
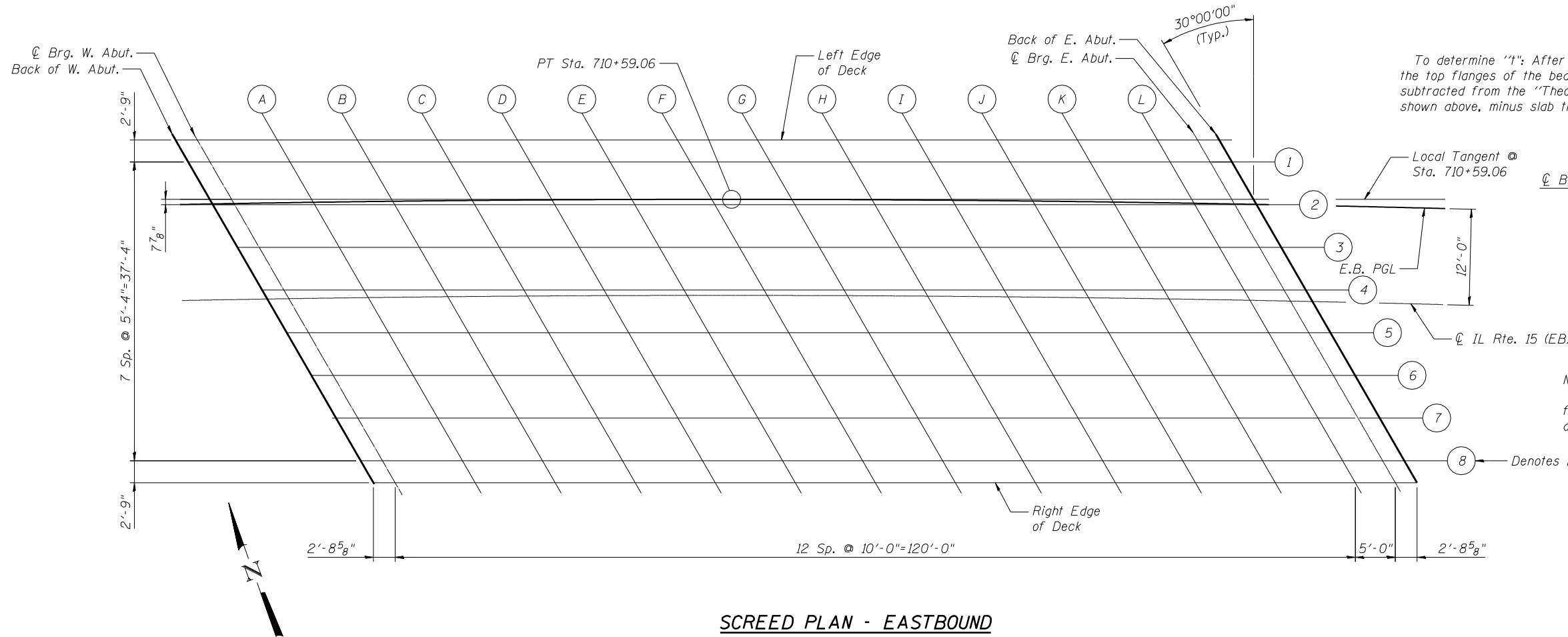
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	709+90.86	14.69	493.71	493.71
⊕ Brg. W. Abut.	709+93.58	14.74	493.65	493.65
A	710+03.62	14.91	493.45	493.47
B	710+13.66	15.05	493.23	493.28
C	710+23.7	15.16	493.02	493.09
D	710+33.75	15.24	492.79	492.88
E	710+43.79	15.30	492.57	492.67
F	710+53.83	15.33	492.33	492.44
G	710+63.88	15.33	492.10	492.20
H	710+73.92	15.30	491.85	491.95
I	710+83.96	15.25	491.61	491.69
J	710+94.00	15.16	491.35	491.42
K	711+04.05	15.05	491.10	491.14
L	711+14.09	14.91	490.84	490.85
⊕ Brg. E. Abut.	711+19.13	14.83	490.70	490.70
Back of E. Abut.	711+21.86	14.79	490.63	490.63

PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	709+93.81	20.00	493.44	493.44
⊕ Brg. W. Abut.	709+96.51	20.00	493.39	493.39
A	710+06.48	20.00	493.19	493.22
B	710+16.46	20.00	492.98	493.03
C	710+26.45	20.00	492.77	492.84
D	710+36.47	20.00	492.55	492.63
E	710+46.49	20.00	492.32	492.42
F	710+56.54	20.00	492.09	492.19
G	710+66.60	20.00	491.85	491.95
H	710+76.68	20.00	491.60	491.69
I	710+86.77	20.00	491.35	491.43
J	710+96.88	20.00	491.09	491.15
K	711+07.01	20.00	490.83	490.86
L	711+17.15	20.00	490.55	490.57
⊕ Brg. E. Abut.	711+22.25	20.00	490.41	490.41
Back of E. Abut.	711+25.01	20.00	490.34	490.34

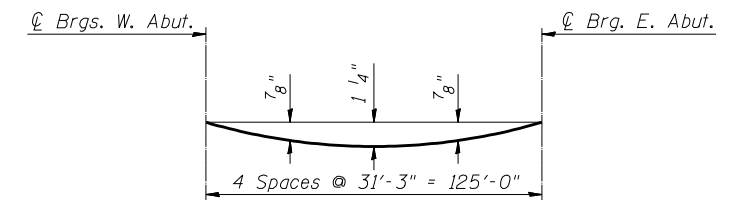
BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	709+93.85	20.08	493.44	493.44
⊕ Brg. W. Abut.	709+96.58	20.12	493.38	493.38
A	710+06.64	20.29	493.17	493.20
B	710+16.69	20.42	492.96	493.01
C	710+26.75	20.52	492.74	492.81
D	710+36.81	20.60	492.52	492.60
E	710+46.87	20.65	492.29	492.38
F	710+56.92	20.67	492.05	492.15
G	710+66.98	20.66	491.81	491.91
H	710+77.04	20.62	491.57	491.66
I	710+87.10	20.56	491.32	491.40
J	710+97.16	20.47	491.07	491.13
K	711+07.21	20.34	490.81	490.84
L	711+17.27	20.20	490.54	490.56
⊕ Brg. E. Abut.	711+22.32	20.11	490.41	490.41
Back of E. Abut.	711+25.05	20.06	490.34	490.34



To determine "t": After all precast prestressed beams have 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 Deflections" shown above, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete, excluding beams).

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

Denotes Beam Number

SCREED PLAN - EASTBOUND

NOTE: See Sheet S-7 of S-51 for Deck Elevations.

FILE NAME = 0820119-0120-76884-006-DeckElev.dgn



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	CHECKED - JAN	REVISED - -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK ELEVATION PLAN EASTBOUND
STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)**

SHEET NO. S-6 OF S-51 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	183
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76884	

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	709+96.86	25.46	493.17	493.17
⊖ Brg. W. Abut.	709+99.59	25.51	493.11	493.11
A	710+09.66	25.66	492.90	492.93
B	710+19.73	25.79	492.69	492.74
C	710+29.81	25.88	492.47	492.54
D	710+39.88	25.95	492.24	492.33
E	710+49.95	25.99	492.01	492.11
F	710+60.03	26.00	491.77	491.87
G	710+70.1	25.98	491.53	491.63
H	710+80.17	25.94	491.28	491.38
I	710+90.24	25.87	491.03	491.11
J	711+00.32	25.76	490.78	490.84
K	711+10.39	25.63	490.52	490.55
L	711+20.46	25.48	490.25	490.26
⊖ Brg. E. Abut.	711+25.52	25.39	490.11	490.11
Back of E. Abut.	711+28.25	25.34	490.04	490.04

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	709+99.87	30.85	492.90	492.90
⊖ Brg. W. Abut.	710+02.61	30.89	492.84	492.84
A	710+12.70	31.04	492.63	492.66
B	710+22.78	31.15	492.41	492.46
C	710+32.87	31.24	492.19	492.26
D	710+42.96	31.30	491.96	492.05
E	710+53.05	31.33	491.73	491.83
F	710+63.14	31.33	491.49	491.59
G	710+73.22	31.31	491.25	491.35
H	710+83.31	31.25	491.00	491.09
I	710+93.40	31.17	490.75	490.82
J	711+03.49	31.06	490.49	490.55
K	711+13.57	30.92	490.22	490.26
L	711+23.66	30.76	489.96	489.97
⊖ Brg. E. Abut.	711+28.73	30.66	489.82	489.82
Back of E. Abut.	711+31.47	30.61	489.75	489.75

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	710+02.90	36.23	492.63	492.63
⊖ Brg. W. Abut.	710+05.64	36.27	492.57	492.57
A	710+15.74	36.41	492.36	492.38
B	710+25.84	36.51	492.14	492.19
C	710+35.95	36.59	491.91	491.98
D	710+46.05	36.64	491.68	491.77
E	710+56.15	36.67	491.45	491.54
F	710+66.26	36.66	491.21	491.31
G	710+76.36	36.63	490.96	491.06
H	710+86.46	36.56	490.71	490.80
I	710+96.56	36.47	490.46	490.54
J	711+06.67	36.35	490.20	490.26
K	711+16.77	36.21	489.93	489.97
L	711+26.87	36.03	489.66	489.68
⊖ Brg. E. Abut.	711+31.94	35.93	489.52	489.52
Back of E. Abut.	711+34.69	35.88	489.45	489.45

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	710+05.93	41.61	492.36	492.36
⊖ Brg. W. Abut.	710+08.68	41.65	492.30	492.30
A	710+18.79	41.78	492.08	492.11
B	710+28.91	41.87	491.86	491.91
C	710+39.03	41.94	491.63	491.70
D	710+49.15	41.99	491.40	491.49
E	710+59.27	42.00	491.17	491.26
F	710+69.38	41.99	490.92	491.03
G	710+79.50	41.94	490.68	490.78
H	710+89.62	41.87	490.43	490.52
I	710+99.74	41.77	490.17	490.25
J	711+09.86	41.64	489.91	489.97
K	711+19.97	41.49	489.64	489.68
L	711+30.09	41.30	489.37	489.38
⊖ Brg. E. Abut.	711+35.17	41.20	489.23	489.23
Back of E. Abut.	711+37.92	41.14	489.15	489.15

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	710+08.97	46.99	492.09	492.09
⊖ Brg. W. Abut.	710+11.72	47.02	492.03	492.03
A	710+21.85	47.14	491.81	491.83
B	710+31.99	47.23	491.58	491.63
C	710+42.12	47.29	491.36	491.43
D	710+52.26	47.33	491.12	491.21
E	710+62.39	47.33	490.88	490.98
F	710+72.52	47.31	490.64	490.74
G	710+82.66	47.26	490.39	490.49
H	710+92.79	47.18	490.14	490.23
I	711+02.92	47.07	489.88	489.96
J	711+13.06	46.93	489.61	489.67
K	711+23.19	46.77	489.35	489.38
L	711+33.32	46.57	489.07	489.08
⊖ Brg. E. Abut.	711+38.41	46.47	488.93	488.93
Back of E. Abut.	711+41.16	46.40	488.86	488.86

BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	710+12.02	52.36	491.81	491.81
⊖ Brg. W. Abut.	710+14.78	52.40	491.75	491.75
A	710+24.93	52.51	491.53	491.56
B	710+35.07	52.59	491.31	491.36
C	710+45.22	52.64	491.08	491.15
D	710+55.37	52.66	490.84	490.93
E	710+65.52	52.66	490.60	490.70
F	710+75.67	52.63	490.36	490.46
G	710+85.82	52.57	490.10	490.21
H	710+95.97	52.48	489.85	489.94
I	711+06.12	52.36	489.59	489.67
J	711+16.26	52.22	489.32	489.38
K	711+26.41	52.04	489.05	489.09
L	711+36.55	51.84	488.77	488.79
⊖ Brg. E. Abut.	711+41.65	51.73	488.63	488.63
Back of E. Abut.	711+44.41	51.66	488.56	488.56

FILE NAME = 0820119-0120-76884-007-DeckElev.dgn



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	CHECKED - JAN	REVISED - -
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PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED - -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK ELEVATIONS EASTBOUND
STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)**

SHEET NO. S-7 OF S-51 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	184
			CONTRACT NO. 76884	
ILLINOIS FED. AID PROJECT				

BEAM 1

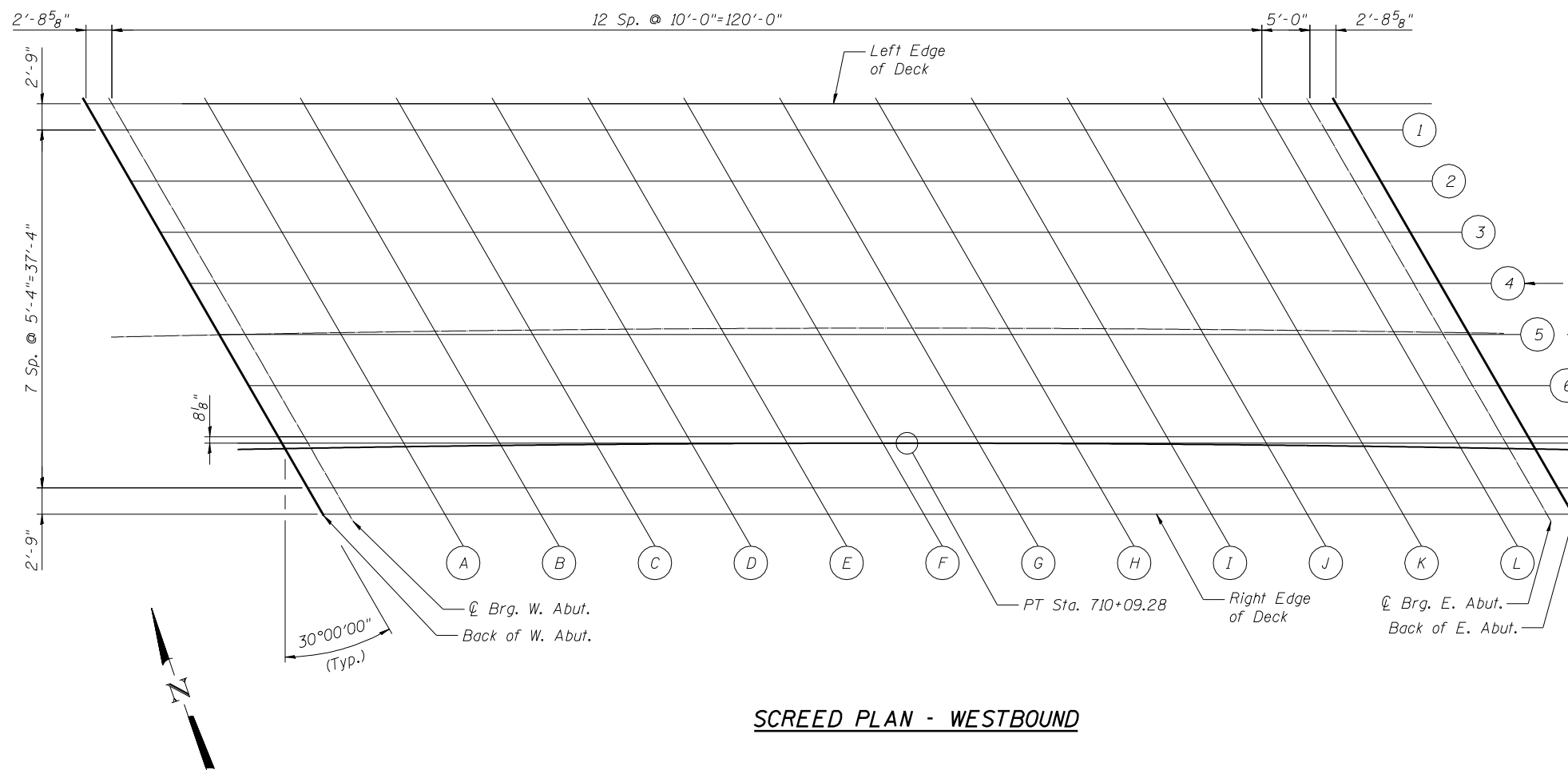
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	709+26.42	-53.64	495.93	495.93
⊗ Brg. W. Abut.	709+29.09	-53.58	495.90	495.90
A	709+38.94	-53.37	495.79	495.81
B	709+48.80	-53.19	495.66	495.72
C	709+58.65	-53.03	495.53	495.60
D	709+68.50	-52.90	495.31	495.40
E	709+78.36	-52.80	495.09	495.19
F	709+88.21	-52.73	494.86	494.96
G	709+98.06	-52.68	494.63	494.73
H	710+07.92	-52.67	494.39	494.48
I	710+17.77	-52.68	494.15	494.23
J	710+27.63	-52.71	493.90	493.96
K	710+37.48	-52.78	493.65	493.69
L	710+47.34	-52.87	493.39	493.40
⊗ Brg. E. Abut.	710+52.28	-52.93	493.26	493.26
Back of E. Abut.	710+54.96	-52.96	493.19	493.19

BEAM 2

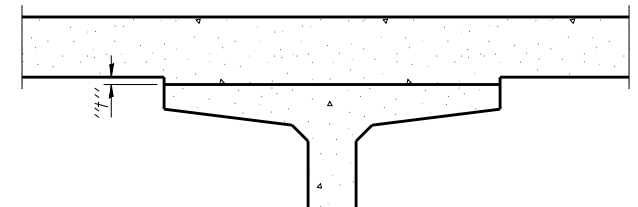
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	709+29.34	-48.24	495.74	495.74
⊗ Brg. W. Abut.	709+32.01	-48.18	495.70	495.70
A	709+41.88	-47.98	495.57	495.59
B	709+51.75	-47.80	495.43	495.48
C	709+61.61	-47.65	495.25	495.32
D	709+71.48	-47.54	495.03	495.12
E	709+81.35	-47.44	494.81	494.91
F	709+91.22	-47.38	494.58	494.68
G	710+01.09	-47.34	494.34	494.44
H	710+10.96	-47.33	494.11	494.20
I	710+20.83	-47.35	493.86	493.94
J	710+30.70	-47.40	493.61	493.67
K	710+40.57	-47.47	493.36	493.40
L	710+50.43	-47.57	493.10	493.11
⊗ Brg. E. Abut.	710+55.39	-47.63	492.97	492.97
Back of E. Abut.	710+58.07	-47.67	492.90	492.90

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	709+32.26	-42.84	495.53	495.53
⊗ Brg. W. Abut.	709+34.94	-42.78	495.49	495.49
A	709+44.82	-42.59	495.34	495.36
B	709+54.71	-42.42	495.18	495.23
C	709+64.59	-42.28	494.98	495.05
D	709+74.47	-42.17	494.76	494.84
E	709+84.35	-42.09	494.53	494.63
F	709+94.24	-42.03	494.30	494.40
G	710+04.12	-42.00	494.06	494.16
H	710+14.01	-42.00	493.82	493.91
I	710+23.89	-42.03	493.58	493.66
J	710+33.77	-42.08	493.33	493.39
K	710+43.66	-42.17	493.07	493.11
L	710+53.54	-42.28	492.81	492.82
⊗ Brg. E. Abut.	710+58.50	-42.34	492.68	492.68
Back of E. Abut.	710+61.18	-42.38	492.61	492.61

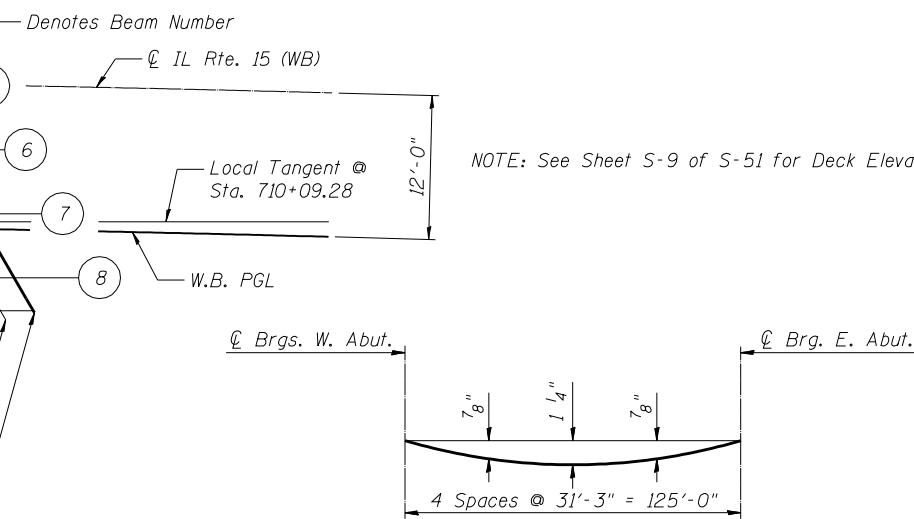


SCREED PLAN - WESTBOUND



To determine "t": After all precast prestressed beams have 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 Deflections" shown above, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete, excluding beams).

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

FILE NAME = 0820119-0120-76884-008-DeckElevWB.dgn



USER NAME = brazzera
PLOT SCALE = 1/8"=1'-0" (1/8"=1'-0")
PLOT DATE = 10/19/2011

DESIGNED - MJK
CHECKED - JAN
DRAWN - MJK
CHECKED - JAN

REVISED - -
REVISED - -
REVISED - -
REVISED - -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK ELEVATION PLAN WESTBOUND
STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)**

SHEET NO. S-8 OF S-51 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	185
CONTRACT NO. 76884				
ILLINOIS FED. AID PROJECT				

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	709+35.20	-37.44	495.31	495.31
⊖ Brg. W. Abut.	709+37.88	-37.39	495.26	495.26
A	709+47.78	-37.20	495.10	495.12
B	709+57.67	-37.04	494.92	494.97
C	709+67.57	-36.91	494.71	494.78
D	709+77.47	-36.81	494.48	494.57
E	709+87.37	-36.73	494.25	494.35
F	709+97.27	-36.69	494.02	494.12
G	710+07.16	-36.67	493.78	493.88
H	710+17.06	-36.68	493.54	493.63
I	710+26.96	-36.71	493.29	493.37
J	710+36.86	-36.77	493.04	493.10
K	710+46.76	-36.86	492.78	492.82
L	710+56.65	-36.98	492.52	492.53
⊖ Brg. E. Abut.	710+61.62	-37.05	492.39	492.39
Back of E. Abut.	710+64.31	-37.09	492.31	492.31

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	709+38.14	-32.05	495.08	495.08
⊖ Brg. W. Abut.	709+40.83	-31.99	495.03	495.03
A	709+50.74	-31.82	494.85	494.87
B	709+60.65	-31.67	494.65	494.70
C	709+70.56	-31.54	494.43	494.50
D	709+80.48	-31.45	494.21	494.29
E	709+90.39	-31.38	493.97	494.07
F	710+00.30	-31.34	493.74	493.84
G	710+10.21	-31.33	493.50	493.60
H	710+20.13	-31.35	493.26	493.35
I	710+30.04	-31.39	493.01	493.08
J	710+39.95	-31.47	492.75	492.81
K	710+49.87	-31.57	492.49	492.53
L	710+59.78	-31.69	492.23	492.24
⊖ Brg. E. Abut.	710+64.75	-31.77	492.09	492.09
Back of E. Abut.	710+67.44	-31.81	492.02	492.02

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	709+41.09	-26.65	494.84	494.84
⊖ Brg. W. Abut.	709+43.79	-26.60	494.78	494.78
A	709+53.71	-26.43	494.59	494.61
B	709+63.64	-26.29	494.38	494.43
C	709+73.56	-26.18	494.15	494.22
D	709+83.49	-26.09	493.93	494.01
E	709+93.42	-26.04	493.70	493.79
F	710+03.35	-26.00	493.46	493.56
G	710+13.27	-26.00	493.22	493.32
H	710+23.20	-26.03	492.97	493.06
I	710+33.13	-26.08	492.72	492.80
J	710+43.06	-26.16	492.46	492.52
K	710+52.98	-26.27	492.20	492.24
L	710+62.91	-26.40	491.94	491.95
⊖ Brg. E. Abut.	710+67.89	-26.48	491.80	491.80
Back of E. Abut.	710+70.59	-26.53	491.73	491.73

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	709+44.05	-21.26	494.59	494.59
⊖ Brg. W. Abut.	709+46.75	-21.22	494.53	494.53
A	709+56.69	-21.06	494.32	494.35
B	709+66.63	-20.92	494.10	494.15
C	709+76.57	-20.82	493.88	493.95
D	709+86.52	-20.74	493.65	493.74
E	709+96.46	-20.69	493.42	493.51
F	710+06.40	-20.67	493.18	493.28
G	710+16.34	-20.67	492.93	493.03
H	710+26.29	-20.71	492.68	492.78
I	710+36.23	-20.77	492.43	492.51
J	710+46.17	-20.86	492.17	492.23
K	710+56.11	-20.97	491.91	491.95
L	710+66.05	-21.12	491.64	491.66
⊖ Brg. E. Abut.	710+71.04	-21.20	491.51	491.51
Back of E. Abut.	710+73.74	-21.25	491.43	491.43

PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	709+44.75	-20.00	494.53	494.53
⊖ Brg. W. Abut.	709+47.42	-20.00	494.48	494.48
A	709+57.28	-20.00	494.27	494.29
B	709+67.15	-20.00	494.06	494.10
C	709+77.03	-20.00	493.84	493.91
D	709+86.93	-20.00	493.61	493.70
E	709+96.85	-20.00	493.38	493.48
F	710+06.78	-20.00	493.14	493.24
G	710+16.73	-20.00	492.90	493.00
H	710+26.70	-20.00	492.65	492.74
I	710+36.68	-20.00	492.39	492.47
J	710+46.67	-20.00	492.13	492.19
K	710+56.69	-20.00	491.86	491.89
L	710+66.72	-20.00	491.58	491.59
⊖ Brg. E. Abut.	710+71.76	-20.00	491.44	491.44
Back of E. Abut.	710+74.49	-20.00	491.36	491.36

BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	709+47.02	-15.88	494.33	494.33
⊖ Brg. W. Abut.	709+49.73	-15.83	494.27	494.27
A	709+59.68	-15.68	494.05	494.08
B	709+69.64	-15.55	493.83	493.88
C	709+79.59	-15.46	493.60	493.67
D	709+89.55	-15.39	493.37	493.46
E	709+99.51	-15.35	493.13	493.24
F	710+09.46	-15.33	492.89	493.00
G	710+19.42	-15.35	492.65	492.75
H	710+29.38	-15.39	492.40	492.49
I	710+39.34	-15.46	492.14	492.23
J	710+49.29	-15.56	491.88	491.95
K	710+59.25	-15.68	491.62	491.66
L	710+69.20	-15.84	491.35	491.36
⊖ Brg. E. Abut.	710+74.20	-15.92	491.21	491.21
Back of E. Abut.	710+76.90	-15.97	491.14	491.14

FILE NAME = 0820119-0120-76884-009-DeckElevWB.dgn



USER NAME = brazzano	DESIGNED - MJK	REVISED - -
	CHECKED - JAN	REVISED - -
PLOT SCALE = 0x2.0000 '1' / IN.	DRAWN - MJK	REVISED - -
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED - -

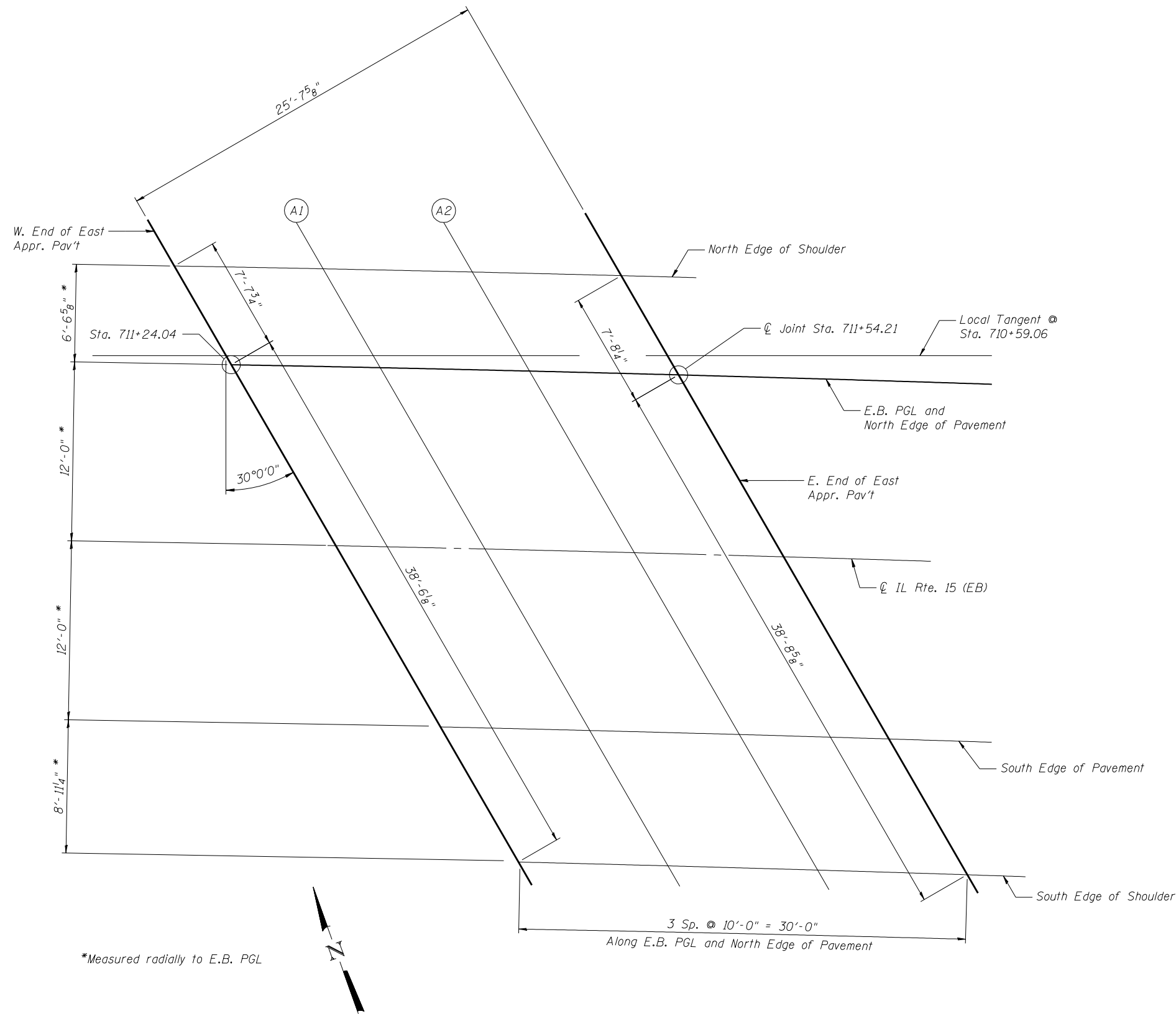
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK ELEVATIONS WESTBOUND
STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)**

SHEET NO. S-9 OF S-51 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	186
			CONTRACT NO. 76884	
ILLINOIS FED. AID PROJECT				

FILE NAME = 082011r-0120-76884-010-EastAppr-ElevEB.dgn



*Measured radially to E.B. PGL



PLAN
(East Approach E.B.)

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't	711+20.08	13.45	490.73
A1	711+30.11	13.45	490.45
A2	711+40.14	13.45	490.17
E. End East Appr. Pav't	711+50.17	13.45	489.88

E.B. PGL AND NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't	711+24.04	20.00	490.36
A1	711+34.09	20.00	490.08
A2	711+44.15	20.00	489.80
E. End East Appr. Pav't	711+54.21	20.00	489.50

IL RTE. 15 (EB)

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't	711+31.33	32.00	489.69
A1	711+41.44	32.00	489.41
A2	711+51.54	32.00	489.11
E. End East Appr. Pav't	711+61.65	32.00	488.82

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't	711+38.69	44.00	489.02
A1	711+48.84	44.00	488.73
A2	711+58.99	44.00	488.43
E. End East Appr. Pav't	711+69.14	44.00	488.12

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't	711+44.21	52.94	488.51
A1	711+54.39	52.94	488.21
A2	711+64.58	52.94	487.91
E. End East Appr. Pav't	711+74.77	52.94	487.60



USER NAME = brazzera	DESIGNED - MJK	REVISED - -
	CHECKED - BTO	REVISED - -
PLOT SCALE = 8:0' / IN.	DRAWN - MJK	REVISED - -
PLOT DATE = 10/19/2011	CHECKED - BTO	REVISED - -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EAST E.B. BRIDGE APPROACH SLAB ELEVATIONS
STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)**

SHEET NO. 5-10 OF 5-51 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	187
			CONTRACT NO. 76884	
ILLINOIS FED. AID PROJECT				

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	709+60.98	13.35	494.32
A3	709+71.01	13.35	494.14
A4	709+81.05	13.35	493.95
E. End West Appr. Pav't	709+91.07	13.35	493.75

E.B. PGL AND NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	709+64.60	20.00	493.99
A3	709+74.66	20.00	493.81
A4	709+84.72	20.00	493.62
E. End West Appr. Pav't	709+94.77	20.00	493.42

CL IL RTE. 15 (EB)

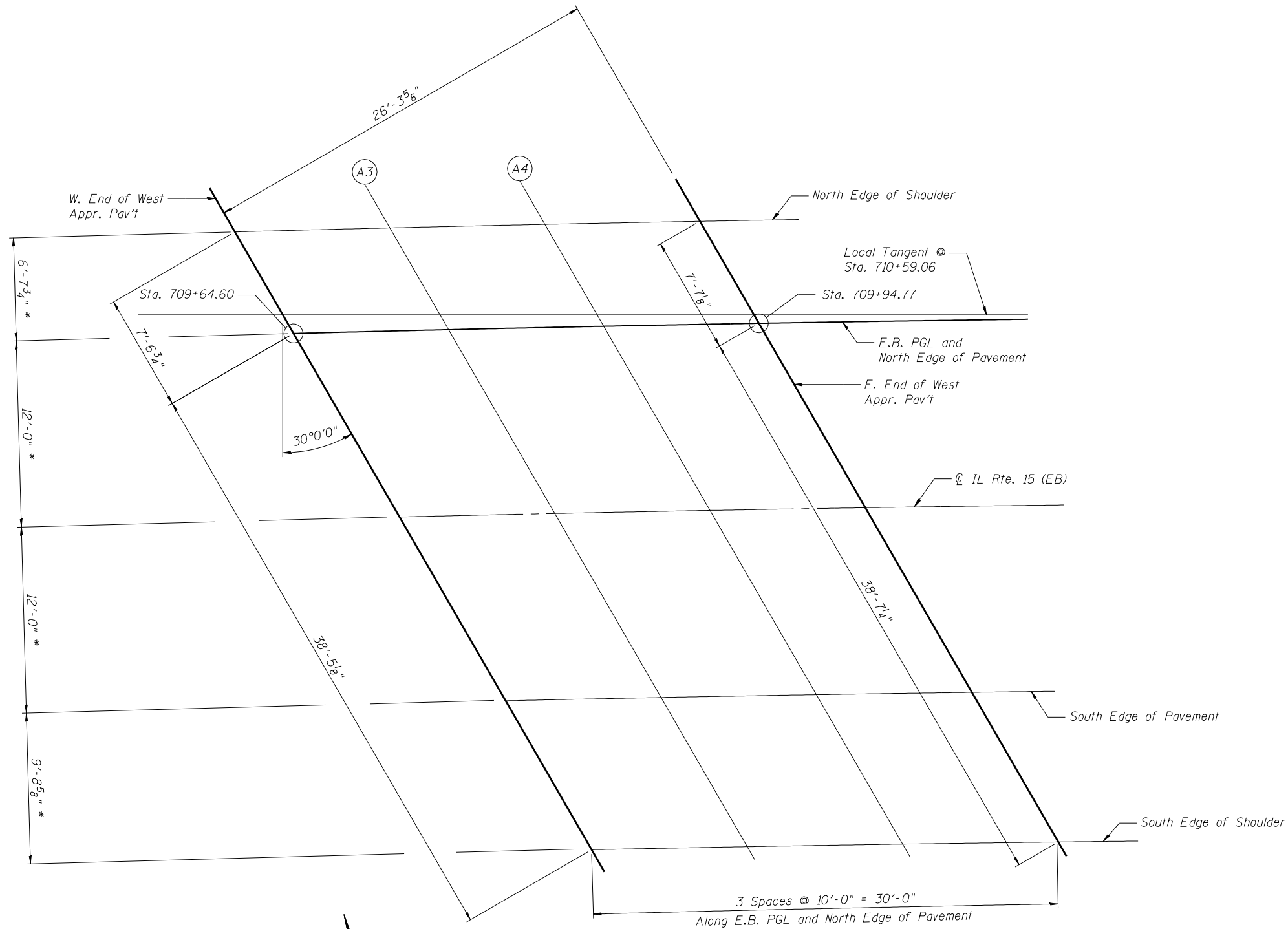
Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	709+71.18	32.00	493.41
A3	709+81.28	32.00	493.22
A4	709+91.38	32.00	493.02
E. End West Appr. Pav't	710+01.48	32.00	492.82

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	709+77.81	44.00	492.81
A3	709+87.96	44.00	492.62
A4	709+98.10	44.00	492.42
E. End West Appr. Pav't	710+08.25	44.00	492.21

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	709+83.22	53.72	492.33
A3	709+93.41	53.72	492.13
A4	710+03.59	53.72	491.93
E. End West Appr. Pav't	710+13.77	53.72	491.72



*Measured radially to E.B. PGL



PLAN
(West Approach E.B.)

FILE NAME = 0820119-0120-76884-011-WestAppr-ElvEB.dgn



USER NAME = brozzano	DESIGNED - MJK	REVISED - -
	CHECKED - BTO	REVISED - -
PLOT SCALE = 8.00' / IN.	DRAWN - MJK	REVISED - -
PLOT DATE = 10/19/2011	CHECKED - BTO	REVISED - -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST E.B. BRIDGE APPROACH SLAB ELEVATIONS
STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)

SHEET NO. S-11 OF S-51 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	188
CONTRACT NO. 76884			ILLINOIS FED. AID PROJECT	

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't	710+53.22	-54.30	493.29
A5	710+63.04	-54.30	493.02
A6	710+72.85	-54.30	492.74
E. End East Appr. Pav't	710+82.68	-54.30	492.46

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't	710+59.27	-44.00	492.72
A5	710+69.13	-44.00	492.45
A6	710+78.98	-44.00	492.17
E. End East Appr. Pav't	710+88.84	-44.00	491.88

CL IL RTE. 15 (WB)

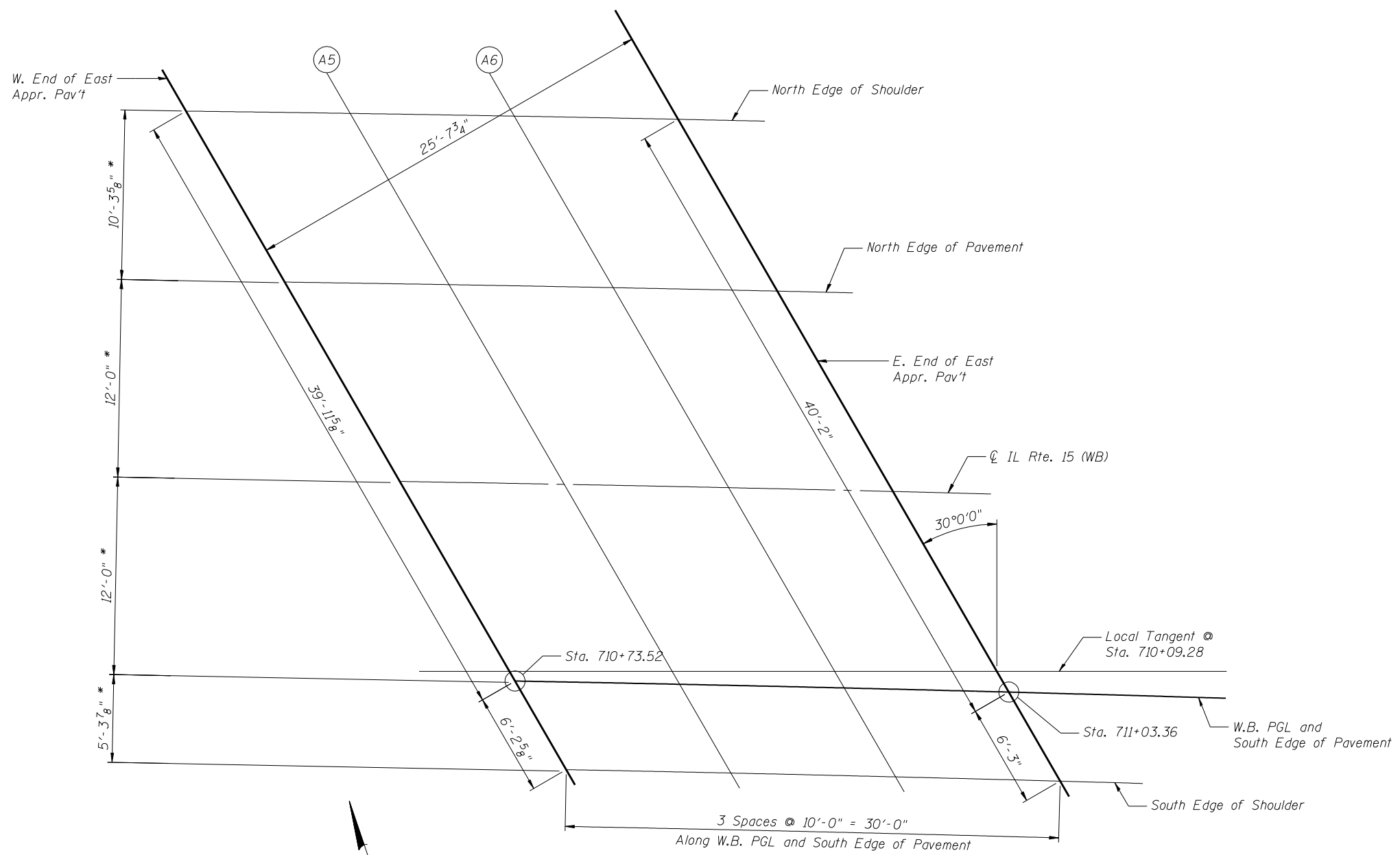
Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't	710+66.37	-32.00	492.06
A5	710+76.27	-32.00	491.78
A6	710+86.17	-32.00	491.49
E. End East Appr. Pav't	710+96.07	-32.00	491.20

W.B. PGL AND SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't	710+73.52	-20.00	491.39
A5	710+83.47	-20.00	491.10
A6	710+93.41	-20.00	490.81
E. End East Appr. Pav't	711+03.36	-20.00	490.52

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't	710+76.71	-14.68	491.09
A5	710+86.68	-14.68	490.80
A6	710+96.64	-14.68	490.51
E. End East Appr. Pav't	711+06.61	-14.68	490.21



*Measured radially to W.B. PGL



PLAN
(East Approach W.B.)

FILE NAME = 0820119-0120-76884-012-EastAppr-ElevWB.dgn



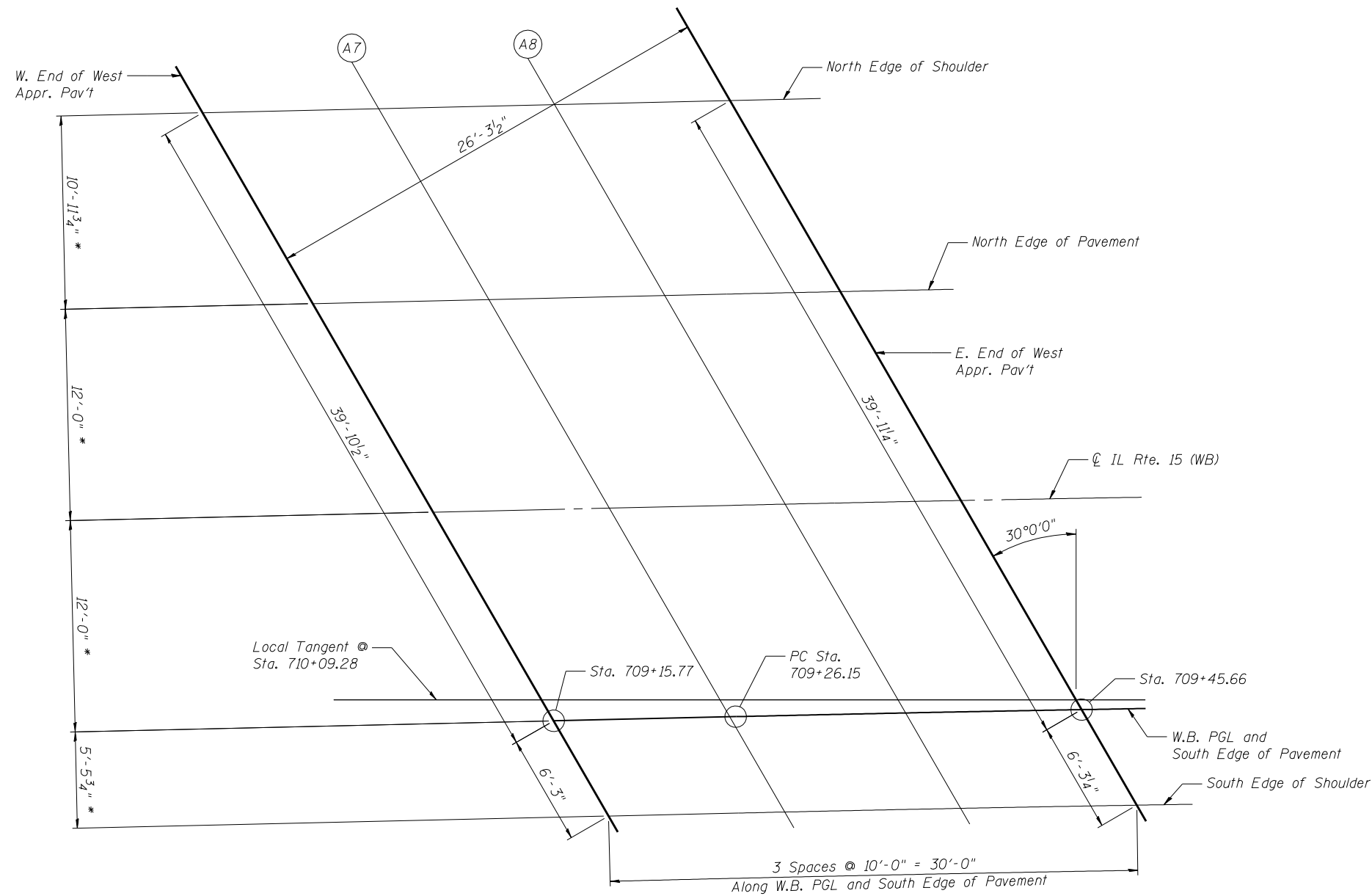
USER NAME = brazzera	DESIGNED - MJK	REVISED - -
	CHECKED - BTO	REVISED - -
PLOT SCALE = 8x0 1' / IN.	DRAWN - MJK	REVISED - -
PLOT DATE = 10/19/2011	CHECKED - BTO	REVISED - -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST W.B. BRIDGE APPROACH SLAB ELEVATIONS
STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)

SHEET NO. 5-12 OF 5-51 SHEETS

F.A.P. RTE. 103	SECTION 27-1-VHB-1	COUNTY ST. CLAIR	TOTAL SHEETS 277	SHEET NO. 189
			CONTRACT NO. 76884	
ILLINOIS FED. AID PROJECT				



*Measured radially to W.B. PGL

PLAN
(West Approach W.B.)



NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	708+96.64	-54.98	496.24
A7	709+06.64	-54.98	496.15
A8	709+16.63	-54.98	496.06
E. End West Appr. Pav't	709+26.60	-54.98	495.97

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	709+02.64	-44.00	495.95
A7	709+12.64	-44.00	495.82
A8	709+22.64	-44.00	495.69
E. End West Appr. Pav't	709+32.54	-44.00	495.56

CL IL RTE. 15 (WB)

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	709+09.21	-32.00	495.54
A7	709+19.21	-32.00	495.39
A8	709+29.18	-32.00	495.22
E. End West Appr. Pav't	709+39.07	-32.00	495.06

W.B. PGL AND SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	709+15.77	-20.00	495.10
A7	709+25.77	-20.00	494.91
A8	709+35.72	-20.00	494.71
E. End West Appr. Pav't	709+45.66	-20.00	494.51

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't	709+18.77	-14.52	494.87
A7	709+28.76	-14.52	494.66
A8	709+38.73	-14.52	494.46
E. End West Appr. Pav't	709+48.69	-14.52	494.24

FILE NAME = 0820119-0120-76884-013-WestAppr-ElevWB.dgn



USER NAME = brozzano	DESIGNED - MJK	REVISED - -
	CHECKED - BTO	REVISED - -
PLOT SCALE = 8x0' 1" / IN.	DRAWN - MJK	REVISED - -
PLOT DATE = 10/19/2011	CHECKED - BTO	REVISED - -

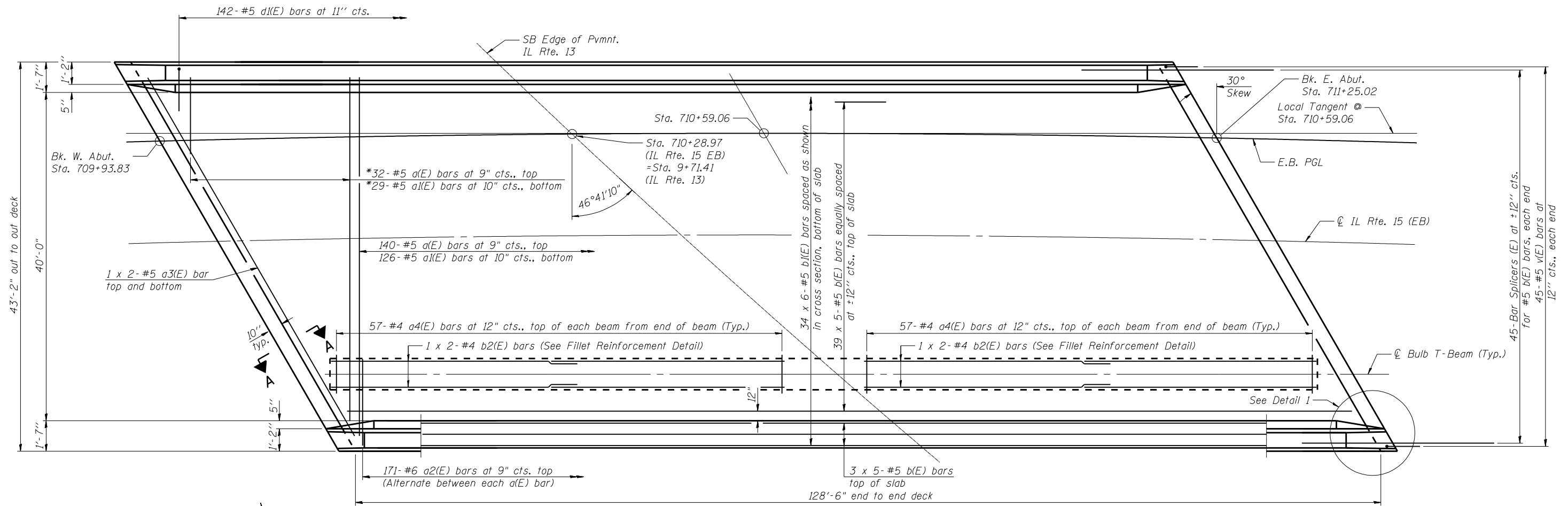
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WEST W.B. BRIDGE APPROACH SLAB ELEVATIONS
STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)**

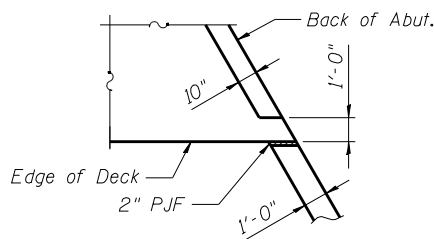
SHEET NO. S-13 OF S-51 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	190
			CONTRACT NO. 76884	
ILLINOIS FED. AID PROJECT				

* Order a(E) and a1(E) bars full length.
Cut to fit skew and use remainder of bars in opposite end.



DECK PLAN EASTBOUND



DETAIL 1
(Parapet and approach not included)

MINIMUM BAR LAP

#4 Bars = 2'-1"
#5 Bars = 2'-7"

Notes:
See sheet S-20 of S-51 for parapet elevation, details and Bill of Material.
For Section A-A and diaphragm details see sheet S-18 of S-51.
Bars indicated thus 39 x 5-#5 etc. indicates 39 lines of bars with 5 lengths per line.
See sheet S-20 of S-51 for parapet reinforcement.
See sheet S-16 of S-51 for deck cross section.
See sheet S-16 of S-51 for fillet reinforcement.

FILE NAME = 0820119-0120-76884-014-DeckPlan-EB.dgn



USER NAME = brazzera	DESIGNED - MJK	REVISED - -
PLOT SCALE = 1/8" = 1' / IN.	CHECKED - JAN	REVISED - -
PLOT DATE = 10/19/2011	DRAWN - MJK	REVISED - -
	CHECKED - JAN	REVISED - -

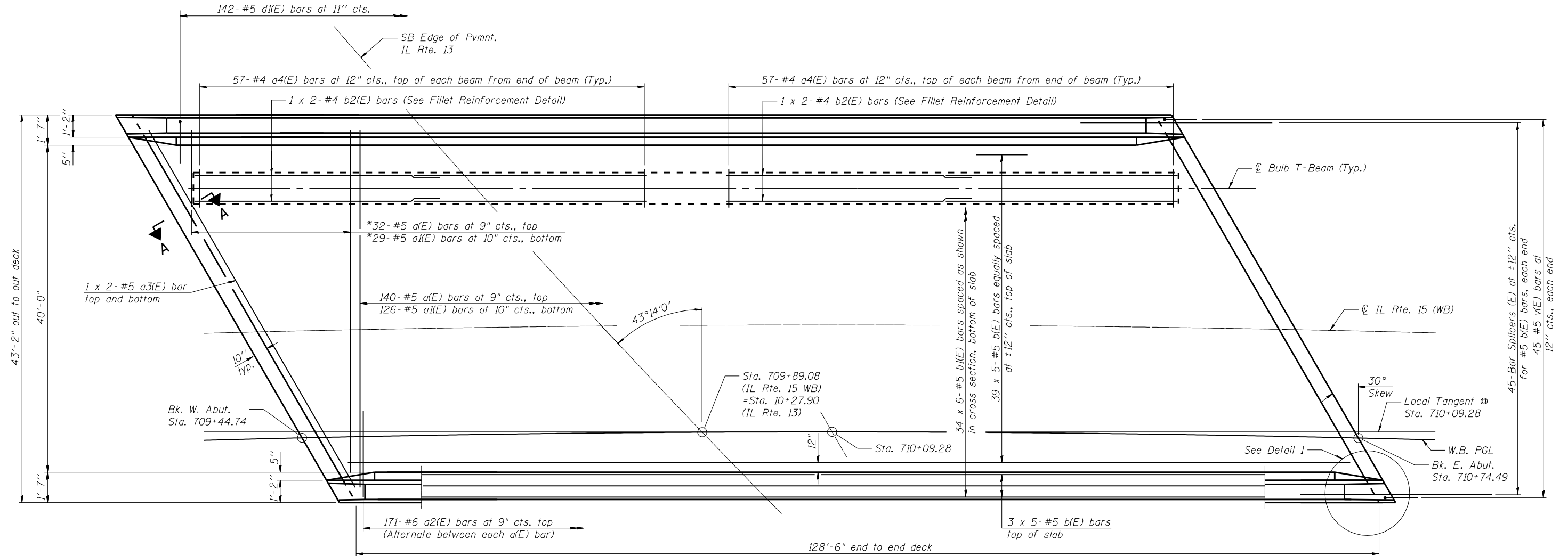
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK PLAN EASTBOUND
STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)**

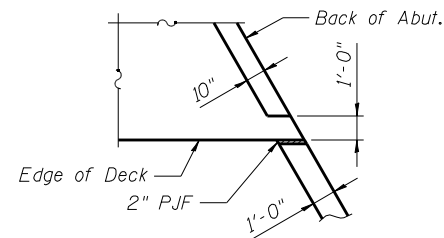
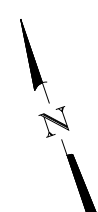
SHEET NO. S-14 OF S-51 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	191
CONTRACT NO. 76884			ILLINOIS FED. AID PROJECT	

* Order a(E) and a1(E) bars full length.
Cut to fit skew and use remainder of
bars in opposite end.



DECK PLAN WESTBOUND



DETAIL 1

(Parapet and approach not included)

MINIMUM BAR LAP

#4 Bars = 2'-1"
#5 Bars = 2'-7"

Notes:
See sheet S-21 of S-51 for parapet elevation,
details and Bill of Material.
For Section A-A and diaphragm details see
sheet S-19 of S-51.
Bars indicated thus 39 x 5-#5 etc. indicates
39 lines of bars with 5 lengths per line.
See sheet S-21 of S-51 for parapet reinforcement.
See sheet S-17 of S-51 for deck cross section.
See sheet S-17 of S-51 for fillet reinforcement.

FILE NAME = 0820119-0120-76884-015-DeckPlanWB.dgn



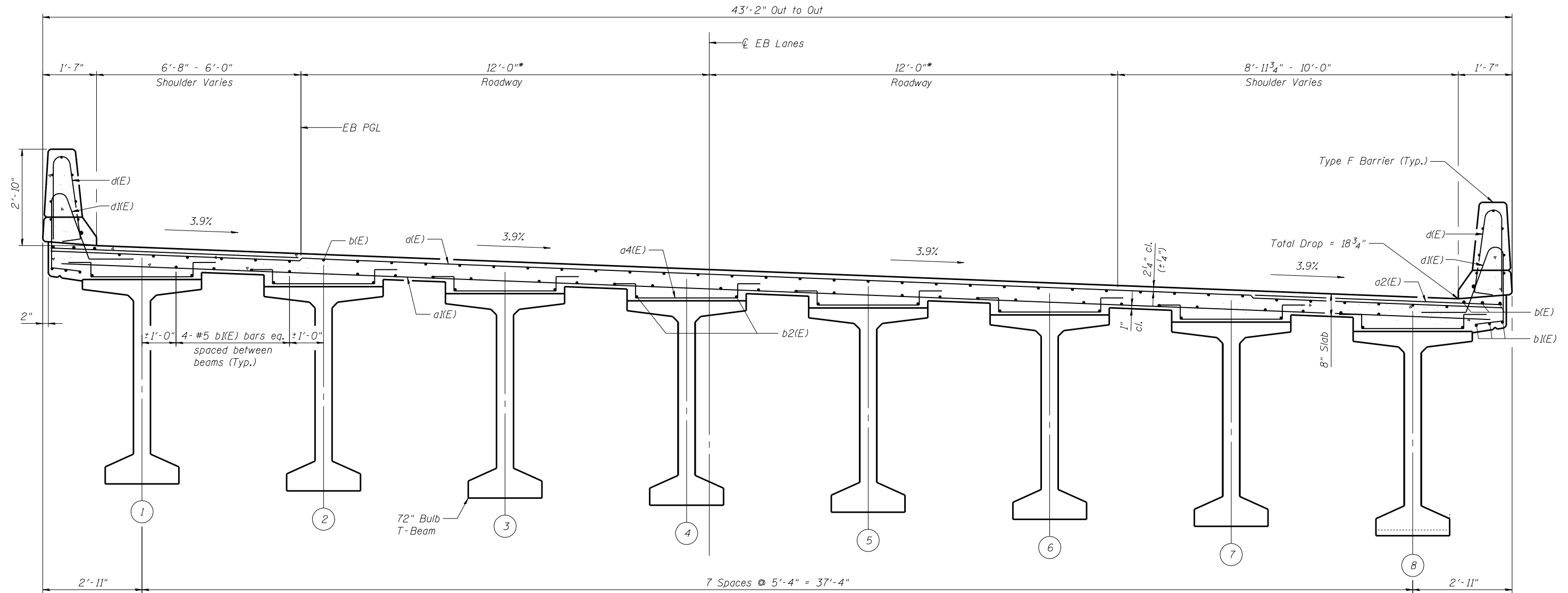
USER NAME = brazzera	DESIGNED - MJK	REVISED -
	CHECKED - JAN	REVISED -
PLOT SCALE = 1/8" = 1'-0"	DRAWN - MJK	REVISED -
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK PLAN WESTBOUND
STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)**

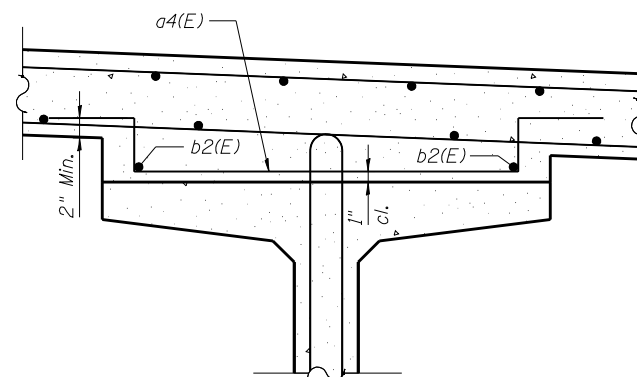
SHEET NO. S-15 OF S-51 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	192
CONTRACT NO. 76884			ILLINOIS FED. AID PROJECT	



CROSS SECTION EASTBOUND

(Looking East)
*Radial Dimensions



FILLET REINFORCEMENT DETAIL

Notes:
See sheet S-20 of S-51 for parapet elevation, details and Bill of Material.
For diaphragm details see sheet S-18 of S-51.
See sheet S-20 of S-51 for parapet reinforcement.

FILE NAME = 0820119-0120-76884-016-DeckSectionEB.dgn



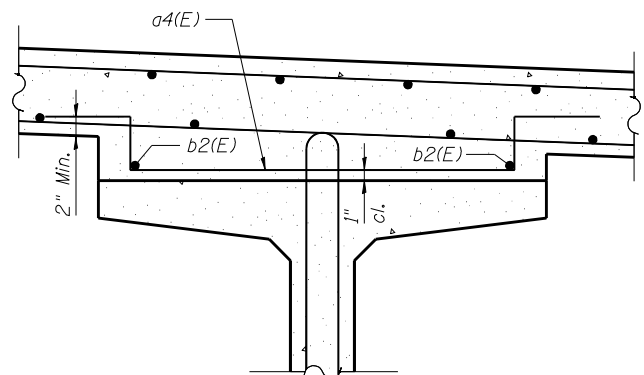
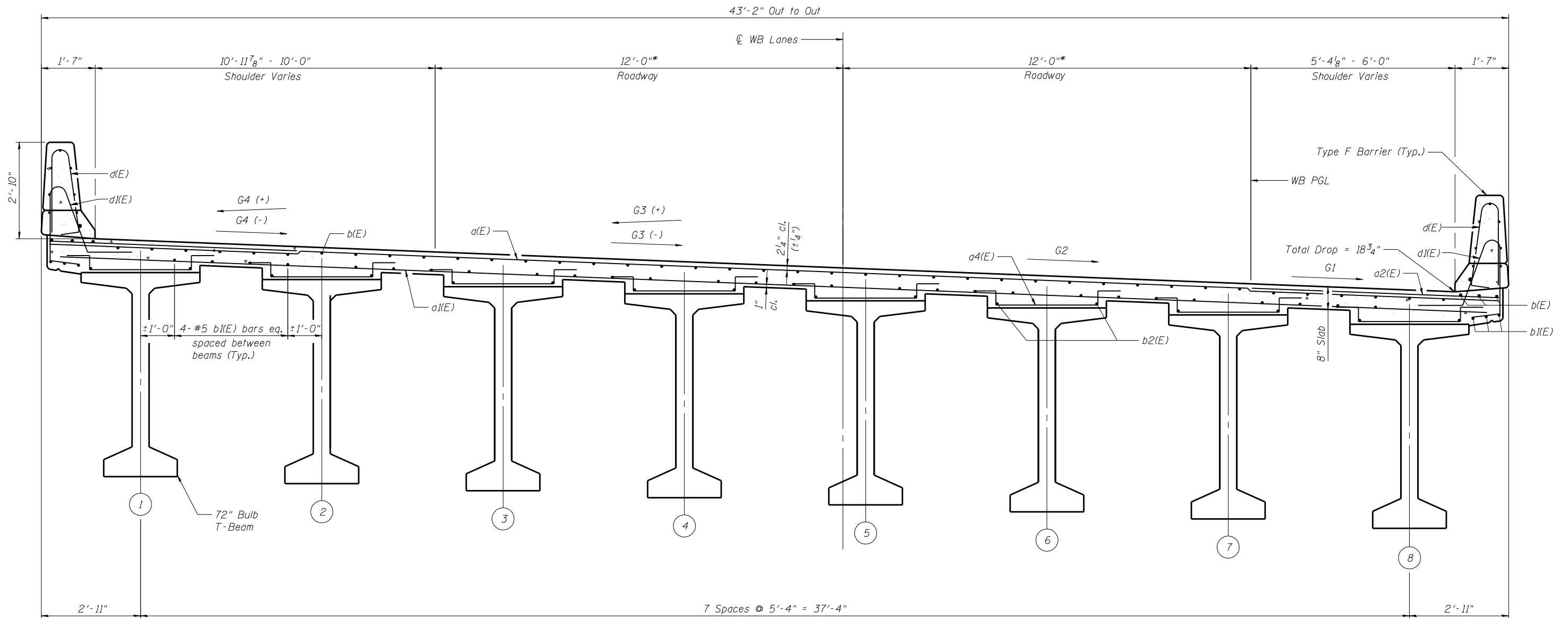
USER NAME = brazzano	DESIGNED - MJK	REVISED - -
	CHECKED - JAN	REVISED - -
PLOT SCALE = 3/8.0000 "/ IN.	DRAWN - MJK	REVISED - -
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED - -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK CROSS SECTION EASTBOUND
STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)**

SHEET NO. S-16 OF S-51 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	193
CONTRACT NO. 76884			ILLINOIS FED. AID PROJECT	



FILLET REINFORCEMENT DETAIL

CROSS SECTION WESTBOUND

(Looking East)
*Radial Dimensions

STATION	G1	G2	G3	G4
Up to Sta. 707+64.2	2.08%	1.5%	1.5%	2.08%
Sta. 708+01.4	2.08%	1.5%	0%	
Sta. 708+61.4	2.08%	1.5%	-1.5%	**
Sta. 709+05.4	**	2.6%	-2.6%	
Sta. 709+57.4	3.9%	3.9%	-3.9%	-3.9%

**Uniform Transition

Notes:
See sheet S-21 of S-51 for parapet elevation, details and Bill of Material.
For diaphragm details see sheet S-19 of S-51.
See sheet S-21 of S-51 for parapet reinforcement.

FILE NAME = 0820119-0120-76884-017-DeckSectionWB.dgn



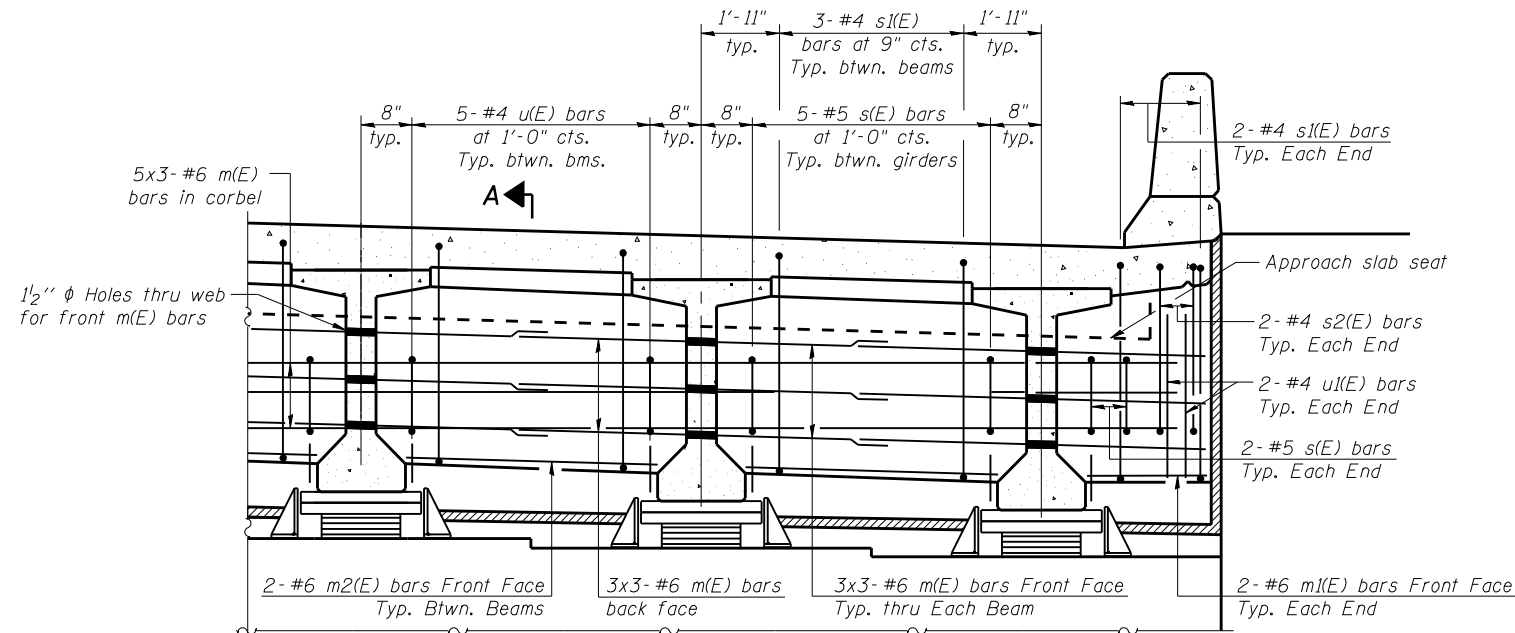
USER NAME = brozzaro	DESIGNED - MJK	REVISED -
	CHECKED - JAN	REVISED -
PLOT SCALE = 3/8.0000 '1' / IN.	DRAWN - MJK	REVISED -
PLOT DATE = 10/19/2011	CHECKED - JAN	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK CROSS SECTION WESTBOUND
STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)**

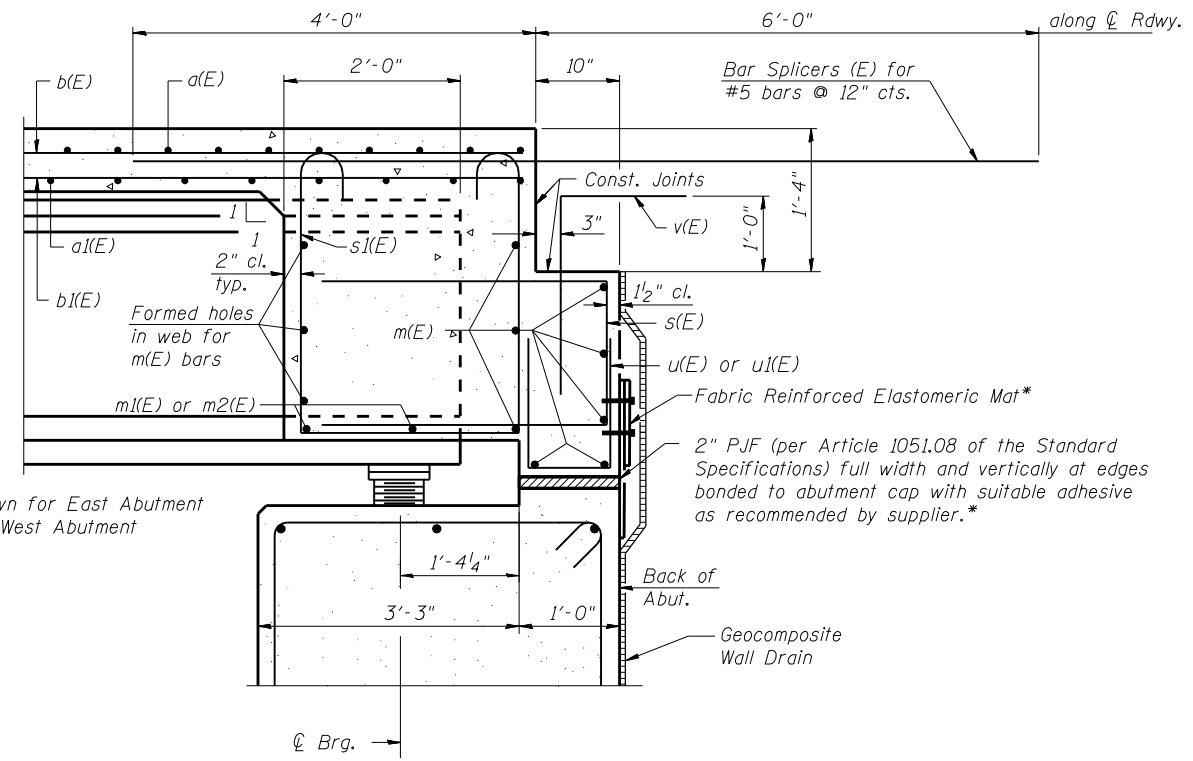
SHEET NO. S-17 OF S-51 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	194
			CONTRACT NO. 76884	
ILLINOIS FED. AID PROJECT				



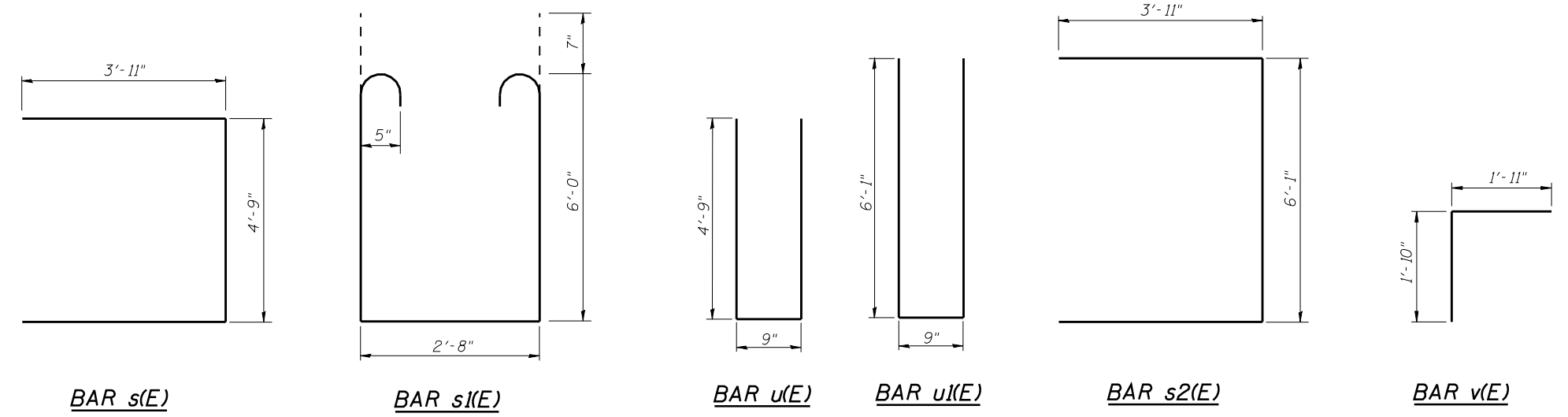
DIAPHRAGM ELEVATION AT ABUTMENT

(Diaphragm shown for east abutment, diaphragm for west abutment similar)



SECTION A-A

Dimensions at right angles to abutment, except as shown.
* Cost included with Concrete Superstructure.



Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet S-20 of S-51.
Concrete in diaphragm is included with Concrete Superstructure on sheet S-20 of S-51.
The s(E), s1(E), u(E) and u1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
See sheet S-35 and S-38 of S-51 for anchor bolt information.
Bars indicated thus 5 x 3-#6 etc. indicates 5 lines of bars with 3 lengths per line.

MIN. BAR LAP

#6 bar = 3'-4"

FILE NAME = 0820119-0120-76884-018-Superstr-Detail11EB.dgn



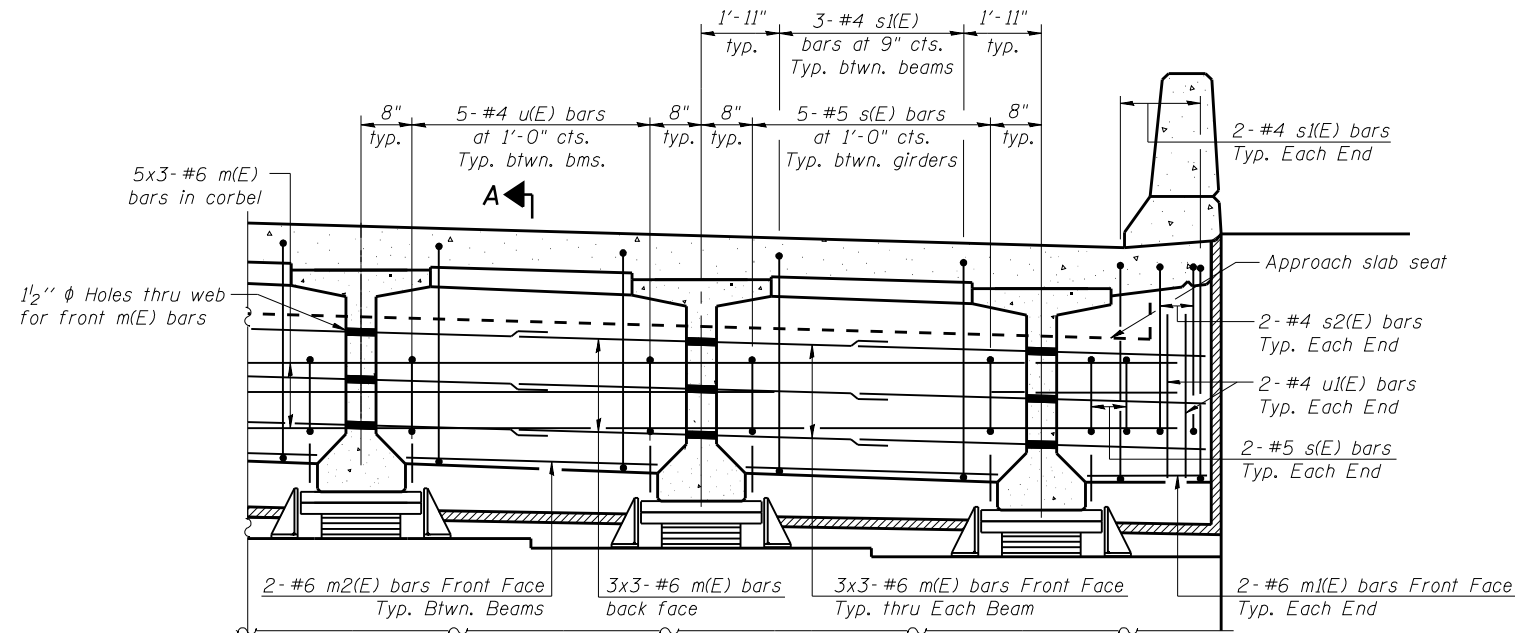
USER NAME = brozzaro	DESIGNED - MJK	REVISED - -
	CHECKED - SAB	REVISED - -
PLOT SCALE = 4:0.0000 '1' / IN.	DRAWN - MJK	REVISED - -
PLOT DATE = 10/19/2011	CHECKED - SAB	REVISED - -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS EASTBOUND
STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)**

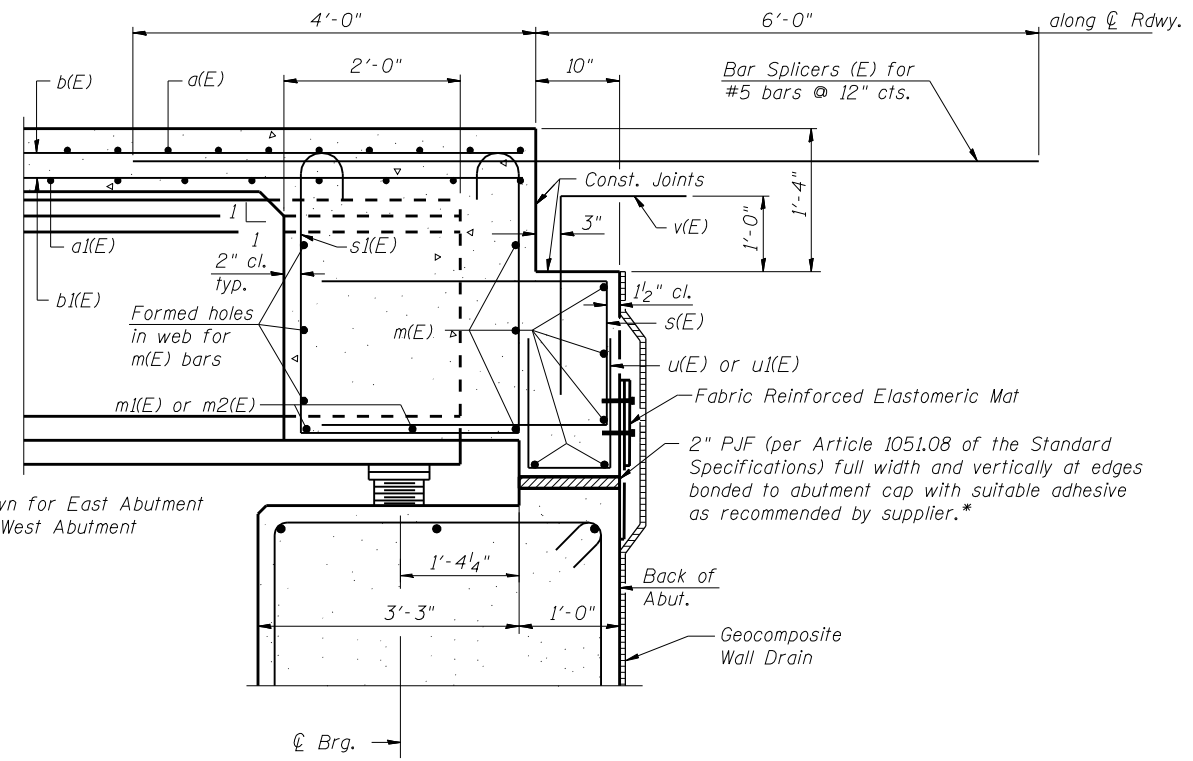
SHEET NO. S-18 OF S-51 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	195
				CONTRACT NO. 76884
ILLINOIS FED. AID PROJECT				



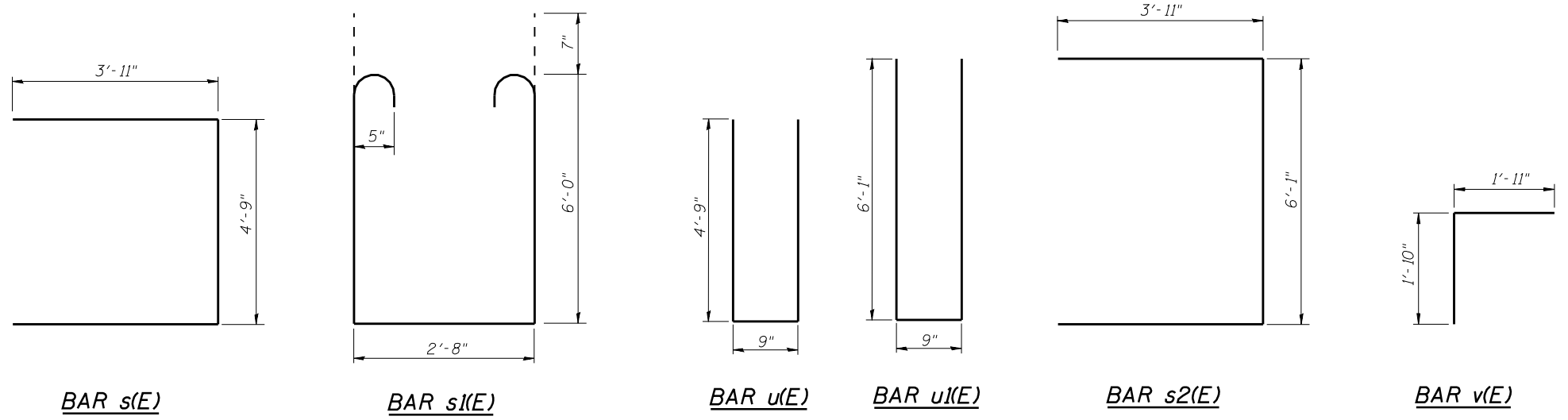
DIAPHRAGM ELEVATION AT ABUTMENT

(Diaphragm shown for east abutment, diaphragm for west abutment similar)



SECTION A-A

Dimensions at right angles to abutment, except as shown.
* Cost included with Concrete Superstructure.



Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet S-21 of S-51.
Concrete in diaphragm is included with Concrete Superstructure on sheet S-21 of S-51.
The s(E), s(E), u(E) and u(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams. See sheet S-35 and S-38 of S-51 for anchor bolt information.
Bars indicated thus 5 x 3-#6 etc. indicates 5 lines of bars with 3 lengths per line.

MIN. BAR LAP
#6 bar = 3'-4"

FILE NAME = 0820119-0120-76884-019-Superstr-Details1.snb.dgn



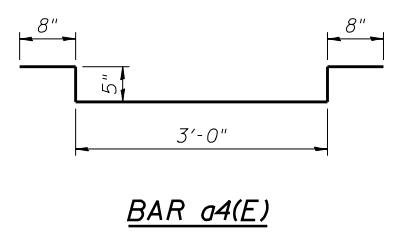
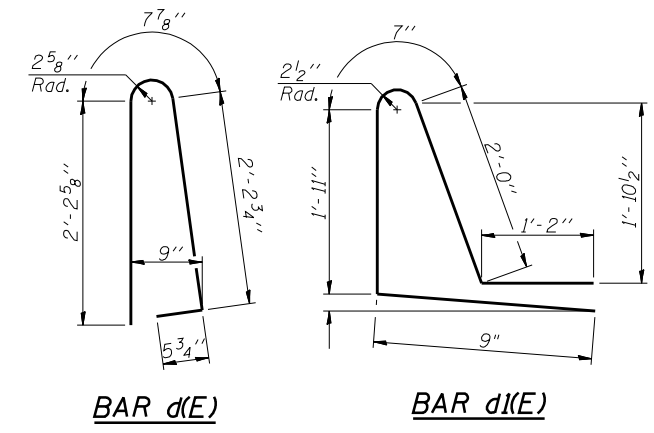
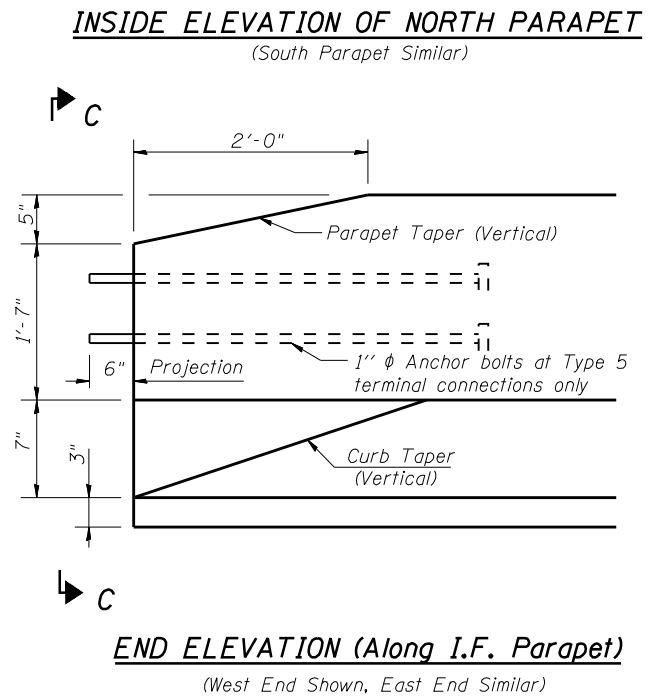
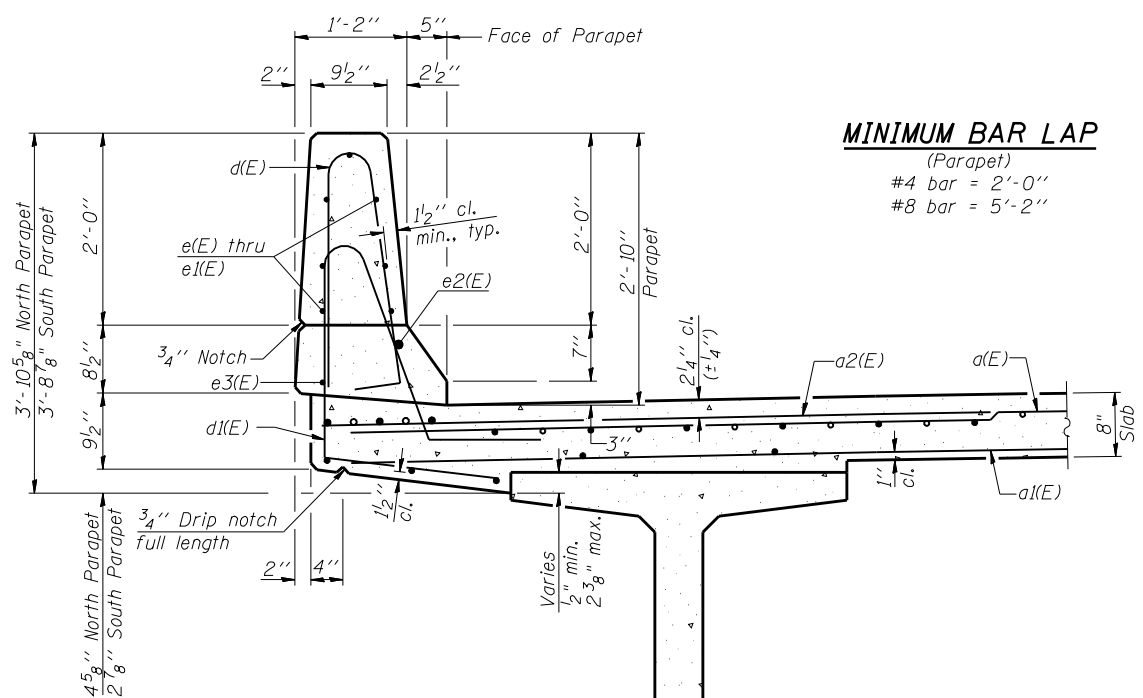
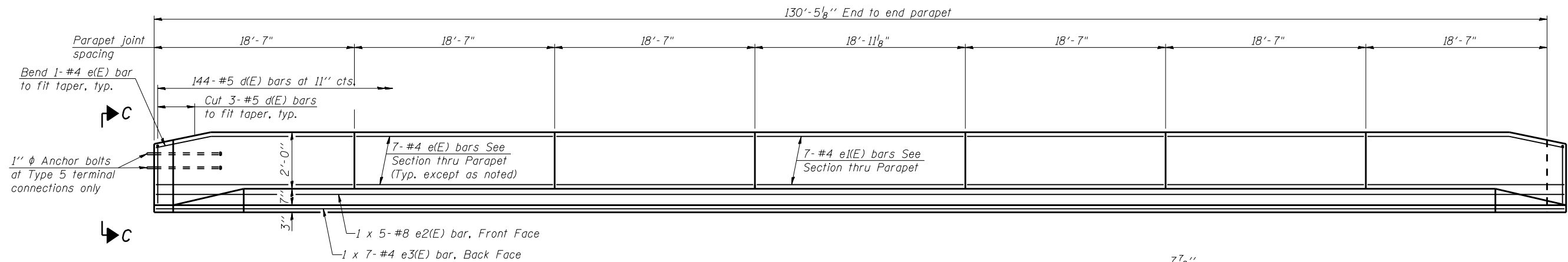
USER NAME = brozzaro	DESIGNED - MJK	REVISED - -
PLOT SCALE = 4:0.0000 '1' / IN.	CHECKED - SAB	REVISED - -
PLOT DATE = 10/19/2011	DRAWN - MJK	REVISED - -
	CHECKED - SAB	REVISED - -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS WESTBOUND
STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)**

SHEET NO. S-19 OF S-51 SHEETS

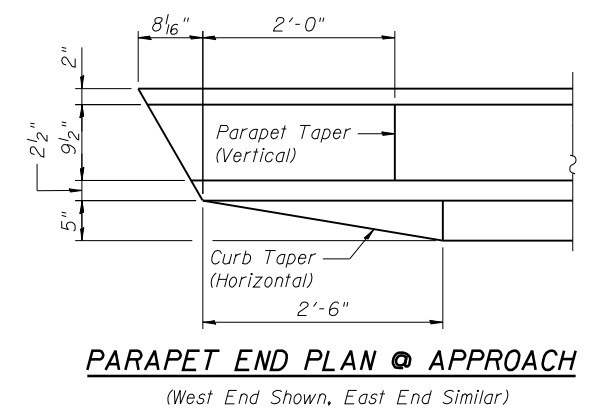
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	196
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76884	



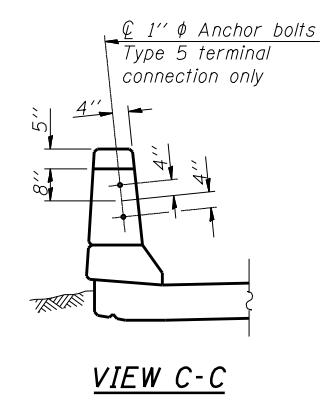
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	172	#5	42'-6"	—
a1(E)	155	#5	42'-6"	—
a2(E)	342	#6	6'-6"	—
a3(E)	8	#5	25'-11"	—
a4(E)	912	#4	5'-2"	┌
b(E)	225	#5	27'-9"	—
b1(E)	204	#5	23'-7"	—
b2(E)	64	#4	29'-7"	—
d(E)	288	#5	5'-7"	┌
d1(E)	282	#5	6'-5"	┌
e(E)	84	#4	18'-4"	—
e1(E)	14	#4	18'-8"	—
e2(E)	10	#8	30'-2"	—
e3(E)	14	#4	20'-4"	—
m(E)	66	#6	18'-9"	—
m1(E)	8	#6	1'-9"	—
m2(E)	28	#6	3'-4"	—
s(E)	78	#5	12'-7"	┌
s1(E)	50	#4	15'-10"	┌
s2(E)	8	#5	13'-11"	┌
u(E)	70	#4	10'-3"	┌
u1(E)	8	#4	12'-11"	┌
v(E)	90	#5	3'-9"	┌
Reinforcement Bars, Epoxy Coated			Lbs.	44,360
Concrete Superstructure			Cu. Yds.	275.9

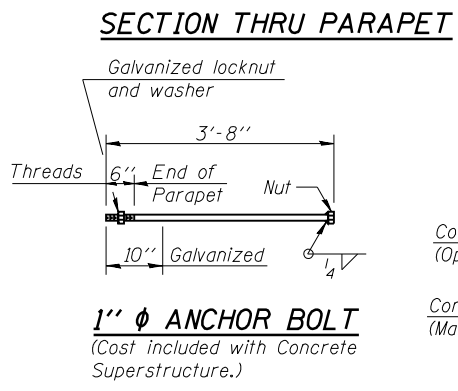
Bars indicated thus 1 x 5-#8 etc. indicates 1 line of bars with 5 lengths per line.



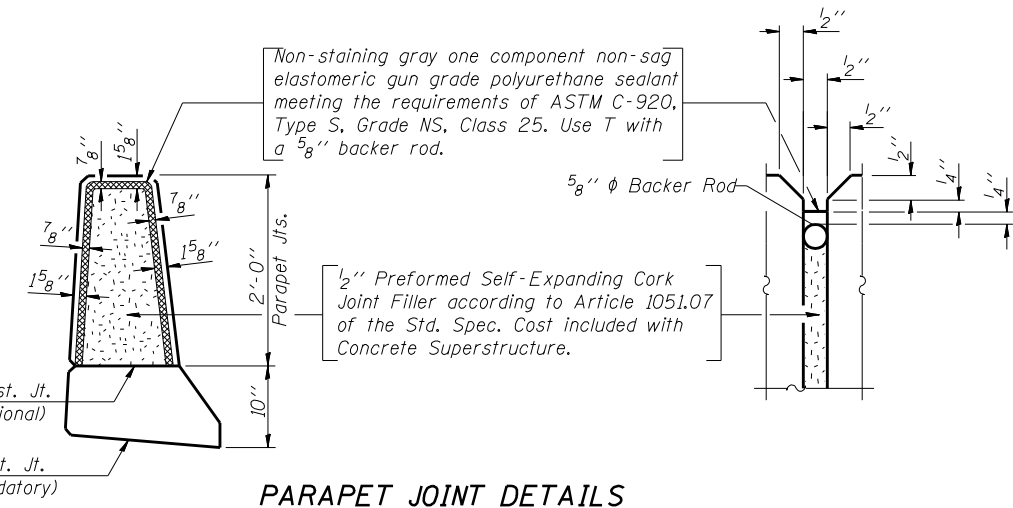
PARAPET END PLAN @ APPROACH
(West End Shown, East End Similar)



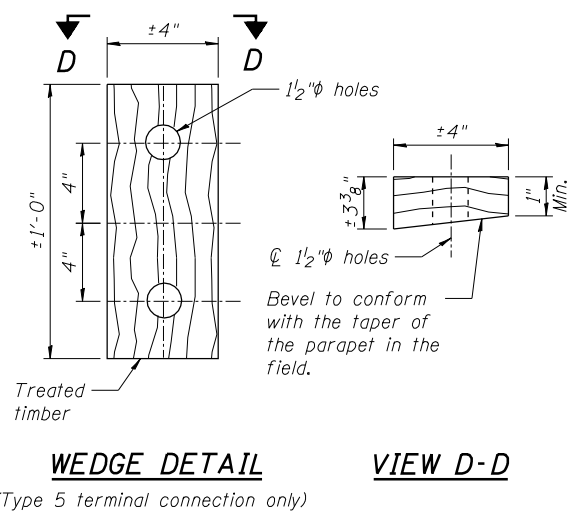
VIEW C-C



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



PARAPET JOINT DETAILS



WEDGE DETAIL

VIEW D-D

(Type 5 terminal connection only)

NOTE:
Slipforming of parapets is allowed.

FILE NAME = 0820119-0120-76884-0220-Par-ep-e1EB.dgn



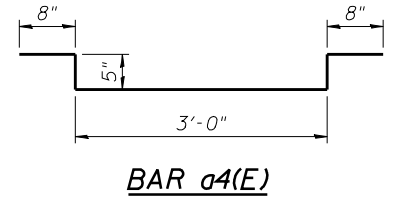
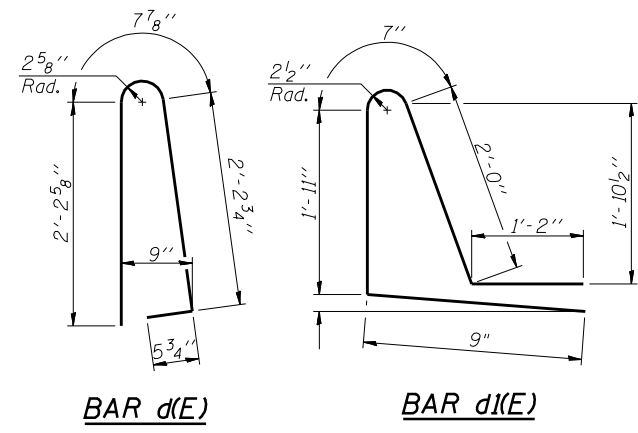
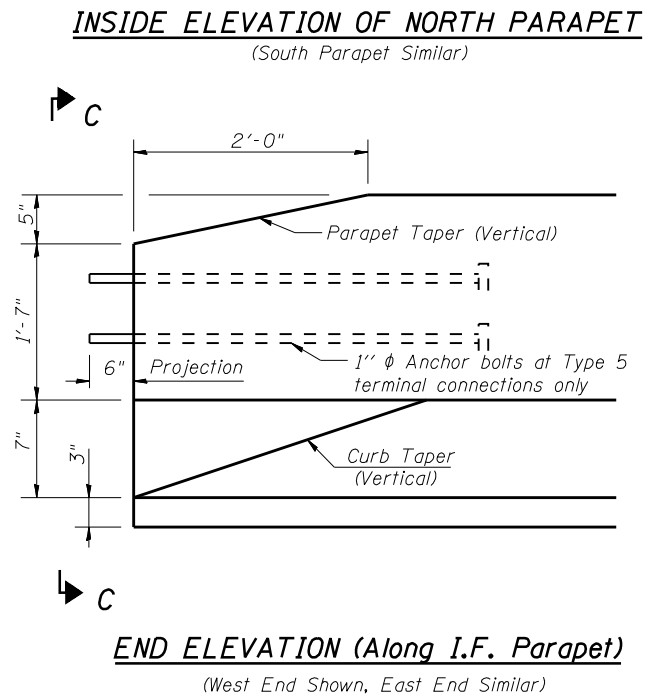
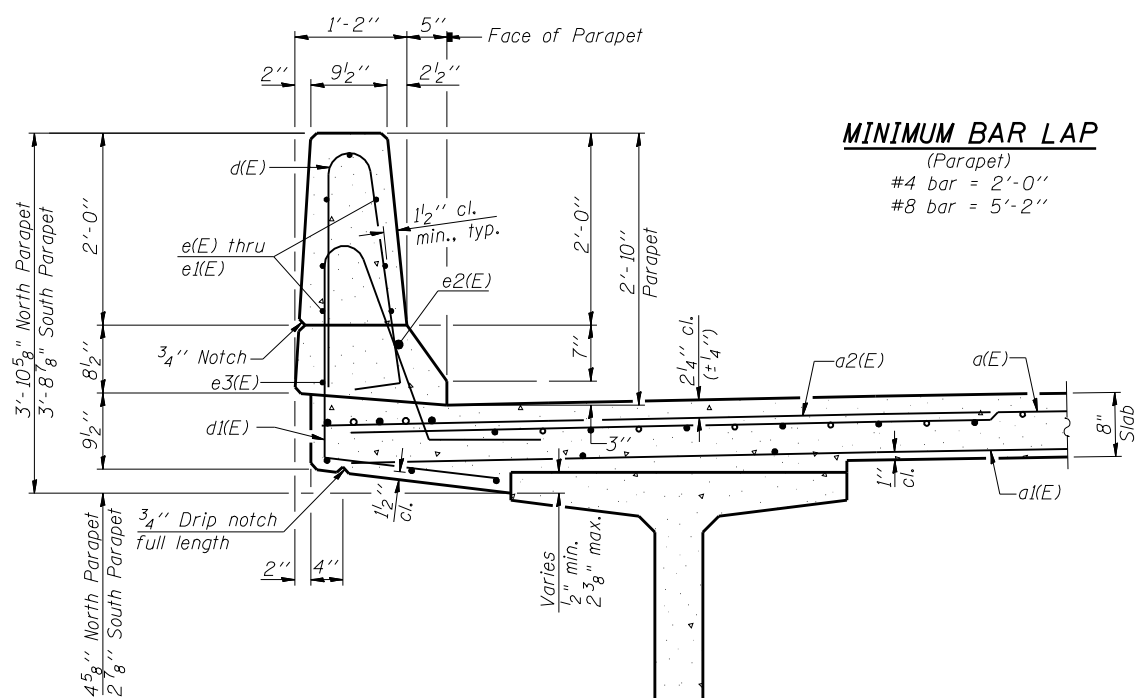
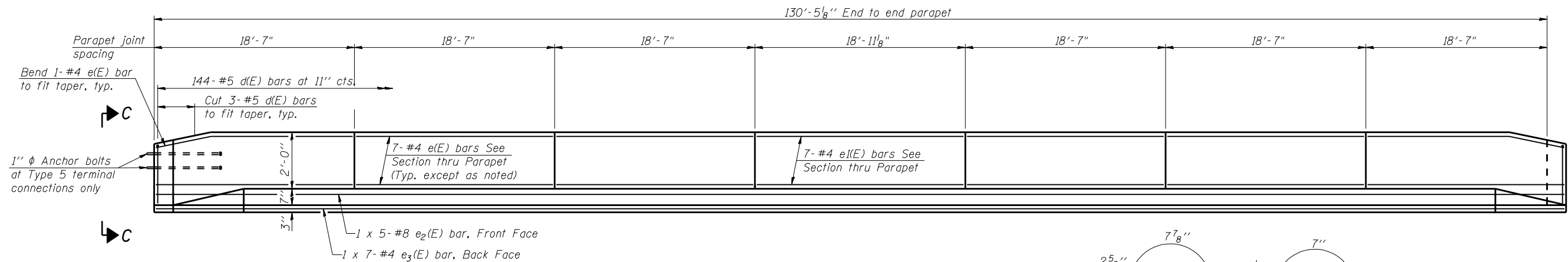
USER NAME = brazzera	DESIGNED - MJK	REVISED - -
PLOT SCALE = 1/8" = 1' / IN.	CHECKED - JAN	REVISED - -
PLOT DATE = 10/19/2011	DRAWN - MJK	REVISED - -
	CHECKED - JAN	REVISED - -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PARAPET ELEVATION, DETAILS & B.O.M. EASTBOUND
STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)**

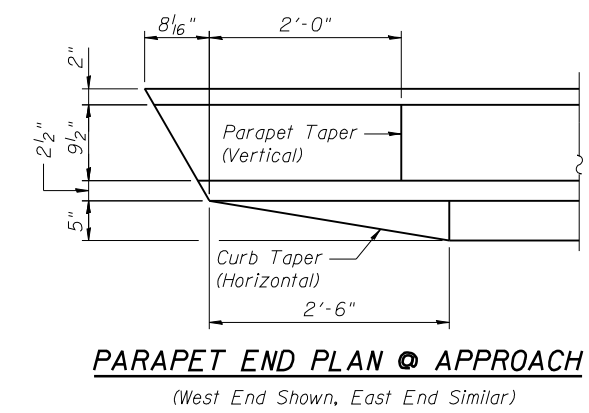
SHEET NO. S-20 OF S-51 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	197
				CONTRACT NO. 76884
ILLINOIS FED. AID PROJECT				

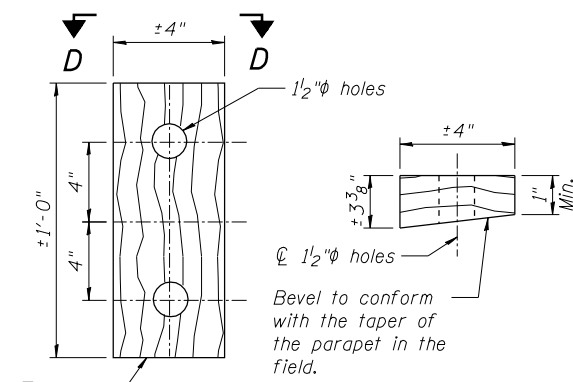


SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	172	#5	42'-6"	—
a1(E)	155	#5	42'-6"	—
a2(E)	342	#6	6'-6"	—
a3(E)	8	#5	25'-11"	—
a4(E)	912	#4	5'-2"	⌋
b(E)	225	#5	27'-9"	—
b1(E)	204	#5	23'-7"	—
b2(E)	64	#4	29'-7"	—
d(E)	288	#5	5'-7"	⌋
d1(E)	282	#5	6'-5"	⌋
e(E)	84	#4	18'-4"	—
e1(E)	14	#4	18'-8"	—
e2(E)	10	#8	30'-2"	—
e3(E)	14	#4	20'-4"	—
m(E)	66	#6	18'-9"	—
m1(E)	8	#6	1'-9"	—
m2(E)	28	#6	3'-4"	—
s(E)	78	#5	12'-7"	⌋
s1(E)	50	#4	15'-10"	⌋
s2(E)	8	#5	13'-11"	⌋
u(E)	70	#4	10'-3"	⌋
u1(E)	8	#4	12'-11"	⌋
v(E)	90	#5	3'-9"	⌋
Reinforcement Bars, Epoxy Coated			Lbs.	44,360
Concrete Superstructure			Cu. Yds.	275.9



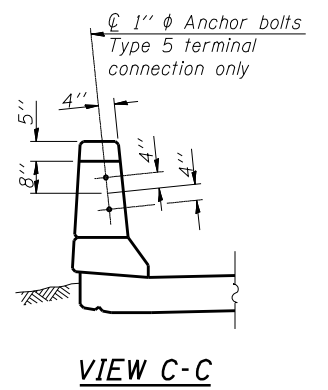
PARAPET END PLAN @ APPROACH (West End Shown, East End Similar)



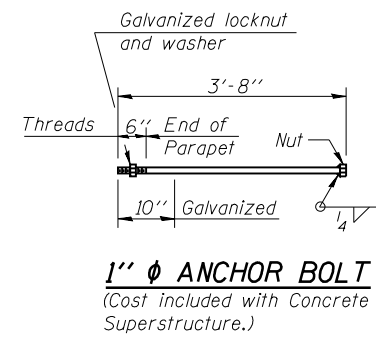
WEDGE DETAIL VIEW D-D (Type 5 terminal connection only)

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

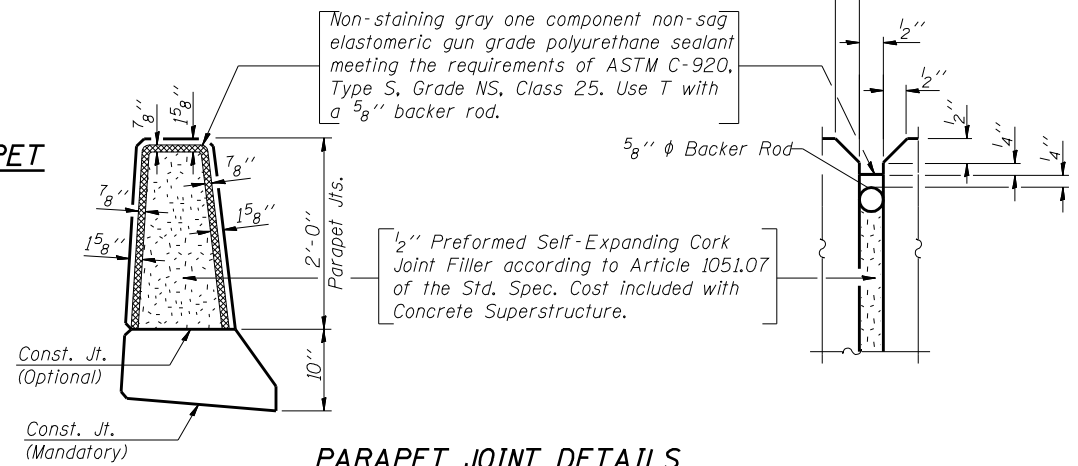
END ELEVATION (Along I.F. Parapet)
(West End Shown, East End Similar)



VIEW C-C



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



PARAPET JOINT DETAILS

NOTE:
Slipforming of parapets is allowed.

FILE NAME = 0820119-0120-76884-021-Parapet-WB.dgn



USER NAME = brazzera	DESIGNED - MJK	REVISED - -
PLOT SCALE = 1/8" = 1' / IN.	CHECKED - JAN	REVISED - -
PLOT DATE = 10/19/2011	DRAWN - MJK	REVISED - -
	CHECKED - JAN	REVISED - -

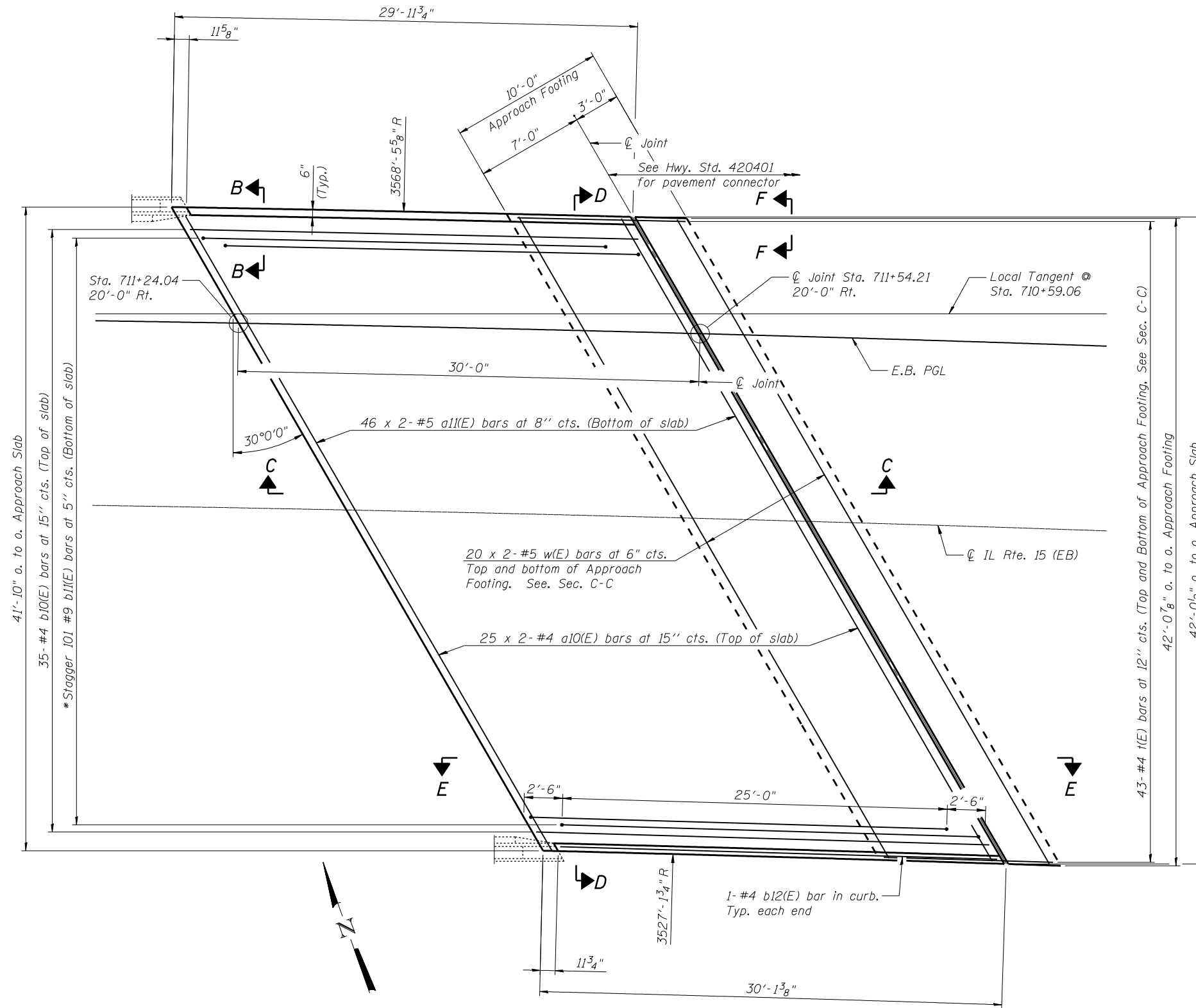
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PARAPET ELEVATION, DETAILS & B.O.M. WESTBOUND STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)

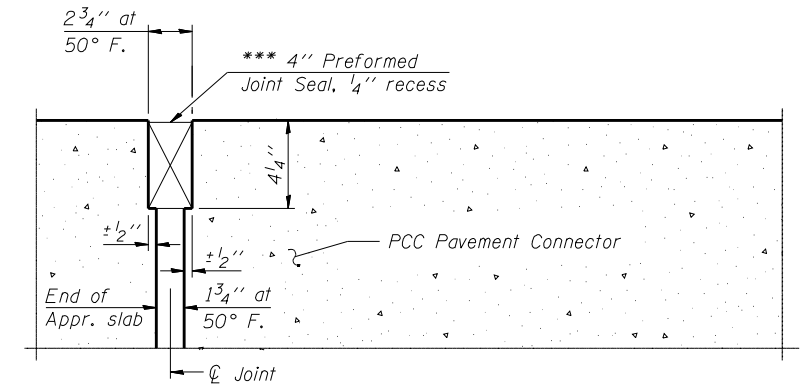
SHEET NO. S-21 OF S-51 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	198
				CONTRACT NO. 76884
ILLINOIS FED. AID PROJECT				

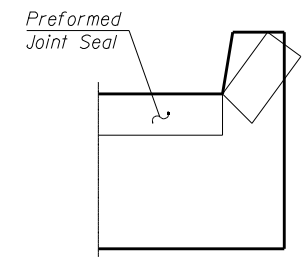
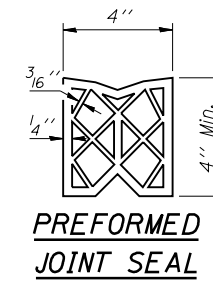
Notes:
 See sheet S-24 of S-51 for Sections C-C & D-D and View E-E.
 a10(E) and a11(E) bar spacings measured along \varnothing Rdwy.
 * Tilt #9 b11(E) bars as required to maintain clearance.
 *** Cost included with Concrete Superstructure.



EAST EASTBOUND APPROACH SLAB PLAN

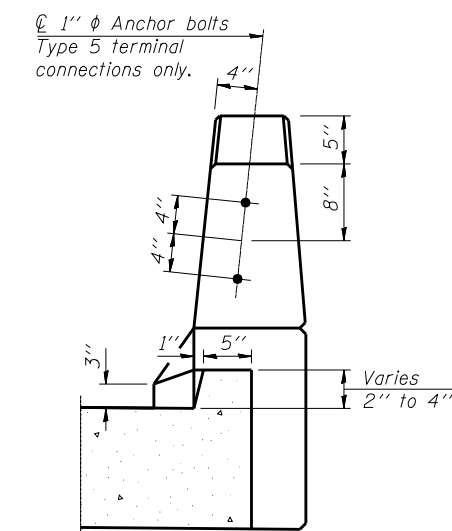


DETAIL A



VIEW F-F

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



VIEW B-B

MINIMUM BAR LAP

#4 Bars = 1'-10"
 #5 Bars = 2'-7"

FILE NAME = 0820119-0120-76884-022-EastApproachPlanEB.dgn



USER NAME = brozzano	DESIGNED - MJK	REVISED - -
	CHECKED - BTO	REVISED - -
PLOT SCALE = 8x0 '1' / IN.	DRAWN - MJK	REVISED - -
PLOT DATE = 10/19/2011	CHECKED - BTO	REVISED - -

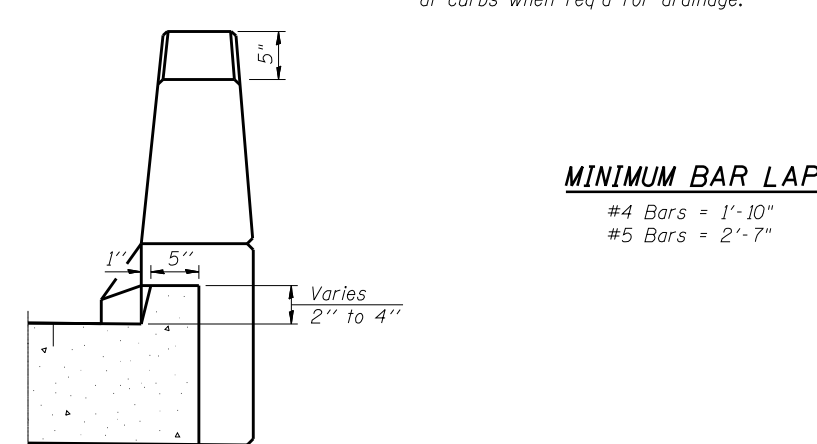
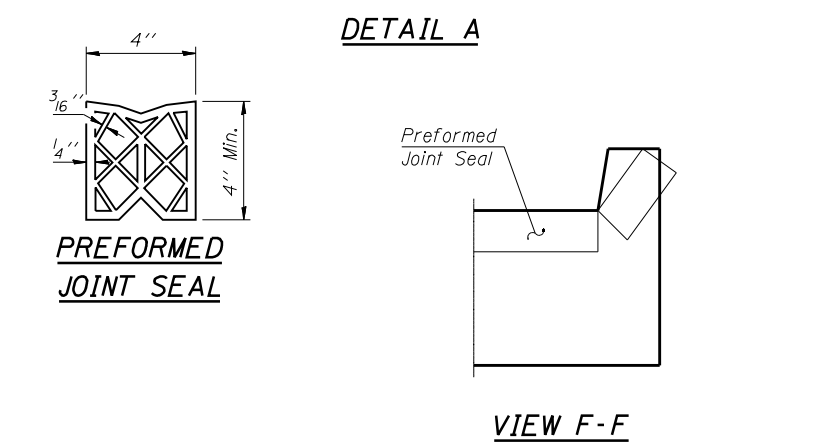
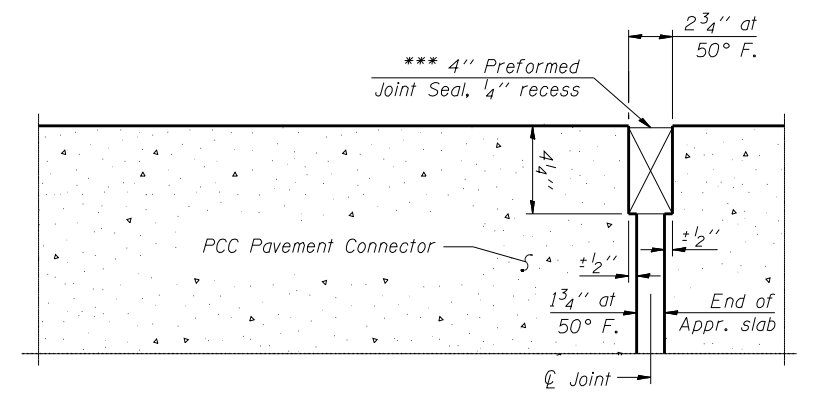
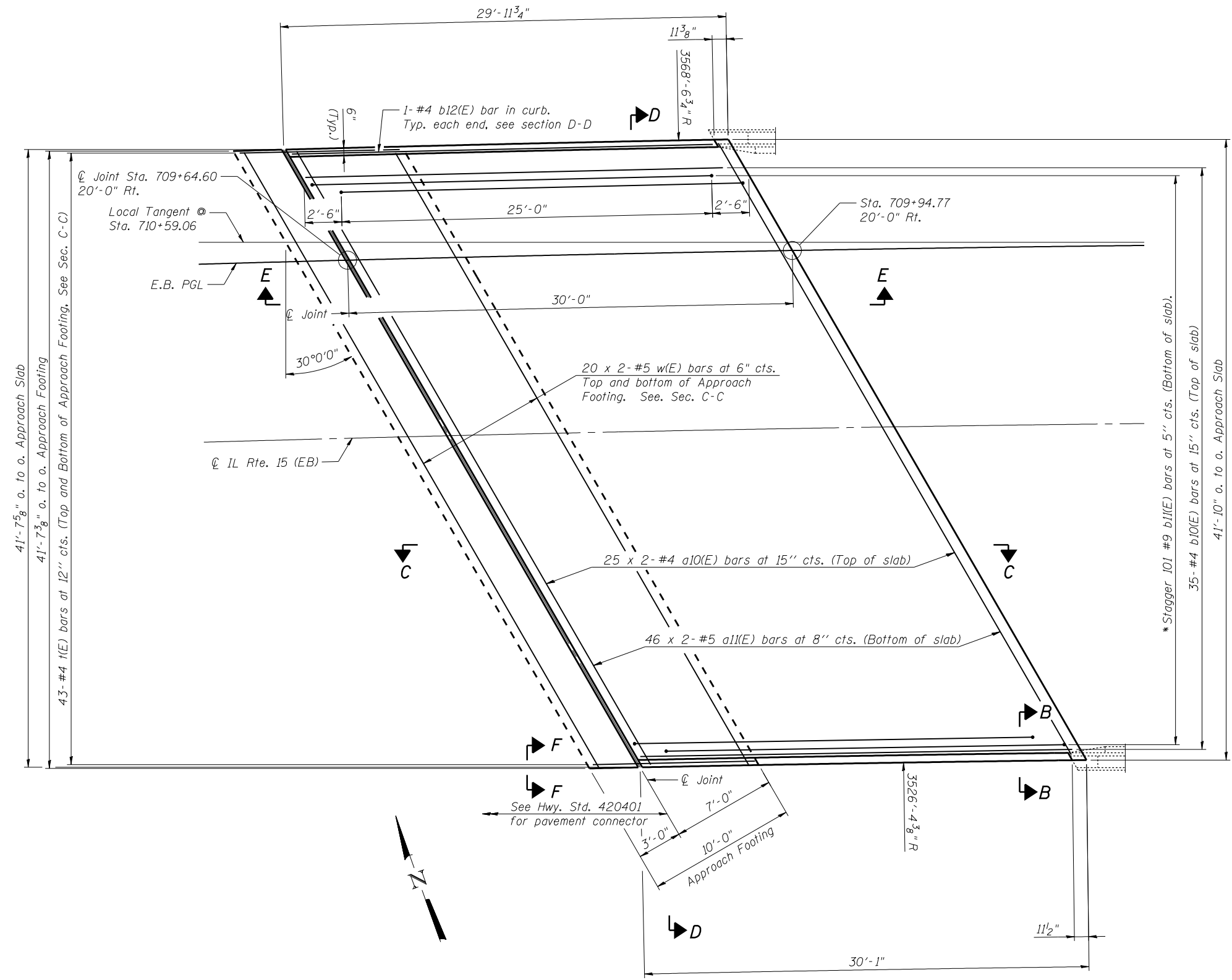
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**EAST E.B. BRIDGE APPROACH SLAB PLAN
 STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)**

SHEET NO. S-22 OF S-51 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	199
CONTRACT NO. 76884			ILLINOIS FED. AID PROJECT	

Notes:
 See sheet S-24 of S-51 for Sections C-C & D-D and View E-E.
 a10(E) and a11(E) bar spacings measured along \hat{C} Rdwy.
 * Tilt #9 b11(E) bars as required to maintain clearance.
 *** Cost included with Concrete Superstructure.



MINIMUM BAR LAP
 #4 Bars = 1'-10"
 #5 Bars = 2'-7"

WEST EASTBOUND APPROACH SLAB PLAN

VIEW B-B

FILE NAME = 0820119-0120-76884-023-WestApprPlanEB.dgn



USER NAME = brazzera	DESIGNED - MJK	REVISED - -
	CHECKED - BTO	REVISED - -
PLOT SCALE = 8.00' / IN.	DRAWN - MJK	REVISED - -
PLOT DATE = 10/19/2011	CHECKED - BTO	REVISED - -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**WEST E.B. BRIDGE APPROACH SLAB PLAN
 STRUCTURE NO. 082-0119 (E.B.) & 082-0120 (W.B.)**

SHEET NO. S-23 OF S-51 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	27-1-VHB-1	ST. CLAIR	277	200
CONTRACT NO. 76884				

ILLINOIS FED. AID PROJECT