76C75

PLOTTED: 60046609\600_CAD\901_DRAWINGS\76C75_CONTRACT\SHEET\CIVIL\COVER\D8TRI-76C75-SHT-COVER.DGN

ST. CLAIR Not Check Print Contract Plans # 161

06-17-11 LETTING ITEM 161

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	1

D-98-058-08 * 319+15 = 334

FOR INDEX OF SHEETS AND STANDARDS SEE SHEET NO. 2

DESIGN DESIGNATIONS:

WB I-70	26,960	(30) INTERSTATE 45.21(PCC-20)
EB I-70	32,980	(30) INTERSTATE 45.21(PCC-20)
WB I-64	45,340	(30) INTERSTATE 45.21(PCC-20)
EB I-64	49,730	(30) INTERSTATE 45.21(PCC-20)
RAMP 55S70W	13,560	(30) FREEWAY DIRECTIONAL RAMP 11.37(PCC-20)
RAMP 64W70W	14,910	(30) FREEWAY DIRECTIONAL RAMP 25.00(PCC-20)

100% 2-15-2014

WB I-70 & EB I-70
DESIGN SPEED = 70 MPH
POSTED SPEED = 50 MPH

WB I-64 & EB I-64:
DESIGN SPEED = 60 MPH
POSTED SPEED = 50 MPH

RAMP 55S70W:
DESIGN SPEED = 50 MPH
POSTED SPEED = 50 MPH

RAMP 64W70W:
DESIGN SPEED = 50 MPH
POSTED SPEED = 50 MPH

ORANIT PIMSARN 062-062643 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS
ORANIT PIMSARN DATE 3/18/11
LICENSE EXPIRES 11/30/2011
SHEET RANGE 1-37, 40-47, 58-78, 285-316

JAMES P. COLEMAN 062-033912 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS
JIM COLEMAN DATE 3-18-11
LICENSE EXPIRES 11/30/2011
SHEET RANGE 104-113

DANNY B. MANOJLOVSKI 062-051232 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS
DANNY B. MANOJLOVSKI DATE 3/18/11
LICENSE EXPIRES 11/30/2011
SHEET RANGE 1-37, 40-47, 58-78, 285-316

MICHAEL P. WALTON 062-049145 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS
MICHAEL WALTON DATE 3-18-11
LICENSE EXPIRES 11/30/2011
SHEET RANGE 38-39, 48-57, 317-319

STATE OF ILLINOIS AMISH T. BHATT 081-006249 LICENSED STRUCTURAL ENGINEER
AMISH BHATT DATE 3/18/11
LICENSE EXPIRES 11/30/2012
SHEET RANGE 116-253

STATE OF ILLINOIS CURTIS M. WATKINS 81-005494 LICENSED STRUCTURAL ENGINEER
CURTIS M WATKINS DATE 3/18/11
LICENSE EXPIRES 11/30/2012
SHEET RANGE 272-284

STATE OF ILLINOIS DEBORAH A. ZROKA 081-005152 LICENSED STRUCTURAL ENGINEER
DEBORAH A. ZROKA DATE 3-18-11
LICENSE EXPIRES 11/30/2012
SHEET RANGE 254-271

PAUL E. BARTHEL 062-050873 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS
PAUL E. BARTHEL DATE 3-18-11
LICENSE EXPIRES 11/30/2011
SHEET RANGE 96-103H

MICROFILMED _____
REEL NUMBER _____
AWARDED _____
RESIDENT ENGINEER _____
AS BUILT CHANGES WERE MADE ON THE FOLLOWING SHEETS

0 5' 10' 20' — 1" = 5'
0 100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
0 50' 100' — 1" = 50'
0 50' 100' — 1" = 40'
0 50' 100' — 1" = 30'
0 50' 100' — 1" = 20'

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

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

New Structures

PROJECT ENGINEER MIKE PRITCHETT
SQUAD LEADER CHAD SANDERS
CONTRACT NO. 76C75 082-0325 & 0323

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROPOSED HIGHWAY PLANS

F.A.I. 70 / FAP 998 (REL. I-70)
SECTION 82-1-B-1
ST. CLAIR COUNTY
RELOC. I-70 FROM 2ND ST. TO COLLINSVILLE AVE. (WB)
C-98-025-10

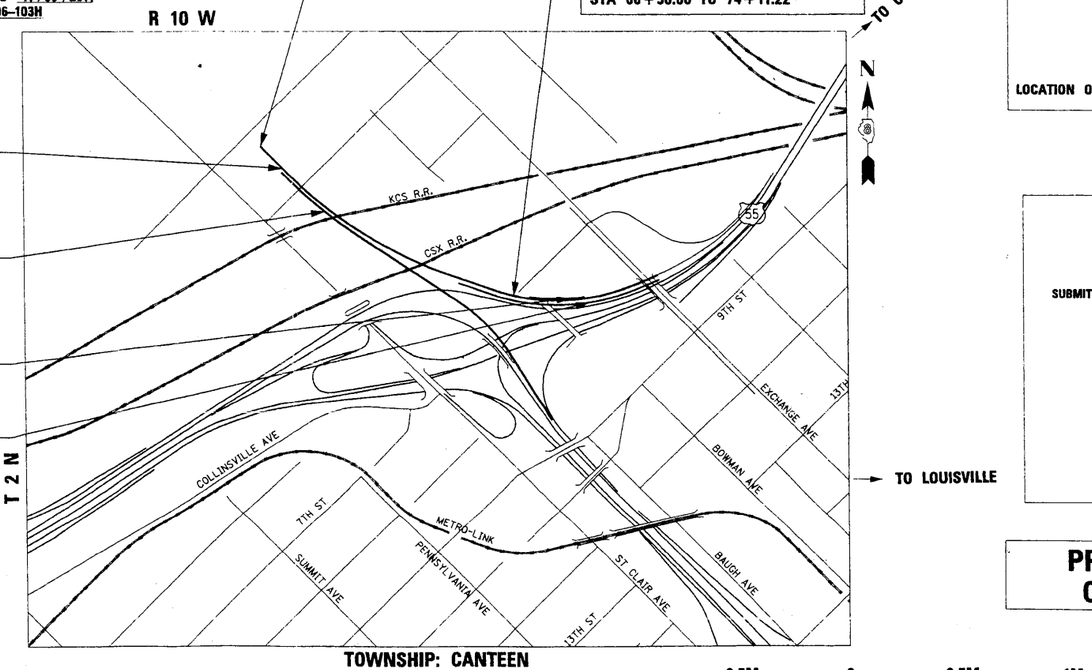
NPDES PERMIT INFORMATION
NPDES Disturbed Area = 6.92 Acres
Approximate Location of Roadway is :
Longitude 90° 08' 16.87" W
Latitude 38° 37' 38.02" N

RAMP 64W70W ROAD CONSTRUCTION (APPROACH SLAB)
STA 83+83.71 TO 84+13.21

RAMP 55S70W ROAD CONSTRUCTION
STA 60+50.00 TO 74+11.22



LOCATION OF SECTION INDICATED THUS: –■–



RAMP 55S70W BRIDGE CONSTRUCTION
S.N. 082-0323
STA 74+11.22 TO 78+98.22

RAMP 64W70W BRIDGE CONSTRUCTION
S.N. 082-0325
STA 65+15.96 TO 83+83.71

RETAINING WALL 082-W302
STA 65+50.00 TO 70+90.00

RETAINING WALL 082-W306
STA 60+50.00 TO 74+11.55

TOWNSHIP: CANTEEN

GROSS LENGTH = 3,745.47 FT (0.709 MILES)
NET LENGTH = 3,745.47 FT (0.709 MILES)

0.5M 0 0.5M 1M
SCALE IN MILES

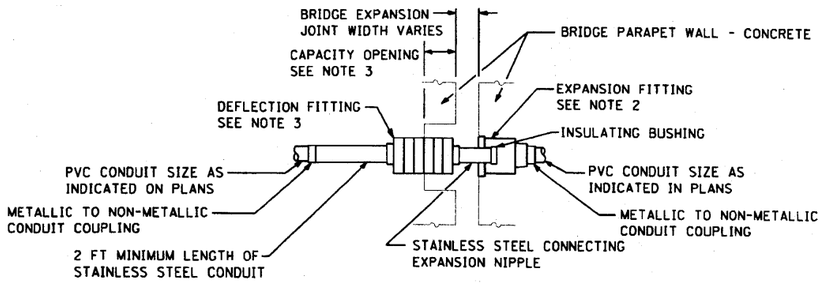
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED March 29 20 11
Mary C. James
DEPUTY DIRECTOR OF HIGHWAY, REGION ENGINEER
May 13 20 11
Scott E. Stitt P.E. for acting
ENGINEER OF DESIGN AND ENVIRONMENT
May 13 20 11
Christine M. Reed for
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

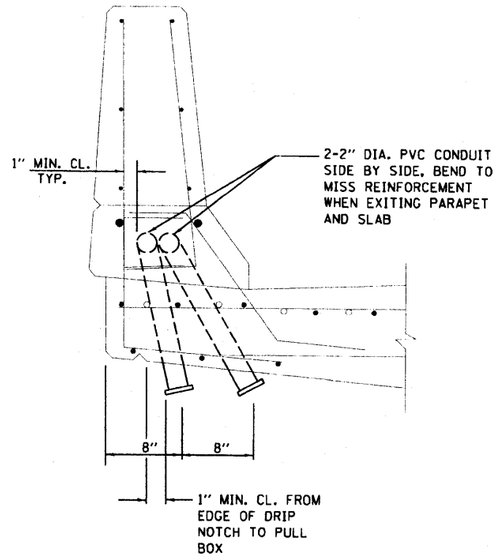
AECOM ZROKA engineering HE VOLKERT

PLOT DATE: *DATE-TIME*



EXPANSION/DEFLECTION CONDUIT COUPLING DETAIL

NOTES 1 AND 6



VIEW B-B

NOTES:

1. THE CONTRACTOR SHALL INSTALL A CONDUIT EXPANSION/DEFLECTION COUPLING AT THE JOINT LOCATIONS IN THE CONCRETE PARAPET ON THE BRIDGE CAPABLE OF ACCEPTING THE LONGITUDINAL MOVEMENT. ALL METALLIC PARTS OF THE COUPLING SHALL BE MADE OF STAINLESS STEEL OR AS APPROVED BY THE ENGINEER. ANY NON-STAINLESS METAL SHALL BE HOT DIP GALVANIZED AND COATED TO PREVENT REACTION WITH THE CONCRETE. THE COST OF THE COUPLING SHALL BE PART OF AND INCIDENTAL TO THE CONDUIT SYSTEM.

2. THE BARREL IN THE EXPANSION FITTING SHALL BE IN THE CONCRETE ON ONE SIDE OF THE EXPANSION JOINT. ONE HALF THE LENGTH OF THE DEFLECTION FITTING SHALL BE EMBEDDED IN THE CONCRETE ON THE OTHER SIDE OF THE COUPLING.

3. A CAVITY OPENING 3" LARGER IN DIAMETER THAN THE DEFLECTION FITTING SHALL BE PROVIDED IN THE CONCRETE TO ENSURE PROPER PERFORMANCE OF THE COUPLING.

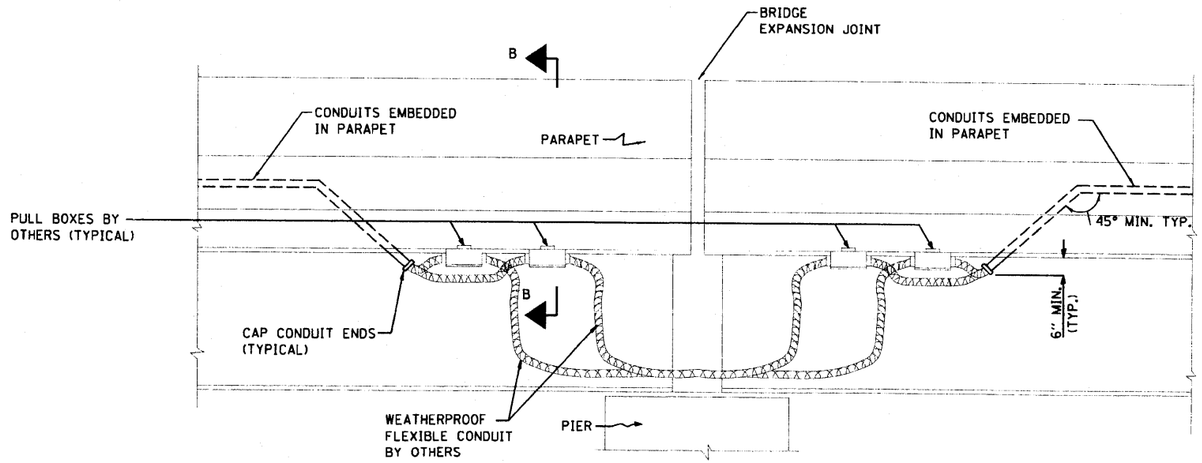
4. CAREFUL ATTENTION TO JOINT MOVEMENT OVER A RANGE OF OF TEMPERATURES SHALL BE COORDINATED WITH THE SELECTION AND INSTALLATION OF THE COUPLING TO ENSURE THE RANGE OF MOVEMENT OF THE COUPLING IS NOT EXEEDED AT TEMPERATURE EXTREMES.

5. ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE CAREFULLY FOLLOWED TO ENSURE OPTIMUM PERFORMANCE OF THE EXPANSION/DEFLECTION COUPLING.

6. THE CONTRACTOR SHALL INSTALL COUPLINGS AT ALL BRIDGE EXPANSION JOINTS AND SHALL BE RESPONSIBLE TO DETERMINE THE PROPER NUMBER OF COUPLINGS REQUIRED. SEE STRUCTURAL DRAWINGS FOR THE EXPANSION JOINT LOCATIONS.

7. WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY SUBSTITUTE TWO (2) STAINLESS STEEL JUNCTION BOXES ATTACHED TO THE BACK OF THE WALL AND CONNECTED BY A HIGH GRADE OF FLEXIBLE NON-METALLIC CONDUIT FOR ALL EXPANSION JOINTS. THIS SUBSTITUTION SHALL BE MADE AT NO ADDITIONAL COST TO THE DEPARTMENT.

8. SEE DRAWING ME-04 FOR CONDUIT INSTALLATION PLANS AT BRIDGE ABUTMENTS.



CONDUIT TERMINATION AT EXPANSION PIERS

ME-02

USER NAME = lentzt	DESIGNED - WDS	REVISED -	
	DRAWN - TL	REVISED -	
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PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -	

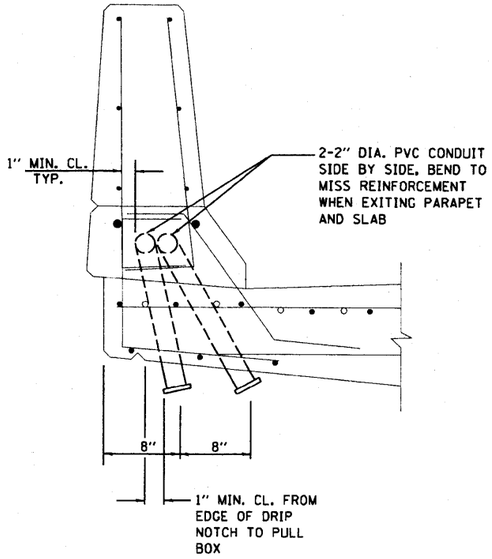
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONDUIT INSTALLATION DETAILS

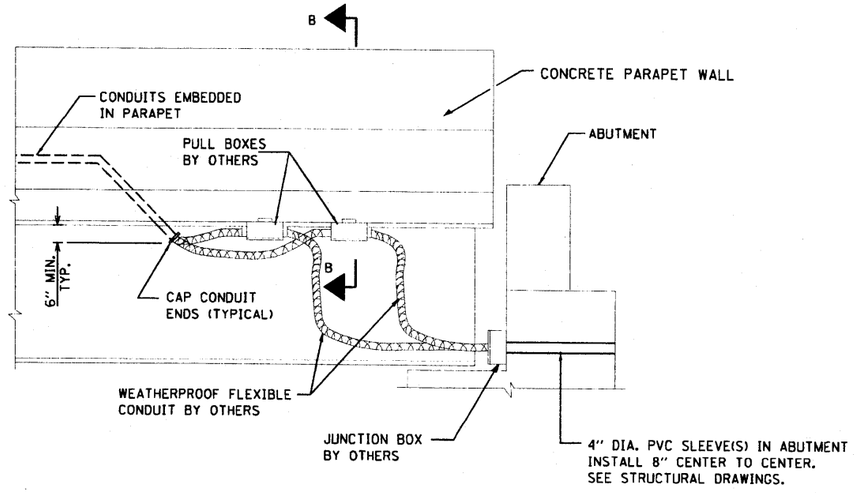
SCALE: | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	105
		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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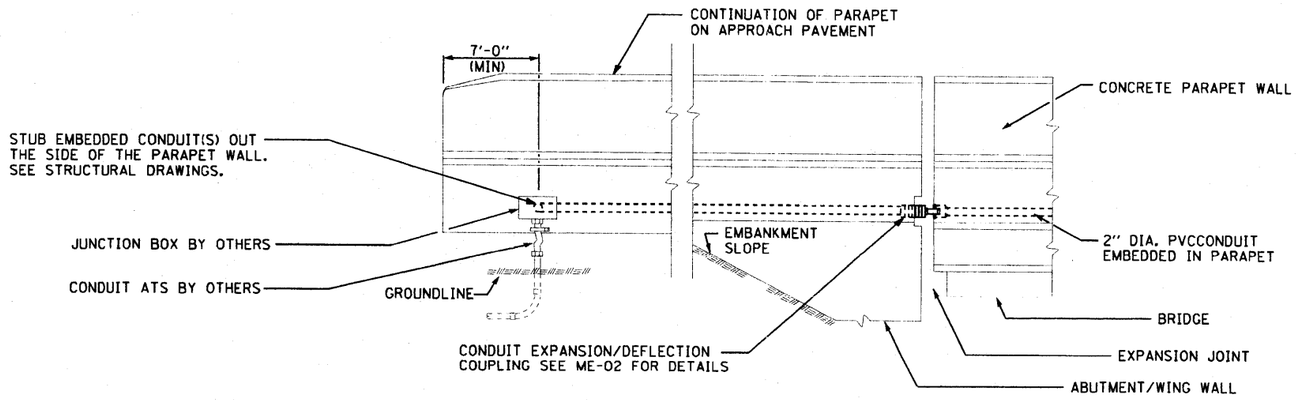
VIEW B-B



CONDUIT TERMINATION DETAILS AT ABUTMENTS WITH CONDUIT SLEEVES

NOTES:

1. SEE DRAWING ME-01 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
2. SEE DRAWING ME-02 FOR ADDITIONAL CONDUIT INSTALLATION DETAILS.
3. SEE DRAWING ME-04 FOR CONDUIT TERMINATION AND ROUTING PLANS AT ABUTMENTS.



CONDUIT TERMINATION DETAILS AT ABUTMENTS WITH EXPANSION/DEFLECTION FITTING

ME-03

USER NAME = lentzt	DESIGNED - WDS	REVISED -	
	DRAWN - TL	REVISED -	
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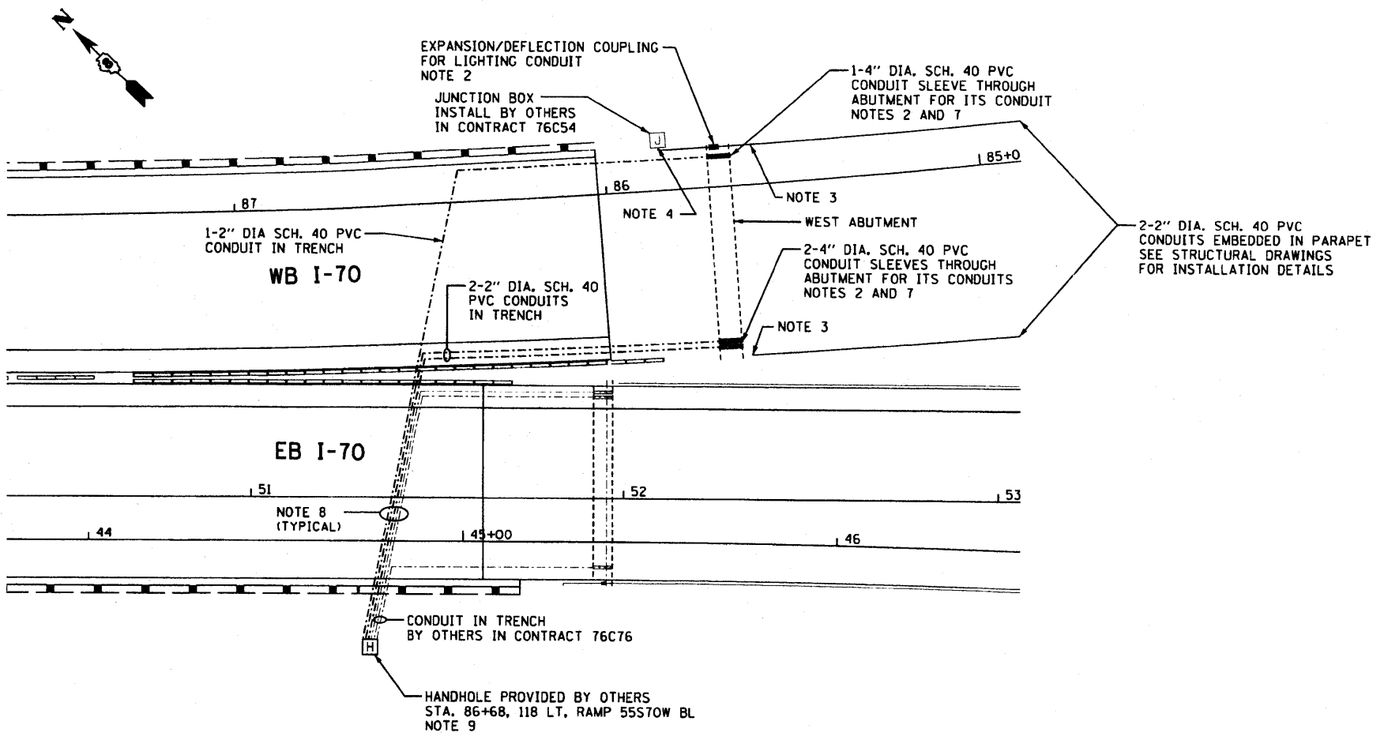
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONDUIT INSTALLATION DETAILS

SCALE: | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

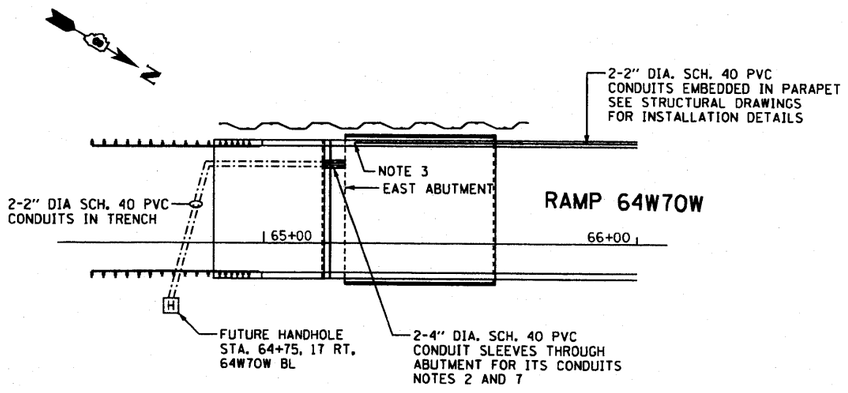
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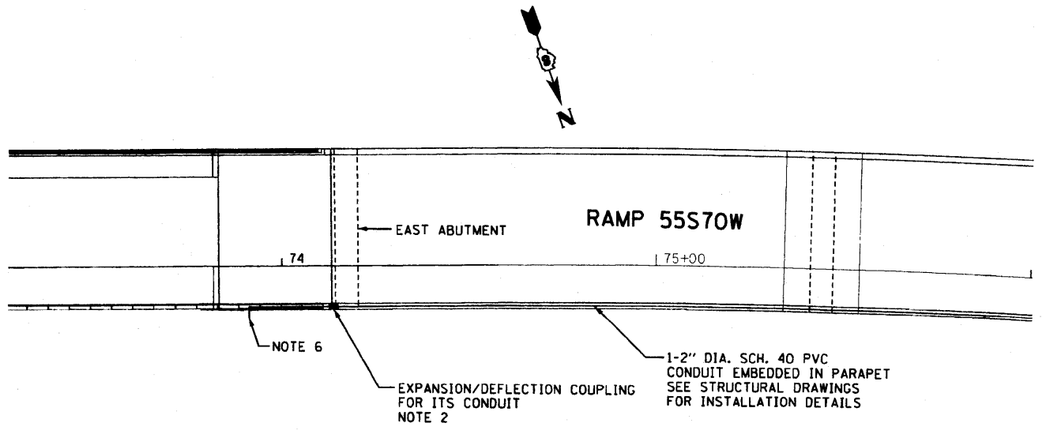
CONDUIT INSTALLATION PLAN - WEST ABUTMENT FOR STRUCTURE NO. 082-0325
NOTE 5

NOTES:

1. SEE DRAWING ME-01 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
2. SEE DRAWINGS ME-02 AND ME-03 FOR CONDUIT INSTALLATION DETAILS.
3. 2" DIA. PVC CONDUIT(S) EMBEDDED IN PARAPET FOR ITS SHALL BE STUBBED OUT THE BOTTOM OF THE DECK SLAB AND CAPPED.
4. 2" DIA. PVC CONDUIT EMBEDDED IN PARAPET FOR LIGHTING SHALL 3E STUBBED OUT THE SIDE OF THE PARAPET WALL AND CAPPED FOR FUTURE CONNECTION TO LIGHTING CIRCUITS IN CONTRACT 76C54. SEE STRUCTURAL DRAWINGS FOR LOCATION OF CONDUIT STUB OUT.
5. ALL ELECTRICAL WORK SHALL BE COORDINATED WITH ELECTRICAL WORK IN CONTRACT NOS. 76C54 AND 76C76.
6. 2" DIA. PVC CONDUIT EMBEDDED IN PARAPET FOR ITS SHALL BE STUBBED OUT THE SIDE OF THE PARAPET WALL AND CAPPED FOR FUTURE CONNECTIONS. SEE STRUCTURAL DRAWINGS FOR LOCATION OF CONDUIT STUB OUT.
7. ROUTE CONDUITS IN TRENCH THROUGH THE SLEEVES IN THE ABUTMENT AND CAP ON THE BACK SIDE OF ABUTMENT FOR FUTURE USE. PROVIDE CONDUIT SEALANT BETWEEN THE SLEEVE AND CONDUIT TO PREVENT THE INGRESS OF WATER AND DEBRIS.
8. INSTALL PARALLEL CONDUITS IN A COMMON TRENCH.
9. THE CONDUITS IN TRENCH SHALL BE TERMINATED AT THE FUTURE HANDHOLE LOCATION SHOWN ON THE PLANS. THE CONDUITS SHALL BE SPACED 4 INCHES APART CENTER-TO-CENTER AND CAPPED FOR FUTURE USE.



CONDUIT INSTALLATION PLAN - EAST ABUTMENT FOR STRUCTURE NO. 082-0325



CONDUIT INSTALLATION PLAN - EAST ABUTMENT FOR STRUCTURE NO. 082-0323

20 0 20 40
SCALE IN FEET

ME-04

USER NAME = lentzt	DESIGNED - WDS	REVISED -	
	DRAWN - TCL	REVISED -	
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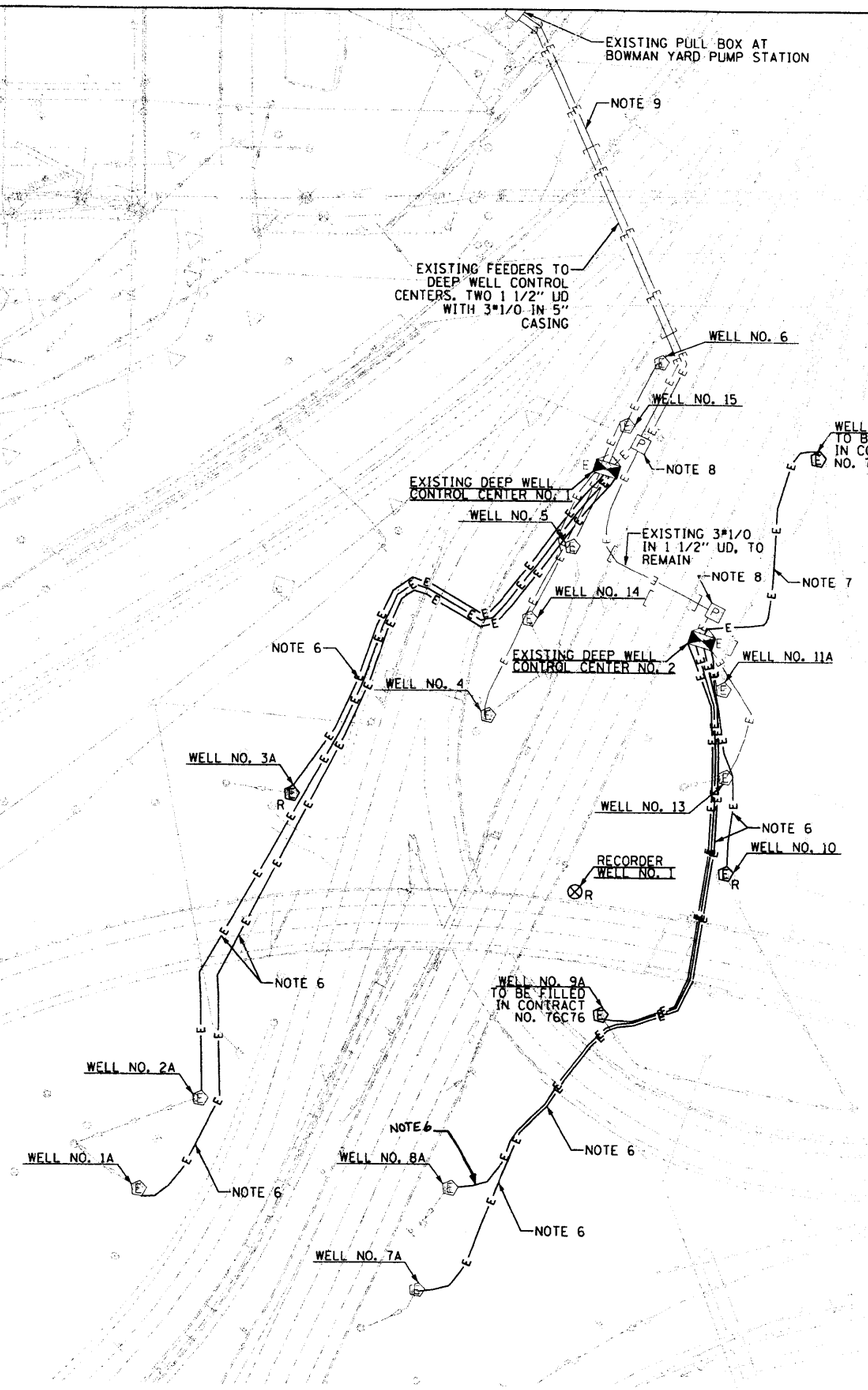
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

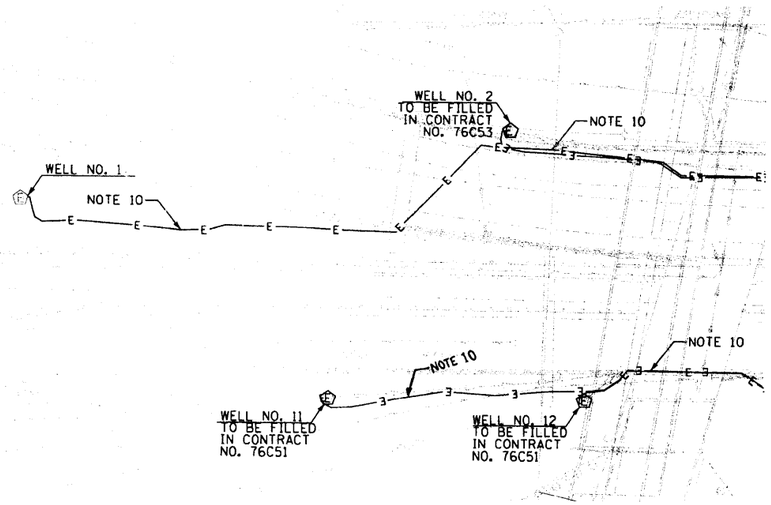
CONDUIT INSTALLATION PLAN

SCALE: 1" = 20' | SHEET NO. 1 OF 1 SHEETS | STA. NA | TO STA. NA

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	107
		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FILE NAME = P:\P60046609\900.CAD\901_Drawings\76C75_Contract\Sheet\Electrical\D8TRI-76C75-sht-Light-04.dgn





NOTES:

1. SEE DRAWING ME-01 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
2. SEE DRAWING DW-03 FOR EXISTING DEEP WELL DETAILS.
3. LOCATE AND MARK ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF WORK. PROTECT AND TAKE CARE NOT TO DAMAGE EXISTING UTILITIES FOR THE DURATION OF THE CONSTRUCTION.
4. VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
5. COORDINATE ALL WORK WITH CIVIL WORK, STRUCTURAL WORK, AND SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLANS.
6. EXISTING CABLE AND RACEWAY TO BE DISCONNECTED AND ABANDONED.
7. EXISTING CABLE AND RACEWAY TO BE DISCONNECTED IN CONTRACT 76C53 AND BE ABANDONED.
8. EXISTING ABOVE GROUND PULL/SPLICE BOX TO REMAIN.
9. EXISTING FEEDERS FOR WELL CONTROL CENTERS TO BE LOCATED AND EXPOSED FROM PULL BOX AT THE BOWMAN YARD PUMP STATION TO THE CASING UNDER SOUTHBOUND I55/70 REROUTE EXISTING FEEDERS AS SHOWN ON DW-02.
10. EXISTING CABLE AND RACEWAY TO BE DISCONNECTED IN CONTRACT 76C51 AND BE ABANDONED.

50' 0' 25' 50' 75' 100'
SCALE: 1" = 50'

DW-01

USER NAME = HenaoC	DESIGNED - JPC	REVISED -	
	DRAWN - TCL	REVISED -	
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PLOT DATE = $DATE$	DATE - 3-30-11	REVISED -	

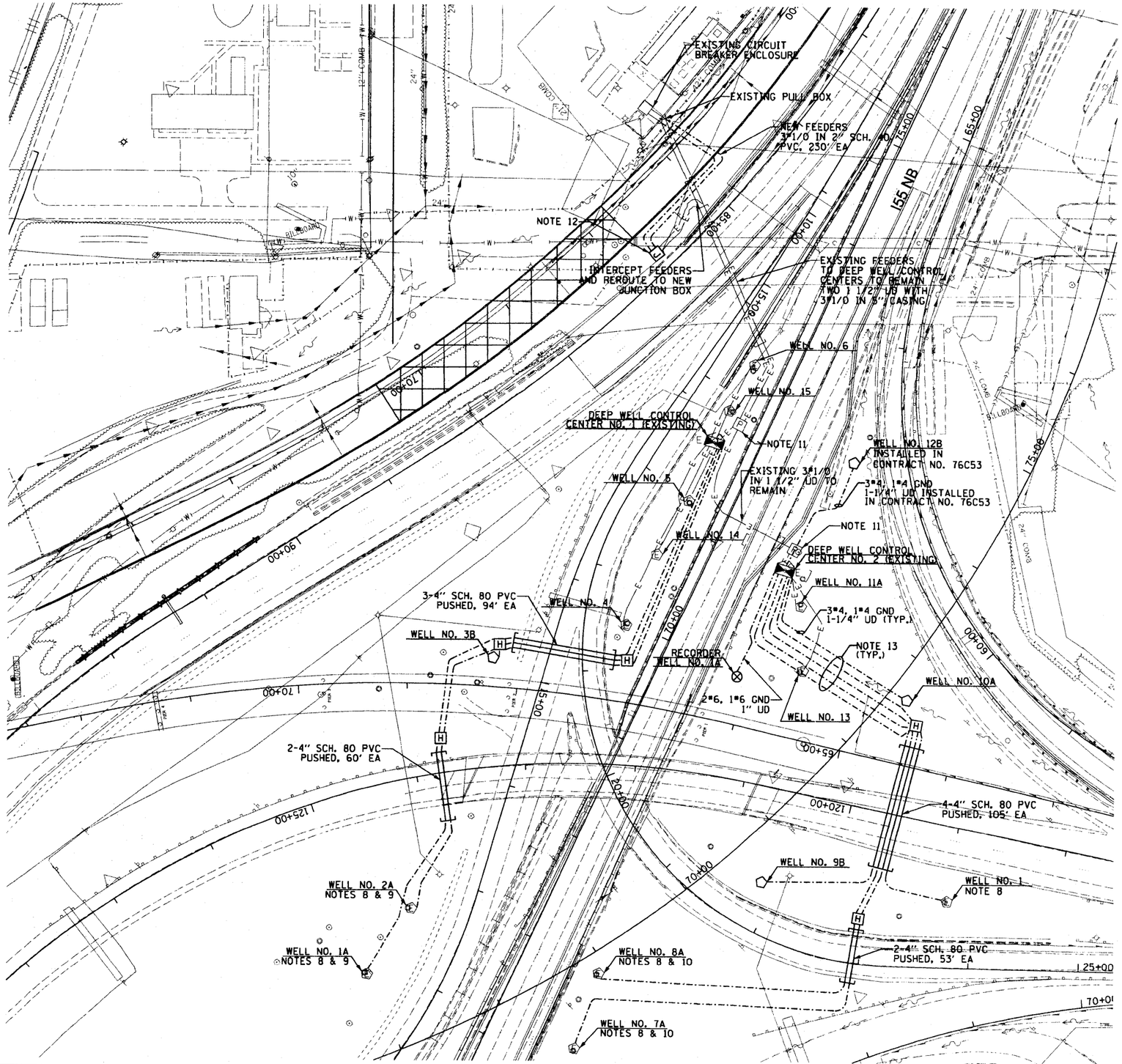
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

~~DEEP WELL ELECTRICAL PLANS~~
EXISTING CONDITIONS AND DEMOLITION

SCALE: 1"=50' | SHEET NO. 1 OF 1 SHEETS | STA. 38+00.00 TO STA. 51+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	108
		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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NOTES:

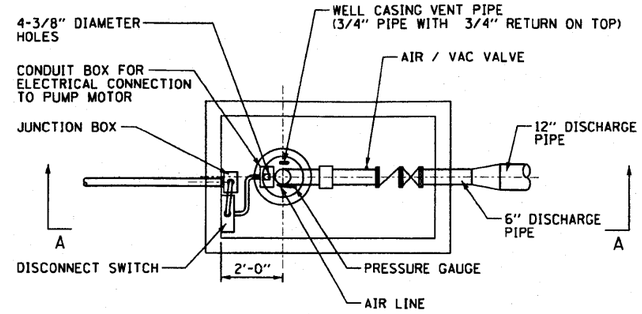
1. SEE DRAWING ME-01 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
2. NOT USED
3. SEE DRAWING DW-04 FOR PROPOSED DEEP WELL DETAILS.
4. SEE DRAWING DW-06 FOR PROPOSED RECORDER WELL DETAILS.
5. LOCATE AND MARK ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF WORK. PROTECT AND TAKE CARE NOT TO DAMAGE EXISTING UTILITIES FOR THE DURATION OF THE CONSTRUCTION.
6. VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
7. COORDINATE ALL WORK WITH CIVIL WORK, STRUCTURAL WORK, AND SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLANS.
8. ROUTE NEW DEEP WELL FEEDER CABLES TO THE EXISTING DISCONNECT SWITCH LOCATED WITHIN THE EXISTING DEEP WELL ENCLOSURE BOX AND CONNECT.
9. NEW FEEDERS TO WELLS 1A AND 2A MUST BE OPERATIONAL PRIOR TO THE START OF EXCAVATION FOR PIER 2 (STRUCTURE 325, RAMP 55S70W) IN CONTRACT 76C75.
10. NEW FEEDERS TO WELLS 7A AND 8A MUST BE OPERATIONAL PRIOR TO THE START OF EXCAVATION FOR THE EAST ABUTMENT FOR RAMP 64W70W IN THIS CONTRACT AND PIERS 10 AND 11 (STRUCTURE 322, RAMP 70E55N) IN CONTRACT 76C76.
11. EXISTING ABOVE GROUND PULL/SPLICE BOX TO REMAIN.
12. NEW JUNCTION (PULL/SPLICE) BOX TO BE INSTALLED AT EDGE OF EXISTING WING WALL 5' BEHIND GUARD RAIL. INTERCEPT EXISTING FEEDS AT PULL BOX AND REROUTE FROM THE NORTH SIDE OF SOUTHBOUND 155 TO THE NEW JUNCTION BOX SHOWN. ROUTE NEW FEEDERS FROM EXISTING CIRCUIT BREAKER ENCLOSURE TO THE NEW JUNCTION BOX. NEW FEEDERS MUST BE INSTALLED AT ELEVATION 390 UNDER PROPOSED RAMP 55S70W TO AVOID CONFLICTS WITH RAMP AND RETAINING WALL CONSTRUCTION (SEE CIVIL CROSS SECTION AT STA. 67+00). WORK SHALL BE STAGED SO THAT POWER TO EITHER WCC #1 OR WCC #2 IS ALWAYS MAINTAINED AND NEITHER WELL CONTROL CENTER CAN BE WITHOUT POWER FOR MORE THAN 72 HOURS. SHUTDOWNS MUST BE APPROVED BY THE ENGINEER.
13. INSTALL PARALLEL RACEWAYS IN COMMON TRENCH.

DW-02

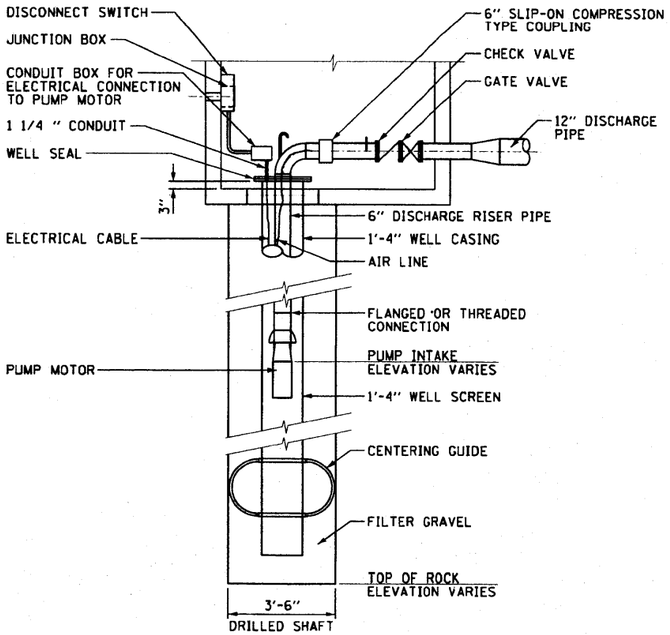
USER NAME = lentzt	DESIGNED - JPC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DEEP WELL ELECTRICAL PLANS PROPOSED WORK
	DRAWN - TCL	REVISED -		
PLOT SCALE = 100.0000 ' / in.	CHECKED - WDS	REVISED -		SCALE: 1"=50' | SHEET NO. 1 OF 1 SHEETS | STA. 38+00.00 TO STA. 51+50.00
PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	109
		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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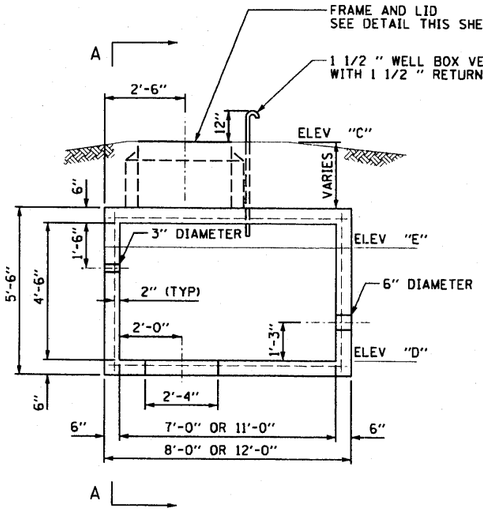
PLAN

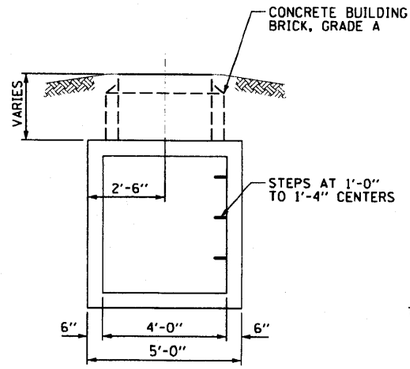


SECTION A-A

TYPICAL EXISTING DEEP WELL

(NOT TO SCALE)





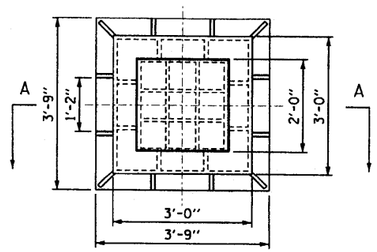
SECTION A-A

TYPICAL EXISTING WELL ENCLOSURE BOX

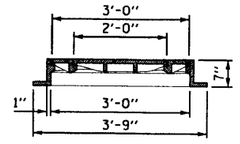
(NOT TO SCALE)

NOTES:

1. REMOVE THE WELL HEAD AND ASSOCIATED PIPING WITHIN THE WELL ENCLOSURE BOX FOR EACH EXISTING DEEP WELL TO BE FILLED. REFER TO SPECIAL PROVISIONS FOR DEEP WELL SEALING AND FILLING PROCEDURES.
2. FILL THE EXISTING PIEZOMETER WELL LOCATED IN CLOSE PROXIMITY TO EACH EXISTING DEEP WELL TO BE FILLED. REFER TO SPECIAL PROVISIONS FOR PIEZOMETER WELL FILLING PROCEDURES.



PLAN

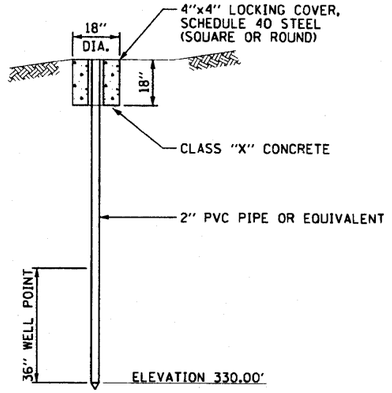


FRAME AND LID
TOTAL WEIGHT: 990 LBS

SECTION A-A

TYPICAL EXISTING WELL ENCLOSURE BOX FRAME & LID

(NOT TO SCALE)



TYPICAL EXISTING PIEZOMETER WELL

(NOT TO SCALE)

EXISTING WELL ENCLOSURE DEMOLITION AND DEEP WELL ABANDONMENT

WELL NUMBER	ENCLOSURE LID ELEV. "C"	ENCLOSURE FLOOR ELEV. "D"	REMOVAL DEPTH ELEV. "E"	SPECIAL INSTRUCTIONS
WELL NO.1	407.24	-	NONE	EXISTING WELL TO REMAIN
WELL NO.1A	414.56	-	NONE	EXISTING WELL TO REMAIN
WELL NO.2A	413.56	-	NONE	EXISTING WELL TO REMAIN
WELL NO.3A	407.25	-	COMPLETE	REMOVE WELLHEAD, RISER PIPING, AND WELL ENCLOSURE BOX, AND FILL WELL
WELL NO.4	-	-	NONE	EXISTING WELL TO REMAIN
WELL NO.5	-	-	NONE	EXISTING WELL TO REMAIN
WELL NO.6	-	-	NONE	EXISTING WELL TO REMAIN
WELL NO.7A	389.83	-	NONE	EXISTING WELL TO REMAIN
WELL NO.8A	387.11	-	NONE	EXISTING WELL TO REMAIN
WELL NO.9A	407.55	-	-	EXISTING WELL TO BE FILLED IN CONTRACT 76C76 (BY OTHERS)
WELL NO.10	-	-	COMPLETE	REMOVE WELLHEAD, RISER PIPING, AND WELL ENCLOSURE BOX, AND FILL WELL
WELL NO.11A	-	-	NONE	EXISTING WELL TO REMAIN
WELL NO.12A	-	-	-	EXISTING WELL TO BE FILLED IN CONTRACT 76C53 (BY OTHERS)
WELL NO.13	-	-	NONE	EXISTING WELL TO REMAIN
WELL NO.14	-	-	NONE	EXISTING WELL TO REMAIN
WELL NO.15	398.43	-	NONE	EXISTING WELL TO REMAIN
WELL NO.2	401.84	-	-	EXISTING WELL TO BE FILLED IN CONTRACT 76C53 (BY OTHERS)
WELL NO.12	—	—	—	TO BE FILLED IN CONTRACT 76C51
WELL NO.11	—	—	—	TO BE FILLED IN CONTRACT 76C51

DW-03

USER NAME = lentzt	DESIGNED - JPC	REVISED -	
	DRAWN - TCL	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - WDS	REVISED -	
PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -	

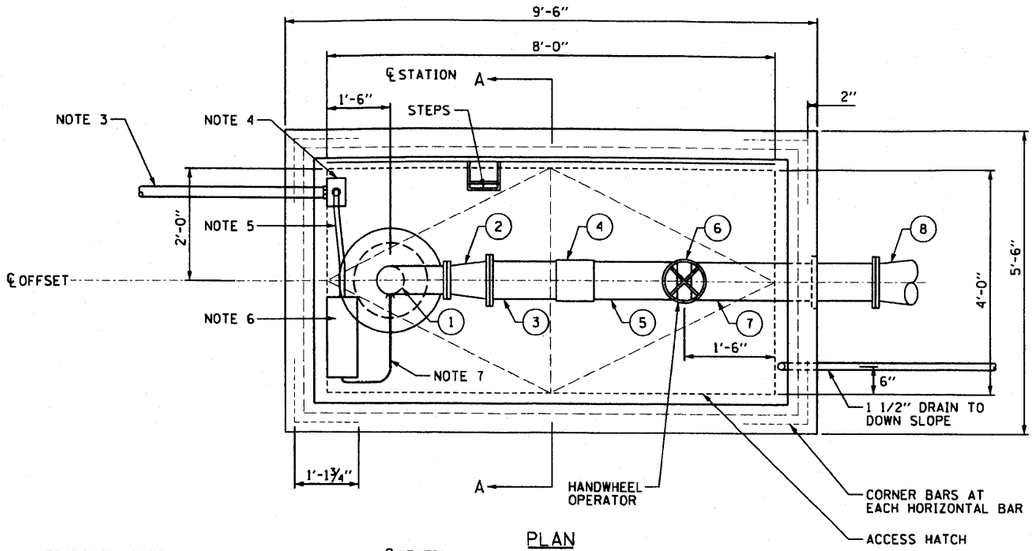
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEEP WELL DETAILS
EXISTING DEEP WELL

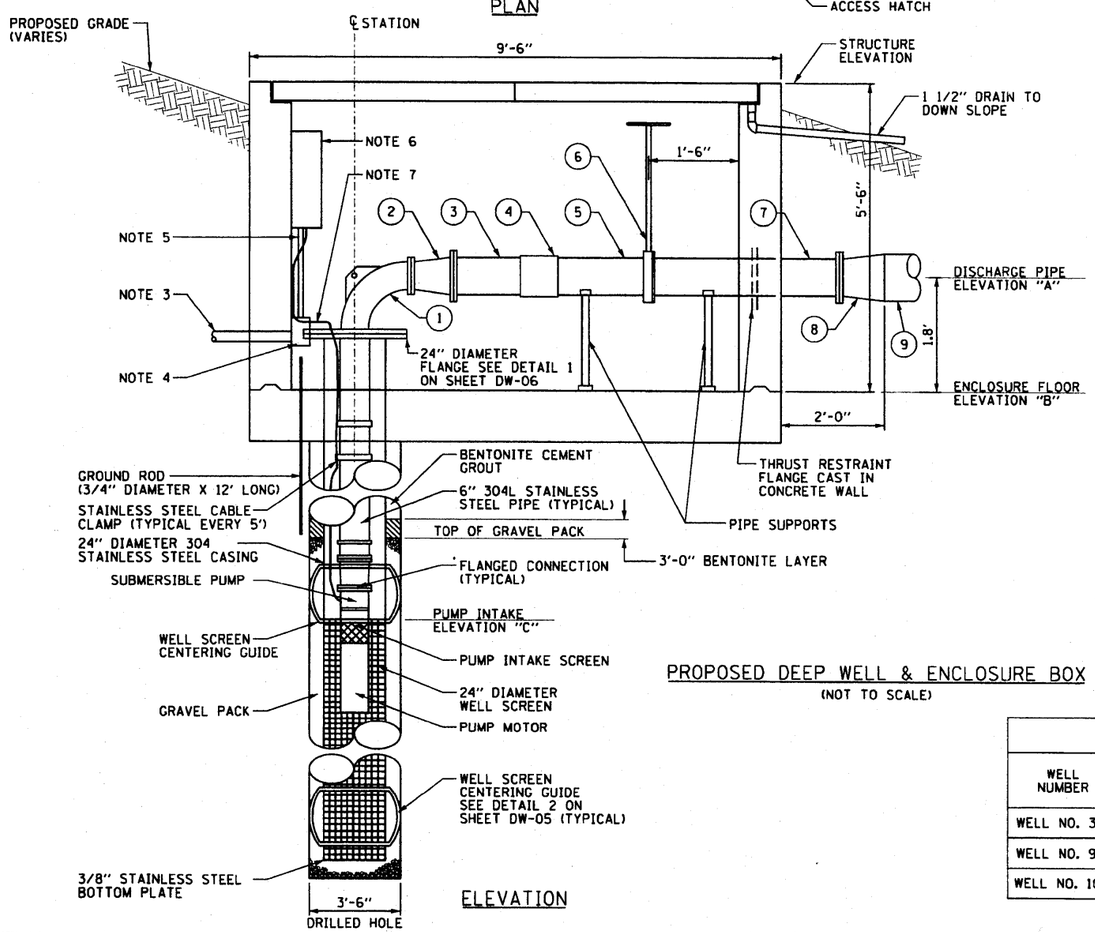
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. N/A | TO STA. N/A

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	110
		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FILE NAME = P:\P60046609\900_CAD\901_Drawings\76C75_Contract\Sheet\Electrical\DBTRI-76C75-sht-Wells-03.dgn



PLAN



ELEVATION

PROPOSED DEEP WELL & ENCLOSURE BOX

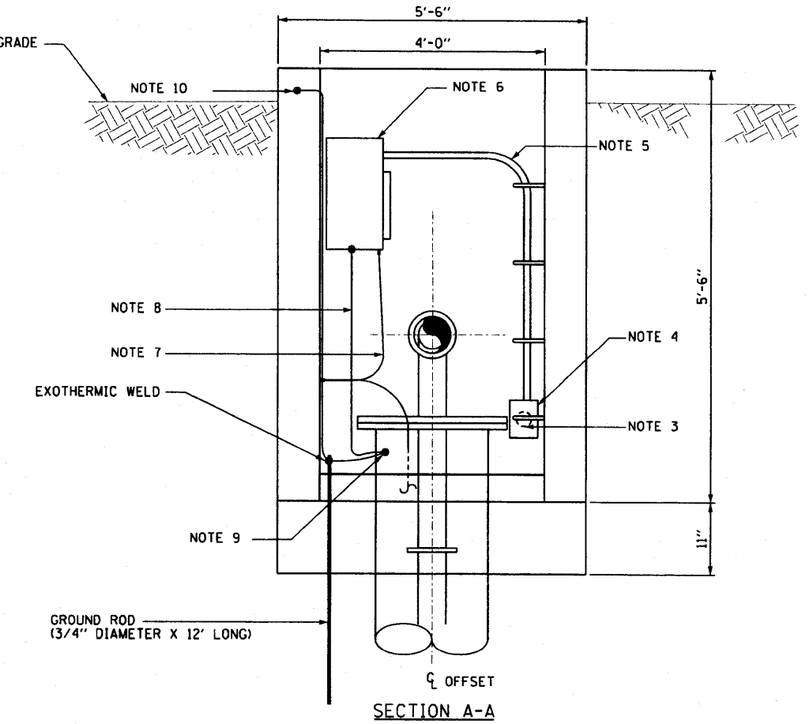
(NOT TO SCALE)

BILL OF MATERIAL

1. 6" 304L STAINLESS STEEL LONG RADIUS 90 ELBOW
2. 6"x8" 304L STAINLESS STEEL CONC. REDUCER, FLANGED
3. 8" HDPE PIPE & FLANGE x PE
4. 8" STAINLESS STEEL COUPLING
5. 8" 304L STAINLESS STEEL PIPE & FLANGES
6. 8" KNIFE GATE VALVE (TILT AS REQUIRED)
7. 8" 304L STAINLESS STEEL PIPE & FLANGES
8. 8"x12" HDPE REDUCER, FLANGE x PE
9. 12" HDPE PIPE (BY OTHERS, SEE DRAINAGE PLANS)

NOTES:

1. CONSTRUCT THE PROPOSED DEEP WELLS AT THE LOCATIONS INDICATED ON THIS DRAWING. REFER TO SPECIAL PROVISIONS FOR INSTALLATION PROCEDURES.
2. CONSTRUCT A NEW PIEZOMETER WELL FOR EACH PROPOSED DEEP WELL. SEE DRAWING DW-05 FOR PROPOSED PIEZOMETER WELL DETAILS.
3. EXTEND 3 INCH RIGID GALVANIZED CONDUIT 5 FEET FROM THE PROPOSED WELL ENCLOSURE BOX TO FACILITATE THE UNIT DUCT INSTALLATION INTO THE ENCLOSURE.
4. 6 INCHES WIDE BY 8 INCHES HIGH BY 4 INCHES DEEP STAINLESS STEEL PULL BOX. DO NOT SPLICE THE CONDUCTORS WITHIN THE PULL BOX.
5. 2 INCH LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR PUMP FEEDER CONDUCTORS.
6. 100 AMPERE, 3 POLE, NON-FUSED, HEAVY DUTY DISCONNECT SWITCH.
7. PUMP POWER CABLE (FURNISHED WITH PUMP).
8. NO.6 AWG GROUNDING ELECTRODE CONDUCTOR ROUTED FROM THE DISCONNECT SWITCH TO THE GROUND ROD.
9. NO.6 AWG BONDING CONDUCTOR ROUTED FROM THE GROUND ROD TO THE WELL CASING. BOND CONDUCTOR TO WELL CASING.
10. NO.6 AWG BONDING CONDUCTOR ROUTED FROM THE GROUND ROD TO THE ACCESS HATCH FRAME. BOND CONDUCTOR TO THE ACCESS HATCH FRAME.



SECTION A-A

PROPOSED DEEP WELL INSTALLMENT

WELL NUMBER	STATION 55N BL	OFFSET	PROPOSED STRUCTURE ELEVATION	DISCHARGE PIPE ELEV. "A"	ENCLOSURE FLOOR ELEV. "B"	PUMP INTAKE ELEV. "C"	TOP OF SCREEN ELEVATION	BOTTOM OF SCREEN ELEVATION	TOP OF BEDROCK ELEVATION	TOP OF GRAVEL PACK ELEVATION	WELL PACK TYPE	SLOT SIZE
WELL NO. 3B	69+17.97	138.9 LT	406.99'	403.29'	401.49'	329.0'	330.0'	300.0'	299.0'	340.0'	WB-40	50
WELL NO. 9B	68+34.51	169.1 RT	407.56'	403.86'	402.06'	330.0'	331.0'	301.0'	300.0'	341.0'	WB-40	50
WELL NO. 10A	70+42.80	218.8 RT	407.28'	403.58'	401.78'	330.0'	331.0'	301.0'	300.0'	341.0'	WB-40	50

DW-04

USER NAME = lentzt	DESIGNED - JPC	REVISED -	
	DRAWN - TCL	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - WDS	REVISED -	
PLOT DATE = #DATE#	DATE - 3-18-11	REVISED -	

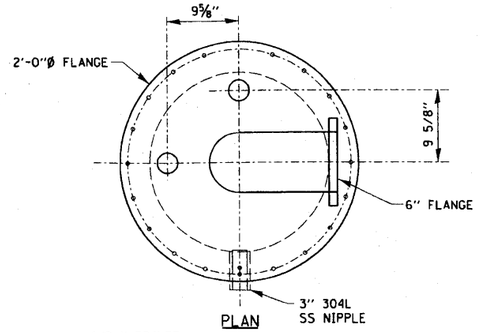
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEEP WELL DETAILS
PROPOSED DEEP WELL

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. N/A | TO STA. N/A

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	111
		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

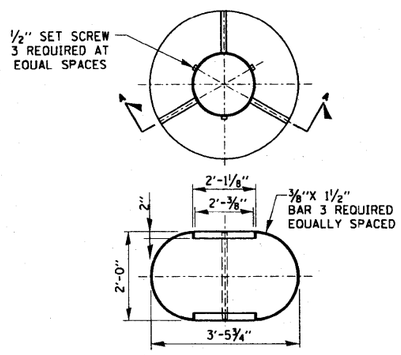
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ELEVATION

DETAIL 1

N.T.S.

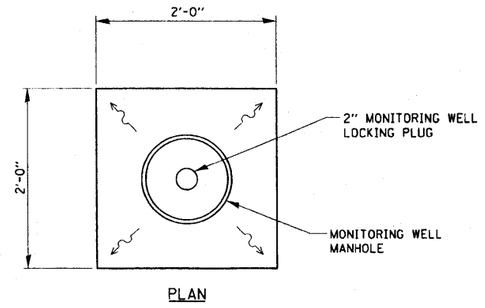


SECTION A-A

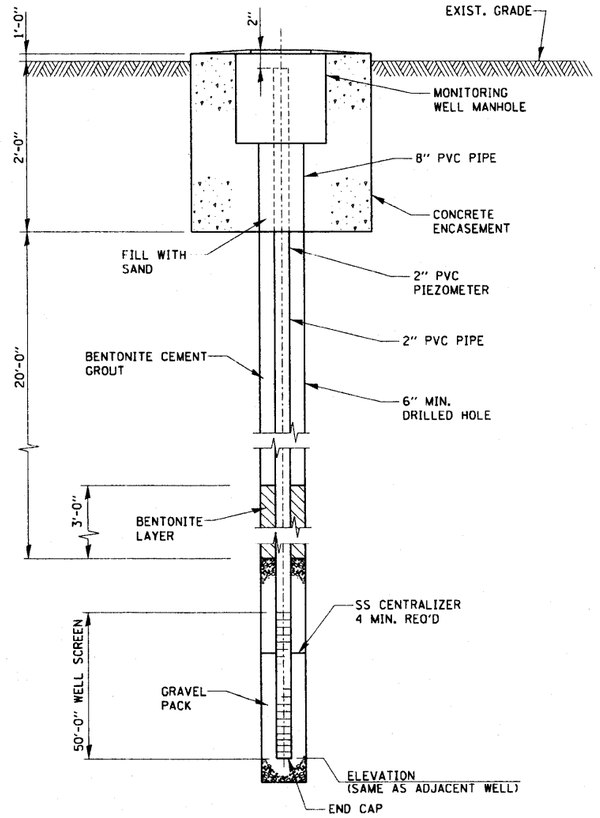
DETAIL 2

N.T.S.

WELL SCREEN CENTERING GUIDE



PLAN



DETAIL 3

PROFILE OF NEW PIEZOMETER

N.T.S.

NOTES:

1. LOCATE THE PROPOSED PIEZOMETER WELL WITHIN A 10'-0" RADIAL DISTANCE FROM EACH PROPOSED DEEP WELL. SEE DRAWING DW-04 FOR PROPOSED DEEP WELL STATION AND OFFSET DIMENSIONS.
2. SEE DW-04 FOR GRADE ELEVATIONS AND WELL POINT ELEVATIONS.

DW-05

USER NAME = lantas	DESIGNED - JRC	REVISED -	
	DRAWN - TCL	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - WDS	REVISED -	
PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -	

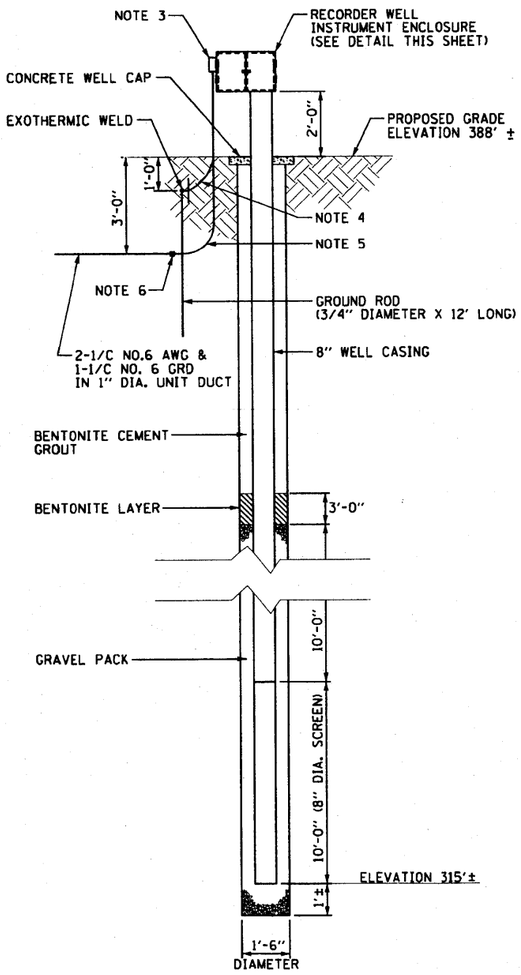
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEEP WELL DETAILS
PROPOSED PIEZOMETER WELL

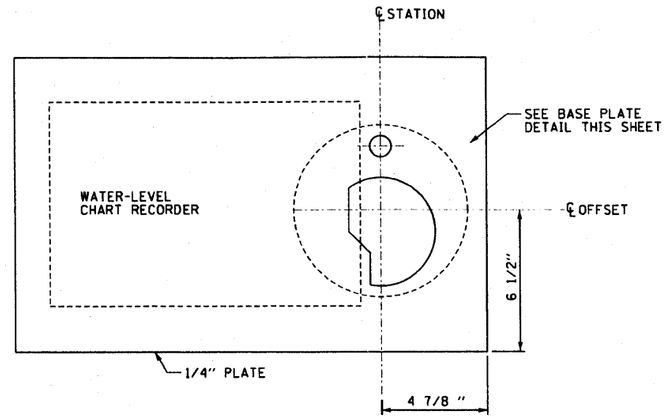
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. N/A | TO STA. N/A

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	112
		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

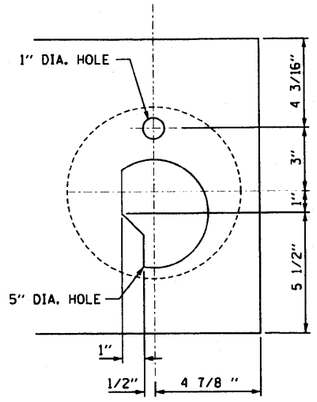
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RECORDER WELL NO. 1A
(NOT TO SCALE)



BASE PLATE PLAN
(NOT TO SCALE)

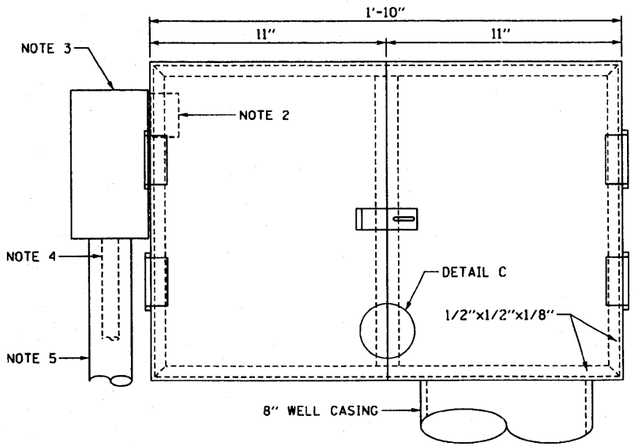


BASE PLATE DETAIL
(NOT TO SCALE)

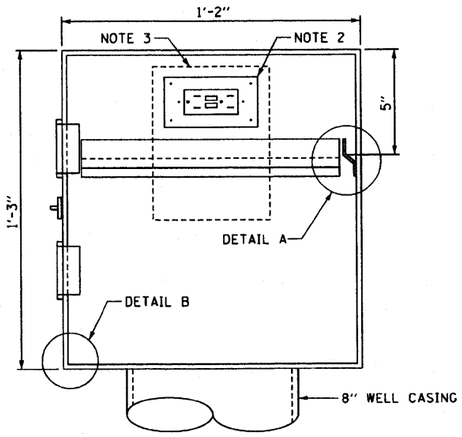
NOTES:

1. CONSTRUCT THE PROPOSED RECORDER WELLS AT THE LOCATIONS INDICATED ON THIS DRAWING. REFER TO SPECIAL PROVISIONS FOR INSTALLATION PROCEDURES.
2. CAST ALUMINUM OUTDOOR "BELL" BOX WITH 15 AMPERE GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE OUTLET AND GASKETED CAST COVER PLATE.
3. STAINLESS STEEL NEMA 4X JUNCTION BOX 6 INCHES WIDE BY 8 INCHES HIGH BY 4 INCHES DEEP. SPLICE POWER FEEDER CONDUCTORS TO NO. 10 AWG CONDUCTORS TO RECEPTACLE OUTLET AND TO NO.6 AWG GROUNDING ELECTRODE CONDUCTOR. BOND GROUNDING CONDUCTORS TO PULL BOX.
4. 3/4 INCH DIAMETER RIGID GALVANIZED CONDUIT WITH NO.6 AWG GROUNDING ELECTRODE CONDUCTOR TO GROUND ROD.
5. 2 INCH DIAMETER RIGID GALVANIZED CONDUIT FOR POWER FEEDER.
6. ADAPTER COUPLING AND REDUCER FITTING TO CONNECT UNIT DUCT TO RIGID GALVANIZED CONDUIT.
7. BRACKET INSTALLED ON BACK AND BOTH SIDES OF ENCLOSURE.

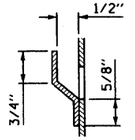
RECORDER WELL NUMBER	STATION	OFFSET
RW NO. 1A	69+96.19 55N BL	68.94' RT
-	-	-



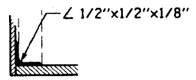
ENCLOSURE ELEVATION



ENCLOSURE SIDE VIEW



DETAIL A
NOTE 7



DETAIL B



DETAIL C

TYPICAL RECORDER WELL INSTRUMENT ENCLOSURE
(NOT TO SCALE)

DW-06

USER NAME = ianlzk	DESIGNED - JPC	REVISED -	
	DRAWN - TCL	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - WDS	REVISED -	
PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEEP WELL DETAILS
PROPOSED RECORDER WELL

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. N/A | TO STA. N/A

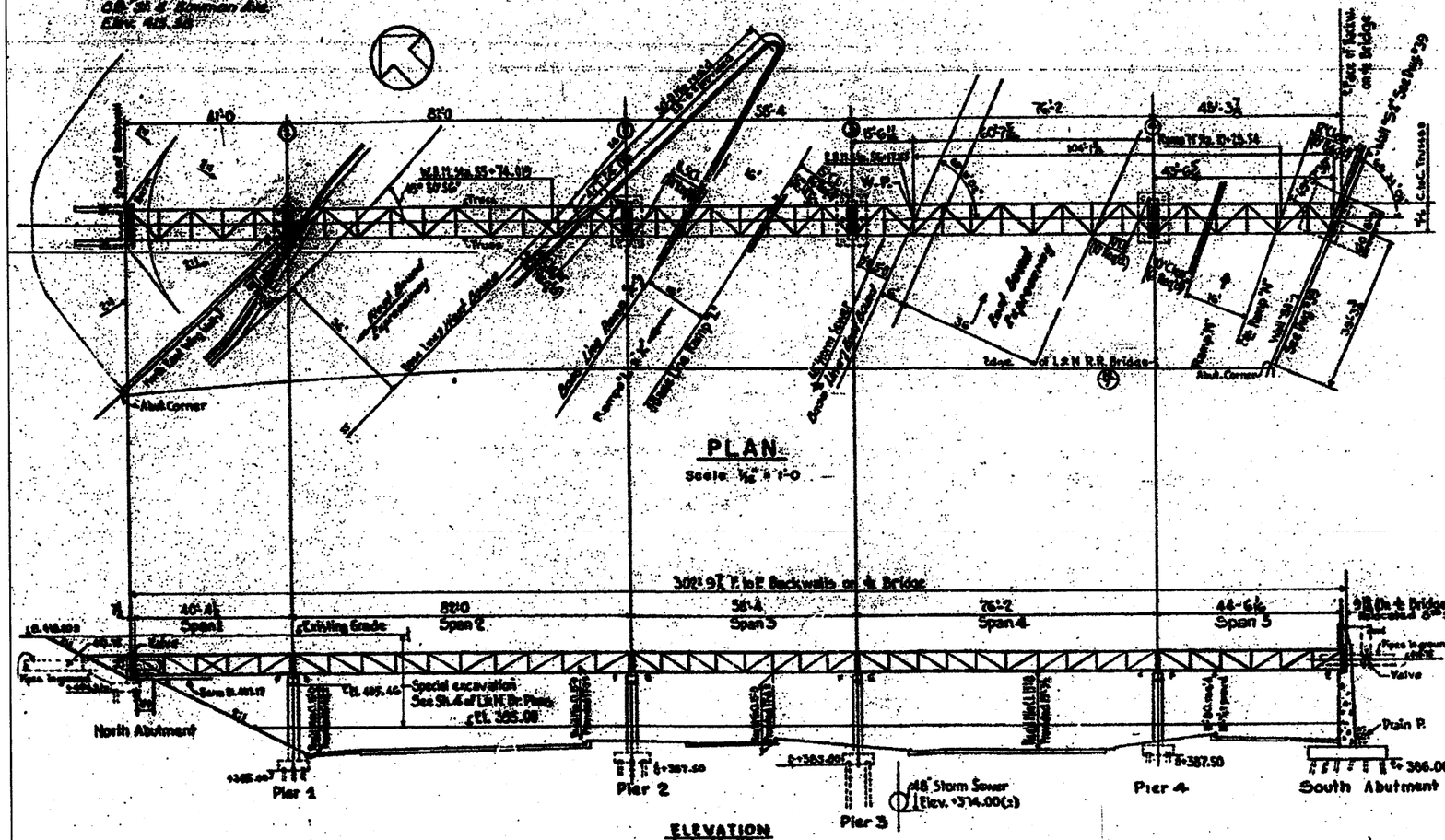
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	113
		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FILE NAME = P:\P60046609\900_CAD\901_Drawings\76C75_Contract\Sheet\Electrical\DBTRI-76C75-sht-Wells-06.dgn

FOR INFORMATION ONLY

FEDERAL AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-1-B-1 82-1-BY	ST. CLAIR	319 114	113 114
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

B.M. No. 13
East side of Bowman Ave.
South side of 6th St.
First bolt on S.E. corner of
6th St. & Bowman Ave.
Elev. 413.33

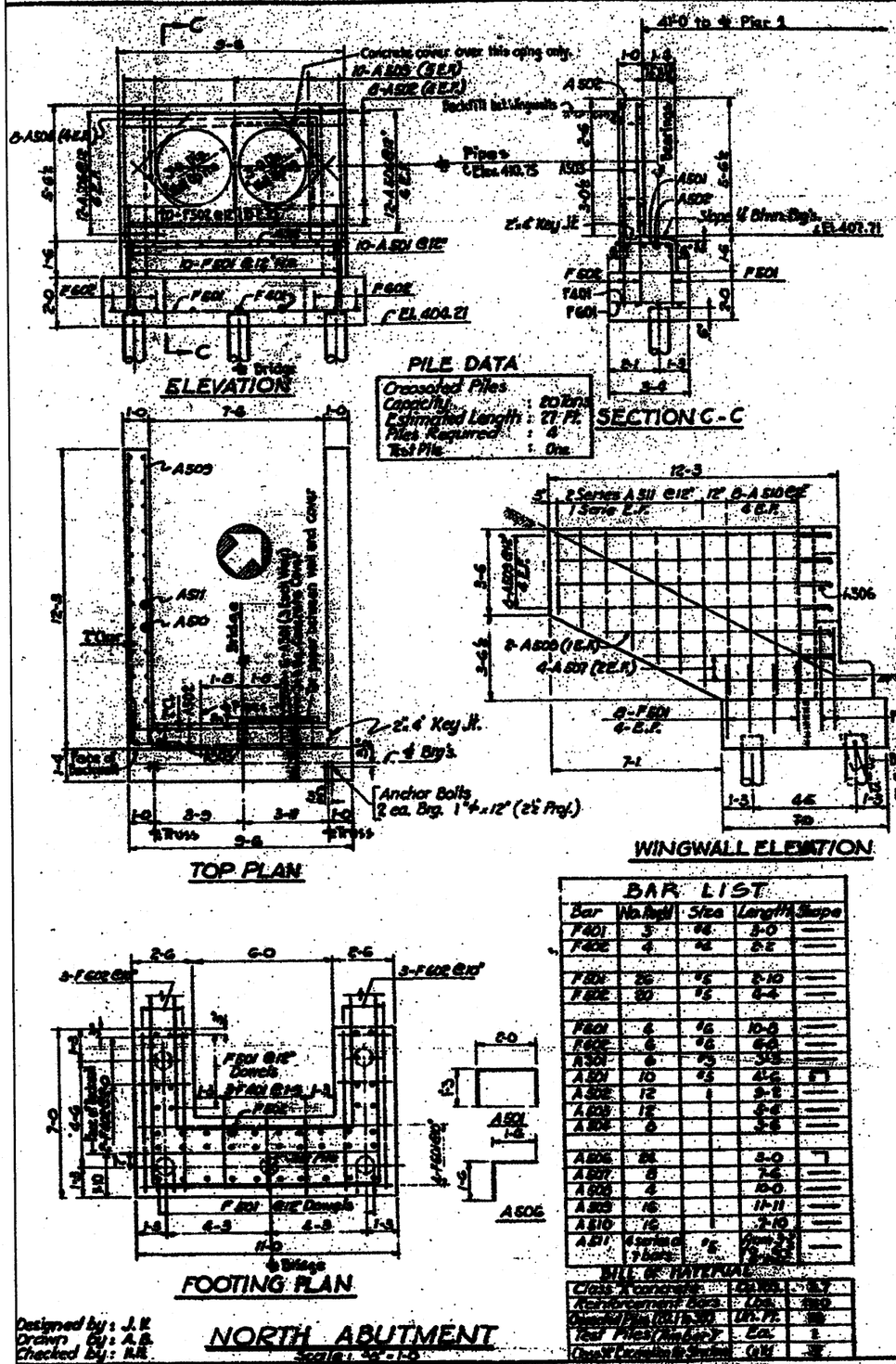

Abut. Corner
Flood Flow Approaching
Abut. Corner
Edge of L.&N.R.R. Bridge
Abut. Corner
Trace of Retaining Wall on E. Bridge
Trace of Retaining Wall on W. Bridge

FOR INFORMATION ONLY

FED. ROAD DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-1-B-1	ST. CLAIR	319	115
FED. ROAD DIV. NO. 7	ILLINOIS	PROJECT	CONTRACT NO. 76C75	

PILE DATA

Concreted Piles
Capacity : 20 Tons
Estimated Length : 27 Ft.
Piles Required : 22 (for 4 Piers)
Test Piles : 4 (- -)



BAR LIST

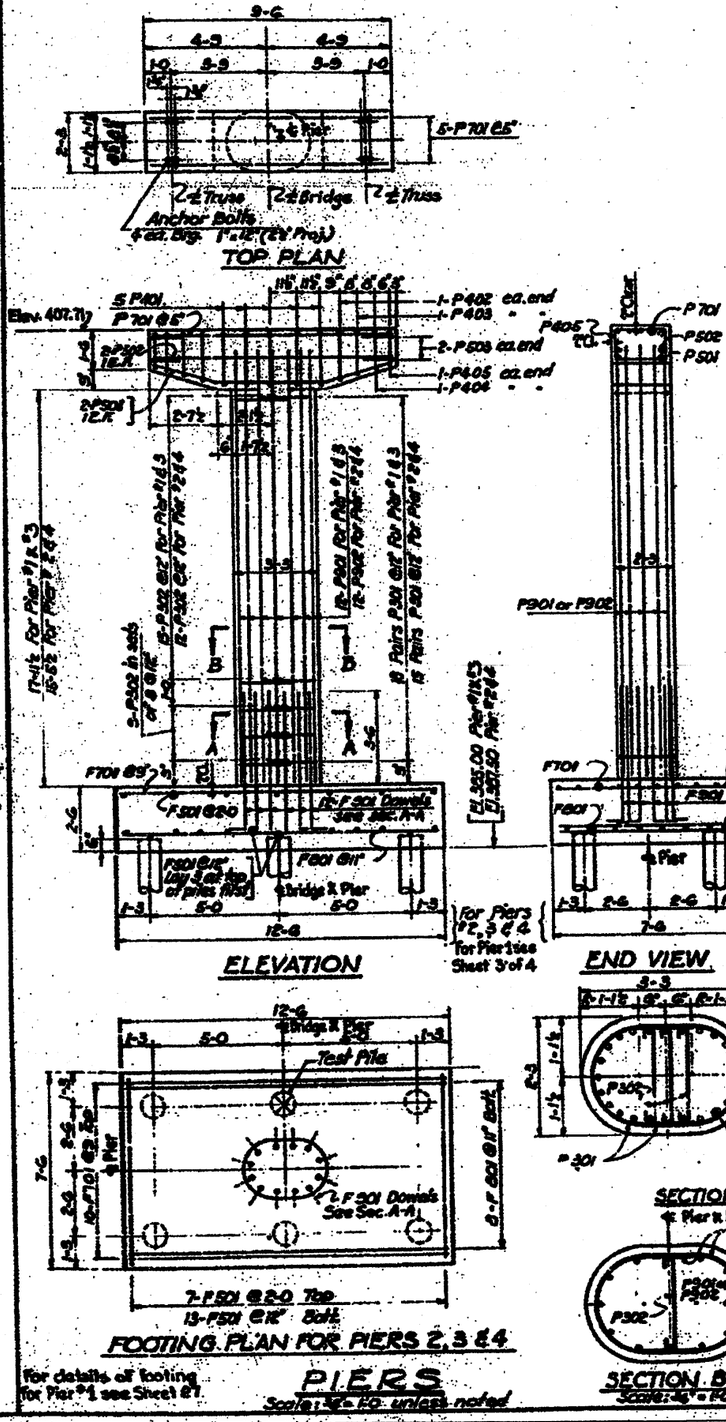
Bar	No. Reqd	Size	Length	Shape
F401	5	#6	3-0	
F402	4	#6	2-2	
F501	20	#5	2-10	
F502	20	#5	6-4	
F601	6	#6	10-6	
F602	6	#6	6-0	
A501	6	#5	3-3	
A501	10	#5	4-6	
A502	12		3-1	
A502	12		5-6	
A506	6		2-6	
A506	26		5-0	
A507	6		7-6	
A508	4		10-0	
A509	16		11-11	
A510	16		2-10	
A511	4 Series 9 Bars	#5	from 2-2 to 2-10	

BILL OF MATERIAL	Unit	Total
Class 'X' Concrete	Cu. Yds.	8.7
Reinforcement Bars	Lbs.	1,000
Concreted Piles (in Pl.)	Lin. Ft.	88
Test Piles (Furnish)	Ea.	1
Class 'X' Concrete in Shafts	Cu. Yds.	32

Designed by : J.K.
Drawn by : A.B.
Checked by : R.R.

NORTH ABUTMENT

Scale: 3/8" = 1'-0"



BAR LIST

Bar	No. Reqd for Pier #1	No. 2	No. 3	No. 4	Size	Length	Shape
F 501	–	20	20	20	#5	7-0	
F 701	–	10	10	10	#7	12-0	
F 503	14	–	–	–	#5	6-6	
F 504	8	–	–	–	#5	3-7	
F 1001	2	–	–	–	#10	12-6	
F 1002	2	–	–	–	#10	10-2	
F 1003	2	–	–	–	#10	7-10	
F 801	–	8	8	8	#8	11-0	
F 802	2	–	–	–	#8	11-6	
F 803	1	–	–	–	#8	10-2	
F 804	2	–	–	–	#8	7-10	
P 301	12	12	12	12	#9	6-4	
P 302	36	30	36	30	#5	5-0	
P 502	24	21	24	21	#5	2-3	
P 401	5	5	5	5	#4	6-6	
P 402	2	2	2	2	#4	6-2	
P 403	2	2	2	2	#4	7-10	
P 404	2	2	2	2	#4	7-6	
P 405	2	2	2	2	#4	2-2	
P 501	2	2	2	2	#5	9-3	
P 503	2	2	2	2	#5	9-3	
P 505	4	4	4	4	#5	4-6	
P 701	5	5	5	5	#7	9-2	
P 901	12	–	12	–	#9	19-9	
P 902	–	12	–	12	#9	17-3	

BILL OF MATERIAL	Unit	Pier No. 1	Pier No. 2	Pier No. 3	Pier No. 4	Total
Class 'X' Concrete	Cu. Yds.	12.8	13.6	14.3	13.6	54.7
Reinforcement Bars	Lbs.	1940	1910	2020	1910	7780
Concreted Piles (in Pl.)	Lin. Ft.	189	135	135	135	594
Test Piles (Furnish)	Ea.	1	1	1	1	4
Class 'X' Concrete in Shafts	Cu. Yds.	60	33	70	33	196

For details of footing for Pier #1 see Sheet #7

PIERS

Scale: 3/8" = 1'-0" unless noted

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
EAST ST. LOUIS & INTERURBAN WATER CO.

EAST ST. LOUIS EXPRESSWAY

BRIDGE FOR 2 30"ϕ WATER PIPES OVER F.A.I.-70
NORTH ABUTMENT AND PIERS No. 1, 2, 3 & 4

H. W. LOCHNER, INC.
ENGINEERS
DATE: JULY 1980 CHICAGO ILLINOIS SHEET NO. 2G

USER NAME = pimsarno	DESIGNED - CRH	REVISED -
	DRAWN - CRH	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED - DBM	REVISED -
PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLAN – 30" WATER PIPES OVER I-55/I-70

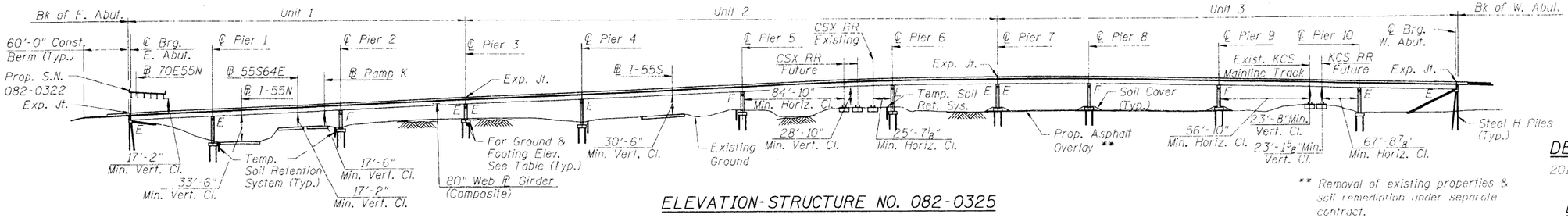
SCALE: NONE	SHEET NO. 2 OF 2 SHEETS	STA.	TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	115
		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FILE NAME = P:\P60046609\900_CAD\901_Drawings\76C75_Contract\Sheet\Civil\Roadway_Plans\DBTRI-76C75-Sht-Rem-02.dgn

Benchmark BM25: Chiselled square in Concrete Foundation of Manhole Structure between I-55/70 W.B. & CSX RR. 65' Rt. Sta. 60+32. Elev. 429.43
Benchmark JD4: Chiselled square northerly foundation sign truss over I-55/70 W.B. ramp to I-64 E.B. 35.5' Rt. Sta. 18+35 (55S64E) Elev. 403.40
Benchmark BM27: Chiselled 'X' southerly cap bolt fire hydrant at north quadrant 2nd Street and Baugh Ave. 190' Rt. Sta. 86+27 (55S70W) Elev. 419.77

Existing Structure: None

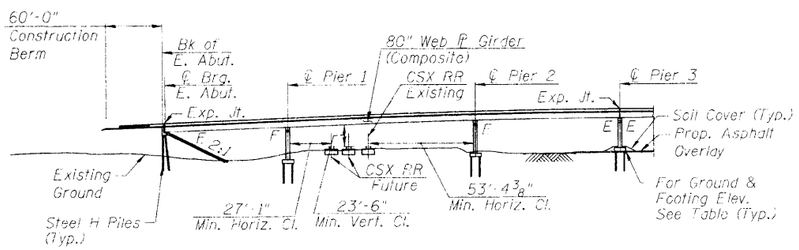


ELEVATION-STRUCTURE NO. 082-0325

** Removal of existing properties & soil remediation under separate contract.

LEGEND

- Existing Storm Sewer
- Existing Underground Electric
- Existing Underground Cable TV
- Existing Underground Combined Sewer
- Existing Underground Telephone
- Proposed Storm Sewer
- Soil Boring Location
- Proposed Light Pole



ELEVATION-STRUCTURE NO. 082-0323

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS — AMISH T. BHATT — 081-006249 — LICENSED STRUCTURAL ENGINEER

DATE: 4-26-2011
EXPIRES: 11-30-2012

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications, Fifth Edition

DESIGN STRESSES

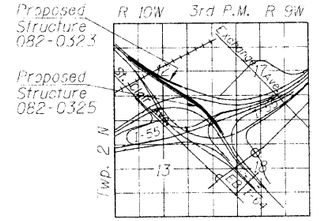
f'c = 3,500 psi
fy = 60,000 psi (reinf.)
fy = 50,000 psi (M270 Grade 50)

LOADING HL-93

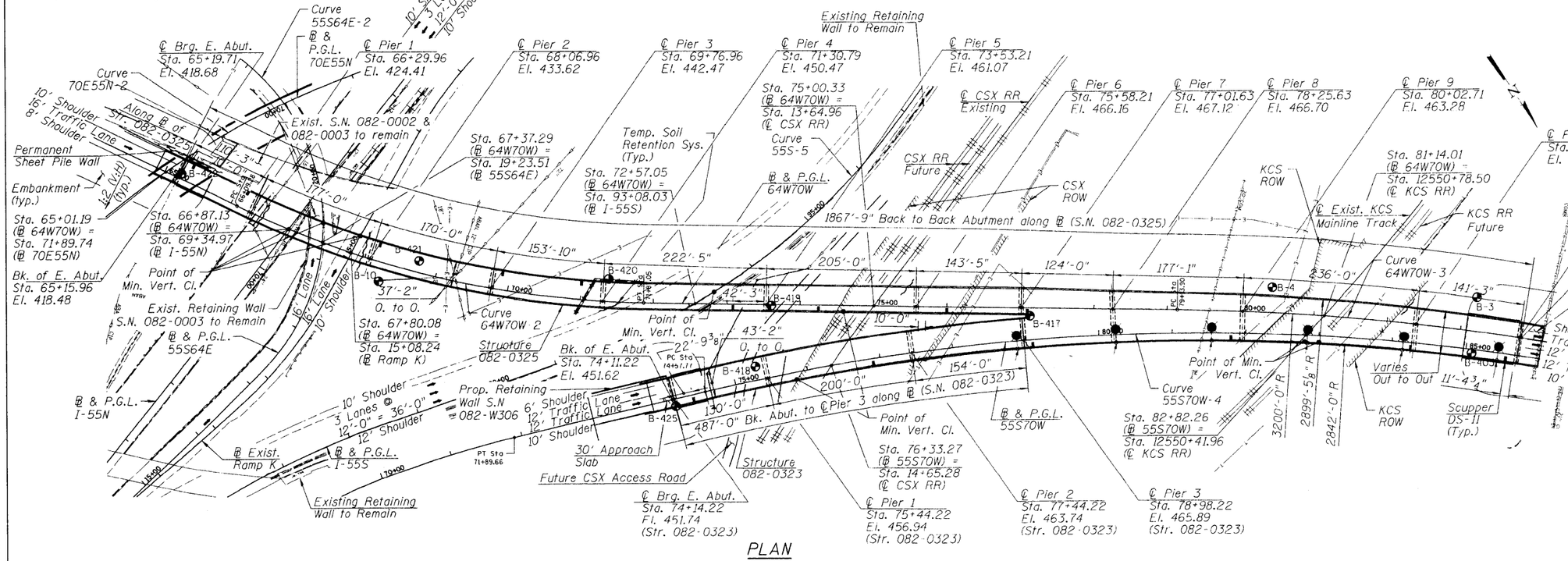
Allow 50#/sq. ft. for future wearing surface

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec.(S_{D1}) = 0.24g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.54g
Soil Site Class = D



LOCATION SKETCH


℄ Brg. E. Abut. Sta. 65+19.71 El. 418.68
℄ Pier 1 Sta. 66+29.96 El. 424.41
℄ Pier 2 Sta. 68+06.96 El. 433.62
℄ Pier 3 Sta. 69+76.96 El. 442.47
℄ Pier 4 Sta. 71+30.79 El. 450.47
℄ Pier 5 Sta. 73+53.21 El. 461.07
℄ Pier 6 Sta. 75+58.21 El. 466.16
℄ Pier 7 Sta. 77+01.63 El. 467.12
℄ Pier 8 Sta. 78+25.63 El. 466.70
℄ Pier 9 Sta. 80+02.71 El. 463.28
℄ Pier 10 Sta. 82+38.71 El. 457.63
℄ Brg. W. Abut. Sta. 83+79.96 El. 454.27
Bk. of W. Abut. Sta. 83+83.71 El. 454.19
Curve 55S64E-2
℄ & P.G.L. 70E55N
Curve 70E55N-2
10' Shoulder 3 Lanes @ 12'-0" = 36'-0" 10' Shoulder
16' Traffic Lane 8' Shoulder
Along ℄ of Ind. 3
Permanent Sheet Pile Wall
Embankment (typ.)
1:2 (V:H) (typ.)
Sta. 65+01.19 (℄ 64W70W) = Sta. 71+89.74 (℄ 70E55N)
Bk. of E. Abut. Sta. 65+15.96 El. 418.48
Exist. S.N. 082-0002 & 082-0003 to remain
Sta. 66+87.13 (℄ 64W70W) = Sta. 69+34.97 (℄ I-55N)
Point of Min. Vert. Cl.
Exist. Retaining Wall S.N. 082-0003 to Remain
℄ & P.G.L. 55S64E
℄ & P.G.L. I-55N
℄ Exist. Ramp K
℄ & P.G.L. I-55S
Existing Retaining Wall to Remain
Sta. 67+37.29 (℄ 64W70W) = Sta. 19+23.51 (℄ 55S64E)
Temp. Soil Retention Sys. (Typ.)
Sta. 72+57.05 (℄ 64W70W) = Sta. 93+08.03 (℄ I-55S)
Sta. 75+00.33 (℄ 64W70W) = Sta. 13+64.96 (℄ CSX RR)
Curve 55S-5
℄ & P.G.L. 64W70W
CSX RR Future
CSX RR Existing
CSX ROW
KCS ROW
Sta. 81+14.01 (℄ 64W70W) = Sta. 12550+78.50 (℄ KCS RR)
℄ Exist. KCS Mainline Track
KCS RR Future
1867'-9" Back to Back Abutment along ℄ (S.N. 082-0325)
Curve 64W70W-3
Curve 64W70W-2
Structure 082-0325
Bk. of E. Abut. Sta. 74+11.22 El. 451.62
Prop. Retaining Wall S.N 082-W306
℄ & P.G.L. 55S70W
Sta. 82+82.26 (℄ 55S70W) = Sta. 12550+41.96 (℄ KCS RR)
Curve 55S70W-4
Point of Min. Vert. Cl.
Sta. 76+33.27 (℄ 55S70W) = Sta. 14+65.28 (℄ CSX RR)
Point of Min. Vert. Cl.
30' Approach Slab
30' Approach Slab (Typ.)
Future CSX Access Road
℄ Brg. E. Abut. Sta. 74+14.22 El. 451.74 (Str. 082-0323)
℄ Pier 1 Sta. 75+44.22 El. 456.94 (Str. 082-0323)
℄ Pier 2 Sta. 77+44.22 El. 463.74 (Str. 082-0323)
℄ Pier 3 Sta. 78+98.22 El. 465.89 (Str. 082-0323)
Structure 082-0323
487'-0" Bk. Abut. to ℄ Pier 3 along ℄ (S.N. 082-0323)
200'-0"
154'-0"
130'-0"
Varies Out to Out
Scupper DS-11 (Typ.)
Shoulder Varies 10' to 6'
Traffic Lane Varies
12' Traffic Lane
10' Shoulder
Existing Retaining Wall to Remain
Sta. 67+80.08 (℄ 64W70W) = Sta. 15+08.24 (℄ Ramp K)
Sta. 82+38.71 (℄ 64W70W) = Sta. 83+79.96 (℄ KCS RR)
Sta. 83+83.71 (℄ 64W70W) = Sta. 85+33.71 (℄ KCS RR)
Sta. 85+33.71 (℄ 64W70W) = Sta. 86+83.71 (℄ KCS RR)
Sta. 86+83.71 (℄ 64W70W) = Sta. 88+33.71 (℄ KCS RR)
Sta. 88+33.71 (℄ 64W70W) = Sta. 89+83.71 (℄ KCS RR)
Sta. 89+83.71 (℄ 64W70W) = Sta. 91+33.71 (℄ KCS RR)
Sta. 91+33.71 (℄ 64W70W) = Sta. 92+83.71 (℄ KCS RR)
Sta.

Sta. 69+00 | Elev. 383.25 — 0.0% — Sta. 69+50 | Elev. 383.25

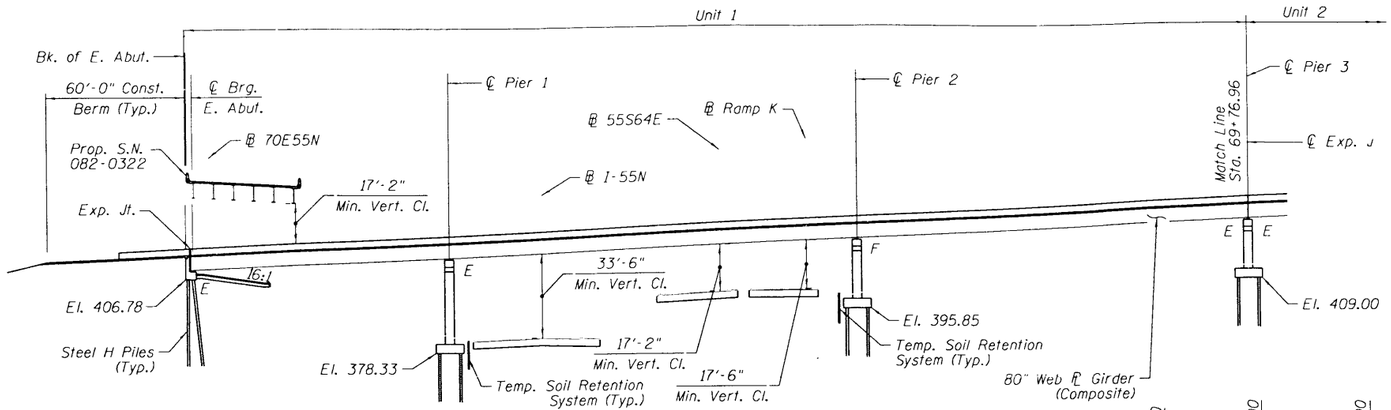
PROFILE GRADE - I-55N

Sta. 19+00 | Elev. 402.61 — +0.78% — Sta. 19+50 | Elev. 403.00

PROFILE GRADE - 55S64E

Sta. 15+00 | Elev. 404.21 — +1.94% — Sta. 15+50 | Elev. 405.18

PROFILE GRADE - RAMP K

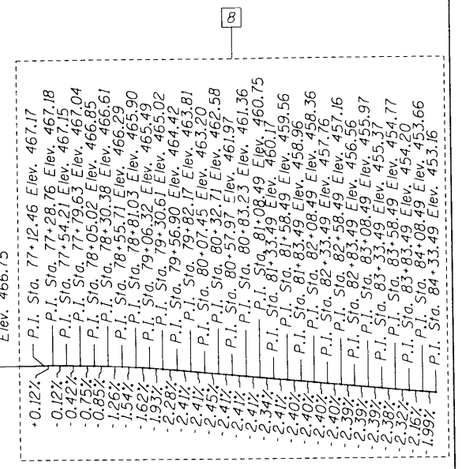


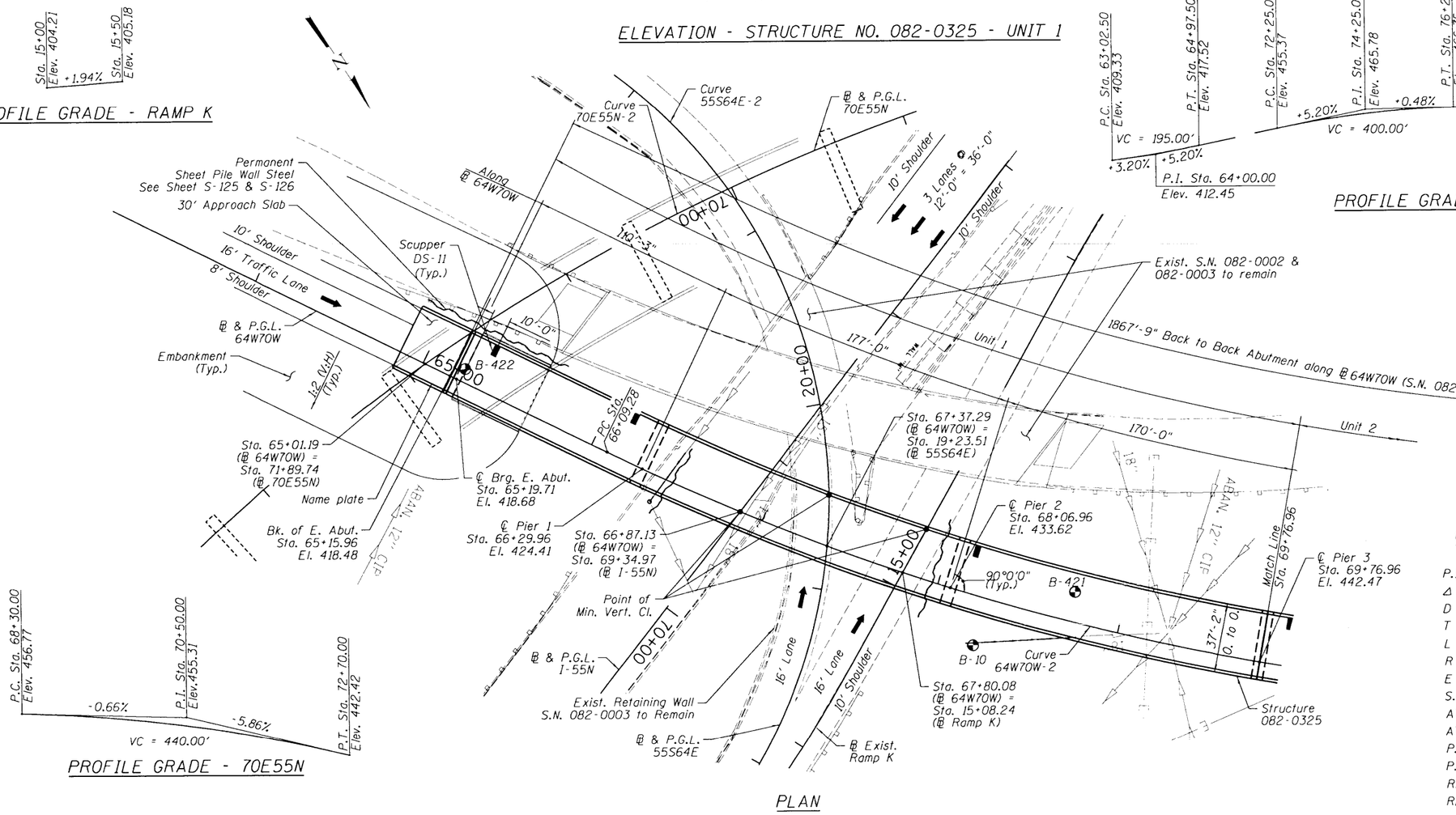
ELEVATION - STRUCTURE NO. 082-0325 - UNIT 1

P.C. Sta. 63+02.50 | Elev. 409.33 — VC = 195.00' — P.T. Sta. 64+97.50 | Elev. 417.52 — P.I. Sta. 64+00.00 | Elev. 412.45 (-3.20% / +5.20%)

P.C. Sta. 72+25.00 | Elev. 455.37 — VC = 400.00' — P.I. Sta. 74+25.00 | Elev. 465.78 — P.T. Sta. 76+25.00 | Elev. 466.75 (+5.20% / +0.48%)

PROFILE GRADE - 64W70W





PLAN

P.C. Sta. 68+30.00 | Elev. 456.77 — -0.66% — P.I. Sta. 70+50.00 | Elev. 455.31 — -5.86% — P.T. Sta. 72+70.00 | Elev. 442.42

VC = 440.00'

PROFILE GRADE - 70E55N

CURVE DATA

Curve 70E55N-2

P.I. STA. = 71+23.23
Δ = 87° 23' 13.57" (LT)
D = 5° 12' 31.35"
T = 1,050.95'
L = 1,677.71'
R = 1,100.00'
E = 421.34'
S.E. = 5.8%
ATTAINMENT T.R. = 0
ATTAINMENT S.E. RUN = 209'
P.C. STA. = 60+72.28
P.T. STA. = 77+49.99
REMOVAL S.E. RUN = 137'
REMOVAL T.R. = 0

CURVE DATA

Curve 55S64E-2

P.I. STA. = 22+26.88
Δ = 120° 51' 15.89" (LT)
D = 20° 06' 13.62"
T = 502.25'
L = 601.15'
R = 285.00'
E = 292.47'
S.E. = 6.0%
ATTAINMENT T.R. = EX.
ATTAINMENT S.E. RUN = EX.
P.C. STA. = 17+24.63
P.T. STA. = 23+25.78
REMOVAL S.E. RUN = 90'
REMOVAL T.R. = 0

CURVE DATA

Curve 64W70W-2

P.I. STA. = 69+02.97
Δ = 25° 20' 50.92" (LT)
D = 4° 23' 13.63"
T = 293.69'
L = 577.77'
R = 1,306.00'
E = 32.62'
S.E. = 5.4%
ATTAINMENT T.R. = 48'
ATTAINMENT S.E. RUN = 221'
P.C. STA. = 66+09.28
P.T. STA. = 71+87.05
REMOVAL S.E. RUN = 221'
REMOVAL T.R = 48'

AECOM

USER NAME = bhatia
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PLOT DATE = $DATE$

DESIGNED - DD
DRAWN - DD
CHECKED - ATB
DATE - 3-30-11

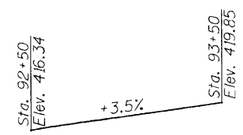
REVISED 8 4/3/2013 A.T.B.
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
~~DEPARTMENT OF TRANSPORTATION~~

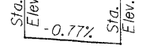
GENERAL PLAN AND ELEVATION - I
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE SHEET NO. S-2 OF S-138 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	117
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

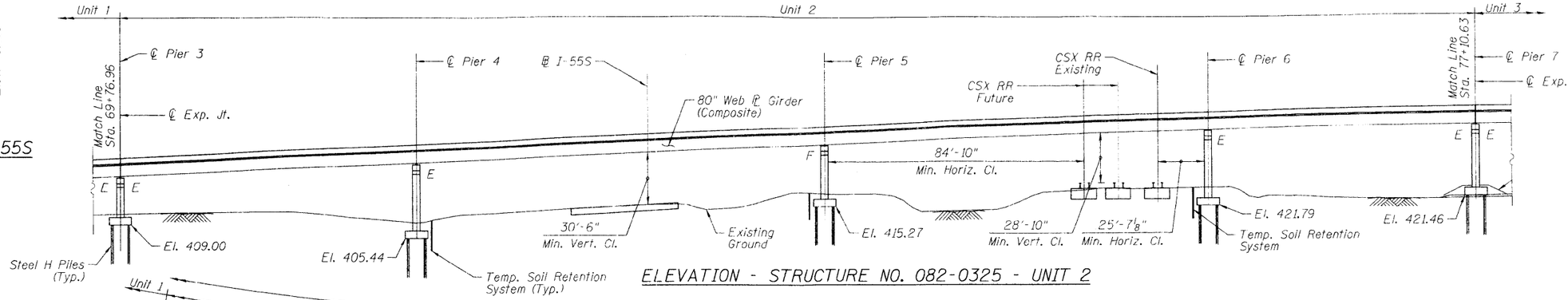
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PROFILE GRADE - I-55S



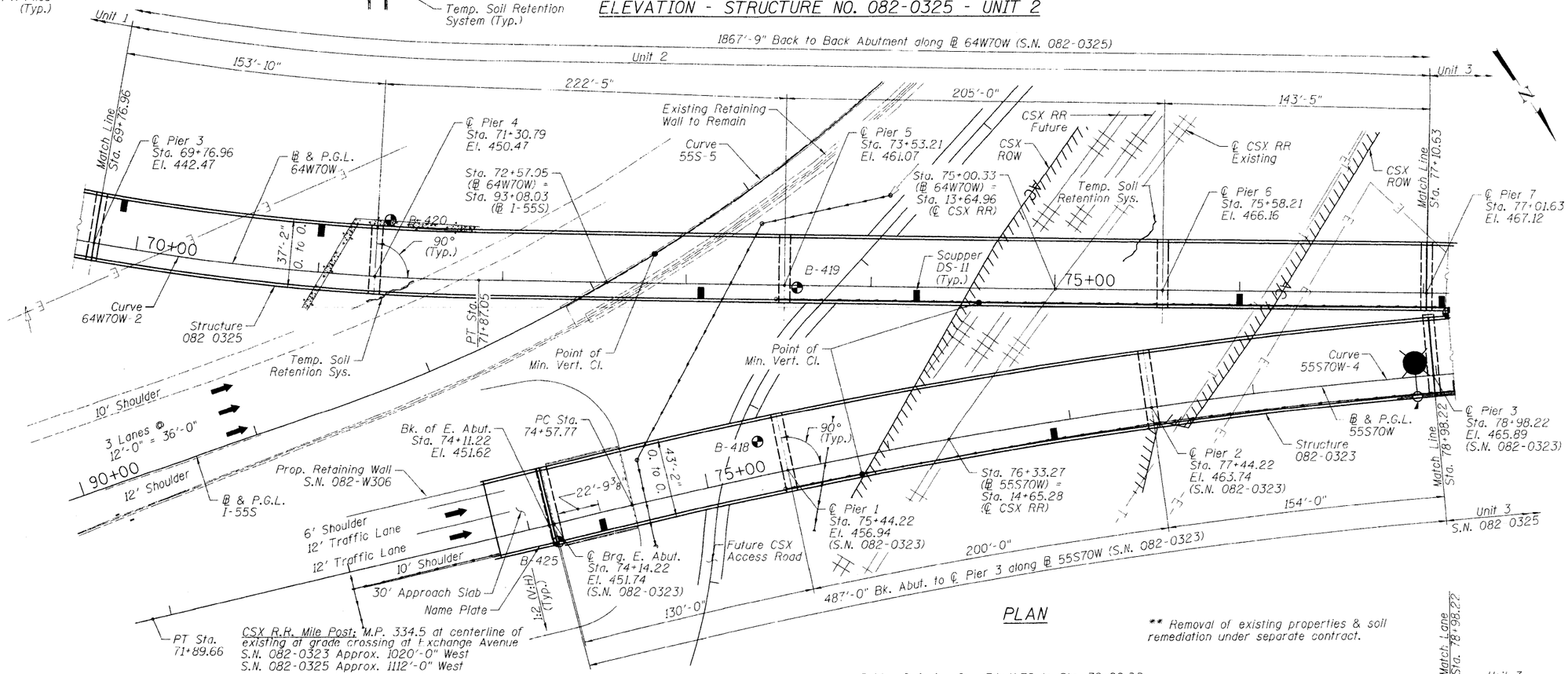
CSX R.R. - Top of Rail



ELEVATION - STRUCTURE NO. 082-0325 - UNIT 2

CURVE DATA

Curve 55S-5
P.I. STA. = 93+80.20
Δ = 30° 29' 46.07" (LT)
D = 6° 28' 13.22"
T = 241.39'
L = 471.32'
R = 885.51'
E = 32.31'
P.C. STA. = 91+38.81
P.T. STA. = 96+10.13

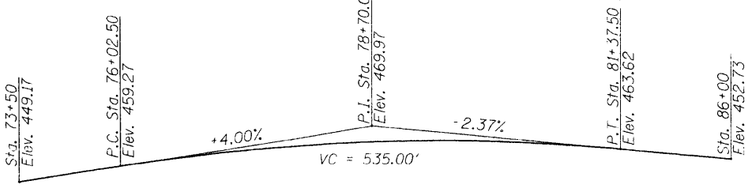


PLAN

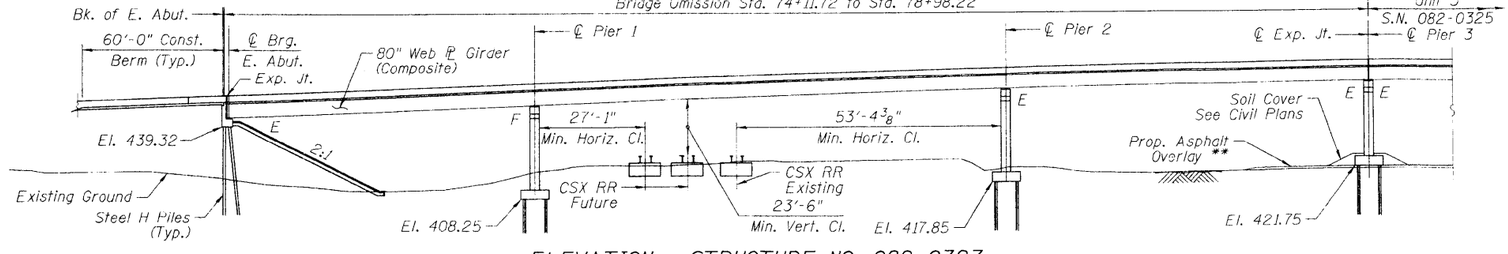
** Removal of existing properties & soil remediation under separate contract.

CURVE DATA

Curve 55S70W-4
P.I. STA. = 81+39.12
Δ = 26° 52' 21.21" (RT)
D = 2° 00' 32.29"
T = 681.35'
L = 1,337.63'
R = 2,852.00'
E = 80.26'
S.E. = 3.5%
ATTAINMENT T.R. = 0
ATTAINMENT S.E. RUN = 0
P.C. STA. = 74+57.77
P.T. STA. = 87+95.40
REMOVAL S.E. RUN = 169'
REMOVAL T.R. = 72'



PROFILE GRADE - 55S70W



ELEVATION - STRUCTURE NO. 082-0323

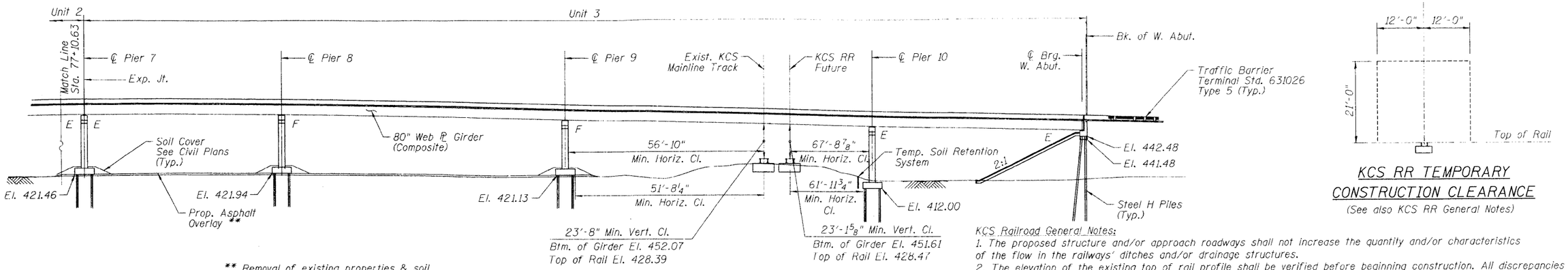
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		DRAWN - DD	REVISED
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	PLOT DATE = @DATE@	DATE - 3-30-11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION - II
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-3 OF S-138 SHEETS | STA. | TO STA.

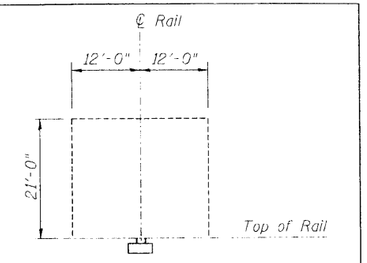
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
70	82-1 B-1	ST. CLAIR	3.9 118
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75	
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

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** Removal of existing properties & soil remediation under separate contract.

ELEVATION - STRUCTURE NO. 082-0325 - UNIT 3

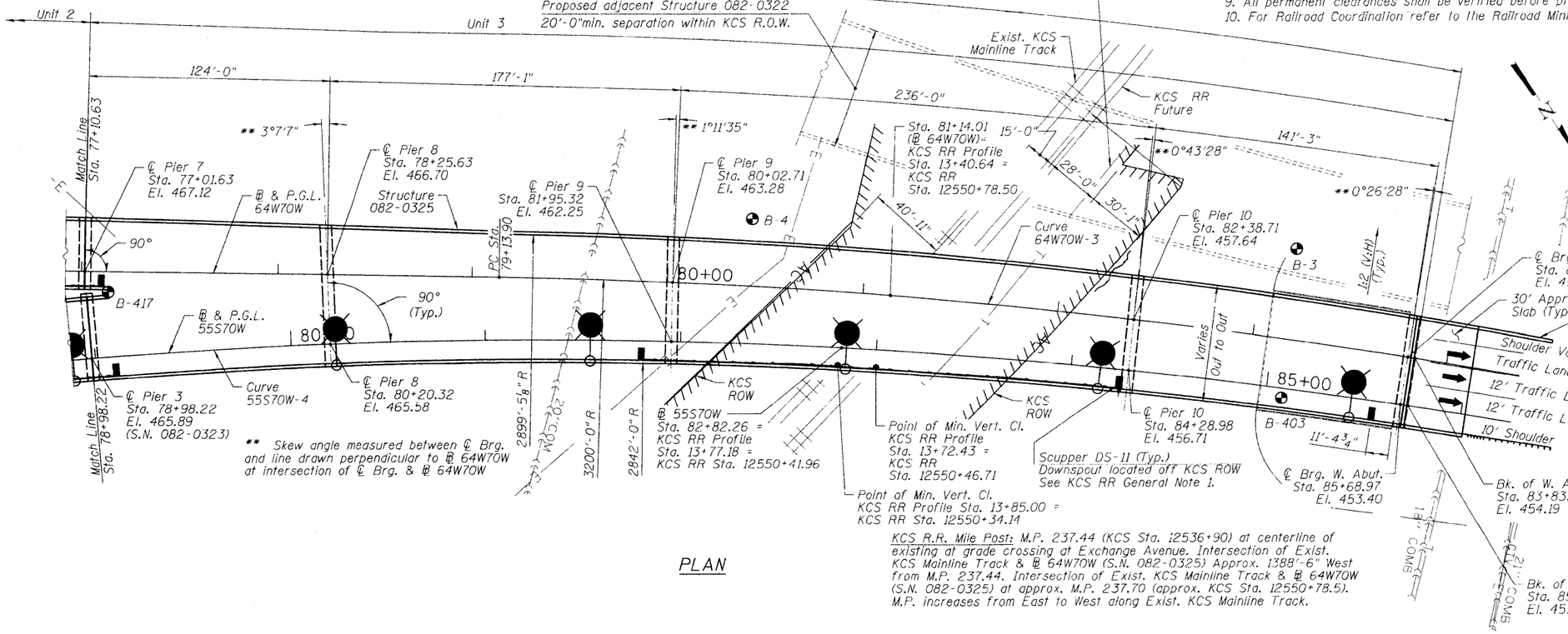


KCS RR TEMPORARY CONSTRUCTION CLEARANCE

(See also KCS RR General Notes)

KCS Railroad General Notes:

1. The proposed structure and/or approach roadways shall not increase the quantity and/or characteristics of the flow in the railways' ditches and/or drainage structures.
2. The elevation of the existing top of rail profile shall be verified before beginning construction. All discrepancies shall be brought to the attention of the Engineer and the Railroad prior to construction.
3. The Contractor shall submit a proposed method of erosion and sediment control, including maintenance thereof, and have the method reviewed and approved by the Engineer and the Railroad.
4. All shoring systems that impact the Railroad's operations and/or supports the Railroad's embankment shall be designed and constructed per current Railroad Guidelines, Section IV, "Design and Construction of Shoring Adjacent to and on Railroad Right-of-Way". Railroad review and approval of detailed Contractor prepared plans and design calculations are required before construction begins.
5. All demolitions within Railroad's right-of-way and/or demolition that may impact the Railroad's tracks or operations shall be in compliance with the Railroad's Demolition Guidelines. Railroad review and approval of detailed Contractor demolition plans is required before demolition begins.
6. Erection of overpass components over Railroad's right-of-way shall not interrupt the Railroad's operations, enabling the tracks to remain open to traffic per the Railroad's requirements.
7. Railroad requirements do not allow work within 50 foot of track centerline when a train or Railroad equipment passes the work site and all personnel must clear the area within 25 foot of the track centerline and secure all equipment.
8. False work clearances must comply with the Railroad's minimum temporary construction clearances.
9. All permanent clearances shall be verified before project close out.
10. For Railroad Coordination refer to the Railroad Minimum Requirements in the Special Provisions.



PLAN

Note: See Sheet S-9 for Exist. KCS RR Top of Rail Profile

CURVE DATA

Curve 64W70W-3

P.I. STA. = 82+62.48
Δ = 12° 26' 00.10" (RT)
D = 1° 47' 25.78"
T = 348.57'
L = 694.41'
R = 3,200.00'
E = 18.93'
S.E. = 3.5%
ATTAINMENT T.R. = 0
ATTAINMENT S.E. RUN = 64'
P.C. STA. = 79+13.90
P.T. STA. = 86+08.31
REMOVAL S.E. RUN = 84'
REMOVAL T.R. = 36'

USER NAME = $USER$	DESIGNED - DD	REVISED -	
	DRAWN - DD	REVISED -	
PLOT SCALE = 80.1 '/ in.	CHECKED - ATB	REVISED -	
PLOT DATE = $DATE$	DATE - 04-26-2011	REVISED -	

AECOM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION - III
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-4 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
70	82-1-B-1	ST. CLAIR	319 119
	S.N. 082-0323 & S.N. 082-0325	CONTRACT NO. 76C75	
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

P:\PROJECTS\60196928\CAD\401_Design\76C02_Master_Consolidated\Structural\082_0323\Sheet\S004_082_0323-M325_76C75_GPE_3.dgn

GENERAL NOTES

1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 7/8" Ø, holes 15/16" Ø, unless otherwise noted.

2. Calculated weight of Structural Steel = 6,537,229 pounds (Grade 50) (S.N. 082-0323 calculated weight of Structural Steel = 1,091,085 pounds (Grade 50) & S.N. 082-0325 calculated weight of Structural Steel = 5,446,144 pounds (Grade 50)

3. All structural steel shall be AASHTO M 270 Grade 50.

4. No field welding is permitted except as specified in the contract documents.

5. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

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

7. 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.

8. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

9. Concrete Sealer shall be applied to the designated areas of the abutments and piers.

10. 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 Special Provision for "Cleaning and Painting New Metal Structures".

11. The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

12. Slipforming of the parapets is not allowed.

13. Structural steel erection shall be accomplished by a steel erection contractor or subcontractor certified as an Advanced Certified Steel Erector (ACSE) by the American Institute of Steel Construction (AISC). See special provision for "Erection of Complex Steel Structures.

14. The Contractor shall not pour the concrete deck if wind gusts on the day of the pour are forecasted to be greater than 20 mph. If the contractor wishes to pour the concrete deck on a day where wind gusts exceed those specified above, then global stability calculations of the superstructure shall be submitted to the Engineer for review and approval. The calculations shall be prepared by and sealed by an Illinois Licensed Structural Engineer.

STATION 77+44.22
BUILT BY
STATE OF ILLINOIS
F.A.I. RT. 70 SEC. 82-1 HB
LOADING HL-93
STRUCTURE NO. 082-0323

NAME PLATE S.N. 082-0323
See Std. 515001

STATION 75+56.21
BUILT BY
STATE OF ILLINOIS
F.A.I. RT. 70 SEC. 82-1 HB
LOADING HL-93
STRUCTURE NO. 082-0325

NAME PLATE S.N. 082-0325
See Std. 515001

INDEX OF SHEETS

S-1 General Plan
S-2 General Plan and Elevation - I
S-3 General Plan and Elevation - II
S-4 General Plan and Elevation - III
S-5 General Notes & Index of Sheets
S-6 Total Bill of Material & Abutment Sections
S-7 Substructure Layout - I
S-8 Substructure Layout - II
S-9 Substructure Layout - III
S-10 Temporary Soil Retention System Details
S-11 Top of Slab Elevation Plan - S.N. 082-0323
S-12 Top of Slab Elevations - I S.N. 082-0323
S-13 Top of Slab Elevations - II S.N. 082-0323
S-14 Top of Slab Elevations - III S.N. 082-0323
S-15 Top of Slab Elevation Plan S.N. 082-0325 - Unit 1 & 2
S-16 Top of Slab Elevations I - S.N. 082-0325 Unit 1 & 2
S-17 Top of Slab Elevations II - S.N. 082-0325 Unit 1 & 2
S-18 Top of Slab Elevations III - S.N. 082-0325 Unit 1 & 2
S-19 Top of Slab Elevations IV - S.N. 082-0325 Unit 1 & 2
S-20 Top of Slab Elevations V - S.N. 082-0325 Unit 1 & 2
S-21 Top of Slab Elevation Plan - S.N. 082-0325 Unit 3
S-22 Top of Slab Elevations I - S.N. 082-0325 Unit 3
S-23 Top of Slab Elevations II - S.N. 082-0325 Unit 3
S-24 Top of Slab Elevations III - S.N. 082-0325 Unit 3
S-25 Top of Slab Elevations IV - S.N. 082-0325 Unit 3
S-26 Top of Slab Elevations V - S.N. 082-0325 Unit 3
S-27 Top of Slab Elevations VI - S.N. 082-0325 Unit 3
S-28 Top of East Approach Slab Elevation - S.N. 082-0323
S-29 Top of East Approach Slab Elevation - S.N. 082-0325
S-30 Top of West Approach Slab Elevation - S.N. 082-0325
S-31 Deck Plan I - S.N. 082-0325 Unit 1
S-32 Deck Plan II - S.N. 082-0325 Unit 1
S-33 Deck Plan I - S.N. 082-0325 Unit 2
S-34 Deck Plan II - S.N. 082-0325 Unit 2
S-35 Deck Plan I - S.N. 082-0325 Unit 3
S-36 Deck Plan II - S.N. 082-0325 Unit 3
S-37 Deck Plan III - S.N. 082-0325 Unit 3
S-38 Deck Plan I - S.N. 082-0323
S-39 Deck Plan II - S.N. 082-0323
S-40 Parapet Elevations - S.N. 082-0325 Unit 1
S-41 Parapet Elevations - S.N. 082-0325 Unit 2
S-42 Parapet Elevations - S.N. 082-0325 Unit 3
S-43 Parapet Elevations - S.N. 082-0323
S-44 Deck Cross Sections I - S.N. 082-0325
S-45 Deck Cross Sections II - S.N. 082-0325
S-46 Deck Cross Sections - S.N. 082-0323
S-47 Deck Details
S-48 Deck Pouring Sequence
S-49 East Approach Slab Plan S.N. 082-0325
S-50 East Approach Slab Details - S.N. 082-0325
S-51 West Approach Slab Plan - S.N. 082-0325
S-52 West Approach Slab Details - S.N. 082-0325
S-53 East Approach Slab Plan - S.N. 082-0323
S-54 East Approach Slab Details - S.N. 082-0323
S-55 Modular Expansion Joint - East Abutment S.N. 082-0325
S-56 Modular Expansion Joint - Pier 3 S.N. 082-0325
S-57 Modular Expansion Joint - Pier 7 S.N. 082-0325
S-58 Modular Expansion Joint - West Abutment S.N. 082-0325
S-59 Modular Expansion Joint - Pier 3 S.N. 082-0323
S-60 Modular Expansion Joint Details I
S-61 Modular Expansion Joint Details II
S-62 Expansion Joint - East Abutment S.N. 082-0323
S-63 Drainage Scupper, DS-II
S-64 Girder Framing Plan - S.N. 082-0323
S-65 Girder Framing Plan - S.N. 082-0325 Unit 1
S-66 Girder Framing Plan - S.N. 082-0325 Unit 2
S-67 Girder Framing Plan I - S.N. 082-0325 Unit - 3
S-68 Girder Framing Plan II - S.N. 082-0325 Unit - 3
S-69 Girder Elevation - S.N. 082-0323
S-70 Girder Elevation - S.N. 082-0325 Unit - 1
S-71 Girder Elevation - S.N. 082-0325 Unit - 2
S-72 Girder Elevation I - S.N. 082-0325 Unit - 3
S-73 Girder Elevation II - S.N. 082-0325 Unit - 3
S-74 Girder Elevation III - S.N. 082-0325 Unit - 3
S-75 Girder Camber & Top of Web Elevations I
S-76 Girder Camber & Top of Web Elevations II
S-77 Girder Camber & Top of Web Elevations III
S-78 Girder Moment & Reaction Tables I
S-79 Girder Moment & Reaction Tables II
S-80 Girder Moment & Reaction Tables III
S-81 Girder Bolted Field Splice Details
S-82 Girder Cross Frame Details
3 S-82A Girder Cross-Frame Details I
S-83 Bearing Layout & Orientation - S.N. 082-0323
S-84 Bearing Layout & Orientation - S.N. 082-0325 Unit 1
S-85 Bearing Layout & Orientation - S.N. 082-0325 Unit 2
S-86 Bearing Layout & Orientation - S.N. 082-0325 Unit 3
S-87 Elastomeric Bearing Details I
S-88 Elastomeric Bearing Details II
S-89 Expansion Pot Bearing Details I
S-90 Expansion Pot Bearing Details II
S-91 Fixed Pot Bearing Details I
S-92 Fixed Pot Bearing Details II
S-93 East Abutment Plans - SN 082-0323
S-94 East Abutment Elevations - SN 082-0323
S-95 East Abutment Details - SN 082-0323
S-96 East Abutment Plans - SN 082-0325
S-97 East Abutment Elevations - SN 082-0325
S-98 East Abutment Details - SN 082-0325
S-99 West Abutment Plans - SN 082-0325
S-100 West Abutment Elevations - SN 082-0325
S-101 West Abutment Details - SN 082-0325
S-102 Pier 1 - SN 082-0323
S-103 Pier 2 - SN 082-0323
S-104 Pier 3 - SN 082-0323
S-105 Pier 3 Details - SN 082-0323
S-106 Pier 1 - SN 082-0325
S-107 Pier 2 - SN 082-0325
S-108 Pier 3 - SN 082-0325
S-109 Pier 3 Details - SN 082-0325
S-110 Pier 4 - SN 082-0325
S-111 Pier 4 Details - SN 082-0325
S-112 Pier 5 - SN 082-0325
S-113 Pier 6 - SN 082-0325
S-114 Pier 7 - SN 082-0325
S-115 Pier 7 Details - SN 082-0325
S-116 Pier 8 - SN 082-0325
S-117 Pier 8 Details - SN 082-0325
S-118 Pier 9 - SN 082-0325
S-119 Pier 9 Details - SN 082-0325
S-120 Pier 10 - SN 082-0325
S-121 Pier 10 Details - SN 082-0325
S-122 Pile Details
S-123 Bar Splicer Assembly Details
S-124 Drainage System Details
S-125 Permanent Steel Sheet Pile Wall - General Plan
S-126 Permanent Steel Sheet Pile Wall Details
S-127 Boring Logs - I SN 082-0323
S-128 Boring Logs - II SN 082-0323
S-129 Boring Logs - III - SN 082-0323
S-130 Boring Logs - IV - SN 082-0323
S-131 Boring Logs - I - SN 082-0325
S-132 Boring Logs - II - SN 082-0325
S-133 Boring Logs - III - SN 082-0325
S-134 Boring Logs - IV - SN 082-0325
S-135 Boring Logs - V - SN 082-0325
S-136 Boring Logs - VI - SN 082-0325
S-137 Boring Logs - VII - SN 082-0325
S-138 Boring Logs - VIII - SN 082-0325

AECOM

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PLOT DATE = 3/30/11

DESIGNED - ATB | REVISED - 3 03-06-2012 A.T.B.
DRAWN - MK | REVISED
CHECKED | REVISED
DATE 3-30-11 | REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES & INDEX OF SHEETS
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. 5 OF 5 138 SHEETS | STA. - | TO STA. -

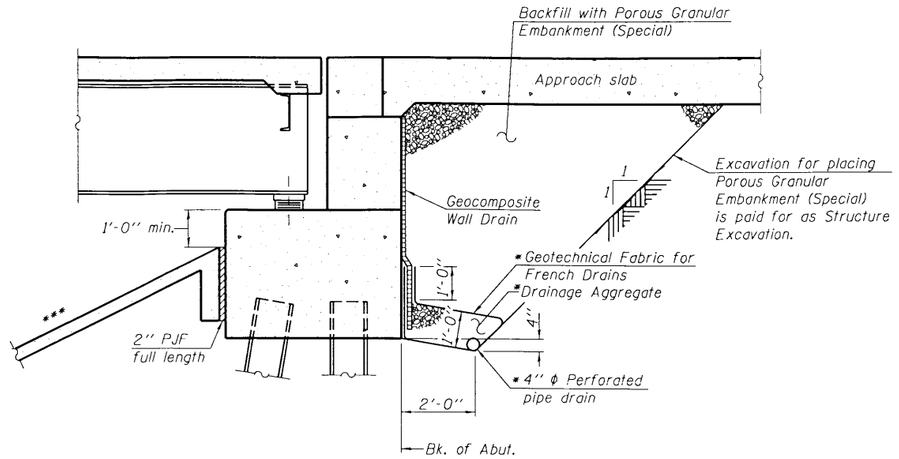
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70	82-1-B-1	ST. CLAIR	319	120
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

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TOTAL BILL OF MATERIAL

DESCRIPTION	UNIT	S.N. 082-0323		S.N. 082-0325		TOTAL
		SUPER	SUB	SUPER	SUB	
POROUS GRANULAR EMBANKMENT, SPECIAL	CU. YD.		137.6		281.7	419.3
STRUCTURE EXCAVATION	CU. YD.		653.9		1,996.5	2,650.3
CONCRETE STRUCTURES	CU. YD.	11.0	742.4	28.9	2,474.6	3,256.8
CONCRETE SUPERSTRUCTURE	CU. YD.	761.9		3,149.2		3,911.1
BRIDGE DECK GROOVING	SQ. YD.	2,179		9,384		11,563
CONCRETE ENCASEMENT	CU. YD.		8.2		15.3	23.5
PROTECTIVE COAT	SQ. YD.	2,729		11,560		14,289
FURNISHING AND ERECTING STRUCTURAL STEEL	L. SUM	0.2		0.8		1
STUD SHEAR CONNECTORS	EACH	7869		48,171		56,040
REINFORCEMENT BARS, EPOXY COATED	POUND	208,130	183,290	846,950	517,060	1,755,430
BAR SPLICERS	EACH		44		97	141
SLOPE WALL 4 INCH	SQ. YD.		378		512	890
FURNISHING STEEL PILES HP14x89	FOOT		13,894		51,243	65,137
DRIVING PILES	FOOT		13,894		51,243	65,137
TEST PILE STEEL HP14x89	EACH		3		9	12
PILE SHOES	EACH		125		476	601
NAME PLATES	EACH	1		1		2
PREFORMED JOINT STRIP SEAL	FOOT	42				42
ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	6				6
ELASTOMERIC BEARING ASSEMBLY, TYPE III	EACH	12		25		37
ANCHOR BOLTS, 1"	EACH	60		150		210
ANCHOR BOLTS, 1 1/4"	EACH	24		266		290
CONCRETE SEALER	SQ. FT.		5,376		11,597	16,973
GEOCOMPOSITE WALL DRAIN	SQ. YD.		51		108	159
PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT		48		105	153
CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., PVC	FOOT	840	13	5,095	20	5,968
MECHANICAL SPLICERS	EACH		338		968	1,306
TEMPORARY SOIL RETENTION SYSTEM	SQ. FT.				942	942
HIGH LOAD MULTI-ROTATIONAL BEARINGS, FIXED - 500K	EACH			17		17
HIGH LOAD MULTI-ROTATIONAL BEARINGS, FIXED - 550K	EACH	6				6
HIGH LOAD MULTI-ROTATIONAL BEARINGS, FIXED - 600K	EACH			6		6
HIGH LOAD MULTI-ROTATIONAL BEARINGS, FIXED - 650K	EACH			10		10
HIGH LOAD MULTI-ROTATIONAL BEARINGS, GUIDED EXPANSION, 200K	EACH			6		6
HIGH LOAD MULTI-ROTATIONAL BEARINGS, GUIDED EXPANSION, 250K	EACH			6		6
HIGH LOAD MULTI-ROTATIONAL BEARINGS, GUIDED EXPANSION, 400K	EACH			6		6
HIGH LOAD MULTI-ROTATIONAL BEARINGS, GUIDED EXPANSION, 500K	EACH			6		6
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HIGH LOAD MULTI-ROTATIONAL BEARINGS, GUIDED EXPANSION, 650K	EACH			9		9
PERMANENT STEEL SHEET PILING	SQ. FT.				2,430	2,430
DRAINAGE SCUPPERS, DS-11	EACH	2		13		15
DRAINAGE SYSTEM	L. SUM	0.25		0.75		1
MODULAR EXPANSION JOINT-SWIVEL 6"	FOOT			89		89
MODULAR EXPANSION JOINT-SWIVEL 9"	FOOT	40		68		108

4

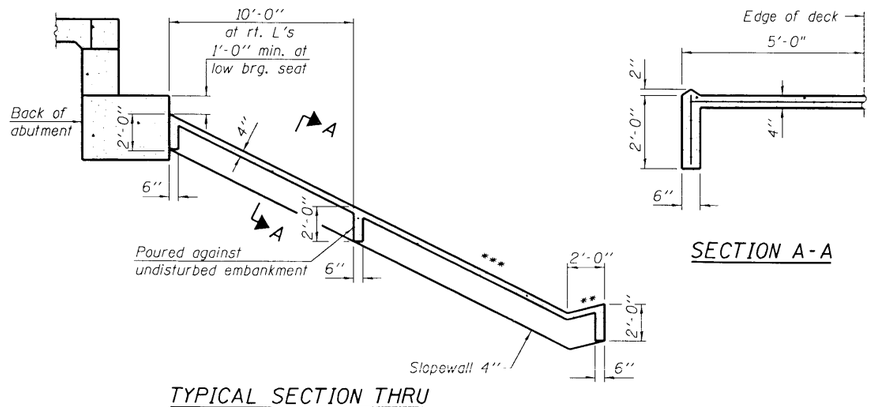


SECTION THRU PILE SUPPORTED STUB ABUTMENT

(Horiz. dim. ℄ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures.

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



SECTION A-A

TYPICAL SECTION THRU CONCRETE SLOPEWALL

Note:

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

**1:4 (V:H)

***1:2 (V:H) at Rt. L's (082-0323 E. Abut. & 082-0325 W. Abut.)
1:16 (V:H) at Rt. L's (082-0325 E. Abut.)

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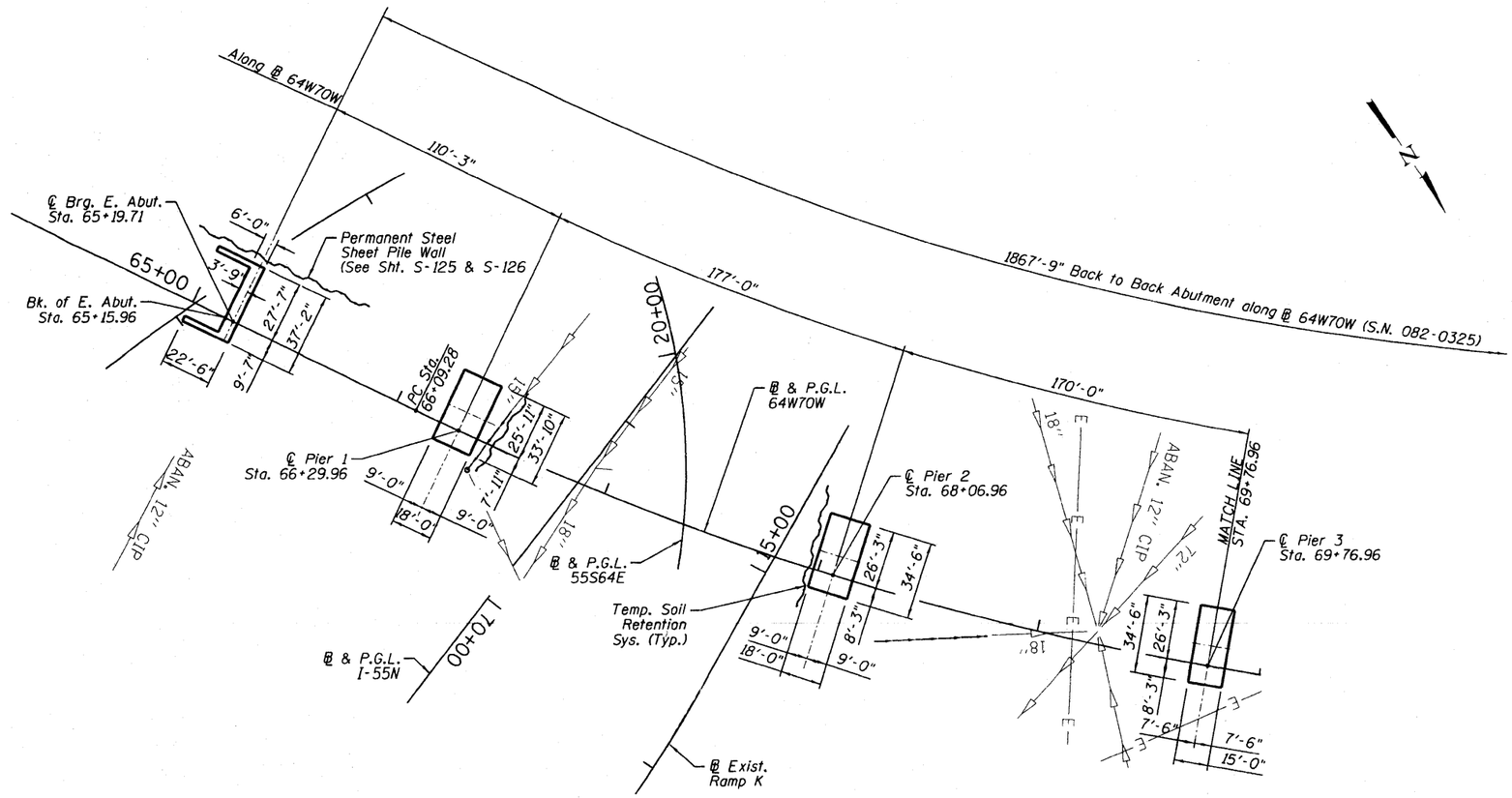
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

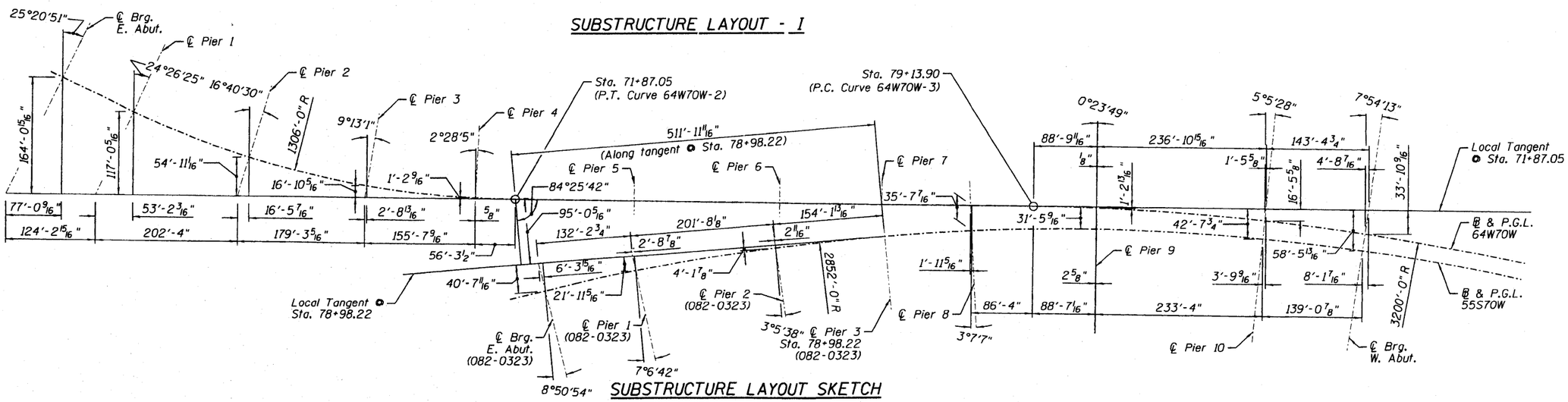
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I-70W OVER I-55, CSX & KCS RAILROADS

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70	82-1-B-1	ST. CLAIR	319	121
	S.N. 082-0323 & S.N. 082-0325	CONTRACT NO. 76C75		
	FED. ROAD DIST. NO. ILLINOIS	FED. AID PROJECT		



SUBSTRUCTURE LAYOUT - I



SUBSTRUCTURE LAYOUT SKETCH

Note:
Work this sheet with sheet S-8 & S-9.

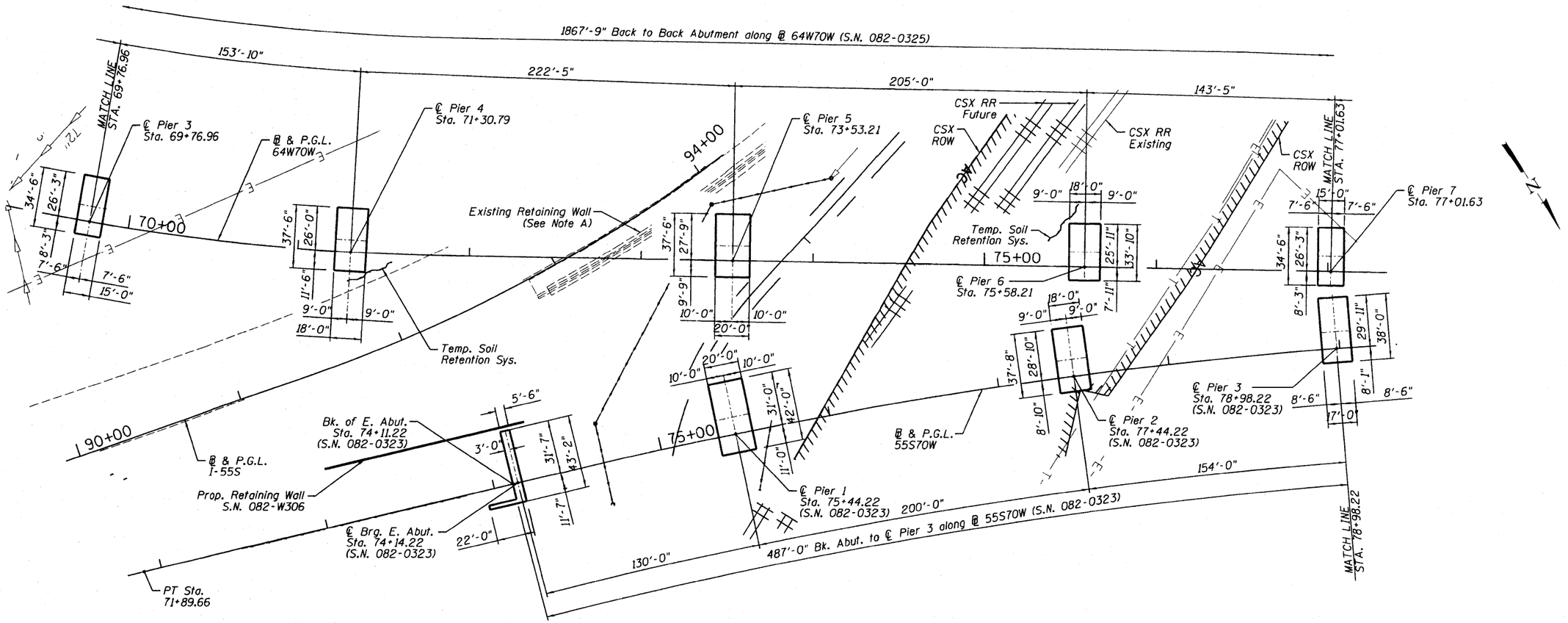
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE LAYOUT – I
I–70W OVER I–55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-7 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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SUBSTRUCTURE LAYOUT - II

Note A:

Contractor shall take all precautions to protect Existing Retaining Wall and foundation during the construction of Pier 5. The Contractor shall not expose Existing Retaining Wall footing during construction.

Note:

Work this sheet with sheet S-7 & S-9.

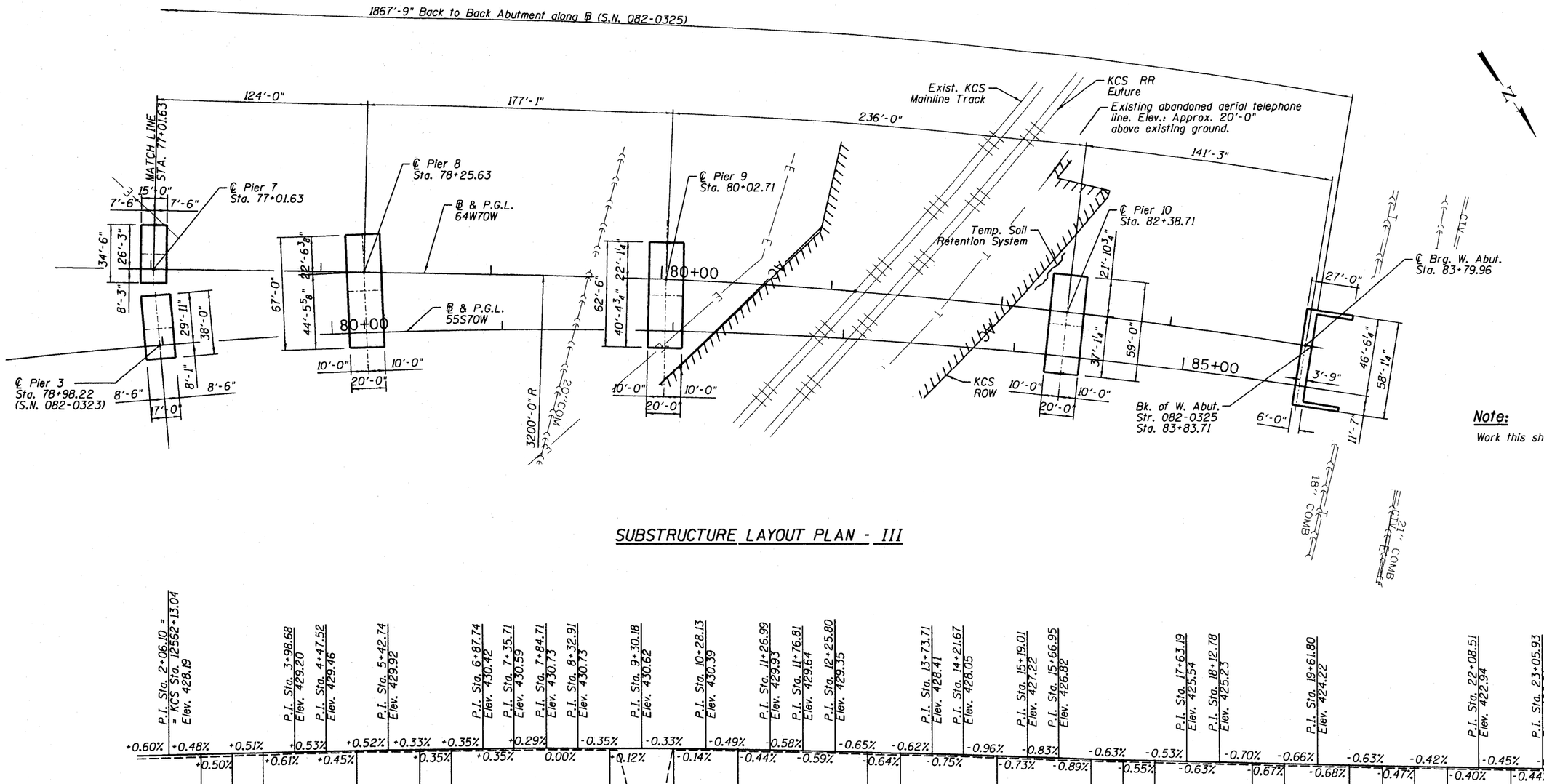
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

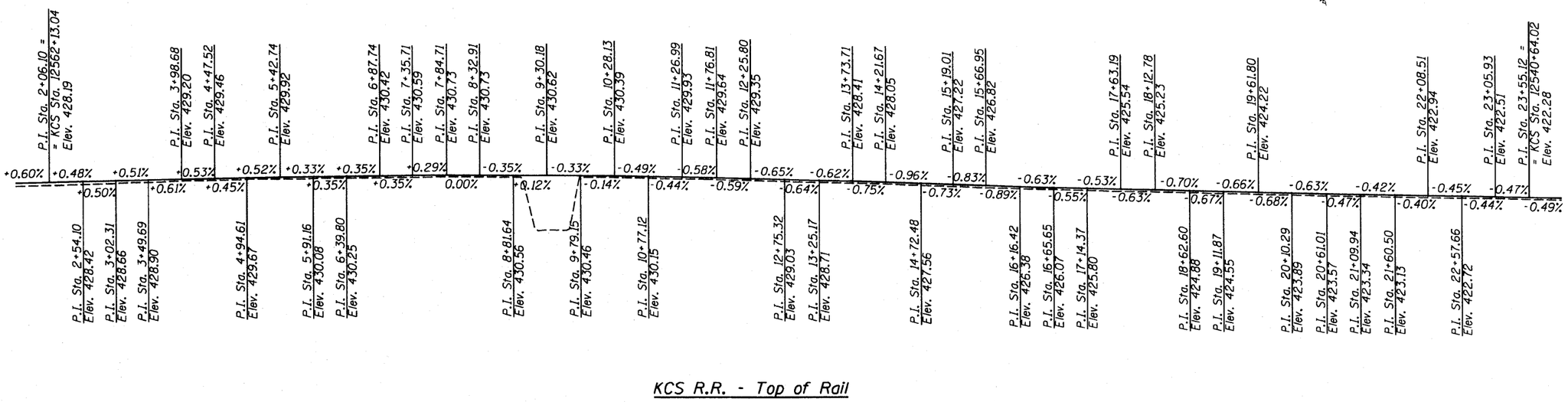
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I-70W OVER I-55, CSX & KCS RAILROADS
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



Note:
Work this sheet with sheet S-7 & S-9.

SUBSTRUCTURE LAYOUT PLAN - III



KCS R.R. - Top of Rail

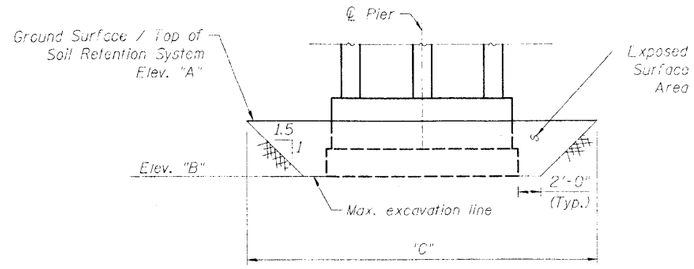
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

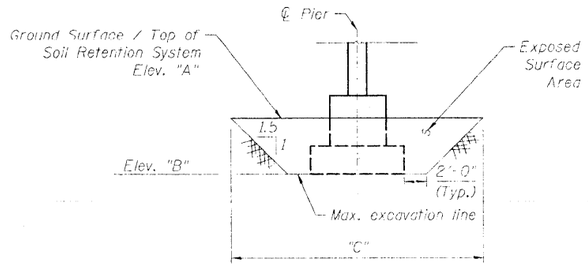
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I–70W OVER I–55, CSX & KCS RAILROADS
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FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

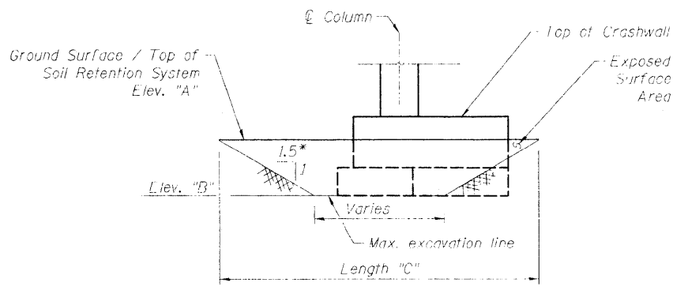
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ELEVATION - TEMP.
SOIL RETENTION SYSTEM AT
PIERS 1 & 2 - SN 082-0325



ELEVATION - TEMP.
SOIL RETENTION SYSTEM AT
PIER 4 - SN 082-0325



PARTIAL ELEVATION - TEMP.
SOIL RETENTION SYSTEM AT
PIERS 6 & 10 - SN 082-0325

Pier 6 Shown, Pier 10 is similar

*℄ Rt. angles to proposed face of foundation

Structure	Elev. "A"	Elev. "B"	Length "C" (ft.)
Pier 1	382.87±	378.33	58'-0"±
Pier 2	402.24±	395.85	62'-2"±
Pier 4	411.50±	405.44	39'-11"±
Pier 6	426.75±	421.79	23'-0"±
Pier 10	417.08±	412.00	26'-0"±

BILL OF MATERIALS

Item	Unit	Total
Temporary Soil Retention System	Sq. Ft.	942

NOTES

A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

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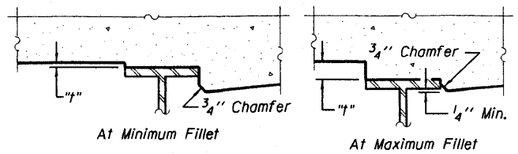
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DATE - 3-30-11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY SOIL RETENTION SYSTEM DETAILS
I-70W OVER I-55, CSX & KCS RAILROADS

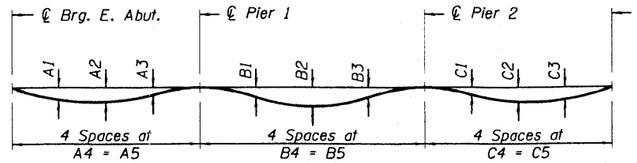
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	3.9	125
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

FILLET HEIGHTS

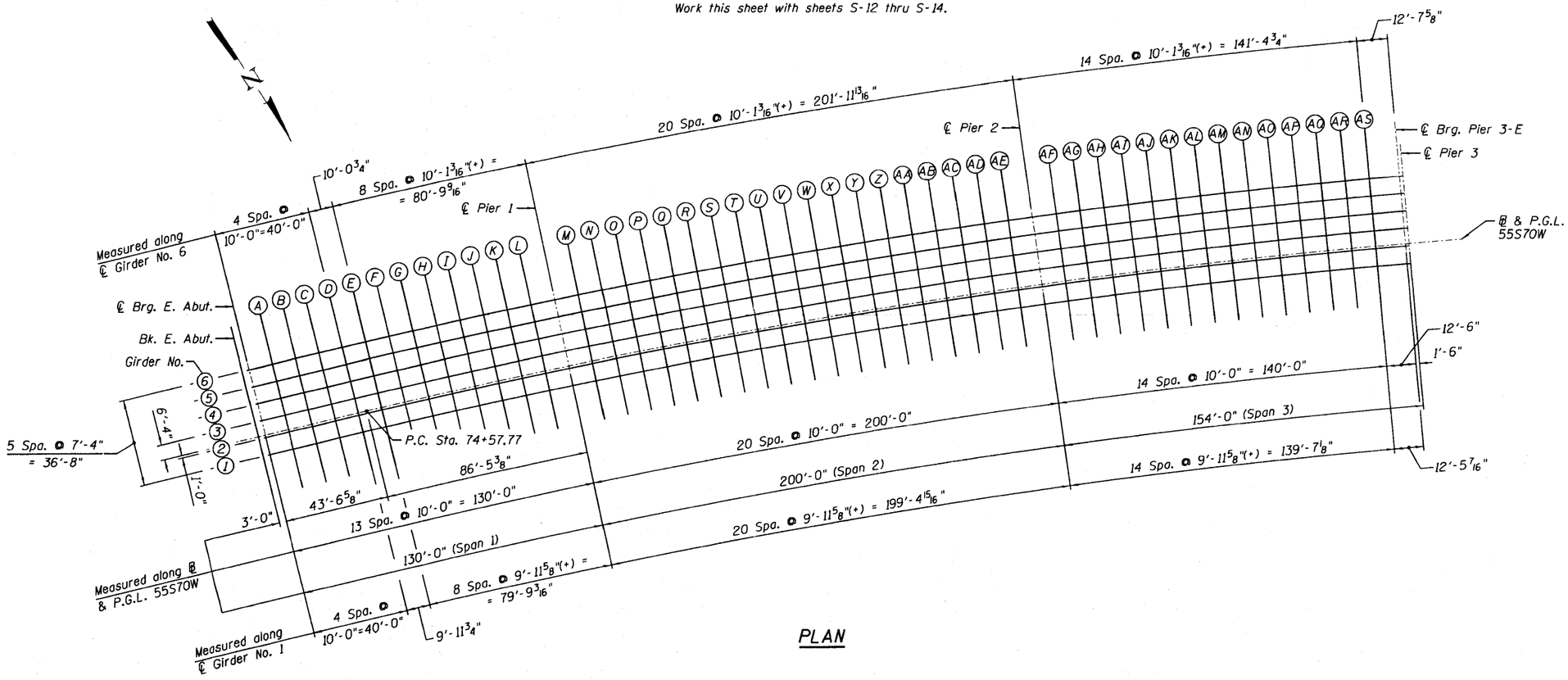


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Notes:
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 below.

Work this sheet with sheets S-12 thru S-14.



PLAN

Girder No.	DEAD LOAD DEFLECTIONS														
	Span 1					Span 2					Span 3				
	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5
1	1/2"	1/2"	1/8"	32'-5 1/4"	129'-9"	1 3/8"	2 3/8"	1 1/4"	49'-10 1/4"	199'-5"	3/8"	1 1/8"	1 1/8"	38'-0 1/8"	152'-0 5/8"
2	1/2"	3/8"	1/16"	32'-5 7/8"	129'-11 5/8"	1 1/2"	2 3/8"	1 1/4"	49'-11 3/4"	199'-11 1/8"	3/8"	1 1/8"	1 1/8"	38'-1 3/8"	152'-5 3/8"
3	1/2"	3/8"	0"	32'-6 5/8"	130'-2 1/4"	1 1/2"	2 1/2"	1 1/4"	50'-1 3/8"	200'-5 3/8"	3/8"	1 1/8"	1 1/8"	38'-2 1/2"	152'-10 1/8"
4	1/2"	3/8"	0"	32'-7 1/4"	130'-5"	1 1/2"	2 1/2"	1 3/8"	50'-2 7/8"	200'-11 1/2"	3/8"	1 1/8"	1 1/8"	38'-3 3/4"	153'-2 7/8"
5	1/2"	3/8"	0"	32'-7 7/8"	130'-7 5/8"	1 5/8"	2 5/8"	1 3/8"	50'-4 3/8"	201'-5 5/8"	3/8"	1 1/4"	1 1/8"	38'-4 7/8"	153'-7 5/8"
6	1/2"	3/8"	0"	32'-8 5/8"	130'-10 1/4"	1 5/8"	2 3/4"	1 1/2"	50'-6"	201'-11 7/8"	3/8"	1 1/4"	1 1/4"	38'-6 1/8"	154'-0 5/8"

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	DRAWN - DD	REVISED -
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PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATION PLAN S.N. 082-0323
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-11 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	126
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	74+11.22	8.33	451.32	451.32
℄ Brg. E. Abut.	74+14.22	8.33	451.44	451.44
A	74+24.22	8.33	451.84	451.86
B	74+34.22	8.33	452.24	452.27
C	74+44.22	8.33	452.64	452.68
D	74+54.22	8.33	453.04	453.09
E	74+64.22	8.33	453.44	453.49
F	74+74.22	8.33	453.84	453.89
G	74+84.22	8.33	454.24	454.28
H	74+94.22	8.33	454.64	454.67
I	75+04.22	8.33	455.04	455.06
J	75+14.22	8.33	455.44	455.45
K	75+24.22	8.33	455.84	455.84
L	75+34.22	8.33	456.24	456.24
℄ Pier 1	75+44.22	8.33	456.64	456.64
M	75+54.22	8.33	457.04	457.06
N	75+64.22	8.33	457.44	457.48
O	75+74.22	8.33	457.84	457.91
P	75+84.22	8.33	458.24	458.33
Q	75+94.22	8.33	458.64	458.76
R	76+04.22	8.33	459.04	459.19
S	76+14.22	8.33	459.44	459.60
T	76+24.22	8.33	459.82	460.00
U	76+34.22	8.33	460.18	460.38
V	76+44.22	8.33	460.54	460.74
W	76+54.22	8.33	460.88	461.07
X	76+64.22	8.33	461.22	461.40
Y	76+74.22	8.33	461.54	461.69
Z	76+84.22	8.33	461.85	461.98
AA	76+94.22	8.33	462.14	462.25
AB	77+04.22	8.33	462.43	462.51
AC	77+14.22	8.33	462.70	462.75
AD	77+24.22	8.33	462.96	462.99
AE	77+34.22	8.33	463.21	463.22
℄ Pier 2	77+44.22	8.33	463.45	463.45
AF	77+54.22	8.33	463.67	463.67
AG	77+64.22	8.33	463.89	463.89
AH	77+74.22	8.33	464.09	464.11
AI	77+84.22	8.33	464.28	464.31
AJ	77+94.22	8.33	464.46	464.51
AK	78+04.22	8.33	464.62	464.69
AL	78+14.22	8.33	464.77	464.86
AM	78+24.22	8.33	464.92	465.02
AN	78+34.22	8.33	465.05	465.15
AO	78+44.22	8.33	465.16	465.27
AP	78+54.22	8.33	465.27	465.37
AQ	78+64.22	8.33	465.37	465.45
AR	78+74.22	8.33	465.45	465.51
AS	78+84.22	8.33	465.52	465.55
℄ Brg. Pier 3-E	78+96.72	8.33	465.59	465.59
℄ Pier 3	78+98.22	8.33	465.60	465.60

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	74+11.22	1.00	451.58	451.58
℄ Brg. E. Abut.	74+14.22	1.00	451.70	451.70
A	74+24.22	1.00	452.10	452.12
B	74+34.22	1.00	452.50	452.53
C	74+44.22	1.00	452.90	452.94
D	74+54.22	1.00	453.30	453.34
E	74+64.22	1.00	453.70	453.74
F	74+74.22	1.00	454.10	454.14
G	74+84.22	1.00	454.50	454.53
H	74+94.22	1.00	454.90	454.92
I	75+04.22	1.00	455.30	455.31
J	75+14.22	1.00	455.70	455.70
K	75+24.22	1.00	456.10	456.10
L	75+34.22	1.00	456.50	456.50
℄ Pier 1	75+44.22	1.00	456.90	456.90
M	75+54.22	1.00	457.30	457.32
N	75+64.22	1.00	457.70	457.74
O	75+74.22	1.00	458.10	458.17
P	75+84.22	1.00	458.50	458.59
Q	75+94.22	1.00	458.90	459.02
R	76+04.22	1.00	459.30	459.45
S	76+14.22	1.00	459.69	459.86
T	76+24.22	1.00	460.07	460.26
U	76+34.22	1.00	460.44	460.64
V	76+44.22	1.00	460.80	461.00
W	76+54.22	1.00	461.14	461.33
X	76+64.22	1.00	461.47	461.65
Y	76+74.22	1.00	461.79	461.95
Z	76+84.22	1.00	462.10	462.24
AA	76+94.22	1.00	462.40	462.51
AB	77+04.22	1.00	462.68	462.76
AC	77+14.22	1.00	462.96	463.01
AD	77+24.22	1.00	463.22	463.25
AE	77+34.22	1.00	463.47	463.48
℄ Pier 2	77+44.22	1.00	463.70	463.70
AF	77+54.22	1.00	463.93	463.93
AG	77+64.22	1.00	464.14	464.15
AH	77+74.22	1.00	464.34	464.36
AI	77+84.22	1.00	464.53	464.57
AJ	77+94.22	1.00	464.71	464.76
AK	78+04.22	1.00	464.88	464.95
AL	78+14.22	1.00	465.03	465.12
AM	78+24.22	1.00	465.17	465.27
AN	78+34.22	1.00	465.30	465.41
AO	78+44.22	1.00	465.42	465.52
AP	78+54.22	1.00	465.53	465.62
AQ	78+64.22	1.00	465.62	465.70
AR	78+74.22	1.00	465.70	465.76
AS	78+84.22	1.00	465.77	465.81
℄ Brg. Pier 3-E	78+96.72	1.00	465.85	465.85
℄ Pier 3	78+98.22	1.00	465.85	465.85

℄ & P.G.L. 55S70W

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	74+11.22	0.00	451.62	451.62
℄ Brg. E. Abut.	74+14.22	0	451.74	451.74
A	74+24.22	0	452.14	452.15
B	74+34.22	0	452.54	452.56
C	74+44.22	0	452.94	452.97
D	74+54.22	0	453.34	453.38
E	74+64.22	0	453.74	453.78
F	74+74.22	0	454.14	454.17
G	74+84.22	0	454.54	454.57
H	74+94.22	0	454.94	454.96
I	75+04.22	0	455.34	455.35
J	75+14.22	0	455.74	455.74
K	75+24.22	0	456.14	456.13
L	75+34.22	0	456.54	456.53
℄ Pier 1	75+44.22	0	456.94	456.94
M	75+54.22	0	457.34	457.35
N	75+64.22	0	457.74	457.77
O	75+74.22	0	458.14	458.20
P	75+84.22	0	458.54	458.63
Q	75+94.22	0	458.94	459.06
R	76+04.22	0	459.34	459.48
S	76+14.22	0	459.73	459.90
T	76+24.22	0	460.11	460.30
U	76+34.22	0	460.48	460.67
V	76+44.22	0	460.83	461.03
W	76+54.22	0	461.18	461.37
X	76+64.22	0	461.51	461.69
Y	76+74.22	0	461.83	461.99
Z	76+84.22	0	462.14	462.27
AA	76+94.22	0	462.43	462.54
AB	77+04.22	0	462.72	462.80
AC	77+14.22	0	462.99	463.05
AD	77+24.22	0	463.25	463.28
AE	77+34.22	0	463.50	463.52
℄ Pier 2	77+44.22	0	463.74	463.74
AF	77+54.22	0	463.96	463.97
AG	77+64.22	0	464.18	464.18
AH	77+74.22	0	464.38	464.40
AI	77+84.22	0	464.57	464.60
AJ	77+94.22	0	464.75	464.80
AK	78+04.22	0	464.91	464.98
AL	78+14.22	0	465.07	465.15
AM	78+24.22	0	465.21	465.31
AN	78+34.22	0	465.34	465.44
AO	78+44.22	0	465.46	465.56
AP	78+54.22	0	465.56	465.66
AQ	78+64.22	0	465.66	465.74
AR	78+74.22	0	465.74	465.80
AS	78+84.22	0	465.81	465.85
℄ Brg. Pier 3-E	78+96.72	0	465.88	465.88
℄ Pier 3	78+98.22	0	465.89	465.89

NOTE:

Work this sheet with sheets S-11 thru S-14.

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PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS – I S.N. 082-0323
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-12 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	127
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	74+11.22	-6.33	451.84	451.84
℄ Brg. E. Abut.	74+14.22	-6.33	451.96	451.96
A	74+24.22	-6.33	452.36	452.37
B	74+34.22	-6.33	452.76	452.78
C	74+44.22	-6.33	453.16	453.19
D	74+54.22	-6.33	453.56	453.60
E	74+64.22	-6.33	453.96	454.00
F	74+74.22	-6.33	454.36	454.39
G	74+84.22	-6.33	454.76	454.79
H	74+94.22	-6.33	455.16	455.18
I	75+04.22	-6.33	455.56	455.57
J	75+14.22	-6.33	455.96	455.96
K	75+24.22	-6.33	456.36	456.35
L	75+34.22	-6.33	456.76	456.75
℄ Pier 1	75+44.22	-6.33	457.16	457.16
M	75+54.22	-6.33	457.56	457.58
N	75+64.22	-6.33	457.96	458.00
O	75+74.22	-6.33	458.36	458.42
P	75+84.22	-6.33	458.76	458.85
Q	75+94.22	-6.33	459.16	459.28
R	76+04.22	-6.33	459.56	459.71
S	76+14.22	-6.33	459.95	460.12
T	76+24.22	-6.33	460.33	460.52
U	76+34.22	-6.33	460.70	460.90
V	76+44.22	-6.33	461.05	461.26
W	76+54.22	-6.33	461.40	461.59
X	76+64.22	-6.33	461.73	461.91
Y	76+74.22	-6.33	462.05	462.21
Z	76+84.22	-6.33	462.36	462.50
AA	76+94.22	-6.33	462.66	462.76
AB	77+04.22	-6.33	462.94	463.02
AC	77+14.22	-6.33	463.21	463.27
AD	77+24.22	-6.33	463.48	463.50
AE	77+34.22	-6.33	463.72	463.74
℄ Pier 2	77+44.22	-6.33	463.96	463.96
AF	77+54.22	-6.33	464.19	464.19
AG	77+64.22	-6.33	464.40	464.41
AH	77+74.22	-6.33	464.60	464.62
AI	77+84.22	-6.33	464.79	464.83
AJ	77+94.22	-6.33	464.97	465.02
AK	78+04.22	-6.33	465.13	465.20
AL	78+14.22	-6.33	465.29	465.37
AM	78+24.22	-6.33	465.43	465.53
AN	78+34.22	-6.33	465.56	465.66
AO	78+44.22	-6.33	465.68	465.78
AP	78+54.22	-6.33	465.78	465.88
AQ	78+64.22	-6.33	465.88	465.96
AR	78+74.22	-6.33	465.96	466.02
AS	78+84.22	-6.33	466.03	466.07
℄ Brg. Pier 3-E	78+96.72	-6.33	466.10	466.10
℄ Pier 3	78+98.22	-6.33	466.11	466.11

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	74+11.22	-13.67	452.09	452.09
℄ Brg. E. Abut.	74+14.22	-13.67	452.21	452.21
A	74+24.22	-13.67	452.61	452.63
B	74+34.22	-13.67	453.01	453.04
C	74+44.22	-13.67	453.41	453.45
D	74+54.22	-13.67	453.81	453.85
E	74+64.22	-13.67	454.21	454.25
F	74+74.22	-13.67	454.61	454.65
G	74+84.22	-13.67	455.01	455.04
H	74+94.22	-13.67	455.41	455.43
I	75+04.22	-13.67	455.81	455.82
J	75+14.22	-13.67	456.21	456.21
K	75+24.22	-13.67	456.61	456.61
L	75+34.22	-13.67	457.01	457.01
℄ Pier 1	75+44.22	-13.67	457.41	457.41
M	75+54.22	-13.67	457.81	457.83
N	75+64.22	-13.67	458.21	458.25
O	75+74.22	-13.67	458.61	458.68
P	75+84.22	-13.67	459.01	459.11
Q	75+94.22	-13.67	459.41	459.54
R	76+04.22	-13.67	459.81	459.97
S	76+14.22	-13.67	460.21	460.38
T	76+24.22	-13.67	460.59	460.79
U	76+34.22	-13.67	460.95	461.16
V	76+44.22	-13.67	461.31	461.52
W	76+54.22	-13.67	461.65	461.85
X	76+64.22	-13.67	461.99	462.18
Y	76+74.22	-13.67	462.31	462.47
Z	76+84.22	-13.67	462.62	462.76
AA	76+94.22	-13.67	462.91	463.02
AB	77+04.22	-13.67	463.20	463.28
AC	77+14.22	-13.67	463.47	463.53
AD	77+24.22	-13.67	463.73	463.76
AE	77+34.22	-13.67	463.98	464.00
℄ Pier 2	77+44.22	-13.67	464.22	464.22
AF	77+54.22	-13.67	464.44	464.44
AG	77+64.22	-13.67	464.66	464.66
AH	77+74.22	-13.67	464.86	464.88
AI	77+84.22	-13.67	465.05	465.08
AJ	77+94.22	-13.67	465.23	465.28
AK	78+04.22	-13.67	465.39	465.46
AL	78+14.22	-13.67	465.54	465.63
AM	78+24.22	-13.67	465.69	465.79
AN	78+34.22	-13.67	465.82	465.92
AO	78+44.22	-13.67	465.93	466.04
AP	78+54.22	-13.67	466.04	466.14
AQ	78+64.22	-13.67	466.14	466.22
AR	78+74.22	-13.67	466.22	466.28
AS	78+84.22	-13.67	466.29	466.32
℄ Brg. Pier 3-E	78+96.72	-13.67	466.36	466.36
℄ Pier 3	78+98.22	-13.67	466.37	466.37

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	74+11.22	-21	452.35	452.35
℄ Brg. E. Abut.	74+14.22	-21	452.47	452.47
A	74+24.22	-21	452.87	452.89
B	74+34.22	-21	453.27	453.30
C	74+44.22	-21	453.67	453.71
D	74+54.22	-21	454.07	454.11
E	74+64.22	-21	454.47	454.51
F	74+74.22	-21	454.87	454.91
G	74+84.22	-21	455.27	455.30
H	74+94.22	-21	455.67	455.69
I	75+04.22	-21	456.07	456.08
J	75+14.22	-21	456.47	456.47
K	75+24.22	-21	456.87	456.87
L	75+34.22	-21	457.27	457.27
℄ Pier 1	75+44.22	-21	457.67	457.67
M	75+54.22	-21	458.07	458.09
N	75+64.22	-21	458.47	458.51
O	75+74.22	-21	458.87	458.94
P	75+84.22	-21	459.27	459.37
Q	75+94.22	-21	459.67	459.80
R	76+04.22	-21	460.07	460.23
S	76+14.22	-21	460.46	460.65
T	76+24.22	-21	460.84	461.05
U	76+34.22	-21	461.21	461.42
V	76+44.22	-21	461.57	461.79
W	76+54.22	-21	461.91	462.12
X	76+64.22	-21	462.24	462.44
Y	76+74.22	-21	462.56	462.74
Z	76+84.22	-21	462.87	463.02
AA	76+94.22	-21	463.17	463.29
AB	77+04.22	-21	463.45	463.54
AC	77+14.22	-21	463.73	463.79
AD	77+24.22	-21	463.99	464.02
AE	77+34.22	-21	464.24	464.25
℄ Pier 2	77+44.22	-21	464.47	464.47
AF	77+54.22	-21	464.70	464.70
AG	77+64.22	-21	464.91	464.92
AH	77+74.22	-21	465.11	465.13
AI	77+84.22	-21	465.30	465.34
AJ	77+94.22	-21	465.48	465.54
AK	78+04.22	-21	465.65	465.72
AL	78+14.22	-21	465.80	465.89
AM	78+24.22	-21	465.94	466.05
AN	78+34.22	-21	466.07	466.18
AO	78+44.22	-21	466.19	466.30
AP	78+54.22	-21	466.30	466.40
AQ	78+64.22	-21	466.39	466.48
AR	78+74.22	-21	466.47	466.54
AS	78+84.22	-21	466.54	466.58
℄ Brg. Pier 3-E	78+96.72	-21	466.62	466.62
℄ Pier 3	78+98.22	-21	466.62	466.62

NOTE:

Work this sheet with sheets S-11 thru S-14.

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AECOM

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	DRAWN - DD	REVISED -	
PLOT SCALE = 0:2 '1' / in.	CHECKED - ATB	REVISED -	
PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS – II S.N. 082-0323
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-13 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	128
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

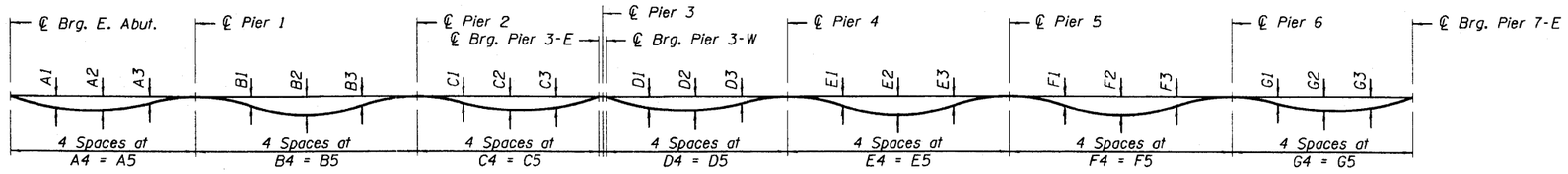
GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	74+11.22	-28.33	452.61	452.61
℄ Brg. E. Abut.	74+14.22	-28.33	452.73	452.73
A	74+24.22	-28.33	453.13	453.14
B	74+34.22	-28.33	453.53	453.56
C	74+44.22	-28.33	453.93	453.96
D	74+54.22	-28.33	454.33	454.37
E	74+64.22	-28.33	454.73	454.77
F	74+74.22	-28.33	455.13	455.17
G	74+84.22	-28.33	455.53	455.56
H	74+94.22	-28.33	455.93	455.95
I	75+04.22	-28.33	456.33	456.34
J	75+14.22	-28.33	456.73	456.73
K	75+24.22	-28.33	457.13	457.12
L	75+34.22	-28.33	457.53	457.52
℄ Pier 1	75+44.22	-28.33	457.93	457.93
M	75+54.22	-28.33	458.33	458.35
N	75+64.22	-28.33	458.73	458.77
O	75+74.22	-28.33	459.13	459.20
P	75+84.22	-28.33	459.53	459.63
Q	75+94.22	-28.33	459.93	460.07
R	76+04.22	-28.33	460.33	460.50
S	76+14.22	-28.33	460.72	460.91
T	76+24.22	-28.33	461.10	461.32
U	76+34.22	-28.33	461.47	461.69
V	76+44.22	-28.33	461.82	462.05
W	76+54.22	-28.33	462.17	462.39
X	76+64.22	-28.33	462.50	462.71
Y	76+74.22	-28.33	462.82	463.00
Z	76+84.22	-28.33	463.13	463.28
AA	76+94.22	-28.33	463.43	463.55
AB	77+04.22	-28.33	463.71	463.80
AC	77+14.22	-28.33	463.98	464.04
AD	77+24.22	-28.33	464.25	464.28
AE	77+34.22	-28.33	464.49	464.51
℄ Pier 2	77+44.22	-28.33	464.73	464.73
AF	77+54.22	-28.33	464.96	464.96
AG	77+64.22	-28.33	465.17	465.18
AH	77+74.22	-28.33	465.37	465.39
AI	77+84.22	-28.33	465.56	465.60
AJ	77+94.22	-28.33	465.74	465.80
AK	78+04.22	-28.33	465.90	465.98
AL	78+14.22	-28.33	466.06	466.15
AM	78+24.22	-28.33	466.20	466.31
AN	78+34.22	-28.33	466.33	466.45
AO	78+44.22	-28.33	466.45	466.56
AP	78+54.22	-28.33	466.55	466.66
AQ	78+64.22	-28.33	466.65	466.74
AR	78+74.22	-28.33	466.73	466.80
AS	78+84.22	-28.33	466.80	466.84
℄ Brg. Pier 3-E	78+96.72	-28.33	466.85	466.85
℄ Pier 3	78+98.22	-28.33	466.85	466.85

NOTE:

Work this sheet with sheets S-11 thru S-14.

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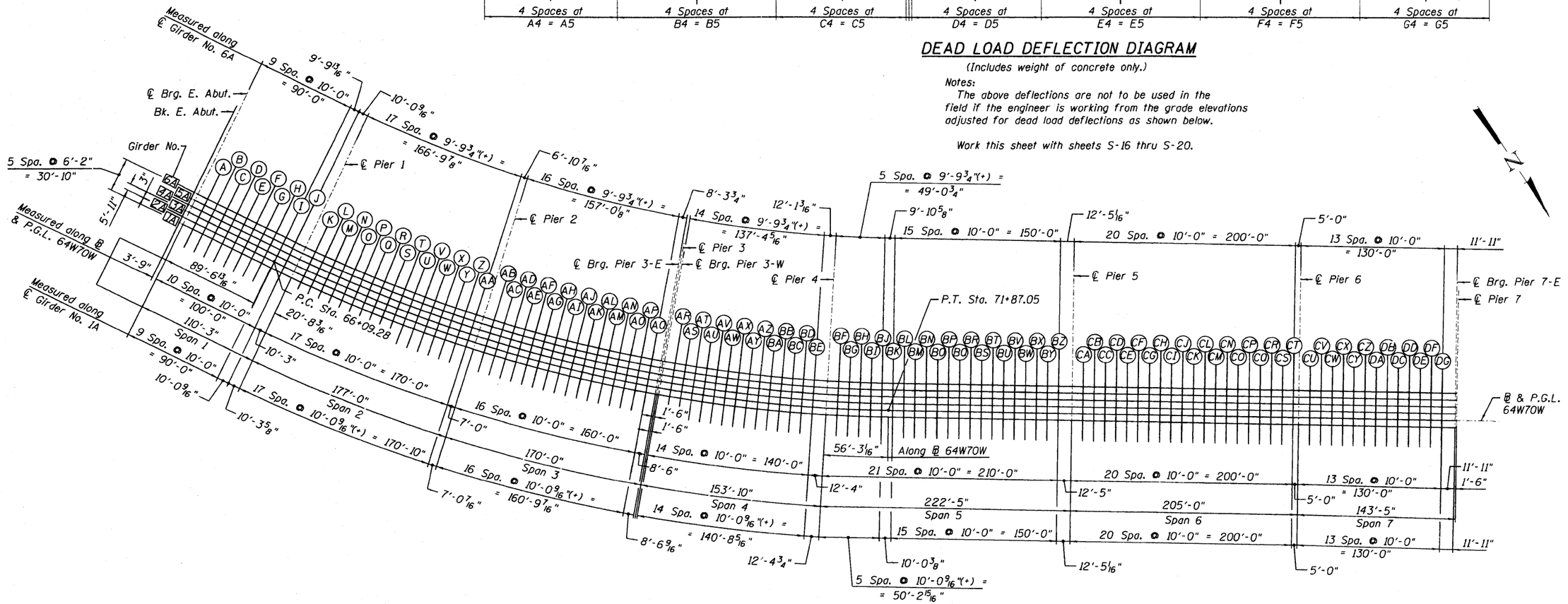


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Notes:
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 below.

Work this sheet with sheets S-16 thru S-20.



PLAN

Girder No.	DEAD LOAD DEFLECTIONS														
	Span 1					Span 2					Span 3				
	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5
1A	1/4"	1/4"	1/16"	27'-7"	110'-4 1/4"	5/8"	1"	1/4"	44'-5 5/8"	177'-10 3/8"	1 1/4"	2 1/2"	2 1/8"	42'-4"	169'-4"
2A	1/4"	1/4"	1/16"	27'-6 3/4"	110'-3"	5/8"	7/8"	1/4"	44'-3 1/8"	177'-0 3/8"	1 1/8"	2 3/8"	2"	42'-1 5/8"	168'-6 3/8"
3A	1/4"	1/4"	1/16"	27'-6 1/2"	110'-1 7/8"	5/8"	7/8"	1/4"	44'-0 5/8"	176'-2 3/8"	1"	2 1/8"	1 3/4"	41'-11 1/4"	167'-8 3/4"
4A	1/4"	1/4"	1/16"	27'-6 1/8"	110'-0 3/4"	5/8"	7/8"	1/4"	43'-10 1/8"	175'-4 3/8"	7/8"	2"	1 5/8"	41'-8 3/4"	166'-11 1/8"
5A	1/4"	1/4"	1/8"	27'-5 7/8"	109'-11 1/2"	5/8"	7/8"	3/8"	43'-7 5/8"	174'-6 3/8"	7/8"	1 3/4"	1 1/2"	41'-6 3/8"	166'-1 1/2"
6A	1/4"	1/4"	1/8"	27'-5 5/8"	109'-10 3/8"	5/8"	7/8"	3/8"	43'-5 1/8"	173'-8 1/4"	3/4"	1 5/8"	1 3/8"	41'-4"	165'-3 7/8"

Girder No.	DEAD LOAD DEFLECTIONS																		
	Span 4					Span 5					Span 6					Span 7			
	D1	D2	D3	D4	D5	E1	E2	E3	E4	E5	F1	F2	F3	F4	F5	G1	G2	G3	G4	G5
1A	1"	1"	1/4"	38'-3 1/4"	153'-1 1/8"	1 3/4"	3"	1 5/8"	55'-8 1/8"	222'-8 3/8"	3/4"	1 7/8"	1 1/8"	51'-3"	205'-0"	1/4"	7/8"	7/8"	35'-5 3/4"	141'-11"
2A	7/8"	7/8"	1/4"	38'-1 1/8"	152'-4 3/8"	1 3/4"	3"	1 5/8"	55'-7 1/4"	222'-5 1/8"	3/4"	1 3/4"	1 1/8"	51'-3"	205'-0"	1/4"	7/8"	3/4"	35'-5 3/4"	141'-11"
3A	7/8"	3/4"	1/8"	37'-10 7/8"	151'-7 5/8"	1 3/4"	3"	1 5/8"	55'-6 1/2"	222'-2"	3/4"	1 3/4"	1 1/8"	51'-3"	205'-0"	1/4"	3/4"	3/4"	35'-5 3/4"	141'-11"
4A	3/4"	3/4"	1/8"	37'-8 3/4"	150'-10 7/8"	1 3/4"	3 1/8"	1 5/8"	55'-5 3/4"	221'-10 3/4"	3/4"	1 3/4"	1 1/8"	51'-3"	205'-0"	1/4"	3/4"	3/4"	35'-5 3/4"	141'-11"
5A	3/4"	5/8"	1/8"	37'-6 1/2"	150'-2 1/4"	1 7/8"	3 1/8"	1 3/4"	55'-4 7/8"	221'-7 5/8"	3/4"	1 3/4"	1 1/8"	51'-3"	205'-0"	1/4"	7/8"	3/4"	35'-5 3/4"	141'-11"
6A	5/8"	5/8"	1/8"	37'-4 3/8"	149'-5 1/2"	1 7/8"	3 1/4"	1 3/4"	55'-4 1/8"	221'-4 3/8"	3/4"	1 3/4"	1 1/8"	51'-3"	205'-0"	1/4"	7/8"	7/8"	35'-5 3/4"	141'-11"

AECOM

USER NAME = BhattA	DESIGNED - DD	REVISED -	
	DRAWN - DD	REVISED -	
PLOT SCALE = 0.999996 ' / in.	CHECKED - ATB	REVISED -	
PLOT DATE = #DATE#	DATE - 03/18/2011	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATION PLAN S.N. 082-0325 – UNITS 1 & 2
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-15 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	130
	S.N. 082-0323 & S.N. 082-0325	CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

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GIRDER 1A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	65+15.96	6.42	418.54	418.54
℄ Brg. E. Abut.	65+19.71	6.42	418.74	418.74
A	65+29.71	6.42	419.28	419.29
B	65+39.71	6.42	419.82	419.84
C	65+49.71	6.42	420.36	420.38
D	65+59.71	6.42	420.90	420.92
E	65+69.71	6.42	421.44	421.46
F	65+79.71	6.42	421.98	422.00
G	65+89.71	6.42	422.52	422.53
H	65+99.71	6.42	423.06	423.07
I	66+09.71	6.42	423.60	423.60
J	66+19.71	6.42	424.14	424.14
℄ Pier 1	66+29.96	6.42	424.70	424.70
K	66+39.96	6.42	425.24	425.25
L	66+49.96	6.42	425.78	425.80
M	66+59.96	6.42	426.32	426.35
N	66+69.96	6.42	426.84	426.89
O	66+79.96	6.42	427.36	427.42
P	66+89.96	6.42	427.88	427.95
Q	66+99.96	6.42	428.40	428.48
R	67+09.96	6.42	428.92	429.00
S	67+19.96	6.42	429.44	429.52
T	67+29.96	6.42	429.96	430.03
U	67+39.96	6.42	430.48	430.54
V	67+49.96	6.42	431.00	431.04
W	67+59.96	6.42	431.52	431.55
X	67+69.96	6.42	432.04	432.06
Y	67+79.96	6.42	432.56	432.57
Z	67+89.96	6.42	433.08	433.08
AA	67+99.96	6.42	433.60	433.60
℄ Pier 2	68+06.96	6.42	433.97	433.97
AB	68+16.96	6.42	434.49	434.51
AC	68+26.96	6.42	435.01	435.05
AD	68+36.96	6.42	435.53	435.59
AE	68+46.96	6.42	436.05	436.14
AF	68+56.96	6.42	436.57	436.69
AG	68+66.96	6.42	437.09	437.24
AH	68+76.96	6.42	437.61	437.79
AI	68+86.96	6.42	438.13	438.33
AJ	68+96.96	6.42	438.65	438.86
AK	69+06.96	6.42	439.17	439.39
AL	69+16.96	6.42	439.69	439.90
AM	69+26.96	6.42	440.21	440.40
AN	69+36.96	6.42	440.73	440.89
AO	69+46.96	6.42	441.25	441.38
AP	69+56.96	6.42	441.77	441.86
AQ	69+66.96	6.42	442.29	442.33
℄ Brg. Pier 3-E	69+75.46	6.42	442.74	442.74
℄ Pier 3	69+76.96	6.42	442.81	442.81
℄ Brg. Pier 3-W	69+78.46	6.42	442.89	442.89
AR	69+88.46	6.42	443.41	443.44
AS	69+98.46	6.42	443.93	443.98
AT	70+08.46	6.42	444.45	444.52
AU	70+18.46	6.42	444.97	445.06
AV	70+28.46	6.42	445.49	445.58
AW	70+38.46	6.42	446.01	446.11
AX	70+48.46	6.42	446.53	446.62
AY	70+58.46	6.42	447.05	447.13
AZ	70+68.46	6.42	447.57	447.64
BA	70+78.46	6.42	448.10	448.14
BB	70+88.46	6.42	448.62	448.65

GIRDER 1A CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BC	70+98.46	6.42	449.14	449.15
BD	71+08.46	6.42	449.66	449.66
BE	71+18.46	6.42	450.18	450.18
℄ Pier 4	71+30.79	6.42	450.82	450.82
BF	71+40.79	6.42	451.33	451.34
BG	71+50.79	6.42	451.83	451.86
BH	71+60.79	6.42	452.33	452.39
BI	71+70.79	6.42	452.83	452.92
BJ	71+80.79	6.42	453.33	453.45
BK	71+90.79	6.42	453.83	453.98
BL	72+00.79	6.42	454.33	454.51
BM	72+10.79	6.42	454.83	455.04
BN	72+20.79	6.42	455.33	455.56
BO	72+30.79	6.42	455.83	456.06
BP	72+40.79	6.42	456.31	456.56
BQ	72+50.79	6.42	456.79	457.03
BR	72+60.79	6.42	457.25	457.48
BS	72+70.79	6.42	457.71	457.92
BT	72+80.79	6.42	458.15	458.33
BU	72+90.79	6.42	458.58	458.73
BV	73+00.79	6.42	458.99	459.12
BW	73+10.79	6.42	459.40	459.49
BX	73+20.79	6.42	459.79	459.86
BY	73+30.79	6.42	460.17	460.21
BZ	73+40.79	6.42	460.54	460.56
℄ Pier 5	73+53.21	6.42	460.98	460.98
CA	73+63.21	6.42	461.34	461.35
CB	73+73.21	6.42	461.69	461.70
CC	73+83.21	6.42	462.03	462.06
CD	73+93.21	6.42	462.36	462.40
CE	74+03.21	6.42	462.68	462.74
CF	74+13.21	6.42	462.98	463.06
CG	74+23.21	6.42	463.27	463.38
CH	74+33.21	6.42	463.55	463.68
CI	74+43.21	6.42	463.82	463.96
CJ	74+53.21	6.42	464.08	464.23
CK	74+63.21	6.42	464.32	464.47
CL	74+73.21	6.42	464.56	464.70
CM	74+83.21	6.42	464.78	464.91
CN	74+93.21	6.42	464.99	465.11
CO	75+03.21	6.42	465.19	465.29
CP	75+13.21	6.42	465.37	465.45
CQ	75+23.21	6.42	465.55	465.60
CR	75+33.21	6.42	465.71	465.74
CS	75+43.21	6.42	465.86	465.88
CT	75+53.21	6.42	466.00	466.01
℄ Pier 6	75+58.21	6.42	466.06	466.06
CU	75+68.21	6.42	466.19	466.19
CV	75+78.21	6.42	466.30	466.30
CW	75+88.21	6.42	466.39	466.41
CX	75+98.21	6.42	466.48	466.51
CY	76+08.21	6.42	466.55	466.60
CZ	76+18.21	6.42	466.62	466.67
DA	76+28.21	6.42	466.67	466.73
DB	76+38.21	6.42	466.71	466.79
DC	76+48.21	6.42	466.76	466.84
DD	76+58.21	6.42	466.81	466.88
DE	76+68.21	6.42	466.86	466.92
DF	76+78.21	6.42	466.91	466.95
DG	76+88.21	6.42	466.96	466.98
℄ Brg. Pier 7-E	77+00.13	6.42	467.01	467.01
℄ Pier 7	77+01.63	6.42	467.01	467.01

[8]

GIRDER 2A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	65+15.96	0.25	418.48	418.48
℄ Brg. E. Abut.	65+19.71	0.25	418.68	418.68
A	65+29.71	0.25	419.20	419.21
B	65+39.71	0.25	419.72	419.74
C	65+49.71	0.25	420.24	420.26
D	65+59.71	0.25	420.76	420.78
E	65+69.71	0.25	421.28	421.30
F	65+79.71	0.25	421.81	421.82
G	65+89.71	0.25	422.33	422.34
H	65+99.71	0.25	422.85	422.85
I	66+09.71	0.25	423.37	423.37
J	66+19.71	0.25	423.89	423.89
℄ Pier 1	66+29.96	0.25	424.42	424.42
K	66+39.96	0.25	424.94	424.95
L	66+49.96	0.25	425.47	425.48
M	66+59.96	0.25	425.99	426.02
N	66+69.96	0.25	426.51	426.55
O	66+79.96	0.25	427.03	427.09
P	66+89.96	0.25	427.55	427.62
Q	66+99.96	0.25	428.07	428.14
R	67+09.96	0.25	428.59	428.66
S	67+19.96	0.25	429.11	429.18
T	67+29.96	0.25	429.63	429.69
U	67+39.96	0.25	430.15	430.20
V	67+49.96	0.25	430.67	430.71
W	67+59.96	0.25	431.19	431.22
X	67+69.96	0.25	431.71	431.72
Y	67+79.96	0.25	432.23	432.24
Z	67+89.96	0.25	432.75	432.75
AA	67+99.96	0.25	433.27	433.27
℄ Pier 2	68+06.96	0.25	433.64	433.64
AB	68+16.96	0.25	434.16	434.17
AC	68+26.96	0.25	434.68	434.71
AD	68+36.96	0.25	435.20	435.26
AE	68+46.96	0.25	435.72	435.80
AF	68+56.96	0.25	436.24	436.35
AG	68+66.96	0.25	436.76	436.90
AH	68+76.96	0.25	437.28	437.44
AI	68+86.96	0.25	437.80	437.98
AJ	68+96.96	0.25	438.32	438.51
AK	69+06.96	0.25	438.84	439.03
AL	69+16.96	0.25	439.36	439.55
AM	69+26.96	0.25	439.88	440.05
AN	69+36.96	0.25	440.40	440.55
AO	69+46.96	0.25	440.92	441.04
AP	69+56.96	0.25	441.44	441.52
AQ	69+66.96	0.25	441.96	442.00
℄ Brg. Pier 3-E	69+75.46	0.25	442.40	442.40
℄ Pier 3	69+76.96	0.25	442.48	442.48
℄ Brg. Pier 3-W	69+78.46	0.25	442.56	442.56
AR	69+88.46	0.25	443.08	443.10
AS	69+98.46	0.25	443.60	443.64
AT	70+08.46	0.25	444.12	444.18
AU	70+18.46	0.25	444.64	444.71
AV	70+28.46	0.25	445.16	445.24
AW	70+38.46	0.25	445.68	445.76
AX	70+48.46	0.25	446.20	446.28
AY	70+58.46	0.25	446.72	446.79
AZ	70+68.46	0.25	447.24	447.30
BA	70+78.46	0.25	447.76	447.80
BB	70+88.46	0.25	448.28	448.31

NOTE:
Work this sheet with sheets S-15 thru S-20.

AECOM

USER NAME = bhattie
PLOT SCALE = 2.2 '/ in.
PLOT DATE = 4/24/13

DESIGNED	-	DD
DRAWN	-	DD
CHECKED	-	ATB
DATE	-	3-30-11

REVISED - [8] 4/3/2013 A.T.B.	
REVISED	
REVISED	
REVISED	

STATE OF ILLINOIS
~~DEPARTMENT OF TRANSPORTATION~~

TOP OF SLAB ELEVATIONS – I S.N. 082-0325 – UNITS 1 & 2
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE SHEET NO. S-16 OF S-138 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	131

S.N. 082-0323 & S.N. 082-0325 CONTRACT NO. 76C75
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

GIRDER 2A CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BC	70+98.46	0.25	448.80	448.81
BD	71+08.46	0.25	449.32	449.33
BE	71+18.46	0.25	449.84	449.84
℄ Pier 4	71+30.79	0.25	450.48	450.48
BF	71+40.79	0.25	451.00	451.02
BG	71+50.79	0.25	451.52	451.56
BH	71+60.79	0.25	452.04	452.11
BI	71+70.79	0.25	452.56	452.66
BJ	71+80.79	0.25	453.08	453.21
BK	71+90.79	0.25	453.60	453.76
BL	72+00.79	0.25	454.12	454.31
BM	72+10.79	0.25	454.64	454.85
BN	72+20.79	0.25	455.16	455.39
BO	72+30.79	0.25	455.68	455.92
BP	72+40.79	0.25	456.19	456.43
BQ	72+50.79	0.25	456.68	456.92
BR	72+60.79	0.25	457.16	457.39
BS	72+70.79	0.25	457.63	457.84
BT	72+80.79	0.25	458.09	458.28
BU	72+90.79	0.25	458.54	458.70
BV	73+00.79	0.25	458.98	459.10
BW	73+10.79	0.25	459.40	459.50
BX	73+20.79	0.25	459.81	459.88
BY	73+30.79	0.25	460.22	460.25
BZ	73+40.79	0.25	460.60	460.62
℄ Pier 5	73+53.21	0.25	461.07	461.07
CA	73+63.21	0.25	461.43	461.44
CB	73+73.21	0.25	461.79	461.79
CC	73+83.21	0.25	462.12	462.15
CD	73+93.21	0.25	462.45	462.49
CE	74+03.21	0.25	462.77	462.83
CF	74+13.21	0.25	463.07	463.15
CG	74+23.21	0.25	463.36	463.47
CH	74+33.21	0.25	463.65	463.77
CI	74+43.21	0.25	463.91	464.05
CJ	74+53.21	0.25	464.17	464.32
CK	74+63.21	0.25	464.42	464.56
CL	74+73.21	0.25	464.65	464.79
CM	74+83.21	0.25	464.87	465.00
CN	74+93.21	0.25	465.08	465.20
CO	75+03.21	0.25	465.28	465.38
CP	75+13.21	0.25	465.47	465.54
CQ	75+23.21	0.25	465.64	465.69
CR	75+33.21	0.25	465.80	465.84
CS	75+43.21	0.25	465.95	465.97
CT	75+53.21	0.25	466.09	466.10
℄ Pier 6	75+58.21	0.25	466.16	466.16
CU	75+68.21	0.25	466.28	466.28
CV	75+78.21	0.25	466.39	466.39
CW	75+88.21	0.25	466.49	466.50
CX	75+98.21	0.25	466.57	466.60
CY	76+08.21	0.25	466.65	466.69
CZ	76+18.21	0.25	466.71	466.76
DA	76+28.21	0.25	466.76	466.82
DB	76+38.21	0.25	466.81	466.88
DC	76+48.21	0.25	466.86	466.93
DD	76+58.21	0.25	466.90	466.97
DE	76+68.21	0.25	466.95	467.01
DF	76+78.21	0.25	467.00	467.04
DG	76+88.21	0.25	467.05	467.08
℄ Brg. Pier 7-E	77+00.13	0.25	467.11	467.11
℄ Pier 7	77+01.63	0.25	467.12	467.12

8

℄ & P.G.L. 64W70W

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	65+15.96	0	418.48	418.48
℄ Brg. E. Abut.	65+19.71	0	418.68	418.68
A	65+29.71	0	419.20	419.20
B	65+39.71	0	419.72	419.73
C	65+49.71	0	420.24	420.26
D	65+59.71	0	420.76	420.78
E	65+69.71	0	421.28	421.30
F	65+79.71	0	421.80	421.81
G	65+89.71	0	422.32	422.33
H	65+99.71	0	422.84	422.84
I	66+09.71	0	423.36	423.36
J	66+19.71	0	423.88	423.88
℄ Pier 1	66+29.96	0	424.41	424.41
K	66+39.96	0	424.93	424.94
L	66+49.96	0	425.45	425.47
M	66+59.96	0	425.97	426.01
N	66+69.96	0	426.49	426.54
O	66+79.96	0	427.01	427.07
P	66+89.96	0	427.53	427.60
Q	66+99.96	0	428.05	428.13
R	67+09.96	0	428.58	428.65
S	67+19.96	0	429.10	429.17
T	67+29.96	0	429.62	429.68
U	67+39.96	0	430.14	430.19
V	67+49.96	0	430.66	430.70
W	67+59.96	0	431.18	431.20
X	67+69.96	0	431.70	431.71
Y	67+79.96	0	432.22	432.22
Z	67+89.96	0	432.74	432.73
AA	67+99.96	0	433.26	433.26
℄ Pier 2	68+06.96	0	433.62	433.62
AB	68+16.96	0	434.14	434.16
AC	68+26.96	0	434.66	434.70
AD	68+36.96	0	435.18	435.24
AE	68+46.96	0	435.70	435.79
AF	68+56.96	0	436.22	436.34
AG	68+66.96	0	436.74	436.89
AH	68+76.96	0	437.26	437.43
AI	68+86.96	0	437.78	437.97
AJ	68+96.96	0	438.30	438.50
AK	69+06.96	0	438.83	439.02
AL	69+16.96	0	439.35	439.54
AM	69+26.96	0	439.87	440.04
AN	69+36.96	0	440.39	440.54
AO	69+46.96	0	440.91	441.03
AP	69+56.96	0	441.43	441.51
AQ	69+66.96	0	441.95	441.98
℄ Brg. Pier 3-E	69+75.46	0	442.39	442.39
℄ Pier 3	69+76.96	0	442.47	442.47
℄ Brg. Pier 3-W	69+78.46	0	442.55	442.55
AR	69+88.46	0	443.07	443.09
AS	69+98.46	0	443.59	443.63
AT	70+08.46	0	444.11	444.17
AU	70+18.46	0	444.63	444.70
AV	70+28.46	0	445.15	445.23
AW	70+38.46	0	445.67	445.75
AX	70+48.46	0	446.19	446.27
AY	70+58.46	0	446.71	446.78
AZ	70+68.46	0	447.23	447.28
BA	70+78.46	0	447.75	447.79
BB	70+88.46	0	448.27	448.29

℄ & P.G.L. 64W70W CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BC	70+98.46	0	448.79	448.80
BD	71+08.46	0	449.31	449.31
BE	71+18.46	0	449.83	449.83
℄ Pier 4	71+30.79	0	450.47	450.47
BF	71+40.79	0	450.99	451.01
BG	71+50.79	0	451.51	451.55
BH	71+60.79	0	452.03	452.09
BI	71+70.79	0	452.55	452.64
BJ	71+80.79	0	453.07	453.20
BK	71+90.79	0	453.59	453.75
BL	72+00.79	0	454.11	454.30
BM	72+10.79	0	454.63	454.84
BN	72+20.79	0	455.15	455.38
BO	72+30.79	0	455.67	455.91
BP	72+40.79	0	456.18	456.43
BQ	72+50.79	0	456.68	456.91
BR	72+60.79	0	457.16	457.39
BS	72+70.79	0	457.63	457.84
BT	72+80.79	0	458.09	458.28
BU	72+90.79	0	458.54	458.70
BV	73+00.79	0	458.98	459.10
BW	73+10.79	0	459.40	459.50
BX	73+20.79	0	459.82	459.88
BY	73+30.79	0	460.22	460.25
BZ	73+40.79	0	460.61	460.63
℄ Pier 5	73+53.21	0	461.07	461.07
CA	73+63.21	0	461.44	461.44
CB	73+73.21	0	461.79	461.80
CC	73+83.21	0	462.13	462.15
CD	73+93.21	0	462.46	462.49
CE	74+03.21	0	462.77	462.83
CF	74+13.21	0	463.08	463.16
CG	74+23.21	0	463.37	463.47
CH	74+33.21	0	463.65	463.77
CI	74+43.21	0	463.92	464.05
CJ	74+53.21	0	464.17	464.32
CK	74+63.21	0	464.42	464.56
CL	74+73.21	0	464.65	464.80
CM	74+83.21	0	464.87	465.01
CN	74+93.21	0	465.08	465.20
CO	75+03.21	0	465.28	465.38
CP	75+13.21	0	465.47	465.54
CQ	75+23.21	0	465.64	465.70
CR	75+33.21	0	465.81	465.84
CS	75+43.21	0	465.96	465.97
CT	75+53.21	0	466.10	466.10
℄ Pier 6	75+58.21	0	466.16	466.16
CU	75+68.21	0	466.28	466.28
CV	75+78.21	0	466.39	466.40
CW	75+88.21	0	466.49	466.50
CX	75+98.21	0	466.58	466.60
CY	76+08.21	0	466.65	466.69
CZ	76+18.21	0	466.71	466.77
DA	76+28.21	0	466.76	466.83
DB	76+38.21	0	466.81	466.88
DC	76+48.21	0	466.86	466.93
DD	76+58.21	0	466.91	466.98
DE	76+68.21	0	466.96	467.01
DF	76+78.21	0	467.00	467.05
DG	76+88.21	0	467.05	467.08
℄ Brg. Pier 7-F	77+00.13	0	467.11	467.11
℄ Pier 7	77+01.63	0	467.12	467.12

NOTE:
Work this sheet with sheets S-15 thru S-20.

AECOM

USER NAME = bmassa
PLOT SCALE = 2.2 '/ in.
PLOT DATE = 5/24/13

DESIGNED DD
DRAWN DD
CHECKED ATB
DATE 3-30-11

REVISED 8 4/3/2013 A.T.B.
REVISED
REVISED
REVISED

STATE OF ILLINOIS
~~DEPARTMENT OF TRANSPORTATION~~

TOP OF SLAB ELEVATIONS – II S.N. 082-0325 UNITS 1 & 2
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-17 OF S-138 SHEETS STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	132
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

P:\60245616\INV\02_Construction_Support\1686_Construction_Contract_Changes\76C75 Changes\Revision 28 2013-04-02\S1817_082-0325_76C75_TopSlabElev_3.dgn

GIRDER 3A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	65+15.96	-5.92	418.43	418.43
℄ Brg. E. Abut.	65+19.71	-5.92	418.62	418.62
A	65+29.71	-5.92	419.12	419.13
B	65+39.71	-5.92	419.62	419.64
C	65+49.71	-5.92	420.12	420.14
D	65+59.71	-5.92	420.63	420.65
E	65+69.71	-5.92	421.13	421.15
F	65+79.71	-5.92	421.63	421.65
G	65+89.71	-5.92	422.13	422.14
H	65+99.71	-5.92	422.63	422.64
I	66+09.71	-5.92	423.13	423.14
J	66+19.71	-5.92	423.64	423.64
℄ Pier 1	66+29.96	-5.92	424.15	424.15
K	66+39.96	-5.92	424.65	424.66
L	66+49.96	-5.92	425.15	425.17
M	66+59.96	-5.92	425.66	425.69
N	66+69.96	-5.92	426.17	426.22
O	66+79.96	-5.92	426.69	426.75
P	66+89.96	-5.92	427.21	427.28
Q	66+99.96	-5.92	427.74	427.81
R	67+09.96	-5.92	428.26	428.33
S	67+19.96	-5.92	428.78	428.85
T	67+29.96	-5.92	429.30	429.36
U	67+39.96	-5.92	429.82	429.87
V	67+49.96	-5.92	430.34	430.38
W	67+59.96	-5.92	430.86	430.89
X	67+69.96	-5.92	431.38	431.39
Y	67+79.96	-5.92	431.90	431.90
Z	67+89.96	-5.92	432.42	432.42
AA	67+99.96	-5.92	432.94	432.94
℄ Pier 2	68+06.96	-5.92	433.30	433.30
AB	68+16.96	-5.92	433.82	433.84
AC	68+26.96	-5.92	434.34	434.37
AD	68+36.96	-5.92	434.86	434.92
AE	68+46.96	-5.92	435.38	435.46
AF	68+56.96	-5.92	435.90	436.01
AG	68+66.96	-5.92	436.42	436.55
AH	68+76.96	-5.92	436.94	437.09
AI	68+86.96	-5.92	437.47	437.63
AJ	68+96.96	-5.92	437.99	438.16
AK	69+06.96	-5.92	438.51	438.68
AL	69+16.96	-5.92	439.03	439.20
AM	69+26.96	-5.92	439.55	439.70
AN	69+36.96	-5.92	440.07	440.20
AO	69+46.96	-5.92	440.59	440.69
AP	69+56.96	-5.92	441.11	441.18
AQ	69+66.96	-5.92	441.63	441.66
℄ Brg. Pier 3-E	69+75.46	-5.92	442.07	442.07
℄ Pier 3	69+76.96	-5.92	442.15	442.15
℄ Brg. Pier 3-W	69+78.46	-5.92	442.23	442.23
AR	69+88.46	-5.92	442.75	442.77
AS	69+98.46	-5.92	443.27	443.31
AT	70+08.46	-5.92	443.79	443.84
AU	70+18.46	-5.92	444.31	444.37
AV	70+28.46	-5.92	444.83	444.90
AW	70+38.46	-5.92	445.35	445.42
AX	70+48.46	-5.92	445.87	445.94
AY	70+58.46	-5.92	446.39	446.45
AZ	70+68.46	-5.92	446.91	446.96
BA	70+78.46	-5.92	447.43	447.46
BB	70+88.46	-5.92	447.95	447.97

GIRDER 3A CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BC	70+98.46	-5.92	448.47	448.48
BD	71+08.46	-5.92	448.99	448.99
BE	71+18.46	-5.92	449.51	449.51
℄ Pier 4	71+30.79	-5.92	450.15	450.15
BF	71+40.79	-5.92	450.68	450.70
BG	71+50.79	-5.92	451.22	451.26
BH	71+60.79	-5.92	451.76	451.82
BI	71+70.79	-5.92	452.30	452.39
BJ	71+80.79	-5.92	452.84	452.96
BK	71+90.79	-5.92	453.38	453.53
BL	72+00.79	-5.92	453.92	454.10
BM	72+10.79	-5.92	454.45	454.66
BN	72+20.79	-5.92	454.99	455.22
BO	72+30.79	-5.92	455.53	455.77
BP	72+40.79	-5.92	456.06	456.30
BQ	72+50.79	-5.92	456.57	456.81
BR	72+60.79	-5.92	457.07	457.30
BS	72+70.79	-5.92	457.56	457.77
BT	72+80.79	-5.92	458.04	458.23
BU	72+90.79	-5.92	458.51	458.67
BV	73+00.79	-5.92	458.96	459.09
BW	73+10.79	-5.92	459.41	459.50
BX	73+20.79	-5.92	459.84	459.90
BY	73+30.79	-5.92	460.26	460.30
BZ	73+40.79	-5.92	460.67	460.69
℄ Pier 5	73+53.21	-5.92	461.16	461.16
CA	73+63.21	-5.92	461.53	461.53
CB	73+73.21	-5.92	461.88	461.88
CC	73+83.21	-5.92	462.22	462.24
CD	73+93.21	-5.92	462.54	462.58
CE	74+03.21	-5.92	462.86	462.92
CF	74+13.21	-5.92	463.16	463.25
CG	74+23.21	-5.92	463.46	463.56
CH	74+33.21	-5.92	463.74	463.86
CI	74+43.21	-5.92	464.01	464.14
CJ	74+53.21	-5.92	464.26	464.41
CK	74+63.21	-5.92	464.51	464.65
CL	74+73.21	-5.92	464.74	464.88
CM	74+83.21	-5.92	464.96	465.09
CN	74+93.21	-5.92	465.17	465.29
CO	75+03.21	-5.92	465.37	465.47
CP	75+13.21	-5.92	465.56	465.63
CQ	75+23.21	-5.92	465.73	465.79
CR	75+33.21	-5.92	465.89	465.93
CS	75+43.21	-5.92	466.05	466.06
CT	75+53.21	-5.92	466.18	466.19
℄ Pier 6	75+58.21	-5.92	466.25	466.25
CU	75+68.21	-5.92	466.37	466.37
CV	75+78.21	-5.92	466.48	466.49
CW	75+88.21	-5.92	466.58	466.59
CX	75+98.21	-5.92	466.66	466.69
CY	76+08.21	-5.92	466.74	466.78
CZ	76+18.21	-5.92	466.80	466.85
DA	76+28.21	-5.92	466.85	466.92
DB	76+38.21	-5.92	466.90	466.97
DC	76+48.21	-5.92	466.95	467.02
DD	76+58.21	-5.92	467.00	467.06
DE	76+68.21	-5.92	467.05	467.10
DF	76+78.21	-5.92	467.09	467.14
DG	76+88.21	-5.92	467.14	467.17
℄ Brg. Pier 7-E	77+00.13	-5.92	467.20	467.20
℄ Pier 7	77+01.63	-5.92	467.22	467.22

8

GIRDER 4A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	65+15.96	-12.08	418.38	418.38
℄ Brg. E. Abut.	65+19.71	-12.08	418.56	418.56
A	65+29.71	-12.08	419.04	419.05
B	65+39.71	-12.08	419.52	419.54
C	65+49.71	-12.08	420.01	420.02
D	65+59.71	-12.08	420.49	420.51
E	65+69.71	-12.08	420.97	420.99
F	65+79.71	-12.08	421.45	421.47
G	65+89.71	-12.08	421.94	421.95
H	65+99.71	-12.08	422.42	422.42
I	66+09.71	-12.08	422.90	422.90
J	66+19.71	-12.08	423.38	423.38
℄ Pier 1	66+29.96	-12.08	423.88	423.88
K	66+39.96	-12.08	424.36	424.37
L	66+49.96	-12.08	424.84	424.86
M	66+59.96	-12.08	425.33	425.35
N	66+69.96	-12.08	425.84	425.88
O	66+79.96	-12.08	426.36	426.42
P	66+89.96	-12.08	426.88	426.95
Q	66+99.96	-12.08	427.40	427.47
R	67+09.96	-12.08	427.92	427.99
S	67+19.96	-12.08	428.44	428.51
T	67+29.96	-12.08	428.96	429.03
U	67+39.96	-12.08	429.48	429.54
V	67+49.96	-12.08	430.00	430.05
W	67+59.96	-12.08	430.52	430.55
X	67+69.96	-12.08	431.04	431.06
Y	67+79.96	-12.08	431.56	431.57
Z	67+89.96	-12.08	432.09	432.08
AA	67+99.96	-12.08	432.61	432.61
℄ Pier 2	68+06.96	-12.08	432.97	432.97
AB	68+16.96	-12.08	433.49	433.50
AC	68+26.96	-12.08	434.01	434.04
AD	68+36.96	-12.08	434.53	434.58
AE	68+46.96	-12.08	435.05	435.12
AF	68+56.96	-12.08	435.57	435.67
AG	68+66.96	-12.08	436.09	436.21
AH	68+76.96	-12.08	436.61	436.75
AI	68+86.96	-12.08	437.13	437.28
AJ	68+96.96	-12.08	437.65	437.81
AK	69+06.96	-12.08	438.17	438.34
AL	69+16.96	-12.08	438.69	438.85
AM	69+26.96	-12.08	439.21	439.36
AN	69+36.96	-12.08	439.73	439.86
AO	69+46.96	-12.08	440.25	440.35
AP	69+56.96	-12.08	440.77	440.84
AQ	69+66.96	-12.08	441.29	441.33
℄ Brg. Pier 3-E	69+75.46	-12.08	441.74	441.74
℄ Pier 3	69+76.96	-12.08	441.81	441.81
℄ Brg. Pier 3-W	69+78.46	-12.08	441.89	441.89
AR	69+88.46	-12.08	442.41	442.43
AS	69+98.46	-12.08	442.93	442.97
AT	70+08.46	-12.08	443.45	443.51
AU	70+18.46	-12.08	443.97	444.04
AV	70+28.46	-12.08	444.49	444.56
AW	70+38.46	-12.08	445.01	445.08
AX	70+48.46	-12.08	445.54	445.60
AY	70+58.46	-12.08	446.06	446.11
AZ	70+68.46	-12.08	446.58	446.62
BA	70+78.46	-12.08	447.10	447.12
BB	70+88.46	-12.08	447.62	447.63

NOTE:
Work this sheet with sheets S-15 thru S-20.

AECOM

USER NAME = dhasle
PLOT SCALE = 2.2 '/ in.
PLOT DATE = 5/24/13

DESIGNED	DD	REVISED	8 4/3/2013 A.T.B.
DRAWN	DD	REVISED	
CHECKED	ATB	REVISED	
DATE	3 30 11	REVISED	

STATE OF ILLINOIS
~~DEPARTMENT OF TRANSPORTATION~~

TOP OF SLAB ELEVATIONS – III S.N. 082-0325 UNITS 1 & 2
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE SHEET NO. S-18 OF S-138 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	133
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GIRDER 4A CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BC	70+98.46	- 12.08	448.14	448.14
BD	71+08.46	- 12.08	448.66	448.66
BE	71+18.46	- 12.08	449.18	449.17
℄ Pier 4	71+30.79	- 12.08	449.82	449.82
BF	71+40.79	- 12.08	450.36	450.38
BG	71+50.79	- 12.08	450.92	450.96
BH	71+60.79	- 12.08	451.48	451.54
BI	71+70.79	- 12.08	452.03	452.13
BJ	71+80.79	- 12.08	452.59	452.72
BK	71+90.79	- 12.08	453.15	453.31
BL	72+00.79	- 12.08	453.71	453.90
BM	72+10.79	- 12.08	454.27	454.48
BN	72+20.79	12.08	454.82	455.06
BO	72+30.79	- 12.08	455.38	455.62
BP	72+40.79	- 12.08	455.93	456.18
BQ	72+50.79	- 12.08	456.46	456.70
BR	72+60.79	- 12.08	456.98	457.21
BS	72+70.79	- 12.08	457.49	457.70
BT	72+80.79	- 12.08	457.99	458.17
BU	72+90.79	- 12.08	458.48	458.63
BV	73+00.79	- 12.08	458.95	459.08
BW	73+10.79	- 12.08	459.41	459.51
BX	73+20.79	- 12.08	459.86	459.93
BY	73+30.79	- 12.08	460.30	460.34
BZ	73+40.79	- 12.08	460.73	460.75
℄ Pier 5	73+53.21	- 12.08	461.24	461.24
CA	73+63.21	- 12.08	461.62	461.62
CB	73+73.21	- 12.08	461.97	461.98
CC	73+83.21	- 12.08	462.31	462.33
CD	73+93.21	- 12.08	462.64	462.67
CE	74+03.21	- 12.08	462.95	463.01
CF	74+13.21	- 12.08	463.26	463.34
CG	74+23.21	- 12.08	463.55	463.65
CH	74+33.21	- 12.08	463.83	463.95
CI	74+43.21	- 12.08	464.10	464.23
CJ	74+53.21	- 12.08	464.36	464.50
CK	74+63.21	- 12.08	464.60	464.74
CL	74+73.21	- 12.08	464.83	464.97
CM	74+83.21	- 12.08	465.06	465.18
CN	74+93.21	- 12.08	465.27	465.38
CO	75+03.21	- 12.08	465.46	465.56
CP	75+13.21	- 12.08	465.65	465.72
CQ	75+23.21	- 12.08	465.82	465.88
CR	75+33.21	- 12.08	465.99	466.02
CS	75+43.21	- 12.08	466.14	466.16
CT	75+53.21	- 12.08	466.28	466.28
℄ Pier 6	75+58.21	- 12.08	466.34	466.34
CU	75+68.21	- 12.08	466.46	466.46
CV	75+78.21	- 12.08	466.57	466.58
CW	75+88.21	- 12.08	466.67	466.69
CX	75+98.21	- 12.08	466.76	466.78
CY	76+08.21	- 12.08	466.83	466.87
CZ	76+18.21	- 12.08	466.89	466.95
DA	76+28.21	- 12.08	466.94	467.01
DB	76+38.21	- 12.08	466.99	467.06
DC	76+48.21	- 12.08	467.04	467.11
DD	76+58.21	- 12.08	467.09	467.16
DE	76+68.21	- 12.08	467.14	467.20
DF	76+78.21	- 12.08	467.19	467.23
DG	76+88.21	- 12.08	467.23	467.26
℄ Brg. Pier 7-E	77+00.13	- 12.08	467.30	467.30
℄ Pier 7	77+01.63	- 12.08	467.32	467.32

8

GIRDER 5A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	65+15.96	- 18.25	418.32	418.32
℄ Brg. E. Abut.	65+19.71	- 18.25	418.50	418.50
A	65+29.71	- 18.25	418.96	418.97
B	65+39.71	- 18.25	419.42	419.44
C	65+49.71	- 18.25	419.89	419.91
D	65+59.71	- 18.25	420.35	420.37
E	65+69.71	- 18.25	420.81	420.84
F	65+79.71	- 18.25	421.28	421.30
G	65+89.71	- 18.25	421.74	421.75
H	65+99.71	- 18.25	422.20	422.21
I	66+09.71	- 18.25	422.67	422.67
J	66+19.71	- 18.25	423.13	423.13
℄ Pier 1	66+29.96	- 18.25	423.60	423.60
K	66+39.96	- 18.25	424.07	424.08
L	66+49.96	- 18.25	424.53	424.55
M	66+59.96	- 18.25	424.99	425.02
N	66+69.96	- 18.25	425.51	425.55
O	66+79.96	- 18.25	426.03	426.08
P	66+89.96	- 18.25	426.55	426.61
Q	66+99.96	- 18.25	427.07	427.14
R	67+09.96	- 18.25	427.59	427.66
S	67+19.96	- 18.25	428.11	428.18
T	67+29.96	- 18.25	428.63	428.69
U	67+39.96	- 18.25	429.15	429.21
V	67+49.96	- 18.25	429.67	429.71
W	67+59.96	- 18.25	430.19	430.22
X	67+69.96	- 18.25	430.71	430.73
Y	67+79.96	- 18.25	431.23	431.24
Z	67+89.96	- 18.25	431.75	431.75
AA	67+99.96	- 18.25	432.27	432.27
℄ Pier 2	68+06.96	- 18.25	432.64	432.64
AB	68+16.96	- 18.25	433.16	433.17
AC	68+26.96	- 18.25	433.68	433.70
AD	68+36.96	- 18.25	434.20	434.24
AE	68+46.96	- 18.25	434.72	434.78
AF	68+56.96	- 18.25	435.24	435.33
AG	68+66.96	- 18.25	435.76	435.87
AH	68+76.96	- 18.25	436.28	436.40
AI	68+86.96	- 18.25	436.80	436.94
AJ	68+96.96	- 18.25	437.32	437.47
AK	69+06.96	- 18.25	437.84	437.99
AL	69+16.96	- 18.25	438.36	438.50
AM	69+26.96	- 18.25	438.88	439.01
AN	69+36.96	- 18.25	439.40	439.52
AO	69+46.96	- 18.25	439.92	440.01
AP	69+56.96	- 18.25	440.44	440.50
AQ	69+66.96	- 18.25	440.96	440.99
℄ Brg. Pier 3-E	69+75.46	- 18.25	441.40	441.40
℄ Pier 3	69+76.96	- 18.25	441.48	441.48
℄ Brg. Pier 3-W	69+78.46	- 18.25	441.56	441.56
AR	69+88.46	- 18.25	442.08	442.10
AS	69+98.46	- 18.25	442.60	442.64
AT	70+08.46	- 18.25	443.12	443.17
AU	70+18.46	- 18.25	443.64	443.70
AV	70+28.46	- 18.25	444.16	444.22
AW	70+38.46	- 18.25	444.68	444.74
AX	70+48.46	- 18.25	445.20	445.26
AY	70+58.46	- 18.25	445.72	445.77
AZ	70+68.46	- 18.25	446.24	446.28
BA	70+78.46	- 18.25	446.76	446.79
BB	70+88.46	- 18.25	447.28	447.30

GIRDER 5A CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BC	70+98.46	- 18.25	447.80	447.81
BD	71+08.46	- 18.25	448.32	448.32
BE	71+18.46	- 18.25	448.84	448.84
℄ Pier 4	71+30.79	- 18.25	449.49	449.49
BF	71+40.79	- 18.25	450.04	450.06
BG	71+50.79	- 18.25	450.62	450.66
BH	71+60.79	- 18.25	451.19	451.26
BI	71+70.79	- 18.25	451.77	451.87
BJ	71+80.79	- 18.25	452.35	452.48
BK	71+90.79	- 18.25	452.92	453.09
BL	72+00.79	- 18.25	453.50	453.69
BM	72+10.79	- 18.25	454.08	454.30
BN	72+20.79	- 18.25	454.66	454.89
BO	72+30.79	- 18.25	455.23	455.48
BP	72+40.79	- 18.25	455.80	456.05
BQ	72+50.79	- 18.25	456.35	456.59
BR	72+60.79	- 18.25	456.89	457.12
BS	72+70.79	- 18.25	457.42	457.63
BT	72+80.79	- 18.25	457.94	458.13
BU	72+90.79	- 18.25	458.44	458.60
BV	73+00.79	- 18.25	458.94	459.06
BW	73+10.79	- 18.25	459.42	459.51
BX	73+20.79	- 18.25	459.89	459.95
BY	73+30.79	- 18.25	460.35	460.38
BZ	73+40.79	- 18.25	460.79	460.81
℄ Pier 5	73+53.21	- 18.25	461.33	461.33
CA	73+63.21	- 18.25	461.71	461.71
CB	73+73.21	- 18.25	462.06	462.07
CC	73+83.21	- 18.25	462.40	462.42
CD	73+93.21	- 18.25	462.73	462.77
CE	74+03.21	- 18.25	463.05	463.10
CF	74+13.21	- 18.25	463.35	463.43
CG	74+23.21	- 18.25	463.64	463.74
CH	74+33.21	- 18.25	463.92	464.04
CI	74+43.21	- 18.25	464.19	464.32
CJ	74+53.21	- 18.25	464.45	464.59
CK	74+63.21	- 18.25	464.69	464.84
CL	74+73.21	- 18.25	464.93	465.07
CM	74+83.21	- 18.25	465.15	465.28
CN	74+93.21	- 18.25	465.36	465.47
CO	75+03.21	- 18.25	465.56	465.65
CP	75+13.21	- 18.25	465.74	465.82
CQ	75+23.21	- 18.25	465.92	465.97
CR	75+33.21	- 18.25	466.08	466.11
CS	75+43.21	- 18.25	466.23	466.25
CT	75+53.21	- 18.25	466.37	466.38
℄ Pier 6	75+58.21	- 18.25	466.43	466.43
CU	75+68.21	- 18.25	466.56	466.56
CV	75+78.21	- 18.25	466.67	466.67
CW	75+88.21	- 18.25	466.76	466.78
CX	75+98.21	- 18.25	466.85	466.88
CY	76+08.21	- 18.25	466.92	466.97
CZ	76+18.21	- 18.25	466.99	467.04
DA	76+28.21	- 18.25	467.04	467.10
DB	76+38.21	- 18.25	467.08	467.16
DC	76+48.21	- 18.25	467.13	467.21
DD	76+58.21	- 18.25	467.18	467.25
DE	76+68.21	- 18.25	467.23	467.29
DF	76+78.21	- 18.25	467.28	467.32
DG	76+88.21	- 18.25	467.33	467.35
℄ Brg. Pier 7-E	77+00.13	- 18.25	467.40	467.40
℄ Pier 7	77+01.63	- 18.25	467.42	467.42

8

NOTE:
Work this sheet with sheets S-15 thru S-20.

AECOM

USER NAME = bhelle
PLOT SCALE = 2.2 '/ in.
PLOT DATE = 5/8/13

DESIGNED	DD	
DRAWN	DD	
CHECKED	ATB	
DATE	3-30-11	

REVISED 8 4/3/2013 A.T.B.	
REVISED	
REVISED	
REVISED	

STATE OF ILLINOIS
~~DEPARTMENT OF TRANSPORTATION~~

TOP OF SLAB ELEVATIONS – IV S.N. 082-0325 UNITS 1 & 2
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE SHEET NO. S-19 OF S-138 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	134
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

P:\Projects\60164814\ROW Construction Support\ROW Construction Contract Changes\76C75 Changes\Revision 8\4-3-2013 4-0-2\SHTS 4BZ-4BZ5, 76C75, 1 to 5 Slab Elev. Sub.dgn

GIRDER 6A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	65+15.96	-24.42	418.27	418.27
℄ Brg. E. Abut.	65+19.71	-24.42	418.44	418.44
A	65+29.71	-24.42	418.88	418.89
B	65+39.71	-24.42	419.32	419.34
C	65+49.71	-24.42	419.77	419.79
D	65+59.71	-24.42	420.21	420.24
E	65+69.71	-24.42	420.66	420.68
F	65+79.71	-24.42	421.10	421.12
G	65+89.71	-24.42	421.54	421.56
H	65+99.71	-24.42	421.99	422.00
I	66+09.71	-24.42	422.43	422.44
J	66+19.71	-24.42	422.88	422.88
℄ Pier 1	66+29.96	-24.42	423.33	423.33
K	66+39.96	-24.42	423.78	423.78
L	66+49.96	-24.42	424.22	424.24
M	66+59.96	-24.42	424.66	424.69
N	66+69.96	-24.42	425.18	425.22
O	66+79.96	-24.42	425.70	425.75
P	66+89.96	-24.42	426.22	426.28
Q	66+99.96	-24.42	426.74	426.81
R	67+09.96	-24.42	427.26	427.33
S	67+19.96	-24.42	427.78	427.85
T	67+29.96	-24.42	428.30	428.36
U	67+39.96	-24.42	428.82	428.88
V	67+49.96	-24.42	429.34	429.38
W	67+59.96	-24.42	429.86	429.89
X	67+69.96	-24.42	430.38	430.40
Y	67+79.96	-24.42	430.90	430.91
Z	67+89.96	-24.42	431.42	431.42
AA	67+99.96	-24.42	431.94	431.94
℄ Pier 2	68+06.96	-24.42	432.30	432.30
AB	68+16.96	-24.42	432.82	432.83
AC	68+26.96	-24.42	433.34	433.37
AD	68+36.96	-24.42	433.86	433.90
AE	68+46.96	-24.42	434.38	434.44
AF	68+56.96	-24.42	434.91	434.98
AG	68+66.96	-24.42	435.43	435.52
AH	68+76.96	-24.42	435.95	436.06
AI	68+86.96	-24.42	436.47	436.59
AJ	68+96.96	-24.42	436.99	437.12
AK	69+06.96	-24.42	437.51	437.65
AL	69+16.96	-24.42	438.03	438.16
AM	69+26.96	-24.42	438.55	438.67
AN	69+36.96	-24.42	439.07	439.17
AO	69+46.96	-24.42	439.59	439.67
AP	69+56.96	-24.42	440.11	440.17
AQ	69+66.96	-24.42	440.63	440.66
℄ Brg. Pier 3-E	69+75.46	-24.42	441.07	441.07
℄ Pier 3	69+76.96	-24.42	441.15	441.15
℄ Brg. Pier 3-W	69+78.46	-24.42	441.23	441.23
AR	69+88.46	-24.42	441.75	441.76
AS	69+98.46	-24.42	442.27	442.30
AT	70+08.46	-24.42	442.79	442.83
AU	70+18.46	-24.42	443.31	443.36
AV	70+28.46	-24.42	443.83	443.89
AW	70+38.46	-24.42	444.35	444.41
AX	70+48.46	-24.42	444.87	444.92
AY	70+58.46	-24.42	445.39	445.43
AZ	70+68.46	-24.42	445.91	445.94
BA	70+78.46	-24.42	446.43	446.45
BB	70+88.46	-24.42	446.95	446.96

GIRDER 6A CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BC	70+98.46	-24.42	447.47	447.47
BD	71+08.46	-24.42	447.99	447.99
BE	71+18.46	-24.42	448.51	448.51
℄ Pier 4	71+30.79	-24.42	449.15	449.15
BF	71+40.79	-24.42	449.72	449.74
BG	71+50.79	-24.42	450.31	450.35
BH	71+60.79	-24.42	450.91	450.98
BI	71+70.79	-24.42	451.51	451.61
BJ	71+80.79	-24.42	452.10	452.24
BK	71+90.79	-24.42	452.70	452.87
BL	72+00.79	-24.42	453.30	453.49
BM	72+10.79	-24.42	453.89	454.11
BN	72+20.79	-24.42	454.49	454.73
BO	72+30.79	-24.42	455.08	455.33
BP	72+40.79	-24.42	455.67	455.93
BQ	72+50.79	-24.42	456.24	456.49
BR	72+60.79	-24.42	456.80	457.04
BS	72+70.79	-24.42	457.35	457.57
BT	72+80.79	-24.42	457.88	458.08
BU	72+90.79	-24.42	458.41	458.57
BV	73+00.79	-24.42	458.92	459.05
BW	73+10.79	-24.42	459.42	459.52
BX	73+20.79	-24.42	459.91	459.98
BY	73+30.79	-24.42	460.39	460.43
BZ	73+40.79	-24.42	460.86	460.88
℄ Pier 5	73+53.21	-24.42	461.42	461.42
CA	73+63.21	-24.42	461.80	461.81
CB	73+73.21	-24.42	462.16	462.16
CC	73+83.21	-24.42	462.49	462.52
CD	73+93.21	-24.42	462.82	462.86
CE	74+03.21	-24.42	463.14	463.20
CF	74+13.21	-24.42	463.44	463.52
CG	74+23.21	-24.42	463.73	463.84
CH	74+33.21	-24.42	464.02	464.14
CI	74+43.21	-24.42	464.28	464.42
CJ	74+53.21	-24.42	464.54	464.68
CK	74+63.21	-24.42	464.79	464.93
CL	74+73.21	-24.42	465.02	465.16
CM	74+83.21	-24.42	465.24	465.37
CN	74+93.21	-24.42	465.45	465.57
CO	75+03.21	-24.42	465.65	465.75
CP	75+13.21	-24.42	465.84	465.91
CQ	75+23.21	-24.42	466.01	466.06
CR	75+33.21	-24.42	466.17	466.21
CS	75+43.21	-24.42	466.32	466.34
CT	75+53.21	-24.42	466.46	466.47
℄ Pier 6	75+58.21	-24.42	466.53	466.53
CU	75+68.21	-24.42	466.65	466.65
CV	75+78.21	-24.42	466.76	466.76
CW	75+88.21	-24.42	466.86	466.87
CX	75+98.21	-24.42	466.94	466.97
CY	76+08.21	-24.42	467.02	467.06
CZ	76+18.21	-24.42	467.08	467.13
DA	76+28.21	-24.42	467.13	467.20
DB	76+38.21	-24.42	467.18	467.25
DC	76+48.21	-24.42	467.23	467.30
DD	76+58.21	-24.42	467.27	467.35
DE	76+68.21	-24.42	467.32	467.38
DF	76+78.21	-24.42	467.37	467.42
DG	76+88.21	-24.42	467.42	467.45
℄ Brg. Pier 7-E	77+00.13	-24.42	467.50	467.50
℄ Pier 7	77+01.63	-24.42	467.52	467.52

[B]

NOTE:
Work this sheet with sheets S-15 thru S-20.

AECOM

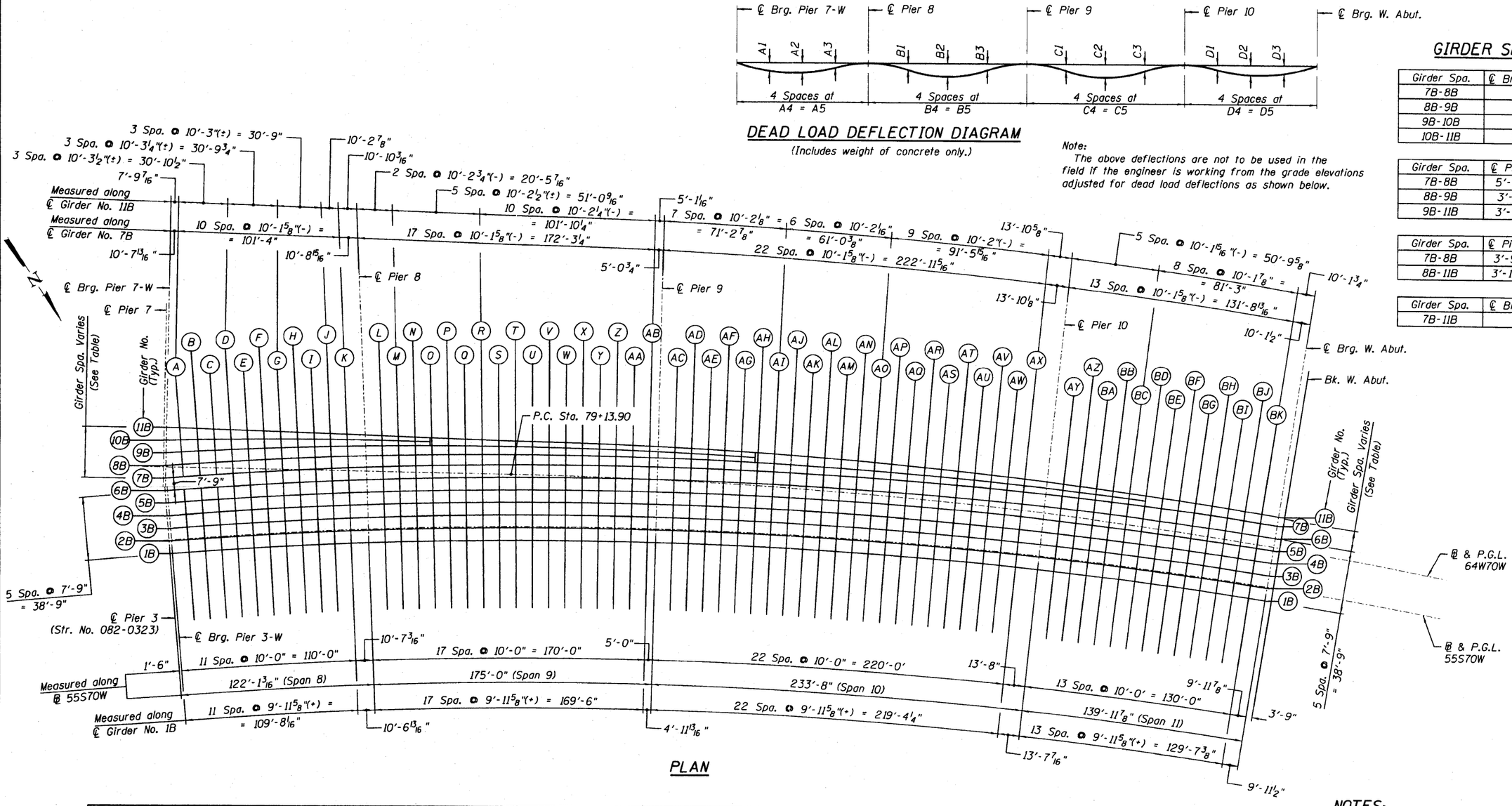
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PLOT SCALE = 2.0000 '/ IN.	DRAWN - DD	REVISED -	
PLOT DATE = 4/4/2013	CHECKED - ATB	REVISED -	
	DATE 3-30-11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS – V S.N. 082-0325 UNITS 1 & 2
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE SHEET NO. S-20 OF S-138 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	135
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

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

GIRDER SPACING TABLES

Girder Spa.	℄ Brg. Pier 7-W	℄ Pier 8
7B-8B	7'-9 5/16"	6'-10"
8B-9B	7'-9 1/8"	6'-1 3/4"
9B-10B	7'-8 11/16"	3'-8 3/4"
10B-11B	7'-11 15/16"	3'-0 3/16"

Girder Spa.	℄ Pier 9
7B-8B	5'-6 1/4"
8B-9B	3'-10"
9B-11B	3'-1 3/4"

Girder Spa.	℄ Pier 10
7B-8B	3'-9 3/8"
8B-11B	3'-10 7/8"

Girder Spa.	℄ Brg. W. Abut.
7B-11B	5'-3 1/4"

PLAN

DEAD LOAD DEFLECTIONS

Girder No.	Span 8				Span 9					Span 10					Span 11				
	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5	D1	D2	D3	D4	D5
1B	5/8"	3/4"	3/8"	30'-0 3/4"	120'-2 7/8"	3/8"	1/2"	-1/8"	43'-7 1/2"	174'-5 3/4"	2 3/4"	4 5/8"	2 3/4"	58'-2 7/8"	232'-11 3/4"	-1/4"	1/8"	3/8"	34'-10 3/4"	139'-6 7/8"
2B	5/8"	3/4"	3/8"	30'-1 3/4"	120'-6 7/8"	1/4"	3/8"	-1/8"	43'-8 1/8"	174'-11 1/2"	2 5/8"	4 1/2"	2 5/8"	58'-4 7/8"	233'-7 3/8"	-1/4"	1/8"	3/8"	34'-11 7/8"	139'-11 1/2"
3B	5/8"	5/8"	3/8"	30'-2 3/4"	120'-10 7/8"	1/4"	3/8"	-1/8"	43'-10 1/4"	175'-5 1/4"	2 1/2"	4 3/8"	2 5/8"	58'-6 3/4"	234'-3"	-1/4"	1/8"	1/4"	35'-1"	140'-4"
4B	5/8"	5/8"	3/8"	30'-3 3/4"	121'-2 7/8"	1/4"	1/4"	-1/8"	43'-11 3/4"	175'-10 7/8"	2 1/2"	4 1/4"	2 1/2"	58'-8 5/8"	234'-10 1/2"	-1/4"	1/16"	1/4"	35'-2 1/8"	140'-8 5/8"
5B	5/8"	5/8"	3/8"	30'-4 3/4"	121'-6 7/8"	1/4"	1/4"	-1/8"	44'-1 1/8"	176'-4 5/8"	2 3/8"	4 1/8"	2 1/2"	58'-10 1/2"	235'-6 1/8"	-1/4"	0"	1/4"	35'-3 1/4"	141'-1 1/8"
6B	5/8"	5/8"	3/8"	30'-5 3/4"	121'-10 3/4"	1/8"	1/4"	-1/4"	44'-2 5/8"	176'-10 3/8"	2 3/8"	4"	2 1/2"	59'-0 1/2"	236'-1 3/4"	-1/4"	-1/16"	1/8"	35'-4 3/8"	141'-5 3/4"
7B	5/8"	3/4"	3/8"	30'-8 1/8"	122'-8 3/4"	1/8"	1/8"	-1/4"	44'-4"	177'-4"	2 3/8"	4"	2 1/2"	59'-2 3/8"	236'-9 3/8"	-3/8"	-1/8"	1/8"	35'-5 5/8"	141'-10 1/4"
8B	5/8"	3/4"	3/8"	30'-6 7/8"	122'-3 1/2"	1/8"	1/8"	-1/4"	44'-5 1/8"	177'-8 5/8"	2 1/4"	4"	2 1/2"	59'-3 1/2"	237'-2 1/8"	-1/4"	-3/8"	-3/8"	15'-2 5/8"	60'-10 1/2"
9B	5/8"	3/4"	3/8"	30'-5 1/2"	121'-10 1/4"	1/16"	1/8"	-1/4"	44'-6 1/8"	178'-0 3/4"	3/8"	1"	1 5/8"	14'-10 1/8"	59'-4 5/8"	-	-	-	-	-
10B	5/8"	3/4"	3/8"	30'-4 1/2"	121'-6"	-1/16"	-1/16"	-1/16"	9'-11"	39'-8 1/8"	-	-	-	-	-	-	-	-	-	-
11B	5/8"	3/4"	3/8"	30'-4"	121'-3 3/4"	0"	1/16"	-1/4"	44'-7 3/8"	178'-5 5/8"	2 1/4"	4"	2 1/2"	59'-5"	237'-7 1/8"	-3/8"	-1/8"	1/8"	35'-6 5/8"	142'-2 3/8"

NOTES:

At Piers tabulated beam spacing are measured along respective ℄ Pier.

At Abut. tabulated beam spacing are measured along ℄ Brg.

Negative value of deflection indicates upward deflection.

Work this sheet with sheets S-22 thru S-27.

AECOM	USER NAME = BhattA	DESIGNED - DD	REVISED -
		DRAWN - DD	REVISED -
	PLOT SCALE = 0.166666 ' / in.	CHECKED - ATB	REVISED -
	PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATION PLAN S.N. 082-0325 UNIT 3
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-21 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	136
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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GIRDER 1B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Pier 7	78+98.22	8.42	465.59	465.59
℄ Brg. Pier 7-W	78+99.72	8.42	465.60	465.60
A	79+09.72	8.42	465.64	465.66
B	79+19.72	8.42	465.67	465.71
C	79+29.72	8.42	465.69	465.74
D	79+39.72	8.42	465.69	465.75
E	79+49.72	8.42	465.68	465.74
F	79+59.72	8.42	465.66	465.72
G	79+69.72	8.42	465.63	465.68
H	79+79.72	8.42	465.59	465.63
I	79+89.72	8.42	465.53	465.56
J	79+99.72	8.42	465.47	465.48
K	80+09.72	8.42	465.39	465.39
℄ Pier 8	80+20.32	8.42	465.29	465.29
L	80+30.32	8.42	465.19	465.19
M	80+40.32	8.42	465.07	465.08
N	80+50.32	8.42	464.94	464.96
O	80+60.32	8.42	464.80	464.83
P	80+70.32	8.42	464.65	464.69
Q	80+80.32	8.42	464.49	464.53
R	80+90.32	8.42	464.31	464.36
S	81+00.32	8.42	464.13	464.17
T	81+10.32	8.42	463.93	463.96
U	81+20.32	8.42	463.72	463.74
V	81+30.32	8.42	463.50	463.51
W	81+40.32	8.42	463.26	463.27
X	81+50.32	8.42	463.02	463.02
Y	81+60.32	8.42	462.79	462.77
Z	81+70.32	8.42	462.55	462.53
AA	81+80.32	8.42	462.31	462.30
AB	81+90.32	8.42	462.08	462.07
℄ Pier 9	81+95.32	8.42	461.96	461.96
AC	82+05.32	8.42	461.72	461.74
AD	82+15.32	8.42	461.48	461.54
AE	82+25.32	8.42	461.25	461.34
AF	82+35.32	8.42	461.01	461.15
AG	82+45.32	8.42	460.77	460.96
AH	82+55.32	8.42	460.53	460.77
AI	82+65.32	8.42	460.30	460.57
AJ	82+75.32	8.42	460.06	460.37
AK	82+85.32	8.42	459.82	460.17
AL	82+95.32	8.42	459.58	459.95
AM	83+05.32	8.42	459.35	459.73
AN	83+15.32	8.42	459.11	459.49
AO	83+25.32	8.42	458.87	459.25
AP	83+35.32	8.42	458.64	458.99
AQ	83+45.32	8.42	458.40	458.73
AR	83+55.32	8.42	458.16	458.45
AS	83+65.32	8.42	457.92	458.18
AT	83+75.32	8.42	457.69	457.89
AU	83+85.32	8.42	457.45	457.61
AV	83+95.32	8.42	457.21	457.33
AW	84+05.32	8.42	456.98	457.05
AX	84+15.32	8.42	456.74	456.78
℄ Pier 10	84+28.98	8.42	456.41	456.41
AY	84+38.98	8.42	456.18	456.16
AZ	84+48.98	8.42	455.94	455.92
BA	84+58.98	8.42	455.70	455.68
BB	84+68.98	8.42	455.47	455.45
BC	84+78.98	8.42	455.23	455.22
BD	84+88.98	8.42	454.99	455.00
BE	84+98.98	8.42	454.75	454.77
BF	85+08.98	8.42	454.52	454.54

GIRDER 1B CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BG	85+18.98	8.42	454.28	454.31
BH	85+28.98	8.42	454.04	454.08
BI	85+38.98	8.42	453.81	453.84
BJ	85+48.98	8.42	453.57	453.59
BK	85+58.98	8.42	453.33	453.35
℄ W. Brg.	85+68.97	8.42	453.11	453.11
Bk. W. Abut.	85+72.72	8.42	453.02	453.02

GIRDER 2B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Pier 7	78+98.22	0.67	465.86	465.86
℄ Brg. Pier 7-W	78+99.72	0.67	465.87	465.87
A	79+09.72	0.67	465.91	465.93
B	79+19.72	0.67	465.94	465.98
C	79+29.72	0.67	465.96	466.01
D	79+39.72	0.67	465.96	466.02
E	79+49.72	0.67	465.95	466.01
F	79+59.72	0.67	465.93	465.99
G	79+69.72	0.67	465.90	465.95
H	79+79.72	0.67	465.86	465.90
I	79+89.72	0.67	465.80	465.83
J	79+99.72	0.67	465.74	465.75
K	80+09.72	0.67	465.66	465.66
℄ Pier 8	80+20.32	0.67	465.56	465.56
L	80+30.32	0.67	465.46	465.46
M	80+40.32	0.67	465.34	465.35
N	80+50.32	0.67	465.21	465.23
O	80+60.32	0.67	465.07	465.10
P	80+70.32	0.67	464.92	464.95
Q	80+80.32	0.67	464.76	464.80
R	80+90.32	0.67	464.59	464.62
S	81+00.32	0.67	464.40	464.43
T	81+10.32	0.67	464.20	464.23
U	81+20.32	0.67	463.99	464.01
V	81+30.32	0.67	463.77	463.78
W	81+40.32	0.67	463.53	463.53
X	81+50.32	0.67	463.30	463.29
Y	81+60.32	0.67	463.06	463.04
Z	81+70.32	0.67	462.82	462.80
AA	81+80.32	0.67	462.58	462.57
AB	81+90.32	0.67	462.35	462.34
℄ Pier 9	81+95.32	0.67	462.23	462.23
AC	82+05.32	0.67	461.99	462.01
AD	82+15.32	0.67	461.75	461.81
AE	82+25.32	0.67	461.52	461.61
AF	82+35.32	0.67	461.28	461.42
AG	82+45.32	0.67	461.04	461.22
AH	82+55.32	0.67	460.80	461.03
AI	82+65.32	0.67	460.57	460.83
AJ	82+75.32	0.67	460.33	460.63
AK	82+85.32	0.67	460.09	460.43
AL	82+95.32	0.67	459.86	460.21

GIRDER 2B CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
AM	83+05.32	0.67	459.62	459.99
AN	83+15.32	0.67	459.38	459.75
AO	83+25.32	0.67	459.14	459.51
AP	83+35.32	0.67	458.91	459.25
AQ	83+45.32	0.67	458.67	458.99
AR	83+55.32	0.67	458.43	458.72
AS	83+65.32	0.67	458.20	458.44
AT	83+75.32	0.67	457.96	458.16
AU	83+85.32	0.67	457.72	457.88
AV	83+95.32	0.67	457.48	457.60
AW	84+05.32	0.67	457.25	457.32
AX	84+15.32	0.67	457.01	457.05
℄ Pier 10	84+28.98	0.67	456.69	456.69
AY	84+38.98	0.67	456.45	456.43
AZ	84+48.98	0.67	456.21	456.19
BA	84+58.98	0.67	455.97	455.95
BB	84+68.98	0.67	455.74	455.72
BC	84+78.98	0.67	455.50	455.49
BD	84+88.98	0.67	455.26	455.26
BE	84+98.98	0.67	455.03	455.04
BF	85+08.98	0.67	454.79	454.81
BG	85+18.98	0.67	454.55	454.58
BH	85+28.98	0.67	454.31	454.34
BI	85+38.98	0.67	454.08	454.10
BJ	85+48.98	0.67	453.84	453.86
BK	85+58.98	0.67	453.61	453.62
℄ W. Brg.	85+68.97	0.67	453.38	453.38
Bk. W. Abut.	85+72.72	0.67	453.29	453.29

℄ & P.G.L. 55S70W

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Pier 7	78+98.22	0.00	465.89	465.89
℄ Brg. Pier 7-W	78+99.72	0.00	465.90	465.90
A	79+09.72	0.00	465.94	465.95
B	79+19.72	0.00	465.96	466.00
C	79+29.72	0.00	465.98	466.03
D	79+39.72	0.00	465.98	466.04
E	79+49.72	0.00	465.98	466.04
F	79+59.72	0.00	465.96	466.01
G	79+69.72	0.00	465.93	465.98
H	79+79.72	0.00	465.88	465.92
I	79+89.72	0.00	465.83	465.85
J	79+99.72	0.00	465.76	465.78
K	80+09.72	0.00	465.68	465.69
℄ Pier 8	80+20.32	0.00	465.58	465.58
L	80+30.32	0.00	465.48	465.48
M	80+40.32	0.00	465.37	465.37
N	80+50.32	0.00	465.24	465.25
O	80+60.32	0.00	465.10	465.12
P	80+70.32	0.00	464.95	464.98
Q	80+80.32	0.00	464.78	464.82
R	80+90.32	0.00	464.61	464.65

NOTE:
Work this sheet with sheets S-21 thru S-27.

℄ & P.G.L. 55S70W CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
S	81+00.32	0.00	464.42	464.46
T	81+10.32	0.00	464.22	464.25
U	81+20.32	0.00	464.01	464.04
V	81+30.32	0.00	463.79	463.80
W	81+40.32	0.00	463.56	463.56
X	81+50.32	0.00	463.32	463.31
Y	81+60.32	0.00	463.08	463.06
Z	81+70.32	0.00	462.84	462.82
AA	81+80.32	0.00	462.61	462.59
AB	81+90.32	0.00	462.37	462.36
℄ Pier 9	81+95.32	0.00	462.25	462.25
AC	82+05.32	0.00	462.01	462.04
AD	82+15.32	0.00	461.78	461.83
AE	82+25.32	0.00	461.54	461.63
AF	82+35.32	0.00	461.30	461.44
AG	82+45.32	0.00	461.07	461.25
AH	82+55.32	0.00	460.83	461.05
AI	82+65.32	0.00	460.59	460.86
AJ	82+75.32	0.00	460.35	460.66
AK	82+85.32	0.00	460.12	460.45
AL	82+95.32	0.00	459.88	460.24
AM	83+05.32	0.00	459.64	460.01
AN	83+15.32	0.00	459.41	459.77
AO	83+25.32	0.00	459.17	459.53
AP	83+35.32	0.00	458.93	459.27
AQ	83+45.32	0.00	458.69	459.01
AR	83+55.32	0.00	458.46	458.74
AS	83+65.32	0.00	458.22	458.46
AT	83+75.32	0.00	457.98	458.18
AU	83+85.32	0.00	457.75	457.90
AV	83+95.32	0.00	457.51	457.62
AW	84+05.32	0.00	457.27	457.34
AX	84+15.32	0.00	457.03	457.07
℄ Pier 10	84+28.98	0.00	456.71	456.71
AY	84+38.98	0.00	456.47	456.46
AZ	84+48.98	0.00	456.24	456.21
BA	84+58.98	0.00	456.00	455.98
BB	84+68.98	0.00	455.76	455.74
BC	84+78.98	0.00	455.52	455.51
BD	84+88.98	0.00	455.29	455.29
BE	84+98.98	0.00	455.05	455.06
BF	85+08.98	0.00	454.81	454.83
BG	85+18.98	0.00	454.57	454.60
BH	85+28.98	0.00	454.34	454.37
BI	85+38.98	0.00	454.10	454.13
BJ	85+48.98	0.00	453.86	453.88
BK	85+58.98	0.00	453.63	453.64
℄ W. Brg.	85+68.97	0.00	453.40	453.40
Bk. W. Abut.	85+72.72	0.00	453.32	453.32

GIRDER 3B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Pier 7	78+98.22	-7.08	466.14	466.14
℄ Brg. Pier 7-W	78+99.71	-7.08	466.14	466.14
A	79+09.72	-7.08	466.18	466.20
B	79+19.72	-7.08	466.21	466.25
C	79+29.72	-7.08	466.23	466.28
D	79+39.72	-7.08	466.23	466.29
E	79+49.72	-7.08	466.22	466.28
F	79+59.72	-7.08	466.20	466.26
G	79+69.72	-7.08	466.17	466.22
H	79+79.72	-7.08	466.13	466.17
I	79+89.72	-7.08	466.07	466.10
J	79+99.72	-7.08	466.01	466.02
K	80+09.72	-7.08	465.93	465.93
℄ Pier 8	80+20.32	-7.08	465.83	465.83
L	80+30.32	-7.08	465.73	465.73
M	80+40.32	-7.08	465.61	465.62
N	80+50.32	-7.08	465.49	465.50
O	80+60.32	-7.08	465.35	465.37
P	80+70.32	-7.08	465.20	465.22
Q	80+80.32	-7.08	465.03	465.06
R	80+90.32	-7.08	464.86	464.89
S	81+00.32	-7.08	464.67	464.70
T	81+10.32	-7.08	464.47	464.50
U	81+20.32	-7.08	464.26	464.28
V	81+30.32	-7.08	464.04	464.05
W	81+40.32	-7.08	463.80	463.80
X	81+50.32	-7.08	463.57	463.55
Y	81+60.32	-7.08	463.33	463.31
Z	81+70.32	-7.08	463.09	463.07
AA	81+80.32	-7.08	462.85	462.84
AB	81+90.32	-7.08	462.62	462.61
℄ Pier 9	81+95.32	-7.08	462.50	462.50
AC	82+05.32	-7.08	462.26	462.29
AD	82+15.32	-7.08	462.02	462.08
AE	82+25.32	-7.08	461.79	461.88
AF	82+35.32	-7.08	461.55	461.68
AG	82+45.32	-7.08	461.31	461.49
AH	82+55.32	-7.08	461.08	461.30
AI	82+65.32	-7.08	460.84	461.10
AJ	82+75.32	-7.08	460.60	460.90
AK	82+85.32	-7.08	460.36	460.69
AL	82+95.32	-7.08	460.13	460.47
AM	83+05.32	-7.08	459.89	460.25
AN	83+15.32	-7.08	459.65	460.01
AO	83+25.32	-7.08	459.42	459.77
AP	83+35.32	-7.08	459.18	459.51
AQ	83+45.32	-7.08	458.94	459.25
AR	83+55.32	-7.08	458.70	458.98
AS	83+65.32	-7.08	458.47	458.70
AT	83+75.32	-7.08	458.23	458.43
AU	83+85.32	-7.08	457.99	458.14
AV	83+95.32	-7.08	457.76	457.86
AW	84+05.32	-7.08	457.52	457.59
AX	84+15.32	-7.08	457.28	457.32
℄ Pier 10	84+28.98	-7.08	456.96	456.96
AY	84+38.98	-7.08	456.72	456.71
AZ	84+48.98	-7.08	456.48	456.46
BA	84+58.98	-7.08	456.25	456.22
BB	84+68.98	-7.08	456.01	455.99
BC	84+78.98	-7.08	455.77	455.76
BD	84+88.98	-7.08	455.53	455.53
BE	84+98.98	-7.08	455.30	455.30
BF	85+08.98	-7.08	455.06	455.08

GIRDER 3B CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BG	85+18.98	-7.08	454.82	454.84
BH	85+28.98	-7.08	454.59	454.61
BI	85+38.98	-7.08	454.35	454.37
BJ	85+48.98	-7.08	454.11	454.13
BK	85+58.98	-7.08	453.88	453.89
℄ W. Brg.	85+68.97	-7.08	453.65	453.65
Bk. W. Abut.	85+72.72	-7.08	453.57	453.57

GIRDER 4B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Pier 7	78+98.22	-14.83	466.41	466.41
℄ Brg. Pier 7-W	78+99.71	-14.83	466.41	466.41
A	79+09.72	-14.83	466.45	466.47
B	79+19.72	-14.83	466.48	466.52
C	79+29.72	-14.83	466.50	466.54
D	79+39.72	-14.83	466.50	466.56
E	79+49.72	-14.83	466.50	466.55
F	79+59.72	-14.83	466.48	466.53
G	79+69.72	-14.83	466.44	466.49
H	79+79.72	-14.83	466.40	466.44
I	79+89.72	-14.83	466.35	466.37
J	79+99.72	-14.83	466.28	466.30
K	80+09.72	-14.83	466.20	466.21
℄ Pier 8	80+20.32	-14.83	466.10	466.10
L	80+30.32	-14.83	466.00	466.00
M	80+40.32	-14.83	465.88	465.89
N	80+50.32	-14.83	465.76	465.77
O	80+60.32	-14.83	465.62	465.63
P	80+70.32	-14.83	465.47	465.49
Q	80+80.32	-14.83	465.30	465.33
R	80+90.32	-14.83	465.13	465.16
S	81+00.32	-14.83	464.94	464.97
T	81+10.32	-14.83	464.74	464.76
U	81+20.32	-14.83	464.53	464.55
V	81+30.32	-14.83	464.31	464.31
W	81+40.32	-14.83	464.07	464.07
X	81+50.32	-14.83	463.84	463.82
Y	81+60.32	-14.83	463.60	463.58
Z	81+70.32	-14.83	463.36	463.34
AA	81+80.32	-14.83	463.13	463.11
AB	81+90.32	-14.83	462.89	462.88
℄ Pier 9	81+95.32	-14.83	462.77	462.77
AC	82+05.32	-14.83	462.53	462.56
AD	82+15.32	-14.83	462.30	462.35
AE	82+25.32	-14.83	462.06	462.15
AF	82+35.32	-14.83	461.82	461.95
AG	82+45.32	-14.83	461.58	461.76
AH	82+55.32	-14.83	461.35	461.56
AI	82+65.32	-14.83	461.11	461.36
AJ	82+75.32	-14.83	460.87	461.16
AK	82+85.32	-14.83	460.64	460.95
AL	82+95.32	-14.83	460.40	460.74

NOTE:
Work this sheet with sheets S-21 thru S-27.

GIRDER 4B CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
AM	83+05.32	-14.83	460.16	460.51
AN	83+15.32	-14.83	459.92	460.28
AO	83+25.32	-14.83	459.69	460.03
AP	83+35.32	-14.83	459.45	459.78
AQ	83+45.32	-14.83	459.21	459.51
AR	83+55.32	-14.83	458.98	459.24
AS	83+65.32	-14.83	458.74	458.97
AT	83+75.32	-14.83	458.50	458.69
AU	83+85.32	-14.83	458.26	458.41
AV	83+95.32	-14.83	458.03	458.13
AW	84+05.32	-14.83	457.79	457.86
AX	84+15.32	-14.83	457.55	457.59
℄ Pier 10	84+28.98	-14.83	457.23	457.23
AY	84+38.98	-14.83	456.99	456.98
AZ	84+48.98	-14.83	456.75	456.73
BA	84+58.98	-14.83	456.52	456.49
BB	84+68.98	-14.83	456.28	456.26
BC	84+78.98	-14.83	456.04	456.03
BD	84+88.98	-14.83	455.81	455.80
BE	84+98.98	-14.83	455.57	455.57
BF	85+08.98	-14.83	455.33	455.34
BG	85+18.98	-14.83	455.09	455.11
BH	85+28.98	-14.83	454.86	454.88
BI	85+38.98	-14.83	454.62	454.64
BJ	85+48.98	-14.83	454.38	454.40
BK	85+58.98	-14.83	454.15	454.16
℄ W. Brg.	85+68.97	-14.83	453.92	453.92
Bk. W. Abut.	85+72.72	-14.83	453.84	453.84

GIRDER 5B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Pier 7	78+98.22	-22.58	466.68	466.68
℄ Brg. Pier 7-W	78+99.70	-22.58	466.69	466.69
A	79+09.72	-22.58	466.73	466.74
B	79+19.72	-22.58	466.75	466.79
C	79+29.72	-22.58	466.77	466.82
D	79+39.72	-22.58	466.77	466.83
E	79+49.72	-22.58	466.77	466.82
F	79+59.72	-22.58	466.75	466.80
G	79+69.72	-22.58	466.72	466.77
H	79+79.72	-22.58	466.67	466.71
I	79+89.72	-22.58	466.62	466.65
J	79+99.72	-22.58	466.55	466.57
K	80+09.72	-22.58	466.47	466.48
℄ Pier 8	80+20.32	-22.58	466.37	466.37
L	80+30.32	-22.58	466.27	466.27
M	80+40.32	-22.58	466.16	466.16
N	80+50.32	-22.58	466.03	466.04
O	80+60.32	-22.58	465.89	465.90
P	80+70.32	-22.58	465.74	465.76
Q	80+80.32	-22.58	465.57	465.60
R	80+90.32	-22.58	465.40	465.42

GIRDER 5B CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
S	81+00.32	-22.58	465.21	465.24
T	81+10.32	-22.58	465.01	465.03
U	81+20.32	-22.58	464.80	464.81
V	81+30.32	-22.58	464.58	464.58
W	81+40.32	-22.58	464.35	464.34
X	81+50.32	-22.58	464.11	464.09
Y	81+60.32	-22.58	463.87	463.85
Z	81+70.32	-22.58	463.63	463.61
AA	81+80.32	-22.58	463.40	463.38
AB	81+90.32	-22.58	463.16	463.15
℄ Pier 9	81+95.32	-22.58	463.04	463.04
AC	82+05.32	-22.58	462.80	462.83
AD	82+15.32	-22.58	462.57	462.62
AE	82+25.32	-22.58	462.33	462.42
AF	82+35.32	-22.58	462.09	462.22
AG	82+45.32	-22.58	461.86	462.02
AH	82+55.32	-22.58	461.62	461.83
AI	82+65.32	-22.58	461.38	461.63
AJ	82+75.32	-22.58	461.14	461.43
AK	82+85.32	-22.58	460.91	461.22
AL	82+95.32	-22.58	460.67	461.00
AM	83+05.32	-22.58	460.43	460.77
AN	83+15.32	-22.58	460.20	460.54
AO	83+25.32	-22.58	459.96	460.29
AP	83+35.32	-22.58	459.72	460.04
AQ	83+45.32	-22.58	459.48	459.78
AR	83+55.32	-22.58	459.25	459.51
AS	83+65.32	-22.58	459.01	459.24
AT	83+75.32	-22.58	458.77	458.96
AU	83+85.32	-22.58	458.54	458.68
AV	83+95.32	-22.58	458.30	458.40
AW	84+05.32	-22.58	458.06	458.13
AX	84+15.32	-22.58	457.82	457.86
℄ Pier 10	84+28.98	-22.58	457.50	457.50
AY	84+38.98	-22.58	457.26	457.25
AZ	84+48.98	-22.58	457.03	457.00
BA	84+58.98	-22.58	456.79	456.76
BB	84+68.98	-22.58	456.55	456.53
BC	84+78.98	-22.58	456.31	456.30
BD	84+88.98	-22.58	456.08	456.07
BE	84+98.98	-22.58	455.84	455.84
BF	85+08.98	-22.58	455.60	455.61
BG	85+18.98	-22.58	455.37	455.38
BH	85+28.98	-22.58	455.13	455.15
BI	85+38.98	-22.58	454.89	454.91
BJ	85+48.98	-22.58	454.65	454.67
BK	85+58.98	-22.58	454.42	454.43
℄ W. Brg.	85+68.97	-22.58	454.19	454.19
Bk. W. Abut.	85+72.72	-22.58	454.11	454.11

GIRDER 6B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Pier 7	78+98.22	-30.33	466.91	466.901
℄ Brg. Pier 7-W	78+99.70	-30.33	466.91	466.91
A	79+09.72	-30.33	466.90	466.92
B	79+19.72	-30.33	466.93	466.97
C	79+29.72	-30.33	466.95	466.99
D	79+39.72	-30.33	466.95	467.01
E	79+49.72	-30.33	466.94	467.00
F	79+59.72	-30.33	466.92	466.98
G	79+69.72	-30.33	466.89	466.94
H	79+79.72	-30.33	466.85	466.89
I	79+89.72	-30.33	466.79	466.82
J	79+99.72	-30.33	466.73	466.74
K	80+09.72	-30.33	466.65	466.65
℄ Pier 8	80+20.32	-30.33	466.55	466.55
L	80+30.32	-30.33	466.45	466.44
M	80+40.32	-30.33	466.33	466.33
N	80+50.32	-30.33	466.20	466.21
O	80+60.32	-30.33	466.06	466.08
P	80+70.32	-30.33	465.91	465.93
Q	80+80.32	-30.33	465.75	465.77
R	80+90.32	-30.33	465.60	465.62
S	81+00.32	-30.33	465.43	465.45
T	81+10.32	-30.33	465.25	465.27
U	81+20.32	-30.33	465.06	465.07
V	81+30.32	-30.33	464.85	464.85
W	81+40.32	-30.33	464.62	464.61
X	81+50.32	-30.33	464.38	464.36
Y	81+60.32	-30.33	464.14	464.12
Z	81+70.32	-30.33	463.91	463.88
AA	81+80.32	-30.33	463.67	463.65
AB	81+90.32	-30.33	463.44	463.43
℄ Pier 9	81+95.32	-30.33	463.32	463.32
AC	82+05.32	-30.33	463.08	463.10
AD	82+15.32	-30.33	462.84	462.89
AE	82+25.32	-30.33	462.60	462.68
AF	82+35.32	-30.33	462.36	462.49
AG	82+45.32	-30.33	462.12	462.29
AH	82+55.32	-30.33	461.89	462.09
AI	82+65.32	-30.33	461.65	461.89
AJ	82+75.32	-30.33	461.41	461.69
AK	82+85.32	-30.33	461.17	461.48
AL	82+95.32	-30.33	460.94	461.26
AM	83+05.32	-30.33	460.70	461.04
AN	83+15.32	-30.33	460.47	460.80
AO	83+25.32	-30.33	460.23	460.56
AP	83+35.32	-30.33	459.99	460.31
AQ	83+45.32	-30.33	459.76	460.05
AR	83+55.32	-30.33	459.52	459.78
AS	83+65.32	-30.33	459.28	459.51
AT	83+75.32	-30.33	459.04	459.23
AU	83+85.32	-30.33	458.81	458.95
AV	83+95.32	-30.33	458.57	458.67
AW	84+05.32	-30.33	458.33	458.40
AX	84+15.32	-30.33	458.10	458.13
℄ Pier 10	84+28.98	-30.33	457.77	457.77
AY	84+38.98	-30.33	457.53	457.52
AZ	84+48.98	-30.33	457.30	457.27
BA	84+58.98	-30.33	457.06	457.03
BB	84+68.98	-30.33	456.82	456.80
BC	84+78.98	-30.33	456.59	456.57
BD	84+88.98	-30.33	456.35	456.34
BE	84+98.98	-30.33	456.11	456.11
BF	85+08.98	-30.33	455.87	455.88

8

NOTE:
Work this sheet with sheets S-21 thru S-27.

P:\Projects\082-0325 Construction Support\Bridges\Construction Contract Changes\Misc. Changes\Revision #8 2013 04 02\082-0324_082-0325_GIRD_SlabElev_4b-6b.dgn

AECOM

USER NAME = bhatia	DESIGNED - DD	REVISED [8] 4/3/2013 A.T.B.	
	DRAWN - DD	REVISED	
PLOT SCALE = 2.2 '/ in.	CHECKED - ATB	REVISED	
PLOT DATE = %DATE%	DATE 3 30 11	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS – III S.N. 082-0325 UNIT 3
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE SHEET NO. S-24 OF S-138 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	139
	S.N. 082-0323 & S.N. 082-0325	CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GIRDER 6B CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BG	85+18.98	-30.33	455.64	455.65
BH	85+28.98	-30.33	455.40	455.41
BI	85+38.98	-30.33	455.16	455.18
BJ	85+48.98	-30.33	454.93	454.94
BK	85+58.98	-30.33	454.69	454.70
℄ W. Brg.	85+68.97	-30.33	454.46	454.46
Bk. W. Abut.	85+72.72	-30.33	454.38	454.38

GIRDER 7B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Pier 7	78+97.72	-38.08	467.00	467.00
℄ Brg. Pier 7-W	78+99.21	-38.08	467.01	467.01
A	79+09.72	-38.08	467.05	467.07
B	79+19.72	-38.08	467.09	467.12
C	79+29.72	-38.08	467.10	467.15
D	79+39.72	-38.08	467.11	467.16
E	79+49.72	-38.08	467.10	467.16
F	79+59.72	-38.08	467.08	467.14
G	79+69.72	-38.08	467.05	467.10
H	79+79.72	-38.08	467.00	467.04
I	79+89.72	-38.08	466.94	466.97
J	79+99.72	-38.08	466.88	466.90
K	80+09.72	-38.08	466.79	466.80
℄ Pier 8	80+20.32	-38.08	466.70	466.70
L	80+30.32	-38.08	466.60	466.60
M	80+40.32	-38.08	466.49	466.48
N	80+50.32	-38.08	466.37	466.37
O	80+60.32	-38.08	466.22	466.23
P	80+70.32	-38.08	466.07	466.08
Q	80+80.32	-38.08	465.92	465.93
R	80+90.32	-38.08	465.78	465.79
S	81+00.32	-38.08	465.64	465.65
T	81+10.32	-38.08	465.47	465.48
U	81+20.32	-38.08	465.30	465.30
V	81+30.32	-38.08	465.10	465.10
W	81+40.32	-38.08	464.88	464.87
X	81+50.32	-38.08	464.66	464.64
Y	81+60.32	-38.08	464.42	464.40
Z	81+70.32	-38.08	464.18	464.16
AA	81+80.32	-38.08	463.95	463.93
AB	81+90.32	38.08	463.71	463.70
℄ Pier 9	81+95.32	-38.08	463.59	463.59
AC	82+05.32	-38.08	463.36	463.38
AD	82+15.32	-38.08	463.11	463.16
AE	82+25.32	-38.08	462.87	462.96
AF	82+35.32	-38.08	462.64	462.76
AG	82+45.32	-38.08	462.40	462.56
AH	82+55.32	-38.08	462.16	462.36
AI	82+65.32	-38.08	461.92	462.16
AJ	82+75.32	-38.08	461.69	461.96
AK	82+85.32	-38.08	461.45	461.75
AL	82+95.32	-38.08	461.21	461.53

GIRDER 7B CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
AM	83+05.32	-38.08	460.98	461.31
AN	83+15.32	-38.08	460.74	461.07
AO	83+25.32	-38.08	460.50	460.83
AP	83+35.32	-38.08	460.26	460.58
AQ	83+45.32	-38.08	460.03	460.32
AR	83+55.32	-38.08	459.79	460.05
AS	83+65.32	-38.08	459.55	459.78
AT	83+75.32	-38.08	459.32	459.50
AU	83+85.32	-38.08	459.08	459.22
AV	83+95.32	-38.08	458.84	458.95
AW	84+05.32	-38.08	458.60	458.67
AX	84+15.32	-38.08	458.37	458.40
℄ Pier 10	84+28.98	-38.08	458.04	458.04
AY	84+38.98	-38.08	457.81	457.79
AZ	84+48.98	-38.08	457.57	457.54
BA	84+58.98	-38.08	457.33	457.30
BB	84+68.98	-38.08	457.09	457.07
BC	84+78.98	-38.08	456.86	456.83
BD	84+88.98	-38.08	456.62	456.60
BE	84+98.98	-38.08	456.38	456.37
BF	85+08.98	-38.08	456.15	456.14
BG	85+18.98	-38.08	455.91	455.91
BH	85+28.98	-38.08	455.67	455.68
BI	85+38.98	-38.08	455.43	455.45
BJ	85+48.98	-38.08	455.20	455.21
BK	85+58.98	-38.08	454.96	454.97
℄ W. Brg.	85+68.97	-38.08	454.73	454.73
Bk. W. Abut.	85+72.72	-38.08	454.65	454.65

℄ & P.G.L. 64W70W

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Pier 7	78+98.39	-45.06	467.12	467.12
℄ Brg. Pier 7-W	78+99.86	-44.92	467.13	467.13
A	79+09.72	-43.97	467.17	467.19
B	79+19.72	-43.03	467.18	467.21
C	79+29.72	-42.14	467.17	467.23
D	79+39.72	-41.28	467.16	467.22
E	79+49.72	-40.46	467.15	467.21
F	79+59.72	-39.67	467.11	467.17
G	79+69.72	-38.92	467.06	467.12
H	79+79.72	-38.21	467.00	467.05
I	79+89.72	-37.53	466.93	466.96
J	79+99.72	-36.88	466.85	466.87
K	80+09.72	-36.28	466.76	466.77
℄ Pier 8	80+20.32	-35.67	466.66	466.66
L	80+30.32	-35.14	466.54	466.54
M	80+40.32	-34.64	466.41	466.42
N	80+50.32	-34.18	466.29	466.29
O	80+60.32	-33.75	466.13	466.14
P	80+70.32	-33.36	465.97	465.99
Q	80+80.32	-33.00	465.81	465.83
R	80+90.32	-32.68	465.65	465.67

℄ & P.G.L. 64W70W CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
S	81+00.32	-32.40	465.48	465.50
T	81+10.32	-32.15	465.29	465.32
U	81+20.32	-31.91	465.09	465.12
V	81+30.32	-31.67	464.87	464.89
W	81+40.32	-31.44	464.64	464.65
X	81+50.32	-31.21	464.41	464.40
Y	81+60.32	-30.99	464.17	464.15
Z	81+70.32	-30.77	463.92	463.90
AA	81+80.32	-30.55	463.68	463.66
AB	81+90.32	-30.34	463.44	463.43
℄ Pier 9	81+95.32	-30.23	463.31	463.31
AC	82+05.32	-30.02	463.07	463.10
AD	82+15.32	-29.82	462.82	462.88
AE	82+25.32	-29.61	462.57	462.67
AF	82+35.32	-29.42	462.33	462.46
AG	82+45.32	-29.22	462.08	462.25
AH	82+55.32	-29.03	461.84	462.05
AI	82+65.32	-28.84	461.60	461.84
AJ	82+75.32	-28.66	461.35	461.63
AK	82+85.32	-28.48	461.11	461.41
AL	82+95.32	-28.30	460.86	461.19
AM	83+05.32	-28.13	460.62	460.96
AN	83+15.32	-27.96	460.38	460.72
AO	83+25.32	-27.79	460.14	460.47
AP	83+35.32	-27.63	459.90	460.21
AQ	83+45.32	-27.47	459.66	459.95
AR	83+55.32	-27.32	459.41	459.67
AS	83+65.32	-27.16	459.17	459.40
AT	83+75.32	-27.02	458.93	459.11
AU	83+85.32	-26.87	458.69	458.83
AV	83+95.32	-26.73	458.44	458.56
AW	84+05.32	-26.59	458.20	458.27
AX	84+15.32	-26.46	457.96	457.99
℄ Pier 10	84+28.98	-26.28	457.63	457.63
AY	84+38.98	-26.15	457.39	457.37
AZ	84+48.98	-26.03	457.15	457.12
BA	84+58.98	-25.91	456.90	456.88
BB	84+68.98	-25.80	456.66	456.64
BC	84+78.98	-25.69	456.42	456.41
BD	84+88.98	-25.58	456.18	456.17
BE	84+98.98	-25.47	455.94	455.94
BF	85+08.98	-25.37	455.70	455.71
BG	85+18.98	-25.27	455.46	455.47
BH	85+28.98	-25.18	455.22	455.23
BI	85+38.98	-25.09	454.98	455.00
BJ	85+48.98	-25.00	454.74	454.75
BK	85+58.98	-24.92	454.50	454.51
℄ W. Brg.	85+68.97	-24.84	454.27	454.27
Bk. W. Abut.	85+72.72	-24.81	454.19	454.19

8 Revised Sheet

NOTE:
Work this sheet with sheets S-21 thru S-27.

C:\Projects\Active\...\Construction Documents\Drawings\TOP_SLAB_ELEVATIONS_IV_Unit3.dgn
USER NAME = bmatta
PLOT SCALE = 2.0 '/ in.
PLOT DATE = 4/8/2013

AECOM

DESIGNED - DD	REVISED 8 4/3/2013 A.T.B.	
DRAWN - DD	REVISED	
CHECKED - ATB	REVISED	
DATE 3-30-11	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS – IV S.N. 082-0325 UNIT 3
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE SHEET NO. S-25 OF S-138 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	140
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

GIRDER 8B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Pier 7	78+98.47	-45.83	467.13	467.13
℄ Brg. Pier 7-W	78+99.95	-45.82	467.14	467.14
A	79+09.72	-45.75	467.21	467.23
B	79+19.72	-45.67	467.23	467.26
C	79+29.72	-45.60	467.24	467.29
D	79+39.72	-45.52	467.25	467.30
E	79+49.72	-45.45	467.25	467.31
F	79+59.72	-45.37	467.22	467.28
G	79+69.72	-45.30	467.19	467.25
H	79+79.72	-45.22	467.15	467.19
I	79+89.72	-45.15	467.08	467.12
J	79+99.72	-45.07	467.02	467.04
K	80+09.72	-45.00	466.94	466.94
℄ Pier 8	80+20.32	-44.92	466.84	466.84
L	80+30.32	-44.84	466.74	466.74
M	80+40.32	-44.77	466.62	466.62
N	80+50.32	-44.69	466.50	466.50
O	80+60.32	-44.62	466.35	466.36
P	80+70.32	-44.54	466.20	466.21
Q	80+80.32	-44.47	466.05	466.06
R	80+90.32	-44.39	465.93	465.94
S	81+00.32	-44.32	465.81	465.82
T	81+10.32	-44.24	465.65	465.66
U	81+20.32	-44.17	465.50	465.50
V	81+30.32	-44.09	465.32	465.31
W	81+40.32	-44.02	465.09	465.08
X	81+50.32	-43.94	464.86	464.85
Y	81+60.32	-43.87	464.63	464.60
Z	81+70.32	-43.79	464.39	464.37
AA	81+80.32	-43.72	464.15	464.13
AB	81+90.32	-43.64	463.91	463.90
℄ Pier 9	81+95.32	-43.60	463.79	463.79
AC	82+05.32	-43.53	463.55	463.57
AD	82+15.32	-43.45	463.30	463.35
AE	82+25.32	-43.38	463.06	463.14
AF	82+35.32	-43.31	462.82	462.94
AG	82+45.32	-43.23	462.58	462.74
AH	82+55.32	-43.16	462.34	462.54
AI	82+65.32	-43.08	462.10	462.33
AJ	82+75.32	-43.01	461.86	462.13
AK	82+85.32	-42.93	461.62	461.91
AL	82+95.32	-42.86	461.38	461.70
AM	83+05.32	-42.78	461.14	461.47
AN	83+15.32	-42.71	460.90	461.23
AO	83+25.32	-42.63	460.66	460.99
AP	83+35.32	-42.56	460.42	460.73
AQ	83+45.32	-42.49	460.18	460.47
AR	83+55.32	-42.41	459.94	460.20
AS	83+65.32	-42.34	459.70	459.93
AT	83+75.32	-42.26	459.46	459.65
AU	83+85.32	-42.19	459.22	459.37
AV	83+95.32	42.12	458.98	459.09
AW	84+05.32	-42.04	458.74	458.81
AX	84+15.32	-41.97	458.50	458.54
℄ Pier 10	84+28.98	-41.87	458.17	458.17
AY	84+38.98	-41.79	457.94	457.92
AZ	84+48.98	-41.72	457.70	457.67
BA	84+58.98	-41.64	457.46	457.43
BB	84+68.98	-41.57	457.22	457.19
BC	84+78.98	-41.50	456.98	456.95

GIRDER 9B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Pier 7	78+99.21	-53.58	467.26	467.26
℄ Brg. Pier 7-W	79+00.68	-53.55	467.27	467.27
A	79+09.72	-53.36	467.35	467.37
B	79+19.72	-53.15	467.38	467.41
C	79+29.72	-52.94	467.39	467.44
D	79+39.72	-52.74	467.39	467.45
E	79+49.72	-52.53	467.39	467.45
F	79+59.72	-52.32	467.36	467.43
G	79+69.72	-52.11	467.33	467.39
H	79+79.72	-51.91	467.29	467.33
I	79+89.72	-51.70	467.22	467.25
J	79+99.72	-51.49	467.15	467.17
K	80+09.72	-51.28	467.07	467.07
℄ Pier 8	80+20.32	-51.06	466.97	466.97
L	80+30.32	-50.85	466.87	466.86
M	80+40.32	-50.65	466.74	466.74
N	80+50.32	-50.44	466.62	466.62
O	80+60.32	-50.23	466.47	466.47
P	80+70.32	-50.02	466.32	466.32
Q	80+80.32	-49.82	466.16	466.17
R	80+90.32	-49.61	466.05	466.06
S	81+00.32	-49.40	465.94	465.95
T	81+10.32	-49.20	465.80	465.81
U	81+20.32	-48.99	465.66	465.66
V	81+30.32	-48.78	465.48	465.48
W	81+40.32	-48.57	465.25	465.24
X	81+50.32	-48.37	465.02	465.00
Y	81+60.32	-48.16	464.78	464.76
Z	81+70.32	-47.95	464.53	464.51
AA	81+80.32	-47.75	464.29	464.27
AB	81+90.32	-47.54	464.05	464.04
℄ Pier 9	81+95.32	-47.44	463.93	463.93
AC	82+05.32	-47.23	463.68	463.70
AD	82+15.32	-47.03	463.43	463.48
AE	82+25.32	-46.82	463.18	463.26
AF	82+35.32	-46.61	462.94	463.06
AG	82+45.32	-46.41	462.69	462.85

GIRDER 10B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Pier 7	78+99.94	-61.31	467.39	467.39
℄ Brg. Pier 7-W	79+01.41	-61.23	467.40	467.40
A	79+09.72	-60.78	467.49	467.51
B	79+19.72	-60.24	467.52	467.55
C	79+29.72	-59.70	467.53	467.58
D	79+39.72	-59.16	467.52	467.58
E	79+49.72	-58.62	467.51	467.58
F	79+59.72	-58.07	467.48	467.54
G	79+69.72	-57.53	467.44	467.50
H	79+79.72	-56.99	467.39	467.44
I	79+89.72	-56.45	467.32	467.35
J	79+99.72	-55.91	467.24	467.26
K	80+09.72	-55.36	467.15	467.16
℄ Pier 8	80+20.32	-54.79	467.05	467.05
L	80+30.32	-54.25	466.94	466.93
M	80+40.32	-53.71	466.81	466.80
N	80+50.32	-53.17	466.68	466.67

8 Revised Sheet

NOTE:
Work this sheet with sheets S-21 thru S-27.

AECOM

USER NAME = bnatta
PLOT SCALE = 2:2 1" / in.
PLOT DATE = 8DATE8

DESIGNED - DD
DRAWN - DD
CHECKED - ATB
DATE 3-30-11

REVISED - 8 4/3/2013 A.T.B.
REVISED -
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS – V S.N. 082-0325 UNIT 3
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-26 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	141
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

I:\Projects\Highway\082 Bridge Construction Supervision\Bridge Construction Contract Drawings\76C75 Changes\Revision 08 2013-04-02\S026 082-0325_76C75_TopSlabElev 12.dgn

GIRDER 11B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Pier 7	79+00.71	-69.37	467.52	467.52
℄ Brg. Pier 7-W	79+02.16	-69.19	467.54	467.54
A	79+09.72	-68.31	467.63	467.65
B	79+19.72	-67.18	467.66	467.69
C	79+29.72	-66.08	467.65	467.70
D	79+39.72	-65.02	467.64	467.70
E	79+49.72	-64.00	467.62	467.69
F	79+59.72	-63.01	467.58	467.65
G	79+69.72	-62.06	467.53	467.59
H	79+79.72	-61.15	467.47	467.52
I	79+89.72	-60.27	467.39	467.43
J	79+99.72	-59.43	467.31	467.34
K	80+09.72	-58.62	467.22	467.23
℄ Pier 8	80+20.32	-57.81	467.11	467.11
L	80+30.32	-57.07	466.99	466.99
M	80+40.32	-56.38	466.86	466.86
N	80+50.32	-55.72	466.73	466.72
O	80+60.32	-55.10	466.57	466.57
P	80+70.32	-54.51	466.41	466.41
Q	80+80.32	-53.96	466.25	466.25
R	80+90.32	-53.45	466.14	466.15
S	81+00.32	-52.97	466.04	466.05
T	81+10.32	-52.57	465.90	465.91
U	81+20.32	-52.33	465.77	465.76
V	81+30.32	-52.09	465.60	465.59
W	81+40.32	-51.85	465.37	465.35
X	81+50.32	-51.62	465.14	465.12
Y	81+60.32	-51.39	464.89	464.87
Z	81+70.32	-51.15	464.65	464.63
AA	81+80.32	-50.92	464.40	464.39
AB	81+90.32	-50.70	464.16	464.15
℄ Pier 9	81+95.32	-50.58	464.04	464.04
AC	82+05.32	-50.36	463.79	463.81
AD	82+15.32	-50.13	463.54	463.59

GIRDER 11B CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
AE	82+25.32	-49.91	463.29	463.37
AF	82+35.32	-49.69	463.05	463.16
AG	82+45.32	-49.47	462.80	462.96
AH	82+55.32	-49.26	462.56	462.75
AI	82+65.32	-49.04	462.31	462.54
AJ	82+75.32	-48.83	462.07	462.33
AK	82+85.32	-48.62	461.82	462.11
AL	82+95.32	-48.41	461.58	461.89
AM	83+05.32	-48.20	461.34	461.66
AN	83+15.32	-47.99	461.08	461.42
AO	83+25.32	-47.79	460.84	461.17
AP	83+35.32	-47.58	460.60	460.91
AQ	83+45.32	-47.38	460.35	460.64
AR	83+55.32	-47.18	460.11	460.37
AS	83+65.32	-46.99	459.86	460.09
AT	83+75.32	-46.79	459.62	459.81
AU	83+85.32	-46.60	459.38	459.52
AV	83+95.32	-46.41	459.13	459.24
AW	84+05.32	-46.22	458.89	458.96
AX	84+15.32	-46.03	458.64	458.68
℄ Pier 10	84+28.98	-45.77	458.31	458.31
AY	84+38.98	-45.59	458.07	458.05
AZ	84+48.98	-45.40	457.82	457.80
BA	84+58.98	-45.22	457.58	457.55
BB	84+68.98	-45.05	457.34	457.31
BC	84+78.98	-44.87	457.09	457.07
BD	84+88.98	-44.69	456.85	456.83
BE	84+98.98	-44.52	456.61	456.59
BF	85+08.98	-44.35	456.36	456.36
BG	85+18.98	-44.18	456.12	456.12
BH	85+28.98	-44.01	455.88	455.89
BI	85+38.98	-43.84	455.64	455.65
BJ	85+48.98	-43.68	455.39	455.40
BK	85+58.98	-43.52	455.15	455.16
℄ W. Brg.	85+68.97	-43.35	454.92	454.92
Bk. W. Abut.	85+72.72	-43.30	454.83	454.83

8 Revised Sheet

NOTE:
Work this sheet with sheets S-21 thru S-27.

M:\Plot\Plot\NGI\02 Construction Support\1626 Construction Contract Changes\76C75 Changes\Revision #8 2013-04-25\S027_082-0325_76C75_TopSlabElev_13.dgn

AECOM

USER NAME = dmatsa	DESIGNED DD	REVISED 8 4/3/2013 A.T.B.	
	DRAWN DD	REVISED	
PLOT SCALE = 2.0 ' / in.	CHECKED ATB	REVISED	
PLOT DATE = 4/3/2013	DATE 3-30-11	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS – VI S.N. 082-0325 UNIT 3
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-27 OF S-138 SHEETS STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	142
	S.N. 082-0323 & S.N. 082-0325	CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SOUTH CURB LINE

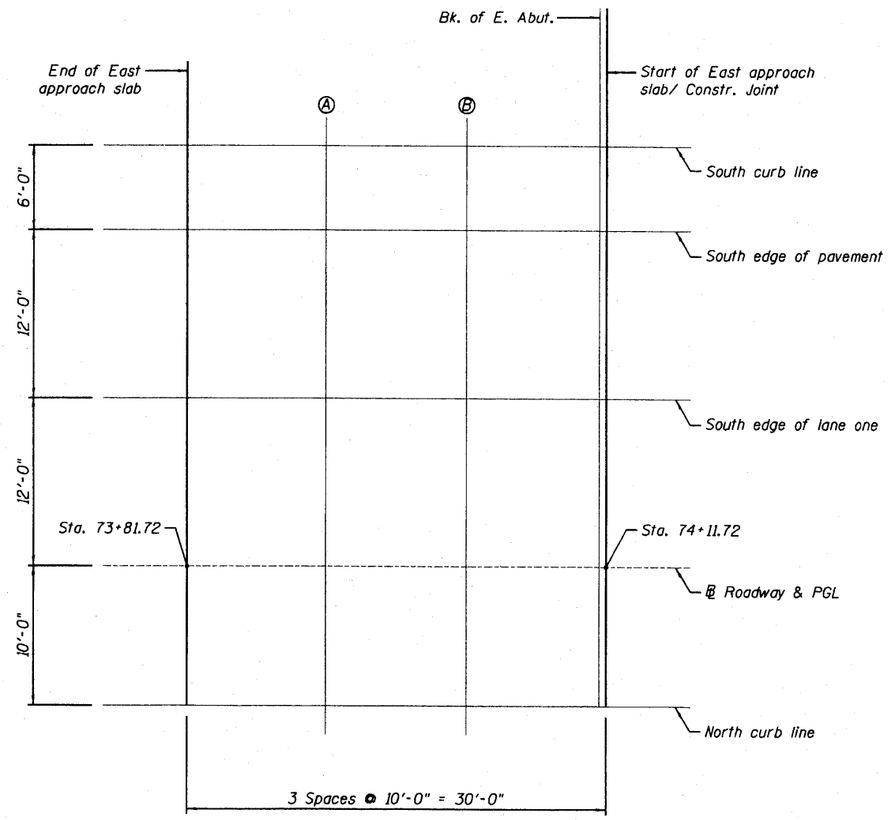
Location	Station	Offset	Theoretical Grade Elevations
End E. Appr. Slab	73+81.72	-30.00	451.49
A	73+91.72	-30.00	451.89
B	74+01.72	-30.00	452.29
Start E. Appr. Slab	74+11.72	-30.00	452.69

SOUTH EDGE OF PAV'T

Location	Station	Offset	Theoretical Grade Elevations
End E. Appr. Slab	73+81.72	-24.00	451.28
A	73+91.72	-24.00	451.68
B	74+01.72	-24.00	452.08
Start E. Appr. Slab	74+11.72	-24.00	452.48

SOUTH EDGE OF LANE 1

Location	Station	Offset	Theoretical Grade Elevations
End E. Appr. Slab	73+81.72	-12.00	450.86
A	73+91.72	-12.00	451.26
B	74+01.72	-12.00	451.66
Start E. Appr. Slab	74+11.72	-12.00	452.06



PLAN

Ⓔ ROADWAY & PGL

Location	Station	Offset	Theoretical Grade Elevations
End E. Appr. Slab	73+81.72	0.00	450.44
A	73+91.72	0.00	450.84
B	74+01.72	0.00	451.24
Start E. Appr. Slab	74+11.72	0.00	451.64

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End E. Appr. Slab	73+81.72	10.00	450.09
A	73+91.72	10.00	450.49
B	74+01.72	10.00	450.89
Start E. Appr. Slab	74+11.72	10.00	451.29

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AECOM

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	DRAWN - DD	REVISED -	
PLOT SCALE = 0.2 '/ in.	CHECKED - CY	REVISED -	
PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF EAST APPROACH SLAB ELEVATION – S.N. 082-0323
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-28 OF S-138 SHEETS | STA. | TO STA.

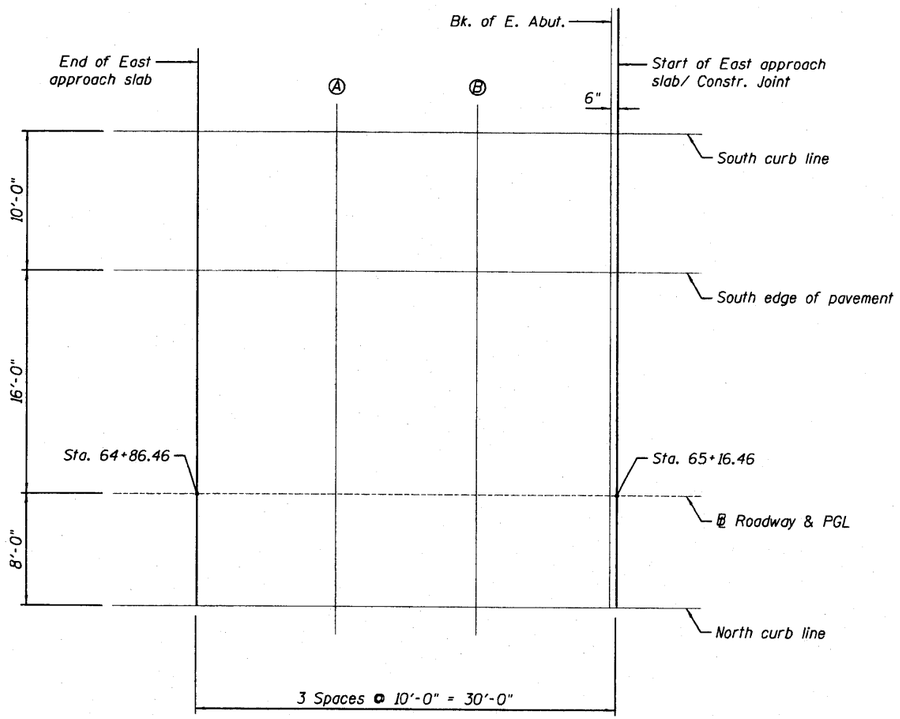
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-8-1	ST. CLAIR	319	143
	S.N. 082-0323 & S.N. 082-0325	CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End E. Appr. Slab	64+86.46	-26.00	416.97
A	64+96.46	-26.00	417.40
B	65+06.46	-26.00	417.84
Start E. Appr. Slab	65+16.46	-26.00	418.28

SOUTH EDGE OF PAV'T

Location	Station	Offset	Theoretical Grade Elevations
End E. Appr. Slab	64+86.46	-16.00	416.96
A	64+96.46	-16.00	417.43
B	65+06.46	-16.00	417.90
Start E. Appr. Slab	65+16.46	-16.00	418.37



PLAN

℄ ROADWAY & PGL

Location	Station	Offset	Theoretical Grade Elevations
End E. Appr. Slab	64+86.46	0.00	416.95
A	64+96.46	0.00	417.47
B	65+06.46	0.00	417.99
Start E. Appr. Slab	65+16.46	0.00	418.51

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End E. Appr. Slab	64+86.46	8.00	416.95
A	64+96.46	8.00	417.49
B	65+06.46	8.00	418.03
Start E. Appr. Slab	65+16.46	8.00	418.58

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AECOM

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	DRAWN - DD	REVISED -
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PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF EAST APPROACH SLAB ELEVATION – S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-29 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-8-1	ST. CLAIR	319	144
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SOUTH CURB LINE

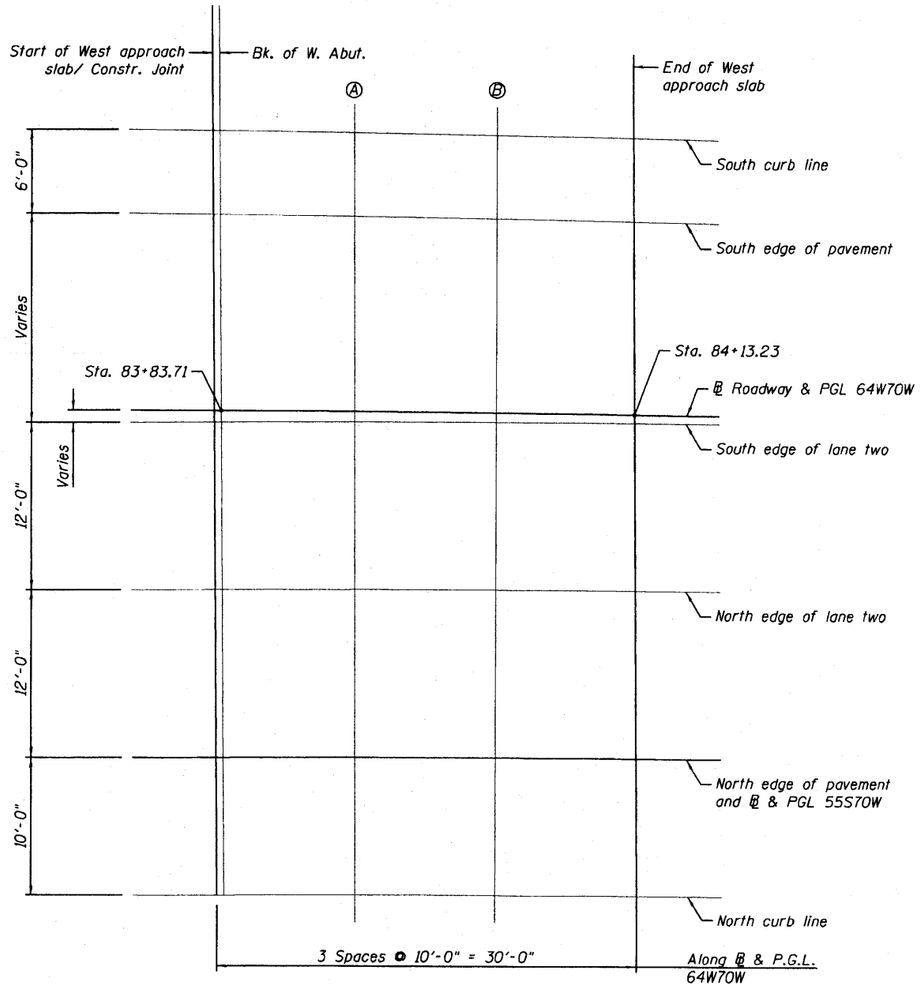
Location	Station	Offset	Theoretical Grade Elevations
Start W. Appr. Slab	83+83.04	-20.07	454.90
A	83+93.18	-19.98	454.67
B	84+03.28	-19.90	454.46
End W. Appr. Slab	84+12.88	-19.82	454.25

SOUTH EDGE OF PAV'T

Location	Station	Offset	Theoretical Grade Elevations
Start W. Appr. Slab	83+83.09	-14.07	454.69
A	83+93.22	-13.98	454.46
B	84+03.32	-13.90	454.25
End W. Appr. Slab	84+12.99	-13.81	454.04

℄ ROADWAY & PGL 64W70W

Location	Station	Offset	Theoretical Grade Elevations
Start W. Appr. Slab	83+83.21	0.00	454.20
A	83+93.33	0.00	453.97
B	84+03.41	0.00	453.76
End W. Appr. Slab	84+13.23	0.00	453.56



PLAN

SOUTH EDGE OF LANE TWO

Location	Station	Offset	Theoretical Grade Elevations
Start W. Appr. Slab	83+83.22	0.82	454.17
A	83+93.33	0.74	453.95
B	84+03.42	0.67	453.74
End W. Appr. Slab	84+13.24	0.61	453.53

NORTH EDGE OF LANE TWO

Location	Station	Offset	Theoretical Grade Elevations
Start W. Appr. Slab	83+83.32	12.82	453.75
A	83+93.42	12.74	453.53
B	84+03.50	12.67	453.32
End W. Appr. Slab	84+13.45	12.60	453.11

NORHT EDGE OF PAV'T ℄ & PGL 55S70W

Location	Station	Offset	Theoretical Grade Elevations
Start W. Appr. Slab	83+83.43	24.82	453.33
A	83+93.51	24.74	453.11
B	84+03.58	24.67	452.90
End W. Appr. Slab	84+13.66	24.60	452.69

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Start W. Appr. Slab	83+83.52	34.82	452.98
A	83+93.58	34.74	452.76
B	84+03.65	34.67	452.55
End W. Appr. Slab	84+13.84	34.60	452.34

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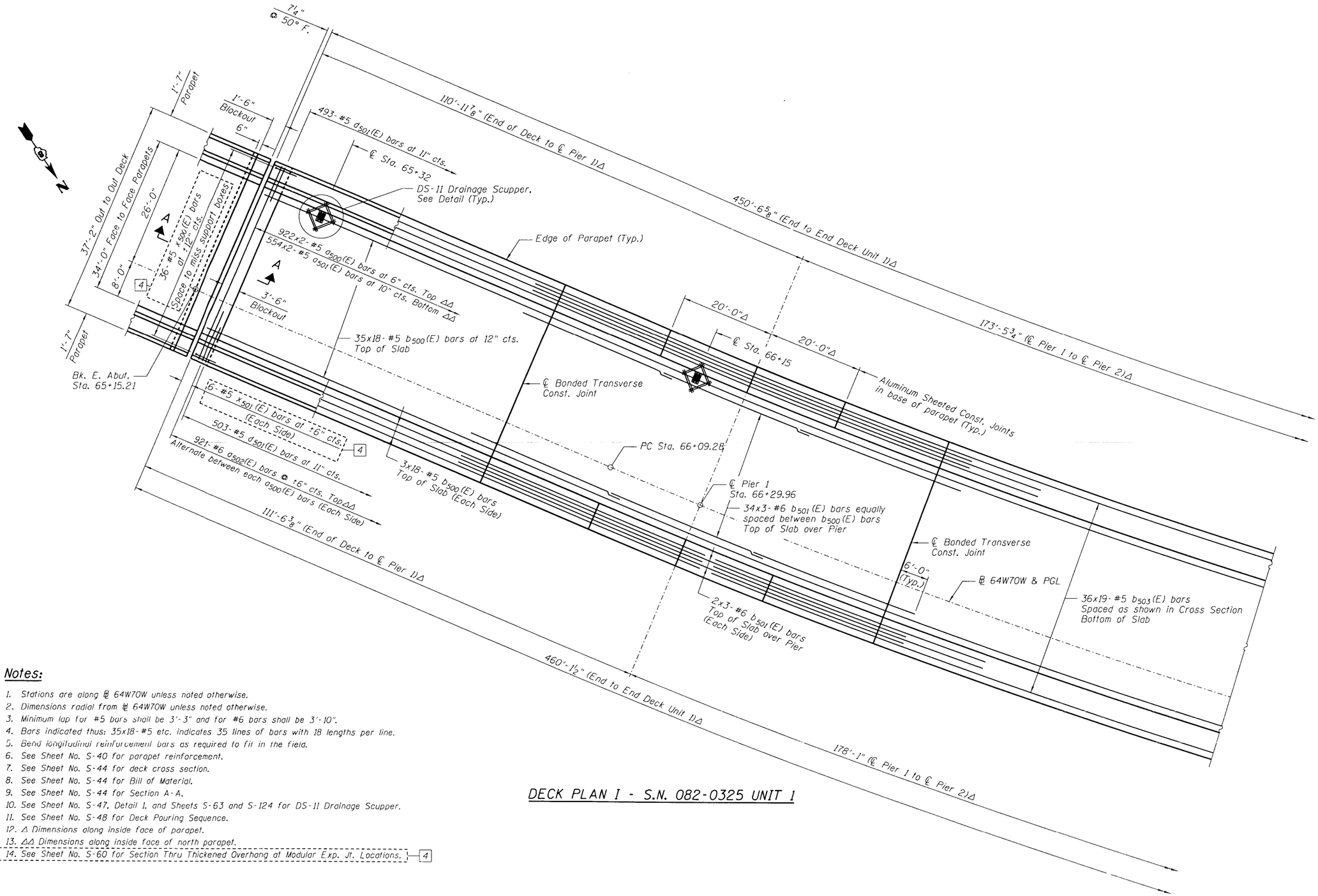
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	DRAWN - DD	REVISED -
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PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH SLAB ELEVATION – S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-30 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	145
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



DECK PLAN 1 - S.N. 082-0325 UNIT 1

Notes:

1. Stations are along ℄ 64W70W unless noted otherwise.
2. Dimensions radial from ℄ 64W70W unless noted otherwise.
3. Minimum lap for #5 bars shall be 3'-3" and for #6 bars shall be 3'-10".
4. Bars indicated thus: 35x18-#5 etc. indicates 35 lines of bars with 18 lengths per line.
5. Bend longitudinal reinforcement bars as required to fit in the field.
6. See Sheet No. S-40 for parapet reinforcement.
7. See Sheet No. S-44 for deck cross section.
8. See Sheet No. S-44 for Bill of Material.
9. See Sheet No. S-44 for Section A-A.
10. See Sheet No. S-47, Detail 1, and Sheets S-63 and S-124 for DS-11 Drainage Scupper.
11. See Sheet No. S-48 for Deck Pouring Sequence.
12. Δ Dimensions along inside face of parapet.
13. ΔΔ Dimensions along inside face of north parapet.
14. See Sheet No. S-60 for Section Thru Thickened Overhang at Modular Exp. Jt. Locations. 4

DB: N:\0823\23-0825\25_76C75-S31-Span1.2-025.dgn

AECOM | ZROKA ENGINEERING

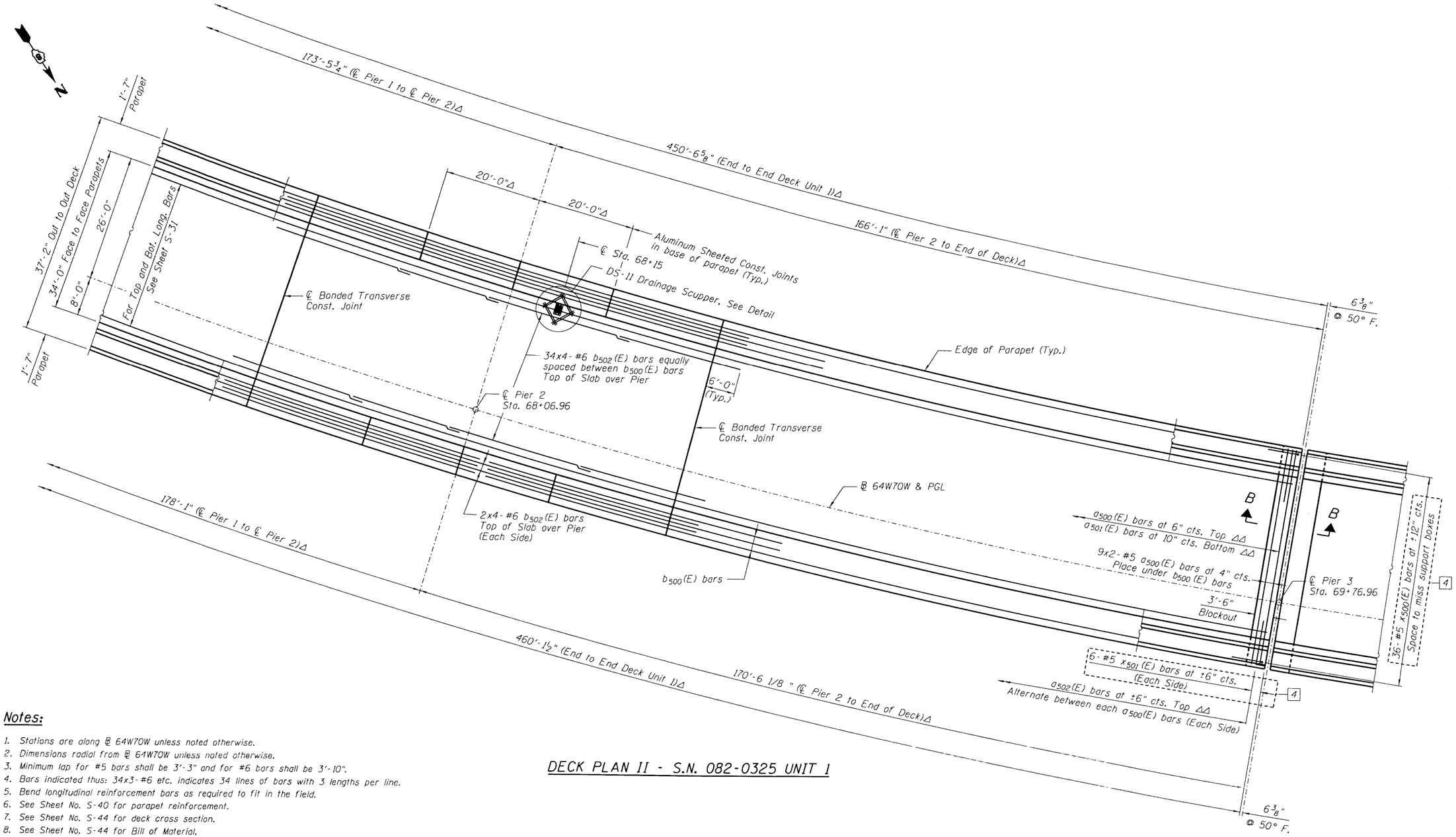
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	DRAWN - DAZ	REVISED -	
~~PLOT SCALE = 2.0000 ' / in.~~	~~CHECKED - SAW~~	~~REVISED~~	
PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN 1 – S.N. 082-0325 UNIT 1
~~I-70W~~ OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-31 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	146
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



Notes:

1. Stations are along ℄ 64W70W unless noted otherwise.
2. Dimensions radial from ℄ 64W70W unless noted otherwise.
3. Minimum lap for #5 bars shall be 3'-3" and for #6 bars shall be 3'-10".
4. Bars indicated thus: 34x3-#6 etc. indicates 34 lines of bars with 3 lengths per line.
5. Bend longitudinal reinforcement bars as required to fit in the field.
6. See Sheet No. S-40 for parapet reinforcement.
7. See Sheet No. S-44 for deck cross section.
8. See Sheet No. S-44 for Bill of Material.
9. See Sheet No. S-44 for Section B-B.
10. See Sheet No. S-47, Detail 1, and Sheets S-63 and S-124 for DS-11 Drainage Scupper.
11. See Sheet No. S-48 for Deck Pouring Sequence.
12. Δ Dimensions along inside face of parapet.
13. ΔΔ Dimensions along inside face of north parapet.
14. See Sheet No. S-60 for Section Thru Thickened Overhang at Modular Exp. Jt. Locations. 4

DECK PLAN II - S.N. 082-0325 UNIT 1

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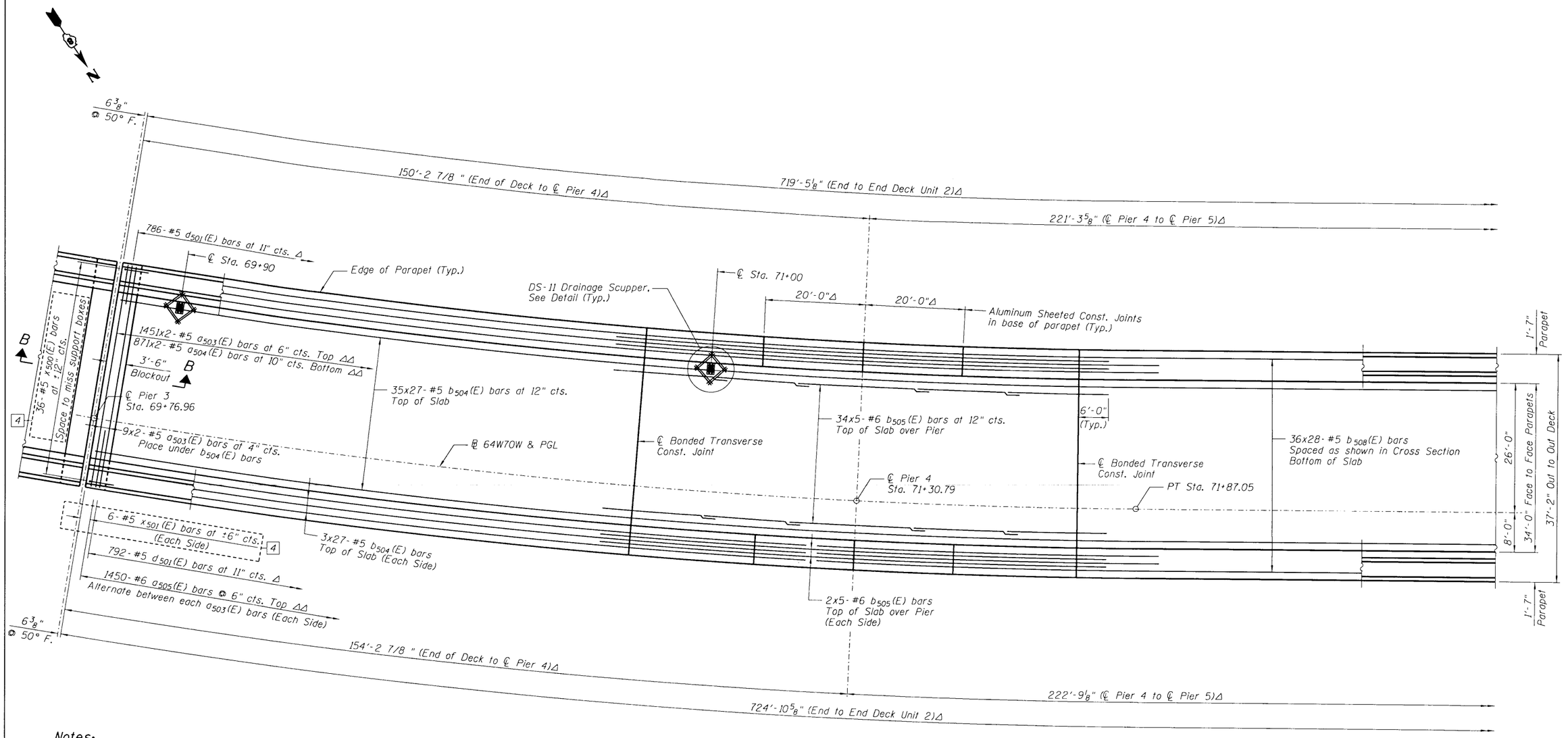
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PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -	

STATE OF ILLINOIS
~~DEPARTMENT OF TRANSPORTATION~~

DECK PLAN II – S.N. 082-0325 UNIT 1
~~I-70W~~ OVER ~~I-55~~, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-32 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	147
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



Notes:

1. Stations are along ℄ 64W70W unless noted otherwise.
2. Dimensions radial from ℄ 64W70W unless noted otherwise.
3. Minimum lap for #5 bars shall be 3'-3" and for #6 bars shall be 3'-10".
4. Bars indicated thus: 34x3-#6 etc. indicates 34 lines of bars with 3 lengths per line.
5. Bend longitudinal reinforcement bars as required to fit in the field.
6. See Sheet No. S-41 for parapet reinforcement.
7. See Sheet No. S-44 for deck cross section.
8. See Sheet No. S-44 for Bill of Material.
9. See Sheet No. S-44 for Section B-B.
10. See Sheet No. S-47, Detail 1, and Sheets S-63 and S-124 for DS-11 Drainage Scupper.
11. See Sheet No. S-48 for Deck Pouring Sequence.
12. Δ Dimensions along inside face of parapet.
13. ΔΔ Dimensions along inside face of north parapet.
14. See Sheet No. S-60 for Section Thru Thickened Overhang at Modular Exp. Jt. Locations. 4

DECK PLAN I - S.N. 082-0325 UNIT 2

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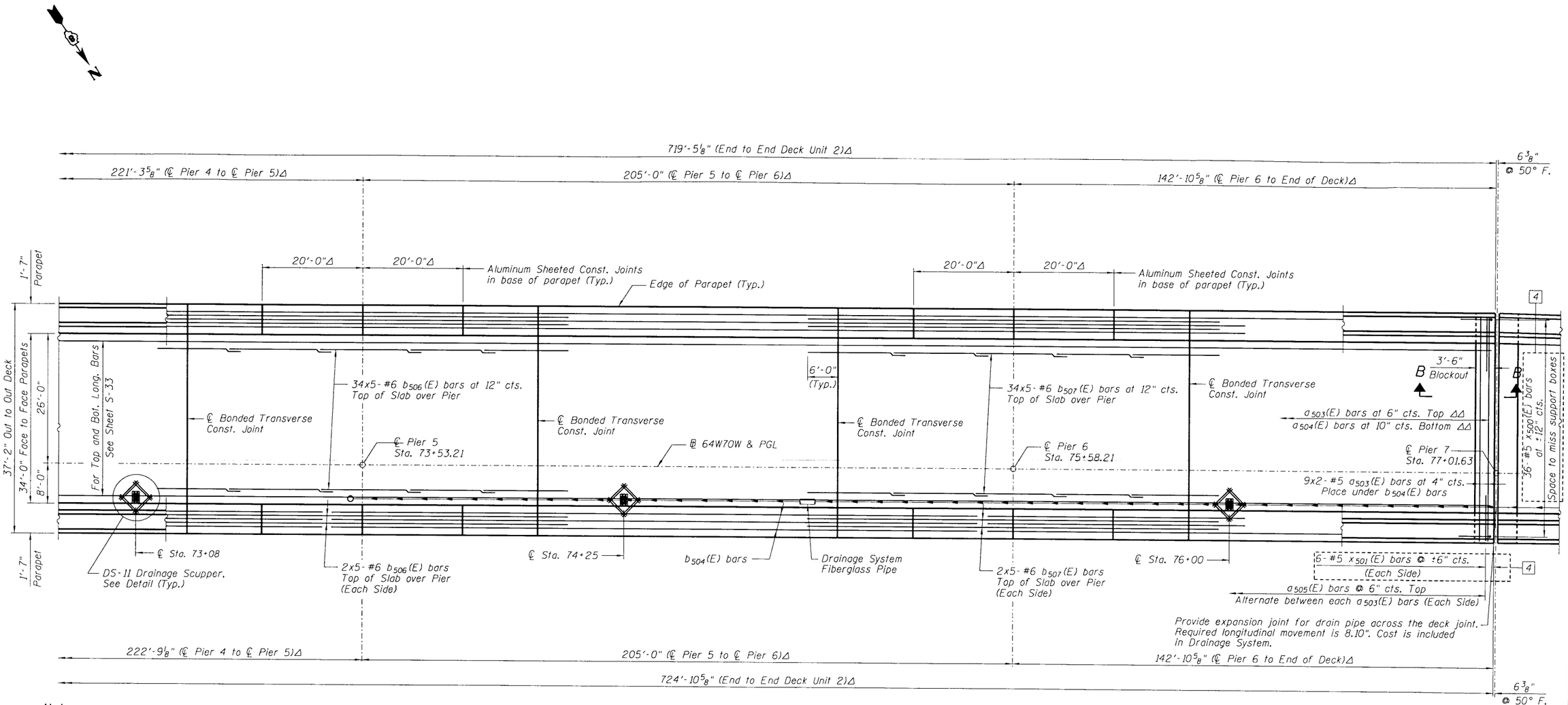
AECOM | ZROKA ENGINEERING

USER NAME = floress
PLOT SCALE = 2.0000 ' / in.
PLOT DATE = $DATE$

DESIGNED - JLA	REVISED 4 7/17/2012 ATB	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
DRAWN - DAZ	REVISED -	
CHECKED - SAW	REVISED -	
DATE - 3-18-11	REVISED -	

DECK PLAN I – S.N. 082-0325 UNIT 2
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-33 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	148
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



Notes:

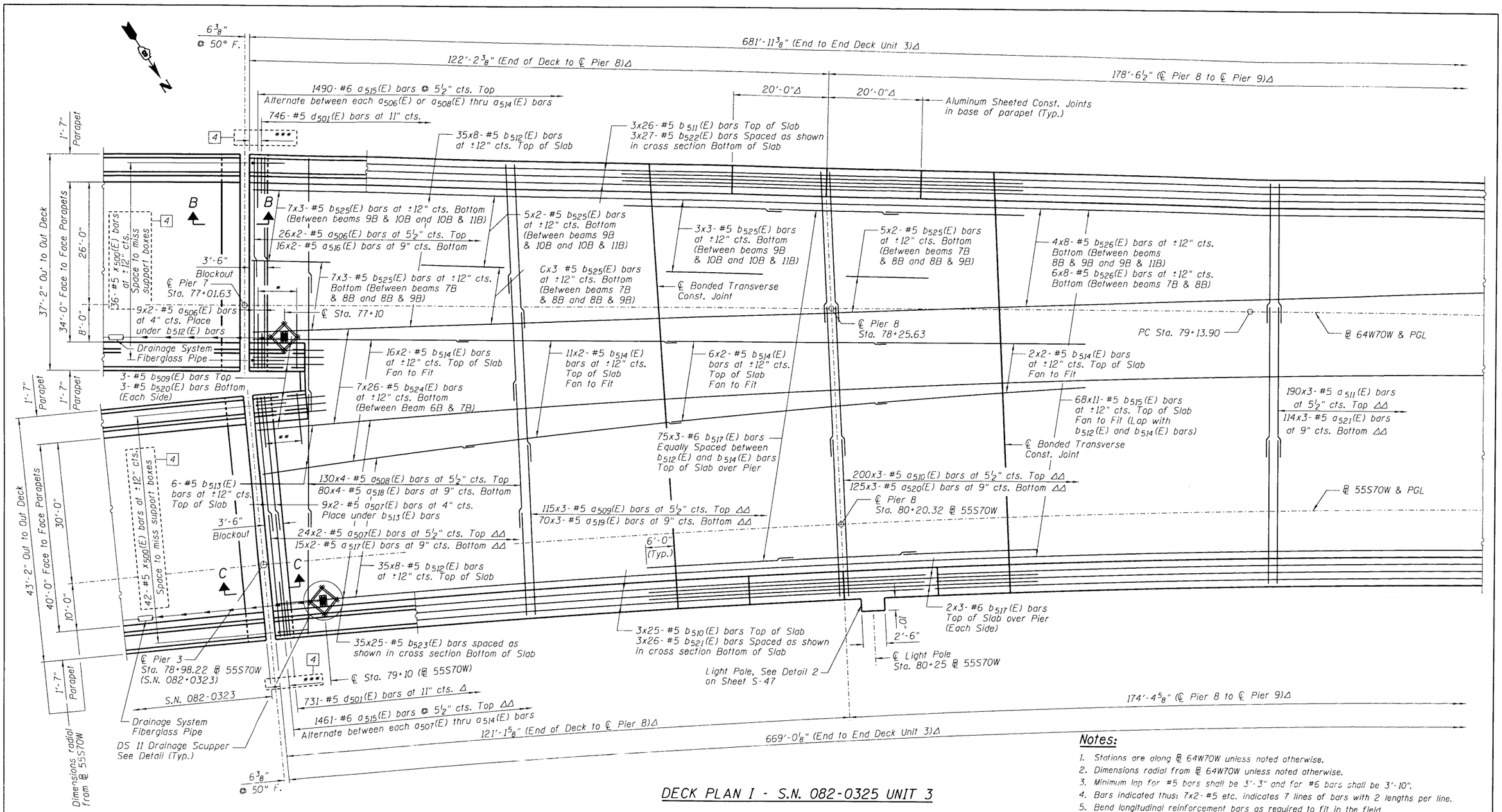
1. Stations are along ℄ 64W70W unless noted otherwise.
2. Dimensions radial from ℄ 64W70W unless noted otherwise.
3. Minimum lap for #5 bars shall be 3'-3" and for #6 bars shall be 3'-10".
4. Bars indicated thus: 34x3-#6 etc. indicates 34 lines of bars with 3 lengths per line.
5. Bend longitudinal reinforcement bars as required to fit in the field.
6. See Sheet No. S-41 for parapet reinforcement.
7. See Sheet No. S-44 for deck cross section.
8. See Sheet No. S-44 for Bill of Material.
9. See Sheet No. S-44 for Section B-B.
10. See Sheet No. S-47, Detail 1, and Sheets S-63 and S-124 for DS-11 Drainage Scupper.
11. See Sheet No. S-48 for Deck Pouring Sequence.
12. Δ Dimensions along inside face of parapet.
13. ΔΔ Dimensions along inside face of north parapet.
14. See Sheet No. S-60 for Section Thru Thickened Overhang at Modular Exp. Jt. Locations. — 4

DECK PLAN II - S.N. 082-0325 UNIT 2

D81A1: 0820323-0820325 - 76C75-S34-Spans5,6,7-025.dgn

AECOM / ZROKA	USER NAME : floresg	DESIGNED - JLA	REVISED 4 7/17/2012 ATB	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK PLAN II – S.N. 082-0325 UNIT 2 ~~I-70W OVER I-55, CSX & KCS RAILROADS~~
		DRAWN - DAZ	REVISED -		
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	PLOT DATE = *DATE*	DATE - 3-18-11	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	149
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



* 26-#6 a_{515}(E) bars at 5½" cts. Top
Alternate between each a_{506}(E) bar
14-#5 d_{501}(E) bars at 11" cts.

** 24-#6 a_{515}(E) bars at 5½" cts. Top
Alternate between each a_{507}(E) bar
14-#5 d_{501}(E) bars at 11" cts.

*** 6-#5 x_{501}(E) bars at ±6" cts. (Each Side) [4]

DECK PLAN I - S.N. 082-0325 UNIT 3

Notes:

1. Stations are along ℄ 64W70W unless noted otherwise.
2. Dimensions radial from ℄ 64W70W unless noted otherwise.
3. Minimum lap for #5 bars shall be 3'-3" and for #6 bars shall be 3'-10".
4. Bars indicated thus: 7x2-#5 etc. indicates 7 lines of bars with 2 lengths per line.
5. Bend longitudinal reinforcement bars as required to fit in the field.
6. See Sheet Nos. S-42 & S-45 for parapet reinforcement.
7. See Sheet No. S-45 for deck cross section.
8. See Sheet No. S-44 for Bill of Material.
9. See Sheet No. S-44 for Section B-B.
10. See Sheet No. S-46 for Section C-C.
11. See Sheet No. S-47 for Unit 3 Interior Parapet detailing.
12. See Sheet No. S-47, Detail 1, and Sheets S-63 and S-124 for DS-11 Drainage Scupper.
13. See Sheet No. S-48 for Deck Pouring Sequence.
14. Δ Dimensions along inside face of parapet.
15. ΔΔ Dimensions along inside face of north parapet.
16. [4] See Sheet No. S-60 for Section Thru Thickened Overhang at Modular Exp. Jt. Locations.

AECOM | ZROKA

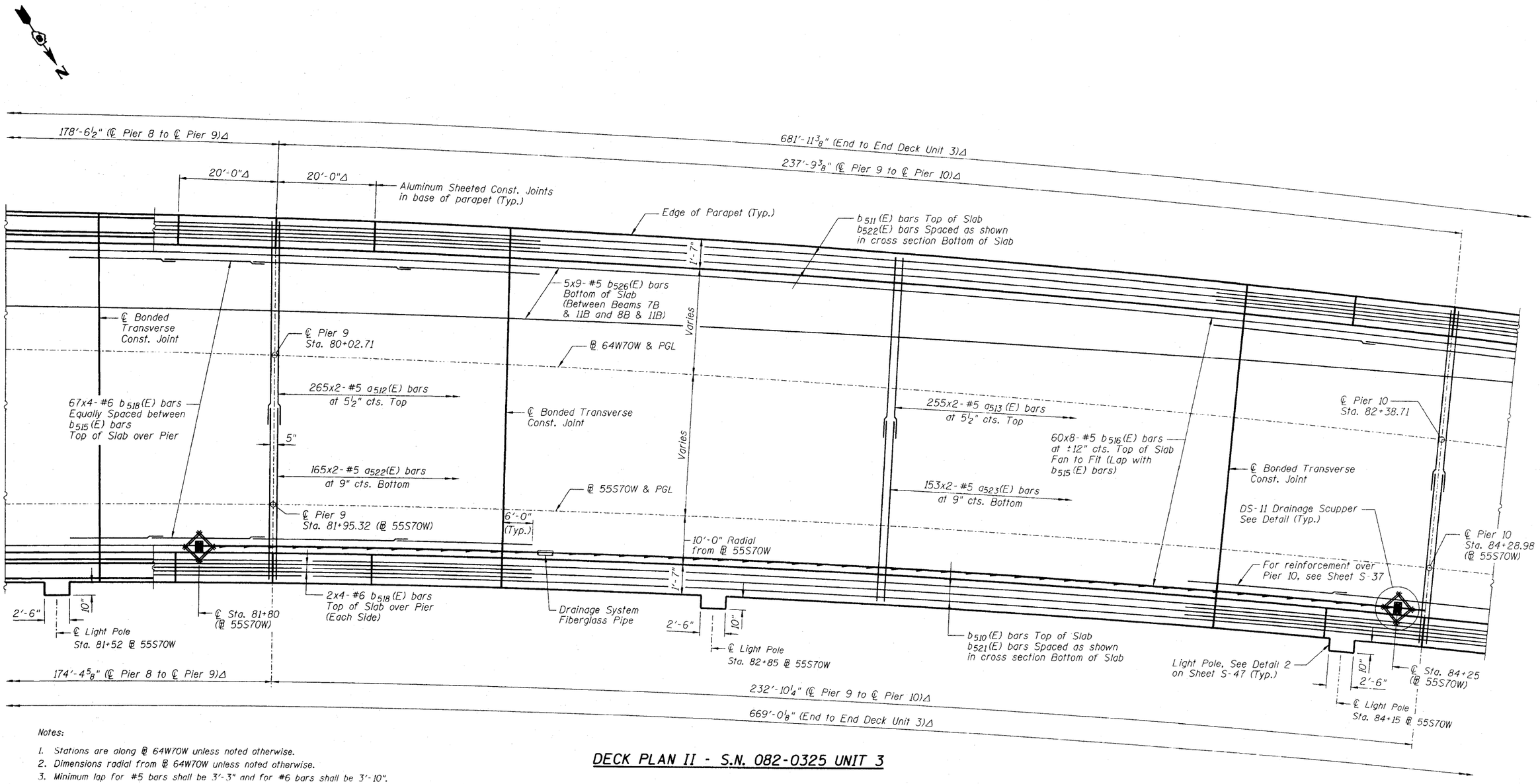
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PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN I – S.N. 082-0325 UNIT 3
~~I-70W~~ OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-35 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	B2-1-B-1	ST. CLAIR	319	150
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DGN: 082023-082032E-76C75-535-Span8.9-825.dgn



Notes:

1. Stations are along ℄ 64W70W unless noted otherwise.
2. Dimensions radial from ℄ 64W70W unless noted otherwise.
3. Minimum lap for #5 bars shall be 3'-3" and for #6 bars shall be 3'-10".
4. Bars indicated thus: 265x2-#5 etc. indicates 265 lines of bars with 2 lengths per line.
5. Bend longitudinal reinforcement bars as required to fit in the field.
6. See Sheet No. S-42 for parapet reinforcement.
7. See Sheet No. S-45 for deck cross section.
8. See Sheet No. S-44 for Bill of Material.
9. See Sheet No. S-47, Detail 1, and Sheets S-63 and S-124 for DS-11 Drainage Scupper.
10. See Sheet No. S-48 for Deck Pouring Sequence.
11. Δ Dimensions along inside face of parapet.
12. ΔΔ Dimensions along inside face of north parapet.

DECK PLAN II - S.N. 082-0325 UNIT 3

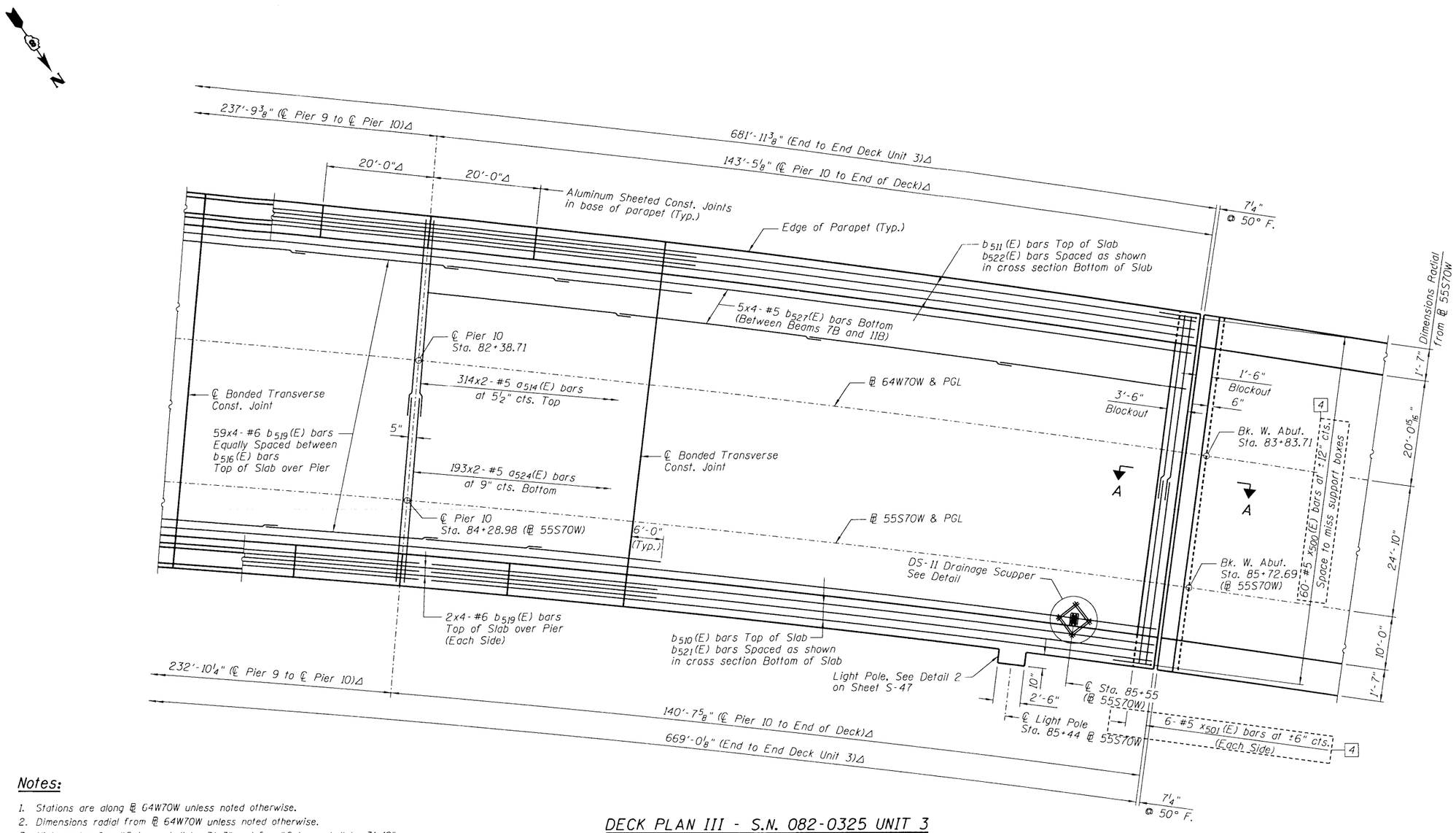
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN II – S.N. 082-0325 UNIT 3
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-36 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO	82-1-B-1	ST. CLAIR	319	151
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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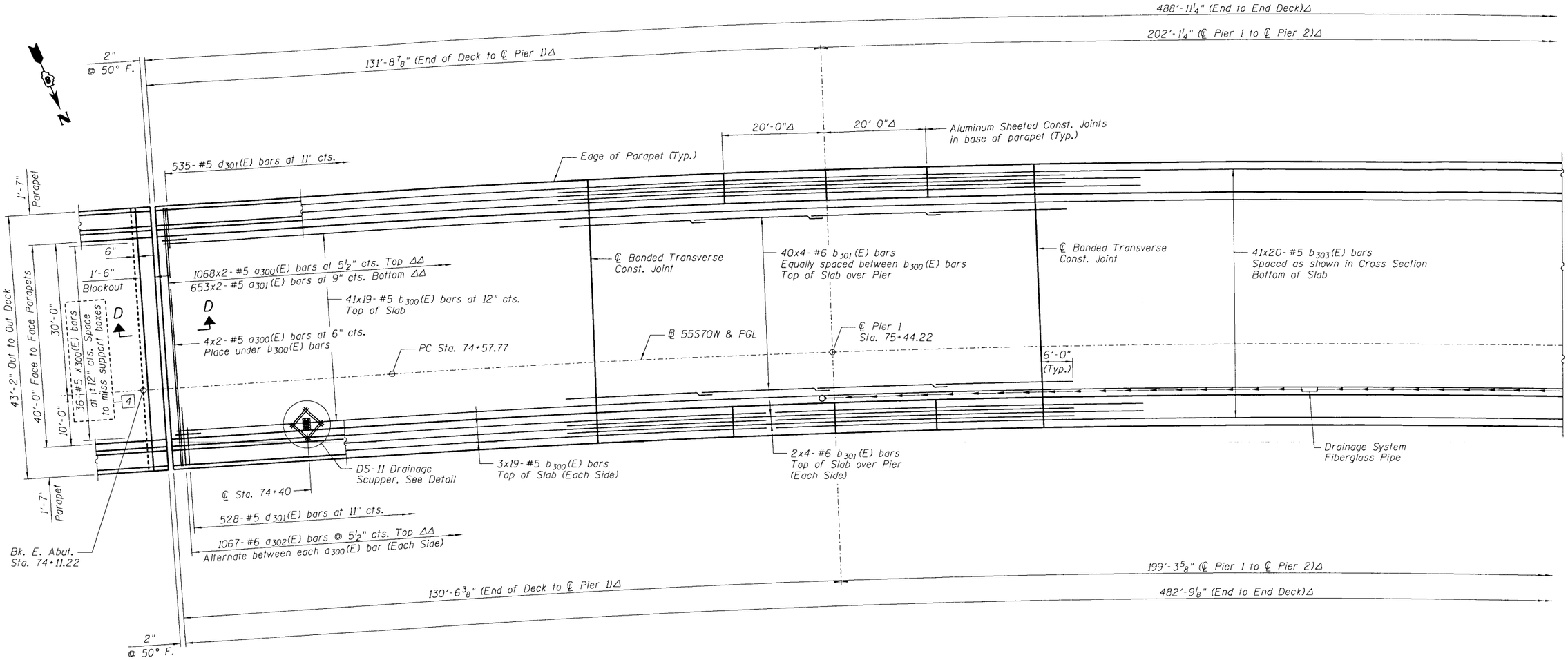
Notes:

1. Stations are along ℄ 64W70W unless noted otherwise.
2. Dimensions radial from ℄ 64W70W unless noted otherwise.
3. Minimum lap for #5 bars shall be 3'-3" and for #6 bars shall be 3'-10".
4. Bars indicated thus: 59x3-#6 etc. indicates 59 lines of bars with 3 lengths per line.
5. Bend longitudinal reinforcement bars as required to fit in the field.
6. See Sheet No. S-42 for parapet reinforcement.
7. See Sheet No. S-45 for deck cross section.
8. See Sheet No. S-44 for Bill of Material.
9. See Sheet No. S-44 for Section A-A.
10. See Sheet No. S-47, Detail 1, and Sheets S-63 and S-124 for DS-11 Drainage Scupper.
11. See Sheet No. S-48 for Deck Pouring Sequence.
12. Δ Dimensions along inside face of parapet.
13. See Sheet No. S-60 for Section Thru Thickened Overhang at Modular Exp. Jt. Locations. — 4

DECK PLAN III - S.N. 082-0325 UNIT 3

D8TR1-8828323 8828325-76C75-537-Sheet1-825.dgn

AECOM / ZROKA Engineering	USER NAME = floresg	DESIGNED - JLA	REVISED 4 7/17/2012 ATB	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK PLAN III – S.N. 082-0325 UNIT 3	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - DAZ	REVISED -		I-70W OVER I-55, CSX & KCS RAILROADS	70	82-1-B-1	ST. CLAIR	319	152
	PLOT SCALE = 2.0000 ' / in.	CHECKED - SAW	REVISED -			S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
	PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -		SCALE: NONE SHEET NO. S-37 OF S-138 SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



DECK PLAN I - S.N. 082-0323

Notes:

1. Stations are along ℄ 55S70W unless noted otherwise.
2. Dimensions radial from ℄ 55S70W unless noted otherwise.
3. Minimum lap for #5 bars shall be 3'-3" and for #6 bars shall be 3'-10".
4. Bars indicated thus: 40x3-#6 etc. indicates 40 lines of bars with 3 lengths per line.
5. Bend longitudinal reinforcement bars as required to fit in the field.
6. See Sheet No. S-43 for parapet reinforcement.
7. See Sheet No. S-46 for deck cross section.
8. See Sheet No. S-46 for Bill of Material.
9. See Sheet No. S-46 for Section D-D.
10. See Sheet No. S-47, Detail 1, and Sheets S-63 and S-124 for DS-11 Drainage Scupper.
11. See Sheet No. S-48 for Deck Pouring Sequence.
12. Δ Dimensions along inside face of parapet.
13. ΔΔ Dimensions along inside face of north parapet.

D081H_B0820323 B0820325-76C75-S38-Spans1-2-823.dgn

AECOM | ZROKA Engineering

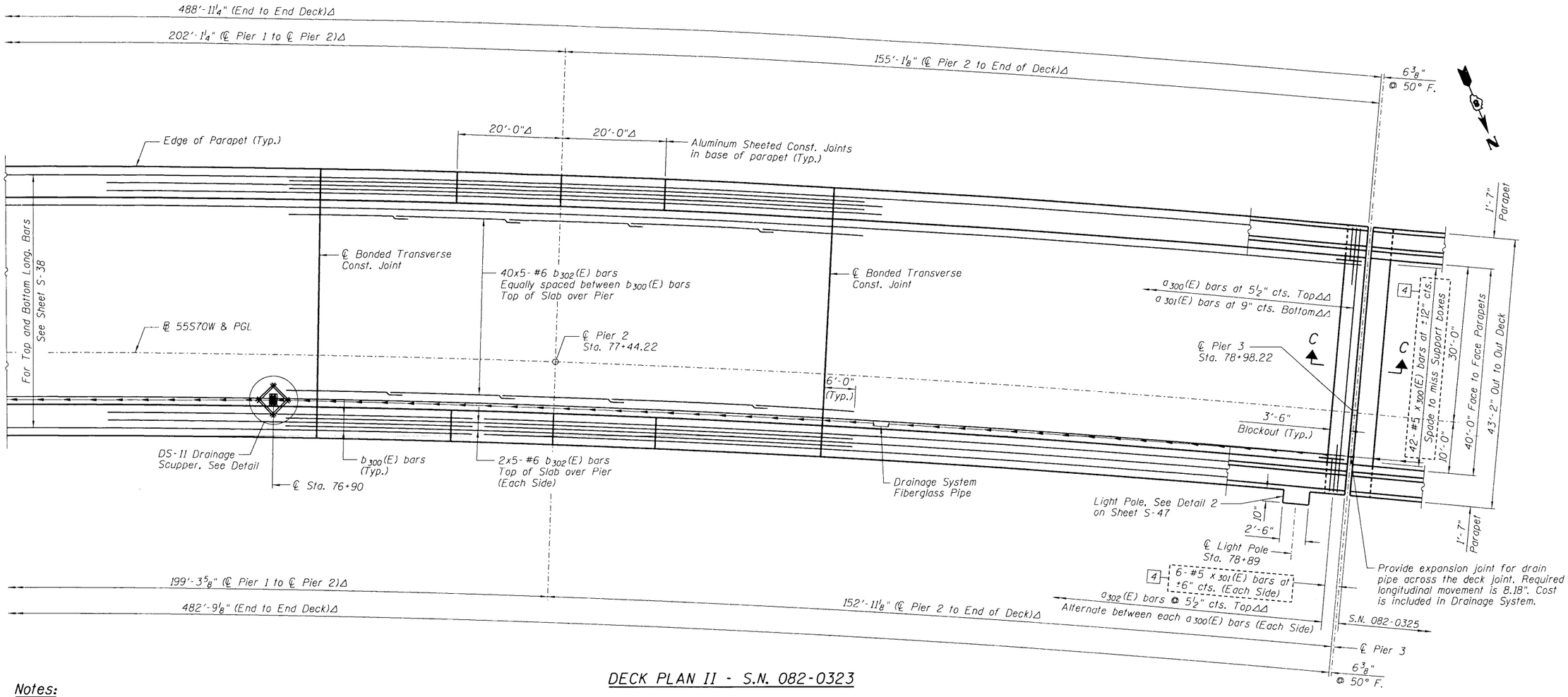
USER NAME = floresg	DESIGNED - JLA	REVISED 4 7/17/2012 ATB	
	DRAWN - DAZ	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - SAW	REVISED -	
PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN I - S.N. 082-0323
~~I-70W OVER I-55, CSX & KCS RAILROADS~~

SCALE: NONE | SHEET NO. S-38 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	153
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



DECK PLAN II - S.N. 082-0323

Notes:

1. Stations are along ℄ 55S70W unless noted otherwise.
2. Dimensions radial from ℄ 55S70W unless noted otherwise.
3. Minimum lap for #5 bars shall be 3'-3" and for #6 bars shall be 3'-10".
4. Bars indicated thus: 40x3-#6 etc. indicates 40 lines of bars with 3 lengths per line.
5. Bend longitudinal reinforcement bars as required to fit in the field.
6. See Sheet No. S-43 for parapet reinforcement.
7. See Sheet No. S-46 for deck cross section.
8. See Sheet No. S-46 for Bill of Material.
9. See Sheet No. S-46 for Section C-C.
10. See Sheet No. S-47, Detail 1, and Sheets S-63 and S-124 for DS-11 Drainage Scupper.
11. See Sheet No. S-48 for Deck Pouring Sequence.
12. Δ Dimensions along inside face of parapet.
13. ΔΔ Dimensions along inside face of north parapet.
14. See Sheet No. S-61 for Section Thru Thickened Overhang at Modular Exp. Jt. Locations. 4

DGN: 082020323-0820325-76C75-539-Sem+2.3-023.dgn

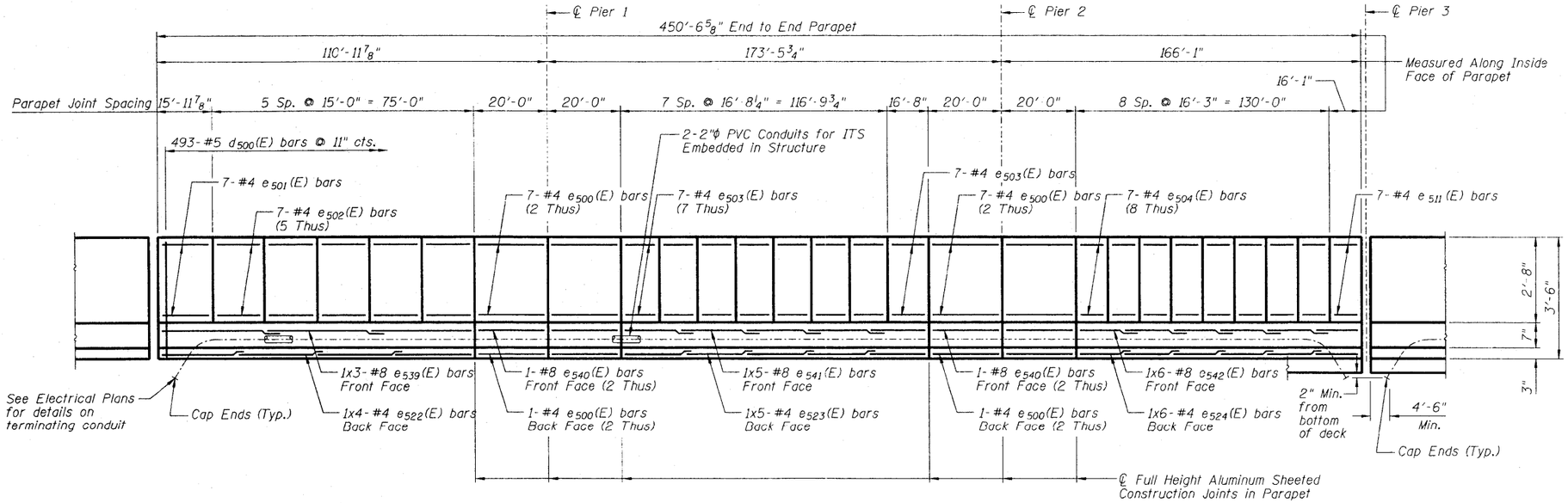
AECOM | ZROKA Engineering

USER NAME = floresg	DESIGNED - JLA	REVISED 4 7/17/2012 ATB
	DRAWN - DAZ	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED - SAW	REVISED -
PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -

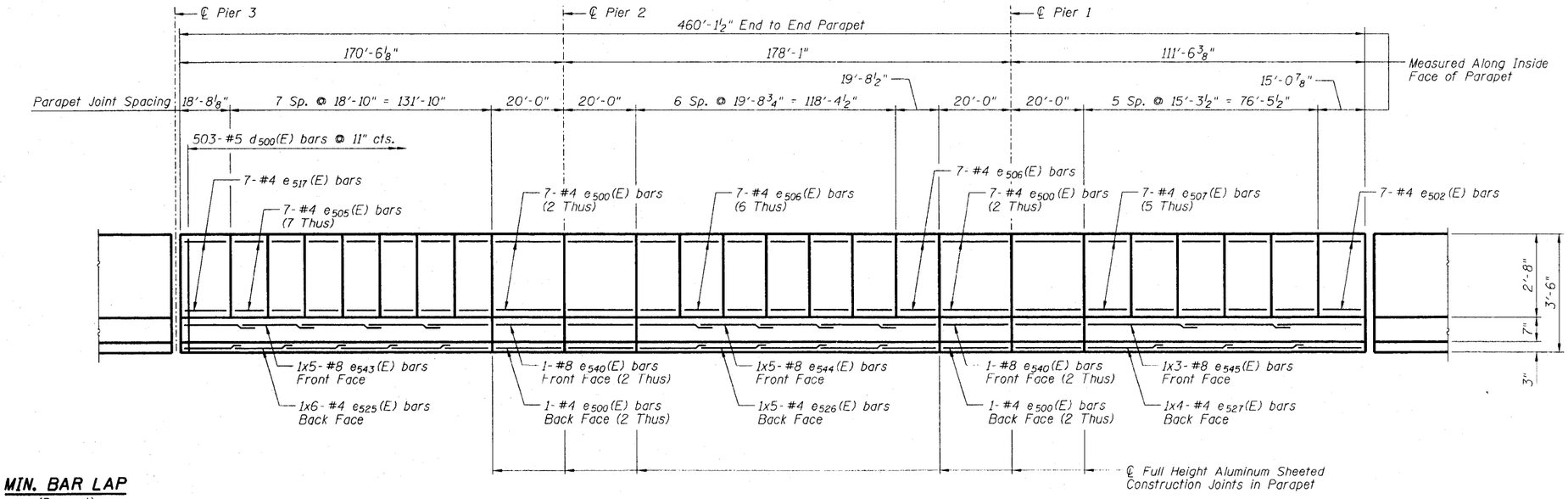
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN II – S.N. 082-0323
~~I-70W OVER I-55, CSX & KCS RAILROADS~~
SCALE: NONE | SHEET NO. S-39 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	154
	S.N. 082-0323 & S.N. 082-0325	CONTRACT NO. 76C75		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	



INSIDE ELEVATION OF SOUTH PARAPET - S.N. 082-0325 UNIT 1

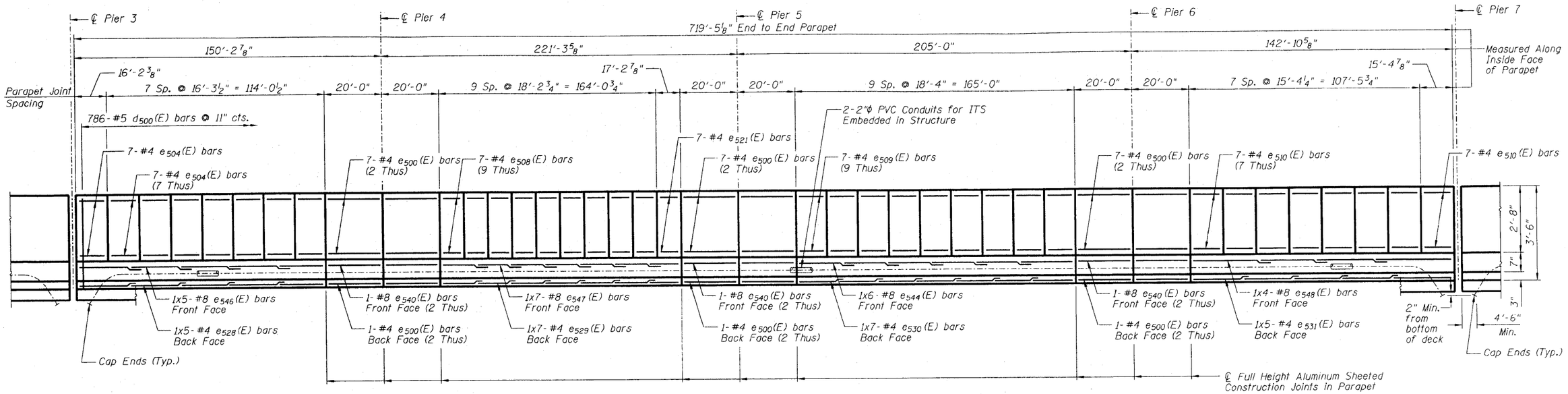


INSIDE ELEVATION OF NORTH PARAPET - S.N. 082-0325 UNIT 1

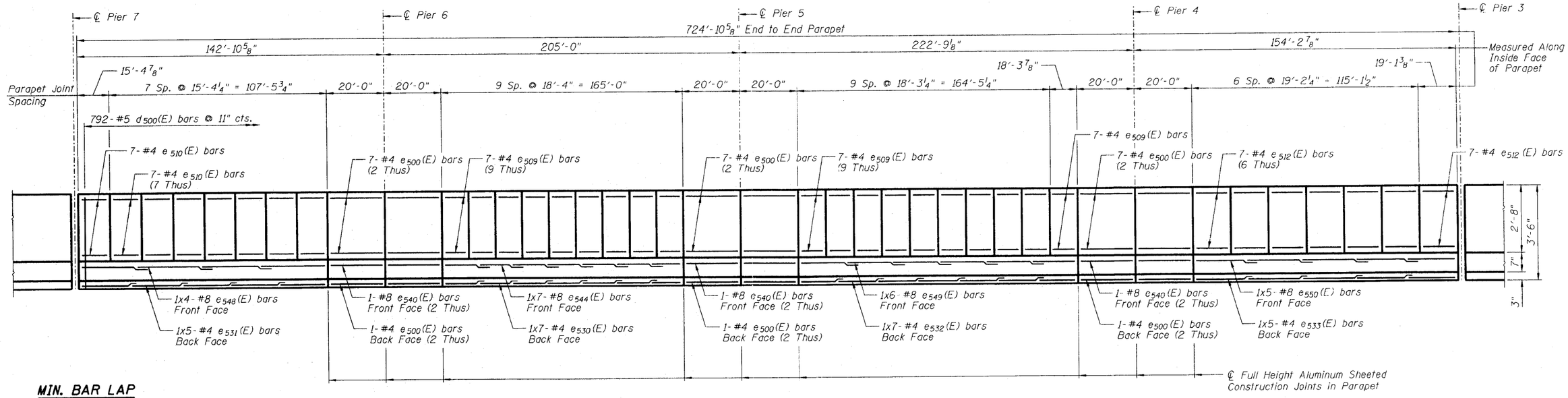
MIN. BAR LAP
(Parapet)
#4 bar = 2'-0"
#8 bar = 5'-2"

AECOM / ZROKA Engineering	USER NAME = kritzm	DESIGNED - JLA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PARAPET ELEVATIONS – S.N. 082-0325 UNIT 1	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - DAZ	REVISED -		I-70W OVER I-55, CSX & KCS RAILROADS	70	82-1-B-1	ST. CLAIR	319	155
	PLOT SCALE = 2.0000 ' / in.	CHECKED - SAW	REVISED -		SCALE: NONE / SHEET NO. S-40 OF S-138 SHEETS / STA. / TO STA.	S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
	PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -			FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D:\TR1-0828323-0828325-76C75-540-Unit1Parapet\Elevations-825.dgn



INSIDE ELEVATION OF SOUTH PARAPET S.N. 082-0325 UNIT 2



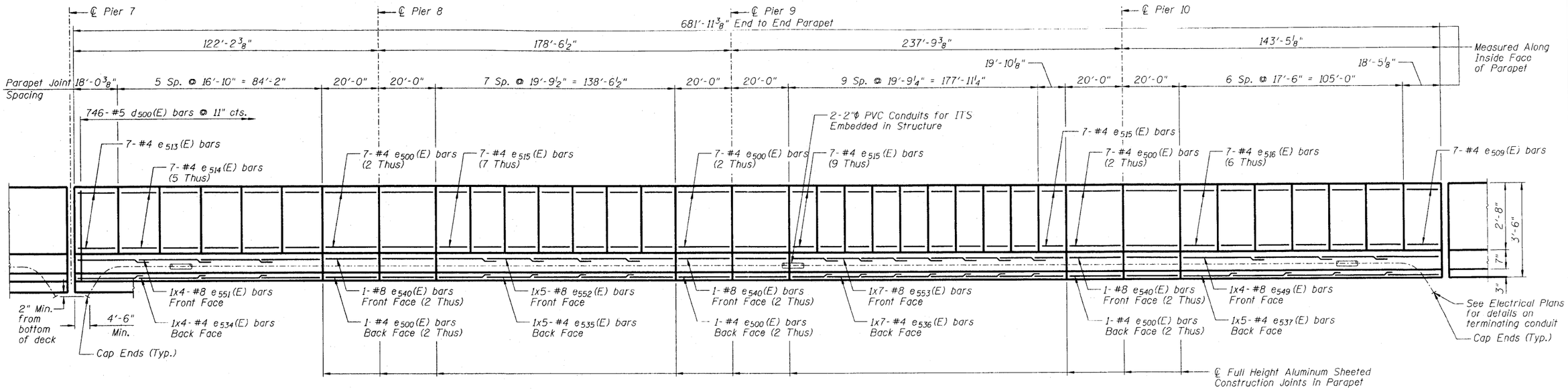
INSIDE ELEVATION OF NORTH PARAPET - S.N. 082-0325 UNIT 2

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

AECOM / ZROKA engineering	USER NAME = RPIZZI	DESIGNED - JLA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PARAPET ELEVATIONS – S.N. 082-0325 UNIT 2
		DRAWN - DAZ	REVISED -		I-70W OVER I-55, CSX & KCS RAILROADS
	PLOT SCALE = 2.0000 ' / in.	CHECKED - SAW	REVISED -		SCALE: NONE | SHEET NO. S-41 OF S-13B SHEETS | STA. | TO STA.
	PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	156
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D81781-0820323-0820325-76C75-S41-Unit2Parapet Elevations-825.dgn



INSIDE ELEVATION OF SOUTH PARAPET - S.N. 082-0325 UNIT 3

INSIDE ELEVATION OF NORTH PARAPET - S.N. 082-0325 UNIT 3

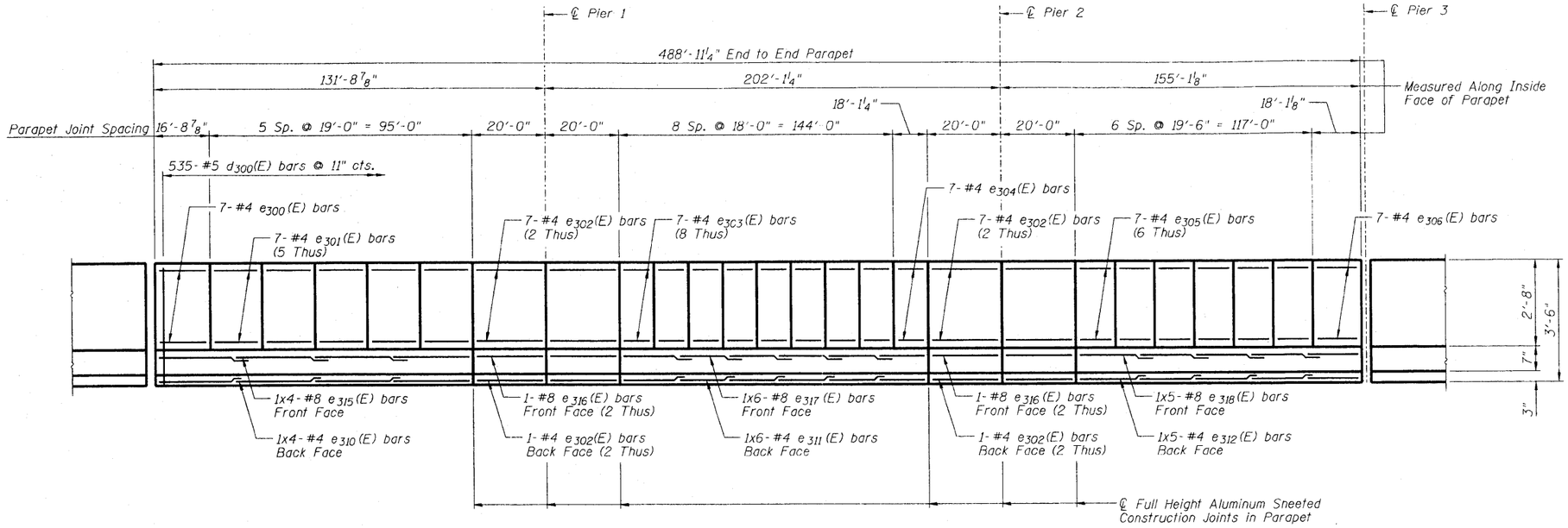
MIN. BAR LAP

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

AECOM / ZROKA engineering	USER NAME = KrtzM	DESIGNED - JLA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	PLOT SCALE = 2.0000 ' / in.	DRAWN - DAZ	REVISED -	PARAPET ELEVATIONS – S.N. 082-0325 UNIT 3
	PLOT DATE = $DATE$	CHECKED - SAW	REVISED -	I–70W OVER I–55, CSX & KCS RAILROADS
		DATE - 3-18-11	REVISED -	SCALE: NONE | SHEET NO. S-42 OF S-138 SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	157
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

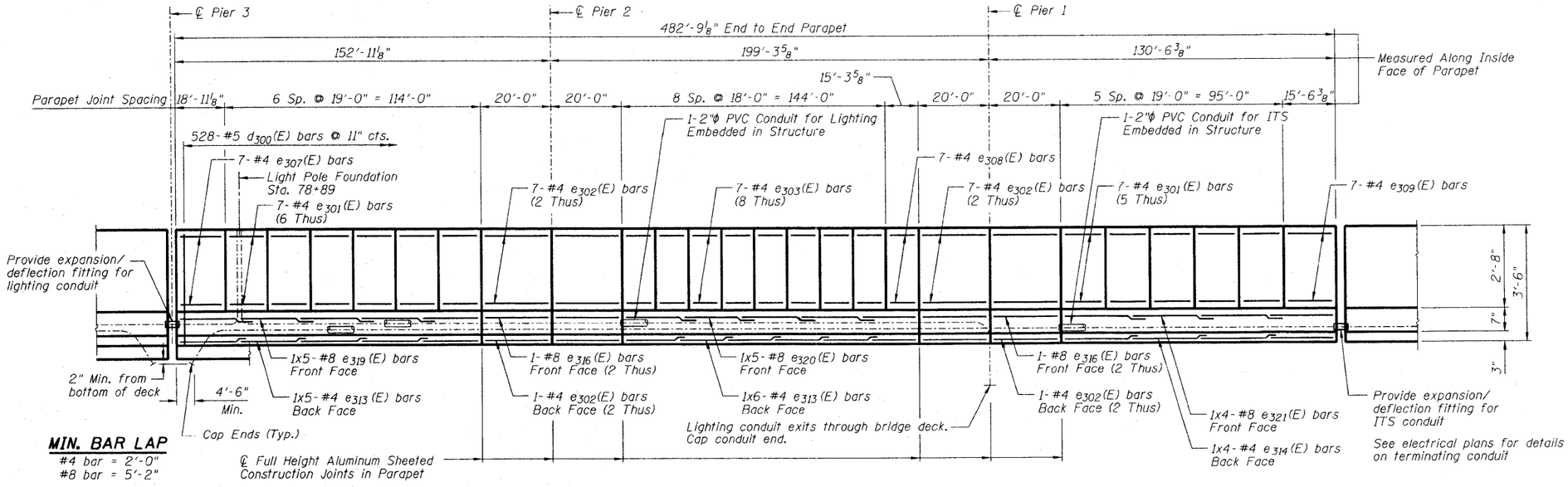
D81761_0820323_0820325_76C75-S42-Unit3Parapet Elevations-025.dgn



Note:

Bars indicated thus: 1x4-#8 etc., indicates one line of bars with 4 lengths per line

INSIDE ELEVATION OF SOUTH PARAPET - S.N. 082-0323



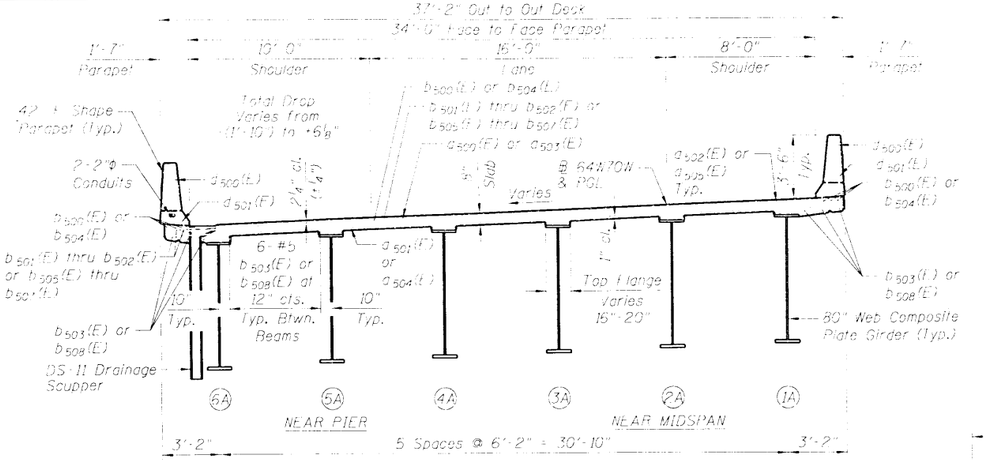
MIN. BAR LAP
#4 bar = 2'-0"
#8 bar = 5'-2"

INSIDE ELEVATION OF NORTH PARAPET - S.N. 082-0323

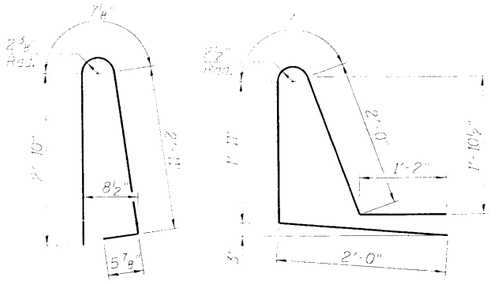
AECOM / ZROKA engineering	USER NAME = kritzm	DESIGNED - JLA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PARAPET ELEVATIONS – S.N. 082-0323
		DRAWN - DAZ	REVISED -		I-70W OVER I-55, CSX & KCS RAILROADS
	PLOT SCALE = 2.0000 ' / in.	CHECKED - SAW	REVISED -		SCALE: NONE | SHEET NO. S-43 OF S-138 SHEETS | STA. | TO STA.
	PLOT DATE = #DATE#	DATE - 3-18-11	REVISED -		

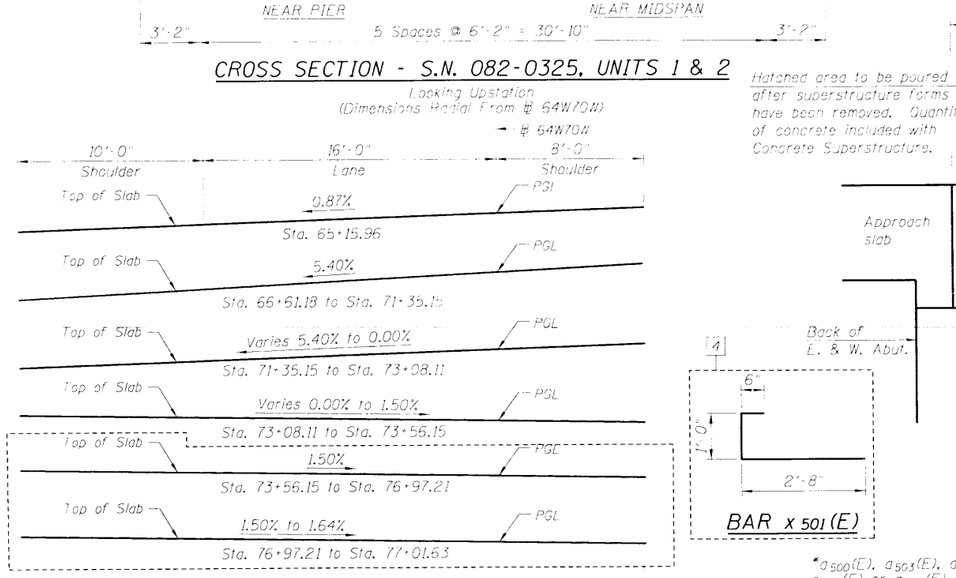
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	158
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

D8TRU-082032\d0826325-76C75-S43-Parapetelevations-823.dgn

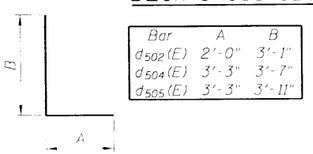


CROSS SECTION - S.N. 082-0325, UNITS 1 & 2



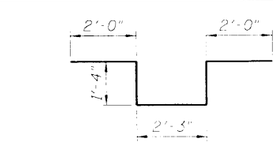


DECK CROSS SLOPE DETAIL UNITS 1 & 2

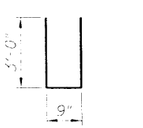


Bar	A	B
d502(E)	2'-0"	3'-1"
d504(E)	3'-3"	3'-7"
d505(E)	3'-3"	3'-11"

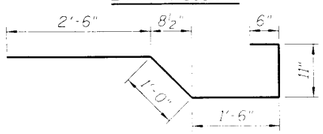
BARS d502(E), d504(E) & d505(E)



BAR d503(E)

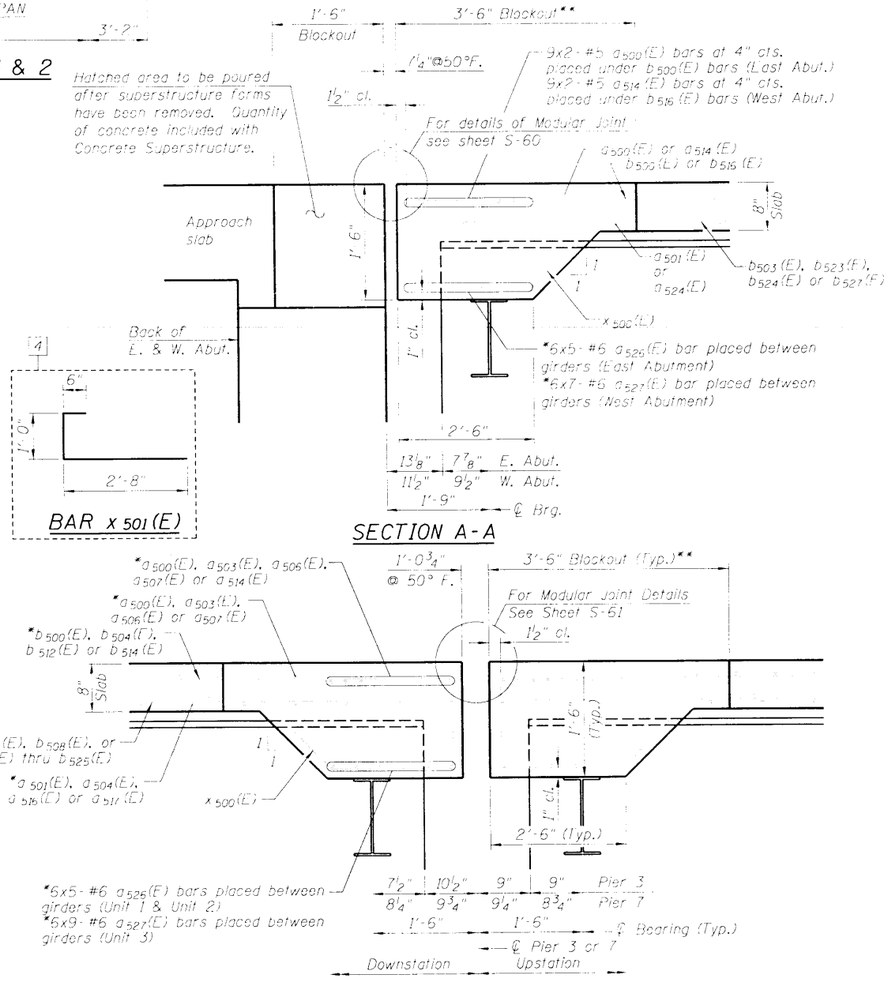


BAR d506(E)



BAR x500(E)

Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.



*Bars to be adjusted and/or cut in field to miss support boxes and beam webs

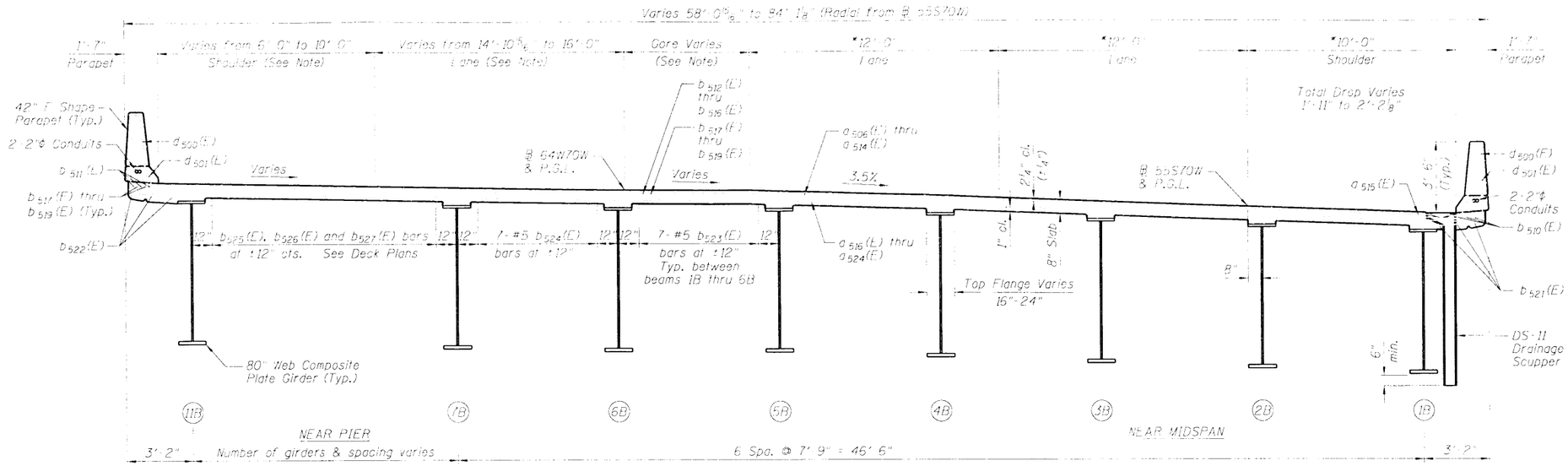
**Blockout dimensions to be verified by Contractor with Joint Manufacturer

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a500(E)	1283	#5	20'-1"	
a501(E)	1109	#5	20'-1"	
a502(E)	1842	#5	5'-5"	
a503(E)	2933	#5	20'-1"	
a504(E)	1742	#5	20'-1"	
a505(E)	2900	#5	5'-6"	
a506(E)	10	#5	20'-1"	
a507(E)	55	#5	23'-1"	
a508(E)	520	#5	23'-5"	
a509(E)	345	#5	28'-10"	
a510(E)	600	#5	27'-8"	
a511(E)	570	#5	25'-8"	
a512(E)	530	#5	34'-1"	
a513(E)	510	#5	33'-6"	
a514(E)	545	#5	31'-9"	
a515(E)	3001	#6	6'-6"	
a516(E)	32	#5	20'-1"	
a517(E)	30	#5	23'-1"	
a518(E)	320	#5	23'-5"	
a519(E)	210	#5	28'-10"	
a520(E)	375	#5	27'-8"	
a521(E)	342	#5	25'-8"	
a522(E)	330	#5	34'-1"	
a523(E)	306	#5	33'-6"	
a524(E)	385	#5	31'-9"	
a525(E)	104	#5	1'-6"	
a526(E)	120	#6	5'-10"	
a527(E)	96	#6	7'-5"	
b500(E)	738	#5	28'-8"	
b501(E)	114	#6	31'-9"	
b502(E)	152	#6	31'-0"	
b503(E)	684	#5	27'-4"	
b504(E)	1107	#5	30'-0"	
b505(E)	190	#6	28'-0"	
b506(E)	190	#6	27'-9"	
b507(E)	190	#6	23'-9"	
b508(E)	1008	#5	29'-1"	
b509(E)	6	#5	14'-5"	
b510(E)	75	#5	29'-11"	
b511(E)	78	#5	29'-5"	
b512(E)	560	#5	27'-0"	
b513(E)	6	#5	14'-0"	
b514(E)	70	#5	23'-9"	
b515(E)	748	#5	28'-10"	
b516(E)	480	#5	29'-2"	
b517(E)	237	#6	30'-0"	
b518(E)	284	#6	34'-9"	
b519(E)	252	#6	34'-9"	
b520(E)	6	#5	14'-5"	
b521(E)	78	#5	28'-11"	
b522(F)	81	#5	28'-6"	
b523(E)	875	#5	30'-3"	
b524(E)	182	#5	28'-6"	
b525(E)	178	#5	23'-9"	
b526(E)	202	#5	29'-3"	
b527(E)	20	#5	27'-9"	
d500(E)	4079	#5	6'-10"	
d501(E)	4079	#5	1'-8"	
d502(E)	15	#6	5'-1"	
d503(E)	30	#6	8'-11"	
d504(E)	4	#5	5'-10"	
d505(E)	4	#5	7'-2"	
d506(E)	4	#5	6'-9"	

Bar	No.	Size	Length	Shape
e500(E)	255	#4	19'-8"	
e501(E)	1	#4	15'-8"	
e502(E)	42	#4	14'-9"	
e503(E)	56	#4	14'-4"	
e504(E)	112	#4	15'-11"	
e505(E)	49	#4	19'-6"	
e506(E)	49	#4	14'-5"	
e507(E)	35	#4	14'-11"	
e508(E)	63	#4	17'-10"	
e509(E)	203	#4	19'-0"	
e510(E)	112	#4	15'-1"	
e511(E)	7	#4	15'-10"	
e512(E)	154	#4	18'-11"	
e513(E)	7	#4	17'-9"	
e514(E)	70	#4	15'-6"	
e515(E)	119	#4	19'-6"	
e516(E)	84	#4	17'-2"	
e517(E)	7	#4	18'-5"	
e518(E)	7	#4	15'-4"	
e519(E)	7	#4	19'-4"	
e520(F)	7	#4	18'-10"	
e521(E)	14	#4	15'-8"	
e522(E)	4	#4	24'-3"	
e523(E)	5	#4	28'-3"	
e524(E)	6	#4	26'-0"	
e525(E)	10	#4	26'-9"	
e526(E)	5	#4	29'-2"	
e527(E)	4	#4	24'-4"	
e528(E)	5	#4	27'-8"	
e529(E)	7	#4	27'-9"	
e530(E)	14	#4	25'-3"	
e531(E)	10	#4	26'-2"	
e532(E)	7	#4	27'-10"	
e533(F)	10	#4	28'-5"	
e534(E)	4	#4	27'-0"	
e535(E)	12	#4	29'-3"	
e536(E)	7	#4	29'-11"	
e537(E)	5	#4	26'-3"	
e538(E)	5	#4	25'-9"	
e539(E)	3	#8	33'-9"	
e540(E)	32	#8	15'-8"	
e541(E)	5	#8	30'-9"	
e542(E)	6	#8	28'-8"	
e543(E)	5	#8	34'-3"	
e544(E)	18	#8	31'-9"	
e545(E)	3	#8	33'-11"	
e546(E)	5	#8	30'-2"	
e547(E)	7	#8	30'-5"	
e548(E)	8	#8	34'-7"	
e549(E)	10	#8	34'-9"	
e550(E)	10	#8	31'-0"	
e551(F)	4	#8	29'-5"	
e552(E)	5	#8	31'-10"	
e553(E)	7	#8	32'-8"	
e554(E)	4	#8	34'-0"	
e555(E)	7	#8	32'-0"	
e556(E)	4	#8	29'-1"	
e557(F)	8	#4	11'-9"	
e558(E)	1	#8	11'-9"	
e559(E)	8	#4	11'-1"	
e560(E)	1	#8	11'-1"	
e561(E)	8	#4	2'-5"	
x500(E)	282	#5	5'-5"	
x501(F)	84	#5	4'-2"	
Reinforcement Bars, Epoxy Coated			Pound	810.660
Concrete Superstructure			Cu. Yds.	2995.2
Bridge Deck Grooving			Sq. Yd.	9100
Protective Coat			Sq. Yd.	11.240
Conduit Embedded in Structure, 2" Dia. PVC			Foot	5.095

AECOM | ZROKA ENGINEERING
USER NAME = pnolte
PLOT SCALE = 2.2222 ' / in.
PLOT DATE = $DATE$
DESIGNED - JLA
DRAWN - DAZ
CHECKED - SAW
DATE - 3-18-11
REVISED 4 7/17/2012 ATB
REVISED 3 4/3/2013 ATB
REVISED -
REVISED -
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DECK CROSS SECTIONS I - S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-44 OF S-138 SHEETS | STA. | TO STA.
F.A.I. RTE. 70 | SECTION 82-1-B-1 | COUNTY ST. CLAIR | TOTAL SHEETS 319 | SHEET NO. 159
S.N. 082-0323 & S.N. 082-0325 | CONTRACT NO. 76C75
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

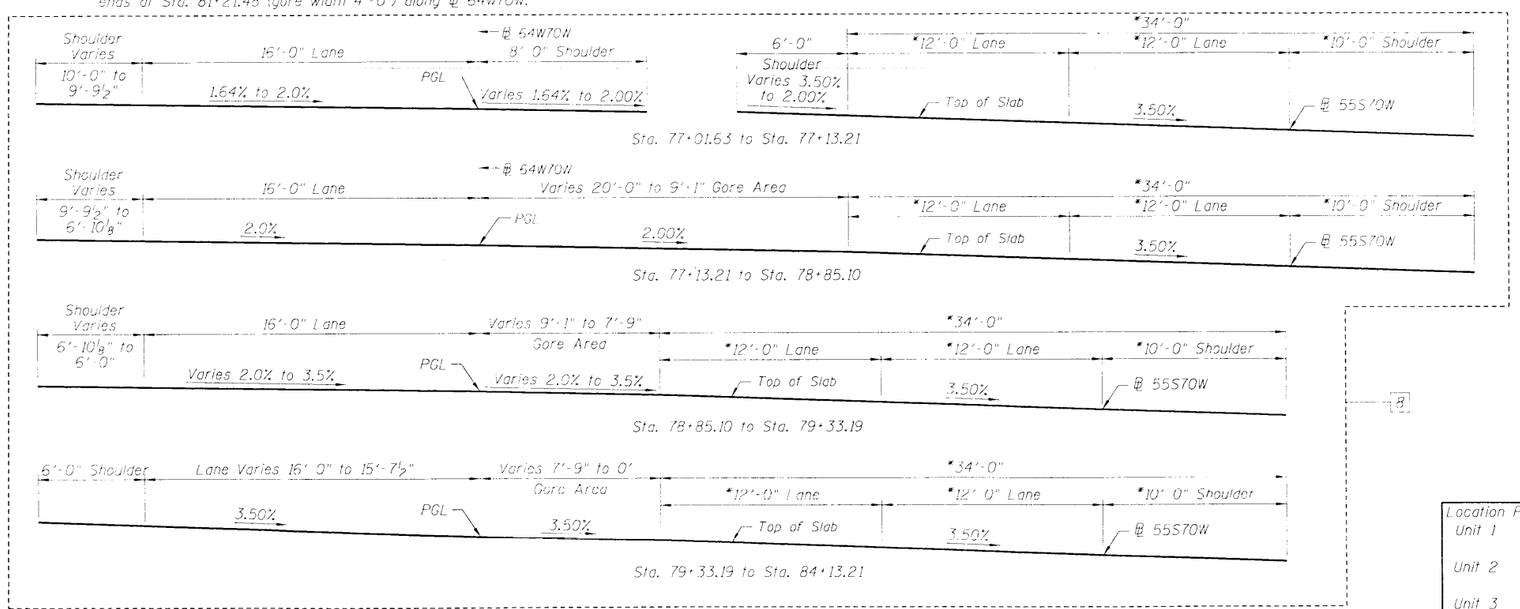


Note:
Shoulder taper begins at Sta. 77+01.63 (shoulder width 10'-0") and ends at Sta. 79+13.90 (shoulder width 6'-0") along ℄ 64W70W.
Lane taper begins at Sta. 79+13.90 (lane width 15'-0") and ends at Sta. 86+08.31 (lane width 12'-0") along ℄ 64W70W.
Gore taper begins at Sta. 77+12.46 (gore width 20'-0") and ends at Sta. 81+21.48 (gore width 4'-0") along ℄ 64W70W.

CROSS SECTION - S.N. 082-0325, UNIT 3

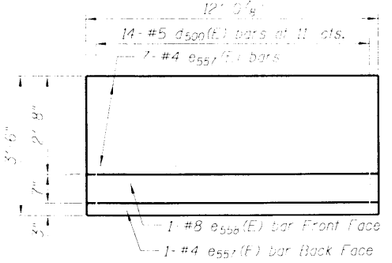
Looking Upstation
Dimensions Radial from ℄ 64W70W U.N.O.

*Radial from ℄ 55S70W

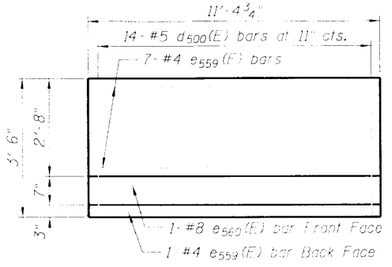


DECK CROSS SLOPE DETAIL UNIT 3

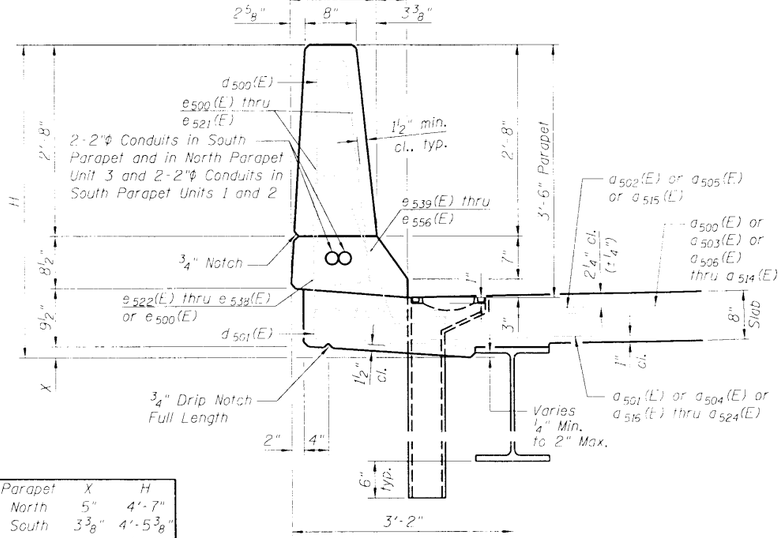
Dimensions Radial from ℄ 64W70W U.N.O.



INSIDE ELEVATION OF SOUTH INTERIOR PARAPET - UNIT 3



INSIDE ELEVATION OF NORTH INTERIOR PARAPET - UNIT 3



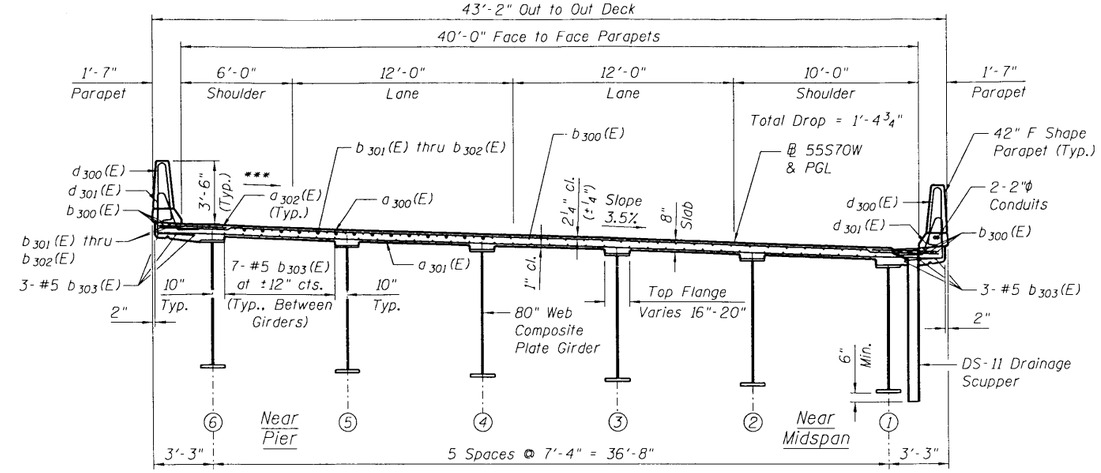
Location	Parapet	X	H
Unit 1	North	5"	4'-7"
	South	3⅜"	4'-5⅜"
Unit 2	North	5"	4'-7"
	South	4¼"	4'-6¼"
Unit 3	North	3⅜"	4'-5⅜"
	South	4⅝"	4'-6⅝"

SECTION THRU PARAPET UNITS 1, 2 & 3

AECOM / ZROKA	USER NAME = bhaste	DESIGNED - JLA	REVISED 8 4/3/2013 ATB	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	PLOT SCALE = 2.2222 ' / in.	DRAWN - DAZ	REVISED -	DECK CROSS SECTIONS II – S.N. 082-0325 I-70W OVER I-55, CSX & KCS RAILROADS
	PLOT DATE = $DATE$	CHECKED - SAW	REVISED -	SCALE: NONE SHEET NO. S-45 OF S-138 SHEETS STA. TO STA.
		DATE - 3-18-11	REVISED -	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	160
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

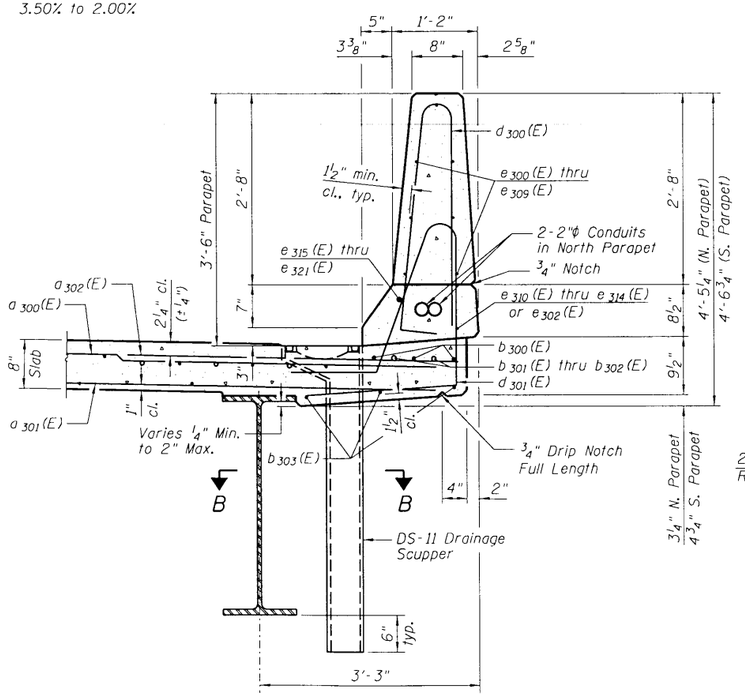
USE FILE: d82d82d3-d82d82d3-76C75-S45-Unit30eckCrossSections-825.dgn



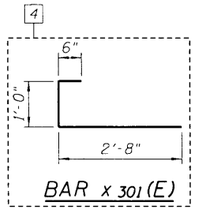
***Between Sta. 78+91.16 to Sta. 79+09.01 Shoulder Cross Slope varies from 3.50% to 2.00%

CROSS SECTION - S.N. 082-0323

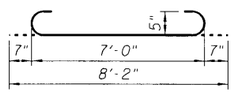
Looking Upstation
(Dimensions Radial From ℄ 55S70W)



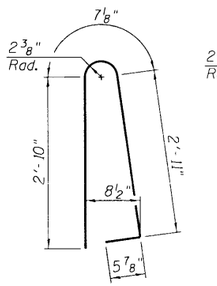
SECTION THRU PARAPET



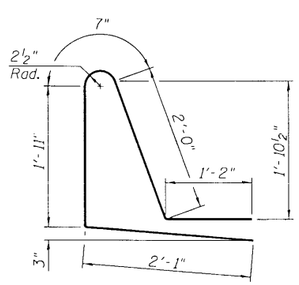
BAR x 301(E)



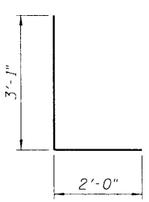
BAR a306(E)



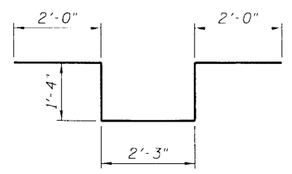
BAR d300(E)



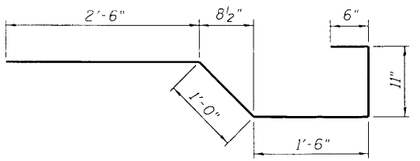
BAR d301(E)



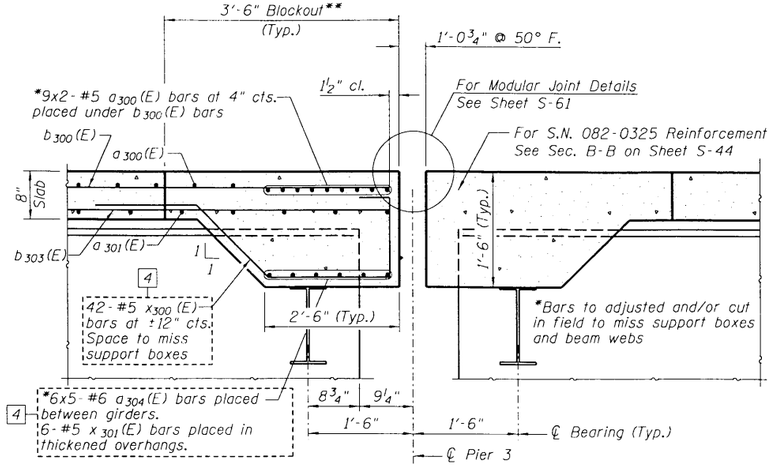
BAR d302(E)



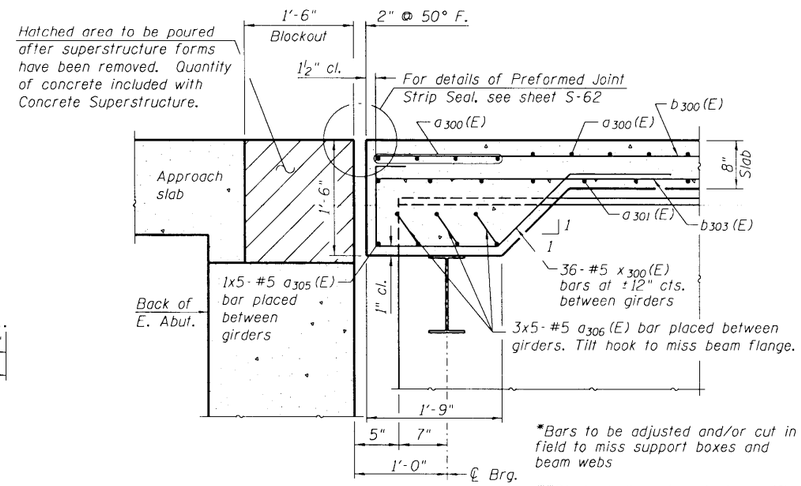
BAR d303(E)



BAR x300(E)



SECTION C-C



SECTION D-D

*Bars to be adjusted and/or cut in field to miss support boxes and beam webs

**Blockout dimensions to be verified by Contractor with Joint Manufacturer

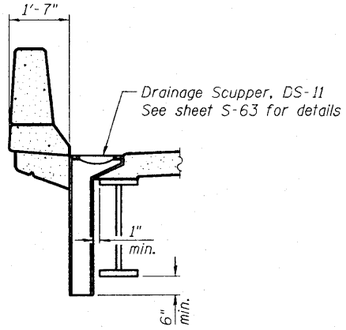
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a300(E)	2162	#5	23'-1"	
a301(E)	1306	#5	23'-0"	
a302(E)	2134	#6	6'-6"	
a303(E)	16	#5	1'-6"	
a304(E)	30	#6	7'-0"	
a305(E)	5	#5	7'-0"	
a306(E)	15	#5	8'-2"	
b300(E)	893	#5	28'-10"	
b301(E)	176	#6	28'-6"	
b302(E)	220	#6	25'-8"	
b303(E)	820	#5	27'-8"	
d300(E)	1063	#5	6'-10"	
d301(E)	1063	#5	7'-9"	
d302(E)	3	#6	5'-1"	
d303(E)	6	#6	8'-11"	
e300(E)	7	#4	16'-5"	
e301(E)	112	#4	18'-8"	
e302(E)	64	#4	19'-8"	
e303(E)	112	#4	17'-8"	
e304(E)	7	#4	17'-10"	
e305(E)	42	#4	19'-2"	
e306(E)	7	#4	17'-10"	
e307(E)	7	#4	18'-8"	
e308(E)	7	#4	15'-0"	
e309(E)	7	#4	15'-3"	
e310(E)	4	#4	29'-5"	
e311(E)	6	#4	28'-8"	
e312(E)	5	#4	28'-7"	
e313(E)	11	#4	28'-2"	
e314(E)	4	#4	29'-1"	
e315(E)	4	#8	31'-9"	
e316(E)	8	#8	19'-8"	
e317(E)	6	#8	31'-4"	
e318(E)	5	#8	31'-2"	
e319(E)	5	#8	30'-9"	
e320(E)	5	#8	36'-0"	
e321(E)	4	#8	31'-6"	
x300(E)	78	#5	6'-5"	
x301(E)	12	#5	4'-2"	
				4
Reinforcement Bars, Epoxy Coated		Pound	196,150	
Concrete Superstructure		Cu. Yds.	704.8	
Bridge Deck Grooving		Sq. Yd.	2,052	
Protective Coat		Sq. Yd.	2,610	
Conduit Embedded in Structure, 2" Dia. PVC		Foot	840	

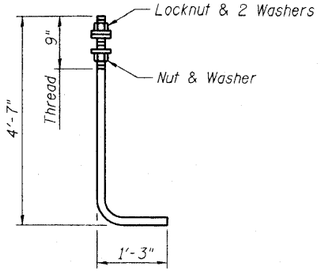
AECOM / ZROKA Engineering	USER NAME = floresg	DESIGNED - JLA	REVISED 4 7/17/2012 ATB	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK CROSS SECTIONS – S.N. 082-0323 I-70W OVER I-55 CSX & KCS RAILROADS
		DRAWN - DAZ	REVISED -		
	PLOT SCALE = 2.0000 ' / in.	CHECKED - SAW	REVISED -		SCALE: NONE SHEET NO. S-46 OF S-138 SHEETS STA. TO STA.
	PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	161
	S.N. 082-0323 & S.N. 082-0325	CONTRACT NO. 76C75		
	FED. ROAD DIST. NO. ILLINOIS	FED. AID PROJECT		

D8TR-0828323-0828325-76C75-546-DeckCrossSections-023.dgn

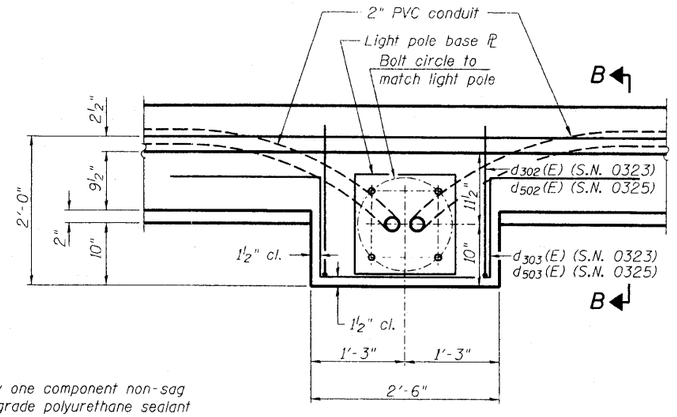


SECTION A-A



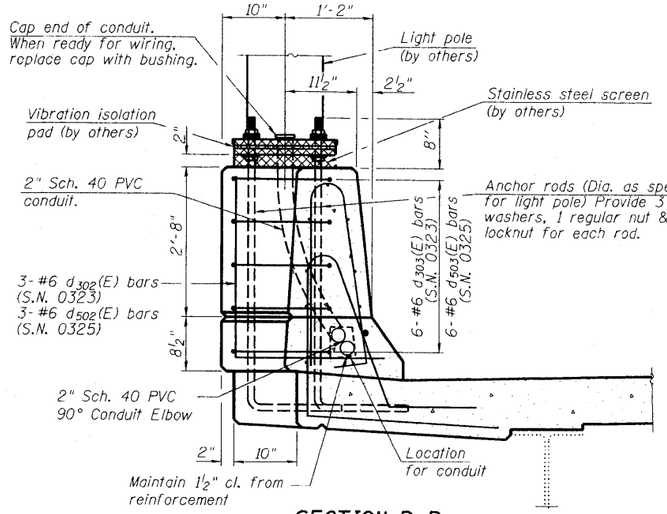
ANCHOR ROD

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

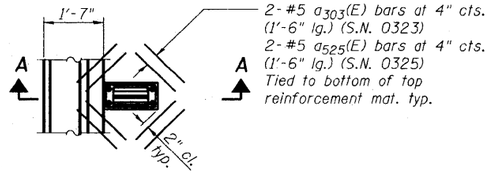


PLAN

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

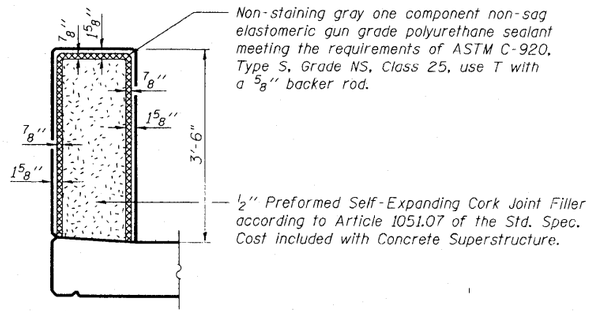


SECTION B-B

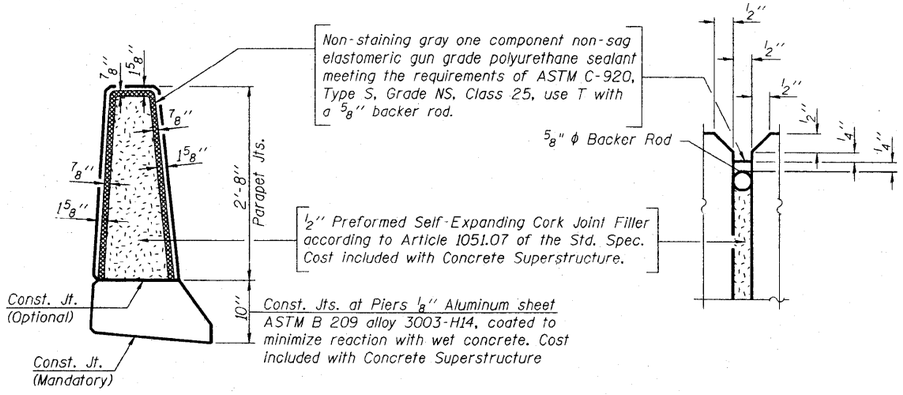


DETAIL 1
DRAINAGE SCUPPER

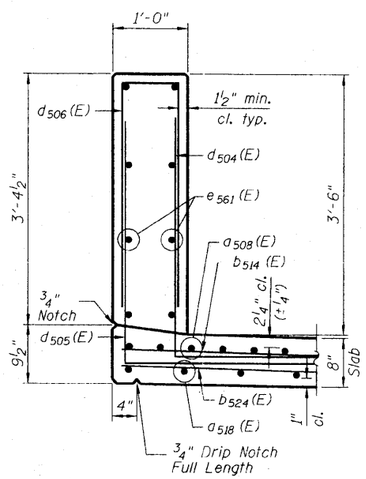
Note:
Cut longitudinal reinforcement to clear drainage scuppers.



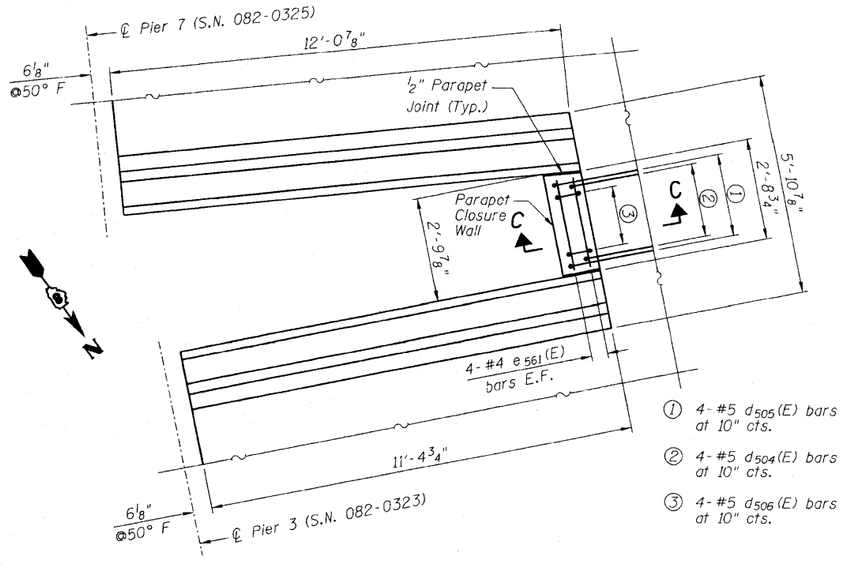
PARAPET CLOSURE WALL JOINT DETAIL



PARAPET JOINT DETAILS



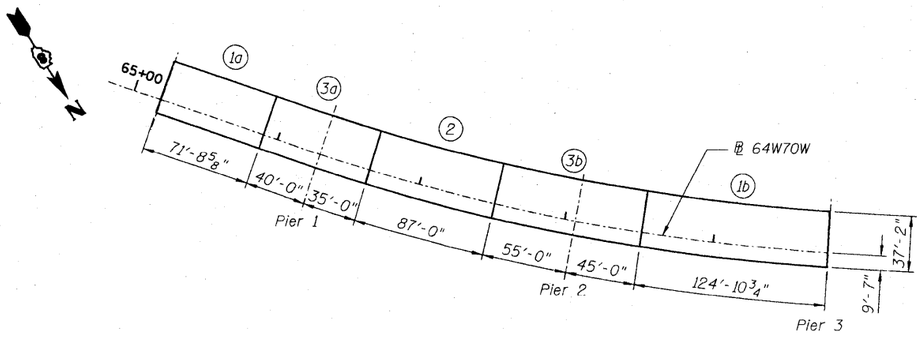
SECTION C-C



PLAN
UNIT 3 INTERIOR PARAPETS

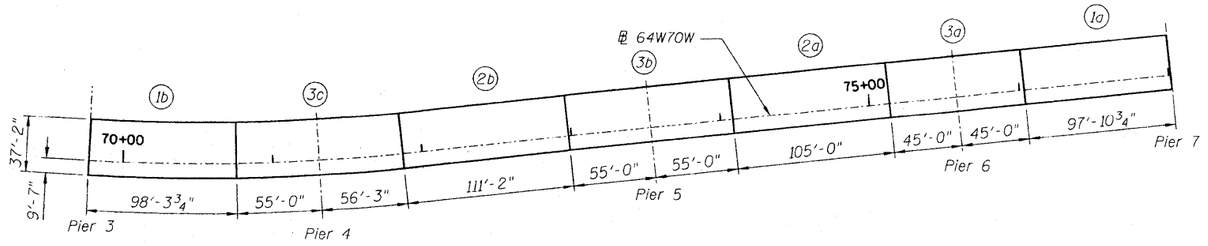
AECOM / ZROKA Engineering	USER NAME = bristm	DESIGNED - JLA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK DETAILS I-70W OVER I-55, CSX & KCS RAILROADS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - DAZ	REVISED -			70	82-1-B-1	ST. CLAIR	319	162
	PLOT SCALE = 2.0000 ' / in.	CHECKED - SAW	REVISED -			S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
	PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -		SCALE: NONE SHEET NO. S-47 OF S-138 SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D8TRI-0820323-0820325-76C75-S47-DeckDetails.dgn



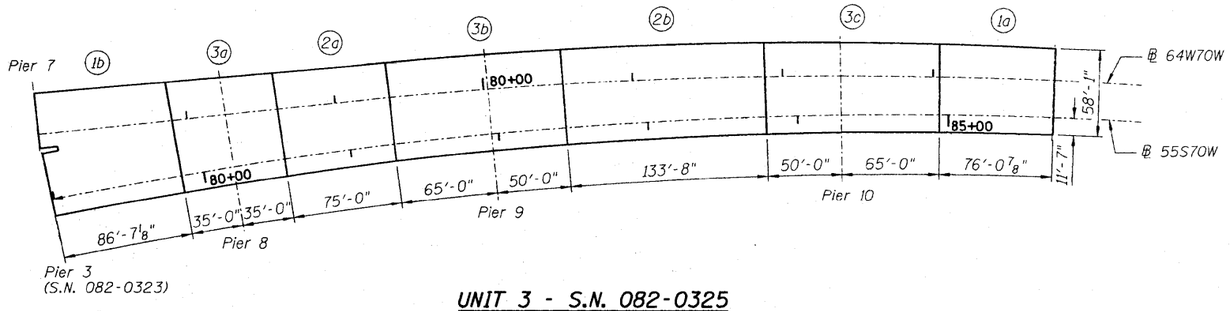
UNIT 1 - S.N. 082-0325

Transverse joints radial to ℄ 64W70W



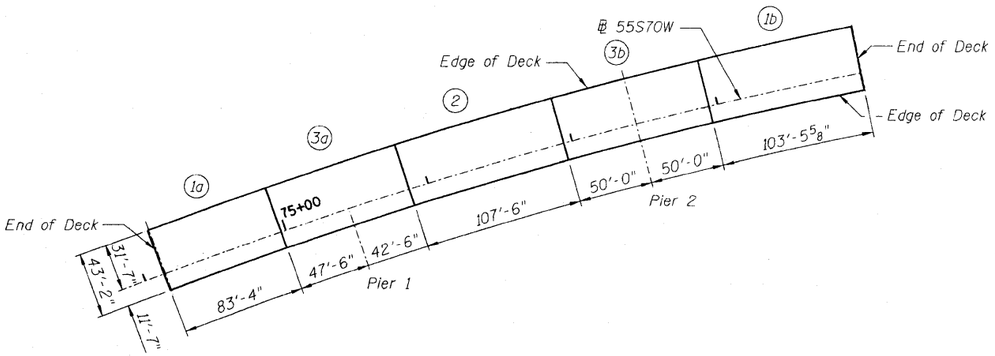
UNIT 2 - S.N. 082-0325

Transverse joints radial to ℄ 64W70W



UNIT 3 - S.N. 082-0325

Transverse joints radial to ℄ 55S70W



S.N. 082-0323

Transverse joints radial to ℄ 55S70W

DECK POURING SEQUENCE

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:

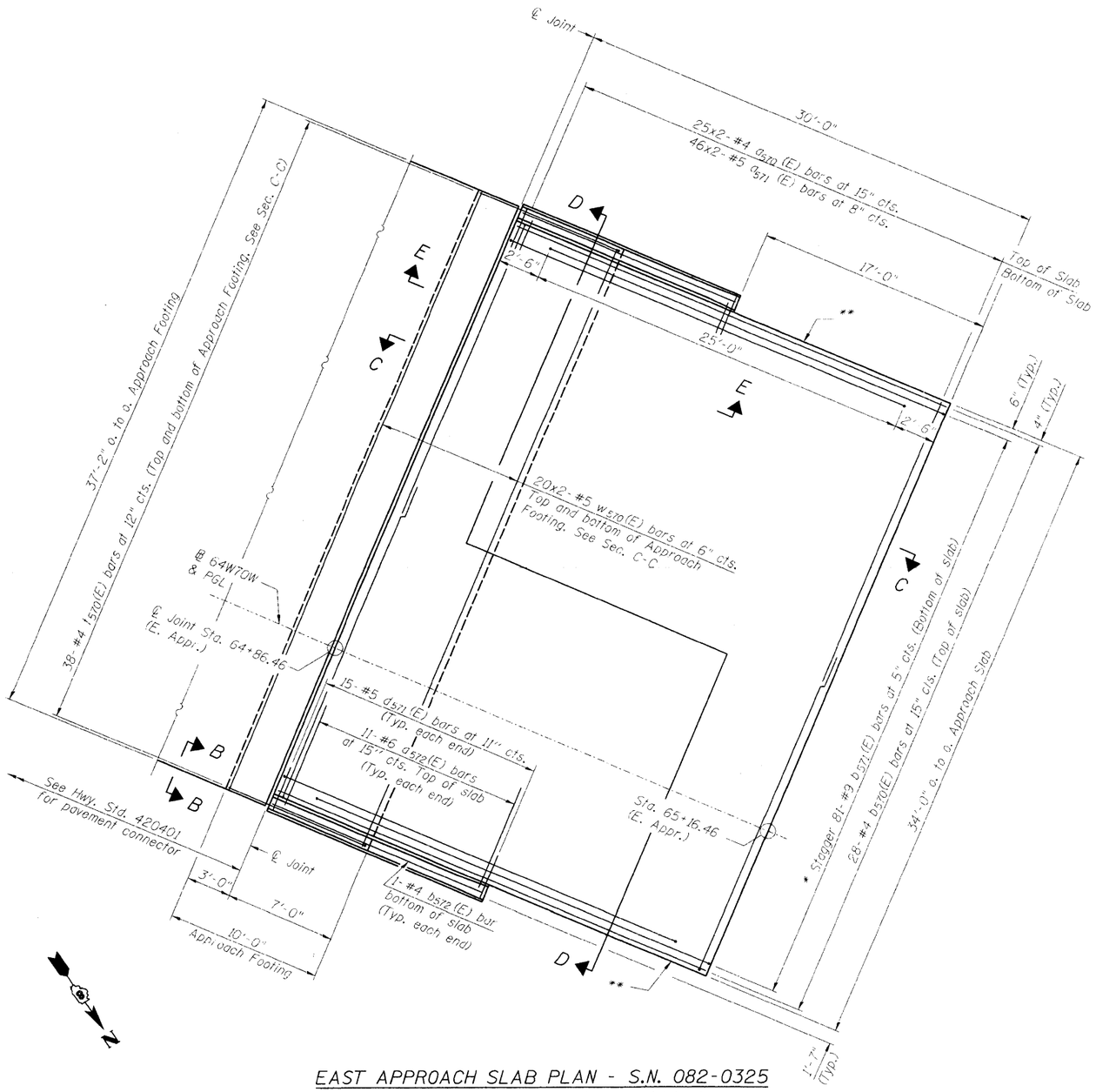
1. *At least 72 hours shall have elapsed from the end of the previous pour.*

2. *The concrete strength shall have attainined a mimimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.*

Numbers within the deck pouring sequence indicate the minimum number of group pours required for each unit. Letters next to the group pour numbers indicate the order if pour groups are further subdivided into individual pours. If the Contractor wishes to revise the deck pouring sequence, then the revised deck pouring sequence and calculations shall be submitted to the Engineer for review & approval. The calculations shall be prepared by and sealed by an Illinois Licensed Structural Engineer.

AECOM	ZROKA Engineering	USER NAME = ROKZM	DESIGNED - JLA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK POURING SEQUENCE I-70W OVER I-55, CSX & KCS RAILROADS		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			DRAWN - DAZ	REVISED -				70	82-1-B-1	ST. CLAIR	319	163
		PLOT SCALE = 2.0000 ' / in.	CHECKED - SAW	REVISED -					S.N. 082-0323 & S.N. 082-0325	CONTRACT NO. 76C75		
		PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -		SCALE: NONE	SHEET NO. S-48 OF S-138 SHEETS STA. TO STA.		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

D8TRL-8820323-8820325-76C75-S48-DeckPouring.dgn



EAST APPROACH SLAB PLAN - S.N. 082-0325

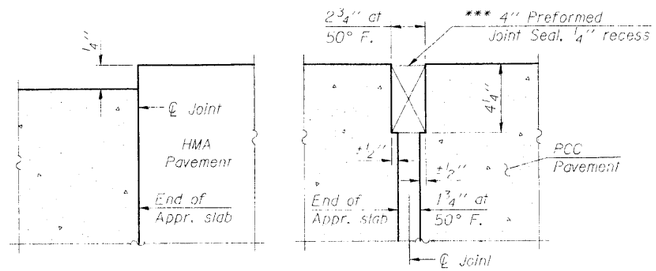
* Tilt #9 b571(E) bars as required to maintain clearance.
** Closed cell joint filler according to Article 1051.08 of the Standard Specifications, full depth of slab, full length of parapet. Typical each parapet.

MIN. BAR LAP

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

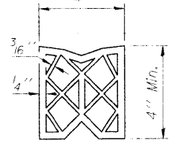
Notes:
See sheet S-50 for Sections C-C & D-D and View B-B.

*** Cost included with Concrete Superstructure.

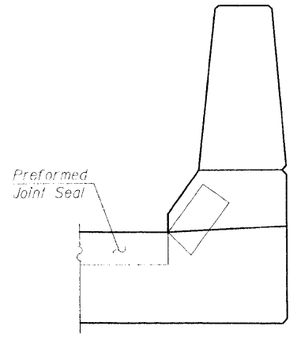


FLEXIBLE PAVEMENT — RIGID PAVEMENT

DETAIL A



PREFORMED JOINT SEAL



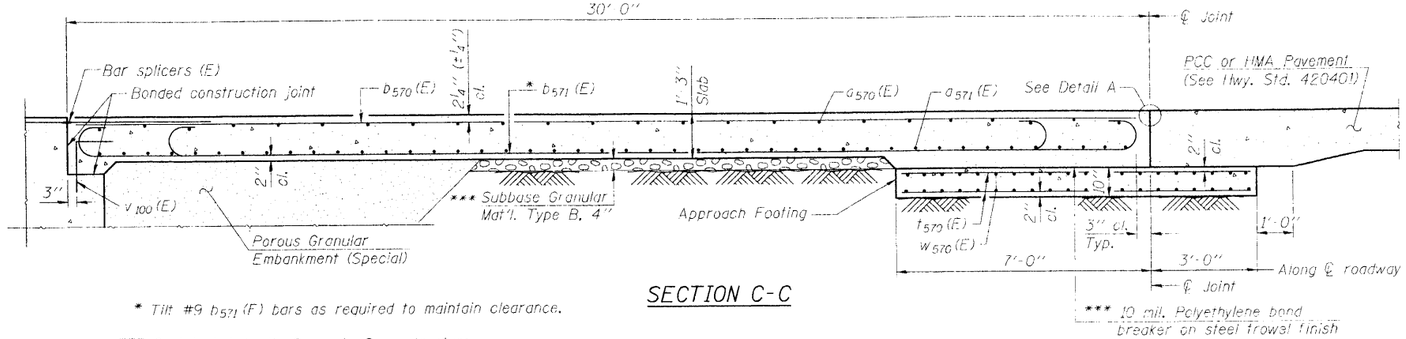
VIEW B-B

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

AECOM / ZROKA engineering	USER NAME = BhattA	DESIGNED - JLA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EAST APPROACH SLAB PLAN – S.N. 082-0325 I-70W OVER I-55, CSX & KCS RAILROADS	F.A.I. RTE. 70	SECTION 82-1-B-1	COUNTY ST. CLAIR	TOTAL SHEETS 319	SHEET NO. 164
		DRAWN - DAZ	REVISED -			S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
	PLOT SCALE = 1.0000' / in.	CHECKED - SAW	REVISED -		SCALE: NONE SHEET NO. S-49 OF S-138 SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
	PLOT DATE = $DATE$	DATE - 04-26-11	REVISED -							

D:\STL-082022-082025_76C75-S49-EApprSlab_825.dgn

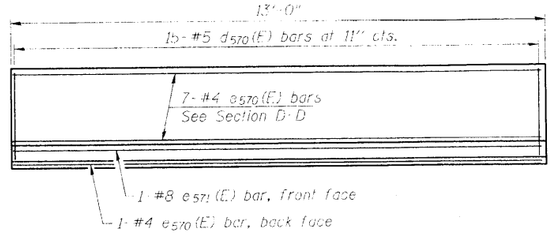
Notes:
See sheet S-49 for Detail A.
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For $v_{100}(E)$ bar details, see sheet S-98.
The 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-6.



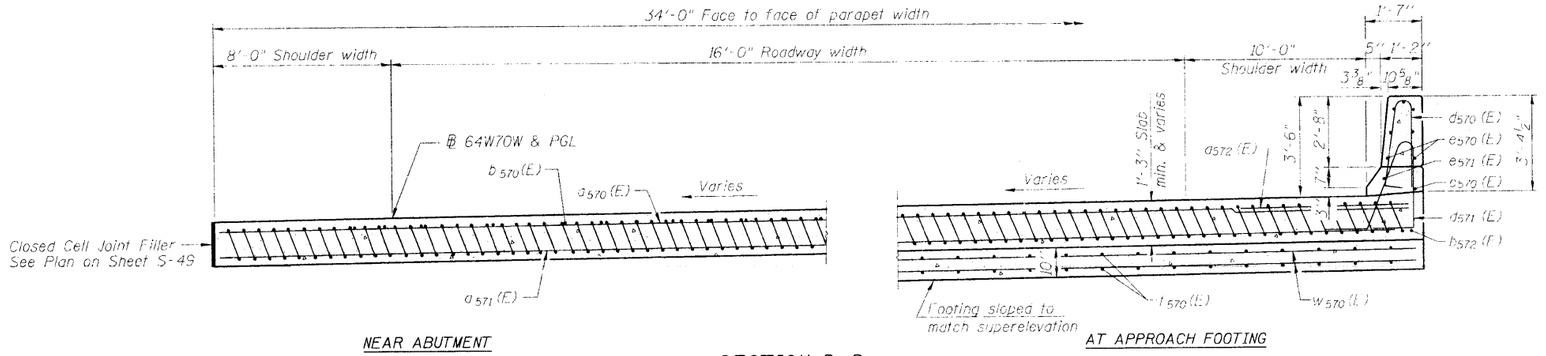
SECTION C-C

* Tilt #9 $b_{571}(F)$ bars as required to maintain clearance.

*** Cost included with Concrete Superstructure.



VIEW E-E



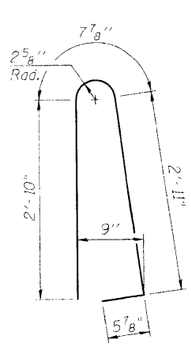
NEAR ABUTMENT

AT APPROACH FOOTING

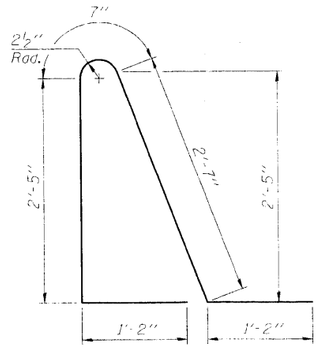
SECTION D-D
(See Plan for dimensions not shown)

BILL OF MATERIAL

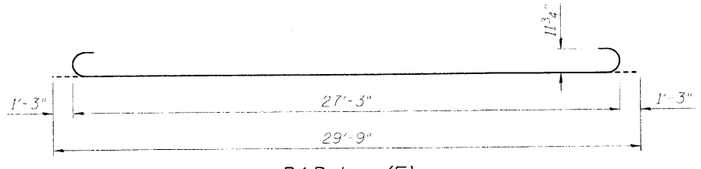
Bar	No.	Size	Length	Shape
$a_{570}(F)$	50	#4	19'-9"	
$a_{571}(E)$	92	#5	20'-0"	
$a_{572}(E)$	22	#6	6'-6"	
$b_{570}(E)$	28	#4	29'-8"	
$b_{571}(F)$	81	#9	29'-9"	
$b_{572}(E)$	2	#4	12'-8"	
$d_{570}(F)$	30	#5	6'-11"	
$d_{571}(F)$	30	#5	7'-11"	
$e_{570}(E)$	16	#4	12'-8"	
$e_{571}(E)$	2	#8	12'-8"	
$t_{570}(E)$	76	#4	9'-8"	
$w_{570}(F)$	80	#5	19'-5"	
Concrete Superstructure		Cu. Yd.	61.7	
Concrete Structures		Cu. Yd.	11.1	
Reinforcement Bars, Epoxy Coated		Pound	14,340	
Bridge Deck Grooving		Sq. Yd.	107	
Protective Coat		Sq. Yd.	127	



BAR $d_{570}(E)$



BAR $d_{571}(E)$

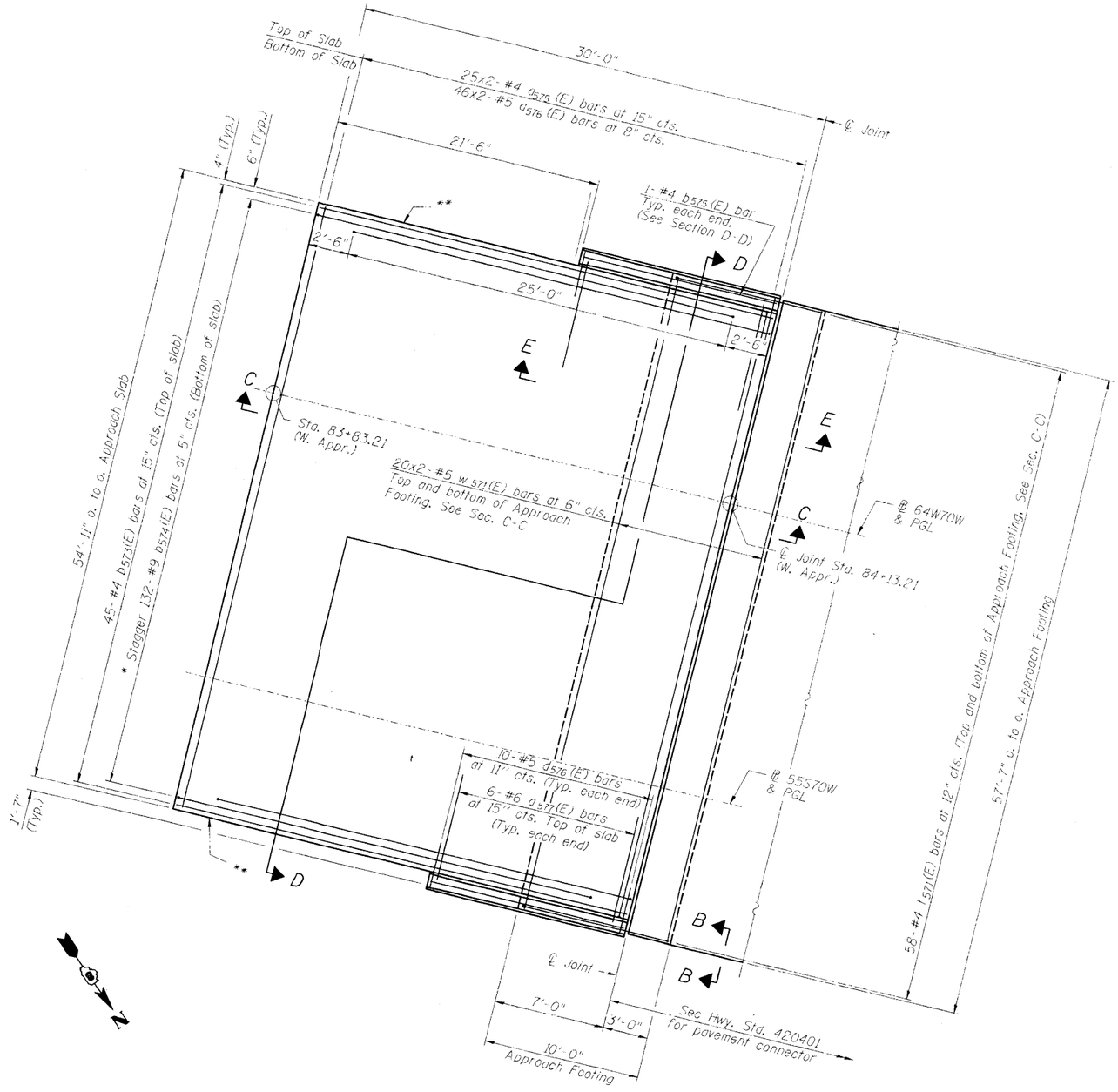


BAR $b_{571}(E)$

AECOM / ZROKA engineering	USER NAME = Bhatta	DESIGNED JLA	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN DAZ	REVISED	EAST APPROACH SLAB DETAILS – ~~S.N. 082-0325~~
	PLOT SCALE = 1.0000 / IN.	CHECKED SAW	REVISED	I-70W OVER I-55, CSX & KCS RAILROADS
	PLOT DATE = $DATE$	DATE 04-26-11	REVISED	SCALE: NONE SHEET NO. S-50 OF S-138 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	139	165
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

I:\CONTRACTS\082\0323-0325-76C75-SP\Design\Slab\2-025.dgn

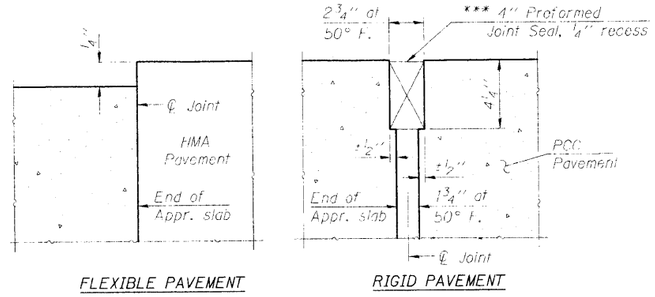


WEST APPROACH SLAB PLAN - S.N. 082-0325

* Tilt #9 b_{574}(E) bars as required to maintain clearance.
** Closed cell joint filler according to Article 1051.08 of the Standard Specifications, full depth of slab, full length of parapet. Typical each parapet.

Note:
See sheet S-52 for Sections C-C & D-D and View E-E.

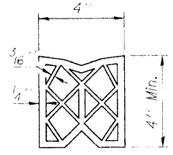
*** Cost included with Concrete Superstructure.



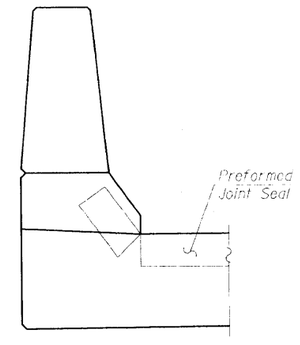
FLEXIBLE PAVEMENT

RIGID PAVEMENT

DETAIL A



PREFORMED JOINT SEAL



VIEW B-B

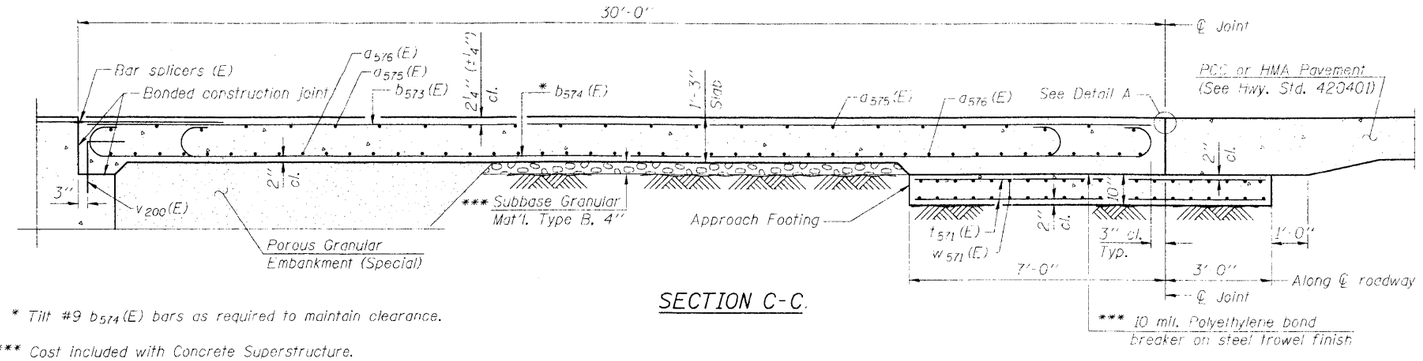
Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.

MIN. BAR LAPS

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

AECOM / ZROKA engineering	USER NAME = $USER	DESIGNED - JLA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	~~WEST APPROACH SLAB PLAN - S.N. 082-0325~~ I-70W OVER I-55, CSX & KCS RAILROADS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - DAZ	REVISED -			TO	82-1-B-1	ST. CLAIR	3:9	166
	PLOT SCALE = 1.2000 ' / in.	CHECKED - SAW	REVISED -			S.N. 082 0323 & S.N. 082 0325		CONTRACT NO. 76C75		
	PLOT DATE = $DATE$	DATE - 04-26-11	REVISED -		SCALE: NONE SHEET NO. S-51 OF S-138 SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DGN: D:\82\0323-082032\5-76C75-S51-Wapp-Slab-025.dgn

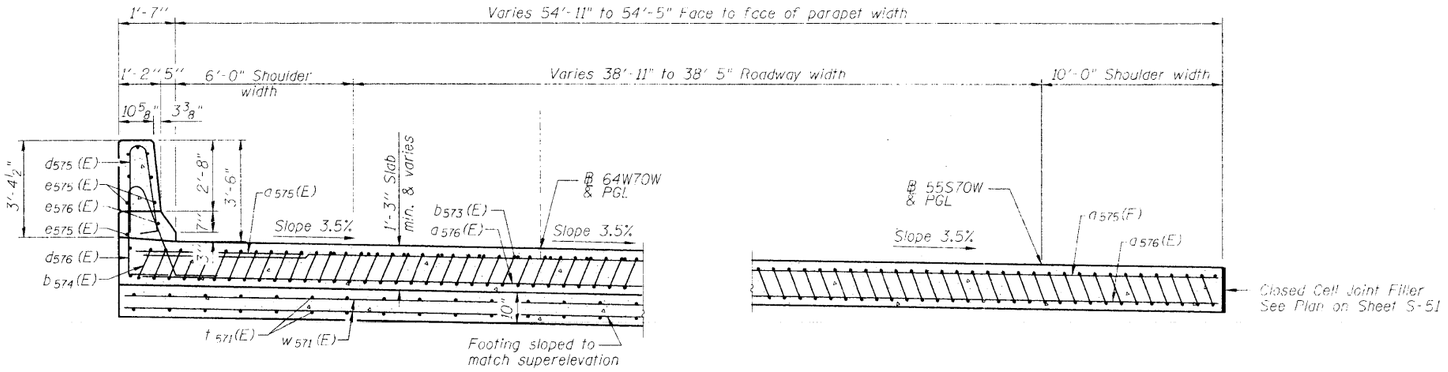


SECTION C-C.

* Tilt #9 b_{574}(E) bars as required to maintain clearance.

*** Cost included with Concrete Superstructure.

Notes:
See sheet S-51 for Detail A.
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v_{200}(E) bar details, see sheet S-101.
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-6.



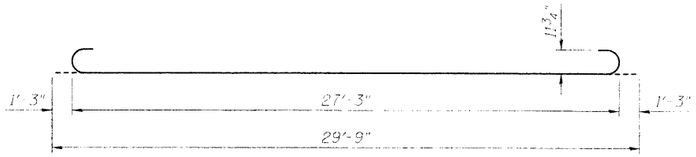
AT APPROACH FOOTING

SECTION D-D

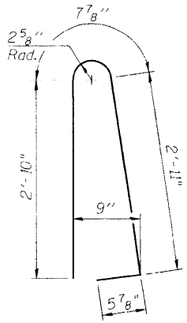
(See Plan for dimensions not shown)

NEAR ABUTMENT

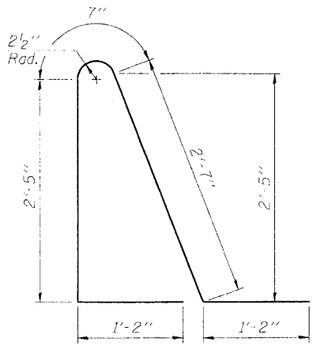
SECTION D-D



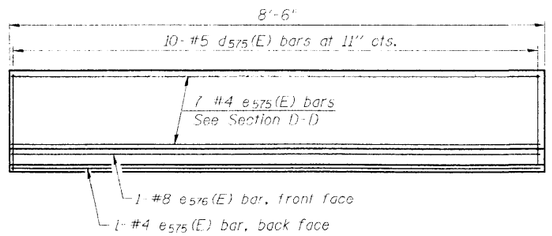
BAR b_{574}(E)



BAR d_{575}(E)



BAR d_{576}(E)



VIEW E-E

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{575}(E)	50	#4	29' 10"	
a_{576}(E)	92	#5	30'-3"	
a_{577}(E)	12	#6	6'-6"	
b_{573}(E)	45	#4	29'-8"	
b_{574}(E)	132	#9	29' 9"	
b_{575}(F)	2	#4	8'-2"	
d_{575}(E)	20	#5	6' 11"	
d_{576}(E)	20	#5	7'-11"	
e_{575}(E)	16	#4	8' 2"	
e_{576}(E)	2	#8	8' 2"	
t_{571}(E)	116	#4	9' 8"	
w_{571}(E)	80	#5	29'-10"	
Concrete Superstructure		Cu. Yd.	92.3	
Concrete Structures		Cu. Yd.	17.8	
Reinforcement Bars, Epoxy Coated		Pound	21,950	
Bridge Deck Grooving		Sq. Yd.	177	
Protective Coat		Sq. Yd.	193	

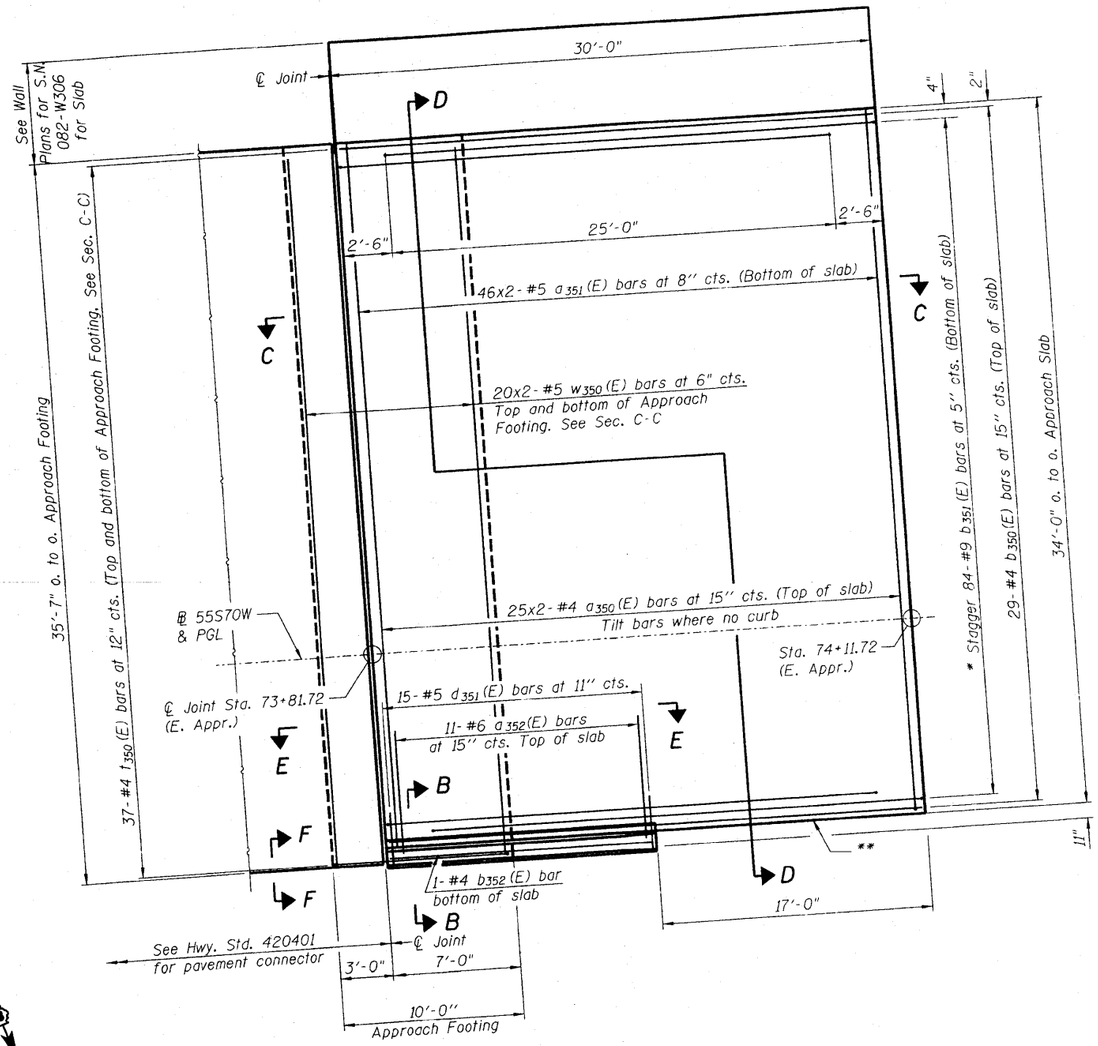
D:\TRH-082023-082S325-76C75-S52-Wapp-Slab2-025.dgn

AECOM / ZROKA Engineering	USER NAME = BhattA	DESIGNED - JLA	REVISED -	
		DRAWN - DAZ	REVISED -	
	PLOT SCALE = 1.0000 ' / in.	CHECKED - SAW	REVISED -	
	PLOT DATE = $DATE$	DATE - 04-26-11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

~~WEST APPROACH SLAB DETAILS – S.N. 082-0325~~
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-52 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	167
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



EAST APPROACH SLAB PLAN - S.N. 082-0323

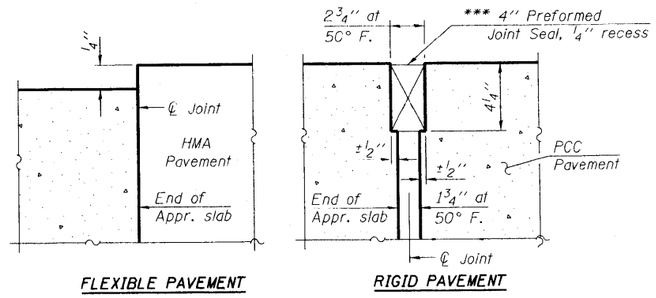
* Tilt #9 b_{351}(E) bars as required to maintain clearance.
** Closed cell joint filler according to Article 1051.08 of the Standard Specifications, full depth of slab, full length of parapet. Typical each parapet.

MIN. BAR LAP

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

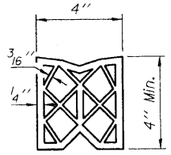
Notes:
See sheet S-54 for Sections B-B, C-C & D-D and View E-E.
a_{350}(E) and a_{351}(E) bar spacings measured along ℄ Rdwy.

*** Cost included with Concrete Superstructure.

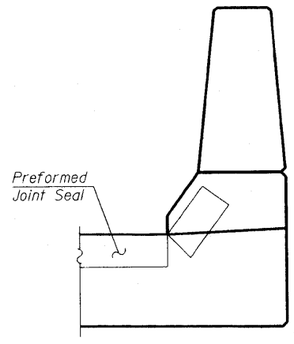


FLEXIBLE PAVEMENT — RIGID PAVEMENT

DETAIL A



PREFORMED JOINT SEAL



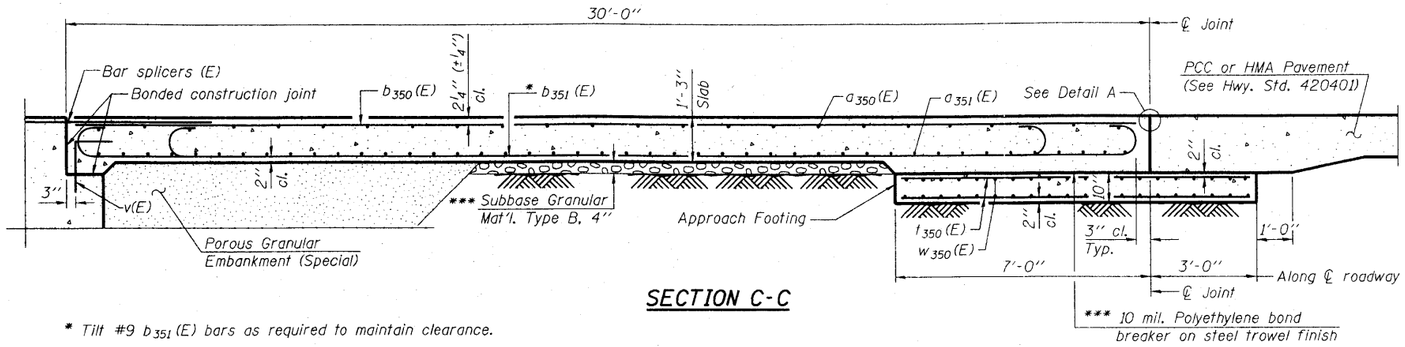
VIEW F-F

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

AECOM / ZROKA engineering	USER NAME = kritzm	DESIGNED - JLA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EAST APPROACH SLAB PLAN – S.N. 082-0323 I–70W OVER I–55, CSX & KCS RAILROADS
		DRAWN - DAZ	REVISED -		
	PLOT SCALE = 2.0000 ' / in.	CHECKED - SAW	REVISED -		SCALE: NONE | SHEET NO. S-53 OF S-138 SHEETS | STA. | TO STA.
	PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	168
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

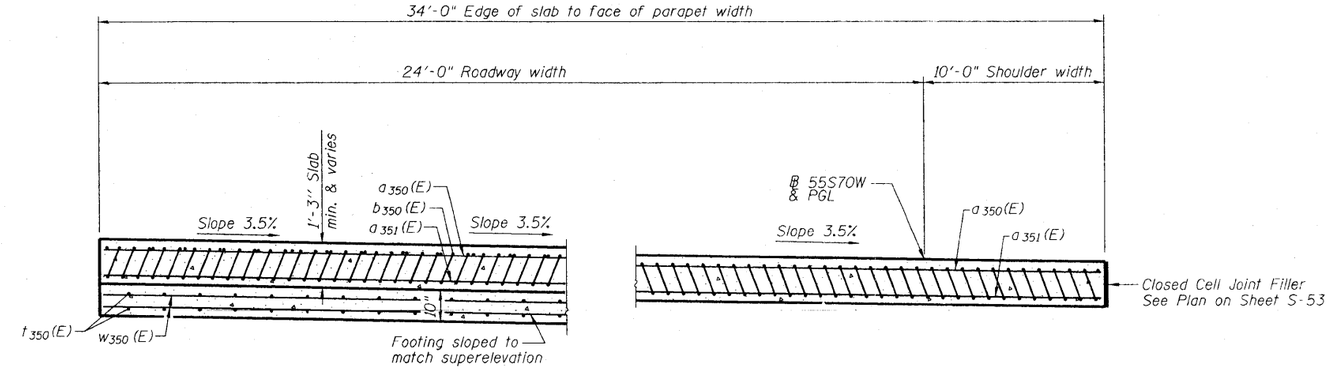
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SECTION C-C

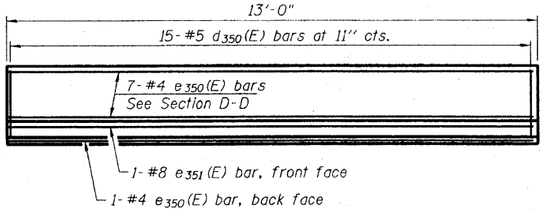
* Tilt #9 b_{351}(E) bars as required to maintain clearance.

*** Cost included with Concrete Superstructure.

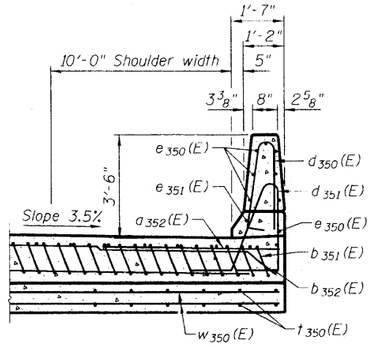


SECTION D-D

(See Plan for dimensions not shown)

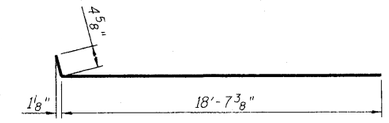


VIEW E-E

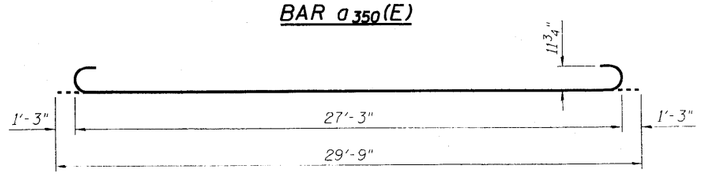


SECTION B-B

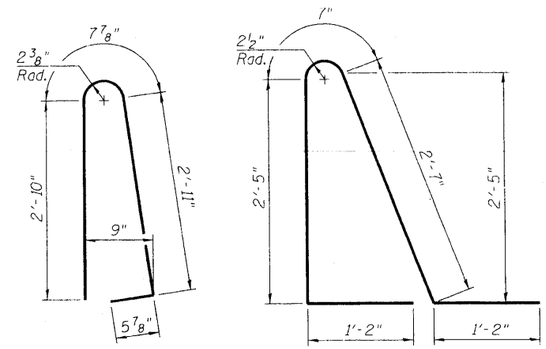
Notes:
See sheet S-53 for Detail A.
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
The approach footing maximum applied service bearing 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-6.



BAR a_{350}(E)



BAR b_{351}(E)



BAR d_{350}(E)

BAR d_{351}(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{350}(E)	50	#4	19'-0"	
a_{351}(E)	92	#5	18'-11"	
a_{352}(E)	11	#6	6'-6"	
b_{350}(E)	29	#4	29'-8"	
b_{351}(E)	84	#9	29'-9"	
b_{352}(E)	1	#4	12'-8"	
d_{350}(E)	15	#5	6'-11"	
d_{351}(E)	15	#5	7'-11"	
e_{350}(E)	8	#4	12'-8"	
e_{351}(E)	1	#8	12'-8"	
t_{350}(F)	74	#4	9'-8"	
w_{350}(E)	80	#5	18'-11"	
Concrete Superstructure			Cu. Yd.	57.0
Concrete Structures			Cu. Yd.	11.0
Reinforcement Bars, Epoxy Coated			Pound	14,030
Bridge Deck Grooving			Sq. Yd.	127
Protective Coat			Sq. Yd.	119

AECOM | ZROKA Engineering

USER NAME = kritzm	DESIGNED - JLA	REVISED -
	DRAWN - DAZ	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED - SAW	REVISED -
PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -

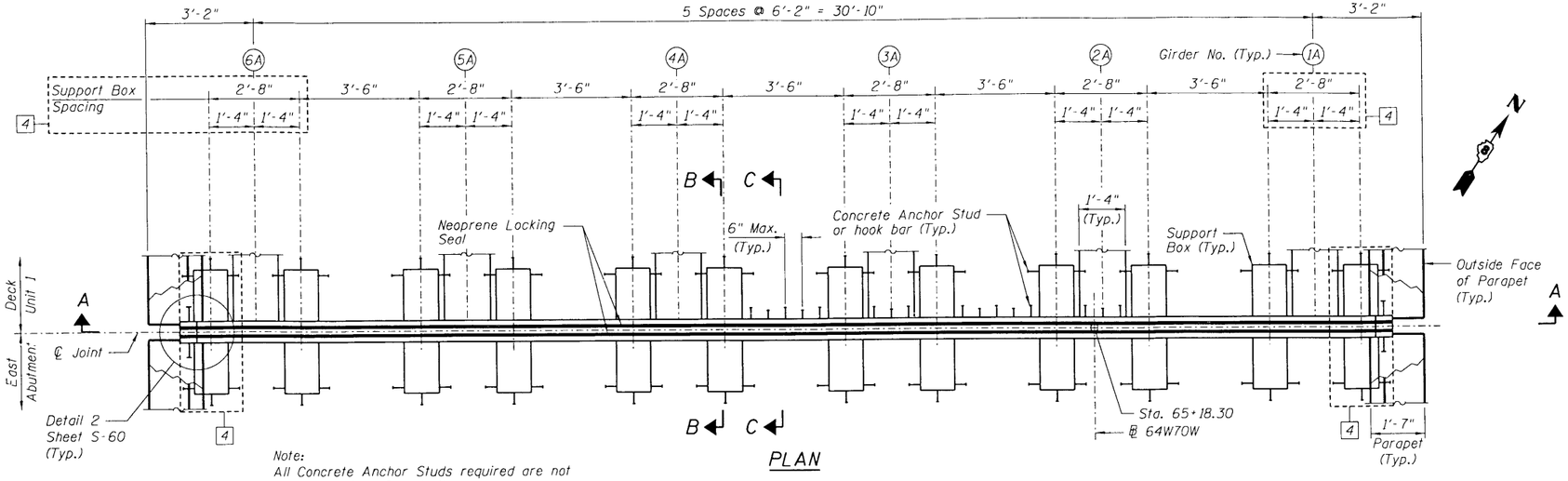
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST APPROACH SLAB DETAILS – S.N. 082-0323
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-54 OF S-138 SHEETS | STA. | TO STA.

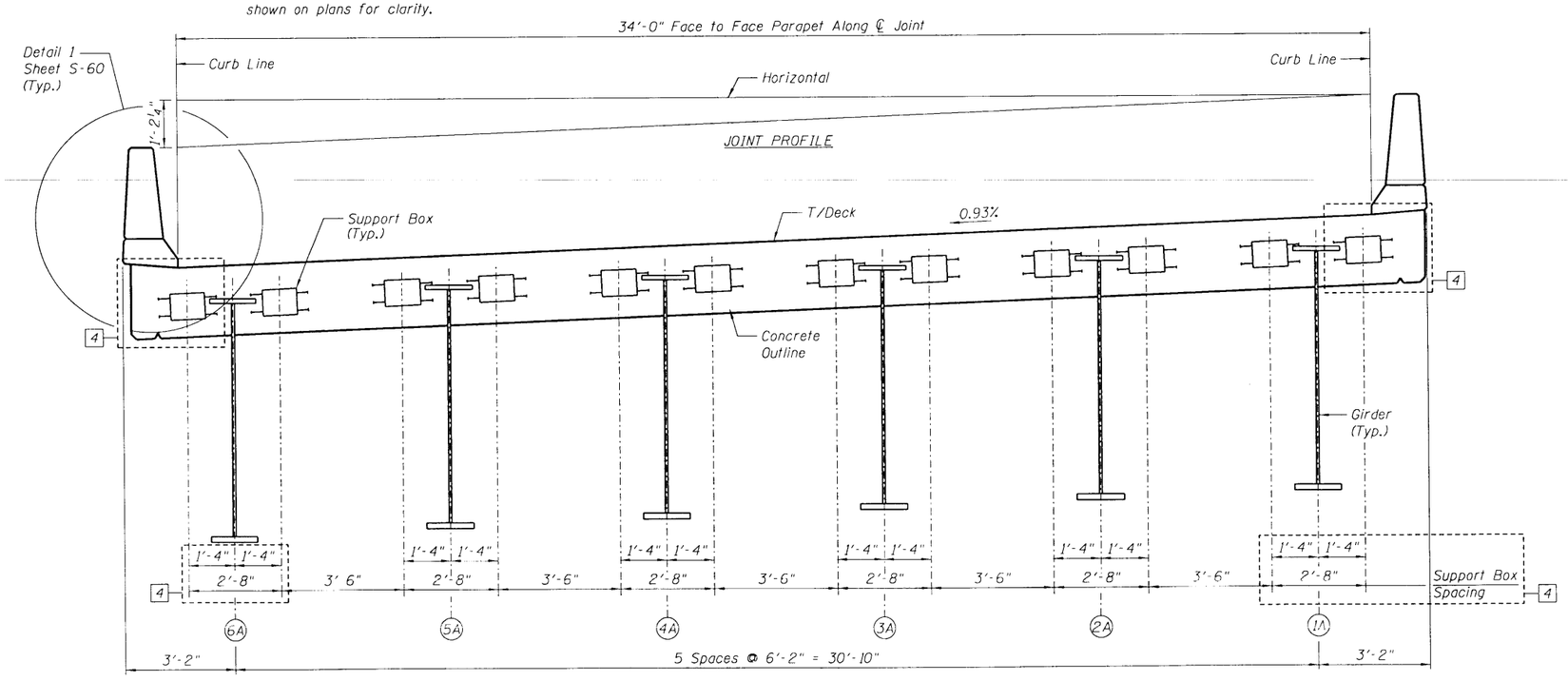
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	169
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D8TR1-0820323-0820325-76C75-S54-EAppr Slab2-023.dgn



PLAN

Note:
All Concrete Anchor Studs required are not shown on plans for clarity.



SECTION A-A
(Looking Upstation)

GENERAL NOTES

1. Modular expansion joint shall be designed according to Section 14 of the 2010 AASHTO specifications for HL-93 truck loading with impact and the Special Provision.
2. The joint shall be a shop-fabricated modular assembly with multiple support bars, edge and separation beams and transverse neoprene seals, providing a continuous seal across the deck.
3. Joint shall be fabricated and installed according to the manufacturer's recommendations and as specified in the special provision for a modular joint system and as approved the the Engineer.
4. Joint shall be fabricated to conform to the roadway profile and cross-slopes.
5. All exposed structural steel elements such as separation beams, edge beams, support bars, sliding plate assemblies and cover plates shall be fabricated with AASHTO M270 Grade 50 ksi steel.
6. Modular expansion joints shall be shipped in one piece unless noted.
7. Concrete anchor studs attached to the modular expansion joint shall conform to the requirements of Article 1006.32 of the Standard Specifications. The cost of the Concrete Anchor Studs shall be included with Modular Expansion Joint-Swivel, 6".
8. No aluminum components shall be allowed.
9. All splices of center beams and edge beams located in the roadway shall be full penetration welds. (Upturn splices may be partial penetration welds)
10. See deck reinforcement plan sheet for bar size, designation and blockoput dimensions.
11. The swivel modular expansion joint shall be either the Maurer Swivel System by the D.S. Brown Company or the WABO X-CEL system by the Watson Bowman Acme Corporation. The joint shall provide the movement as shown in Table A.
12. For Sections B-B and C-C, see Sheet S-60.
13. Modular expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

TABLE A

Location	Longitudinal Movement (Inch)	Size (Inch)
E. Abut.	3.6	6

BILL OF MATERIAL

Item	Unit	Total
Modular Expansion Joint-Swivel, 6"	Foot	34

08TM 4828323-4828325-76C75-S55-MEJEAbut-025.dgn

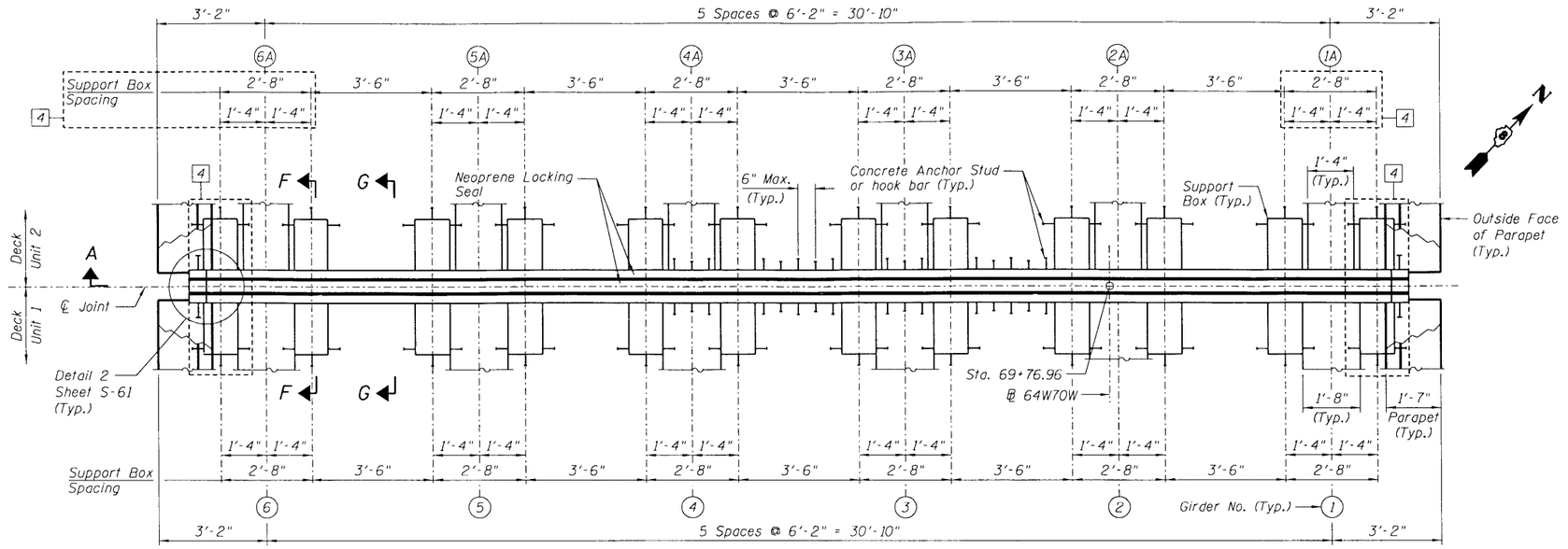
AECOM | ZROKA engineering

USER NAME = floresg	DESIGNED - JLA	REVISED 4 7/17/2012 ATB	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - DAZ	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - SAW	REVISED -	
PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -	

MODULAR EXPANSION JOINT – EAST ABUTMENT S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS

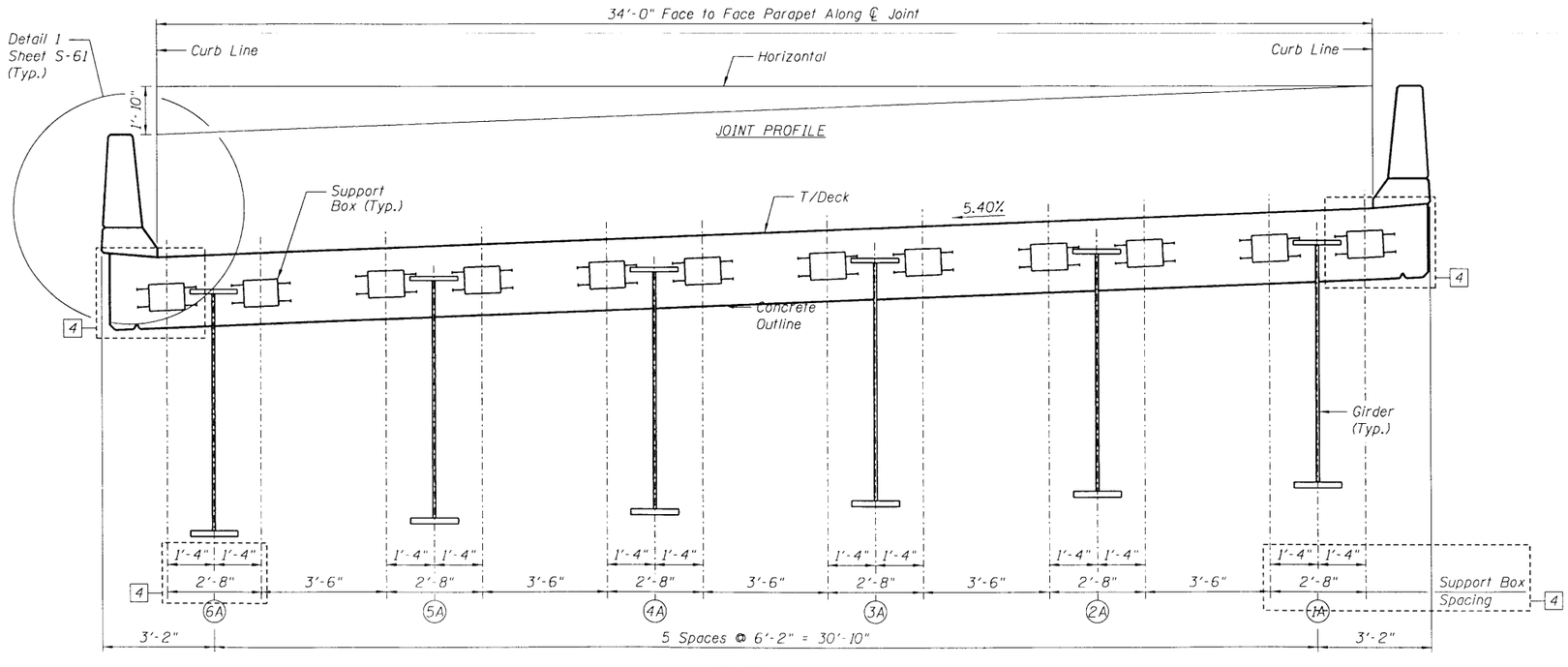
SCALE: NONE | SHEET NO. S-55 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	170
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PLAN

Note:
All Concrete Anchor Studs required are not shown on plans for clarity.



SECTION A-A
(Looking Upstation)

GENERAL NOTES

1. Modular expansion joint shall be designed according to Section 14 of the 2010 AASHTO specifications for HL-93 truck loading with impact and the Special Provision.
2. The joint shall be a shop-fabricated modular assembly with multiple support bars, edge and separation beams, and transverse neoprene seals providing a continuous seal across the deck.
3. Joint shall be fabricated and installed according to the manufacturer's recommendations and as specified in the special provision for a modular joint system and as approved the the Engineer.
4. Joint shall be fabricated to conform to the roadway profile and cross-slopes.
5. All exposed structural steel elements such as separation beams, edge beams, support bars, sliding plate assemblies and cover plates shall be fabricated with AASHTO M270 Grade 50 ksi steel.
6. Modular expansion joints shall be shipped in one piece unless noted.
7. Concrete anchor studs attached to the modular expansion joint shall conform to the requirements of Article 1006.32 of the Standard Specifications. The cost of the Concrete Anchor Studs shall be included with Modular Expansion Joint-Swivel, 9".
8. No aluminum components shall be allowed.
9. All splices of center beams and edge beams located in the roadway shall be full penetration welds. (Upturn splices may be partial penetration welds)
10. See deck reinforcement plan sheet for bar size, designation and blockout dimensions.
11. The swivel modular expansion joint shall be either the Maurer Swivel System by the D.S. Brown Company or the WABO X-CEL system by the Watson Bowman Acme Corporation. The joint shall provide the movement as shown in Table A.
12. For Sections F-F and G-G, see sheet S-61.
13. Modular expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

TABLE A

Location	Longitudinal Movement (Inch)	Size (Inch)
Pier 3	6.82	9

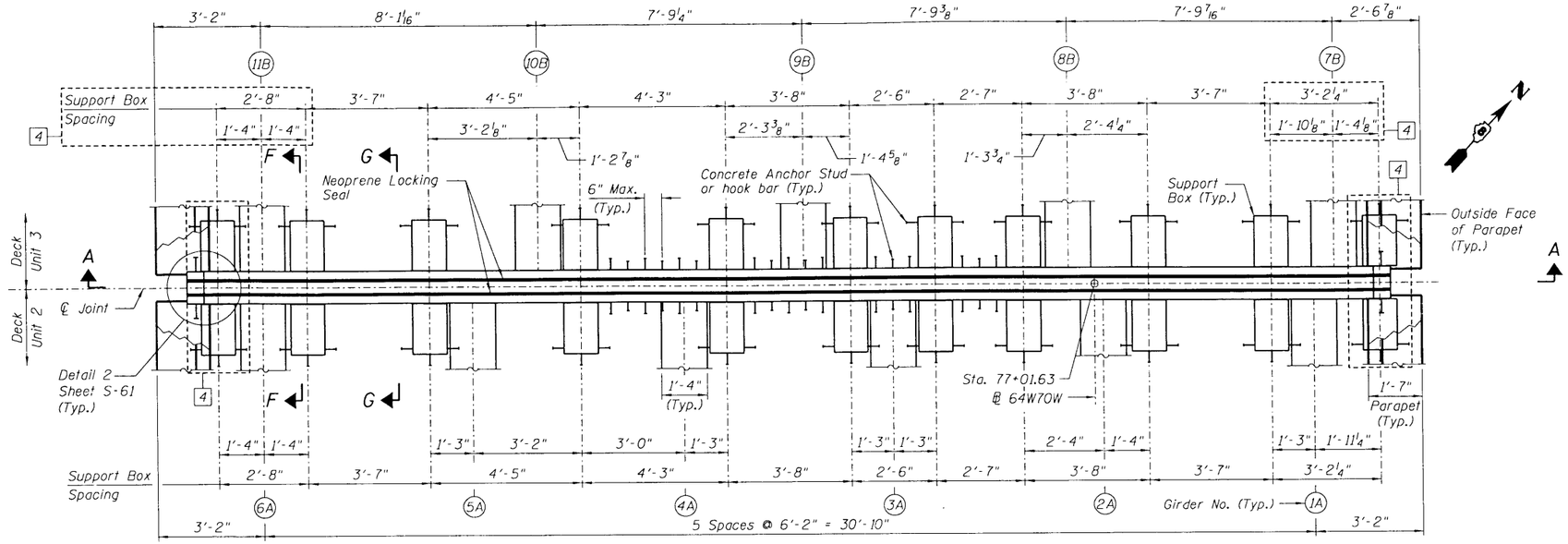
BILL OF MATERIAL

Item	Unit	Total
Modular Expansion Joint-Swivel, 9"	Foot	34

AECOM / ZROKA	USER NAME = floresg	DESIGNED - JLA	REVISED 4 7/17/2012 ATB	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MODULAR EXPANSION JOINT – PIER 3 S.N. 082-0325 ~~I-70W OVER I-55, CSX & KCS RAILROADS~~
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		DATE - 3-18-11	REVISED -		

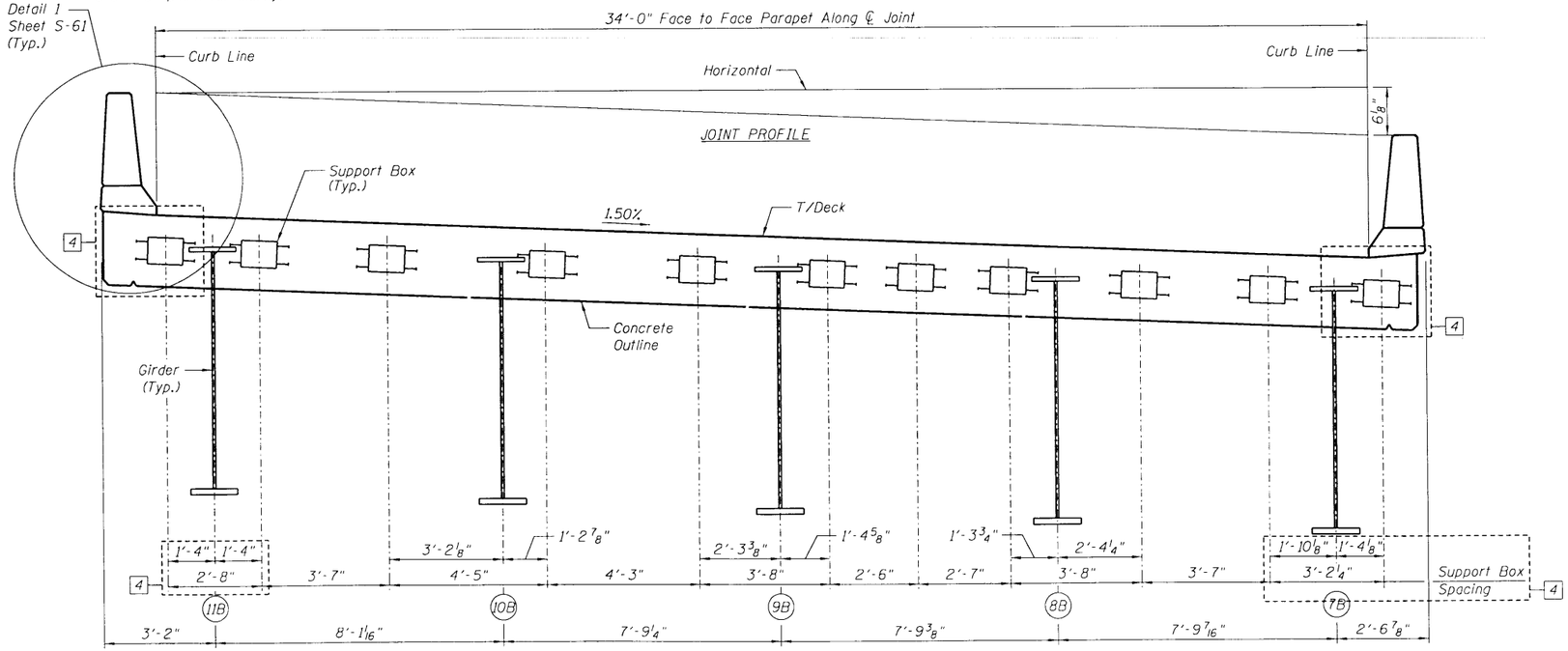
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	171
	S.N. 082-0323 & S.N. 082-0325	CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D81R1-0828323-0828325-76C75-S56-MEJP-er3-825.dgn



PLAN

Note:
All Concrete Anchor Studs required are not shown on plans for clarity.



SECTION A-A
(Looking Upstation)

GENERAL NOTES

1. Modular expansion joint shall be designed according to Section 14 of the 2010 AASHTO specifications for HL-93 truck loading with impact and the Special Provision.
2. The joint shall be a shop-fabricated modular assembly with multiple support bars, edge and separation beams, amd transverse neoprene seals providing a continuous seal across the deck.
3. Joint shall be fabricated and installed according to the manufacturer's recommendations and as specified in the special provision for a modular joint system and as approved the the Engineer.
4. Joint shall be fabricated to conform to the roadway profile and cross-slopes.
5. All exposed structural steel elements such as separation beams, edge beams, support bars, sliding plate assemblies and cover plates shall be fabricated with AASHTO M270 Grade 50 ksi steel.
6. Modular expansion joints shall be shipped in one piece unless noted.
7. Concrete anchor studs attached to the modular expansion joint shall conform to the requirements of Article 1006.32 of the Standard Specifications. The cost of the Concrete Anchor Studs shall be included with Modular Expansion Joint-Swivel, 9".
8. No aluminum components shall be allowed.
9. All splices of center beams and edge beams located in the roadway shall be full penetration welds. (Upturn splices may be partial penetration welds)
10. See deck reinforcement plan sheet for bar size, designation and blockout dimensions.
11. The swivel modular expansion joint shall be either the Maurer Swivel System by the D.S. Brown Company or the WABO X-CEL system by the Watson Bowman Acme Corporation. The joint shall provide the movement as shown in Table A.
12. For Sections F-F and G-G, see sheet S-61.
13. Modular expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

TABLE A

Location	Longitudinal Movement (Inch)	Size (Inch)
Pier 7	8.10	9

BILL OF MATERIAL

Item	Unit	Total
Modular Expansion Joint-Swivel, 9"	Foot	34

D81A: #8520323-8520325-76C75-557-MEJPier7-825.dgn

AECOM | ZROKA

USER NAME = floresg
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DRAWN - DAZ
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DATE - 3-18-11

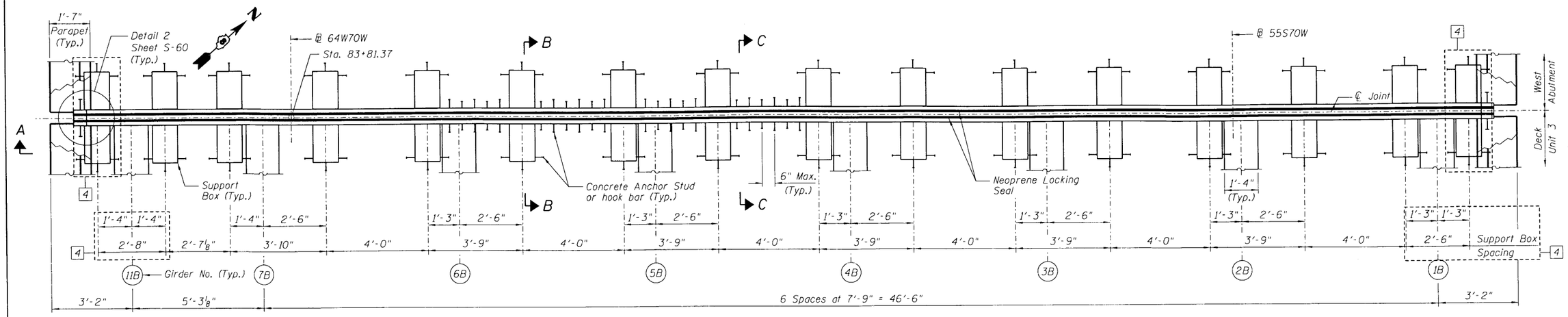
REVISED [4] 7/17/2012 ATB
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODULAR EXPANSION JOINT – PIER 7 S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS

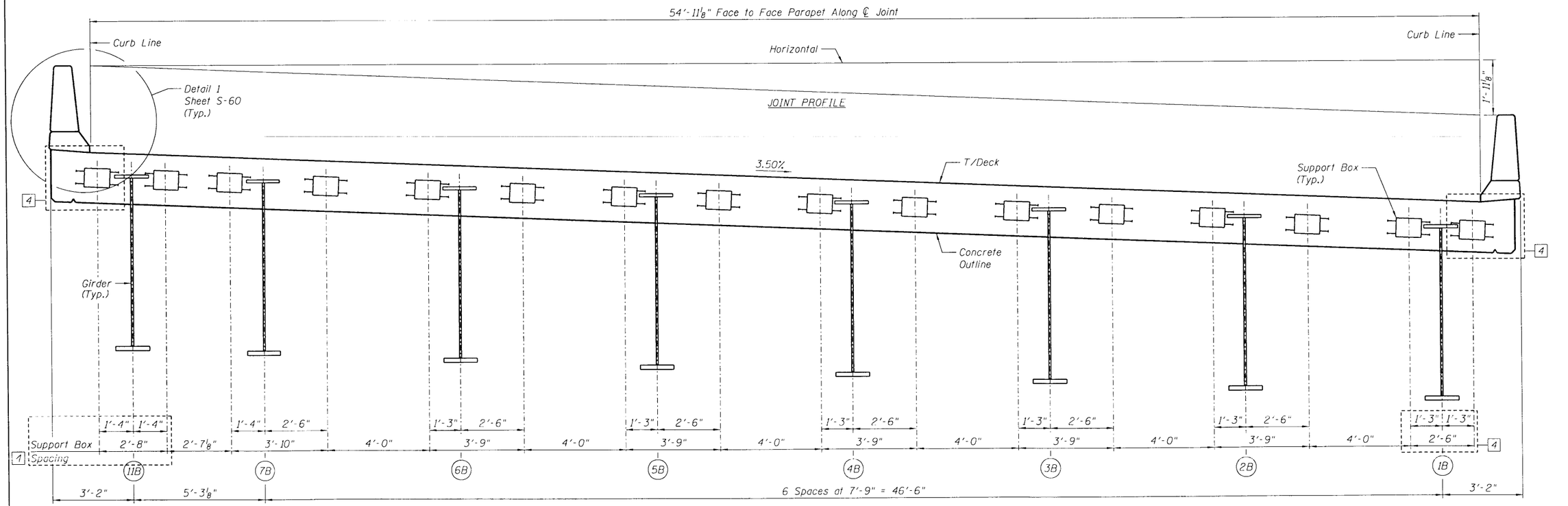
SCALE: NONE | SHEET NO. S-57 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



Note:
All Concrete Anchor Studs required are not shown on plans for clarity.

PLAN



SECTION A-A
(Looking Upstation)

TABLE A

Location	Longitudinal Movement (Inch)	Size (Inch)
W. Abut.	4.72	6

BILL OF MATERIAL

Item	Unit	Total
Modular Expansion Joint-Swivel, 6"	Foot	55

GENERAL NOTES

For General Notes, see Sheet S-55.

For Sections B-B and C-C, see Sheet S-60.

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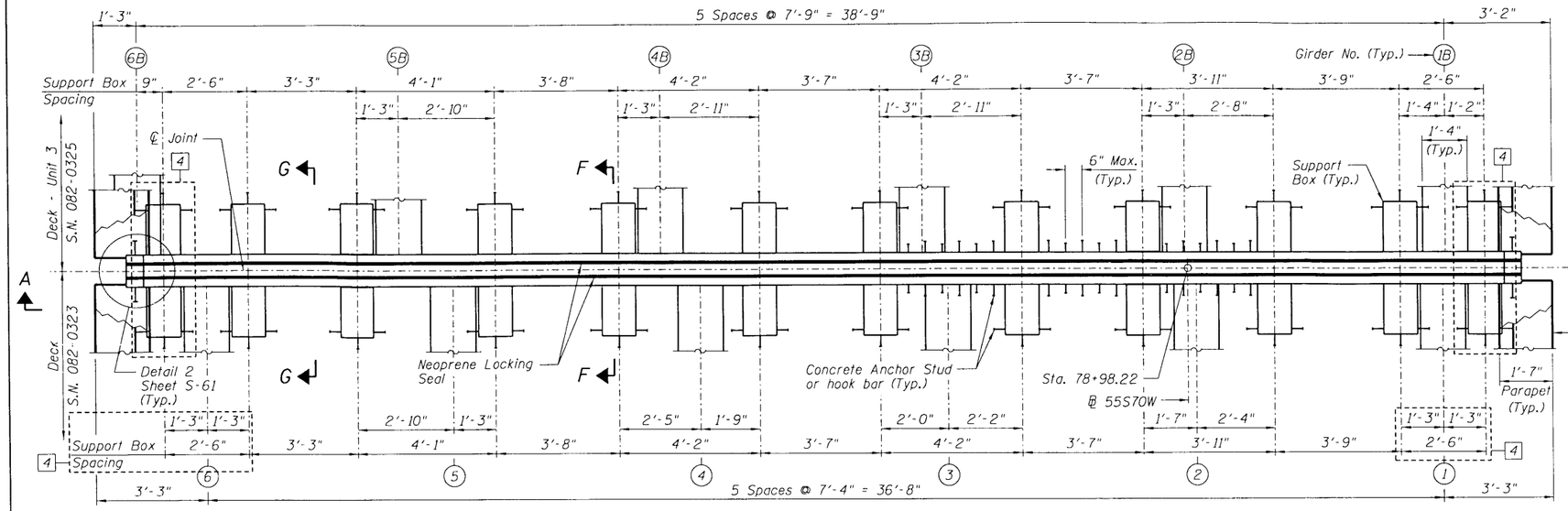
AECOM | ZROKA Engineering

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

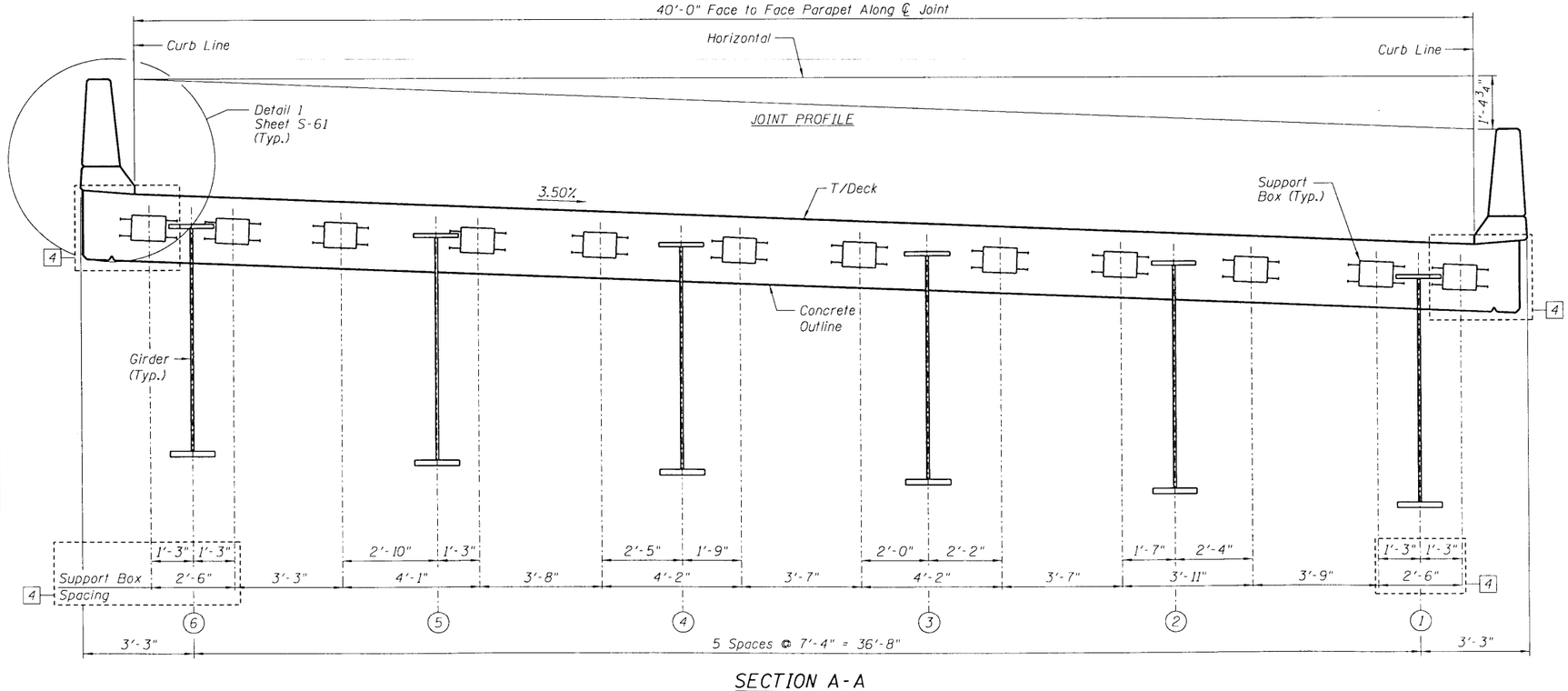
MODULAR EXPANSION JOINT – WEST ABUTMENT S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-58 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	173
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PLAN

Note:
All Concrete Anchor Studs required are not shown on plans for clarity.



SECTION A-A
(Looking Upstation)

GENERAL NOTES

1. Modular expansion joint shall be designed according to Section 14 of the 2010 AASHTO specifications for HL-93 truck loading with impact and the Special Provision.
2. The joint shall be a shop-fabricated modular assembly with multiple support bars, edge and separation beams, and transverse neoprene seals providing a continuous seal across the deck.
3. Joint shall be fabricated and installed according to the manufacturer's recommendations and as specified in the special provision for a modular joint system and as approved the the Engineer.
4. Joint shall be fabricated to conform to the roadway profile and cross-slopes.
5. All exposed structural steel elements such as separation beams, edge beams, support bars, sliding plate assemblies and cover plates shall be fabricated with AASHTO M270 Grade 50 ksi steel.
6. Modular expansion joints shall be shipped in one piece unless noted.
7. Concrete anchor studs attached to the modular expansion joint shall conform to the requirements of Article 1006.32 of the Standard Specifications. The cost of the Concrete Anchor Studs shall be included with Modular Expansion Joint-Swivel, 9".
8. No aluminum components shall be allowed.
9. All splices of center beams and edge beams located in the roadway shall be full penetration welds. (Upturn splices may be partial penetration welds)
10. See deck reinforcement plan sheet for bar size, designation and blockout dimensions.
11. The swivel modular expansion joint shall be either the Maurer Swivel System by the D.S. Brown Company or the WABO X-CEL system by the Watson Bowman Acme Corporation. The joint shall provide the movement as shown in Table A.
12. For Sections F-F and G-G, see sheet S-61.
13. Modular expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

TABLE A

Location	Longitudinal Movement (Inch)	Size (Inch)
Pier 3	8.18	9

BILL OF MATERIAL

Item	Unit	Total
Modular Expansion Joint-Swivel, 9"	Foot	40

4 Contractor may cope top flange of Girder 6B of S.N. 082-0325 to fit Modular Joint Support Box.

AECOM | ZROKA Engineering

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PLOT DATE = $DATE$

DESIGNED - JLA
DRAWN - DAZ
CHECKED - SAW
DATE - 3-18-11

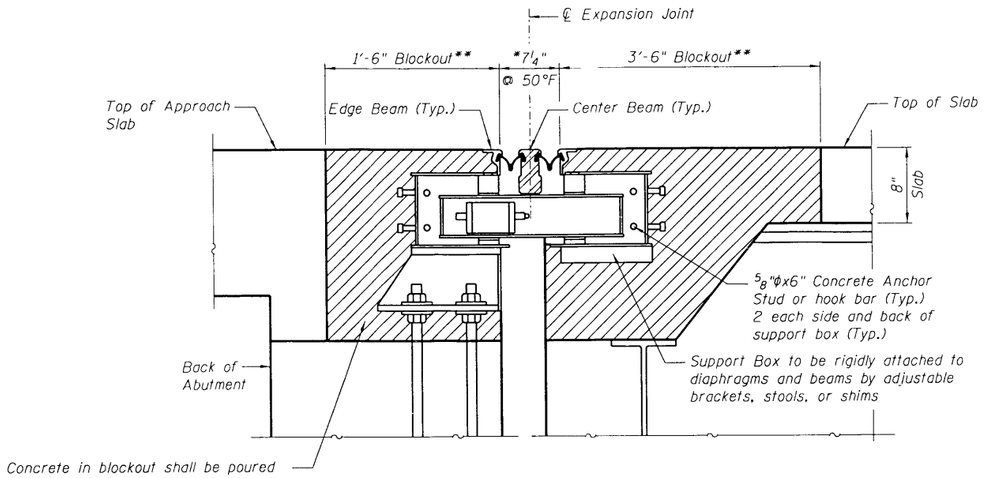
REVISED 4 7/17/2012 ATB
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

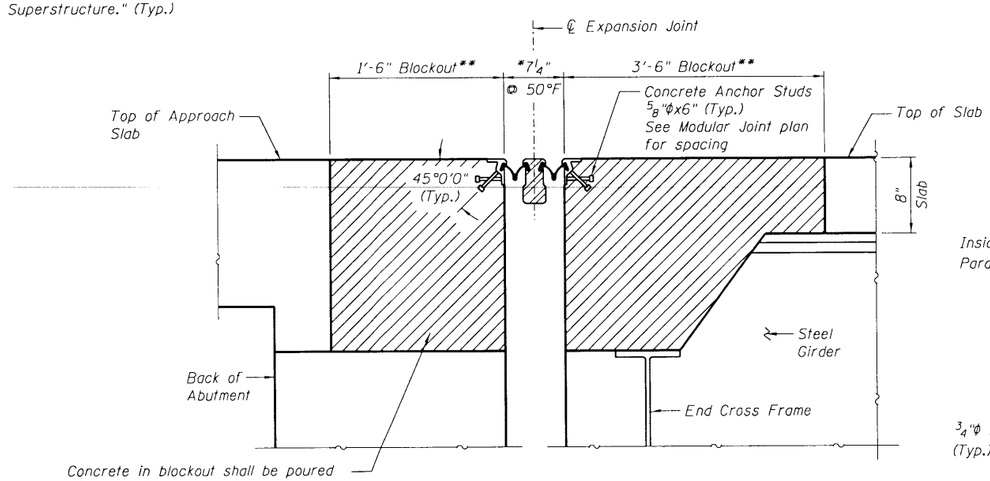
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I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-59 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	174
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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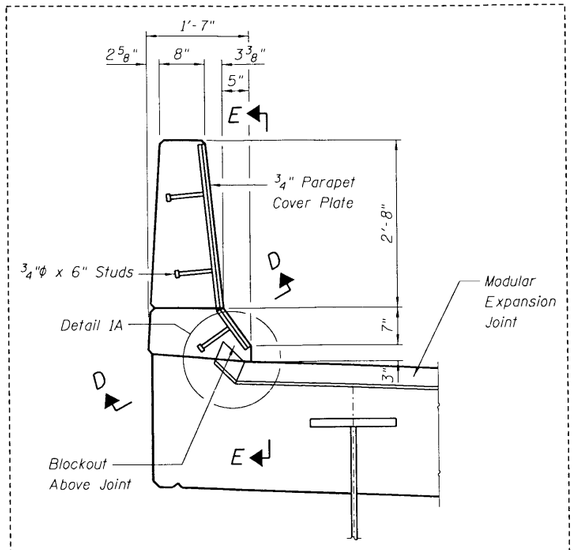
SECTION B-B



SECTION C-C

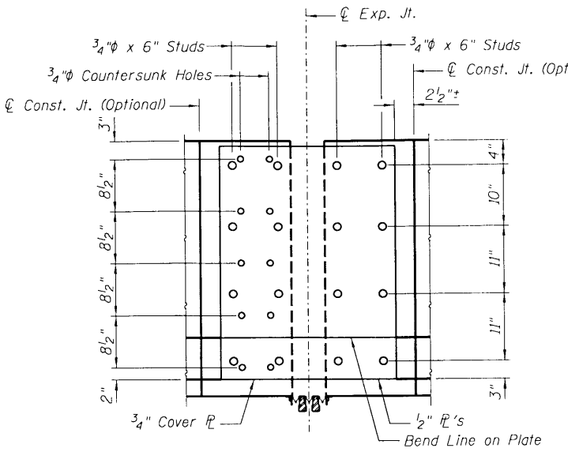
*Number of beams and seals determined by manufacturer

** Blockout dimensions to be verified by Contractor with Joint Manufacturer.



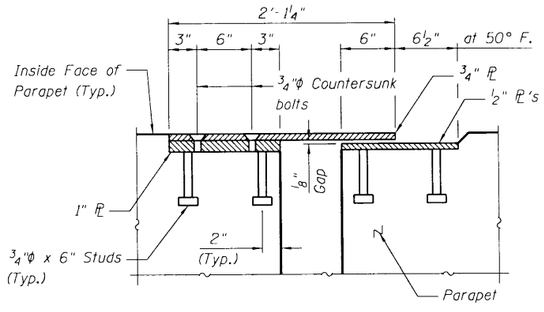
DETAIL 1

4

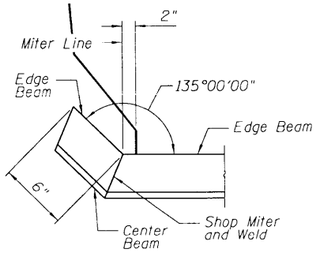


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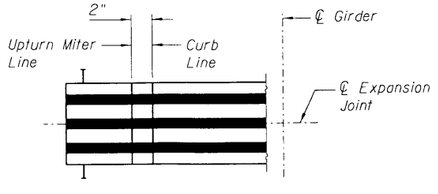
SECTION E-E



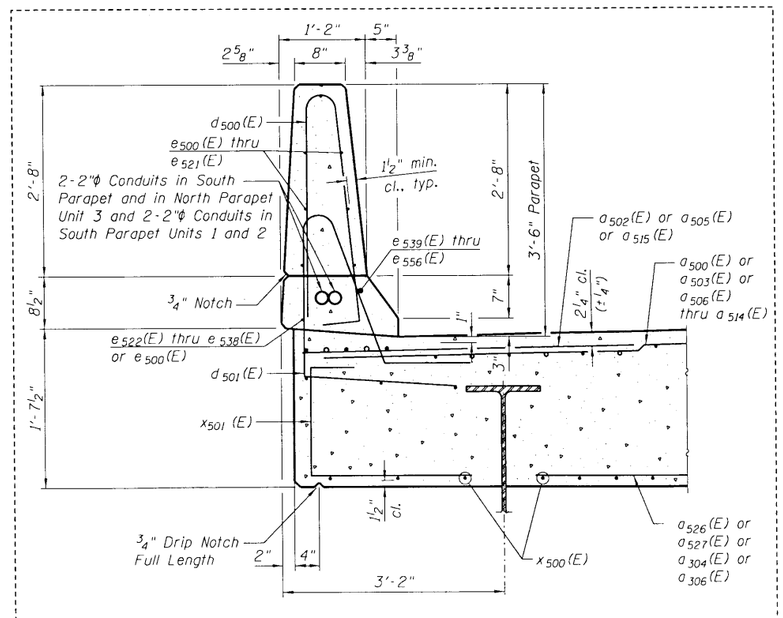
SECTION D-D



DETAIL 1A



DETAIL 2



4

SECTION THRU THICKENED OVERHANG

(At Modular Exp. Jt. Locations)

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AECOM | ZROKA Engineering

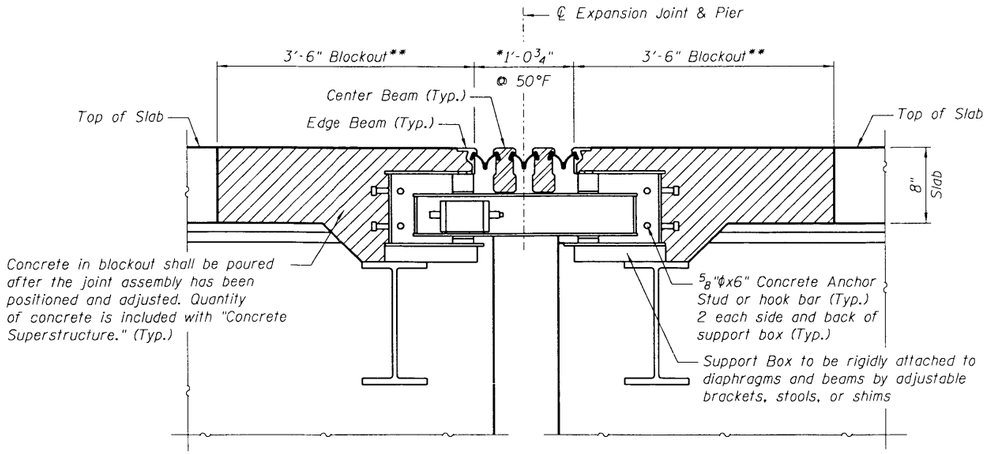
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

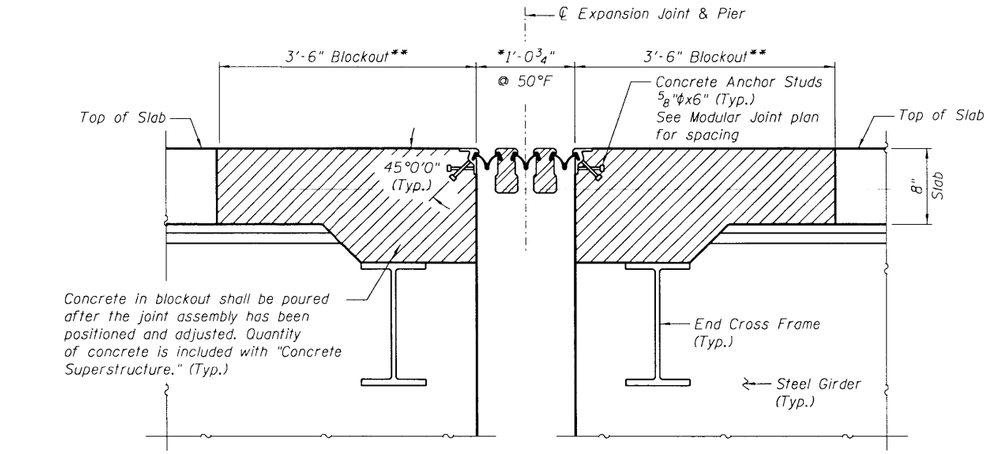
MODULAR EXPANSION JOINT DETAILS I
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-60 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	175
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FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



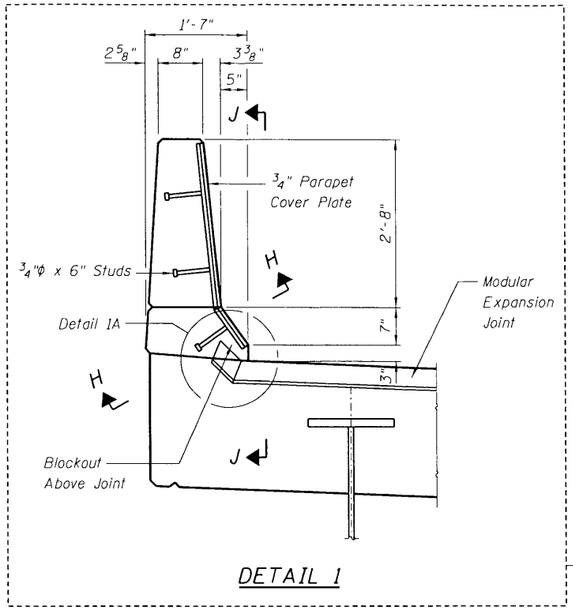
SECTION F-F



SECTION G-G

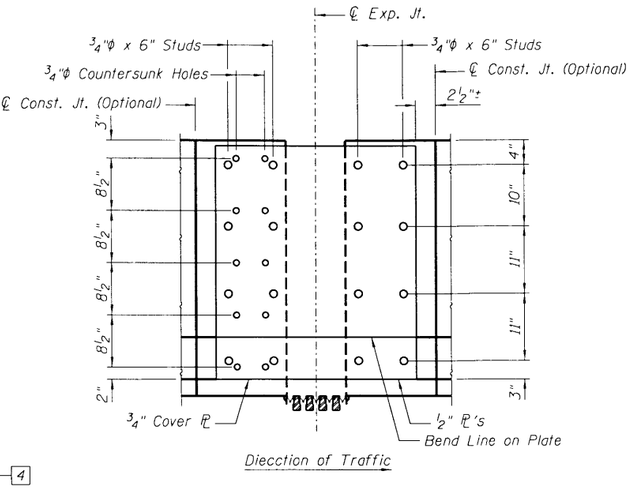
*Number of beams and seals determined by manufacturer

** Blockout dimensions to be verified by Contractor with Joint Manufacturer.

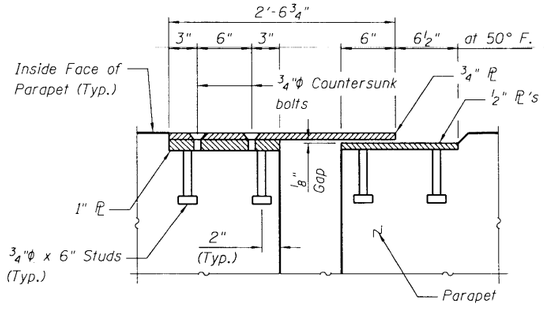


DETAIL 1

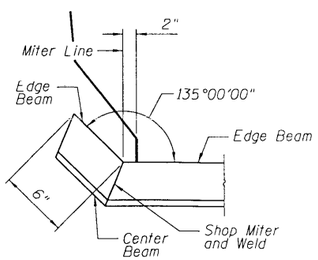
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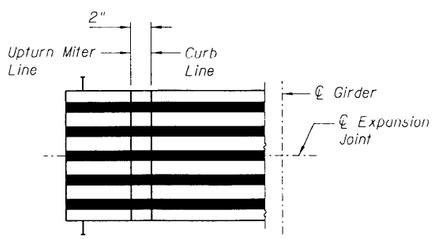
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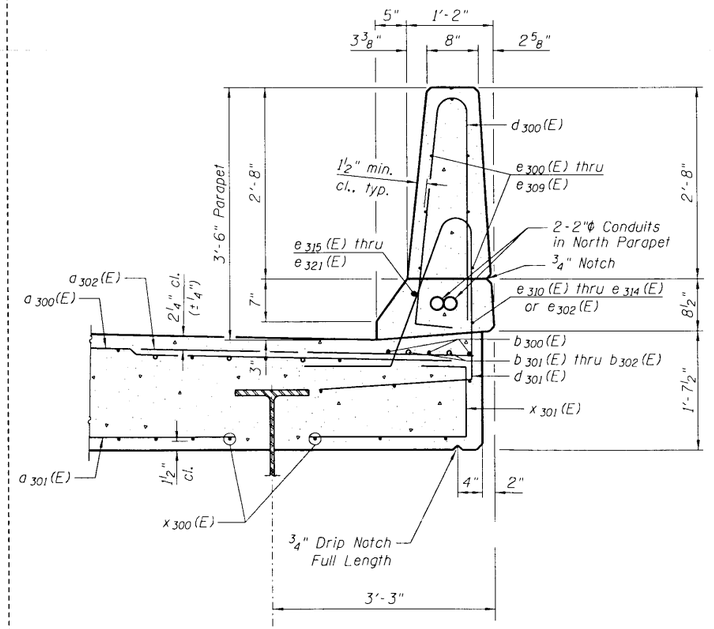
SECTION H-H



DETAIL 1A



DETAIL 2



4

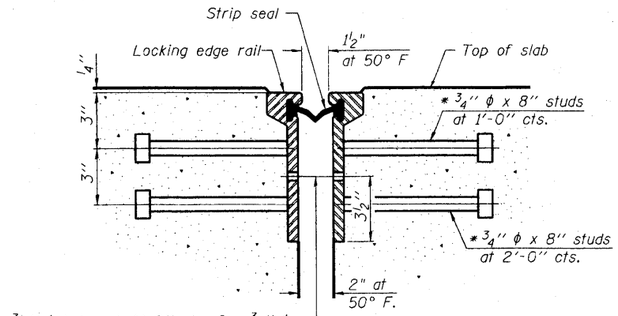
SECTION THRU THICKENED OVERHANG
(At Modular Exp. Jt. Locations)

AECOM / ZROKA Engineering	USER NAME = floresg	DESIGNED - JLA	REVISED 4 7/17/2012 ATB	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MODULAR EXPANSION JOINT DETAILS II
		DRAWN - DAZ	REVISED -		I-70W OVER I-55, CSX & KCS RAILROADS
	PLOT SCALE = 2.0000 ' / in.	CHECKED - SAW	REVISED -		SCALE: NONE SHEET NO. S-61 OF S-138 SHEETS STA. TO STA.
	PLOT DATE = $DATE$	DATE - 3-18-11	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	176
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

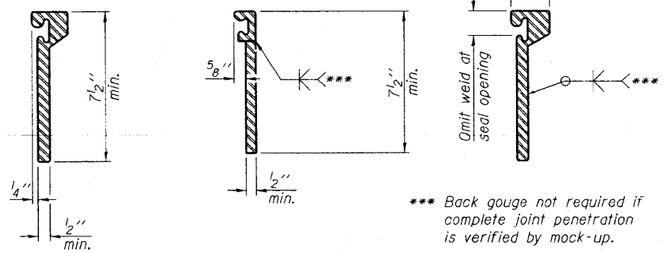
D8"Fil-8820323-8820325-76C75-S61-MEJPierDetails.dgn

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



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

SECTION THRU ROLLED RAIL JOINT



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

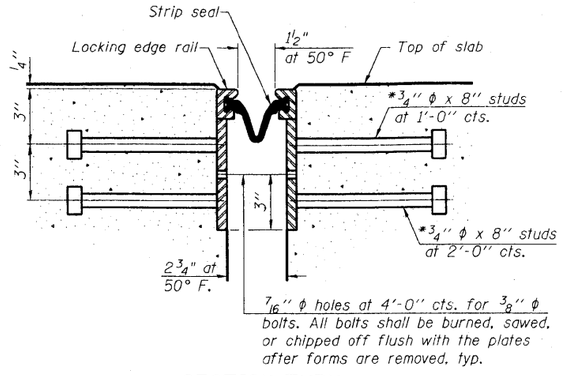
ROLLED EXTRUDED RAIL

WELDED RAIL

LOCKING EDGE RAIL SPLICE

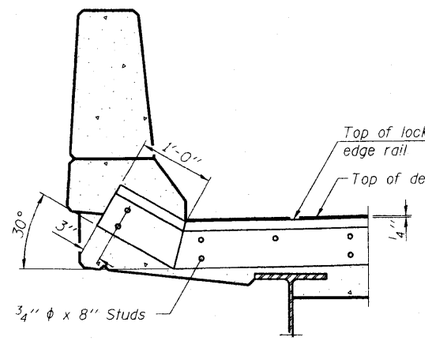
The inside of the locking edge rail groove shall be free of weld residue.

Rolled rail shown, welded rail similar.



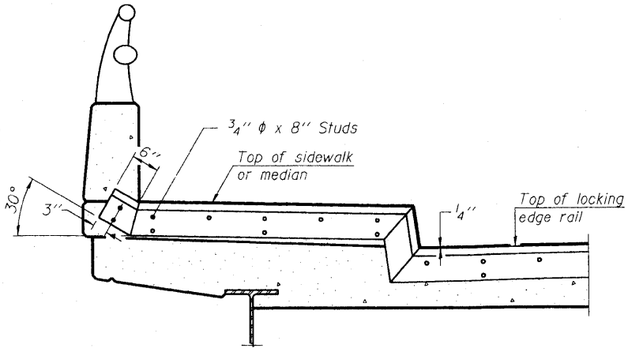
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU WELDED RAIL JOINT



AT PARAPET

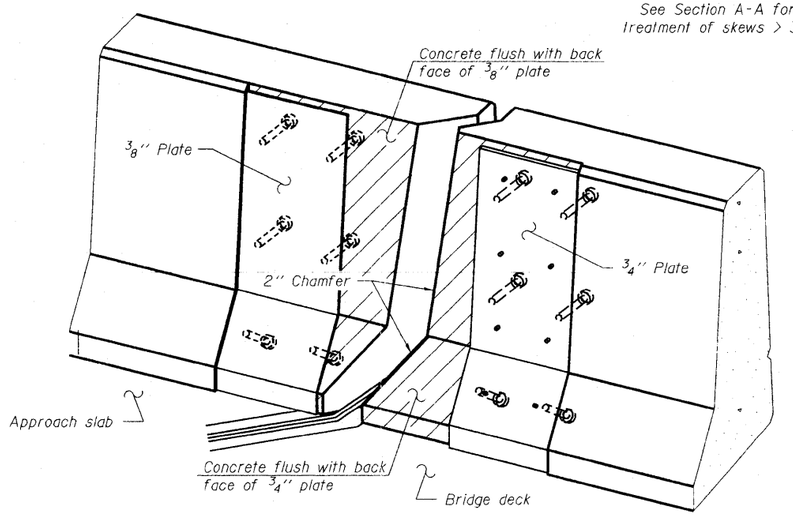
See Section A-A for end treatment of skews > 30°.



AT SIDEWALK OR MEDIAN

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

TYPICAL END TREATMENTS



TRIMETRIC VIEW
(Showing back plates only)

Notes:

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

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

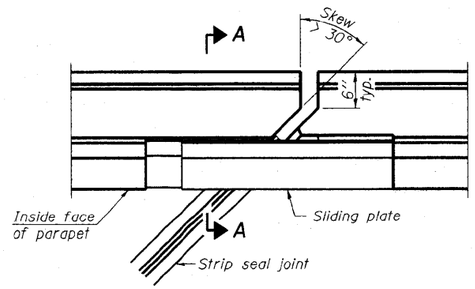
The manufacturer's recommended installation methods shall be followed.

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

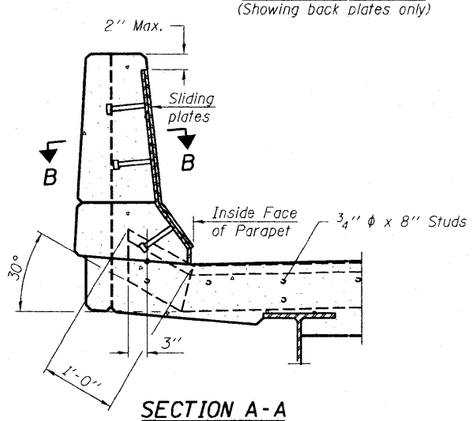
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.

LOCKING EDGE RAILS



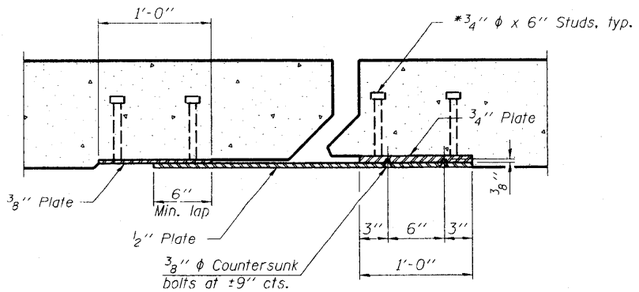
PLAN



SECTION A-A

POINT BLOCK DETAILS

(for skews > 30°)



SECTION B-B

BILL OF MATERIAL

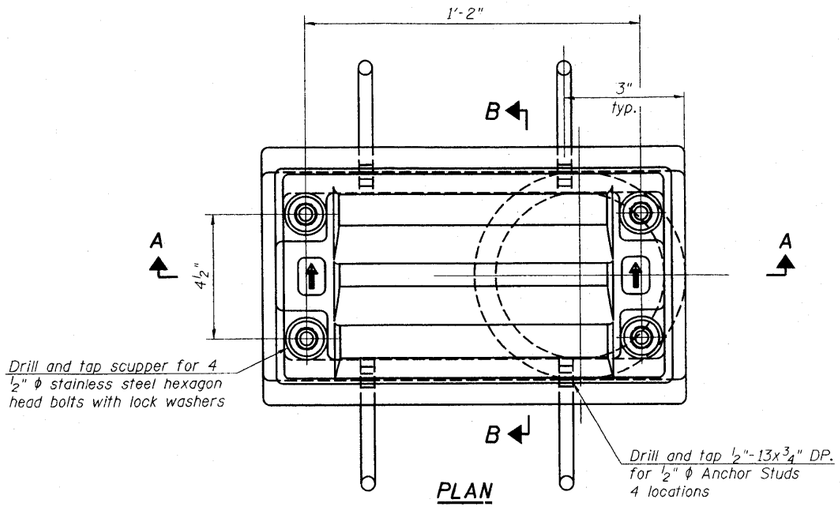
Item	Unit	Total
Preformed Joint Strip Seal	Foot	42

EJ-SSJ 11-1-09

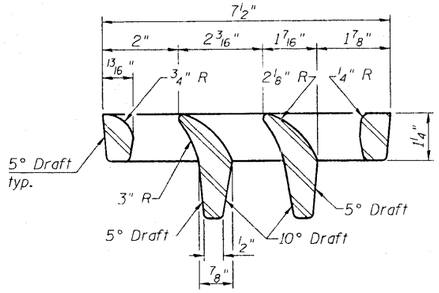
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AECOM / ZROKA Engineering	USER NAME = kritzm	DESIGNED - JLA	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXPANSION JOINT – EAST ABUTMENT S.N. 082-0323 I-70W OVER I-55, CSX & KCS RAILROADS
	PLOT SCALE = 2.0000 ' / in.	DRAWN - DAZ	REVISED -		SCALE: NONE SHEET NO. S-62 OF S-138 SHEETS STA. TO STA.
	PLOT DATE = $DATE$	CHECKED - SAW	REVISED -		
		DATE - 3-18-11	REVISED -		

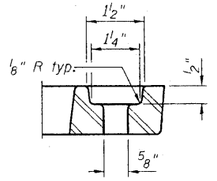
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	177
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PLAN



VANE GRATE DETAIL



BOLT HOLE DETAIL

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.

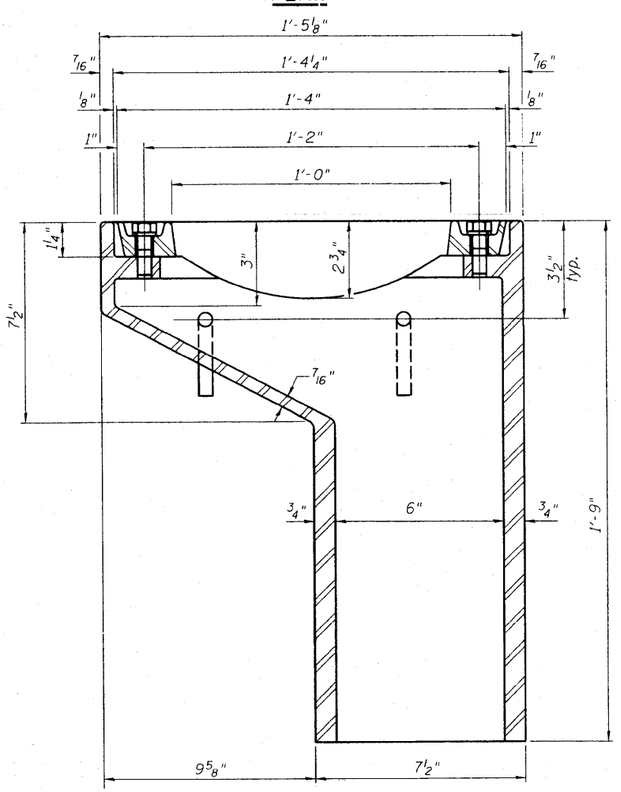
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

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.

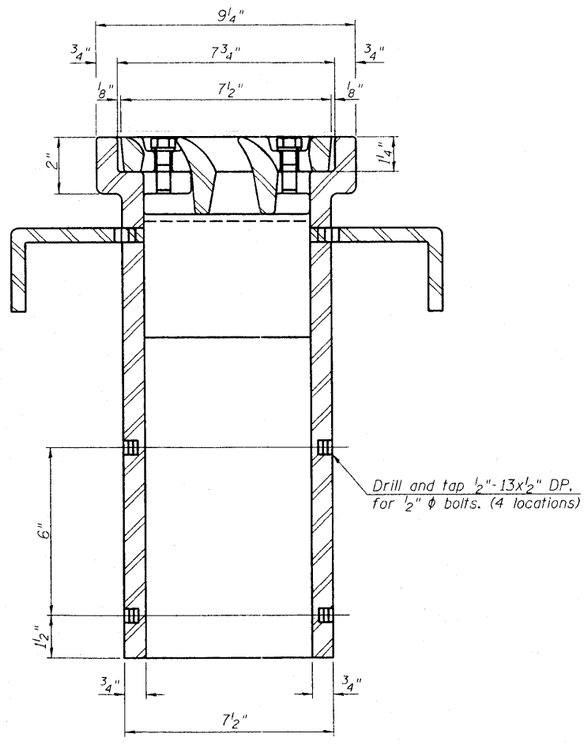
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

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.

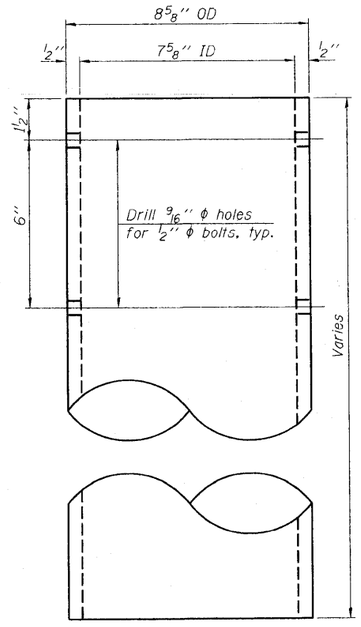


SECTION A-A

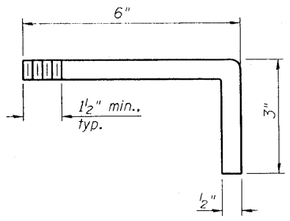
See sheets 15 & 16 of 33 for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR STUD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	15

DS-11 11-1-09

USER NAME = Hritzm	DESIGNED - JLA	REVISED	
	DRAWN - DAZ	REVISED -	
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PLOT DATE = #DATE#	DATE - 3-18-11	REVISED -	

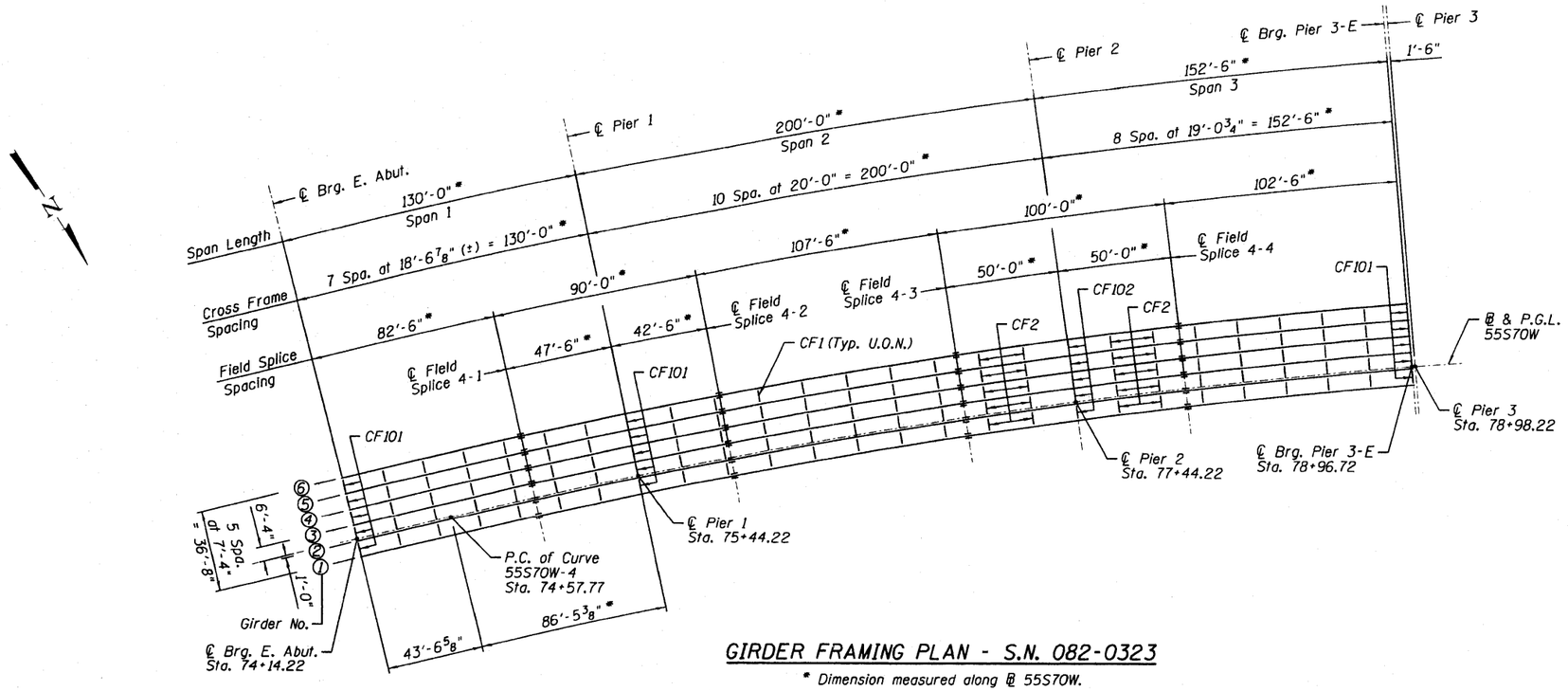
AECOM ZROKA Engineering

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER, DS-11
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-63 OF S-13B SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	178
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D81N1-082032+082032S-76C75-S63-Scupper-DS11.dgn



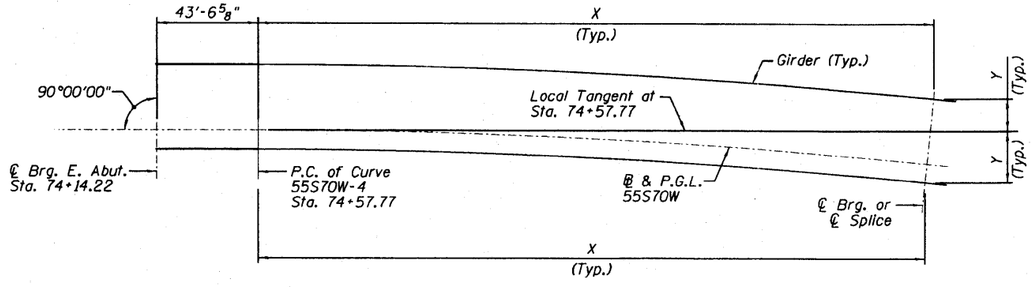
GIRDER FRAMING PLAN - S.N. 082-0323

* Dimension measured along ℄ 55S70W.

GIRDER COORDINATES - S.N. 082-0323

All dimensions in feet.

Girder	Splice 4-1		Pier 1		Splice 4-2		Splice 4-3		Pier 2		Splice 4-4		Brg. Pier 3-E	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
1	38.835	-8.599	86.184	-9.640	128.529	-11.239	235.489	-18.101	285.133	-22.665	334.689	-28.098	435.937	-41.947
2	38.935	-1.266	86.406	-2.310	128.861	-3.914	236.096	-10.793	285.868	-15.368	335.552	-20.816	437.065	-34.701
3	39.035	6.067	86.629	5.020	129.192	3.412	236.704	-3.484	286.604	-8.072	336.416	-13.533	438.193	-27.455
4	39.135	13.399	86.851	12.350	129.524	10.738	237.311	3.824	287.339	-0.775	337.279	-6.251	439.321	-20.209
5	39.236	20.732	87.073	19.680	129.855	18.064	237.918	11.132	288.074	6.521	338.142	1.032	440.449	-12.963
6	39.336	28.065	87.295	27.010	130.187	25.390	238.526	18.440	288.810	13.817	339.005	8.314	441.577	-5.717



CURVED GIRDER LAYOUT - S.N. 082-0323

X measured along Local Tangent.

Notes:

1. See Sheet S-69 for girder elevation.
2. See Sheet S-75 for camber & top of web elevations.
3. See Sheet S-78 for moment tables & Sheet S-80 for reaction tables.
4. See Sheet S-81 for girder bolted field splice details.
5. See Sheet S-82 for girder cross frame details and erection notes.
6. Girder spacings and cross frame orientations are radial to the ℄ 55S70W, except at ℄ Brg. for E. Abut. & Pier 3-E supports where these are parallel to the respective centerline of supports.

P:\P60045689\900_CAD\900_Drawings\76C75_...aster_Consolidated\Structure\I-082-0323\Sheet\S064_082-0323_76C75_FramingPlan.dgn

AECOM

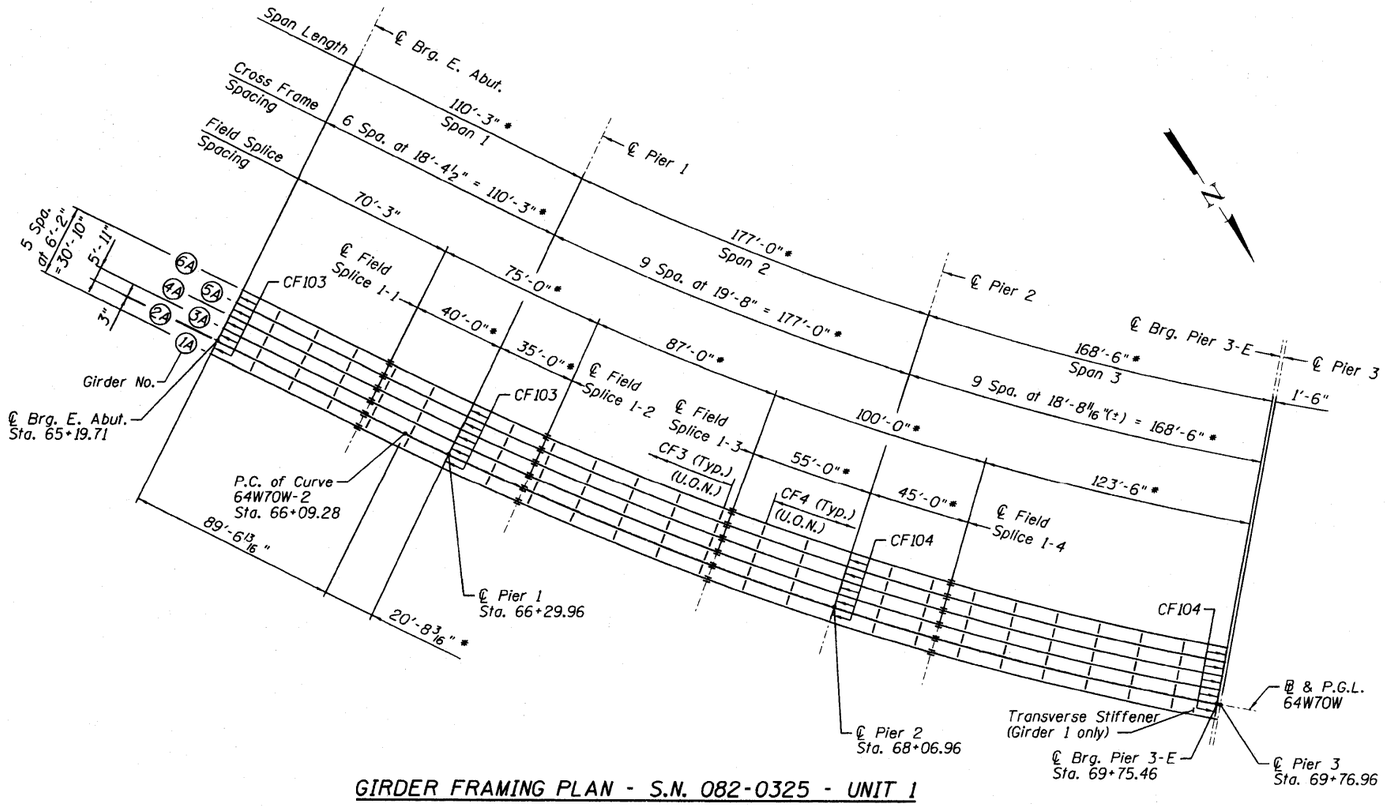
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	DRAWN - DD	REVISED -
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PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER FRAMING PLAN – S.N. 082-0323
I-70W OVER I-55, CSX & KCS RAILROADS

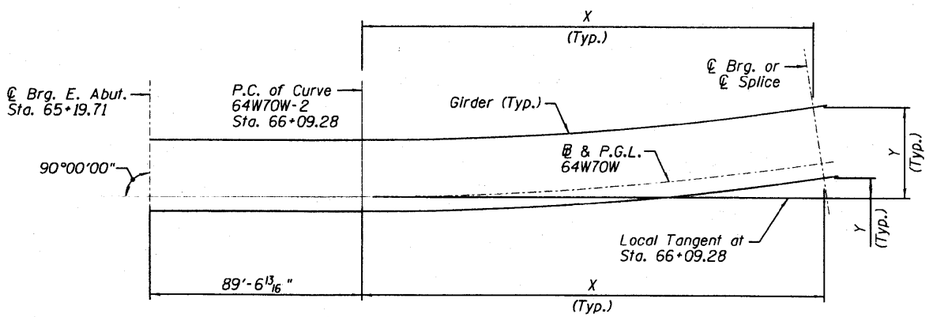
SCALE: NONE | SHEET NO. S-64 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	179
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



GIRDER FRAMING PLAN - S.N. 082-0325 - UNIT 1

* Dimension measured along ℄ 64W70W.



CURVED GIRDER LAYOUT - S.N. 082-0325 - UNIT 1

X measured along Local Tangent.

GIRDER COORDINATES - S.N. 082-0325 - UNIT 1

All dimensions in feet.

Girder	Pier 1		Splice 1-2		Splice 1-3		Pier 2		Splice 1-4		Brg. Pier 3-E	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
1A	20.781	-6.252	55.937	-5.224	143.096	1.408	197.894	8.589	242.471	16.176	363.184	44.836
2A	20.683	-0.086	55.674	0.937	142.424	7.538	196.964	14.685	241.332	22.237	361.470	50.760
3A	20.585	6.080	55.411	7.098	141.751	13.668	196.034	20.781	240.193	28.297	359.757	56.684
4A	20.488	12.246	55.148	13.259	141.079	19.797	195.104	26.877	239.053	34.358	358.044	62.608
5A	20.390	18.411	54.885	19.420	140.407	25.927	194.174	32.974	237.914	40.418	356.331	68.531
6A	20.293	24.577	54.622	25.581	139.734	32.057	193.244	39.070	236.775	46.479	354.617	74.455

Notes:

1. See Sheet S-70 for girder elevation.
2. See Sheet S-75 for camber & top of web elevations.
3. See Sheet S-78 for moment tables & Sheet S-80 for reaction tables.
4. See Sheet S-81 for girder bolted field splice details.
5. See Sheet S-82 for girder cross frame details and erection notes.
6. Girder spacings and cross frame orientations are radial to the ℄ 64W70W, except at ℄ Brg. for E. Abut. & Pier 3-E supports where these are parallel to the respective centerline of supports.

AECOM

USER NAME = Bhatia	DESIGNED - CLS	REVISED -	
	DRAWN - DD	REVISED -	
PLOT SCALE = 8.2 '/ in.	CHECKED - CHY	REVISED -	
PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -	

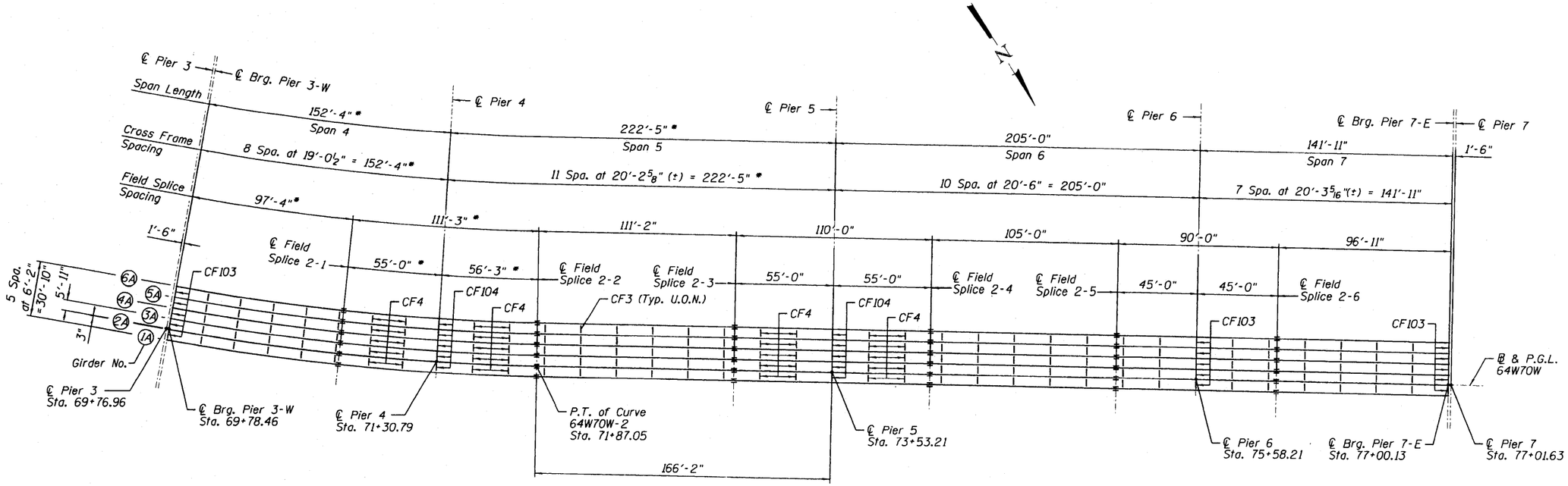
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER FRAMING PLAN – S.N. 082–0325 – UNIT 1
I–70W OVER I–55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-65 OF S-138 SHEETS | STA. | TO STA.

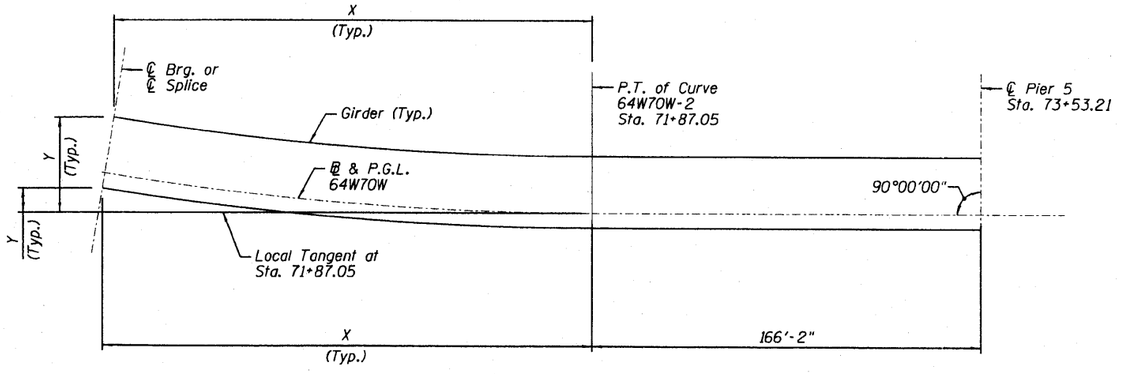
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	180
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

P:\PE\082\76C75\900_CAD\901_Drawings\76C75e...ster_Consolidated\Structural\082-0323\Sheet\S065_082-0325_76C75_FramingPlan_Unit1.dgn



GIRDER FRAMING PLAN - S.N. 082-0325 - UNIT 2

* Dimension measured along ℄ 64W70W.



CURVED GIRDER LAYOUT - S.N. 082-0325 - UNIT 2

X measured along Local Tangent.

GIRDER COORDINATES - S.N. 082-0325 - UNIT 2

All dimensions in feet.

Girder	Brg. Pier 3-W		Splice 2-1		Pier 4	
	X	Y	X	Y	X	Y
1A	-208.725	10.287	-111.661	-1.658	-56.509	-5.200
2A	-207.738	16.374	-111.137	4.486	-56.243	0.961
3A	-206.750	22.461	-110.612	10.631	-55.978	7.122
4A	-205.762	28.549	-110.087	16.775	-55.712	13.283
5A	-204.775	34.636	-109.563	22.919	-55.447	19.444
6A	-203.787	40.723	-109.038	29.064	-55.181	25.605

Notes:

1. See Sheet S-71 for girder elevation.
2. See Sheet S-76 for camber & top of web elevations.
3. See Sheet S-78 for moment tables & Sheet S-80 for reaction tables.
4. See Sheet S-81 for girder bolted field splice details.
5. See Sheet S-82 for girder cross frame details and erection notes.
6. Girder spacings and cross frame orientations are radial to the ℄ 64W70W, except at ℄ Brg. for Pier 3-W & Pier 7-E supports where these are parallel to the respective centerline of supports.

AECOM

USER NAME = BhattA	DESIGNED - CLS	REVISED -
	DRAWN - DD	REVISED -
PLOT SCALE = Ø12 '5" / in.	CHECKED - CHY	REVISED -
PLOT DATE = #DATE#	DATE - 03/18/2011	REVISED -

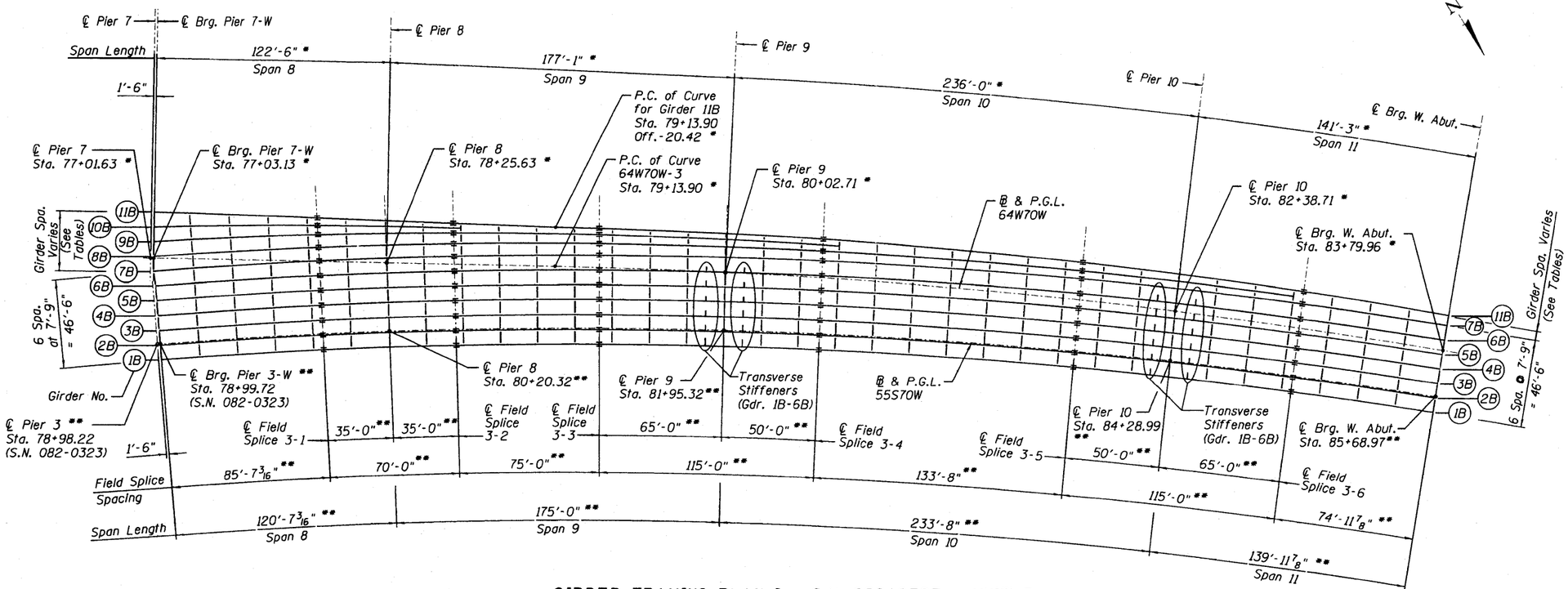
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER FRAMING PLAN – S.N. 082-0325 – UNIT 2
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-66 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	181
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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GIRDER SPACING TABLES

Girder Spa.	℄ Brg. Pier 7-W	℄ Pier 8
7B-8B	7'-9 5/16"	6'-10"
8B-9B	7'-9 1/8"	6'-1 3/4"
9B-10B	7'-8 11/16"	3'-8 3/4"
10B-11B	7'-11 15/16"	3'-0 3/16"

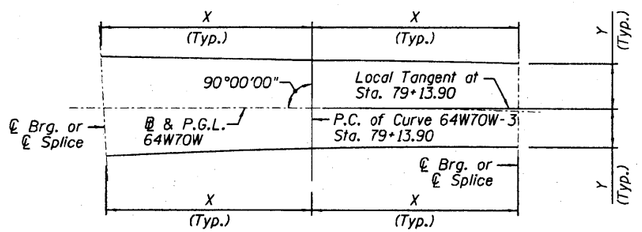
Girder Spa.	℄ Pier 9
7B-8B	5'-6 1/4"
8B-9B	3'-10"
9B-11B	3'-1 3/4"

Girder Spa.	℄ Pier 10
7B-8B	3'-9 3/8"
8B-11B	3'-10 7/8"

Girder Spa.	℄ Brg. W. Abut.
7B-11B	5'-3 1/4"

GIRDER FRAMING PLAN I - S.N. 082-0325 - UNIT 3

* Dimension measured along ℄ 64W70W.
** Dimension measured along ℄ 55S70W.



CURVED GIRDER LAYOUT - S.N. 082-0325 - UNIT 3

X measured along Local Tangent.

GIRDER COORDINATES - S.N. 082-0325 - UNIT 3

All dimensions in feet.

Girder	Brg. Pier 7-W X	Brg. Pier 7-W Y	Splice 3-1 X	Splice 3-1 Y	Pier 8 X	Pier 8 Y	Splice 3-2 X	Splice 3-2 Y	Splice 3-3 X	Splice 3-3 Y	Pier 9 X	Pier 9 Y	Splice 3-4 X	Splice 3-4 Y	Splice 3-5 X	Splice 3-5 Y	Pier 10 X	Pier 10 Y	Splice 3-6 X	Splice 3-6 Y	Brg. W. Abut. X	Brg. W. Abut. Y
1B	-205.766	-53.100	-120.710	-46.134	-85.878	-44.022	-51.022	-42.337	23.723	-40.168	88.529	-39.879	138.375	-40.661	271.480	-47.041	321.172	-51.029	385.654	-57.515	459.837	-66.822
2B	-206.519	-45.386	-121.227	-38.401	-86.299	-36.283	-51.348	-34.594	23.600	-32.419	88.583	-32.129	138.565	-32.913	272.032	-39.310	321.860	-43.310	386.517	-49.814	460.902	-59.145
3B	-207.271	-37.673	-121.743	-30.669	-86.721	-28.545	-51.675	-26.851	23.477	-24.670	88.637	-24.379	138.754	-25.166	272.585	-31.580	322.548	-35.590	387.380	-42.112	461.968	-51.469
4B	-208.024	-29.960	-122.260	-22.936	-87.143	-20.806	-52.002	-19.108	23.354	-16.921	88.690	-16.629	138.944	-17.418	273.137	-23.850	323.235	-27.871	388.244	-34.410	463.034	-43.792
5B	-208.776	-22.246	-122.776	-15.203	-87.564	-13.068	-52.328	-11.365	23.232	-9.172	88.744	-8.879	139.133	-9.670	273.689	-16.119	323.923	-20.151	389.107	-26.708	464.099	-36.116
6B	-209.528	-14.533	-123.293	-7.470	-87.986	-5.329	-52.655	-3.622	23.109	-1.423	88.798	-1.130	139.323	-1.923	274.242	-8.389	324.611	-12.432	389.971	-19.007	465.165	-28.440
7B	-210.774	-6.867	-123.810	0.262	-88.407	2.409	-52.982	4.122	22.986	6.326	88.852	6.620	139.512	5.825	274.794	-0.659	325.299	-4.713	390.834	-11.305	466.231	-20.763
8B	-210.774	0.908	-124.263	7.343	-88.779	9.233	-53.259	10.686	22.890	12.333	88.890	12.141	139.638	10.971	275.090	3.483	325.634	-0.945	386.160	-7.424	---	---
9B	-210.774	8.669	-124.723	13.937	-89.114	15.369	-53.498	16.363	22.816	17.023	88.916	15.975	148.261	13.751	---	---	---	---	---	---	---	---
10B	-210.774	16.392	-125.050	18.824	-89.316	19.092	-49.640	18.876	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11B	-210.774	24.388	-125.314	22.778	-89.461	22.103	-53.712	21.429	22.763	20.332	88.938	19.120	139.791	17.211	275.410	7.956	325.981	2.946	391.561	-4.823	466.955	-15.542

Notes:
1. See Sheet S-68 for cross frame & header girder locations.
2. See Sheets S-72 thru S-74 for girder elevations.
3. See Sheets S-75 thru S-77 for camber & top of web elevations.
4. See Sheet S-79 for moment tables & Sheet S-80 for reaction tables.
5. See Sheet S-81 for girder bolted field splice details.
6. See Sheet S-82 for girder cross frame details and erection notes.
7. Girder spacings and cross frame orientations are radial to the ℄ 55S70W, except at ℄ Brg. for Pier 7-W & W. Abut. supports where these are parallel to the respective centerline of supports.

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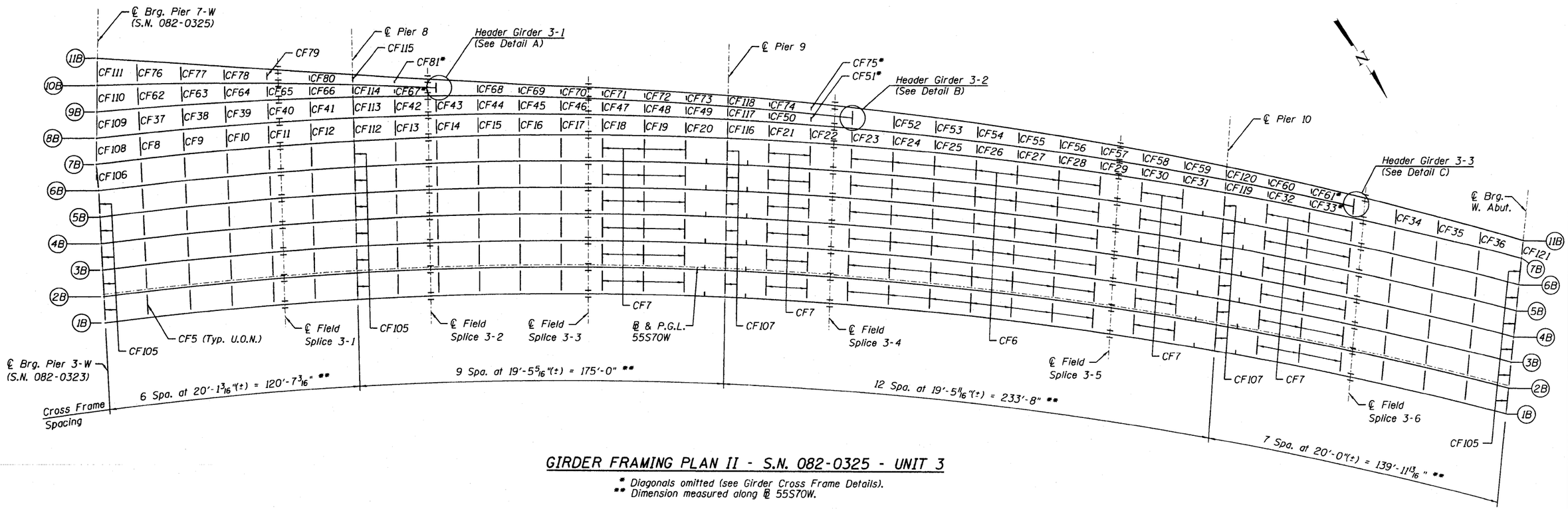
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

~~GIRDER FRAMING PLAN I - S.N. 082-0325 - UNIT 3~~
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-67 OF S-138 SHEETS | STA. | TO STA.

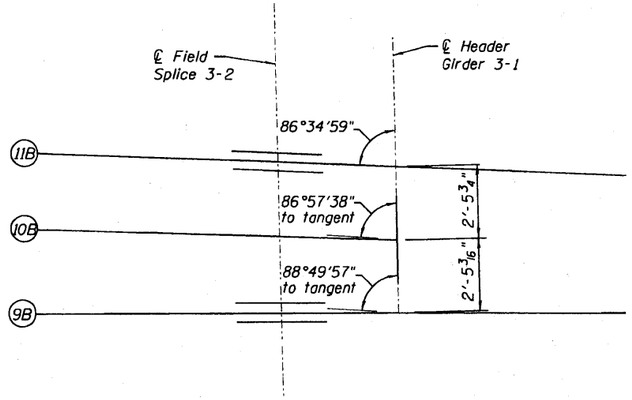
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	182
S.N. 082-0323 & S.N. 082-0325	CONTRACT NO. 76C75			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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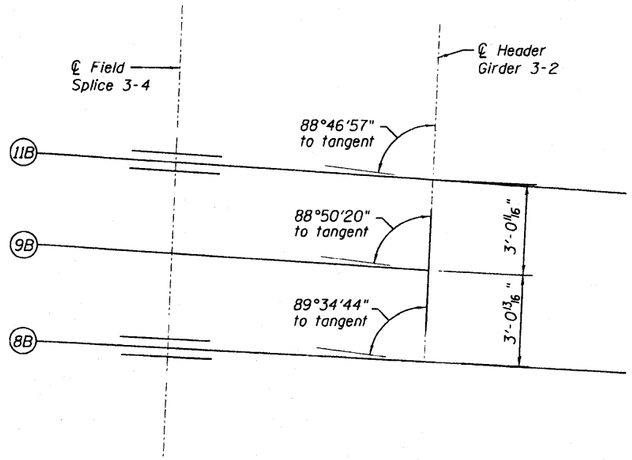
GIRDER FRAMING PLAN II - S.N. 082-0325 - UNIT 3

* Diagonals omitted (see Girder Cross Frame Details).
** Dimension measured along ℄ 55S70W.



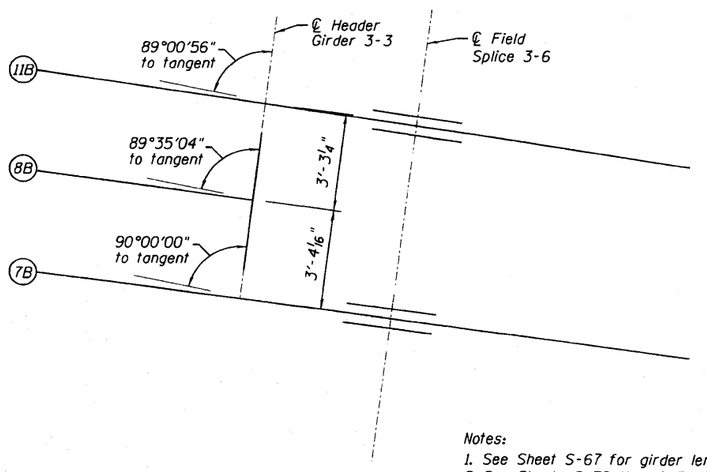
DETAIL A

Header Girder 3-1
(See Sheet S-73 for Details)



DETAIL B

Header Girder 3-2
(See Sheet S-73 for Details)



DETAIL C

Header Girder 3-3
(See Sheet S-73 for Details)

Notes:

1. See Sheet S-67 for girder lengths and coordinates.
2. See Sheets S-72 thru S-74 for girder elevations.
3. See Sheets S-76 thru S-77 for camber & top of web elevations.
4. See Sheet S-79 for moment tables & S-80 for reaction tables.
5. See Sheet S-81 for girder bolted field splice details.
6. See Sheet S-82 for girder cross frame details and erection notes.
7. AASHTO M270 Grade 50 steel shall be used for all flanges, webs, stiffeners, splice plates, and cross frames, unless otherwise noted.
8. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness (Zone 2).
9. Girder spacings and cross frame orientations are radial to the ℄ 55S70W, except at ℄ Brg. for Pier 7-W & W. Abut. supports where these are parallel to the respective centerline of supports.

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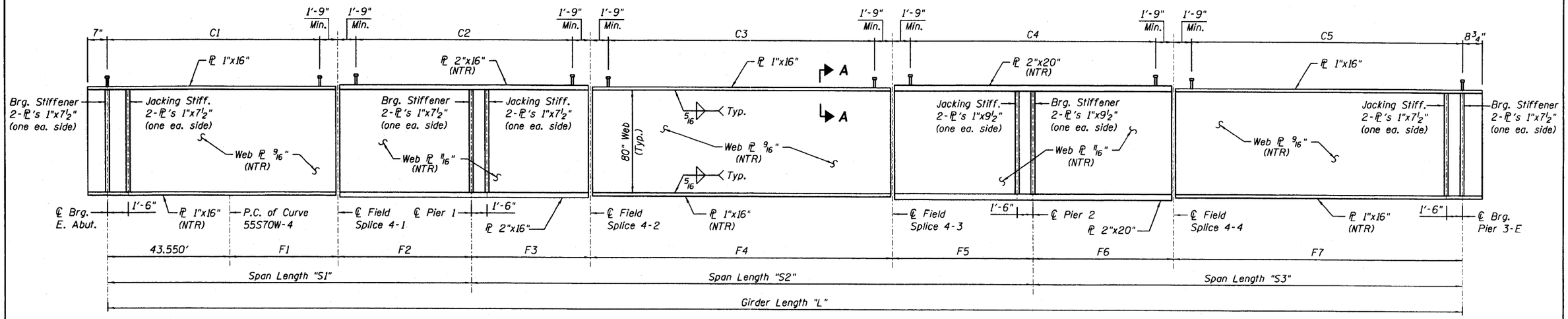
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER FRAMING PLAN II – S.N. 082–0325 – UNIT 3
I–70W OVER I–55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-68 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	183
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



GIRDER ELEVATION - S.N. 082-0323

Connection & Splice ℄'s not shown for clarity.

GIRDER DIMENSIONS - S.N. 082-0323

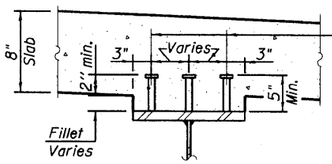
All dimensions in feet.

Girder	Radius	L*	S1	S2	S3	F1	F2	F3	F4	F5	F6	F7
1	2,843.667	481.213	129.747	199.416	152.050	38.836	47.361	42.376	107.186	49.854	49.854	102.196
2	2,851.000	482.346	129.970	199.930	152.446	38.936	47.483	42.485	107.462	49.982	49.982	102.464
3	2,858.333	483.478	130.192	200.444	152.842	39.036	47.605	42.594	107.739	50.111	50.111	102.731
4	2,865.667	484.611	130.414	200.958	153.238	39.137	47.728	42.704	108.015	50.240	50.240	102.998
5	2,873.000	485.743	130.637	201.473	153.634	39.237	47.850	42.813	108.292	50.368	50.368	103.266
6	2,880.333	486.876	130.859	201.987	154.030	39.337	47.972	42.922	108.568	50.497	50.497	103.533

*Girder Length "L" excludes girder ends beyond first & last bearings.

SHEAR CONNECTOR SCHEDULE - S.N. 082-0323

Girder	C1	C2	C3	C4	C5
1	80 Spa. at 12" = 80'-0"	69 Spa. at 15" = 86'-3"	104 Spa. at 12" = 104'-0"	77 Spa. at 15" = 96'-3"	100 Spa. at 12" = 100'-0"
2	80 Spa. at 12" = 80'-0"	69 Spa. at 15" = 86'-3"	104 Spa. at 12" = 104'-0"	77 Spa. at 15" = 96'-3"	100 Spa. at 12" = 100'-0"
3	81 Spa. at 12" = 81'-0"	69 Spa. at 15" = 86'-3"	104 Spa. at 12" = 104'-0"	77 Spa. at 15" = 96'-3"	101 Spa. at 12" = 101'-0"
4	81 Spa. at 12" = 81'-0"	69 Spa. at 15" = 86'-3"	104 Spa. at 12" = 104'-0"	77 Spa. at 15" = 96'-3"	101 Spa. at 12" = 101'-0"
5	81 Spa. at 12" = 81'-0"	69 Spa. at 15" = 86'-3"	105 Spa. at 12" = 105'-0"	78 Spa. at 15" = 97'-6"	101 Spa. at 12" = 101'-0"
6	81 Spa. at 12" = 81'-0"	70 Spa. at 15" = 87'-6"	105 Spa. at 12" = 105'-0"	78 Spa. at 15" = 97'-6"	101 Spa. at 12" = 101'-0"



3/4" ϕ Granular or solid flux filled headed studs, automatically end welded to flange. (7,869 Required)

SECTION A-A

Do not place studs on splice plates.

Notes:

1. See Sheet S-64 for girder framing plan.
2. See Sheet S-75 for camber & top of web elevations.
3. See Sheet S-78 for moment tables & Sheet S-80 for reaction tables.
4. See Sheet S-81 for girder bolted field splice details.
5. See Sheet S-82 for girder cross frame details and erection notes.
6. AASHTO M270 Grade 50 steel shall be used for all flanges, webs, stiffeners, splice plates, and cross frames, unless otherwise noted.
7. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness (Zone 2).

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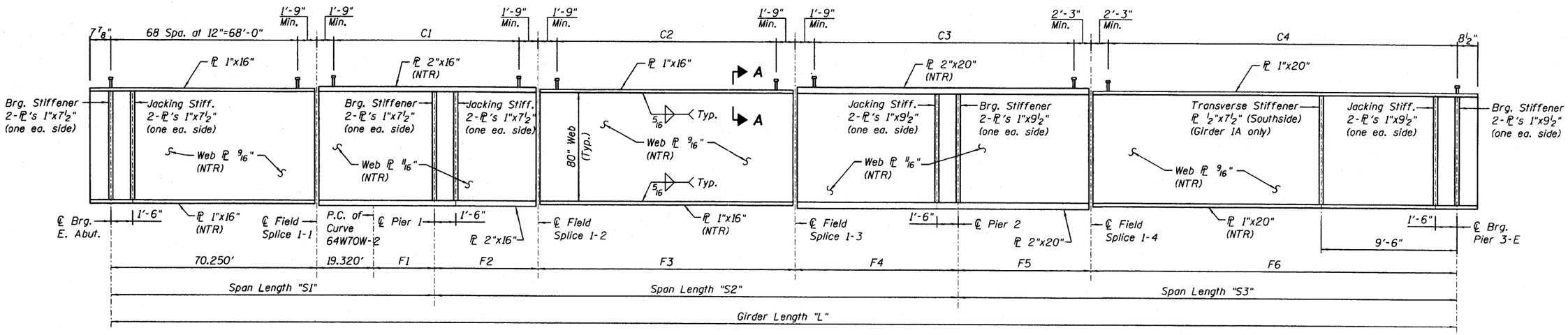
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER ELEVATION – S.N. 082–0323
I–70W OVER I–55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-69 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	184
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



GIRDER ELEVATION - S.N. 082-0325 - UNIT 1

Connection & Splice ℄'s not shown for clarity.

GIRDER DIMENSIONS - S.N. 082-0325 - UNIT 1

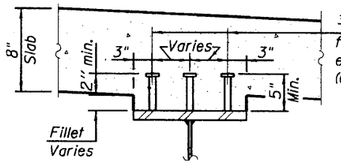
All dimensions in feet.

Girder	Radius	L*	S1	S2	S3	F1	F2	F3	F4	F5	F6
1A	1,312.417	457.556	110.352	177.870	169.335	20.782	35.172	87.427	55.270	45.221	124.114
2A	1,306.250	455.820	110.254	177.034	168.533	20.684	35.007	87.017	55.011	45.009	123.524
3A	1,300.083	454.084	110.156	176.198	167.730	20.586	34.841	86.606	54.751	44.796	122.934
4A	1,293.917	452.348	110.059	175.362	166.927	20.489	34.676	86.195	54.491	44.584	122.343
5A	1,287.750	450.612	109.961	174.527	166.124	20.391	34.511	85.784	54.231	44.371	121.753
6A	1,281.583	448.876	109.863	173.691	165.322	20.293	34.346	85.373	53.972	44.159	121.163

*Girder Length "L" excludes girder ends beyond first & last bearings.

SHEAR CONNECTOR SCHEDULE - S.N. 082-0325 - UNIT 1

Girder	C0	C1	C2	C3	C4
1A	68 Spa. at 12" = 68'-0"	48 Spa. at 18" = 72'-0"	67 Spa. at 15" = 83'-9"	64 Spa. at 18" = 96'-0"	97 Spa. at 15" = 121'-3"
2A	68 Spa. at 12" = 68'-0"	47 Spa. at 18" = 70'-6"	67 Spa. at 15" = 83'-9"	64 Spa. at 18" = 96'-0"	97 Spa. at 15" = 121'-3"
3A	68 Spa. at 12" = 68'-0"	47 Spa. at 18" = 70'-6"	66 Spa. at 15" = 82'-6"	63 Spa. at 18" = 94'-6"	96 Spa. at 15" = 120'-0"
4A	68 Spa. at 12" = 68'-0"	47 Spa. at 18" = 70'-6"	66 Spa. at 15" = 82'-6"	63 Spa. at 18" = 94'-6"	96 Spa. at 15" = 120'-0"
5A	68 Spa. at 12" = 68'-0"	47 Spa. at 18" = 70'-6"	66 Spa. at 15" = 82'-6"	63 Spa. at 18" = 94'-6"	95 Spa. at 15" = 118'-9"
6A	68 Spa. at 12" = 68'-0"	47 Spa. at 18" = 70'-6"	65 Spa. at 15" = 81'-3"	62 Spa. at 18" = 93'-0"	95 Spa. at 15" = 118'-9"



3/4" ℄ Granular or solid flux filled headed studs, automatically end welded to flange. (6,219 Required)

SECTION A-A

Do not place studs on splice plates.

Notes:

1. See Sheet S-65 for girder framing plan.
2. See Sheet S-75 for camber & top of web elevations.
3. See Sheet S-78 for moment tables & Sheet S-80 for reaction tables.
4. See Sheet S-81 for girder bolted field splice details.
5. See Sheet S-82 for girder cross frame details and erection notes.
6. AASHTO M270 Grade 50 steel shall be used for all flanges, webs, stiffeners, splice plates, and cross frames, unless otherwise noted.
7. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness (Zone 2).

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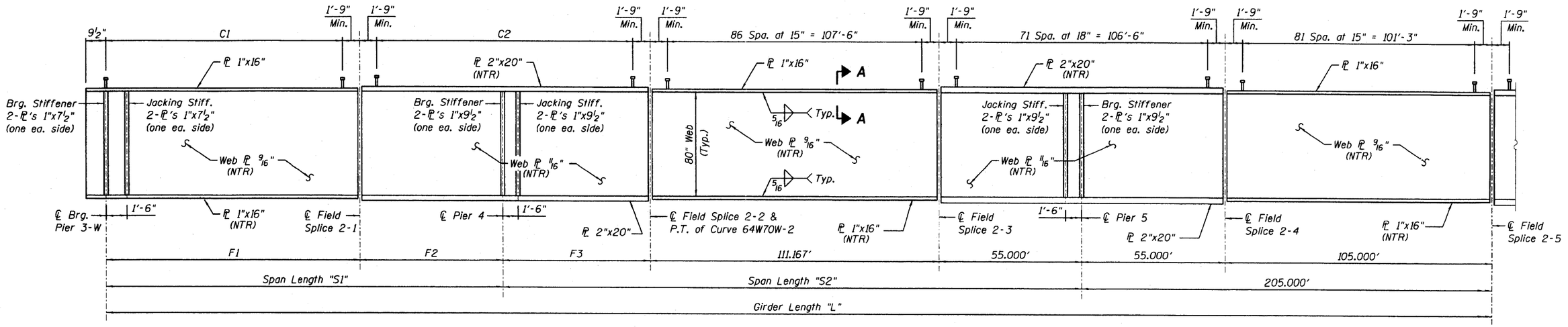
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PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER ELEVATION – S.N. 082-0325 – UNIT 1
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-70 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	185
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



GIRDER ELEVATION - S.N. 082-0325 - UNIT 2

Connection & Splice ℄'s not shown for clarity.

GIRDER DIMENSIONS - S.N. 082-0325 - UNIT 2

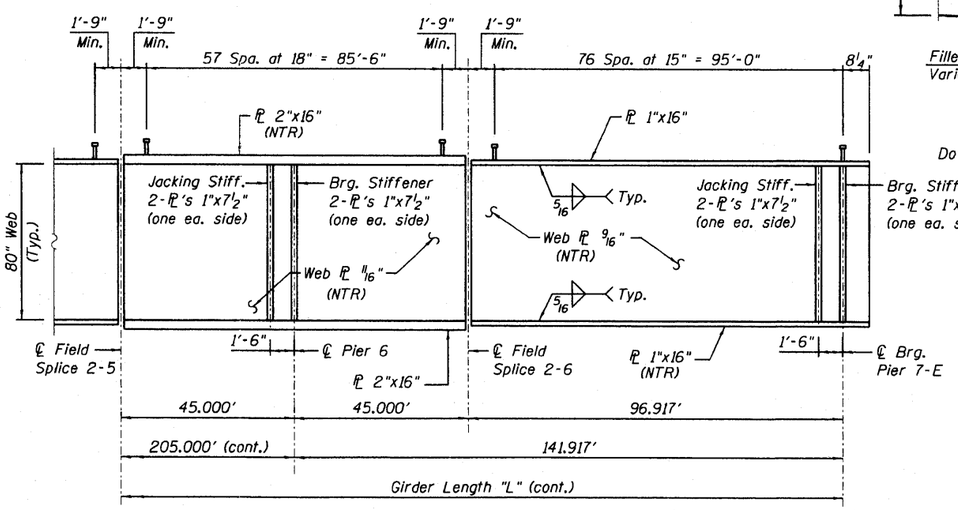
All dimensions in feet.

Girder	Radius	L*	S1	S2	F1	F2	F3
1A	1,312.417	722.699	153.089	222.693	97.819	55.270	56.526
2A	1,306.250	721.707	152.363	222.427	97.352	55.011	56.261
3A	1,300.083	720.715	151.636	222.162	96.886	54.751	55.995
4A	1,293.917	719.723	150.910	221.896	96.419	54.491	55.730
5A	1,287.750	718.731	150.184	221.631	95.952	54.231	55.464
6A	1,281.583	717.739	149.457	221.365	95.486	53.972	55.198

*Girder Length "L" excludes girder ends beyond first & last bearings.

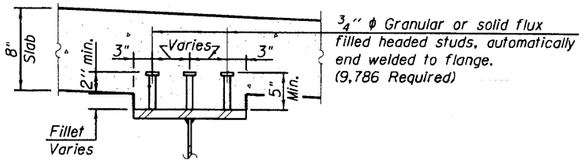
SHEAR CONNECTOR SCHEDULE - S.N. 082-0325 - UNIT 2

Girder	C1	C2
1A	96 Spa. at 12" = 96'-0"	72 Spa. at 18" = 108'-0"
2A	95 Spa. at 12" = 95'-0"	72 Spa. at 18" = 108'-0"
3A	95 Spa. at 12" = 95'-0"	71 Spa. at 18" = 106'-6"
4A	94 Spa. at 12" = 94'-0"	71 Spa. at 18" = 106'-6"
5A	94 Spa. at 12" = 94'-0"	71 Spa. at 18" = 106'-6"
6A	93 Spa. at 12" = 93'-0"	70 Spa. at 18" = 105'-0"



GIRDER ELEVATION - S.N. 082-0325 - UNIT 2

Connection & Splice ℄'s not shown for clarity.



SECTION A-A

Do not place studs on splice plates.

Notes:

1. See Sheet S-66 for girder framing plan.
2. See Sheet S-76 for camber & top of web elevations.
3. See Sheet S-78 for moment tables & Sheet S-80 for reaction tables.
4. See Sheet S-81 for girder bolted field splice details.
5. See Sheet S-82 for girder cross frame details and erection notes.
6. AASHTO M270 Grade 50 steel shall be used for all flanges, webs, stiffeners, splice plates, and cross frames, unless otherwise noted.
7. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness (Zone 2).

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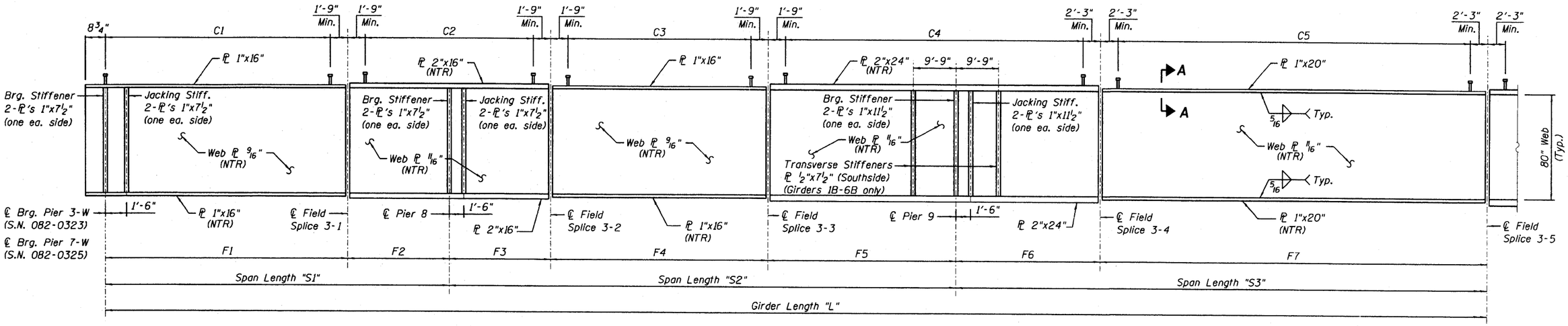
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER ELEVATION – S.N. 082-0325 – UNIT 2
I-70W OVER I-55, CSX & KCS RAILROADS

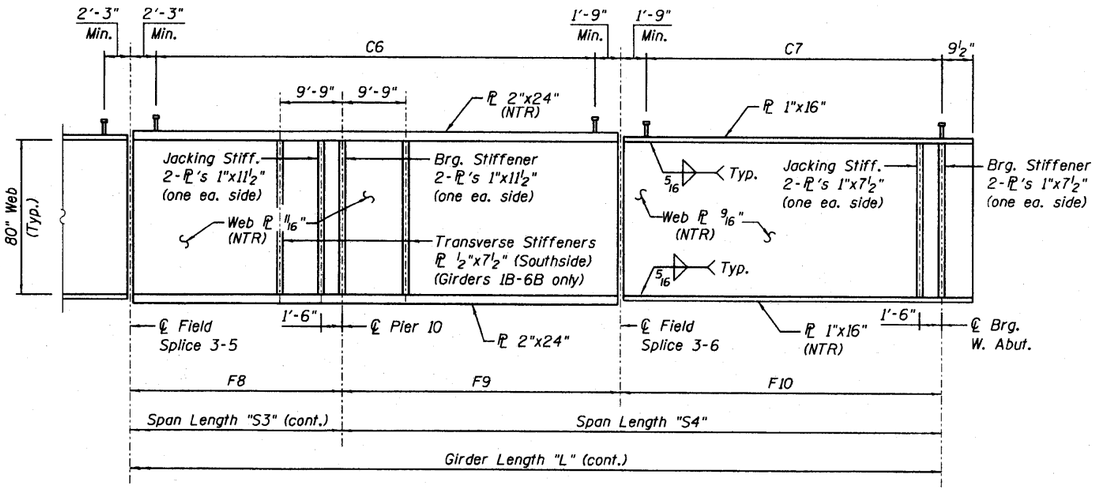
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



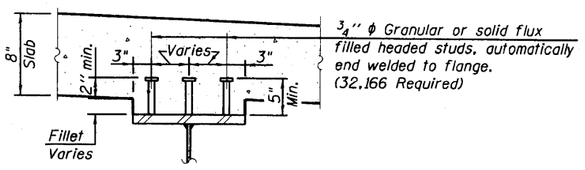
GIRDER ELEVATION I - S.N. 082-0325 - UNIT 3 (GIRDERS 1B THRU 7B & 11B)

Connection & Splice ℄'s not shown for clarity.



GIRDER ELEVATION I - S.N. 082-0325 - UNIT 3 (GIRDERS 1B THRU 7B & 11B)

Connection & Splice ℄'s not shown for clarity.



3/4" ϕ Granular or solid flux filled headed studs, automatically end welded to flange. (32.166 Required)

SECTION A-A

Do not place studs on splice plates.

Notes:

1. See Sheets S-67 thru S-68 for girder framing plans.
2. See Sheets S-73 thru S-74 for other girder elevations.
3. See Sheets S-76 thru S-77 for camber & top of web elevations.
4. See Sheet S-79 for moment tables & Sheet S-80 for reaction tables.
5. See Sheet S-81 for girder bolted field splice details.
6. See Sheet S-82 for girder cross frame details and erection notes.
7. AASHTO M270 Grade 50 steel shall be used for all flanges, webs, stiffeners, splice plates, and cross frames, unless otherwise noted.
8. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness (Zone 2).

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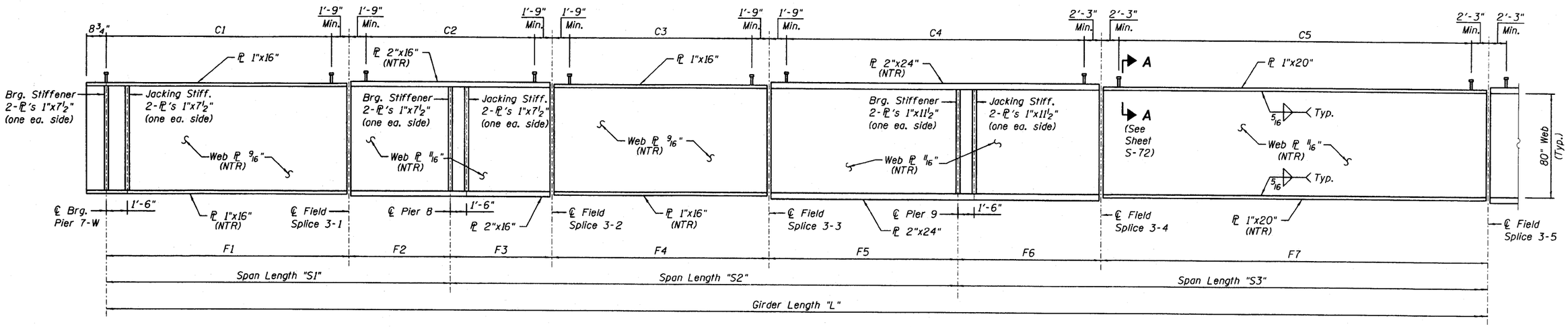
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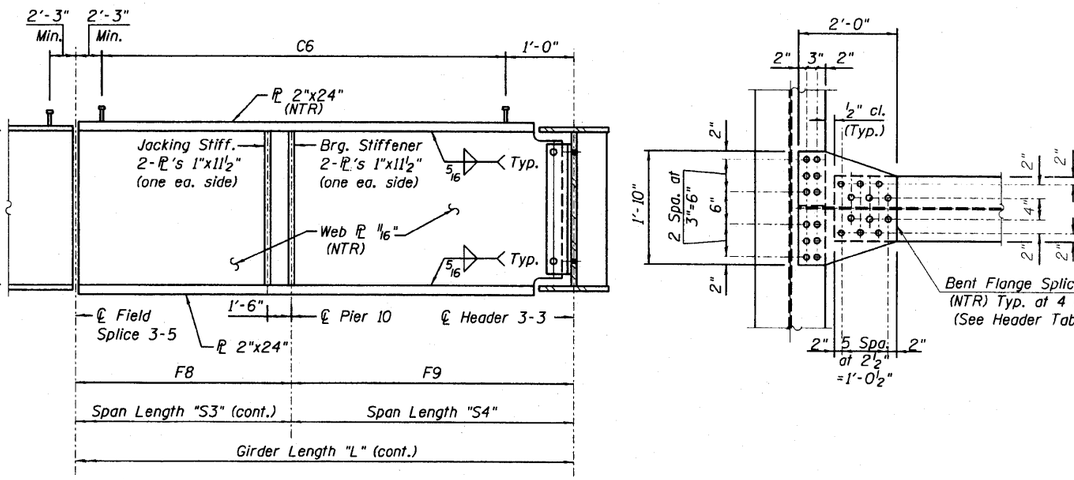
~~GIRDER ELEVATION I — S.N. 082-0325 — UNIT 3~~
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-72 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	~~SECTION~~	~~COUNTY~~	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	187
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



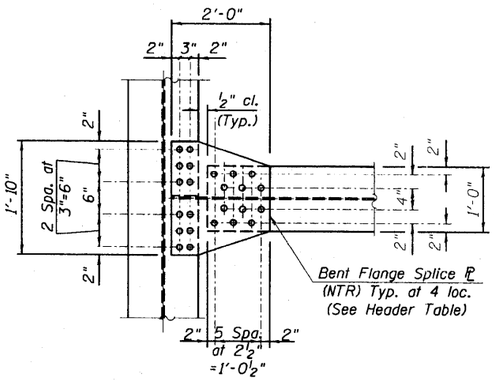
GIRDER ELEVATION II - S.N. 082-0325 - UNIT 3 (GIRDER 8B)

Connection & Splice PL's not shown for clarity.

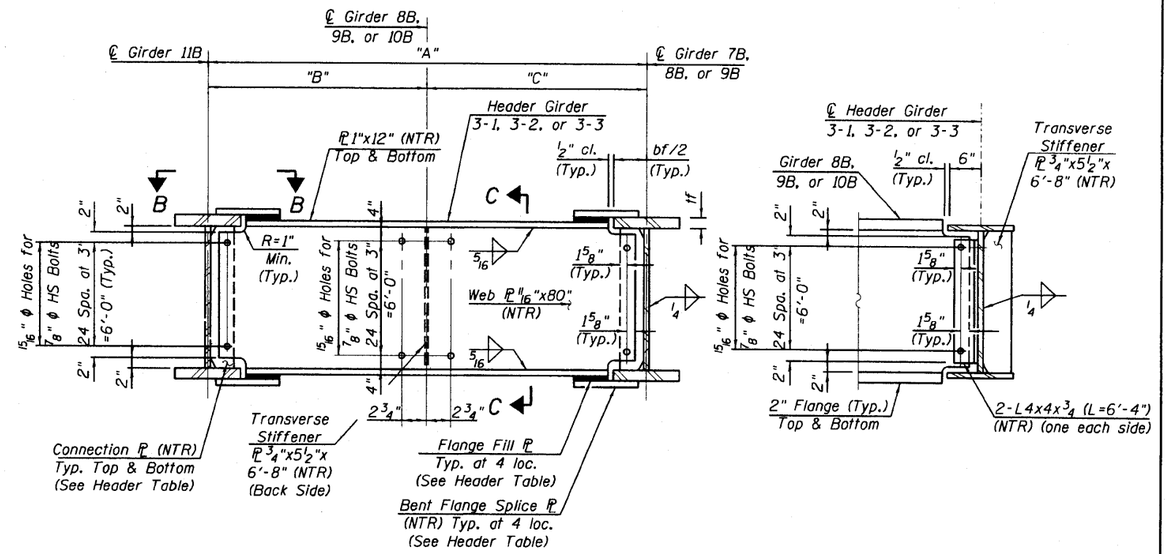


GIRDER ELEVATION II - S.N. 082-0325 - UNIT 3 (GIRDER 8B)

Connection & Splice PL's not shown for clarity.



SECTION B-B



HEADER GIRDER ELEVATION

Looking upstation (Center Girders 8B, 9B & 10B not shown for clarity).

SECTION C-C

Looking South

HEADER GIRDER TABLE

Header Girder	Longitudinal Girders Left	Center	Right	Girder Spacing "A"	"B"	"C"	Left & Right Flange tf	bf	Connection Plate	Bent Flange Splice Plate*	Flange Fill Plate
3-1	11B	10B	9B	4'-10 15/16"	2'-5 3/4"	2'-5 3/16"	1"	1'-4"	3/4" x 7 1/2" x 6'-8"	1" x 1'-10" x 2'-0"	None
3-2	11B	9B	8B	6'-1 1/2"	3'-0 11/16"	3'-0 13/16"	1"	1'-8"	3/4" x 9 1/2" x 6'-8"	1" x 1'-10" x 2'-0"	None
3-3	11B	8B	7B	6'-7 5/16"	3'-3 1/4"	3'-4 1/16"	2"	2'-0"	3/4" x 11 1/2" x 6'-8"	1" x 1'-10" x 2'-0"	1" x 1'-0" x 1'-4 1/2"

*Flange Splice Plate to be bent at edge of flange to accommodate slope of Header Girder.

Notes:
1. See Sheets S-67 thru S-68 for girder framing plans.
2. See Sheets S-72 & S-74 for other girder elevations.
3. See Sheets S-76 thru S-77 for camber & top of web elevations.
4. See Sheet S-79 for moment tables & Sheet S-80 for reaction tables.
5. See Sheet S-81 for girder bolted field splice details.
6. See Sheet S-82 for girder cross frame details and erection notes.
7. AASHTO M270 Grade 50 steel shall be used for all flanges, webs, stiffeners, splice plates, and cross frames, unless otherwise noted.
8. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness (Zone 2).

AECOM

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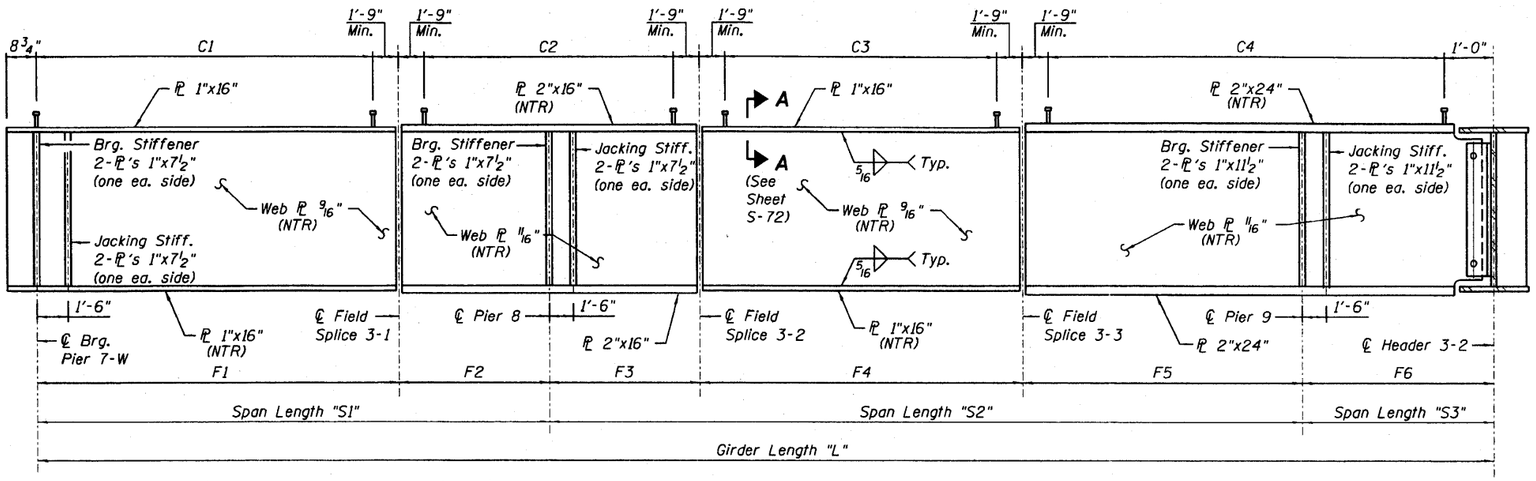
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER ELEVATION II – S.N. 082-0325 – UNIT 3
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-73 OF S-138 SHEETS | STA. | TO STA.

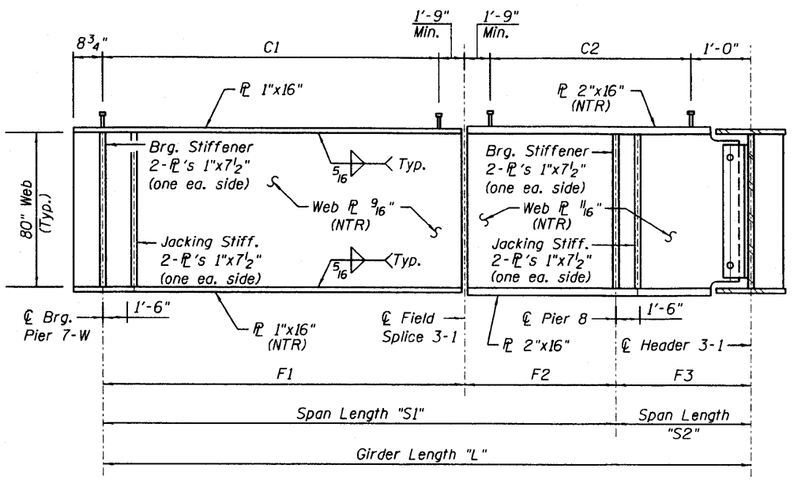
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	188
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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GIRDER ELEVATION III - S.N. 082-0325 - UNIT 3 (GIRDER 9B)

Connection & Splice ℄'s not shown for clarity.



GIRDER ELEVATION III - S.N. 082-0325 - UNIT 3 (GIRDER 10B)

Connection & Splice ℄'s not shown for clarity.

GIRDER DIMENSIONS - S.N. 082-0325 - UNIT 3

All dimensions in feet.

Girder	Radius	L*	S1	S2	S3	S4	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
1B	2,843.583	667.274	120.241	174.484	232.975	139.575	85.344	34.897	34.897	74.779	64.808	49.852	133.270	49.852	64.808	74.767
2B	2,851.333	669.097	120.572	174.959	233.610	139.955	85.581	34.992	34.992	74.982	64.985	49.988	133.633	49.988	64.985	74.971
3B	2,859.083	670.920	120.904	175.435	234.245	140.336	85.817	35.087	35.087	75.186	65.161	50.124	133.997	50.124	65.161	75.174
4B	2,866.833	672.742	121.236	175.910	234.880	140.716	86.054	35.182	35.182	75.390	65.338	50.260	134.360	50.260	65.338	75.378
5B	2,874.583	674.565	121.568	176.386	235.515	141.097	86.291	35.277	35.277	75.594	65.515	50.396	134.723	50.396	65.515	75.582
6B	2,882.333	676.388	121.900	176.861	236.150	141.477	86.527	35.372	35.372	75.798	65.691	50.532	135.086	50.532	65.691	75.786
7B	2,890.083	678.706	122.727	177.337	236.785	141.857	87.259	35.467	35.467	76.001	65.868	50.668	135.449	50.668	65.868	75.990
8B	2,897.833	598.053	122.287	177.721	237.172	60.873	86.733	35.554	35.551	76.169	66.001	50.763	135.671	50.739	60.873	---
9B	2,905.583	359.300	121.853	178.059	59.388	---	86.215	35.639	35.630	76.319	66.110	59.388	---	---	---	---
10B	2,913.333	161.174	121.496	39.677	---	---	85.762	35.734	39.677	---	---	---	---	---	---	---
11B	3,049.8622**	679.611	121.315	178.447	237.654	142.195	85.475	35.840	35.775	76.485	66.187	50.889	135.945	50.820	66.040	76.155

*Girder Length "L" excludes girder ends beyond first & last bearings.
**Girder 11B is straight from Pier 7 to P.C. of Curve 64W70W-3 (see Sheet S-67).

SHEAR CONNECTOR SCHEDULE - S.N. 082-0325 - UNIT 3

Girder	C1	C2	C3	C4	C5	C6	C7
1B	167 Spa. at 6" = 83'-6"	88 Spa. at 9" = 66'-0"	143 Spa. at 6" = 71'-6"	147 Spa. at 9" = 110'-3"	258 Spa. at 6" = 129'-0"	147 Spa. at 9" = 110'-3"	146 Spa. at 6" = 73'-0"
2B	167 Spa. at 6" = 83'-6"	89 Spa. at 9" = 66'-9"	143 Spa. at 6" = 71'-6"	148 Spa. at 9" = 111'-0"	258 Spa. at 6" = 129'-0"	148 Spa. at 9" = 111'-0"	146 Spa. at 6" = 73'-0"
3B	168 Spa. at 6" = 84'-0"	89 Spa. at 9" = 66'-9"	144 Spa. at 6" = 72'-0"	148 Spa. at 9" = 111'-0"	259 Spa. at 6" = 129'-6"	148 Spa. at 9" = 111'-0"	147 Spa. at 6" = 73'-6"
4B	168 Spa. at 6" = 84'-0"	89 Spa. at 9" = 66'-9"	144 Spa. at 6" = 72'-0"	149 Spa. at 9" = 111'-9"	260 Spa. at 6" = 130'-0"	149 Spa. at 9" = 111'-9"	147 Spa. at 6" = 73'-6"
5B	169 Spa. at 6" = 84'-6"	89 Spa. at 9" = 66'-9"	144 Spa. at 6" = 72'-0"	149 Spa. at 9" = 111'-9"	261 Spa. at 6" = 130'-6"	149 Spa. at 9" = 111'-9"	147 Spa. at 6" = 73'-6"
6B	169 Spa. at 6" = 84'-6"	90 Spa. at 9" = 67'-6"	145 Spa. at 6" = 72'-6"	150 Spa. at 9" = 112'-6"	261 Spa. at 6" = 130'-6"	150 Spa. at 9" = 112'-6"	148 Spa. at 6" = 74'-0"
7B	171 Spa. at 6" = 85'-6"	90 Spa. at 9" = 67'-6"	145 Spa. at 6" = 72'-6"	150 Spa. at 9" = 112'-6"	262 Spa. at 6" = 131'-0"	150 Spa. at 9" = 112'-6"	148 Spa. at 6" = 74'-0"
8B	170 Spa. at 6" = 85'-0"	90 Spa. at 9" = 67'-6"	146 Spa. at 6" = 73'-0"	150 Spa. at 9" = 112'-6"	263 Spa. at 6" = 131'-6"	144 Spa. at 9" = 108'-0"	---
9B	169 Spa. at 6" = 84'-6"	90 Spa. at 9" = 67'-6"	146 Spa. at 6" = 73'-0"	163 Spa. at 9" = 122'-3"	---	---	---
10B	168 Spa. at 6" = 84'-0"	97 Spa. at 9" = 72'-9"	---	---	---	---	---
11B	167 Spa. at 6" = 83'-6"	91 Spa. at 9" = 68'-3"	146 Spa. at 6" = 73'-0"	151 Spa. at 9" = 113'-3"	263 Spa. at 6" = 131'-6"	150 Spa. at 9" = 112'-6"	149 Spa. at 6" = 74'-6"

Notes:
1. See Sheets S-67 thru S-68 for girder framing plans.
2. See Sheet S-73 for other girder elevations & header girder details.
3. See Sheets S-76 thru S-77 for camber & top of web elevations.
4. See Sheet S-79 for moment tables & Sheet S-80 for reaction tables.
5. See Sheet S-81 for girder bolted field splice details.
6. See Sheet S-82 for girder cross frame details and erection notes.
7. AASHTO M270 Grade 50 steel shall be used for all flanges, webs, stiffeners, splice plates, and cross frames, unless otherwise noted.
8. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness (Zone 2).

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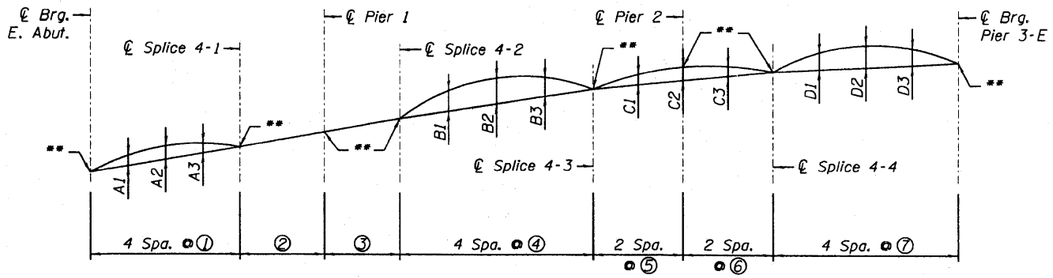
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER ELEVATION III – S.N. 082–0325 – UNIT 3
I–70W OVER I–55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-74 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	189
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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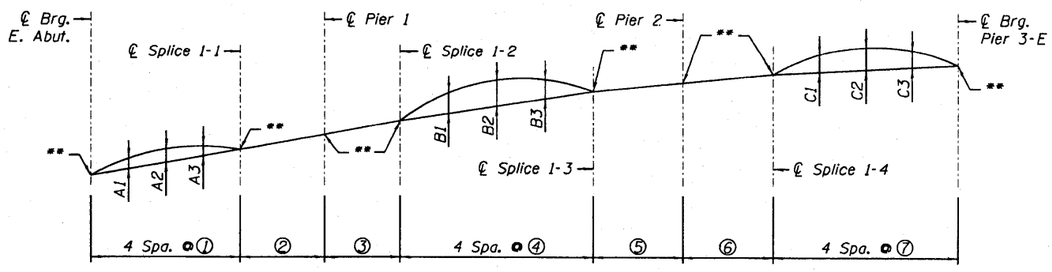
CAMBER DIAGRAM - S.N. 082-0323 (GIRDERS 1 THRU 6)

** See Table 1 for top of web elevations

CAMBER ORDINATES - S.N. 082-0323 (GIRDERS 1 THRU 6)																	
Girder	A1	A2	A3	B1	B2	B3	C1	C2	C3	D1	D2	D3	①	②	③	④	⑤	⑥	⑦
1	3/4"	1 1/2"	1 3/4"	4 1/4"	5 1/4"	4 1/4"	1 1/4"	1 1/4"	1 1/4"	3 1/2"	4"	2 3/4"	20'-7 3/16"	47'-4 5/16"	42'-4 1/2"	26'-9 9/16"	24'-11 1/8"	24'-11 1/8"	25'-6 9/16"
2	3/4"	1 1/2"	1 3/4"	4 1/4"	5 1/4"	4 1/2"	1 1/4"	1 1/4"	1 1/4"	3 1/2"	4"	2 3/4"	20'-7 7/16"	47'-5 13/16"	42'-5 13/16"	26'-10 3/8"	24'-11 7/8"	24'-11 7/8"	25'-7 3/8"
3	3/4"	1 1/2"	1 3/4"	4 1/4"	5 1/4"	4 1/2"	1 1/4"	1 1/4"	1 1/4"	3 3/4"	4"	2 3/4"	20'-7 3/4"	47'-7 1/4"	42'-7 1/8"	26'-11 3/16"	25'-0 11/16"	25'-0 11/16"	25'-8 3/16"
4	3/4"	1 1/2"	1 3/4"	4 1/4"	5 1/2"	4 1/2"	1 1/4"	1 1/4"	1 1/4"	3 3/4"	4"	2 3/4"	20'-8 1/16"	47'-8 3/4"	42'-8 7/16"	27'-0 1/16"	25'-1 7/16"	25'-1 7/16"	25'-9"
5	3/4"	1 1/2"	1 3/4"	4 1/4"	5 1/2"	4 1/2"	1 1/4"	1"	1 1/4"	3 3/4"	4"	2 3/4"	20'-8 3/8"	47'-10 3/16"	42'-9 3/4"	27'-0 7/8"	25'-2 3/16"	25'-2 3/16"	25'-9 13/16"
6	3/4"	1 1/2"	1 3/4"	4 1/2"	5 1/2"	4 1/2"	1"	1"	1"	3 3/4"	4 1/4"	3"	20'-8 11/16"	47'-11 11/16"	42'-11 1/16"	27'-1 11/16"	25'-3"	25'-3"	25'-10 5/8"

TABLE 1 - TOP OF WEB ELEV * (in feet) - S.N. 082-0323 (GIRDERS 1 THRU 6)								
Girder	℄ Brg. E. Abut.	℄ Splice 4-1	℄ Pier 1	℄ Splice 4-2	℄ Splice 4-3	℄ Pier 2	℄ Splice 4-4	℄ Brg. Pier 3-E
1	450.61	453.79	455.73	457.50	461.31	462.53	463.55	464.76
2	450.87	454.05	455.98	457.76	461.57	462.79	463.81	465.01
3	451.12	454.30	456.24	458.02	461.83	463.04	464.06	465.27
4	451.38	454.56	456.50	458.28	462.09	463.30	464.32	465.53
5	451.64	454.81	456.75	458.54	462.35	463.56	464.58	465.78
6	451.89	455.07	457.01	458.81	462.61	463.81	464.84	466.02

* Top of web elevations are for fabrication only



CAMBER DIAGRAM - S.N. 082-0325 - UNIT 1 (GIRDERS 1A THRU 6A)

** See Table 2 for top of web elevations

TABLE 2 - TOP OF WEB ELEV * (in feet) - S.N. 082-0325 - UNIT 1 (GIRDERS 1A THRU 6A)								
Girder	℄ Brg. E. Abut.	℄ Splice 1-1	℄ Pier 1	℄ Splice 1-2	℄ Splice 1-3	℄ Pier 2	℄ Splice 1-4	℄ Brg. Pier 3-E
1A	417.91	421.57	423.78	425.66	430.19	433.05	435.49	441.90
2A	417.85	421.38	423.51	425.32	429.86	432.72	435.14	441.57
3A	417.78	421.18	423.23	424.99	429.52	432.39	434.80	441.24
4A	417.72	420.99	422.96	424.65	429.19	432.05	434.45	440.90
5A	417.66	420.79	422.69	424.32	428.86	431.72	434.11	440.57
6A	417.60	420.60	422.42	423.99	428.53	431.39	433.77	440.24

* Top of web elevations are for fabrication only

CAMBER ORDINATES - S.N. 082-0325 - UNIT 1 (GIRDERS 1A THRU 6A)																
Girder	A1	A2	A3	B1	B2	B3	C1	C2	C3	①	②	③	④	⑤	⑥	⑦
1A	3/4"	1 1/4"	1 1/2"	2 1/4"	2 1/2"	2 1/4"	3 1/4"	3 1/2"	2 1/4"	17'-6 3/4"	40'-1 3/16"	35'-2 1/16"	21'-10 5/16"	55'-3 1/4"	45'-2 5/8"	31'-0 5/16"
2A	3/4"	1 1/4"	1 1/2"	2 1/4"	2 1/2"	2 1/4"	3"	3 1/4"	2 1/4"	17'-6 3/4"	40'-0"	35'-0 1/16"	21'-9 1/16"	55'-0 1/8"	45'-0 1/8"	30'-10 9/16"
3A	3/4"	1 1/4"	1 1/2"	2 1/4"	2 1/2"	2 1/4"	3"	3"	2"	17'-6 3/4"	39'-10 7/8"	34'-10 1/8"	21'-7 13/16"	54'-9"	44'-9 9/16"	30'-8 15/16"
4A	1/2"	1 1/4"	1 1/2"	2 1/4"	2 1/4"	2 1/4"	2 3/4"	3"	2"	17'-6 3/4"	39'-9 11/16"	34'-8 1/8"	21'-6 9/16"	54'-5 7/8"	44'-7"	30'-7"
5A	3/4"	1 1/4"	1 1/2"	2 1/4"	2 1/4"	2 1/4"	2 3/4"	2 3/4"	1 3/4"	17'-6 3/4"	39'-8 1/2"	34'-6 1/8"	21'-5 3/8"	54'-2 3/4"	44'-4 7/16"	30'-5 1/4"
6A	3/4"	1 1/4"	1 1/2"	2 1/4"	2 1/4"	2 1/4"	2 1/2"	2 1/2"	1 3/4"	17'-6 3/4"	39'-7 5/16"	34'-4 1/8"	21'-4 1/8"	53'-11 11/16"	44'-1 7/8"	30'-3 1/2"

Notes:

1. See Sheets S-64 thru S-68 for girder framing plans.
2. See Sheets S-69 thru S-74 for girder elevations.
3. See Sheets S-78 thru S-80 for girder moment & reaction tables.
4. See Sheet S-81 for girder bolted field splice details.
5. See Sheet S-82 for girder cross frame details and erection notes.

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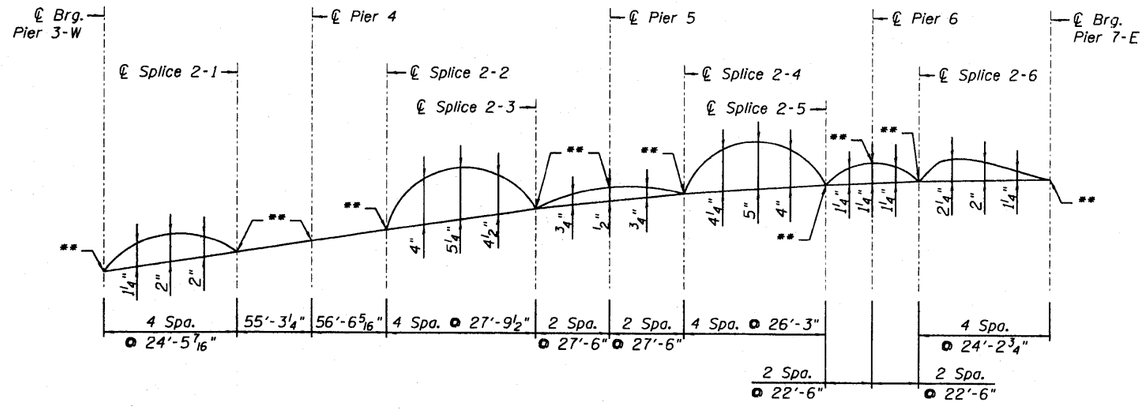
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER CAMBER & TOP OF WEB ELEVATIONS I
I-70W OVER I-55, CSX & KCS RAILROADS

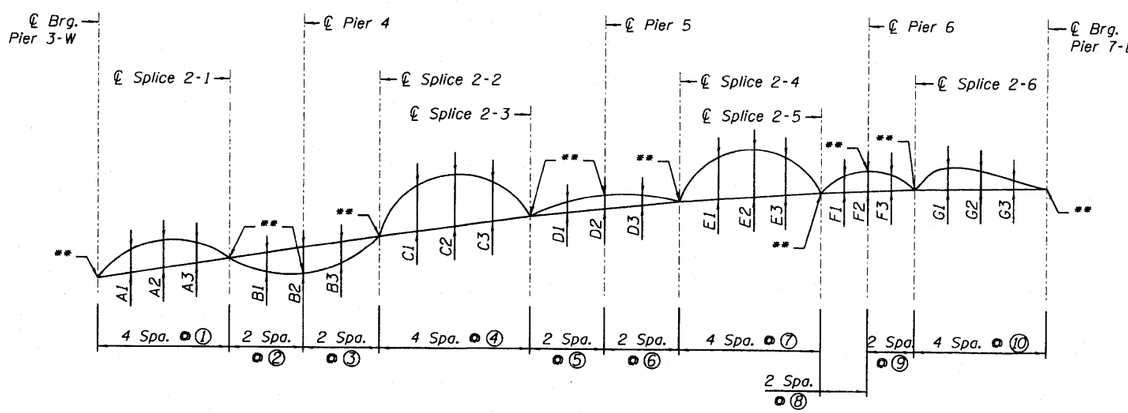
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S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CAMBER DIAGRAM - S.N. 082-0325 - UNIT 2 (GIRDER 1A)

** See Table 1 for top of web elevations

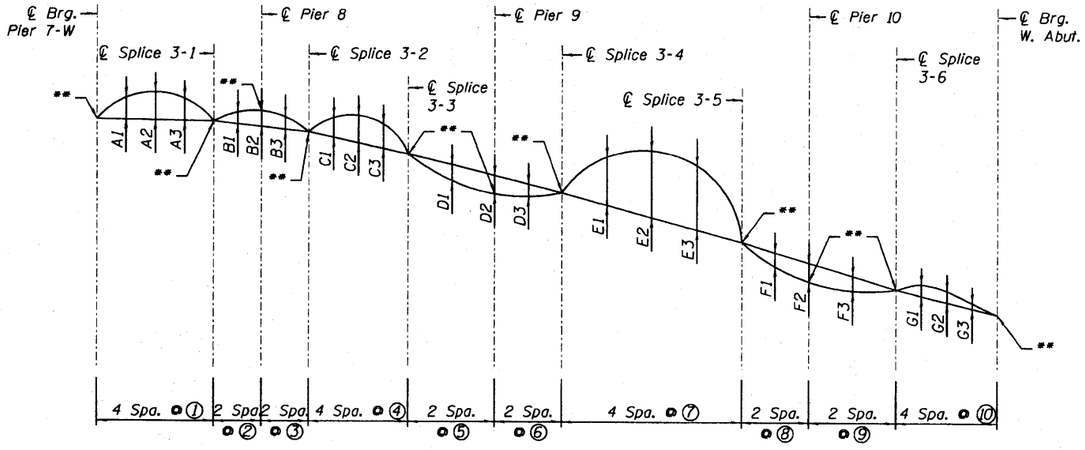


CAMBER DIAGRAM - S.N. 082-0325 - UNIT 2 (GIRDERS 2A THRU 6A)

** See Table 1 for top of web elevations

CAMBER ORDINATES - S.N. 082-0325 - UNIT 2 (GIRDERS 2A THRU 6A)

Girder	A1	A2	A3	B1	B2	B3	C1	C2	C3	D1	D2	D3	E1	E2	E3	F1	F2	F3	G1	G2	G3	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
2A	1¼"	2"	2"	¼"	¾"	¼"	4"	5¼"	4½"	1¼"	1"	1¼"	4"	5"	4"	1¼"	1¼"	1¼"	2¼"	2"	1¼"	24'-4 1/16"	27'-6 1/16"	28'-1 9/16"	27'-9½"	27'-6"	27'-6"	26'-3"	22'-6"	22'-6"	24'-2¾"
3A	1"	1¾"	2"	½"	1½"	½"	4"	5¼"	4½"	1½"	1¾"	1½"	4"	5"	4"	1¼"	1¼"	1¼"	2¼"	2"	1¼"	24'-2 11/16"	27'-4½"	28'-0"	27'-9½"	27'-6"	27'-6"	26'-3"	22'-6"	22'-6"	24'-2¾"
4A	1"	1¾"	2"	1"	2"	1"	4"	5¼"	4½"	1¾"	2¼"	1¾"	4"	5"	4"	1¼"	1¼"	1¼"	2¼"	2"	1¼"	24'-1¼"	27'-2 15/16"	27'-10 3/8"	27'-9½"	27'-6"	27'-6"	26'-3"	22'-6"	22'-6"	24'-2¾"
5A	1"	1¾"	2"	1¼"	2½"	1¼"	4"	5½"	4½"	2"	2¾"	2¼"	4"	5"	4"	1¼"	1¼"	1¼"	2¼"	2"	1¼"	23'-11 7/8"	27'-1 3/8"	27'-8 13/16"	27'-9½"	27'-6"	27'-6"	26'-3"	22'-6"	22'-6"	24'-2¾"
6A	1"	1¾"	1¾"	1½"	3¼"	1¾"	4"	5½"	4½"	2¼"	3½"	2½"	4"	5"	4"	1¼"	1¼"	1¼"	2¼"	2"	1¼"	23'-10 7/16"	26'-11 13/16"	27'-7 3/16"	27'-9½"	27'-6"	27'-6"	26'-3"	22'-6"	22'-6"	24'-2¾"



CAMBER DIAGRAM - S.N. 082-0325 - UNIT 3 (GIRDERS 1B THRU 7B)

** See Table 2 for top of web elevations

TABLE 1 -TOP OF WEB ELEVATIONS * (in feet) - S.N. 082-0325 - UNIT 2 (GIRDERS 1A THRU 6A)

Girder	℄ Brg. Pier 3-W	℄ Splice 2-1	℄ Pier 4	℄ Splice 2-2	℄ Splice 2-3	℄ Pier 5	℄ Splice 2-4	℄ Splice 2-5	℄ Pier 6	℄ Splice 2-6	℄ Brg. Pier 7-E
1A	442.06	447.05	449.90	452.87	458.11	460.07	461.96	464.51	465.15	465.59	466.18
2A	441.73	446.71	449.57	452.64	458.09	460.15	462.04	464.60	465.24	465.68	466.27
3A	441.39	446.37	449.24	452.41	458.07	460.24	462.14	464.69	465.33	465.77	466.37
4A	441.06	446.03	448.90	452.18	458.05	460.33	462.23	464.78	465.43	465.87	466.46
5A	440.73	445.69	448.57	451.95	458.03	460.41	462.32	464.87	465.52	465.96	466.55
6A	440.39	445.35	448.24	451.73	458.02	460.50	462.41	464.97	465.61	466.06	466.64

* Top of web elevations are for fabrication only

TABLE 2 -TOP OF WEB ELEVATIONS * (in feet) - S.N. 082-0325 - UNIT 3 (GIRDERS 1B THRU 7B)

Girder	℄ Brg. Pier 7-W	℄ Splice 3-1	℄ Pier 8	℄ Splice 3-2	℄ Splice 3-3	℄ Pier 9	℄ Splice 3-4	℄ Splice 3-5	℄ Pier 10	℄ Splice 3-6	℄ Brg. W. Abut.
1B	464.77	464.62	464.37	463.92	462.53	461.04	460.06	456.90	455.50	453.90	452.27
2B	465.04	464.90	464.64	464.19	462.80	461.31	460.33	457.16	455.77	454.17	452.54
3B	465.31	465.17	464.92	464.46	463.06	461.58	460.60	457.43	456.04	454.43	452.82
4B	465.58	465.44	465.19	464.73	463.33	461.85	460.87	457.70	456.31	454.70	453.09
5B	465.85	465.71	465.46	464.99	463.60	462.12	461.13	457.97	456.58	454.97	453.36
6B	466.09	465.91	465.66	465.20	463.83	462.37	461.39	458.24	456.85	455.23	453.63
7B	466.19	466.08	465.82	465.35	464.07	462.64	461.66	458.52	457.13	455.50	453.90

* Top of web elevations are for fabrication only

CAMBER ORDINATES - S.N. 082-0325 - UNIT 3 (GIRDERS 1B THRU 7B)

Girder	A1	A2	A3	B1	B2	B3	C1	C2	C3	D1	D2	D3	E1	E2	E3	F1	F2	F3	G1	G2	G3	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
1B	2"	2¾"	2¾"	1¼"	1¼"	1¼"	2¾"	3¼"	2¾"	½"	1¼"	½"	4"	5"	4"	½"	1¼"	½"	1½"	1¼"	¾"	21'-4 1/16"	17'-5 3/8"	17'-5 3/8"	18'-8 5/16"	32'-4 7/8"	24'-11 1/8"	33'-3 13/16"	24'-11 1/8"	32'-4 7/8"	18'-8 5/16"
2B	2"	2¾"	2¾"	1¼"	1¼"	1¼"	2¾"	3¼"	2¾"	½"	1"	½"	4"	5"	4"	½"	1"	½"	1½"	1¼"	¾"	21'-4 3/4"	17'-5 15/16"	17'-5 15/16"	18'-8 15/16"	32'-5 15/16"	24'-11 15/16"	33'-4 7/8"	24'-11 15/16"	32'-5 15/16"	18'-8 15/16"
3B	2"	2¾"	2¾"	1¼"	1¼"	1¼"	2¾"	3¼"	2¾"	½"	1"	½"	4"	5"	4"	½"	1"	½"	1½"	1¼"	½"	21'-5 7/16"	17'-6½"	17'-6½"	18'-9 9/16"	32'-6 15/16"	25'-0 3/4"	33'-6"	25'-0 3/4"	32'-6 15/16"	18'-9½"
4B	2"	2¾"	2¾"	1¼"	1¼"	1¼"	2¾"	3¼"	3"	2¾"	½"	1"	½"	4"	5"	4"	½"	1"	½"	1½"	1¼"	½"	21'-6 3/16"	17'-7 1/16"	17'-7 1/16"	18'-10 3/16"	32'-8"	25'-1 9/16"	33'-7 1/16"	25'-1 9/16"	32'-8"	18'-10⅛"
5B	2"	2¾"	2¾"	1¼"	1¼"	1¼"	2¾"	3"	2¾"	½"	1"	¼"	4"	5"	4"	¼"	1"	½"	1½"	1"	½"	21'-6 7/8"	17'-7 11/16"	17'-7 11/16"	18'-10 13/16"	32'-9 1/16"	25'-2 3/8"	33'-8 3/16"	25'-2 3/8"	32'-9 1/16"	18'-10 3/4"
6B	1¼"	2½"	2½"	1¼"	1¼"	1¼"	2¾"	3"	2¾"	½"	1"	¼"	4"	5"	4"	¼"	1"	½"	1½"	1"	½"	21'-7 9/16"	17'-8¼"	17'-8¼"	18'-11⅜"	32'-10⅛"	25'-3 3/16"	33'-9¼"	25'-3 3/16"	32'-10⅛"	18'-11⅜"
7B	1¾"	2¾"	2¾"	1¼"	1¼"	1¼"	2½"	3"	2¾"	¼"	¾"	¼"	4"	5"	4"	¼"	1"	½"	1½"	1"	½"	21'-9 3/4"	17'-8 13/16"	17'-8 13/16"	19'-0"	32'-11 3/16"	25'-4"	33'-10 3/8"	25'-4"	32'-11 3/16"	18'-11 5/16"

Note:
See Sheet S-75 for all notes.

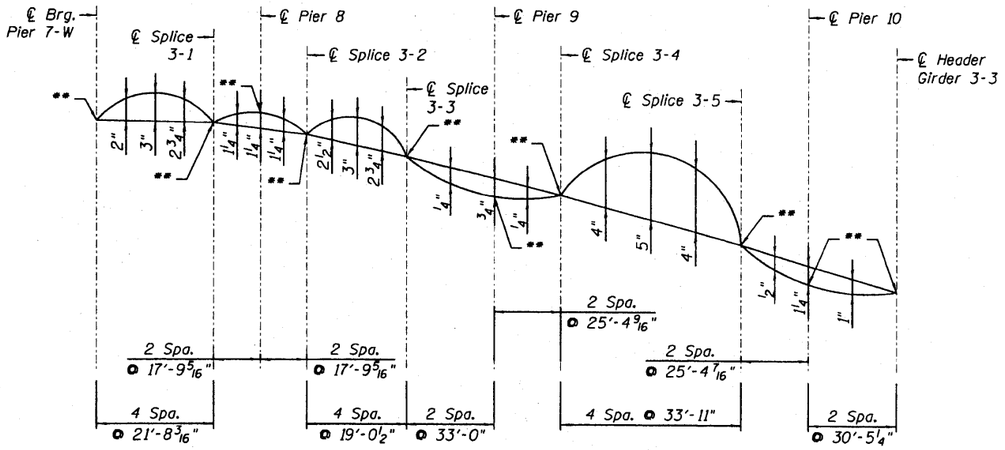
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER CAMBER & TOP OF WEB ELEVATIONS II
I-70W OVER I-55, CSX & KCS RAILROADS
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S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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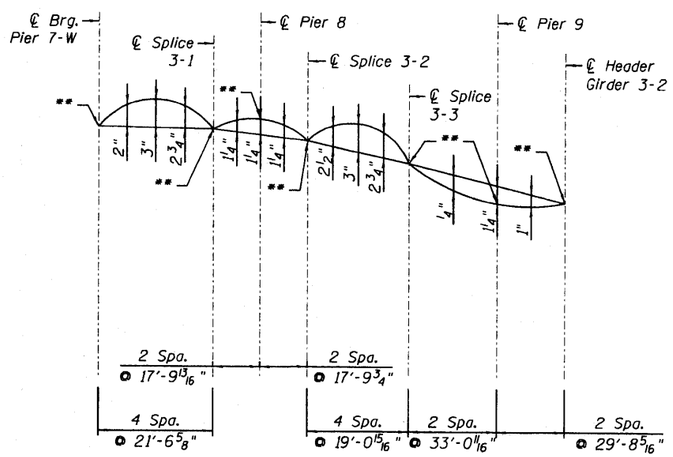


CAMBER DIAGRAM - S.N. 082-0325 - UNIT 3 (GIRDER 8B)

** See Table 1 for top of web elevations

TABLE 1 -TOP OF WEB ELEVATIONS * (in feet) - S.N. 082-0325 - UNIT 3 (GIRDER 8B)										
Girder	℄ Brg. Pier 7-W	℄ Splice 3-1	℄ Pier 8	℄ Splice 3-2	℄ Splice 3-3	℄ Pier 9	℄ Splice 3-4	℄ Splice 3-5	℄ Pier 10	℄ Header Girder 3-3
8B	466.31	466.19	465.92	465.45	464.27	462.84	461.84	458.66	457.26	455.79

* Top of web elevations are for fabrication only

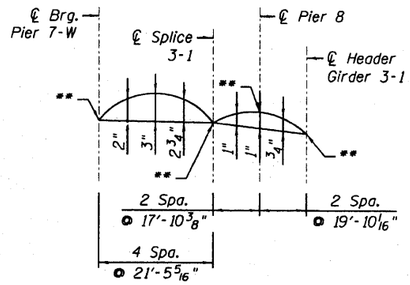


CAMBER DIAGRAM - S.N. 082-0325 - UNIT 3 (GIRDER 9B)

** See Table 2 for top of web elevations

TABLE 2 -TOP OF WEB ELEV * (in feet) - S.N. 082-0325 - UNIT 3 (GIRDER 9B)							
Girder	℄ Brg. Pier 7-W	℄ Splice 3-1	℄ Pier 8	℄ Splice 3-2	℄ Splice 3-3	℄ Pier 9	℄ Header Girder 3-2
9B	466.42	466.29	466.02	465.53	464.44	462.98	461.85

* Top of web elevations are for fabrication only

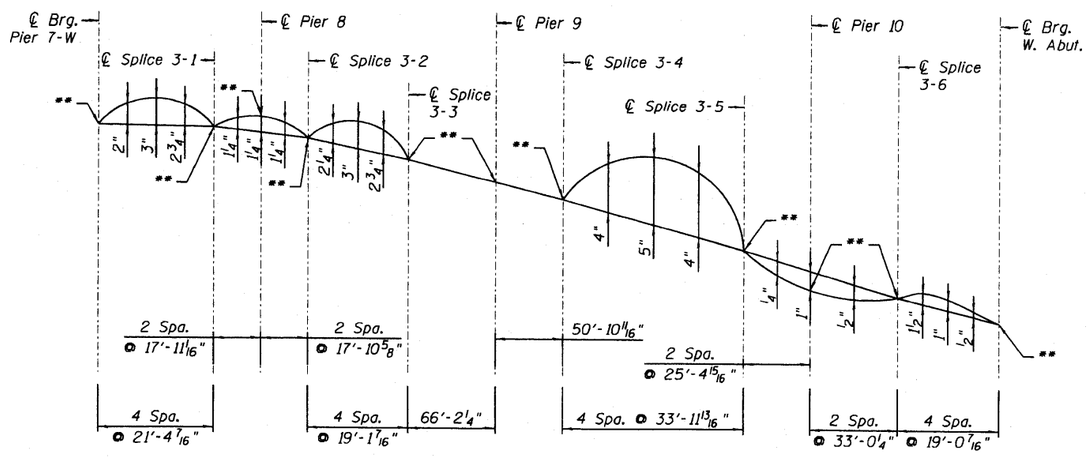


CAMBER DIAGRAM - S.N. 082-0325 - UNIT 3 (GIRDER 10B)

** See Table 3 for top of web elevations

TABLE 3 -TOP OF WEB ELEVATIONS * (in feet) S.N. 082-0325 - UNIT 3 (GIRDER 10B)				
Girder	℄ Brg. Pier 7-W	℄ Splice 3-1	℄ Pier 8	℄ Header Girder 3-1
10B	466.54	466.37	466.08	465.58

* Top of web elevations are for fabrication only



CAMBER DIAGRAM - S.N. 082-0325 - UNIT 3 (GIRDER 11B)

** See Table 4 for top of web elevations

TABLE 4 -TOP OF WEB ELEVATIONS * (in feet) - S.N. 082-0325 - UNIT 3 (GIRDER 11B)											
Girder	℄ Brg. Pier 7-W	℄ Splice 3-1	℄ Pier 8	℄ Splice 3-2	℄ Splice 3-3	℄ Pier 9	℄ Splice 3-4	℄ Splice 3-5	℄ Pier 10	℄ Splice 3-6	℄ Brg. W. Abut.
11B	466.66	466.43	466.12	465.61	464.55	463.09	462.05	458.82	457.39	455.72	454.09

* Top of web elevations are for fabrication only

Note:
See Sheet S-75 for all notes.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER CAMBER & TOP OF WEB ELEVATIONS III
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-77 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	192
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

INTERIOR GIRDER 5 MOMENT TABLE (S.N. 082-0323)

		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
I_s	(in^4)	76,491	136,939	76,491	163,840	76,491
$I_c(n)$	(in^4)	155,484	151,311	155,484	178,308	155,484
$I_c(3n)$	(in^4)	116,073	151,311	116,073	178,308	116,073
S_s	(in^3)	1,866	3,260	1,866	3,901	1,866
$S_c(n)$	(in^3)	2,442	3,393	2,442	4,025	2,442
$S_c(3n)$	(in^3)	2,216	3,393	2,216	4,025	2,216
S_{xl}	(in^3)	42.67	85.33	42.67	133.33	42.67
DC1	(k/')	1.07	1.21	1.07	1.27	1.07
M_{DC1}	('k)	814	3,573	1,659	4,537	1,352
DC2	(k/')	0.26	0.26	0.26	0.26	0.26
M_{DC2}	('k)	131	553	278	685	224
DW	(k/')	0.37	0.37	0.37	0.37	0.37
M_{DW}	('k)	267	1,067	551	1,319	443
M_{LL+IM}	('k)	1,894	2,750	2,271	3,017	2,262
M_u (Strength I)	('k)	4,896	11,571	7,222	13,786	6,593
M_{bl}	('k)	3.04	17.07	11.65	20.83	8.71
f_s DC1	(ksi)	5.24	13.15	10.67	13.96	8.70
f_s DC2	(ksi)	0.71	1.96	1.51	2.04	1.21
f_s DW	(ksi)	1.45	3.77	2.98	3.93	2.40
f_s 1.3(LL+IM)	(ksi)	12.10	12.65	14.51	11.69	14.45
f_l	(ksi)	0.86	2.40	3.28	1.87	2.45
f_s (Service II)	(ksi)	19.49	31.53	29.67	31.62	26.76
f_s (Total)(Strength I)	(ksi)	25.89	41.57	39.23	41.64	35.44
F_{cr} (Service II)	(ksi)	47.50	47.50	47.50	47.50	47.50
V_f	(k)	39.10	52.50	41.75	58.01	41.26
F_{cr}	(ksi)	50.00	50.00	50.00	50.00	50.00

EXTERIOR GIRDER 1A MOMENT TABLE (S.N. 082-0325 - Unit 1)

		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
I_s	(in^4)	76,491	136,939	76,491	163,840	89,613
$I_c(n)$	(in^4)	149,201	149,289	149,201	176,261	165,628
$I_c(3n)$	(in^4)	111,531	149,289	111,531	176,261	125,405
S_s	(in^3)	1,866	3,260	1,866	3,901	2,186
$S_c(n)$	(in^3)	2,411	3,375	2,411	4,008	2,725
$S_c(3n)$	(in^3)	2,183	3,375	2,183	4,008	2,492
S_{xl}	(in^3)	42.67	85.33	42.67	133.33	66.67
DC1	(k/')	1.00	1.14	1.00	1.20	1.03
M_{DC1}	('k)	590	2,137	967	4,188	2,168
DC2	(k/')	0.26	0.26	0.26	0.26	0.26
M_{DC2}	('k)	136	450	196	787	406
DW	(k/')	0.23	0.23	0.23	0.23	0.23
M_{DW}	('k)	162	566	291	1,091	635
M_{LL+IM}	('k)	1,625	2,694	2,339	3,288	2,966
M_u (Strength I)	('k)	3,994	8,797	5,984	13,609	9,361
M_{bl}	('k)	0.00	27.29	9.91	42.75	12.97
f_s DC1	(ksi)	3.79	7.87	6.22	12.88	11.90
f_s DC2	(ksi)	0.75	1.60	1.08	2.36	1.96
f_s DW	(ksi)	0.89	2.01	1.60	3.27	3.06
f_s 1.3(LL+IM)	(ksi)	10.51	12.45	15.13	12.80	16.98
f_l	(ksi)	0.00	3.84	2.79	3.85	2.33
f_s (Service II)	(ksi)	15.95	23.93	24.03	31.30	33.90
f_s (Total)(Strength I)	(ksi)	21.17	31.61	31.89	41.18	44.77
F_{cr} (Service II)	(ksi)	47.50	47.50	47.50	47.50	47.50
V_f	(k)	35.79	59.62	48.81	63.63	49.59
F_{cr}	(ksi)	50.00	50.00	50.00	50.00	50.00

EXTERIOR GIRDER 1A MOMENT TABLE (S.N. 082-0325 - Unit 2)

		0.4 Sp. 4	Pier 4	0.5 Sp. 5	Pier 5	0.6 Sp. 6	Pier 6	0.6 Sp. 7
I_s	(in^4)	76,491	163,840	76,491	163,840	76,491	136,939	76,491
$I_c(n)$	(in^4)	149,201	176,261	149,201	176,261	149,201	149,289	149,201
$I_c(3n)$	(in^4)	111,531	176,261	111,531	176,261	111,531	149,289	111,531
S_s	(in^3)	1,866	3,901	1,866	3,901	1,866	3,260	1,866
$S_c(n)$	(in^3)	2,411	4,008	2,411	4,008	2,411	3,375	2,411
$S_c(3n)$	(in^3)	2,183	4,008	2,183	4,008	2,183	3,375	2,183
S_{xl}	(in^3)	42.67	133.33	42.67	133.33	42.67	85.33	42.67
DC1	(k/')	1.00	1.20	1.00	1.20	1.00	1.14	1.00
M_{DC1}	('k)	1,201	4,347	1,659	4,743	1,274	3,257	1,091
DC2	(k/')	0.26	0.26	0.26	0.26	0.26	0.26	0.26
M_{DC2}	('k)	242	806	321	872	251	633	222
DW	(k/')	0.23	0.23	0.23	0.23	0.23	0.23	0.23
M_{DW}	('k)	360	1,130	512	1,251	398	866	319
M_{LL+IM}	('k)	2,763	3,593	2,844	3,926	2,612	3,125	2,237
M_u (Strength I)	('k)	7,179	14,424	8,220	15,766	7,074	11,630	6,035
M_{bl}	('k)	20.98	47.49	0.00	0.00	0.00	0.00	0.00
f_s DC1	(ksi)	7.72	13.37	10.67	14.59	8.19	11.99	7.02
f_s DC2	(ksi)	1.33	2.41	1.76	2.61	1.38	2.25	1.22
f_s DW	(ksi)	1.98	3.38	2.81	3.75	2.19	3.08	1.75
f_s 1.3(LL+IM)	(ksi)	17.88	13.99	18.40	15.28	16.90	14.44	14.47
f_l	(ksi)	5.90	4.27	0.00	0.00	0.00	0.00	0.00
f_s (Service II)	(ksi)	28.91	33.15	33.65	36.23	28.66	31.76	24.46
f_s (Total)(Strength I)	(ksi)	38.35	43.63	44.53	47.69	38.00	41.86	32.41
F_{cr} (Service II)	(ksi)	47.50	47.50	47.50	47.50	47.50	47.50	47.50
V_f	(k)	51.24	67.11	46.48	59.69	40.81	61.99	38.44
F_{cr}	(ksi)	50.00	50.00	50.00	50.00	50.00	50.00	50.00

EXTERIOR GIRDER 6 MOMENT TABLE (S.N. 082-0323)

		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
I_s	(in^4)	76,491	136,939	76,491	163,840	76,491
$I_c(n)$	(in^4)	153,181	150,537	153,181	177,524	153,181
$I_c(3n)$	(in^4)	114,367	150,537	114,367	177,524	114,367
S_s	(in^3)	1,866	3,260	1,866	3,901	1,866
$S_c(n)$	(in^3)	2,431	3,386	2,431	4,018	2,431
$S_c(3n)$	(in^3)	2,204	3,386	2,204	4,018	2,204
S_{xl}	(in^3)	42.67	85.33	42.67	133.33	42.67
DC1	(k/')	1.07	1.21	1.07	1.27	1.07
M_{DC1}	('k)	816	3,590	1,701	4,557	1,378
DC2	(k/')	0.26	0.26	0.26	0.26	0.26
M_{DC2}	('k)	172	657	304	796	259
DW	(k/')	0.27	0.27	0.27	0.27	0.27
M_{DW}	('k)	246	1,000	551	1,246	431
M_{LL+IM}	('k)	2,289	3,352	2,815	3,707	2,777
M_u (Strength I)	('k)	5,610	12,675	8,259	15,048	7,553
M_{bl}	('k)	3.51	18.62	13.37	22.66	10.16
f_s DC1	(ksi)	5.25	13.21	10.94	14.02	8.86
f_s DC2	(ksi)	0.94	2.33	1.66	2.38	1.41
f_s DW	(ksi)	1.34	3.54	3.00	3.72	2.35
f_s 1.3(LL+IM)	(ksi)	14.69	15.44	18.07	14.39	17.82
f_l	(ksi)	0.99	2.62	3.76	2.04	2.86
f_s (Service II)	(ksi)	22.22	34.53	33.66	34.51	30.44
f_s (Total)(Strength I)	(ksi)	29.52	45.53	44.57	45.45	40.35
F_{cr} (Service II)	(ksi)	47.50	47.50	47.50	47.50	47.50
V_f	(k)	45.02	64.00	53.78	68.71	52.42
F_{cr}	(ksi)	50.00	50.00	50.00	50.00	50.00

INTERIOR GIRDER 2A MOMENT TABLE (S.N. 082-0325 - Unit 1)

		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
I_s	(in^4)	76,491	136,939	76,491	163,840	89,613
$I_c(n)$	(in^4)	148,676	149,133	148,676	176,103	165,055
$I_c(3n)$	(in^4)	111,167	149,133	111,167	176,103	125,026
S_s	(in^3)	1,866	3,260	1,866	3,901	2,186
$S_c(n)$	(in^3)	2,408	3,374	2,408	4,007	2,722
$S_c(3n)$	(in^3)	2,181	3,374	2,181	4,007	2,489
S_{xl}	(in^3)	42.67	85.33	42.67	133.33	66.67
DC1	(k/')	0.96	1.10	0.96	1.16	0.99
M_{DC1}	('k)	589	2,122	942	4,120	2,019
DC2	(k/')	0.26	0.26	0.26	0.26	0.26
M_{DC2}	('k)	104	365	173	688	360
DW	(k/')	0.31	0.31	0.31	0.31	0.31
M_{DW}	('k)	177	600	290	1,116	596
M_{LL+IM}	('k)	1,390	2,195	1,838	2,676	2,302
M_u (Strength I)	('k)	3,564	7,850	5,045	12,367	7,896
M_{bl}	('k)	0.00	24.41	8.28	38.82	10.84
f_s DC1	(ksi)	3.79	7.81	6.06	12.67	11.08
f_s DC2	(ksi)	0.57	1.30	0.95	2.06	1.74
f_s DW	(ksi)	0.97	2.13	1.60	3.34	2.87
f_s 1.3(LL+IM)	(ksi)	9.00	10.15	11.90	10.42	13.19
f_l	(ksi)	0.00	3.43	2.33	3.49	1.95
f_s (Service II)	(ksi)	14.34	21.39	20.51	28.49	28.89
f_s (Total)(Strength I)	(ksi)	19.03	28.25	27.18	37.46	38.09
F_{cr} (Service II)	(ksi)	47.50	47.50	47.50	47.50	47.50
V_f	(k)	31.16	47.58	34.40	48.23	34.61
F_{cr}	(ksi)	50.00	50.00	50.00	50.00	50.00

INTERIOR GIRDER 2A MOMENT TABLE (S.N. 082-0325 - Unit 2)

		0.4 Sp. 4	Pier 4	0.5 Sp. 5	Pier 5	0.6 Sp. 6	Pier 6	0.6 Sp. 7
I_s	(in^4)	76,491	163,840	76,491	163,840	76,491	136,939	76,491
$I_c(n)$	(in^4)	148,676	176,103	148,676	176,103	148,676	149,133	148,676
$I_c(3n)$	(in^4)	111,167	176,103	111,167	176,103	111,167	149,133	111,167
S_s	(in^3)	1,866	3,901	1,866	3,901	1,866	3,260	1,866
$S_c(n)$	(in^3)	2,408	4,007	2,408	4,007	2,408	3,374	2,408
$S_c(3n)$	(in^3)	2,181	4,007	2,181	4,007	2,181	3,374	2,181
S_{xl}	(in^3)	42.67	133.33	42.67	133.33	42.67	85.33	42.67
DC1	(k/')	0.96	1.16	0.96	1.16	0.96	1.10	0.96
M_{DC1}	('k)	1,123	4,404	1,667	4,727	1,273	3,231	1,088
DC2	(k/')	0.26	0.26	0.26	0.26	0.26	0.26	0.26
M_{DC2}	('k)	205	730	314	783	238	548	196
DW	(k/')	0.31	0.31	0.31	0.31	0.31	0.31	0.31
M_{DW}	('k)	342	1,189	516	1,290	397	901	327
M_{LL+IM}	('k)	2,157	2,982	2,325	3,133	2,133	2,534	1,857
M_u (Strength I)	('k)	5,948	13,420	7,319	14,305	6,217	10,510	5,345
M_{bl}	('k)	17.04	44.12	0.00	0.00	0.00	0.00	0.00
f_s DC1	(ksi)	7.22	13.55	10.72	14.54	8.19	11.89	7.00
f_s DC2	(ksi)	1.13	2.19	1.73	2.34	1.31	1.95	1.08
f_s DW	(ksi)	1.88	3.56	2.84	3.86	2.18	3.20	1.80
f_s 1.3(LL+IM)	(ksi)	13.97	11.61	15.06	12.20	13.82	11.72	12.03
f_l	(ksi)	4.79	3.97	0.00	0.00	0.00	0.00	0.00
f_s (Service II)	(ksi)	24.20	30.90	30.35	32.95	25.50	28.76	21.90
f_s (Total)(Strength I)	(ksi)	32.07	40.64	40.09	43.32	33.75	37.88	28.99
F_{cr} (Service II)	(ksi)	47.50	47.50	47.50	47.50	47.50	47.50	47.50
V_f	(k)	37.05	49.64	35.60	51.02	47.06	53.16	32.16
F_{cr}	(ksi)	50.00	50.00	50.00	50.00	50.00	50.00	50.00

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AECOM

USER NAME = BhattA	DESIGNED - CLS	REVISED -	
	DRAWN - JHR	REVISED -	
PLOT SCALE = 0.2 '/ in.	CHECKED - CHY	REVISED -	
PLOT DATE = #DATE#	DATE - 03/18/2011	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

~~GIRDER MOMENT & REACTION TABLES~~ I
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-78 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	193
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EXTERIOR GIRDER 1B MOMENT TABLE (S.N. 082-0325 - Unit 3)

		0.4 Sp. 8	Pier 8	0.5 Sp. 9	Pier 9	0.5 Sp. 10	Pier 10	0.6 Sp. 11
I_s	(in^4)	76,491	136,939	76,491	190,741	94,947	190,741	76,491
$I_c(n)$	(in^4)	153,886	150,770	153,886	204,732	180,289	204,732	153,886
$I_c(3n)$	(in^4)	114,884	150,770	114,884	204,732	135,205	204,732	114,884
S_s	(in^3)	1,866	3,260	1,866	4,541	2,316	4,541	1,866
$S_c(n)$	(in^3)	2,434	3,388	2,434	4,654	2,962	4,654	2,434
$S_c(3n)$	(in^3)	2,208	3,388	2,208	4,654	2,683	4,654	2,208
S_{xl}	(in^3)	42.67	85.33	42.67	192.00	66.67	192.00	42.67
DC1	(k/')	1.07	1.22	1.07	1.33	1.14	1.33	1.07
M_{DC1}	('k)	1,001	2,167	609	5,684	2,589	5,649	575
DC2	(k/')	0.26	0.26	0.26	0.26	0.26	0.26	0.26
M_{DC2}	('k)	238	526	197	913	380	892	198
DW	(k/')	0.27	0.27	0.27	0.27	0.27	0.27	0.27
M_{DW}	('k)	289	578	188	1,495	780	1,478	176
M_{LL+IM}	('k)	2,070	2,885	2,464	4,207	3,240	4,203	2,496
M_u (Strength I)	('k)	5,605	9,282	5,602	17,851	10,551	17,749	5,598
M_{bl}	('k)	8.69	14.02	4.10	26.42	16.02	27.05	4.13
f_s DC1	(ksi)	6.44	7.98	3.92	15.02	13.42	14.93	3.70
f_s DC2	(ksi)	1.29	1.86	1.07	2.35	1.70	2.30	1.08
f_s DW	(ksi)	1.57	2.05	1.02	3.85	3.49	3.81	0.96
f_s 1.3(LL+IM)	(ksi)	13.27	13.28	15.79	14.10	17.06	14.09	16.00
f_f	(ksi)	2.44	1.97	1.15	1.65	2.88	1.69	1.16
f_s (Service II)	(ksi)	22.57	25.17	21.80	35.33	35.67	35.13	21.73
f_s (Total)(Strength I)	(ksi)	29.88	33.25	29.03	46.48	47.10	46.21	28.94
F_{cr} (Service II)	(ksi)	47.50	46.64*	47.50	47.50	47.50	47.50	47.50
V_f	(k)	63.52	93.22	65.19	96.94	81.82	118.37	64.47
F_{cr}	(ksi)	50.00	50.00	50.00	50.00	50.00	50.00	50.00

*Governed by web bend buckling (AASHTO Eq. 6.10.4.2.2-4).

INTERIOR GIRDER 7B MOMENT TABLE (S.N. 082-0325 - Unit 3)

		0.4 Sp. 8	Pier 8	0.5 Sp. 9	Pier 9	0.5 Sp. 10	Pier 10	0.6 Sp. 11
I_s	(in^4)	76,491	136,939	76,491	190,741	94,947	190,741	76,491
$I_c(n)$	(in^4)	156,703	151,173	153,445	203,874	174,252	202,238	153,501
$I_c(3n)$	(in^4)	116,996	151,173	114,560	203,874	131,295	202,238	114,601
S_s	(in^3)	1,866	3,260	1,866	4,541	2,316	4,541	1,866
$S_c(n)$	(in^3)	2,447	3,392	2,432	4,647	2,930	4,634	2,432
$S_c(3n)$	(in^3)	2,222	3,392	2,205	4,647	2,654	4,634	2,206
S_{xl}	(in^3)	42.67	85.33	42.67	192.00	66.67	192.00	42.67
DC1	(k/')	1.10	1.21	1.04	1.26	1.02	1.18	1.04
M_{DC1}	('k)	1,090	2,050	521	4,957	2,424	4,838	300
DC2	(k/')	0.00	0.00	0.00	0.00	0.00	0.00	0.26
M_{DC2}	('k)	0	0	0	353	249	498	88
DW	(k/')	0.38	0.36	0.35	0.33	0.31	0.29	0.35
M_{DW}	('k)	404	677	212	1,374	735	1,272	125
M_{LL+IM}	('k)	1,953	2,602	2,137	3,653	2,695	3,372	2,449
M_u (Strength I)	('k)	5,386	8,132	4,709	15,091	9,160	14,479	4,958
M_{bl}	('k)	8.35	13.44	3.64	23.55	14.32	22.93	4.13
f_s DC1	(ksi)	7.01	7.54	3.35	13.10	12.56	12.78	1.93
f_s DC2	(ksi)	0.00	0.00	0.00	0.91	1.13	1.29	0.48
f_s DW	(ksi)	2.18	2.40	1.15	3.55	3.32	3.29	0.68
f_s 1.3(LL+IM)	(ksi)	12.45	11.97	13.71	12.26	14.35	11.35	15.71
f_f	(ksi)	2.35	1.89	1.02	1.47	2.58	1.43	1.16
f_s (Service II)	(ksi)	21.64	21.91	18.21	29.82	31.36	28.72	18.80
f_s (Total)(Strength I)	(ksi)	28.79	29.13	24.37	39.34	41.41	37.81	25.18
F_{cr} (Service II)	(ksi)	47.50	46.61*	47.50	47.50	47.50	47.50	47.50
V_f	(k)	64.42	102.87	79.27	101.88	76.74	104.34	72.55
F_{cr}	(ksi)	50.00	50.00	50.00	50.00	50.00	50.00	50.00

*Governed by web bend buckling (AASHTO Eq. 6.10.4.2.2-4).

INTERIOR GIRDER 9B MOMENT TABLE (S.N. 082-0325 - Unit 3)

		0.4 Sp. 8	Pier 8	0.5 Sp. 9	Pier 9
I_s	(in^4)	76,491	136,939	76,491	190,741
$I_c(n)$	(in^4)	151,485	146,402	134,400	197,785
$I_c(3n)$	(in^4)	113,142	146,402	102,085	197,785
S_s	(in^3)	1,866	3,260	1,866	4,541
$S_c(n)$	(in^3)	2,423	3,349	2,332	4,600
$S_c(3n)$	(in^3)	2,195	3,349	2,111	4,600
S_{xl}	(in^3)	42.67	85.33	42.67	192.00
DC1	(k/')	1.00	0.98	0.76	0.95
M_{DC1}	('k)	1,059	1,776	421	4,450
DC2	(k/')	0.00	0.00	0.26	0.26
M_{DC2}	('k)	92	214	114	609
DW	(k/')	0.33	0.25	0.21	0.17
M_{DW}	('k)	359	470	119	1,010
M_{LL+IM}	('k)	1,761	2,169	1,836	2,007
M_u (Strength I)	('k)	5,059	6,988	4,060	11,351
M_{bl}	('k)	7.11	11.17	3.05	17.11
f_s DC1	(ksi)	6.81	6.54	2.71	11.76
f_s DC2	(ksi)	0.50	0.77	0.65	1.59
f_s DW	(ksi)	1.96	1.68	0.68	2.63
f_s 1.3(LL+IM)	(ksi)	11.34	10.10	12.28	6.81
f_f	(ksi)	2.00	1.57	0.86	1.07
f_s (Service II)	(ksi)	20.62	19.09	16.32	22.79
f_s (Total)(Strength I)	(ksi)	27.35	25.25	21.75	29.80
F_{cr} (Service II)	(ksi)	47.50	47.50	47.50	47.50
V_f	(k)	62.77	89.30	61.62	82.58
F_{cr}	(ksi)	50.00	50.00	50.00	50.00

INTERIOR GIRDER 2B MOMENT TABLE (S.N. 082-0325 - Unit 3)

		0.4 Sp. 8	Pier 8	0.5 Sp. 9	Pier 9	0.5 Sp. 10	Pier 10	0.6 Sp. 11
I_s	(in^4)	76,491	136,939	76,491	190,741	94,947	190,741	76,491
$I_c(n)$	(in^4)	157,661	152,079	157,661	206,073	184,898	206,073	157,661
$I_c(3n)$	(in^4)	117,732	152,079	117,732	206,073	138,347	206,073	117,732
S_s	(in^3)	1,866	3,260	1,866	4,541	2,316	4,541	1,866
$S_c(n)$	(in^3)	2,452	3,399	2,452	4,664	2,985	4,664	2,452
$S_c(3n)$	(in^3)	2,227	3,399	2,227	4,664	2,706	4,664	2,227
S_{xl}	(in^3)	42.67	85.33	42.67	192.00	66.67	192.00	42.67
DC1	(k/')	1.11	1.26	1.11	1.37	1.18	1.37	1.11
M_{DC1}	('k)	1,039	2,190	631	5,645	2,595	5,598	581
DC2	(k/')	0.26	0.26	0.26	0.26	0.26	0.26	0.26
M_{DC2}	('k)	164	335	121	664	311	650	116
DW	(k/')	0.39	0.39	0.39	0.39	0.39	0.39	0.39
M_{DW}	('k)	336	678	229	1,614	821	1,594	214
M_{LL+IM}	('k)	1,974	2,631	2,295	3,786	3,000	3,800	2,341
M_u (Strength I)	('k)	5,462	8,778	5,300	16,933	10,114	16,851	5,289
M_{bl}	('k)	8.56	13.63	3.95	25.55	15.52	26.17	3.88
f_s DC1	(ksi)	6.68	8.06	4.06	14.92	13.45	14.79	3.74
f_s DC2	(ksi)	0.88	1.18	0.65	1.71	1.38	1.67	0.62
f_s DW	(ksi)	1.81	2.39	1.23	4.15	3.64	4.10	1.15
f_s 1.3(LL+IM)	(ksi)	12.56	12.07	14.60	12.66	15.68	12.71	14.89
f_f	(ksi)	2.41	1.92	1.11	1.60	2.79	1.64	1.09
f_s (Service II)	(ksi)	21.94	23.71	20.55	33.44	34.14	33.27	20.41
f_s (Total)(Strength I)	(ksi)	29.08	31.40	27.39	44.05	45.10	43.84	27.23
F_{cr} (Service II)	(ksi)	47.50	46.55*	47.50	47.50	47.50	47.50	47.50
V_f	(k)	66.31	98.15	67.60	103.61	89.23	110.51	69.39
F_{cr}	(ksi)	50.00	50.00	50.00	50.00	50.00	50.00	50.00

*Governed by web bend buckling (AASHTO Eq. 6.10.4.2.2-4).

INTERIOR GIRDER 8B MOMENT TABLE (S.N. 082-0325 - Unit 3)

		0.4 Sp. 8	Pier 8	0.5 Sp. 9	Pier 9	0.5 Sp. 10	Pier 10
I_s	(in^4)	76,491	136,939	76,491	190,741	94,947	190,741
$I_c(n)$	(in^4)	154,984	149,569	144,804	199,934	164,284	198,477
$I_c(3n)$	(in^4)	115,698	149,569	108,552	199,934	125,300	198,477
S_s	(in^3)	1,866	3,260	1,866	4,541	2,316	4,541
$S_c(n)$	(in^3)	2,440	3,378	2,389	4,616	2,875	4,605
$S_c(3n)$	(in^3)	2,213	3,378	2,162	4,616	2,606	4,605
S_{xl}	(in^3)	42.67	85.33	42.67	192.00	66.67	192.00
DC1	(k/')	1.06	1.13	0.90	1.07	0.90	0.98
M_{DC1}	('k)	1,072	1,915	466	4,671	2,407	4,647
DC2	(k/')	0.00	0.00	0.00	0.00	0.26	0.26
M_{DC2}	('k)	38	85	50	491	281	598
DW	(k/')	0.36	0.32	0.28	0.23	0.25	0.19
M_{DW}	('k)	386	584	162	1,162	679	1,106
M_{LL+IM}	('k)	1,920	2,471	1,940	3,447	2,666	2,767
M_u (Strength I)	('k)	5,327	7,700	4,283	14,228	9,044	13,058
M_{bl}	('k)	8.52	12.57	3.30	21.91	14.08	20.38
f_s DC1	(ksi)	6.90	7.05	3.00	12.34	12.47	12.28
f_s DC2	(ksi)	0.21	0.30	0.28	1.28	1.29	1.56
f_s DW	(ksi)	2.09	2.07	0.90	3.02	3.13	2.88
f_s 1.3(LL+IM)	(ksi)	12.28	11.41	12.67	11.65	14.47	9.37
f_f	(ksi)	2.40	1.77	0.93	1.37	2.53	1.27
f_s (Service II)	(ksi)	21.47	20.84	16.84	28.29	31.36	26.09
f_s (Total)(Strength I)	(ksi)	28.54	27.66	22.50	37.23	41.37	34.24
F_{cr} (Service II)	(ksi)	47.50	47.50	47.50	47.50	47.50	47.50
V_f	(k)	64.02	96.99	62.44	91.60	73.47	94.95
F_{cr}	(ksi)	50.00	50.00	50.00	50.00	50.00	50.00

GDR. 10B MOMENT TABLE (S.N. 082-0325 - Unit 3)

		0.4 Sp. 8	Pier 8
I_s	(in^4)	76,491	136,939
$I_c(n)$	(in^4)	146,380	143,662
$I_c(3n)$	(in^4)	109,601	143,662
S_s	(in^3)	1,866	3,260
$S_c(n)$	(in^3)	2,397	3,324
$S_c(3n)$	(in^3)	2,169	3,324
S_{xl}	(in^3)	42.67	85.33
DC1	(k/')	0.92	0.82
M_{DC1}	('k)	1,044	1,685
DC2	(k/')	0.26	0.26
M_{DC2}	('k)	173	313
DW	(k/')	0.29	0.17
M_{DW}	('k)	327	384
M_{LL+IM}	('k)	1,694	1,314
M_u (Strength I)	('k)	4,976	5,373
M_{bl}	('k)	6.20	8.32
f_s DC1	(ksi)	6.72	6.20
f_s DC2	(ksi)	0.96	1.13
f_s DW	(ksi)	1.81	1.39
f_s 1.3(LL+IM)	(ksi)	11.03	6.17
f_f	(ksi)	1.74	1.17
f_s (Service II)	(ksi)	20.51	14.88
f_s (Total)(Strength I)	(ksi)	27.14	19.55
F_{cr} (Service II)	(ksi)	47.50	47.50
V_f	(k)	57.63	75.62
F_{cr}	(ksi)	50.00	50.00

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER MOMENT & REACTION TABLES II
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-79 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	194
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

INTERIOR GIRDER 5 REACTION TABLE (S.N. 082-0323)					
		E. Abut.	Pier 1	Pier 2	Pier 3-E
R_{DC1}	(k)	44.47	216.35	247.70	56.17
R_{DC2}	(k)	7.73	35.79	39.74	9.71
R_{DW}	(k)	14.27	65.33	72.62	18.03
R_{LL+IM}	(k)	81.13	178.18	180.60	86.30
R_{Total}	(k)	147.60	495.65	540.66	170.21

EXTERIOR GIRDER 6 REACTION TABLE (S.N. 082-0323)					
		E. Abut.	Pier 1	Pier 2	Pier 3-E
R_{DC1}	(k)	44.27	205.06	231.68	56.89
R_{DC2}	(k)	9.53	40.42	43.69	11.51
R_{DW}	(k)	12.33	54.91	60.76	16.46
R_{LL+IM}	(k)	81.17	174.42	178.46	91.44
R_{Total}	(k)	147.30	474.81	514.59	176.30

EXTERIOR GIRDER 1A REACTION TABLE (S.N. 082-0325 - Unit 1)					
		E. Abut.	Pier 1	Pier 2	Pier 3-E
R_{DC1}	(k)	35.83	147.55	200.48	70.28
R_{DC2}	(k)	8.43	32.89	40.50	14.36
R_{DW}	(k)	9.27	37.43	49.55	19.36
R_{LL+IM}	(k)	69.85	147.80	158.34	91.68
R_{Total}	(k)	123.38	365.67	448.87	195.68

INTERIOR GIRDER 2A REACTION TABLE (S.N. 082-0325 - Unit 1)					
		E. Abut.	Pier 1	Pier 2	Pier 3-E
R_{DC1}	(k)	35.04	161.19	233.60	65.34
R_{DC2}	(k)	6.71	29.97	41.16	11.95
R_{DW}	(k)	10.46	45.98	63.49	18.97
R_{LL+IM}	(k)	65.89	146.03	160.01	74.73
R_{Total}	(k)	118.10	383.17	498.26	170.99

EXTERIOR GIRDER 1A REACTION TABLE (S.N. 082-0325 - Unit 2)						
		Pier 3-W	Pier 4	Pier 5	Pier 6	Pier 7-E
R_{DC1}	(k)	51.94	197.81	236.58	197.09	47.57
R_{DC2}	(k)	11.35	39.93	46.79	41.05	10.46
R_{DW}	(k)	14.43	48.57	59.27	50.20	12.91
R_{LL+IM}	(k)	90.13	161.30	176.19	165.05	75.83
R_{Total}	(k)	167.85	447.61	518.83	453.39	146.77

INTERIOR GIRDER 2A REACTION TABLE (S.N. 082-0325 - Unit 2)						
		Pier 3-W	Pier 4	Pier 5	Pier 6	Pier 7-E
R_{DC1}	(k)	50.18	237.16	234.16	194.02	47.40
R_{DC2}	(k)	9.48	41.54	40.52	34.75	9.05
R_{DW}	(k)	14.94	64.26	63.98	54.60	14.17
R_{LL+IM}	(k)	75.57	164.62	156.64	148.25	72.31
R_{Total}	(k)	150.17	507.58	495.30	431.62	142.93

EXTERIOR GIRDER 1B REACTION TABLE (S.N. 082-0325 - Unit 3)						
		Pier 7-W	Pier 8	Pier 9	Pier 10	W. Abut.
R_{DC1}	(k)	47.05	173.10	292.24	292.23	41.52
R_{DC2}	(k)	11.29	40.66	51.59	51.02	10.56
R_{DW}	(k)	12.81	45.24	73.84	73.53	11.43
R_{LL+IM}	(k)	89.96	182.91	220.12	218.32	97.11
R_{Total}	(k)	161.11	441.91	637.79	635.10	160.62

INTERIOR GIRDER 2B REACTION TABLE (S.N. 082-0325 - Unit 3)						
		Pier 7-W	Pier 8	Pier 9	Pier 10	W. Abut.
R_{DC1}	(k)	49.30	170.28	272.02	271.65	42.49
R_{DC2}	(k)	8.30	27.70	35.59	35.21	7.41
R_{DW}	(k)	15.89	53.69	78.26	77.91	14.23
R_{LL+IM}	(k)	100.40	180.68	208.10	202.93	105.90
R_{Total}	(k)	173.89	432.35	593.97	587.70	170.03

INTERIOR GIRDER 7B REACTION TABLE (S.N. 082-0325 - Unit 3)						
		Pier 7-W	Pier 8	Pier 9	Pier 10	W. Abut.
R_{DC1}	(k)	13.99	163.23	244.70	244.96	34.48
R_{DC2}	(k)	0.00	0.00	12.36	21.86	7.46
R_{DW}	(k)	9.47	53.98	67.78	63.85	11.46
R_{LL+IM}	(k)	74.26	189.08	214.10	203.88	107.81
R_{Total}	(k)	97.72	406.29	538.94	534.55	161.21

INTERIOR GIRDER 8B REACTION TABLE (S.N. 082-0325 - Unit 3)					
		Pier 7-W	Pier 8	Pier 9	Pier 10
R_{DC1}	(k)	68.86	148.33	222.72	224.86
R_{DC2}	(k)	1.12	4.68	20.19	34.29
R_{DW}	(k)	21.49	45.99	54.33	51.81
R_{LL+IM}	(k)	123.09	178.61	198.91	157.34
R_{Total}	(k)	214.56	377.61	496.15	468.30

INTERIOR GIRDER 9B REACTION TABLE (S.N. 082-0325 - Unit 3)				
		Pier 7-W	Pier 8	Pier 9
R_{DC1}	(k)	44.42	140.26	215.75
R_{DC2}	(k)	2.83	13.33	35.05
R_{DW}	(k)	15.29	38.19	46.90
R_{LL+IM}	(k)	97.05	167.12	139.15
R_{Total}	(k)	159.59	358.90	436.85

GDR. 10B REACT. TABLE (S.N. 082-0325 - Unit 3)			
		Pier 7-W	Pier 8
R_{DC1}	(k)	50.07	122.18
R_{DC2}	(k)	8.24	25.74
R_{DW}	(k)	15.77	28.14
R_{LL+IM}	(k)	97.71	112.03
R_{Total}	(k)	171.79	288.09

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

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

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

S_{xt}: Section modulus about the major axis of section to the controlling flange, tension or compression, taken as yield moment with respect to the controlling flange over the yield strength of the controlling flange (in.^{3}).

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

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

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

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

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

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact)(kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$

M_{bf}: Factored lateral bending moment for controlling flange plate (kip-ft.).

f_f: Factored calculated normal stress at edge of flange for controlling flange plate due to lateral bending (kip-ft.).

f_s (Service II): Sum of stresses as computed from the moments below (ksi).
$M_{DC1} + M_{DC2} + M_{DW} + 1.3\ M_{L+IM}$

f_s (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$

F_{cr} (Service II): Critical flange stress at Service II computed according to Article 6.10.4.2 (ksi).

F_{cr}: Critical flange stress computed according to Article 6.10.7 or 6.10.8 (ksi).

Vr: Maximum factored shear range computed according to Article 6.10.10.

Note:
M_{L+IM} and R_{L+IM} include the effects of centrifugal force and superelevation.

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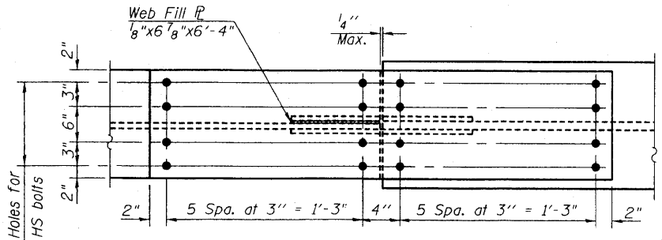
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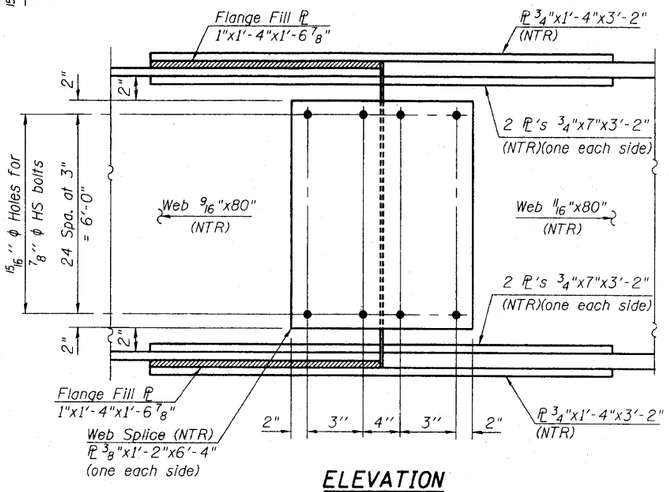
GIRDER MOMENT & REACTION TABLES III
I-70W OVER I-55, CSX & KCS RAILROADS

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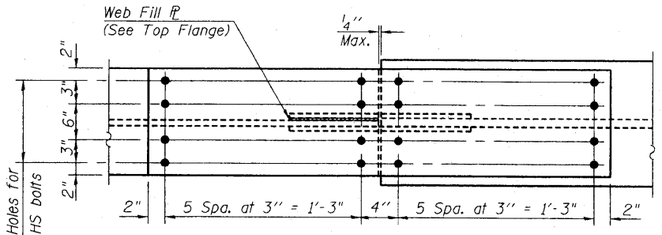
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S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TOP FLANGE



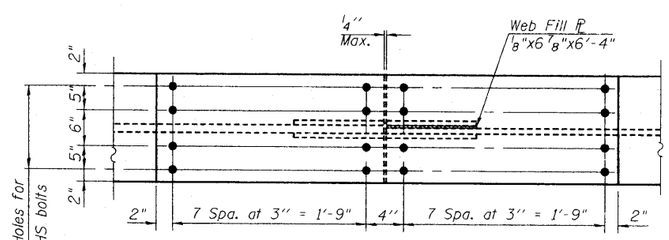
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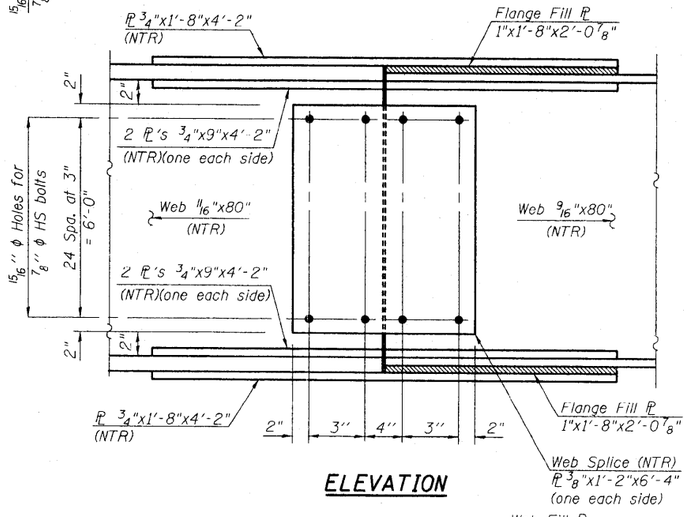
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SPLICES 1-1 THRU 1-3, 2-1 THRU 2-6, 3-1 THRU 3-3, 3-6, & 4-1 THRU 4-4

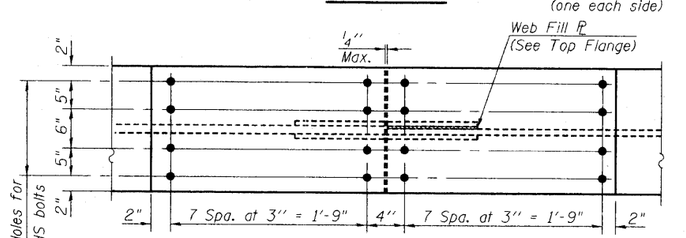
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TOP FLANGE



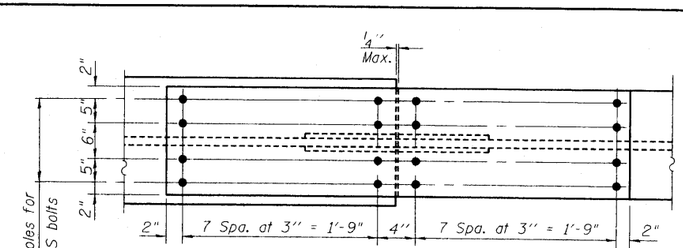
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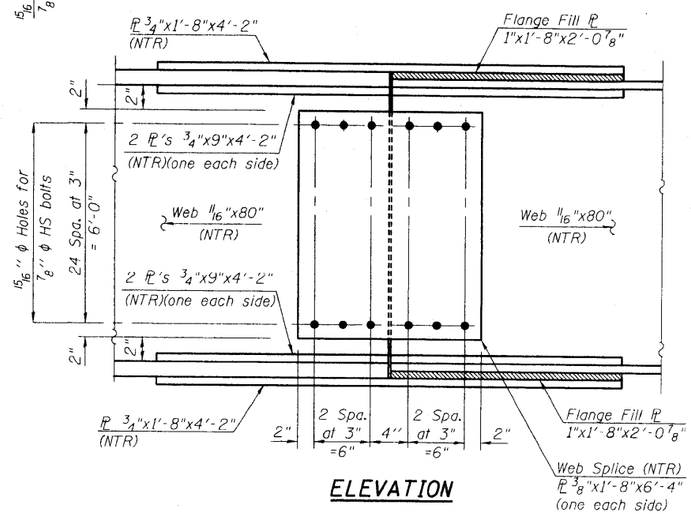
BOTTOM FLANGE

SPLICE 1-4

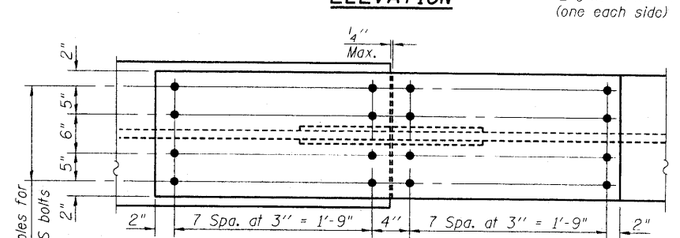
(6 Required)



TOP FLANGE



ELEVATION



BOTTOM FLANGE

SPLICES 3-4 & 3-5

(18 Required)

Notes:

1. *See Sheets S-64 thru S-68 for location of bolted field splices.*
2. *AASHTO M270 Grade 50 steel shall be used for all splice plates, except fill plates which may be AASHTO M270 Grade 36 or 50.*
3. *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).*
4. *Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 7/8 in. φ, holes 15/16 in. φ, unless otherwise noted. Design assumes threads in shear plane and Class A slip surface.*
5. *Shear connector studs shall not be placed on top of splice plates.*
6. *The Contractor is alerted that differences in web thickness across the splice create a slight misalignment of the webs that may need to be accounted for when detailing cross frames in shop drawings in order to properly control geometry and avoid any fit-up issues. It is recommended that the web fill plates always be detailed and installed on the same side of the web at rows of adjacent splices in order to minimize girder spacing differences at these locations.*

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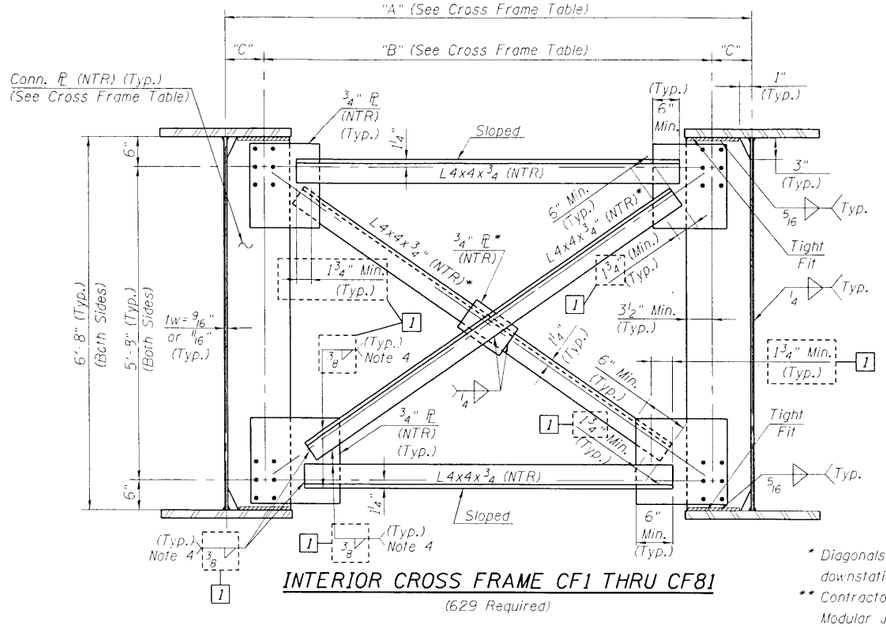
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER BOLTED FIELD SPLICE DETAILS
I-70W OVER I-55, CSX & KCS RAILROADS

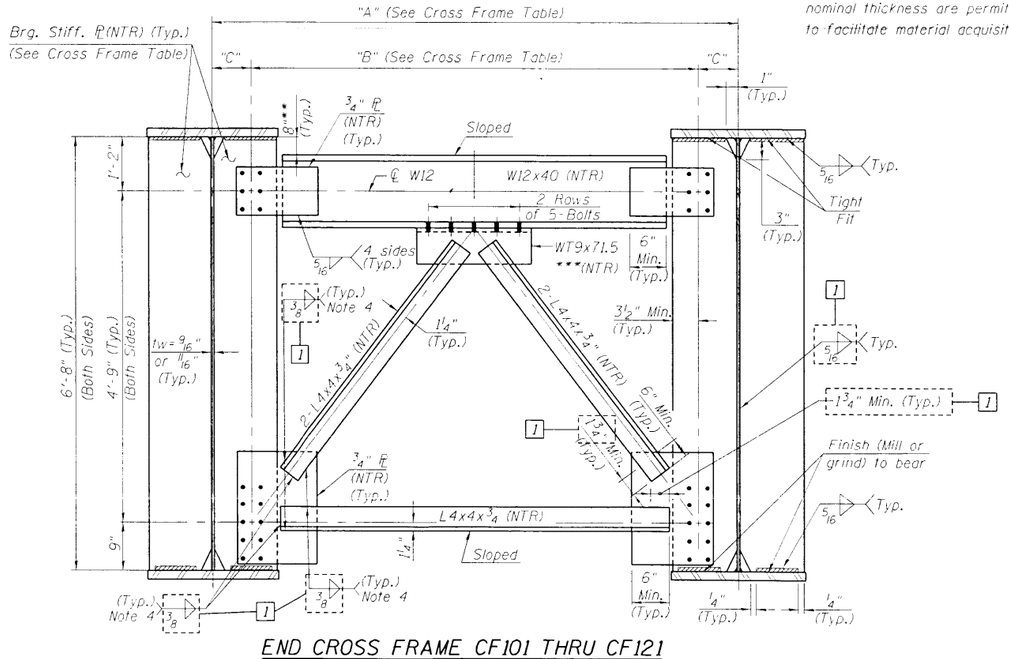
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S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



INTERIOR CROSS FRAME CF1 THRU CF81

(629 Required)



END CROSS FRAME CF101 THRU CF121

(109 Required)

* Diagonals omitted for the C.F.'s downstation of Header Girders.

** Contractor to coordinate with Modular Joint Manufacturer.

*** Alternate WT shapes utilizing 3/4" nominal thickness are permitted to facilitate material acquisition.

CROSS FRAME TABLE

Name	Quantity	"A"	"B"	"C"	Connection or Brg. Plate
CF1	90	7'-4"	6'-7 1/2"	4 1/4"	3/4" x 7 1/2"
CF2	20	7'-4"	6'-3 1/2"	6 1/4"	3/4" x 9 1/2"
CF3	175	6'-2"	5'-5 1/2"	4 1/4"	3/4" x 7 1/2"
CF4	90	6'-2"	5'-1 1/2"	6 1/4"	3/4" x 9 1/2"
CF5	78	7'-9"	7'-0 1/2"	4 1/4"	3/4" x 7 1/2"
CF6	42	7'-9"	6'-8 1/2"	6 1/4"	3/4" x 9 1/2"
CF7	60	7'-9"	6'-4 1/2"	8 1/4"	3/4" x 11 1/2"
CF8	1	7'-7 1/16"	6'-10 9/16"	4 1/4"	3/4" x 7 1/2"
CF9	1	7'-5 1/4"	6'-8 3/4"	4 1/4"	3/4" x 7 1/2"
CF10	1	7'-3 7/16"	6'-6 15/16"	4 1/4"	3/4" x 7 1/2"
CF11	1	7'-1 5/8"	6'-5 1/8"	4 1/4"	3/4" x 7 1/2"
CF12	1	6'-11 13/16"	6'-3 5/16"	4 1/4"	3/4" x 7 1/2"
CF13	1	6'-8 1/4"	5'-11 3/4"	4 1/4"	3/4" x 7 1/2"
CF14	1	6'-6 1/2"	5'-10"	4 1/4"	3/4" x 7 1/2"
CF15	1	6'-4 3/4"	5'-8 1/4"	4 1/4"	3/4" x 7 1/2"
CF16	1	6'-3"	5'-6 1/2"	4 1/4"	3/4" x 7 1/2"
CF17	1	6'-1 1/4"	5'-4 3/4"	4 1/4"	3/4" x 7 1/2"
CF18	1	5'-11 1/2"	5'-3"	4 1/4"	3/4" x 7 1/2"
CF19	1	5'-9 3/4"	5'-1 1/4"	4 1/4"	3/4" x 7 1/2"
CF20	1	5'-8"	4'-11 1/2"	4 1/4"	3/4" x 7 1/2"
CF21	1	5'-4 1/2"	4'-8"	4 1/4"	3/4" x 7 1/2"
CF22	1	5'-2 3/4"	4'-6 1/4"	4 1/4"	3/4" x 7 1/2"
CF23	1	5'-1"	4'-4 1/2"	4 1/4"	3/4" x 7 1/2"
CF24	1	4'-11 1/4"	4'-2 3/4"	4 1/4"	3/4" x 7 1/2"
CF25	1	4'-9 1/2"	4'-1"	4 1/4"	3/4" x 7 1/2"
CF26	1	4'-7 13/16"	3'-11 5/16"	4 1/4"	3/4" x 7 1/2"
CF27	1	4'-6 1/16"	3'-9 9/16"	4 1/4"	3/4" x 7 1/2"
CF28	1	4'-4 5/16"	3'-7 13/16"	4 1/4"	3/4" x 7 1/2"
CF29	1	4'-2 9/16"	3'-6 1/16"	4 1/4"	3/4" x 7 1/2"
CF30	1	4'-0 7/8"	3'-4 3/8"	4 1/4"	3/4" x 7 1/2"
CF31	1	3'-11 1/8"	3'-2 5/8"	4 1/4"	3/4" x 7 1/2"
CF32	1	3'-7 5/8"	2'-11 1/8"	4 1/4"	3/4" x 7 1/2"
CF33 *	1	3'-5 7/8"	2'-9 3/8"	4 1/4"	3/4" x 7 1/2"
CF34	1	6'-3 3/16"	5'-6 11/16"	4 1/4"	3/4" x 7 1/2"
CF35	1	5'-11 1/8"	5'-2 5/8"	4 1/4"	3/4" x 7 1/2"
CF36	1	5'-7 1/8"	4'-10 5/8"	4 1/4"	3/4" x 7 1/2"
CF37	1	7'-5 3/4"	6'-9 1/4"	4 1/4"	3/4" x 7 1/2"
CF38	1	7'-2 1/2"	6'-6"	4 1/4"	3/4" x 7 1/2"
CF39	1	6'-11 5/16"	6'-2 13/16"	4 1/4"	3/4" x 7 1/2"
CF40	1	6'-8 1/8"	5'-11 5/8"	4 1/4"	3/4" x 7 1/2"
CF41	1	6'-4 15/16"	5'-8 7/16"	4 1/4"	3/4" x 7 1/2"
CF42	1	5'-10 5/8"	5'-2 1/8"	4 1/4"	3/4" x 7 1/2"
CF43	1	5'-7 9/16"	4'-11 1/16"	4 1/4"	3/4" x 7 1/2"
CF44	1	5'-4 1/2"	4'-8"	4 1/4"	3/4" x 7 1/2"
CF45	1	5'-1 3/8"	4'-4 7/8"	4 1/4"	3/4" x 7 1/2"
CF46	1	4'-10 5/16"	4'-1 13/16"	4 1/4"	3/4" x 7 1/2"
CF47	1	4'-7 1/4"	3'-10 3/4"	4 1/4"	3/4" x 7 1/2"
CF48	1	4'-4 1/8"	3'-7 5/8"	4 1/4"	3/4" x 7 1/2"
CF49	1	4'-1 1/16"	3'-4 9/16"	4 1/4"	3/4" x 7 1/2"
CF50	1	3'-6 15/16"	2'-10 7/16"	4 1/4"	3/4" x 7 1/2"
CF51 *	1	3'-3 7/8"	2'-7 3/8"	4 1/4"	3/4" x 7 1/2"

CROSS FRAME TABLE (CONT.)

Name	Quantity	"A"	"B"	"C"	Connection or Brg. Plate
CF52	1	5'-10 3/16"	5'-1 11/16"	4 1/4"	3/4" x 7 1/2"
CF53	1	5'-7"	4'-10 1/2"	4 1/4"	3/4" x 7 1/2"
CF54	1	5'-3 7/8"	4'-7 3/8"	4 1/4"	3/4" x 7 1/2"
CF55	1	5'-0 7/8"	4'-4 3/8"	4 1/4"	3/4" x 7 1/2"
CF56	1	4'-9 15/16"	4'-1 7/16"	4 1/4"	3/4" x 7 1/2"
CF57	1	4'-7"	3'-10 1/2"	4 1/4"	3/4" x 7 1/2"
CF58	1	4'-4 1/4"	3'-7 3/4"	4 1/4"	3/4" x 7 1/2"
CF59	1	4'-1 1/2"	3'-5"	4 1/4"	3/4" x 7 1/2"
CF60	1	3'-8 1/4"	2'-11 3/4"	4 1/4"	3/4" x 7 1/2"
CF61 *	1	3'-5 11/16"	2'-9 3/16"	4 1/4"	3/4" x 7 1/2"
CF62	1	7'-1 1/16"	6'-4 9/16"	4 1/4"	3/4" x 7 1/2"
CF63	1	6'-5"	5'-8 1/2"	4 1/4"	3/4" x 7 1/2"
CF64	1	5'-8 15/16"	5'-0 7/16"	4 1/4"	3/4" x 7 1/2"
CF65	1	5'-0 7/8"	4'-4 3/8"	4 1/4"	3/4" x 7 1/2"
CF66	1	4'-4 13/16"	3'-8 5/16"	4 1/4"	3/4" x 7 1/2"
CF67 *	1	3'-0 15/16"	2'-4 7/16"	4 1/4"	3/4" x 7 1/2"
CF68	1	4'-2 3/8"	3'-5 7/8"	4 1/4"	3/4" x 7 1/2"
CF69	1	3'-7 7/16"	2'-10 15/16"	4 1/4"	3/4" x 7 1/2"
CF70	1	3'-4 3/16"	2'-7 11/16"	4 1/4"	3/4" x 7 1/2"
CF71	1	3'-3 7/16"	2'-6 15/16"	4 1/4"	3/4" x 7 1/2"
CF72	1	3'-2 13/16"	2'-6 5/16"	4 1/4"	3/4" x 7 1/2"
CF73	1	3'-2 1/4"	2'-5 3/4"	4 1/4"	3/4" x 7 1/2"
CF74	1	3'-1 5/16"	2'-4 13/16"	4 1/4"	3/4" x 7 1/2"
CF75 *	1	3'-0 15/16"	2'-4 7/16"	4 1/4"	3/4" x 7 1/2"
CF76	1	6'-11 3/16"	6'-2 11/16"	4 1/4"	3/4" x 7 1/2"
CF77	1	5'-10 1/4"	5'-1 3/4"	4 1/4"	3/4" x 7 1/2"
CF78	1	4'-11 1/16"	4'-2 9/16"	4 1/4"	3/4" x 7 1/2"
CF79	1	4'-1 11/16"	3'-5 3/16"	4 1/4"	3/4" x 7 1/2"
CF80	1	3'-6 1/16"	2'-9 9/16"	4 1/4"	3/4" x 7 1/2"
CF81 *	1	2'-8 3/16"	1'-11 11/16"	4 1/4"	3/4" x 7 1/2"
CF101	15	7'-4"	6'-7 1/2"	4 1/4"	1" x 7 1/2"
CF102	5	7'-4"	6'-3 1/2"	6 1/4"	1" x 9 1/2"
CF103	25	6'-2"	5'-5 1/2"	4 1/4"	1" x 7 1/2"
CF104	20	6'-2"	5'-1 1/2"	6 1/4"	1" x 9 1/2"
CF105	17	7'-9"	7'-0 1/2"	4 1/4"	1" x 7 1/2"
CF106	1	7'-9 3/16"	7'-0 11/16"	4 1/4"	1" x 7 1/2"
CF107	12	7'-9"	6'-4 1/2"	8 1/4"	1" x 11 1/2"
CF108	1	7'-9 5/16"	7'-0 13/16"	4 1/4"	1" x 7 1/2"
CF109	1	7'-9 1/8"	7'-0 5/8"	4 1/4"	1" x 7 1/2"
CF110	1	7'-8 11/16"	7'-0 3/16"	4 1/4"	1" x 7 1/2"
CF111	1	7'-11 15/16"	7'-3 7/16"	4 1/4"	1" x 7 1/2"
CF112	1	6'-10"	6'-1 1/2"	4 1/4"	1" x 7 1/2"
CF113	1	6'-1 3/4"	5'-5 1/4"	4 1/4"	1" x 7 1/2"
CF114	1	3'-8 3/4"	3'-0 1/4"	4 1/4"	1" x 7 1/2"
CF115	1	3'-0 3/16"	2'-3 11/16"	4 1/4"	1" x 7 1/2"
CF116	1	5'-6 1/4"	4'-9 3/4"	4 1/4"	1" x 7 1/2"
CF117	1	3'-10"	3'-1 1/2"	4 1/4"	1" x 7 1/2"
CF118	1	3'-1 3/4"	2'-5 1/4"	4 1/4"	1" x 7 1/2"
CF119	1	3'-9 3/8"	3'-0 7/8"	4 1/4"	1" x 7 1/2"
CF120	1	3'-10 7/8"	3'-2 3/8"	4 1/4"	1" x 7 1/2"
CF121	1	5'-3 1/4"	4'-6 3/4"	4 1/4"	1" x 7 1/2"

*Diagonals omitted for cross frames downstation of header girders.

Cross Frame Notes:

1. See Sheets S-64 thru S-68 for location of girder cross frames.
2. AASHTO M270 Grade 50 steel shall be used for all cross frames, connection plates, and bearing stiffeners, unless otherwise noted.
3. Intermediate transverse stiffeners shall use the same size clips & fillet welds as connection plates. Likewise, jacking stiffeners shall use the same size clips & fillet welds as the bearing stiffeners.
4. Fillet welds to L4x4x5/8 angles are balanced such that forces pass through the centroid of the angle to acheive a Fatigue Category F. If changes to size or length are required, welds must be balanced.
5. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness (Zone 2).
6. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 7/8 in. Φ, holes 15/16 in. Φ, unless otherwise noted. Bolt spacing shall be 3" min. & edge distances shall be 2" min.
7. Field reaming shall not exceed that permitted in Article 505.08(1) of the Standard Specifications. If any field reaming is required, two hardened washers are required for each oversized bolt hole.
8. The Contractor is alerted that differences in web thickness across the splice create a slight misalignment of the webs that may need to be accounted for when detailing cross frames in shop drawings in order to properly control geometry and avoid any fit-up issues.

Steel Erection Notes:

1. Erection shall be accomplished by a steel erection contractor or sub-contractor certified as an Advanced Certified Steel Erector (ACSE) by the American Institute of Steel Construction (AISC). See special provision for "Erection of Complex Steel Structures".
2. All cross frames between girders shall be installed with erection pins and bolts in accordance with erection plan submitted to and approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.
3. The calculated deflections of the primary girders under steel self-weight shall be used to detail the cross frame connections, and to erect the structural steel such that girders will be plumb within a tolerance of ±1/8 in. per vertical foot throughout the length of the girder system when supporting their own weight.
4. The Contractor shall either:
   a. Ream cross frame connection holes during shop assembly, or
   b. Provide detailing and fabrication controls acceptable to the Engineer which ensures accuracy such that field reaming will not exceed the amount permitted in Article 505.08(1) of the Standard Specifications.

AECOM

USER NAME = Bhatia	DESIGNED - CLS	REVISED - 1 11-15-2011 ATB	
	DRAWN - JHR	REVISED -	
PLOT SCALE = 0.2 '/ in.	CHECKED - CHY	REVISED -	
PLOT DATE = 8/24/11	DATE 05-17-2011	REVISED -	

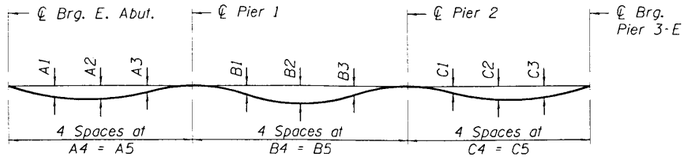
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER CROSS FRAME DETAILS
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-82 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	197
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

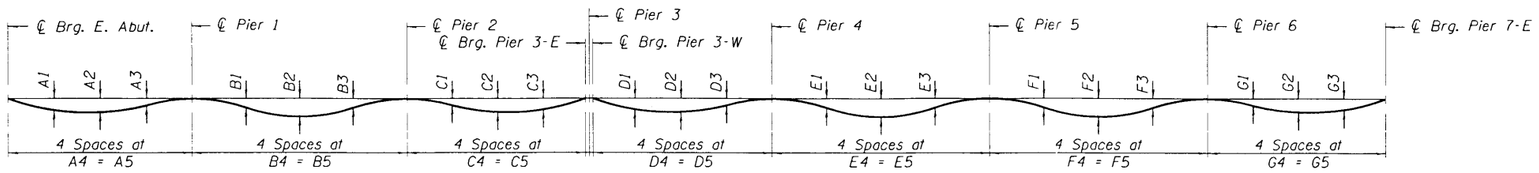
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S.N. 082-0323 - DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of structural steel only.)

Girder No.	DEAD LOAD DEFLECTIONS - STEEL SELF WEIGHT ONLY (S.N. 082-0323)														
	Span 1					Span 2					Span 3				
	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5
1	3/16"	1/8"	0"	32'-5 1/4"	129'-9"	9/16"	7/8"	1/2"	49'-10 1/4"	199'-5"	1/8"	7/16"	3/8"	38'-0 1/8"	152'-0 5/8"
2	3/16"	1/8"	0"	32'-5 15/16"	129'-11 5/8"	9/16"	15/16"	1/2"	49'-11 13/16"	199'-11 3/16"	1/8"	7/16"	3/8"	38'-1 5/16"	152'-5 3/8"
3	3/16"	1/8"	0"	32'-6 9/16"	130'-2 5/16"	9/16"	15/16"	1/2"	50'-1 5/16"	200'-5 5/16"	1/8"	7/16"	7/16"	38'-2 1/2"	152'-10 1/8"
4	3/16"	1/8"	0"	32'-7 1/4"	130'-5"	9/16"	1"	1/2"	50'-2 7/8"	200'-11 1/2"	1/8"	7/16"	7/16"	38'-3 11/16"	153'-2 7/8"
5	1/8"	1/8"	0"	32'-7 15/16"	130'-7 5/8"	5/8"	1"	9/16"	50'-4 7/16"	201'-5 11/16"	1/8"	7/16"	7/16"	38'-4 7/8"	153'-7 5/8"
6	1/8"	1/8"	0"	32'-8 9/16"	130'-10 5/16"	5/8"	1"	9/16"	50'-5 15/16"	201'-11 13/16"	1/8"	7/16"	7/16"	38'-6 1/16"	154'-0 3/8"

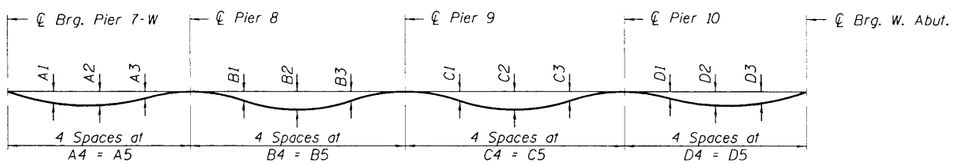


S.N. 082-0325 - UNITS 1 & 2 DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of structural steel only.)

Girder No.	DEAD LOAD DEFLECTIONS - STEEL SELF WEIGHT ONLY (S.N. 082-0325 - UNIT 1)														
	Span 1					Span 2					Span 3				
	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5
1A	1/16"	1/8"	0"	27'-7 1/16"	110'-4 1/4"	5/16"	7/16"	3/16"	44'-5 5/8"	177'-10 7/16"	1/2"	1"	7/8"	42'-4"	169'-4"
2A	1/8"	1/8"	0"	27'-6 3/4"	110'-3 1/16"	1/4"	7/16"	3/16"	44'-3 1/8"	177'-0 7/16"	7/16"	15/16"	13/16"	42'-1 5/8"	168'-6 3/8"
3A	1/8"	1/8"	0"	27'-6 1/2"	110'-1 7/8"	1/4"	7/16"	3/16"	44'-0 5/8"	176'-2 3/8"	7/16"	7/8"	3/4"	41'-11 3/16"	167'-8 3/4"
4A	1/8"	1/8"	0"	27'-6 3/16"	110'-0 11/16"	1/4"	7/16"	3/16"	43'-10 1/16"	175'-4 3/8"	3/8"	13/16"	11/16"	41'-8 13/16"	166'-11 1/8"
5A	1/8"	1/8"	1/16"	27'-5 7/8"	109'-11 9/16"	1/4"	7/16"	3/16"	43'-7 9/16"	174'-6 5/16"	5/16"	3/4"	5/8"	41'-6 3/8"	166'-1 1/2"
6A	1/8"	1/8"	1/16"	27'-5 9/16"	109'-10 3/8"	1/4"	7/16"	3/16"	43'-5 1/16"	173'-8 5/16"	5/16"	11/16"	9/16"	41'-3 15/16"	165'-3 7/8"

Girder No.	DEAD LOAD DEFLECTIONS - STEEL SELF WEIGHT ONLY (S.N. 082-0325 - UNIT 2)																			
	Span 4					Span 5					Span 6					Span 7				
	D1	D2	D3	D4	D5	E1	E2	E3	E4	E5	F1	F2	F3	F4	F5	G1	G2	G3	G4	G5
1A	3/8"	7/16"	1/8"	38'-3 1/4"	153'-1 1/16"	3/4"	1 5/16"	3/4"	55'-8 1/16"	222'-8 5/16"	5/16"	3/4"	7/16"	51'-3"	205'-0"	1/8"	5/16"	5/16"	35'-5 3/4"	141'-11"
2A	3/8"	3/8"	1/8"	38'-1 1/16"	152'-4 3/8"	3/4"	1 5/16"	3/4"	55'-7 5/16"	222'-5 1/8"	5/16"	3/4"	7/16"	51'-3"	205'-0"	1/8"	5/16"	5/16"	35'-5 3/4"	141'-11"
3A	5/16"	5/16"	1/16"	37'-10 15/16"	151'-7 5/8"	3/4"	1 3/8"	3/4"	55'-6 1/2"	222'-1 15/16"	5/16"	3/4"	7/16"	51'-3"	205'-0"	1/8"	5/16"	5/16"	35'-5 3/4"	141'-11"
4A	5/16"	5/16"	1/16"	37'-8 3/4"	150'-10 15/16"	13/16"	1 3/8"	3/4"	55'-5 11/16"	221'-10 3/4"	5/16"	3/4"	7/16"	51'-3"	205'-0"	1/8"	5/16"	5/16"	35'-5 3/4"	141'-11"
5A	5/16"	1/4"	1/16"	37'-6 9/16"	150'-2 3/16"	13/16"	1 3/8"	3/4"	55'-4 7/8"	221'-7 9/16"	5/16"	11/16"	7/16"	51'-3"	205'-0"	1/8"	5/16"	5/16"	35'-5 3/4"	141'-11"
6A	1/4"	1/4"	1/16"	37'-4 3/8"	149'-5 1/2"	13/16"	1 3/8"	3/4"	55'-4 1/8"	221'-4 3/8"	5/16"	11/16"	7/16"	51'-3"	205'-0"	1/8"	5/16"	5/16"	35'-5 3/4"	141'-11"



S.N. 082-0325 - UNIT 3
DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of structural steel only.)

Girder No.	DEAD LOAD DEFLECTIONS - STEEL SELF WEIGHT ONLY (S.N. 082-0325 - UNIT 3)																			
	Span 8					Span 9					Span 10					Span 11				
	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5	D1	D2	D3	D4	D5
1B	3/16"	1/4"	1/8"	30'-0 3/4"	120'-2 7/8"	1/16"	1/16"	-1/16"	43'-7 7/16"	174'-5 13/16"	1 3/16"	2"	1 3/16"	58'-2 15/16"	232'-11 11/16"	-1/8"	0"	1/16"	34'-10 3/4"	139'-6 7/8"
2B	3/16"	1/4"	1/8"	30'-1 11/16"	120'-6 7/8"	1/16"	1/16"	-1/16"	43'-8 7/8"	174'-11 1/2"	1 3/16"	2 1/16"	1 1/4"	58'-4 13/16"	233'-7 5/16"	-1/8"	0"	1/16"	34'-11 7/8"	139'-11 7/16"
3B	3/16"	1/4"	1/8"	30'-2 11/16"	120'-10 7/8"	1/16"	1/16"	-1/8"	43'-10 5/16"	175'-5 3/16"	1 1/4"	2 1/8"	1 1/4"	58'-6 3/4"	234'-2 15/16"	-1/8"	-1/16"	1/16"	35'-1"	140'-4"
4B	1/4"	1/4"	1/8"	30'-3 11/16"	121'-2 13/16"	1/16"	1/8"	-1/8"	43'-11 3/4"	175'-10 15/16"	1 1/4"	2 1/8"	1 5/16"	58'-8 5/8"	234'-10 9/16"	-3/16"	-1/16"	1/16"	35'-2 1/8"	140'-8 5/8"
5B	1/4"	1/4"	1/8"	30'-4 11/16"	121'-6 13/16"	1/16"	1/8"	-1/8"	44'-1 3/16"	176'-4 5/8"	1 1/4"	2 3/16"	1 5/16"	58'-10 9/16"	235'-6 3/16"	-3/16"	-1/16"	1/16"	35'-3 5/16"	141'-1 3/16"
6B	1/4"	1/4"	1/8"	30'-5 11/16"	121'-10 13/16"	1/16"	1/8"	-1/16"	44'-2 9/16"	176'-10 5/16"	1 1/4"	2 3/16"	1 3/8"	59'-0 7/16"	236'-1 13/16"	-3/16"	-1/8"	0"	35'-4 7/16"	141'-5 3/4"
7B	1/4"	1/4"	1/8"	30'-8 3/16"	122'-8 3/4"	1/16"	1/8"	-1/16"	44'-4"	177'-4 1/16"	1 1/4"	2 3/16"	1 3/8"	59'-2 3/8"	236'-9 7/16"	-3/16"	-1/8"	0"	35'-5 9/16"	141'-10 5/16"
8B	1/4"	1/4"	1/8"	30'-6 7/8"	122'-3 7/16"	1/16"	1/8"	-1/16"	44'-5 3/16"	177'-8 5/8"	1 1/4"	2 1/4"	1 3/8"	59'-3 1/2"	237'-2 1/16"	Defl. @ Header = -3/16"			---	60'-10 1/2"
9B	1/4"	1/4"	1/8"	30'-5 9/16"	121'-10 1/4"	1/16"	1/8"	-1/8"	44'-6 3/16"	178'-0 11/16"	Defl. @ Header = 1 5/16"			---	59'-4 5/8"	---	---	---	---	---
10B	1/4"	1/4"	1/8"	30'-4 1/2"	121'-5 15/16"	Defl. @ Header = 1/16"			---	39'-8 1/8"	---	---	---	---	---	---	---	---	---	---
11B	3/16"	1/4"	1/8"	30'-3 15/16"	121'-3 3/4"	1/16"	1/16"	-1/8"	44'-7 5/16"	178'-5 3/8"	1 1/4"	2 1/4"	1 3/8"	59'-4 15/16"	237'-7 7/8"	-1/4"	-3/16"	-1/16"	35'-6 9/16"	142'-2 5/16"

Added Sheet 3

Notes

The calculated deflections of the primary girders under steel self-weight shall be used to detail the cross frame connections, and to erect the structural steel such that girders will be plumb within a tolerance of 1/8 in. per vertical foot throughout the length of the girder system when supporting their own weight.

Negative values of deflection indicates upward deflection.

AECOM

USER NAME = Bhatch
PLOT SCALE = 0.02 '/ in.
PLOT DATE = 8/24/11

DESIGNED - CLS
DRAWN - ATB
CHECKED - ATB
DATE - 05-17-2011

REVISED - 3 03-06-2012 A.T.B.
REVISED -
REVISED -
REVISED -

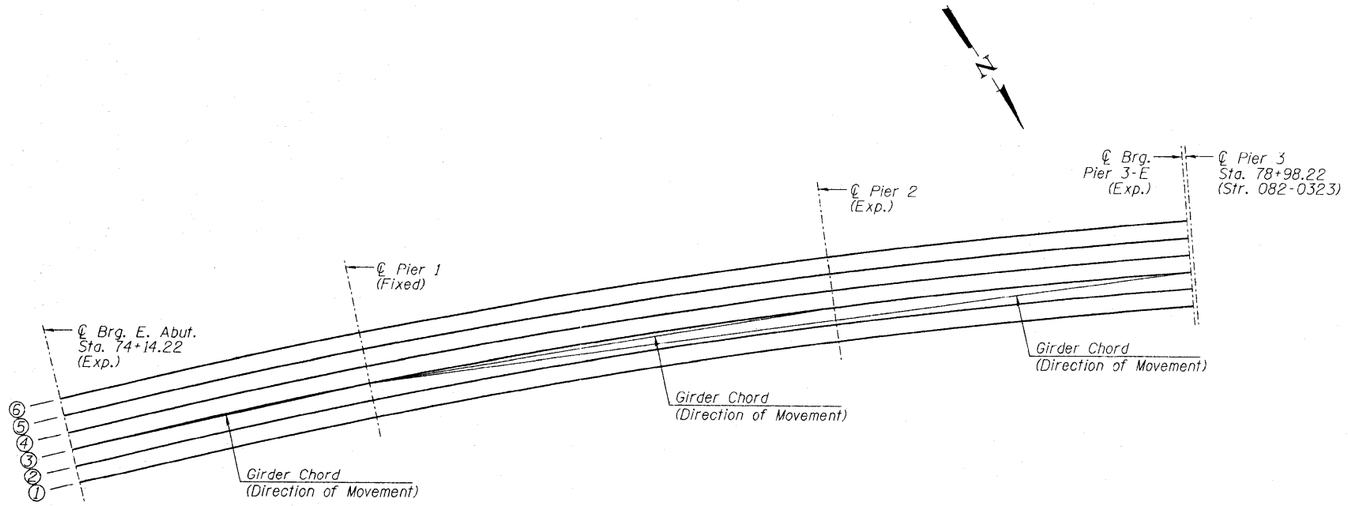
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER CROSS FRAME DETAILS I
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. 5-82A OF 5-138 SHEETS ISTA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	197A
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

d:\civil\Modules\2d_CIVIL Drawings\76c08 Master Consolidated\Structural\082-0323\Sheets\X2012 03 26 Revised 50dpA 0323 0325_76C75_SteelDLDefl.dgn



BEARING LAYOUT - S.N. 082-0323

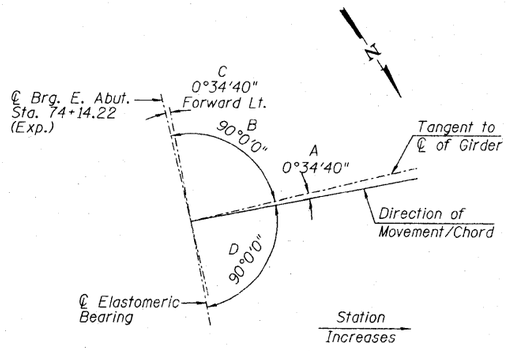
Notes:

A = Angle between Tangent to Girder and Direction of Movement.

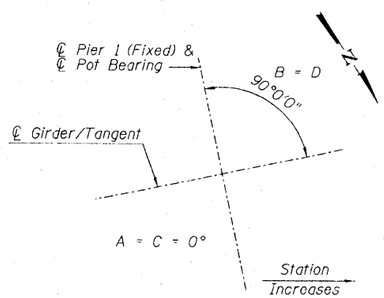
B = Angle between Tangent to Girder and ℄ of Pier or Abutment.

C = Setting angle between ℄ of Bearing Base Plate and ℄ of Pier or Abutment.

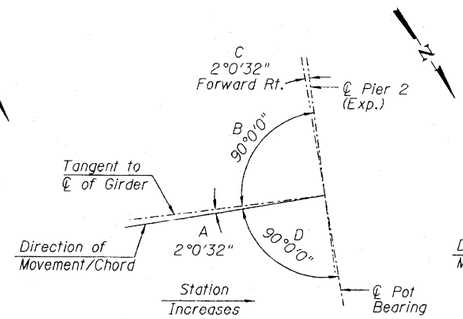
D = Set Bearing Base Plates at right angles to the Direction of Movement/Chord.



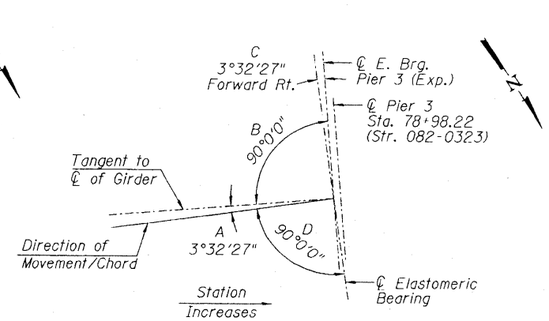
E. ABUT.



PIER 1



PIER 2



PIER 3

BEARING ORIENTATION - S.N. 082-0323

AECOM	USER NAME = BhattA	DESIGNED - LLV	REVISED -
		DRAWN - BRD	REVISED -
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	PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -

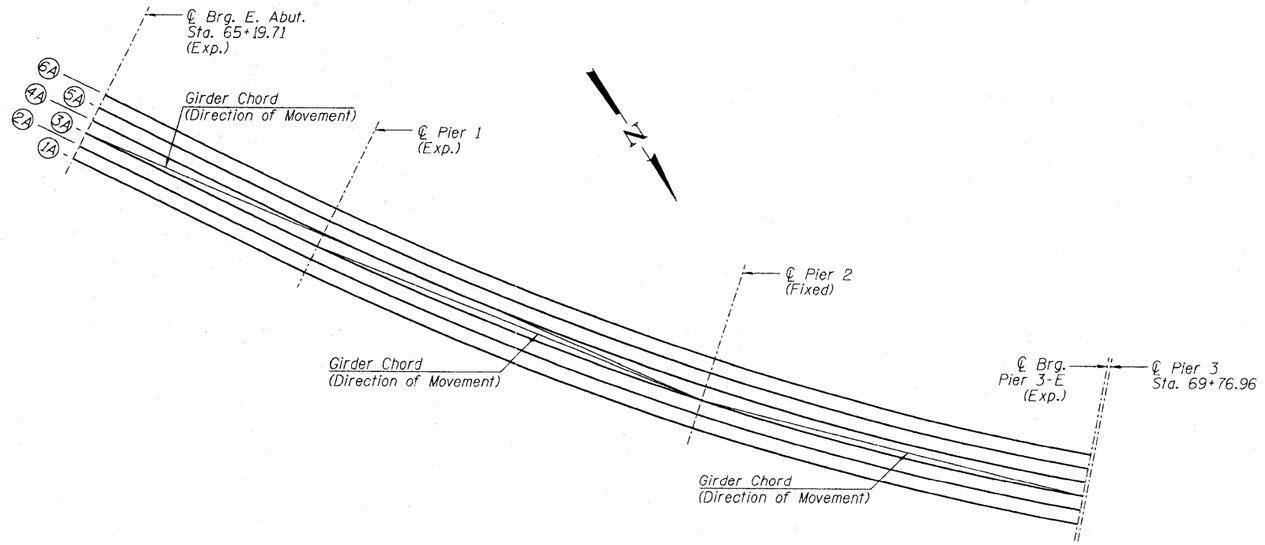
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING LAYOUT & ORIENTATION – S.N. 082–0323
I–70W OVER I–55, CSX & KCS RAILROADS

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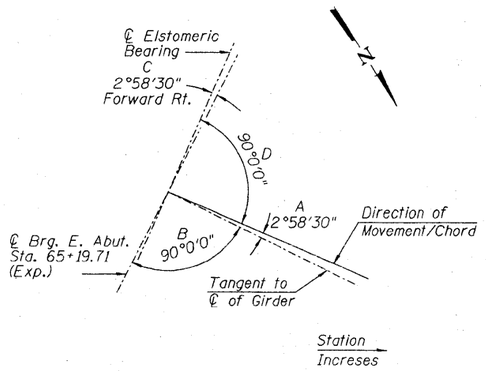
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO	82-1-B-1	ST. CLAIR	319	198
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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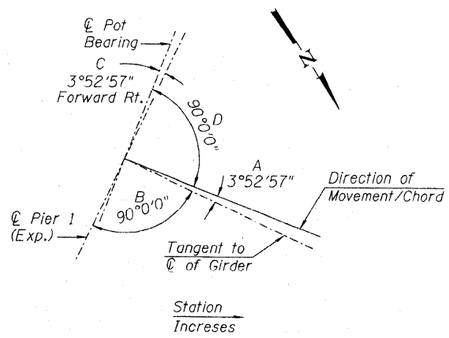


BEARING LAYOUT - S.N. 082-0325 - UNIT 1

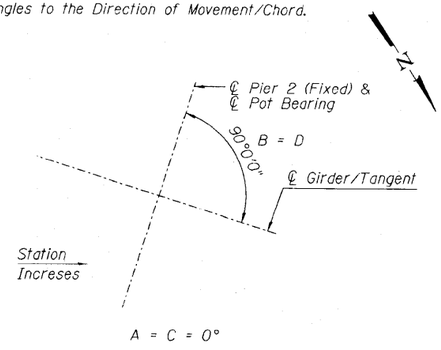
Notes:
A = Angle between Tangent to Girder and Direction of Movement.
B = Angle between Tangent to Girder and ℄ of Pier or Abutment.
C = Setting angle between ℄ of Bearing Base Plate and ℄ of Pier or Abutment.
D = Set Bearing Base Plates at right angles to the Direction of Movement/Chord.



E. ABUT.

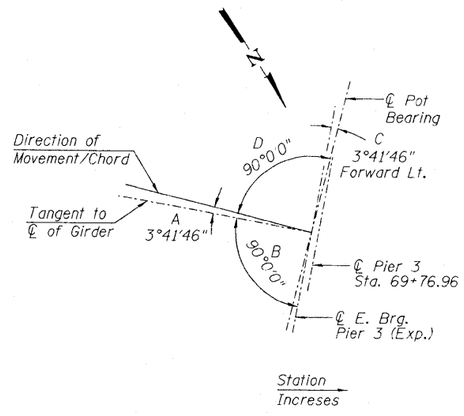


PIER 1



A = C = 0°

PIER 2



PIER 3

BEARING ORIENTATION - S.N. 082-0325 - UNIT 1

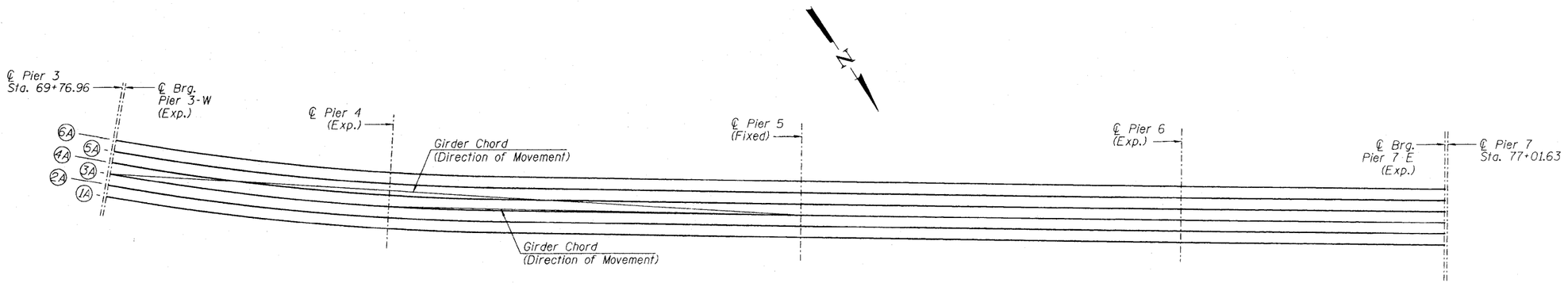
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		DRAWN - BRD	REVISED -	
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	PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -	

BEARING LAYOUT & ORIENTATION – S.N. 082–0325 UNIT 1
I–70W OVER I–55, CSX & KCS RAILROADS

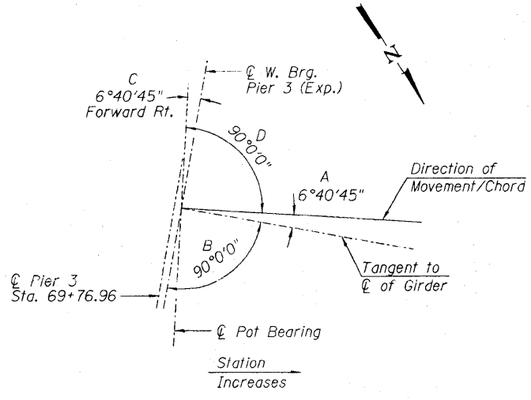
SCALE: NONE | SHEET NO. S-84 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	199
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

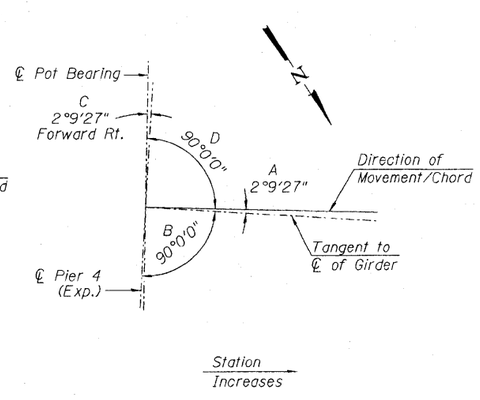


BEARING LAYOUT - S.N. 082-0325 - UNIT 2

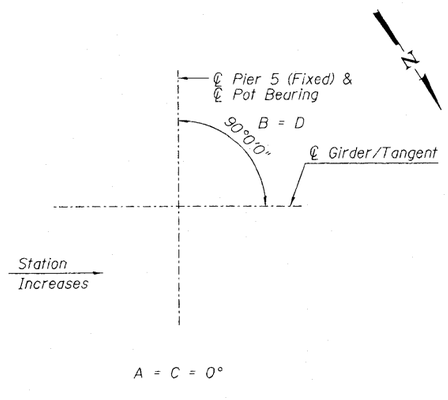
Notes:
A = Angle between Tangent to Girder and Direction of Movement.
B = Angle between Tangent to Girder and ℄ of Pier or Abutment.
C = Setting angle between ℄ of Bearing Base Plate and ℄ of Pier or Abutment.
D = Set Bearing Base Plates at right angles to the Direction of Movement/Chord.



PIER 3

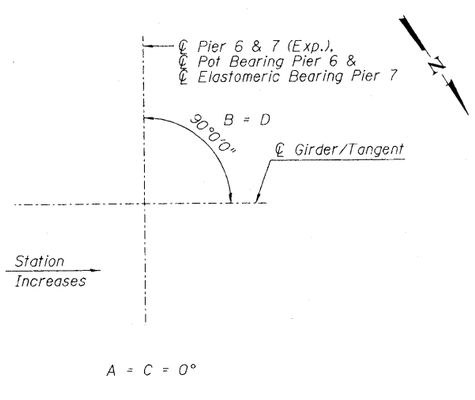


PIER 4



A = C = 0°

PIER 5



A = C = 0°

PIER 6 & PIER 7

BEARING ORIENTATION - S.N. 082-0325 - UNIT 2

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AECOM

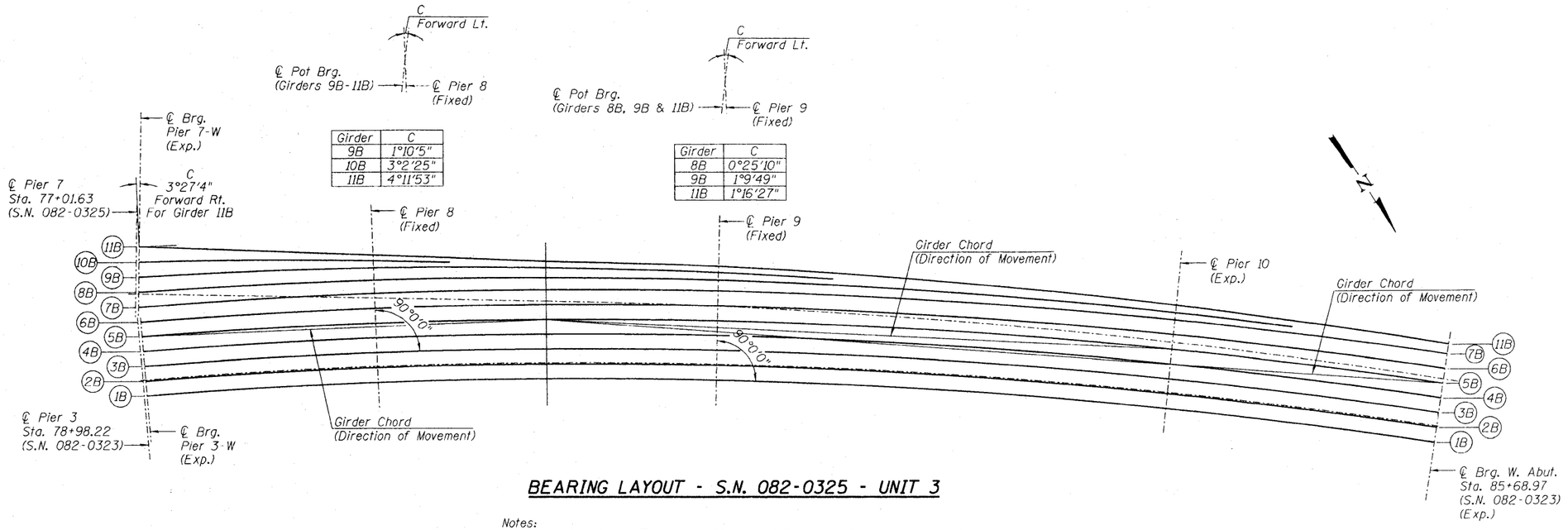
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	DRAWN - BRD	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED -	REVISED -	
PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING LAYOUT & ORIENTATION – S.N. 082–0325 UNIT 2
I–70W OVER I–55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-85 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	200
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

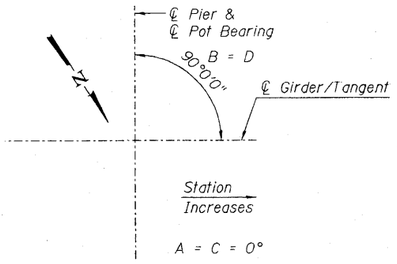


Girder	C
9B	1°10'5"
10B	3°2'25"
11B	4°11'53"

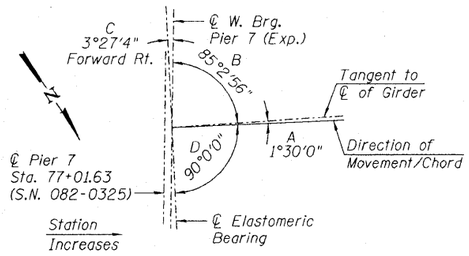
Girder	C
8B	0°25'10"
9B	1°9'49"
11B	1°16'27"

BEARING LAYOUT - S.N. 082-0325 - UNIT 3

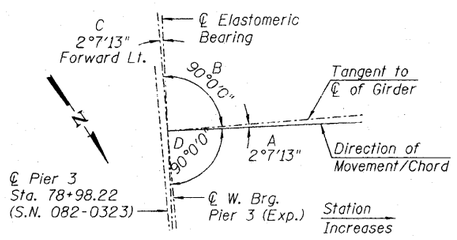
Notes:
A = Angle between Tangent to Girder and Direction of Movement.
B = Angle between Tangent to Girder and ℄ of Pier or Abutment.
C = Setting angle between ℄ of Bearing Base Plate and ℄ of Pier or Abutment.
D = Set Bearing Base Plates at right angles to the Direction of Movement/Chord.



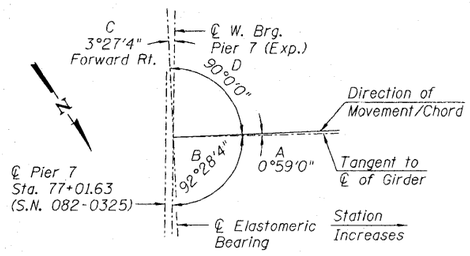
PIER 8, GIRDERS 1B-8B
PIER 9, GIRDERS 1B-7B



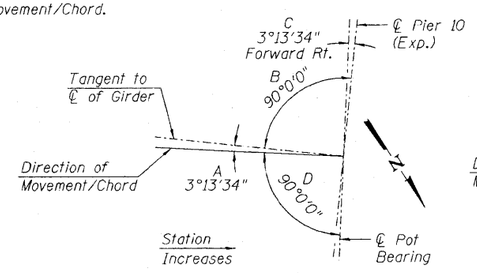
PIER 7 (S.N. 082-0325)
GIRDERS 7B-9B



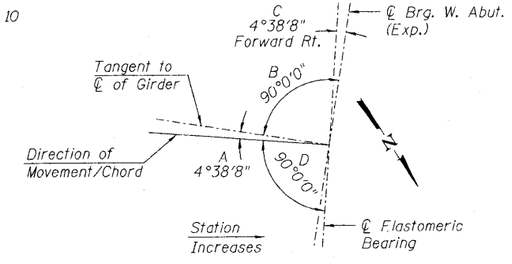
PIER 3 (S.N. 082-0323)
GIRDERS 1B-6B



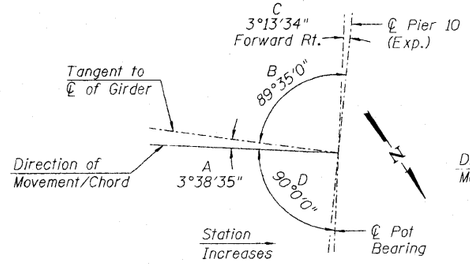
PIER 7 (S.N. 082-0325)
GIRDER 10B



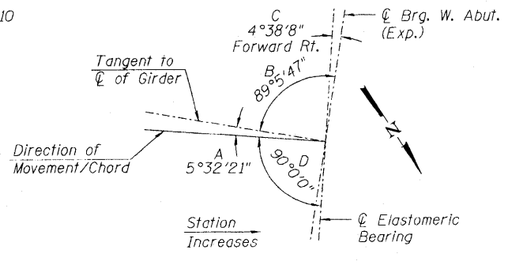
PIER 10
GIRDERS 1B-7B



W. ABUT.
GIRDERS 1B-7B



PIER 10
GIRDERS 8B & 11B



W. ABUT.
GIRDER 11B

BEARING ORIENTATION - S.N. 082-0325 - UNIT 3

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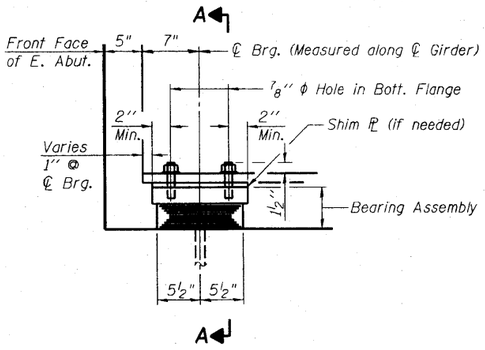
AECOM	USER NAME = BhattA	DESIGNED - LLV	REVISED -
		DRAWN - BRD	REVISED -
	PLOT SCALE = 0.1667 ' / in.	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

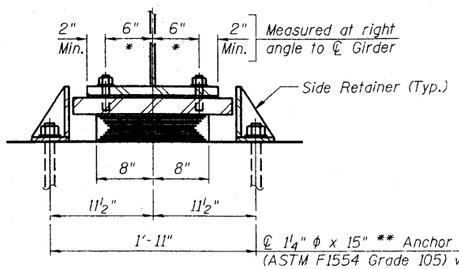
BEARING LAYOUT & ORIENTATION – S.N. 082-0325 UNIT 3
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-86 OF S-138 SHEETS | STA. | TO STA.

F.A.T. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO	82-1-B-1	ST. CLAIR	319	201
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

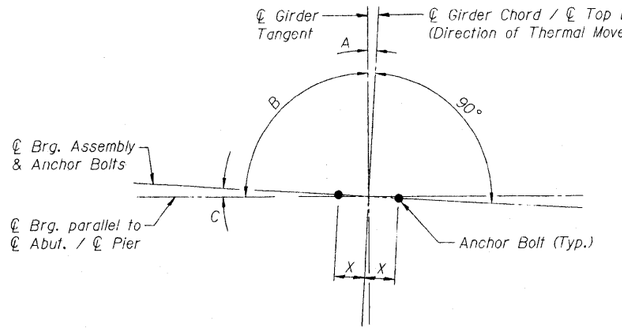


ELEVATION AT E. ABUT. (S.N. 082-0323)



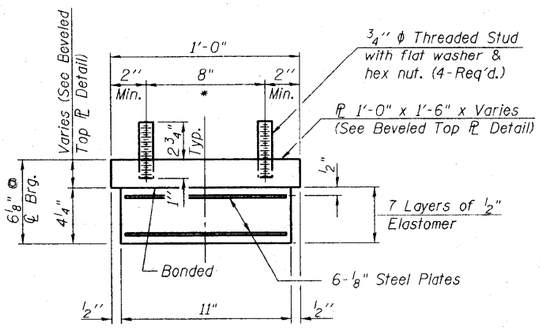
SECTION A-A

**Length shown is minimum required embedment length.

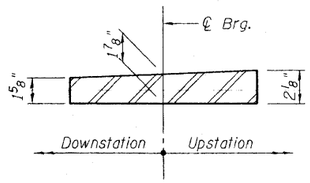


ANCHOR BOLT LAYOUT

TYPE I ELASTOMERIC EXP. BRG.

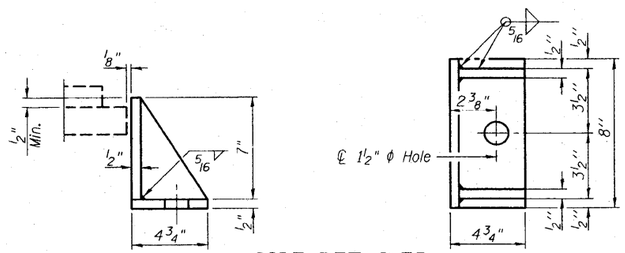


BEARING ASSEMBLY



BEVELED TOP PL DETAIL

Note:
Shim PL's shall not be placed under Bearing Assembly.



SIDE RETAINER

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

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 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.

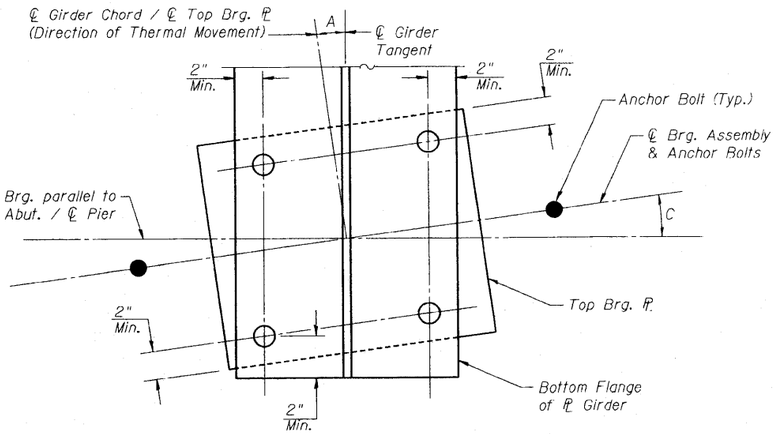
The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.

Two ⅛ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

See Sheets S-83 thru S-86 for bearing layout & orientation.

Structure	Location	X	A	B	C
S.N. 082-0323	E. Abut.	11½"	0°34'40"	90°0'0"	0°34'40"
	Pier 3-E	12½"	3°32'27"	90°0'0"	3°32'27"
	Pier 3-W	12½"	2°7'13"	90°0'0"	2°7'13" (1B-6B)
S.N. 082-0325	E. Abut.	11½"	2°58'30"	90°0'0"	2°58'30"
	Pier 7-E	11½"	0°	90°0'0"	0°
	Pier 7-W	12½"	1°30'0" (7B-9B) 0°59'0" (10B) 4°31'51" (11B)	85°2'56" 92°28'4" 86°32'55"	3°27'4" (7B-9B) 3°27'4" (10B) 3°27'4" (11B)
	W. Abut.	12½"	4°38'8" (1B-7B) 5°32'21" (11B)	90°0'0" 89°5'47"	4°38'8" (1B-7B) 4°38'8" (11B)

*Layout of threaded studs on Top Brg. PL shall accomodate angle "A". Maintain 2" min. from ℄ studs to edges of flange & Top Brg. PL. Applicable to both Elastomeric Bearing Assembly Types I & III.



THREADED STUD LAYOUT

Top Flange not shown for clarity.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	6
Anchor Bolts 1¼"	Each	12

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AECOM

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PLOT SCALE = 2.2 '' / in.
PLOT DATE = 3/18/2011

DESIGNED - CLS
DRAWN - GF
CHECKED - ATB
DATE - 03/18/2011

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELASTOMERIC BEARING DETAILS I
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-87 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	202
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GIRDER END DIMENSION TABLE

Structure	Location	X	Y	Z
S.N. 082-0323	Pier 3-E	1'-6"	9 1/4"	8 3/4"
	Pier 3-W	1'-6"	9 1/4"	8 3/4"
S.N. 082-0325	E. Abut.	1'-9"	1'-1 1/8"	7 1/8"
	Pier 7-E	1'-6"	9 3/4"	8 1/4"
	Pier 7-W	1'-6"	9 1/4"	8 3/4"
	W. Abut.	1'-9"	11 1/2"	9 1/2"

Dimensions given for normal temp. of 50°F. Adjust X & Y for actual temp. using "Setting Anchor Bolts at Exp. Brg."

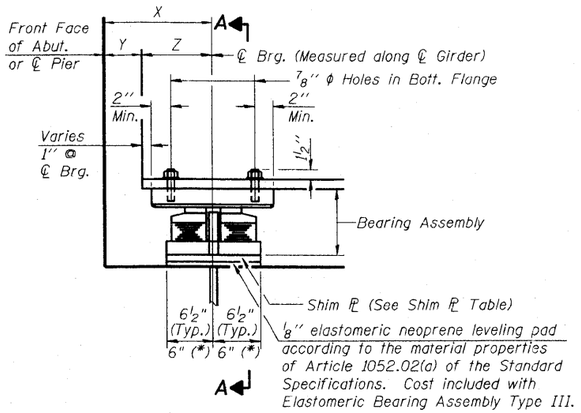
SHIM ℄ TABLE

Structure	Location	Girder	Thickness
S.N. 082-0323	Pier 3-W	1B	1/8"
		2B	3/8"
		3B	1/2"
		4B	5/8"
		5B	13/16"
		6B	15/16"

All Shim ℄'s are 1'-1" x 2'-5 3/4" (Typ.).

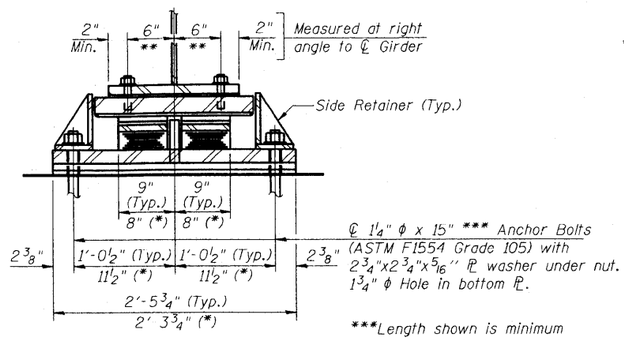
BEVELED TOP ℄ TABLE

Structure	Location	T1	T2	T3	Wt	Lt
S.N. 082-0323	Pier 3-E	1 5/8"	1 5/8"	1 5/8"	1'-3 1/2"	1'-8"
	Pier 3-W	1 3/8"	1 3/8"	1 3/8"	1'-3 1/2"	1'-8"
S.N. 082-0325	E. Abut.	1 1/2"	1 1/8"	2 1/4"	1'-1 3/4"	1'-6"
	Pier 7-E	1 1/2"	1 1/2"	1 1/2"	1'-2 1/2"	1'-6"
	Pier 7-W	1 3/8"	1 3/8"	1 3/8"	1'-3 1/2"	1'-8"
	W. Abut.	2"	1 13/16"	1 5/8"	1'-5"	1'-8"



ELEVATION AT PIER 3-E & PIER 3-W (S.N. 082-0323) AND E. ABUT., PIER 7-E, PIER 7-W, & W. ABUT. (S.N. 082-0325)

*E. Abut. & Pier 7-E (S.N. 082-0325)



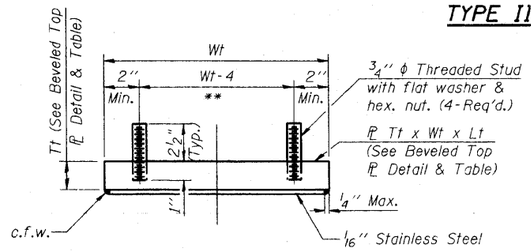
SECTION A-A

*E. Abut. & Pier 7-E (S.N. 082-0325)

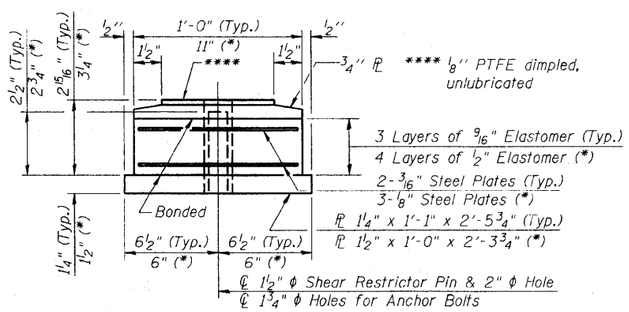
**See "Threaded Stud Layout" on Sheet S-87 for actual location of threaded studs.

***Length shown is minimum required embedment length.

TYPE III ELASTOMERIC EXP. BRG.

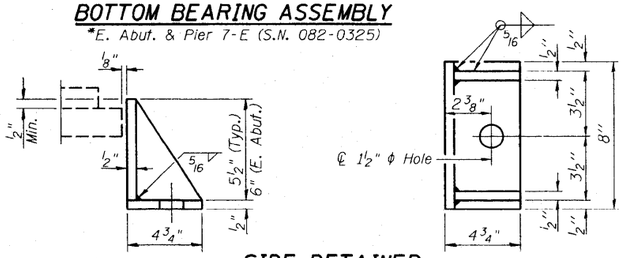


TOP BEARING ASSEMBLY



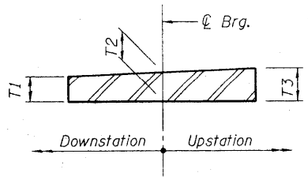
BOTTOM BEARING ASSEMBLY

*E. Abut. & Pier 7-E (S.N. 082-0325)



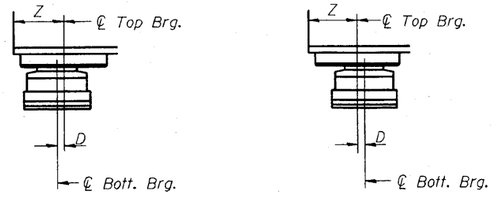
SIDE RETAINER

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



BEVELED TOP ℄ DETAIL

See Beveled Top ℄ Table for thicknesses.



BELOW 50° F.
(Move bottom brg. away from P.Z.T.M.)

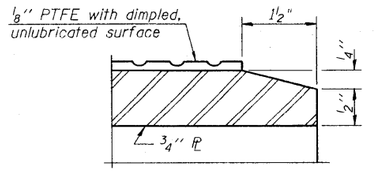
ABOVE 50° F.
(Move bottom brg. toward P.Z.T.M.)

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. Point of Zero Thermal Movement (P.Z.T.M.) located at fixed brg. for S.N. 082-0323 and Units 1&2 of S.N. 082-0325. P.Z.T.M. located at midspan of Span 9 for Unit 3 of S.N. 082-0325.

PLAN-PTFE ELASTOMERIC BRG.

*E. Abut. & Pier 7-E (S.N. 082-0325)



SECTION THRU PTFE

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 for Type III bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

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 III.

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 I. 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.

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

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

See Sheets S-83 thru S-86 for bearing layout & orientation.

QUANTITY TABLE

Structure	Location	Qnty.
S.N. 082-0323	Pier 3-E	6
	Pier 3-W	6
S.N. 082-0325	E. Abut.	6
	Pier 7-E	6
	Pier 7-W	5
	W. Abut.	8

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type III	Each	37
Anchor Bolts 1 1/4"	Each	74

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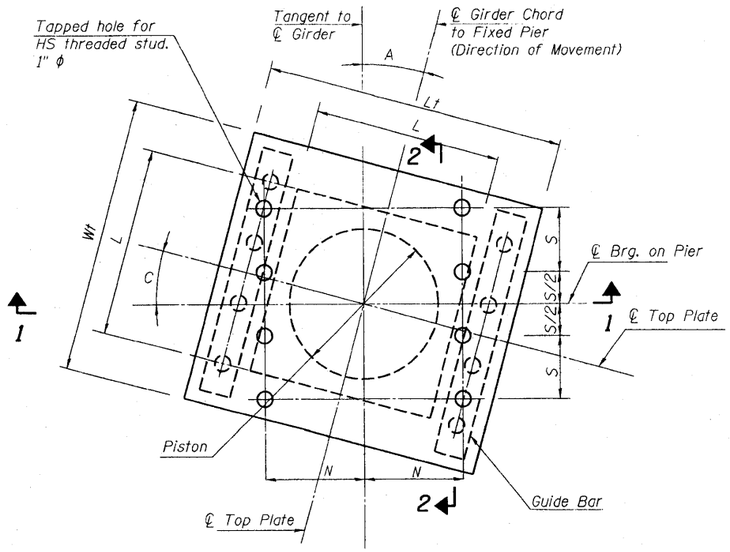
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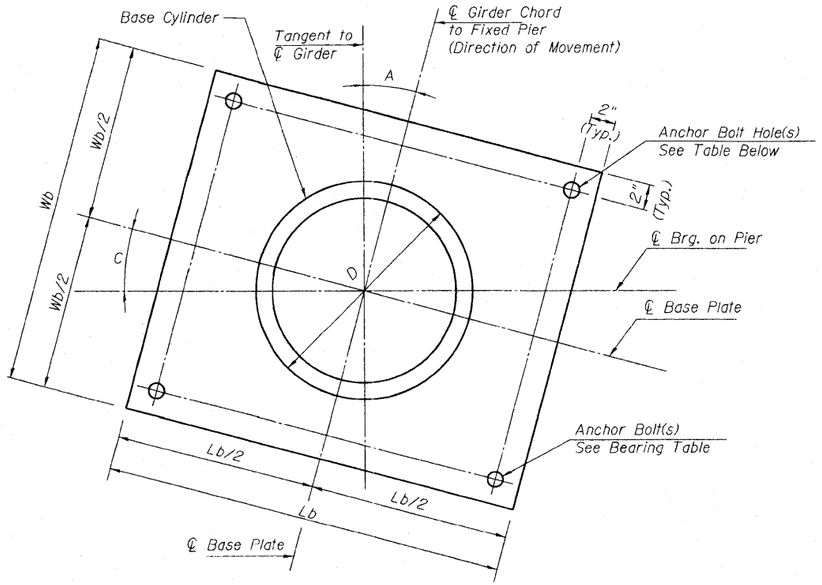
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELASTOMERIC BEARING DETAILS II
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-88 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	203
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TOP BEARING ℄ AND PISTON PLAN



BOTTOM BEARING ℄ AND BASE CYLINDER PLAN

Notes:

The Structural Steel for the top & bottom bearing plates shall be AASHTO M270 Grade 50.

For anchor bolt type and details see Bearing Dimensions Table.

Top & bottom plates, threaded studs, washers & shim plates are included in the cost of the Bearings.

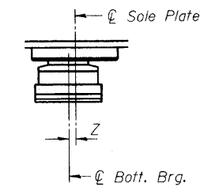
Anchor bolts for bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place.

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

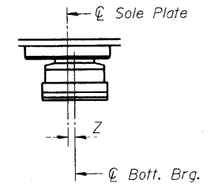
The $\frac{1}{8}$'' PTFE sheet shall be bonded directly to the piston with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Two $\frac{1}{8}$ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

Work this sheet with sheet S-90.



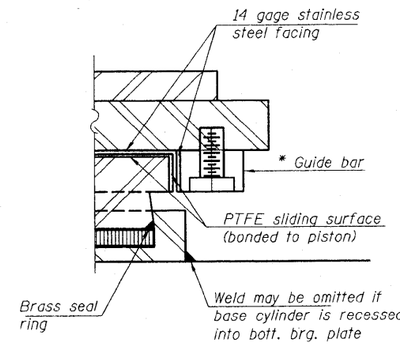
BELOW 50° F.
(Move bott. brg. away from fixed brg.)



ABOVE 50° F.
(Move bott. brg. toward fixed brg.)

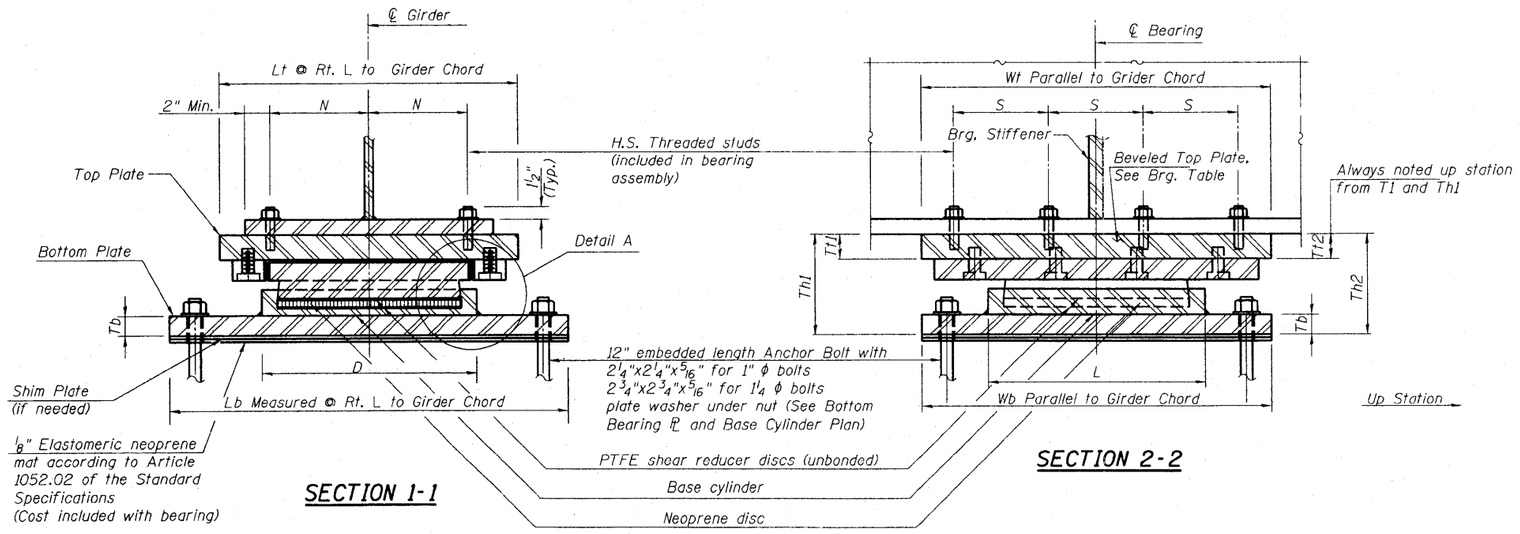
SETTING ANCHOR BOLTS AT EXP. BRG.

$Z = \frac{1}{8}$'' per each 100' of expansion for every 15° temp. change from the normal temp. of 50° F.



DETAIL A

* As alternates to the bolted connection shown, the guide bars may be connected to the top bearing plate by groove welds or the guide bars and top bearing plate may be fabricated as a single piece.



SECTION 1-1

SECTION 2-2

BASE PLATE HOLE TABLE

Anchor Bolt ϕ	Max. Hole ϕ
1¼"	1¾"
1"	1½"

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXPANSION POT BEARING DETAILS I
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-89 OF S-138 SHEETS | STA. | TO STA.

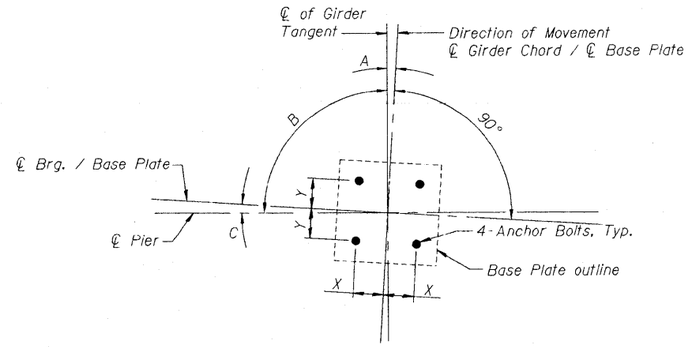
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70	82-1-B-1	ST. CLAIR	319	204
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GUIDED EXPANSION BEARING DIMENSIONS TABLE

Brg. Location	Vertical Design Load (kips)	Lateral Design Load (kips)	Total Required Movement (inches)	Bottom Bearing Plate Tb in.	Lb in.	Wb in.	Top Bearing Plate Tt1 in.	Tt2 in.	Lt in.	Wt in.	N in.	S in.	Th1 in.	Th2 in.	L in.	D in.	Anchor Bolt ϕ in.	Anchor Bolt Specification Grade
S.N. 082-0323																		
Pier 2	550	81	$2\frac{1}{2}$	$1\frac{7}{8}$	36	25	$2\frac{3}{8}$	$3\frac{1}{8}$	26	22	8	5	$11\frac{5}{8}$	$12\frac{3}{8}$	18	$19\frac{3}{4}$	1	F1554, Gr. 55
S.N. 082-0325																		
Unit 1, Pier 1	400	93	$2\frac{1}{2}$	$1\frac{3}{4}$	37	29	2	$3\frac{1}{8}$	27	23	6	5	$10\frac{5}{8}$	$11\frac{3}{4}$	19	$17\frac{1}{8}$	$1\frac{1}{4}$	A307, Gr. C
Unit 1, Pier 3	250	47	$2\frac{1}{2}$	$1\frac{1}{2}$	30	21	$1\frac{1}{2}$	$2\frac{1}{4}$	20	15	8	3	$8\frac{1}{2}$	$9\frac{1}{4}$	12	$12\frac{1}{8}$	1	A307, Gr. C
Unit 2, Pier 3	200	47	$4\frac{3}{4}$	$1\frac{1}{2}$	29	20	$1\frac{1}{2}$	$2\frac{3}{8}$	19	17	6	4	8	$8\frac{7}{8}$	11	$11\frac{3}{4}$	1	A307, Gr. C
Unit 2, Pier 4	550	112	$2\frac{3}{4}$	$1\frac{5}{8}$	35	28	$2\frac{1}{2}$	$3\frac{1}{2}$	25	20	8	5	$11\frac{1}{2}$	$12\frac{1}{2}$	17	$19\frac{3}{4}$	$1\frac{1}{4}$	F1554, Gr. 55
Unit 2, Pier 6	500	113	$2\frac{1}{2}$	$1\frac{5}{8}$	34	27	$2\frac{3}{8}$	$2\frac{5}{8}$	24	19	6	5	11	$11\frac{1}{4}$	16	$19\frac{3}{8}$	$1\frac{1}{4}$	F1554, Gr. 55
Unit 3, Pier 10	650	85	4	$1\frac{5}{8}$	39	31	$3\frac{1}{4}$	$2\frac{5}{8}$	29	25	10	6	$13\frac{1}{8}$	$12\frac{1}{2}$	21	$22\frac{5}{8}$	1	F1554, Gr. 55

BILL OF MATERIAL

Item	Unit	Total
High Load Multi-Rotation Bearings, Guided Expansion 200K.	Each	6
High Load Multi-Rotation Bearings, Guided Expansion 250K.	Each	6
High Load Multi-Rotation Bearings, Guided Expansion 400K.	Each	6
High Load Multi-Rotation Bearings, Guided Expansion 500K.	Each	6
High Load Multi-Rotation Bearings, Guided Expansion 550K.	Each	12
High Load Multi-Rotation Bearings, Guided Expansion 650K.	Each	9
Anchor Bolts, $1\frac{1}{4}$"	Each	72
Anchor Bolts, 1"	Each	108



ANCHOR BOLT LOCATION DETAIL.

Structure	Location	X	Y	A	B	C
S.N. 082-0323	Pier 2	1'-4"	0'-$10\frac{1}{2}$"	2°0'32"	90°0'0"	2°0'32"
S.N. 082-0325	Pier 1	1'-$4\frac{1}{2}$"	1'-$0\frac{1}{2}$"	3°52'57"	90°0'0"	3°52'57"
	Pier 3 Unit 1	1' 1"	0'-$8\frac{1}{2}$"	3°41'46"	90°0'0"	3°41'46"
	Pier 3 Unit 2	1'-$0\frac{1}{2}$"	0'-8"	6°40'45"	90°0'0"	6°40'45"
	Pier 4	1'-$3\frac{1}{2}$"	1'-0"	2°9'27"	90°0'0"	2°9'27"
	Pier 6	1'-3"	0'-$11\frac{1}{2}$"	0°	90°0'0"	0°
	Pier 10	1'-$5\frac{1}{2}$"	1'-$1\frac{1}{2}$"	3°13'34" (1B-7B) 3°38'35" (8B, 11B)	90°0'0" (1B-7B) 89°35'0" (8B, 11B)	3°13'34" (1B-7B) 3°13'34" (8B, 11B)

Notes:

Work this sheet with sheet S-89.

See Sheets S-83 thru S-86 for bearing layout & orientation.

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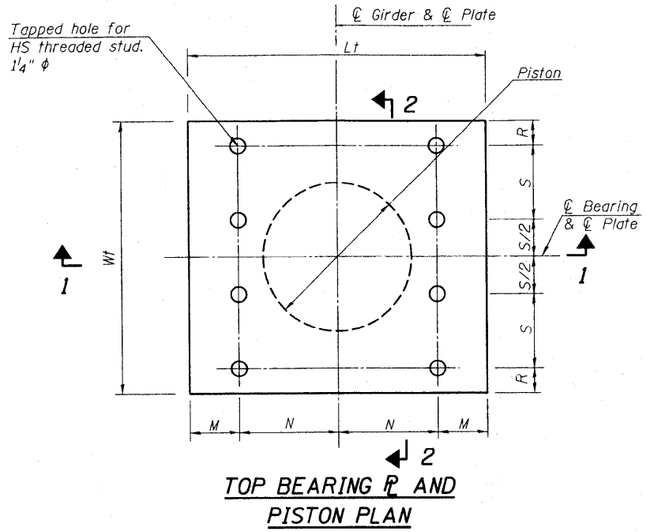
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CHECKED - PJL	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

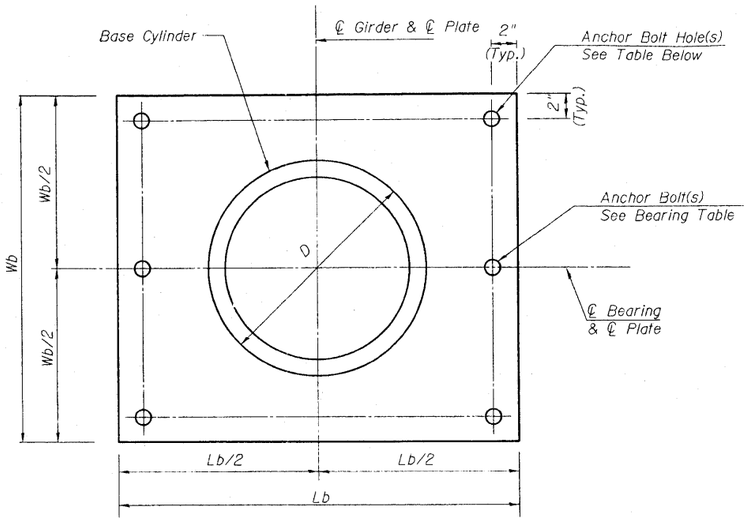
~~EXPANSION POT BEARING DETAILS II~~
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-90 OF S-138 SHEETS | STA. | TO STA.

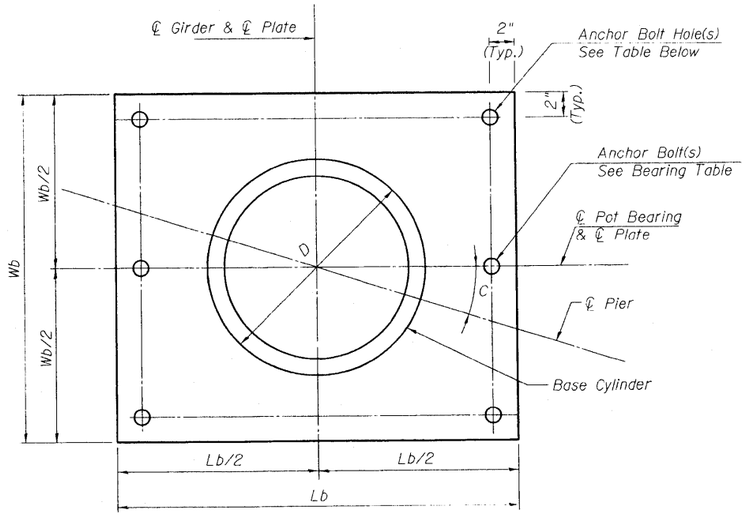
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S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



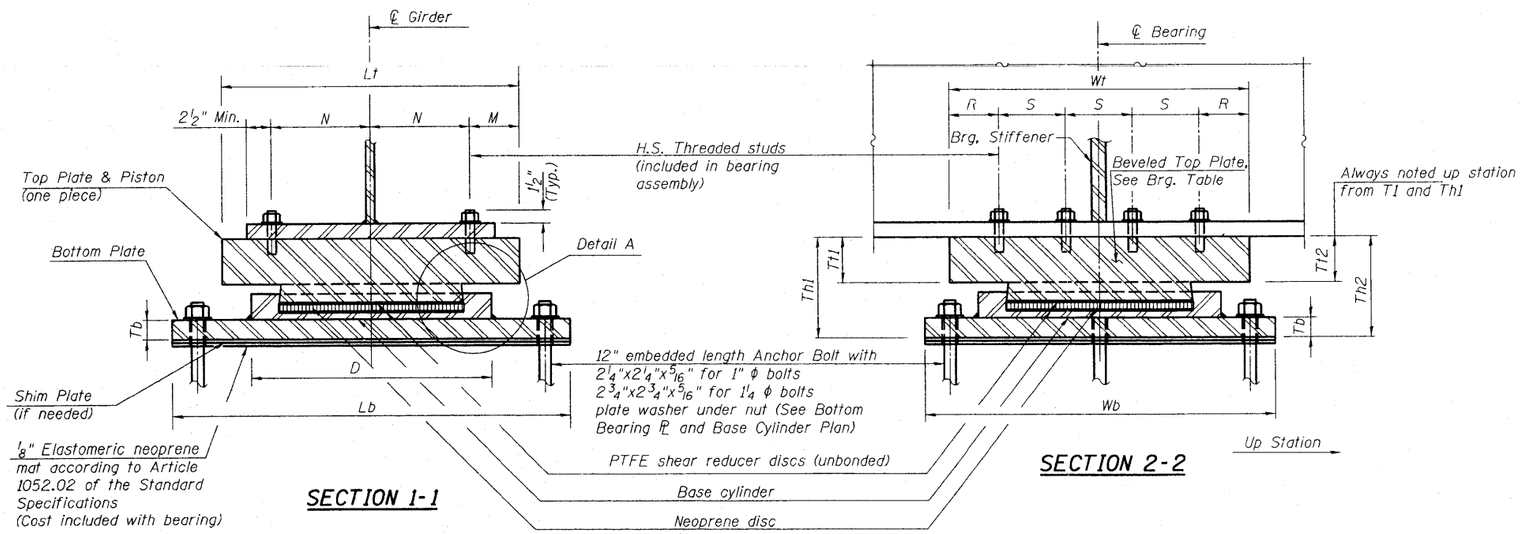
TOP BEARING ℄ AND PISTON PLAN

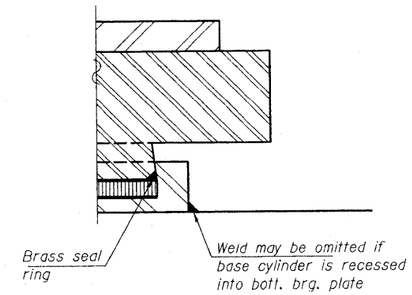


BOTTOM BEARING ℄ AND BASE CYLINDER PLAN @ 90° PIERS



BOTTOM BEARING ℄ AND BASE CYLINDER PLAN PIERS 8 & 9





DETAIL A

BASE PLATE HOLE TABLE

Anchor Bolt ϕ	Max. Hole ϕ
1¼"	1¾"
1"	1½"

Notes:
The Structural Steel for the top & bottom bearing plates shall be AASHTO M270 Grade 50.
For anchor bolt type and details see Bearing Dimensions Table.
Top & bottom plates, threaded studs, washers & shim plates are included in the cost of the Bearings.
Anchor bolts for bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Two ⅛ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
Work this sheet with sheet S-92.

P:\PROJECTS\K-M\I-70W\CADD\90_Drawings\76C54_Consolidated\Structural\082-0323\Sheets\S091_082-0323_0325_76C75_POT_F1.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIXED POT BEARING DETAILS I
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-91 OF S-138 SHEETS | STA. | TO STA.

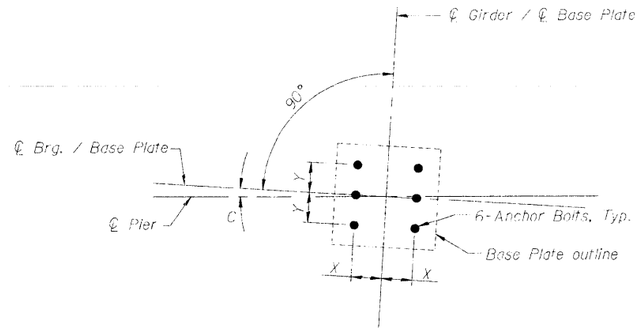
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S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FIXED BEARING DIMENSIONS TABLE

Brg. Location	Vertical Design Load (kips)	Lateral Design Load (kips)	Bottom Bearing Plate			Top Bearing Plate											
			Tb in.	Lb in.	Wb in.	Top Plate Tt1 in.	Top Plate Tt2 in.	Lt in.	Wt in.	M in.	N in.	H in.	S in.	Th1 in.	Th2 in.	D in.	Anchor Bolt ϕ in.	Anchor Bolt Specification Grade
S.N. 082-0323																		
Pier 1	550	110	$1\frac{1}{8}$	28	28	$2\frac{3}{8}$	$3\frac{1}{8}$	18	18	$3\frac{1}{2}$	$5\frac{1}{2}$	3	4	$7\frac{1}{4}$	8	$19\frac{3}{4}$	1	F1554, Gr. 55
S.N. 082-0325																		
Unit 1, Pier 2	500	186	1	28	28	$2\frac{1}{4}$	$3\frac{1}{4}$	18	18	2	7	3	4	$6\frac{7}{8}$	$7\frac{7}{8}$	$19\frac{3}{8}$	$1\frac{1}{4}$	F1554, Gr. 55
Unit 2, Pier 5	600	166	1	29	29	$2\frac{1}{2}$	$3\frac{1}{4}$	18	18	2	7	3	4	$7\frac{1}{2}$	$8\frac{1}{4}$	$21\frac{3}{8}$	$1\frac{1}{4}$	F1554, Gr. 55
Unit 3, Pier 8	500	90	1	27	27	$2\frac{1}{4}$	$2\frac{1}{8}$	17	17	3	$5\frac{1}{2}$	$2\frac{1}{2}$	4	7	$6\frac{7}{8}$	$19\frac{3}{8}$	1	A307, Gr. C
Unit 3, Pier 9	650	153	1	30	30	3	$2\frac{1}{2}$	20	20	$2\frac{1}{2}$	$7\frac{1}{2}$	$2\frac{1}{2}$	5	$8\frac{1}{8}$	$7\frac{5}{8}$	$22\frac{5}{8}$	$1\frac{1}{4}$	A307, Gr. C

BILL OF MATERIAL

Item	Unit	Total
High Load Multi-Rotation Bearings, Fixed 500K	Each	17
High Load Multi-Rotation Bearings, Fixed 550K	Each	6
High Load Multi-Rotation Bearings, Fixed 600K	Each	6
High Load Multi-Rotation Bearings, Fixed 650K	Each	10
Anchor Bolts, $1\frac{1}{4}$"	Each	132
Anchor Bolts, 1"	Each	102



ANCHOR BOLT LOCATION DETAIL,

Structure	Location	X	Y	C
S.N. 082-0323	Pier 1	1'-0"	1'-0"	0°
	Pier 2	1'-0"	1'-0"	0°
	Pier 5	1'-0½"	1'-0½"	0°
S.N. 082-0325	Pier 8	0'-11½"	0'-11½"	0° (1B-8B) 1°10'5" (9B) 3°2'25" (10B) 4°11'53" (11B)
	Pier 9	1'-1"	1'-1"	0° (1B-7B) 0°25'10" (8B) 1°9'49" (9B) 1°16'27" (11B)

Notes:

Work this sheet with sheet S-91.

See Sheets S-83 thru S-86 for bearing layout & orientation.

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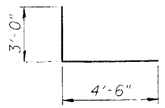
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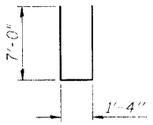
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIXED POT BEARING DETAILS II
I-70W OVER I-55, CSX & KCS RAILROADS
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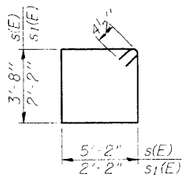
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S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



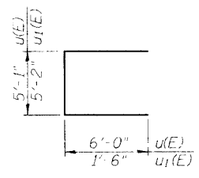
BAR h_2(E)



BAR n(E)



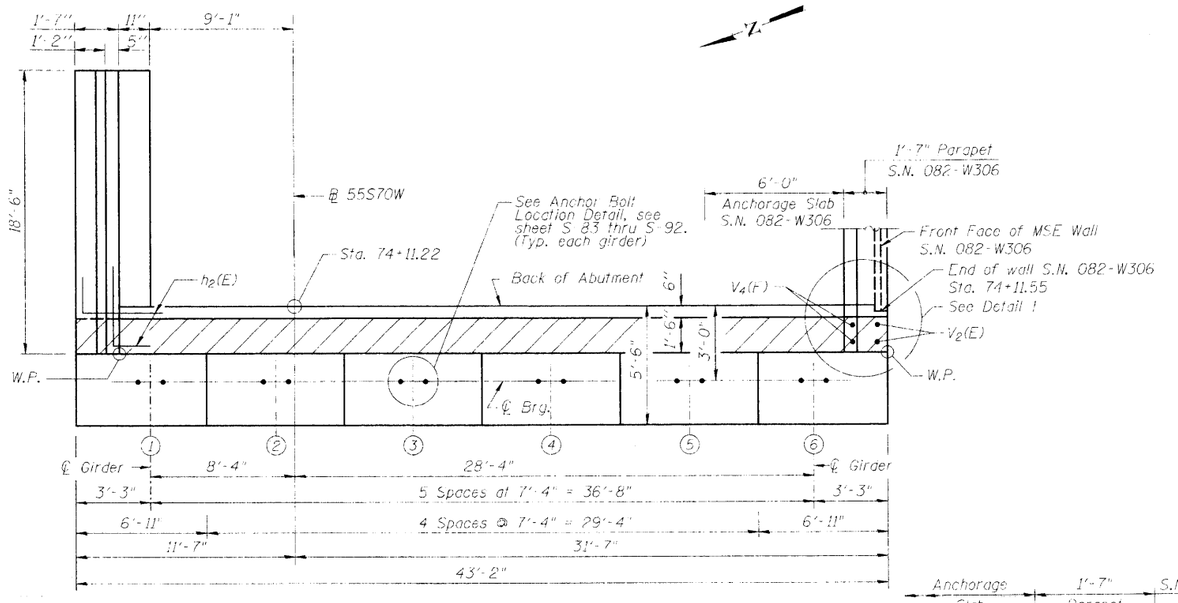
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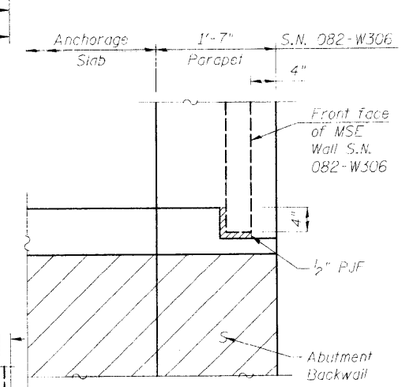
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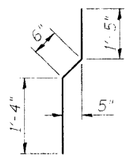
BAR v(E)



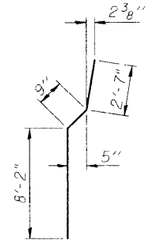
TOP VIEW



DETAIL 1



BAR v_1(E)

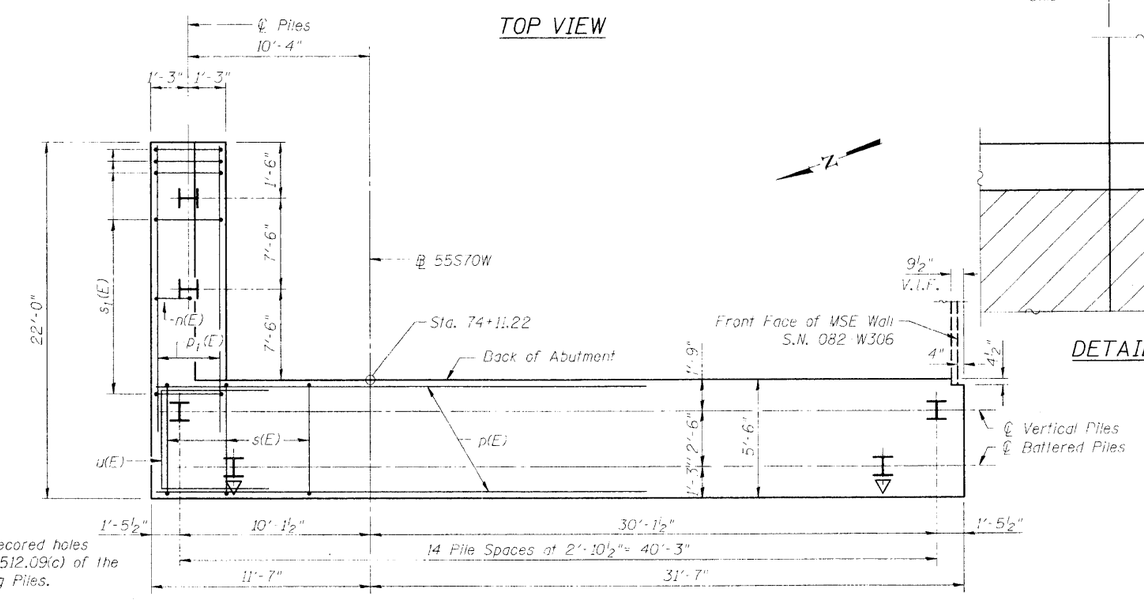


BAR v_4(E)

PILE DATA

Type: HP 14x89
Nominal Required Bearing: 500 kips
Factored Resistance Available: 250 kips
Est. Length: 148 ft
No. Production Piles: 17

Note:
Piles shall be driven through 2'-0" diameter precored holes extending to Elev. 383.00 according to Article 512.09(c) of the Standard Specifications. Cost included in Driving Piles.



PLAN-PILE CAP

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	14	#5	41'-7"	
h1(E)	5	#6	41'-7"	
h2(E)	16	#5	7'-6"	
h3(E)	24	#4	18'-2"	
n(E)	20	#6	15'-4"	
p(E)	11	#9	42'-10"	
p1(E)	6	#7	21'-9"	
p2(E)	4	#6	28'-7"	
p3(E)	4	#6	13'-11"	
s(E)	60	#4	18'-5"	
s1(E)	18	#4	9'-5"	
u(E)	10	#6	17'-1"	
u1(E)	44	#4	8'-2"	
v(E)	42	#5	3'-11"	
v1(E)	42	#5	3'-3"	
v2(E)	22	#6	11'-2"	
v4(E)	22	#6	11'-6"	
v5(E)	42	#5	10'-7"	
v6(E)	42	#5	9'-3"	

Item	Unit	Quantity
Structure Excavation	Cu. Yd.	243.5
Concrete Structures	Cu. Yd.	77.3
Concrete Encasement	Cu. Yd.	8.2
Reinforcement Bars, Epoxy Coated	Pound	7,210
Bar Splicers	Each	44
Furnishing Steel Piles, HP14x89	Foot	2516
Driving Piles	Foot	2516
Pile Shoes	Each	17
Concrete Sealer	Sq Ft	630
Porous Granular Embankment (Special)	Cu. Yd.	137.6
Geocomposite Wall Drain	Sq. Yd.	51
Pipe Underdrains for Structures 4"	Foot	48
Conduit Embedded in Structure, 2"Dia., PVC	Foot	13

Notes:

1. Concrete Sealer shall be applied to abutment backwalls, bearing seats and expose faces of abutment cap.
2. For details of piles and concrete encasement, see sheet S-122
3. For details of bar splicers, see sheet S 123.
4. For retaining wall S.N. 082 W306 see Sheet 254 thru. 271.

AECOM

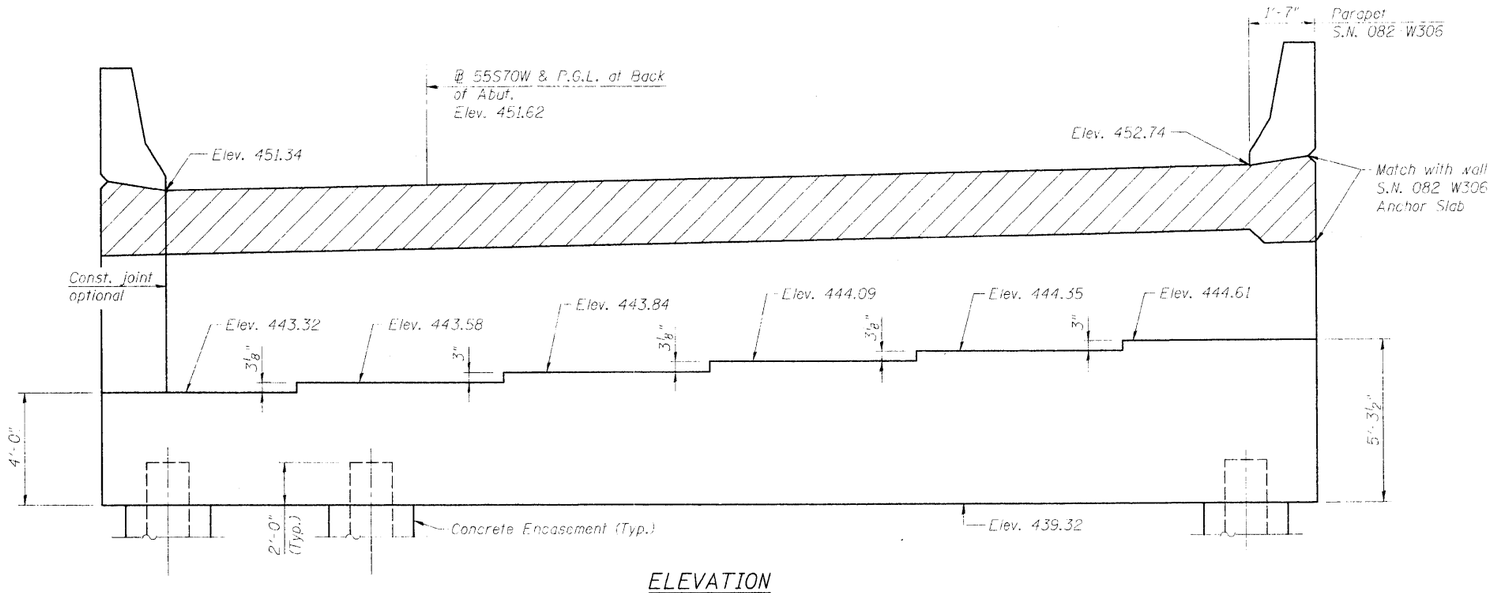
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT PLANS – S.N. 082-0323
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-93 OF S-138 SHEETS | STA. | TO STA.

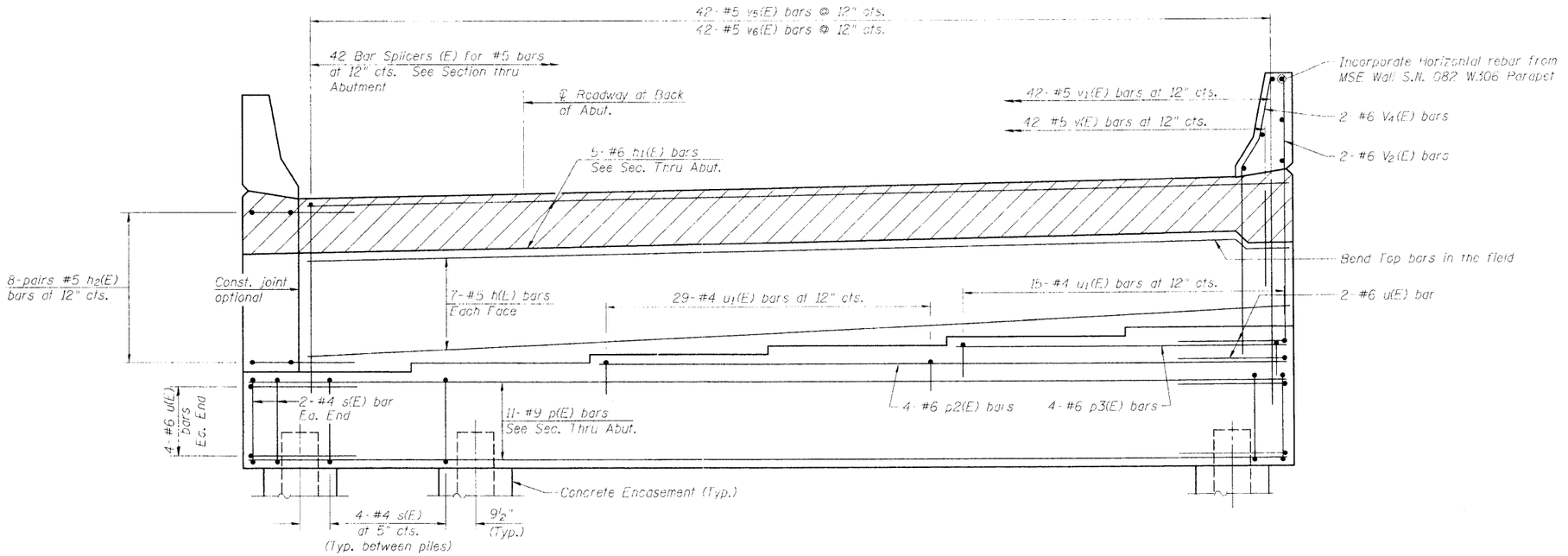
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S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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ELEVATION

(Looking East Showing Dimensions)



ELEVATION

(Looking East Showing Reinforcements)

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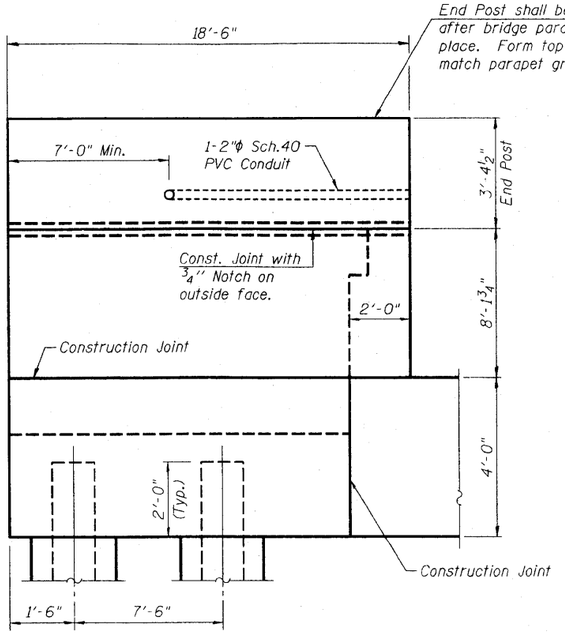
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT ELEVATIONS – S.N. 082-0323
I-70W OVER I-55, CSX & KCS RAILROADS

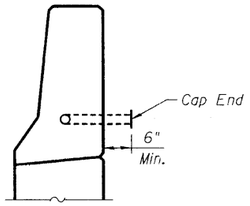
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FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

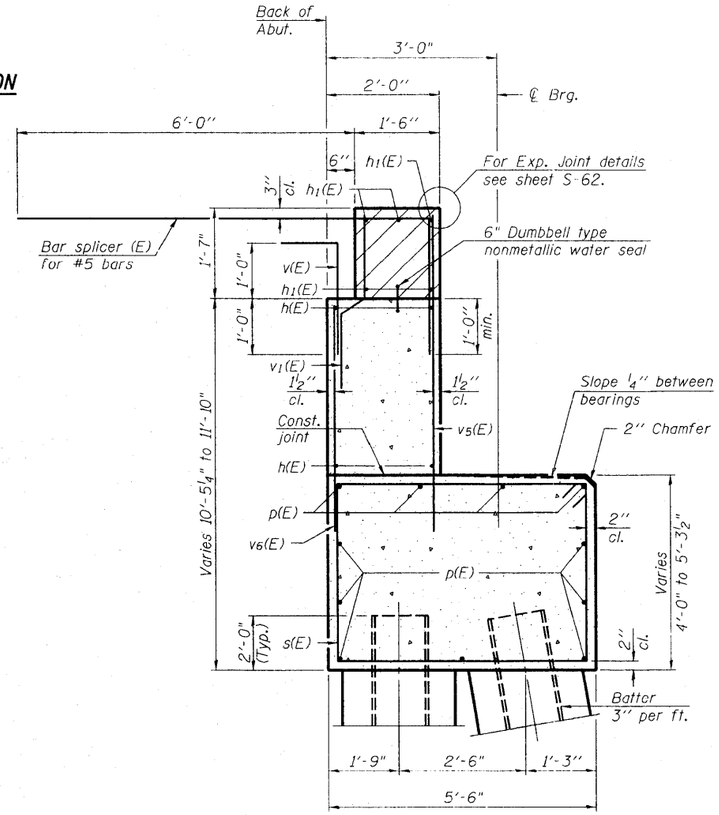


WING WALL ELEVATION

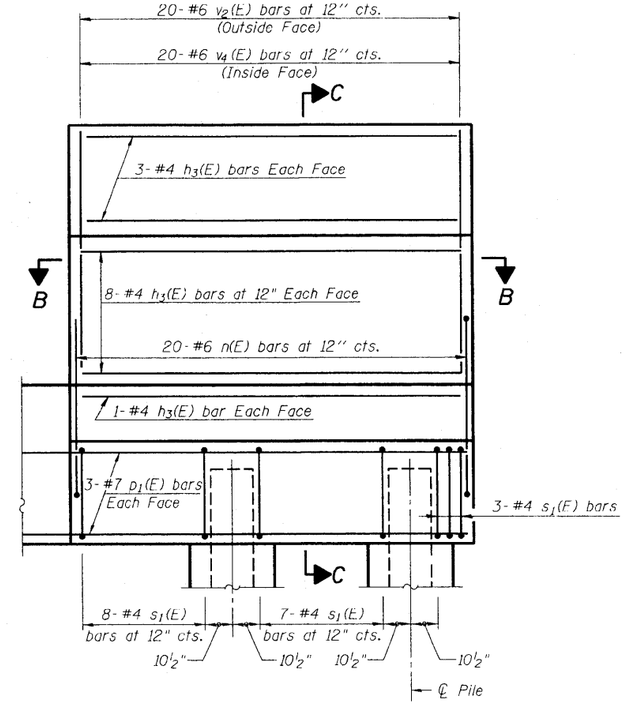
Showing Dimensions
(Facing South)



VIEW A-A

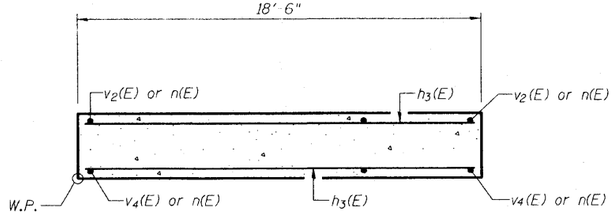


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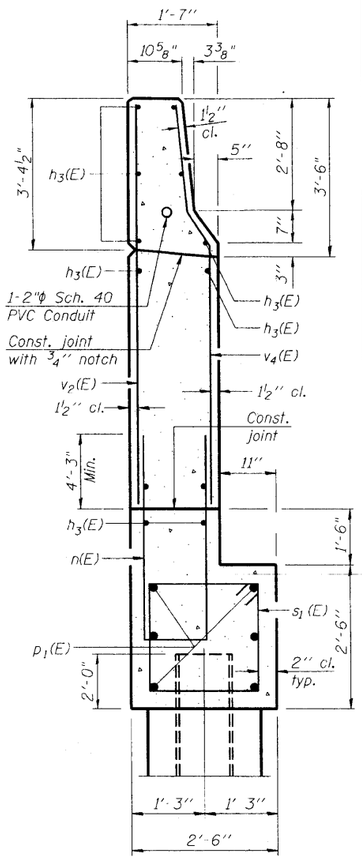


WING WALL ELEVATION

Showing Reinforcement
(Facing North)



SECTION B-B



SECTION C-C

NOTES:

1. Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
2. Space reinforcement in cap to miss anchor bolts.
3. Pour steps monolithically with cap.
4. For details of Bar Splicers, see sheet S-123.
5. For details of piles and Concrete Encasement, see sheet S-122.
6. See Electrical plans for Conduit termination details.

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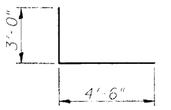
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

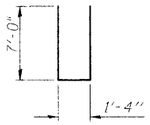
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I-70W OVER I-55, CSX & KCS RAILROADS

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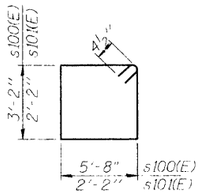
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70	82-1-B-1	ST. CLAIR	319	210
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FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



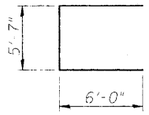
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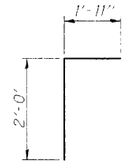
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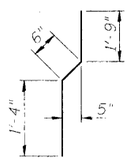
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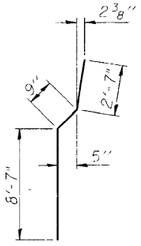
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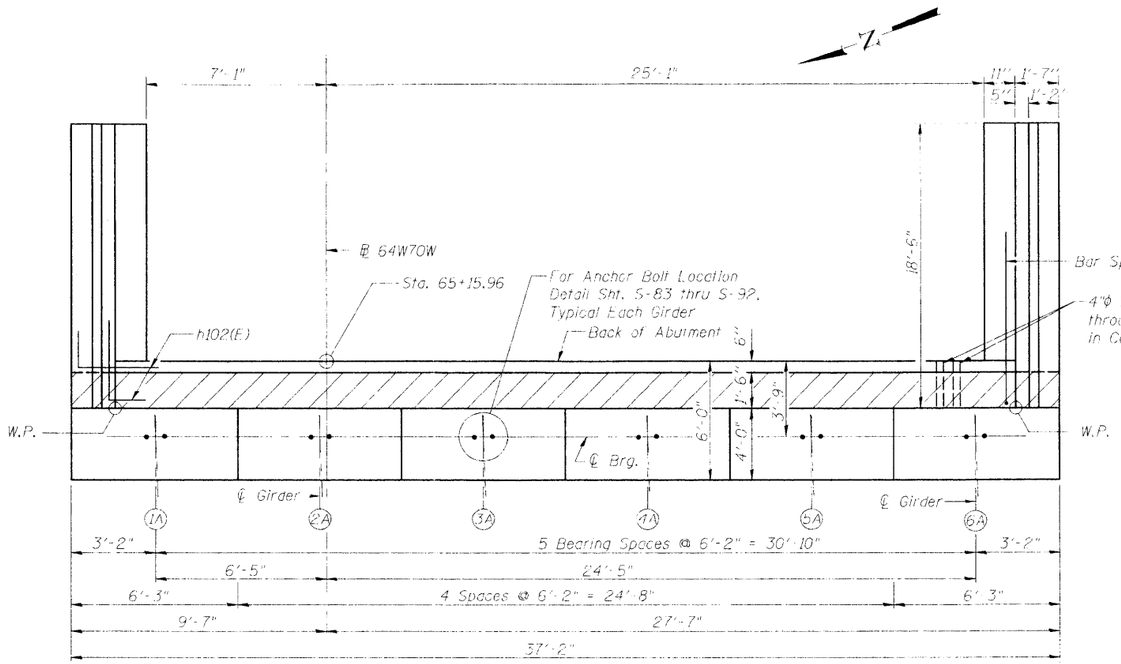
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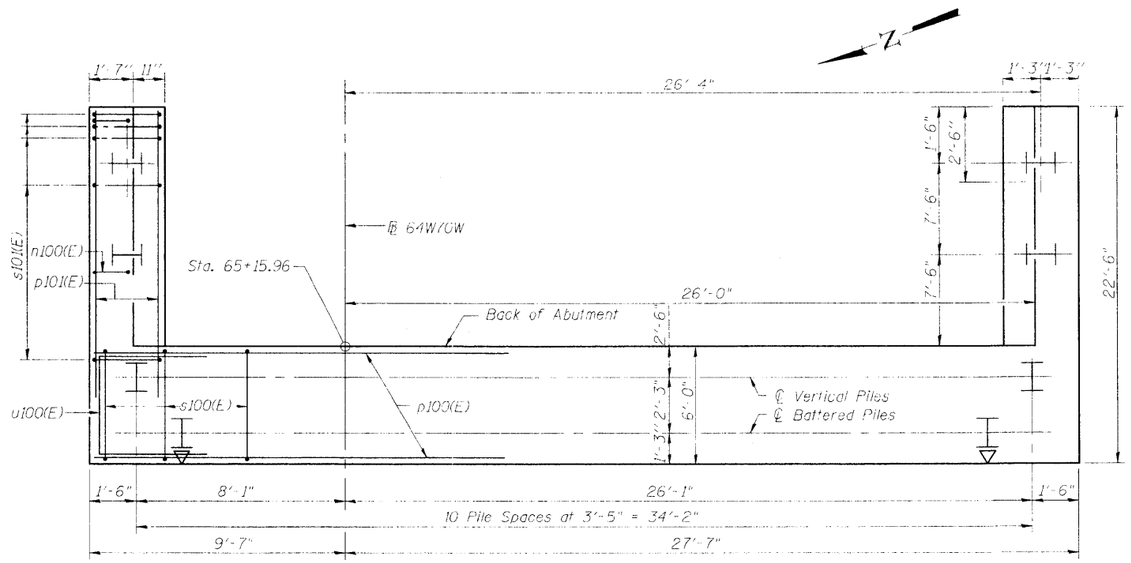
BAR v101(E)



BAR v104(E)



TOP VIEW



PLAN-PILE CAP

PILE DATA

Type: HP 14x89
Nominal Required Bearing: 500 kips
Factored Resistance Available: 250 kips
Est. Length: 91'
No. Production Piles: 14
No. Test Piles: 1

Note:
Piles shall be driven through 2'-6" diameter precored holes extending to elevation 395.0 according to Article 512.09C of the Standard Specifications. Cost included in Driving Piles.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h100(E)	14	#5	33'- 8"	——
h101(E)	5	#6	33'- 8"	——
h102(E)	36	#5	7'- 6"	⌐
h103(E)	52	#4	18'- 2"	——
h105(E)	16	#5	1'- 6"	——
n100(E)	40	#6	15'- 4"	⊓
p100(E)	11	#10	36'- 10"	——
p101(E)	12	#7	21'- 9"	——
s100(E)	44	#4	18'- 5"	◪
s101(E)	36	#4	9'- 5"	◪
u100(E)	8	#6	17'- 7"	⊓
v100(E)	35	#5	3'- 11"	⌐
v101(E)	35	#4	3'- 7"	⌐
v102(E)	40	#6	11'- 6"	——
v104(E)	40	#6	11'- 11"	——
v105(E)	35	#5	10'- 5"	——
v106(E)	35	#5	8'- 11"	——

Item	Unit	Quantity
Structure Excavation	Cu. Yd.	293.4
Concrete Structures	Cu. Yd.	79.4
Reinforcement Bars, Epoxy Coated	Pound	8,200
Furnishing Steel Piles, HP14x89	Foot	1358
Driving Piles	Foot	1358
Test Pile Steel HP14x89	Each	1
Pile Shoes	Each	15
Concrete Sealer	Sq. Ft.	584
Porous Granular Embankment (Special)	Cu. Yd.	98.0
Geocomposite Wall Drain	Sq. Yd.	39
Pipe Underdrains for Structures 4"	Foot	42
Concrete Encasement	Cu. Yd.	6.0

Concrete Sealer shall be applied to abutment backwalls, bearing seats and expose faces of abutment cap.

For details and quantity of Bar Splicers, see sheet S-123 of S-138.

For details of piles and Concrete Encasement, see sheet S-122 of S-138.

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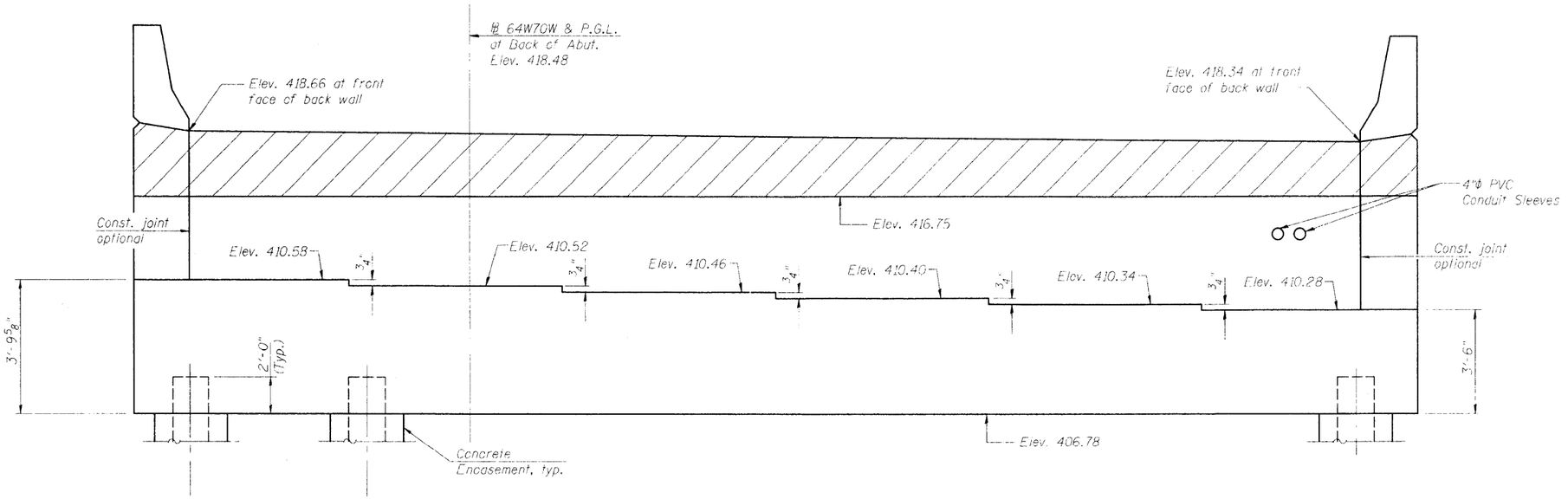
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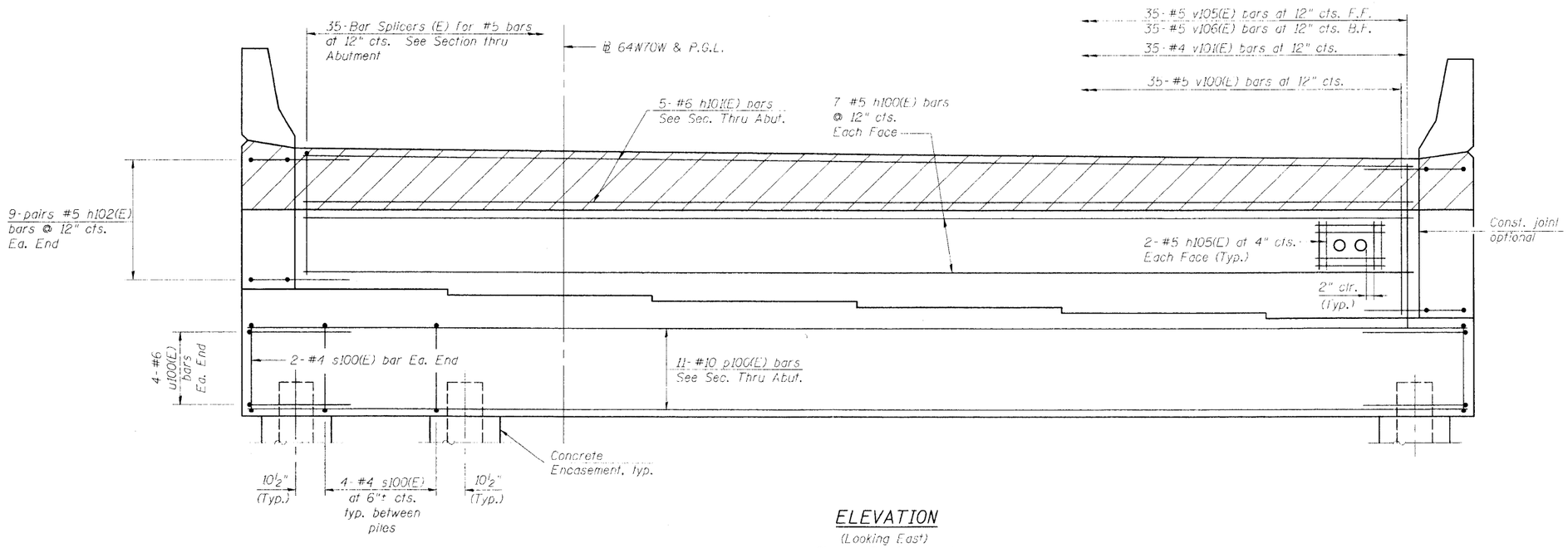
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT PLANS – S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-96 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	211
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELEVATION
(Looking East)
Showing Dimensions



ELEVATION
(Looking East)
Showing Reinforcement

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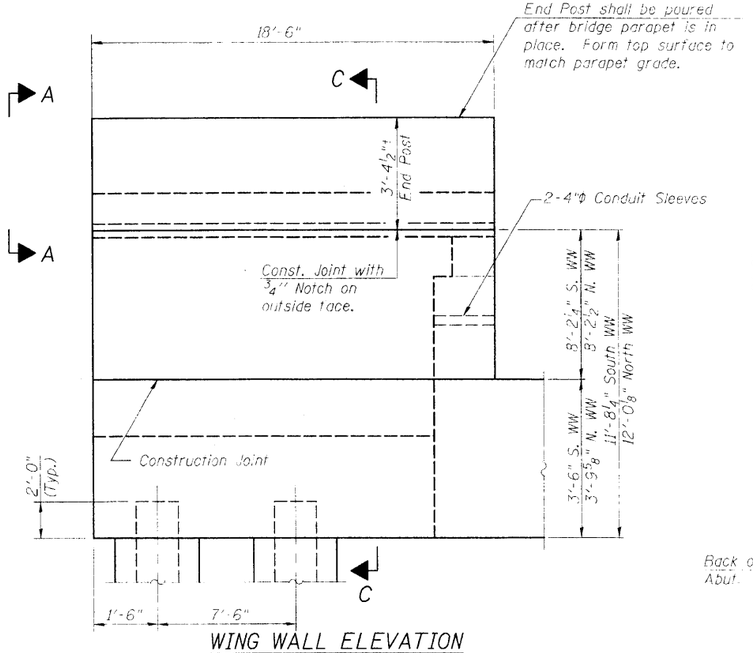
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

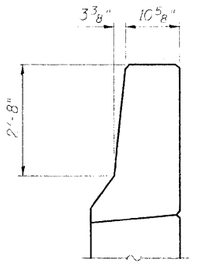
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I–70W OVER I–55, CSX & KCS RAILROADS

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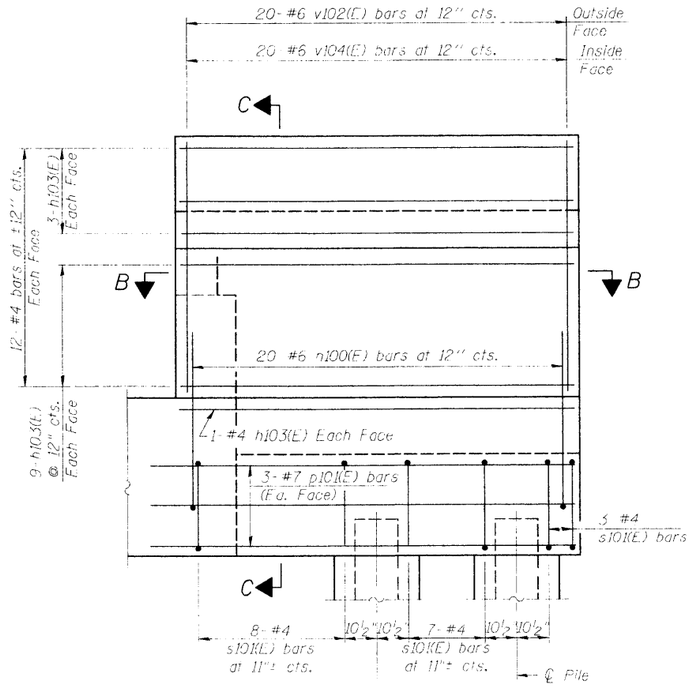
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S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



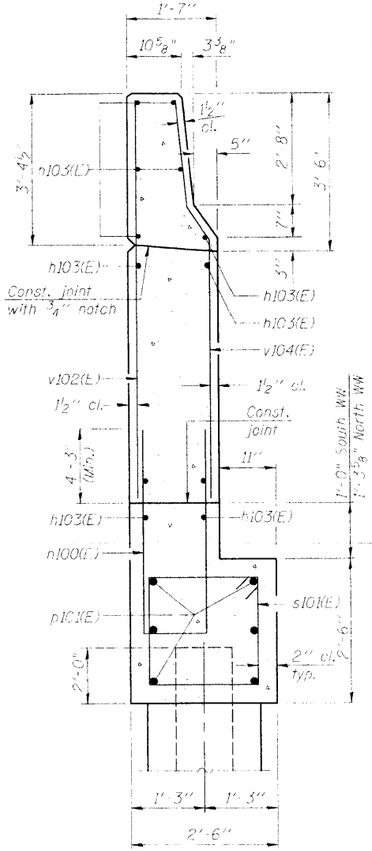
WING WALL ELEVATION
Showing Dimensions



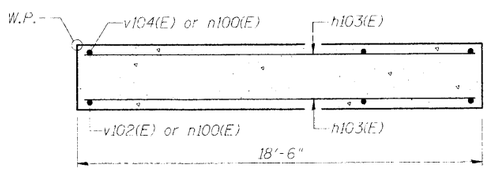
VIEW A-A



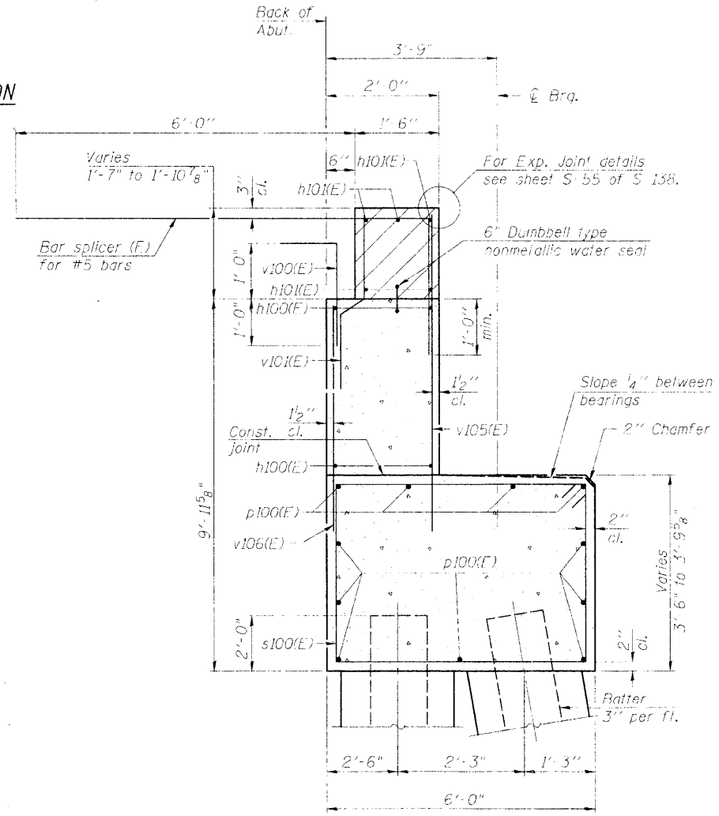
WING WALL ELEVATION
Showing Reinforcement



SECTION C-C



SECTION B-B



SEC. THRU ABUT.

Notes:
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
Quantity of concrete in end post included with Concrete Superstructure on sheet S-44 of S-138.
For Concrete Encasement details, see sheet S 122 of S 138.
See Electrical Plans for conduit termination details through Abutment.

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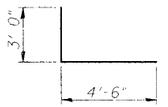
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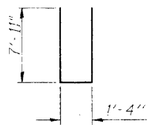
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT DETAILS – S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-98 OF S-138 SHEETS | STA. | TO STA.

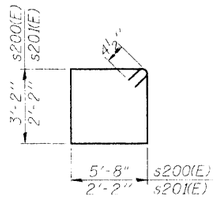
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S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



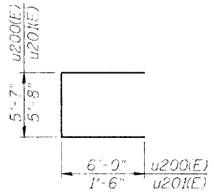
BAR h202(E)



BAR n200(E)



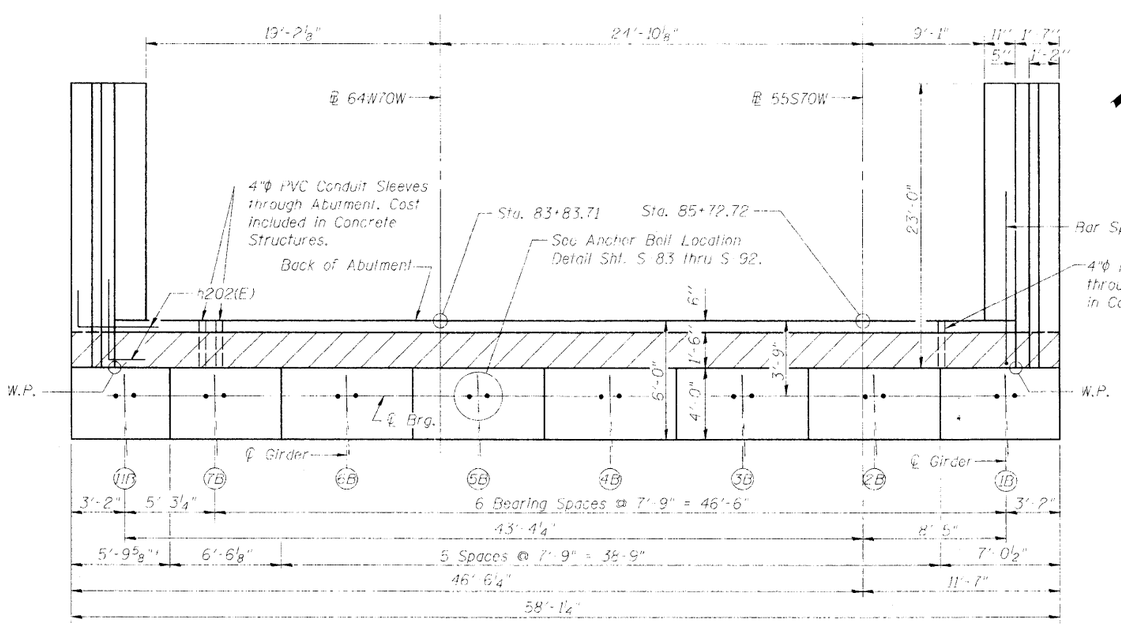
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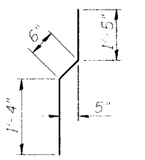
BAR u200(E) & u201(E)



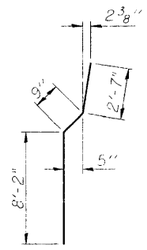
BAR v200(E)



TOP VIEW



BAR v201(E)



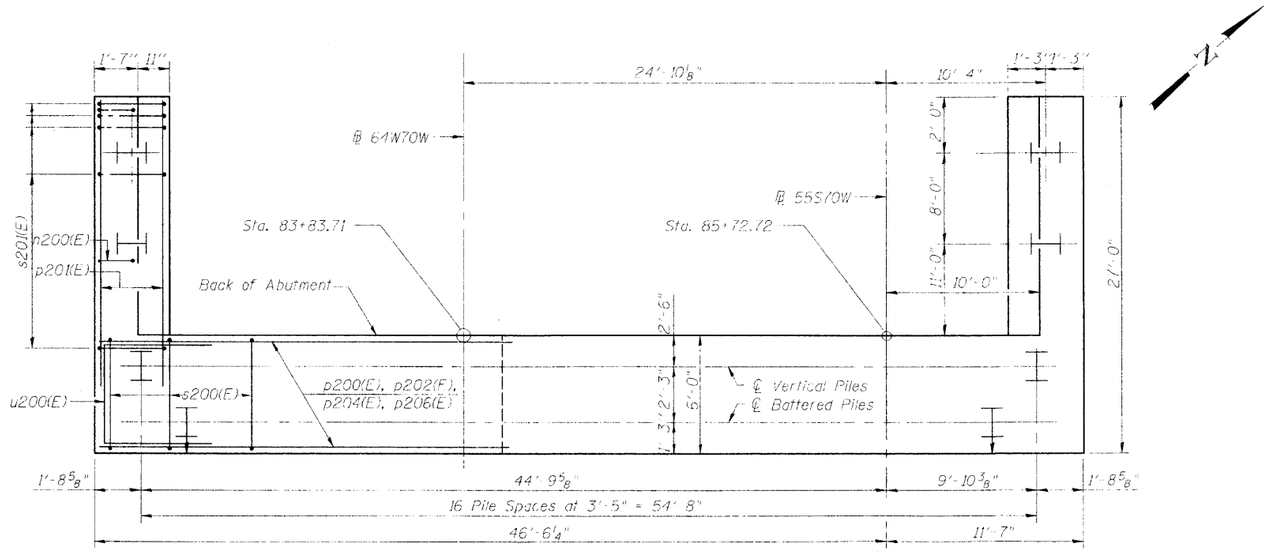
BAR v204(E)

Concrete Sealer shall be applied to abutment backwalls, bearing seats and expose faces of abutment cap.

For details and quantity of Bar Splicers, see sheet S-123 of S-138.

For details of piles and Concrete Encasement, see sheet S-122 of S-138.

All dimensions are radial. Wingwall shall be constructed along horizontal curve.



PLAN-PILE CAP

PILE DATA

Type: HP 14x89
Nominal Required Bearing: 500 kips
Factored Resistance Available: 250 kips
Est. Length: 141'
No. Production Piles: 21

Note:
Piles shall be driven through 2'-0" diameter precored holes extending to elevation 405.0 according to Article 512.09C of the Standard Specifications. Cost included in Driving Piles.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h200(E)	14	#5	54'- 7"	——
h201(E)	5	#6	54'- 7"	——
h202(E)	36	#5	7'- 6"	⌐
h203(E)	52	#4	22'- 8"	——
h205(E)	32	#5	1'- 6"	——
n200(E)	48	#6	17'- 2"	⌐
p200(E)	3	#10	30'- 6"	——
p201(E)	12	#7	26'- 6"	——
p202(E)	3	#10	33'- 9"	——
p203(E)	4	#6	12'- 0"	——
p204(E)	4	#10	27'- 5"	——
p205(E)	4	#6	19'- 2"	——
p206(E)	4	#10	40'- 6"	——
p207(E)	4	#10	57'- 9"	——
s200(E)	68	#4	18'- 5"	⌐
s201(E)	54	#4	9'- 5"	⌐
u200(E)	8	#6	17'- 7"	⌐
u201(E)	33	#4	8'- 8"	⌐
v200(E)	55	#5	3'- 11"	⌐
v201(E)	55	#4	3'- 3"	⌐
v202(E)	48	#6	11'- 2"	——
v204(E)	48	#6	11'- 6"	——
v205(E)	55	#5	10'- 4"	——
v206(E)	55	#5	9'- 0"	——

Item	Unit	Quantity
Structure Excavation	Cu. Yd.	454.8
Concrete Structures	Cu. Yd.	112.9
Reinforcement Bars, Epoxy Coated	Pound	12,060
Furnishing Steel Piles, HP14x89	Foot	2961
Driving Piles	Foot	2961
Pile Shoes	Each	21
Concrete Sealer	Sq Ft	930
Porous Granular Embankment (Special)	Cu. Yd.	183.6
Geocomposite Wall Drain	Sq. Yd.	69
Pipe Underdrains for Structures 4"	Foot	63
Conduit Embedded in Structure, 2" Dia., PVC	Foot	17
Concrete Encasement	Cu. Yd.	9.3

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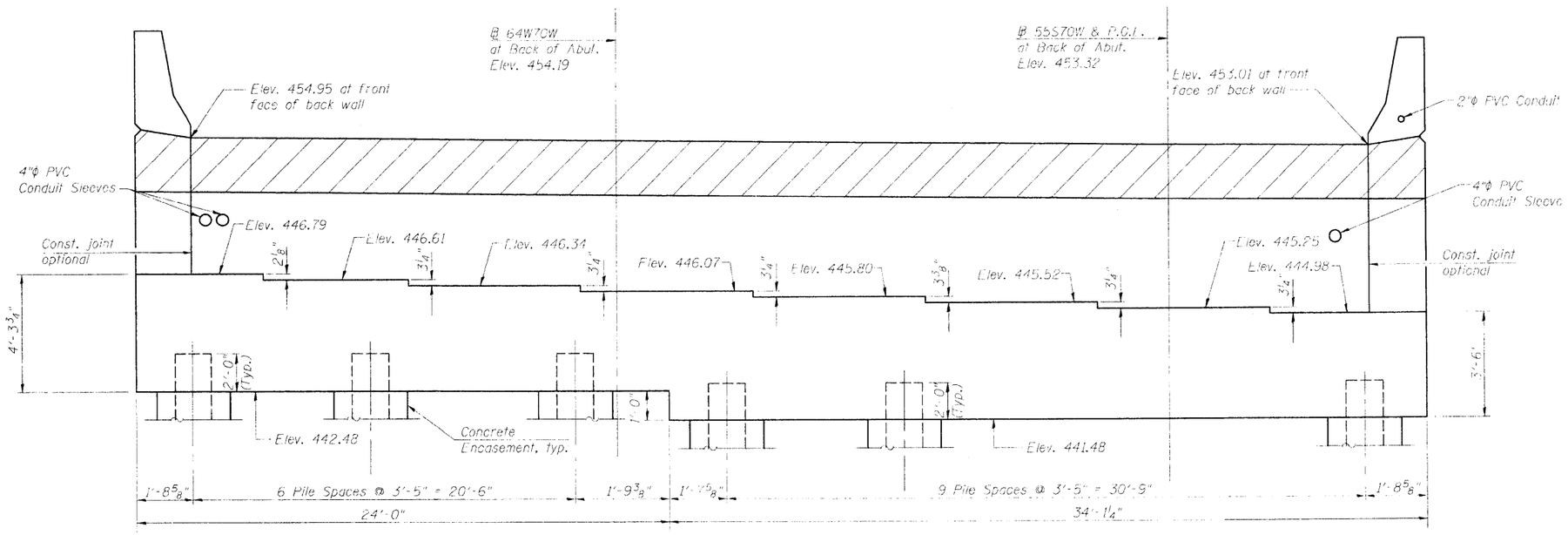
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT PLANS – S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS

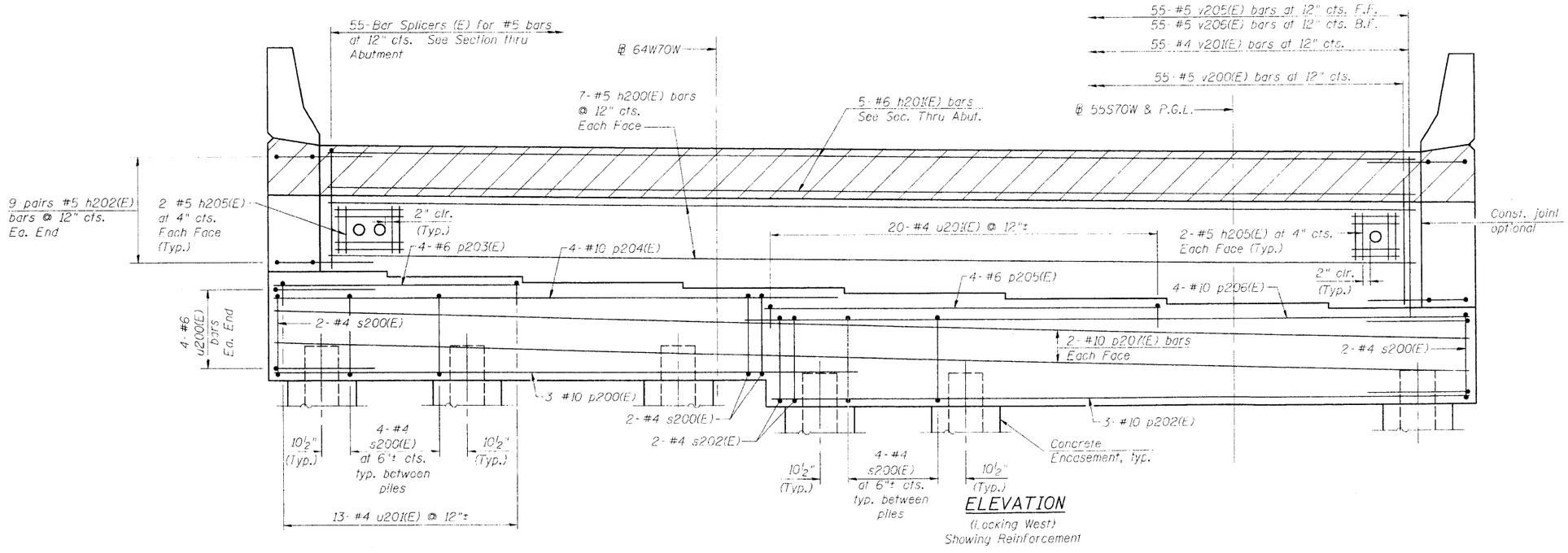
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELEVATION

(Looking West)
Showing Dimensions



ELEVATION

(Looking West)
Showing Reinforcement

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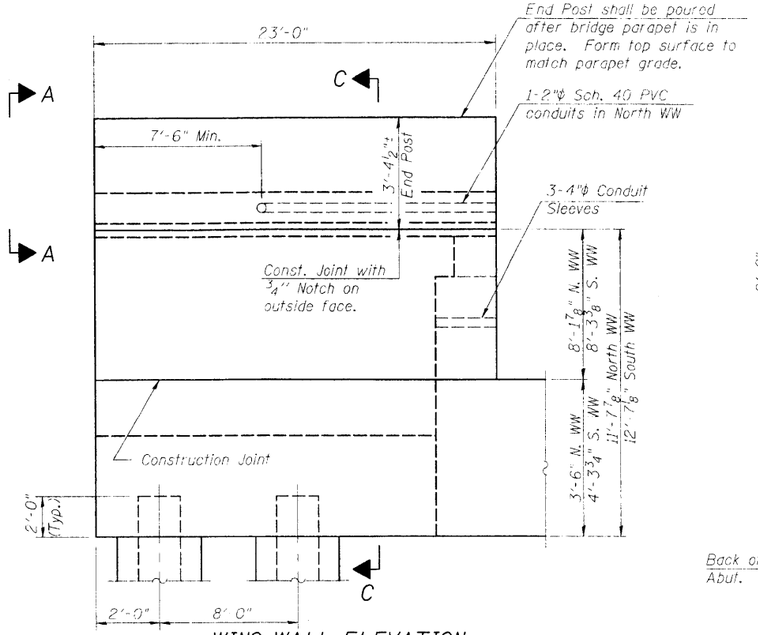
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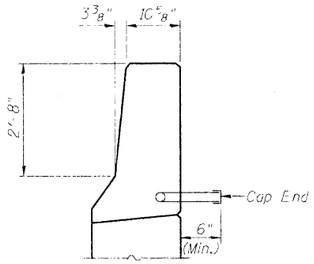
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT ELEVATIONS – S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-100 OF S-138 SHEETS | STA. | TO STA.

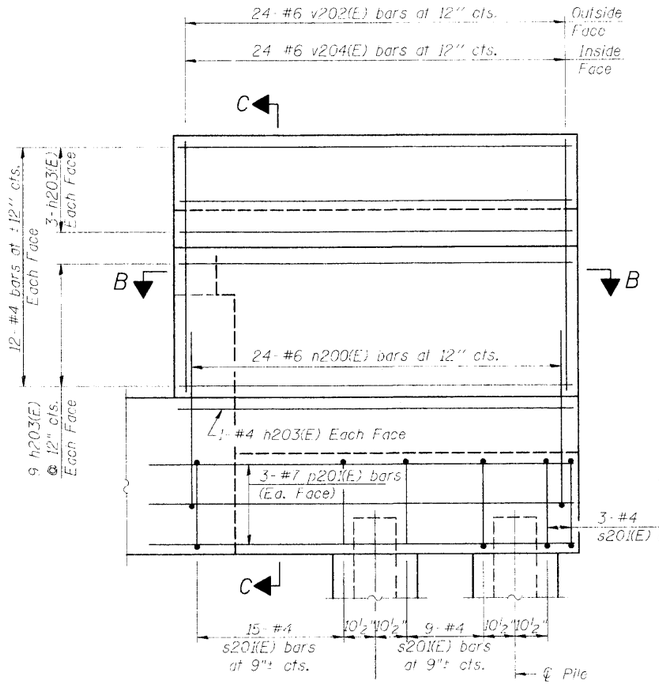
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FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



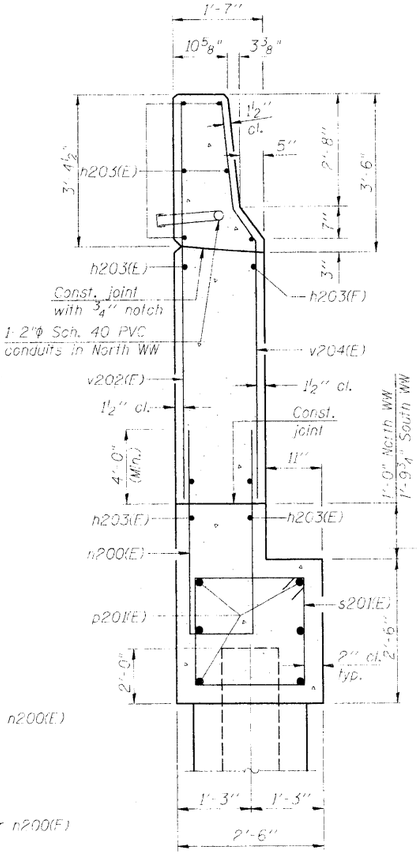
WING WALL ELEVATION
Showing Dimensions

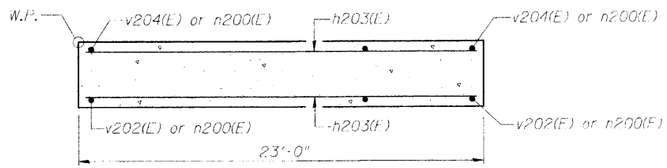


VIEW A-A



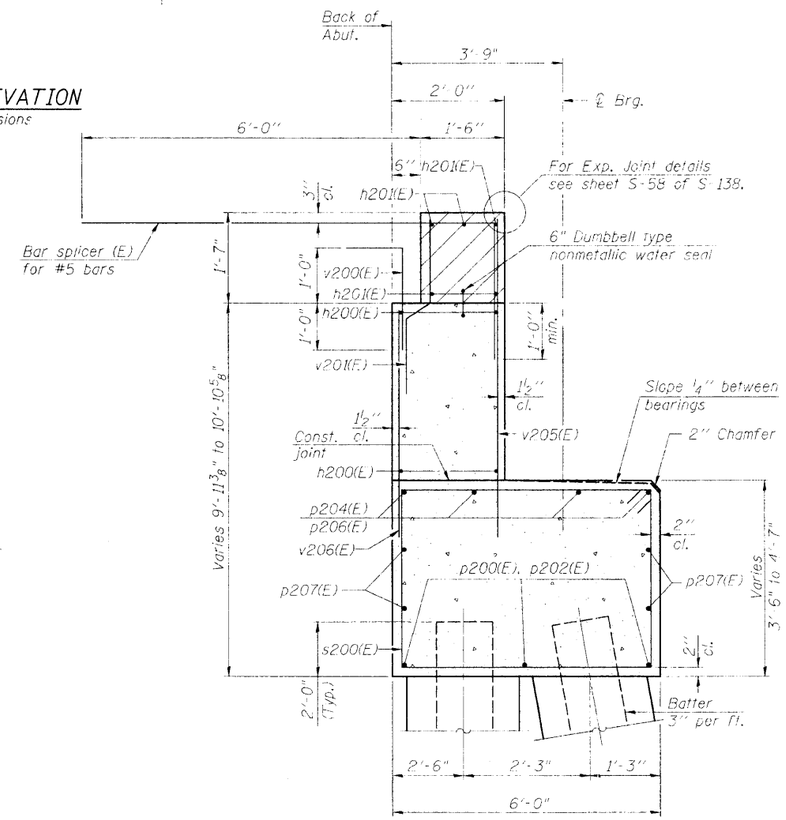
WING WALL ELEVATION
Showing Reinforcement





SECTION B-B

SECTION C-C



SEC. THRU ABUT.

Notes:
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
Quantity of concrete in end post included with Concrete Superstructure on sheet S-44 of S-138.
For Concrete Encasement details, see sheet S 122 of S 138.
See Electrical Plans for conduit termination details through Abutment.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT DETAILS – S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-101 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	216
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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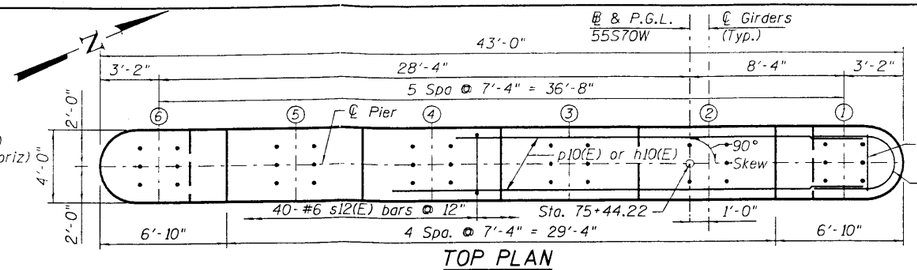
NOTES:

1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For details of piles, see sheet S-122.
4. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
5. #5 sp10(E) spiral, each column
   1) Provide 1½ extra turns, shop welded together per AWS D1.4 top and bottom. Extend spiral 2" into pier cap & crashwall. Provide 4-#4 spacers or equivalent.
   2) When splicing spiral reinforcement is necessary, the spiral shall be provided with 1½ 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.
6. The s12(E) cross-tie bars shall be placed so that orientation of 180° hook of two successive cross-ties alternate end to end. A single layer of bars shall be provided across top mat of footing reinforcement. Space bars as follows:
   9-#6 s12(E) @ 6" (vert) x 47 @ 8" (horiz)
   16-#6 s12(E) @ 9" (vert) x 24 @ 1'-4" (horiz)
7. For anchor bolt details, see Sheets S-83 thru S-92.

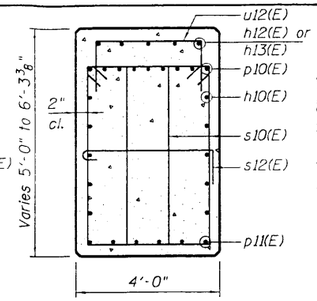
* Splicing of reinforcement will not be allowed in this region.

** Length is height of spiral.

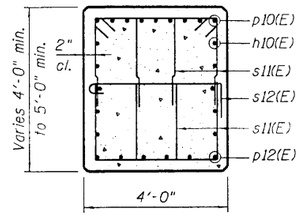
*** 13-u12(E) bars match w/ h12(E) bars
27-u12(E) bars match w/ h13(E) bars
Adjust bars in field to avoid conflict with stirrups.



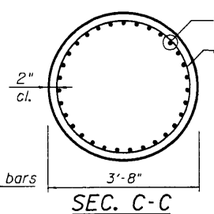
TOP PLAN



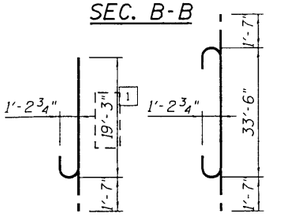
SEC. A-A



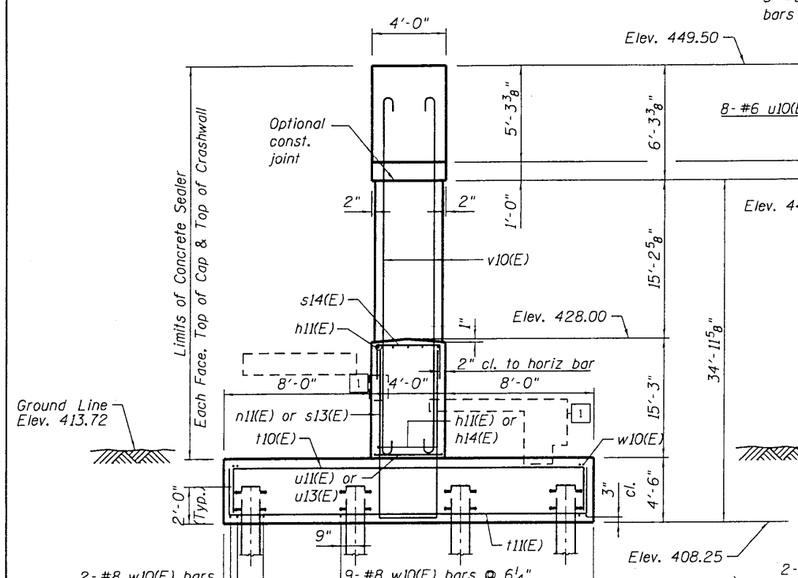
SEC. B-B



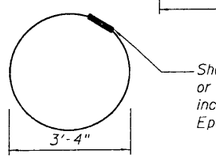
SEC. C-C



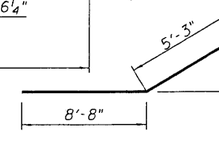
BAR n11(E) BAR v10(E)



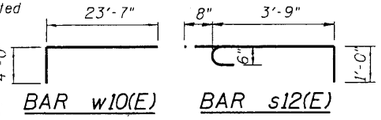
END VIEW



BAR s15(E)

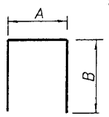


BAR p12(E)



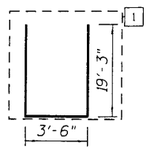
BAR w10(E) BAR s12(E)

A & B DIMENSIONS



Bar	A	B
p10(E)	39'-0"	1'-10"
s11(E)	2'-8"	3'-8"
s14(E)	3'-6"	3'-0"
u12(E)	3'-8"	1'-0"
t10(E)	19'-8"	3'-10"
t11(E)	19'-8"	3'-10"

BARS p10(E), s11(E), s14(E), u12(E), t10(E), t11(E)

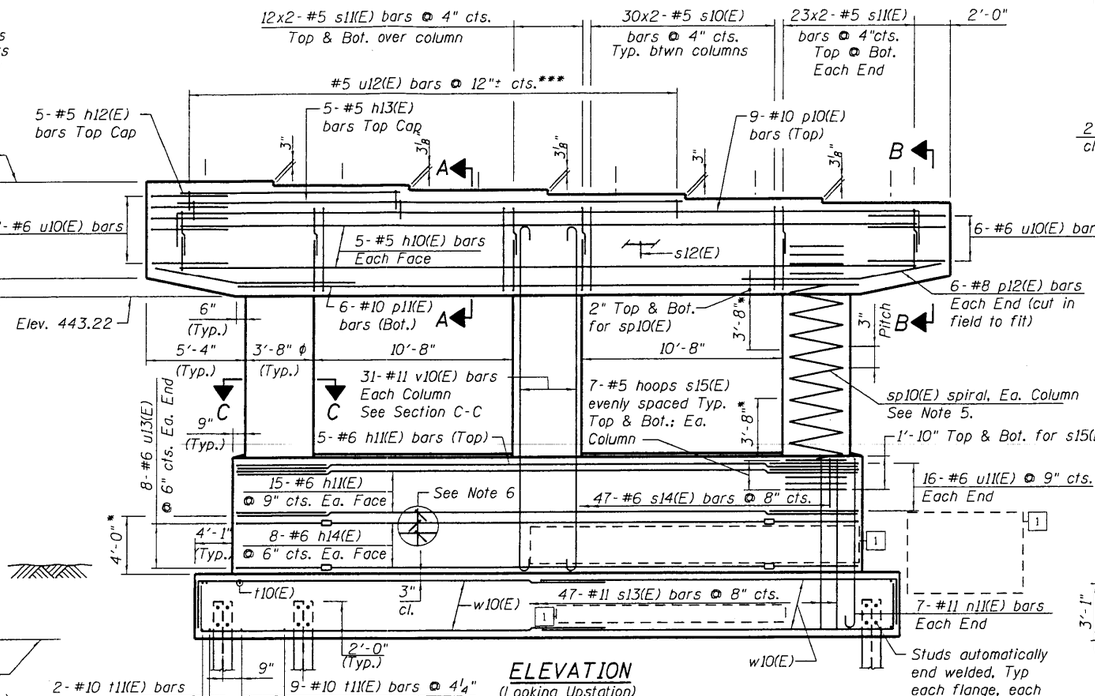


BAR s13(E)

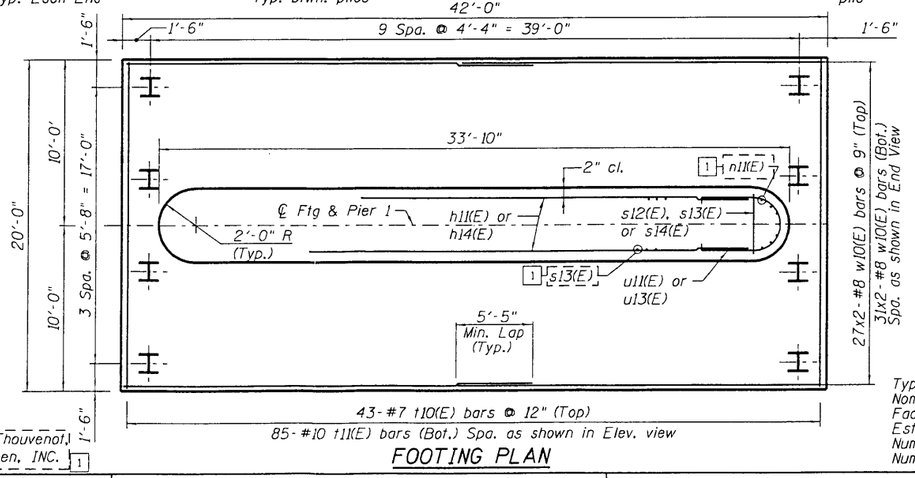
TOP OF SEAT ELEVATION

Beam No.	Seat Elev.
1	448.22
2	448.48
3	448.73
4	448.99
5	449.25
6	449.50

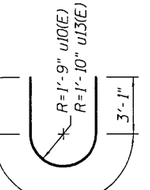
Revision 1 by Thouvenot, Wade & Moerchen, INC. 1



ELEVATION (Looking Upstation)

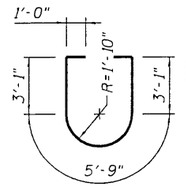


FOOTING PLAN



BAR s10(E)

BAR u10(E) BAR u13(E)



BAR u11(E)

PILE DATA

Type:	HP14x89
Nominal Required Bearing:	500 kips
Factored Resistance Available:	250 kips
Estimated Length:	104 ft.
Number of Production Piles:	39
Number of Test Piles:	1

BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	h10(E)	10	#5	38'-8"	
	h11(E)	35	#6	29'-4"	
	h12(E)	5	#5	12'-0"	
	h13(E)	5	#5	26'-8"	
	h14(E)	16	#6	23'-8"	
1	n11(E)	14	#11	20'-10"	
	p10(E)	9	#10	42'-8"	
	p11(E)	6	#10	33'-0"	
	p12(E)	12	#8	13'-11"	
	s10(E)	120	#5	15'-7"	
	s11(E)	232	#5	10'-0"	
	s12(E)	847	#6	5'-5"	
1	s13(E)	47	#11	42'-0"	
	s14(E)	47	#6	9'-6"	
	s15(E)	42	#5	10'-5 5/8"	
**	sp10(E)	3	#5	15'-7"	
	t10(E)	43	#7	27'-4"	
	t11(E)	85	#10	27'-4"	
	u10(E)	14	#6	11'-8"	
	u11(E)	32	#6	13'-11"	
	u12(E)	40	#5	5'-8"	
	u13(E)	16	#6	11'-11"	
	v10(E)	93	#11	36'-8"	
1	v11(E)	0	-	-	-
1	v12(E)	0	-	-	-
	w10(E)	116	#8	27'-7"	

Item	Unit	Quantity
Structure Excavation	Cu. Yd.	223.7
Concrete Structures	Cu. Yd.	266.6
Reinforcement Bars, Epoxy Coated	Pound	72,650
Furnishing Steel Piles. HP14x89	Foot	4056
Driving Piles	Foot	4056
Test Pile Steel HP14x89	Each	1
Pile Shoes	Each	40
Concrete Sealer	Sq Ft	2547
1 Mechanical Splicers	Each	1 32

AECOM

USER NAME = dholdener	DESIGNED - EJO	REVISED 1 DJH 12-14-2011	
	DRAWN - JHR	REVISED -	
PLOT SCALE = 0:2 ½ / in.	CHECKED - DB	REVISED -	
PLOT DATE = 2/8/2012	DATE - 05-02-11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 – S.N. 082-0323
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-102 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	217
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

S102_082-0323_76C75_Pier1.dgn

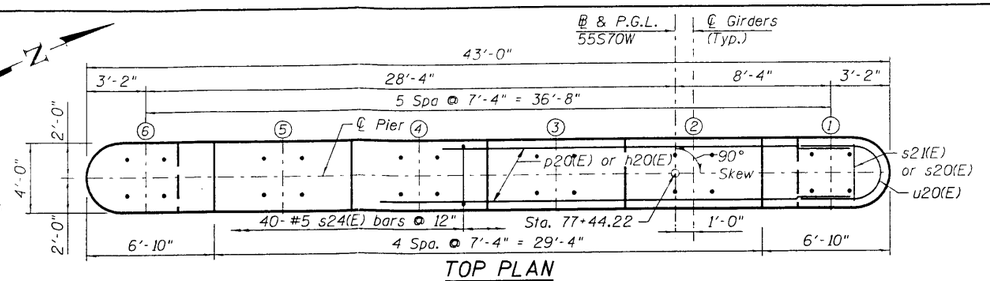
NOTES:

1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For details of piles, see sheet S-122.
4. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
5. #5 sp20(E) spiral, each column
   1) Provide 1½ extra turns, shop welded together per AWS D1.4 top and bottom. Extend spiral 2" into pier cap & footing. Provide 4-#4 spacers or equivalent.
   2) When splicing spiral reinforcement is necessary, the spiral shall be provided with 1½ 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.
6. For anchor bolt details, see Sheets S-83 thru S-92.

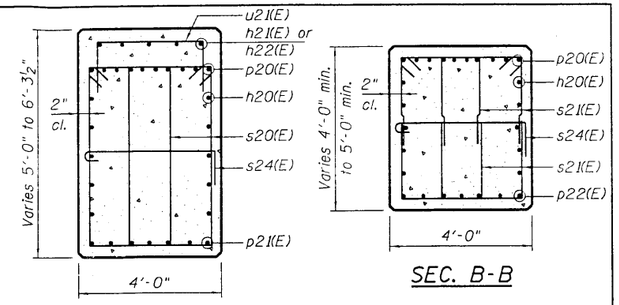
* Splicing of reinforcement will not be allowed in this region.

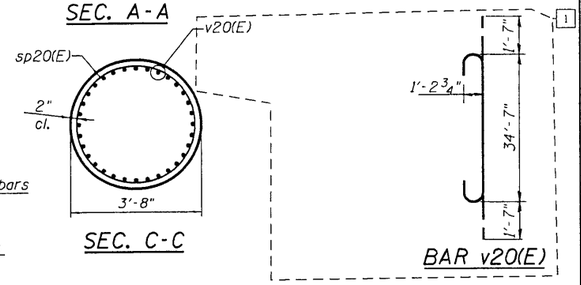
** Length is height of spiral.

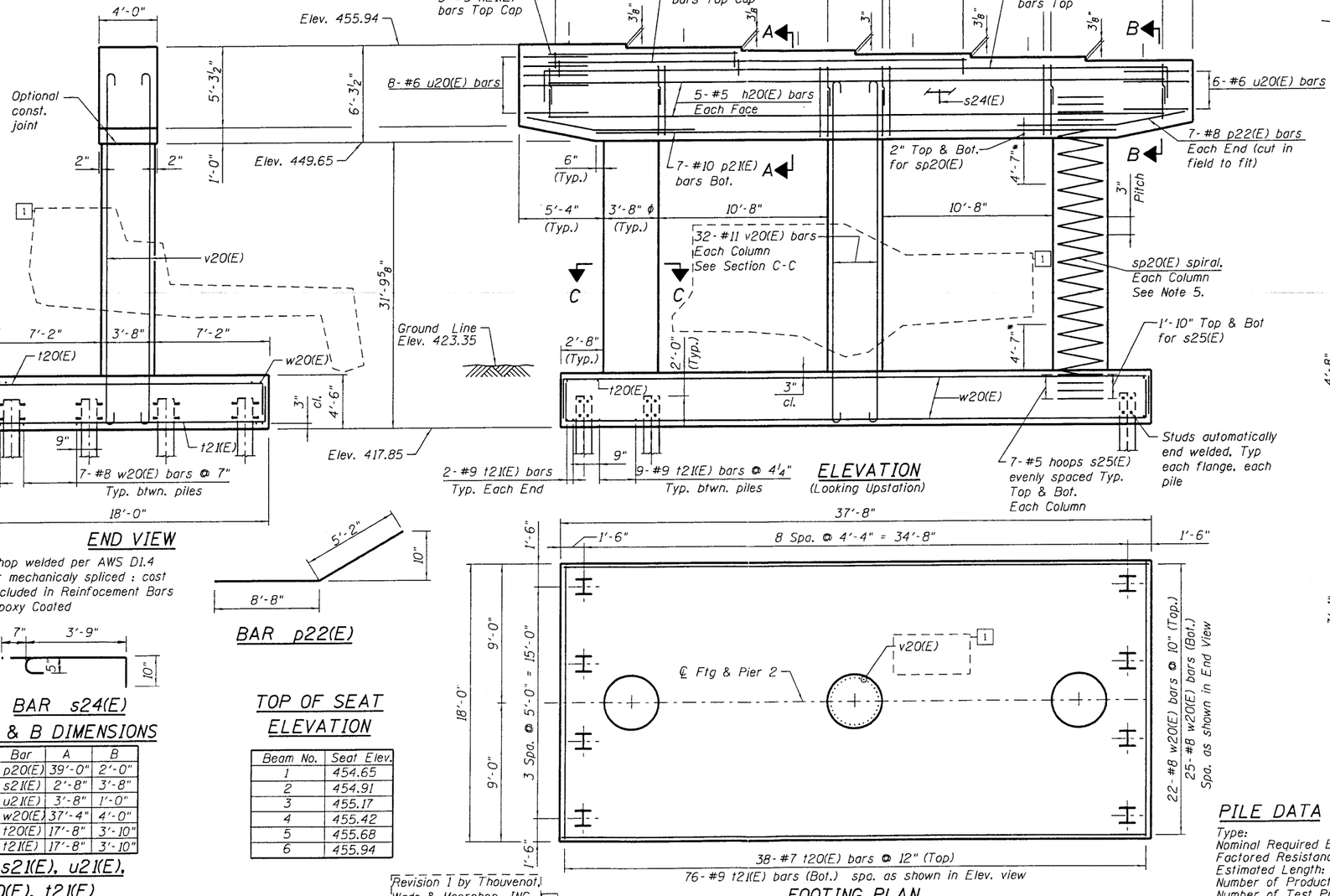
*** 13-u21(E) bars match w/ h21(E) bars
27-u21(E) bars match w/ h22(E) bars
Adjust bars in field to avoid conflict with stirrups.



TOP PLAN

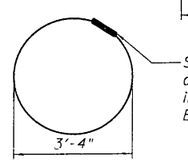






ELEVATION
(Looking Upstation)

END VIEW

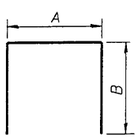


BAR s25(E)

BAR s24(E)

A & B DIMENSIONS

Bar	A	B
p20(E)	39'-0"	2'-0"
s21(E)	2'-8"	3'-8"
u21(E)	3'-8"	1'-0"
w20(E)	37'-4"	4'-0"
t20(E)	17'-8"	3'-10"
t21(E)	17'-8"	3'-10"



BARS p20(E), s21(E), u21(E), w20(E), t20(E), t21(E)

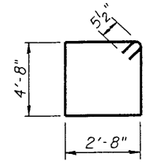
BAR p22(E)

TOP OF SEAT ELEVATION

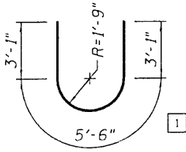
Beam No.	Seat Elev.
1	454.65
2	454.91
3	455.17
4	455.42
5	455.68
6	455.94

FOOTING PLAN

Revision 1 by Thouvenot, Wade & Moerchen, INC. 1



BAR s20(E)



BAR u20(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h20(E)	10	#5	38'-8"	
h21(E)	5	#5	12'-0"	
h22(E)	5	#5	26'-8"	
1 n20(E)	0	-	-	-
n21(E)	0	-	-	-
p20(E)	10	#11	43'-0"	
p21(E)	7	#10	33'-0"	
p22(E)	14	#8	13'-10"	
s20(E)	120	#5	15'-7"	
s21(E)	236	#5	10'-0"	
s24(E)	40	#5	5'-2"	
s25(E)	42	#5	10'-5 5/8"	
** sp20(E)	3	#5	27'-8"	
t20(E)	38	#7	25'-4"	
t21(E)	76	#9	25'-4"	
u20(E)	14	#6	11'-8"	
u21(E)	40	#5	5'-8"	
v20(E)	96	#11	37'-9"	
1 v21(E)	0	-	-	-
w20(E)	47	#8	45'-4"	

Item	Unit	Quantity
Structure Excavation	Cu. Yd.	186.7
Concrete Structures	Cu. Yd.	179.3
Reinforcement Bars, Epoxy Coated	Pound	47,050
Furnishing Steel Piles, HP14x89	Foot	3850
Driving Piles	Foot	3850
Test Pile Steel HP14x89	Each	1
Pile Shoes	Each	36
1 Mechanical Splicers	Each	0

PILE DATA

Type:	HP14x89
Nominal Required Bearing:	500 kips
Factored Resistance Available:	250 kips
Estimated Length:	110 ft.
Number of Production Piles:	35
Number of Test Piles:	1

AECOM

USER NAME = dholdener	DESIGNED - EJO	REVISED 1	DJH 12-14-2011
	DRAWN - JHR	REVISED -	
PLOT SCALE = 0.2 '/ in.	CHECKED - DB	REVISED -	
PLOT DATE = 2/8/2012	DATE - 05-02-11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 – S.N. 082-0323
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-103 OF S-138 SHEETS | STA. | TO STA.

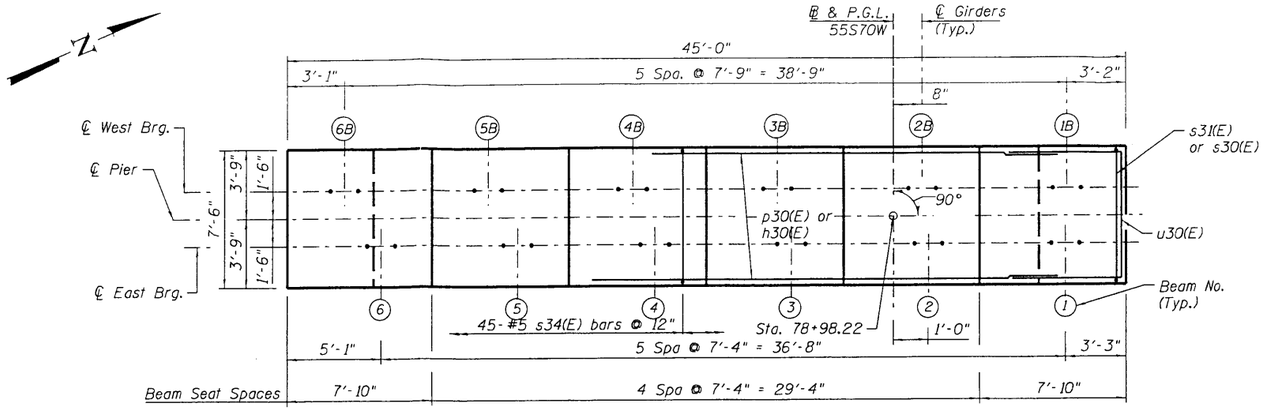
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	B2-1-B-1	ST. CLAIR	319	218
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

S183_082-0323_76C75_Pier2.dgn

NOTES:

1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For details of piles, see sheet S-122.
4. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
5. #5 sp30(E) spiral, each column
   1) Provide 1½" extra turns, shop welded together per AWS D1.4 top and bottom. Extend spiral 2" into pier cap & footing. Provide 4-#4 spacers or equivalent.
   2) When splicing spiral reinforcement is necessary, the spiral shall be provided with 1½" 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.
6. For Anchor Bolt Details, see Sheet No. S-83 thru. S-92.
7. For Girder 1B thru. 6B shim plate details, see Sheet No. S-88.
8. For Sections A-A, B-B & C-C, see Sheet No. S-105.

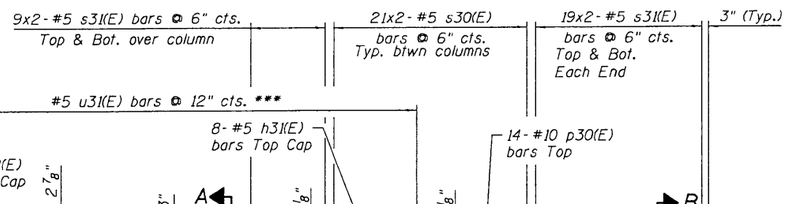
***16-u31(E) bars match w/ h32(E) bars
30-u31(E) bars match w/ h31(E) bars
Adjust u31(E) bars in the Field to avoid conflict with Stirrups.

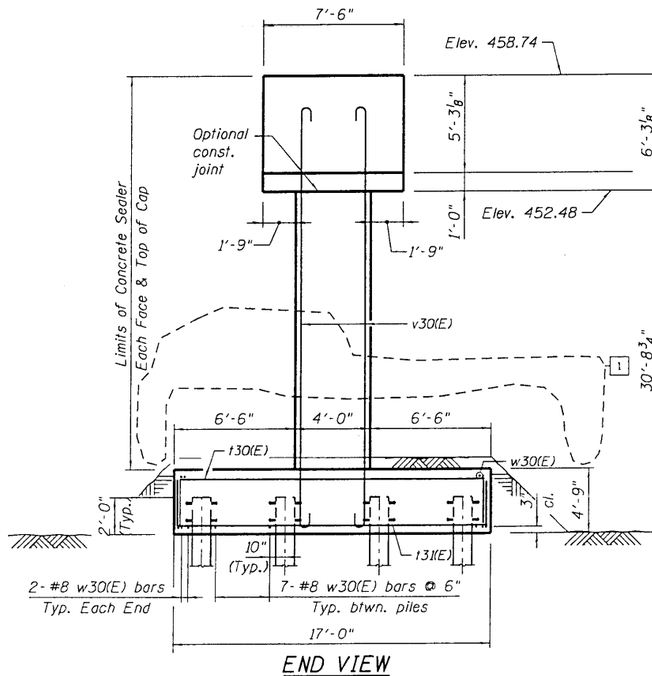


TOP OF SEAT ELEVATION

Beam No.	Seat Elev.
1 & 1B	457.48
2 & 2B	457.73
3 & 3B	457.99
4 & 4B	458.25
5 & 5B	458.50
6 & 6B	458.74

TOP PLAN





END VIEW

ELEVATION
(Looking Upstation)

Revision 1 by Thouvenot, Wade & Moerchen, INC. 1

USER NAME = dholdener	DESIGNED - ATB	REVISED 1 DJH 12-14-2011	
	DRAWN - PMM	REVISED -	
PLOT SCALE = 8.2 '/' in.	CHECKED - ATB	REVISED -	
PLOT DATE = 2/8/2012	DATE - 03/18/2011	REVISED -	

AECOM

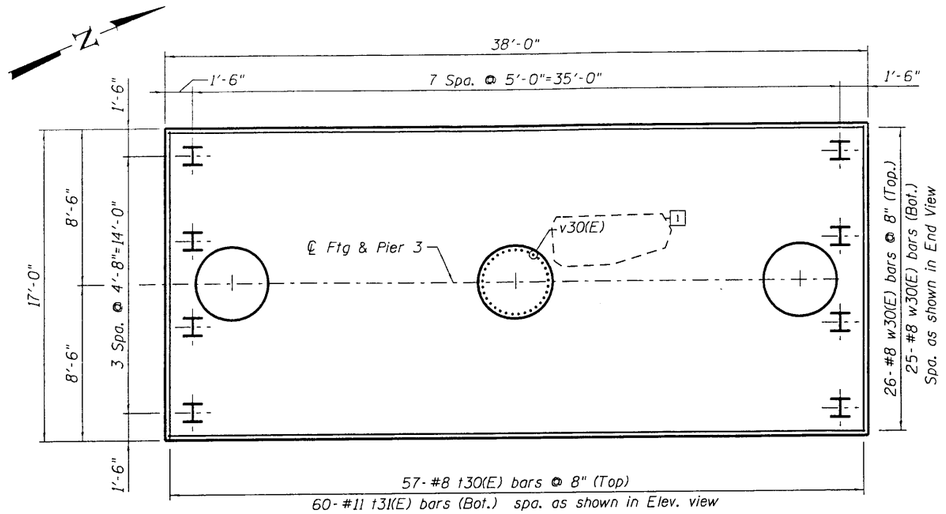
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 3 – S.N. 082-0323
~~I-70W OVER I-55, CSX & KCS RAILROADS~~

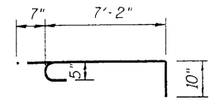
SCALE: NONE | SHEET NO. S-104 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	219
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

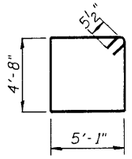
S104_082-0323_76C75_Pier-3.dgn



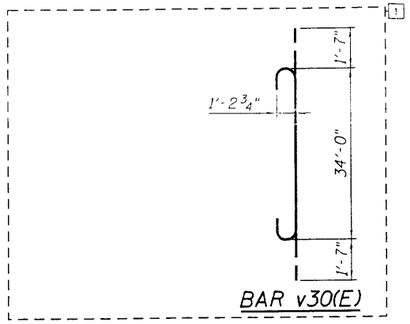
FOOTING PLAN



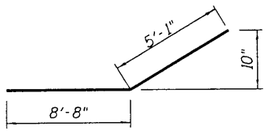
BAR s34(E)



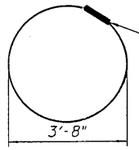
BAR s30(E)



BAR v30(E)

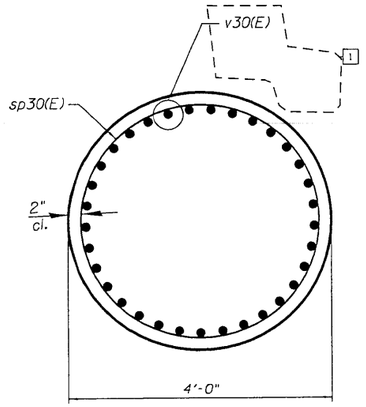


BAR p32(E)



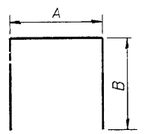
Shop welded per AWS D1.4 or mechanicaly spliced ; cost included in Reinfocement Bars Epoxy Coated

BAR s35(E)



SEC. C-C

A & B DIMENSIONS



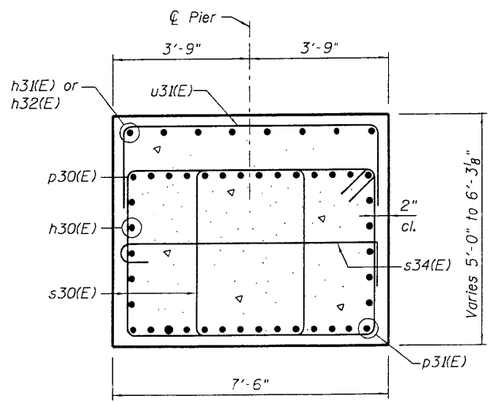
Bar	A	B
p30(E)	44'-8"	2'-0"
s31(E)	5'-1"	3'-8"
t30(E)	16'-8"	3'-8"
t31(E)	16'-8"	3'-8"
u30(E)	7'-0"	3'-1"
u31(E)	7'-2"	1'-0"
w30(E)	37'-8"	4'-0"

BARS p30(E), s31(E), t30(E), t31(E) u30(E), u31(E), & w30(E)

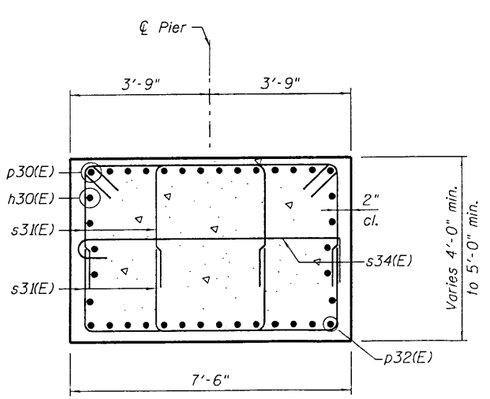
BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	h30(E)	10	#5	44'-8"	
	h31(E)	8	#5	29'-6"	
	h32(E)	8	#5	14'-10"	
1	n30(E)	0	-	-	-
1	n31(E)	0	-	-	-
	p30(E)	14	#10	48'-8"	
	p31(E)	14	#10	35'-8"	
	p32(E)	28	#8	13'-9"	
	s30(E)	84	#5	20'-5"	
	s31(E)	188	#5	12'-5"	
	s34(E)	45	#5	8'-7"	
	s35(E)	48	#5	11'-6"	
**	sp30(E)	3	#5	26'-4"	
	t30(E)	57	#8	24'-0"	
	t31(E)	60	#11	24'-0"	
	u30(E)	14	#6	13'-2"	
	u31(E)	46	#5	9'-2"	
	v30(E)	102	#11	37'-2"	
1	v31(E)	0	-	-	
	w30(E)	51	#8	45'-8"	

Item	Unit	Quantity
Concrete Structures	Cu. Yd.	219.1
Reinforcement Bars, Epoxy Coated	Pound	54,330
Furnishing Steel Piles, HP14x89	Foot	3472
Driving Piles	Foot	3472
Test Pile Steel HP14x89	Each	1
Pile Shoes	Each	32
Concrete Sealer	Sq Ft	2199
1 Mechanical Splicers	Each	0



SEC. A-A



SEC. B-B

PILE DATA

Type:	HP14x89
Nominal Required Bearing:	500 kips
Factored Resistance Available:	250 kips
Estimated Length:	112 ft.
Number of Production Piles:	31
Number of Test Piles:	1

** Length is height of spiral

Revision 1 by Thouvenot, Wade & Moerchen, INC. 1

AECOM	USER NAME : dholdener	DESIGNED - ATB	REVISED 1 DJH 12-14-2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 3 DETAILS S.N. 082-0323 I-70W OVER I-55, CSX & KCS RAILROADS	F.A.I. RTE. 70 | SECTION B2-1-B-1 | COUNTY ST. CLAIR | TOTAL SHEETS 319 | SHEET NO. 220
		DRAWN - PMM	REVISED -			S.N. 082-0323 & S.N. 082-0325 | CONTRACT NO. 76C75
	PLOT SCALE : 8:2 '1' / in.	CHECKED - ATB	REVISED -		SCALE: NONE | SHEET NO. S-105 OF S-138 SHEETS | STA. | TO STA.	FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT
	PLOT DATE : 2/8/2012	DATE - 05-02-11	REVISED -			

5105.082-0323.76C75.Pier-3B.dgn

NOTES:

1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For details of piles, see sheet S-122.
4. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
5. #5 sp110(E) spiral, each column
   1) Provide 1½ extra turns, shop welded together per AWS D1.4 top and bottom. Extend spiral 2" into pier cap & crashwall. Provide 4 #4 spacers or equivalent.
   2) When splicing spiral reinforcement is necessary, the spiral shall be provided with 1½ 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.
6. The s112(E) cross-tie bars shall be placed so that orientation of 180° hook of two successive cross-ties alternate end to end. A single layer of bars shall be provided across top mat of footing reinforcement. Space bars as follows:
   9-#5 s112(E) @ 6" (vert) x 53 @ 6" (horiz)
   9-#5 s112(E) @ 9" (vert) x 27 @ 1'-0" (horiz)
7. For anchor bolt details, see Sheets S-83 thru S-92.

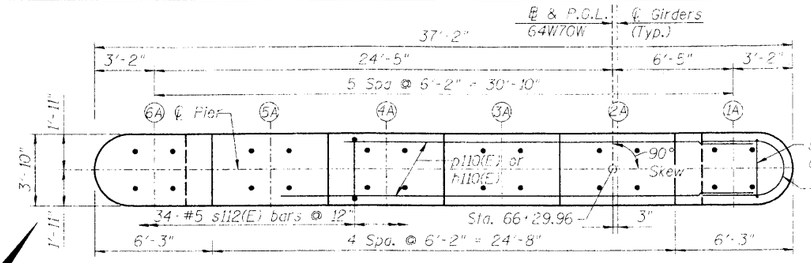
* Splicing of reinforcement will not be allowed in this region.

** Length is height of spiral.

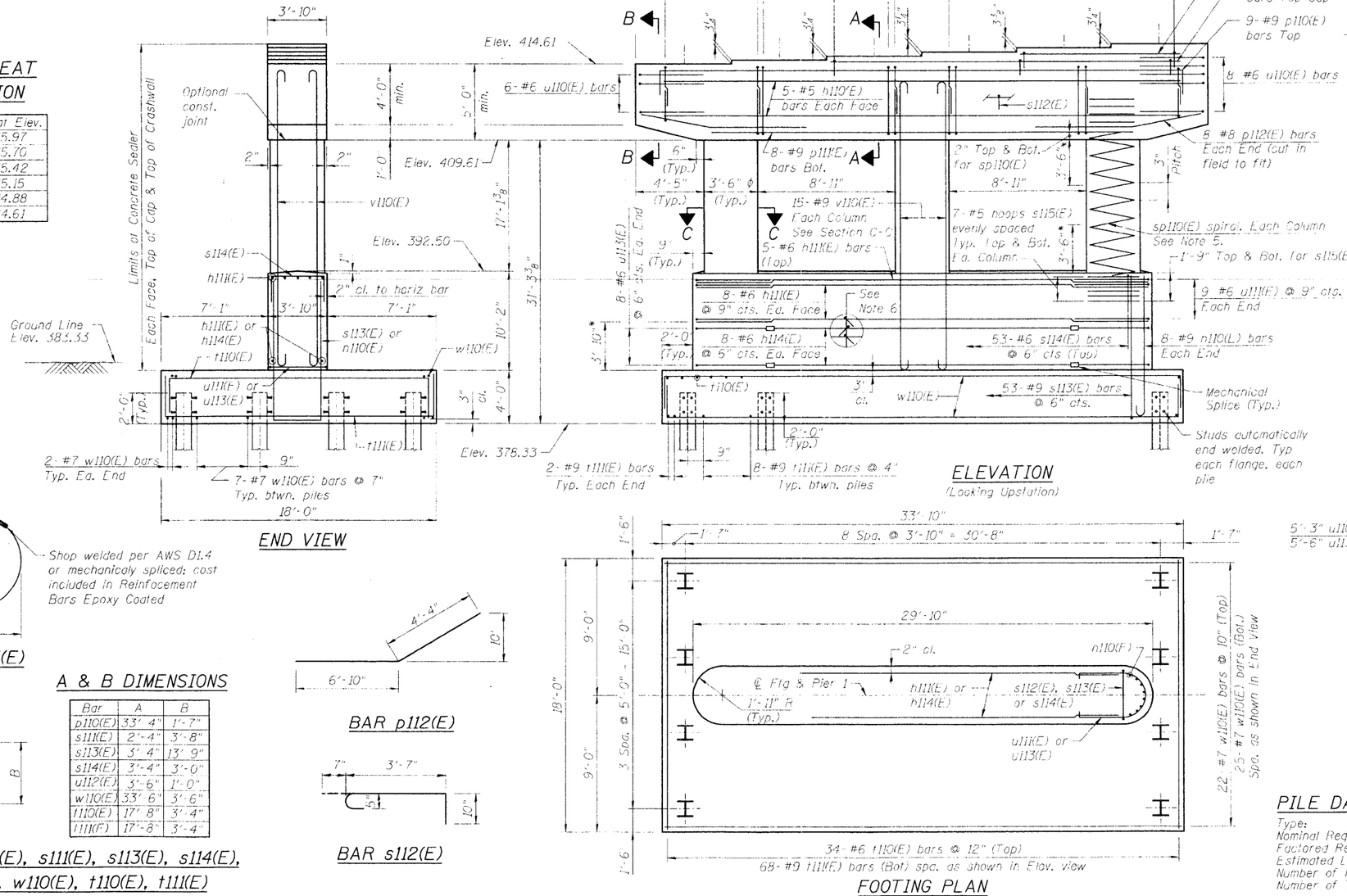
*** 11-u112(E) bars match w/ h112(E) bars
24-u112(E) bars match w/ h113(E) bars
Adjust bars in field to avoid conflict with stirrups.

TOP OF SEAT ELEVATION

Beam No.	Seat Elev.
1A	415.97
2A	415.70
3A	415.42
4A	415.15
5A	414.88
6A	414.61



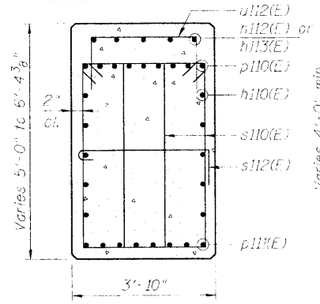
TOP PLAN



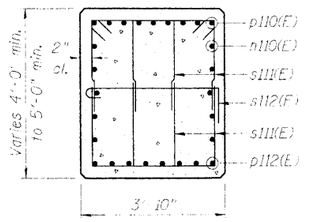
END VIEW

ELEVATION
(Looking Upstation)

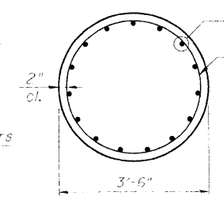
FOOTING PLAN



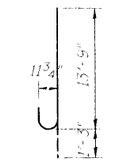
SEC. A-A



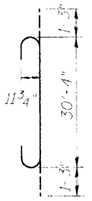
SEC. B-B



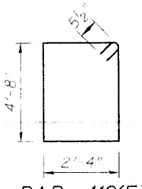
SEC. C-C



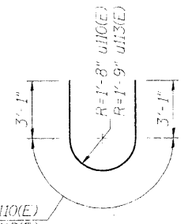
BAR n110(E)



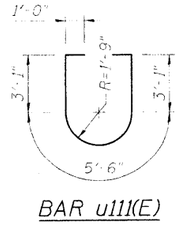
BAR v110(E)



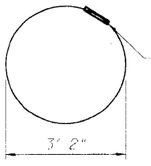
BAR s110(E)



BAR u110(E)
BAR u113(E)



BAR u111(E)



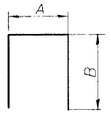
Shop welded per AWS D1.4 or mechanicaly spliced; cost included in Reinfocement Bars Epoxy Coated

BAR s115(E)

BAR p112(E)

A & B DIMENSIONS

Bar	A	B
p110(E)	33'-4"	1'-7"
s111(E)	2'-4"	3'-8"
s113(E)	3'-4"	13'-9"
s114(E)	3'-4"	3'-0"
u112(E)	3'-6"	1'-0"
w110(E)	33'-6"	3'-6"
t110(E)	17'-8"	3'-4"
t111(E)	17'-8"	3'-4"



BARS p110(E), s111(E), s113(E), s114(E), u112(E), w110(E), t110(E), t111(E)

BAR s112(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h110(E)	10	#5	33'-0"	——
h111(E)	21	#6	25'-8"	——
h112(E)	5	#5	10'-4"	——
h113(E)	5	#5	22'-8"	——
h114(E)	16	#6	19'-10"	——
n110(E)	16	#9	15'-0"	⊂—⊃
p110(E)	9	#9	36'-6"	⊓
p111(E)	8	#9	29'-0"	——
p112(E)	16	#8	11'-2"	⊿
s110(E)	68	#5	14'-11"	⊓
s111(E)	144	#5	9'-8"	⊓
s112(E)	754	#5	5'-0"	⊂⊃
s113(E)	53	#9	30'-10"	⊓
s114(E)	53	#6	9'-4"	⊓
s115(E)	42	#5	9'-11 3/8"	○
sp110(E)	3	#5	17'-6"	∿∿
t110(E)	34	#6	24'-3"	⊓
t111(E)	68	#9	24'-3"	⊓
u110(E)	14	#6	11'-5"	∪
u111(E)	18	#6	13'-8"	∪
u112(E)	35	#5	5'-6"	⊓
u113(E)	16	#6	11'-8"	∪
v110(E)	45	#9	32'-10"	⊂⊃
w110(E)	47	#7	40'-6"	⊓

Item	Unit	Quantity
Structure Excavation	Cu. Yd.	154.1
Concrete Structures	Cu. Yd.	179.9
Reinforcement Bars, Epoxy Coated	Pound	37,210
Furnishing Steel Piles, HP14x89	Foot	2916
Driving Piles	Foot	2916
Pile Shoes	Each	36
Concrete Sealer	Sq Ft	1919
Mechanical Splicers	Each	32

PILE DATA

Type:	HP14x89
Nominal Required Bearing:	500 kips
Factored Resistance Available:	250 kips
Estimated Length:	81 ft.
Number of Production Piles:	36
Number of Test Piles:	0

AECOM

USER NAME = Bhesla
PLOT SCALE = 0.0417 '/ In.
PLOT DATE = 05/17/11

DESIGNED - EJO
DRAWN - JHR
CHECKED - DB
DATE - 05-02-11

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 – S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-106 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO	82-1-B-1	ST. CLAIR	319	221
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

P:\IL\082465\DTL\020 CAD\401 Drawings\76C03 Master Consolidated\Structure\082-0323\Sheets\S106_082-0325_76C75_Pier1.dgn

NOTES:

1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For details of piles, see sheet S 122.
4. Bars indicated thus 20 x 3 #5 etc. indicates 20 lines of bars with 3 lengths per line.
5. #5 sp210(E) spiral, each column
   1) Provide 1½ extra turns, snap welded together per AWS D1.4 top and bottom. Extend spiral 2" into pier cap & crashwall. Provide 4 #4 spacers or equivalent.
   2) When splicing spiral reinforcement is necessary, the spiral shall be provided with 1½ 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.
6. The s212(E) cross-tie bars shall be placed so that orientation of 180° hook of two successive cross ties alternate end to end. A single layer of bars shall be provided across top mat of footing reinforcement. Space bars as follows:
   9 #5 s212(E) @ 6" (vert) x 46 @ 1' (horiz)
   7 #5 s212(E) @ 9" (vert) x 24 @ 1'-2" (horiz)
7. For anchor bolt details, see Sheets S 83 thru S 92.

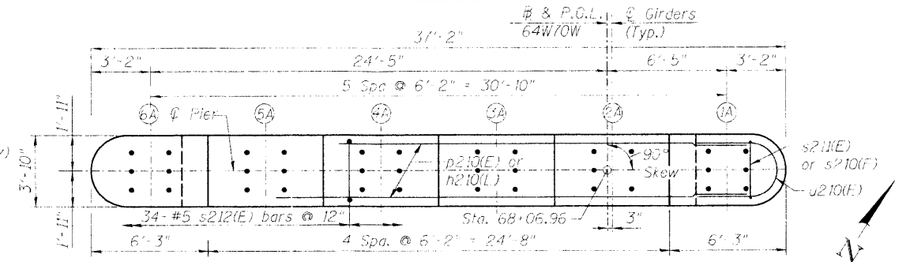
* Splicing of reinforcement will not be allowed in this region.

** Length is height of spiral.

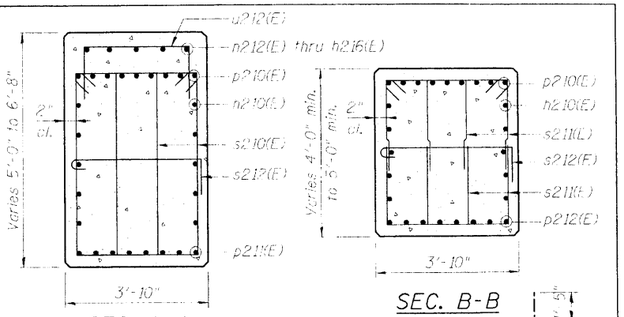
*** 30-u212(E) bars match w/ h212(E) bars
8-u212(E) bars match w/ h213(E) bars
18-u212(E) bars match w/ h214(E) bars
8-u212(E) bars match w/ h215(E) bars
5-u212(E) bars match w/ h216(E) bars
Adjust bars in field to avoid conflict with stirrups.

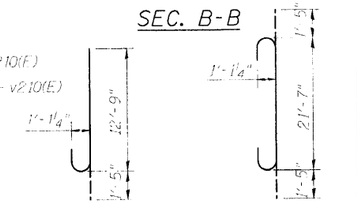
TOP OF SEAT ELEVATION

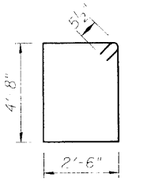
Beam No.	Seat Elev.
1A	425.54
2A	425.21
3A	424.88
4A	424.54
5A	424.21
6A	423.88

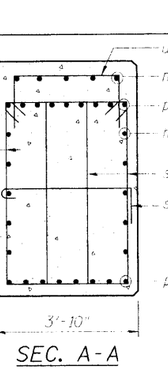


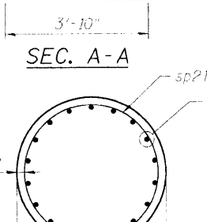
TOP PLAN

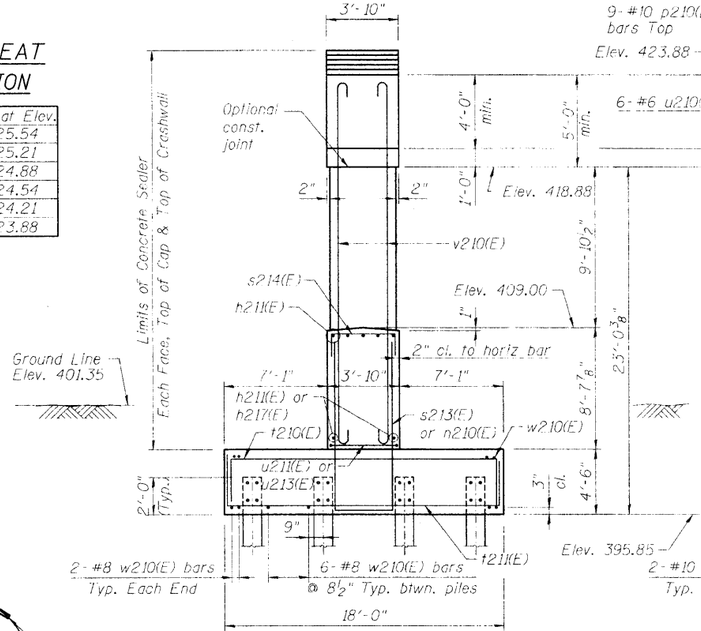




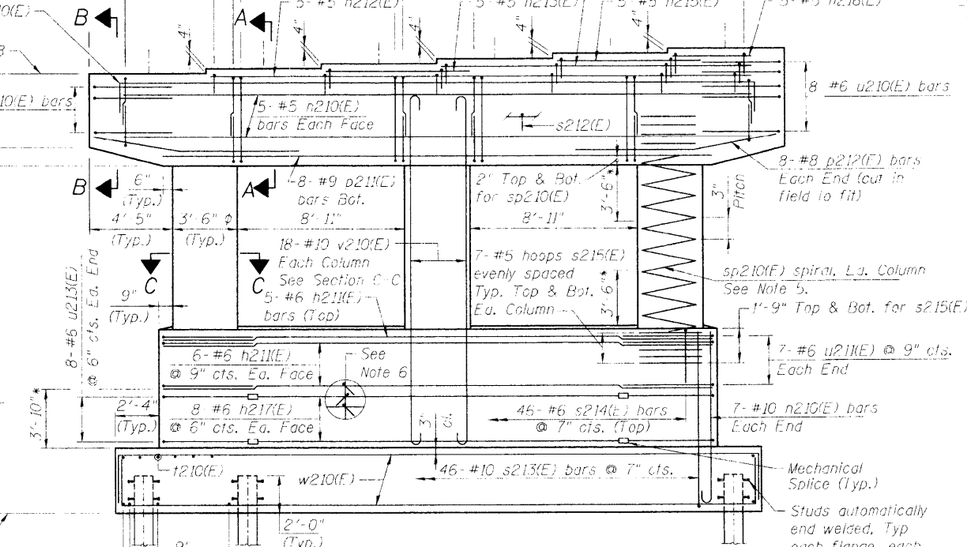




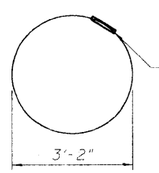




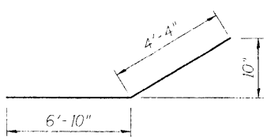
END VIEW



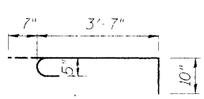
ELEVATION
(Looking Upstation)



BAR s215(E)

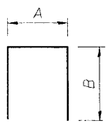


BAR p212(E)



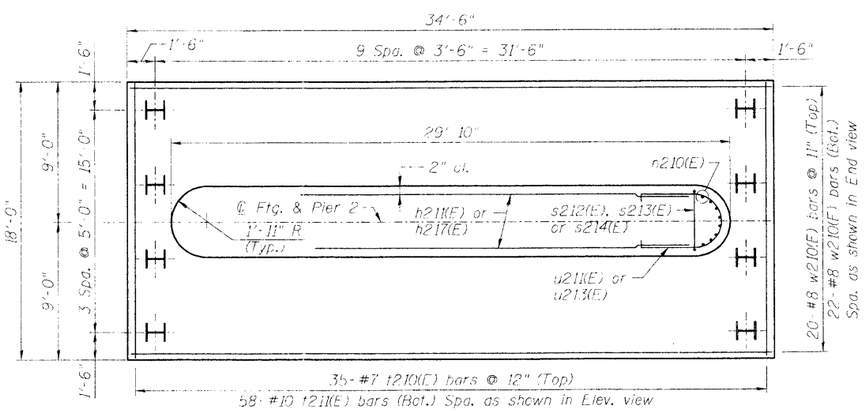
BAR s212(E)

A & B DIMENSIONS



Bar	A	B
p210(E)	33'-4"	1'-10"
s211(E)	2'-6"	3'-8"
s213(E)	3'-4"	12'-9"
s214(E)	3'-4"	3'-0"
u212(E)	3'-6"	1'-0"
w210(E)	34'-2"	4'-0"
t210(E)	17'-8"	3'-10"
t211(E)	17'-8"	3'-10"

BARS p210(E), s211(E), s213(E), s214(E), u212(E), w210(E), t210(E), t211(E)



FOOTING PLAN

PILE DATA

Type:	HP14x89
Nominal Required Bearing:	500 kips
Factored Resistance Available:	250 kips
Estimated Length:	108 ft.
Number of Production Piles:	39
Number of Test Piles:	1

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h210(E)	10	#5	33'- 0"	
h211(E)	17	#6	25'- 8"	
h212(E)	5	#5	28'- 10"	
h213(E)	5	#5	7'- 9"	
h214(E)	5	#5	16'- 4"	
h215(E)	5	#5	7'- 9"	
h216(E)	5	#5	4'- 2"	
h217(E)	16	#6	19'- 10"	
n210(E)	14	#10	14'- 2"	
p210(E)	9	#10	37'- 0"	
p211(E)	8	#9	29'- 0"	
p212(E)	16	#8	11'- 2"	
s210(E)	96	#5	15'- 3"	
s211(E)	212	#5	9'- 10"	
s212(E)	616	#5	5'- 0"	
s213(E)	46	#10	28'- 10"	
s214(E)	46	#6	9'- 4"	
s215(E)	42	#5	9'- 11 3/8"	
**sp210(E)	3	#5	10'- 3"	
t210(E)	35	#7	25'- 4"	
t211(E)	58	#10	25'- 4"	
u210(E)	14	#6	11'- 5"	
u211(E)	14	#6	13'- 8"	
u212(E)	69	#5	5'- 6"	
u213(E)	16	#6	11'- 8"	
v210(E)	54	#10	24'- 5"	
w210(E)	42	#8	42'- 2"	

Item	Unit	Quantity
Structure Excavation	Cu. Yd.	172.5
Concrete Structures	Cu. Yd.	179.2
Reinforcement Bars, Epoxy Coated	Pound	40,090
Furnishing Steel Piles, HP14x89	Foot	4212
Driving Piles	Foot	4212
Test Pile Steel HP14x89	Each	1
Pile Shoes	Each	40
Concrete Sealer	Sq Ft	1597
Mechanical Splicers	Each	32

AECOM

USER NAME = $Name$	DESIGNED - EJO	REVISED -	
	DRAWN - GF	REVISED -	
PLOT SCALE = 0.1 '/ in.	CHECKED - DB	REVISED -	
PLOT DATE = $DATE$	DATE - 05-02-11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 – S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-107 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	222
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

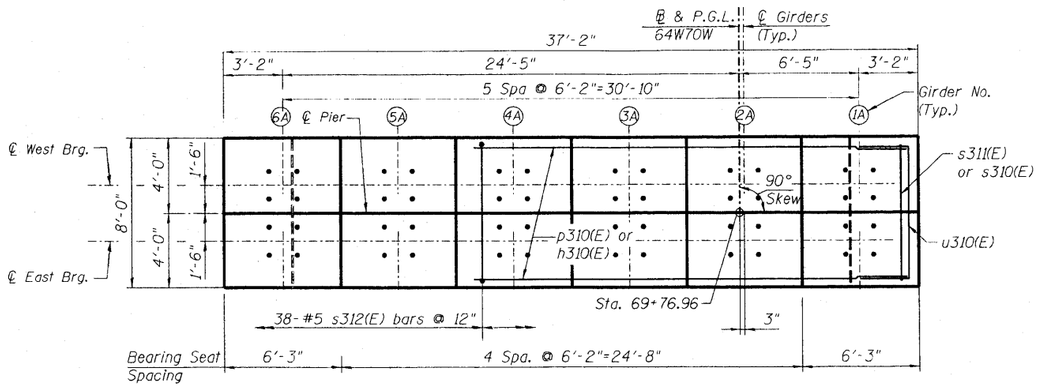
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NOTES:

1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For details of piles, see Sheet No. S-122.
4. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
5. #5 sp310(E) spiral, each column
   1) Provide 1½" extra turns, shop welded together per AWS D1.4 top and bottom. Extend spiral 2" into pier cap & footing. Provide 4-#4 spacers or equivalent.

   2) When splicing spiral reinforcement is necessary, the spiral shall be provided with 1½" 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.
6. For Anchor Bolt Details, see Sheet No. S-83 thru S-92.
7. For Sections A-A, B-B & C-C, see Sheet No. S-109.

*** 31-u311(E) bars match w/h314(E) bars for East & West Brg. Seat
10-u311(E) bars match w/h312(E) bars for East & West Brg. Seat
19-u311(E) bars match w/h313(E) bars for East & West Brg. Seat
6-u311(E) bars match w/h311(E) bars for East & West Brg. Seat
Adjust u311(E) bars in field to avoid conflict with stirrups.

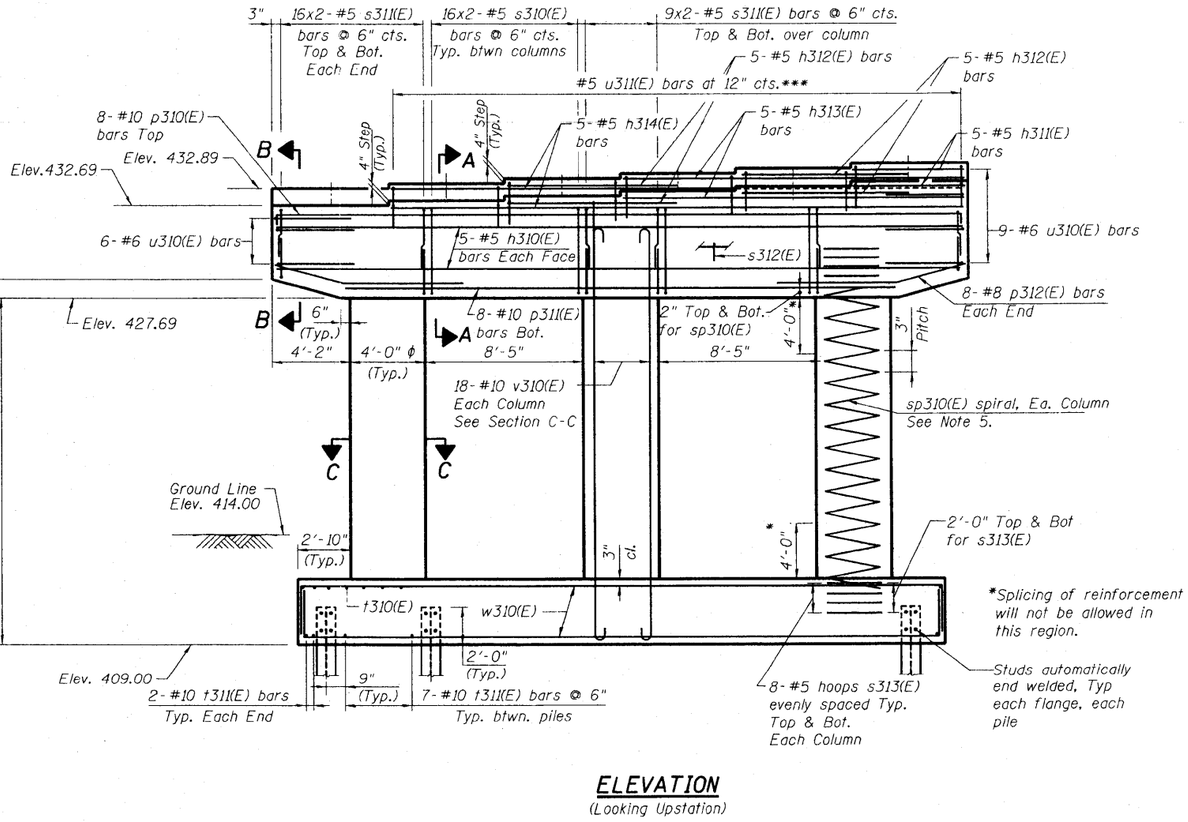


TOP PLAN

TOP OF SEAT ELEVATION

Beam No.	℄ East Brg.	℄ West Brg.
1A	434.35	434.55
2A	434.02	434.22
3A	433.69	433.89
4A	433.35	433.55
5A	433.02	433.22
6A	432.69	432.89

END VIEW



ELEVATION
(Looking Upstation)

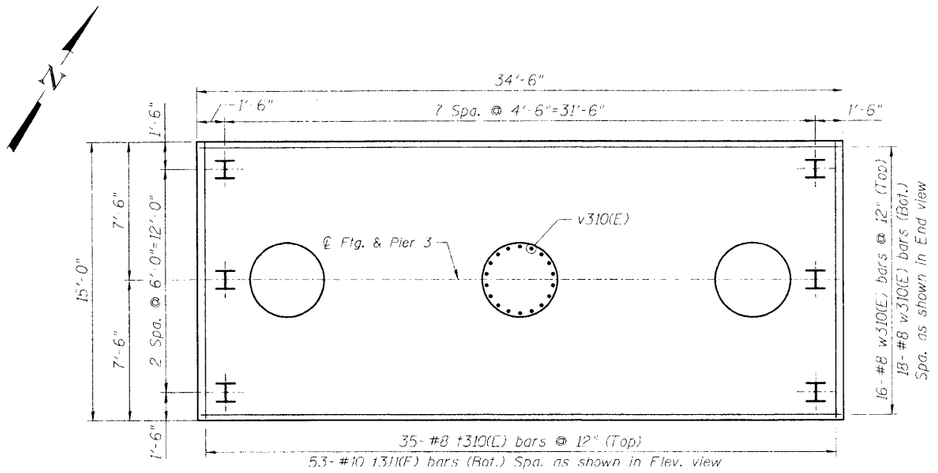
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AECOM	USER NAME = BhattA	DESIGNED - ATB	REVISED -
		DRAWN - PMM	REVISED -
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	PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -

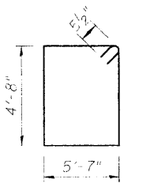
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 3 – S.N. 082–0325
I–70W OVER I–55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-108 OF S-138 SHEETS | STA. | TO STA.

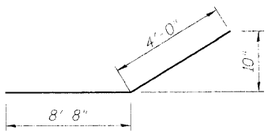
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	223
	S.N. 082-0323 & S.N. 082-0325	CONTRACT NO. 76C75		
	FED. ROAD DIST. NO. ILLINOIS	FED. AID PROJECT		



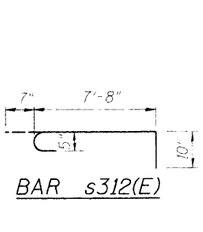
FOOTING PLAN



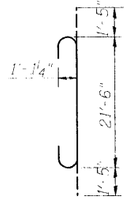
BAR s310(E)



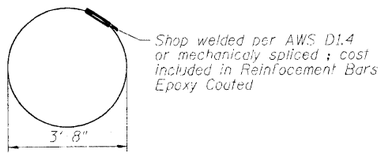
BAR p312(E)



BAR s312(E)



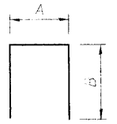
BAR v310(E)



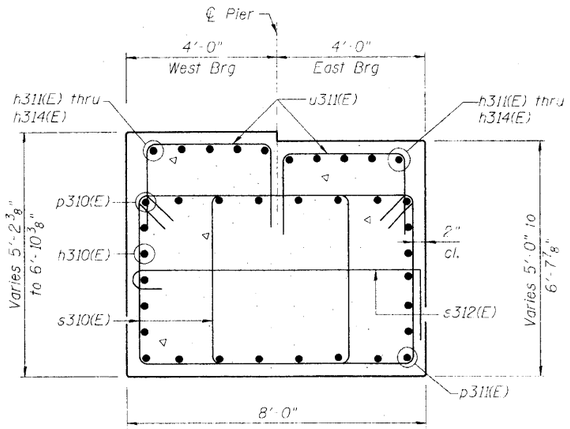
BAR s313(E)

A & B DIMENSIONS

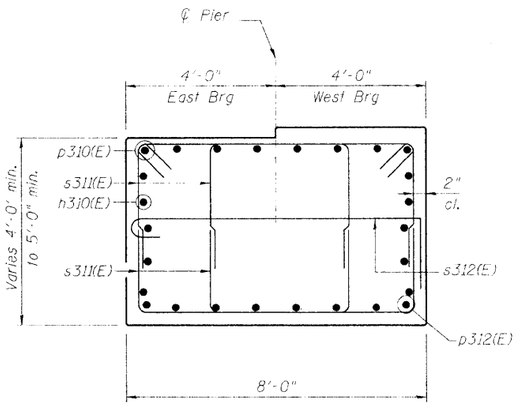
Bar	A	B
p310(F)	36'-10"	2'-6"
s311(E)	5'-7"	3'-8"
t310(E)	14'-8"	3'-4"
t311(E)	14'-8"	3'-4"
u310(E)	7'-6"	3'-1"
u311(E)	2'-8"	1'-0"
w310(E)	34'-2"	3'-6"



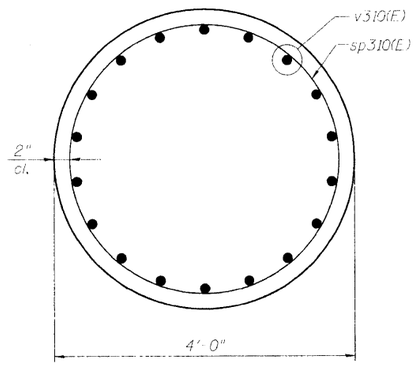
BARS p310(E), s311(E), t310(E), t311(E), u310(E), u311(E), & w310(E)



SEC. A-A



SEC. B-B



SEC. C-C

PILE DATA

Type:	HP14x89
Nominal Required Bearing:	500 kips
Factored Resistance Available:	250 kips
Estimated Length:	108 ft.
Number of Production Piles:	23
Number of Test Piles:	1

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h310(E)	10	#5	36'-10"	———
h311(E)	10	#5	5'-10"	———
h312(E)	20	#5	9'-6"	———
h313(E)	10	#5	18'-2"	———
h314(E)	10	#5	30'-6"	———
p310(E)	8	#10	40'-10"	⊓
p311(E)	8	#10	29'-9"	———
p312(E)	16	#8	12'-8"	◿
s310(E)	64	#5	21'-5"	◪
s311(E)	164	#5	12'-11"	⊓
s312(E)	38	#5	9'-1"	⊂⊃
s313(E)	48	#5	11'-6"	○
sp310(E) **	3	#5	15'-1"	∿∿
t310(E)	35	#8	21'-4"	⊓
t311(E)	53	#10	21'-4"	⊓
u310(E)	15	#6	13'-8"	⊓
u311(E)	152	#5	5'-8"	⊓
v310(E)	54	#10	24'-4"	⊂⊃
w310(E)	34	#8	41'-2"	⊓

Item	Unit	Quantity
Structure Excavation	Cu. Yd.	108.4
Concrete Structures	Cu. Yd.	161.6
Reinforcement Bars, Epoxy Coated	Pound	28,330
Furnishing Steel Piles, HP14x89	Foot	2484
Driving Piles	Foot	2484
Test Pile Steel HP14x89	Each	1
Pile Shoes	Each	24
Concrete Sealer	Sq Ft	1544

** Length is height of spiral.

P:\Projects\082-0325_Pier3_Redesign\76C75 Master Consolidated\Structural\082-0325\Sheets\S109_082-0325_76C75_Pier3.dgn

AECOM

USER NAME = bhatch	DESIGNED - ATB	REVISED -	
	DRAWN - PMM	REVISED -	
PLOT SCALE = 8.0 ' / in.	CHECKED - ATB	REVISED -	
PLOT DATE = $DATE$	DATE - 05-02-11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 3 DETAILS – S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-109 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	224
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

NOTES:

1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For details of piles, see sheet S-122.
4. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
5. #5 sp410(E) spiral, each column
   1) Provide 1½ extra turns, shop welded together per AWS D1.4 top and bottom. Extend spiral 2" into pier cap & crashwall. Provide 4-#4 spacers or equivalent.
   2) When splicing spiral reinforcement is necessary, the spiral shall be provided with 1½ 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.
6. For anchor bolt details, see Sheets S-83 thru S-92.
7. The s412(E) cross-tie bars shall be placed so that orientation of 180° hook of two successive cross-ties alternate end to end. A single layer of bars shall be provided across top mat of footing reinforcement. Space bars as follows:
   9-#5 s412(E) @ 6" (vert) x 72 @ 5" (horiz)
   9-#5 s412(E) @ 9" (vert) x 37 @ 10" (horiz)

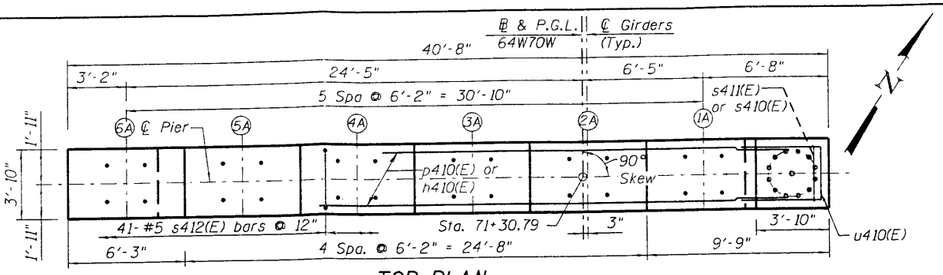
* Splicing of reinforcement will not be allowed in this region.

** Length is height of spiral.

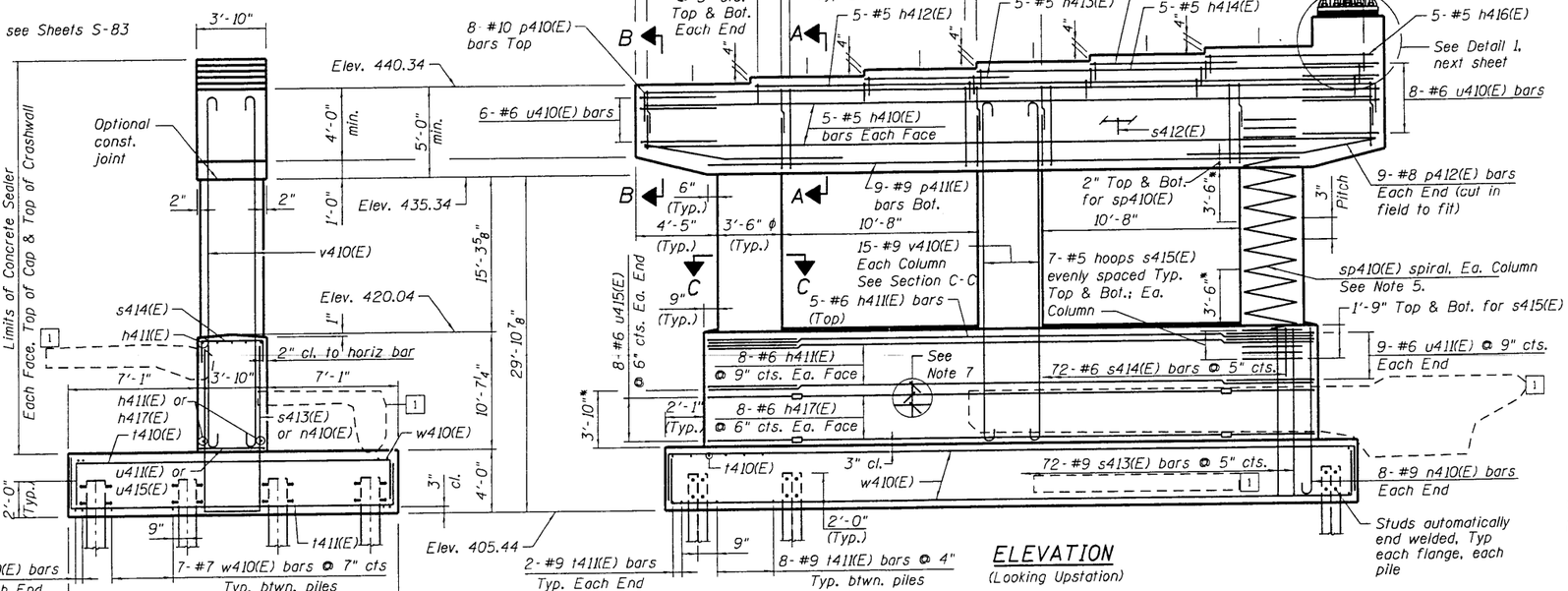
*** 10-u412(E) bars match w/ h416(E) bars
8-u412(E) bars match w/ h415(E) bars
22-u412(E) bars match w/ h414(E) bars
8-u412(E) bars match w/ h413(E) bars
34-u412(E) bars match w/ h412(E) bars
Adjust bars in field to avoid conflict with stirrups.

TOP OF SEAT ELEVATION

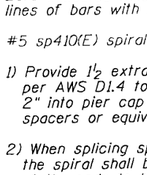
Beam No.	Seat Elev.
1A	442.01
2A	441.67
3A	441.34
4A	441.01
5A	440.68
6A	440.34



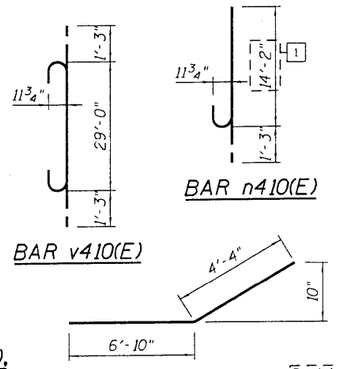
TOP PLAN



ELEVATION
(Looking Upstation)

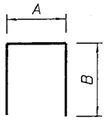


BAR s415(E)



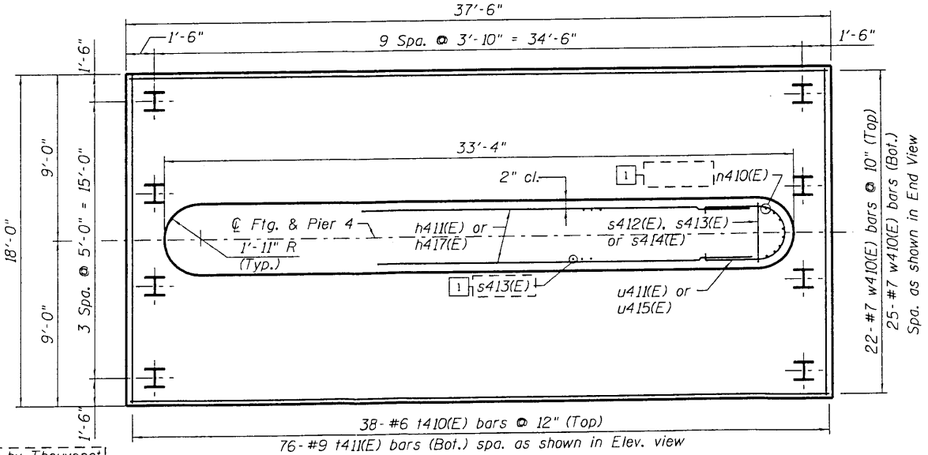
BAR v410(E) BAR n410(E) BAR p412(E)

A & B DIMENSIONS



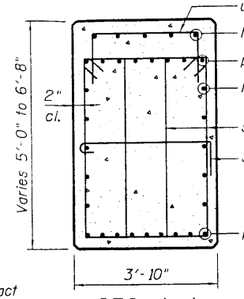
Bar	A	B
p410(E)	40'-4"	1'-10"
s411(E)	2'-5"	3'-8"
s414(E)	3'-4"	3'-0"
u410(E)	3'-4"	3'-1"
u412(E)	3'-6"	1'-0"
w410(E)	37'-2"	3'-6"
t410(E)	17'-8"	3'-4"
t411(E)	17'-8"	3'-4"

BARS p410(E), s411(E), s414(E), u410(E), u412(E), w410(E), t410(E), t411(E)

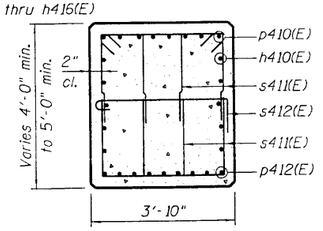


FOOTING PLAN

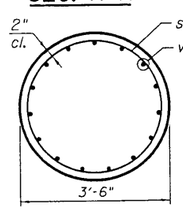
Revision 1 by Thouvenot, Wade & Moerchen, INC. 1



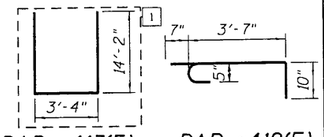
SEC. A-A



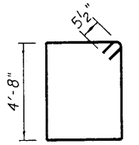
SEC. B-B



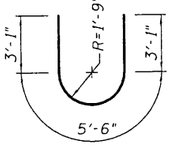
SEC. C-C



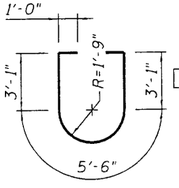
BAR s413(E) BAR s412(E)



BAR s410(E)



BAR u415(E)



BAR u411(E)

BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	h410(E)	10	#5	40'-4"	
	h411(E)	21	#6	29'-2"	
	h412(E)	5	#5	34'-1"	
	h413(E)	5	#5	7'-9"	
	h414(E)	5	#5	21'-9"	
	h415(E)	5	#5	7'-9"	
	h416(E)	5	#5	9'-5"	
	h417(E)	16	#6	23'-4"	
1	n410(E)	16	#9	15'-5"	
	p410(E)	8	#10	44'-0"	
	p411(E)	9	#9	32'-6"	
	p412(E)	18	#8	11'-2"	
	s410(E)	100	#5	15'-1"	
	s411(E)	188	#5	9'-9"	
1	s412(E)	1022	#5	5'-0"	
1	s413(E)	72	#9	31'-8"	
	s414(E)	72	#6	9'-4"	
	s415(E)	42	#5	9'-11 3/8"	
**	sp410(E)	3	#5	15'-8"	
	t410(E)	38	#6	24'-4"	
	t411(E)	76	#9	24'-4"	
	u410(E)	14	#6	9'-6"	
	u411(E)	18	#6	13'-8"	
	u412(E)	82	#5	5'-6"	
	u413(E)	12	#9	18'-6"	
	u414(E)	8	#6	10'-6"	
	u415(E)	16	#6	11'-8"	
	v410(E)	45	#9	31'-6"	
1	v411(E)	0	-	-	-
1	v412(E)	0	-	-	-
	w410(E)	47	#7	44'-2"	

Item	Unit	Quantity
Structure Excavation	Cu. Yd.	169.1
Concrete Structures	Cu. Yd.	200.4
Reinforcement Bars, Epoxy Coated	Pound	45,110
Furnishing Steel Piles, HP14x89	Foot	4212
Driving Piles	Foot	4212
Test Pile Steel HP14x89	Each	1
Pile Shoes	Each	40
Concrete Sealer	Sq Ft	2096
1 Mechanical Splicers	Each	32

PILE DATA

Type:	HP14x89
Nominal Required Bearing:	500 kips
Factored Resistance Available:	250 kips
Estimated Length:	108 ft.
Number of Production Piles:	39
Number of Test Piles:	1

AECOM

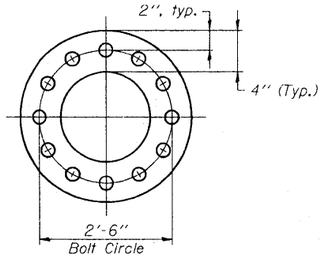
USER NAME = dholdener	DESIGNED - EJO	REVISED 1 DJH 12-14-2011	
	DRAWN - MJK	REVISED -	
PLOT SCALE = 0:2 '1' / in.	CHECKED - DB	REVISED -	
PLOT DATE = 2/8/2012	DATE - 05-02-11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

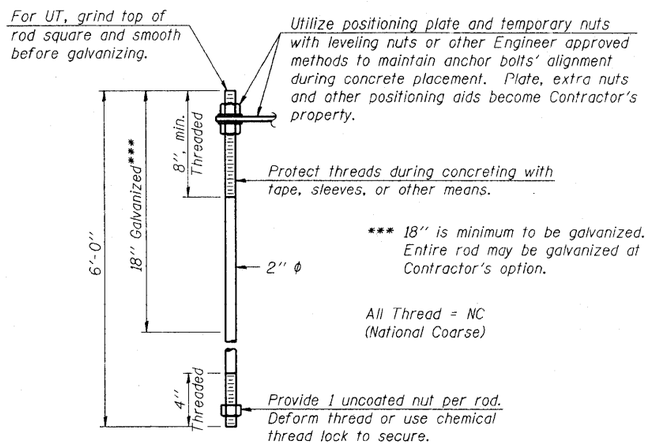
PIER 4 – S.N. 082-0325
~~I-70W~~ OVER ~~I-55, CSX~~ & KCS RAILROADS
SCALE: NONE | SHEET NO. S-110 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	225
~~S.N. 082-0323 & S.N. 082-0325~~		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

S110_082-0325_76C75_Pier4.dgn



SUGGESTED POSITIONING PLATE

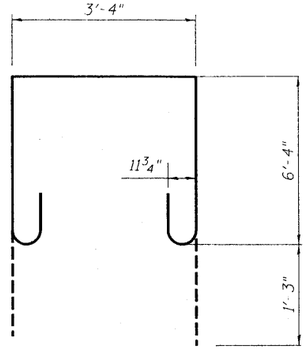


ANCHOR ROD DETAIL

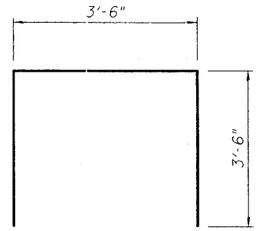
Anchor rods shall conform to AASHTO M314 Grade 105 and meet Charpy V-Notch (CVN) energy of 15 lb.-ft. at 10° F. before galvanizing. Galvanize the upper 18'' (minimum***) and associated M291, Grade A, C or DH heavy hex nuts and hardened washers per AASHTO M232. No welding shall be permitted on rods. Provide an unfinished nut at bottom, a hexagon locknut and washer above base plate and a leveling nut and washer below base plate. Nuts shall each be tightened with 200 lb.-ft. minimum torque against base plate. Before or after threading, but before galvanizing, each anchor rod shall be ultrasonically tested (UT) by a Level II or III inspector, qualified in accord with ANSI guidelines, using a straight beam, ½'' ϕ 3.5 mhz. transducer, to insure no rejectable flaws exist in the upper 18'' (tension criteria).

NOTES:

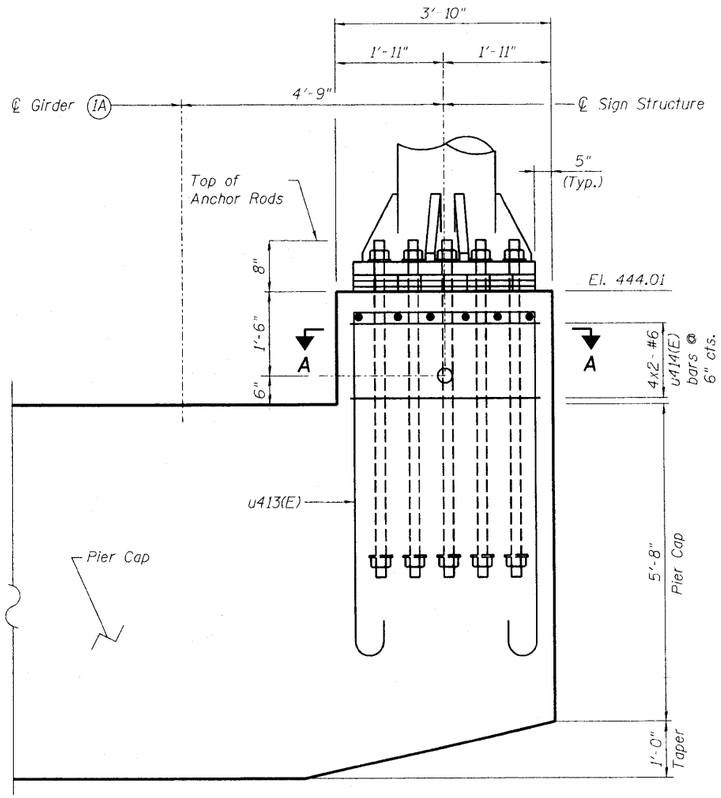
1. Work this sheet with sheet S-110.
2. Place pedestal reinforcement to miss anchor rods.
3. Anchor rods are incidental to Concrete Structures pay item.



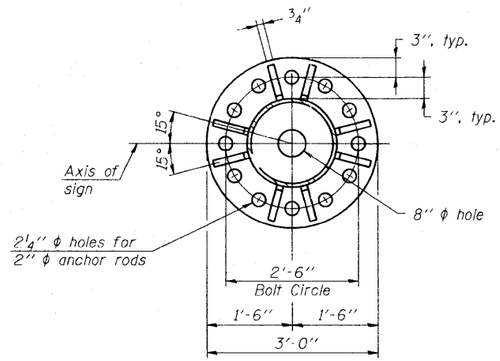
BAR u413(E)



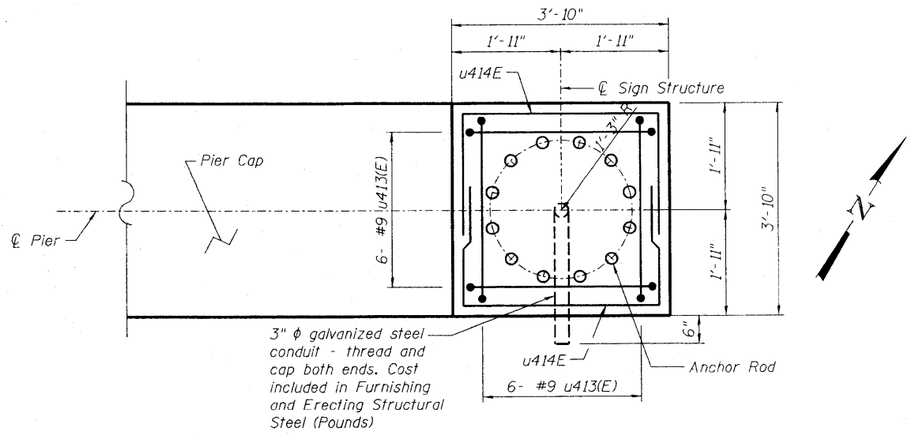
BAR u414(E)



DETAIL 1



BASE PLATE



SECTION A-A

P:\P60845608\900_CAD\900_Drawings\76L...ster_Consolidated\Structural\082-0323\Sheets\S111_082-0325_76C75_Pier4A.dgn

AECOM	USER NAME = BhattA	DESIGNED - EJO	REVISED -
		DRAWN - JHR	REVISED -
	PLOT SCALE = 0.2 '/ in.	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 4 DETAILS – S.N. 082–0325
I–70W OVER I–55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-111 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	226
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NOTES:

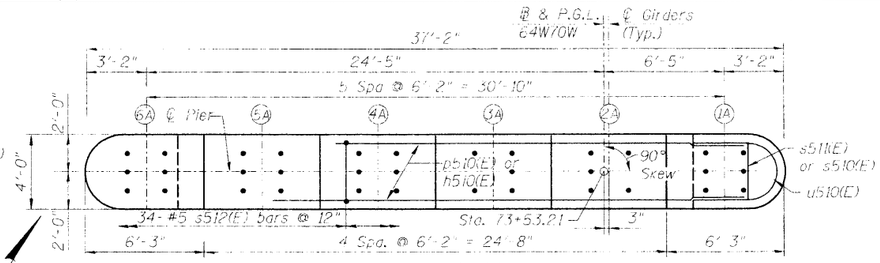
1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For details of piles, see sheet S-122.
4. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
5. #5 sp510(E) spiral, each column
   1) Provide 1½ extra turns, shop welded together per AWS D1.4 top and bottom. Extend spiral 2" into pier cap & crashwall. Provide 4-#4 spacers or equivalent.
   2) When splicing spiral reinforcement is necessary, the spiral shall be provided with 1½ 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.
6. The s512(E) cross-tie bars shall be placed so that orientation of 180° hook of two successive cross ties alternate end to end. A single layer of bars shall be provided across top mat of footing reinforcement. Space bars as follows:
   9-#5 s512(E) @ 6" (vert) x 47 @ 7" (horiz)
   7-#5 s512(E) @ 9" (vert) x 24 @ 1'-2" (horiz)
7. For anchor bolt details, see Sheets S 83 thru S 92.

* Splicing of reinforcement will not be allowed in this region.

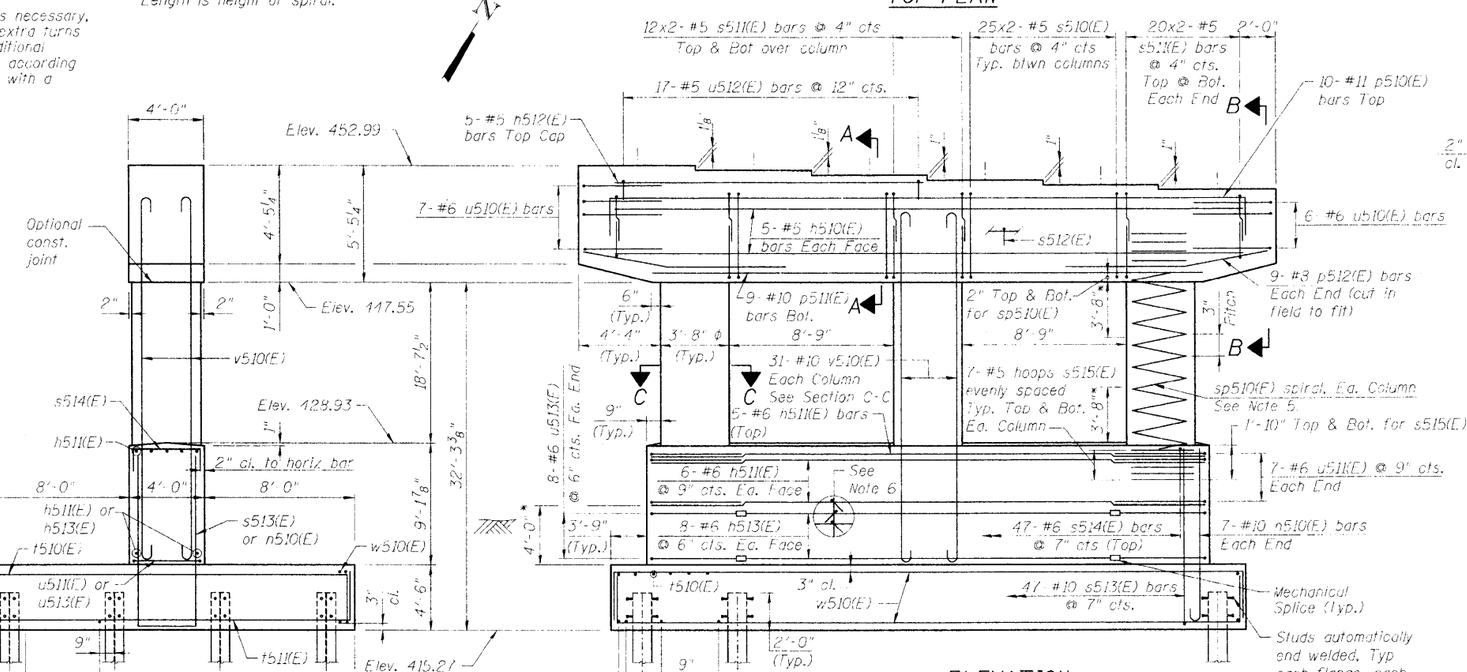
** Length is height of spiral.

TOP OF SEAT ELEVATION

Beam No.	Seat Elev.
1A	452.55
2A	452.64
3A	452.72
4A	452.81
5A	452.90
6A	452.99

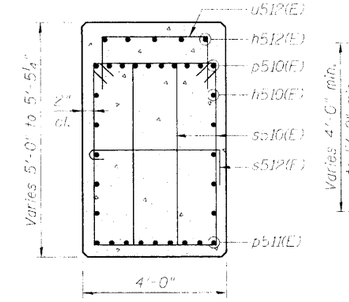


TOP PLAN

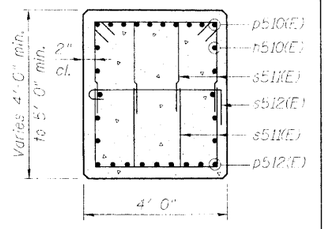


END VIEW

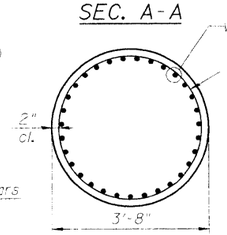
ELEVATION
(Looking Upstation)



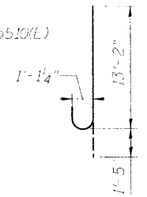
SEC. A-A



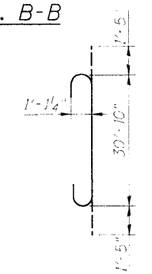
SEC. B-B



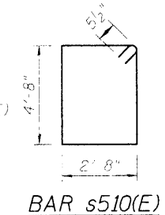
SEC. C-C



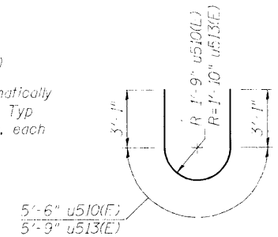
BAR n510(E)



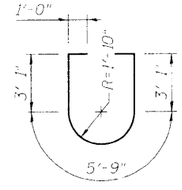
BAR v510(E)



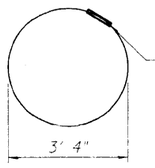
BAR s510(E)



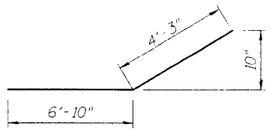
BAR u510(E)
BAR u513(E)



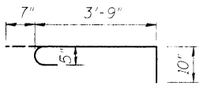
BAR u511(E)



BAR s515(E)

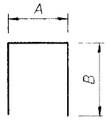


BAR p512(E)



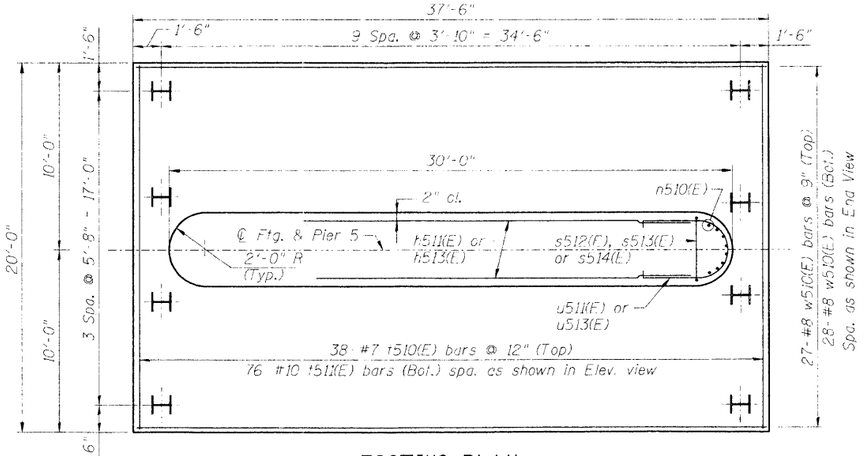
BAR s512(E)

A & B DIMENSIONS



Bar	A	B
p510(E)	33'-2"	2'-0"
s511(E)	2'-8"	3'-8"
s513(E)	3'-6"	13'-2"
s514(E)	3'-6"	3'-0"
u512(E)	3'-8"	1'-0"
w510(E)	31'-2"	4'-0"
t510(E)	19'-8"	3'-10"
t511(E)	19'-8"	3'-10"

BARS p510(E), s511(E), s513(E), s514(E), u512(E), w510(E), t510(E), t511(E)



FOOTING PLAN

PILE DATA

Type:	HP14x89
Nominal Required Bearing:	500 kips
Factored Resistance Available:	250 kips
Estimated Length:	112 ft.
Number of Production Piles:	39
Number of Test Piles:	1

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h510(E)	10	#5	32'-10"	——
h511(E)	17	#6	25'-8"	——
h512(E)	5	#5	16'-5"	——
h513(E)	16	#6	19'-10"	——
n510(E)	14	#10	14'-7"	⊂——
p510(E)	10	#11	37'-2"	⊓
p511(E)	9	#10	29'-2"	——
p512(E)	18	#8	11'-1"	⟋
s510(E)	100	#5	15'-7"	⊓
s511(E)	208	#5	10'-0"	⊓
s512(E)	625	#5	5'-2"	⊂⊃
s513(E)	47	#10	29'-10"	⊓
s514(E)	47	#6	9'-6"	⊓
s515(E)	42	#5	10'-5 5/8"	○
** sp510(E)	3	#5	19'-0"	∿∿
t510(E)	38	#7	27'-4"	⊓
t511(E)	76	#10	27'-4"	⊓
u510(E)	13	#6	11'-8"	∪
u511(E)	14	#6	13'-11"	∪
u512(E)	17	#5	5'-8"	⊓
u513(E)	16	#6	11'-11"	∪
v510(E)	93	#10	33'-8"	⊂⊃
w510(E)	55	#8	45'-2"	⊓

Item	Unit	Quantity
Structure Excavation	Cu. Yd.	202.9
Concrete Structures	Cu. Yd.	214.2
Reinforcement Bars, Epoxy Coated	Pound	54,970
Furnishing Steel Piles, HP14x89	Foot	4368
Driving Piles	Foot	4368
Test Pile Steel HP14x89	Each	1
Pile Shoes	Each	40
Mechanical Splicers	Each	32

AECOM

USER NAME = $USER
PLOT SCALE = $dl*12 / in.
PLOT DATE = $DATE$

DESIGNED - EJO
DRAWN - JHR
CHECKED - DB
DATE - 05-02-11

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 5 – S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-112 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	227
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

P:\76C70\46C71\300_CAD\300_Drawings\76C70_Master_Consolidated\Structural\082-0323\Sheets\S112_082-0325_76C75_PierFootings

NOTES:

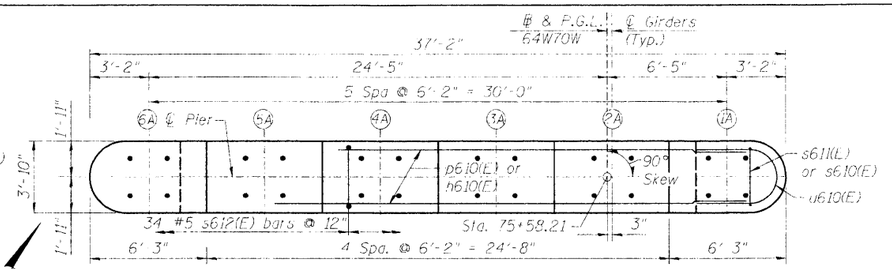
1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For details of piles, see sheet S-122.
4. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
5. #5 sp610(E) spiral, each column
   1) Provide 1½ extra turns, shop welded together per AWS D1.4 top and bottom. Extend spiral 2" into pier cap & crashwall. Provide 4-#4 spacers or equivalent.
   2) When splicing spiral reinforcement is necessary, the spiral shall be provided with 1½ 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.
6. The s612(E) cross-tie bars shall be placed so that orientation of 180° hook of two successive cross-ties alternate end to end. A single layer of bars shall be provided across top mat of footing reinforcement. Space bars as follows:
   9-#5 s612(E) @ 6" (vert) x 53 @ 6" (horiz)
   8-#5 s612(E) @ 9" (vert) x 27 @ 1'-0" (horiz)
7. For anchor bolt details, see Sheets S-83 thru S-92.

* Splicing of reinforcement will not be allowed in this region.

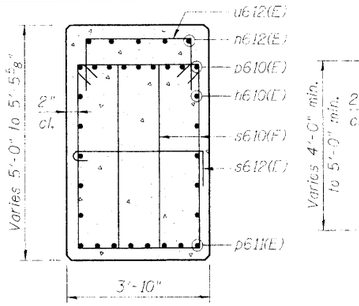
** Length is height of spiral.

TOP OF SEAT ELEVATION

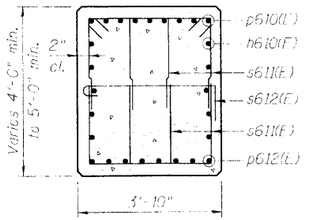
Beam No.	Seat Elev.
1A	457.36
2A	457.46
3A	457.55
4A	457.64
5A	457.73
6A	457.83



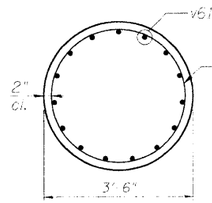
TOP PLAN



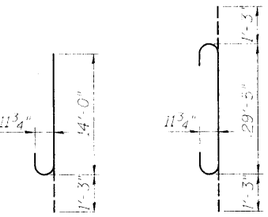
SEC. A-A



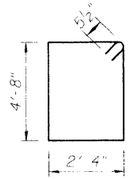
SEC. B-B



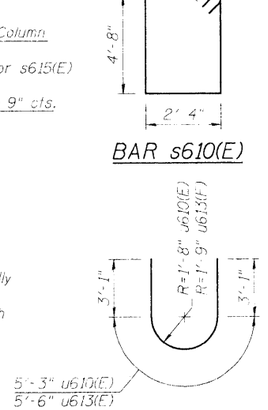
SEC. C-C



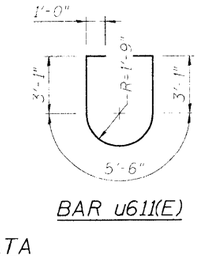
BAR n610(E) BAR v610(E)



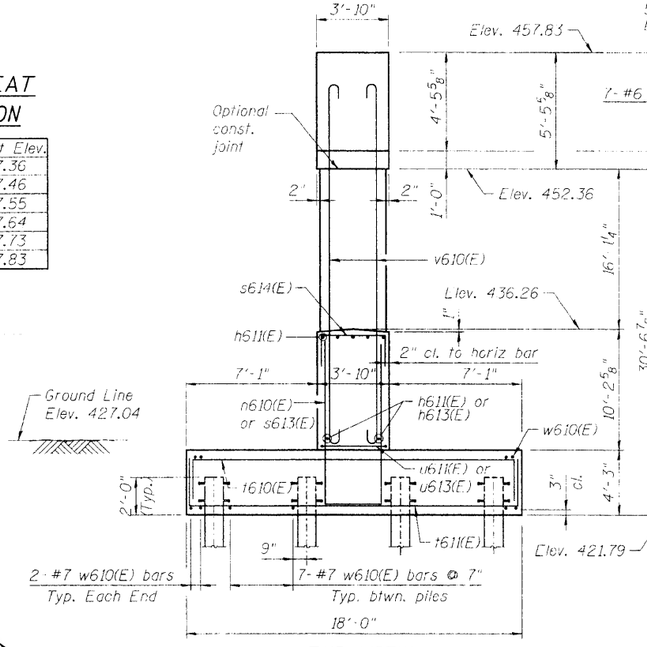
BAR s610(E)



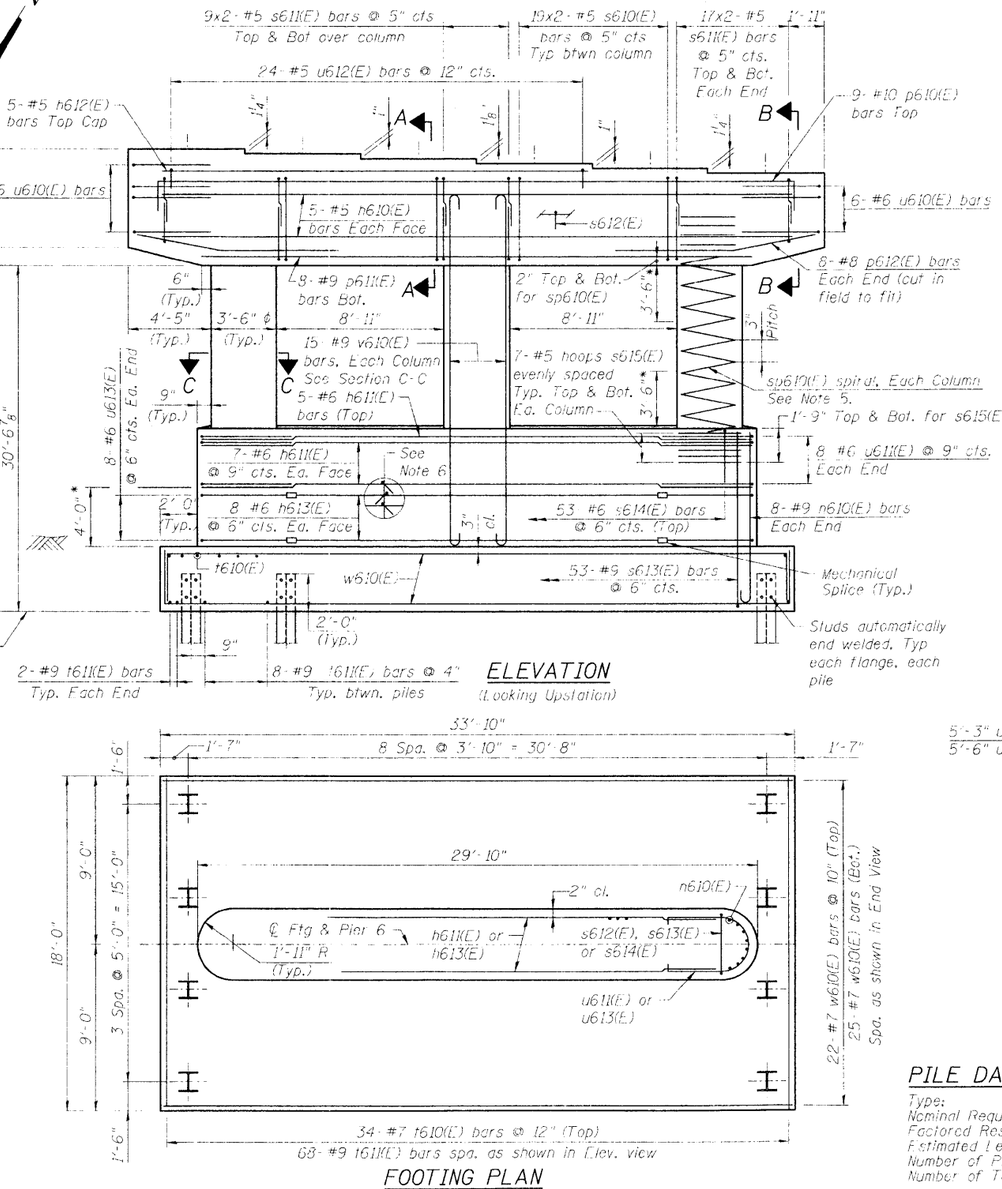
BAR u610(E)
BAR u613(E)



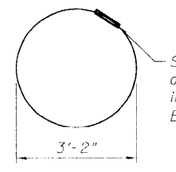
BAR u611(E)



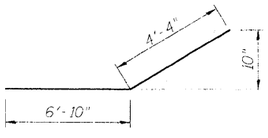
END VIEW



ELEVATION
(Looking Upstation)



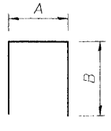
BAR s615(E)



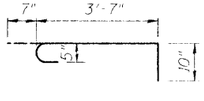
BAR p612(E)

A & B DIMENSIONS

Bar	A	B
p610(E)	33'-4"	1'-10"
s611(E)	2'-4"	3'-8"
s613(E)	3'-4"	14'-0"
s614(E)	3'-4"	3'-0"
u612(E)	3'-6"	1'-0"
w610(E)	33'-6"	3'-9"
t610(E)	17'-8"	3'-7"
t611(E)	17'-8"	3'-7"



BARS p610(E), s611(E), s613(E), s614(E), u612(E), w610(E) t610(E), t611(E)



BAR s612(E)

FOOTING PLAN

PILE DATA

Type:	HP14x89
Nominal Required Bearing:	500 kips
Factored Resistance Available:	250 kips
Estimated Length:	112 ft.
Number of Production Piles:	35
Number of Test Piles:	1

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h610(E)	10	#5	33'-0"	——
h611(E)	19	#6	25'-8"	——
h612(E)	5	#5	22'-8"	——
h613(E)	16	#6	19'-10"	——
n610(E)	16	#9	15'-3"	⊂——
p610(E)	9	#10	37'-0"	⊓
p611(E)	8	#9	29'-0"	——
p612(E)	16	#8	11'-2"	⟋
s610(E)	76	#5	14'-11"	◹
s611(E)	172	#5	9'-8"	⊓
s612(E)	727	#5	5'-0"	⊂⊃
s613(E)	53	#9	31'-4"	⊓
s614(E)	53	#6	9'-4"	⊓
s615(E)	42	#5	9'-11 3/8"	○
sp610(E)	3	#5	16'-6"	⋀⋀
t610(E)	34	#7	24'-10"	⊓
t611(E)	68	#9	24'-10"	⊓
u610(E)	13	#6	11'-5"	∪
u611(E)	16	#6	13'-8"	∪
u612(E)	24	#5	5'-6"	⊓
u613(E)	16	#6	11'-8"	∪
v610(E)	45	#9	31'-11"	⊂⊃
w610(E)	47	#7	41'-0"	⊓

Item	Unit	Quantity
Structure Excavation	Cu. Yd.	161.8
Concrete Structures	Cu. Yd.	181.9
Reinforcement Bars, Epoxy Coated	Pound	38,050
Furnishing Steel Piles, HP14x89	Foot	3920
Driving Piles	Foot	3920
Test Pile Steel HP14x89	Each	1
Pile Shoes	Each	36
Mechanical Splicers	Each	32

AECOM

USER NAME = BRIGGA | DESIGNED - EJO | REVISED
PLOT SCALE = 64.0 '/ in. | DRAWN - JHR | REVISED
PLOT DATE = $DATE$ | CHECKED - DB | REVISED
DATE - 05-02-11 | REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 6 – S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-113 OF S-138 SHEETS | STA. | TO STA.

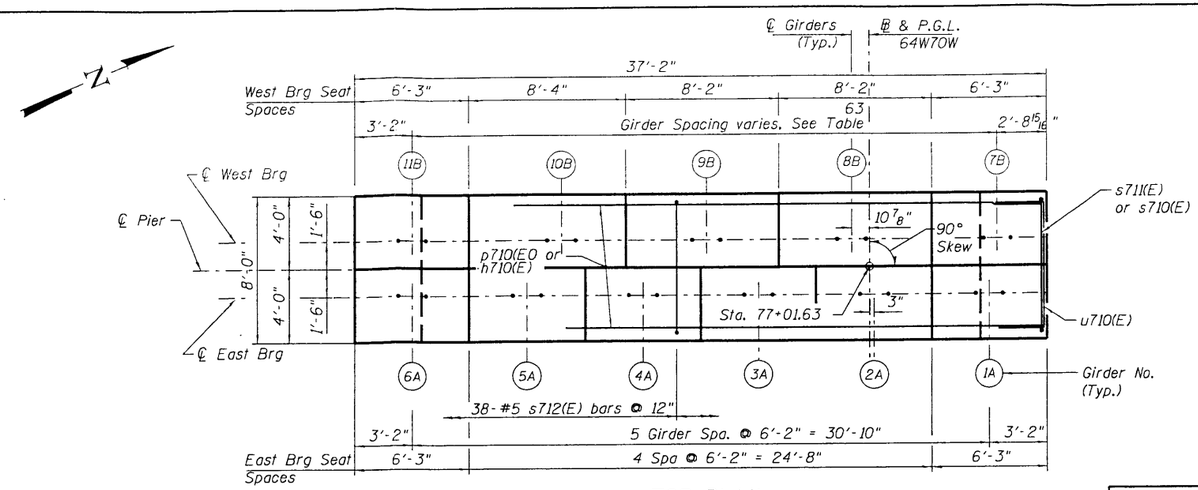
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	228
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

P:\76C75\PLANS\082-0325_76C75_Pier6.dgn

NOTES:

1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For details of piles, see Sheet No. S-122.
4. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
5. #5 sp710(E) spiral, each column
   1) Provide $1\frac{1}{2}$ extra turns, shop welded together per AWS D1.4 top and bottom. Extend spiral 2" into pier cap & footing. Provide 4-#4 spacers or equivalent.

   2) When splicing spiral reinforcement is necessary, the spiral shall be provided with $1\frac{1}{2}$ 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.
6. For Anchor Bolt Details, see Sheet No. S-83 thru S-92.
7. For Sections A-A, B-B & C-C, see Sheet No. S-115.



TOP PLAN

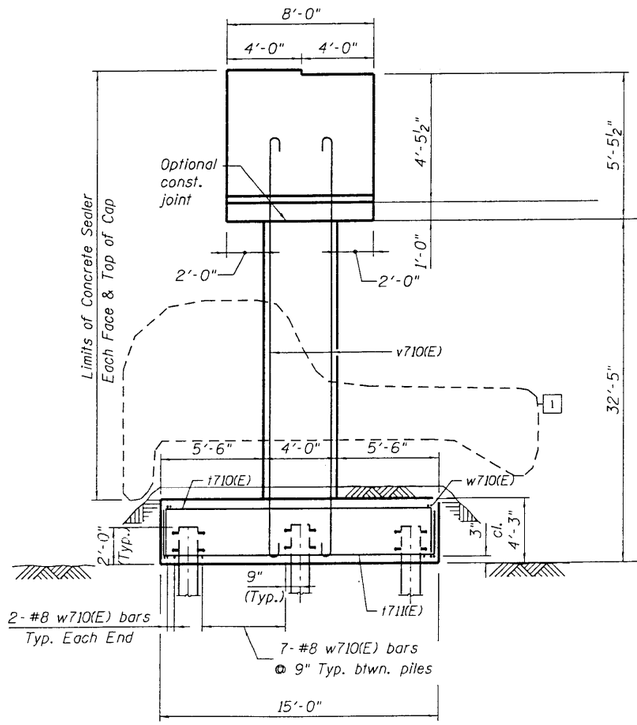
UNIT 3 GIRDER SPACING @ ℄ WEST BEARINGS

Bay	Spacing
7B-8B	7'-9 5/16"
8B-9B	7'-9 1/8"
9B-10B	7'-8 11/16"
10B-11B	7'-11 15/16"

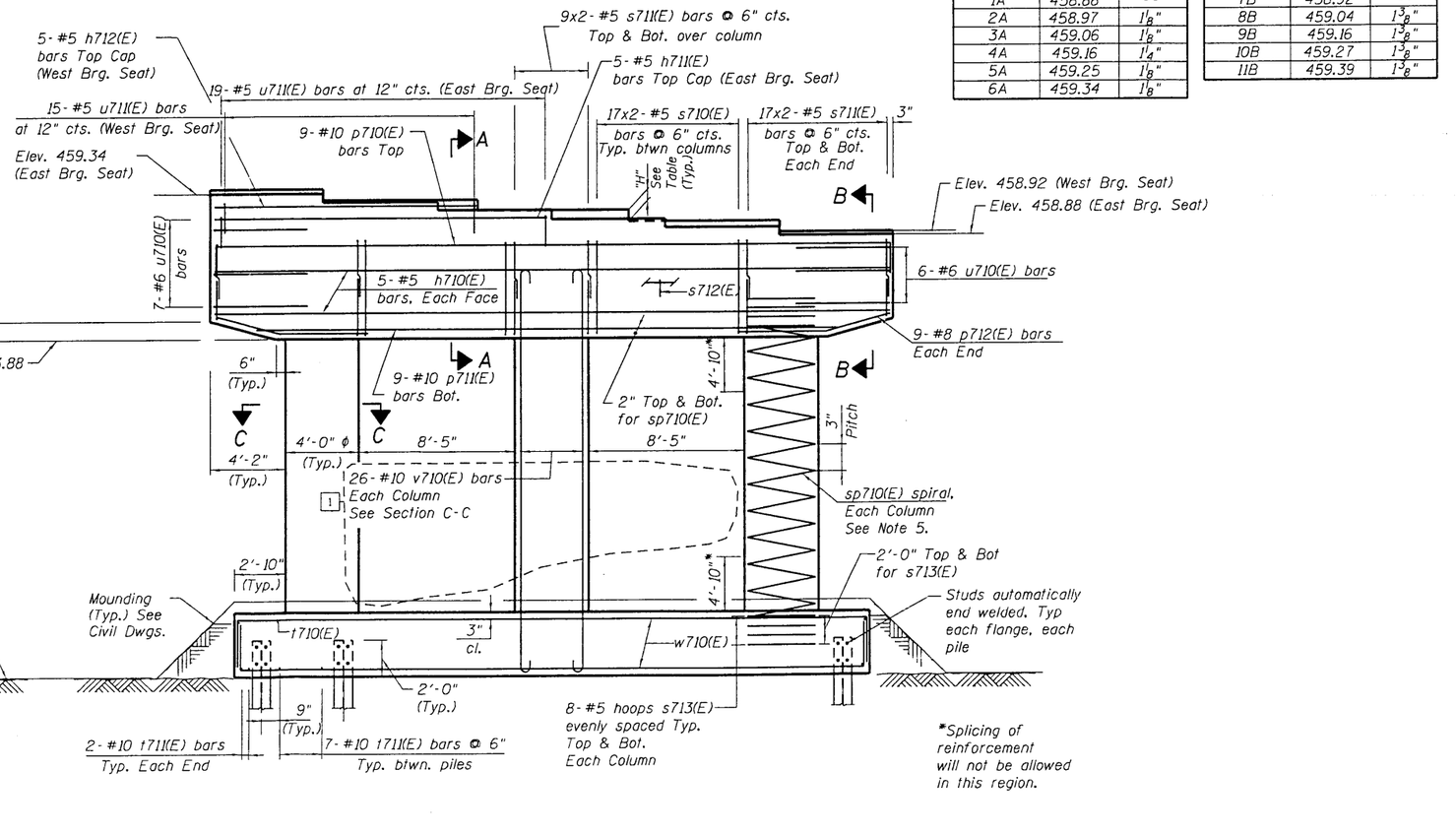
TOP OF SEAT ELEVATION

East Bearing Seat		
Beam No.	Seat Elev.	Step "H"
1A	458.88	--
2A	458.97	1 1/8"
3A	459.06	1 1/8"
4A	459.16	1 1/4"
5A	459.25	1 1/8"
6A	459.34	1 1/8"

West Bearing Seat		
Beam No.	Seat Elev.	Step "H"
7B	458.92	--
8B	459.04	1 3/8"
9B	459.16	1 3/8"
10B	459.27	1 3/8"
11B	459.39	1 3/8"



END VIEW



ELEVATION

(Looking Upstation)

Revision 1 by Thouvenot, Wade & Moerchen, INC. 1

USER NAME = dholdener	DESIGNED - ATB	REVISED 1 DJH 12-14-2011	
	DRAWN - PMM	REVISED	
PLOT SCALE = 0.2 '/ in.	CHECKED - ATB	REVISED -	
PLOT DATE = 2/8/2012	DATE - 3/18/2011	REVISED -	

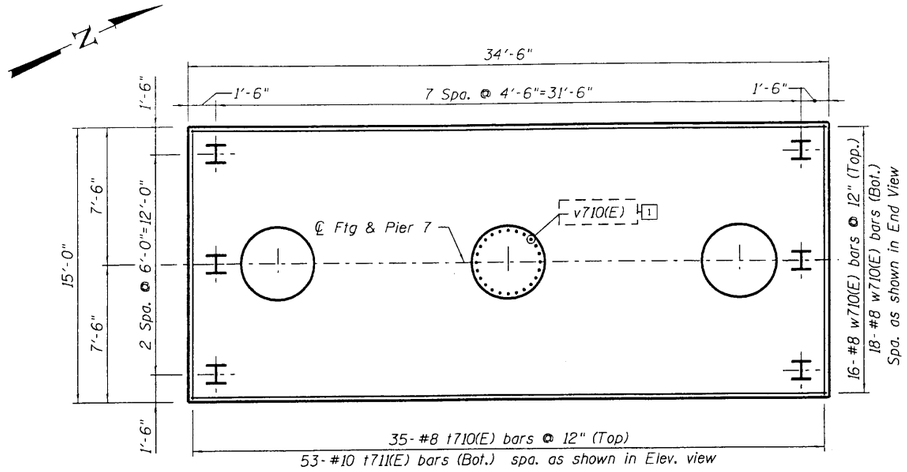
AECOM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

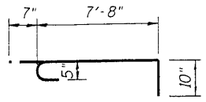
PIER 7 – S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-114 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	B2-1-B-1	ST. CLAIR	319	229
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

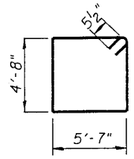
S114_082-0325_76C75_Pier7.dgn



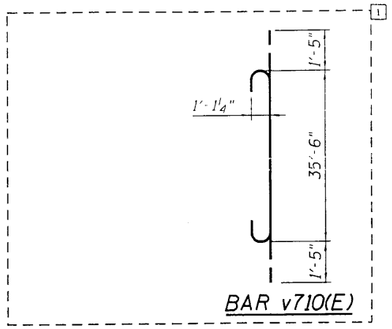
FOOTING PLAN



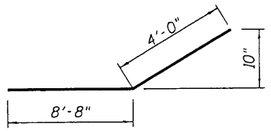
BAR s712(E)



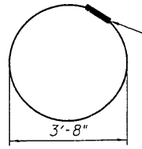
BAR s710(E)



BAR v710(E)

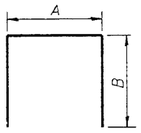


BAR p712(E)



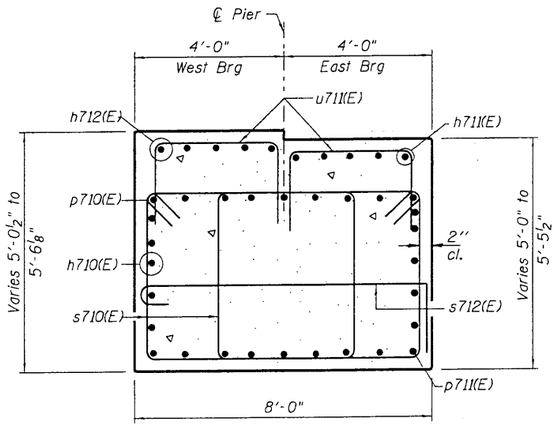
BAR s713(E)

A & B DIMENSIONS

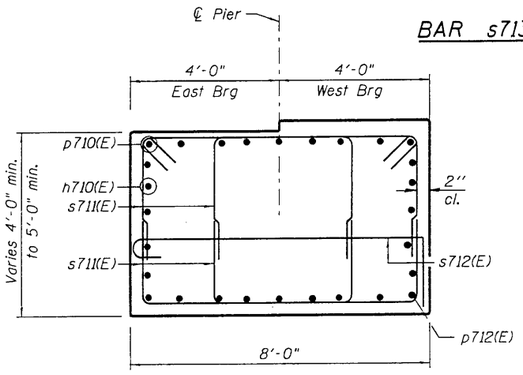


Bar	A	B
p710(E)	36'-10"	2'-0"
s711(E)	5'-7"	3'-8"
t710(E)	14'-8"	3'-6"
t711(E)	14'-8"	3'-6"
u710(E)	7'-6"	3'-1"
u711(E)	3'-8"	1'-0"
w710(E)	34'-2"	3'-6"

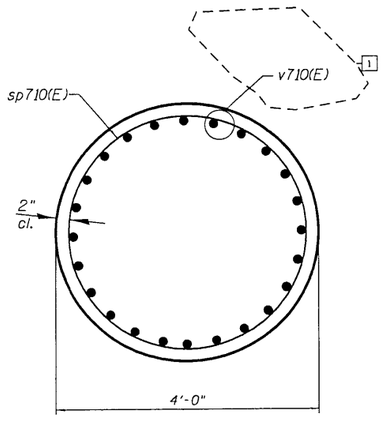
BARS p710(E), s711(E), t710(E), t711(E)
u710(E), u711(E), & w710(E)



SEC. A-A



SEC. B-B



SEC. C-C

BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	h710(E)	10	#5	36'-10"	
	h711(E)	5	#5	18'-3"	
	h712(E)	5	#5	14'-3"	
1	n710(E)	0	-	-	-
1	n711(E)	0	-	-	-
	p710(E)	9	#10	40'-10"	
	p711(E)	9	#10	29'-9"	
	p712(E)	18	#8	12'-8"	
	s710(E)	68	#5	21'-5"	
	s711(E)	172	#5	12'-11"	
	s712(E)	38	#5	9'-1"	
	s713(E)	48	#5	11'-6"	
**	sp710(E)	3	#5	28'-6"	
	t710(E)	35	#8	21'-8"	
	t711(E)	53	#10	21'-8"	
	u710(E)	13	#6	13'-8"	
	u711(E)	34	#5	5'-8"	
1	v710(E)	78	#10	38'-4"	
1	v711(E)	0	-	-	-
	w710(E)	34	#8	41'-2"	

Item	Unit	Quantity
Concrete Structures	Cu. Yd.	178.9
Reinforcement Bars, Epoxy Coated	Pound	36.820
Furnishing Steel Piles, HP14x89	Foot	2576
Driving Piles	Foot	2576
Test Pile Steel HP14x89	Each	1
Pile Shoes	Each	24
Concrete Sealer	Sq.Ft.	2927
1 Mechanical Splicers	Each	0

PILE DATA

Type:	HP14x89
Nominal Required Bearing:	500 kips
Factored Resistance Available:	250 kips
Estimated Length:	112 ft.
Number of Production Piles:	23
Number of Test Piles:	1

** Length is height of spiral.

Revision 1 by Thouvenot, Wade & Moerchen, INC. 1

USER NAME = dholdener	DESIGNED - ATB	REVISED 1	DJH 12-14-2011
	DRAWN - PMM	REVISED -	
PLOT SCALE = 0.2 '/ in.	CHECKED - ATB	REVISED -	
PLOT DATE = 2/8/2012	DATE - 05-02-11	REVISED -	

AECOM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 7 DETAILS – S.N. 082-0325
~~I-70W OVER I-55, CSX & KCS RAILROADS~~

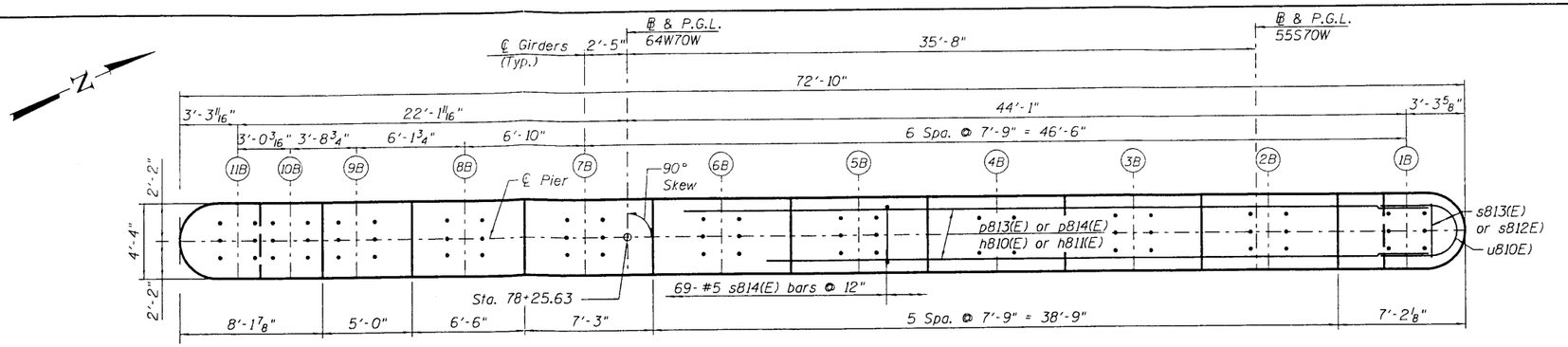
SCALE: NONE | SHEET NO. S-115 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	B2-1-B-1	ST. CLAIR	319	230
	S.N. 082-0323 & S.N. 082-0325	CONTRACT NO. 76C75		
	FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT			

S115_082-0325_76C75_Pier-7B.dgn

NOTES:

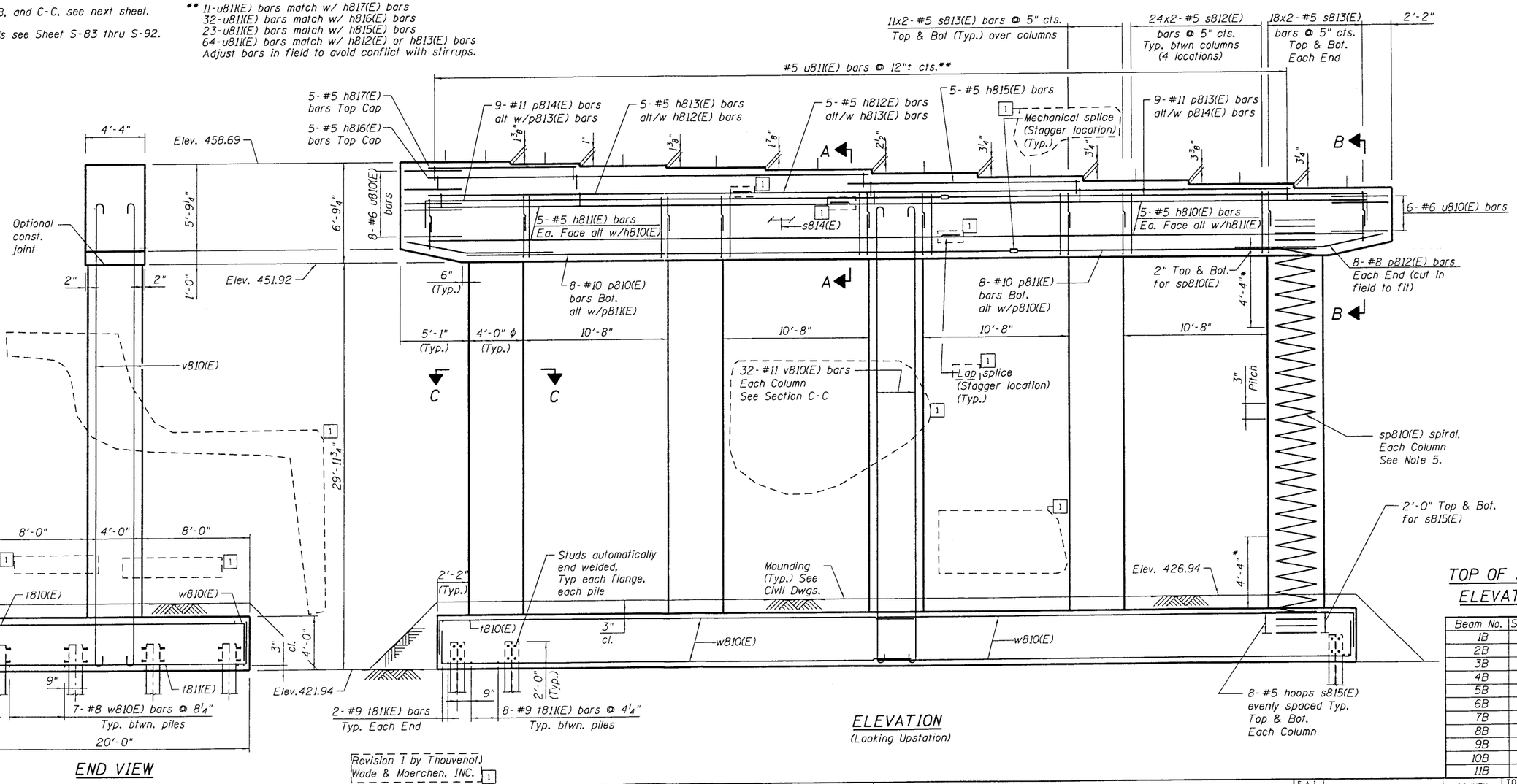
1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For details of piles, see sheet S-122.
4. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
5. #5 sp810(E) spiral, each column
   1) Provide 1½ extra turns, shop welded together per AWS D1.4 top and bottom. Extend spiral 2" into pier cap & footing. Provide 4-#4 spacers or equivalent.
   2) When splicing spiral reinforcement is necessary, the spiral shall be provided with 1½ 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.
6. For section A-A, B-B, and C-C, see next sheet.
7. For anchor bolt details see Sheet S-83 thru S-92.



TOP PLAN

* Splicing of reinforcement will not be allowed in this region.

** 11-u811(E) bars match w/ h817(E) bars
32-u811(E) bars match w/ h816(E) bars
23-u811(E) bars match w/ h815(E) bars
64-u811(E) bars match w/ h812(E) or h813(E) bars
Adjust bars in field to avoid conflict with stirrups.



END VIEW

ELEVATION
(Looking Upstation)

Revision 1 by Thouvenot, Wade & Moerchen, INC. 1

TOP OF SEAT ELEVATION

Beam No.	Seat Elev.
1B	456.92
2B	457.19
3B	457.47
4B	457.74
5B	458.01
6B	458.22
7B	458.38
8B	458.49
9B	458.58
10B	458.64
11B	458.69

AECOM

USER NAME = dholdener	DESIGNED - EJO	REVISED 1	DJH 12-14-2011
	DRAWN - JHR	REVISED -	
PLOT SCALE = 0.2 '/ in.	CHECKED -	REVISED -	
PLOT DATE = 2/8/2012	DATE - 3/18/2011	REVISED -	

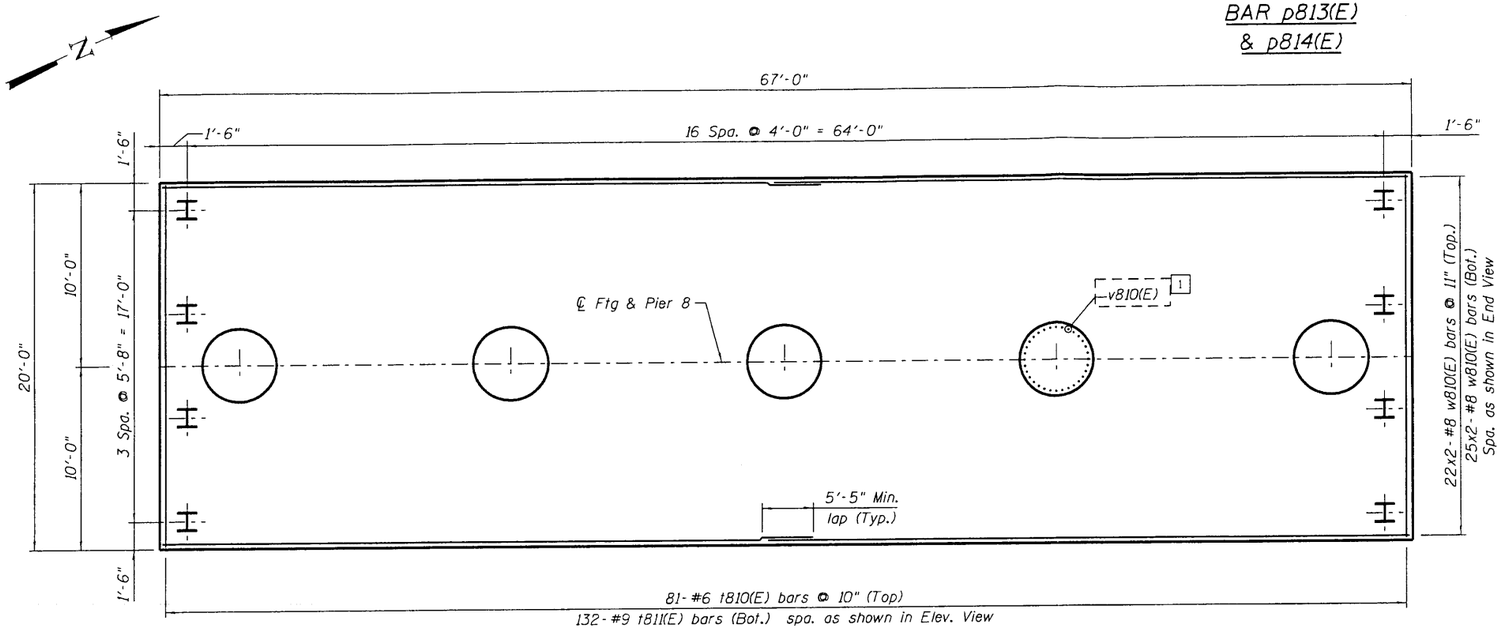
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 8 – S.N. 082-0325
~~I-70W OVER I-55, CSX & KCS RAILROADS~~

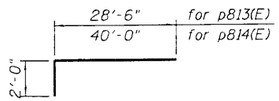
SCALE: NONE | SHEET NO. S-116 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	B2-1-B-1	ST. CLAIR	319	231
	S.N. 082-0323 & S.N. 082-0325	CONTRACT NO. 76C75		
	FED. ROAD DIST. NO. ILLINOIS	FED. AID PROJECT		

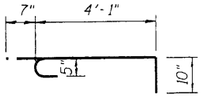
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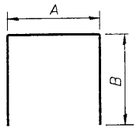
FOOTING PLAN



BAR p813(E) & p814(E)



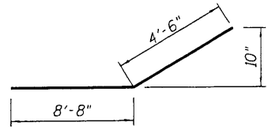
BAR s814(E)



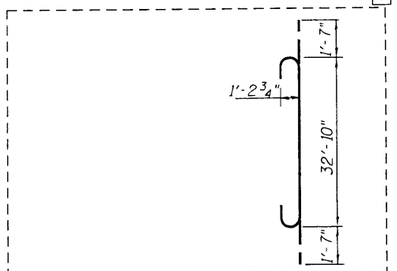
BARS s813(E), u811(E) t810(E), t811(E)

A & B DIMENSIONS

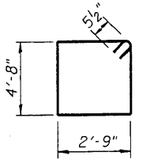
Bar	A	B
s813(E)	2'-9"	3'-8"
u811(E)	4'-0"	1'-0"
t810(E)	19'-8"	3'-4"
t811(E)	19'-8"	3'-4"



BAR p812(E)



BAR v810(E)

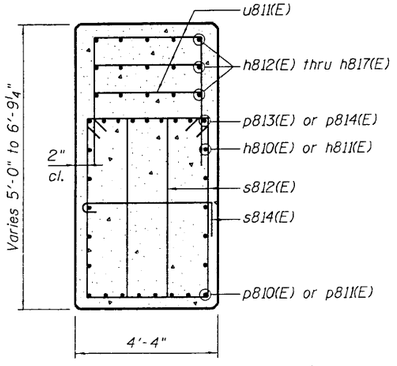


BAR s812(E)

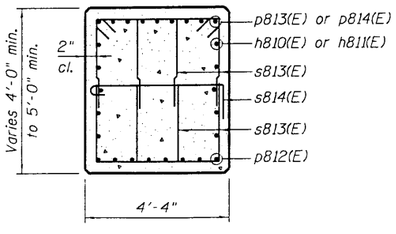
BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
1	h810(E)	10	#5	31'-10"	
	h811(E)	10	#5	40'-0"	
	h812(E)	5	#5	40'-0"	
1	h813(E)	5	#5	27'-0"	
	h815(E)	5	#5	23'-3"	
	h816(E)	5	#5	32'-3"	
	h817(E)	5	#5	10'-9"	
1	n810(E)	0	-	-	-
	n811(E)	0	-	-	-
	p810(E)	8	#10	23'-4"	
	p811(E)	8	#10	40'-0"	
	p812(E)	16	#8	13'-2"	
	p813(E)	9	#11	30'-6"	
	p814(E)	9	#11	42'-0"	
	s812(E)	192	#5	15'-9"	
	s813(E)	276	#5	10'-1"	
	s814(E)	69	#5	5'-6"	
	s815(E)	80	#5	11'-6 1/4"	
**	sp810(E)	5	#5	26'-4"	
	t810(E)	81	#6	26'-4"	
	t811(E)	132	#9	26'-4"	
	u810(E)	14	#6	12'-2"	
	u811(E)	130	#5	6'-0"	
	v810(E)	160	#11	36'-0"	
1	v811(E)	0	-	-	-
	w810(E)	94	#8	39'-7"	

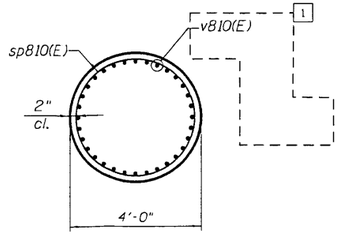
Item	Unit	Quantity
Concrete Structures	Cu. Yd.	327.0
Reinforcement Bars, Epoxy Coated	Pound	77,970
Furnishing Steel Piles, HP14x89	Foot	7504
Driving Piles	Foot	7504
Test Pile Steel HP14x89	Each	1
Pile Shoes	Each	68
1 Mechanical Splicers	Each	17 1



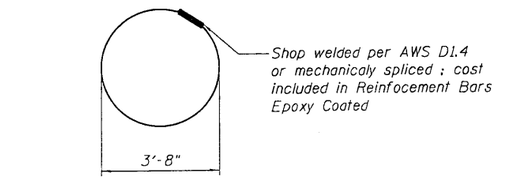
SEC. A-A



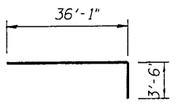
SEC. B-B



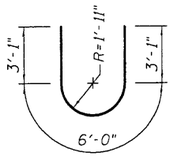
SEC. C-C



BAR s815(E)



BAR w810(E)



BAR u810(E)

** Length is height of spiral

PILE DATA

Type:	HP14x89
Nominal Required Bearing:	500 kips
Factored Resistance Available:	250 kips
Estimated Length:	112 ft.
Number of Production Piles:	67
Number of Test Piles:	1

Revision 1 by Thouvenot, Wade & Moerchen, INC. 1

S117.082-0325.76C75.Pier88.dgn

AECOM

USER NAME = dholdener	DESIGNED - EJO	REVISED 1	DJH 12-14-2011
	DRAWN - JWR	REVISED -	
PLOT SCALE = 8:2 '/ ' / in.	CHECKED - DB	REVISED -	
PLOT DATE = 2/8/2012	DATE - 05-02-11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 8 DETAILS – S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-117 OF S-138 SHEETS | STA. | TO STA.

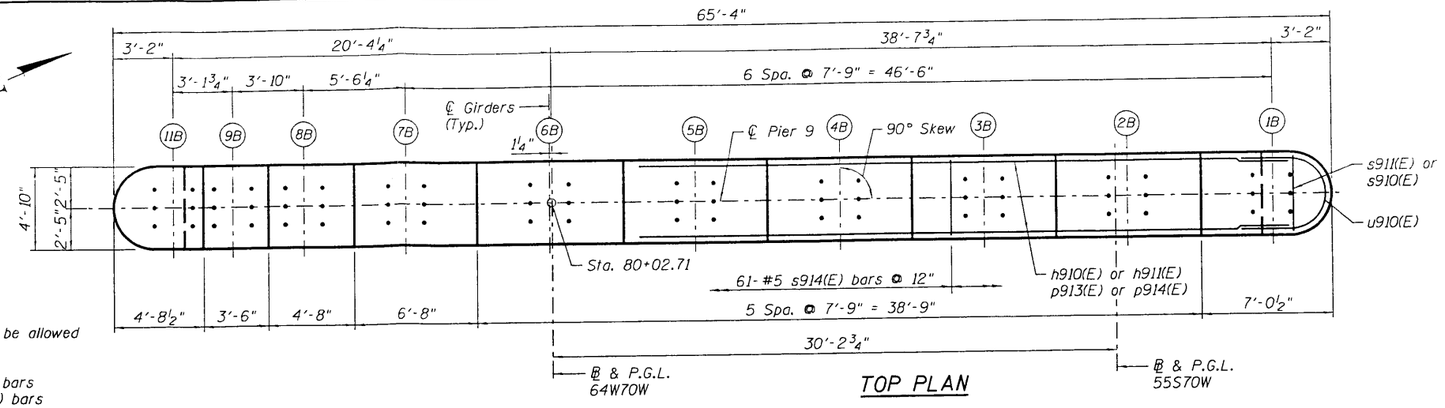
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	232
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NOTES:

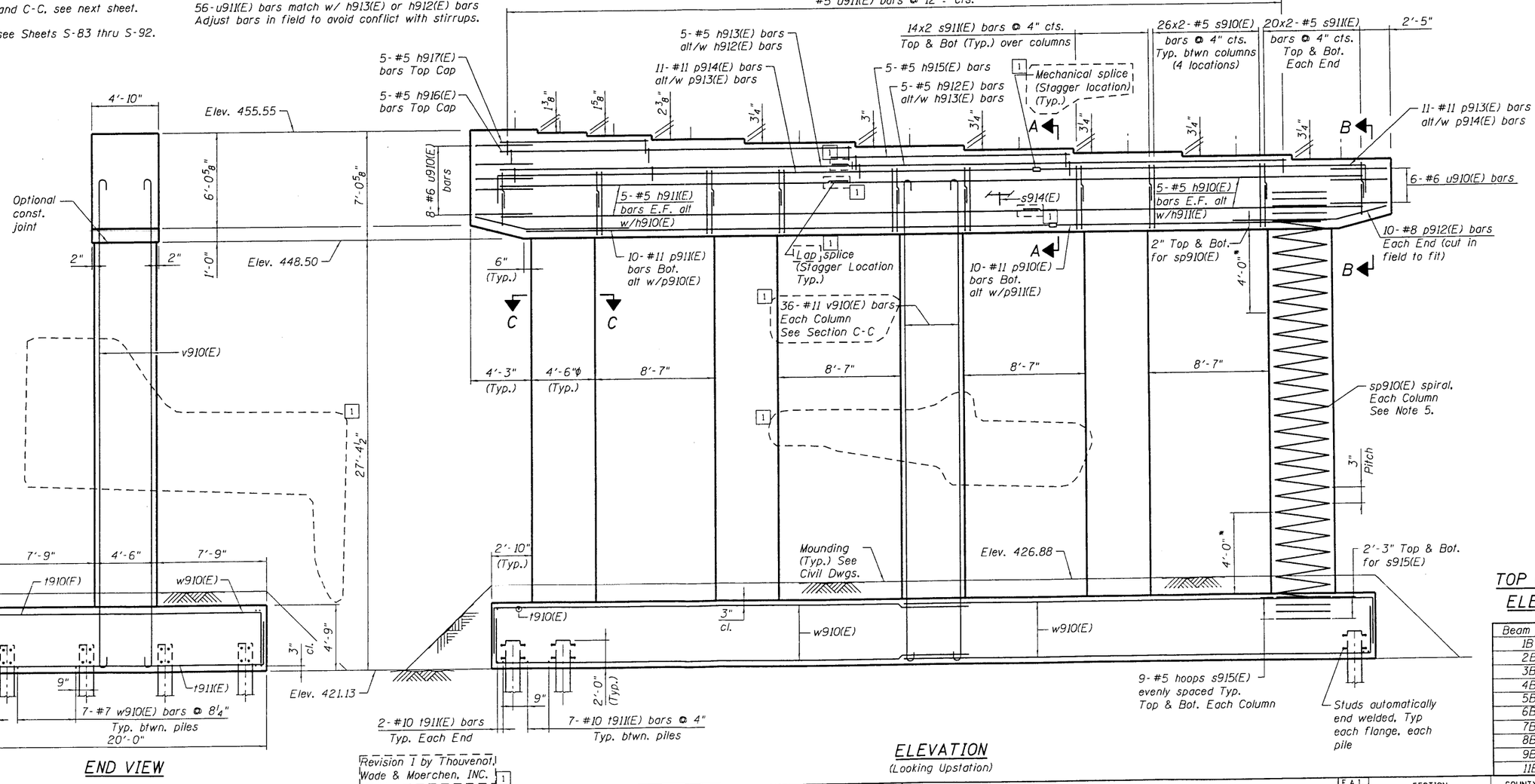
1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For details of piles, see sheet S-122.
4. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
5. #5 sp910(E) spiral, each column
   1) Provide $1\frac{1}{2}$ extra turns, shop welded together per AWS D1.4 top and bottom. Extend spiral 2" into pier cap & footing. Provide 4-#4 spacers or equivalent.
   2) When splicing spiral reinforcement is necessary, the spiral shall be provided with $1\frac{1}{2}$ 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.
6. For section A-A, B-B, and C-C, see next sheet.
7. For anchor bolt details see Sheets S-83 thru S-92.

* Splicing of reinforcement will not be allowed in this region.

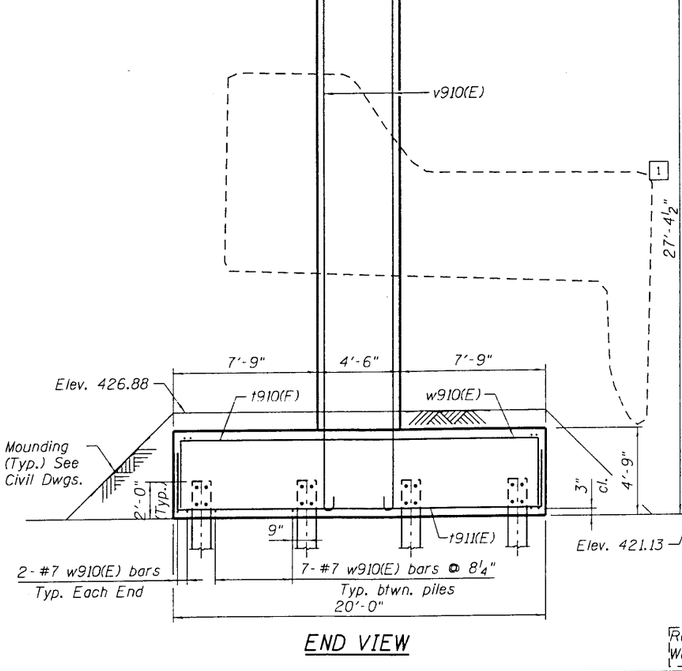
** 11-u911(E) bars match w/ h917(E) bars
25-u911(E) bars match w/ h916(E) bars
17-u911(E) bars match w/ h915(E) bars
56-u911(E) bars match w/ h913(E) or h912(E) bars
Adjust bars in field to avoid conflict with stirrups.



TOP PLAN



ELEVATION
(Looking Upstation)



END VIEW

TOP OF SEAT ELEVATION

Beam No.	Seat Elev.
1B	453.50
2B	453.77
3B	454.04
4B	454.31
5B	454.58
6B	454.83
7B	455.10
8B	455.30
9B	455.44
11B	455.55

Revision 1 by Thouvenot, Wade & Moerchen, INC. 1

AECOM

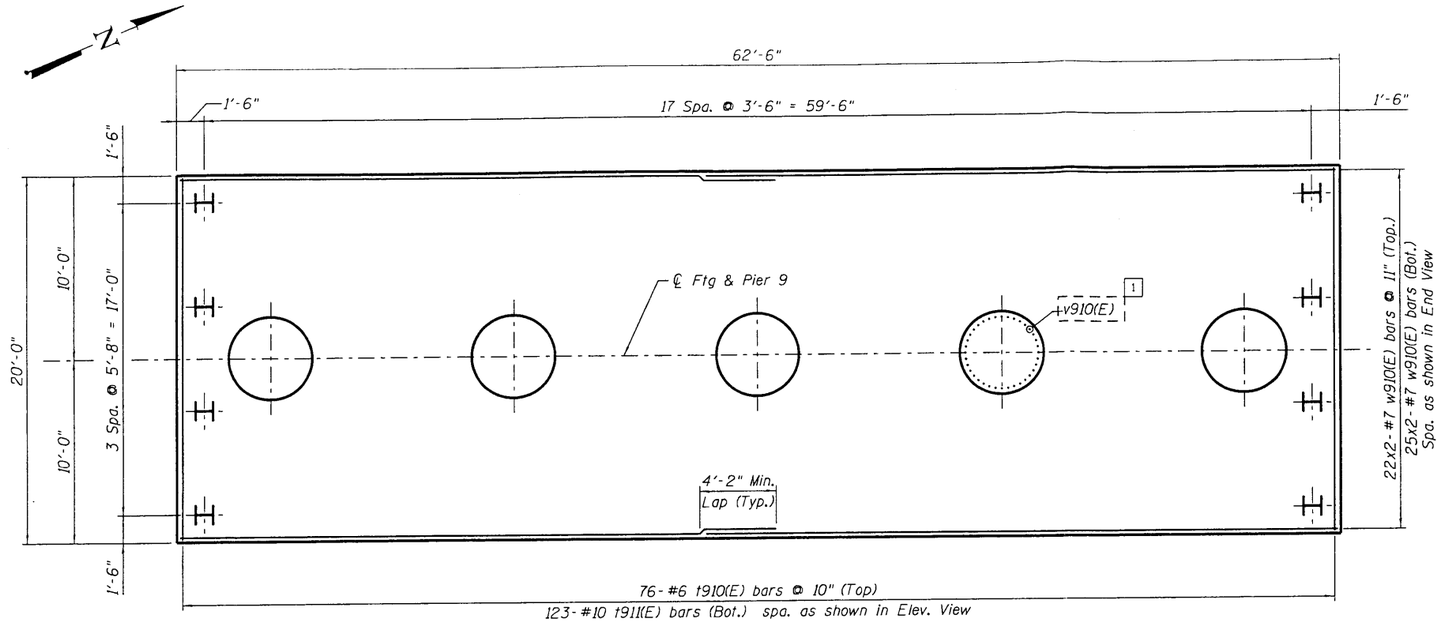
USER NAME = dholdener	DESIGNED - EJO	REVISED 1 DJH 12-14-2011	
	DRAWN - MRK	REVISED -	
PLOT SCALE = 0:2 ':' / in.	CHECKED -	REVISED -	
PLOT DATE = 2/9/2012	DATE - 3/18/2011	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

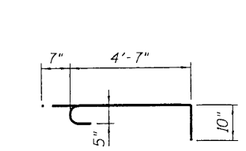
PIER 9 – S.N. 082-0325
~~I-70W~~ OVER ~~I-55, CSX & KCS~~ RAILROADS
SCALE: NONE | SHEET NO. S-118 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	233
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

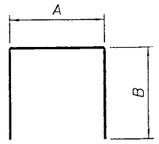
S118 082-B325, 76C75, Pier-90.dgn



FOOTING PLAN



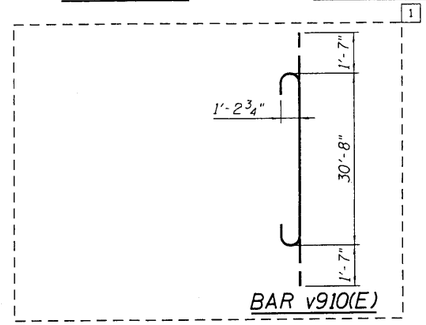
BAR s914(E)



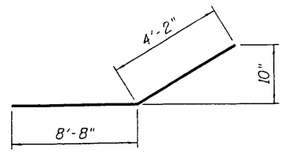
BARS s911(E), u911(E) t910(E), t911(E)

A & B DIMENSIONS

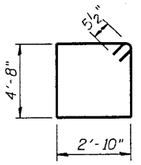
Bar	A	B
s911(E)	2'-10"	3'-8"
u911(E)	4'-6"	1'-0"
t910(E)	19'-8"	4'-1"
t911(E)	19'-8"	4'-1"



BAR v910(E)



BAR p912(E)

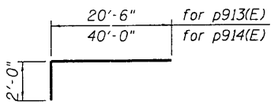


BAR s910(E)

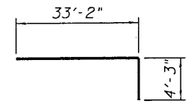
BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
1	h910(E)	10	#5	23'-10"	
	h911(E)	10	#5	40'-0"	
	h912(E)	5	#5	40'-0"	
1	h913(E)	5	#5	19'-2"	
	h915(E)	5	#5	17'-3"	
	h916(E)	5	#5	24'-8"	
	h917(E)	5	#5	10'-3"	
1	n910(E)	0	-	-	-
	n911(E)	0	-	-	-
	p910(E)	10	#11	17'-6"	
	p911(E)	10	#11	40'-0"	
	p912(E)	20	#8	12'-10"	
	p913(E)	11	#11	22'-6"	
	p914(E)	11	#11	42'-0"	
	s910(E)	208	#5	15'-11"	
	s911(E)	328	#5	10'-2"	
	s914(E)	61	#5	6'-0"	
	s915(E)	90	#5	13'-1"	
**	sp910(E)	5	#5	23'-0"	
	t910(E)	76	#6	27'-10"	
	t911(E)	123	#10	27'-10"	
	u910(E)	14	#6	13'-0"	
	u911(E)	109	#5	6'-6"	
	v910(E)	180	#11	33'-10"	
1	v911(E)	0	-	-	-
	w910(E)	94	#7	37'-5"	

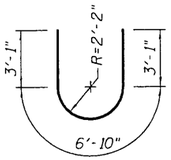
Item	Unit	Quantity
Concrete Structures	Cu. Yd.	358.4
Reinforcement Bars, Epoxy Coated	Pound	81,990
Furnishing Steel Piles, HP14x89	Foot	7952
Driving Piles	Foot	7952
Test Pile Steel HP14x89	Each	1
Pile Shoes	Each	72
1 Mechanical Splicers	Each	121



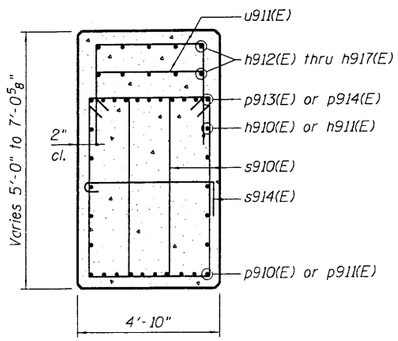
BAR p913(E) & p914(E)



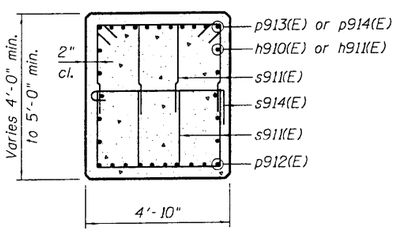
BAR w910(E)



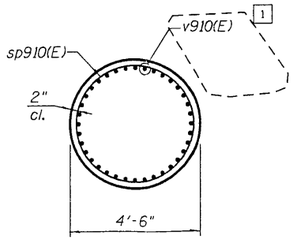
BAR u910(E)



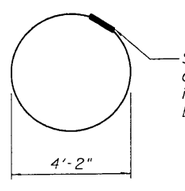
SEC. A-A



SEC. B-B



SEC. C-C



BAR s915(E)

Shop welded per AWS D1.4 or mechanicaly spliced ; cost included in Reinfocement Bars Epoxy Coated

** Length is Height of Spiral.

PILE DATA

Type:	HP14x89
Nominal Required Bearing:	500 kips
Factored Resistance Available:	250 kips
Estimated Length:	112 ft.
Number of Production Piles:	71
Number of Test Piles:	1

Revision 1 by Thouvenot, Wade & Moerchen, INC. 1

AECOM

USER NAME = dholdener	DESIGNED - EJO	REVISED 1	DJH 12-14-2011
	DRAWN - MRK	REVISED -	
PLOT SCALE = 8.2 '/ in.	CHECKED - DB	REVISED -	
PLOT DATE = 2/8/2012	DATE - 05-02-11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 9 DETAILS – S.N. 082–0325
~~I–70W OVER I–55, CSX & KCS RAILROADS~~

SCALE: NONE | SHEET NO. S-119 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	234
	S.N. 082-0323 & S.N. 082-0325	CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

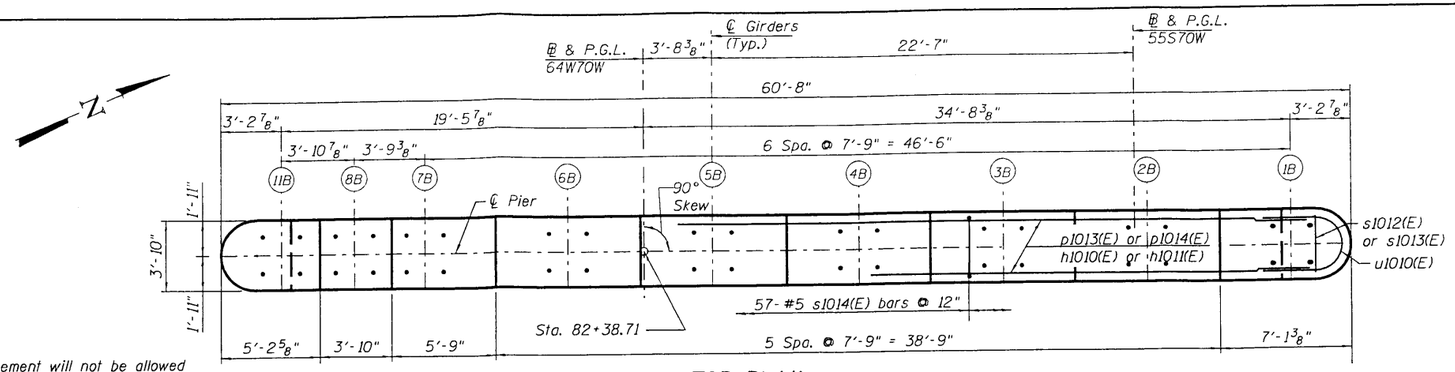
S119_082-0325_76C75_Pier9B.dgn

NOTES:

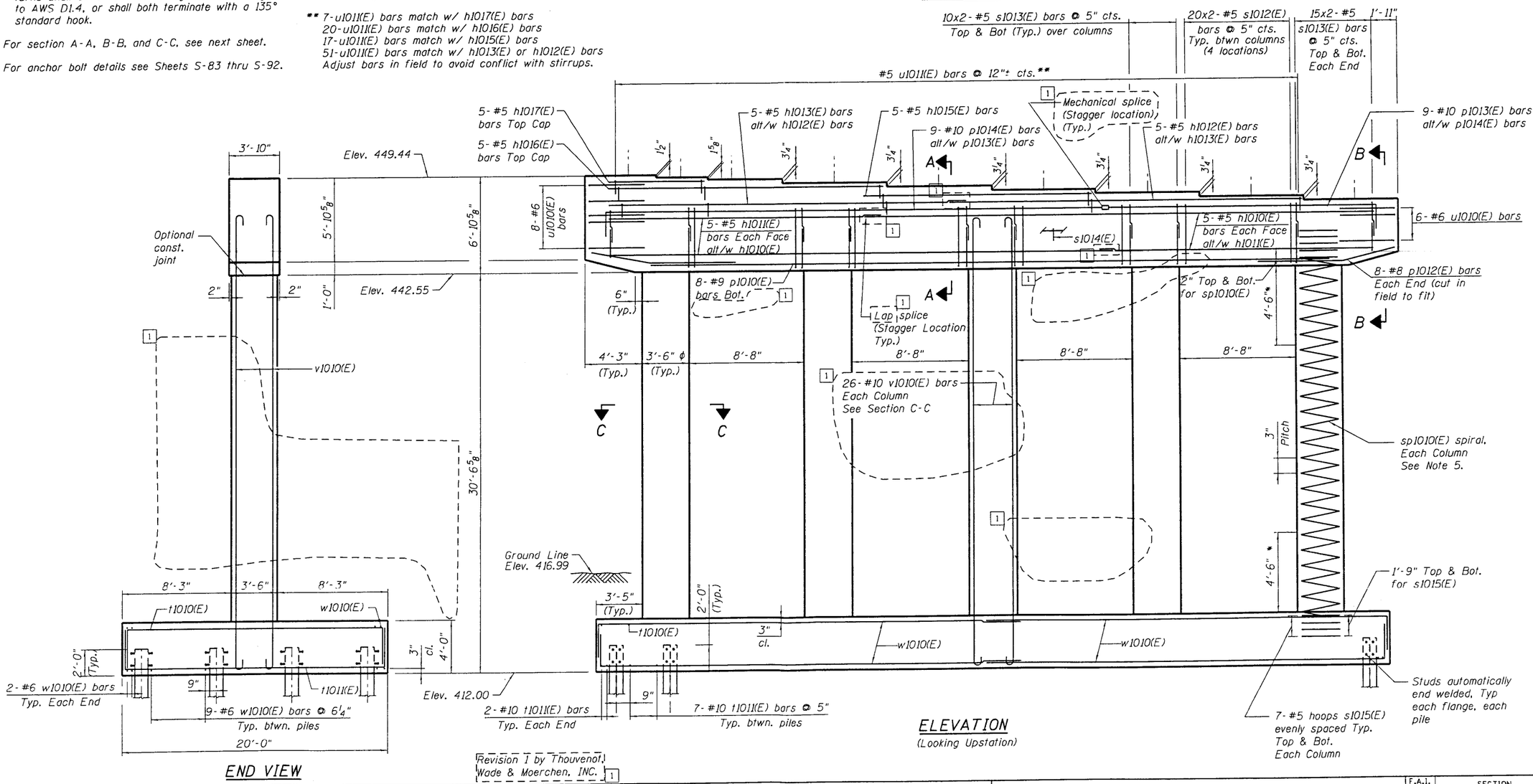
1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For details of piles, see sheet S-122.
4. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
5. #5 sp1010(E) spiral, each column
   1) Provide $1\frac{1}{2}$ extra turns, shop welded together per AWS D1.4 top and bottom. Extend spiral 2" into pier cap & footing. Provide 4-#4 spacers or equivalent.
   2) When splicing spiral reinforcement is necessary, the spiral shall be provided with $1\frac{1}{2}$ 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.
6. For section A-A, B-B, and C-C, see next sheet.
7. For anchor bolt details see Sheets S-83 thru S-92.

* Splicing of reinforcement will not be allowed in this region.

** 7-u1011(E) bars match w/ h1017(E) bars
20-u1011(E) bars match w/ h1016(E) bars
17-u1011(E) bars match w/ h1015(E) bars
51-u1011(E) bars match w/ h1013(E) or h1012(E) bars
Adjust bars in field to avoid conflict with stirrups.



TOP PLAN



END VIEW

ELEVATION
(Looking Upstation)

TOP OF SEAT ELEVATION

Beam No.	Seat Elev.
1B	447.55
2B	447.82
3B	448.09
4B	448.36
5B	448.63
6B	448.90
7B	449.17
8B	449.31
11B	449.44

1 Revision 1 by Thouvenot, Wade & Moerchen, INC.

AECOM

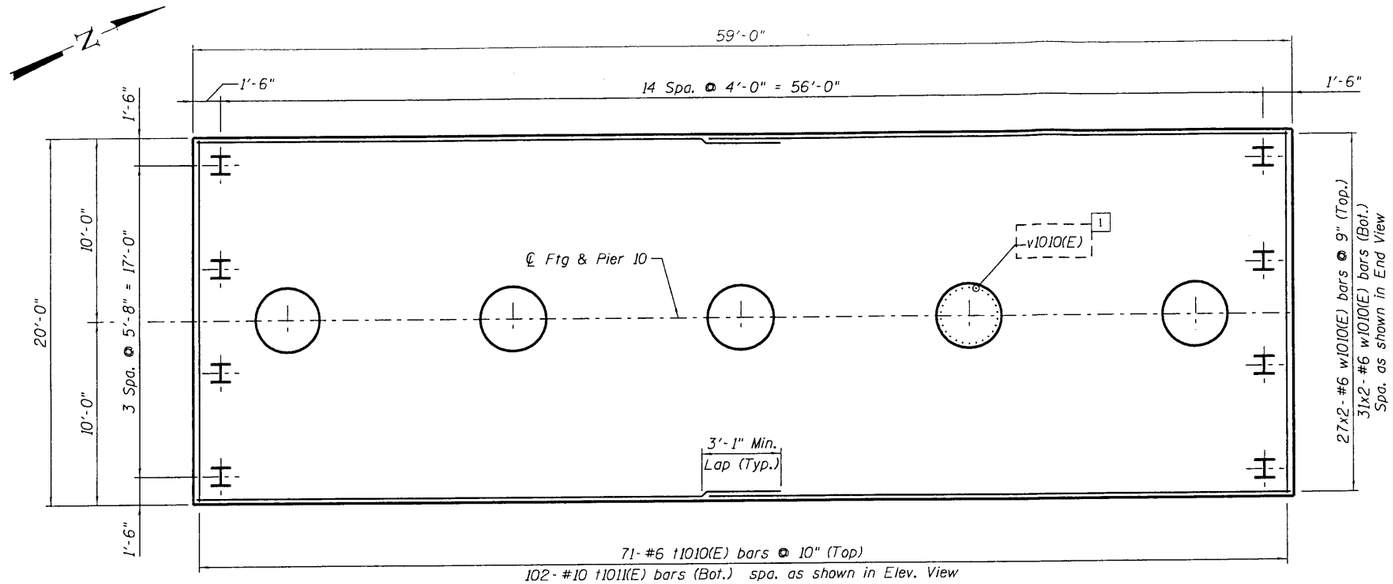
USER NAME : dholdener	DESIGNED - EJO	REVISED 1 DJH 12-14-2011
	DRAWN - JMR	REVISED -
PLOT SCALE : 0:2 '1' / in.	CHECKED -	REVISED -
PLOT DATE : 2/8/2012	DATE - 3-18-2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

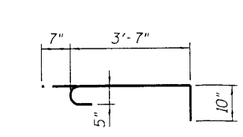
PIER 10 – S.N. 082–0325
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-120 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	235
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

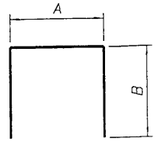
S120_082-0325_76C75_Pier10N.dgn



FOOTING PLAN



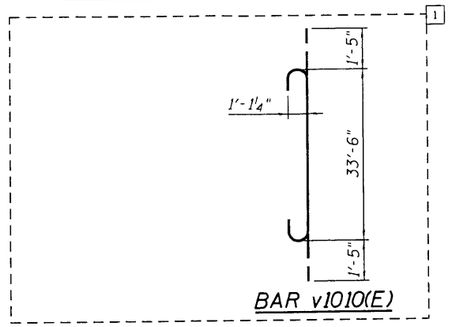
BAR s1014(E)



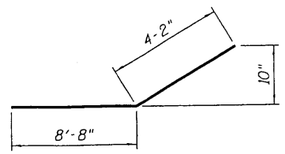
BARS s1013(E), u1011(E), t1010(E), t1011(E)

A & B DIMENSIONS

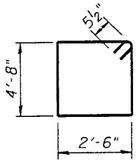
Bar	A	B
s1013(E)	2'-6"	3'-8"
u1011(E)	3'-6"	1'-0"
t1010(E)	19'-8"	3'-4"
t1011(E)	19'-8"	3'-4"



BAR v1010(E)



BAR p1012(E)

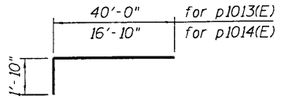


BAR s1012(E)

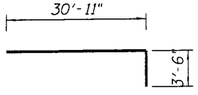
BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	h1010(E)	10	#5	40'-0"	
1	h1011(E)	10	#5	120'-2"]	
	h1012(E)	5	#5	40'-0"	
1	h1013(E)	5	#5	115'-1"]	
	h1015(E)	5	#5	17'-3"	
	h1016(E)	5	#5	20'-5"	
	h1017(E)	5	#5	6'-11"	
1	n1010(E)	0	-	-	-
	n1011(E)	0	-	-	-
	p1010(E)	8	#9	52'-10"	
1	p1011(E)	0	-	-	-
	p1012(E)	16	#8	12'-10"	
	p1013(E)	9	#10	41'-10"	
	p1014(E)	9	#10	18'-8"	
	s1012(E)	160	#5	15'-3"	
	s1013(E)	240	#5	9'-10"	
	s1014(E)	57	#5	5'-0"	
	s1015(E)	70	#5	9'-11 3/8"	
**	sp1010(E)	5	#5	26'-11"	
	t1010(E)	71	#6	26'-4"	
	t1011(E)	102	#10	26'-4"	
	u1010(E)	14	#6	11'-5"	
	u1011(E)	95	#5	5'-6"	
	v1010(E)	130	#10	36'-4"	
1	v1011(E)	0	-	-	-
	w1010(E)	116	#6	34'-5"	

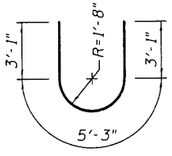
Item	Unit	Quantity
Structure Excavation	Cu. Yd.	279.4
Concrete Structures	Cu. Yd.	273.5
Reinforcement Bars, Epoxy Coated	Pound	54,700
Furnishing Steel Piles, HP14x89	Foot	6780
Driving Piles	Foot	6780
Pile Shoes	Each	60
1 Mechanical Splicers	Each	9



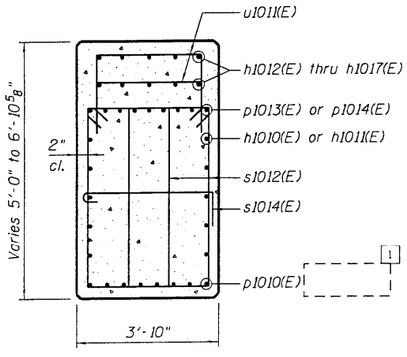
BAR p1013(E) & p1014(E)



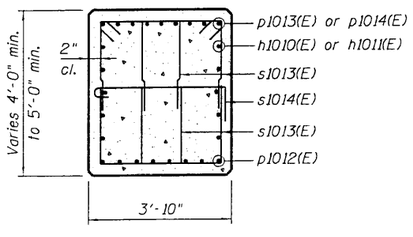
BAR w1010(E)



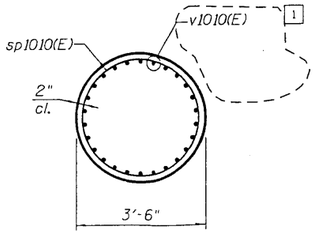
BAR u1010(E)



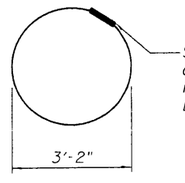
SEC. A-A



SEC. B-B



SEC. C-C



BAR s1015(E)

Shop welded per AWS D1.4 or mechanicaly spliced ; cost included in Reinfocement Bars Epoxy Coated

** Length is Height of Spiral.

PILE DATA

Type:	HP14x89
Nominal Required Bearing:	500 kips
Factored Resistance Available:	250 kips
Estimated Length:	113 ft.
Number of Production Piles:	60
Number of Test Piles:	0

1 Revision 1 by Thouvenot, Wade & Moerchen, INC.

USER NAME = dholdener	DESIGNED - EJO	REVISED 1	DJH 12-14-2011
	DRAWN - JHR	REVISED -	
PLOT SCALE = 0.2 '/ in.	CHECKED - DB	REVISED -	
PLOT DATE = 2/9/2012	DATE - 05-02-11	REVISED -	

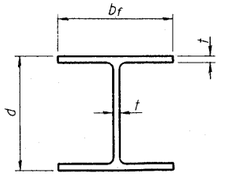
AECOM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 10 DETAILS – S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-121 OF S-138 SHEETS | STA. | TO STA.

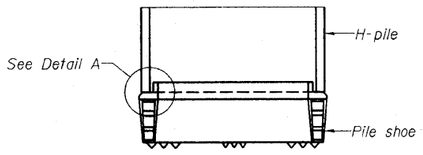
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	236
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

S121,082-0325_76C75_Pier10B.dgn

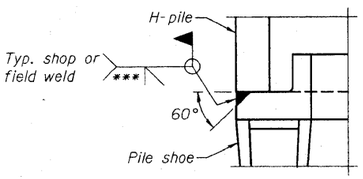


STEEL PILE TABLE

Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	$14\frac{1}{4}''$	$14\frac{7}{8}''$	$\frac{13}{16}''$	30"
x102	14"	$14\frac{3}{4}''$	$\frac{11}{16}''$	30"
x89	$13\frac{7}{8}''$	$14\frac{3}{4}''$	$\frac{5}{8}''$	30"
x73	$13\frac{5}{8}''$	$14\frac{5}{8}''$	$\frac{1}{2}''$	30"
HP 12x84	$12\frac{1}{4}''$	$12\frac{1}{4}''$	$\frac{11}{16}''$	24"
x74	$12\frac{1}{8}''$	$12\frac{1}{4}''$	$\frac{5}{8}''$	24"
x63	12"	$12\frac{1}{8}''$	$\frac{1}{2}''$	24"
x53	$11\frac{3}{4}''$	12"	$\frac{7}{16}''$	24"
HP 10x57	10"	$10\frac{1}{4}''$	$\frac{9}{16}''$	24"
x42	$9\frac{3}{4}''$	$10\frac{1}{8}''$	$\frac{7}{16}''$	24"
HP 8x36	8"	$8\frac{1}{8}''$	$\frac{7}{16}''$	18"

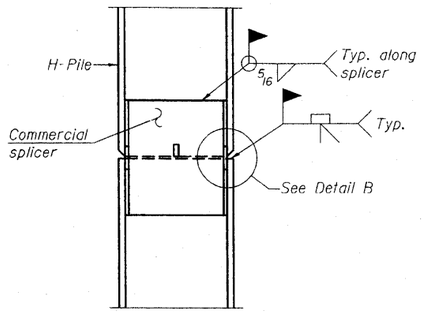


ELEVATION

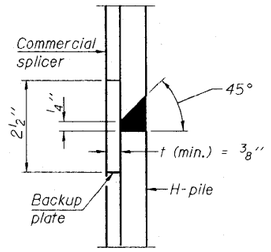


DETAIL A

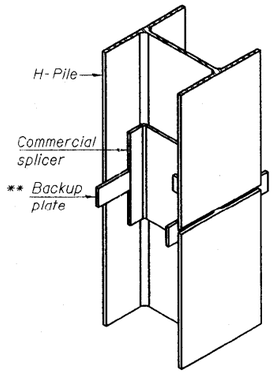
H-PILE SHOE ATTACHMENT



ELEVATION

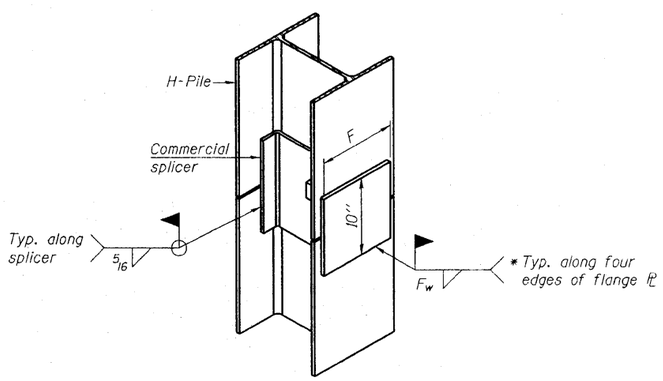


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



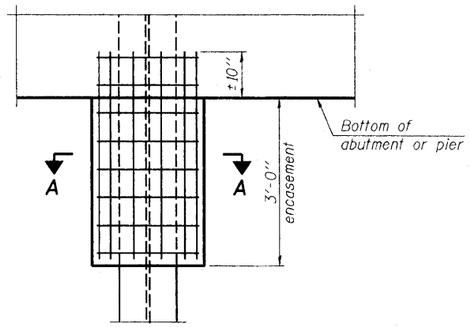
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

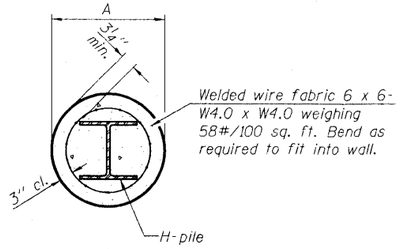
* Interrupt welds ¼" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer ($\frac{5}{16}''$ min.).



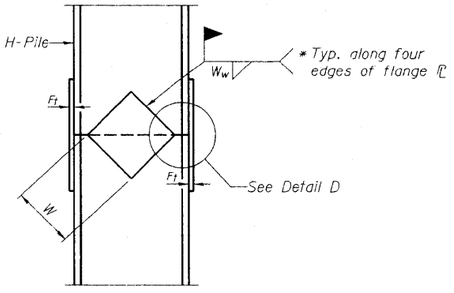
ELEVATION



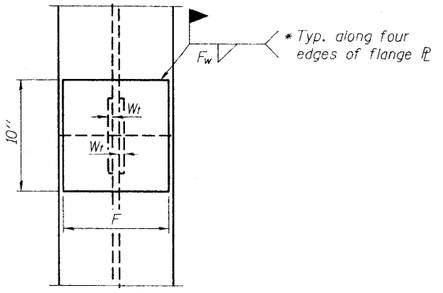
Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

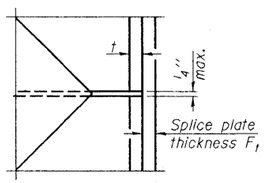
PILE ENCASEMENT



ELEVATION

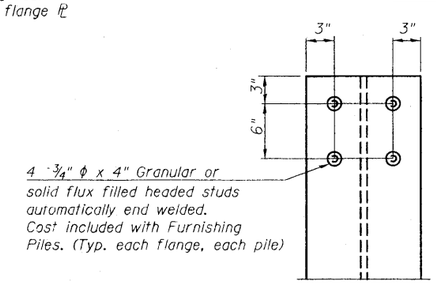


END VIEW



DETAIL D

Designation	F	F_t	F_w	W	W_t	W_w
HP 14x117	$12\frac{1}{2}''$	1"	$\frac{7}{8}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x102	$12\frac{1}{2}''$	$\frac{7}{8}''$	$\frac{3}{4}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x89	$12\frac{1}{2}''$	$\frac{3}{4}''$	$\frac{11}{16}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x73	$12\frac{1}{2}''$	$\frac{5}{8}''$	$\frac{9}{16}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
HP 12x84	10"	$\frac{7}{8}''$	$\frac{11}{16}''$	$6\frac{1}{2}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x74	10"	$\frac{7}{8}''$	$\frac{11}{16}''$	$6\frac{1}{2}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x63	10"	$\frac{5}{8}''$	$\frac{1}{2}''$	$6\frac{1}{2}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
x53	10"	$\frac{5}{8}''$	$\frac{1}{2}''$	$6\frac{1}{2}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
HP 10x57	8"	$\frac{3}{4}''$	$\frac{9}{16}''$	$5\frac{1}{4}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
x42	8"	$\frac{5}{8}''$	$\frac{9}{16}''$	$5\frac{1}{4}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
HP 8x36	7"	$\frac{5}{8}''$	$\frac{7}{16}''$	$4\frac{1}{4}''$	$\frac{1}{2}''$	$\frac{3}{8}''$



STUD DETAIL

WELDED PLATE FIELD SPLICE

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

P:\P60466691\908.CAD\901.Drawings\76C0...aster_Consolidated\Structural\082-0323\Sheet\S122 082-0323_76C75_PileDet.dgn

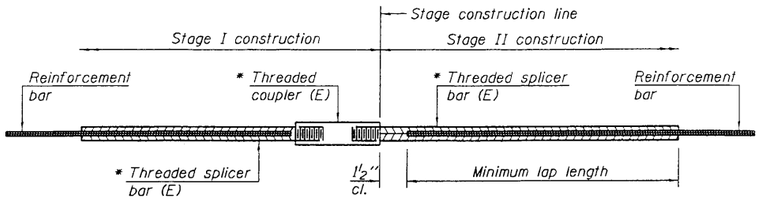
AECOM

USER NAME = $hactla	~~DESIGNED - EJO~~	~~REVISED -~~	
	DRAWN - JHR	REVISED -	
PLOT SCALE = Ø:2 '1' / in.	CHECKED -	REVISED -	
PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PILE DETAILS
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-122 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	237
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



STANDARD BAR SPLICER ASSEMBLY

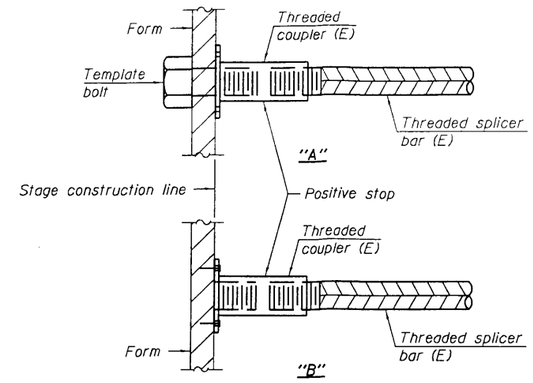
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

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 + 1½" + thread length

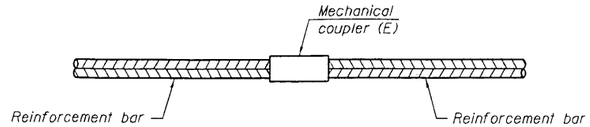
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

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



INSTALLATION AND SETTING METHODS

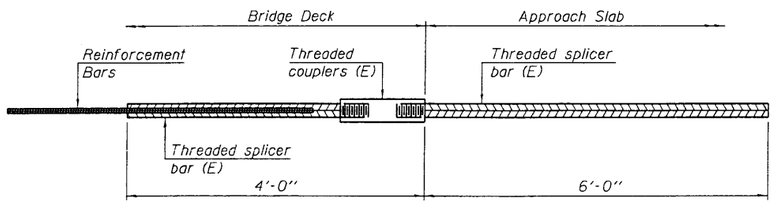
"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

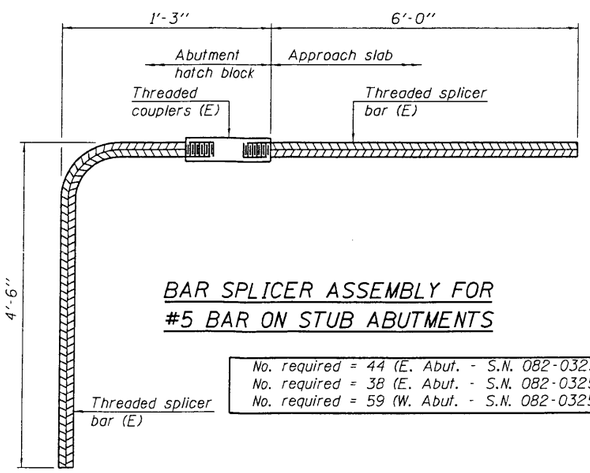
[1]

Location	Bar size	No. assemblies required
Pier 1 (SN 082-0323)	#6	32
Pier 1 (SN 082-0325)	#6	32
Pier 2 (SN 082-0325)	#6	32
Pier 4 (SN 082-0325)	#6	32
Pier 5 (SN 082-0325)	#6	32
Pier 6 (SN 082-0325)	#6	32
Pier 8 (SN 082-0325)	#10	8
Pier 8 (SN 082-0325)	#11	9
Pier 9 (SN 082-0325)	#11	21
Pier 10 (SN 082-0325)	#10	9



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

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 44 (E. Abut. - S.N. 082-0323)
No. required = 38 (E. Abut. - S.N. 082-0325)
No. required = 59 (W. Abut. - S.N. 082-0325)

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 special provision for Mechanical Splicers.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

7-1-10

Revision 1 by Thouvenot, Wade & Moerchen, INC. [1]

S123.082-0323.76C75.Splicer.dgn

AECOM

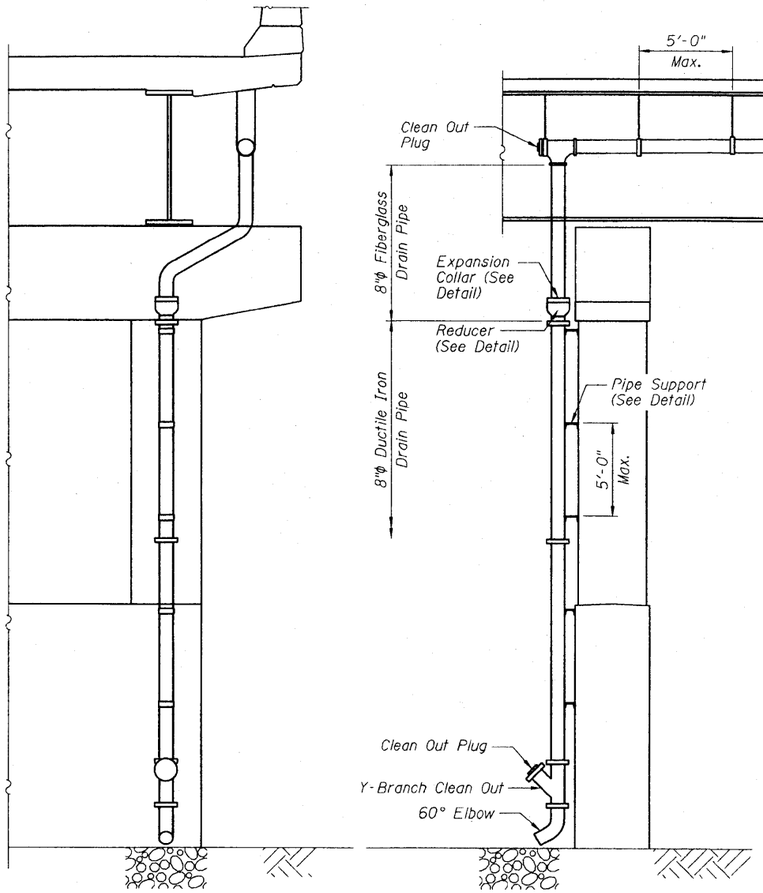
USER NAME = dholdener	DESIGNED - EJO	REVISED [1]	DJH 12-14-2011
	DRAWN - JHR	REVISED -	
PLOT SCALE = 0.2 '/ IN.	CHECKED -	REVISED -	
PLOT DATE = 2/9/2012	DATE - 3/18/2011	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

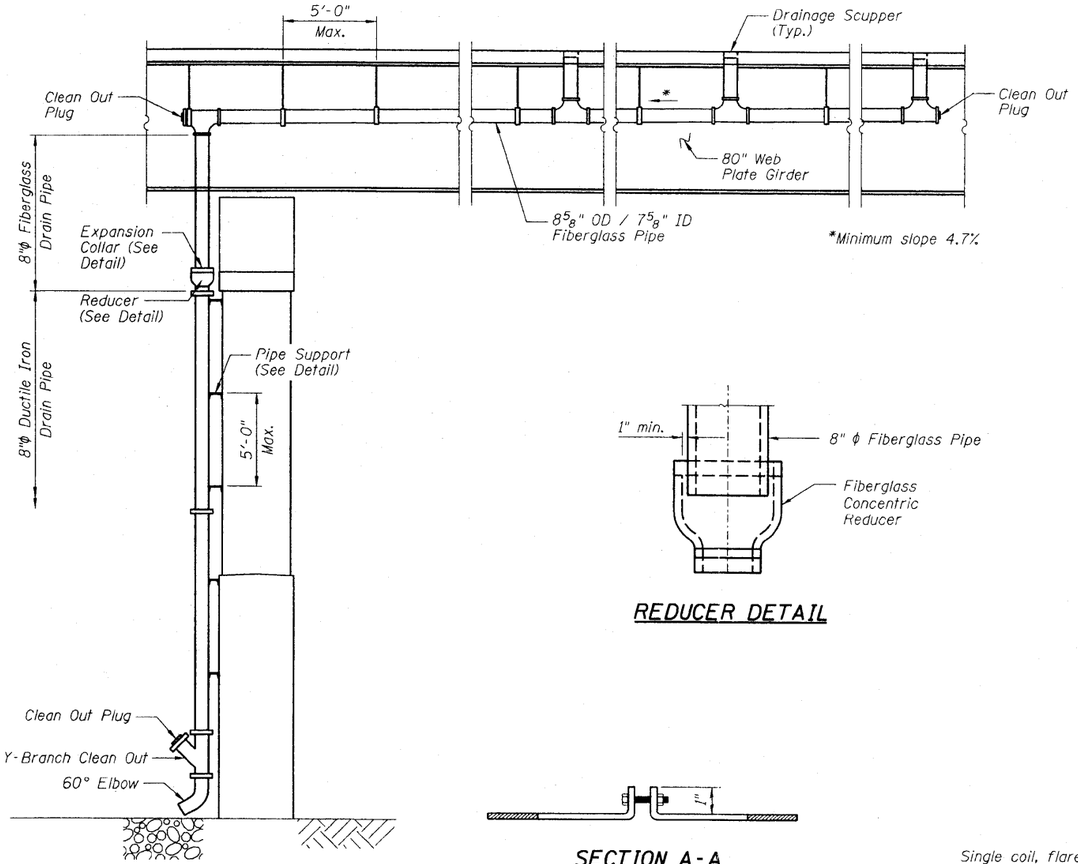
BAR SPLICER ASSEMBLY DETAILS
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-123 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	238
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

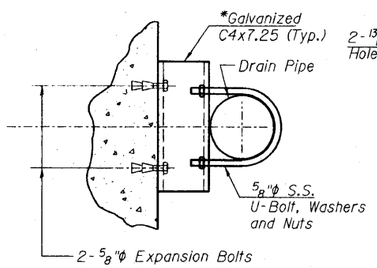


ELEVATION VIEW
(Looking West)

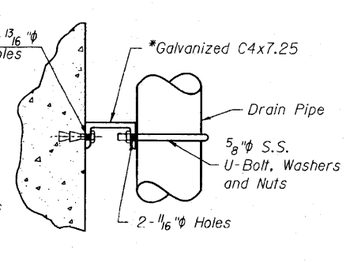


END VIEW
(Looking South)

DRAINAGE SYSTEM
© Pier 1 S.N. 082-0323
© Pier 5 S.N. 082-0325



PLAN

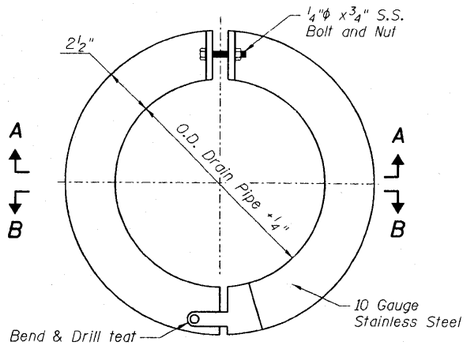


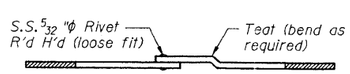
ELEVATION

PIPE SUPPORT DETAIL
*Provide curved C6x8.2 to fit Round Pier Columns where needed

REDUCER DETAIL

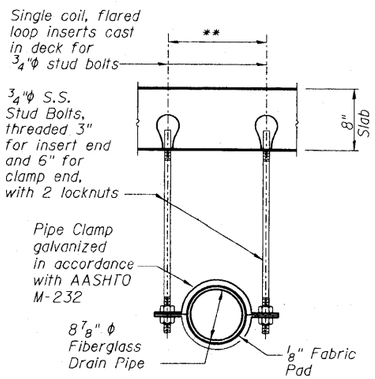
SECTION A-A





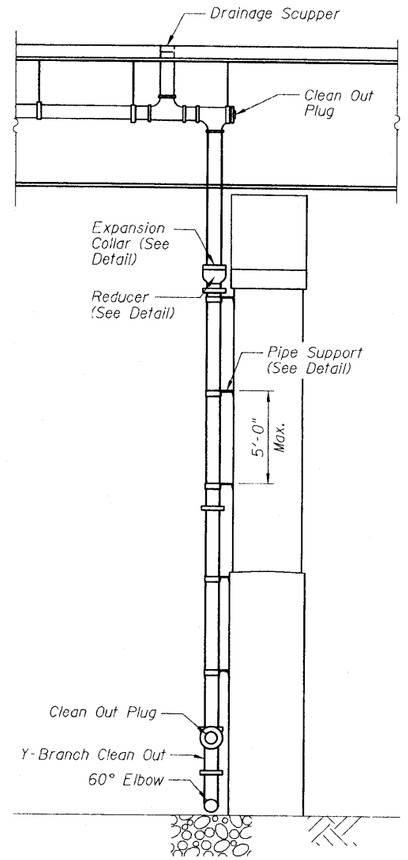
SECTION B-B

DETAIL OF EXPANSION COLLAR



PIPE SUPPORT DETAIL
** Dimension as required by Pipe Clamp

NOTE:
1. S.S. denotes Stainless Steel.



END VIEW
(Looking South)

DRAINAGE SYSTEM
© Pier 10 S.N. 082-0325

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage System	L. Sum	1

D8TRI-0820323-0820325-76C75-S124-Drain_system.dgn

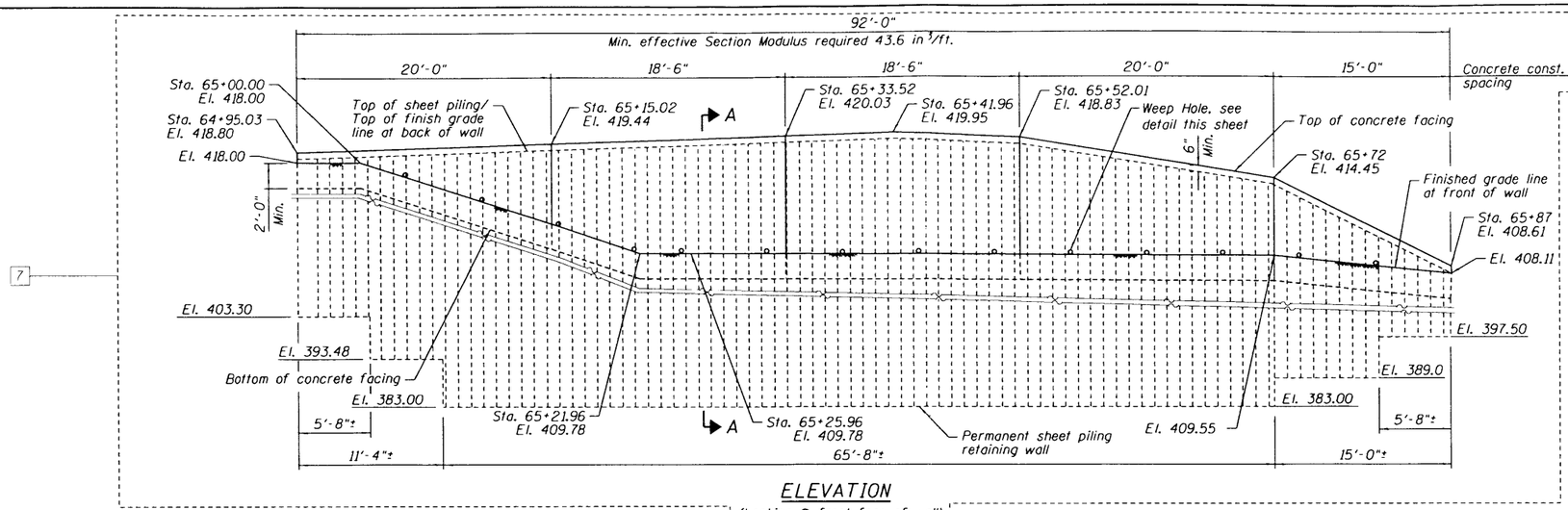
AECOM | ZROKA Engineering

USER NAME = kritzm	DESIGNED - JLA		REVISED -
	DRAWN - DAZ		REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED - SAW		REVISED -
PLOT DATE = $DATE$	DATE - 3-18-11		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SYSTEM DETAILS
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-124 OF S-138 SHEETS | STA. | TO STA.

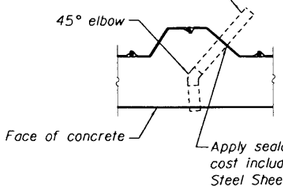
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	239
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



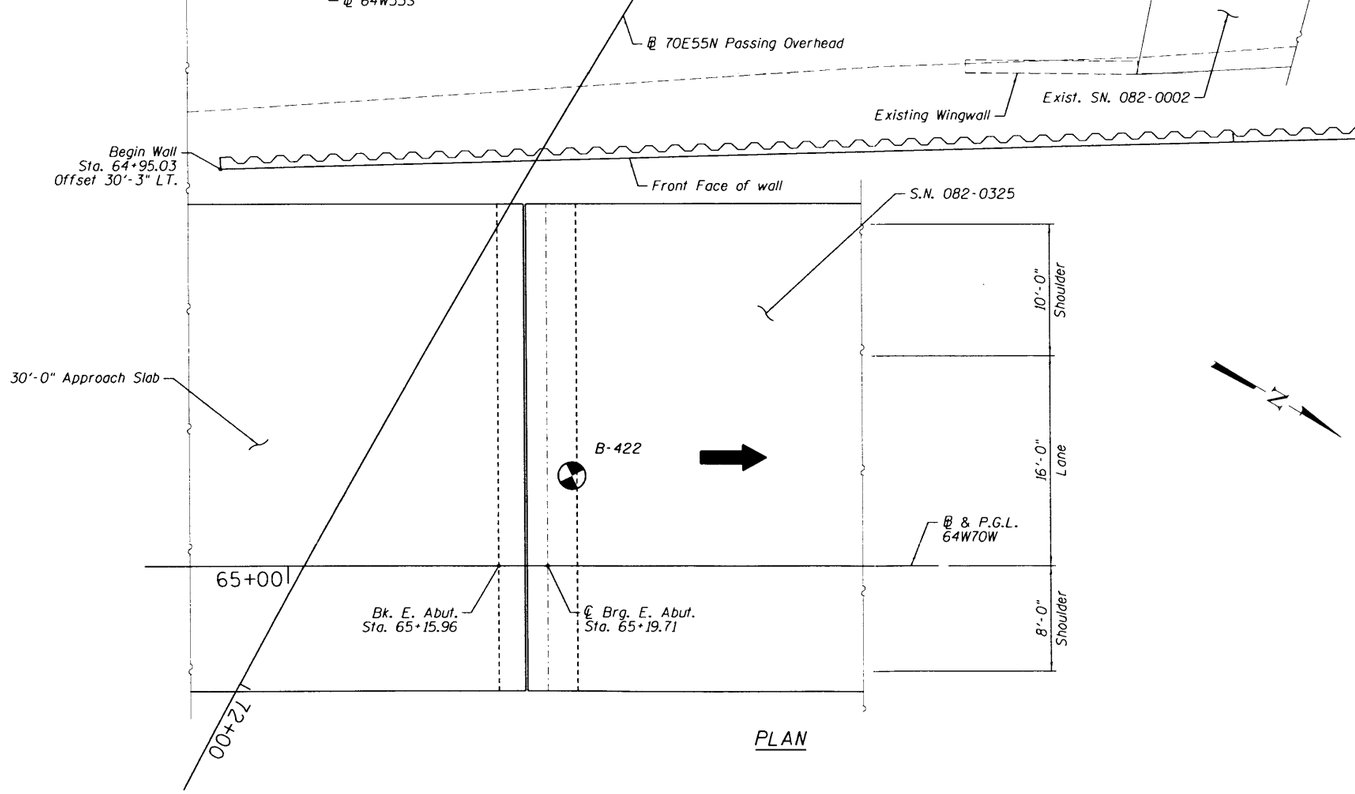
ELEVATION

(Looking ✪ front face of wall)

4" dia x 2'-6" long Sch 80 PVC pipe with end cap, 12-½"Φ evenly distributed holes and fabric wrapped. Pushed or predrilled into backfill. Cost of installing weep holes included with Permanent Steel Sheet Piling.



WEEP HOLE DETAIL



PLAN

DESIGN SPECIFICATIONS

2002 AASHTO - Standard Specifications for Highway Bridges

DESIGN STRESSES

f'c = 3,500 psi
fy = 60,000 psi (reinf.)
fy = 39,000 psi (M202 Grade 39)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h210(E)	4	#5	22'-6"	——
h211(E)	3	#5	21'-1"	——
h212(E)	1	#5	20'-6"	——
h213(E)	2	#5	10'-6"	——
h214(E)	1	#5	7'-0"	——
h215(E)	1	#5	18'-0"	——
h216(E)	24	#5	21'-0"	——
h217(E)	12	#5	23'-0"	——
h218(E)	8	#5	15'-9"	——
v210(E)	6	#5	2'-6"	——
v211(E)	7	#5	11'-8"	——
v212(E)	4	#5	20'-2"	——
v213(E)	6	#5	20'-5"	——
v214(E)	5	#5	19'-7"	——
v215(E)	5	#5	18'-0"	——
v216(E)	11	#5	12'-4"	——
v217(E)	2	#5	2'-5"	——
v218(E)	2	#5	2'-2"	——
v219(E)	12	#5	4'-0"	——
v220(E)	42	#5	5'-3"	——
v221(E)	8	#5	8'-9"	——
u210(E)	5	#5	4'-6"	⊐
u211(E)	4	#5	3'-5"	⊐
Concrete Structures			Cu. Yd.	36
Reinforcement Bars, Epoxy Coated			Pound	2250
Permanent Steel Sheet Piling			Sq. Ft.	2860

7

AECOM

USER NAME = bhatta | PLOT SCALE = 0.166666 ' / in. | PLOT DATE = *DATE*

DESIGNED - LLV | DRAWN - BRD | CHECKED - PJL | DATE - 3-30-11

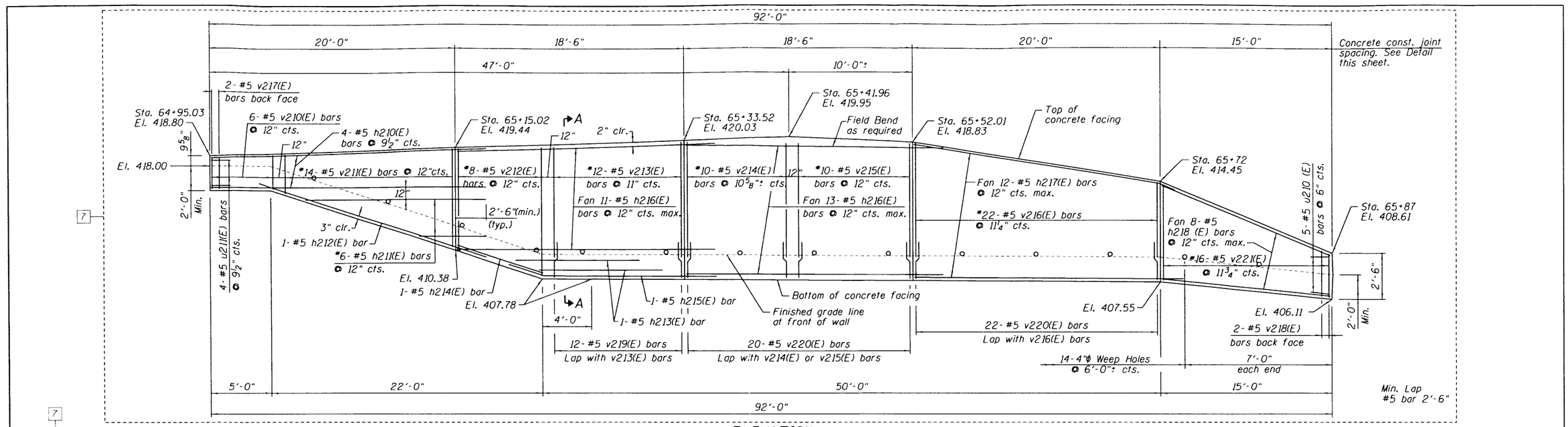
REVISED - 7 02/13/2013 A.T.B. | REVISED - | REVISED - | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PERMANENT STEEL SHEET PILE WALL – GENERAL PLAN
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-125 OF S-138 SHEETS | STA. | TO STA.

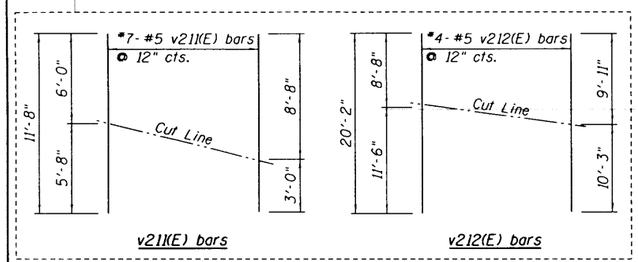
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	240
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

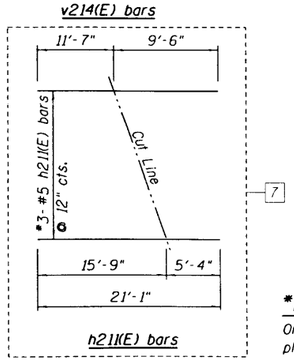
P:\PROJECTS\60246689\600 Construction Support\606 Construction Contract Changes\76C75 Changes\Revision 07 2013-02-13\2013-02-13_Rev_S125_082-0323_0325_76C75_Retwall-1.dgn



ELEVATION

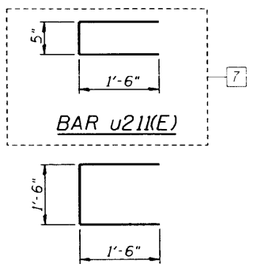
(Looking @ front face of wall)

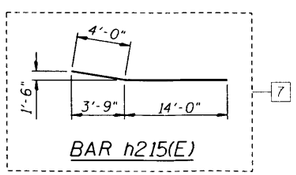


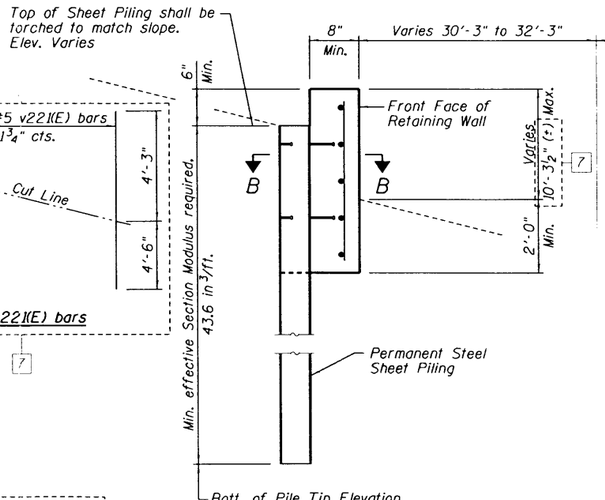


*FIELD CUTTING DIAGRAMS

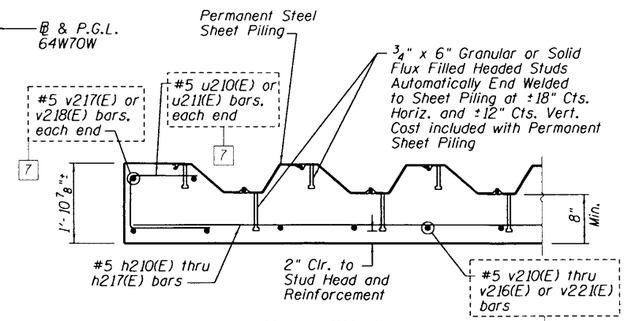
Order bars full length. Cut as shown and place for best fit.



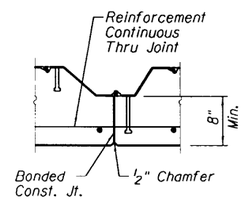




SECTION A-A



SECTION B-B



WALL CONSTRUCTION JOINT

AECOM	USER NAME : bhatta	DESIGNED - LLV	REVISED - 7 02/13/2013 A.T.B.
		DRAWN - BRD	REVISED -
	PLOT SCALE : 0.166666 ' / in.	CHECKED - PJL	REVISED -
	PLOT DATE : 6DATE6	DATE - 3-30-11	REVISED -

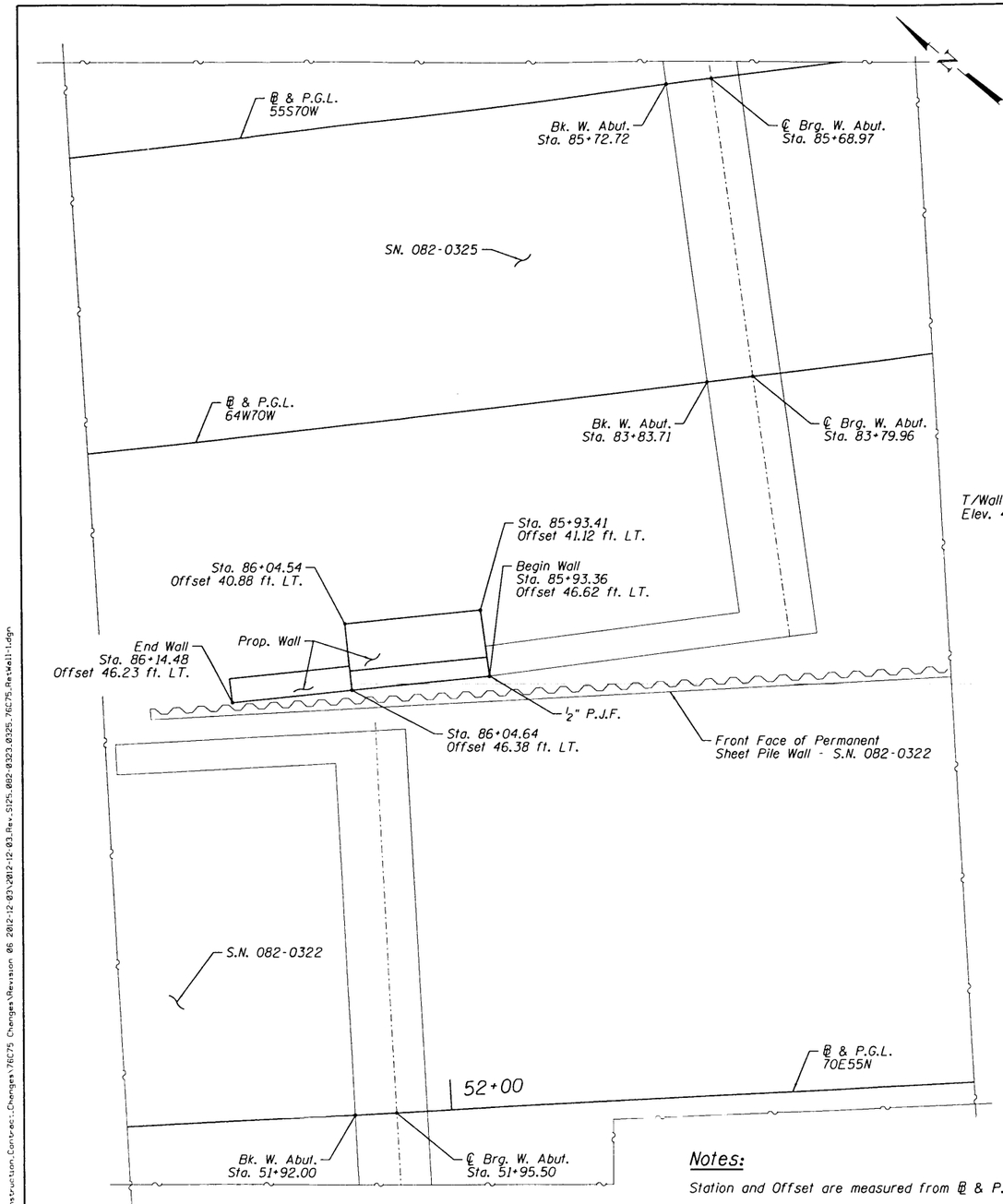
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PERMANENT STEEL SHEET PILE WALL DETAILS
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-126 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	241
	S.N. 082-0323 & S.N. 082-0325	CONTRACT NO. 76C75		
	FED. ROAD DIST. NO. ILLINOIS	FED. AID PROJECT		

P:\PDS\2011\60\60B\Construction_Support\60B6_Construction_Contract_Changes\76C75 Changes\Revision #7 2013-02-13\2013-02-13_Rev_S126_082-0323_0325_76C75_Revised-2.dgn



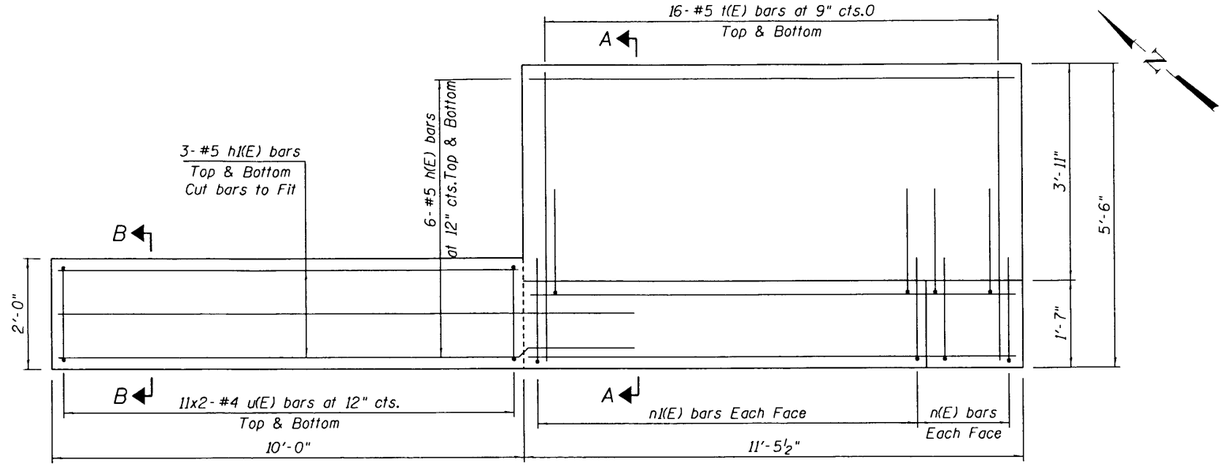
PLAN

DESIGN SPECIFICATIONS

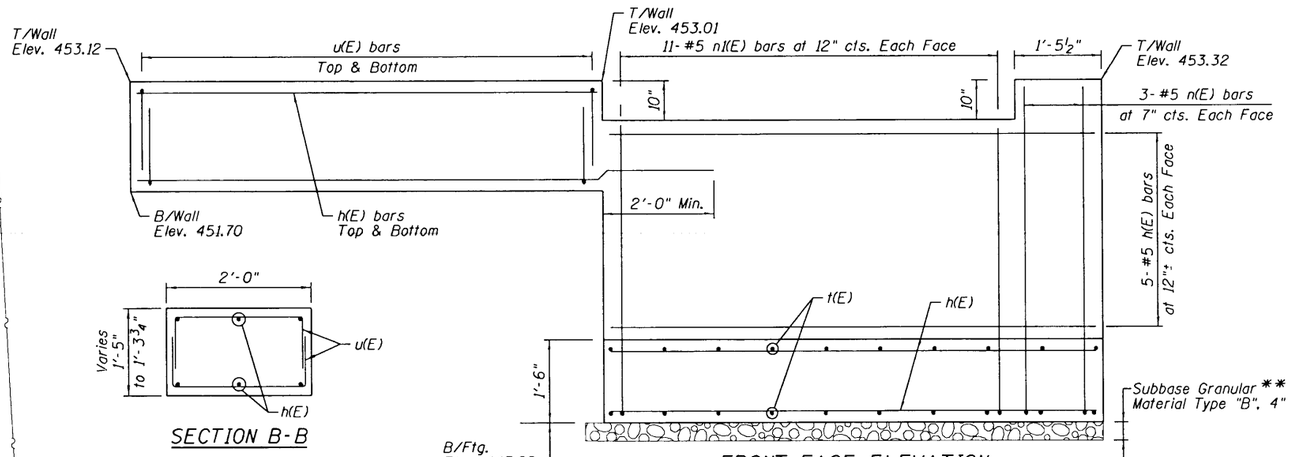
2002 AASHTO - Standard Specifications for Highway Bridges

DESIGN STRESSES

f'c = 3,500 psi
fy = 60,000 psi (reinf.)



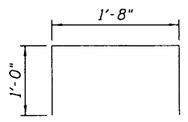
FOOTING PLAN



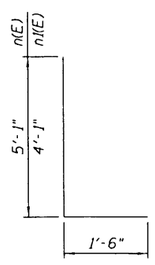
FRONT FACE ELEVATION

(Looking North)

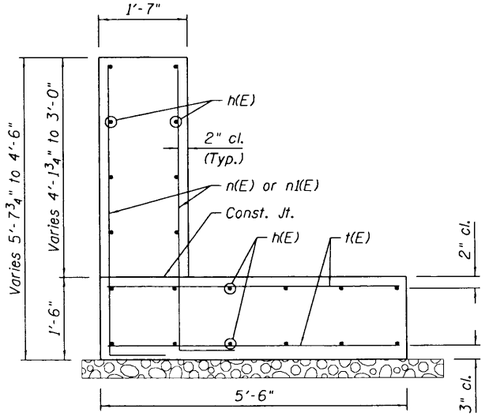
SECTION B-B



BARS u(E)



BARS n(E) & n1(E)



SECTION A-A

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	22	#5	11'-1"	
h1(E)	6	#5	11'-9"	
n(E)	6	#5	6'-7"	
n1(E)	22	#5	5'-7"	
t(E)	32	#5	5'-2"	
u(E)	22	#4	3'-8"	
Concrete Structures			Cu. Yd.	8.0
Reinforcement Bars, Epoxy Coated			Pound	730
Structural Excavation			Cu. Yd.	5.0
Protective Coat			Sq. Yd.	25

Notes:

Station and Offset are measured from ℄ & P.G.L. 55S70W.

Protective Coat shall be applied according to Section 503 of Standard Specifications to all concrete surfaces not in contact with soil.

The back face of the wall shall be waterproofed according to Article 503.18 of the Standard Specifications.

** Cost Included with Concrete Structures.

Added Sheet 6

AECOM	USER NAME = bhatia	DESIGNED - LLV	REVISED - 6 12-06-12 A.T.B.
		DRAWN - BRD	REVISED -
	PLOT SCALE = @.166666 ' / in.	CHECKED - PJL	REVISED -
	PLOT DATE = $DATE$	DATE - 3-30-11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL – GENERAL PLAN & ELEVATION
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-126A OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	241A
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

P:\PE\246689\GDA_Construction_Support\026_Construction_Contract_Changes\76C75 Changes\Revision 06 2012-12-03\2012-12-03_Rev_S125_082-0323_0325_76C75_Retwall-1.dgn

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 4/13/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY LAH

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA with MR HAMMER TYPE CME 750X / 73%

STRUCT. NO. 082-0323 / 082-0325
Station NA

BORING NO. B-417
Station 79+9.07
Offset 33.28ft Left
Ground Surface Elev. 421.00 ft

Surface Water Elev. ft
Stream Bed Elev. ft

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

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
420.80				Asphalt - 2 inches thick
				Brown gray, SILTY CLAY (FILL), with cinders
	3			
-5	2 5		27	
	6			
414.00	6		20	
	5			Stiff, gray, CLAY
412.00	1			
	3 5	2.2 S	11	Very stiff, gray, SILTY CLAY
-10				
410.50				Loose, gray, FINE GRAINED SAND, with silt
	3			
	3 3		15	
	1			
-15	3 5		26	
	4			
	5 3		25	
	3			
-20	4 3		28	
				Loose, gray, FINE GRAINED SAND, with silt (continued)
				See attached grain size distribution
				very loose
389.00				Medium dense, gray, MEDIUM GRAINED SAND, trace gravel
				See attached grain size distribution
384.00				Loose to medium dense, gray, FINE GRAINED SAND
-40				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
	6		
	3 4		27
	4		
-25	2 3		33
	5		
	5 3		42
	1		
-30	2 2		
	14		
-35	12 11		
	7		
-40	3 2		

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 4/13/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY LAH

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA with MR HAMMER TYPE CME 750X / 73%

STRUCT. NO. 082-0323 / 082-0325
Station NA

BORING NO. B-417
Station 79+9.07
Offset 33.28ft Left
Ground Surface Elev. 421.00 ft

Surface Water Elev. ft
Stream Bed Elev. ft

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

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Loose to medium dense, gray, FINE GRAINED SAND (continued)
	12			
-45	10 8			
374.00				Medium dense, gray, MEDIUM GRAINED SAND
	7			
	13			
-50	10			
369.00				Medium stiff, gray, CLAY
367.00	0		56	
	6	0.7	29	Stiff, gray, SILTY LOAM
-55	9	B		
364.00				Medium dense to dense, gray, FINE TO MEDIUM GRAINED SAND, with silt
	10			
	12			
-60	12			
				Medium dense to dense, gray, FINE TO MEDIUM GRAINED SAND, with silt (continued)
				See attached grain size distribution
346.00				Medium dense to dense, gray, MEDIUM GRAINED SAND, trace gravel
-80				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
	15		
	18		
-65	13		
	8		
	7		
-70	11		
-75	11		
	11		
	11		
-80	14		

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 4/13/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY LAH

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA with MR HAMMER TYPE CME 750X / 73%

STRUCT. NO. 082-0323 / 082-0325
Station NA

BORING NO. B-417
Station 79+9.07
Offset 33.28ft Left
Ground Surface Elev. 421.00 ft

Surface Water Elev. ft
Stream Bed Elev. ft

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

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Medium dense to dense, gray, MEDIUM GRAINED SAND, trace gravel (continued)
-85				
	21			
	16			
-90	18			
-95				
	15			
	18			
-100	18			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
-105			
	17		
	18		
-110	21		
-115			
-120			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Medium dense to dense, gray, MEDIUM GRAINED SAND, trace gravel (continued)
302.00	50/2"			End of Boring

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

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

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AECOM

USER NAME = Bhatia
PLOT SCALE = 0.2 '' / in.
PLOT DATE = *DATE*

~~DESIGNED~~ ATB
DRAWN - MK
CHECKED -
DATE - 03/18/2011

~~REVISED~~ -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

~~BORING LOGS I S.N. 082-0323~~
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-127 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	242
	S.N. 082-0323 & S.N. 082-0325	CONTRACT NO. 76C75		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 8/17/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY LAH

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA and MR HAMMER TYPE CME 85 / 73%

STRUCT. NO. 082-0323
Station NA

BORING NO. B-418
Station 75+31.28
Offset 18.73ft Left
Ground Surface Elev. 414.42 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ___ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Black, CLAY (FILL), trace cinders, brick fragments,and gravel	6		
	9	0.4	
	8	P	
	4		
	4	1.0	
-5	5	P	
	5		
	7		
406.42	7		
Gray, SILTY LOAM (FILL), trace cinders.	5		
	9		
-10	7		
	4		
	7		
	8		
401.42			
Medium stiff to stiff, gray, SILTY LOAM	2		
	3		
-15	4		
	3		
	4		
	5		
396.42			
Soft to medium stiff, brown and gray, SILTY LOAM, with silt and sand seams	1		
	2		
-20	2		
Soft to medium stiff, brown and gray, SILTY LOAM, with silt and sand seams (continued)	1		
	2		
	6		
	2		
	2		
-25	4		
	0		
	3		
386.42	3		
Soft, gray, CLAY, with silt partings	3		
	1		
-30	2		
382.42			
Dense, gray, FINE GRAINED SAND	12		
	19		
-35	20		
377.42			
Loose, gray, FINE GRAINED SAND, trace silt	5		
	4		
See attached percent passing No. 200 sieve -40	3		

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Date 8/17/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY LAH

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA and MR HAMMER TYPE CME 85 / 73%

STRUCT. NO. 082-0323
Station NA

BORING NO. B-418
Station 75+31.28
Offset 18.73ft Left
Ground Surface Elev. 414.42 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ___ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Loose, gray, FINE GRAINED SAND, trace silt (continued)	4		
	4		
-45	3		
367.42			
Medium dense to loose, gray, SANDY LOAM	8		
	12		
-50	12		
	5		
See attached grain size distribution	6		
-55	6		
	2		
	3		
with clay and silt seams -60	3		
Medium dense to very dense, gray, SANDY LOAM (continued)	9		
351.42			
Medium dense to very dense, gray, FINE GRAINED SAND	13		
-65	13		
	18		
Very dense	35		
-70	42		
339.42 -75			
Medium dense to very dense, gray, MEDIUM GRAINED SAND, trace gravel	6		
	7		
See attached grain size distribution -80	7		

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Date 8/17/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY LAH

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA and MR HAMMER TYPE CME 85 / 73%

STRUCT. NO. 082-0323
Station NA

BORING NO. B-418
Station 75+31.28
Offset 18.73ft Left
Ground Surface Elev. 414.42 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ___ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium dense to very dense, gray, MEDIUM GRAINED SAND, trace gravel (continued)			
-85			
	15		
	29		
-90	35		
-95			
	11		
	13		
-100	15		
Medium dense to very dense, gray, MEDIUM GRAINED SAND, trace gravel (continued)			
309.42 -105			
Dense, gray, FINE TO COARSE GRAINED SAND, with gravel			
See attached grain size distribution	13		
	17		
-110	14		
299.42 -115			
Very dense, gray, FINE GRAINED SAND, trace gravel	42		
	50/5"		
-120			

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

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AECOM

USER NAME = BhattA	DESIGNED - ATB	REVISED -
	DRAWN - MK	REVISED -
PLOT SCALE = Ø.2 '/ in.	CHECKED -	REVISED -
PLOT DATE = *DATE*	DATE - 03/18/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

~~BORING LOGS – II – S.N. 082-0323~~
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-128 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	243
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 8/17/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY LAH

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA and MR HAMMER TYPE CME 85 / 73%

STRUCT. NO. 082-0323
Station NA

BORING NO. B-418
Station 75+31.28
Offset 18.73ft Left
Ground Surface Elev. 414.42 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ____ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				Very dense, gray, FINE GRAINED SAND, trace gravel (continued)
289.42				
-125				End of Boring
-130				
-135				
-140				

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 8/13/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY BJS

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA and MR HAMMER TYPE CME 85 / 73%

STRUCT. NO. 082-0323
Station NA

BORING NO. B-425
Station 74+14.22
Offset 10.00ft Right
Ground Surface Elev. 415.08 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ____ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				Black, SAND (FILL), trace cinders
	8			
	15			
	8			
	4			
410.08	6			
-5	6			
				Brown, SAND (FILL)
	7			
	11			
407.08	16			
				Stiff to very stiff, gray, CLAY
	3			
	5		24	
-10	6			
	4			
	5		13	
	6			
	3			
	4	3.3	20	
-15	6	S		
399.58				
				Stiff, tan, SILT
	5			
	6		7	
	6			
397.08				
				Medium stiff, gray, SILTY CLAY, trace sand
	2			
	3		21	
-20	3			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				Medium stiff, gray, SILTY CLAY, trace sand (continued)
	2			
	2		29	
	2			soft
	1			
	3		26	
-25	4			
389.58				
				Medium stiff, gray, CLAY, trace sand
	1			
	2	0.7	55	
	2	B		
	1			
	1	0.6	36	
-50	2	B		
383.08				
				Loose to medium dense, gray, SANDY LOAM
	2			
	3		32	
-35	2			
	6			
	6		30	
-40	8			

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 8/13/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY BJS

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA and MR HAMMER TYPE CME 85 / 73%

STRUCT. NO. 082-0323
Station NA

BORING NO. B-425
Station 74+14.22
Offset 10.00ft Right
Ground Surface Elev. 415.08 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ____ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				Loose to medium dense, gray, SANDY LOAM (continued)
373.08				
				Medium dense, brown and gray, FINE GRAINED SAND, with silt
	9			
	11			
-45	12			
				See attached grain size distribution
	6			
	8			
-50	6			
	6			
	8			
-55	9			
	9			
	8			
-60	12			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				Medium dense, brown and gray, FINE GRAINED SAND, with silt (continued)
353.08				
				Loose to dense, gray, MEDIUM GRAINED SAND, trace silt
	3			
	4			See attached grain size distribution
-65	4			
	15			
	15			
-70	14			
-75				
	12			
	15			
-80	16			

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

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AECOM

USER NAME = BhattA	DESIGNED - ATB	REVISED -
	DRAWN - MK	REVISED -
PLOT SCALE = 0.2 '' / in.	CHECKED -	REVISED -
PLOT DATE = 9DATE9	DATE - 03/18/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS – III – S.N. 082-0323
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-129 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	244
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 8/13/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY BJS

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA and MR HAMMER TYPE CME 85 / 73%

STRUCT. NO. 082-0323
Station NA

BORING NO. B-425
Station 74+14.22
Offset 10.00ft Right
Ground Surface Elev. 415.08 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ____ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Loose to dense, gray, MEDIUM GRAINED SAND, trace silt (continued)				Dense, gray, FINE GRAINED SAND (continued)			
330.08				-105			
Dense, gray, FINE GRAINED SAND							
	11				26		
-90	16 23			-110	24 21		
-95				300.08 -115 Very dense, gray, MEDIUM GRAINED SAND			
	14				50/5"		
-100	16 23			-120			

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 8/13/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY BJS

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA and MR HAMMER TYPE CME 85 / 73%

STRUCT. NO. 082-0323
Station NA

BORING NO. B-425
Station 74+14.22
Offset 10.00ft Right
Ground Surface Elev. 415.08 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ____ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Very dense, gray, MEDIUM GRAINED SAND (continued)			
293.08			
CRYSTALLINE LIMESTONE - See attached rock core log			
-125			
-130			
283.08			
End of Boring			
-135			
-140			

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

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AECOM

USER NAME = BhattA	DESIGNED - ATB	REVISED -
	DRAWN - MK	REVISED -
PLOT SCALE = 0.2 '1' / in.	CHECKED -	REVISED -
PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS – IV – S.N. 082-0323
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-130 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	245
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 10/18/00

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY BEC

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 12, TWP. 2N, RNG. 10W

COUNTY St. Clair DRILLING METHOD HSA and Mud Rotary HAMMER TYPE Automatic Hammer

STRUCT. NO. 082-0322
Station NA

BORING NO. B- 4
Station 55+50
Offset 79.50ft Left
Ground Surface Elev. 421.60 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

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

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Soft to medium stiff, brown, CLAY with asphalt, brick/concrete fragments, gravel/crushed limestone, cinders (FILL)
	5			
	4	*	16	
	3			
	2			
-5	2	*	28	
	1			
	1	*	7	
	1			
412.60	2			
	2	1.8	29	Medium stiff, brown, SILTY CLAY
411.60 -10	4	S		
				Soft, brown, SILTY LOAM
	2			
	2	0.3	25	
	2	P		
408.60				
	3			Loose, brown, FINE GRAINED SAND
407.60				
	2	*		Soft, brown, CLAY LOAM
-15	2			
406.10				
	3			Loose, brown, SANDY LOAM
	3	*		
404.60	5			Loose, brown, FINE GRAINED SAND with layer of brown, silt ❶ 19'
				Start mud rotary drilling ❷20'
	4			
	3			
-20	5			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
401.10				
	6			Medium dense, brown, SANDY LOAM
	7	*		See Attached Gradation Test Results
	7			
398.60				
	2			Medium dense, brown, FINE GRAINED SAND with silt ❶ 28'-35' and layer of brown, MEDIUM GRAINED SAND ❶ 43'-45' and laminations of black organic material and Fe staining ❶ 53'-55'
-25	3			
	6			
	7			
	9			
	9			
	5			See Attached Gradation Test Results
	7			
	8			
-50				
	6			
	8			
-55	10			
	6			
	7			
	9			
-60				

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Date 10/18/00

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY BEC

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 12, TWP. 2N, RNG. 10W

COUNTY St. Clair DRILLING METHOD HSA and Mud Rotary HAMMER TYPE Automatic Hammer

STRUCT. NO. 082-0322
Station NA

BORING NO. B- 4
Station 55+50
Offset 79.50ft Left
Ground Surface Elev. 421.60 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

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

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Medium dense, brown, FINE GRAINED SAND with silt ❶ 28'-35' and layer of brown, MEDIUM GRAINED SAND ❶ 43'-45' and laminations of black organic material and Fe staining ❶ 53'-55' (continued)
	9			
	10			
-65	15			
	7			
	9			
-80	9			
	7			
	10			
-85	11			
364.60				Medium dense to very dense, gray, FINE GRAINED SAND
	25			
	30			
-90	30			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Medium dense to very dense, gray, FINE GRAINED SAND (continued)
	12			See Attached Gradation Test Results
-85	11		27	
354.60				
	9			Medium dense, gray, MEDIUM GRAINED SAND with fragments of light brown, highly weathered limestone
	10			
-70	10			
349.60				
	18			Medium dense, gray, FINE to MEDIUM GRAINED SAND
	14			
-75	16			
342.60				
-80				

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Date 10/18/00

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY BEC

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 12, TWP. 2N, RNG. 10W

COUNTY St. Clair DRILLING METHOD HSA and Mud Rotary HAMMER TYPE Automatic Hammer

STRUCT. NO. 082-0322
Station NA

BORING NO. B- 4
Station 55+50
Offset 79.50ft Left
Ground Surface Elev. 421.60 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

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

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Medium dense, gray, MEDIUM GRAINED SAND with fragments of light gray, highly weathered limestone (continued)
	19			
	12			
-85	11			
332.60				
	7			Medium dense to dense, gray, FINE to COARSE GRAINED SAND with lenses of light gray, weathered limestone
	9			
-95	15			
-100				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Medium dense to dense, gray, FINE to COARSE GRAINED SAND with lenses of light gray, weathered limestone (continued)
	11			
	13			
-105	13			
	18			
	18			
-115	30			
304.10				End of Boring
-120				

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

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AECOM

USER NAME = Bhatia	DESIGNED - ATB	REVISED
	DRAWN - MK	REVISED -
PLOT SCALE = 0.2 '/ in.	CHECKED -	REVISED -
PLOT DATE = 0DATE0	DATE - 03/18/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS – I – S.N. 082–0325
I–70W OVER I–55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-131 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	246
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 2/3/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY RFW

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 12, TWP. 2N, RNG. 10W

COUNTY St. Clair DRILLING METHOD HSA with MR HAMMER TYPE CME 75 / 80%

STRUCT. NO. 082-0325
Station NA

BORING NO. B-403
Station 85+8.27
Offset 4.97ft Right
Ground Surface Elev. 418.00 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

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

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL - 12 Inches			
417.00			
Gray to black SILT (FILL), trace organics, cinders, and sand	2		
	2		20
	4		
414.50			
Medium stiff, brown, SILTY CLAY	2		
	2	2.0	29
-5	5	B	
412.00			
Stiff to soft, grayish brown, SILTY CLAY LOAM	1		
	3		29
	4		
	1		
	2		27
-10	2		
	4		
	5		24
405.00	7		
Medium dense, gray, FINE GRAINED SAND, with silt	5		
	7		
-15	8		
	8		
	7		
	11		
	8		
398.00 -20	11		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Loose, light gray, FINE GRAINED SAND, with silt			
See attached percent passing No. 200 sieve	4		
	5		
	5		
loose	4		
	6		
-25	5		
392.00			
Medium dense, gray, FINE GRAINED SAND	7		
	8		
	10		
	7		
	8		
-30	8		
	8		
	11		
-35	15		
	9		
	13		
-40	11		

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 2/3/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY RFW

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 12, TWP. 2N, RNG. 10W

COUNTY St. Clair DRILLING METHOD HSA with MR HAMMER TYPE CME 75 / 80%

STRUCT. NO. 082-0325
Station NA

BORING NO. B-403
Station 85+8.27
Offset 4.97ft Right
Ground Surface Elev. 418.00 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

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

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium dense, gray, FINE GRAINED SAND (continued)			
376.00			
Medium dense, gray, MEDIUM GRAINED SAND	9		
	11		
-45	11		
See attached grain size distribution			
	8		
	11		
-50	13		
	6		
	9		
-55	9		
361.00			
Very dense to medium dense, gray, FINE GRAINED SAND	22		
	32		
-60	42		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Very dense to medium dense, gray, FINE GRAINED SAND (continued)			
	10		
	7		
-65	9		
See attached grain size distribution			
	11		
	15		
-70	21		
344.00			
Medium dense, gray, FINE GRAINED SAND with trace gravel			
-75			
	10		
	15		
-80	14		

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 2/3/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY RFW

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 12, TWP. 2N, RNG. 10W

COUNTY St. Clair DRILLING METHOD HSA with MR HAMMER TYPE CME 75 / 80%

STRUCT. NO. 082-0325
Station NA

BORING NO. B-403
Station 85+8.27
Offset 4.97ft Right
Ground Surface Elev. 418.00 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

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

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium dense, gray, FINE GRAINED SAND with trace gravel (continued)			
	10		
	9		
-90	12		
326.00			
BOULDERS AND COBBLES			
324.00			
Medium dense, gray, COARSE GRAINED SAND with gravel			
-95			
	11		
318.00 -100	8		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
BOULDERS AND COBBLES			
316.00			
Dense, gray, COARSE GRAINED SAND, with gravel			
-105			
	12		
	18		
-110	18		
304.00			
BOULDERS AND COBBLES			
-115			
301.50			
CRYSTALLINE LIMESTONE - See Rock Core Log			
-120			

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

P:\PROJECTS\082_CAD\082L_Drawings\76C08_Master_Consolidated\Structural\082-0323\Sheets\S132_082-0325_76C75_Boring-2.dgn

AECOM

USER NAME = BhattA	DESIGNED - ATB	REVISED -
	DRAWN - MK	REVISED -
PLOT SCALE = 0.2 '' / in.	CHECKED -	REVISED -
PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS - II - S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-132 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	247
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 2/3/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY RFW

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 12, TWP. 2N, RNG. 10W

COUNTY St. Clair DRILLING METHOD HSA with MR HAMMER TYPE CME 75 / 80%

STRUCT. NO. 082-0325
Station NA

BORING NO. B-403
Station 85+8.27
Offset 4.97ft Right
Ground Surface Elev. 418.00 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ____ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CRYSTALLINE LIMESTONE - See Rock Core Log (continued)			
-125			
291.50 End of Boring			
-130			
-135			
-140			

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 4/13/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY LAH

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA with MR HAMMER TYPE CME 750X / 73%

STRUCT. NO. 082-0323 / 082-0325
Station NA

BORING NO. B-417
Station 79+9.07
Offset 33.28ft Left
Ground Surface Elev. 421.00 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ____ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Asphalt - 2 inches thick 420.80			
Brown gray, SILTY CLAY (FILL), with cinders	3		
-5	2 5		27
	6		
414.00 Stiff, gray, CLAY	6 5		20
412.00 Very stiff, gray, SILTY CLAY	1		
-10	3 5	2.2 S	11
410.50 Loose, gray, FINE GRAINED SAND, with silt	3		
	3 3		15
	1		
-15	3 5		26
	4		
	5 3		25
	3		
-20	4 3		28

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Loose, gray, FINE GRAINED SAND, with silt (continued)	6		
	3 4		27
See attached grain size distribution	4		
-25	2 3		33
	5		
	5 3		42
	1		
-30	2 2		
very loose 389.00			
Medium dense, gray, MEDIUM GRAINED SAND, trace gravel			
See attached grain size distribution	14		
	12		
-35	11		
384.00 Loose to medium dense, gray, FINE GRAINED SAND			
	7		
-40	3 2		

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 4/13/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY LAH

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA with MR HAMMER TYPE CME 750X / 73%

STRUCT. NO. 082-0323 / 082-0325
Station NA

BORING NO. B-417
Station 79+9.07
Offset 33.28ft Left
Ground Surface Elev. 421.00 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ____ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Loose to medium dense, gray, FINE GRAINED SAND (continued)			
	12		
-45	10 8		
374.00 Medium dense, gray, MEDIUM GRAINED SAND			
	7		
	13		
-50	10		
369.00 Medium stiff, gray, CLAY			56
367.00 Stiff, gray, SILTY LOAM	0		
	6	0.7	29
-55	9	B	
364.00 Medium dense to dense, gray, FINE TO MEDIUM GRAINED SAND, with silt			
	10		
	12		
-60	12		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium dense to dense, gray, FINE TO MEDIUM GRAINED SAND, with silt (continued)			
	15		
	18		
-65	13		
See attached grain size distribution	8		
	7		
-70	11		
346.00 Medium dense to dense, gray, MEDIUM GRAINED SAND, trace gravel			
	11		
	11		
-80	14		

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

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AECOM

USER NAME = BhattA	DESIGNED - ATB	REVISED -
	DRAWN - MK	REVISED -
PLOT SCALE = 0.2 '' / in.	CHECKED -	REVISED -
PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS – III – S.N. 082–0325
I–70W OVER I–55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-133 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	248
	S.N. 082-0323 & S.N. 082-0325	CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 4/13/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY LAH

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA with MR HAMMER TYPE CME 750X / 73%

STRUCT. NO. 082-0323 / 082-0325
Station NA

BORING NO. B-417
Station 79+9.07
Offset 33.28ft Left
Ground Surface Elev. 421.00 ft

Surface Water Elev. ft
Stream Bed Elev. ft

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

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium dense to dense, gray, MEDIUM GRAINED SAND, trace gravel (continued)			
-85			
	21		
	16		
-90	18		
-95			
	15		
	18		
-100	18		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium dense to dense, gray, MEDIUM GRAINED SAND, trace gravel (continued)			
-105			
	17		
-110	18 21		
-115			
302.00 End of Boring	50/2"		
-120			

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)
* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 2/17/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY LAH

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA with MR HAMMER TYPE CME 750X / 73%

STRUCT. NO. 082-0325
Station NA

BORING NO. B-419
Station 73+60.05
Offset 1.23ft Right
Ground Surface Elev. 424.41 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

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

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Black, SAND (FILL), trace cinders, brick fragments,and gravel			
	5		
	6		
	12		
	4		
-5	5 5		
	4		
416.41	3 3		17
Medium stiff, brown, LOAM	4		
414.41 -10	3 3		16
Stiff, black, CLAY	2		
	4 6		16
411.41			
Stiff, brown, SILTY LOAM	3		
-15	5 4		16
408.41			
Stiff to soft, SILT, with trace sand	5		
	5 4		16
	5		
-20	3 4		16

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Stiff to soft, SILT, with trace sand (continued)			
	4		
	4 6		17
	2		
-25	2 2		16
395.41	2		
Medium stiff, gray, CLAY	2 3		17
-30			
391.41			
Medium dense, gray, FINE TO MEDIUM GRAINED SAND, trace gravel and silt See attached grain size distribution	14		
	14		
-35	11		
	7		
	8		
-40	8		

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)
* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 2/17/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY LAH

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA with MR HAMMER TYPE CME 750X / 73%

STRUCT. NO. 082-0325
Station NA

BORING NO. B-419
Station 73+60.05
Offset 1.23ft Right
Ground Surface Elev. 424.41 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

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

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium dense, gray, FINE TO MEDIUM GRAINED SAND, trace gravel and silt (continued)			
382.41			
Medium dense, gray, SANDY LOAM	6		
-45	8 12		
377.41			
Medium dense, gray, FINE GRAINED SAND, trace silt	12		
-50	9 12		
See attached grain size distribution	11		
-55	11 11		
	11		
-60	11 12		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium dense, gray, FINE GRAINED SAND, trace silt (continued)			
	15		
	10		
-65	6		
	12		
-70	13 11		
-75			
	11		
	12		
-80	11		

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)
* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

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AECOM	USER NAME = Bhatia	DESIGNED - ATB	REVISED -
		DRAWN - MK	REVISED -
	PLOT SCALE = 0.2 '' / in.	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS – IV – S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-134 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	249
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 2/17/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY LAH

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA with MR HAMMER TYPE CME 750X / 73%

STRUCT. NO. 082-0325
Station NA

BORING NO. B-419
Station 73+60.05
Offset 1.23ft Right
Ground Surface Elev. 424.41 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ___ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium dense, gray, FINE GRAINED SAND, trace silt (continued)			
-85			
	25		
very dense	25		
-90	30		
-95			
328.41 Dense, gray, MEDIUM GRAINED SAND			
	15		
	20		
-100	20		
Dense, gray, MEDIUM GRAINED SAND (continued)			
-105			
318.41 Very dense, gray, FINE GRAINED SAND			
	20		
	25		
-110	27		
-115			
308.41 BOULDERS AND COBBLES			
305.91 End of Boring	50/1"		
-120			

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 2/23/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY MCD

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA with MR HAMMER TYPE CME 55 / 80%

STRUCT. NO. 082-0325
Station NA

BORING NO. B-420
Station 71+37.82
Offset 31.02ft Left
Ground Surface Elev. 416.03 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ___ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Black, SILTY CLAY (FILL)			
	6		
	10		24
	5		
	1		
	2		24
-5	4		
410.53 Stiff to soft, brownish gray, SILTY CLAY			
	2		
	3	2.0	33
	4	S	
	0		
	1		31
-10	2		
	0		
404.03 Very soft to stiff, brown, SILTY LOAM	0		32
	0		
	1		
	5	0.7	43
-15	3	B	
	2		
	3		
	2		
	6		
	9		
396.03 -20	11		
Medium dense, gray, FINE GRAINED SAND, trace silt			
	7		
	12		
	12		
-25			
See attached grain size distribution	12		
	11		
388.03	9		
Very loose to loose, grayish black, SANDY LOAM	1		
	1		
-30	1		
	1		
-35	1		
	2		
	1		
medium dense	1		
-40	4		

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

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 2/23/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY MCD

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA with MR HAMMER TYPE CME 55 / 80%

STRUCT. NO. 082-0325
Station NA

BORING NO. B-420
Station 71+37.82
Offset 31.02ft Left
Ground Surface Elev. 416.03 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ___ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Very loose to loose, grayish black, SANDY LOAM (continued)			
	3		
	3		
-45	4		
	2		
	4		
-50	6		
364.03 Stiff, gray, SANDY CLAY			
	9		
	6		
-55	3		
359.03 Dense, grayish black, FINE GRAINED SAND			
	16		
	16		
-60	19		
Dense, grayish black, FINE GRAINED SAND (continued)			
354.03 Dense, grayish black, MEDIUM GRAINED SAND			
	14		
	20		
-65	22		
349.03 Dense, grayish black, FINE GRAINED SAND, trace silt			
	18		
	22		
-70	16		
-75			
See attached grain size distribution	27		
	22		
-80	25		

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

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AECOM

USER NAME = BhattA	DESIGNED - ATB	REVISED -	
-	DRAWN - MK	REVISED -	
PLOT SCALE = 0:2 '\' / in.	CHECKED -	REVISED -	
PLOT DATE = #DATE#	DATE - 03/18/2011	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

~~BORING LOGS – V – S.N. 082–0325~~
I–70W OVER I–55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-135 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	250
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 2/23/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY MCD

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA with MR HAMMER TYPE CME 55 / 80%

STRUCT. NO. 082-0325
Station NA

BORING NO. B-420
Station 71+37.82
Offset 31.02ft Left
Ground Surface Elev. 416.03 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ____ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Dense, grayish black, FINE GRAINED SAND, trace silt (continued)			
331.03	-85		
Very dense, brown and black, GRAVEL, with coarse sand	50/3"		
321.03	-95		
Dense to very dense, gray, MEDIUM GRAINED SAND	29 31 14		
	-100		
Dense to very dense, gray, MEDIUM GRAINED SAND (continued)			
	-105		
	26 44 50/2"		
	-110		
305.03			
End of Boring			
	-115		
	-120		

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 2/24/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY DTC

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA with MR HAMMER TYPE CME 75 / 80%

STRUCT. NO. 082-0325
Station NA

BORING NO. B-421
Station 68+76.5
Offset 13.51ft Left
Ground Surface Elev. 411.40 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ____ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Tan, SANDY LOAM (FILL), with gravel and trace organics			
410.40			
Loose to medium dense, tan, SANDY LOAM	4 9 11		13
	-5		
	2 2 4		26
	1 3 3		19
See attached percent passing No. 200 sieve	2 3 3		16
	-10		
	2 3 3		9
	2 4 5		12
	-15		
	6 6 7		
	4 5 5		
	-20		
Loose to medium dense, tan, SANDY LOAM (continued)			
See attached grain size distribution	6 8 7		
	-25		
	7 7 9		
becoming gray	8 8 8		
	-30		
	5 5 5		27
	-35		
	6 6 7		
373.40			
Stiff, gray, CLAY, with sand	3 4 5		22
	-40		

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 2/24/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY DTC

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA with MR HAMMER TYPE CME 75 / 80%

STRUCT. NO. 082-0325
Station NA

BORING NO. B-421
Station 68+76.5
Offset 13.51ft Left
Ground Surface Elev. 411.40 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ____ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Stiff, gray, CLAY, with sand (continued)			
369.40			
Medium dense to very dense, gray, FINE GRAINED SAND	20 27 28		
	-45		
	10 9 8		
	-50		
	4 4 6		
	-55		
	10 14 19		
	-60		
Medium dense to very dense, gray, FINE GRAINED SAND (continued)			
349.40			
Medium dense, grayish brown, FINE TO COARSE GRAINED SAND, trace silt, with gravel	13 16 9		
See attached grain size distribution	-65		
	9 13 17		
	-70		
336.40			
Very dense, tan, MEDIUM GRAINED SAND, trace silt	23 29 27		
	-80		

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

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AECOM

USER NAME = BhattA	DESIGNED - ATB	REVISED -	
	DRAWN - MK	REVISED -	
PLOT SCALE = 8.2 '/ / in.	CHECKED -	REVISED -	
PLOT DATE = #DATE#	DATE - 03/18/2011	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

~~**BORING LOGS – VI – S.N. 082-0325**~~
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-136 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	251
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Page 3 of 3

Date 2/24/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY DTC

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA with MR HAMMER TYPE CME 75 / 80%

STRUCT. NO. 082-0325
Station NA

BORING NO. B-421
Station 68+76.5
Offset 13.51ft Left
Ground Surface Elev. 411.40 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ____ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Very dense, tan, MEDIUM GRAINED SAND, trace silt (continued)			
326.40 -85			
Medium dense, tan, FINE GRAINED SAND, trace silt			
	19		
	15		
-90	18		
-95			
	13		
	15		
-100	22		
Medium dense, tan, FINE GRAINED SAND, trace silt (continued)			
306.40 -105			
Medium dense, gray brown, COARSE GRAINED SAND			
	50/3"		
301.40 -110			
End of Boring			
-115			
-120			

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Page 1 of 4

Date 2/26/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY DTC

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA, with MR HAMMER TYPE CME 75 / 80%

STRUCT. NO. 082-0325
Station NA

BORING NO. B-422
Station 65+21.58
Offset 6.88ft Left
Ground Surface Elev. 413.00 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ____ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Stiff to soft, tan, SILT			
	4		
	4		16
	5		
	2		
	2		22
-5	2		
	0		
	2		26
	3		
405.00			
Stiff to medium stiff, tan, SILTY LOAM			
	2		
	2	1.3	19
-10	5	B	
	3		
	4		15
	5		
	1		
	2		25
-15	3		
397.00			
Medium stiff, gray, SILTY CLAY	0		
	0	0.6	42
	3	B	
395.00			
Medium dense, brown, SANDY LOAM			
	5		
	7		
-20	9		
Medium dense, brown, SANDY LOAM (continued)			
	10		
	12		
	13		
	9		
	9		
-25	13		
387.00			
Loose to medium dense, gray, FINE GRAINED SAND, trace clay	6		
	2		
	3		
	6		
	7		
-30	8		
	10		
	8		
-35	13		
376.00			
Medium dense, gray, FINE GRAINED SAND, trace silt			
	7		
	7		
-40	11		

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Page 2 of 4

Date 2/26/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY DTC

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA, with MR HAMMER TYPE CME 75 / 80%

STRUCT. NO. 082-0325
Station NA

BORING NO. B-422
Station 65+21.58
Offset 6.88ft Left
Ground Surface Elev. 413.00 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ____ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium dense, gray, FINE GRAINED SAND, trace silt (continued)			
	6		
	8		
-45	12		
See attached grain size distribution			
	11		
	9		
-50	11		
	10		
	12		
-55	15		
356.00			
Dense, gray, FINE GRAINED SAND			
	8		
	15		
-60	18		
Dense, gray, FINE GRAINED SAND (continued)			
351.00			
Medium dense, gray, FINE GRAINED SAND			
	10		
	12		
-65	10		
346.00			
Dense to very dense, gray, MEDIUM GRAINED SAND, with gravel			
See attached grain size distribution	17		
	18		
-70	16		
-75			
	11		
	17		
-80	36		

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

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AECOM

USER NAME = BhattA	DESIGNED - ATB	REVISED -
	DRAWN - MK	REVISED -
PLOT SCALE = 0.2 '' / in.	CHECKED -	REVISED -
PLOT DATE = #DATE#	DATE - 03/18/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

~~BORING LOGS – VII – S.N. 082-0325~~
I-70W OVER I-55, CSX & KCS RAILROADS
SCALE: NONE | SHEET NO. S-137 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	252
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 2/26/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY DTC

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA, with MR HAMMER TYPE CME 75 / 80%

STRUCT. NO. 082-0325
Station NA

BORING NO. B-422
Station 65+21.58
Offset 6.88ft Left
Ground Surface Elev. 413.00 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ____ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Dense to very dense, gray, MEDIUM GRAINED SAND, with gravel (continued)				Dense to very dense, gray, MEDIUM GRAINED SAND, with gravel (continued)			
-85				308.00 -105 Very dense, gray, COARSE GRAINED SAND, with gravel			
16					30		
25					50/2"		
-90 21				-110			
				302.00 Crystalline LIMESTONE - See rock core log			
-95				-115			
13							
17							
-100 23				-120			

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 2/26/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY DTC

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA, with MR HAMMER TYPE CME 75 / 80%

STRUCT. NO. 082-0325
Station NA

BORING NO. B-422
Station 65+21.58
Offset 6.88ft Left
Ground Surface Elev. 413.00 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ____ Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Crystalline LIMESTONE - See rock core log (continued)			
292.00 End of Boring			
-125			
-130			
-135			
-140			

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)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)

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AECOM

USER NAME = BhattA	DESIGNED - ATB	REVISED -	
	DRAWN - MK	REVISED -	
PLOT SCALE = 0.2 '' / in.	CHECKED -	REVISED -	
PLOT DATE = $DATE$	DATE - 03/18/2011	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS – VIII – S.N. 082-0325
I-70W OVER I-55, CSX & KCS RAILROADS

SCALE: NONE | SHEET NO. S-138 OF S-138 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	253
S.N. 082-0323 & S.N. 082-0325		CONTRACT NO. 76C75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		