

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-94/90	2005-086 I	COOK	228	1

60B07 228+3=231

INDEX OF SHEETS
FOR INDEX OF SHEETS, SEE SHEET NO. 2

DESIGN NUMBER
D-91-417-01

DESIGN DESIGNATION
DAN RYAN EXPRESSWAY: 15309(35) ARTERIAL 38.10 (PCC-30)

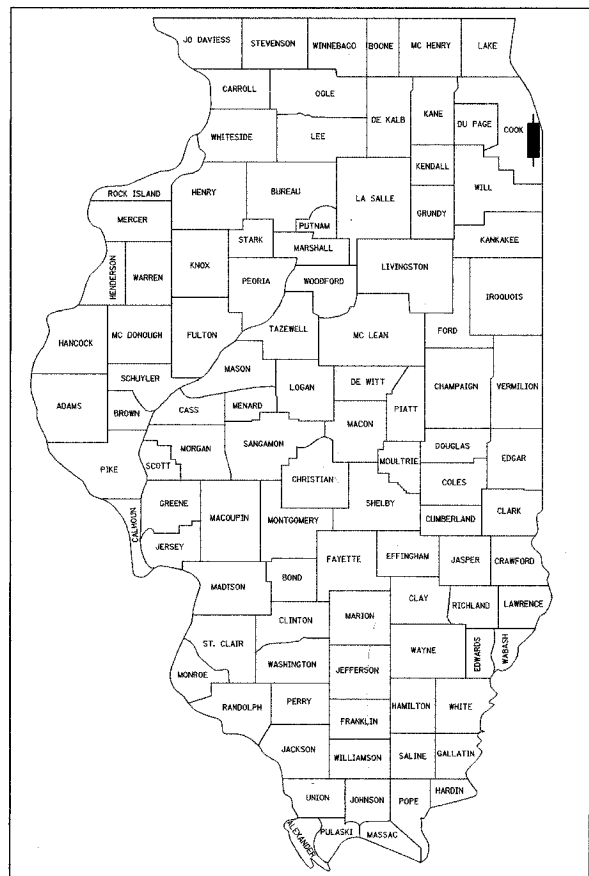
TRAFFIC VOLUMES AND SPEEDS

	ADT (2020)	DESIGN SPEED	POSTED SPEED
NB LOCAL LANES	69945	60	45
SB LOCAL LANES	63440	60	45
SB EXPRESS LANES	98495	60	50
SB EXPRESS LANES	100155	60	50

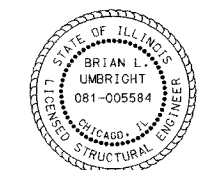
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

**F.A.I. ROUTE 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT AND STEEL REPAIR
SECTION 2005-086 I
COOK COUNTY
C-91-238-06**



SIGNED: *Richard W. Stafford*
DATE: March 7, 2008
EXPIRES: NOVEMBER 30, 2009



SIGNED: *Brian L. Umbrecht*
DATE: March 7, 2008
EXPIRES: NOVEMBER 30, 2008

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED FEBRUARY 21, 2008

Diane M. O'Keefe *or*
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

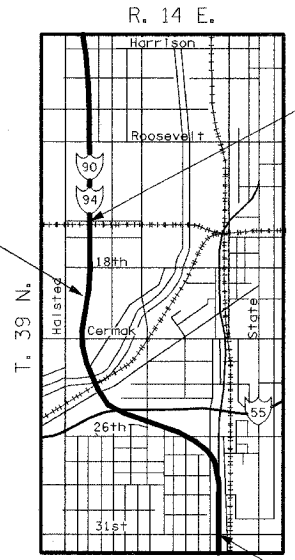
May 9, 2008
Eric E. Harms
INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

May 9, 2008
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
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BELOW DECK REPAIRS TO THE FOLLOWING BRIDGES: (SOUTH TO NORTH)
SN 016-1118, SN 016-1117
SN 016-1067, SN 016-1116
SN 016-1115, SN 016-1062
SN 016-1046, SN 016-1059
SN 016-1140, SN 016-1047
SN 016-1070, SN 016-1050
SN 016-1066, SN 016-1114
SN 016-1113, SN 016-1112
SN 016-1111, SN 016-1110
SN 016-0137
(19 TOTAL STRUCTURES)



PROJECT ENDS
NORTH OF 15TH ST.
STA. 189+01.30

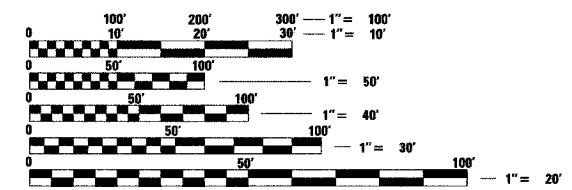
PROJECT BEGINS
28TH ST.
STA. 2542+76.00

LOCATION MAP

0 1/2 MILE 1 MILE 1" = 1/2 MILE

GROSS LENGTH OF PROJECT = 10,487 FT = 1.986 Miles
NET LENGTH OF PROJECT = 10,487 FT = 1.986 Miles

PROJECT LOCATED IN CITY OF CHICAGO



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.

FOR UTILITY LOCATION INFORMATION FOR EXCAVATION
CALL CHICAGO UTILITY ALERT NETWORK
(C.U.A.N.) 312-744-7000

CONTRACT NO. 60B07

DISTRICT 1 DESIGN/PLAN PREPARATION ENGINEER: RAJENDRA SHAH (847) 705-4555
2/18/2008

60B07

SUMMARY OF QUANTITIES

S.P.	CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	URBAN BRIDGE X971-2A																			
					SN 016-1118	SN 016-1117	SN 016-1067	SN 016-1116	SN 016-1115	SN 016-1066	SN 016-1113	SN 016-1112	SN 016-1111	SN 016-1046	SN 016-1050	SN 016-1062	SN 016-1114	SN 016-1070	SN 016-1110	SN 016-0137	SN 016-1059	SN 016-1047	SN 016-1140	
*	20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	500	-	-	-
	50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	144,660	-	-	-	24,530	180	-	-	9,000	41,210	-	-	-	-	-	19,620	49,860	-	260	-	
*	50500715	JACK AND REMOVE EXISTING BEARINGS	EACH	337	-	-	-	20	1	-	-	20	96	-	9	-	-	-	42	148	-	1	-	
*	50501130	STRUCTURAL STEEL REPAIR	POUND	58,100	1,980	5,280	520	500	26,580	1,920	2,480	310	900	-	10	-	14,950	2,660	-	10	-	-	-	
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	990	-	-	-	-	990	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	51603000	DRILLED SHAFT IN SOIL	CU YD	4.2	-	-	-	-	4.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	283	-	-	-	-	-	-	-	20	64	-	9	-	-	-	42	148	-	-	-	
	52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	32	-	-	-	-	-	-	-	-	32	-	-	-	-	-	-	-	-	-	-	
	52100530	ANCHOR BOLTS, 1 1/4"	EACH	100	-	-	-	80	2	-	-	-	-	-	18	-	-	-	-	-	-	-	-	
	52100540	ANCHOR BOLTS, 1 1/2"	EACH	614	-	-	-	-	-	-	-	40	192	-	-	-	-	-	84	296	-	2	-	
*	55039700	STORM SEWERS TO BE CLEANED	FOOT	23,196	422	4,866	1,254	61	4,147	-	2,212	3,884	1,827	1,045	-	-	250	-	604	1,976	306	31	311	
	59000200	EPOXY CRACK INJECTION	FOOT	988	-	36	66	5	87	-	179	355	26	12	-	8	-	-	4	105	1	96	8	
	59200100	BRIDGE WASHING	EACH	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	
*	66400530	CHAIN LINK FENCE, 4' (BRIDGE)	FOOT	224	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	224	-	-	-	
*	66400540	CHAIN LINK FENCE, 6' (BRIDGE)	FOOT	203	-	-	-	-	-	-	-	203	-	-	-	-	-	-	-	-	-	-	-	
*	X0320622	FIELD MEASUREMENTS	L SUM	1	0.01	0.05	-	0.03	0.09	0.03	0.04	0.03	0.16	-	0.01	-	0.23	0.04	0.06	0.22	-	-	-	
	X0322215	CLEAN BRIDGE SCUPPERS AND DOWNSPOUTS	EACH	65	3	15	2	-	11	-	5	8	9	-	-	-	3	-	3	4	-	2	-	
*	X0324640	FLUTED KNEE WALL	FOOT	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	-	-	-	
*	X0325087	VIDEO TAPING OF MAIN DRAIN	FOOT	6,291	-	-	-	-	-	-	1,123	1,816	1,022	-	-	-	299	-	831	1,200	-	-	-	
*	X0325095	MAIN DRAIN CLEANING	FOOT	6,291	-	-	-	-	-	-	1,123	1,816	1,022	-	-	-	299	-	831	1,200	-	-	-	
*	X0325112	COLUMN REPAIR	L SUM	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
*	X0325126	TRAFFIC CONTROL AND PROTECTION (SURFACE STREETS)	L SUM	1	0.05	0.15	0.10	0.10	0.15	-	0.15	0.10	0.15	-	-	-	-	-	-	0.05	-	-	-	
*	X0325303	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	705	54	170	69	-	122	-	50	-	-	7	14	58	55	-	35	-	-	59	12	
*	X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	12,666	618	1,234	482	144	1,202	-	4,025	1,010	296	567	1,131	184	579	-	191	398	164	235	206	
*	X0325349	TEMPORARY CONCRETE BARRIER (TO REMAIN PERMANENTLY)	FOOT	730	-	110	140	-	-	-	100	110	170	-	-	-	-	-	60	40	-	-	-	
*	X0325644	BEARINGS, GUIDED EXPANSION, 400K HIGH LOAD MULTI-ROTATION	EACH	3	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
*	X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	0.05	0.06	0.05	0.05	0.06	0.05	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.05	0.05	0.05	
*	XX001249	ORNAMENTAL FENCE	FOOT	1,008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,008	-	-	-	
*	XX001782	BRIDGE DRAINAGE SYSTEM REPAIRS	FOOT	816	8	336	18	8	56	-	55	135	55	-	-	-	15	-	50	60	-	10	10	
*	XX004328	CLEAN BRIDGE SEATS	SQ FT	7,890	504	-	-	633	-	-	-	603	2,478	-	86	-	-	-	826	2,760	-	-	-	
*	X0325662	BEARINGS, GUIDED EXPANSION, 550K HIGH LOAD MULTI-ROTATION	EACH	17	-	-	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
*	Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	194	5	34	9	1	33	-	13	30	27	7	-	-	2	-	4	24	2	2	1	
*	Z0039930	PIER PROTECTION SYSTEM	L SUM	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
*	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	0.2	-	-	0.3	0.2	-	0.1	-	-	-	-	-	-	-	-	0.2	-	-	-	
*	Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	15	5	8	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	
	67100100	MOBILIZATION	L SUM	1	0.05	0.06	0.05	0.05	0.06	0.05	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.05	0.05	0.05	

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REVISIONS		DATE
NAME		

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR

SUMMARY OF QUANTITIES

SCALE: NTS
DATE: 3/7/2008

DRAWN BY: LAM
CHECKED BY: BLU

Rev.

TRAFFIC CONTROL - GENERAL NOTES

- THE TABLE HERE, 'TRAFFIC CONTROL AND PROTECTION', SHOWS SUGGESTING CLOSURES TO ACCOMMODATE WORK NEEDED ON THE DAN RYAN BRIDGE. CONTRACTOR SHALL CHECK WITH ENGINEER WHEN MAKING CHANGES.
- TRAFFIC CONTROL AND PROTECTION FOR THE WORK ZONES ON THE CITY STREETS SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR 'TRAFFIC CONTROL AND PROTECTION FOR (SURFACE STREETS)'. CONTRACTOR SHALL CHECK WITH ENGINEER WHEN MAKING CHANGES.
- TRAFFIC CONTROL AND PROTECTION ON DAN RYAN ELEVATED BRIDGE WORK ZONE SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR 'TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- ALL PLACEMENT, MOUNTING, RELOCATING AND REMOVING SIGNS FOR THE MOT ON DAN RYAN SHALL BE INCLUDED IN THE CONTRACT LUMP SUM COST OF 'TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- CONTRACTOR SHALL COORDINATE WITH CDOT FOR NIGHTTIME AND DAYTIME CLOSURES ON LANES, SIDEWALKS AND SHOULDERS.
- CONTRACTOR SHALL COORDINATE WITH IDOT ON NIGHTTIME AND DAYTIME CLOSURES.
- LANE CLOSURES, SHOULDER CLOSURES, SIDEWALK CLOSURES, SIGNING AND BARRICADE PLACEMENT SHALL BE IN ACCORDANCE WITH THE LATEST IDOT HIGHWAY STANDARD DRAWINGS. IDOT DISTRICT 1 STANDARD DETAILS AND DETAIL INCLUDED IN THIS CONTRACT.
- ALL DRUMS, VERTICAL PANELS, AND BARRICADES IMMEDIATELY ADJACENT TO THE EDGE OF TRAVELED WAY SHALL BE EQUIPPED WITH STEADY BURN MONO-DIRECTIONAL LIGHTS.
- IN WORK ZONE AREAS, NO PARKING IS ALLOWED AT ANY TIME. APPROPRIATE SIGNING SHALL BE PROVIDED BY THE CONTRACTOR ALONG WORK ZONE/CITY STREETS TO COMMUNICATE PARKING RESTRICTIONS. FURNISHING, REMOVING AND RELOCATING THESE SIGNS IS INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR 'TRAFFIC CONTROL AND PROTECTION FOR (SURFACE STREETS)'. CONTRACTOR SHALL CHECK WITH ENGINEER WHEN MAKING CHANGES.

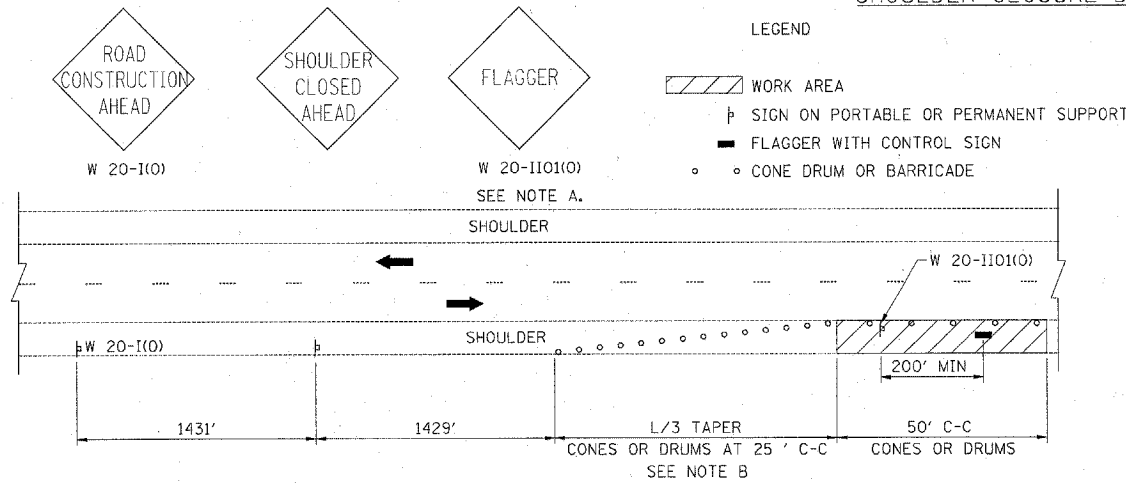
- THE CONTRACTOR IS RESPONSIBLE FOR KEEPING CITY STREETS TRAFFIC INTERRUPTION TO A MINIMUM. RELOCATION OF TRAFFIC CONTROL DEVICES AS NEEDED IS INCIDENTAL TO 'TRAFFIC CONTROL AND PROTECTION FOR (SURFACE STREETS)'. CONTRACTOR SHALL CHECK WITH ENGINEER WHEN MAKING CHANGES.
- ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED AND CONSTRUCTION DEBRIS SHALL BE CLEANED UP BEFORE OPENING THE SHOULDER, LANE OR SIDEWALK TO TRAFFIC. ALL IS INCLUDED IN 'TRAFFIC CONTROL AND PROTECTION FOR SURFACE STREETS'. CONTRACTOR SHALL CHECK WITH ENGINEER WHEN MAKING CHANGES.

TRAFFIC CONTROL AND PROTECTION

**FOR STRUCTURE LOCATION, SEE 'VIADUCT KEY PLAN', SHEET NO. 5.

STRUCTURE	PIER/SPAN	SEE SHEET NO.	STREET/EXPRESSWAY REQUIRING TRAFFIC CONTROL	SUGGESTED MOT
SN 016-1112	C18	53	RAMP D	SHOULDER CLOSURE: IDOT DISTRICT STANDARDS
SN 016-1113	C6	24 & 41	UNION ST	LANE CLOSURE: HWY STDS 701501-03, 701801-03, 701701-04
SN 016-1115	P21	26 & 42	ARCHER AVE.	LANE CLOSURE: HWY STDS 701501-03, 701801-03
SN 016-1116	P3/SPAN 3 P2/SPAN 3	27 & 52 27 & 44	S CANAL ST. NB DAN RYAN, RR YARD ACCESS RAMP	LANE CLOSURE: HWY STDS 701501-03, 701801-03 LANE CLOSURES: HWY STDS 701400, 701446, 701411-03, 701401-03, IDOT DISTRICT STDS.
SN016-1117	P2-P4 P6 P19 P19 P20 P21 P23 SPAN 18 SPAN 21 SPAN 22	27 & 117B 27 & 40 28 & 45 28 & 45 28,40,45,46 28 & 40 28 & 45 28 & 40 28 & 39 28 & 39	SB FRANKLIN CONNECTOR S. WENTWORTH AVE & 27 ST INT. S. PRINCETON AVE. WB 26TH ST. & PRINCETON AVE WB 26TH ST. WB 26TH ST. WB 26TH ST. WB 26TH ST. WB 26TH ST	LANE CLOSURE: HWY STDS 701400 LANE CLOSURE: HWY STDS 701501-03, 701801-03, 701701-04 LANE CLOSURE: HWY STDS 701501-03, 701801-03 LANE CLOSURE: HWY STDS 701501-03, 701801-03, 701701-04 LANE CLOSURE: HWY STDS 701501-03, 701801-03 LANE CLOSURE: HWY STDS 701501-03, 701801-03 LANE CLOSURE: HWY STDS 701501-03, 701801-03 LANE CLOSURE: HWY STDS 701501-03, 701801-03 LANE CLOSURE: HWY STDS 701501-03, 701801-03
SN 016-1118	SPAN H2 P H4 P H3	30 & 40 30,40,41 & 45 30 & 45	FRANKLIN CONNECTOR SB FRANKLIN ST. CONNECTOR NB FRANKLIN ST. CONNECTOR	LANE CLOSURES: HWY STDS 701400, 701446, 701411-03, 701401-03, IDOT DISTRICT STDS. LANE CLOSURES: HWY STDS 701400, 701446, 701411-03, 701401-03, IDOT DISTRICT STDS. SHOULDER CLOSURE: IDOT DISTRICT STDS.
SN 016-1115	P21 P17 P13 P14	26,40,41 26 & 45 26,46,47 26,46,47	ARCHER AVE. I-55 RAMP I-55 STEVENSON, RAMP D & NB DAN RYAN I-55 STEVENSON, NB & SB DAN RYAN	LANE CLOSURE: HWY STDS 701501-03, 701801-03 SHOULDER CLOSURE: IDOT DISTRICT STDS. LANE CLOSURES: HWY STDS 701400, 701446, 701411-03, 701401-03, IDOT DISTRICT STDS. LANE CLOSURES: HWY STDS 701400, 701446, 701411-03, 701401-03, IDOT DISTRICT STDS.
SN 016-1067	SPAN A4 SPAN A5 A5	29 & 39 29 & 39 29 & 48	S. WENTWORTH AVE S. WENTWORTH AVE S. WENTWORTH AVE	LANE CLOSURE: HWY STDS 701501-03, 701801-03 LANE CLOSURE: HWY STDS 701501-03, 701801-03 SHOULDER CLOSURE: IDOT DISTRICT STDS.
SN 016-1050	P80	31,33-36	I-55	SHOULDER CLOSURE: IDOT DISTRICT STDS.
SN 016-0137	SPANS 17&18	20 & 53	NB EXIT TO ROOSEVELT ST.	LANE CLOSURES: 701411-03, IDOT DISTRICT STDS.

SHOULDER CLOSURE DETAIL



THIS DETAIL IS USED HERE:

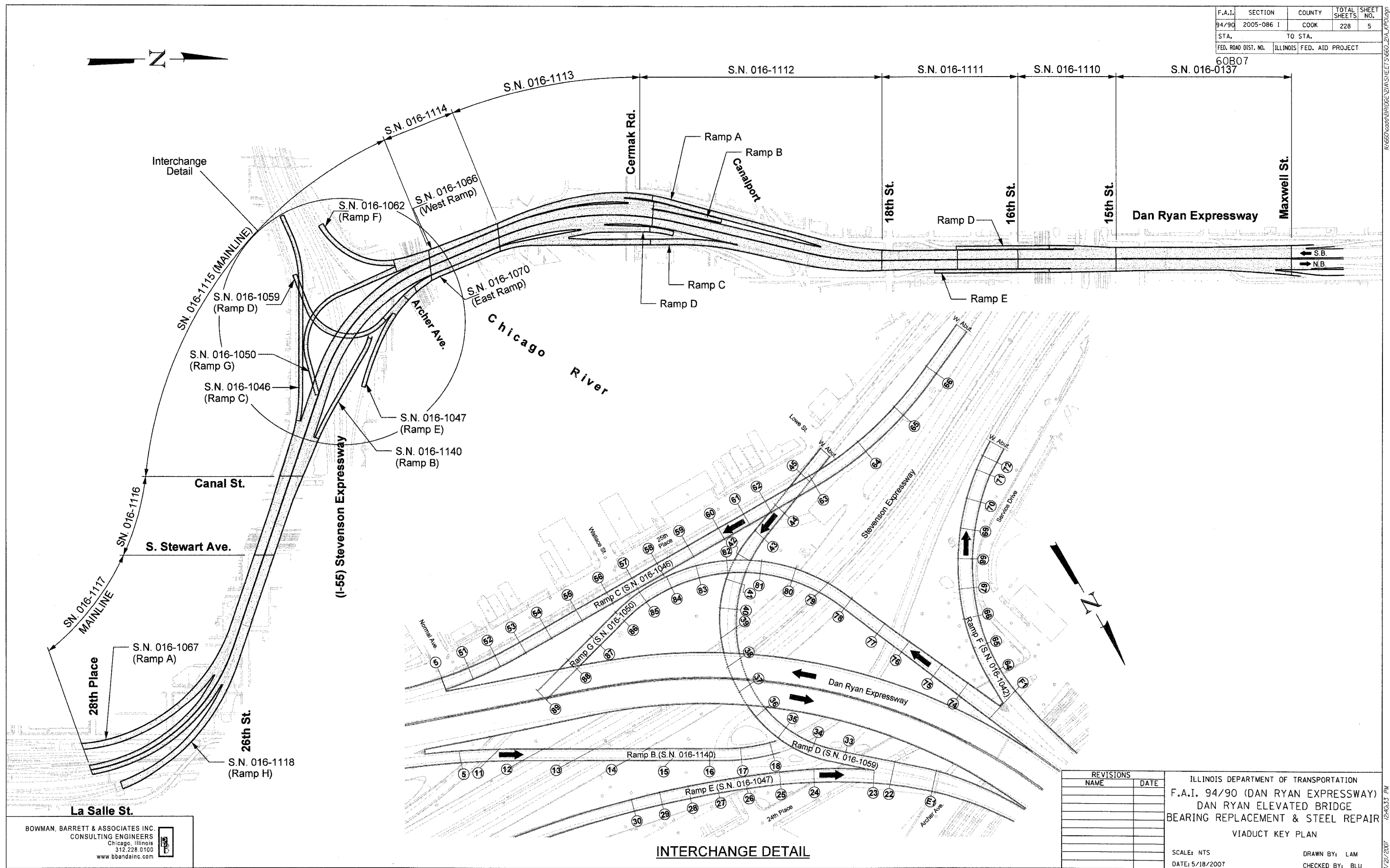
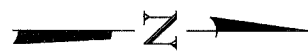
- ON CDOT STREETS WHERE VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH IN AN AREA CLOSER THAN 15' TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.

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REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR MAINTENANCE OF TRAFFIC GENERAL NOTES AND DETAILS
NAME	DATE	
		SCALE: NTS
		DATE: 3/7/2008
		DRAWN BY: RS
		CHECKED BY: RS

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	5
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B07



INTERCHANGE DETAIL

BOWMAN, BARRETT & ASSOCIATES INC.
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
VIADUCT KEY PLAN

SCALE: NTS
DATE: 5/18/2007

DRAWN BY: LAM
CHECKED BY: BLU

12/4/03 3:31 PM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	6
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

60B07

STRUCTURAL GENERAL NOTES

- Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$ " dia., open holes $\frac{13}{16}$ " dia., unless noted otherwise.
- All structural steel shall conform to AASHTO classification M270 Grade 50 for bearing assemblies and extensions (total 144,660 lbs.), and Grade 36 for structural steel repair members (total 58,100 lbs.) unless noted otherwise.
- The organic zinc rich primer/epoxy/urethane paint system shall be used for painting of all new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of final finish coat for steel under the fascia beams shall be reddish brown, Munsell No. 2.5 YR 3/4. See Special Provision for "Cleaning and Painting New Metal Structures".
- Floating bearings shall be fully shop painted.
- For each bearing, two $\frac{1}{8}$ " adjusting shims shall be provided and placed as detailed in addition to all other plates or shims, if specified.
- Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a charge in scope of work, however, the contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.
- As built plan information is provided for information only. Key dimensions have been clarified. Inclusion of these sheets does not relieve the contractor of any responsibility for verifying such dimensions as indicated by Note 16. These plans are available from the Department.
- For additional General Notes, see structural steel repair plans.
- For concrete pier repairs, if the portion of the pier is not shown in the drawing, no deterioration is anticipated to be repaired.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
- Contractor shall obtain permits from City of Chicago for operations requiring closure of surface streets.

STRUCTURAL STEEL REPAIR GENERAL NOTES

- All new fasteners shall be $\frac{3}{4}$ " ϕ H.S. bolts and field drill $\frac{13}{16}$ " holes unless otherwise noted. Minimum edge distance for bolts shall be $1\frac{1}{2}$ ".
- Grinding shall be done parallel to the beam direction. Cost of grinding and field drill shall be included with Structural Steel Repair.
- Existing structural steel shall be cleaned and painted in accordance with Guide Bridge Special Provisions for "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
- Cost of removal and disposal of existing steel plates and members shall be included in the cost of "Structural Steel Repair".
- Contractor must exercise extreme care not to damage web or flange of girders while removing stiffener sections.

TOTAL BILL OF MATERIAL

ITEM DESCRIPTION	UNIT	TOTAL QUANTITY
Removal and Disposal of Unsuitable Material	CU. YD.	500
Furnishing and Erecting Structural Steel	POUND	144,660
Jack and Remove Existing Bearings	EACH	337
Structural Steel Repair	POUND	58,100
Reinforcement Bars, Epoxy Coated	POUND	990
Drilled Shaft in Soil	CU. YD.	4.2
Elastomeric Bearing Assembly, Type I	EACH	283
Elastomeric Bearing Assembly, Type II	EACH	32
Anchor Bolts, $1\frac{1}{4}$ "	EACH	100
Anchor Bolts, $1\frac{1}{2}$ "	EACH	614
Epoxy Crack Injection	FOOT	988
Bridge Washing	Each	1
Chain Link Fence, 4' (Bridge)	FOOT	224
Field Measurements	L. SUM	1
Cleaning Bridge Scuppers & Downspouts	Each	65
Fluted Knee Wall	FOOT	28
Column Repair	L. SUM	1
Structural Repair of Concrete (Depth greater than 5 inches)	SQ. FT.	705
Structural Repair of Concrete (Depth equal to or less than 5 inches)	SQ. FT.	12,666
Temporary Concrete Barrier (To Remain Permanently)	FOOT	730
HLMR Bearings, Guided Expansion 400K	EACH	3
Ornamental Fence	FOOT	1,008
Bridge Drainage System Repairs	FOOT	816
Clean Bridge Seats	SQ. FT.	7,890
HLMR Bearings, Guided Expansion 550K	EACH	17
Temporary Shoring and Cribbing	EACH	15

* Special Provisions

DESIGN STRESSES

Strength method (load factored design) is used in the design of all structural elements

REINFORCED CONCRETE

f'_c - Compressive Strength at 28 Days = 4,000 P.S.I.

REINFORCEMENT

f_y - Yield Strength (GRADE 60) = 60,000 P.S.I.




DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HS-20 AND ALT. MILITARY

Allow 25 psf for future wearing surface

LEGEND

-  Structural Repair of Concrete Depth equal to or less than 5"
-  Structural Repair of Concrete Depth greater than 5"
-  Epoxy Crack Injection

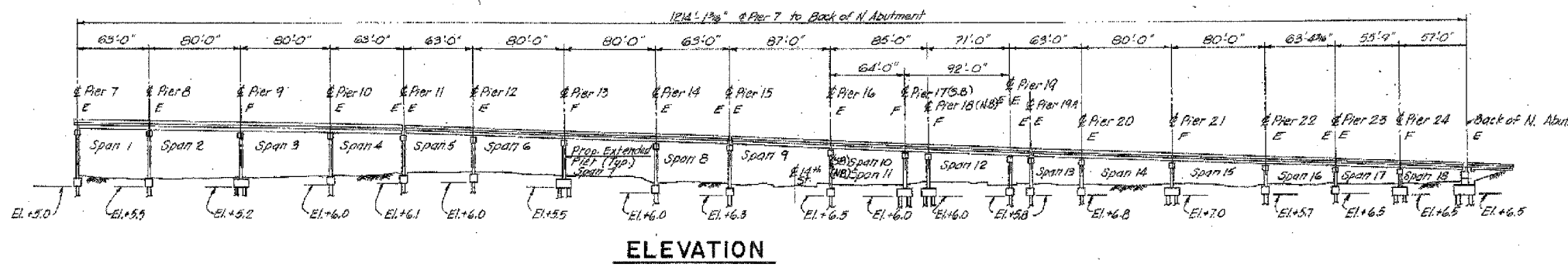
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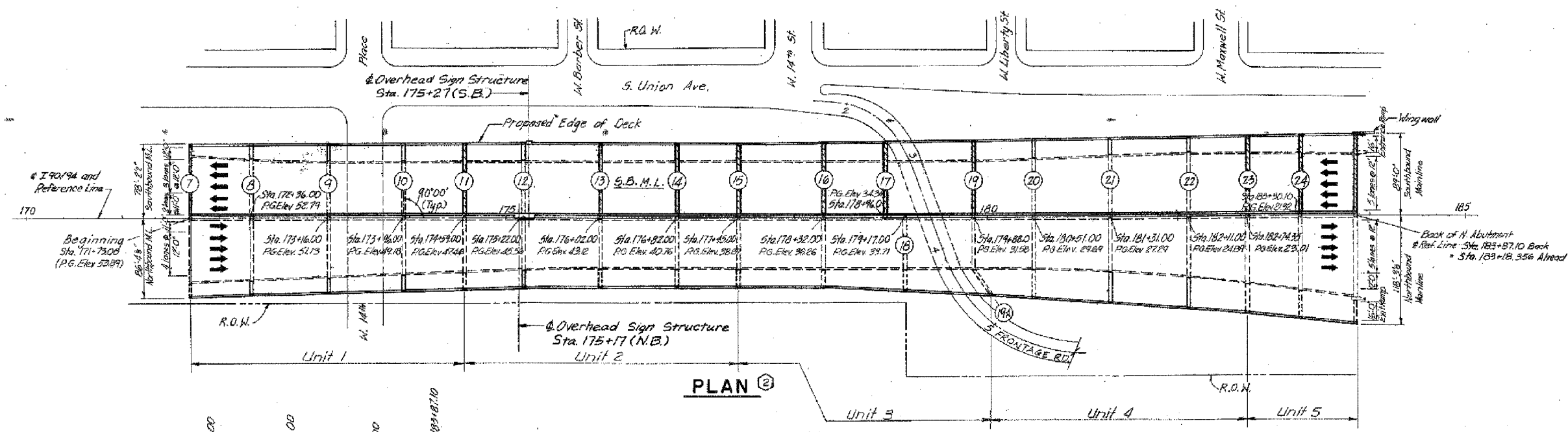
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR STRUCTURAL GENERAL NOTES & BILL OF MATERIAL
NAME	DATE	
		SCALE: NTS DATE: 8/21/2007 DRAWN BY: LAM CHECKED BY: BLU

8/21/2007 3:46:04 PM

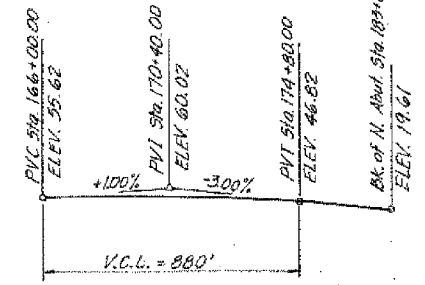
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	7
STA. TO STA.		ILLINOIS FED. AID PROJECT		
60B07				



ELEVATION



PLAN



PROFILE GRADE
DAN RYAN EXPRESSWAY (I 90 / 94)

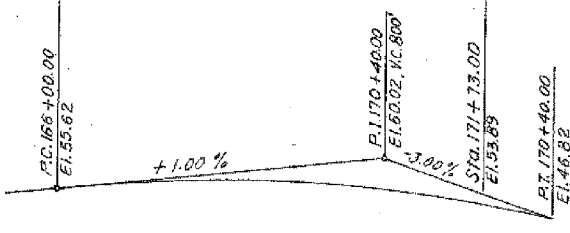
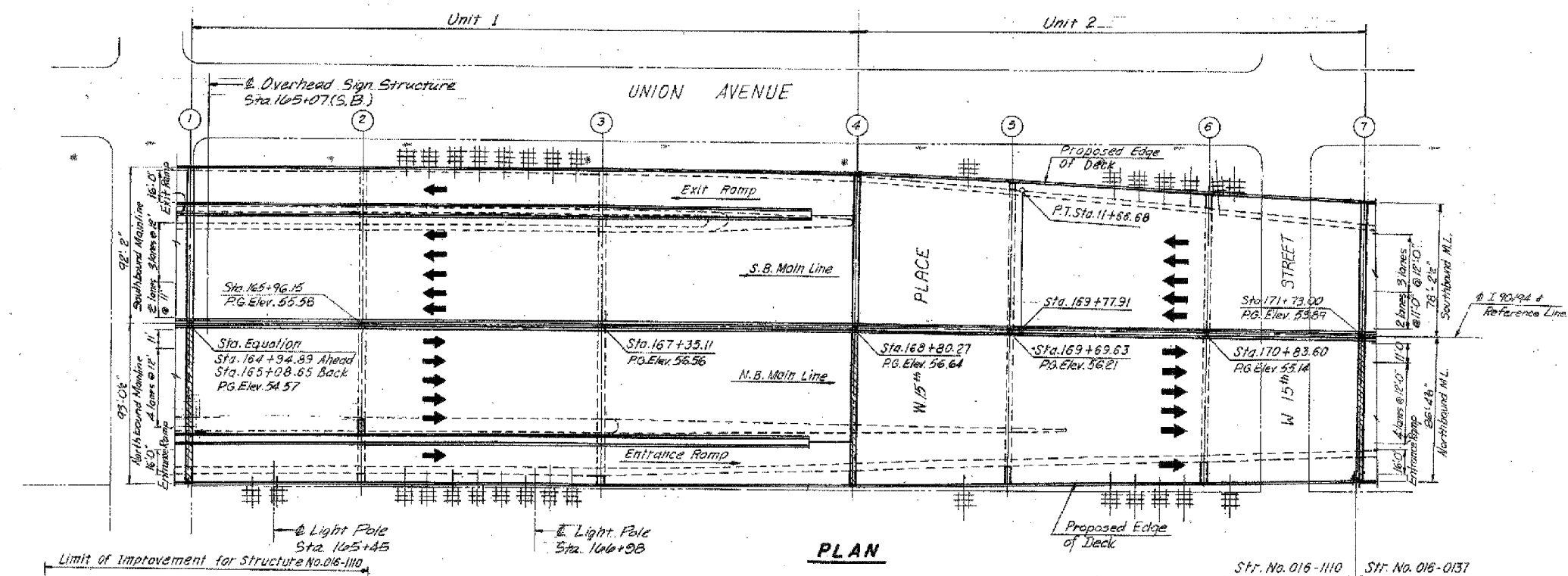
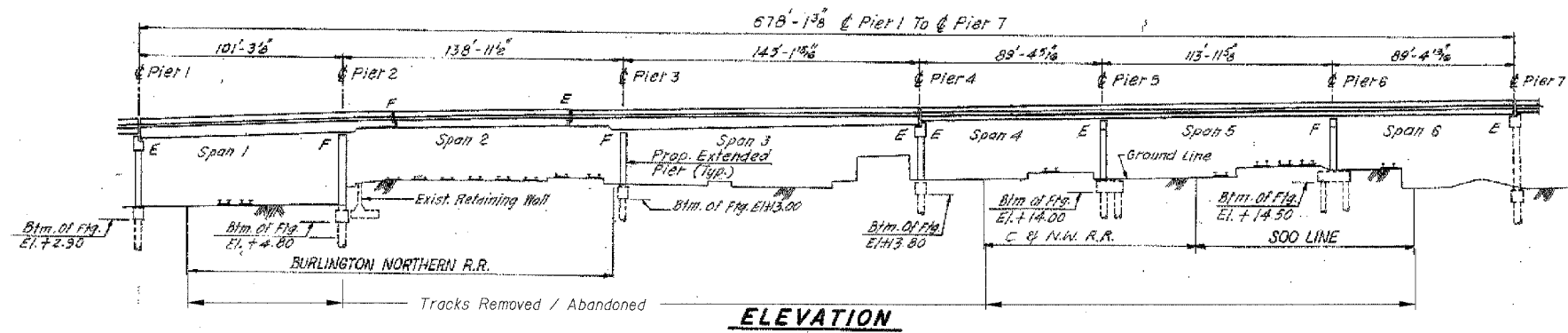
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Note:
This sheet created from original 1988-89 reconstruction as-builts. These are provided for general reference to structure number, span lengths, etc. Work Items for this contract are identified on the partial framing plans and detail sheets that follow.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR GENERAL PLAN AND ELEVATION SN 016-0137
NAME	DATE	
		SCALE: NTS
		DATE: 5/18/2007
		DRAWN BY: LAM
		CHECKED BY: BLU

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	8
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07				



PROFILE GRADE
DAN RYAN EXPRESSWAY (I-90/94)

PLAN



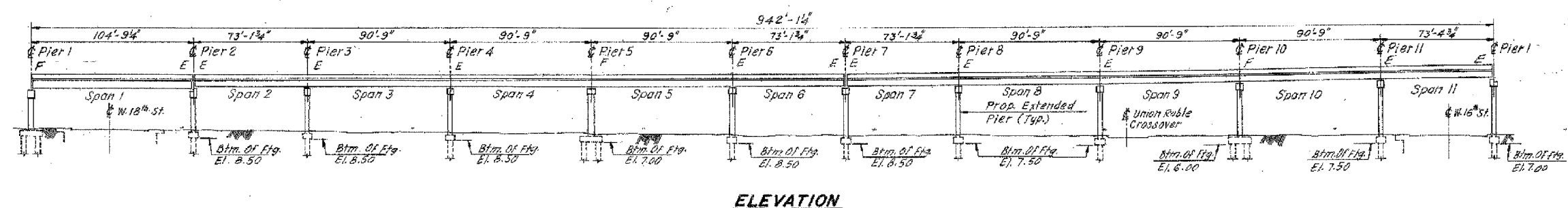
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Note:
This sheet created from original 1988-89 reconstruction as-builts. These are provided for general reference to structure number, span lengths, etc. Work Items for this contract are identified on the partial framing plans and detail sheets that follow.

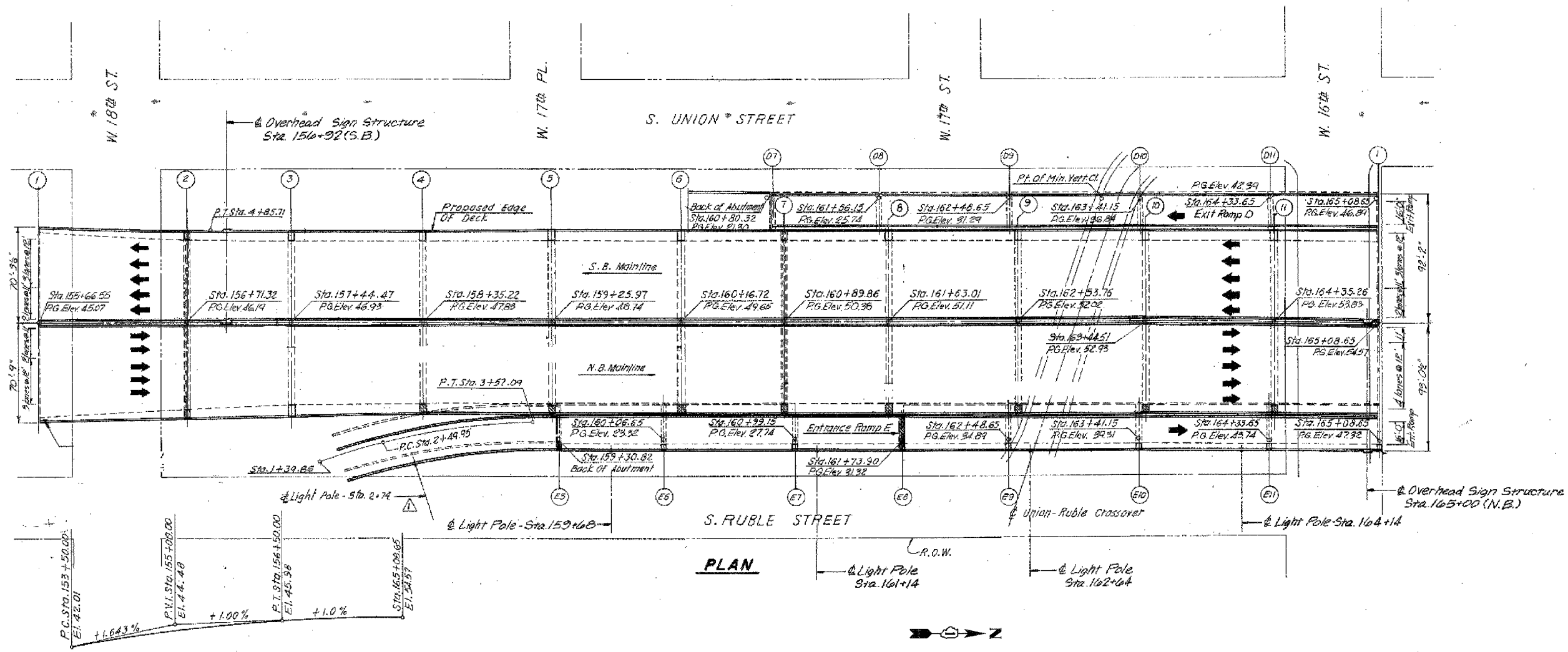
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR GENERAL PLAN AND ELEVATION SN 016-1110
NAME	DATE	
		SCALE: NTS
		DATE: 5/18/2007
		DRAWN BY: LAM
		CHECKED BY: BLU

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	9
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
60B07				



ELEVATION



PLAN

PROFILE GRADE

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR GENERAL PLAN AND ELEVATION SN 016-1111
NAME	DATE	

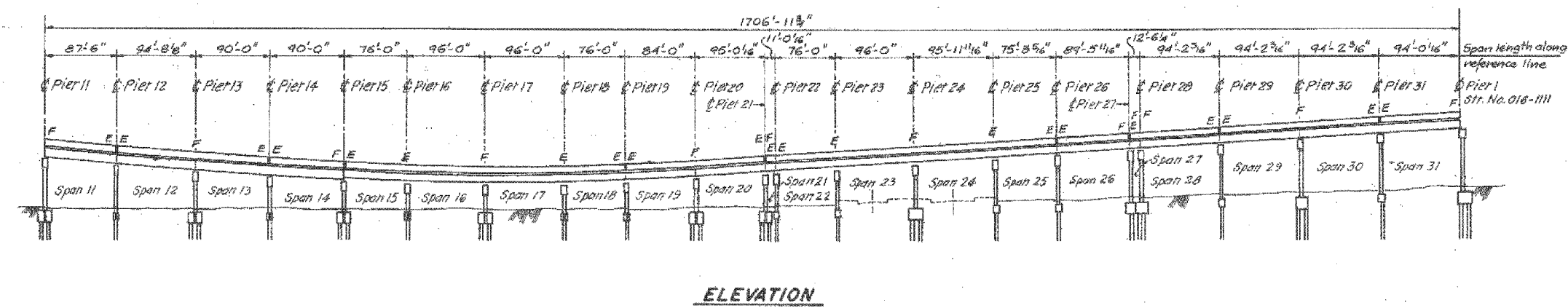
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Note:
This sheet created from original 1988-89 reconstruction as-builts. These are provided for general reference to structure number, span lengths, etc. Work Items for this contract are identified on the partial framing plans and detail sheets that follow.

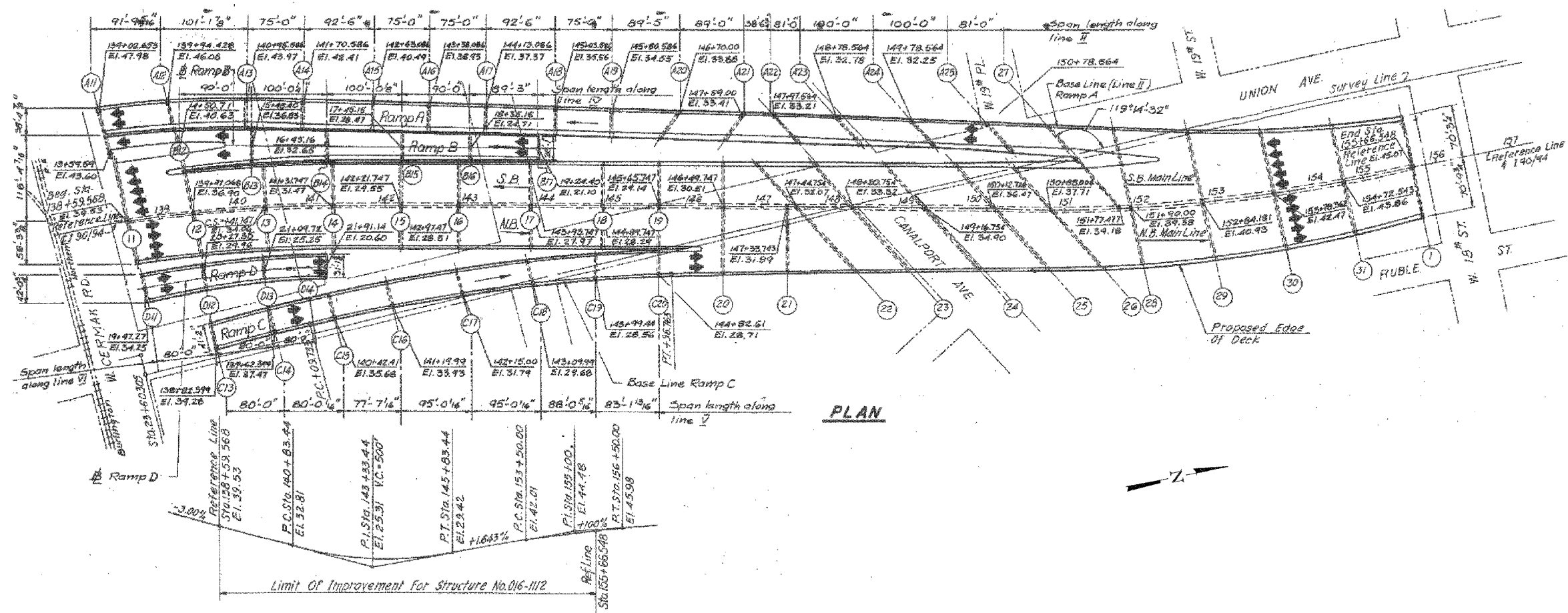
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DATE: 5/18/2007
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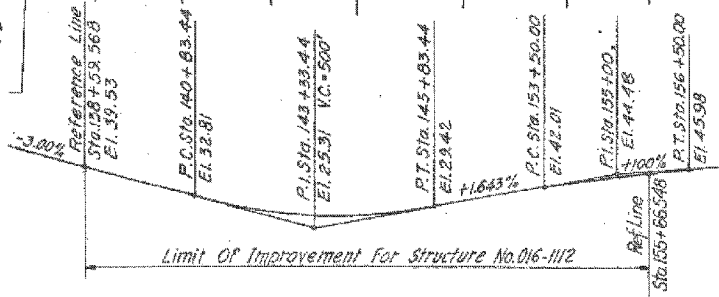
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94/90	2005-086 I	COOK	228	10
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07				



ELEVATION



PLAN



PROFILE GRADE

REVISIONS		NAME	DATE
NO.	DESCRIPTION		

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 GENERAL PLAN AND ELEVATION
 SN 016-1112

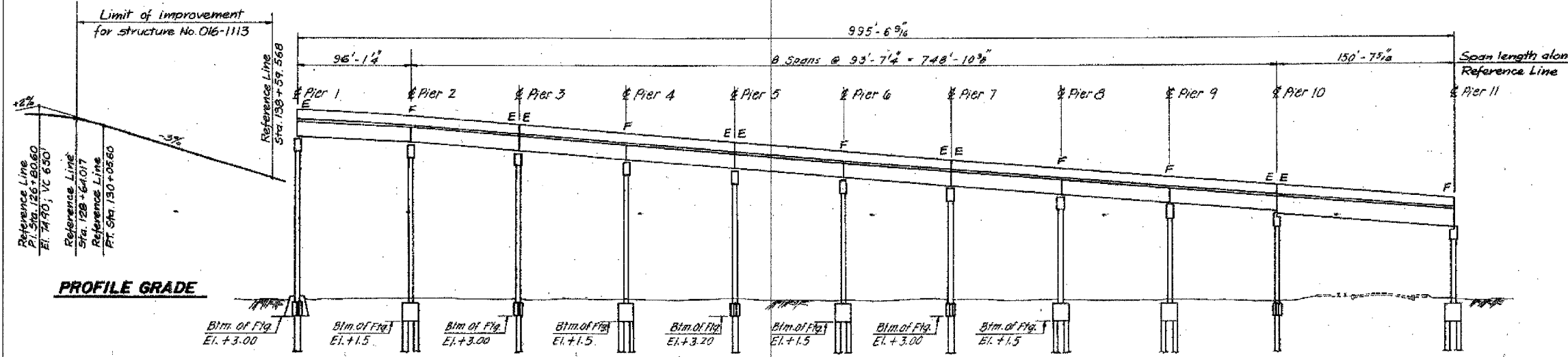
SCALE: NTS
 DATE: 5/18/2007
 DRAWN BY: LAM
 CHECKED BY: BLU

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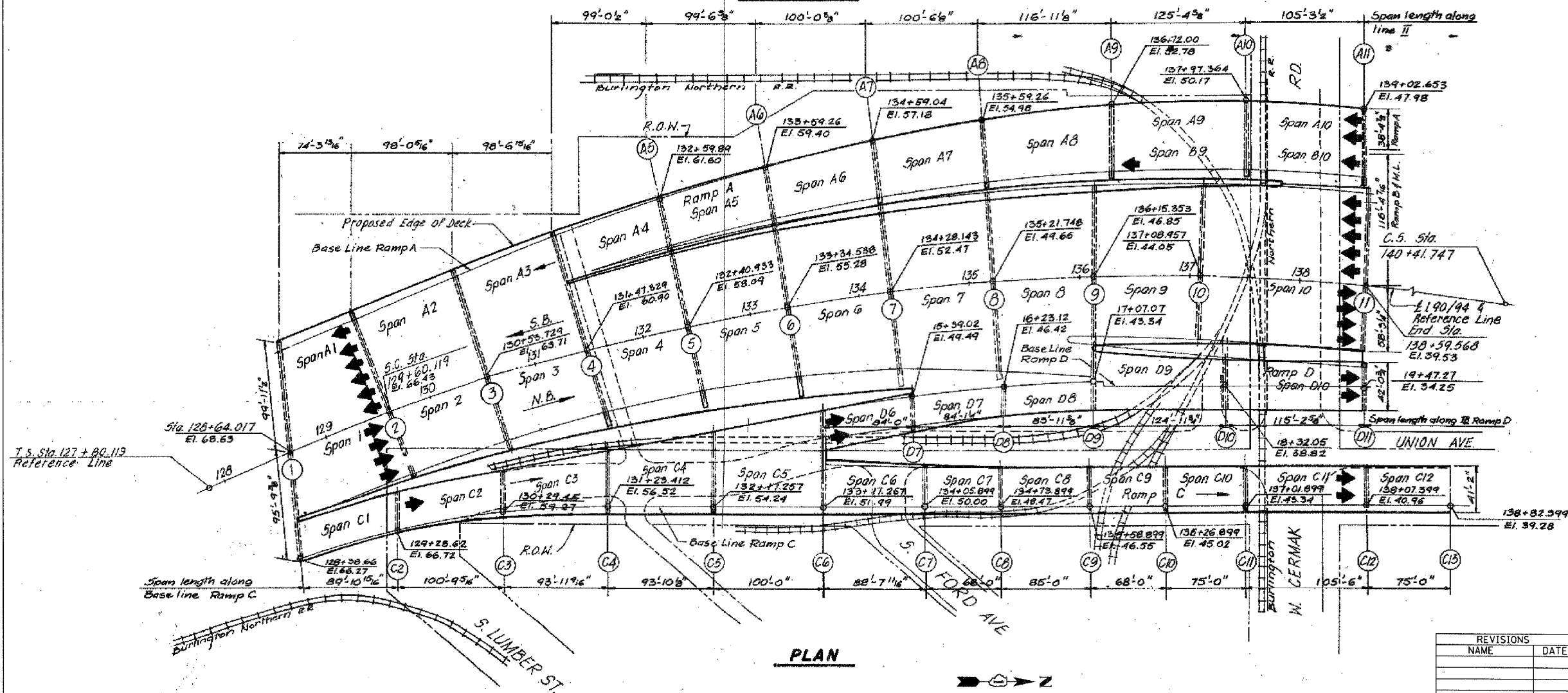
Note:
 This sheet created from original 1988-89 reconstruction as-builts. These are provided for general reference to structure number, span lengths, etc. Work Items for this contract are identified on the partial framing plans and detail sheets that follow.

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	11
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
60B07				



ELEVATION



PLAN

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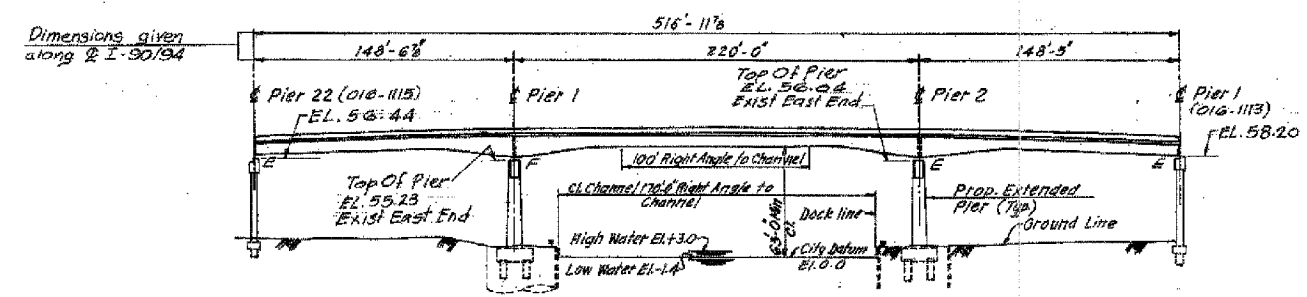
Note:
This sheet created from original 1988-89 reconstruction as-builts. These are provided for general reference to structure number, span lengths, etc. Work Items for this contract are identified on the partial framing plans and detail sheets that follow.

REVISIONS	
NAME	DATE

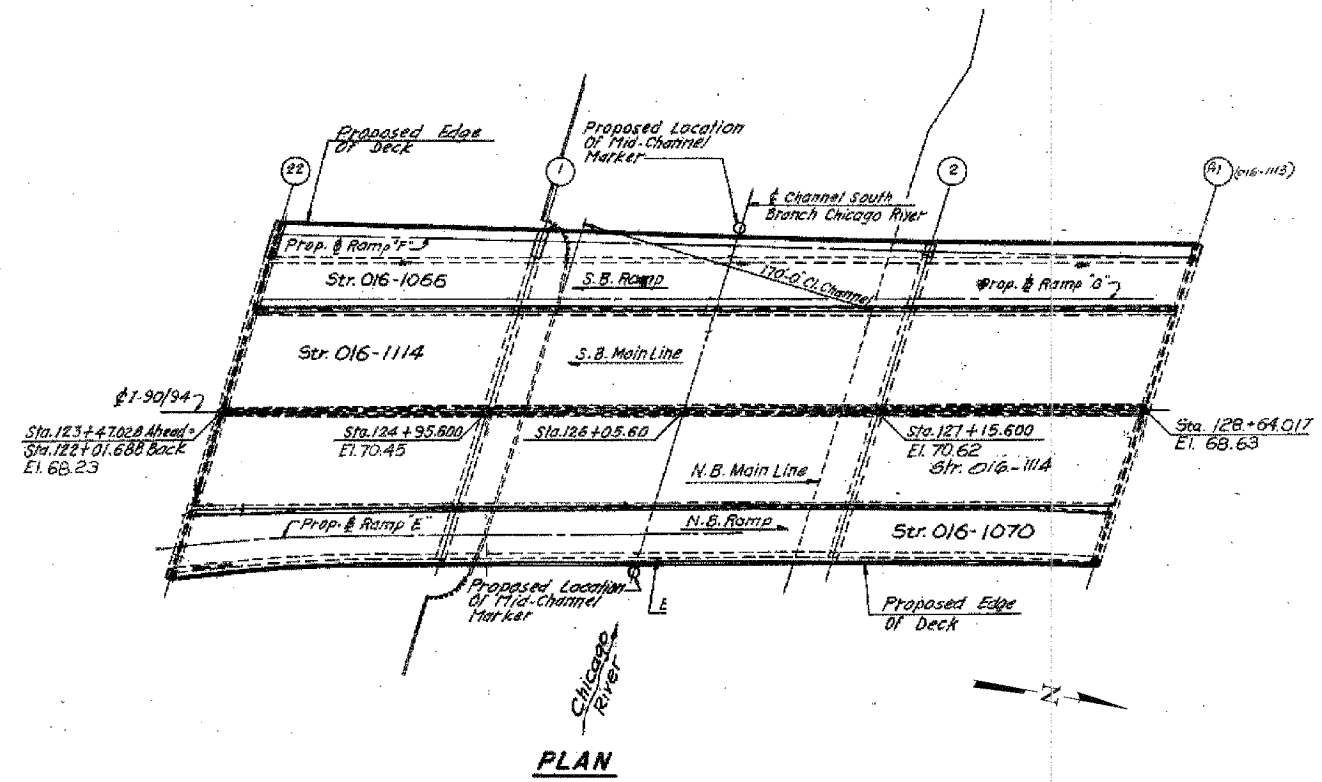
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
GENERAL PLAN AND ELEVATION
SN 016-1113
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

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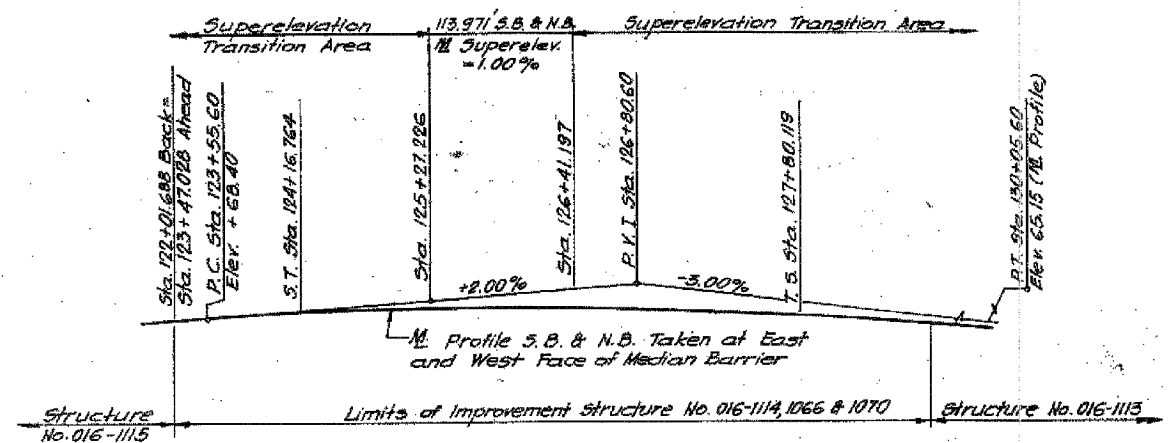
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
60B07				



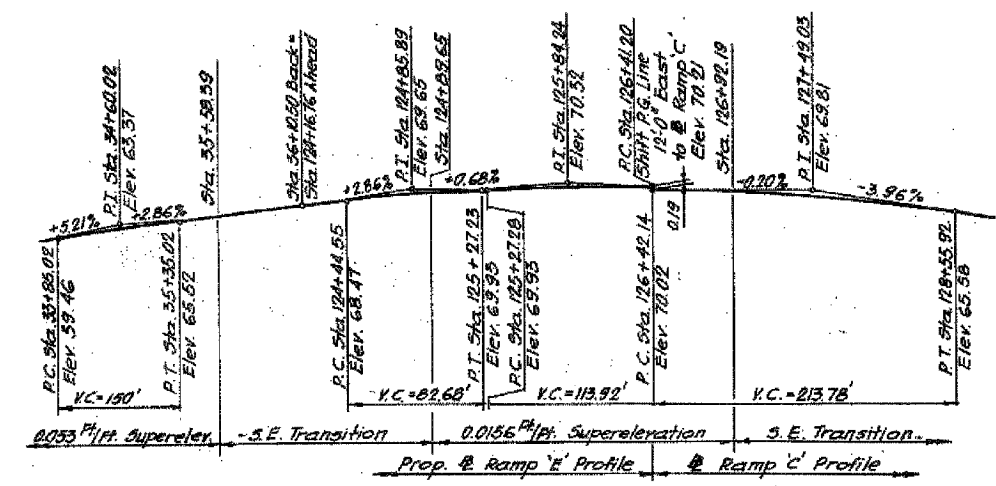
ELEVATION



PLAN



PROFILE - S.B. & N.B.



RAMP 'E' & RAMP 'C'

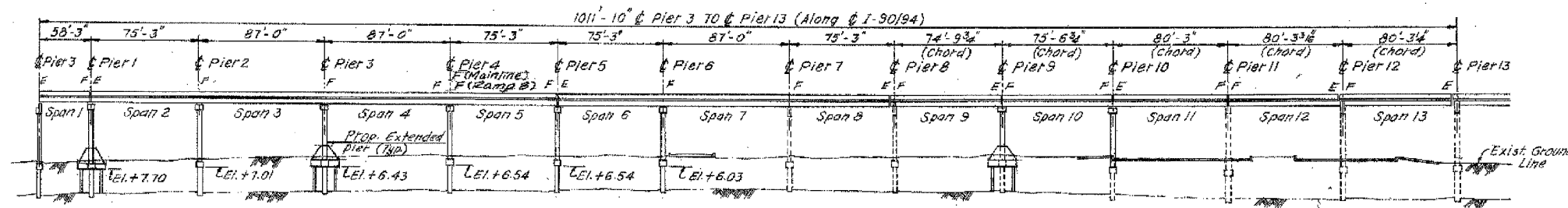
BOWMAN, BARRETT & ASSOCIATES INC.
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Note:
This sheet created from original 1988-89 reconstruction as-builts. These are provided for general reference to structure number, span lengths, etc. Work Items for this contract are identified on the partial framing plans and detail sheets that follow.

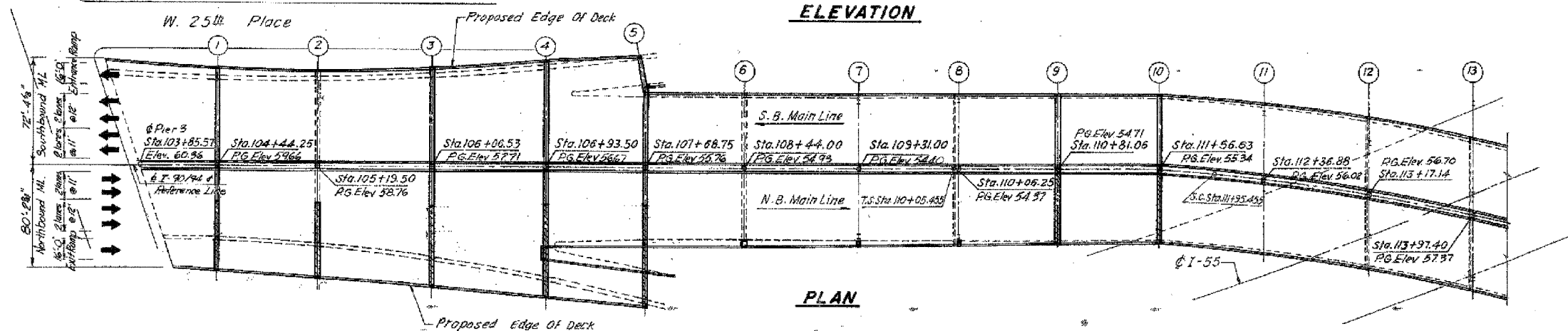
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR GENERAL PLAN AND ELEVATION SN 016-1114, SN 016-1066, SN 016-1070 SCALE: NTS DATE: 5/18/2007
NAME	DATE	
		DRAWN BY: LAM CHECKED BY: BLU

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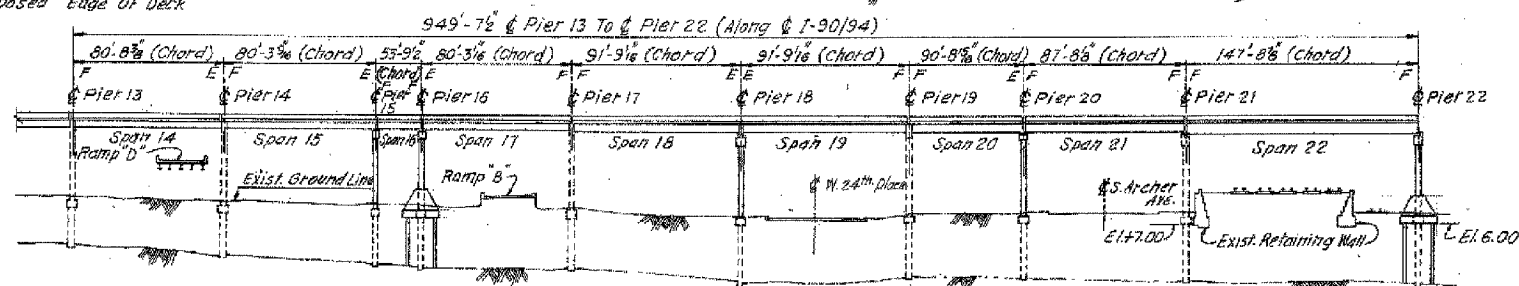
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	13
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
60B07				



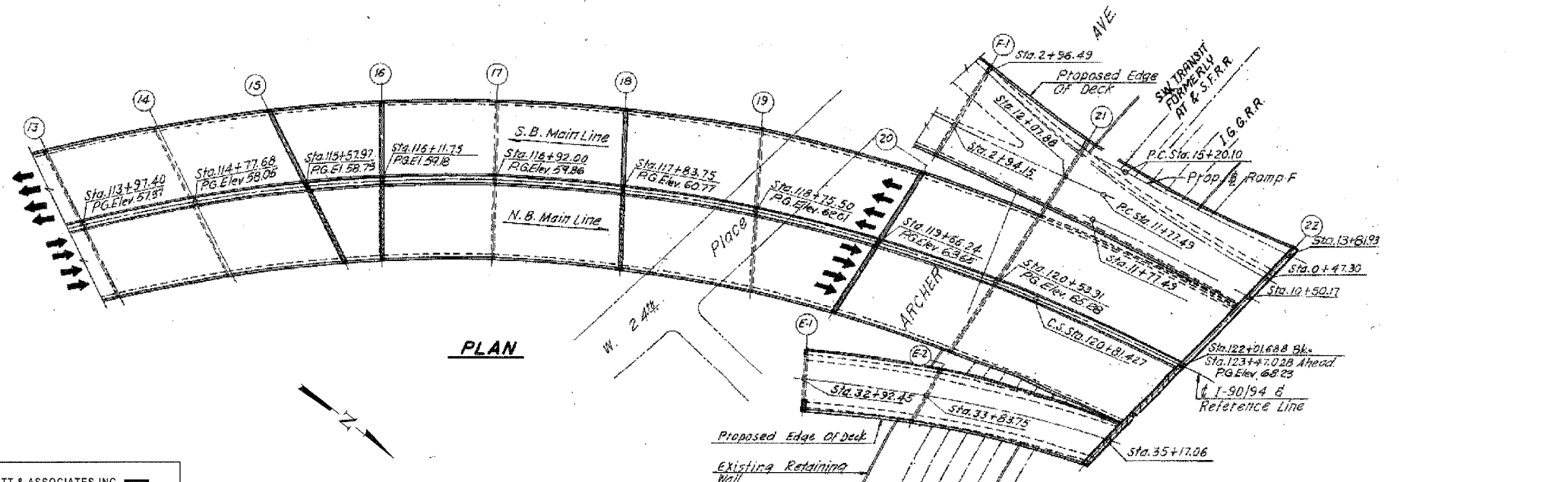
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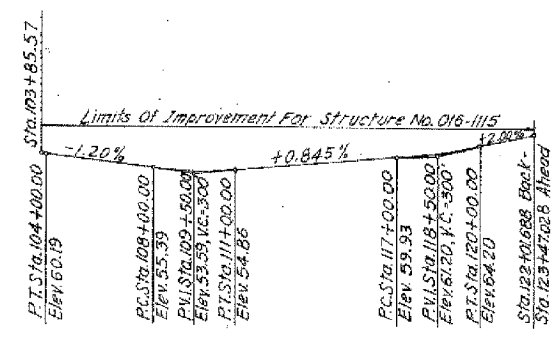
PLAN



ELEVATION



PLAN



PROFILE GRADE
DAN RYAN EXPRESSWAY (I-90/94)

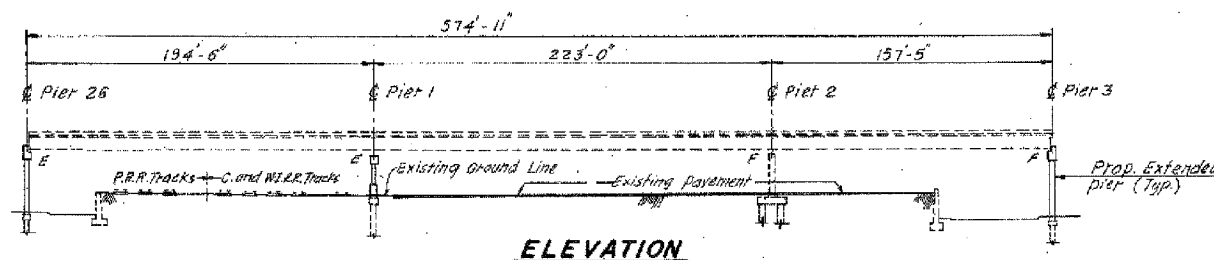
BOWMAN, BARRETT & ASSOCIATES INC
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Note:
This sheet created from original 1988-89 reconstruction as-builts. These are provided for general reference to structure number, span lengths, etc. Work Items for this contract are identified on the partial framing plans and detail sheets that follow.

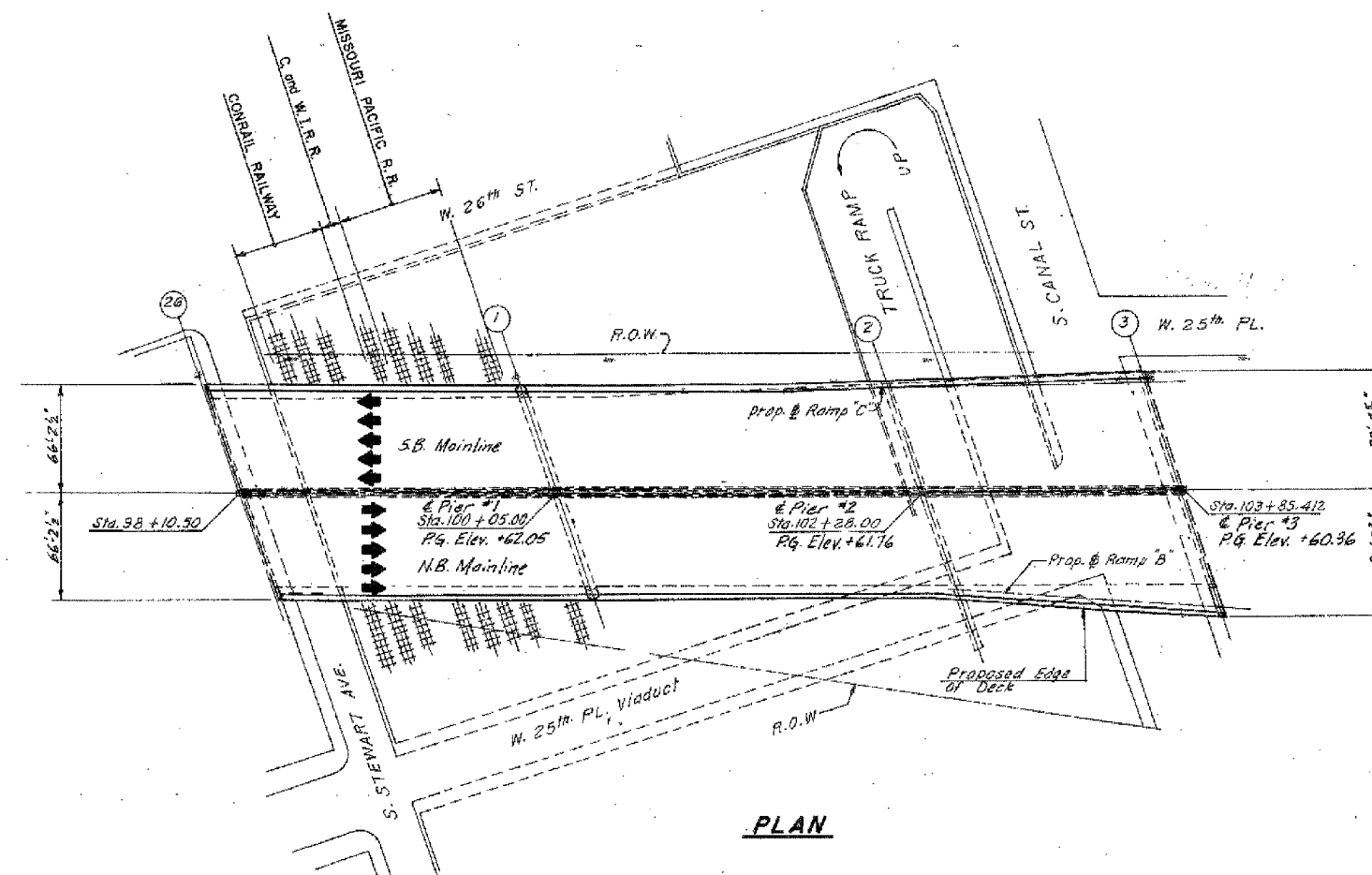
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR GENERAL PLAN AND ELEVATION SN 016-1115
NAME	DATE	
		SCALE: NTS
		DATE: 5/18/2007
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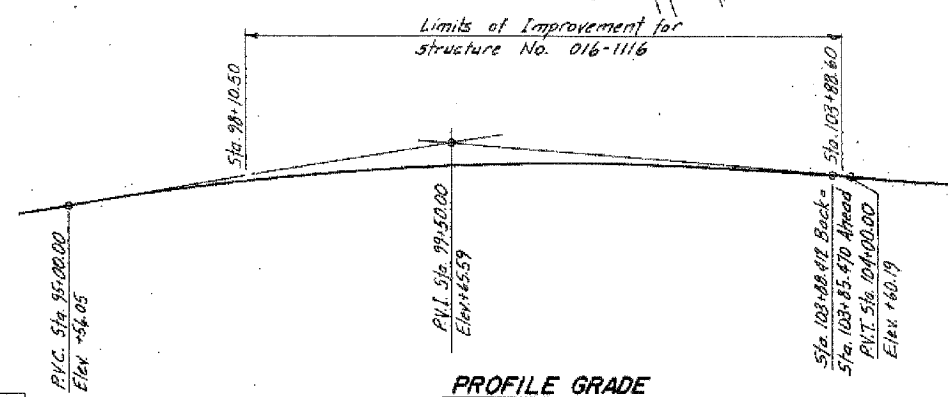
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
84/90	2005-086 I	COOK	228	14
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
60B07				



ELEVATION



PLAN



PROFILE GRADE

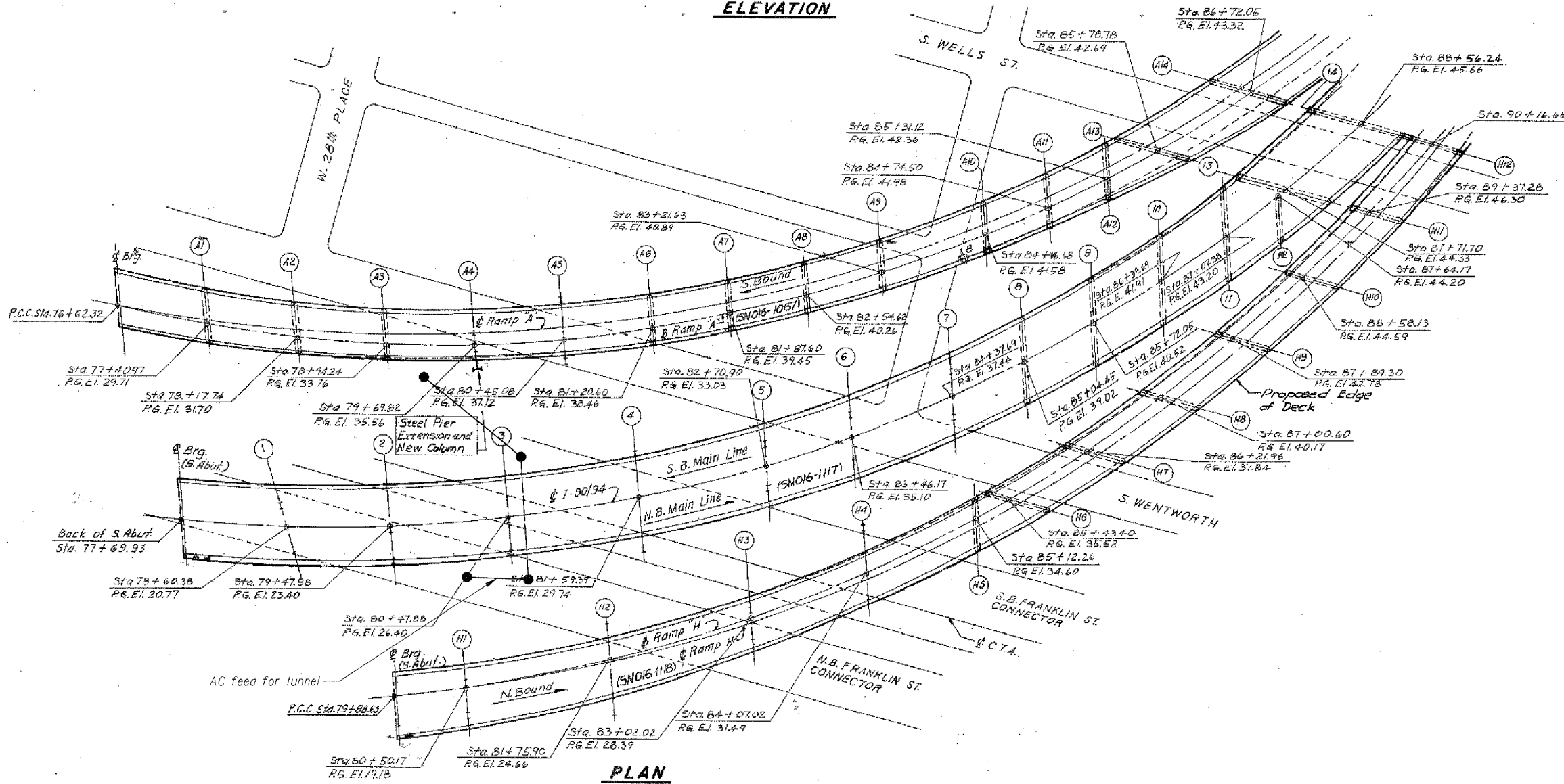
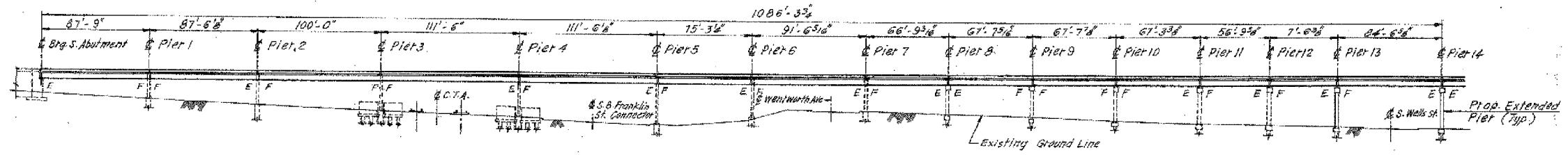
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Note:
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REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR GENERAL PLAN AND ELEVATION SN 016-1116
NAME	DATE	
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		DATE: 5/18/2007
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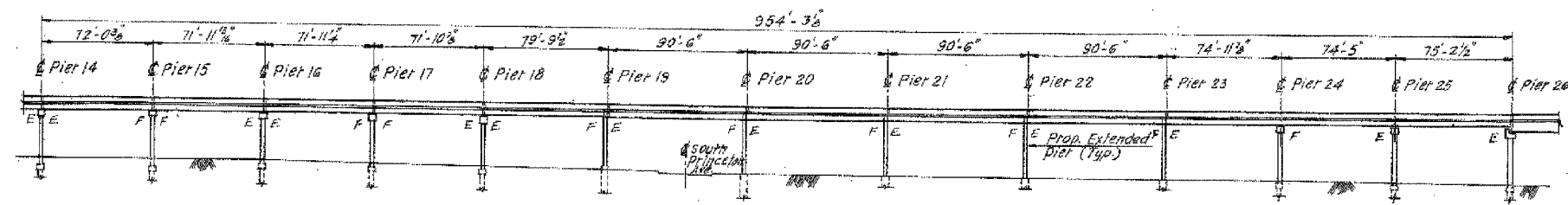
Note:
This sheet created from original 1988-89 reconstruction as-builts. These are provided for general reference to structure number, span lengths, etc. Work Items for this contract are identified on the partial Framing plans and detail sheets that follow.

REVISIONS		DATE
NAME		

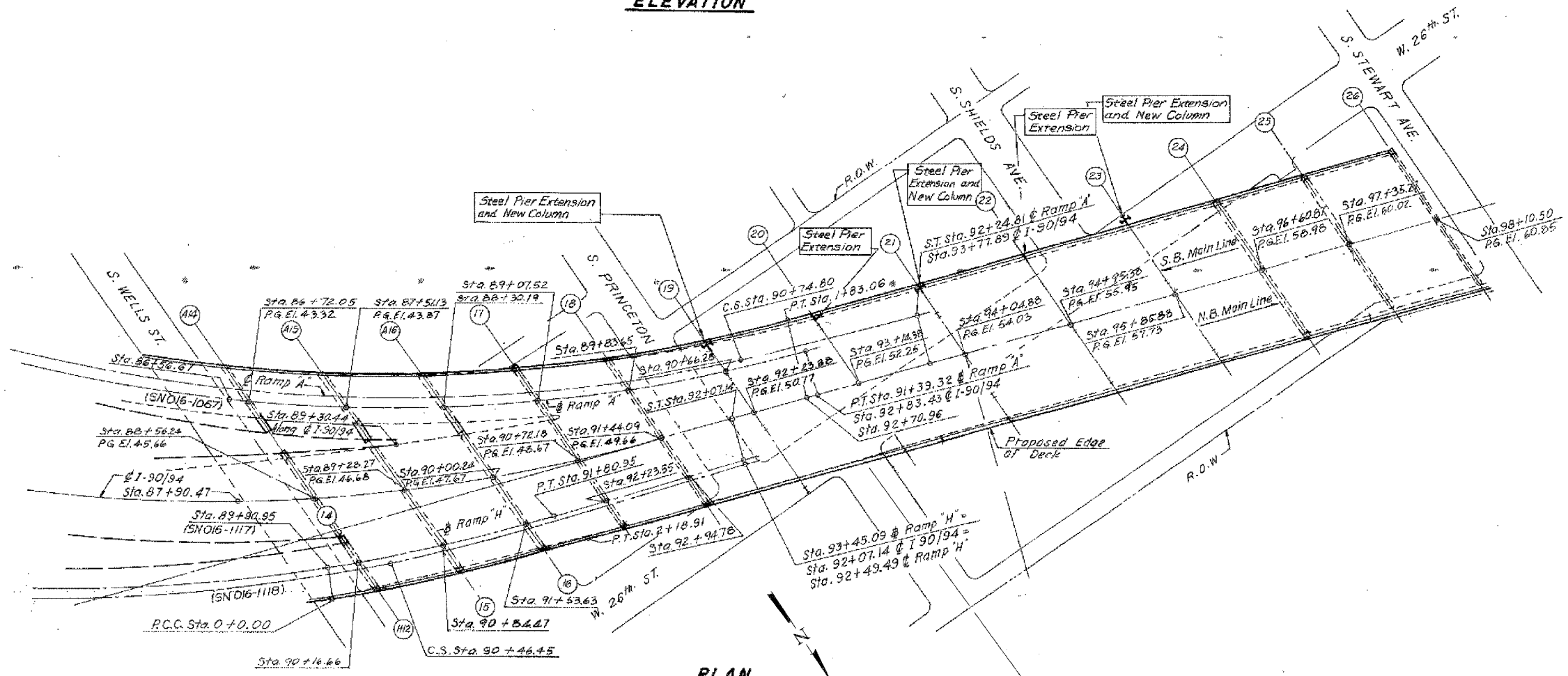
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
GENERAL PLAN AND ELEVATION
SN 016-1117, SN 016-1067, SN 016-1118
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

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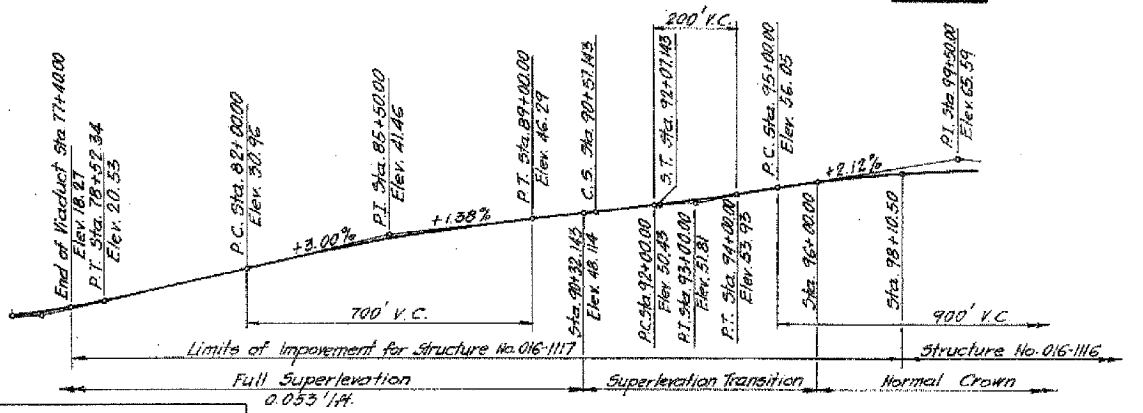
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	16
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07				



ELEVATION



PLAN



MAINLINE PROFILE GRADE

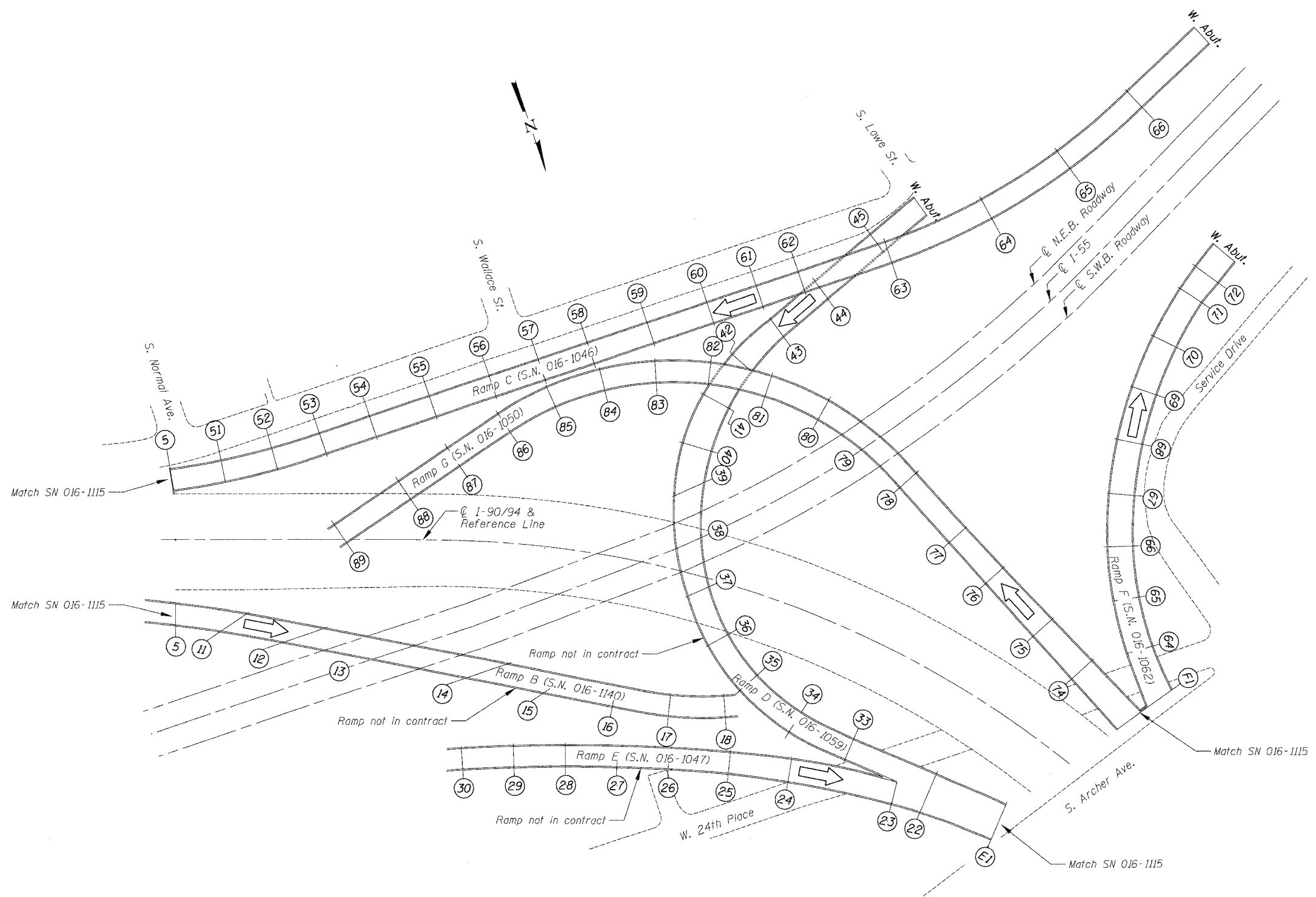
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE	F.A.I. 94/90 (DAN RYAN EXPRESSWAY)	
		DAN RYAN ELEVATED BRIDGE	
		BEARING REPLACEMENT & STEEL REPAIR	
		GENERAL PLAN AND ELEVATION (CONT.)	
		SN 016-1117, SN 016-1067, SN 016-1118	
		SCALE: NTS	DRAWN BY: LAM
		DATE: 5/18/2007	CHECKED BY: BLU

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Note:
This sheet created from original 1988-89 reconstruction as-builts. These are provided for general reference to structure number, span lengths, etc. Work Items for this contract are identified on the partial framing plans and detail sheets that follow.

14-88000000 BRIDGE 22 IN SHEET 15 660 21A 016-1117-CP-01.dwg 5/15/2007 5:13:46 PM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	17
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07				



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Note:
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REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR GENERAL PLAN SN 016-1046, SN 016-1050, SN 016-1062, SN 016-1059, SN 016-1140, SN 016-1047 SCALE: NTS DATE: 5/18/2007
NAME	DATE	
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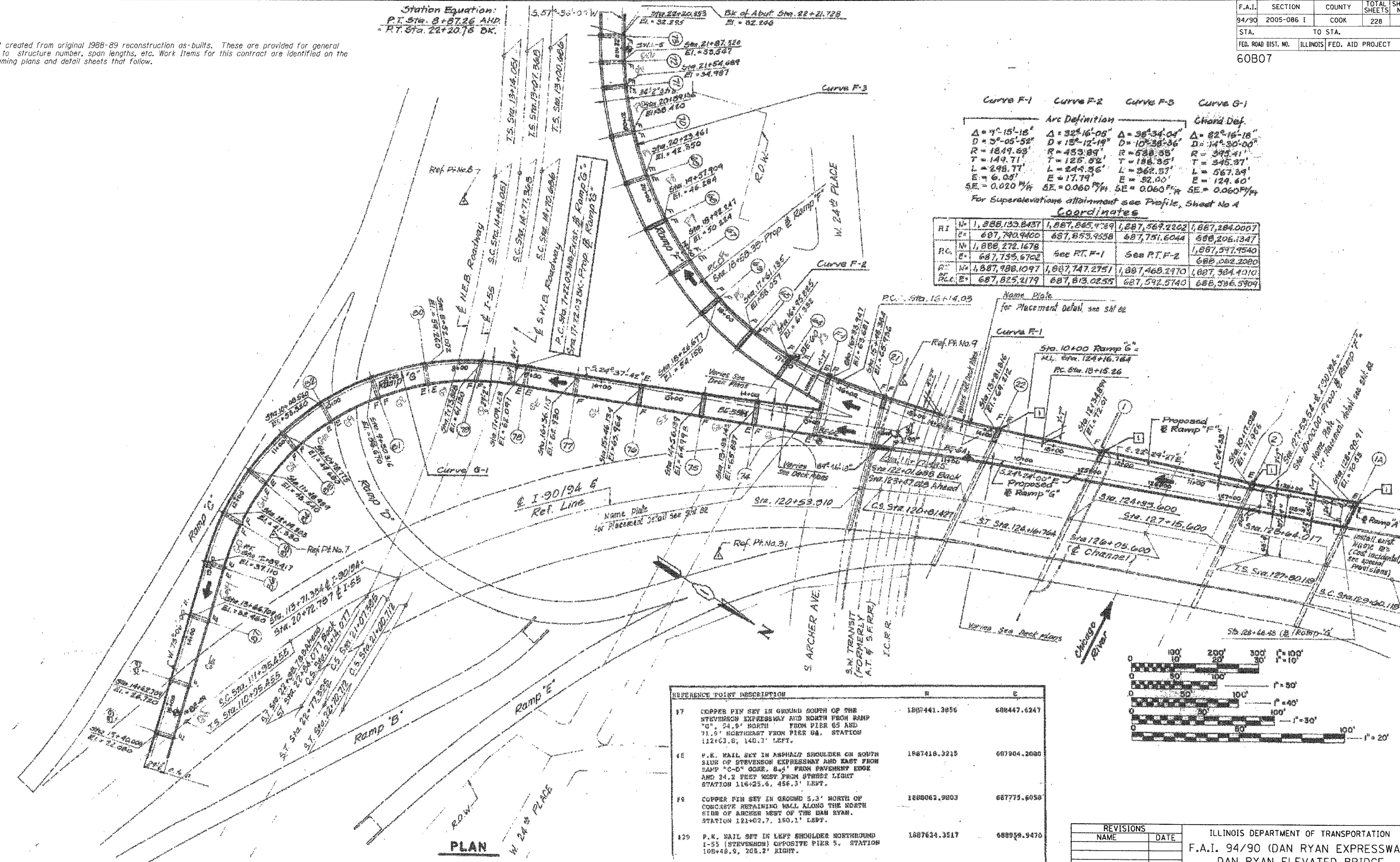
Note:
This sheet created from original 1988-89 reconstruction as-builts. These are provided for general reference to structure number, span lengths, etc. Work Items for this contract are identified on the partial framing plans and detail sheets that follow.

Station Equation:
P.T. Sta. 8+87.26 AND
R.T. Sta. 22+20.76 BK.

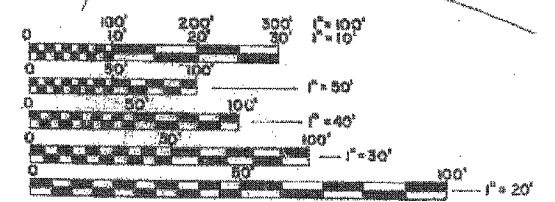
Curve F-1	Curve F-2	Curve F-3	Curve G-1
$\Delta = 4^\circ 15' 18''$	$\Delta = 32^\circ 16' 06''$	$\Delta = 38^\circ 34' 04''$	$\Delta = 82^\circ 16' 18''$
$D = 3^\circ 05' 58''$	$D = 13^\circ 12' 19''$	$D = 10^\circ 38' 36''$	$D = 14^\circ 30' 00''$
$R = 1849.68'$	$R = 453.89'$	$R = 588.35'$	$R = 395.41'$
$T = 149.71'$	$T = 125.82'$	$T = 188.35'$	$T = 545.37'$
$L = 248.77'$	$L = 244.35'$	$L = 367.37'$	$L = 567.39'$
$E = 6.05'$	$E = 17.79'$	$E = 32.00'$	$E = 124.60'$
$SE = 0.020\%/ft$	$SE = 0.060\%/ft$	$SE = 0.060\%/ft$	$SE = 0.060\%/ft$

For Superelevations attainment see Profile, Sheet No 4

Coordinates			
RI	N= 1,888,133.8437	E= 687,740.9400	RC= 687,733.6702
RI	N= 1,888,272.1678	E= 687,733.6702	RC= 687,733.6702
RI	N= 1,887,988.1097	E= 687,825.2179	RC= 687,825.2179
RI	N= 1,887,845.4759	E= 687,853.9558	RC= 687,853.9558
RI	N= 1,887,569.2262	E= 687,751.6044	RC= 687,751.6044
RI	N= 1,887,284.0007	E= 688,206.1347	RC= 688,206.1347
RI	N= 1,887,597.9540	E= 688,082.2080	RC= 688,082.2080
RI	N= 1,887,988.1097	E= 687,747.2751	RC= 687,747.2751
RI	N= 1,887,468.2970	E= 687,592.5740	RC= 687,592.5740
RI	N= 1,887,384.4010	E= 688,596.5909	RC= 688,596.5909



REFERENCE POINT DESCRIPTION	N	E
17 COPPER PIN SET IN GROUND SOUTH OF THE STEVENSON EXPRESSWAY AND NORTH FROM RAMP "G", 54.9' NORTH FROM PIER 65 AND 71.9' NORTHEAST FROM PIER 64. STATION 112+03.8, 140.3' LEFT.	1887441.3856	688447.6247
18 P.K. NAIL SET IN ASPHALT SHOULDER ON SOUTH SIDE OF STEVENSON EXPRESSWAY AND EAST FROM SAME "C-D" CORNER, 8.4' FROM PAVEMENT EDGE AND 34.2 FEET WEST FROM STREET LIGHT STATION 116+25.5, 456.3' LEFT.	1887418.3215	687904.2080
19 COPPER PIN SET IN GROUND 5.3' NORTH OF CONCRETE RETAINING WALL ALONG THE NORTH SIDE OF ARCHES WEST OF THE DAN RYAN. STATION 121+02.7, 150.1' LEFT.	1888062.9203	687775.6058
20 P.K. NAIL SET IN LEFT SHOULDER NORTHBOUND I-55 (STEVENSON) OPPOSITE PIER 5. STATION 108+48.9, 288.2' RIGHT.	1887634.3517	688958.9470
21 CROSS PINCH IN CONCRETE SIDEWALK ON NORTH SIDE OF 24TH PLACE ABOUT 326' WEST FROM WALLACE, 7' SOUTH FROM FENCE GATE. STATION 118+14.8, 91.3' RIGHT.	1887973.7321	688129.1823



REVISIONS	
NAME	DATE

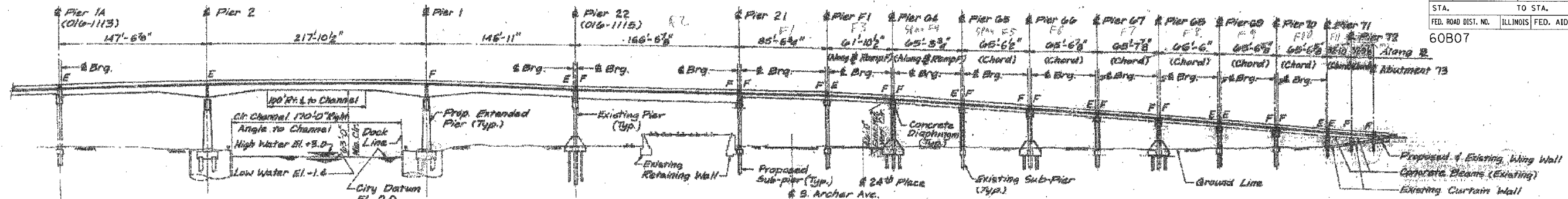
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
GENERAL PLAN
SN 016-1050, 1062 & 1066
SCALE: NTS DRAWN BY: LAM
DATE: 5/18/2007 CHECKED BY: BLU

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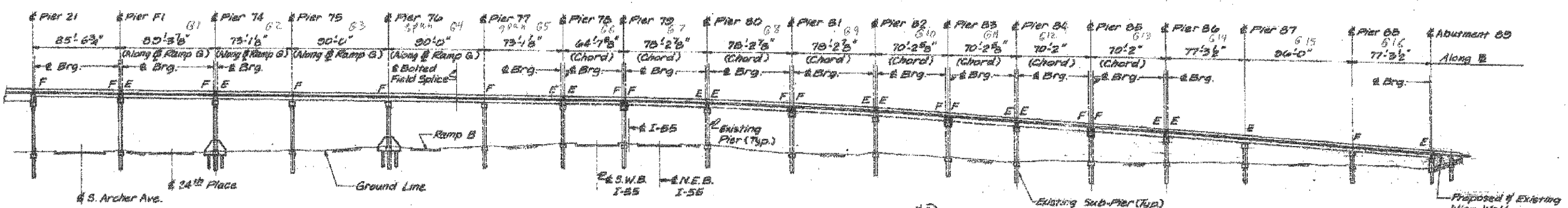
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

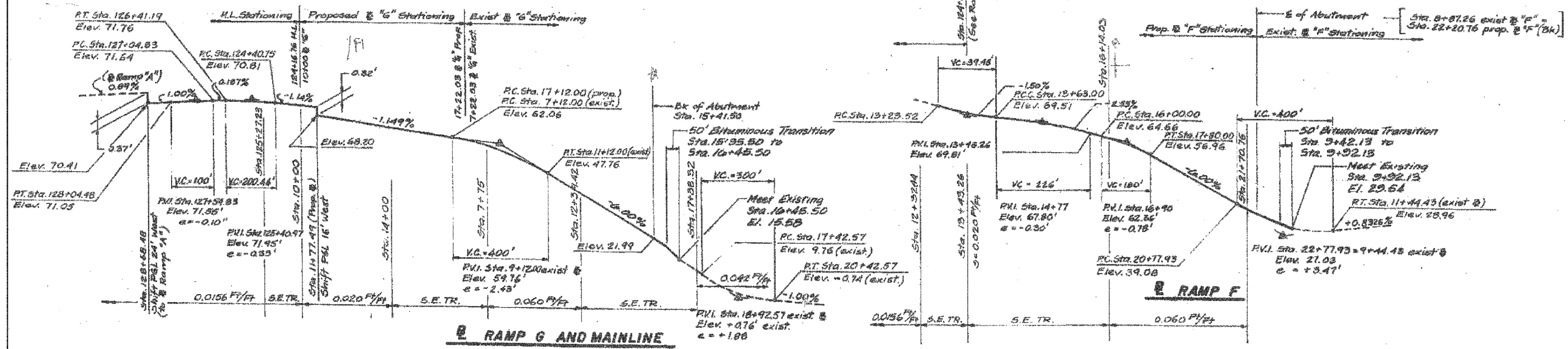
60B07



ELEVATION - WEST RAMP & RAMP F



ELEVATION - RAMP G



RAMP G AND MAINLINE

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Note:
This sheet created from original 1988-89 reconstruction as-builts. These are provided for general reference to structure number, span lengths, etc. Work Items for this contract are identified on the partial framing plans and detail sheets that follow.

REVISIONS		DATE
NAME		

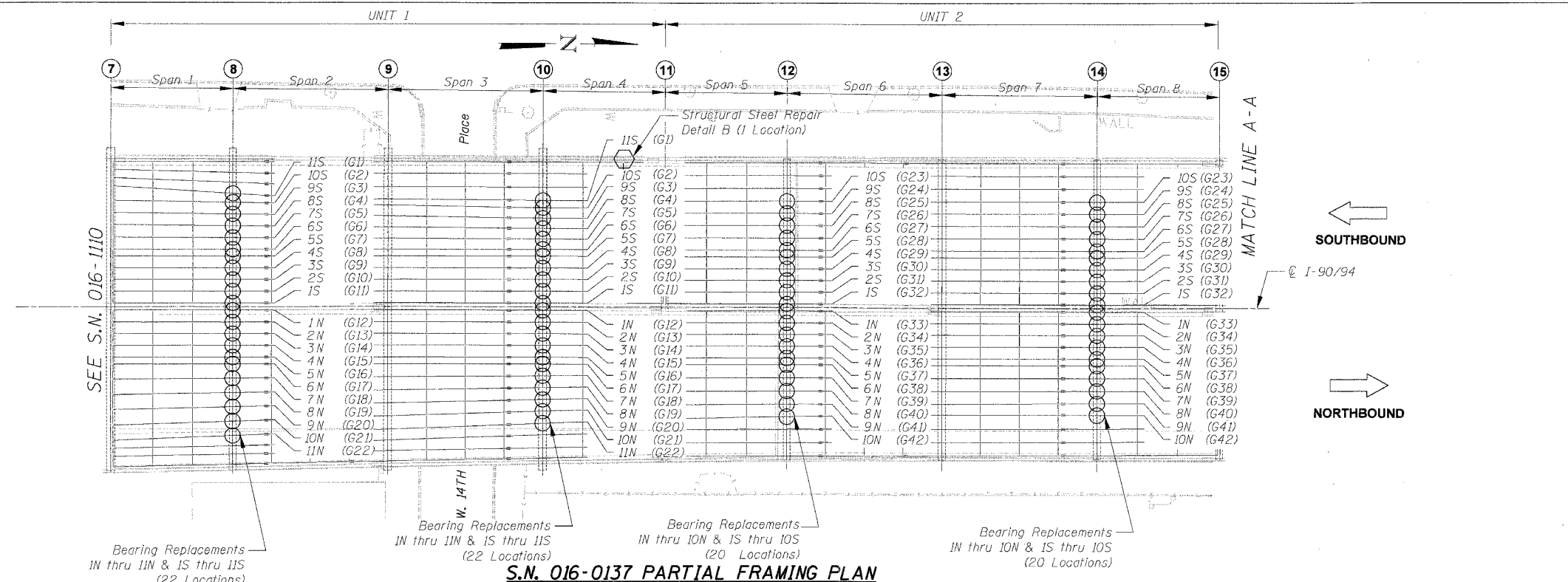
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
ELEVATION & PROFILE
SN 016-1050, 1062 & 1066

SCALE: NTS
DATE: 5/18/2007

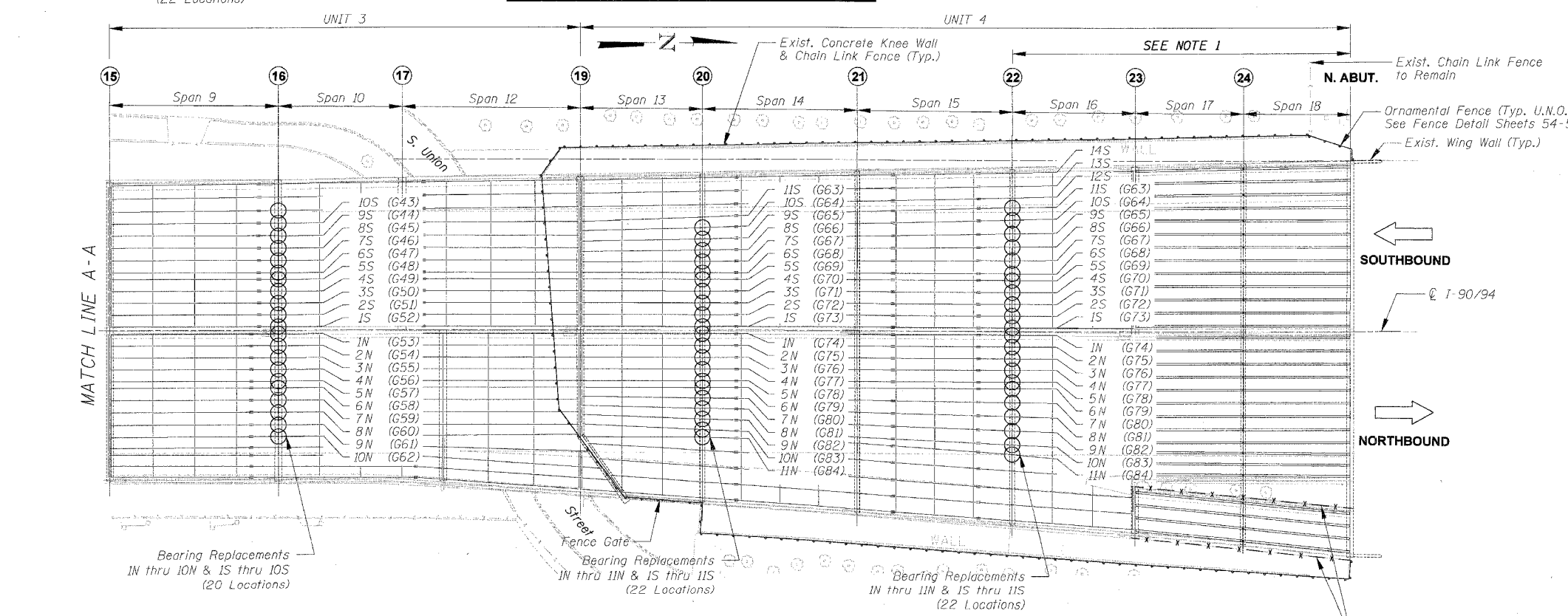
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CHECKED BY: BLU

5/24/2007

F.A.I.	SECTION	COUNTY	TOTAL SHEET SHEETS	NO.
94/90	2005-086 1	COOK	228	20
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07				



S.N. 016-0137 PARTIAL FRAMING PLAN



S.N. 016-0137 PARTIAL FRAMING PLAN

NOTES:

- Contractor shall remove all debris, garbage and other materials as directed by the Engineer from underneath Spans 16, 17 & 18. The Contractor is advised that material may include human waste, garbage and other paraphernalia from illegal squatting activities. It is estimated that 500 Cu. Yd. of material shall be removed & disposed, payment shall be made under pay item Removal and Disposal of Unsuitable Material. It shall be the Contractor's responsibility to determine the extent and characteristic of the material and access constraints presented by the site and account for these factors in the bid. Contractor shall remove and dispose of temporary concrete barrier along both sides of Spans 17 & 18 after completion of the ornamental fence. Cost incidental to Removal and Disposal of Unsuitable Material. See Special Provisions.
- After clean up of unsuitable materials under spans 17 & 18 as specified in Note 1, Piers 23 & 24 and north abutment shall be cleaned as directed by Engineer. The work is paid by "Bridge Washing".

ELEMENT IDENTIFICATION

Elements on the Southbound Structure are identified 1S, 2S, 3S etc. starting from the centerline of I-90/94.

Elements on the Northbound Structure are identified 1N, 2N, 3N etc. starting from the centerline of I-90/94.

Numbers within () refer to as-built beam designations.

- ① = Pier No.
- = Location of Bearing Replacement
- ⬡ = Location of Structural Steel Repair

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 PARTIAL FRAMING PLAN
 S.N. 016-0137

SCALE: NTS
 DATE: 3/7/2008

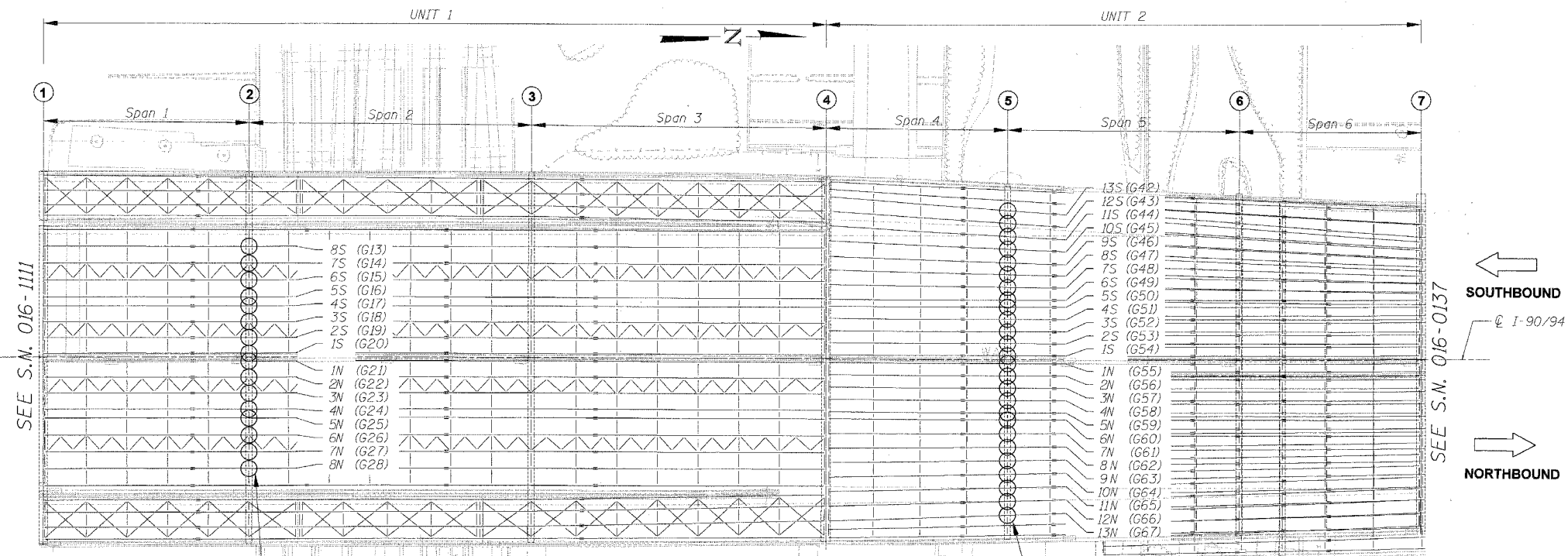
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 CHECKED BY: BLU

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	21
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

60B07



ELEMENT IDENTIFICATION

Elements on the Southbound Structure are identified 1S, 2S, 3S etc. starting from the centerline of I-90/94.

Elements on the Northbound Structure are identified 1N, 2N, 3N etc. starting from the centerline of I-90/94.

Numbers within () refer to as-built beam designations.

① = Pier No.

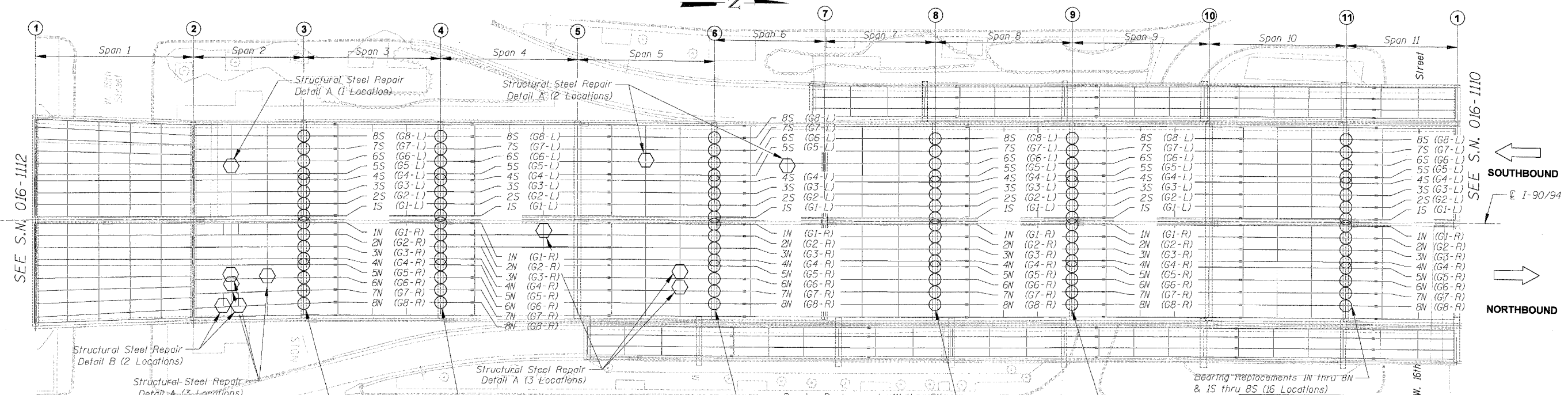
○ = Location of Bearing Replacement

⬡ = Location of Structural Steel Repair

Bearing Replacements 1N thru 8N & 1S thru 8S (16 Locations)

Bearing Replacement 1N thru 13N & 1S thru 13S (26 Locations)

S.N. 016-1110 FRAMING PLAN



Structural Steel Repair Detail B (2 Locations)

Structural Steel Repair Detail A (3 Locations)

Bearing Replacements 1N thru 8N & 1S thru 8S (16 Locations)

Bearing Replacements 1N thru 8N & 1S thru 8S (16 Locations)

Structural Steel Repair Detail A (3 Locations)

Bearing Replacements 1N thru 8N & 1S thru 8S (16 Locations)

S.N. 016-1111 FRAMING PLAN

Bearing Replacements 1N thru 8N & 1S thru 8S (16 Locations)

Bearing Replacements 1N thru 8N & 1S thru 8S (16 Locations)

Bearing Replacements 1N thru 8N & 1S thru 8S (16 Locations)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 PARTIAL FRAMING PLAN
 S.N. 016-1110 & 016-1111

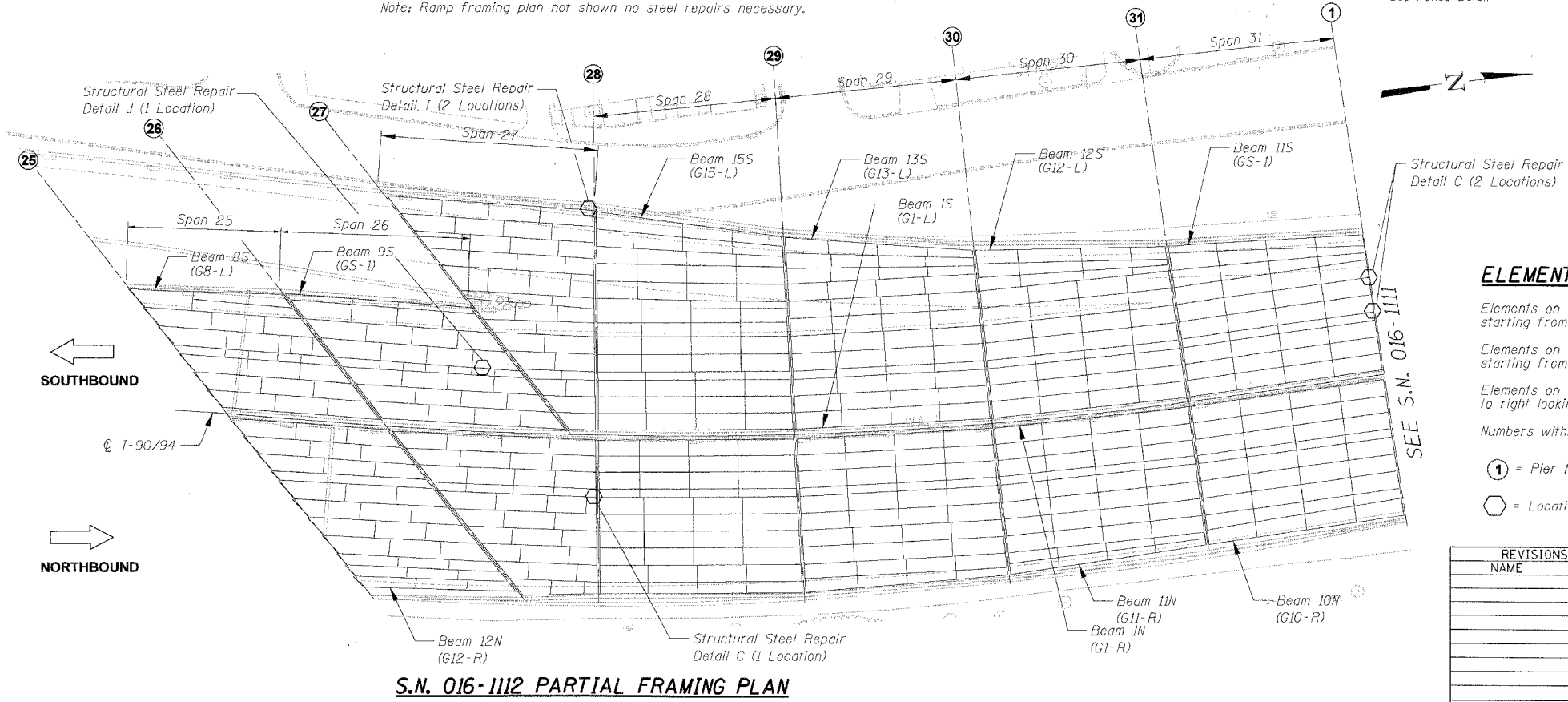
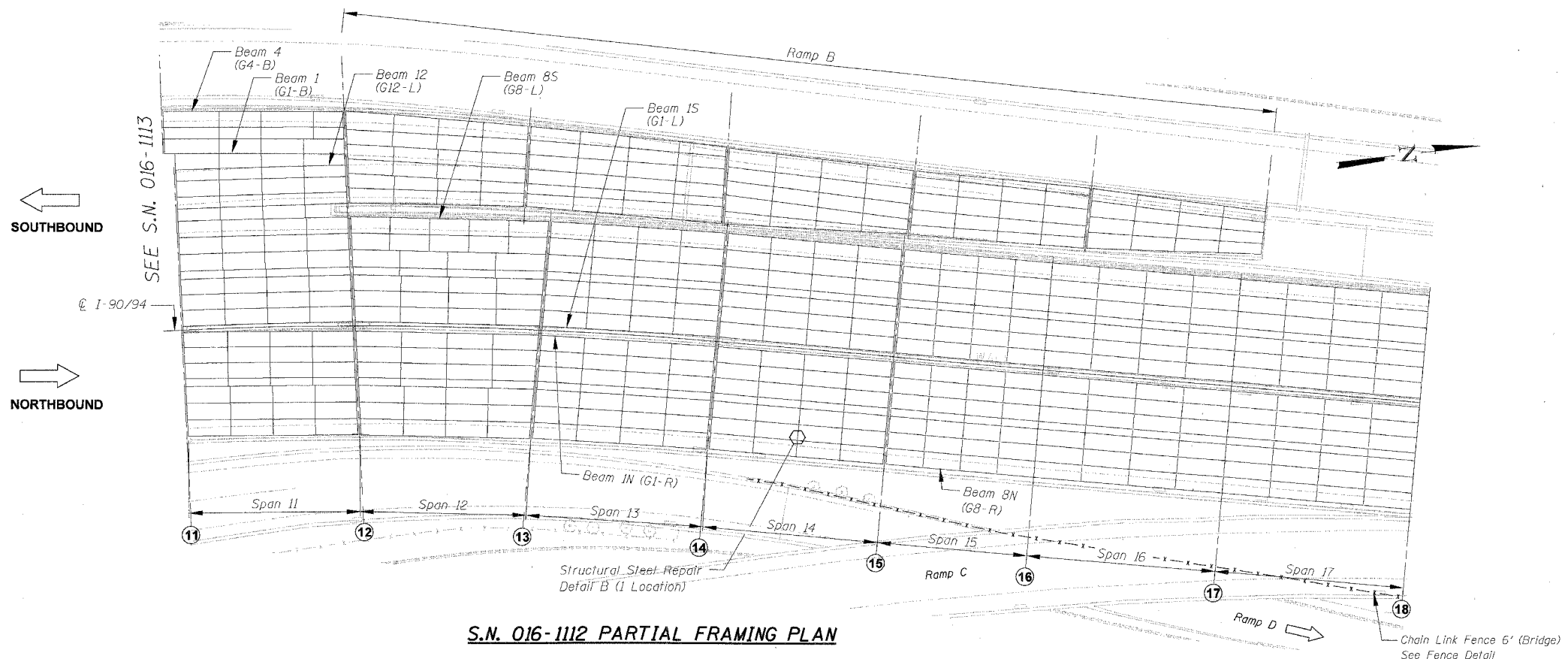
SCALE: NTS
 DATE: 3/1/2008

DRAWN BY: LAM
 CHECKED BY: BLU

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 1	COOK	228	22
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07				



ELEMENT IDENTIFICATION

Elements on the Southbound Structure are identified 1S, 2S, 3S etc. starting from the centerline of I-90/94.

Elements on the Northbound Structure are identified 1N, 2N, 3N etc. starting from the centerline of I-90/94.

Elements on the Ramp Structures are identified 1, 2, 3 etc. from left to right looking in the direction of ramp traffic.

Numbers within () refer to as-built beam designations.

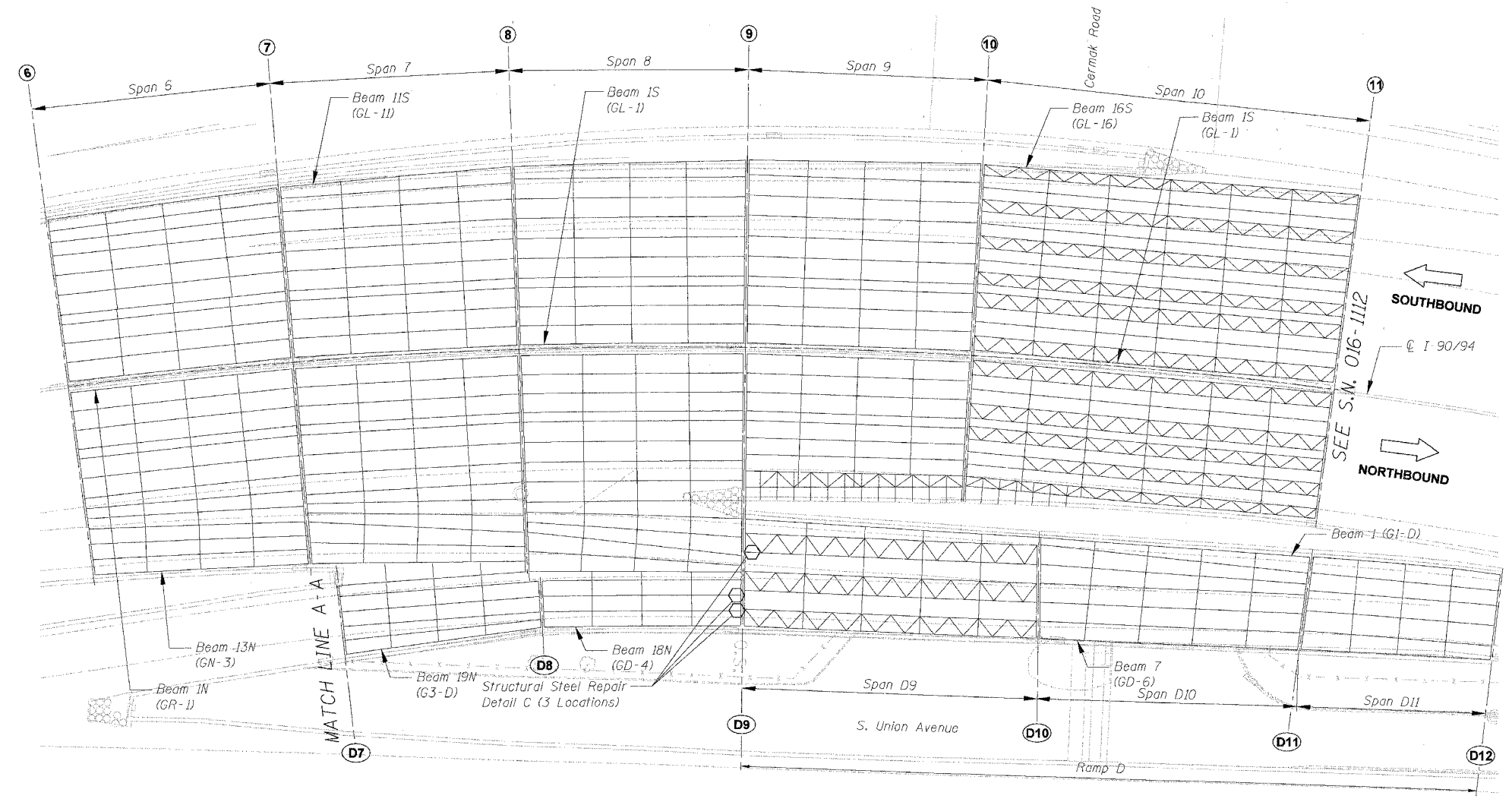
① = Pier No.
 ○ = Location of Structural Steel Repair

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR PARTIAL FRAMING PLAN S.N. 016-1112
NAME	DATE	
		SCALE: NTS DATE: 3/7/2008 DRAWN BY: LAM CHECKED BY: BLU

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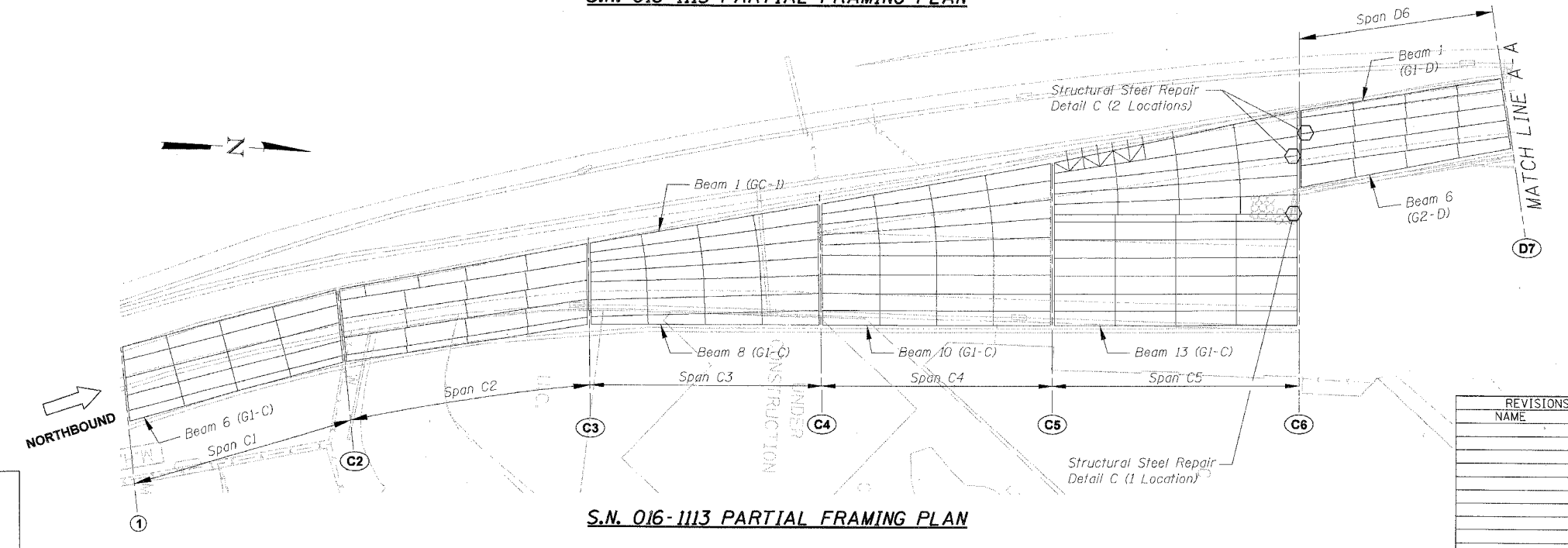
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94/90	2005-086 I	COOK	228	24
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	60B07	



ELEMENT IDENTIFICATION

Elements on the Southbound Structure are identified 1S, 2S, 3S etc. starting from the centerline of I-90/94.
Elements on the Northbound Structure are identified 1N, 2N, 3N etc. starting from the centerline of I-90/94.
Elements on the Ramp Structures are identified 1, 2, 3 etc. from left to right looking on the direction of ramp traffic.
Numbers within () refer to as-built beam designations.
① = Pier No.
Ⓧ = Location of Structural Steel Repair

S.N. 016-1113 PARTIAL FRAMING PLAN



S.N. 016-1113 PARTIAL FRAMING PLAN

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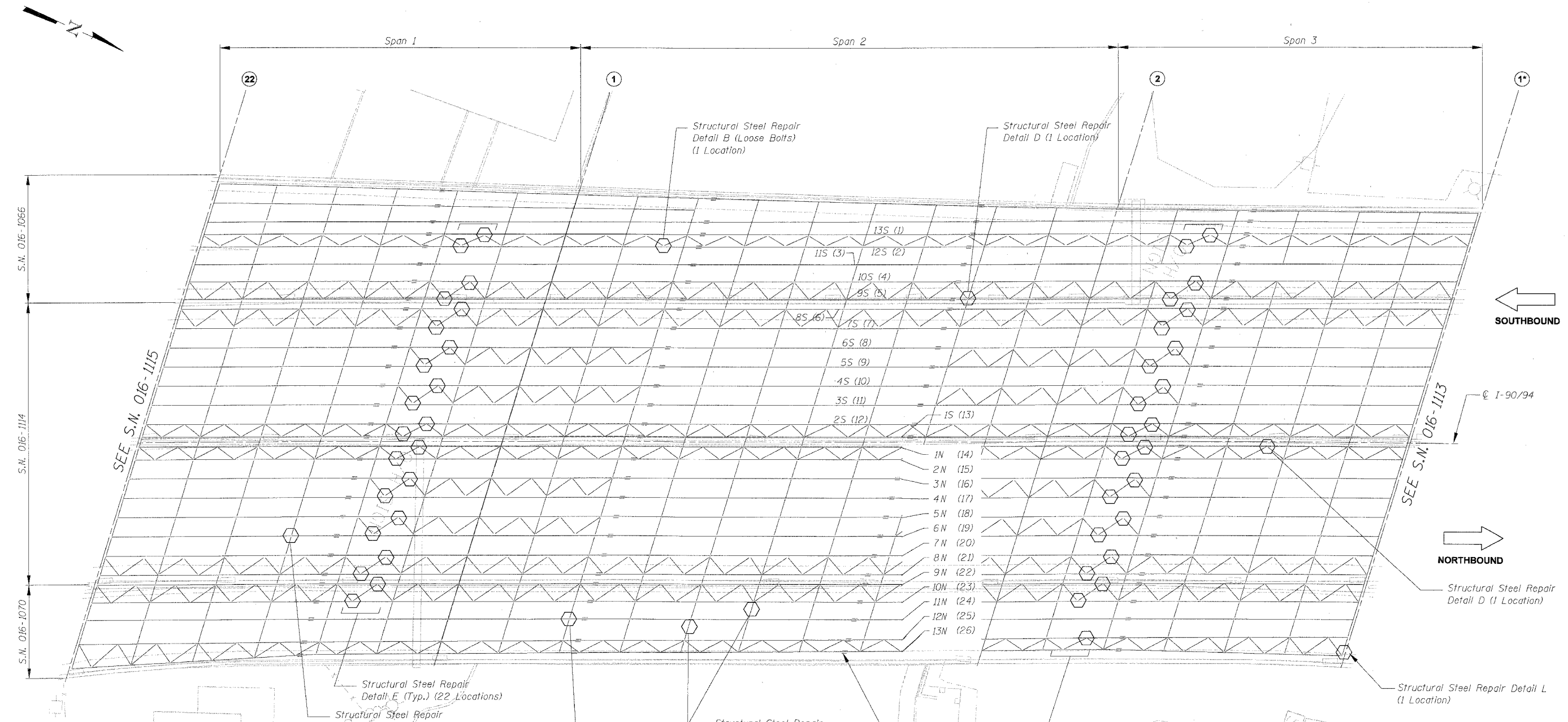
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
PARTIAL FRAMING PLAN
S.N. 016-1113
SCALE: NTS
DATE: 3/7/2008
DRAWN BY: LAM
CHECKED BY: BLU

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3/20/2008

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	25
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B07



ELEMENT IDENTIFICATION

Elements on the Southbound Structure are identified 1S, 2S, 3S etc. starting from the centerline of I-90/94.

Elements on the Northbound Structure are identified 1N, 2N, 3N etc. starting from the centerline of I-90/94.

Numbers within () refer to as-built beam designations.

- ① = Pier No.
- = Location of Bearing Replacement
- ⬡ = Location of Structural Steel Repair

SN 016-1114, 016-1066 & 016-1070 FRAMING PLAN

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 PARTIAL FRAMING PLAN
 S.N. 016-1114, 016-1066 & 016-1070
 SCALE: NTS
 DATE: 3/7/2008
 DRAWN BY: LAM
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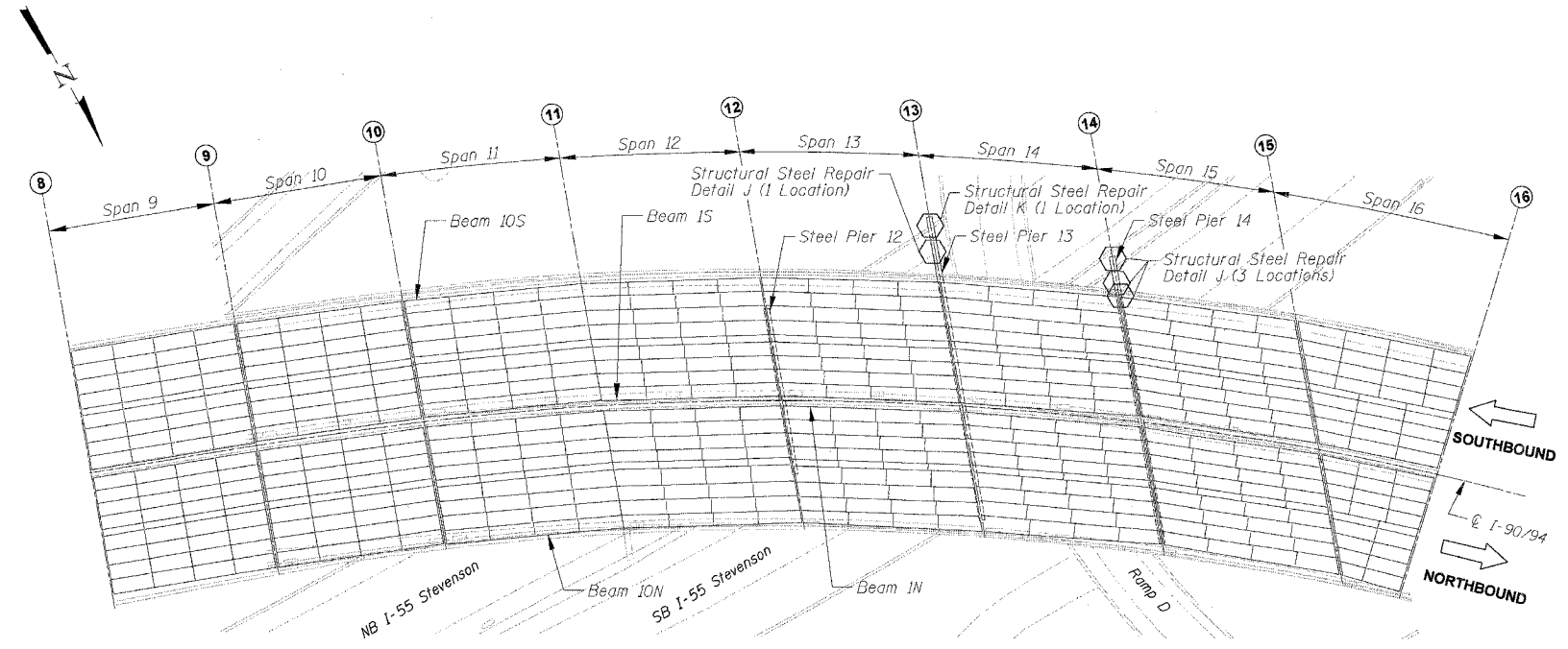
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* Considered part of adjacent Structure Number 016-1113.

I-90/94 BRIDGE SHEET 60B07

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	26
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B07



S.N. 016-1115 PARTIAL FRAMING PLAN

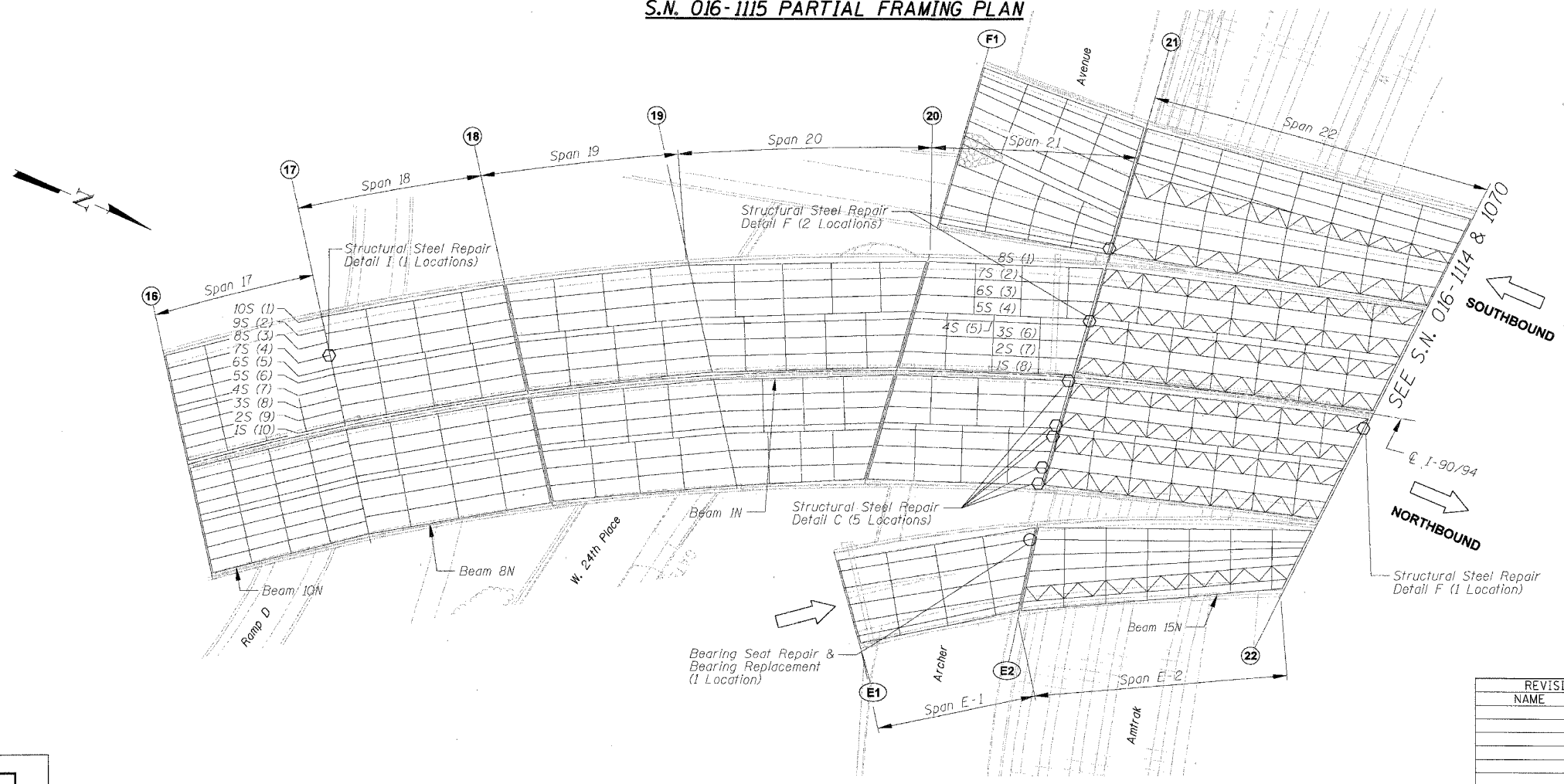
ELEMENT IDENTIFICATION

Elements on the Southbound Structure are identified 1S, 2S, 3S etc. starting from the centerline of I-90/94.

Elements on the Northbound Structure are identified 1N, 2N, 3N etc. starting from the centerline of I-90/94.

Numbers within () refer to as-built beam designations.

- ① = Pier No.
- ⬡ = Location of Structural Steel Repair
- = Location of Bearing Replacement



S.N. 016-1115 PARTIAL FRAMING PLAN

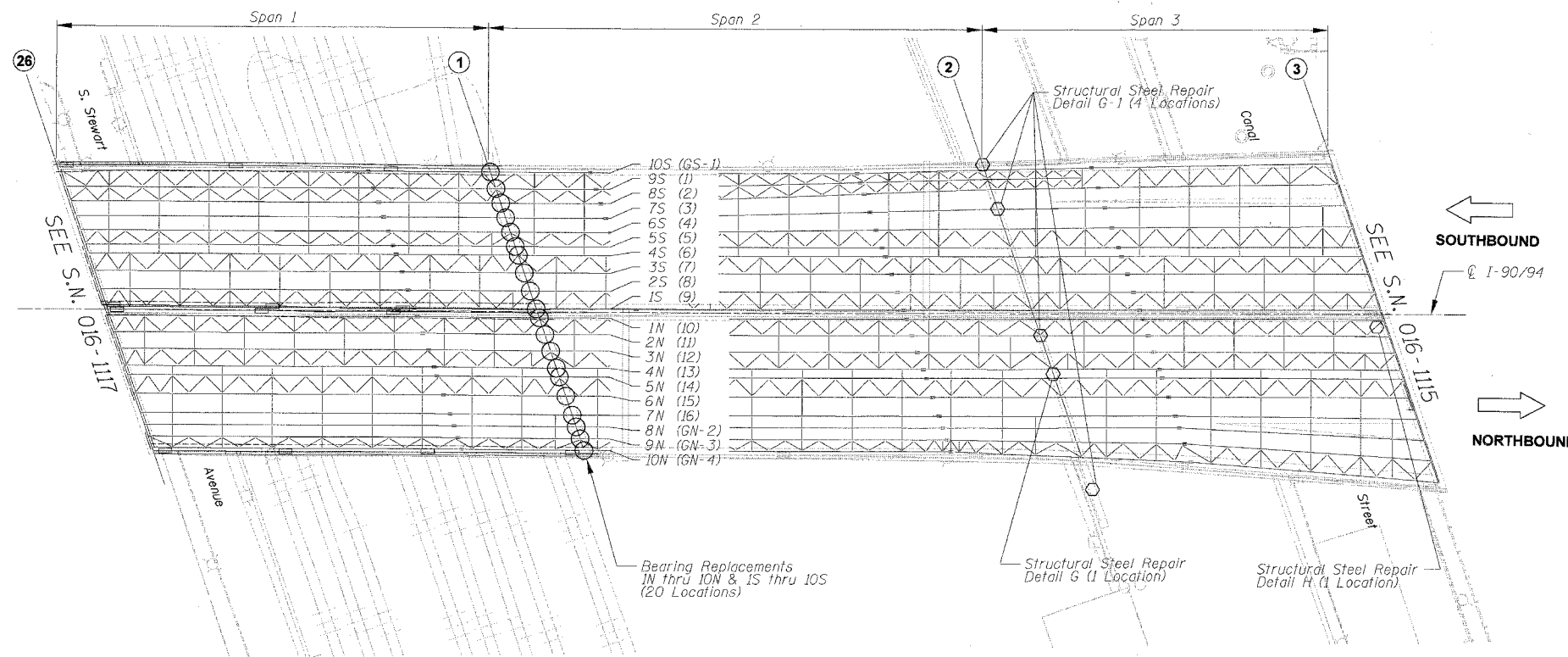
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 PARTIAL FRAMING PLAN
 S.N. 016-1115
 SCALE: NTS
 DATE: 3/7/2008
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94/90	2005-086 I	COOK	228	27
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	60B07	



S.N. 016-1116 FRAMING PLAN

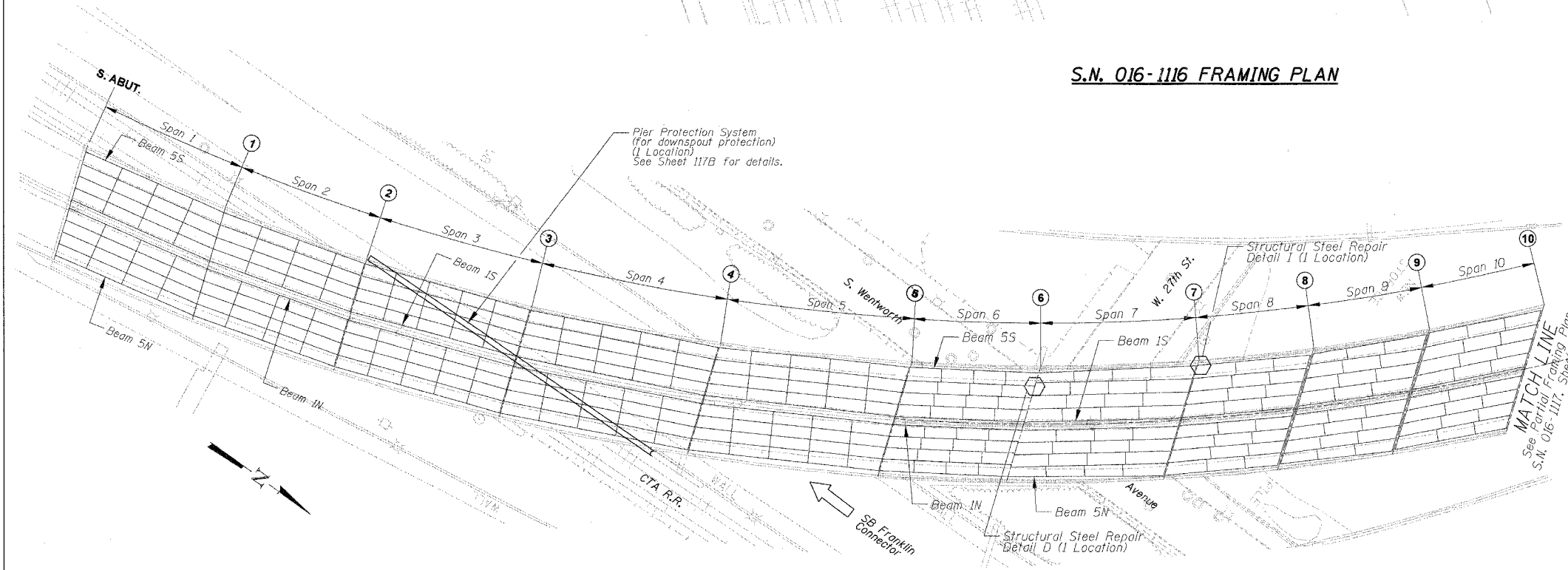
ELEMENT IDENTIFICATION

Elements on the Southbound Structure are identified 1S, 2S, 3S etc. starting from the centerline of I-90/94.

Elements on the Northbound Structure are identified 1N, 2N, 3N etc. starting from the centerline of I-90/94.

Numbers within () refer to as-built beam designations.

- ① = Pier No.
- = Location of bearing replacement
- ◡ = Location of Structural Steel Repair



S.N. 016-1117 PARTIAL FRAMING PLAN

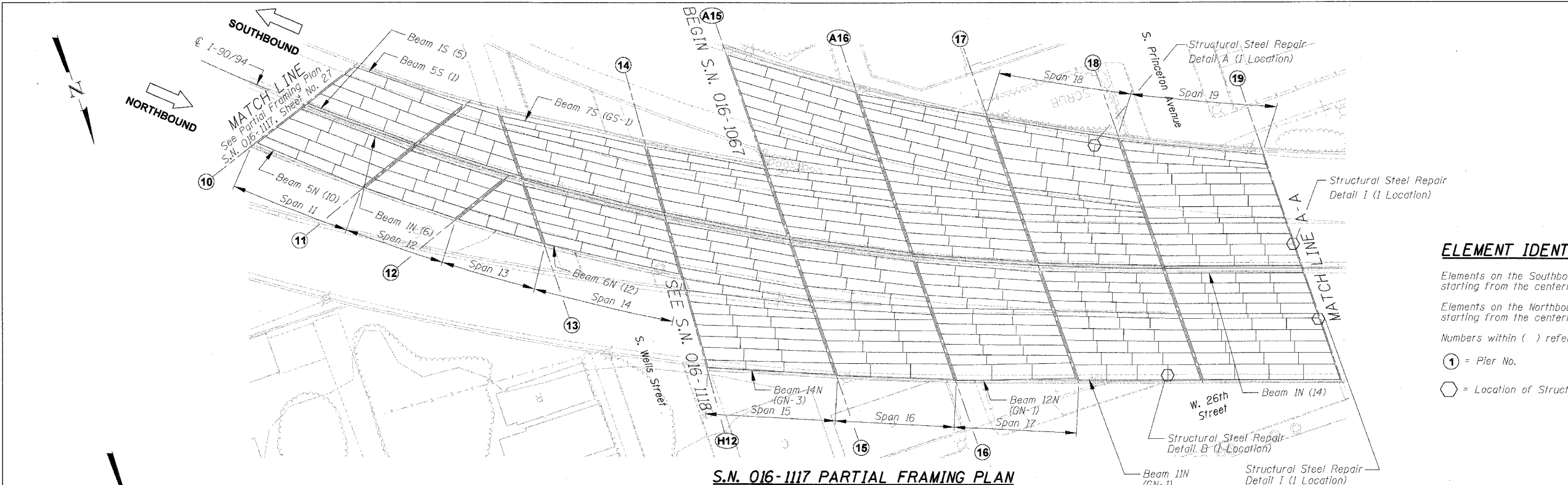
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 PARTIAL FRAMING PLAN
 S.N. 016-1116 & 016-1117
 SCALE: NTS
 DATE: 3/7/2008
 DRAWN BY: LAM
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 1	COOK	228	28
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	60B07	



S.N. 016-1117 PARTIAL FRAMING PLAN

ELEMENT IDENTIFICATION

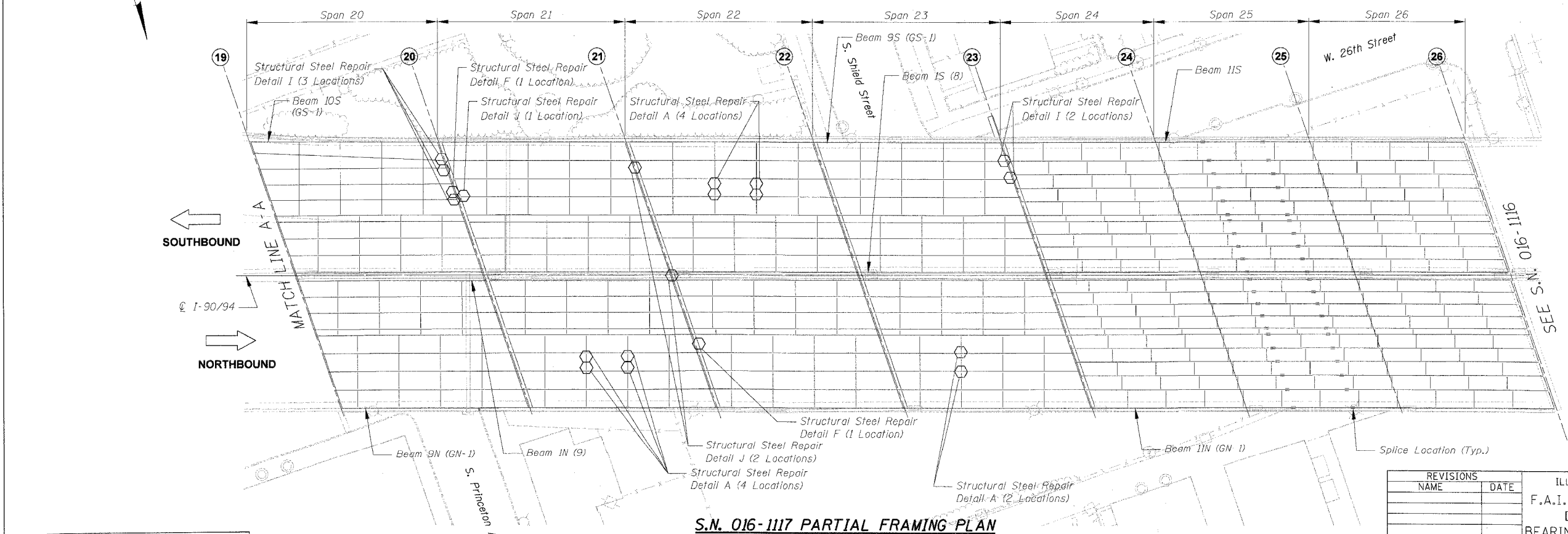
Elements on the Southbound Structure are identified 1S, 2S, 3S etc. starting from the centerline of I-90/94.

Elements on the Northbound Structure are identified 1N, 2N, 3N etc. starting from the centerline of I-90/94.

Numbers within () refer to as-built beam designations.

① = Pier No.

⊙ = Location of Structural Steel Repair



S.N. 016-1117 PARTIAL FRAMING PLAN

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NAME	DATE

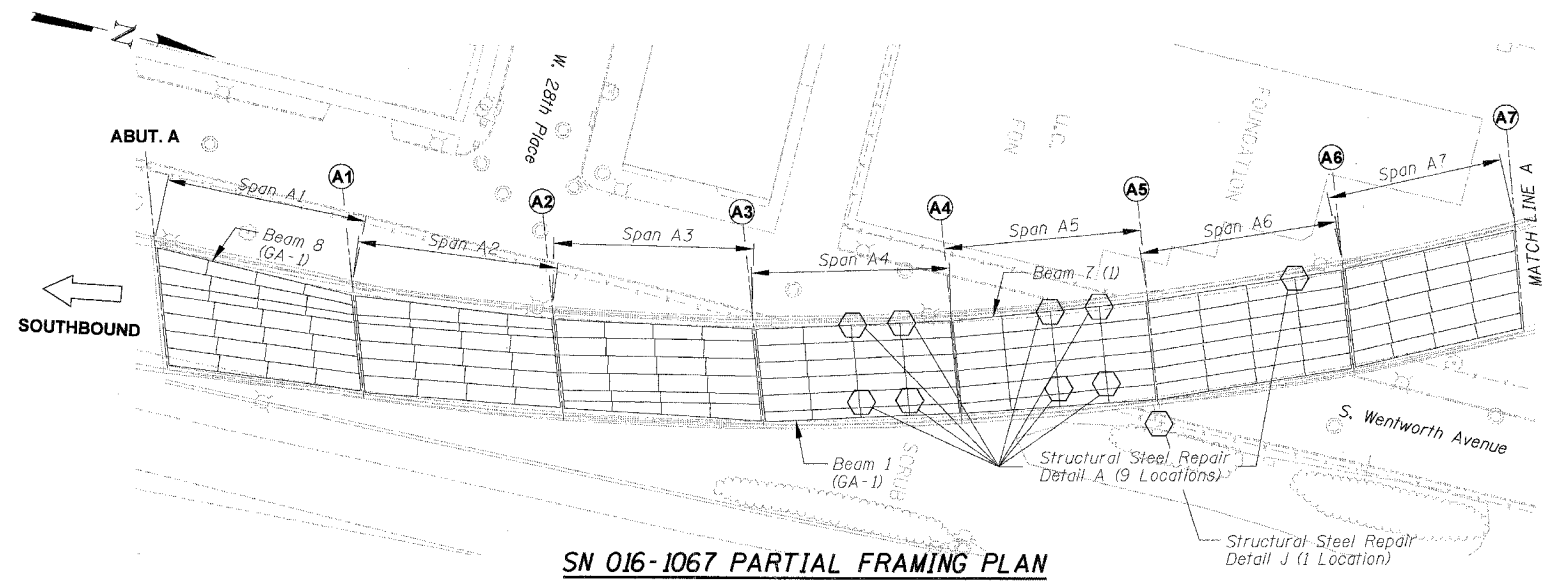
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
PARTIAL FRAMING PLAN
S.N. 016-1117

SCALE: NTS
DATE: 3/7/2008

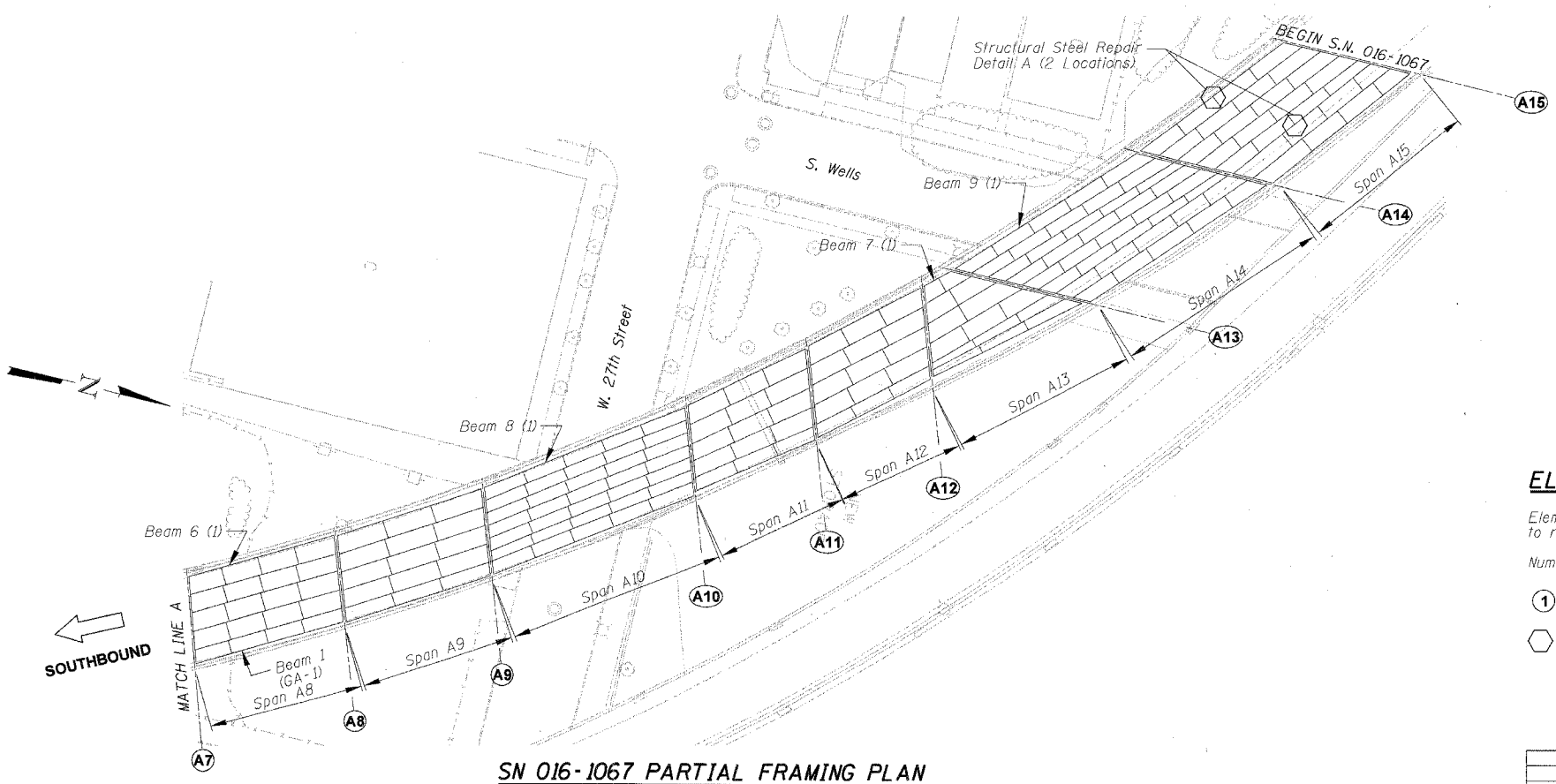
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 1	COOK	228	29
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07				



SN 016-1067 PARTIAL FRAMING PLAN



SN 016-1067 PARTIAL FRAMING PLAN

ELEMENT IDENTIFICATION

Elements on the Ramp Structures are identified 1, 2, 3 etc. from left to right looking on the direction of ramp traffic.
 Numbers within () refer to as-built beam designations.
 (1) = Pier No.
 ⬡ = Location of Structural Steel Repair

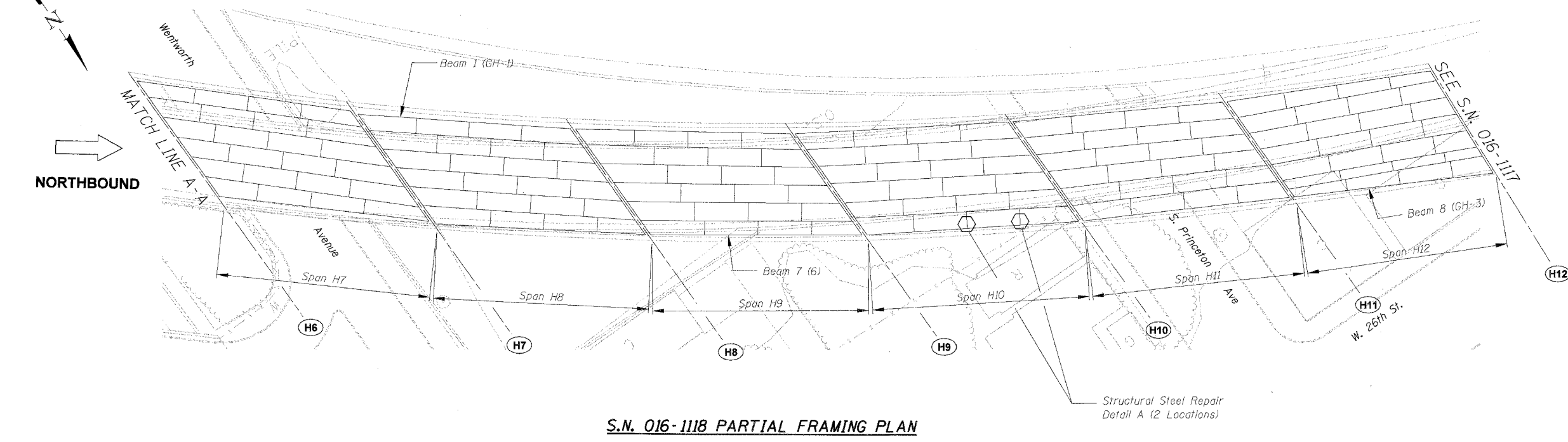
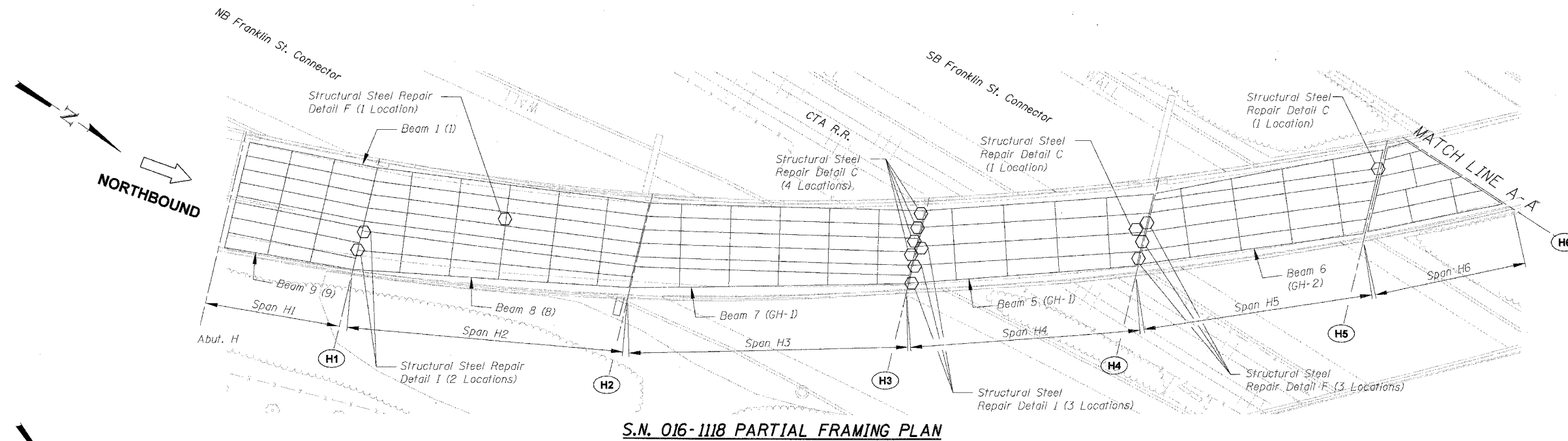
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 PARTIAL FRAMING PLAN
 S.N. 016-1067
 SCALE: NTS
 DATE: 3/7/2008
 DRAWN BY: LAM
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 3/21/2008

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	30
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
60B07				



ELEMENT IDENTIFICATION

Elements on the Ramp Structures are identified 1, 2, 3 etc. from left to right looking on the direction of ramp traffic.

Numbers within () refer to as-built beam designations.

(H1) = Pier No.

○ Location of Structural Steel Repair

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NAME	DATE

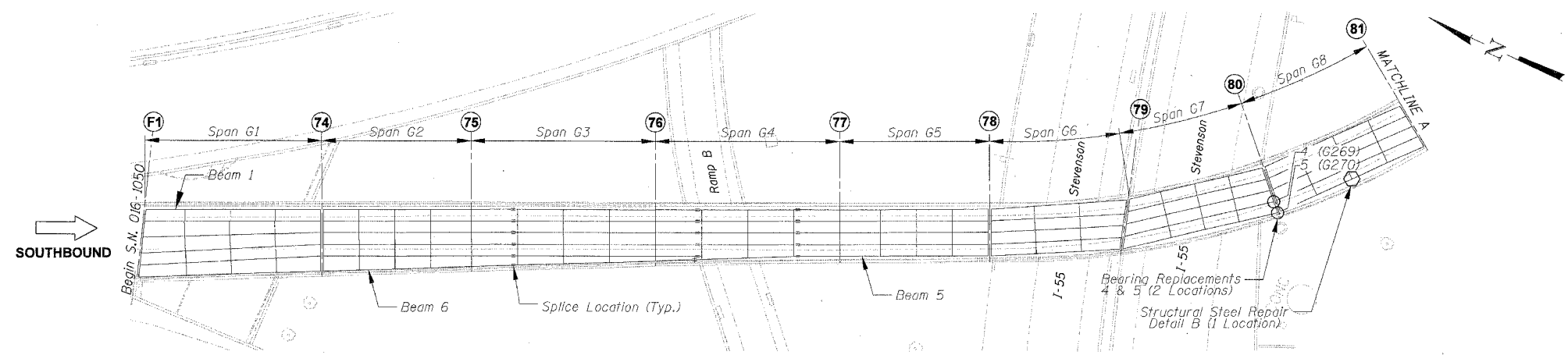
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
PARTIAL FRAMING PLAN
S.N. 016-1118

SCALE: NTS
DATE: 3/7/2008

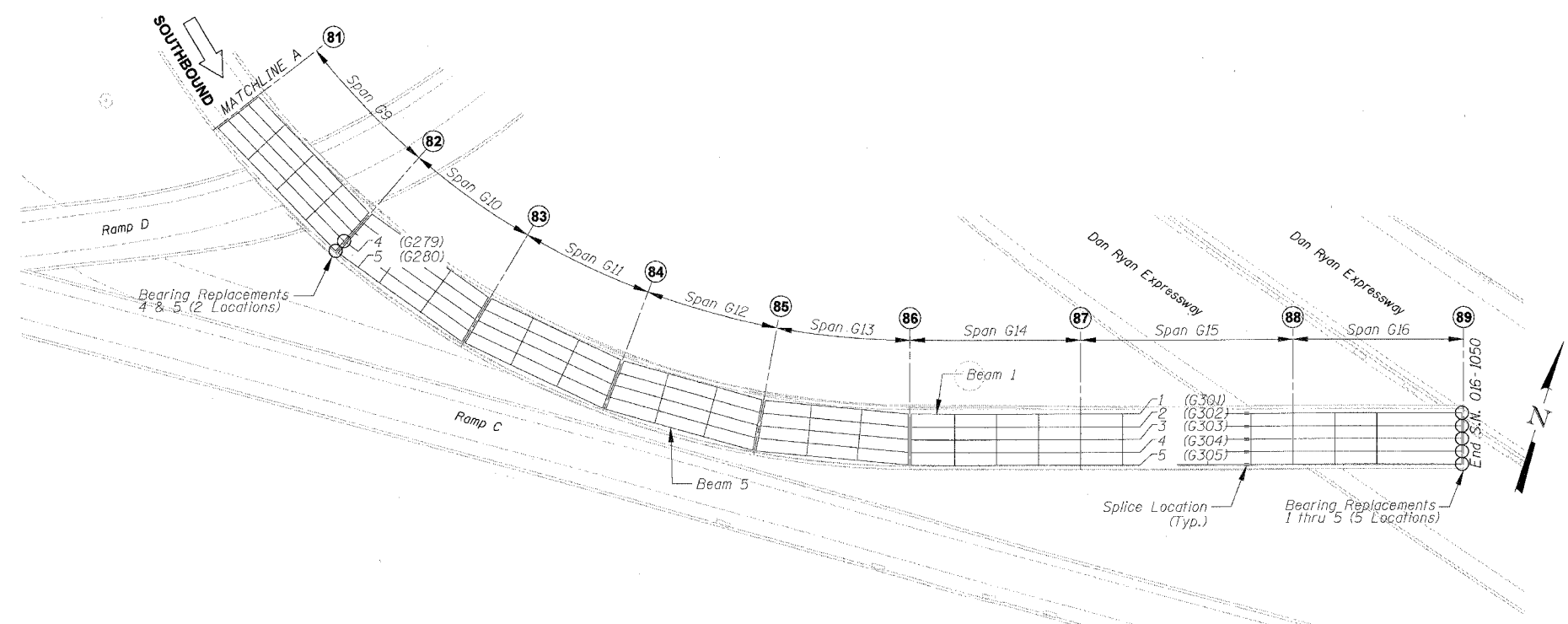
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	31
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
60B07				



S.N. 016-1050 PARTIAL FRAMING PLAN



S.N. 016-1050 PARTIAL FRAMING PLAN

ELEMENT IDENTIFICATION

Elements on the Ramp Structures are identified 1, 2, 3 etc. from left to right looking on the direction of ramp traffic.

- ⑦④ = Pier No.
- = Location of Brg. Replacement
- ⬡ = Location of Structural Steel Repair

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 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 PARTIAL FRAMING PLAN
 S.N. 016-1050

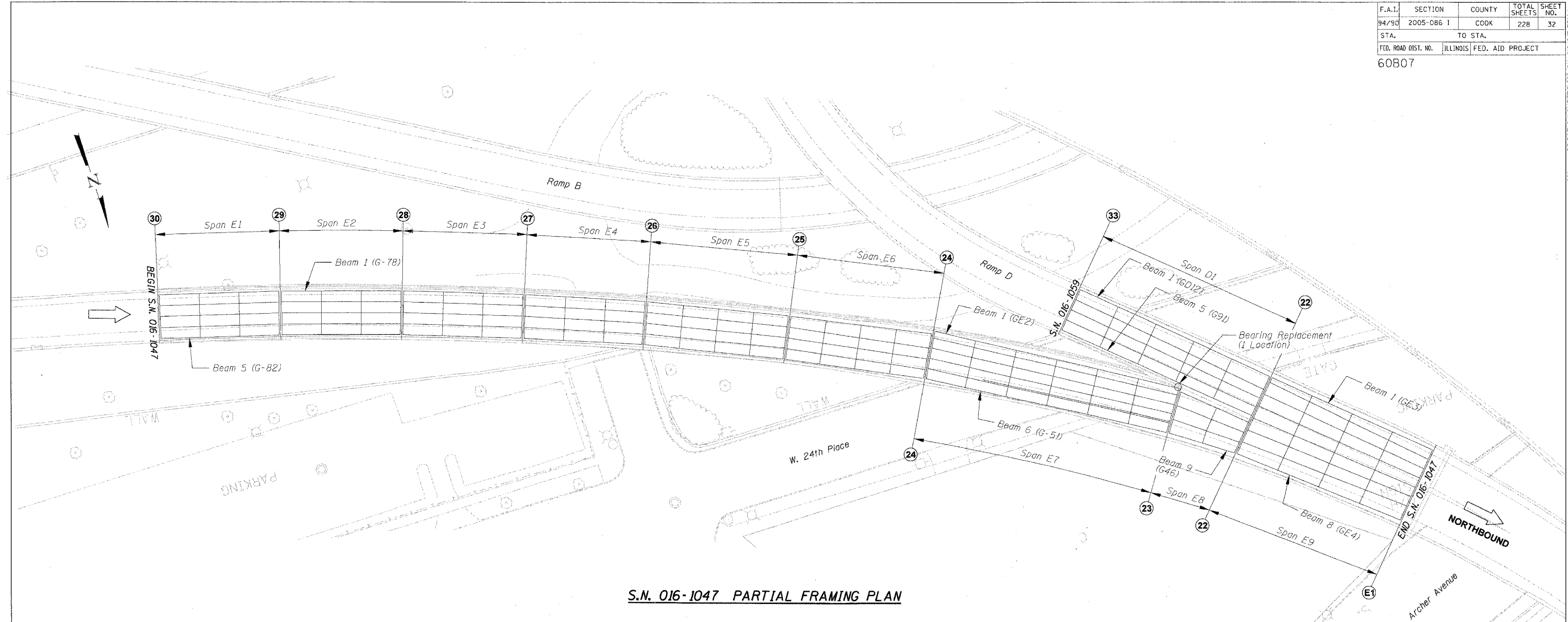
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 CHECKED BY: BLU

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 1	COOK	228	32
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B07



S.N. 016-1047 PARTIAL FRAMING PLAN

ELEMENT IDENTIFICATION

Elements on the Ramp Structures are identified 1, 2, 3 etc. from left to right looking on the direction of ramp traffic.

Numbers within () refer to as-built beam designations.

- 30 = Pier No.
- = Location of Bearing Replacement

REVISIONS	
NAME	DATE

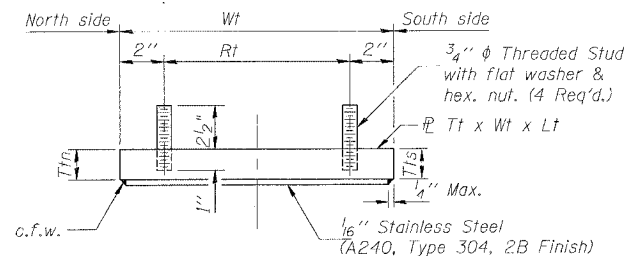
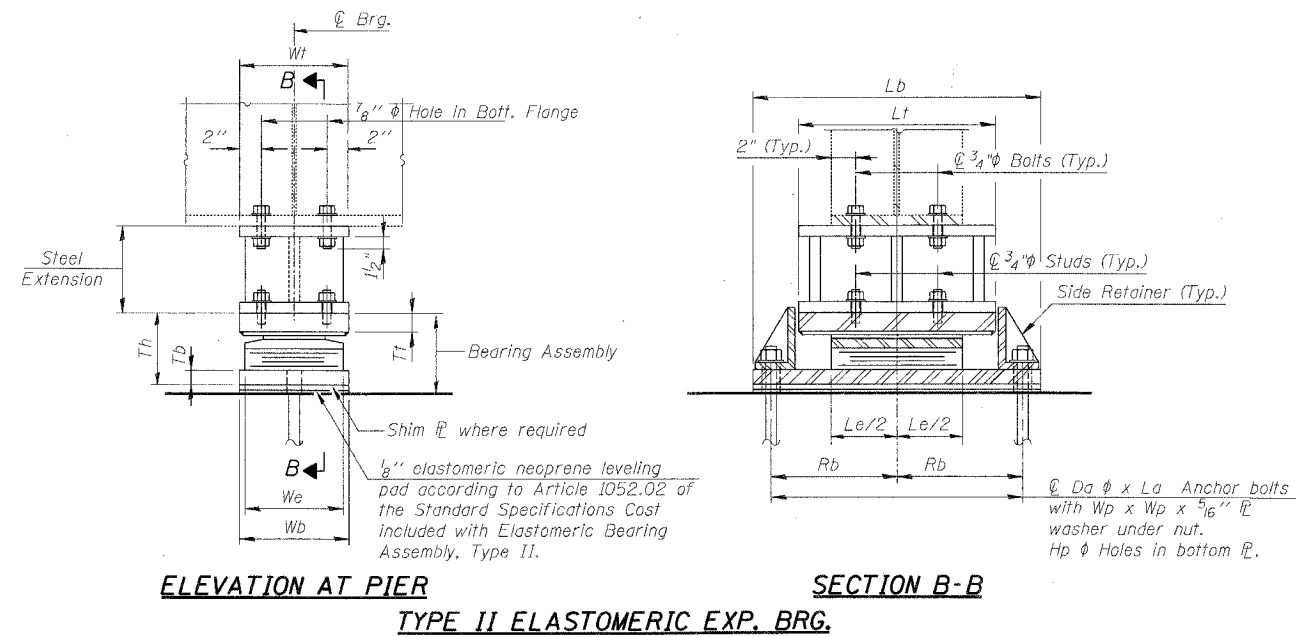
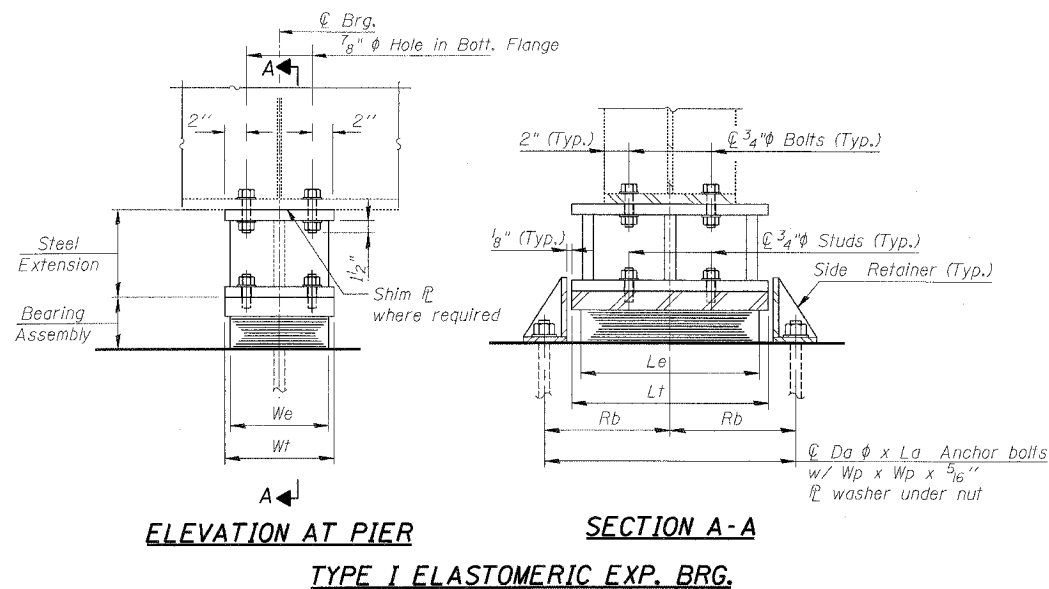
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 PARTIAL FRAMING PLAN
 S.N. 016-1047
 SCALE: NTS
 DATE: 3/7/2008
 DRAWN BY: MTR
 CHECKED BY: BLU

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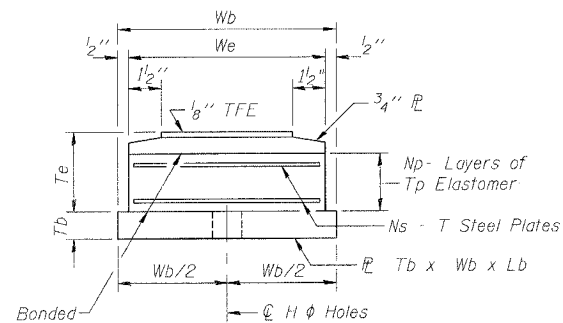
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

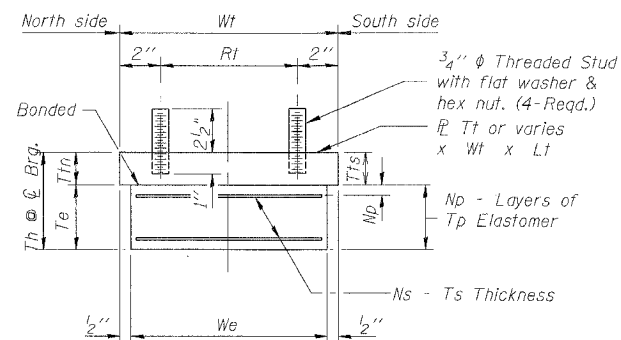
60B07



TOP BEARING ASSEMBLY FOR TYPE II BEARINGS



BOTTOM BEARING ASSEMBLY



BEARING ASSEMBLY

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

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 for Type I bearings.

Anchor bolts for Type II bearings shall be placed in holes drilled through 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.

Field drills in bottom flanges, side retainers and other steel members (except steel extensions) required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I or Type II.

The $\frac{1}{8}$ " TFE 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 $\frac{1}{8}$ " TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

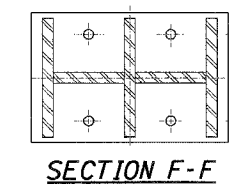
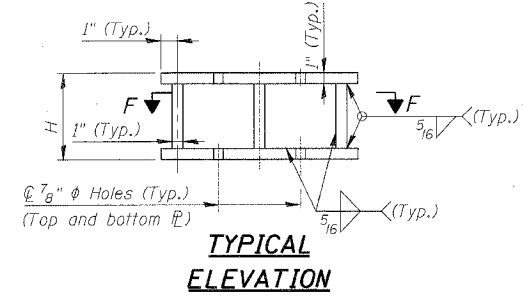
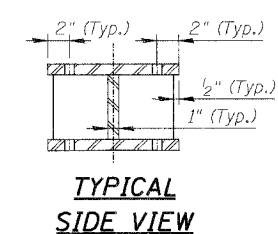
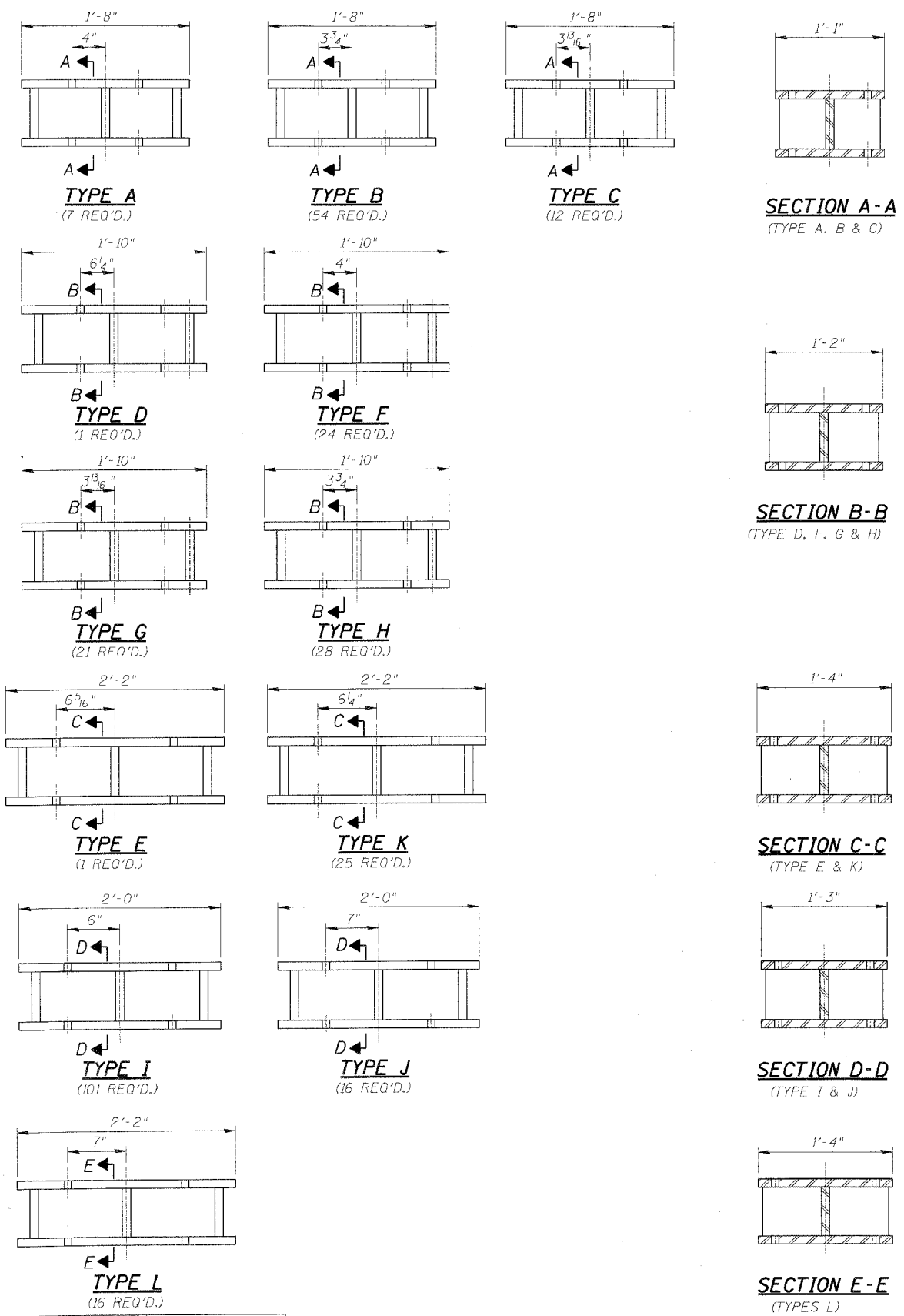
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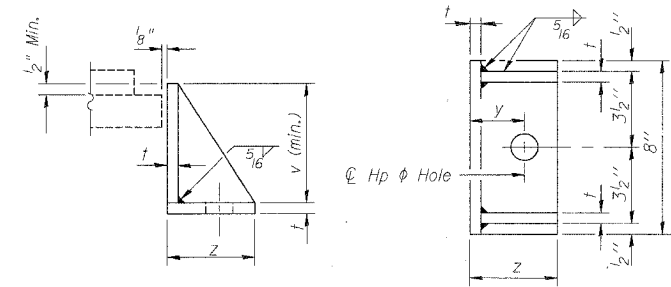
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR ELASTOMERIC BEARING DETAILS
NAME	DATE	
		SCALE: NTS DATE: 3/7/2008 DRAWN BY: MTR CHECKED BY: BLU

B-60332 AM
3/21/2008

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
60B07				

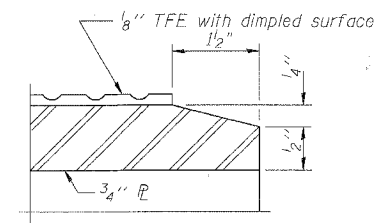
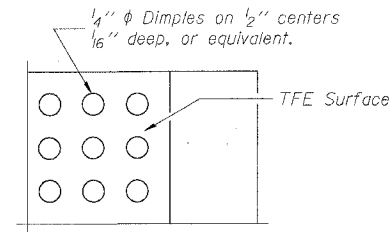


FABRICATED STEEL EXTENSION DETAILS



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.

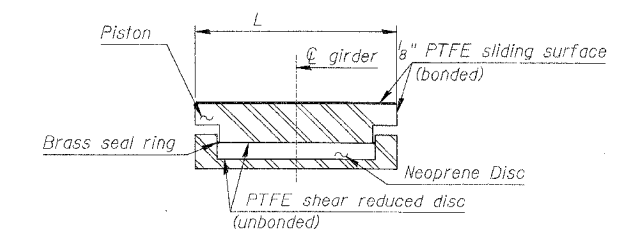
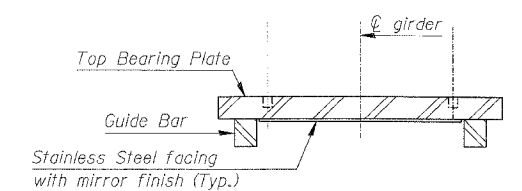
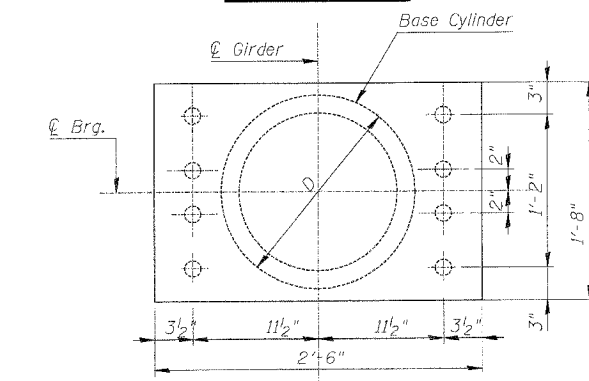
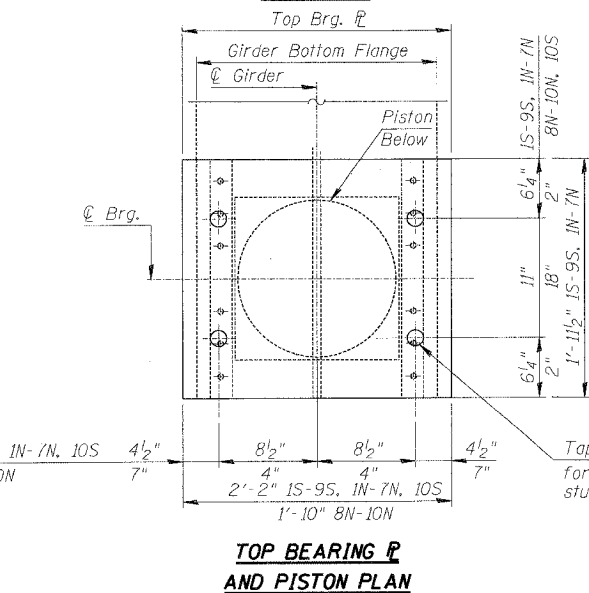
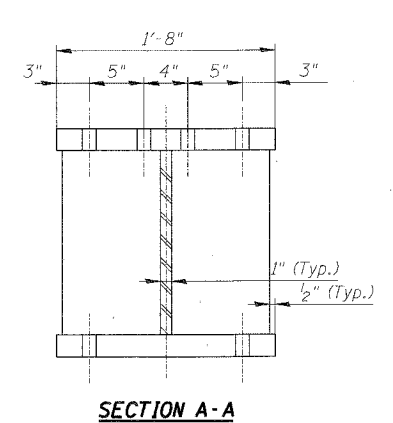
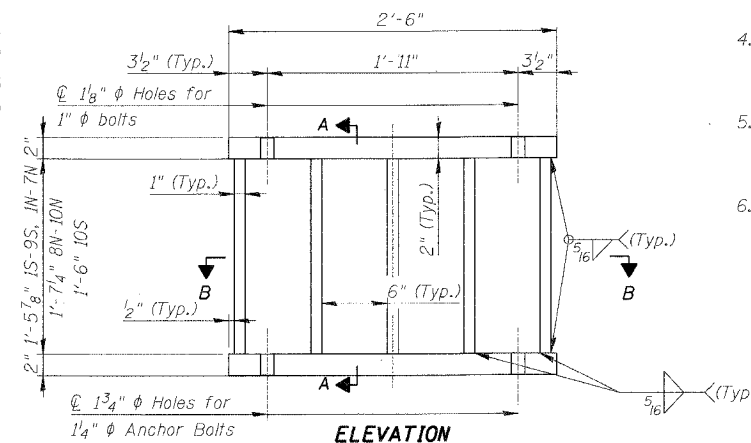
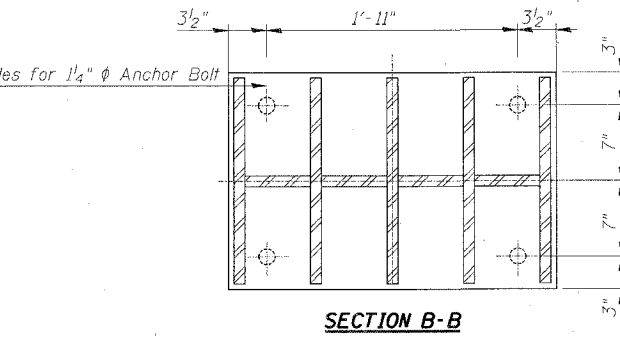
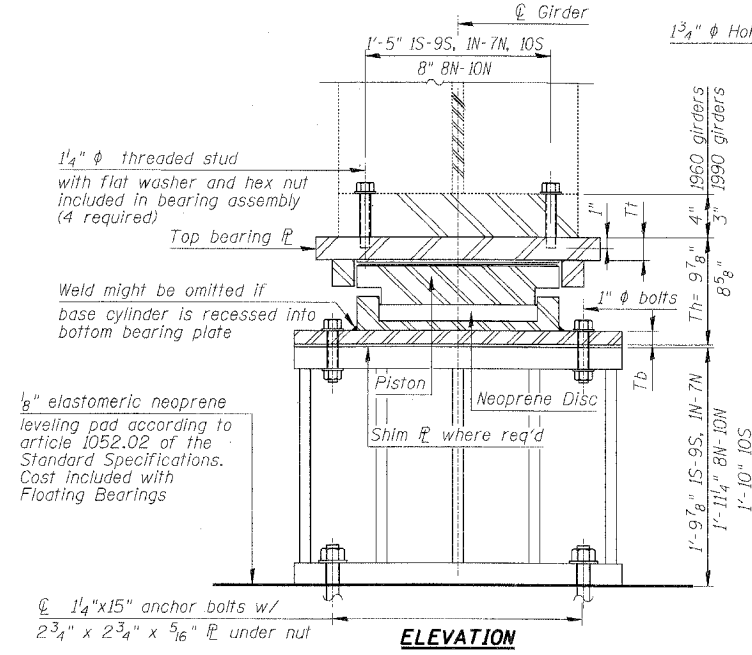
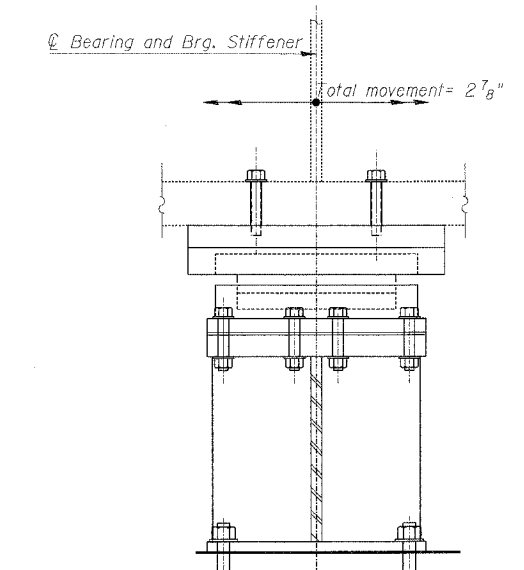


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REVISIONS	DATE
NAME	

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
STEEL EXTENSION DETAILS
SCALE: NTS
DATE: 3/7/2008
DRAWN BY: MTR
CHECKED BY: BLU

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- Notes:
- The 1/8" TFE sheet shall be bonded directly to the piston with a two component medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MM-A-134, Type 1. The bond agent shall be applied to the full area of the contact surfaces.
 - Total Bearing Heights (Th) are based on values taken from a specific manufacturer's design tables. Actual bearing heights may differ from contract plans. Contractor to verify bearing heights and adjust steel extension height if required.
 - The Vertical Design Load in table is the actual controlling vertical service load.
 - HLMR Bearings dimensions and details are based on a specific manufacturer's design tables. Contractor shall make necessary modifications based on the actual bearings provided.
 - As alternates to the bolted connection shown, the guide bars may be connected to the top bearing plate by groove welds or the guide bar and top bearing may be fabricated as a single piece.
 - Bearing manufacturer shall coordinate with steel extension manufacturer in order to provide required height from top of pier to bottom of beam flange.

BILL OF MATERIAL

Item	Unit	Quantity
HLMR Bearing, Guided Exp., 550 Kips	Each	17
HLMR Bearing, Guided Exp., 400 Kips	Each	3
Furnishing and Erecting Structural Steel	Lbs.	24,530

HLMR BEARING SCHEDULE (S.N. 016-1116)

Beam No.	Vertical Design Load, k	Lateral Design Load, k	Total Req'd Movement (in.)	Total Req'd Rotation (rad)	Tt	Tb	Th	L	D
IS-10S, IN-7N	550	110	2 7/8	0.0002	2 3/4	2	9 7/8	18 1/2	17 3/4
8N-10N	400	80	2 7/8	0.0002	2	2	8 5/8	15	15

Dimensions are in inches. Beam numbers reference as-built drawings, see Framing Plans for cross reference.

**FABRICATED STEEL EXTENSION DETAIL
S.N. 016-1116
TOTAL OF 20 REQ'D.**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
HLMR BEARING DETAILS
SCALE: NTS
DATE: 3/7/2008
DRAWN BY: MTR
CHECKED BY: BLU

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**HLMR BEARING DETAIL
20 REQ'D (SEE SCHEDULE THIS SHEET)**

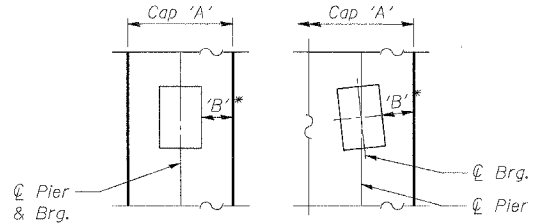
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JACKING CLEARANCE SCHEDULE

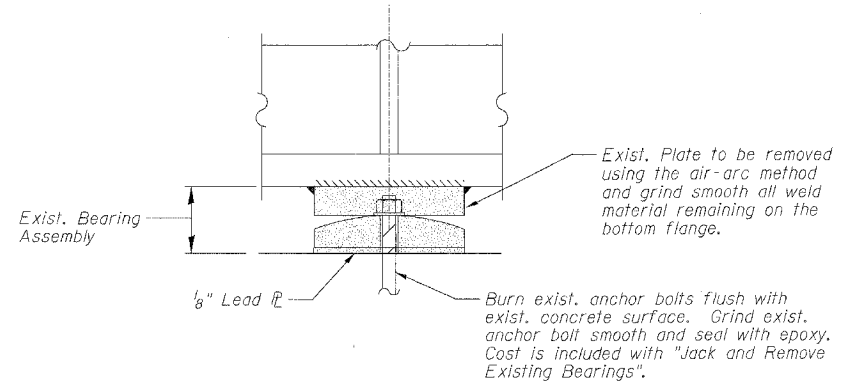
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94/90	2005-086 1	COOK	228	38
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
60B07				

Bearing Location	Pier	Girder	'A'	'B' (inches)
016-0137	8	11S (1)	3'-6"	14.79
		10S (2)		15.75
		9S (3)		15.75
		8S (4)		15.75
		2S-7S & 1N-5N (5-10 & 12-16)		15.75
		1S (11)		14.75
		6N (17)		15.75
		7N (18)		14.75
		8N (19)		14.75
		9N (20)		14.76
	10N (21)	14.76		
	11N (22)	14.76		
	10	3'-6"	11S (1)	14.75
			10S (2)	15.75
			9S (3)	15.75
			8S (4)	15.75
			6S-2S & 1N-6N (6-10 & 12-17)	15.75
			1S (11)	14.75
			7N (18)	15.75
			8N (19)	15.75
9N (20)			15.76	
10N (21)			15.76	
12	3'-6"	11N (22)	14.76	
		10S (23)	14.75	
		9S (24)	15.75	
		8S (25)	15.75	
		7S (26)	15.75	
		6S (27)	15.75	
		5S-2S & 1N-5N (28-31 & 33-37)	15.75	
		1S (32)	14.75	
		6N (38)	15.75	
		7N (39)	14.75	
14	3'-6"	8N (40)	14.75	
		9N (41)	14.75	
		10N (42)	14.75	
		10S (23)	14.75	
		9S (24)	15.75	
		8S (25)	15.75	
		7S (26)	15.75	
		6S (27)	15.75	
		5S-2S & 1N-5N (28-31 & 33-37)	15.75	
		1S (32)	14.75	
16	3'-6"	6N (38)	15.75	
		7N (39)	15.75	
		8N (40)	15.75	
		9N (41)	15.75	
		10N (42)	14.75	
		10S (43)	14.75	
		9S (24)	15.75	
		6S-2S (44-46)	15.75	
		1S (52)	14.75	
		1N-6N (53-58)	14.75	
20	2'-6"	7N-9N (59-61)	14.75	
		10N (62)	14.25	
		11S (63)	8.76	
		10S (64)	9.76	
		9S (65)	9.75	
		8S (66)	9.75	
		7S (67)	9.75	
		6S (68)	9.75	
		5S-2S (69-72)	9.75	
		1S (73)	8.75	
016-1117	3'-6"	1N-5N (74-78)	9.75	
		6N (79)	9.75	
		7N (80)	9.75	
		8N (81)	9.75	
		9N (82)	9.75	
		10N (83)	9.76	
		11N (84)	9.75	
		11S (63)	8.78	
016-1118	2'-6"	10S (64)	8.76	
		9S (65)	8.75	
		8S (66)	8.75	
		7S (67)	8.75	
		6S (68)	9.75	
		5S-2S (69-72)	9.75	
		1S (73)	8.75	
		1N-5N (74-78)	9.75	
016-1119	3'-0"	6N (79)	9.75	
		7N (80)	8.75	
		8N (81)	8.75	
		9N (82)	8.76	
		10N (83)	8.76	
		11N (84)	8.84	
		8S-1S & 1N-8N (13-28)	9.25	
		13S (42)	11.30	
016-1120	3'-0"	12S (43)	11.29	
		11S (44)	11.27	
		10S (45)	11.27	
		9S (46)	11.26	
		8S (47)	11.25	
		7S (48)	11.25	
		6S-2S (49-53)	11.25	
		1S (54)	11.25	
		1N-6N (55-60)	11.25	
		7N (61)	11.25	
		8N (62)	11.25	
		9N (63)	11.25	
016-1121	3'-6"	10N (64)	11.25	
		11N (65)	11.26	
		12N (66)	11.26	
		13N (67)	11.26	
		8S (81)	15.25	
		7S-1S & 1N-5N (7L-1L & 1R-5R)	15.25	
		6N (6R)	15.25	
		7N (7R)	15.26	
016-1122	3'-6"	8N (8R)	15.27	
		8S-1S & 1N-8N (8L-1L & 1R-8R)	15.25	
		8S-1S & 1N-8N (8L-1L & 1R-8R)	15.25	
		8S-1S & 1N-8N (8L-1L & 1R-8R)	15.25	
016-1123	3'-6"	8S-1S & 1N-8N (8L-1L & 1R-8R)	15.25	
		8S-1S & 1N-8N (8L-1L & 1R-8R)	15.25	
		8S-1S & 1N-8N (8L-1L & 1R-8R)	15.25	
		8S-1S & 1N-8N (8L-1L & 1R-8R)	15.25	
016-1124	4'-0"	A14 6S-2S (1A-5A)	18.25	
		A17 6S-2S (1A-5A)	18.25	
		A23 6S-2S (1A-5A)	24.20	
		A25 7S-3S (1A-5A)	24.20	
016-1070	5'-0"	A1 13N (26), NB Facial	7.28	
		E2 10N (2), Span E1	28.54	
016-1115	4'-9"	1 10S-1S & 1N-10N (GS1, 1-16, GN2-GN4)	20.92	
		80N 4S-5S (269-270), Span G7	10.33	
016-1050 (Ramp G)	4'-1"	82N 4S-5S (279-280), Span G9	10.33	
		89 1S-5S (301-305), Span G16	12.75	
016-1047	E23 1 (47), Span E7	4'-4"	10.26	

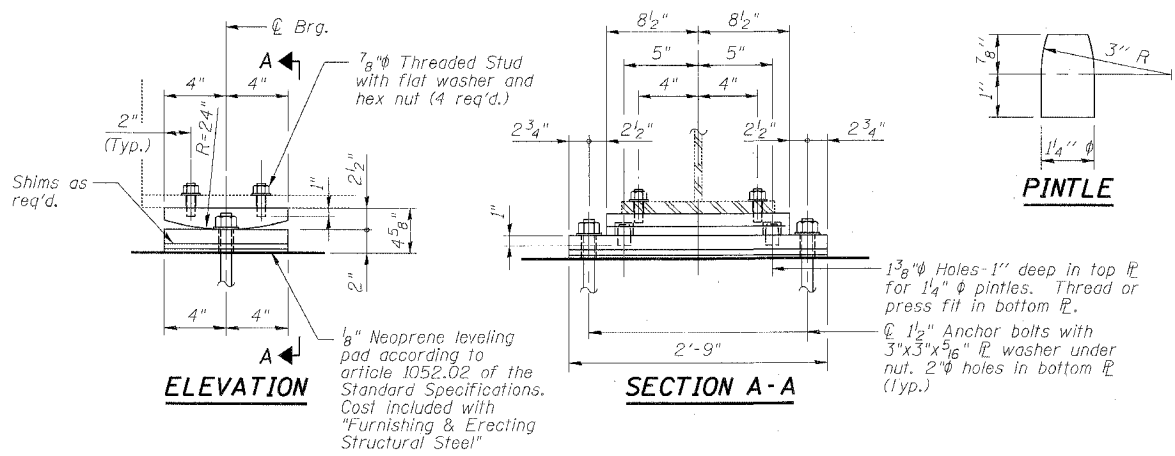
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JACKING CLEARANCE PLAN VIEW

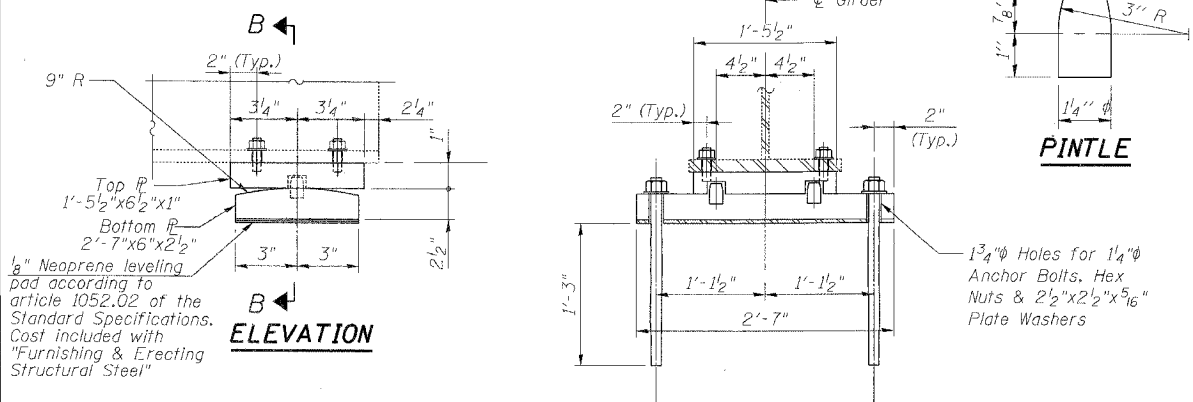


EXISTING BEARING REMOVAL DETAIL



FIXED BEARING REPLACEMENT DETAIL

(S.N. 016-1047, Pier 23, Span E-7, Beam 1)



FIXED BEARING REPLACEMENT DETAIL

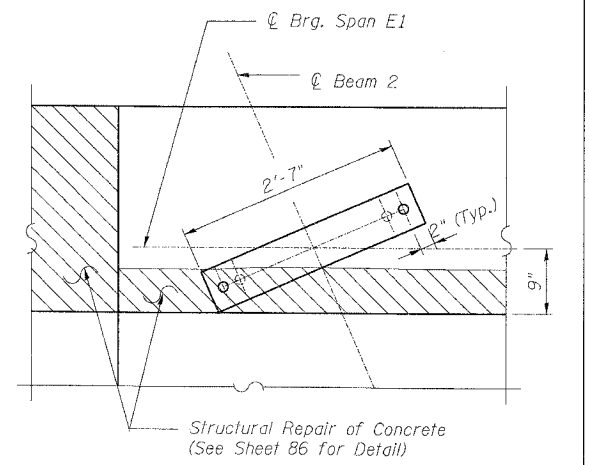
(S.N. 016-1115, Pier E2, Span E1, Beam 2)

LEGEND

Jack and Remove Existing Bearing

Notes:

Furnishing and erecting of Fixed Bearings shall be included with "Furnishing and Erecting Structural Steel." Field drills in bottom flanges, side retainers and other steel members (except steel extensions) required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I or Type II.



PLAN

(S.N. 016-1115, Pier E2, Span E1, Beam 2)

REVISIONS	DATE
NAME	

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 FIXED BEARING REPLACEMENT
 & JACKING CLEARANCES

SCALE: NTS
 DATE: 3/7/2008

DRAWN BY: LAM
 CHECKED BY: BLU

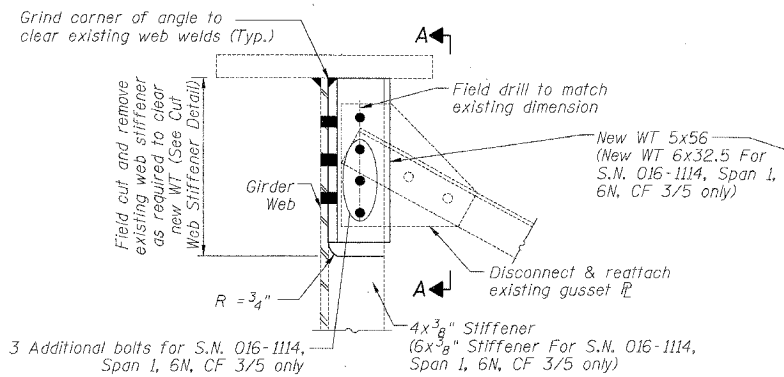
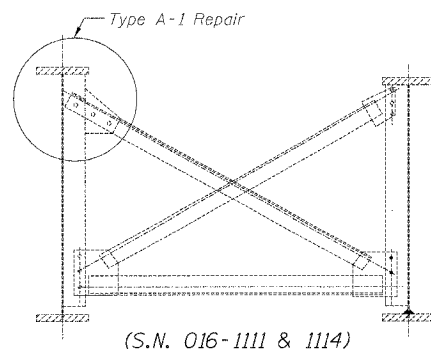
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8-1042 AM 3/21/2008

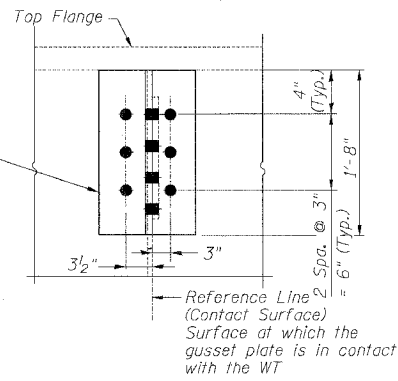
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

60B07

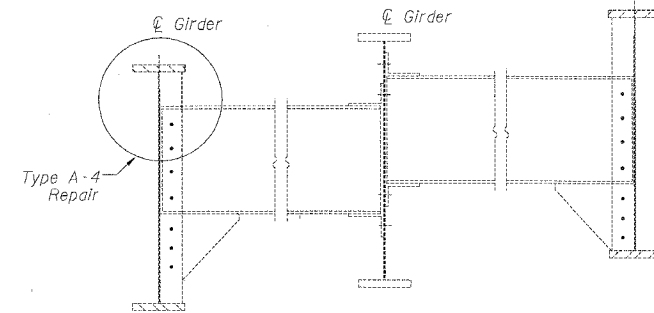
⊕ Girder



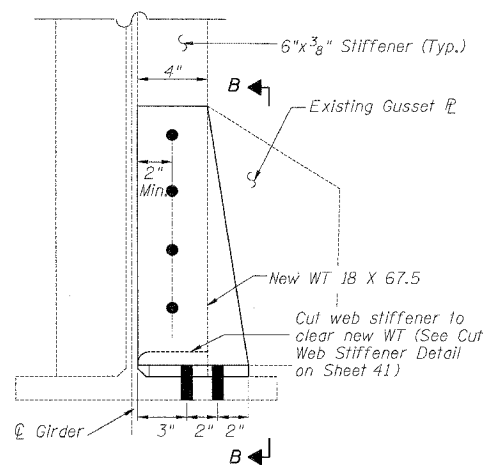
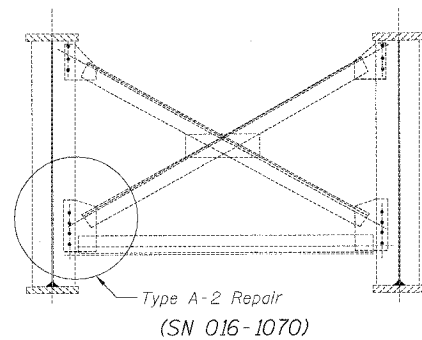
PARTIAL ELEVATION TYPE A-1



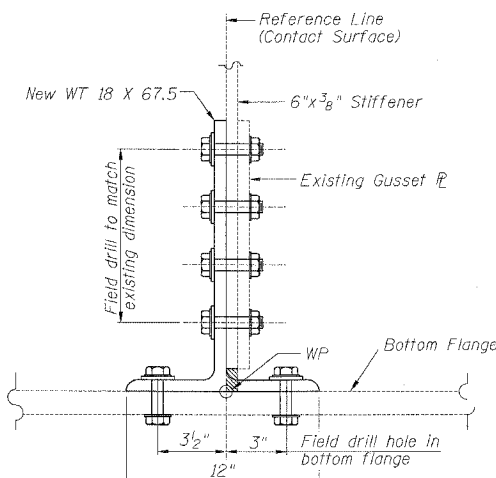
VIEW A-A



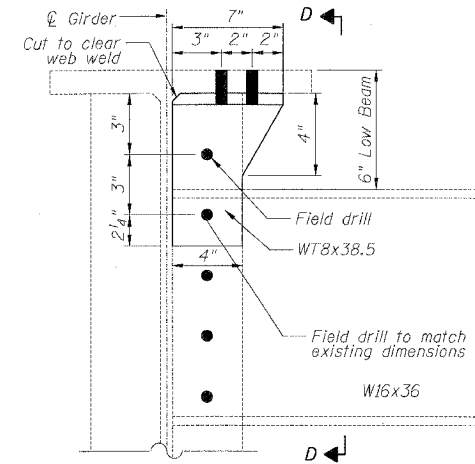
EXISTING TYPICAL INTERIOR DIAPHRAGM SN 016-1118, SN 016-1067 & SN 016-1117 (Span 18A)



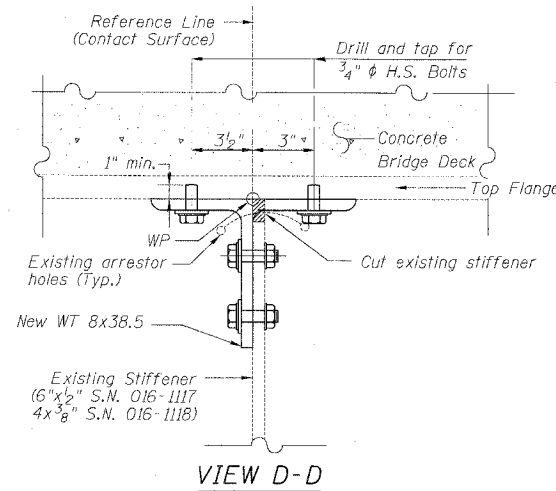
PARTIAL ELEVATION TYPE A-2



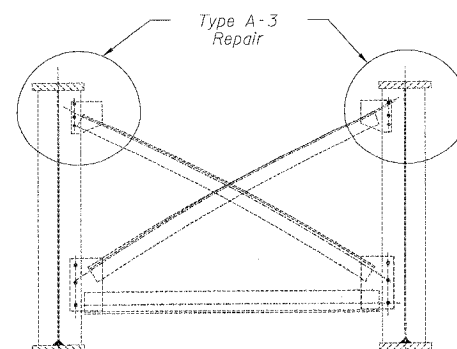
VIEW B-B



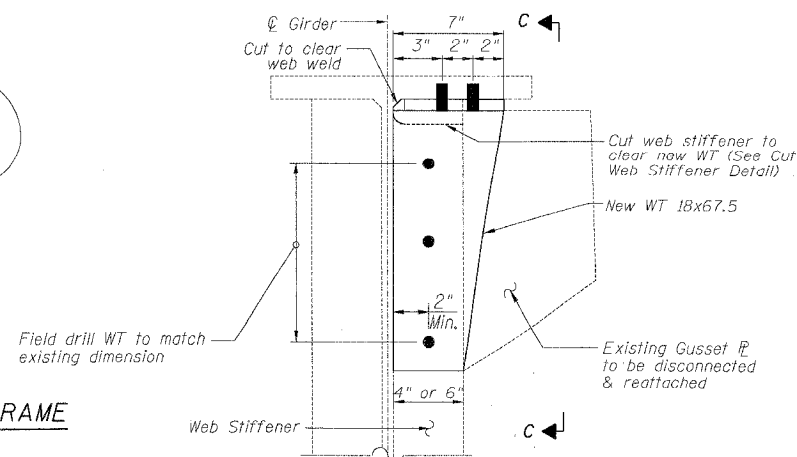
PARTIAL ELEVATION TYPE A-4



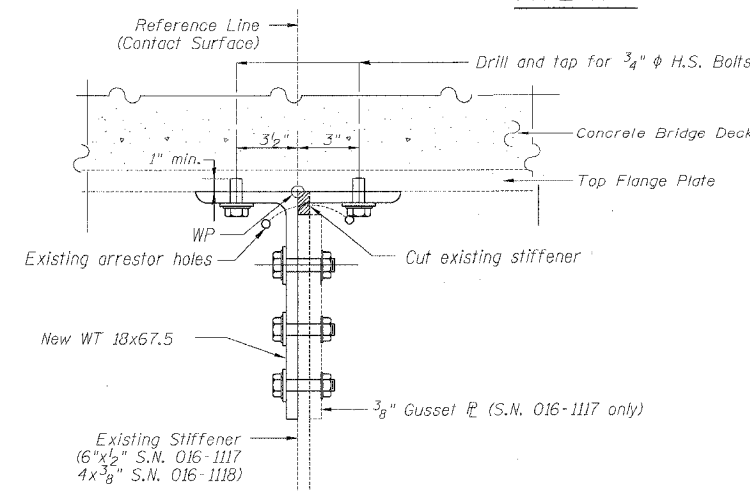
VIEW D-D



EXISTING TYPICAL INTERIOR CROSS FRAME (SN 016-1117) (Spans 21-23 Beams)



PARTIAL ELEVATION TYPE A-3



VIEW C-C

BILL OF MATERIAL

Item	Unit	Quantity
Structural Steel Repair	Pound	1,840

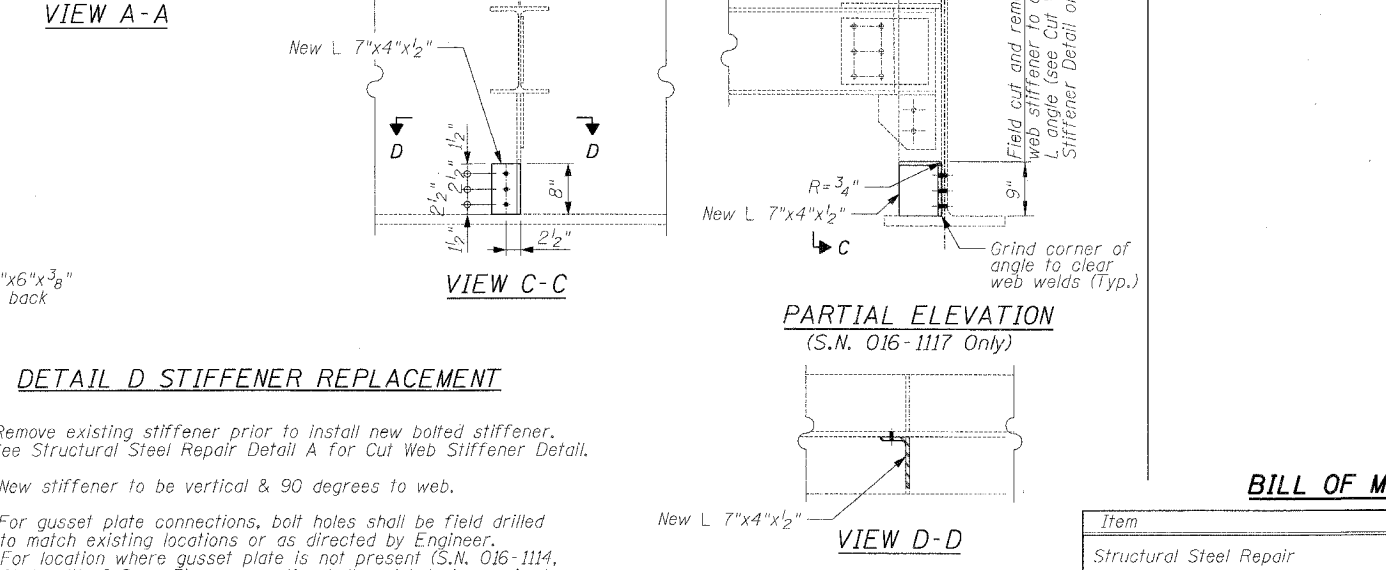
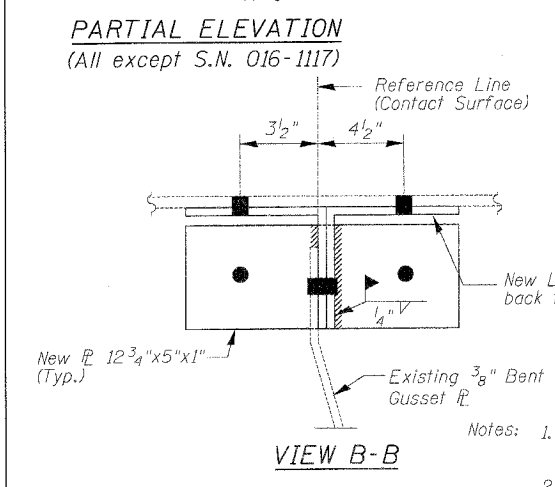
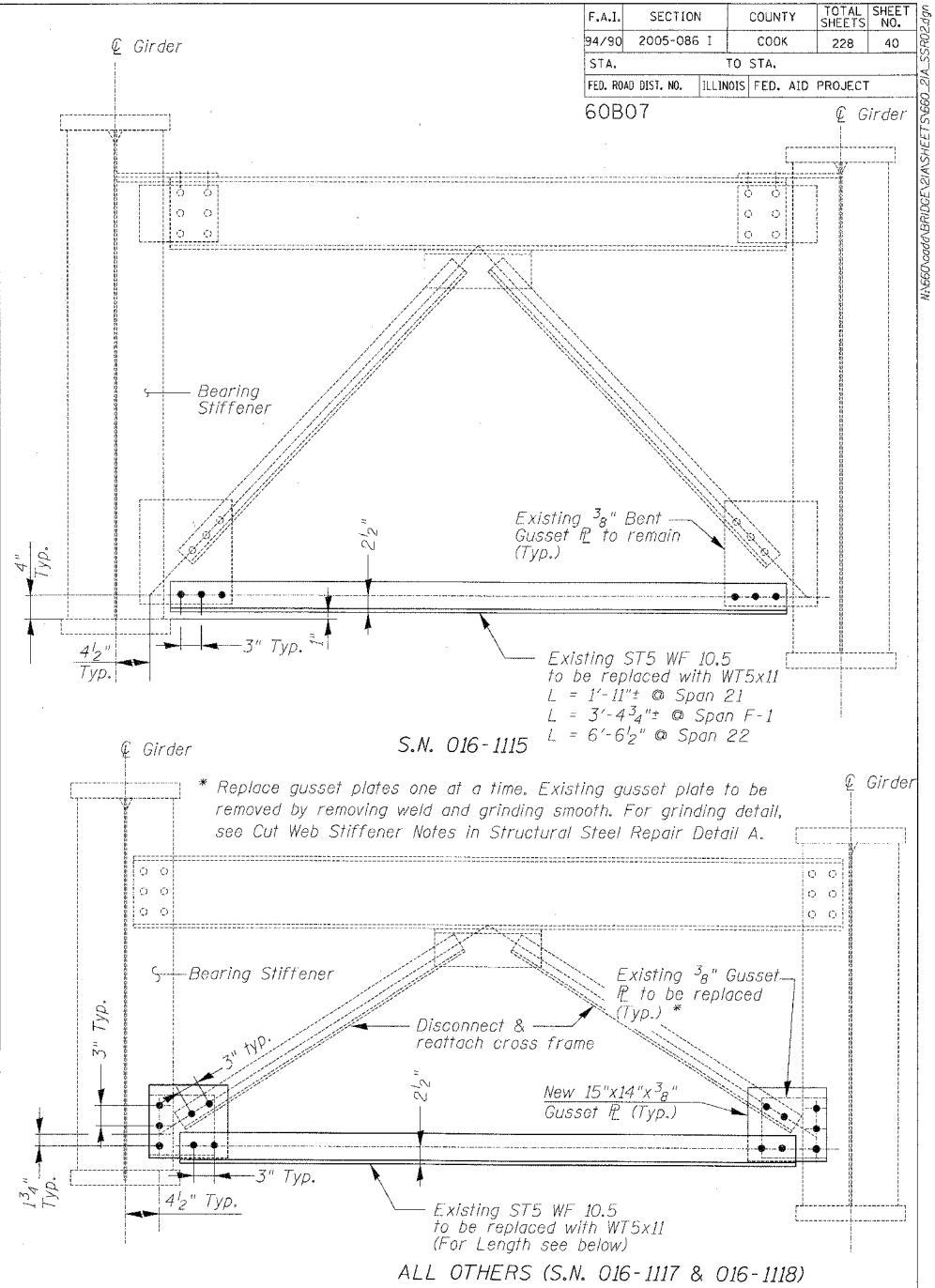
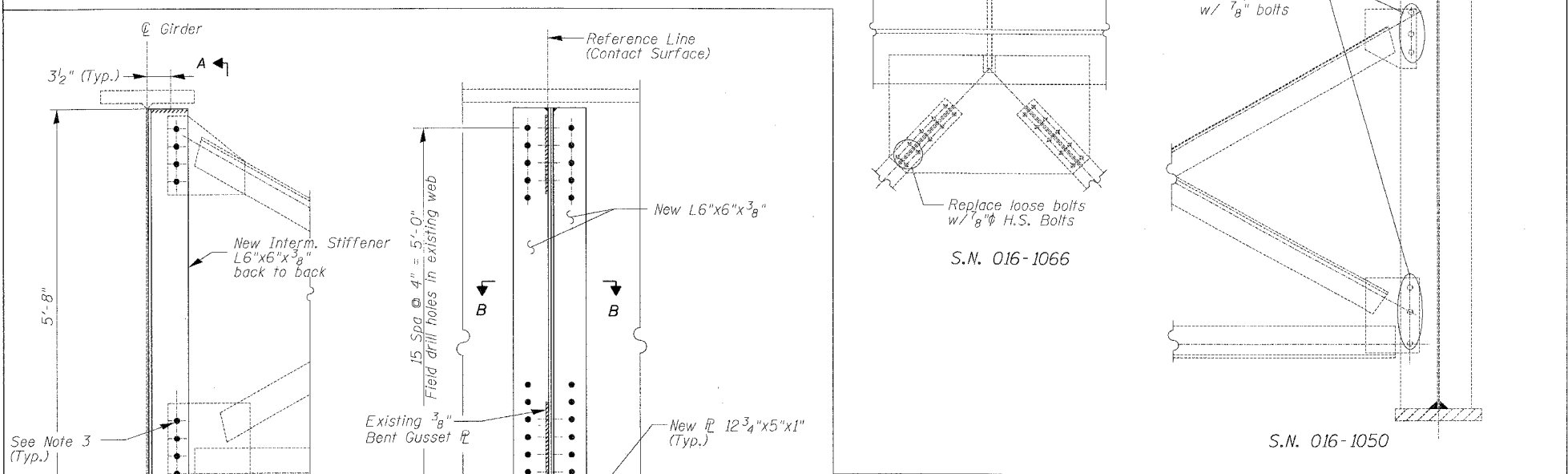
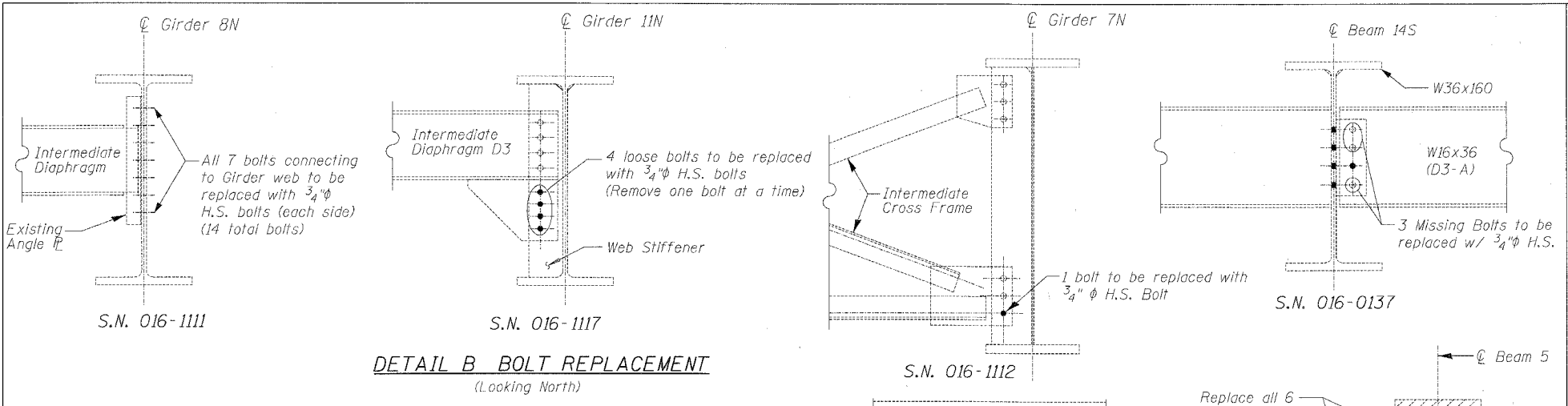
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 STEEL REPAIRS DETAIL A
 SCALE: NTS
 DATE: 3/1/2008
 DRAWN BY: MTR
 CHECKED BY: BLU

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 Chicago, Illinois
 312.228.0100
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DETAIL A FATIGUE RETROFIT REPAIR

8-40-44 AM 3/21/2008



- Notes:
1. Remove existing stiffener prior to install new bolted stiffener. See Structural Steel Repair Detail A For Cut Web Stiffener Detail.
 2. New stiffener to be vertical & 90 degrees to web.
 3. For gusset plate connections, bolt holes shall be field drilled to match existing locations or as directed by Engineer. For location where gusset plate is not present (S.N. 016-1114, Girder 11N of Span 3), no connection bolt and hole is required.

BILL OF MATERIAL

Item	Unit	Quantity
Structural Steel Repair	Pound	1,970

REVISIONS	
NAME	DATE

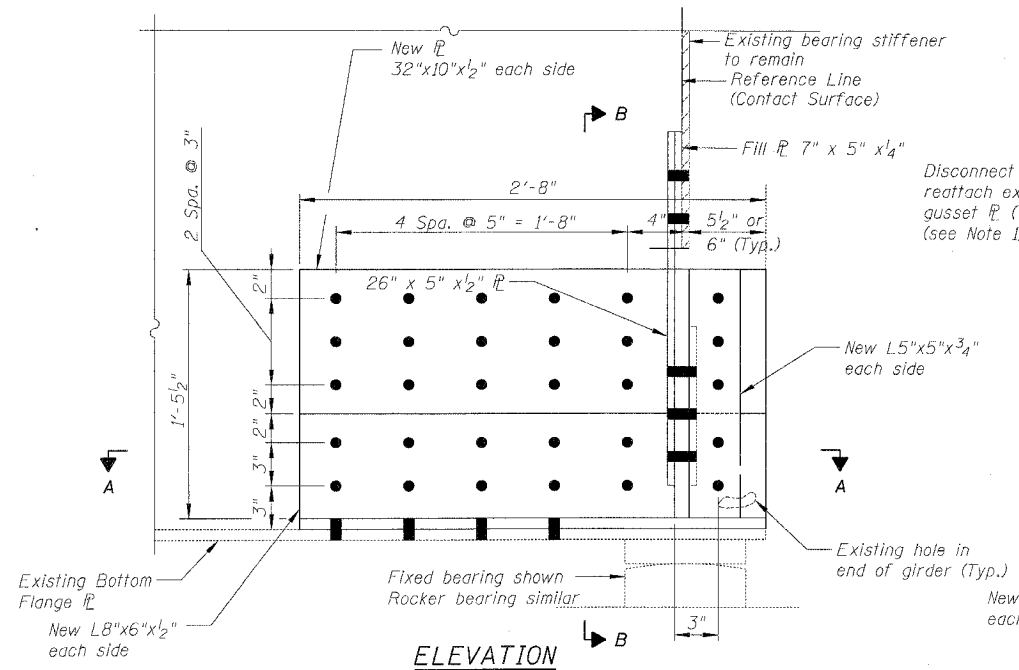
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
STEEL REPAIRS - DETAIL B, D & F

SCALE: NTS
DATE: 3/1/2008

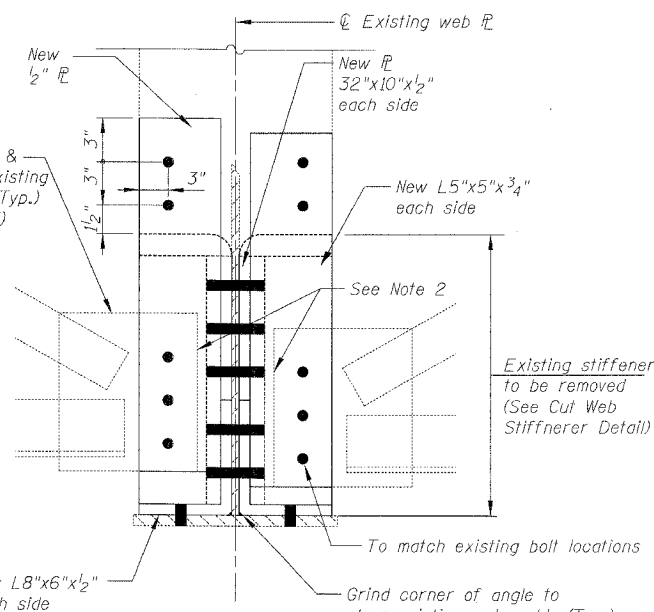
DRAWN BY: MTR
CHECKED BY: BLU

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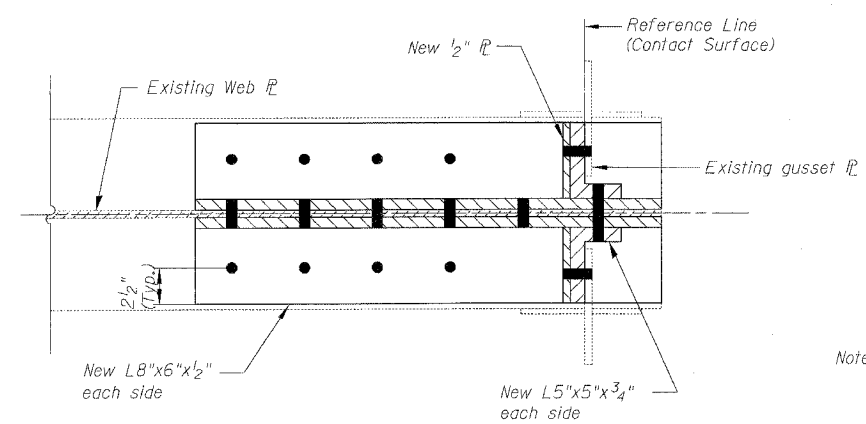
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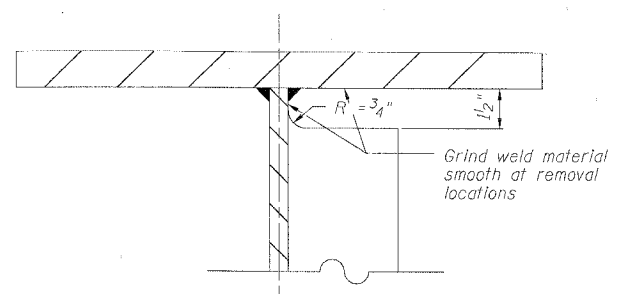
ELEVATION



SECTION B-B



SECTION A-A



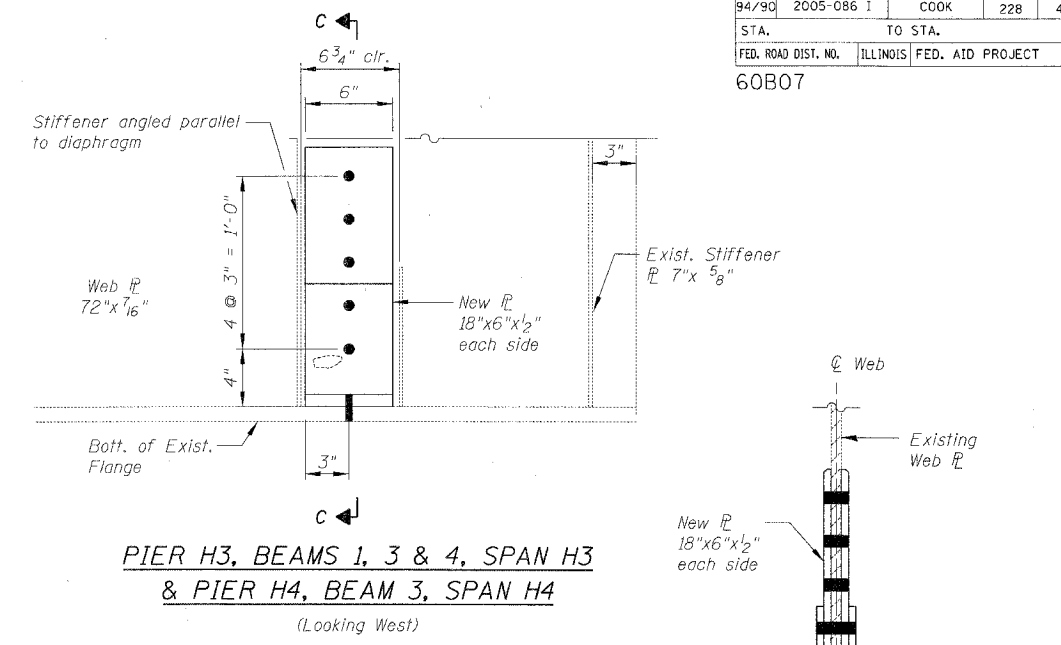
CUT WEB STIFFENER DETAIL

- Note: 1. Field cut web stiffener using saw, drill and / or grinding. Flame cutting will not be permitted within 2" of girder web or flange. Grind surfaces after cutting to a surface roughness of (Ra) 250u in. or less.
2. Contractor shall fabricate retrofit hardware providing holes subpunched for attachment to girder flange. Holes shall be reamed full size for attachment to the flange and drilled for attachment in the field.

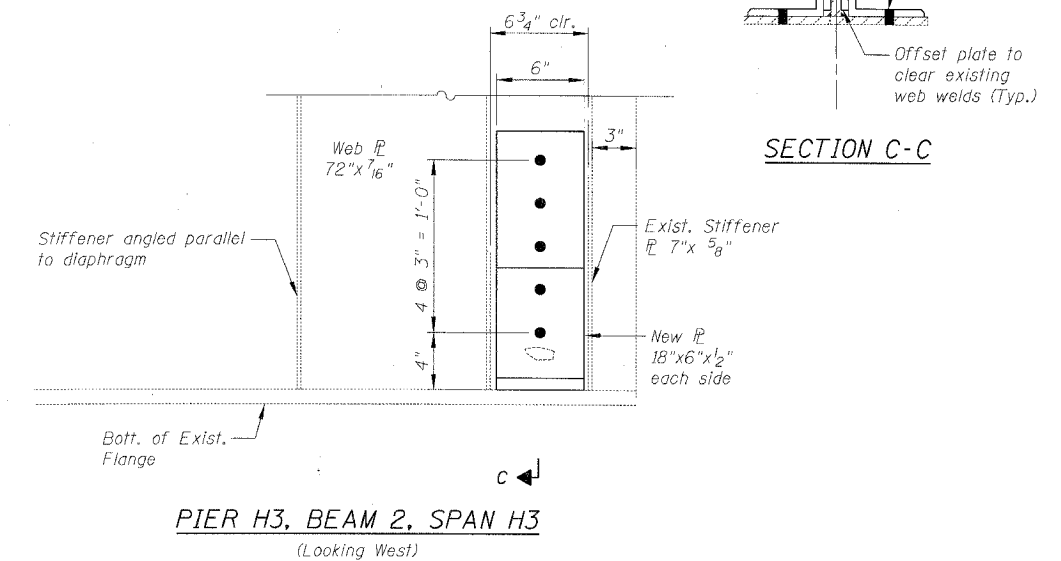
TYPE C-1
(SN 016-1113, Piers D9 & C6)

- Notes:
1. All new bolts for this Detail C (Types C-1 & C-3) repair work shall be 7/8" ϕ H.S. bolts.
 2. Shorten existing gusset plate to clear L leg as needed.
 3. For locations where end cross frame is present on one side only (S.N. 1115, Span 21, Pier 21, Girder 1N, 4N, 5N & BN), new gusset plate shall be replaced on that side.

DETAIL C END OF GIRDER REPAIR



PIER H3, BEAMS 1, 3 & 4, SPAN H3
& PIER H4, BEAM 3, SPAN H4
(Looking West)



PIER H3, BEAM 2, SPAN H3
(Looking West)

TYPE C-3
(SN 016-1118, Piers H3 & H4)

BILL OF MATERIAL

Item	Unit	Quantity
Structural Steel Repair	Pound	5,440

REVISIONS	
NAME	DATE

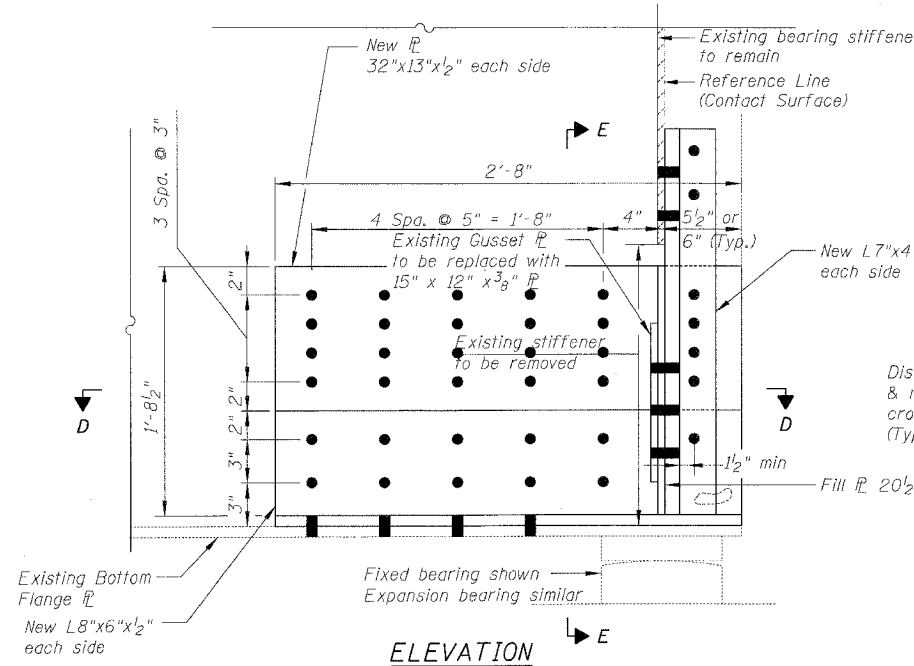
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 STEEL REPAIRS - DETAIL C (1 of 2)
 SCALE: NTS
 DATE: 3/7/2008
 DRAWN BY: MTR
 CHECKED BY: BLU

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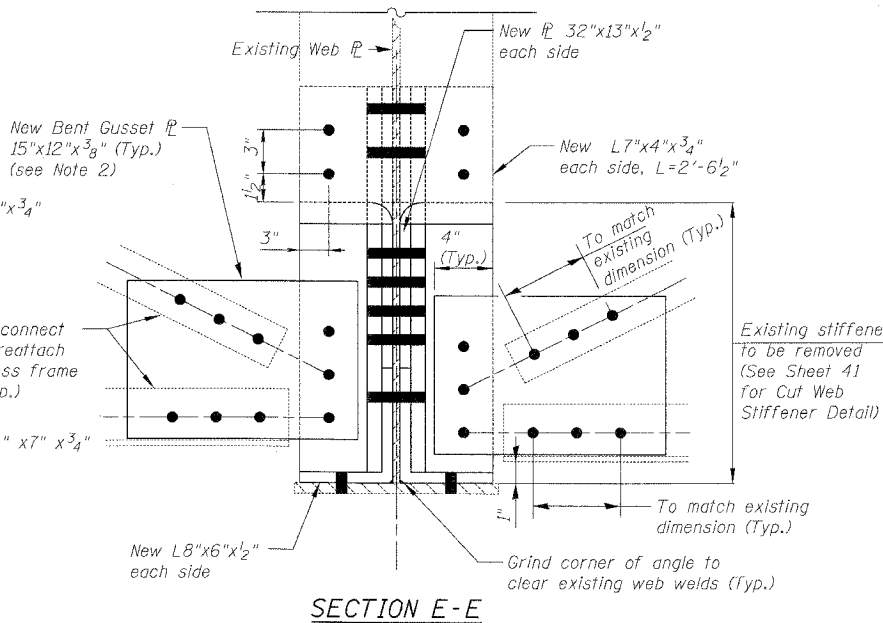
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	42
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

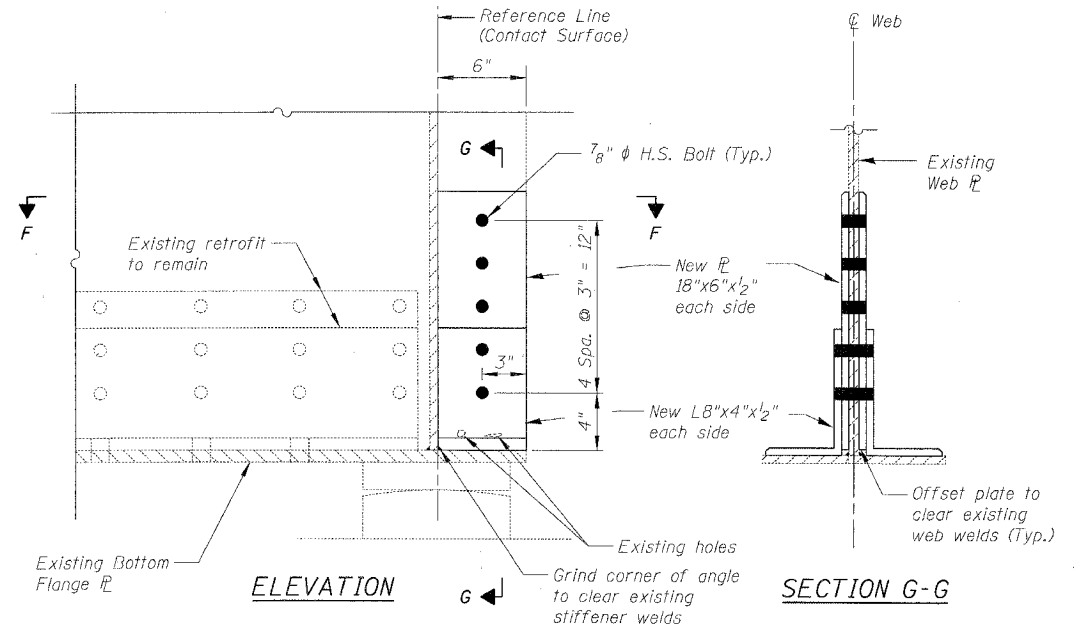
60B07



ELEVATION

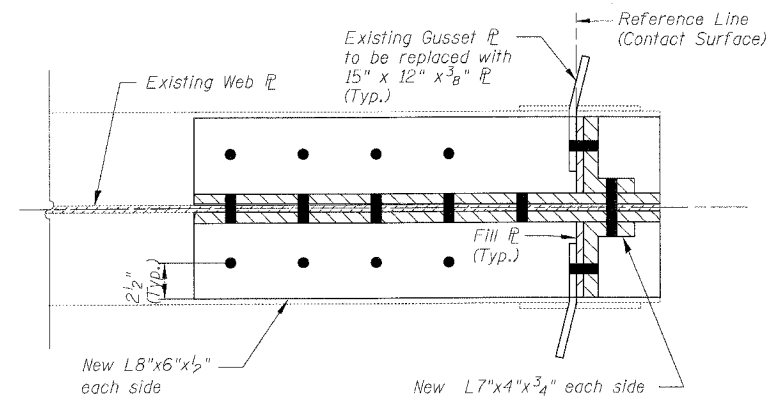


SECTION E-E

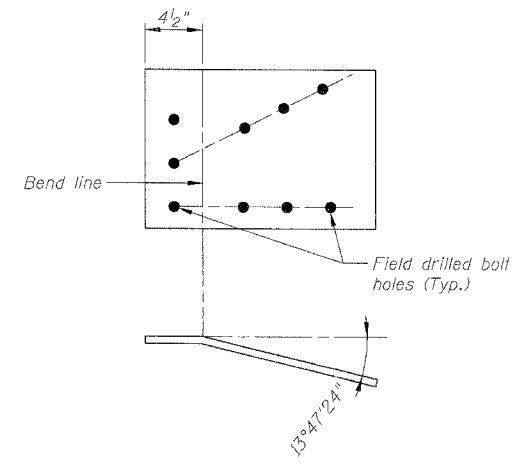


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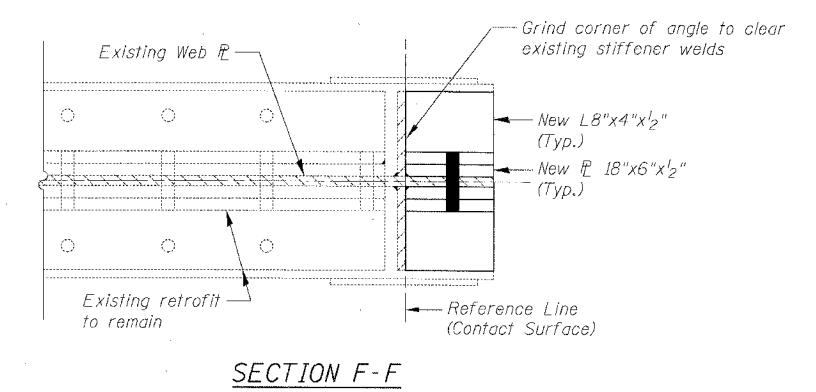
SECTION G-G



SECTION D-D



DETAIL OF BENT PLATES



SECTION F-F

TYPE C-2
(SN 016-1115, PIER 21)

TYPE C-3
(SN 016-1112 Pier 28)

- Notes:
- All new bolts for this Detail C (Types C-2 & C-3) repair work shall be 7/8" phi H.S. bolts.
 - For locations where end cross frame is present on one side only (S.N. 1115, Span 21, Pier 21, Girder 1N, 4N, 5N & 8N), new gusset plate shall be replaced on that side.

DETAIL C END OF GIRDER REPAIR

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REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR STEEL REPAIRS - DETAIL C (2 of 2) SCALE: NTS DATE: 3/7/2008	DRAWN BY: MTR CHECKED BY: BLU
NAME	DATE		

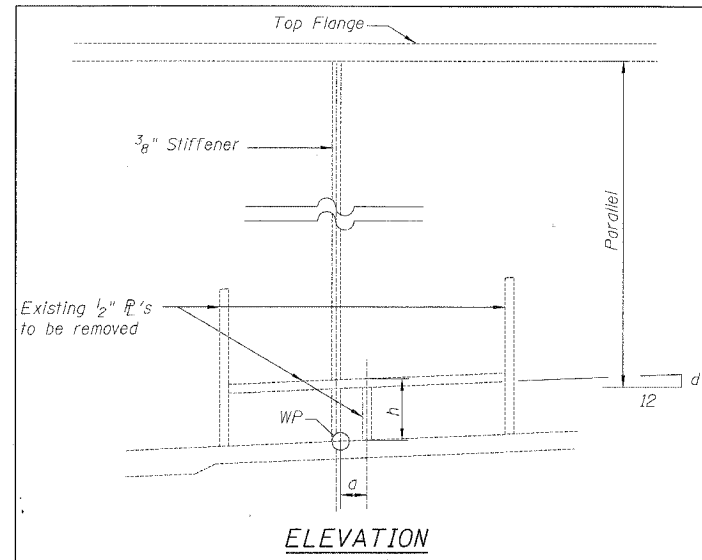
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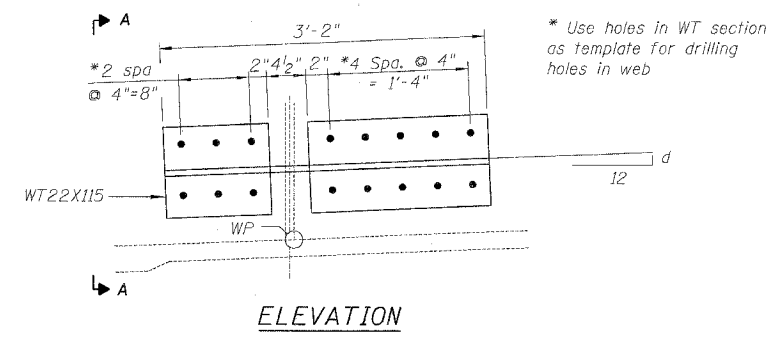
HOAN-TYPE CONNECTION DETAIL DIMENSIONS

Structure Number	Span	Girder No	a**	b	Sh	Sv	h	d		
016-1114	1	14	3"	6 7/16"	12	7	6 7/8"	5 8		
		15	-3 1/2"	6 1/2"	12	7	9 3/16"	5 8		
		16	-3 3/4"	6"	11 13/16"	12	6 3/8"	11 16		
		17	3 1/4"	6"	11 13/16"	12	10 9/16"	11 16		
		18	-3 9/16"	6"	11 13/16"	12	7 1/2"	11 16		
		19	3 1/4"	6"	11 13/16"	12	11 9/16"	5 8		
016-1070	1	20	-3 13/16"	6"	11 13/16"	12	6 3/8"	5 8		
		21	3 1/4"	6"	11 13/16"	12	10 3/16"	5 8		
		22	-2 3/16"	6"	12	10 7/8"	6 3/8"	5 8		
016-1114	3	23	3 1/6"	5 5/16"	12	10 7/8"	10 5/16"	5 8		
		14	3 1/6"	5 9/16"	12	7	6 1/2"	9 16		
		15	-3 7/16"	5 9/16"	12	7	6 3/8"	9 16		
		16	-3 4/16"	6"	11 13/16"	12	6 3/8"	1 2		
		17	3 5/16"	6"	11 13/16"	12	6 1/2"	1 2		
		18	-3 3/4"	6"	11 13/16"	12	7 1/16"	9 16		
016-1070	3	19	3 5/16"	6"	11 13/16"	12	6 5/16"	9 16		
		20	-3 1/16"	6"	11 13/16"	12	7 1/2"	1 2		
		21	3 1/4"	6"	11 13/16"	12	7 3/8"	1 2		
016-1070	3	22	-4 1/8"	6"	12	10 7/8"	6 3/8"	1 2		
		23	3 1/4"	5 5/16"	12	10 7/8"	6 1/16"	1 2		
		25	3 5/16"	6"	12	6 13/16"	6 7/16"	1 2		
016-1114	1	4	-2 1/16"	6"	12	10 7/8"	6 3/8"	5 8		
		5	3 7/16"	5 5/16"	12	8 7/8"	8 3/16"	5 8		
		6	-3 4/16"	6"	11 13/16"	12	6 3/8"	5 8		
		7	3 5/16"	6"	11 13/16"	12	9 5/8"	5 8		
		8	-3 1/16"	6"	11 13/16"	12	6 7/8"	11 16		
		9	3 5/16"	6"	11 13/16"	12	10 5/16"	11 16		
		10	-3 1/16"	6"	11 13/16"	12	7 7/8"	11 16		
		11	3 5/16"	6"	11 13/16"	12	11 3/8"	11 16		
		12	3 1/16"	6 7/16"	12	7	6 3/8"	5 8		
		13	3 7/16"	6 1/2"	12	7	8 5/8"	5 8		
		016-1066	1	1	3 3/16"	6"	12	6 13/16"	6 3/8"	9 16
				2	-3 1/16"	6"	12	6 13/16"	7 15/16"	9 16
				4	3 3/4"	5 3/16"	12	10 7/8"	6 1/4"	7 16
016-1114	3	5	3 4/16"	5 4"	12	10 7/8"	6 4/8"	1 2		
		6	3 4/16"	6 1/16"	11 13/16"	12	6 3/8"	1 2		
		7	3 5/16"	6 4/16"	11 13/16"	12	6 7/8"	9 16		
		8	3 4/16"	6 4/16"	11 13/16"	12	7"	7 16		
		9	3 5/16"	6 1/16"	11 13/16"	12	7 7/16"	5 8		
		10	3 4/16"	6 1/16"	11 13/16"	12	7 3/4"	9 16		
		11	3 5/16"	6 4/16"	11 13/16"	12	7 7/8"	5 16		
		12	3 1/16"	5 9/16"	12	7	6 3/8"	9 16		
		13	3 7/16"	5 9/16"	12	7	6 5/16"	5 8		
		016-1066	3	1	3 3/16"	5 3/16"	12	6 13/16"	6 13/16"	9 16
2	-3 4/16"			5 7/16"	12	6 13/16"	6 3/8"	9 16		

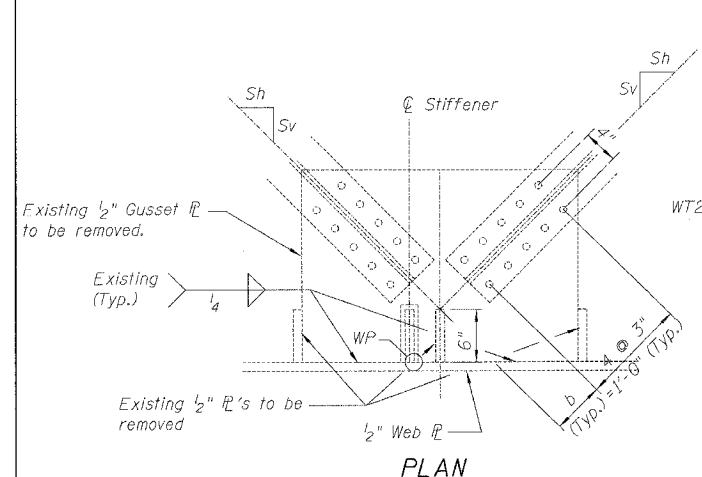
** "+" for north offset from WP, and "-" for south offset from WP.



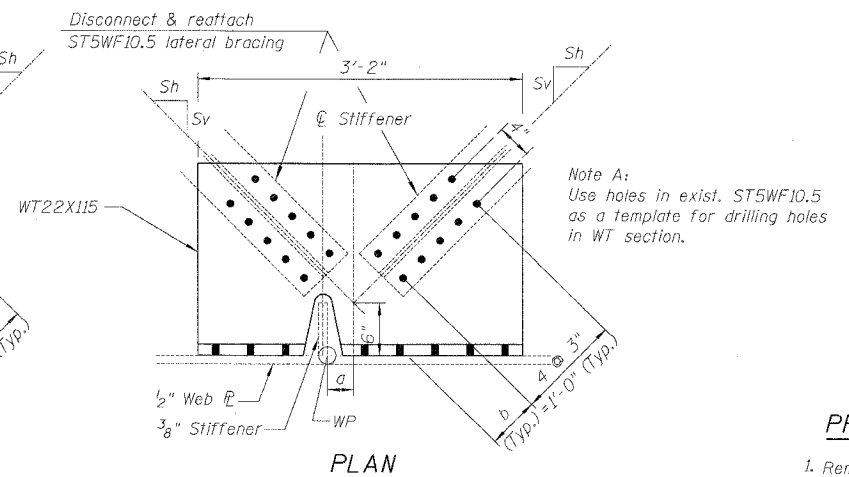
ELEVATION



ELEVATION



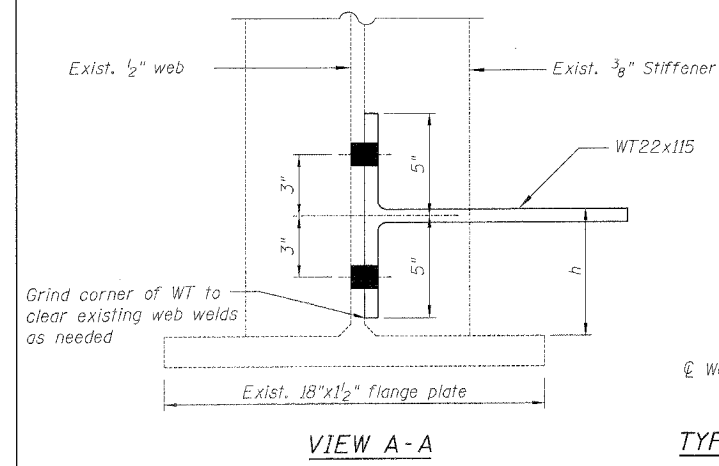
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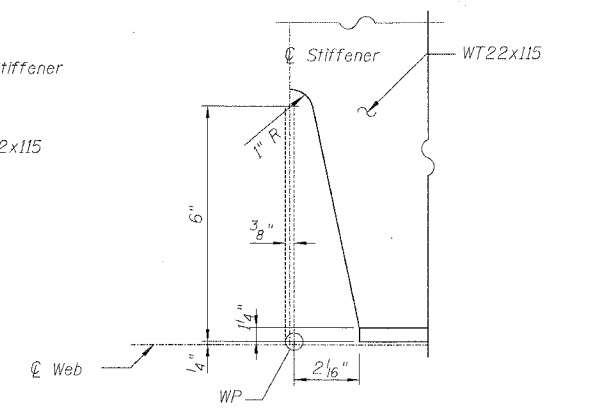
PLAN

EXISTING CONNECTION DETAIL

PROPOSED CONNECTION DETAIL



VIEW A-A



TYPICAL CONNECTION BRACKET DIMENSIONS

PROCEDURE FOR REPAIR DETAIL

1. Remove existing horizontal gusset plate as shown. The minimum distance from cut to face of web shall be the larger of 1/4" or web to gusset flange weld size, with removal of remaining material by grinding as described below. The cut shall be made vertically through the gusset without angling the cut towards the web. Equipment and method of cutting shall be approved by the Engineer. Any method of removal to be used shall ensure that no damage is done to the existing web, vertical stiffener or welds connecting these elements. Cutting shall be done in a manner such that the paint on the opposite face of the web is not damaged. If damage occurs, the damaged area shall be repainted at the contractor's expense and procedures shall be modified to prevent damage at subsequent removal locations.
2. Remove material between cut and web by grinding and grind smooth at web surface. Web plate surfaces shall have a roughness average (Ra) of 250µ in. or less. Grinding equipment shall be approved by the Engineer. The grinding operation should not gouge the girder web flange.
3. The web surface at the modification shall be inspected using dye penetrant or magnetic particle methods. Any cracks found shall be identified and reported to the Bureau of Bridges and Structures for further disposition.

DETAIL E HOAN-TYPE CONNECTION REPAIR

BILL OF MATERIAL

Item	Unit	Quantity
Structural Steel Repair	Pound	18,440

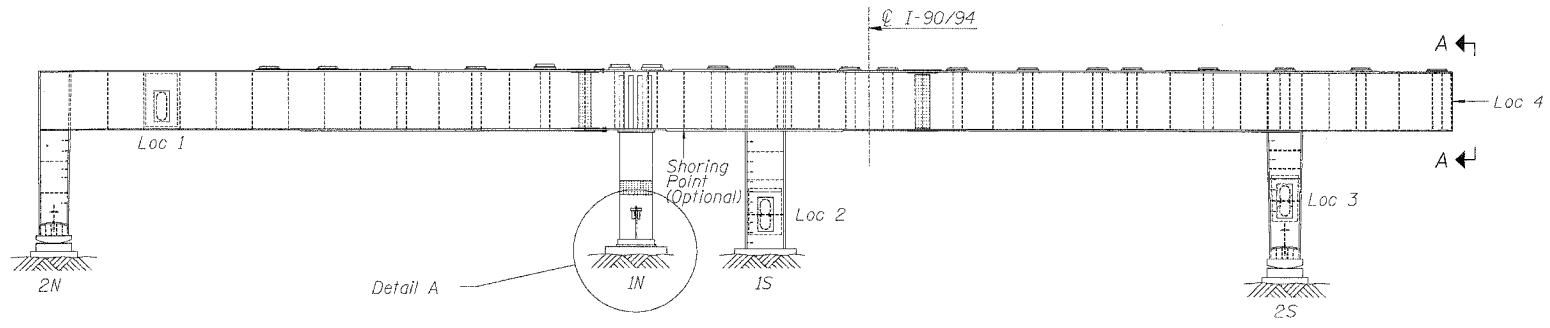
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 STEEL REPAIRS - DETAIL E
 SCALE: NTS
 DATE: 3/7/2008
 DRAWN BY: MTR
 CHECKED BY: BLU

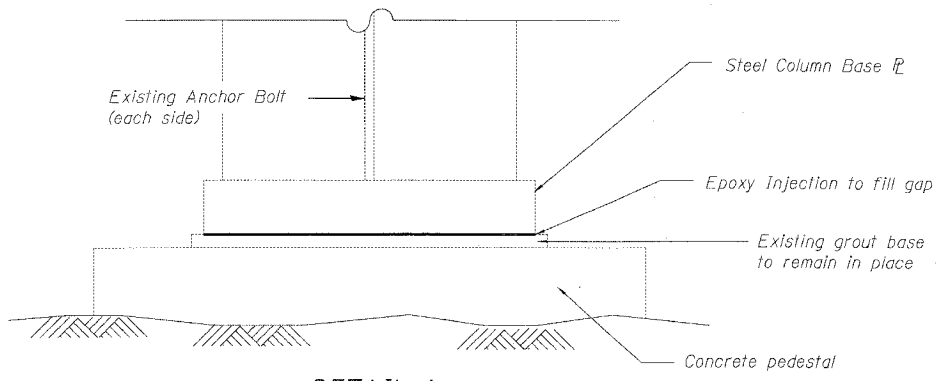
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 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 STEEL REPAIRS - DETAIL E
 SCALE: NTS
 DATE: 3/7/2008
 DRAWN BY: MTR
 CHECKED BY: BLU

60B07



PIER 2 - WEST ELEVATION
(Looking East)



DETAIL A

NOTES

1. Epoxy shall be injected to fill entirely the gap between steel base plate and grout base. See Column Repair Special Provisions for injection operation details.
2. Temporary Shoring and Cribbing for epoxy injection is not required, but can be approved by the Engineer if quality control of injection is concerned. If approved, shoring points shall be at the location shown on the plan. The shoring tower shall be removed as soon as injection operation is completed. The cost shall be included in "Column Repair".
3. This repair work shall be completed during the overnight closure of middle 3 lanes on NB mainline at the time specified in Special Provisions (see Traffic Control Plans for details). Adjacent railroad yard ramp shall be maintained for traffic. Contractor shall coordinate with railroad yard for partial ramp closure.
4. Furnishing and operation of epoxy injection shall be paid by "Column Repair".

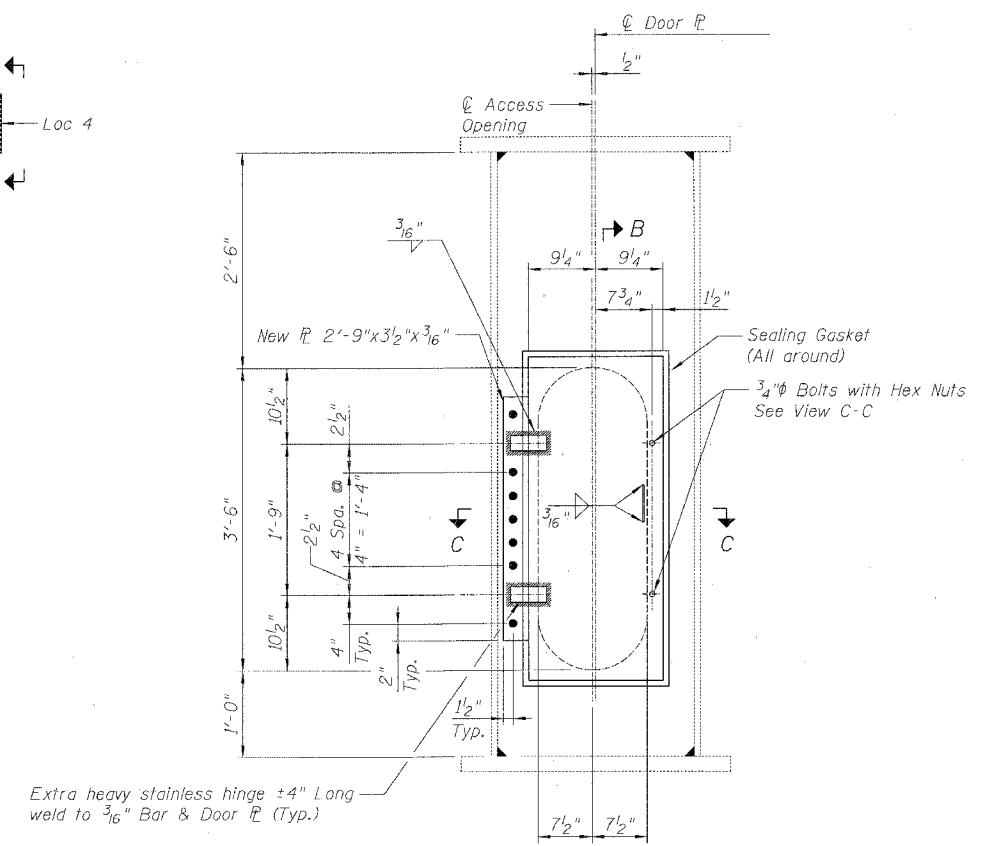
DETAIL G COLUMN BASE REPAIR

SN 016-1116, Pier 2
(1 Location)

SUPPORTING REACTIONS & MINIMUM JACKING CAPACITY

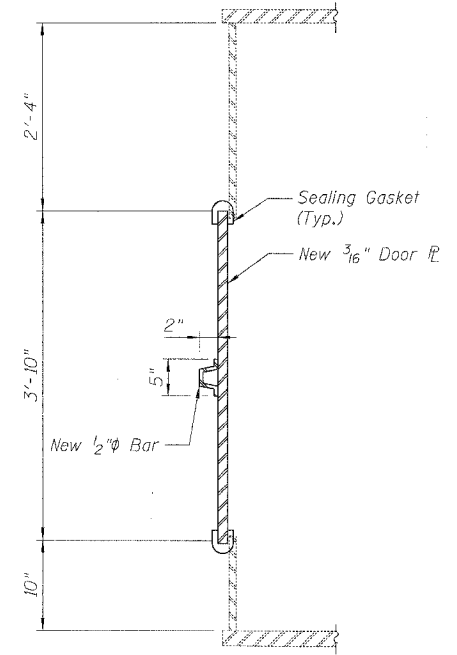
S/N	Pier	(LL+I) (k)	Min. Jack. Capacity (k) (Each)
016-1116	2	640	480

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VIEW A-A

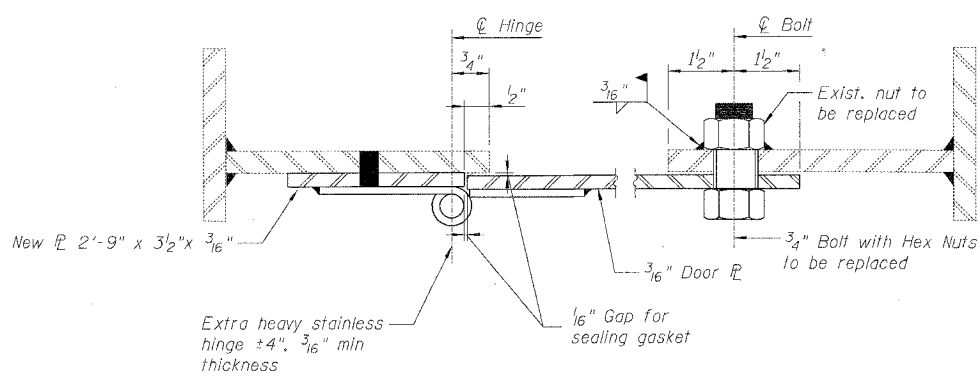
(Location 4 shown,
Locations 1-3 similar)



VIEW B-B

NOTES

1. Stainless hinges and sealing gaskets furnished shall be approved by Engineer.
2. Cost of removing & disposal of existing access doors and assemblies, furnishing and erecting new doors and assemblies shall be included in "Structural Steel Repair".



VIEW C-C

DETAIL G-1 ACCESS DOOR REPLACEMENT

SN 016-1116, Pier 2
(4 Locations)

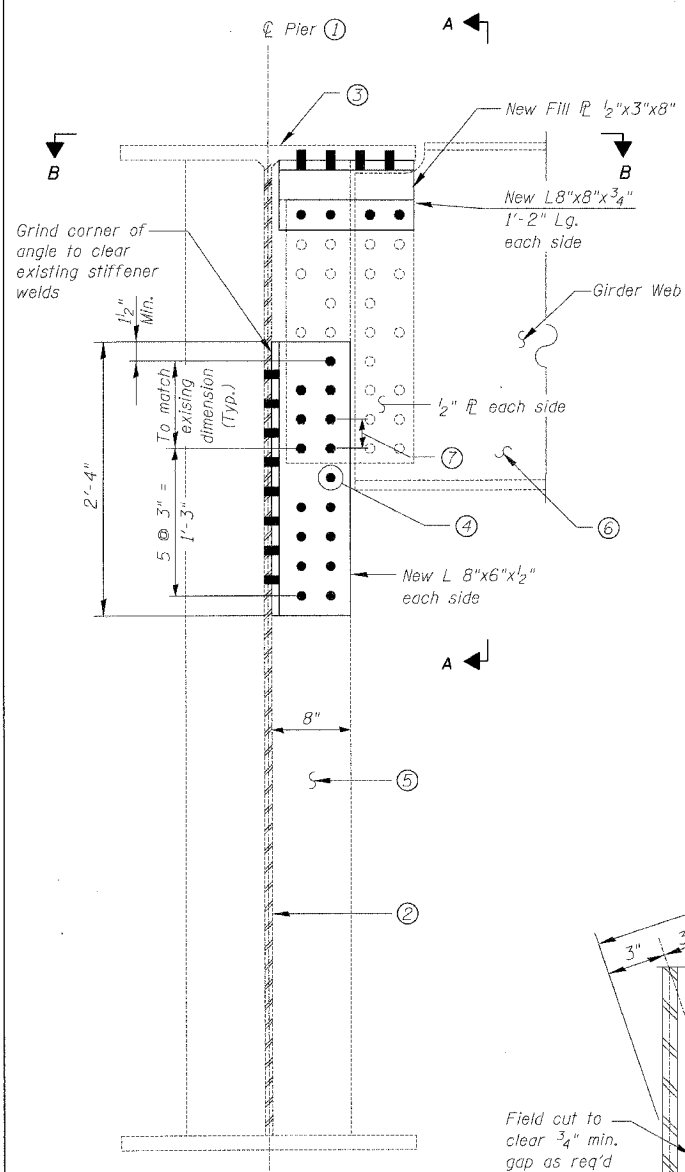
BILL OF MATERIAL

Item	Unit	Quantity
Structural Steel Repair	Pound	380
Column Repair	Lump Sum	1

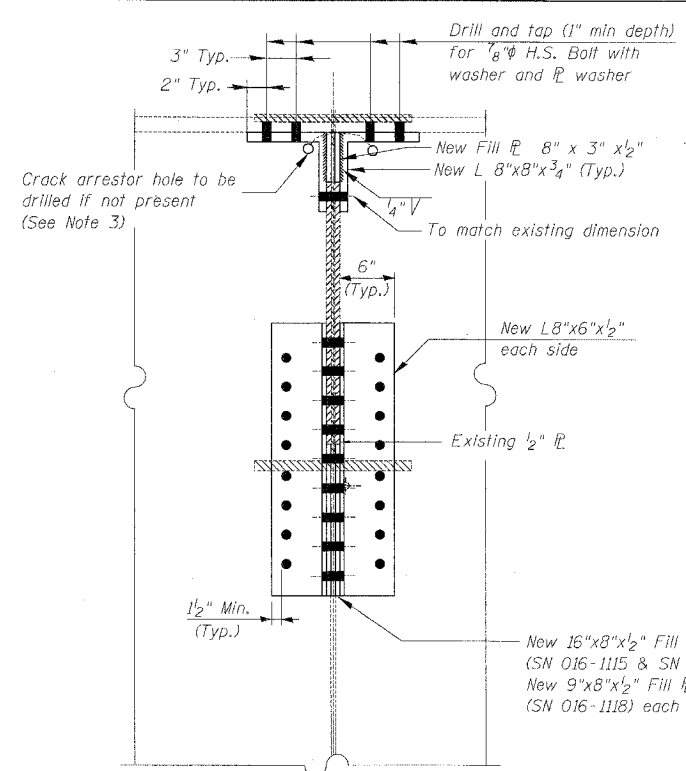
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
STEEL REPAIRS - DETAIL G & G-1
SCALE: NTS
DATE: 3/7/2008
DRAWN BY: LAM
CHECKED BY: BLU

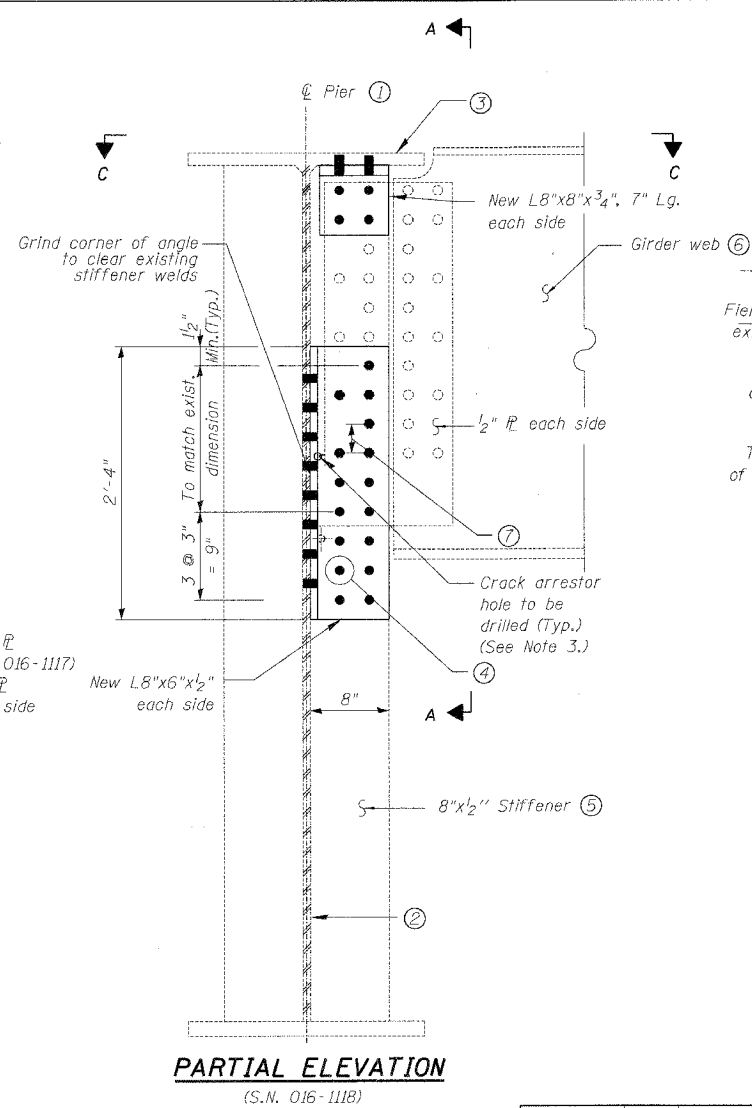
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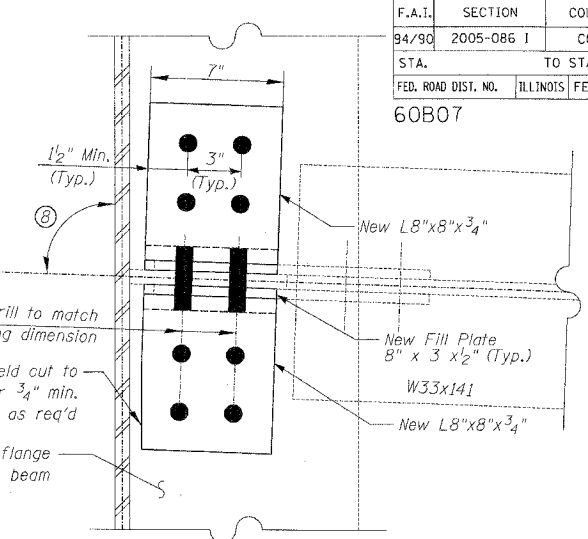
PARTIAL ELEVATION
(S.N. 016-1115 & S.N. 016-1117)



VIEW A-A



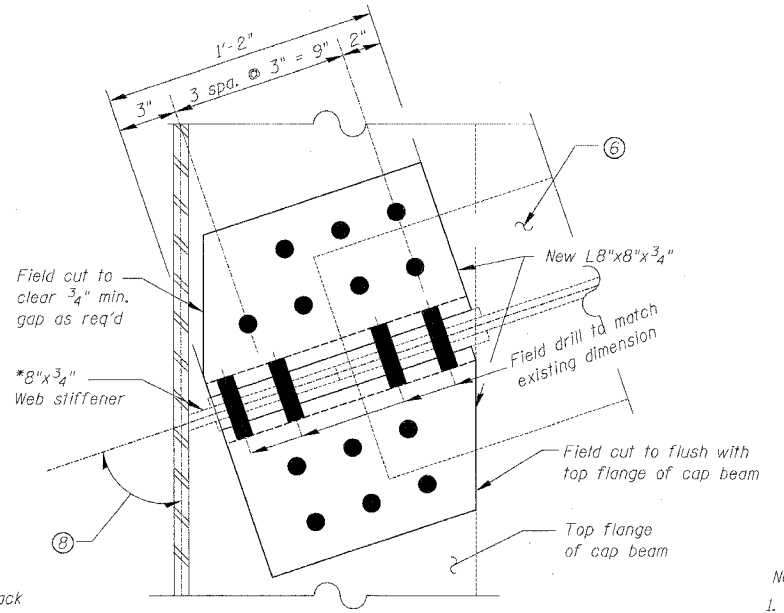
PARTIAL ELEVATION
(S.N. 016-1118)



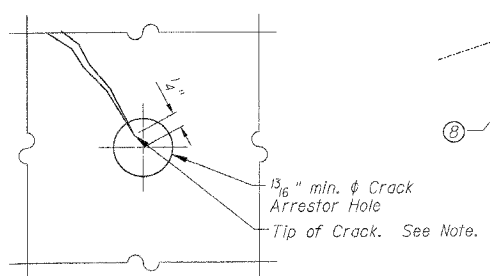
VIEW C-C
(Looking through top flange)

SUPPORTING REACTIONS & MINIMUM JACKING CAPACITY

S/N	Pier No.	Girder No.	Span No.	DL+(LL+I) (k)	Min. Jack. Capacity (k)
016-1115	17	7S	17	91	140
	7	5S	8	105	160
	19	3S	19	86	130
016-1117	20	6S	20	150	225
	20	8S	20	115	175
	20	9S	20	115	175
	23	7S	23	135	205
	23	8S	23	135	205
	19	6N	19	86	130
016-1118	H1	6.7	H2	159	240
	H3	3-5	H4	158	240



VIEW B-B
(Looking through top flange)



CRACK ARRESTOR HOLE DETAIL

Note:
Locate crack tip using liquid dye penetrant or magnetic particle testing. Drill 1 1/2" min. ϕ Crack Arrestor hole at the crack tip. After crack arrestor hole has been drilled, dye penetrant or magnetic particle testing shall be used to verify that the drilled hole has captured the crack tip. Cost shall be included in the cost of "Structural Steel Repair".

BILL OF MATERIAL

Item	Unit	Quantity
Structural Steel Repair	Pound	3,560
Temporary Shoring & Cribbing	Each	14

- Notes:
- All H.S. bolts for this repair work shall be 7/8" ϕ except at S.N. 016-1115.
 - Prior to removal of any existing bolts, girder to be repaired shall be temporarily supported (see Table for Supporting Reactions & min. Jacking Capacity, and see Special Provision for Temporary Shoring and Cribbing).
 - Drill a crack arrestor hole where a crack is present without a arrestor hole at crack tip (see Crack Arrestor Hole Detail). Cost shall be incidental to "Structural Steel Repair".
 - All west side angles L8"x6"x1/2" shall be bent at angles (B) provided in Table. All east side angle L8"x6"x1/2" shall be bent at angles (180°-(B)).

S.N.	① Pier No.	② Girder No.	③ Span No.	④ Exist. Cap Beam Web Plate	⑤ Exist. Cap Beam Top Flange	⑥ Bolt Dia.	⑦ Exist. Stiffener Size	⑧ Girder Size	⑨ Exist. Bolt Spacing	⑩ Angle
016-1115	17	7S	17	114"x16"	30"x2"	1"	8"x3/4"	W36x182	3"	91°48'20"
	7	5S	8	66"x1/2"	30"x2"	7/8"	8"x3/4"	W36x182	2 3/4"	68°13'42"
	19	3S	19	126"x3/4"	30"x2"	7/8"	8"x3/4"	W36x194	2 3/4"	71°09'13"
016-1117	20	6S	20	102"x5/8"	30"x1 1/2"	7/8"	8"x1/2"	48" PG	3"	71°18'40"
	20	8S	20	102"x5/8"	30"x1 1/2"	7/8"	8"x1/2"	48" PG	3"	71°18'40"
	20	9S	20	102"x5/8"	30"x1 1/2"	7/8"	8"x1/2"	48" PG	3"	68°44'06"
	23	7S	23	126"x3/4"	30"x2"	7/8"	8"x1/2"	48" PG	3"	71°18'40"
	23	8S	23	126"x3/4"	30"x2"	7/8"	8"x1/2"	48" PG	3"	71°18'40"
	19	6N	19	126"x3/4"	30"x1 1/4"	7/8"	8"x3/4"	W36x194	2 3/4"	71°19'01"
016-1118	H1	7	H2	84"x1"	24"x1"	7/8"	8"x1/2"	72" PG	3"	82°01'23"
	H1	6	H2	84"x1"	24"x1"	7/8"	8"x1/2"	72" PG	3"	83°52'10"
	H3	3	H4	96"x5/8"	26"x1 1/8"	7/8"	8"x1/2"	60" PG	3"	73°02'53"
	H3	4	H4	96"x5/8"	26"x1 1/8"	7/8"	8"x1/2"	60" PG	3"	73°02'53"
	H3	5	H4	96"x5/8"	26"x1 1/8"	7/8"	8"x1/2"	60" PG	3"	72°10'37"

REVISIONS

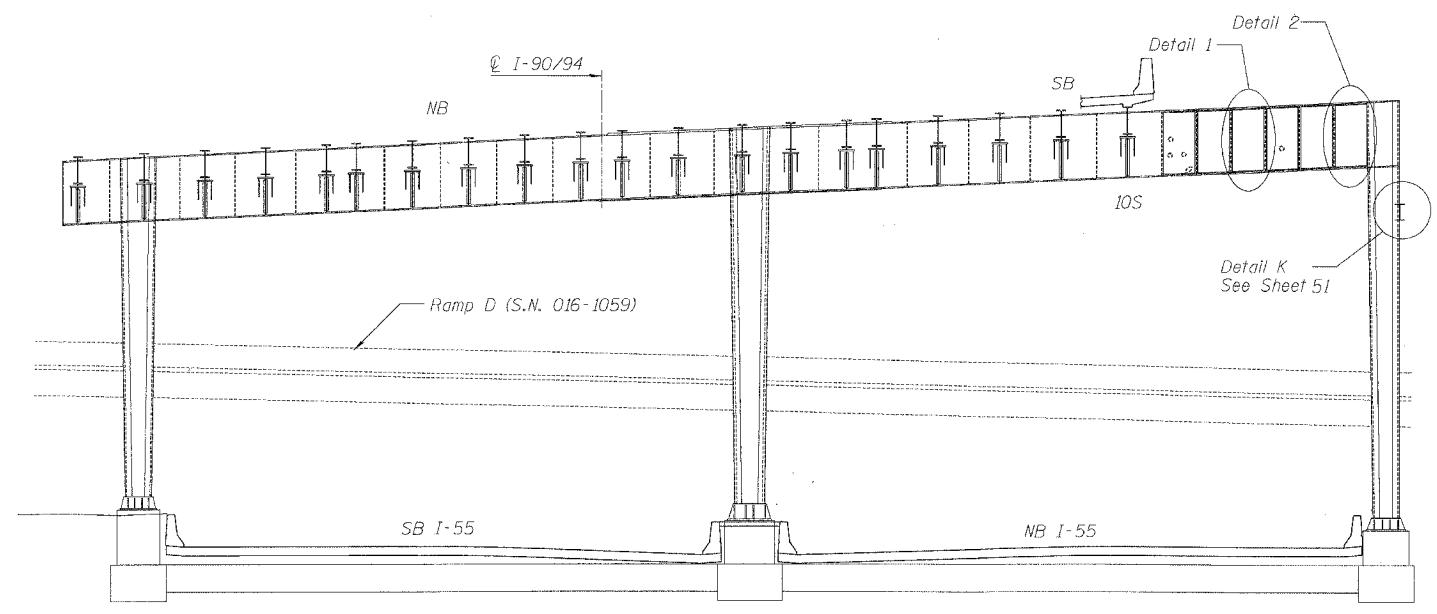
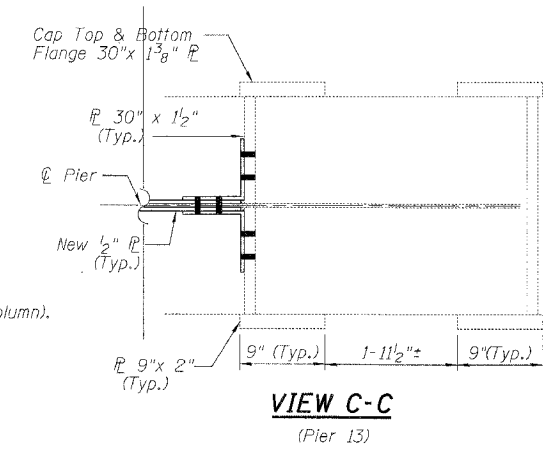
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
STEEL REPAIRS - DETAIL I
SCALE: NTS
DATE: 3/7/2008
DRAWN BY: MTR
CHECKED BY: BLU

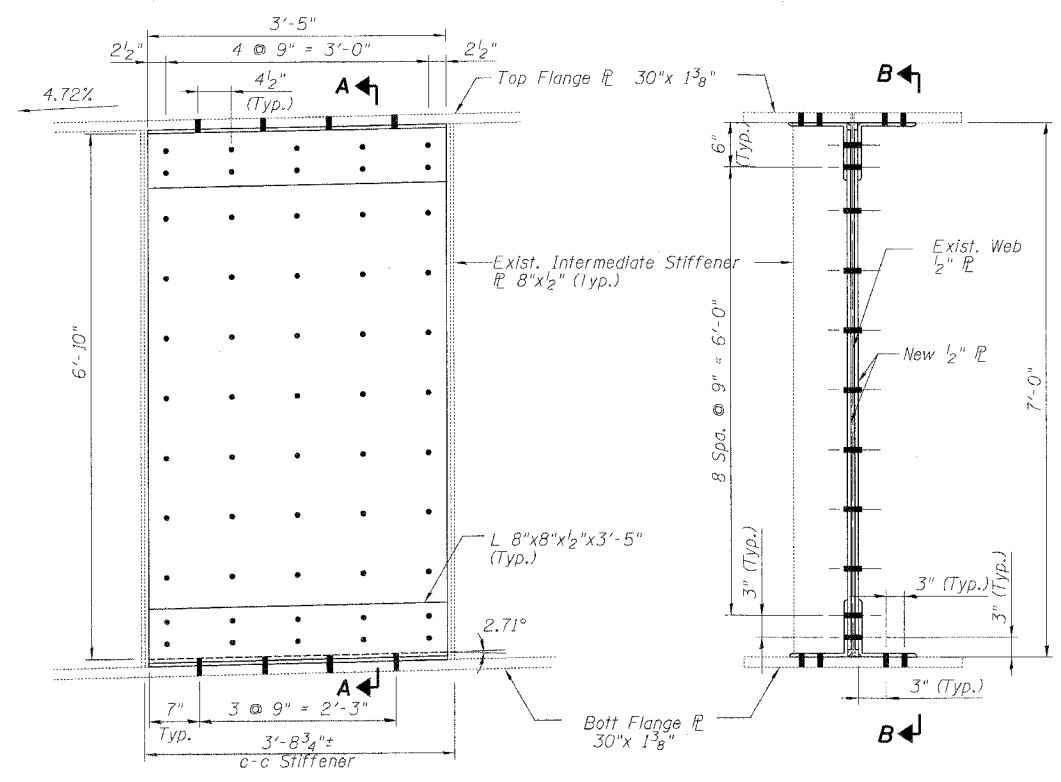
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	46
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	60B07	

SN 016-1115, PIER 13 WEB REPAIR PROCEDURE

1. This repair work shall be completed during the allowable closure hours of outside 2 SB lanes of I-90/94, in conjunction with outside 2 NB lanes of I-55. See Special Provision for "Keeping the Expressway Open to Traffic".
2. Temporarily detach the existing utility line on NW side of pier 13.
3. Web repairs shall start from partial installation of long plate (View B-B) to provide stability and proceed to the opposite side (Details 1 & 2). Prior to erecting long plate, remove debris and clean surface rust (but no grinding at this time) to provide smooth contacts for plating. Place long plate and crib with angles at top, bottom and column connection (on that face only). Drill and install all bolts to angles on top and bottom (t&b) flanges and column web. No more than 4 open holes without bolts shall be allowed. Drill and temporarily install 4 bolts to secure each angle to cap web adjacent to Beam 10S and at column connection on t&b.
4. Remove temporary bolts on column connection and completely install the column connection angle in Detail 2.
5. Detail 1 Panels shall be erected from Beam 10S and proceed outwards (toward exterior column). Remove debris, clean surface rust and grind sharp edges around rusted through holes. Grinding shall be done with extreme caution. No damage to long plate on the other side shall be allowed. Remove temporary bolts on web and place Detail 1 panel and angles. Complete installation of t&b angles prior to web panels. No more than 4 open holes without bolts shall be permitted at all times. Drill and bolt on web from bottom rows up. Complete one panel before erecting the next one.
6. Repeat Steps in Note 5 to complete all panels in Details 1 & 2. Reattach utility line.

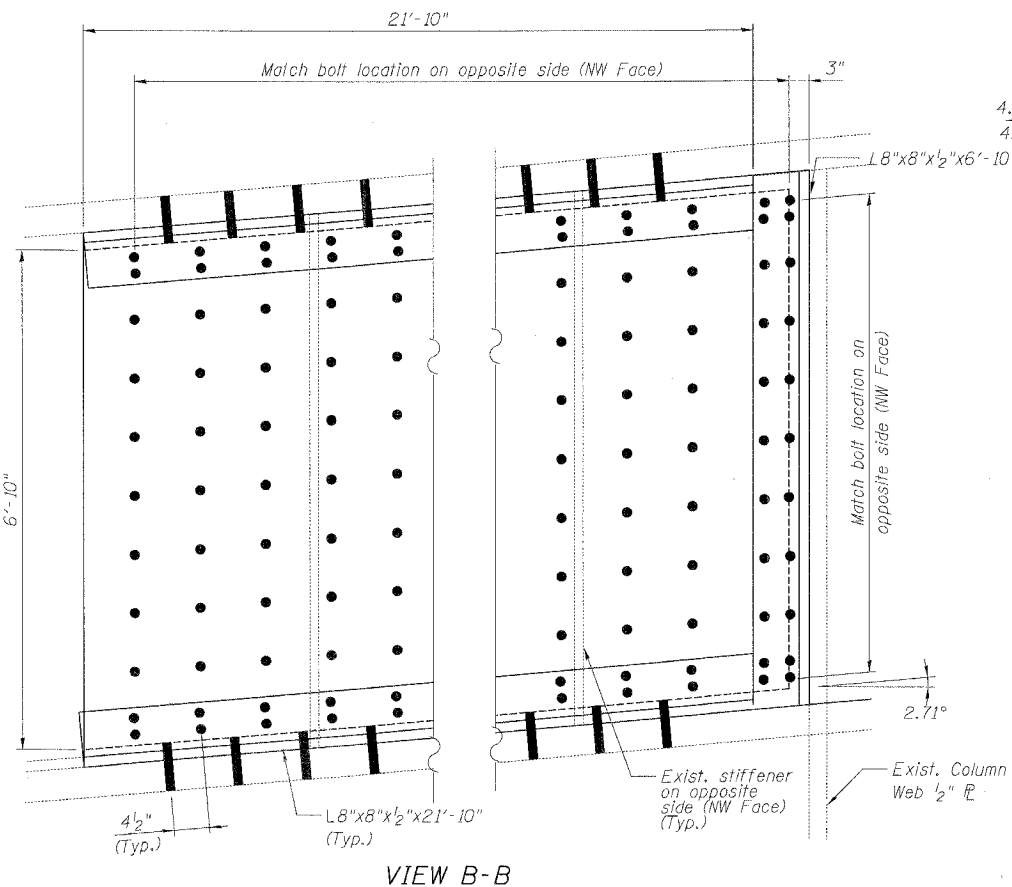


S.N. 016-1115, PIER 13
(Looking Downstation)

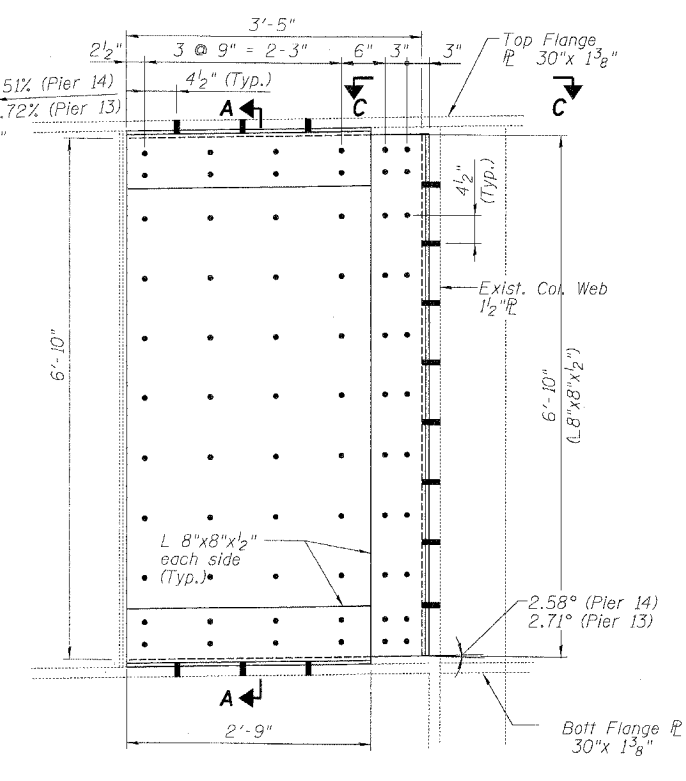


DETAIL 1 - TYPICAL PANEL
(Span 14 Side, NW Face)
(6 Locations)

SECTION A-A



VIEW B-B
(Span 13 side, SE Face)
(1 Location)



DETAIL 2 - COLUMN CONNECTION PANEL
(P13, Span 14 Side, NW Face & P14, Span 15 Side, NW Face)
(2 Locations)

DETAIL J - WEB REPAIRS
(SN 016-1115, Pier 13)

BILL OF MATERIAL

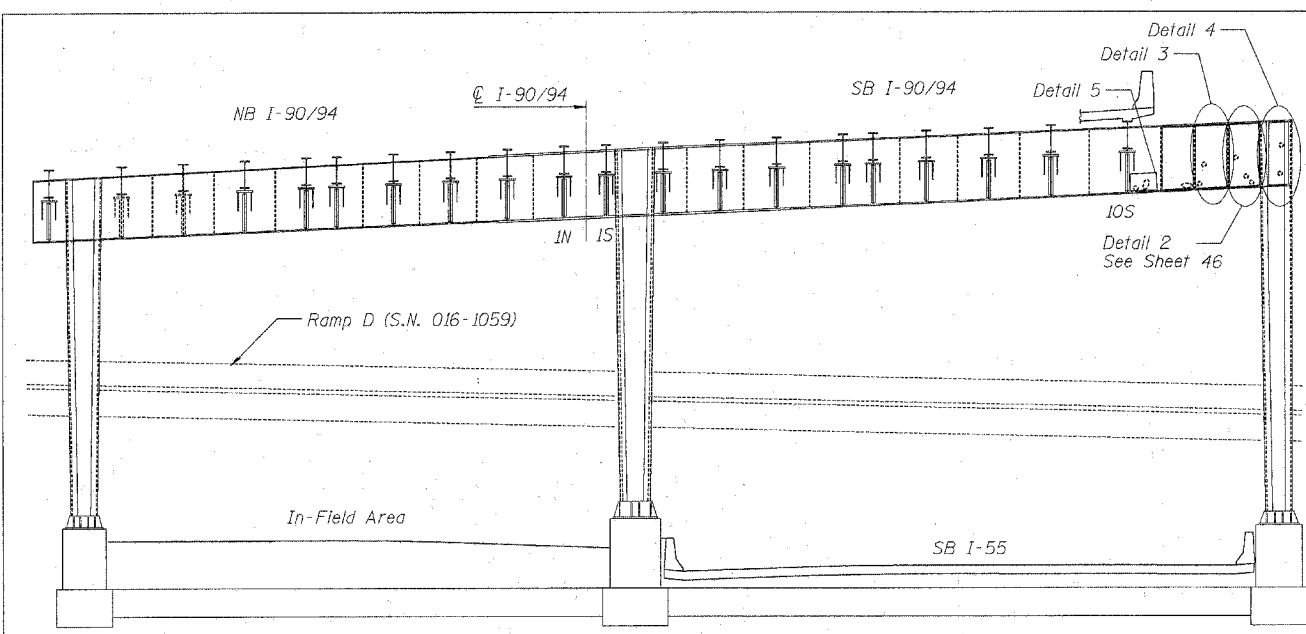
Item	Unit	Quantity
Structural Steel Repair	Pound	12,580

REVISIONS	NAME	DATE

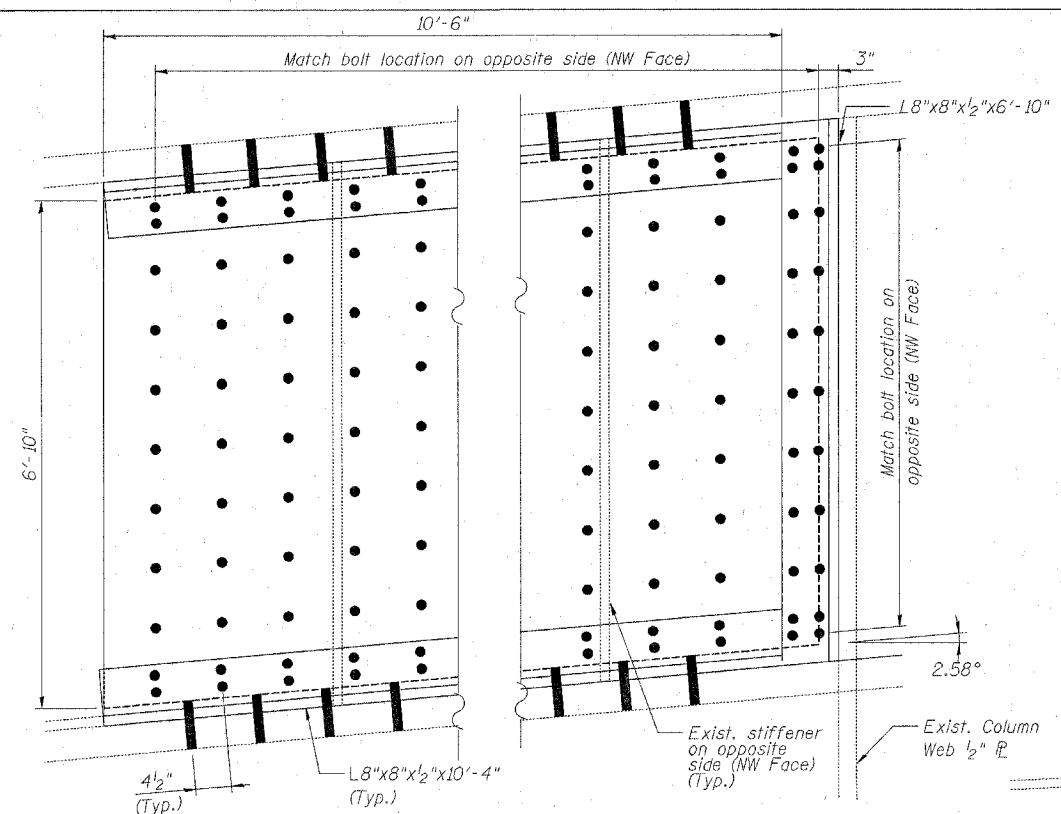
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
STEEL REPAIRS - DETAIL J
SCALE: NTS
DATE: 3/7/2008
DRAWN BY: MTR
CHECKED BY: BLU

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Chicago, Illinois
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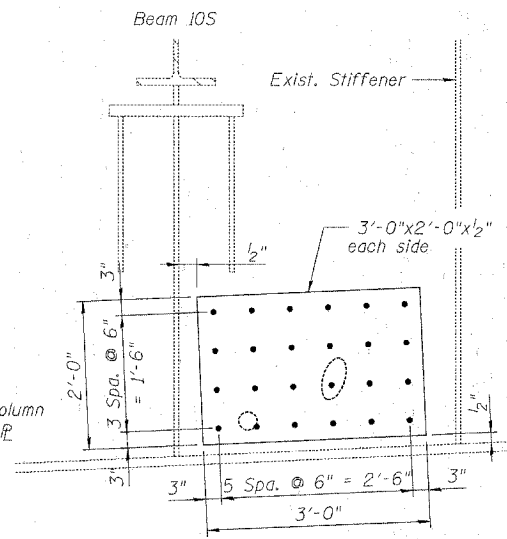
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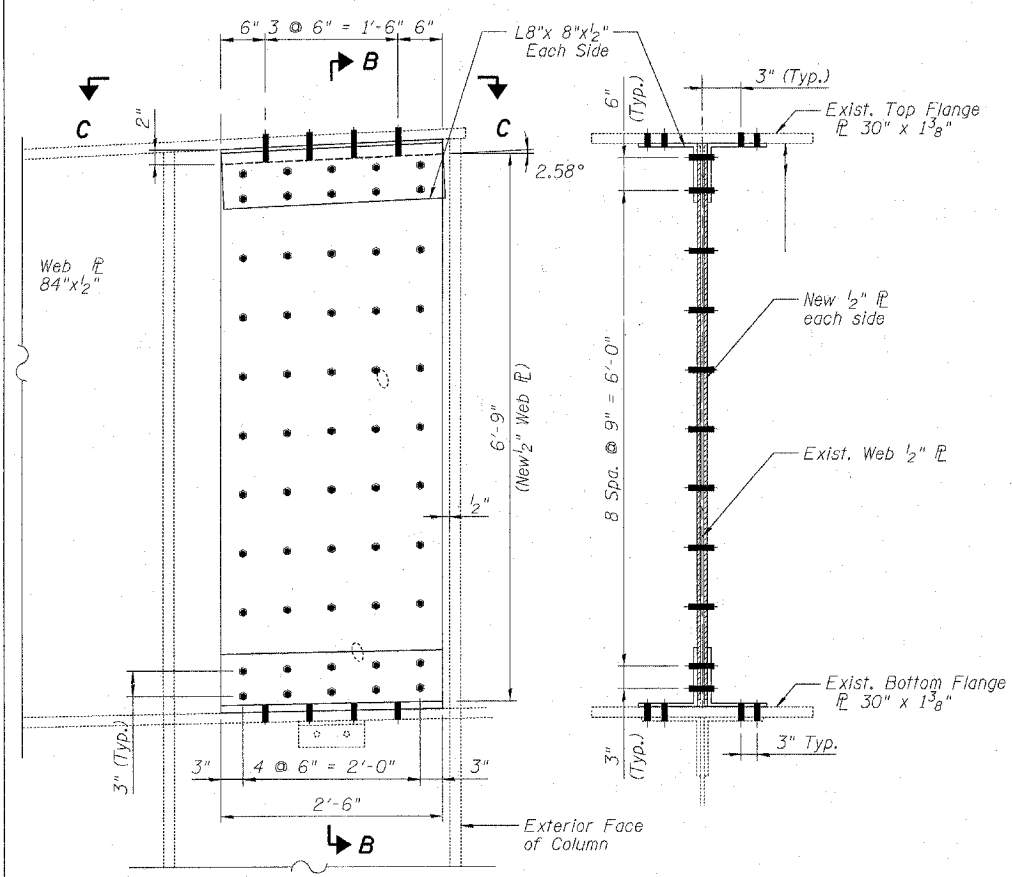
S.N. 016-1115 - PIER 14
(Looking Downstation)



VIEW E-E
(Span 14 side, SE Face)
(1 Location)



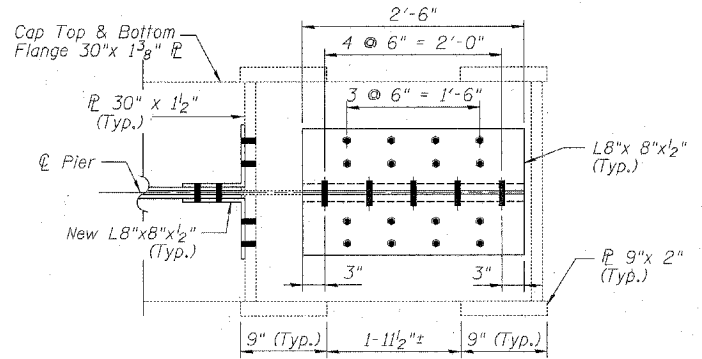
DETAIL 5
(1 Location)



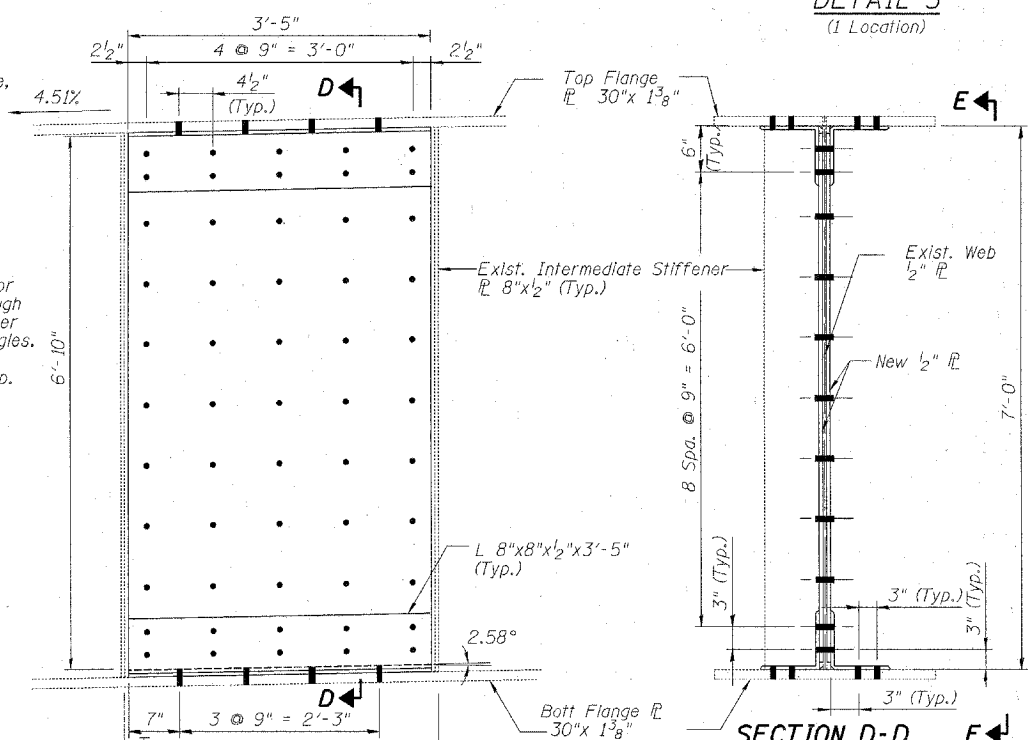
DETAIL 4
(1 Location)

SECTION B-B

- SN 016-1115, PIER 14 WEB REPAIR PROCEDURE**
1. This repair work shall be completed during the allowable closure hours of outside 2 SB lanes of I-90/94, in conjunction with outside 1 NB lane of I-55. See Special Provision for "Keeping the Expressway Open to Traffic".
 2. Web repairs shall start from partial installation of long plate (View E-E) to provide stability and proceed to the opposite side (Details 2 to 5). Prior to erecting long plate, remove debris and clean surface rust (but no grinding at this time) to provide smooth contacts for plating. Place long plate and crib with angles at top, bottom and column connection (on that face only). Drill and install all bolts to angles on top and bottom (t&b) flanges and column web. No more than 4 open holes without bolts shall be allowed. Drill and temporarily install 4 bolts to secure each angle to cap web adjacent to Beam 105 and at column connection on t&b.
 3. Detail 3 Panels shall be erected from Beam 105 and proceed outwards (toward exterior column). Remove debris, clean surface rust and grind sharp edges around rusted through holes. Grinding shall be done with extreme caution. No damage to long plate on the other side shall be allowed. Remove temporary bolts on web and place Detail 3 panel and angles. Complete installation of t&b angles prior to web panels. No more than 4 open holes without bolts shall be permitted at all times. Drill and bolt on web from bottom rows up. Complete one panel before erecting the next one.
 4. Remove temporary web bolts on column connection and completely install the column connection angle in Detail 2.
 5. Detail 3 Panels shall be erected from Beam 105 and proceed outwards (toward exterior column). Remove debris, clean surface rust and grind sharp edges around rusted through holes. Grinding shall be done with extreme caution. No damage to long plate on the other side shall be allowed. Remove temporary bolts on web and place Detail 3 panel and angles. Complete installation of t&b angles prior to web panels. No more than 4 open holes without bolts shall be permitted at all times. Drill and bolt on web from bottom rows up. Complete one panel before erecting the next one.
 6. Repeat Steps in Note 5 to complete all panels in Details 2 to 5.



VIEW C-C
(Pier 14)



DETAIL 3 - TYPICAL PANEL
(Span 15 Side, NW Face)
(3 Locations)

SECTION D-D
(1 Location)

BILL OF MATERIAL

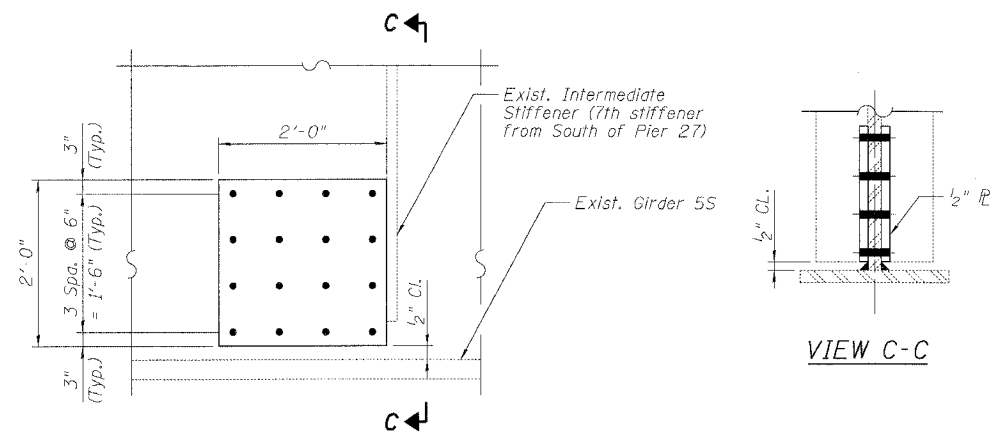
Item	Unit	Quantity
Structural Steel Repair	Pound	8,000

DETAIL J - WEB REPAIRS
(SN 016-1115, Pier 14)

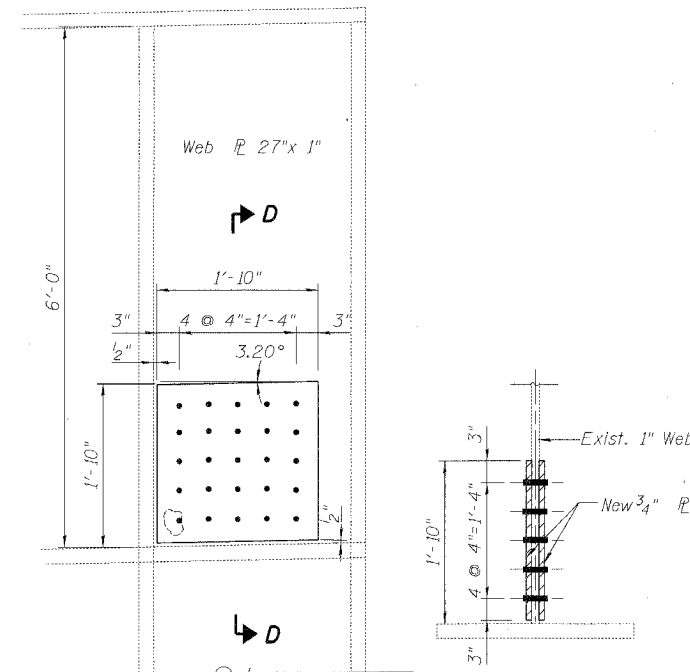
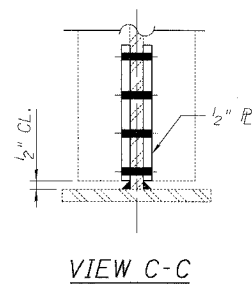
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
STEEL REPAIRS - DETAIL J
SCALE: NTS
DATE: 3/1/2008
DRAWN BY: LAM
CHECKED BY: BLU

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
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S.N. 016-1112 - SPAN 26 SB, GIRDER 5S
(Looking East)



DETAIL A
SECTION D-D
SN 016-1067, PIER A5
(Top of East Column)

DETAIL J - WEB REPAIRS
(SN 016-1112, SN 016-1067)

BILL OF MATERIAL

Item	Unit	Quantity
Structural Steel Repair	Pound	420

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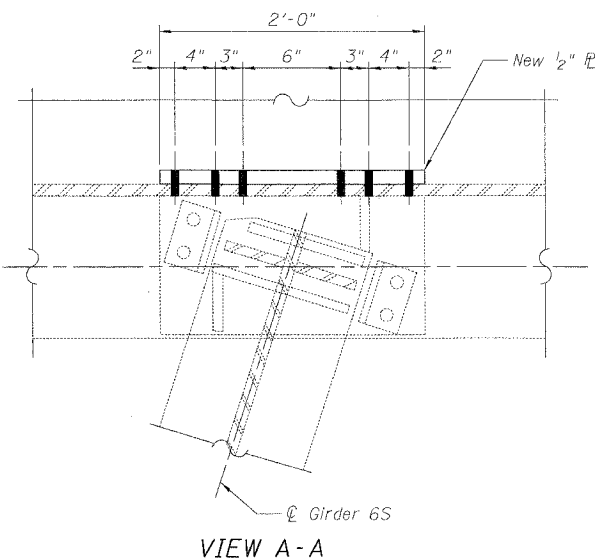
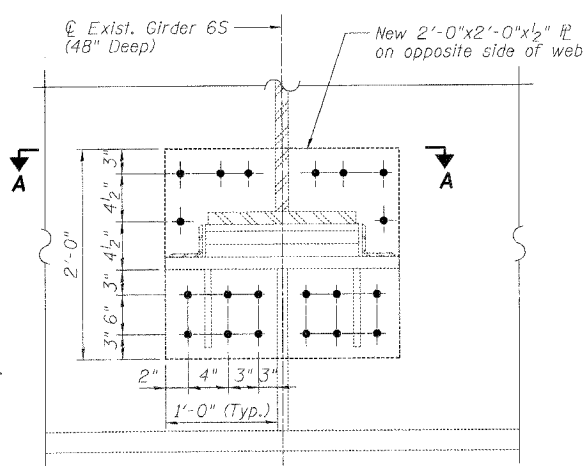
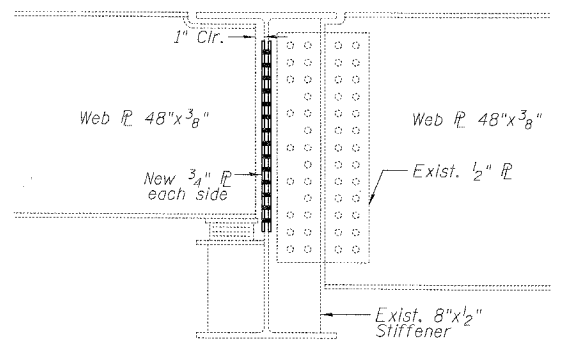
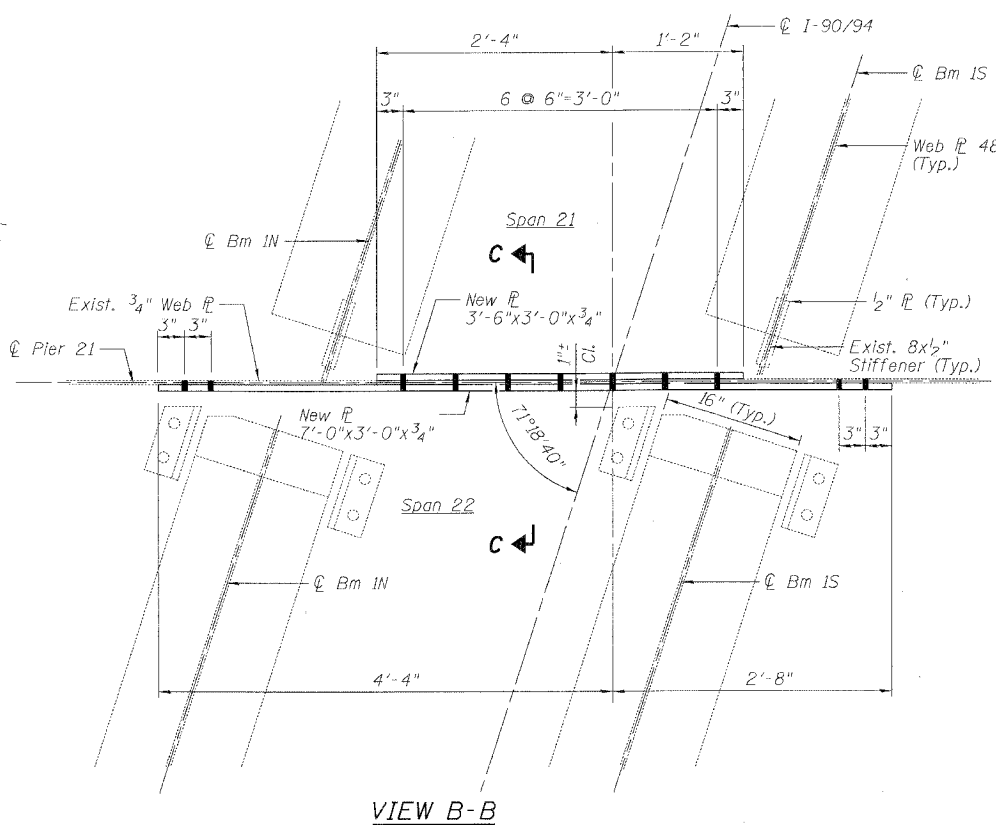
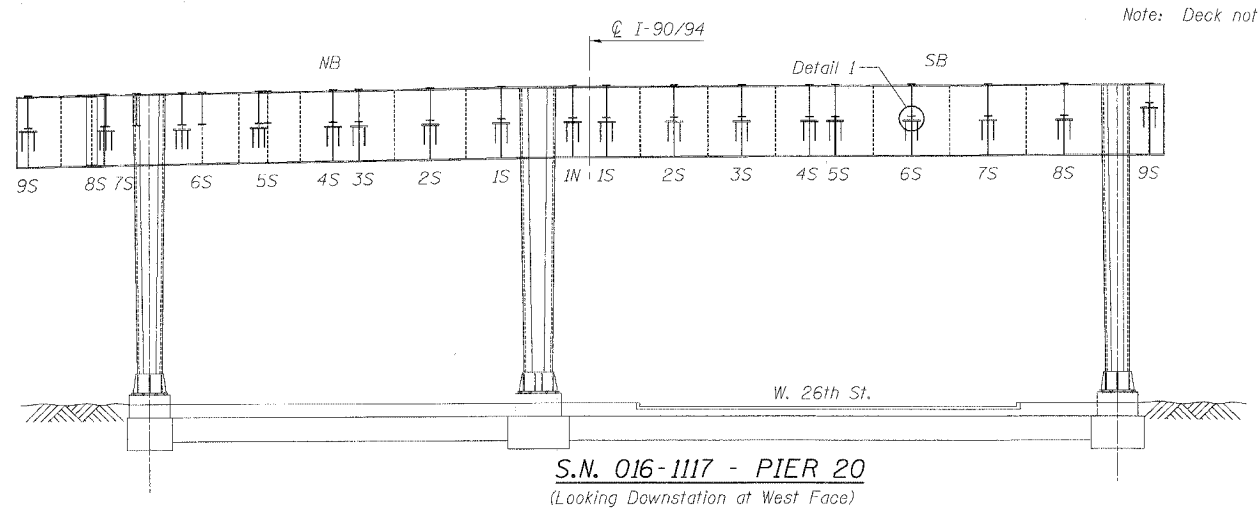
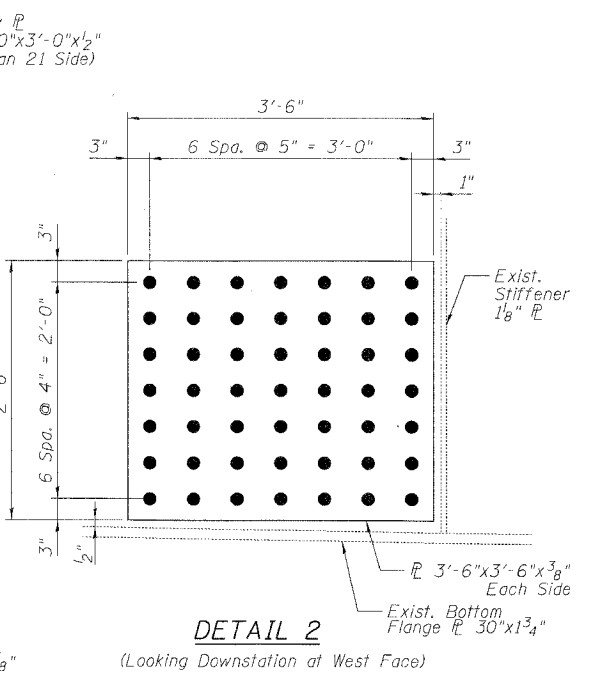
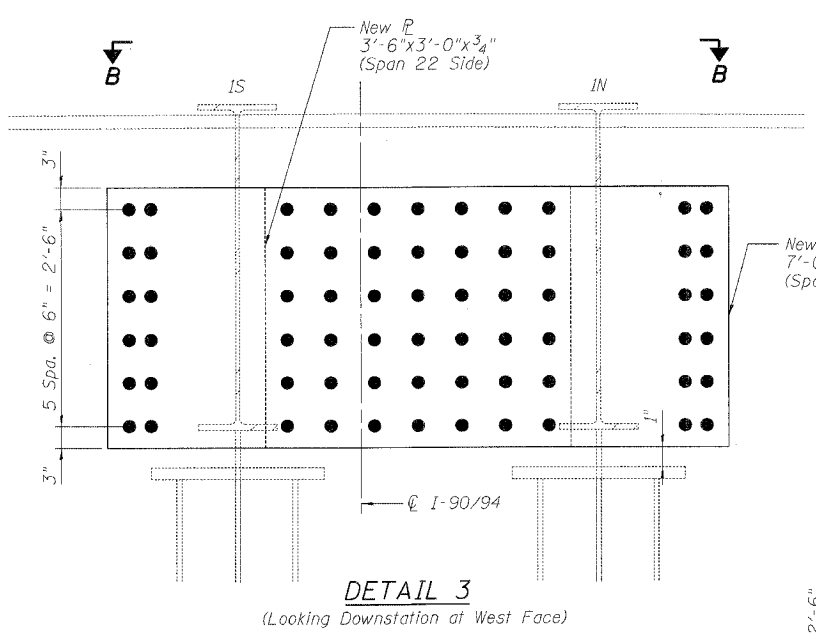
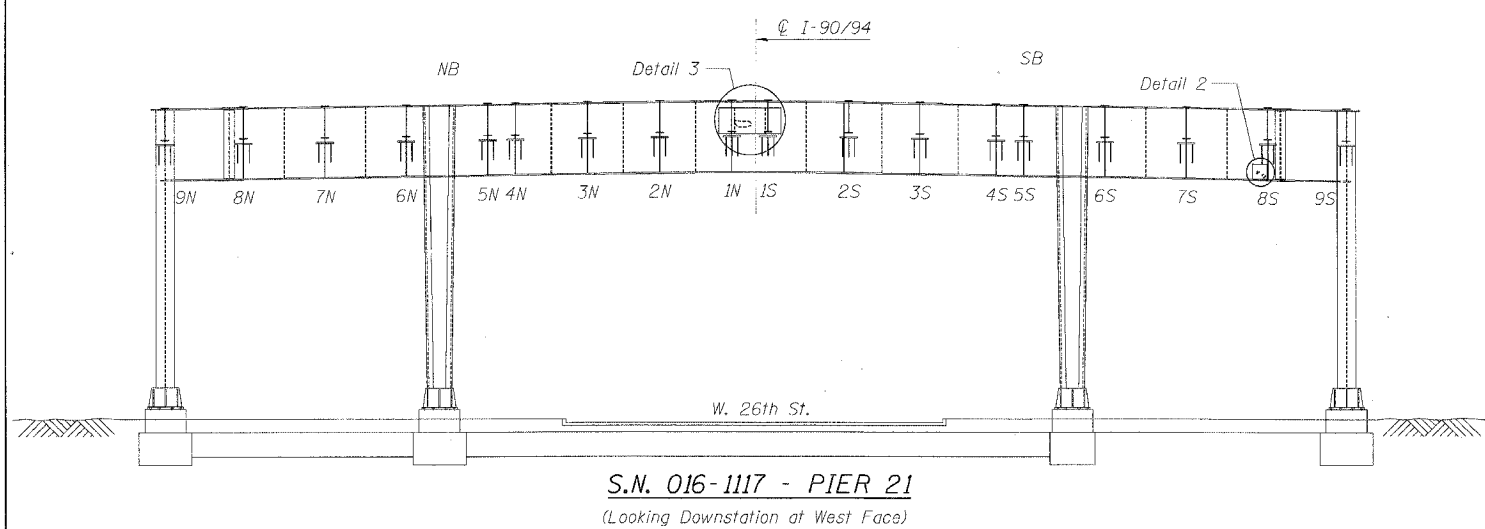


REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
STEEL REPAIRS - DETAIL J
SCALE: NTS
DATE: 3/7/2008
DRAWN BY: LAM
CHECKED BY: BLU

3/27/2008 8:40:41 AM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	49
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
60B07				



DETAIL OF WEB REPAIR
AT S.N. 016-1117
(Pier 20, Span 21, Beam 6S)

DETAIL J - WEB REPAIRS
(SN 016-1117)

BILL OF MATERIAL

Item	Unit	Quantity
Structural Steel Repair	Pound	2,310

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR

STEEL REPAIRS - DETAIL J

SCALE: NTS
DATE: 3/7/2008

DRAWN BY: LAM
CHECKED BY: BLU

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8-4625 AM 3/7/2008

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	50
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B07



PLAN

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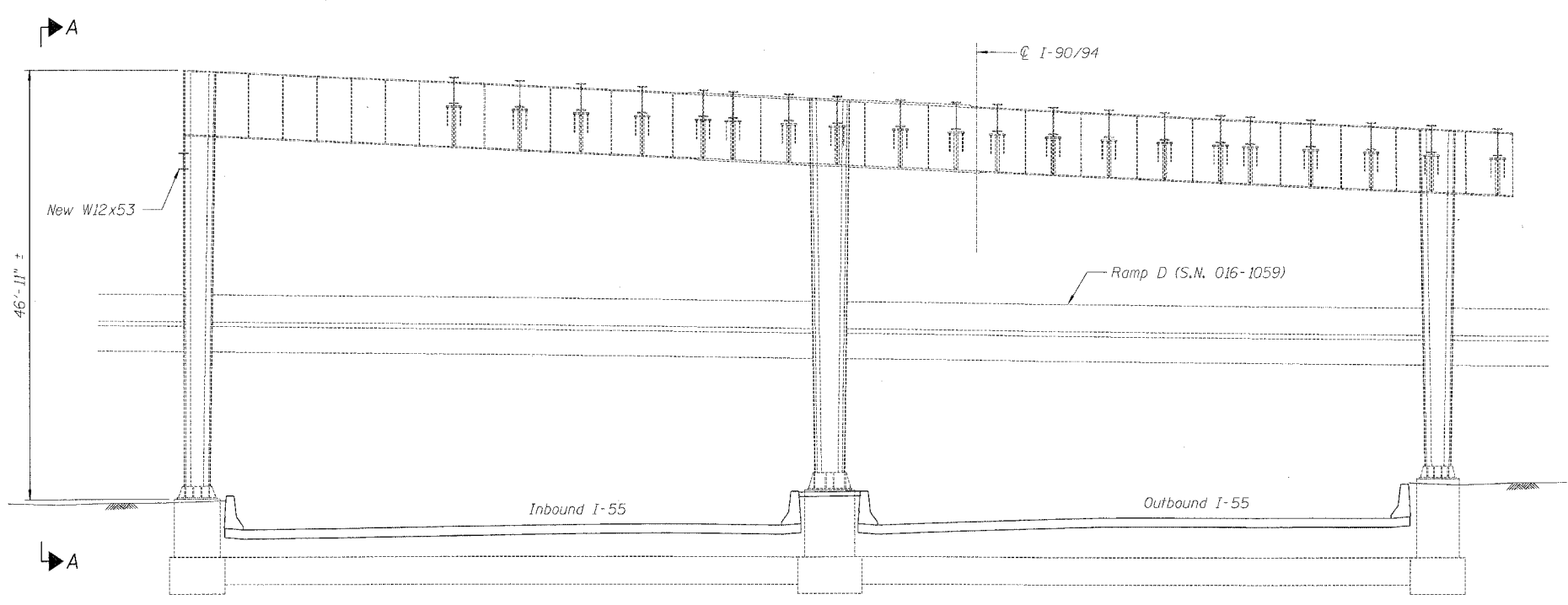
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
STEEL REPAIRS - DETAIL K (1 OF 2)
SCALE: NTS
DATE: 3/7/2008
DRAWN BY: MTR
CHECKED BY: BLU

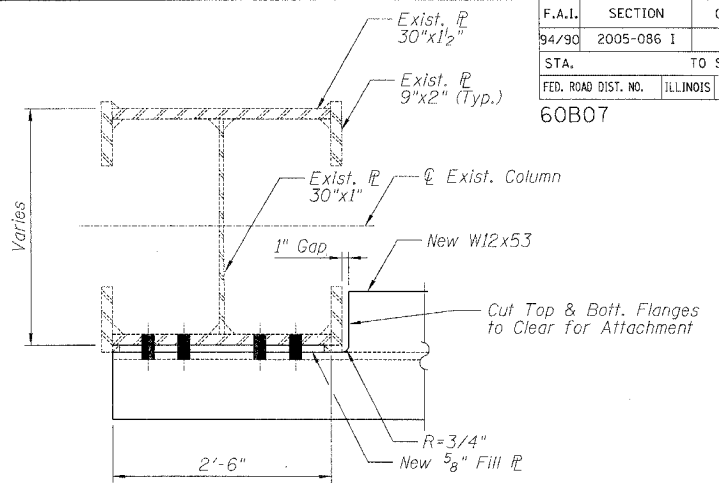
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B07

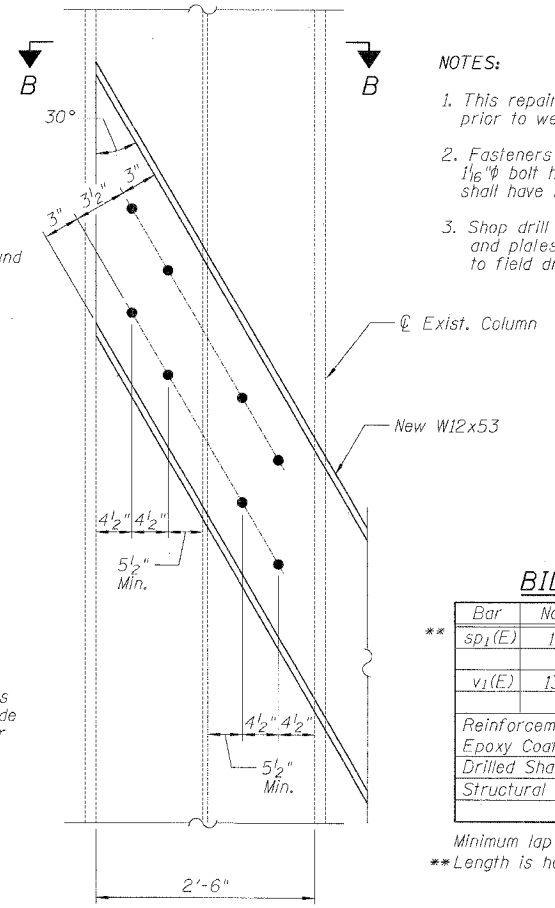


PIER 13 - ELEVATION
(Looking Upstation)



VIEW B-B

- NOTES:**
1. This repair work shall be completed prior to web repairs of Detail J (Sheet 46).
 2. Fasteners shall be 1" ϕ H.S. bolts with 1/6" ϕ bolt holes. 1/2" ϕ anchor bolts shall have 2" ϕ bolt holes.
 3. Shop drill bolt holes on new steel section and plates. Use shop drilled holes as template to field drill holes on existing column.

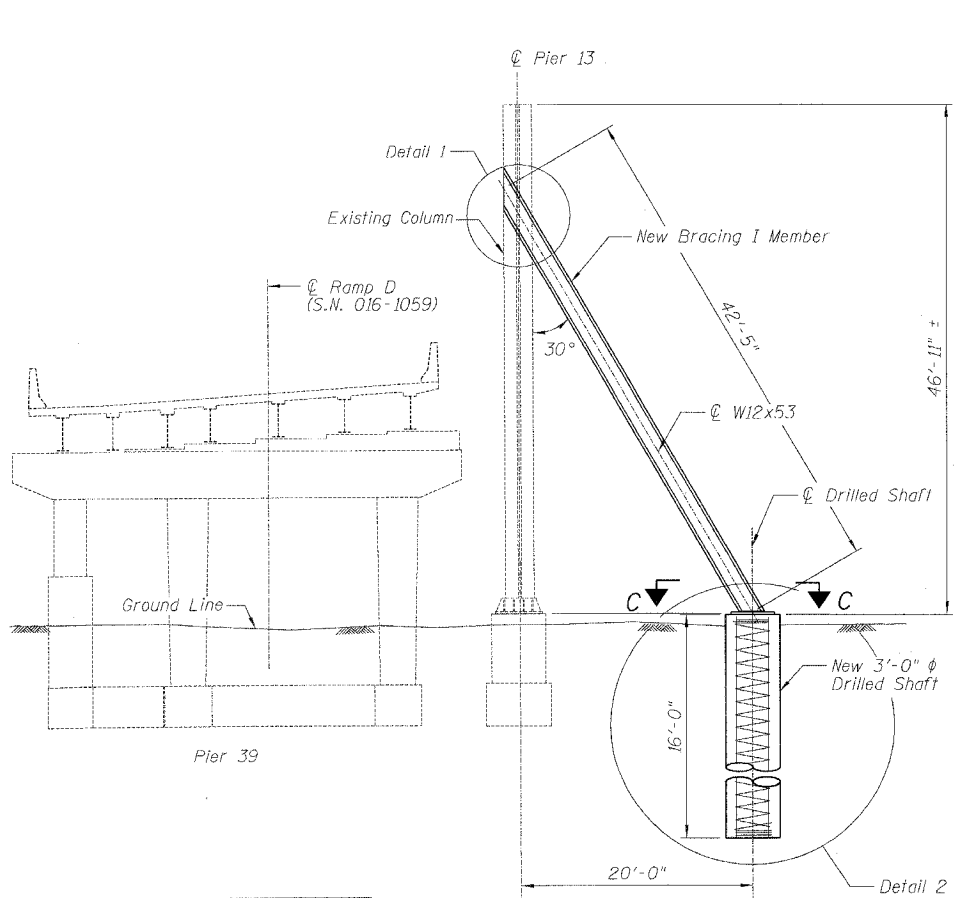


DETAIL 1

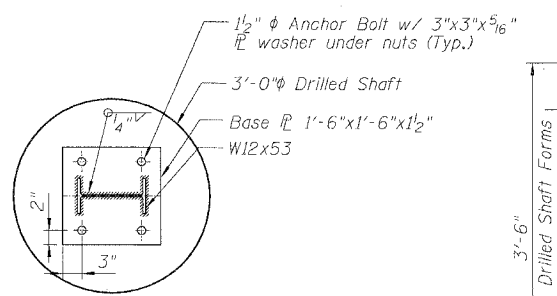
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
sp ₁ (E)	1	#5	13'-6"	~
v ₁ (E)	13	#8	13'-6"	—
Reinforcement Bars, Epoxy Coated			Pound	990
Drilled Shaft in Soil			Cu. Yd.	4.2
Structural Steel Repair			Pound	2,750

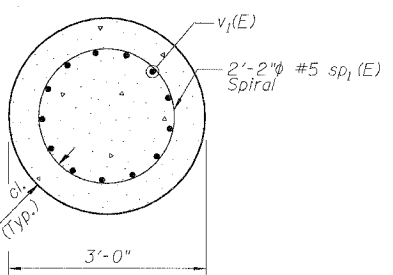
Minimum lap for spirals = 2'-2"
** Length is height of spiral.



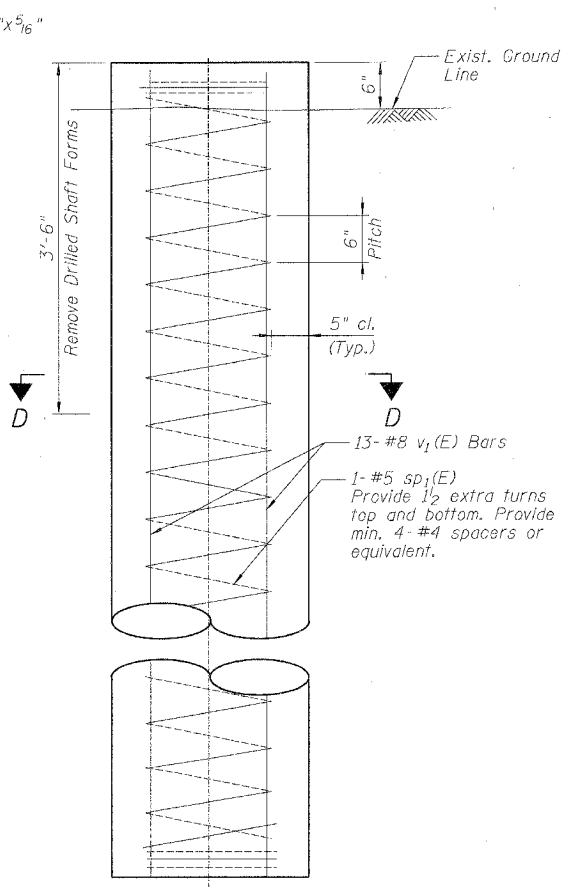
VIEW A-A



VIEW C-C



SECTION D-D



DETAIL 2

REVISIONS	NAME	DATE

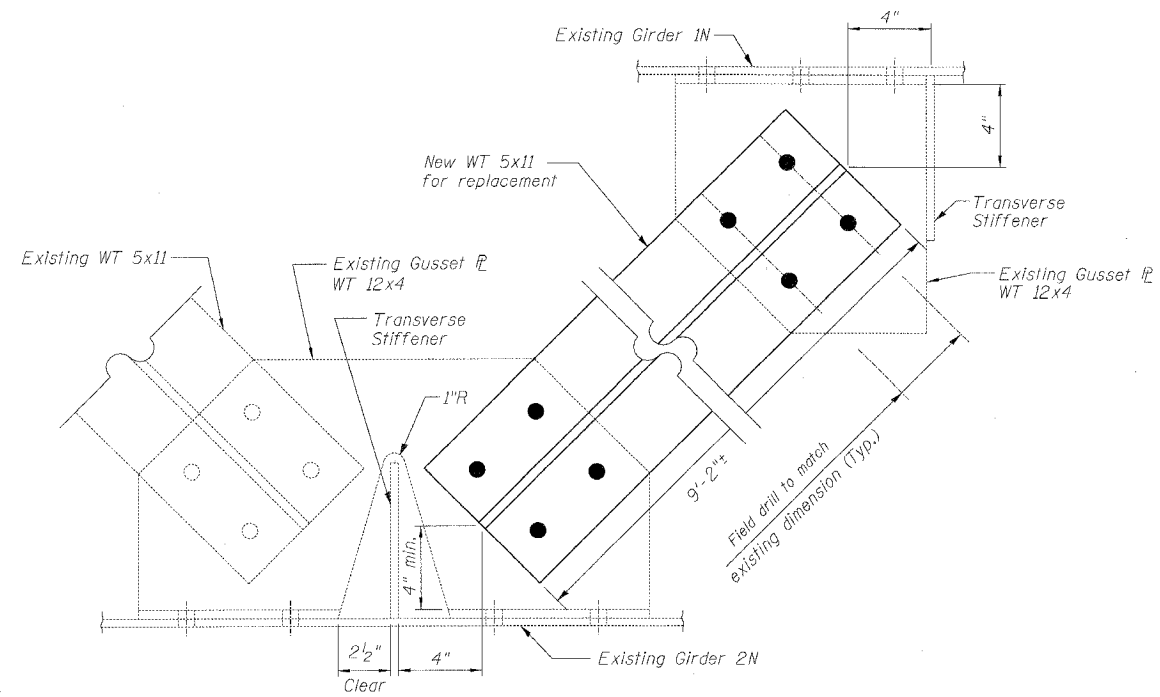
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
STEEL REPAIRS - DETAIL K (2 OF 2)
SCALE: NTS
DATE: 3/7/2008
DRAWN BY: MTR
CHECKED BY: BLU

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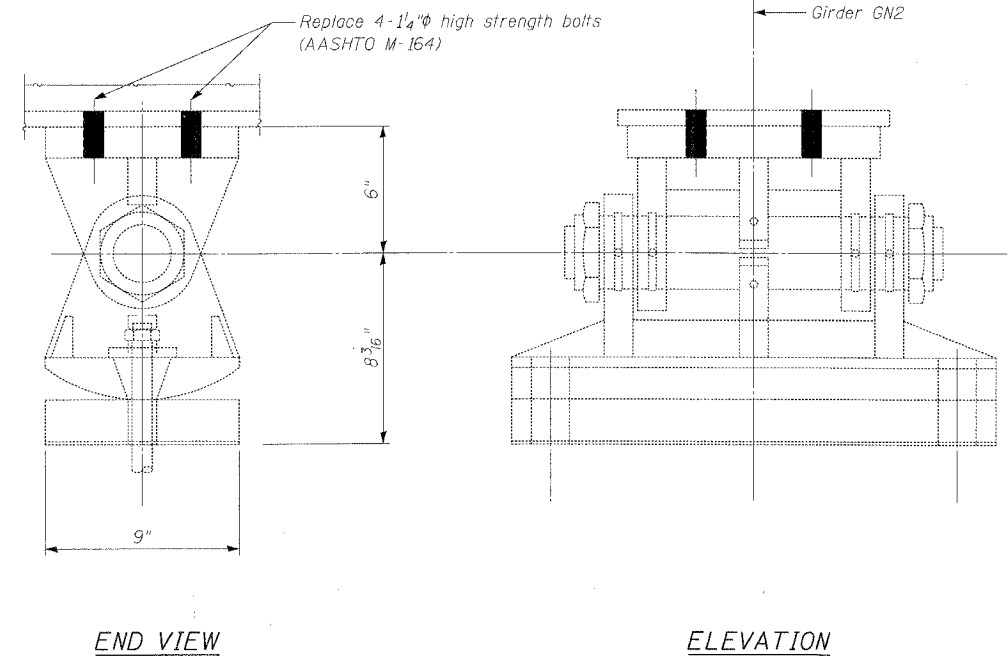
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	52
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B07



DETAIL H BRACING MEMBER REPLACEMENT
(S.N. 016-1116, Span 3)



Note:

1. Cost of bolt replacement shall be incidental to "Structural Steel Repair".
2. Bolt replacement shall be done one at a time.

DETAIL L - BOLT REPLACEMENT
S.N. 016-1070, Pier 1

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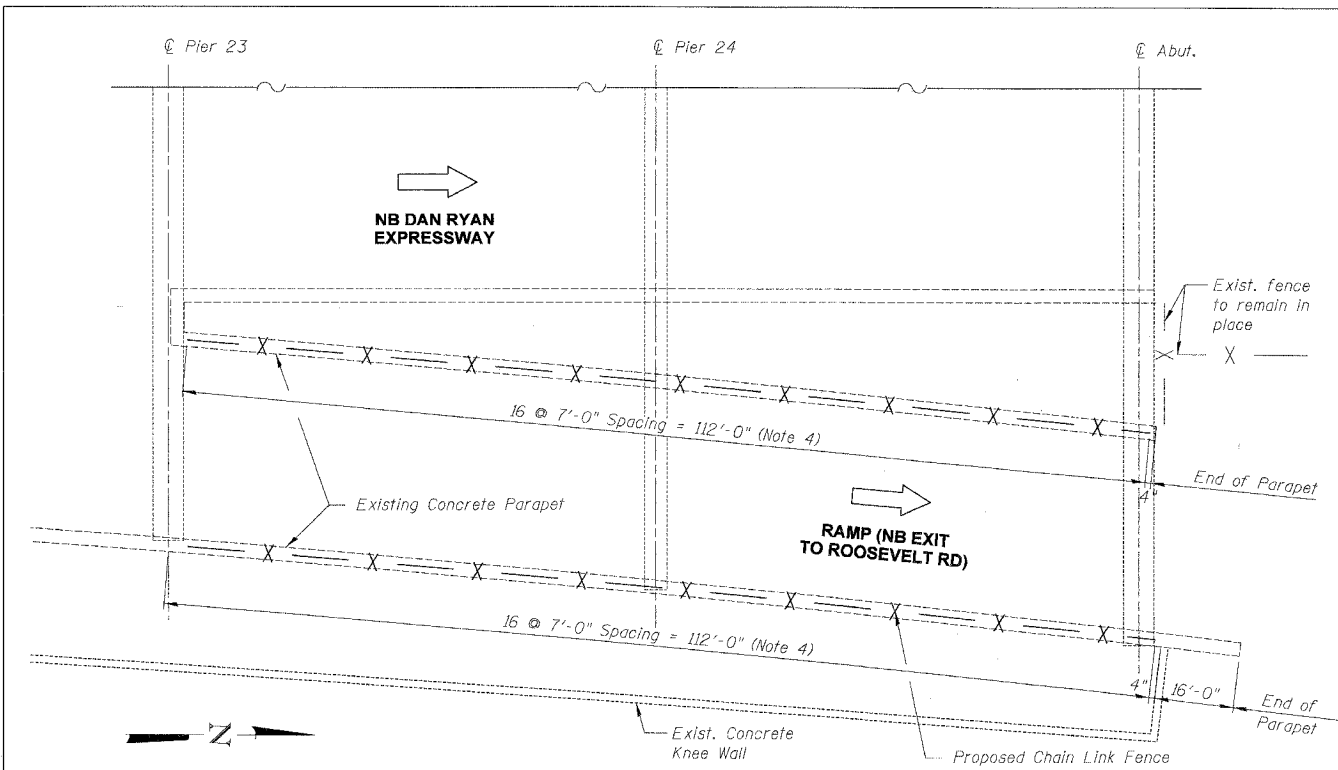
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR

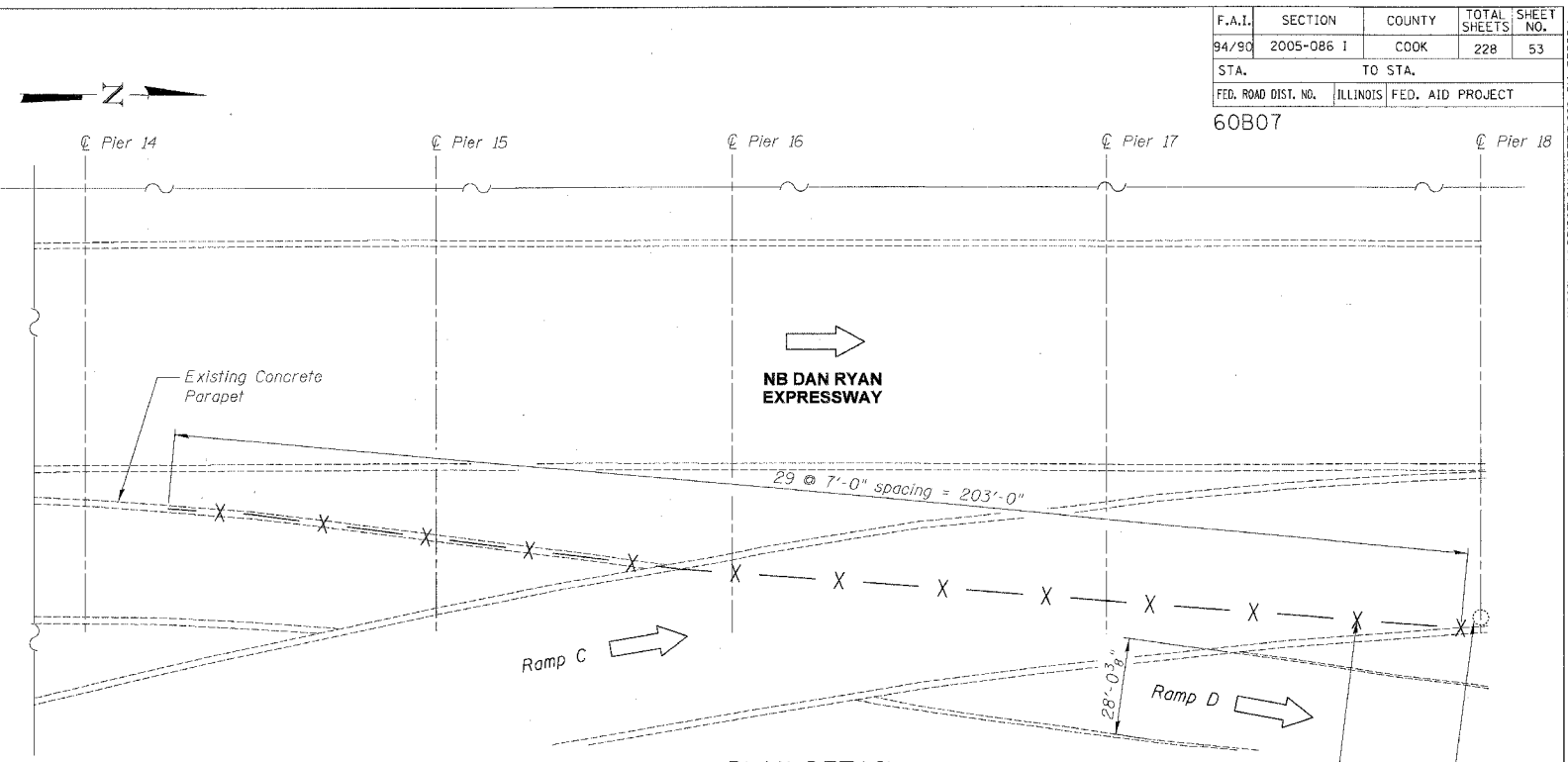
STEEL REPAIRS - DETAIL L
SCALE: NTS
DATE: 3/7/2008
DRAWN BY: MTR
CHECKED BY: BLU

3/21/2008 B-MHT AM

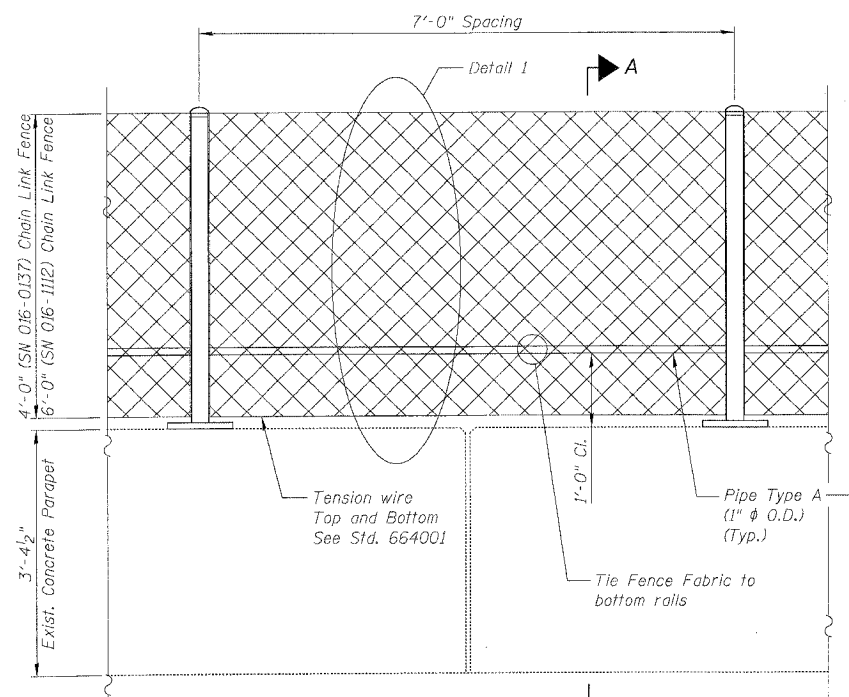
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 1	COOK	228	53
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
60B07				



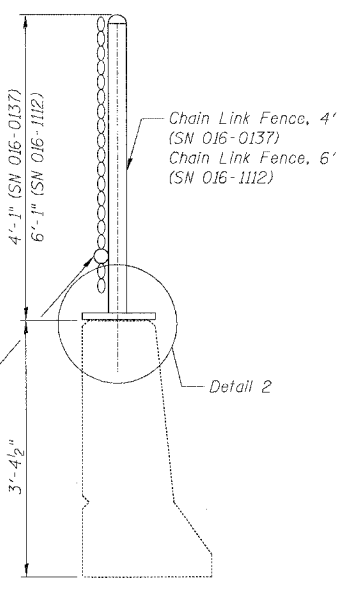
PLAN DETAIL
(SN 016-0137)



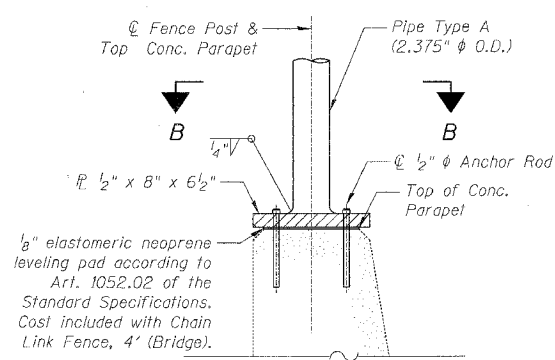
PLAN DETAIL
(SN 016-1112)



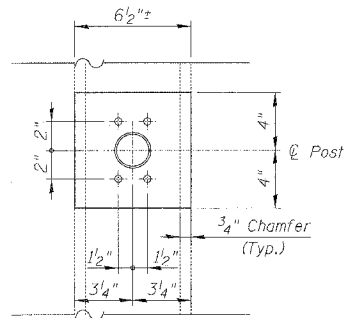
TYPICAL CHAIN LINK FENCE



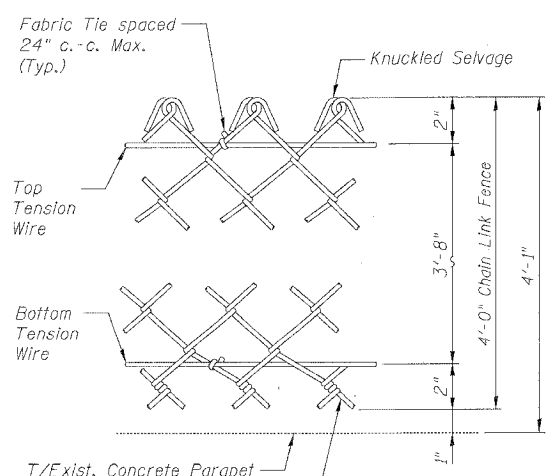
SECTION A-A



DETAIL 2



VIEW B-B



DETAIL 1

BILL OF MATERIAL

Item	Unit	Qty.
Chain Link Fence, 4' (Bridge)	Foot	224
Chain Link Fence, 6' (Bridge)	Foot	203

- Notes:
- For additional Chain Link Fence Detail see Highway Standard 664001.
 - Drill and grout 1/2" φ Anchor Rods in accordance with Art. 584 of the Standard Specifications. Provide hex nuts and washers. Galvanize rods, nuts and washers in accordance with Art. 1006.09 of the Standard Specifications. Cost included with "Chain Link Fence, 4' (Bridge)" or "Chain Link Fence, 6' (Bridge)".
 - This work shall be performed overnight using alternating shoulder closure in accordance with Hwy. Std. 701411-3. Minimum 12' lane shall be maintained for ramp traffic at all time. The cost shall be included in "Traffic Control and Protection (Expressway)".
 - At SN 016-0137, adjust post spaces to match field conditions as directed by Engineer, and to ensure proper closure with existing fences.
 - At S.N. 016-1112, install first post to be as close to Pier C18 as possible. Use brackets to ensure proper closure with Pier C18 as directed by Engineer. The cost of furnishing and erecting of closure bracket assemblies shall be included in "Chain Link Fence, 6' (Bridge)".

REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 CHAIN LINK FENCE DETAIL

SCALE: NTS
 DATE: 3/7/2008

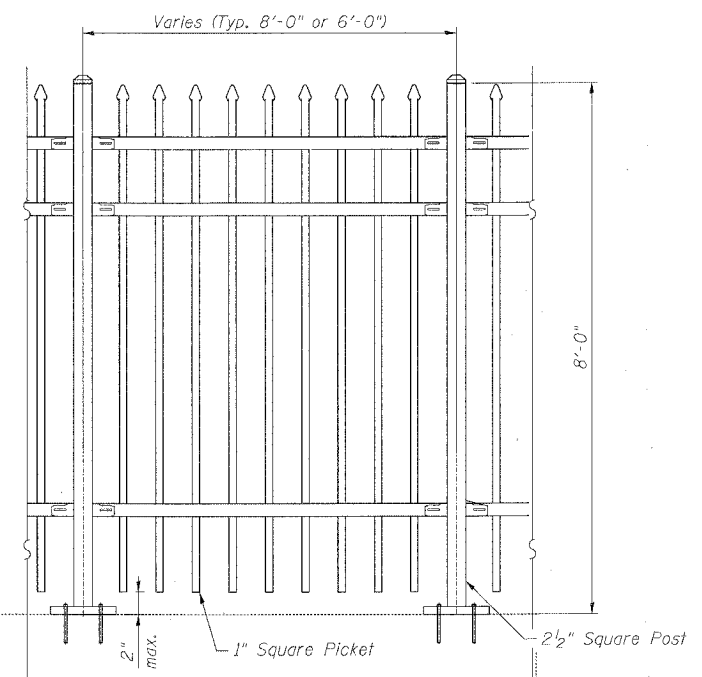
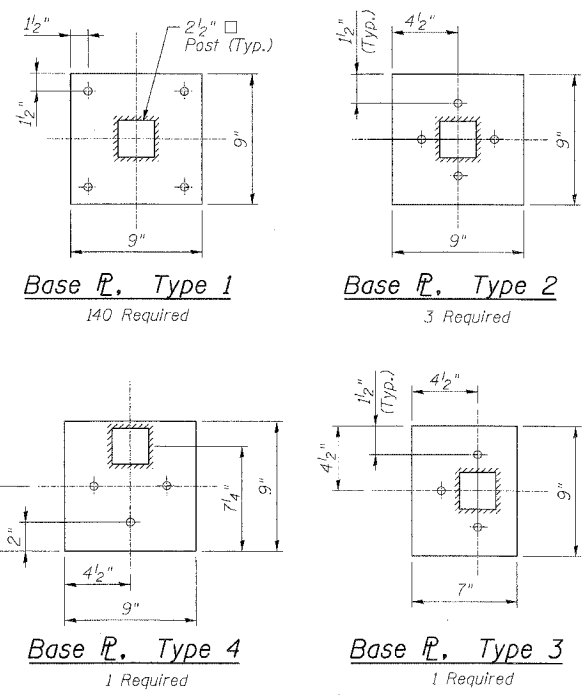
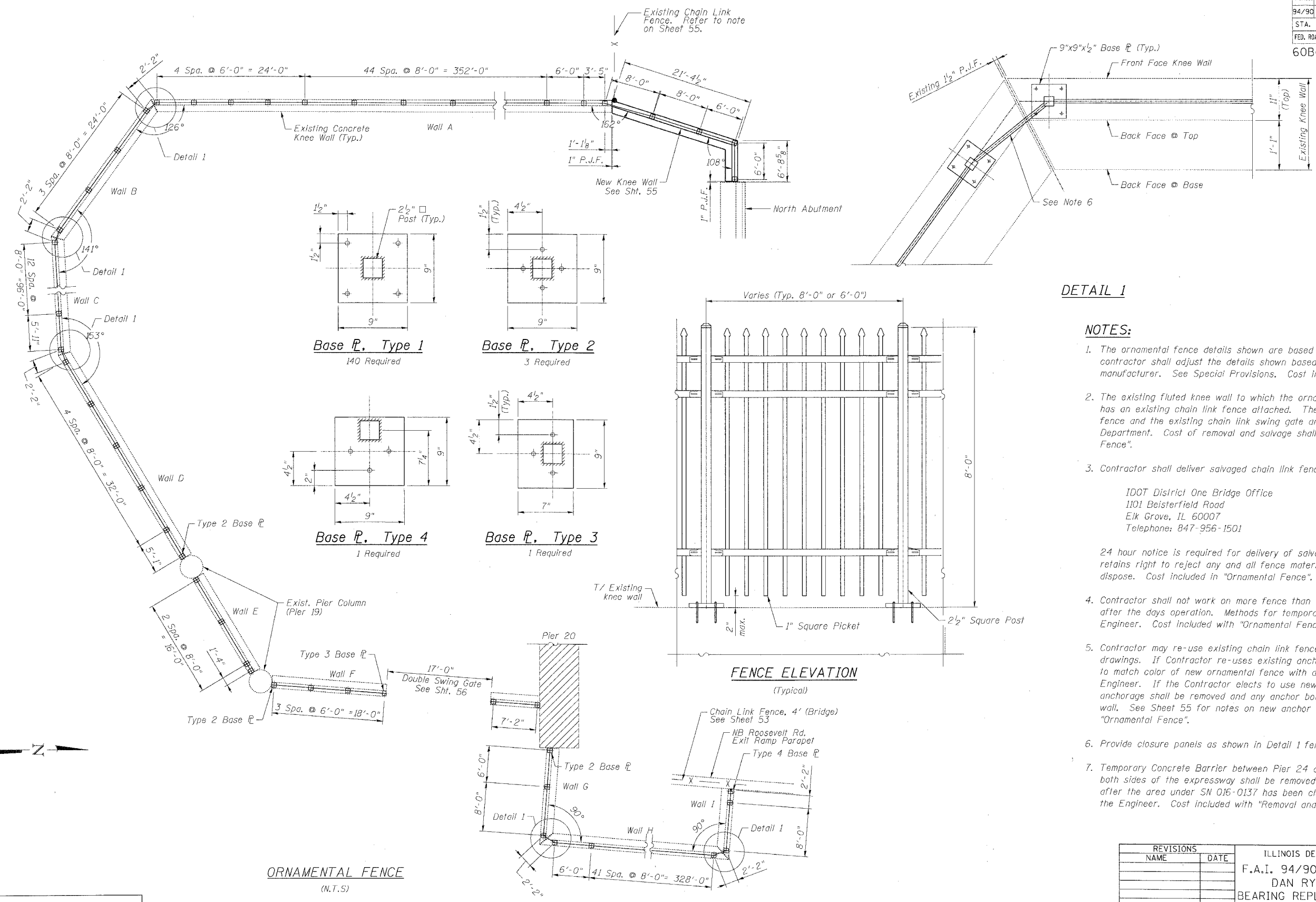
DRAWN BY: LAM
 CHECKED BY: BLU

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	54
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B07



DETAIL 1

NOTES:

- The ornamental fence details shown are based on a specific manufacturer. The contractor shall adjust the details shown based on the actual fence manufacturer. See Special Provisions. Cost included with "Ornamental Fence".
- The existing fluted knee wall to which the ornamental fence shall be attached has an existing chain link fence attached. The Contractor shall remove this fence and the existing chain link swing gate and salvage for delivery to the Department. Cost of removal and salvage shall be included with "Ornamental Fence".
- Contractor shall deliver salvaged chain link fence and gate materials to:

IDOT District One Bridge Office
1101 Beisterfeld Road
Elk Grove, IL 60007
Telephone: 847-956-1501

24 hour notice is required for delivery of salvage materials. Department retains right to reject any and all fence material and require Contractor to dispose. Cost included in "Ornamental Fence".
- Contractor shall not work on more fence than can be temporarily closed up after the days operation. Methods for temporary closure shall be approved by Engineer. Cost included with "Ornamental Fence".
- Contractor may re-use existing chain link fence anchor assembly as shown on drawings. If Contractor re-uses existing anchor assembly it shall be painted to match color of new ornamental fence with a system approved by the Engineer. If the Contractor elects to use new fence anchorage, existing anchorage shall be removed and any anchor bolts cut flush with top of knee wall. See Sheet 55 for notes on new anchor rods. Cost included with "Ornamental Fence".
- Provide closure panels as shown in Detail 1 fence geometry.
- Temporary Concrete Barrier between Pier 24 and the North Abutment along both sides of the expressway shall be removed and disposed by the Contractor after the area under SN 016-0137 has been cleaned up to the satisfaction of the Engineer. Cost included with "Removal and Disposal of Unsuitable Material".

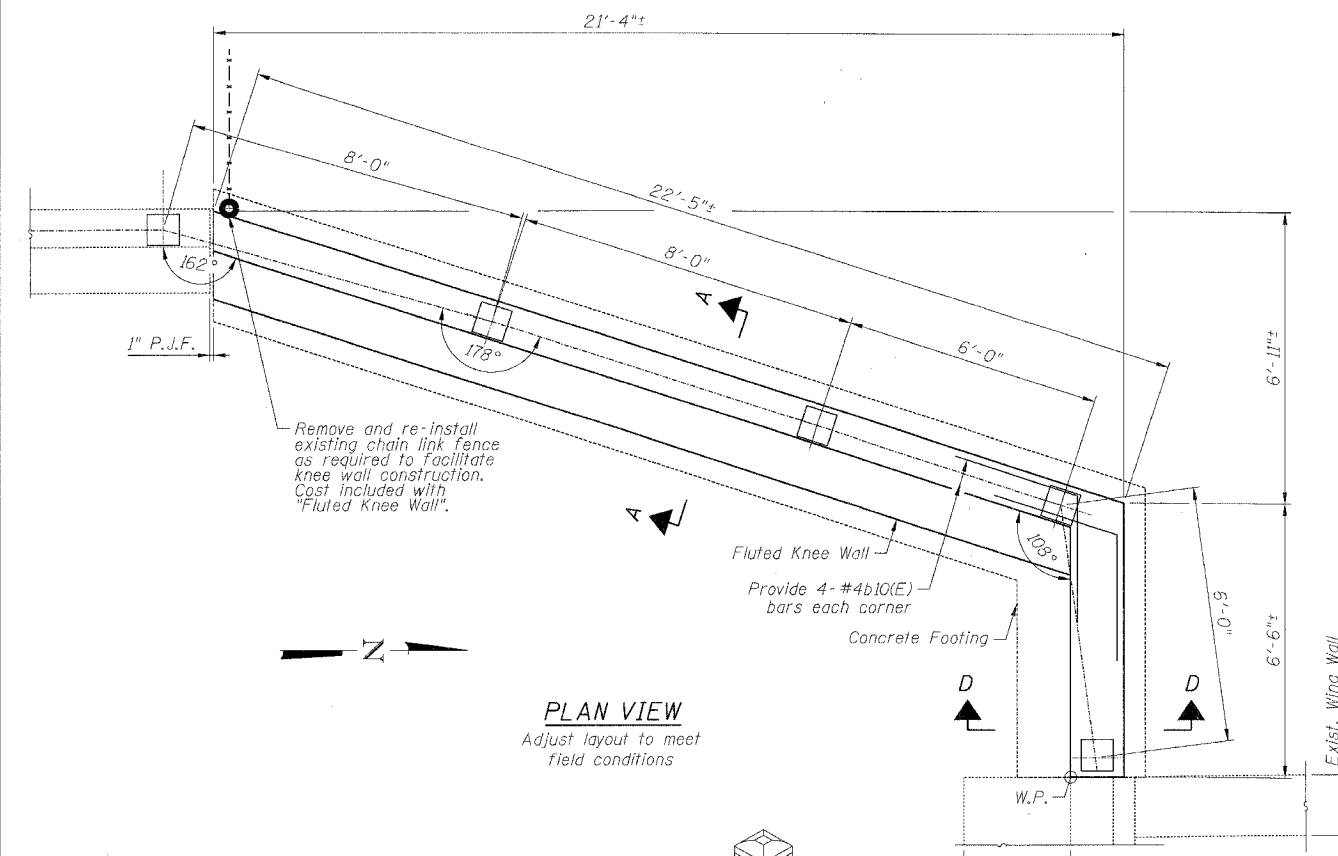
ORNAMENTAL FENCE
(N.T.S)

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE	F.A.I. 94/90 (DAN RYAN EXPRESSWAY)	
		DAN RYAN ELEVATED BRIDGE	
		BEARING REPLACEMENT & STEEL REPAIR	
		ORNAMENTAL FENCE DETAIL (1 OF 3)	
		SCALE: NTS	DRAWN BY: MTR
		DATE: 3/7/2008	CHECKED BY: BLU

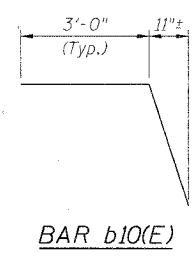
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 3/21/2008
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 3/21/2008

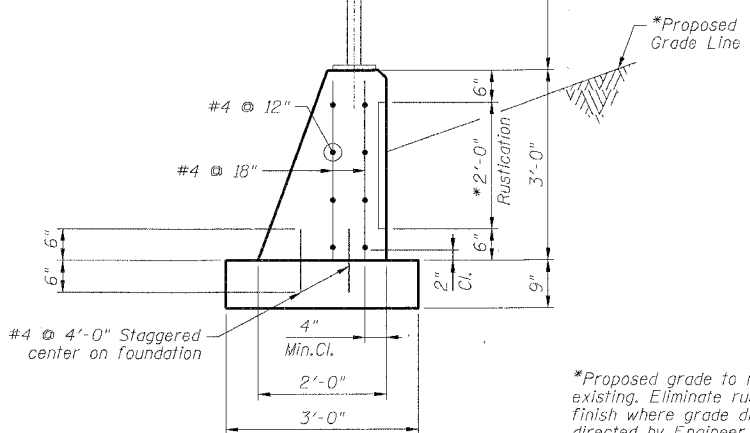
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
60B07				



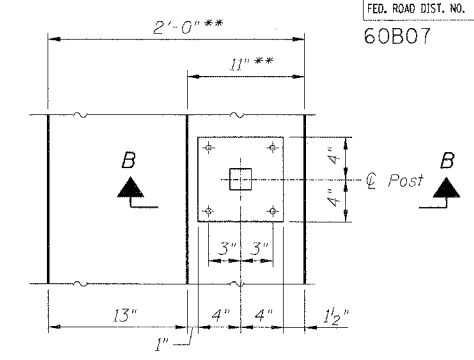
PLAN VIEW
Adjust layout to meet field conditions



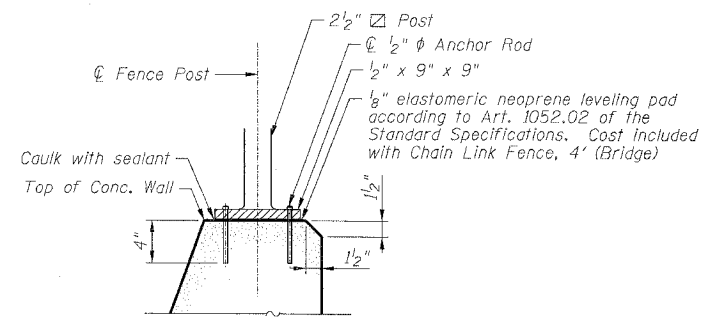
BAR #10(E)



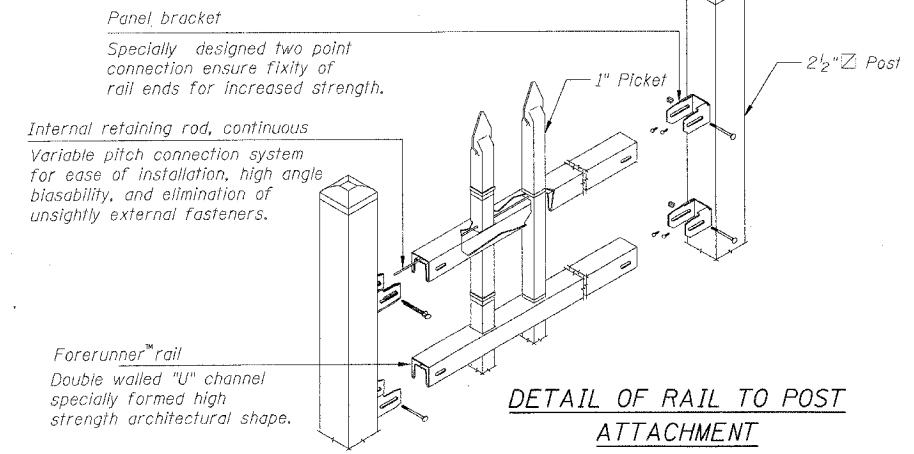
SECTION A-A



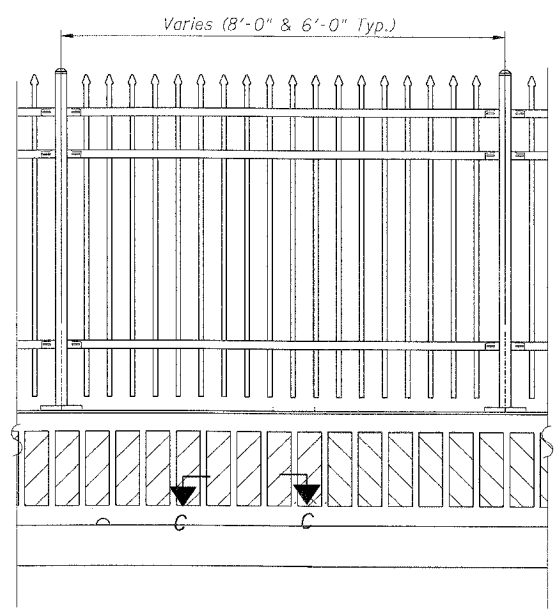
BASE PLATE DETAIL
**Adjust as required to match Sec. D-D



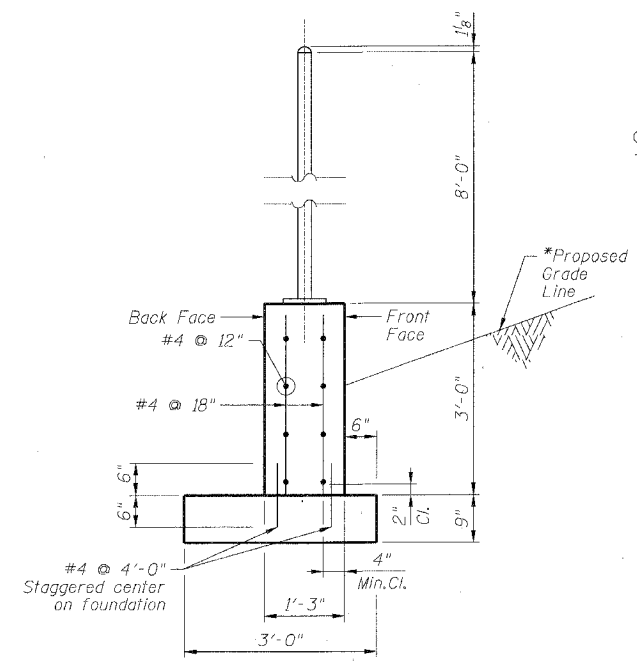
SECTION B-B



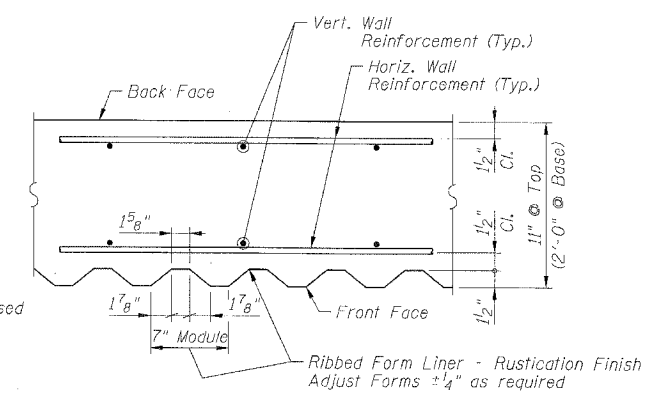
DETAIL OF RAIL TO POST ATTACHMENT



ELEVATION



SECTION D-D



SECTION C-C

BILL OF MATERIAL

Item	Unit	Qty.
Ornamental Fence	Foot	1,008
Fluted Knee Wall	Foot	28

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 ORNAMENTAL FENCE DETAIL (2 of 3)
 SCALE: NTS
 DATE: 3/1/2008
 DRAWN BY: MTR
 CHECKED BY: BLU

NOTES:

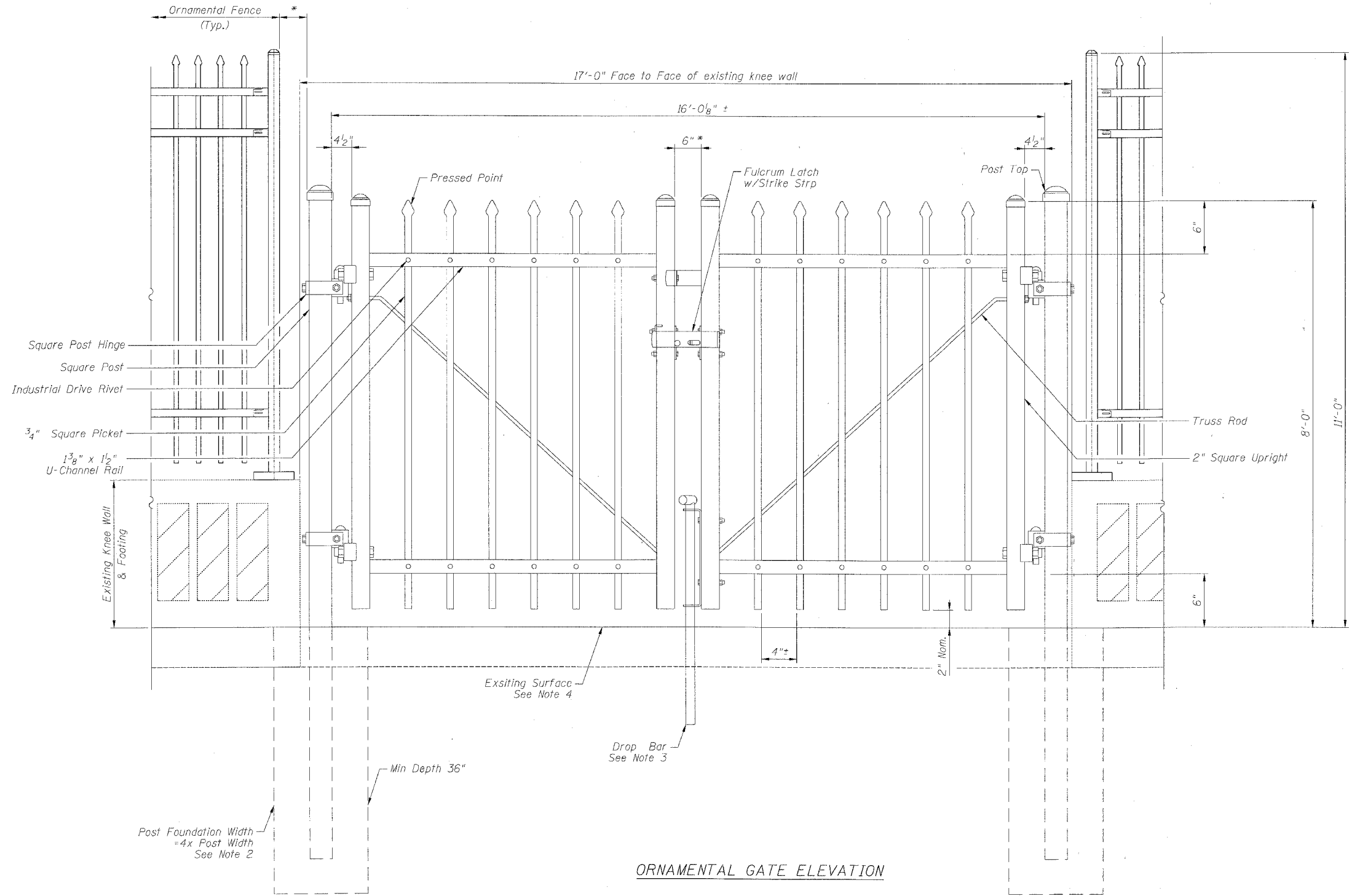
- Contractor shall restore area disturbed by knee wall construction as directed by Engineer. Cost included in "Fluted Knee Wall".
- Cost of "Fluted Knee Wall" shall include Concrete Superstructure stem, Concrete Structures Foundation, Reinforcement Bars (Epoxy Coated), all form liners for Rustication Finish, Protective Coat, Structure Excavation and Preformed Joint Filler.
- Drill and grout 1/2" ϕ Anchor Rods in accordance with Art. 584 of the Standard Specifications. Provide hex nuts and washers. Galvanize rods, nuts and washers in accordance with Art. 1006.09 of the Standard Specifications. Cost included with "Chain Link Fence, 4' (Bridge)".

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 1	COOK	228	56
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B07



ORNAMENTAL GATE ELEVATION

NOTES:

- Ornamental Gate Elevation shown is schematic and it shall be Contractor's responsibility to provide a 2 panel swing gate meeting the requirements shown that is consistent in appearance with the adjacent ornamental fence. Cost of gate and all work and components required to install shall be included in the per foot unit bid price for "Ornamental Fence".
- Contractor shall adjust post foundation location and size to match existing knee wall and footing constraints. Cost of foundation and adjustments shall be included with "Ornamental Fence".
- Cost of constructing necessary below grade components for drop bar function shall be included with "Ornamental Fence".
- Contractor shall verify existing surface components within and near gate opening and make provisions for removal, replacement or adjustments in developing gate details. Cost of any necessary construction required to the existing surface materials to properly accommodate the gate details shall be considered included with "Ornamental Fence".
- Contractor shall assure gate and fence details do not allow for the passage of a sphere 6 inches in diameter through any opening.
- Contractor shall remove signs from the existing gate and re-attach to new gate as directed by Engineer. Cost included with "Ornamental Fence".
- Gate shall be provided with a keyed padlock and 10 sets of keys. Padlock type and size shall be provided by Engineer. Cost included with "Ornamental Fence".

*See Note 5

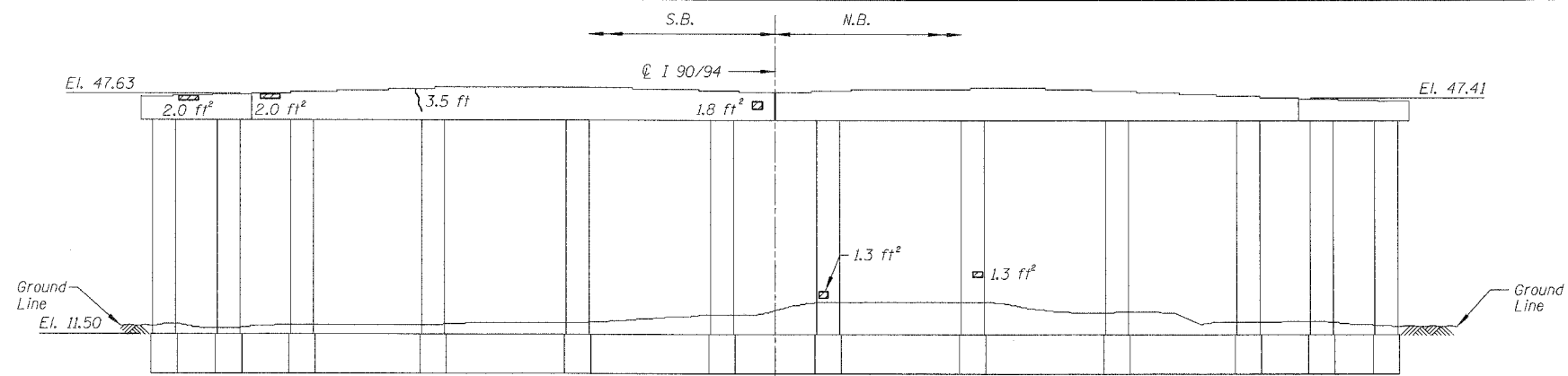
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REVISIONS	
NAME	DATE

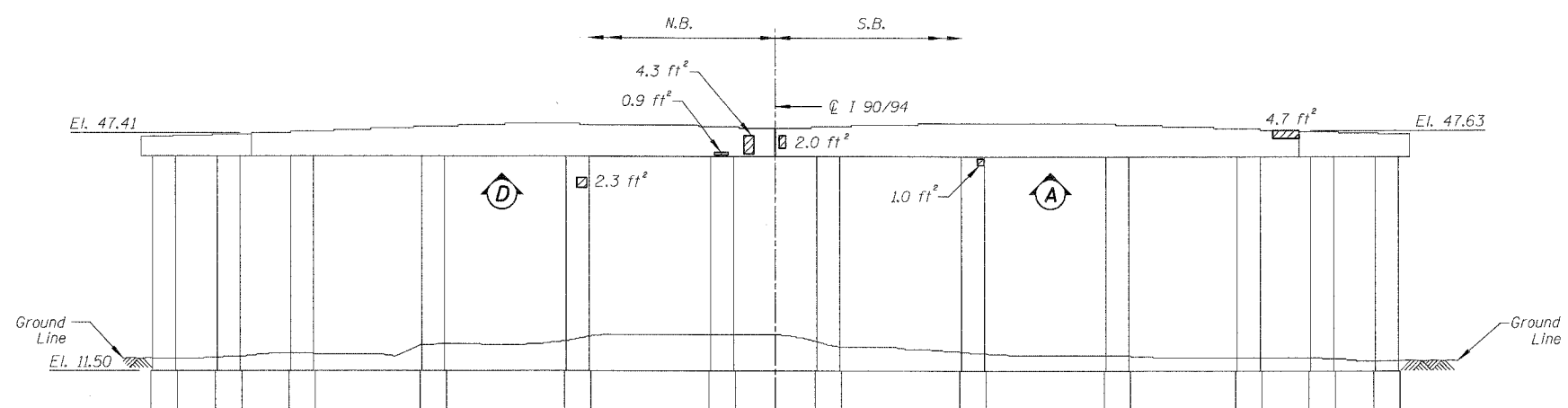
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
ORNAMENTAL FENCE DETAIL (3 OF 3)
SCALE: NTS
DATE: 3/1/2008
DRAWN BY: MTR
CHECKED BY: BLU

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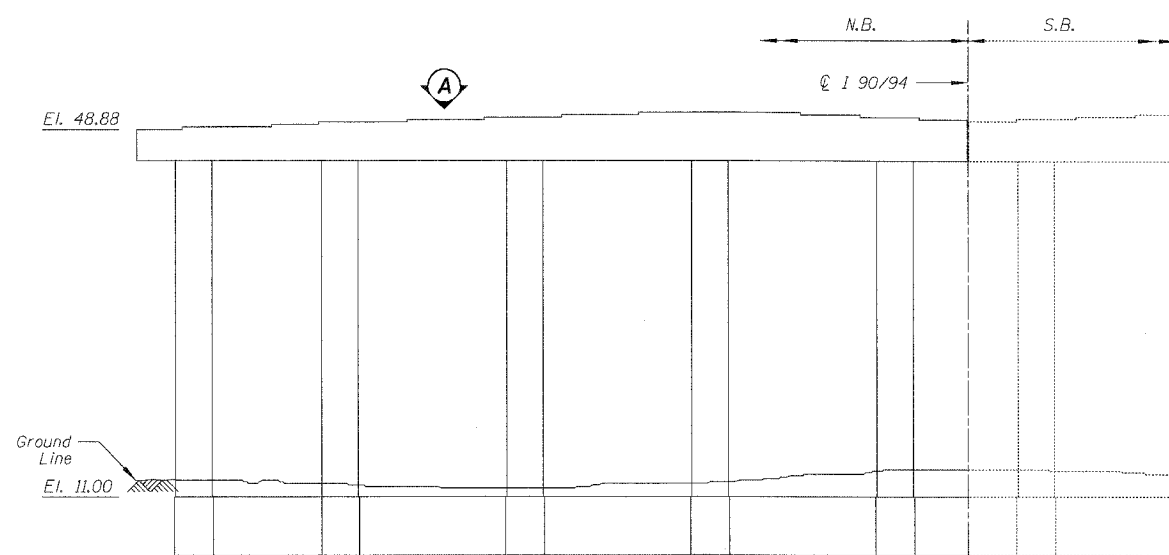
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FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
60B07				



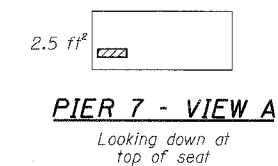
PIER 8 - SOUTH ELEVATION
(Looking North)



PIER 8 - NORTH ELEVATION
(Looking South)

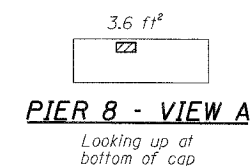


PIER 7 - NORTH ELEVATION
(Looking South)



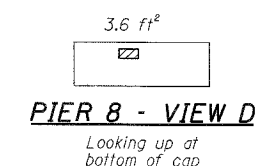
PIER 7 - VIEW A

Looking down at top of seat



PIER 8 - VIEW A

Looking up at bottom of cap



PIER 8 - VIEW D

Looking up at bottom of cap

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	33.3
Epoxy Crack Injection	FOOT	3.5

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR CONCRETE PIER REPAIRS SN 016-0137, PIERS 7&8
NAME	DATE	

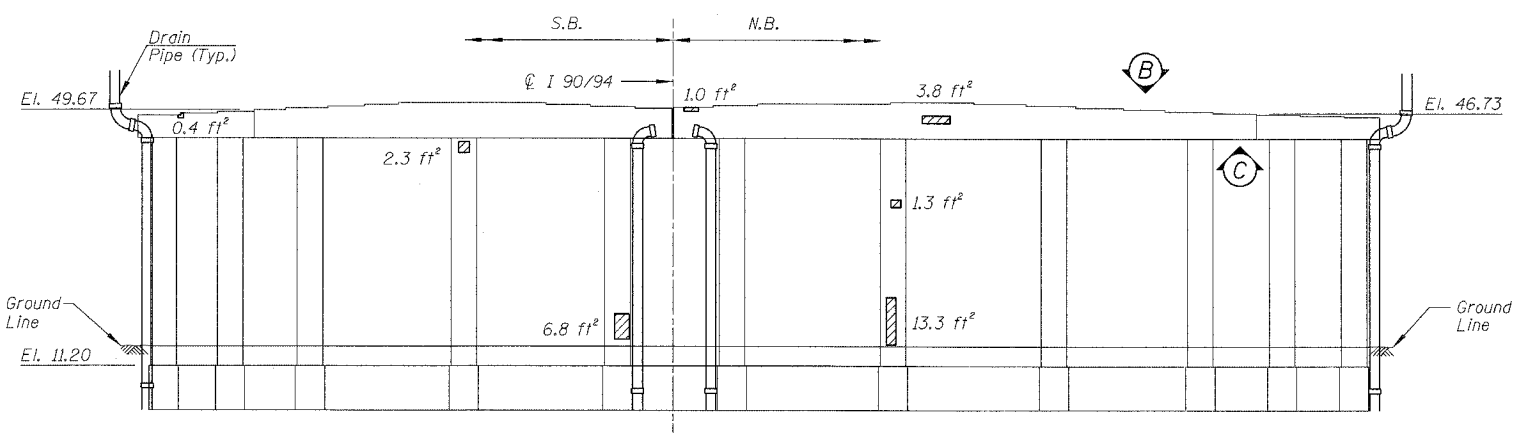
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

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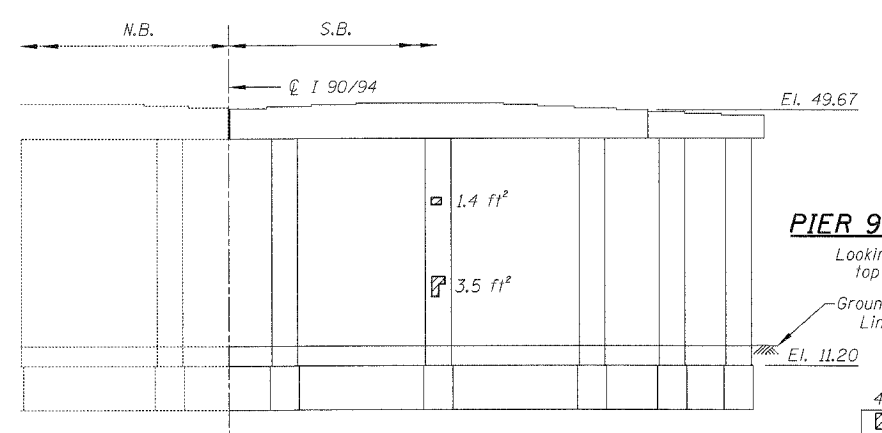
For Notes and Legend See Sheet 6

4-55271 PM 5/24/2007

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07				



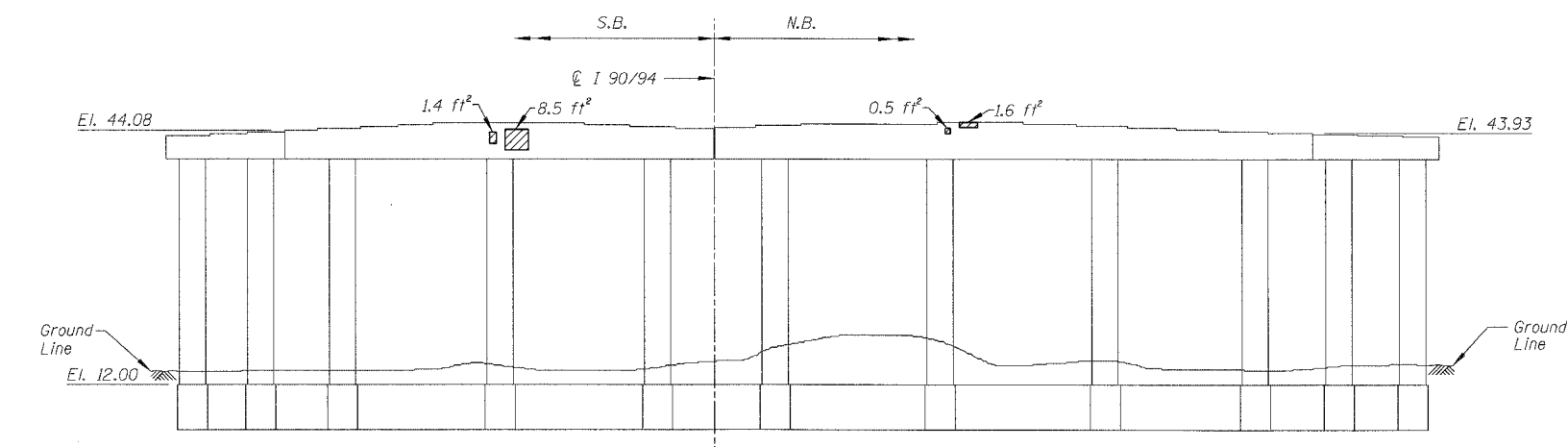
PIER 9 - SOUTH ELEVATION
(Looking North)



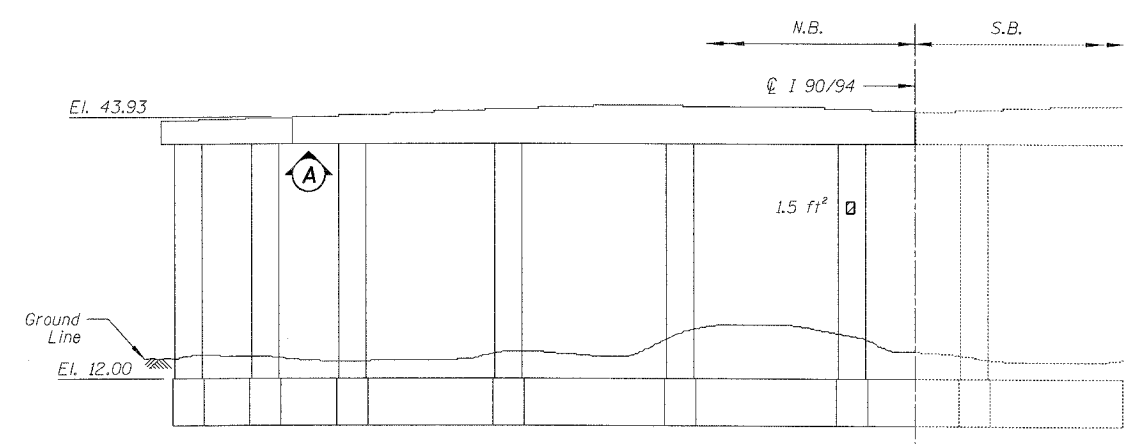
PIER 9 - NORTH ELEVATION
(Looking South)

PIER 9 - VIEW B **PIER 9 - VIEW C**
Looking down at top of seat Looking down at top of seat

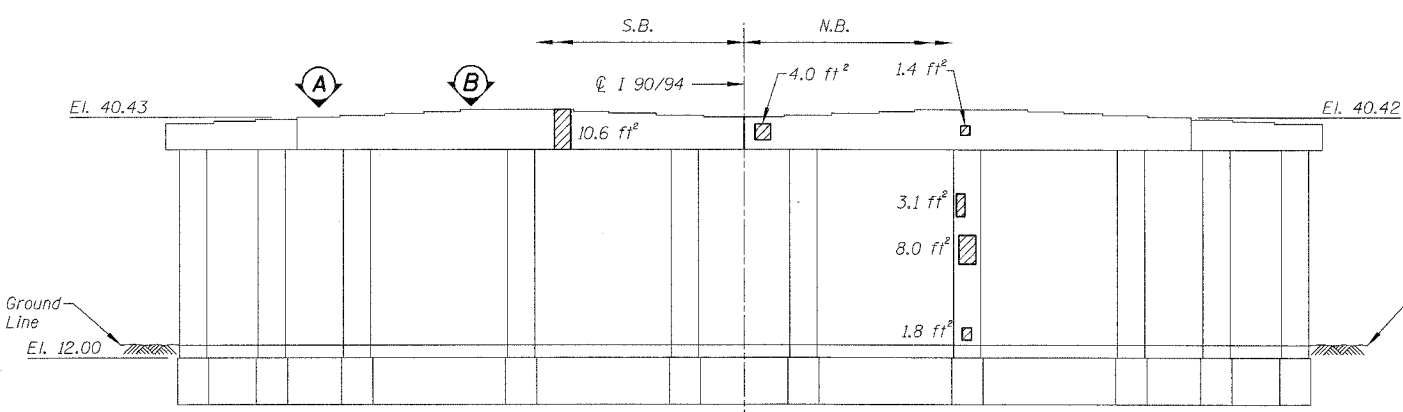
PIER 10 - VIEW A **PIER 12 - VIEW A**
Looking up at bottom of cap Looking down at top of seat



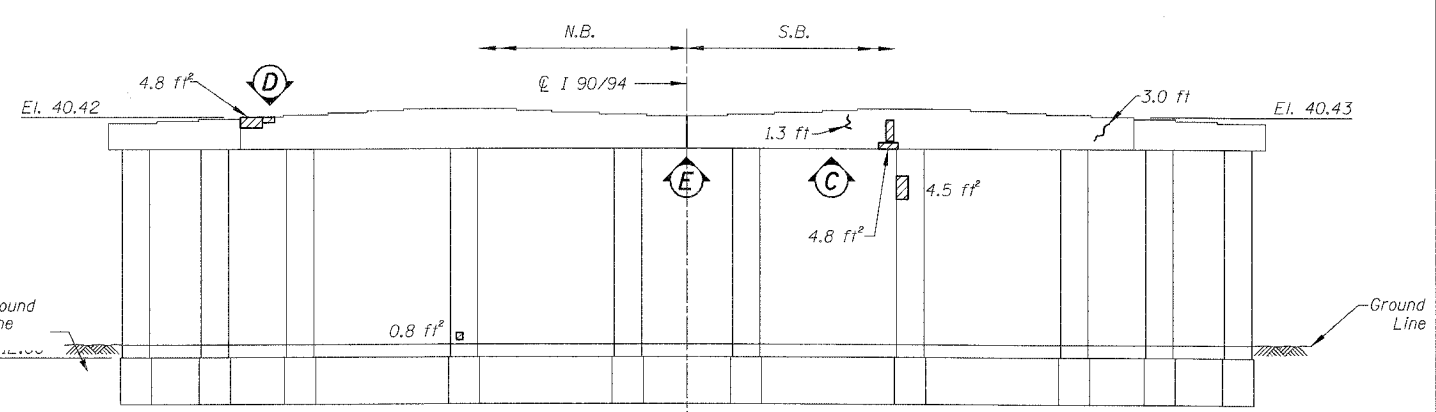
PIER 10 - SOUTH ELEVATION
(Looking North)



PIER 10 - NORTH ELEVATION
(Looking South)



PIER 12 - SOUTH ELEVATION
(Looking North)



PIER 12 - NORTH ELEVATION
(Looking South)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5')	SQ. FT.	123.6
Epoxy Crack Injection	FOOT	4.3

PIER 12 - VIEW B
Looking down at top of seat

PIER 12 - VIEW C
Looking up at bottom of cap

PIER 12 - VIEW D
Looking down at top of seat

PIER 12 - VIEW E
Looking up at bottom of cap

REVISIONS	
NAME	DATE

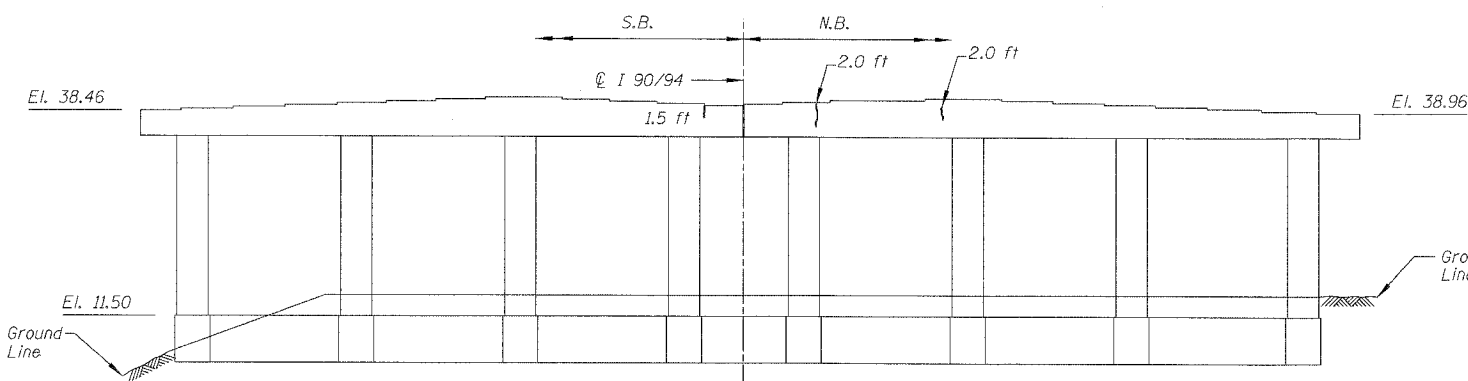
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-0137, PIERS 9,10,12
SCALE: NTS DRAWN BY: LAM
DATE: 5/18/2007 CHECKED BY: BLU

For Notes and Legend See Sheet 6

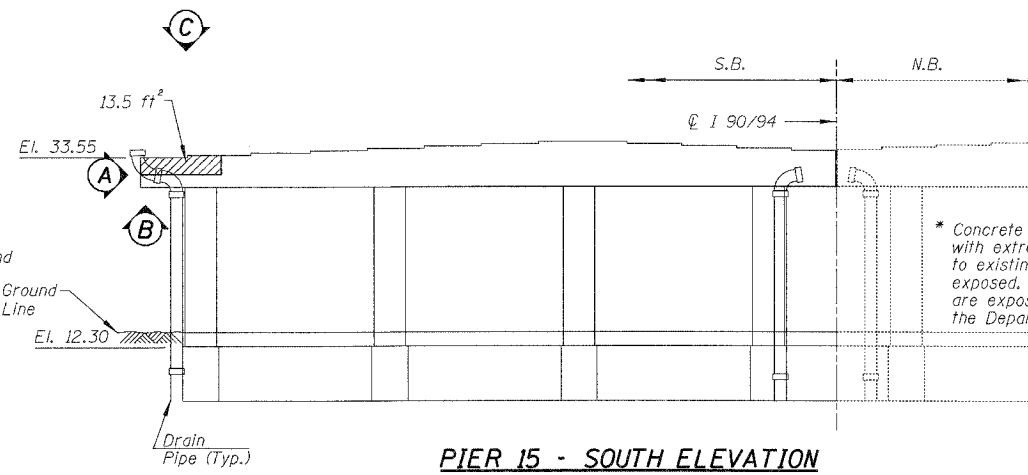
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	59
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
60B07				

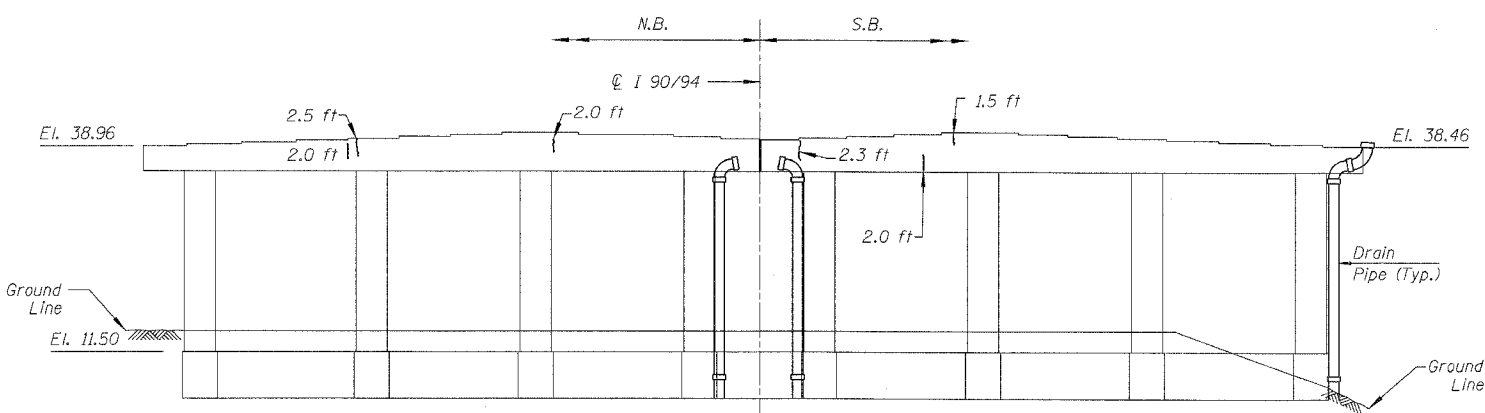


PIER 13 - SOUTH ELEVATION
(Looking North)

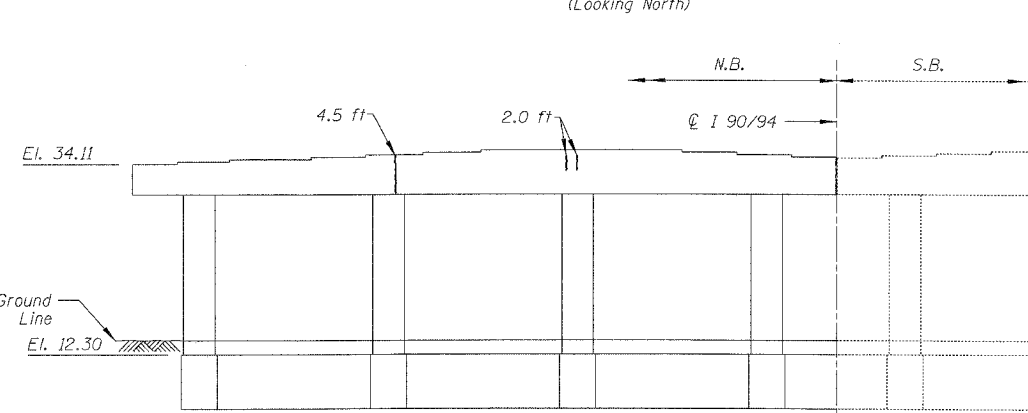


PIER 15 - SOUTH ELEVATION
(Looking North)

* Concrete shall be removed around existing bearings with extreme cautions. No damage shall be allowed to existing bearings, and no anchor bolts shall be exposed. If bearings are damaged or anchor bolts are exposed, they shall be replaced at no cost to the Department.



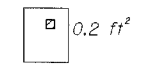
PIER 13 - NORTH ELEVATION
(Looking South)



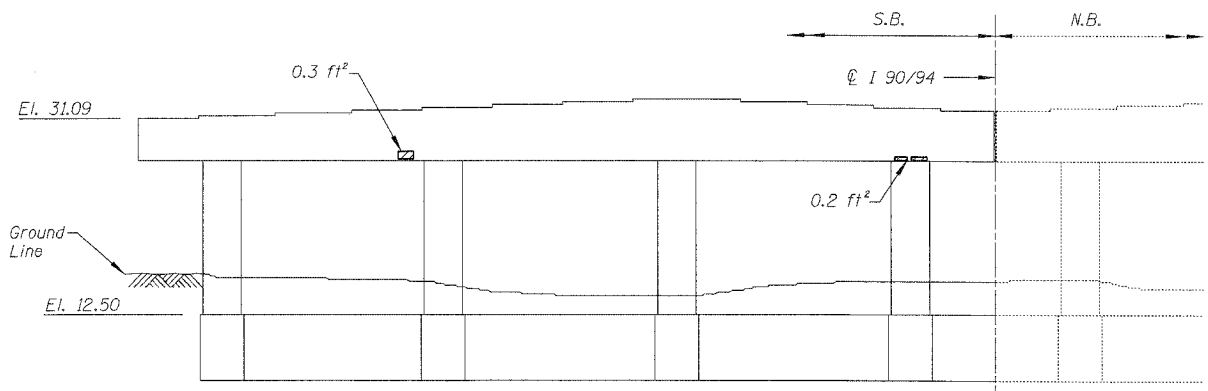
PIER 15 - NORTH ELEVATION
(Looking South)



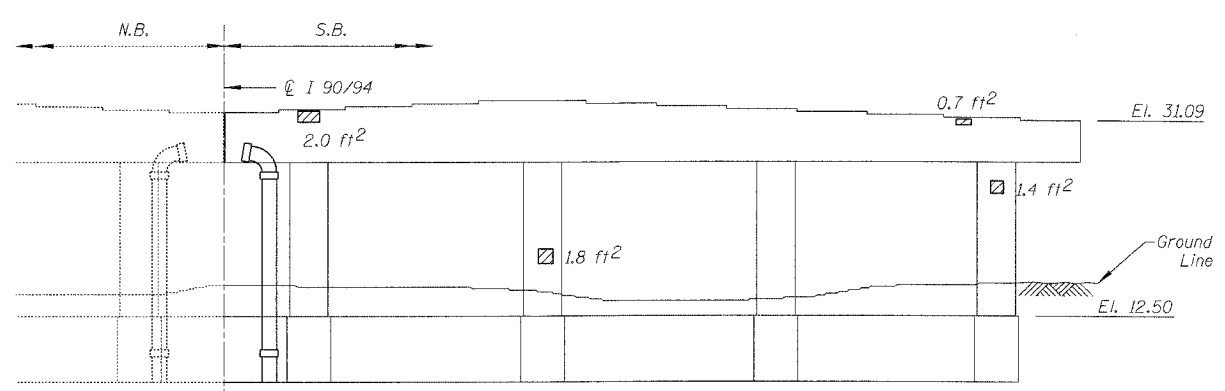
PIER 15 - VIEW A
Looking East at end of cap



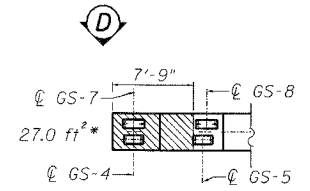
PIER 15 - VIEW B
Looking up at bottom of cap



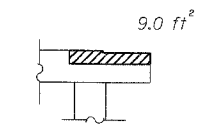
PIER 16 - SOUTH ELEVATION
(Looking North)



PIER 16 - NORTH ELEVATION
(Looking South)



PIER 15 - VIEW C
Looking down at top of cap



PIER 15 - VIEW D
Looking south at west end of cap

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	59.2
Epoxy Crack Injection	FOOT	26.3

REVISIONS	
NAME	DATE

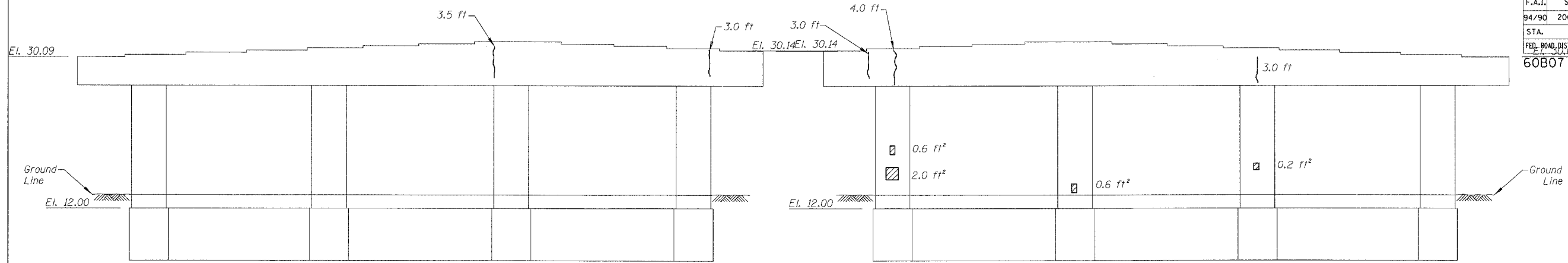
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-0137, PIERS 13,15,16
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

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For Notes and Legend See Sheet 6

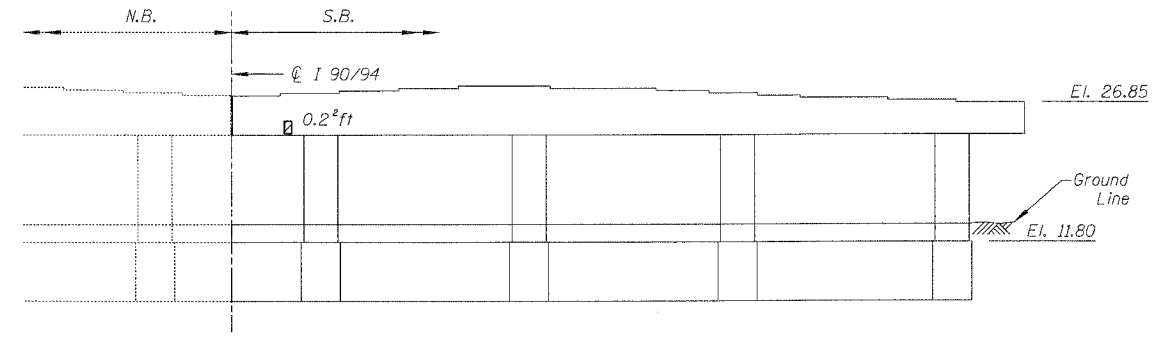
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07				

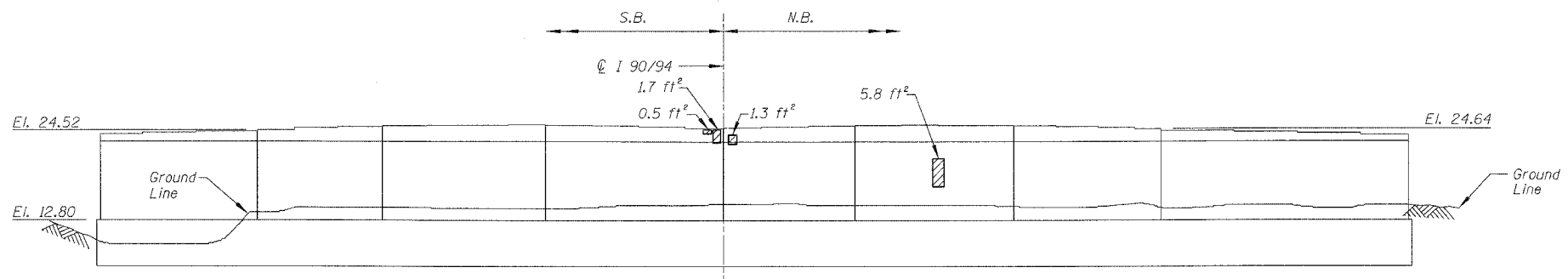


PIER 17 - SOUTH ELEVATION
(Looking North)

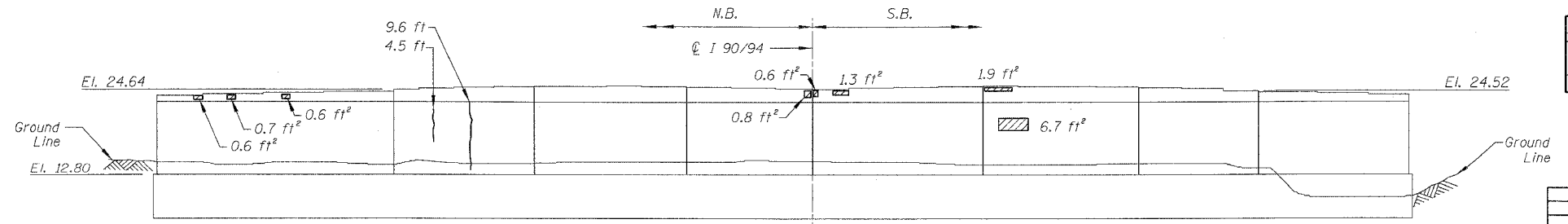
PIER 17 - NORTH ELEVATION
(Looking South)



PIER 19 - NORTH ELEVATION
(Looking South)



PIER 20 - SOUTH ELEVATION
(Looking North)



PIER 20 - NORTH ELEVATION
(Looking South)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	26.1
Epoxy Crack Injection	FOOT	30.6

REVISIONS	
NAME	DATE

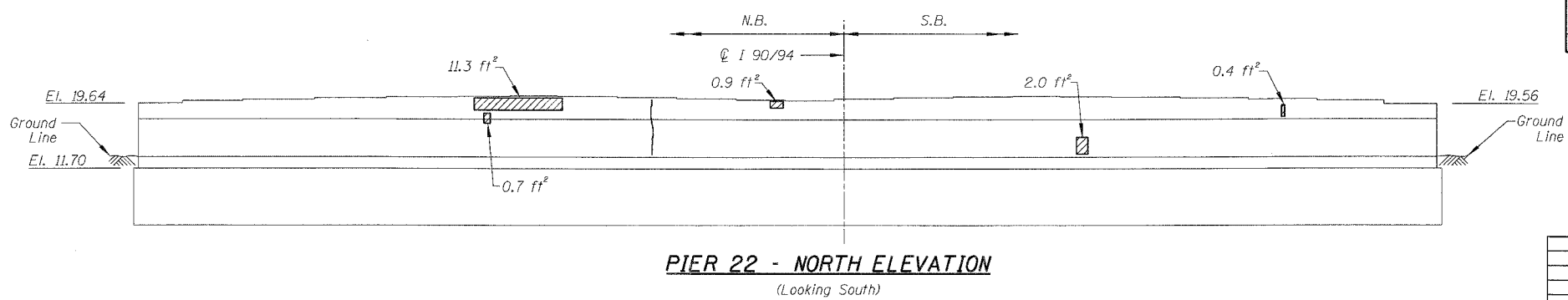
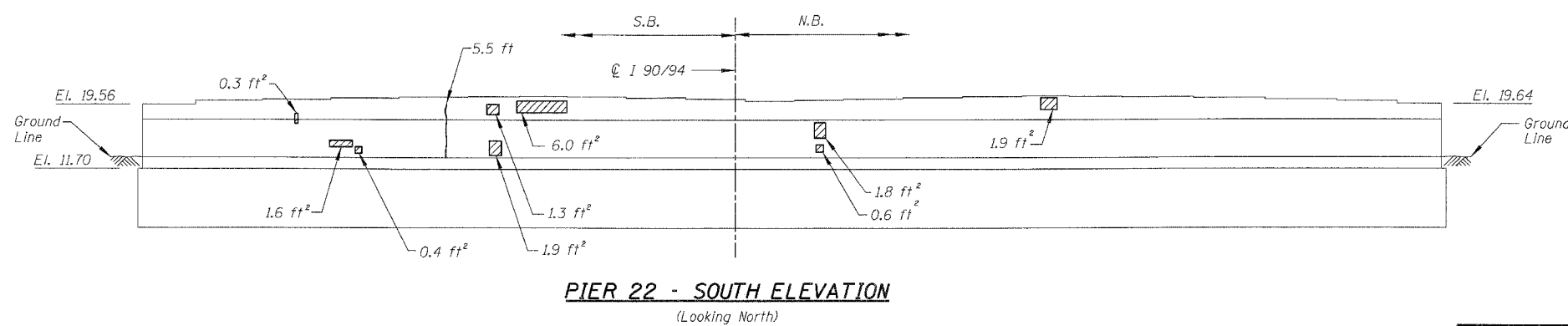
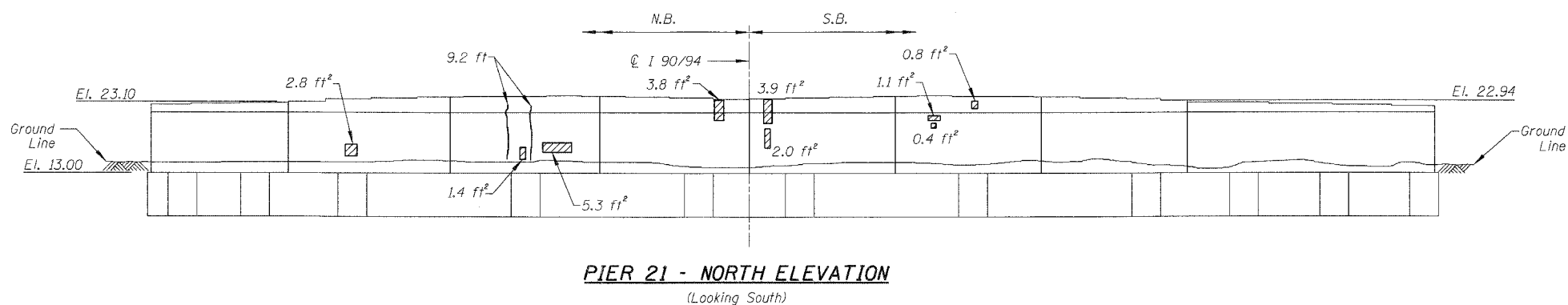
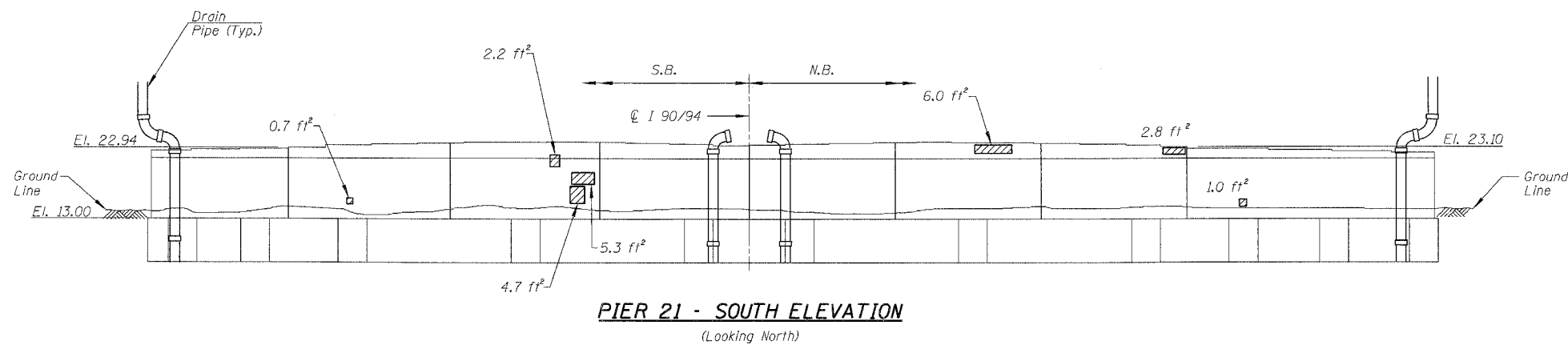
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 CONCRETE PIER REPAIRS
 SN 016-0137, PIERS 17,19,20
 SCALE: NTS
 DATE: 5/18/2007
 DRAWN BY: LAM
 CHECKED BY: BLU

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For Notes and Legend See Sheet 6

4-5524 PM 5/24/2007

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	61
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
60B07				



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	75.3
Epoxy Crack Injection	FOOT	23.9

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR CONCRETE PIER REPAIRS SN 016-0137, PIERS 21&22
NAME	DATE	

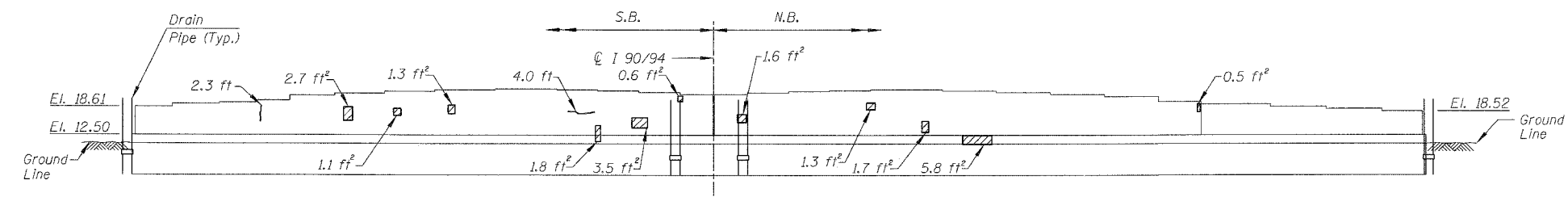
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DRAWN BY: LAM
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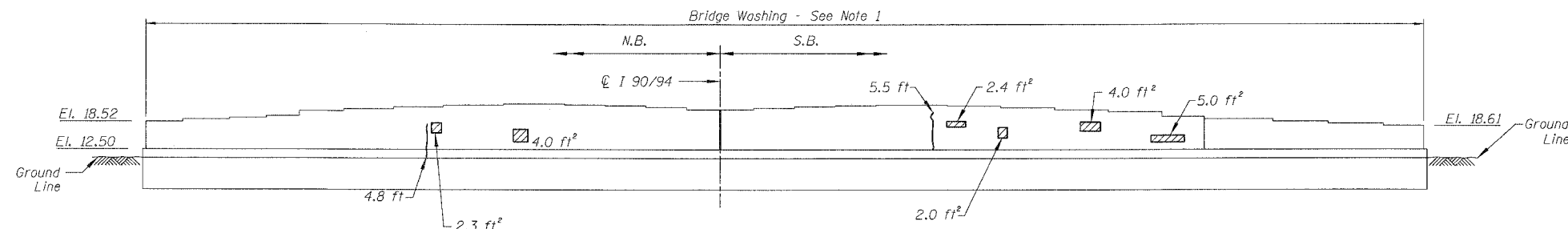
For Notes and Legend See Sheet 6

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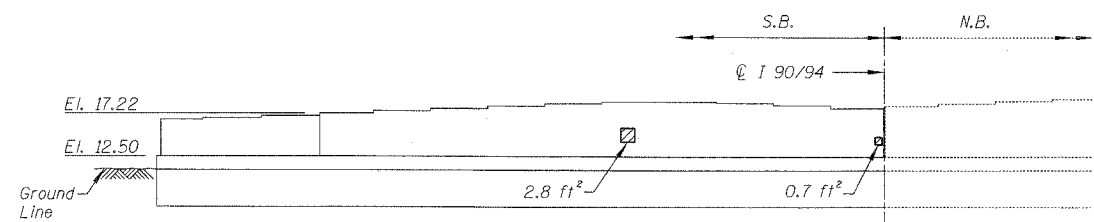
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
60B07				



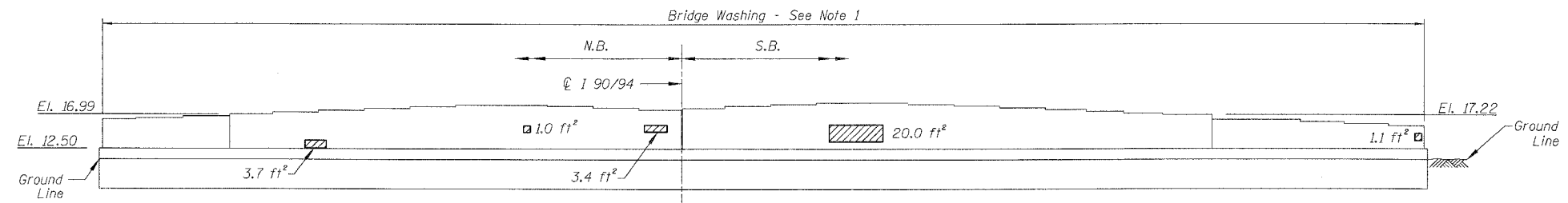
PIER 23 - SOUTH ELEVATION
(Looking North)



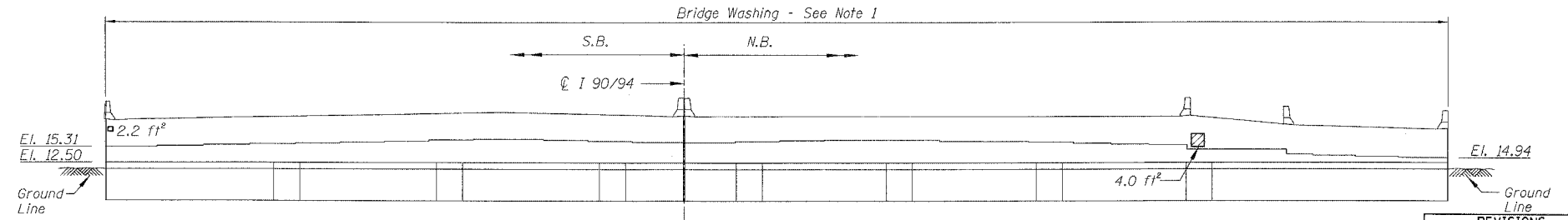
PIER 23 - NORTH ELEVATION
(Looking South)



PIER 24 - SOUTH ELEVATION
(Looking North)



PIER 24 - NORTH ELEVATION
(Looking South)



NORTH ABUTMENT - SOUTH ELEVATION
(Looking North)

NOTES:

1. Contractor shall clean all exposed surfaces of Piers 23, 24 & N. Abutment per Article 592 of the Standard Specifications as directed by the Engineer after Removal and Disposal of Unsuitable Material.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	80.5
Epoxy Crack Injection	FOOT	16.6
Bridge Washing	EACH	1

REVISIONS	
NAME	DATE

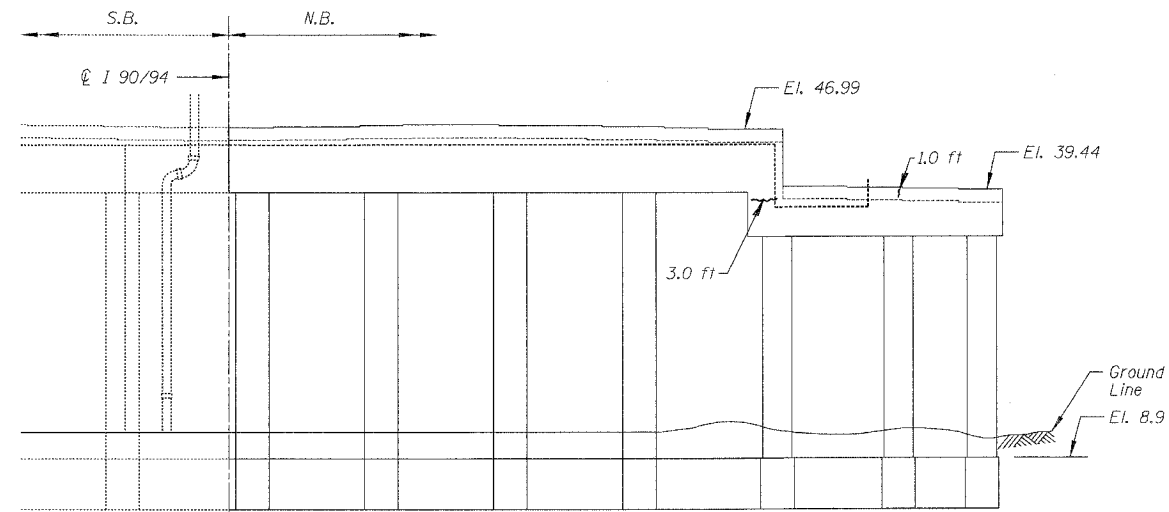
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-0137, PIERS 23&24, N. ABUT.
SCALE: NTS
DATE: 8/21/2007
DRAWN BY: LAM
CHECKED BY: BLU

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CONSULTING ENGINEERS
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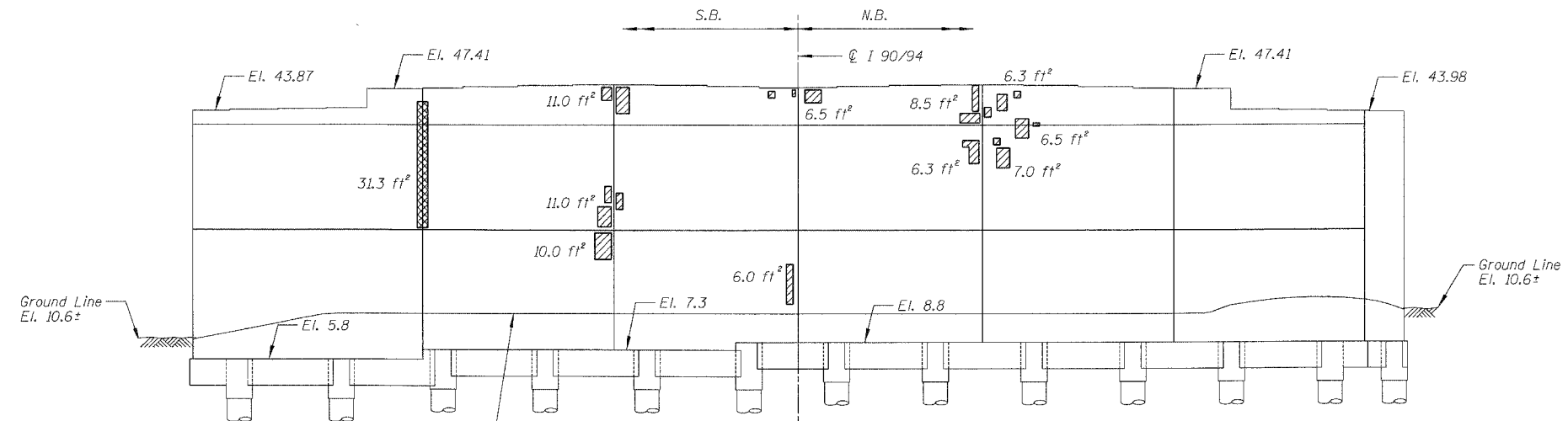
For Notes and Legend See Sheet 6

8/21/2007 8:09:46 AM

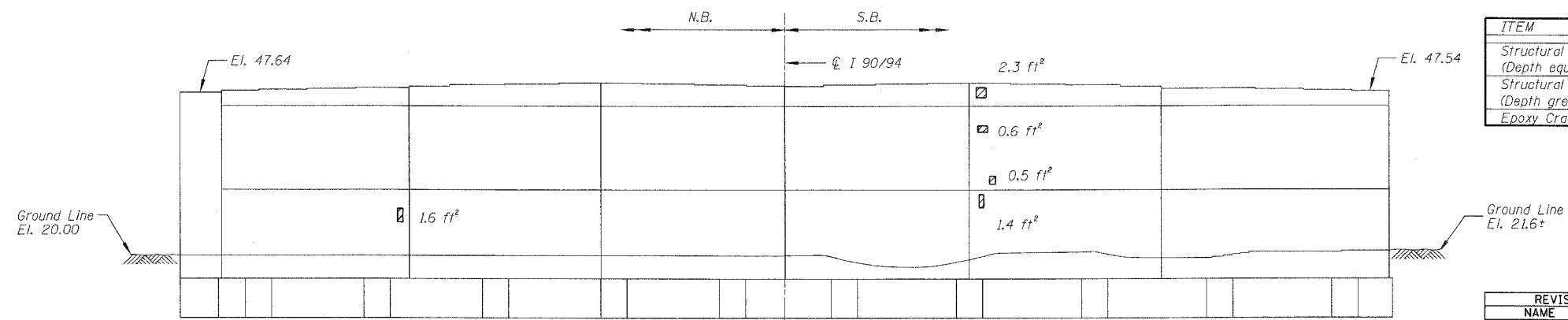
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	63
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
60B07				



PIER 1 - SOUTH ELEVATION
(Looking North)



PIER 2 - SOUTH ELEVATION
(Looking North)



PIER 3 - NORTH ELEVATION
(Looking South)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	85.5
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	31.3
Epoxy Crack Injection	FOOT	4.0

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR CONCRETE PIER REPAIRS SN 016-1110, PIERS 1,2,3
NAME	DATE	

SCALE: NTS
DATE: 5/18/2007

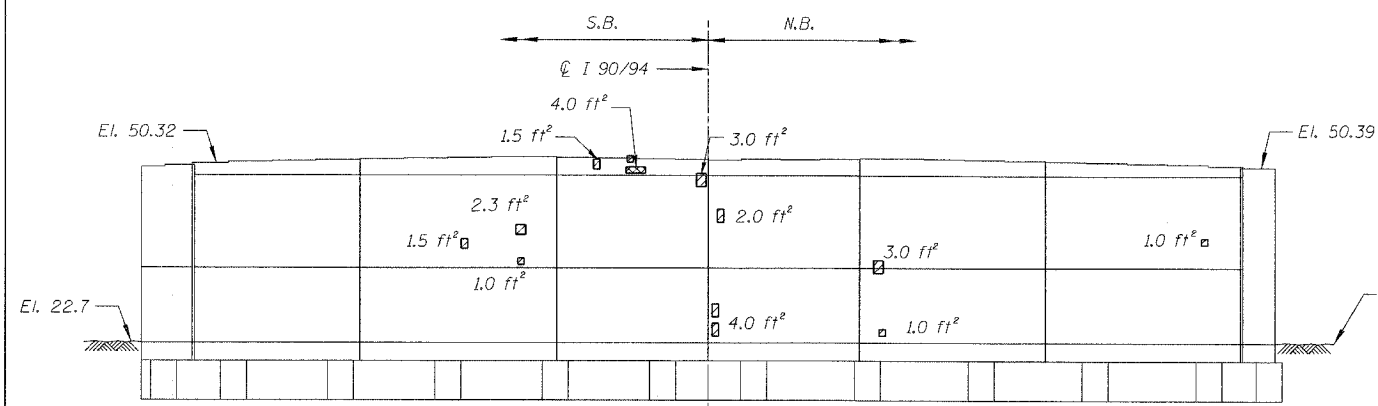
DRAWN BY: LAM
CHECKED BY: BLU

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CONSULTING ENGINEERS
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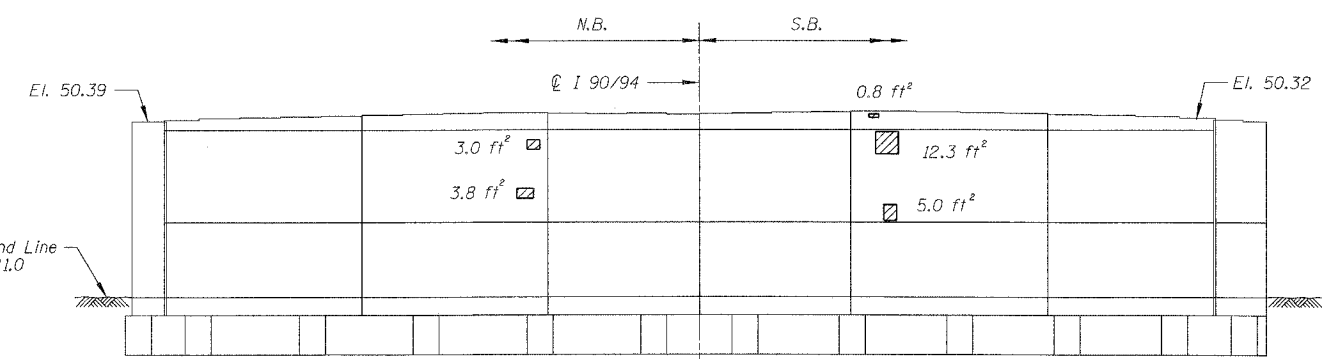
For Notes and Legend See Sheet 6

I:\60B07\BRIDGE\PIERS\PIER 1\PIER 1 SOUTH ELEVATION.DWG 5/24/2007 4:56:27 PM

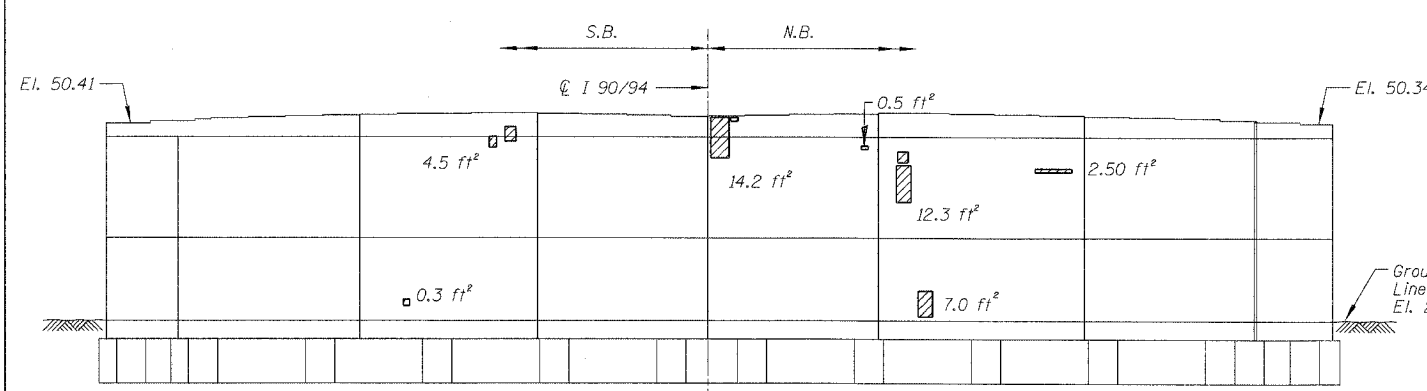
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07				



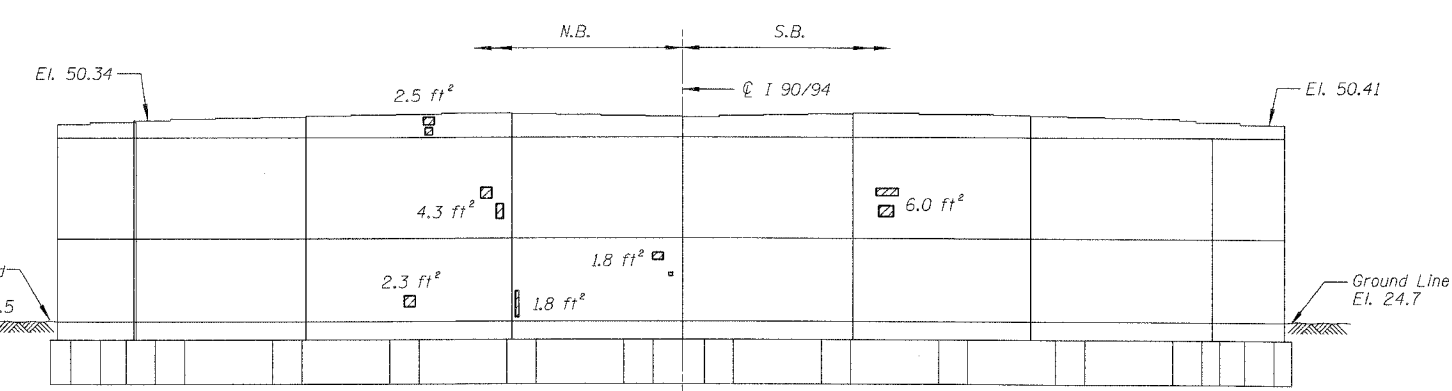
PIER 5 - SOUTH ELEVATION
(Looking North)



PIER 5 - NORTH ELEVATION
(Looking South)



PIER 6 - SOUTH ELEVATION
(Looking North)



PIER 6 - NORTH ELEVATION
(Looking South)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	105.2
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	4.0

REVISIONS	
NAME	DATE

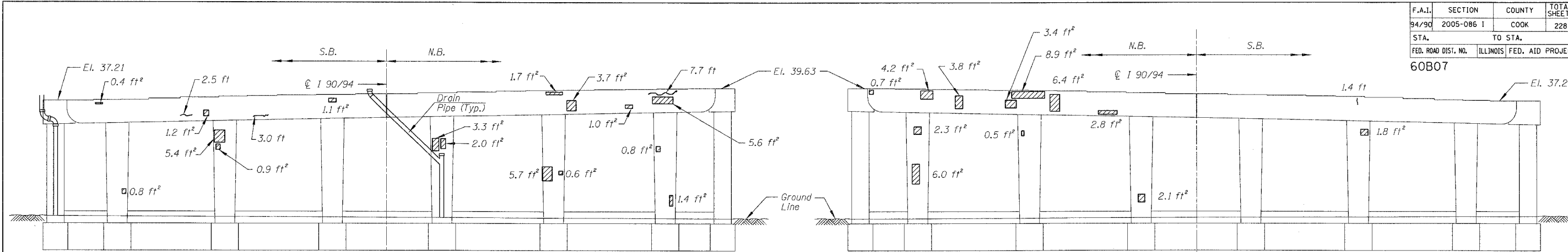
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 CONCRETE PIER REPAIRS
 SN 016-1110, PIERS 5&6
 SCALE: NTS
 DATE: 5/18/2007
 DRAWN BY: LAM
 CHECKED BY: BLU

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For Notes and Legend See Sheet 6

4/5/2007 4:59:28 PM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	65
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07				

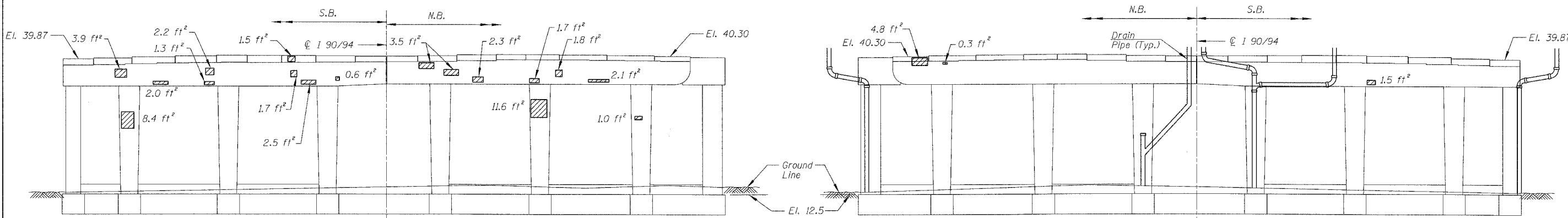


PIER 1 - SOUTH ELEVATION

(Looking North)

PIER 1 - NORTH ELEVATION

(Looking South)

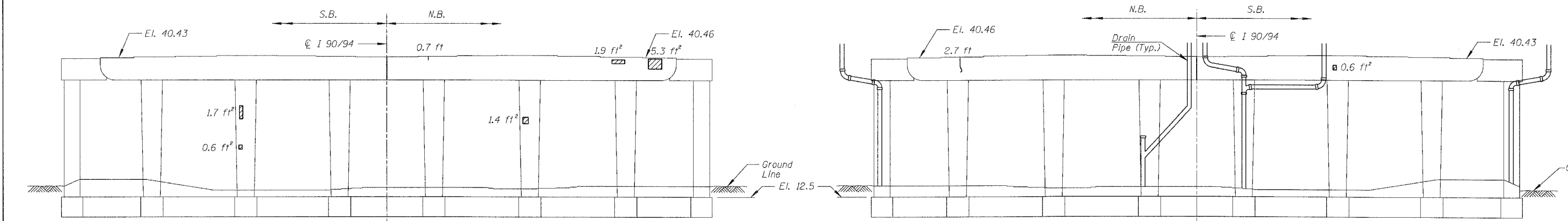


PIER 2 - SOUTH ELEVATION

(Looking North)

PIER 2 - NORTH ELEVATION

(Looking South)



PIER 3 - SOUTH ELEVATION

(Looking North)

PIER 3 - NORTH ELEVATION

(Looking South)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	148.2
Epoxy Crack Injection	FOOT	18.0

REVISIONS	
NAME	DATE

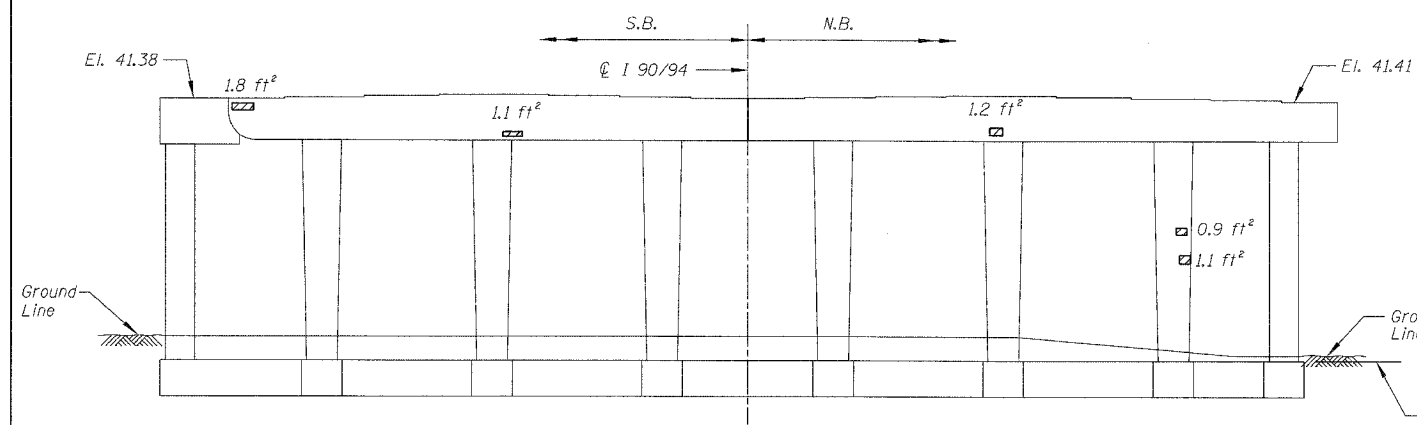
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 CONCRETE PIER REPAIRS
 SN 016-1111, PIERS 1,2,3
 SCALE: NTS
 DATE: 5/18/2007
 DRAWN BY: LAM
 CHECKED BY: BLU

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 CONSULTING ENGINEERS
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 312.228.0100
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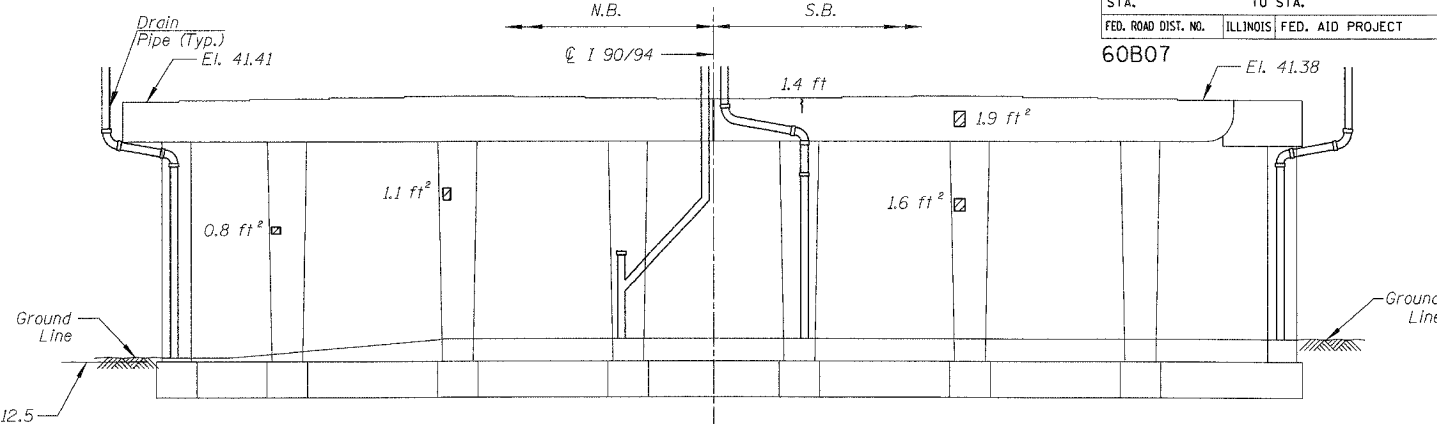
For Notes and Legend See Sheet 6

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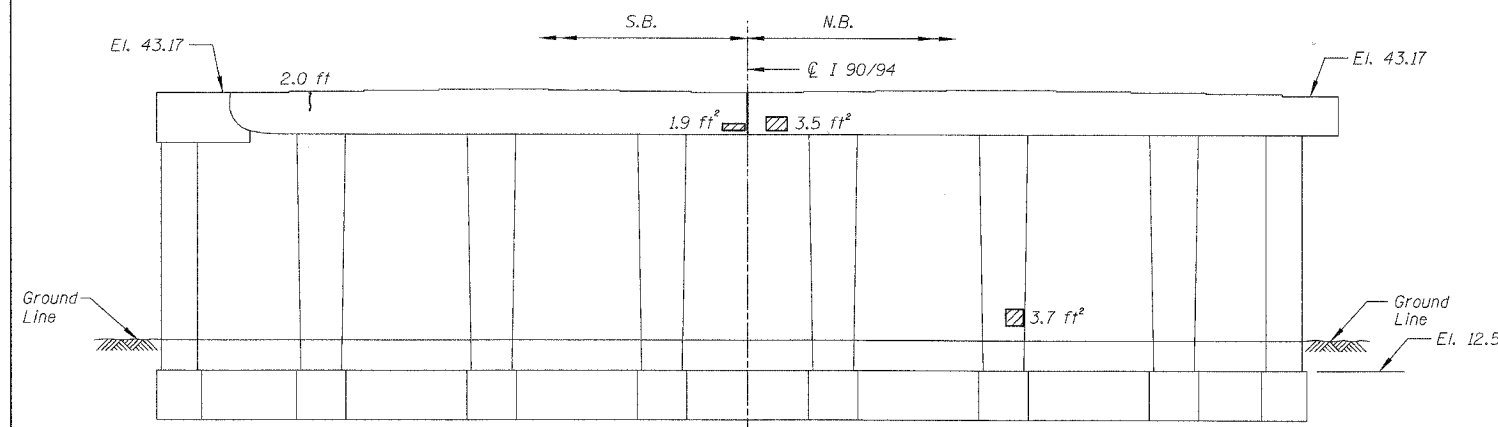
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	60B07	



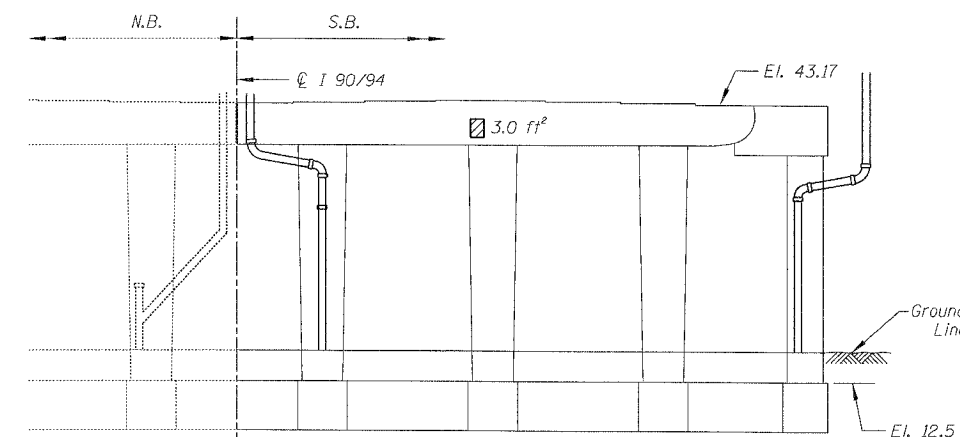
PIER 4 - SOUTH ELEVATION
(Looking North)



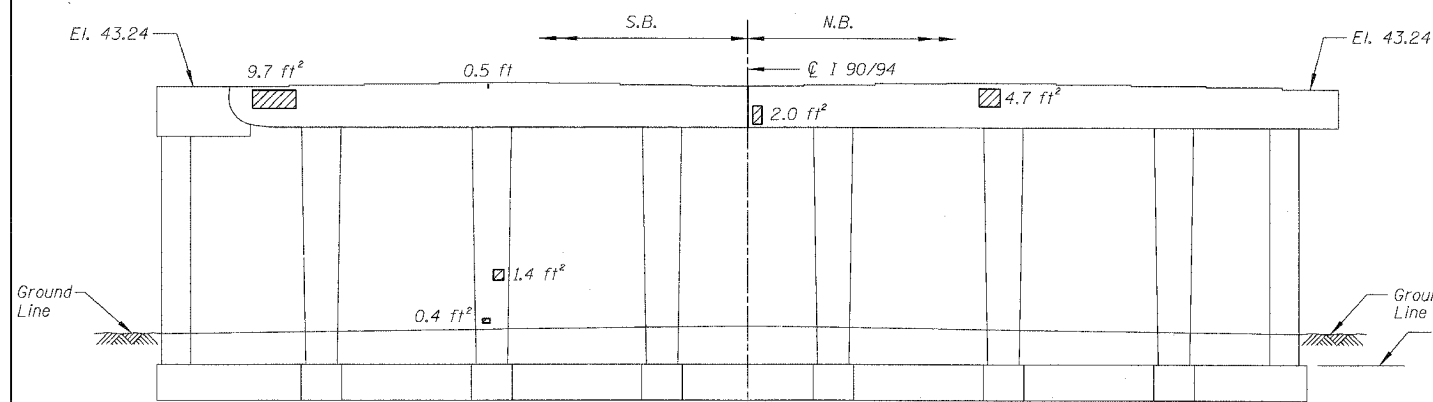
PIER 4 - NORTH ELEVATION
(Looking South)



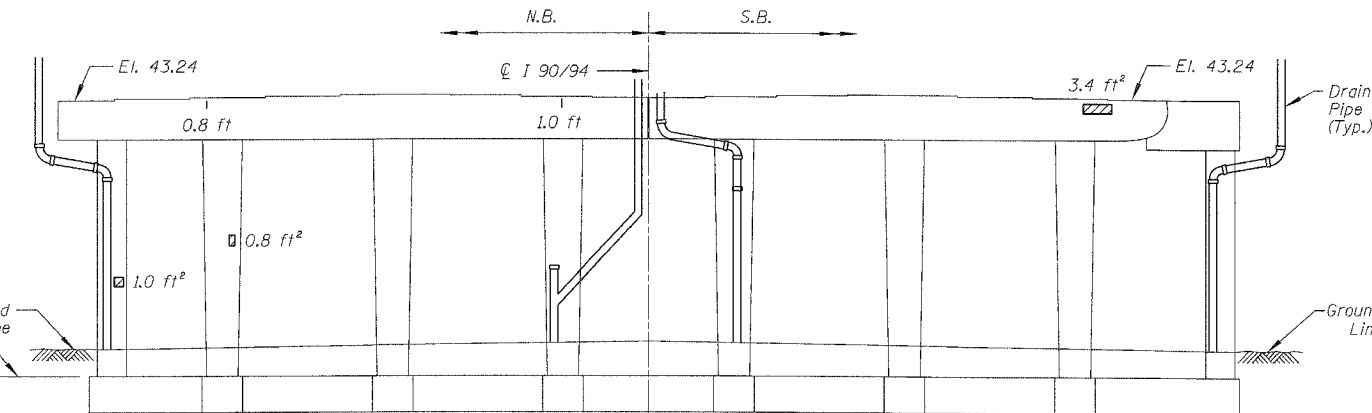
PIER 5 - SOUTH ELEVATION
(Looking North)



PIER 5 - NORTH ELEVATION
(Looking South)



PIER 6 - SOUTH ELEVATION
(Looking North)



PIER 6 - NORTH ELEVATION
(Looking South)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	47.0
Epoxy Crack Injection	FOOT	5.7

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1111, PIERS 4,5,6

SCALE: NTS
DATE: 5/18/2007

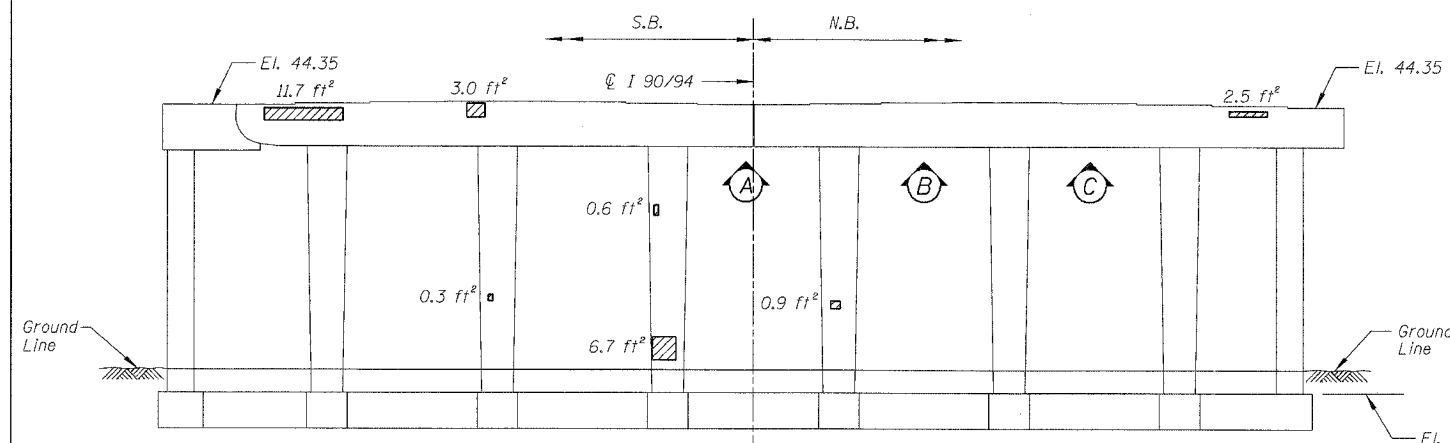
DRAWN BY: LAM
CHECKED BY: BLU

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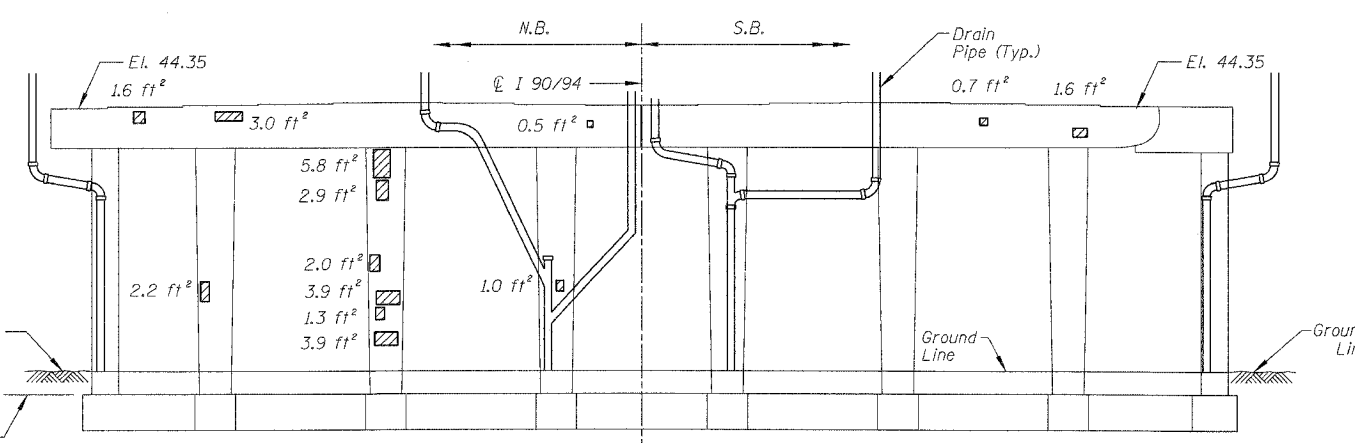
For Notes and Legend See Sheet 6

459-317M 5/24/2007

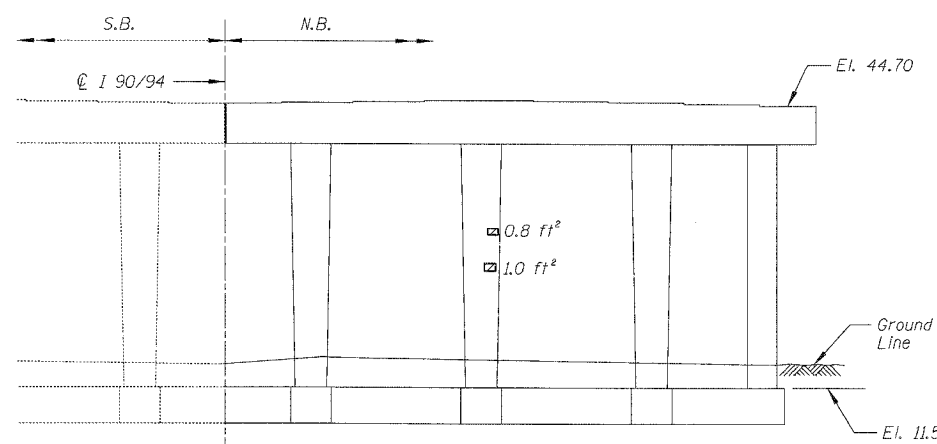
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STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07				



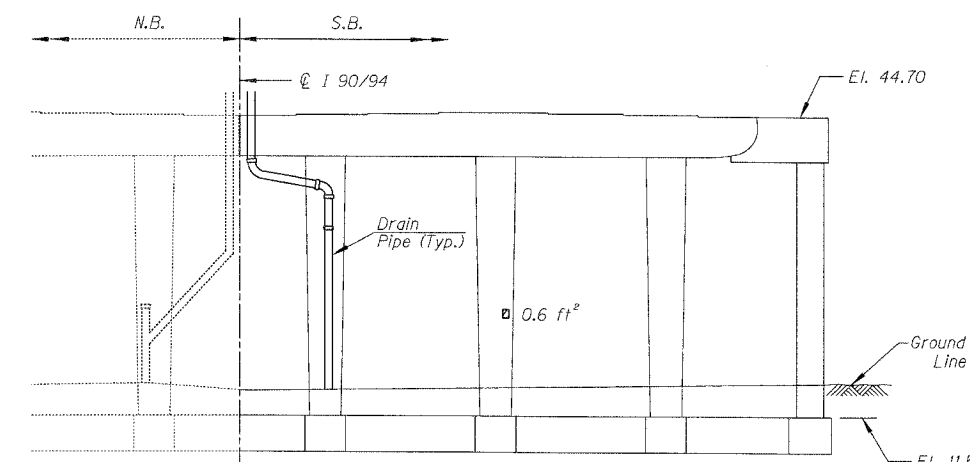
PIER 7 - SOUTH ELEVATION
(Looking North)



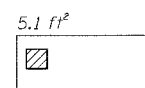
PIER 7 - NORTH ELEVATION
(Looking South)



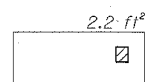
PIER 8 - SOUTH ELEVATION
(Looking North)



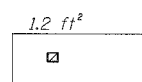
PIER 8 - NORTH ELEVATION
(Looking South)



PIER 7 - VIEW A
Looking up at bottom of cap



PIER 7 - VIEW B
Looking up at bottom of cap



PIER 7 - VIEW C
Looking up at bottom of cap

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	67.0

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1111, PIERS 7&8

SCALE: NTS
DATE: 5/18/2007

DRAWN BY: LAM
CHECKED BY: BLU

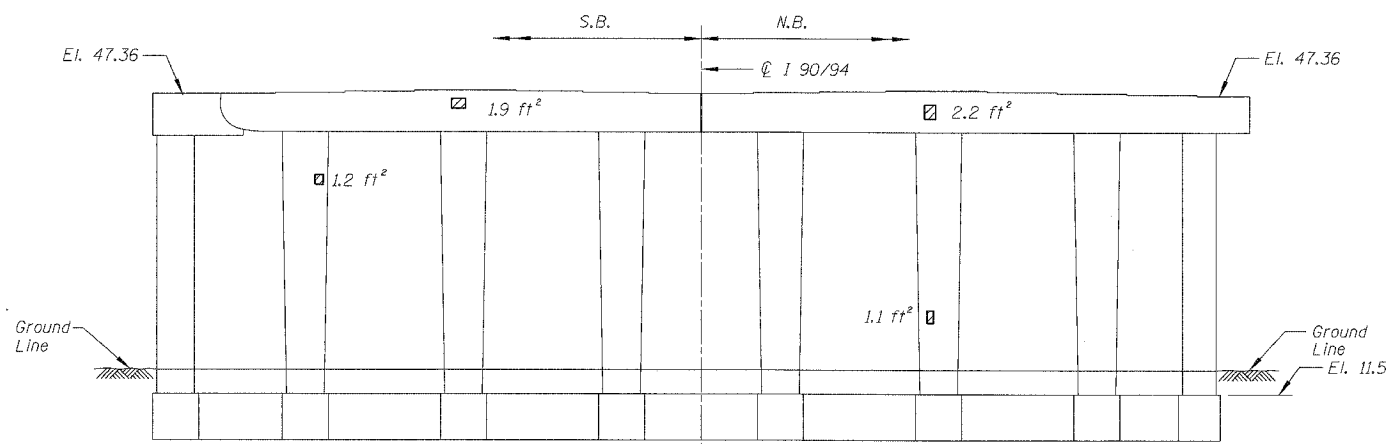
BOWMAN, BARRETT & ASSOCIATES INC.
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Chicago, Illinois
312.228.0100
www.bbda-inc.com

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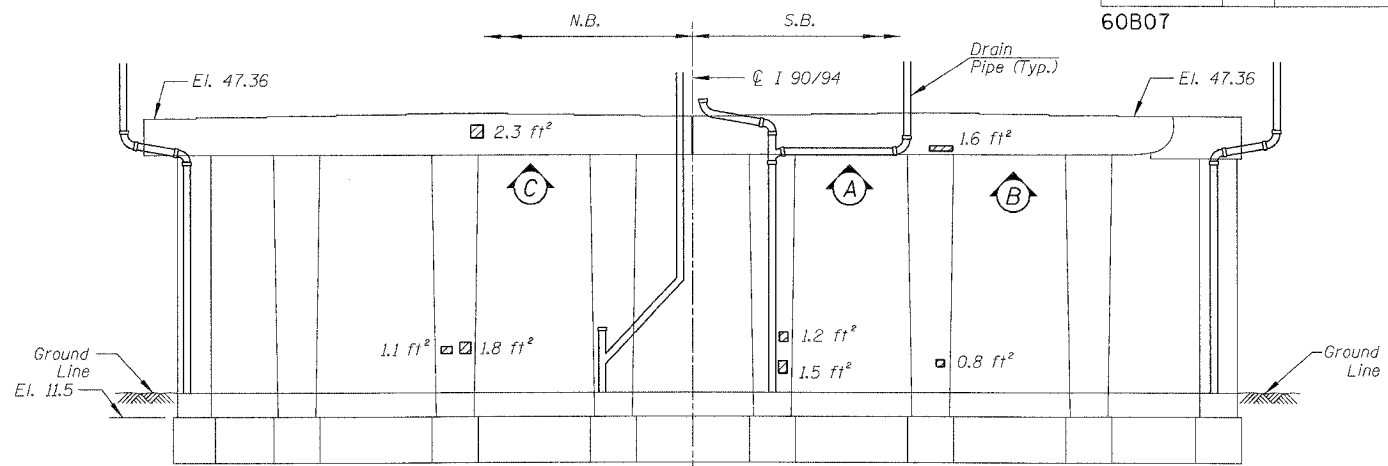
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

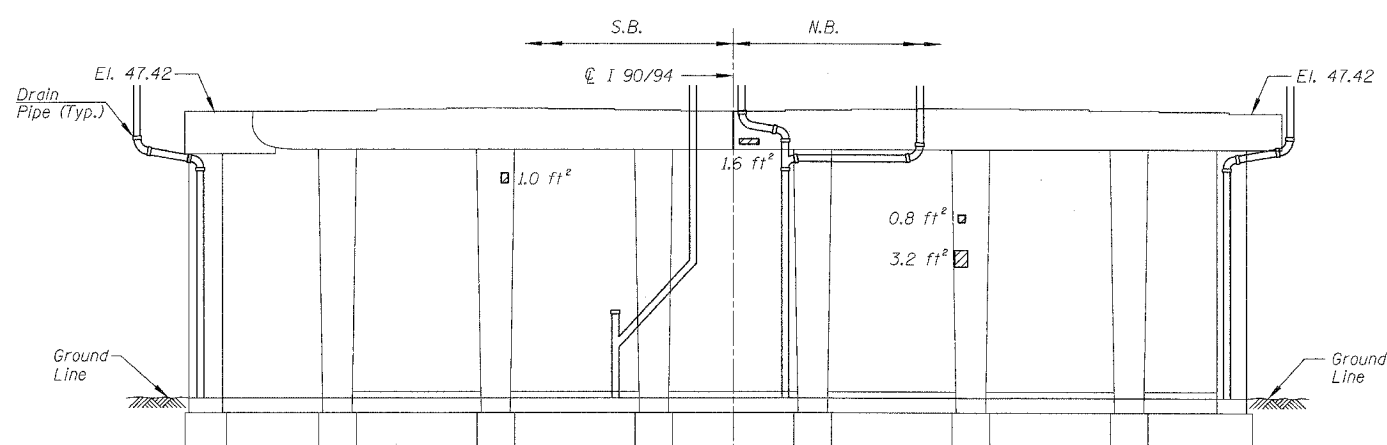
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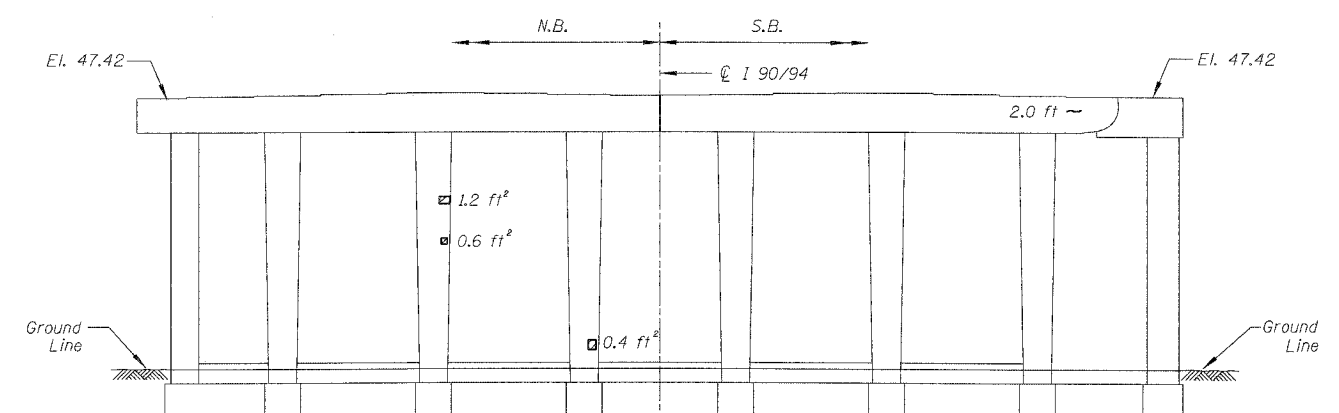
PIER 10 - SOUTH ELEVATION
(Looking North)



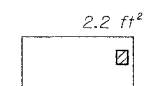
PIER 10 - NORTH ELEVATION
(Looking South)



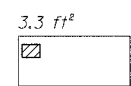
PIER 11 - SOUTH ELEVATION
(Looking North)



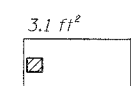
PIER 11 - NORTH ELEVATION
(Looking South)



PIER 10 - VIEW A
Looking up at bottom of cap



PIER 10 - VIEW B
Looking up at bottom of cap



PIER 10 - VIEW C
Looking up at bottom of cap

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SO. FT.	34.1
Epoxy Crack Injection	FOOT	2.0

REVISIONS	
NAME	DATE

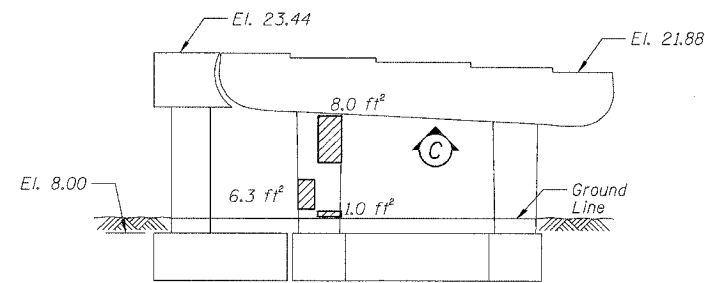
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1111, PIERS 10&11
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

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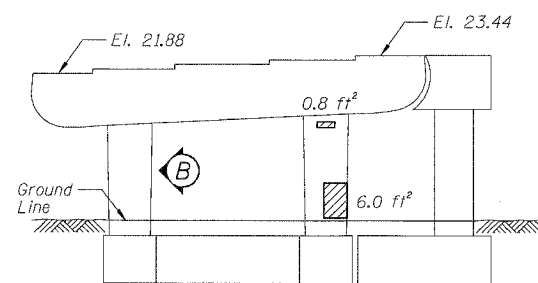
For Notes and Legend See Sheet 6

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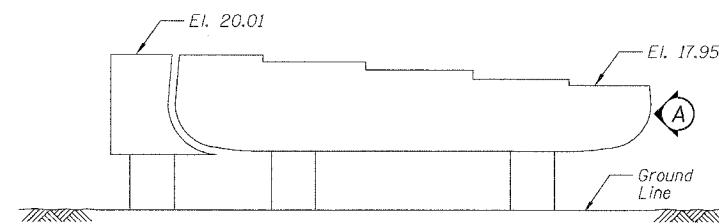
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	69
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
60B07				



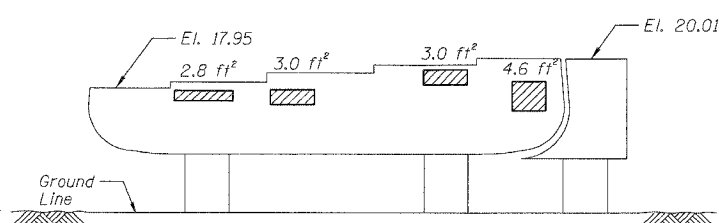
PIER D-12 - SOUTH ELEVATION
(Looking North)



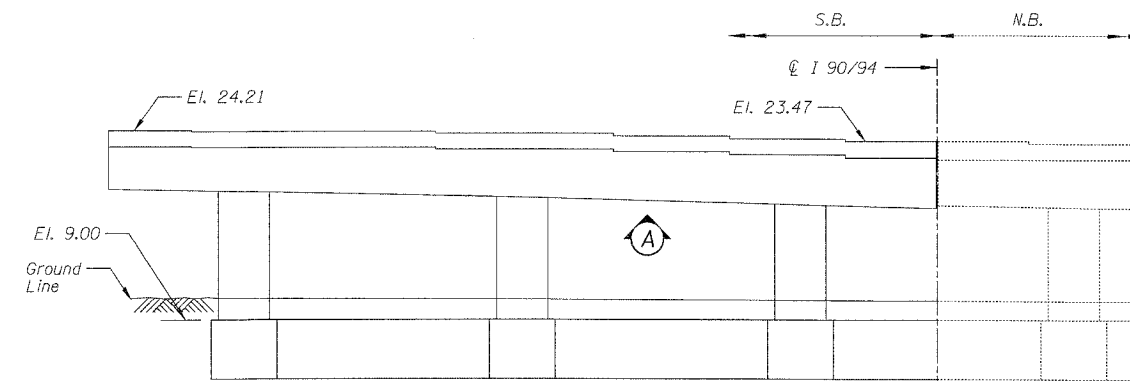
PIER D-12 - NORTH ELEVATION
(Looking South)



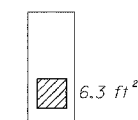
PIER D-13 - SOUTH ELEVATION
(Looking North)



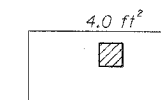
PIER D-13 - NORTH ELEVATION
(Looking South)



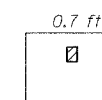
PIER 15 - SOUTH ELEVATION
(Looking North)



PIER D-12 - VIEW B
Looking East at side of column



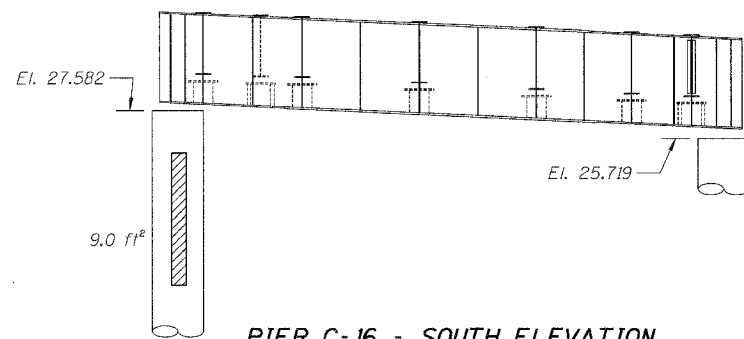
PIER D-12 - VIEW C
Looking up at bottom of cap



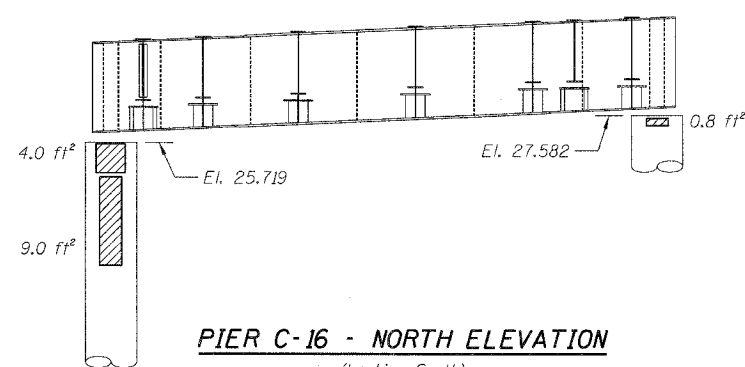
PIER D-13 - VIEW A
Looking West at end of cap



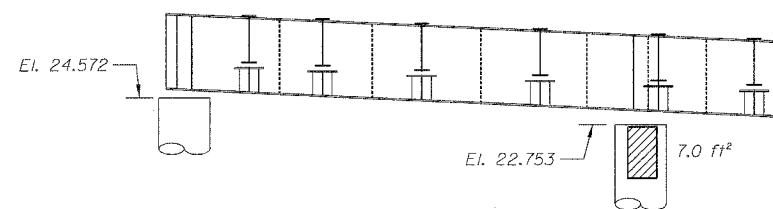
PIER 15 - VIEW A
Looking up at bottom of cap



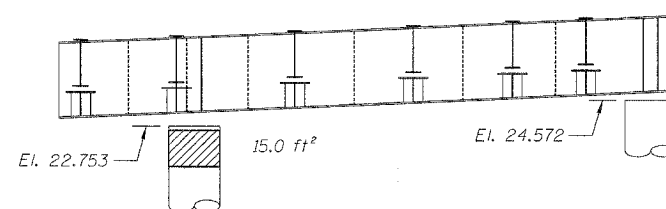
PIER C-16 - SOUTH ELEVATION
(Looking North)



PIER C-16 - NORTH ELEVATION
(Looking South)



PIER C-18 - SOUTH ELEVATION
(Looking North)



PIER C-18 - NORTH ELEVATION
(Looking South)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	93.6

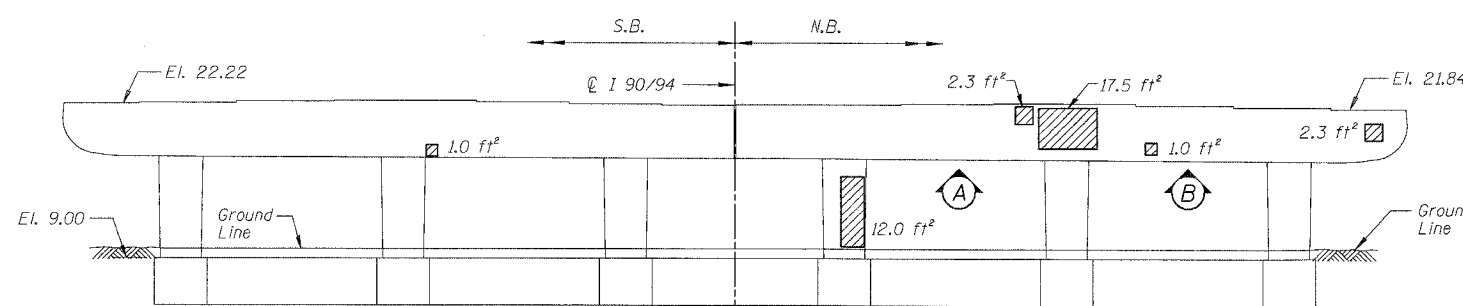
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR CONCRETE PIER REPAIRS SN 016-1112, PIERS D-12,D-13,C-16,C-18,15 SCALE: NTS DATE: 5/18/2007
NAME	DATE	
		DRAWN BY: LAM CHECKED BY: BLU

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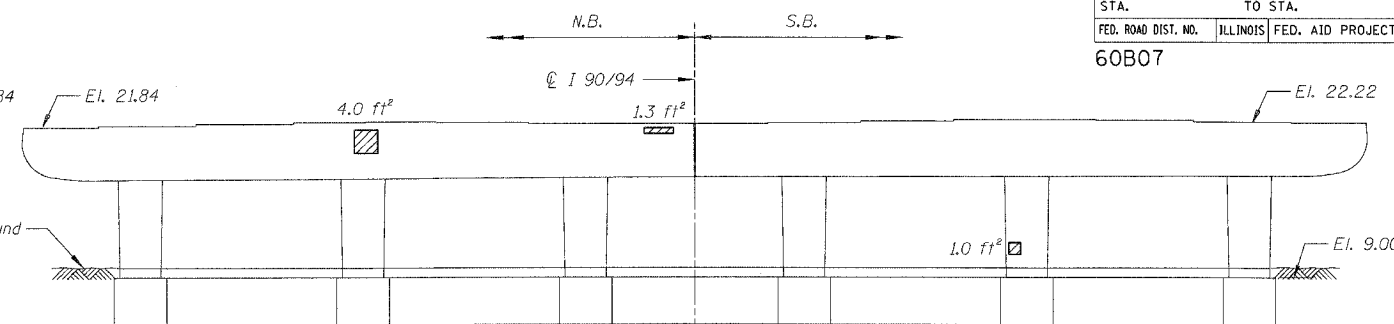
For Notes and Legend See Sheet 6

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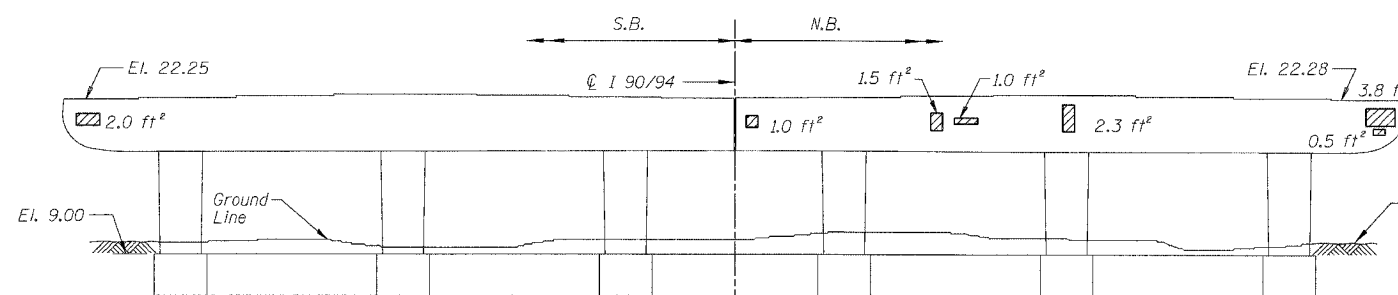
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07				



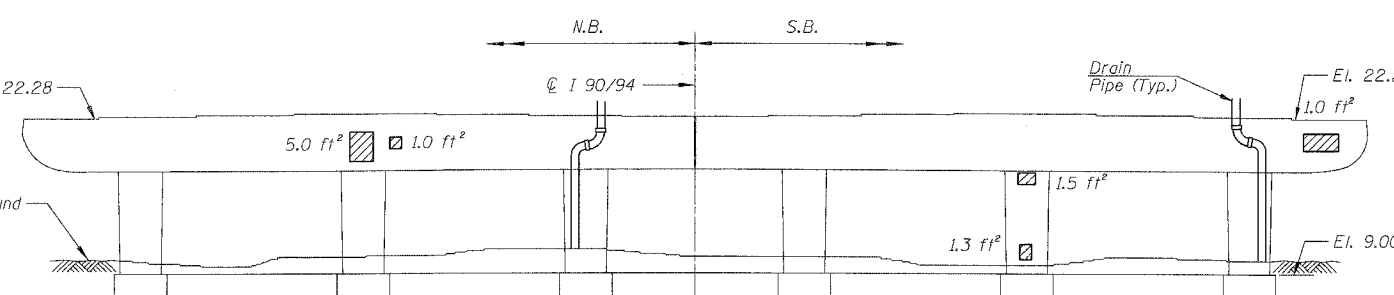
PIER 16 - SOUTH ELEVATION
(Looking North)



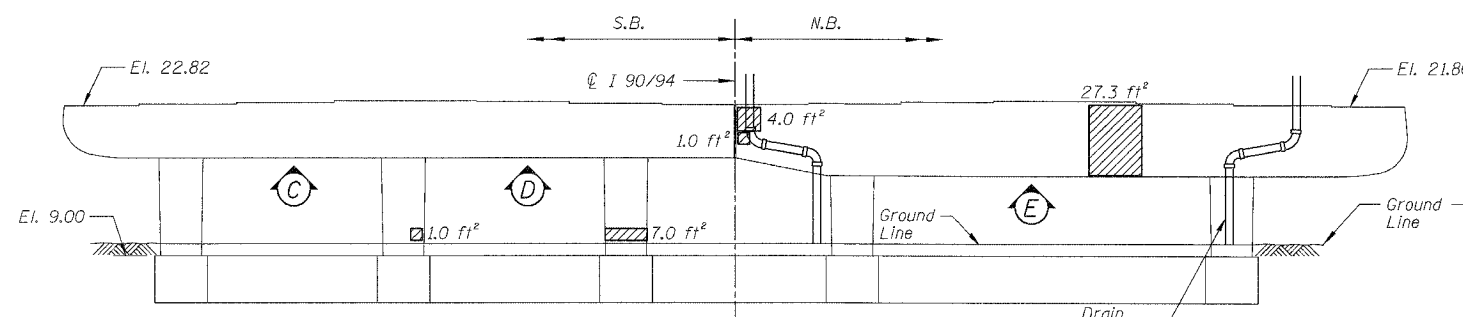
PIER 16 - NORTH ELEVATION
(Looking South)



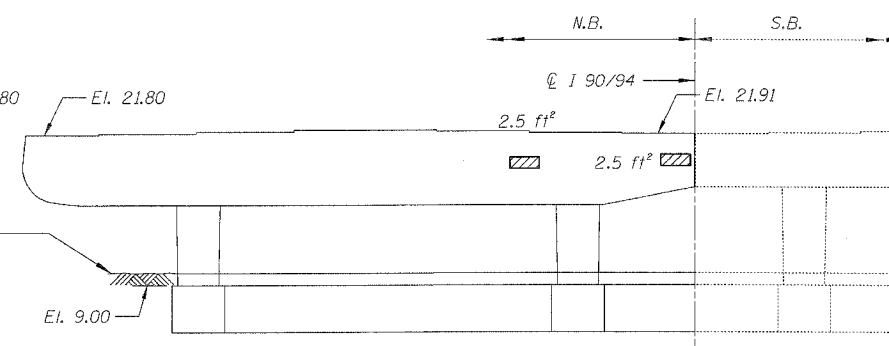
PIER 17 - SOUTH ELEVATION
(Looking North)



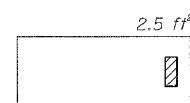
PIER 17 - NORTH ELEVATION
(Looking South)



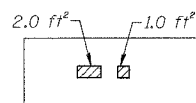
PIER 18 - SOUTH ELEVATION
(Looking North)



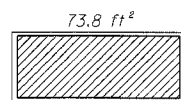
PIER 18 - NORTH ELEVATION
(Looking South)



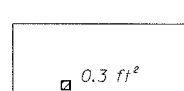
PIER 16 - VIEW A
Looking up at bottom of cap



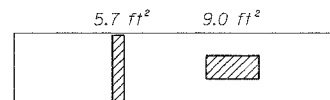
PIER 16 - VIEW B
Looking up at bottom of cap



PIER 18 - VIEW C
Looking up at bottom of cap



PIER 18 - VIEW D
Looking up at bottom of cap



PIER 18 - VIEW E
Looking up at bottom of cap

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SO. FT.	203.9

REVISIONS	
NAME	DATE

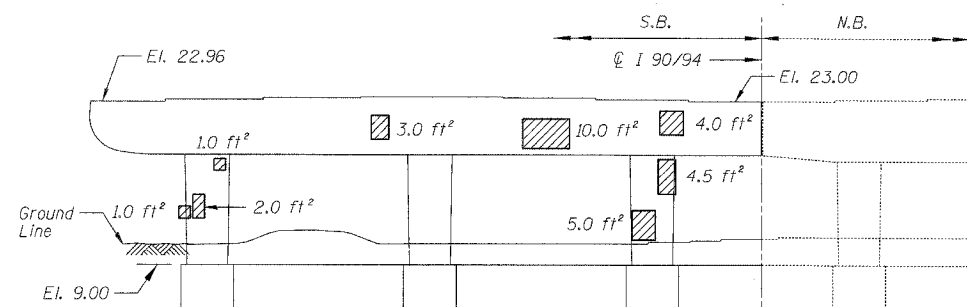
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1112, PIERS 16,17,18
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

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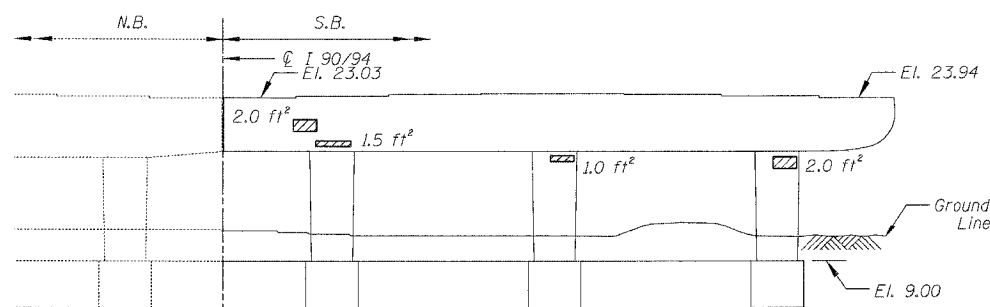
For Notes and Legend See Sheet 6

4/24/2007 4:59:35 PM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	71
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07				



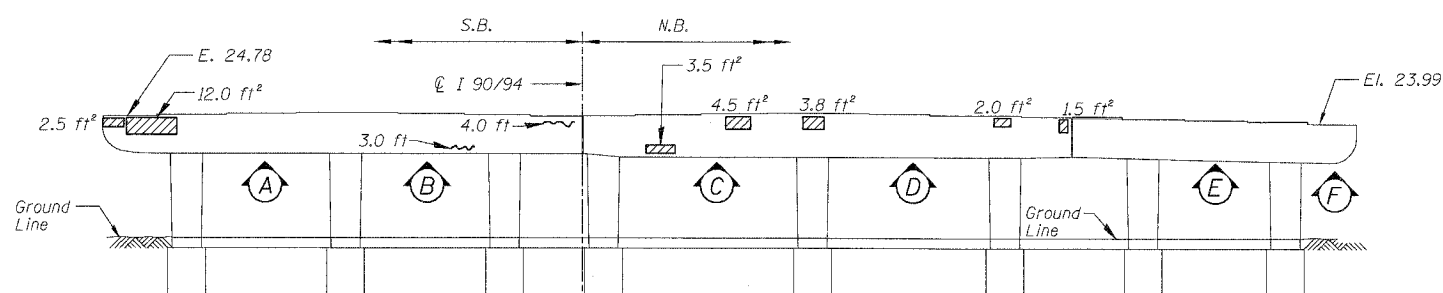
PIER 19 - SOUTH ELEVATION
(Looking North)



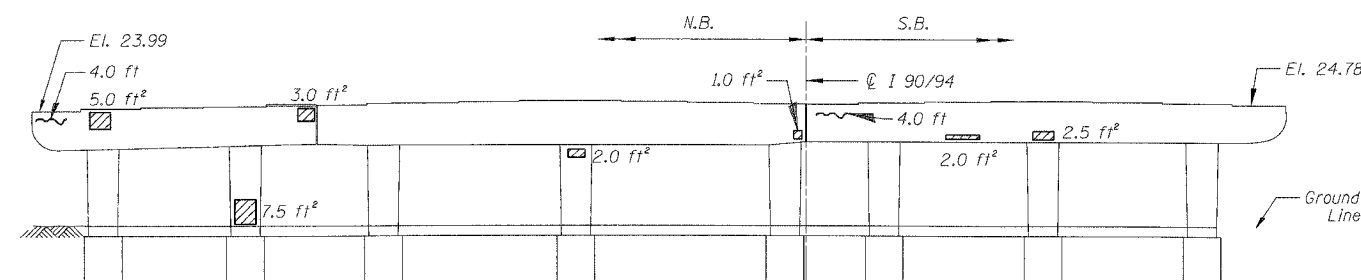
PIER 19 - NORTH ELEVATION
(Looking South)

BILL OF MATERIAL

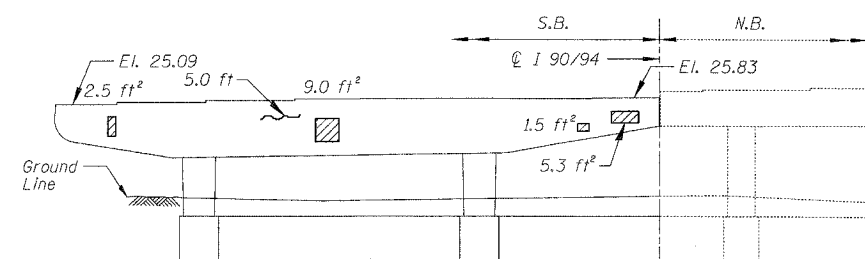
ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SO. FT.	281.4
Epoxy Crack Injection	FOOT	35.5



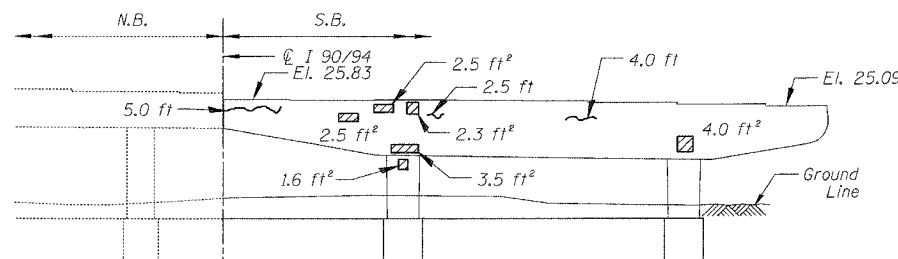
PIER 20 - SOUTH ELEVATION
(Looking North)



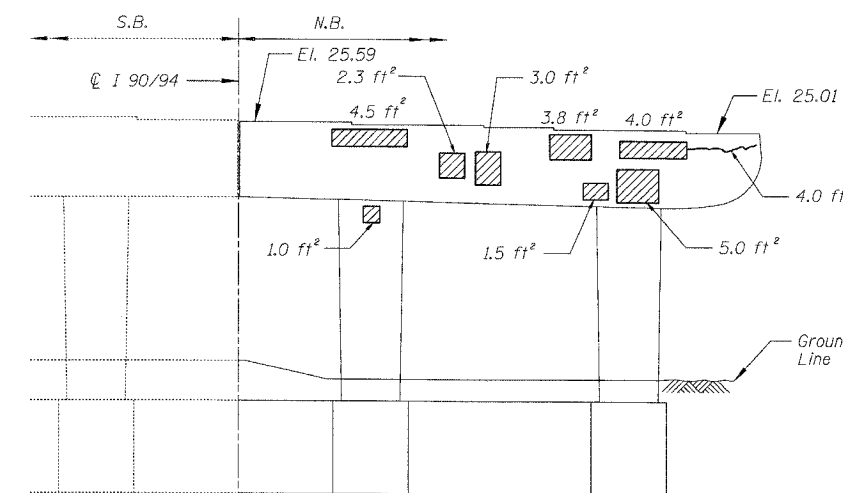
PIER 20 - NORTH ELEVATION
(Looking South)



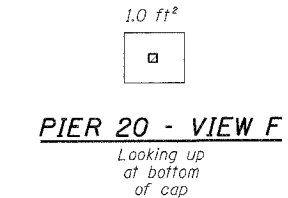
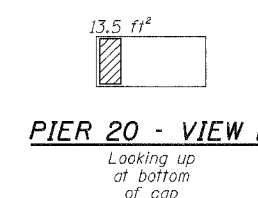
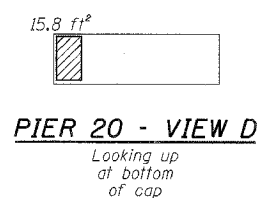
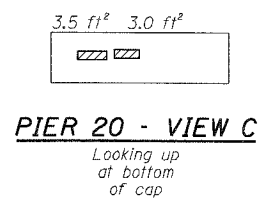
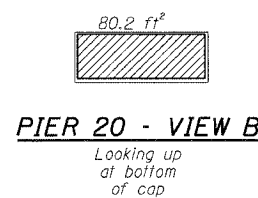
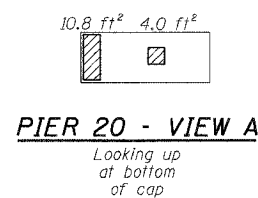
PIER 22 - SOUTH ELEVATION
(Looking North)



PIER 22 - NORTH ELEVATION
(Looking South)



PIER 21 - SOUTH ELEVATION
(Looking North)



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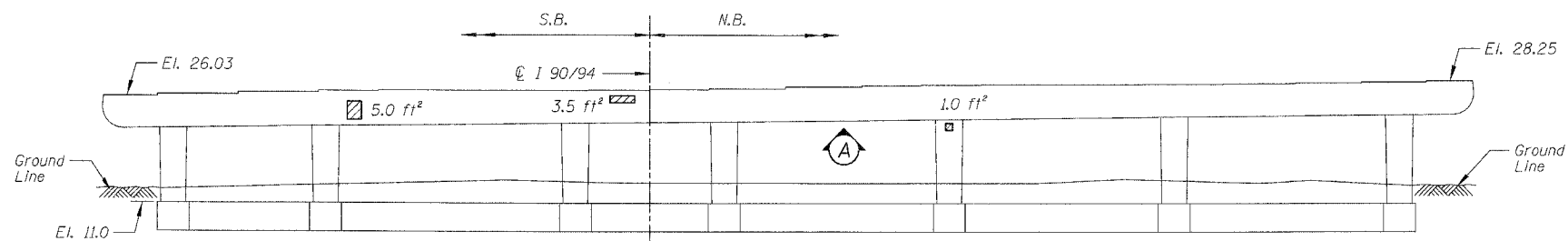
For Notes and Legend See Sheet 6

REVISIONS	
NAME	DATE

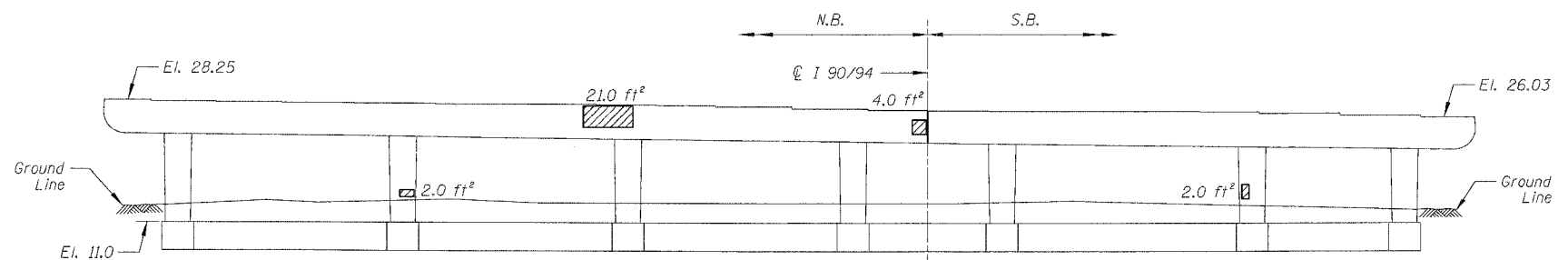
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1112, PIERS 19-22
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

4-555356 FM 5/24/2007

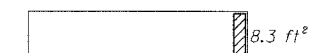
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	72
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
60B07				



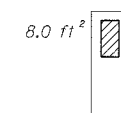
PIER 23 - SOUTH ELEVATION
(Looking North)



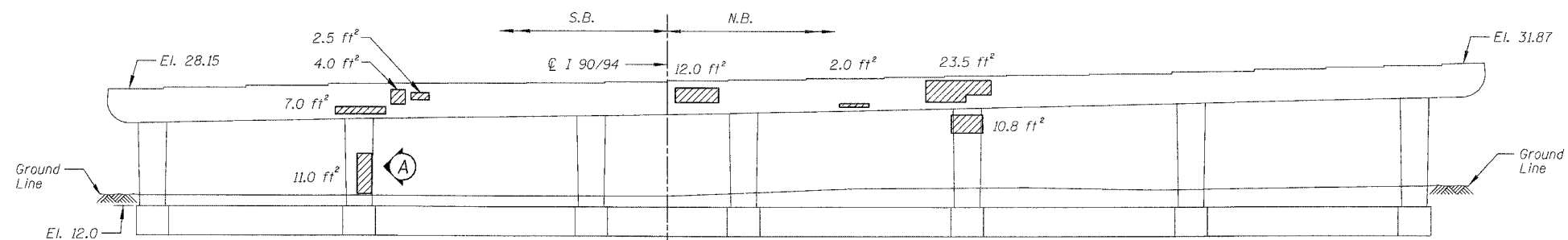
PIER 23 - NORTH ELEVATION
(Looking South)



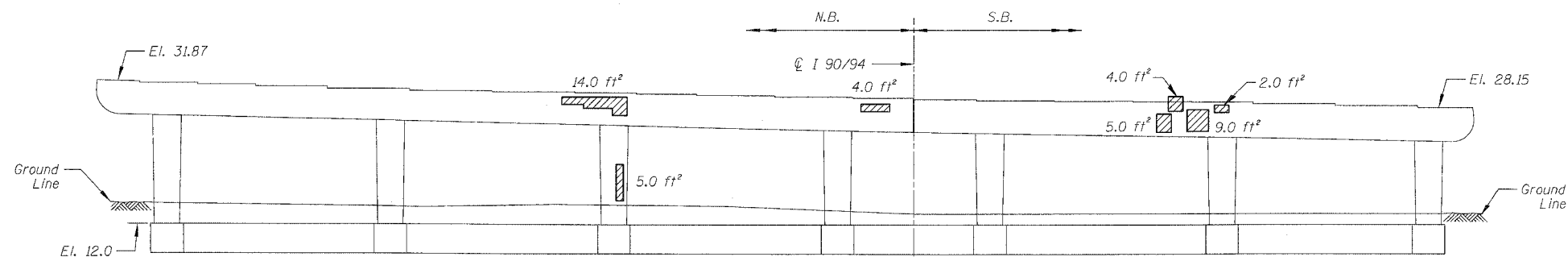
PIER 23 - VIEW A
Looking up at bottom of cap



PIER 24 - VIEW A
Looking West at side of column



PIER 24 - SOUTH ELEVATION
(Looking North)



PIER 24 - NORTH ELEVATION
(Looking South)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SO. FT.	170.6

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 CONCRETE PIER REPAIRS
 SN 016-1112, PIERS 23&24
 SCALE: NTS
 DATE: 5/18/2007
 DRAWN BY: LAM
 CHECKED BY: BLU

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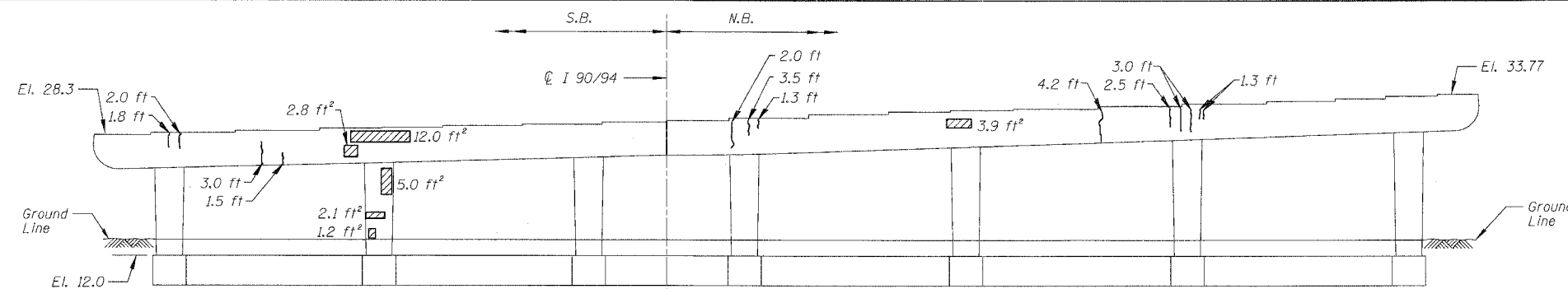
For Notes and Legend See Sheet 6

5/24/2007 4:55:36 PM

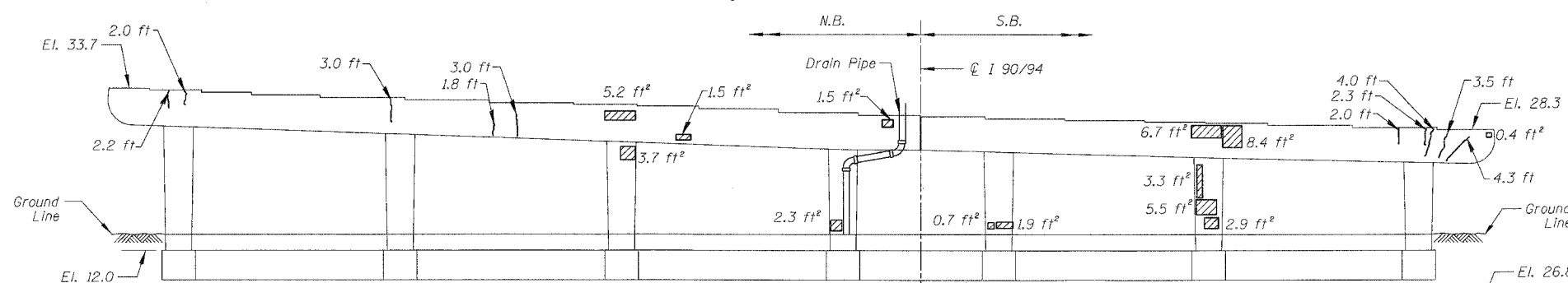
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94/90	2005-086 I	COOK	228	73
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
60B07				

BILL OF MATERIAL

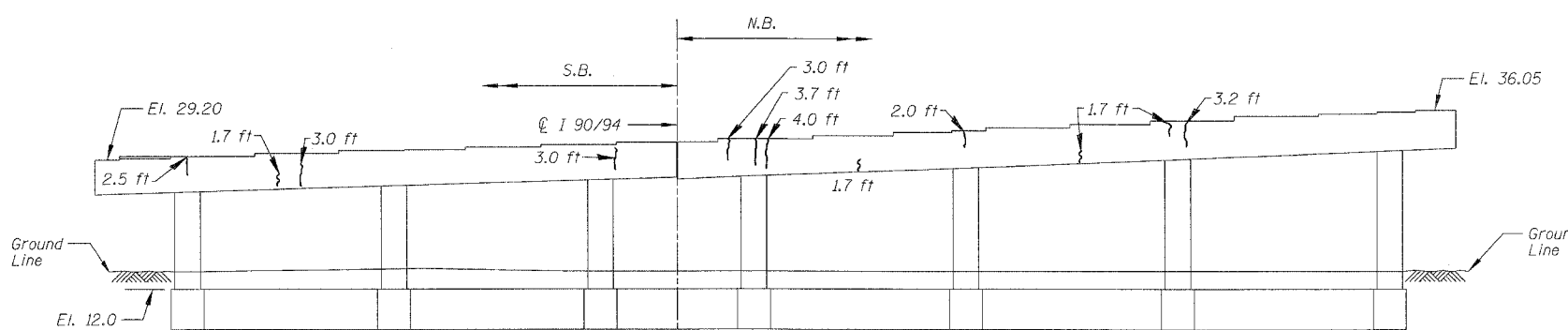
ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	70.6
Epoxy Crack Injection	FOOT	155.9



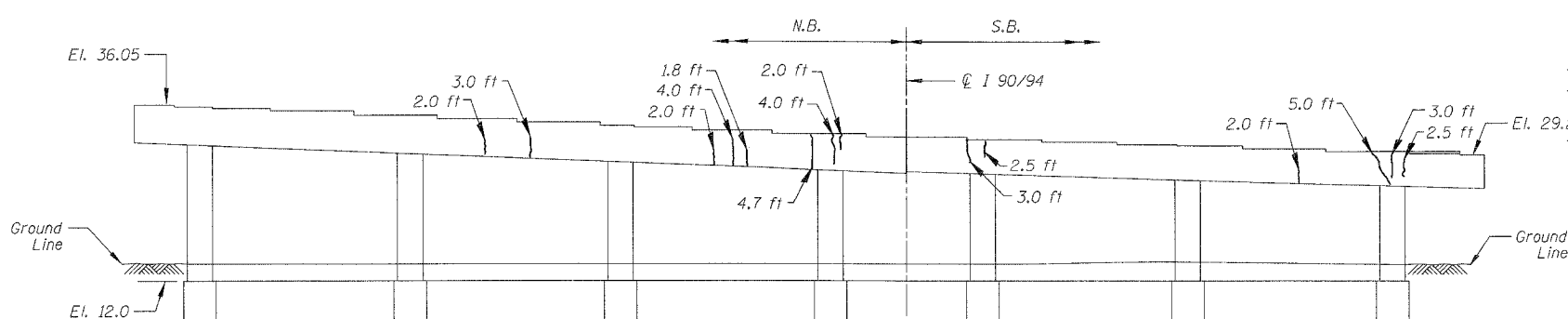
PIER 25 - SOUTH ELEVATION
(Looking North)



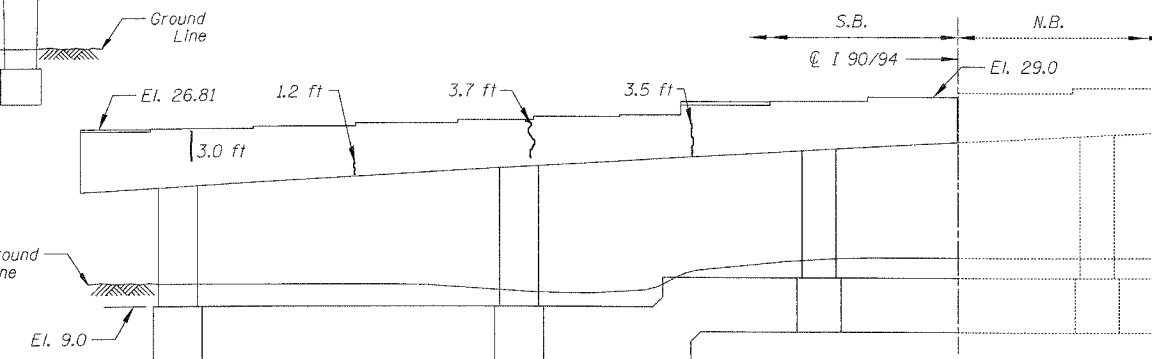
PIER 25 - NORTH ELEVATION
(Looking South)



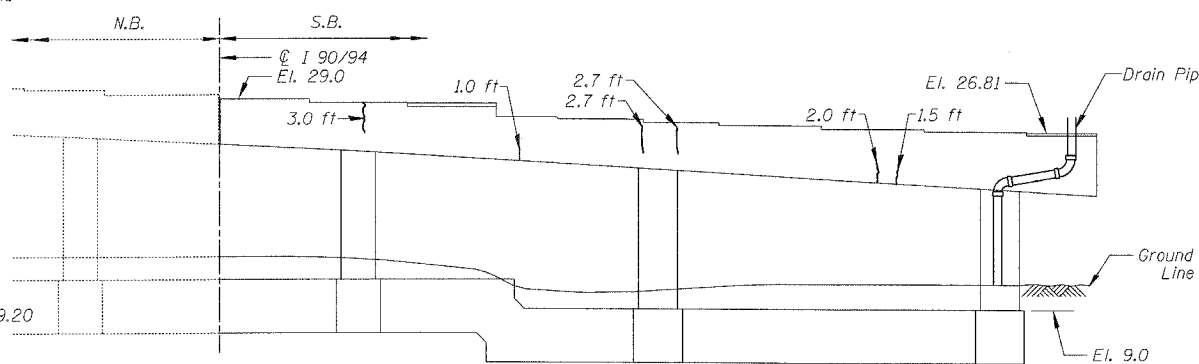
PIER 26 - SOUTH ELEVATION
(Looking North)



PIER 26 - NORTH ELEVATION
(Looking South)



PIER 27 - SOUTH ELEVATION
(Looking North)



PIER 27 - NORTH ELEVATION
(Looking South)

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REVISIONS	
NAME	DATE

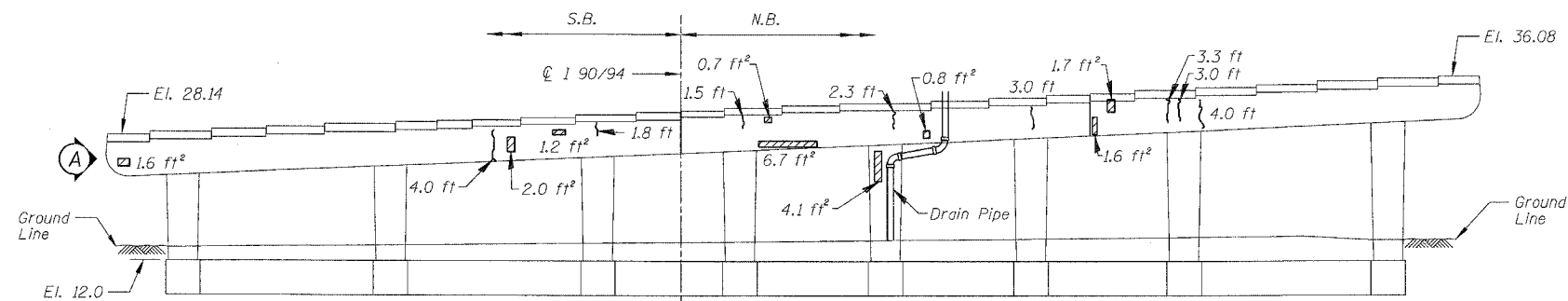
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1112, PIERS 25,26,27

SCALE: NTS
DATE: 5/18/2007

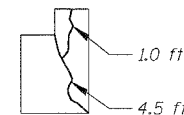
DRAWN BY: LAM
CHECKED BY: BLU

4658.39 PM 5/24/2007

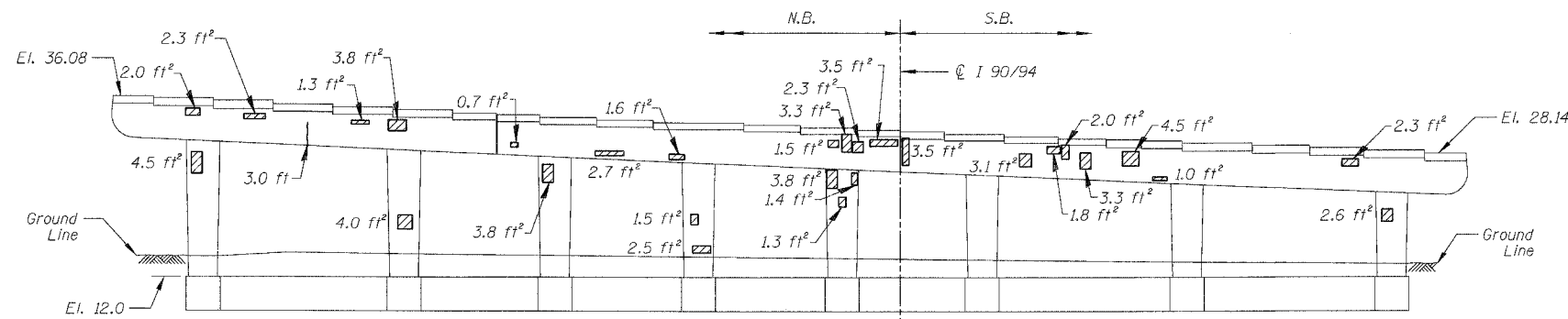
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	74
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
60B07				



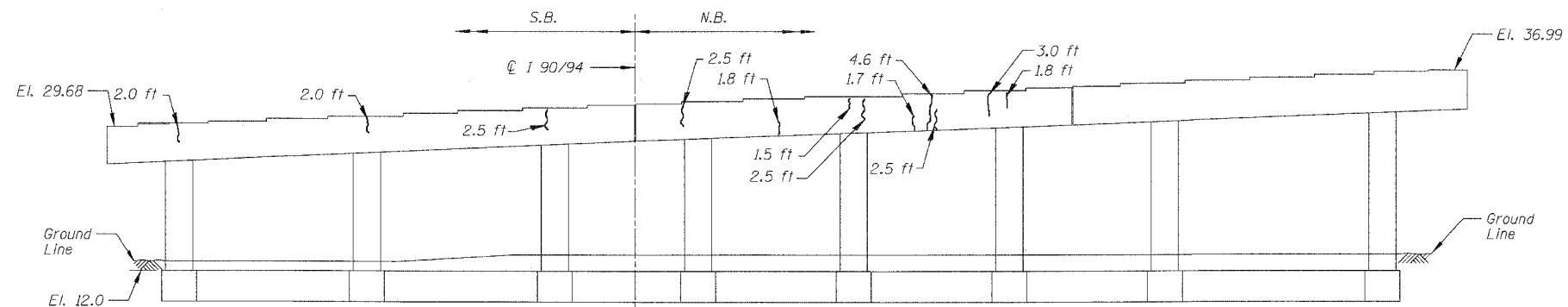
PIER 28 - SOUTH ELEVATION
(Looking North)



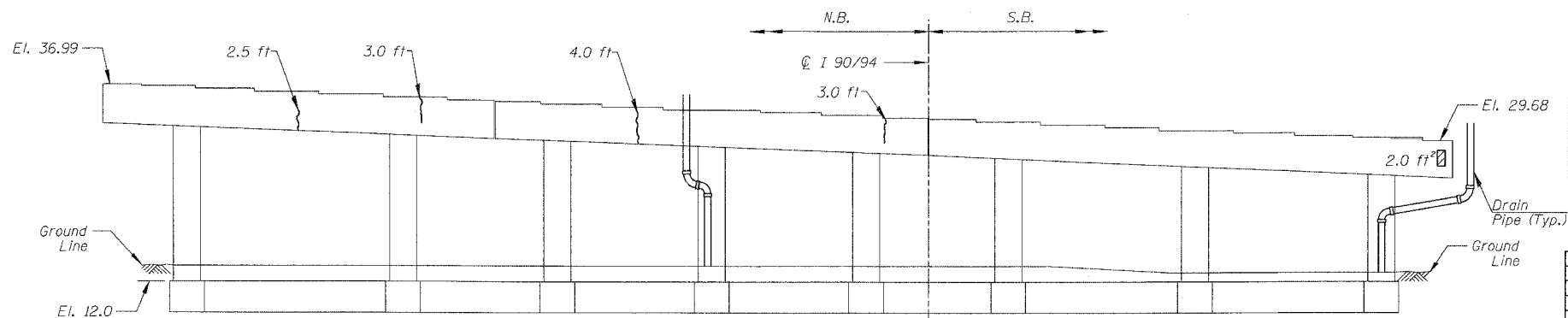
PIER 28 - VIEW A
Looking east at end of cap



PIER 28 - NORTH ELEVATION
(Looking South)



PIER 29 - SOUTH ELEVATION
(Looking North)



PIER 29 - NORTH ELEVATION
(Looking South)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	94.3
Epoxy Crack Injection	FOOT	72.3

REVISIONS	
NAME	DATE

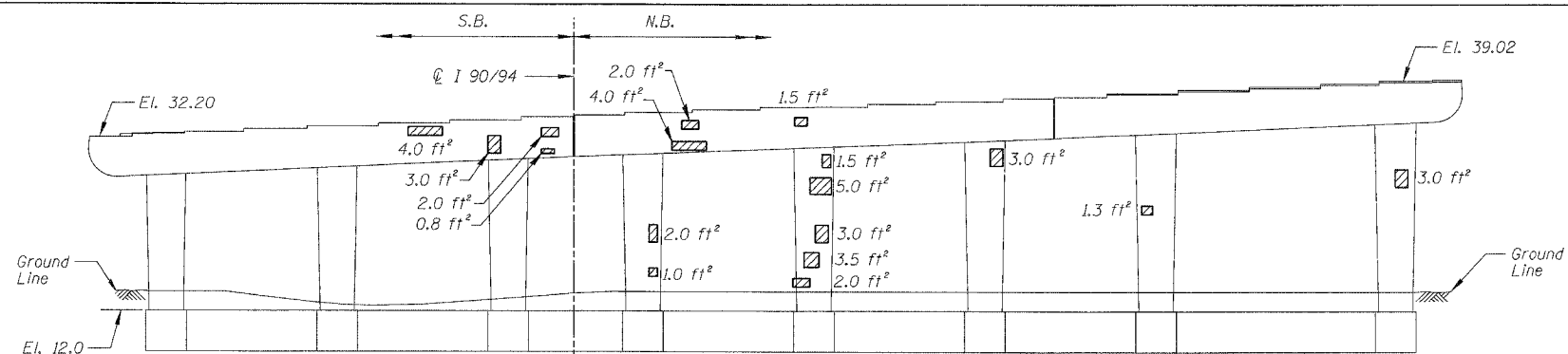
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1112, PIERS 28&29
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

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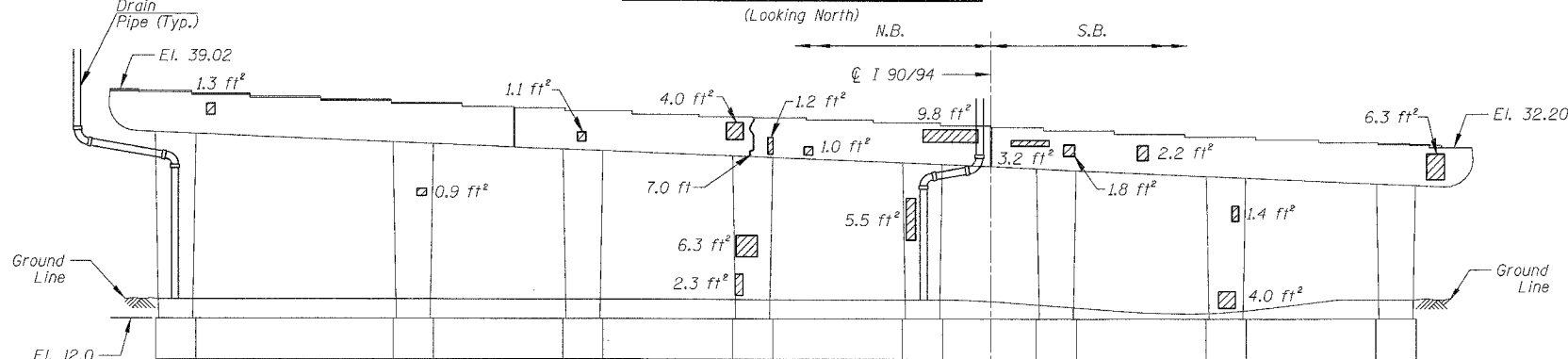
For Notes and Legend See Sheet 6

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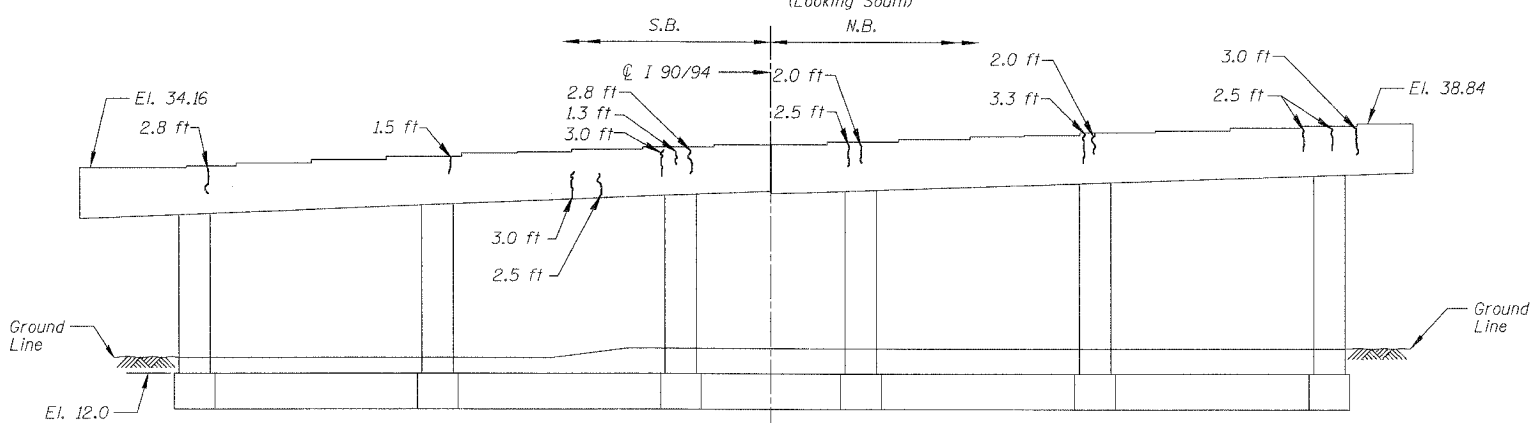
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
60B07				



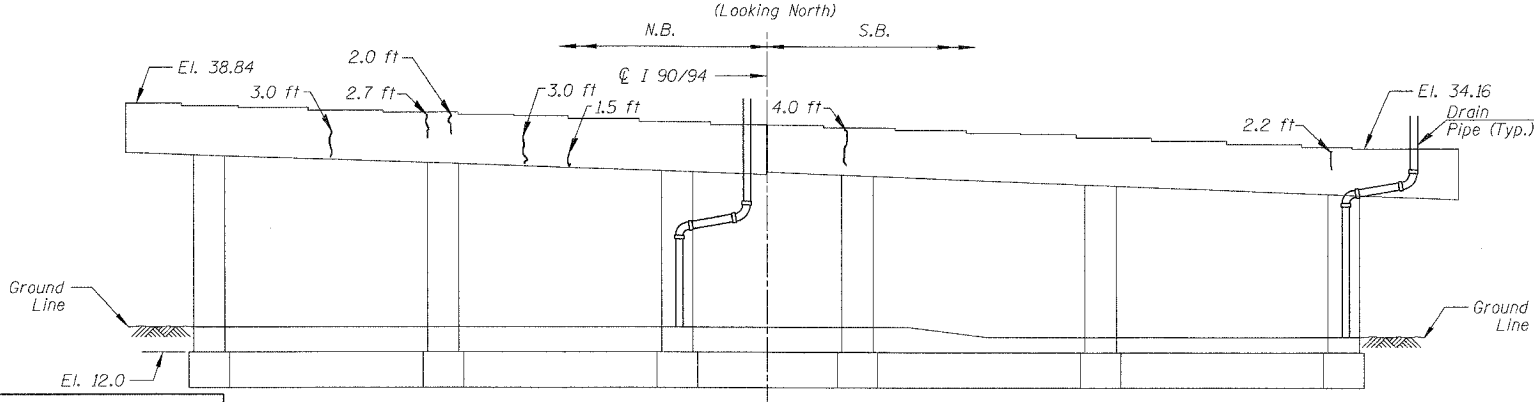
PIER 30 - SOUTH ELEVATION
(Looking North)



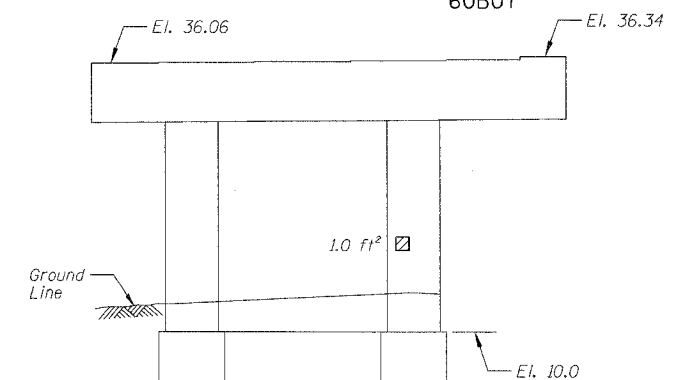
PIER 30 - NORTH ELEVATION
(Looking South)



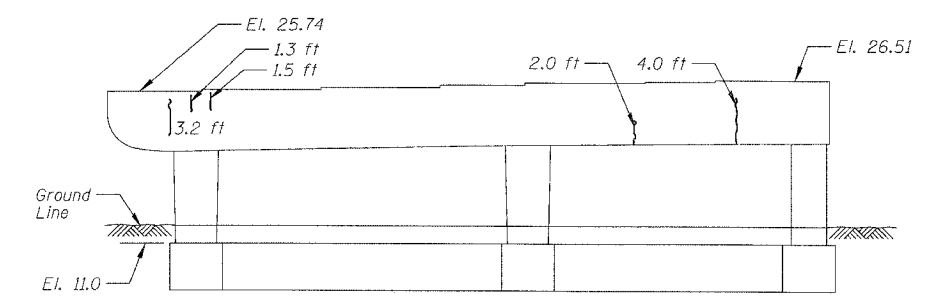
PIER 31 - SOUTH ELEVATION
(Looking North)



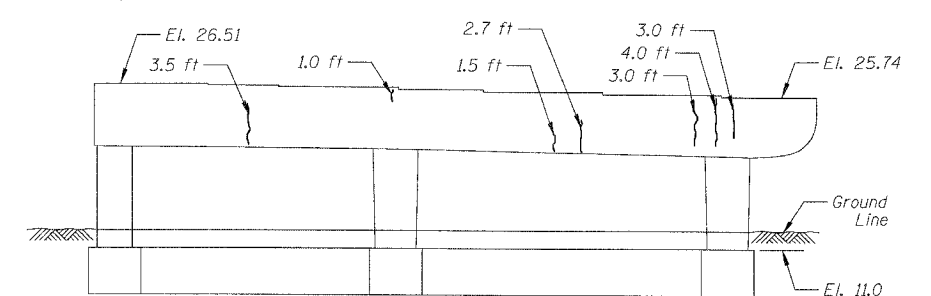
PIER 31 - NORTH ELEVATION
(Looking South)



PIER A-14 - SOUTH ELEVATION
(Looking North)



PIER A-25 - SOUTH ELEVATION
(Looking North)



PIER A-25 - NORTH ELEVATION
(Looking South)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	95.9
Epoxy Crack Injection	FOOT	90.8

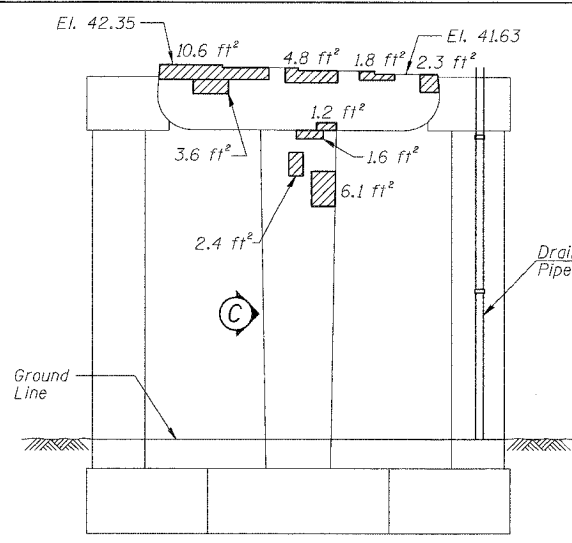
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR CONCRETE PIER REPAIRS SN 016-1112, PIERS 30,31,A-14,A-25 SCALE: NTS DATE: 5/18/2007
NAME	DATE	
		DRAWN BY: LAM CHECKED BY: BLU

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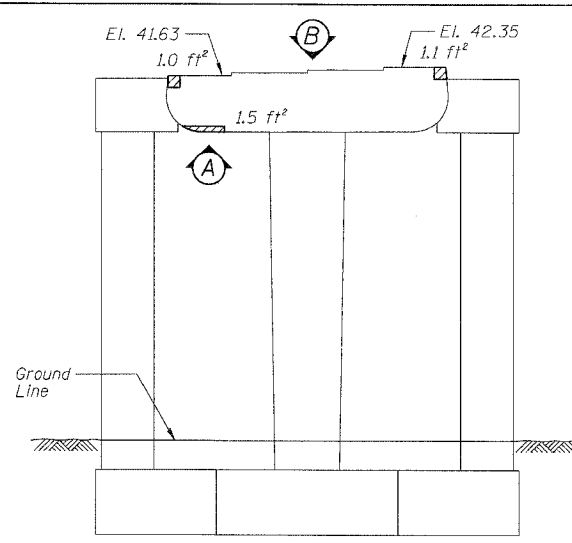
For Notes and Legend See Sheet 6

465941.PLT 5/24/2007

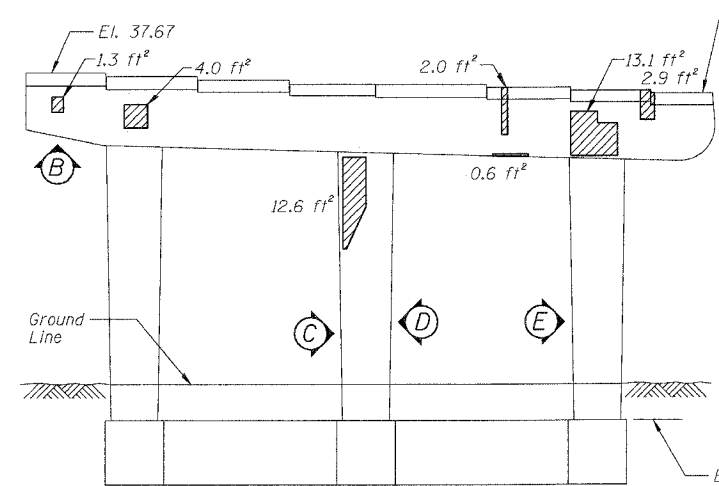
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	76
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07	El. 37.67			



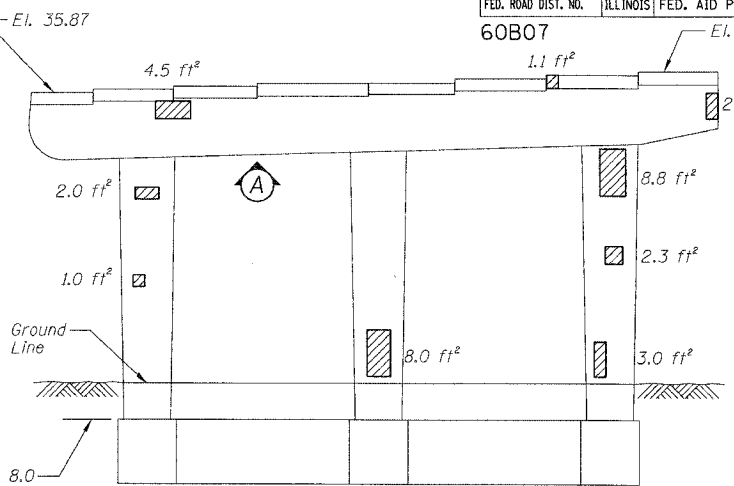
PIER D-7 - SOUTH ELEVATION
(Looking North)



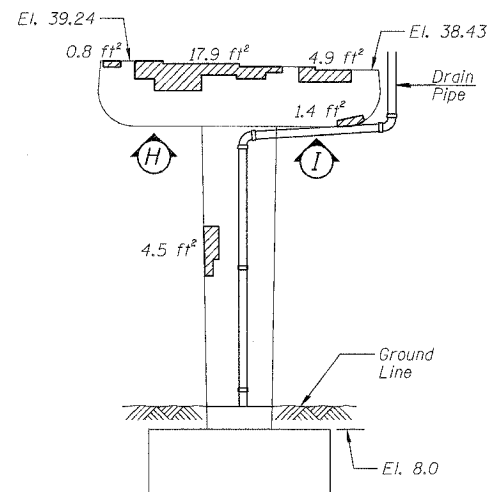
PIER D-7 - NORTH ELEVATION
(Looking South)



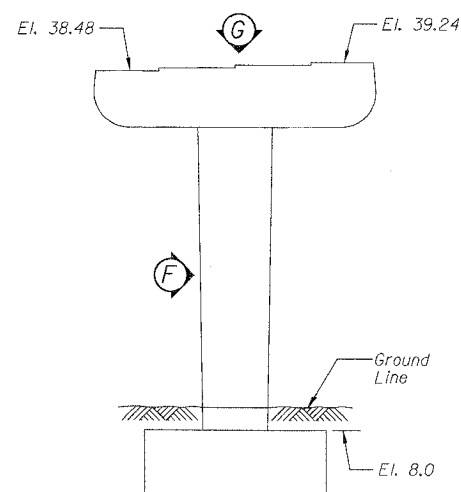
PIER D-9 - SOUTH ELEVATION
(Looking North)



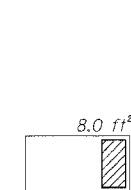
PIER D-9 - NORTH ELEVATION
(Looking South)



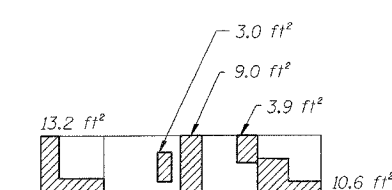
PIER D-8 - SOUTH ELEVATION
(Looking North)



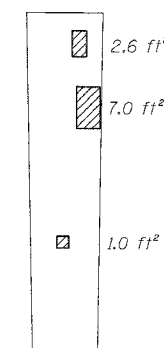
PIER D-8 - NORTH ELEVATION
(Looking South)



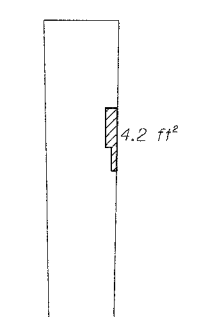
PIER D-7 - VIEW A
Looking up at bottom of cap



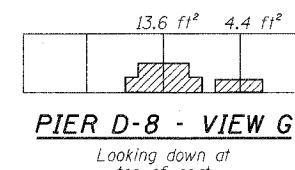
PIER D-7 - VIEW B
Looking down at top of seat



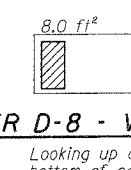
PIER D-7 - VIEW C
Looking East at side of column



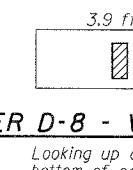
PIER D-8 - VIEW F
Looking West at side of column



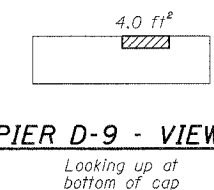
PIER D-8 - VIEW G
Looking down at top of seat



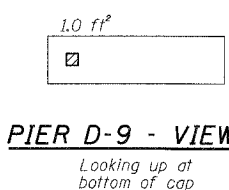
PIER D-8 - VIEW H
Looking up at bottom of cap



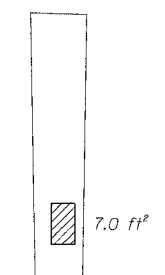
PIER D-8 - VIEW I
Looking up at bottom of cap



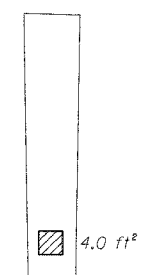
PIER D-9 - VIEW A
Looking up at bottom of cap



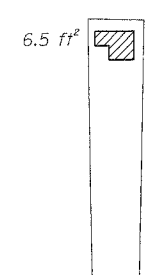
PIER D-9 - VIEW B
Looking up at bottom of cap



PIER D-9 - VIEW C
Looking East at side of column



PIER D-9 - VIEW D
Looking West at side of column



PIER D-9 - VIEW E
Looking East at side of column

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	251.8

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1113, PIERS D-7,D-8,D-9
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

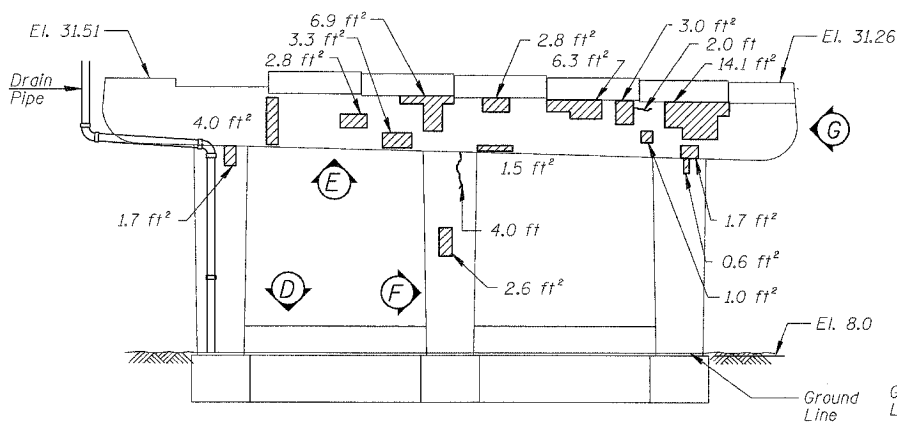
BOWMAN, BARRETT & ASSOCIATES INC.
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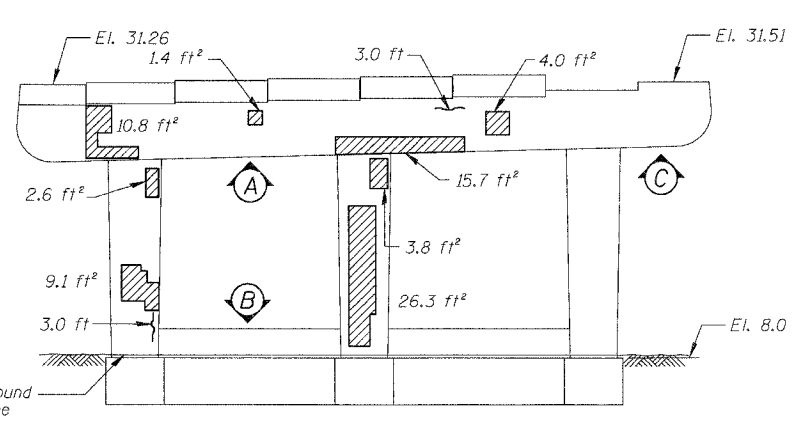
45543 FM 5/24/2007

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	77
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

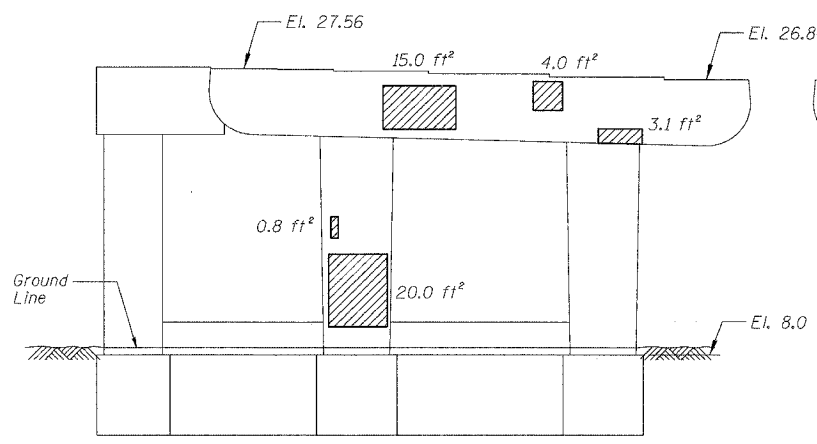
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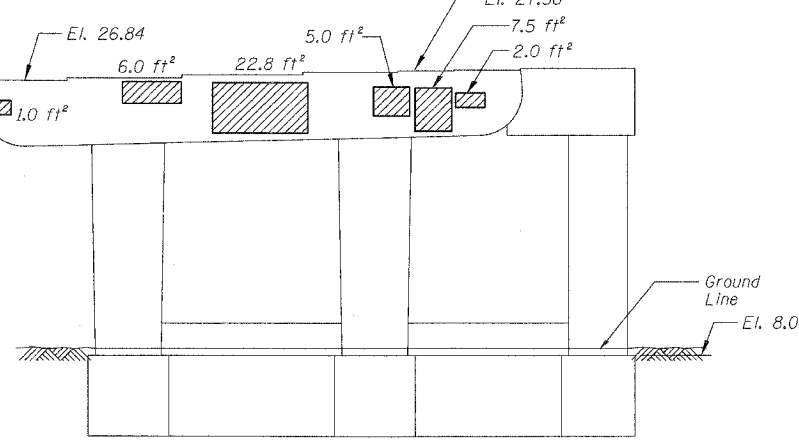
PIER D-10 - SOUTH ELEVATION
(Looking North)



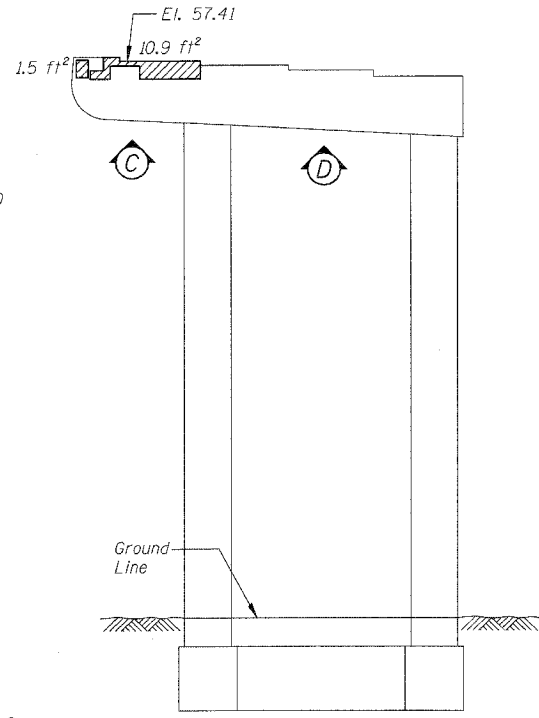
PIER D-10 - NORTH ELEVATION
(Looking South)



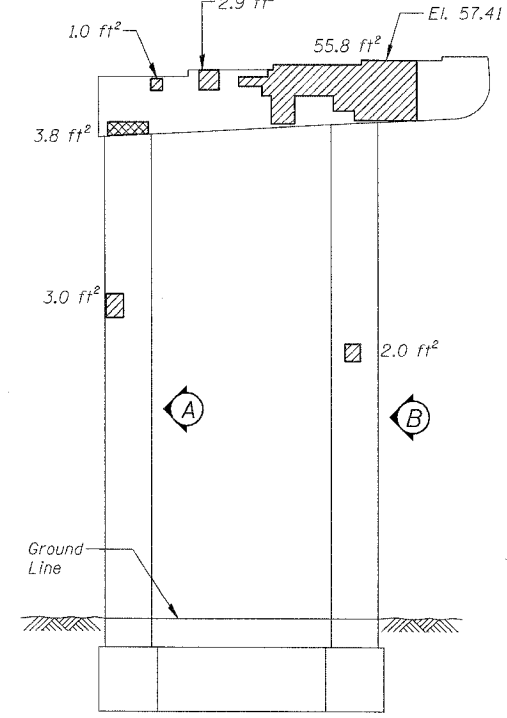
PIER D-11 - SOUTH ELEVATION
(Looking North)



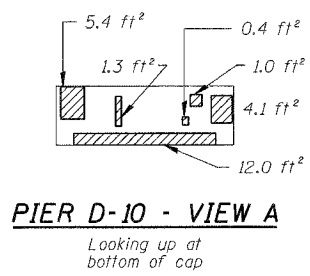
PIER D-11 - NORTH ELEVATION
(Looking South)



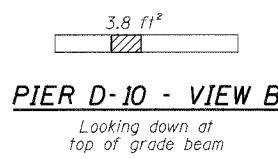
PIER C-2 - SOUTH ELEVATION
(Looking North)



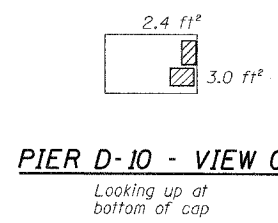
PIER C-2 - NORTH ELEVATION
(Looking South)



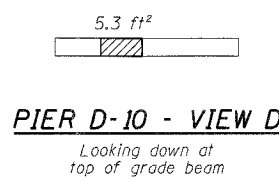
PIER D-10 - VIEW A
Looking up at bottom of cap



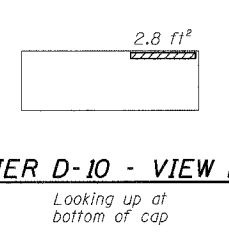
PIER D-10 - VIEW B
Looking down at top of grade beam



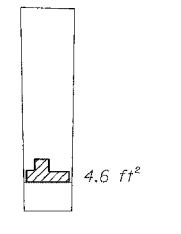
PIER D-10 - VIEW C
Looking up at bottom of cap



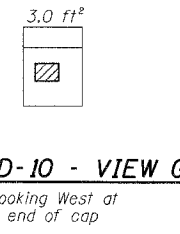
PIER D-10 - VIEW D
Looking down at top of grade beam



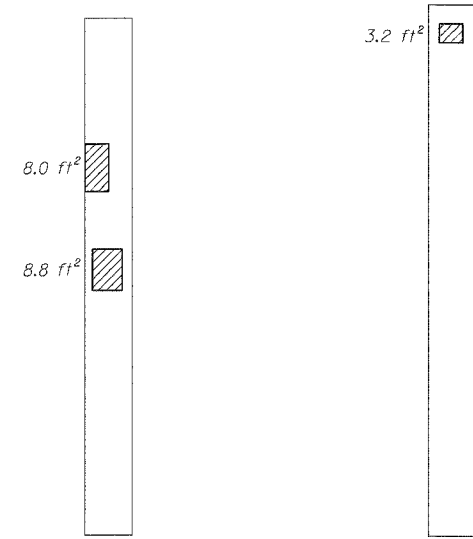
PIER D-10 - VIEW E
Looking up at bottom of cap



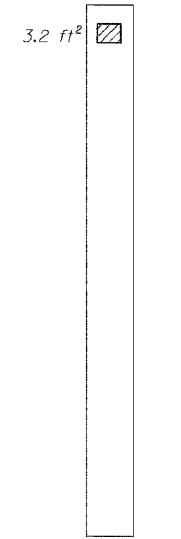
PIER D-10 - VIEW F
Looking East at side of column



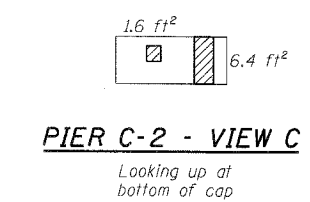
PIER D-10 - VIEW G
Looking West at end of cap



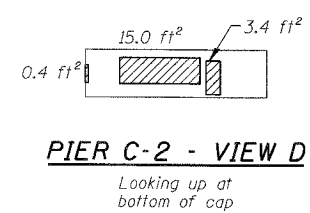
PIER C-2 - VIEW A
Looking East at side of column



PIER C-2 - VIEW B
Looking East at side of column



PIER C-2 - VIEW C
Looking up at bottom of cap



PIER C-2 - VIEW D
Looking up at bottom of cap

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	386.2
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	3.8
Epoxy Crack Injection	FOOT	12.0

REVISIONS	
NAME	DATE

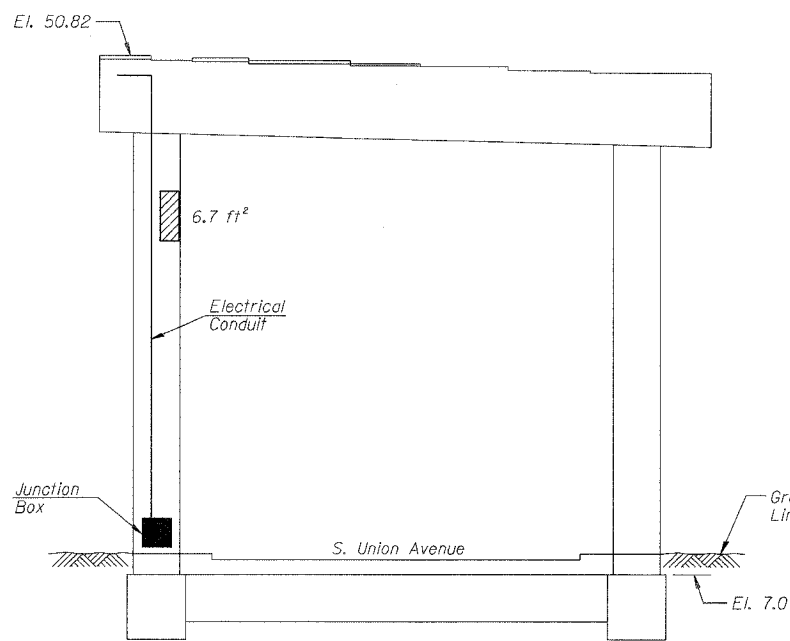
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1113, PIERS D-10,D-11,C-2
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
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312.228.0100
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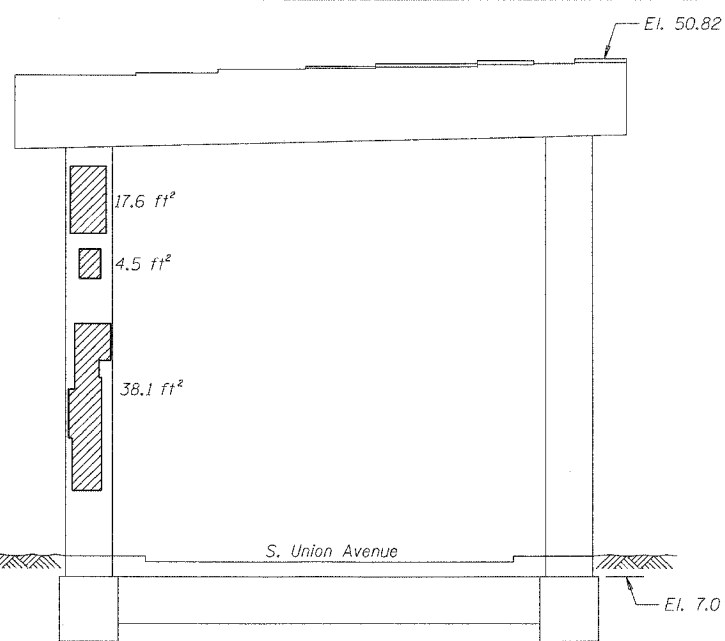
For Notes and Legend See Sheet 6

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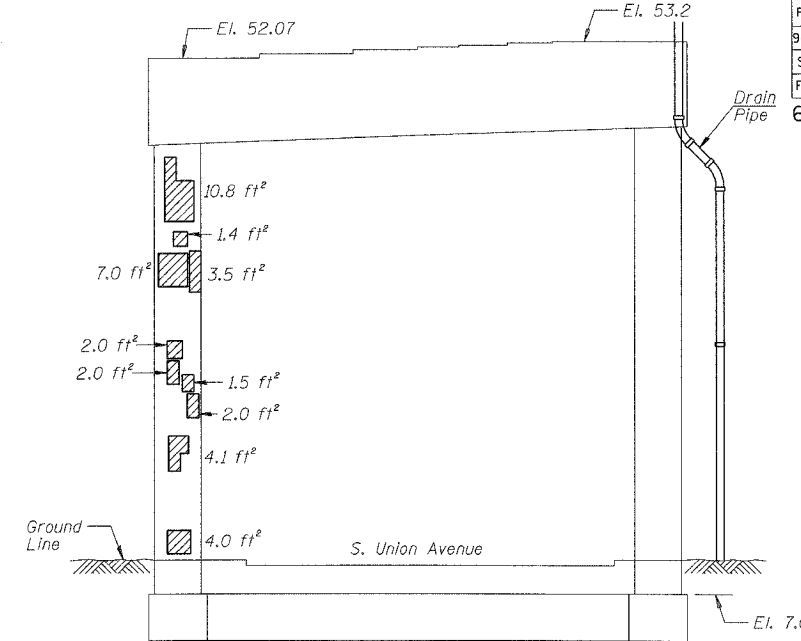
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	78
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
60B07				



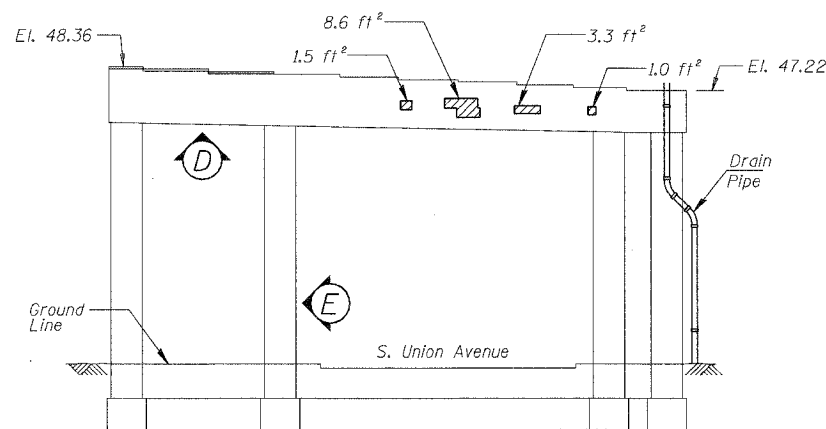
PIER C-4 - SOUTH ELEVATION
(Looking North)



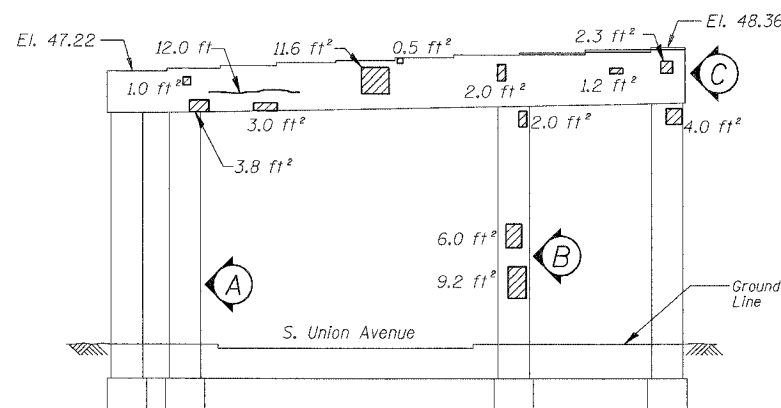
PIER C-4 - NORTH ELEVATION
(Looking South)



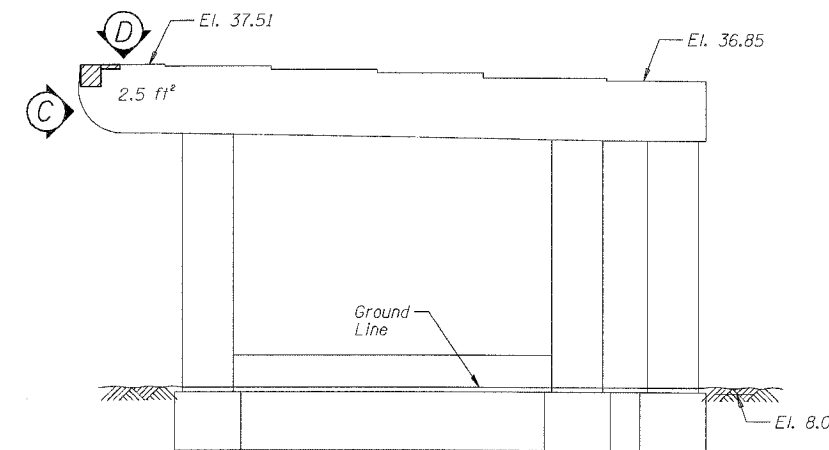
PIER C-3 - NORTH ELEVATION
(Looking South)



PIER C-5 - SOUTH ELEVATION
(Looking North)



PIER C-5 - NORTH ELEVATION
(Looking South)



PIER C-11 - SOUTH ELEVATION
(Looking North)



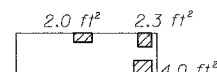
PIER C-5 - VIEW A
Looking East at side of column



PIER C-5 - VIEW B
Looking East at side of column



PIER C-5 - VIEW C
Looking East at end of cap



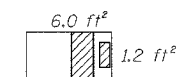
PIER C-5 - VIEW D
Looking up at bottom of cap



PIER C-5 - VIEW E
Looking West at side of column



PIER C-11 - VIEW C
Looking East at end of cap



PIER C-11 - VIEW D
Looking down at top of seat

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	218.0
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	3.0
Epoxy Crack Injection	FOOT	12.0

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR CONCRETE PIER REPAIRS SN 016-1113, PIERS C-3,C-4,C-5,C-11 SCALE: NTS DATE: 5/18/2007
NAME	DATE	
		DRAWN BY: LAM CHECKED BY: BLU

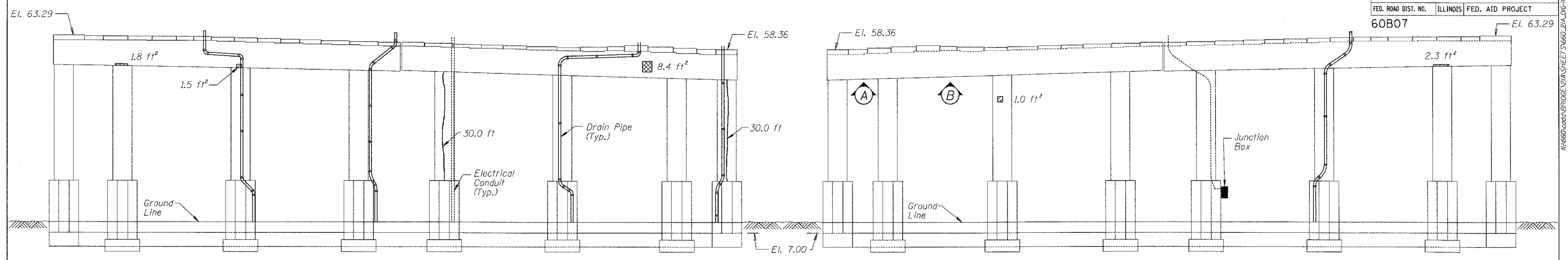
For Notes and Legend See Sheet 6

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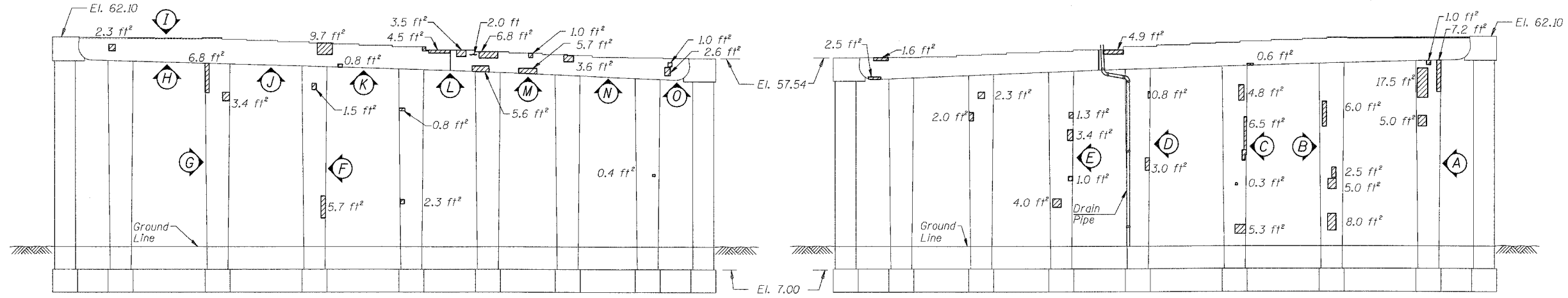
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07				



PIER 1 - SOUTH ELEVATION
(Looking North)

PIER 1 - NORTH ELEVATION
(Looking South)



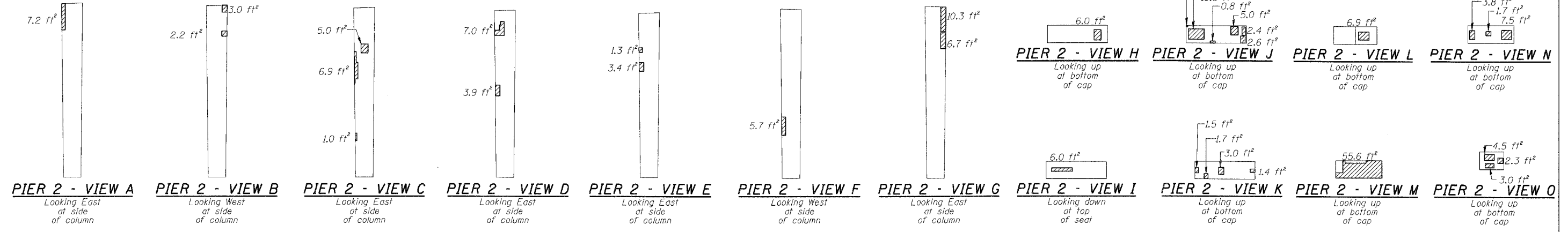
PIER 2 - SOUTH ELEVATION
(Looking North)

PIER 2 - NORTH ELEVATION
(Looking South)

PIER 1 - VIEW A
Looking up at bottom of cap



PIER 1 - VIEW B
Looking up at bottom of cap



PIER 2 - VIEW A
Looking East of side of column

PIER 2 - VIEW B
Looking West of side of column

PIER 2 - VIEW C
Looking East of side of column

PIER 2 - VIEW D
Looking East of side of column

PIER 2 - VIEW E
Looking East of side of column

PIER 2 - VIEW F
Looking West of side of column

PIER 2 - VIEW G
Looking East of side of column

PIER 2 - VIEW I
Looking down at top of seat

PIER 2 - VIEW K
Looking up at bottom of cap

PIER 2 - VIEW M
Looking up at bottom of cap

PIER 2 - VIEW O
Looking up at bottom of cap

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	364.8
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	27.4
Epoxy Crack Injection	FOOT	62.0

REVISIONS	
NAME	DATE

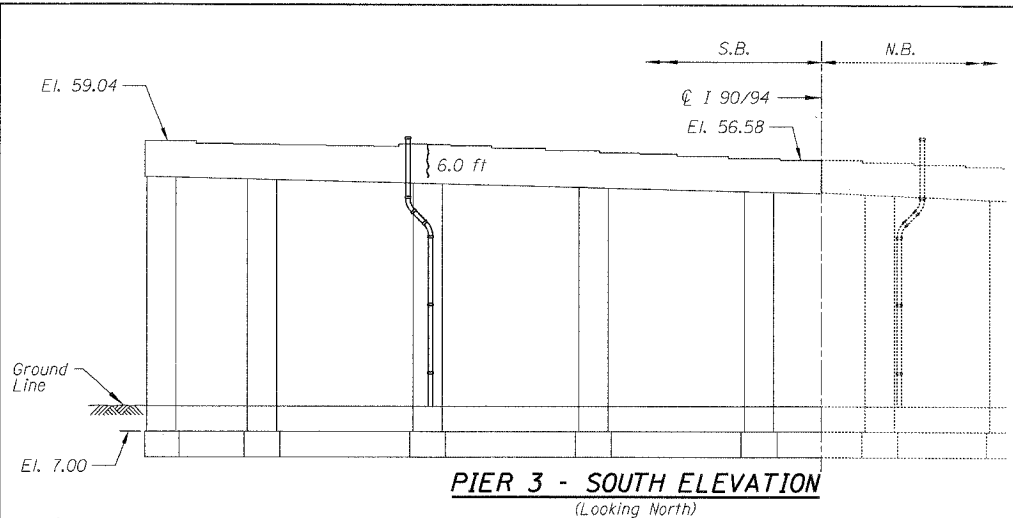
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1113, PIERS 1&2
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

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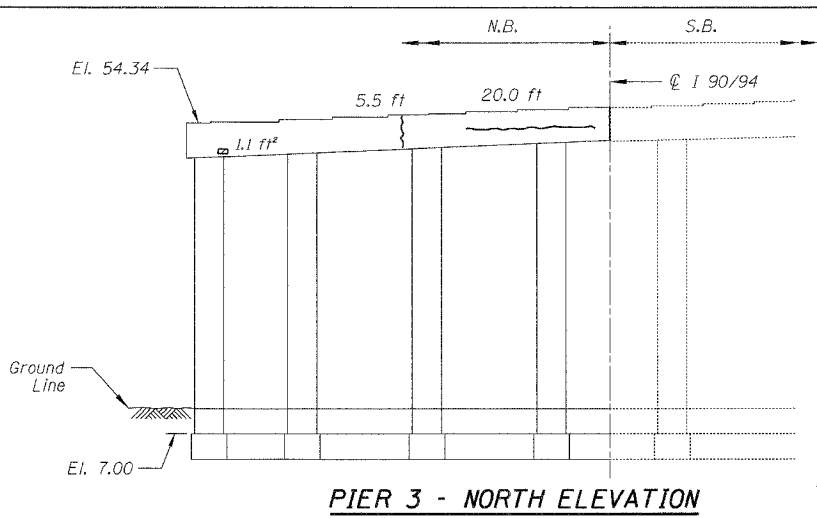
For Notes and Legend See Sheet 6

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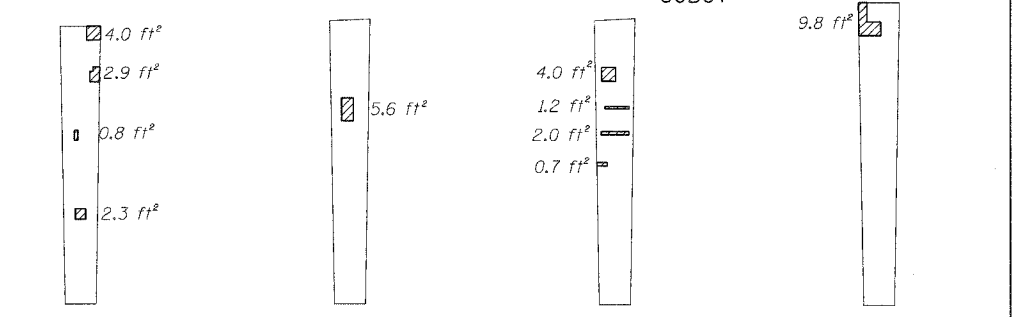
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	80
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
60B07		9.8 ft ²		



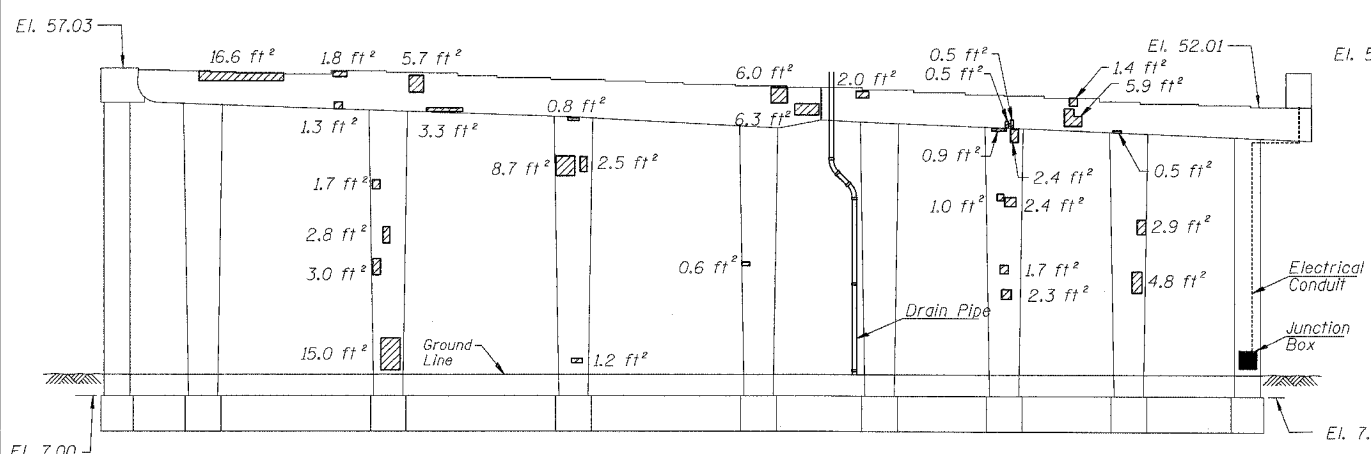
PIER 3 - SOUTH ELEVATION
(Looking North)



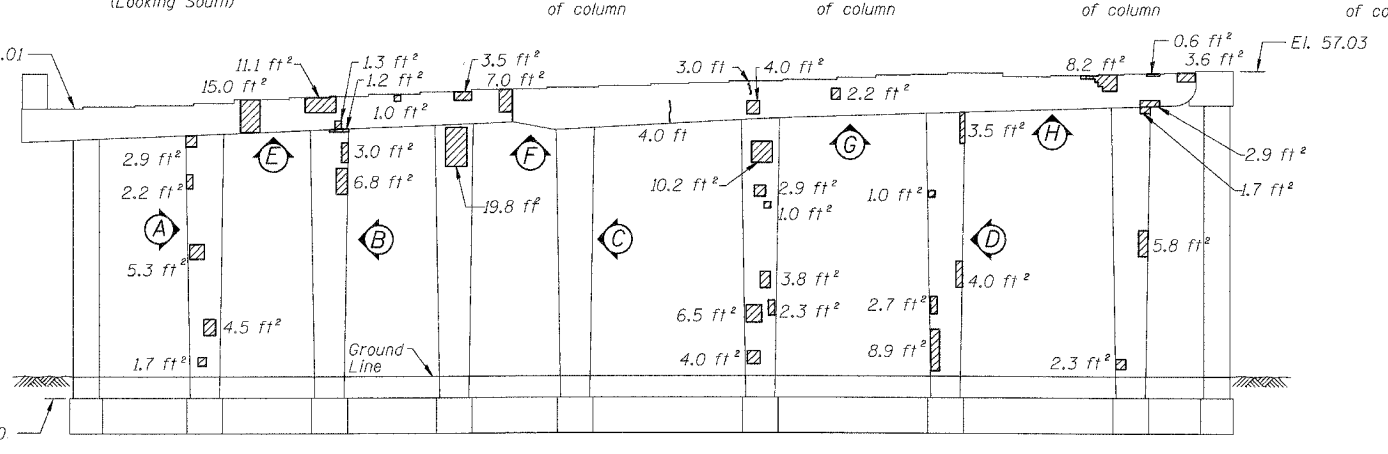
PIER 3 - NORTH ELEVATION
(Looking South)



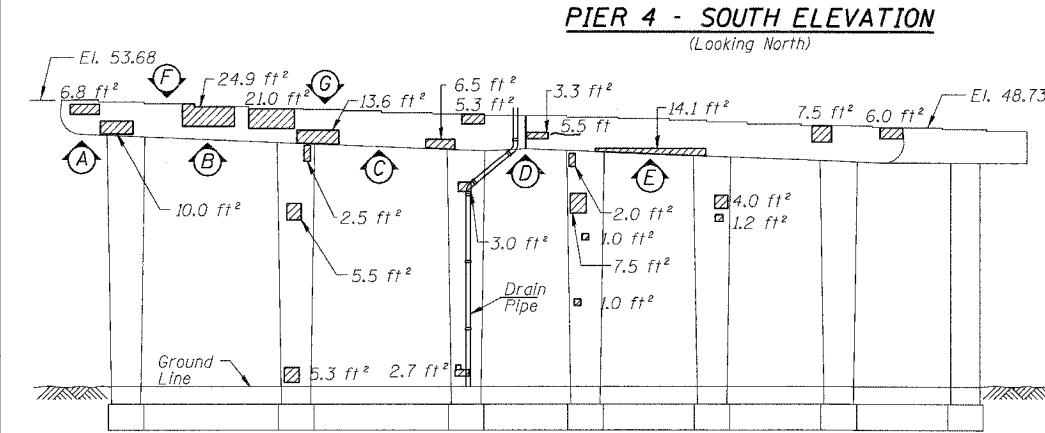
PIER 4 - VIEW A Looking West at side of column
PIER 4 - VIEW B Looking East at side of column
PIER 4 - VIEW C Looking East at side of column
PIER 4 - VIEW D Looking East at side of column



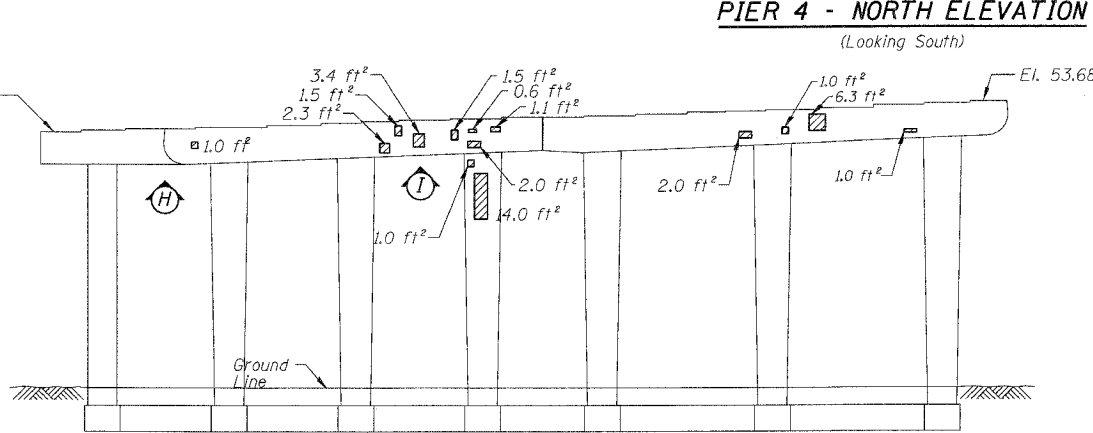
PIER 4 - SOUTH ELEVATION
(Looking North)



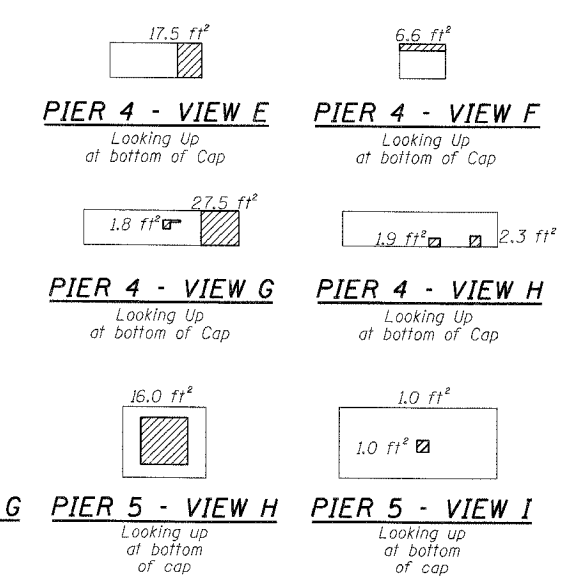
PIER 4 - NORTH ELEVATION
(Looking South)



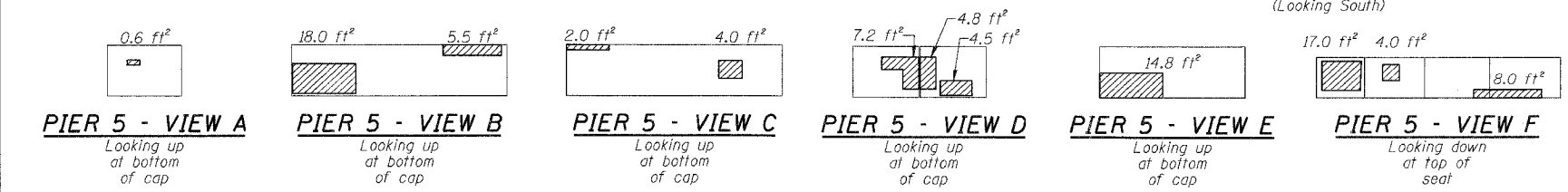
PIER 5 - SOUTH ELEVATION
(Looking North)



PIER 5 - NORTH ELEVATION
(Looking South)



PIER 4 - VIEW E Looking Up at bottom of Cap
PIER 4 - VIEW F Looking Up at bottom of Cap
PIER 4 - VIEW G Looking Up at bottom of Cap
PIER 4 - VIEW H Looking Up at bottom of Cap
PIER 5 - VIEW G Looking down at top of seal
PIER 5 - VIEW H Looking up at bottom of cap
PIER 5 - VIEW I Looking up at bottom of cap



PIER 5 - VIEW A Looking up at bottom of cap
PIER 5 - VIEW B Looking up at bottom of cap
PIER 5 - VIEW C Looking up at bottom of cap
PIER 5 - VIEW D Looking up at bottom of cap
PIER 5 - VIEW E Looking up at bottom of cap
PIER 5 - VIEW F Looking down at top of seal

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	671.0
Epoxy Crack Injection	FOOT	44.0

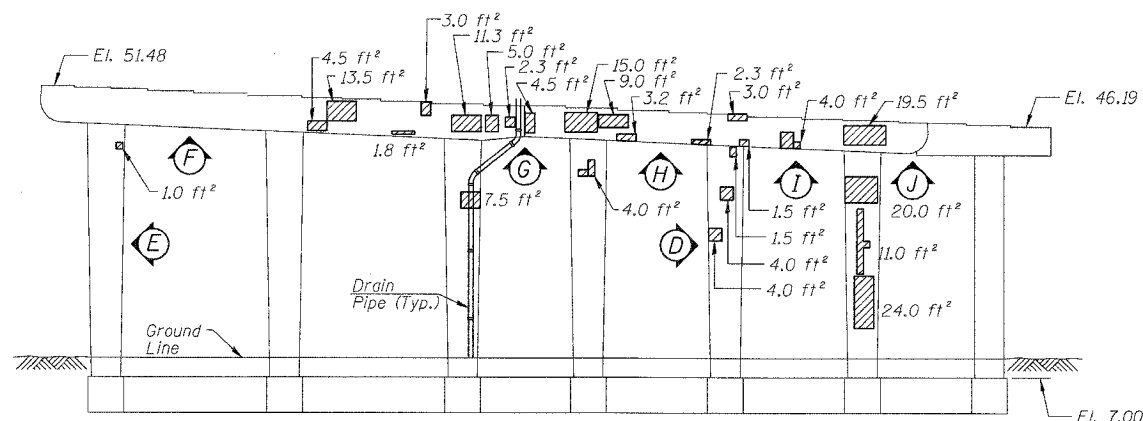
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR CONCRETE PIER REPAIRS SN 016-1113, PIERS 3,4,5
NAME	DATE	

SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

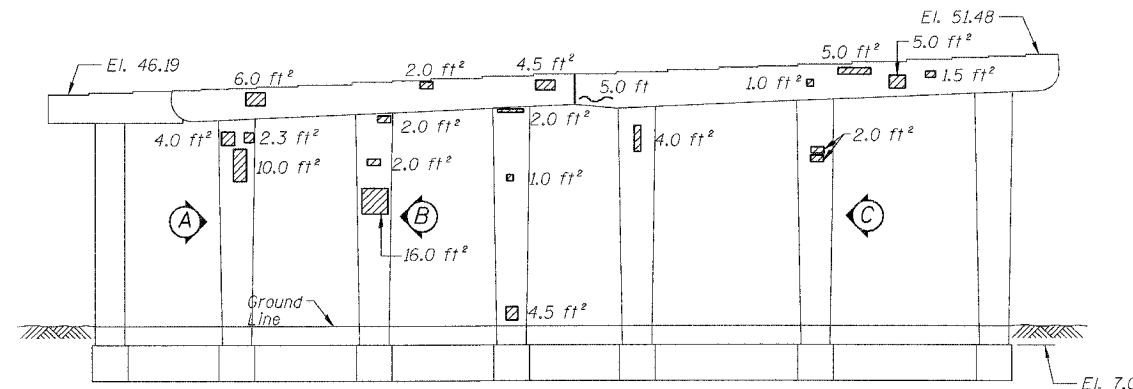
BOWMAN, BARRETT & ASSOCIATES INC.
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For Notes and Legend See Sheet 6

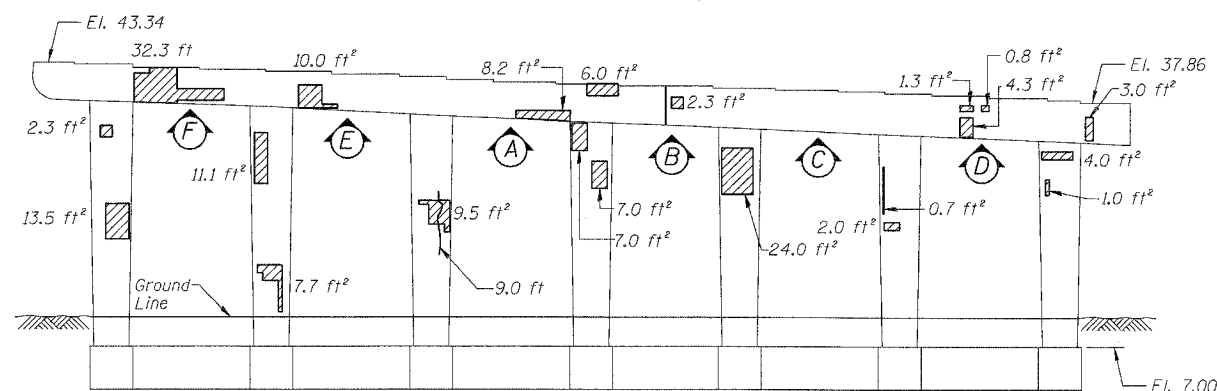
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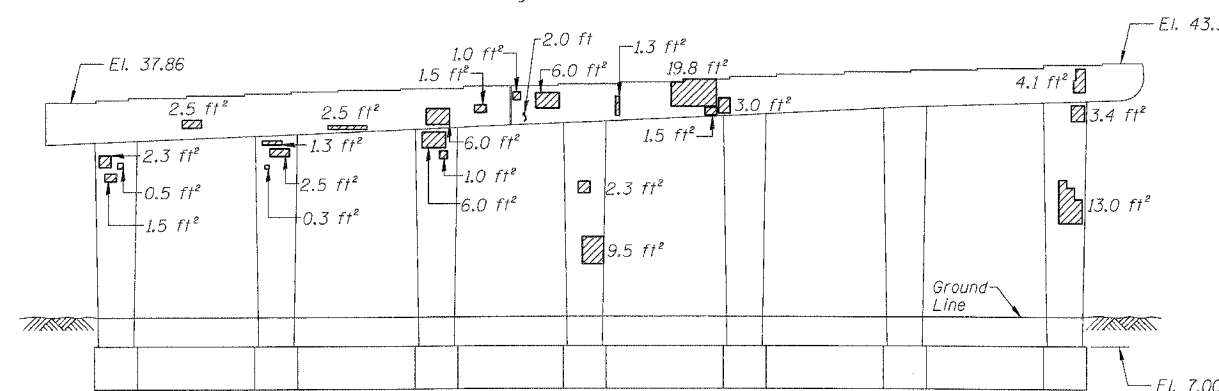
PIER 6 - SOUTH ELEVATION
(Looking North)



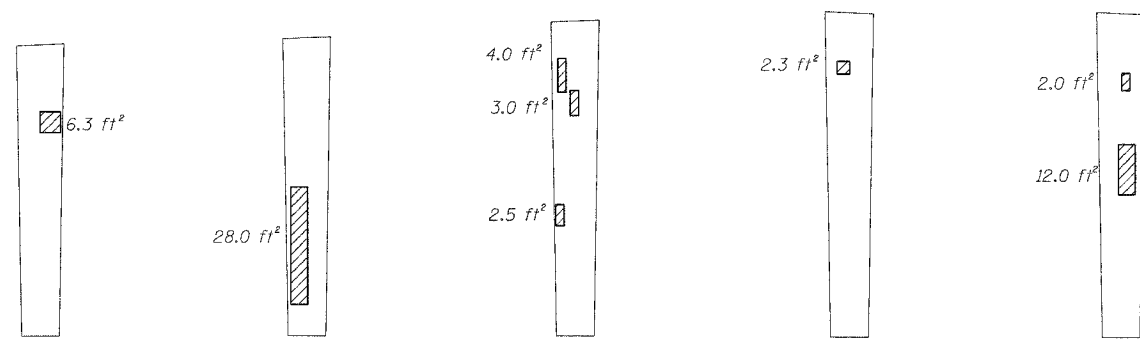
PIER 6 - NORTH ELEVATION
(Looking South)



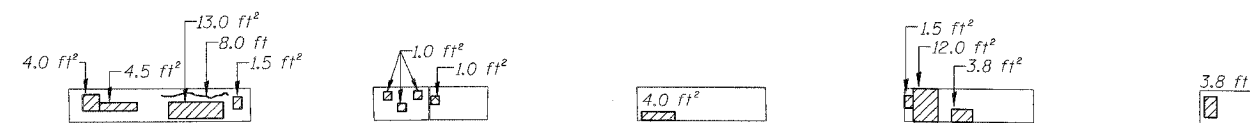
PIER 9 - SOUTH ELEVATION
(Looking North)



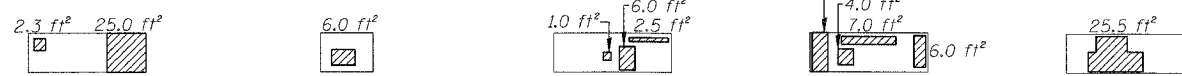
PIER 9 - NORTH ELEVATION
(Looking South)



PIER 6 - VIEW A Looking West at side of column
PIER 6 - VIEW B Looking East at side of column
PIER 6 - VIEW C Looking East at side of column
PIER 6 - VIEW D Looking East at side of column
PIER 6 - VIEW E Looking West at side of column



PIER 6 - VIEW F Looking up at bottom of cap
PIER 6 - VIEW G Looking up at bottom of cap
PIER 6 - VIEW H Looking up at bottom of cap
PIER 6 - VIEW I Looking up at bottom of cap
PIER 6 - VIEW J Looking up at bottom of cap



PIER 9 - VIEW A Looking up at bottom of cap
PIER 9 - VIEW B Looking up at bottom of cap
PIER 9 - VIEW C Looking up at bottom of cap
PIER 9 - VIEW D Looking up at bottom of cap
PIER 9 - VIEW E Looking up at bottom of cap
PIER 9 - VIEW F Looking up at bottom of cap

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	725.8
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	1.0
Epoxy Crack Injection	FOOT	24.0

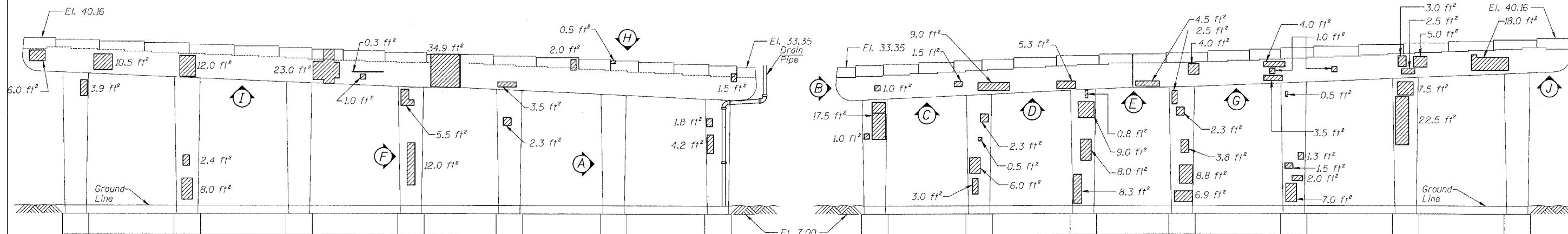
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1113, PIERS 6&9

SCALE: NTS
DATE: 5/18/2007

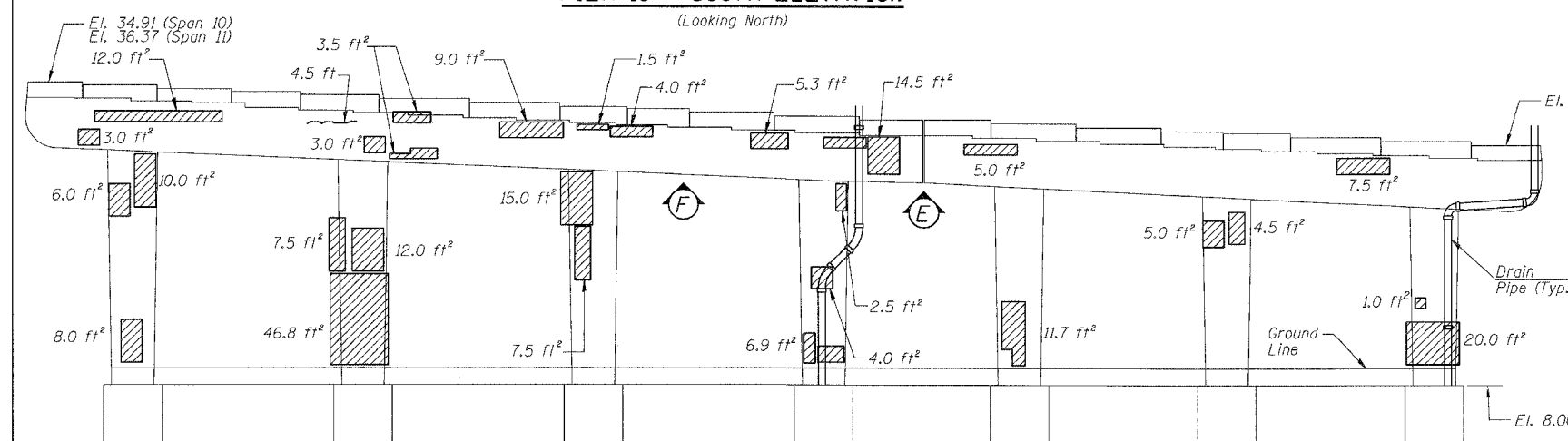
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60B07

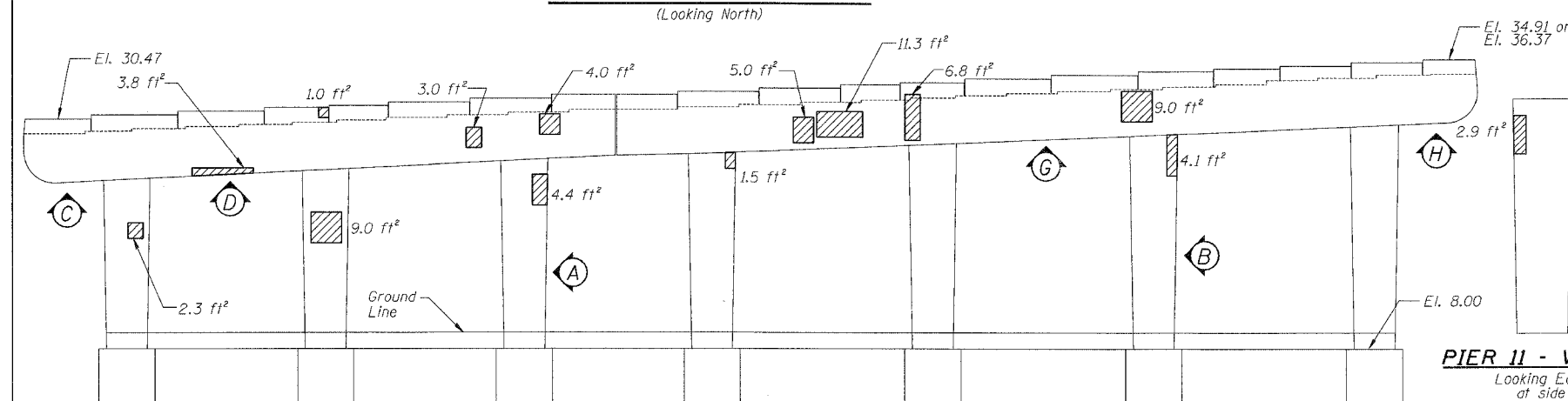


PIER 10 - SOUTH ELEVATION
(Looking North)

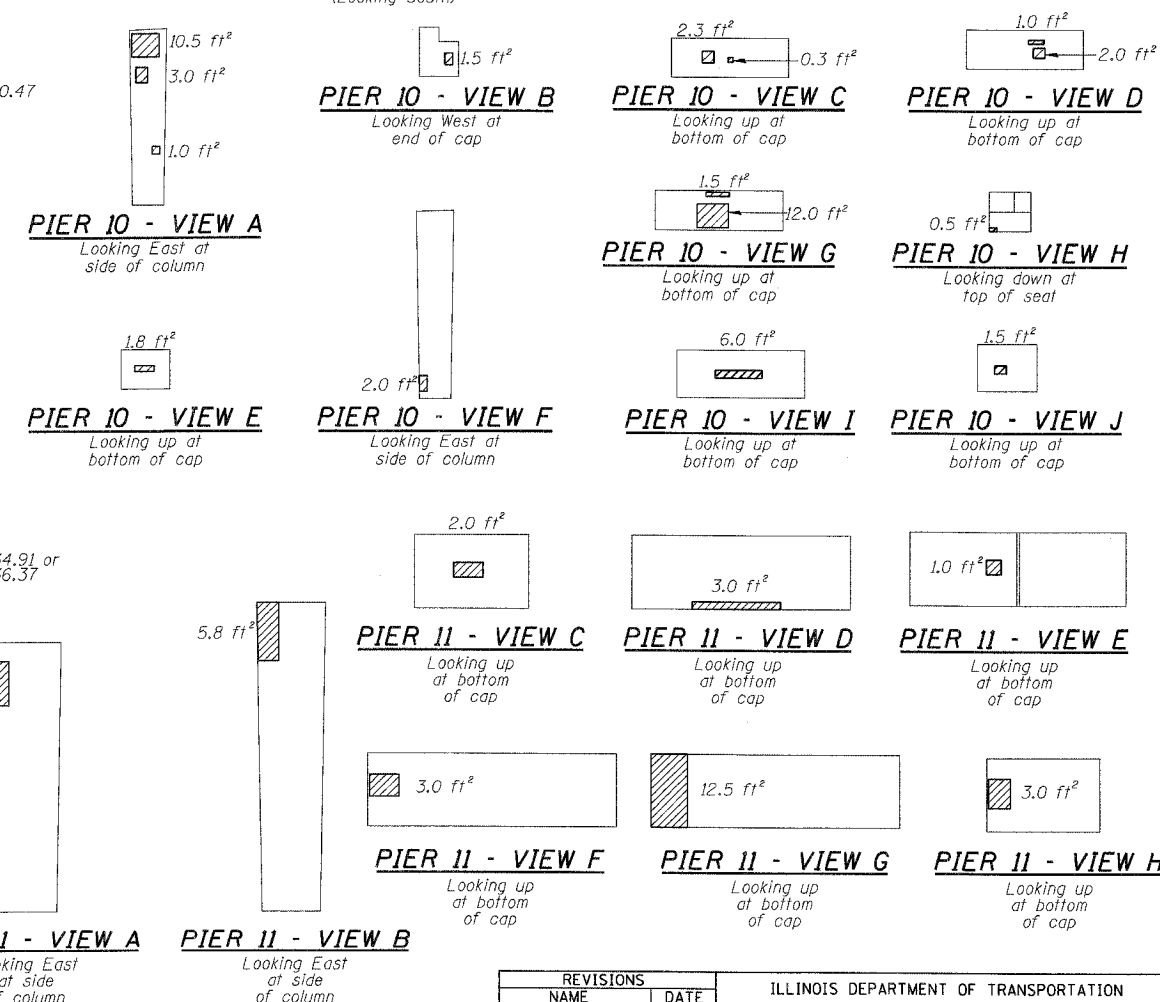
PIER 10 - NORTH ELEVATION
(Looking South)



PIER 11 - SOUTH ELEVATION
(Looking North)



PIER 11 - NORTH ELEVATION
(Looking South)



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	709.8
Epoxy Crack Injection	FOOT	4.5

REVISIONS	
NAME	DATE

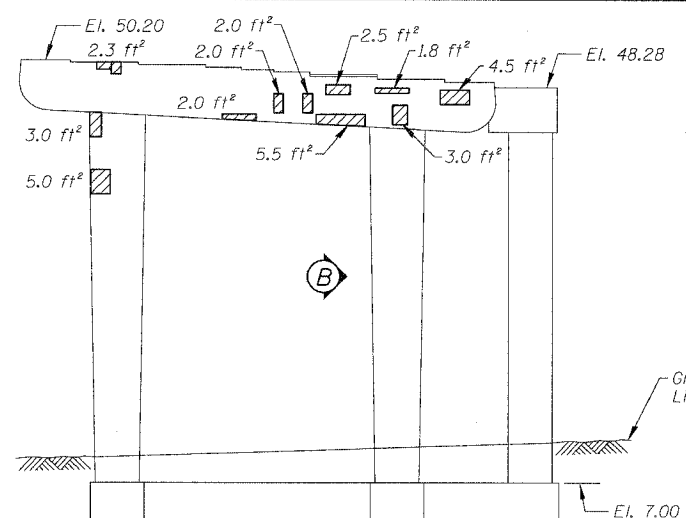
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 CONCRETE PIER REPAIRS
 SN 016-1113, PIERS 10&11
 SCALE: NTS
 DATE: 5/18/2007
 DRAWN BY: LAM
 CHECKED BY: BLU

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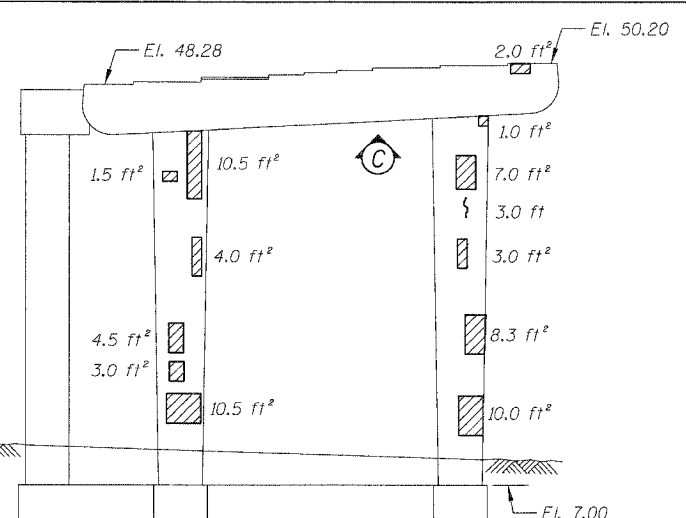
For Notes and Legend See Sheet 6

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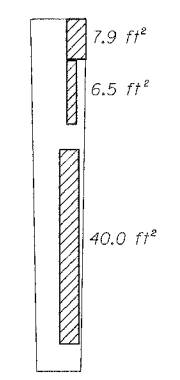
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07				



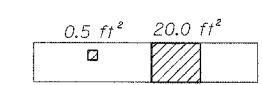
PIER A-7 - SOUTH ELEVATION
(Looking North)



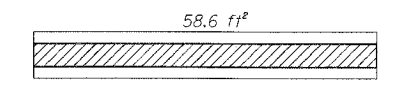
PIER A-7 - NORTH ELEVATION
(Looking South)



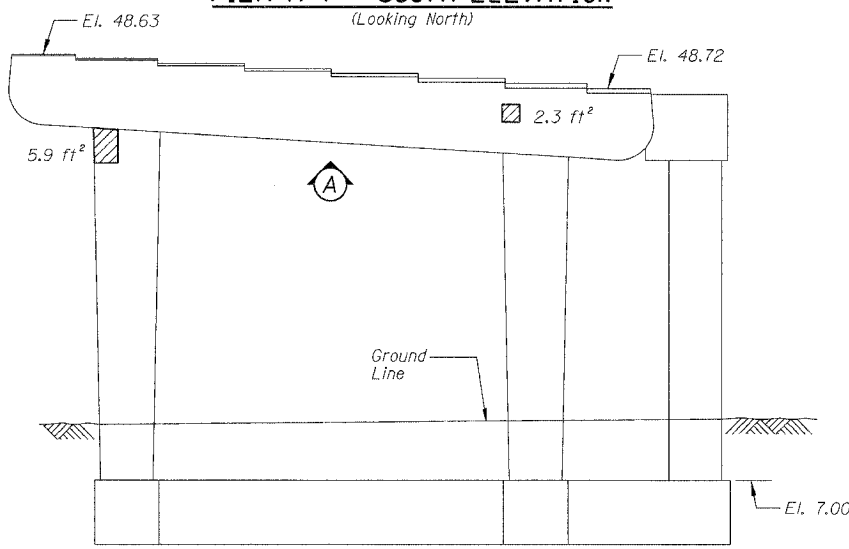
PIER A-7 - VIEW B
Looking East at side of column



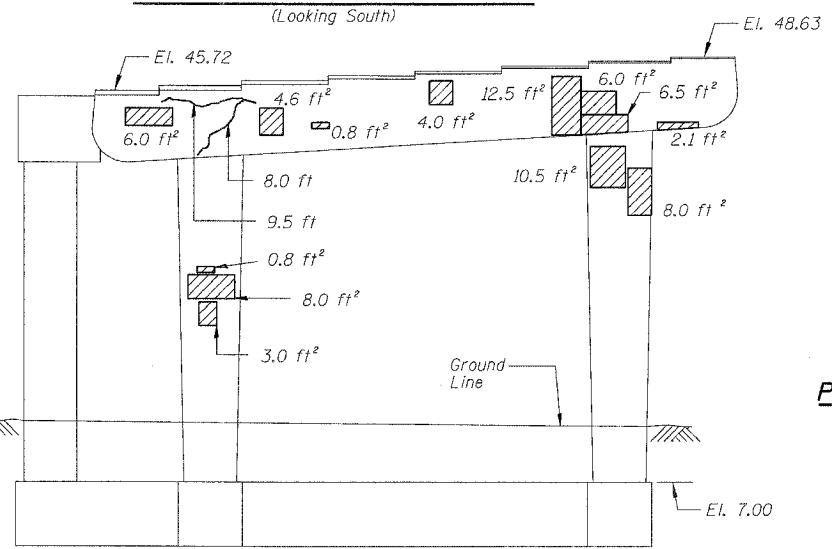
PIER A-7 - VIEW C
Looking up at bottom of cap



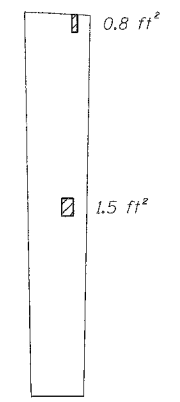
PIER A-8 - VIEW A
Looking up at bottom of cap



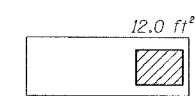
PIER A-8 - SOUTH ELEVATION
(Looking North)



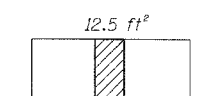
PIER A-8 - NORTH ELEVATION
(Looking South)



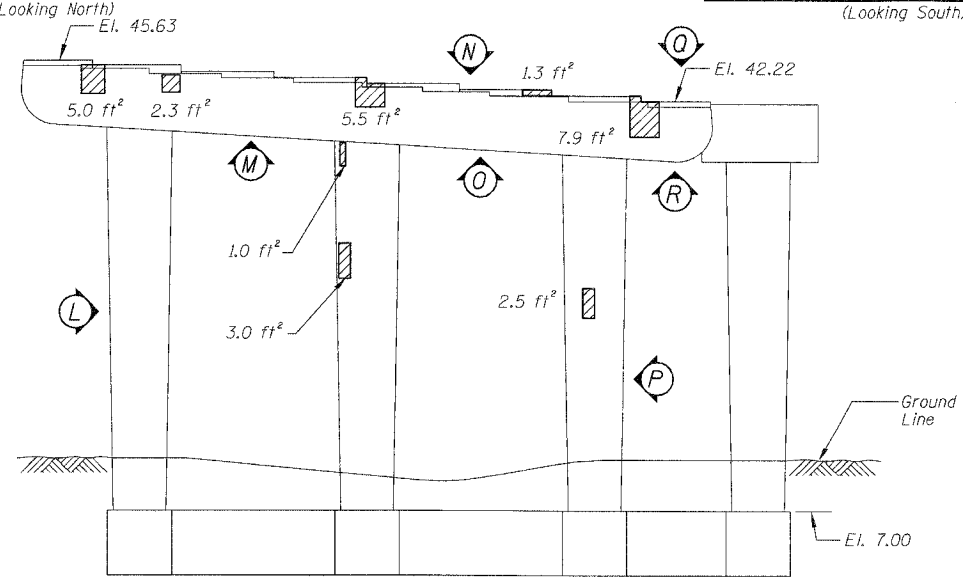
PIER A-9 - VIEW L
Looking East at side of column



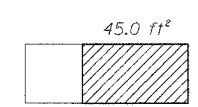
PIER A-9 - VIEW M
Looking up at bottom of cap



PIER A-9 - VIEW N
Looking down at top of seat



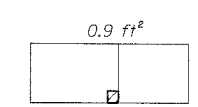
PIER A-9 - SOUTH ELEVATION
(Looking North)



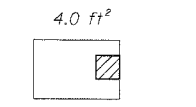
PIER A-9 - VIEW O
Looking up at bottom of cap



PIER A-9 - VIEW P
Looking West at side of column



PIER A-9 - VIEW Q
Looking down at top of seat



PIER A-9 - VIEW R
Looking up at bottom of cap

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	421.6
Epoxy Crack Injection	FOOT	20.5

For Notes and Legend See Sheet 6

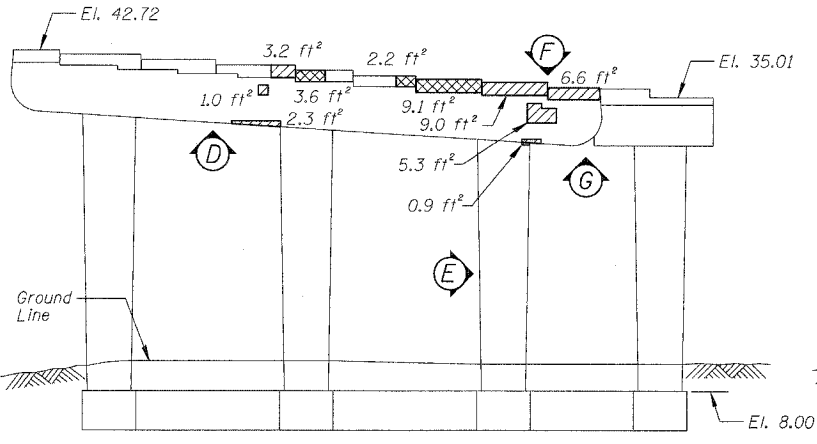
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1113, PIERS A-7,A-8,A-9
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

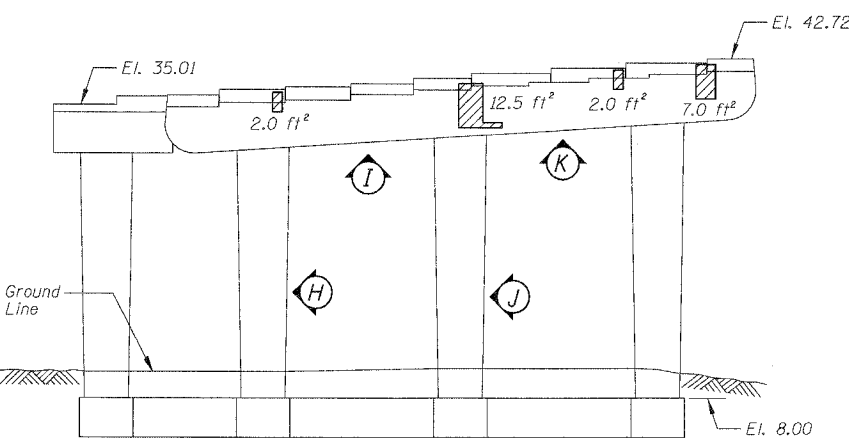
BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbainc.com

455953.FM 5/24/2007

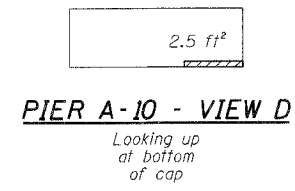
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	84
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
60B07				



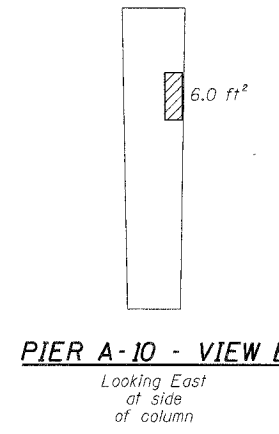
PIER A-10 - SOUTH ELEVATION
(Looking North)



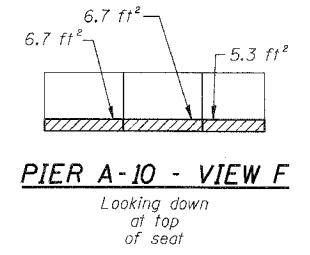
PIER A-10 - NORTH ELEVATION
(Looking South)



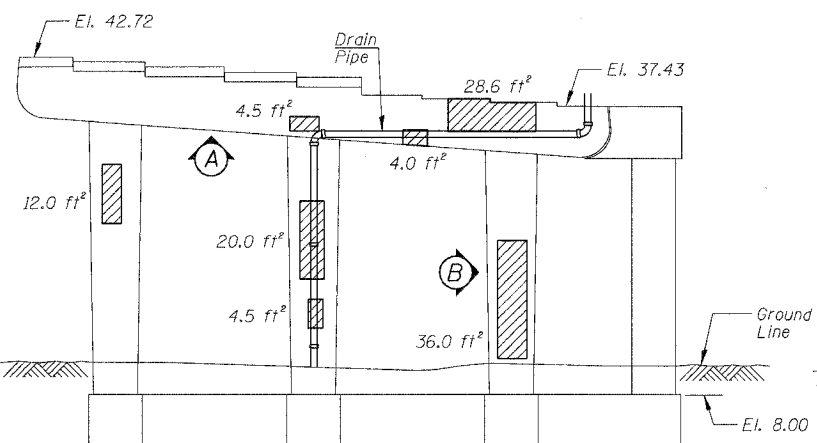
PIER A-10 - VIEW D
Looking up at bottom of cap



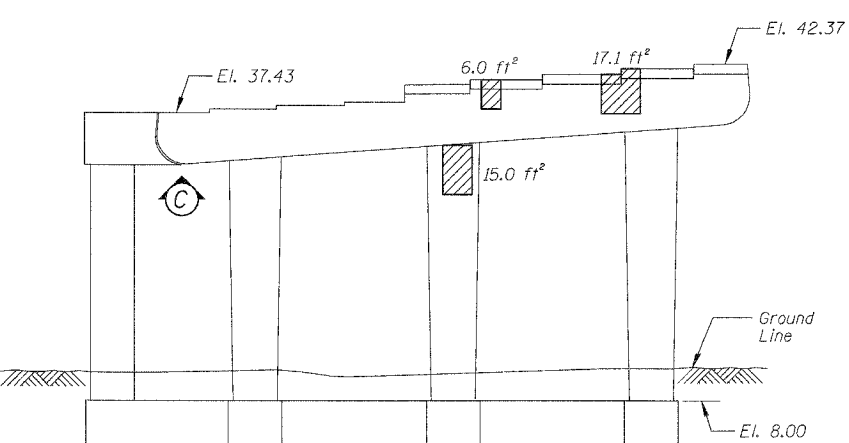
PIER A-10 - VIEW E
Looking East at side of cap



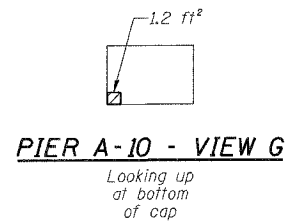
PIER A-10 - VIEW F
Looking down at top of column



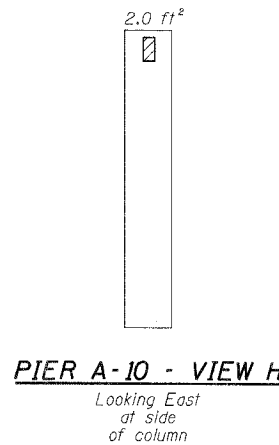
PIER A-11 - SOUTH ELEVATION
(Looking North)



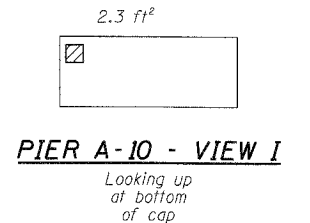
PIER A-11 - NORTH ELEVATION
(Looking South)



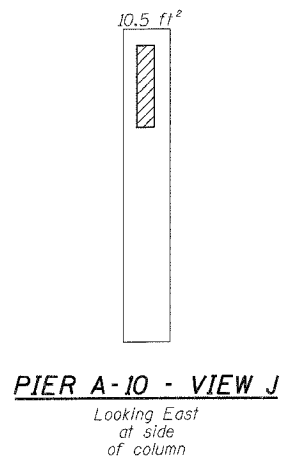
PIER A-10 - VIEW G
Looking up at bottom of cap



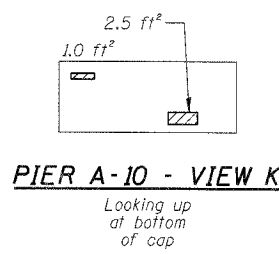
PIER A-10 - VIEW H
Looking East at side of column



PIER A-10 - VIEW I
Looking up at bottom of cap



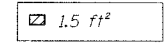
PIER A-10 - VIEW J
Looking East at side of column



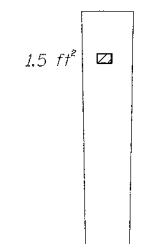
PIER A-10 - VIEW K
Looking up at bottom of cap

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	275.9
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	14.9



PIER A-11 - VIEW A
Looking up at bottom of cap



PIER A-11 - VIEW B
Looking East at side of column



PIER A-11 - VIEW C
Looking up at bottom of cap

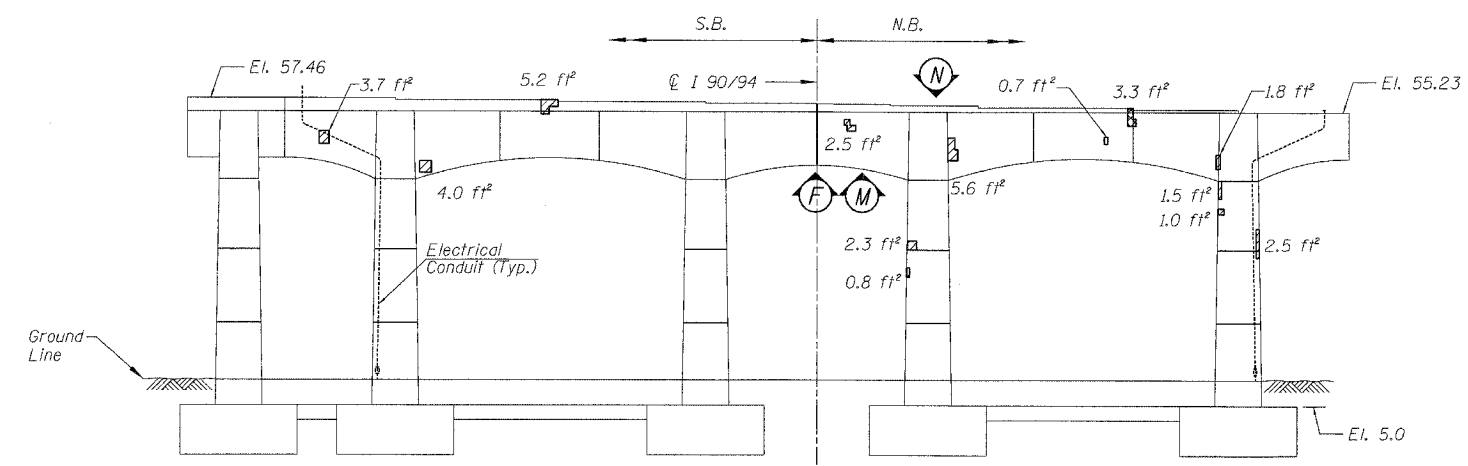
BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbainc.com

For Notes and Legend See Sheet 6

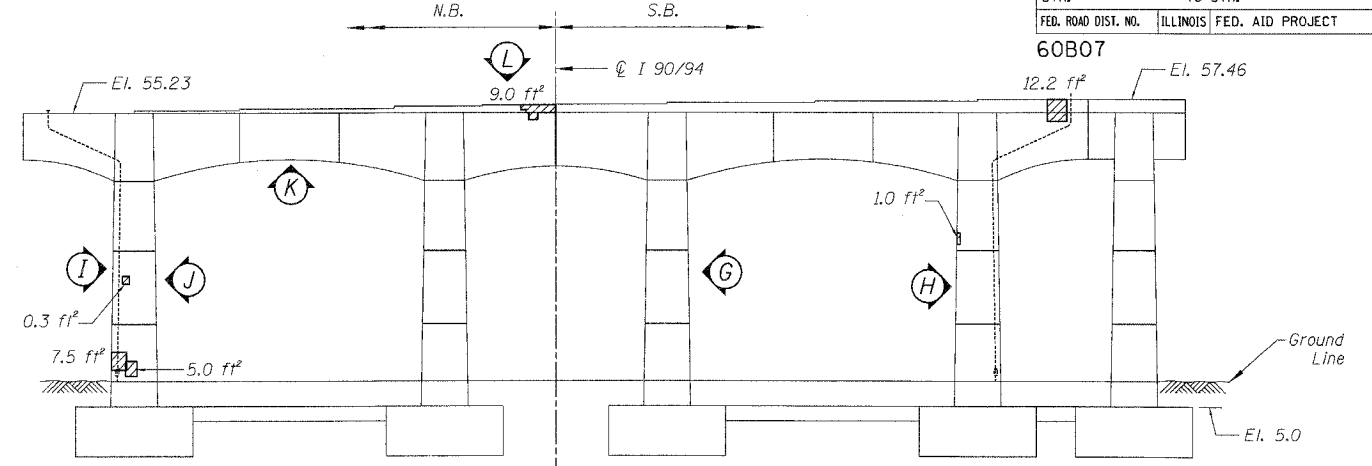
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1113, PIERS A-10&A-11
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

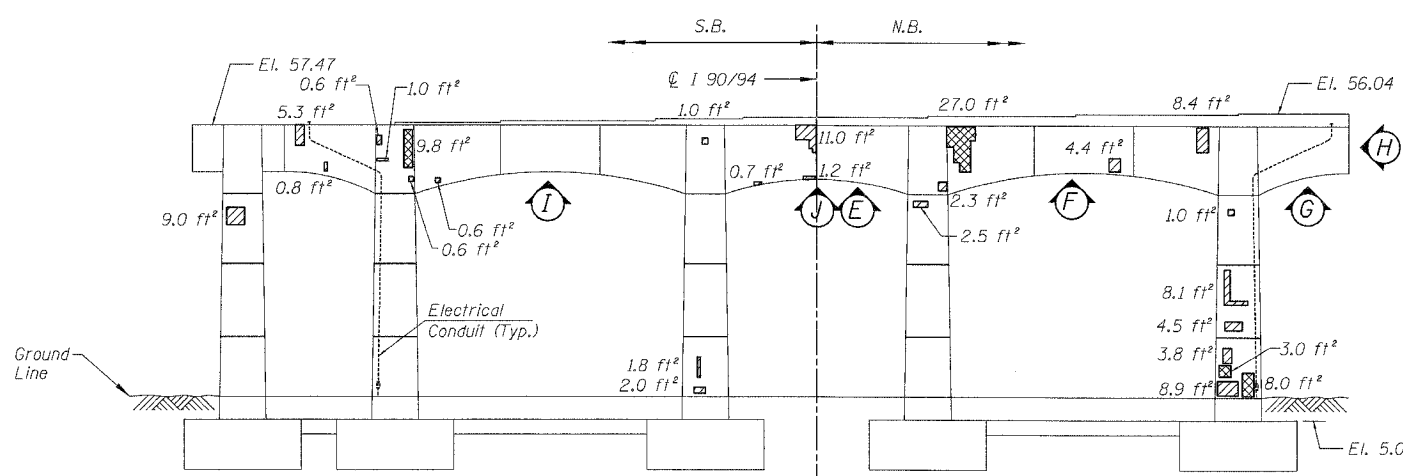
4-55555-54 PM 5/24/2007



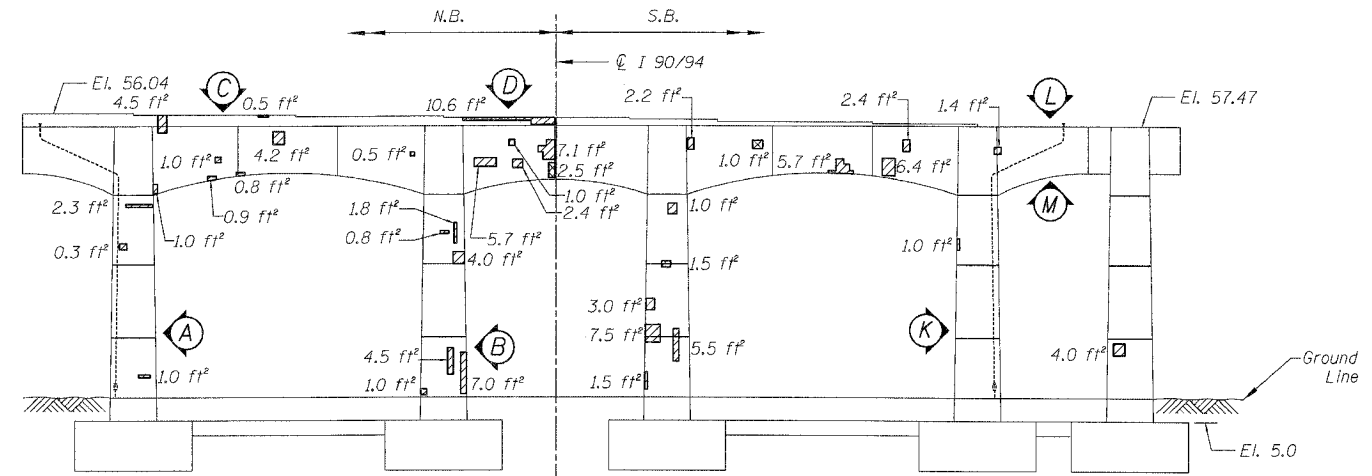
PIER 1 - SOUTH ELEVATION
(Looking North)



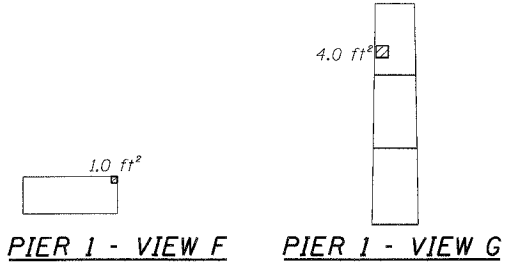
PIER 1 - NORTH ELEVATION
(Looking South)



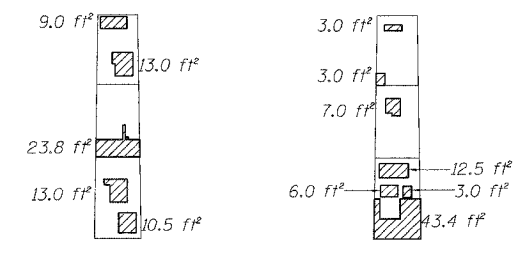
PIER 2 - SOUTH ELEVATION
(Looking North)



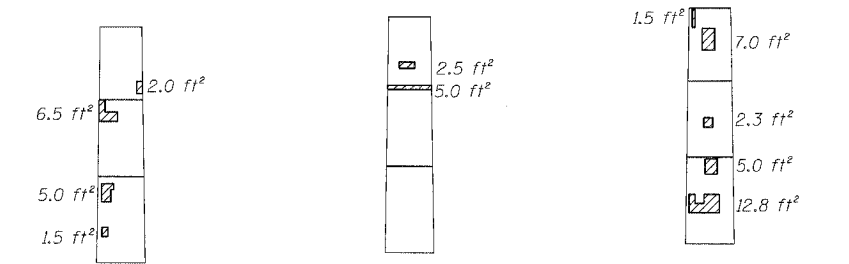
PIER 2 - NORTH ELEVATION
(Looking South)



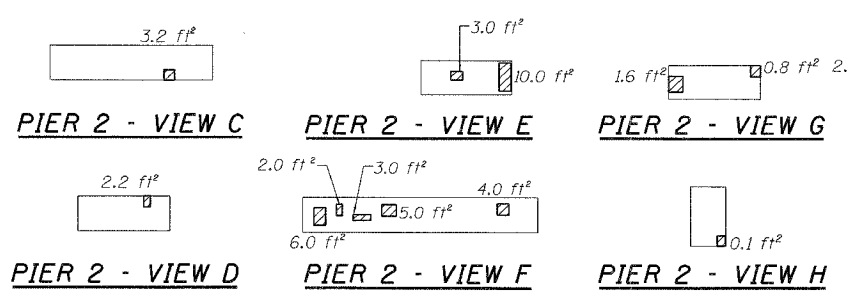
PIER 1 - VIEW F **PIER 1 - VIEW G**



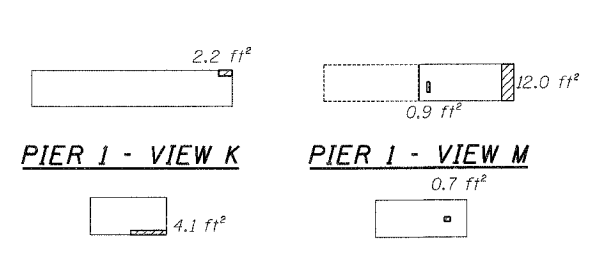
PIER 2 - VIEW A **PIER 2 - VIEW B**



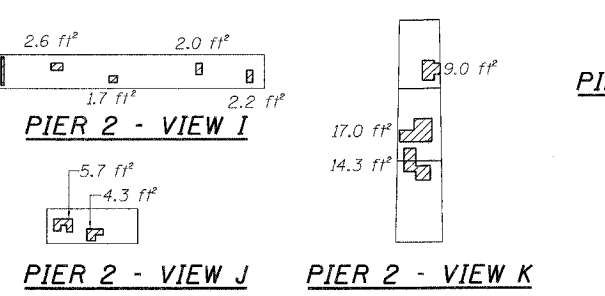
PIER 1 - VIEW H **PIER 1 - VIEW I** **PIER 1 - VIEW J**



PIER 2 - VIEW C **PIER 2 - VIEW E** **PIER 2 - VIEW F** **PIER 2 - VIEW G** **PIER 2 - VIEW H**



PIER 1 - VIEW K **PIER 1 - VIEW M**



PIER 2 - VIEW L **PIER 2 - VIEW N**

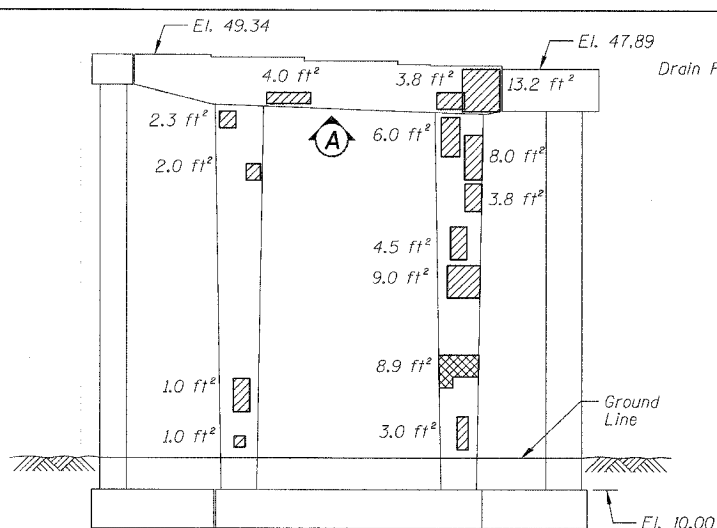
BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	578.6
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	54.6

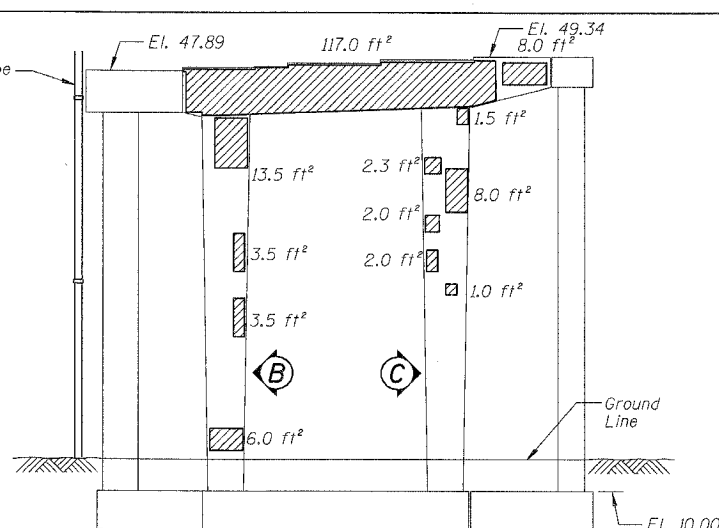
For Notes and Legend See Sheet 6

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR CONCRETE PIER REPAIRS SN 016-1114, PIERS 1&2
NAME	DATE	
		SCALE: NTS DATE: 5/18/2007 DRAWN BY: LAM CHECKED BY: BLU

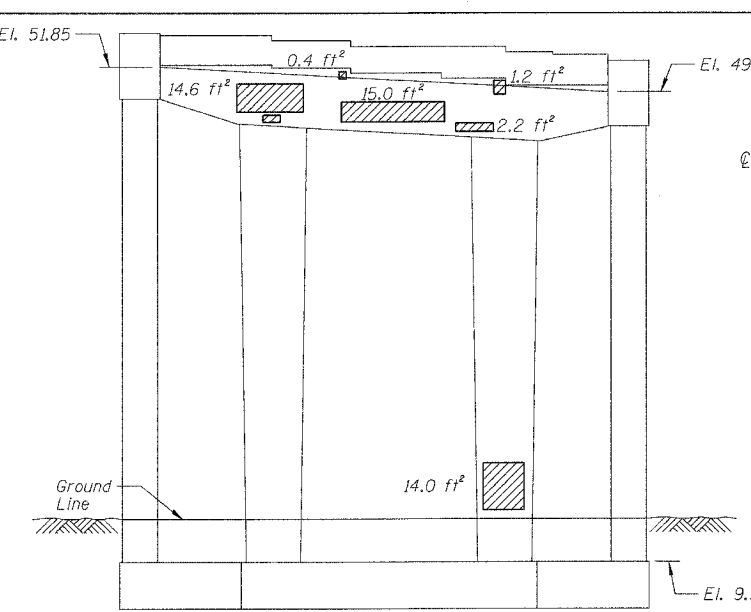
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
60B07				



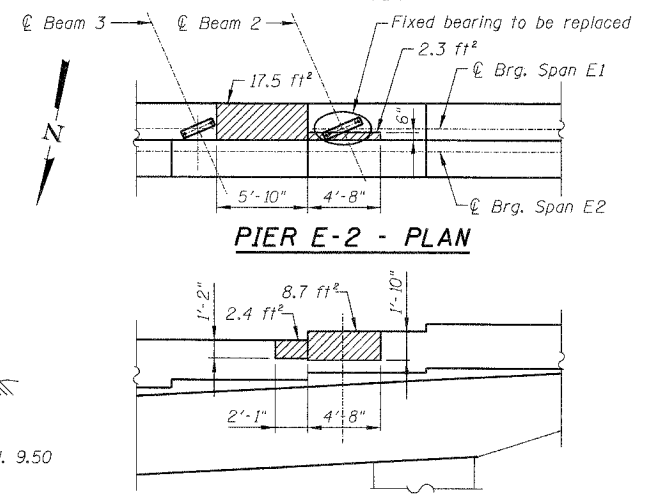
PIER E-1 - SOUTH ELEVATION
(Looking North)



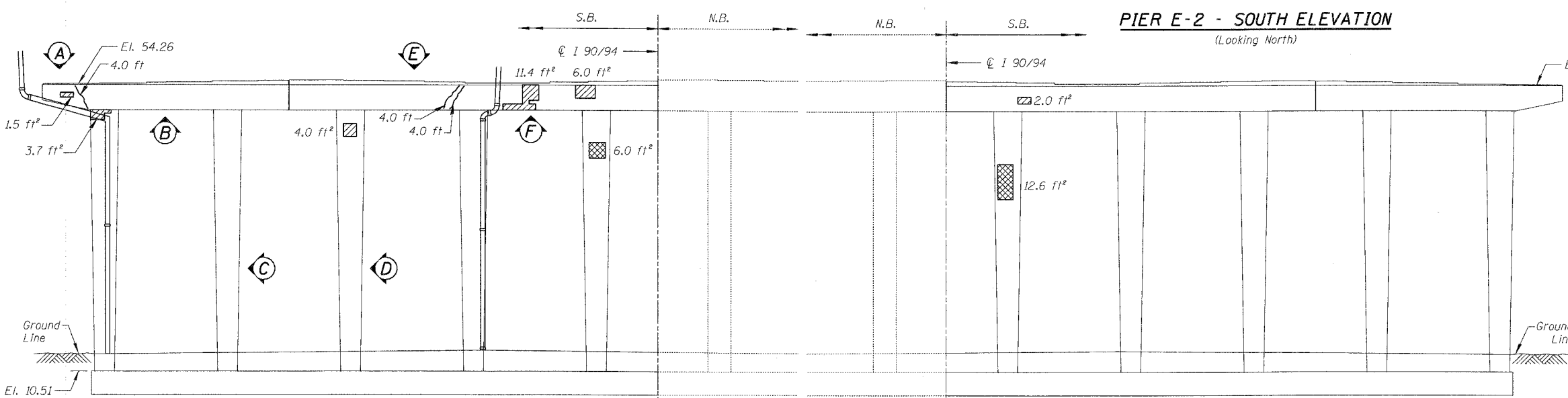
PIER E-1 - NORTH ELEVATION
(Looking South)



PIER E-2 - SOUTH ELEVATION
(Looking North)



PIER E-2 - PLAN
PIER E-2 - NORTH ELEVATION
(Looking South)

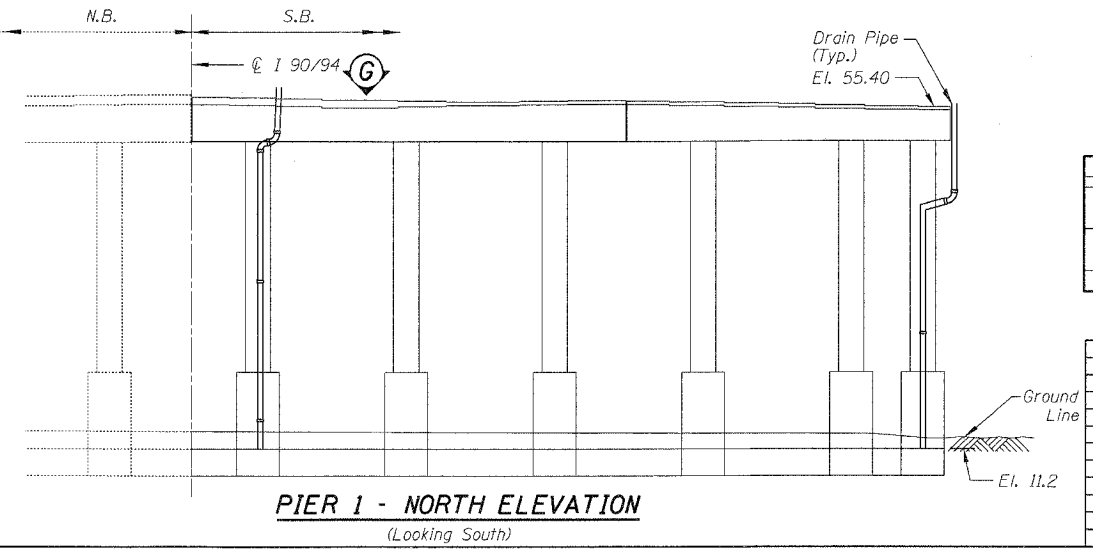
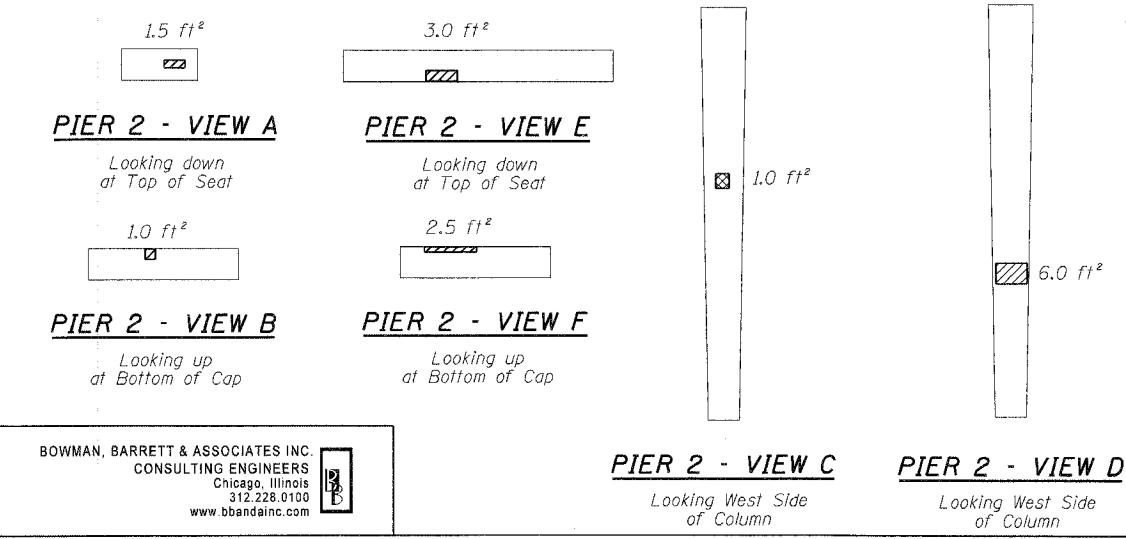


PIER 2 - SOUTH ELEVATION
(Looking North)

PIER 2 - NORTH ELEVATION
(Looking South)

PIER E-1 - VIEW B (Looking East at Side of Column)
PIER E-1 - VIEW C (Looking West at Side of Column)

PIER E-1 - VIEW A (Looking up at Bottom of Cap)
PIER 1 - VIEW G (Looking down at Top of Seat)



PIER 1 - NORTH ELEVATION
(Looking South)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SO. FT.	485.5
Structural Repair of Concrete (Depth greater than 5")	SO. FT.	28.5
Epoxy Crack Injection	FOOT	12.0

For Notes and Legend See Sheet 6

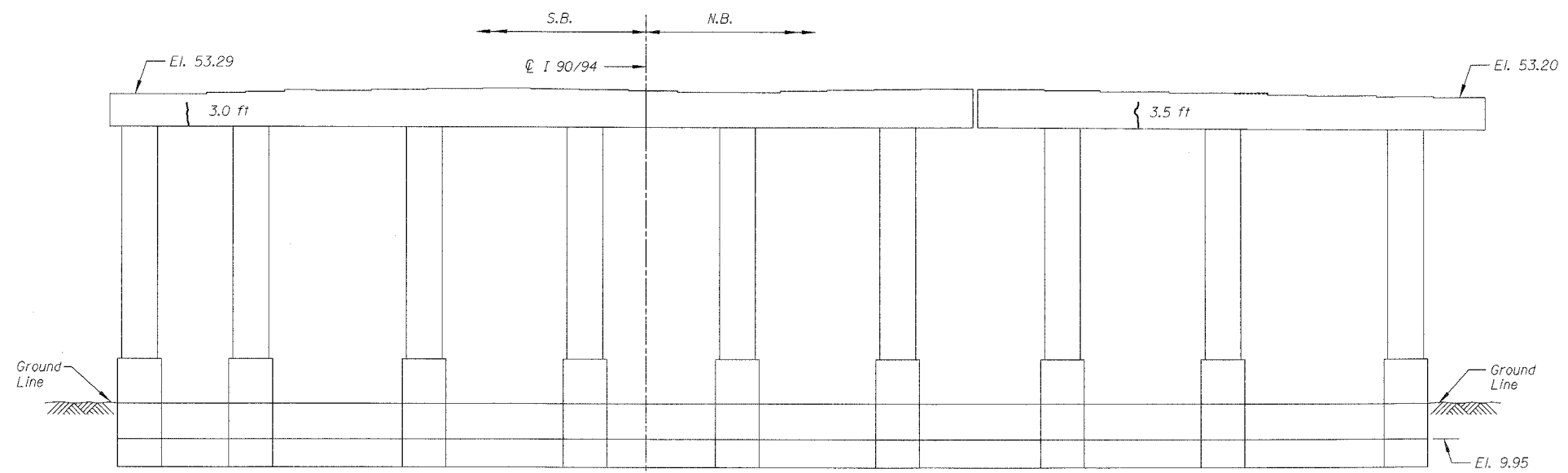
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) DAN RYAN ELEVATED BRIDGE BEARING REPLACEMENT & STEEL REPAIR CONCRETE PIER REPAIRS SN 016-1115, PIERS E-1,E-2,1,2
NAME	DATE	
		SCALE: NTS
		DATE: 5/18/2007
		DRAWN BY: LAM
		CHECKED BY: BLU

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
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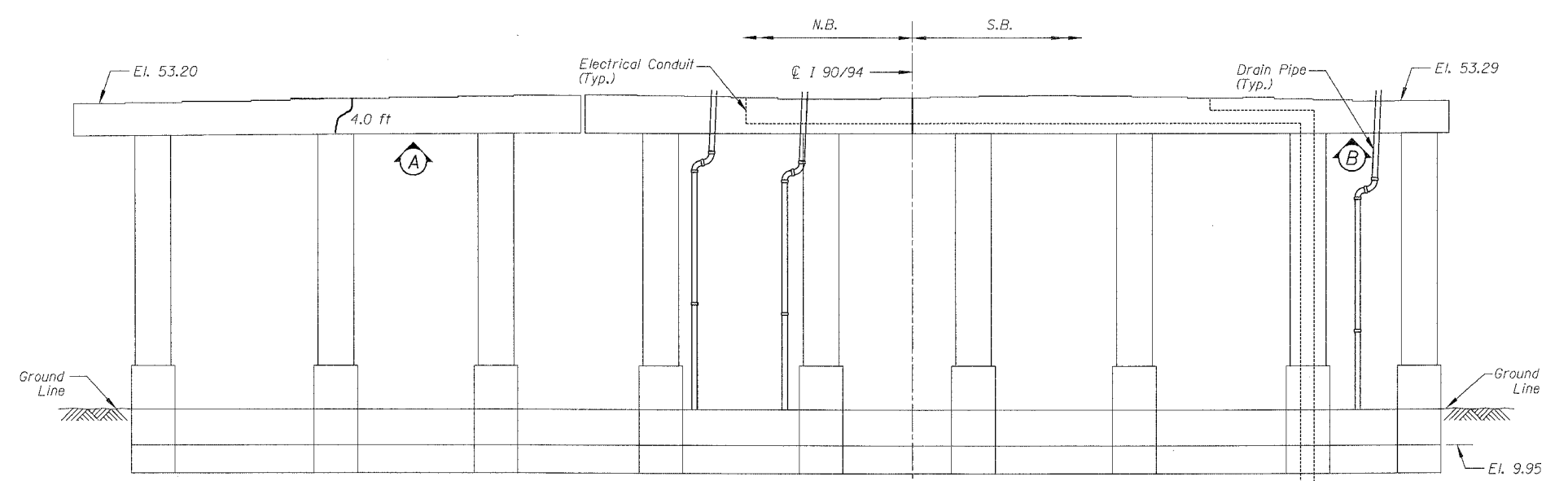
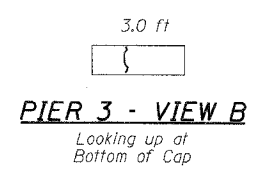
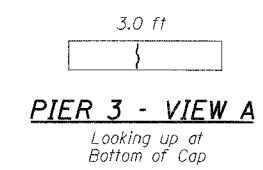
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	87
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

60B07



PIER 3 - SOUTH ELEVATION
(Looking North)



PIER 3 - NORTH ELEVATION
(Looking South)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Epoxy Crack Injection	FOOT	16.5

REVISIONS	
NAME	DATE

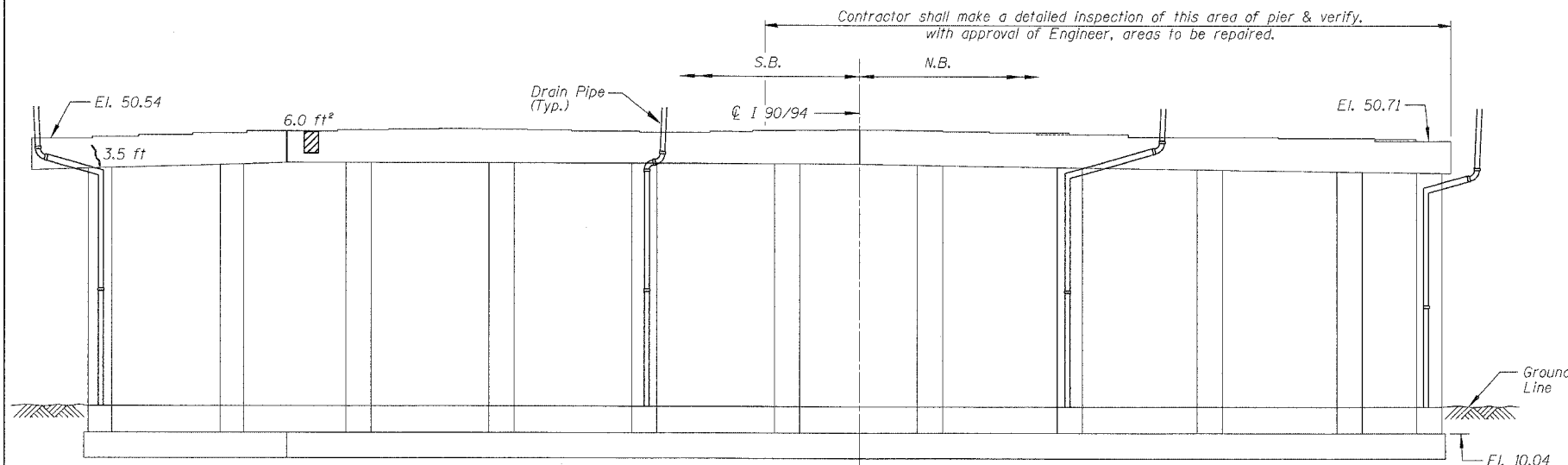
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 CONCRETE PIER REPAIRS
 SN 016-1115, PIER 3
 SCALE: NTS
 DATE: 5/18/2007
 DRAWN BY: LAM
 CHECKED BY: BLU

BOWMAN, BARRETT & ASSOCIATES INC.
 CONSULTING ENGINEERS
 Chicago, Illinois
 312.228.0100
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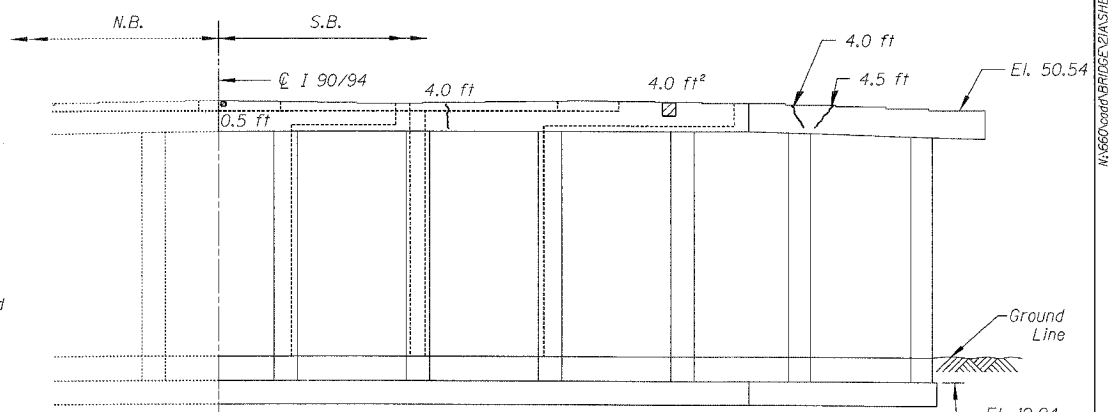
For Notes and Legend See Sheet 6

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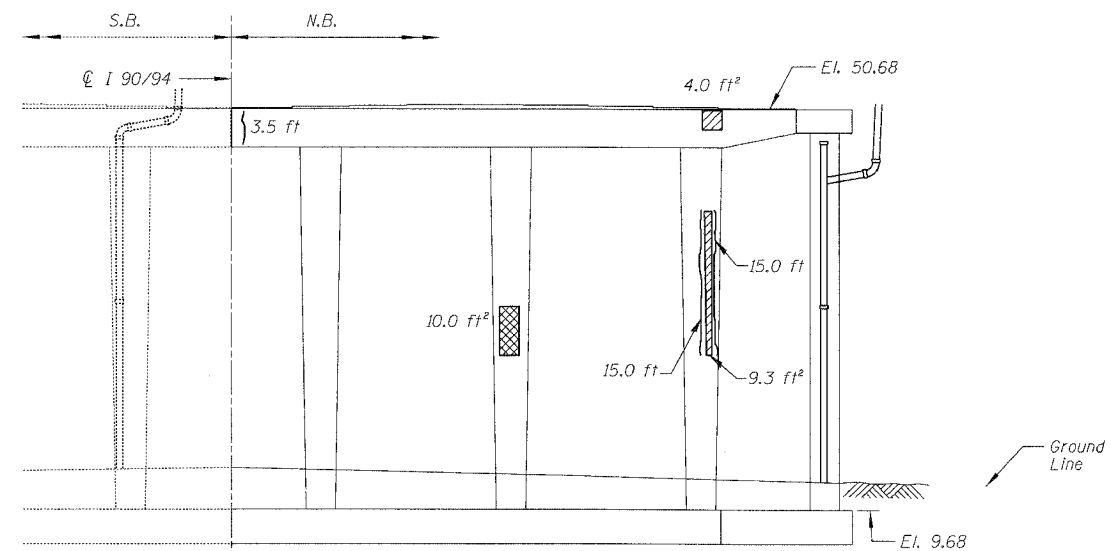
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
60B07				



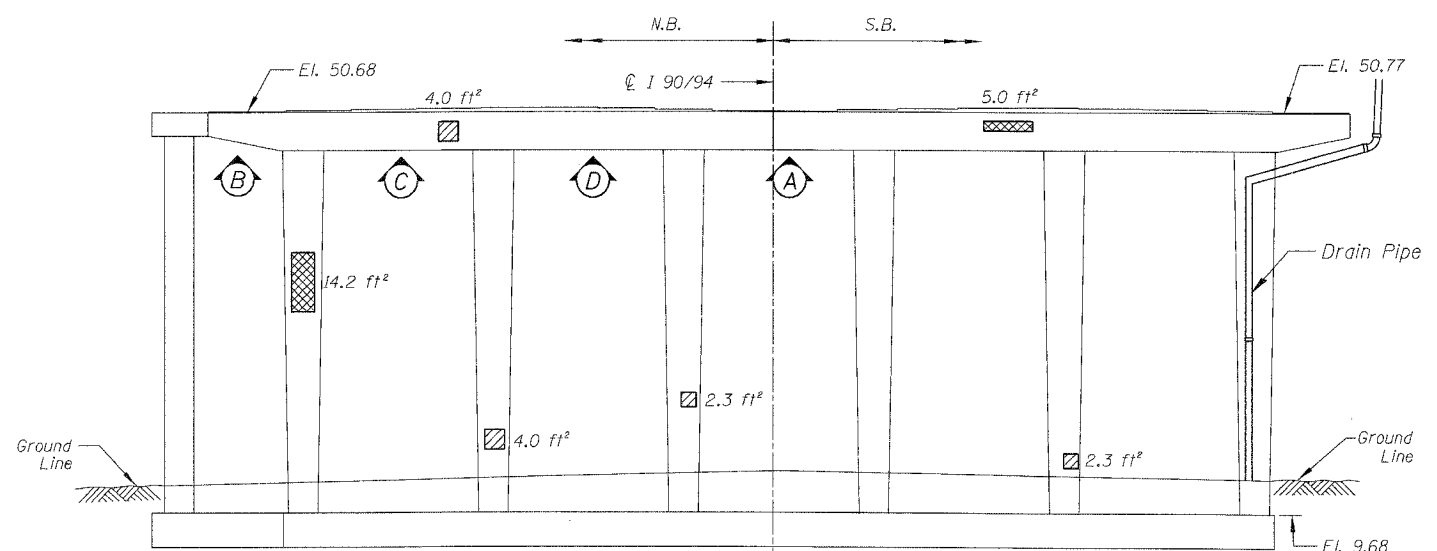
PIER 5 - SOUTH ELEVATION
(Looking North)



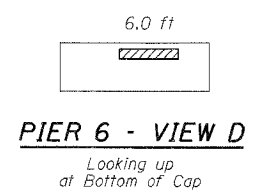
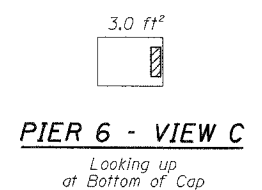
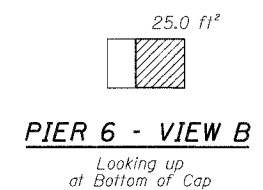
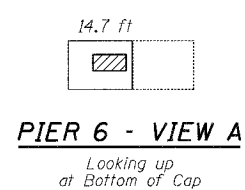
PIER 5 - NORTH ELEVATION
(Looking South)



PIER 6 - SOUTH ELEVATION
(Looking North)



PIER 6 - NORTH ELEVATION
(Looking South)



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	85.1
Structural Repair of Concrete (Depth Greater than 5")	SQ. FT.	29.2
Epoxy Crack Injection	FOOT	49.5

REVISIONS	
NAME	DATE

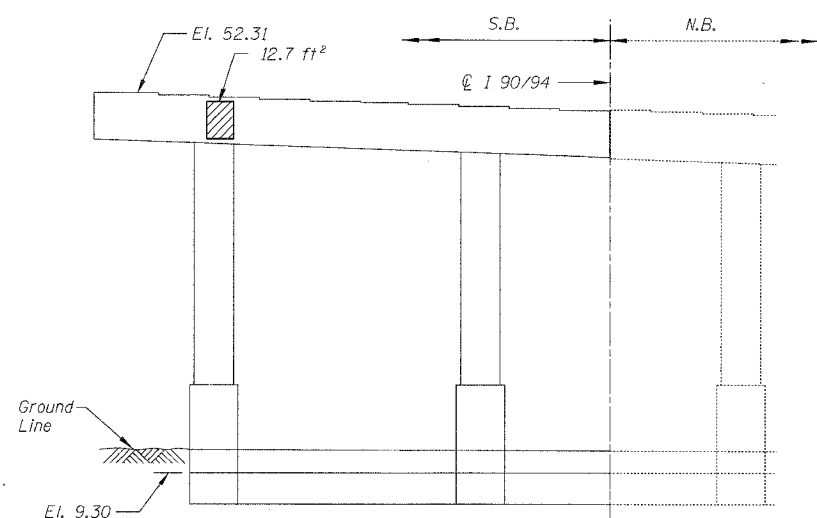
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1115, PIERS 5&6
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

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CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
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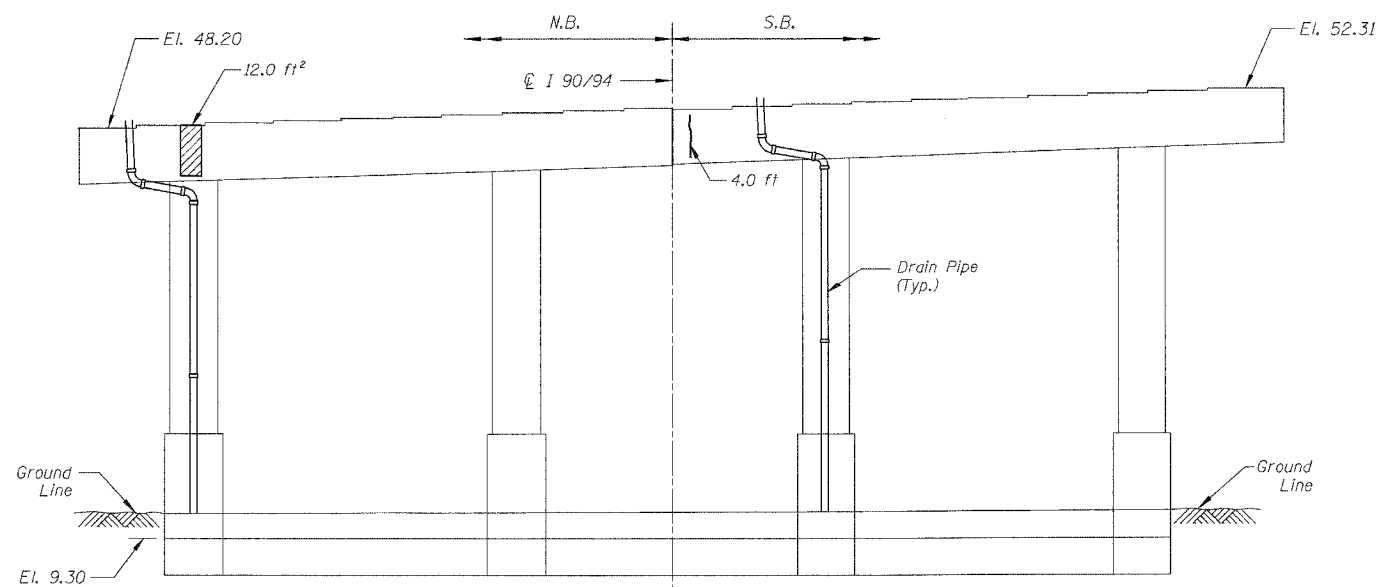
For Notes and Legend See Sheet 6

5/24/2007 4:59:59 PM

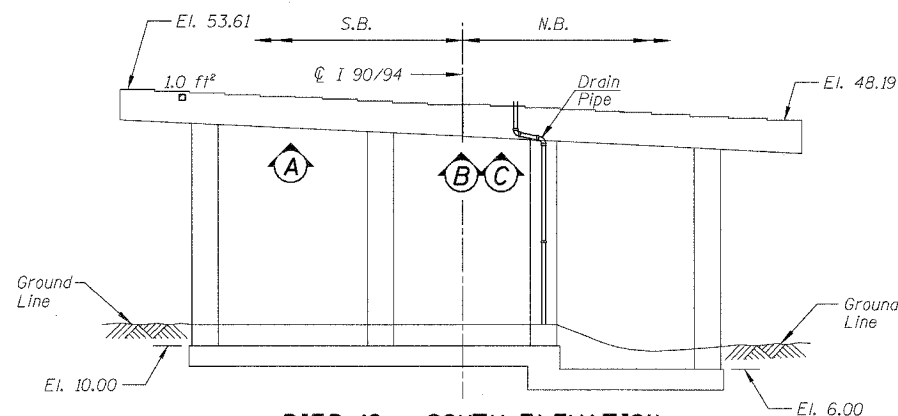
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	89
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07				



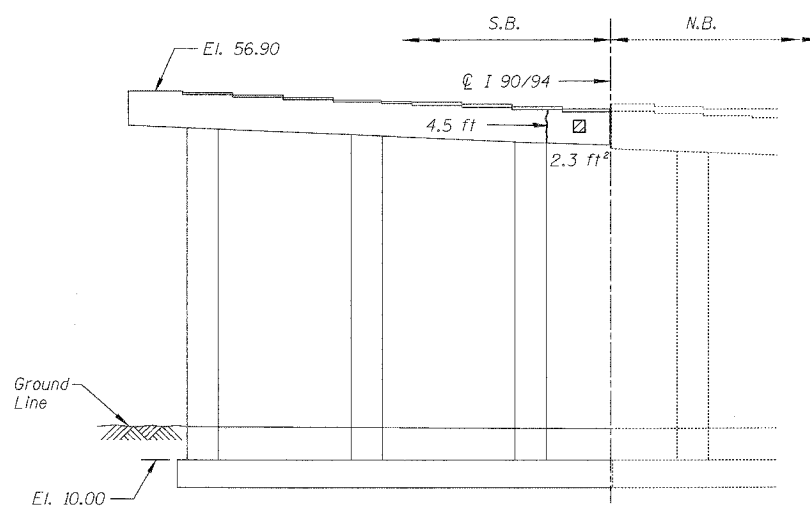
PIER 9 - SOUTH ELEVATION
(Looking North)



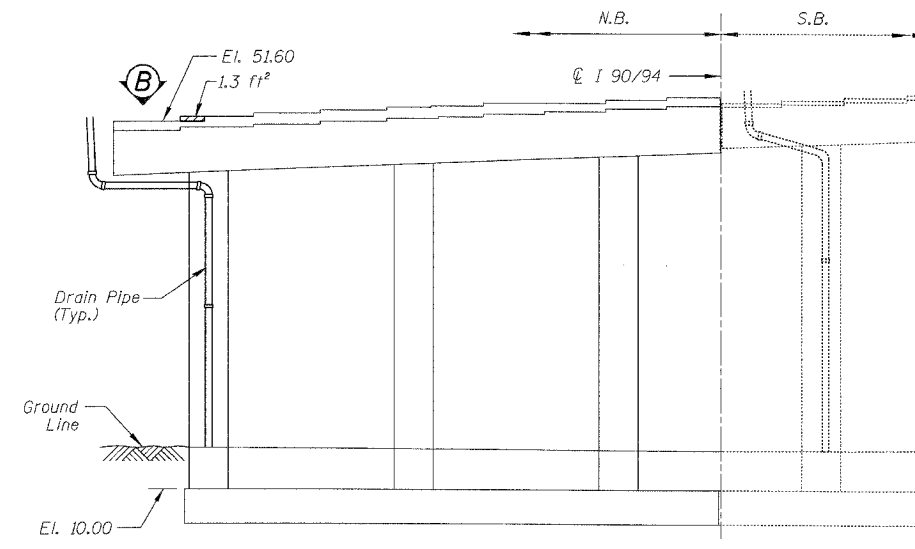
PIER 9 - NORTH ELEVATION
(Looking South)



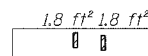
PIER 10 - SOUTH ELEVATION
(Looking North)



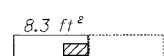
PIER 15 - SOUTH ELEVATION
(Looking North)



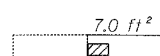
PIER 15 - NORTH ELEVATION
(Looking South)



PIER 10 - VIEW A
Looking up at bottom of cap



PIER 10 - VIEW B
Looking up at bottom of cap



PIER 10 - VIEW C
Looking up at bottom of cap



PIER 15 - VIEW B
Looking down at Top of Seat

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	52.0
Epoxy Crack Injection	FOOT	8.5

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1115, PIERS 9,10,15

SCALE: NTS
DATE: 5/18/2007

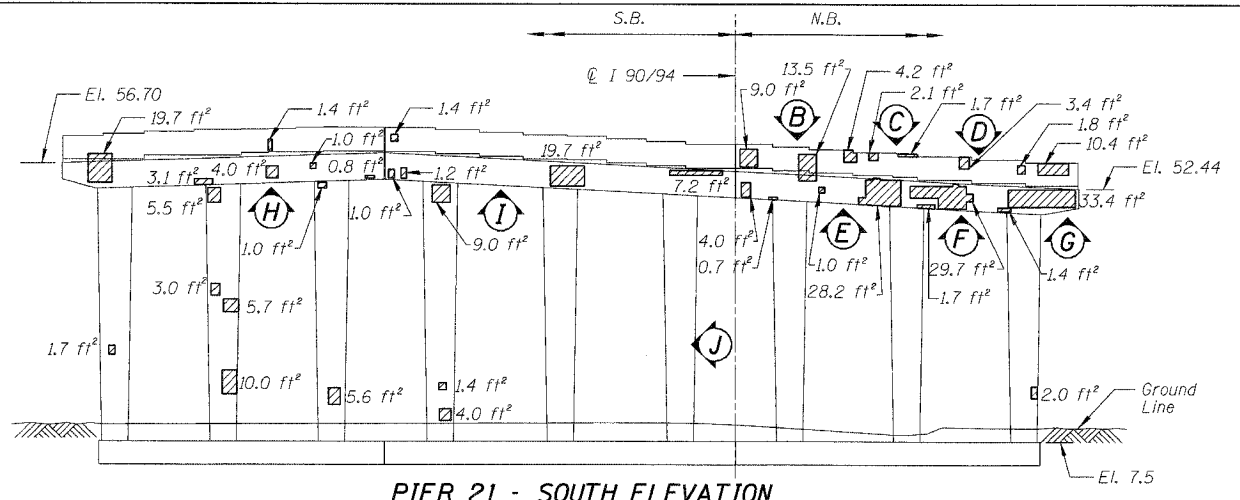
DRAWN BY: LAM
CHECKED BY: BLU

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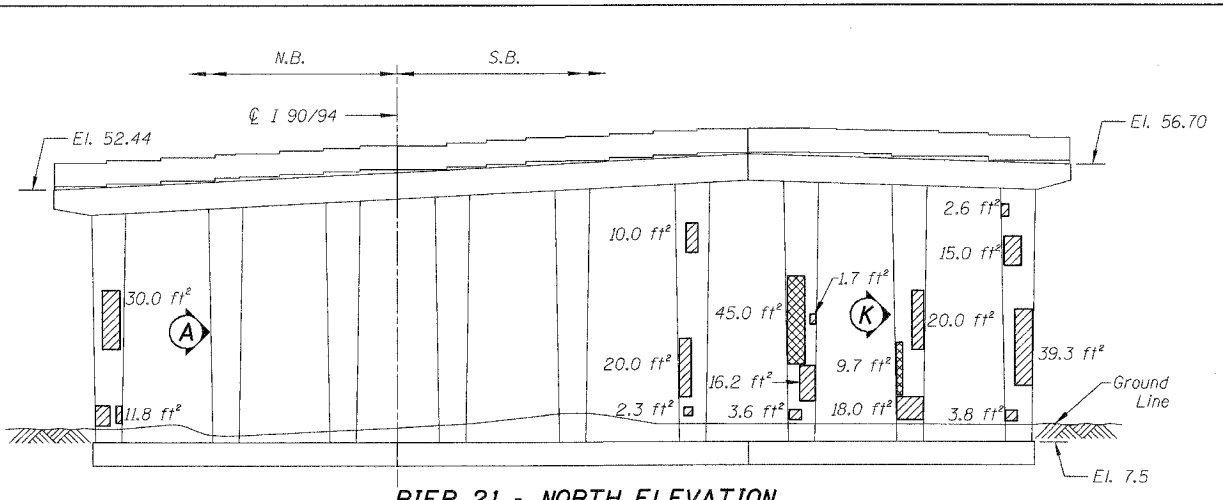
For Notes and Legend See Sheet 6

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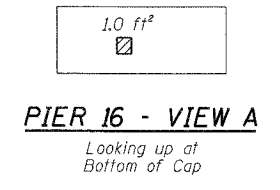
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
60B07				



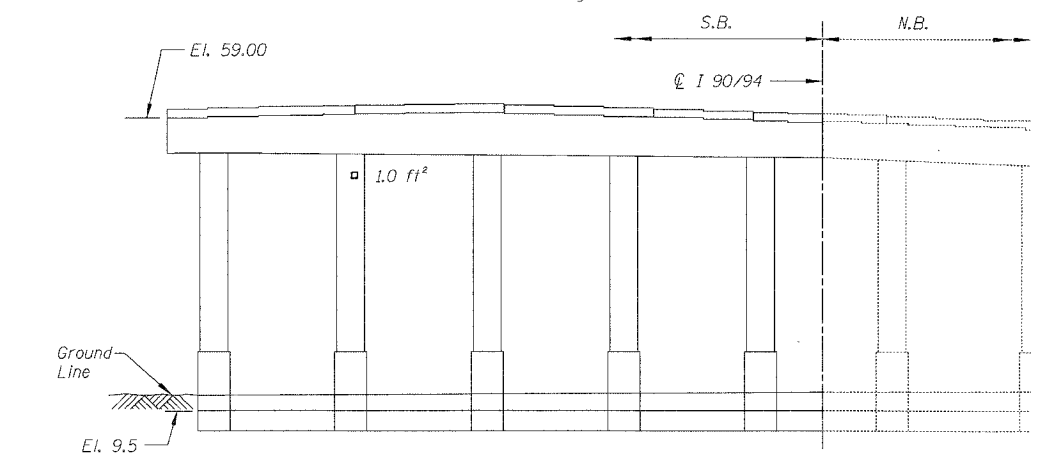
PIER 21 - SOUTH ELEVATION
(Looking North)



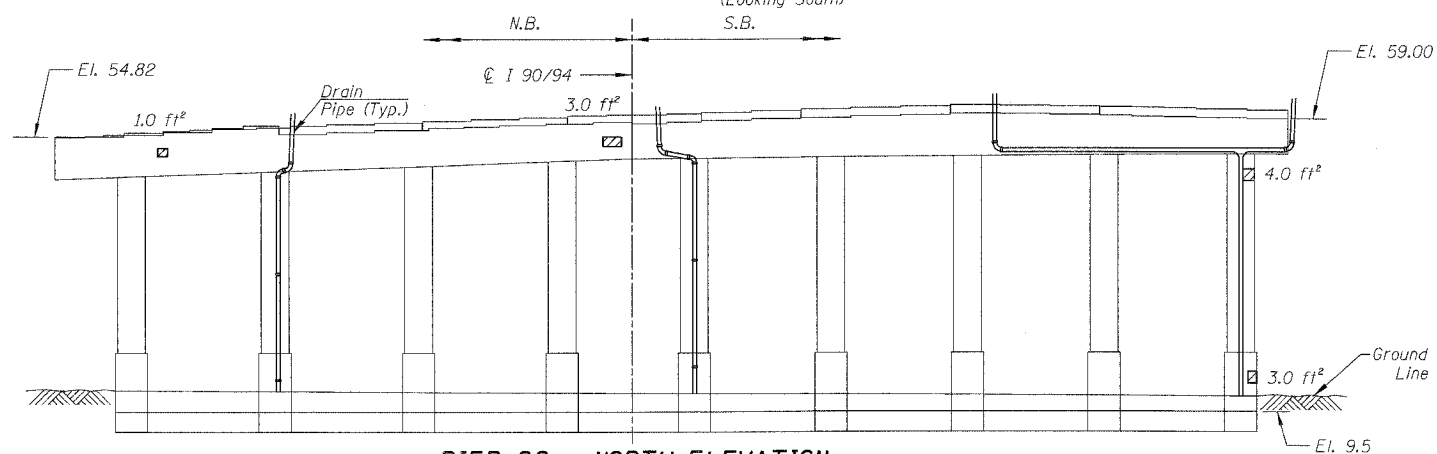
PIER 21 - NORTH ELEVATION
(Looking South)



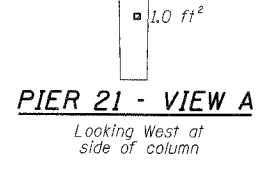
PIER 16 - VIEW A
Looking up at Bottom of Cap



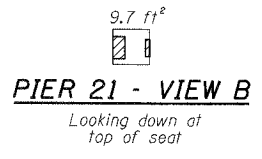
PIER 22 - SOUTH ELEVATION
(Looking North)



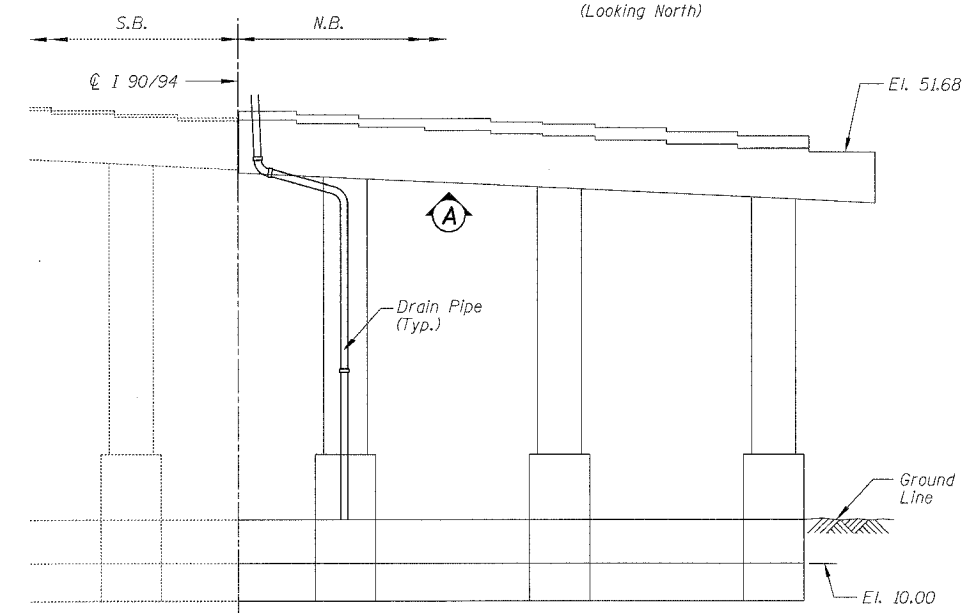
PIER 22 - NORTH ELEVATION
(Looking South)



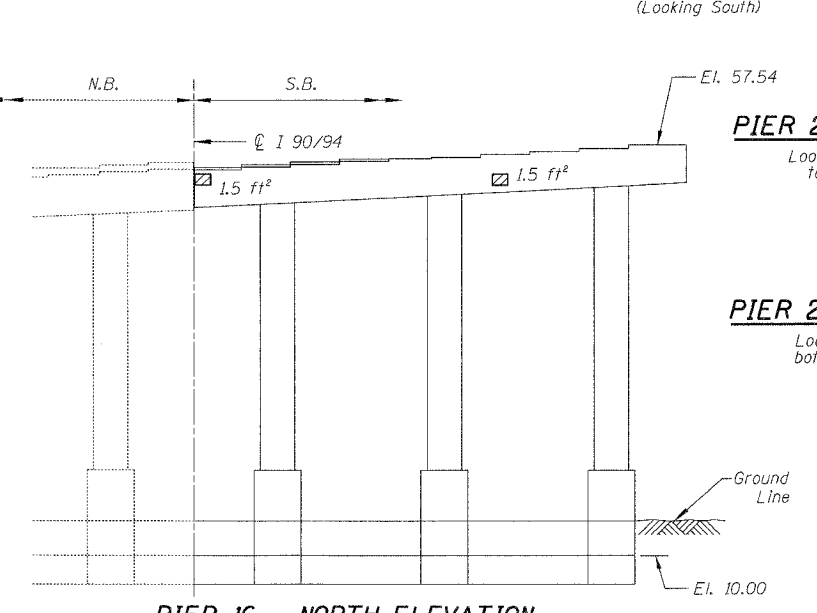
PIER 21 - VIEW A
Looking West at side of column



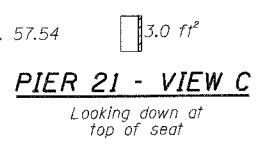
PIER 21 - VIEW B
Looking down at top of seat



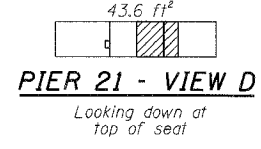
PIER 16 - SOUTH ELEVATION
(Looking North)



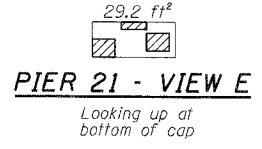
PIER 16 - NORTH ELEVATION
(Looking South)



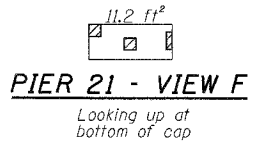
PIER 21 - VIEW C
Looking down at top of seat



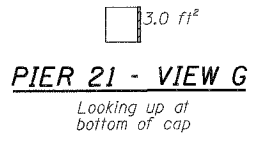
PIER 21 - VIEW D
Looking down at top of seat



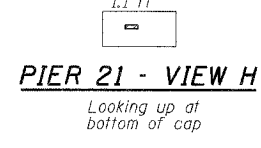
PIER 21 - VIEW E
Looking up at bottom of cap



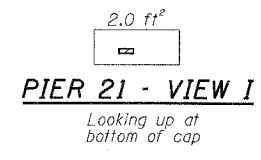
PIER 21 - VIEW F
Looking up at bottom of cap



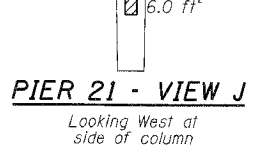
PIER 21 - VIEW G
Looking up at bottom of cap



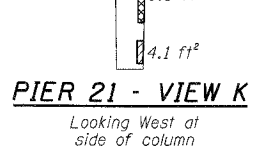
PIER 21 - VIEW H
Looking up at bottom of cap



PIER 21 - VIEW I
Looking up at bottom of cap



PIER 21 - VIEW J
Looking West at side of column



PIER 21 - VIEW K
Looking West at side of column

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	579.8
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	64.3

REVISIONS	
NAME	DATE

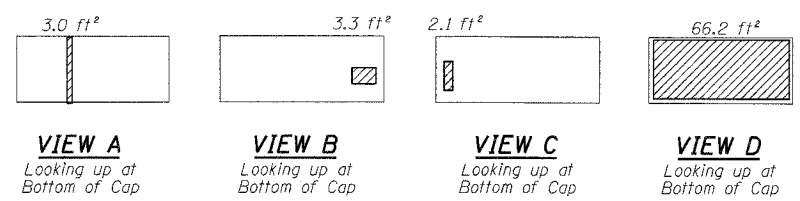
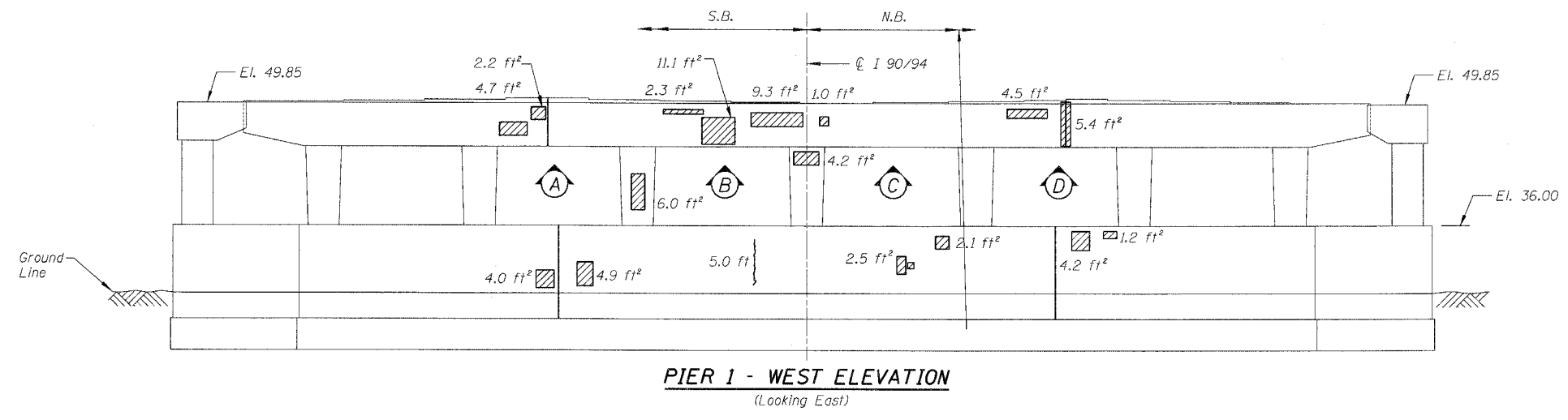
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 CONCRETE PIER REPAIRS
 SN 016-1115, PIERS 16,21,22
 SCALE: NTS
 DATE: 5/18/2007
 DRAWN BY: LAM
 CHECKED BY: BLU

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ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 CONCRETE PIER REPAIRS
 SN 016-1115, PIERS 16,21,22
 SCALE: NTS
 DATE: 5/18/2007
 DRAWN BY: LAM
 CHECKED BY: BLU
 5/24/2007

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	91
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07				



PIER 1 - WEST ELEVATION
(Looking East)

VIEW A
Looking up at Bottom of Cap

VIEW B
Looking up at Bottom of Cap

VIEW C
Looking up at Bottom of Cap

VIEW D
Looking up at Bottom of Cap

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	144.2
Epoxy Crack Injection	FOOT	5.0

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1116, PIER 1

SCALE: NTS
DATE: 5/18/2007

DRAWN BY: LAM
CHECKED BY: BLU

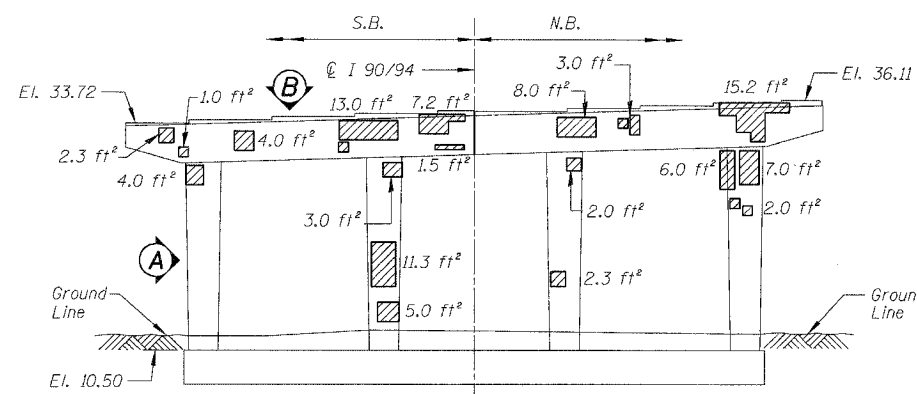
BOWMAN, BARRETT & ASSOCIATES INC.
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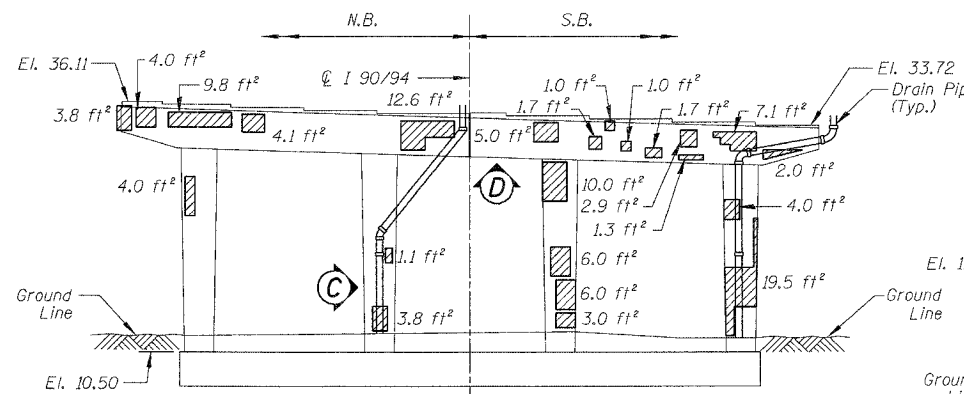
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	92
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

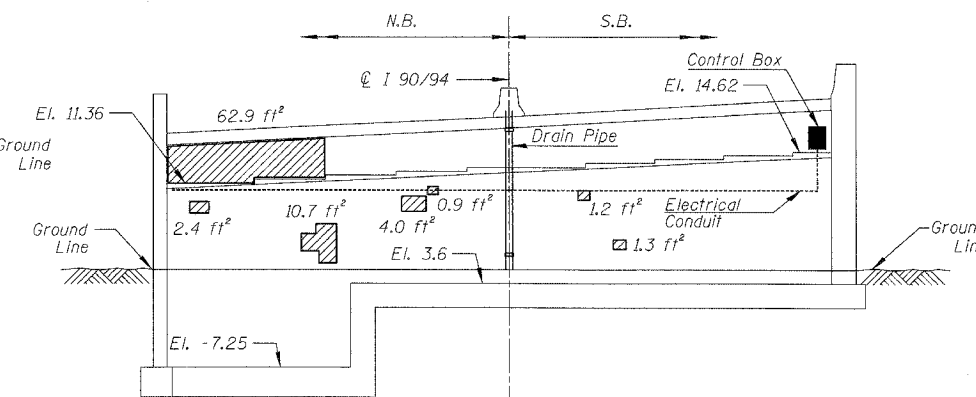
60B07



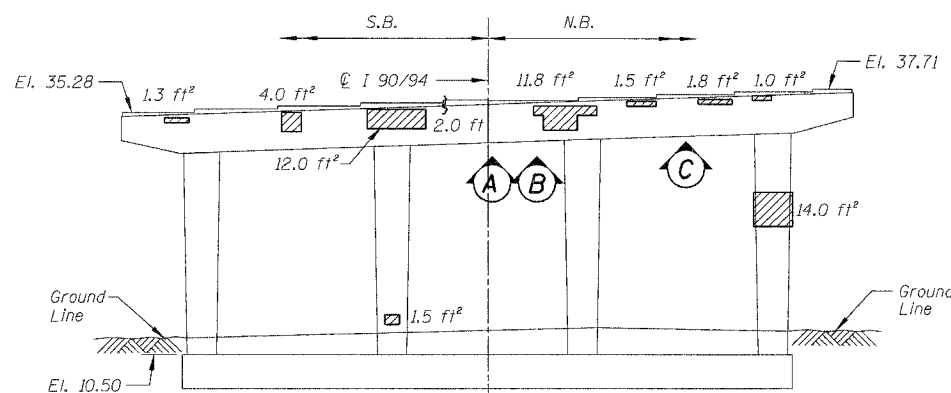
PIER 8 - SOUTH ELEVATION
(Looking North)



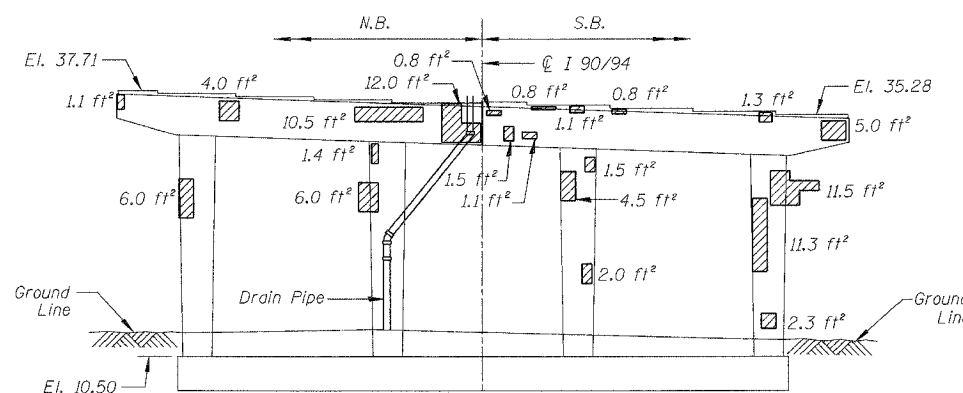
PIER 8 - NORTH ELEVATION
(Looking South)



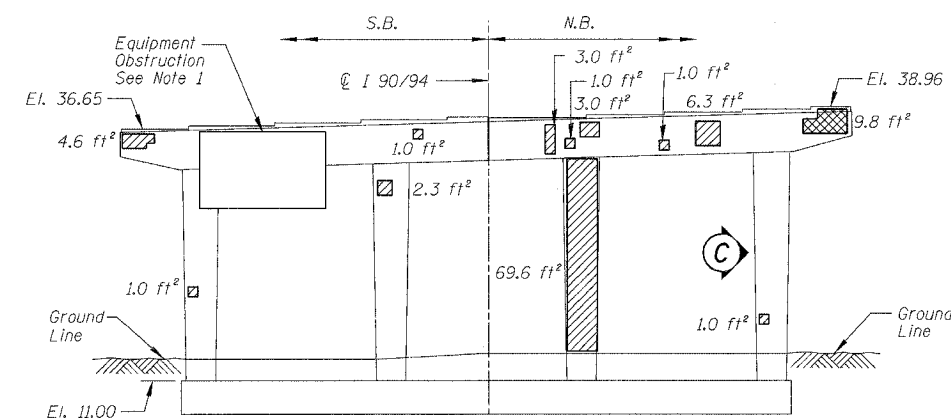
SOUTH ABUTMENT - NORTH ELEVATION
(Looking South)



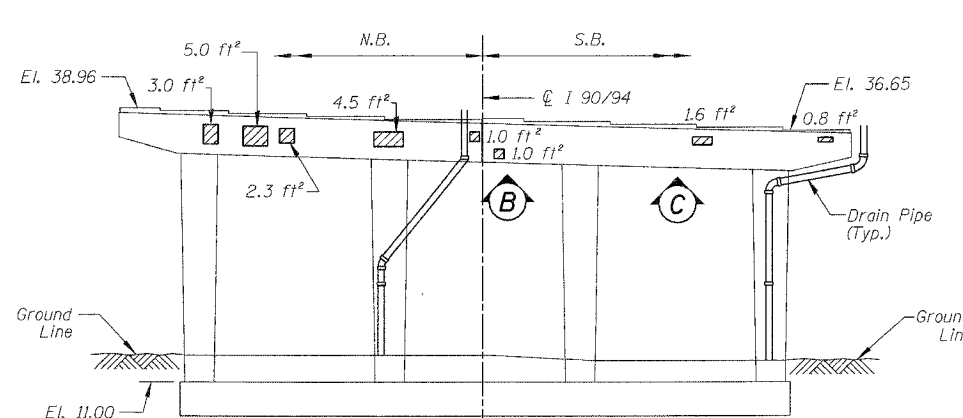
PIER 9 - SOUTH ELEVATION
(Looking North)



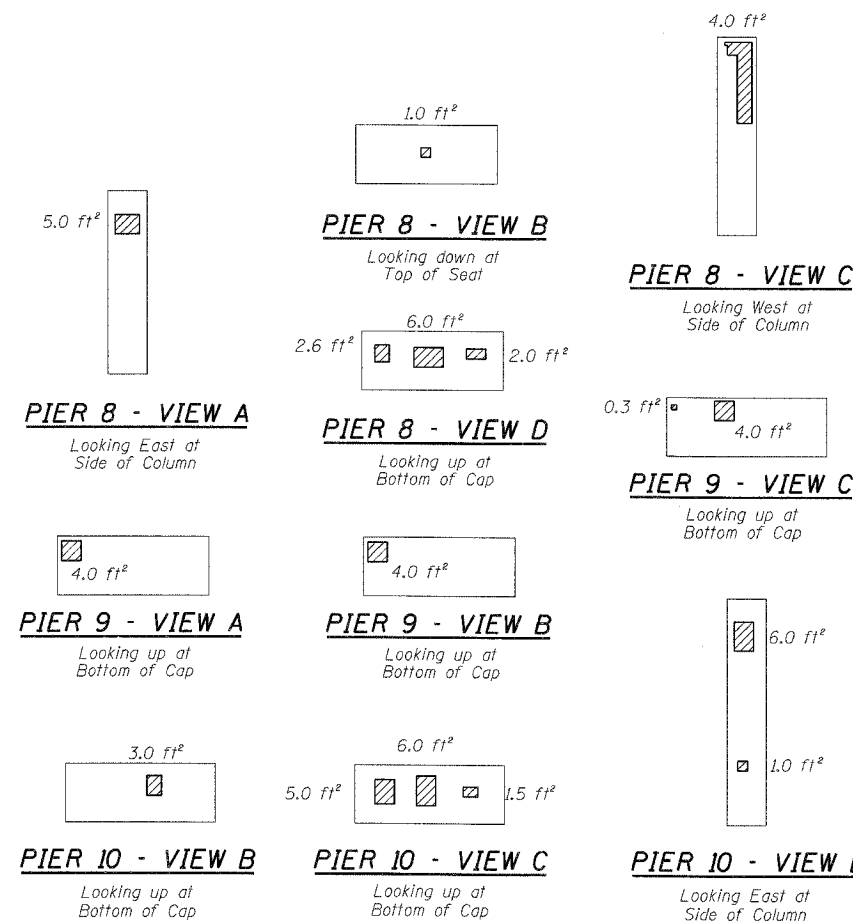
PIER 9 - NORTH ELEVATION
(Looking South)



PIER 10 - SOUTH ELEVATION
(Looking North)



PIER 10 - NORTH ELEVATION
(Looking South)



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	600.4
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	9.8
Epoxy Crack Injection	FOOT	2.0

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1117, PIERS 8,9,10,S. ABUT.
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

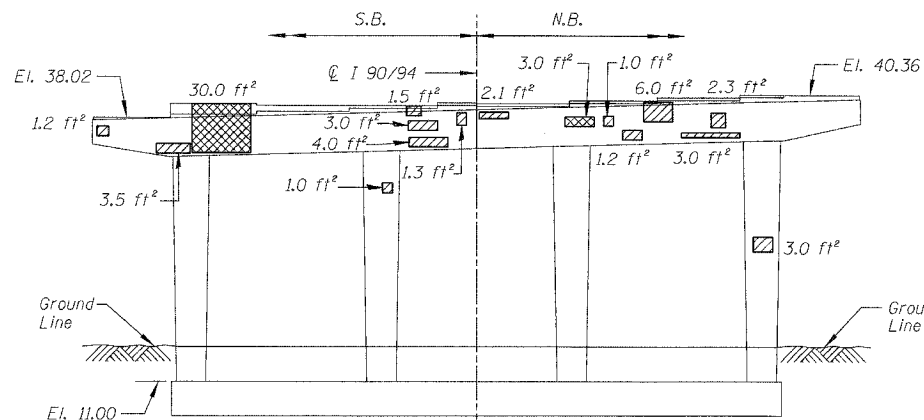
BOWMAN, BARRETT & ASSOCIATES INC.
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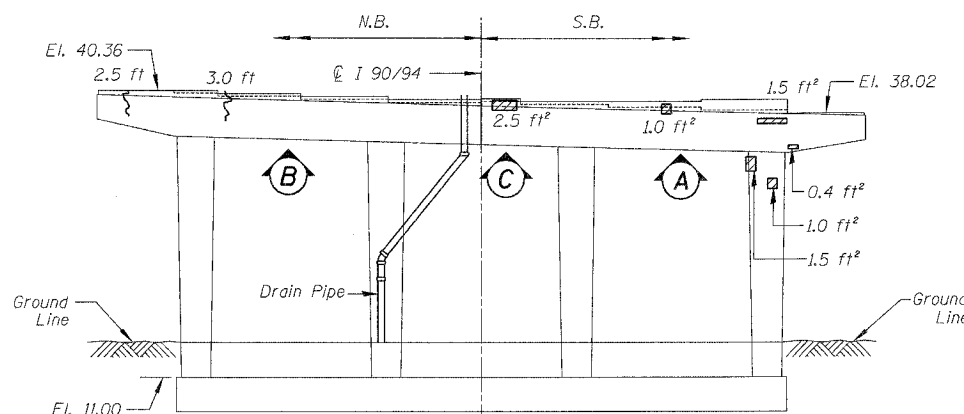
1. If equipment is not present, contractor shall verify repair areas with approval of the Engineer.

5/24/2007 5:06:04 PM

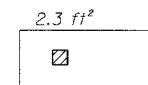
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	93
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
60B07				



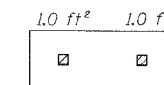
PIER 11 - SOUTH ELEVATION
(Looking North)



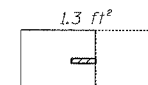
PIER 11 - NORTH ELEVATION
(Looking South)



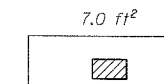
PIER 11 - VIEW A
Looking up at Bottom of Cap



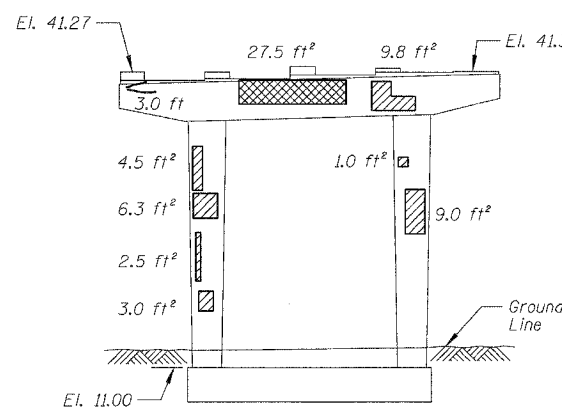
PIER 11 - VIEW B
Looking up at Bottom of Cap



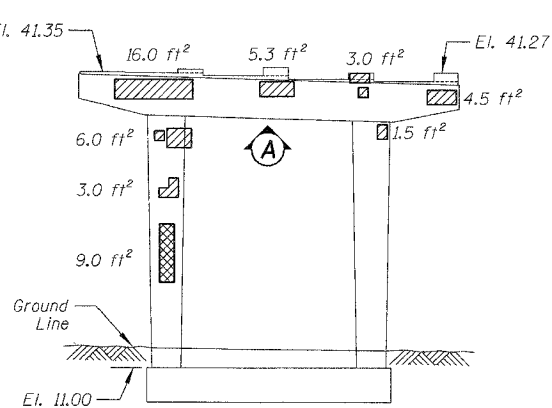
PIER 11 - VIEW C
Looking up at Bottom of Cap



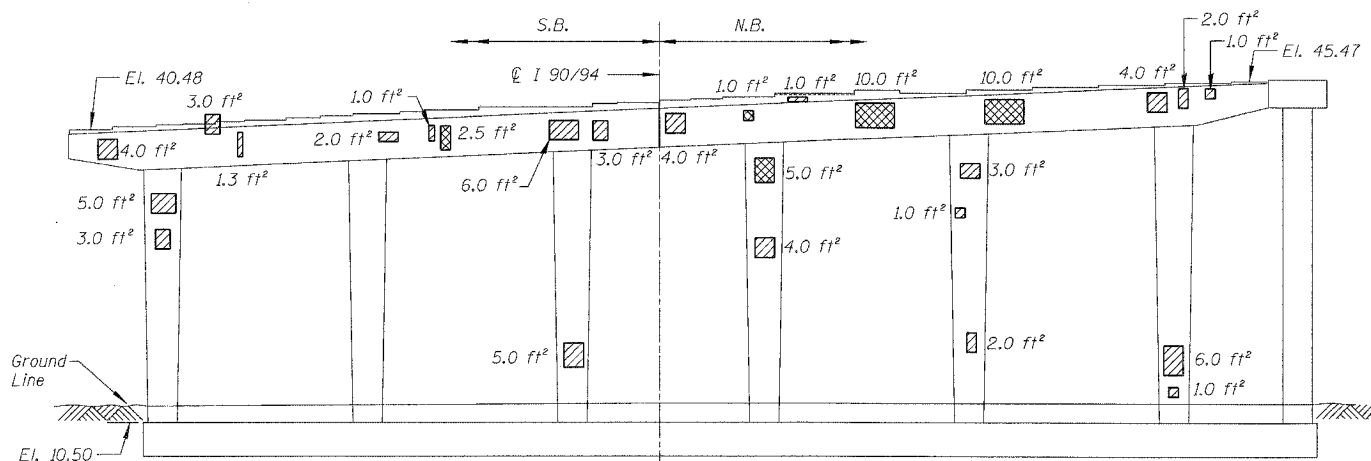
PIER 12 - VIEW A
Looking up at Bottom of Cap



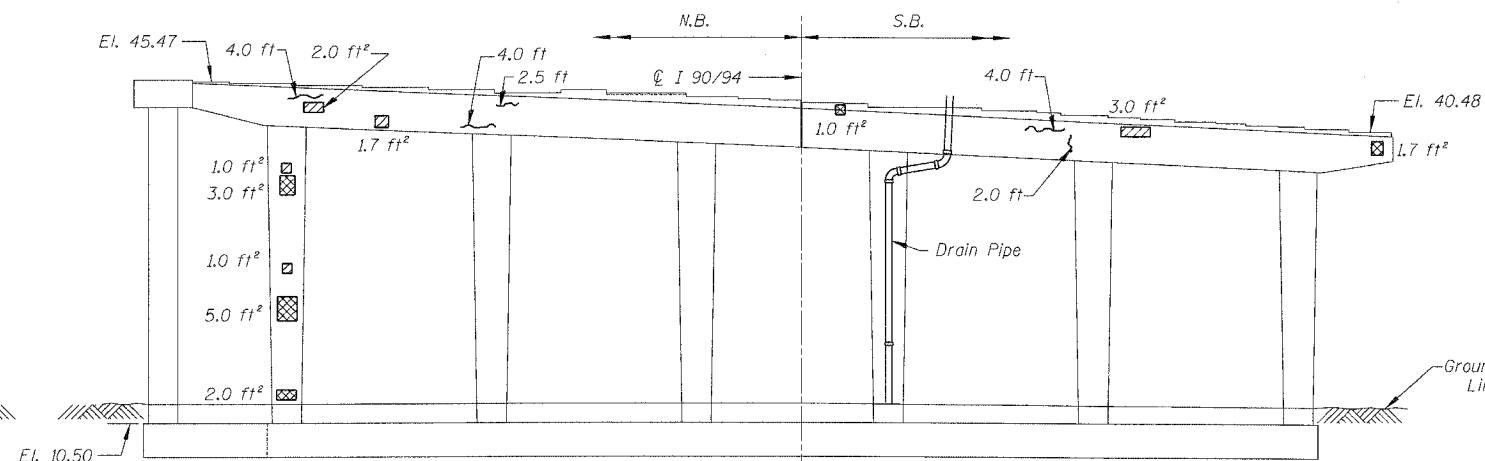
PIER 12 - SOUTH ELEVATION
(Looking North)



PIER 12 - NORTH ELEVATION
(Looking South)



PIER 15 - SOUTH ELEVATION
(Looking North)



PIER 15 - NORTH ELEVATION
(Looking South)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	201.0
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	110.7
Epoxy Crack Injection	FOOT	27.5

REVISIONS	
NAME	DATE

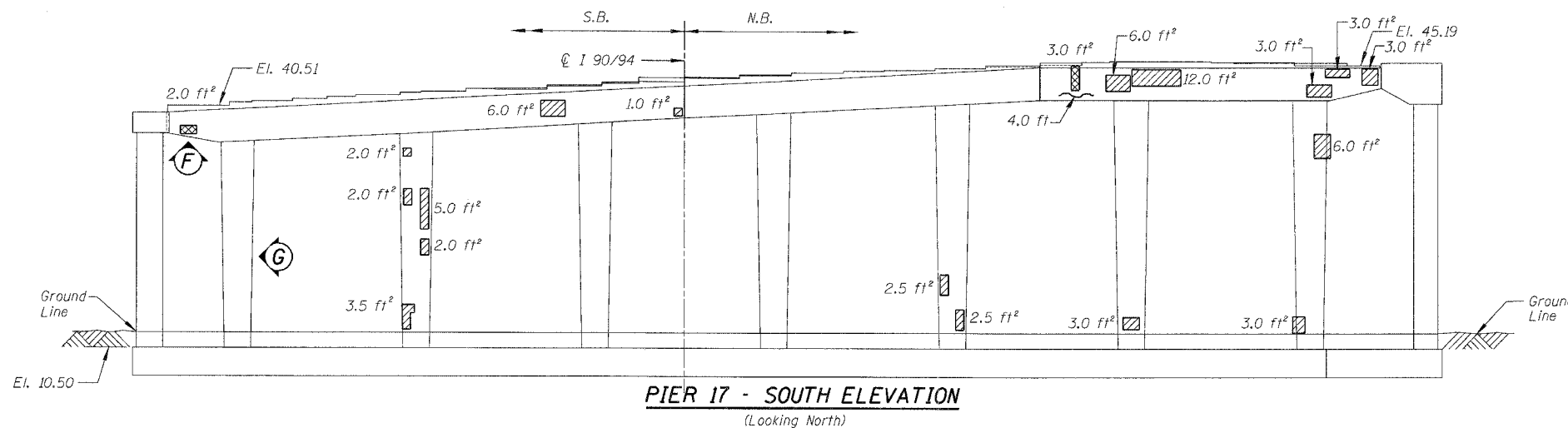
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1117, PIERS 11,12,15
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

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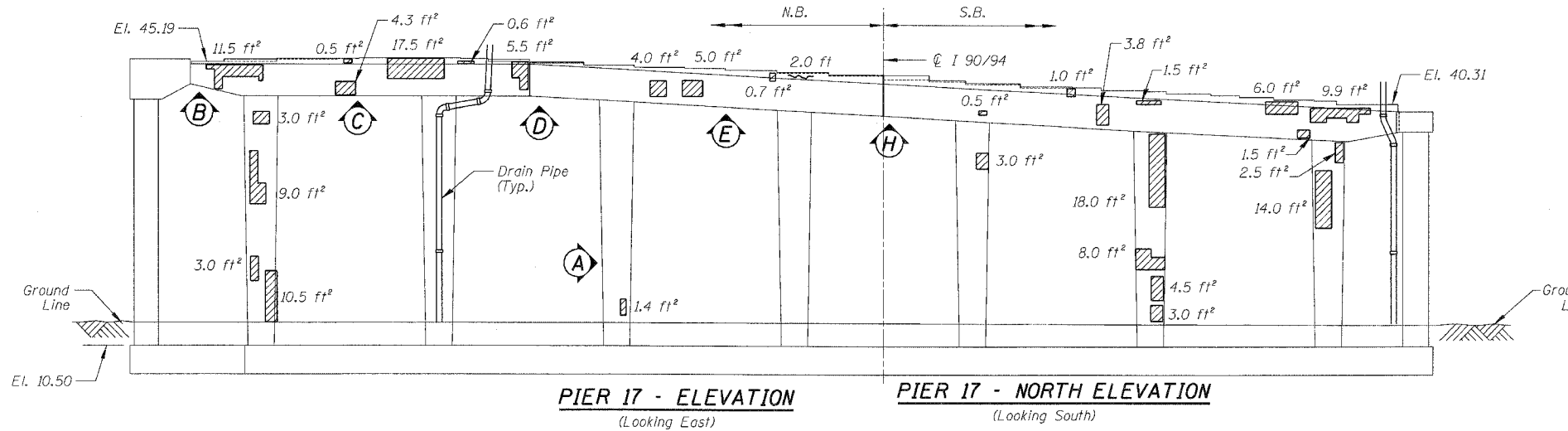
For Notes and Legend See Sheet 6

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60B07				

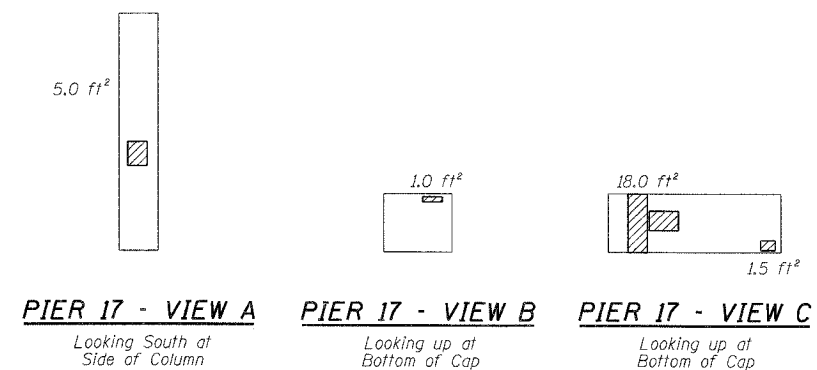


PIER 17 - SOUTH ELEVATION
(Looking North)



PIER 17 - ELEVATION
(Looking East)

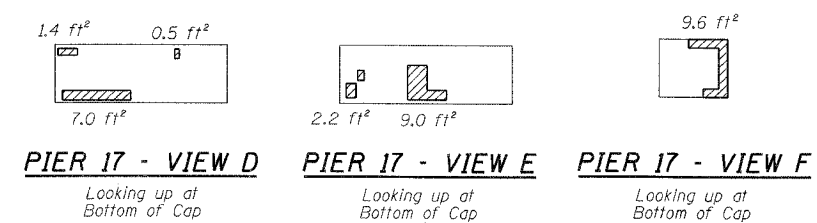
PIER 17 - NORTH ELEVATION
(Looking South)



PIER 17 - VIEW A
Looking South at Side of Column

PIER 17 - VIEW B
Looking up at Bottom of Cap

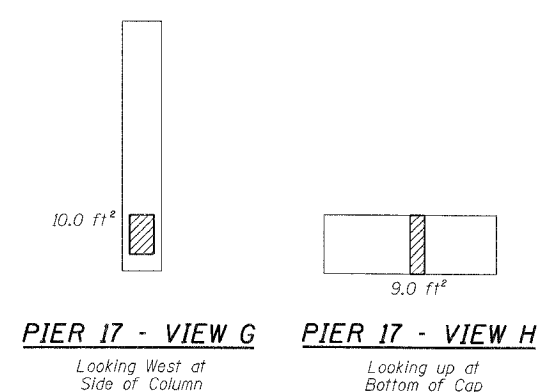
PIER 17 - VIEW C
Looking up at Bottom of Cap



PIER 17 - VIEW D
Looking up at Bottom of Cap

PIER 17 - VIEW E
Looking up at Bottom of Cap

PIER 17 - VIEW F
Looking up at Bottom of Cap



PIER 17 - VIEW G
Looking West at Side of Column

PIER 17 - VIEW H
Looking up at Bottom of Cap

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	293.4
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	5.0
Epoxy Crack Injection	FOOT	6.0

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1117, PIER 17

SCALE: NTS
DATE: 5/18/2007

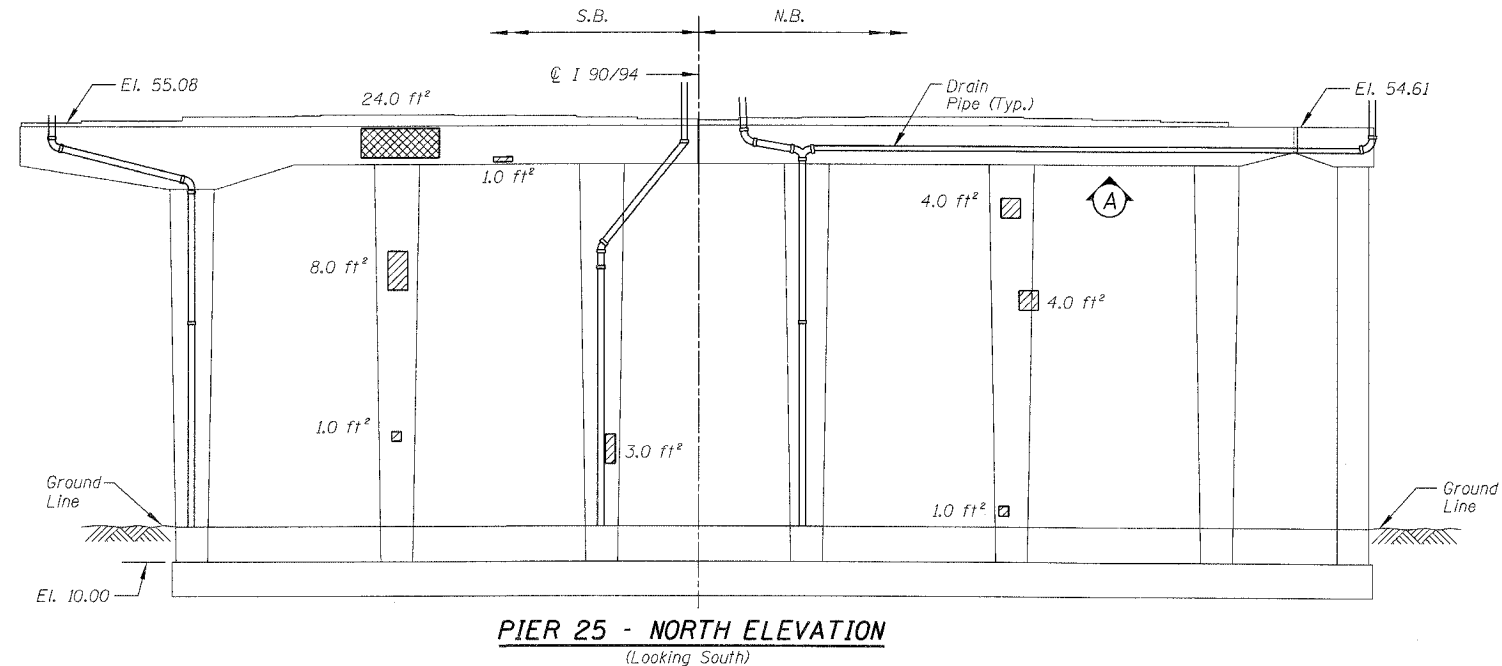
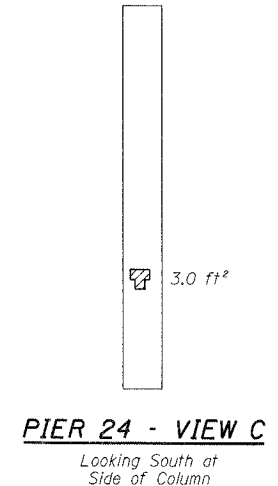
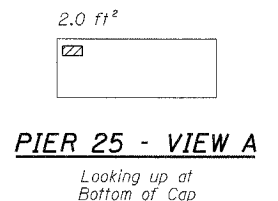
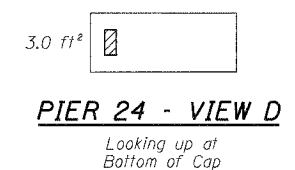
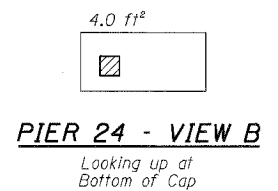
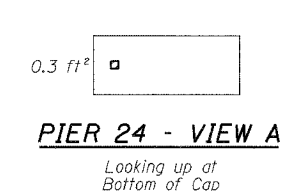
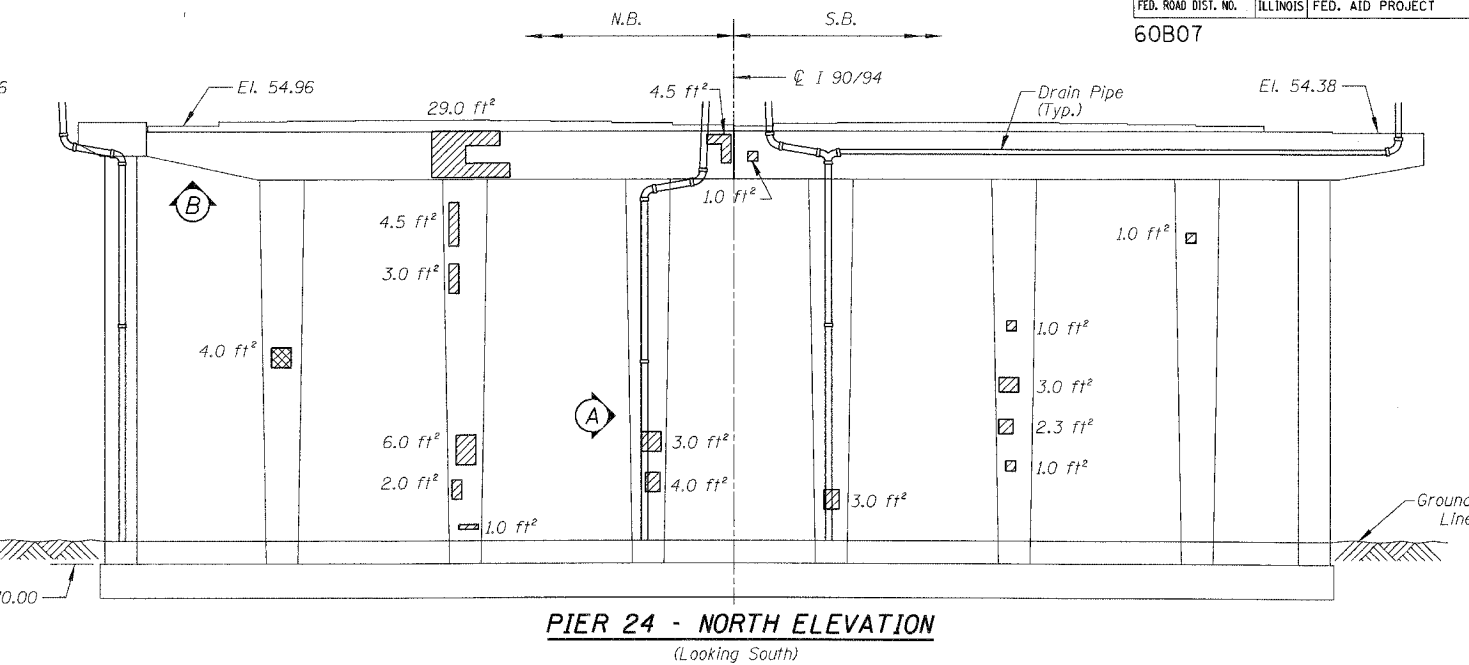
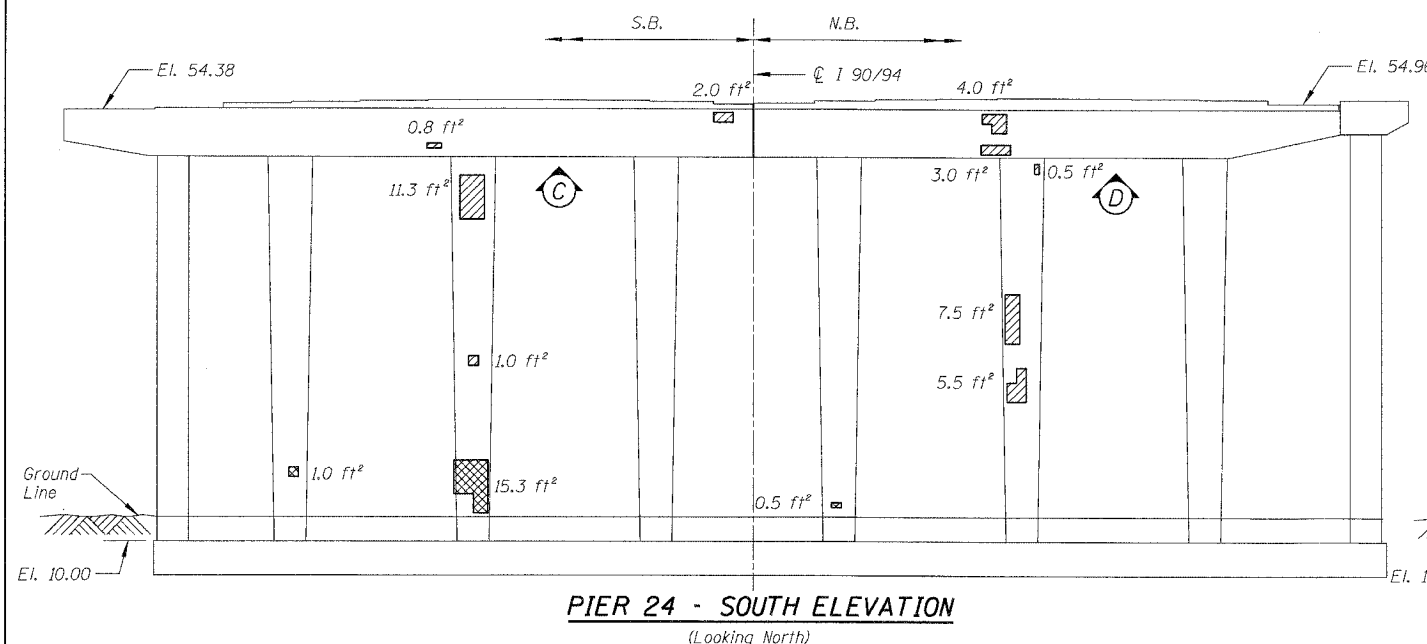
DRAWN BY: LAM
CHECKED BY: BLU

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	95
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
60B07				



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	139.2
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	44.8

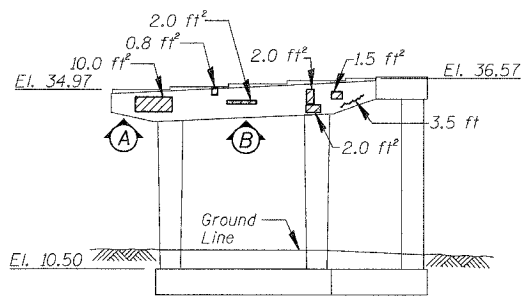
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 DAN RYAN ELEVATED BRIDGE
 BEARING REPLACEMENT & STEEL REPAIR
 CONCRETE PIER REPAIRS
 SN 016-1117, PIERS 24&25
 SCALE: NTS
 DATE: 5/18/2007
 DRAWN BY: LAM
 CHECKED BY: BLU

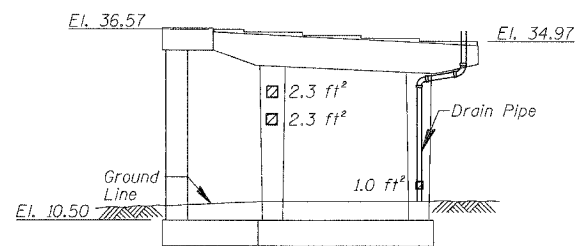
BOWMAN, BARRETT & ASSOCIATES INC.
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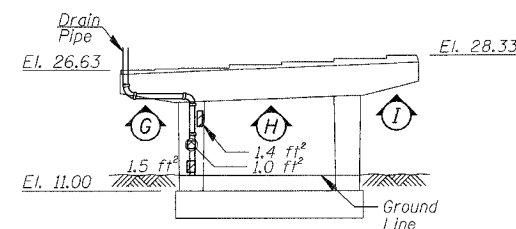
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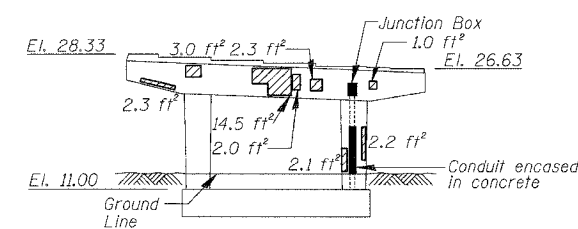
PIER A8 - SOUTH ELEVATION
(Looking North)



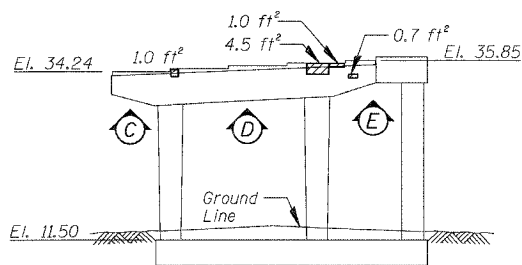
PIER A8 - NORTH ELEVATION
(Looking South)



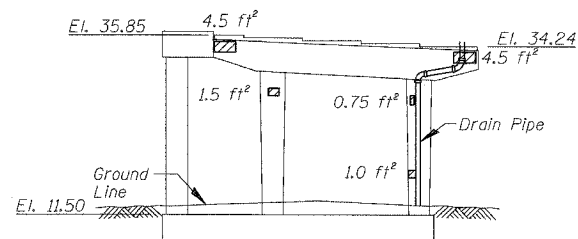
PIER A2 - SOUTH ELEVATION
(Looking North)



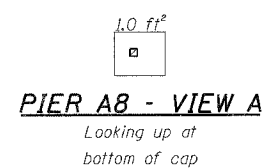
PIER A2 - NORTH ELEVATION
(Looking South)



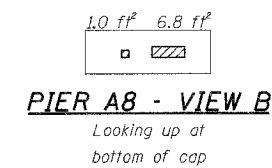
PIER A7 - SOUTH ELEVATION
(Looking North)



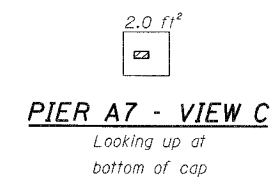
PIER A7 - NORTH ELEVATION
(Looking South)



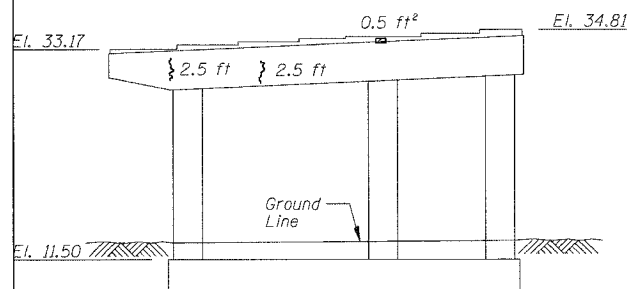
PIER A8 - VIEW A
Looking up at bottom of cap



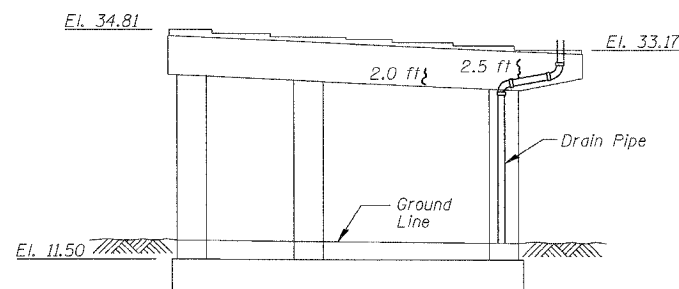
PIER A8 - VIEW B
Looking up at bottom of cap



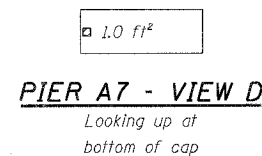
PIER A7 - VIEW C
Looking up at bottom of cap



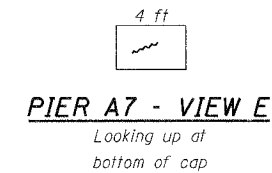
PIER A6 - SOUTH ELEVATION
(Looking North)



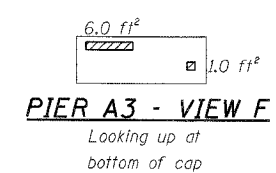
PIER A6 - NORTH ELEVATION
(Looking South)



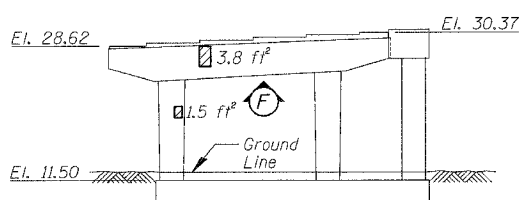
PIER A7 - VIEW D
Looking up at bottom of cap



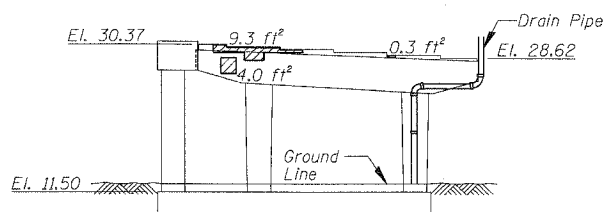
PIER A7 - VIEW E
Looking up at bottom of cap



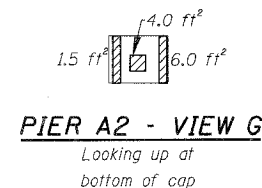
PIER A3 - VIEW F
Looking up at bottom of cap



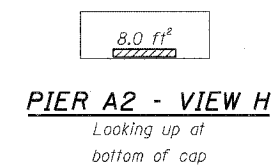
PIER A3 - SOUTH ELEVATION
(Looking North)



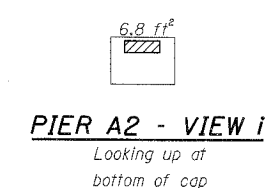
PIER A3 - NORTH ELEVATION
(Looking South)



PIER A2 - VIEW G
Looking up at bottom of cap



PIER A2 - VIEW H
Looking up at bottom of cap



PIER A2 - VIEW I
Looking up at bottom of cap

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	141.2
Epoxy Crack Injection	FOOT	17.0

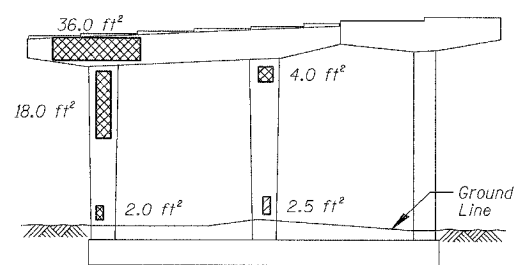
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS - SB
SN 016-1067, PIERS A2,A3,A6,A7,A8
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

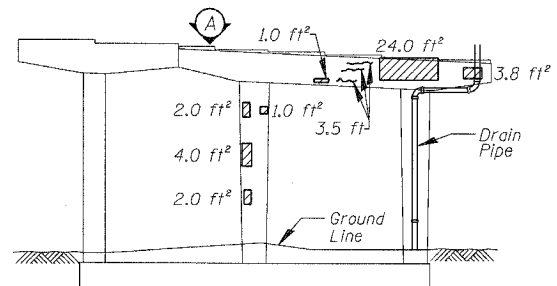
BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
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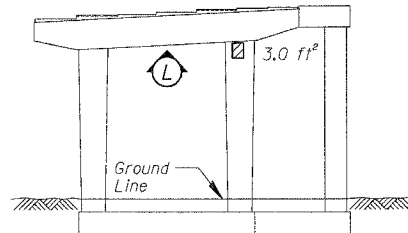
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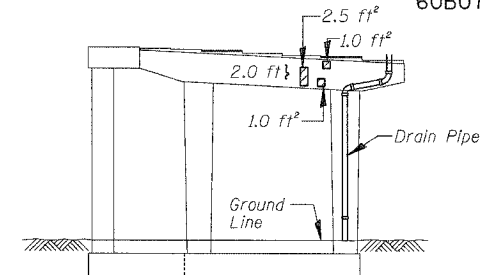
PIER A15 - SOUTH ELEVATION
(Looking North)



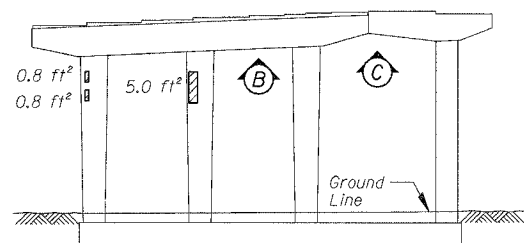
PIER A15 - NORTH ELEVATION
(Looking South)



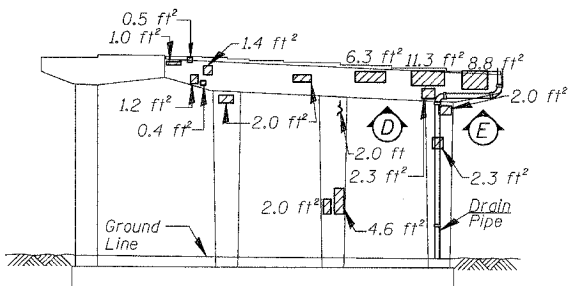
PIER A10 - SOUTH ELEVATION
(Looking North)



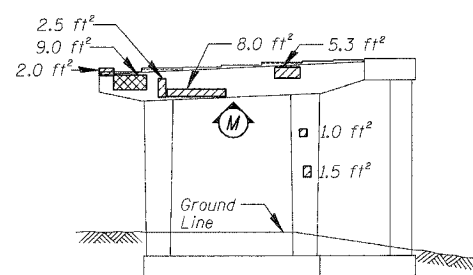
PIER A10 - NORTH ELEVATION
(Looking South)



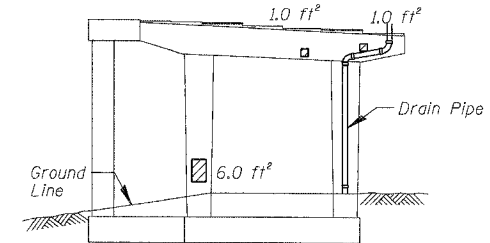
PIER A14 - SOUTH ELEVATION
(Looking North)



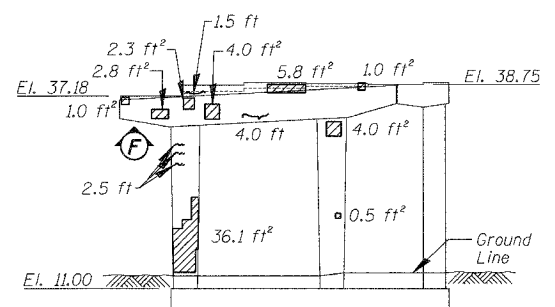
PIER A14 - NORTH ELEVATION
(Looking South)



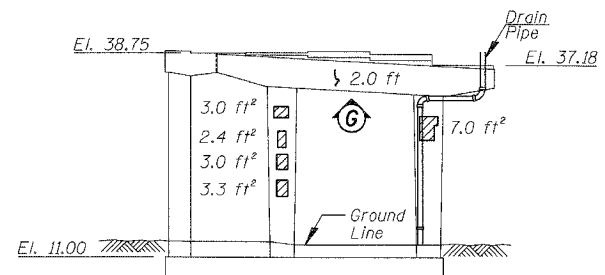
PIER A9 - SOUTH ELEVATION
(Looking North)



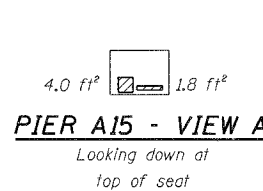
PIER A9 - NORTH ELEVATION
(Looking South)



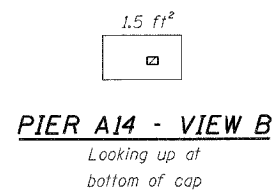
PIER A12 - SOUTH ELEVATION
(Looking North)



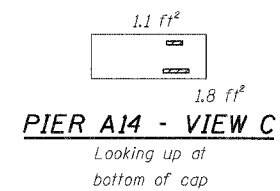
PIER A12 - NORTH ELEVATION
(Looking South)



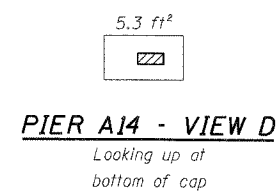
PIER A15 - VIEW A
Looking down at top of seat



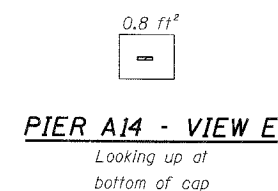
PIER A14 - VIEW B
Looking up at bottom of cap



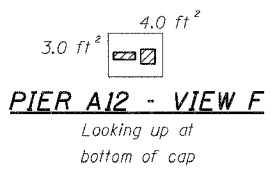
PIER A14 - VIEW C
Looking up at bottom of cap



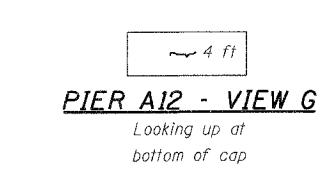
PIER A14 - VIEW D
Looking up at bottom of cap



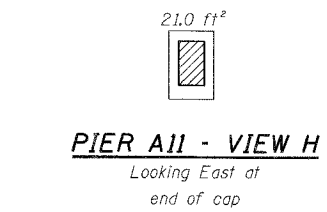
PIER A14 - VIEW E
Looking up at bottom of cap



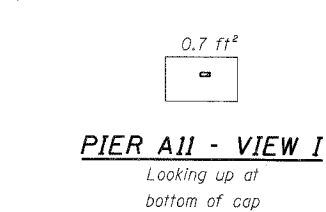
PIER A12 - VIEW F
Looking up at bottom of cap



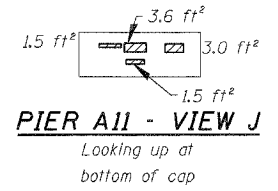
PIER A12 - VIEW G
Looking up at bottom of cap



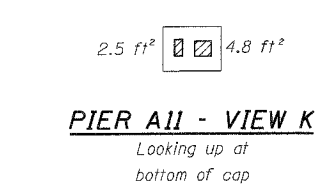
PIER A11 - VIEW H
Looking East at end of cap



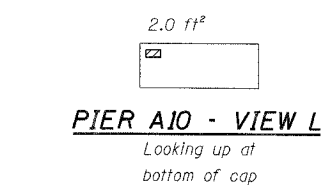
PIER A11 - VIEW I
Looking up at bottom of cap



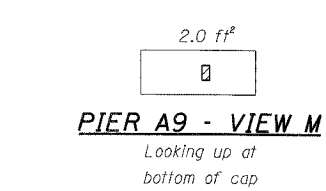
PIER A11 - VIEW J
Looking up at bottom of cap



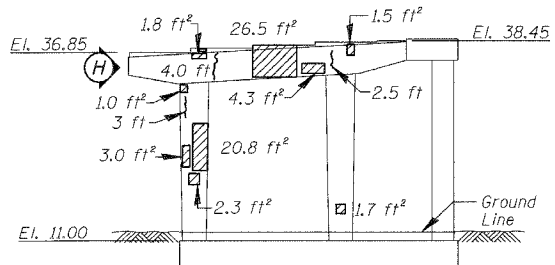
PIER A11 - VIEW K
Looking up at bottom of cap



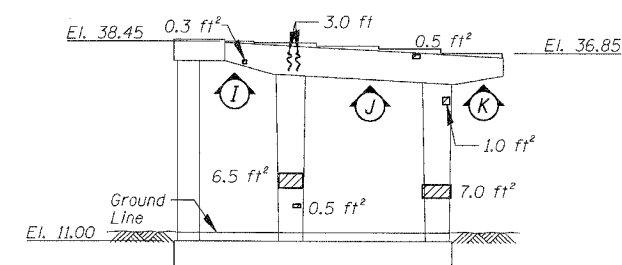
PIER A10 - VIEW L
Looking up at bottom of cap



PIER A9 - VIEW M
Looking up at bottom of cap



PIER A11 - SOUTH ELEVATION
(Looking North)



PIER A11 - NORTH ELEVATION
(Looking South)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	341.2
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	69.0
Epoxy Crack Injection	FOOT	49.0

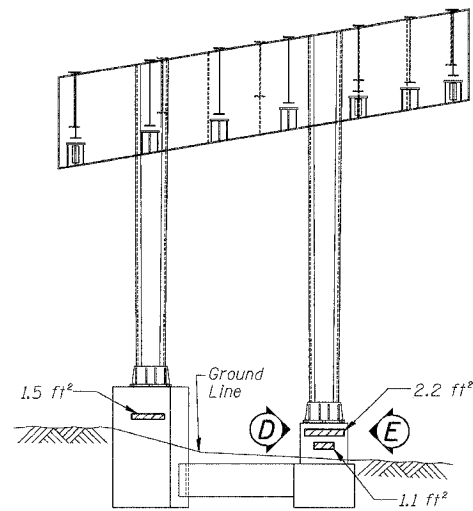
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1067, PIERS A9-A12,A14,A15
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

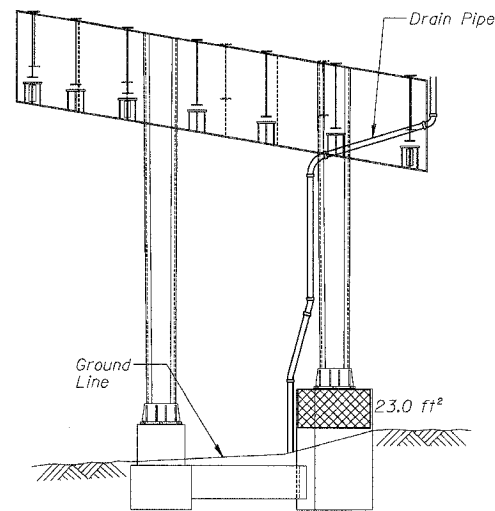
BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbainc.com

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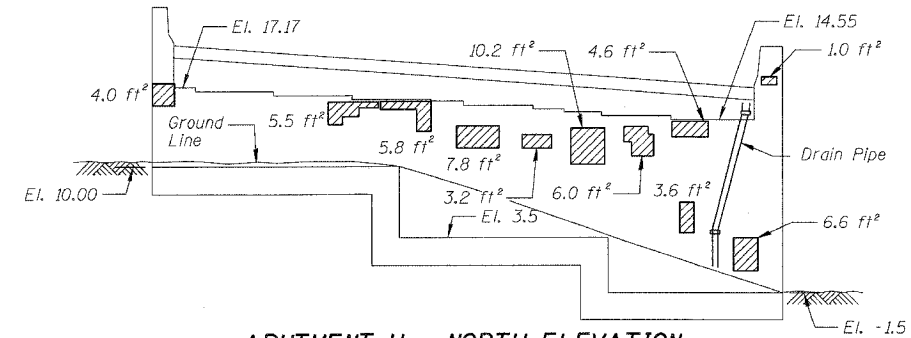
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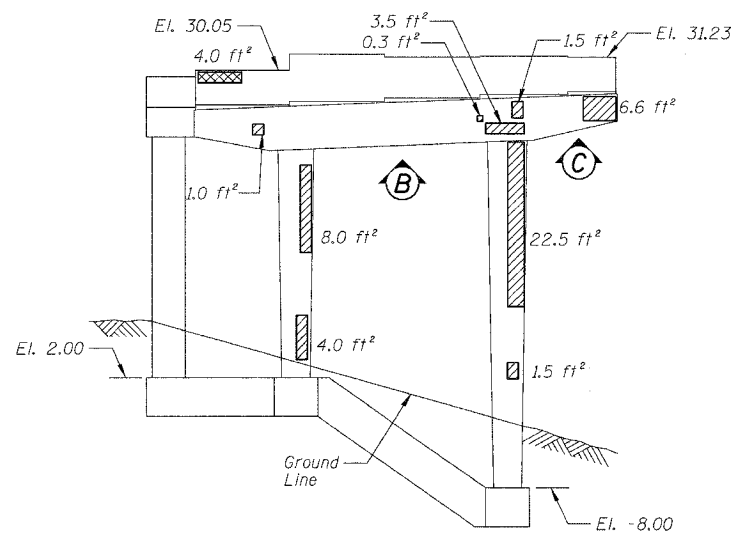
PIER H3 - SOUTH ELEVATION
(Looking North)



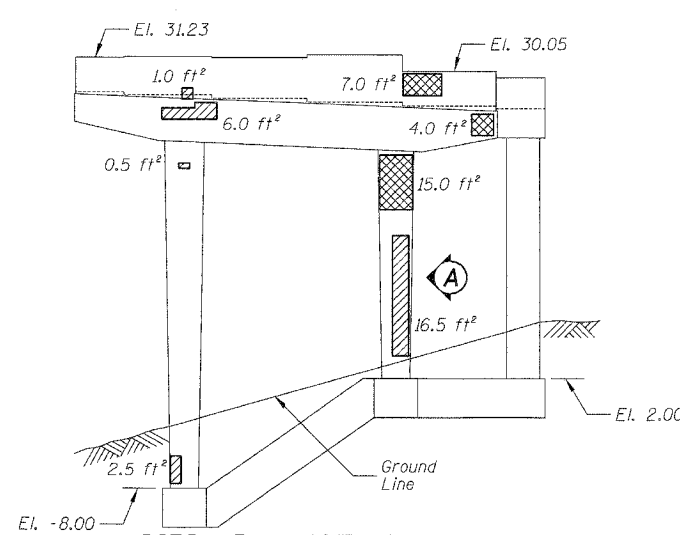
PIER H3 - NORTH ELEVATION
(Looking South)



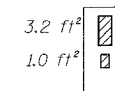
ABUTMENT H - NORTH ELEVATION
(Looking South)



PIER H5 - SOUTH ELEVATION
(Looking North)



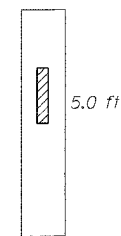
PIER H5 - NORTH ELEVATION
(Looking South)



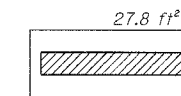
PIER H3 - VIEW D
Looking East at Side of Pedestal



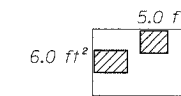
PIER H3 - VIEW E
Looking West at Side of Pedestal



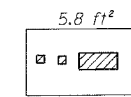
PIER H5 - VIEW A
Looking East at Side of Column



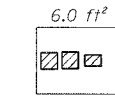
PIER H5 - VIEW B
Looking up at Bottom of Cap



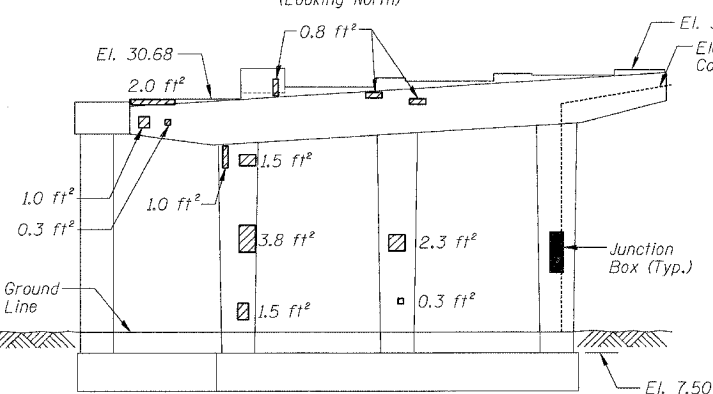
PIER H5 - VIEW C
Looking up at Bottom of Cap



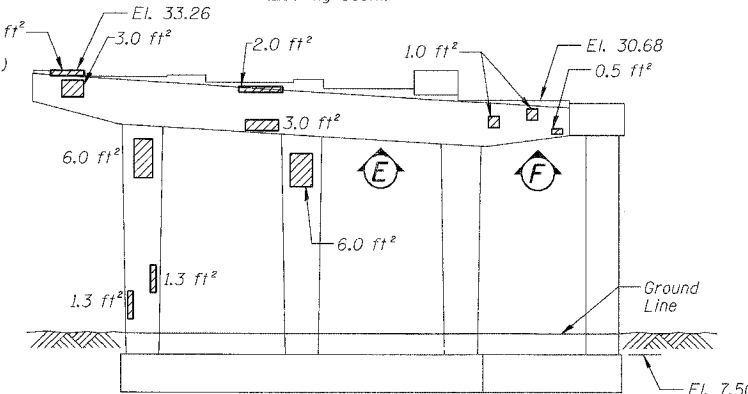
PIER H6 - VIEW E
Looking up at Bottom of Cap



PIER H6 - VIEW F
Looking up at Bottom of Cap



PIER H6 - ELEVATION
(Looking West)



PIER H6 - ELEVATION
(Looking East)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	269.4
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	53.0

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1118, PIERS H3,H5,H6,ABUT. H
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU

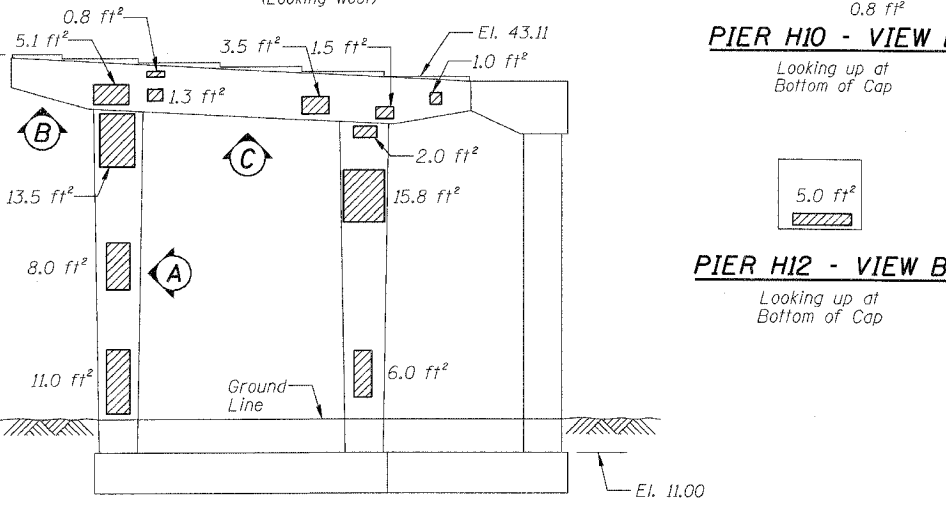
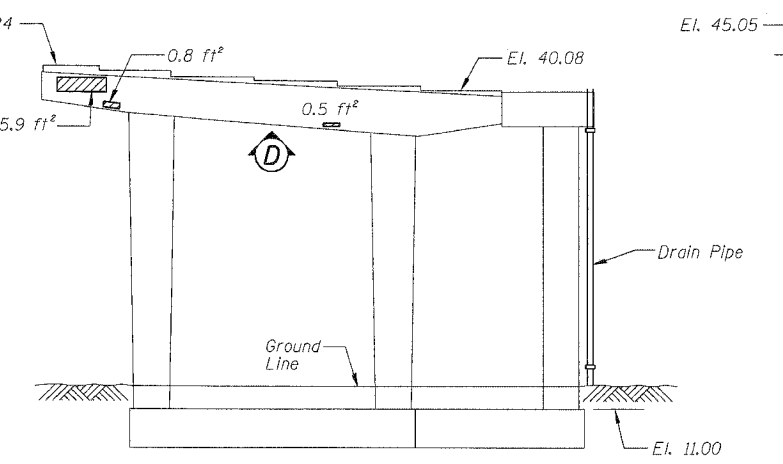
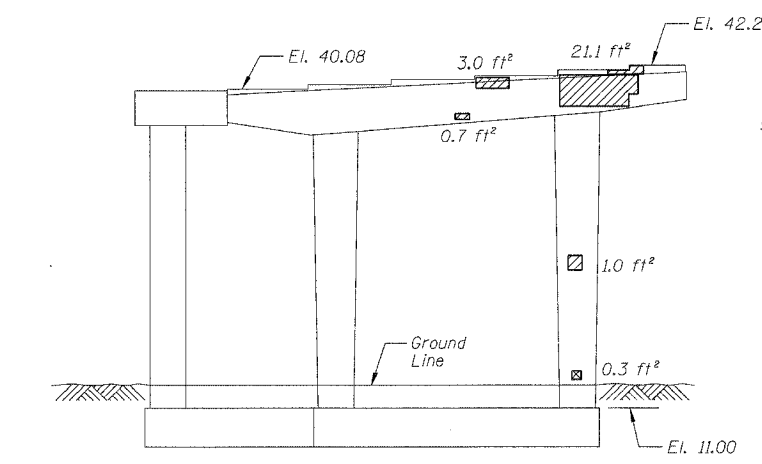
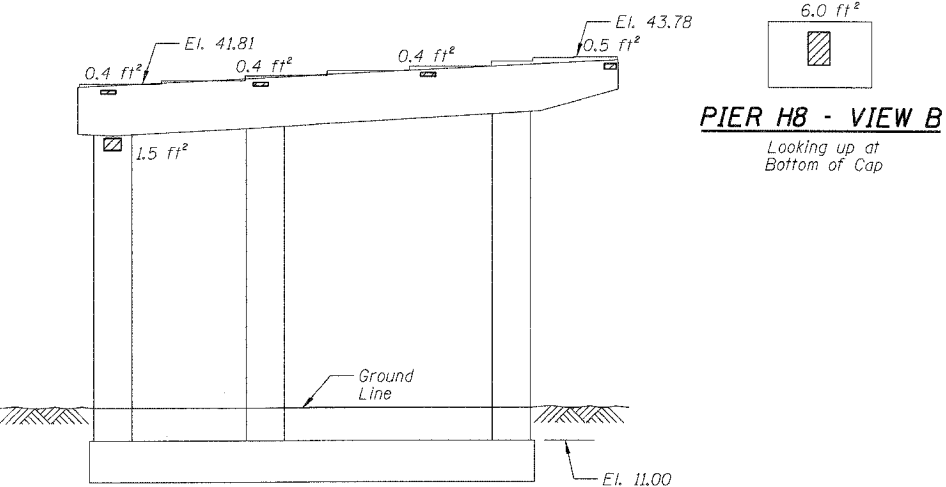
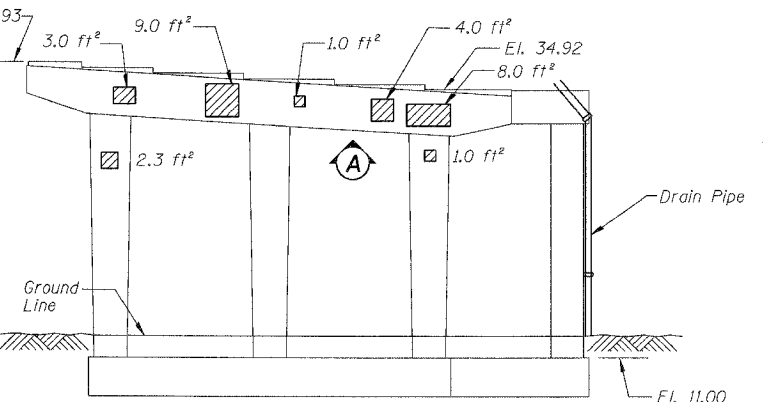
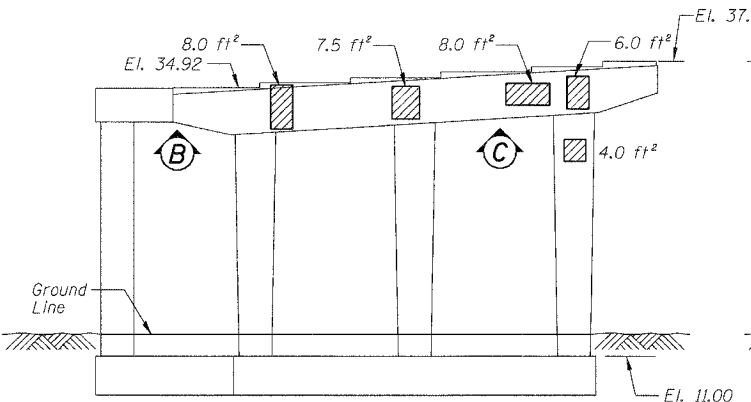
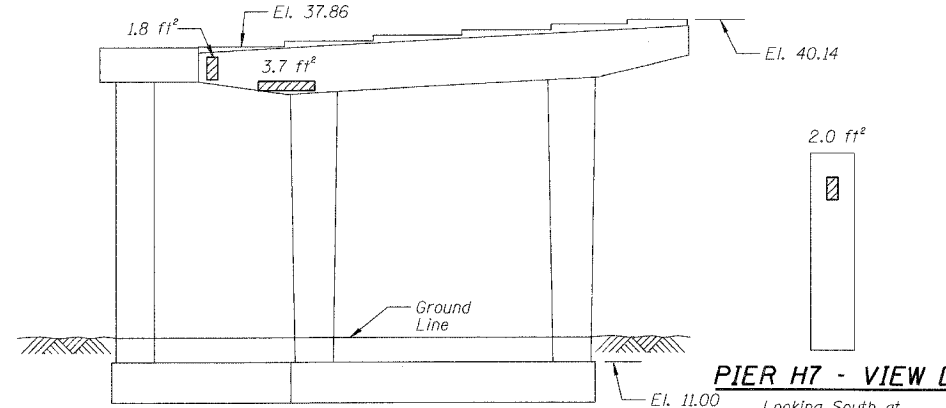
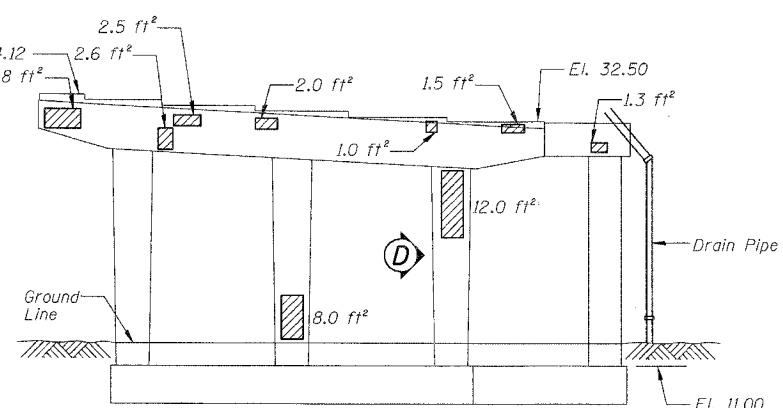
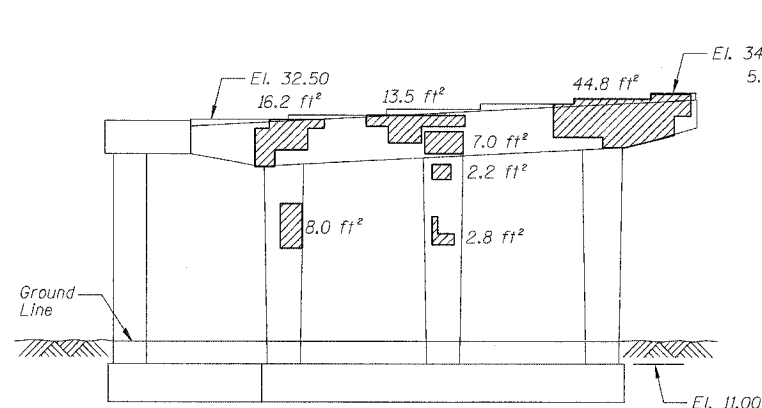
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CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbainc.com

For Notes and Legend See Sheet 6

5/24/2007 5:03PM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	99
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B07



PIER H7 - ELEVATION (Looking West)

PIER H7 - ELEVATION (Looking East)

PIER H9 - ELEVATION (Looking West)

PIER H8 - ELEVATION (Looking West)

PIER H8 - ELEVATION (Looking East)

PIER H11 - ELEVATION (Looking West)

PIER H10 - ELEVATION (Looking West)

PIER H10 - ELEVATION (Looking East)

PIER H12 - ELEVATION (Looking East)

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ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	348.4
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	0.3

BILL OF MATERIAL

REVISIONS	DATE
NAME	DATE

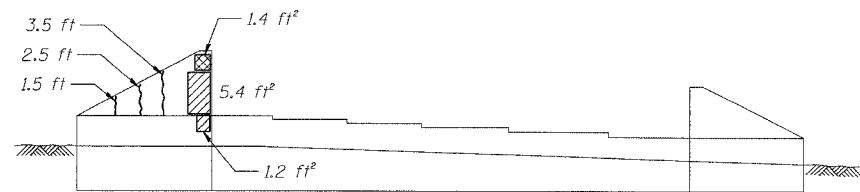
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1118, PIERS H7-H12

SCALE: NTS
DATE: 5/18/2007

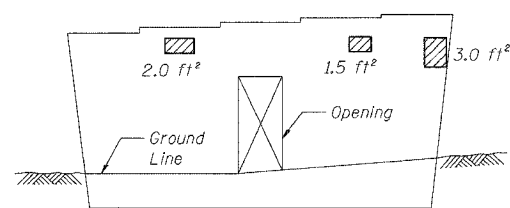
DRAWN BY: LAM
CHECKED BY: BLU

For Notes and Legend See Sheet 6

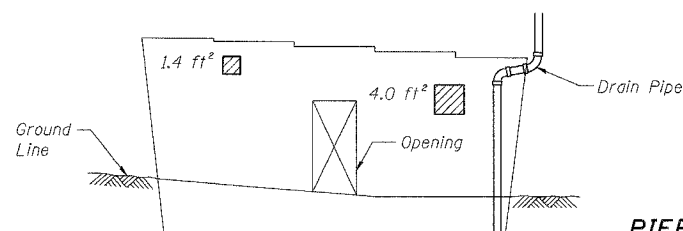
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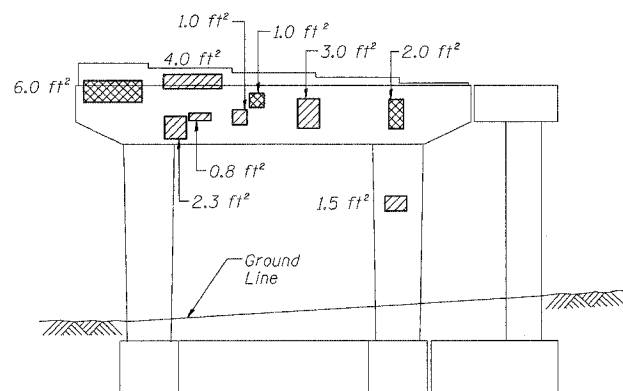
ABUTMENT 73 - EAST ELEVATION
(Looking West)



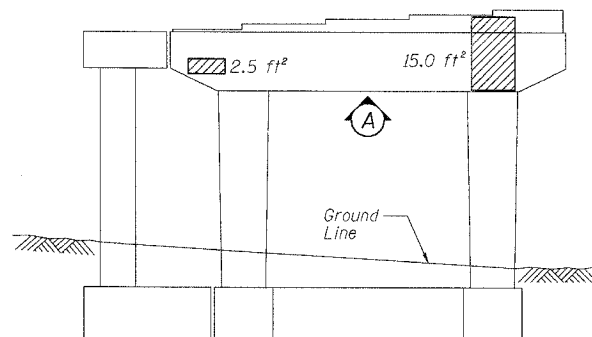
PIER 71 - WEST ELEVATION
(Looking East)



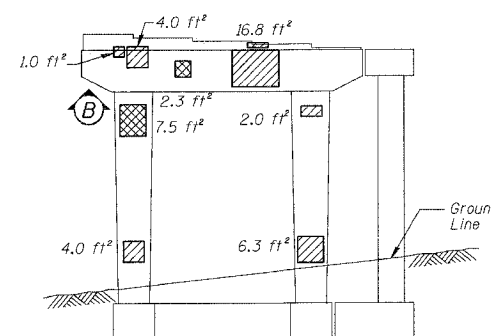
PIER 71 - EAST ELEVATION
(Looking West)



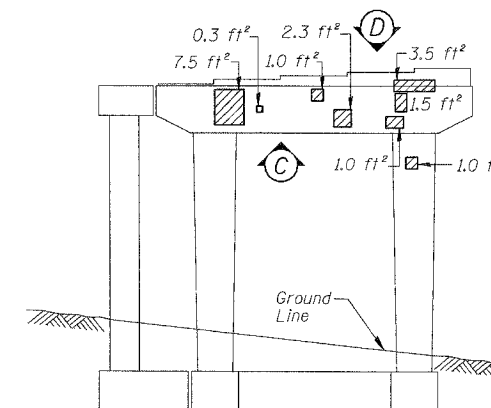
PIER 70 - WEST ELEVATION
(Looking East)



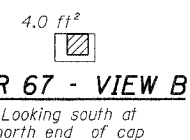
PIER 70 - EAST ELEVATION
(Looking West)



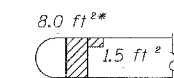
PIER 69 - WEST ELEVATION
(Looking East)



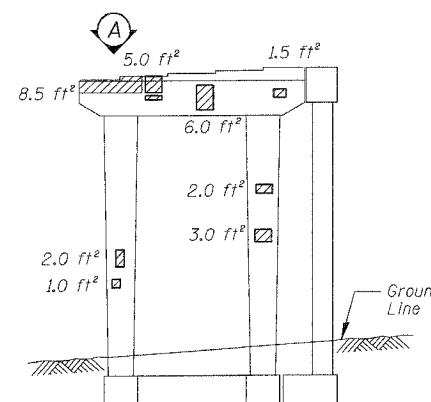
PIER 69 - EAST ELEVATION
(Looking West)



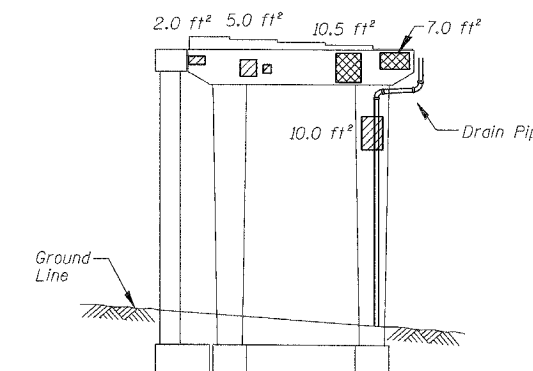
PIER 67 - VIEW B
Looking south at north end of cap



PIER 67 - VIEW A
Looking down at top of cap

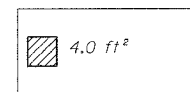


PIER 67 - WEST ELEVATION
(Looking East)

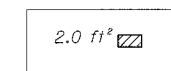


PIER 67 - EAST ELEVATION
(Looking West)

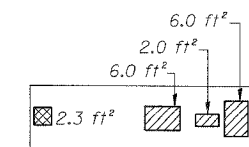
* Concrete shall be removed around existing bearings with extreme cautions. No damage shall be allowed to existing bearings, and no anchor bolts shall be exposed. If bearings are damaged or anchor bolts are exposed, they shall be replaced at no cost to the Department.



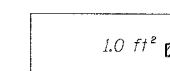
PIER 70 - VIEW A
Looking up at bottom of cap



PIER 69 - VIEW B
Looking up at bottom of cap



PIER 69 - VIEW C
Looking up at bottom of cap



PIER 69 - VIEW D
Looking down at top of seat

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	183.6
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	40.0
Epoxy Crack Injection	FOOT	7.5

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
CONCRETE PIER REPAIRS
SN 016-1062, PIERS 67,69,70,71 ABUT. 73
SCALE: NTS
DATE: 5/18/2007
DRAWN BY: LAM
CHECKED BY: BLU