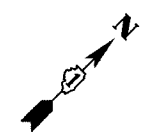
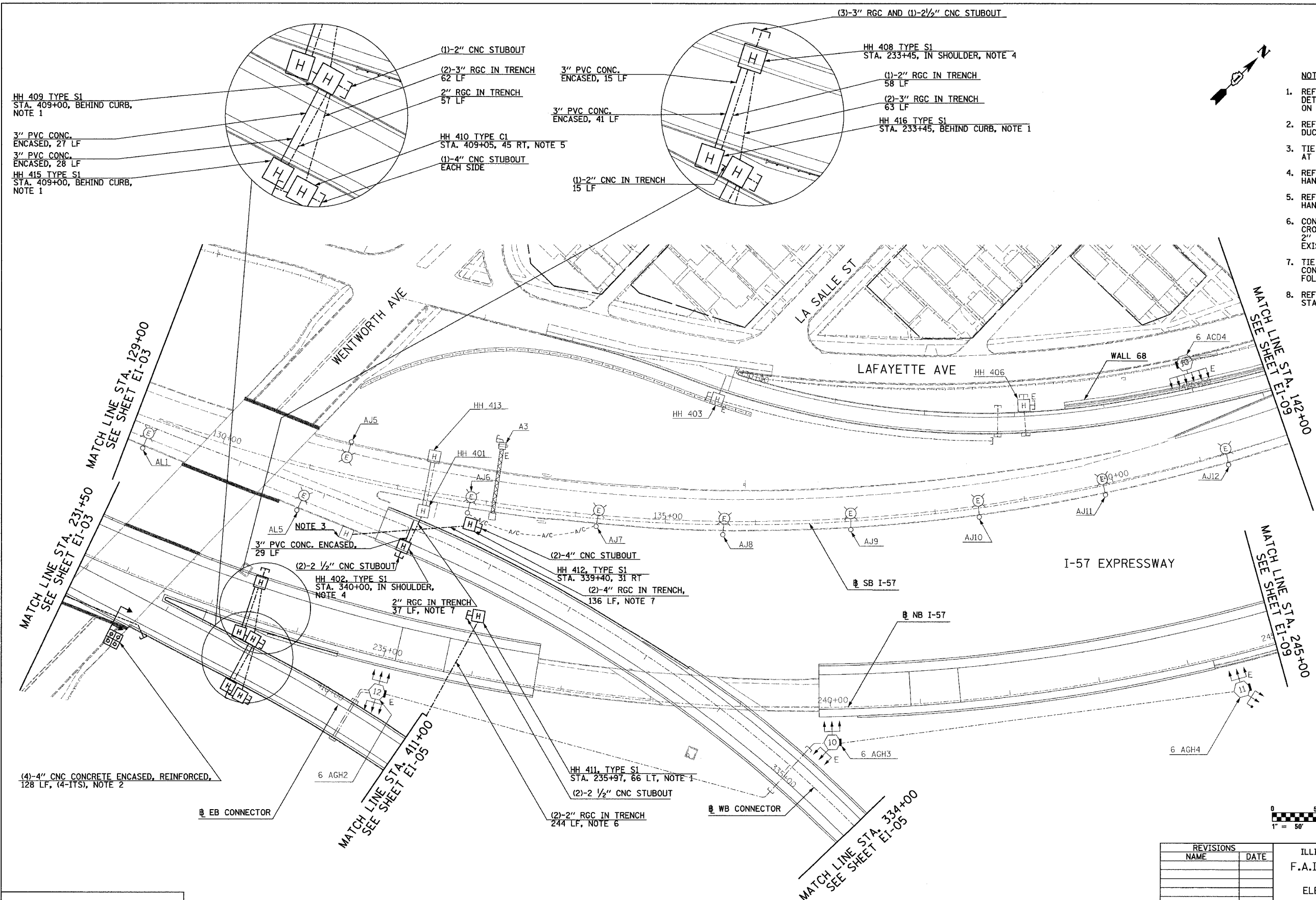


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	96	501
STA. 231+50		TO STA. 245+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
* (1516.1, 1717, & 1818) R-4		62304		

NOTES:

1. REFER TO SHEET EI-106 FOR HANDHOLE DETAILS. INSTALL HANDHOLE AS SHOWN ON SHEET EI-110.
2. REFER TO SHEET EI-102 AND EI-103 FOR DUCTBANK INSTALLATION DETAILS.
3. TIE 2-4" RGC TO EXISTING TSC HANDHOLE AT STA. 340+60.
4. REFER TO SHEET EI-106 AND EI-110 FOR HANDHOLE DETAIL.
5. REFER TO SHEET EI-107 FOR TYPE C1 HANDHOLE DETAIL.
6. CONTRACTOR TO EXERCISE CAUTION WHERE CROSSING EXISTING UNDERGROUND UNITDUCT. 2" RGC TO BE TRENCHED TO PASS UNDER EXISTING UNITDUCT.
7. TIE 2" RGC INTO EXISTING HANDHOLE HH 401. CONDUIT CROSSOVER INSTALLATION SHALL FOLLOW THE ROADWAY STAGE CONSTRUCTION.
8. REFER TO SHEET EI-115 FOR DETECTOR STATION LAYOUT.



20/EI-04

REVISIONS	
NAME	DATE

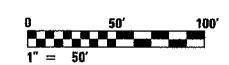
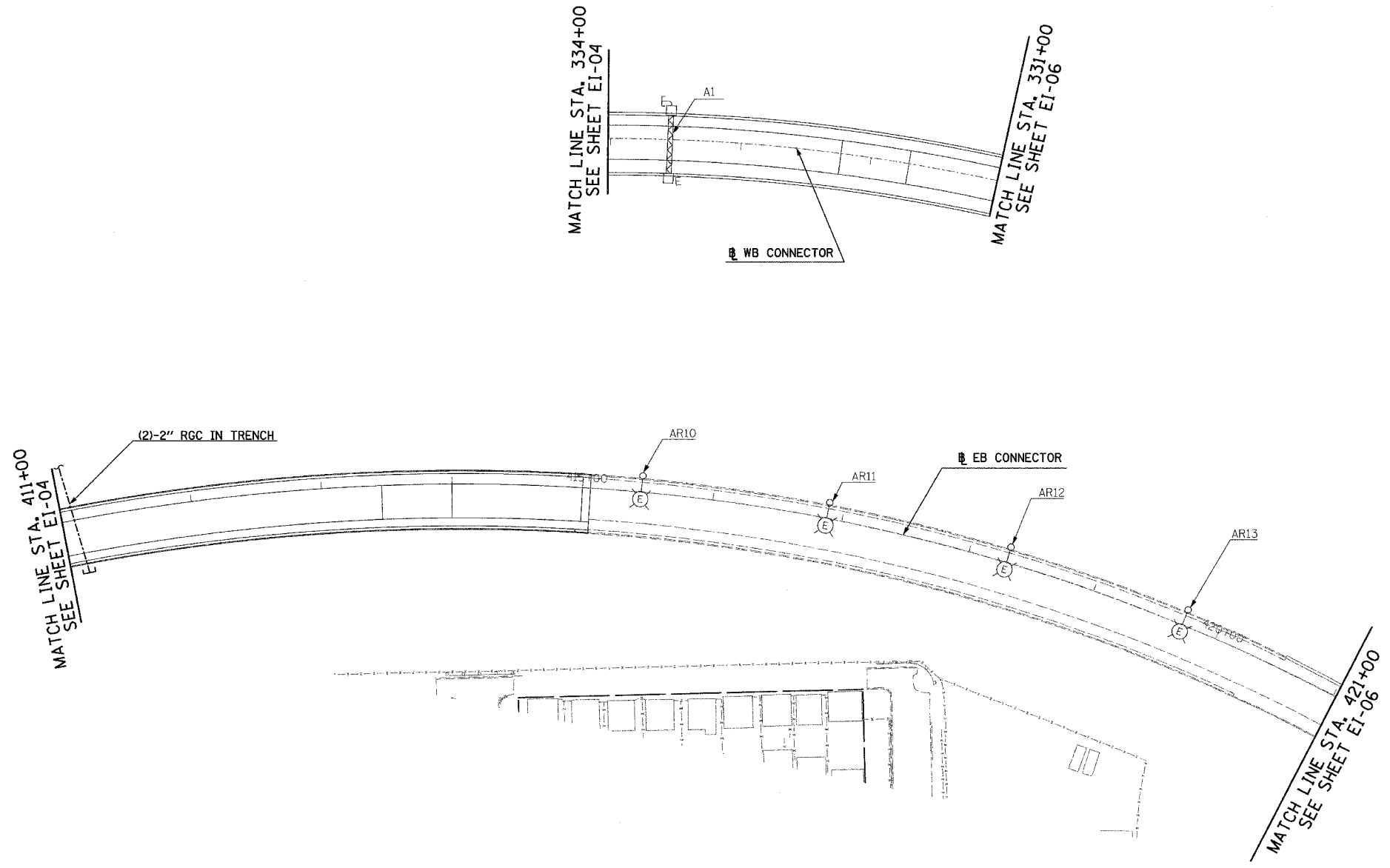
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
ELECTRICAL INFRASTRUCTURE PLANS
PROPOSED IMPROVEMENTS
STA. 231+50 TO STA. 245+00
SCALE: 1"=50' DRAWN BY: VK
DATE: MARCH 7, 2006 CHECKED BY: TM

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94		COOK	9/6	502
STA. 411+00		TO STA. 421+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		• (1516.1, 1717, & 1818) R-4		

62304



20/EI-05

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 ELECTRICAL INFRASTRUCTURE PLANS
 PROPOSED IMPROVEMENTS
 STA. 411+00 TO STA. 421+00
 SCALE: 1"=50' DRAWN BY: VK
 DATE: MARCH 7, 2006 CHECKED BY: TM

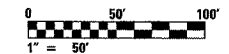
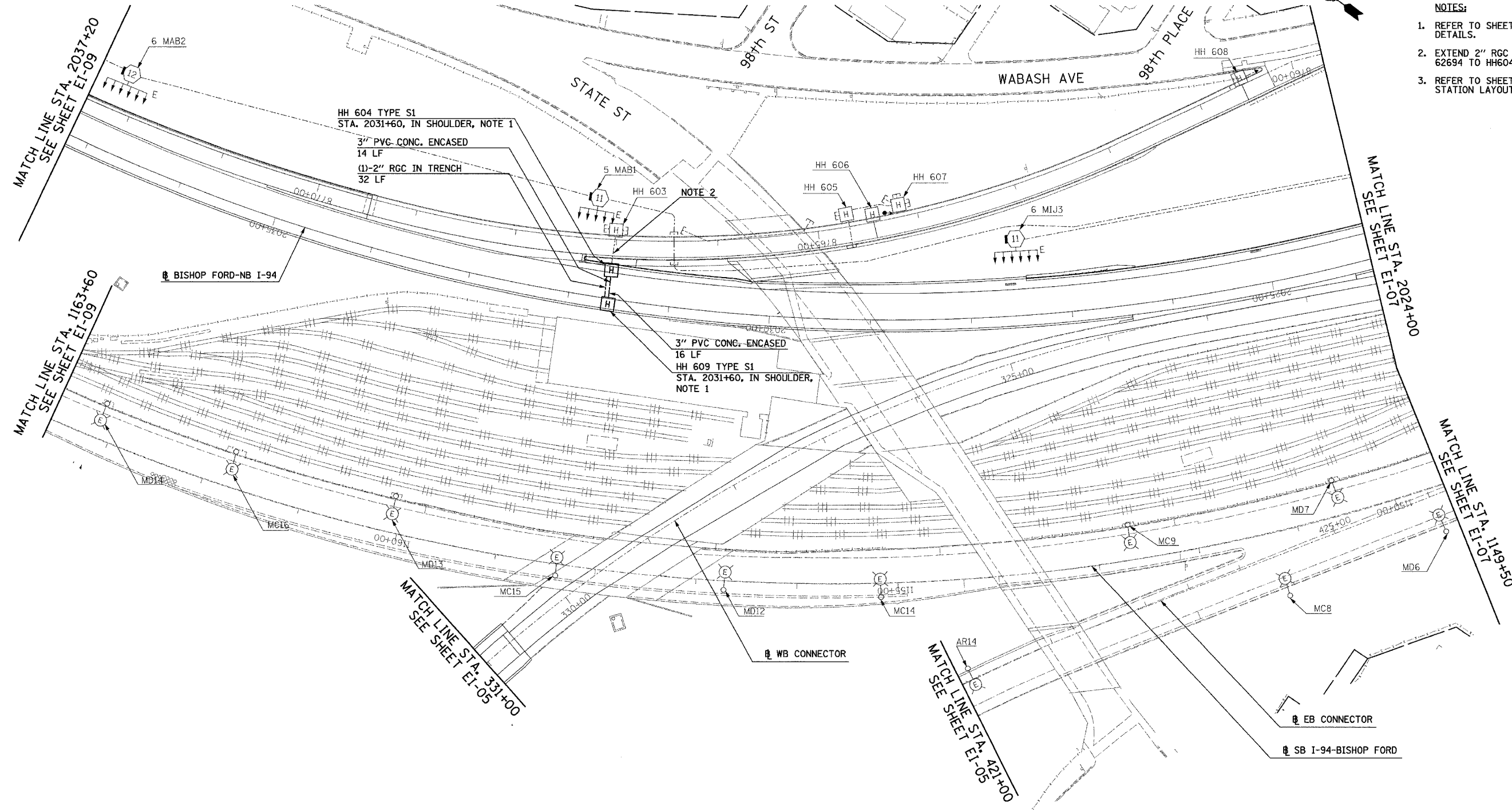
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 CHICAGO, IL 60606
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	96	503
STA. 2037+20		TO STA. 2024+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
* (1516.1, 1717, & 1818) R-4		62304		

NOTES:

1. REFER TO SHEET EI-106 AND EI-110 FOR HANDHOLE DETAILS.
2. EXTEND 2" RGC INSTALLED UNDER CONTRACT 62694 TO HH604.
3. REFER TO SHEET EI-115 FOR DETECTOR STATION LAYOUT.



20/EI-06

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 ELECTRICAL INFRASTRUCTURE PLANS
 PROPOSED IMPROVEMENTS
 STA. 2037+20 TO STA. 2024+00

SCALE: 1"=50' DRAWN BY: VK
 DATE: MARCH 7, 2006 CHECKED BY: TM

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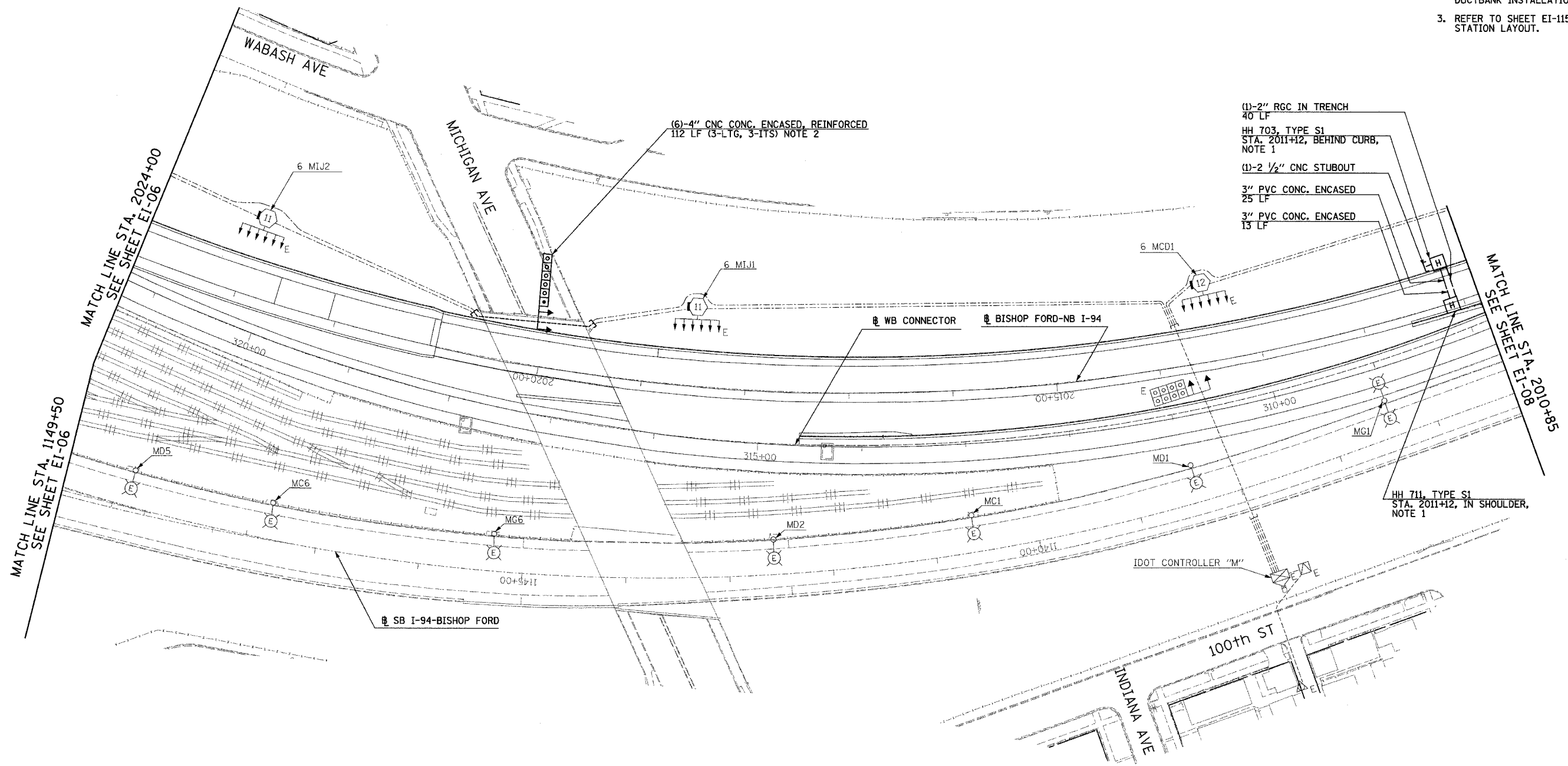
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	916	504
STA. 2024+00		TO STA. 2010+85		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
* (1516.I, 1717, & 1818) R-4		62304		



NOTES:

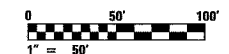
1. REFER TO SHEET EI-106 FOR HANDHOLE DETAILS. INSTALL HH 703 AS SHOWN ON SHEET EI-110.
2. REFER SHEET EI-102 AND EI-103 FOR DUCTBANK INSTALLATION DETAILS.
3. REFER TO SHEET EI-115 FOR DETECTOR STATION LAYOUT.



MATCH LINE STA. 1149+50
SEE SHEET EI-06

MATCH LINE STA. 2024+00
SEE SHEET EI-06

MATCH LINE STA. 2010+85
SEE SHEET EI-06



20/EI-07

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REVISIONS	
NAME	DATE

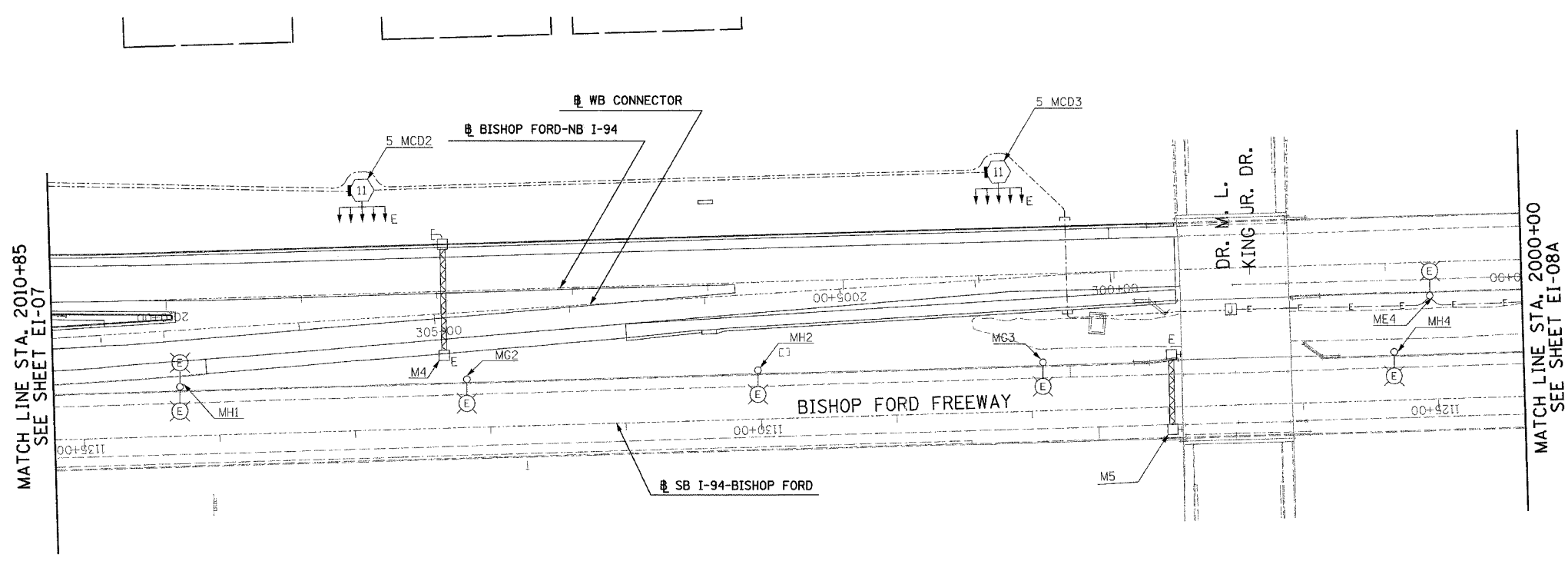
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

ELECTRICAL INFRASTRUCTURE PLANS
PROPOSED IMPROVEMENTS
STA. 2024+00 TO STA. 2010+85

SCALE: 1"=50' DRAWN BY: VK
DATE: MARCH 7, 2006 CHECKED BY: TM

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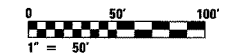
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	9/6	505
STA. 2010+85		TO STA. 2000+00		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
* (1516.1, 1717, & 1818) R-4				62304



MATCH LINE STA. 2010+85
SEE SHEET EI-07

MATCH LINE STA. 2000+00
SEE SHEET EI-08A

NO ELECTRICAL WORK ON THIS SHEET
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20/EI-08

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REVISIONS	
NAME	DATE

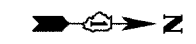
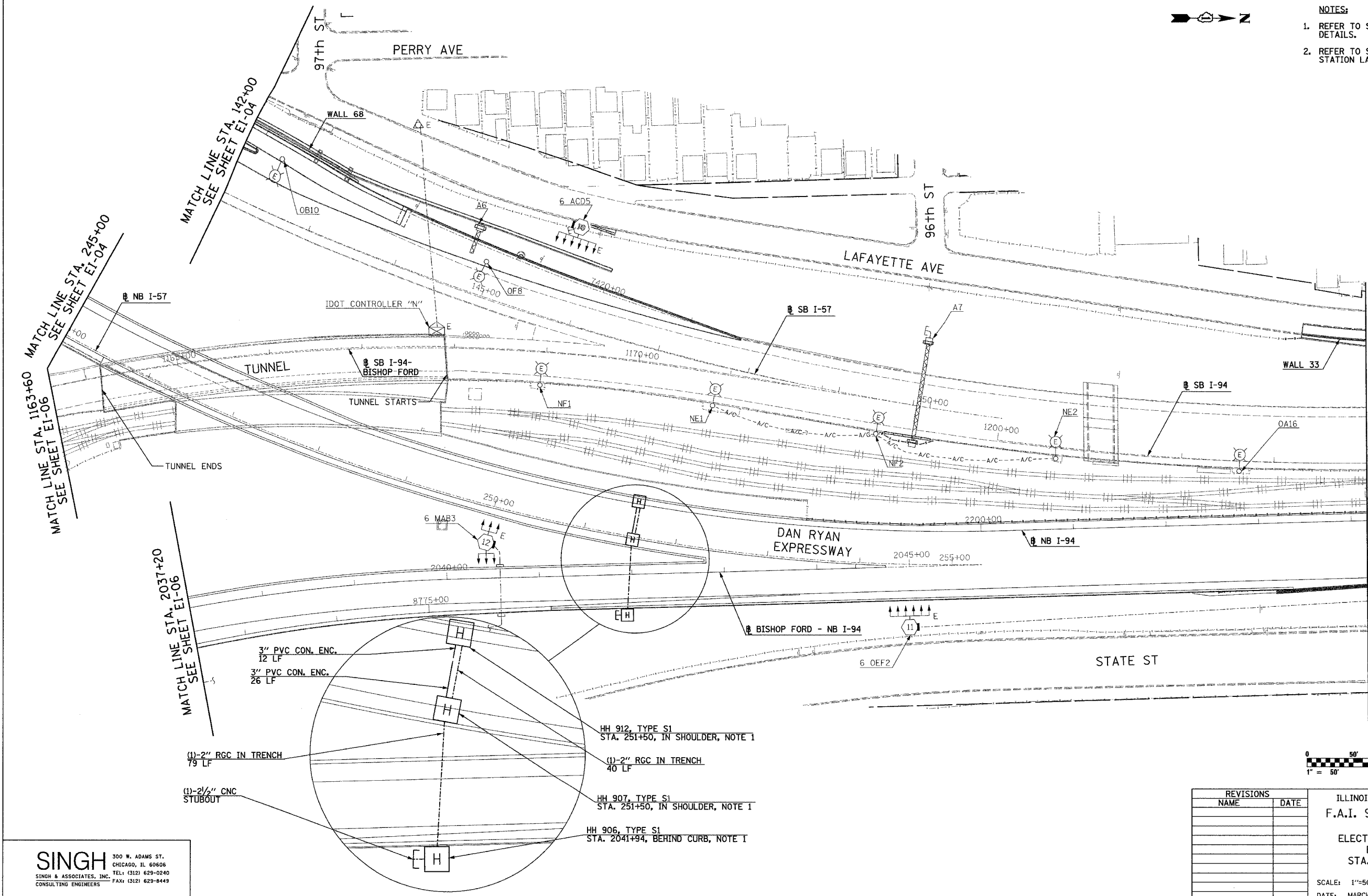
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
ELECTRICAL INFRASTRUCTURE PLANS
PROPOSED IMPROVEMENTS
STA. 2010+85 TO STA. 2000+00
SCALE: 1"=50' DRAWN BY: VK
DATE: MARCH 7, 2006 CHECKED BY: TM

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	916	507
STA. 245+00		TO STA. 2204+17		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
(1516.1, 1717, & 1818) R-4	62304			

NOTES:

- REFER TO SHEET EI-106 AND EI-110 FOR HANDHOLE DETAILS.
- REFER TO SHEET EI-115 FOR DETECTOR STATION LAYOUT.



20/EI-09

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
ELECTRICAL INFRASTRUCTURE PLANS
PROPOSED IMPROVEMENTS
STA. 245+00 TO STA. 2204+17

SCALE: 1"=50' DRAWN BY: VK
DATE: MARCH 7, 2006 CHECKED BY: TM

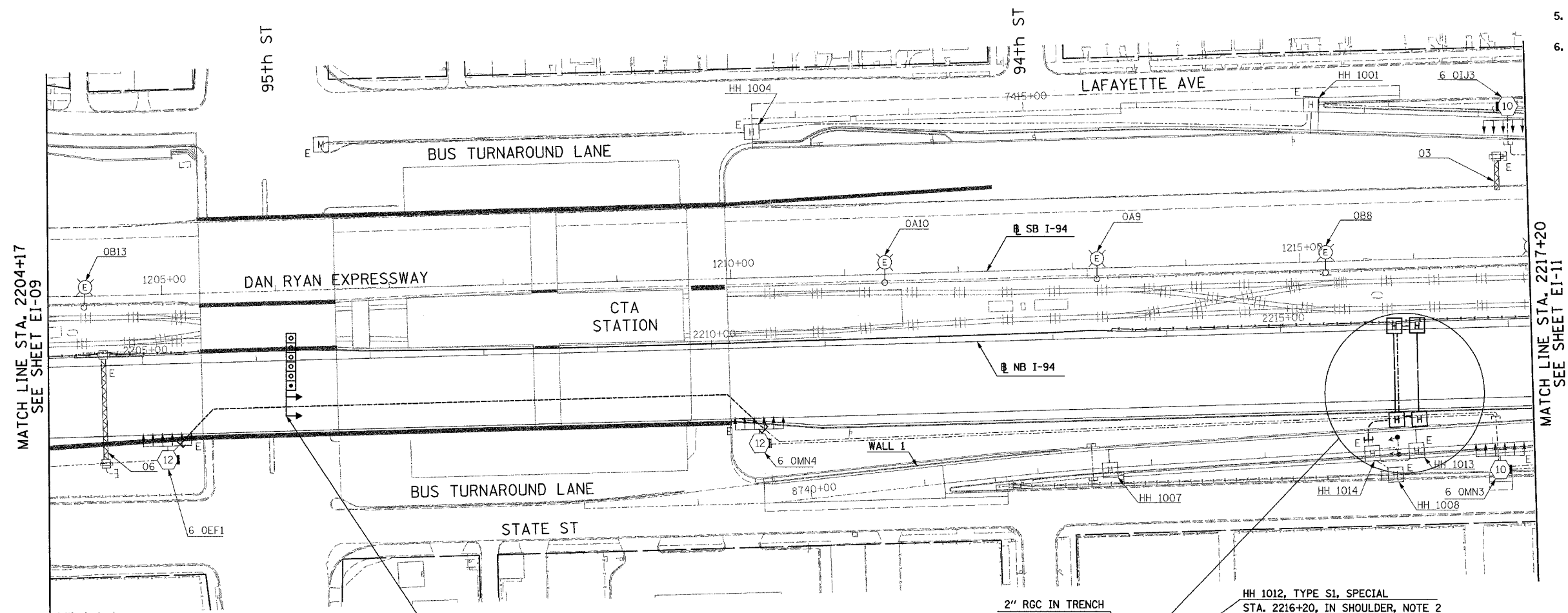
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94		COOK	116	508
STA. 2204+17		TO STA. 2217+20		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		* (1516.1, 1717, & 1818) R-4		
				62304

NOTES:

1. REFER TO SHEETS EI-102, AND EI-103 FOR DUCTBANK DETAILS.
2. REFER TO SHEET EI-106 AND EI-110 FOR DETAILS.
3. REFER TO SHEET EI-106 FOR DETAILS, INSTALL HANDHOLE BEHIND CURB AS SHOWN ON SHEET EI-110.
4. ROUTE 2" CNC TO INTERCEPT 2" RGC INSTALLED UNDER CONTRACT 62694.
5. REFER TO SHEET EI-102 FOR CONDUIT INSTALLATION DETAIL.
6. REFER TO SHEET EI-115 FOR DETECTOR STATION LAYOUT.



MATCH LINE STA. 2204+17
SEE SHEET EI-09

MATCH LINE STA. 2217+20
SEE SHEET EI-11

(6)-4" CNC CONCRETE ENCASED, REINFORCED
543 LF, (3-LTG, 3-ITS), NOTE 1

HH 1010, TYPE S1, SPECIAL
STA. 2216+00, IN SHOULDER, NOTE 2

(1)-2" RGC IN TRENCH
80 LF
3" PVC CONC.
ENCASED, 37 LF

3" PVC CONC.
ENCASED, 41 LF

HH 1009, TYPE S1
STA. 2216+00, BEHIND CURB, NOTE 3

(1)-2" CNC IN TRENCH
36 LF, NOTE 4

(1)-2" CNC IN TRENCH
18 LF

HH 1014
EXISTING

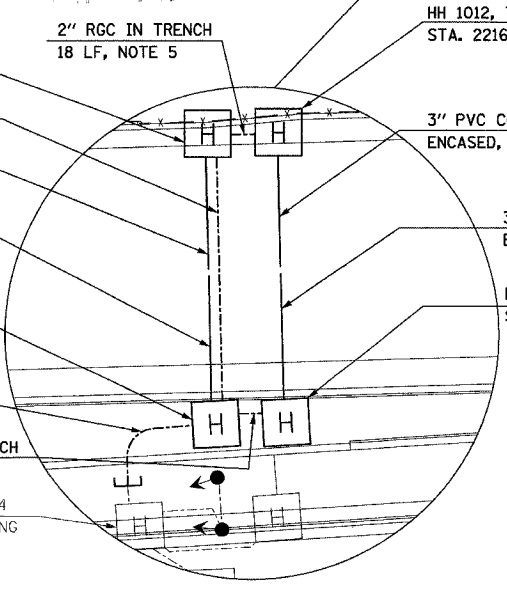
2" RGC IN TRENCH
18 LF, NOTE 5

HH 1012, TYPE S1, SPECIAL
STA. 2216+20, IN SHOULDER, NOTE 2

3" PVC CONC.
ENCASED, 37 LF

3" PVC CONC.
ENCASED, 41 LF

HH 1011, TYPE S1
STA. 2216+20, BEHIND CURB, NOTE 3



20/EI-10

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REVISIONS	
NAME	DATE

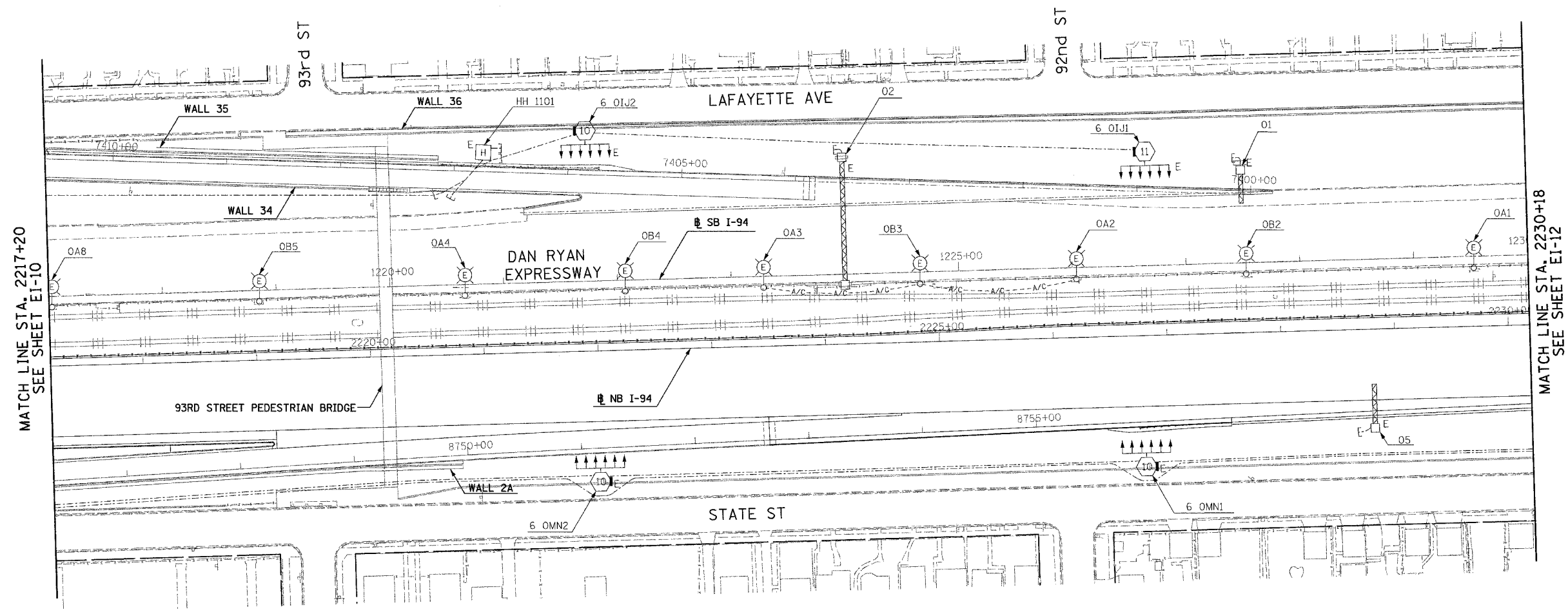
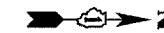
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

ELECTRICAL INFRASTRUCTURE PLANS
PROPOSED IMPROVEMENTS
STA. 2204+17 TO STA. 2217+20

SCALE: 1"=50' DRAWN BY: VK
DATE: MARCH 7, 2006 CHECKED BY: TM

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	916	509
STA. 2217+20		TO STA. 2230+18		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (1516.1, 1717, & 1818) R-4		62304		



MATCH LINE STA. 2217+20
SEE SHEET EI-10

MATCH LINE STA. 2230+18
SEE SHEET EI-12

NO ELECTRICAL WORK ON THIS SHEET
FOR REFERENCE ONLY.



20/EI-11

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REVISIONS	
NAME	DATE

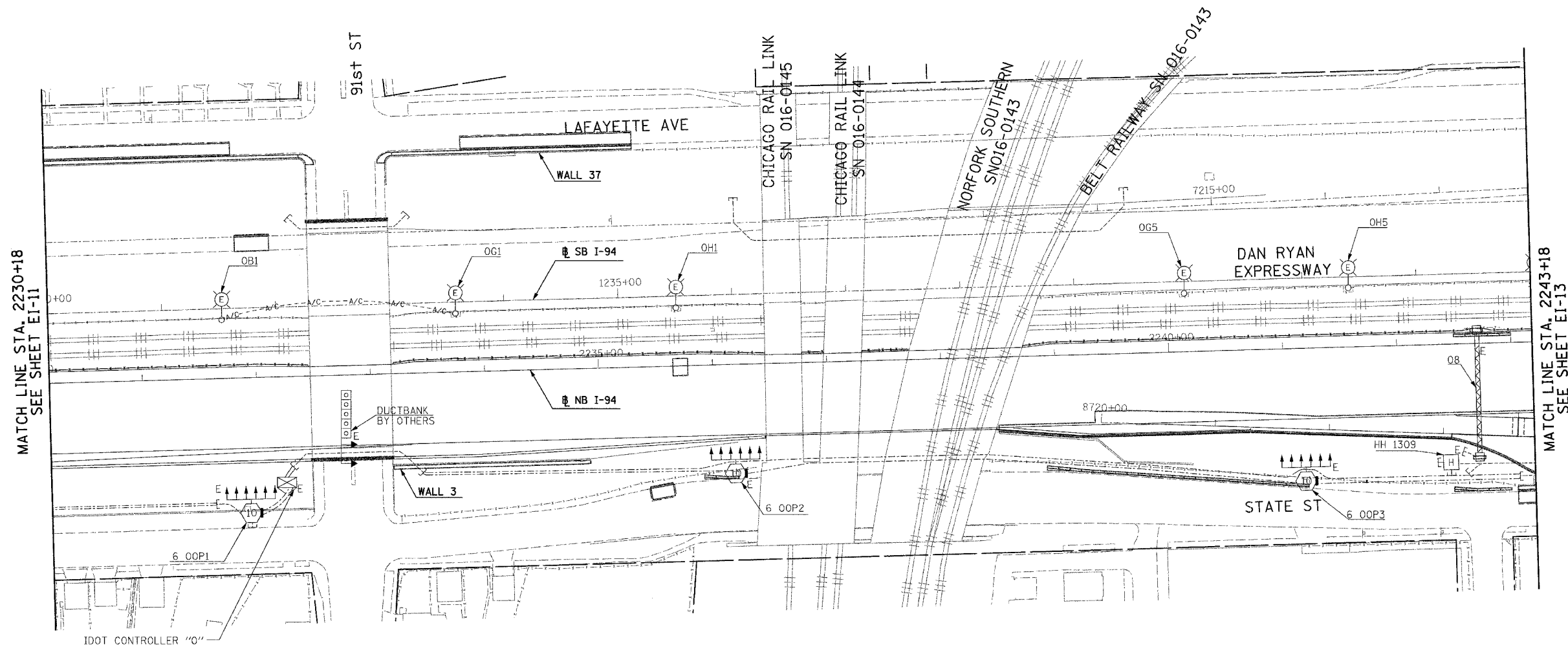
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

ELECTRICAL INFRASTRUCTURE PLANS
PROPOSED IMPROVEMENTS
STA. 2217+20 TO STA. 2230+18

SCALE: 1"=50' DRAWN BY: VK
DATE: MARCH 7, 2006 CHECKED BY: TM

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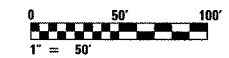
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94		COOK	916	510
STA. 2230+18		TO STA. 2243+18		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		• (1516.J, 1717, & 1818) R-4		
				62304



MATCH LINE STA. 2230+18
SEE SHEET EI-11

MATCH LINE STA. 2243+18
SEE SHEET EI-13

NO ELECTRICAL WORK THIS SHEET
FOR REFERENCE ONLY



20/EI-12

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

ELECTRICAL INFRASTRUCTURE PLANS
PROPOSED IMPROVEMENTS
STA. 2230+18 TO STA. 2243+18

SCALE: 1"=50' DRAWN BY: VK
DATE: MARCH 7, 2006 CHECKED BY: TM

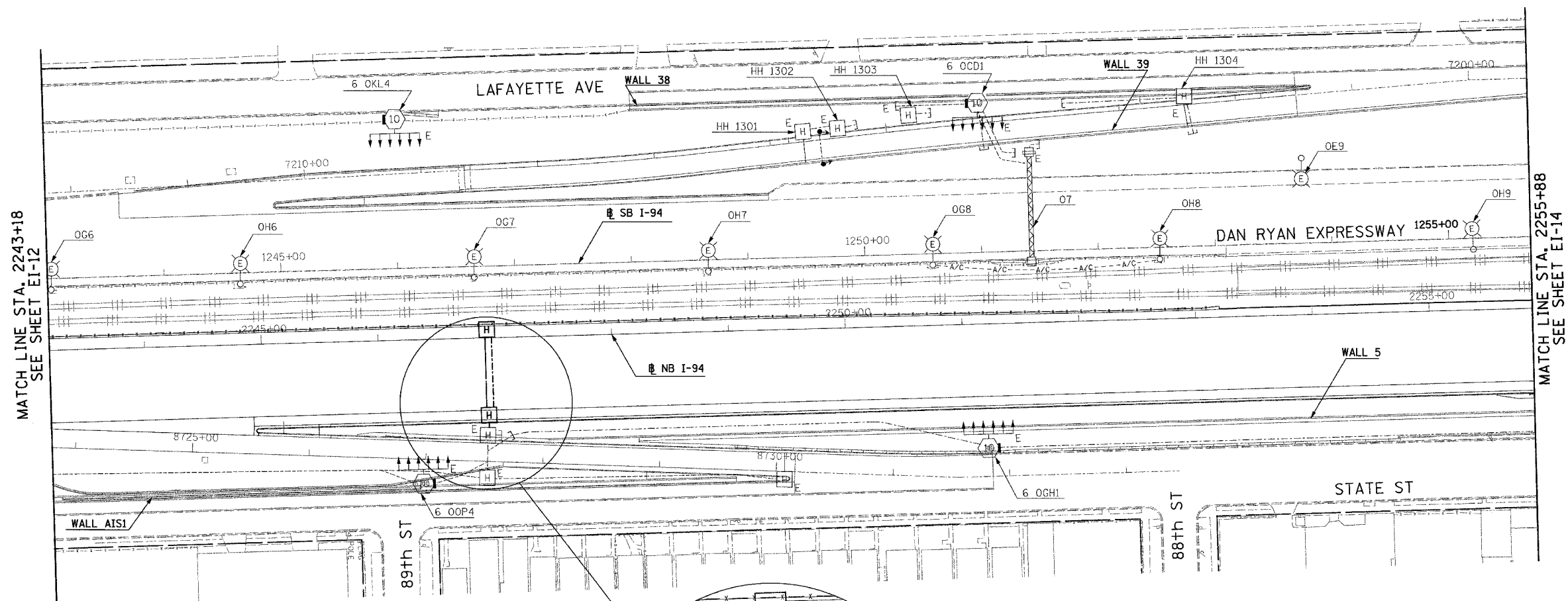
SINGH 300 W. ADAMS ST.
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	916	511
STA. 2243+18		TO STA. 2255+88		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
* (1516.1, 1717, & 1818) R-4		62304		

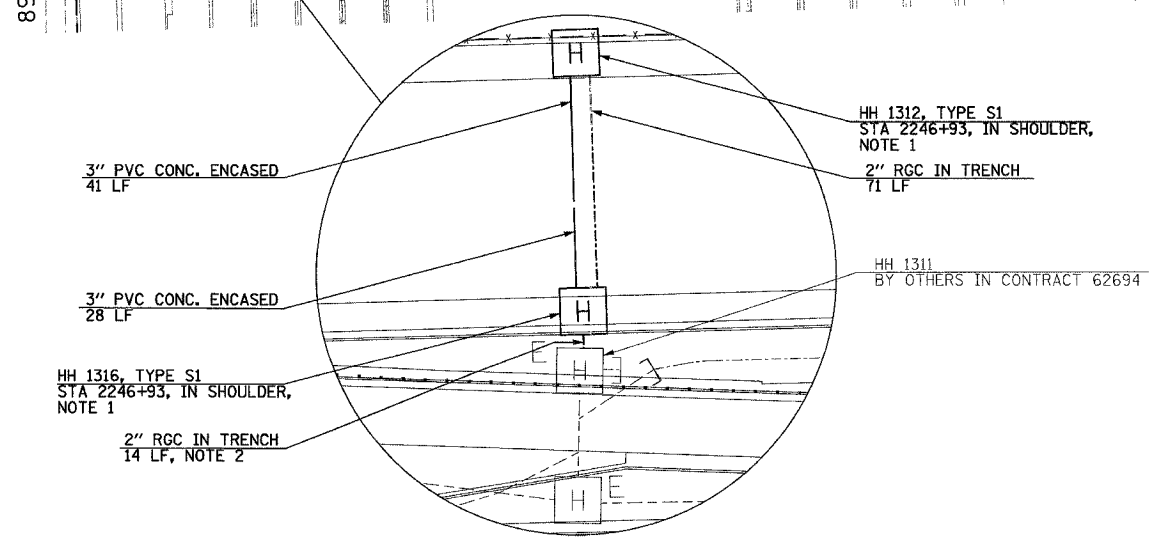
NOTES:

- REFER TO SHEET EI-106 AND EI-110 FOR HANDHOLE DETAILS.
- TIE 2" RGC INTO HANDHOLE HH 1311 INSTALLED UNDER CONTRACT 62694.
- REFER TO SHEET EI-115 FOR DETECTOR STATION LAYOUT.



MATCH LINE STA. 2243+18
SEE SHEET EI-12

MATCH LINE STA. 2255+88
SEE SHEET EI-14



20/EI-13

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

ELECTRICAL INFRASTRUCTURE PLANS
PROPOSED IMPROVEMENTS
STA. 2243+18 TO STA. 2255+88

SCALE: 1"=50' DRAWN BY: VK
DATE: MARCH 7, 2006 CHECKED BY: TM

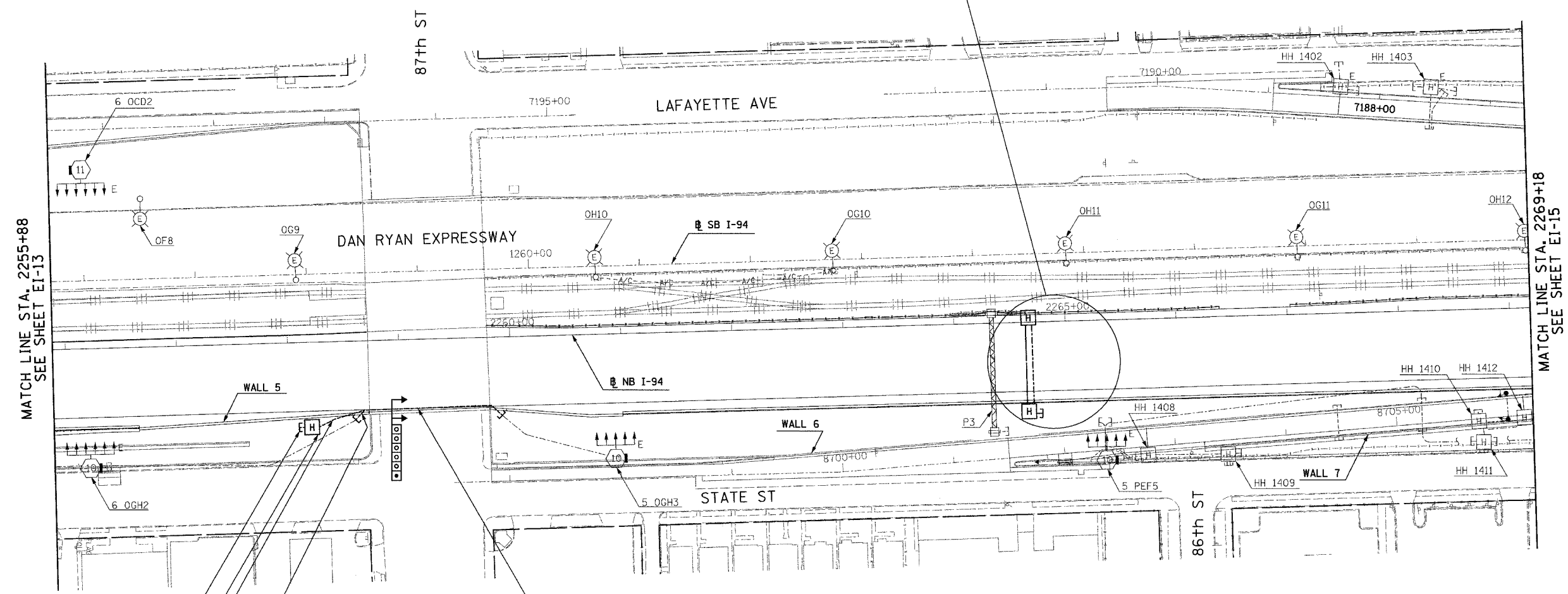
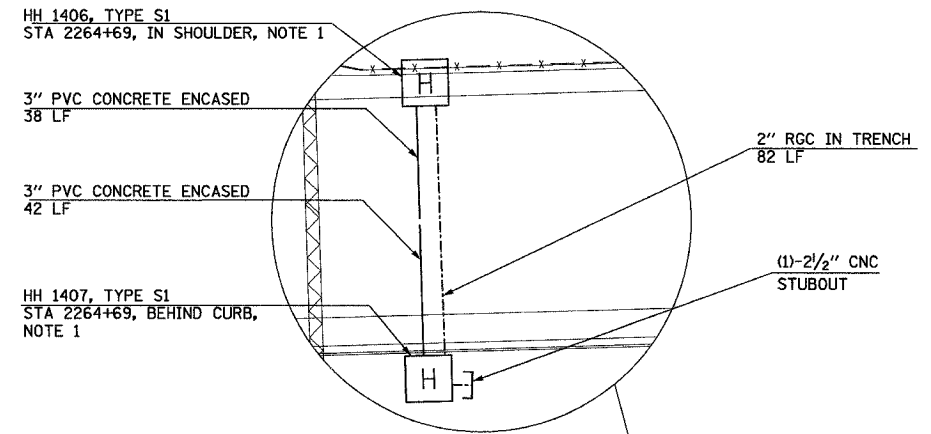
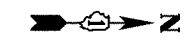
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94		COOK	9/6	512
STA. 2255+88		TO STA. 2269+18		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		• (1516.1, 1717, & 1818) R-4		
				62304

NOTES:

1. REFER TO SHEET EI-106 AND EI-110 FOR HANDHOLE DETAILS. HANDHOLE HH 1407 TO BE LOCATED AS SHOWN ON SHEET EI-110.
2. REFER TO SHEET EI-102 AND EI-103 FOR DUCTBANK DETAILS.
3. REFER TO SHEET EI-115 FOR DETECTOR STATION LAYOUT.



- (2)-4" CNC STUBOUTS
- HH 1315, TYPE S1, STA. 2258+20, 76 RT
- (4)-4" CNC CONCRETE ENCASED, REINFORCED, 12 LF (3-LTG, 1-ITS), NOTE 2
- (2)-4" CNC CONC. ENCASED, REINFORCED, 42 LF, (ITS), NOTE 2
- (6)-4" CNC CONCRETE ENCASED, REINFORCED, 143 LF (3-LTG, 3-ITS) NOTE 2



20/EI-14

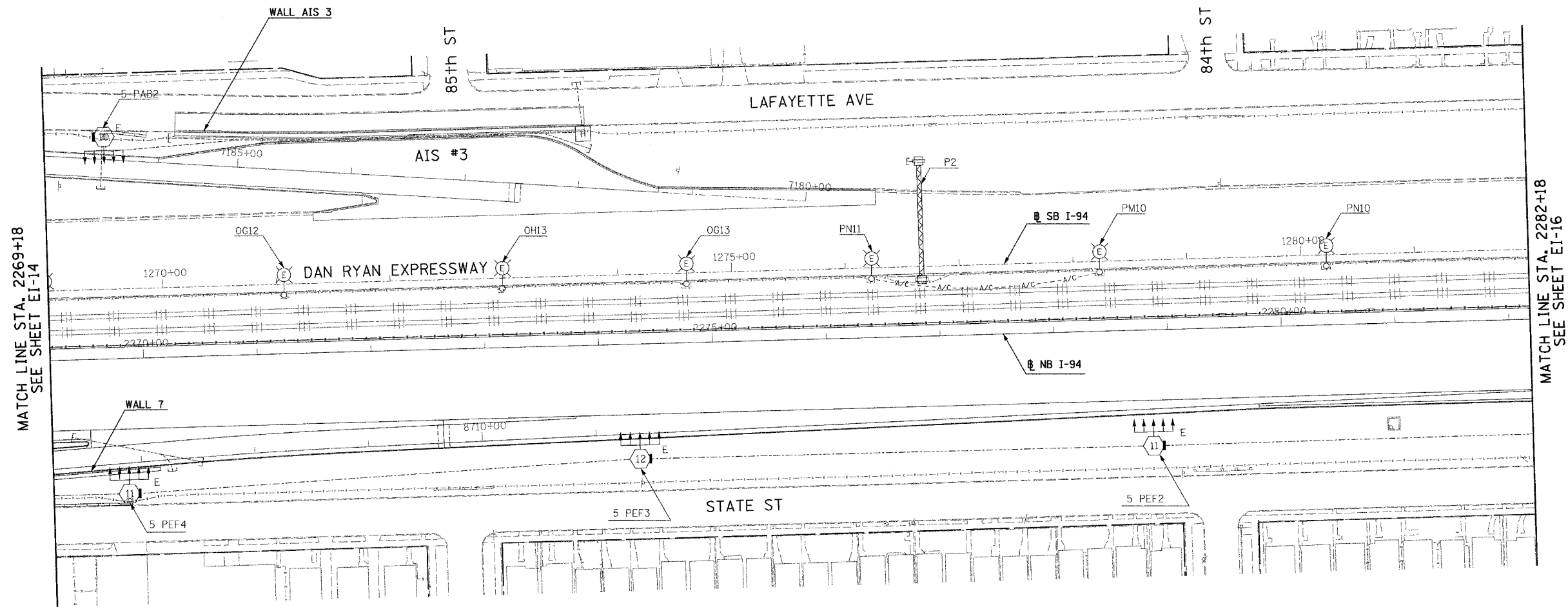
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 ELECTRICAL INFRASTRUCTURE PLANS
 PROPOSED IMPROVEMENTS
 STA. 2255+88 TO STA. 2269+18
 SCALE: 1"=50' DRAWN BY: VK
 DATE: MARCH 7, 2006 CHECKED BY: TM

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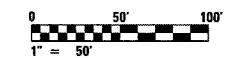
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	916	513
STA. 2269+18		TO STA. 2282+18		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
* (1516.1, 1717, & 1818) R-4		62304		



MATCH LINE STA. 2269+18
SEE SHEET EI-14

MATCH LINE STA. 2282+18
SEE SHEET EI-16



20/EI-15

NO ELECTRICAL WORK ON THIS SHEET
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

ELECTRICAL INFRASTRUCTURE PLANS
PROPOSED IMPROVEMENTS
STA. 2269+18 TO STA. 2282+18

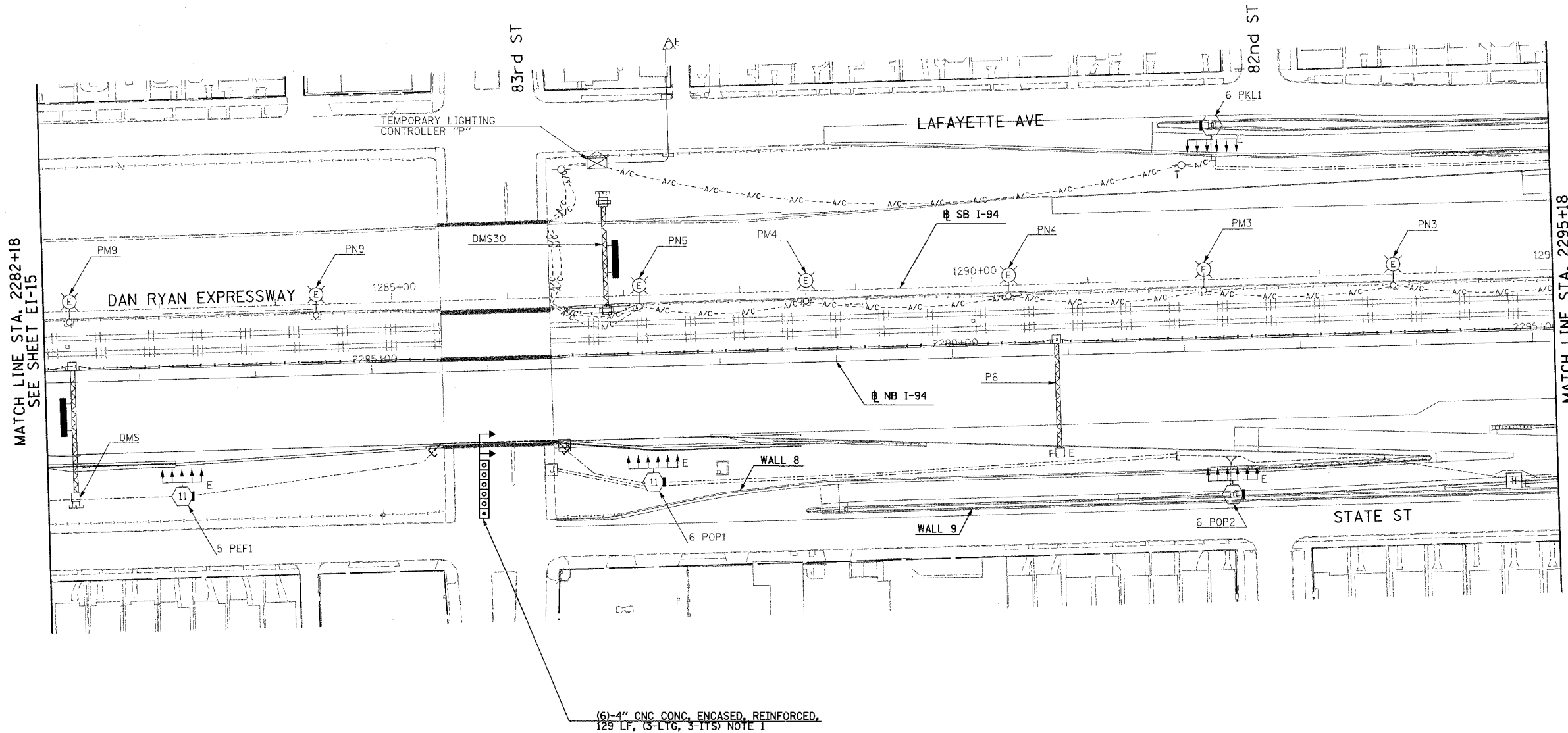
SCALE: 1"=50' DRAWN BY: VK
DATE: MARCH 7, 2006 CHECKED BY: TM

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	9/6	514
STA. 2282+18		TO STA. 2295+18		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
* (1516.1, 1717, & 1818) R-4		62304		

NOTES:

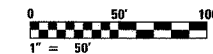
1. REFER TO SHEETS EI-102 AND EI-103 FOR DUCTBANK INSTALLATION DETAILS.



MATCH LINE STA. 2282+18
SEE SHEET EI-15

MATCH LINE STA. 2295+18
SEE SHEET EI-17

(6)-4" CNC CONC. ENCASED, REINFORCED,
129 LF, (3-LTG, 3-ITS) NOTE 1



20/EI-16

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

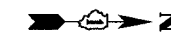
ELECTRICAL INFRASTRUCTURE PLANS
PROPOSED IMPROVEMENTS
STA. 2282+18 TO STA. 2295+18

SCALE: 1"=50' DRAWN BY: VK
DATE: MARCH 7, 2006 CHECKED BY: TM

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CONSULTING ENGINEERS FAX: (312) 629-8449

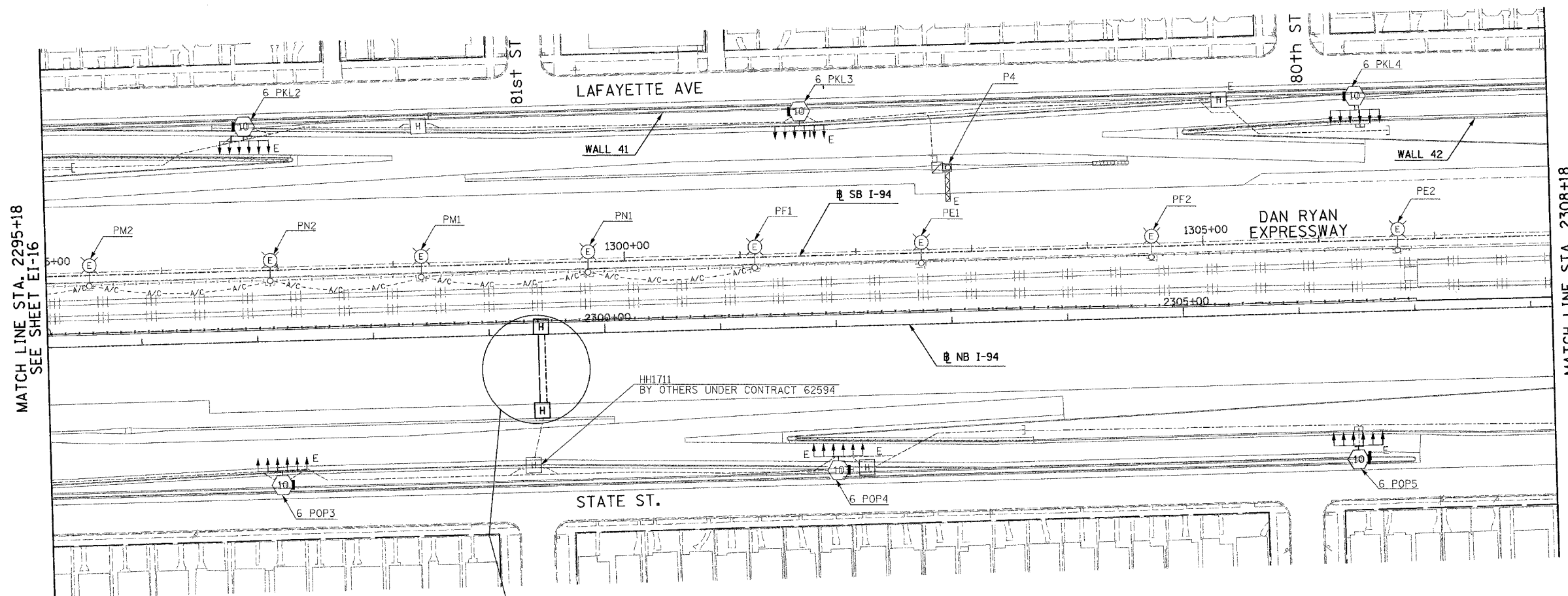
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94		COOK	916	515
STA. 2295+18		TO STA. 2308+18		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		• (1516.1, 1717, & 1818) R-4		
				62304



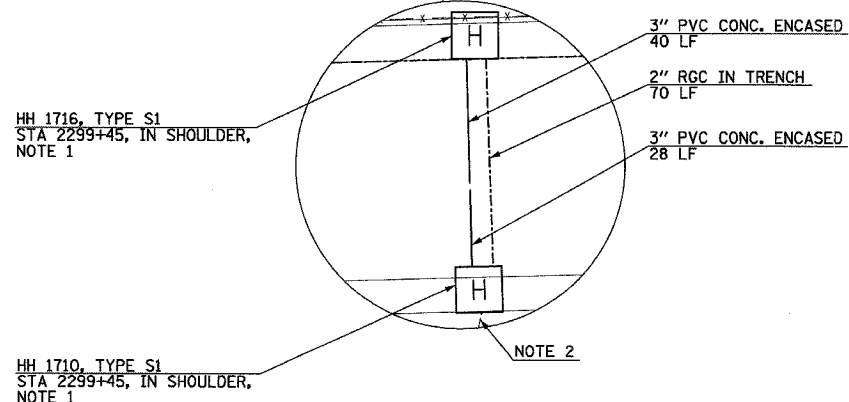
NOTES:

1. REFER TO SHEET EI-106 AND EI-110 FOR HANDHOLE DETAILS.
2. TIE INTO EXISTING CONDUIT PROVIDED UNDER SEPARATE CONTRACT 62594.
3. REFER TO SHEET EI-115 FOR DETECTOR STATION LAYOUT.



MATCH LINE STA. 2295+18
SEE SHEET EI-16

MATCH LINE STA. 2308+18
SEE SHEET EI-18



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NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

ELECTRICAL INFRASTRUCTURE PLANS
PROPOSED IMPROVEMENTS
STA. 2295+18 TO STA. 2308+18

SCALE: 1"=50'
DATE: MARCH 7, 2006

DRAWN BY: VK
CHECKED BY: TM

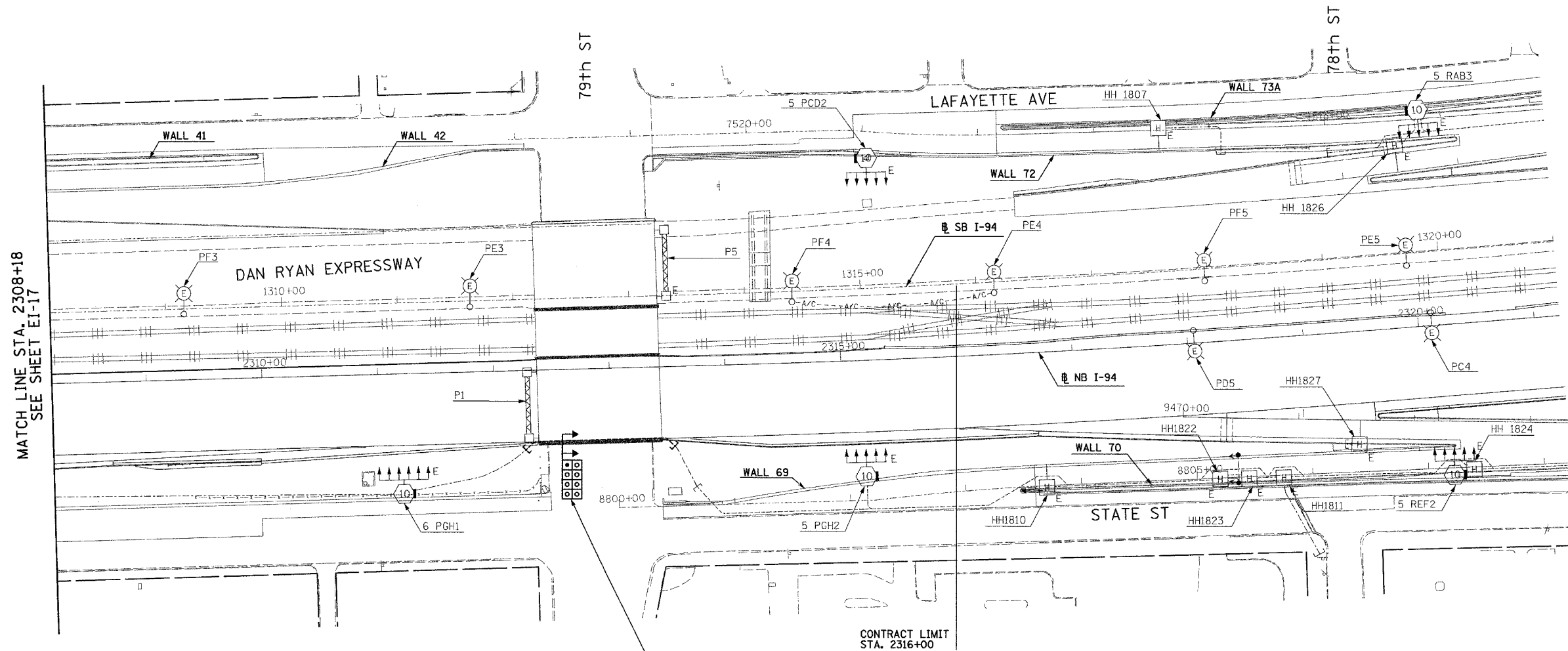
20/EI-17

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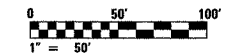
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94		COOK	916	516
STA. 2308+18		TO STA. 2316+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		* (1516.1, 1717, & 1818) R-4		
				62304

NOTES:

- REFER TO SHEETS EI-102 AND EI-103 FOR DUCTBANK INSTALLATION DETAILS.



(6)-4" CNC AND (2)-2" CNC CONC. ENCASED, REINFORCED,
140 LF, 13-4" CNC FOR LT6) NOTE 1



20/EI-18

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NAME	DATE

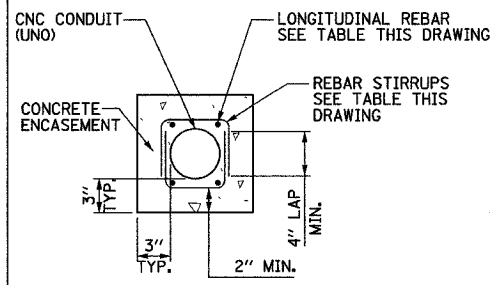
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

ELECTRICAL INFRASTRUCTURE PLANS
PROPOSED IMPROVEMENTS
STA. 2308+18 TO STA. 2316+00

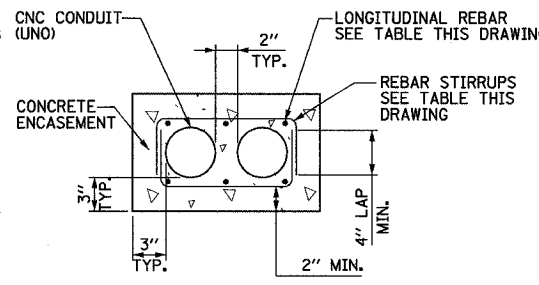
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DATE: MARCH 7, 2006 CHECKED BY: TM

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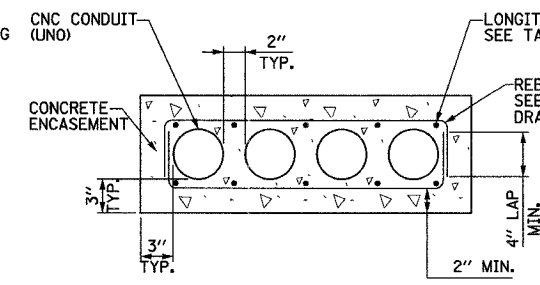
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	916	517
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
	* (1516.J, 1717, & 1818) R-4			
			62304	



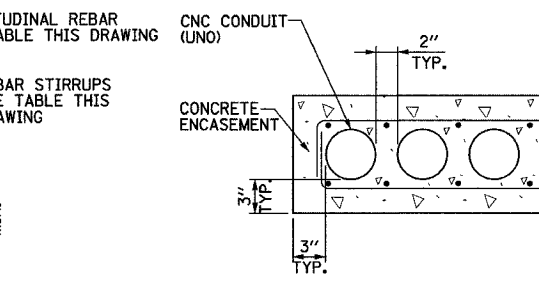
1x1 DUCTBANK DETAIL-
IN REINFORCED CONCRETE
NOT TO SCALE



2x1 DUCTBANK DETAIL-
IN REINFORCED CONCRETE
NOT TO SCALE



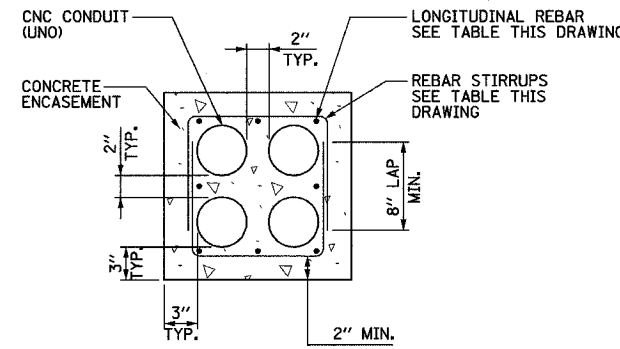
4x1 DUCTBANK DETAIL-
IN REINFORCED CONCRETE
NOT TO SCALE



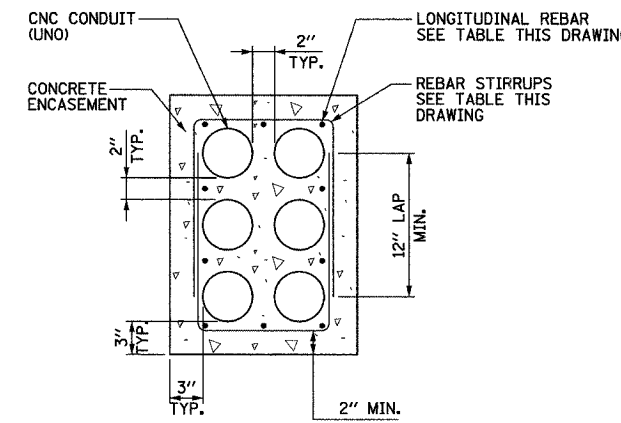
6x1 DUCTBANK DETAIL-
IN REINFORCED CONCRETE
NOT TO SCALE

NOTES:

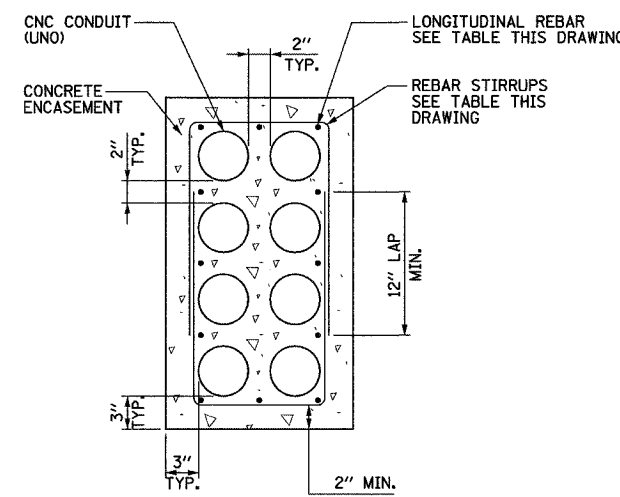
- SEE DRAWINGS 20/EI-100 AND 20/EI-101 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
- PROVIDE MINIMUM CLEARANCE SHOWN FROM TOP OF DUCTBANK TO FINISHED GRADE FOR ALL DUCTBANKS, REGARDLESS OF SIZE. CONTRACTOR SHALL INSTALL DUCTBANKS SUCH THAT THEY WILL CLEAR ALL UNDERGROUND OBSTACLES.
- TRENCH SHALL HAVE MINIMUM WIDTH SHOWN FOR ALL DUCTBANKS DETAILED ON THIS DRAWING. THE CONTRACTOR SHALL INCREASE TRENCH WIDTH FOR ADDITIONAL CONDUITS, AS DIRECTED BY THE ENGINEER, (AT NO ADDITIONAL COST).



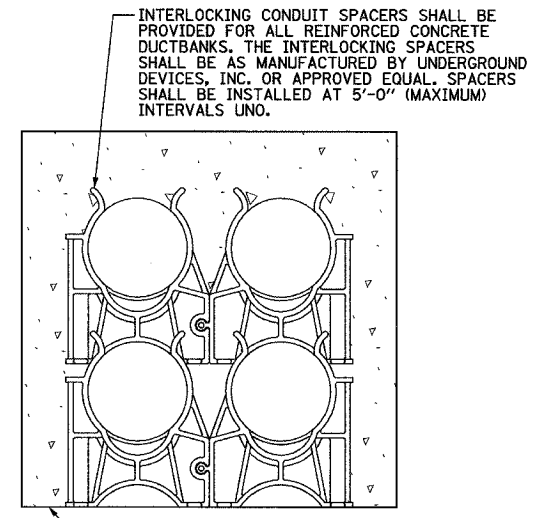
2x2 DUCTBANK DETAIL-
IN REINFORCED CONCRETE
NOT TO SCALE



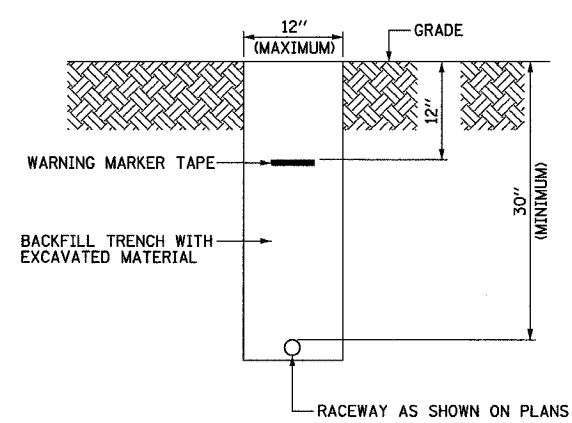
2x3 DUCTBANK DETAIL-
IN REINFORCED CONCRETE
NOT TO SCALE



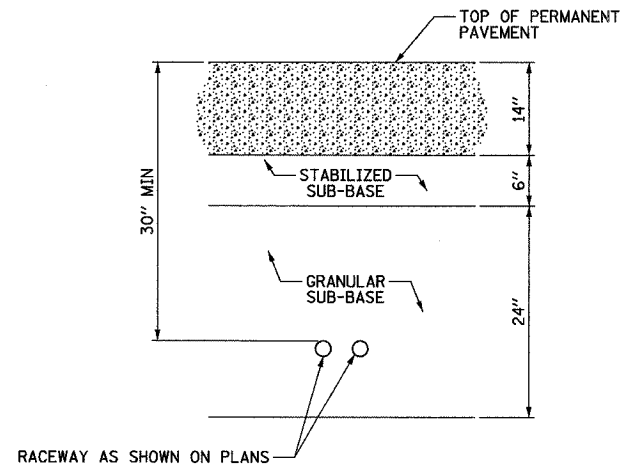
2x4 DUCTBANK DETAIL-
IN REINFORCED CONCRETE
NOT TO SCALE



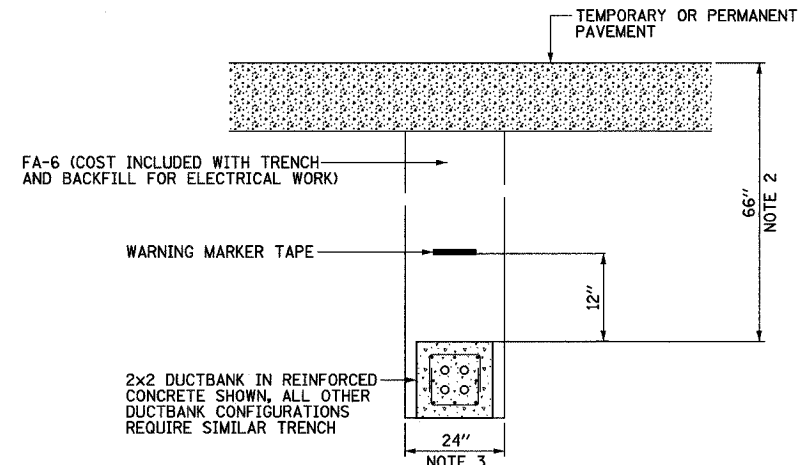
INTERLOCKING CONDUIT SPACER DETAIL
NOT TO SCALE



TYPICAL ELECTRICAL CONDUIT IN UNPAVED AREA
NOT TO SCALE



TYPICAL SURVEILLANCE CONDUIT UNDER PERMANENT SHOULDER
STA. 2216+00 TO 2216+20
NOT TO SCALE



TYPICAL ELECTRICAL DUCTBANK UNDER PAVEMENT
NOT TO SCALE

DUCTBANK REINFORCEMENT TABLE		
DUCTBANK CONCRETE CROSS-SECTIONAL AREA SQ. INCHES	LONGITUDINAL REBAR	REBAR STIRRUPS
	BARS	
LESS THAN 450	*4	*3 AT 12" SPACING
451 TO 650	*5	*3 AT 12" SPACING
GREATER THAN 651	*6	*3 AT 12" SPACING

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

ELECTRICAL DUCTBANK DETAILS

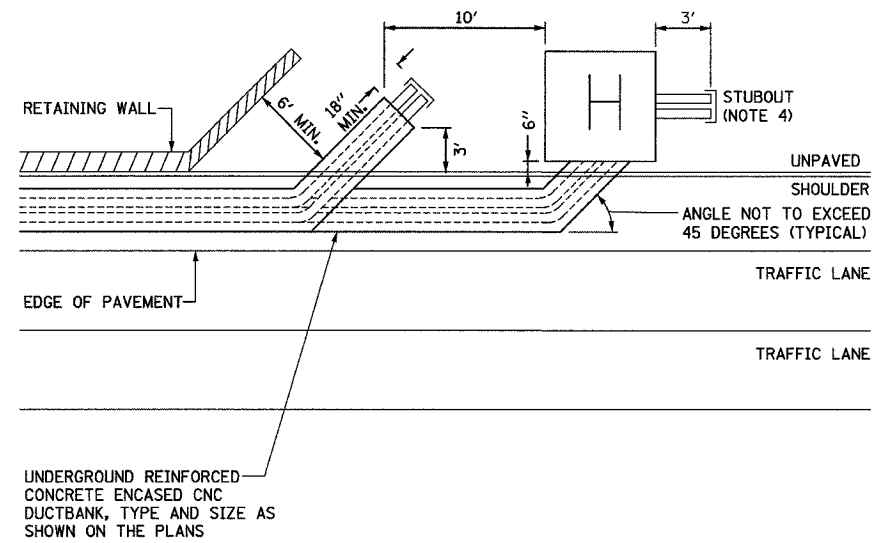
SCALE: NOT TO SCALE
DATE: MARCH 7, 2006
DRAWN BY:
CHECKED BY:

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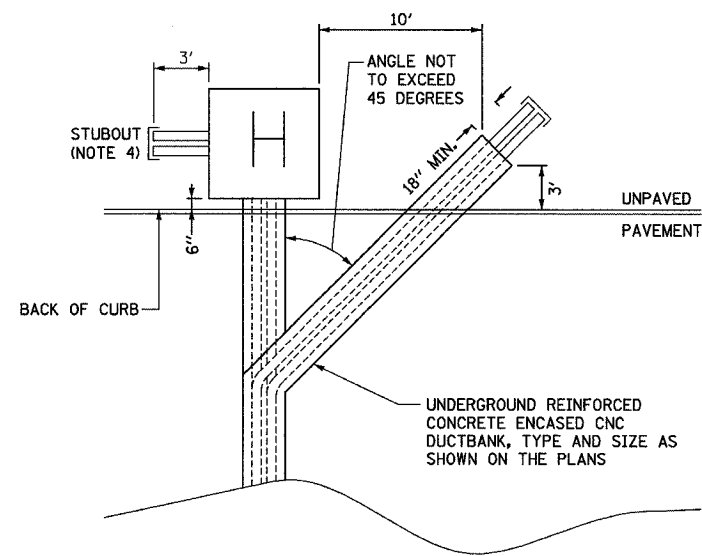
300 W. ADAMS ST.
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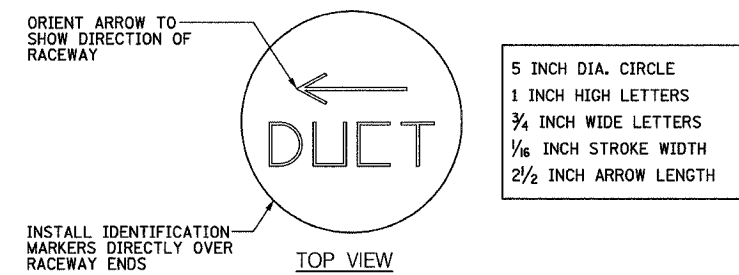
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	9/6	518
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
(1516.1, 1717, & 1818) R-4	62304			



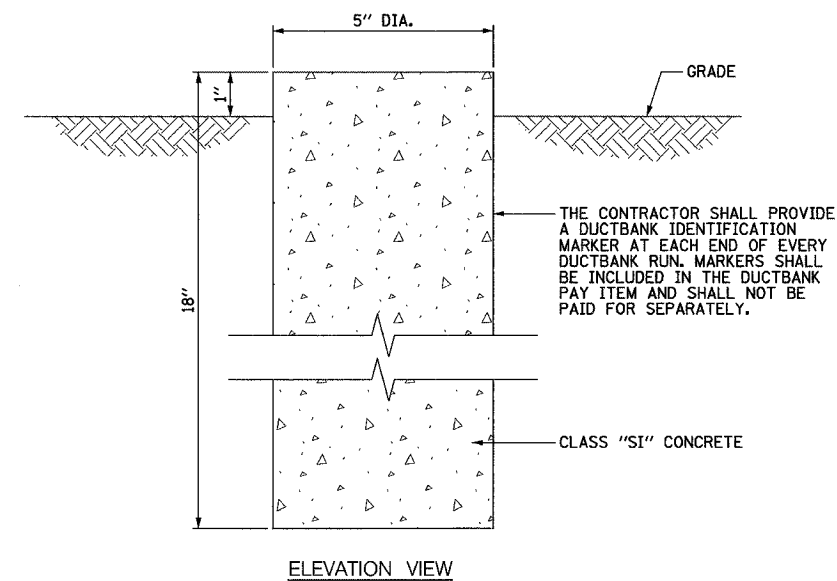
DUCTBANK INSTALLATION DETAIL ALONG RETAINING WALL
NOT TO SCALE



DUCTBANK INSTALLATION DETAIL UNDER PAVEMENT
NOT TO SCALE



DUCTBANK IDENTIFICATION MARKER DETAIL
SCALE: 3" = 1'-0"



NOTES:

- SEE DRAWINGS 20/EI-100 AND 20/EI-101 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
- DIMENSIONS SHOWN ON THIS DRAWING ARE TYPICAL FOR MOST INSTALLATIONS. DIMENSIONS AND/OR STATIONS SPECIFIED ON THE PLANS OR HANDHOLE DETAIL DRAWINGS SHALL SUPERCEDE THE DIMENSIONS SHOWN ON THIS DRAWING.
- SEE DRAWING 20/EI-102 FOR CONDUIT DUCTBANK DETAILS.
- STUBOUTS SHALL EXTEND 3' FROM HANDHOLE AND BE CAPPED. NUMBER AND SIZE SHALL BE AS SHOWN ON PLANS. STUBOUTS SHALL BE INCLUDED IN HANDHOLE PAY ITEM AND SHALL NOT BE PAID SEPARATELY.
- FOR DETAILS AT SPECIFIC LOCATIONS, SEE "TYPICAL SECTION DETAILS: EXISTING CROSS STREET OVERPASS FOOTINGS".

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NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

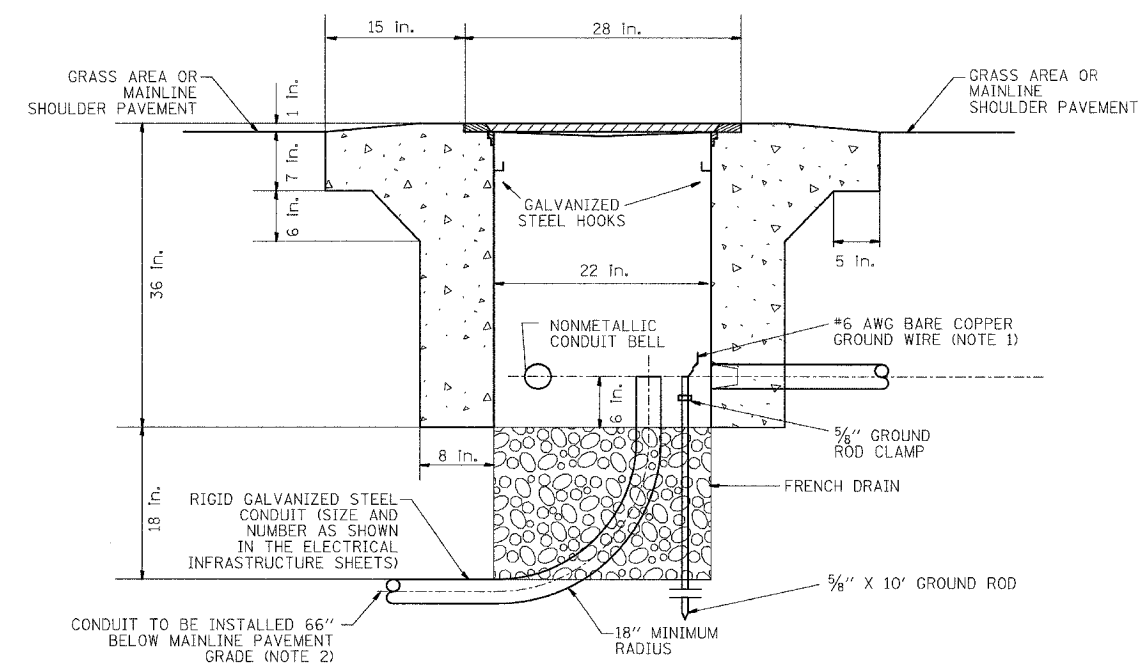
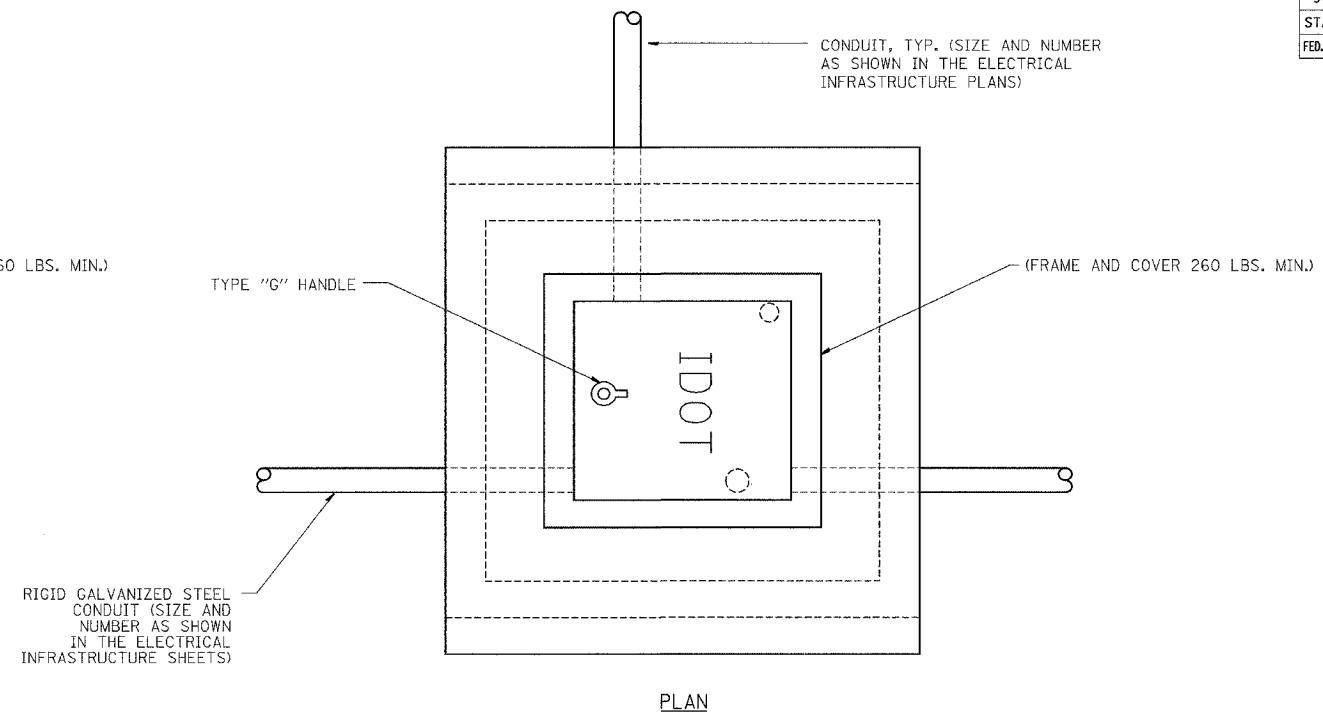
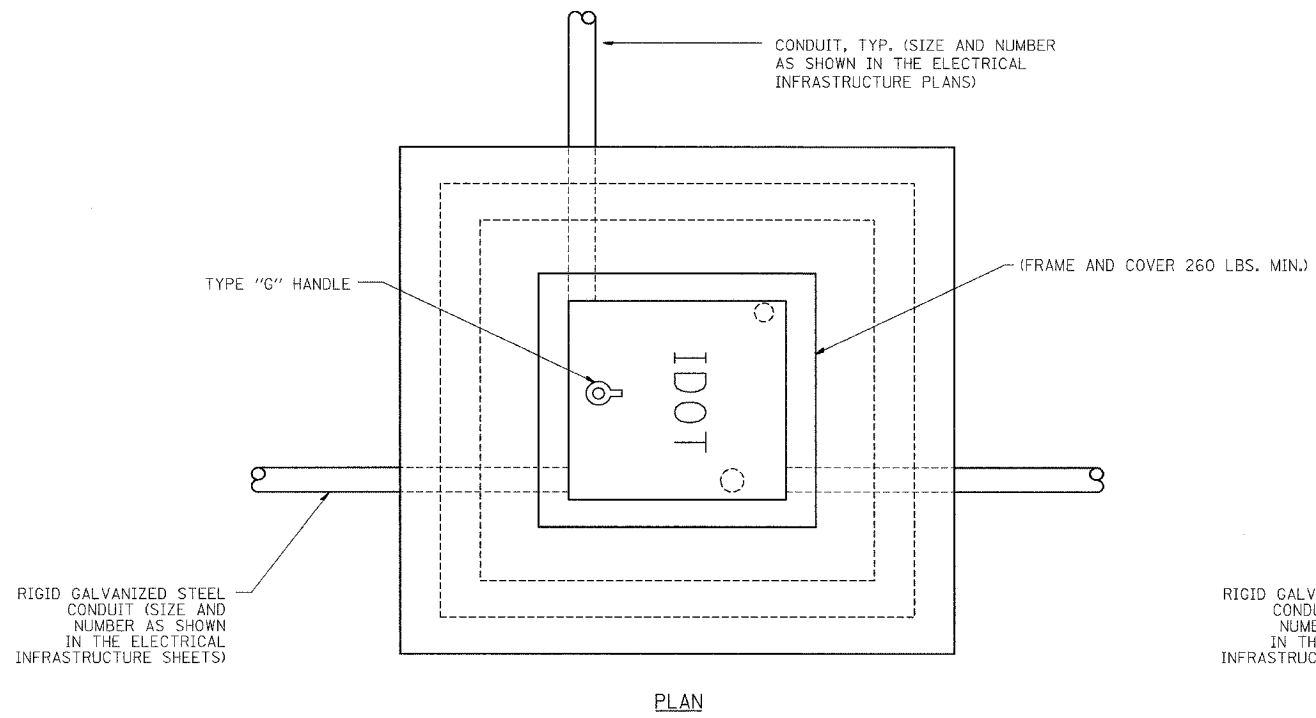
**ELECTRICAL DUCTBANK DETAILS
IN SHOULDER AND UNDER PAVEMENT**

SCALE: NOT TO SCALE
DATE: MARCH 7, 2006
DRAWN BY: BHP
CHECKED BY: BMW

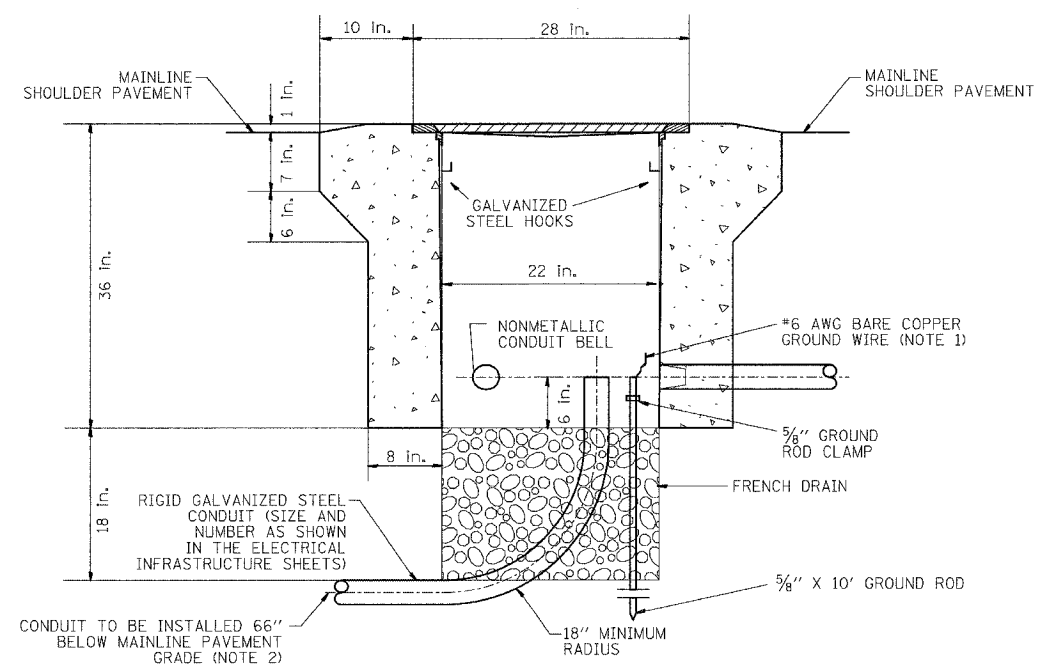
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	916	519
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
• (1516.1, 1717, & 1818) R-4		62304		

JAV'S contract 20 details 20/EI-106 rev 3/7/2006



ELEVATION
PC CONCRETE
HEAVY DUTY HANDHOLE, TYPE S1
 (FOR INSTALLATION IN
 MAINLINE SHOULDER WIDER THAN 6' OR
 BEHIND PAVED AREA)



ELEVATION
PC CONCRETE
HEAVY DUTY HANDHOLE, TYPE S1 (SPECIAL)
 (FOR INSTALLATION IN
 MAINLINE SHOULDER NARROWER
 THAN 6', 4' MINIMUM WIDTH)

NOTE:
 1. ALL METALLIC ELEMENTS SHALL BE GROUND IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC), SECTION 250, GROUNDING. METAL COVERS AND OTHER EXPOSED CONDUCTIVE SURFACES SHALL BE BONDED IN ACCORDANCE WITH NEC ARTICLE 250.96 (A).
 2. CONDUIT TO BE INSTALLED BELOW MAINLINE PAVEMENT WHERE SHOWN IN THE ELECTRICAL INFRASTRUCTURE PLANS (SEE SHEET EI-110).

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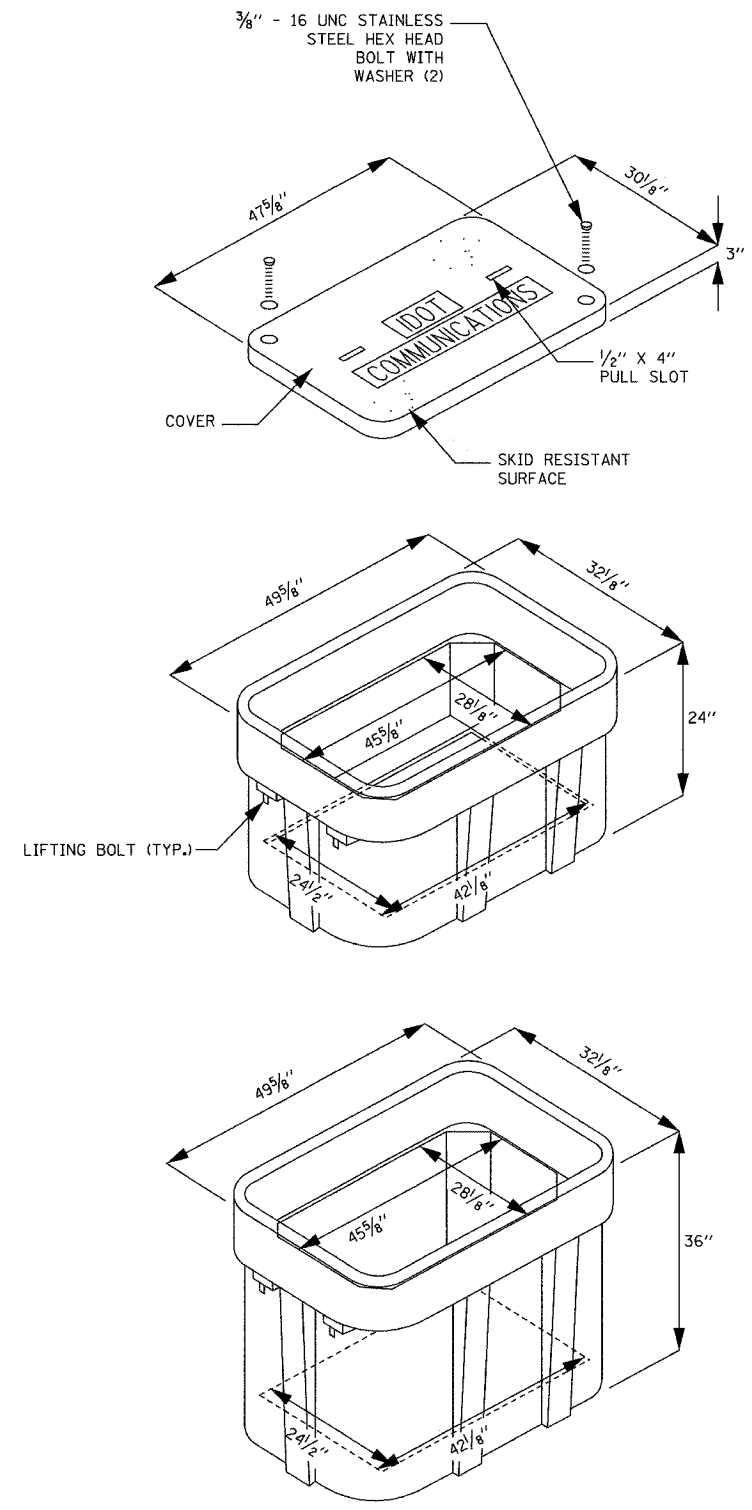
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 PC CONCRETE - HEAVY
 DUTY HANDHOLE DETAIL,
 TYPE S1 AND TYPE S1 (SPECIAL)
 SCALE: NTS
 DATE: MARCH 7, 2006
 DRAWN BY: CJH
 CHECKED BY: MJL

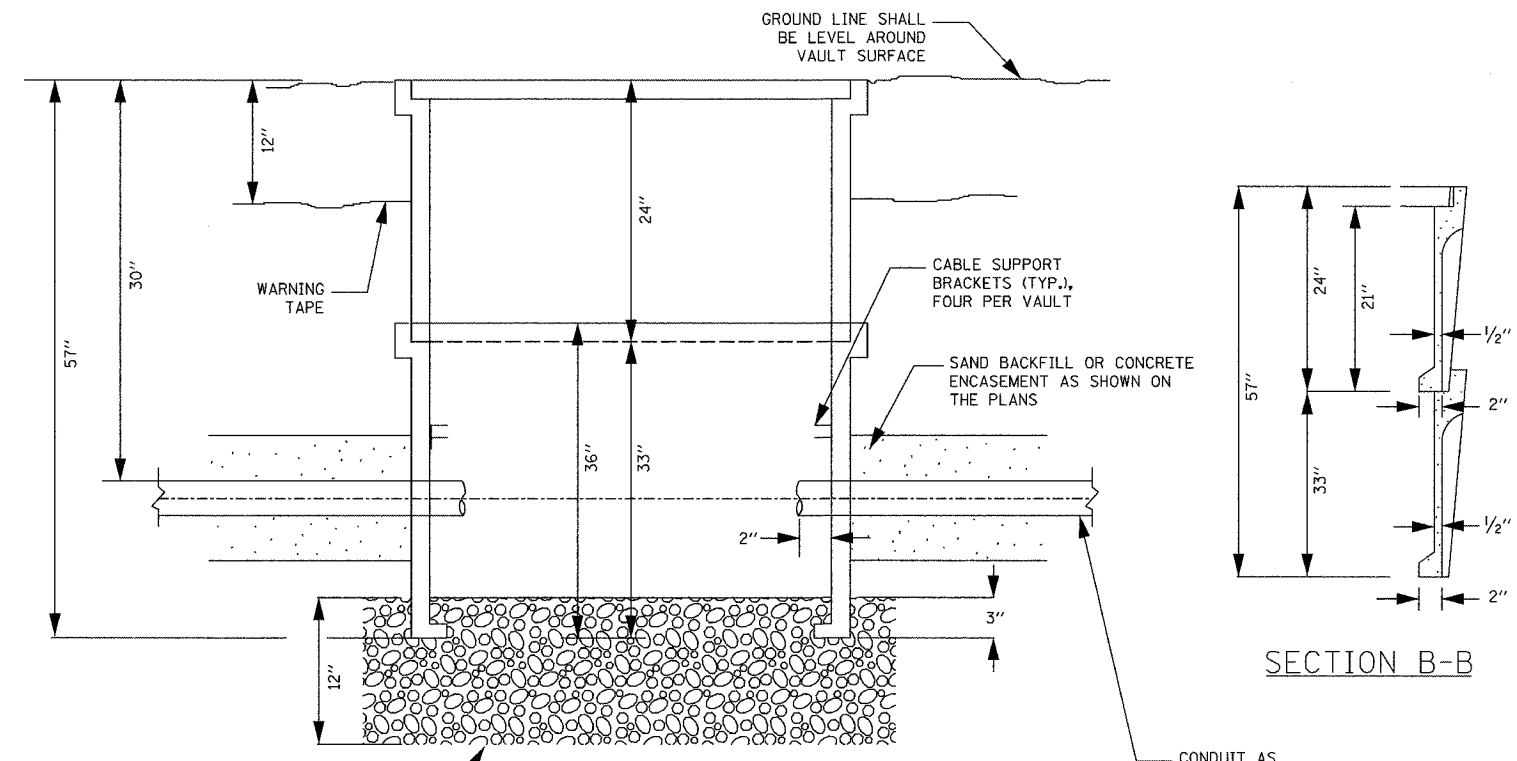
3-49/24 PM 3/7/2006

20/EI-106

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	916	520
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
* (1516.1, 1717, & 1818) R-4		62304		

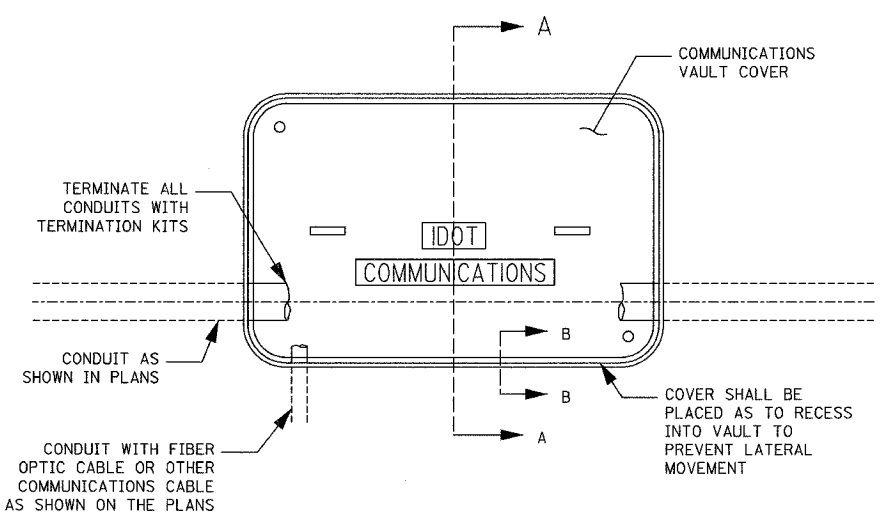


ISOMETRIC



SECTION A-A

SECTION B-B



PLAN

- NOTES:**
1. BOX SHALL HAVE AN OPEN BASE.
 2. COVER SHALL BE TYPE "HA" AND SHALL LOCK.
 3. ALL OPENINGS IN STRUCTURE MUST BE MACHINED AT TIME OF FABRICATION OR PUNCH DRIVEN AT TIME OF PLACEMENT.
 4. FIELD PLACEMENT OF COMMUNICATIONS VAULT SHALL BE AS DIRECTED BY THE ENGINEER.

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REVISIONS	
NAME	DATE

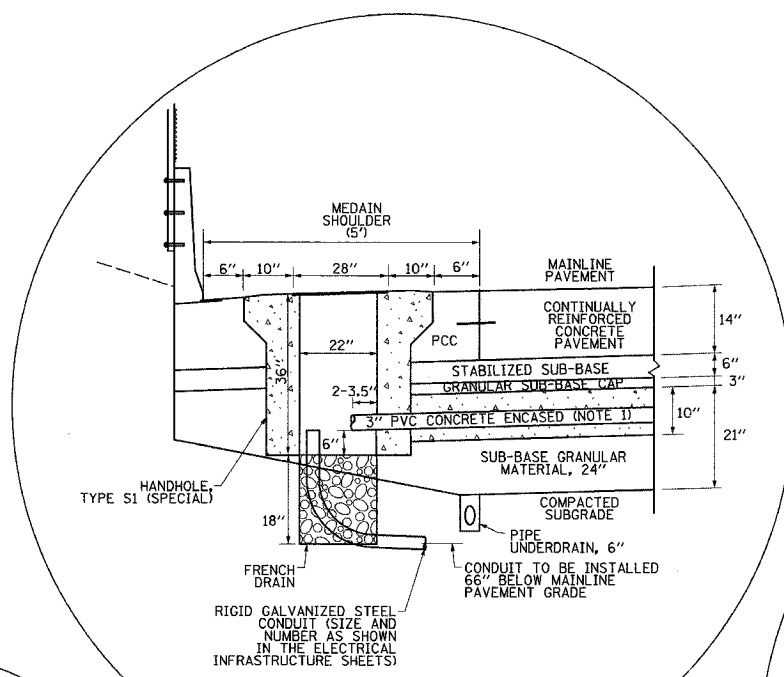
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

**COMMUNICATIONS VAULT DETAILS
(HANDHOLE TYPE C1)**

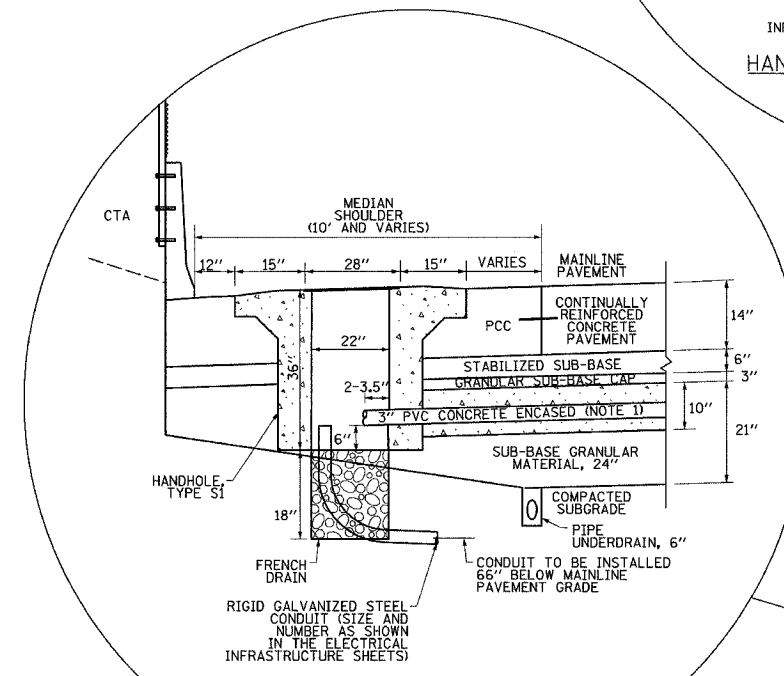
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DATE: MARCH 7, 2006 CHECKED BY: GFR

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3-17-2006 3:49:26 PM

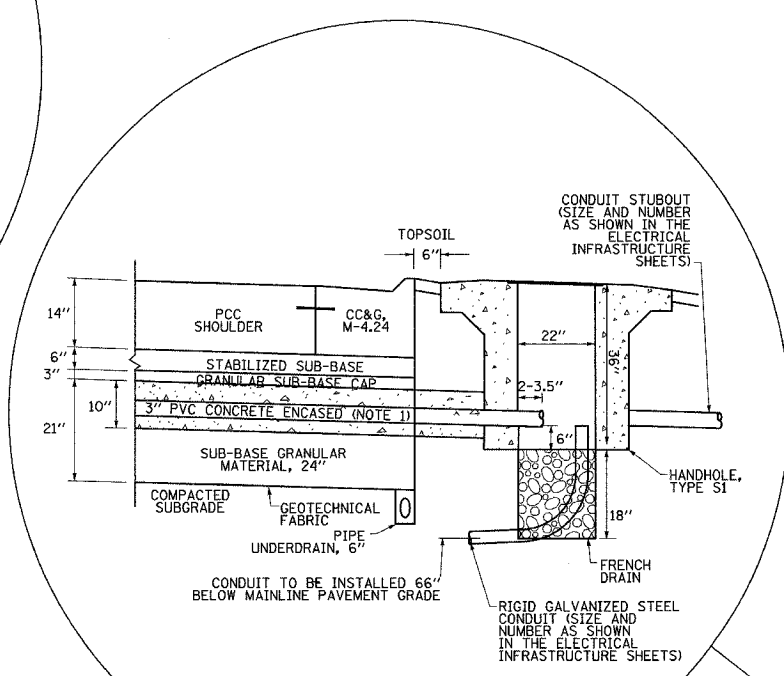
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	91b	521
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
* (1516.1, 1717, & 1818) R-4		62304		



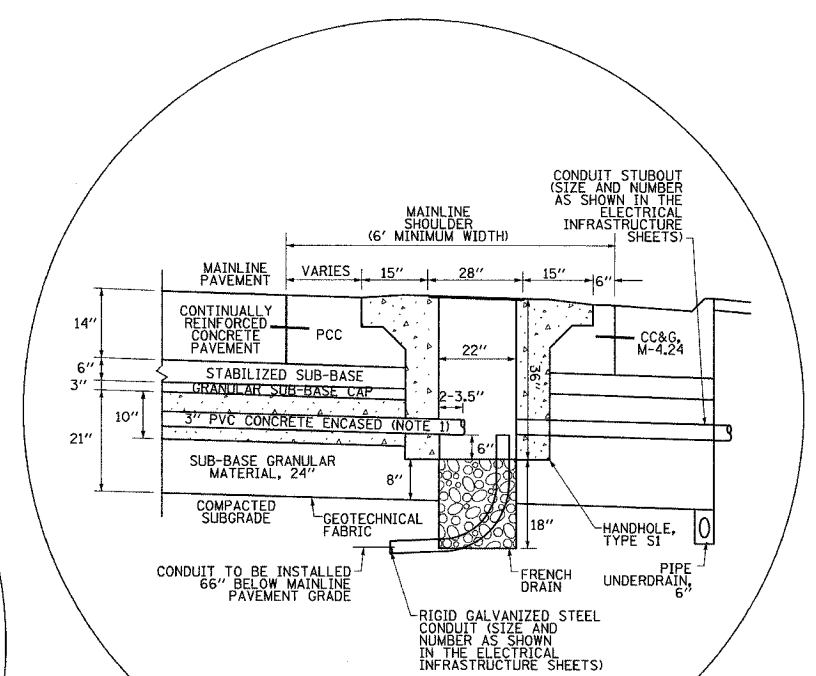
HANDHOLE (SPECIAL) INSTALLATION
IN MEDIAN SHOULDER
(STA 2216+00, 2216+20)



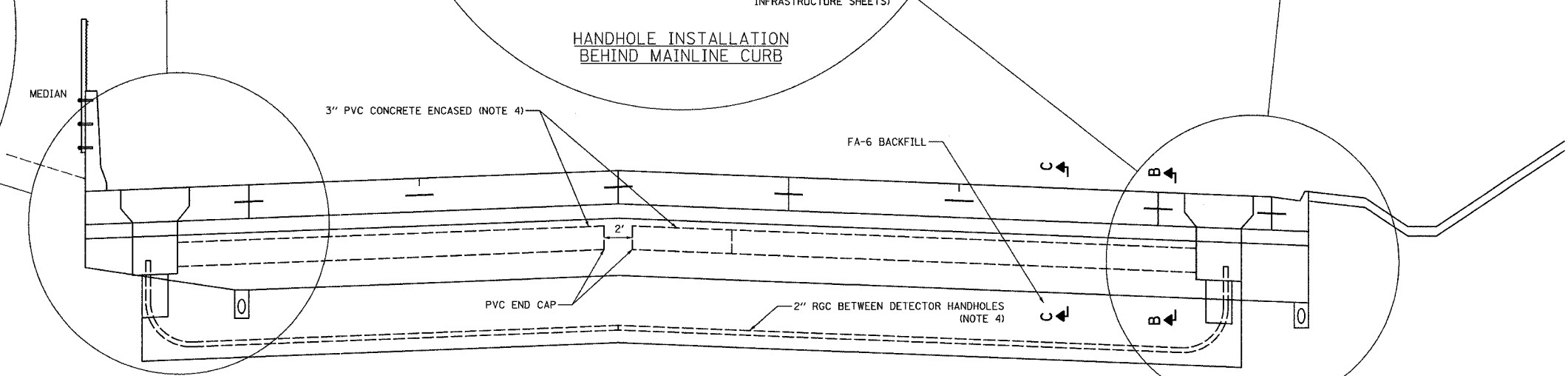
HANDHOLE INSTALLATION
IN MEDIAN SHOULDER



HANDHOLE INSTALLATION
BEHIND MAINLINE CURB



HANDHOLE INSTALLATION
IN MAINLINE SHOULDER



TYPICAL MAINLINE DETECTOR INSTALLATION: SECTION A-A

- NOTES
- 3" PVC CONCRETE ENCASED CONDUIT IS REQUIRED ONLY WHERE SHOWN ON THE PLAN DRAWINGS. WHEN INSTALLED, THE CONDUIT MUST MAINTAIN THE SAME ANGLE AS THE PAVEMENT THROUGHOUT ITS ENTIRE LENGTH.
 - FOR HANDHOLE DETAIL SEE SHEET EI-106.
 - WHEN INSTALLING CONDUIT NEAR OR THROUGH UNDERDRAIN GEOTECHNICAL FABRIC, THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY AND UNIFORMITY OF THE UNDERDRAIN FABRIC THROUGH OVERLAP TO THE SATISFACTION OF THE ENGINEER.
 - CONDUIT IS TO BE INSTALLED IN STAGES AS THE PAVEMENT IS BUILT. SEE SHEETS EI-110A AND EI-115.

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ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

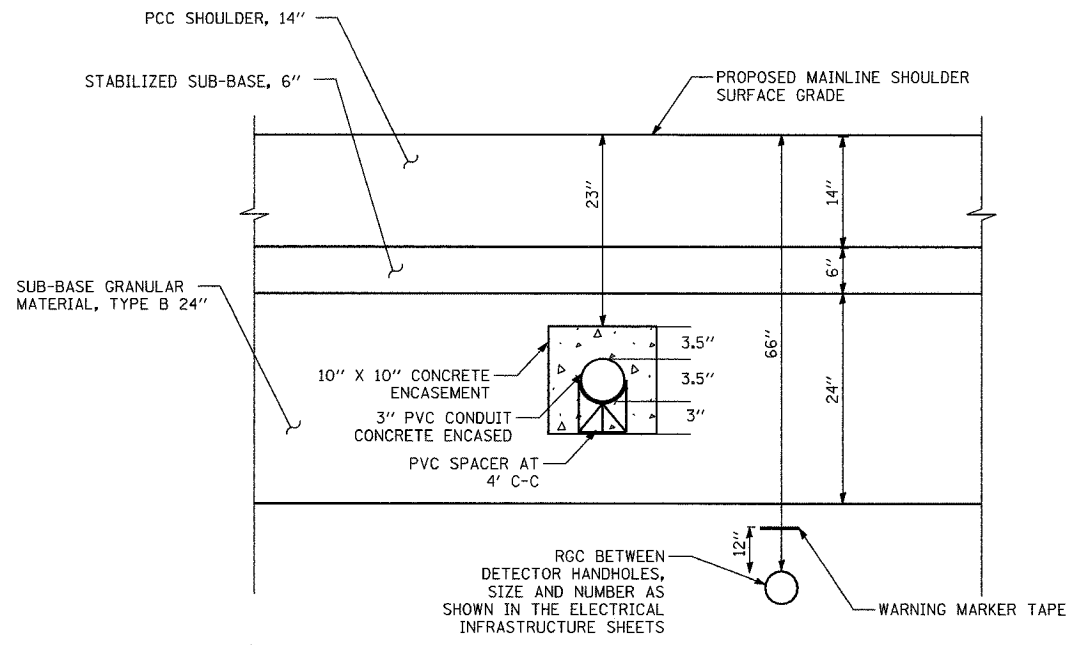
TYPICAL MAINLINE DETECTOR
INSTALLATION DETAIL (SHEET 1 OF 2)

SCALE: NTS
DATE: MARCH 7, 2006

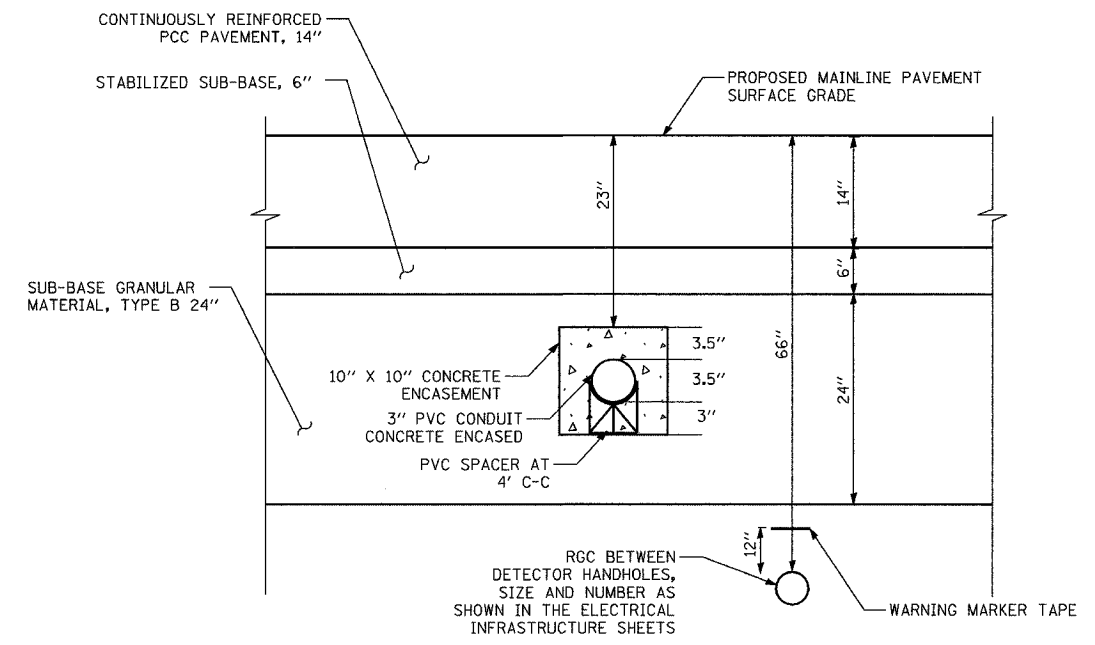
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CHECKED BY: MJL

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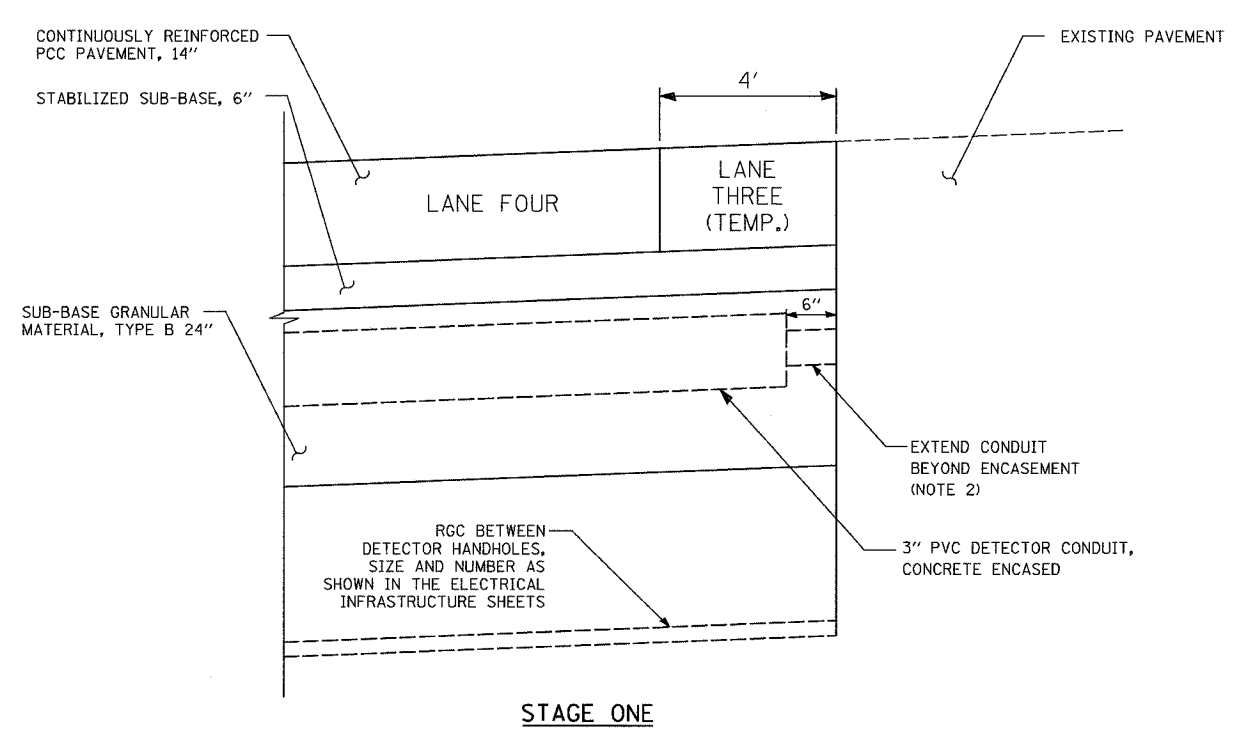
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	9/16	522
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (1516.1, 1717, & 1818) R-4		62304		



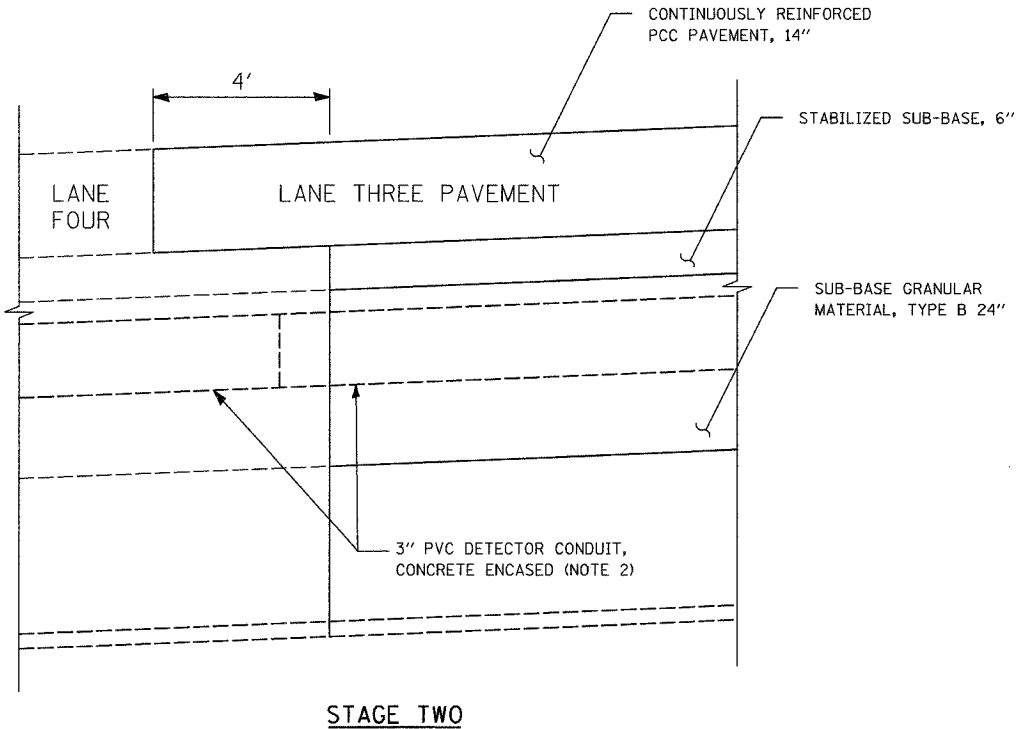
**TYPICAL DETECTOR CONDUIT INSTALLATION
IN MAINLINE SHOULDER: SECTION B-B**



**TYPICAL DETECTOR CONDUIT INSTALLATION
IN MAINLINE PAVEMENT: SECTION C-C**



STAGE ONE



STAGE TWO

**TWO-STAGE DETECTOR CONDUIT INSTALLATION DETAIL
(FOR APPLICABLE LOCATIONS, SEE SHEET EI-115)**

- NOTES:**
- CONTRACTOR MUST VERIFY THE DETECTOR CONDUIT STRAIGHTNESS ACCORDING TO THE CONTRACT SPECIFICATIONS BEFORE THE CONCRETE ENCASEMENT IS INSTALLED.
 - DURING STAGE ONE, CONDUIT TO BE CAPPED AND MARKED FOR FUTURE CONNECTION. IN STAGE TWO, CONNECT 3" PVC DETECTOR CONDUITS WITH CONDUIT SLEEVE. ALIGNMENT OF THE CONDUIT INSTALLED IN THE TWO STAGES SHALL NOT DEVIATE MORE THAN 1/4" PER FOOT OVER THE COURSE OF THE CONDUIT INSTALLED IN LANES 3, 4, AND 5.

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

**TYPICAL MAINLINE DETECTOR
INSTALLATION DETAIL (SHEET 2 OF 2)**

SCALE: NONE DRAWN BY: NB
DATE: MARCH 7, 2006 CHECKED BY: MJL

20/EI-110A

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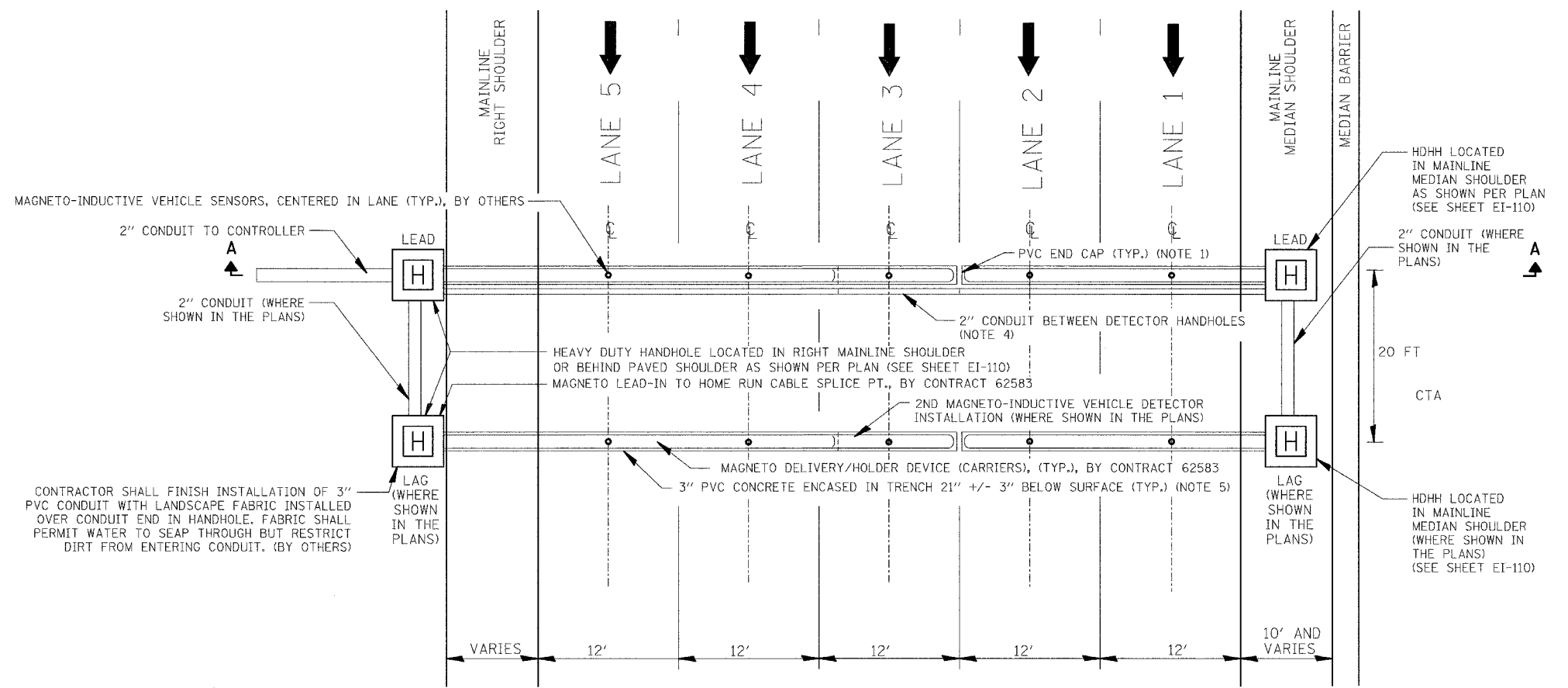
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94		COOK	916	523
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		62304	
		* (1516.1, 1717, & 1818) R-4		

NOTES:

- CONDUIT END CAP TO BE PRESS FITTED (NO ADHESIVE).
- CONDUIT TO EXTEND 2-3 IN. INTO HANDHOLE.
- FOR 3" PVC CONCRETE ENCASED IN TRENCH DETAIL, SEE SHEET EI-110. FOR HANDHOLE DETAIL, SEE SHEET EI-106.
- THE 2" GALVANIZED STEEL CONDUIT BETWEEN MAINLINE DETECTOR HANDHOLES IS TO BE INSTALLED IN STAGES AS THE PAVEMENT IS BUILT. DURING THE FIRST STAGE, THE CONDUIT IS TO BE CAPPED AND MARKED AT THE CONSTRUCTION LIMIT FOR FUTURE CONNECTION. DURING SUBSEQUENT STAGES, THE REMAINING PORTIONS OF CONDUIT ARE TO BE INSTALLED AND CONNECTED TO CONDUIT INSTALLED IN PREVIOUS STAGES (AND CAPPED FOR FUTURE CONNECTION WHERE APPLICABLE). WHEN THE ENTIRE RUN OF CONDUIT BETWEEN HANDHOLES IS INSTALLED AND CONNECTED, THE CONTRACTOR SHALL CLEAN THE ENTIRE LENGTH OF CONDUIT TO REMOVE ANY DEBRIS.
- THE TWO SECTIONS OF 3" PVC CONCRETE ENCASED DETECTOR CONDUIT ARE TO BE INSTALLED IN STAGES AS THE PAVEMENT IS BUILT. IN SOME LOCATIONS, THE PAVEMENT WILL BE BUILT IN THREE STAGES. WHERE THIS OCCURS (SEE LIST BELOW), THE CONDUIT INSTALLED IN THE MIDDLE STAGE SHALL BE INSTALLED AS AN EXTENSION OF THE CONDUIT INSTALLED IN THE FIRST STAGE (SEE SHEET EI-110A). THE ALIGNMENT OF CONDUIT INSTALLED IN THIS TWO-STAGE MANNER SHALL NOT DEVIATE IN ANY DIRECTION MORE THAN 1/4 IN. PER FT ACROSS THE ENTIRE RUN.

DETECTOR STATIONS BUILT IN THREE STAGES

- STA 2216+00: STAGE 1 = LANES 4, 5, STAGE 1A = LANE 3, STAGE 3 = LANES 1,2
- STA 2216+20: STAGE 1 = LANES 4, 5, STAGE 1A = LANE 3, STAGE 3 = LANES 1,2
- STA 2246+93: STAGE 1 = LANES 4, 5, STAGE 2 = LANE 3, STAGE 3 = LANES 1,2
- STA 2264+69: STAGE 1 = LANES 4, 5, STAGE 2 = LANE 3, STAGE 3 = LANES 1,2
- STA 2299+45: STAGE 1 = LANES 4, 5, STAGE 2 = LANE 3, STAGE 3 = LANES 1,2



DAN RYAN TYPICAL MULTI-LANE CROSS SECTION WITH NON-INVASIVE MAGNETO-INDUCTIVE VEHICLE SENSOR (PROBE) INSTALLED IN ALL LANES

SINGH
 300 W. ADAMS ST.
 CHICAGO, IL 60606
 TEL: (312) 629-0240
 SINGH & ASSOCIATES, INC. FAX: (312) 629-8449
 CONSULTING ENGINEERS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)

TYPICAL MAINLINE DETECTOR STATION LAYOUT

SCALE: NTS
 DATE: MARCH 7, 2006

DRAWN BY: NB
 CHECKED BY: M.J.L.

20/EI-115

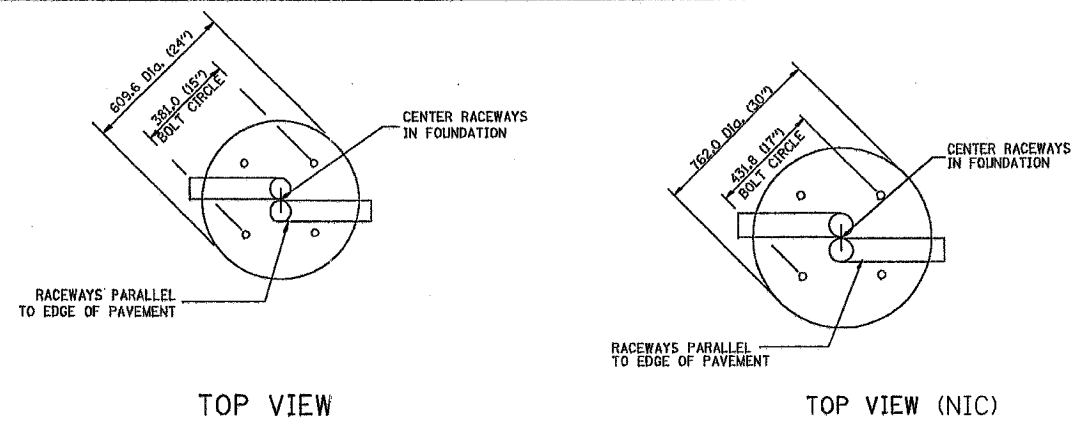
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F. A. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			916	524
STA. _____ TO STA. _____		FED. PROJ. NO. _____		
FED. ROAD DIST. NO. 1 _____		FED. PROJ. NO. _____		

62304

LIGHT POLE FOUNDATION DEPTH TABLE
12.192M (40 FT.) TO 14.478M (47.5 FT.) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Du = 0.375 TON/SQ. FT.	3.96M (13'-0")	4.57M (15'-0")
MEDIUM CLAY Du = 0.75 TON/SQ. FT.	2.09M (9'-6")	3.23M (10'-9")
STIFF CLAY Du = 1.50 TON/SQ. FT.	2.13M (7'-0")	2.44M (8'-0")
LOOSE SAND β = 34°	2.74M (9'-0")	3.05M (10'-0")
MEDIUM SAND β = 37.5°	2.52M (8'-3")	2.74M (9'-0")
DENSE SAND β = 40°	2.36M (7'-9")	2.74M (9'-0")

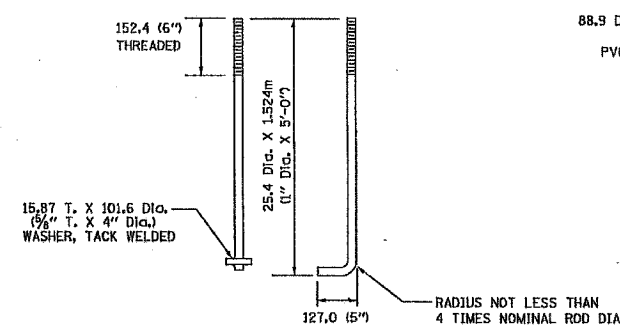


TOP VIEW

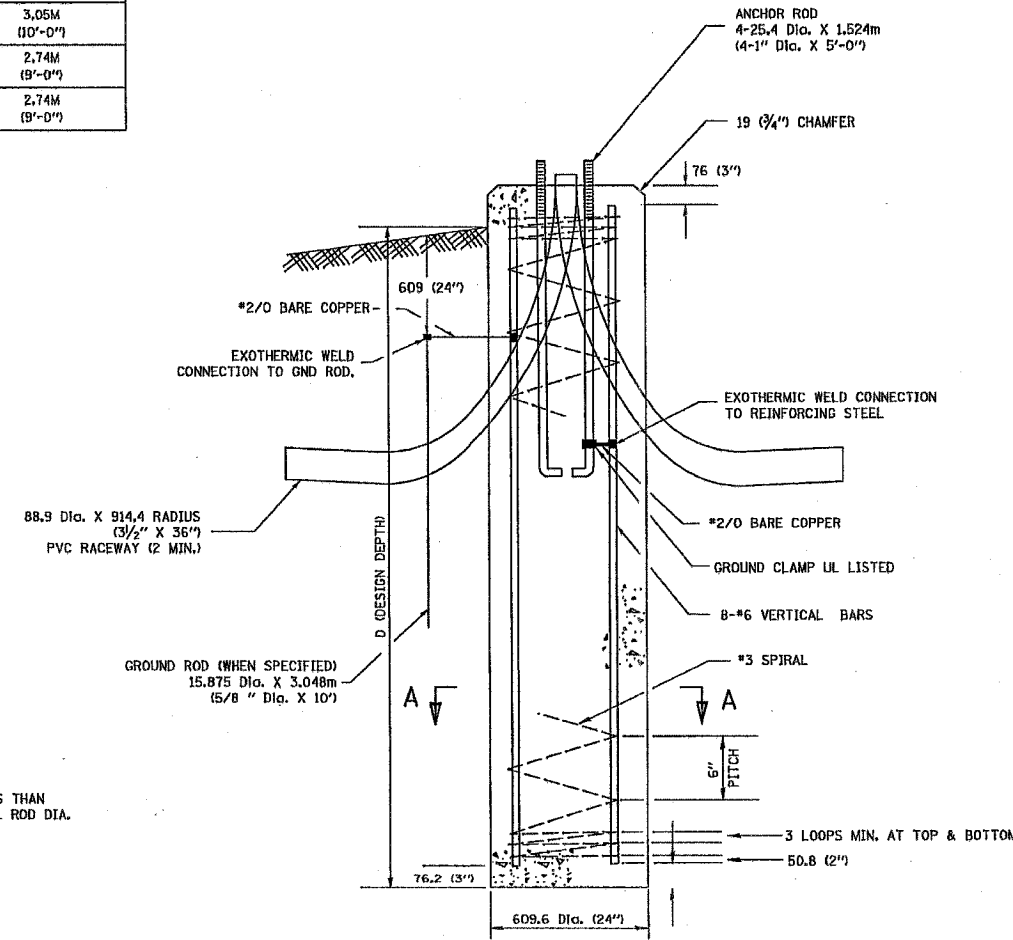
TOP VIEW (NIC)

NOTES

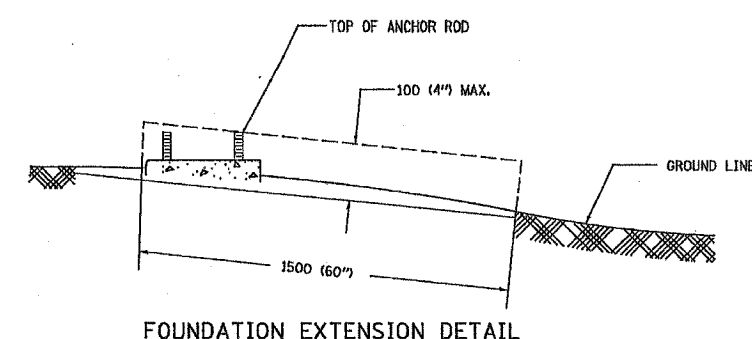
- ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 1.5M (60 IN.) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 20MM (3/4-IN.).
- THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UMG (MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 150 MM (6 INCHES) WITH A MINIMUM OF 75 MM (3 INCHES) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 69.9MM (2 3/4") ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 152.4MM (6") PITCH OR MAY SUBSTITUTE #3 TIES AT 304.8MM (12") O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 25.4MM (1") ABOVE THE TOP OF THE FOUNDATION.



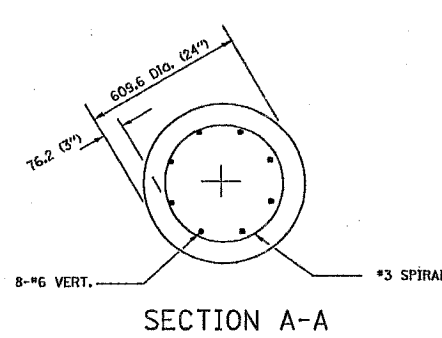
ANCHOR ROD DETAIL



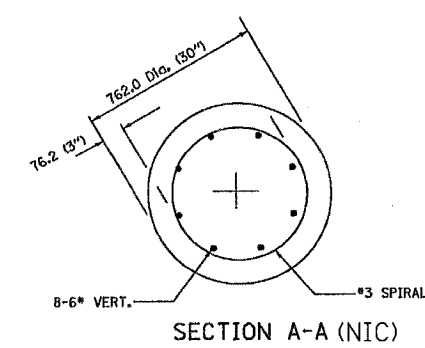
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A (NIC)

REVISIONS	
NAME	DATE

E-301
ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHT POLE FOUNDATION
12.192M (40') TO 14.478M (47 1/2') M.H.
381 (15") BOLT CIRCLE

SCALE: NONE
DATE 10/18/2002
DRAWN BY JKM
CHECKED BY BE301
REVISION DATE: 04/22/02

MAINLINE EXISTING SIGN SCHEDULE

SIGN NO.	LOCATION	SIGN INFORMATION			REMAIN IN PLACE	REMOVE AND REINSTALL	REMOVE	RELOCATE SIGN PANEL	WOOD POST (FT)	SIGN DESCRIPTION
		STATION	OFFSET	MOUNTING						
1	NB I-57	199+99	13.9' RT	LIGHT POLE			1		W4-1R	
2	NB I-57	206+58	25.5' RT	LIGHT POLE			1		M3-1 (INTERSTATE) (NORTH), MI-1 (57)	
3	NB I-57	208+45	30.0' RT	WOOD POSTS	1				PARNELL AVE 532 W	
4	NB I-57 (BISHOP FORD)	214+56	29.3' RT	WOOD	1				R2-1 (55 MPH)	
5	NB I-57	215+44	OVERHEAD	TRUSS	1				94 WEST RYAN EXPWY CHICAGO LOOP LEFT 3 LANES, 94 EAST BISHOP FORD FWY INDIANA RIGHT 2 LANES, R2-1 (55MPH)	
6	NB I-57	227+29	OVERHEAD	TRUSS	1				94 WEST RYAN EXPWY CHICAGO LOOP (3 ARROWS), 94 EAST BISHOP FORD FWY INDIANA (2 ARROWS)	
7	NB I-57	231+60	36.5' RT	WOOD POSTS		1			WENTWORTH AVE 200W	
8	NB I-57	232+67	9.1' RT	WOOD POST			1		W12-1	
9	NB I-57	246+36	10.8' RT	LIGHT POLE			1		W4-3L	
10	NB I-57	249+05	9.9' RT	LIGHT POLE			1		I-57 ENDS	
11	NB I-57	249+31	43.4' LT	WOOD POST			1		I-57 ENDS	
12	WB I-94 TO I-57 CONNECTOR	338+38	21.8' RT	LIGHT POLE				17	ACCIDENT INVESTIGATION SITE 1/2 MILE LEFT	
13	WB I-94 TO I-57 CONNECTOR	333+55	OVERHEAD	TRUSS			*		EXIT 355 11TH ST 2 1/4 MILES, EXIT 357 ILLINOIS 1 HALSTED ST 1/2 MILE	
14	WB I-94 TO I-57 CONNECTOR	333+55	OVERHEAD	TRUSS				1	ACCIDENT INVESTIGATION SITE 3/4 MILE	
15	SB I-94	1152+15	16.0' LT	WOOD POST			1		W12-1	
16	SB I-94	1144+08	36.0' LT	BRIDGE ABUTMT.	1				MICHIGAN AVE	
17	NB I-94	2005+65	35.5' LT	LIGHT POLE			1		M3-3 (INTERSTATE) (SOUTH), MI-1 (94), M5-2 (INTERSTATE)	
18	NB I-94	2007+95	OVERHEAD	TRUSS			*		EXIT 63 INTER. 57 SOUTH MEMPHIS EXIT (ARROW) ONLY, INTER. 94 WEST RYAN EXPWY CHICAGO LOOP & 2 ARROWS	
19	NB I-94	2010+33	17.2' LT	WOOD POST			1		EXIT 63 & ARROW	
20	NB I-94	2019+54	42.0' RT	WOOD POSTS	1				MICHIGAN AVE 100 E	
21	NB I-94	2029+13	38.4' RT	METAL POST		1			STATE ST	
22	NB I-94	2031+34	30.0' RT	WOOD POST			1		W4-1R	
23	NB I-94	2042+14	21.8' LT	LIGHT POLE			1		W4-3L	
24	NB I-94 (DAN RYAN)	2203+00	92.0' RT	WOOD	1				AIS 3/4 MILE	
25	NB I-94 (DAN RYAN)	2204+66	OVERHEAD	TRUSS	1				INT. 94 WEST RYAN EXPY CHICAGO LOOP, EXIT 61B 87TH ST 3/4 MILE, R2-1 (55MPH)	
26	NB I-94	2205+43	73.0' RT	WOOD POSTS	1				95TH ST	
27	NB I-94 (DAN RYAN)	2211+20	77.0' RT	WOOD	1				R2-1 (55 MPH)	
28	NB I-94 (DAN RYAN)	2216+06	65.0' RT	WOOD POST			1		W4-1R	
29	NB I-94 (DAN RYAN)	2228+81	OVERHEAD	CANTILEVER	1				EXIT 61B 87TH ST 1/4 MILE	
30	NB I-94 (DAN RYAN)	2232+38	70.8' RT	WOOD POSTS	1				91ST ST	
31	NB I-94 (DAN RYAN)	2232+10	93.0' RT	WOOD	1				AIS 1/4 MILE	
32	NB I-94 (DAN RYAN)	2236+18	74.4' RT	WOOD POST			1		CHICAGO STATE UNIVERSITY EXIT 61B	
33	NB I-94 (DAN RYAN)	2240+53	93.0' RT	WOOD	1				87TH ST AIS & ARROW	
34	NB I-94 (DAN RYAN)	2241+92	97.0' RT	WOOD	1				W13-3 (RAMP 30 MPH)	
35	NB 87TH ST. RAMP	8723+42	20.6' RT	WOOD	1				R5-1	
36	NB 87TH ST. RAMP	8724+88	33.9' RT	WOOD	1				87TH ST AIS INFO	
37	NB 87TH ST. RAMP	8726+92	21.5' RT	WOOD	1				R1-1	
38	NB I-94 (DAN RYAN)	2242+70	OVERHEAD	TRUSS	1				EXIT 60B 76TH ST 1 MILE, EXIT 61B 87TH ST & ARROW, R2-1 (55MPH)	
39	NB I-94 (DAN RYAN)	2245+90	71.3' RT	WOOD POST			1		EXIT 61B	
40	NB I-94 (DAN RYAN)	2257+00	78.0' RT	WOOD	1				R2-1 (55 MPH)	
41	NB I-94 (DAN RYAN)	2258+72	OVERHEAD	BRIDGE			1		TRUCKS USE 2 RIGHT LANES	
42	NB I-94 (DAN RYAN)	2264+34	OVERHEAD	TRUSS	1				EXIT 59B TO INT. 90 EAST SKYWAY CHICAGO SKYWAY VIA STATE ST 2 MILES, EXIT 60B 76TH ST 1 MILE, EXIT 61B 87TH ST & ARROW, EXIT 60C 79TH ST 1/2 MILE	
43	NB I-94 (DAN RYAN)	2268+17	64.2' RT	WOOD POST			1		W4-1R	
44	NB I-94 (DAN RYAN)	2277+39	77.7' RT	METAL POST			1		NO PARKING TOW ZONE	
45	NB I-94 (DAN RYAN)	2282+42	OVERHEAD	TRUSS	1				DMS SIGN STRUCTURE	
46	NB I-94 (DAN RYAN)	2285+68	69.2' RT	BRIDGE ABUTMT.	1				83RD ST	
47	NB I-94 (DAN RYAN)	2290+90	OVERHEAD	TRUSS	1				EXIT 59C 71ST ST 1 MILE, EX IT 60B 76TH ST 1/2 MILE, EXIT 60C 79TH ST & ARROW, R2-1(55 MPH)	
48	NB I-94 (DAN RYAN)	2293+74	97.9' R	WOOD POST	1				W4-3R	

* SEE REMOVAL SIGNING SCHEDULE

TYLIN INTERNATIONAL

NOTES

THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF CHICAGO AND THE ENGINEER REGARDING THE RELOCATION OF EXISTING SIGNS.

ALL WORK ON THIS SCHEDULE IS GOVERNED BY ARTICLE 107.25 EXCEPT WOOD POST AND RELOCATE SIGN PANEL.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

MAINLINE EXISTING SIGN SCHEDULE
1 OF 2

SCALE: NONE
DATE: MARCH 7, 2006

DRAWN BY: AMB
CHECKED BY: TGB

MAINLINE EXISTING SIGN SCHEDULE

SIGN NO.	LOCATION	SIGN INFORMATION			REMAIN IN PLACE	REMOVE AND REINSTALL	REMOVE	RELOCATE SIGN PANEL	WOOD POST (FT)	SIGN DESCRIPTION
		STATION	OFFSET	MOUNTING						
49	NB I-94 (DAN RYAN)	2295+09	76.9' R	STEEL POST	1					EXIT 60C
50	NB I-94 (DAN RYAN)	2299+80	73.2' R	STEEL POST	1					W4-1R
51	NB I-94 (DAN RYAN)	2302+08	94.7' R	WOOD POSTS	1					EXIT 60C
52	NB I-94 (DAN RYAN)	2308+57	98.7' RT	WOOD	1					AIS 3/4 MILE
53	NB I-94 (DAN RYAN)	2312+30	73.2' RT	WOOD	1					R2-1 (55 MPH)
54	NB I-94 (DAN RYAN)	2312+37	OVERHEAD	BRIDGE-MOUNT	1					EXIT 59B MARQUETTE RD 67TH ST 1 MILE, EXIT 59C 71ST ST 1/2 MILE, EXIT 60B 76TH ST & ARROW

TYLIN INTERNATIONAL

NOTES
 THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF CHICAGO AND THE ENGINEER REGARDING THE RELOCATION OF EXISTING SIGNS.
 ALL WORK ON THIS SCHEDULE IS GOVERNED BY ARTICLE 107.25 EXCEPT WOOD POST AND RELOCATE SIGN PANEL.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
MAINLINE EXISTING SIGN SCHEDULE
 2 OF 2
 SCALE: NONE
 DATE: MARCH 7, 2006
 DRAWN BY: AMB
 CHECKED BY: TGB

REMOVAL SIGNING SCHEDULE

SIGN NO.	LOCATION	SIGN INFORMATION			REMOVAL		SIGN DESCRIPTION
		STATION	OFFSET	MOUNTING	REMOVE OVERHEAD SIGN STRUCTURE - SPAN	REMOVE CONCRETE FOUNDATION -OVERHEAD	
1	WB I-94 TO I-57 CONNECTOR	333+55	OVERHEAD	SPAN	1	2	EXIT 355 111TH ST 2 1/4 MILES, EXIT 357 ILLINOIS 1 HALSTED ST 1/2 MILE
2	NB I-94 (BISHOP FORD)	2007+95	OVERHEAD	SPAN	1	2	EXIT 63 INTERSTATE 57 SOUTH MEMPHIS EXIT (ARROW) ONLY, INTERSTATE 94 WEST RYAN EXPWY CHICAGO LOOP & 2 ARROWS EXIT 59B MARQUETTE RD 67th ST 1/4 MILE
3	NB I-94 (DAN RYAN EXPY)	2204+37	OVERHEAD	SPAN	1	2	I-94 WEST RYAN EXPY CHICAGO LOOP EXIT 61B 87th ST 3/4 MILE
4	NB I-94 (DAN RYAN EXPY)	2231+26	10.4' LT			1	-
5	NB I-94 (DAN RYAN EXPY)	2284+32	11.4' LT			1	-
6	NB I-94 (DAN RYAN EXPY)	2312+07	12.2' LT			1	-
				TOTAL	3	9	

NOTES

OVERHEAD SIGN STRUCTURES (SPAN) AND SIGN PANELS THAT ARE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF OFFSITE.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

REMOVAL SIGNING SCHEDULE
1 OF 1

SCALE: NONE
DATE: MARCH 7, 2006
DRAWN BY: AMB
CHECKED BY: TGB



PROPOSED OVERHEAD SIGN STRUCTURE -TRUSS SIGN SCHEDULE

LOCATION	STATION	SIGN				STRUCTURE TYPE	STRUCTURE LENGTH (FT)	DRILLED SHAFT CONC. FNDS (CY)	SIGN REMARKS	
		TYPE	WIDTH, FT	HEIGHT, FT	AREA, SQ FT					
WB I-94 TO I-57 CONNECTOR	334+00	3	11.5	8.5	97.75	I-A	85	13.86	EXIT 355 111TH ST 2 1/2 MILES	
WB I-94 TO I-57 CONNECTOR	334+00	3	13.5	12.5	168.75				EXIT 357 ILLINOIS 1 HALSTED ST 1/2 MILE	
WB I-94 TO I-57 CONNECTOR	334+00	SIGN PANEL RELOCATED TO EXISTING TRUSS SUPPORT								ACCIDENT INVESTIGATION SITE 3/4 MILE
NB I-94 (BISHOP FORD)	2006+00	3	12	12.5	150	I-A	96	17.33	EXIT 63 I-57 SOUTH MEMPHIS EXIT (ARROW) ONLY	
NB I-94 (BISHOP FORD)	2006+00	3	16.5	10.5	173.25				I-94 WEST RYAN EXPY CHICAGO LOOP & 2 ARROWS	
NB I-57	227+29	RELOCATED SIGN PANEL								I-94 EAST BISHOP FORD FWY INDIANA & 2 ARROWS
NB I-94 (DAN RYAN)	2204+62	INSTALL EXISTING SIGN PANEL								INT. 94 WEST RYAN EXPY CHICAGO LOOP
NB I-94 (DAN RYAN)	2204+62	INSTALL EXISTING SIGN PANEL								EXIT 61B 87TH ST 3/4 MILE
NB I-94 (DAN RYAN)	2204+62	INSTALL EXISTING SIGN PANEL								R2-1(55 MPH)
NB I-94 (DAN RYAN)	2204+62	INSTALL OVERHEAD SIGN STRUCTURE-SPAN (SPECIAL)						96	13.27	-

PROPOSED POST SIGN SCHEDULE

LOCATION	STATION	SIGN				SUPPORT			SIGN REMARKS
		TYPE	WIDTH FT	HEIGHT FT	AREA SQ FT	TYPE	POST QUANTITY	POST LENGTH (FT)	
NB I-57	199+95	2	4	4	16	WOOD	1	17.66	W4-3R
NB I-57	206+70	1	2.5	1.25	3.125	WOOD	1	16.25	M3-1 (INTERSTATE)
		1	3.0	3.0	9				ON SAME POST M1-1 (57)
NB I-57	213+51	1	1	5	5	TELES. STEEL	1	14.83	D10-3A (357.5)
NB I-57	240+29	1	1	5	5	TELES. STEEL	1	14.83	D10-3A (358.0)
EB I-57 TO I-94 CONNECTOR	408+46	2	4	4	16	WOOD	1	17.66	W12-1
EB I-57 TO I-94 CONNECTOR	411+00	2	4	4	16	WOOD	1	17.66	W9-2L
NB I-57	250+00	3	5.5	6	33	WOOD	2	36	I-57 ENDS
NB I-57	250+00	3	5.5	6	33	WOOD	2	36	I-57 ENDS
NB I-94 (BISHOP FORD)	1995+21	1	1.5	1.5	2.25	WOOD	1	13.5	R1-1
NB I-94 (BISHOP FORD)	1993+42	3	5.5	5	27.5	WOOD	2	34	MLK AIS INFO
NB I-94 (BISHOP FORD)	1991+47	1	2.5	2.5	6.25	WOOD	1	14.5	R5-1
NB I-94 (BISHOP FORD)	1990+52	2	4.5	5	22.5	WOOD	2	36	AIS & ARROW
NB I-94 (BISHOP FORD)	MLK AIS	2	4.5	4.5	20.25	WOOD	2	33	AIS 1/4 MILE
NB I-94 (BISHOP FORD)	MLK AIS	2	4.5	4.5	20.25	WOOD	2	33	AIS 3/4 MILE
WB I-94 TO I-57 CONNECTOR	331+25	1	2.5	1.25	3.125	WOOD	1	16.25	M3-3 (INTERSTATE)
		1	3.0	3.0	9				ON SAME POST M1-1 (57)
NB I-94 (BISHOP FORD)	2010+79	3	6	5	30	WOOD	2	34	EXIT 63 & ARROW
NB I-94 (BISHOP FORD)	2015+94	1	1	4	4	TELES. STEEL	1	13.83	D10-2A (63.5)
NB I-94 (BISHOP FORD)	2031+09	2	4	4	16	WOOD	1	17.66	W4-1R
NB I-94 (BISHOP FORD)	2042+34	1	1	4	4	TELES. STEEL	1	13.83	D10-2A (63.0)
NB I-94 (BISHOP FORD)	2042+45	2	4	4	16	WOOD	1	17.66	W4-3R
NB I-94 (DAN RYAN)	2217+70	2	4	4	16	WOOD	1	17.66	W4-1R
NB I-94 (DAN RYAN)	2223+00	1	1	4	4	TELES. STEEL	1	13.83	D10-2A (62.5)
NB I-94 (DAN RYAN)	2235+77	3	6.5	6	39.0	WOOD	2	39	CHICAGO STATE UNIVERSITY EXIT 61B
NB I-94 (DAN RYAN)	2245+74	3	7.5	5	37.5	WOOD	2	34	EXIT 61B & ARROW
NB I-94 (DAN RYAN)	2249+36	1	1	4	4	TELES. STEEL	1	13.83	D10-2A (62.0)
NB I-94 (DAN RYAN)	2267+34	2	4	4	16	WOOD	1	17.66	W4-1R
NB I-94 (DAN RYAN)	2275+76	1	1	4	4	TELES. STEEL	1	13.83	D10-2A (61.5)

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

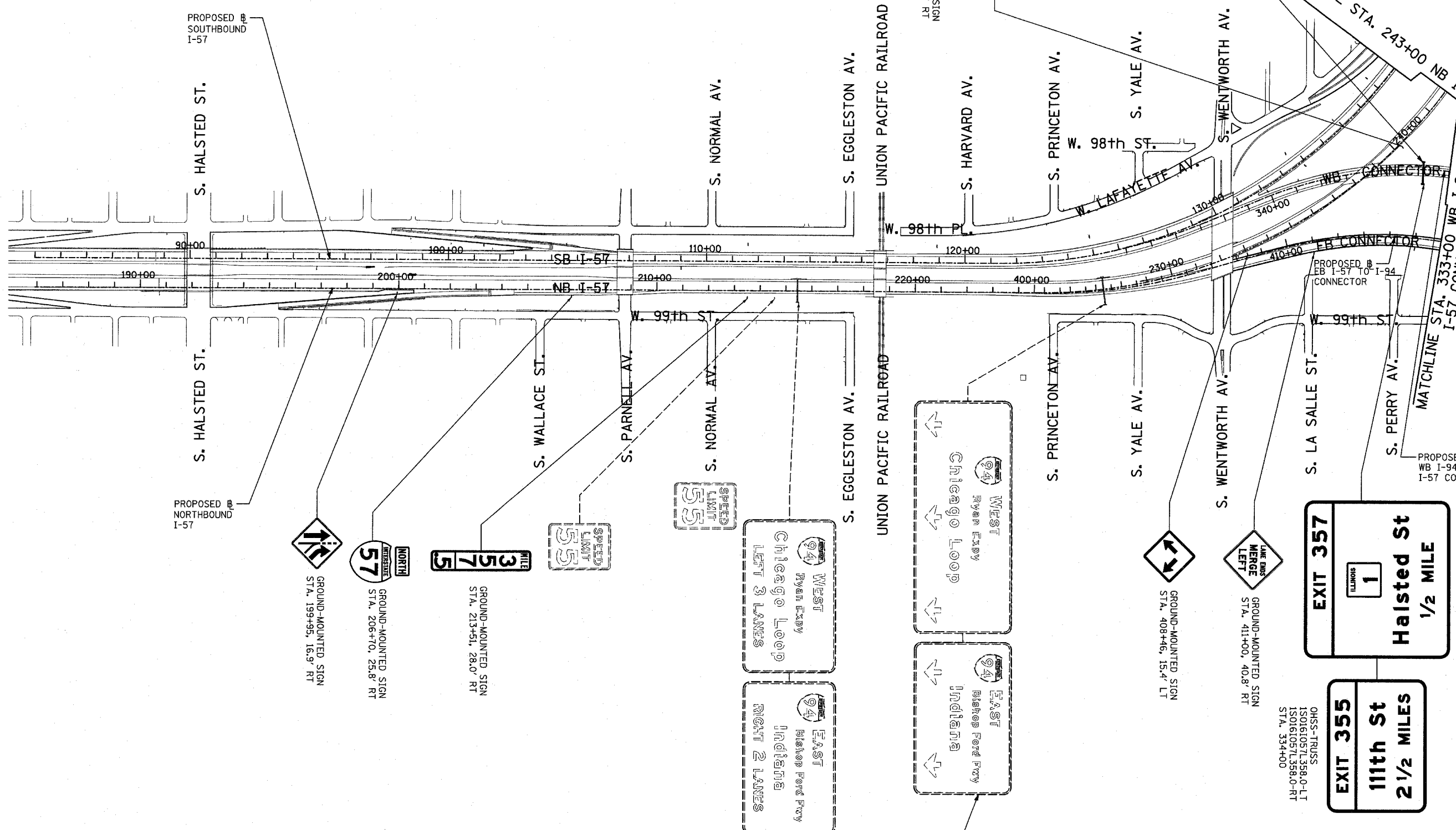
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)PROPOSED SIGNING SCHEDULE
SHEET 1 OF 1SCALE: NONE DRAWN BY: AMB
DATE: MARCH 7, 2006 CHECKED BY: TGB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	916	529
STA. 190+00 (NB I-57) TO STA. 2316+00 (NB RYAN EXP)				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
* (1516.1, 1717, & 1818) R-4 62304				



SIGNING LEGEND:

- PROPOSED GROUND MOUNTED SIGN
- PROPOSED OVERHEAD SIGN STRUCTURE - TRUSS
- PROPOSED OVERHEAD SIGN STRUCTURE-BRIDGE MOUNTED
- PROPOSED OVERHEAD SIGN STRUCTURE-CANTILEVER
- EXISTING GROUND MOUNTED SIGN
- EXISTING OVERHEAD SIGN STRUCTURE - TRUSS
- EXISTING OVERHEAD SIGN STRUCTURE-BRIDGE MOUNTED
- EXISTING OVERHEAD SIGN STRUCTURE-CANTILEVER
- PROPOSED SIGN
- EXISTING SIGN



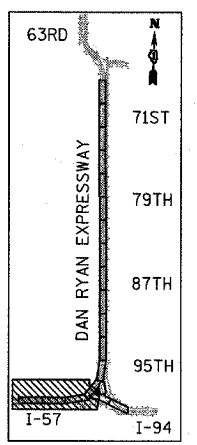
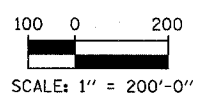
SIGN PANEL RELOCATED ON EXISTING TRUSS
SEE CROSS SECTION DETAILS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

PROPOSED SIGNING
STA. 190+00 TO STA 243+00
SHEET 1 OF 5

SCALE: 1" = 200'
DATE: MARCH 7, 2006
DRAWN BY: AMB
CHECKED BY: TGB

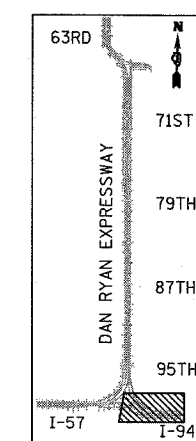


LOCATION MAP



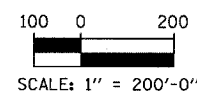
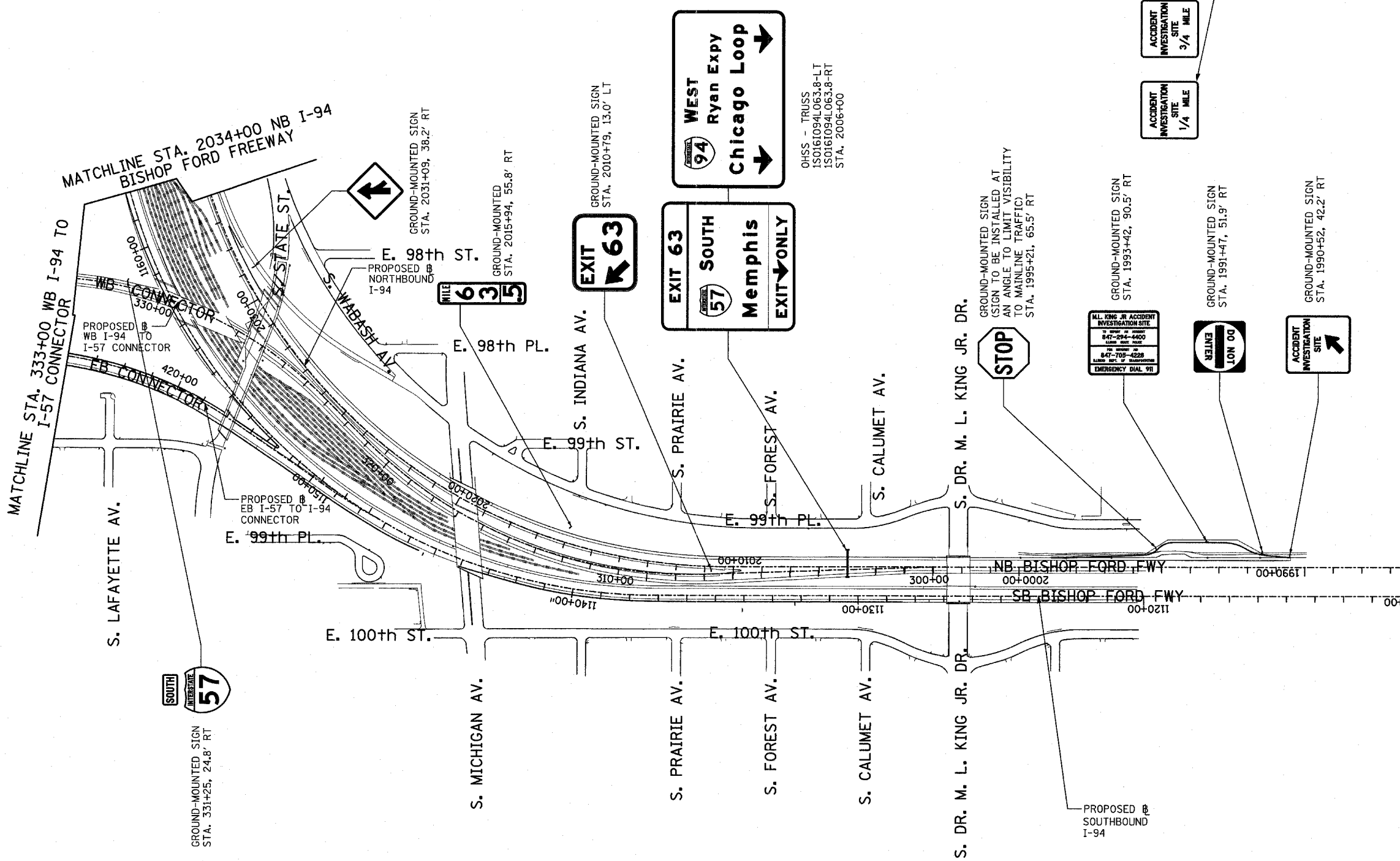
SIGNING LEGEND:

- PROPOSED GROUND MOUNTED SIGN
- PROPOSED OVERHEAD SIGN STRUCTURE -TRUSS
- PROPOSED OVERHEAD SIGN STRUCTURE-BRIDGE MOUNTED
- PROPOSED OVERHEAD SIGN STRUCTURE-CANTILEVER
- EXISTING GROUND MOUNTED SIGN
- EXISTING OVERHEAD SIGN STRUCTURE -TRUSS
- EXISTING OVERHEAD SIGN STRUCTURE-BRIDGE MOUNTED
- EXISTING OVERHEAD SIGN STRUCTURE-CANTILEVER
- PROPOSED SIGN
- EXISTING SIGN



LOCATION MAP

SIGNS SHALL BE PLACED PRIOR TO THE ACCIDENT INVESTIGATION SITE. CONTRACTOR SHALL PLACE THE SIGNS AT THEIR SPECIFIED DISTANCE. LOCATION WILL BE DETERMINED BY THE ENGINEER.



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)

PROPOSED SIGNING
 STA. 1986+00 TO STA 2034+00
 SHEET 2 OF 5

SCALE: 1" = 200'
 DATE: MARCH 7, 2006

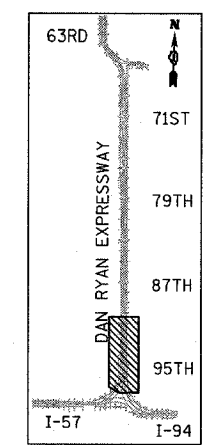
DRAWN BY: AMB
 CHECKED BY: TGB

TYLIN INTERNATIONAL

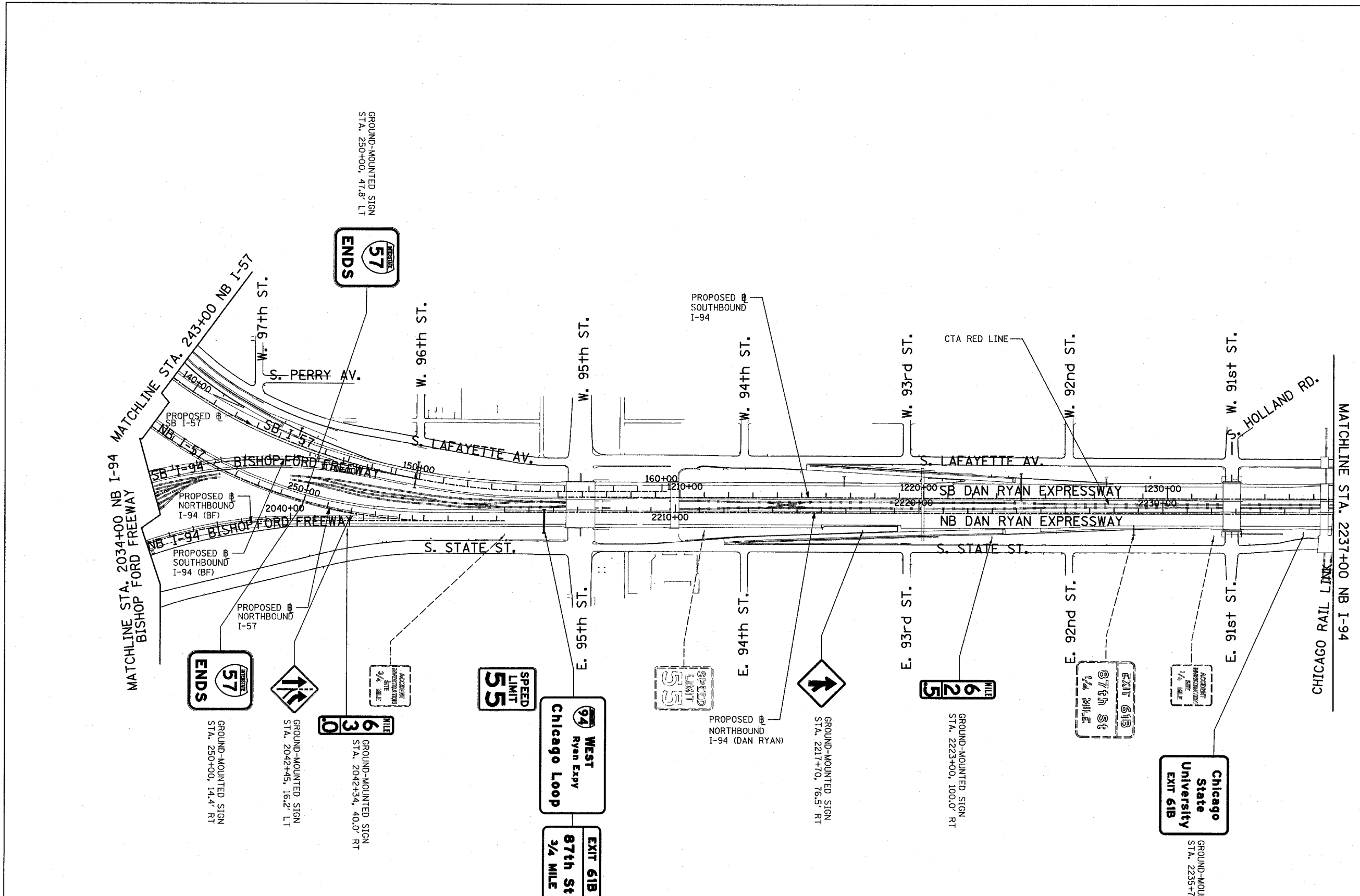


SIGNING LEGEND:

- PROPOSED GROUND MOUNTED SIGN
- PROPOSED OVERHEAD SIGN STRUCTURE - TRUSS
- PROPOSED OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED
- PROPOSED OVERHEAD SIGN STRUCTURE - CANTILEVER
- EXISTING GROUND MOUNTED SIGN
- EXISTING OVERHEAD SIGN STRUCTURE - TRUSS
- EXISTING OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED
- EXISTING OVERHEAD SIGN STRUCTURE - CANTILEVER
- PROPOSED SIGN
- EXISTING SIGN



LOCATION MAP

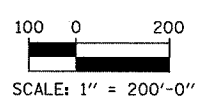


REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)

PROPOSED SIGNING
 STA. 2034+00 (I-94 BISHOP FORD FREEWAY)
 TO STA 2237+00 (I-94 DAN RYAN EXPRESSWAY)
 SHEET 3 OF 5

SCALE: 1" = 200' DRAWN BY: AMB
 DATE: MARCH 7, 2006 CHECKED BY: TGB



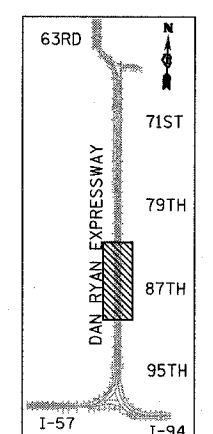
TYLIN INTERNATIONAL

INSTALL OVERHEAD SIGN STRUCTURE-SPAN (SPECIAL)

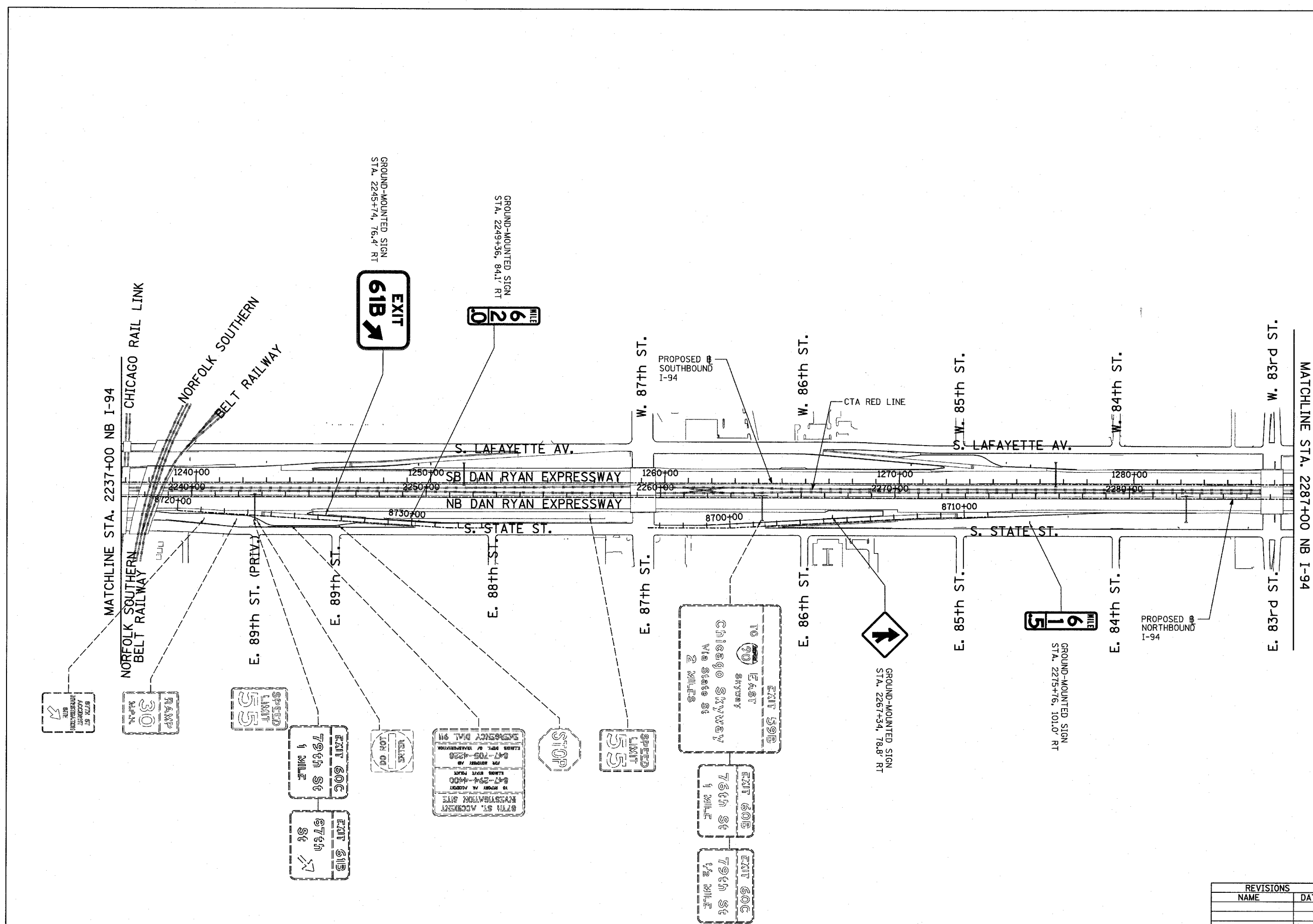


SIGNING LEGEND:

- PROPOSED GROUND MOUNTED SIGN
- PROPOSED OVERHEAD SIGN STRUCTURE -TRUSS
- PROPOSED OVERHEAD SIGN STRUCTURE-BRIDGE MOUNTED
- PROPOSED OVERHEAD SIGN STRUCTURE-CANTILEVER
- EXISTING GROUND MOUNTED SIGN
- EXISTING OVERHEAD SIGN STRUCTURE -TRUSS
- EXISTING OVERHEAD SIGN STRUCTURE-BRIDGE MOUNTED
- EXISTING OVERHEAD SIGN STRUCTURE-CANTILEVER
- PROPOSED SIGN
- EXISTING SIGN



LOCATION MAP



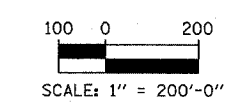
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)

PROPOSED SIGNING
 STA. 2237+00 TO STA 2287+00
 SHEET 4 OF 5

SCALE: 1" = 200'
 DATE: MARCH 7, 2006

DRAWN BY: AMB
 CHECKED BY: TGB

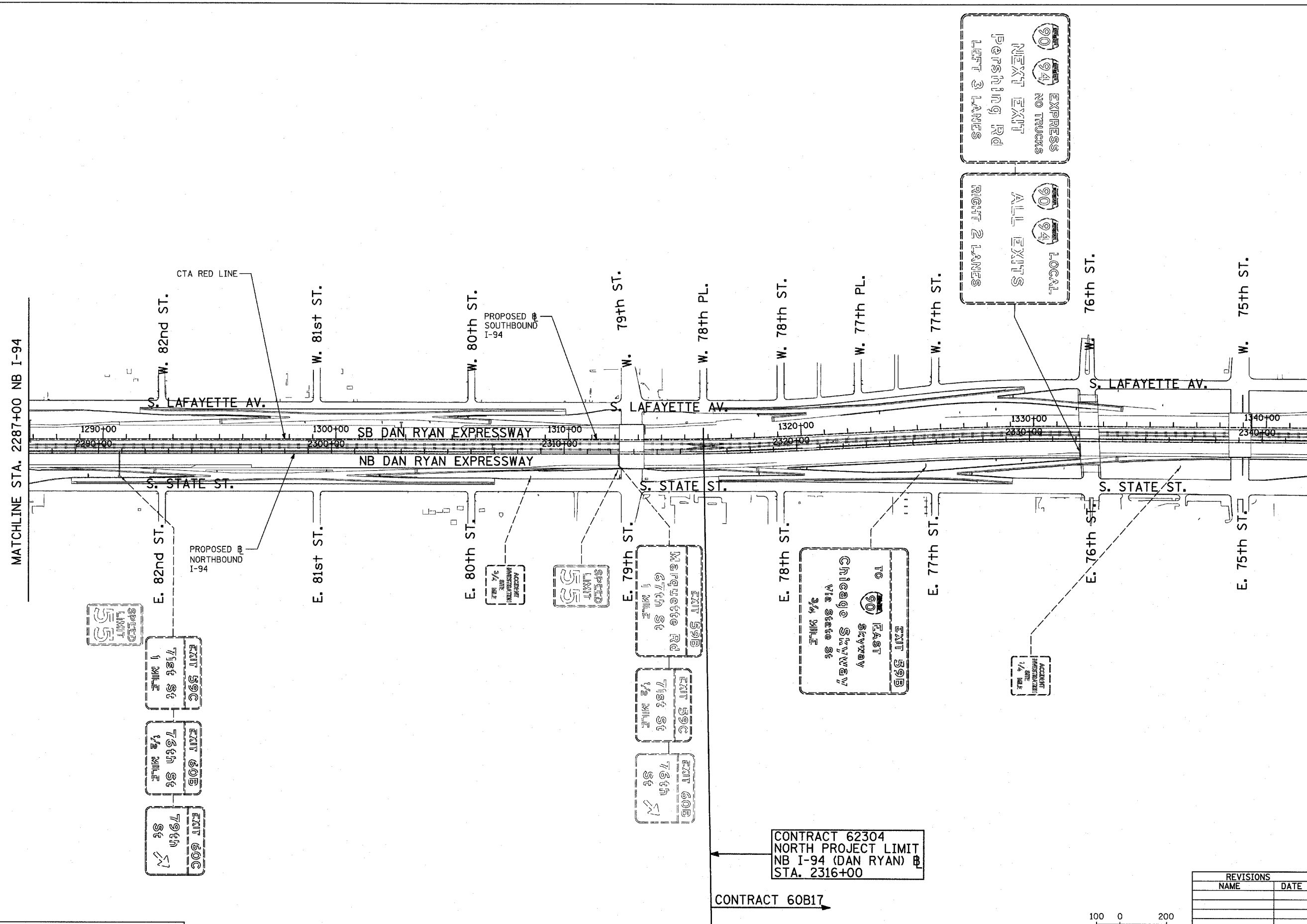
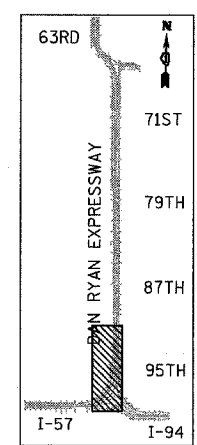


TYLIN INTERNATIONAL

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94		COOK	916	533
STA. 190+65 (NB I-57) TO STA. 2316+00 (NB RYAN) (NB I-94)				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
• (1516.1, 1717, & 1818) R-4 6230				



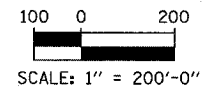
- SIGNING LEGEND:**
- - - - - PROPOSED GROUND MOUNTED SIGN
 - - - - - PROPOSED OVERHEAD SIGN STRUCTURE - TRUSS
 - - - - - PROPOSED OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED
 - - - - - PROPOSED OVERHEAD SIGN STRUCTURE - CANTILEVER
 - - - - - EXISTING GROUND MOUNTED SIGN
 - - - - - EXISTING OVERHEAD SIGN STRUCTURE - TRUSS
 - - - - - EXISTING OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED
 - - - - - EXISTING OVERHEAD SIGN STRUCTURE - CANTILEVER
- PROPOSED SIGN
- EXISTING SIGN



TYLIN INTERNATIONAL

CONTRACT 62304
NORTH PROJECT LIMIT
NB I-94 (DAN RYAN) @
STA. 2316+00

CONTRACT 60B17



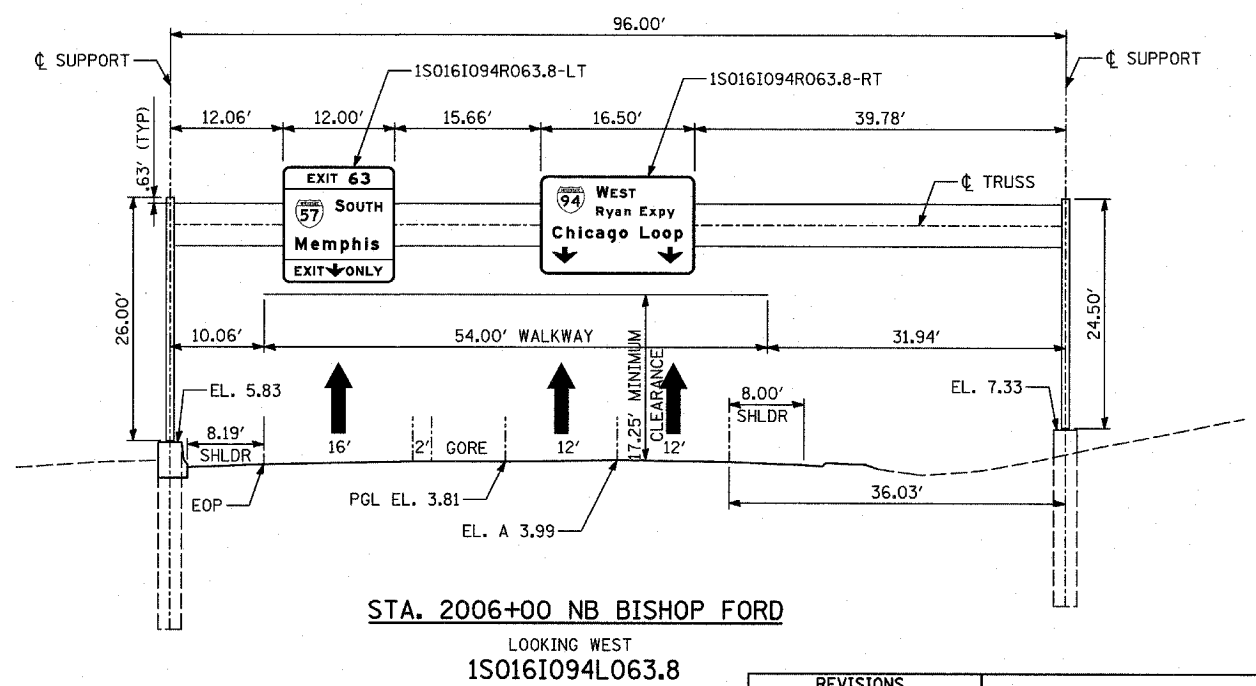
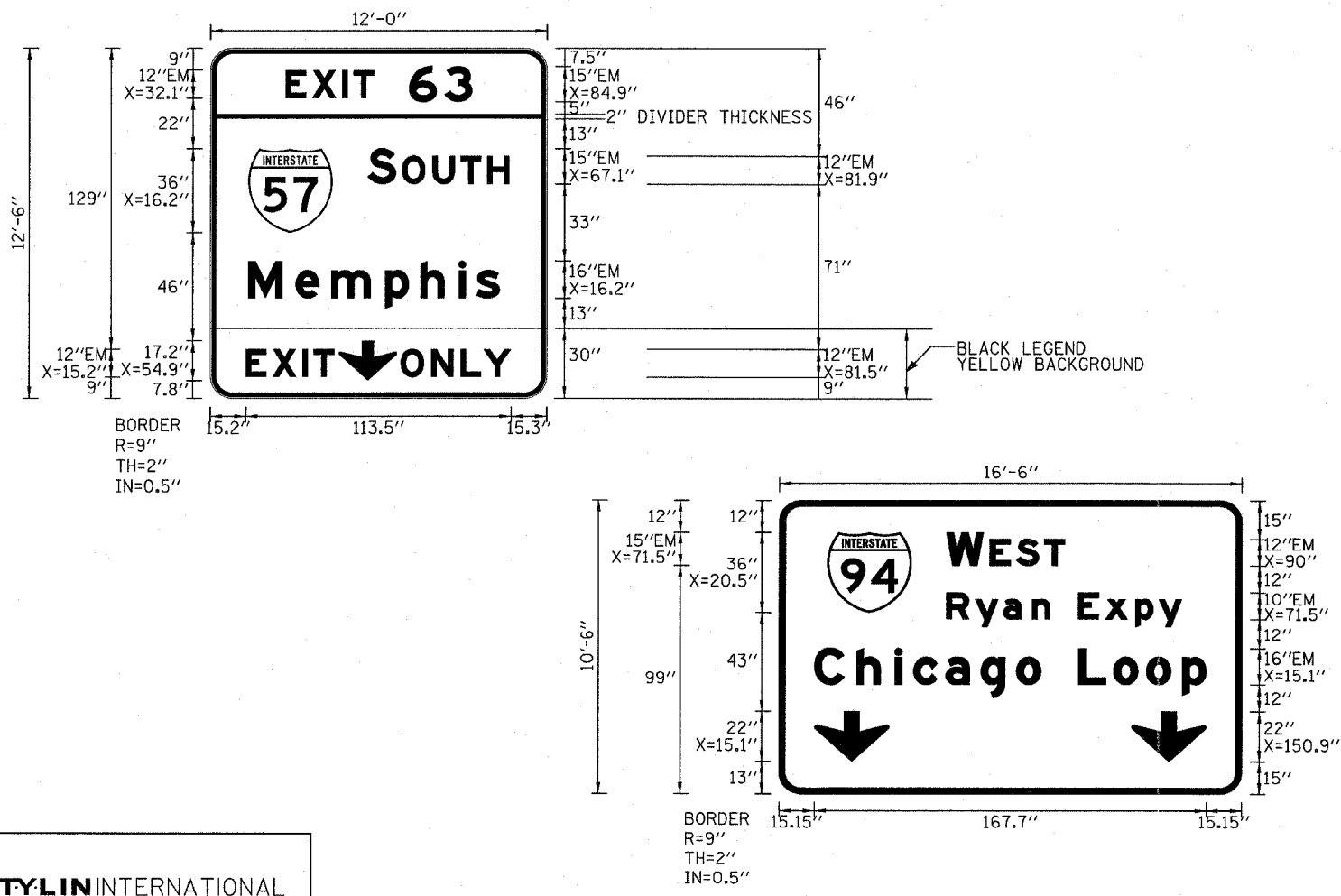
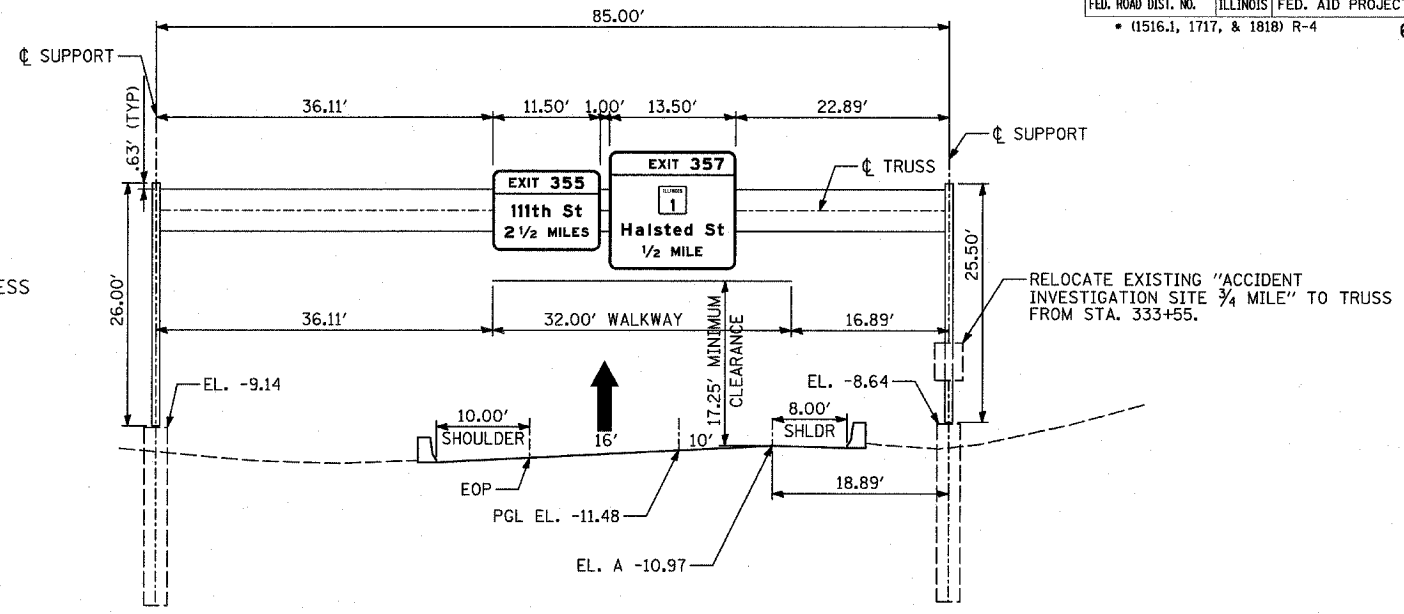
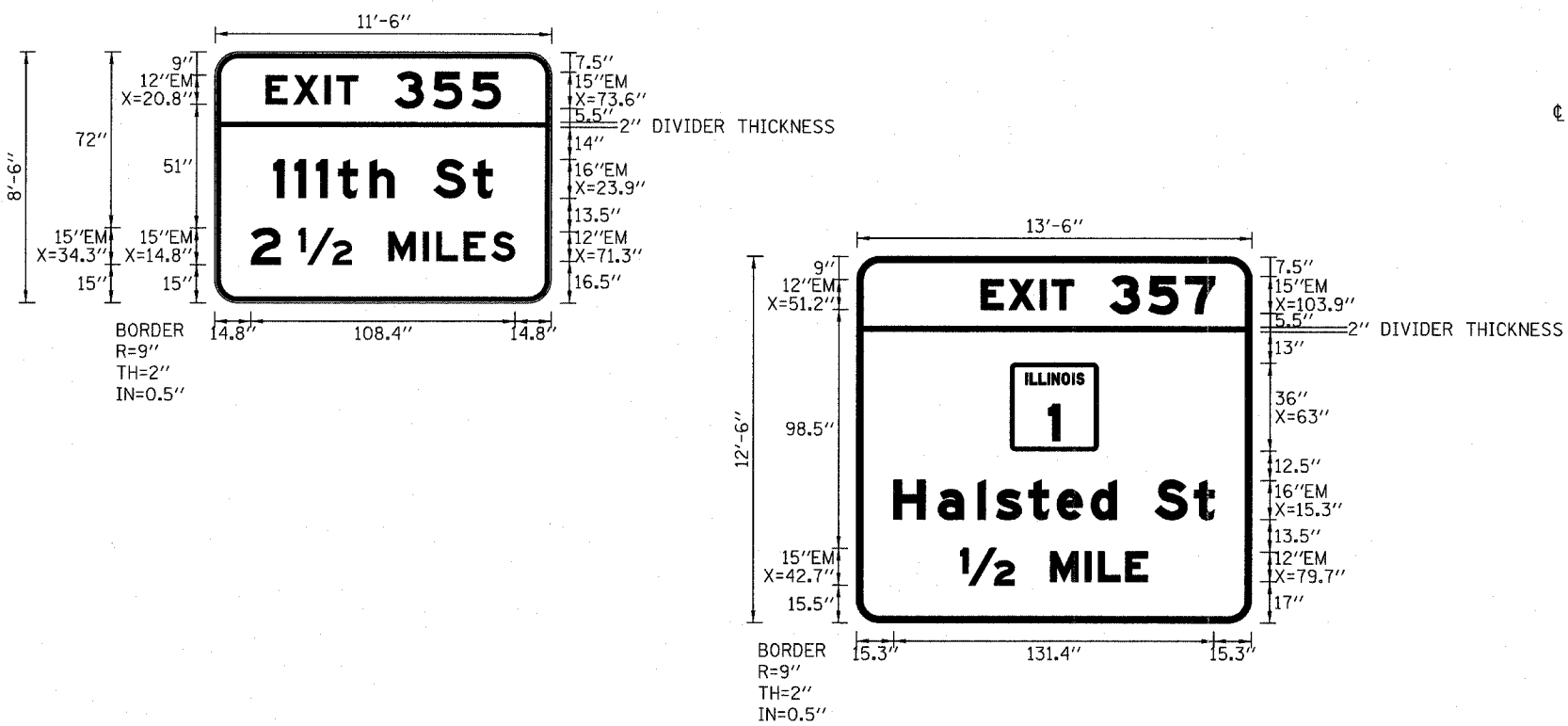
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

PROPOSED SIGNING
STA. 2287+00 TO STA 2342+00
SHEET 5 OF 5

SCALE: 1" = 200'
DATE: MARCH 7, 2006

DRAWN BY: AMB
CHECKED BY: TGB

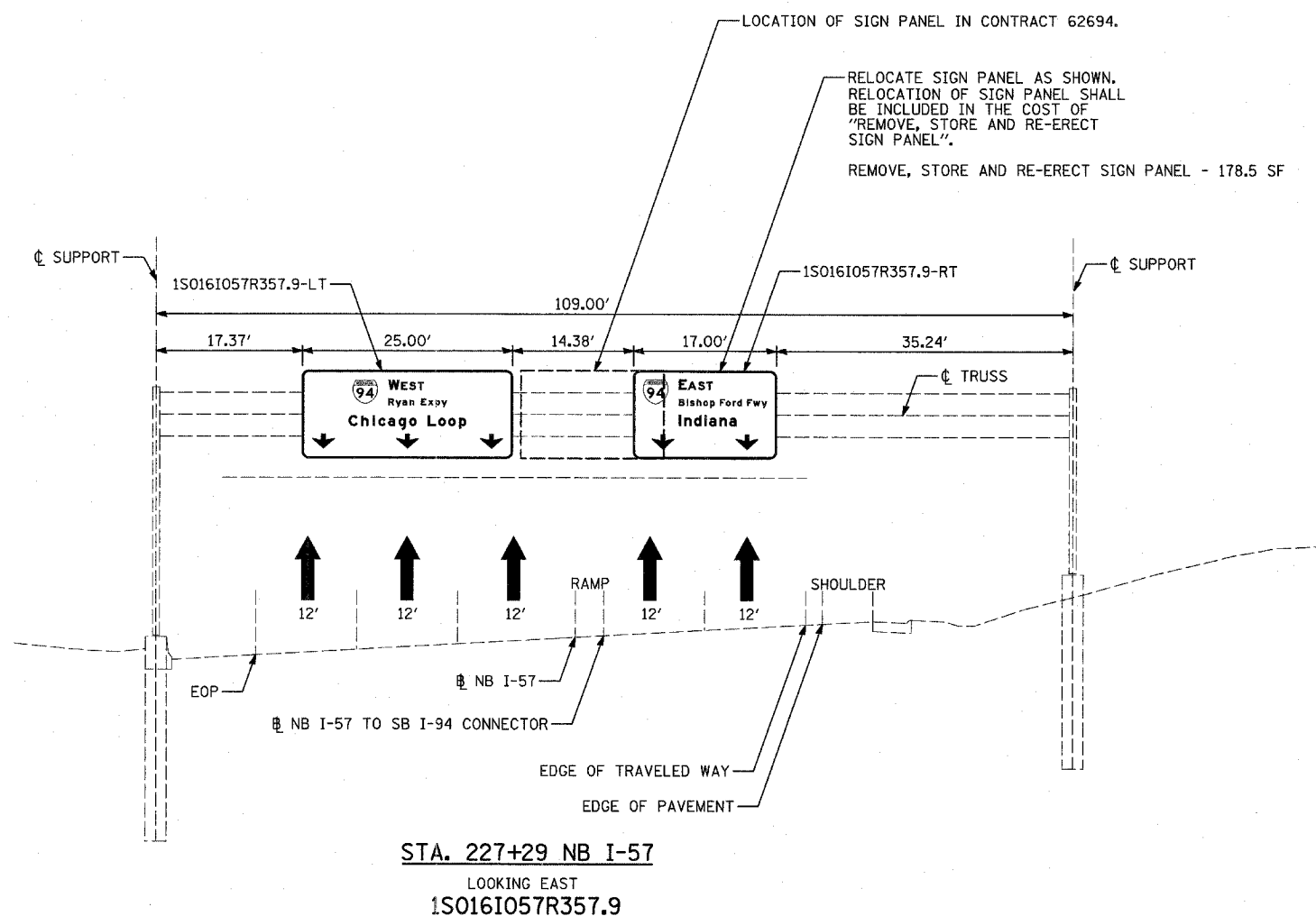


REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
PERMANENT SIGN PANEL MOUNTING DETAILS
PROPOSED OVERHEAD SIGN STRUCTURES
STA. 334+00 AND STA. 2006+00

SCALE: NOT TO SCALE
DATE: MARCH 7, 2006
DRAWN BY: AMB
CHECKED BY: TGB

TYLIN INTERNATIONAL



NOTE: EXISTING SIGN STRUCTURE AND SIGN PANELS WERE INSTALLED DURING CONTRACT 62694. THE SIGN AT THE RIGHT WAS PLACED IN A LOCATION TO AGREE WITH THE ROADWAY CONDITIONS AT THE END OF CONTRACT 62694. DATA USED TO CONSTRUCT THE OVERHEAD SIGN STRUCTURE IS INCLUDED IN THE PLANS FOR INFORMATION ONLY.

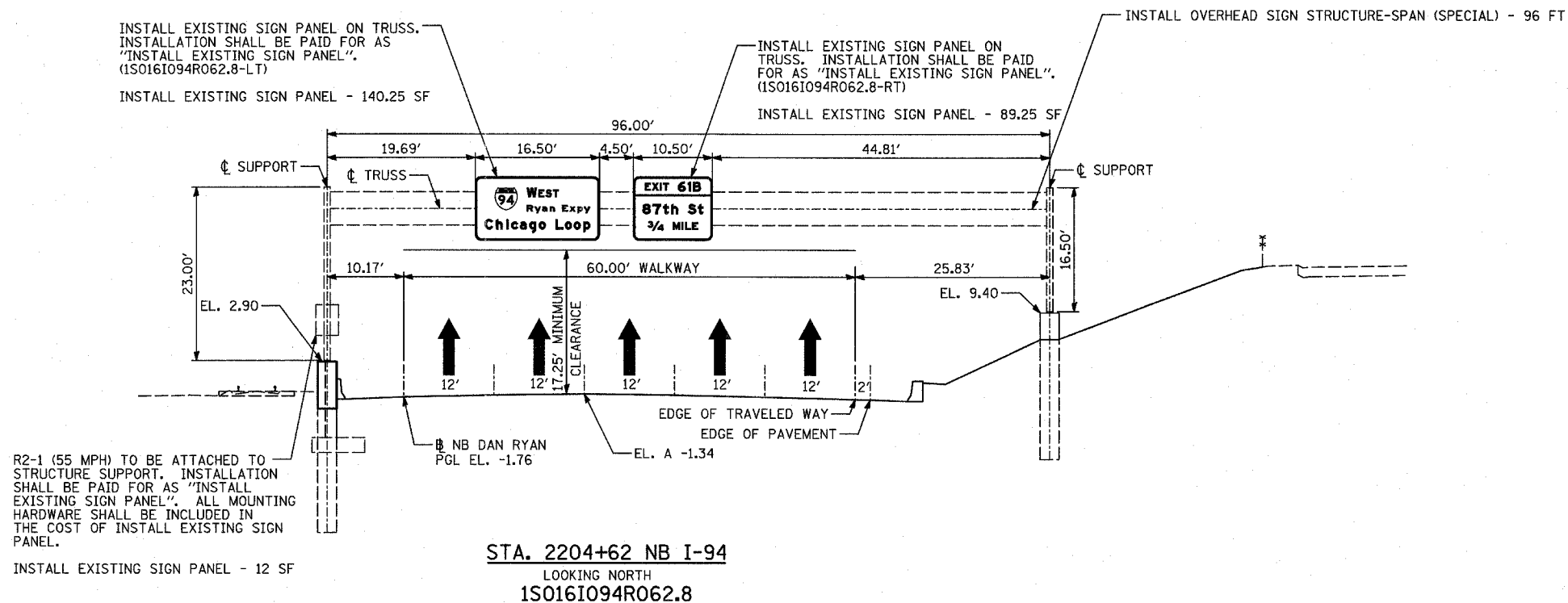
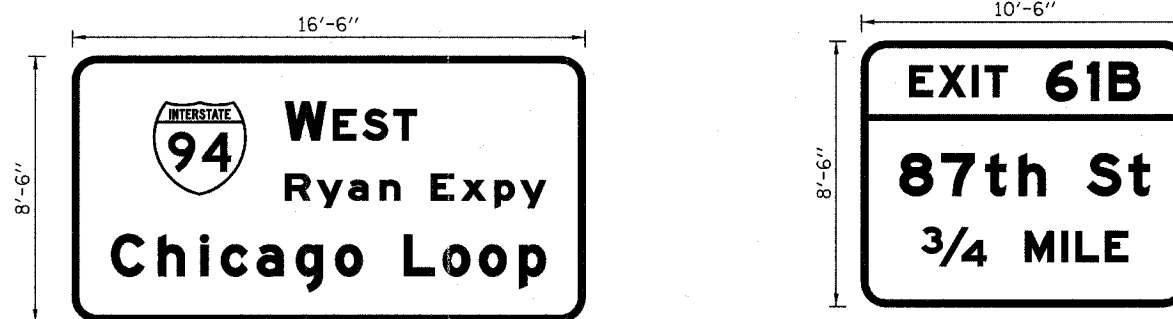
TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 PERMANENT SIGN PANEL MOUNTING DETAILS
 EXISTING OVERHEAD SIGN STRUCTURE
 STA. 227+29

SCALE: NOT TO SCALE
 DATE: MARCH 7, 2006

DRAWN BY: AMB
 CHECKED BY: TGB

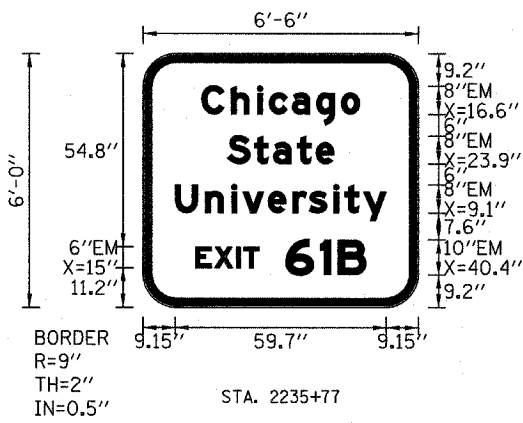
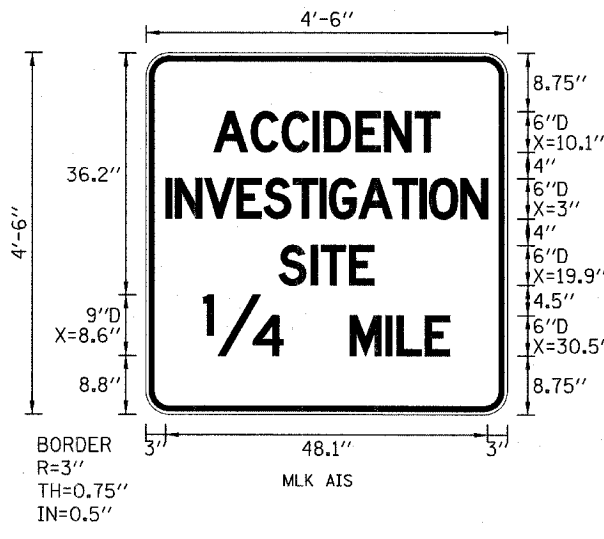
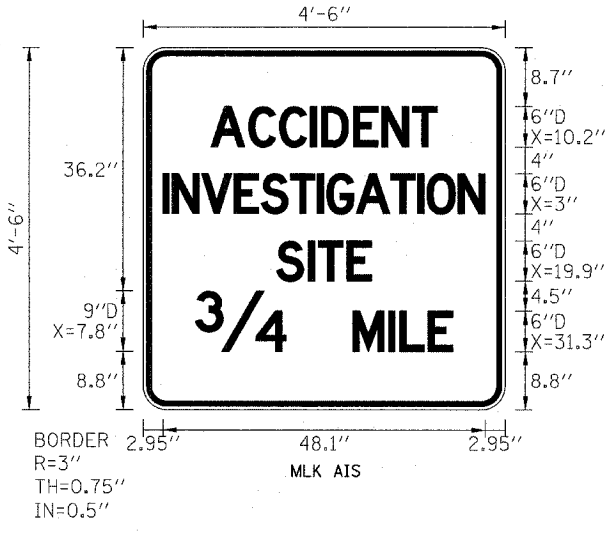
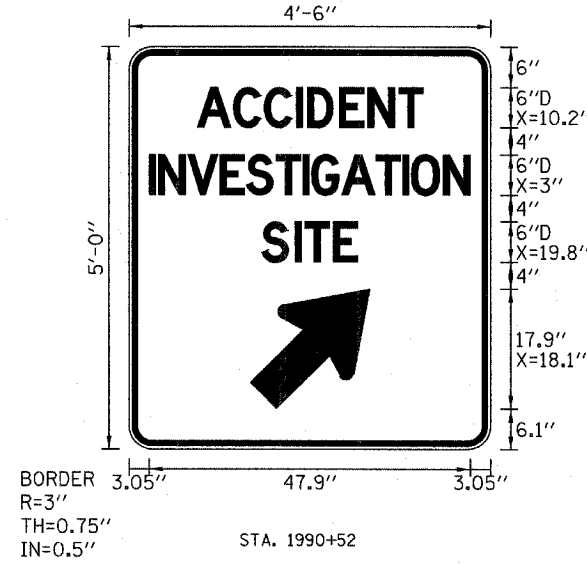
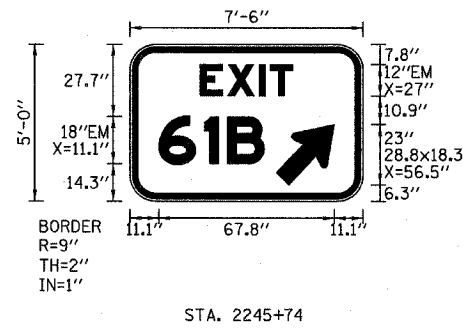
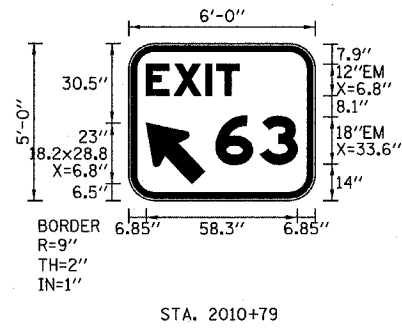
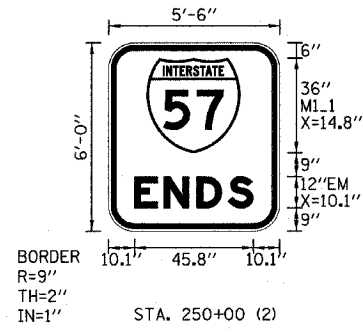


NOTE: OVERHEAD SIGN STRUCTURE, WALKWAY AND SIGN PANELS WERE FABRICATED IN CONTRACT 62694. DATA USED TO CONSTRUCT THE OVERHEAD SIGN STRUCTURE IS INCLUDED IN THE PLANS FOR INFORMATION ONLY.

REVISIONS	
NAME	DATE

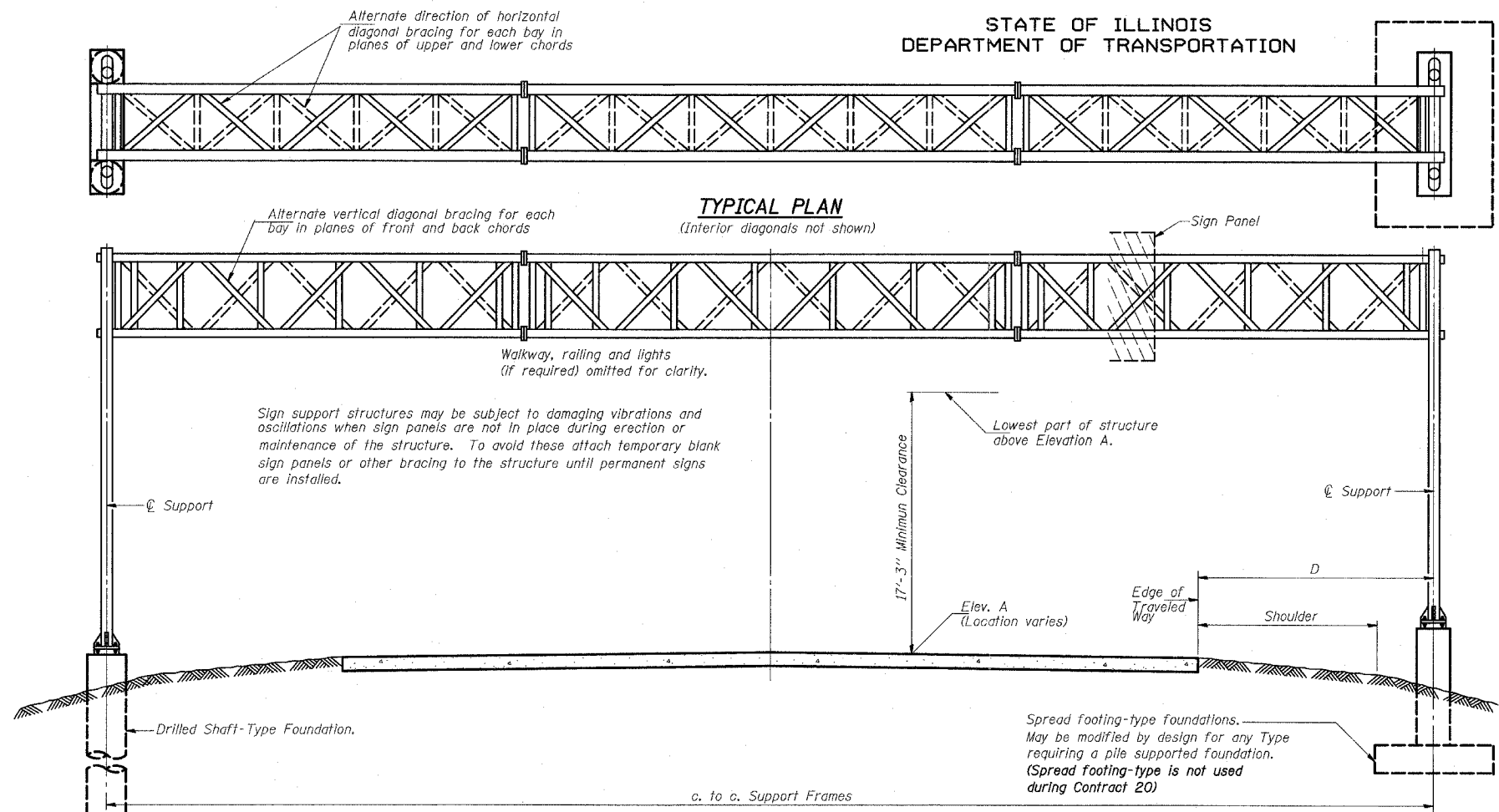
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
PERMANENT SIGN PANEL MOUNTING DETAILS
PROPOSED OVERHEAD SIGN STRUCTURE
STA. 2204+62

SCALE: NOT TO SCALE
DATE: MARCH 7, 2006
DRAWN BY: AMB
CHECKED BY: TB



REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY
WIND LOADING: 30 p.s.f. normal to Sign Panel Area and truss elements not behind sign Loading Diagram.
WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES:
Field Units
f' = 3,500 p.s.i.
fy = 60,000 p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53.
All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer.
The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04(f) of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: Shall conform to AASHTO M314 Gr. 36 or 55 with a minimum Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F.

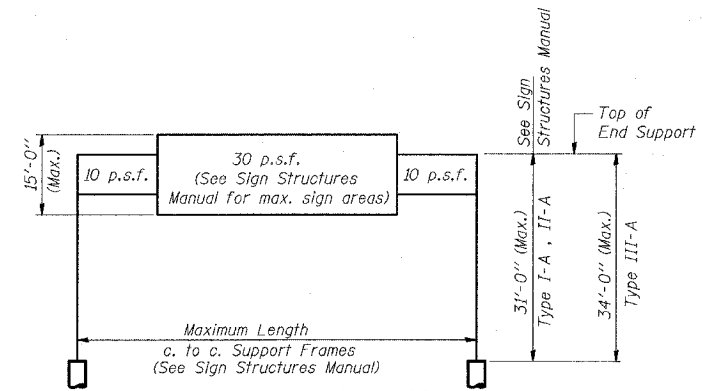
CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seat Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

*If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

TYPICAL ELEVATION
(Looking at Face of Signs)**

Structure Number	Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D	Height of Tallest Sign	Total Sign Area
ISO161057L358.0	334+00	I-A	85'	-10.97	18.89'	12.50'	266.50 ² ft
ISO161094L063.8	2006+00	I-A	96'	3.99	36.03'	12.50'	323.25 ² ft
****ISO161094R062.8	2204+62	I-A	96'	-1.34	25.83'	8.5'	229.5 ² ft



DESIGN WIND LOADING DIAGRAM

Parameters shown are basis for I.D.O.T. Standards and Sign Manual Tables. Installations not within dimensional limits shown require special analysis for all components.

**Looking upstation for structures with signs both sides.
****Paid for as Overhead Sign Structure-Span (Special)

NUMBER	REVISION	DATE

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE TYPE I-A (4'-0" x 4'-6")	Foot	181
OVERHEAD SIGN STRUCTURE TYPE II-A (4'-6" x 5'-3")	Foot	0
OVERHEAD SIGN STRUCTURE TYPE III-A (5'-0" x 7'-0")	Foot	0
OVERHEAD SIGN WALKWAY TYPE A ****	Foot	86
CONCRETE FOUNDATIONS	Cu. Yds.	0
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	39
OVERHEAD SIGN STRUCTURE-SPAN (SPECIAL)	Foot	96

****Paid for as Overhead Sign Structure Walkway

DESIGNED	20
CHECKED	
DRAWN	
CHECKED	

EXAMINED
ENGINEER OF STRUCTURAL SERVICES

PASSED
ENGINEER OF BRIDGES AND STRUCTURES

OS-A-1 11/1/2002

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

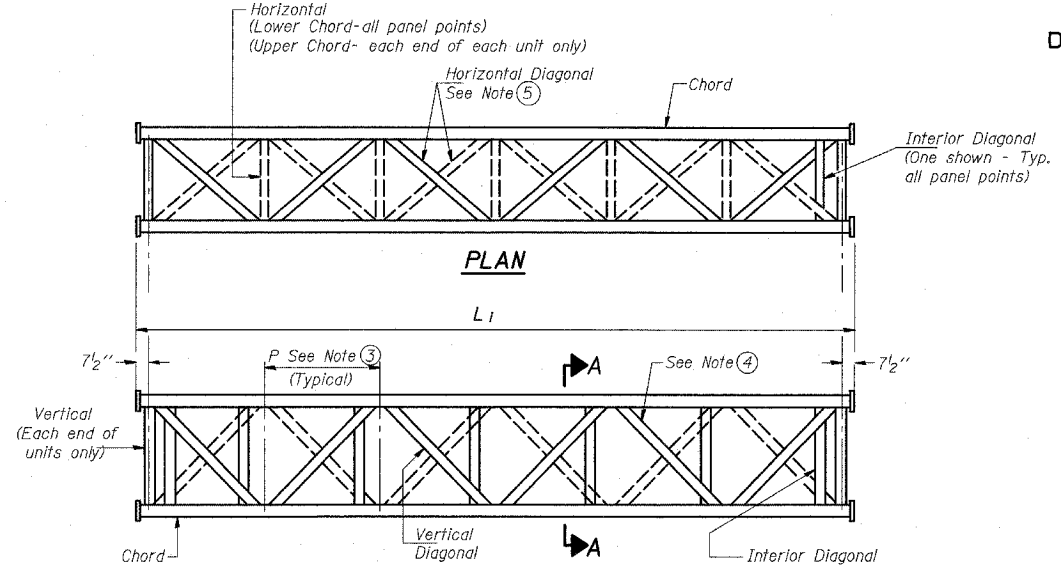
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

OVERHEAD SIGN STRUCTURES
GENERAL PLAN & ELEVATIONS
ALUMINUM TRUSS & STEEL POST

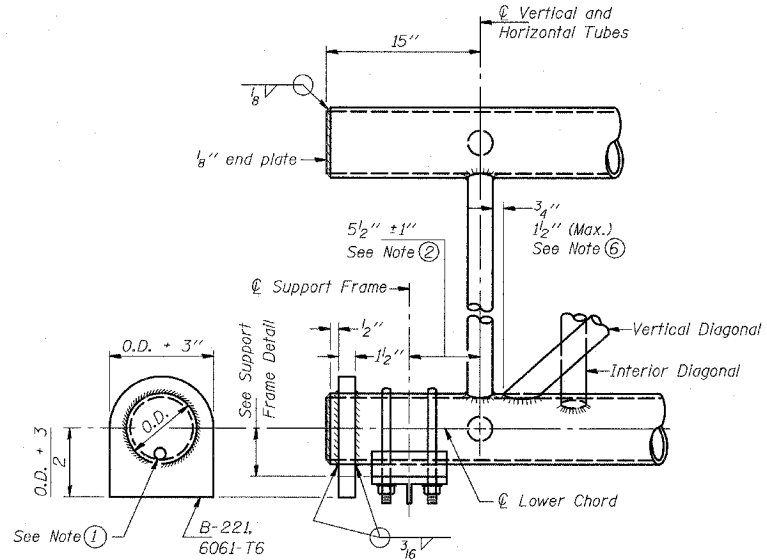
SCALE: AS NOTED
DATE: MARCH 7, 2006

DRAWN BY: AMB
CHECKED BY: TB

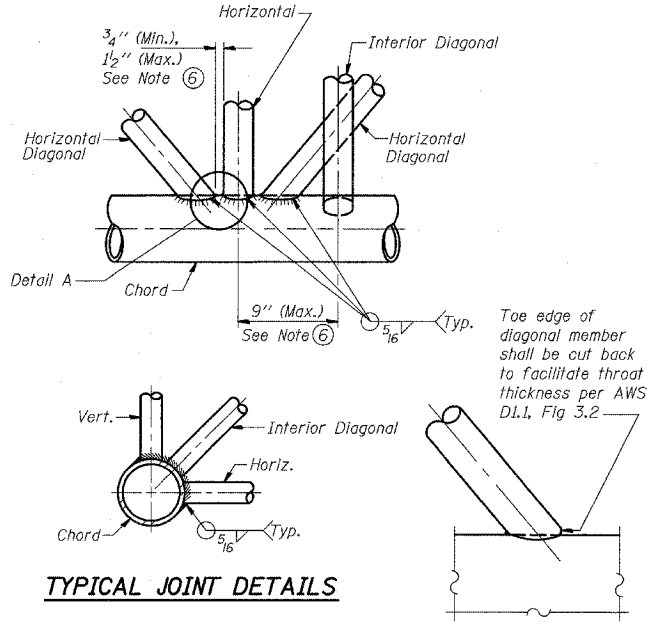
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



**ELEVATION
TYPICAL INTERIOR UNIT**
Even number of panels/interior unit required.



SUPPORT END DETAIL FOR EXTERIOR UNIT

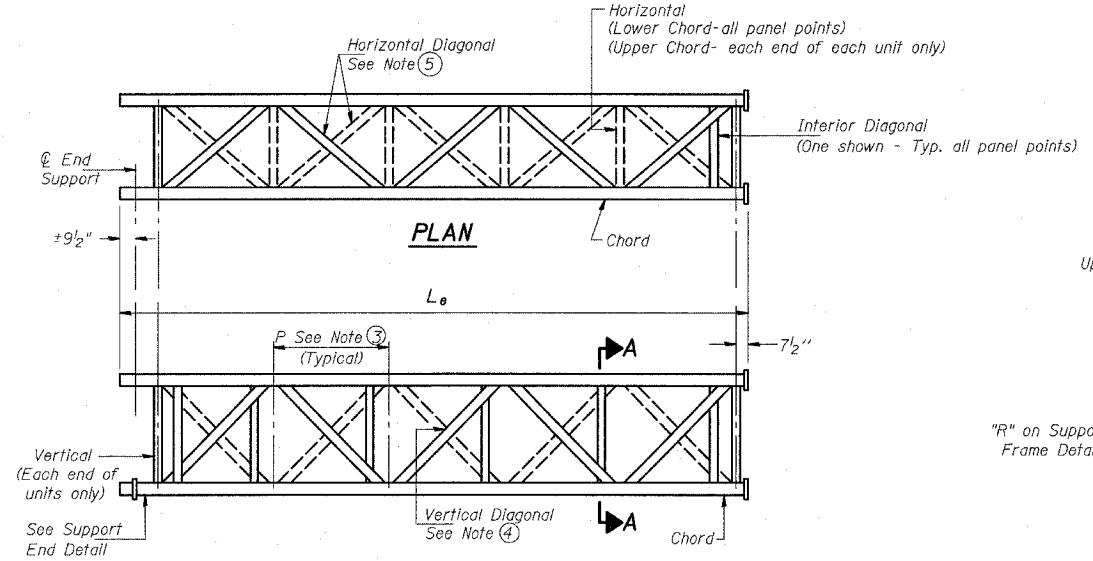


TYPICAL JOINT DETAILS

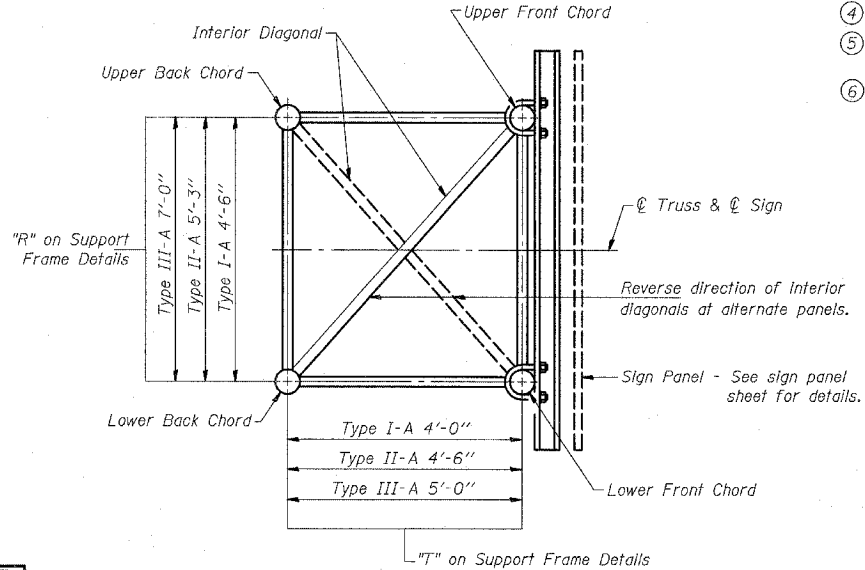
DETAIL A

NOTES

- Contractor may alternatively use standard aluminum drive-fit cap to close end. $\frac{1}{2}$ " ϕ drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
- $5\frac{1}{2}$ " end dimension may vary by ± 1 " to provide uniform panel spacing (P).
- Panel spacing (P) shall be uniform for entire truss and between 4'-0" and 5'-0" for Type I-A or 4'-0" and 5'-6" for Types II-A and III-A.
- Vertical Diagonals in front and back face shall alternate.
- Hidden lines show wind bracing alternates direction between planes of top and bottom chords.
- All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a $\frac{3}{4}$ " minimum to $\frac{1}{2}$ " maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.



**ELEVATION
TYPICAL EXTERIOR UNIT**
Even or odd number of panels/exterior units allowed.



SECTION A-A

DESIGNED	
CHECKED	
DRAWN	
CHECKED	

EXAMINED	20
PASSED	ENGINEER OF STRUCTURAL SERVICES
	ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

OS-A-2 11/1/2002

TYLIN INTERNATIONAL

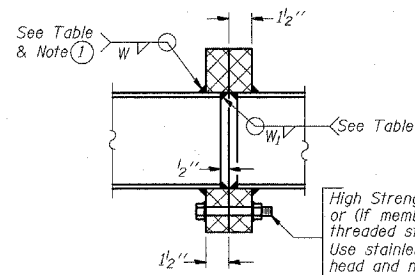
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
OVERHEAD SIGN STRUCTURES
ALUMINUM TRUSS DETAILS
FOR TRUSS TYPES I-A, II-A AND III-A
SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 7, 2006 CHECKED BY: TB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

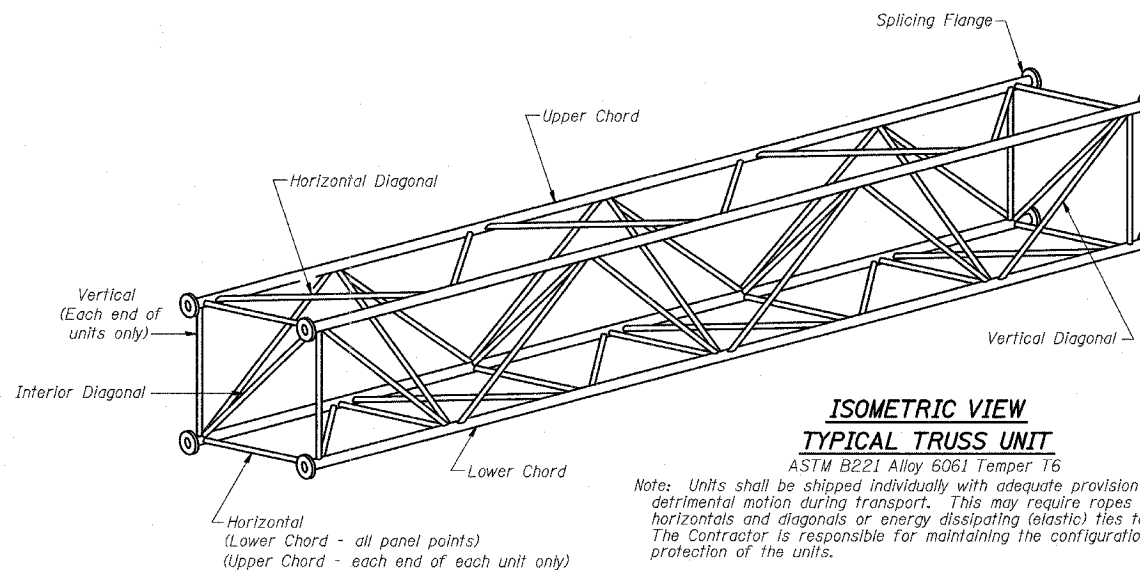
TRUSS UNIT TABLE

Structure Number	Station	Design Truss Type	Exterior Units (2)			Interior Unit			Upper & Lower Chord		Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals		Camber at Midspan	Splicing Flange						
			No. Panels per Unit	Unit Lgth.(L _u)	Panel Lgth.(P)	No. Req'd.	No. Panels per Unit	Unit Lgth.(L _i)	Panel Lgth.(P)	O.D.	Wall	O.D.		Wall	Bolts		Weld Sizes		A	B
															No./Splice	Dia.	W	W ₁		
ISO161057L358.0	334+00	I-A	6	29'-1 1/2"	4'-6 1/2"	1	6	28'-6"	4'-6 1/2"	5"	5/16"	2 1/2"	5/16"	2.50"	6	7/8"	5/8"	1/4"	8 3/4"	11 3/4"
ISO161094L063.8	2006+00	I-A	7	34'-3"	4'-7 1/2"	1	6	29'-0"	4'-7 1/2"	5 1/2"	5/16"	2 1/2"	5/16"	3.04"	6	7/8"	3/8"	1/4"	9 1/4"	12 1/4"



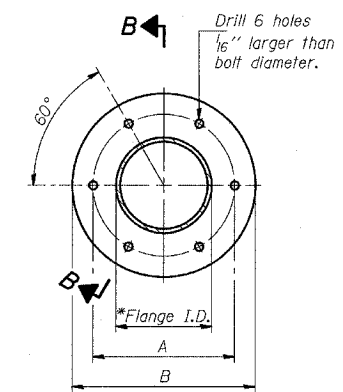
SECTION B-B

① Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining welds are made after disassembly. Adjacent flanges shall be "match marked" to insure proper field assembly.

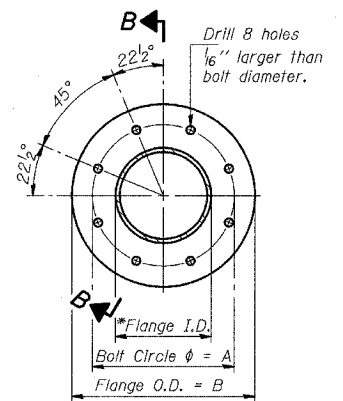


ISOMETRIC VIEW
TYPICAL TRUSS UNIT

ASTM B221 Alloy 6061 Temper T6
Note: Units shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The Contractor is responsible for maintaining the configuration and protection of the units.



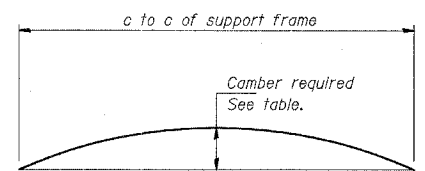
TRUSS TYPES I-A, II-A, & III-A



TRUSS TYPES II-A & III-A

SPLICING FLANGES

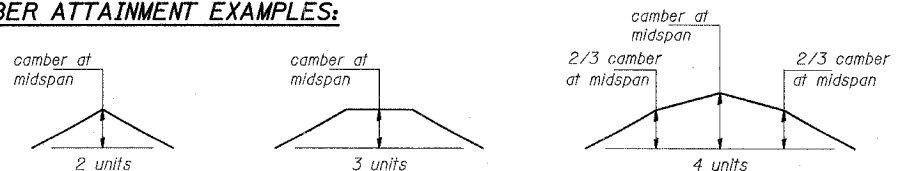
ASTM B221, Alloy 6061-T6
or ASTM B209, Alloy 6061-T651
*To fit O.D. of Chord with maximum gap of 1/16".



CAMBER DIAGRAM

Camber curve shown is theoretical. Actual camber attained by slope changes at splices between units.

CAMBER ATTAINMENT EXAMPLES:



Camber shown is for fabrication only, measured with truss fully supported. (No-load condition)

NUMBER	REVISION	DATE

DESIGNED	20
CHECKED	
DRAWN	
CHECKED	

OS4-A-2 11/1/2002

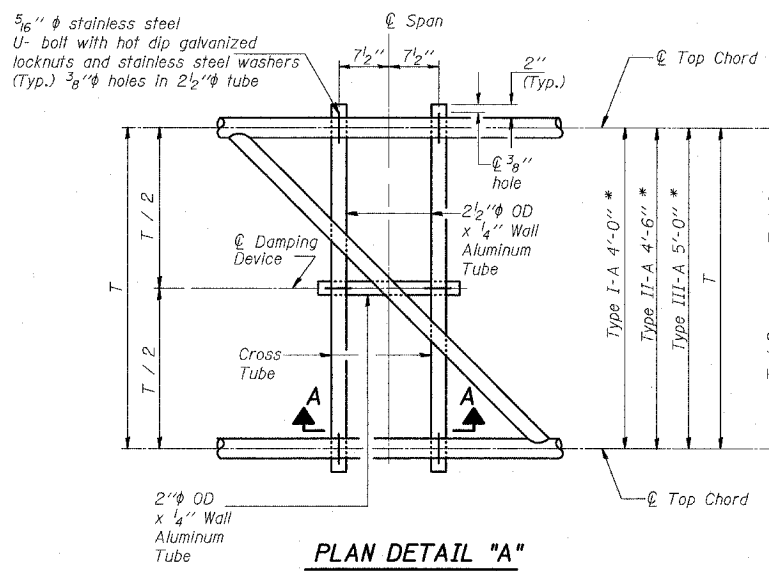
TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

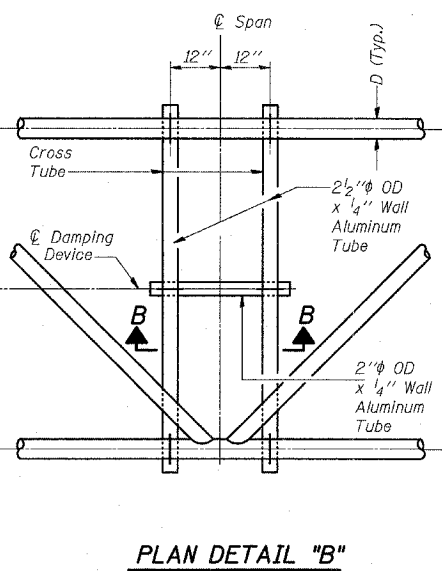
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
OVERHEAD SIGN STRUCTURES
ALUMINUM TRUSS DETAILS
FOR TRUSS TYPES I-A, II-A AND III-A
SCALE: AS NOTED
DATE: MARCH 7, 2006
DRAWN BY: AMB
CHECKED BY: TB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

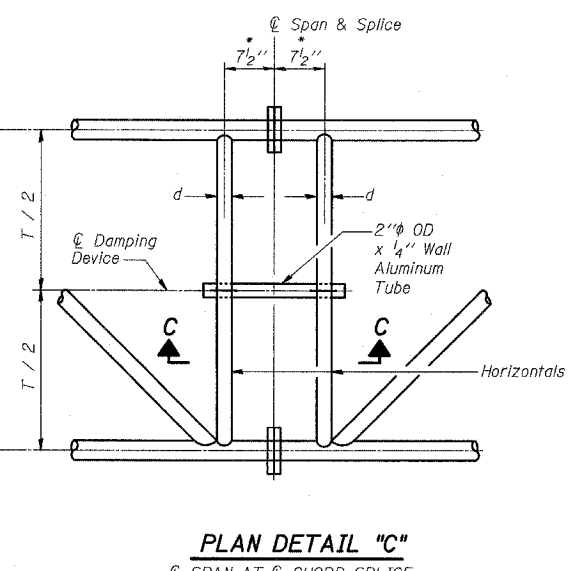
* Center of horizontal to center of splice dimension may vary. Verify before drilling holes in mounting tube.



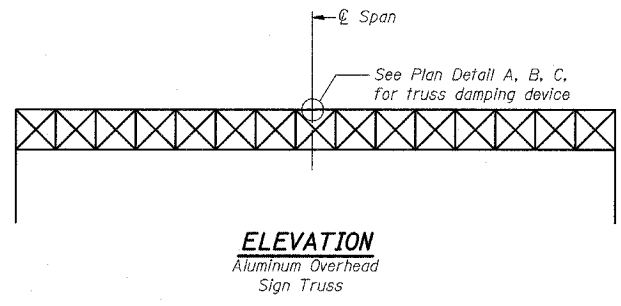
PLAN DETAIL "A"
SPAN BETWEEN PANEL POINTS



PLAN DETAIL "B"
SPAN AT PANEL POINT



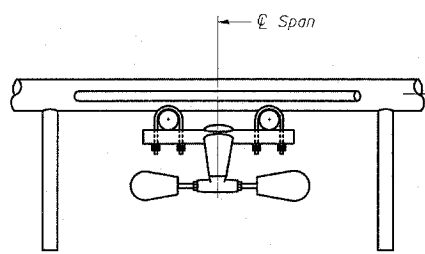
PLAN DETAIL "C"
SPAN AT CHORD SPLICE



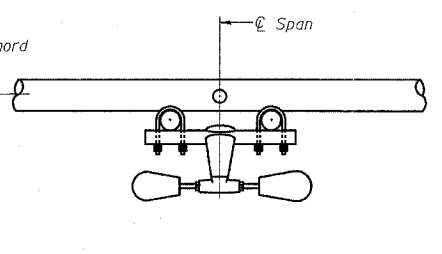
ELEVATION
Aluminum Overhead Sign Truss

NOTES

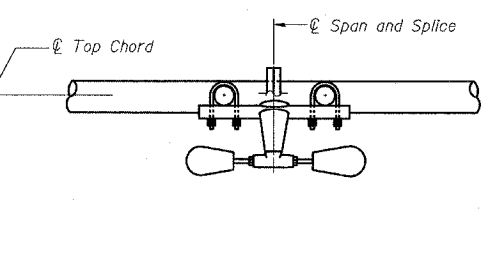
Damper: One damper per truss.
(31 lbs. Stockbridge-Type Aluminum)
Cost included in "Overhead Sign Structure..."
Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in "Overhead Sign Structure..."



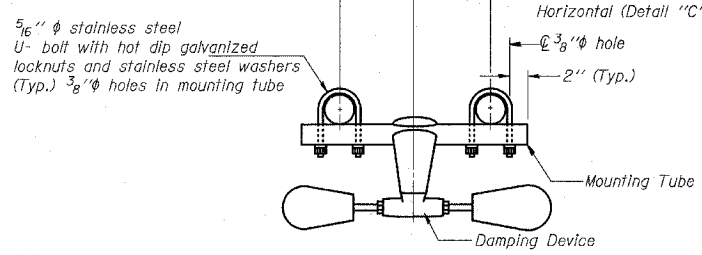
SECTION A-A



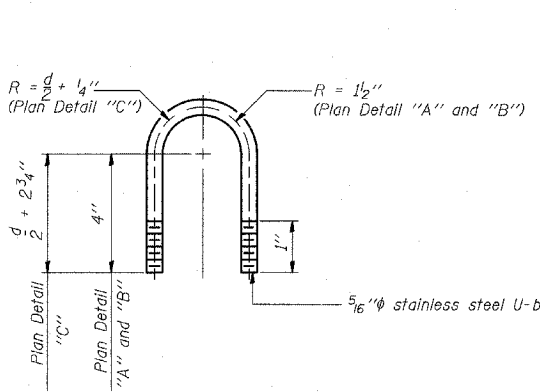
SECTION B-B



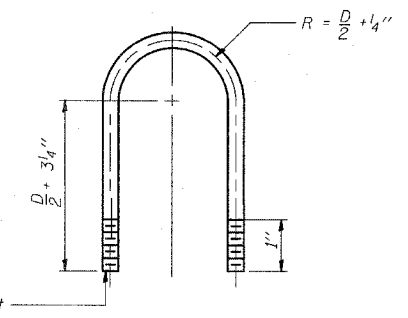
SECTION C-C



TRUSS DAMPING DEVICE CONNECTION DETAIL
(Typical)



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL
(Typical)



TOP CHORD TO CROSS TUBE U-BOLT DETAIL
(Typical - Detail "A" and "B")

DESIGNED	20
CHECKED	EXAMINED
DRAWN	PASSED
CHECKED	ENGINEER OF BRIDGES AND STRUCTURES

OS-A-D 11/1/2002

TYLIN INTERNATIONAL

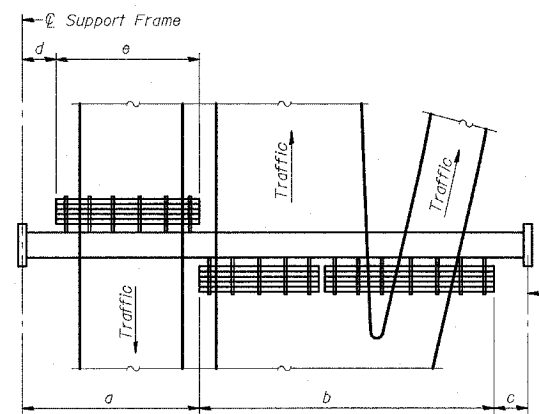
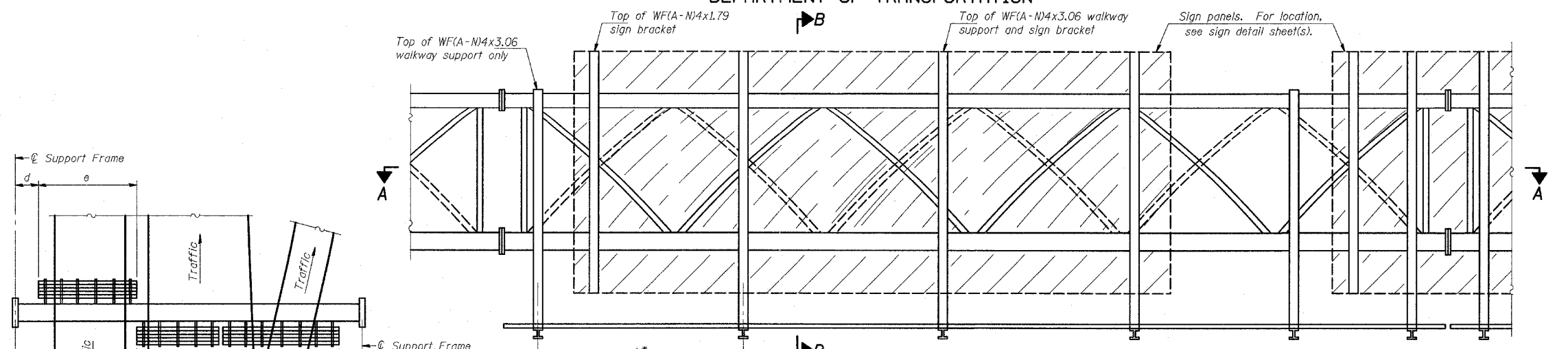
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

OVERHEAD SIGN STRUCTURES
DAMPING DEVICE

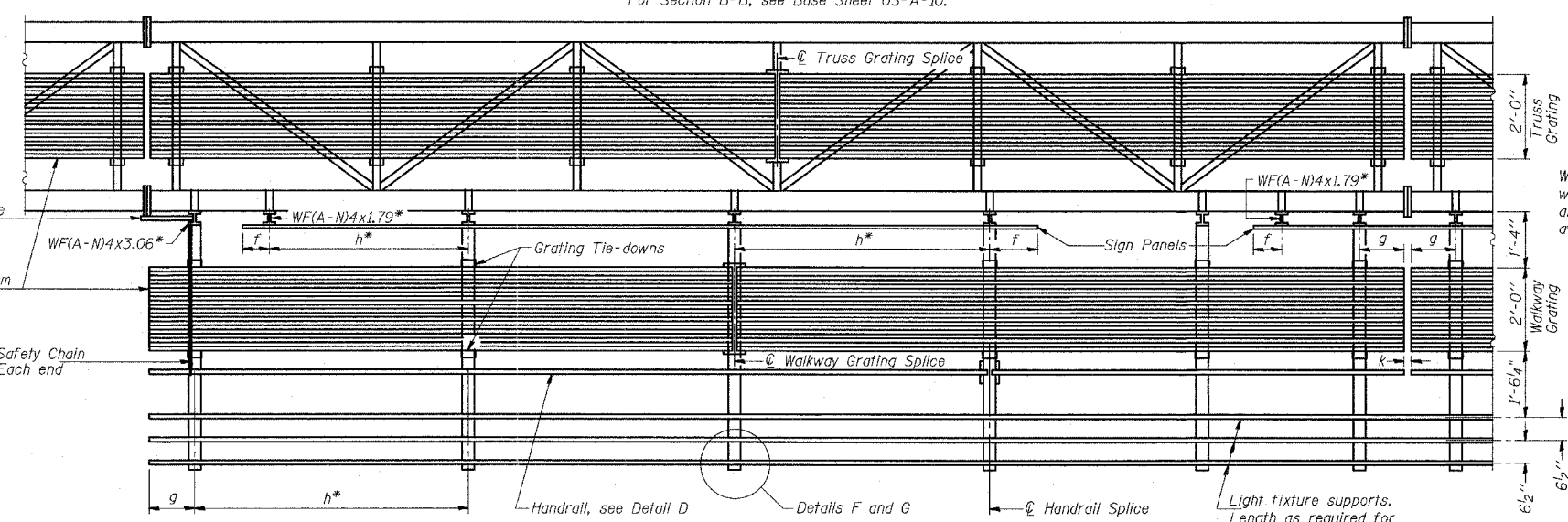
SCALE: AS NOTED
DATE: MARCH 7, 2006
DRAWN BY: AMB
CHECKED BY: TB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



BRACKET TABLE

Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6



Notes: *Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:
 f = 12" maximum, 4" minimum (End of sign to center of nearest bracket)
 g = 12" maximum, 4" minimum (End of walkway grating to center of nearest support bracket)
 h = 6'-0" maximum (center to center of sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)
 k = 2" maximum gap between adjacent walkway grating sections and handrail ends
 **If walkway bracket at safety chain location is behind sign, add angle to bracket, see Alternate Safety Chain Attachment on Base Sheet OS-A-11.
 For Details T and W, Section B-B and Grating Splice Details, see Base Sheet OS-A-10.
 For Details D, F, G and P and Handrail Splice Details, see Base Sheet OS-A-11.

Structure Number	Station	a	b	c	d	e	Walkway Grating and Handrail Lengths
ISO161057L358.0	334+00	36.11'	32.00'	16.89'	-	-	32.00'
ISO161094L063.8	2006+00	10.06'	54.00'	31.94'	-	-	54.00'

OS-A-9 11/1/2002

DESIGNED -	20
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	

NUMBER	REVISION	DATE

TYLIN INTERNATIONAL

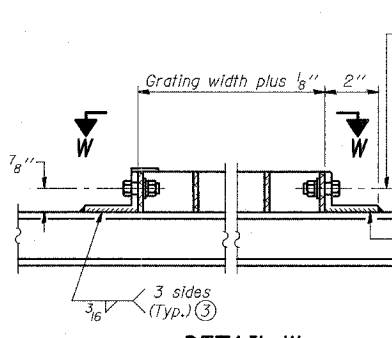
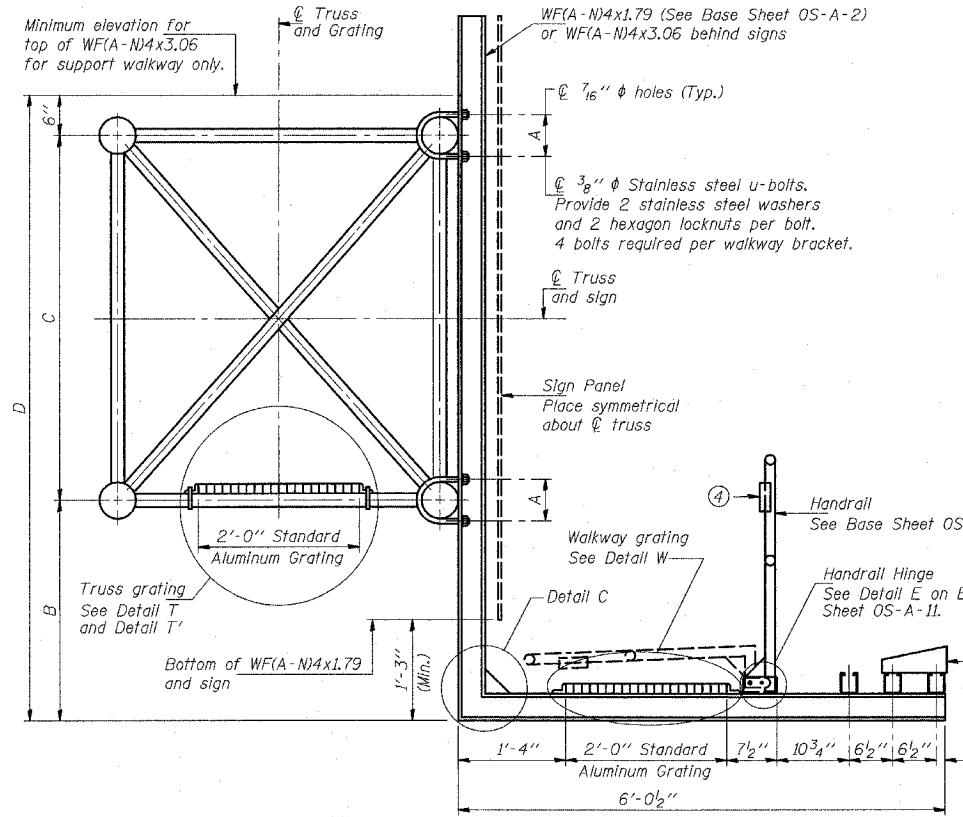
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

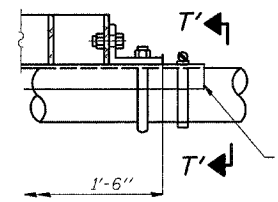
**OVERHEAD SIGN STRUCTURES
ALUMINUM WALKWAY DETAILS**

SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 7, 2006 CHECKED BY: TB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

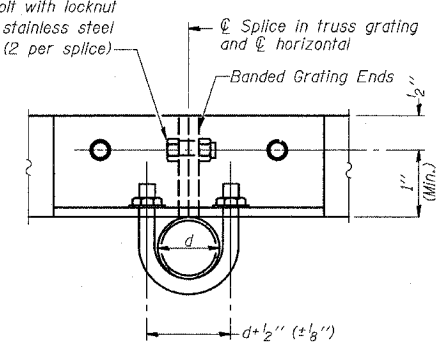


DETAIL W
(Walkway grating)

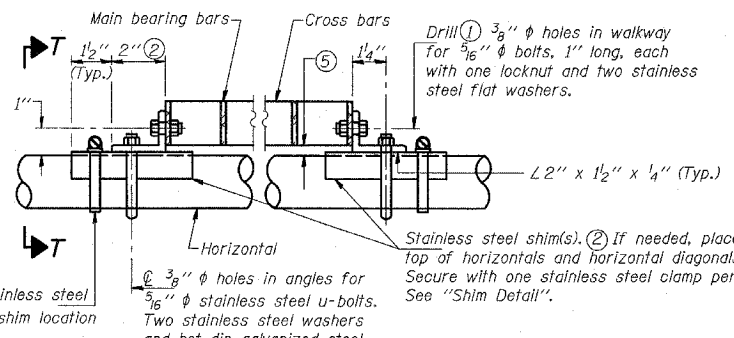


DETAIL T'
(Truss grating splice)

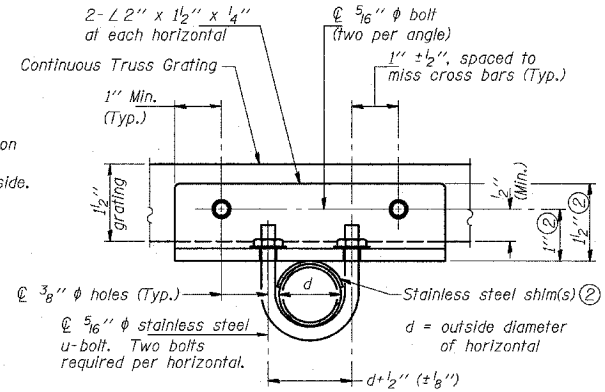
Details not shown same as Detail T. Alternate materials may be used subject to the Engineer's review and approval.



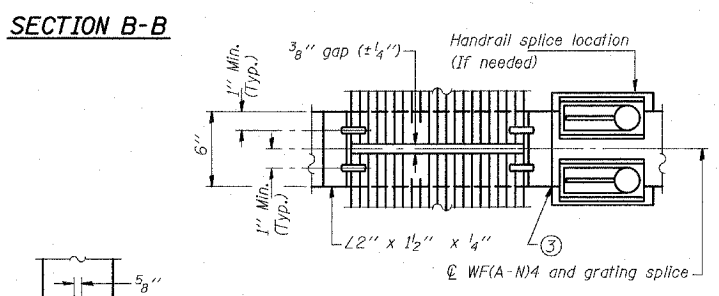
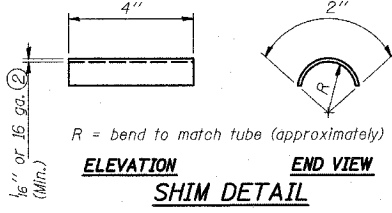
SECTION T'-T'



DETAIL T
(Continuous Truss grating)

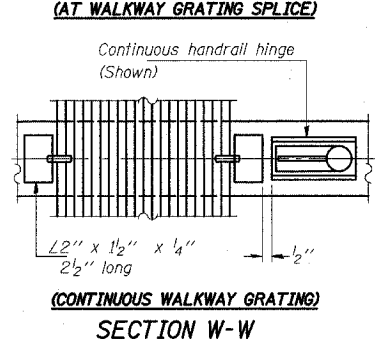


SECTION T-T



DETAIL C
(See Detail P, Base Sheet OS-A-II.)

SECTION C-C



SECTION W-W
(CONTINUOUS WALKWAY GRATING)

SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars shall be 3/16" x 1 1/2" on 1 3/16" centers and conform to ASTM B221 Alloy 6061-T6.
Cross bars shall be 3/16" x 1 1/2" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

Aluminum Grating with modified "T" sections for main bearing bars shall meet the following requirements:
Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.³ per bar, a depth of 1 1/2", spaced on 1 3/16" centers.
Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

Structure Number	Station	A	B	C	D
ISO161057L358.0	334+00	5'-3"	5'-3"	4'-6"	10'-3"
ISO161094L063.8	2006+00	6"	5'-3"	4'-6"	10'-3"

- Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.
- If Handrail Joint present, weld angle to WF(A-N)4 and 1/4" extension bars. (See Base Sheet OS-A-II.)
- L 5/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
- Tube to grating gap may vary from 0 to 1/2" (max.) to align walkway, allow for camber, etc.

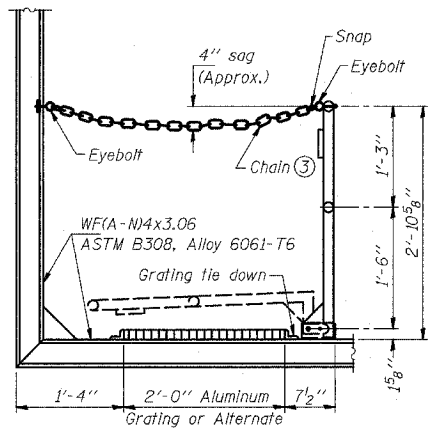
DESIGNED -	20
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF STRUCTURAL SERVICES
	ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

OS-A-10 11/1/2002

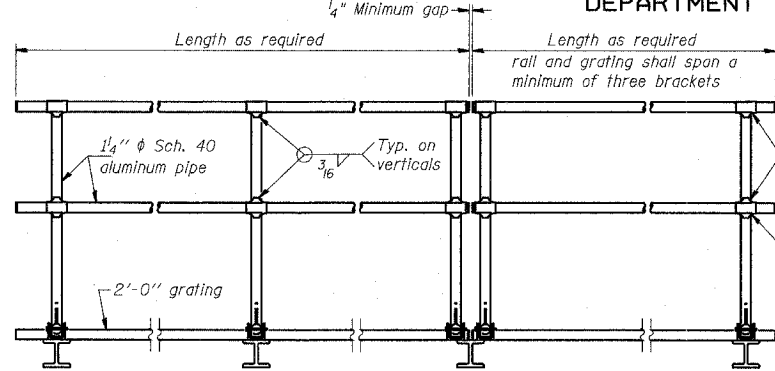
REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SIDE ELEVATION

(Showing safety chain w/o sign)



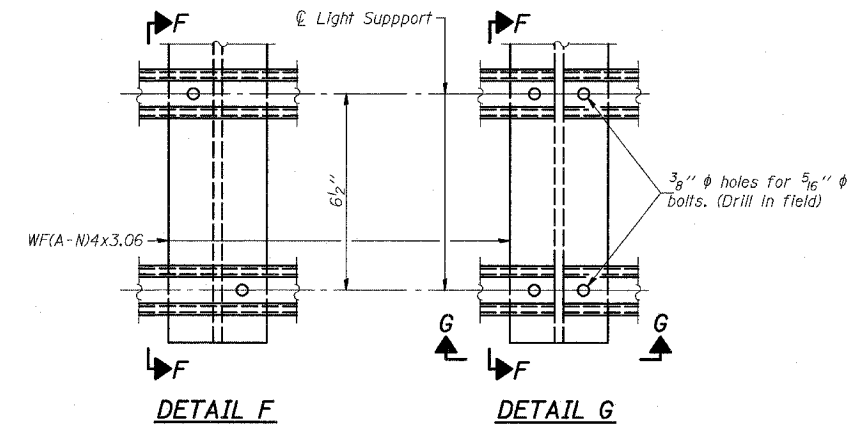
FRONT ELEVATION

① Install standard force-fit end caps or weld 3/8" end plates with 1/8" c.f.w. and grind smooth. (All rail ends)
Fittings-ASTM B26, Alloy 356-T7

② Horizontal handrail member shall be continuous thru fitting. Provide 1/16" hole in fitting for 3/8" bolt. Field drill 1/16" hole in horizontal rail member. Provide locknut and two stainless steel washers for bolt. (Use 5/16" eyebolts in 1/16" holes on top rail at ends only.)

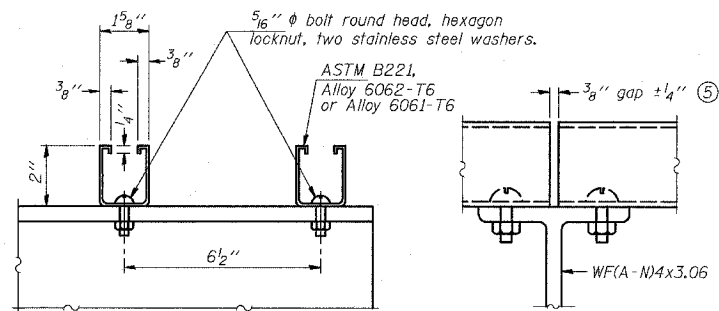
HANDRAIL DETAILS

Handrail pipe shall be ASTM B241, Alloy 6063-T6 or Alloy 6061-T6.



DETAIL F

DETAIL G

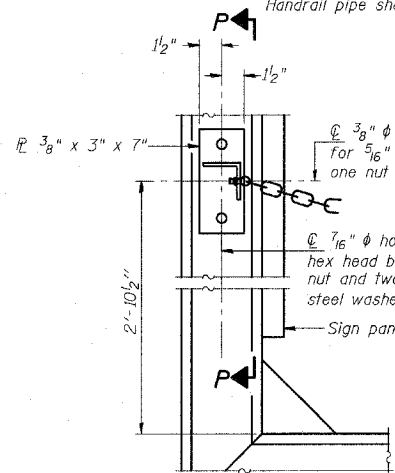


SECTION F-F

SECTION G-G

LIGHTING FIXTURE MOUNTS (IF REQUIRED)

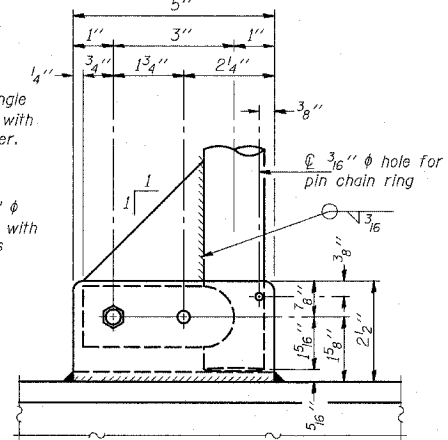
⑤ Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.



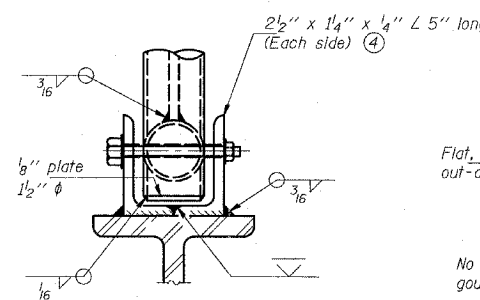
ALTERNATE SAFETY CHAIN ATTACHMENT

(With Sign Present)

Items not shown same as "Side Elevation" of "Handrail Details"

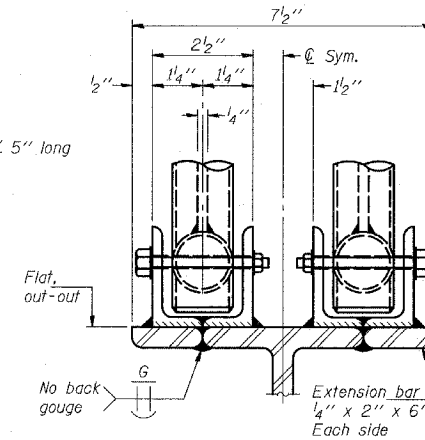


SIDE ELEVATION

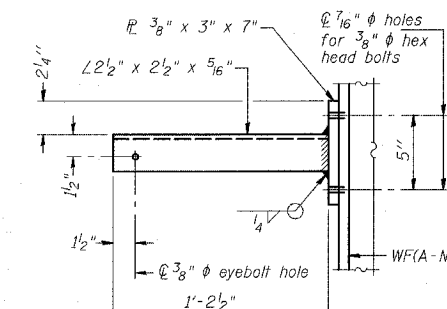


FRONT ELEVATION

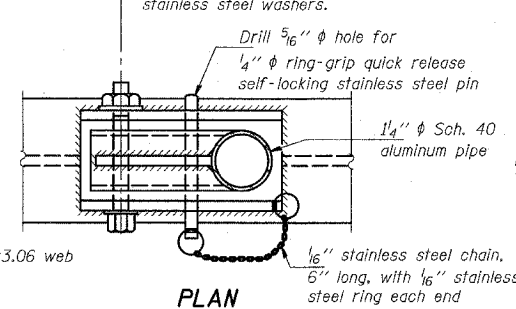
See "ELEVATION" at right for dimensions.



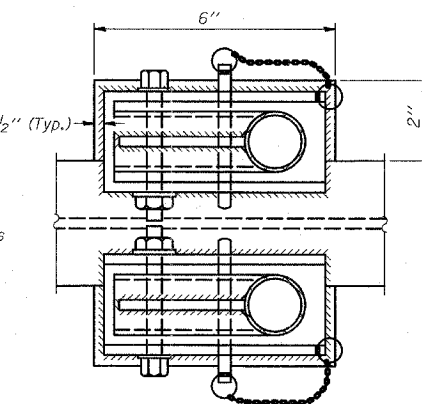
ELEVATION AT HANDRAIL JOINT ④



SECTION P-P

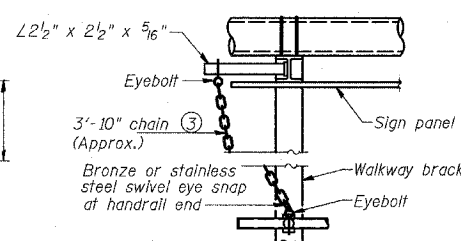


**PLAN
DETAIL E HANDRAIL HINGE**



PLAN AT HANDRAIL JOINT

Details not shown same as "PLAN"

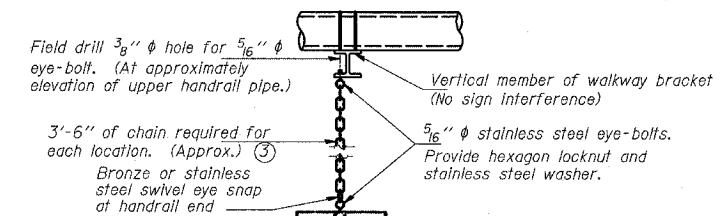


ALTERNATE SAFETY CHAIN ATTACHMENT

Details not shown similar to "Safety Chain" Details (Walkway omitted for clarity)

③ 3/16" galvanized steel chain, approximately 12 links per foot. Chain to be hot dip galvanized after manufacture and suitable for prolonged exterior exposure. Alternate materials may be substituted with the Engineer's approval.

④ Extrusions may be used in lieu of the details shown, with approval of the Engineer.



SAFETY CHAIN

One required for each end of each walkway.

DESIGNED	20
CHECKED	EXAMINED
DRAWN	PASSED
CHECKED	

OS-A-11 11/1/2002

NUMBER	REVISION	DATE

REVISIONS	
NAME	DATE

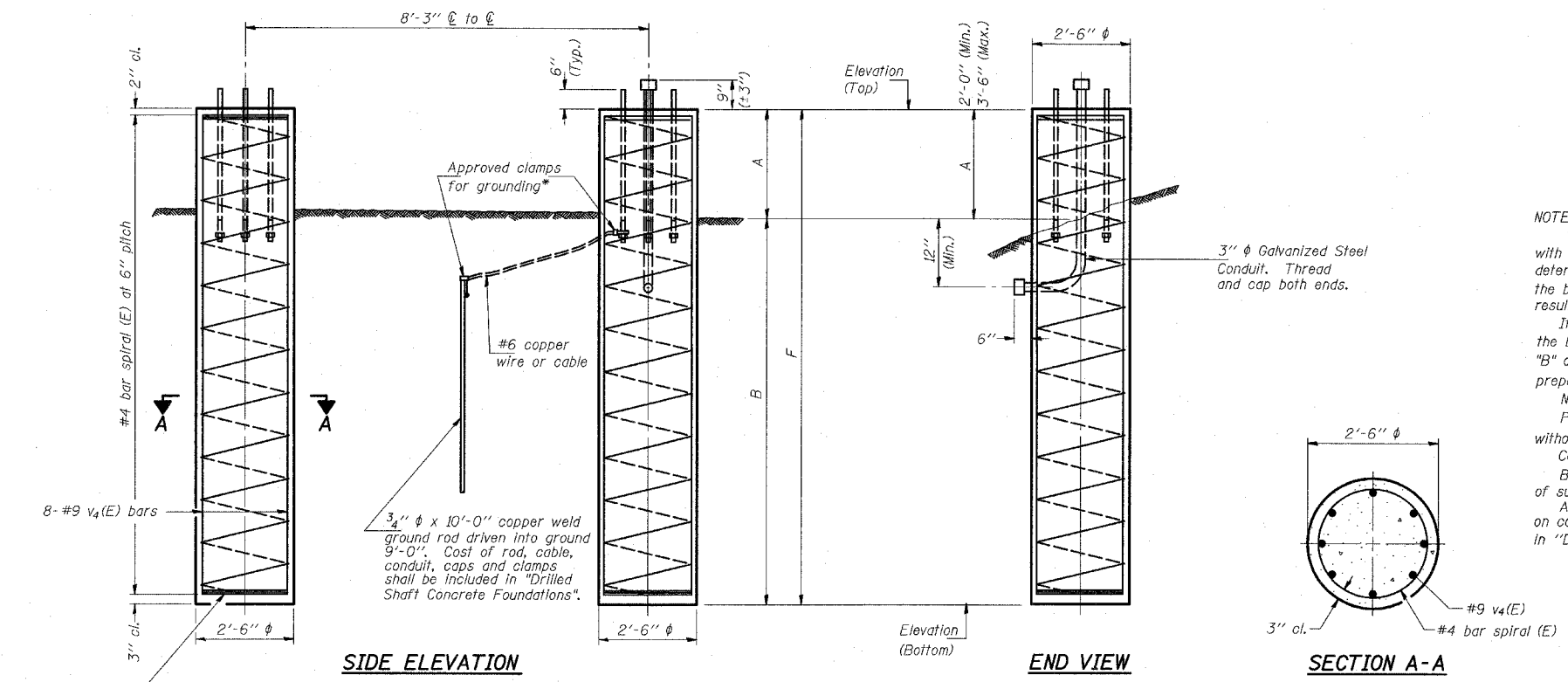
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

For anchor rod size and placement, see Support Frame Detail Sheet.

*Anchor rod shall be ground or filed to bright metal at clamp and cable connection location.

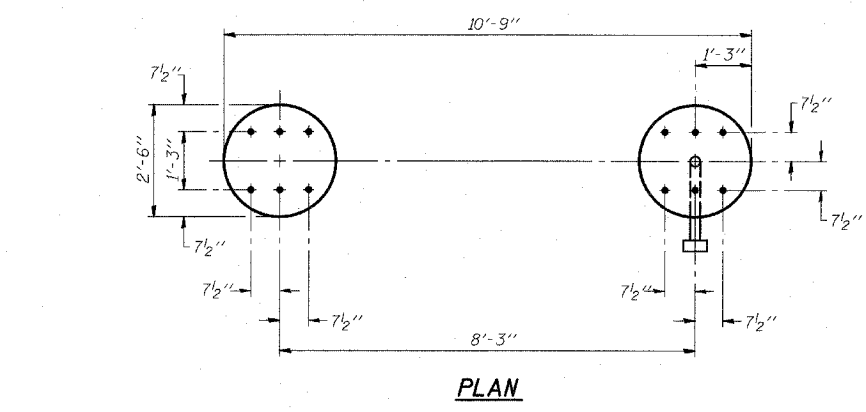
BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
v4(E)	16	#9	F less 5"	
#4 bar spiral (E) - see "SIDE ELEVATION"				



NOTES:
 The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.
 If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the Foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.
 No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.
 Concrete shall be placed monolithically, without construction joints.
 Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.
 A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in "Drilled Shaft Concrete Foundation".

Note: All steel materials shall be included in the cost of "Drilled Shaft Concrete Foundations".



Structure Number	Station	Left Foundation			Right Foundation			Class SI Concrete (Cu. Yds.)				
		Elevation Top	Elevation Bottom	A	B	F	Elevation Top		Elevation Bottom	A	B	F
ISO161057L358.0	334+00	-9.14	-28.21	2.57'	16.5'	19.07'	-8.64	-27.68	2.54'	16.5'	19.04'	13.86
ISO161094L063.8	2006+00						7.33	-11.85	2.68'	16.5'	19.18'	6.98
ISO161094R062.8	2204+62						9.40	-10.60	3.50'	16.5'	20.00'	7.27

DESIGNED	
CHECKED	
DRAWN	
CHECKED	

EXAMINED	20
PASSED	

NUMBER	REVISION	DATE

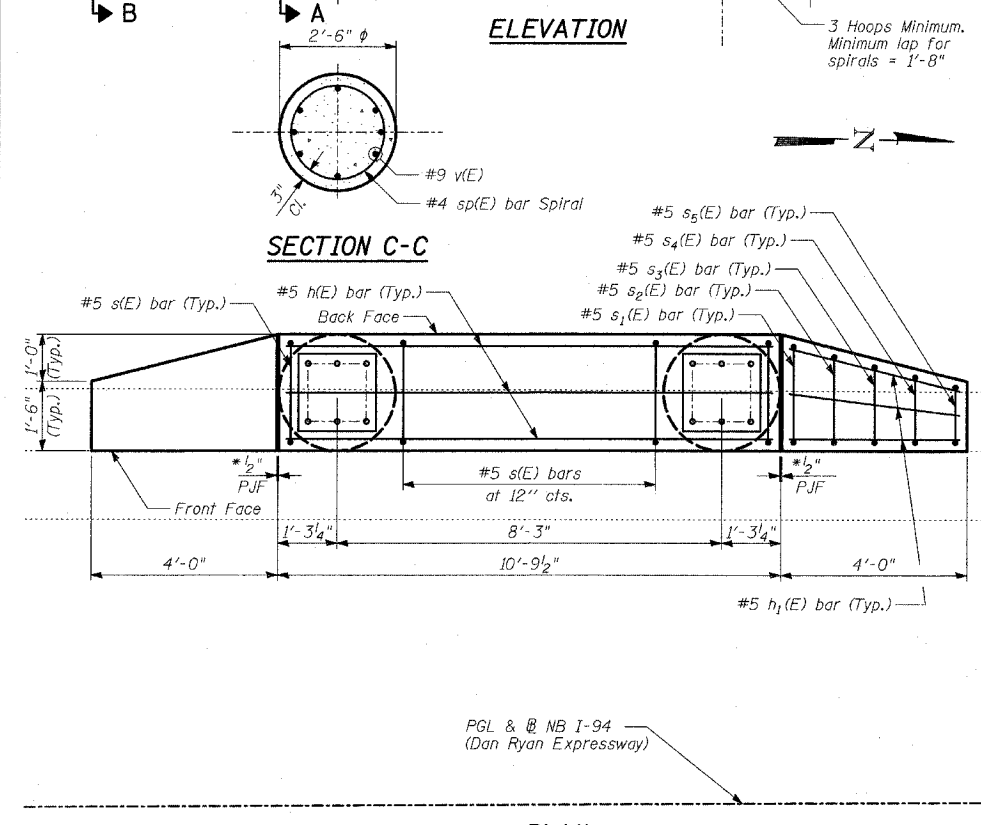
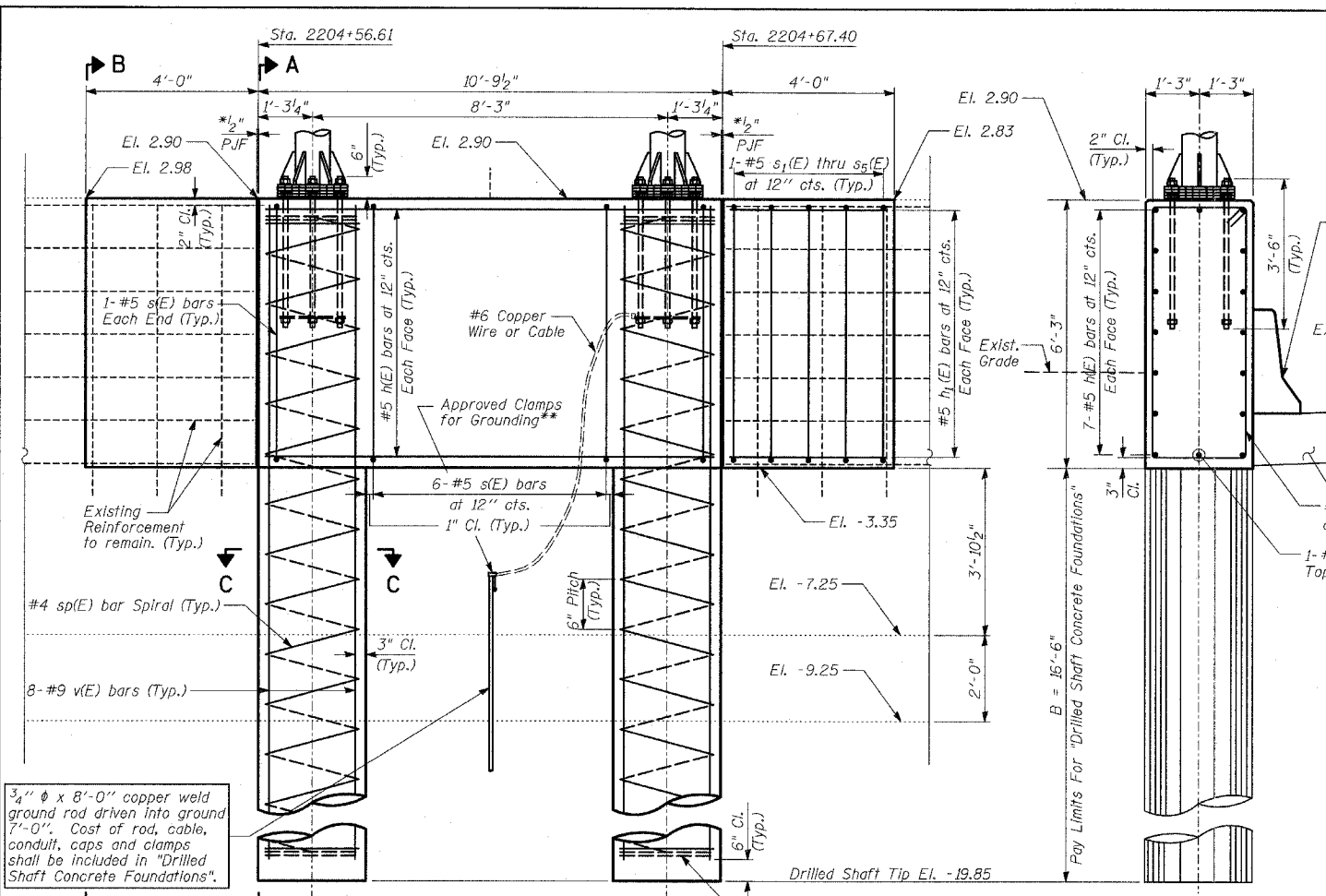
DETAILS FOR 10" Ø SUPPORT FRAME
 TYPE I-A or II-A TRUSS

OS4-F3 11/1/2002

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 OVERHEAD SIGN STRUCTURES
 DRILLED SHAFT DETAILS
 SCALE: AS NOTED
 DATE: MARCH 7, 2006
 DRAWN BY: AMB
 CHECKED BY: TB



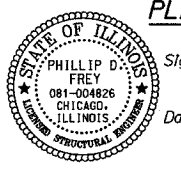
PLAN

PHILLIP D. FREY
 PHILLIP D. FREY, S.E., Ill. Lic. No. 081004826
 Expires 11-30-2006

Signed: *Phillip D. Frey*
 Date: 3/7/06

PGL & @ NB I-94 (Dan Ryan Expressway)

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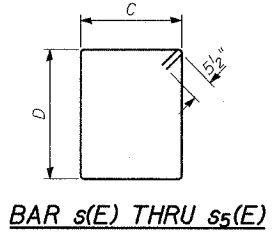
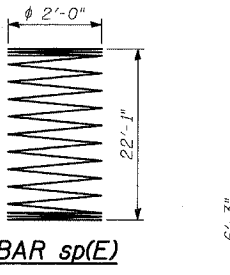
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	16	#5	10'-6"	—
h ₁ (E)	32	#5	3'-8"	—
s(E)	8	#5	16'-11"	—
s ₁ (E)	2	#5	16'-11"	—
s ₂ (E)	2	#5	16'-7"	—
s ₃ (E)	2	#5	16'-1"	—
s ₄ (E)	2	#5	15'-7"	—
s ₅ (E)	2	#5	15'-3"	—
sp(E)	2	#4	22'-1"	
v(E)	16	#9	22'-1"	—
Reinforcement Bars, Epoxy Coated				2.210
Porous Granular Embankment				11
Concrete Removal				12
Concrete Structures				10
Protective Coat				24
Chain Link Fence, 6' (Special)				28
Chain Link Fence to be Removed and Re-Erected (CTA)				23
Drilled Shaft Concrete Foundations				6
Braced Excavation				8

Reinforcement bars designated (E) shall be epoxy coated.

MARK TABLE

Bar	C	D
s (E)	2'-2"	5'-10"
s ₁ (E)	2'-1"	5'-11"
s ₂ (E)	1'-11"	5'-11"
s ₃ (E)	1'-8"	5'-11"
s ₄ (E)	1'-5"	5'-11"
s ₅ (E)	1'-3"	5'-11"



LEGEND

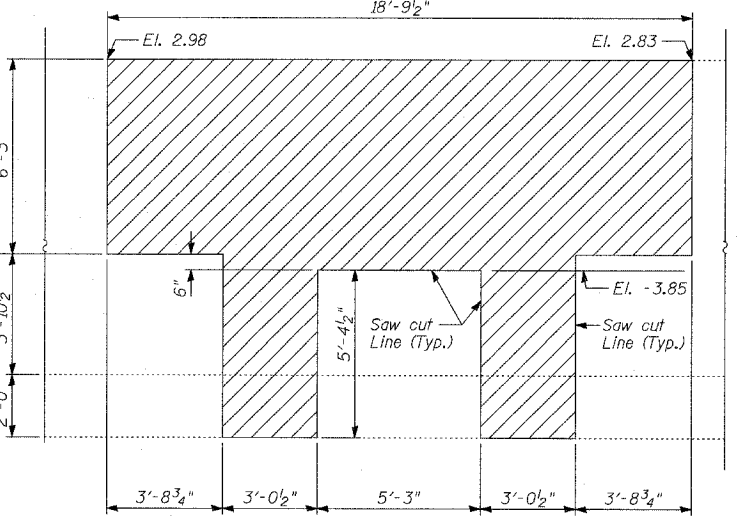
Concrete Removal

* Cost included with "Concrete Structures"

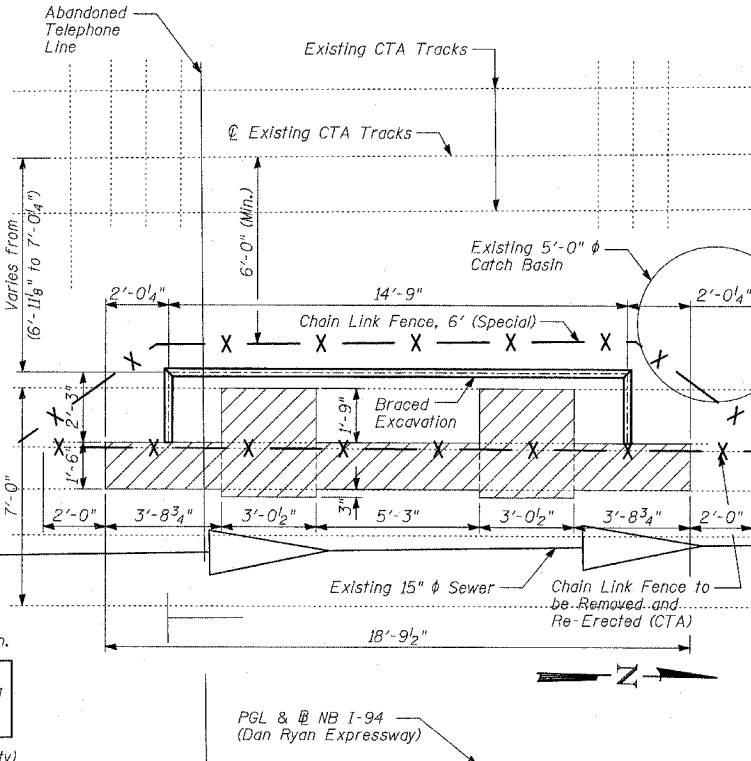
** Anchor rod shall be ground or filled to bright metal at clamp and cable connection location.

NOTES:

- Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.
- Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work; however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Any reinforcement bars that are damaged during concrete removal operations at the top of the existing walls shall be repaired or replaced using approved bar splicer or anchorage system. Cost included with "Concrete Removal".
- Sand blast clean existing reinforcing bars to be incorporated into new construction. After cleaning, bars shall be evaluated to determine if additional reinforcing bars are required. Damaged or cut bars, or bars that have lost 25% or more of their original cross sectional area shall be supplemented by new in-kind reinforcement bars, to the approval of the engineer. Cost included with "Concrete Removal".
- All exposed concrete edges shall be chamfered 3/4" except as noted.
- Protective Coat shall be applied to exposed surfaces of the new concrete Foundation.
- All construction joints shall be bonded.
- All elevations shown are based on the Chicago City Datum of 0.00, which is 579.19 feet above mean tide New York. (NAVD 88)
- It is the Contractor's responsibility to locate existing utilities. Any repairs due to damage of the existing utilities shall be the Contractor's responsibility.
- The design loads are based on AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals-2001.
- At all locations where reinforcement bar laps are not in direct contact, the Contractor shall provide sufficient spacing between the vertical bars, equal to the size of the largest concrete aggregate plus 1/2 inch.
- The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.
- If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimension "B" is revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.
- No sonotubes or decomposable forms shall be used below the lower conduit entrance.
- Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.
- Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.
- Foundations: The contract unit price for "Drilled Shaft Concrete Foundations" shall include: All necessary excavation or drilling (except in rock), disposal of unsuitable or surplus material, formwork, and furnishing and placing the Class SI Concrete, reinforcement bars, conduit, anchor bolts, nuts, washers and ground rods complete in place.
- All work to be done by the Contractor on, over or in close proximity of the CTA (Chicago Transit Authority) right-of-way shall be performed in accordance with Article 107.12 of the Standard Specifications and additional CTA requirements (see Special Provisions)
- Fill material should be structural fill material, IDOT gradation CA-6. Fill material should be free of organic matter and debris. Fill should be placed in loose lifts not exceeding 8-inch thickness and compacted to minimum 95 percent maximum dry density, as determined in accordance with AASHTO T-99, Standard Proctor Method.
- The design of the braced excavation is the responsibility of the Contractor. The Contractor shall submit drawings and design for the braced excavation to the Engineer for approval. The braced excavation design and drawings shall be signed and sealed by an Illinois Licensed Structural Engineer, submitted and approved prior to the start of any work. The Engineer's approval shall not relieve the Contractor from the sole responsibility of the structural integrity of the braced excavation system.
- For anchor rod size and placement, see Support Frame Details Sheet.



CONCRETE REMOVAL LIMITS



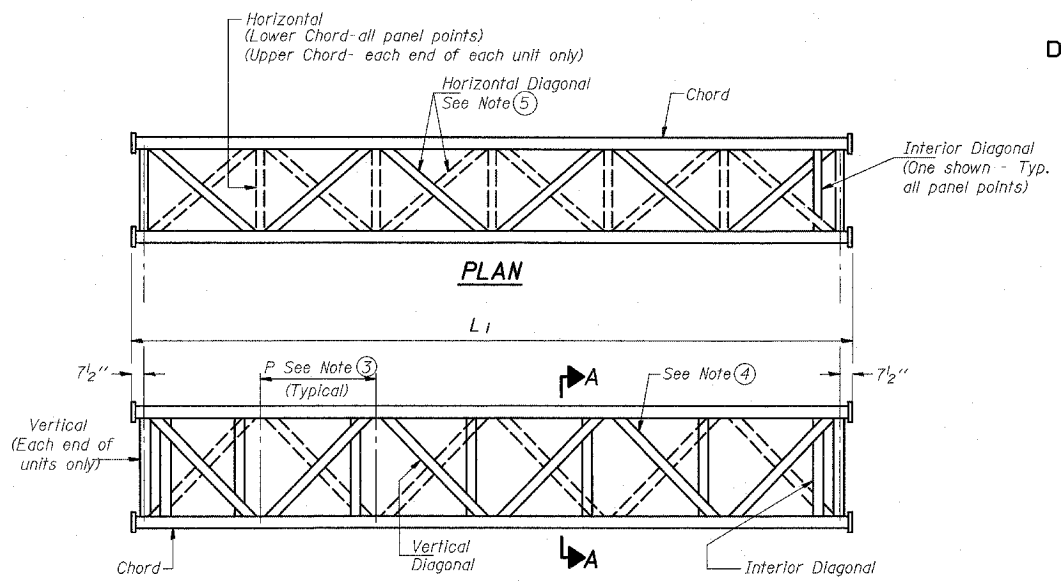
LIMITS OF BRACED EXCAVATION

REVISIONS	
NAME	DATE

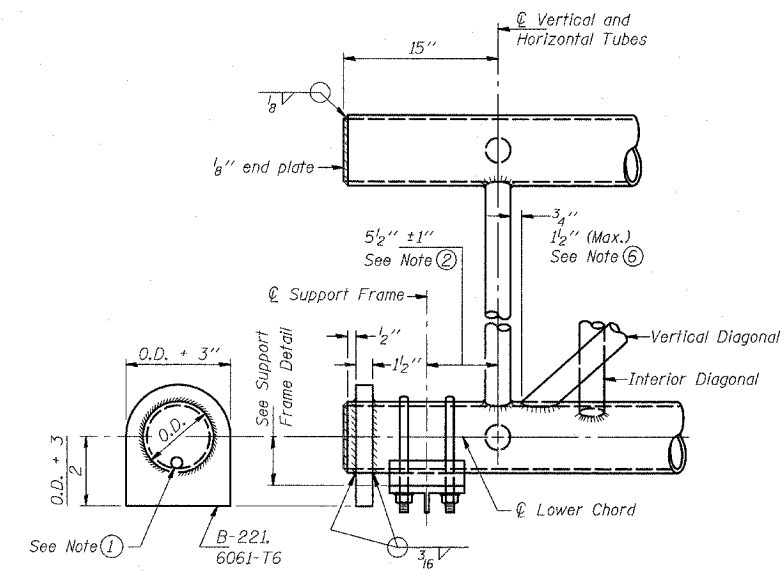
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 OVERHEAD SIGN STRUCTURE
 (150161094R062.8)
 MEDIAN SUPPORT FOUNDATION DETAILS
 WEST END AT EXISTING RETAINING WALL

S.N. DESIGNED BY: MAF
 SCALE: N.T.S. DRAWN BY: MAF
 DATE: MARCH 7, 2006 CHECKED BY: MI

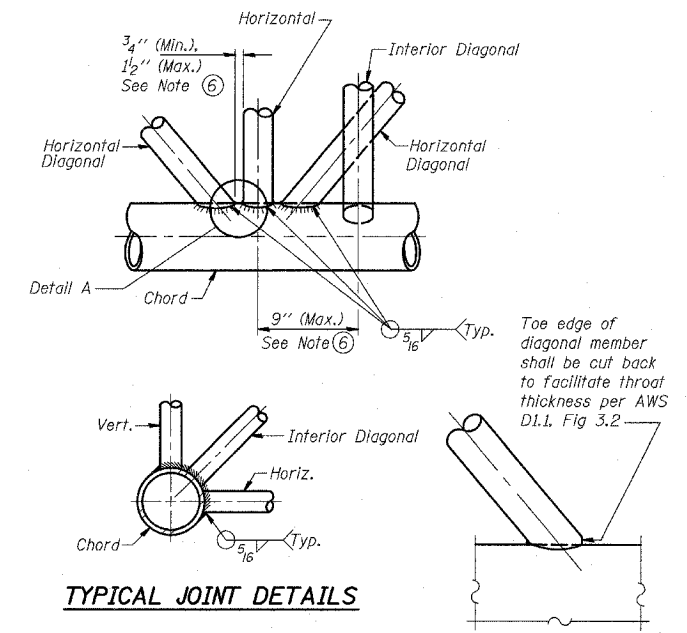
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



**ELEVATION
TYPICAL INTERIOR UNIT**
Even number of panels/interior unit required.



SUPPORT END DETAIL FOR EXTERIOR UNIT

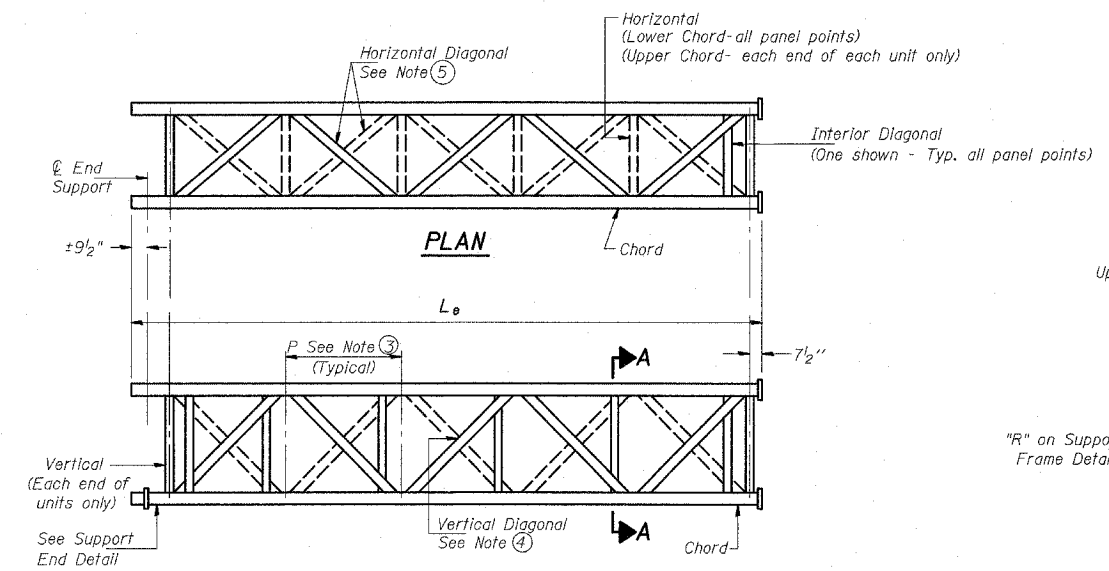


TYPICAL JOINT DETAILS

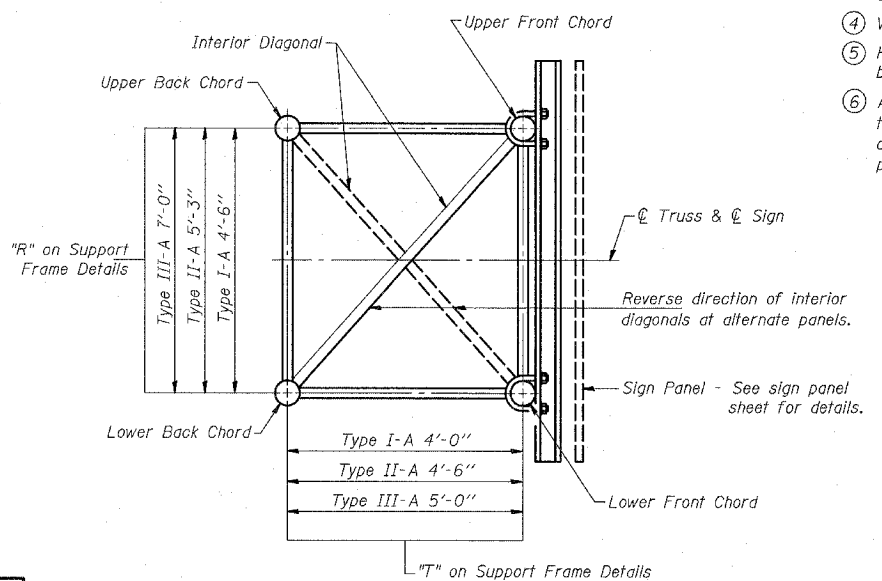
DETAIL A

NOTES

- Contractor may alternatively use standard aluminum drive-fit cap to close end. 1/2" diameter drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
- 5 1/2" end dimension may vary by +/- 1" to provide uniform panel spacing (P).
- Panel spacing (P) shall be uniform for entire truss and between 4'-0" and 5'-0" for Type I-A or 4'-0" and 5'-6" for Types II-A and III-A.
- Vertical Diagonals in front and back face shall alternate.
- Hidden lines show wind bracing alternates direction between planes of top and bottom chords.
- All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a 3/4" minimum to 1 1/2" maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.



**ELEVATION
TYPICAL EXTERIOR UNIT**
Even or odd number of panels/exterior units allowed.



SECTION A-A

DESIGNED	20
CHECKED	EXAMINED
DRAWN	PASSED
CHECKED	ENGINEER OF STRUCTURAL SERVICES
	ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

OS-A-2 11/1/2002

TYLIN INTERNATIONAL

**INCLUDED FOR INFORMATION ONLY.
SHEET ORIGINALLY IN CONTRACT 62694.**

REVISIONS	
NAME	DATE

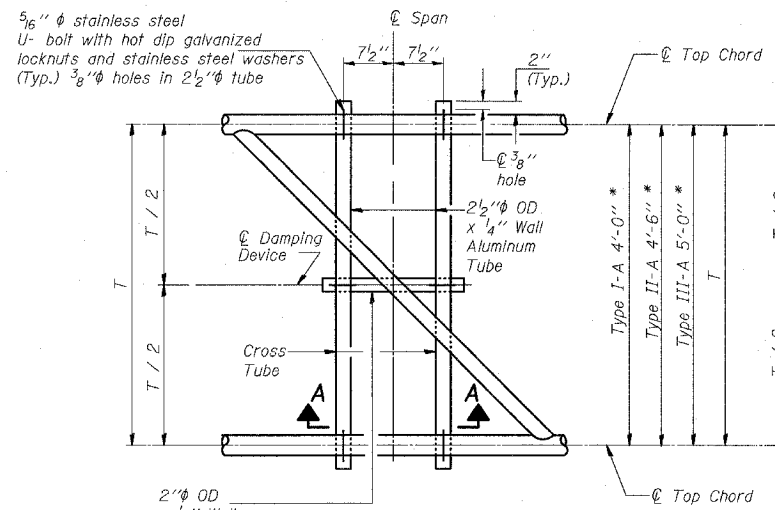
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
OVERHEAD SIGN STRUCTURES
ALUMINUM TRUSS DETAILS
FOR TRUSS TYPES I-A, II-A AND III-A

SCALE: AS NOTED
DATE: MARCH 18, 2005
DRAWN BY: AMB
CHECKED BY: TB

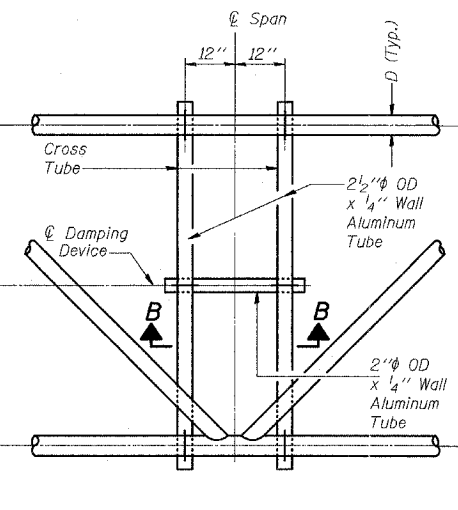
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94		COOK	916	554
STA. 190+65 (NB I-57) TO STA. 2316+00 (NB RYAN)				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
				62304

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

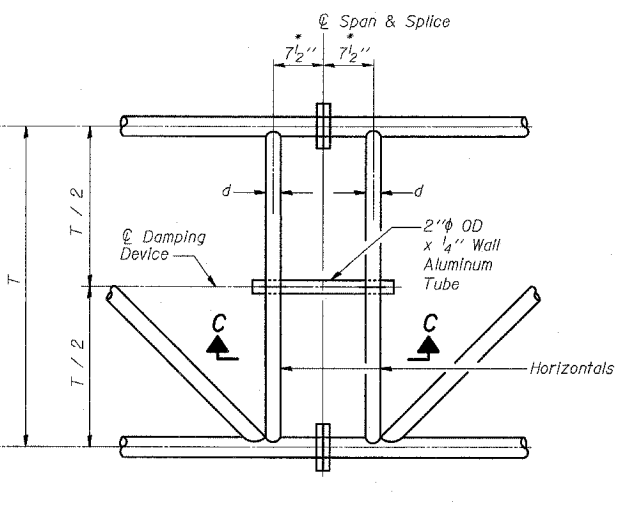
* Center of horizontal to center of splice dimension may vary. Verify before drilling holes in mounting tube.



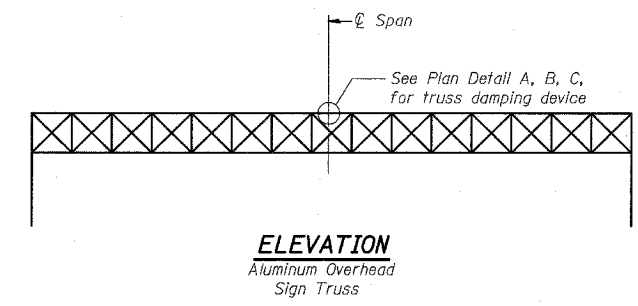
PLAN DETAIL "A"
Span Between Panel Points



PLAN DETAIL "B"
Span at Panel Point



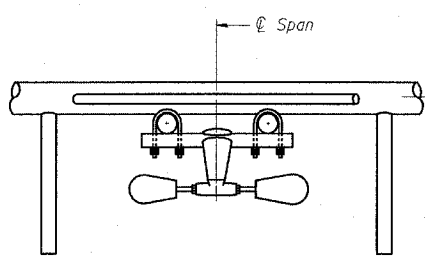
PLAN DETAIL "C"
Span at Chord Splice



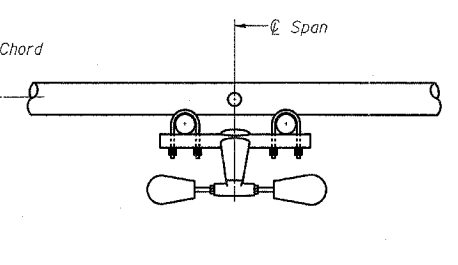
ELEVATION
Aluminum Overhead Sign Truss

NOTES

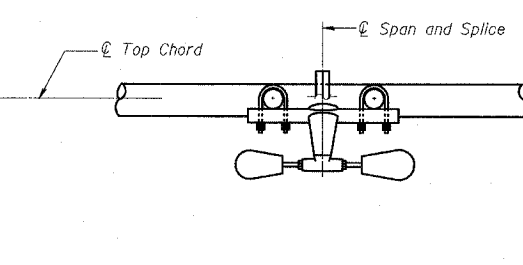
Damper: One damper per truss.
(31 lbs. Stockbridge-Type Aluminum)
Cost included in "Overhead Sign Structure..."
Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in "Overhead Sign Structure..."



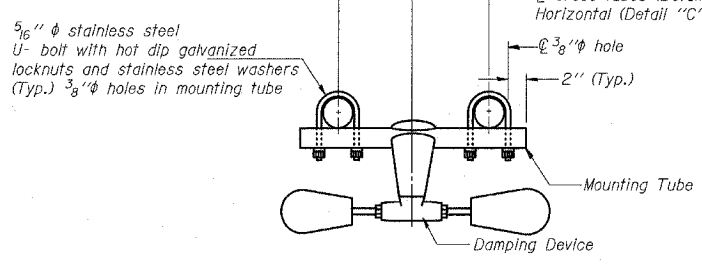
SECTION A-A



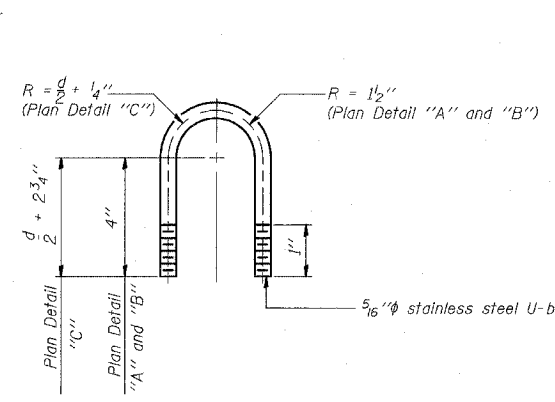
SECTION B-B



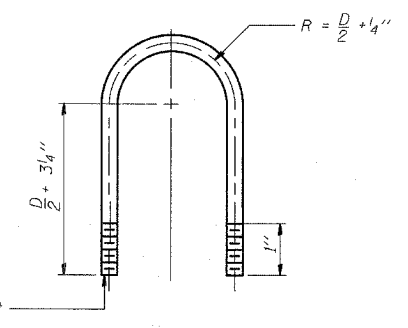
SECTION C-C



TRUSS DAMPING DEVICE CONNECTION DETAIL
(Typical)



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL
(Typical)



TOP CHORD TO CROSS TUBE U-BOLT DETAIL
(Typical - Detail "A" and "B")

DESIGNED	20
CHECKED	EXAMINED
DRAWN	PASSED
CHECKED	ENGINEER OF BRIDGES AND STRUCTURES

OS-A-D 11/1/2002

**INCLUDED FOR INFORMATION ONLY.
SHEET ORIGINALLY IN CONTRACT 62694.**

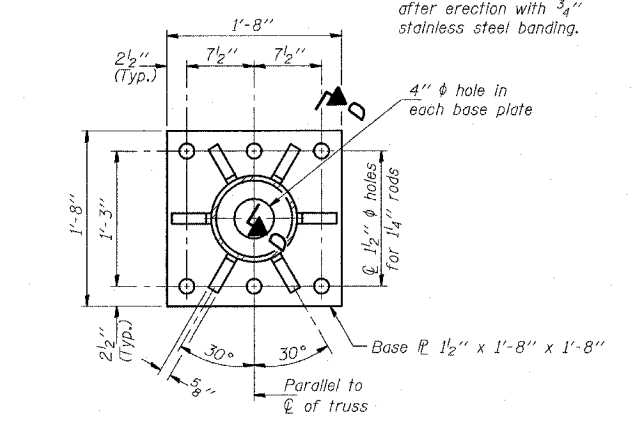
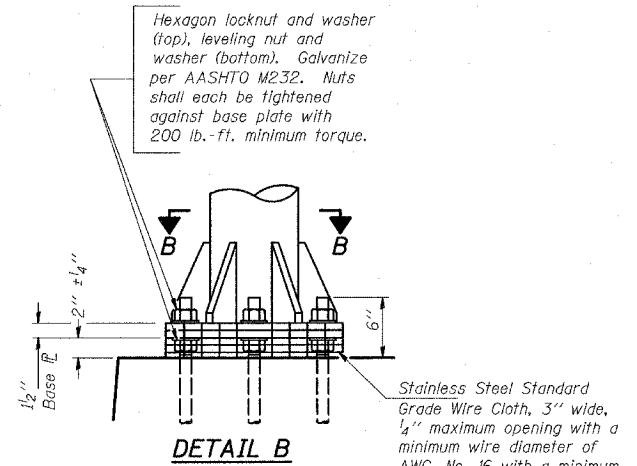
TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

OVERHEAD SIGN STRUCTURES
DAMPING DEVICE

SCALE: AS NOTED
DATE: MARCH 18, 2005
DRAWN BY: AMB
CHECKED BY: TB

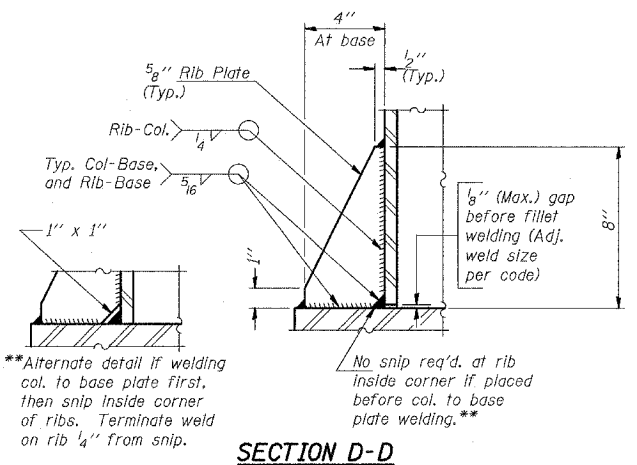


SECTION B-B

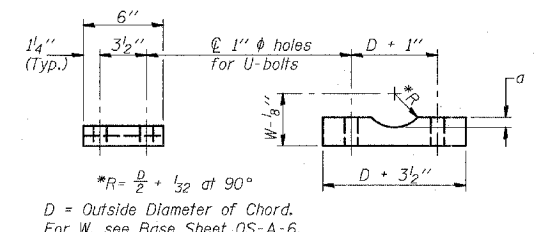
NUMBER	REVISION	DATE

DESIGNED		20
CHECKED		
DRAWN		
CHECKED		

OS-A-6A 11/1/2002



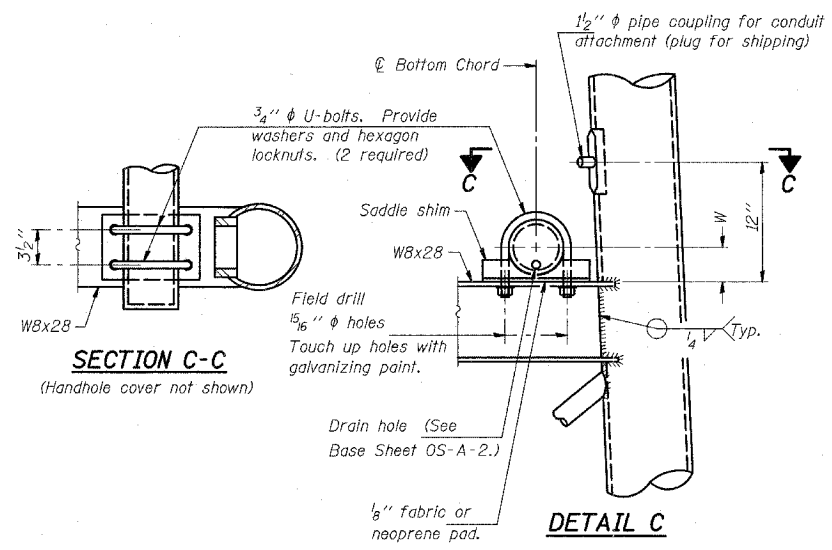
SECTION D-D



SADDLE SHIM DETAIL

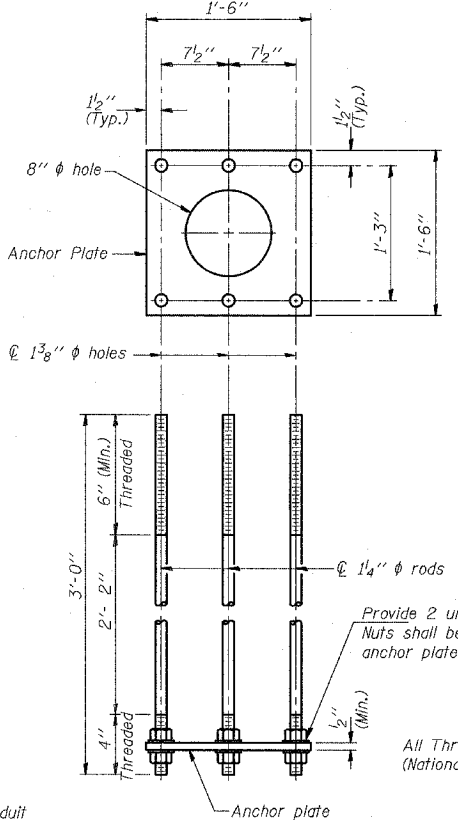
ASTM B26 Alloy 356-F
or
ASTM B209 Alloy 6061-T651
(4 required per sign truss)

Truss Chord Nominal Dia.	a
5"	3/4"
5 1/2"	13/16"
6"	7/8"
6 1/2"	15/16"
7"	1"

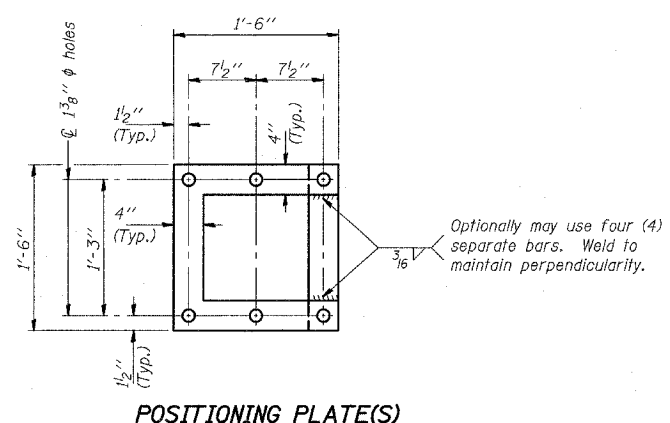


SECTION C-C

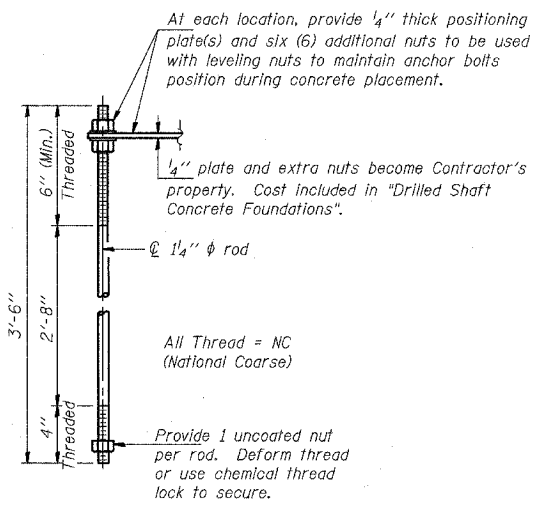
DETAIL C



ANCHOR ROD DETAIL
Spread Footing Foundation



POSITIONING PLATE(S)



ANCHOR ROD DETAIL
Drilled Shaft Foundation

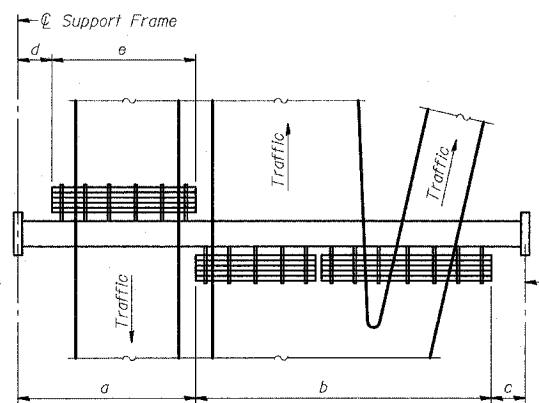
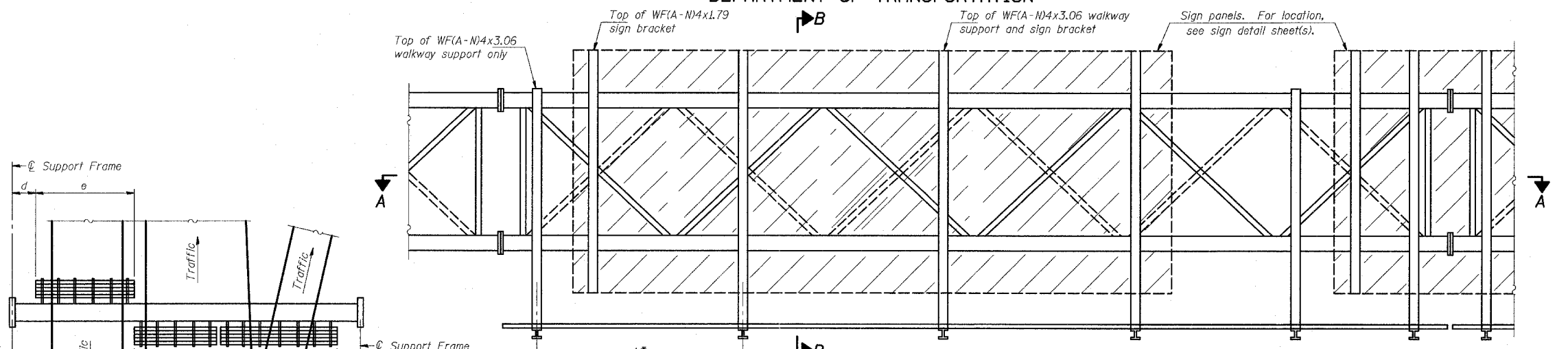
Anchor rods shall conform to AASHTO M314 Grade 36 or 50 and meet Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. Galvanize upper 12" per AASHTO M232. No welding shall be permitted on rods.

10" ϕ PIPE SUPPORT FRAME DETAILS

**INCLUDED FOR INFORMATION ONLY.
SHEET ORIGINALLY IN CONTRACT 62694.**

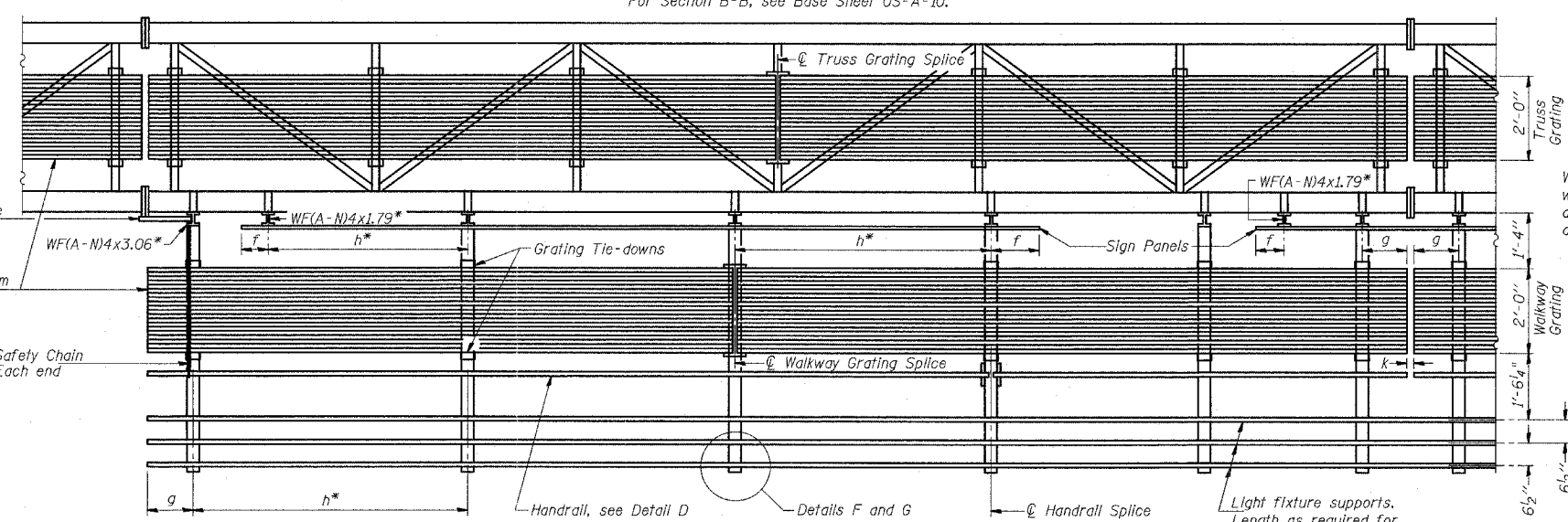
REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



BRACKET TABLE

Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6



Notes: *Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:
 f = 12" maximum, 4" minimum (End of sign to center of nearest bracket)
 g = 12" maximum, 4" minimum (End of walkway grating to center of nearest support bracket)
 h = 6'-0" maximum (center to center of sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)
 k = 2" maximum gap between adjacent walkway grating sections and handrail ends
 **Alternate angle for safety chain attachment
 Standard Aluminum Grating, see Details T and W
 **If walkway bracket at safety chain location is behind sign, add angle to bracket, see Alternate Safety Chain Attachment on Base Sheet OS-A-11.

Handrail and walkway shall span a minimum of three brackets between splices and/or gap joints. Place all sign and walkway brackets as close to panel points as practical. Grating, handrail and light support splices placed as needed.

Truss grating to facilitate inspection shall run full length (center to center of support frames) ±12" on overhead trusses. Cost of truss grating is included in "Overhead Sign Structure".

Structure Number	Station	a	b	c	d	e	Walkway Grating and Handrail Lengths
ISO161057R357.7	215+44	7.88'	56'	28.13'	-	-	56'
ISO161057R357.9	227+29	7.87'	62.5'	31.63'	-	-	62.5'
ISO161094R062.2	2204+66	9.92'	60'	26.06'	-	-	60'
ISO161094R062.2	2242+70	7.94'	85'	19.06'	-	-	85'
ISO161094R061.7	2264+34	8.83'	64'	33.17'	-	-	64'
ISO161094R061.2	2290+90	7.04'	79'	23.96'	-	-	79'
ISO161094R060.2	2344+44	7.79'	79'	28.21'	-	-	79'

2/18/06
Fabrication Only in Contract 62694

OS-A-9 11/1/2002

DESIGNED	20
CHECKED	EXAMINED
DRAWN	PASSED
CHECKED	

NUMBER	REVISION	DATE

**INCLUDED FOR INFORMATION ONLY.
SHEET ORIGINALLY IN CONTRACT 62694.**

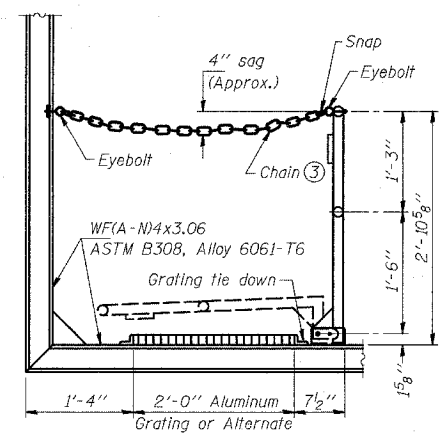
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

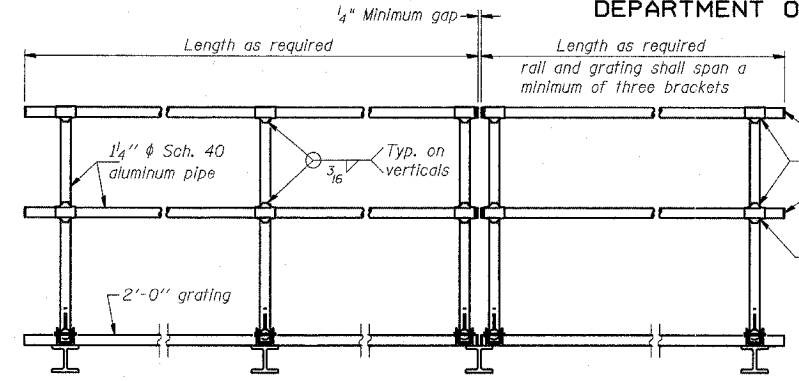
OVERHEAD SIGN STRUCTURES
ALUMINUM WALKWAY DETAILS

SCALE: AS NOTED
DATE: MARCH 18, 2005
DRAWN BY: AMB
CHECKED BY: TB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SIDE ELEVATION
(Showing safety chain w/o sign)

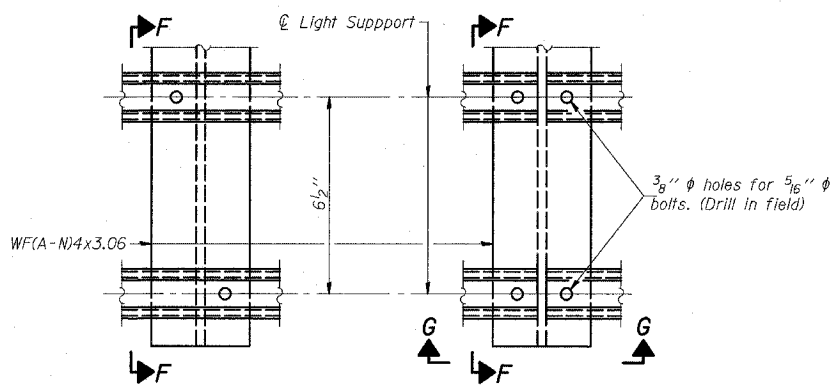


FRONT ELEVATION

HANDRAIL DETAILS
Handrail pipe shall be ASTM B241, Alloy 6063-T6 or Alloy 6061-T6.

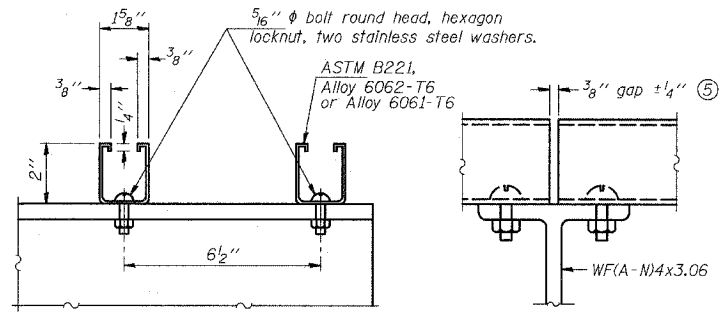
① Install standard force-fit end caps or weld 1/2" end plates with 1/8" c.f.w. and grind smooth. (All rail ends)
Fittings-ASTM B26, Alloy 356-T7

② Horizontal handrail member shall be continuous thru fitting. Provide 7/16" hole in fitting for 3/8" bolt. Field drill 1/8" hole in horizontal rail member. Provide locknut and two stainless steel washers for bolt. (Use 5/16" eyebolts in 1/16" holes on top rail at ends only.)



DETAIL F

DETAIL G

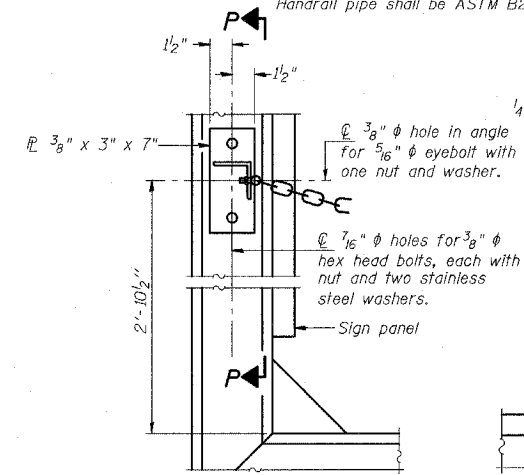


SECTION F-F

SECTION G-G

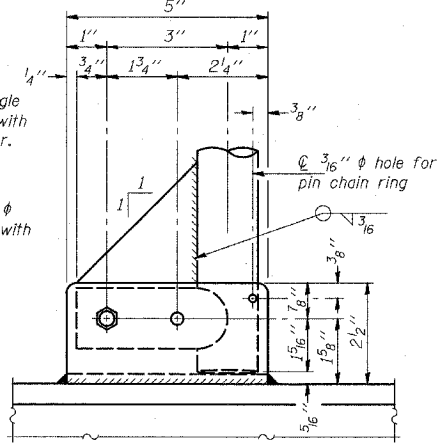
LIGHTING FIXTURE MOUNTS (IF REQUIRED)

⑤ Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.

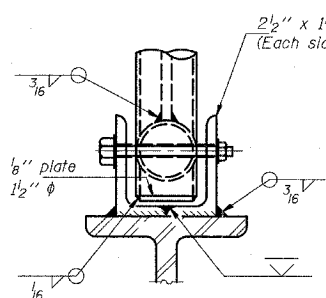


ALTERNATE SAFETY CHAIN ATTACHMENT
(With Sign Present)

Items not shown same as "Side Elevation" of "Handrail Details"

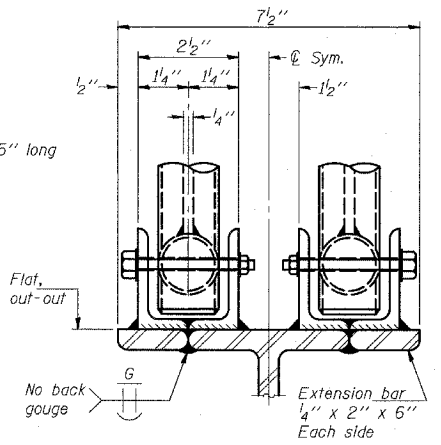


SIDE ELEVATION

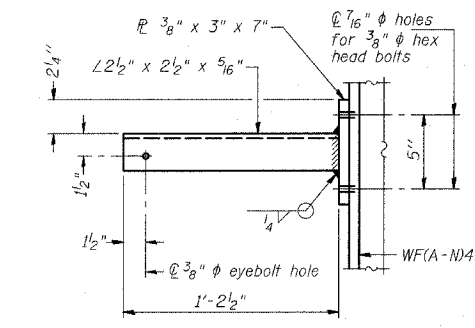


FRONT ELEVATION

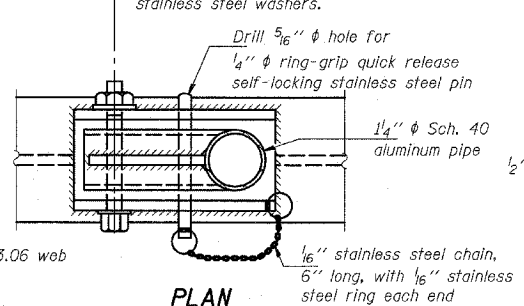
See "ELEVATION" at right for dimensions.



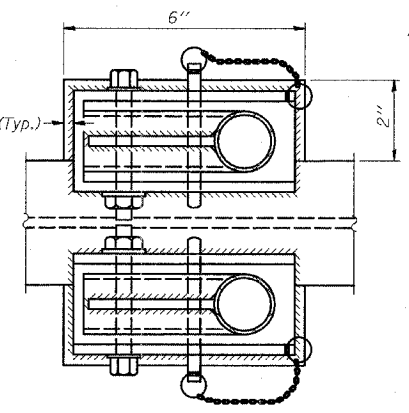
ELEVATION AT HANDRAIL JOINT ④



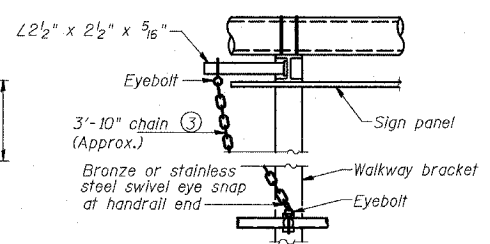
SECTION P-P



PLAN
DETAIL E HANDRAIL HINGE



PLAN AT HANDRAIL JOINT
Details not shown same as "PLAN"

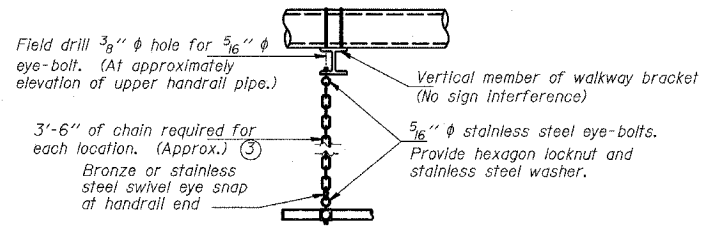


ALTERNATE SAFETY CHAIN ATTACHMENT

Details not shown similar to "Safety Chain" Details (Walkway omitted for clarity)

③ 3/16" galvanized steel chain, approximately 12 links per foot. Chain to be hot dip galvanized after manufacture and suitable for prolonged exterior exposure. Alternate materials may be substituted with the Engineer's approval.

④ Extrusions may be used in lieu of the details shown, with approval of the Engineer.



SAFETY CHAIN

One required for each end of each walkway.

DESIGNED	20
CHECKED	EXAMINED
DRAWN	PASSED
CHECKED	

NUMBER	REVISION	DATE

OS-A-11 11/1/2002

**INCLUDED FOR INFORMATION ONLY.
SHEET ORIGINALLY IN CONTRACT 62694.**

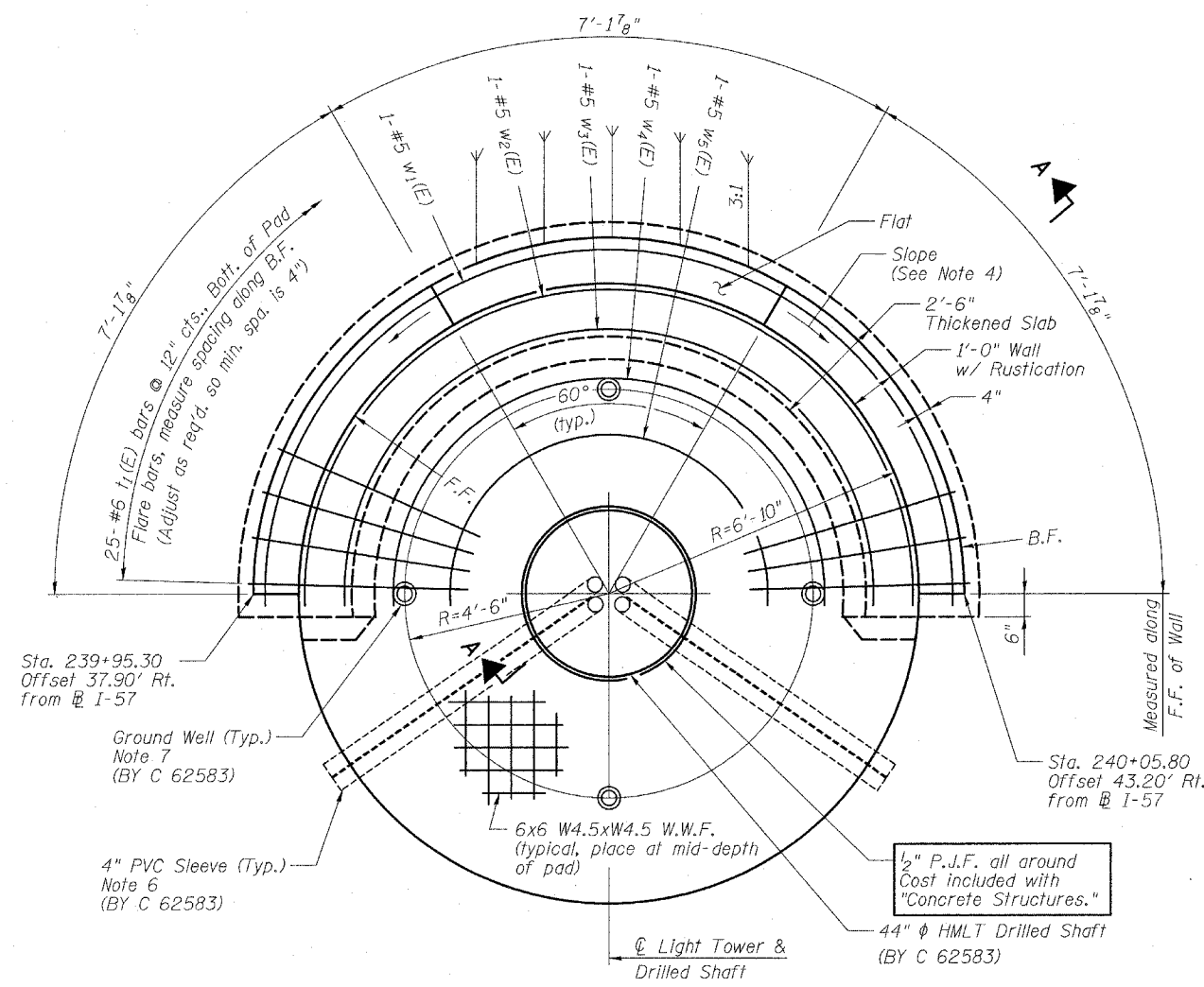
TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

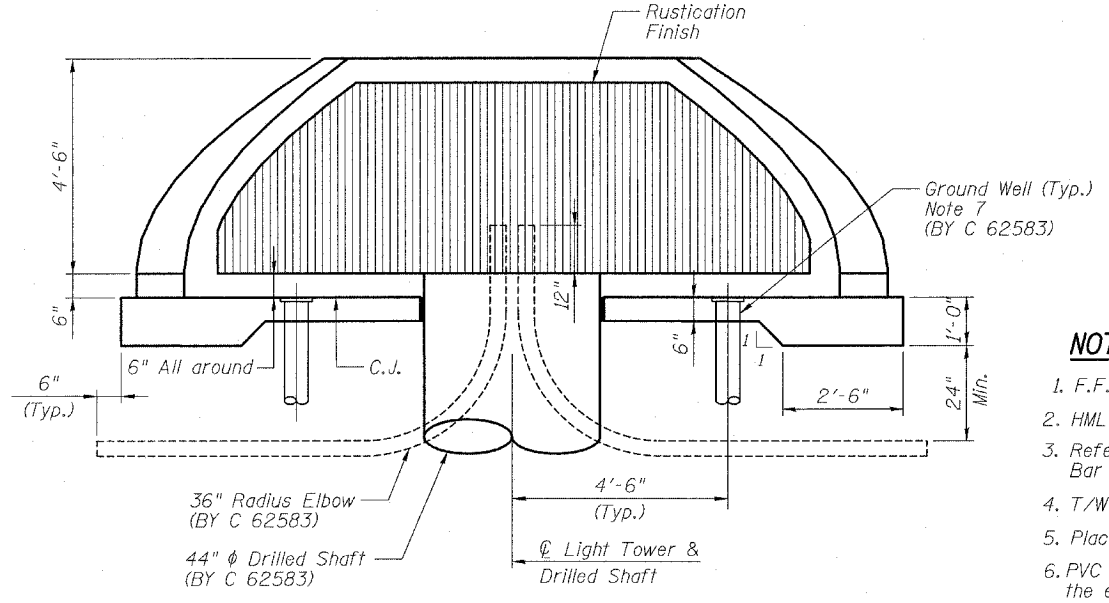
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

OVERHEAD SIGN STRUCTURES
ALUMINUM HANDRAIL DETAILS

SCALE: AS NOTED
DATE: MARCH 18, 2005
DRAWN BY: AMB
CHECKED BY: TB



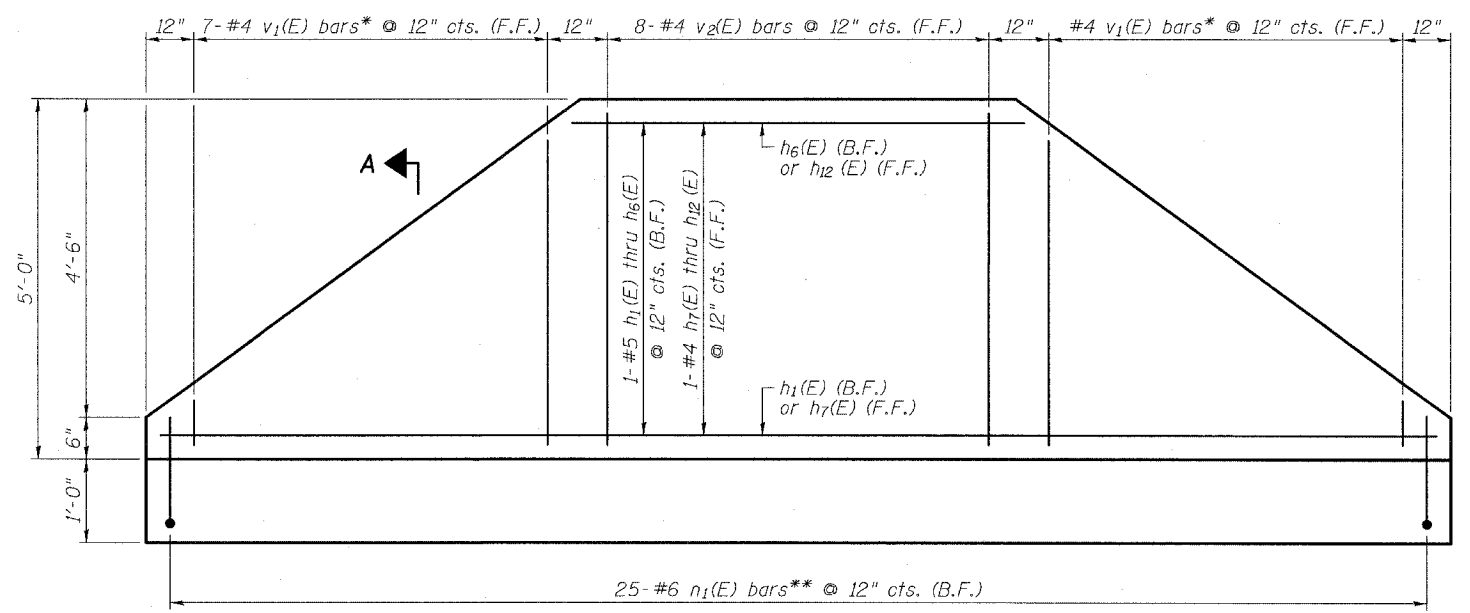
PLAN VIEW
Place Bars w₁(E) thru w₅(E) @ 12" cts., Bott. of Pad



ELEVATION VIEW
(HMLT not shown for clarity)

NOTES

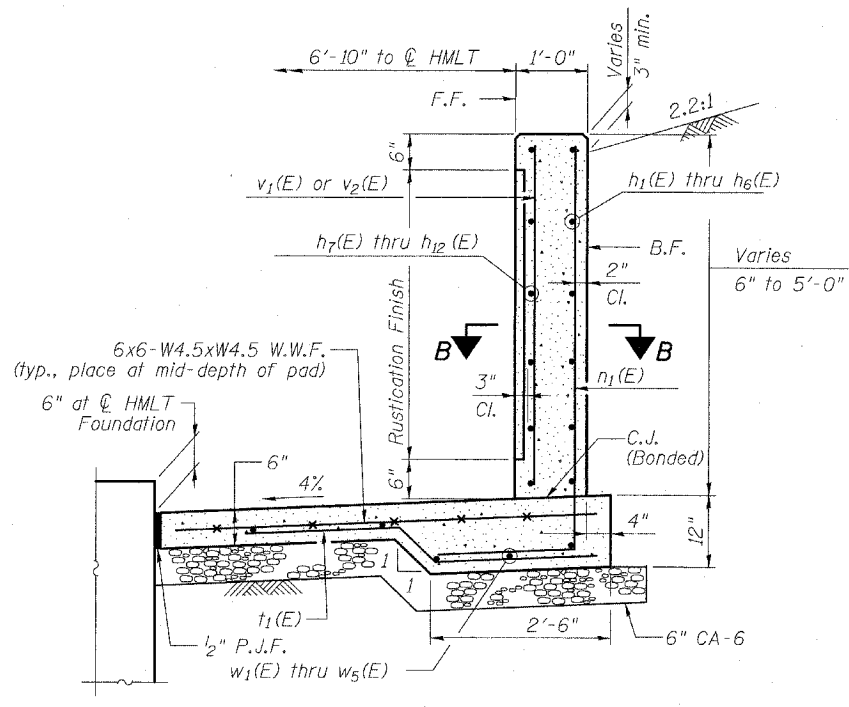
1. F.F. and B.F. denote Front Face and Back Face, respectively.
2. HMLT denotes High Mast Light Tower.
3. Refer to HMLT Service Pad, Special & Retaining Wall Details 2 for Bar Bending Diagrams, Bill of Material, Bar Sections and Details.
4. T/Wall slope is constant along the arc of any given radius.
5. Place horizontal tails of n₁(E) bars radially.
6. PVC sleeves must be extended 6 inches by Contract 62583 beyond the edge of the concrete pad.
7. Ground wells 4'-6" as measured from centerline of the HMLT to centerline of the well to be installed by Contract 62583. Adjust service pad reinforcement to miss wells. Any necessary vertical adjustments will be performed by the contractor who installed the ground wells at the specific location.



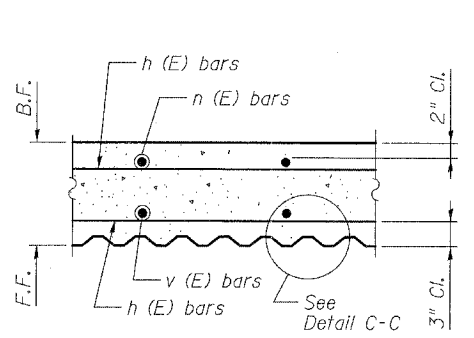
5'-0" RETAINING WALL ELEVATION (PROJECTED)
(Looking at F.F.)

* Cut to fit, use remainder of bars at opposite end of wall. See Cutting Diagram, Sheet 561 of 916.
** Cut to fit where necessary, discard excess.

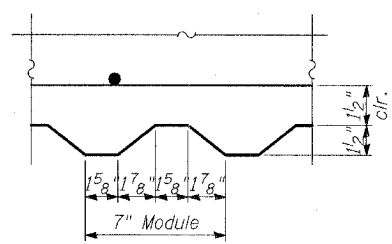
REVISIONS	
NAME	DATE



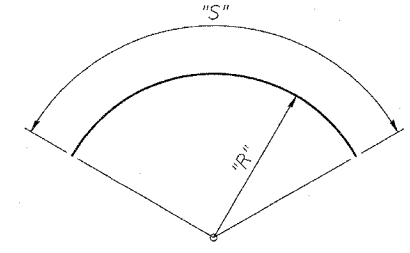
SECTION A-A



SECTION B-B



DETAIL C-C



Bar	"R"	"S"
$h_1(E)$	7'-7"	23'-6"
$h_2(E)$	7'-7"	20'-10"
$h_3(E)$	7'-7"	17'-8"
$h_4(E)$	7'-7"	14'-6"
$h_5(E)$	7'-7"	11'-4"
$h_6(E)$	7'-7"	8'-2"
$h_7(E)$	7'-1 1/2"	22'-1"
$h_8(E)$	7'-1 1/2"	19'-7"
$h_9(E)$	7'-1 1/2"	16'-7"
$h_{10}(E)$	7'-1 1/2"	13'-7"
$h_{11}(E)$	7'-1 1/2"	10'-8"
$h_{12}(E)$	7'-1 1/2"	7'-8"
$w_1(E)$	7'-7"	24'-4"
$w_2(E)$	6'-8"	21'-7"
$w_3(E)$	5'-10"	18'-10"
$w_4(E)$	4'-9"	15'-5"
$w_5(E)$	3'-6"	11'-6"

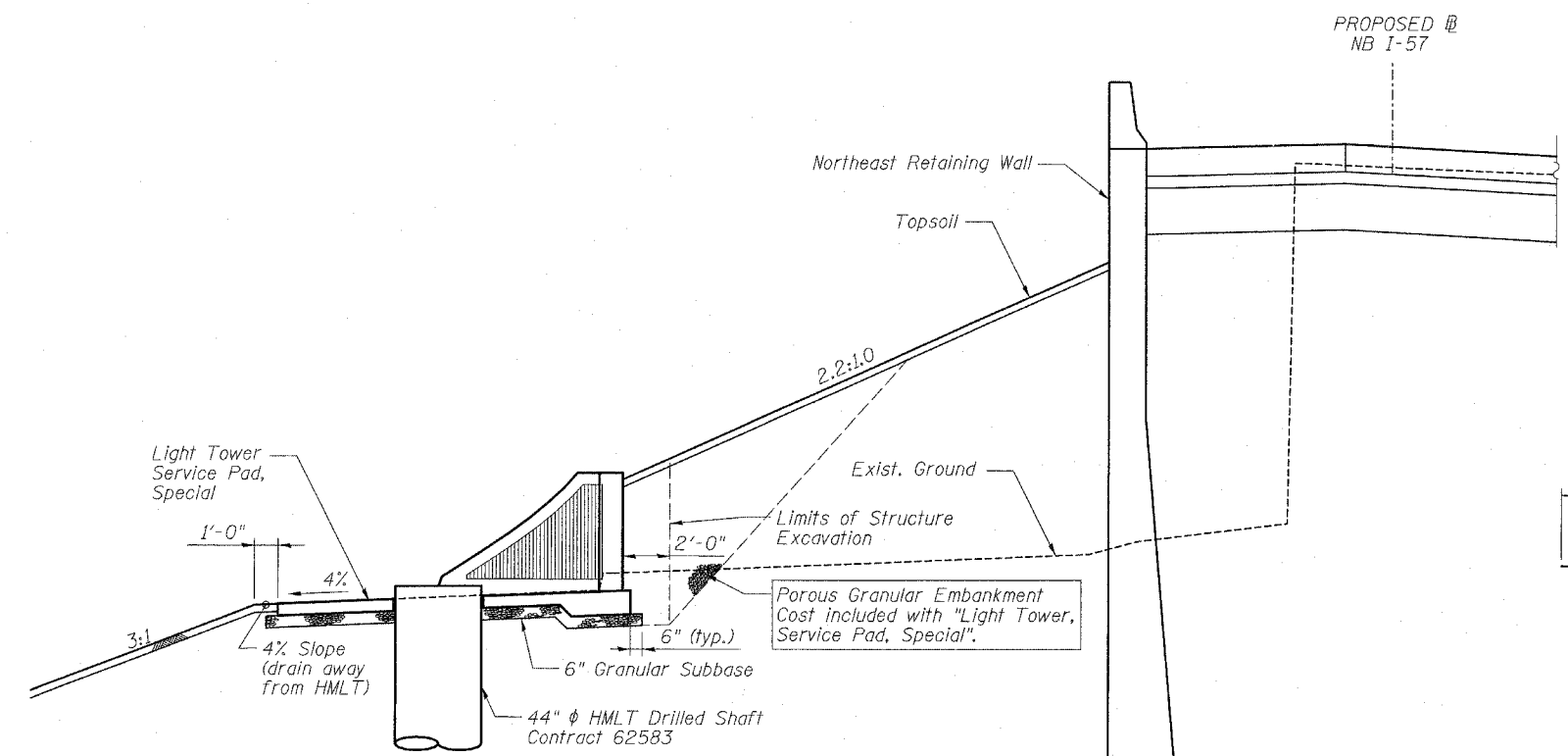
Note: "R" and "S" measured along bar ϕ

BARS $w_1(E)$ thru $w_5(E)$ & $h_1(E)$ thru $h_{12}(E)$

BILL OF MATERIAL

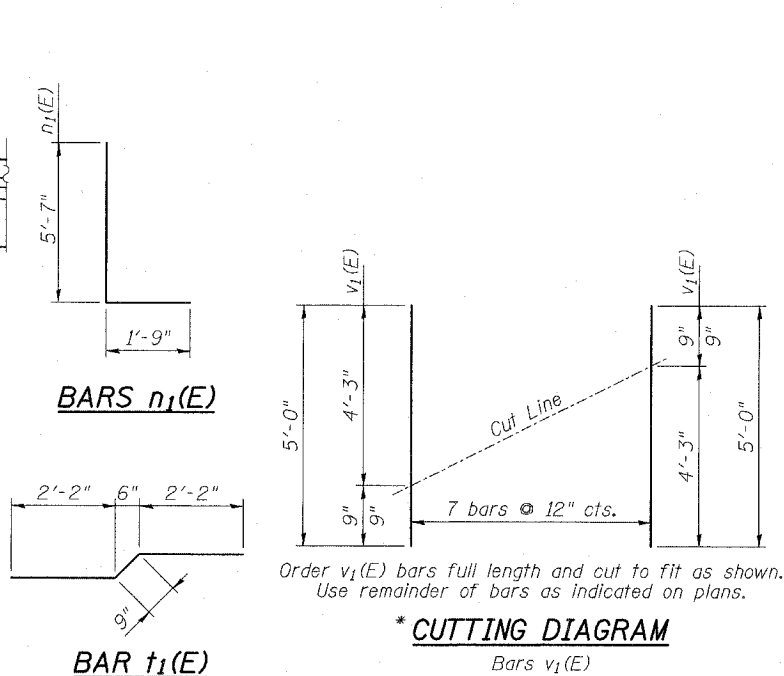
Light Tower Service Pad, Special with 5'-0" Wall

Bar	No.	Size	Length	Shape
$h_1(E)$	1	#5	23'-6"	⤴
$h_2(E)$	1	#5	20'-10"	⤴
$h_3(E)$	1	#5	17'-8"	⤴
$h_4(E)$	1	#5	14'-6"	⤴
$h_5(E)$	1	#5	11'-4"	⤴
$h_6(E)$	1	#5	8'-2"	⤴
$h_7(E)$	1	#4	22'-1"	⤴
$h_8(E)$	1	#4	19'-7"	⤴
$h_9(E)$	1	#4	16'-7"	⤴
$h_{10}(E)$	1	#4	13'-7"	⤴
$h_{11}(E)$	1	#4	10'-8"	⤴
$h_{12}(E)$	1	#4	7'-8"	⤴
$n_1(E)$	25	#6	7'-4"	⤴
$t_1(E)$	25	#6	5'-1"	⤴
$v_1(E)$	7	#4	5'-0"	—
$v_2(E)$	8	#4	4'-8"	—
$w_1(E)$	1	#5	24'-4"	⤴
$w_2(E)$	1	#5	21'-7"	⤴
$w_3(E)$	1	#5	18'-10"	⤴
$w_4(E)$	1	#5	15'-5"	⤴
$w_5(E)$	1	#5	11'-6"	⤴



SECTION THRU EMBANKMENT

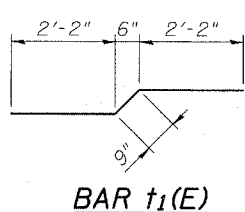
(At Typ. Tower Location)
HMLT not shown for clarity



*** CUTTING DIAGRAM**

Bars $v_1(E)$

BARS $n_1(E)$



BAR $t_1(E)$

BILL OF MATERIAL

Item	Unit	5' Total
Welded Wire Fabric	Sq. Yd.	18
Structure Excavation	Cu. Yd.	11
Concrete Structures	Cu. Yd.	7.2
Reinforcement Bars, Epoxy Coated	Pound	775
Rustication Finish	Sq. Ft.	55
Protective Coat	Sq. Yd.	29
Sub-Base Granular Material, Type B 6"	Sq. Yd.	22

NOTES

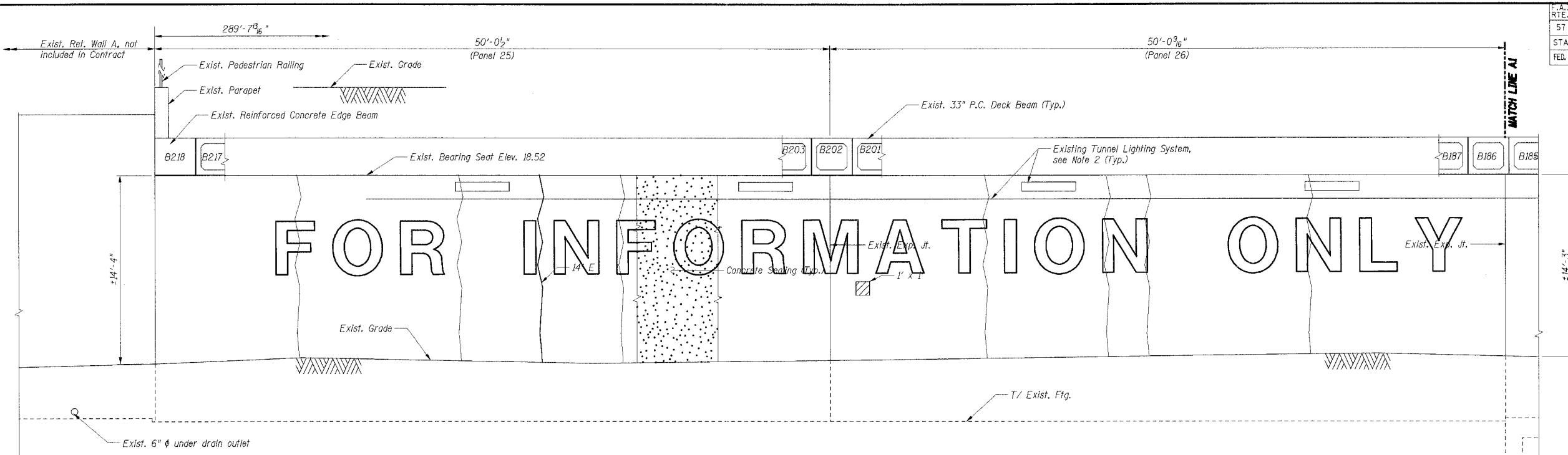
- F.F. and B.F. denote Front Face and Back Face, respectively.
- HMLT denotes High Mast Light Tower.
- See IDOT Standard Drawing BE501 for additional High Mast Light Tower foundation and ground well details.
- Reinforcement Bars designated (E) shall be epoxy coated.
- Refer to High Mast Light Tower Service Pad, Special & Retaining Wall Details 1 for location and orientation of conduit sleeves and grounding wells.
- Contractor shall maintain integrity of Frontage Roads as may be required in excavating for HMLT service pad walls.
- Provide Protective Coat to top, front face, exposed portion of back face, and ends of walls, and top and edges of pad.

TOTAL BILL OF MATERIAL

Item	Unit	Total
Light Tower, Service Pad, Special	Each	1

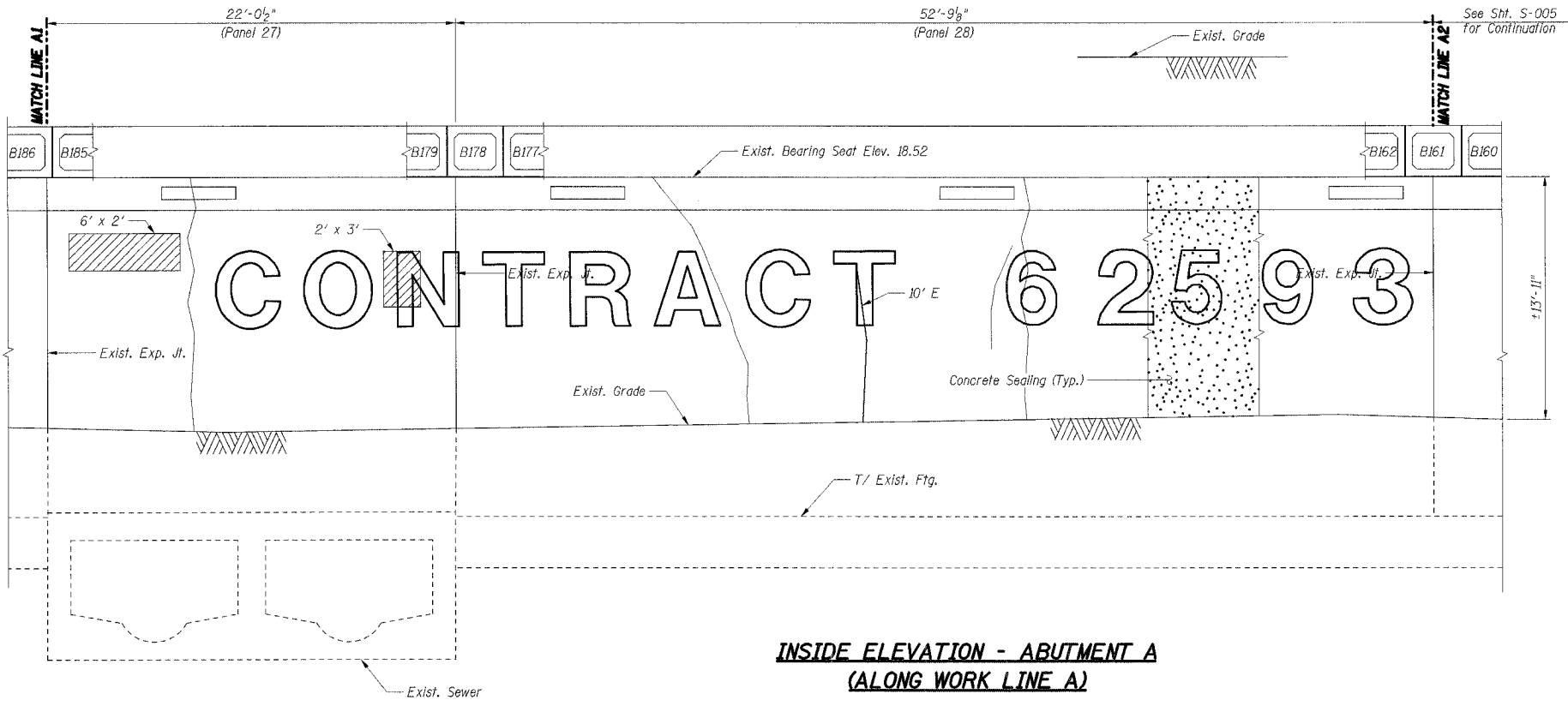
REVISIONS	
NAME	DATE

F.A.I. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57		COOK	916	565
STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62304 (1516.1, 1717, & 1818) R-4				



FOR INFORMATION ONLY

THESE PLANS ^{INSIDE ELEVATION - ABUTMENT A (ALONG WORK LINE A)} INCLUDED IN



CONTRACT 62593

INSIDE ELEVATION - ABUTMENT A (ALONG WORK LINE A)

- LEGEND**
- Formed Concrete Repair
Depth equal to or less than 5"
 - Epoxy Crack Sealing
 - Hairline Crack - Not to be sealed

- Notes:**
1. Work this Sheet with Sheet S-005.
 2. Existing Tunnel Lighting System shall be protected and maintained by the Contractor per the Special Provision for PROTECT AND MAINTAIN EXISTING CTA TUNNEL LIGHTING SYSTEM.
 3. Concrete Sealer shall be applied to the abutment walls according to the Special Provision for Concrete Sealer.
 4. Areas of repairs shown are estimated based upon inspection surveys conducted in 2004. The Engineer shall document actual locations and types of repairs on As-Built plans.
 5. Date of Survey
I-94 Tunnel: February 2004
CTA Tunnel: July 2004
 6. The Contractor shall coordinate work on C.T.A. property with the C.T.A. according to the Special Provisions.
 7. See Sheet S-005 for Bill of Material.
 8. Repairs to the tunnel walls and sealing of C.T.A. tunnel walls and deck beam undersides shall not be performed until the final waterproofing has been applied to the deck beams' top surface by others.

SHT. S-004

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 57 (INTERSTATE 57) OVER
F.A.I. ROUTE I-94 SB & CTA TRACKS-BRIDGE REPAIRS
SN 016-0073
COOK COUNTY
SECTION (1516.1, 1717, & 1818) R-4
ABUTMENT A
REPAIRS I

DATE: 03/07/06

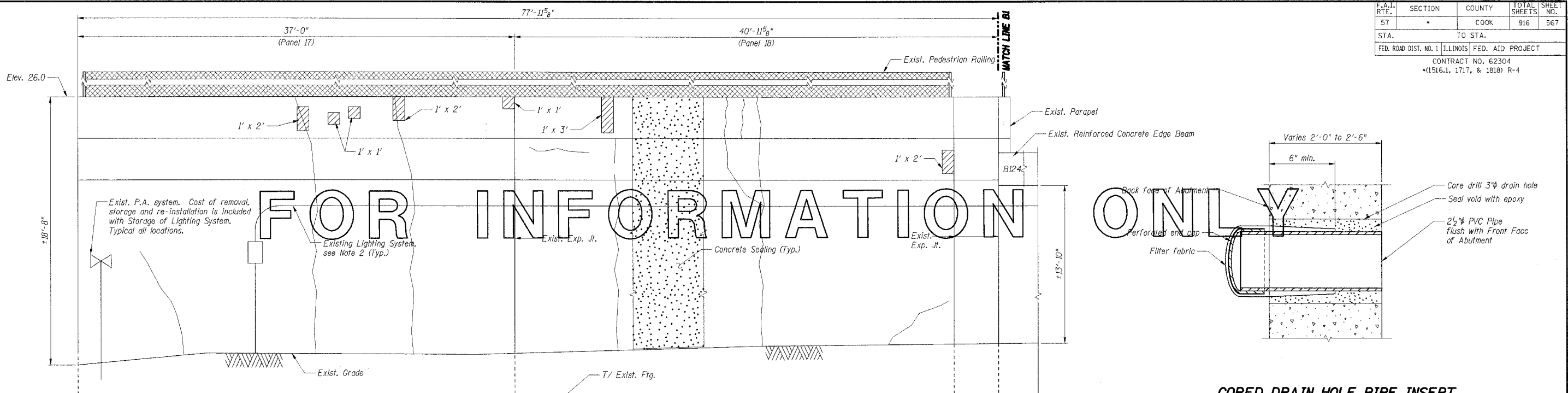
DRAWN BY: VV
CHECKED BY: RDS

TENG
TENG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
206 N. MICHIGAN AVE., CHICAGO, IL 60601
TELEPHONE: 312.467.2000

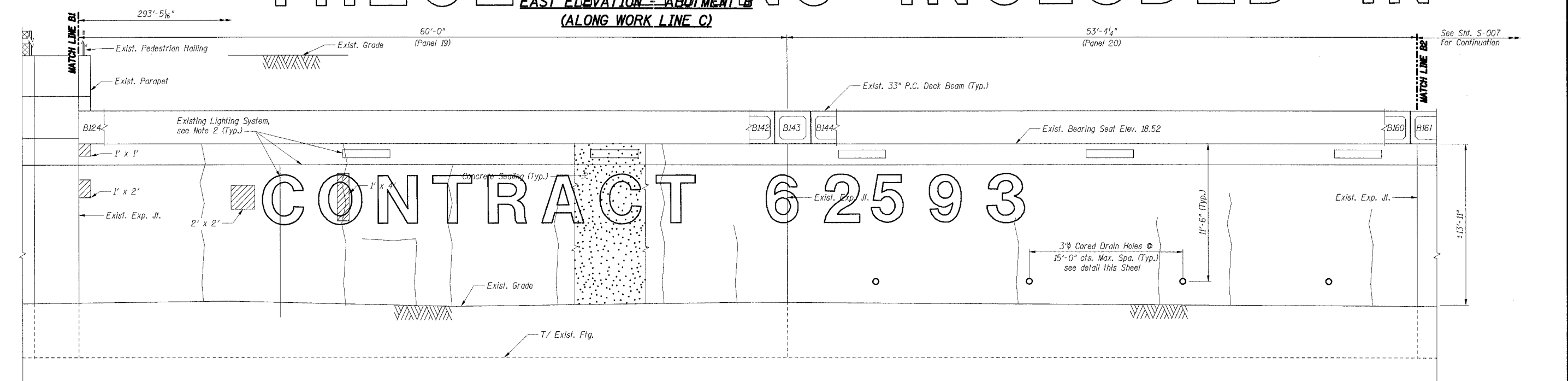
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	*	COOK	916	567
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

CONTRACT NO. 62304
 (1516.1, 1717, & 1818) R-4



THESE PLANS INCLUDED IN



- Notes:**
1. Work this Sheet with Sheet S-007.
 2. Existing Tunnel Lighting System shall be protected and maintained by the Contractor per the Special Provision for PROTECT AND MAINTAIN EXISTING CTA TUNNEL LIGHTING SYSTEM.
 3. Concrete Sealer shall be applied to the abutment walls according to the Special Provision for Concrete Sealer.
 4. Areas of repairs shown are estimated based upon inspection surveys shown in 2004. The Engineer shall document actual locations and types of repairs on As-Built plans.
 5. Date of Survey
 I-94 Tunnel: February 2004
 CTA Tunnel: July 2004
 6. The Contractor shall coordinate work on C.T.A. property with the C.T.A. according to the Special Provisions.
 7. See Sheet S-007 for Bill of Material.
 8. Repairs to the tunnel walls and sealing of C.T.A. tunnel walls and deck beam undersides shall not be performed until the final waterproofing has been applied to the deck beams' top surface by others.

**INSIDE ELEVATION - ABUTMENT B
 (ALONG WORK LINE B)**

- LEGEND**
- Formed Concrete Repair
 Depth equal to or less than 5"
 - Hairline Crack - Not to be sealed

SHT. S-006

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 57 (INTERSTATE 57) OVER
 F.A.I. ROUTE I-94 SB & CTA TRACKS-BRIDGE REPAIRS
 SN 016-0073
 COOK COUNTY
 SECTION (1516.1, 1717, & 1818) R-4
 ABUTMENT B
 REPAIRS I

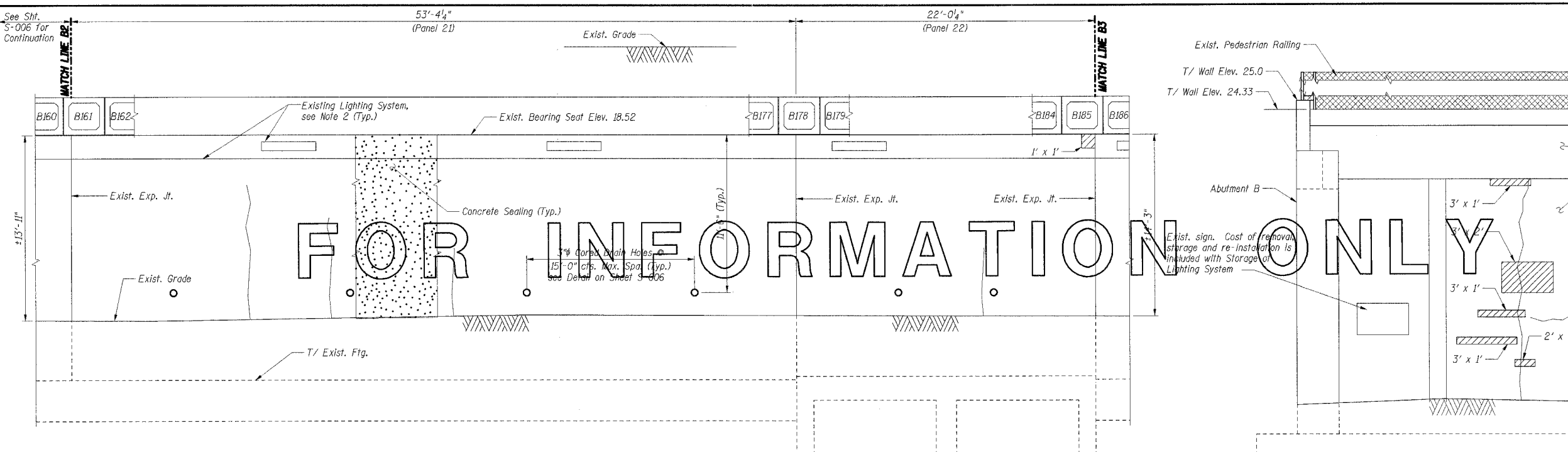
DATE: 03/07/06

DRAWN BY: VV
 CHECKED BY: RDS

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 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 205 N. MICHIGAN AVE., CHICAGO, IL 60601
 TELEPHONE: 312.641.0000

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	*	COOK	916	568
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT NO. 62304 *(1516.1, 1717, & 1818) R-4				

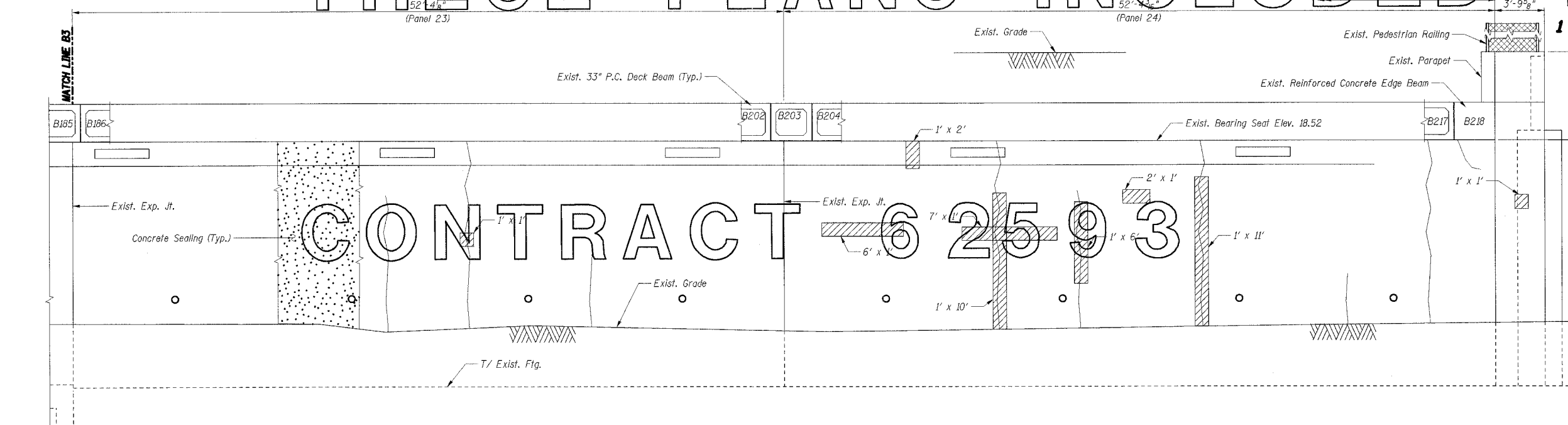


INSIDE ELEVATION - ABUTMENT B (ALONG WORK LINE B)

THESE PLANS INCLUDED IN

CONTRACT 62593

ELEVATION I-1



LEGEND

	Formed Concrete Repair Depth equal to or less than 5"
	Hairline Crack - Not to be sealed

- Notes:**
1. Work this Sheet with Sheet S-006.
 2. Existing Tunnel Lighting System shall be protected and maintained by the Contractor per the Special Provision for PROTECT AND MAINTAIN EXISTING CTA TUNNEL LIGHTING SYSTEM.
 3. Concrete Sealer shall be applied to the abutment walls according to the Special Provision for Concrete Sealer.
 4. Areas of repairs shown are estimated based upon inspection surveys conducted in 2004. The Engineer shall document actual locations and types of repairs on As-Built plans.
 5. Date of Survey
I-94 Tunnel: February 2004
CTA Tunnel: July 2004
 6. The Contractor shall coordinate work on C.T.A. property with the C.T.A. according to the Special Provisions.
 8. Repairs to the tunnel walls and sealing of C.T.A. tunnel walls and deck beam undersides shall not be performed until the final waterproofing has been applied to the deck beams' top surface by others.

INSIDE ELEVATION - ABUTMENT B (ALONG WORK LINE B)

ABUTMENT B BILL OF MATERIAL

Item	Unit	Total
Formed Concrete Repair *	Sq Ft	90
Concrete Sealing	Sq Yd	687
Cored Drain Holes	Each	18

*Depth less than or equal to 5"

SHT. S-007

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 57 (INTERSTATE 57) OVER
F.A.I. ROUTE I-94 SB & CTA TRACKS-BRIDGE REPAIRS
SN 016-0073
COOK COUNTY
SECTION (1516.1, 1717, & 1818) R-4
ABUTMENT B
REPAIRS II

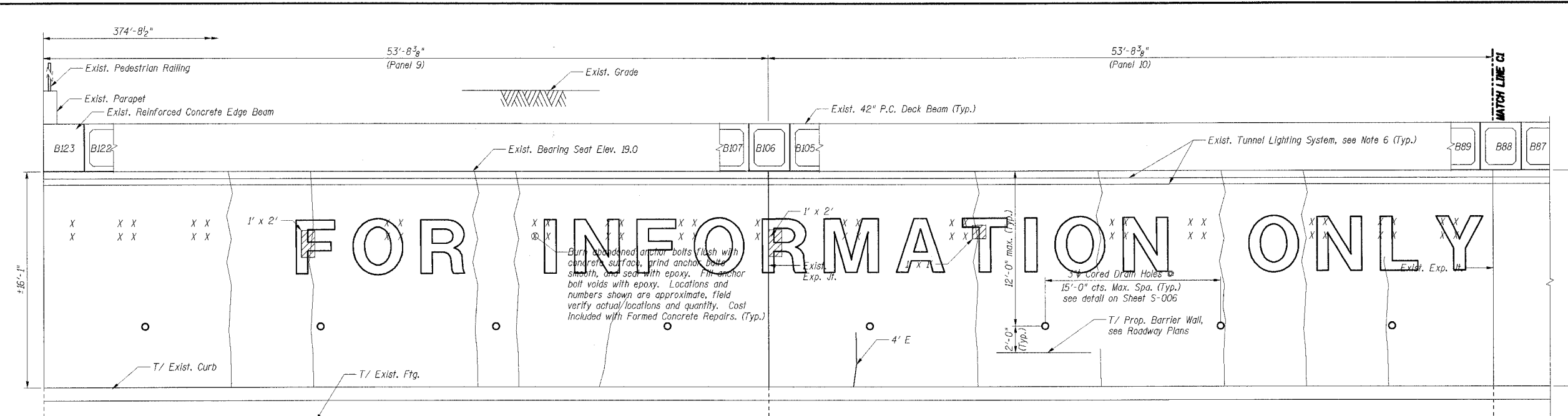
DATE: 03/07/06

DRAWN BY: VV
CHECKED BY: RDS

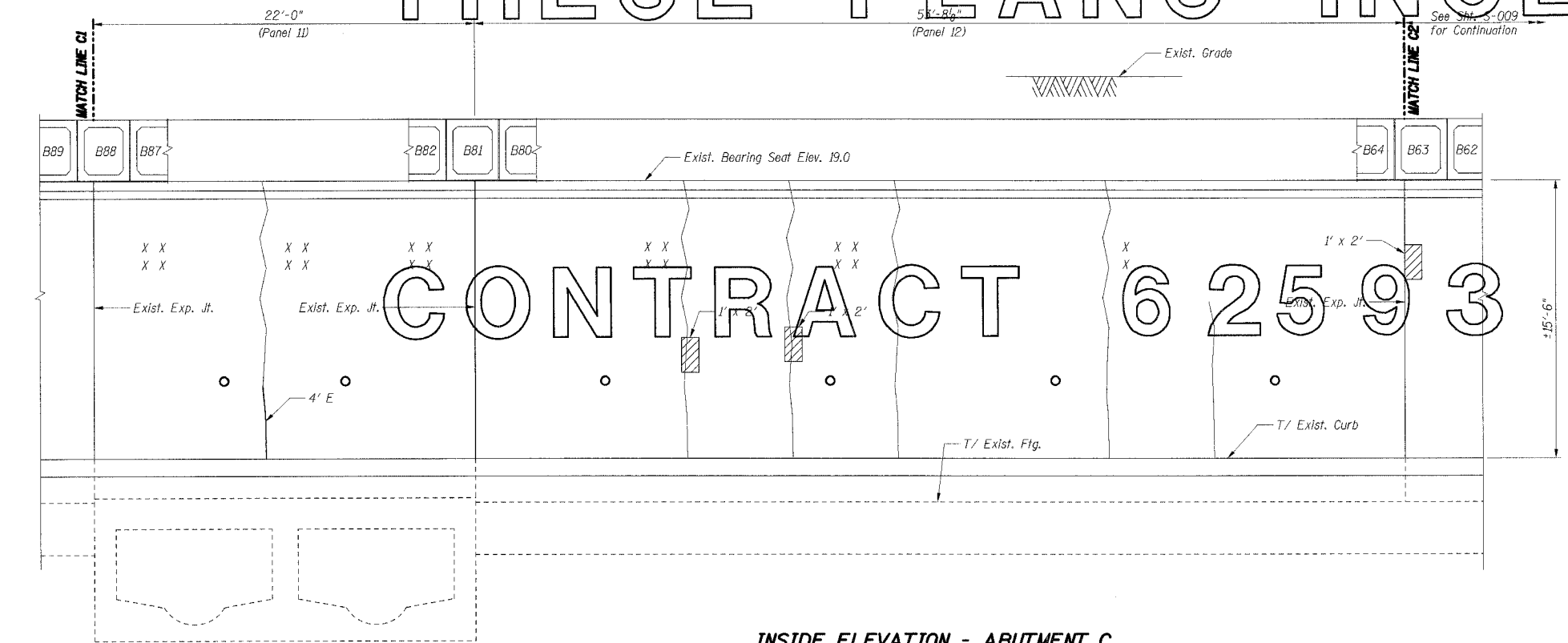
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
205 N. MICHIGAN AVE., CHICAGO, IL 60601
TELEPHONE: 312.463.0000

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS	NO.
57		COOK	916	569
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT NO. 62304				
*(1516.1, 1717, & 1818) R-4				



THESE PLANS INCLUDED IN



**INSIDE ELEVATION - ABUTMENT C
(ALONG WORK LINE C)**

LEGEND

- Formed Concrete Repair
Depth equal to or less than 5"
- Epoxy Crack Sealing
- Hairline Crack - Not to be sealed
- Abandoned anchor bolts or anchor bolt voids.

Notes:

1. Work this Sheet with Sheet S-009.
2. Areas of repairs shown are estimated based upon inspection surveys conducted in 2004. The Engineer shall document actual locations and types of repairs on As-Built plans.
3. Date of Survey
I-94 Tunnel: February 2004
CTA Tunnel: July 2004
4. The Contractor shall coordinate work on C.T.A. property with the C.T.A. according to the Special Provisions.
5. See Sheet S-009 for Bill of Material.
6. Existing Tunnel Lighting System shall be protected and maintained by the Contractor per the Special Provision for PROTECT AND MAINTAIN EXISTING IDOT TUNNEL LIGHTING SYSTEM.
7. Repairs to the tunnel walls shall not be performed until the final waterproofing has been applied to the deck beams' top surface by others.

SHT. S-008

REVISIONS	
NAME	DATE

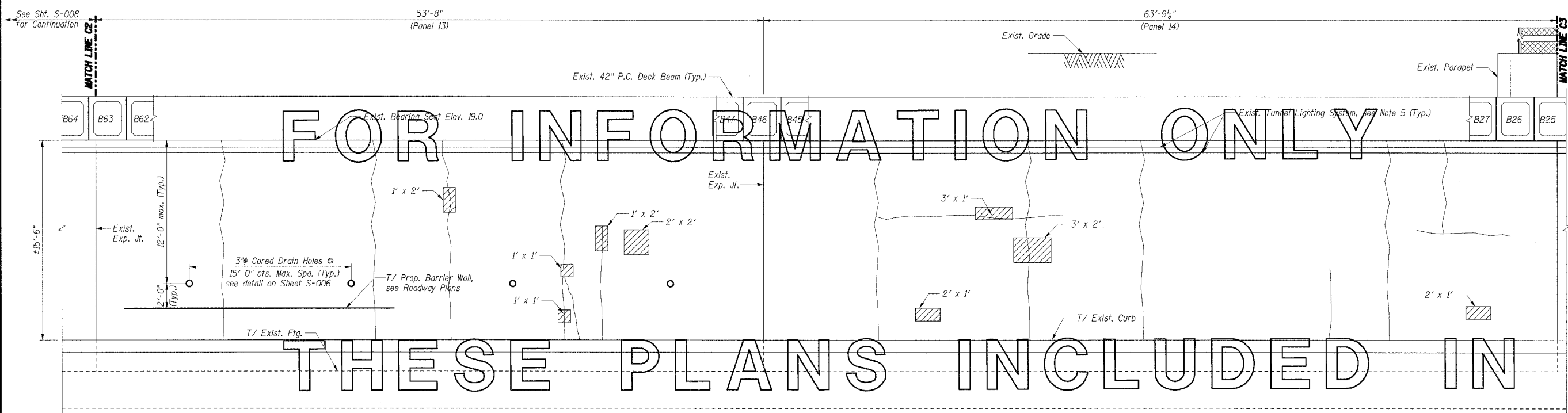
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 57 (INTERSTATE 57) OVER
F.A.I. ROUTE I-94 SB & CTA TRACKS-BRIDGE REPAIRS
SN 016-0073
COOK COUNTY
SECTION (1516.1, 1717, & 1818) R-4
ABUTMENT C
REPAIRS I

DATE: 03/07/06

DRAWN BY: VV
CHECKED BY: RDS

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
225 N. MICHIGAN AVE., CHICAGO, IL 60601
TELEPHONE: 312.543.6000

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FOR INFORMATION ONLY

THESE PLANS INCLUDED IN

INSIDE ELEVATION - ABUTMENT C
(ALONG WORK LINE C)

Item	Unit	Total
Formed Concrete Repair *	Sq Ft	36
Epoxy Crack Sealing	Foot	8
Cored Drain Holes	Each	18

*Depth less than or equal to 5"

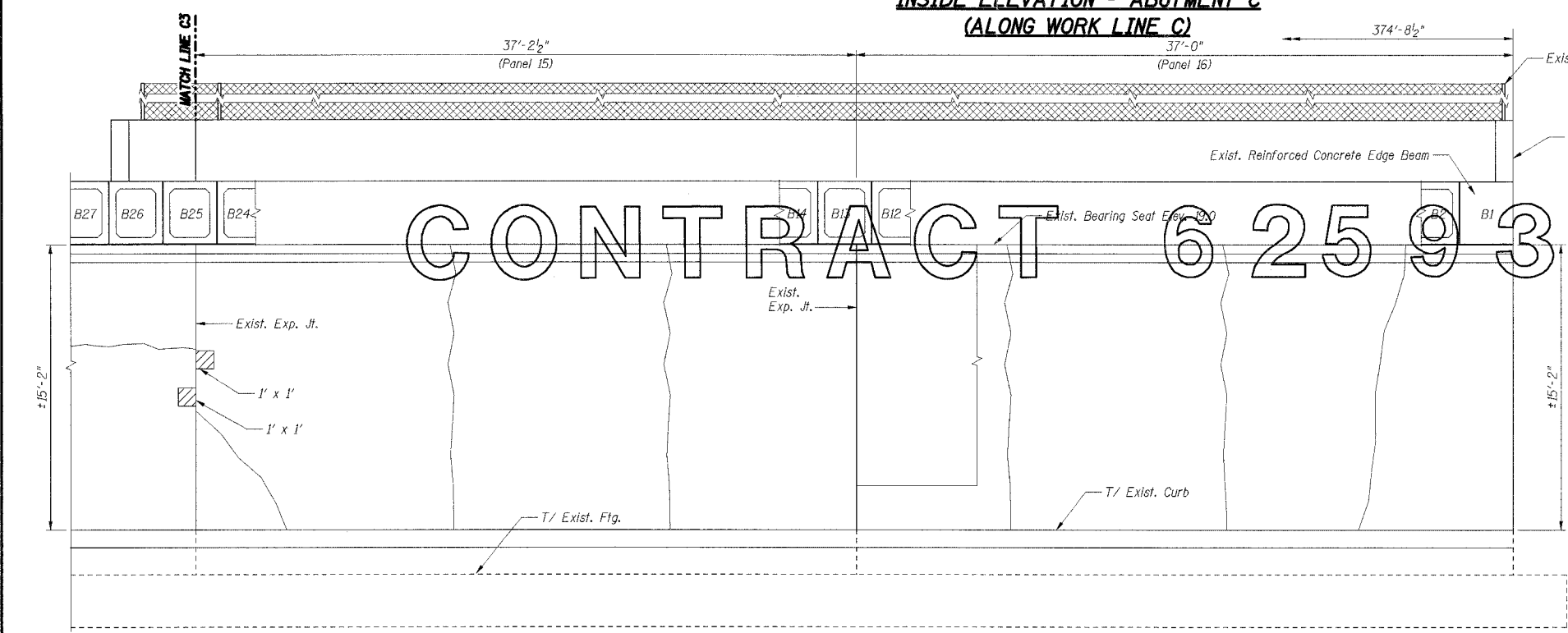
LEGEND

- Formed Concrete Repair
Depth equal to or less than 5"
- Hairline Crack - Not to be sealed

Notes:

1. Work this Sheet with Sheet S-008.
2. Areas of repairs shown are estimated based upon inspection surveys conducted in 2004. The Engineer shall document actual locations and types of repairs on As-Built plans.
3. Date of Survey
I-94 Tunnel: February 2004
CTA Tunnel: July 2004
4. The Contractor shall coordinate work on C.T.A. property with the C.T.A. according to the Special Provisions.
5. Existing Tunnel Lighting System shall be protected and maintained by the Contractor per the Special Provision for PROTECT AND MAINTAIN EXISTING IDOT TUNNEL LIGHTING SYSTEM.
6. Repairs to the tunnel walls shall not be performed until the final waterproofing has been applied to the deck beams' top surface by others.

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CONTRACT 62593

INSIDE ELEVATION - ABUTMENT C
(ALONG WORK LINE C)

SHT. S-009

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 57 (INTERSTATE 57) OVER
 F.A.I. ROUTE I-94 SB & CTA TRACKS-BRIDGE REPAIRS
 SN 016-0073
 COOK COUNTY
 SECTION (1516.1, 1717, & 1818) R-4
 ABUTMENT C
 REPAIRS II

DATE: 03/07/06

DRAWN BY: VV
 CHECKED BY: RDS

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 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 206 N. MICHIGAN AVE., CHICAGO, IL 60601
 TELEPHONE: 312.618.0000

F.A.I. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	*	COOK	916	572
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT NO. 62304 (1516.1, 1717, & 1818) R-4				

ABUTMENT D BILL OF MATERIAL

Item	Total	Unit
Formed Concrete Repair *	Sq Ft	114
Epoxy Crack Sealing	Foot	7
Cored Drain Holes	Each	28

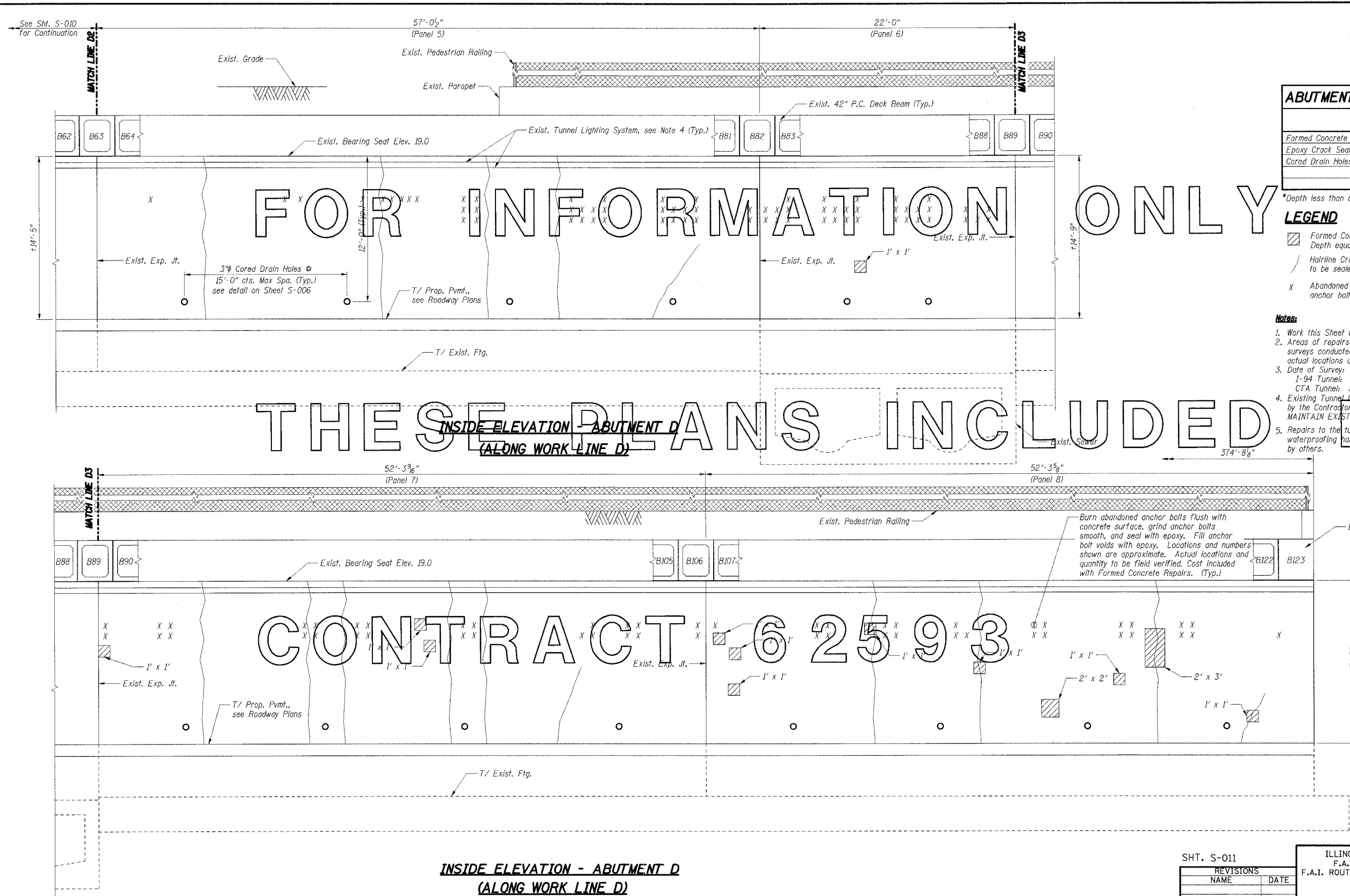
*Depth less than or equal to 5"
LEGEND

- Formed Concrete Repair
Depth equal to or less than 5"
- Hairline Crack - Not to be sealed
- X Abandoned anchor bolts or anchor bolt voids.

- Notes:**
- Work this Sheet with Sheet S-010.
 - Areas of repairs shown are estimated based upon inspection surveys conducted in 2004. The Engineer shall document actual locations and types of repairs on As-Built plans.
 - Date of Survey:
I-94 Tunnel: February 2004
CTA Tunnel: July 2004
 - Existing Tunnel Lighting System shall be protected and maintained by the Contractor per the Special Provision for PROTECT AND MAINTAIN EXISTING TUNNEL LIGHTING SYSTEM.
 - Repairs to the tunnel walls shall not be performed until the final waterproofing has been applied to the deck beams' top surface by others.

FOR INFORMATION ONLY

THESE PLANS INCLUDED IN CONTRACT 62593



**INSIDE ELEVATION - ABUTMENT D
(ALONG WORK LINE D)**

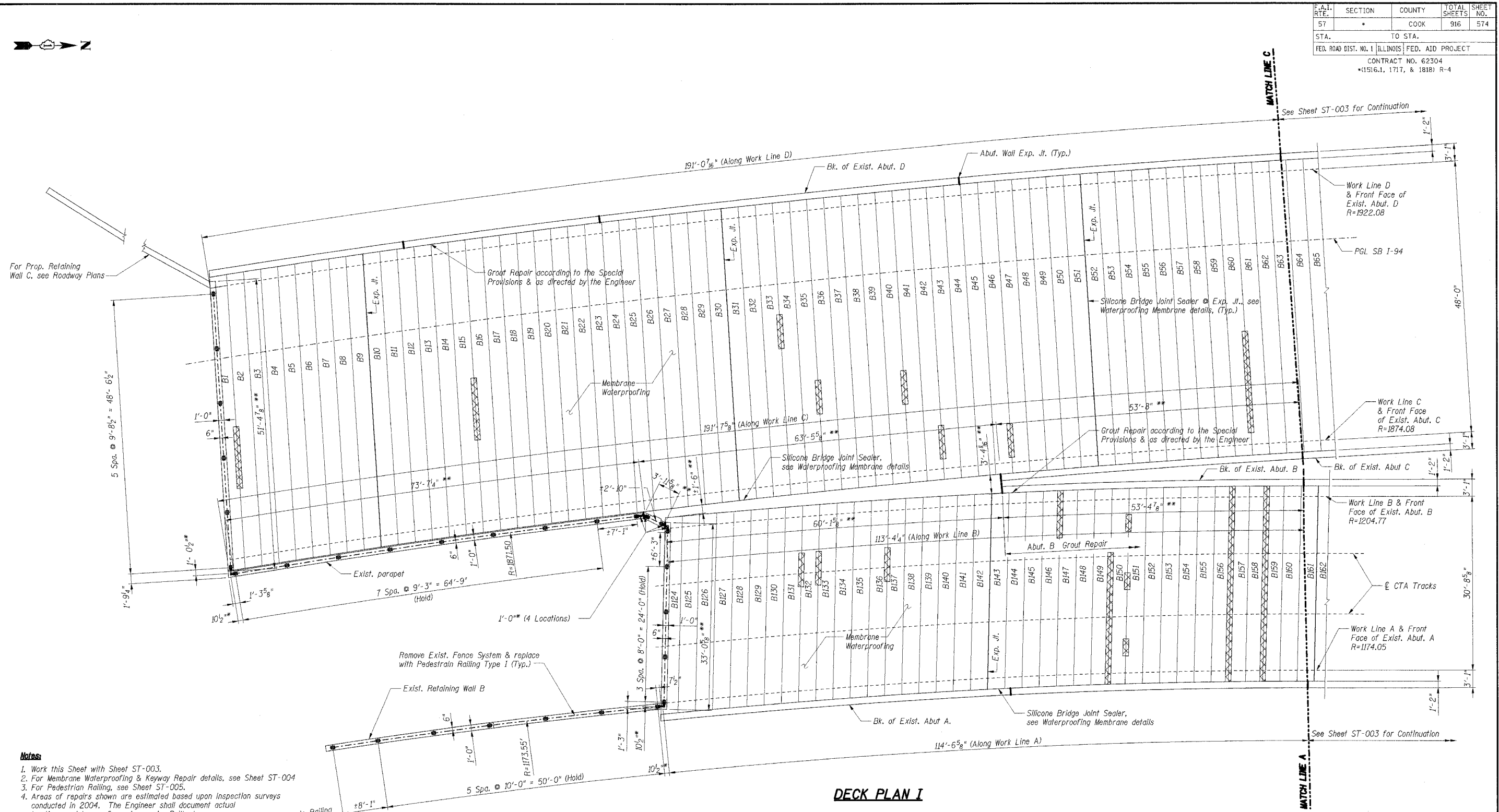
SHT. S-011

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 57 (INTERSTATE 57) OVER
 F.A.I. ROUTE I-94 SB & CTA TRACKS-BRIDGE REPAIRS
 SN 016-0073
 COOK COUNTY
 SECTION (1516.1, 1717, & 1818) R-4
 ABUTMENT D
 REPAIRS II
 DATE: 03/07/06
 DRAWN BY: VV
 CHECKED BY: RDS
TENG
TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 205 N. MICHIGAN AVE., CHICAGO, IL 60601
 TELEPHONE: 312.684.0000

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F.A.I. R.F.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	*	COOK	916	574
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT NO. 62304				
*(1516.1, 1717, & 1818) R-4				



For Prop. Retaining Wall C, see Roadway Plans

See Sheet ST-003 for Continuation

See Sheet ST-003 for Continuation

- Notes:**
1. Work this Sheet with Sheet ST-003.
 2. For Membrane Waterproofing & Keyway Repair details, see Sheet ST-004
 3. For Pedestrian Railing, see Sheet ST-005.
 4. Areas of repairs shown are estimated based upon inspection surveys conducted in 2004. The Engineer shall document actual locations and types of repairs on As-Built plans.
 5. Date of Survey:
I-94 Tunnel: February 2004
CTA Tunnel: July 2004
 6. The Contractor shall coordinate repairs with the Construction Staging shown on the Roadway Plans, according to the Special Provisions, and as directed by the Engineer.
 7. The Contractor shall place an application of migratory corrosion inhibitor over the areas of keyway repair prior to installation of the membrane waterproofing system. The migratory corrosion inhibitor coating shall be Sika FerroGard 903 or approved equal. The cost of furnishing and placing the migratory corrosion inhibitor shall not be paid for separately, but shall be considered included in the cost of Keyway Repair.

- LEGEND**
- Keyway Repair according to the Special Provisions & as directed by the Engineer
 - * Pedestrian Railing cantilever extension, see note 3
 - ** Dimensions developed from record plan data, for information only

SHT. ST-002

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 57 (INTERSTATE 57) OVER
 F.A.I. ROUTE I-94 SB & CTA TRACKS-BRIDGE REPAIRS
 SN 016-0073
 COOK COUNTY
 SECTION (1516.1, 1717, & 1818) R-4
 DECK PLAN I

DATE: 03/07/06

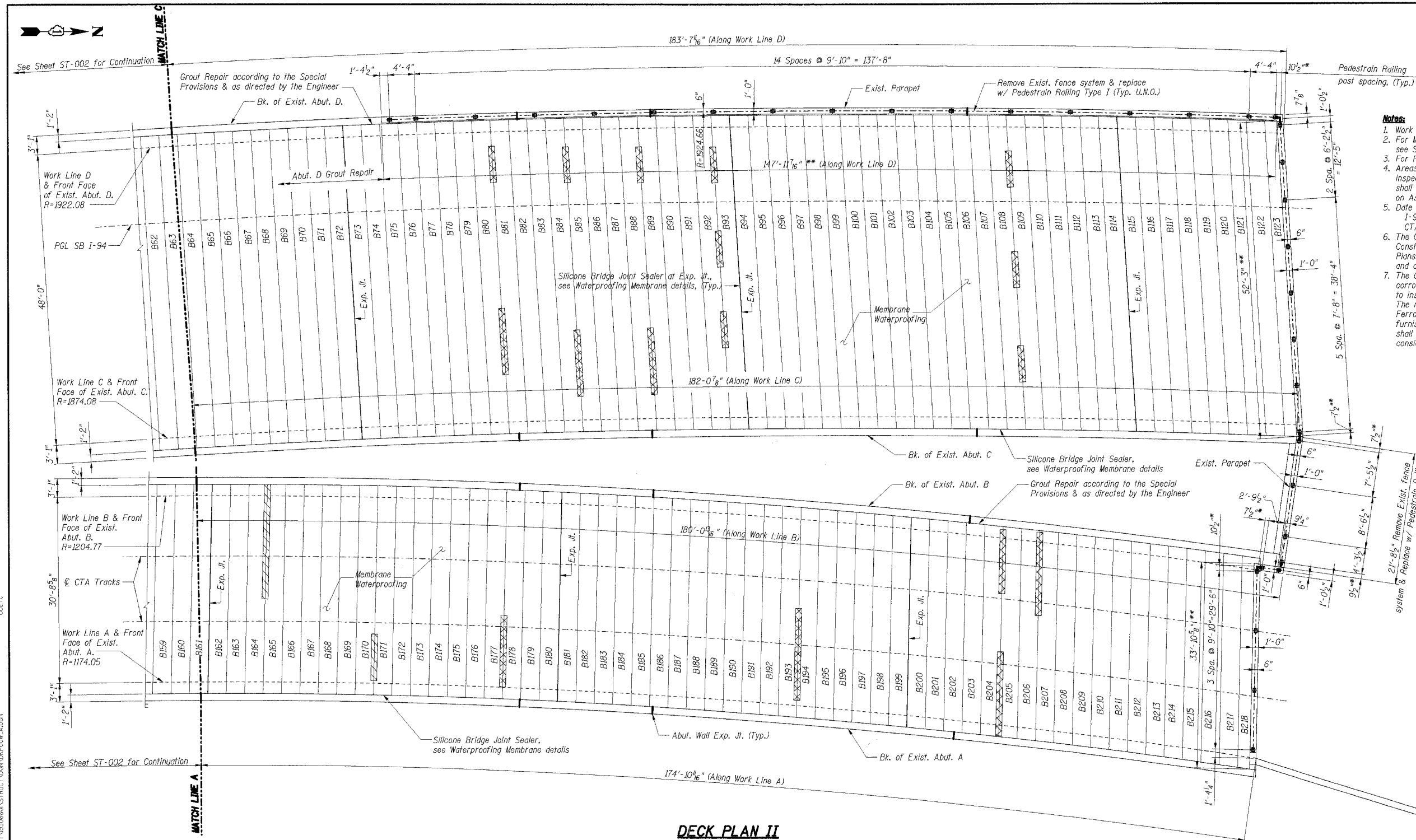
DRAWN BY: VV
 CHECKED BY: ROS

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 205 N. MICHIGAN AVE., CHICAGO, IL 60601
 TELEPHONE: 312.467.0000

I:\PROJECTS\2006\1516.1, 1717, & 1818 R-4\DRAWINGS\DECK PLAN I.DWG
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F.A.I. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	COOK	916	575
STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	
		CONTRACT NO. 62304	
		•(1516.1, 1717, & 1818) R-4	

- Notes:**
1. Work this Sheet with Sheet ST-002.
 2. For Membrane Waterproofing and Keyway Repair details, see Sheet ST-004.
 3. For Pedestrian Railing, see Sheet ST-005.
 4. Areas of repairs shown are estimated based upon inspection surveys conducted in 2004. The Engineer shall document actual locations and types of repairs on As-Built plans.
 5. Date of Survey:
I-94 Tunnel: February 2004
CTA Tunnel: July 2004
 6. The Contractor shall coordinate repairs with the Construction Staging shown on the Roadway Plans, according to the Special Provisions, and as directed by the Engineer.
 7. The Contractor shall place an application of migratory corrosion inhibitor over the areas of keyway repair prior to installation of the membrane waterproofing system. The migratory corrosion inhibitor shall be Sika FerroGard 903 or approved equal. The cost of furnishing and placing the migratory corrosion inhibitor shall not be paid for separately, but shall be considered included in the cost of Keyway Repair.



DECK PLAN II

- LEGEND**
- ☒ Keyway Repair according to the Special Provisions & as directed by the Engineer
 - * Pedestrian Railing cantilever extension, see note 3.
 - ** Dimensions developed from record plan data, for information only.

BILL OF MATERIAL		
Item	Unit	Total
Membrane Waterproofing (Special)	Sq Ft	32,000
Portland Cement Mortar Fairing Course	Foot	500
Grout Repair	Foot	515
Keyway Repair	Foot	500
Silicone Joint Bridge Sealer	Foot	1,110
Polymer Concrete	Cu Yd	2.6

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 57 (INTERSTATE 57) OVER
 F.A.I. ROUTE 1-94 SB & CTA TRACKS-BRIDGE REPAIRS
 SN 016-0073
 COOK COUNTY
 SECTION (1516.1, 1717, & 1818) R-4
 DECK PLAN II

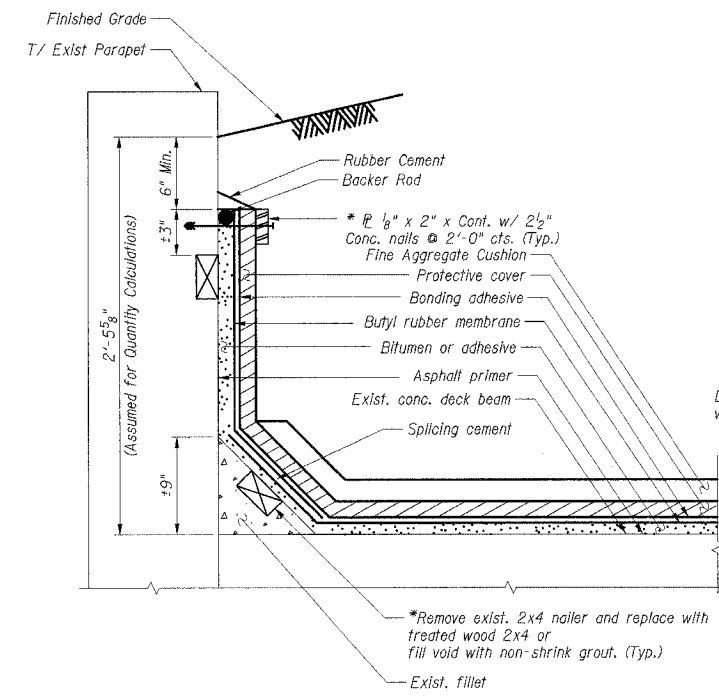
DATE: 03/07/06

DRAWN BY: VV
 CHECKED BY: RDS

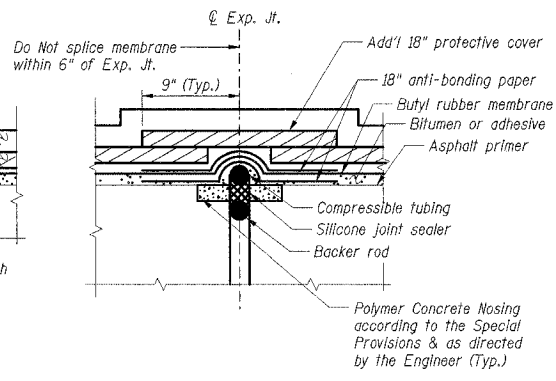
TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS ARCHITECTS-PLANNERS
 205 N. MICHIGAN AVE., CHICAGO, IL 60601
 TELEPHONE: 312.461.0000

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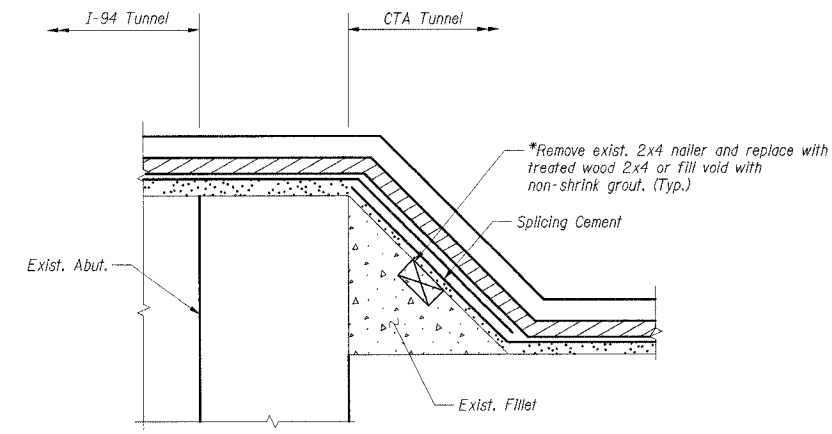
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	*	COOK	916	576
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT NO. 62304				
*(1516.1, 1717, & 1818) R-4				



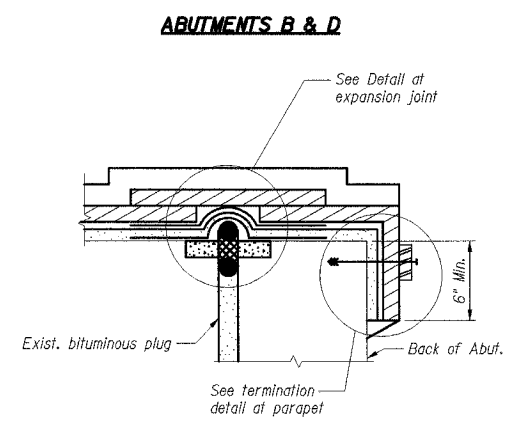
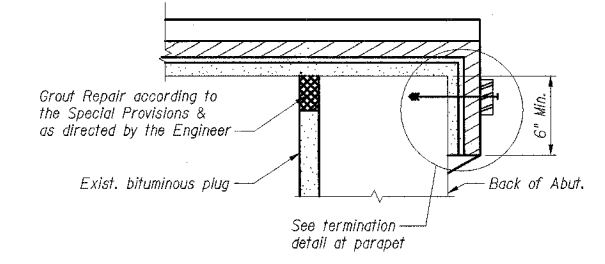
AT PARAPET
*Cost included with Membrane Waterproofing



AT EXPANSION JOINT
Diameter of backer rod and compressible tubing to be 25% greater than joint opening at time of installation. The cost of the compressible tubing is included with Silicone Bridge Joint Sealer.

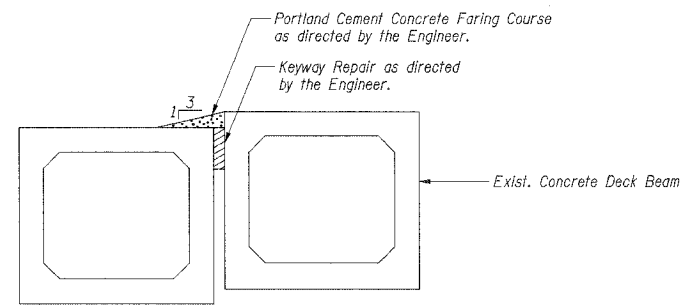


AT COMMON ABUTMENT



ABUTMENTS B & D
ABUTMENTS A & C
AT ABUTMENT BACKWALL

MEMBRANE WATERPROOFING



CONCRETE FARING COURSE & KEYWAY REPAIR DETAIL

- NOTES:**
1. Prior to installing the new Membrane Waterproofing, existing waterproofing system asphalt planks and loose and de-bonded areas of the existing waterproofing membrane system shall be removed utilizing hand methods which will not damage the deck beams. The cost of removal and disposal of the existing waterproofing membrane system is included with Membrane Waterproofing (Special). See Special Provision for Membrane Waterproofing (Special).
 2. The Contractor shall coordinate membrane waterproofing installation with the Construction Staging shown on the Roadway Plans, according to the Special Provisions, and as directed by the Engineer. The Contractor shall make such provisions as necessary to protect previously installed work and shall minimize the number of membrane laps.

SHT. ST-004

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 57 (INTERSTATE 57) OVER
F.A.I. ROUTE I-94 SB & CTA TRACKS-BRIDGE REPAIRS
SN 016-0073
COOK COUNTY
SECTION (1516.1, 1717, & 1818) R-4
MEMBRANE WATERPROOFING DETAILS

DATE: 03/07/06
DRAWN BY: VV
CHECKED BY: RDS

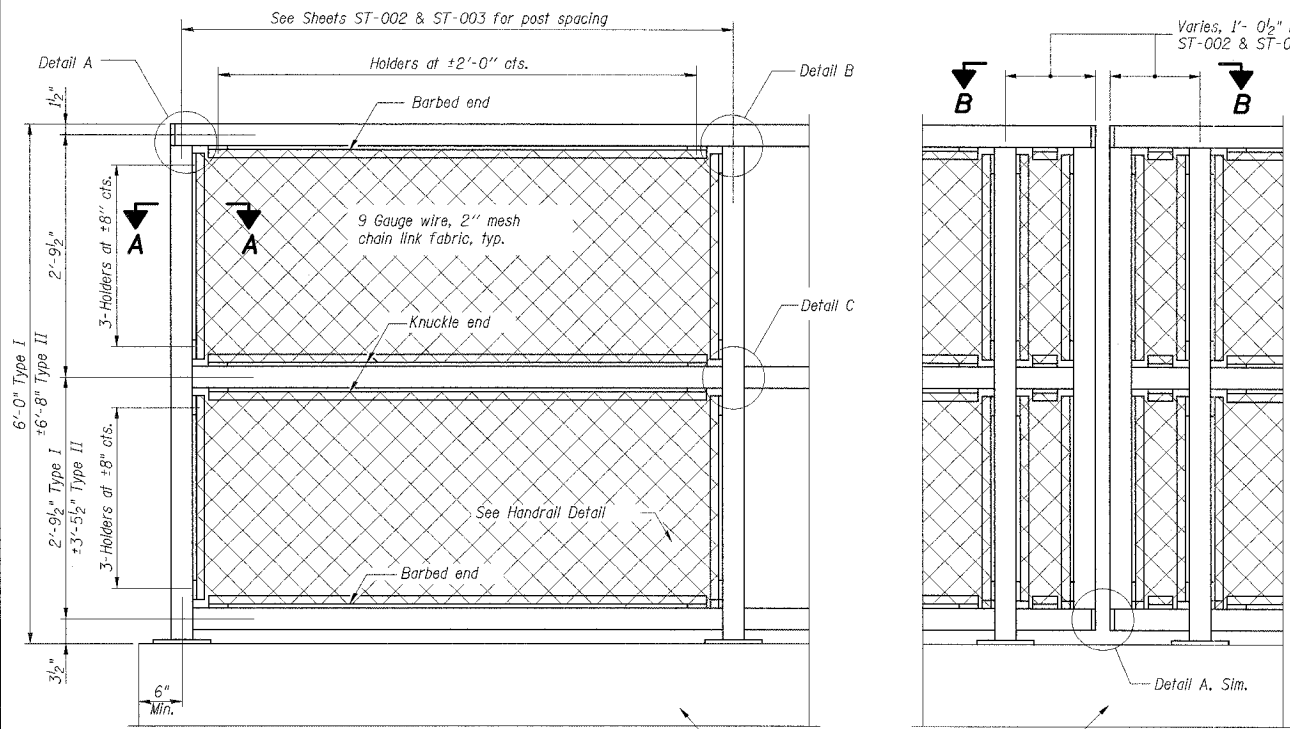
TENG
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ENGINEERS/ARCHITECTS/PLANNERS
205 N. MORGAN AVE., CHICAGO, IL 60601
TELEPHONE: 312.467.0000

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	*	COOK	916	577
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT NO. 62304				
*1516.1, 1717, & 1818 R-4				

NOTES:

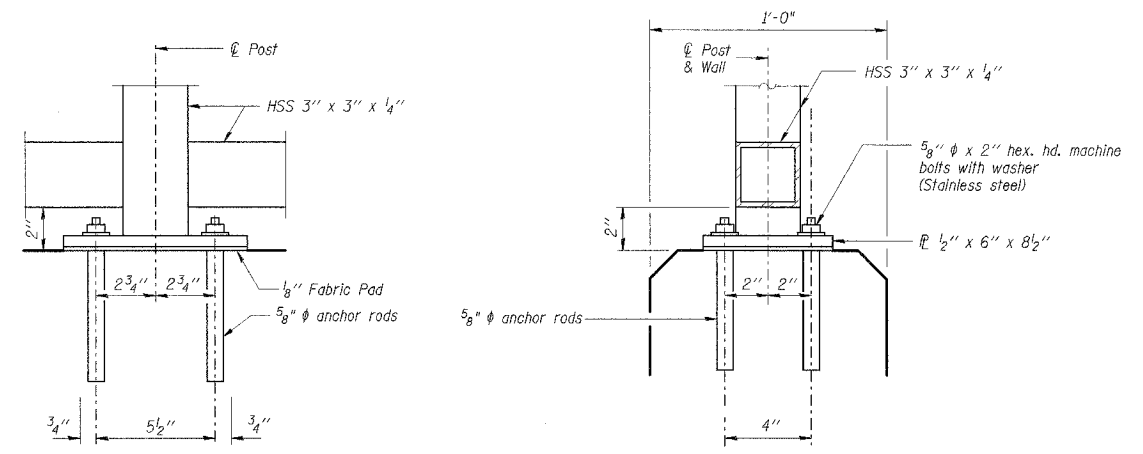
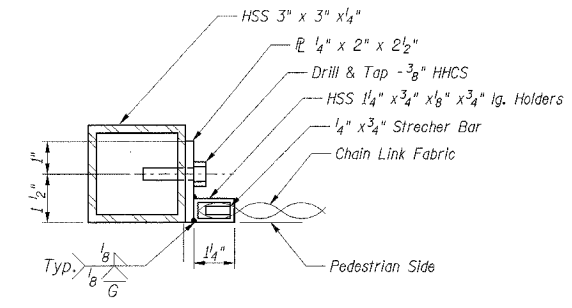
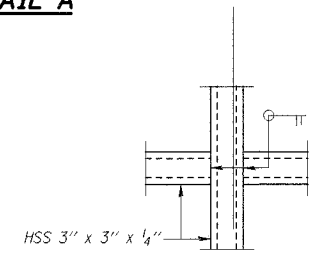
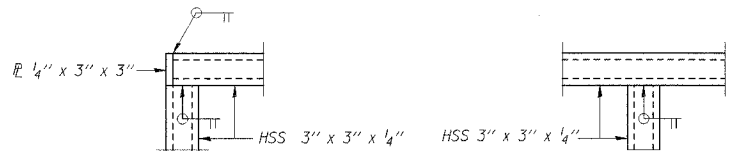
- Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the Contract Unit Price per foot for Pedestrian Railing.
- The 9 gauge fabric ties shall be according to Article 1006.27(d) of the Standard Specifications.
- Installation of the chain link fabric shall be according to Section 664 of the Standard Specifications.
- Hollow structural sections shall conform to the requirements of ASTM designation A500, Grade B, structural steel tubing.
- All other steel shapes and plates shall conform to the requirements of AASHTO M270 Grade 36.
- The chain link fabric shall be placed along Pedestrian Side as shown on Section A-A.
- Stretcher bars shall be used at all four sides of each panel.
- If the option of drilling and epoxy grouting the anchor rods is chosen, The Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or the adhesive cartridge shall be sealed with pre-measured amounts of the adhesive chemical.
- All posts, railing, splices, anchor devices, and bent plates shall be galvanized after shop fabrication according to AASHTO M111 and ASTM A385. All bolts, nuts, washers, and anchor rods shall be galvanized according to AASHTO M232 except stainless steel bolts as noted.
- Vent holes for galvanizing shall be placed in the posts and rails at locations that will not allow the accumulation of moisture in the members.
- The chain link fabric shall conform to the requirements of Article 1006.27(a)(1)a of the Standard Specifications.



*Field verify. Adjust dimension such that Type II top of rail elevation matches adjacent Type I top of rail elevation.

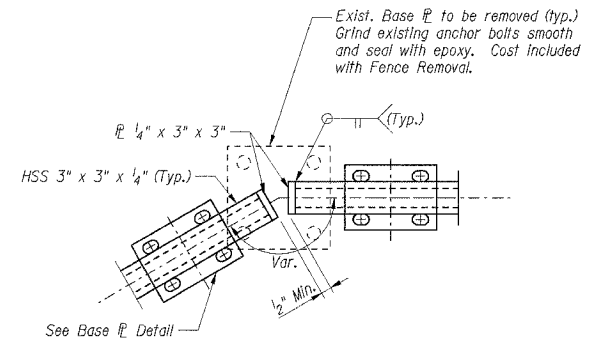
ELEVATION
(Inside Face)

ELEVATION CANTILEVER EXTENSION

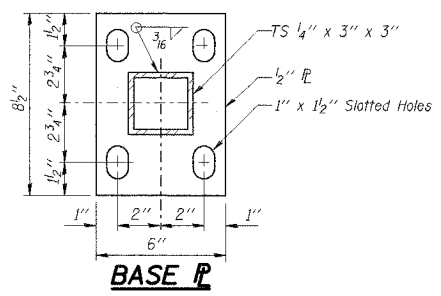


The Contractor shall drill and epoxy grout 5/8" anchor rods. Embedment shall be according to the manufacturer's specifications.

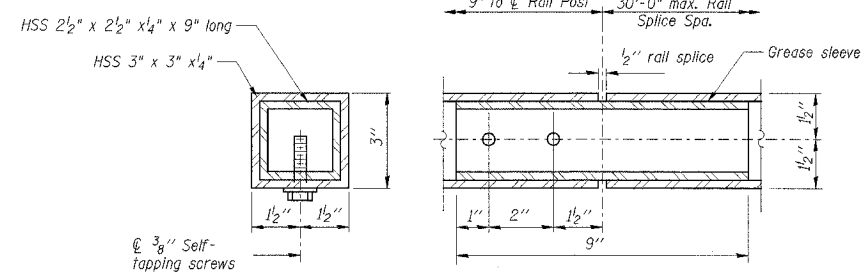
ANCHOR BOLT DETAILS



SECTION B-B



BASE PL



RAIL SPLICE

BILL OF MATERIAL		
Item	Unit	Total
Pedestrian Railing	Foot	477
*Fence Removal	Foot	477

*Includes removal of existing fence system and existing base plate assemblies, see Section B-B.

REVISIONS	
NAME	DATE

SHT. ST-005

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 57 (INTERSTATE 57) OVER
F.A.I. ROUTE I-94 SB & CTA TRACKS-BRIDGE REPAIRS
SN 016-0073
COOK COUNTY
SECTION (1516.1, 1717, & 1818) R-4
PEDESTRIAN RAILING

DATE: 03/07/06

DRAWN BY: RDS
CHECKED BY: VP

TENG

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
205 N. MICHIGAN AVE., CHICAGO, IL 60601
TELEPHONE: 312.616.0020

R-28 Special (10'-0" Maximum Post Spacing)

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	*	COOK	916	578
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62304				
*(1516.1, 1717, & 1818) R-4				

BENCHMARK

Square cut on the east end of curb of the northeast corner of first alley north of 99th street approximately 35 feet east of LaSalle street. Elev. 16.35 feet.

EXISTING STRUCTURE TO BE REMOVED

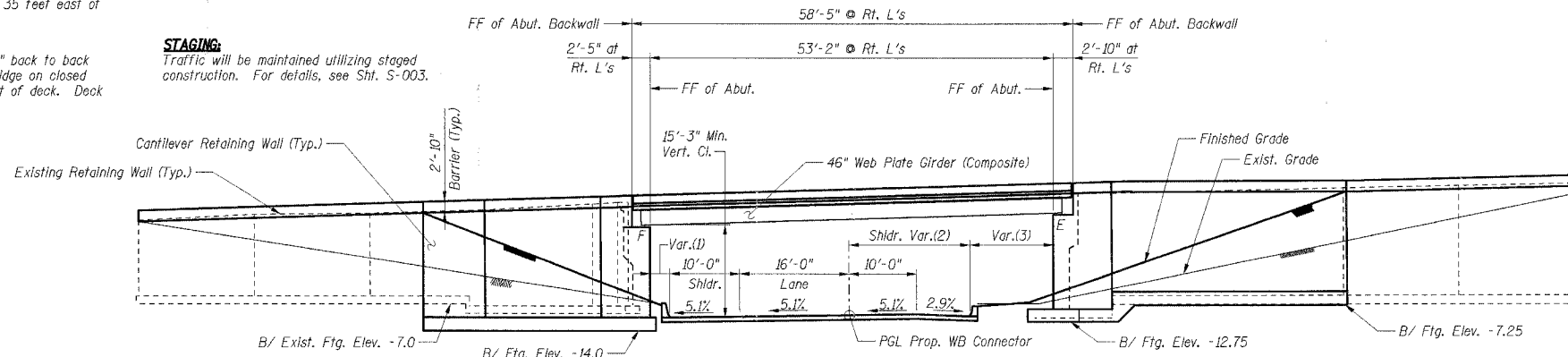
Structure No. 016-0072 Single span, 117'-4" back to back of abutments, composite steel plate girder bridge on closed abutments. The structure is 37'-0" out to out of deck. Deck constructed on stay-in-place metal forms.

SALVAGE:

None.

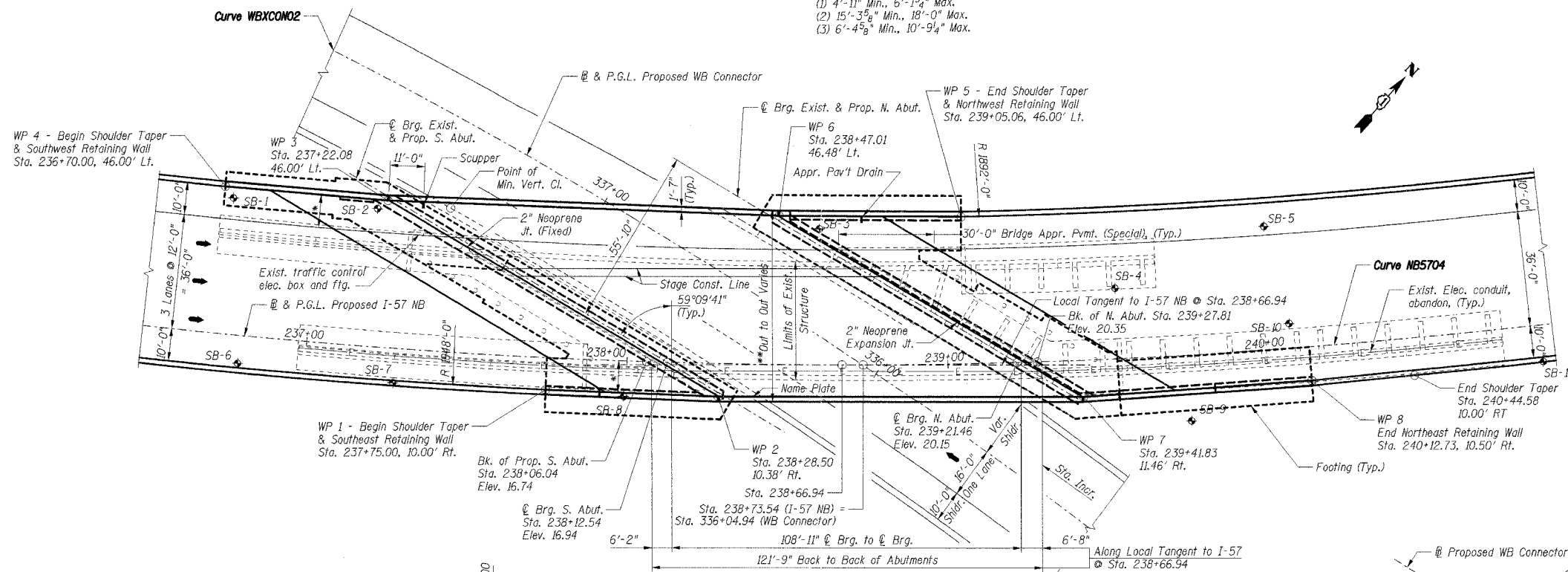
STAGING:

Traffic will be maintained utilizing staged construction. For details, see Sht. S-003.



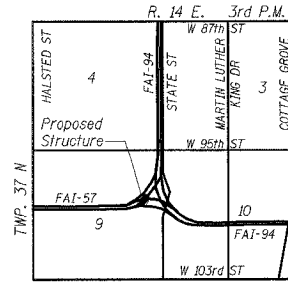
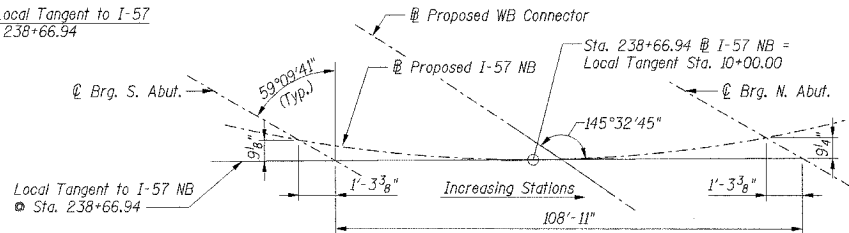
ELEVATION

- (1) 4'-11" Min., 6'-1 3/4" Max.
- (2) 15'-3 5/8" Min., 18'-0" Max.
- (3) 6'-4 9/8" Min., 10'-9 1/4" Max.

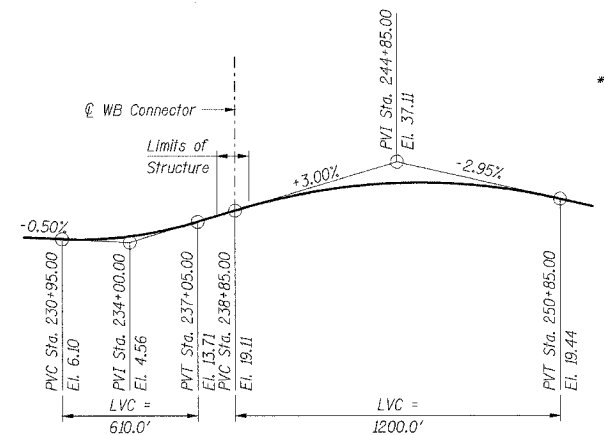


PLAN

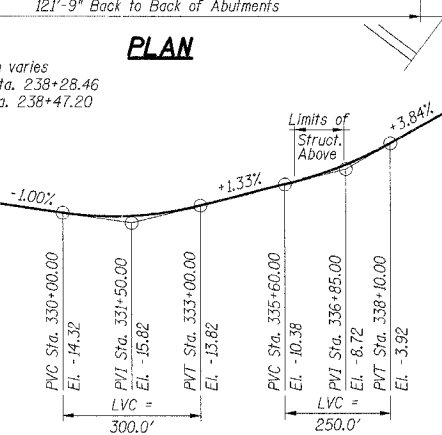
OFFSET SKETCH



LOCATION MAP



PROFILE GRADE PROPOSED I-57 NB



PROFILE GRADE PROPOSED WB CONNECTOR

LEGEND & ABBREVIATIONS

- SB-0 Soil Boring Location
- WP denotes Work Point at toe of parapet or barrier wall.
- FF denotes front face.
- For Temporary Soil Retention System, see Sheets S-006 - S-009.

SHT. S-001

REVISIONS	
NAME	DATE

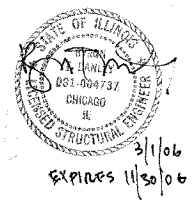
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 57 (INTERSTATE 57)
 I-57 NB OVER WB CONNECTOR
 SN 016-0072 OLD, SN 016-2852 NEW
 STA. 238+73.54
 COOK COUNTY, SECTION (1516.1, 1717, & 1818) R-4
 GENERAL PLAN AND ELEVATION

DATE: 03/07/06

DRAWN BY: VV
 CHECKED BY: RDS

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS ARCHITECTS PLANNERS
 205 N. MICHIGAN AVE., CHICAGO, IL 60601
 TELEPHONE: 312.467.0000

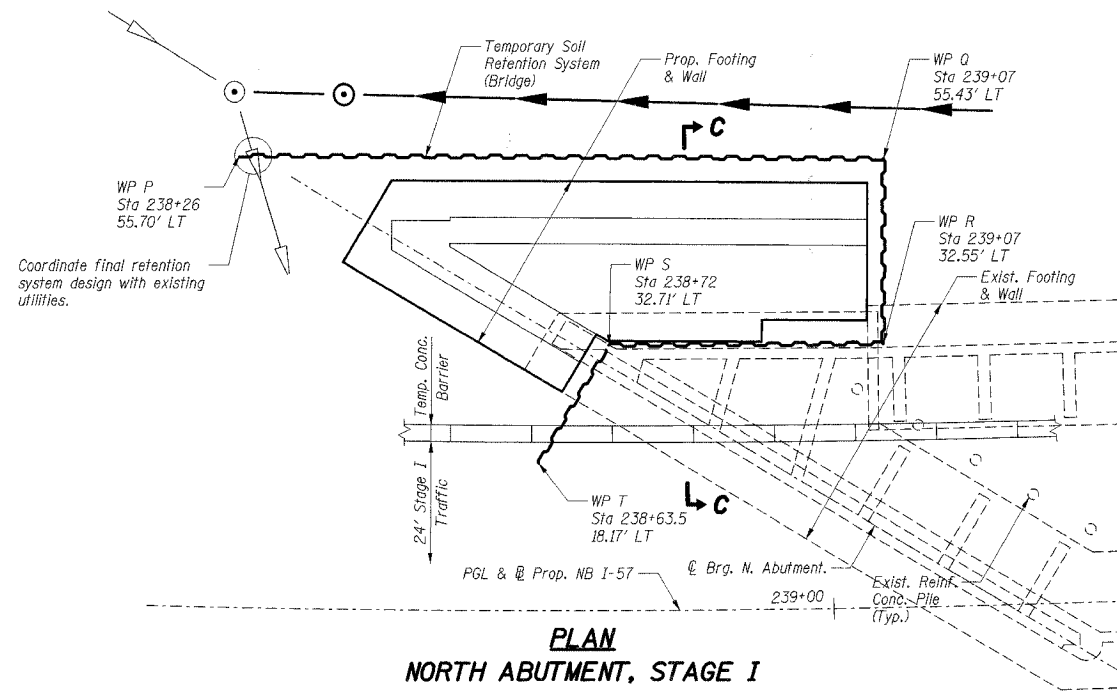
- Notes:**
- Dimensions for WB Connector are perpendicular to @ WB Connector.
 - Elevation view developed perpendicular to the southeast fascia girder.
 - For underpass lighting, see electrical plans.
 - For Temporary Soil Retention System, see Sheets S-006 to S-009.
 - Retaining walls and bridge parapets are straight segments between work points.



APPROVED
 FOR STRUCTURAL ADEQUACY ONLY

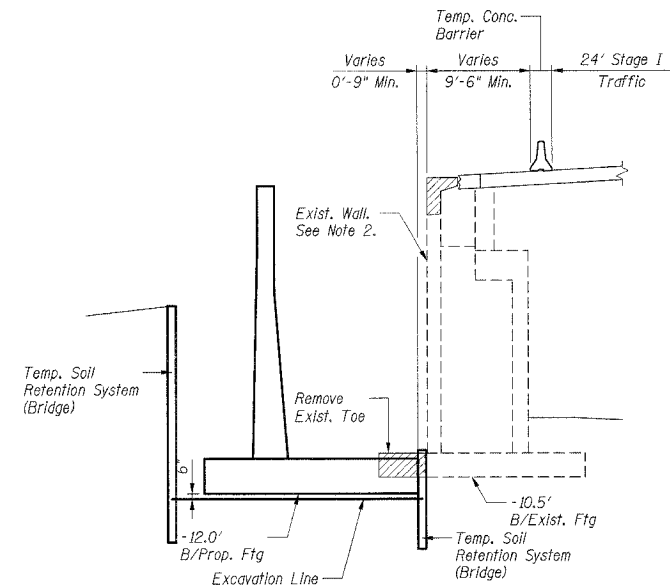
ENGINEER OF BRIDGES AND STRUCTURES

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	*	COOK	916	585
STA.	TO STA.			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
CONTRACT NO. 62304				
*(1516.1, 1717, & 1818) R-4				



PLAN
NORTH ABUTMENT, STAGE I

Note: Excavation work & installation of retention system between work points S & T cannot be completed until WB connector traffic is put into Stage Ia configuration. See maintenance of traffic plans.



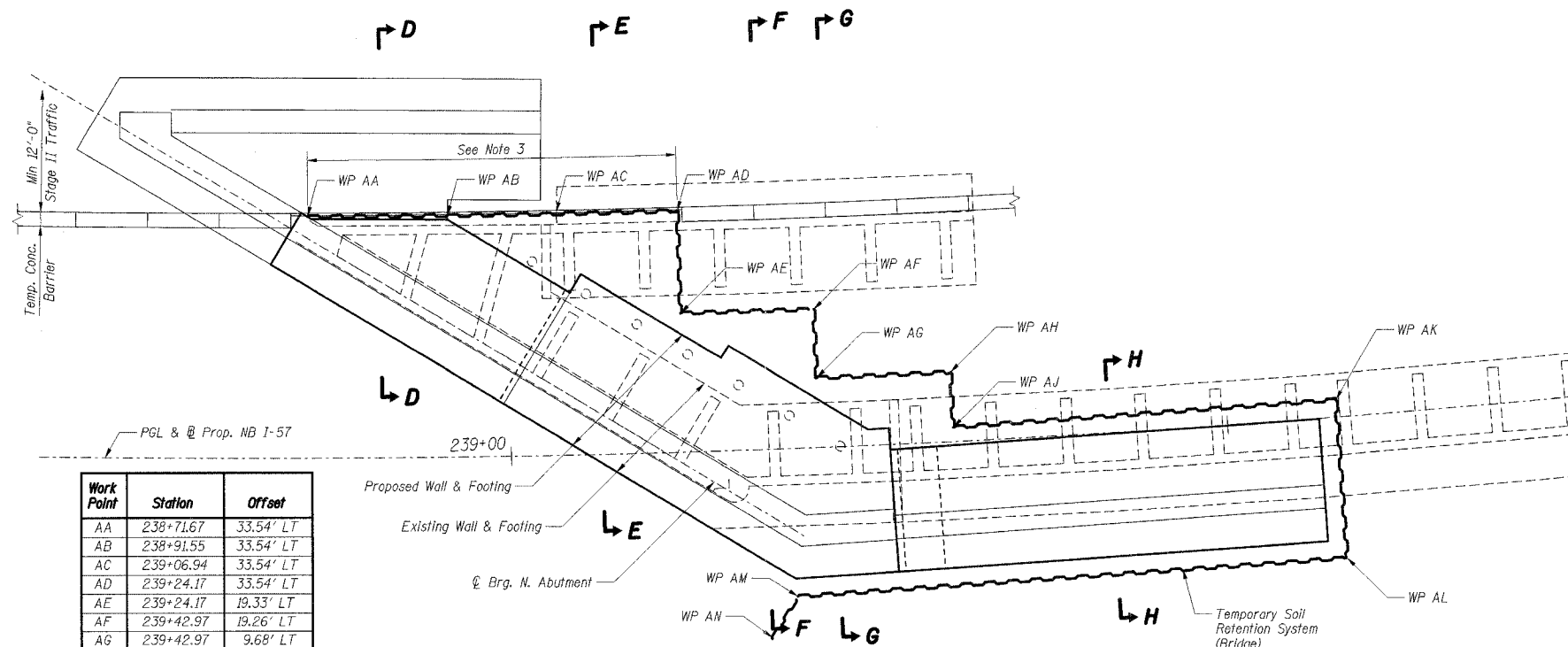
SECTION C-C

Legend:

- Removal of Existing Structures
- Existing buried sewer - Contract 62593
- Proposed buried sewer - This Contract

Notes:

1. Work this Sheet with Sheet S-009. For Sections D-D Through H-H, see Sheet S-010.
2. Layout shown is based on use of existing northwest retaining wall as part of the Stage I retention system. Contractor may vary the layout to include removal of the existing wall in Stage I, subject to the approval of the Engineer.
3. Clearance between Stage II traffic and Stage II removal work will not permit the placement of Temporary Concrete Barrier in the limits between work points WP AA and WP AD. Within these limits, the Temporary Soil Retention System design shall accommodate an integrated bridge railing. Design loading shall be 10 kips distributed along a 5' length of rail, 2'-3" above pavement. IDOT standard drawing for Temporary Bridge Rail (Bridge Manual drawing R-25) provides details which may be adapted for integration to the retention system. Details of the railing shall be included with the Temporary Soil Retention System design submittals. Cost included with Temporary Soil Retention System.
4. For removal of existing structures, see Sht. S-004.
5. For buried utilities, coordinate with Drainage and Utility plans in this Contract and in IDOT Contract No. 62593.



Work Point	Station	Offset
AA	238+71.67	33.54' LT
AB	238+91.55	33.54' LT
AC	239+06.94	33.54' LT
AD	239+24.17	33.54' LT
AE	239+24.17	19.33' LT
AF	239+42.97	19.26' LT
AG	239+42.97	9.68' LT
AH	239+61.76	9.65' LT
AJ	239+61.76	2.00' LT
AK	240+15.30	2.41' LT
AL	240+15.16	19.59' RT
AM	239+39.15	20.63' RT
AN	239+35.33	26.51' RT

PLAN
NORTH ABUTMENT, STAGE II

BILL OF MATERIAL

Item	Unit	Total
Temporary Soil Retention System (Bridge)	Sq Ft	7807

SHT. S-008

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 57 (INTERSTATE 57)
I-57 NB OVER WB CONNECTOR
SN 016-0072 OLD, SN 016-2852 NEW
STA. 238+73.54
COOK COUNTY, SECTION (1516.1, 1717, & 1818) R-4
TEMPORARY SOIL RETENTION SYSTEM
NORTH ABUTMENT I

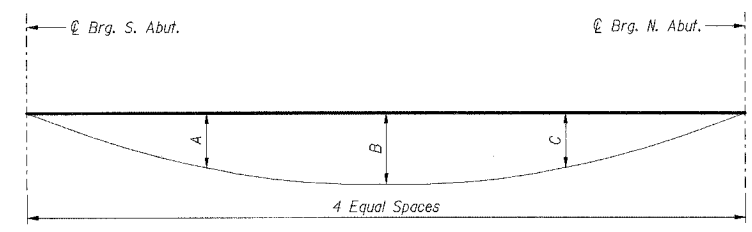
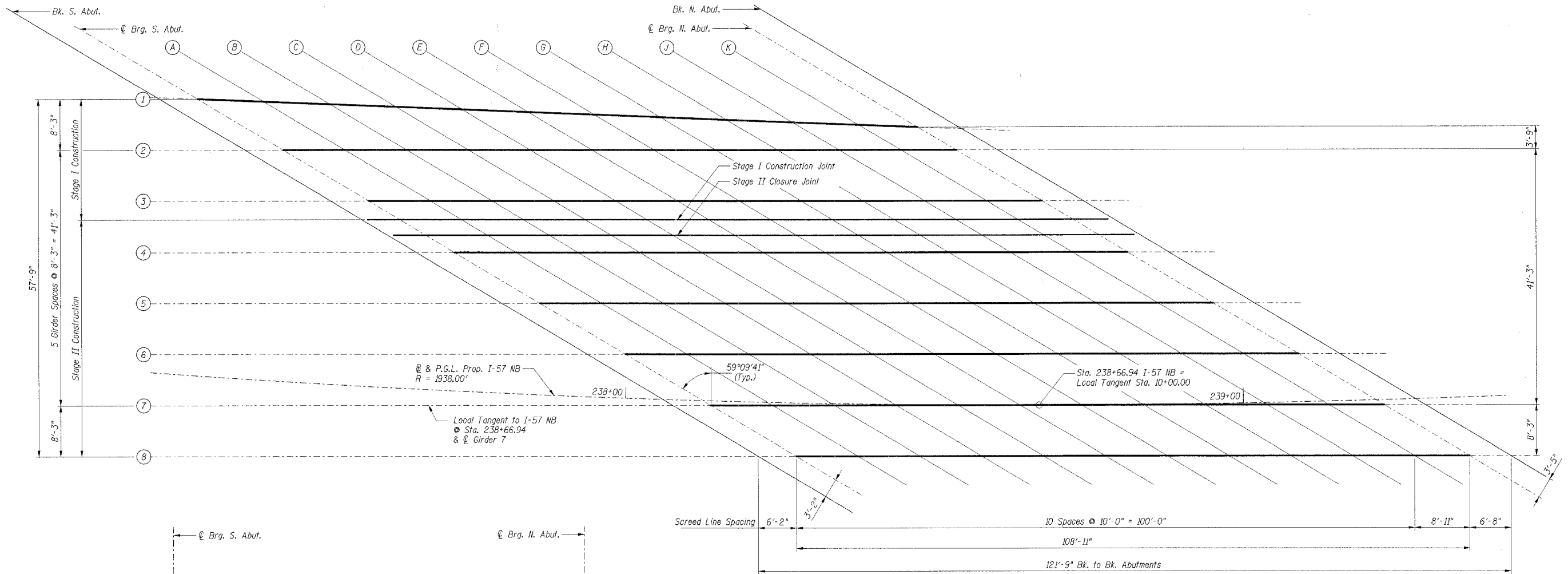
DATE: 03/07/06

DRAWN BY: TCU
CHECKED BY: VCP

TENG

TENG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
205 N. MICHIGAN AVE., CHICAGO, IL 60601
TELEPHONE: 312.461.0000

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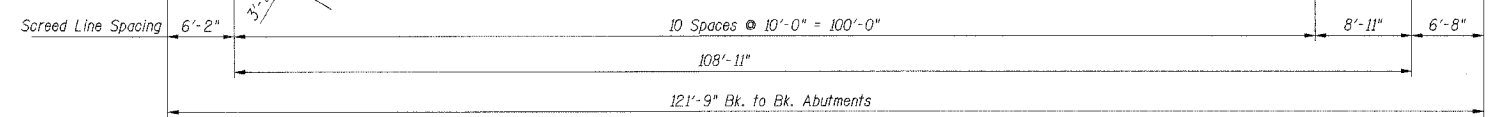


DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete only.)

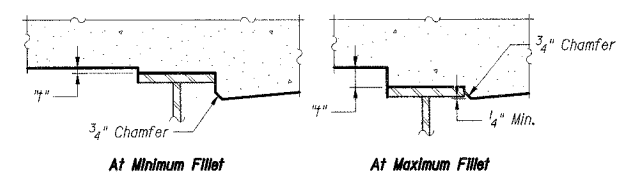
DEFLECTIONS

Girder	A	B	C
1	3 3/8"	4 3/4"	3 3/8"
2	3"	4 1/8"	3"
3	2 7/8"	4 1/8"	2 7/8"
4	2 5/8"	3 3/4"	2 5/8"
5	2 5/8"	3 5/8"	2 5/8"
6	2 3/4"	3 7/8"	2 3/4"
7	3"	4 1/4"	3"
8	3 1/8"	4 1/4"	3 1/8"

Note:
The above deflections are not to be used in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown on Sht. S-012.



SCREED PLAN
Dimensions relative to Local Tangent



To determine "f": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sht. S-012, minus slab thickness, equals the fillet heights "f" above top flange of beams.

FILLET HEIGHTS

- NOTES:**
1. Work this sheet with Sht. S-012.
 2. All Construction and Closure joints shall be bonded.

SHT. S-011

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 57 (INTERSTATE 57)
I-57 NB OVER WB CONNECTOR
SN 016-0072 OLD, SN 016-2852 NEW
STA. 238+73.54
COOK COUNTY, SECTION (1516.1, 1717, & 1818) R-4
DECK ELEVATION PLAN

DATE: 03/07/06
DRAWN BY: VV
CHECKED BY: RDS

TENG
TENG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
205 N. MICHIGAN AVE., CHICAGO, IL 60601
TELEPHONE: 312.461.4000

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GIRDER 1

Location	Local Tangent		@ I-57 NB		Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflections
	Station	Offset	Station	Offset		
Bk. S. Abut.	8+57.37	-49.76	237+20.83	-44.38	11.74	11.74
@ Brg. S. Abut.	8+63.97	-49.50	237+27.59	-44.61	11.93	11.93
A	8+74.67	-49.09	237+38.54	-44.93	12.24	12.36
B	8+85.36	-48.67	237+49.49	-45.20	12.56	12.78
C	8+96.05	-48.26	237+60.45	-45.40	12.88	13.18
D	9+06.74	-47.85	237+71.40	-45.55	13.20	13.56
E	9+17.43	-47.43	237+82.36	-45.63	13.52	13.91
F	9+28.13	-47.02	237+93.32	-45.66	13.85	14.24
G	9+38.82	-46.61	238+04.28	-45.62	14.18	14.54
H	9+49.51	-46.19	238+15.23	-45.52	14.51	14.81
J	9+60.20	-45.78	238+26.19	-45.36	14.85	15.06
K	9+70.89	-45.37	238+37.14	-45.14	15.19	15.29
@ Brg. N. Abut.	9+80.42	-45.00	238+46.90	-44.90	15.50	15.50
Bk. N. Abut.	9+87.55	-44.72	238+54.20	-44.68	15.73	15.73

STAGE I CONSTRUCTION JOINT

Location	Local Tangent		@ I-57 NB		Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflections
	Station	Offset	Station	Offset		
Bk. S. Abut.	8+90.46	-30.00	237+55.80	-26.86	13.76	13.76
@ Brg. S. Abut.	8+96.64	-30.00	237+62.06	-27.20	13.93	13.93
A	9+06.64	-30.00	237+72.19	-27.72	14.20	14.30
B	9+16.64	-30.00	237+82.32	-28.18	14.48	14.67
C	9+26.64	-30.00	237+92.46	-28.59	14.76	15.03
D	9+36.64	-30.00	238+02.61	-28.95	15.05	15.36
E	9+46.64	-30.00	238+12.75	-29.25	15.33	15.68
F	9+56.64	-30.00	238+22.90	-29.51	15.62	15.97
G	9+66.64	-30.00	238+33.06	-29.71	15.92	16.23
H	9+76.64	-30.00	238+43.21	-29.86	16.21	16.47
J	9+86.64	-30.00	238+53.37	-29.95	16.51	16.70
K	9+96.64	-30.00	238+63.53	-30.00	16.82	16.91
@ Brg. N. Abut.	10+05.55	-30.00	238+72.58	-29.99	17.09	17.09
Bk. N. Abut.	10+12.21	-30.00	238+79.35	-29.96	17.29	17.29

GIRDER 6

Location	Local Tangent		@ I-57 NB		Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflections
	Station	Offset	Station	Offset		
Bk. S. Abut.	9+26.89	-8.25	237+93.55	-6.87	15.99	15.99
@ Brg. S. Abut.	9+33.07	-8.25	237+99.75	-7.09	16.16	16.16
A	9+43.07	-8.25	238+09.78	-7.41	16.45	16.54
B	9+53.07	-8.25	238+19.82	-7.68	16.73	16.91
C	9+63.07	-8.25	238+29.86	-7.90	17.02	17.27
D	9+73.07	-8.25	238+39.90	-8.06	17.31	17.61
E	9+83.07	-8.25	238+49.94	-8.18	17.61	17.93
F	9+93.07	-8.25	238+59.98	-8.24	17.91	18.23
G	10+03.07	-8.25	238+70.02	-8.25	18.21	18.50
H	10+13.07	-8.25	238+80.06	-8.21	18.51	18.75
J	10+23.07	-8.25	238+90.11	-8.11	18.82	18.99
K	10+33.07	-8.25	239+00.15	-7.97	19.12	19.20
@ Brg. N. Abut.	10+41.98	-8.25	239+09.09	-7.79	19.39	19.39
Bk. N. Abut.	10+48.64	-8.25	239+15.78	-7.64	19.59	19.59

GIRDER 2

Location	Local Tangent		@ I-57 NB		Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflections
	Station	Offset	Station	Offset		
Bk. S. Abut.	8+71.62	-41.25	237+35.97	-36.91	12.61	12.61
@ Brg. S. Abut.	8+77.79	-41.25	237+42.25	-37.32	12.78	12.78
A	8+87.79	-41.25	237+52.43	-37.93	13.05	13.15
B	8+97.79	-41.25	237+62.61	-38.50	13.32	13.51
C	9+07.79	-41.25	237+72.80	-39.01	13.60	13.87
D	9+17.79	-41.25	237+83.00	-39.47	13.88	14.20
E	9+27.79	-41.25	237+93.20	-39.88	14.16	14.51
F	9+37.79	-41.25	238+03.41	-40.23	14.45	14.79
G	9+47.79	-41.25	238+13.61	-40.53	14.74	15.05
H	9+57.79	-41.25	238+23.82	-40.78	15.03	15.29
J	9+67.79	-41.25	238+34.04	-40.98	15.33	15.51
K	9+77.79	-41.25	238+44.25	-41.12	15.63	15.71
@ Brg. N. Abut.	9+86.71	-41.25	238+53.36	-41.20	15.89	15.89
Bk. N. Abut.	9+93.37	-41.25	238+60.17	-41.24	16.10	16.10

STAGE II CLOSURE JOINT

Location	Local Tangent		@ I-57 NB		Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflections
	Station	Offset	Station	Offset		
Bk. S. Abut.	8+94.65	-27.50	237+60.18	-24.60	14.01	14.01
@ Brg. S. Abut.	9+00.82	-27.50	237+66.43	-24.93	14.18	14.18
A	9+10.82	-27.50	237+76.55	-25.42	14.46	14.55
B	9+20.82	-27.50	237+86.67	-25.86	14.74	14.91
C	9+30.82	-27.50	237+96.80	-26.25	15.02	15.26
D	9+40.82	-27.50	238+06.93	-26.58	15.31	15.59
E	9+50.82	-27.50	238+17.07	-26.87	15.59	15.91
F	9+60.82	-27.50	238+27.21	-27.10	15.89	16.20
G	9+70.82	-27.50	238+37.35	-27.28	16.18	16.46
H	9+80.82	-27.50	238+47.49	-27.40	16.48	16.71
J	9+90.82	-27.50	238+57.63	-27.48	16.78	16.94
K	10+00.82	-27.50	238+67.78	-27.50	17.08	17.16
@ Brg. N. Abut.	10+09.74	-27.50	238+76.82	-27.48	17.35	17.35
Bk. N. Abut.	10+16.40	-27.50	238+83.58	-27.43	17.56	17.56

PROFILE GRADE LINE I-57 NB

Location	Local Tangent		@ I-57 NB		Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflections
	Station	Offset	Station	Offset		
Bk. S. Abut.	9+39.10	-0.96	238+06.04	0.00	16.74	16.74
@ Brg. S. Abut.	9+45.61	-0.76	238+12.54	0.00	16.94	16.94
A	9+56.05	-0.50	238+22.99	0.00	17.25	17.36
B	9+66.40	-0.29	238+33.34	0.00	17.56	17.77
C	9+76.65	-0.14	238+43.59	0.00	17.87	18.15
D	9+86.81	-0.04	238+53.75	0.00	18.17	18.51
E	9+96.88	0.00	238+63.82	0.00	18.47	18.83
F	10+06.86	-0.01	238+73.81	0.00	18.77	19.13
G	10+16.76	-0.07	238+83.71	0.00	19.07	19.39
H	10+26.58	-0.18	238+93.52	0.00	19.36	19.63
J	10+36.31	-0.34	239+03.26	0.00	19.65	19.83
K	10+45.97	-0.55	239+12.92	0.00	19.93	20.02
@ Brg. N. Abut.	10+54.51	-0.77	239+21.46	0.00	20.17	20.17
Bk. N. Abut.	10+60.86	-0.96	239+27.81	0.00	20.35	20.35

* @ Pt. L's from Local Tangent to @ I-57 NB

GIRDER 3

Location	Local Tangent		@ I-57 NB		Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflections
	Station	Offset	Station	Offset		
Bk. S. Abut.	8+85.43	-33.00	237+50.53	-29.56	13.45	13.45
@ Brg. S. Abut.	8+91.61	-33.00	237+56.80	-29.92	13.62	13.62
A	9+01.61	-33.00	237+66.94	-30.46	13.89	13.99
B	9+11.61	-33.00	237+77.09	-30.95	14.17	14.36
C	9+21.61	-33.00	237+87.24	-31.39	14.45	14.72
D	9+31.61	-33.00	237+97.40	-31.77	14.73	15.05
E	9+41.61	-33.00	238+07.56	-32.11	15.02	15.36
F	9+51.61	-33.00	238+17.73	-32.39	15.31	15.65
G	9+61.61	-33.00	238+27.89	-32.61	15.60	15.92
H	9+71.61	-33.00	238+38.06	-32.79	15.90	16.16
J	9+81.61	-33.00	238+48.24	-32.91	16.20	16.38
K	9+91.61	-33.00	238+58.41	-32.98	16.50	16.59
@ Brg. N. Abut.	10+00.52	-33.00	238+67.48	-33.00	16.77	16.77
Bk. N. Abut.	10+07.19	-33.00	238+74.26	-32.99	16.97	16.97

GIRDER 4

Location	Local Tangent		@ I-57 NB		Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflections
	Station	Offset	Station	Offset		
Bk. S. Abut.	8+99.25	-24.75	237+64.99	-22.10	14.29	14.29
@ Brg. S. Abut.	9+05.43	-24.75	237+71.23	-22.41	14.46	14.46
A	9+15.43	-24.75	237+81.33	-22.88	14.74	14.83
B	9+25.43	-24.75	237+91.45	-23.30	15.02	15.20
C	9+35.43	-24.75	238+01.56	-23.66	15.31	15.55
D	9+45.43	-24.75	238+11.68	-23.97	15.59	15.88
E	9+55.43	-24.75	238+21.80	-24.23	15.88	16.19
F	9+65.43	-24.75	238+31.93	-24.44	16.17	16.48
G	9+75.43	-24.75	238+42.06	-24.59	16.47	16.75
H	9+85.43	-24.75	238+52.18	-24.69	16.77	17.00
J	9+95.43	-24.75	238+62.31	-24.74	17.07	17.23
K	10+05.43	-24.75	238+72.44	-24.74	17.37	17.45
@ Brg. N. Abut.	10+14.34	-24.75	238+81.47	-24.70	17.65	17.65
Bk. N. Abut.	10+21.01	-24.75	238+88.22	-24.63	17.85	17.85

GIRDER 7

Location	Local Tangent		@ I-57 NB		Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflections
	Station	Offset	Station	Offset		
Bk. S. Abut.	9+40.71	0.00	238+07.67	0.91	16.84	16.84
@ Brg. S. Abut.	9+46.88	0.00	238+13.84	0.73	17.02	17.02
A	9+56.88	0.00	238+23.83	0.48	17.30	17.41
B	9+66.88	0.00	238+33.83	0.28	17.59	17.79
C	9+76.88	0.00	238+43.83	0.14	17.88	18.16
D	9+86.88	0.00	238+53.83	0.04	18.18	18.51
E	9+96.88	0.00	238+63.83	0.00	18.47	18.83
F	10+06.88	0.00	238+73.83	0.01	18.78	19.13
G	10+16.88	0.00	238+83.83	0.07	19.08	19.41
H	10+26.88	0.00	238+93.83	0.19	19.38	19.65
J	10+36.88	0.00	239+03.82	0.35	19.69	19.87
K	10+46.88	0.00	239+13.82	0.57	19.99	20.08
@ Brg. N. Abut.	10+55.80	0.00	239+22.72	0.80	20.25	20.25
Bk. N. Abut.	10+62.46	0.00	239+29.38	1.01	20.45	20.45

GIRDER 5

Location	Local Tangent		@ I-57 NB		Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflections
	Station	Offset	Station	Offset		
Bk. S. Abut.	9+13.07	-16.50	237+79.33	-14.53	15.14	15.14
@ Brg. S. Abut.	9+19.25	-16.50	237+85.55	-14.80	15.31	15.31
A	9+29.25	-16.50				

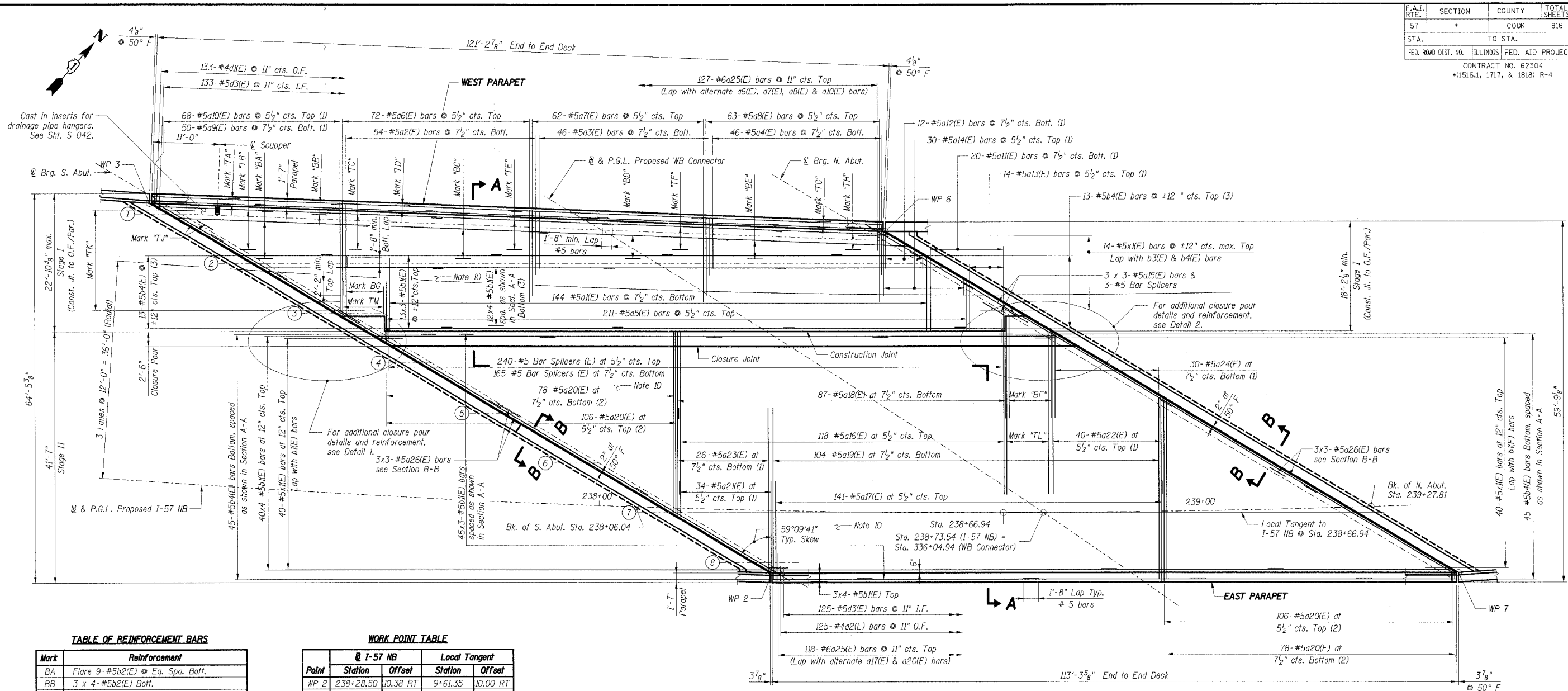


TABLE OF REINFORCEMENT BARS

Mark	Reinforcement
BA	Flare 9-#5b2(E) @ Eq. Spa. Bott.
BB	3 x 4-#5b2(E) Bott.
BC	Flare 8-#5b2(E) @ Eq. Spa. Bott.
BD	Flare 7-#5b2(E) @ Eq. Spa. Bott.
BE	Flare 6-#5b2(E) @ Eq. Spa. Bott.
BF	13-#5a28(E) @ 7 1/2\" cts.
BG	12-#5a30(E) @ 7 1/2\" cts.
TA	3-#5b3(E) Top
TB	Flare 8-#5b3(E) @ ±12\" cts. max. Top
TC	Flare 7-#5b3(E) @ ±12\" cts. max. Top
TD	3 x 3-#5b3(E) Top
TE	Flare 6-#5b3(E) @ ±12\" cts. max. Top
TF	Flare 5-#5b3(E) @ ±12\" cts. max. Top
TG	3-#5b3(E) Top
TH	Flare 4-#5b3(E) @ ±12\" cts. max. Top
TJ	3 x 3-#5a6(E) bars & 3-#5 Bar Splicers (E)
TK	18-#5x1(E) @ ±12\" cts. max. Top Lap with b3(E) & b4(E) bars
TL	17-#5a27(E) @ 5 1/2\" cts.
TM	16-#5a29(E) @ 5 1/2\" cts.

WORK POINT TABLE

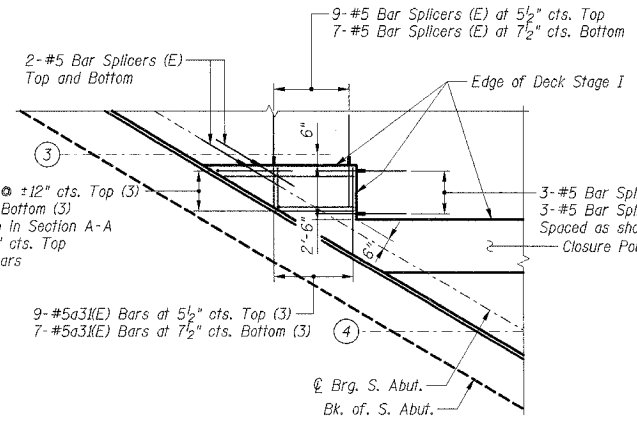
Point	@ I-57 NB		Local Tangent	
	Station	Offset	Station	Offset
WP 2	238+28.50	10.38 RT	9+61.35	10.00 RT
WP 3	237+22.08	46.00 LT	8+58.71	51.28 LT
WP 6	238+47.01	46.48 LT	9+80.55	46.58 LT
WP 7	239+41.83	11.46 RT	10+75.31	10.00 RT

Work Points are located at the toe of barrier at the front face of the abutment backwall.

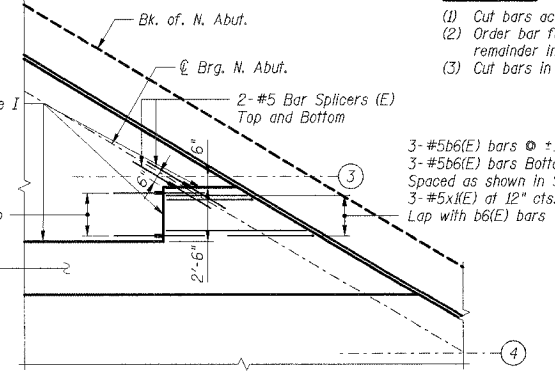
DECK PLAN

Re-bar Notes:

- (1) Cut bars according to Cutting Diagram, Sht. S-015.
- (2) Order bar full length. Cut to fit skew and use remainder in opposite end.
- (3) Cut bars in field to fit as required.



DETAIL 1
(Additional Reinforcement Shown)



DETAIL 2
(Additional Reinforcement Shown)

Notes:

- Reinforcement bars designated (E) shall be epoxy coated.
- Bars indicated thus 24 x 3-#5 etc. indicates 24 lines of bars with 3 lengths per line.
- I.F. denotes Inside Face. O.F. denotes Outside Face.
- For Sections A-A & B-B, see Sht. S-014.
- For Parapet Elevations, see Sht. S-015.
- For Scupper details & additional bars, see Sht. S-015.
- For Neoprene Joint details, see Sht. S-016.
- For Bar List & Bill of Material, see Sht. S-015.
- For Bar Splicer details, see Sht. S-043.
- Cast in inserts for underpass lighting fixtures. Coordinate insert details and locations with Underpass Lighting plans of IDOT Contract 62583. Inserts provided by others under Contract 62583.

SHT. S-013

REVISIONS	
NAME	DATE

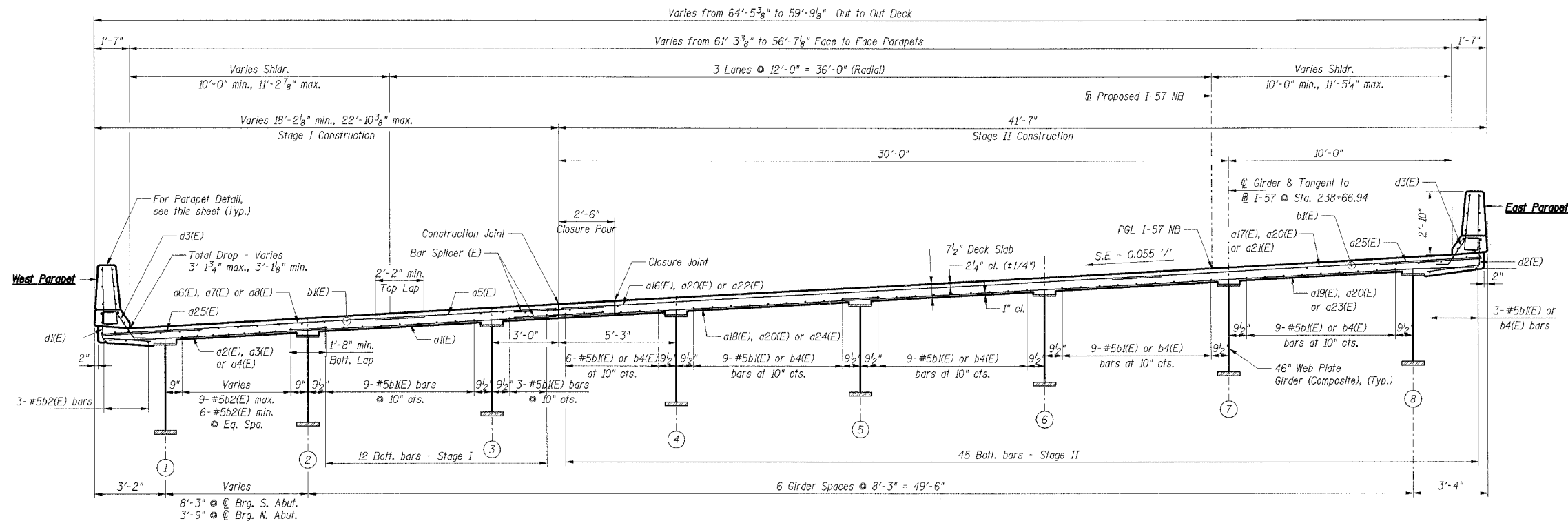
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 57 (INTERSTATE 57)
 I-57 NB OVER WB CONNECTOR
 SN 016-0072 OLD, SN 016-2852 NEW
 STA. 238+73.54
 COOK COUNTY, SECTION (1516.1, 1717, & 1818) R-4
 NB I-57 OVER WB I-94 RAMP
 DECK PLAN

DATE: 03/07/06

DRAWN BY: HBJ
 CHECKED BY: RDS

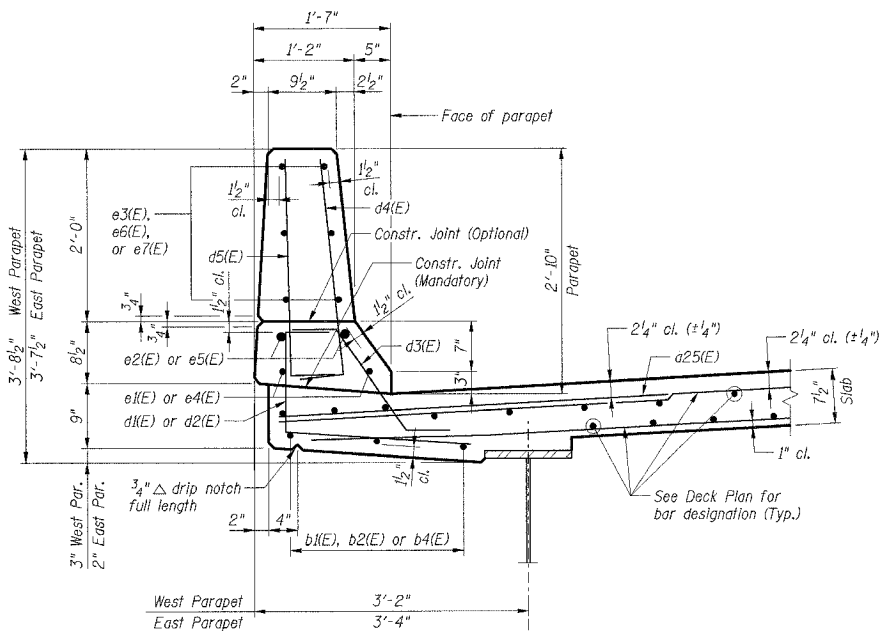
TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS ARCHITECTS PLANNERS
 208 N. MICHIGAN AVE., CHICAGO, IL 60601
 TELEPHONE: 312.443.0000

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	COOK	916	591	
STA. TO STA.		FED. AID PROJECT		
CONTRACT NO. 62304		ILLINOIS		
(1516.1, 1717, & 1818) R-4				

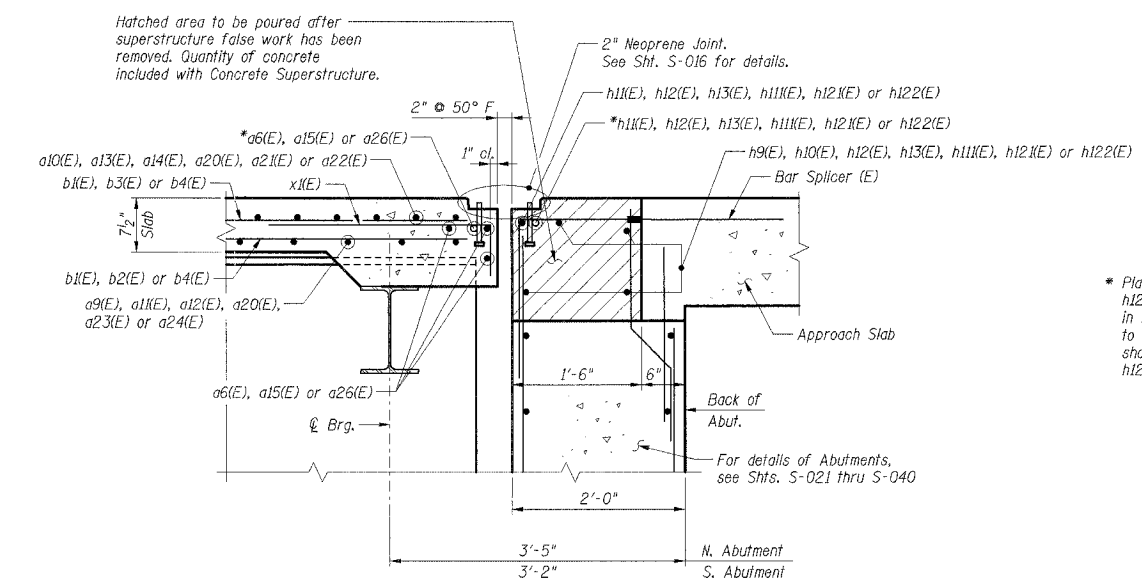


SECTION A-A

- Notes:**
1. Reinforcement bars designated (E) shall be epoxy coated.
 2. All edges shall have $\frac{3}{4}$ " chamfer.
 3. All Construction and Closure joints shall be bonded.
 4. Work this sheet with Shfs. S-013 & S-015.



TYPICAL PARAPET DETAIL



SECTION B-B

* Place a6(E), a15(E), a26(E), h1(E), h12(E), h13(E), h11(E), h12(E) or h122(E) bars in back of anchor bolt as shown if required to maintain 1" cl. (+0-1/8"). Anchor bolts should be tied to a6(E), a15(E), a26(E), h1(E), h12(E), h13(E), h11(E), h12(E) or h122(E) bars.

SHT. S-014

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 57 (INTERSTATE 57)
 I-57 NB OVER WB CONNECTOR
 SN 016-0072 OLD, SN 016-2852 NEW
 STA. 238+73.54
 COOK COUNTY, SECTION (1516.1, 1717, & 1818) R-4
 DECK CROSS SECTION &
 SUPERSTRUCTURE DETAILS

DATE: 03/07/06
 DRAWN BY: HBJ
 CHECKED BY: RDS

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS ARCHITECTS PLANNERS
 205 N. MICHIGAN AVE., CHICAGO, IL 60601
 TELEPHONE 312.616.0000

I:\BRIDGE\DRAWING\STRUCT\CONSTRUCT\NIGRA\SUB\000\WED.DGN
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 UBC1C

Joint Size	"C" at 50°F	"D" at 50°F
2"	2"	1 1/2" Min.
2 1/2"	2 1/2"	1 3/4" Min.
4"	3"	2 1/2" Min.

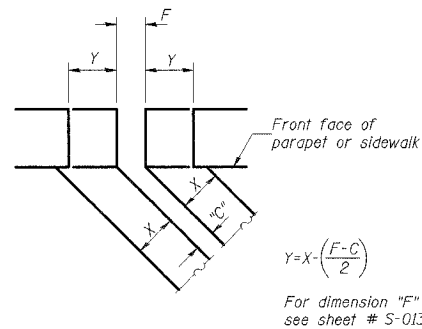
INSTALLATION NOTES

1. Install continuous seal in roadway, parapet, curb, and sidewalk.
2. Install anchor blocks as indicated.

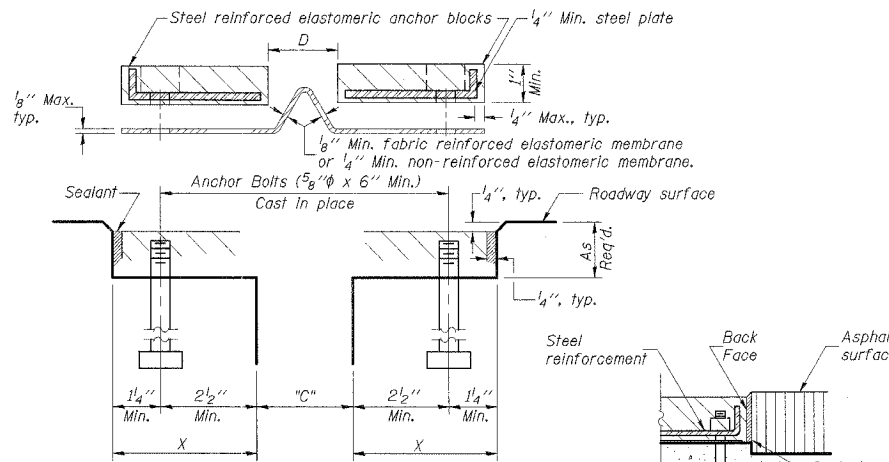
NOTE A: Maximum spacing of anchor bolts shall be 12" centers.

SKREW LIMITATIONS

The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews. For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed according to dimension "D", might require modifications to insure a minimum clearance of 1 1/2" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at ±12" cts.



FORMING BLOCKOUT SKETCH



CROSS SECTION

ANCHOR BLOCK WITH ASPHALT SURFACE

GENERAL NOTES

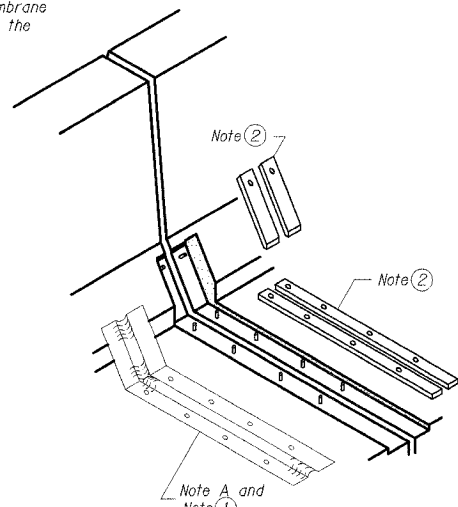
Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane.

The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure.

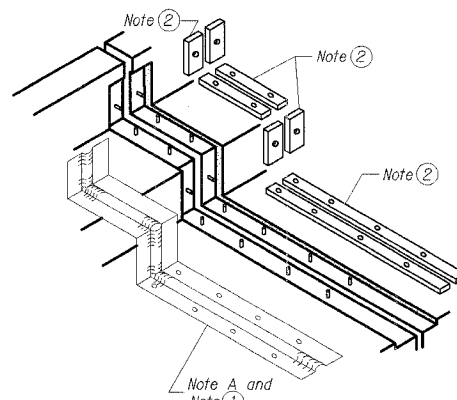
The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.

Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

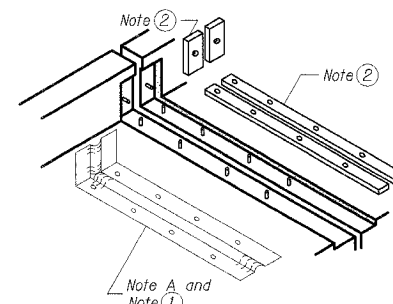
The parapet and roadway membrane shall be made continuous by an approved vulcanizing process. Lapping will not be permitted.



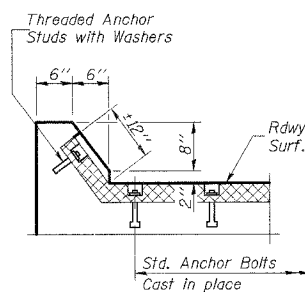
AT PARAPET



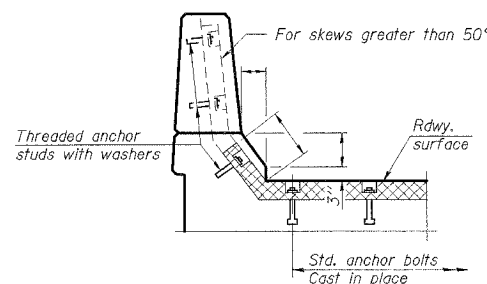
AT SIDEWALK OR MEDIAN



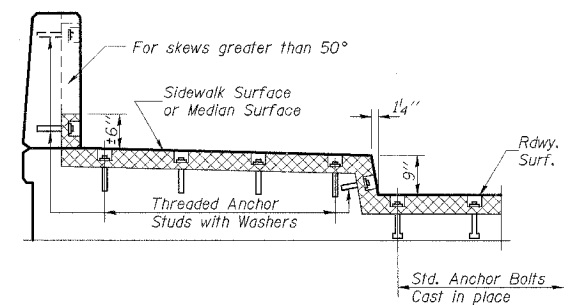
AT WALL



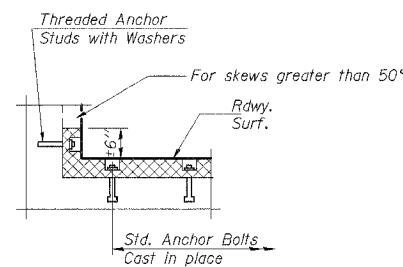
AT CURB



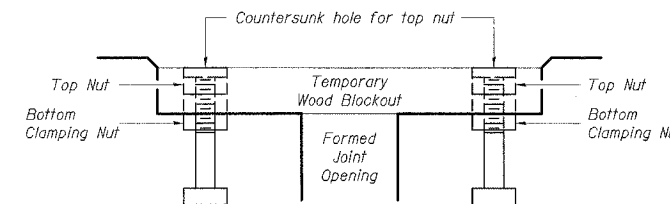
AT PARAPET



AT SIDEWALK OR MEDIAN TYPICAL END TREATMENTS



AT WALL



Note: Stud needs to be threaded lower to allow for use of clamping nut.

RECOMMENDED BLOCKOUT DETAIL

CONTINUOUS SEAL TYPE NEOPRENE EXPANSION JOINTS

BILL OF MATERIAL

Item	Unit	Total
Neoprene Expansion Joint 2"	Foot	242

SHT. S-016

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 57 (INTERSTATE 57)
 I-57 NB OVER WB CONNECTOR
 SN 016-0072 OLD, SN 016-2852 NEW
 STA. 238+73.54
 COOK COUNTY, SECTION (1516.1, 1717, & 1818) R-4
 CONTINUOUS SEAL TYPE
 NEOPRENE EXPANSION JOINT

DATE: 03/07/06

DRAWN BY: VV
 CHECKED BY: RDS

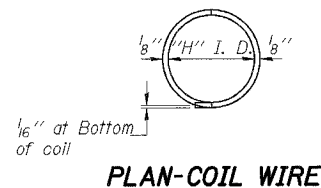
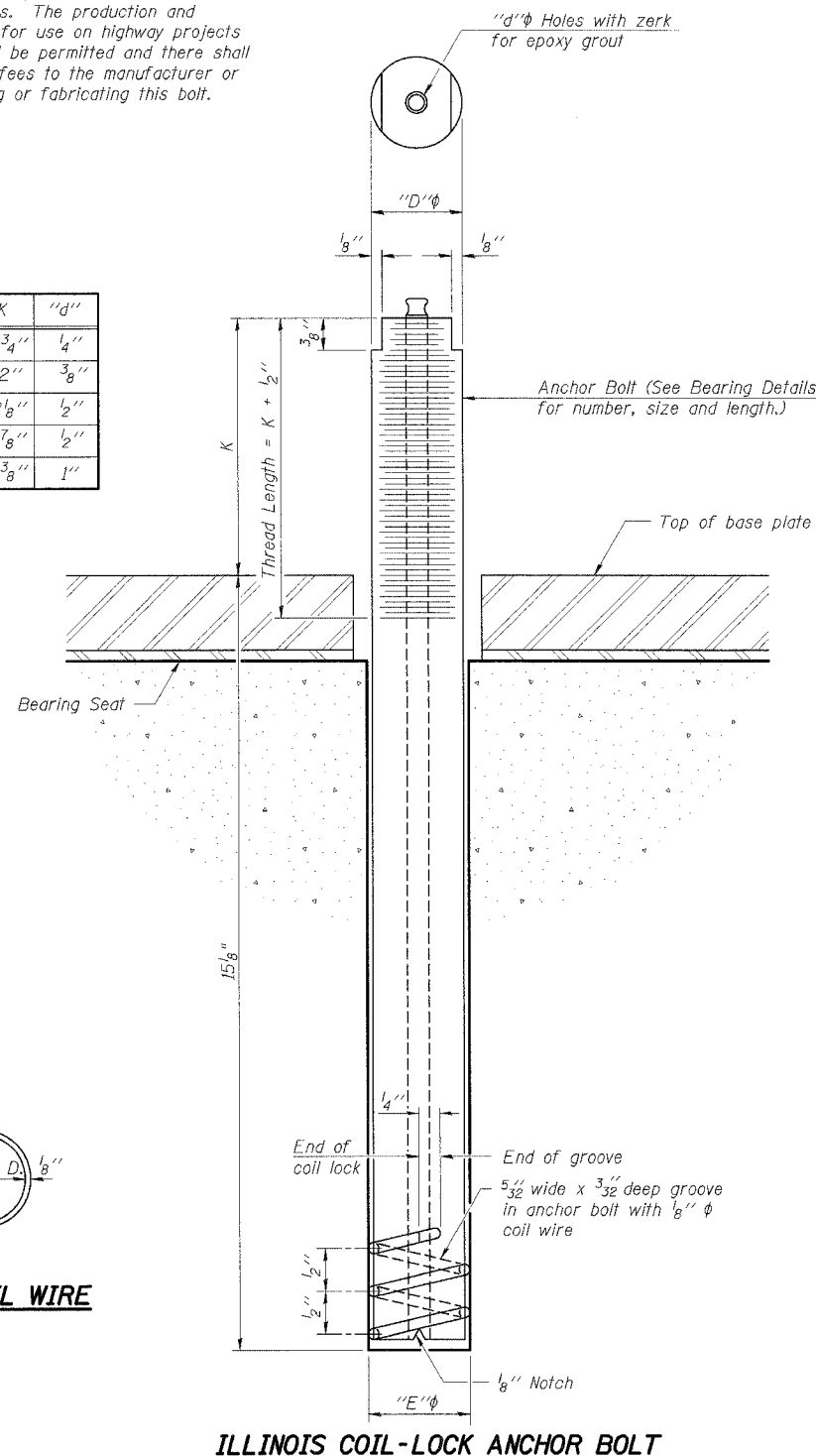
TENG

TENG & ASSOCIATES, INC.
 ENGINEERS ARCHITECTS-PLANNERS
 205 N. MICHIGAN AVE., CHICAGO, IL 60601
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The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"d"
1"	1 1/8"	1 5/16"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/2"	2"	3/8"
1 1/2"	1 5/8"	1 5/8"	2 1/8"	1/2"
2"	2 1/8"	1 13/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.

The coil wire shall be made of any suitable soft steel wire. The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed. The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.

- The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:
1. A threaded rod stud with nut and washer of the type specified.
 2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
All	A307

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be substituted for the anchor bolts shown above.

ILLINOIS COIL-LOCK ANCHOR BOLT

SHT. S-020

REVISIONS	
NAME	DATE

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 I-57 NB OVER WB CONNECTOR
 SN 016-0072 OLD, SN 016-2852 NEW
 STA. 238+73.54
 COOK COUNTY, SECTION (1516.1, 1717, & 1818) R-4
 ANCHOR BOLT DETAILS

DATE: 03/07/06

DRAWN BY: VV
 CHECKED BY: RDS

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