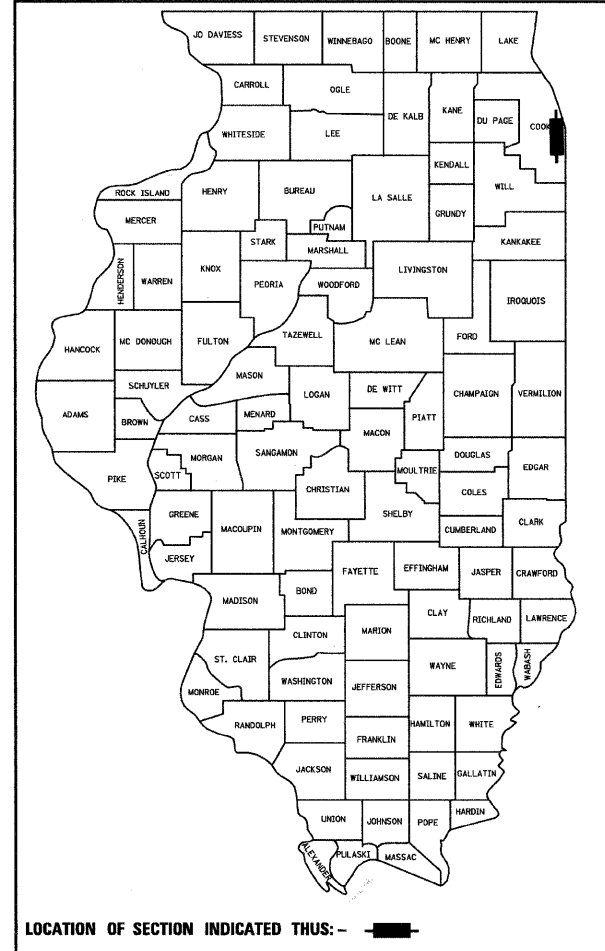


**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS**

**PLANS FOR PROPOSED  
FEDERAL AID HIGHWAY**

**F.A.I. ROUTE 94 (DAN RYAN EXPRESSWAY)  
SECTION (1818, 1919, 1919.15) I-12  
INSTALLATION OF FLUTED KNEE WALL ALONG LAFAYETTE  
AVENUE FROM 71st STREET TO 63rd STREET  
COOK COUNTY  
C-91-242-05**



**INDEX OF SHEETS**

SHEET	DESCRIPTION
1	COVER SHEET, INDEX OF SHEETS, LIST OF ILLINOIS DOT HIGHWAY STANDARDS
2	GENERAL NOTES AND PROJECT COMMITMENTS
3	SUMMARY OF QUANTITIES
4	EXISTING AND PROPOSED TYPICAL SECTIONS
5-15	ALIGNMENT PLANS, SURVEY TIES AND CONTROL POINTS
16-19	EXISTING AND PROPOSED ROADWAY PLANS
20-21	ROADWAY DETAILS
22-23	ELECTRICAL PLAN AND DETAIL
24-27	STRUCTURAL DETAILS
28	TC-10 DISTRICT 1, TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS
29	TC-17 DISTRICT 1, TRAFFIC CONTROL FOR SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES
30	TC-18 DISTRICT 1, SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS
31	TC-22 DISTRICT 1, ARTERIAL ROAD INFORMATION SIGN

**DESIGN NUMBER**

D-91-242-05

**IDOT HIGHWAY STANDARDS**

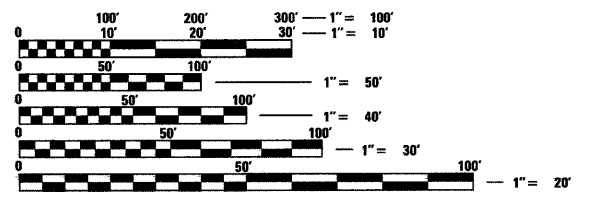
STANDARD	DESCRIPTION
000001-05	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
664001-02	CHAIN LINK FENCE
701601-00	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701701-00	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-04	LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-01	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
720006-02	SIGN PANEL ERECTION DETAILS

**PROJECT LOCATED IN CITY OF CHICAGO**

**DESIGN DESIGNATION**

LAFAYETTE AVE: 632 (20) URBAN COLLECTOR

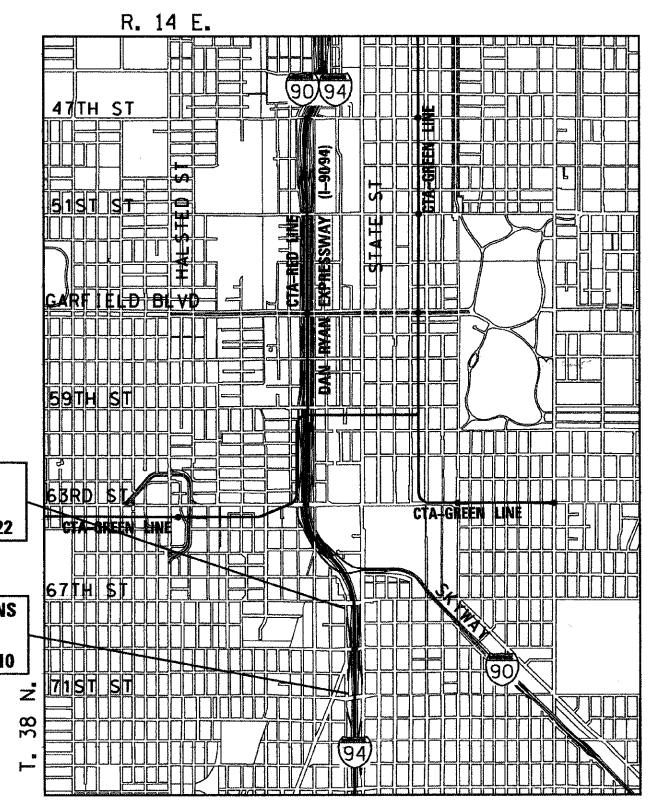
	DESIGN SPEED	POSTED SPEED
LAFAYETTE AVENUE	30	25



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

BEFORE EXCAVATING CALL:  
CHICAGO UTILITY ALERT NETWORK  
(312) 744-7000

**CONTRACT NO. 62984**



PROJECT ENDS  
SB RAMP  
STA 7101+62.22

PROJECT BEGINS  
SB RAMP  
STA 7120+56.10

**LOCATION MAP**

GROSS LENGTH OF PROJECT = 2,228 FT (0.422 MILES)  
NET LENGTH OF PROJECT = 2,228 FT (0.422 MILES)



*Robert M. Goveia*  
ROBERT M. GOVEIA  
11/30/2009 EXPIRES      01/06/2009 DATE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED JANUARY 8, 2009  
*Diane M. O'Keefe* DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER  
June 26, 2009  
*Charles J. Ingersoll* ENGINEER OF DESIGN AND ENVIRONMENT  
June 26, 2009  
*Christine M. Reed* DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

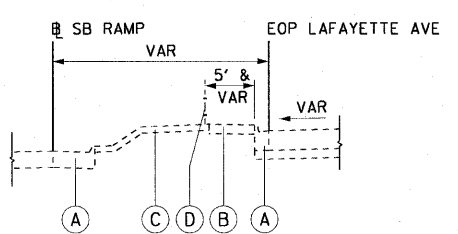
**PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS**



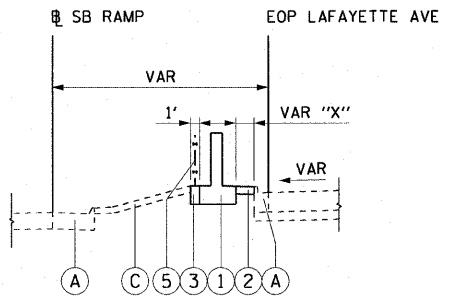
DISTRICT ONE DESIGNCONSULTANT SERVICES PROJECT MANAGER  
RAJENDRA SHAH (847) 705-4555





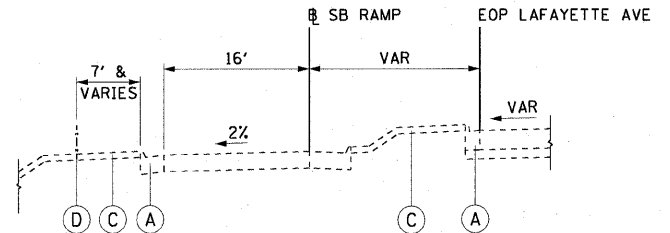


① EX TYPICAL SECTION SB RAMP  
STA 7101+62.22 TO STA 7109+34.41

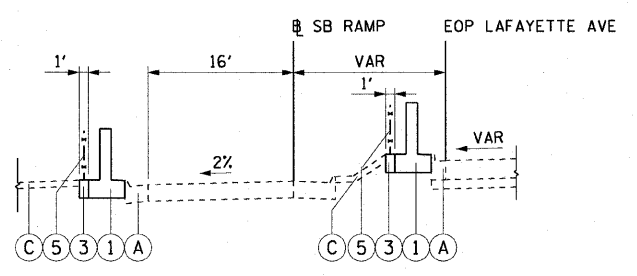


① PR TYPICAL SECTION SB RAMP  
STA 7101+62.22 TO STA 7109+34.41  
"X" STATION RANGE

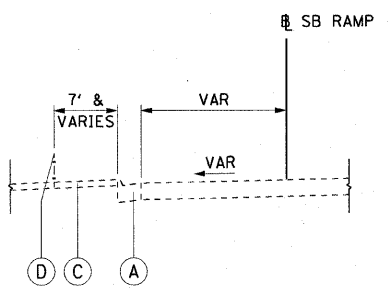
0'	7101+62.22 TO 7101+74.94
0'-1'	7101+74.94 TO 7101+89.39
1'	7101+89.39 TO 7107+45.97
1'-1.5'	7107+45.97 TO 7107+57.80
1.5'	7107+57.80 TO 7109+21.98
1.5'-6.3'	7109+21.98 TO 7108+34.41



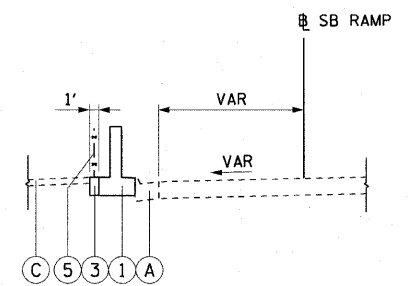
② EX TYPICAL SECTION SB RAMP  
STA 7117+13.50 TO STA 7117+82.62



② PR TYPICAL SECTION SB RAMP  
STA 7117+22.54 TO STA 7117+82.62



③ EX TYPICAL SECTION SB RAMP  
STA 7117+82.62 TO 245' SOUTH OF STA 7120+56.10



③ PR TYPICAL SECTION SB RAMP  
STA 7117+82.62 TO 245' SOUTH OF STA 7120+56.10

EXISTING LEGEND:

- Ⓐ COMBINATION CONCRETE CURB AND GUTTER
- Ⓑ PAVED SHOULDER
- Ⓒ GRASS AREA
- Ⓓ CHAIN LINK FENCE

PROPOSED LEGEND:

- ① FLUTED KNEE WALL
- ② CONCRETE MEDIAN SURFACE, 5" (MODIFIED)
- ③ SEEDING CLASS 2A / TOPSOIL FURNISH AND PLACE, 12" / EROSION CONTROL BLANKET
- ④ CONCRETE MEDIAN SURFACE, 6 INCH SPECIAL
- ⑤ CHAIN LINK FENCE, 4' (SPECIAL)

NOTE:

- 1. EXISTING PAVEMENT INFORMATION TAKEN FROM DAN RYAN DESIGN PLANS OR RECORD DRAWINGS.

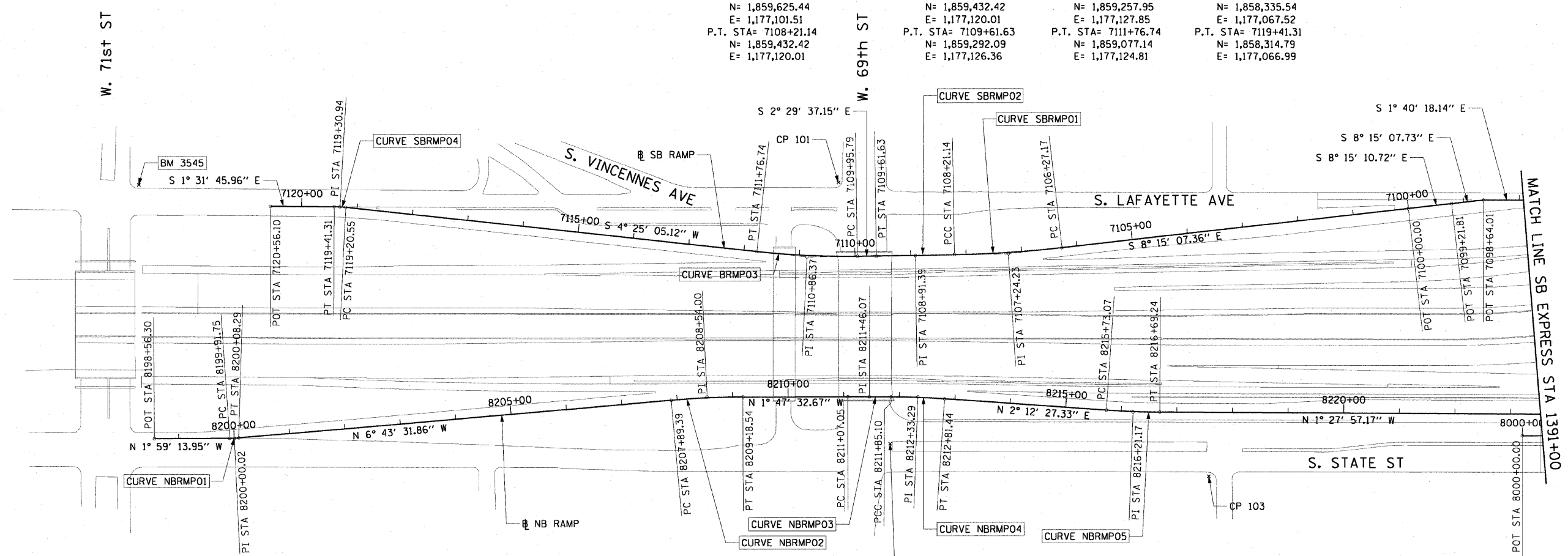
REVISIONS	
NAME	DATE

V:\scg\p201\p40466\p40466\civil\28-knee-wall\Tennis\N\contract\_27018\27018.dwg 2/23/2009 2:23:29 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	31	5
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
*(1818, 1919, 1919.15)		I-12		
				62984



CURVE SBRMPO1	CURVE SBRMPO2	CURVE SBRMPO3	CURVE SBRMPO4
P.I. STA= 7107+24.23	P.I. STA= 7108+91.39	P.I. STA= 7110+86.37	P.I. STA= 7119+30.94
N= 1,859,529.38	N= 1,859,362.26	N= 1,859,167.46	N= 1,858,325.18
E= 1,177,115.44	E= 1,177,123.31	E= 1,177,131.79	E= 1,177,066.71
Δ= 5° 33' 25"	Δ= 0° 12' 05"	Δ= 6° 54' 42"	Δ= 5° 56' 51"
D= 2° 51' 53"	D= 0° 08' 36"	D= 3° 49' 11"	D= 28° 38' 52"
R= 2,000.00'	R= 39,975.44'	R= 1,500.00'	R= 200.00'
T= 97.06'	T= 70.24'	T= 90.58'	T= 10.39'
L= 193.98	L= 140.48	L= 180.95	L= 20.76
E= 2.35'	E= 0.06'	E= 2.73'	E= 0.27'
e= N/A	e= N/A	e= N/A	e= N/A
T.R.= N/A	T.R.= N/A	T.R.= N/A	T.R.= N/A
S.E. RUN= N/A	S.E. RUN= N/A	S.E. RUN= N/A	S.E. RUN= N/A
P.C. STA= 7106+27.17	P.C. STA= 7108+21.14	P.C. STA= 7109+95.79	P.C. STA= 7119+20.55
N= 1,859,625.44	N= 1,859,432.42	N= 1,859,257.95	N= 1,858,335.54
E= 1,177,101.51	E= 1,177,120.01	E= 1,177,127.85	E= 1,177,067.52
P.T. STA= 7108+21.14	P.T. STA= 7109+61.63	P.T. STA= 7111+76.74	P.T. STA= 7119+41.31
N= 1,859,432.42	N= 1,859,292.09	N= 1,859,077.14	N= 1,858,314.79
E= 1,177,120.01	E= 1,177,126.36	E= 1,177,124.81	E= 1,177,066.99



- BENCH MARK NO. 3528 ELEV. 16.20**  
DESCRIPTION: CROSS CUT ON NORTHWESTERLY BOLT OF FIRE HYDRANT AT THE NORTHWEST CORNER OF 45TH ST AND WENTWORTH AVE
- BENCH MARK NO. 3530 ELEV. 18.18**  
DESCRIPTION: CROSS CUT ON SOUTHEAST BOLT OF LIGHT POLE BASE AT THE NORTHWEST CORNER OF 51ST ST AND WELLS ST
- BENCH MARK NO. 3531 ELEV. 17.55**  
DESCRIPTION: CROSS CUT ON NORTHEASTERLY FLANGE BOLT OF FIRE HYDRANT AT THE NORTHEAST CORNER OF GARFIELD BLVD AND WELLS ST
- BENCH MARK NO. 3532 ELEV. 18.84**  
DESCRIPTION: HORIZONTAL BOLT ON CTA "EL" STRUCTURE, EAST SIDE OF WELLS ST ABOUT 50 FEET NORTH OF 59TH PL.
- BENCH MARK NO. 3533 ELEV. 19.71**  
DESCRIPTION: BRASS DISK (CTA MONUMENT) AT THE SOUTHWEST CORNER OF 63RD ST AND HARVARD ST

- BENCH MARK NO. 3535 ELEV. 19.31**  
DESCRIPTION: FOUND CROSS CUT ON SOUTHERLY FLANGE BOLT OF FIRE HYDRANT AT THE NORTHEAST CORNER OF 59TH ST AND WENTWORTH AVE
- BENCH MARK NO. 3536 ELEV. 18.37**  
DESCRIPTION: CROSS CUT ON SOUTHEASTERLY FLANGE BOLT OF FIRE HYDRANT AT THE SOUTHEAST CORNER OF GARFIELD BLVD AND WENTWORTH AVE
- BENCH MARK NO. 3537 ELEV. 17.71**  
DESCRIPTION: CROSS CUT ON NORTHEASTERLY FLANGE BOLT OF FIRE HYDRANT AT THE NORTHEAST CORNER OF 51ST ST AND WENTWORTH AVE
- BENCH MARK NO. 3538 ELEV. 17.31**  
DESCRIPTION: CROSS CUT ON WESTERLY FLANGE BOLT OF FIRE HYDRANT AT THE NORTHWEST CORNER OF 67TH ST AND LAFAYETTE AVE
- BENCH MARK NO. 3544 ELEV. 19.38**  
DESCRIPTION: CROSS CUT ON EASTERLY FLANGE BOLT OF FIRE HYDRANT AT THE NORTHEAST CORNER OF 47TH ST AND LASALLE ST
- BENCH MARK NO. 3545 ELEV. 10.53**  
DESCRIPTION: CROSS CUT ON NORTHWEST BOLT OF LIGHT POLE BASE AT THE NORTHWEST CORNER OF 71ST ST AND LAFAYETTE AVE

CURVE NBRMPO1	CURVE NBRMPO2	CURVE NBRMPO3	CURVE NBRMPO4
P.I. STA= 8200+00.02	P.I. STA= 8208+54.00	P.I. STA= 8211+46.07	P.I. STA= 8212+33.29
N= 1,858,147.27	N= 1,858,995.39	N= 1,859,287.39	N= 1,859,374.58
E= 1,177,489.42	E= 1,177,389.40	E= 1,177,380.27	E= 1,177,378.02
Δ= 4° 44' 18"	Δ= 4° 55' 59"	Δ= 0° 19' 12"	Δ= 3° 40' 48"
D= 28° 38' 52"	D= 3° 49' 11"	D= 0° 24' 36"	D= 3° 49' 11"
R= 200.00'	R= 1,500.00'	R= 13,976.00'	R= 1,500.00'
T= 8.27'	T= 64.61'	T= 39.03'	T= 48.19'
L= 16.54	L= 129.15	L= 78.05	L= 96.34
E= 0.17'	E= 1.39'	E= 0.05'	E= 0.77'
e= N/A	e= N/A	e= N/A	e= N/A
T.R.= N/A	T.R.= N/A	T.R.= N/A	T.R.= N/A
S.E. RUN= N/A	S.E. RUN= N/A	S.E. RUN= N/A	S.E. RUN= N/A
P.C. STA= 8199+91.75	P.C. STA= 8207+89.39	P.C. STA= 8211+07.05	P.C. STA= 8211+85.10
N= 1,858,139.01	N= 1,858,931.22	N= 1,859,248.39	N= 1,859,326.41
E= 1,177,489.70	E= 1,177,396.97	E= 1,177,381.49	E= 1,177,379.26
P.T. STA= 8200+08.29	P.T. STA= 8209+18.54	P.T. STA= 8211+85.10	P.T. STA= 8212+81.44
N= 1,858,155.49	N= 1,859,059.97	N= 1,859,326.41	N= 1,859,422.73
E= 1,177,488.45	E= 1,177,387.38	E= 1,177,379.26	E= 1,177,379.88

**CURVE NBRMPO5**

P.I. STA= 8216+21.17  
N= 1,859,762.21  
E= 1,177,392.97  
Δ= 3° 40' 25"  
D= 3° 49' 11"  
R= 1,500.00'  
T= 48.10'  
L= 96.17'  
E= 0.77'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 8215+73.07  
N= 1,859,714.14  
E= 1,177,391.11  
P.T. STA= 8216+69.24  
N= 1,859,810.29  
E= 1,177,391.74

**NOTES:**  
1. AVERAGE GRID TO GROUND CONVERSION FACTOR = 1.000010988654360

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)

**ALIGNMENT PLAN**

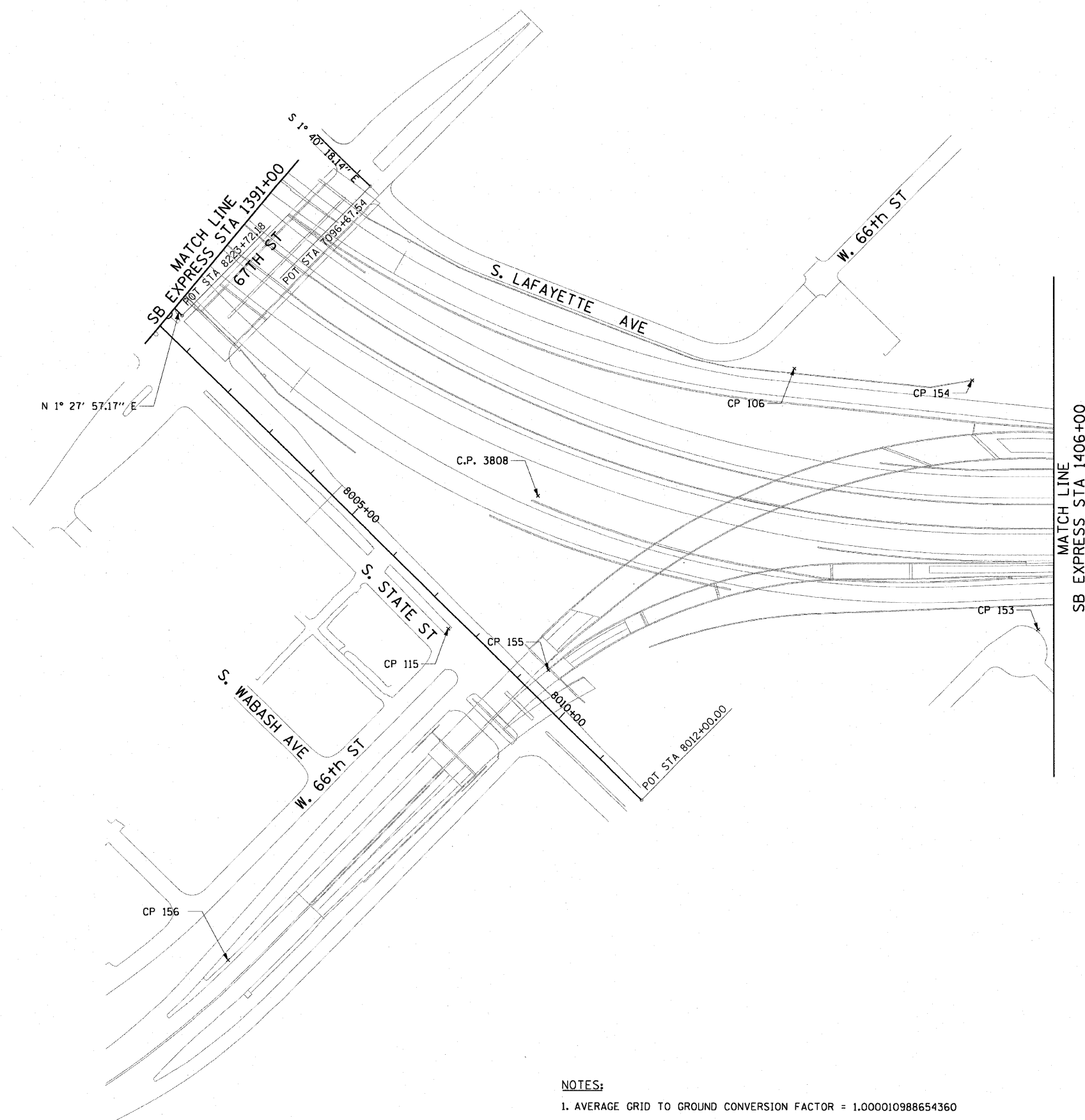
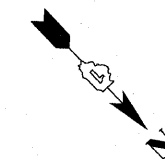
SCALE: 1"=100'  
DATE: JANUARY 14, 2009

DRAWN BY: NJH/AMM  
CHECKED BY: JAL/MS



V:\scrgit\p207\p40468\p40468\dwg\126-knee-wall-Fence\11\contract 27\ba12\60012a.dwg 2/23/2009 1/13/2009

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	31	6
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
*1818, 1919, 1919.15		1-12		
				62984



- NOTES:**
1. AVERAGE GRID TO GROUND CONVERSION FACTOR = 1.000010988654360
  2. FOR BENCH MARK INFORMATION, SEE SHEET 1 OF ALIGNMENT PLAN SHEETS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
 71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)

**ALIGNMENT PLAN**

SCALE: 1"=100'  
 DATE: JANUARY 14, 2009

DRAWN BY: NJH/AMM  
 CHECKED BY: JAL/MS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	31	7
STA. TO STA.				
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
*(1818, 1919, 1919.15) I-12		62984		

**CURVE EKWELLO1**  
P.I. STA= 9+04.39  
N= 1,861,874.35  
E= 1,176,076.45  
Δ= 10° 52' 16"  
D= 5° 40' 05"  
R= 1,010.83'  
T= 96.18'  
L= 191.79'  
E= 4.56'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 8+08.21  
N= 1,861,778.19  
E= 1,176,078.94  
P.T. STA= 10+00.00  
N= 1,861,968.30  
E= 1,176,055.87

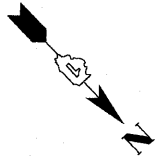
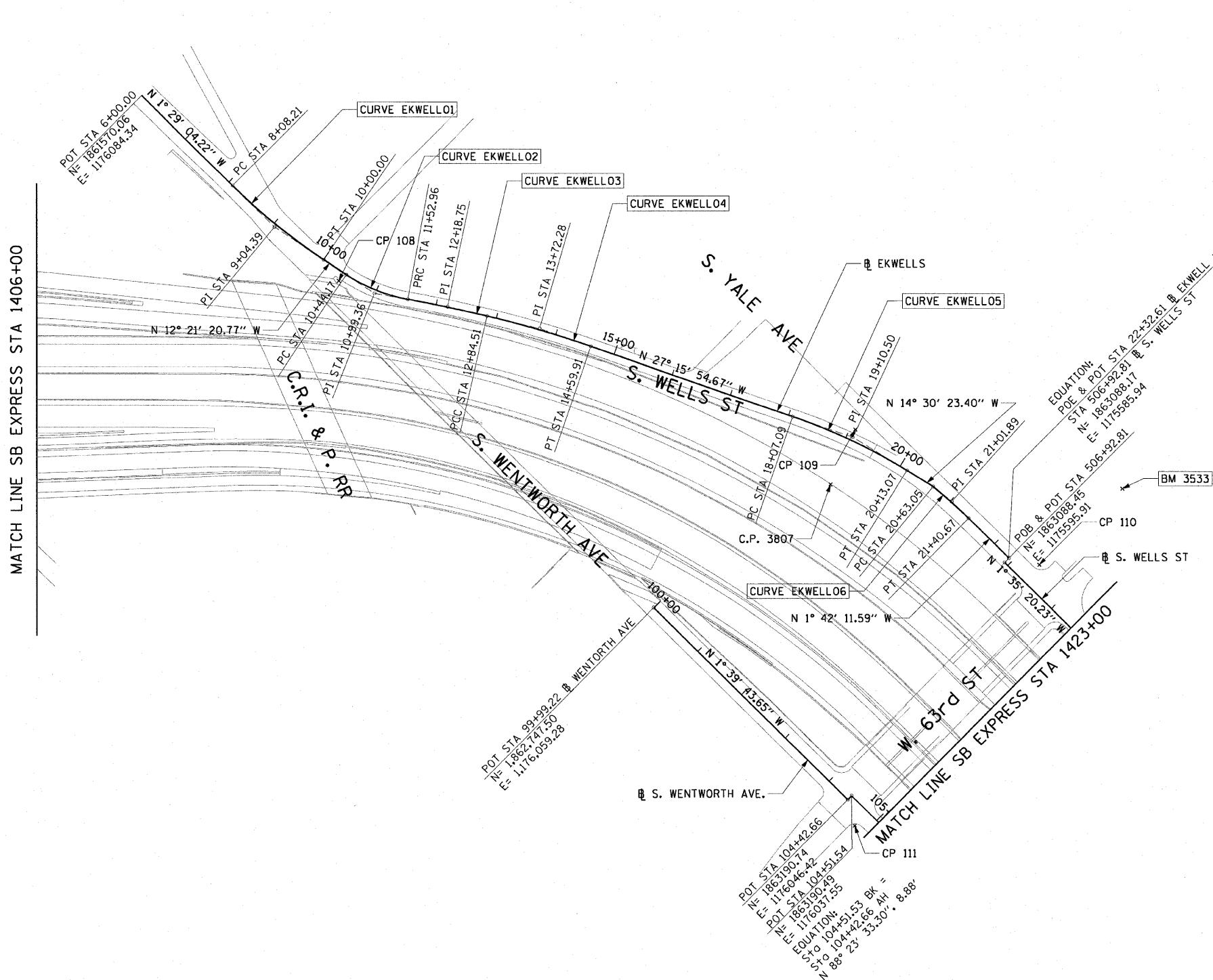
**CURVE EKWELLO2**  
P.I. STA= 10+99.36  
N= 1,862,065.35  
E= 1,176,034.61  
Δ= 23° 41' 58"  
D= 21° 47' 07"  
R= 263.00'  
T= 55.18'  
L= 108.78'  
E= 4.56'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 10+44.17  
N= 1,862,011.45  
E= 1,176,002.13  
P.T. STA= 11+52.96  
N= 1,862,109.97  
E= 1,176,002.13

**CURVE EKWELLO3**  
P.I. STA= 12+18.75  
N= 1,862,163.15  
E= 1,175,963.41  
Δ= 2° 58' 46"  
D= 2° 15' 54"  
R= 2,529.60'  
T= 65.78'  
L= 131.54'  
E= 0.85'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 11+52.96  
N= 1,862,109.97  
E= 1,176,002.13  
P.T. STA= 12+84.51  
N= 1,862,218.28  
E= 1,175,927.50

**CURVE EKWELLO4**  
P.I. STA= 13+72.28  
N= 1,862,291.83  
E= 1,175,879.60  
Δ= 5° 48' 38"  
D= 3° 18' 45"  
R= 1,729.58'  
T= 87.77'  
L= 175.40'  
E= 2.22'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 12+84.51  
N= 1,862,218.28  
E= 1,175,927.50  
P.T. STA= 14+59.61  
N= 1,862,369.86  
E= 1,175,839.39

**CURVE EKWELLO5**  
P.I. STA= 19+10.50  
N= 1,862,770.39  
E= 1,175,632.97  
Δ= 12° 45' 31"  
D= 6° 11' 38"  
R= 925.00'  
T= 103.41'  
L= 205.97'  
E= 5.76'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 18+07.09  
N= 1,862,678.46  
E= 1,175,680.34  
P.T. STA= 20+13.07  
N= 1,862,870.51  
E= 1,175,607.06

**CURVE EKWELLO6**  
P.I. STA= 21+01.89  
N= 1,862,957.45  
E= 1,175,589.82  
Δ= 5° 16' 59"  
D= 6° 48' 23"  
R= 841.78'  
T= 38.83'  
L= 77.62'  
E= 0.89'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 20+63.05  
N= 1,862,918.90  
E= 1,175,594.54  
P.T. STA= 21+40.67  
N= 1,862,996.27  
E= 1,175,588.66



**NOTES:**  
1. AVERAGE GRID TO GROUND CONVERSION FACTOR = 1.000010988654360  
2. FOR BENCH MARK INFORMATION, SEE SHEET 1 OF ALIGNMENT PLAN SHEETS.

REVISIONS	
NAME	DATE

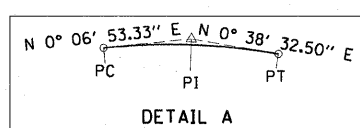
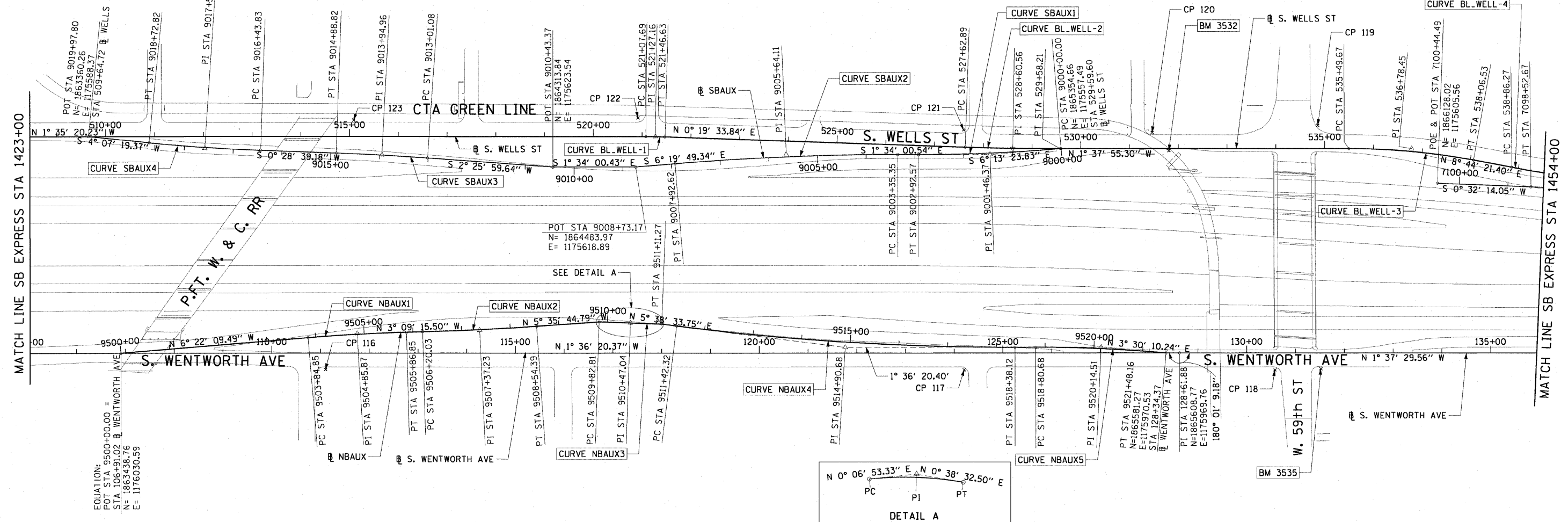
ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)  
**ALIGNMENT PLAN**  
SCALE: 1"=100'  
DATE: JANUARY 14, 2009  
DRAWN BY: NJH  
CHECKED BY: RMG



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	31	8
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
*1818, 1919, 1919.15) 1-12		62984		



CURVE SBAUX1	CURVE SBAUX2	CURVE SBAUX3	CURVE SBAUX4
P.I. STA= 9001+46.37 N= 1,865,209.16 E= 1,175,573.36 Δ= 4° 39' 23" D= 1° 35' 30" R= 3600.00' T= 146.37' L= 292.57' E= 2.97' e= N/A T.R.= N/A S.E. RUN= N/A P.C. STA= 9000+00.00 N= 1,865,354.66 E= 1,175,557.49 P.T. STA= 9002+92.57 N= 1,865,062.84 E= 1,175,577.36	P.I. STA= 9005+64.11 N= 1,864,791.41 E= 1,175,584.78 Δ= 4° 45' 49" D= 1° 02' 30" R= 5500.00' T= 228.77' L= 457.27' E= 4.76' e= N/A T.R.= N/A S.E. RUN= N/A P.C. STA= 9003+35.35 N= 1,865,020.09 E= 1,175,578.53 P.T. STA= 9007+92.62 N= 1,864,564.03 E= 1,175,610.01	P.I. STA= 9013+94.96 N= 1,863,962.56 E= 1,175,608.62 Δ= 1° 57' 20" D= 1° 02' 30" R= 5500.00' T= 93.88' L= 187.72' E= 0.80' e= N/A T.R.= N/A S.E. RUN= N/A P.C. STA= 9013+01.08 N= 1,864,056.35 E= 1,175,612.60 P.T. STA= 9014+88.82 N= 1,863,868.69 E= 1,175,607.83	P.I. STA= 9017+58.36 N= 1,863,599.16 E= 1,175,605.59 Δ= 3° 38' 40" D= 1° 35' 30" R= 3600.00' T= 114.53' L= 228.99' E= 1.82' e= N/A T.R.= N/A S.E. RUN= N/A P.C. STA= 9016+43.83 N= 1,863,713.69 E= 1,175,606.54 P.T. STA= 9018+72.82 N= 1,863,484.92 E= 1,175,597.35



CURVE NBAUX1	CURVE NBAUX2	CURVE NBAUX3	CURVE NBAUX4	CURVE NBAUX5	CURVE BL_WELL-1	CURVE BL_WELL-2	CURVE BL_WELL-3
P.I. STA= 9504+85.87 N= 1,863,921.64 E= 1,175,976.69 Δ= 3° 12' 54" D= 1° 35' 30" R= 3600.00' T= 101.03' L= 202.00' E= 1.42' e= N/A T.R.= N/A S.E. RUN= N/A P.C. STA= 9503+84.85 N= 1,863,821.23 E= 1,175,987.89 P.T. STA= 9505+86.85 N= 1,864,022.51 E= 1,175,971.13	P.I. STA= 9507+37.23 N= 1,864,172.66 E= 1,175,962.85 Δ= 2° 26' 29" D= 1° 02' 30" R= 5500.00' T= 117.20' L= 234.36' E= 1.25' e= N/A T.R.= N/A S.E. RUN= N/A P.C. STA= 9506+20.03 N= 1,864,055.64 E= 1,175,969.30 P.T. STA= 9508+54.39 N= 1,864,289.30 E= 1,175,951.42	P.I. STA= 9510+47.04 N= 1,864,481.34 E= 1,175,939.03 Δ= 0° 31' 39" D= 0° 24' 38" R= 13952.00' T= 64.23' L= 128.46' E= 0.15' e= N/A T.R.= N/A S.E. RUN= N/A P.C. STA= 9509+82.81 N= 1,864,417.11 E= 1,175,938.90 P.T. STA= 9511+11.27 N= 1,864,545.57 E= 1,175,939.75	P.I. STA= 9514+90.68 N= 1,864,923.14 E= 1,175,977.06 Δ= 7° 14' 54" D= 1° 02' 30" R= 5500.00' T= 348.36' L= 695.79' E= 11.02' e= N/A T.R.= N/A S.E. RUN= N/A P.C. STA= 9511+42.32 N= 1,864,576.47 E= 1,175,942.80 P.T. STA= 9518+38.12 N= 1,865,271.36 E= 1,175,967.30	P.I. STA= 9520+14.51 N= 1,865,447.69 E= 1,175,962.35 Δ= 5° 06' 31" D= 1° 54' 35" R= 3000.00' T= 133.83' L= 267.48' E= 2.98' e= 2.4 T.R.= 11' (0') S.E. RUN= 66' (0') P.C. STA= 9518+80.68 N= 1,865,313.91 E= 1,175,966.10 P.T. STA= 9521+46.63 N= 1,865,581.27 E= 1,175,970.53	P.I. STA= 521+27.16 N= 1,864,522.25 E= 1,175,556.14 Δ= 1° 54' 54" D= 4° 55' 05" R= 1165.00' T= 19.47' L= 38.94' E= 0.16' e= N/A T.R.= N/A S.E. RUN= N/A P.C. STA= 521+07.69 N= 1,864,502.79 E= 1,175,556.68 P.T. STA= 521+46.63 N= 1,864,541.72 E= 1,175,556.25	P.I. STA= 528+60.56 N= 1,865,255.64 E= 1,175,560.31 Δ= 1° 57' 29" D= 1° 00' 09" R= 3000.00' T= 97.67' L= 195.31' E= 0.83' e= N/A T.R.= N/A S.E. RUN= N/A P.C. STA= 527+62.89 N= 1,865,157.98 E= 1,175,559.75 P.T. STA= 529+58.21 N= 1,865,353.27 E= 1,175,557.53	P.I. STA= 536+78.45 N= 1,866,073.22 E= 1,175,537.02 Δ= 10° 22' 17" D= 4° 02' 16" R= 1419.00' T= 128.78' L= 256.86' E= 5.83' e= N/A T.R.= N/A S.E. RUN= N/A P.C. STA= 535+49.67 N= 1,865,944.49 E= 1,175,540.68 P.T. STA= 538+06.53 N= 1,866,200.51 E= 1,175,556.58



NOTES:  
 1. AVERAGE GRID TO GROUND CONVERSION FACTOR = 1.000010988654360  
 2. FOR BENCH MARK INFORMATION, SEE SHEET 1 OF ALIGNMENT PLAN SHEETS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
 71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)  
 ALIGNMENT PLAN  
 SCALE: 1"=100'  
 DATE: JANUARY 14, 2009  
 DRAWN BY: NJH  
 CHECKED BY: RMG

uscript:p201\p40468\40468\WIN28-knee-wall\_Lenex.stn\contract\_27\bal27b002a.stn  
 2/23/2009 2:23:22 PM



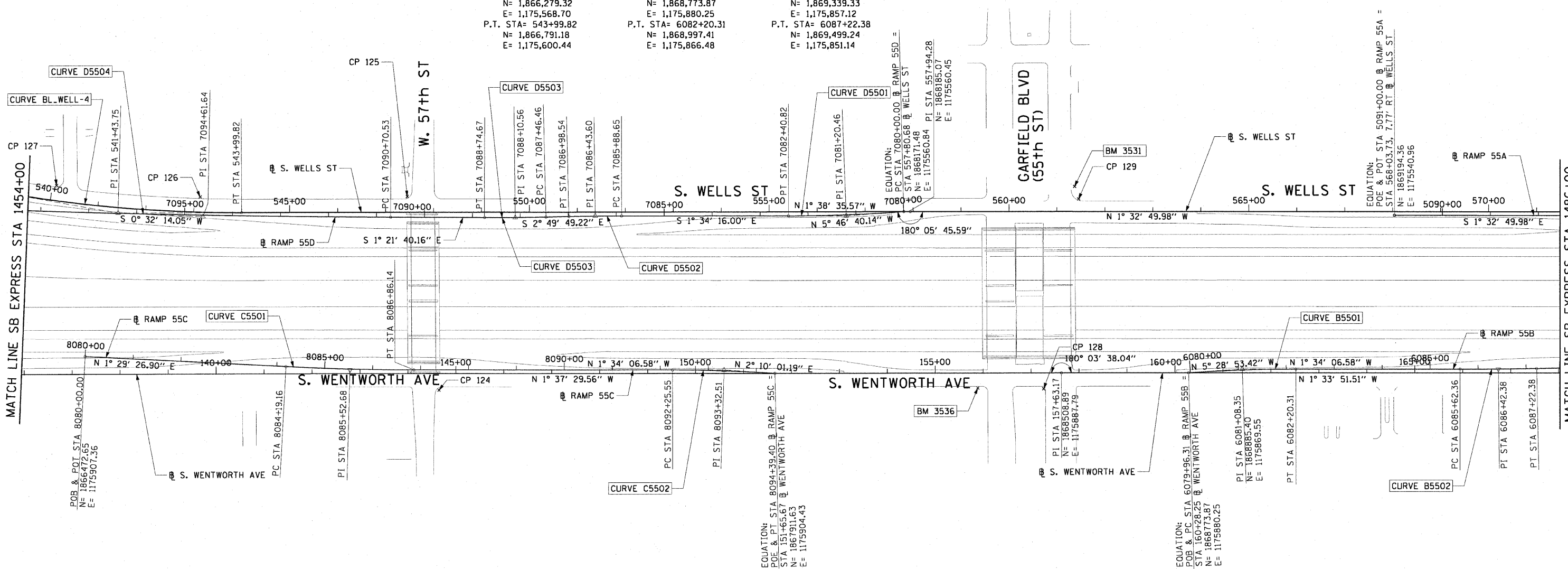
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	31	9
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
*1818, 1919, 1919.15		1-12		
				62984



**CURVE BL.WELL-4**  
P.I. STA= 541+43.75  
N= 1,866,533.81  
E= 1,175,607.82  
Δ= 10° 22' 57"  
D= 2° 01' 18"  
R= 2834.00'  
T= 257.48'  
L= 513.55'  
E= 11.67'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 538+86.27  
N= 1,866,279.32  
E= 1,175,568.70  
P.T. STA= 543+99.82  
N= 1,866,791.18  
E= 1,175,600.44

**CURVE B5501**  
P.I. STA= 6081+08.35  
N= 1,868,885.40  
E= 1,175,869.55  
Δ= 3° 54' 47"  
D= 1° 44' 49"  
R= 3280.00'  
T= 112.05'  
L= 224.01'  
E= 1.91'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 6079+96.31  
N= 1,868,773.87  
E= 1,175,880.25  
P.T. STA= 6082+20.31  
N= 1,868,997.41  
E= 1,175,866.48

**CURVE B5502**  
P.I. STA= 6086+42.38  
N= 1,869,419.31  
E= 1,175,854.93  
Δ= 1° 08' 45"  
D= 0° 42' 58"  
R= 8002.00'  
T= 80.01'  
L= 160.02'  
E= 0.40'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 6085+62.36  
N= 1,869,339.33  
E= 1,175,857.12  
P.T. STA= 6087+22.38  
N= 1,869,499.24  
E= 1,175,851.14



**CURVE C5501**  
P.I. STA= 8085+52.68  
N= 1,867,025.15  
E= 1,175,921.74  
Δ= 3° 03' 33"  
D= 1° 08' 45"  
R= 5000.00'  
T= 133.52'  
L= 266.97'  
E= 1.78'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 8084+19.16  
N= 1,866,891.67  
E= 1,175,918.26  
P.T. STA= 8086+86.14  
N= 1,867,158.61  
E= 1,175,918.08

**CURVE C5502**  
P.I. STA= 8093+32.51  
N= 1,867,804.75  
E= 1,175,900.39  
Δ= 3° 44' 08"  
D= 1° 44' 49"  
R= 3280.00'  
T= 106.96'  
L= 213.84'  
E= 1.74'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 8092+25.55  
N= 1,867,697.83  
E= 1,175,903.32  
P.T. STA= 8094+39.40  
N= 1,867,911.63  
E= 1,175,904.43

**CURVE D5501**  
P.I. STA= 7081+20.46  
N= 1,868,051.63  
E= 1,175,572.97  
Δ= 4° 12' 24"  
D= 1° 44' 49"  
R= 3280.00'  
T= 120.46'  
L= 240.82'  
E= 2.21'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 7080+00.00  
N= 1,868,171.48  
E= 1,175,560.84  
P.T. STA= 7082+40.82  
N= 1,867,931.21  
E= 1,175,576.27

**CURVE D5502**  
P.I. STA= 7086+43.60  
N= 1,867,528.58  
E= 1,175,587.31  
Δ= 1° 15' 33"  
D= 1° 08' 45"  
R= 5000.00'  
T= 54.95'  
L= 109.89'  
E= 0.30'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 7085+88.65  
N= 1,867,583.50  
E= 1,175,585.81  
P.T. STA= 7088+74.67  
N= 1,867,473.70  
E= 1,175,590.03

**CURVE D5503**  
P.I. STA= 7088+10.56  
N= 1,868,051.63  
E= 1,175,572.97  
Δ= 1° 28' 09"  
D= 1° 08' 45"  
R= 5000.00'  
T= 64.11'  
L= 128.21'  
E= 0.41'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 7087+46.46  
N= 1,867,425.84  
E= 1,175,592.39  
P.T. STA= 7088+42.38  
N= 1,867,297.72  
E= 1,175,597.08

**CURVE D5504**  
P.I. STA= 7094+61.64  
N= 1,866,710.92  
E= 1,175,611.02  
Δ= 1° 53' 54"  
D= 0° 14' 34"  
R= 23606.00'  
T= 391.11'  
L= 782.14'  
E= 3.24'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 7090+70.53  
N= 1,867,101.91  
E= 1,175,601.73  
P.T. STA= 7098+52.67  
N= 1,866,319.83  
E= 1,175,607.36

- NOTES:**
- AVERAGE GRID TO GROUND CONVERSION FACTOR = 1.000010988654360
  - FOR BENCH MARK INFORMATION, SEE SHEET 1 OF ALIGNMENT PLAN SHEETS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)

**ALIGNMENT PLAN**

SCALE: 1"=100'  
DATE: JANUARY 14, 2009

DRAWN BY: NJH  
CHECKED BY: RMG

**AECOM**

1/13/2009 2:25:23 PM  
\\uscdg1\p201\p40465\p40465\civil\28-knee-wall\_files\11\contract\_215\0121\00032a.dwg

F.A.I. RTE. 90/94	SECTION •	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 10
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
•(1818, 1919, 1919.15) I-12		62984		



**CURVE C4701**  
P.I. STA= 8068+34.90  
N= 1,872,302.10  
E= 1,175,769.16  
Δ= 2° 04' 05"  
D= 1° 08' 45"  
R= 5000.00'  
T= 90.24'  
L= 180.47'  
E= 0.81'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 8067+44.66  
N= 1,872,211.86  
E= 1,175,768.33  
P.T. STA= 8069+25.12  
N= 1,872,392.31  
E= 1,175,766.72

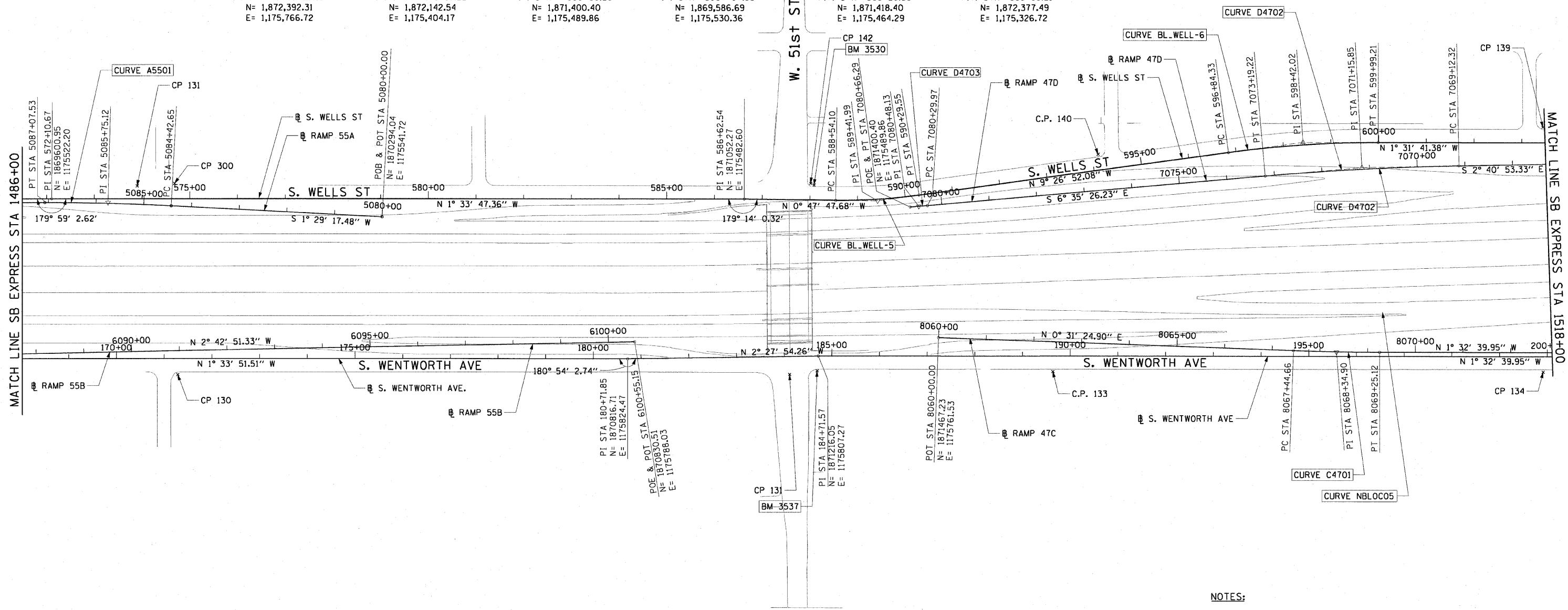
**CURVE D4702**  
P.I. STA= 7071+15.85  
N= 1,872,344.72  
E= 1,175,380.81  
Δ= 3° 54' 33"  
D= 0° 57' 38"  
R= 5964.00'  
T= 203.53'  
L= 406.91'  
E= 3.47'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 7069+12.32  
N= 1,872,548.03  
E= 1,175,371.29  
P.T. STA= 7073+19.22  
N= 1,872,142.54  
E= 1,175,404.17

**CURVE D4703**  
P.I. STA= 7080+48.13  
N= 1,871,418.45  
E= 1,175,487.83  
Δ= 0° 11' 56"  
D= 0° 32' 51"  
R= 10464.00'  
T= 18.16'  
L= 36.32'  
E= 0.02'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 7080+29.97  
N= 1,871,436.49  
E= 1,175,485.75  
P.T. STA= 7080+66.29  
N= 1,871,400.40  
E= 1,175,489.86

**CURVE A5501**  
P.I. STA= 5085+75.12  
N= 1,869,719.11  
E= 1,175,526.79  
Δ= 3° 02' 07"  
D= 1° 08' 45"  
R= 5000.00'  
T= 132.48'  
L= 264.89'  
E= 1.75'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 5084+42.65  
N= 1,869,851.55  
E= 1,175,530.23  
P.T. STA= 5087+07.53  
N= 1,869,586.69  
E= 1,175,530.36

**CURVE BL\_WELL-5**  
P.I. STA= 589+41.99  
N= 1,871,331.70  
E= 1,175,478.71  
Δ= 8° 39' 04"  
D= 4° 55' 51"  
R= 1162.00'  
T= 87.89'  
L= 175.45'  
E= 3.32'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 588+54.10  
N= 1,871,243.82  
E= 1,175,479.94  
P.T. STA= 590+29.55  
N= 1,871,418.40  
E= 1,175,464.29

**CURVE BL\_WELL-6**  
P.I. STA= 598+42.02  
N= 1,872,219.86  
E= 1,175,330.92  
Δ= 7° 55' 11"  
D= 2° 30' 55"  
R= 2278.00'  
T= 157.69'  
L= 314.87'  
E= 5.45'  
e= N/A  
T.R.= N/A  
S.E. RUN= N/A  
P.C. STA= 596+84.33  
N= 1,872,064.31  
E= 1,175,356.80  
P.T. STA= 599+99.21  
N= 1,872,377.49  
E= 1,175,326.72



- NOTES:**
1. AVERAGE GRID TO GROUND CONVERSION FACTOR = 1.000010988654360
  2. FOR BENCH MARK INFORMATION, SEE SHEET 1 OF ALIGNMENT PLAN SHEETS.

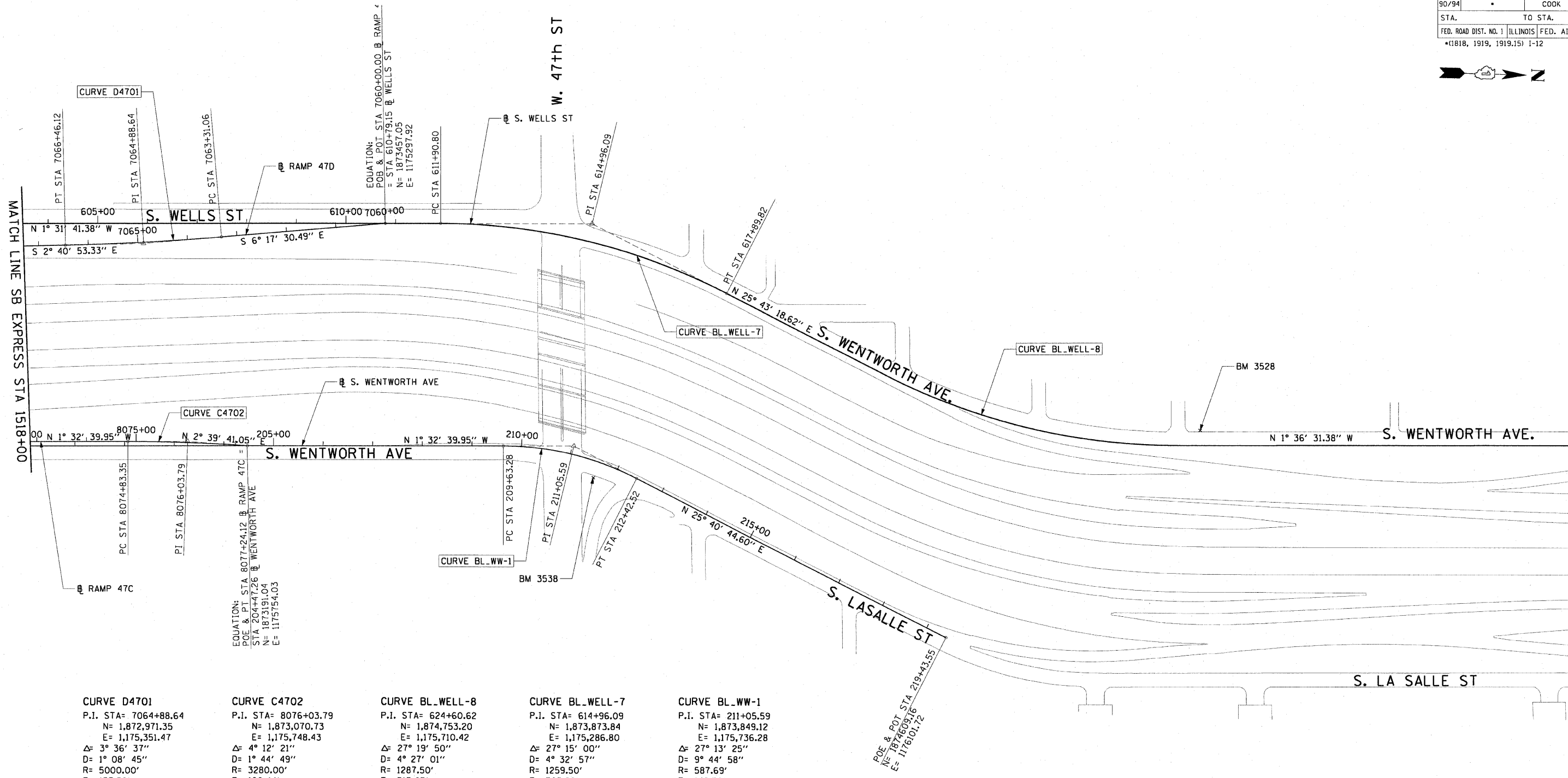
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 90/94 (DAN RYAN EXPRESSWAY) 71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)
NAME	DATE	
		ALIGNMENT PLAN

SCALE: 1"=100'  
DATE: JANUARY 14, 2009  
DRAWN BY: NJH  
CHECKED BY: RMG

**AECOM**

V:\scg\p207\40468\40468.dwg\IN-28-knee-wall\_fence.sit\contract 27\13/2009

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	31	11
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
*1818, 1919, 1919.15		1-12		
				62984



<p><b>CURVE D4701</b>  P.I. STA= 7064+88.64  N= 1,872,971.35  E= 1,175,351.47  Δ= 3° 36' 37"  D= 1° 08' 45"  R= 5000.00'  T= 157.58'  L= 315.06'  E= 2.48'  e= N/A  T.R.= N/A  S.E. RUN= N/A  P.C. STA= 7063+31.06  N= 1,873,127.98  E= 1,175,334.20  P.T. STA= 7066+46.12  N= 1,872,813.94  E= 1,175,358.84</p>	<p><b>CURVE C4702</b>  P.I. STA= 8076+03.79  N= 1,873,070.73  E= 1,175,748.43  Δ= 4° 12' 21"  D= 1° 44' 49"  R= 3280.00'  T= 120.44'  L= 240.77'  E= 2.21'  e= N/A  T.R.= N/A  S.E. RUN= N/A  P.C. STA= 8074+83.35  N= 1,872,950.33  E= 1,175,751.68  P.T. STA= 8077+24.12  N= 1,873,191.04  E= 1,175,754.03</p>	<p><b>CURVE BL.WELL-8</b>  P.I. STA= 624+60.62  N= 1,874,753.20  E= 1,175,710.42  Δ= 27° 19' 50"  D= 4° 27' 01"  R= 1287.50'  T= 313.03'  L= 614.15'  E= 37.51'  e= N/A  T.R.= N/A  S.E. RUN= N/A  P.C. STA= 621+47.59  N= 1,874,471.18  E= 1,175,574.56  P.T. STA= 627+61.73  N= 1,875,066.11  E= 1,175,701.63</p>	<p><b>CURVE BL.WELL-7</b>  P.I. STA= 614+96.09  N= 1,873,873.84  E= 1,175,286.80  Δ= 27° 15' 00"  D= 4° 32' 57"  R= 1259.50'  T= 305.29'  L= 599.02'  E= 36.47'  e= N/A  T.R.= N/A  S.E. RUN= N/A  P.C. STA= 611+90.80  N= 1,873,568.66  E= 1,175,294.94  P.T. STA= 617+89.82  N= 1,874,148.87  E= 1,175,419.29</p>	<p><b>CURVE BL.WW-1</b>  P.I. STA= 211+05.59  N= 1,873,849.12  E= 1,175,736.28  Δ= 27° 13' 25"  D= 9° 44' 58"  R= 587.69'  T= 142.30'  L= 279.23'  E= 16.98'  e= N/A  T.R.= N/A  S.E. RUN= N/A  P.C. STA= 209+63.28  N= 1,873,706.87  E= 1,175,740.12  P.T. STA= 212+42.52  N= 1,873,977.37  E= 1,175,797.95</p>
--	--	---	---	--

- NOTES:**
- AVERAGE GRID TO GROUND CONVERSION FACTOR = 1.000010988654360
  - FOR BENCH MARK INFORMATION, SEE SHEET 1 OF ALIGNMENT PLAN SHEETS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)

**ALIGNMENT PLAN**

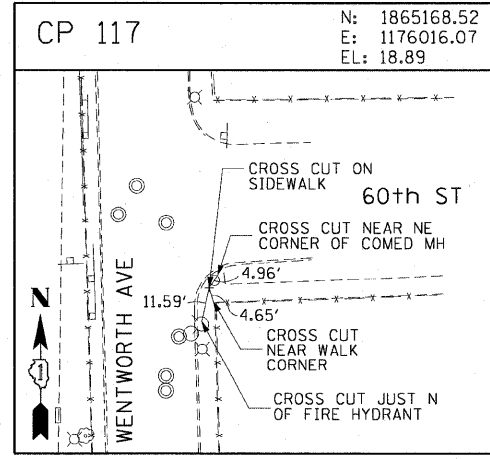
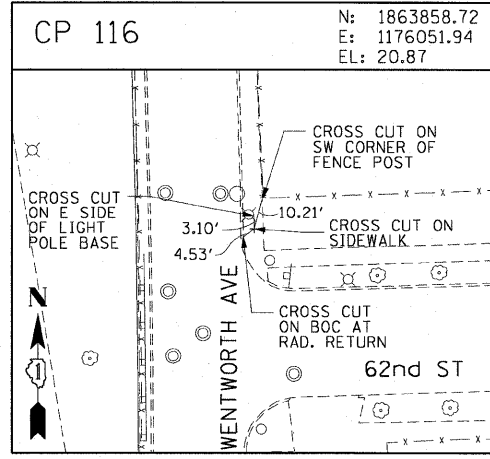
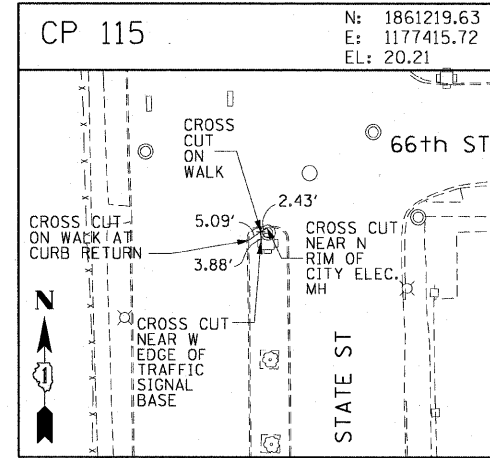
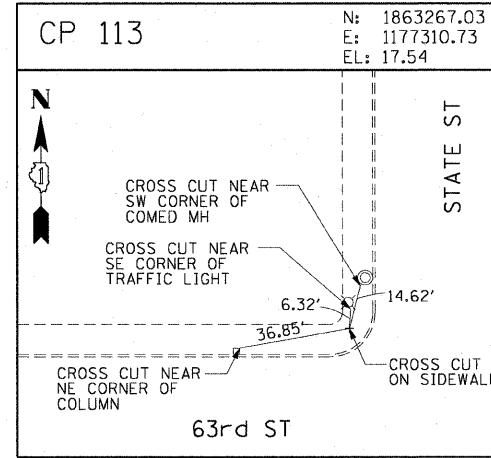
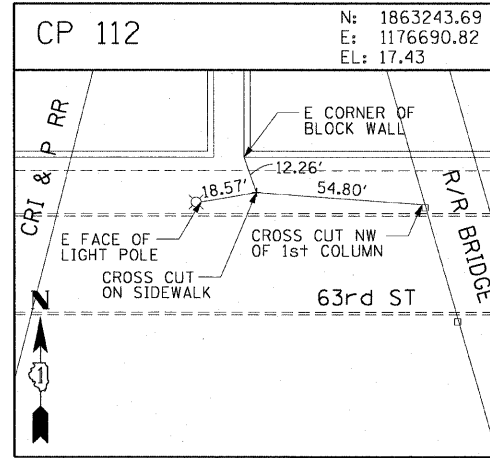
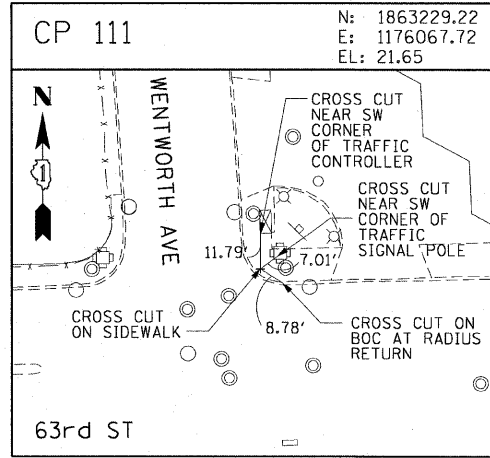
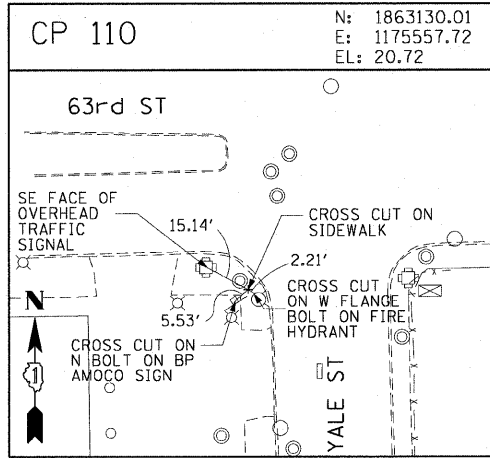
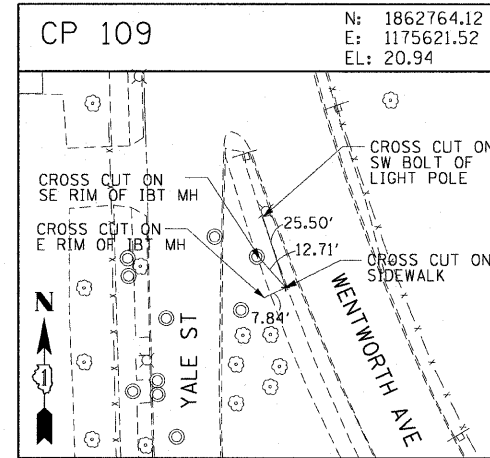
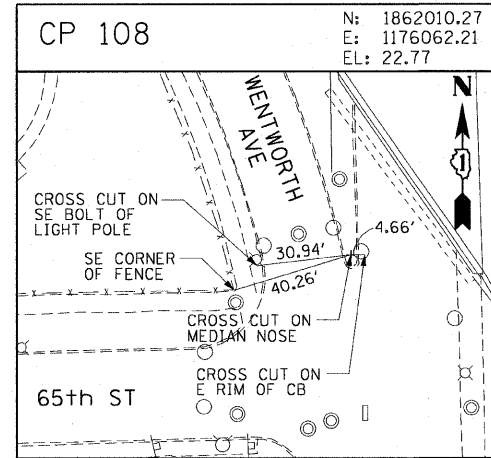
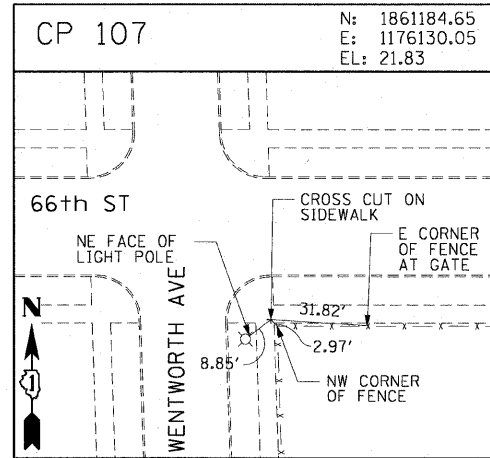
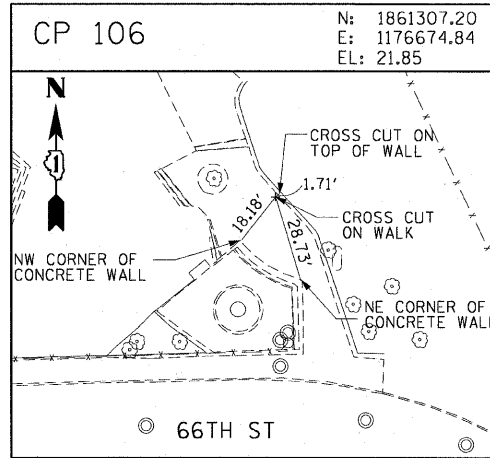
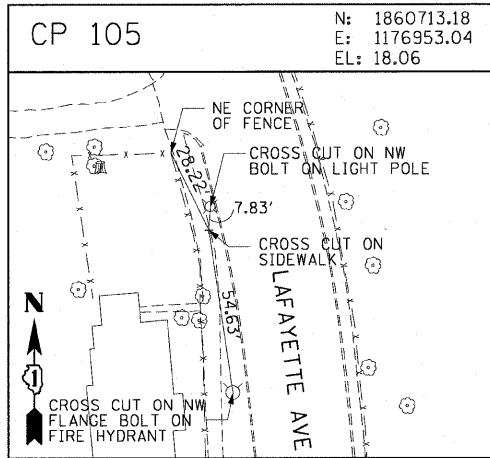
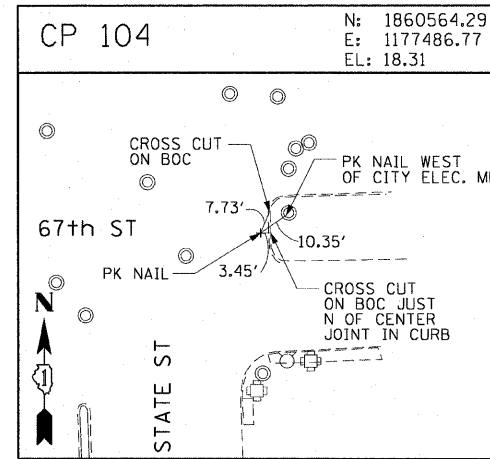
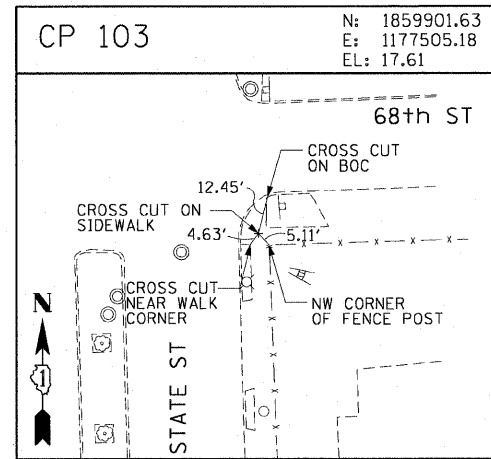
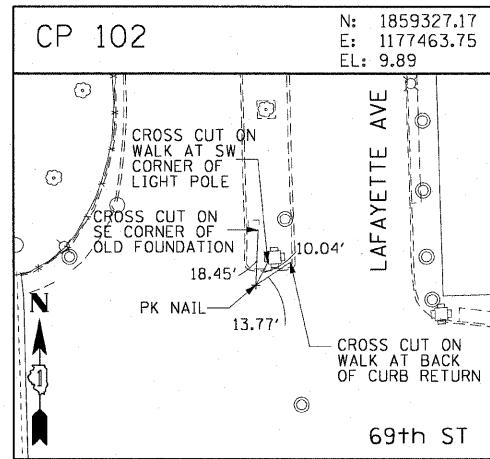
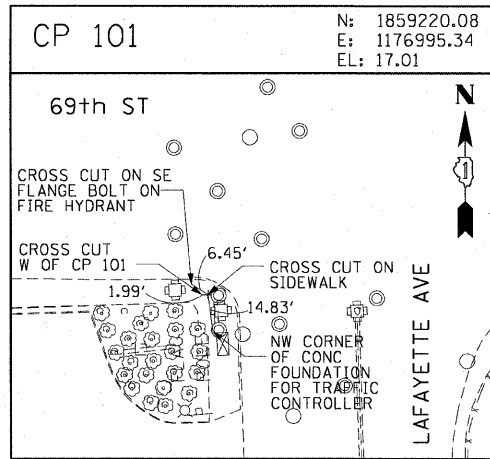
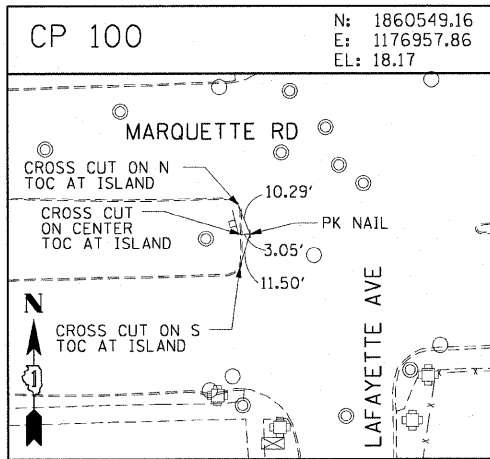
SCALE: 1"=100'  
DATE: JANUARY 14, 2009

DRAWN BY: NJH  
CHECKED BY: RMG

**AECOM**

U:\scapfl\p207\p40468\p40468.dwg\N26-knee-wall\_Fence.spl\contract 27.dwg\275007.dwg  
2/13/2009 2:23:23 PM

F.A.I. RTE. 90/94	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		COOK	31	12
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
* (1818, 1919, 1919.15) 1-12		62984		



AECOM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)

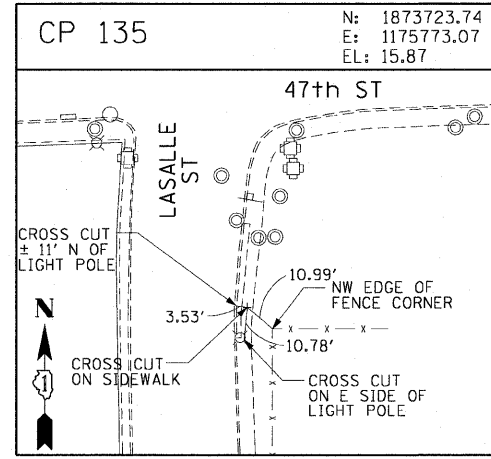
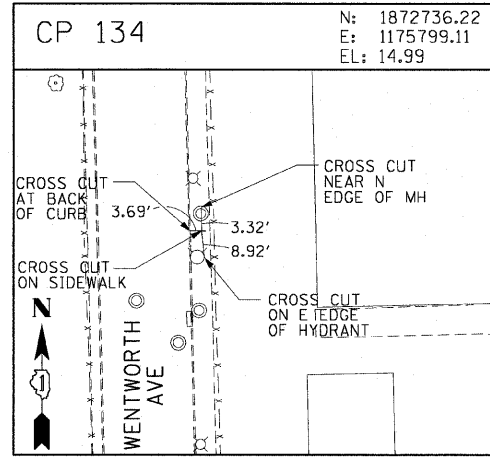
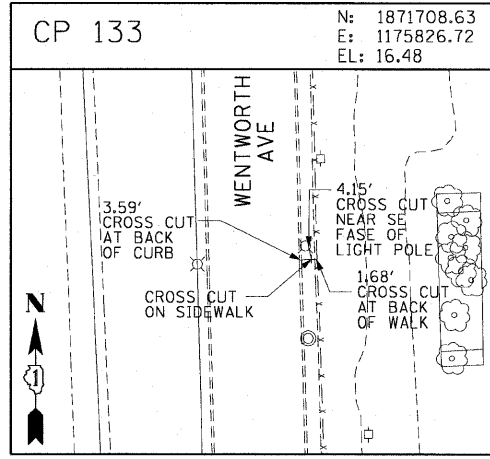
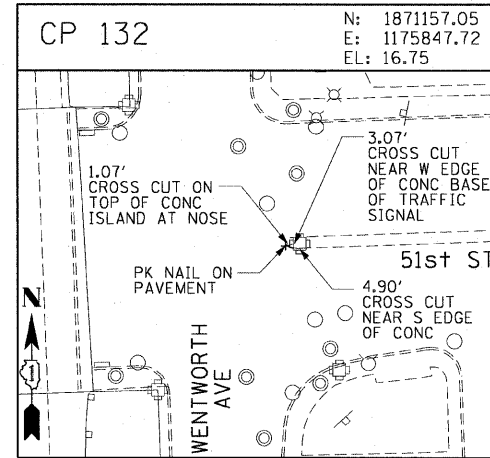
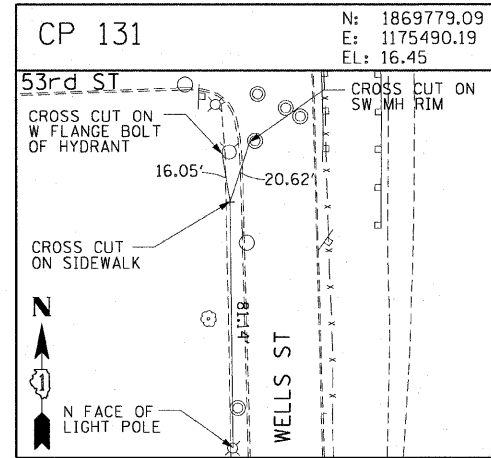
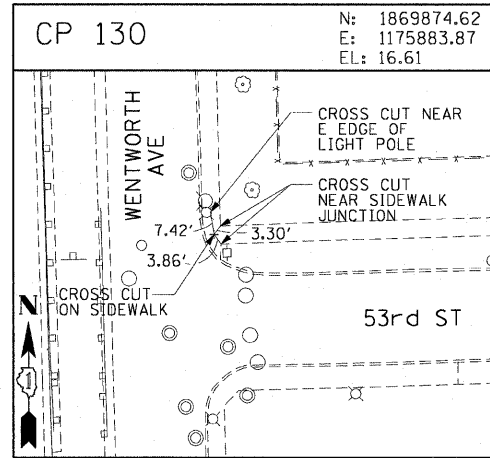
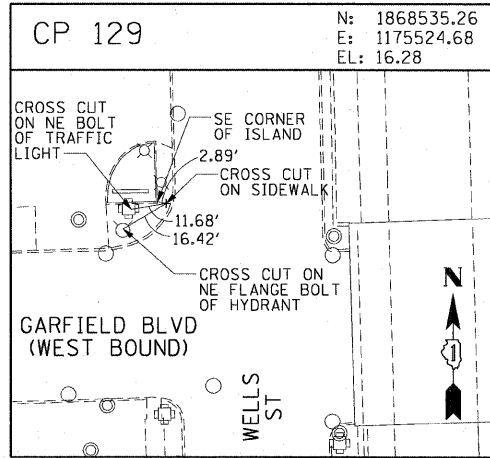
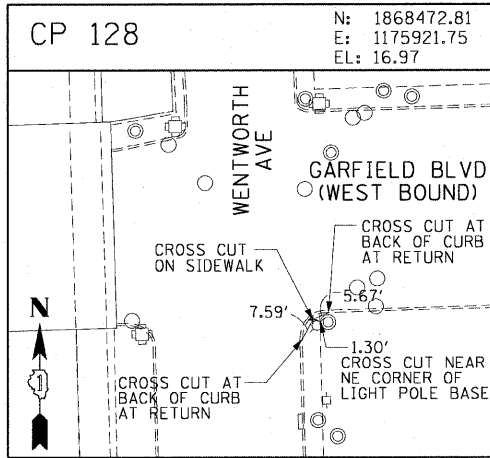
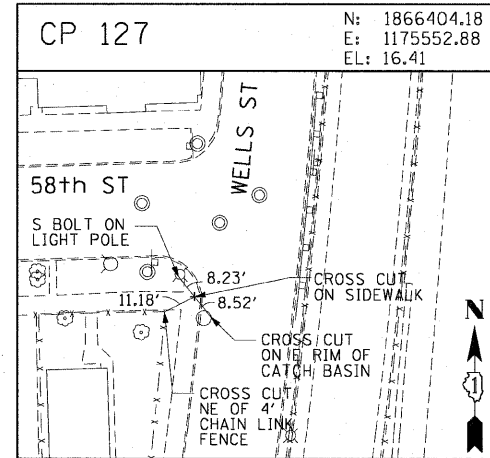
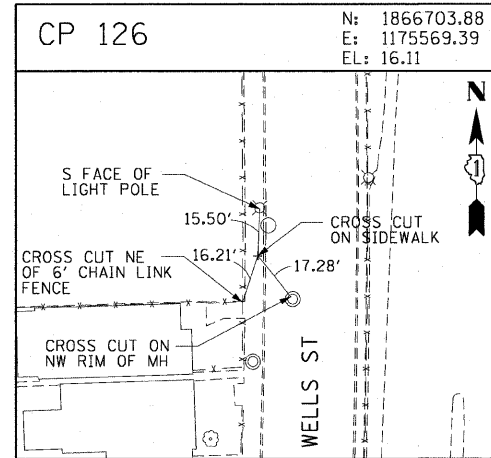
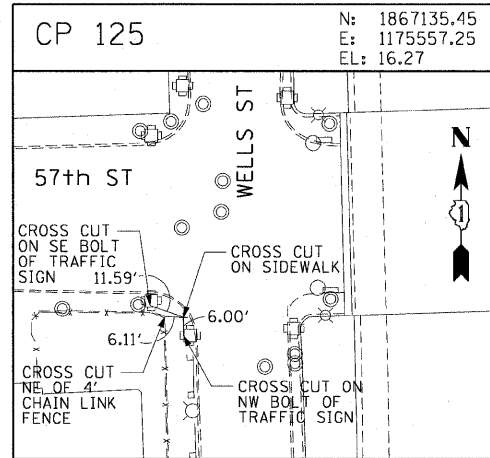
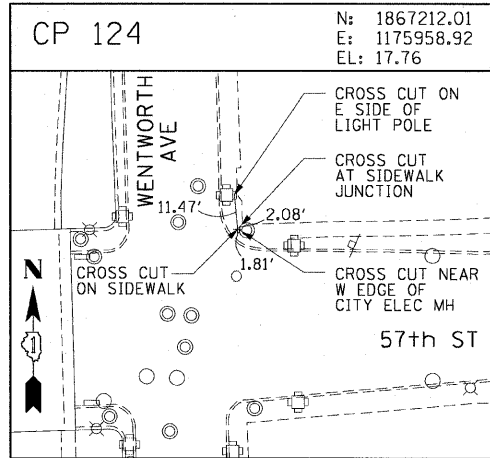
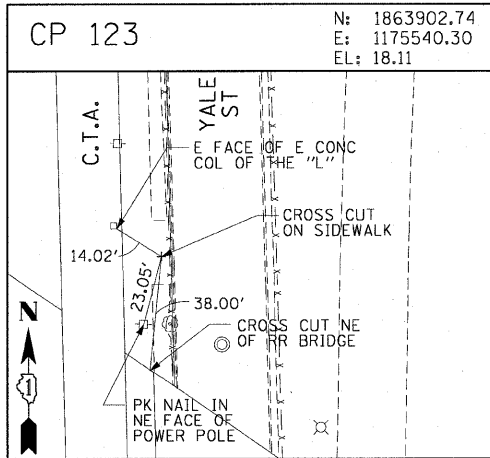
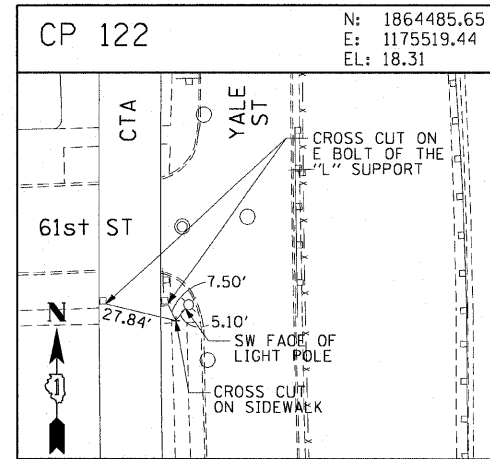
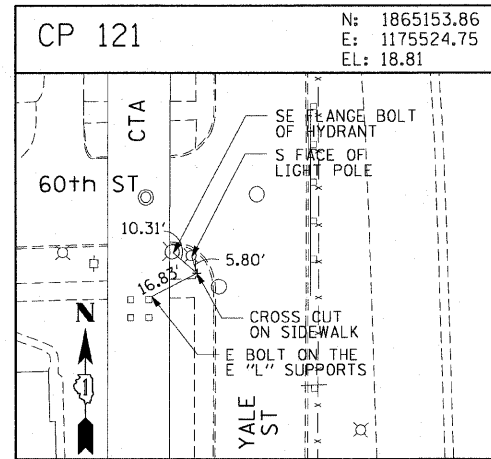
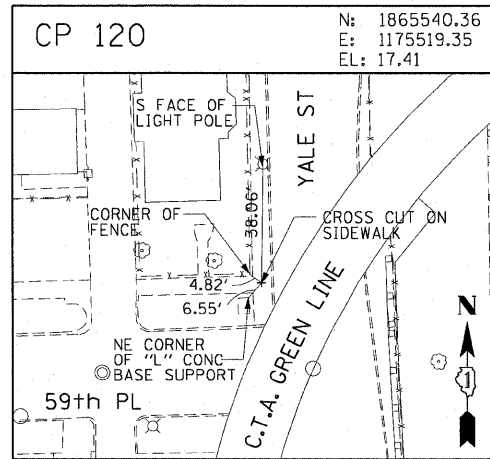
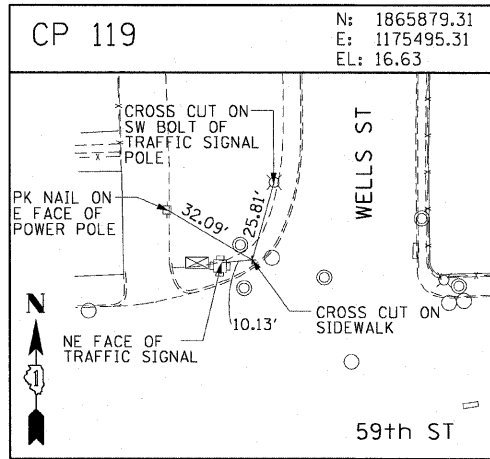
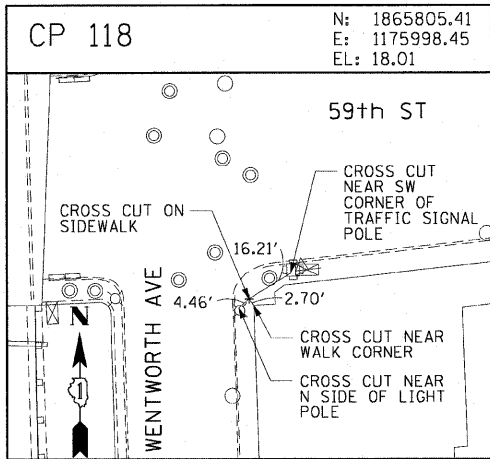
**SURVEY TIES AND CONTROL POINTS**

SCALE: 1"=30'  
DATE: JANUARY 14, 2009

DRAWN BY: MRK  
CHECKED BY: JAL

1/13/2009 2:23:23 PM \\uscbjlf\p207\p40465\p40468\cvt\128 tree-wall-fence\gfa\contract 27\bal271012a.stb

F.A.I. RTE. 90/94	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		COOK	31	13
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
*1818, 1919, 1919.15		1-12		
				62984



AECOM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)  
SURVEY TIES AND CONTROL POINTS

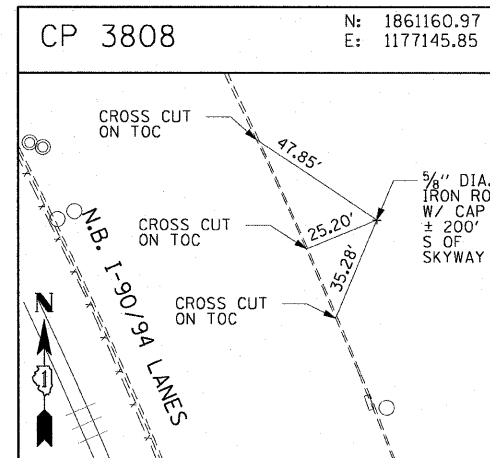
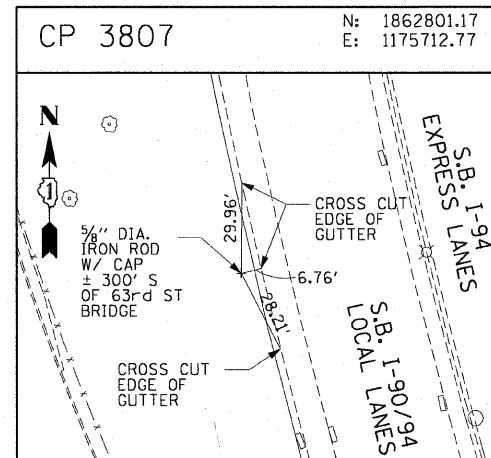
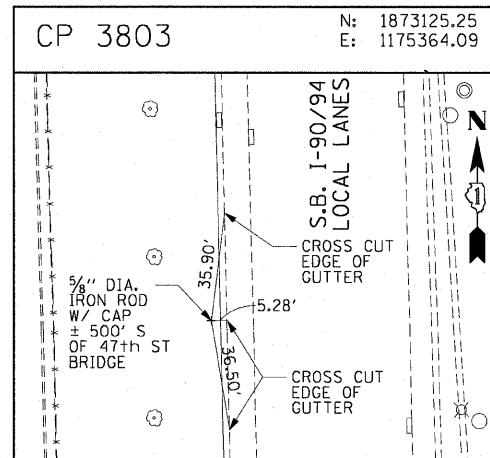
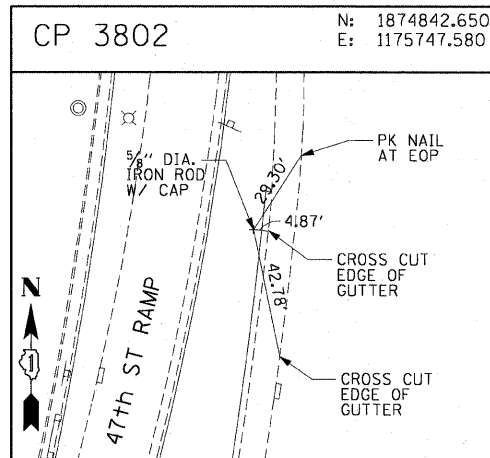
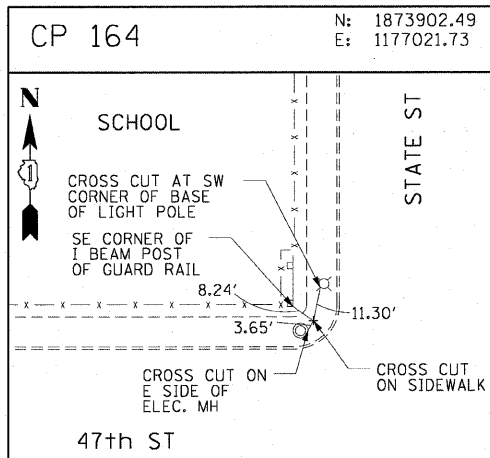
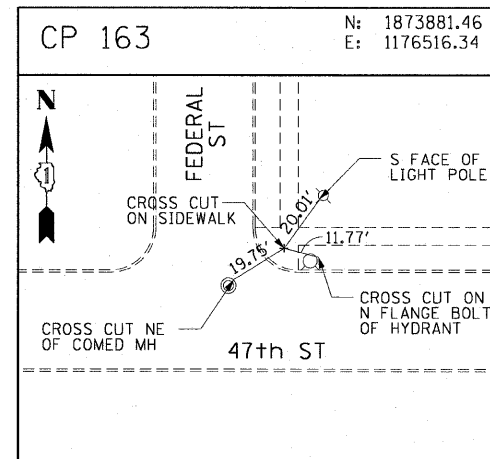
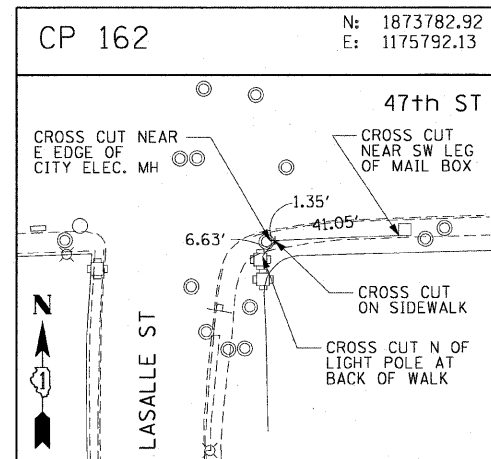
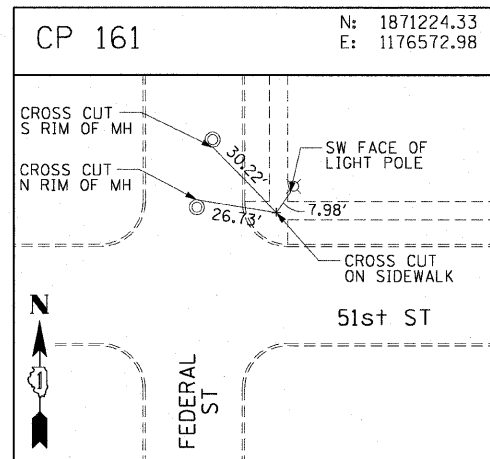
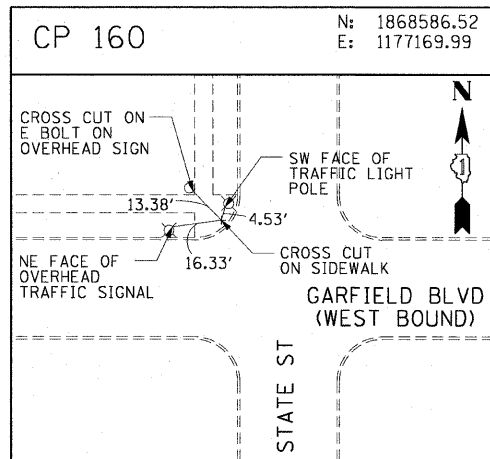
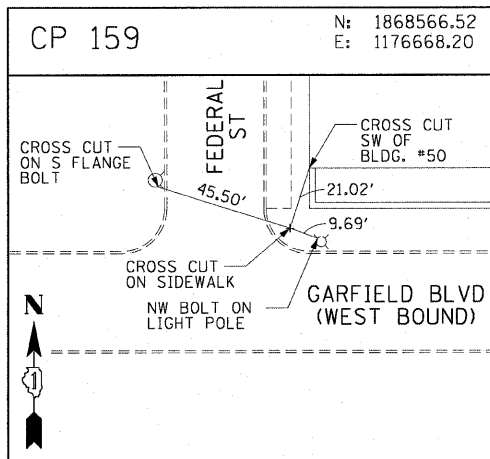
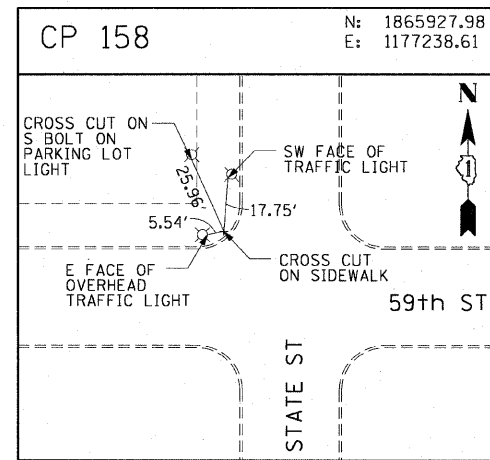
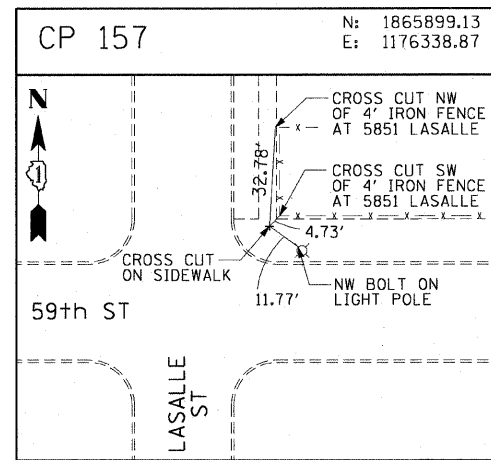
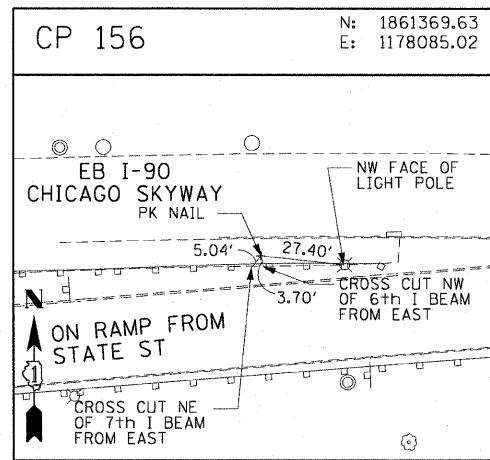
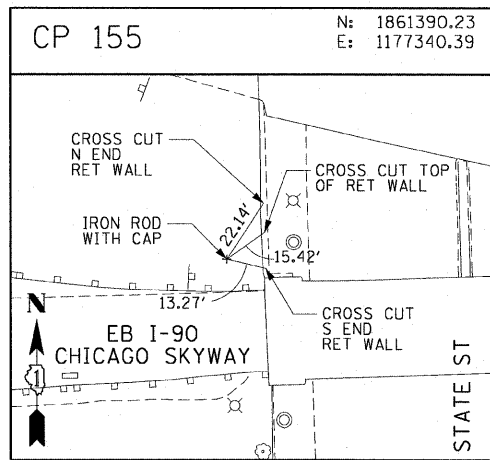
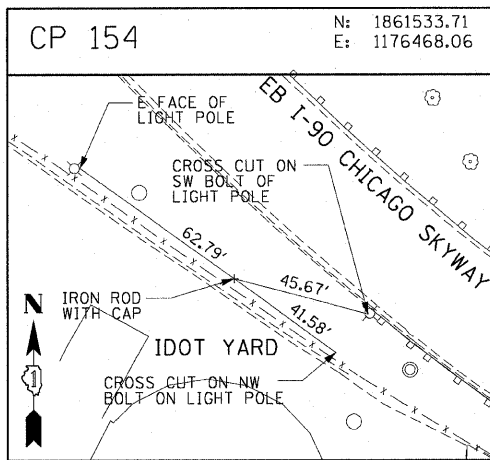
SCALE: 1"=30'  
DATE: JANUARY 14, 2009

DRAWN BY: MRK  
CHECKED BY: JAL

1/13/2009 2:23:24 PM \\usccg\p207\440\668\40468\cvt\28-knee-wall\_fencas\contract\_27\DWG\BIO22.sht



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	•	COOK	31	15
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		62984
•(1818, 1919, 1919.15)		I-12		



AECOM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
 71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)  
 SURVEY TIES AND CONTROL POINTS  
 SCALE: 1"=30'  
 DATE: JANUARY 14, 2009  
 DRAWN BY: MRK  
 CHECKED BY: JAL

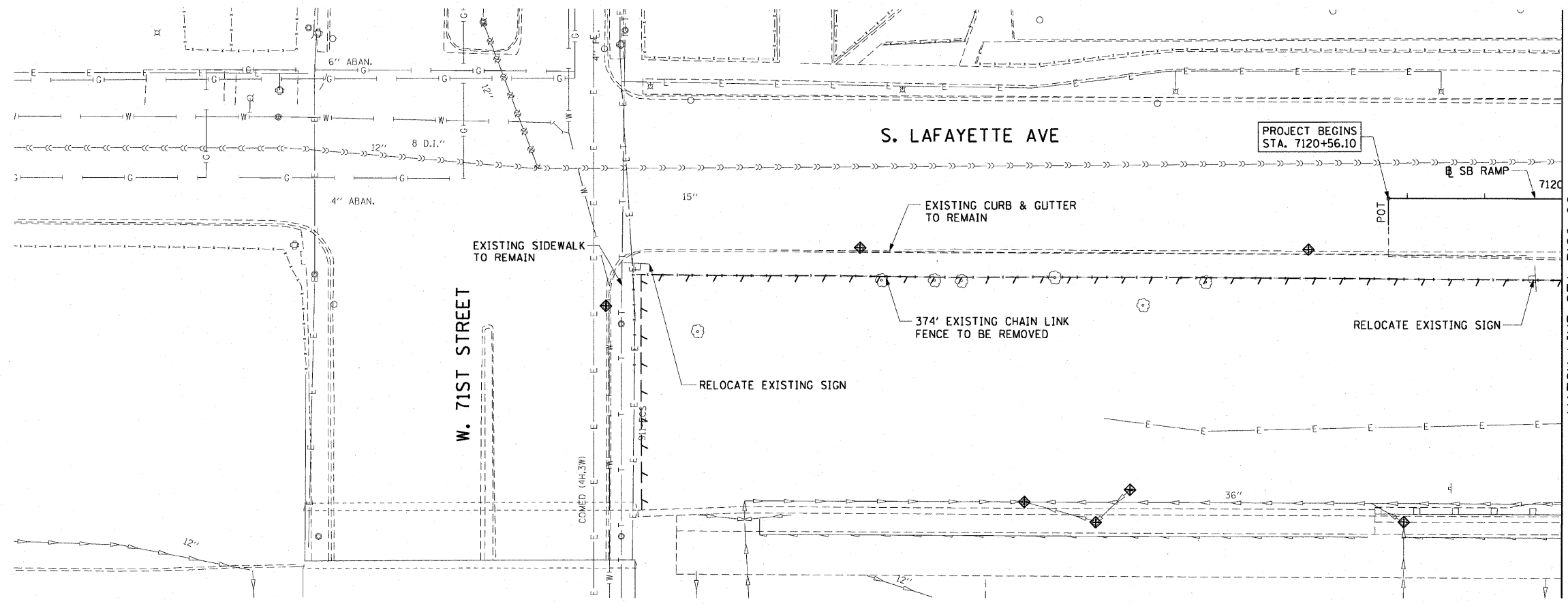
\mscblif\p207\p40468\p40468\civ\128\tree-wall-fence\contract 27\DWG\CP154.dwg  
 1/13/2009 2:23:24 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	.	COOK	31	16
STA. 7120+00		TO STA. 7120+56.10		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
*(1818, 1919, 1919.15) 1-12		62984		



LEGEND:

- AREA REMOVALS
- LINEAR REMOVALS
- TREE REMOVAL (WITH SIZE)
- INLET FILTER

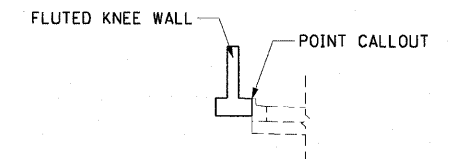
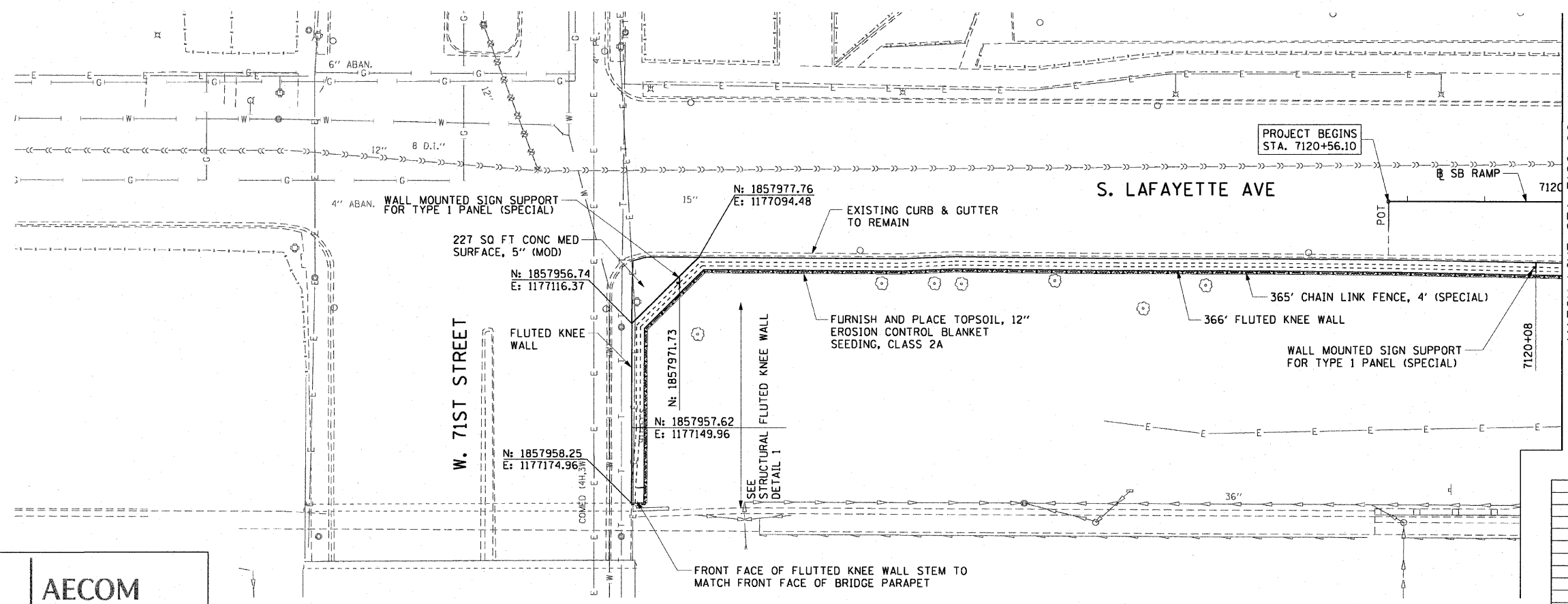


EXISTING CONDITIONS AND REMOVAL  
PROPOSED IMPROVEMENTS



NOTES:

1. SEE STRUCTURAL DETAILS FOR FLUTED KNEE WALL DETAILS.
2. ALL POINT CALLOUTS ARE TAKEN AT THE EDGE OF THE KNEE WALL BASE (SEE BELOW).
3. SEE ROADWAY DETAILS FOR CONCRETE MEDIAN AND CONCRETE CURB DETAILS.



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)  
EXISTING AND PROPOSED ROADWAY PLANS

SCALE: 1"=20'  
DATE: JANUARY 14, 2009

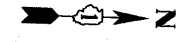
DRAWN BY: NJH  
CHECKED BY: RMG

AECOM

1/13/2009 2:23:27 PM



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	31	17
STA. 7115+25		TO STA. 7120+00		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
*(1818, 1919, 1919.15) 1-12		62984		

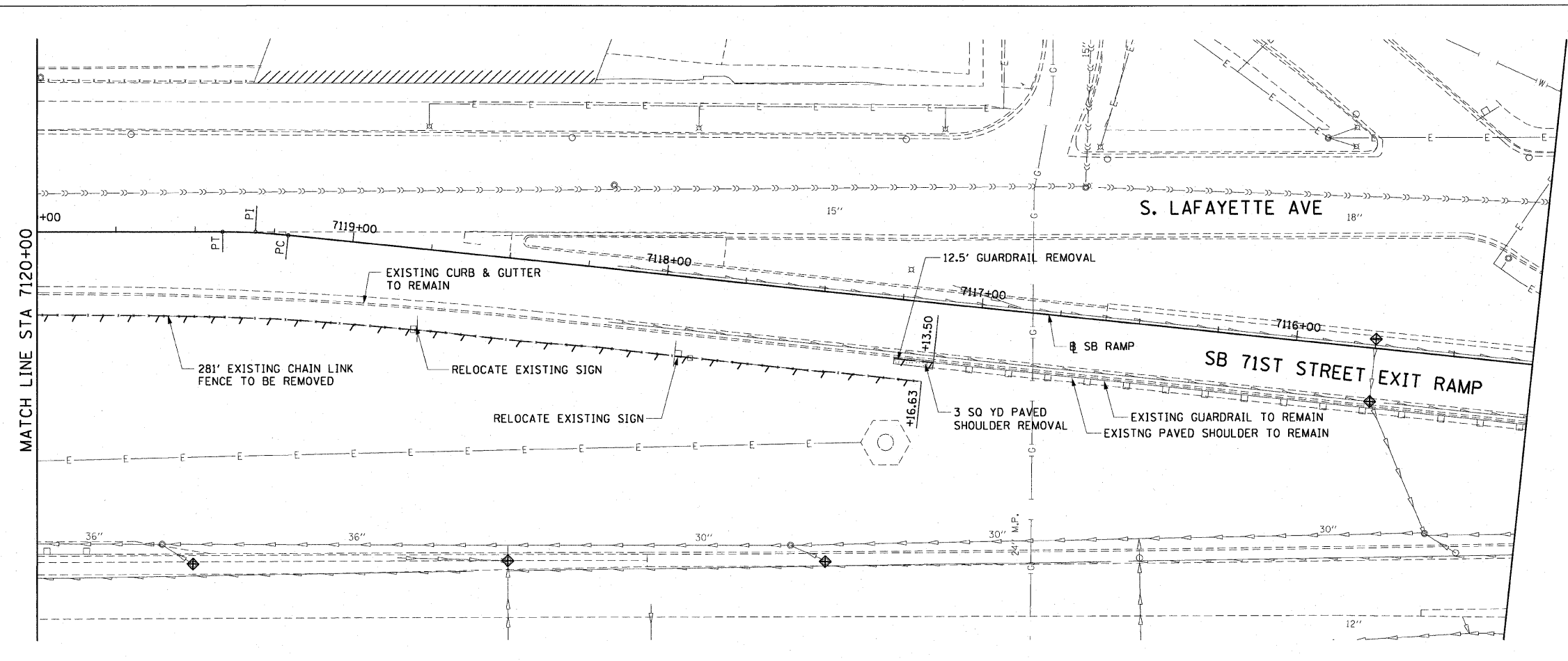


LEGEND:

- AREA REMOVALS
- LINEAR REMOVALS
- TREE REMOVAL (WITH SIZE)
- INLET FILTER

NOTES:

1. THE EXISTING TRAFFIC BARRIER TERMINAL, TYPE 2 SHALL BE REMOVED AND PAID FOR AS GUARDRAIL REMOVAL.
2. ANY DAMAGE TO THE EXISTING GUARDRAIL OR PAVED SHOULDER TO REMAIN, SHALL BE REPLACED AT THE CONTRACTOR'S OWN EXPENSE.

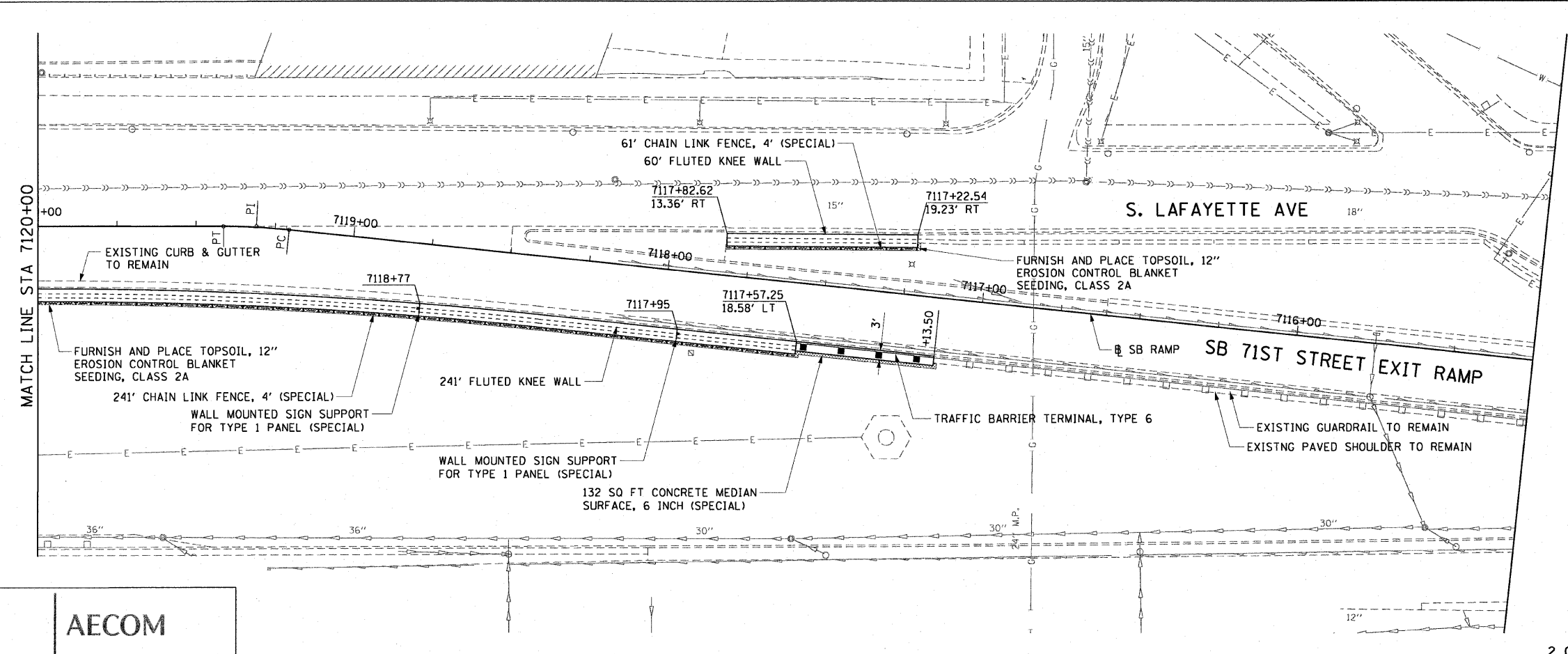


EXISTING CONDITIONS AND REMOVAL  
PROPOSED IMPROVEMENTS



NOTES:

1. SEE STRUCTURAL DETAILS FOR FLUTED KNEE WALL DETAILS.
2. ALL POINT CALLOUTS ARE TAKEN AT THE EDGE OF THE KNEE WALL BASE.
3. SEE ROADWAY DETAILS FOR CONCRETE MEDIAN AND CONCRETE CURB DETAILS.
4. CONNECT THE PROPOSED TRAFFIC BARRIER TERMINAL, TYPE 6 TO THE EXISTING GUARDRAIL AT STATION 7117+13.50.



REVISIONS	
NAME	DATE

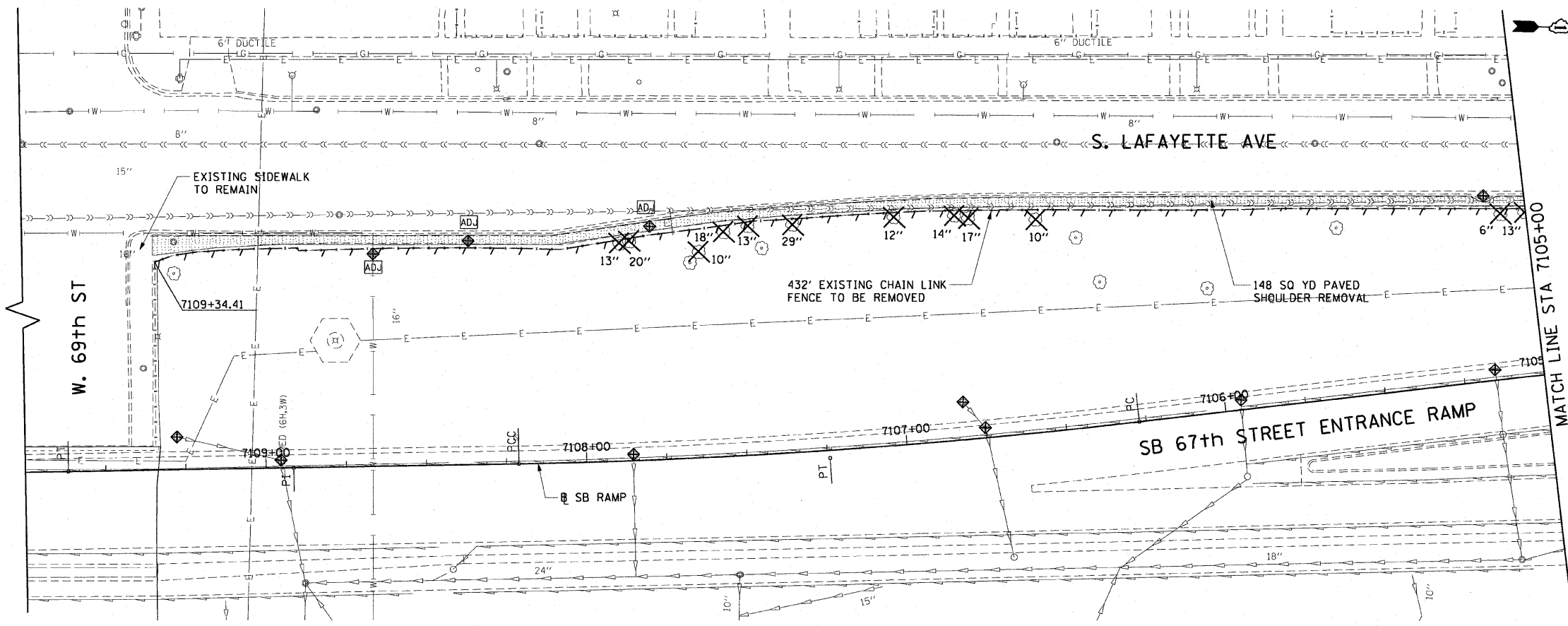
ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)  
EXISTING AND PROPOSED ROADWAY PLANS

SCALE: 1"=20'  
DATE: JANUARY 14, 2009  
DRAWN BY: NJH  
CHECKED BY: RMG

AECOM

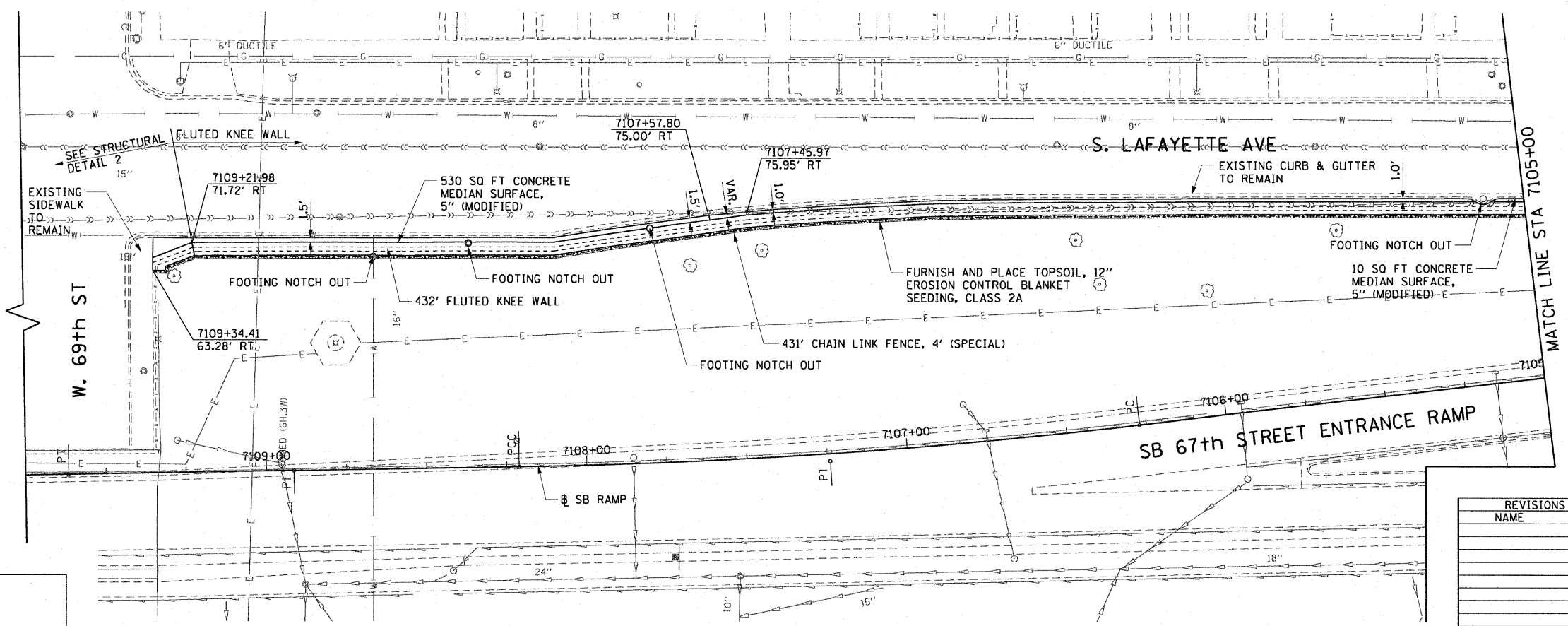
V:\schiff\p201\p40468\p40468.dwg\IN28-Knee-wall-Fence.sfm\contract\_276\p2760022.dwg 2/23/2009

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	31	18
STA. 7105+00		TO STA. 7109+75		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
*1818, 1919, 1919.15		1-12		62984



- LEGEND:**
- AREA REMOVALS
  - LINEAR REMOVALS
  - TREE REMOVAL (WITH SIZE)
  - INLET FILTER
  - FRAMES AND LIDS TO BE ADJUSTED

**EXISTING CONDITIONS AND REMOVAL  
PROPOSED IMPROVEMENTS**



- NOTES:**
1. SEE STRUCTURAL DETAILS FOR FLUTED KNEE WALL DETAILS.
  2. ALL POINT CALLOUTS ARE TAKEN AT THE EDGE OF THE KNEE WALL BASE.
  3. SEE ROADWAY DETAILS FOR CONCRETE MEDIAN AND CONCRETE CURB DETAILS.
  4. FOR FLUTED KNEE WALL FOOTING NOTCH OUTS, SEE STRUCTURAL DETAILS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)  
**EXISTING AND PROPOSED ROADWAY PLANS**

SCALE: 1"=20'  
DATE: JANUARY 14, 2009






DRAWN BY: NJH  
CHECKED BY: RMC

**AECOM**

1/13/2009 2:23:29 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	31	19
STA. 7105+00		TO STA. 7109+75		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				62984
*1818, 1919, 1919.15) 1-12				

LEGEND:

-  AREA REMOVALS
-  LINEAR REMOVALS
-  TREE REMOVAL (WITH SIZE)
-  INLET FILTER
-  FRAMES AND LIDS TO BE ADJUSTED

EXISTING CONDITIONS AND REMOVAL  
PROPOSED IMPROVEMENTS

NOTES:

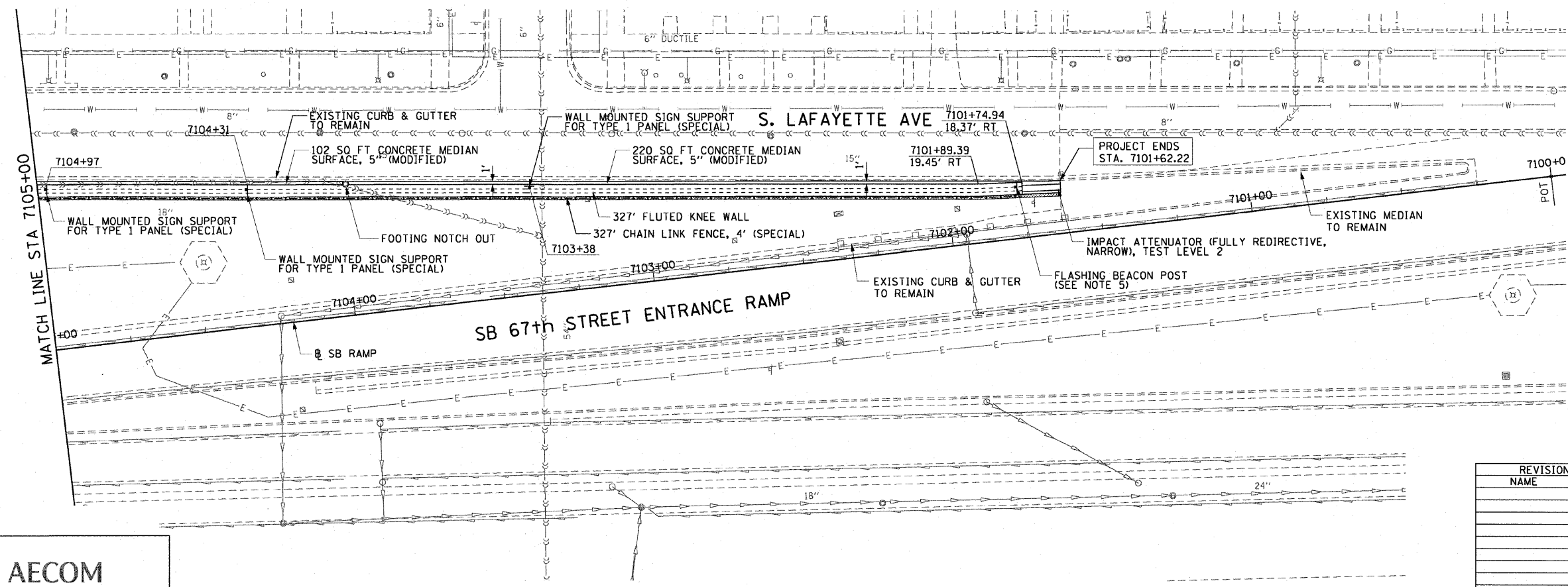
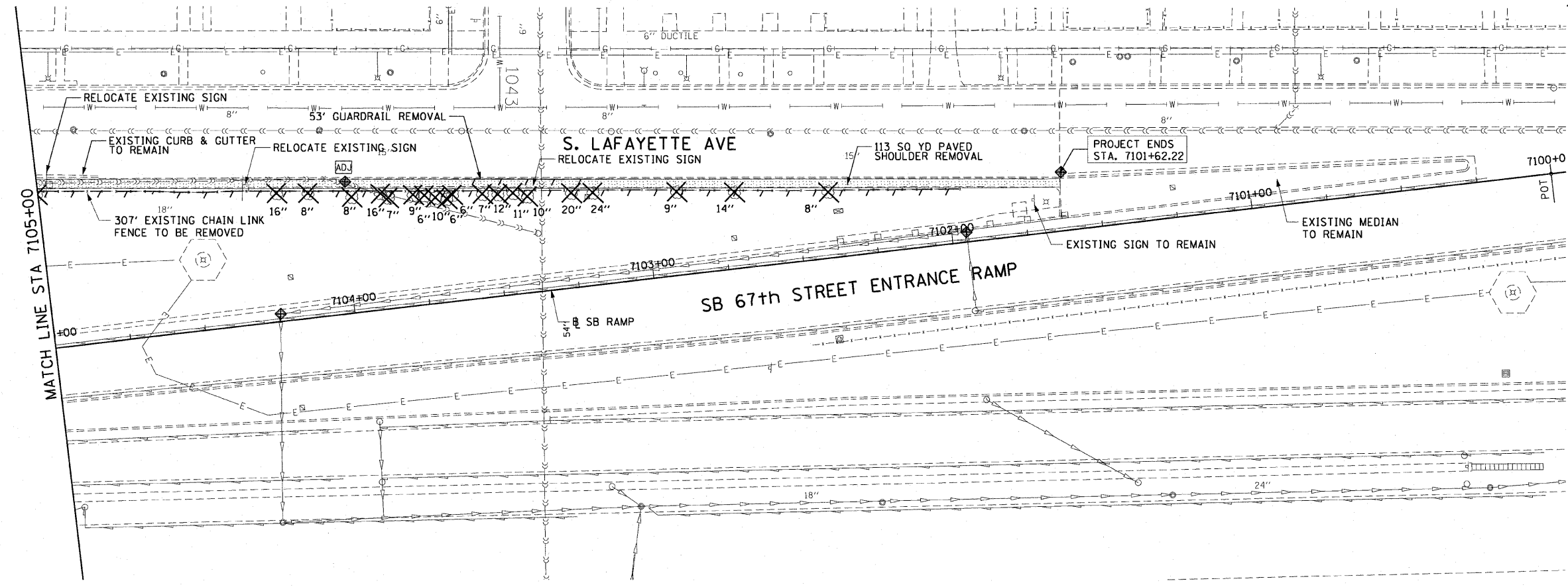
1. SEE STRUCTURAL DETAILS FOR FLUTED KNEE WALL DETAILS.
2. ALL POINT CALLOUTS ARE TAKEN AT THE EDGE OF THE KNEE WALL BASE.
3. SEE ROADWAY DETAILS FOR CONCRETE MEDIAN AND CONCRETE CURB DETAILS.
4. FOR FLUTED KNEE WALL FOOTING NOTCH OUTS, SEE STRUCTURAL DETAILS.
5. SEE ELECTRICAL PLANS FOR LOCATION OF FLASHING BEACON POST.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)  
EXISTING AND PROPOSED ROADWAY PLANS

SCALE: 1"=20'  
DATE: JANUARY 14, 2009

DRAWN BY: NJH  
CHECKED BY: RMG



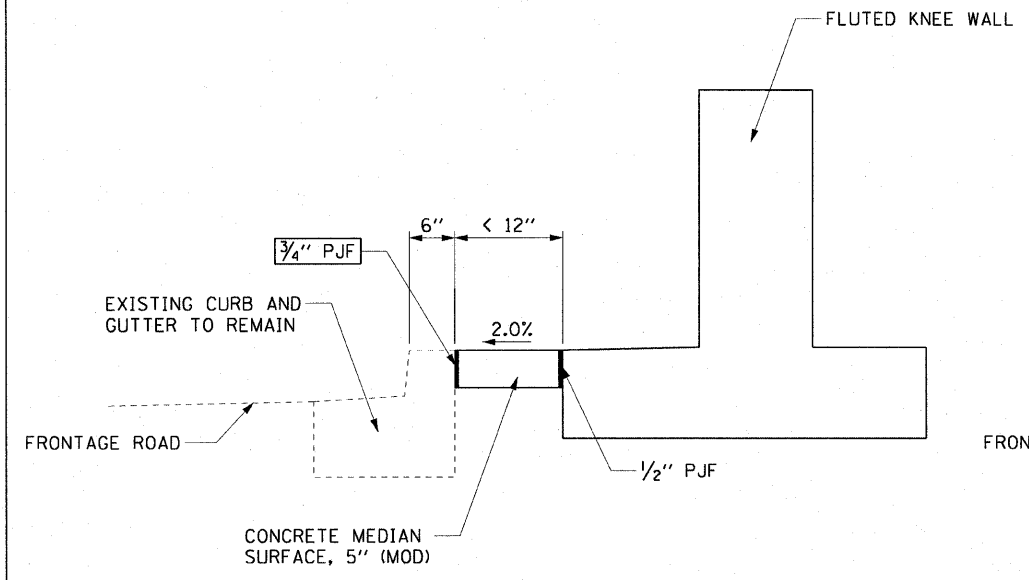
AECOM

1/13/2009 2:23:29 PM

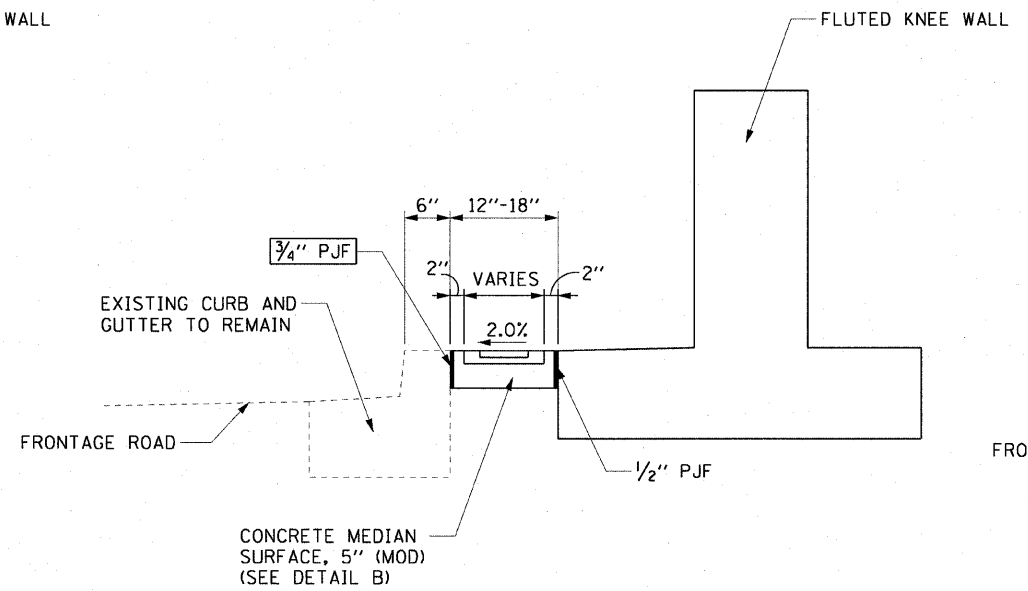
THIS OPTION WILL BE USED WHEN THE CARRIAGE WALK AREA MEASURES < 12" IN WIDTH

THIS OPTION WILL BE USED WHEN THE CARRIAGE WALK AREA MEASURES 12" TO 18" IN WIDTH

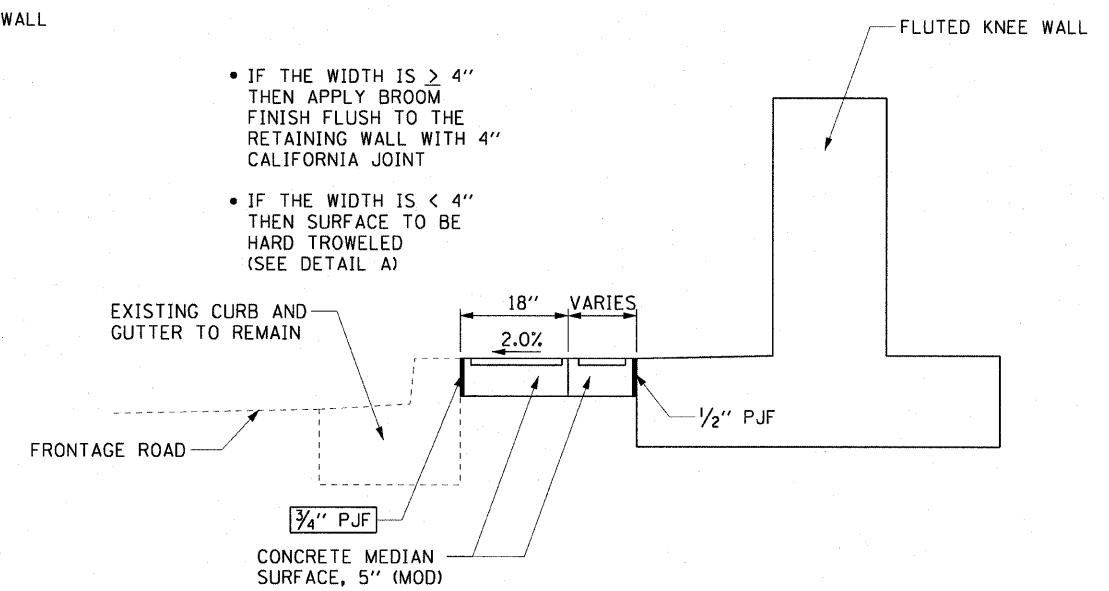
THIS OPTION WILL BE USED WHEN THE CARRIAGE WALK AREA MEASURES > 18" IN WIDTH



CARRIAGE WALK  
AREA < 12" WIDE

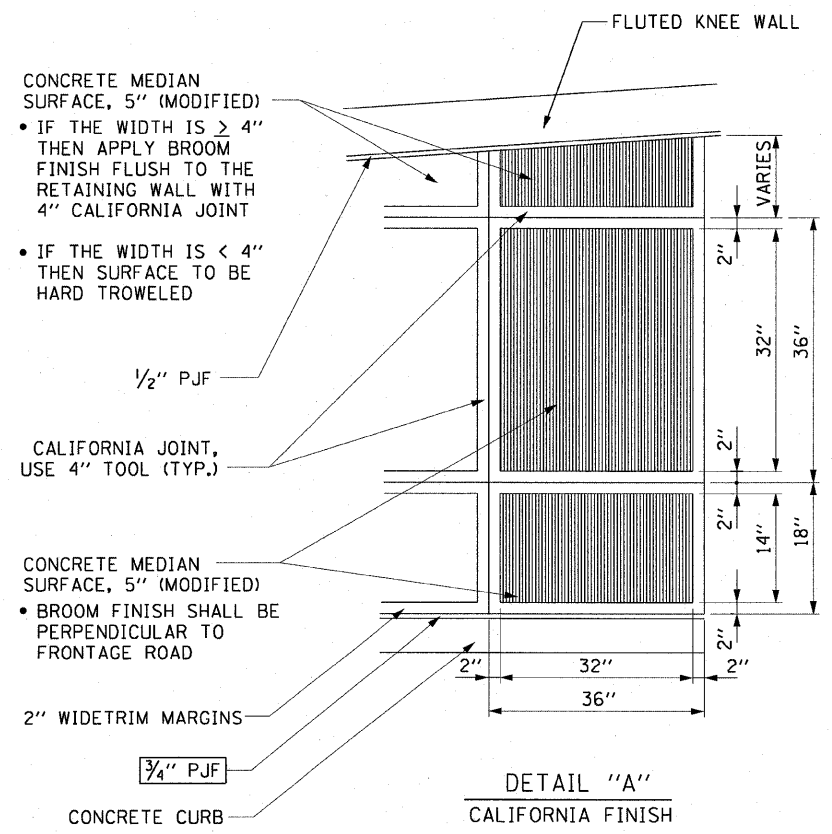


CARRIAGE WALK  
AREA 12" TO 18" WIDE

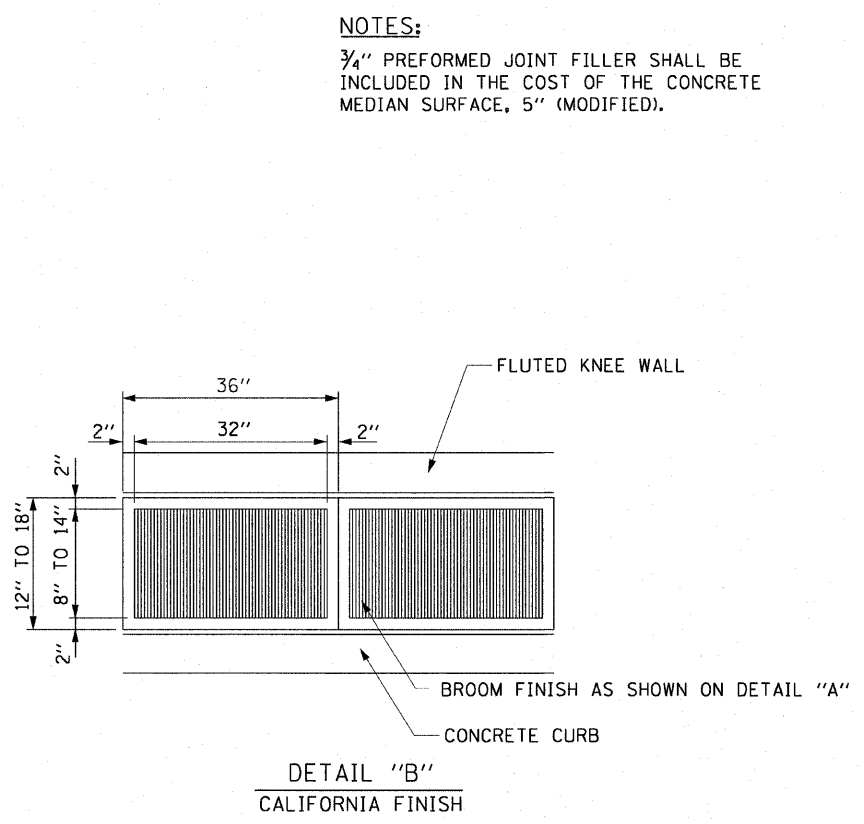


CARRIAGE WALK  
AREA > 18" WIDE

- IF THE WIDTH IS  $\geq 4"$  THEN APPLY BROOM FINISH FLUSH TO THE RETAINING WALL WITH 4" CALIFORNIA JOINT
- IF THE WIDTH IS  $< 4"$  THEN SURFACE TO BE HARD TROWELED (SEE DETAIL A)



DETAIL "A"  
CALIFORNIA FINISH



DETAIL "B"  
CALIFORNIA FINISH

NOTES:  
3/4" PREFORMED JOINT FILLER SHALL BE INCLUDED IN THE COST OF THE CONCRETE MEDIAN SURFACE, 5" (MODIFIED).

AECOM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)  
ROADWAY DETAILS  
CONCRETE MEDIAN SURFACE, 5" (MODIFIED)  
CARRIAGE WALK AND CALIFORNIA FINISH DETAIL

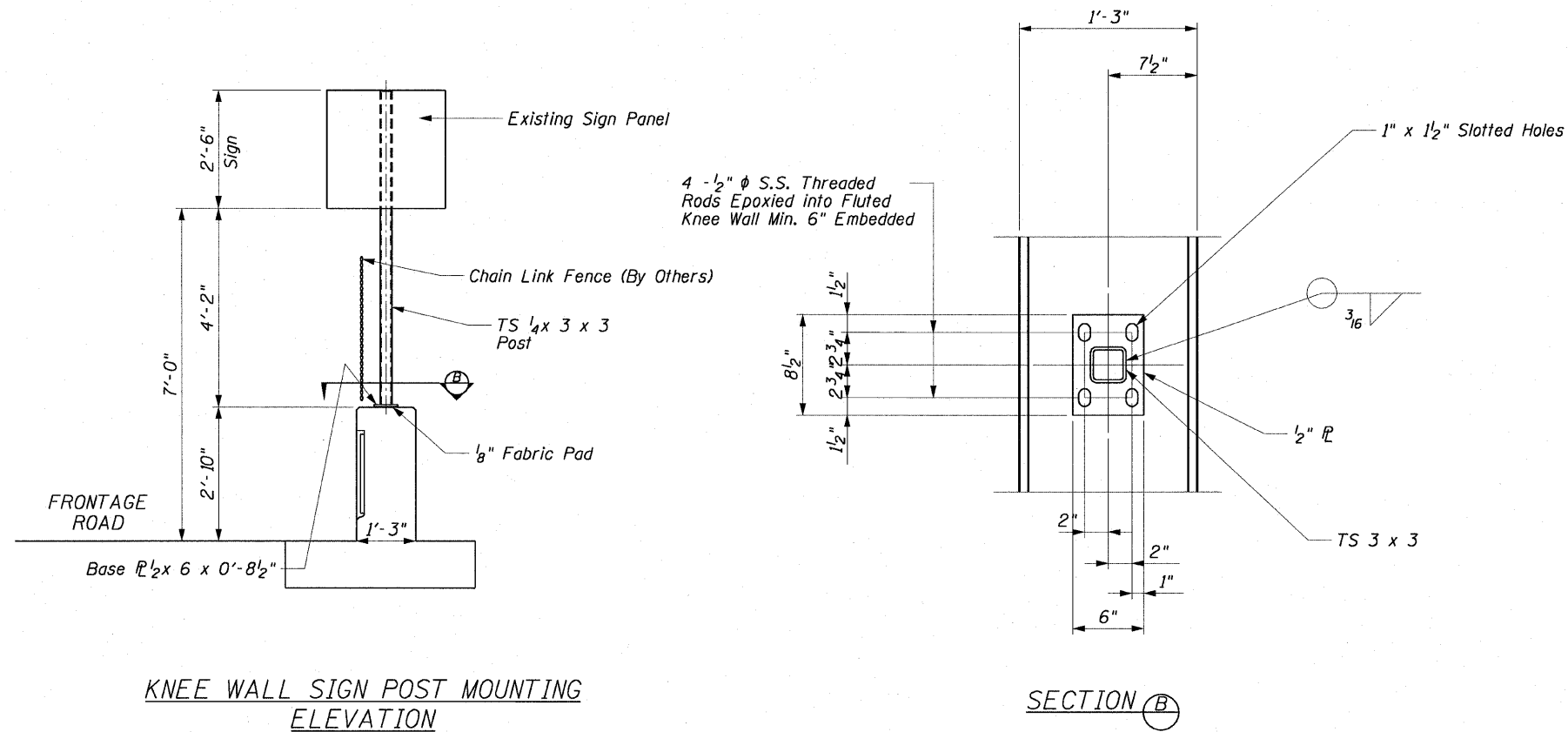
SCALE: NONE  
DATE: JANUARY 14, 2009

DRAWN BY: PHP  
CHECKED BY: NJH

\\uschiplp207\p40468\p40468\dwn\28-knee-wall-Fence.sht Contract 276me2760012a.sht 2/23/2009 2:23:25 PM

WALL MOUNTED SIGN SUPPORT FOR TYPE 1 PANEL (SPECIAL) DETAILS

F.A.I. RT.:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	31	21
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
*(1818, 1919, 1919.15)		1-12		
				62984



KNEE WALL SIGN POST MOUNTING ELEVATION

SECTION (B)

NOTE

When drilling and epoxy grouting the anchor rods, the Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by IDOT. 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. This associated materials and work performed shall be included in the cost of Wall Mounted Sign Support for Type 1 Panel (Special).

AECOM

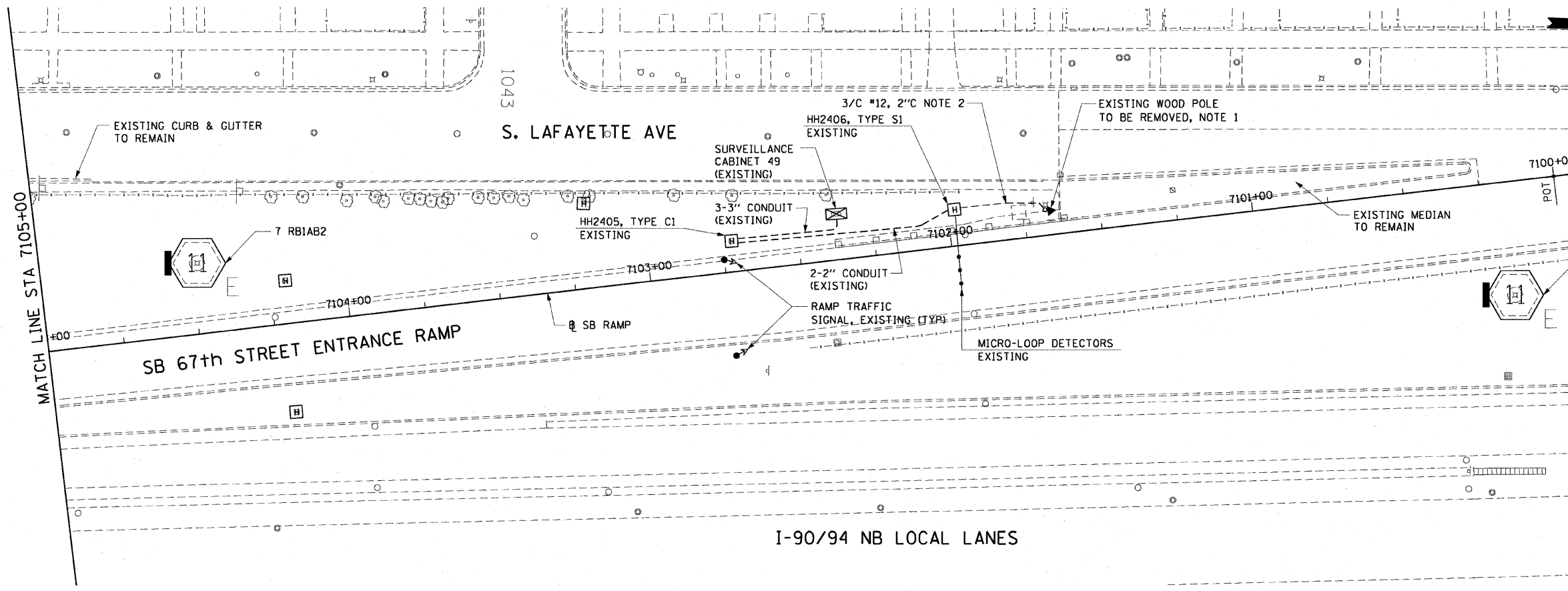
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
 71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)  
 ROADWAY DETAILS  
 WALL MOUNTED SIGN SUPPORT  
 FOR TYPE 1 PANEL (SPECIAL) DETAILS  
 SCALE: NONE DRAWN BY: OS  
 DATE: JANUARY 14, 2009 CHECKED BY: SWANG

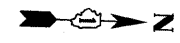
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	31	22
STA. 7105+00		TO STA. 7109+75		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
*1818, 1919, 1919.15) 1-12				
				62984

**NOTES:**

- EXISTING WOOD POST TO BE REMOVED. EXISTING BURIED CONDUIT TO BE REMOVED A MINIMUM 14 FEET BACK, FOR EXTENSION TO THE NEW BEACON MOUNTED ON THE WALL. EXISTING FLASHING BEACONS AND WARNING SIGN TO BE REMOVED FROM WOOD POST AND BE INSTALLED ON NEW STEEL POLE.
- EXISTING 3/C #12 TO BE PULLED BACK TO EXISTING SURVEILLANCE CABINET 49 AND REMOVED.

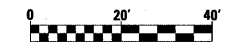
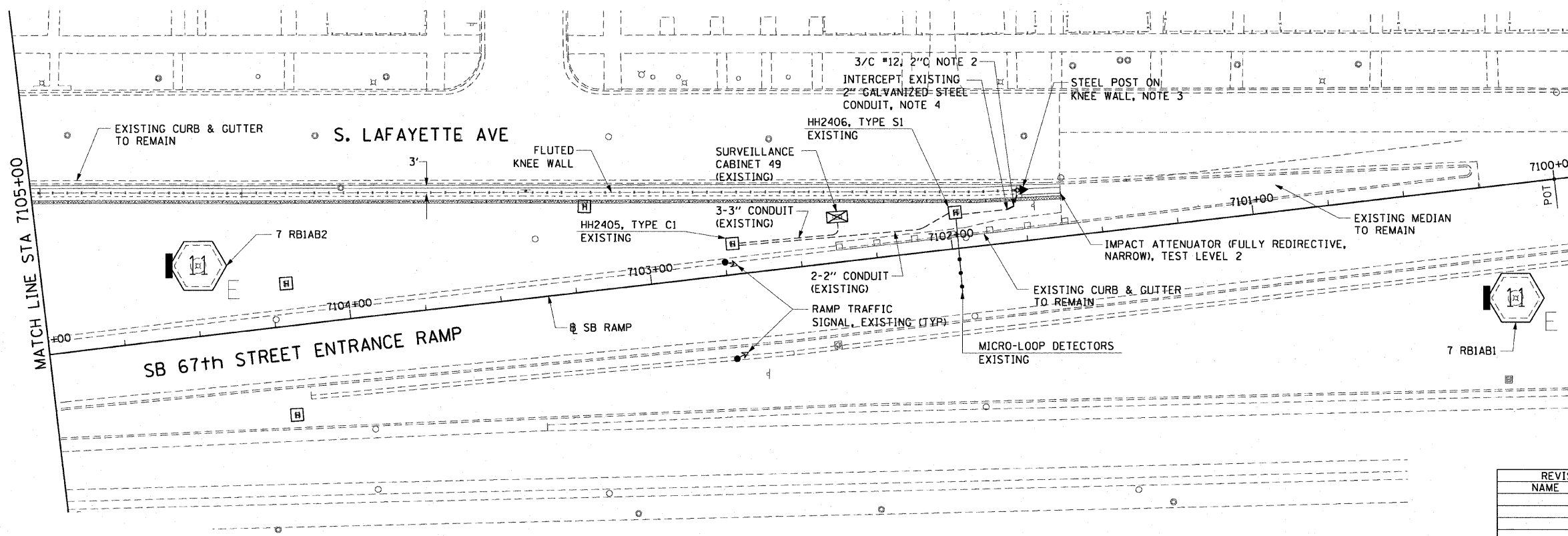


**EXISTING CONDITIONS AND REMOVAL  
PROPOSED IMPROVEMENTS**



**NOTES:**

- NEW STEEL POLE TO BE INSTALLED AT END OF NEW KNEE WALL. EXISTING FLASHING BEACONS AND WARNING SIGN REMOVED FROM WOOD POST ARE TO BE INSTALLED ON NEW STEEL POLE. SEE DRAWING DT-35A FOR DETAILS.
- EXISTING 2" GSC TO BE REROUTED TO NEW STEEL POLE BASE ON TOP OF NEW KNEE WALL. NEW 2" GSC CONDUIT TO BE INSTALLED AS NEEDED TO FACILITATE CONNECTION BETWEEN NEW POLE AND HANDHOLE HH2405. NEW 3/C #12 CABLE TO BE INSTALLED AND CONNECTED BETWEEN BEACONS AND EXISTING CABINET 49. SEE STRUCTURAL DETAILS AND DRAWING DT-35A FOR CONDUIT DETAILS.



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)

**ELECTRICAL PLAN**

SCALE: 1"=20'  
DATE: JANUARY 14, 2009

DRAWN BY: JCM  
CHECKED BY: JPC

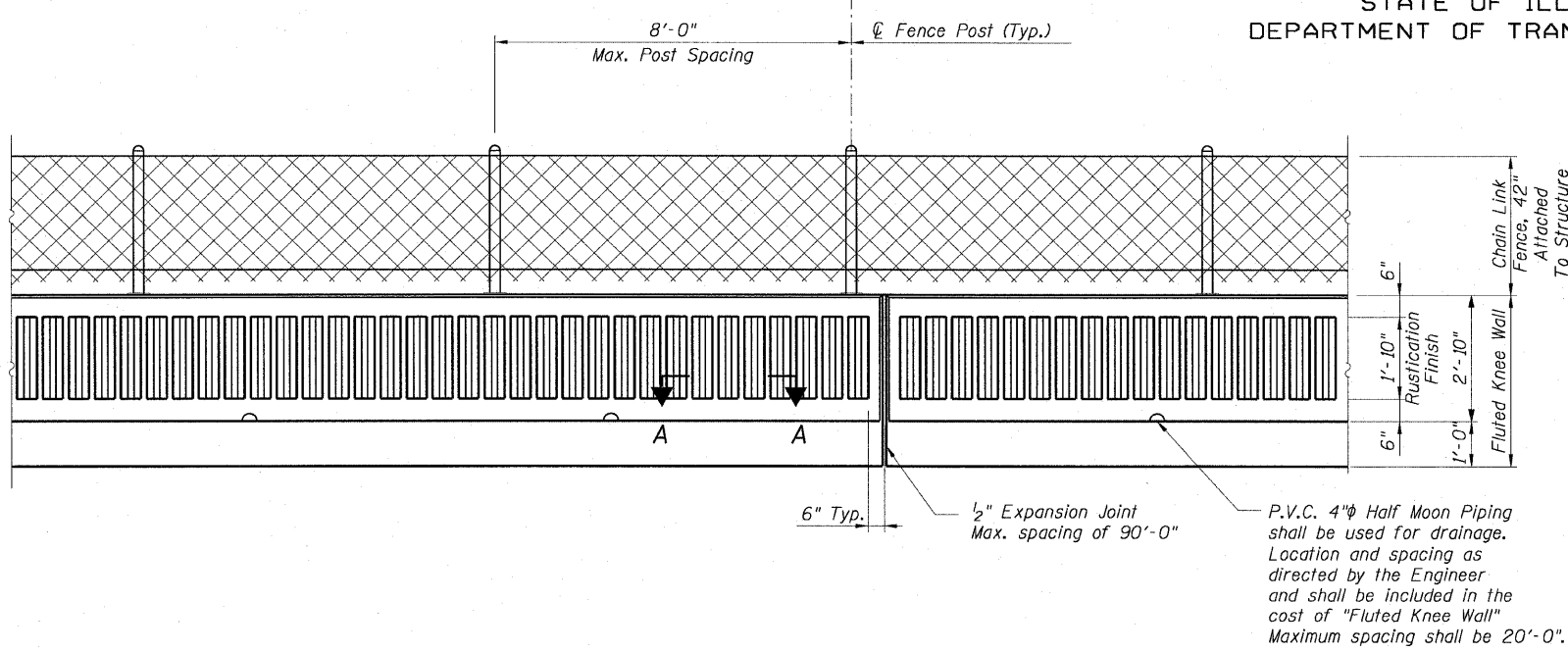


V:\scg\p207\p40468\p40468\elect\01\cor\knee wall\contract\contract\_270\set27000\2a.dwg 2/23/2009 2:23:50 PM

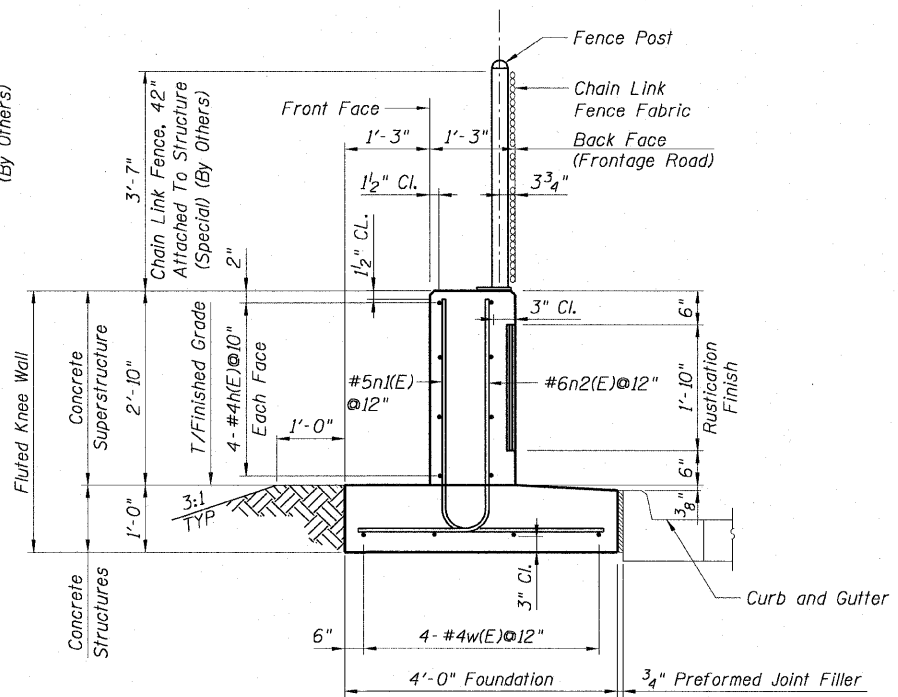


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	31	24
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
(1818, 1919, 1919.15)	1-12		62984	

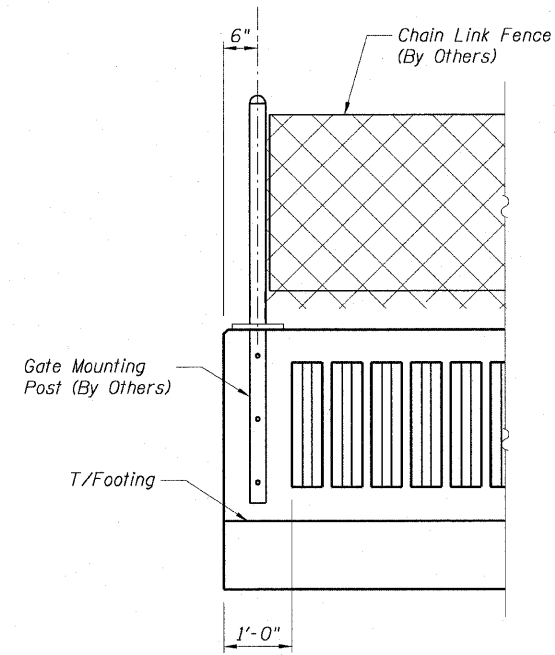


BACK FACE ELEVATION - FLUTED KNEE WALL AND CHAIN LINK FENCE

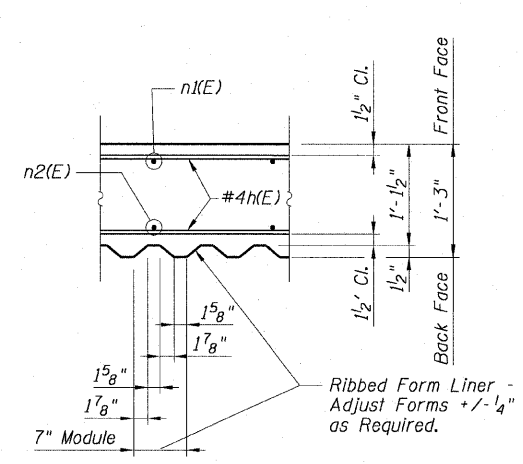


TYPICAL SECTION  
FLUTED KNEE WALL

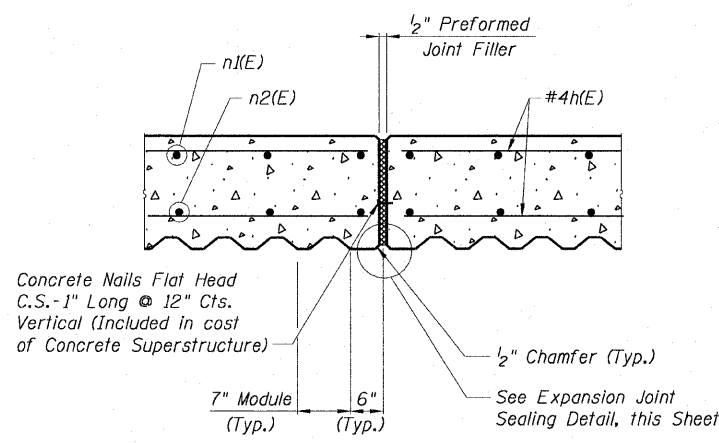
- NOTES:**
1. Reinforcement bar shall conform to the requirements of AASHTO M-31 or M-322 Grade 60.
  2. Concrete:  $f'c = 3500$  psi
  3. Fluted knee wall shall be paid for per foot as "Fluted Knee Wall." Included in the cost of "Fluted Knee Wall" shall be "Concrete Superstructures" (stem), "Concrete Structures" (foundation), reinforcement bars (epoxy coated), rustication finish for fluted knee walls, protective coat, expansion joint filler and sealing compound.
  4. At locations where Fluted Knee Wall abuts a rigid structure, a 1/2" thick preformed expansion joint filler (PJF) conforming to the shape of the structure shall be installed between the wall and the structure. 3/4" PJF shall be installed where Fluted Knee Wall footing abuts curb and gutter. The cost shall be included in "Fluted Knee Wall".
  5. Quantities shown in "Bill of Material" are for one (1) foot of "Fluted Knee Wall".
  6. Chain Link Fence will not be paid for in this Contract, but shall be furnished and installed in Contract 60B88.
  7. Unless noted otherwise, Protective Coat shall be applied according to Section 503.19 of the Standard Specifications to the top of stem and to the face of stem and top of footing on the Frontage Road side of the Knee Wall.
  8. Minimum lap length for #4 bars shall be 1'-8".



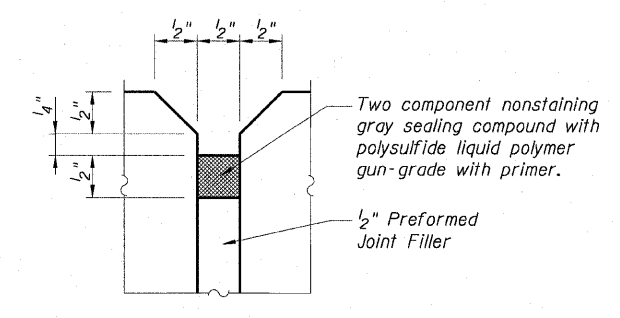
RUSTICATION DETAILS  
AT GATE LOCATIONS



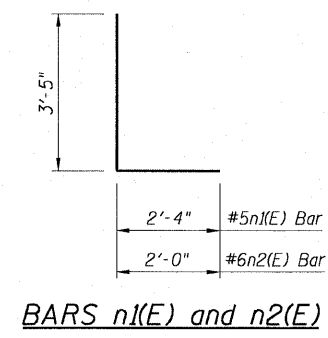
SECTION A-A



EXPANSION JOINT DETAIL



EXPANSION JOINT  
SEALING DETAIL



BARS n1(E) and n2(E)

QUANTITIES PER FOOT OF FLUTED KNEE WALL		
ITEM	UNIT	QUANTITY
Reinforcement Bars, Epoxy Coated	Pound	23
Concrete Superstructure	Cu. Yd.	0.14
Concrete Structures	Cu. Yd.	0.15
Rustication Finish	Sq. Ft.	1.8
Protective Coat	Sq. Yd.	0.62

REVISIONS	
NAME	DATE

- LEGEND:**
- Chain Link Fabric
  - Rustication Finish
  - Earth
  - Concrete

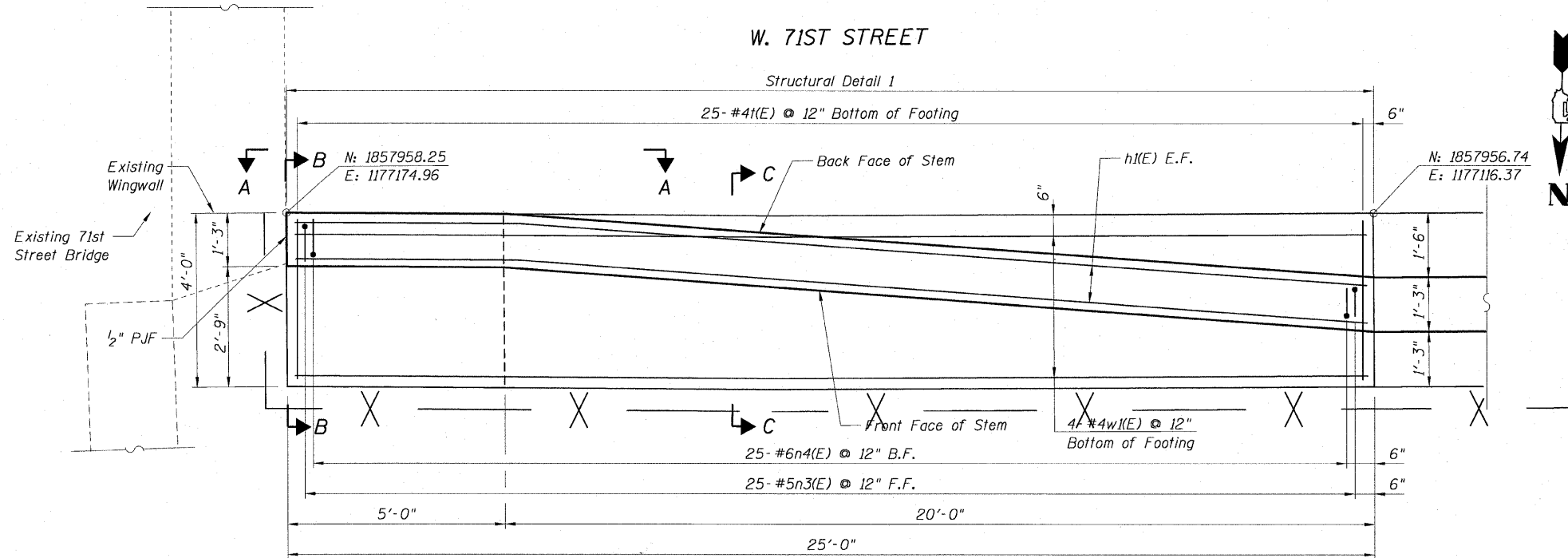
Sheet S1 of 4  
ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)  
FLUTED KNEE WALL STANDARD DETAILS  
SCALE: None  
DATE: JANUARY 14, 2009  
DRAWN BY: CHD  
CHECKED BY: MJP

AECOM

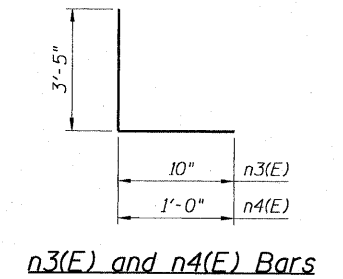


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

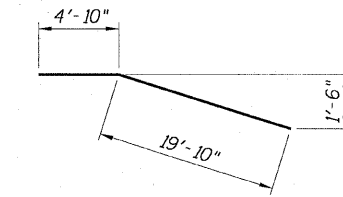
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	31	25
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
*1818, 1919, 1919.15		1-12		
				62984



FOOTING PLAN



n3(E) and n4(E) Bars



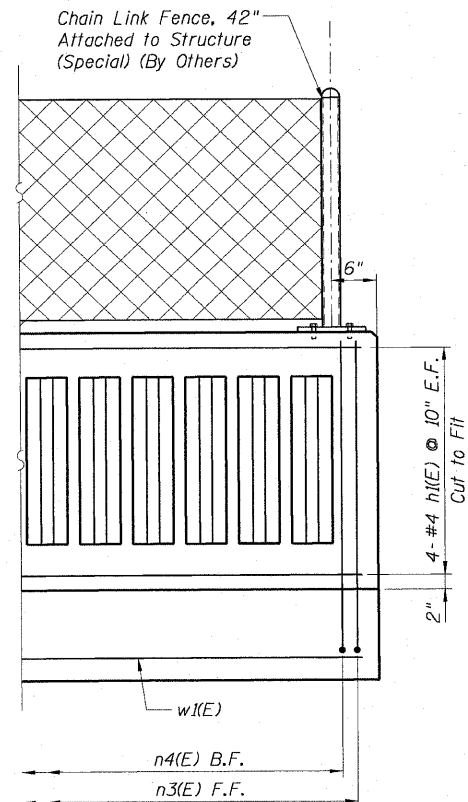
h3(E) Bar

**BAR LIST**

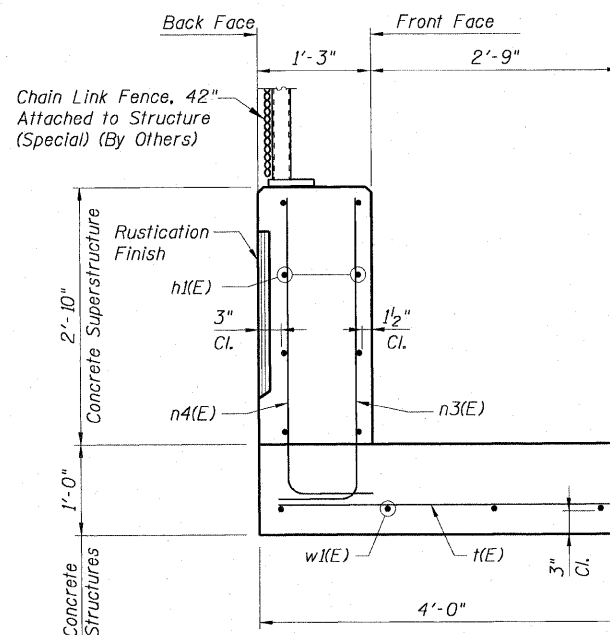
Bar	No.	Size	Length	Shape
h(E)	8	#4	24'-8"	—
n3(E)	25	#5	4'-3"	—
n4(E)	25	#6	4'-5"	—
w(E)	4	#4	24'-8"	—
t(E)	25	#4	3'-8"	—

NOTES:

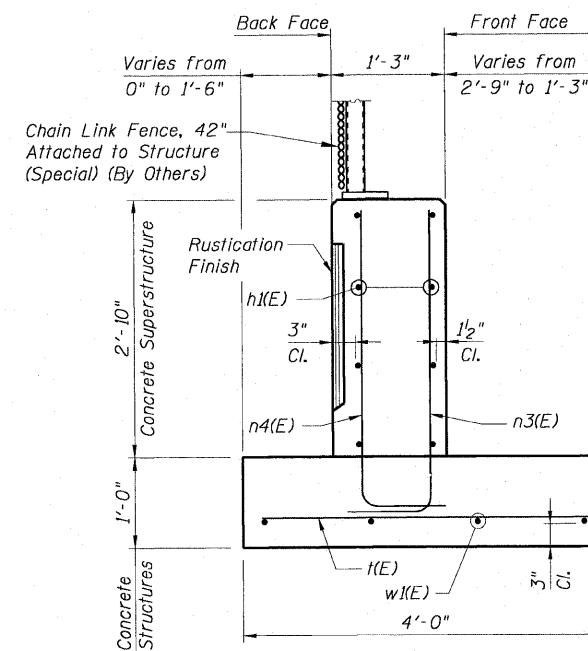
- For location of Structural Detail 1, see Civil Drawings.
- For Typical Section and Details of Structural Detail 1 see Sheet S1 of 4.
- Reinforcement bar shall conform to the requirements of AASHTO M-31 or M-322 Grade 60.
- Concrete:  $f'_c = 3500$  psi
- Structural Detail 1 shall be paid for per foot as "Fluted Knee Wall". Included in the cost of "Fluted Knee Wall" shall be "Concrete Superstructures" stem, "Concrete Structures" foundation, rustication finish, protective coat and expansion joint filler and sealing compound.
- At locations where Fluted Knee Wall abuts a rigid structure, a  $\frac{1}{2}$ " thick preformed expansion joint filler (PJF) conforming to the shape of the structure shall be installed between the wall and the structure.  $\frac{3}{4}$ " PJF shall be installed where Fluted Knee Wall footing abuts curb and gutter. The cost shall be included in "Fluted Knee Wall".
- Protective Coat shall be applied according to Section 503.19 of the Standard Specifications to the top of stem and to the face of stem and top of footing on the Frontage Road side of the Knee Wall for Structural Detail 1.
- Chain Link Fence will not be paid for in this Contract, but shall be furnished and installed in Contract 60B88.
- Minimum lap for #4 bars shall be 1'-8".
- BF = Back Face  
EF = Each Face  
FF = Front Face



PARTIAL ELEVATION A-A



SECTION B-B



SECTION C-C

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)  
STRUCTURAL DETAIL 1  
71ST STREET DETAILS  
LAFAYETTE STREET

SCALE: None  
DATE: JANUARY 14, 2009  
DRAWN BY: CHD  
CHECKED BY: MJP

AECOM

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	•	COOK	31	26
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
•(1818, 1919, 1919.15) 1-12		62984		

BAR LIST

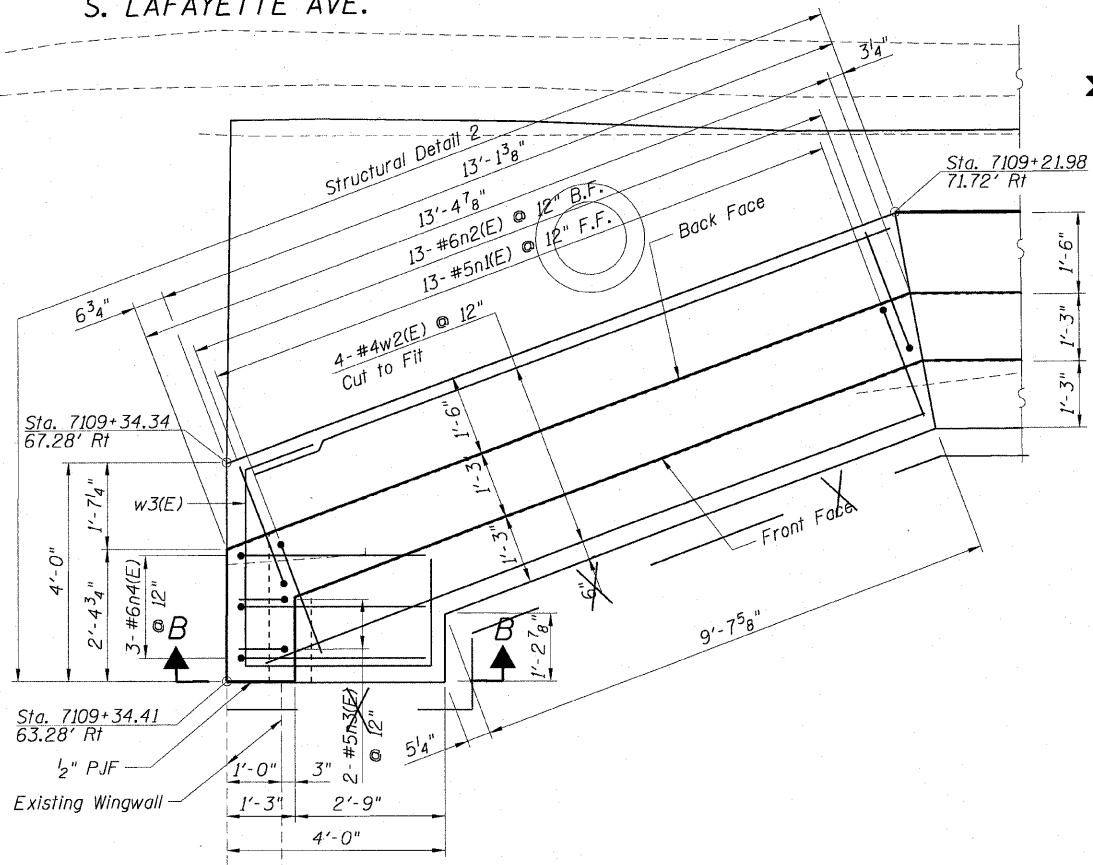
Bar	No.	Size	Length	Shape
h2(E)	4	#4	14'-11"	┌
h3(E)	4	#4	13'-8"	┌
n1(E)	13	#5	5'-9"	┌
n2(E)	13	#6	5'-5"	┌
n3(E)	2	#5	4'-3"	┌
n4(E)	3	#6	6'-11"	┌
w2(E)	4	#4	12'-11"	┌
w3(E)	1	#4	12'-1"	┌

NOTES:

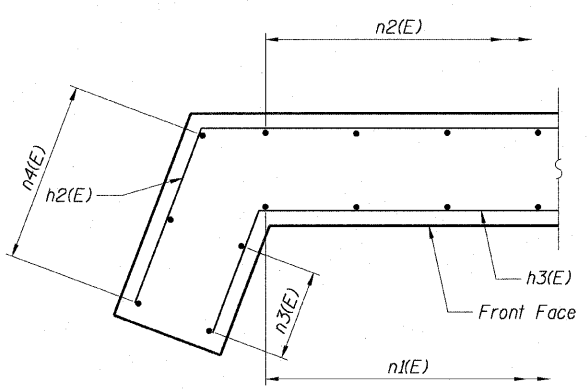
- For location of Structural Detail 2, see Civil Drawings.
- For Typical Section and Details of Fluted Knee Wall see Sheet S1 of 4.
- Reinforcement bar shall conform to the requirements of AASHTO M-31 or M-322 Grade 60.
- Concrete:  $f'c = 3500$  psi
- Structural Detail 2 shall be paid for per foot as "Fluted Knee Wall". Included in the cost of "Fluted Knee Wall" shall be "Concrete Superstructures" stem, "Concrete Structures" foundation, reinforcement bars (epoxy coated), rustication finish, protective coat and expansion joint filler and sealing compound.
- At locations where Fluted Knee Wall abuts a rigid structure, a  $\frac{1}{2}$ " thick preformed expansion joint filler (PJF) conforming to the shape of the structure shall be installed between the wall and the structure.  $\frac{3}{4}$ " PJF shall be installed where Fluted Knee Wall footing abuts curb and gutter. The cost shall be included in "Fluted Knee Wall".
- Protective Coat shall be applied according to Section 503.19 of the Standard Specifications to the top of stem and to the face of stem and top of footing on the Frontage Road side of the Knee Wall for Structural Detail 2.
- Chain Link Fence will not be paid for in this Contract, but shall be furnished and installed in Contract 60B88.
- Minimum lap for #4 bars shall be 1'-8".
- BF = Back Face  
EF = Each Face  
FF = Front Face

S. LAFAYETTE AVE.

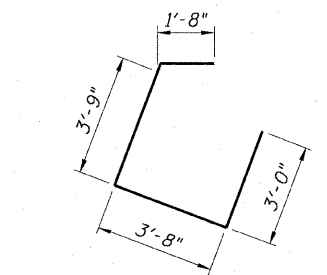
W. 69TH ST.



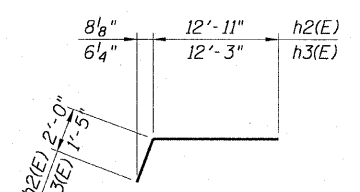
FOOTING PLAN



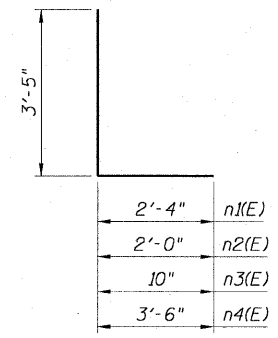
PARTIAL STEM PLAN



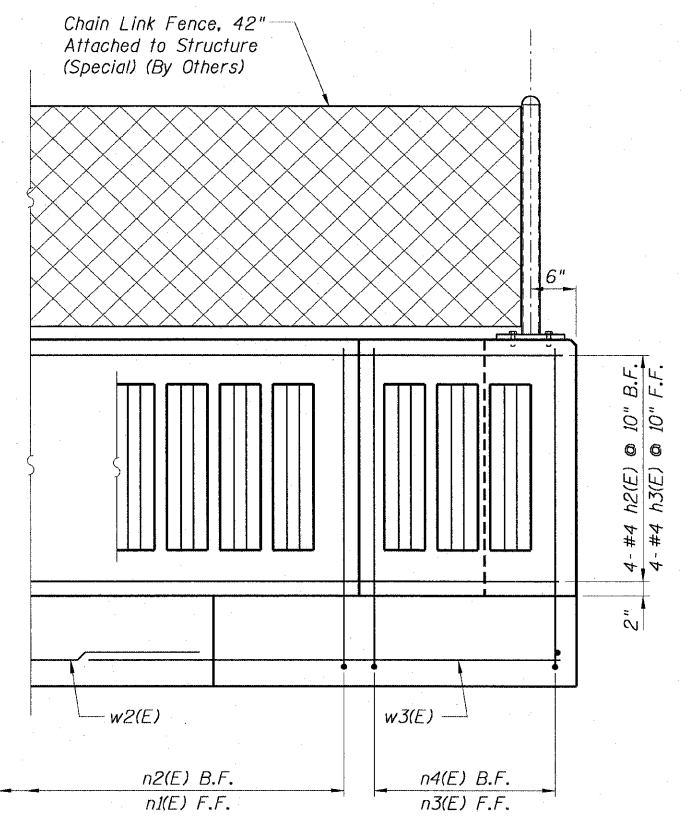
w1(E) Bar



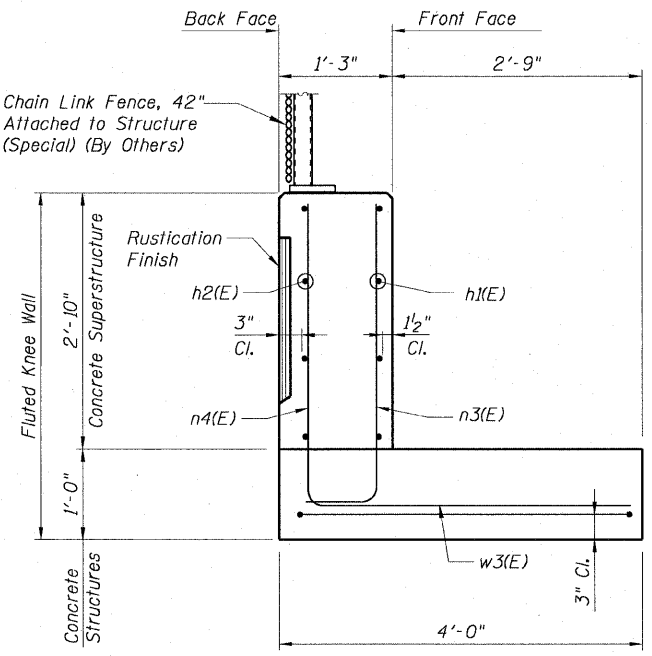
h2(E) and h3(E) Bars



n1(E), n2(E), n3(E) and n4(E) Bars



ELEVATION A-A



SECTION B-B

AECOM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)  
STRUCTURAL DETAIL 2  
69TH STREET DETAILS  
STA. 7109+21.98  
LAFAYETTE STREET

SCALE: None DRAWN BY: CHD  
DATE: JANUARY 14, 2009 CHECKED BY: MJP

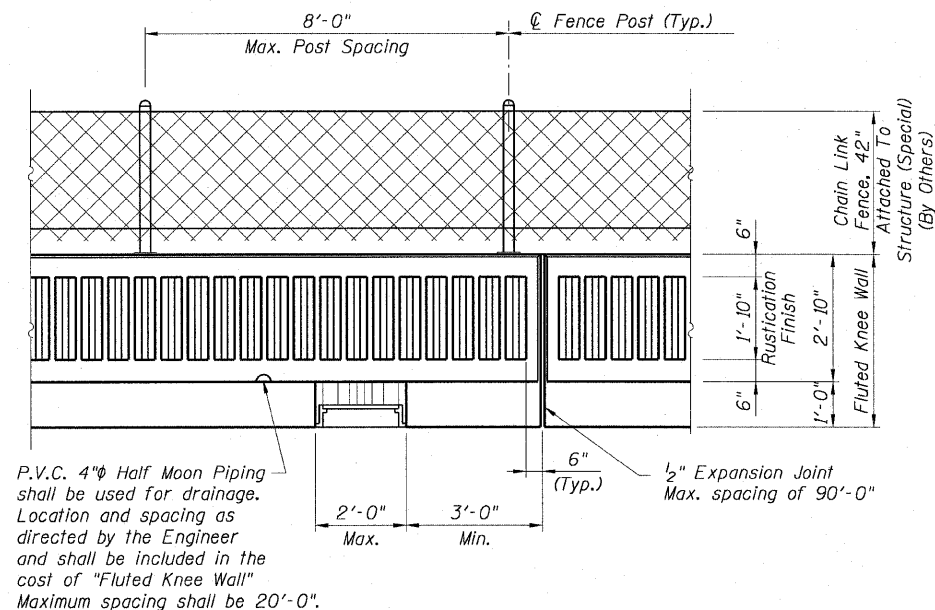
Sheet S3 of 4

V:\scg\p207\p40466\p40466-struct\28-knee-wall\_fence\sheet\contract 27\DWG27003.dwg 2/23/2009 2:23:31 PM

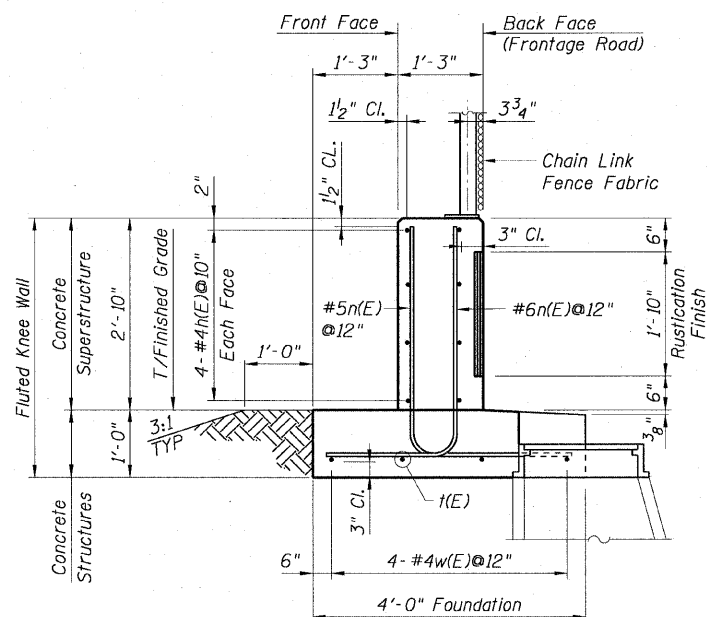
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	31	27
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
*1618, 1919, 1919.15			1-12	

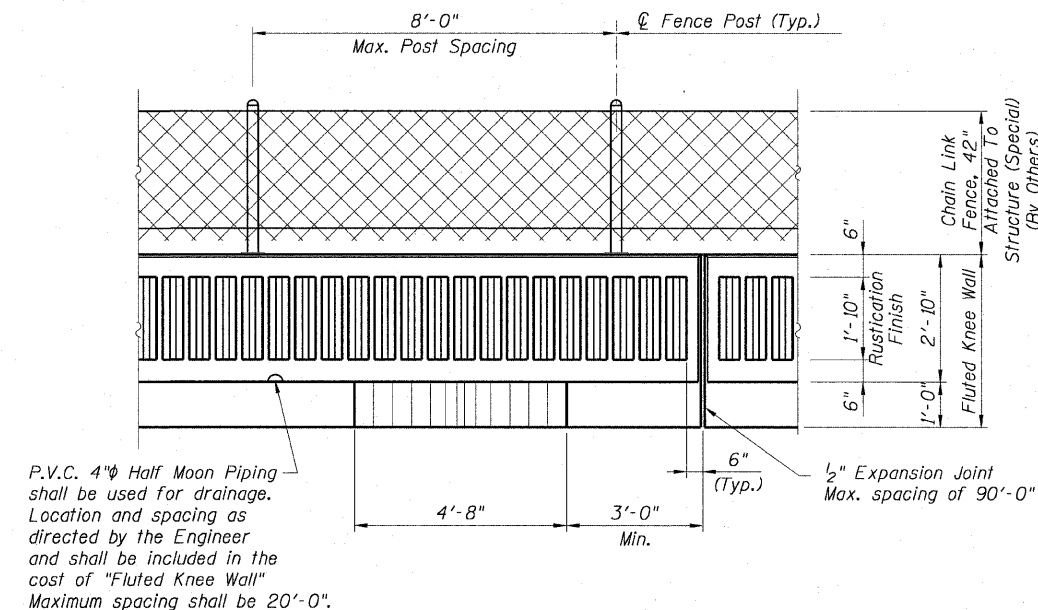
62984



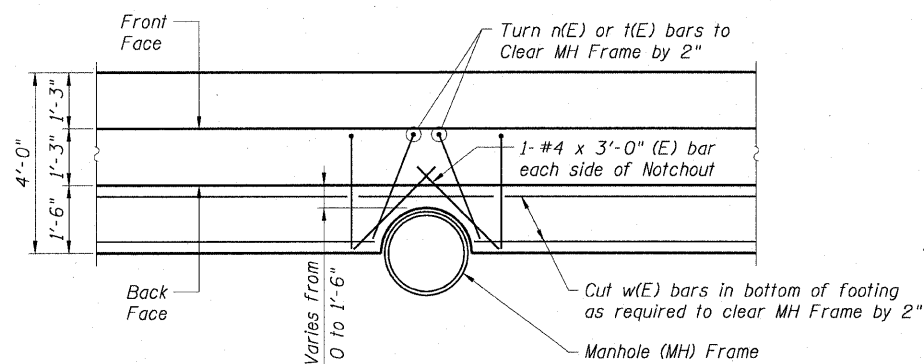
BACK FACE ELEVATION



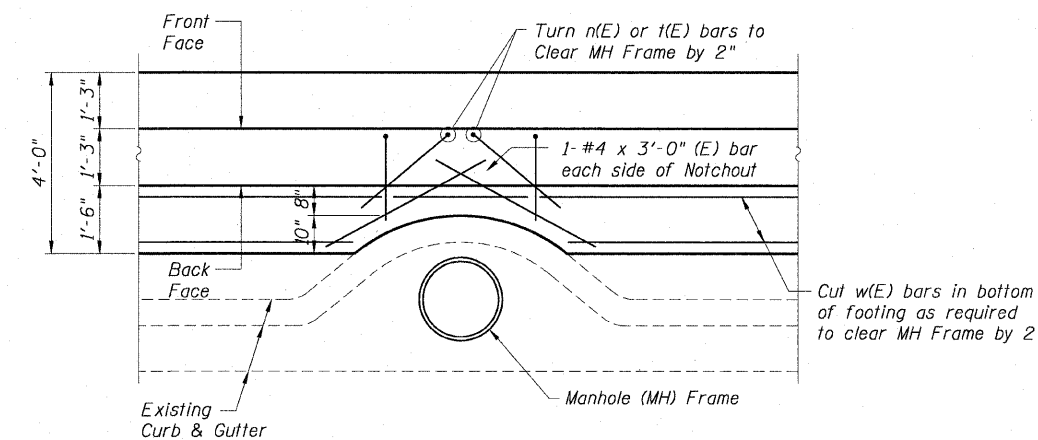
TYPICAL SECTION  
AT NOTCH OUT



BACK FACE ELEVATION



PARTIAL PLAN  
TYPICAL NOTCH OUT DETAILS AT MANHOLE FRAMES



PARTIAL PLAN  
TYPICAL DETAIL AT CURB & GUTTER OFFSET

NOTE:

The cost of furnishing and installing the additional #4 bars in the bottom of the footing at notch outs are included with the cost of "FLUTED KNEE WALL".

AECOM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)  
71ST ST TO 63RD ST (SOUTHBOUND KNEE WALLS)  
FLUTED KNEE NOTCH OUT DETAILS

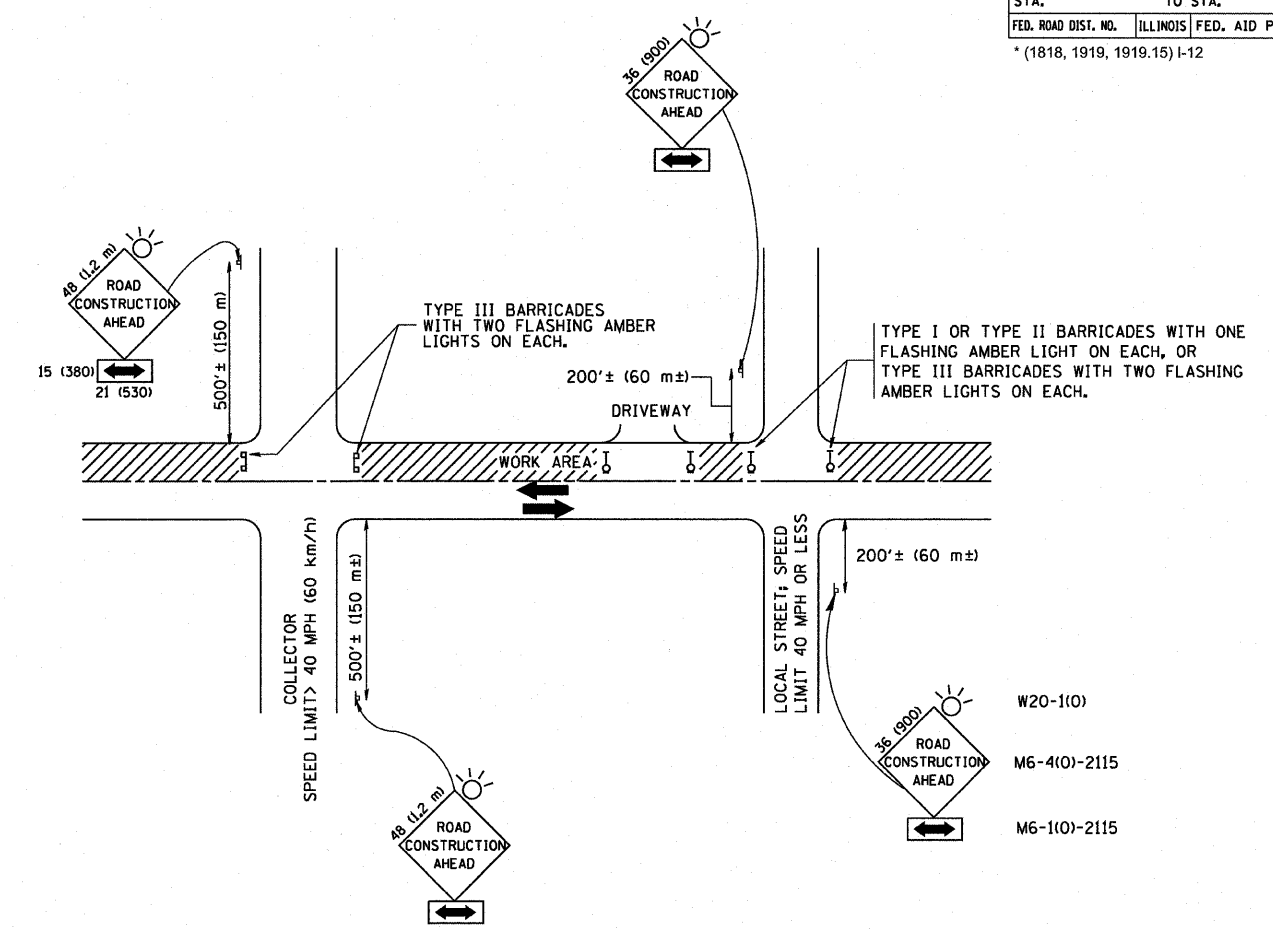
SCALE: None  
DATE: JANUARY 14, 2009  
DRAWN BY: CHD  
CHECKED BY: MJP

Sheet S4 of 4

1/13/2009 2:23:32 PM

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	31	28
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

\*(1818, 1919, 1919.15) I-12



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
  1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
    - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
  2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
    - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
  3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:
 

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in millimeters (inches) unless otherwise shown.

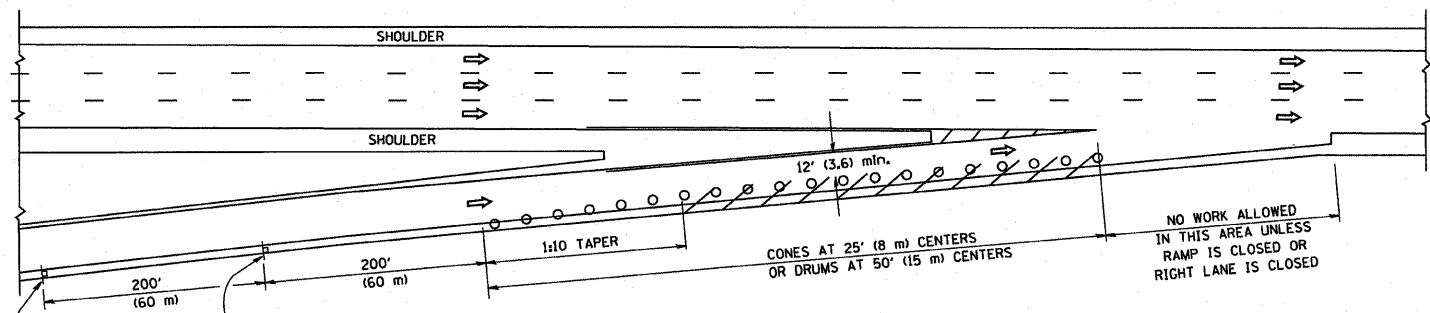
REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 TRAFFIC CONTROL AND PROTECTION  
 FOR  
 SIDE ROADS, INTERSECTIONS, AND  
 DRIVEWAYS

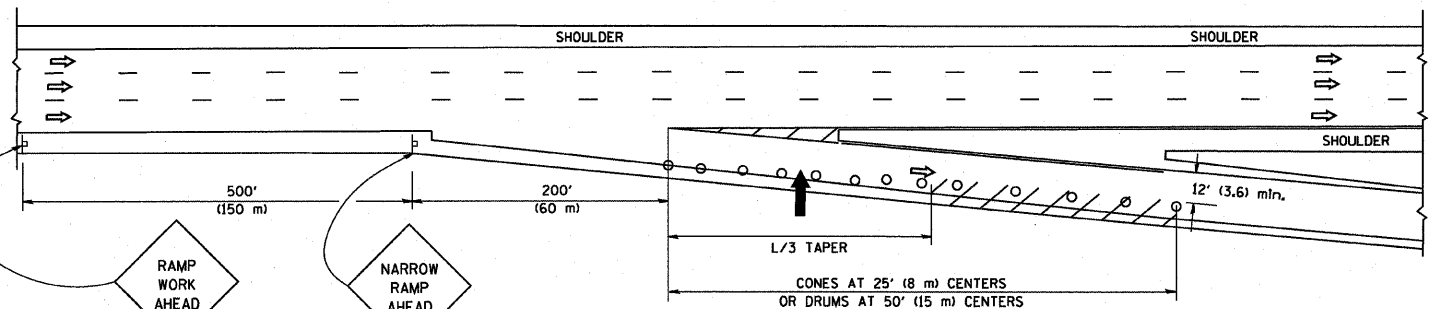
SCALE: NONE  
 DRAWN BY  
 CHECKED BY  
 TC-10

PLOT DATE = 3/6/2007  
 FILE NAME = K:\vdstest\td\l\l.dgn  
 PLOT SCALE = 80.0000 / IN.  
 USER NAME = tbauser1

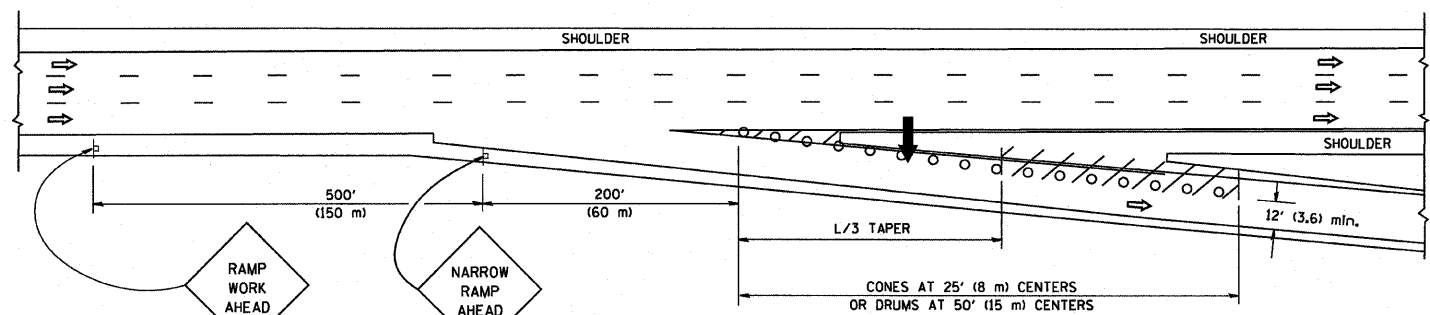
### PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

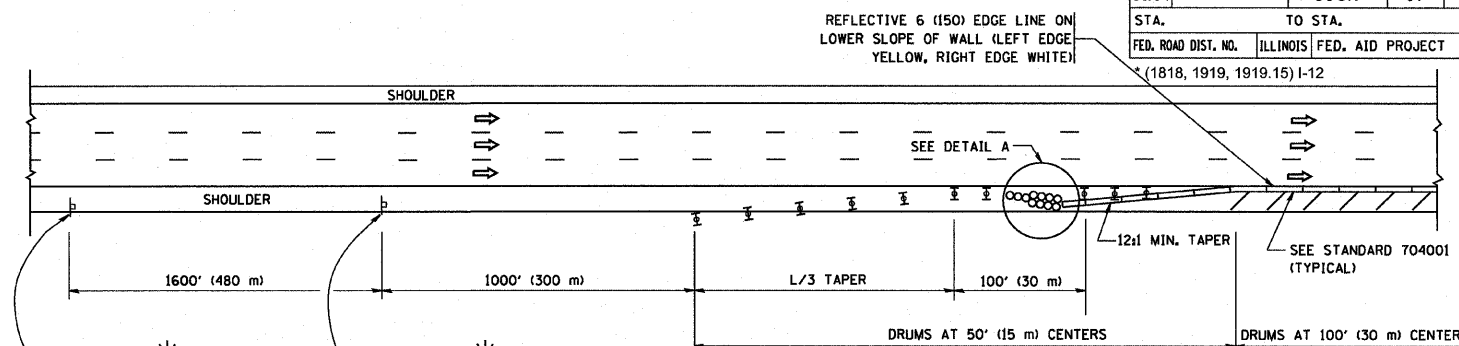
#### SYMBOLS

- ARROWBOARD
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

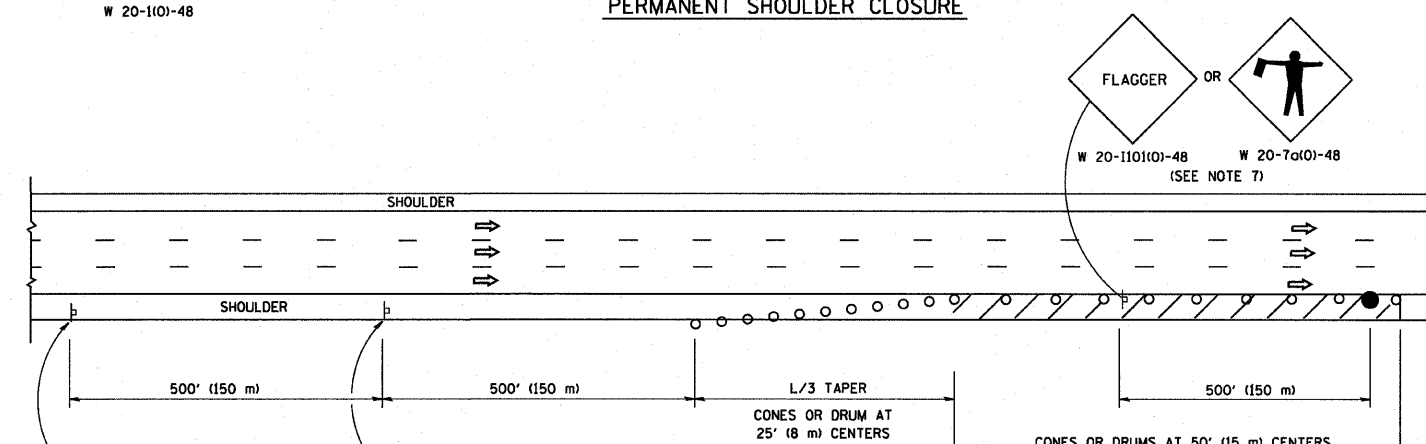
#### GENERAL NOTES

1. THE "L" DISTANCE EQUALS:  
 SPEED LIMIT FORMULAS  
 45 mph (80 km/h) METRIC ENGLISH  
 OR GREATER:  $L=0.65(W/S)$   $L=(W/MS)$   
 W = WIDTH OF OFFSET IN FEET (METERS)  
 S = NORMAL POSTED SPEED MPH (KM/H)
2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

### SHOULDER CLOSURE DETAILS



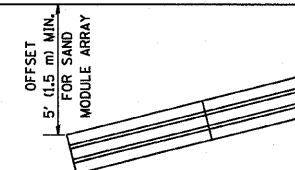
PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

THIS DETAIL IS USED WHERE:  
 1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.

ARRAY DESIGN PER MANUFACTURER TO BE NCHRP 350 COMPLIANT FOR POSTED SPEED.



DETAIL "A" IMPACT ATTENUATOR, TEMPORARY (SEE NOTE 5)

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
DWS	11/96
JAF	12/02
NCHRP 350	04/03
JAF	2/06
SPB	1/07

### ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES PARTIAL RAMP CLOSURES

SCALE: NONE

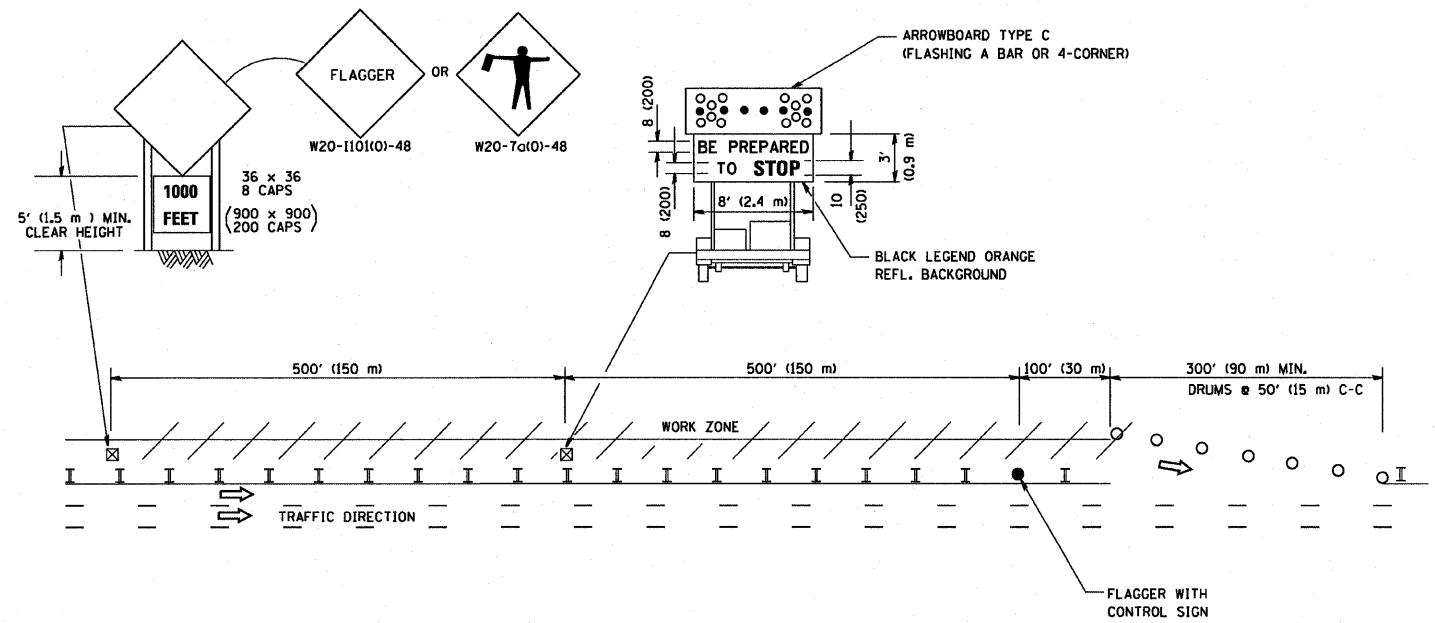
DESIGNED BY: DWS  
 DRAWN BY:  
 CHECKED BY:  
 TC-17

PLOT DATE = 3/7/2007  
 FILE NAME = K:\vtd\stc\17.dgn  
 PLOT SCALE = 80.0000 / IN.  
 USER NAME = bauerdl

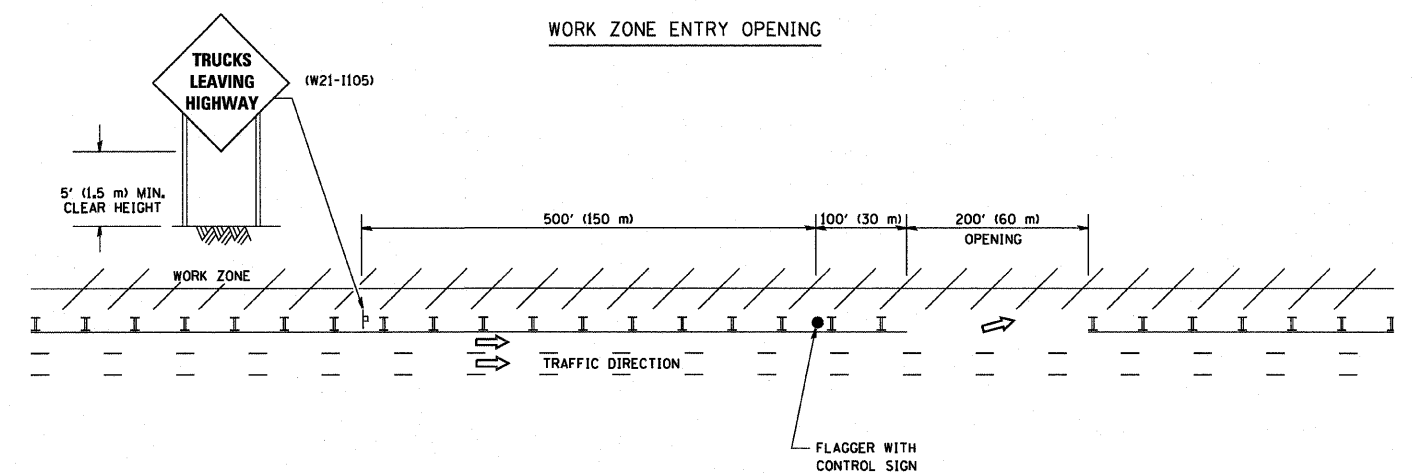
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	31	30
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
* (1818, 1919, 1919.15) I-12				

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. The Arrowboard, the Flagger Ahead trailer mounted sign, and the Trucks Leaving Highway sign shall be removed or turned away from traffic and the exit and entry openings shall be closed when the flagging operation ceases.
2. Work Zone Exit Openings should be a minimum of one half mile apart.
3. Exiting the work zone at any place other than at a Work Zone Exit Opening will be prohibited.
4. All vehicles shall enter the work zone at entry openings, using their turn signals to warn motorists

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

REVISIONS		
NAME	DATE	
DWS	8/98	
JAF	4/03	
JAF	2/06	
SPB	1/07	

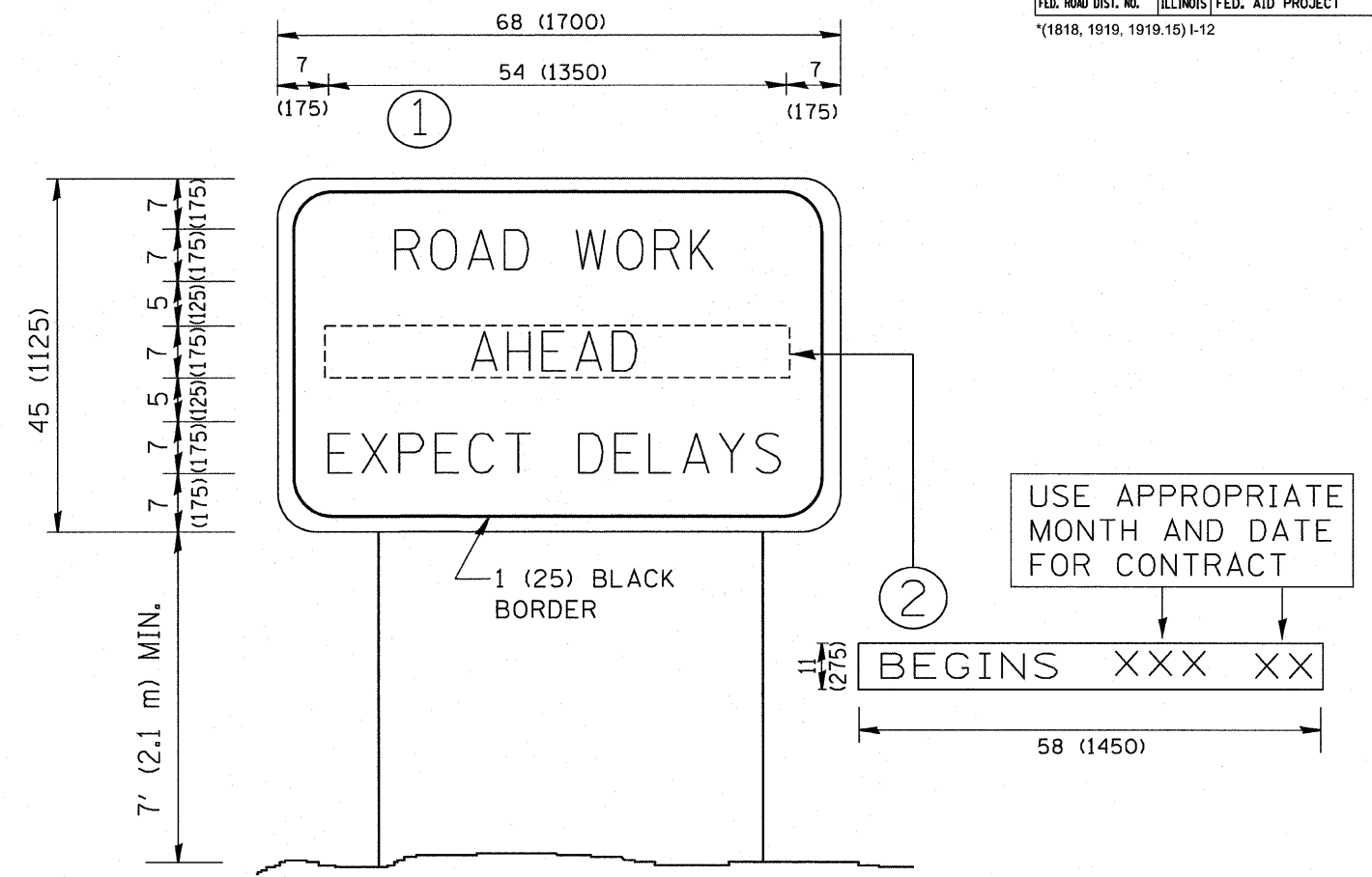
ILLINOIS DEPARTMENT OF TRANSPORTATION  
SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

SCALE: NONE

DRAWN BY CADD  
CHECKED BY  
TC-18

PLOT DATE = 3/7/2007  
FILE NAME = K:\data\atc\atc18.dgn  
PLOT SCALE = 1/8" = 1'-0"  
USER NAME = bauerdl

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	31	31
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
*(1818, 1919, 1919.15) I-12				



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
R. MIRS	9-15-97
R. MIRS	12-11-97
T. RAMMACHER	2-2-99
C. JUCIUS	1-31-07

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**ARTERIAL ROAD  
 INFORMATION SIGN**

SCALE: NONE

DRAWN BY DESIGN  
 CHECKED BY  
 TC22