

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	1

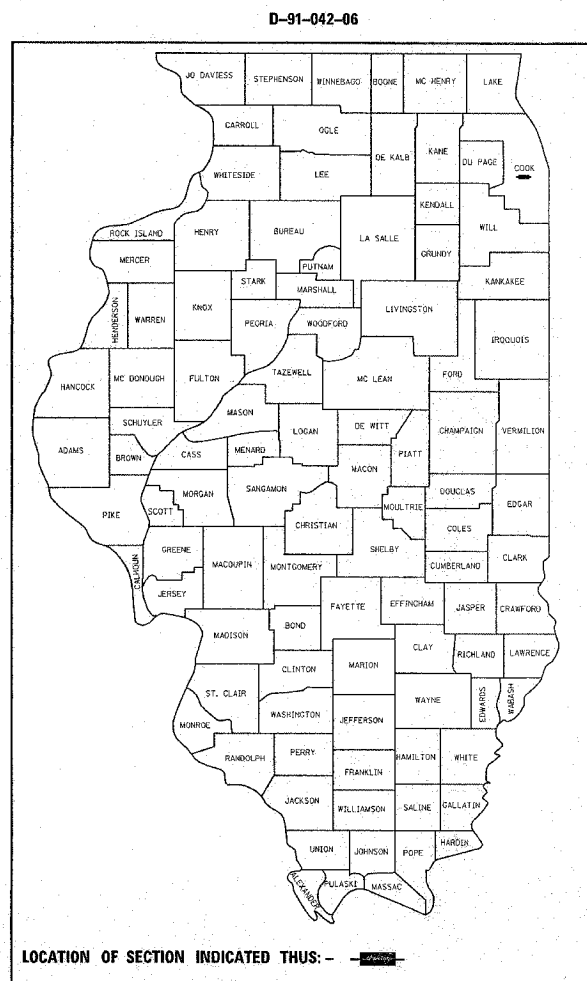
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

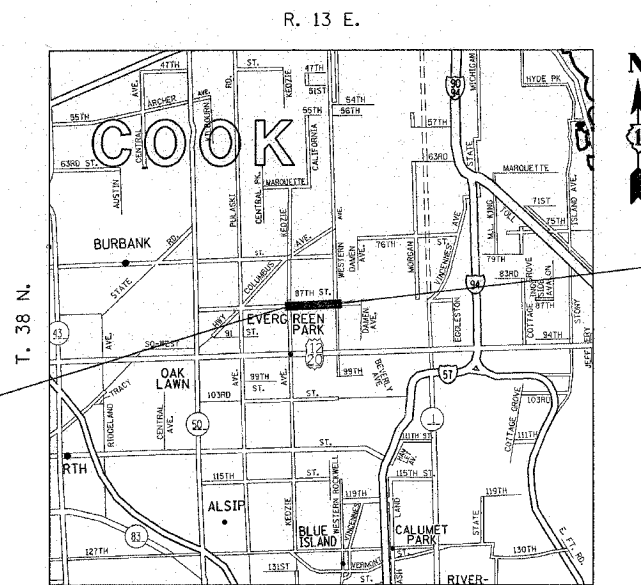
F.A.P. 395: 87TH STREET  
KEDZIE AVENUE TO WESTERN AVENUE  
SECTION: 0610 RS-1  
RESURFACING (MAINTENANCE)  
COOK COUNTY  
C-91-042-06

FOR INDEX OF SHEETS, SEE SHEET NO. 2

IMPROVEMENT LOCATED IN THE VILLAGE OF  
EVERGREEN PARK AND THE CITY OF CHICAGO



DISTRICT ONE - PLAN PREPARATION ENGINEER: KEN ENG / J.P. CHANG (847) 705-4432



IMPROVEMENT BEGINS  
STATION 110+75

OMISSION  
STA. 147+41 TO 147+80

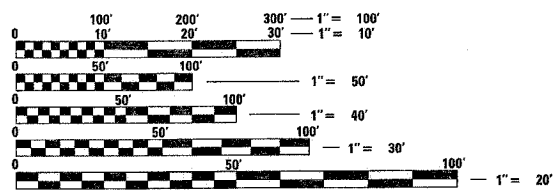
IMPROVEMENT ENDS  
STATION 166+19

TRAFFIC DATA  
2002 ADT = 29,100  
SPEED LIMIT = 40 MPH

SCALE: NONE

**LOCATION MAP**

NET LENGTH = 5,505 FEET = 1.04 MILES  
GROSS LENGTH = 5,544 FEET = 1.05 MILES



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

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

CONTRACT NO. 60A33

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED Dec. 15 2005

Diane M. O'Keefe/CD  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

February 3, 2006  
Mike Nune/CD  
ENGINEER OF DESIGN AND ENVIRONMENT

February 3, 2006  
Milton L. Sees P.E./CD  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	2
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES
3-4	SUMMARY OF QUANTITIES
5-8	TYPICAL SECTIONS
9-10	ROADWAY PLAN
11-12	DETECTOR LOOP REPLACEMENT PLANS
13	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING
14	PAVEMENT PATCHING FOR BITUMINOUS SURFACED PAVEMENT
15	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT
16	BUTT JOINT AND BITUMINOUS TAPER DETAILS
17	METHOD OF FLAGGING
18	CATCH BASIN, INLET AND MANHOLE DETAIL - CITY OF CHICAGO
19	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
20	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
21	DISTRIC ONE TYPICAL PAVEMENT MARKINGS
22	TRAFFIC CONTROL AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
23	PAVEMENT MARKINGS, LETTERS AND SYMBOLS FOR TRAFFIC STAGING
24	TEMPORARY INFOMATION SIGNING
25	DISTRICT 1 DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING
26	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS

STATE STANDARDS

STANDARD NO.	DESCRIPTION
000001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
442201-01	CLASS C AND D PATCHES
604001-02	FRAME AND LIDS, TYPE 1
606001-02	CONCRETE CURB AND CONBINATION CONCRETE CURB AND GUTTER
606301-02	PC CONCRETE ISLANDS AND MEDIANS
701301-02	LANE CLOSURE, 2L, 2W SHORT TIME OPERATIONS
701601-04	URBAN LANE CLOSURE, MULTILANE 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701606-04	URBAN LANE CLOSURE, MULTILANE 2W WITH MOUNTABLE MEDIAN
701701-04	URBAN LANE CLOSURE, MULTILANE INTERSECTION
702001-05	TRAFFIC CONTROL DEVICES
886001	DETECTOR LOOP INSTALLATION
886006	TYPICAL LAYOUT FOR DETECTOR LOOPS

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123 AND "C.U.A.N." AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED)

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, THE VILLAGE OF EVERGREEN PARK AND THE CITY OF CHICAGO.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

BUTT JOINT WILL BE INSTALLED AT THE ENDS OF RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT) IN ACCORDANCE WITH THE "BUTT JOINT AND BITUMINOUS TAPER DETAILS" SHEET INCLUDED IN THE PLANS UNLESS OTHERWISE SPECIFIED.

3 METER (10') TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURB & GUTTER AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITION SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

THE RESIDENT ENGINEER SHALL CONTACT MS. PATRICE HARRIS, AREA TRAFFIC FIELD ENGINEER AT (773)685-8386 A MINIMUM OF 72 HOURS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

THE RESIDENT ENGINEER SHALL VERIFY THE LOCATIONS OF ALL EXISTING PAVEMENT MARKINGS PRIOR TO START OF CONSTRUCTION.

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES WHERE THE SPEED LIMIT IS 45 MPH OR LESS, AND 1 INCH WHERE THE SPEED IS 45 MPH. A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED, WITH WRITTEN APPROVAL FROM THE RESIDENT ENGINEER, IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM OF 1:3 (V:H).

THE UNIT WEIGHT (CONVERSION FACTOR) QUOTED IS FOR THE ESTIMATED PLAN QUANTITIES ONLY. ACTUAL QUANTITIES TO FUFILL CONTRACT REQUIREMENTS WILL BE DETERMINED BASED ON UNIT WEIGHT OF THE APPROVED MIX DESIGN, PLAN DIMENSIONS AND DENSITY LIMITATIONS. MAXIMUM PAYMENT WILL BE COMPUTED BASED ON WEIGHT AVERAGE DENSITIES OF THE IN-PLACE MIXTURES.

CHICAGO NOTES

ALL CATCH BASINS IN THE CITY OF CHICAGO MUST MEET THE DEPARTMENT OF SEWERS STANDARDS.

IN CASE OF DAMAGE TO CITY OF CHICAGO SEWERS, PRIVATE AND PUBLIC DRAINS, SEWERS STRUCTURES AND / OR BENCH MONUMENTS, THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE DEPARTMENT OF SEWERS AT 312-747-7892 OR 312-747-7893.

CLOSED LIDS SHALL BE PLACED ON ALL MANHOLES EXCEPT AT INTERSECTIONS PERFORATED LIDS SHALL BE PLACED ON ALL CATCH BASINS.

BENCH MONUMENT LOCATIONS WITHIN THE LIMITS OF THE IMPROVEMENT CAN BE OBTAINED FROM THE DEPARTMENT OF SEWERS AT SUITE 410, 333 SOUTH STATE STREET, CHICAGO, IL, 60604-3971. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF REPLACING ANY BENCH MONUMENT DAMAGED OR DESTROYED DURING CONSTRUCTION.

ALL BROKEN, CRACKED, WORN OR OTHERWISE DAMAGED OR BICYCLE UNSAFE FRAMES AND GRATES OR LIDS ON SEWER STRUCTURES SHALL BE REPLACED WITH NEW DEPARTMENT OF SEWERS' STANDARD FRAMES AND GRATES OR LIDS. OLD FRAMES AND GRATES OR LIDS SHALL BE DELIVERED TO THE DEPARTMENT OF SEWERS AT 39TH STREET AND ASHLAND AVENUE.

CITY OF CHICAGO WATER VALVE VAULTS AND SEWER STRUCTURES SHALL NOT BE CLOSED, COVERED OR OTHERWISE OBSTRUCTED DURING CONSTRUCTION WITHOUT WRITTEN PERMISSION FROM THE CITY OF CHICAGO DEPARTMENT OF WATER AND/OR DEPARTMENT OF SEWERS.

CURB AND GUTTER CONSTRUCTION SHALL PROVIDE A MINIMUM CURB HEIGHT OF 75 MM (3").

PAVEMENT REPLACEMENT AROUND FRAMES AND GRATES OR LIDS WHERE DRAINAGE, WATER MAIN OR ELECTRICAL STRUCTURES ARE ADJUSTED OR RECONSTRUCTED SHALL BE WITH CLASS SI CONCRETE.

ALL PAVEMENT PATCHING SHALL BE CLASS C. NO PP-II WILL BE ACCEPTED.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES
SCALE:	VERT. DATE	HORIZ. DRAWN BY CHECKED BY

SUMMARY OF QUANTITIES			URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT		87TH STREET					
				1000-2A 100% STATE	Y025 50% STATE 50% CITY				
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	20	18	2				
40600300	AGGREGATE (PRIME COAT)	TON	97	88	9				
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	17	17					
40600895	CONSTRUCTING TEST STRIP	EACH	1	1					
40600980	BITUMINOUS SURFACE REMOVAL - BUTT JOINT	SQ YD	340	340					
40601000	BITUMINOUS REPLACEMENT OVER PATCHES	TON	291	291					
42001300	PROTECTIVE COAT	SQ YD	25	25					
42300300	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 7 INCH	SQ YD	12	12					
44000008	BITUMINOUS SURFACE REMOVAL 2 1/2"	SQ YD	48150	44000	4150				
44000120	BITUMINOUS REMOVAL OVER PATCHES 5"	SQ YD	1041	1041					
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	12	12					
44000300	CURB REMOVAL	FOOT	110	110					
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	100	100					
44002020	CONCRETE MEDIAN SURFACE REMOVAL	SQ FT	270	270					
44201353	CLASS C PATCHES, TYPE II, 10 INCH	SQ YD	230	230					
44201357	CLASS C PATCHES, TYPE III, 10 INCH	SQ YD	32	32					
44201359	CLASS C PATCHES, TYPE IV, 10 INCH	SQ YD	127	127					
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SQ YD	215	215					
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SQ YD	34	34					
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SQ YD	168	168					
55039700	STORM SEWERS TO BE CLEANED	FOOT	2000	2000					
60250200	CATCH BASINS TO BE ADJUSTED	EACH	5	5					
60252800	CATCH BASINS TO BE RECONSTRUCTED	EACH	2	2					
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	7	7					
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	75	30	45				
60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	20	20					
60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	20	20					
60406520	FRAMES AND LIDS, OPEN LID (CITY OF CHICAGO)	EACH	2	2					
60406530	FRAMES AND LIDS, CLOSED LID (CITY OF CHICAGO)	EACH	2	2					

SUMMARY OF QUANTITIES			URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT		87TH STREET					
				1000-2A 100% STATE	Y025 50% STATE 50% CITY				
60600605	CONCRETE CURB, TYPE B	FOOT	110	110					
60618300	CONCRETE MEDIAN SURFACE, 4 INCH	SQ FT	270	270					
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3					
67100100	MOBILIZATION	L SUM	1	1					
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1					
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1					
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1					
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	5000	5000					
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	594	594					
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	13300	13300					
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	1800	1800					
70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	155	155					
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	50	50					
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	450	450					
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	6760	6760					
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	594	594					
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	13300	13300					
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1800	1800					
* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	155	155					
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	50	50					
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	450	450					
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	275	275					
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	165	165					
* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	808	808					

\* SPECIALTY ITEM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
SUMMARY OF QUANTITIES

12/14/2005 10:00 AM

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE						
CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	87TH STREET					
				1000-2A 100% STATE	Y026 50% STATE 50% CITY				
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	51.4	51.4					
X4066548	POLYMERIZED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "F", N90	TON	4775	4360	415				
X4067100	POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, IL-4.75, N50	TON	2025	1850	175				
XX001306	SIDEWALK REMOVAL AND REPLACEMENT	SQ FT	70	70					
Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	50	50					
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1					

SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	TOTAL QUANTITIES						

\* SPECIALTY ITEM

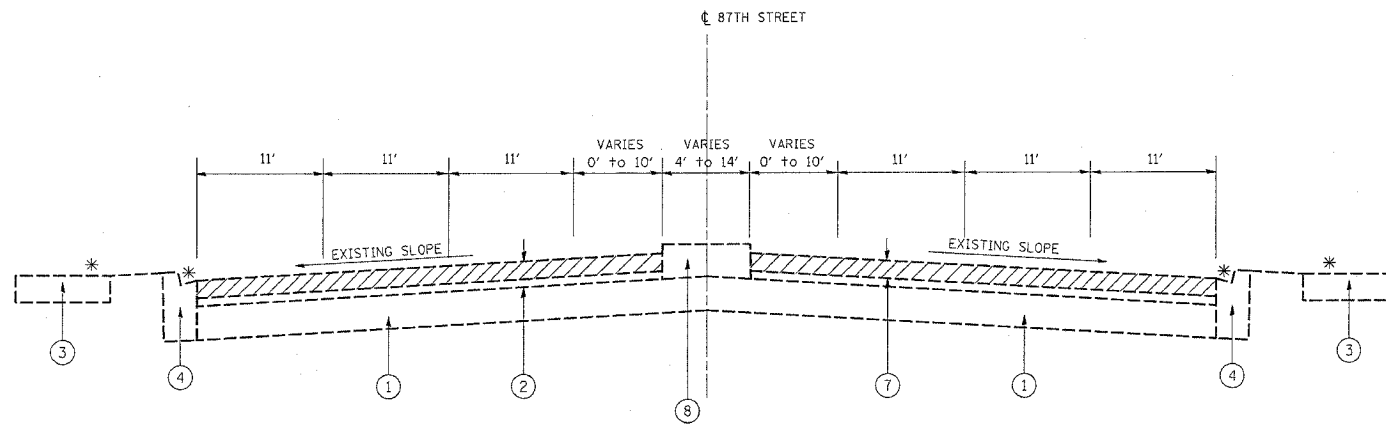
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
SUMMARY OF QUANTITIES

PLOT DATE: 12/14/2005

12/14/2005 10:00 AM

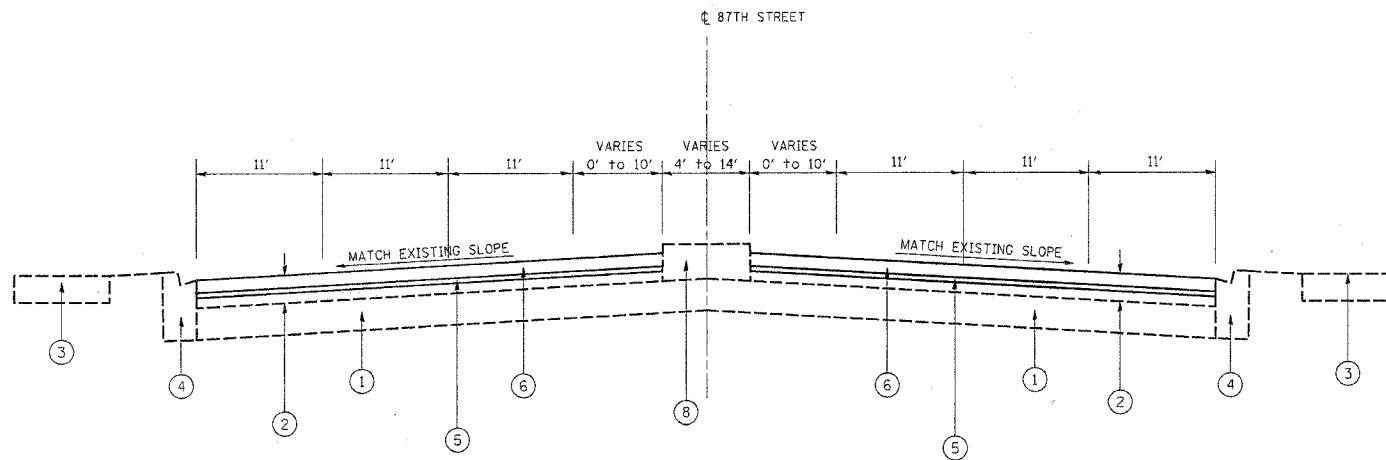
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	5
STA. 110+75		TO STA. 147+41		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



EXISTING TYPICAL SECTION  
87TH STREET  
STATION  
110+75 TO 147+41

LEGEND

- ① EXISTING PCC BASE COURSE, 10''(±)
- ② EXISTING BIT. CONCRETE SURFACE COURSE, 5''(±)
- ③ EXISTING PCC SIDEWALK, 5''
- ④ EXISTING COMBINATION CONC. CURB & GUTTER, TYPE B-6.12
- ⑤ PROPOSED POLYMERIZED LEVELING BINDER (MM), SUPERPAVE, IL-4.75, N50, 3/4 ''
- ⑥ PROPOSED POLYMERIZED BIT. CONC. SURFACE COURSE, SUPERPAVE, MIX "F", N90, 1 3/4 ''
- ⑦ BITUMINOUS SURFACE REMOVAL - 2 1/2 ''
- ⑧ EXISTING CORRUGATED BIT. MEDIAN



PROPOSED TYPICAL SECTION  
87TH STREET  
STATION  
110+75 TO 147+41

BITUMINOUS MIXTURE REQUIREMENTS

MIXTURE USE	AC TYPE	MAX RAP. (%)	AIR VOIDS (%)
POLYMERIZED LEVELING BINDER (MM), SUPERPAVE, IL-4.75, N50	SBS/SBR 76-28	0%	2.5% @ 50 GYR
POLYMERIZED BIT. CONC. SURFACE COURSE, SUPERPAVE, MIX "F" N90	SBS/SBR 70-22	0%	4% @ 90 GYR
BIT. REPLACEMENT OVER PATCHES, IL-19.0 MM	PG 64-22	15%	4% @ 70 GYR
CLASS D PATCHES, IL-19.0, 10''	PG 64-22	15%	4% @ 70 GYR

THE UNIT WEIGHT USED TO CALCULATE ALL BITUMINOUS SURFACE MIXTURES IS 112 LBS/SQ YD/IN

NOTE:

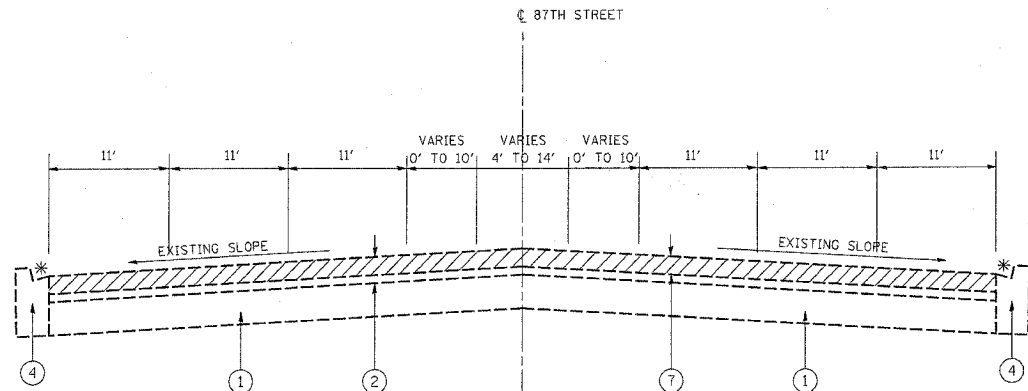
- \* SIDEWALK REMOVAL AND REPLACEMENT LOCATIONS AND CURB AND GUTTER REMOVAL AND REPLACEMENT LOCATIONS TO BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		TYPICAL SECTIONS
SCALE:	VERT. HORIZ.	DRAWN BY
DATE		CHECKED BY

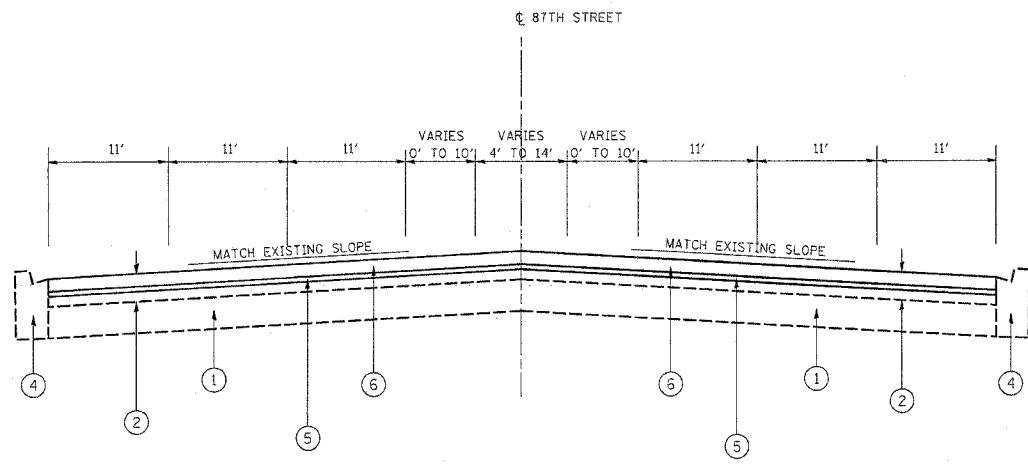
PLOT DATE = 12/14/2005  
 FILE NAME = c:\p\0\p05\110+75 TO 147+41.dwg  
 PLOT SCALE = 5/8"=1'-0"  
 USER NAME = mm141



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	7
STA. 162+77		TO STA. 166+19		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	



EXISTING TYPICAL SECTION  
87TH STREET  
STATION  
162+77 TO 166+19



PROPOSED TYPICAL SECTION  
87TH STREET  
STATION  
162+77 TO 166+19

LEGEND

- ① EXISTING PCC BASE COURSE, 10"(±)
- ② EXISTING BIT. CONCRETE SURFACE COURSE, 5"(±)
- ③ EXISTING PCC SIDEWALK, 5"
- ④ EXISTING COMBINATION CONC. CURB & GUTTER, TYPE B-6.12
- ⑤ PROPOSED POLYMERIZED LEVELING BINDER (MM), SUPERPAVE, IL-4.75, N50, 3/4 "
- ⑥ PROPOSED BIT. CONC. SURFACE COURSE, SUPERPAVE, MIX "F", N90, 1 3/4 "
- ⑦ BITUMINOUS SURFACE REMOVAL - 2 1/2 "

NOTES:

- ① 14' PAINTED MEDIAN FROM STA. 129+48 TO STA. 132+30
- ② 5' PAINTED MEDIAN FROM STA. 163+88 TO STA. 165+64
- \* SIDEWALK REMOVAL AND REPLACEMENT LOCATIONS AND CURB AND GUTTER REMOVAL AND REPLACEMENT LOCATIONS TO BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

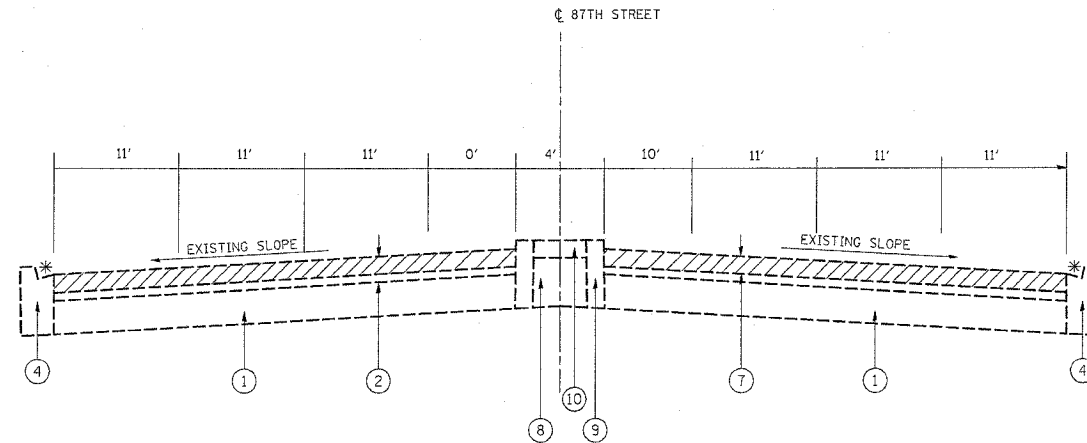
TYPICAL SECTIONS

SCALE: VERT.  
HORIZ.  
DATE

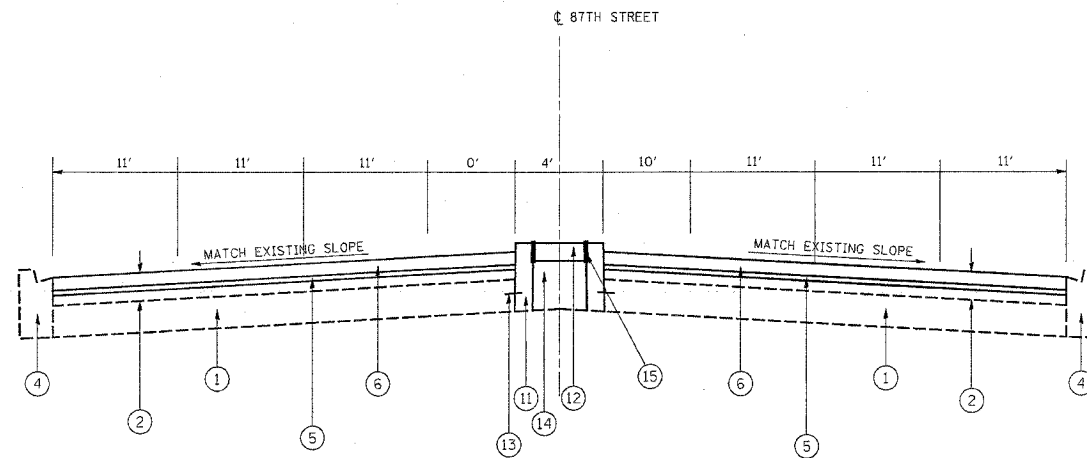
DRAWN BY  
CHECKED BY

PLOT DATE = 12/14/2005  
 PLOT SCALE = 1/8" = 1'-0"  
 USER NAME = smthkl

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	8
STA. 159+81		TO STA. 160+34		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



EXISTING TYPICAL SECTION  
87TH STREET  
STATION  
159+81 TO 160+34



PROPOSED TYPICAL SECTION  
87TH STREET  
STATION  
159+81 TO 160+35

LEGEND

- ① EXISTING PCC BASE COURSE, 10''(±)
  - ② EXISTING BIT. CONCRETE SURFACE COURSE, 5''(±)
  - ③ EXISTING PCC SIDEWALK, 5''
  - ④ EXISTING COMBINATION CONC. CURB & GUTTER, TYPE B-6.12
  - ⑤ PROPOSED POLYMERIZED LEVELING BINDER (MM), SUPERPAVE, IL-4.75, N50, 3/4 ''
  - ⑥ PROPOSED POLYMERIZED BIT. CONC. SURFACE COURSE, SUPERPAVE, MIX "F", N90, 1 3/4 ''
  - ⑦ BITUMINOUS SURFACE REMOVAL - 2 1/2 ''
  - ⑧ EXISTING CRUSHED STONE
  - ⑨ EXISTING PC CONCRETE CURB
  - ⑩ EXISTING CONCRETE MEDIAN SURFACE, 2 1/2''
  - ⑪ PROPOSED CONCRETE CURB, TYPE B
  - ⑫ PROPOSED CONCRETE MEDIAN SURFACE, 4''
  - ⑬ PROP. DRILL AND GROUT #4 TIE BAR, 90° SHAPE (24'' C-C), COST INCLUDED IN CONCRETE CURB, TYPE B PAY ITEM
  - ⑭ PROP. COARSE AGGREGATE - FILL TO SUBGRADE (TYP.) COST INCLUDED IN CONC. MEDIAN SURFACE, 4 INCH PAY ITEM
  - ⑮ PROP. 5/8'' PREFORMED EXPANSION JOINT FILLER - COST INCLUDED IN CONCRETE CURB, TYPE B PAY ITEM
- R - DESIGNATED FOR REMOVAL

NOTE:

\* SIDEWALK REMOVAL AND REPLACEMENT LOCATIONS AND CURB AND GUTTER REMOVAL AND REPLACEMENT LOCATIONS TO BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

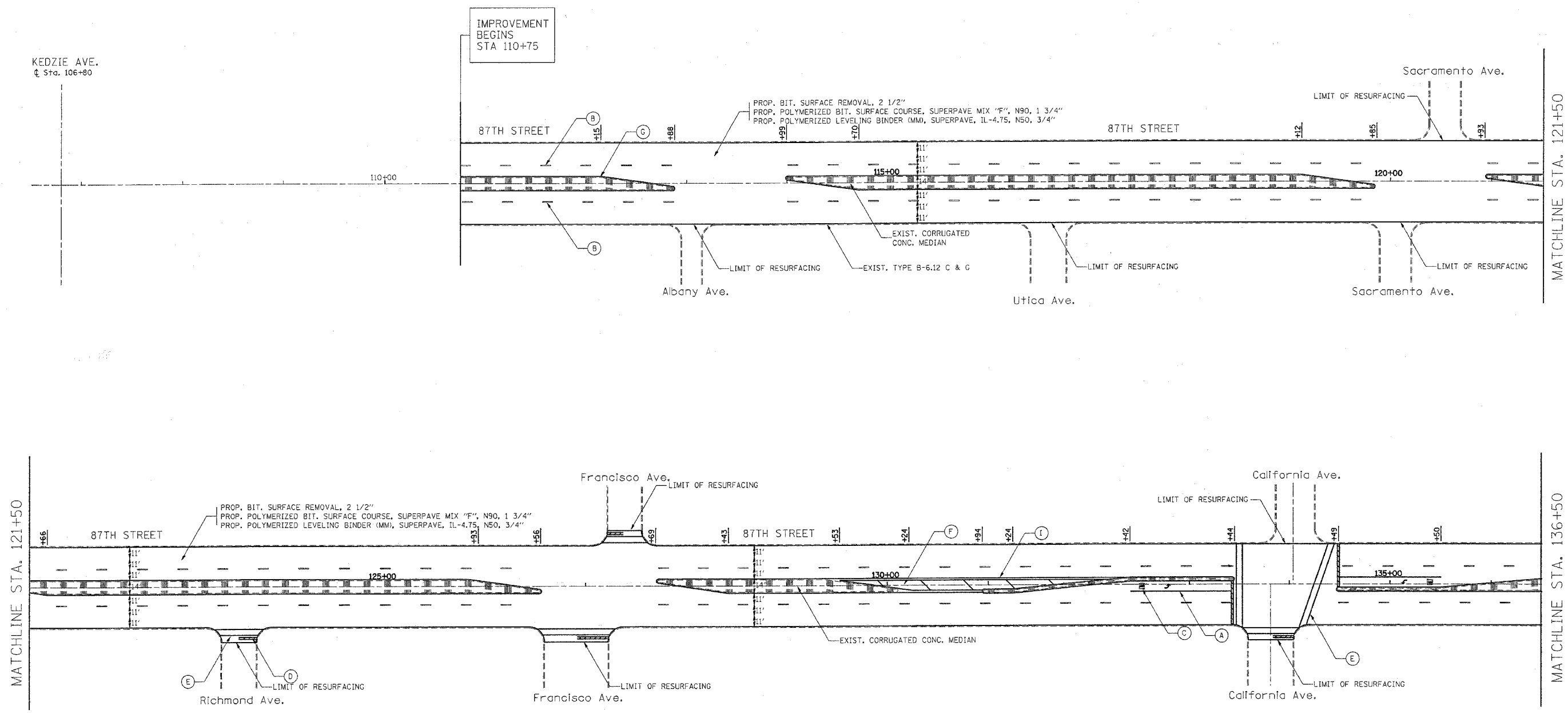
TYPICAL SECTIONS

SCALE: VERT.  
HORIZ.  
DATE

DRAWN BY  
CHECKED BY



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	9
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		



- |  |   |
|--|---|
| (A) 6" WHITE - TURN LANE LINE (TYP.)   | (H) 24" TRANSVERSE LINE - RAILROAD CROSSING (TYP.)<br>6" LETTERS FOR "RR"; 16" LINE FOR "X" |
| (B) 4" WHITE - SKIP-DASH CENTERLINE (TYP.)<br>(10' LINE/30' SPACE)           | (I) 4" YELLOW - DOUBLE YELLOW PAINTED MEDIAN (TYP.)<br>(2 @ 11" C-C)                        |
| (C) 8" WHITE - LETTERS & SYMBOLS (TYP.)<br>(LEFT TURN ONLY, RIGHT TURN ONLY) | (J) 6" WHITE - DOTTED LINE (TYP.)<br>(2' LINE/6' SPACE)                                     |
| (D) 24" SOLID WHITE - STOP & TRANSVERSE LINES (TYP.)                         | (K) 8" WHITE - SOLID LINE   |
| (E) 6" WHITE - CROSSWALK LINE (TYP.)<br>(2 @ 6' C-C)                         | (L) 12" WHITE - CHEVRON LINE  |
| (F) 12" YELLOW - 45° DIAGONAL<br>(75' C-C OR MINIMUM OF 5')                  | (M) 6" WHITE - DOTTED LINE (TYP.)<br>(3' LINE/12' SPACE)                                    |
| (G) 4" YELLOW - MEDIAN EDGE LINE (TYP.)                                      | (N) 4" YELLOW - TRANSVERSE MARKING  |

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**87TH STREET  
PLAN DETAILS**

SCALE: 1" = 50'

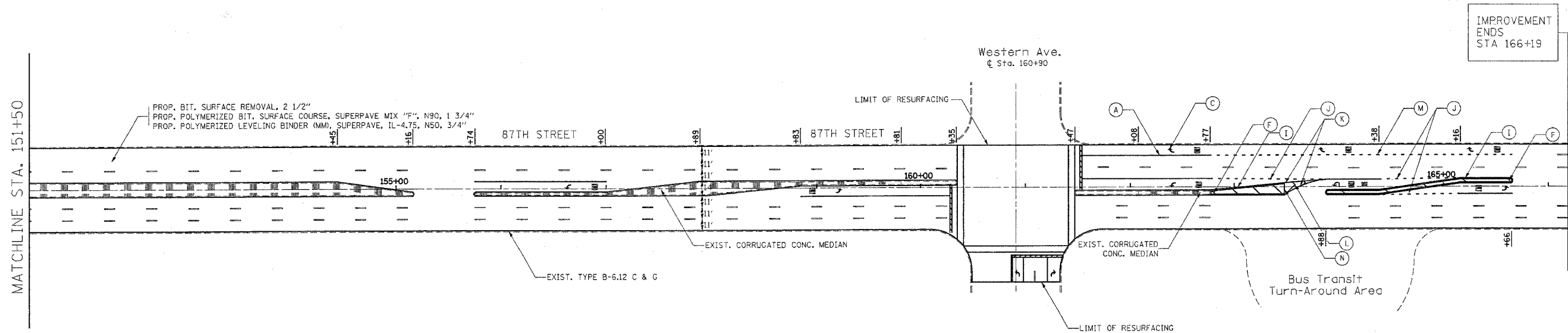
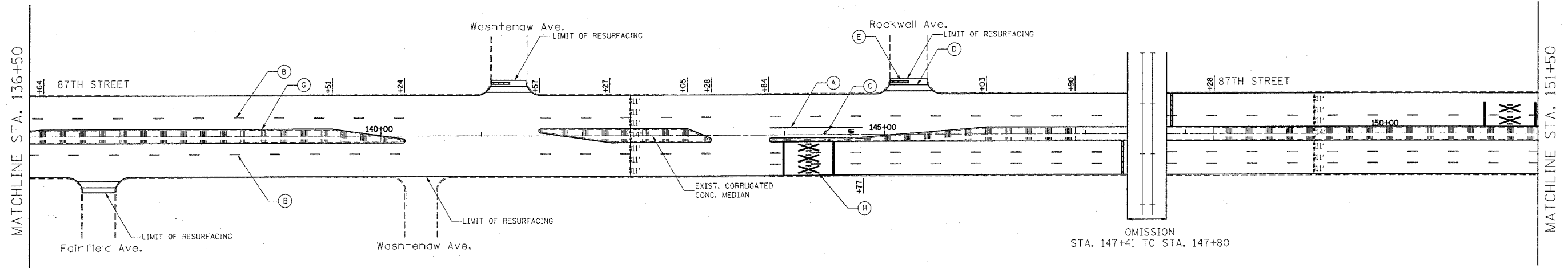
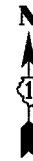
DATE \_\_\_\_\_

DRAWN BY \_\_\_\_\_

CHECKED BY \_\_\_\_\_

PLOT DATE = 12/14/2005  
 FILE NAME = c:\p\projects\104226\104226.dwg  
 PLOT SCALE = 50.0000 / IN.  
 USER NAME = smh1k1

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	10
STA. _____ TO STA. _____		FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT		



- (A) 6" WHITE - TURN LANE LINE (TYP.)
- (B) 4" WHITE - SKIP-DASH CENTERLINE (TYP.) (10' LINE/30" SPACE)
- (C) 8" WHITE - LETTERS & SYMBOLS (TYP.) (LEFT TURN ONLY, RIGHT TURN ONLY)
- (D) 24" SOLID WHITE - STOP & TRANSVERSE LINES (TYP.)
- (E) 6" WHITE - CROSSWALK LINE (TYP.) (2 @ 6' C-C)
- (F) 12" YELLOW - 45° DIAGONAL (75' C-C OR MINIMUM OF 5)
- (G) 4" YELLOW - MEDIAN EDGE LINE (TYP.)
- (H) 24" TRANSVERSE LINE - RAILROAD CROSSING (TYP.) 6' LETTERS FOR "RR"; 16" LINE FOR "X"
- (I) 4" YELLOW - DOUBLE YELLOW PAINTED MEDIAN (TYP.) (2 @ 11" C-C)
- (J) 6" WHITE - DOTTED LINE (TYP.) (2' LINE/6' SPACE)
- (K) 8" WHITE - SOLID LINE
- (L) 12" WHITE - CHEVRON LINE
- (M) 6" WHITE - DOTTED LINE (TYP.) (3' LINE/12' SPACE)
- (N) 4" YELLOW - TRANSVERSE MARKING

REVISIONS	
NAME	DATE

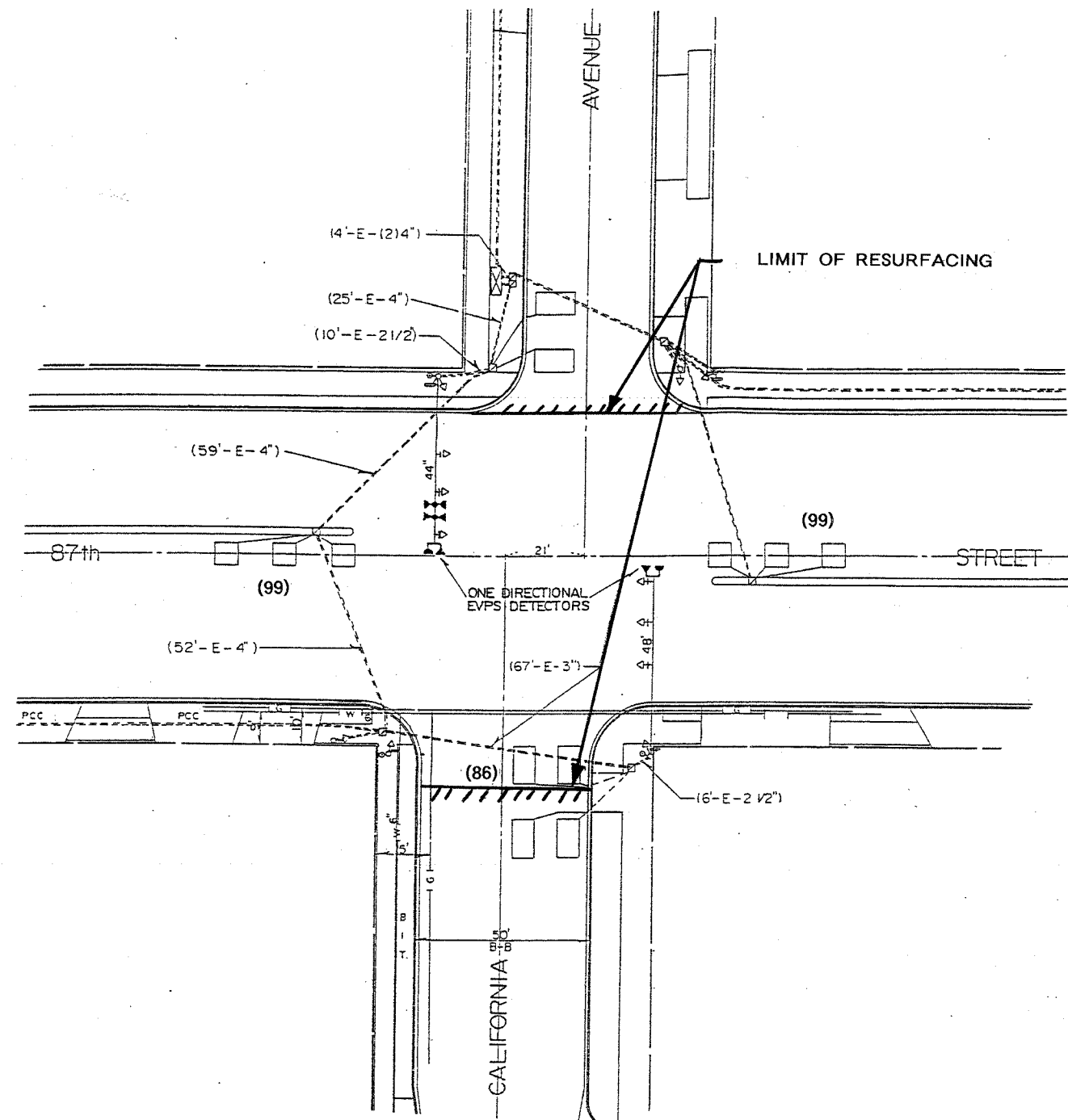
ILLINOIS DEPARTMENT OF TRANSPORTATION

87TH STREET  
PLAN DETAILS

SCALE: 1" = 50'  
DATE

DRAWN BY  
CHECKED BY

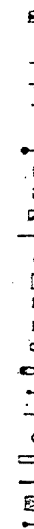
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0601 RS-1	COOK	26	11
STA. TO STA.			
FED. ROAD DIST NO. 7 ILLINOIS		FED. AID PROJECT	



TRAFFIC SIGNAL LEGEND

- CONTROL
- SERVICE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- MAST ARM ASSEMBLY AND POLE, STEEL
- HANDHOLE
- HEAVY DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP
- CONCRETE JUNCTION BOX
- CAST IRON JUNCTION BOX
- COMMON TRENCH
- MAST ARM ASSEMBLY AND POLE, ALUMINUM
- EMERGENCY VEHICLE SYSTEM DETECTOR
- SIGNAL HEAD OPTICALLY PROGRAMMED
- WOOD POLE
- RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II
- VEHICLE DETECTOR, NON-COMPENSATED MAGNETIC TYPE
- RAILROAD CONTROL CABINET
- CONFIRMATION BEACON

PROPOSED



NOTE:

THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.

**REPLACE ALL DETECTOR LOOPS AS SHOWN**

(WITHIN THE RESURFACING LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
86600600	508	Foot	Detector Loop Replacement

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

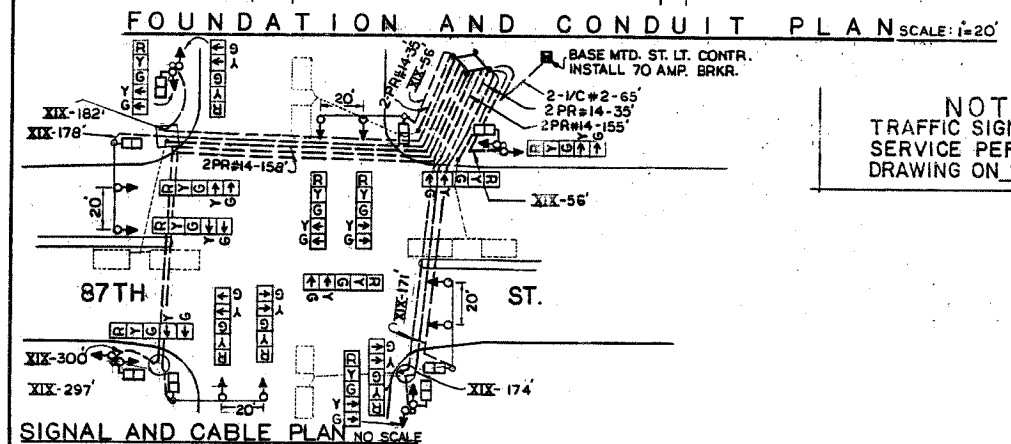
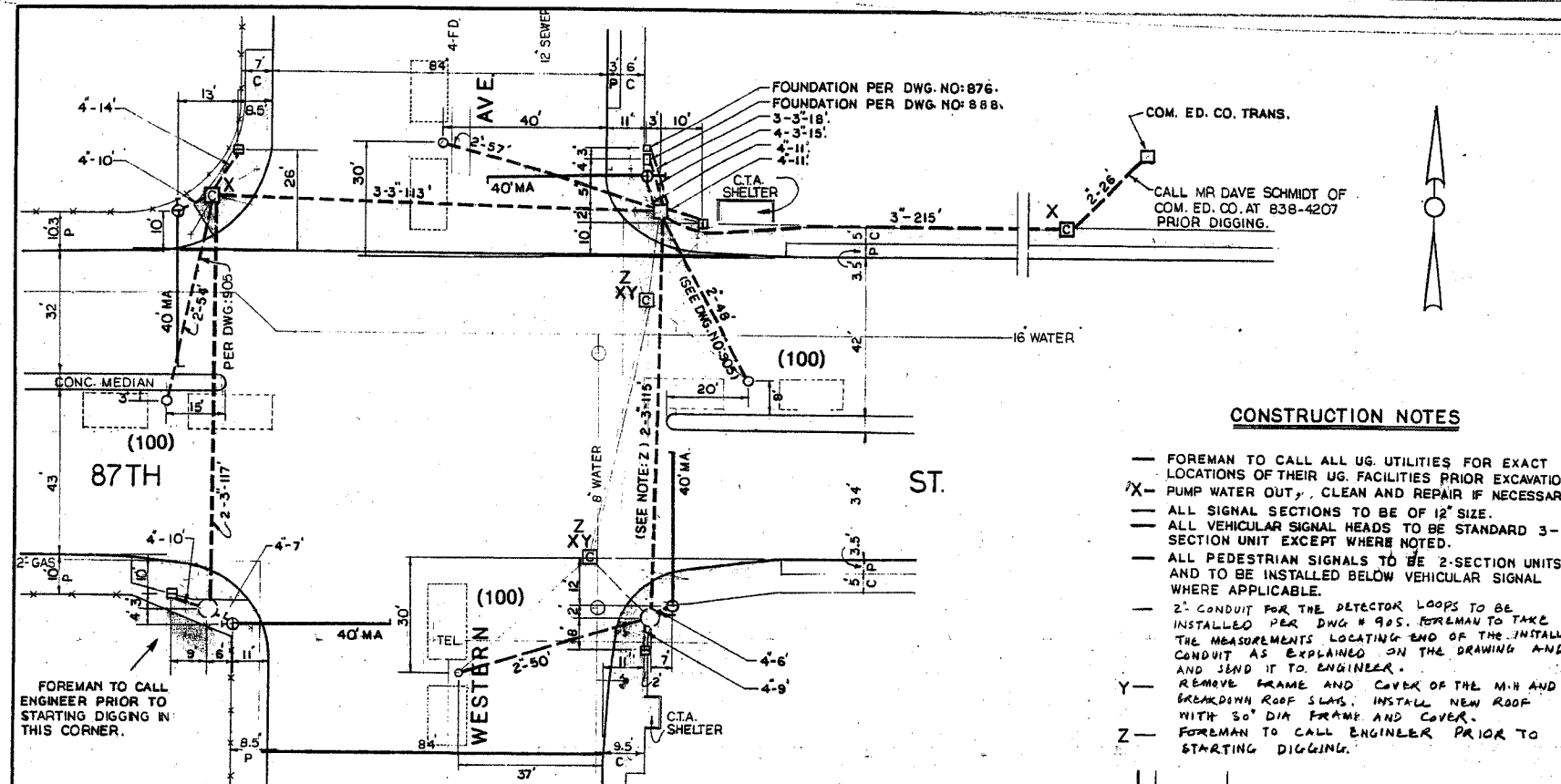
**DETECTOR LOOP REPLACEMENT**

87th ST. @ CALIFORNIA

SCALE: NONE

DATE: AUG. 05

DRAWN BY: J.E.  
DESIGNED BY: J.E.  
CHECKED BY: J.E.



- CONSTRUCTION NOTES**
- FOREMAN TO CALL ALL UG. UTILITIES FOR EXACT LOCATIONS OF THEIR UG. FACILITIES PRIOR EXCAVATION.
  - PUMP WATER OUT, CLEAN AND REPAIR IF NECESSARY.
  - ALL SIGNAL SECTIONS TO BE OF 12" SIZE.
  - ALL VEHICULAR SIGNAL HEADS TO BE STANDARD 3-SECTION UNIT EXCEPT WHERE NOTED.
  - ALL PEDESTRIAN SIGNALS TO BE 2-SECTION UNITS AND TO BE INSTALLED BELOW VEHICULAR SIGNAL WHERE APPLICABLE.
  - 2" CONDUIT FOR THE DETECTOR LOOPS TO BE INSTALLED PER DWG # 905. FOREMAN TO TAKE THE MEASUREMENTS LOCATING END OF THE INSTALLED CONDUIT AS EXPLAINED ON THE DRAWING AND SEND IT TO ENGINEER.
  - REMOVE FRAME AND COVER OF THE M.H. AND BREAKDOWN ROOF SLABS. INSTALL NEW ROOF WITH 50" DIA FRAME AND COVER.
  - FOREMAN TO CALL ENGINEER PRIOR TO STARTING DIGGING.

**NOTE**  
TRAFFIC SIGNALS IN SERVICE PER THIS DRAWING ON 3-13-98

DATE	REVISION
SUPERSEDES DRAWING NO: 12244 AND 12244-A. DT: 8-6-70	
<b>TRAFFIC CONTROL SIGNALS WESTERN AND - 87TH ST.</b>	
<b>CITY OF CHICAGO</b> DEPT. OF STREETS AND SANITATION BUREAU OF ELECTRICITY DIVISION OF ELECTRICAL ENGINEERING	
DRAFTSMAN: MOHAMMED AHMED	ENGINEER: MOHAMMED AHMED
SUPERVISING ENGINEER:	DWG. NO.
ENGINEER OF ELECTRICITY:	12244
SUPV. OF CONSTRUCTION:	
DEPUTY COMMISSIONER:	
SIZE: 16"   22"	SCALE: AS NOTED   DATE: 12-12-96

**NOTE:**  
THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.

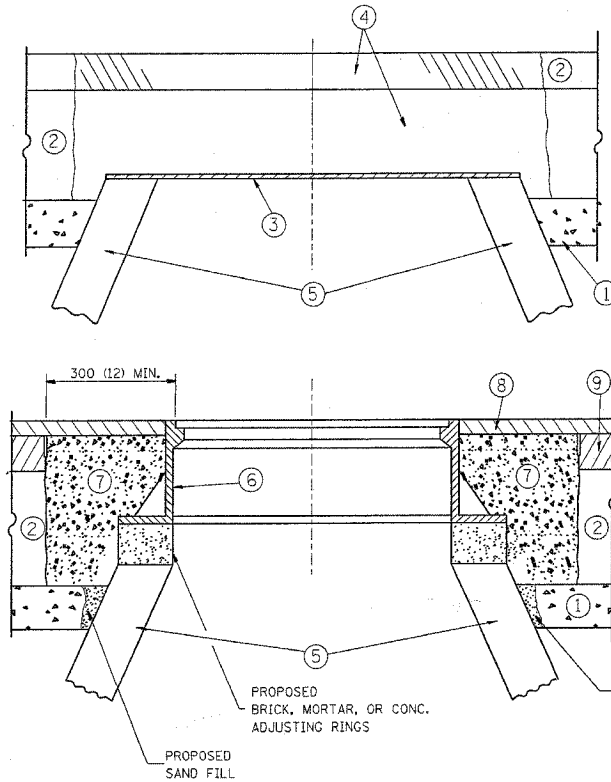
**REPLACE ALL DETECTOR LOOPS AS SHOWN  
(WITHIN THE RESURFACING LIMITS)**

CODE NO.	QUANTITY	UNIT	ITEM
86600600	300	FOOT	Detector Loop Replacement

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		DETECTOR LOOP REPLACEMENT
		87TH ST. @ WESTERN
		SCALE: VERT. NONE HORIZ. DATE
		DRAWN BY CHECKED BY

10/3/2005 08:00:00 AM c:\p01\electrical\1042066\1042066.dwg

F.A.P. R/L	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0601 RS-1	COOK	26	13
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



**CONSTRUCTION PROCEDURES**

**STAGE 1 (BEFORE PAVEMENT MILLING)**

- A) REMOVE A MINIMUM OF 300 (12) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 900 (36) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 40 (1 1/2) THICK BITUMINOUS MATERIAL APPROVED BY THE ENGINEER.

**STAGE 2 (AFTER PAVEMENT MILLING)**

- A) REMOVE THE BITUMINOUS MATERIAL AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR BITUMINOUS CONCRETE SURFACE OR BINDER COURSE MATERIAL TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

**LEGEND**

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 900 (36) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND BITUMINOUS MATERIAL
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS SI CONCRETE, BITUMINOUS CONCRETE SURFACE OR BINDER COURSE MATERIAL
- ⑧ PROPOSED BITUMINOUS CONCRETE SURFACE COURSE
- ⑨ PROPOSED BITUMINOUS CONCRETE BINDER COURSE

**NOTES:**

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

**LOCATION OF STRUCTURES:**

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

**BASIS OF PAYMENT:** FRAMES AND LIDS TO BE ADJUSTED, SPECIAL EACH

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

**DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING**

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
DETAILS FOR  
FRAMES AND LIDS ADJUSTMENT  
WITH MILLING**

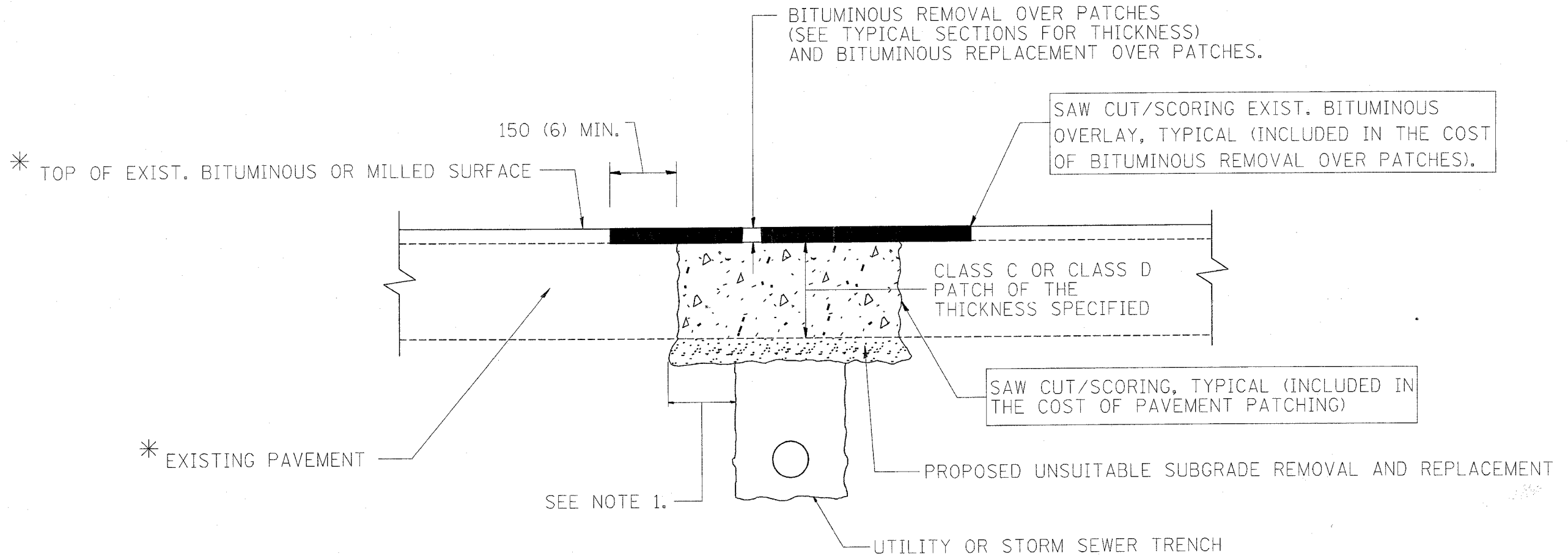
REVISIONS	
NAME	DATE
R. SHAH	10/25/94
R. SHAH	01/30/95
R. SHAH	03/10/95
A. ABBAS	03/21/97
R. WIEDEMAN	05/14/04

SCALE: NONE  
DATE: 10/3/2005

DRAWN BY  
CHECKED BY

BD600-03 (BD-8)  
REVISION DATE: 05/17/04

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	14
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



\* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

**NOTES:**

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 300 (12) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE SPECIAL PROVISION "PATCHING WITH BITUMINOUS OVERLAY REMOVAL".

**SEQUENCE OF CONSTRUCTION**

1. REMOVE THE EXISTING BITUMINOUS MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE FULL DEPTH PATCHES
3. REPLACE BITUMINOUS MATERIAL OVER THE AREA TO BE PATCHED.

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

REVISIONS	
NAME	DATE
R. SHAH	10/25/94
R. SHAH	01/14/95
R. SHAH	03/23/95
R. SHAH	04/24/95
A. HOUSEH	03/15/96
A. ABBAS	03/21/97
A. ABBAS	01/20/98
ART ABBAS	04/27/98

ILLINOIS DEPARTMENT OF TRANSPORTATION

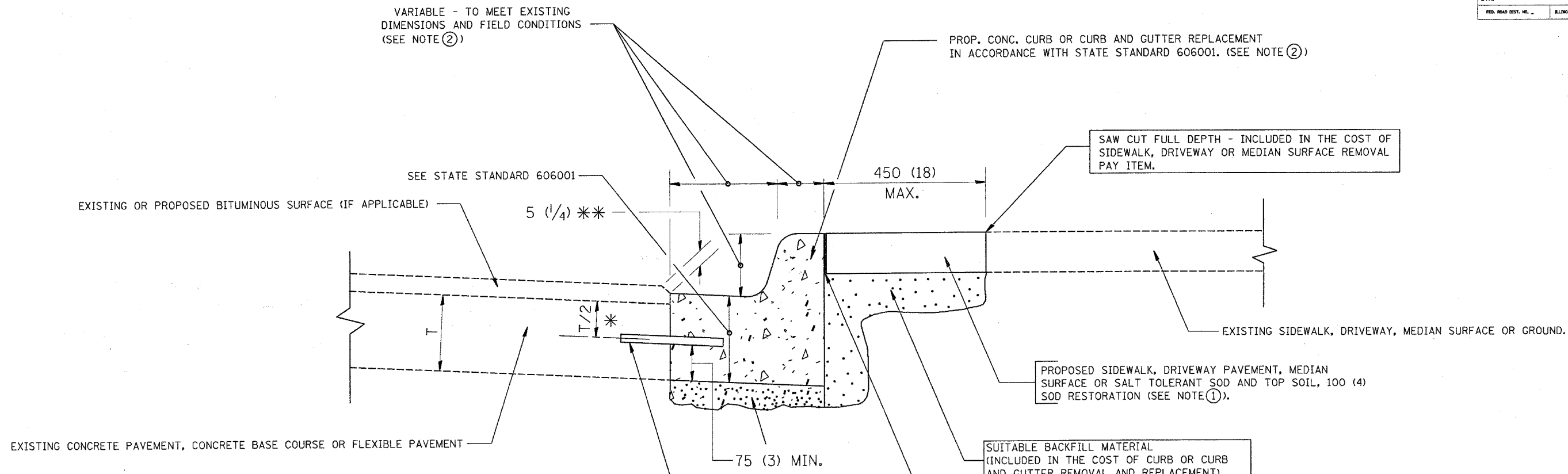
**PAVEMENT PATCHING FOR BITUMINOUS SURFACED PAVEMENT**

SCALE: VERT. DATE 10/3/2005

DRAWN BY CHECKED BY

BD400-04 (BD-22) REVISION DATE: 04/27/98

F. & P. FILE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	15
STA.		TO STA.		
FED. ROAD DIST. NO.		BLK/MS	FED. AID PROJECT	



- \* 75 (3) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
- \*\* IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

- NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.
- SALT TOLERANT SOD AND TOP SOIL, 100 (4) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ② CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.
- ③ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.
- ④ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑤ THE COST OF BITUMINOUS SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑥ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.
- ⑦ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

**BASIS OF PAYMENT:**  
 THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER METER (FOOT) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

## CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

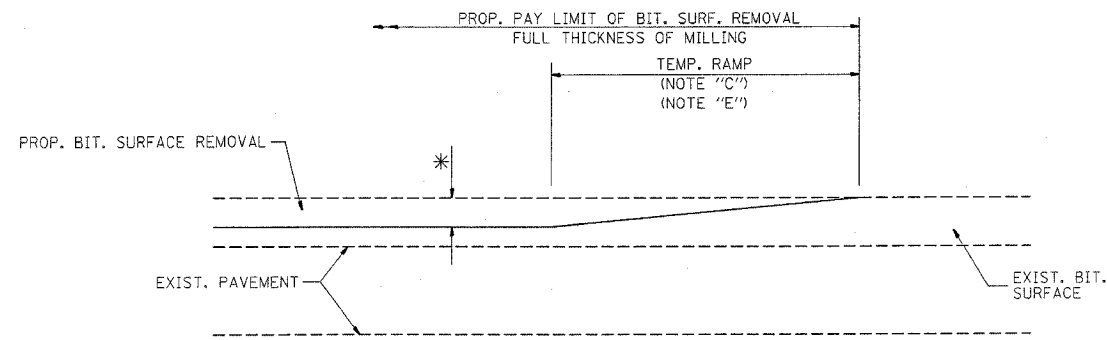
REVISIONS	
NAME	DATE
M. DE YONG	05/28/91
A. HOUSEH	03/11/94
R. SHAH	02/24/95
R. SHAH	03/02/95
R. SHAH	08/19/96
R. SHAH	09/12/96
R. SHAH	09/19/96
R. SHAH	10/03/96
A. ABBAS	03/21/97
M. GOMEZ	01/22/01

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

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**CURB OR  
 CURB AND GUTTER  
 REMOVAL AND REPLACEMENT**

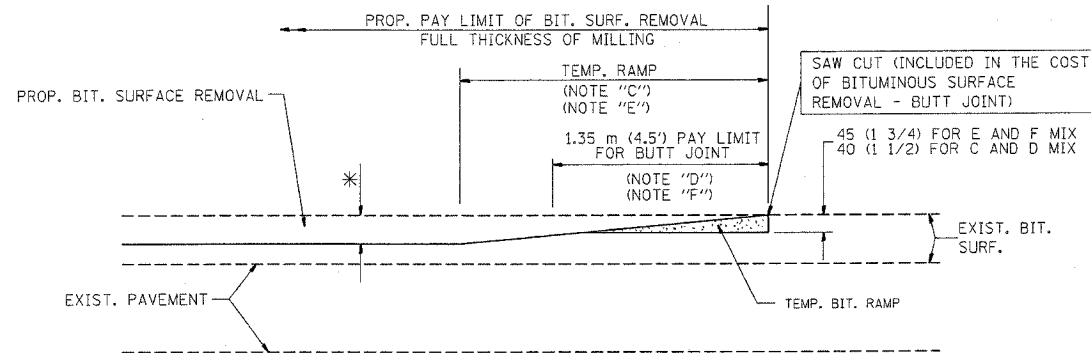
SCALE: NONE  
 DATE 10/3/2005  
 DRAWN BY  
 CHECKED BY  
 80600-06 (80-24)

P.A.P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	16
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



MILLED TEMPORARY RAMP  
(FOR BUTT JOINT AND BIT. TAPER SEE DETAIL BELOW)

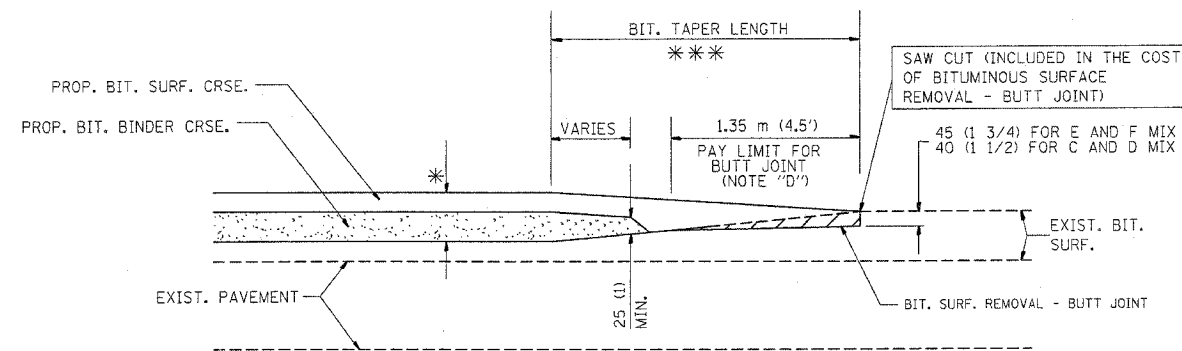
OPTION 1



BITUMINOUS CONSTRUCTED TEMPORARY RAMP  
(FOR BUTT JOINT AND BIT. TAPER SEE DETAIL BELOW)

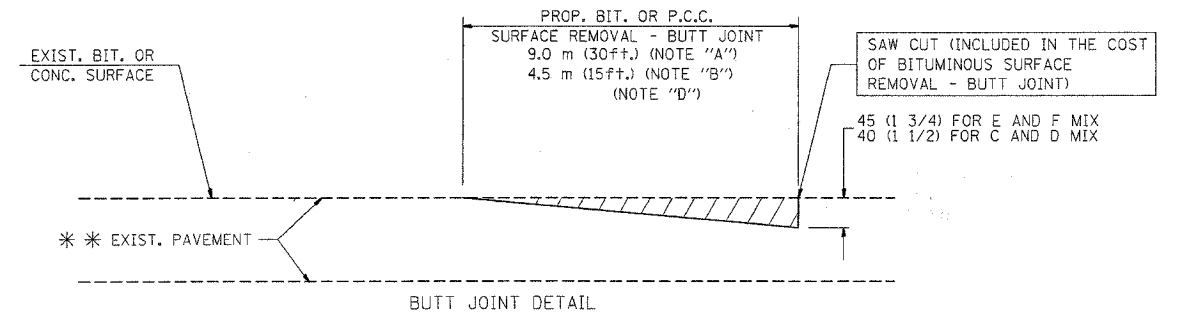
OPTION 2

TYPICAL TEMPORARY RAMP

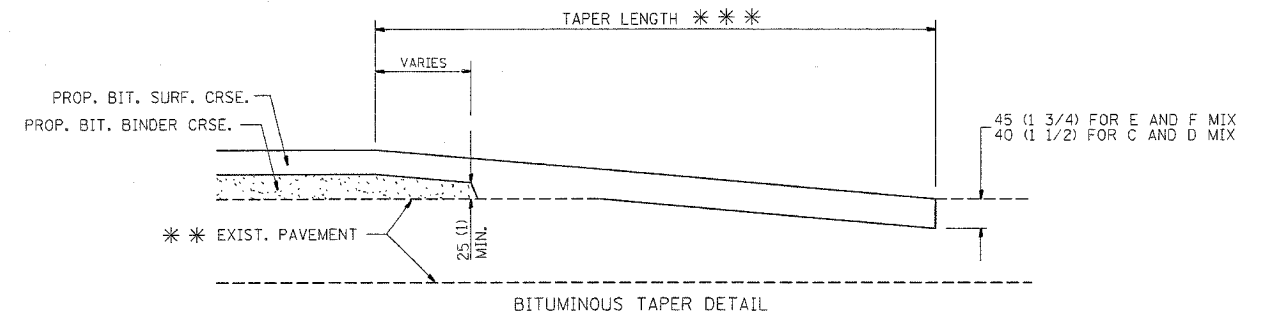


BUTT JOINT AND BITUMINOUS TAPER

TYPICAL BUTT JOINT AND BITUMINOUS TAPER  
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



BITUMINOUS TAPER DETAIL

TYPICAL BUTT JOINT AND BITUMINOUS TAPER  
FOR RESURFACING ONLY

\*\* PC CONCRETE, BITUMINOUS OR BITUMINOUS RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
  - B: MINOR SIDE ROADS.
  - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING BITUMINOUS SURFACE.
  - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED BITUMINOUS COURSES.
  - E: TAPER THE TEMP. RAMP AT A RATE OF 900 (3 FT.) PER INCH OF MILLING THICKNESS.
  - F: INSTALLATION AND REMOVAL OF THE 1.35 m (4.5') TEMP. BIT. RAMP WILL BE PAID AS "BITUMINOUS SURFACE REMOVAL - BUTT JOINT".
  - G: SEE ARTICLE 406.18 AND 406.24 OF THE STANDARD SPECIFICATIONS FOR "BITUMINOUS AND PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

\*\* 6.1 m (20') PER 25 (1) RESURFACING (NOTE "A")  
3.0 m (10') PER 25 (1) RESURFACING (NOTE "B")

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

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR PER SQUARE METER (SQUARE YARD.) AS "BITUMINOUS SURFACE REMOVAL - BUTT JOINT" OR AS "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

REVISIONS	
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	09/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. GOMEZ	04/06/01

ILLINOIS DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND BITUMINOUS TAPER DETAILS

SCALE: NONE

DATE PLOTTED: 10/3/2005

DRAWN BY

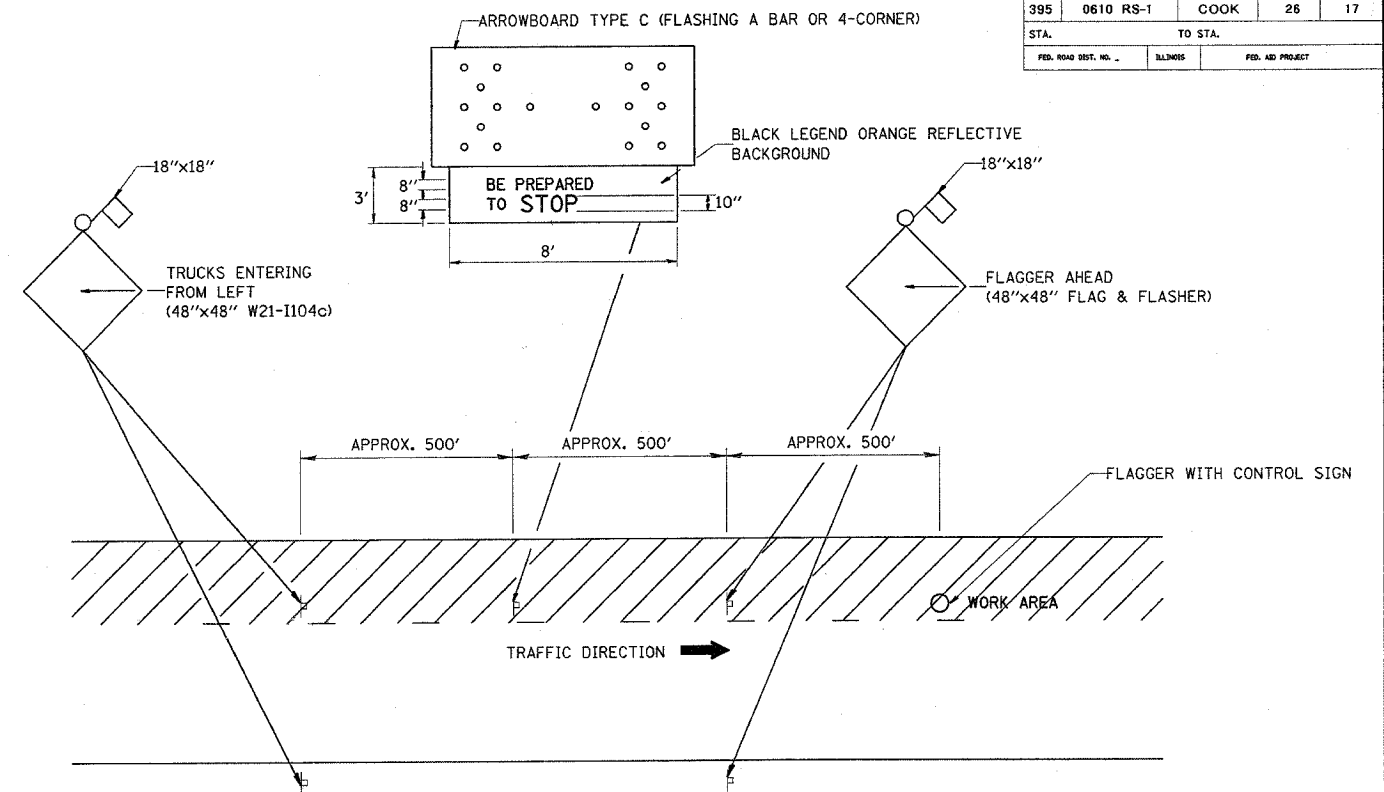
CHECKED BY

BD400-05 (VI-B032)

REVISION DATE: 04/06/01



P.A. #	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	17
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



**METHOD OF FLAGGING**

**NOTE:**

1. SIGNS SHALL BE MOUNTED AT A MINIMUM CLEARANCE HEIGHT OF 5 FEET
2. ALL SIGNS SHALL BE REMOVED WHEN THE FLAGGING OPERATION CEASES.
3. THIS CASE ALSO APPLIES WHEN THE WORK ZONE IS ON THE RIGHT. UNDER THESE CONDITIONS "TRUCKS ENTERING FROM RIGHT" SIGNS SHALL BE SUBSTITUTED FOR "TRUCKS ENTERING FROM LEFT" SIGNS. ALSO THE ARROWBOARD AND "BE PREPARED TO STOP" SIGNS SHALL BE RELOCATED TO THE RIGHT SIDE OF THE ROAD.
4. WORK ZONE ACCESS POINTS SHOULD BE A MINIMUM OF ONE HALF MILE APART. MEDIAN WORK ZONE ACCESS POINTS SHOULD NOT BE LOCATED OPPOSITE OF EACH OTHER.
5. NIGHTTIME FLAGGING OPERATIONS: THE FLAG STATION SHALL BE LIGHTED WITH ADDITIONAL LIGHTS OTHER THAN STREET LIGHTS. THE FLAGGER CONTROL SIGN AND THE FLAGGER'S VEST SHALL BE REFLECTORIZED. IN ADDITION, THE FLAGGER SHALL HAVE A FLASHLIGHT OR LIGHTED WAND.

ILLINOIS DEPARTMENT OF TRANSPORTATION

**METHOD OF FLAGGING**

REVISIONS	
NAME	DATE
RAY RITCHIE	5/10/00

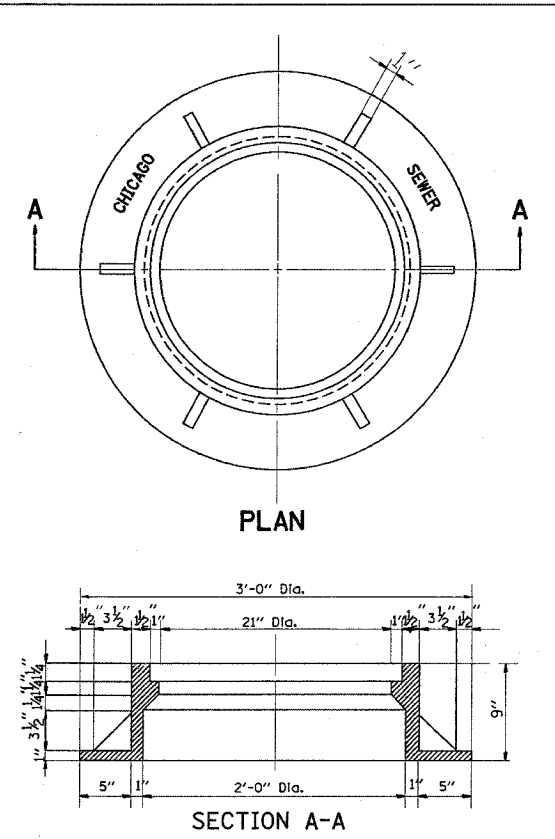
SCALE: NOT TO SCALE  
DATE 10/3/2005

DRAWN BY C.A.D.  
CHECKED BY

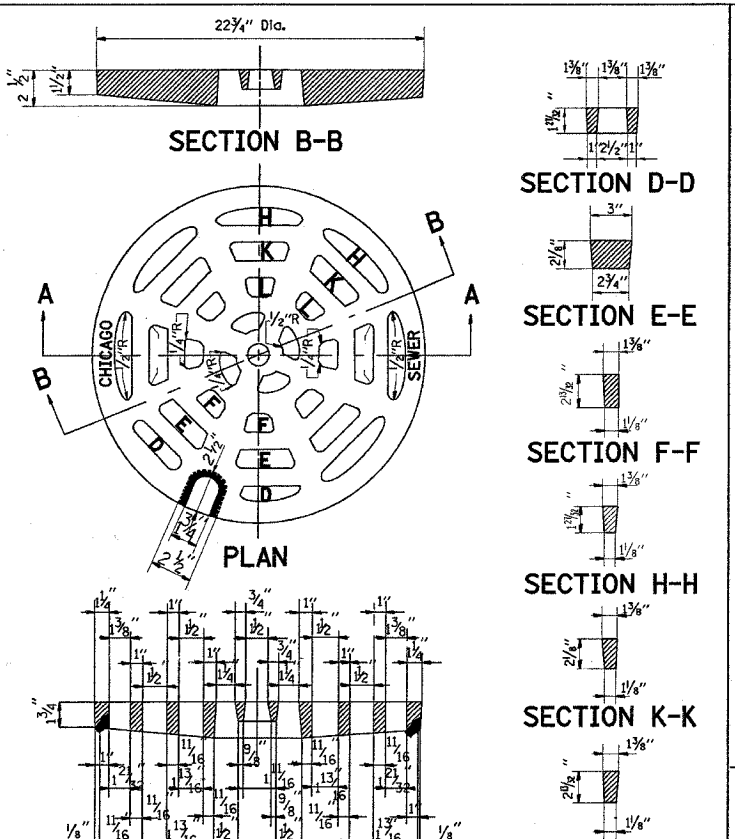
BM-14

REVISION DATE: 05/10/00

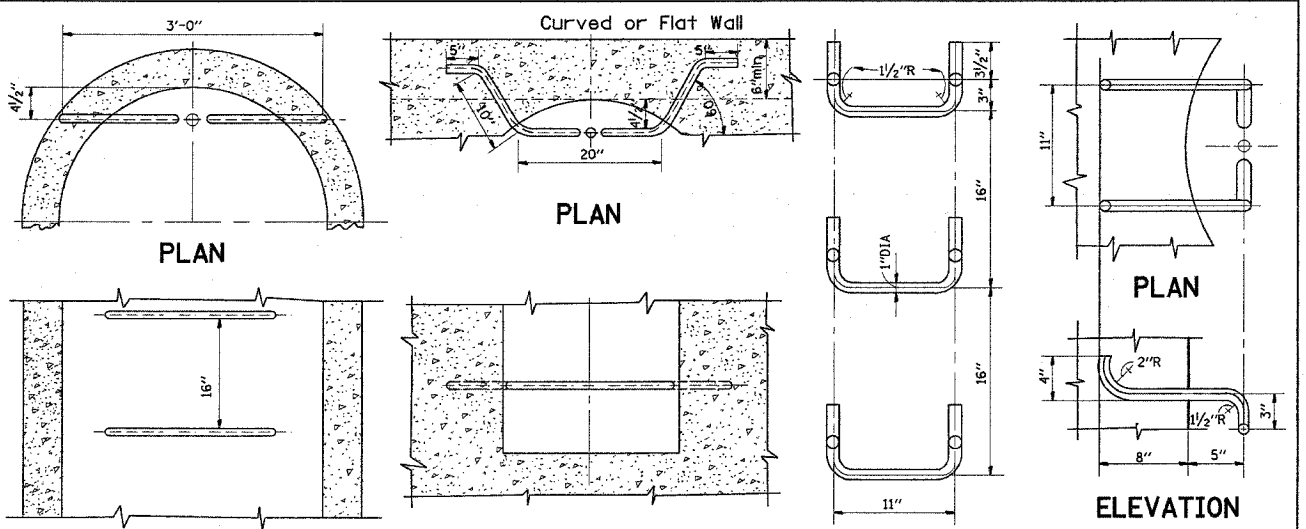
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	19
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**CHICAGO STANDARD MANHOLE FRAME**  
 Scale: 1/2"=1'-0"  
 Material: Cast Iron



**PERFORATED LID FOR CATCH BASINS & MANHOLES**  
 Scale: 2"=1'-0"  
 Material: Cast Iron

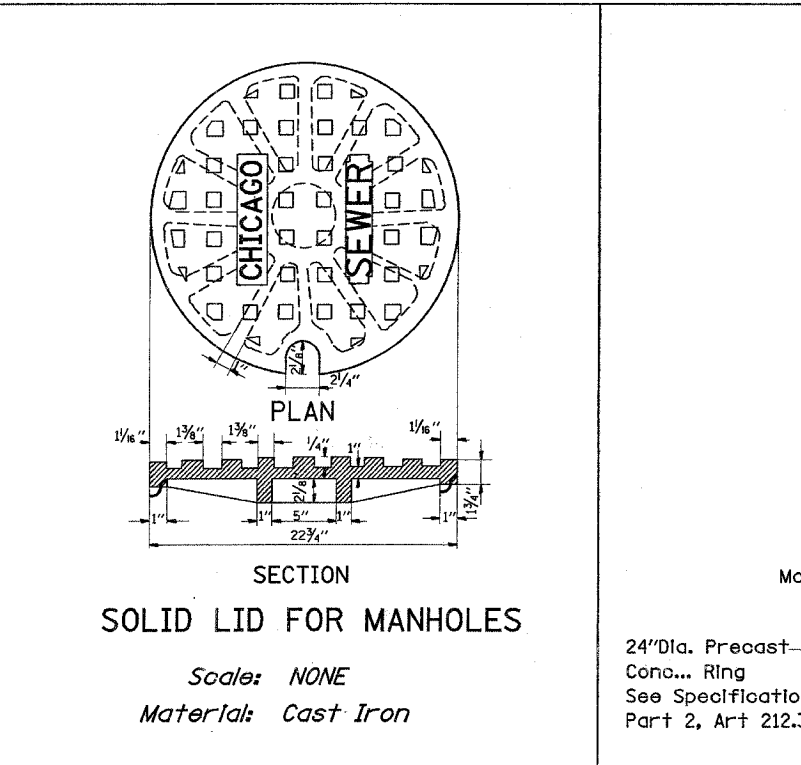


**STANDARD LADDER RUNGS**  
 Scale: 1"=1'-0"

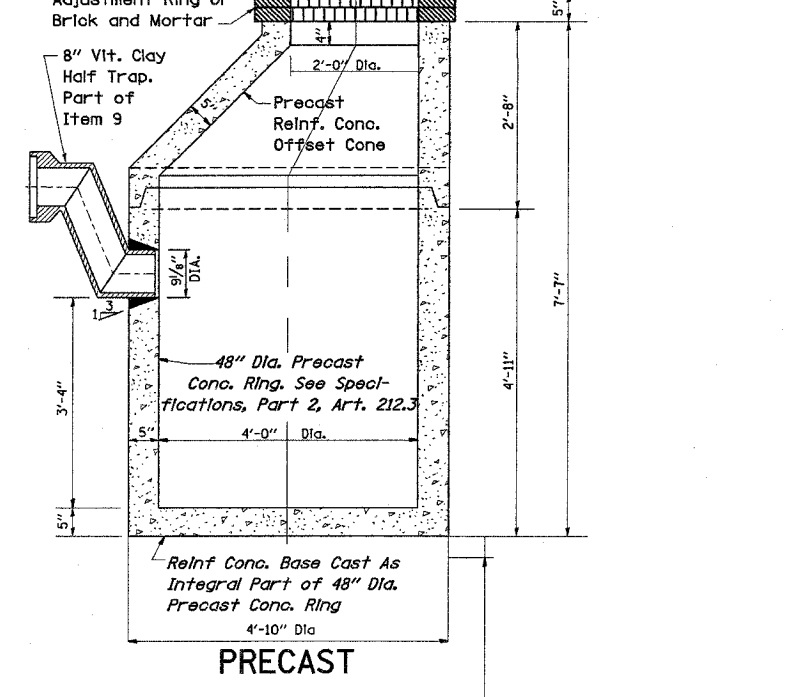
**STANDARD LADDER RUNGS**  
 Scale: 1"=1'-0"

**HANDHOLD-TYPE Z RUNG**  
 Scale: 1/2"=1'-0"

All Ladder Rungs Shall Be Aluminum or Galvanized Wrought Iron As Specified In Specifications, Part 2, Article 214.2. Rungs Shall Be 1" Diameter or of A Shape Having An Equivalent Cross-Sectional Area

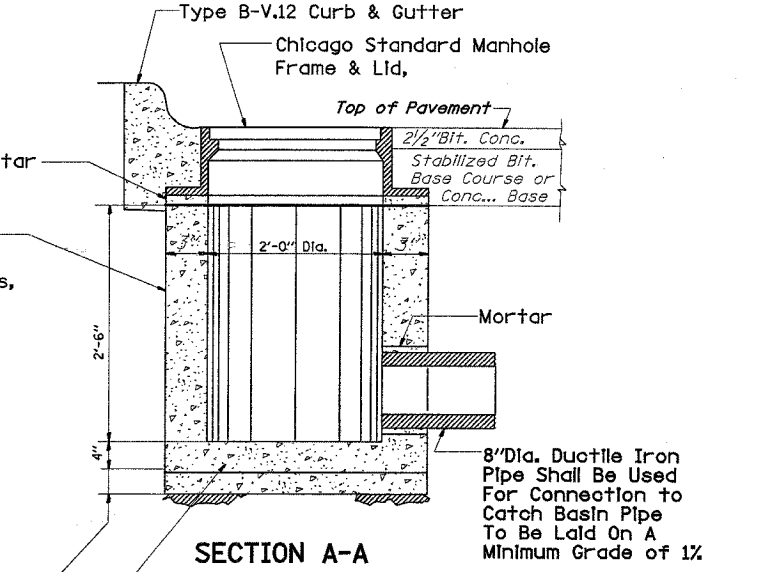
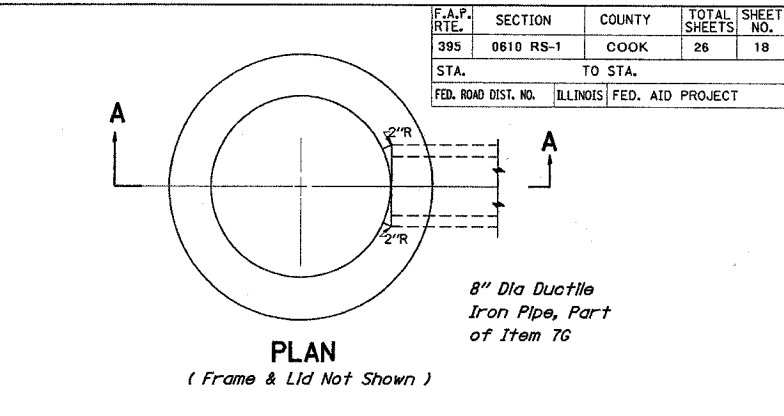


**SOLID LID FOR MANHOLES**  
 Scale: NONE  
 Material: Cast Iron



**STANDARD CATCH BASINS**  
 Scale: 3/4"=1'-0"  
 Item 9

Note: 6" Minimum Granular Embedment Under All Catch Basins



**SECTION A-A**

8" Dia. Ductile Iron Pipe Shall Be Used For Connection to Catch Basin Pipe To Be Laid On A Minimum Grade of 1%

**STANDARD INLETS**  
 Scale 1"=1'-0"  
 Item 12

This Inlet Detail Is Sometimes Referred To As "Chicago Standard Inlet, Type A"

NOTE: INLETS SHALL NOT BE CONSTRUCTED UNLESS IT IS IMPOSSIBLE TO CONSTRUCT A CATCH BASIN. THE CONTRACTOR SHALL HAVE THE DEPARTMENT OF SEWERS APPROVAL BEFORE CONSTRUCTING INLETS

REVISIONS	
NAME	DATE
M. GOMEZ	01/25/01

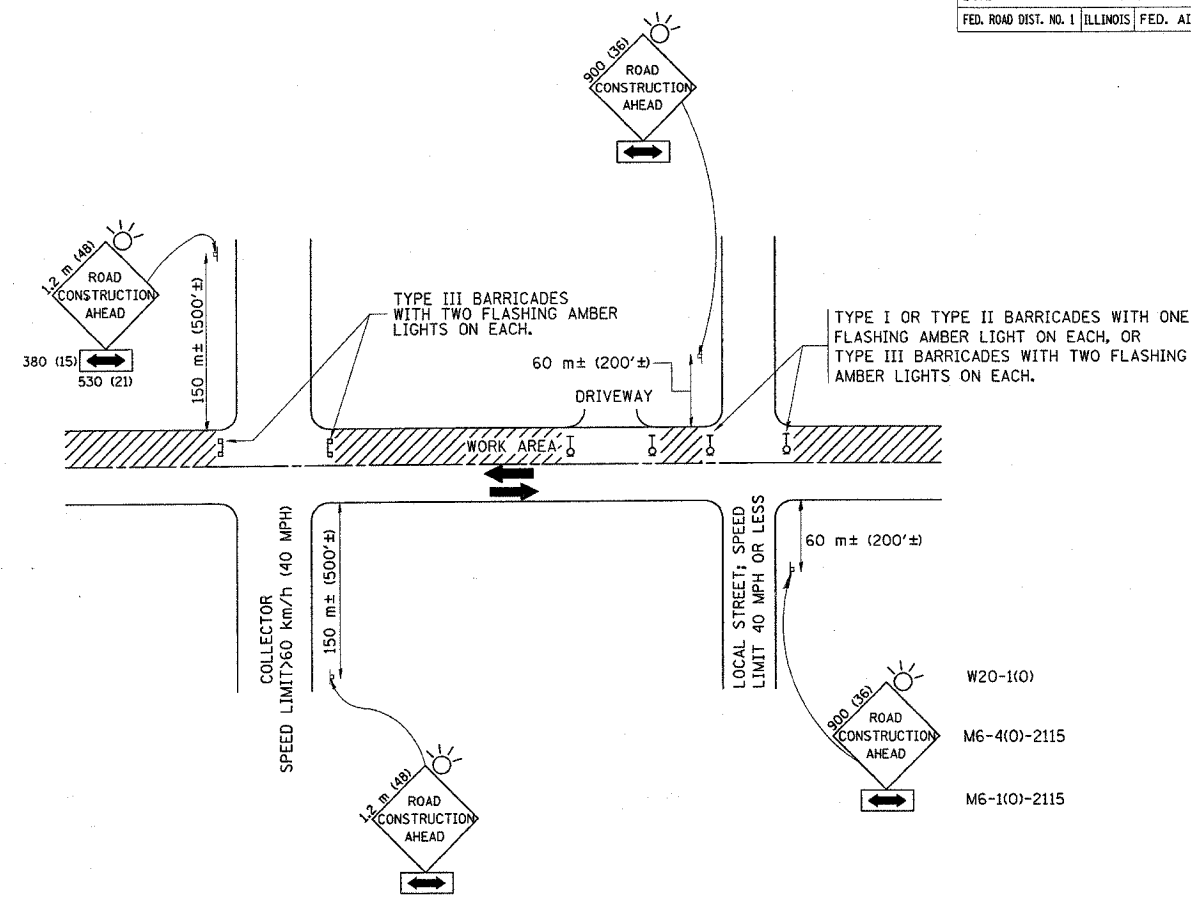
CITY OF CHICAGO  
 DEPARTMENT OF SEWERS  
 ENGINEERING DIVISION

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 CITY OF CHICAGO  
 CATCH BASIN, INLET AND  
 MANHOLE DETAILS

SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_  
 DATE 10/3/2005

DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 BD600-13 (B047)  
 REVISION DATE: 01/25/01

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	19
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	



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 60 km/h (40 MPH) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - a) ONE ROAD CONSTRUCTION AHEAD SIGN 900x900 (36x36) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 60 m (200') 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 60 km/h (40 MPH) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - a) ONE ROAD CONSTRUCTION AHEAD SIGN 1.2 m x 1.2 m (48x48) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 150 m (500') 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.

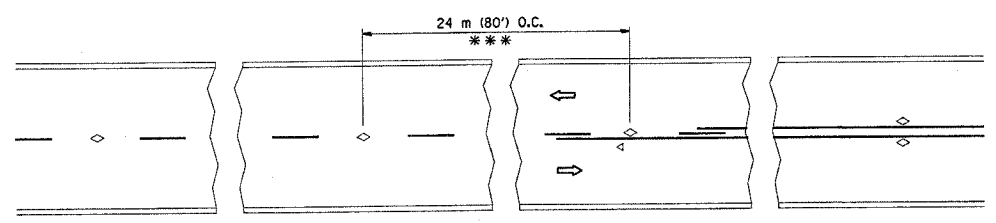
REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

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

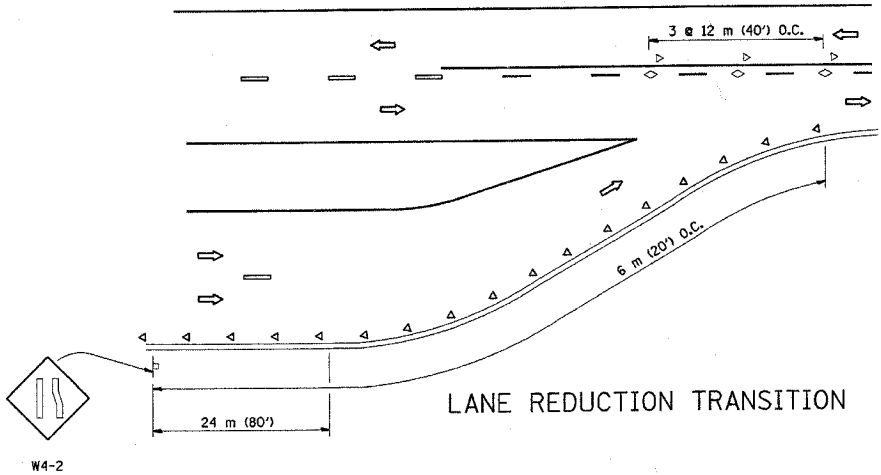
SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_  
 DATE 10/3/2005

DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

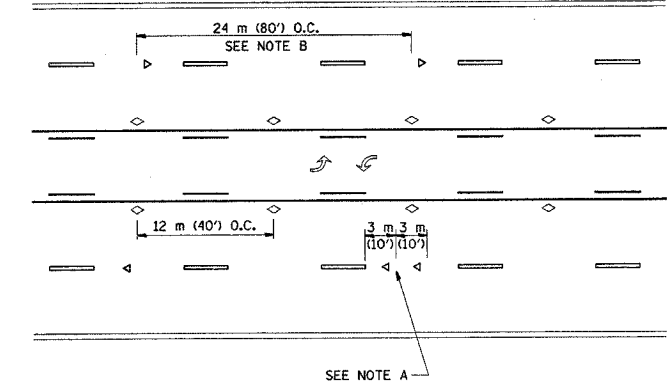
P.A.T. RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	20
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



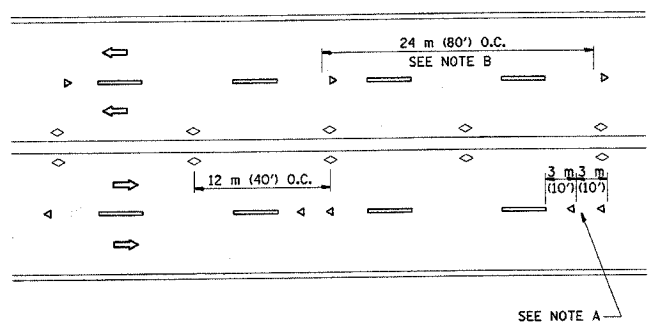
TWO-LANE/TWO-WAY



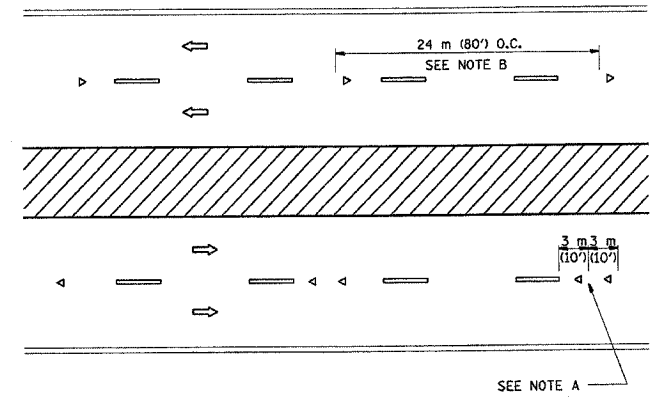
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

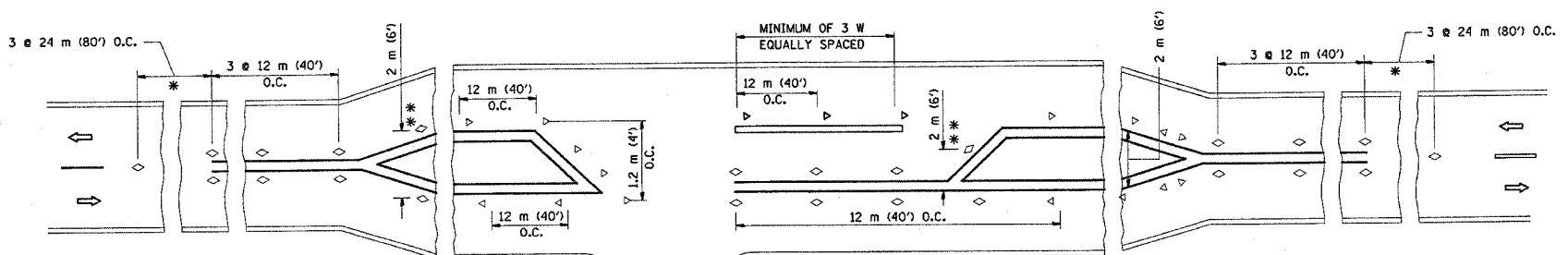
1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 50 TO 75 (2 TO 3) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 150 m (500') IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

- YELLOW STRIPE
- WHITE STRIPE
- ◁ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◇ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- B. REDUCE TO 12 m (40') O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 20 km/h (10 M.P.H.) LOWER THAN POSTED SPEEDS.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.



LEFT TURN

- \* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
- \*\* WHERE THE MEDIAN WIDTH IS 2 m (6') OR LESS USE TWO-WAY MARKERS.

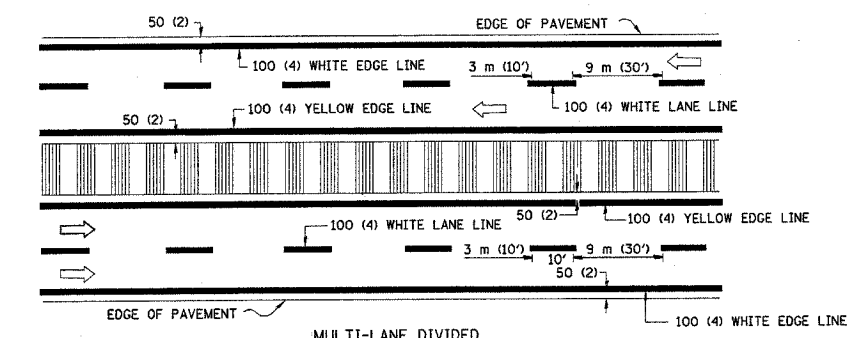
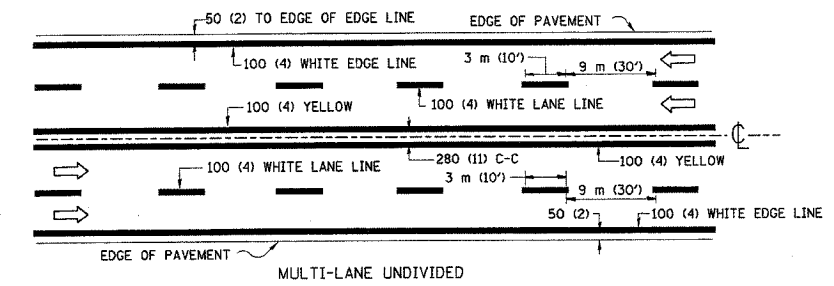
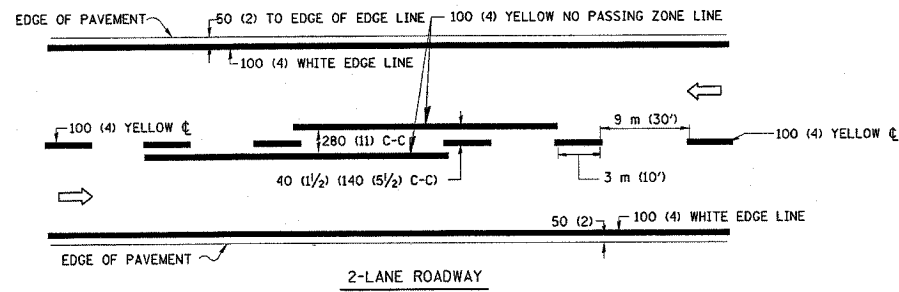
All dimensions are in millimeters (inches) unless otherwise shown.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
TYPICAL APPLICATIONS  
RAISED REFLECTIVE PAVEMENT MARKERS  
(SNOW-PLOW RESISTANT)

REVISIONS	
NAME	DATE
T. RAMMACHER	09-19-94
T. RAMMACHER	03-12-99
T. RAMMACHER	01-06-00

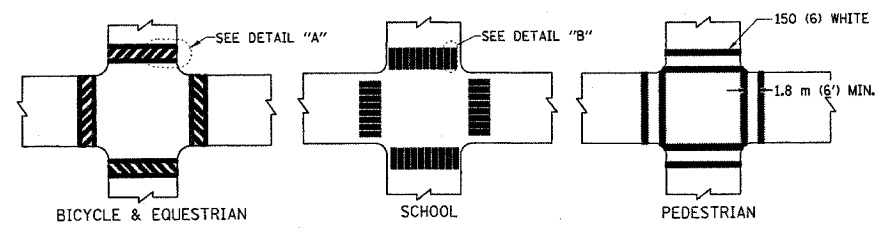
SCALE: NONE  
DATE: 10/3/2005  
DRAWN BY CADD  
CHECKED BY  
TC-11

P.L.F. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	21
STA.	TO STA.			
FED. ROAD DIST. NO.	BALANCE	FED. AID PROJECT		

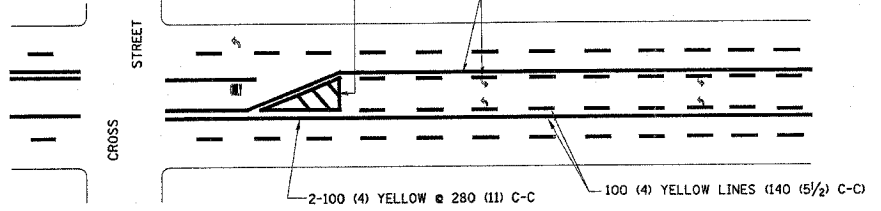
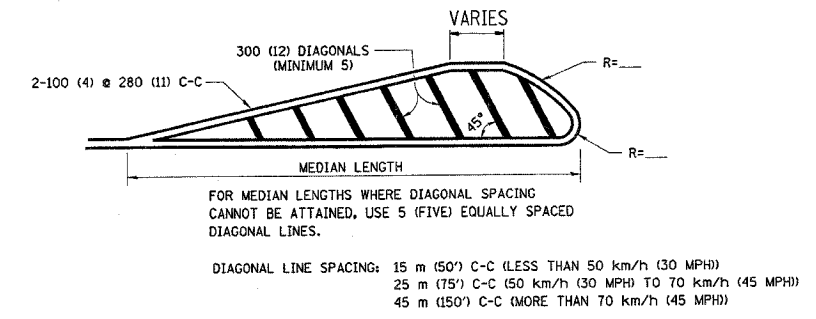
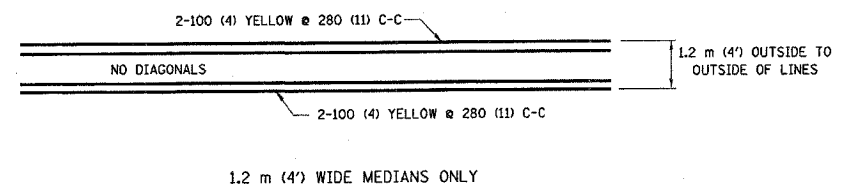


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

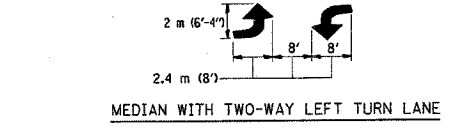
**TYPICAL LANE AND EDGE LINE MARKING**



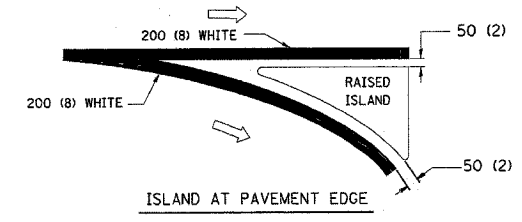
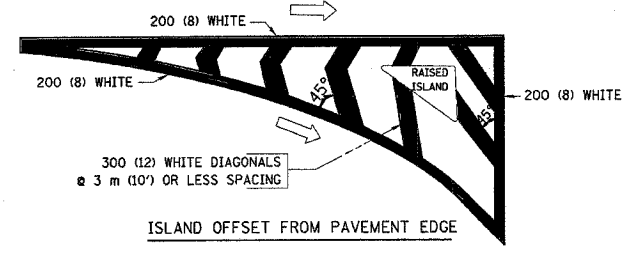
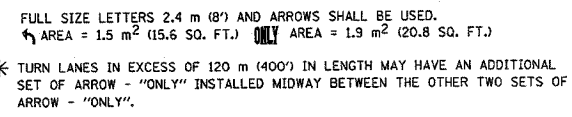
**TYPICAL CROSSWALK MARKING**



**TYPICAL PAINTED MEDIAN MARKING**



**TYPICAL LEFT (OR RIGHT) TURN LANE**



**TYPICAL ISLAND MARKING**

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	100 (4)	SKIP-DASH	YELLOW	3 m (10') LINE WITH 9 m (30') SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 100 (4)	SOLID	YELLOW	280 (11) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	100 (4) 2 @ 100 (4)	SOLID SOLID	YELLOW YELLOW	140 (5 1/2) C-C FROM SKIP-DASH CENTERLINE 280 (11) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	100 (4) 125 (5) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	3 m (10') LINE WITH 9 m (30') SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	600 (2') LINE WITH 1.8 m (6') SPACE
EDGE LINES	100 (4)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	150 (6) LINE; FULL SIZE LETTERS & SYMBOLS (2.4 m (8'))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 100 (4) EACH DIRECTION 2.4 m (8') LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	3 m (10') LINE WITH 9 m (30') SPACE FOR SKIP-DASH; 140 (5 1/2) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 150 (6) 300 (12) @ 45° 300 (12) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 1.8 m (6') APART 600 (2') APART 600 (2') APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	600 (24)	SOLID	WHITE	PLACE 1.2 m (4') IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 100 (4) WITH 300 (12) DIAGONALS @ 45° NO DIAGONALS USED FOR 1.2 m (4') WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	280 (11) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	200 (8) WITH 300 (12) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 4.5 m (15') C-C (LESS THAN 50 km/h (30 MPH)) 6 m (20') C-C (50 km/h (30 MPH) TO 70 km/h (45 MPH)) 9 m (30') C-C (OVER 70 km/h (45 MPH))
RAILROAD CROSSING	600 (24) TRANSVERSE LINES; "RR" IS 1.8 m (6') LETTERS; 400 (16) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=0.33m <sup>2</sup> (3.6 SQ. FT.) EACH "X"=5.0 m <sup>2</sup> (54.0 SQ. FT.)
SHOULDER DIAGONALS	300 (12) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	15 m (50') C-C (LESS THAN 50 km/h (30 MPH)) 25 m (75') C-C (50 km/h (30 MPH) TO 70 km/h (45 MPH)) 45 m (150') C-C (OVER 70 km/h (45 MPH))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

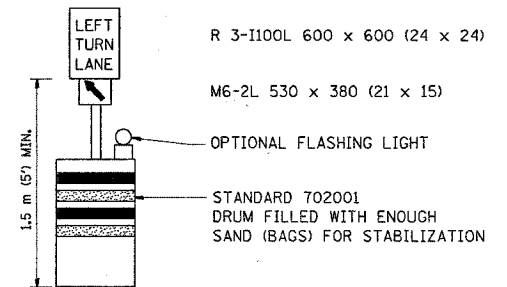
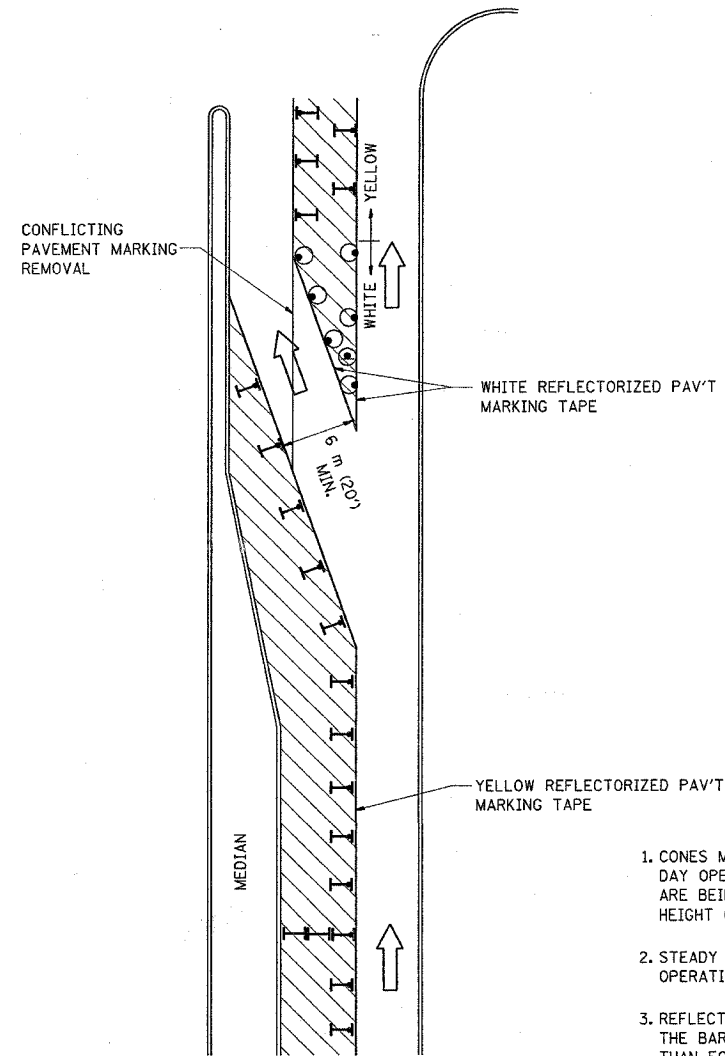
All dimensions are in millimeters (Inches) unless otherwise shown.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DISTRICT ONE  
 TYPICAL PAVEMENT MARKINGS

REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
T. RAMMACHER	01-06-00

SCALE: NONE  
 DATE 10/3/2005  
 DRAWN BY CADD  
 CHECKED BY  
 TC-13  
 REVISION DATE: 01/06/00

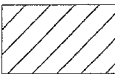





F. & P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	22
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



**GENERAL NOTES**

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 710 (28) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 1.5 m (5').
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 600 x 600 (24 x 24) AND M6-2R 530 x 380 (21 x 15) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM BT 725 IS REQUIRED.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

**LEGEND**

-  WORK AREA
-  LANE OPEN TO TRAFFIC
-  TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
-  DRUM WITH STEADY BURN LIGHT
-  DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
-  TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

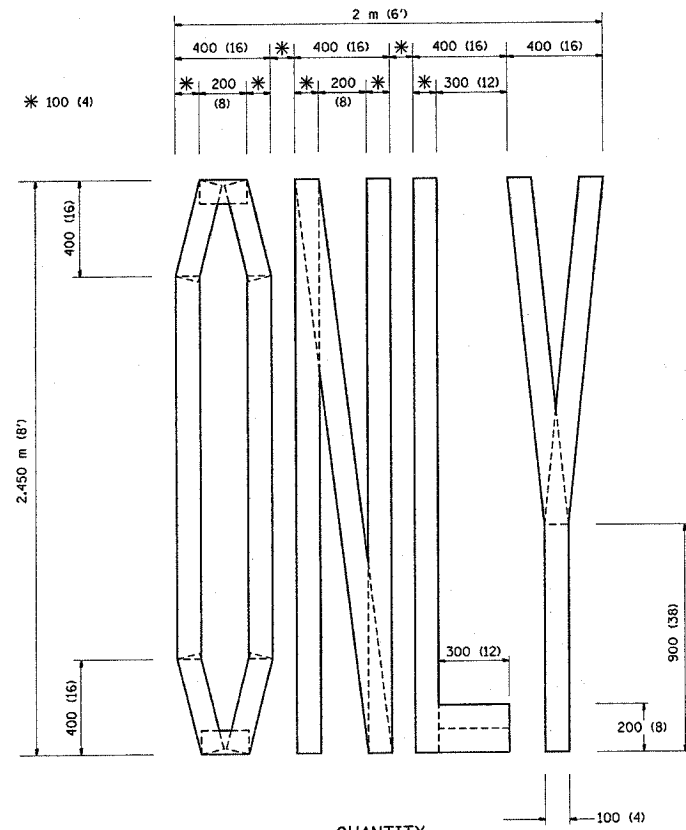
All dimensions are in millimeters (inches) unless otherwise shown.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL AND PROTECTION  
 AT TURN BAYS  
 (TO REMAIN OPEN TO TRAFFIC)**

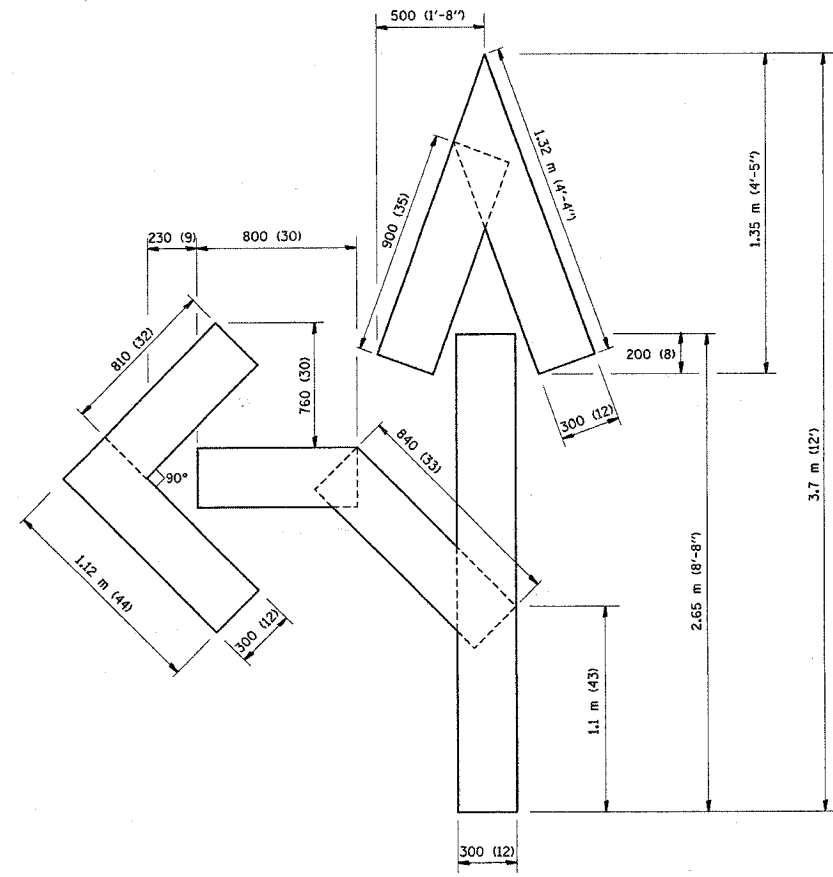
REVISIONS	
NAME	DATE
T. RAMMACHER	09/08/94
A. HOUSEH	11/07/95
A. HOUSEH	10/12/96
T. RAMMACHER	01/06/00

SCALE: NONE  
 DATE: 10/3/2005  
 DRAWN BY  
 CHECKED BY LHA  
 TC-14

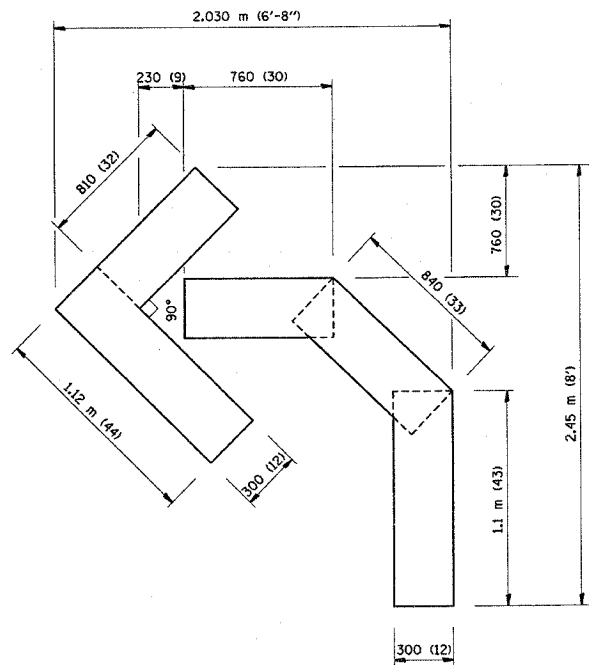
P. A. F. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	23
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



QUANTITY  
 100 (4) LINE = 19.7 m (64.1 ft.)  
 1.97 sq. m (21.1 sq. ft.)



QUANTITY  
 100 (4) LINE = 25.3 m (82.5 ft.)  
 2.53 sq. m (27.5 sq. ft.)



QUANTITY  
 100 (4) LINE = 13.9 m (45.5 ft.)  
 1.39 sq. m (15.2 sq. ft.)

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

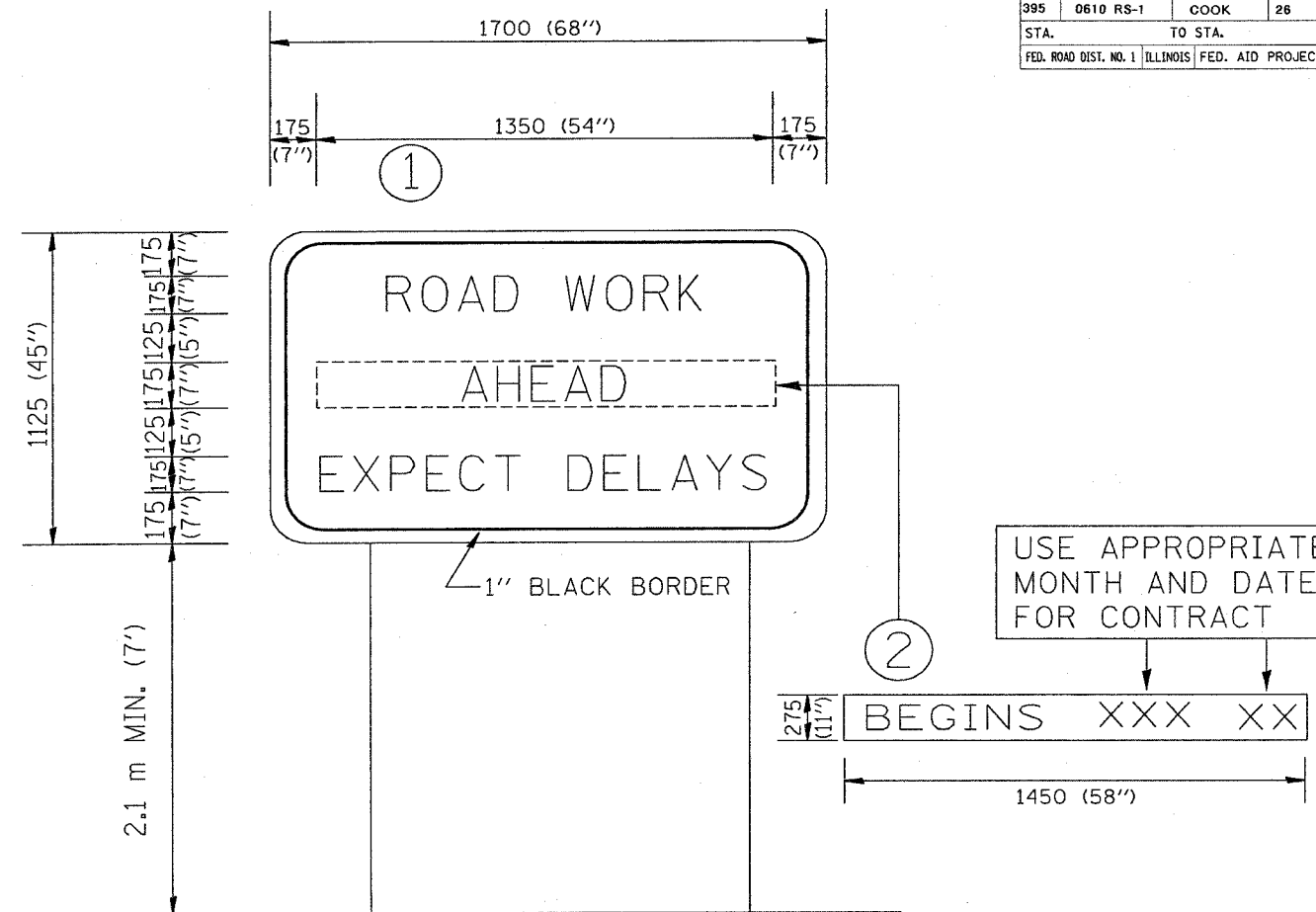
**PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING**

SCALE: NONE  
 DATE 10/3/2005

DRAWN BY CADD  
 CHECKED BY  
 TC-16  
 REVISION DATE: 08/28/00

REVISIONS		
NAME	DATE	
T. RAMMACHER	09/18/94	
J. OBERLE	06/01/96	
T. RAMMACHER	06/05/96	
T. RAMMACHER	11/04/97	
T. RAMMACHER	03/02/98	
E. GOMEZ	08/28/00	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	24
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	



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 2.3 SQ. M. (25.70 SQ. FT.)

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

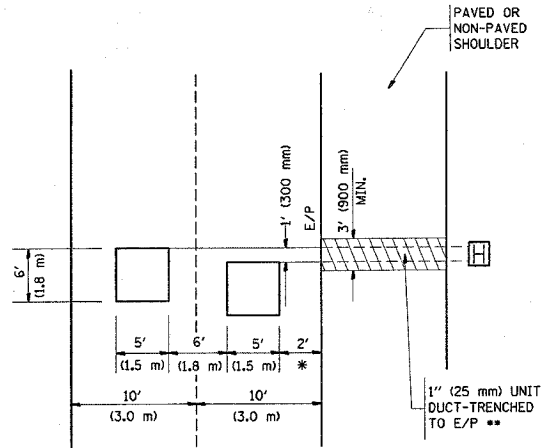
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION TEMPORARY INFORMATION SIGNING
NAME	DATE	
R. MIRS	9-15-97	SCALE: DATE 10/3/2005
R. MIRS	2-11-97	
T. RAMMACHER	2-2-99	
		DRAWN BY: BUR. OF DESIGN CHECKED BY



F. & P. SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	25
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER.

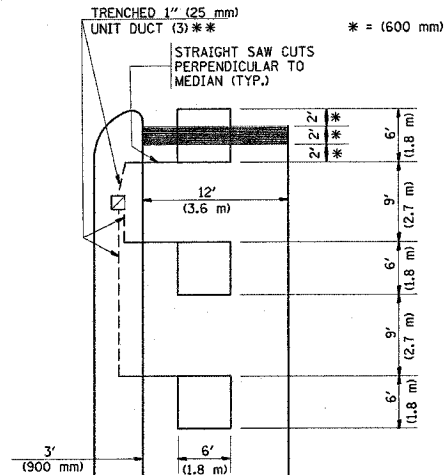


\* = (600 mm)

\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

LEFT TURN LANES WITH MEDIANS  
VOLUME DENSITY ("FAR OUT" DETECTION)  
ON SAME APPROACH  
(PROTECTED / PERMITTED LEFT TURN PHASING)

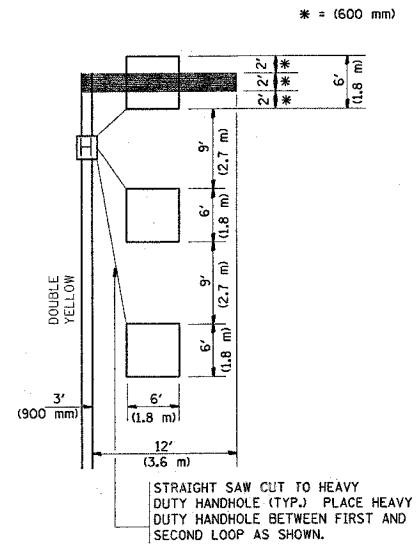
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.



\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

LEFT TURN LANES WITHOUT MEDIANS  
VOLUME DENSITY ("FAR OUT" DETECTION)  
ON SAME APPROACH  
(PROTECTED / PERMITTED LEFT TURN PHASING)



NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

NOTES:

VEHICLES LOOP DETECTORS

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATELY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- \* ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- \* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- \* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
- \* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

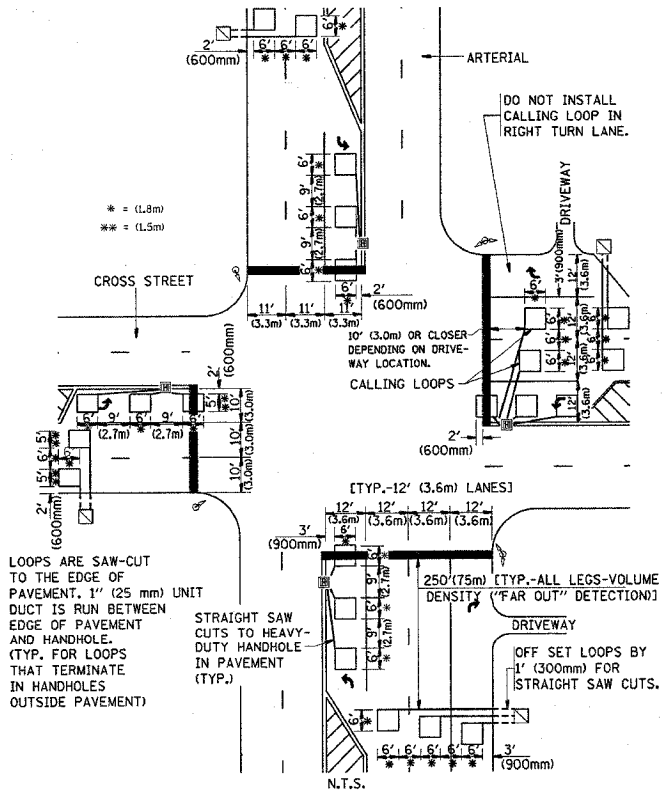
"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

NOTE:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

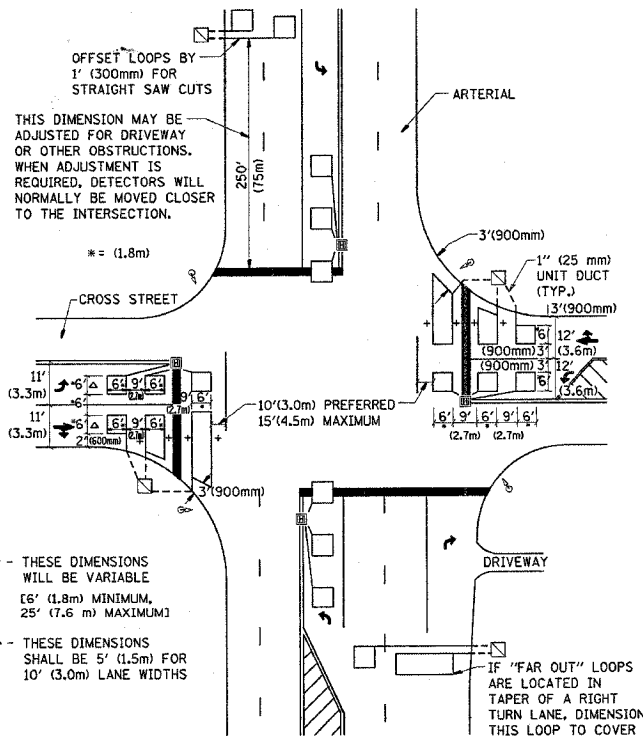
THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)  
CROSS STREET-VOLUME DENSITY ("FAR OUT" DETECTION)



DETAIL 1  
N.T.S.

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)  
CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)



DETAIL 2  
N.T.S.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DISTRICT 1  
DETECTOR LOOP  
INSTALLATION DETAILS  
FOR ROADWAY RESURFACING**

SCALE: NONE  
DATE 10/3/2005

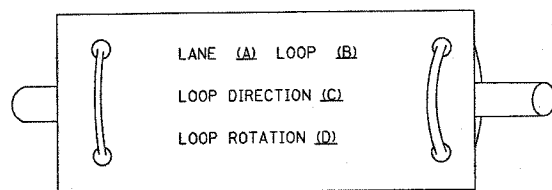
DRAWN BY CADD  
DESIGNED BY  
CHECKED BY R.K.F.  
TSOT  
REVISION DATE:

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	0610 RS-1	COOK	26	26
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

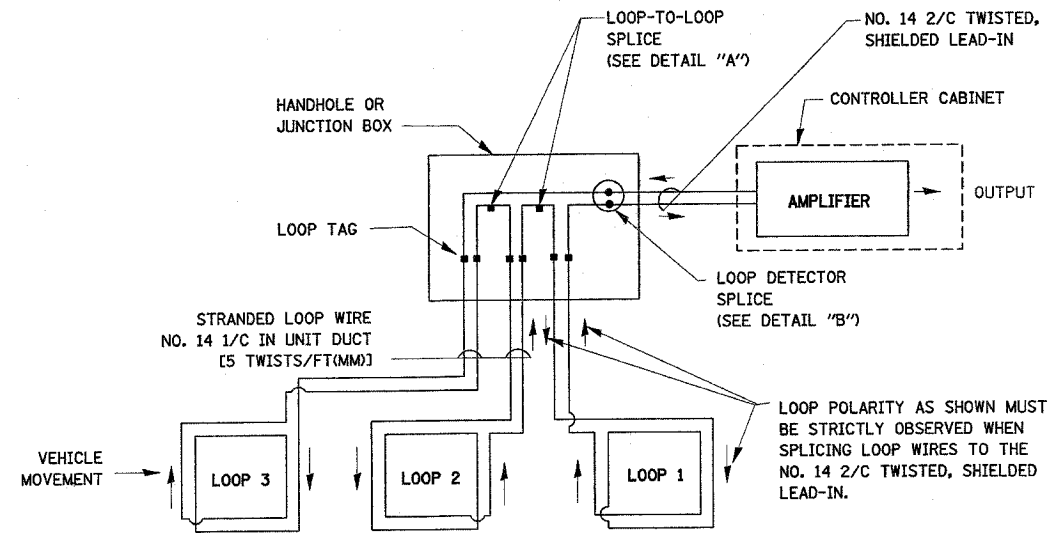
**LOOP DETECTOR NOTES**

- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- PERFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PERFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

**LOOP LEAD-IN CABLE TAG**

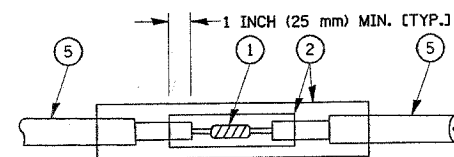


- LANE #1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

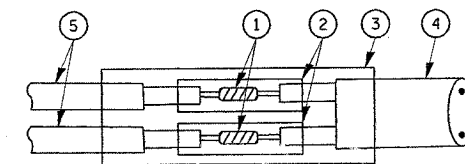


**DETECTOR LOOP WIRING SCHEMATIC**

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.



**DETAIL "A"  
LOOP-TO-LOOP SPLICE**



**DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE**

**LOOP DETECTOR SPLICE**

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

REVISIONS	
NAME	DATE
CADD	5/30/00
ADD NOTE NO. 8	11/12/01
BUREAU OF TRAFFIC	1-01-02

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL  
DESIGN DETAILS**

SCALE: VERT. NONE  
HORIZ. NONE  
DATE 10/3/2005

DRAWN BY: RWP  
DESIGNED BY: DAD  
CHECKED BY: DAZ  
SHEET 1 OF 4