

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FAU 1707 (78TH AVENUE)
87TH STREET (FAU 1558) TO 79TH STREET (FAU 1548)
RESURFACING
SECTION NO.: 11-00065-00-RS
PROJECT NO.: M-9003(783)
VILLAGE of BRIDGEVIEW
COOK COUNTY
JOB NO. C-91-376-11

INDEX OF SHEETS

1. COVER SHEET, INDEX OF SHEETS & STATE STANDARDS
2. SUMMARY OF QUANTITIES & GENERAL NOTES
3. TYPICAL CROSS SECTIONS
- 4-6. PAVEMENT PLAN
- 7-9. STRIPING PLAN
- 10-16. IDOT DISTRICT 1 STANDARD DETAILS

HIGHWAY STANDARDS

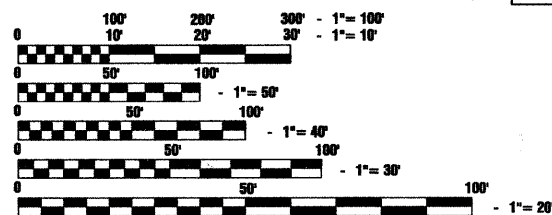
- | | |
|-----------|--|
| 006001-06 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 424001-05 | CURB RAMPS FOR SIDEWALKS |
| 442201-03 | CLASS C AND D PATCHES |
| 606001-04 | CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER |
| 701501-06 | URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED |
| 701801-04 | LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE |
| 701901-01 | TRAFFIC CONTROL DEVICES |
| 780001-02 | TYPICAL PAVEMENT MARKINGS |
| 886001-01 | DETECTOR LOOP INSTALLATIONS |
| 886006-01 | TYPICAL LAYOUTS FOR DETECTION LOOPS |

78TH AVENUE

ADT = 6,500 (2009)
= 6,700 (2030)
DESIGN SPEED = 25 MPH
POSTED SPEED LIMIT = 20 MPH
DESIGN DESIGNATION = LOCAL STREET

SCALES

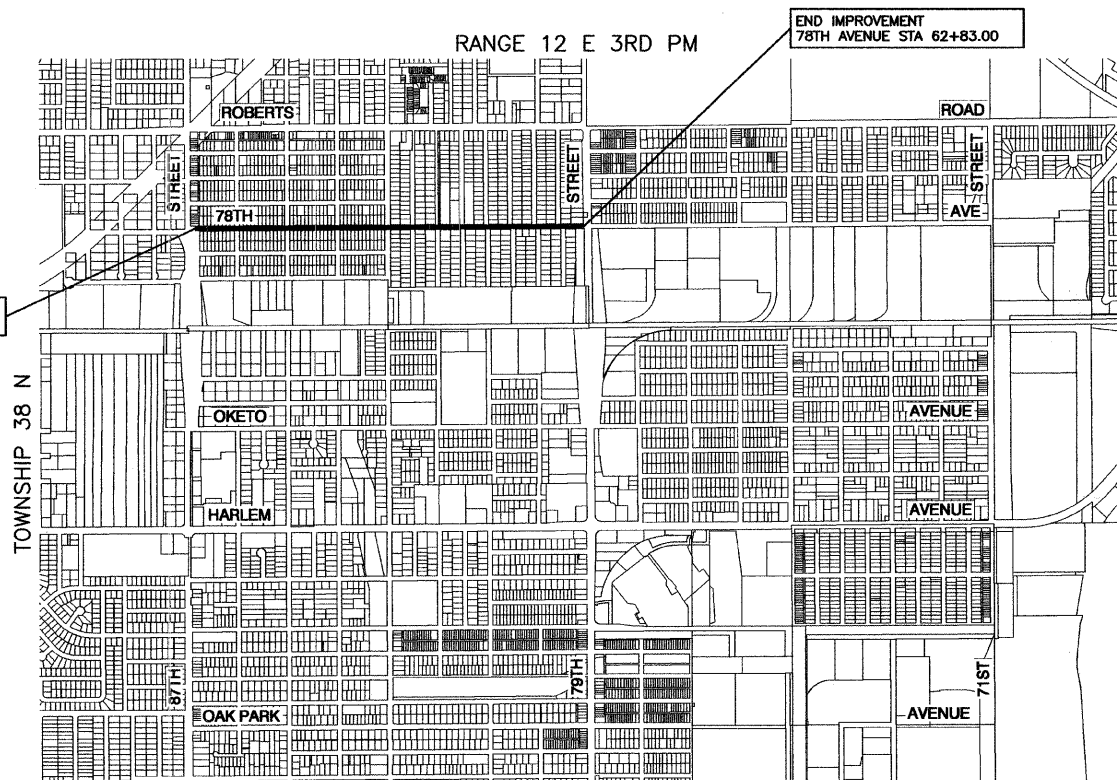
PLAN -	1" = 50'
PROFILE HORIZ. -	1" = 50'
PROFILE VERT. -	1" = 5'
CROSS SECTIONS -	1" = 10'



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

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

CONTRACT NO. 63573

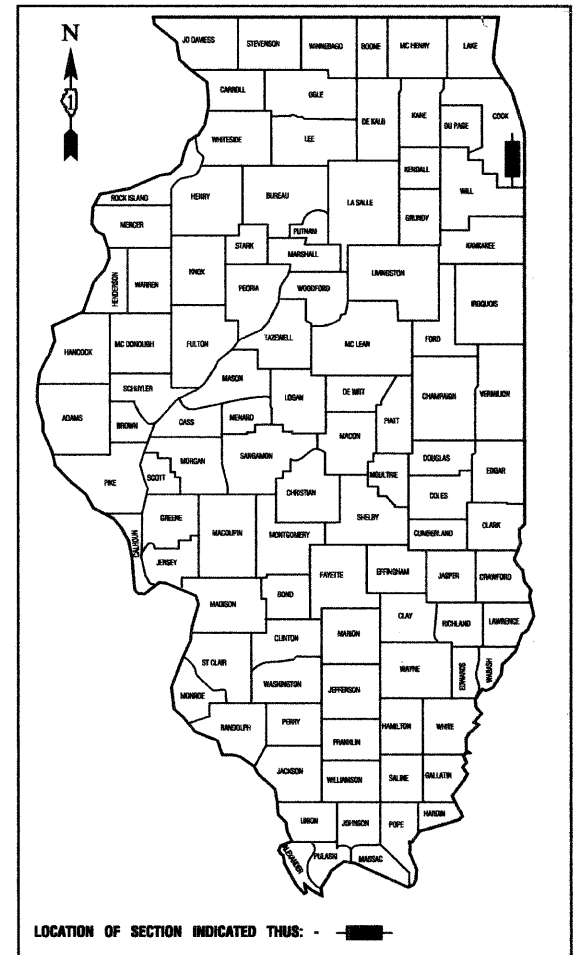


LOCATION MAP

NOT TO SCALE
GROSS LENGTH = 5,100 FEET (0.97 MILES)
NET LENGTH = 5,100 FEET (0.97 MILES)

F. A. U. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	11-00065-00-RS	COOK	16	1
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT NO.	M-9003(783)	

CONTRACT #63573



PROJECT LOCATED
IN VILLAGE OF
BRIDGEVIEW

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Approved: 3/18/2011
[Signature]
President, Village of Bridgeview

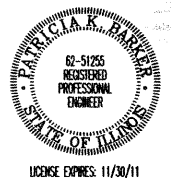
Passed: APRIL 11, 2011
[Signature]
District 1 Engineer of Local Roads & Streets

Released for Bid
Based on Limited
Review: APRIL 11, 2011
[Signature]
Deputy Director of Highways, Region 1 Engineer

PRINTED BY THE AUTHORITY OF
THE STATE OF ILLINOIS

PREPARED BY OR UNDER THE
DIRECT SUPERVISION OF:

[Signature]
3/18/2011



PROGRAM OFFICE ENGINEER: CHARLES F. RIDDLE P.E. 847-705-4406 SCHAUMBURG, IL
CONSULTANTS: ROBINSON ENGINEERING, LTD. 708-331-6700

SUMMARY OF QUANTITIES					PAVEMENT	
S.I.	CODE NO.	PAY ITEM	UNIT	QUAN	CONSTRUCTION TYPE CODE	
					0005	
	20101700	SUPPLEMENTAL WATERING	UNIT	3	3	
	25200110	SODDING, SALT TOLERANT	SQ YD	367	367	
	40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	3529	3529	
	40600300	AGGREGATE (PRIME COAT)	TON	35	35	
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	818	818	
	40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	1526	1526	
	42300300	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 7 INCH	SQ YD	18	18	
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	2262	2262	
	42400800	DETECTABLE WARNINGS	SQ FT	488	488	
	44000158	HOT-MIX ASPHALT SURFACE REMOVAL 2-1/4"	SQ YD	16828	16828	
	44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	98	98	
	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	1798	1798	
	44000600	SIDEWALK REMOVAL	SQ FT	2262	2262	
	44201725	CLASS D PATCHES, TYPE I, 7 INCH	SQ YD	8	8	
	44201729	CLASS D PATCHES, TYPE II, 7 INCH	SQ YD	230	230	
	44201733	CLASS D PATCHES, TYPE III, 7 INCH	SQ YD	155	155	
	44201735	CLASS D PATCHES, TYPE IV, 7 INCH	SQ YD	80	80	
	60250200	CATCH BASINS TO BE ADJUSTED	EACH	48	48	
	60252800	CATCH BASINS TO BE RECONSTRUCTED	EACH	1	1	
	60255500	MANHOLES TO BE ADJUSTED	EACH	3	3	
	60266600	VALVE BOXES TO BE ADJUSTED	EACH	3	3	
	60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	1798	1798	
	67100100	MOBILIZATION	L SUM	1	1	
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1	
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1	
	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	423	423	
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1144	1144	
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1496	1496	
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	498	498	
	88600600	DETECTOR LOOP REPLACEMENT	FOOT	165	165	
	X4060826	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	1018	1018	
	Z0004518	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 5"	SQ YD	80	80	
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	85	85	
	X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	28	28	

GENERAL NOTES

- BEFORE STARTING ANY EXCAVATION THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 AND (312) 744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. (48 HOUR NOTIFICATION REQUIRED)
- UTILITIES INDICATED ON THE PLANS ARE PROVIDED FOR THE CONTRACTORS USE AND ARE BASED UPON INFORMATION AVAILABLE AT THE TIME OF THE ADVERTISEMENT FOR BIDS. THE OWNER AND ENGINEER DO NOT GUARANTEE THE ACCURACY OF UTILITY INFORMATION.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- SCHEDULES INCLUDED IN THE PLANS HAVE BEEN PREPARED FROM FIELD NOTES. EXACT LOCATIONS FOR PATCHING SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- THE THICKNESS OF HMA MIXTURE STATED IN THE SPECIFICATIONS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA SURFACE IS PLACED.
- ACCESS TO DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES BY LIMITING CURB AND GUTTER REPAIR TO ONE-HALF THE DRIVEWAY WIDTH AT ONE TIME AS WELL AS TEMPORARY AGGREGATE.
- THE REMOVAL AND/OR REPLACEMENT OF ANY DRIVEWAYS, PAVEMENT, CURB, SIDEWALK, ECT. SHALL BE ACCOMPLISHED BY MEANS OF A SAW CUT JOINT, AT THE DIRECTION OF THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE UNIT PRICE FOR THE VARIOUS ITEMS.
- ANY LOOSE MATERIAL DEPOSITED IN THE FLOW LINE OF DITCHES, GUTTERS OR OTHER DRAINAGE STRUCTURES SHALL BE REMOVED BY THE END OF EACH DAY BY THE CONTRACTOR AT THEIR EXPENSE.

* - INDICATES SPECIALTY ITEMS

FILE NAME = 10194-QUAN-01 - IDOT P01

USER NAME =

DESIGNED -- JH

REVISED --

CHECKED -- PKB

REVISED --

PLOT SCALE =

DRAWN -- PS

REVISED --

PLOT DATE = 03-18-11

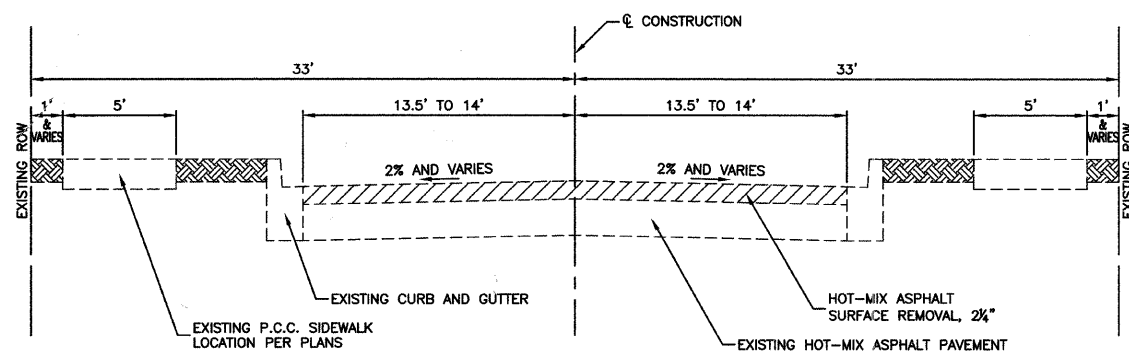
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REVISED --

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

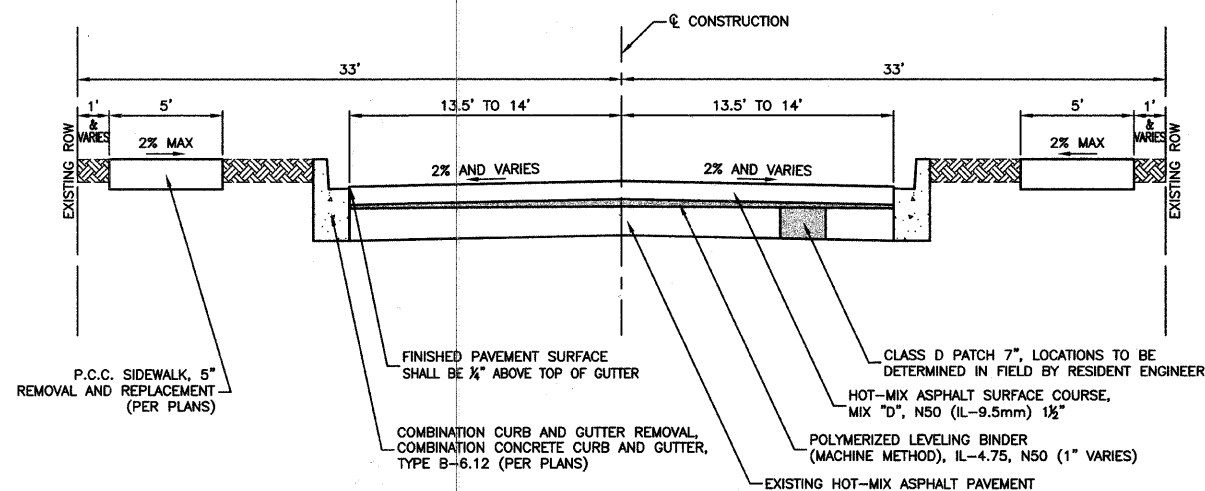
FAU 1707 (78TH AVENUE) RESURFACING
87TH STREET (FAU 1558) TO 79TH STREET (FAU 1548)
SUMMARY OF QUANTITIES AND GENERAL NOTES

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	11-00065-00-RS	COOK	16	2
CONTRACT NO. 63573				
SCALE: NA SHEET NO. 2 OF 16 SHEETS STA. TO STA. FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-8003(783)				



EXISTING TYPICAL SECTION

78TH AVENUE
87TH STREET TO 79TH STREET
STA 11+83 TO STA 62+83



PROPOSED TYPICAL SECTION

78TH AVENUE
87TH STREET TO 79TH STREET
STA 11+83 TO STA 62+83

NOTE: CONTRACTOR SHALL MILL BEFORE PATCHING

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE	AIR VOIDS
RESURFACING	
HOT MIX ASPHALT SURFACE COURSE, MIX "D", N50(IL-9.5mm); 1 1/2"	4% @ 50 Gyr.
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, (1")	4% @ 50 Gyr.
DRIVEWAYS	
HOT MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL-9.5mm); 2"	4% @ 50 Gyr.
HOT MIX ASPHALT BASE COURSE, (HMA BINDER IL-19.0mm); 3"	4% @ 50 Gyr.
PATCHING	
CLASS D PATCHES, TYPE I, II, III, IV (HMA BINDER IL-19.0mm), 7" (IN 3 LIFTS)	4% @ 70 Gyr.

NOTES:

1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SY/IN.
2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC" TYPE SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

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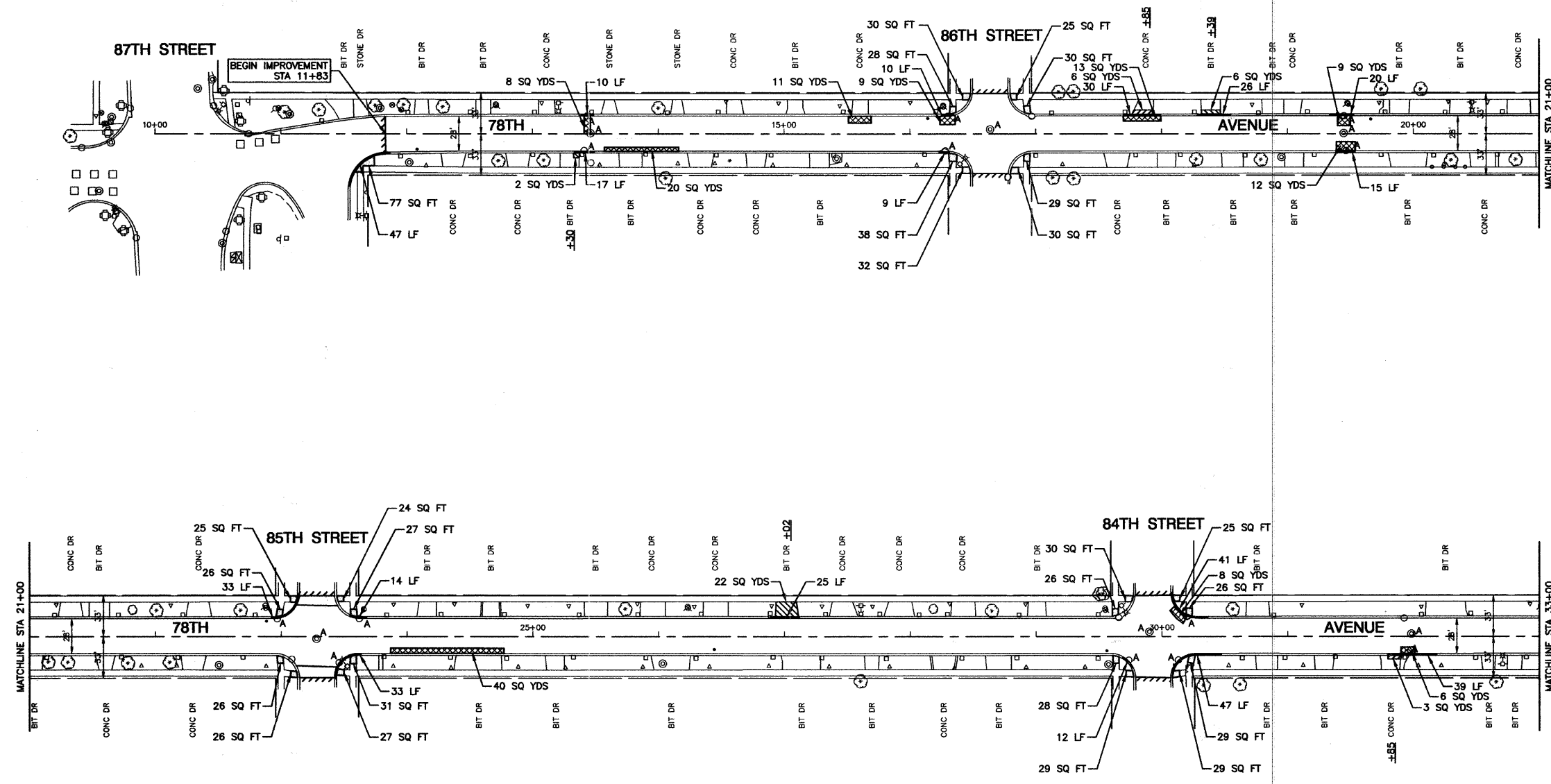
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PLOT DATE = 03-18-11	CHECKED - AG	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAU 1707 (78TH AVENUE) RESURFACING
87TH STREET (FAU 1558) TO 79TH STREET (FAU 1548)
TYPICAL CROSS SECTIONS

SCALE: NA SHEET NO. 3 OF 16 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	11-00065-00-RS	COOK	16	3
CONTRACT NO. 63573				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003(783)				



- NOTE:**
1. DETECTABLE WARNINGS ARE TO BE INSTALLED AT LOCATIONS OF SIDEWALK REMOVAL AND REPLACEMENT. CONTRACTOR TO POSITION AND PLACE DETECTABLE WARNINGS AT THE DIRECTION OF THE ENGINEER.
 2. LIMIT OF CONSTRUCTION ON ALL SIDE STREETS IS THE RADIUS RETURN PLUS 10' BUTT JOINT OR R.O.W. AS NOTED.
 3. ACCESS TO ALL DRIVEWAYS SHALL BE MAINTAINED UPON COMPLETION OF EACH WORKDAY. RESIDENTS SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF WHEN DRIVEWAY REPLACEMENT WILL TAKE PLACE.

LEGEND

	HMA PAVEMENT REPAIR
	HMA DRIVEWAY REMOVAL AND REPLACEMENT
	CONCRETE DRIVEWAY REMOVAL AND REPLACEMENT
	CONCRETE SIDEWALK REMOVAL AND REPLACEMENT
	BUTT JOINTS
	CURB REMOVAL
	CATCH BASIN TO BE ADJUSTED, FRAME & LID TO BE ADJUSTED SPECIAL, VALVE BOX TO BE ADJUSTED.
	DETECTOR LOOP

FILE NAME = 10194-PLAN-01 - 100T P01

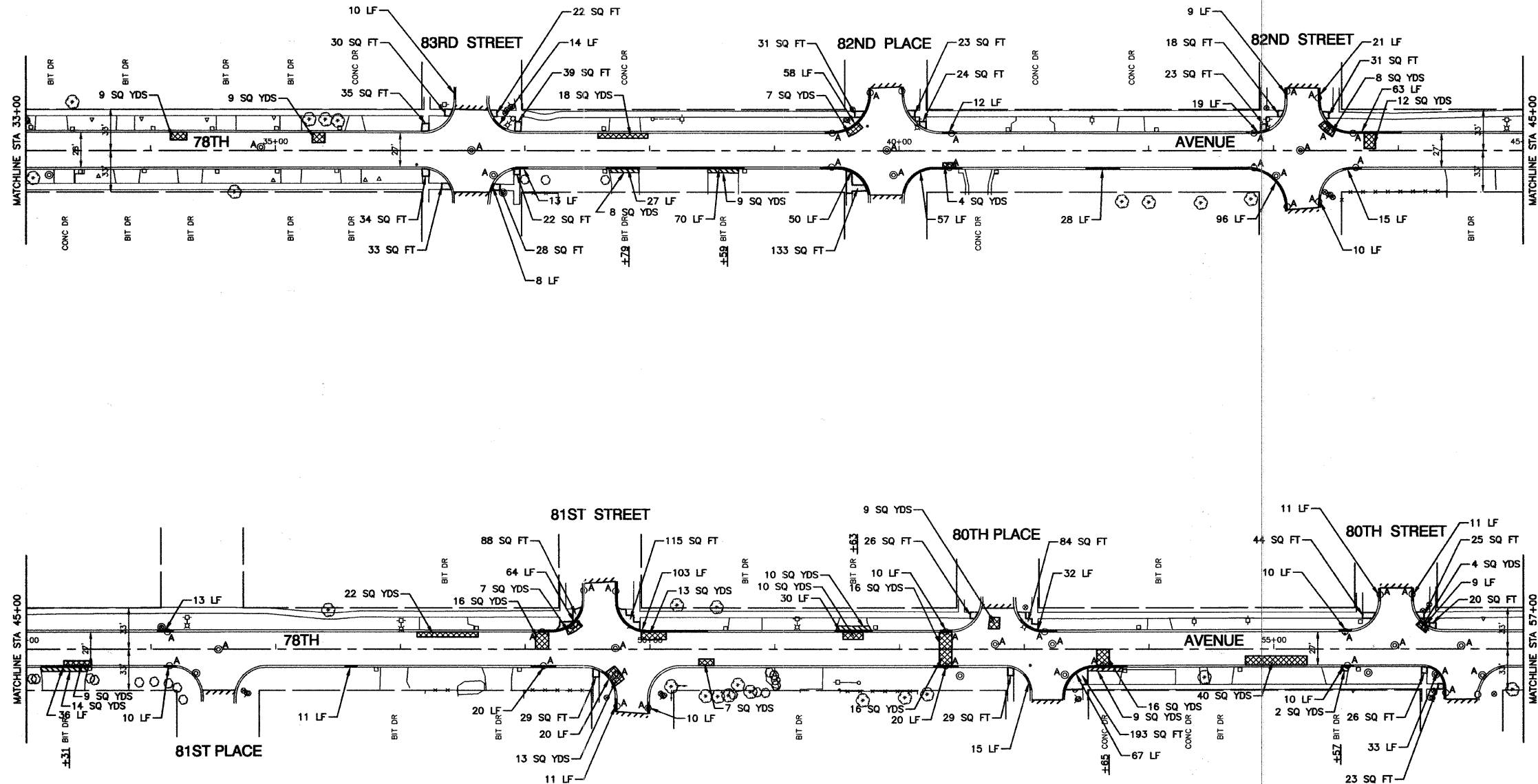
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PLOT SCALE =	DRAWN -- PS	REVISED --
PLOT DATE = 03-18-11	CHECKED -- AG	REVISED --

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FAU 1707 (78TH AVENUE) RESURFACING
87TH STREET (FAU 1558) TO 79TH STREET (FAU 1548)
PAVEMENT PLAN**

SCALE: 1"=50' SHEET NO. 4 OF 16 SHEETS STA. 10+00.00 TO STA. 33+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	11-00065-00-RS	COOK	16	4
CONTRACT NO. 63573				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003(783)				

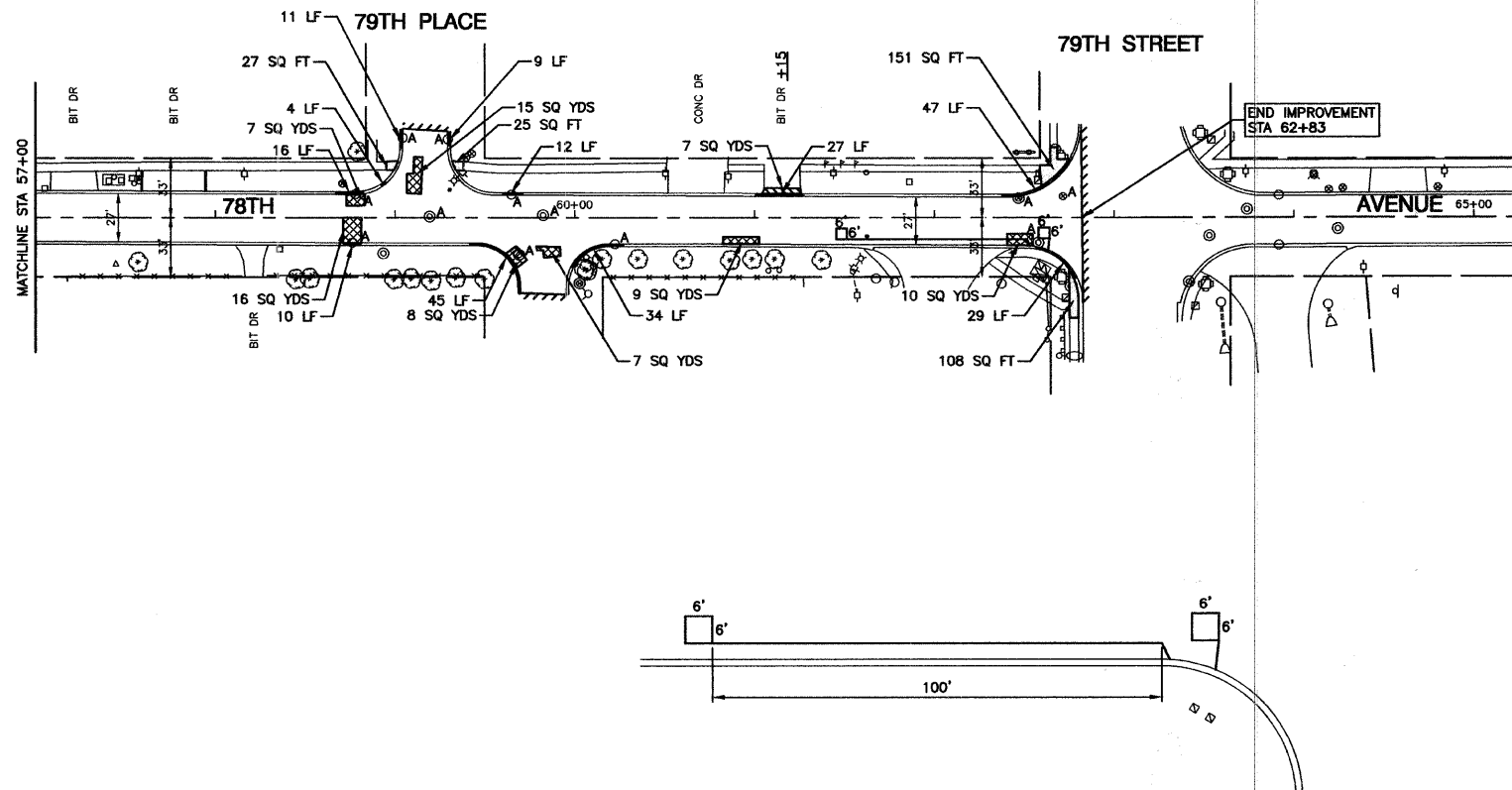


- NOTE:**
1. DETECTABLE WARNINGS ARE TO BE INSTALLED AT LOCATIONS OF SIDEWALK REMOVAL AND REPLACEMENT. CONTRACTOR TO POSITION AND PLACE DETECTABLE WARNINGS AT THE DIRECTION OF THE ENGINEER.
 2. LIMIT OF CONSTRUCTION ON ALL SIDE STREETS IS THE RADIUS RETURN PLUS 10' BUTT JOINT OR R.O.W. AS NOTED.
 3. ACCESS TO ALL DRIVEWAYS SHALL BE MAINTAINED UPON COMPLETION OF EACH WORKDAY. RESIDENTS SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF WHEN DRIVEWAY REPLACEMENT WILL TAKE PLACE.

LEGEND

	HMA PAVEMENT REPAIR
	HMA DRIVEWAY REMOVAL AND REPLACEMENT
	CONCRETE DRIVEWAY REMOVAL AND REPLACEMENT
	CONCRETE SIDEWALK REMOVAL AND REPLACEMENT
	BUTT JOINTS
	CURB REMOVAL
	CATCH BASIN TO BE ADJUSTED, FRAME & LID TO BE ADJUSTED, SPECIAL, VALVE BOX TO BE ADJUSTED.
	DETECTOR LOOP

FILE NAME = 10194-PLAN-01 - IDOT P2	USER NAME =	DESIGNED - JH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FAU 1707 (78TH AVENUE) RESURFACING 87TH STREET (FAU 1558) TO 79TH STREET (FAU 1548) PAVEMENT PLAN			FAU. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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PLOT DATE = 03-18-11	DRAWN - PS	REVISED -		SCALE: 1"=50'	SHEET NO. 5	OF 16 SHEETS	STA. 33+00.00	TO STA. 57+00.00	CONTRACT NO. 63573				
	CHECKED - AG	REVISED -						FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	M-9003(783)		



NOTE:

1. DETECTABLE WARNINGS ARE TO BE INSTALLED AT LOCATIONS OF SIDEWALK REMOVAL AND REPLACEMENT. CONTRACTOR TO POSITION AND PLACE DETECTABLE WARNINGS AT THE DIRECTION OF THE ENGINEER.
2. LIMIT OF CONSTRUCTION ON ALL SIDE STREETS IS THE RADIUS RETURN PLUS 10' BUTT JOINT OR R.O.W. AS NOTED.
3. ACCESS TO ALL DRIVEWAYS SHALL BE MAINTAINED UPON COMPLETION OF EACH WORKDAY. RESIDENTS SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF WHEN DRIVEWAY REPLACEMENT WILL TAKE PLACE.

LEGEND

- HMA PAVEMENT REPAIR
- HMA DRIVEWAY REMOVAL AND REPLACEMENT
- CONCRETE DRIVEWAY REMOVAL AND REPLACEMENT
- CONCRETE SIDEWALK REMOVAL AND REPLACEMENT
- BUTT JOINTS
- CURB REMOVAL
- CATCH BASIN TO BE ADJUSTED, FRAME & LID TO BE ADJUSTED SPECIAL, VALVE BOX TO BE ADJUSTED.
- DETECTOR LOOP

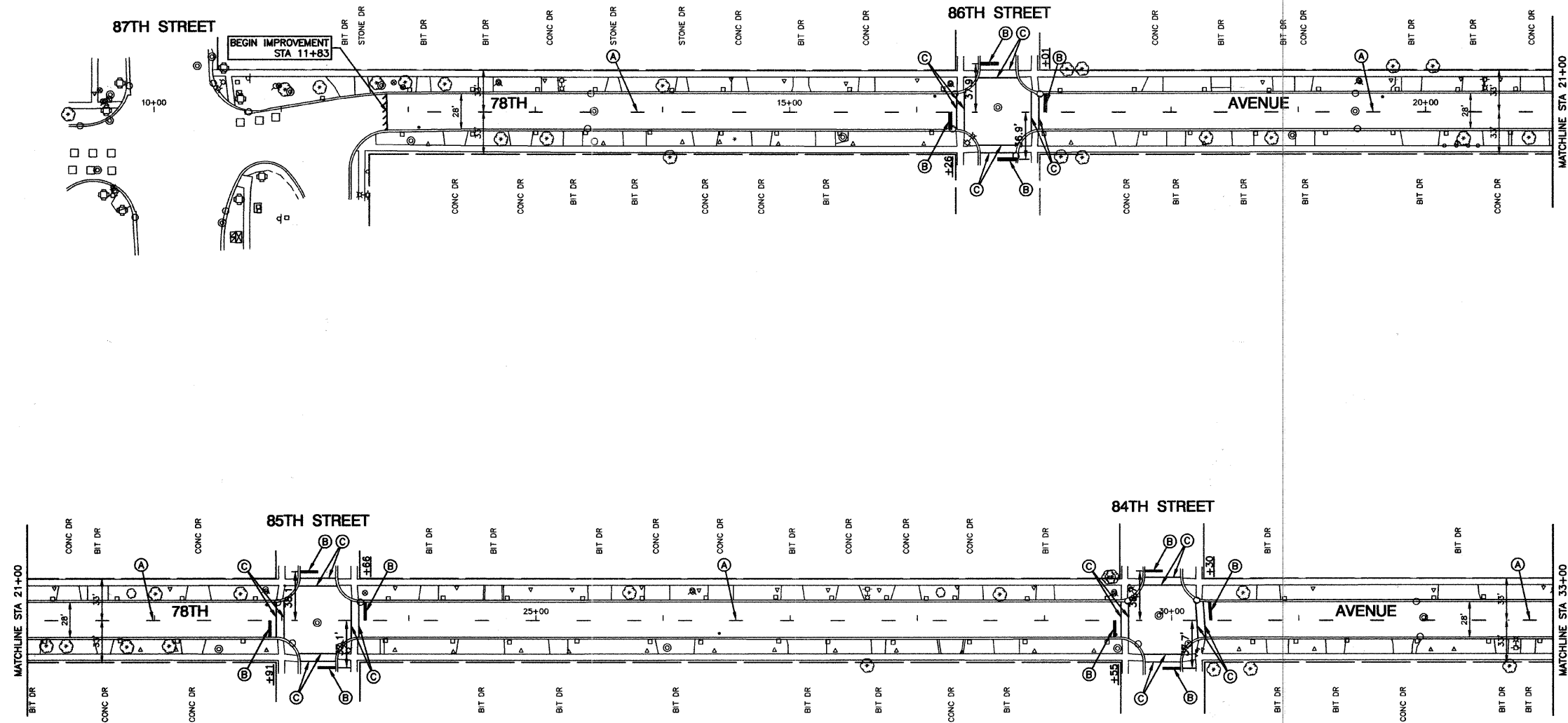
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

FAU 1707 (78TH AVENUE) RESURFACING
87TH STREET (FAU 1558) TO 79TH STREET (FAU 1548)
PAVEMENT PLAN

SCALE: 1"=50' SHEET NO. 6 OF 16 SHEETS STA. 57+00.0 TO STA. 62+83.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	11-00085-00-RS	COOK	16	6
CONTRACT NO. 63573				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-6003(783)				



LEGEND

- (A) THERMOPLASTIC PAVEMENT MARKING
YELLOW, 4" SKIP DASH (10' LINE - 30' SPACE)
- (B) THERMOPLASTIC PAVEMENT MARKING
WHITE, 24"
- (C) THERMOPLASTIC PAVEMENT MARKING
WHITE, LINE, 6"

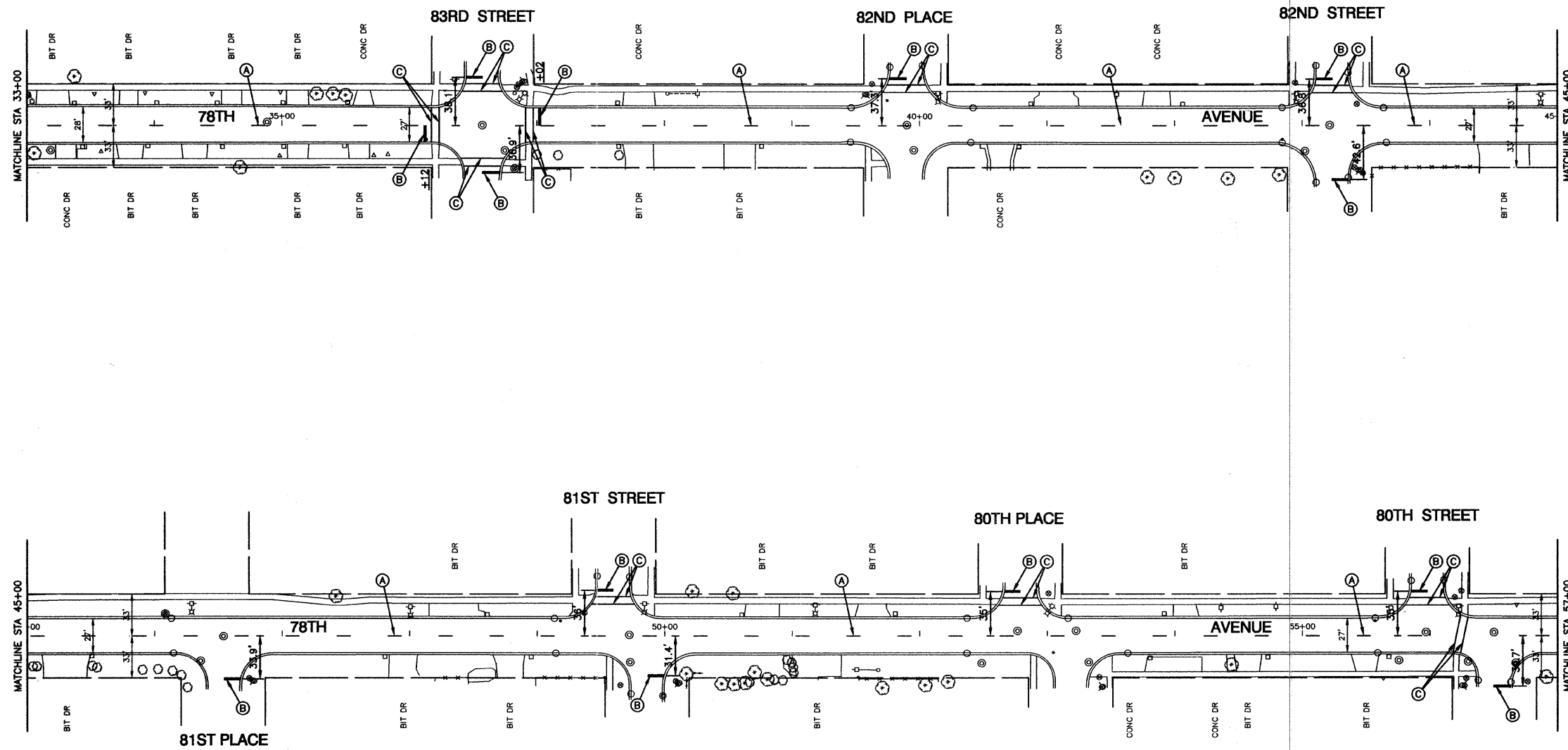
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	PLOT DATE = 03-18-11	CHECKED - AG	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAU 1707 (78TH AVENUE) RESURFACING
87TH STREET (FAU 1558) TO 79TH STREET (FAU 1548)
STRIPING PLAN

SCALE: 1"=50' SHEET NO. 7 OF 16 SHEETS STA. 10+00.00 TO STA. 33+00.00

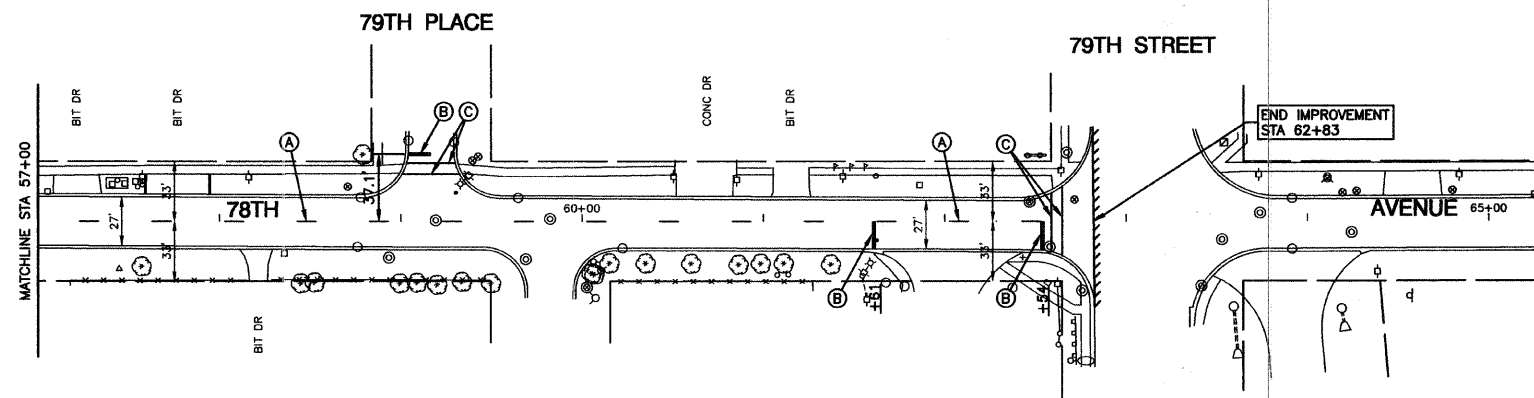
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1707	11-00065-00-RS	COOK	16	7
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT M-6003(783)	
CONTRACT NO. 63573				



LEGEND

- (A) THERMOPLASTIC PAVEMENT MARKING
YELLOW, 4" SKIP DASH (10' LINE - 30' SPACE)
- (B) THERMOPLASTIC PAVEMENT MARKING
WHITE, 24"
- (C) THERMOPLASTIC PAVEMENT MARKING
WHITE, LINE, 6"

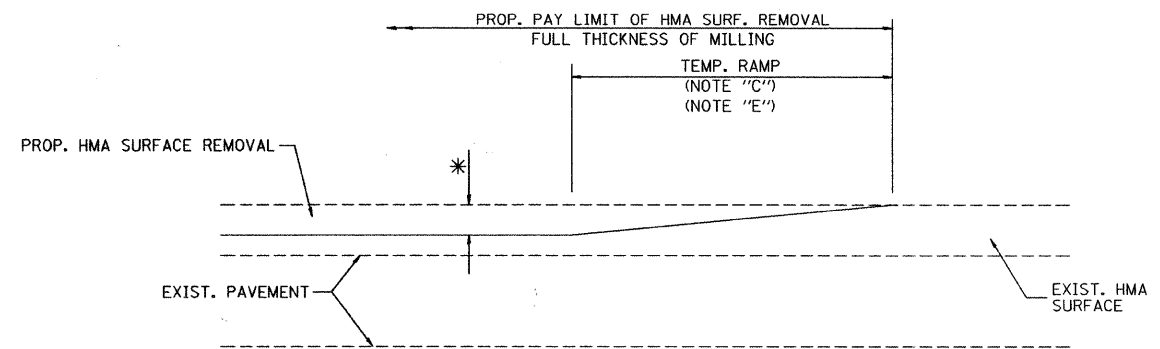
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	PLOT SCALE =	DRAWN - PS	REVISED -		SCALE: 1"=50'	SHEET NO. 8	OF 16 SHEETS	STA. 33+00.00	TO STA. 57+00.00	CONTRACT NO. 63573		
PLOT DATE = 03-18-11	CHECKED - AG	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-6003(783)							



LEGEND

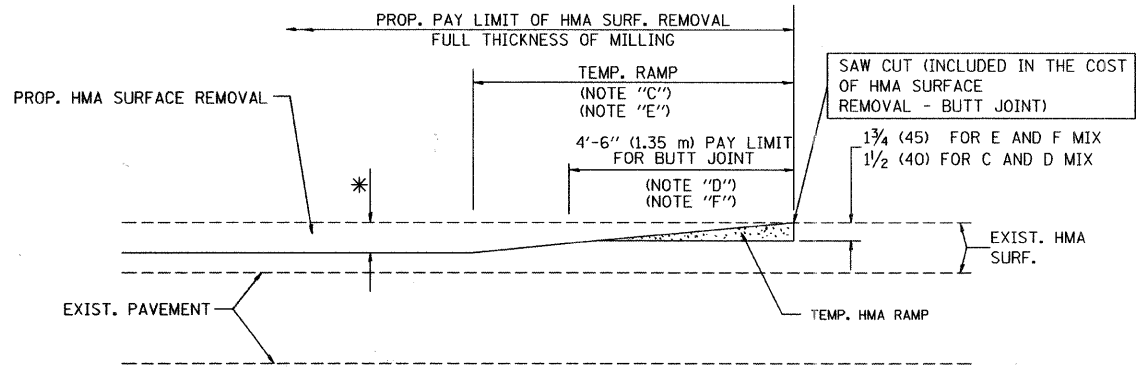
- (A) THERMOPLASTIC PAVEMENT MARKING
YELLOW, 4" SKIP DASH (10" LINE - 30" SPACE)
- (B) THERMOPLASTIC PAVEMENT MARKING
WHITE, 24"
- (C) THERMOPLASTIC PAVEMENT MARKING
WHITE, LINE, 6"

FILE NAME = 10194-PLAN-01 - 100T PMS3	USER NAME =	DESIGNED - JH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FAU 1707 (78TH AVENUE) RESURFACING 87TH STREET (FAU 1558) TO 79TH STREET (FAU 1548) STRIPING PLAN			F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED - PKB	REVISED -		1707	11-00065-00-RS	COOK	16	9				
	PLOT SCALE =	DRAWN - PS	REVISED -		SCALE: 1"=50'			SHEET NO. 9 OF 16 SHEETS STA. 57+00.0 TO STA. 62+83.00			CONTRACT NO. 63573		
	PLOT DATE = 03-18-11	CHECKED - AG	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003(783)								



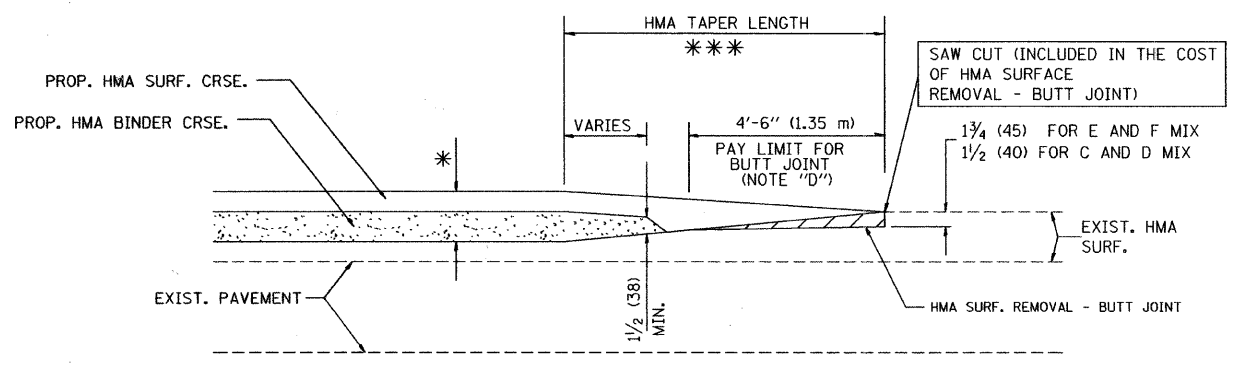
MILLED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

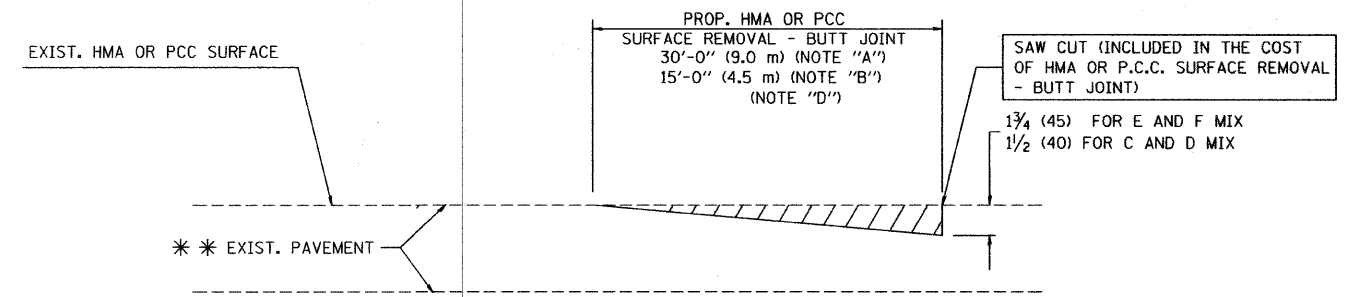


HMA CONSTRUCTED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

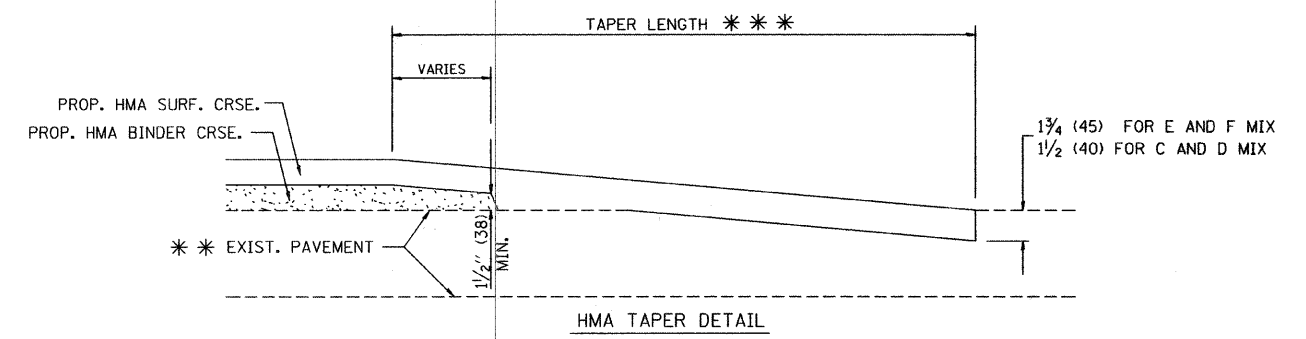
OPTION 2
TYPICAL TEMPORARY RAMP



BUTT JOINT AND HMA TAPER
TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER
FOR RESURFACING ONLY

*** PC CONCRETE, HMA OR HMA 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 HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- *** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:
THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

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

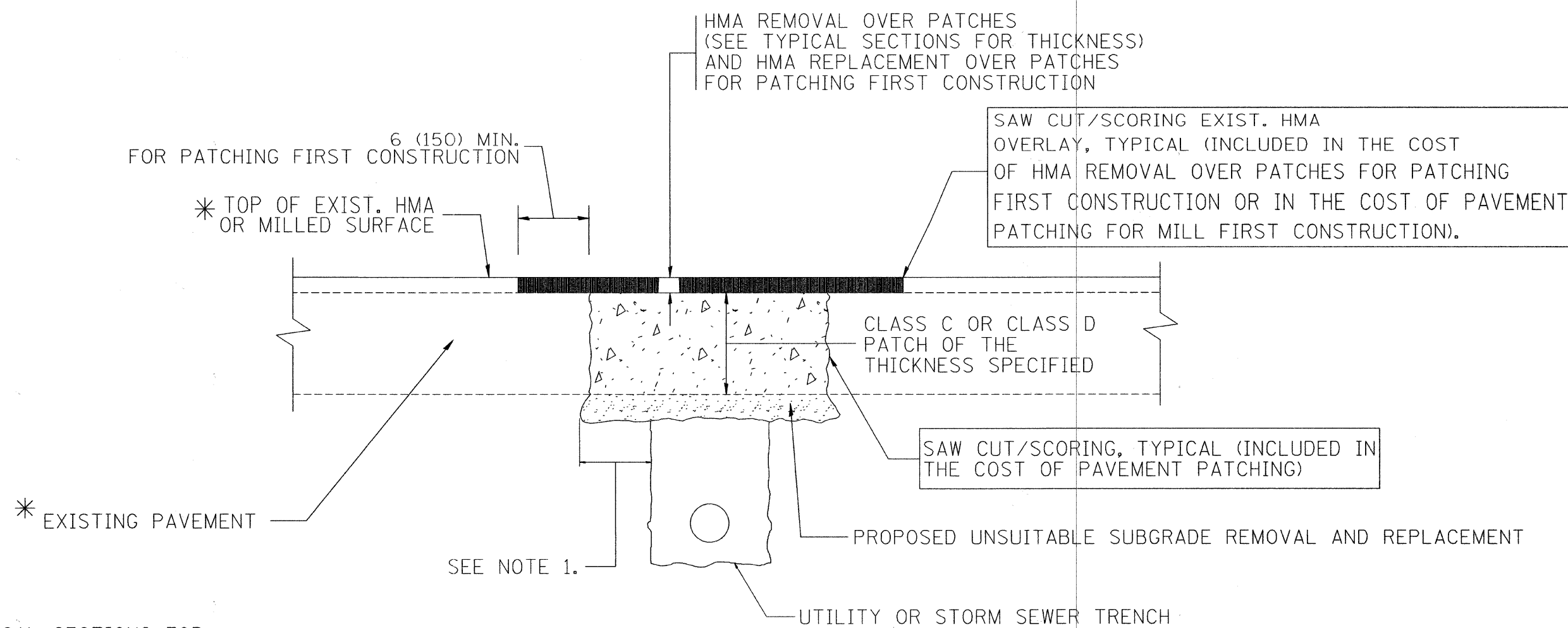
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		CHECKED -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	CHECKED - 06-13-90	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:	SHEET NO. 10 OF 16 SHEETS	STA.	TO STA.
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BUTT JOINT AND HMA TAPER DETAILS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	11-00065-00-RS	COOK	16	10
BD400-05 BD32		CONTRACT NO. 63573		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003(783)				



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

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

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

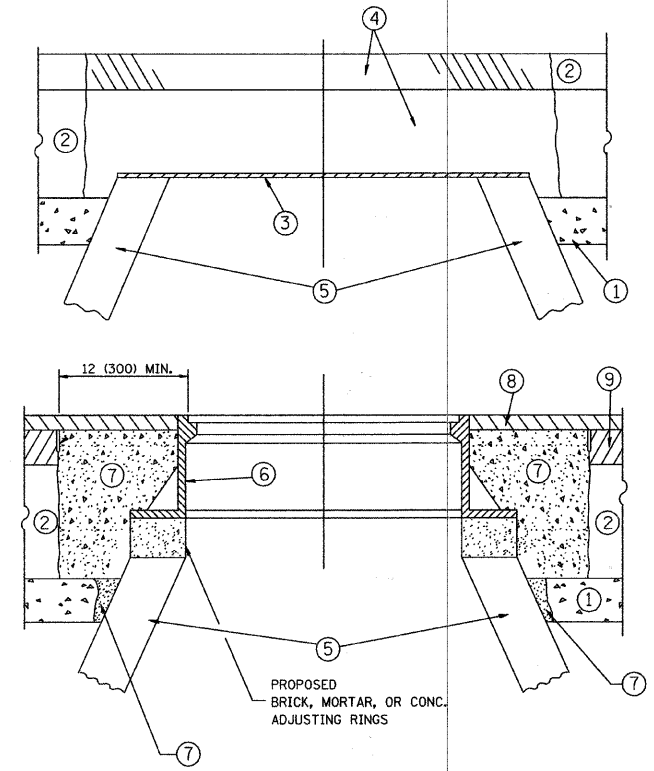
1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

FILE NAME = 10194-DT19-09-8022 - BD-22	USER NAME = bouerd-t	DESIGNED -- R. SHAH	REVISED -- A. ABBAS 04-27-98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED --	REVISED -- R. BORO 01-01-07			1707	11-00065-00-RS	COOK	16	11	
		PLOT SCALE = 50.000' / IN.	REVISED -- R. BORO 09-04-07			BD400-04 (BD-22)		CONTRACT NO. 63573			
		PLOT DATE = 10/27/2006	REVISED -- K. ENG 10-27-08			SCALE:	SHEET NO. 11 OF 16 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003(783)	



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.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1½ (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX 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 PP-1* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.
- *UNLESS OTHERWISE SPECIFIED IN THE PLANS.

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 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS PP-1* CONCRETE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

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: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL" NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

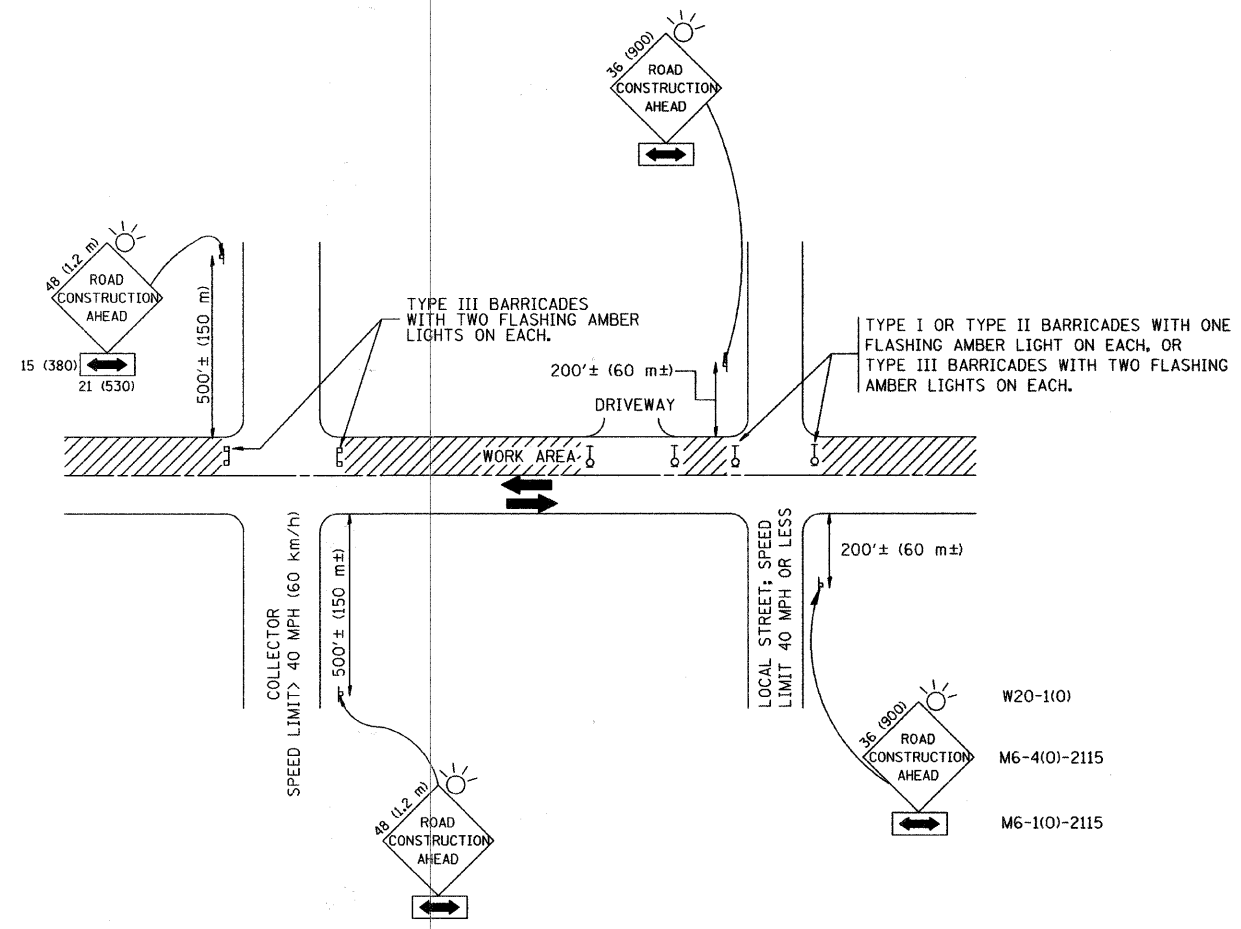
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	PLOT SCALE = 50.0000' / IN.	DRAWN —	REVISED —R. BORO 01-01-07
	PLOT DATE = 1/4/2008	CHECKED — 10-25-94	REVISED —R. BORO 03-09-11

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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

SCALE: SHEET NO. 12 OF 16 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	11-00065-00-RS	COOK	16	12
BD080-03 (BD-8)			CONTRACT NO. 63573	
<small>FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003(783)</small>				



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 DRIVEWAYS:

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.

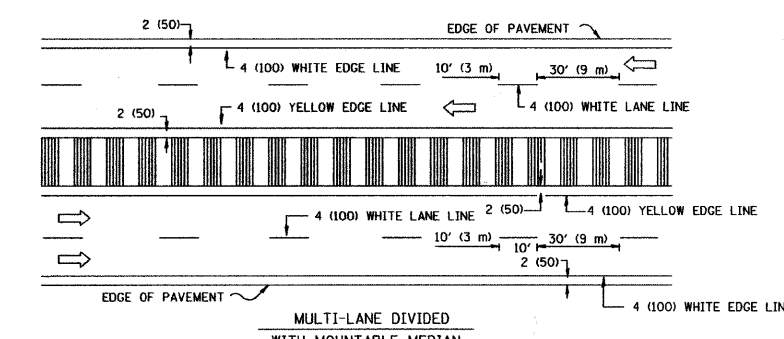
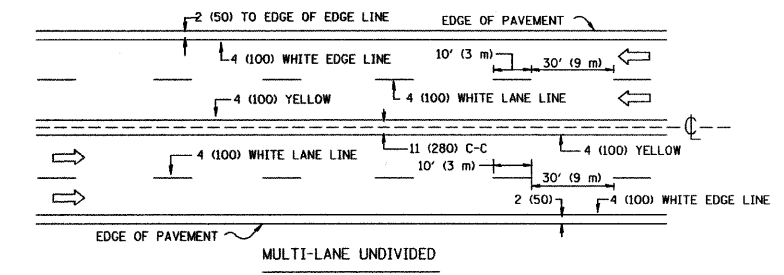
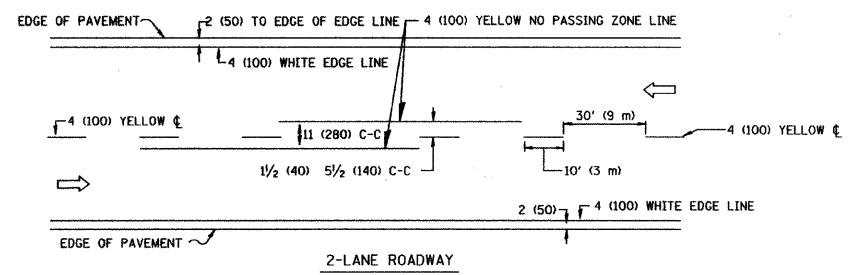
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	PLOT SCALE = 50,000 / IN.	DRAWN --	REVISED -- A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	CHECKED -- 06-89	REVISED -- T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

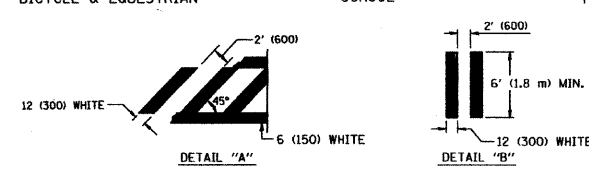
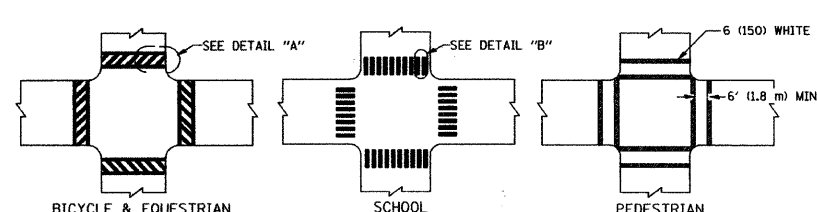
SCALE: SHEET NO. 13 OF 16 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	11-00085-00-RS	COOK	16	13
TC-10			CONTRACT NO. 63573	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-6003(783)				

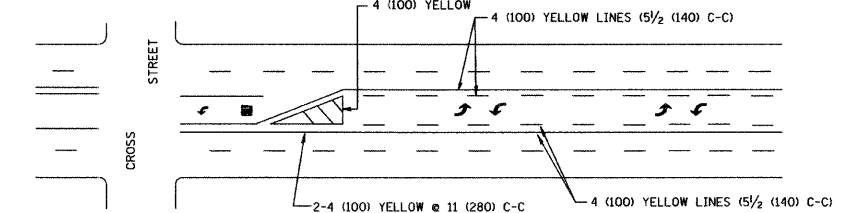
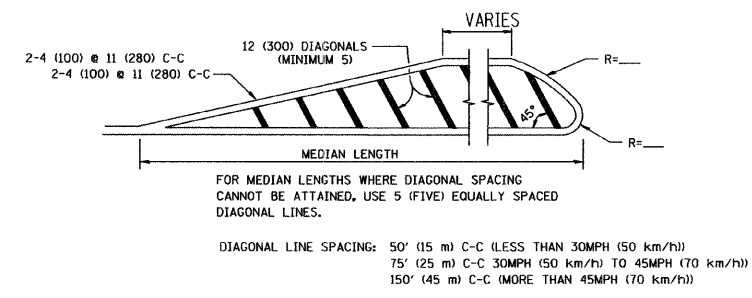
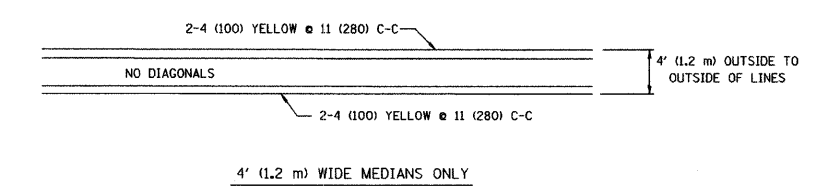


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

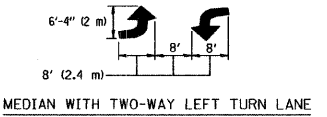
TYPICAL LANE AND EDGE LINE MARKING



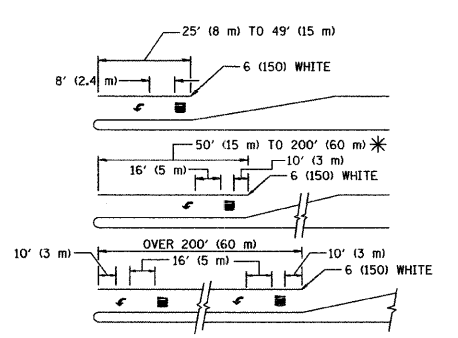
TYPICAL CROSSWALK MARKING



A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



TYPICAL PAINTED MEDIAN MARKING

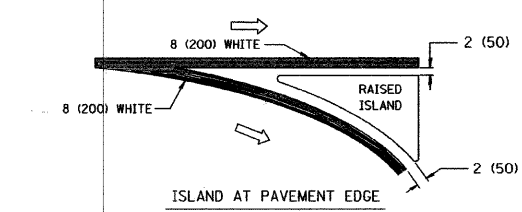
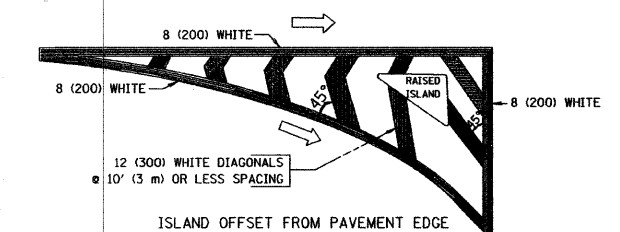


FULL SIZE LETTERS 8" (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m²) ; AREA = 20.8 SQ. FT. (1.9 m²)

* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8" (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) 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 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINE; "RR" 15 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD T80001 AREA OF: "R": 3.5 SQ. FT. (0.33 m ²) EACH "X": 54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD T80001.

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

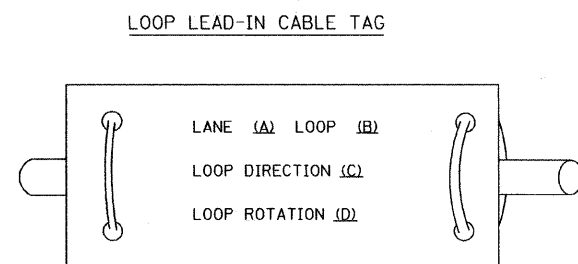
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

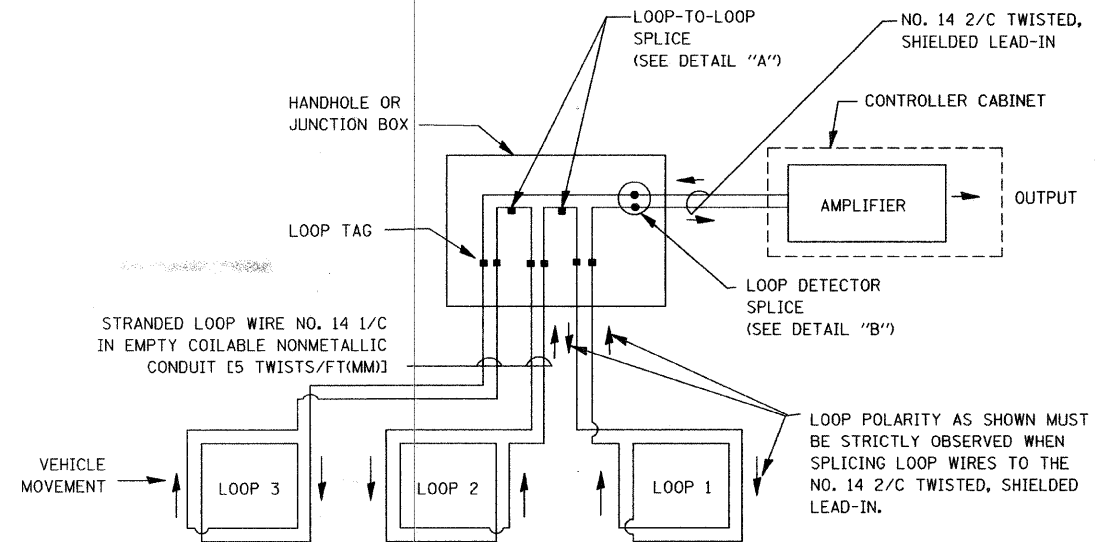
DISTRICT ONE		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TYPICAL PAVEMENT MARKINGS		1707	11-00085-00-RS	COOK	16	14
SCALE: SHEET NO. 14 OF 16 SHEETS STA. TO STA.		TC-13		CONTRACT NO. 63573		
		FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT M-6003(783)		

LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. 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.
3. 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.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. 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.
6. 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.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

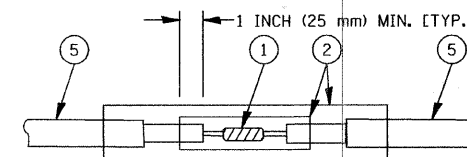


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

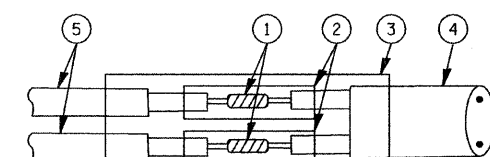


DETECTOR LOOP WIRING SCHEMATIC

- 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.

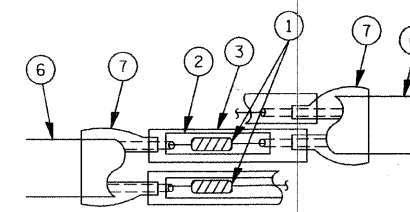


**DETAIL "A"
LOOP-TO-LOOP SPLICE**

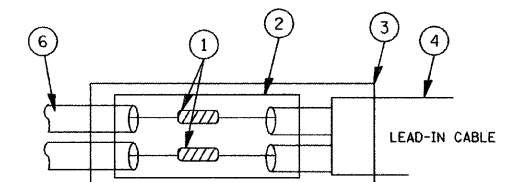


**DETAIL "B"
LOOP-TO-CONTROLLER SPLICE**

TYPE I LOOP



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



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

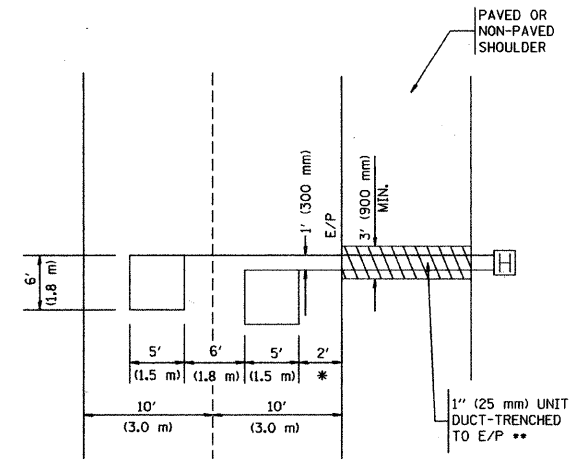
LOOP DETECTOR SPLICE

- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- 2 WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- 6 PRE-FORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

FILE NAME = 10194-DTLS-08-TS05 - TS-05A	USER NAME = bauerdl	DESIGNED = DAD	REVISED =	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS	F.A.U. RTE. = 1707	SECTION = 11-00065-00-FIS	COUNTY = COOK	TOTAL SHEETS = 16	SHEET NO. = 15
	PLOT SCALE = 50.0000' / IN.	DRAWN =	REVISED =			TS-05		CONTRACT NO. 83573		
	PLOT DATE = 11/4/2009	CHECKED = 10-28-09	REVISED =			SCALE: SHEET NO. 15 OF 16 SHEETS STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003(783)		

LOOPS NEXT TO SHOULDERS

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

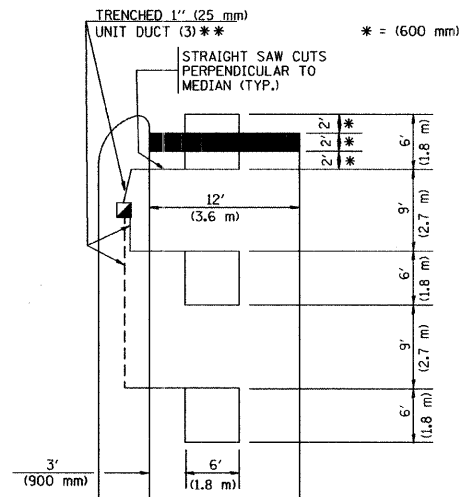


* = (600 mm)

** 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.



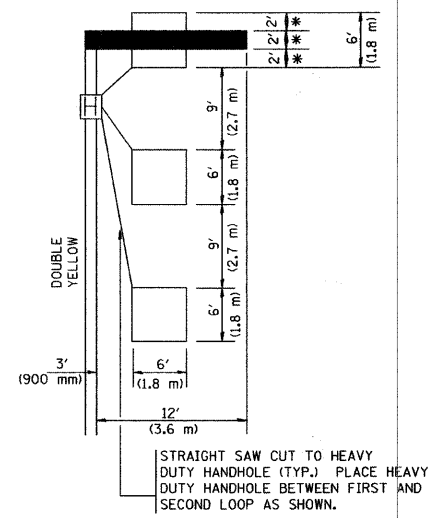
* = (600 mm)

** 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

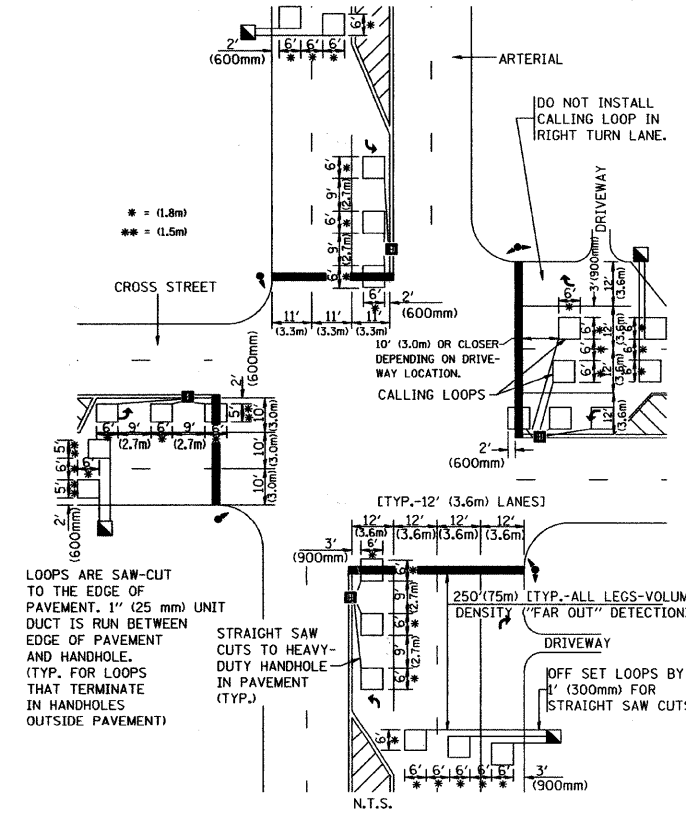
LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)

* = (600 mm)



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

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

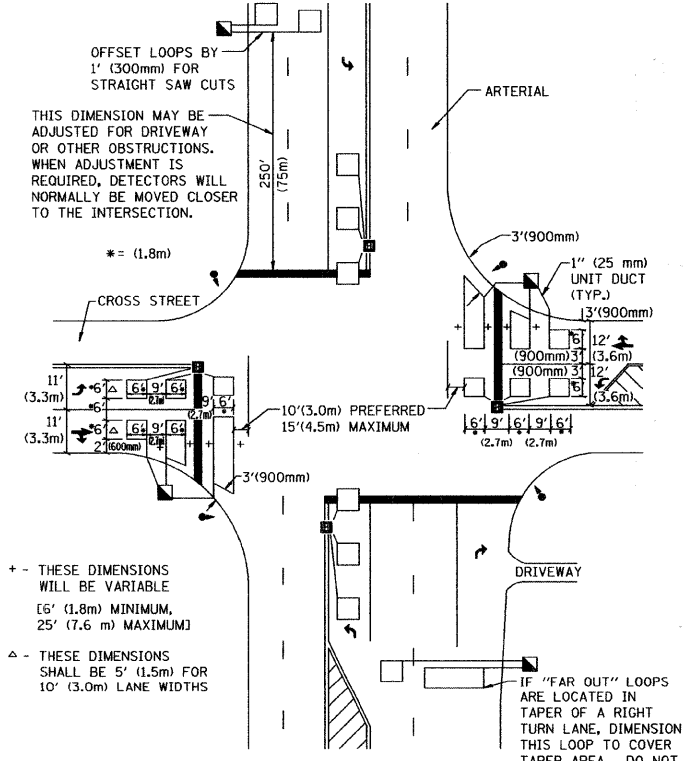


LOOPS ARE SAW-CUT
TO THE EDGE OF
PAVEMENT. 1" (25 mm) UNIT
DUCT IS RUN BETWEEN
EDGE OF PAVEMENT
AND HANDHOLE.
(TYP. FOR LOOPS
THAT TERMINATE
IN HANDHOLES
OUTSIDE PAVEMENT)

STRAIGHT SAW
CUTS TO HEAVY-
DUTY HANDHOLE
IN PAVEMENT
(TYP.)

DETAIL 1
N.T.S.

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



+ - THESE DIMENSIONS
WILL BE VARIABLE
6' (1.8 m) MINIMUM,
25' (7.6 m) MAXIMUM)

- THESE DIMENSIONS
SHALL BE 5' (1.5 m) FOR
10' (3.0 m) LANE WIDTHS

IF "FAR OUT" LOOPS
ARE LOCATED IN
TAPER OF A
RIGHT
TURN LANE, DIMENSION
THIS LOOP TO COVER
TAPER AREA. DO NOT
COVER THE LEFT TURN
LANE OR LEFT TURN
LANE TAPER.

DETAIL 2
N.T.S.

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.

FILE NAME = 10194-DTIS-09-T807 - T8-07	USER NAME = geglennobt	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -			1707	11-00085-00-RS	COOK	16	16
	PLOT DATE = 1/4/2008	DRAWN - R.J.F.	REVISED -			TS-07			CONTRACT NO. 63573	
		CHECKED -	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT M-9003(783)	