# STATE OF ILLINOIS

# **DEPARTMENT OF TRANSPORTATION**

**DIVISION OF HIGHWAYS** 

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THESE IMPROVEMENTS ARE LOCATED WITHIN THE VILLAGE OF RIVER GROVE AND THE CITY OF CHICAGO

# **PROPOSED** HIGHWAY PLANS

F.A.P. 372 (IL 171/THATCHER AVENUE) **SECTION: 2009-055 RS** DES PLAINES RIVER ROAD TO NORTH OF FOREST PRESERVE DRIVE **RESURFACING (3P)** 

> **COOK COUNTY** C-91-609-09

> > CHICAGO

ADDISON ST

BELMONT ST

NORTH AVE

64)

R 12E R 13E

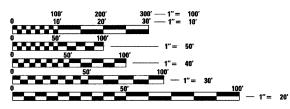
IRVING PARK RD

RIVER GROVE

DES PLAINES RIVER

TRAFFIC DATA

2006 ADT - 36,800 POSTED SPEED LIMIT - 40MPH



1-800-892-0123

Ciorba Group, Inc. DESIGN FIRM

**BEGIN PROJECT** 

STA. 108 + 10

REGISTRATION NUMBER 184-001016

CONSULTING ENGINEERS SUITE 402, 5507 NORTH CUMBERLAND AVE CHICAGO, ILLINOIS 60656 :: (773) 775-4009 LEYDEN TOWNSHIP

1'' = 2,500'

GROSS LENGTH OF PROJECT = 8,624 FT = 1.63 MI. NET LENGTH OF PROJECT = 8,105 FT = 1.54 MI.

END PROJECT

STA. 154 + 05 OMISSION STA. 154 + 80

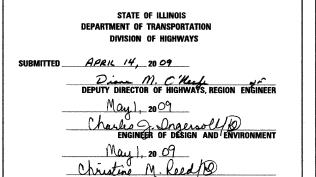
> STA, 109 + 00 OMISSION

STA. 113 + 44

2009-055 RS COOK 25 1 372 FED. ROAD DIST. NO. 1 ILLINOIS CONTRACT NO. 60H39

# D-91-609-09





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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.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION OR 811

GRANDAVE

♠ NORTHLAKE

CONTRACT NO. 60H39

# INDEX OF SHEETS

HEET NO	DESCRIPTION
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4	TYPICAL SECTIONS
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16	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT (BD-22)
17	CURB AND GUTTER REMOVAL AND REPLACEMENT (BD-24)
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19	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS,
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22	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) (TC-14)
23	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING (TC-16)
24	ARTERIAL ROAD INFORMATION SIGN (TC-22)
25	DISTRICT 1 DETECTOR LOOP INSTALLATION DETAILS FOR
	ROADWAY RESURFACING (TS-07)

# STATE STANDARDS

000001- <i>05</i>	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
442201- <i>0</i> 3	CLASS C AND D PATCHES
604001- <i>0</i> <b>3</b>	FRAME AND LIDS, TYPE 1
606001 <b>-04</b>	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701301 ~ <b>03</b>	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701602 <i>-04</i>	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701606- <i>0</i>	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701 - <i>00</i>	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801 - <i>04</i>	LANE CLOSURE MULTILANE 1W, 2W, CROSSWALK OR SIDEWALK CLOSURE
701901 <b>- 01</b>	TRAFFIC CONTROL DEVICES
780001- <b>02</b>	TYPICAL PAVEMENT MARKINGS
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUTS FOR DETECTION LOOPS

# GENERAL NOTES

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED)
- 2. 10 FEET (3 METER) TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS ()F WORK TO EXISTING CURB AND GUTTER AND MEDIANS IN THE FIELD UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.
- 3. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.
- 4. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- 5. WHEN ARTIFICIAL LIGHTING IS USED IN NIGHT OPERATIONS THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.
- 6. THE FOLLOWING RATES OF APPLICATION HAVE BEEN ASSUMED IN CALCULATING PLAN QUANTITIES;

BITUMINOUS MATERIAL	(PRIME	COAT)	0.0004	TONS/SQ	YD

POLYMERIZED HOT-MEX ASPHALT SURFACE COURSE 112 LBS/SQ YD/INCH

POLYMERIZED LEVELING BINDER 105 LBS/SQ YD/INCH (MACHINE METHOD)

- 7. THE ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISORS AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE START OF WORK.
- 8. TWO WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS THE ENGINEER SHALL CONTACT WALTER CZARNY, AREA TRAFFIC FIELD ENGINEER, AT (773) 685-8386.
- 9. WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2" (40 MM) WHERE THE SPEED LIMIT IS 45 MPH (80 KM/H) OR LESS AND 1" (25 MM) WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH (80 KM/H). WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3" (75 MM) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 3:1 (H:V).
- 10. BUTT JOINTS WILL BE INSTALLED AT THE END OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT). IN ACCORDANCE WITH THE "BUTT JOINT AND HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
- 11. FOR PAVEMENT MARKING, REFER TO DISTRICT ONE TYPICAL MARKINGS FOR DETAILS SHOWN.
- 12. MATCH EXISTING PAYEMENT MARKINGS AT PROJECT LIMITS AND OMISSIONS.
- 13. ALL PATCHES OPENED ON A PARTICULAR DAY MUST BE FILLED THAT DAY TO THE TOP OF THE MILLED PAVEMENT SURFACE.

- 14. IDOT TRAFFIC SIGNAL AND SYSTEM DETECTION LOOPS ARE PRESENT AT FULLERTON AVENUE, THATCHER AVENUE, GRAND AVENUE, THATCHER WOODS SHOPPING CENTER, BELMONT AVENUE AND FOREST PRESERVE DRIVE. THE CONTRACTOR MUST NOTIFY THE IDOT AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER AT (847) 705-4139 AND THE DEPARTMENT'S ELECTRICAL MAINTENANCE CONTRACTOR PRIOR TO BEGINNING WORK, AT WHICH TIME ARRANGEMENTS WILL BE MADE TO ADJUST THE TRAFFIC CONTROLLER TIMING TO COMPENSATE FOR THE ABSENCE OF DETECTION. REPLACEMENT OF LOOPS DOES NOT REQUIRE MAINTENANCE TRANSFER, BUT DOES REQUIRE NOTIFICATION OF WORK AND INSPECTION. COORDINATION WITH THE DISTRICT IS CONSIDERED INCIDENTAL TO THIS CONTRACT.
- 15. NO OVERNIGHT LANE CLOSURES SHALL BE ALLOWED.
- 16. CONTINGENCY QUANTITIES HAVE BEEN INCLUDED FOR THE FOLLOWING ITEMS TO BE USED AT THE DIRECTION OF THE ENGINEER:

60406000 FRAMES AND LIDS, TYPE 1, OPEN LID - 5 EACH 60406100 FRAMES AND LIDS, TYPE 1, CLOSED LID - 5 EACH

USER NAME = alau	DESIGNED	-	RJR	REVISED -
	DRAWN	-	RJR	REVISED ~
PLOT SCALE = 1.00000 '/ IN.	CHECKED	-	WBL	REVISED -
PLOT DATE = 4/20/2009	DATE	-	4/22/2009	REVISED -

SHEET NO. 2 OF 25 SHEETS | STA.

	SUMMARY OF QUANTITIES	URBAN 1001.STATE TOTAL QUANTITY	CONSTRUCTION TYPE CODE	
CODE NO.	DESCRIPTION	UNIT		ROADWAY IOOO
20200100	EARTH EXCAVATION	CU YD	80	80
35800200	AGGREGATE BASE REPAIR	TON	110	110
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	20	20
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	45	45
40600300	AGGREGATE (PRIME COAT)	TON	210	210
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	6	6
40600535	LEVELING BINDER (HAND METHOD), N70	TON	15	.15
40600895	CONSTRUCTING TEST STRIP	EACH	4	4
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	610	610
40600990	TEMPORARY RAMP	SQ YD	770	770
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	240	240
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	5,300	5,300
42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SQ YD	30	30
42400300	PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH	SQ FT	2,000	2,000
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	52,300	52,300
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	30	30
44000600	SIDEWALK REMOVAL	SQ FT	2,000	2,000
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	800	800
44002212	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 3"	SQ YD	1,380	1,380
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SQ YD	660	660
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SQ YD	360	360
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SQ YD	170	170
55039700	STORM SEWERS TO BE CLEANED	FOOT	2,500	2,500
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	10	10
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	65	65
60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	5	5
60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	5	5

	1	·	l		
	67100100	MOBILIZATION	L SUM	1	1
	70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1
	70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1	1
,	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1
	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	9,730	9,730
-	70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	2,900	2,900
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	80,500	80,500
	70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	8,600	8,600
	70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	F00T	2,100	2,100
	70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	6,900	6,900
	70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	3,600	3,600
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	16,500	16,500
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	950	950
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	27,300	27,300
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	2,850	2,850
*	78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	700	700
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	2,600	2,600
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	F00T	1,200	1,200
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	990	990
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	950	950
*	88600600	DETECTOR LOOP REPLACEMENT	FOOT	3,500	3,500
	X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	52	52
	X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	2,850	2,850
	Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	140	140
	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1

SUMMARY OF QUANTITIES

CODE NO. DESCRIPTION

67000400 ENGINEER'S FIELD OFFICE, TYPE A

\* DENOTES SPECIALTY ITEM

		Ciorba Group, Inc.
١,		
	( Ciii ( Cii)	CONSULTING ENGINEERS 5507 North Cumberland Avenue, Suite 402
ļ		Chicago, Illinois 60656
4		Tel. 773,775,4009 Fax 773,775,4014

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	IL 171 / THATCHER AVENUE
STATE OF ILLINOIS	DES PLAINES RIVER ROAD TO NORTH OF FOREST
DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES
	SCALE: SHEET NO 3 OF 25 SHEETS STA

IL 171 /THATCHER AVENUE					F.A.P. RTE.	SECTION	COUNTY				
LAINES	KIVEK							I PRESERVE AVENUE	372	2009-055 RS	COOK
							ANTITIES				CONTRACT
	SHEET I	١0.	3	OF.	25	SHEETS	STA.	TO STA.	FED. R	ROAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT

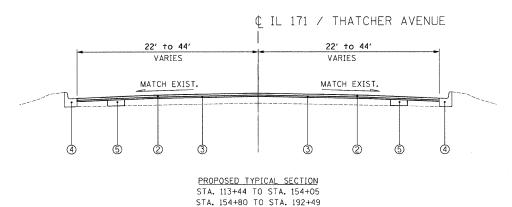
URBAN 1001.STATE

TOTAL QUANTITY

UNIT

CAL MO

CONSTRUCTION TYPE CODE EXISTING TYPICAL SECTION STA. 113+44 TO STA. 154+05 STA. 154+80 TO STA. 192+49



# EXISTING CONDITIONS:

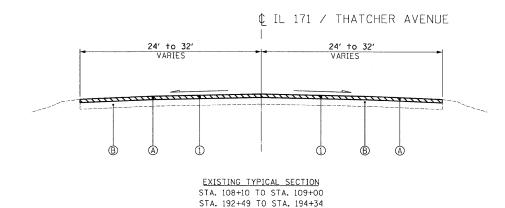
- (A) HOT-MIX ASPHALT SURFACE AND BINDER COURSE, 3" AND VARIES
- B PORTLAND CEMENT CONCRETE BASE COURSE, 10"
- © COMBINATION CONCRETE CURB AND GUTTER

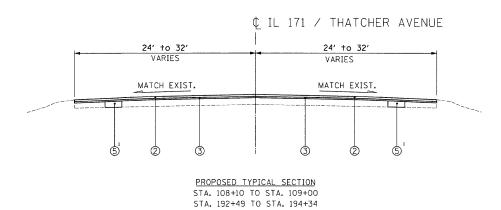
# PROPOSED IMPROVEMENTS:

- 1 HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"
- ② POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"
- POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
   COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (AS DIRECTED BY ENGINEER)
- (5) CLASS D PATCHES, 10" (DETERMINED BY ENGINEER IN FIELD)

A QUANTITY FOR LEVELING BINDER (HAND METHOD) HAS BEEN PROVIDED FOR USE AT PRIVATE ENTRANCES, AROUND HAND HOLES, PRIVATE UTILITY STRUCTURE FRAMES, AND ANY OTHER STRUCTURE FRAMES THAT ARE NOT ABLE TO BE LOWERED UNDER THE ITEM "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)" AFTER GRINDING OF EXISTING PAVEMENT.

OUANTITIES FOR EARTH EXCAVATION AND AGGREGATE BASE REPAIR HAVE BEEN INCLUDED FOR SUBGRADE FAILURES BELOW THE CLASS D PATCHES





# HOT-MIX ASPHALT MIXTURE REQUIREMENTS CHART

ODEDATIONS	MINTURE TYPE	AC TVDE	PERCENT
OPERATIONS	MIXTURE TYPE	AC TYPE	AIR VOIDS
ROADWAY RESURFACING	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL-9.5MM)	SBS/SBR PG 70-22	4% <b>©</b> 90 GYR
RUADWAY RESURFACING	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	SBS/SBR PG 76-28/-22	4% <b>©</b> 50 GYR
MAINTENANCE OF TRAFFIC	LEVELING BINDER (HAND METHOD), N70 (IL-9,5MM)	PG 64-22 *	4% <b>©</b> 70 GYR
PAVEMENT PATCHING	CLASS D PATCHES, 10" (HMA BINDER IL-19 MM)	PG 64-22 *	4% @ 70 GYR
FAVEWENT FATCHING	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES (HMA BINDER IL-19 MM)	PG 64-22 *	4% @ 70 GYR

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

 $\bullet$  WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22.

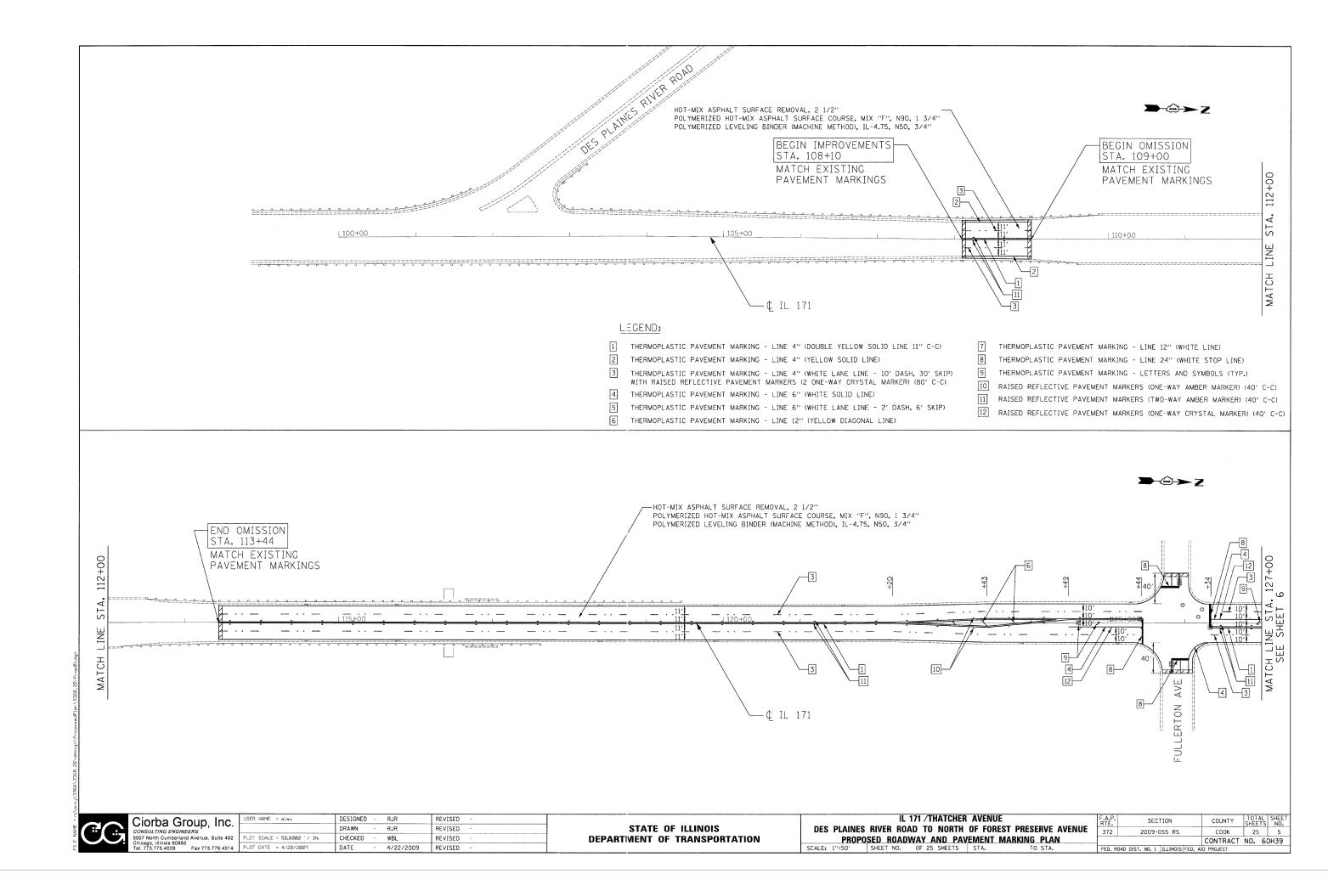


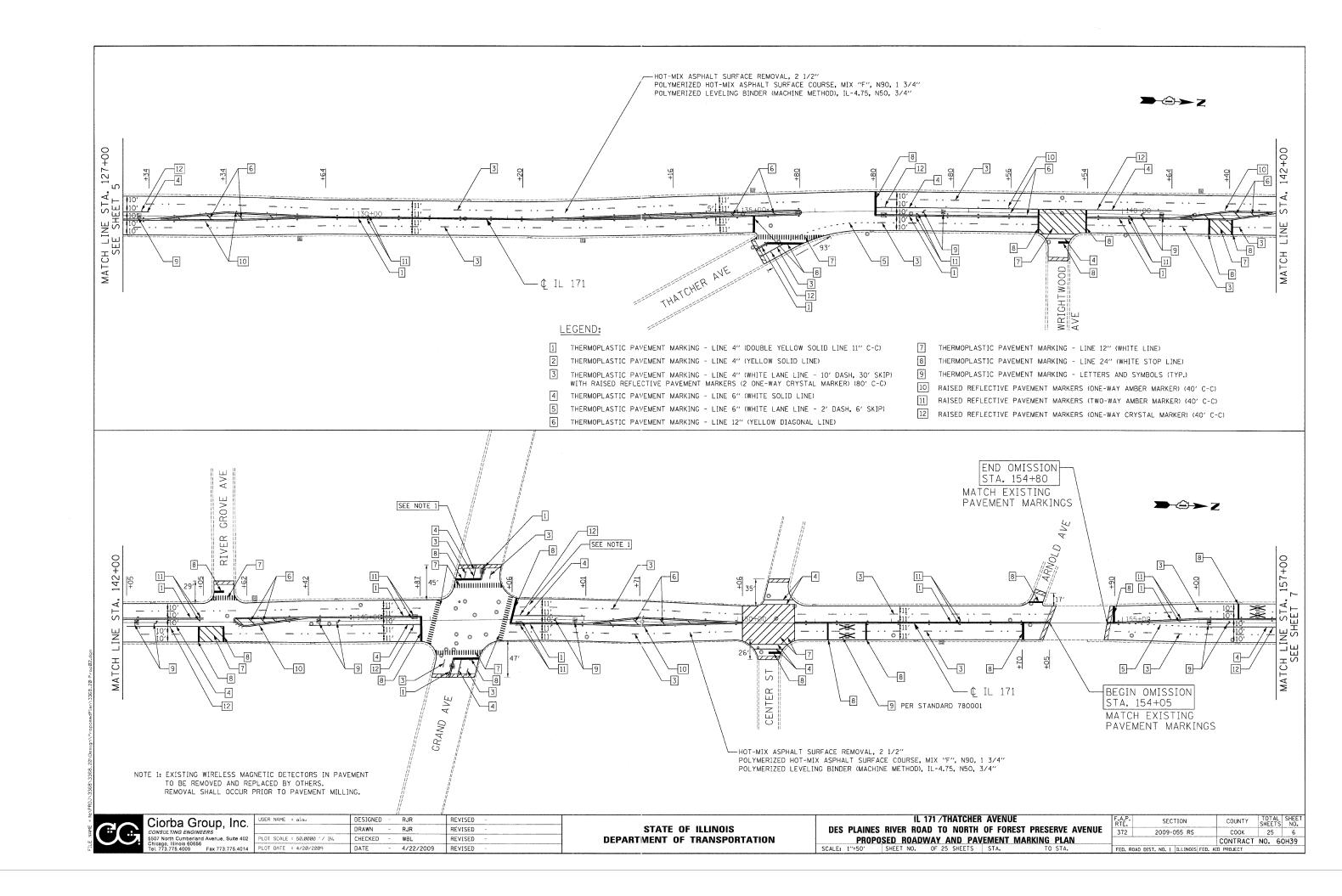
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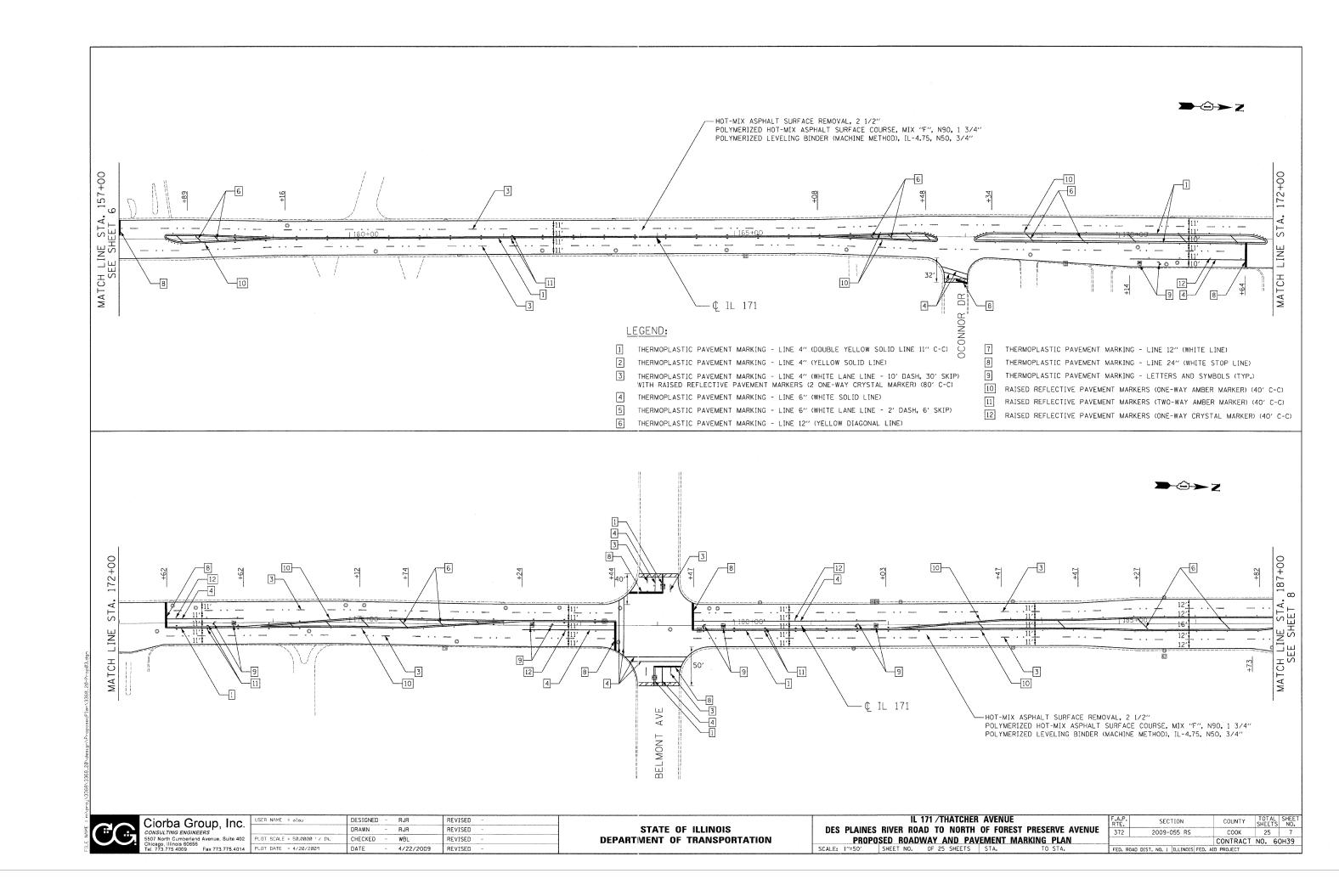
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

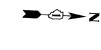
	IL 171 /THATCHER AVENUE											
DES	PLAINES	RIVER					PRESERVE AVENUE	Ĺ				
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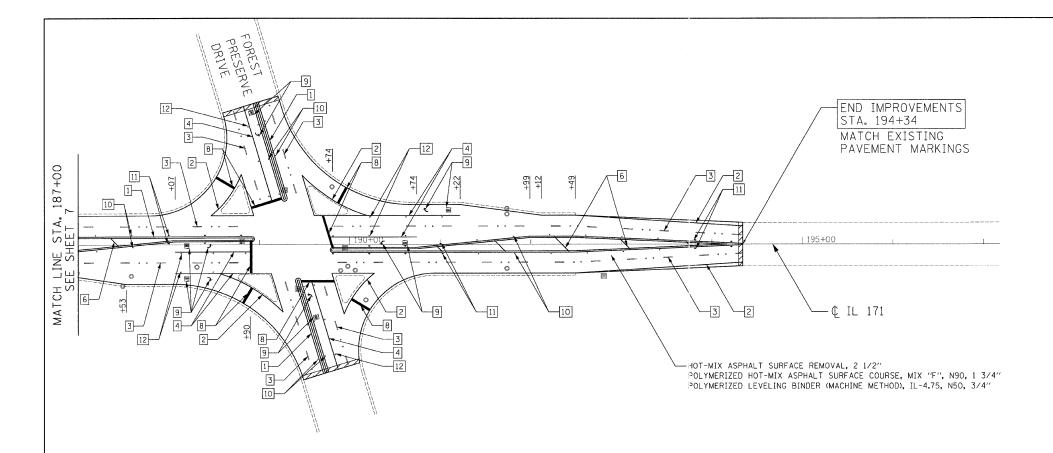
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# LEGEND:

- THERMOPLASTIC PAVEMENT MARKING LINE 4" (DOUBLE YELLOW SOLID LINE 11" C-C)
- 2 THERMOPLASTIC PAVEMENT MARKING LINE 4" (YELLOW SOLID LINE)
- THERMOPLASTIC PAVEMENT MARKING LINE 4" (WHITE LANE LINE 10' DASH, 30' SKIP) WITH RAISED REFLECTIVE PAVEMENT MARKERS (2 ONE-WAY CRYSTAL MARKER) (80' C-C)
- THERMOPLASTIC PAVEMENT MARKING LINE 6" (WHITE SOLID LINE)
- 5 THERMOPLASTIC PAVEMENT MARKING LINE 6" (WHITE LANE LINE 2" DASH, 6" SKIP)
- THERMOPLASTIC PAVEMENT MARKING LINE 12" (YELLOW DIAGONAL LINE)

- THERMOPLASTIC PAVEMENT MARKING LINE 12" (WHITE LINE)
- 8 THERMOPLASTIC PAVEMENT MARKING LINE 24" (WHITE STOP LINE)
- 9 THERMOPLASTIC PAVEMENT MARKING LETTERS AND SYMBOLS (TYP.)
- 10 RAISED REFLECTIVE PAVEMENT MARKERS (ONE-WAY AMBER MARKER) (40' C-C)
- 11 RAISED REFLECTIVE PAVEMENT MARKERS (TWO-WAY AMBER MARKER) (40' C-C)
- 12 RAISED REFLECTIVE PAVEMENT MARKERS (ONE-WAY CRYSTAL MARKER) (40' C-C)

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 90696
Tel. 773.775.4009 Fax 773.775.4014

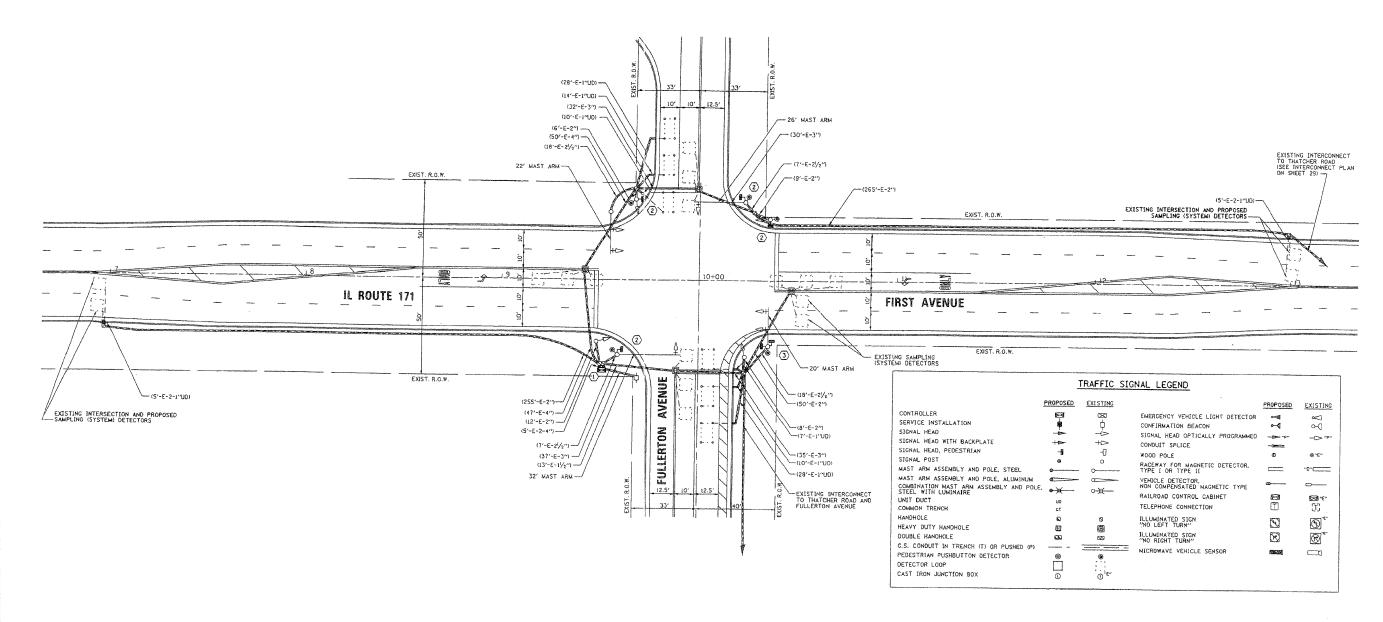
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 171 /THATCHER AVENUE

DES PLAINES RIVER ROAD TO NORTH OF FOREST PRESERVE AVENUE

PROPOSED ROADWAY AND PAVEMENT MARKING PLAN

SCALE: 1"=50" SHEET NO. OF 25 SHEETS STA. TO STA.



REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN PROJECT LIMITS)

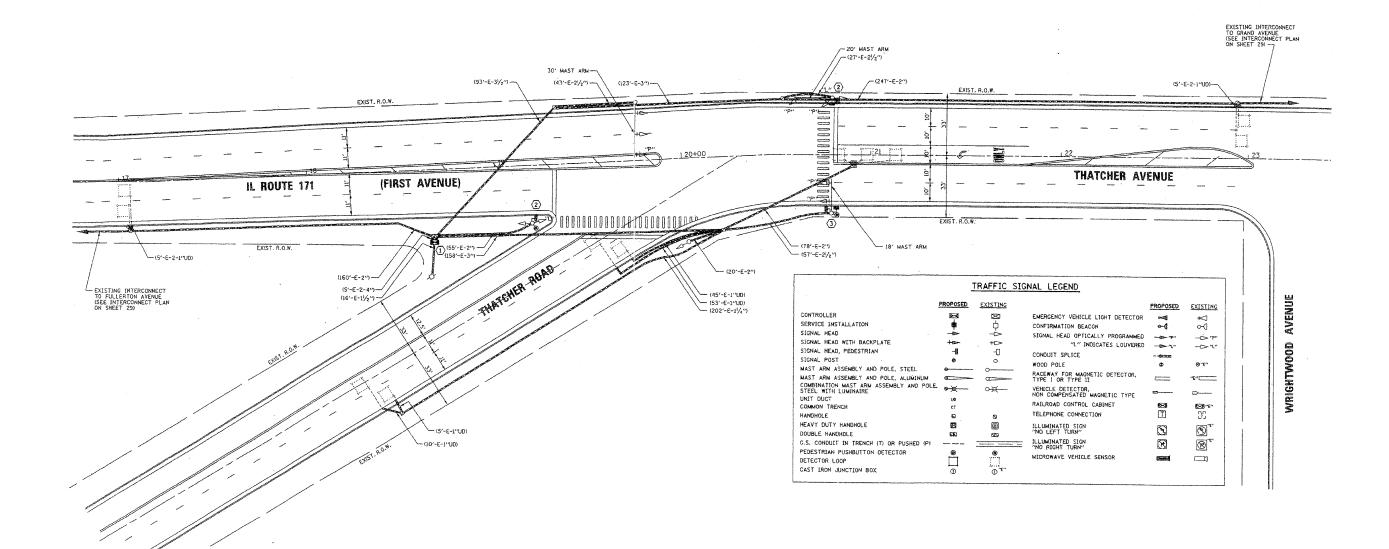
CODE NO.	QUANTITY	UNIT	ITEM
86600600	780	FOOT	DETECTOR LOOP REPLACEMENT

Ciorba G	roup, Inc
CONSULTING ENGIN	IEERS
5507 North Cumberla Chicago, Illinois 6065	6
Tel. 773.775.4009	Fax 773.775.4014

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4	PLOT DATE = 4/20/2009	DATE	-	4/22/2009	REVISED	-

STATI	E OF	ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

_		IL 171 /THATCHER			F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEE NO.
	DES PLAINE	S RIVER ROAD TO NORTH			372	2009-055 RS	соок	25	9
		DETECTOR LOOP REPLA	CEMENT	PLAN			CONTRACT	NO. 6	OH39
	SCALE: N.T.S.	SHEET NO. 9 OF 25 SHEETS	STA.	TO STA.	FED. R	OAD DIST, NO. 1 ILLINOIS FED. A	ID PROJECT		



REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN PROJECT LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM		
86600600	310	FOOT	DETECTOR L	L00P	REPLACEMENT

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Ciorba Group, Inc.

CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014

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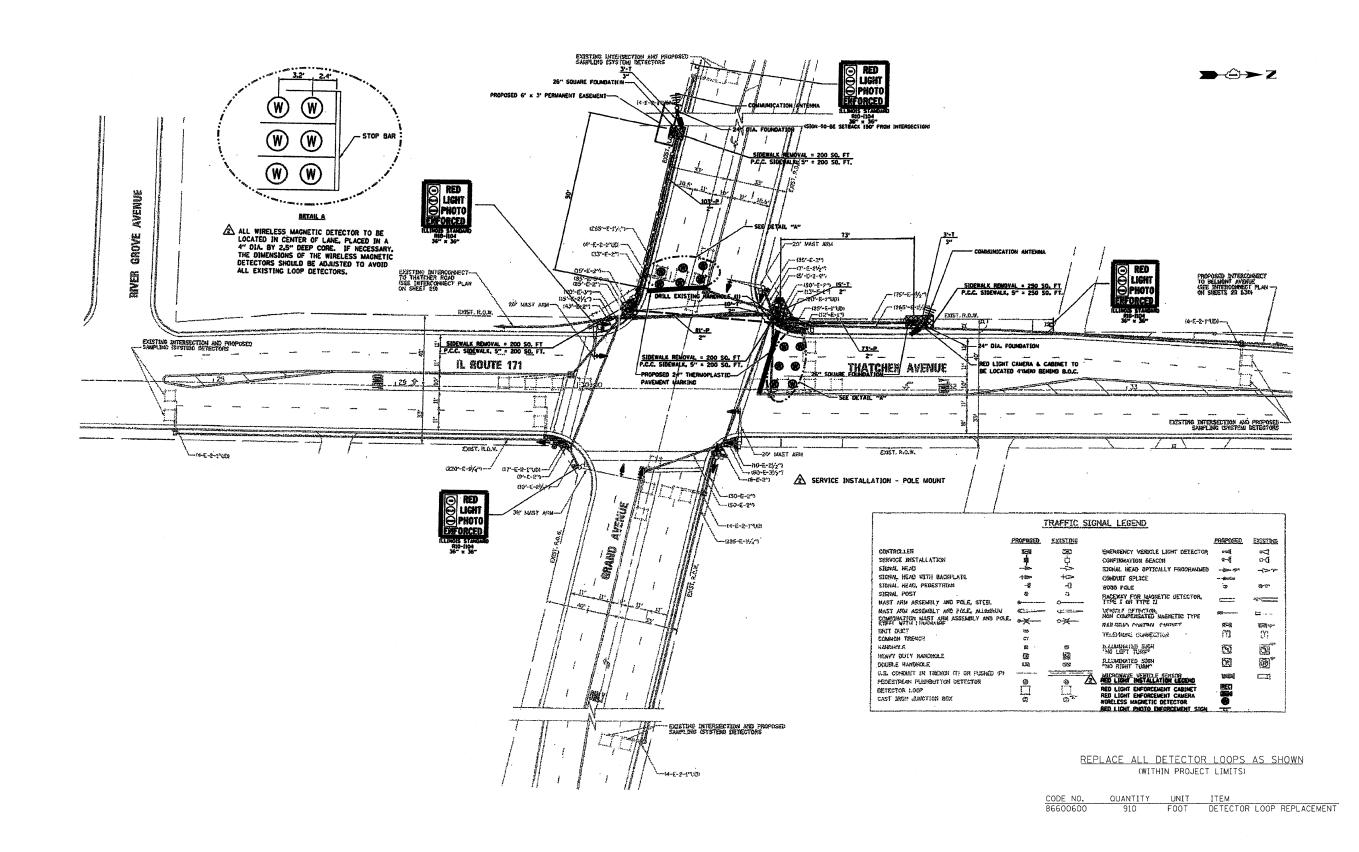
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PLOT DATE = 4/28/2009 DESIGNED - RJR REVISED DRAWN REVISED CHECKED WBL REVISED DATE 4/22/2009 REVISED

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

IL 171 /THATCHER AVENUE DES PLAINES RIVER ROAD TO NORTH OF FOREST PRESERVE AVENUE DETECTOR LOOP REPLACEMENT PLAN SHEET NO. 10 OF 25 SHEETS STA.

COUNTY SHEET NO.
COOK 25 10
CONTRACT NO. 60H39 SECTION 372 2009-055 RS



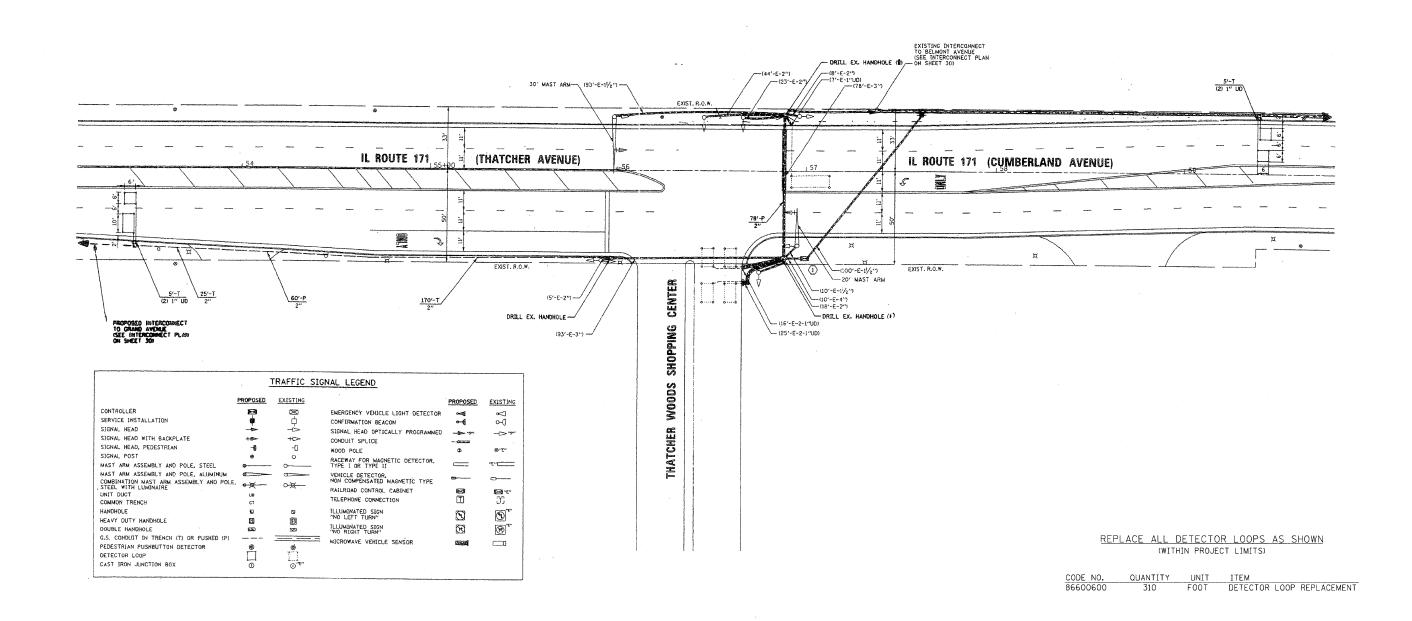
Ciorba Group, Inc. CONSULTING ENGINEERS 5507 North Cumberland Avenue, Suite 402

DESIGNED RJR REVISED DRAWN R.IR REVISED CHECKED WBL REVISED hicago, Illinois 60656 el. 773.775.4009 Fax 773.775.4014 PLOT DATE = 4/20/2009 DATE

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

IL 171 /THATCHER AVENUE F.A.P. RTE. 372 DES PLAINES RIVER ROAD TO NORTH OF FOREST PRESERVE AVENUE DETECTOR LOOP REPLACEMENT PLAN

SECTION COUNTY TOTAL SHEET NO. COOK 2009-055 RS 25 11 CONTRACT NO. 60H39



Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014

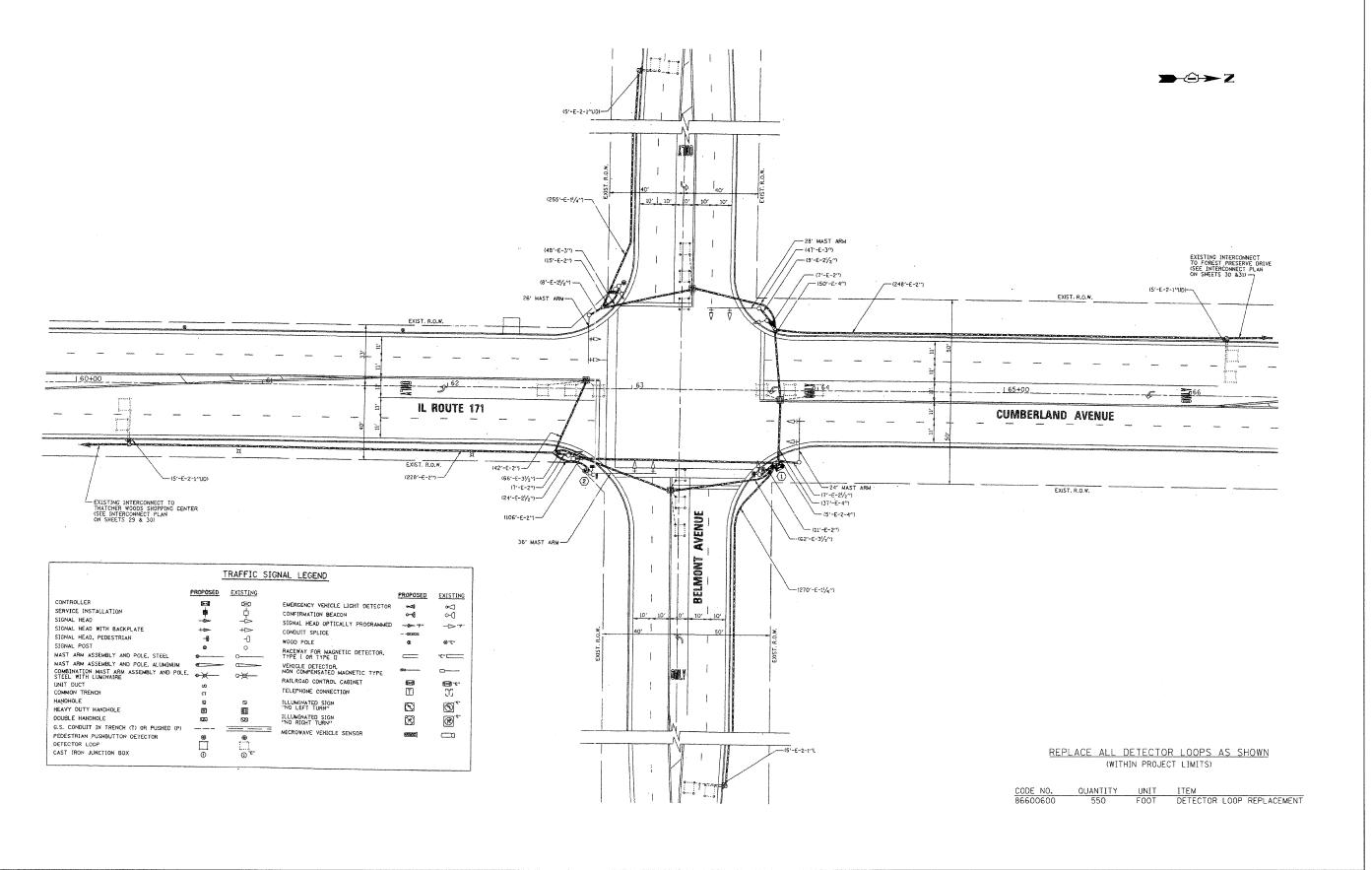
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 171 /THATCHER AVENUE

DES PLAINES RIVER ROAD TO NORTH OF FOREST PRESERVE AVENUE

DETECTOR LOOP REPLACEMENT PLAN

SCALE: N.T.S. SHEET NO. 12 OF 25 SHEETS STA. TO STA.



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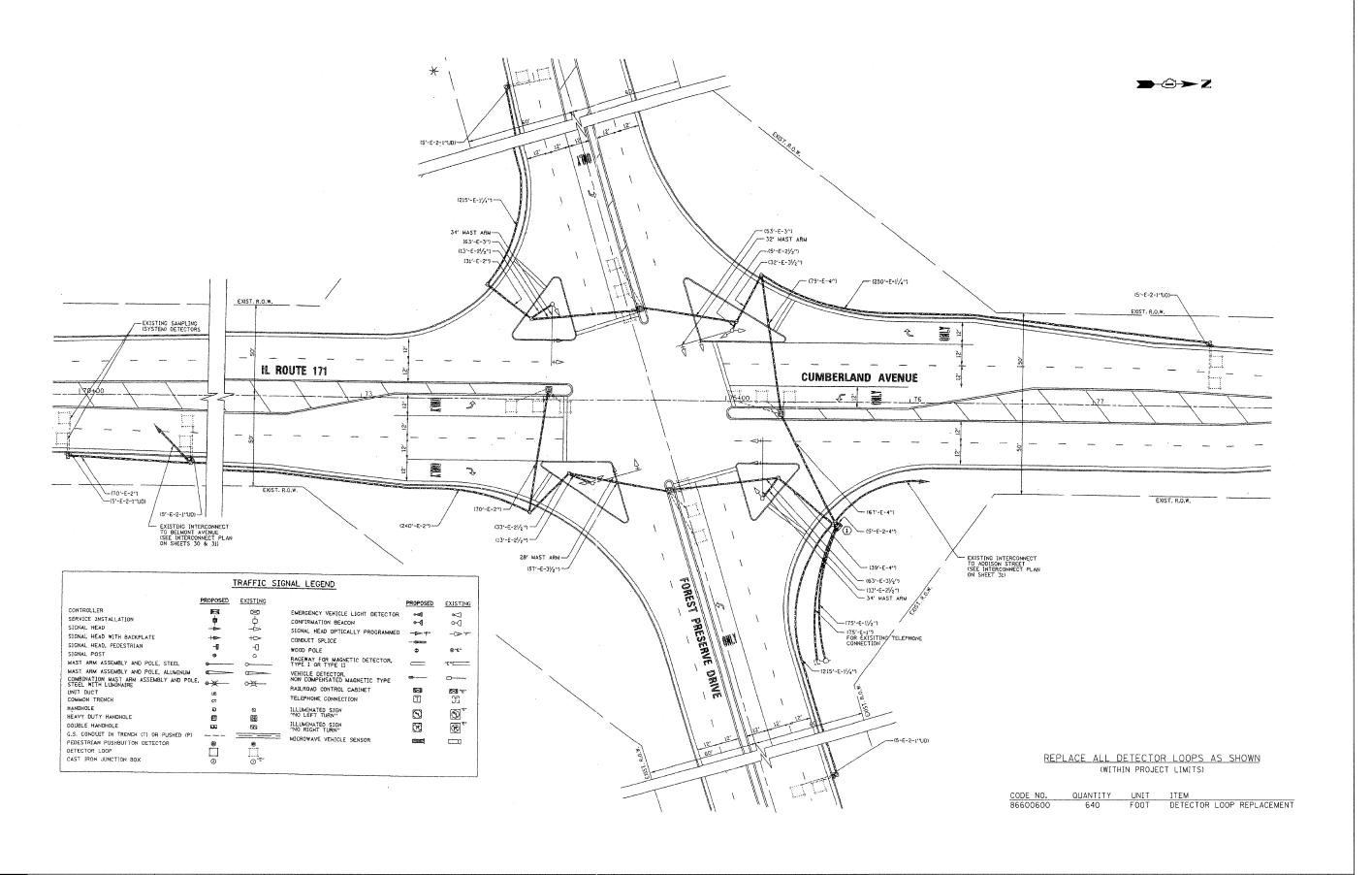
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 171 /THATCHER AVENUE

DES PLAINES RIVER ROAD TO NORTH OF FOREST PRESERVE AVENUE

DETECTOR LOOP REPLACEMENT PLAN

SCALE: N.T.S. SHEET NO. 13 OF 25 SHEETS STA. TO STA.

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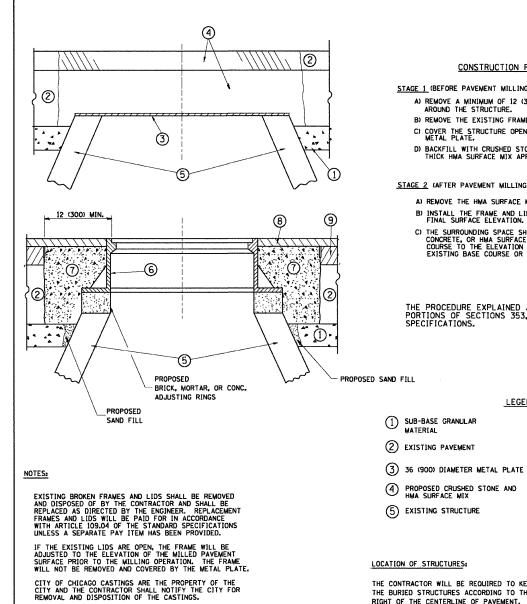
PLOT SCALE = 1.8020 ' / I

PLOT DATE = 4/28/2029 DESIGNED RJR REVISED DRAWN RJR REVISED PLOT SCALE = 1.0000 '/ IN. CHECKED -WBL REVISED 4/22/2009 REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

IL 171 /THATCHER AVENUE DES PLAINES RIVER ROAD TO NORTH OF FOREST PRESERVE AVENUE DETECTOR LOOP REPLACEMENT PLAN
SHEET NO. 14 OF 25 SHEETS STA.

COUNTY TOTAL SHEET NO. SECTION COOK 25 14 2009-055 RS 372 CONTRACT NO. 60H39



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.

# 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 11/2 (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 SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE 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

- SUB-BASE GRANULAR
- 6 FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT
- CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- 8 PROPOSED HMA SURFACE COURSE
- 9 PROPOSED HMA BINDER COURSE

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.

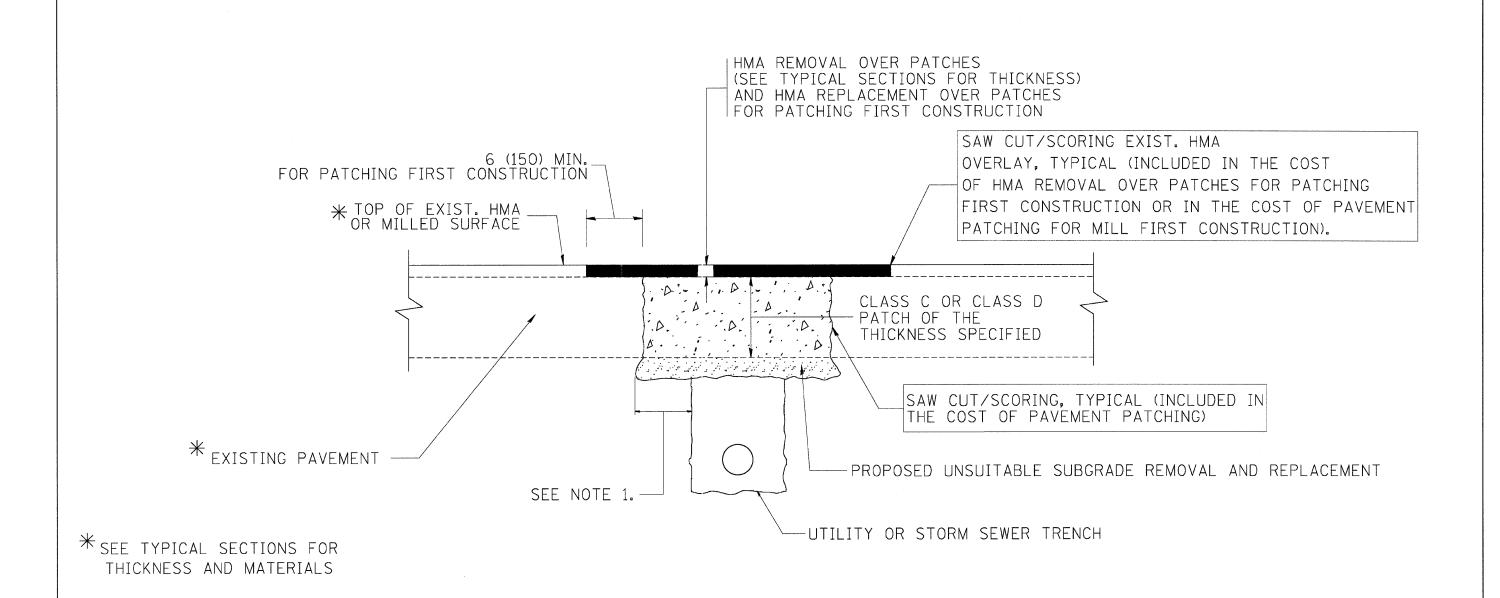
BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"

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

# DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = gaglianobt	DESIGNED - R. SHAH	REVISED - R. SHAH 03-10-95		DETAILS FOR	F.A.P. SECTION	COUNTY TOTAL SHEET SHEETS NO.
W:\diststd\22x34\bdØ8.dgn		DRAWN ~	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS		372 2009-055 RS	COOK 25 15
	PLOT SCALE = 50.0000 '/ IN.	CHECKED ~	REVISED - R. WIEDEMAN 05-14-04	DEPARTMENT OF TRANSPORTATION	FRAMES AND LIDS ADJUSTMENT WITH MILLING	BD600-03 (BD-8)	CONTRACT NO. 60H39
	PLOT DATE = 1/4/2008	DATE - 10-25-94	REVISED - R. BORO 01-01-07		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FE	ED. AID PROJECT



# 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)

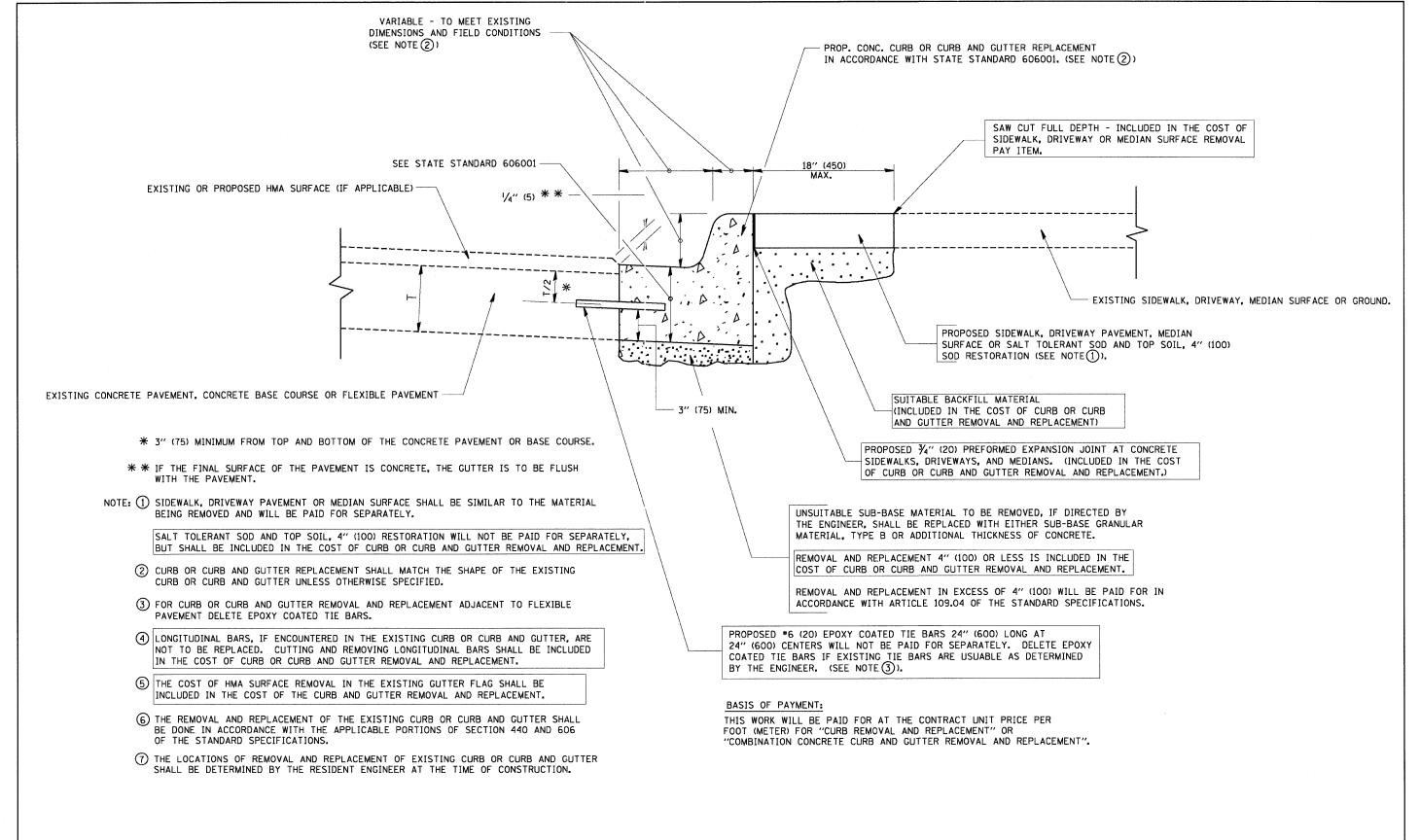
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

# SEQUENCE OF CONSTRUCTION (MILLING FIRST)

- 1. MILL HMA FIRST IF THERE IS AT LEAST 41/2 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.

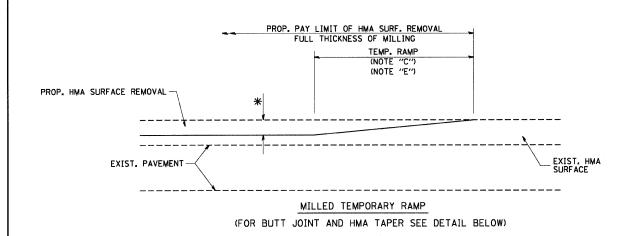
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c:\projects\diststd22x34\bd22.dgn		DRAWN -	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS		372 2009-055 RS	COOK 25 16
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION	HMA SURFACED PAVEMENT	BD400-04 (BD-22)	CONTRACT NO. 60H39
	PLOT DATE = 10/27/2008	DATE - 10-25-94	REVISED - K. ENG 10-27-08		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED.	



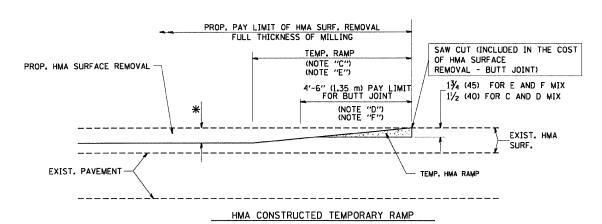
# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

FILE NAME =	USER NAME = geglienobt	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96			CURB OR CURB AND GUTTER		RTE. SECTION	COUNTY TOTAL SHEET NO.
W:\d:ststd\22x34\bd24.dgn		DRAWN -	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS				372 2009-055 RS	COOK 25 17
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01	DEPARTMENT OF TRANSPORTATION	REMOVAL AND REPLACEMENT			BD600-06 (BD-24)	CONTRACT NO. 60H39
	PLOT DATE = 1/4/2008	DATE - 03-11-94	REVISED - R. BORO 01-01-07	SCA	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS F	ED. AID PROJECT

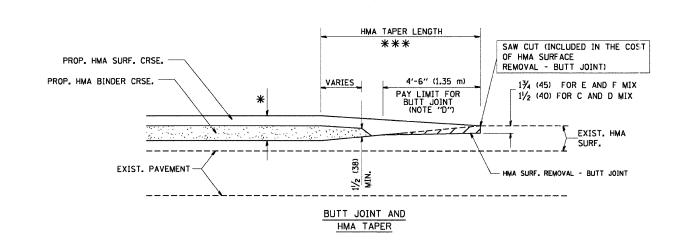


# OPTION 1



# OPTION 2 TYPICAL TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)



# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

PROP. HMA OR PCC
SURFACE REMOVAL - BUTT JOINT
30'-0" (9,0 m) (NOTE "B")

(NOTE "D")

\*\* \* EXIST. PAVEMENT

PROP. HMA OR PCC

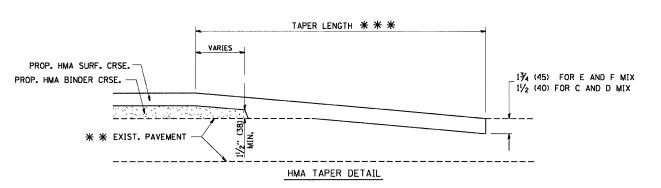
SURFACE REMOVAL - BUTT JOINT
30'-0" (9,0 m) (NOTE "B")

(NOTE "D")

SAW CUT (INCLUDED IN THE COST OF HMA OR P.C.C. SURFACE REMOVAL - BUTT JOINT)

17/4 (45) FOR E AND F MIX

11/2 (40) FOR C AND D MIX



# TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

### NOTES

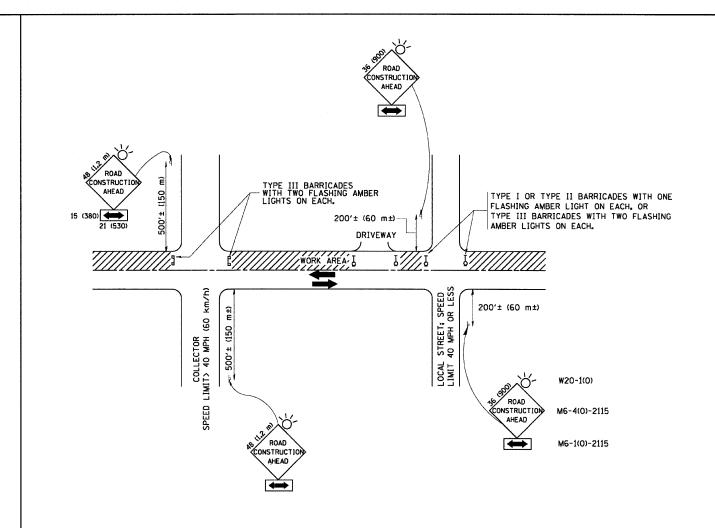
- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-O" (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.

FILE NAME =	USER NAME = gaglianobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94		BUTT JOINT AND HMA TAPER DETAILS		F.A.P. SECTION	COUNTY TOTAL SHEET NO.
W:\diststd\22x34\bd32.dgn		DRAWN -	REVISED - A. ABBAS 03-21-9	STATE OF ILLINOIS			372 2009-055 RS	COOK 25 18
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - M. GOMEZ 04-06-	DEPARTMENT OF TRANSPORTATION			BD400-05 BD32	CONTRACT NO. 60H39
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS 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 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- d) 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 (MG-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (MG-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
- 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)

SECTION

2009-055 RS

TC-10

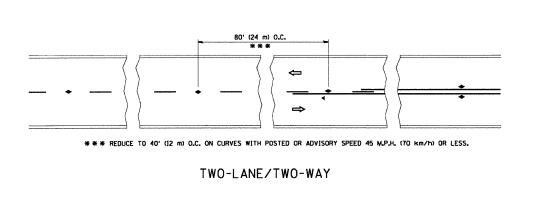
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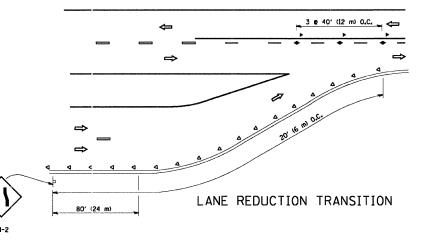
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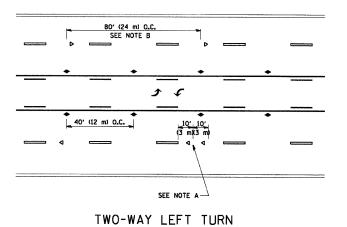
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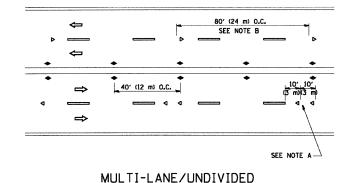
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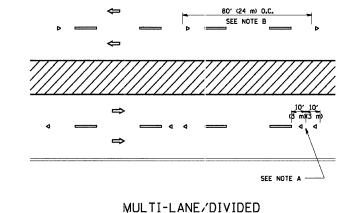
FILE NAME = DESIGNED - LHA REVISED - J. OBERLE 10-18-95 USER NAME = gaglianobt TRAFFIC CONTROL AND PROTECTION FOR STATE OF ILLINOIS \diststd\22x34\tc10.dan DRAWN REVISED - A. HOUSEH 03-06-96 SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS PLOT SCALE = 50.000 '/ IN. CHECKED REVISED - A. HOUSEH 10-15-96 **DEPARTMENT OF TRANSPORTATION** PLOT DATE = 1/4/2008 DATE 06-89 REVISED -T. RAMMACHER 01-06-0 SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.











1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.

GENERAL NOTES

2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.

3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

→ ONE-WAY CRYSTAL MARKER (W/O)

TWO-WAY AMBER MARKER

■ ONE-WAY AMBER MARKER

SYMBOLS

- YELLOW STRIPE

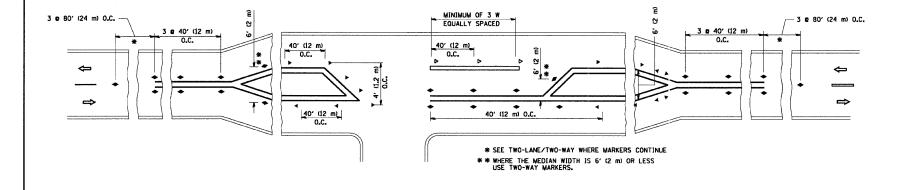
WHITE STRIPE

# LANE MARKER NOTES

B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

\_\_\_\_\_\_



LEFT TURN

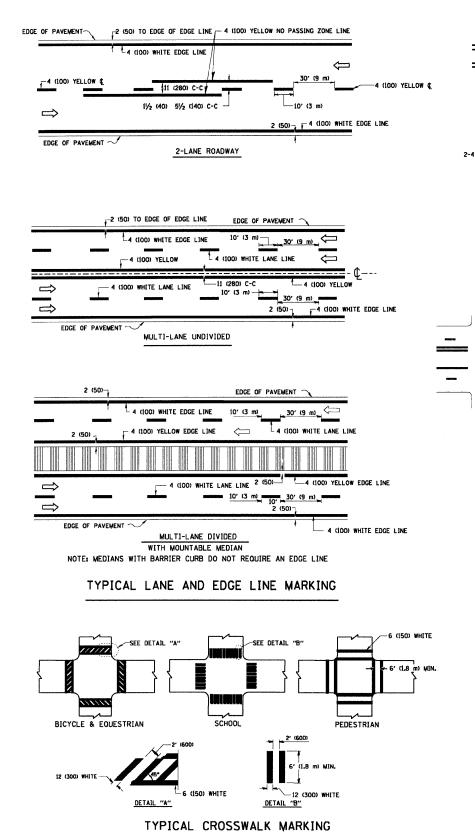
- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE

DESIGN NOTES

- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
- 4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

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

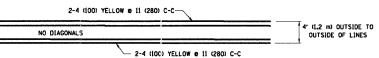
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W:\diststd\22x34\to11.dgn		DRAWN -	REVISED - T. RAMMACHER 03-12-99	STATE OF ILLINOIS		372 2009-055 RS	COOK 25 20
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 01-06-00	DEPARTMENT OF TRANSPORTATION	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)	TC-11	CONTRACT NO. 60H39
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED.	



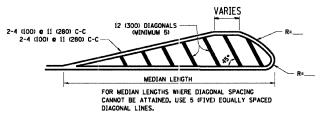
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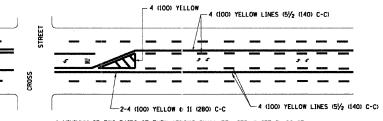


# 4' (1.2 m) WIDE MEDIANS ONLY



DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C 4MORE THAN 45MPH (70 km/h))

# MEDIANS OVER 4' (1.2 m) WIDE

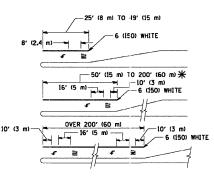


A MINIMUM OF TWO PAIRS OF TURN ARFOWS SHALL BE USED, WHITE IN COLOR, ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

# TYPICAL PAINTED MEDIAN MARKING



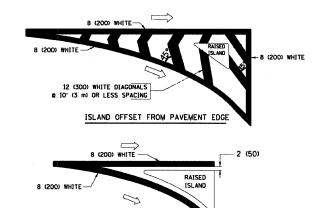
FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.

THE AREA = 15.6 SO. FT. (1.5 m<sup>2</sup>) | AREA = 20.8 SO. FT. (1.9 m<sup>2</sup>)

\* 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 APPROVA - "ONLY"

TYPICAL LEFT (OR RIGHT) TURN LANE

# TYPICAL TURN LANE MARKING



# TYPICAL ISLAND MARKING

ISLAND AT PAVEMENT EDGE

2 (50)

	<del></del>	ı	T	
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 UNDIVEDED PAVEMENT	2 2 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 to 4 (100)	SOLID SOLID	YELLOW YELLOW	51/2 (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 0 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 51/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 g 6 (150) 12 (300) g 45° 12 (300) g 90°	SOL ID SOL ID SOL ID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (500) APART 2' (500) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4" (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSMALK, IF PRESENT, OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 D 4 (100) WITH 12 (300) DIAGONALS D 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 LINES: "RR" IS 6' (1.8 ml LETTERS: 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA 0F1 "R"=3.6 S0. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 S0. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) e 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 (0YER 45MPH (70 km/h))

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

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

USER NAME = geglienobt	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94
	DRAWN -	REVISED -A. HOUSEH 10-09-96

- 03-19-90

REVISED -A. HOUSEH 10-17-96

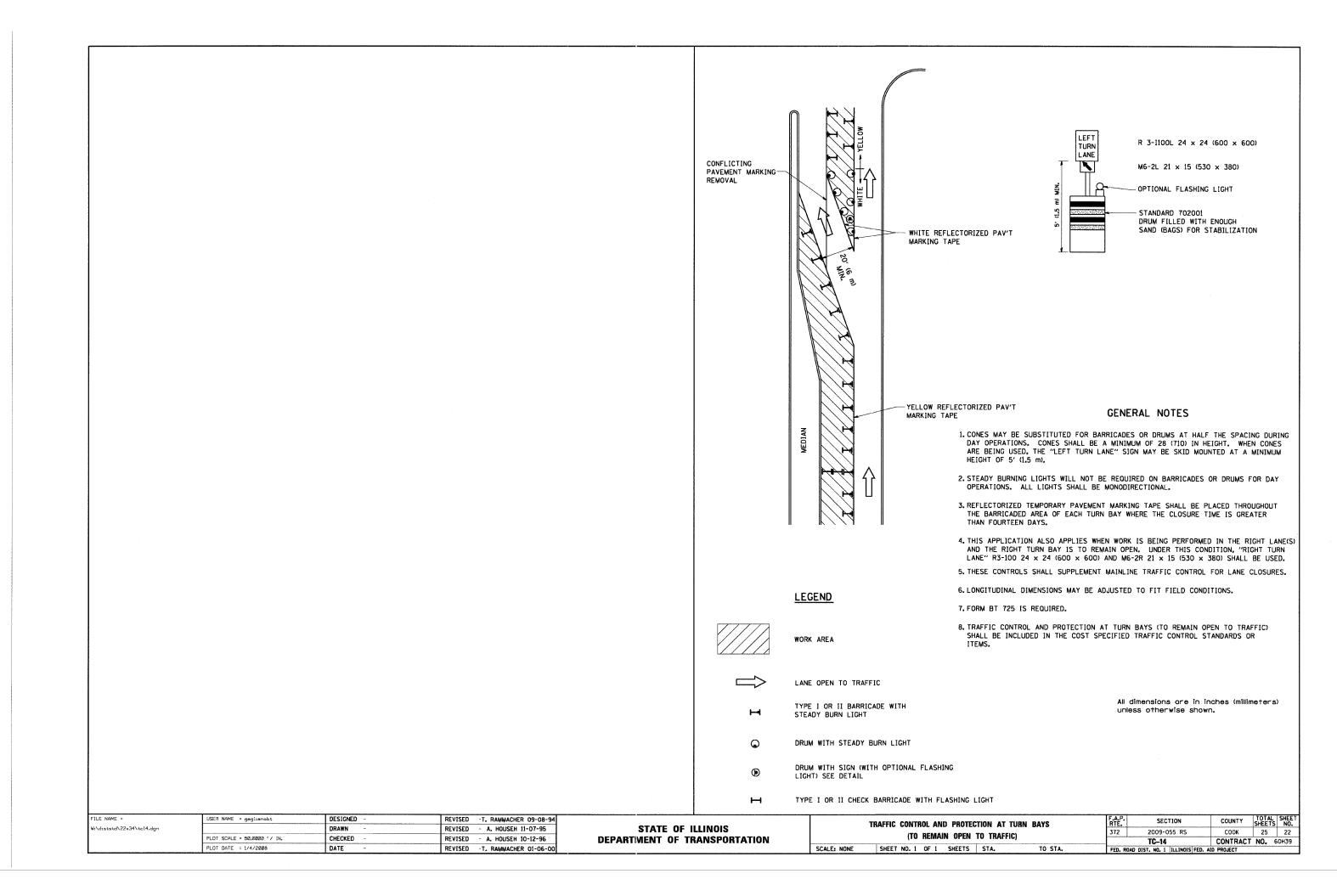
REVISED - T. RAMMACHER 01-06-00

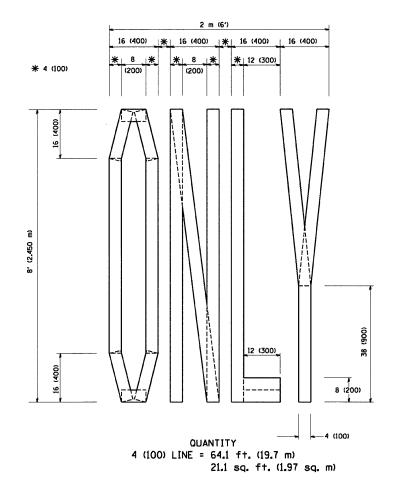
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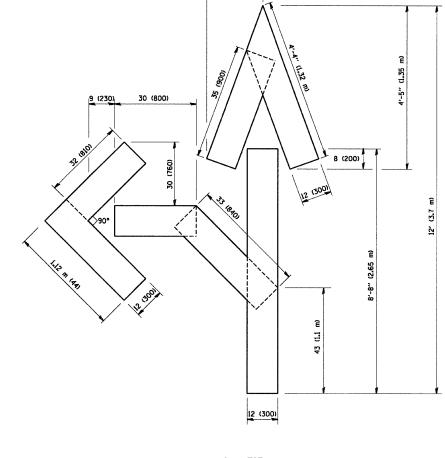
DATE

STATI	E OF	ILLINOIS
DEPARTMENT	0F	TRANSPORTATION

	DISTRICT ONE TYPICAL PAVEMENT MARKINGS						F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
							372	2009-055 RS	COOK	25	21
		8 7 6	TOAL I	WACINIEMI	MANKINGS			TC-13	CONTRACT	NO. 6	0Н39
	SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.	FED. RO	DAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		

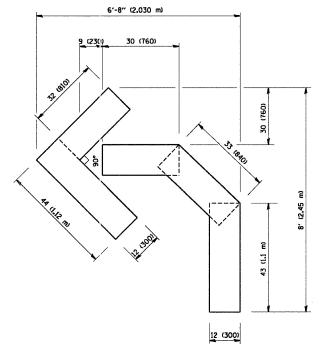






1'-8" (500)

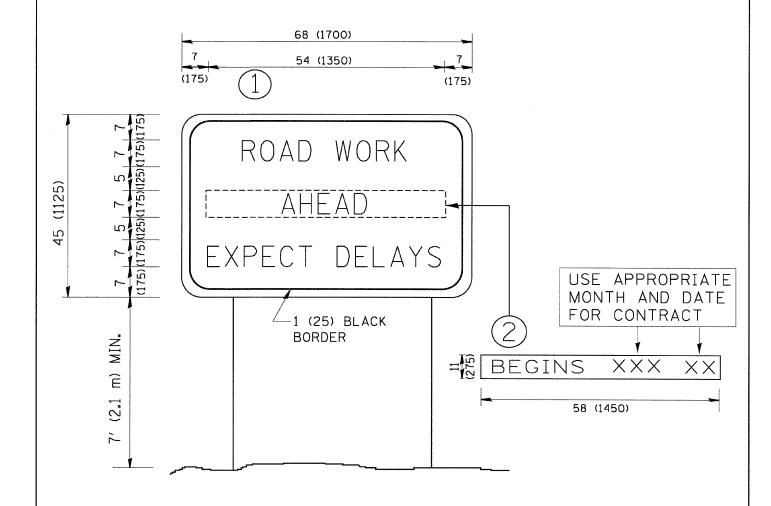
QUANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)



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

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

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED -T. RAMMACHER 06-05-96		PAVEMENT MARKING LETTERS AND SYMBOLS	F.A.P. SECTION	COUNTY TOTAL SHEET
W:\diststd\22x34\tc16.dgn		DRAWN -	REVISED -T. RAMMACHER 11-04-97	STATE OF ILLINOIS	l	372 2009-055 RS	COOK 25 23
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98	DEPARTMENT OF TRANSPORTATION	FOR TRAFFIC STAGING	TC-16	CONTRACT NO. 60H39
	PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED - E. GOMEZ 08-28-00		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED.	



# NOTES:

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

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

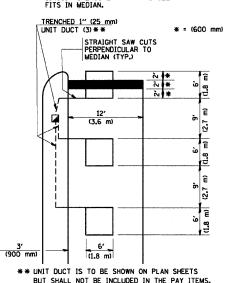
FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97	STATE OF ILLINOIS  ARTERIAL ROAD			F.A.P.	SECTION	COUNTY	TOTAL SHEET	
W:\diststd\22x34\to22.dgn		DRAWN -	REVISED - R. MIRS 12-11-97				372	2009-055 RS	соок	25 24	
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION	INFORMATION SIGN			<u> </u>	TC-22	CONTRAC	
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAD	DIST. NO. 1 ILLINOIS FE	THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW	

# PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER. PAVED SHOULDER. PAVED OR NON-PAVED SHOULDER PAVED OR NON-PAVED SHOULDER 1" (25 mm) UNIT DUCT 1S TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS. ARTERIAL - VOLUME DENSITY ("FAR (

# LEFT TURN LANES WITH MEDIANS VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)

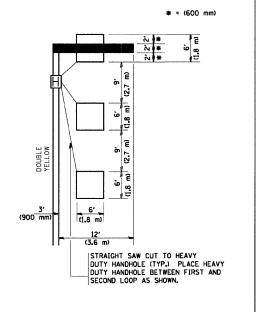
HANDHOLE LOCATION MAY
VARY DEPENDING ON GEOMETRICS
AND DESIGN OF TRAFFIC SIGNALS.
HEAVY-DUTY HANDHOLES TO BE
USED WHEN THE MEDIAN IS
MOUNTABLE. REFER TO STANDARD
BI4001 TO EMSURE THAT HANDHOLE
FITS IN MEDIAN.



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

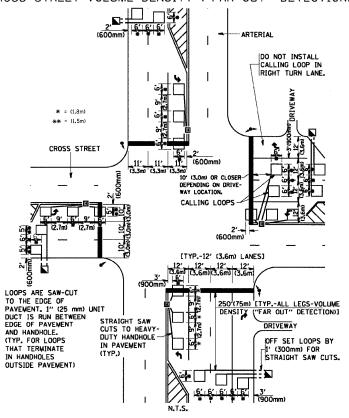
(PROTECTED / PERMITTED LEFT TURN PHASING)

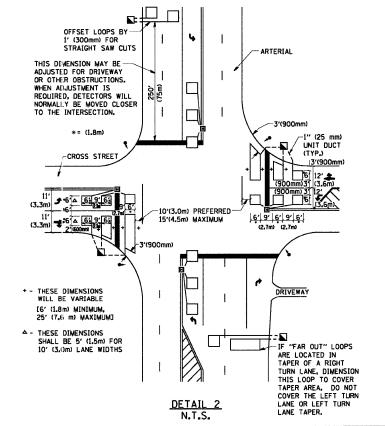


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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

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





### 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 SEPARATLY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- \* ONE DIMENSION OF <u>ALL</u> 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 1.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 =	USER NAME = gaglianobt	DESIGNED -	REVISED -
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	PLOT SCALE = 50.0000 '/ IN.	CHECKED - R.K.F.	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

STATE	OF	ILLINOIS
<b>DEPARTMENT</b>	<b>OF</b> 1	TRANSPORTATION

	DISTRICT 1 - DETECTOR LOOP INSTALLATION										
		DE	TA	ILS	FOR	ROADW	AY F	RESURFACING			
-	SHEET	NO.	1	OF	1	SHEETS	ST	A.	TO	STA.	

A.P. TÉ.	SECTION	COUNTY	SHEETS	NO.
72	2009-055 RS	соок	25	25
	TS-07	CONTRACT	NO. 6	он39
:n 1	MAD DIST NO 1 ILLINOIS FED A	IN DROJECT		