STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

**DIVISION OF HIGHWAYS** 

#### INDEX OF SHEETS

- COVER SHEET, INDEX OF SHEETS, LOCATION MAP INDEX OF STATE STANDARDS
- 2. SUMMARY OF QUANTITIES & GENERAL NOTES
- 3. TYPICAL CROSS SECTION AND CONSTRUCTION DETAIL
- 4. PLAN VIEW

5.-11. DETAILS

# PLANS FOR PROPOSED FEDERAL AID HIGHWAY

STATE STANDARDS

000001-04 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

424001-04 CURB RAMPS FOR SIDEWALKS

442201-02 CLASS C AND D PATCHES

606001-03 CONCRETE CURB & COMBINATION CONCRETE CURB & GUTTER 606006-01 OUTLET FOR CONCRETE CURB AND GUTTER, TYPE B-6.24

701311-02 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY

701511-02 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701501-03 LANE CLOSURE, 2L, 2W, DAY OR NIGHT OPERATIONS, FOR SPEEDS < 45 MPH

701701-04 LANE CLOSURE, MULTILANE, INTERSECTION, FOR SPEEDS < 45 MPH

702001-06 TRAFFIC CONTROL DEVICES

780001-01 TYPICAL PAVEMENT MARKINGS 886001 DETECTOR LOOP INSTALLATIONS

886006 TYPICAL LAYOUTS FOR DETECTOR LOOPS

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

LOCAL AGENCY PAVEMENT PRESERVATION STREET RESURFACING

OAK PARK AVENUE (F.A.U. ROUTE 2955)
111TH STREET TO 107TH STREET

**PROJECT:** M8003(706)

**SECTION NO.: 05-00053-00-RS** 

JOB NO.: C-91-052-07

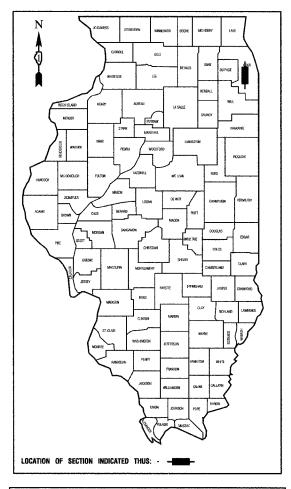
**VILLAGE OF WORTH** 

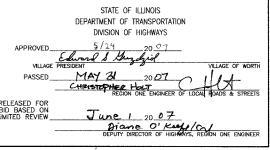


PROJECT LOCATION

GROSS LENGTH = 2690 FEET = 0.51 MILES NET LENGTH = 2690 FEET = 0.51 MILES

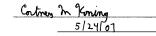
CONTRACT #83947





## PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:





NSULTANTS: ROBINSON ENGINEERING, LTD. 708–331–6700

CONTRACT NO. 83947

J. U. L. I. E.

1 - 800 - 892 - 0123

		ROADWAY			
SJ	CODE NO.	PAY ITEM	UNIT	QUAN	CONSTRUCTON TYPE CODE
				<u> </u>	1000
	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	3	3
	25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	3	3
	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	3	3
	21101625	TOPSOIL FURNISH AND PLACE, 6"	SQ YD	161	161
	25200100	SODDING	SQ YD	161	161
	40300100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	660	660
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL — BUTT JOINT	SQ YD	479	479
	40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	1111	1111
	40800030	AGGREGATE (PRIME COAT)	TON	20	20
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	605	605
r	42400800	DETECTABLE WARNINGS	SQ FT	220	220
	44000196	HOT-MIX ASPHALT SURFACE REMOVAL, SPECIAL	SQ YD	3947	3947
	44001700	001700 COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT		550	550
	44000600	SIDEWALK REMOVAL	SQ FT	605	605
	44201753	CLASS D PATCHES, TYPE II, 9 INCH	SQ YD	50	50
	44201757	CLASS D PATCHES, TYPE III, 9 INCH	SQ YD	100	100
	44201759	CLASS D PATCHES, TYPE IV, 9 INCH	SQ YD	400	400
	60250400	CATCH BASINS TO BE ADJUSTED WITH NEW TYPE 1 FRAME, OPEN LID	EACH	2	2
	60255800	MANHOLES TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED LID	EACH	2	2
	60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	47	47
	60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	2	2
	67100100	MOBILIZATION	L SUM	1	1
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1
	70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	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 MARKINGS	FOOT	1100	1100
	70300200	TEMPORARY PAVEMENT MARKING	FOOT	1100	1100
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	110	110
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	6050	6050
*	78000400	THERMOPLASTIC PAVEMENT MARKING LINE 6"	FOOT	1650	1650
*	780004650	THERMOPLASTIC PAVEMENT MARKING — LINE 24"	FOOT	275	275
*	88600600	DETECTOR LOOP REPLACEMENT	FOOT	594	594
	X0322052	ASPHALT REJUVENATING AGENT	GALLON	1271	1271
	X0324096	HOT IN-PLACE RECYCLING	SQ YD	12697	12697
		TEMPORARY INFORMATION SIGNING	article and the section of the secti	1	The second secon
	X0322256	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	SQ FT	108	108
	x4067107 z=248665	RAILROAD PROTECTIVE L'ABILITY INSURANCE	LSum	556 I	556

F. A. U. RTE.			COUNT	TOTAL SHEETS	SHEET
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CONTRACT #83947

#### **GENERAL NOTES**

ROBINSON ENGINEERING FIELD OFFICE SHALL BE NOTIFIED TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION. CALL (708) 331-6700

THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SANDBAGS ON EACH TYPE I AND TYPE 2 BARRICADE USED. ONE (1) WEIGHTED SANDBAG SHALL BE INSTALLED ON EACH BOTTOM RAIL.

THE REMOVAL OF ANY DRIVEWAYS, PAVEMENT, CURB, ETC. SHALL BE ACCOMPLISHED BY MEANS OF A SAW CUT JOINT, AT THE DIRECTION OF THE ENGINEER. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS REMOVAL ITEMS.

WHEN, IN THE CONSTRUCTION OPERATION, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DITCHES, GUTTERS OR OTHER DRAINAGE STRUCTURES SO THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED AT THE CLOSE OF EACH DAY BY THE CONTRACTOR AT HIS EXPENSE. AT THE CONCLUSION OF THE CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES SHALL BE FREE FROM ALL DIRT AND DEBRIS. THIS WORK SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL J.U.L.I.E. AT (800) 892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, COMMUNICATIONS, AND GAS UTILITIES. (48 HOUR NOTIFICATION REQUIRED.)

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

AREAS DISTURBED BY CONSTRUCTION SHALL BE KEPT TO A MINIMUM. ALL AREAS DISTURBED UNNECESSARILY SHALL BE RESTORED AT THE CONTRACTORS EXPENSE.

UTILITIES INDICATED ON THE PLANS ARE PROVIDED OR 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 THE UTILITY INFORMATION.

ITEMS OF WORK LISTED IN THE SUMMARY OF QUANTITIES NOT SPECIFICALLY CALLED OUT ON THE PLANS SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER.

ANY REFERENCE TO THE STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

THE THICKNESS OF HOT-MIX ASPHALT STATED IN THE SPECIFICATIONS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THINKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HOT-MIX ASPHALT SURFACE IS PLACED. IN NO INSTANCE SHALL THE HOT-MIX ASPHALT SURFACE THICKNESS BE LESS THAN 1 1/2 INCH THICK.

SCHEDULES INCLUDED IN THE PLANS HAVE BEEN PREPARED FROM FIELD NOTES. EXACT LOCATIONS FOR PATCHING SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

	CLASS D PATCHES						
FROM STATION	TO STATION	TYPE II	TYPE III	TYPE IV			
11+15	11+21 RT. & LT.		20				
12+05	12+55 LT.	***************************************	\$100 mm made in the contract of the contract o	75			
12+60	13+20 RT.			87			
24+05	24+45		2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	27			
30+75	30+87 RT.	18					
33+30	33+90 RT.		* * * * * * * * * * * * * * * * * * * *	80			

REVISIONS

ILLINOIS DEPARTMENT OF TRANSPORTATION

OAK PARK AVENUE

LAPP PROJECT

SUMMARY OF QUANTITIES & GENERAL NOTES

SCALE: VERT. NA HORIZ. NA DATE 4-2-07

DRAWN BY PS
CHECKED BY CMK

OBINSON ENGINEERING, LTD.

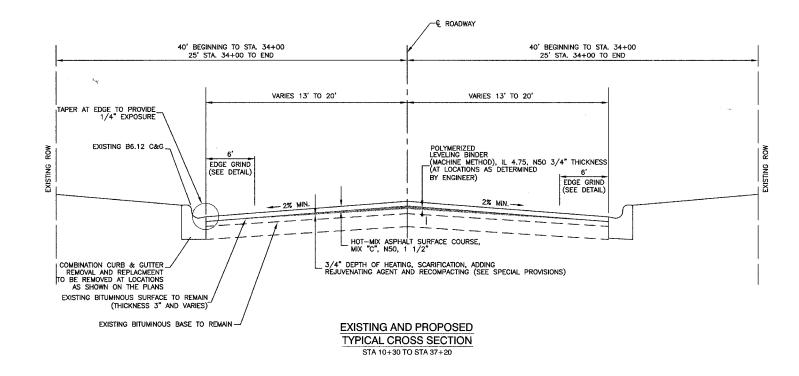
MS SOUTH PARK AVENUE SOUTH HOLLAND ILLINOIS 80473

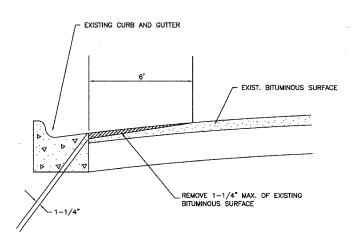
9 831 6700 684 98269

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CONTRACT #83947





EDGE GRINDING DETAIL

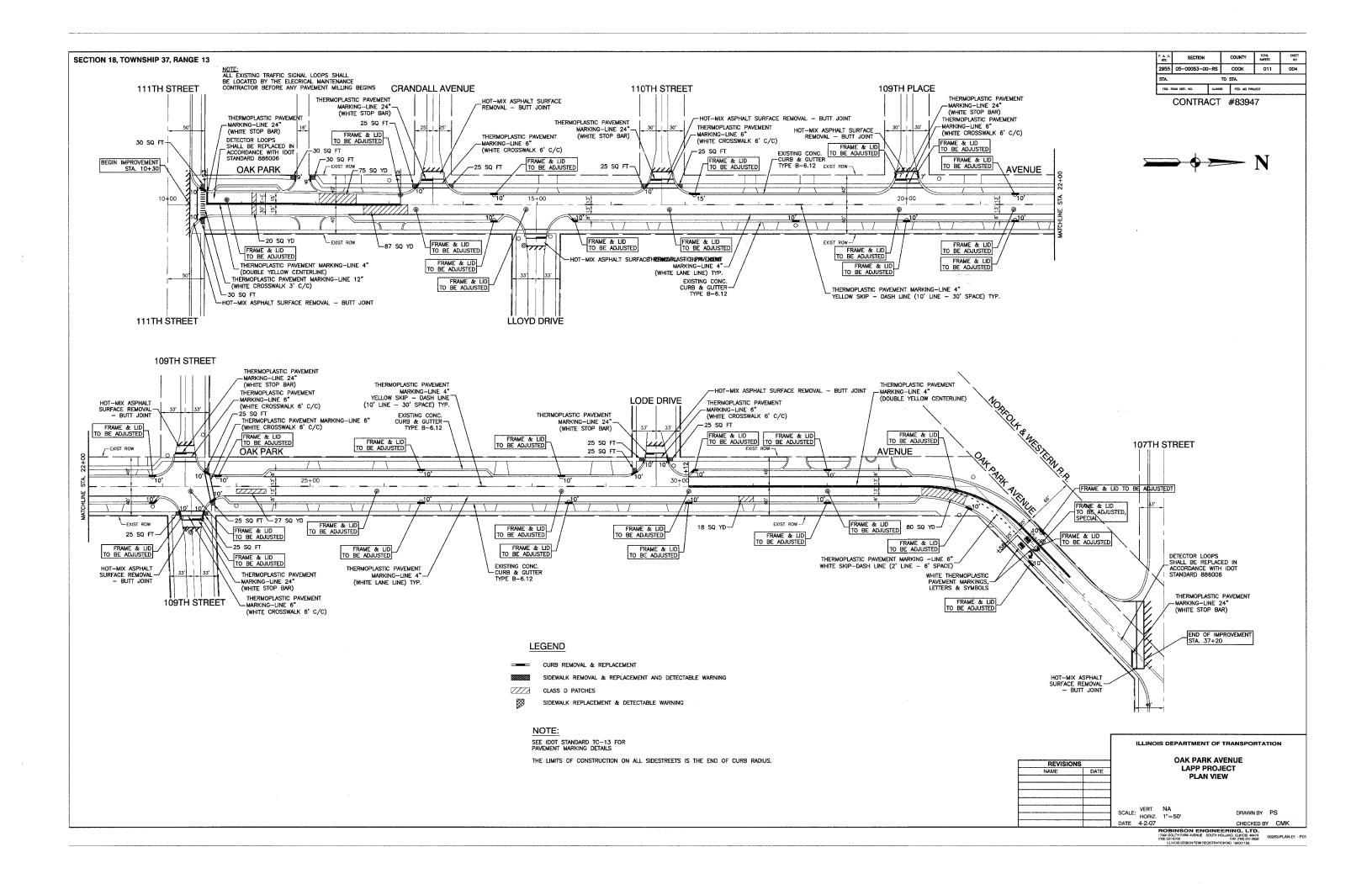
#### HOT-MIX ASPHALT MIXTURE REQUIREMENTS

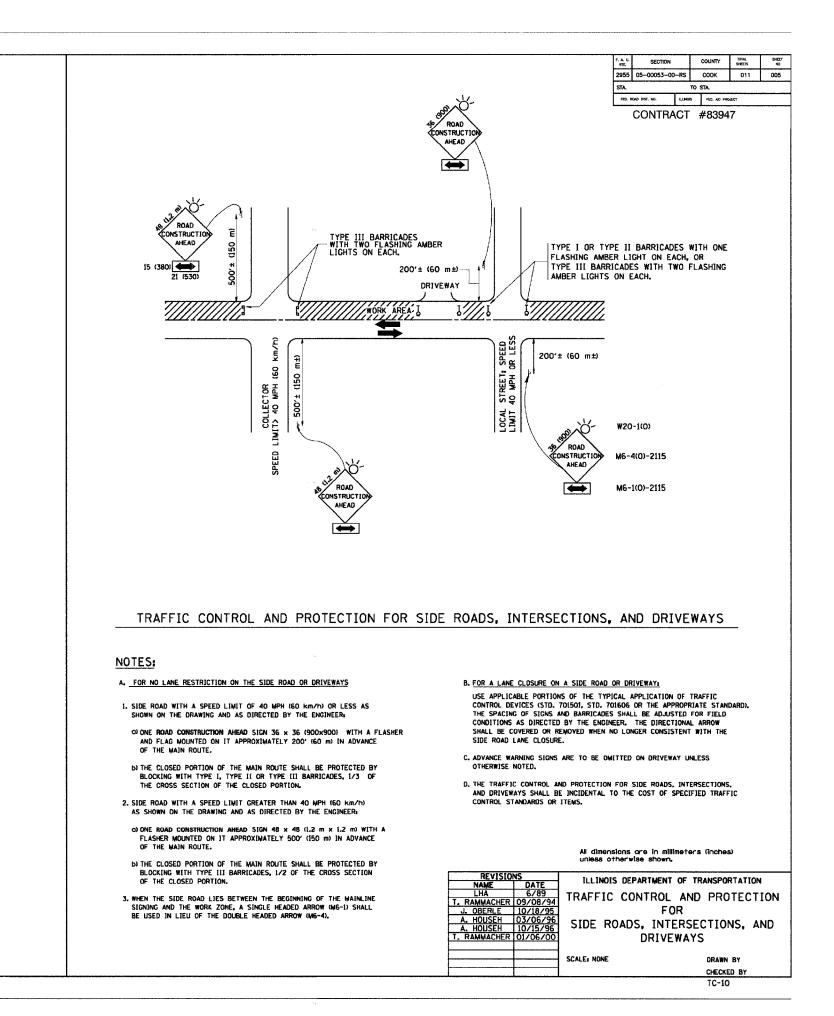
ITEM	AC TYPE	VOIDS
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL 9.5 MM)	PG 64-22	4% @ 50 GYR
POLYMERIZED LEVELING BINDER, (MACHINE METHOD) IL 4.75 N50 3/4" THICKNESS	SBS/SBR PG 76-28/22	4% @ 50 GYR
CLASS D PATCHES, (BINDER IL-19MM) 9"	PG 64-22/58-22*	4% © 70 GYR

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN

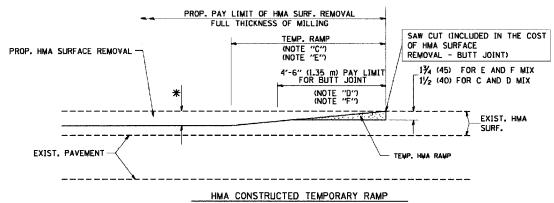
\* WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22

		ILLINOIS DEPARTME	NT OF TRANSPORTATION
REVISIONS			RK AVENUE
NAME	DATE		PROJECT N & CONSTRUCTION DETAIL
		SCALE: VERT. NA SCALE: HORIZ. 1"==50"	DRAWN BY PS
<u> </u>	<del> </del>	DATE 4-2-07	CHECKED BY CMK



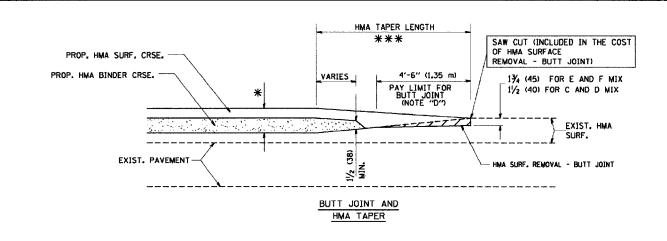


PROP. PAY LIMIT OF HMA SURF. REMOVAL FULL THICKNESS OF MILLING TEMP. RAMP (NOTE "C") (NOTE "E") PROP. HMA SURFACE REMOVAL EXIST. PAVEMENT MILLED TEMPORARY RAMP (FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW) OPTION 1



OPTION 2 TYPICAL TEMPORARY RAMP

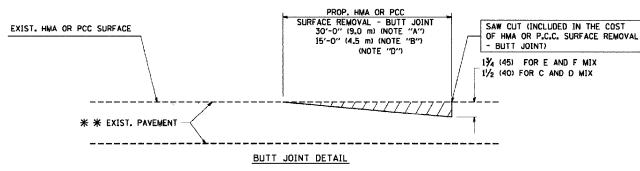
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

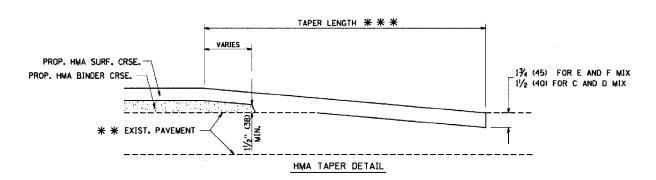


TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

COUNTY TOTAL SHEETS SECTION 2955 05--00053--00--RS соок FED. ROAD DIST, NO. LLINOIS FED. AID PROJECT

CONTRACT #83947





#### 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")

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

#### BASIS OF PAYMENT:

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

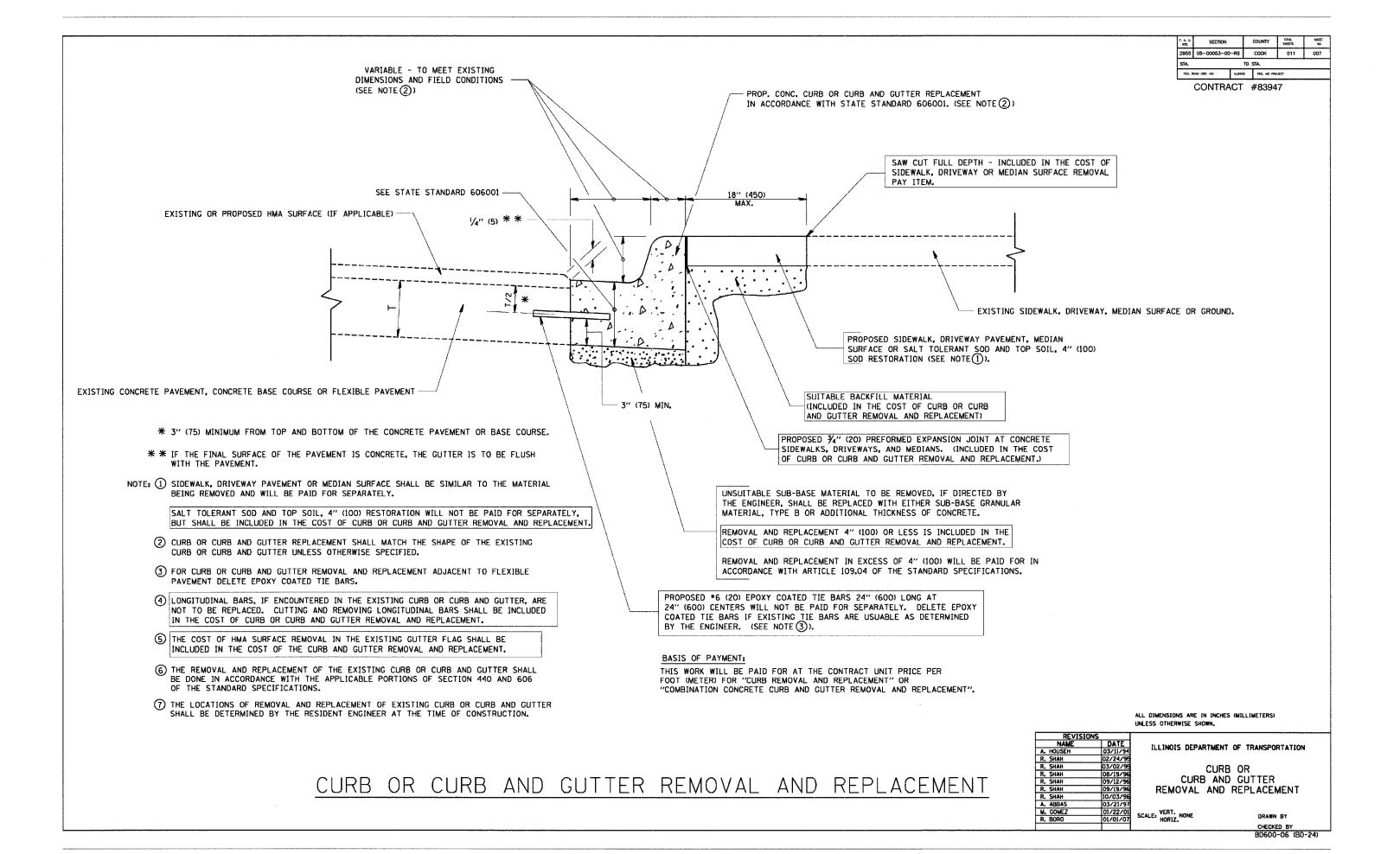
REVISIO	INS I
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	09/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. CONEZ	04/06/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION BUTT JOINT AND HMA TAPER DETAILS

SCALE: VERT. NONE

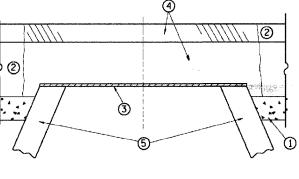
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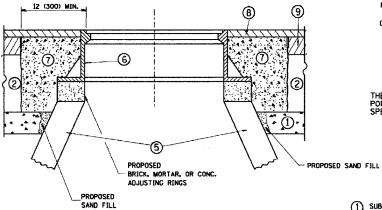
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CONTRACT #83947





#### NOTES:

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

#### CONSTRUCTION PROCEDURES

#### STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- BY 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 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

#### STAGE 2 (AFTER PAVEMENT WILLING)

- 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

- 1 SUB-BASE GRANULAR MATERIAL
- 6 FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT
- CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- 3 36 (900) DIAMETER METAL PLATE

  PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- 8 PROPOSED HMA SURFACE COURSE
- (5) EXISTING STRUCTURE
- 9 PROPOSED HIMA 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:
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

REVISIONS

NAME DATE

R. SHAH 10/25/94

R. SHAH 01/30/95

R. SHAH 03/10/95

A. ABBAS 03/21/97

R. WIEDEMAN 05/14/04

R. BORO 01/01/07

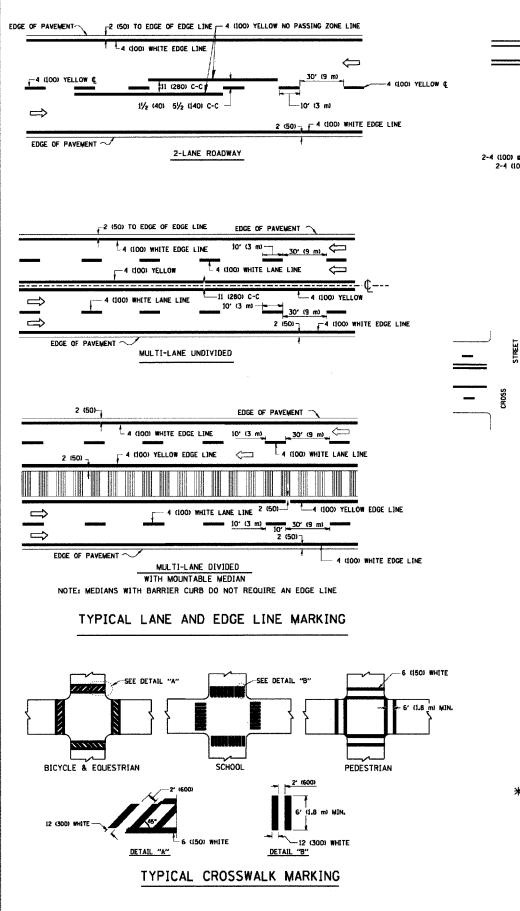
DETAILS FOR
FRAMES AND LIDS ADJUSTMENT
WITH MILLING

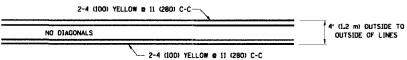
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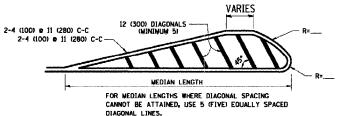
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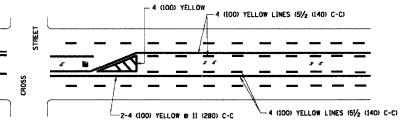


#### 4' (1.2 m) WIDE MEDIANS ONLY

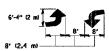


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
15' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

#### MEDIANS OVER 4' (1.2 m) WIDE

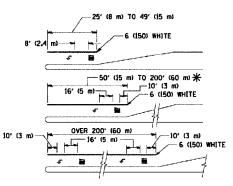


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR, ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

#### TYPICAL PAINTED MEDIAN MARKING

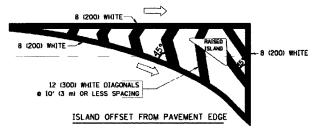


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SQ. FT. (1.5 m²)  $\P$  AREA = 20.8 SQ. FT. (1.9 m²)

\* 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".

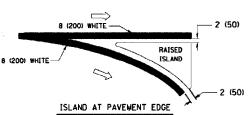
TYPICAL LEFT (OR RIGHT) TURN LANE

#### TYPICAL TURN LANE MARKING



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CONTRACT #83947



#### 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 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 6 4 (100)	SOLID	AETFOM AETFOM	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 1280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHETE WHETE	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	WHETE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 & 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (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. DIACONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (60D) APART 2' (60D) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE LE 4" 11.2 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 8 4 (100) WITH 12 (300) DIAGONALS 6 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.
CORE 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 m) LETTERS, 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R":3.6 SO. FT. (0.33 m²) EACH "X":54.0 SQ. FT. (5.0 m²)
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 (QVER 45MPH (70 km/h))

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

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

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

DISTRICT ONE TYPICAL PAVEMENT MARKINGS

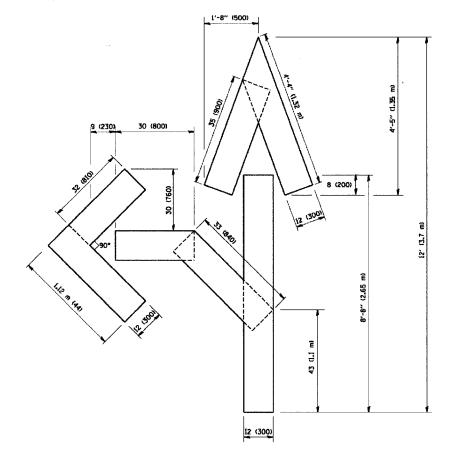
ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: NONE

CHECKED BY
TC-13

CONTRACT #83947

10m - 20p 12 14 4440



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

6'-8" (2.030 m)

9 (230) 30 (760)

12 (300)

42477 **44**55 374

16 (400) |米| 16 (400) |米| 16 (400) | 16 (400)

\* 4 (100)

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.

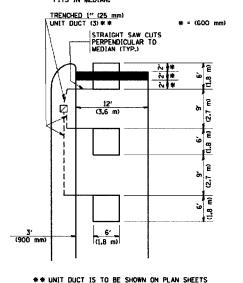
REVISIO	NS.	ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	ILLINOIS DEPARTMENT OF TRANSPORTATION
T. RAMMACHER	09/18/94	
J. OBERLE	06/01/96	DAVENENT MADVING
I. RAWMACHER	06/05/96	PAVEMENT MARKING
T. RAMMACHER	11/04/97	LETTERS AND SYMBOLS
T. RAMMACHER	03/02/98	
E. GOMEZ	08/28/00	FOR TRAFFIC STAGING
		SCALE: NONE DRAWN BY CADD
		CHECKED BY
		TC-16

# 

# 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 BIGOOI TO ENSURE THAT HANDHOLE ETS IN MEDIAN



BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

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

# VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH

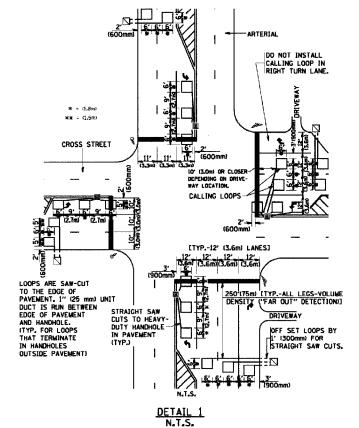
(PROTECTED / PERMITTED LEFT TURN PHASING)

# = (600 mm)

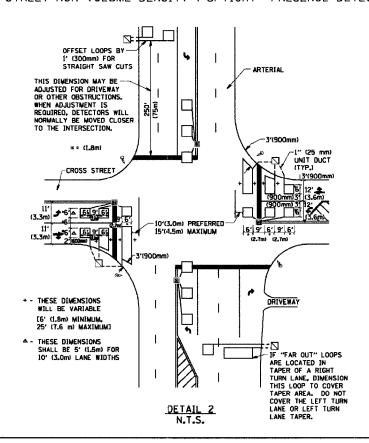
| Common | Commo

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)



F.A. N. SECTION COUNTY TOPM. SHEETS NO 29955 05-00053-00-RS COOK 011 011 STA.

TO STA. TO STA.

CONTRACT #83947

#### NOTE

#### 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 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  $\underline{\mathsf{ALL}}$  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.



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