### STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

#### 23-00120-00-RS ILLINOIS CONTRACT NO. 61K47

# PLANS FOR PROPOSED FEDERAL AID PROJECT

FOR INDEX OF SHEETS, SEE SHEET NO. 2 FOR HIGHWAY STANDARDS, SEE SHEET NO. 2

**FAU ROUTE 1607 (154TH STREET)** SOUTH PARK AVENUE/DR. MLK JR. DRIVE TO DANTE AVENUE **ROADWAY RESURFACING** 

**SECTION NO.: 23-00120-00-RS** 

**PROJECT NO.: FX97(514)** 

**VILLAGE of DOLTON** 

**VILLAGE of SOUTH HOLLAND** 

**COOK COUNTY** 

JOB NO.: C-91-185-24

**154TH STREET** 

**SOUTH PARK AVE TO DANTE AVE** 

2023 ADT-

7.650

**POSTED SPEED LIMIT-**

**35 MPH** 

**FUNCTIONAL CLASSIFICATION-**

**MAJOR COLLECTOR** 

**PAVING OMISSION** STA 35+42.00 TO STA 37+47.00 **BEGIN IMPROVEMENT** STA 10+80.00

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

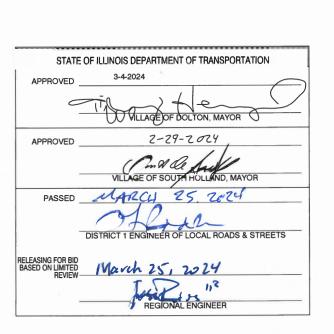
HORNTON TOWNSHIP

**LOCATION MAP** NOT TO SCALE

GROSS LENGTH= 6,929.63 FEET= 1.31 MILES NET LENGTH= 6,724.63 FEET= 1.27 MILES

**END IMPROVEMENT** STA 80 + 09.63





LOCATION OF SECTION INDICATED THUS: -

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 61K47

23R0457-COVR-01 - C01

CARMEN RAMOS,

#### INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX OF SHEETS, HIGHWAY STANDARDS AND GENERAL NOTES
- 3-6 SUMMARY OF QUANTITIES
- 7 TYPICAL CROSS SECTION
- 8-10 ALIGNMENT AND TIE
- 11-14 PROPOSED IMPROVEMENT PLAN
- 15-18 PAVEMENT MARKING AND SIGNAGE
- 19-20 CONSTRUCTION DETAILS
- 21-32 IDOT DISTRICT 1 STANDARDS

#### HIGHWAY STANDARDS

DIAGONAL CURB RAMPS FOR SIDEWALKS
CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
ENTRANCE / ALLEY PEDESTRIAN CROSSINGS
CLASS C AND D PATCHES
FRAMES AND LIDS TYPE 1
CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
OFF ROAD OPERATIONS, MULTILANE, 15'(4.5m) TO 24"(600mm) FROM PAVEMENT EDGE
OFF FOAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION FOR SPEEDS $\leq$ 40 MPH
URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
URBAN LANE CLOSURE, MULTILANE INTERSECTION
SIDEWALK, CORNER OR CROSSWALK CLOSURE
TRAFFIC CONTROL DEVICES
SIGN PANEL MOUNTING DETAILS
SIGN PANEL ERECTION DETAILS
TELESCOPING STEEL SIGN SUPPORT
BASE FOR TELESCOPING STEEL SIGN SUPPORT
DETECTOR LOOP INSTALLATIONS

#### DISTRICT ONE DETAILS

EDAMES AND LIDS ADJUSTMENT WITH MILLING

BD-08	FRAMES AND LIDS ADJUSTMENT WITH MILLING
BD-22	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
BD-24	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT
BD-32	BUTT JOINTS AND HMA TAPER
TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS
TC-11	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC-14	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
TC-16	SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS
TC-26	DRIVEWAY ENTRANCE SIGNING
TS-05	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS
TS-07	DETECTOR LOOP INSTALLATION DETAIL FOR ROADWAY RESURFACING

#### **GENERAL NOTES**

- 1. ITEMS OF WORK LISTED IN THE SUMMARY OF QUANTITIES NOT SPECIFICALLY CALLED OUT ON THE PLANS SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER.
- THE ROBINSON ENGINEERING, LTD. FIELD OFFICE (708-331-6700), AND THE PUBLIC WORKS DIRECTOR, AT THE VILLAGE OF SOUTH HOLLAND AND THE VILLAGE OF DOLTON, SHALL BE NOTIFIED TWO (2) WORKING DAYS BEFORE CONSTRUCTION BEGINS.
- 3. BEFORE STARTING ANY EXCAVATION THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 AND (312) 744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. (48 HOUR NOTIFICATION REOUIRED)
- 4. A NICOR REPRESENTATIVE MUST BE PRESENT WHEN WORKING WITHIN 25' OF THE PIPELINE.
- 5. UTILITIES INDICATED ON THE PLANS ARE PROVIDED FOR THE CONTRACTOR'S 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.
- 6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- 7. 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.
- 8. 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.
- CLASS D PATCHING QUANTITIES FOR THIS CONTRACT SHALL BE PERFORMED AT THE DIRECTION OF THE ENGINEER AFTER PAVEMENT MILLING.
- 10. CONTRACTOR SHALL TAKE PRECAUTION BY PRESERVING EXISTING TREES WITHIN THE RIGHT OF WAY. IF ANY DAMAGE OCCURS, TREES SHALL BE REPLACED IN KIND PER ARTICLE 201.07 REPAIR OR REPLACEMENT OF EXISTING PLANT MATERIAL REQUIREMENTS STATED HEREIN.
- 11. ALL EQUIPMENT SHALL BE REMOVED OFF THE VILLAGE STREETS DURING ALL HOLIDAY WEEKENDS AS COORDINATED WITH THE VILLAGE.
- 12. HMA PAVING SHALL BE PERFORMED WITH HOT JOINTS.
- 13. THE CONTRACTOR SHALL CONTACT KALPANA KANNAN-HOSADURGA, THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR, AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- 14. WHEN WORKING ADJACENT TO THE ROAD AND UTILIZING DAILY LANE CLOSURES, DROP-OFFS ADJACENT TO THE TRAVEL LANES SHALL BE KEPT TO A MINIMUM. DROP-OFFS GREATER THAN (OR GREATER THAN OR EQUAL TO) 12" WILL NOT BE ALLOWED AT LOCATIONS WHERE THE DROP-OFF IS LOCATED WITHIN 8 FT OF THE EDGE OF THE TRAVEL LANE. THE CONTRACTOR WILL BE REQUIRED TO PERFORM THE EXCAVATION REQUIRED FOR THE CONSTRUCTION DURING THE TIME THAT THE ADJACENT LANE IS CLOSED. AS NOTED ABOVE, PRIOR TO REOPENING THE LANE TO TRAFFIC THE CONTRACTOR SHALL PLACE SUFFICIENT MATERIAL TO REDUCE THE DROP-OFF TO LESS THAN 12". THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE THE AMOUNT OF WORK THAT CAN BE COMPLETED WITHIN THE TIME OF THE DAILY LANE CLOSURE. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED TO COMPLY WITH THIS REQUIREMENT.
- 15. CHANGEABLE MESSAGE SIGNS SHALL BE INSTALLED TWO WEEKS PRIOR TO ALL TRAFFIC STAGE CHANGES ON EACH APPROACH OF THE EFFECTED ROADWAY TO WARN MOTORISTS OF THE UPCOMING EVENT. THE SIGN MESSAGES SHALL BE REVISED TWO WEEKS THEREAFTER WITH MESSAGES WARNING TRAFFIC OF POTENTIAL TRAFFIC DELAYS, QUEUING AND/OR WITH MESSAGES NOTIFYING TRAFFIC TO USE ALTERNATE ROUTES. THE SIGN LOCATIONS AND MESSAGES SHALL BE DETERMINED BY THE ENGINEER.
- 16. TEMPORARY INFORMATION SIGNS ON TEMPORARY SUPPORTS SHALL BE PROVIDED FOR ALL COMMERCIAL DRIVEWAYS THAT ARE LOCATED WITHIN A WORK AREA. THIS WORK SHALL BE PAID FOR PER DISTRICT 1 DETAIL TC-26. THESE SIGNS SHALL BE RELOCATED AS REQUIRED FOR EACH CONSTRUCTION STAGE AND SHALL BE PLACED AS DIRECTED BY THE ENGINEER. THIS SIGN RELOCATION WORK WILL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN TEH CONTRACT UNIT PRICE PER SQUARE FOOT FOR TEMPORARY INFORMATION SIGNING.
- 17. CONTRACTOR SHALL REMOVE OR COVER ALL W21-1 (WORKERS PRESENT) AND W20-7 (FLAGGER) SIGNS WHEN WORKERS ARE NOT PRESENT OR IF THE SIGN IS NOT APPLICABLE
- 18. DRUMS ALONG ARTERIAL ROADWAYS SHALL BE PLACED AS FOLLOWS: 50' C-C ALONG TANGENTS; 20' C-C ALONG TAPERS; & 10' C-C ALONG RADII/CURVES
- 19. CONTRACTOR IS TO MAINTAIN FULL ACCESS TO AT LEAST ONE SIDE OF THE SIDEWALK (SHARED-USE PATH) AT ALL TIMES. CROSSWALKS ARE TO BE MAINTAINED THROUGH THE USE OF EXISTING OR TEMPORARY PAVEMENT MARKINGS AND TEMPORARY SIDEWALK, AS REQUIRED.

#### COMMITTIMENTS

NONE.

FILE NAME = 23R0457-INDX-01 - P01	USER NAME =	DESIGNED — MPN	REVISED —		154TH STREET ROADWAY RESURFACING INDEX OF SHEETS & STATE STANDARDS, STANDARDS & GENERAL NOTES		F.A.U RTF	SECTION	COUNTY	TOTAL SHEET		
		CHECKED — WPD	REVISED —	STATE OF ILLINOIS			1607	23-00120-00-RS	соок	32 2		
	PLOT SCALE =	DRAWN — RG	REVISED —	DEPARTMENT OF TRANSPORTATION						T NO. 61K47		
	PLOT DATE = 04-02-24	CHECKED — AG	REVISED —		SCALE: NONE	SHEET NO. 2 OF 32 SHEETS	STA.	TO STA.	FED. ROAD D	DIST. NO. 1 ILLINOIS	ED. AID PROJECT FX9	7(514)

					FED 100%	FED 100%
	•	·			VILLAGE 0%	VILLAGE 0%
					ROADWAY	SAFETY
.1.2	CODE NO.	PAYITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION	ON TYPE CODE
O.I.	OODE NO.	171.050	- Jan	10 //12 40/////	0005	0021
	20200100	EARTH EXCAVATION	ÇU YD	10	10	
	20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	50	50	
			:			
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	1,521	1,521	
		CODDING SALT TOLEDANT	SO VD	1 521	4504	
	25200110	SODDING, SALT TOLERANT	\$Q YD	1,521	1521	
	30300001	AGGREGATE SUBGRADE IMPROVEMENT .	CUYD	50	50	
	35101600	AGGREGATE BASE COURSE, TYPE B 4"	SQ YD	2,055		2,055
	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	30,246	30,246	
			•			
	40600370	LONGITUDINAL JOINT SEALANT	FOOT	22,950	22,950	
	40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	67	67	
	1000100			-	<del>-</del>	
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	580	580	
	40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	5,646	5,646	
	40604060	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50	TON	5,019	5,019	
	42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SQ YD	159	159	
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	10,681		10,681
	42400410	PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH	SQ FT	230		230
	42400410	TOTAL STREET CONSTRUCTION OF THE STREET	341,		· · · · · · · · · · · · · · · · · · ·	
	42400800	DETECTABLE WARNINGS	SQFT	878		878

FILE NAME = 23R0457-QUAN-01 - Q01	USER NAME #	DESIGNED — MPN	REVISED
		CHECKED JDH	REVISED
	PLOT SCALE -	DRAWN BG	REVISED
	PLOT DATE = 04-02-24	CHECKED — AG	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

154TH STREET ROADWAY RESURFACING SUMMARY OF QUANTITIES						-
SCALE: NONE	SHEET NO. 3	OF 32	SHEETS	STA.	TO STA.	7

	FAU SECTION					COUNTY	TOTAL SHEETS	SHEET NO,
į	1607					COOK	32	3
					CONTRACT	NO. 61 K	47	
	FED. ROAD DIST, NO. 1 ILLINOIS FED. A					D PROJECT FX97	514)	

•					FED 100% VILLAGE 0%	FED 100% VILLAGE 0%
		ROADWAY	SAFETY			
S.I.	CODE NO.	DAVITES	UNIT	TOTAL QUANTITY	CONSTRUCTION	ON TYPE CODE
J.i.	CODE NO.	PAY ITEM	UNII	TOTAL QUANTITY	0005	0021
	44000165	HOT-MIX ASPHALT SURFACE REMOVAL, 4"	SQ YD	44,809	44,809	
	44000200	DRIVEWAY PAVEMENT REMOVAL	\$Q YD	756	756	
	44000300	CURB REMOVAL	FOOT	10	10	
	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	3,705	3,705	
	44000600	SIDEWALK REMOVAL	SQ FT	12,338		12,338
	. 144444					,
	44201737	CLASS D PATCHES, TYPE I, 8 INCH	SQ YD	10	10	
	44201741	CLASS D PATCHES, TYPE II, 8 INCH	SQ YD	20	20	
	44201745	CLASS D PATCHES, TYPE III, 8 INCH	SQ YD	24	24	
	44201747	CLASS D PATCHES, TYPE IV, 8 INCH	SQ YD	1,265	1,265	
		,				
	60266600	VALVE BOXES TO BE ADJUSTED	EACH	20	20	
	60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	1	1	
	60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	2	2	
	·	•				
	60600605	CONCRETE CURB, TYPE B	FOOT	10	10	
	60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	1,507	1,507	
	60604400	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18	FOOT	37	37	
	60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	1,993	1,993	

PILE NAME = 23R0457-QUAN-01 - Q02	USER NAME	DESIGNED MPN	REVISED —
		CHECKED JDH	REVISED
	PLOT SCALE -	DRAWN — BG	REVISED —
	PLOT DATE = 04-02-24	CHECKED APG	REMSED

STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

SCALE:

154TH STREET							
ROADWAY RESURFACING SUMMARY OF QUANTITIES							
SHEET NO. 4	OF 32	SHEETS	STA.	TO STA.		F	

	FAU RTE,		SE	CTION	COUNTY	TOTAL SHEETS	SHEET NO.		
	1807		23-00	120-00-	as	COOK	32	4	
_						CONTRACT NO. 61K47			
-	FED. RO	AD DIST.	NO. 1	ILLIN	OIS FED. A	ID PROJECT FX97(5	14)		

					FED 100% VILLAGE 0%	FED 100% VILLAGE 0%
			-	ROADWAY	SAFETY	
				CONSTRUCTION TYPE CODE		
S.I.	CODE NO.	PAY ITEM	UNIT	TOTAL QUANTITY	0005	0021
	60608562	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.12	FOOT	168	168	
	67100100	MOBILIZATION .	Ł 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	
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	50	5,0	
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	4,730		4,730
	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	1,580		1,580
*	72000100	SIGN PANEL - TYPE 1	SQ FT	425		425
	72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	3		3
	72400200	REMOVE SIGN PANEL ASSEMBLY - TYPE B	· EACH	1		1
*	72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	456		456
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	328		328
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	15,571		15,571
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1,029		1,029
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	3,881		3,881

FILE NAME = 23R0457-QUAN-01 - Q03	USER NAME -	DESIGNED — MPN	REVISED
		CHECKED — JDH	REVISED
	PLOT SCALE =	DRAWN — BG	REVISED
	PLOT DATE == 04-02-24	CHECKED — APG	REVISED

STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

		154	4TH STRE	ĘŢ				
ROADWAY RESURFACING								
SUMMARY OF QUANTITIES								
CALE:	SHEET NO. 5	OF 32	SHEETS	STA.	TO STA.			

A.U RTE.			SECT			COUNTY	TOTAL SHEETS	SHEET NO.
1607	23-00120-00-RS					соок	32	5
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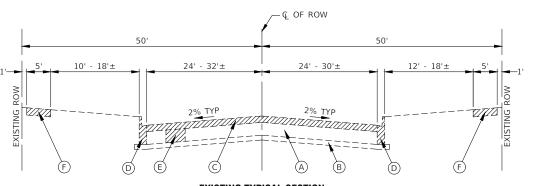
					FED 100% VILLAGE 0%	FED 100% VILLAGE 0%
					ROADWAY	SAFETY
6.	CODE NO	PAVITEM	FINIT	TOTAL QUANTITY	CONSTRUCTION	N TYPE CODE
S.I.	CODE NO.	PAY ITEM	UNIT	TOTAL QUANTITY	0005	0021
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	788		788
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	585		585
			· ·			
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	585		585
	Z0004530	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 8"	SQ YD	597	597	
	Z0017400	DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED	EACH	75	75	
	Z0017700	DRAINAGE & UTILITY STRUCTURES TO BE RECONSTRUCTED	EACH	2	2	
	Z0030850	TEMPORARY INFORMATION SIGNING	SQFT	125	125	
*	K1004595	PRUNING FOR SAFETY AND EQUIPMENT CLEARANCE	L SUM	1	1	
	X1700021	BRICK PAVER REMOVAL AND REINSTALLATION, SPECIAL	SQ FT	39	39	
	X4021000	TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	13	13	
	X4022000	TEMPORARY ACCESS (COMMERCIAL ENTRANCE)	EACH	10	10	
	X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	63	63	
	X6066016	HOT-MIX ASPHALT MEDIAN SURFACE, 4 INCH	SQ FT	87		87
*	X7800200	PAINT PAVEMENT MARKING CURB	FOOT	31		31
*	X8860105	DETECTOR LOOP REPLACEMENT	FOOT	1,165		1,165

FILE NAME = 23R0457-QUAN-01 - Q04	USER NAME -	DESIGNED MPN	REVISED
		CHECKED - JDH	REVISED
	PLOT SCALE -	DRAWN BG	REVISED —
	PLOT DATE - 04-02-24	CHECKED — APG	REVISED —

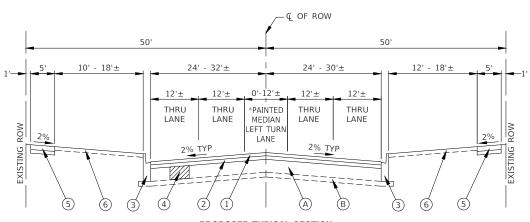
STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

		OADW	4TH STRE AY RESUR AY OF QUA	FACING	
 SCALE:	SHEET NO. 6	OF 32	SHEETS	STA	TO STA.

A.U RTE.		SEC	TION		CON	ΠY	TOTAL SHEETS	SHEET NO.
1607			20-00-RS		coc	K	32	6
					CONTR	ACT	VO. 61K	47
ED RO	AD DIST, NO.	1	BLINOIS	FED A	DPROJECT	FX97(5	141	



## EXISTING TYPICAL SECTION 154TH STREET SOUTH PARK AVE/DR. MLK JR. DRIVE TO DANTE AVENUE



## PROPOSED TYPICAL SECTION 154TH STREET SOUTH PARK AVE/DR. MLK JR. DRIVE TO DANTE AVENUE

\*PAINTED MEDIAN TRANSITIONS: STA 30+85 TO STA 33+25 FROM 0' TO 12' STA 39+75 TO STA 42+15 FROM 12' TO 0' STA 60+14 TO STA 62+14 FROM 0' TO 12' STA 70+00 TO STA 72+00 FROM 12' TO 0'

#### **EXISTING LEGEND**

- A EXISTING PAVEMENT, 4 1/2" TO 16"±
- B) EXISTING SUBBASE, 6" TO 18"±
- C HOT-MIX ASPHALT SURFACE REMOVAL, 4"
- D EXISTING CURB AND GUTTER, TYPE B-6.24
- E PAVEMENT REMOVAL FOR CLASS D PATCHES, 8 INCH
- (F) EXISTING SIDEWALK

ITEM TO BE REMOVED (AS DIRECTED BY ENGINEER)

#### NOTE

- 1. THE LONGITUDINAL JOINT SEALANT SHALL BE PLACED ON THE HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50
- 2. ALL PATCHING OPERATIONS SHALL TAKE PLACE AFTER SURFACE MILLING HAS BEEN COMPLETED.

#### PROPOSED LEGEND

- (1) HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50, 2"
- HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 2 1/4"
- 3 COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 (AS DIRECTED BY ENGINEER)
- 4 CLASS D PATCHES, 8 INCH (AS DIRECTED BY ENGINEER)
- PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH OR 8 INCH AT DRIVEWAYS AGGREGATE BASE COURSE, TYPE B 4" (AS DIRECTED BY ENGINEER)
- 6 TOPSOIL FURNISH & PLACE, 4" SODDING, SALT TOLERANT

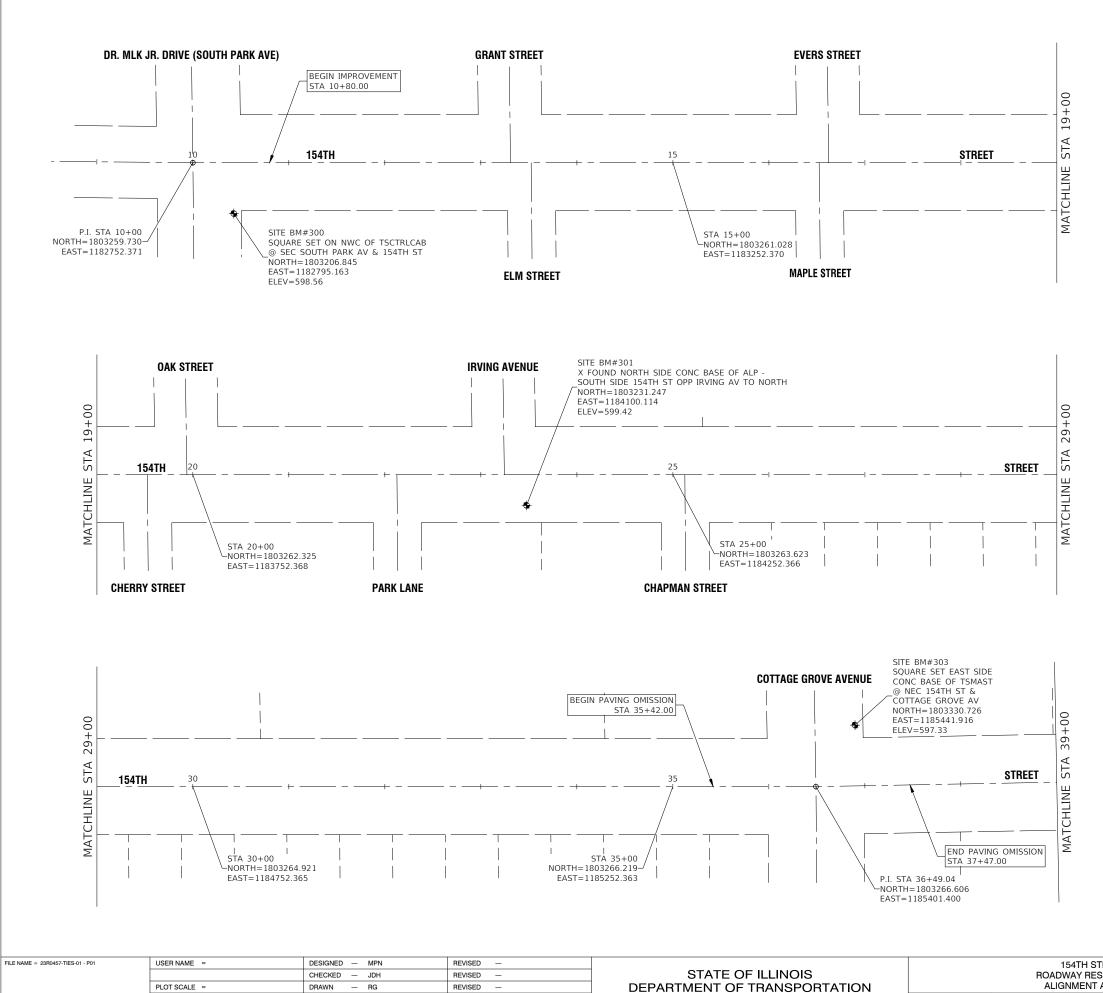
#### **HOT-MIX ASPHALT MIXTURE REQUIREMENTS**

AIR VOIDS @ Ndes	
Min voids @ macs	QMP
4% @ 50 Gyr.	LR 1030-2
4% @ 50 Gyr.	LR 1030-2
4% @ 50 Gyr.	LR 1030-2
4% @ 50 Gyr.	LR 1030-2
4% @ 70 Gyr.	LR 1030-2
4% @ 50 Gyr.	LR 1030-2
.R1030-2	
	4% @ 50 Gyr. 4% @ 50 Gyr. 4% @ 50 Gyr. 4% @ 50 Gyr. 4% @ 70 Gyr.

#### OTES:

- 1. THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE IS 112 LBS/SQ/IN.
- 2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG-64-22" UNLESS MODIFIED BY RECLAIMED MATERIALS SPECIFICATIONS.

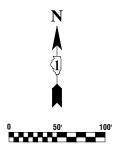
FILE NAME = 23R0457-TYPX-01 - P01	USER NAME =	DESIGNED — MPN	REVISED —			154TH STREET	F.A.U RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
		CHECKED — JDH	REVISED —	STATE OF ILLINOIS		ROADWAY RESURFACING	1607	23-00120-00-RS	соок	32	7
	PLOT SCALE =	DRAWN — BG	REVISED —	DEPARTMENT OF TRANSPORTATION		TYPICAL CROSS SECTIONS			CONTRACT	NO. 61K4	7
	PLOT DATE = 04-02-24	CHECKED — AG	REVISED —		SCALE: NONE	SHEET NO. 7 OF 32 SHEETS STA. TO STA.	FED. ROA	AD DIST. NO. 1 ILLINOIS FED.	AID PROJECT FX97		$\overline{}$



PLOT DATE = 04-02-24

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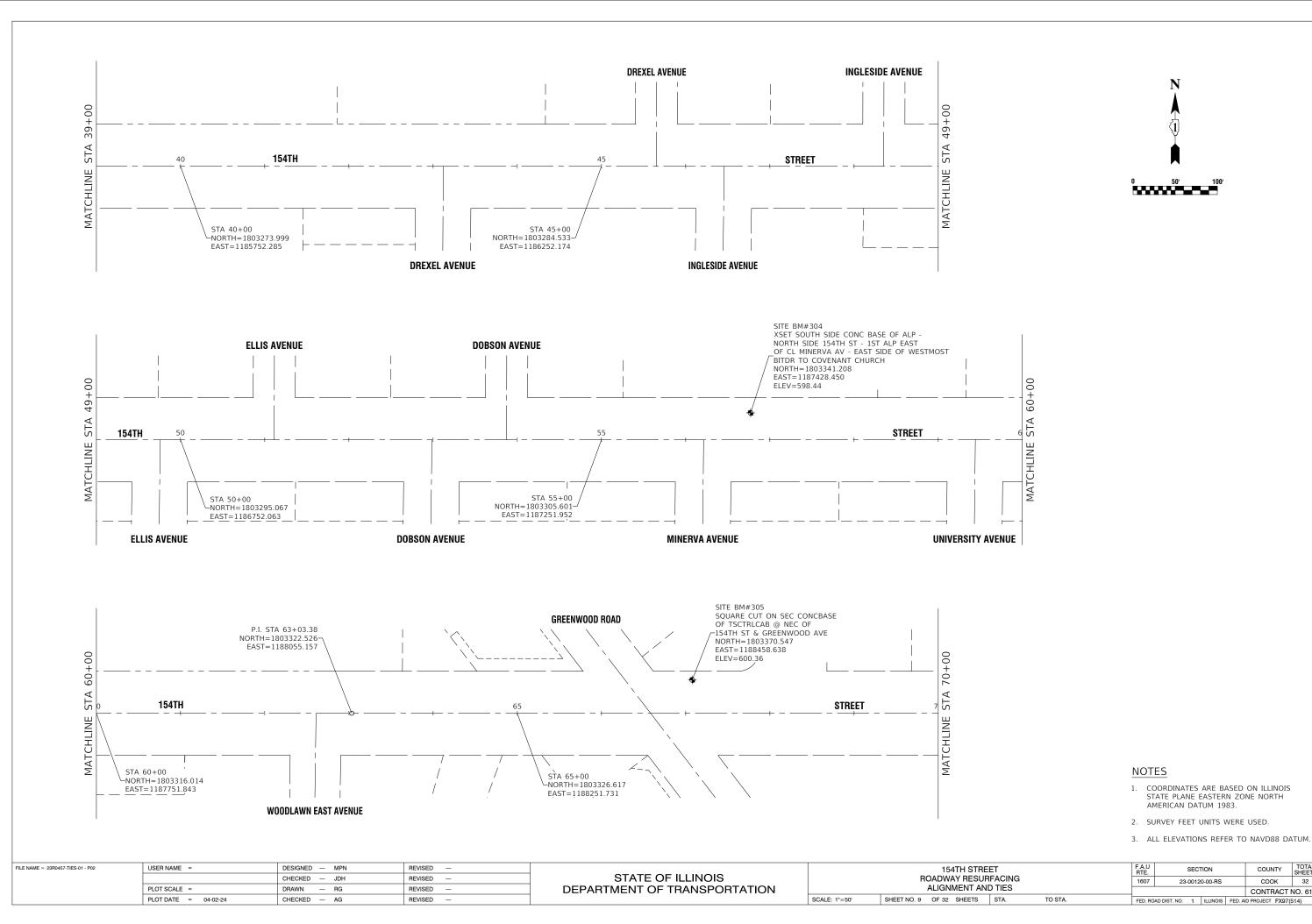
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#### NOTES

- COORDINATES ARE BASED ON ILLINOIS STATE PLANE EASTERN ZONE NORTH AMERICAN DATUM 1983.
- 2. SURVEY FEET UNITS WERE USED.
- 3. ALL ELEVATIONS REFER TO NAVD88 DATUM.

		154TH STREET ROADWAY RESURFACING									COUNTY	TOTAL SHEETS	SHEET NO.
		ROADWAY RESURFACING							1607 23-00120-00-RS			32	8
ON		ALIGNMENT AND TIES										NO. 61K4	17
	SCALE: 1"=50'	SCALE: 1"=50' SHEET NO. 8 OF 32 SHEETS STA. TO STA.						FED. ROAD DIST. NO. 1 ILLINOIS FE			AID PROJECT FX97(514)		

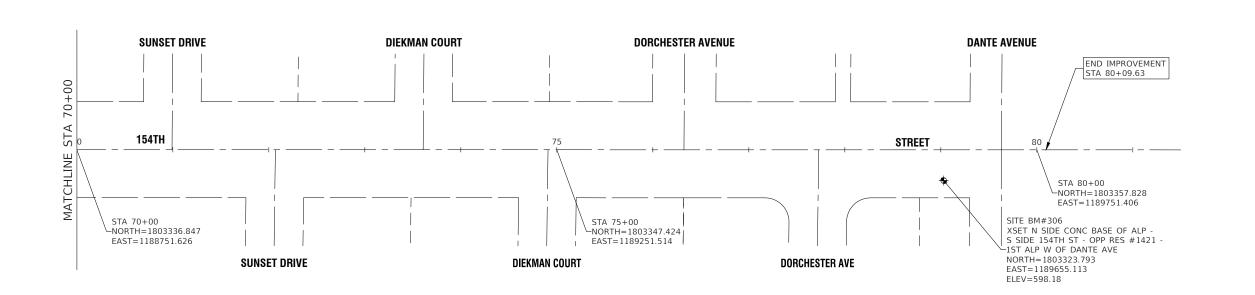


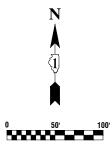
COUNTY

COOK

CONTRACT NO. 61K47

32 9

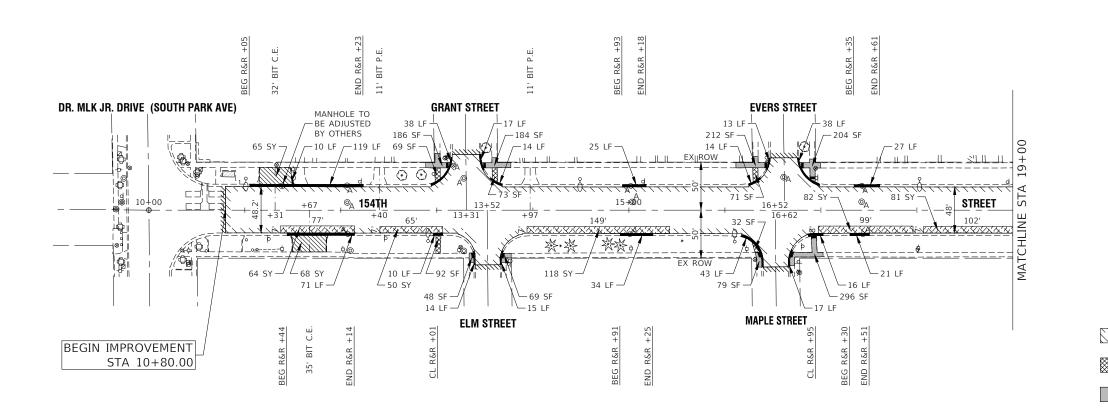


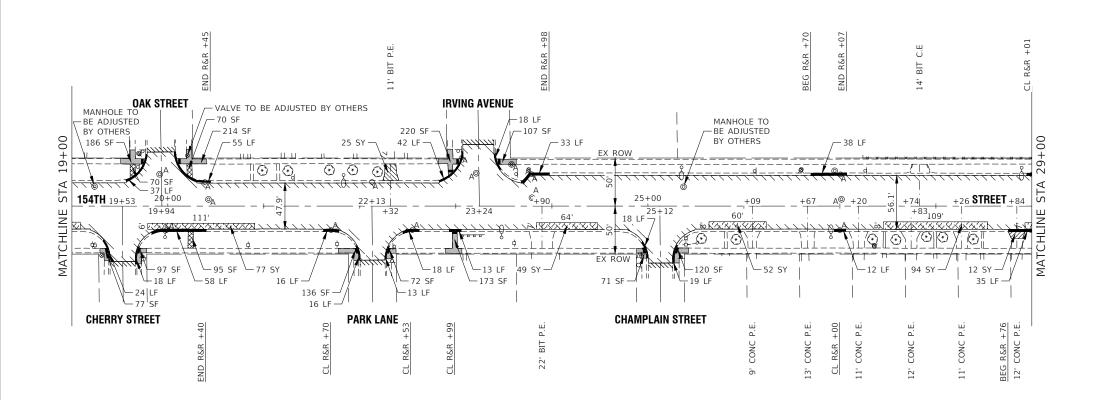


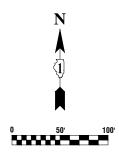
#### NOTES

- COORDINATES ARE BASED ON ILLINOIS STATE PLANE EASTERN ZONE NORTH AMERICAN DATUM 1983.
- 2. SURVEY FEET UNITS WERE USED.
- 3. ALL ELEVATIONS REFER TO NAVD88 DATUM.

FILE NAME = 23R0457-TIES-01 - P03	USER NAME =	DESIGNED — MPN	REVISED —			154TH STREET	F.A.U BTF	SECTION	COUNTY	TOTAL SHEETS	SHEET
		CHECKED — JDH	REVISED —	STATE OF ILLINOIS ROADWAY RESURFACING 1607 23-00120-00-R:			23-00120-00-RS	соок	32	10	
	PLOT SCALE =	DRAWN — RG	REVISED —	DEPARTMENT OF TRANSPORTATION		ALIGNMENT AND TIES			CONTRACT	NO 61K	47
	PLOT DATE = 04-02-24	CHECKED — AG	REVISED —		SCALE: 1"=50'	SHEET NO. 10 OF 32 SHEETS STA. TO STA.	FED. ROAD I	DIST. NO. 1 ILLINOIS FED.	AID PROJECT FX97(		<del></del>







#### **LEGEND**

HOT-MIX ASPHALT SURFACE REMOVAL, 4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 2 1/4" HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50, 2"

SIDEWALK REMOVAL

SIDEWALK REMOVAL PCC SIDEWALK 5 INCH (8 INCH THRU DRIVEWAYS)

AGGREGATE BASE COURSE, TYPE B 4"

CLASS D PATCHES, 8 INCH REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL (AS DIRECTED BY ENGINEER) AGGREGATE SUBGRADE IMPROVEMENT (AS DIRECTED BY ENGINEER)

DRIVEWAY PAVEMENT REMOVAL HMA DRIVEWAY PAVEMENT, 8"

DRIVEWAY PAVEMENT REMOVAL PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8"

DETECTABLE WARNINGS - DW

COMBINATION CURB AND GUTTER REMOVAL COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12  $\,$ COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18 COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.12 CONCRETE CURB, TYPE B

DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED

VALVE BOXES TO BE ADJUSTED FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)

DRAINAGE & UTILITY STRUCTURES TO BE RECONSTRUCTED

EXISTING DETECTOR LOOP

7777777, HMA SURFACE REMOVAL - BUTT JOINT

BEGIN STATION FOR CURB AND GUTTER REMOVAL AND BEG R&R +XX REPLACEMENT

END STATION OF CURB AND GUTTER REMOVAL AND END R&R +XX

REPLACEMENT

CENTER STATION OF CURB AND GUTTER REMOVAL AND REPLACEMENT CL R&R +XX

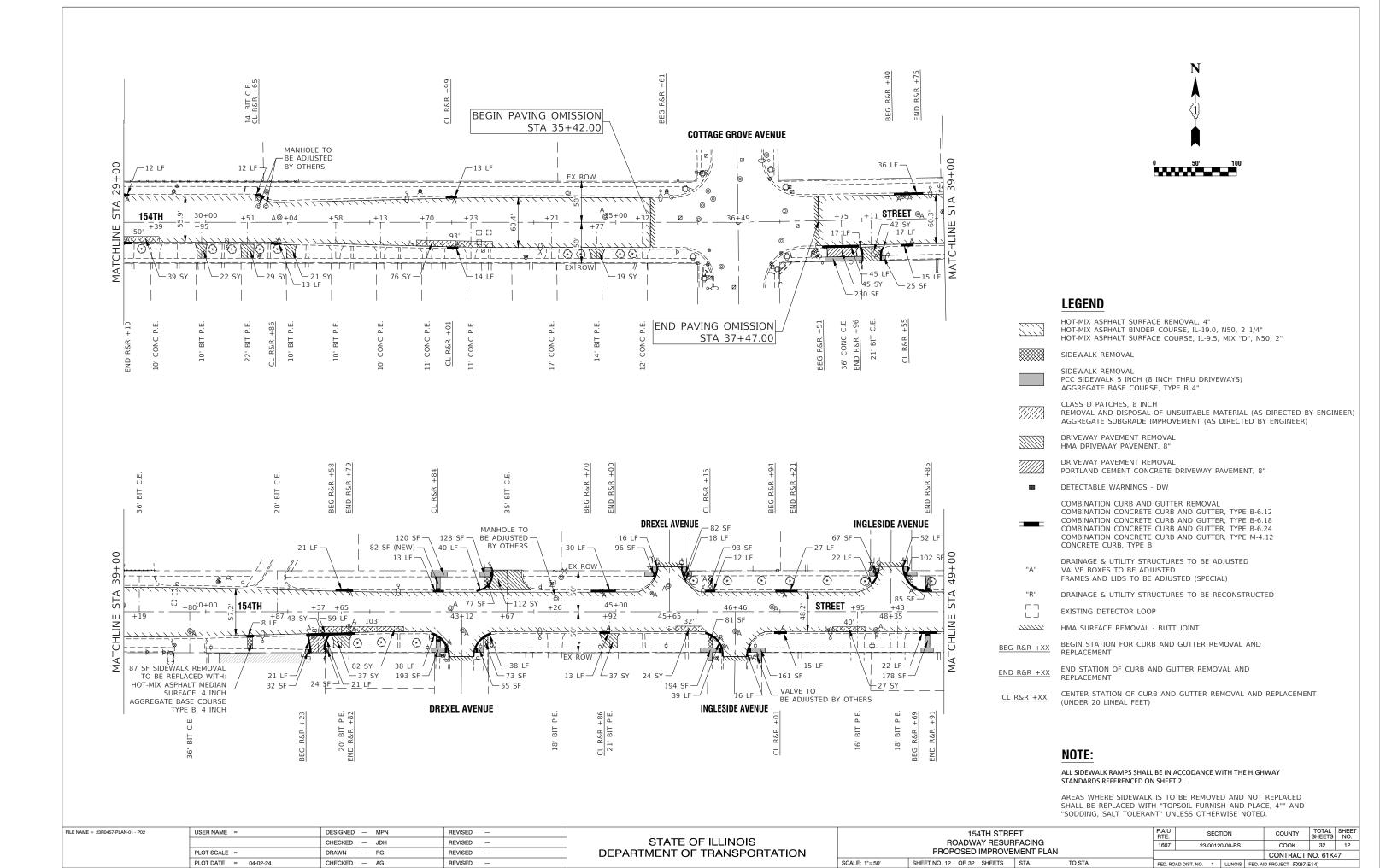
(UNDER 20 LINEAL FEET)

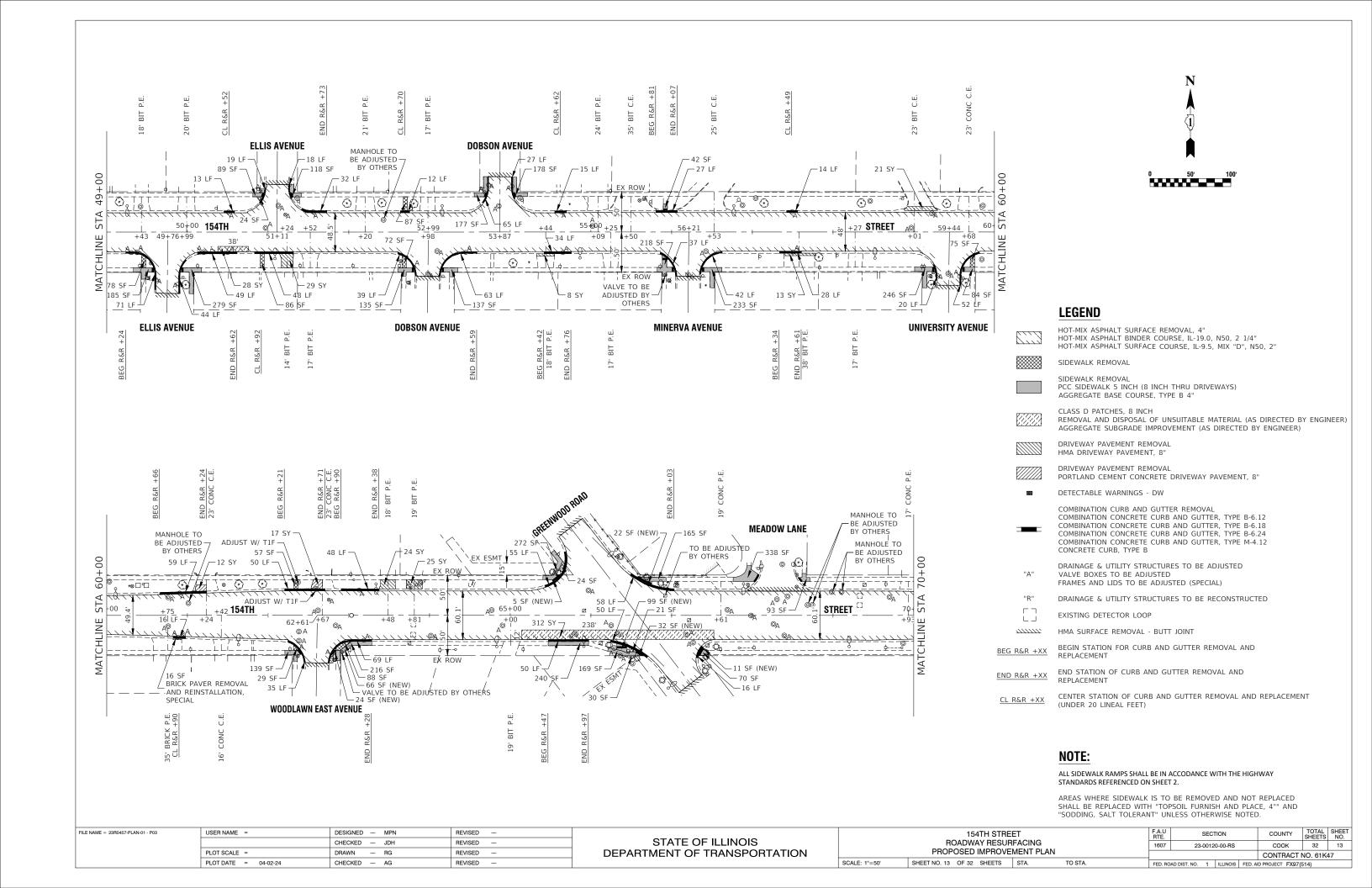
#### NOTE:

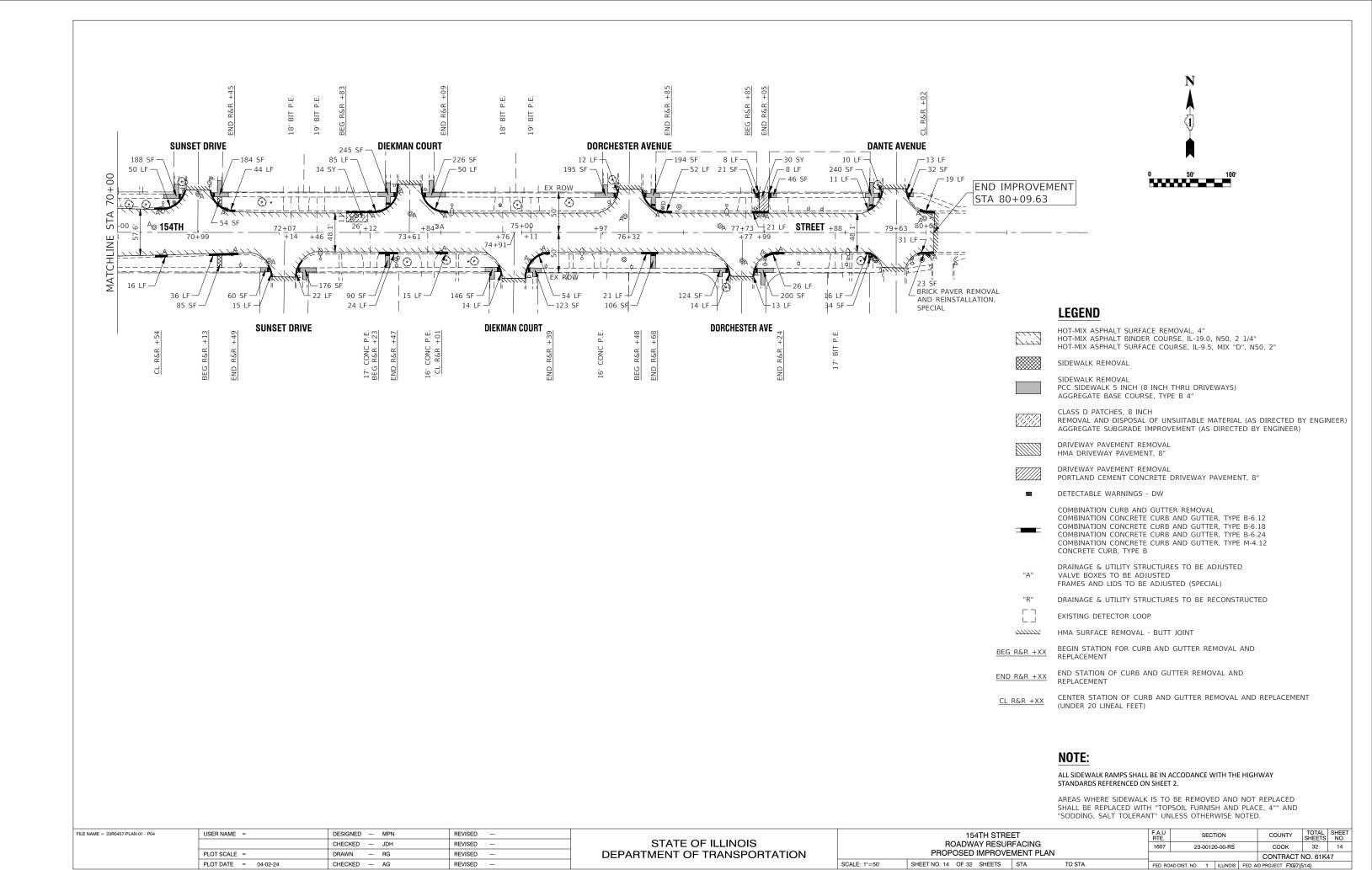
ALL SIDEWALK RAMPS SHALL BE IN ACCODANCE WITH THE HIGHWAY STANDARDS REFERENCED ON SHEET 2.

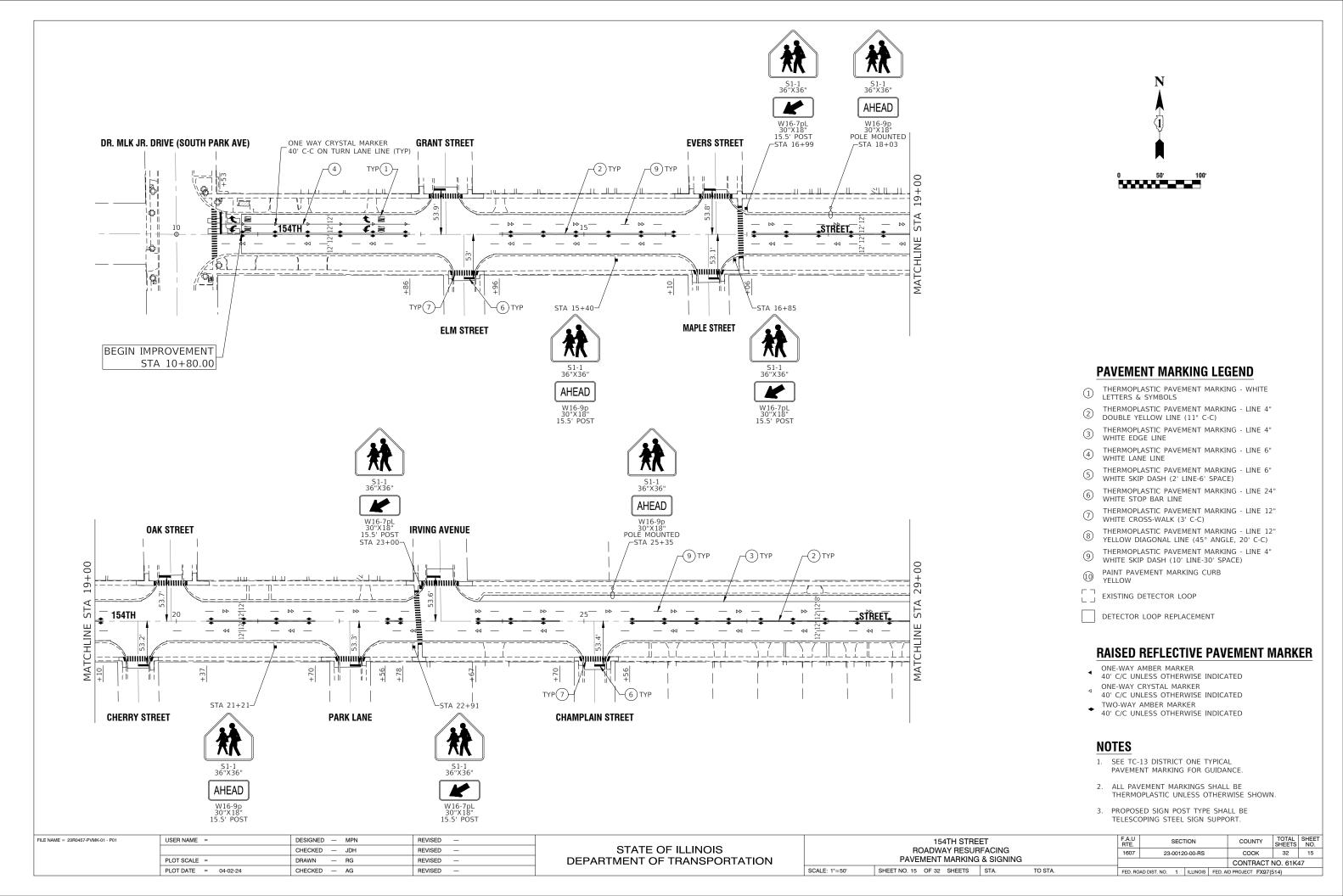
AREAS WHERE SIDEWALK IS TO BE REMOVED AND NOT REPLACED SHALL BE REPLACED WITH "TOPSOIL FURNISH AND PLACE, 4"" AND "SODDING, SALT TOLERANT" UNLESS OTHERWISE NOTED.

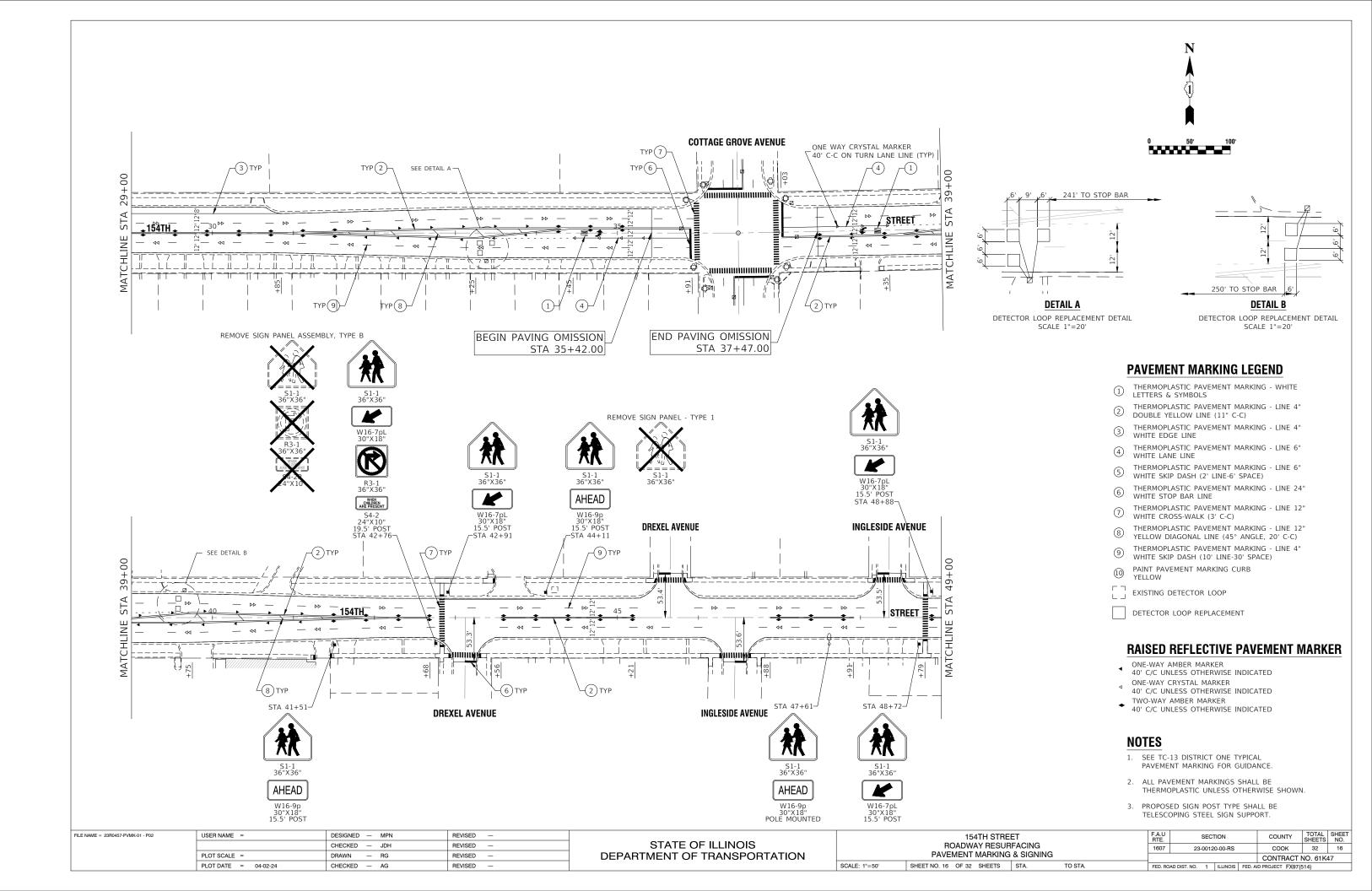
FILE NAME = 23R0457-PLAN-01 - P01	USER NAME =	DESIGNED — MPN	REVISED —			154TH STREET	F.A.U RTF	SECTION	COUNTY	TOTAL	SHEET
		CHECKED — JDH	REVISED —	STATE OF ILLINOIS	ROADWAY RESURFACING		1607	23-00120-00-RS	соок	32	11
	PLOT SCALE =	DRAWN — RG	REVISED —	DEPARTMENT OF TRANSPORTATION		PROPOSED IMPROVEMENT PLAN			CONTRACT	T NO. 61K4	7
	PLOT DATE = 04-02-24	CHECKED — AG	REVISED —		SCALE: 1"=50' SHEET NO. 11 OF 32 SHEETS STA. TO STA.			D DIST. NO. 1 ILLINOIS FED.	AID PROJECT FX9		

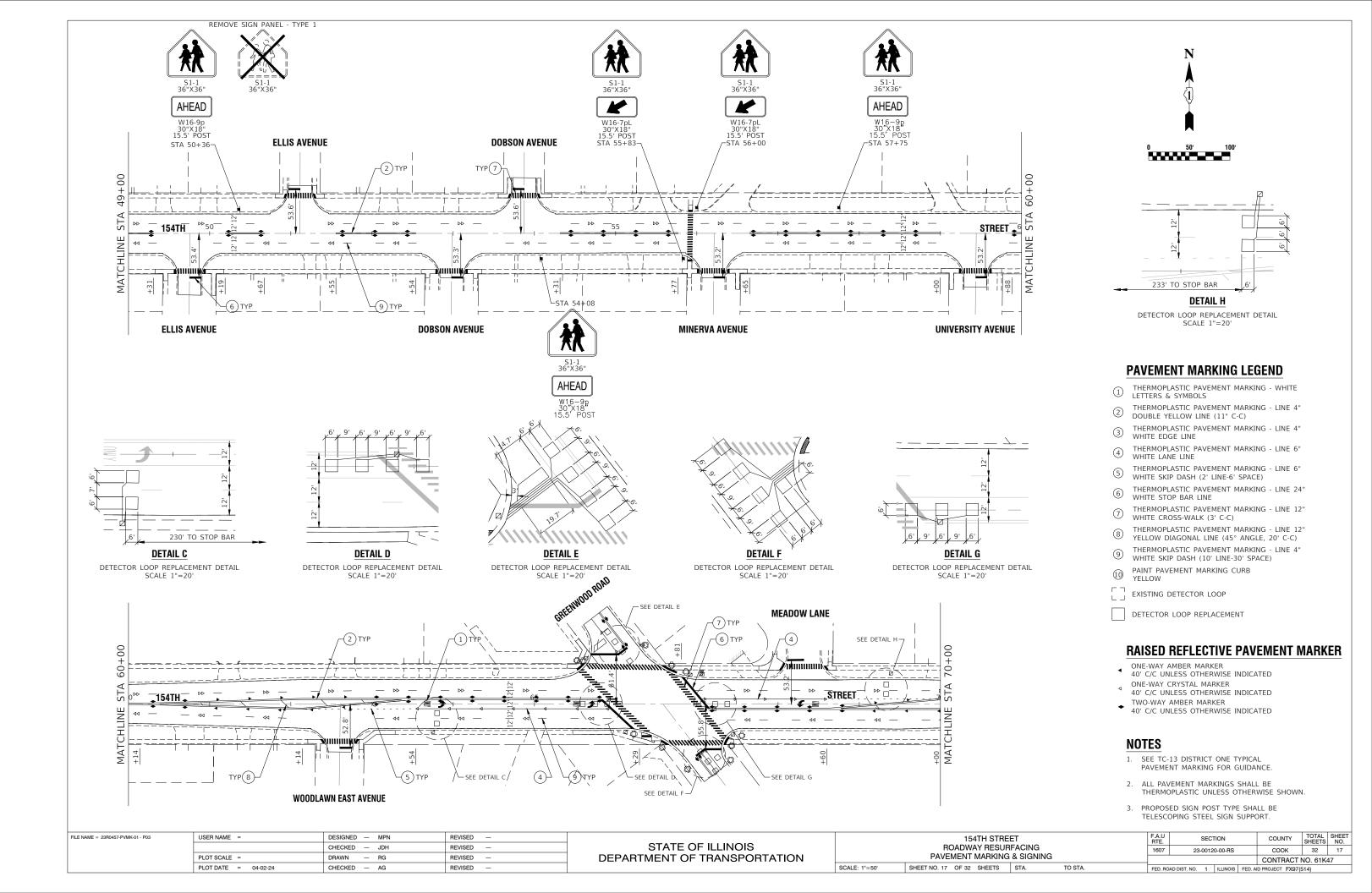


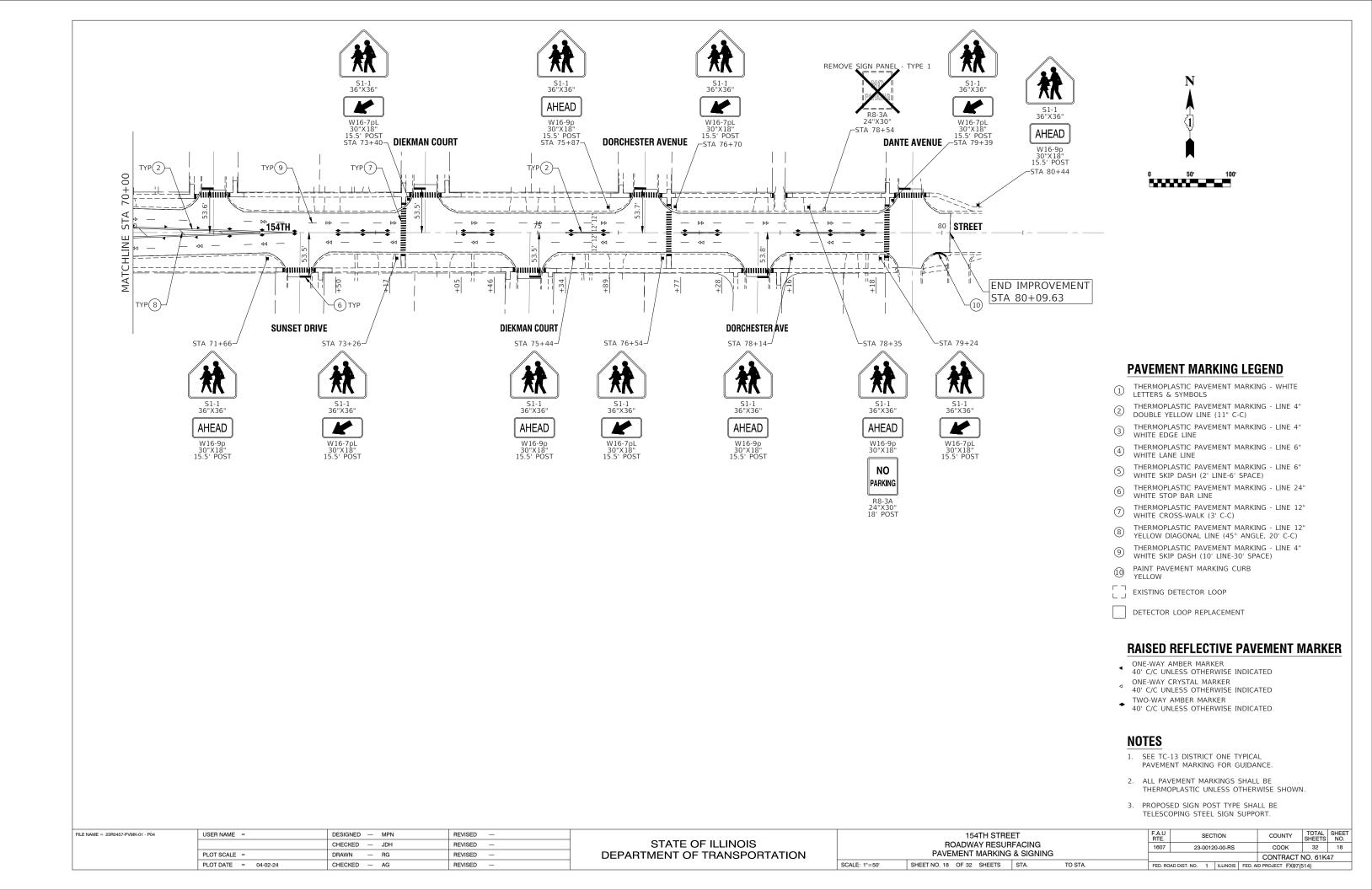


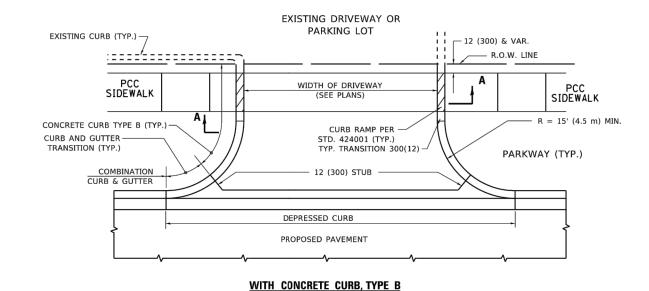


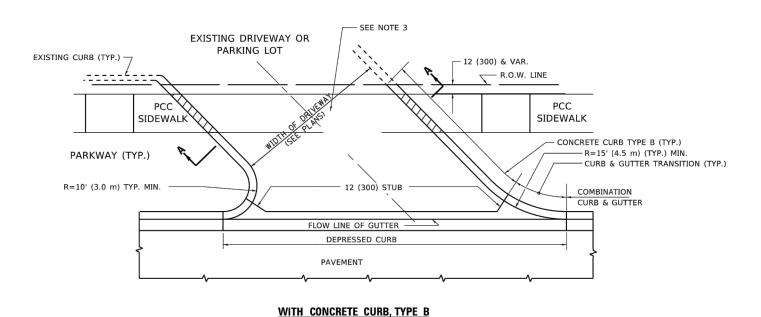


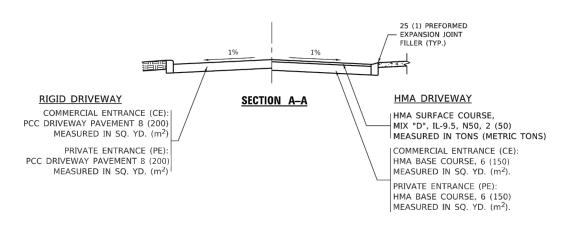


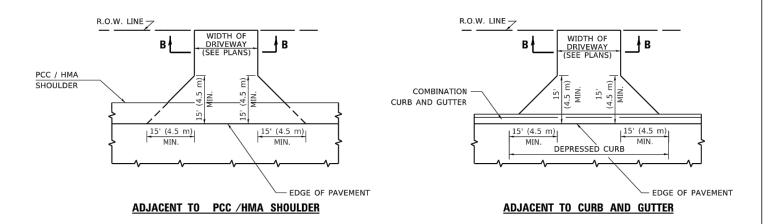


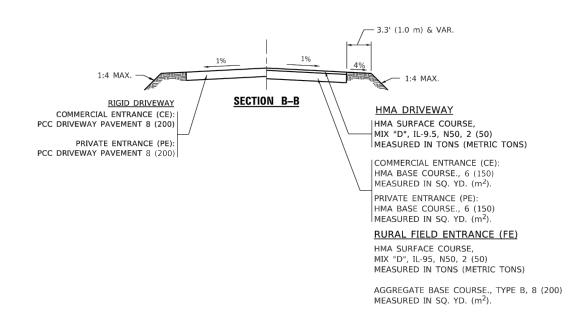










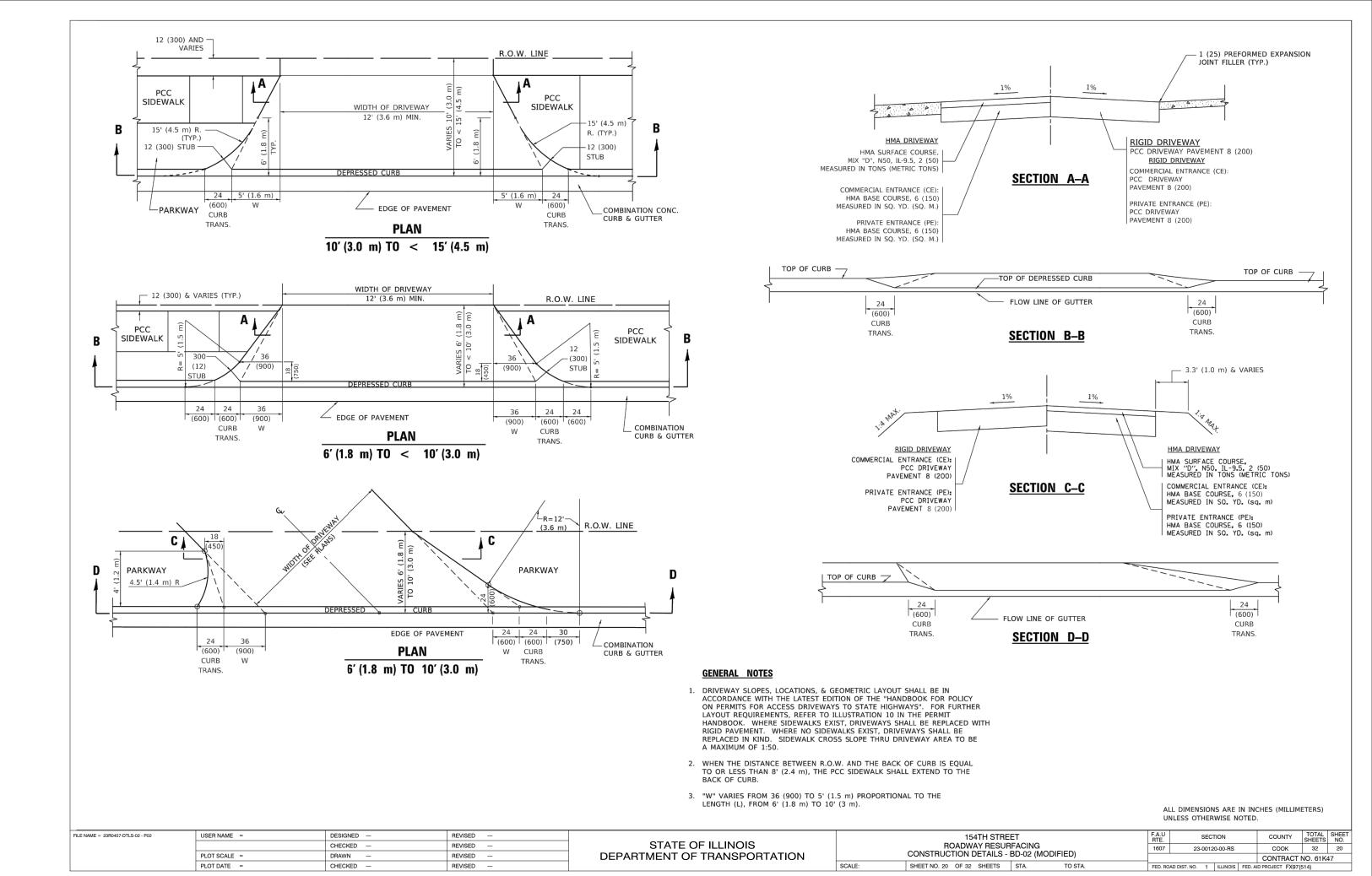


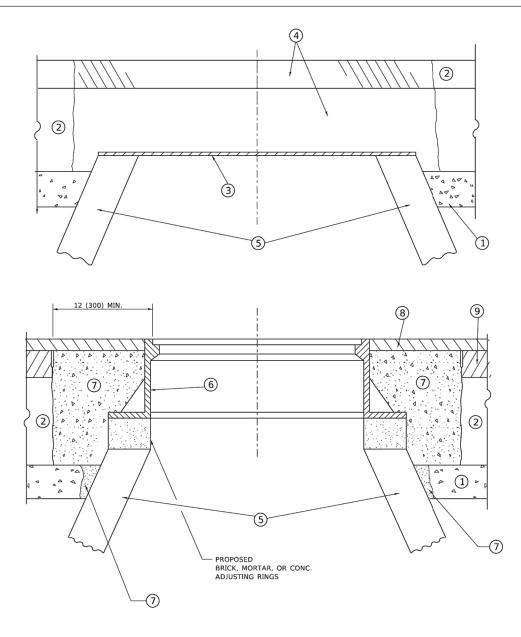
#### **GENERAL NOTES**

- DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.
- COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

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

FILE NAME = 23R0457-DTLS-02 - P01	USER NAME =	DESIGNED —	REVISED —		154TH STREI	ET	F.A.U RTF	SECTION	COUNTY	TOTAL	SHEET
		CHECKED —	REVISED —	STATE OF ILLINOIS	ROADWAY RESURFACING CONSTRUCTION DETAILS - BD-01 (MODIFIED)  SCALE: SHEET NO. 19 OF 32 SHEETS STA. TO STA.		1607	23-00120-00-RS	соок	32	19
	PLOT SCALE =	DRAWN —	REVISED —	DEPARTMENT OF TRANSPORTATION					CONTRACT	NO. 61K4	7
	PLOT DATE =	CHECKED —	REVISED —				FED. ROAD DI	ST. NO. 1 ILLINOIS FED. A	ID PROJECT FX97(	(514)	$\neg$





#### DETAILS FOR FRAMES AND LIDS ADJUSTMENT

#### <u>NOTES</u>

- 1. 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.
- 2. 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.
- 3. CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.
- 4. THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
- 5. THE CONTRACTOR SHALL REMOVE ALL TRAFFIC CONTROL DEVICES BY THE END OF EACH WORK SHIFT.

#### 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 HMA SURFACE MIX APPROVED BY THE ENGINEER. (MIN. 3 (80) HMA TO REMAIN AFTER MILLING).

#### 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-2\* 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 EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

#### **LEGEND**

(1)	SUB-BASE	GRANULAR
$\sim$	MATEDIAL	

- (6) FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT
- (7) CLASS PP-2\* CONCRETE
- (3) 36 (900) DIAMETER METAL PLATE
- (8) PROPOSED HMA SURFACE COURSE
- 4 PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- 9 PROPOSED HMA BINDER COURSE
- (5) EXISTING STRUCTURE

#### **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**

- 1. REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."
- 2. THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.
- 3. NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.
- 4. 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.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

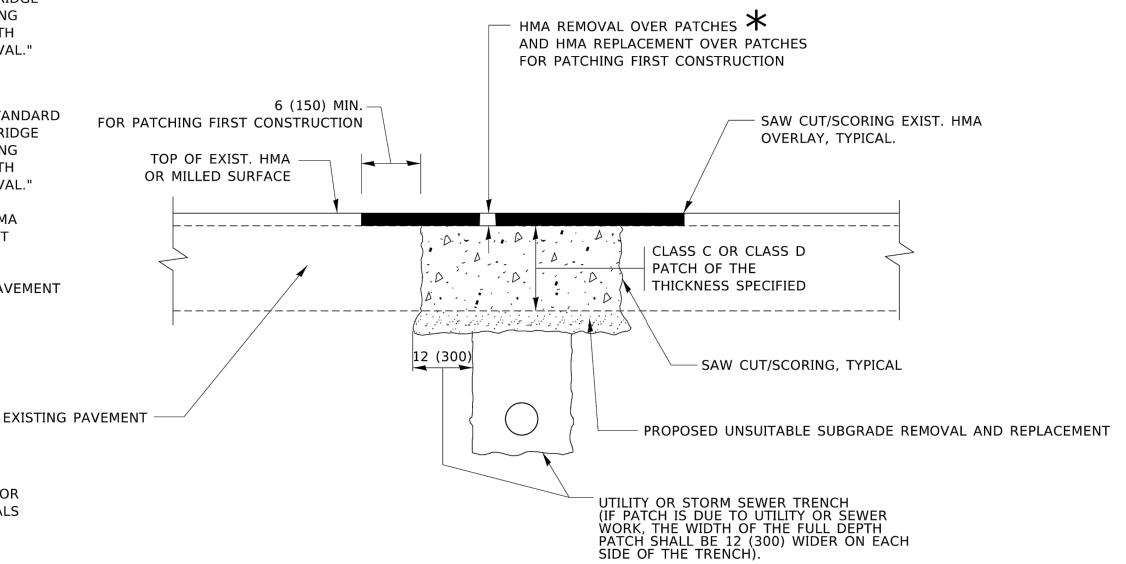
USER NAME = Lawrence.DeManche	DESIGNED - R. SHAH	REVISED - R. BORO 03-09-11	CTATE OF WILMOID	DETAILS FOR	F.A.U RTE. SECTION	COUNTY TOTAL SHEET NO.
	DRAWN -	REVISED - R. BORO 12-06-11	STATE OF ILLINOIS	FRAMES AND LIDS ADJUSTMENT WITH MILLING	1607 23-00120-00-RS	COOK 32 21
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - K. SMITH 11-18-22	DEPARTMENT OF TRANSPORTATION	THANKES AND LIDS ADSOSTINENT WITH MILLING	BD600-03 (BD-08)	CONTRACT NO. 61K47
PLOT DATE = 9/15/2023	DATE - 10-25-94	REVISED - K. SMITH 09-15-23		SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED.	AID PROJECT FX97(514)

#### METHOD OF MEASUREMENT

REFER TO SECTION 442 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL."

#### **BASIS OF PAYMENT**

- 1. REFER TO SECTION 442 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL."
- SAW CUT/SCORING OF EXISTING HMA OVERLAY IS INCLUDED IN THE COST OF PAVEMENT PATCHING.
- 3. SAW CUT/SCORING OF EXISTING PAVEMENT IS INCLUDED IN THE COST OF PAVEMENT PATCHING.



#### **SEQUENCE OF CONSTRUCTION (PATCHING FIRST)**

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEE TYPICAL SECTIONS FOR

THICKNESS AND MATERIALS

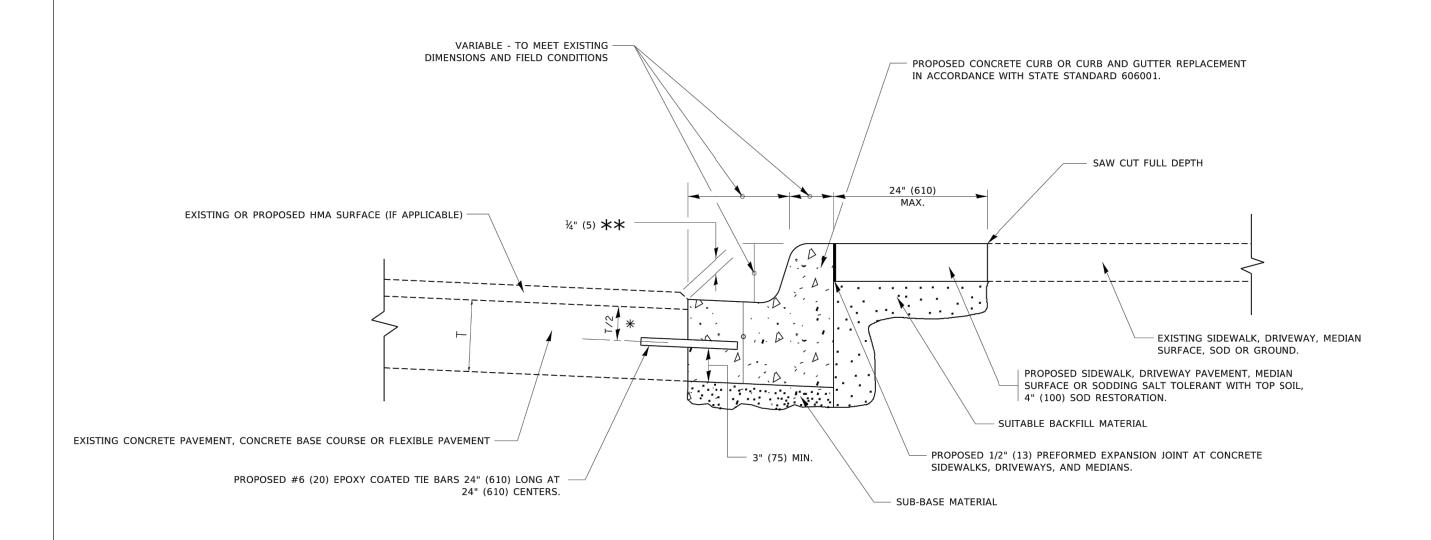
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

#### **SEQUENCE OF CONSTRUCTION (MILLING FIRST)**

- 1. MILL HMA FIRST IF THERE IS AT LEAST  $4\frac{1}{2}$  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.

USER NAME = Lawrence.DeManche	DESIGNED - R, SHAH	REVISED - R. BORO 01-01-07		PAVEMENT PATCHING FOR	F.A.U RTF	SECTION	COUNTY	TOTAL SHE	£ET
	DRAWN -	REVISED - R. BORO 09-04-07	STATE OF ILLINOIS		1607	23-00120-00-RS	соок	32 2	2
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - K. ENG 10-27-08	DEPARTMENT OF TRANSPORTATION	HMA SURFACED PAVEMENT	,	BD400-04 (BD-22)	CONTRACT	NO. 61K47	
PLOT DATE = 11/18/2022	DATE - 10-25-94	REVISED - K. SMITH 11-18-22		SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.	FED BOA	AD DIST NO 1 JULINOIS FED A	AID PROJECT FXQ7/	(514)	



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

### CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

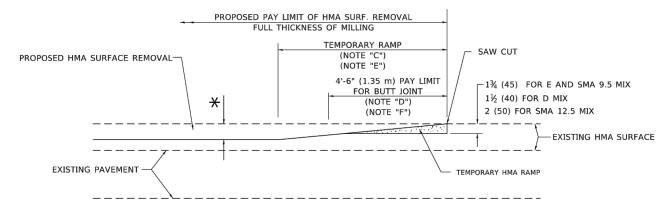
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

USER NAME = footemj	DESIGNED - A. HOUSEH	REVISED - A. ABBAS 03-21-97			CHE	R OR C	CHER AN	ND GUTTER		F.A.U	SECTION	COUNTY	SHEETS	L SHEET	1
	DRAWN -	REVISED - M. GOMEZ 01-22-01	STATE OF ILLINOIS							1607	23-00120-00-RS	соок	32	23	1
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - R. BORO 12-15-09	DEPARTMENT OF TRANSPORTATION		KEN	IUVAL A	AND KER	PLACEMENT		В	3D600-06 (BD-24)	CONTRAC	T NO. 61k	K47	1
PLOT DATE = 7/11/2019	DATE - 03-11-94	REVISED - K. SMITH 07-11-19		SCALE: NONE	SHEET 1	OF 1	SHEETS	STA.	TO STA.	FED. ROAD	D DIST. NO. 1 ILLINOIS	FED. AID PROJECT FX9	7(514)		

# PROPOSED PAY LIMIT OF HMA SURF. REMOVAL FULL THICKNESS OF MILLING TEMPORARY RAMP (NOTE "C") (NOTE "E") EXISTING PAVEMENT MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

#### OPTION 1

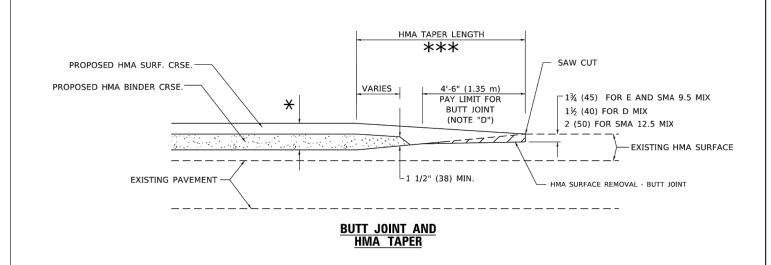


#### HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

#### OPTION 2

#### TYPICAL TEMPORARY RAMP



# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

# # EXISTING PAVEMENT

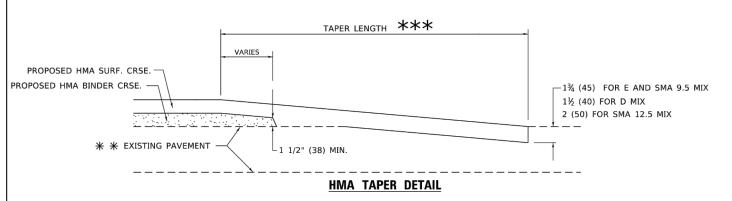
30'-0" (9.0 m) (NOTE "A")
15'-0" (4.5 m) (NOTE "B")
(NOTE "D")
40'-0" (12.0M) (NOTE "A1")

\*\* \*\* EXISTING PAVEMENT

\*\* EXISTI

PROPOSED HMA OR PCC

SURFACE REMOVAL - BUTT JOINT



# TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

#### **GENERAL NOTES**

- A. MAINLINE ARTERIAL ROADWAYS AND MAJOR SIDE ROADS.
- A1. INTERSTATES
- 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' 4" (1.02m) PER 1 INCH (25 mm) OF MILLING THICKNESS.

SHEET 1

- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- F. SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \*\*\* 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**

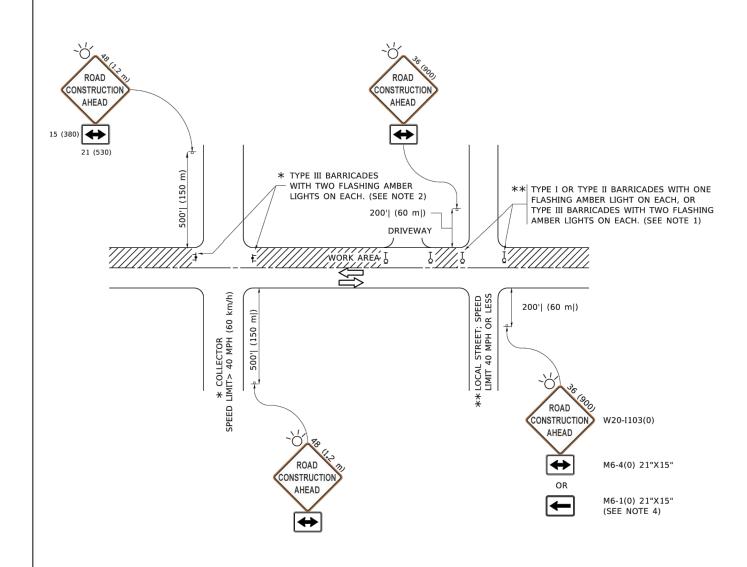
- THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT"
- THE TEMPORARY RAMP AND SAW CUT SHALL BE INCLUDED IN THE UNIT COST FOR HMA OR PCC SURFACE REMOVAL-BUTT JOINT

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

USER NAME = Lawrence.Demanche	DESIGNED	-	M. DE TONG	KEVISED	-	A. ADDAS 03-21-97
	DRAWN	-		REVISED	-	M. GOMEZ 04-06-01
PLOT SCALE = 100.0000 ' / in.	CHECKED	-		REVISED	-	R. BORO 01-01-07
PLOT DATE = 11/18/2022	DATE	-	06-13-90	REVISED	-	K. SMITH 11-18-22

STATE	: OI	- ILLINOIS
DEPARTMENT	0F	TRANSPORTATION

В	BUTT JOINT AND					F.A.U RTE.	SECTION		COUNTY	TOTAL SHEETS	SHE
HMA TAPER DETAILS					1607	23-0012	20-00-RS	соок	32	24	
						BD400-05	BD-32	CONTRACT	NO. 61K	17	
OF	1 CIII	FTC	CTA	TO CTA					 		



#### NOTES:

- 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 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.
- 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.
- THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY
  b) BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION
  OF THE CLOSED PORTION.
- 3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710)
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE
  4. SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL
  BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

- 5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
- 6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER
- THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

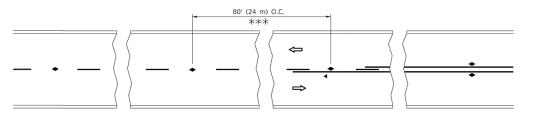
All dimensions are in inches (millimeters) unless otherwise shown.

USER NAME = footemj	DESIGNED - L.H.A.	REVISED	- A. HOUSEH 10-15-96
	DRAWN -	REVISED	- T. RAMMACHER 01-06-00
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED	- A. SCHUETZE 07-01-13
PLOT DATE = 3/4/2019	DATE - 06-89	REVISED	_ A. SCHUETZE 09-15-16

STATE	: OF	ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

	SI							TION FOR DRIVEWAYS
SCALE: NON	IE	SHEET	1	OF	1	SHEETS	S STA.	TO STA.

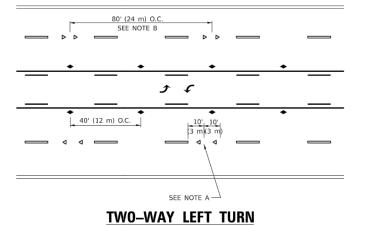
F.A.U RTE.		SECT	TION		COUNTY	TOTAL SHEETS	SHEE NO.		
1607	23-	0012	0-00-RS	соок	32	25			
	TC	-10			CONTRACT NO. 61K47				
FED. RO.	AD DIST. NO.	1	ILLINOIS	FED. A	D PROJECT FX97	(514)			



\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

# LANE REDUCTION TRANSITION

SEE FIGURE 3B-14 MUTCD



**SYMBOLS** 

■ ONE-WAY AMBER MARKER

TWO-WAY AMBER MARKER

ONE-WAY CRYSTAL MARKER (W/O)

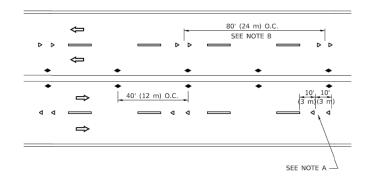
- YELLOW STRIPE

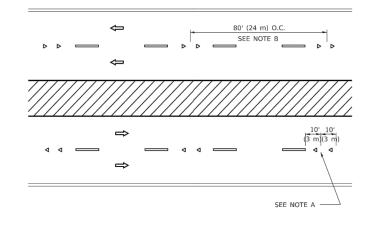
■ WHITE STRIPE

#### TWO-LANE/TWO-WAY

O.C.

40' (12 m) O.C.





MULTI-LANE/DIVIDED

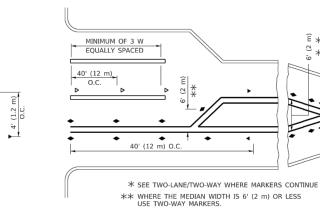
3 @ 40' (12 m)

#### MULTI-LANE/UNDIVIDED

3 @ 40' (12 m)

3 @ 80' (24 m) O.C.

 $\Rightarrow$ 



TURN LANES

#### **GENERAL NOTES**

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

#### LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- 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.

#### **DESIGN NOTES**

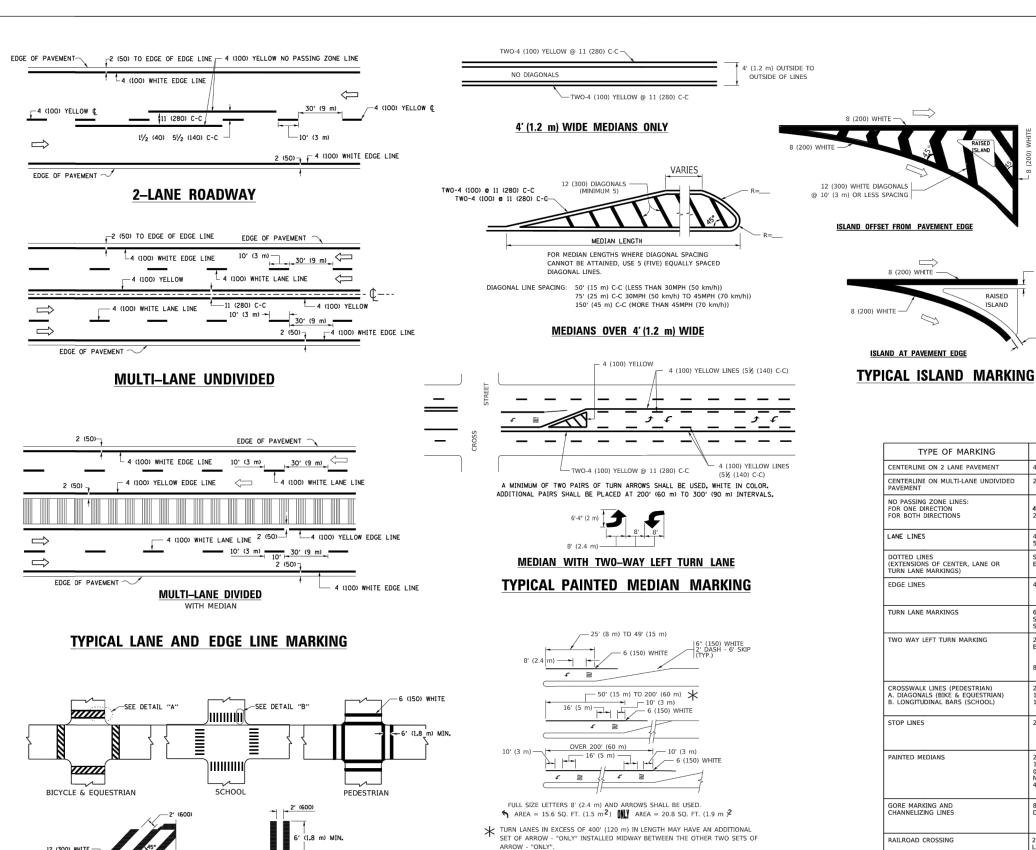
- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
- 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.

USER NAME = footemj	DESIGNED -	REVISED	- T. RAMMACHER 03-12-99				ΤΥΡΙCΔΙ	APPLICA	ZIONS		F.A.U RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
	DRAWN -	REVISED	- T. RAMMACHER 01-06-00	STATE OF ILLINOIS	DAIGED DEEL	FOTIVE D				OM DEGIGEARIES	1607	23-00120-00-RS	соок	32	26
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED	- C. JUCIUS 09-09-09	DEPARTMENT OF TRANSPORTATION	RAISED REFL	ECTIVE PA	AVEIVIENI	WAKKE	12 (2MOW-PL	OW RESISTANT)		TC-11	CONTRACT	NO. 61K	.47
PLOT DATE = 3/4/2019	DATE -	REVISED	- C ILICIUS 07-01-13		SCALE: NONE	SHEET 1	OF 1	SHEETS	STA	TO STA	FED BOAD	DIST NO. 1 ILLINOIS FED.	ID PROJECT FX97	7(514)	$\overline{}$

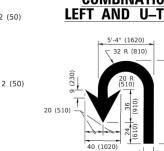
— 3 @ 80' (24 m) O.C.

 $\Rightarrow$ 



ISLAND OFFSET FROM PAVEMENT EDGE **COMBINATION** LEFT AND U-TURN — 2 (50) 8 (200) WHITE -

RAISED



U-TURN

6'-4" (1930)

D(FT)

425

SPEED LIMIT

#### LANE REDUCTION TRANSITION

\* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

WIDTH OF LINE PATTERN TYPE OF MARKING COLOR SPACING / REMARKS SKIP-DASH CENTERLINE ON 2 LANE PAVEMENT YELLOW NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS 4 (100) 2 @ 4 (100) 5⅓ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN LANE LINES SKIP-DASH SKIP-DASH 10' (3 m) LINE WITH 30' (9 m) SPACE 4 (100) 5 (125) ON FREEWAYS DOTTED LINES SAME AS LINE BEING EXTENDED SKIP-DASH SAME AS LINE BEING 2' (600) LINE WITH 6' (1.8 m) SPACE (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS) XTENDED EDGE LINES SOLID 4 (100) YELLOW-LEFT WHITE-RIGHT OUTLINE MEDIANS IN YELLOW 6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m)) TURN LANE MARKINGS SOLID SEE TYPICAL TURN LANE MARKING DETAIL WHITE 10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID 2 @ 4 (100) EACH DIRECTION LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL 8' (2.4m) LEFT ARROW CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL) NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS 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 STOP LINES 24 (600) SOLID WHITE SOLID 11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING. PAINTED MEDIANS 2 @ 4 (100) WITH 12 (300) DIAGONALS YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS GORE MARKING AND CHANNELIZING LINES 8 (200) WITH 12 (300) DIAGONALS @ 45° 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)) 24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X" RAILROAD CROSSING SOLID WHITE SEE STATE STANDARD 780001 AREA OF: AREA OF: "R"=3.6 SQ. FT. (0.33 m ∮EACH "X"=54.0 SQ. FT. (5.0 m ∮ 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)) WHITE - RIGHT YELLOW - LEFT SHOULDER DIAGONALS (REQUIRED FOR 12 (300) @ 45 SOLID HOULDERS > 8') U TURN ARROW SEE DETAIL SOLID WHITE 2 ARROW COMBINATION LEFT AND U TURN 30.4 SF

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

SCALE: NONE

unless otherwise shown

USER NAME = footemj EVERS DESIGNED -REVISED -C. JUCIUS 09-09-09 DRAWN REVISED C. JUCIUS 07-01-13 CHECKED REVISED -C. JUCIUS 12-21-15 PLOT SCALE = 50.0000 ' / in DATE REVISED C ILICIUS 04-12-16

-12 (300) WHITE

DETAIL "B"

- 6 (150) WHITE

TYPICAL CROSSWALK MARKING

\* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF

DETAIL "A"

THE ROAD WHICH IT CROSSES

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

		DI	STRICT O	NE		F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TYPICAL PAVEMENT MARKINGS						23-00120-00-RS	соок	32	27
							TC-13	CONTRACT	NO. 61K4	17
	CHEET 1	OF 3	CHIEFTO	CTA	TO CTA			 		

# TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER

# R4-7a 24"X30" RIGHT A" YELLOW REFLECTIVE PAVEMENT MARKING TAPE (REMOVE CONFLICTING WHITE SKIP-DASH LINES FIRST.)

SEE DETAIL "A"

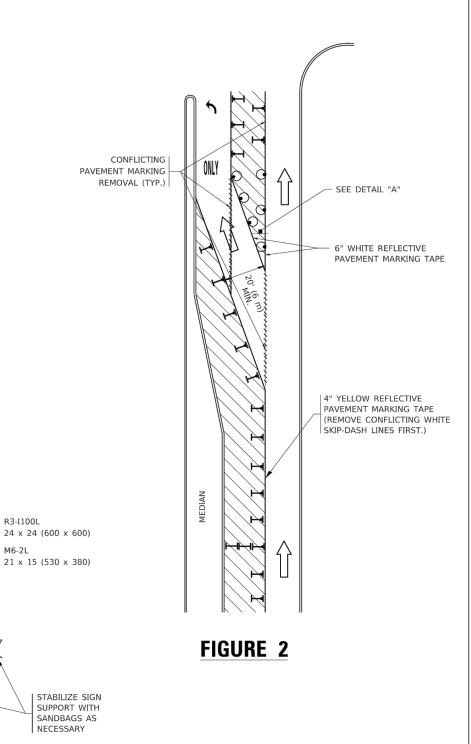
ARROW BOARD

# LEGEND WORK AREA LANE OPEN TO TRAFFIC ARROW BOARD TYPE I OR II BARRICADE OR DRUM WITH STEADY BURN LIGHT DRUM WITH STEADY BURN LIGHT SIGN ASSEMBLY TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

#### NOTES:

- 1. A) WHEN "L" IS  $\leq$  THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.
  - B) WHEN "L" IS > THE STORAGE LENGTH OF THE TURN LANE
    OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.
- CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
- LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
- 4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.
- THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-I100R 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
- THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
- THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PREQUIREMENTS.
- TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

# TURN BAY ENTRANCE WITHIN A LANE CLOSURE



#### **DETAIL A**

LEFT

TURN

LANE

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

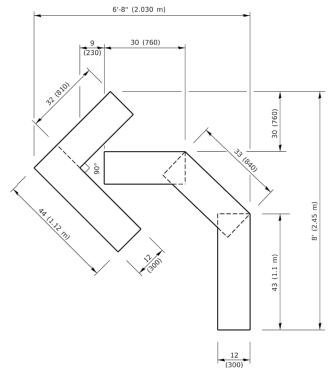
USER NAME = Tootemj	DESIGNED	-1,	RAMMACHER C	09-08-94	REVISED	-	R. BORO 09-14-09
	DRAWN	-	A. HOUSEH 1	11-07-95	REVISED	- A.	SCHUETZE 07-01-13
PLOT SCALE = 50.0000 ' / in.	CHECKED	-	A. HOUSEH 1	10-12-96	REVISED	- A.	SCHUETZE 09-15-16
PLOT DATE = 3/4/2019	DATE	- T.	RAMMACHER C	01-06-00	REVISED	-	

FIGURE 1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

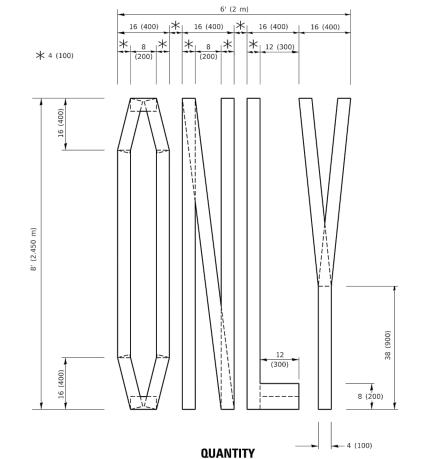
TRAFF	IC COI	NTROL	AND	PROTEC	CTION AT	TURN BAYS
	(T	O REN	/IAIN	OPEN 7	TO TRAFF	IC)
SCALE: NONE	SHEET	1 (	OF 1	SHEETS	STA.	TO STA.

F.A.U RTE.		SE	EC1	ION		COUN	ITY	TOTAL SHEETS	SHEE NO.
1607		23-00	012	0-00-RS	coc	K	32	28	
	-	TC-	14		CONTR	RACT	NO. 61K	47	
FED BOAD DIST NO. 1 ILLINOIS FED						ID PRO IECT	EV07/F	514)	

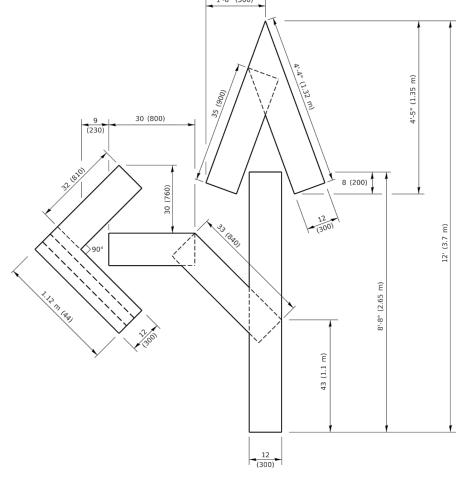


#### **QUANTITY**

4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.41 sq. m)



4 (100) LINE = 64.1 ft. (19.5 m) 21.4 sq. ft. (1.99 sq. m)

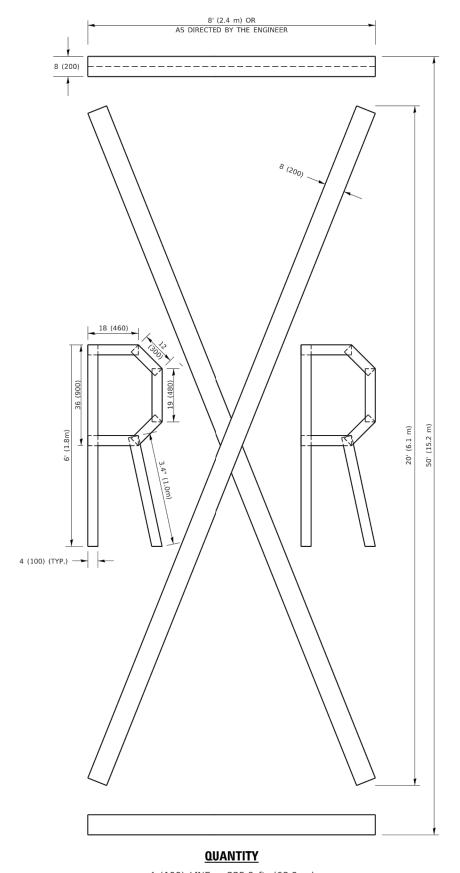


#### QUANTITY

4 (100) LINE = 82.5 ft. (25.1 m) 27.5 sq. ft. (2.53 sq. m)

#### NOTE:

ALL QUANTITIES OF PLACEMENT ARE REPRESENTED IN LINEAR FEET OF 4" LINES TO MATCH THE 4" TEMPORARY TAPE PAY ITEM AND REPRESENTS THE TOTAL QUANTITY OF 4" TAPE REQUIRED.



4 (100) LINE = 225.9 ft. (68.9 m) 75.3 sq. ft. (6.99 sq. m)

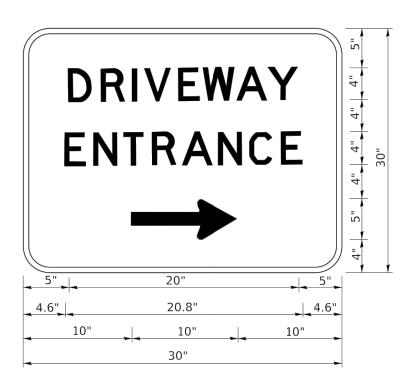
All dimensions are in inches (millimeters) unless otherwise shown.

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT FX97(514)

USER NAME = footemj	DESIGNED -		REVISED	- T. RAMMACHER 03-02-98
	DRAWN -		REVISED	- E. GOMEZ 08-28-00
PLOT SCALE = 50.0068 ' / in.	CHECKED -		REVISED	- E. GOMEZ 08-28-00
PLOT DATE = 3/4/2019	DATE -	09-18-94	REVISED	- A. SCHUETZE 09-15-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	SHORT	TERM	PAV	EMENT	MARKING	LETTERS	AND	SYMBOLS	
CCALE.	NONE	CHEE	т 1	OF 1	CHEETC	CTA		TO CTA	



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

#### NOTES:

- 1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
- 2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
- 3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

USER NAME = leysa	DESIGNED -	REVISED	-	C. JUCIUS 02-15-07
	DRAWN -	REVISED	-	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED	-	
PLOT DATE = 8/6/2021	DATE -	REVISED	-	

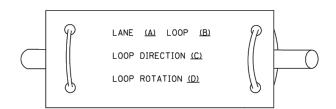
STATE (	F ILLINOIS
DEPARTMENT OF	TRANSPORTATION

						F.A.U RTE.				COUNTY	TOTAL SHEETS	SHEET NO.
DRIVEWAY ENTRANCE SIGNING					1607	07 23-00120-00-RS			COOK	32	30	
						TC-26			CONTRACT	NO. 61K	47	
SCALE: NONE	SHEET 1	OF	1	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT FX97(		514)			

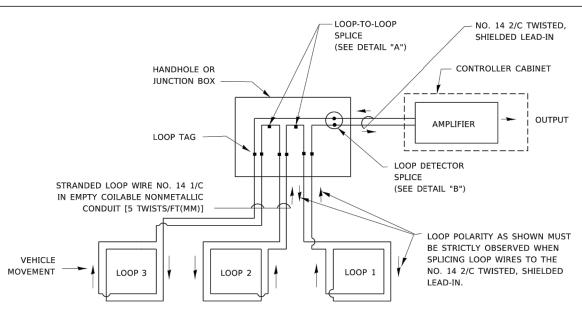
#### **LOOP DETECTOR NOTES**

- 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.
- 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.
- 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.

#### LOOP LEAD-IN CABLE TAG

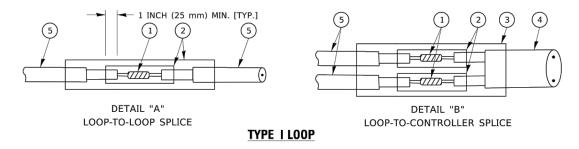


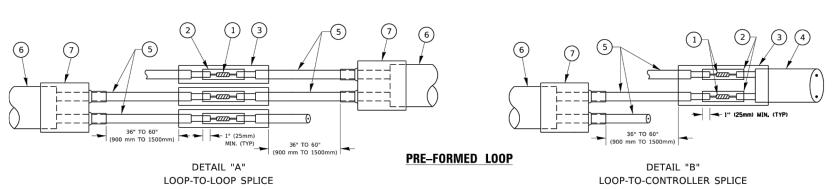
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



#### **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.





#### LOOP DETECTOR SPLICE

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

- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE. PRE-FORMED LOOP
- (6) XL POLYOLEFIN 2 CONDUCTOR
- (7) BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

USER NAME = footemj	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 3/4/2019	DATE -	REVISED -

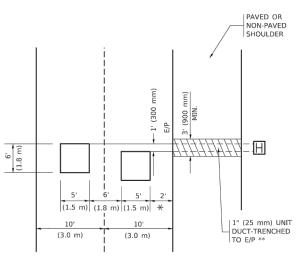
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	DISTRICT ONE										
	STANDARD	TRAFFIC	SIGNAL	DESIGN	DETAILS						
SCALE: NONE	SHEET 2	OF 7	SHEETS	STA.	TO STA.						

F.A.U RTE.		SECT	ΓΙΟΝ	COUN	TY	TOTAL SHEETS	SHEET NO.
1607	23-	0-00-RS	coo	K	32	31	
	TS		CONTR	ACT I	NO. 61K	47	
FED. RO.	AD DIST. NO.	ILLINOIS	D PROJECT	FX97(5	514)		

#### LOOPS NEXT TO SHOULDERS

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



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

JSER NAME = footemj

LOT SCALE = 50.0000 ' / in

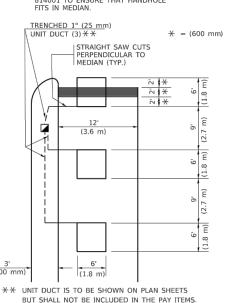
 $\frac{1}{2}$  = (600 mm)

#### 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



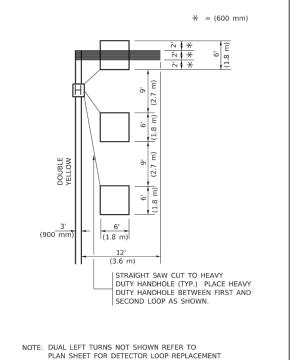
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

#### LEFT TURN LANES WITHOUT MEDIANS

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

(PROTECTED / PERMITTED LEFT TURN PHASING)



ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)

#### ARTERIAL DO NOT INSTALL CALLING LOOP IN RIGHT TURN LANE \* = (1.8m)\*\* = (1.5m) CROSS STREET 11' 11 3.3m) (3.3m) 10' (3.0m) OR CLOSER DEPENDING ON DRIVE-WAY LOCATION CALLING LOOPS (600mm) [TYP.-12' (3.6m) LANES] H LOOPS ARE SAW-CUT TO THE EDGE OF [TYP.-ALL LEGS-VOLUME PAVEMENT. 1" (25 mm) UNIT DUCT IS RUN BETWEEN STRAIGHT SAW EDGE OF PAVEMENT CUTS TO HEAVY-AND HANDHOLE DUTY HANDHOLE (TYP. FOR LOOPS IOFF SET LOOPS BY THAT TERMINATE 1' (300mm) FOR (TYP.) IN HANDHOLES STRAIGHT SAW CUTS.

**DETAIL 1** 

N.T.S.

DESIGNED

CHECKED -

R.K.F.

DRAWN

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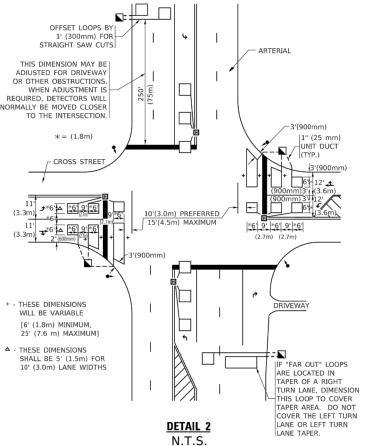
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ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)

CROSS STREET-NON 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, SHIFLDED.
- \* 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:

DIS

SCALE: NONE

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.

#### STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

STRICT 1 – DETECTOR LOOP INSTALLATION			A.U TE. SECTION			COUNTY	TOTAL SHEETS	SHEET NO.
DETAILS FOR ROADWAY RE	1607	23-00120-00-RS			соок	32	32	
DETAILS TON HOADWAT NE		TS-07			CONTRACT	NO. 61K4	17	
SHEET 1 OF 1 SHEETS STA	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. A		AID PROJECT FX97(514)				