STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

FAP 341, 375 (TOUHY AVE.)

NORTHWEST HWY. TO NORTH CENTRAL AVE.

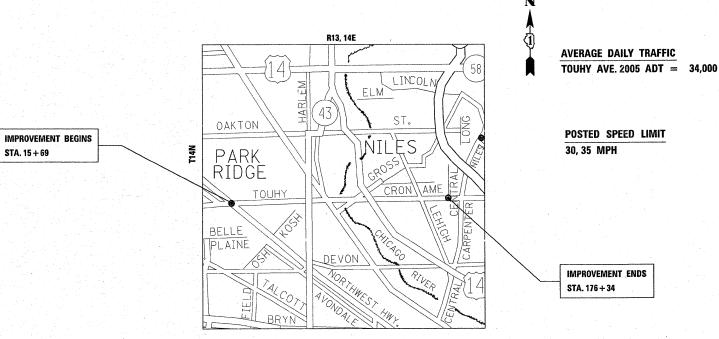
SECTION 2326. 1RS-1

PROJECT: ESP-000S(662)

RESURFACING (MAINTENANCE)

COOK COUNTY

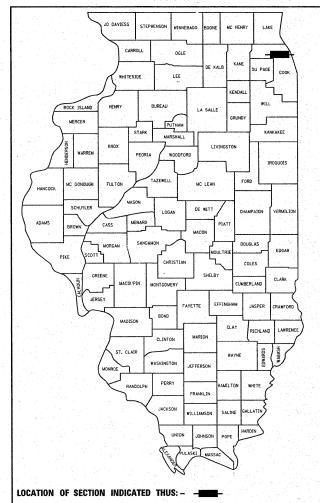
C-91-079-09



NORWOOD PARK & JEFFERSON TWPS.

GROSS LENGTH = 16,065 FT. = 3.043 MILE NET LENGTH = 16,065 FT. = 3.043 MILE

D-91-079-09



DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED JANUARY 30, 2009

DIPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 27, 2007

Charles Q. Dagenscells

ENGINEER OF DESIGN AND ENVIRONMENT

March 27, 2009

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THE IMPROVEMENT IS LOCATED IN THE VILAGE OF NILES, CITY OF CHICAGO AND CITY OF PARK RIDGE

0 100' 200' 300' -1" = 100' 0 10' 20' 30' -1" = 10' 0 50' 100' -1" = 50' 0 50' 100' -1" = 40' 0 50' 100' -1" = 30' 0 50' 100' -1" = 20'

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

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

PROJECT ENGINEER PROJECT MANAGER

CONTRACT NO. 60F48

N PLAN PREPARATIN ENGINEER: DAN WILGREEN (847) 705-

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INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1,	COVER SHEET
2	INDEX OF SHEETS, LIST OF STATE STANDARDS, AND PLAN NOTES
3	SUMMARY OF QUANTITIES
4-7	TYPICAL CROSS SECTIONS
8-13	EXISTING AND PROPOSED ROADWAY AND PAVEMENT MARKING PLANS
14-18	DETECTOR LOOP REPLACEMENT PLANS
19	DETAILS FOR FRAMES & LIDS ADJUSTMENT WITH MILLING
20	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
21	CURB & GUTTER REMOVAL & REPLACEMENT
-22	BUTT JOINT AND HMA TAPER DETAIL
23	HMA TAPER AT EDGE OF P.C.C. PAVEMENT
24	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
25	TYPICAL APPLICATION RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)
26	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
27	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
28	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
29	ARTERIAL ROAD INFORMATION SIGN
30	DISTRICT ONE DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING

STANDARDS

STD. NO.	DESCRIPTION
000001 <i>-05</i>	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
442201 -<i>03</i>	CLASS C & D PATCHES
606001 -04	CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER
701336- <i>05</i>	LANE CLOSURE, 2L, 2W, WORK AREAS IN SERIES FOR SPEED >45 MPH
701501 <i>-05</i>	LANE CLOSURE, 2L, 2W, UNDIVIDED FOR SPEEDS (45 MPH
701601-06	URBAN LANE CLOSURE MULTILANE 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701606 - <i>06</i>	URBAN LANE CLOSURE MULTILANE 2W WITH MOUNTABLE MEDIAN
701901-01	TRAFFIC CONTROL DEVICES
886001- <i>01</i>	DETECTOR LOOP INSTALLATIONS

PLAN NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES.

(48 HOUR NOTIFICATION IS REQUIRED)

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, THE VILLAGE OF NILES AND CITIES OF PARK RIDGE & CHICAGO.

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

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

BUTT JOINTS WILL BE INSTALLED AT THE ENDS 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.

UNLESS OTHER CONDITIONS WARRANT EXTENDED LANE CLOSURE AS DETERMINED AND APPROVED IN WRITING BY THE ENGINEER OR AS PROVIDED FOR IN THE CONTRACT SPECIFICATIONS, OVERNIGHT CLOSURES SHALL NOT BE ALLOWED FOR REHABILITATION PROJECTS INVOLVING DAYTIME MILLING AND RESURFACING OPERATIONS AND CLASS D PATCHING.

THE RESIDENT ENGINEER SHALL CONTACT WALTER CZARNY, AREA TRAFFIC FIELD ENGINEER, AT (773) 685-8386 A MINIMUM OF TWO WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

10 FEET TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS & 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.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL OVERHEAD, SURFACE, AND UNDERGROUND UTILITIES WITHIN THE PROJECT LIMITS WHETHER OR NOT THE UTILITIES ARE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.

ALL PROPOSED DRIVEWAYS SHALL BE HOT-MIX ASPHALT UNLESS OTHERWISE SPECIFIED AS PORTLAND CEMENT CONCRETE ON THE PLAN SHEETS.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TRAFFIC CONTROL DEVICES.

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			TOUHY AVE			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			TOOM AVE			341,375	2326.1RS-1	соок	30	2_
	SHEET NO.	0F	SHEETS	STA.	 TO CTA			CONTRACT	NO. 6	50F48
-	SHEET NO.	UF	SHEETS	SIA.	 TO STA.	FED. ROAD	DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		

CONTRACT NO. 60 F48

F.A RTE.	SECTION	COUNTY		TOTAL	SHEET NO.
341,375	2326.1RS-1	COOK		30	_3
FED.	ROAD DIST. NO. 1 ILL	INOIS	HIGH	WAY PRO	JECT

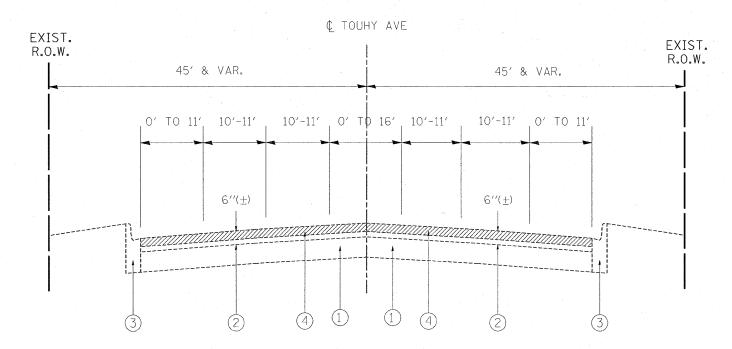
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CODE NO	ITEM	UNIT	TOTAL QUANTITIES URBAN	1000				CODE NO	ITEM	UNIT	TOTAL QUANTITIES URBAN	1000				
0201006	GRADING AND SHAPING SHOULDERS	UNIT	260	260				70102620	TRAFFIC CONTROL AND PROTECTION,	L SUM						
0600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	77	77					STANDARD 701501							
0600300	AGGREGATE (PRIME COAT)	TON	384	384				70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1				
0600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	29	29				70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1				
0600895	CONSTRUCTING TEST STRIP	EACH	2	2				70300100	SHORT-TERM PAVEMENT MARKING	FOOT	4380	4380				1
0600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	840	840				70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	1163	1163				
0601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	606	606				70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	35763	35763				
0603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	9388	9388				70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	10009	10009				
1000159	HOT-MIX ASPHALT SURFACE REMOVAL. 2	SO YD	86623	86623				70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	3336	3336				
001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	3500	3500				70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	1455	1455				
002212	HOT-MIX ASPHALT REMOVAL OVER PATCHES. 3"	SQ YD	3500	3500				78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	1163	1163				
003510	MEDIAN REMOVAL PARTIAL DEPTH	SO FT	20830	20830				≭ 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	35763	35763				
201753	CLASS D PATCHES, TYPE II, 9 INCH CLASS D PATCHES, TYPE III, 9 INCH	SO YD	710 240	710 240				% 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	10009	10009				
201759	CLASS D PATCHES, TYPE IV. 9 INCH	SQ YD	3450	3450				* 78000600	THERMOPLASTIC PAVEMENT MARKING	FOOT	3336	3336				
101200	AGGREGATE SHOULDERS, TYPE B	TON	282	282				7,200,0050	- LINE 12"							
250200	CATCH BASINS TO BE ADJUSTED	EACH	20	20				≯ 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	1455	1455				
252800	CATCH BASINS TO BE RECONSTRUCTED	EACH	2	2				¥ 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	1700	1700		it Jaga (19. 196		
255500	MANHOLES TO BE ADJUSTED	EACH	5	5					RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	1500	1500				
257900 300310	MANHOLES TO BE RECONSTRUCTED FRAMES AND LIDS TO BE ADJUSTED	EACH EACH	150	2 150				*	DETECTOR LOOP REPLACEMENT	FOOT	2713	2713				
	(SPECIAL)							X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	52	52				
105420	FRAMES AND GRATES, TYPE B-18	EACH		1				X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	3772	3772				
	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	10	10				X4400100		50 V6						
406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	65	65				A1100100	PORTLAND CEMENT CONCRETE SURFACE REMOVAL (VARIABLE DEPTH)	SO YD	819	819				eli Saga
000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6					RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1				
100100	MOBILIZATION	L SUM	1	1				0 20076600	TRAINEES	HOUR	1,000	1.000				
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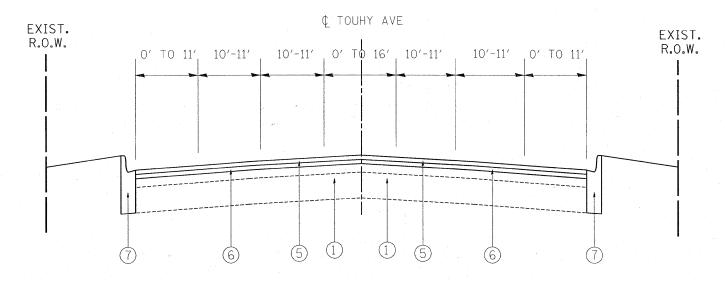
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ILLINOIS DEPARTMENT OF TRANSPORTATION SUMMARY OF QUANTITIES TOUHY AVE.



EXISTING TYPICAL SECTION TOUHY AVE.

STATION: 15+69 TO 26+00 57+00 TO 82+72 95+00 TO 131+00 157+00 TO 176+34



PROPOSED TYPICAL SECTION TOUHY AVE.

STATION: 15+69 TO 26+00 57+00 TO 82+72 95+00 TO 131+00 157+00 TO 176+34

LEGEND

- (1) EXISTNG P.C.C. BASE COURSE, 9"(±)
- (2) EXIST. HOT-MIX ASPHALT SURFACE COURSE (BEFORE MILLING), 6"(±)
- (3) EXISTNG CURB & GUTTER, B-6.12 (MOD)
- PROP. HOT-MIX ASPHALT SURFACE REMOVAL 2 1/2"
 (3 1/2" OF HOT-MIX ASPHALT TO REMAIN)
- ⑤ PROP. POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"
- (6) PROP. POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"
- PROP. CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (LOCATIONS TO BE DETERMINED BY THE RESIDENT ENGINEER)

NOTES:

- 1. SEE ROADWAY AND PAVEMENT MARKING PLAN SHEETS FOR LOCATIONS OF LEFT TURN AND RIGHT TURN LANES, BARRIER MEDIAN AND CORRUGATED MEDIANS
- 2. PAVEMENT PATCHING SHALL BE DONE PRIOR TO MILLING OF THE ROADWAY

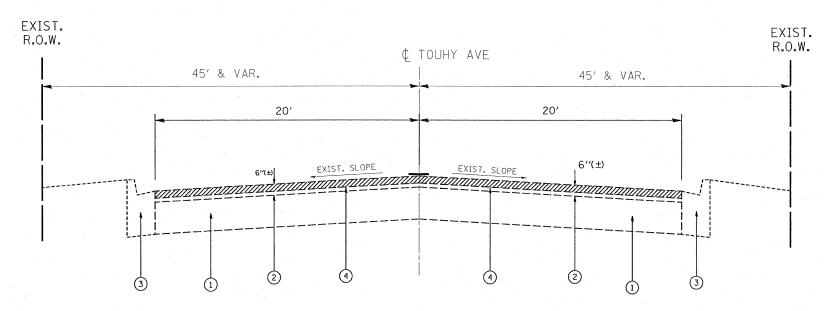
HOT-MIX ASPHALT MIXTURE REQUIREMENTS

	MIXTURE TYPE	AC TYPE	AIR VOIDS (%)
ROADWAY	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, (IL-9.5MM), 1 3/4 "	SBS/SBR PG 70-22	4% @ 90 GYR
NOADWAT	POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"	SBS/SBR PG 76-28/-22	4% @ 50 GYR
PATCHES	CLASS D PATCHES, (BINDER IL-19.0 MM), 9"	PG 64-22*	4% @ 70 GYR
TATORES	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES, (BINDER IL-19.0 MM)	PG 64-22*	4% @ 70 GYR

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

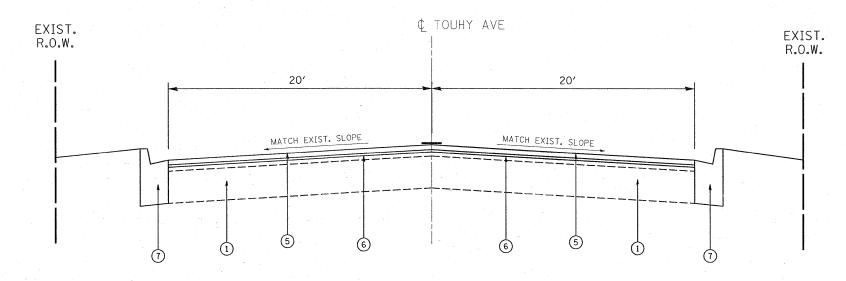
*WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22

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	PLDT DATE = 2/2/2009	DATE -	REVISED -		SCALE: NONE	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD I	DIST. NO. 1 ILLINOIS FED.	AID PROJECT	



EXISTING TYPICAL SECTION TOUHY AVE.

STATION: 26+00 TO 57+00



PROPOSED TYPICAL SECTION TOUHY AVE.

STATION: 26+00 TO 57+00

LEGEND

- (1) EXISTNG P.C.C. BASE COURSE, 9"(±)
- (2) EXIST. HOT-MIX ASPHALT SURFACE COURSE (BEFORE MILLING), 6"(±)
- (3) EXISTNG CURB & GUTTER, B-6.12 (MOD)
- PROP. HOT-MIX ASPHALT SURFACE REMOVAL 2 1/2"
 (3 1/2" OF HOT-MIX ASPHALT TO REMAIN)
- ⑤ PROP. POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"
- (6) PROP. POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"
- PROP. CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (LOCATIONS TO BE DETERMINED BY THE RESIDENT ENGINEER)

NOTES:

1. PAVEMENT PATCHING SHALL BE DONE PRIOR TO MILLING OF THE ROADWAY

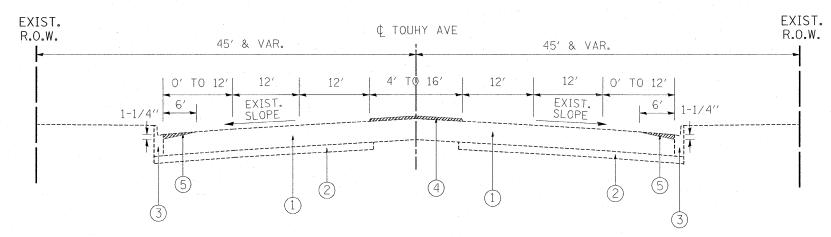
LEGEND

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- (2) EXIST. HOT-MIX ASPHALT SURFACE COURSE (BEFORE MILLING), 6"(±)
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- PROP. CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (LOCATIONS TO BE DETERMINED BY THE RESIDENT ENGINEER)

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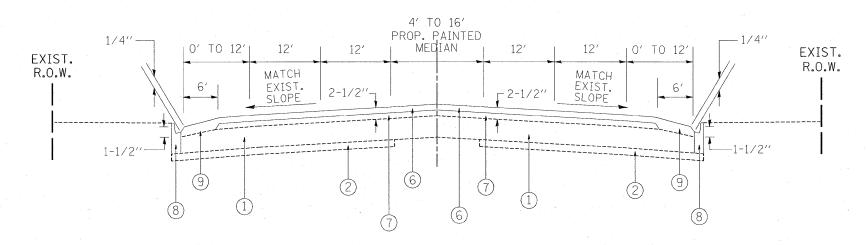
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341,375	2326.1RS-1	соок	30	5		
		CONTRACT	NO. 6	OF 48		
FED. R	DAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT				



EXISTING TYPICAL SECTION TOUHY AVE.

STATION:
82+72 TO STA. 95+00

¢ TOUHY AVE



PROPOSED TYPICAL SECTION TOUHY AVE.

STATION:
82+72 TO STA. 95+00

LEGEND

- (1) EXISTNG P.C.C. PAVEMENT, 9"(±)
- 2 EXISTNG SUBBASE GRANULAR MATERIAL TYPE "A" 6"
- (3) EXISTNG CURB & GUTTER, B-6.12 (MOD)
- (4) PROP. CONC. MEDIAN REMOVAL PARTIAL DEPTH
- (VAR. DEPTH)
- 6 PROP. POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"
- (7) PROP. POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"
- 8 PROP. CURB AND GUTTER REMOVAL AND REPLACEMENT (LOCATIONS TO BE DETERMINED BY THE RESIDENT ENGINEER)
- PROP. POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"

NOTES:

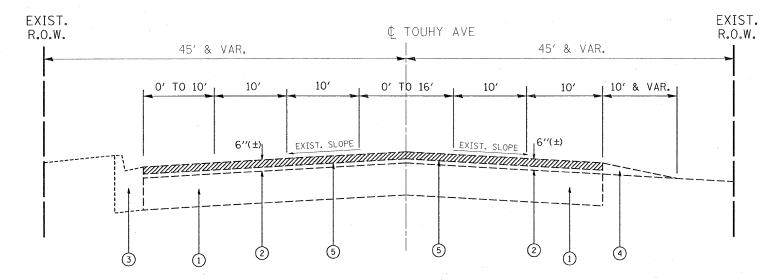
1. SEE ROADWAY AND PAVEMENT MARKING PLAN SHEETS FOR LOCATIONS OF LEFT TURN AND RIGHT TURN LANES, BARRIER MEDIAN AND CORRUGATED MEDIANS

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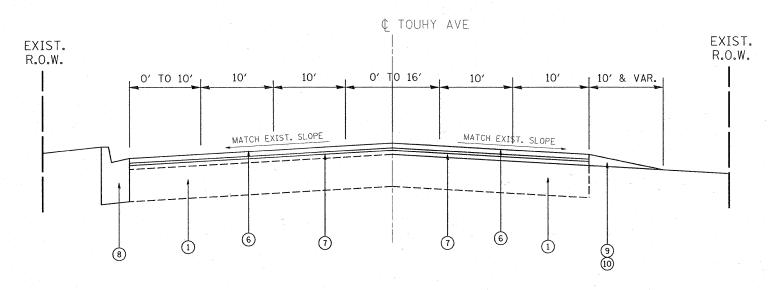
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F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
341,375	2326.1RS-1	COOK	30	6
		CONTRACT	NO. 6	0F48
FED. R	DAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		



EXISTING TYPICAL SECTION TOUHY AVE.

STATION: 131+00 TO 157+00



PROPOSED TYPICAL SECTION TOUHY AVE.

STATION: 131+00 TO 157+00

LEGEND

- (1) EXISTNG P.C.C. BASE COURSE, 9"(±)
- (2) EXIST. HOT-MIX ASPHALT SURFACE COURSE (BEFORE MILLING), 6"(±)
- (3) EXISTNG CURB & GUTTER, B-6.12 (MOD)
- (4) EXISTNG AGGREGATE SHOULDER
- 5 PROP. HOT-MIX ASPHALT SURFACE REMOVAL 2 1/2" (3 1/2" OF HOT-MIX ASPHALT TO REMAIN)
- © PROP. POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"
- (7) PROP. POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"
- 8 PROP. CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (LOCATIONS TO BE DETERMINED BY THE RESIDENT ENGINEER)
- (9) PROP. GRADING AND SHAPING
- 10 PROP. AGGREGATE SHOULDER, TYPE "B"

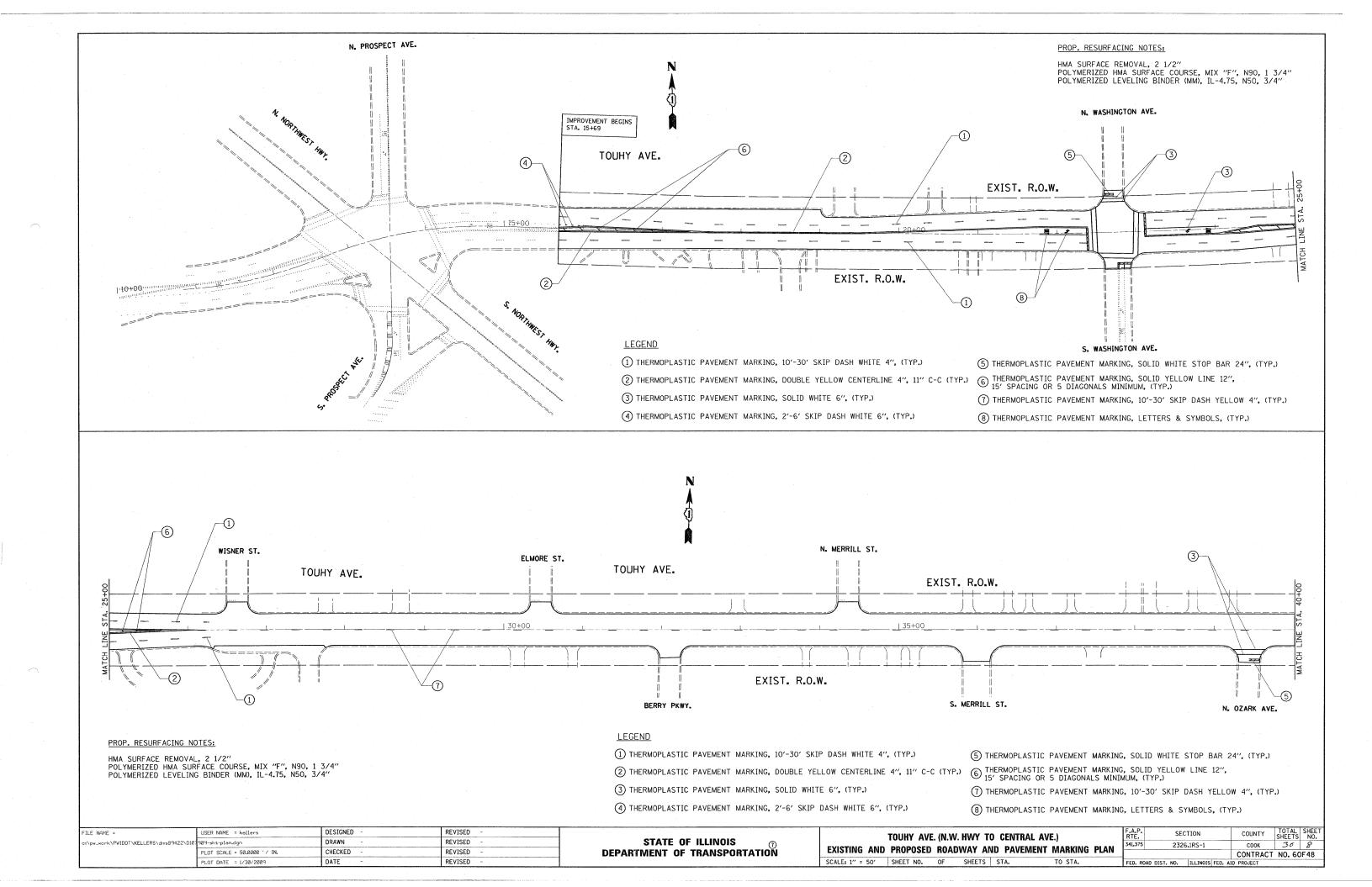
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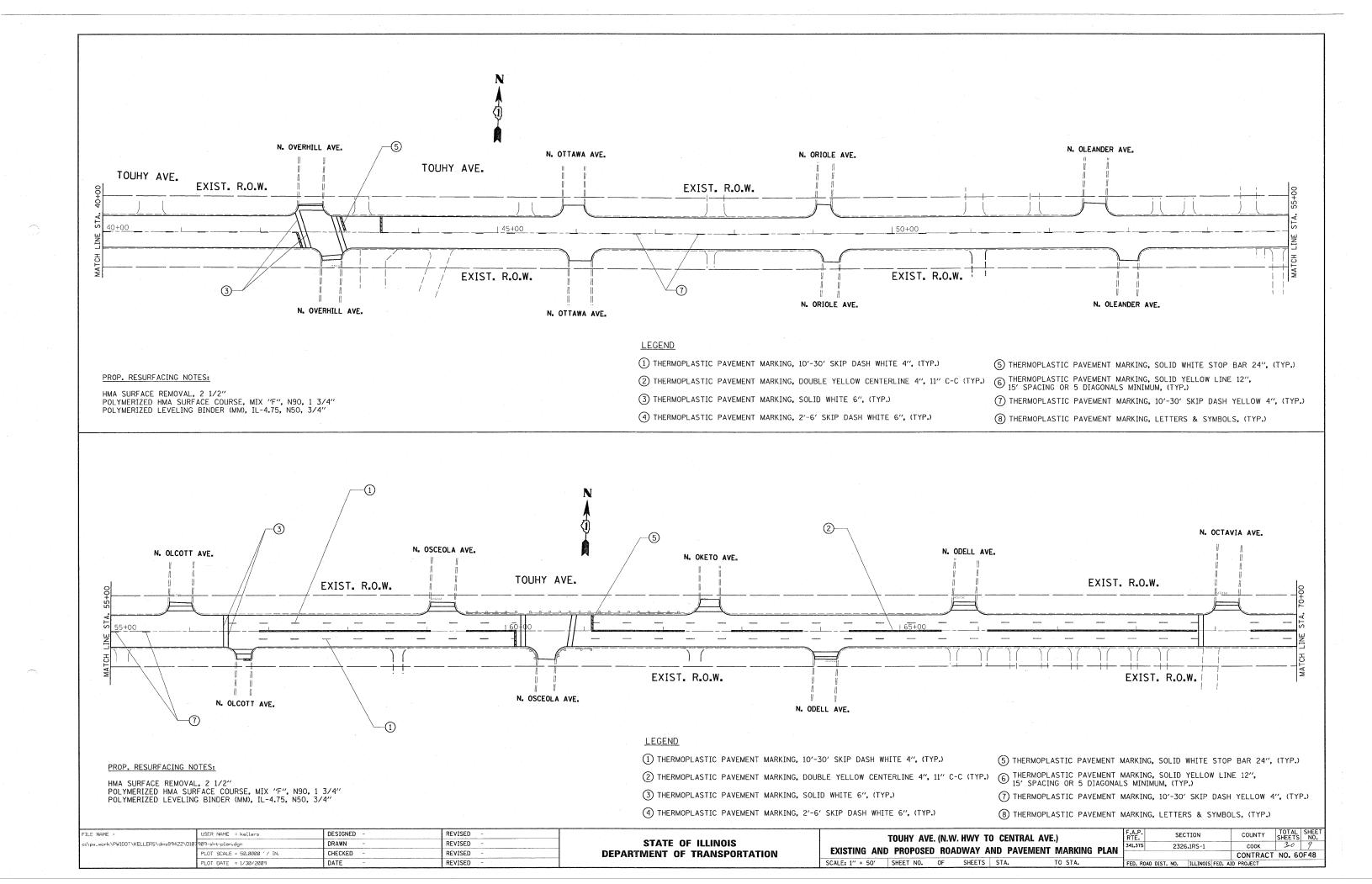
- 1. SEE ROADWAY AND PAVEMENT MARKING PLAN SHEETS FOR LOCATIONS OF LEFT TURN AND RIGHT TURN LANES
- 2. PAVEMENT PATCHING SHALL BE DONE PRIOR TO MILLING OF THE ROADWAY

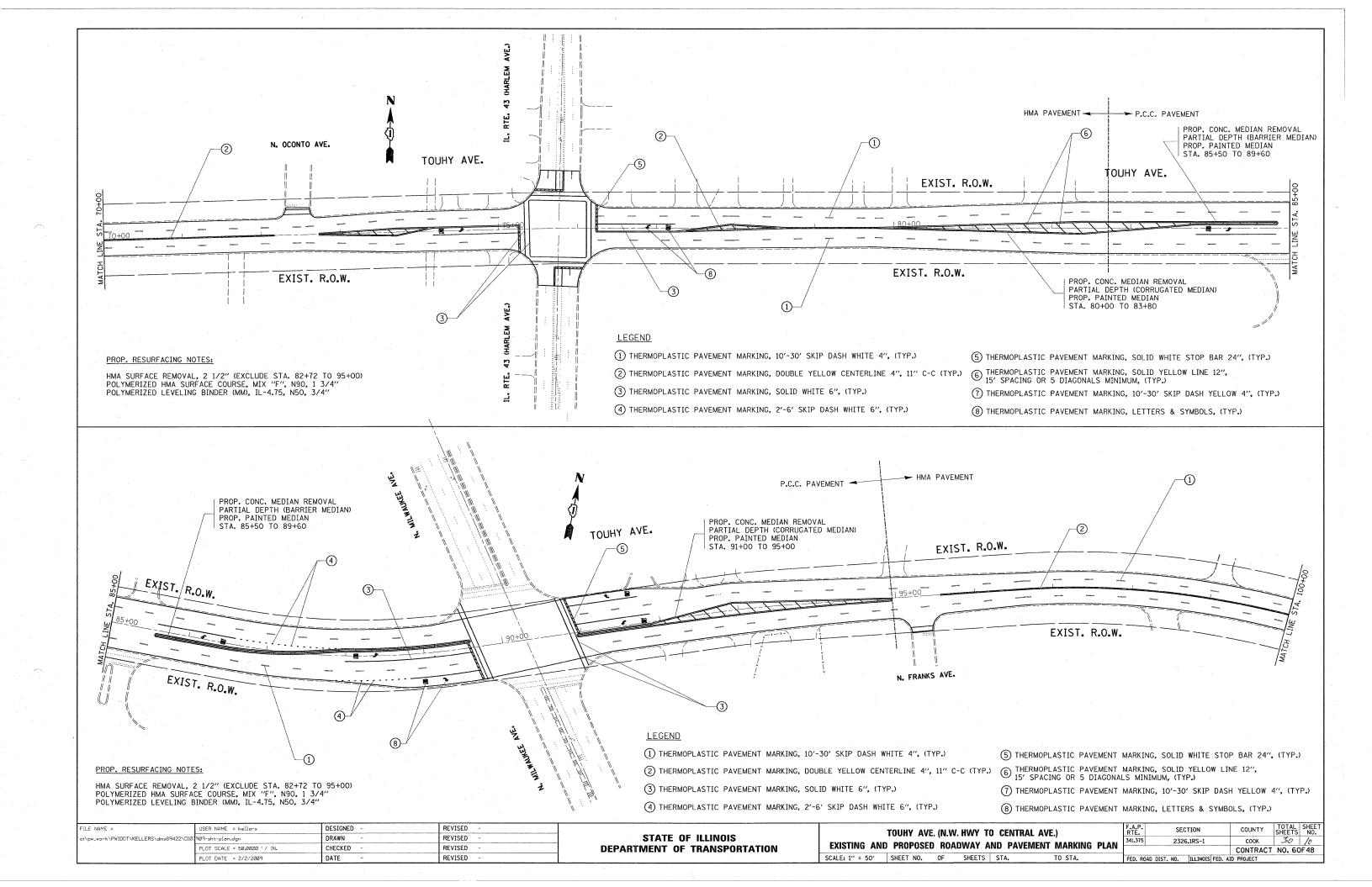
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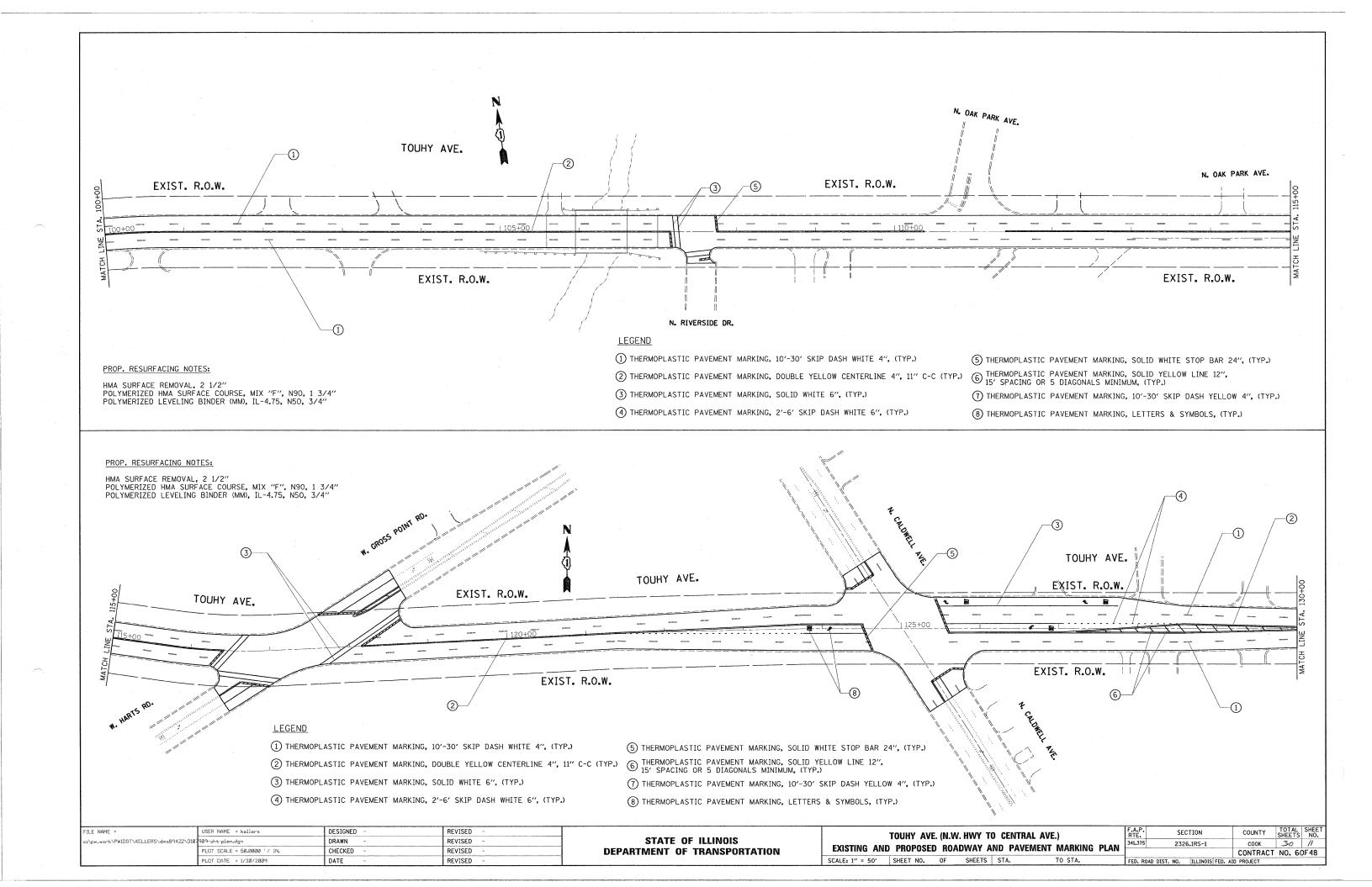
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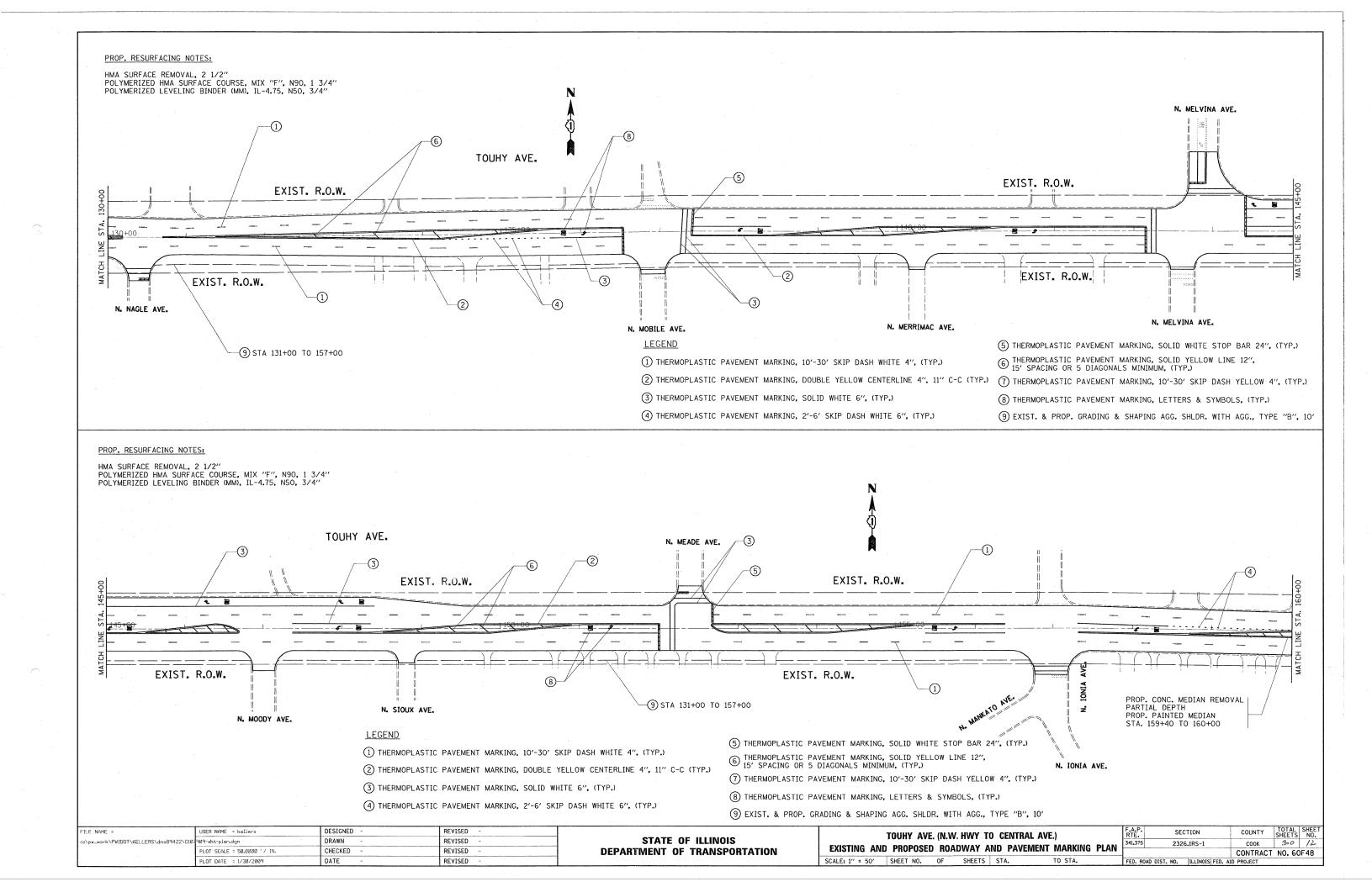
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		EXISTING &	PROPO	SED TYPICA	AL CROSS	SECTIONS	341,375	2326.1RS-1	соок	30	
									CONTRACT	NO. 6	OF
SCALE:	NONE	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. RO	AD DIST. NO. 1 ILLINOIS FED. AI	D PROJECT		

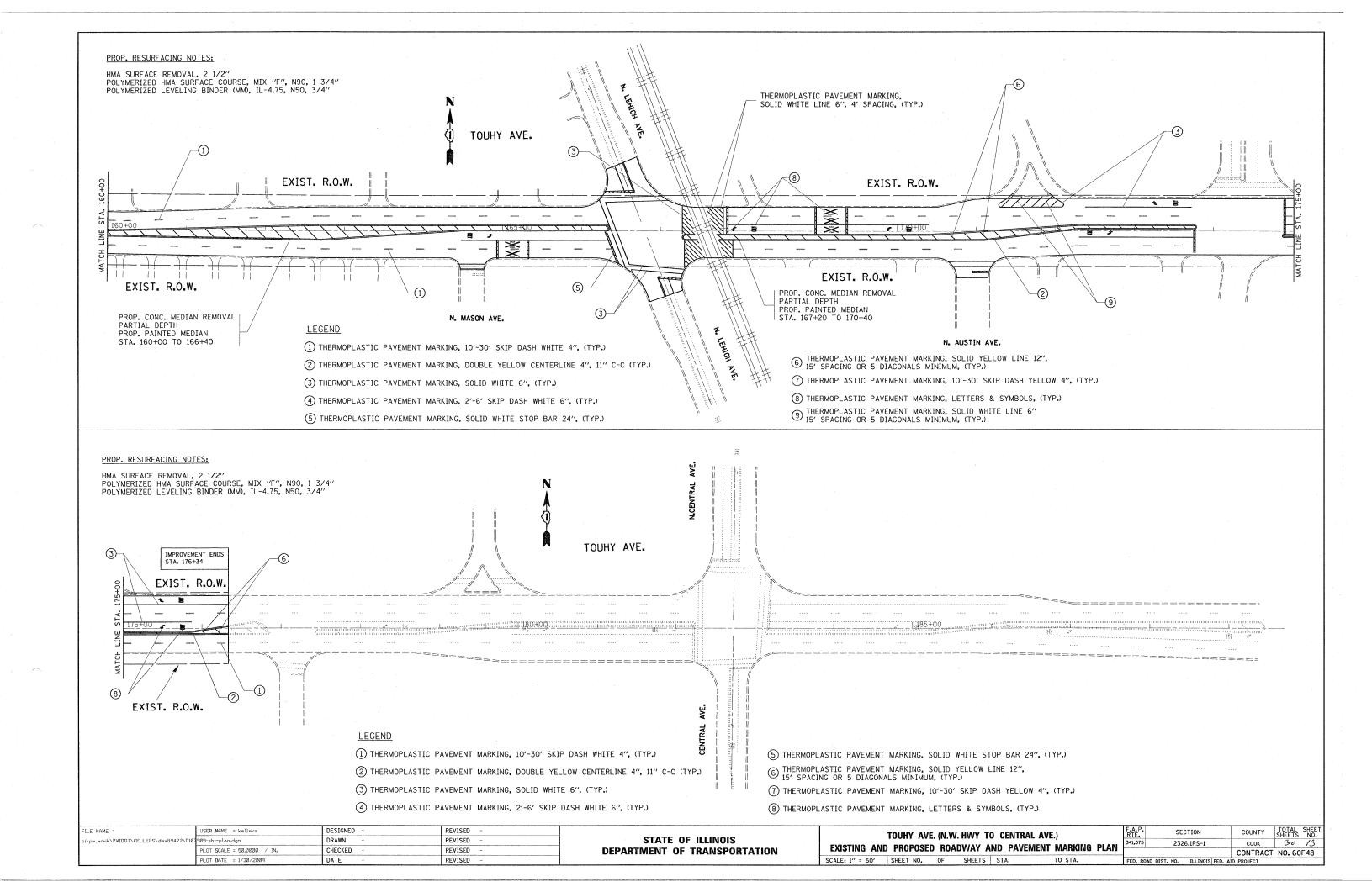


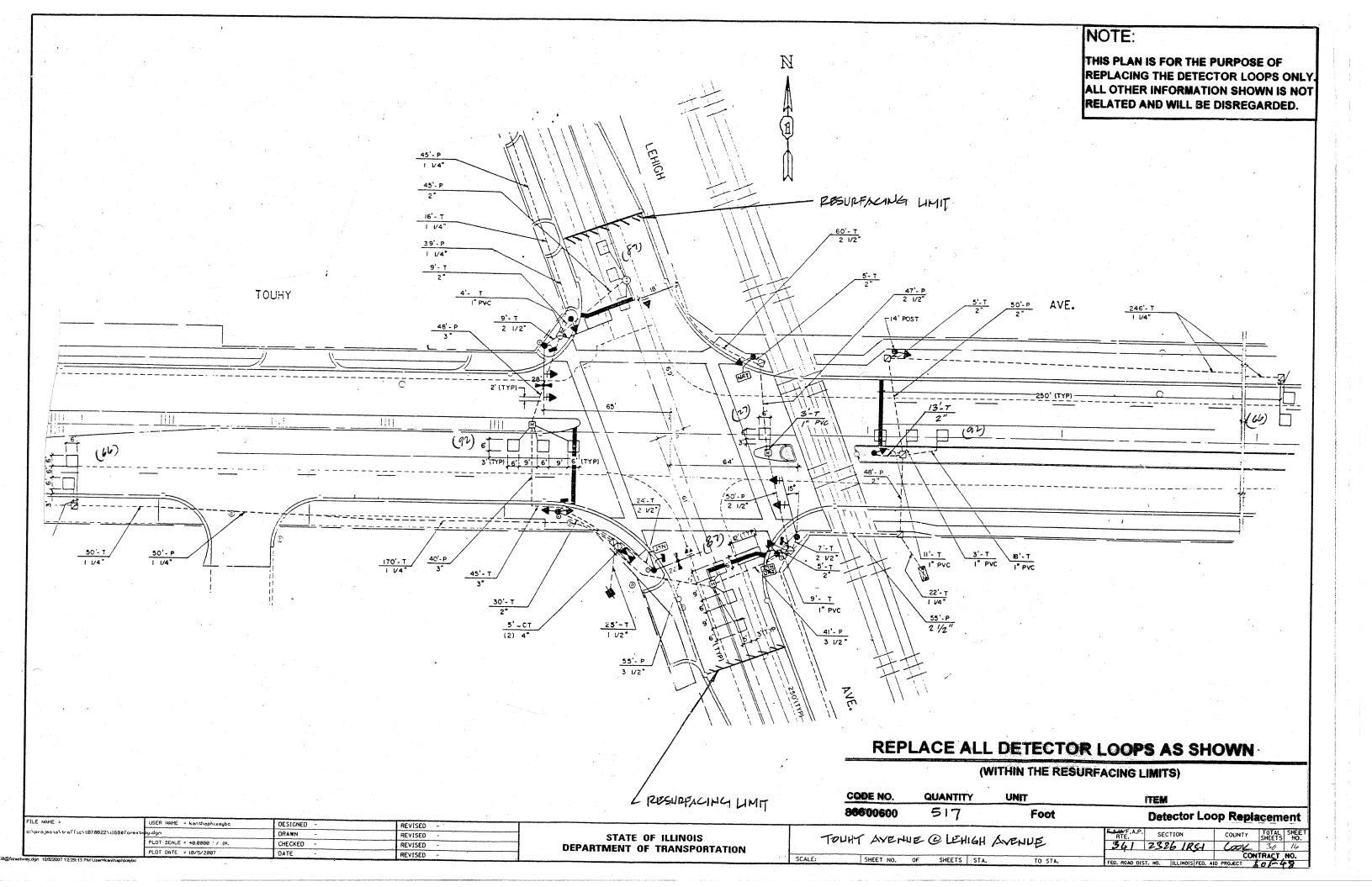


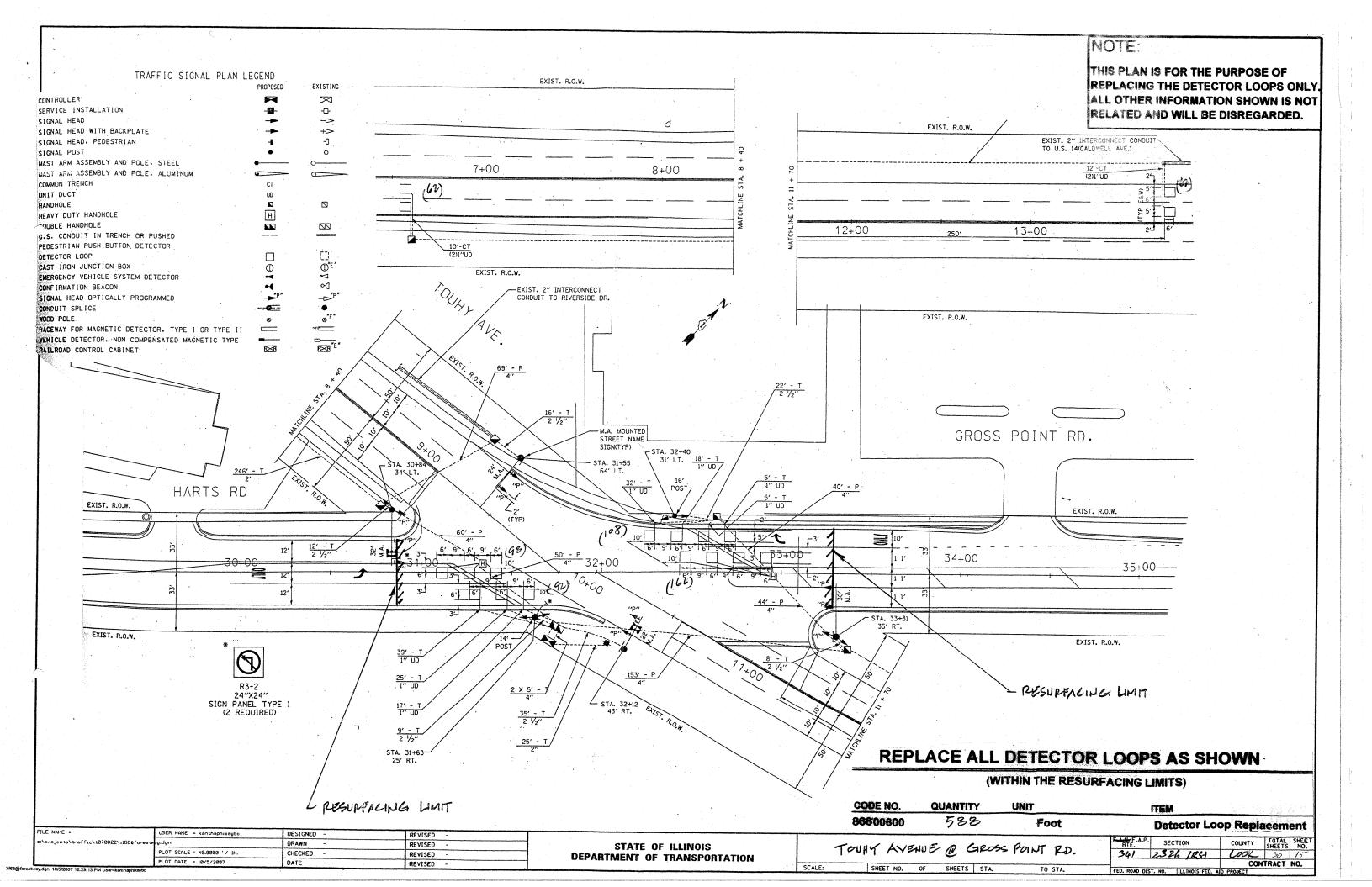


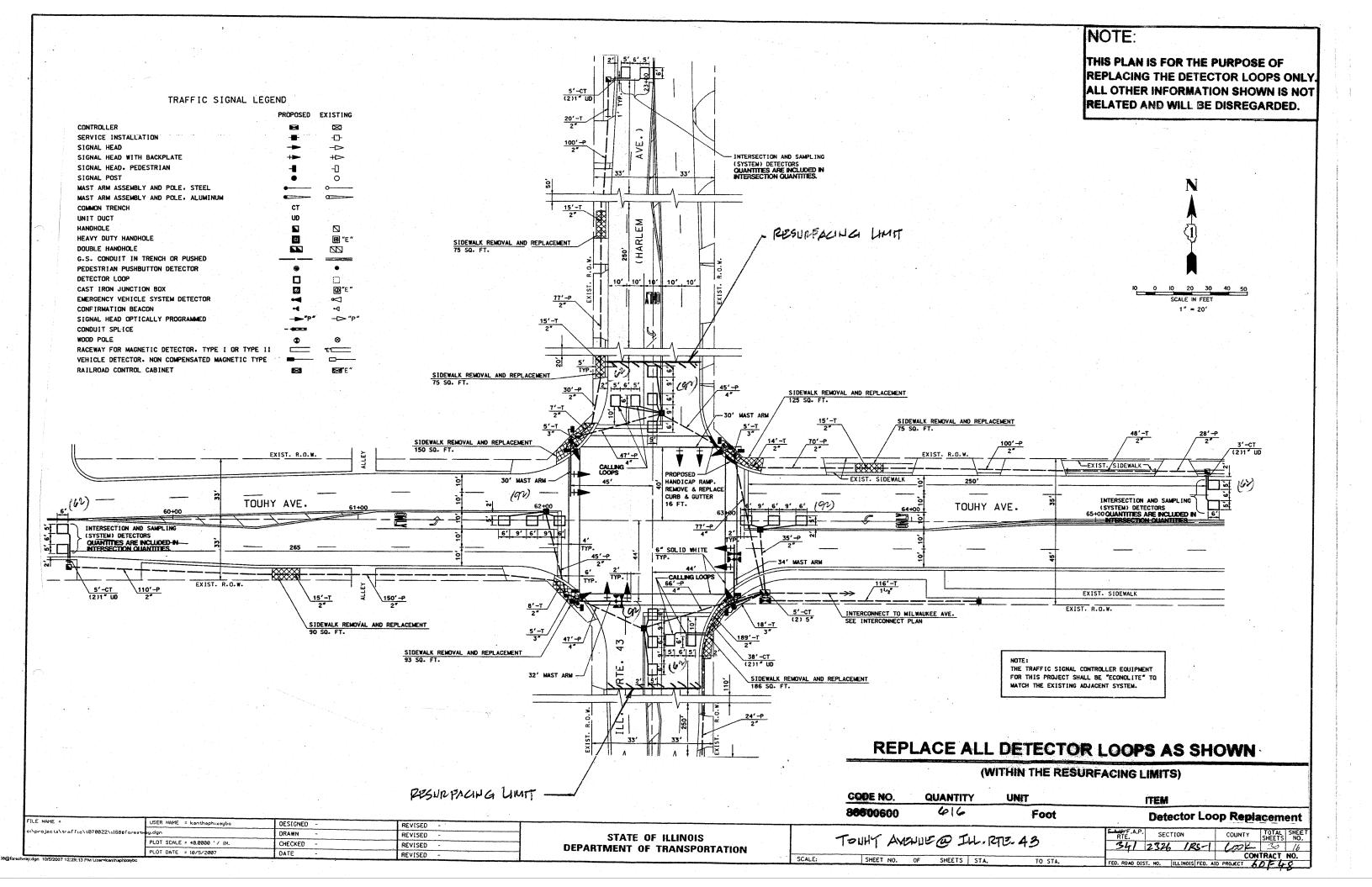


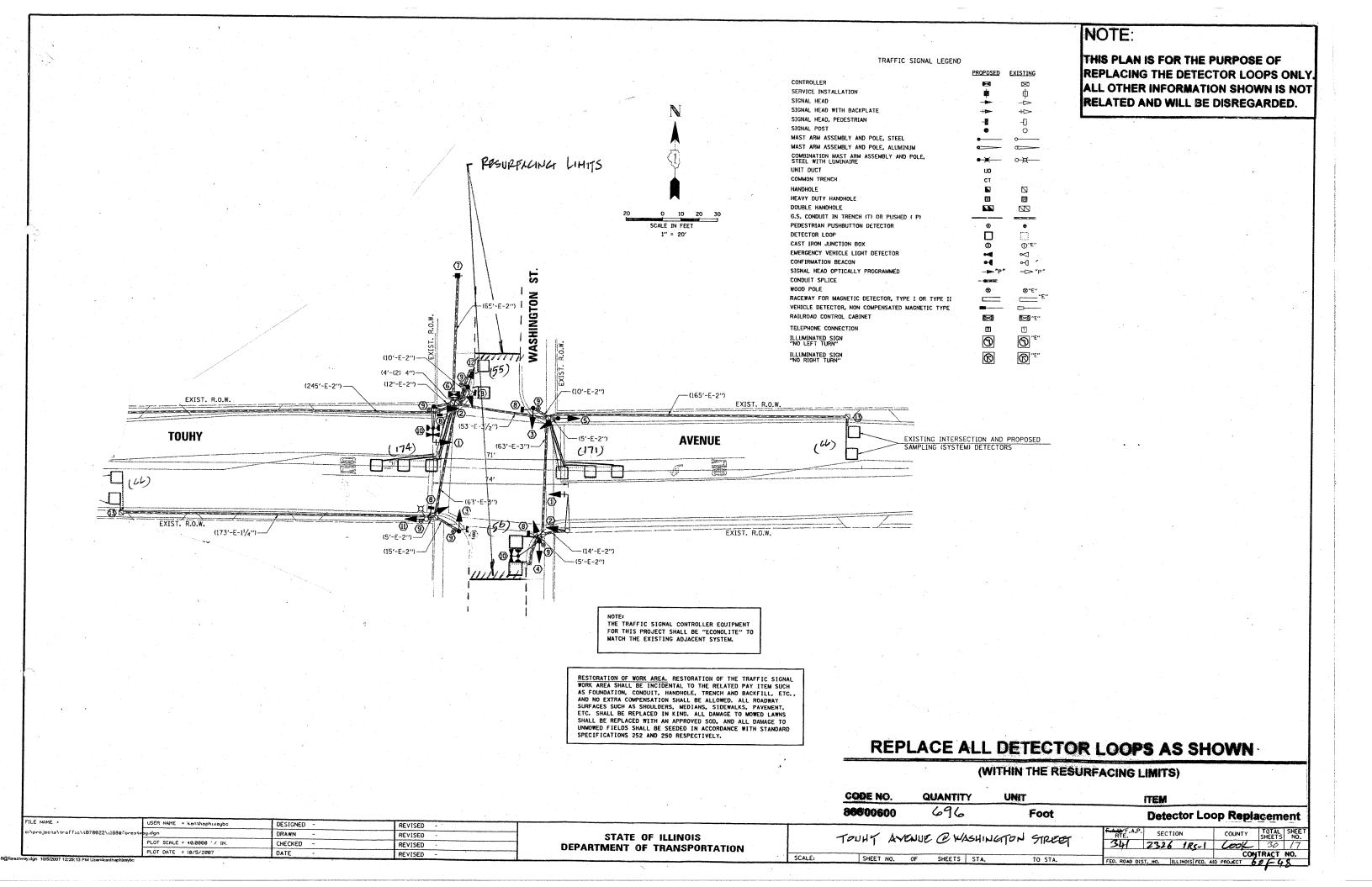


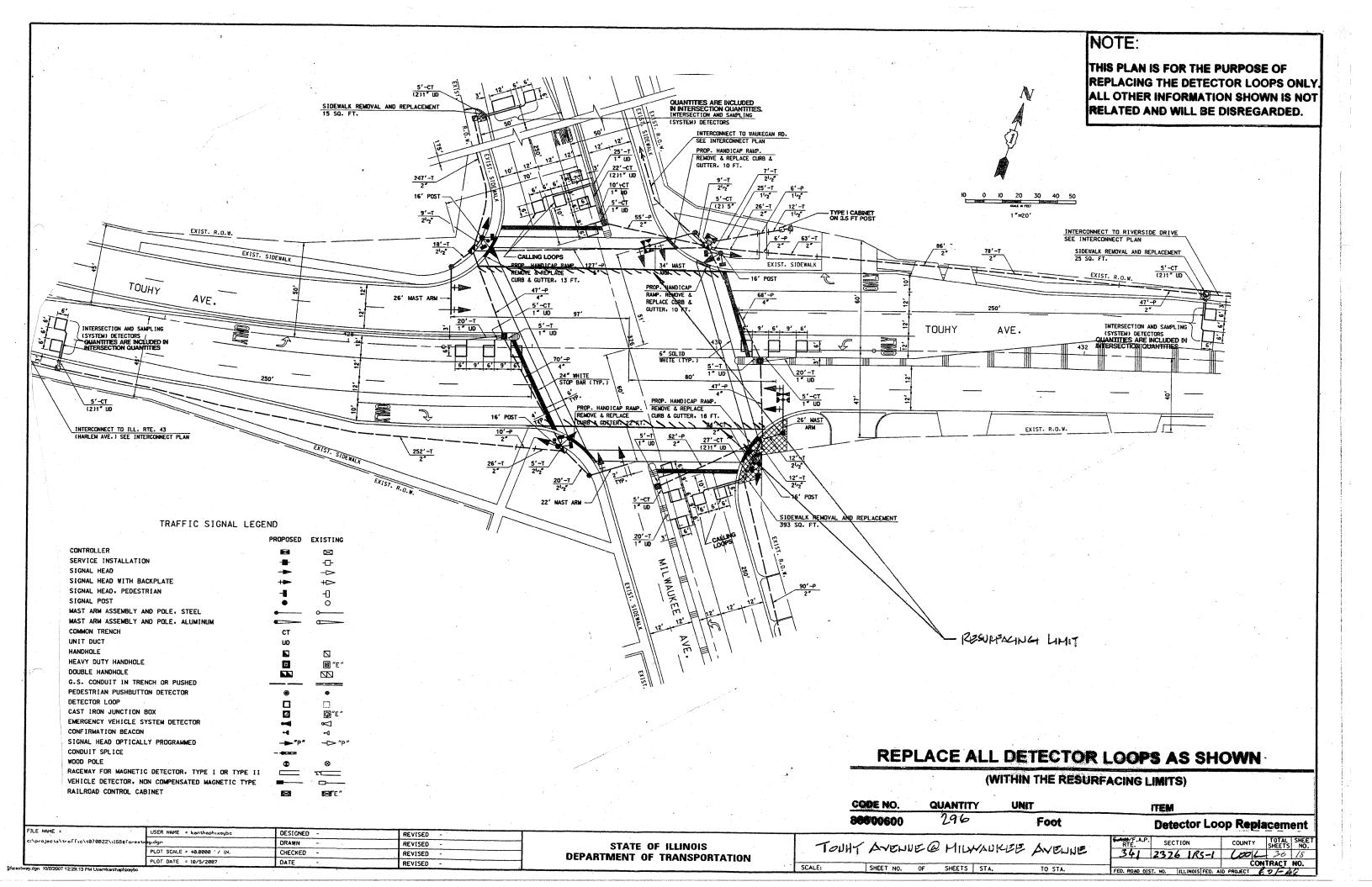


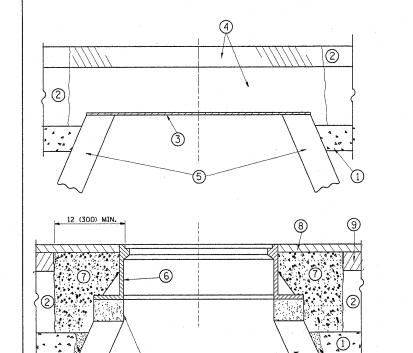












PROPOSED

PROPOSED

SAND FILL

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

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

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

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

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

BRICK, MORTAR, OR CONC. ADJUSTING RINGS

STAGE 2 (AFTER PAVEMENT MILLING)

STAGE 1 (BEFORE PAVEMENT MILLING)

A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.

D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 11/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

CONSTRUCTION PROCEDURES

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.

- 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

PROPOSED SAND FILL

- 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
- 8 PROPOSED HMA SURFACE COURSE
- PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- 5 EXISTING STRUCTURE
- 9 PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES:

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

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

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

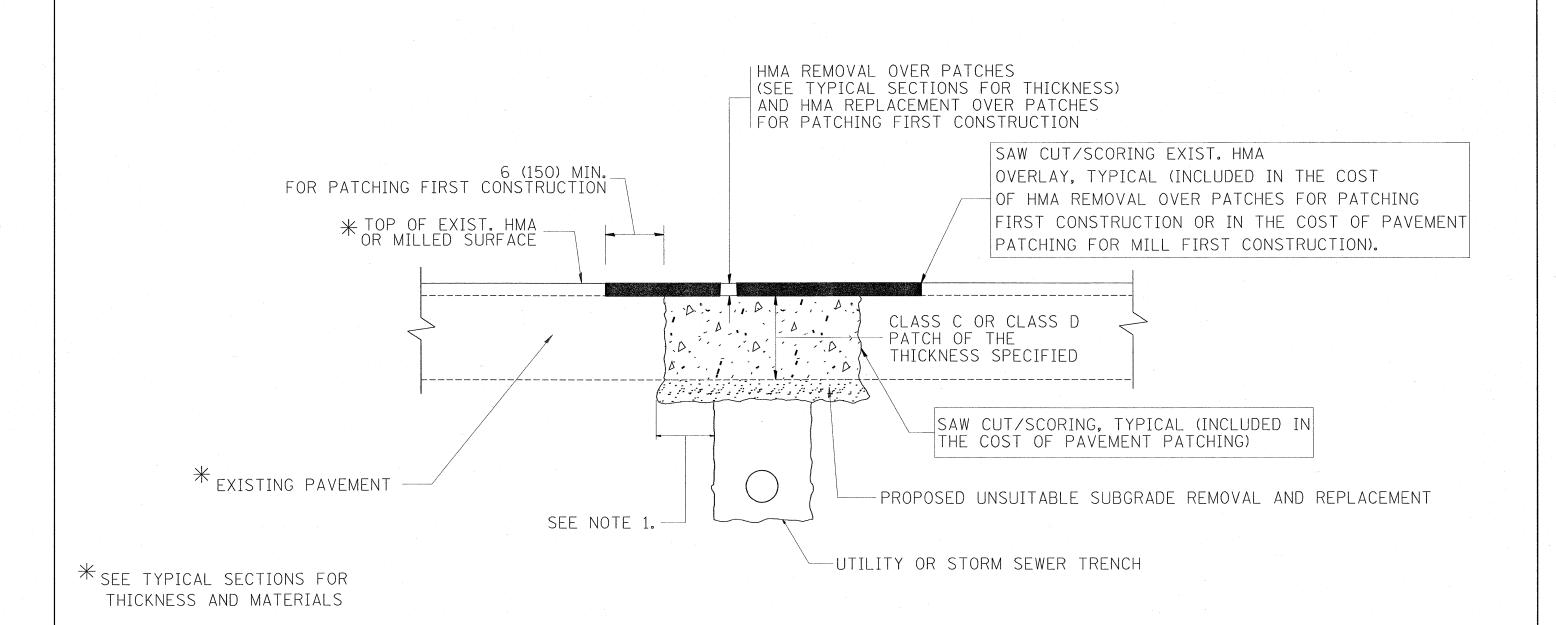
> ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME = USER NAME = kellers DESIGNED - R. SHAH REVISED - R. SHAH 03-10-95 :\pw_work\PWIDOT\KELLERS\dms89422\D DRAWN REVISED - A. ABBAS 03-21-97 REVISED - R. WIEDEMAN 05-14-04 PLOT SCALE = 50.0000 '/ IN. CHECKED PLOT DATE = 1/9/2009 10-25-94 REVISED - R. BORO 01-01-07 DATE

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING SHEET NO. 1 OF 1 SHEETS STA.

TOTAL SHEE SHEETS NO. COUNTY 30 19 2326.1RS-1 COOK 341.375 CONTRACT NO. 60F48 BD600-03 (BD-8) FED. ROAD DIST. NO. 1 ILLINOIS FED. 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".

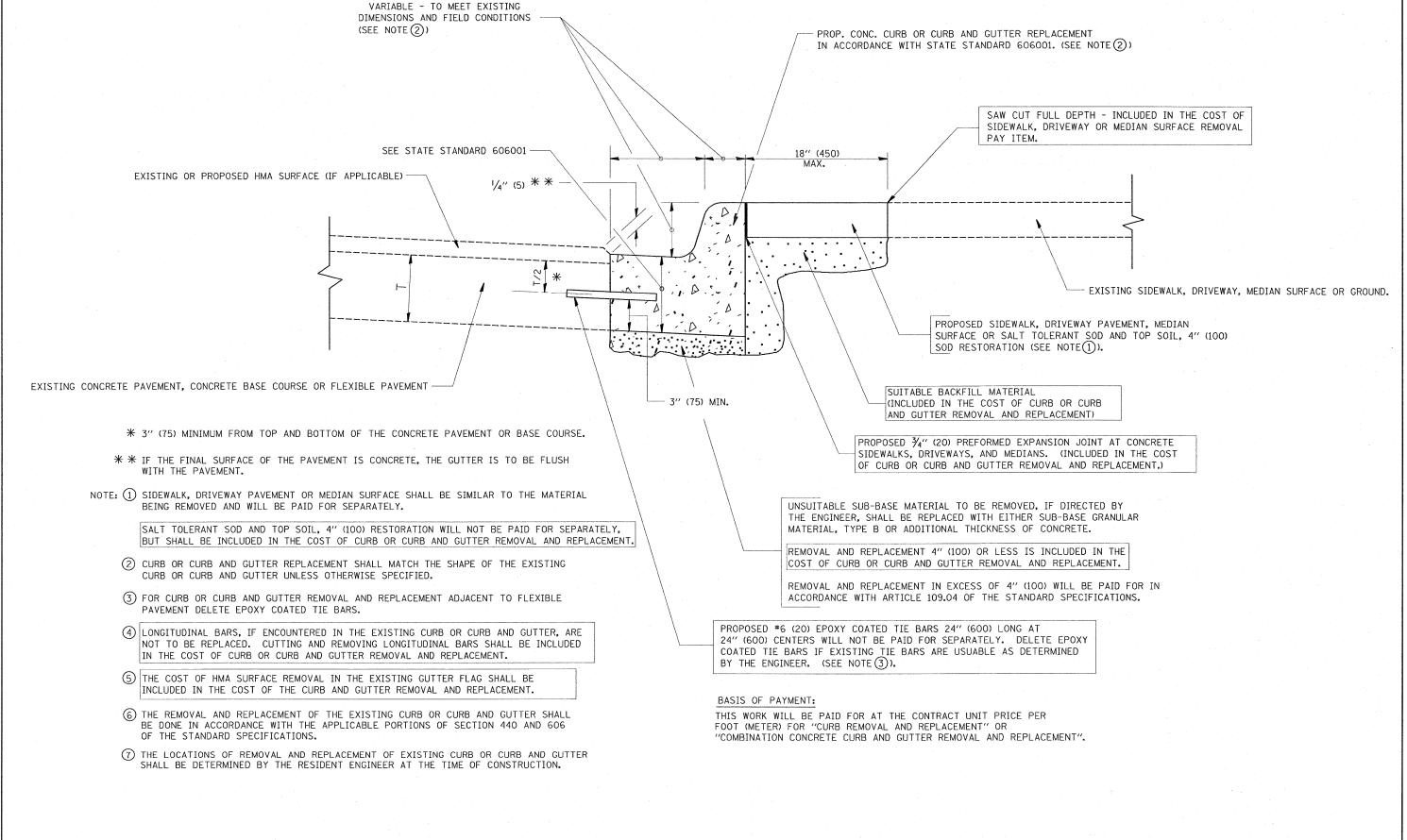
SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

- 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)

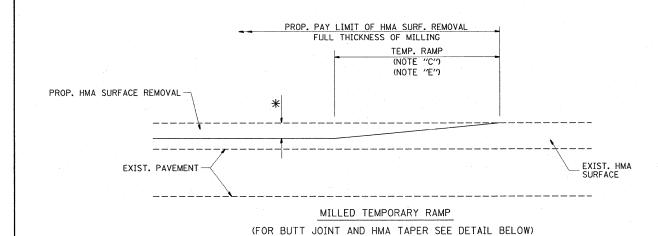
- 1. MILL HMA FIRST IF THERE IS AT LEAST 41/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

FIL	LE NAME =	USER NAME = kellers	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98			PAVEMENT PATCHING FOR	F.A.P.	SECTION	COUNTY	TOTAL SHEET
01/	\pw_work\PWIDOT\KELLERS\dms89422\Dist	Std.dgn	DRAWN -	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS			341,375	2326.1RS-1	соок	30 20
		PLDT SCALE = 50.0000 '/ IN.	CHECKED ~	REVISED - R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION	HMA SURFACED PAVEMENT		В	D400-04 (BD-22)	CONTRACT	NO. 60F48
		PLDT DATE = 1/9/2009	DATE - 10-25-94	REVISED - K. ENG 10-27-08	*	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD		ID PROJECT	

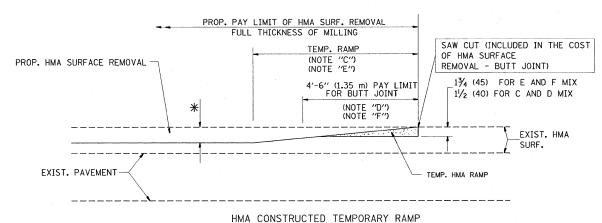


CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

FILE NAME =	USER NAME = kellers	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96			CURB OR (CURB AND	GUTTER		F.A.P. RTE.	SECTION	COUNTY	TOTAL SH	IEET NO.
St (DWLWD) K (I WIBOT (KEELEIIS (GIIBO) TEE (DISC	Std.dgn	DRAWN -	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS		REMOVAL A				341,375	2326.1RS-1	соок	30 2	-/
	PLOT SCALE = 50.0000 '/ IN. PLOT DATE = 1/9/2009	CHECKED - 03-11-94	REVISED - M. GOMEZ 01-22-01 REVISED - R. BORO 01-01-07	DEPARTMENT OF TRANSPORTATION	SCALE: NONE		· · · · · · · · · · · · · · · · · · ·	STA.	TO STA.		00-06 (BD-24)	CONTRACT	T NO. 60F4	18
	FEOT DHIE ~ 17 97 200 7	DATE 03-11-34	TREVISED IN BONG OF OF		SCALE: NONE	SHEET NO. 1 OF 1	SHEETS	314.	10 314.	FED. ROAD D	IST. NO. 1 ILLINOIS FED.	AID PROJECT		



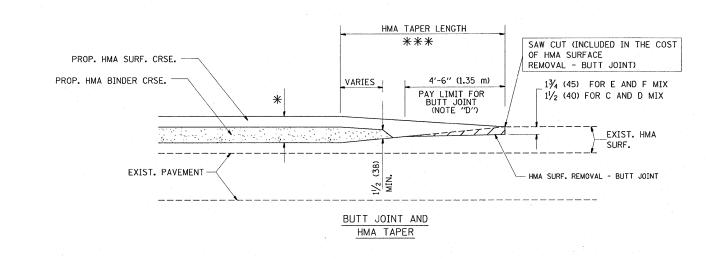
OPTION 1



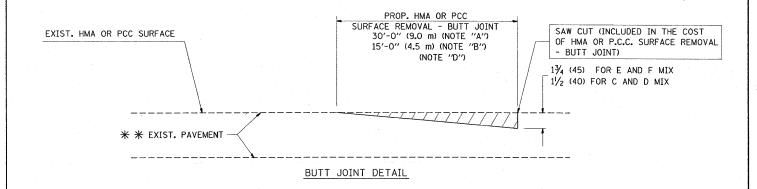
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

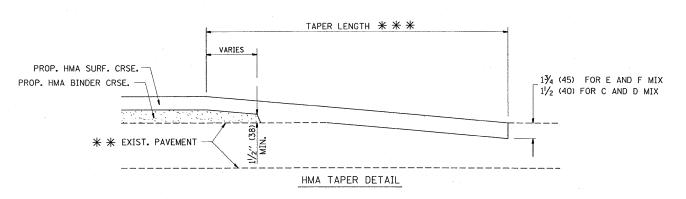
OPTION 2

TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING





TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

 $\ensuremath{**}$ PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

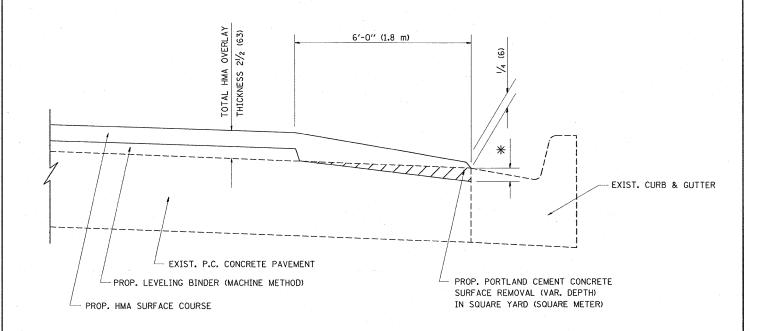
NOTES

- 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".
- st SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- ** \times 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 SOUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

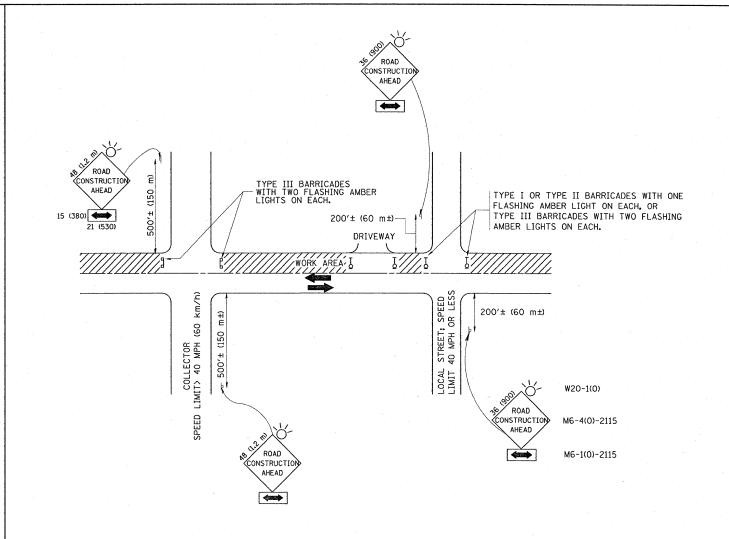
FILE NAME =		USER NAME = kellers	DESIGNED - M. DE YONG	REVISED -	R. SHAH 10-25-94			BUTT JOINT AND		F.A.P.	SECTION	COUNTY	TOTAL SHEET
c:\pw_work\PW	WIDOT\KELLERS\dms89422\Dist	Std.dgn	DRAWN -	REVISED -	A. ABBAS 03-21-97	STATE OF ILLINOIS		HMA TAPER DETAILS		341,375	2326.1RS-1	COOK	30 22
		PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -	M. GOMEZ 04-06-01	DEPARTMENT OF TRANSPORTATION		HIVIA TAPER DETAILS		BI	040005 BD32	CONTRACT	T NO. 60F48
		PLOT DATE = 1/9/2009	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. A	D PROJECT	



HMA TAPER AT EDGE OF P.C.C PAVEMENT

HMA SURFACE		LEVELING BINDER	
MIX	THICKNESS	THICKNESS	₩ MILLING AT GUTTER FLAG
C OR D	11/2 (38)	1 (25)	11/4 (33)
F	1¾ (44)	¾ (19)	11/2 (38)

FILE NAME =	USER NAME = kellers	DESIGNED - R. SHAH	REVISED - R. SHAH 10-25-94			F.A.P. SECTION	COUNTY TOTAL SHEET
c:\pw_work\PWIDOT\KELLERS\dms89422\Dis	\$td.dgn	DRAWN - JIS	REVISED - A. ABBAS 05-05-99	STATE OF ILLINOIS	HMA TAPER AT	RTÉ. SECTION 341,375 2326.1RS-1	COUNTY SHEETS NO.
	PLOT SCALE = 50,0000 '/ IN.	CHECKED ~ A. ABBAS	REVISED - E. GOMEZ 12-21-00	DEPARTMENT OF TRANSPORTATION	EDGE OF P.C.C. PAVEMENT	BD400-06 (BD33)	CONTRACT NO. 60F48
	PLOT DATE = 1/9/2009	DATE - 09-10-94	REVISED - R. BORO 01-01-07	SCALE:	NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AI	



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

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- 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:
- 0) ONE ROAD CONSTRUCTION AHEAD SIGN 36 \times 36 (900 \times 900) 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:
- O) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

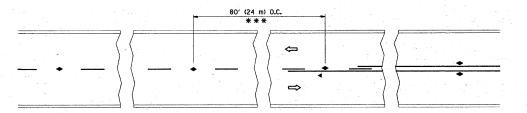
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

FILE NAME =	USER NAME = kellers	DESIGNED -	LHA	REVISED	- J. OBERLE 10-18-95
c:\pw_work\PWIDOT\KELLERS\dms89422\Dist	Std.dgn	DRAWN		REVISED	- A. HOUSEH 03-06-96
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -		REVISED	- A. HOUSEH 10-15-96
	PLOT DATE = 1/9/2009	DATE -	06-89	REVISED	-T. RAMMACHER 01-06-00

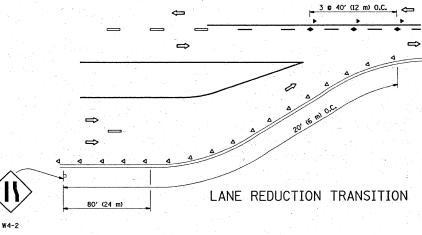
	TRAFFIC	CONTR	OL AND P	ROTECTIO	N FOR
	SIDE ROAL	S, INTE	RSECTIONS	, AND DI	RIVEWAYS
SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.

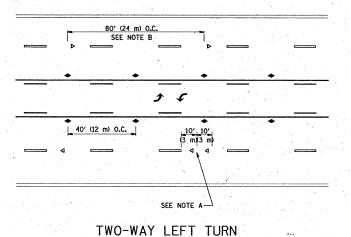
F.A.P. RTE.	SE	CTION	COUNTY	TOTAL SHEETS	SHEET NO.	
341,375	232	6.1RS-1		COOK	30	24
	TC-	-10	CONTRACT	NO. 60)F48	
FED. RO	DAD DIST. NO.	1 ILLINOIS	FED. AI	D PROJECT		

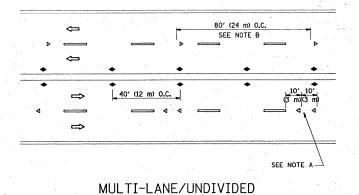


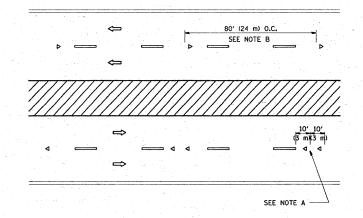
*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO-LANE/TWO-WAY









MULTI-LANE/DIVIDED

GENERAL NOTES

- 1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
- 2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 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.

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.

SYMBOLS

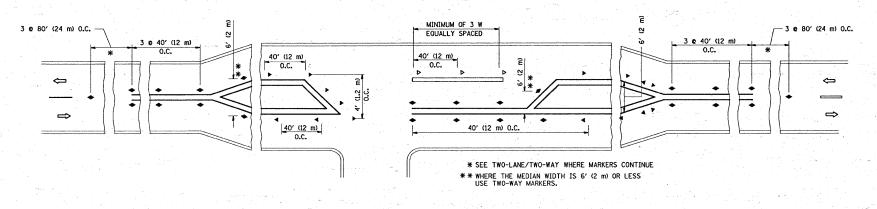
- YELLOW STRIPE

WHITE STRIPE

- ONE-WAY AMBER MARKER

ONE-WAY CRYSTAL MARKER (W/O)

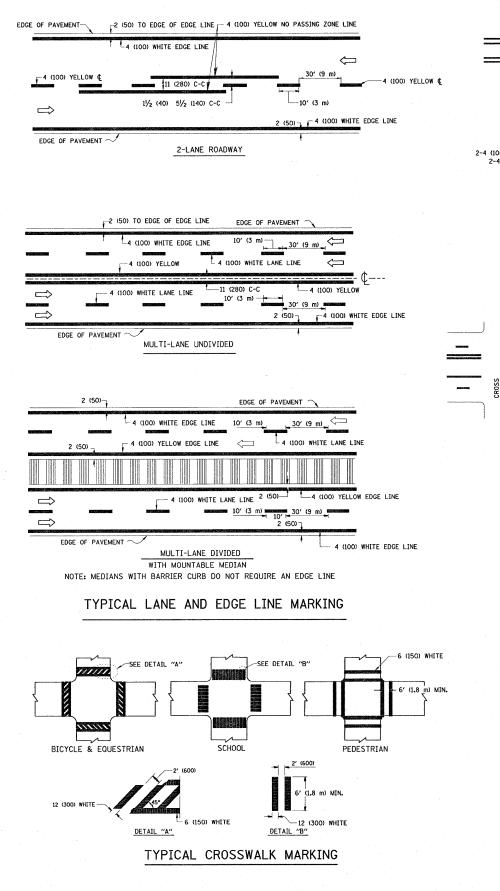
TWO-WAY AMBER MARKER

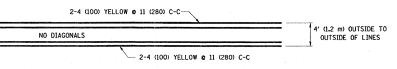


LEFT TURN

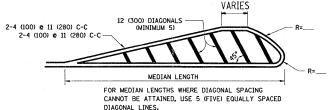
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = DESIGNED REVISED - T. RAMMACHER 09-19-94 COUNTY TOTAL SHEET NO. SECTION TYPICAL APPLICATIONS STATE OF ILLINOIS DRAWN REVISED -T. RAMMACHER 03-12-99 COOK 30 25 2326.1RS-1 RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) 341,375 **DEPARTMENT OF TRANSPORTATION** PLOT SCALE = 50.0000 '/ IN. CHECKED -REVISED -T. RAMMACHER 01-06-00 CONTRACT NO. 60F48 TC-11 SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. PLOT DATE = 1/9/2009 DATE FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT





4' (1.2 m) WIDE MEDIANS ONLY

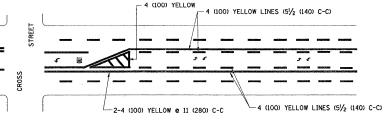


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))

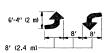
75' (25 m) C-C 30MPH (50 km/h) T0 45MPH (70 km/h))

150' (45 m) C-C (MORE THAN 44MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

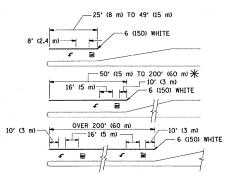


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

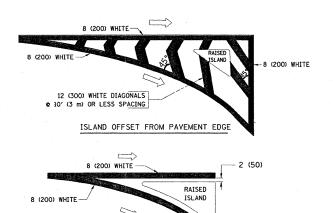


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. \P AREA = 15.6 SO. FT. (1.5 m²) \P AREA = 20.8 SO. FT. (1.9 m²)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

ISLAND AT PAVEMENT EDGE

- 2 (50)

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 & 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 & 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	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. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (500) APART 2' (500) APART 5EE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS	SOLID	YELLOW: TWO WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE
	0 45° NO DIAGONALS USED FOR 4' (1,2 m) WIDE MEDIANS		WHITE: ONE WAY TRAFFIC	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 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SO. FT. (0.33 m ²) EACH "X"=54.0 SO. FT. (5.0 m ²)
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 (0VER 45MPH (70 km/h))

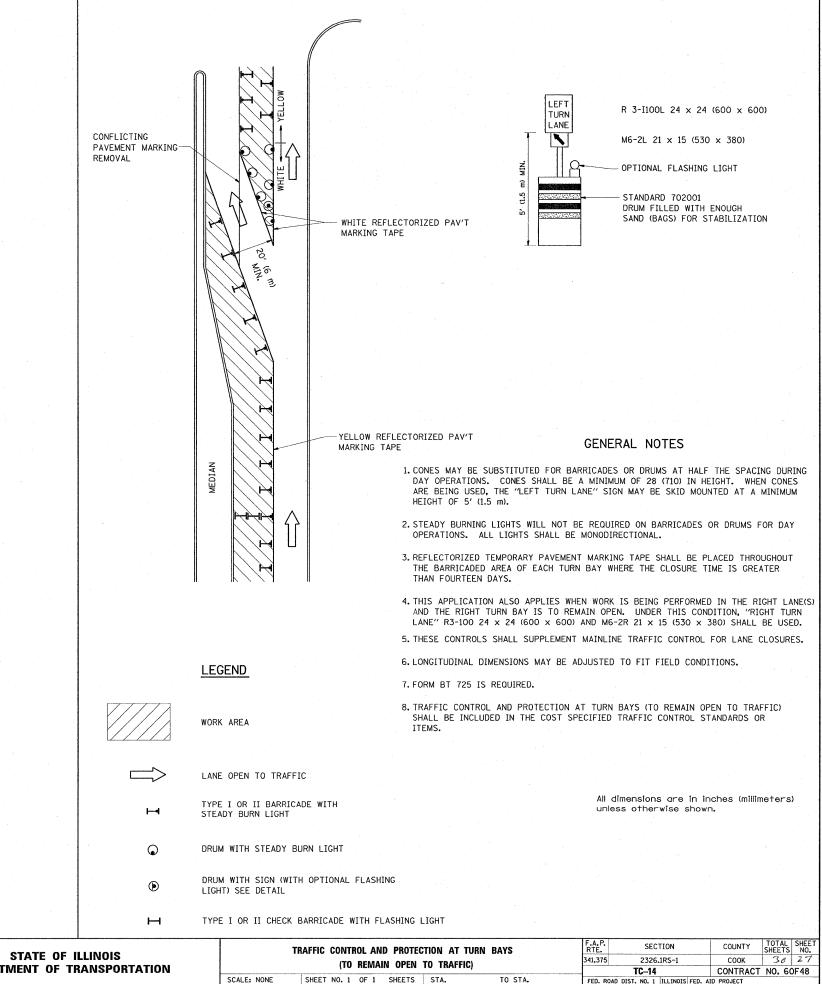
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

FILE NAME =	USER NAME = kellers	DESIGNED - EVERS	REVISEDT. RAMMACHER 10-27-94
c:\pw_work\PWIDOT\KELLERS\dms89422\Dist	Std.dgn	DRAWN -	REVISED -A. HOUSEH 10-09-96
*	PLOT SCALE = 50.0000 '/ IN.	CHECKED ~	REVISED -A. HOUSEH 10-17-96
	PLOT DATE = 1/9/2009	DATE - 03-19-90	REVISED - T. RAMMACHER 01-06-00

STATE	E OF	ILLINOIS	
DEPARTMENT	0F	TRANSPORTAT	ION

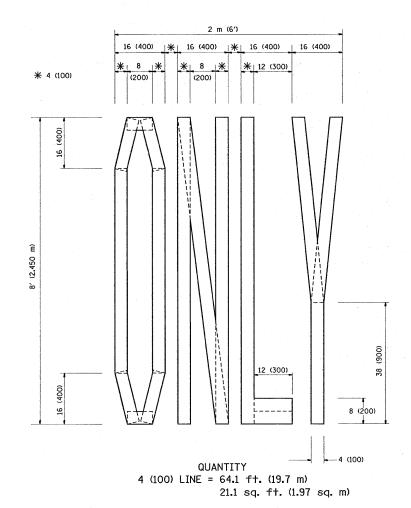
	i	DISTRICT OF	NE		F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
	TYPICAL	341,375	2326.1RS-1	COOK	30	26			
	IIIIVAL	WALIAITIAI	MARKINGS		TC-13		CONTRACT NO. 60F48)F48
 SCALE: NONE	SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

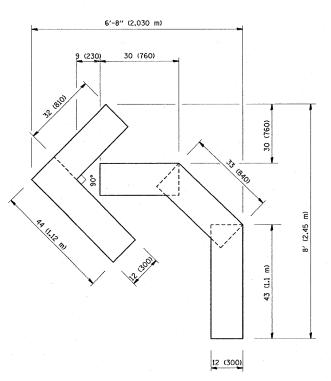


FILE NAME =	USER NAME = kellers	DESIGNED -	REVISED	-T. RAMMACHER 09-08-94
c:\pw_work\PWIDOT\KELLERS\dms89422\Dist	Std.dgn	DRAWN -	REVISED	- A. HOUSEH 11-07-95
	PLOT SCALE = 50.0000 '/ IN.	CHECKED	REVISED	- A. HOUSEH 10-12-96
·	PLOT DATE = 1/9/2009	DATE -	REVISED	-T. RAMMACHER 01-06-00

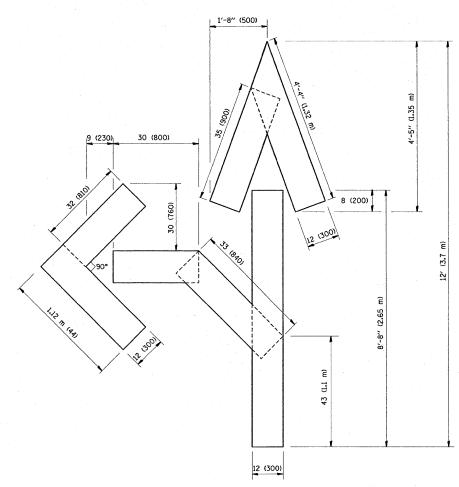
DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT





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

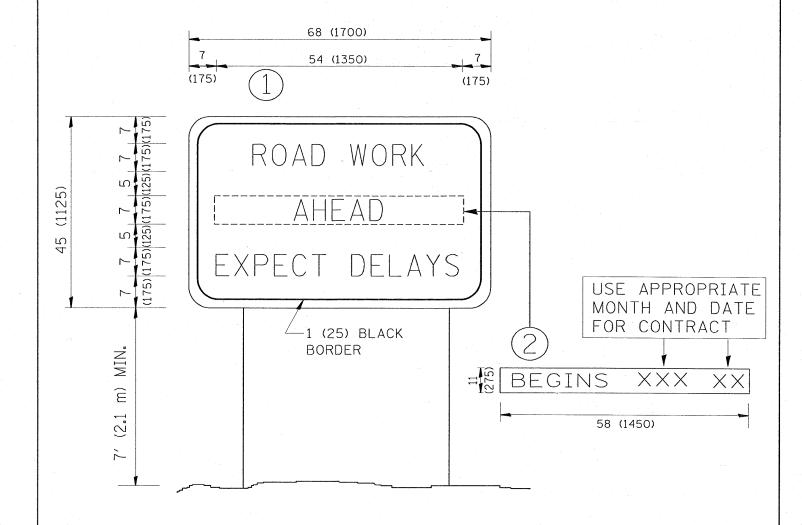


QUANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)

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

FILE NAME =	USER NAME = kellers	DESIGNED	-		REVISED	-T. RAMMACHER 06-05-96	
c:\pw_work\PWIDOT\KELLERS\dms89422\Dist	Std.dgn	DRAWN	-		REVISED	-T. RAMMACHER 11-04-97	
· · · · · · · · · · · · · · · · · · ·	PLOT SCALE = 50.0000 '/ IN.	CHECKED	-		REVISED	-T. RAMMACHER 03-02-98	
	PLOT DATE = 1/9/2009	DATE	-	09-18-94	REVISED	-E. GOMEZ 08-28-00	

							· · · · · · · · · · · · · · · · · · ·			
	PAVEMENT	MARI	ING LETTER	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
		EUD	TRAFFIC ST	ACING		341,375	2326.1RS-1	COOK	30	28
		ron	INATTIC 31		TC-16	CONTRACT	NO. 60)F48		
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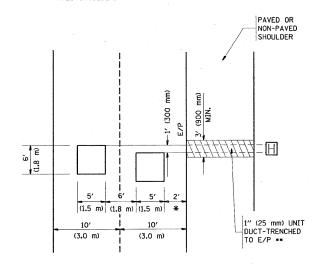
NOTES:

- 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.

FILE NAME =	USER NAME = kellers	DESIGNED -	REVISED - R. MIRS 09-15-97			ADTERIAL BOAD	F.A.P. SECTION	COUNTY TOTAL SHEET
c:\pw_work\PWIDOT\KELLERS\dms89422\Dist	Std.dgn	DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS		ARTERIAL ROAD	341,375 2326.1RS-1	COOK 30 29
·	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION		INFORMATION SIGN		CONTRACT NO. 60F48
	PLOT DATE = 1/9/2009	DATE -	REVISED ~ C. JUCIUS 01-31-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID	

LOOPS NEXT TO SHOULDERS

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



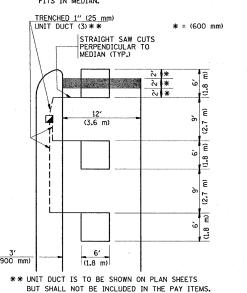
* * UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

* = (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 FITS IN MEDIAN.

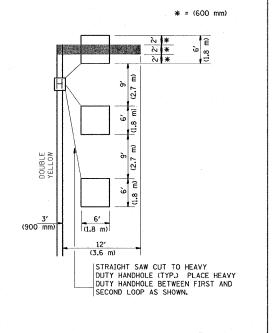


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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

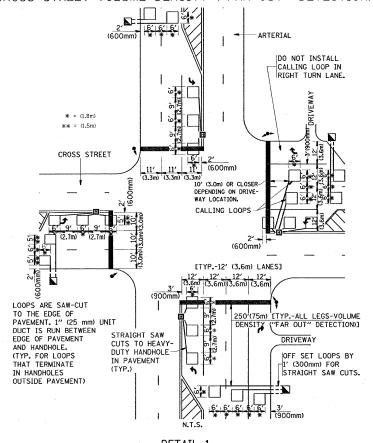
(PROTECTED / PERMITTED LEFT TURN PHASING)

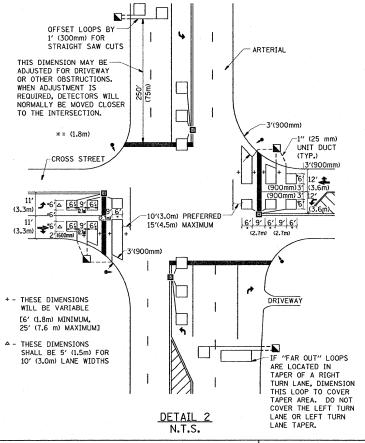


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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 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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	PLOT SCALE = 50.0000 '/ IN.	CHECKED - R.K.F.	REVISED -			
	PLOT DATE = 1/9/2009	DATE -	REVISED -			

	2 - 20					
DISTRICT 1 – DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		341,375	2326.1RS-1	соок	30	30
			TS-07 CONTRACT NO.		T NO. 60	DF 48
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED, ROAD E	FED. ROAD DIST, NO. 1 ILLINOIS FED. AID PROJECT			