

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

F.A.P. ROUTE 349 (U.S. RTE. 30)
SECTION 16RS-6
U.S. RTE. 34 TO WILL COUNTY LINE
RESURFACING (MAINTENANCE)
WILL COUNTY *Proj. ACNHF-0349(011)*
C-91-202-06

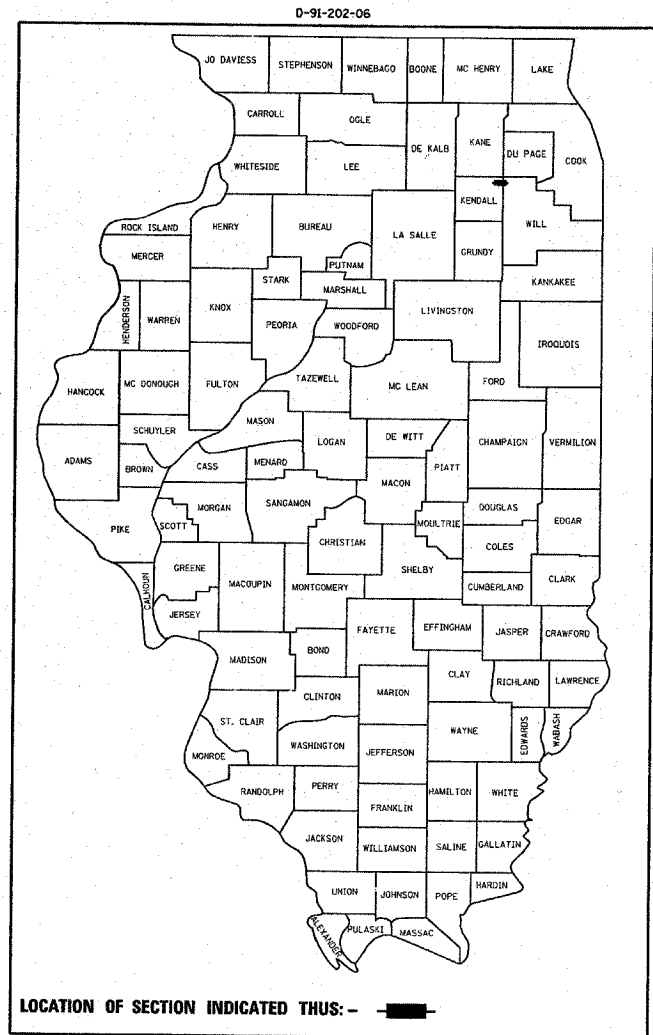
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	16RS-6	WILL	21	1
FED. ROAD DIST. NO. 1		ILLINOIS	CONTRACT NO. 60A98	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

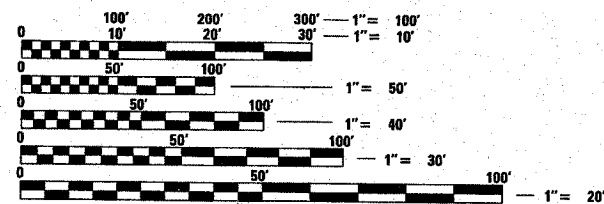
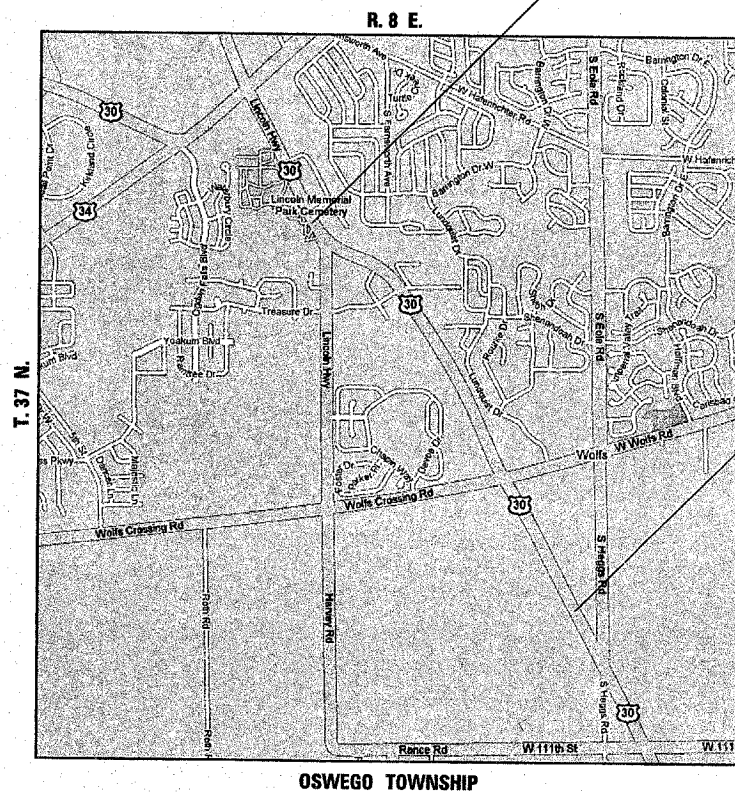
THE IMPROVEMENT IS LOCATED
IN THE VILLAGE OF MONTGOMERY

AVERAGE DAILY TRAFFIC = 14,500

POSTED SPEED LIMIT = 50 MPH



LOCATION OF SECTION INDICATED THIS: - [black rectangle] -



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. 60A98

GROSS LENGTH OF IMPROVEMENT = 9,722 FT. (1.841 MILES)
NET LENGTH OF IMPROVEMENT = 9,722 FT. (1.841 MILES)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED APRIL 2, 2008

Diana M. O'Keefe *gc*
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 9, 2008
Eric E. [signature]
INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

May 9, 2008
Christine M. Reed *RD*
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

DISTRICT 1 DESIGN PLAN PREPARATION ENGINEER: KEN ENG 847-705-4247

INDEX OF SHEETS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET
2	INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES
3	SUMMARY OF QUANTITIES
4-6	TYPICAL SECTIONS
7-10	ROADWAY AND PAVEMENT MARKING PLANS
11	DETECTOR LOOP REPLACEMENT
12	PAVEMENT PATCHING FOR BITUMINOUS SURFACED PAVEMENT
13	BUTT JOINT AND HMA TAPER DETAILS
14	TRAFFIC CONTROL AND PROTECTION FOR SIDEROADS, INTERSECTIONS, AND DRIVEWAYS
15	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
16	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
17	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
18	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
19	TEMPORARY INFORMATION SIGNING
20	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS
21	DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING

STANDARDS

000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
442201-03	CLASS C AND D PATCHES
701011-01	OFF-ROAD MOVING OPERATIONS 2L, 2W DAY ONLY FOR SPEED > 45MPH
701201-02	LANE CLOSURE, 2L, 2W, DAY ONLY ON - RD TO (24") OFF - RD FOR SPEED ≥ 45 MPH
701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-02	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY
701501-04	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701336-04	LANE CLOSURE 2L, 2W, WORK AREAS IN SERIES FOR SPEED ≥ 45 MPH
701901	TRAFFIC CONTROL DEVICES
780001-01	TYPICAL PAVEMENT MARKINGS

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR "811" FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOURS NOTIFICATION REQUIRED).

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF MONTGOMERY.

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

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1/2" (40 mm) WHERE THE SPEED LIMIT IS 45 MPH (80 KM/H) OR LESS AND WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH (80 KM/H), WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3" (75 mm) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 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.

THE RESIDENT ENGINEER SHALL CONTACT DON CHIARUGI AREA TRAFFIC FIELD ENGINEER AT (847) 741-9857 AT LEAST TWO(2) WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKING.

THE RESIDENT ENGINEER MUST 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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		DRAWN -	REVISED -			349	16RS-6	WILL	21	2	
		CHECKED -	REVISED -			CONTRACT NO. 60A98					
		DATE -	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
				SCALE: NONE		SHEET NO. OF SHEETS		STA. TO STA.			

F.A.D. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	16RS-6	WILL	21	3
FED. ROAD DIST. NO. 1		ILLINOIS	HIGHWAY PROJECT	

SUMMARY OF QUANTITIES			URBAN 80% FED. 20% STATE TOTAL QUANTITIES	URBAN	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT	1000						
20201006	GRADING AND SHAPING SHOULDERS	UNIT	195	195					
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	13	13					
40600300	AGGREGATE (PRIME COAT)	TON	65	65					
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	10	10					
40600895	CONSTRUCTING TEST STRIP	EACH	1	1					
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	107	107					
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	891	891					
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	2709	2709					
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SO YD	32247	32247					
44002235	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 8 3/4"	SO YD	1445	1445					
44201741	CLASS D PATCHES, TYPE II, 8 INCH	SO YD	420	420					
44201745	CLASS D PATCHES, TYPE III, 8 INCH	SO YD	624	624					
44201747	CLASS D PATCHES, TYPE IV, 8 INCH	SO YD	359	359					
48101200	AGGREGATE SHOULDERS, TYPE B	TON	634	634					
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3					
67100100	MOBILIZATION	L SUM	1	1					
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1					
70100600	TRAFFIC CONTROL AND PROTECTION, STANDARD 701336	L SUM	1	1					
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1					
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	5124	5124					

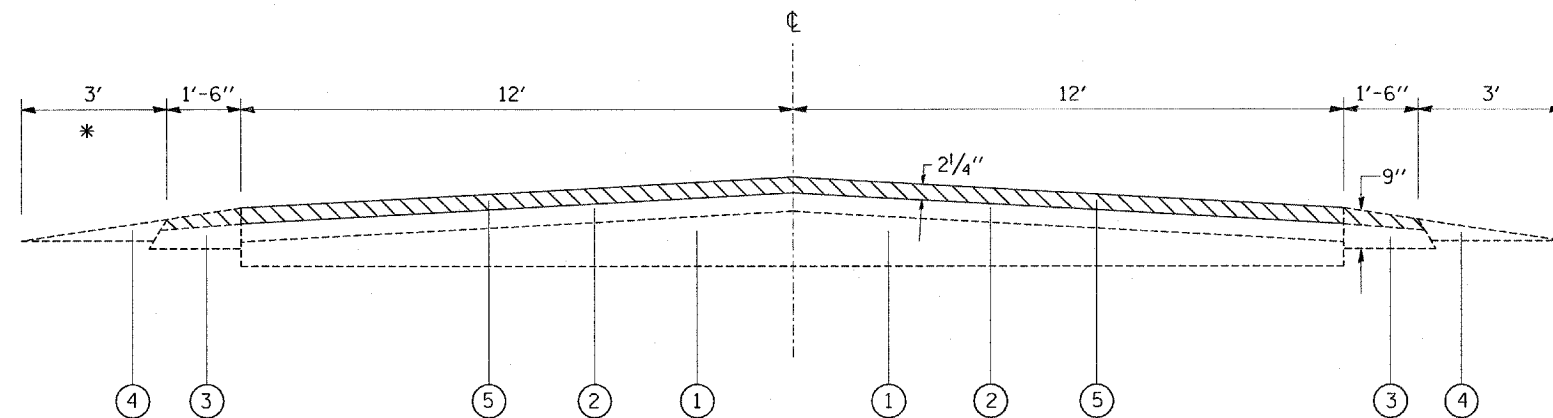
SUMMARY OF QUANTITIES			URBAN 80% FED. 20% STATE TOTAL QUANTITIES	URBAN	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT	1000						
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	41000	41000					
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	658	658					
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	192	192					
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	126	126					
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	300	300					
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	113	113					
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	41000	41000					
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	658	658					
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	192	192					
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	126	126					
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	243	243					
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	243	243					
* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	519	519					
X0322256	TEMPORARY INFORMATION SIGNING	SO FT	52	52					
X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	1355	1355					

*SPECIALTY ITEMS

REVISIONS	
NAME	DATE

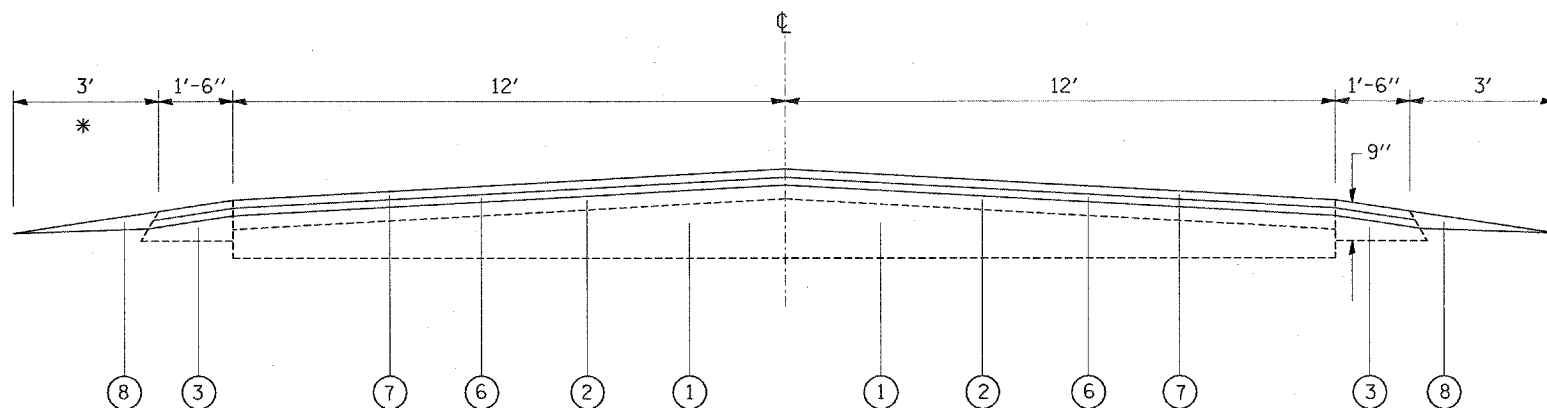
ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
U.S. RTE. 30
(U.S. RTE. 34 TO WILL COUNTY LINE)

4/3/2008 9:50:00 AM C:\p0598\1_rvw.dgn



U.S. 30
EXISTING TYPICAL SECTION

* AGGREGATE SHOULDER
8' WIDE FROM STA. 0+00
TO STA. 2+00 (WESTBOUND ONLY)



U.S. 30
PROPOSED TYPICAL SECTION

NOTE:
* PROPOSED AGGREGATE SHOULDER 8' WIDE FROM
STA. 0+00 TO STA 2+00 (WESTBOUND ONLY).
* PROPOSED WHITE EDGE LINE-4" IS 12' FROM ϕ (TYPICAL).

LEGEND

- ① EXISTING P.C.C. PAVEMENT, 8"
- ② EXISTING HOT-MIX ASPHALT SURFACE, 8 3/4" (AFTER SURFACE REMOVAL)
- ③ EXISTING HMA SHOULDER
- ④ EXISTING AGGREGATE SHOULDER TYPE "B"
- ⑤ PROPOSED HMA SURFACE REMOVAL, 2 1/4"
- ⑥ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N05, 3/4"
- ⑦ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2"
- ⑧ PROPOSED AGGREGATE SHOULDER, TYPE "B", VARIABLE THICKNESS. (WEDGE)

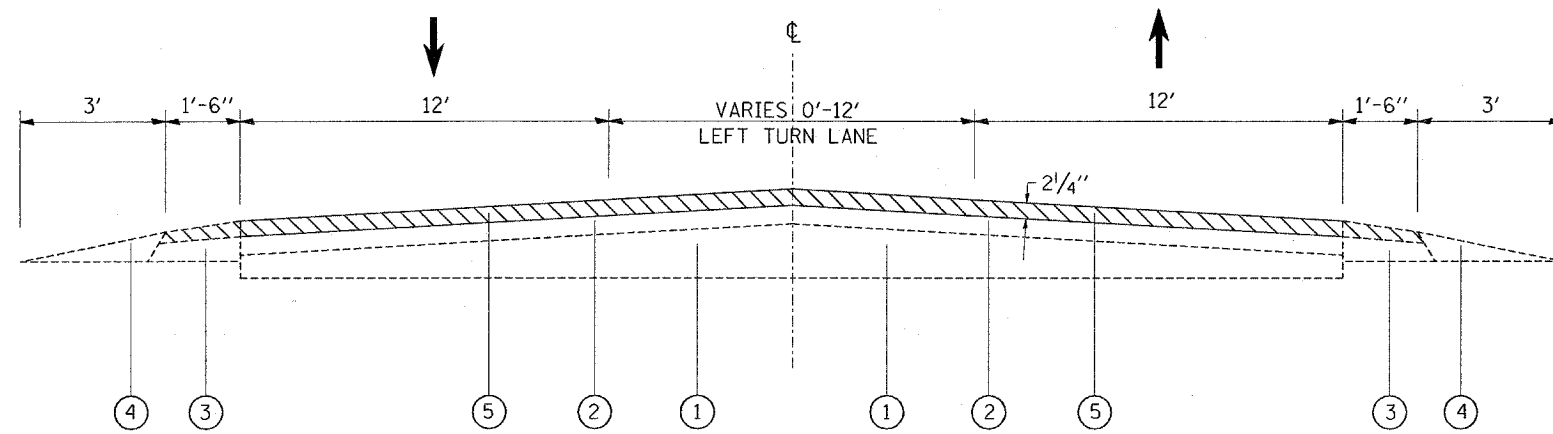
MIXTURE REQUIREMENTS

MIXTURE USE	AC/PG	DESIGN AIR VOIDS	REMARKS
HOT-MIX ASPHALT SURFACE COURSE, SUPERPAVE MIX "D", N70	PG 64-22	4% @ 70 GYR.	IL-9.5 MM
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"	SBS/SBR PG 76-28/-22	4% @ 50 GYR.	
HMA REPLACEMENT OVER PATCHES, 11"	PG 64-22*	4% @ 70 GYR.	BINDER HMA IL-19 MM
CLASS "D" PATCHES, 8"	PG 64-22*	4% @ 70 GYR.	BINDER HMA IL-19 MM

* WHEN RAP EXCEED 20% THEN NEW ASPHALT IN THE MIX SHALL BE PG 58-22."

NOTE:

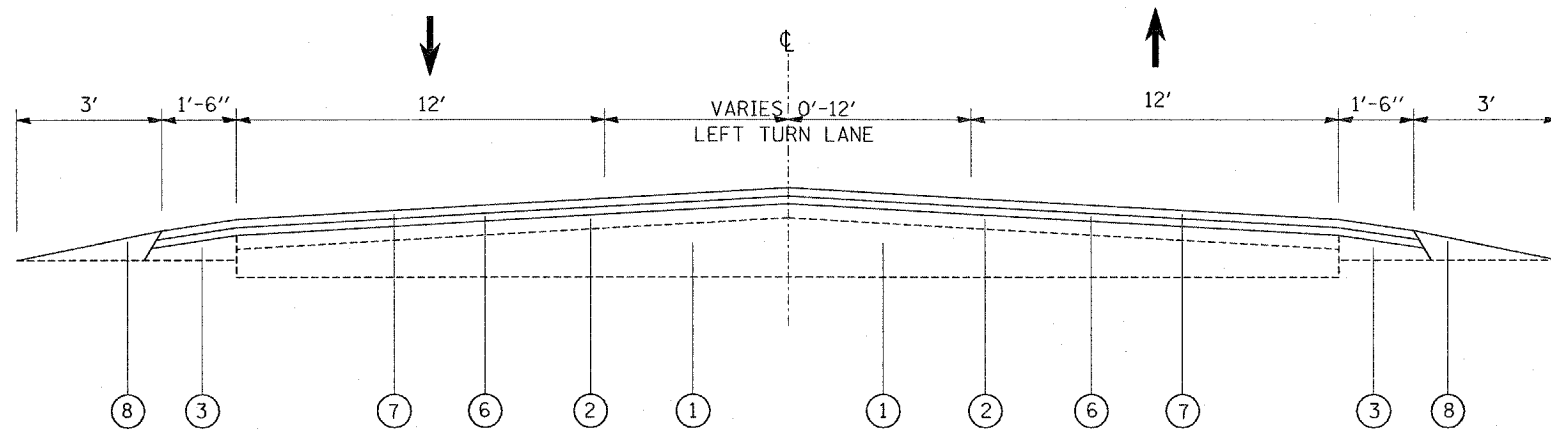
"THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ.YD./IN"



U.S. 30
EXISTING LEFT TURN LANE (TYPICAL)

LEGEND

- ① EXISTING P.C.C. PAVEMENT, 8"
- ② EXISTING HOT-MIX ASPHALT SURFACE, 8 3/4" (AFTER SURFACE REMOVAL)
- ③ EXISTING HMA SHOULDER
- ④ EXISTING AGGREGATE SHOULDER TYPE "B"
- ⑤ PROPOSED HMA SURFACE REMOVAL, 2 1/4"
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- ⑦ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2"
- ⑧ PROPOSED AGGREGATE SHOULDER, TYPE "B", VARIABLE THICKNESS. (WEDGE)

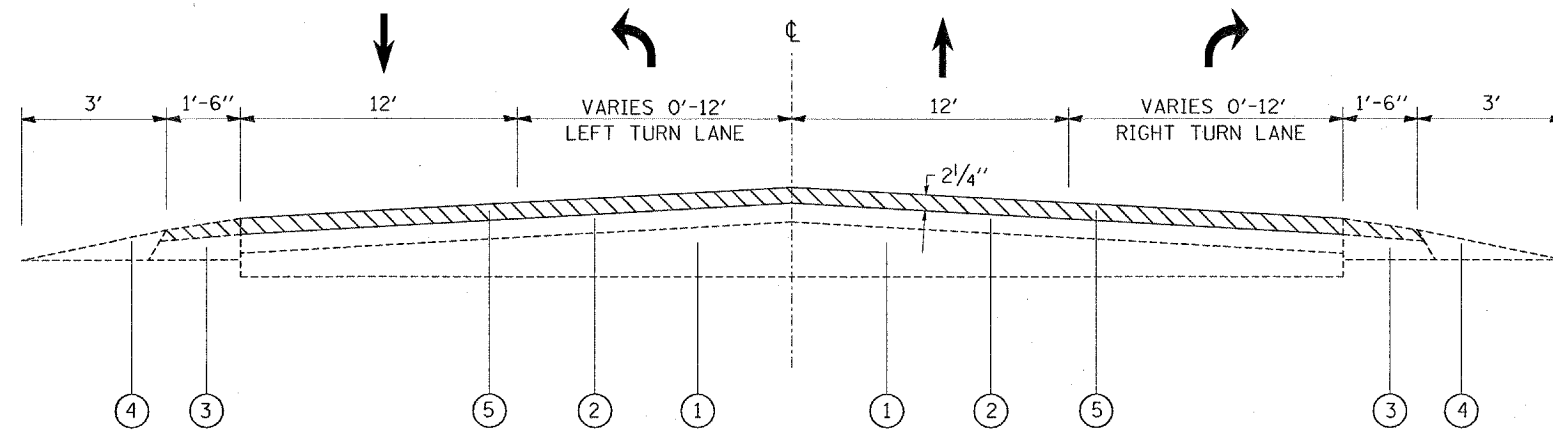


U.S. 30
PROPOSED LEFT TURN LANE (TYPICAL)

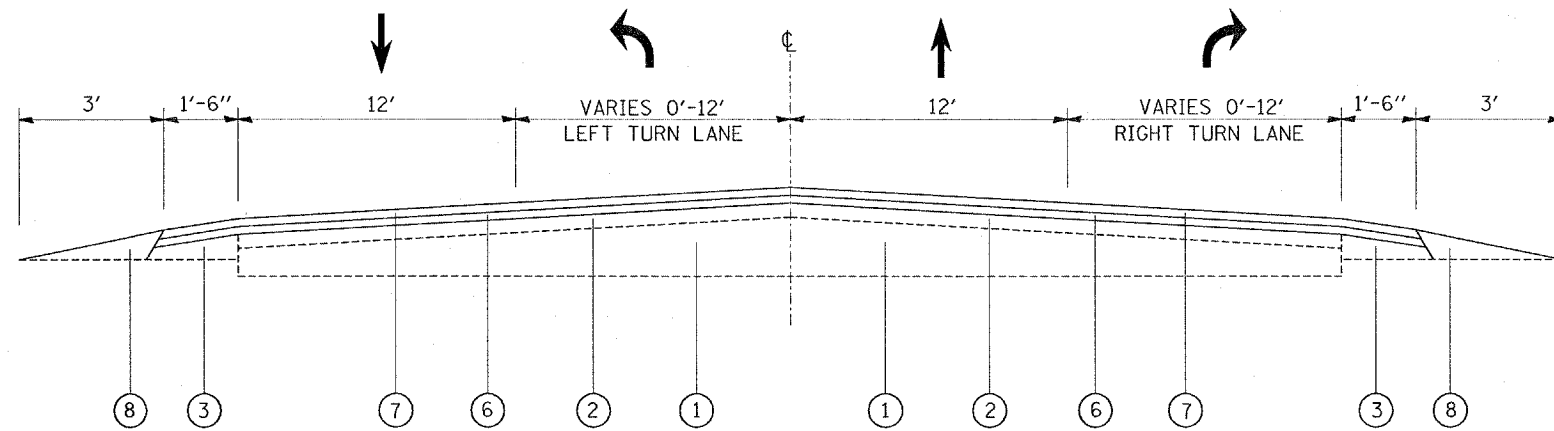
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	PLOT SCALE = 50,000' / 1" IN.	CHECKED -	REVISED -			349	16RS-6	WILL	21	5
PLOT DATE = 4/3/2008	DATE -	REVISED -	SCALE: NONE		SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
					CONTRACT NO. 60A98					

LEGEND

- ① EXISTING P.C.C. PAVEMENT, 8"
- ② EXISTING HOT-MIX ASPHALT SURFACE, 8³/₄" (AFTER SURFACE REMOVAL)
- ③ EXISTING HMA SHOULDER
- ④ EXISTING AGGREGATE SHOULDER TYPE "B"
- ⑤ PROPOSED HMA SURFACE REMOVAL, 2¹/₄"
- ⑥ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N05, ³/₄"
- ⑦ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1¹/₂"
- ⑧ PROPOSED AGGREGATE SHOULDER, TYPE "B", VARIABLE THICKNESS. (WEDGE)

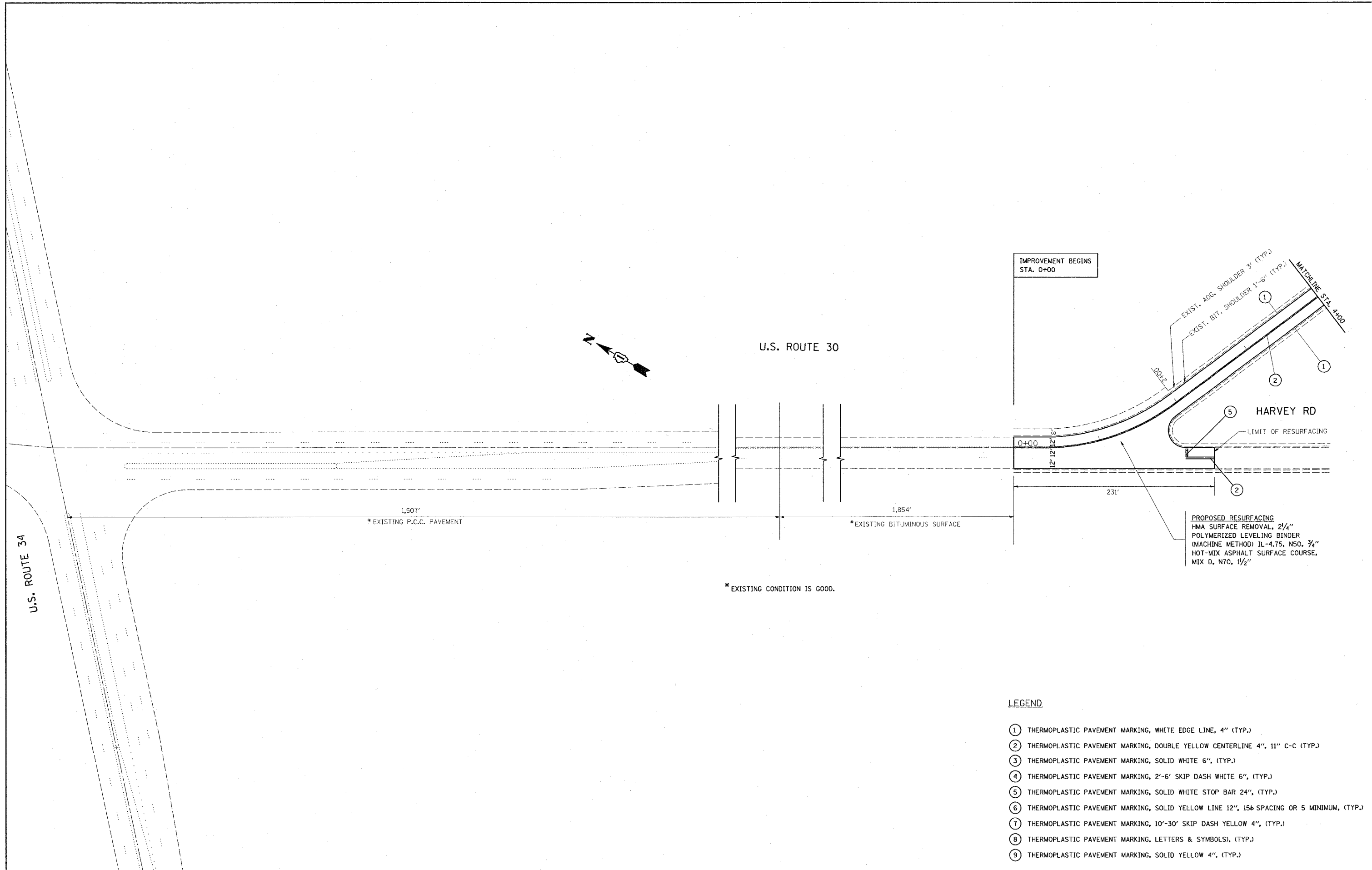


EXISTING TYPICAL SECTION
U.S. 30 (NORTH LEG) AT TREASURE DR/ GASTVILLE ST.



PROPOSED TYPICAL SECTION
U.S. 30 (NORTH LEG) AT TREASURE DR/ GASTVILLE ST.

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PLOT DATE = 4/3/2008	DATE -	REVISED -	SCALE: NONE		SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
					CONTRACT NO. 60A98					

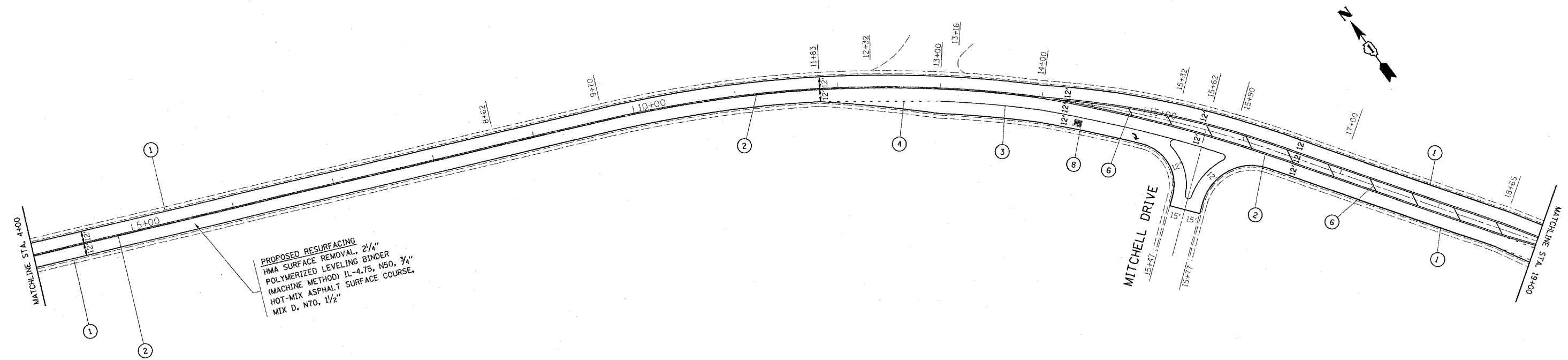


LEGEND

- ① THERMOPLASTIC PAVEMENT MARKING, WHITE EDGE LINE, 4" (TYP.)
- ② THERMOPLASTIC PAVEMENT MARKING, DOUBLE YELLOW CENTERLINE 4", 11" C-C (TYP.)
- ③ THERMOPLASTIC PAVEMENT MARKING, SOLID WHITE 6", (TYP.)
- ④ THERMOPLASTIC PAVEMENT MARKING, 2'-6" SKIP DASH WHITE 6", (TYP.)
- ⑤ THERMOPLASTIC PAVEMENT MARKING, SOLID WHITE STOP BAR 24", (TYP.)
- ⑥ THERMOPLASTIC PAVEMENT MARKING, SOLID YELLOW LINE 12", 156 SPACING OR 5 MINIMUM, (TYP.)
- ⑦ THERMOPLASTIC PAVEMENT MARKING, 10'-30' SKIP DASH YELLOW 4", (TYP.)
- ⑧ THERMOPLASTIC PAVEMENT MARKING, LETTERS & SYMBOLS, (TYP.)
- ⑨ THERMOPLASTIC PAVEMENT MARKING, SOLID YELLOW 4", (TYP.)

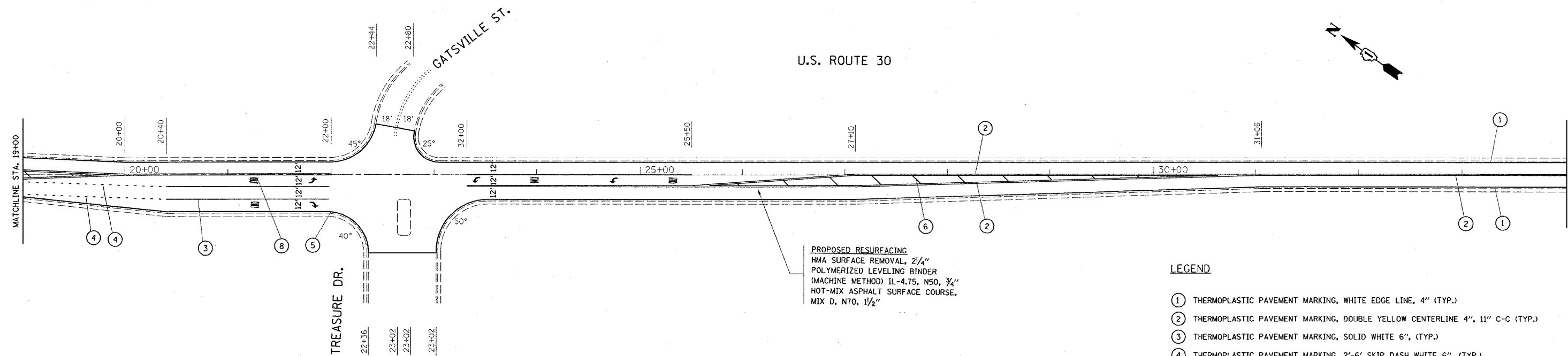
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PLOT SCALE = 50,0000' / INL		CHECKED -	REVISED -	SCALE: 1" = 50'		SHEET NO. OF SHEETS		STA. 0+00.00 TO STA. 4+00.00		CONTRACT NO. 60A98
PLOT DATE = 4/4/2008		DATE -	REVISED -	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						

U.S. ROUTE 30



PROPOSED RESURFACING
 HMA SURFACE REMOVAL, 2 1/4"
 POLYMERIZED LEVELING BINDER
 (MACHINE METHOD) IL-4.75, N50, 3/4"
 HOT-MIX ASPHALT SURFACE COURSE,
 MIX D, N70, 1 1/2"

U.S. ROUTE 30



PROPOSED RESURFACING
 HMA SURFACE REMOVAL, 2 1/4"
 POLYMERIZED LEVELING BINDER
 (MACHINE METHOD) IL-4.75, N50, 3/4"
 HOT-MIX ASPHALT SURFACE COURSE,
 MIX D, N70, 1 1/2"

LEGEND

- ① THERMOPLASTIC PAVEMENT MARKING, WHITE EDGE LINE, 4" (TYP.)
- ② THERMOPLASTIC PAVEMENT MARKING, DOUBLE YELLOW CENTERLINE 4", 11" C-C (TYP.)
- ③ THERMOPLASTIC PAVEMENT MARKING, SOLID WHITE 6", (TYP.)
- ④ THERMOPLASTIC PAVEMENT MARKING, 2'-6" SKIP DASH WHITE 6", (TYP.)
- ⑤ THERMOPLASTIC PAVEMENT MARKING, SOLID WHITE STOP BAR 24", (TYP.)
- ⑥ THERMOPLASTIC PAVEMENT MARKING, SOLID YELLOW LINE 12", 15' SPACING OR 5' MINIMUM, (TYP.)
- ⑦ THERMOPLASTIC PAVEMENT MARKING, 10'-30' SKIP DASH YELLOW 4", (TYP.)
- ⑧ THERMOPLASTIC PAVEMENT MARKING, LETTERS & SYMBOLS, (TYP.)
- ⑨ THERMOPLASTIC PAVEMENT MARKING, SOLID YELLOW 4", (TYP.)

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 PLOT DATE = 4/4/2008

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 DATE -

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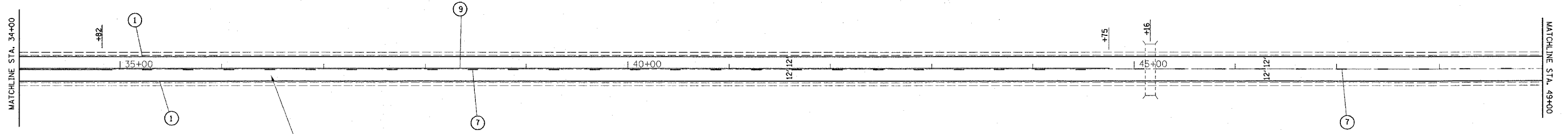
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

U.S. RTE. 30 (U.S. RTE. 34 TO WILL COUNTY LINE)
 ROADWAY AND PAVEMENT MARKING PLAN

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 4+00.00 TO STA. 34+00.00

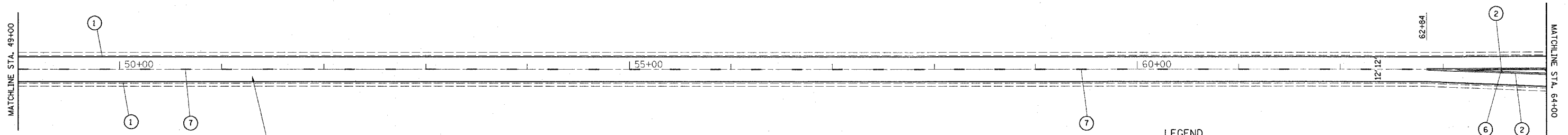
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	16RS-6	WILL	21	8
CONTRACT NO. 60A98				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

U.S. ROUTE 30



PROPOSED RESURFACING
 HMA SURFACE REMOVAL, 2 1/4"
 POLYMERIZED LEVELING BINDER
 (MACHINE METHOD) IL-4.75, N50, 3/4"
 HOT-MIX ASPHALT SURFACE COURSE,
 MIX D, NTO, 1 1/2"

U.S. ROUTE 30



PROPOSED RESURFACING
 HMA SURFACE REMOVAL, 2 1/4"
 POLYMERIZED LEVELING BINDER
 (MACHINE METHOD) IL-4.75, N50, 3/4"
 HOT-MIX ASPHALT SURFACE COURSE,
 MIX D, NTO, 1 1/2"

LEGEND

- ① THERMOPLASTIC PAVEMENT MARKING, WHITE EDGE LINE, 4" (TYP.)
- ② THERMOPLASTIC PAVEMENT MARKING, DOUBLE YELLOW CENTERLINE 4", 11" C-C (TYP.)
- ③ THERMOPLASTIC PAVEMENT MARKING, SOLID WHITE 6", (TYP.)
- ④ THERMOPLASTIC PAVEMENT MARKING, 2'-6' SKIP DASH WHITE 6", (TYP.)
- ⑤ THERMOPLASTIC PAVEMENT MARKING, SOLID WHITE STOP BAR 24", (TYP.)
- ⑥ THERMOPLASTIC PAVEMENT MARKING, SOLID YELLOW LINE 12", 15' SPACING OR 5' MINIMUM, (TYP.)
- ⑦ THERMOPLASTIC PAVEMENT MARKING, 10'-30' SKIP DASH YELLOW 4", (TYP.)
- ⑧ THERMOPLASTIC PAVEMENT MARKING, LETTERS & SYMBOLS, (TYP.)
- ⑨ THERMOPLASTIC PAVEMENT MARKING, SOLID YELLOW 4", (TYP.)

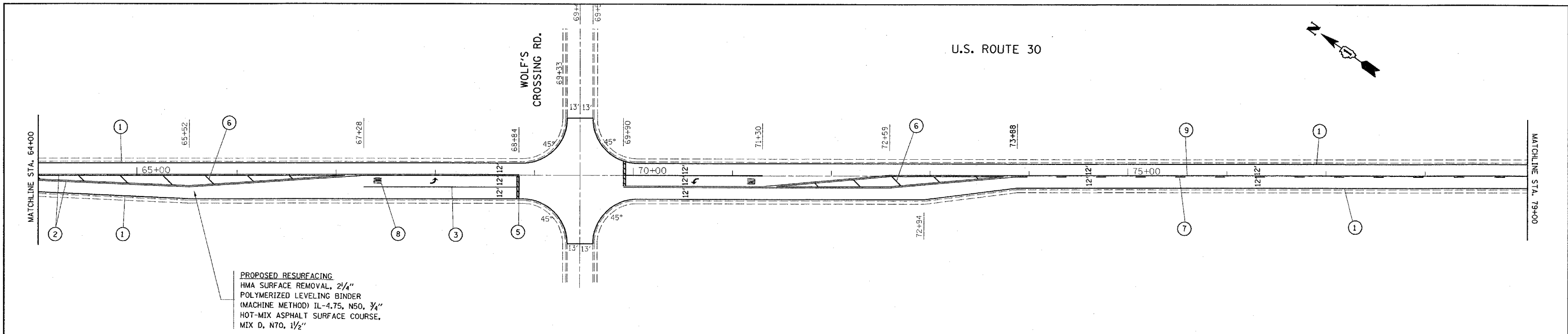
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	PLOT DATE = 4/4/2008	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

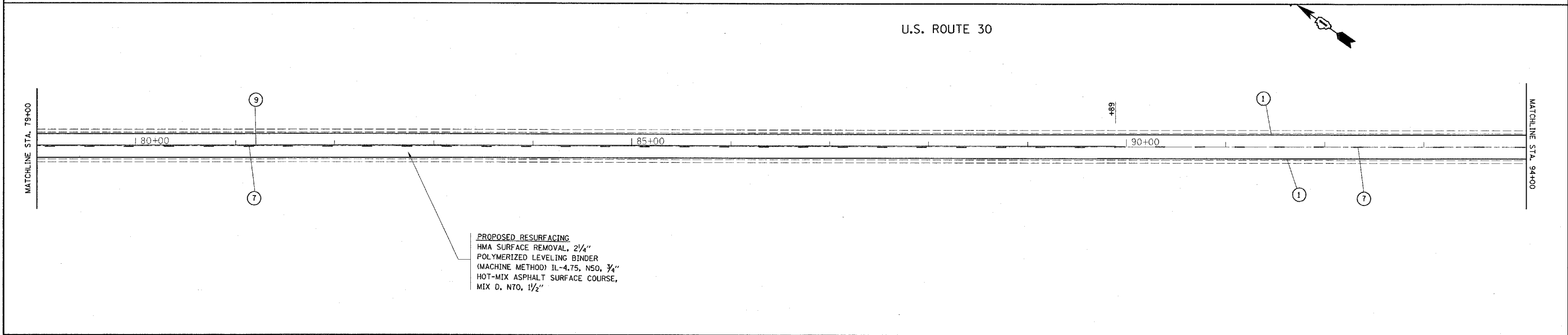
**U.S. RTE. 30 (U.S. RTE. 34 TO WILL COUNTY LINE)
 ROADWAY AND PAVEMENT MARKING PLAN**

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 34+00.00 TO STA. 64+00.00

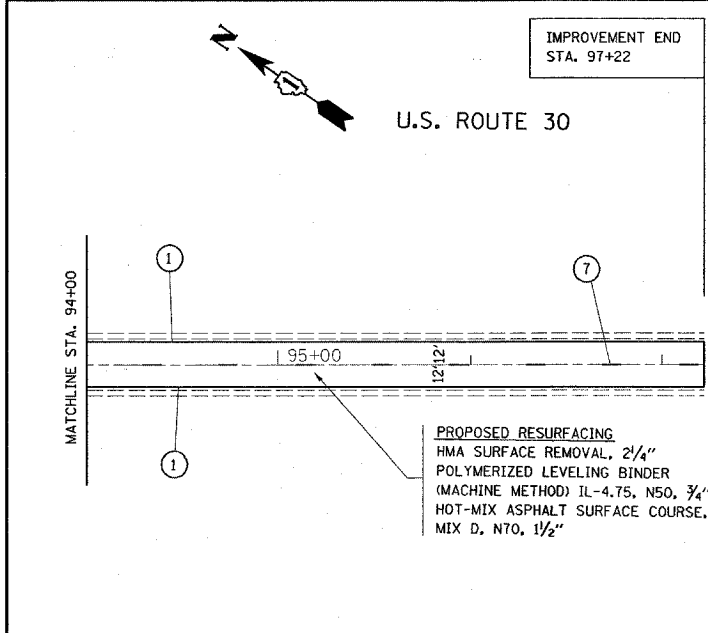
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	16RS-6	WILL	21	9
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60A98	



PROPOSED RESURFACING
 HMA SURFACE REMOVAL, 2 1/4"
 POLYMERIZED LEVELING BINDER
 (MACHINE METHOD) IL-4.75, N50, 3/4"
 HOT-MIX ASPHALT SURFACE COURSE,
 MIX D, N70, 1 1/2"



PROPOSED RESURFACING
 HMA SURFACE REMOVAL, 2 1/4"
 POLYMERIZED LEVELING BINDER
 (MACHINE METHOD) IL-4.75, N50, 3/4"
 HOT-MIX ASPHALT SURFACE COURSE,
 MIX D, N70, 1 1/2"



IMPROVEMENT END
 STA. 97+22

U.S. ROUTE 30

PROPOSED RESURFACING
 HMA SURFACE REMOVAL, 2 1/4"
 POLYMERIZED LEVELING BINDER
 (MACHINE METHOD) IL-4.75, N50, 3/4"
 HOT-MIX ASPHALT SURFACE COURSE,
 MIX D, N70, 1 1/2"

LEGEND

- ① THERMOPLASTIC PAVEMENT MARKING, WHITE EDGE LINE, 4" (TYP.)
- ② THERMOPLASTIC PAVEMENT MARKING, DOUBLE YELLOW CENTERLINE 4", 11" C-C (TYP.)
- ③ THERMOPLASTIC PAVEMENT MARKING, SOLID WHITE 6", (TYP.)
- ④ THERMOPLASTIC PAVEMENT MARKING, 2'-6" SKIP DASH WHITE 6", (TYP.)
- ⑤ THERMOPLASTIC PAVEMENT MARKING, SOLID WHITE STOP BAR 24", (TYP.)
- ⑥ THERMOPLASTIC PAVEMENT MARKING, SOLID YELLOW LINE 12", 15' SPACING OR 5' MINIMUM, (TYP.)
- ⑦ THERMOPLASTIC PAVEMENT MARKING, 10'-30' SKIP DASH YELLOW 4", (TYP.)
- ⑧ THERMOPLASTIC PAVEMENT MARKING, LETTERS & SYMBOLS, (TYP.)
- ⑨ THERMOPLASTIC PAVEMENT MARKING, SOLID YELLOW 4", (TYP.)

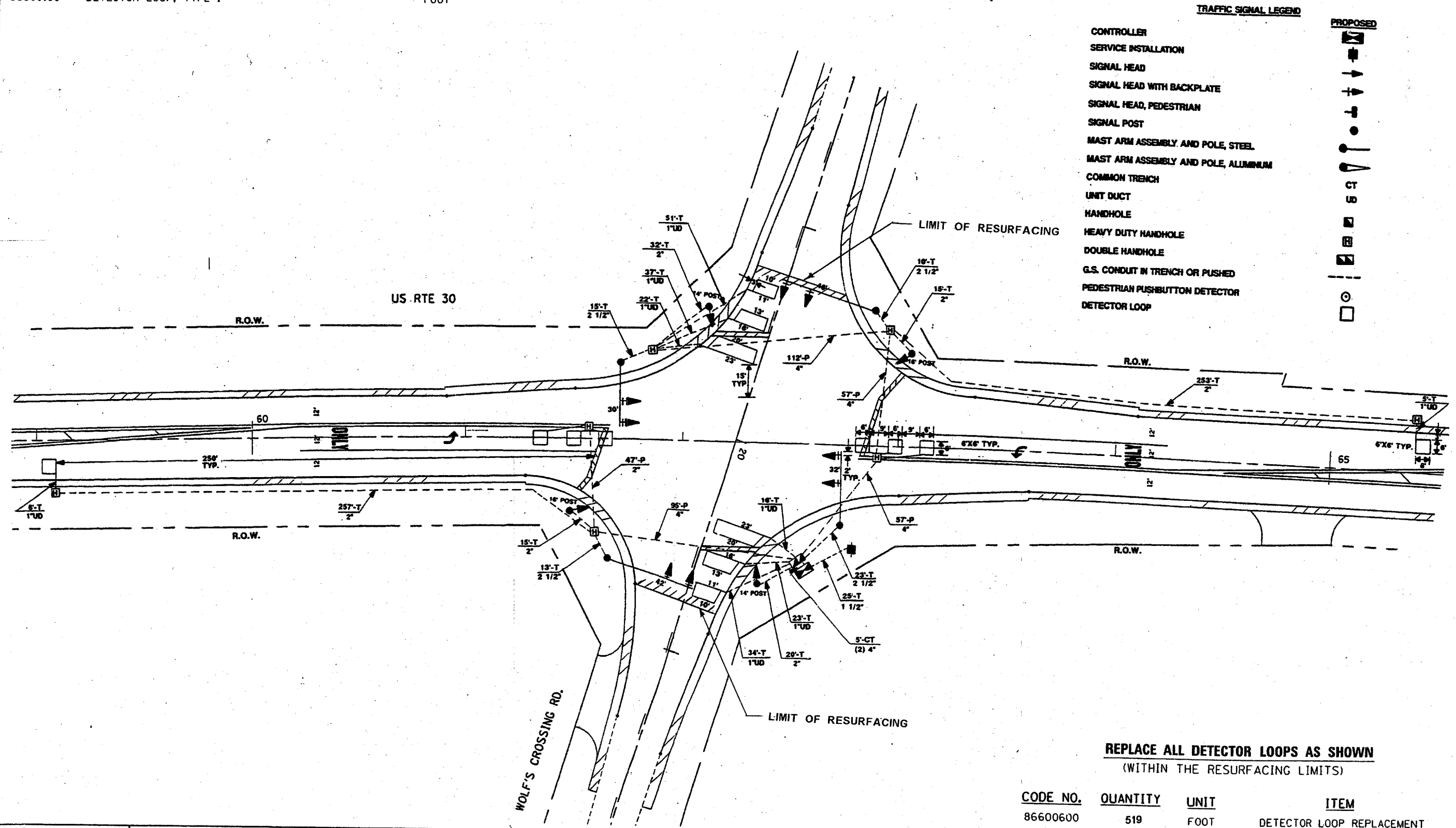
FILE NAME = c:\projects\10120206\sh_rdw.dgn	USER NAME = ulrichkd	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	U.S. RTE. 30 (U.S. RTE. 34 TO WILL COUNTY LINE) ROADWAY AND PAVEMENT MARKING PLAN	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50,0000' / IN.	CHECKED -	REVISED -			349	16RS-6	WILL	21	10
PLOT DATE = 4/4/2008	DATE -	REVISED -	SCALE: 1" = 50'		SHEET NO. OF SHEETS	STA. 64+00.00 TO STA. 97+22.00	CONTRACT NO. 60A98			
						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

RESURFACING - TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

The "Pay Items" below are paid separately as per the attached "Specification" for MAGNETIC DETECTOR REMOVAL AND DETECTOR LOOP INSTALLATION.

Code No.	Pay Item	Unit	Quantity
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	
88500100	INDUCTIVE LOOP DETECTOR	EACH	
88600100	DETECTOR LOOP, TYPE 1	FOOT	

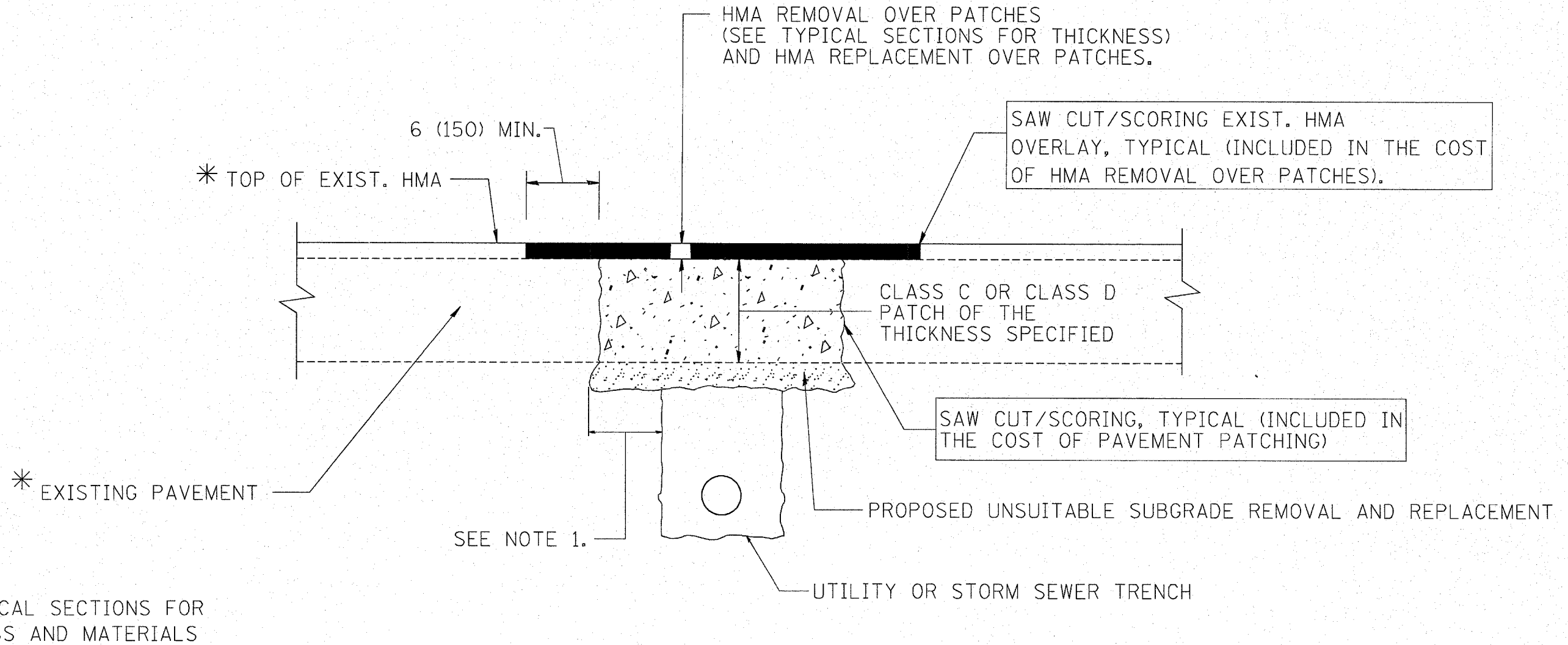
NOTE:
THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.



REPLACE ALL DETECTOR LOOPS AS SHOWN
(WITHIN THE RESURFACING LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
86600600	519	FOOT	DETECTOR LOOP REPLACEMENT

FILE NAME :	USER NAME : konthaphi.kaybc	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETECTOR LOOP REPLACEMENT U.S. ROUTE 30 @ WOLF'S CROSSING RD.	F.A.P. RTE.:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PROJECT: \projects\trf\1678027\us12.28.45.dwg		DRAWN -	REVISED -			349	16RS-6	WILL	21	11	
PLOT SCALE : 40.0000 / IN.		CHECKED -	REVISED -			SCALE: SHEET NO. OF SHEETS STA. TO STA.					
PLOT DATE : 2/29/2008		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

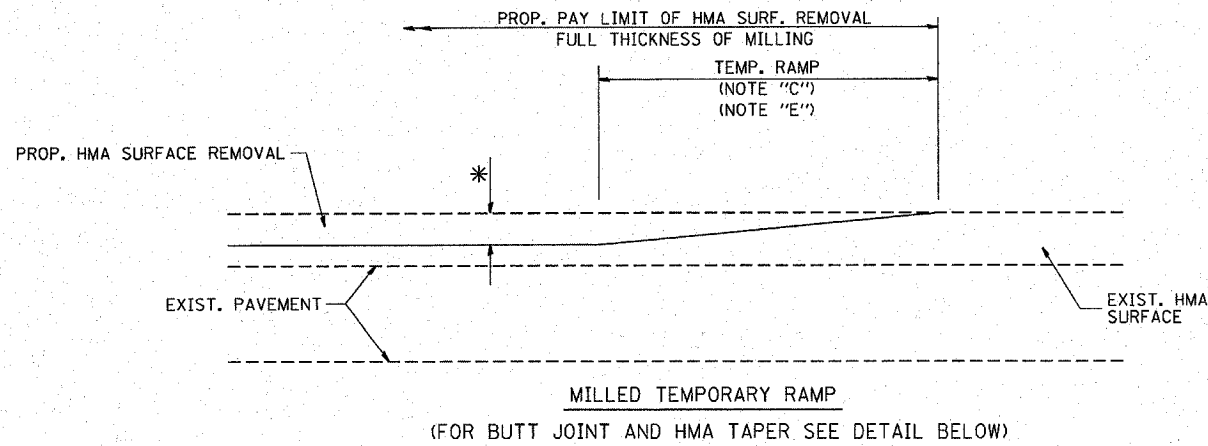
1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION

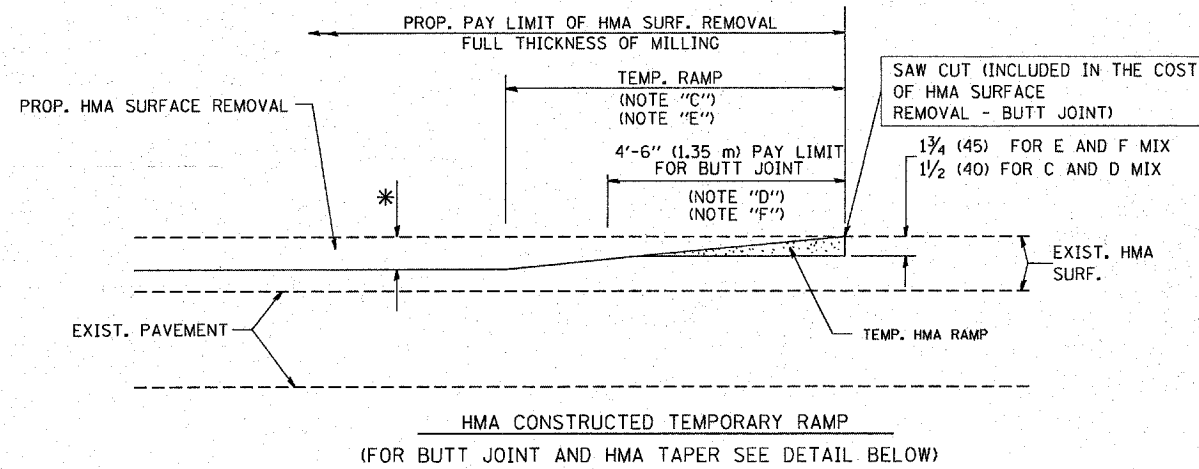
1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE FULL DEPTH PATCHES
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

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

FILE NAME = W:\distsstd\22x34\bd22.dgn	USER NAME = gaglianobt	DESIGNED - R. SHAH	REVISED - A. ABBAS 01-20-98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT			F.A.R. RTE. 349	SECTION 16RS-6	COUNTY WILL	TOTAL SHEETS 21	SHEET NO. 12
	PLOT SCALE = 50,000' / IN.	DRAWN -	REVISED - A. ABBAS 04-27-98		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	BD400-04 (BD-22) CONTRACT NO. 60A98			
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - R. BORO 01-01-07		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
		DATE - 10-25-94	REVISED - R. BORO 09-04-07									

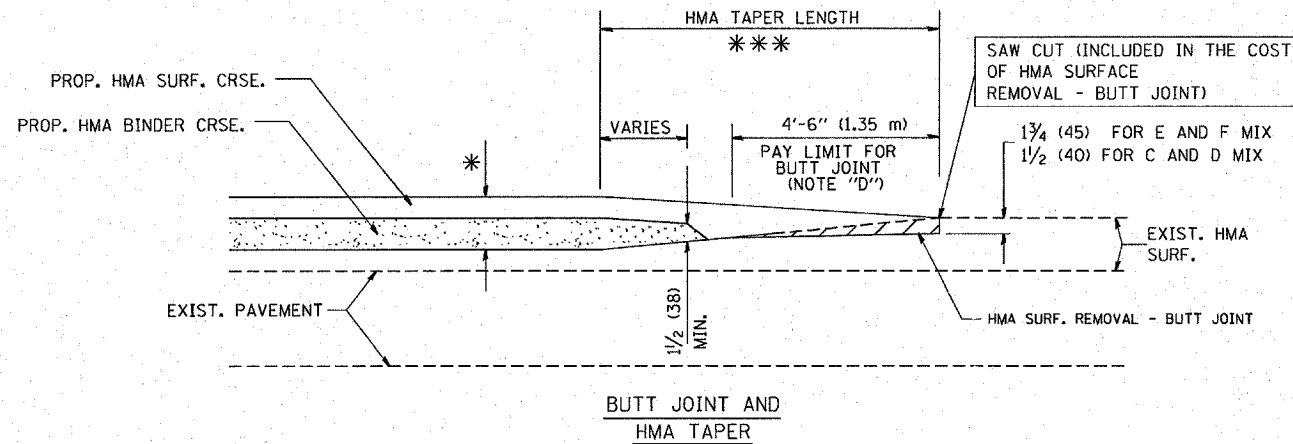


OPTION 1

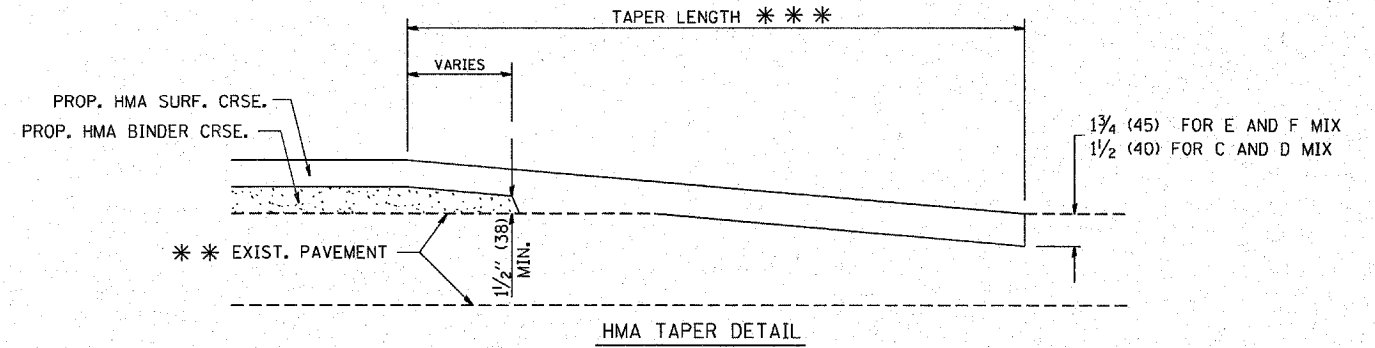
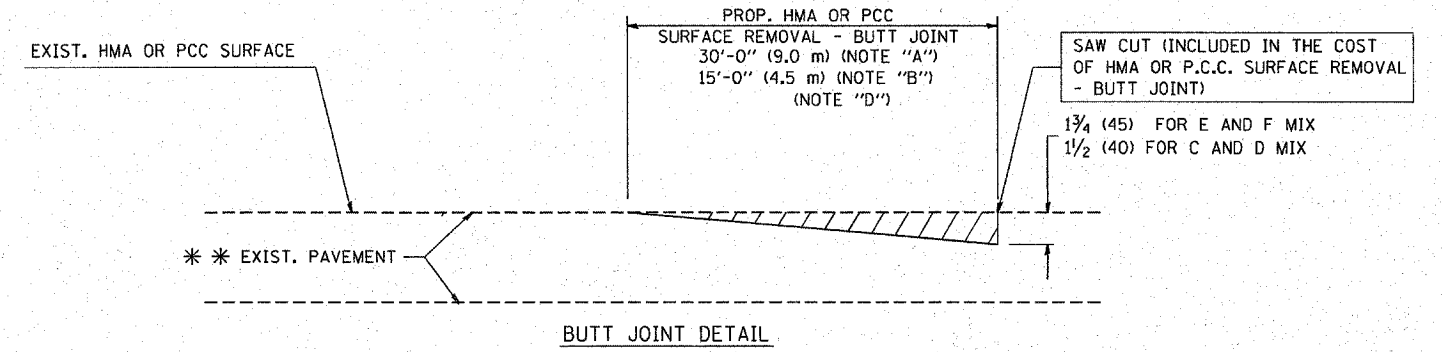


OPTION 2

TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

NOTES

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

BASIS OF PAYMENT:

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

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

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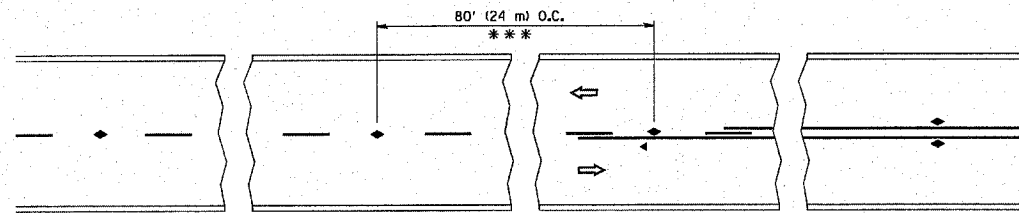
USER NAME = goglianobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - A. ABBAS 03-21-97
PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - M. COMEZ 04-06-01
		REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BUTT JOINT AND
HMA TAPER DETAILS**

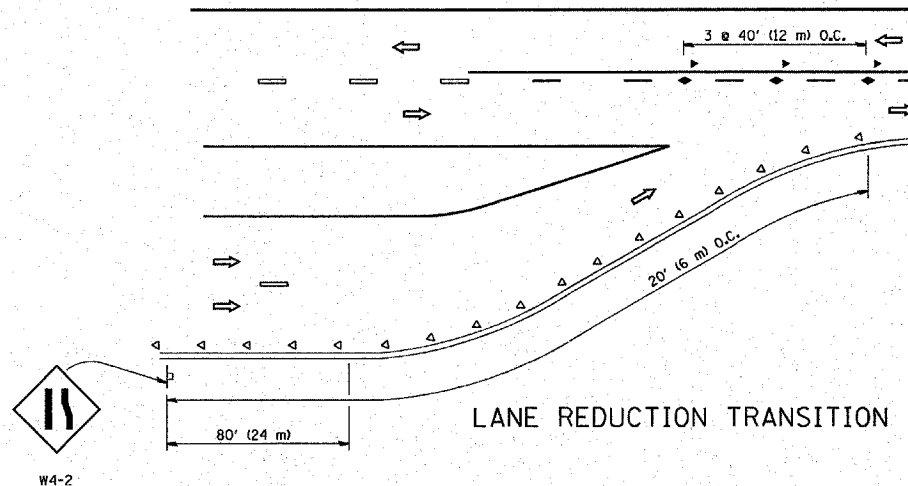
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	16RS-6	WILL	21	13
BD400-05 BD32			CONTRACT NO. 60A98	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

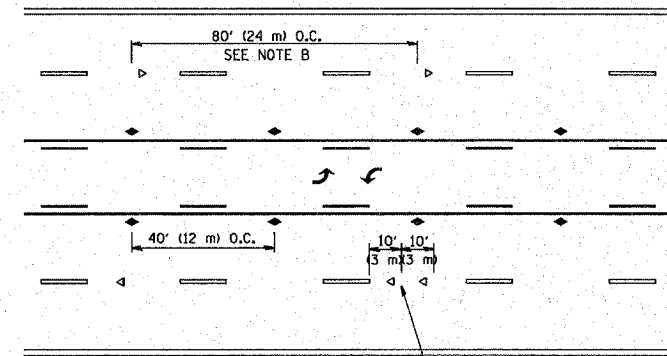


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

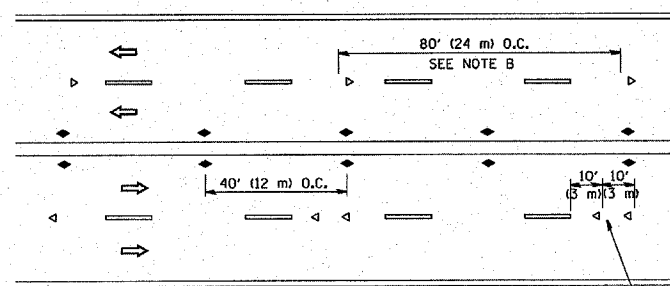
TWO-LANE/TWO-WAY



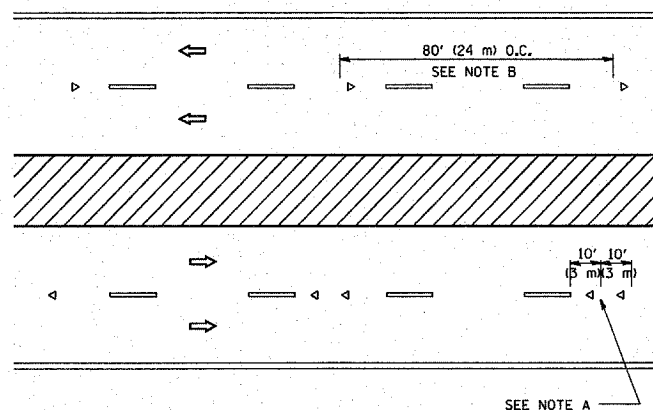
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

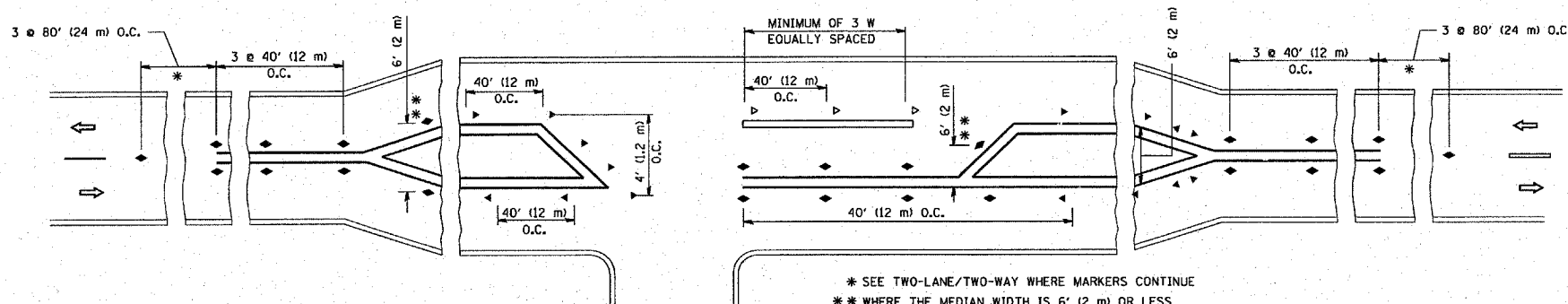
1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE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

SYMBOLS

- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.



LEFT TURN

* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 ** WHERE THE MEDIAN WIDTH IS 6' (1.2 m) OR LESS USE TWO-WAY MARKERS.

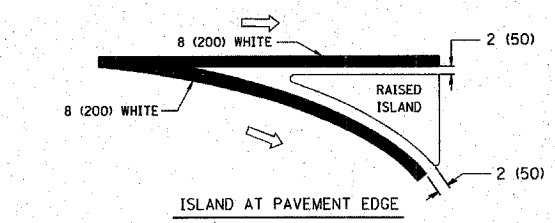
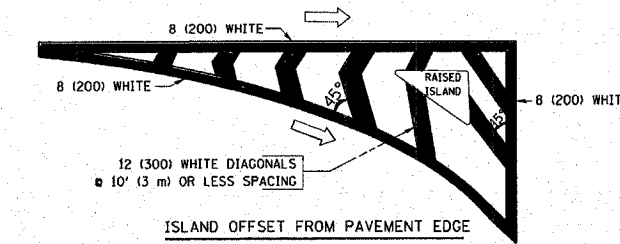
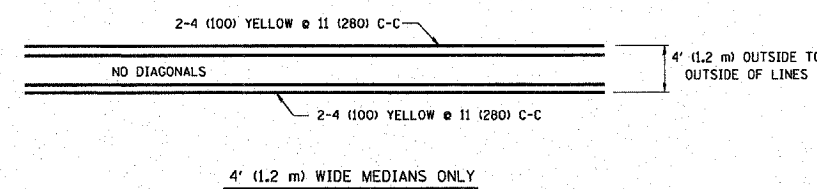
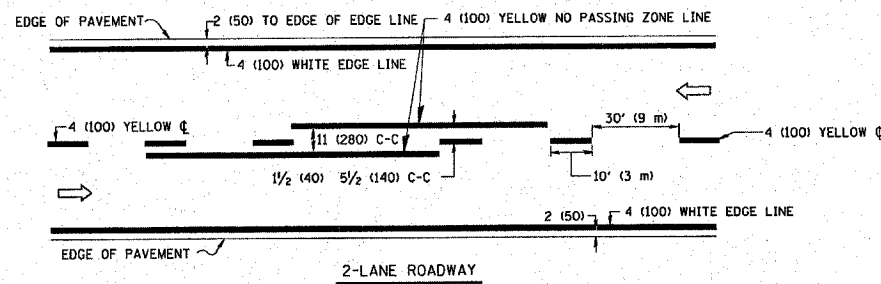
All dimensions are in inches (millimeters) unless otherwise shown.

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	PLOT SCALE = 50,000' / IN.	DRAWN -	REVISED - T. RAMMACHER 03-12-99
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - T. RAMMACHER 01-06-00
		DATE -	REVISED -

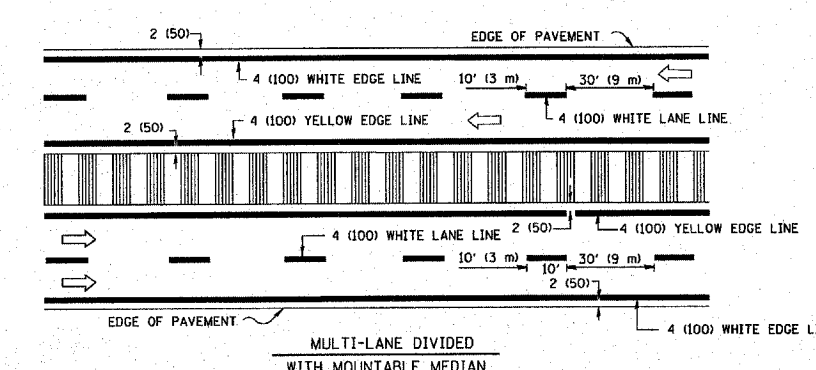
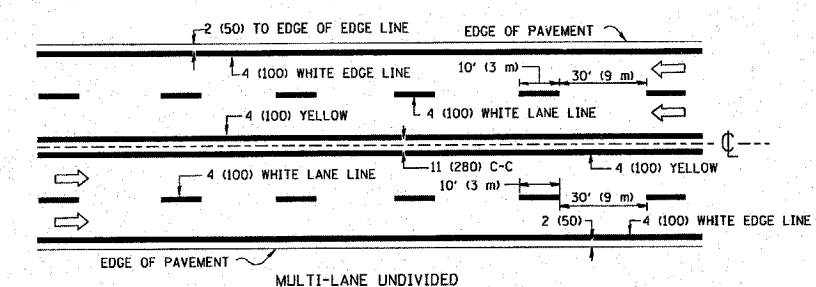
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS			
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	16RS-6	WILL	21	15
TC-11			CONTRACT NO. 60A98	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

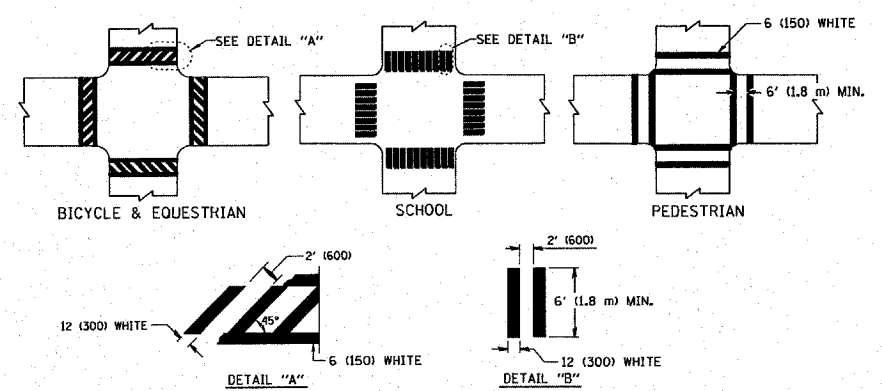


TYPICAL ISLAND MARKING

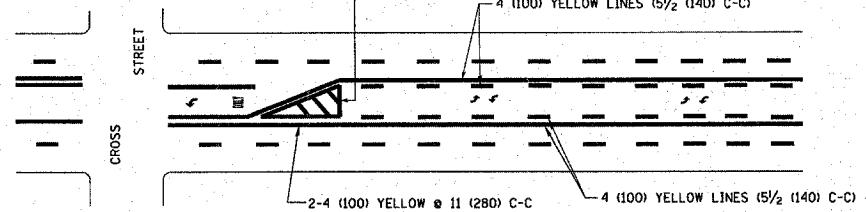
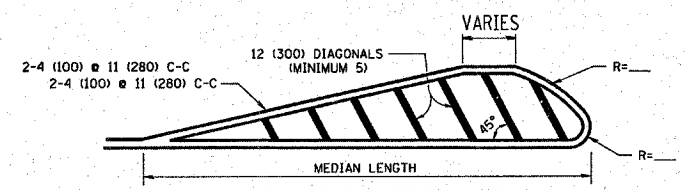


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

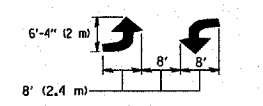
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

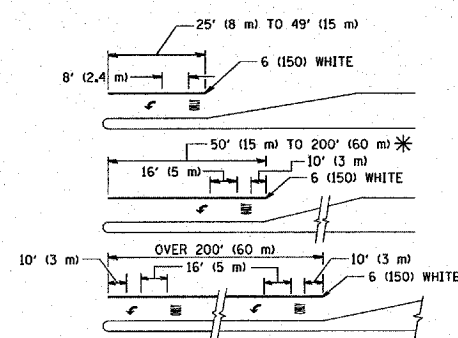


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING



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

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

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE.
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "X"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

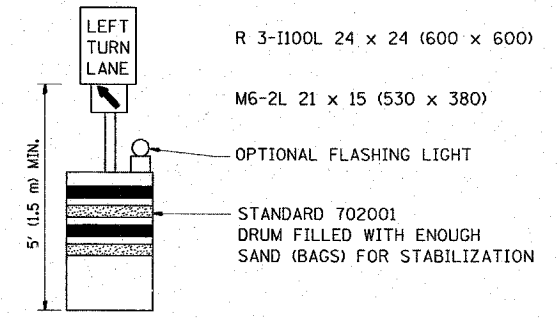
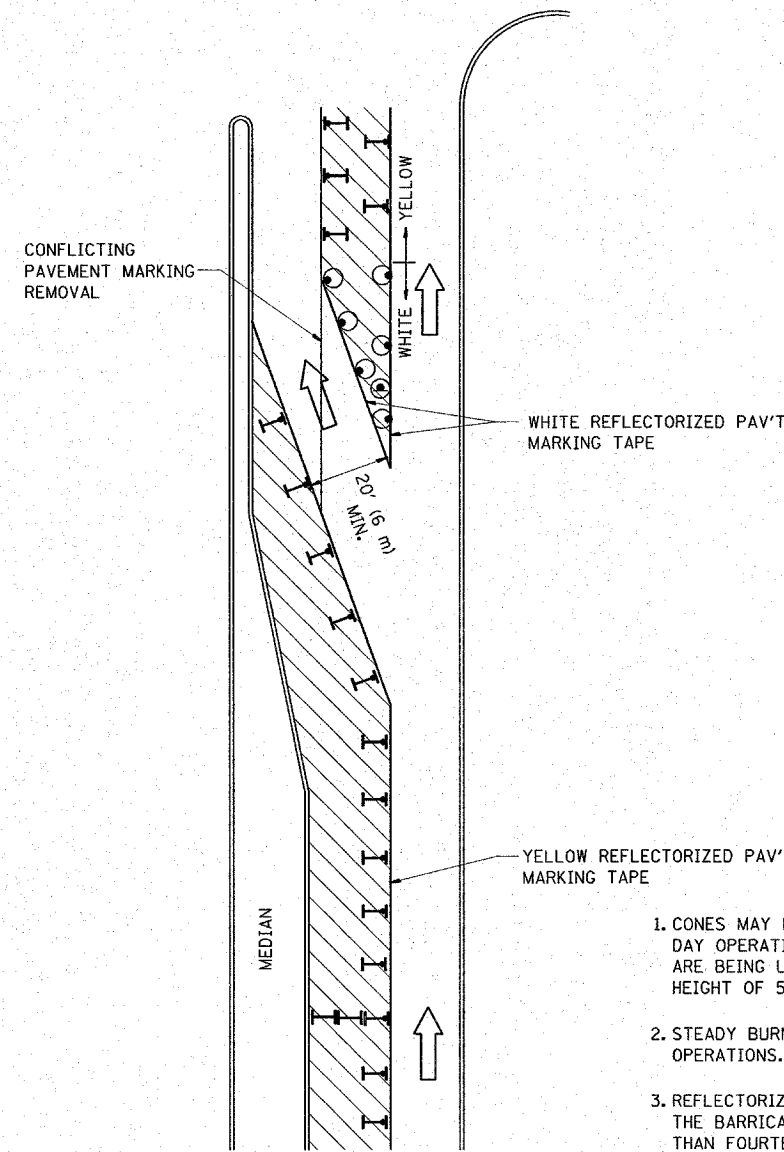
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

FILE NAME = M:\dststd\22x34\vol3.dgn	USER NAME = gaglianob	DESIGNED - EVERS	REVISED - T. RAMMACHER 10-27-94
		DRAWN -	REVISED - A. HOUSEH 10-09-96
		CHECKED -	REVISED - A. HOUSEH 10-17-96
		DATE - 03-19-90	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

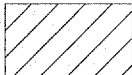
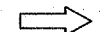




DISTRICT ONE		F.A.P. RTE. 349	SECTION 16RS-6	COUNTY WILL	TOTAL SHEETS 21	SHEET NO. 16
TYPICAL PAVEMENT MARKINGS		TC-13		CONTRACT NO. 60A98		
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		



GENERAL NOTES

1. 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. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. 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" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM BT 725 IS REQUIRED.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

LEGEND

-  WORK AREA
-  LANE OPEN TO TRAFFIC
-  TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
-  DRUM WITH STEADY BURN LIGHT
-  DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
-  TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

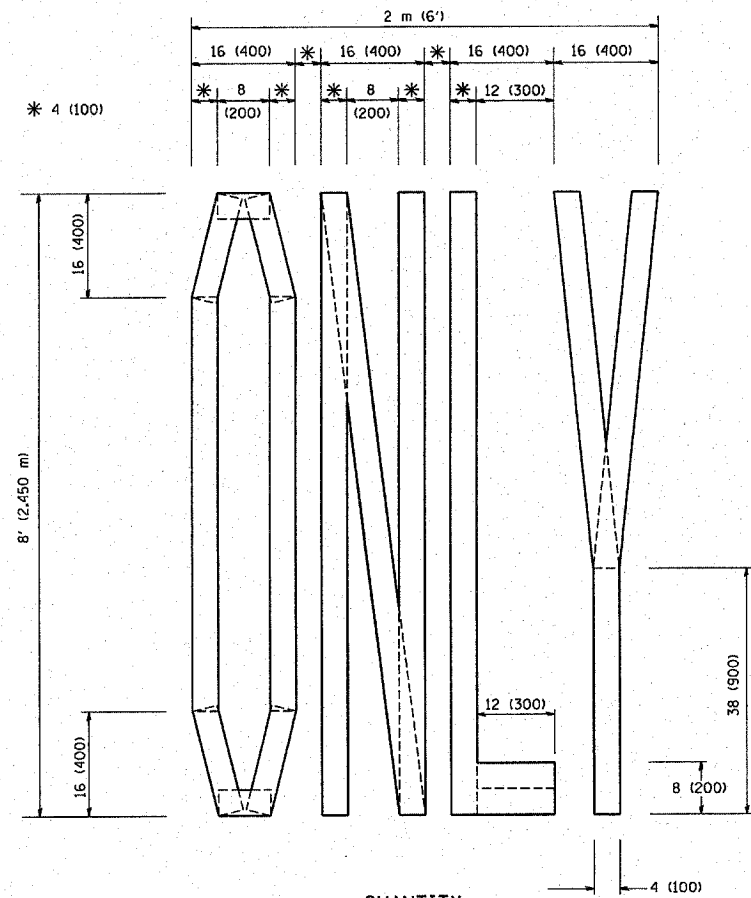
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = midujo	DESIGNED -	REVISED -T. RAMMACHER 09-08-94
W:\diststd\22x34\tbl4.dgn		DRAWN -	REVISED - A. HOUSEH 11-07-95
		PLOT SCALE = 50.0000' / IN.	REVISED - A. HOUSEH 10-12-96
		PLOT DATE = 3/18/2008	REVISED -T. RAMMACHER 01-06-00
		CHECKED -	
		DATE -	

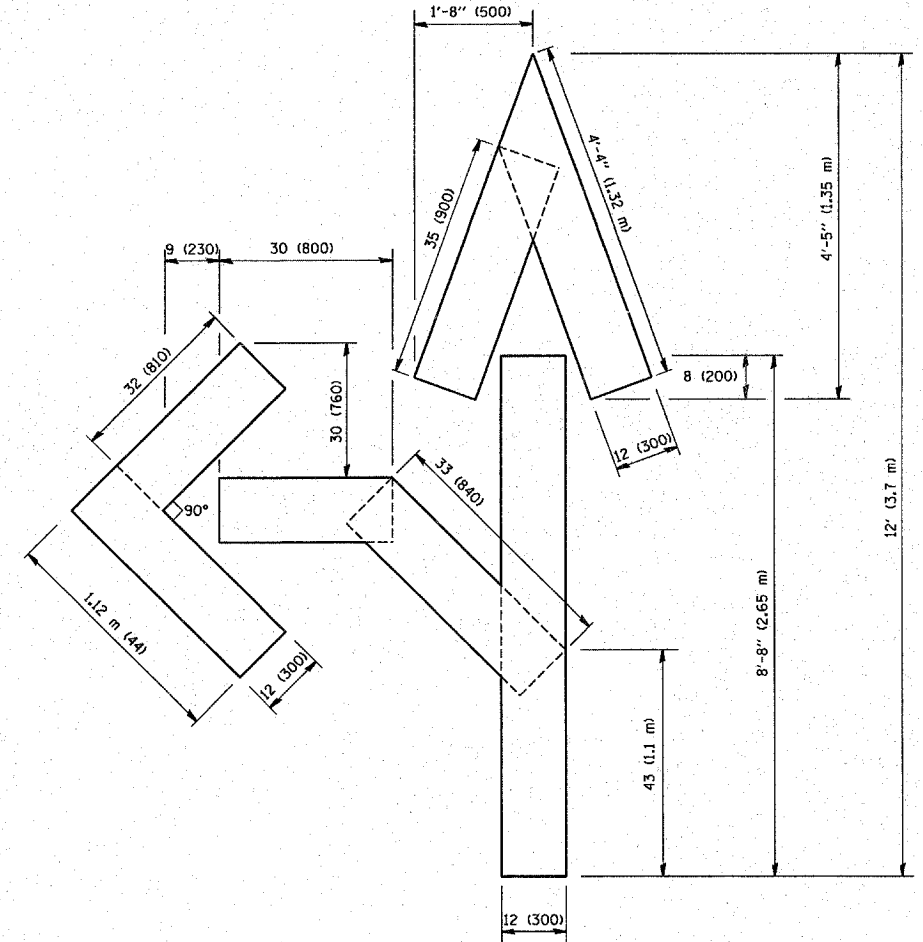
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

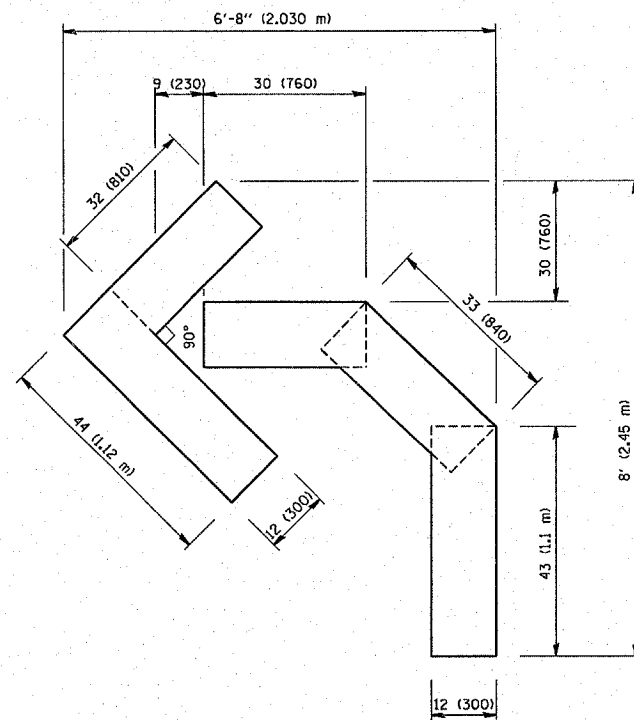
F.A.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	16RS-6	WILL	21	17
TC-14		CONTRACT NO. 60A98		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



QUANTITY
 4 (100) LINE = 64.1 ft. (19.7 m)
 21.1 sq. ft. (1.97 sq. m)



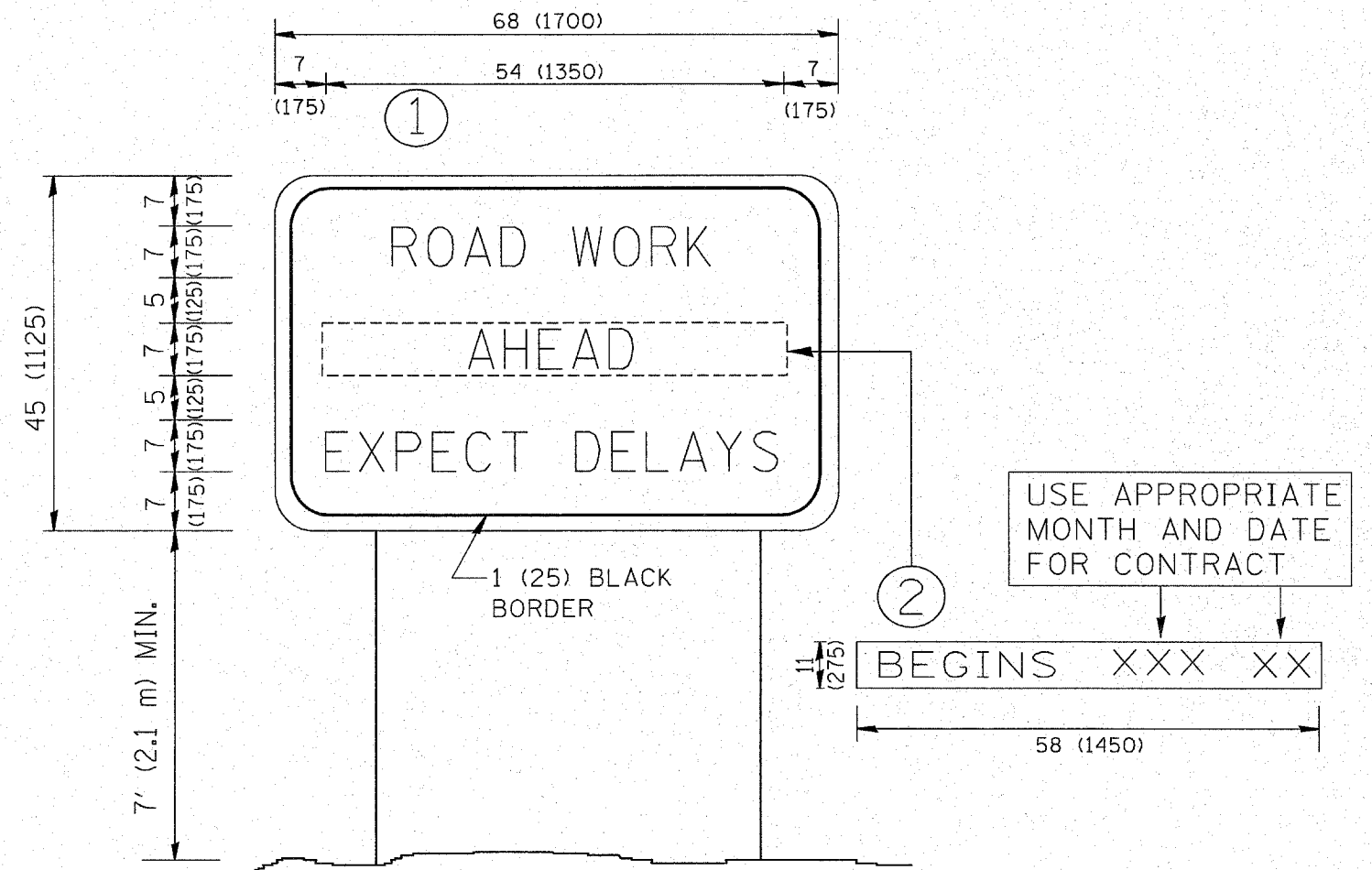
QUANTITY
 4 (100) LINE = 82.5 ft. (25.3 m)
 27.5 sq. ft. (2.53 sq. m)



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

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

FILE NAME = W:\d1ststd\22x34\tcl16.dgn	USER NAME = geglionbt	DESIGNED -	REVISED -T. RAMMACHER 06-05-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING			F.A.P. RTE. 349	SECTION 16RS-6	COUNTY WILL	TOTAL SHEETS 21	SHEET NO. 18
	PLOT SCALE = 50.0000 "/ IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	TC-16 CONTRACT NO. 60A98			
	PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			



NOTES:

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

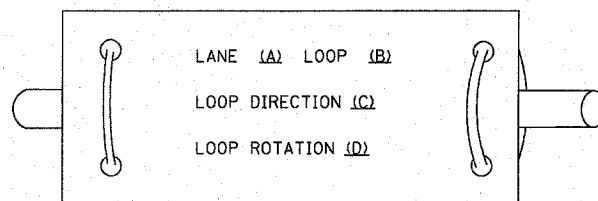
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = goglianobt	DESIGNED - DRAWN -	REVISED - R. MIRS 09-15-97 REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARTERIAL ROAD INFORMATION SIGN	F.A.P. RTE. 349	SECTION 16RS-6	COUNTY WILL	TOTAL SHEETS 21	SHEET NO. 19		
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		
	PLOT DATE = 1/1/2000	DATE -	REVISED - C. JUICIUS 01-31-07			CONTRACT NO. 60A98						

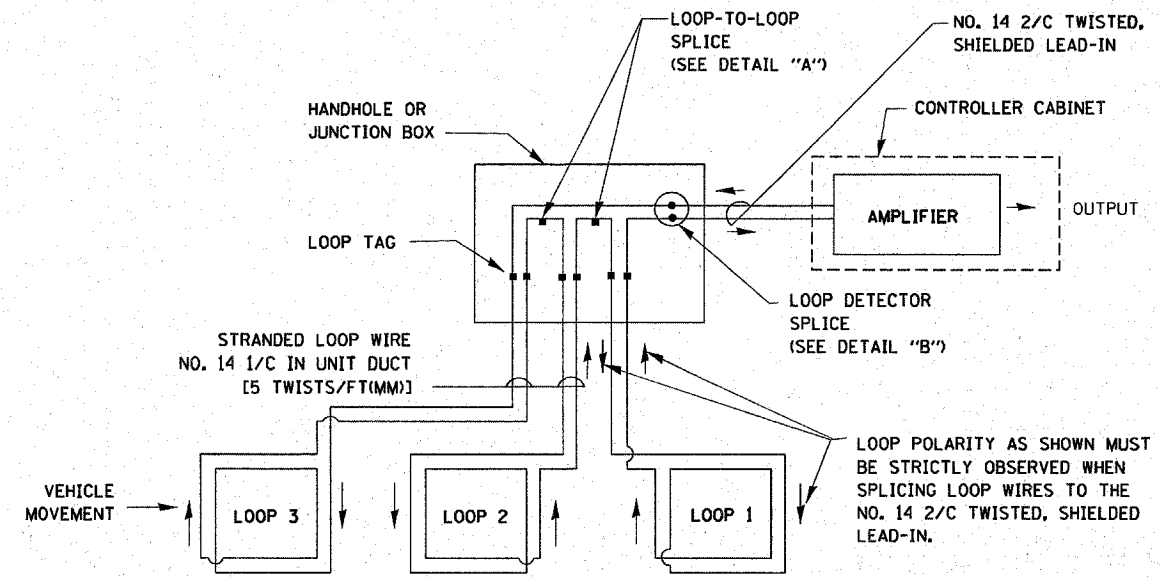
LOOP DETECTOR NOTES

- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT 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.
- 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.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVESHOLES 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.
- PERFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PERFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

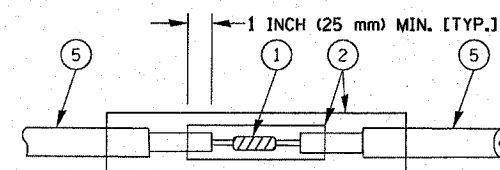


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

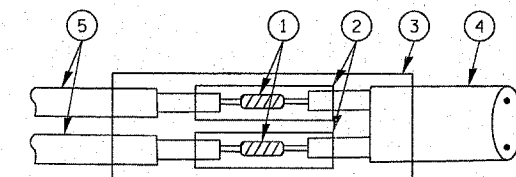


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

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

FILE NAME = W:\diststd\22x34\ts05.dgn	USER NAME = goglianobt	DESIGNED - D.A.D.	REVISED - 11-12-01
		DRAWN - R.W.P.	REVISED - BUR. TRAFFIC 01-01-02
		CHECKED - D.A.Z.	REVISED -
		DATE - 05-30-00	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

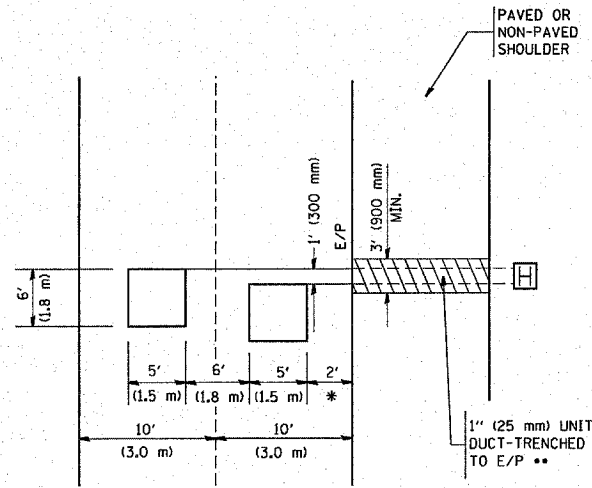
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE SHEET NO. 1 OF 4 SHEETS STA. TO STA.

F.A.P. RTE. 349	SECTION 16RS-6	COUNTY WILL	TOTAL SHEETS 21	SHEET NO. 20
TS-05			CONTRACT NO. 60A98	
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				

LOOPS NEXT TO SHOULDERS

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

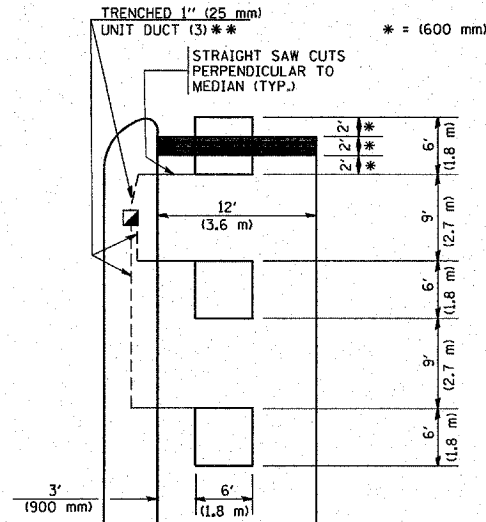


* = (600 mm)

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

**LEFT TURN LANES WITH MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)**

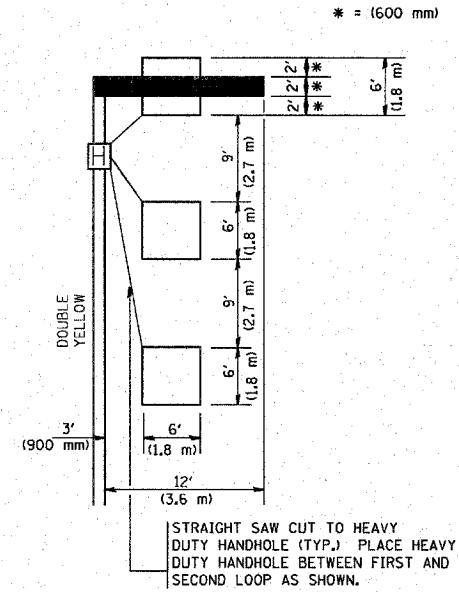
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.



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

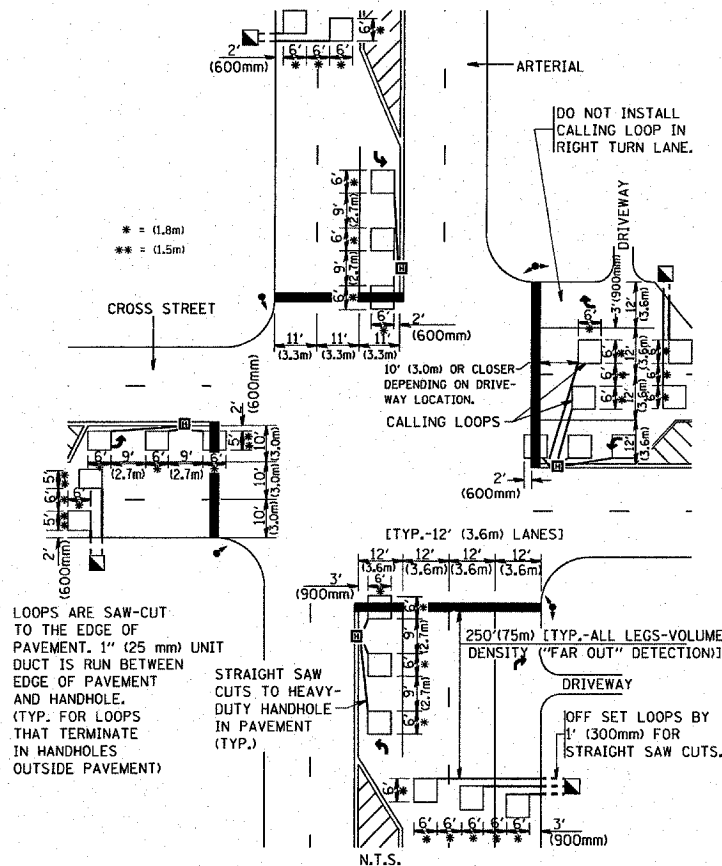
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



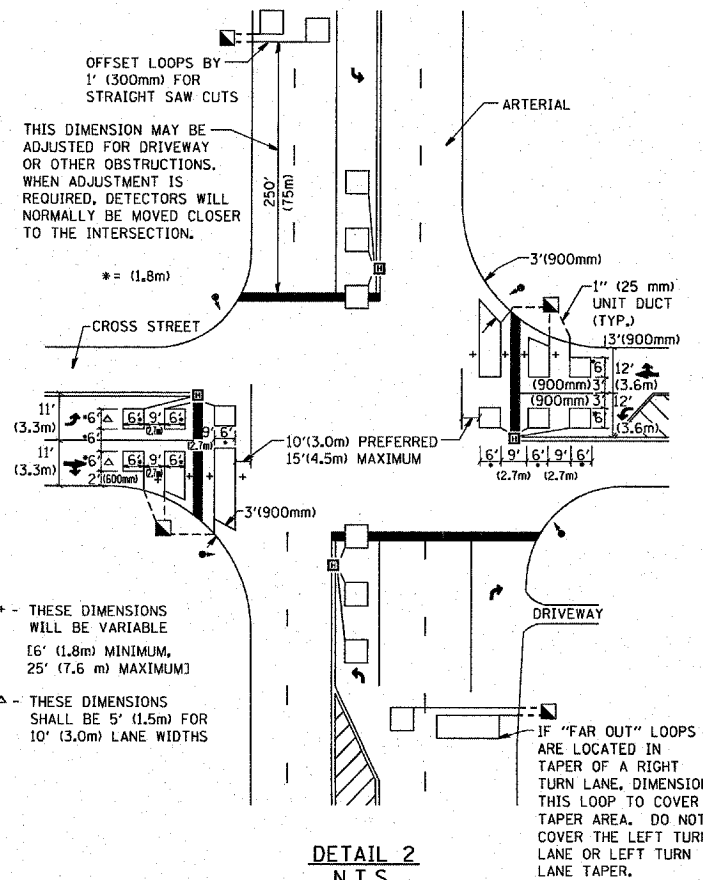
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



DETAIL 1
N.T.S.

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



DETAIL 2
N.T.S.

NOTES:

VEHICLES LOOP DETECTORS

- * ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATELY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- * ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- * EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- * WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
- * WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DIMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

NOTE:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

FILE NAME = W:\diststd\22x34\ts07.dgn

USER NAME = gegienobt
PLOT SCALE = 50.0000 / IN.
PLOT DATE = 1/4/2008

DESIGNED -
DRAWN -
CHECKED - R.K.F.
DATE -

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1 - DETECTOR LOOP INSTALLATION
DETAILS FOR ROADWAY RESURFACING**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 349	SECTION 16RS-6	COUNTY WILL	TOTAL SHEETS 21	SHEET NO. 21
TS-07		CONTRACT NO. 60A98		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				