

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	CY-RS-6	LAKE	21	1
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 60H90		

D-91-830-09

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**PROPOSED**  
**HIGHWAY PLANS**

**F.A.U. 2706: ILLINOIS ROUTE 43 (WAUKEGAN RD.)**  
**ILLINOIS ROUTE 60 TO GAGE LANE**  
**SECTION: CY-RS-6**  
**RESURFACING (3P)**  
**LAKE COUNTY**  
**C-91-830-09**  
**PROJECT: ESP-2706(106)**

FOR INDEX OF SHEETS, SEE SHEET NO. 2




LOCATION OF SECTION INDICATED THUS: —■—

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**

SUBMITTED July 13, 20 09  
*Diana M. O'Keefe*  
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

August 14, 20 09  
*Charles J. Ingersoll*  
 ENGINEER OF DESIGN AND ENVIRONMENT

August 14, 20 09  
*Christine M. Reed*  
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

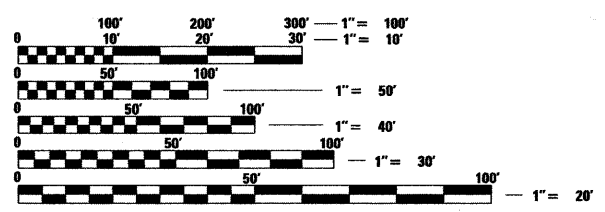


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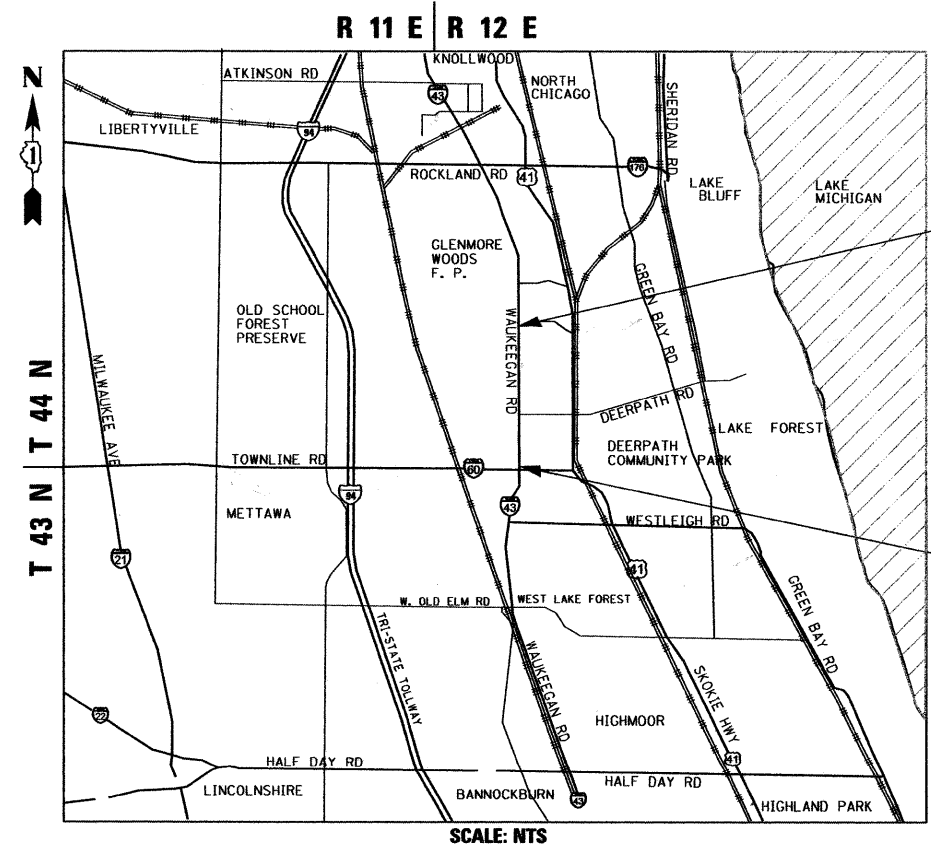
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**TRAFFIC DATA**  
**IL ROUTE 43**  
**2007 ADT=25,600**  
**SPEED LIMIT=45 MPH**



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



**IMPROVEMENT ENDS**  
**STA. 338 + 95**

**IMPROVEMENT BEGINS**  
**STA. 252 + 88**

MILLENNIA PROFESSIONAL SERVICES  
 THOMAS V. NGO, P.E.  
 \* 062-058379



*Thomas V. Ngo*  
 DATE: 07/07/09  
 SIGNATURE AND SEAL APPLIES TO DRWG.

**SHIELDS TOWNSHIPS**  
**GROSS & NET LENGTH OF PROJECT = 8,607 FT = 1.63 MILES**

**DISTRICT ONE -**  
**PROJECT MANAGER: LONG TRAN (847) 705-4232**  
**PROJECT ENGINEER: MICHELLE AQUINO (847) 705-4606**  
**CONTRACT NO. 60H90**

**INDEX OF SHEETS**

- 1 COVER SHEET
- 2 INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, AND COMMITMENTS
- 3 SUMMARY OF QUANTITIES
- 4-4 TYPICAL SECTIONS
- 5-8 ROADWAY AND PAVEMENT MARKING PLAN
- 9-11 LOOP DETECTORS PLAN
- 12 DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING (BD08)
- 13 PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT (BD22)
- 14 CURB OR CURB AND GUTTER REMOVAL AND REPLACE (BD24)
- 15 BUTT JOINTS AND HMA TAPER (BD32)
- 16 TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS (TC10)
- 17 RAISED REFLECTIVE PAVEMENT MARKERS, SNOW PLOW RESISTANT (TC11)
- 18 DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC13)
- 19 PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING (TC-16)
- 20 ARTERIAL ROAD INFORMATION SIGN (TC22)
- 21 DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACE (TS-07)

HIGHWAY STANDARDS

**LIST OF ILLINOIS DOT HIGHWAY STANDARDS**

- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
- 442201-03 CLASS C AND D PATCHES
- 482011-03 HMA SHLD. STRIPS/SHLDS. WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS
- 606001-04 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
- 701421-02 LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY FOR SPEEDS > OR = 45 MPH TO 55 MPH
- 701426-03 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS FOR SPEEDS > OR = 45 MPH
- 701701-06 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701901-01 TRAFFIC CONTROL DEVICES
- 780001-02 TYPICAL PAVEMENT MARKINGS

**COMMITMENTS**

NO COMMITMENTS FOR THIS PROJECT

**GENERAL NOTES**

1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. 48 HOUR NOTIFICATION IS REQUIRED.
2. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH THE UTILITY COMPANIES, CITY OF LAKE FOREST AND VILLAGE OF LAKE BLUFF.
3. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
4. ANY PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS OBLITERATED BY MILLING AND RESURFACING OPERATIONS ON SIDE STREETS AND ENTRANCES SHALL BE REPLACED AND PAID FOR IN KIND.
5. ALL DAMAGE TO EXISTING PAVEMENT MARKING OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTORS EXPENSE. NO ADDITIONAL COST TO THE DEPARTMENT.
6. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCES, ALL EXISTING PAVEMENT MARKING LINES AND RAISED REFLECTIVE PAVEMENT MARKERS IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL STRIPING SHALL BE AS DIRECTED BY THE ENGINEER.
7. ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
8. LOCATIONS OF COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT, WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
9. DRAINAGE ADJUSTMENT OR RECONSTRUCTION LOCATIONS WILL BE DETERMINED IN THE BY THE ENGINEER.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.
11. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
12. THE ENGINEER SHALL CONTACT DEBBIE HANLON, THE TRAFFIC FIELD TECHNICIAN AT (847) 438-2300 A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
13. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
14. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
15. DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL "TYPICAL APPLICATIONS - RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" SHOWN ON THE PLANS.
16. 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).
17. BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINT AND HOT-MIX ASPHALT TAPER DETAILS" SHEET INCLUDED IN THE PLANS UNLESS OTHERWISE SPECIFIED.
18. PAVEMENT MARKING TAPE, TYPE III SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES. THE COST OF THE PAVEMENT MARKING TAPE, TYPE III AND IT'S REMOVAL SHALL BE INCLUDED IN THE COST OF SHORT TERM PAVEMENT MARKING.
19. THE CONTRACTOR SHALL PLACE PROPOSED PAVEMENT MARKINGS IN ACCORDANCE WITH DISTRICT 1 TYPICAL PAVEMENT MARKINGS DETAIL (TC-13).

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 USER NAME : Millennium Engineering



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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 43  
 ILLINOIS ROUTE 60 TO GAGE LANE**

**INDEX OF SHEETS, LIST OF IDOT  
 HIGHWAY STANDARD, GENERAL NOTES,  
 AND COMMITMENTS**

SCALE: NTS SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	CY-RS-6	LAKE	21	2
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60H90	

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URBAN  
100% FED.

CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTRUCTION TYPE CODE	
				1000 QUANTITY	
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	20	20	
40600300	AGGREGATE (PRIME COAT)	TON	96	96	
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	15	15	
40600895	CONSTRUCTING TEST STRIP	EACH	2	2	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	271	271	
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	222	222	
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	4690	4690	
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	47786	47786	
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	1510	1510	
44002216	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 4"	SQ YD	991	991	
44201761	CLASS D PATCHES, TYPE I, 10 INCH	SQ YD	84	84	
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SQ YD	336	336	
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SQ YD	384	384	
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SQ YD	187	187	
NP 55039700	STORM SEWERS TO BE CLEANED	FOOT	1575	1575	
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	10	10	
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	50	50	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6	
67100100	MOBILIZATION	L SUM	1	1	
70100310	TRAFFIC CONTROL AND PROTECTION, STANDARD 701421	L SUM	1	1	
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1	
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	9920	9920	
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	261	261	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	24690	24690	
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	1820	1820	
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	460	460	
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	490	490	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1102	1102	
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	261	261	

URBAN  
100% FED.

CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTRUCTION TYPE CODE	
				1000 QUANTITY	
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	24690	24690	
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1820	1820	
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	460	460	
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	490	490	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	887	887	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	887	887	
* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	1592	1592	
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	104	104	
X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	2010	2010	
NP Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	45	45	
⊙ Z0076600	TRAINEES	HOUR	500	500	

\* SPECIALTY ITEM  
NP = Non-participating  
⊙ Y080

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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 43**  
**ILLINOIS ROUTE 60 TO GAGE LANE**

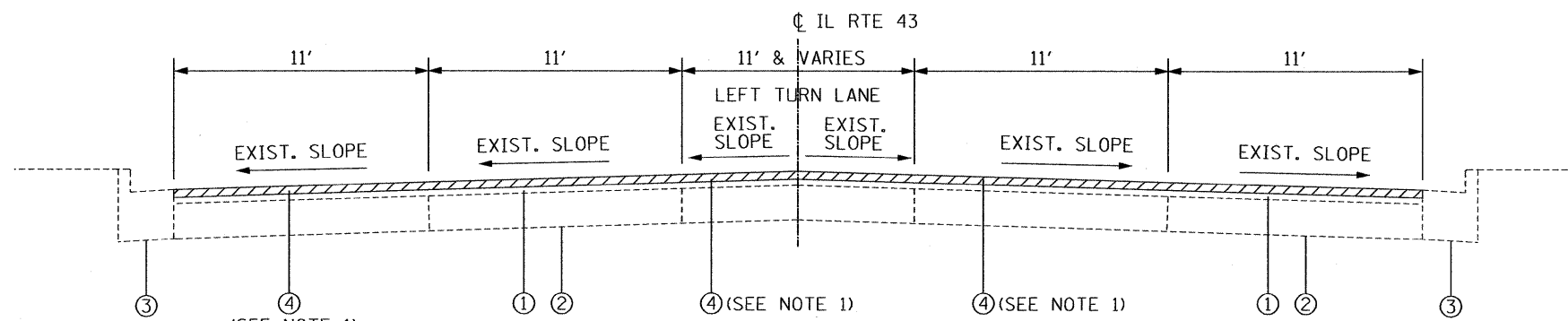
**SUMMARY OF QUANTITIES**

F.A.U. RTE. 2706	SECTION CY-RS-6	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 3
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60H90	

SCALE: NTS SHEET NO. OF SHEETS STA. TO STA.

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**EXISTING TYPICAL SECTION**

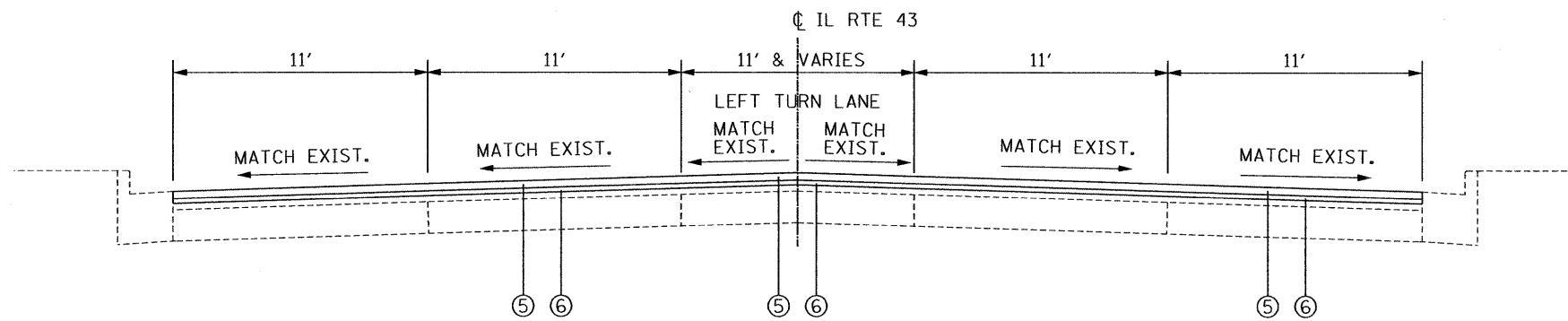
IL ROUTE 43 (WAUKEGAN RD)  
STA. 252+88 TO STA. 339+95

**LEGEND**

- ① EXISTING +/-4" HMA SURFACE
- ② EXISTING +/-10" P.C.C. BASE
- ③ EXISTING B-6.24 CURB AND GUTTER
- ④ HMA SURFACE REMOVAL - 2 1/2" (SEE NOTE 1)
- ⑤ POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL-9.5MM) -1 3/4"
- ⑥ POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 -3/4"

**NOTES**

- 1. THE CONTRACTOR SHALL PERFORM THE PAVEMENT PATCHING OPERATIONS PRIOR TO THE HMA SURFACE REMOVAL OPERATION. SEE IDOT DISTRICT 1 DETAIL PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT BD-400-04 (BD-22) FOR ADDITIONAL INFORMATION.



**PROPOSED TYPICAL SECTION**

IL ROUTE 43 (WAUKEGAN RD)  
STA. 252+88 TO STA. 339+95

HMA MIXTURES REQUIREMENT		
MIXTURE USES	AC TYPE	VOIDS
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL-9.5mm)	SBS/SBR PG 70-22	4% @ 90 GYR.
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	SBS/SBR PG 76-28/-22	4% @ 50 GYR.
CLASS D PATCHES (HMA BINDER IL-19 MM)	PG 64-22	4% @ 70 GYR.
HMA REPLACEMENT OVER PATCHES (HMA BINDER IL-19MM)	PG 64-22	4% @ 70 GYR.

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

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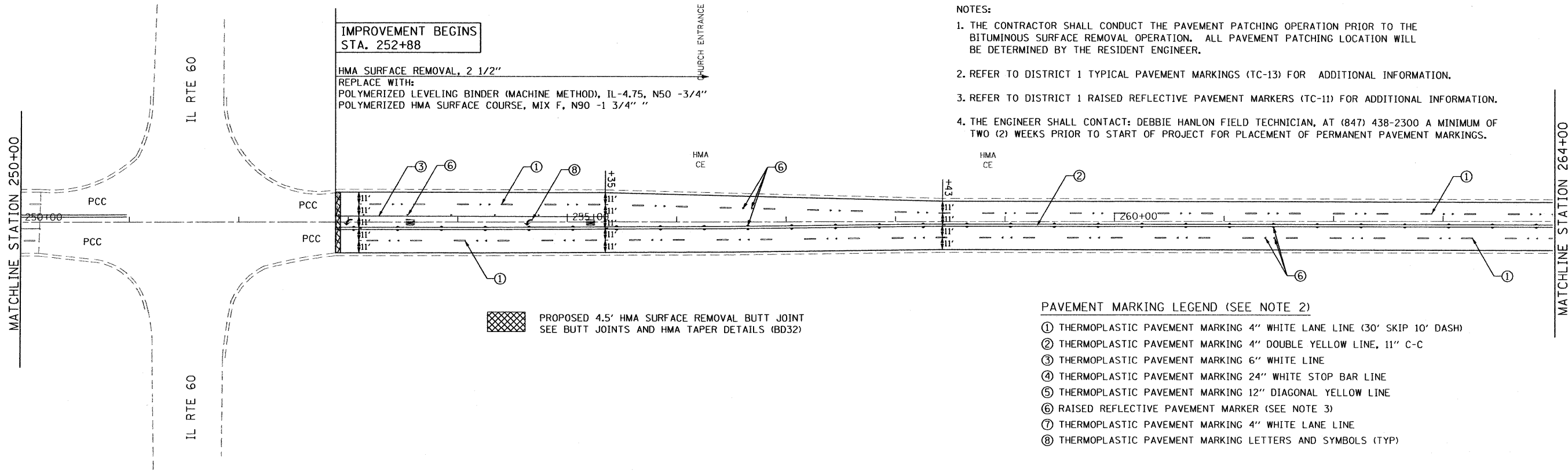
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 43  
ILLINOIS ROUTE 60 TO GAGE LANE**  
SCALE: NTS SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE. 2706	SECTION CY-RS-6	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 4
CONTRACT NO. 60H90				

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 USER NAME : Millennium Engineering



**IMPROVEMENT BEGINS  
 STA. 252+88**

HMA SURFACE REMOVAL, 2 1/2"  
 REPLACE WITH:  
 POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 -3/4"  
 POLYMERIZED HMA SURFACE COURSE, MIX F, N90 -1 3/4" "

- NOTES:**
1. THE CONTRACTOR SHALL CONDUCT THE PAVEMENT PATCHING OPERATION PRIOR TO THE BITUMINOUS SURFACE REMOVAL OPERATION. ALL PAVEMENT PATCHING LOCATION WILL BE DETERMINED BY THE RESIDENT ENGINEER.
  2. REFER TO DISTRICT 1 TYPICAL PAVEMENT MARKINGS (TC-13) FOR ADDITIONAL INFORMATION.
  3. REFER TO DISTRICT 1 RAISED REFLECTIVE PAVEMENT MARKERS (TC-11) FOR ADDITIONAL INFORMATION.
  4. THE ENGINEER SHALL CONTACT: DEBBIE HANLON FIELD TECHNICIAN, AT (847) 438-2300 A MINIMUM OF TWO (2) WEEKS PRIOR TO START OF PROJECT FOR PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

PROPOSED 4.5' HMA SURFACE REMOVAL BUTT JOINT  
 SEE BUTT JOINTS AND HMA TAPER DETAILS (BD32)

**PAVEMENT MARKING LEGEND (SEE NOTE 2)**

- ① THERMOPLASTIC PAVEMENT MARKING 4" WHITE LANE LINE (30' SKIP 10' DASH)
- ② THERMOPLASTIC PAVEMENT MARKING 4" DOUBLE YELLOW LINE, 11" C-C
- ③ THERMOPLASTIC PAVEMENT MARKING 6" WHITE LINE
- ④ THERMOPLASTIC PAVEMENT MARKING 24" WHITE STOP BAR LINE
- ⑤ THERMOPLASTIC PAVEMENT MARKING 12" DIAGONAL YELLOW LINE
- ⑥ RAISED REFLECTIVE PAVEMENT MARKER (SEE NOTE 3)
- ⑦ THERMOPLASTIC PAVEMENT MARKING 4" WHITE LANE LINE
- ⑧ THERMOPLASTIC PAVEMENT MARKING LETTERS AND SYMBOLS (TYP)



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**STATE OF ILLINOIS  
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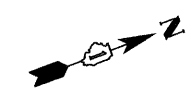
**IL ROUTE 43  
 ILLINOIS ROUTE 60 TO GAGE LANE**

**ROADWAY &  
 PAVEMENT MARKING PLAN**

SCALE: 1"=50'    SHEET NO.    OF    SHEETS    STA. 237+00 TO STA. 264+00

F.A.U. RTE. 2706	SECTION CY-RS-6	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 5
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT NO. 60H90				

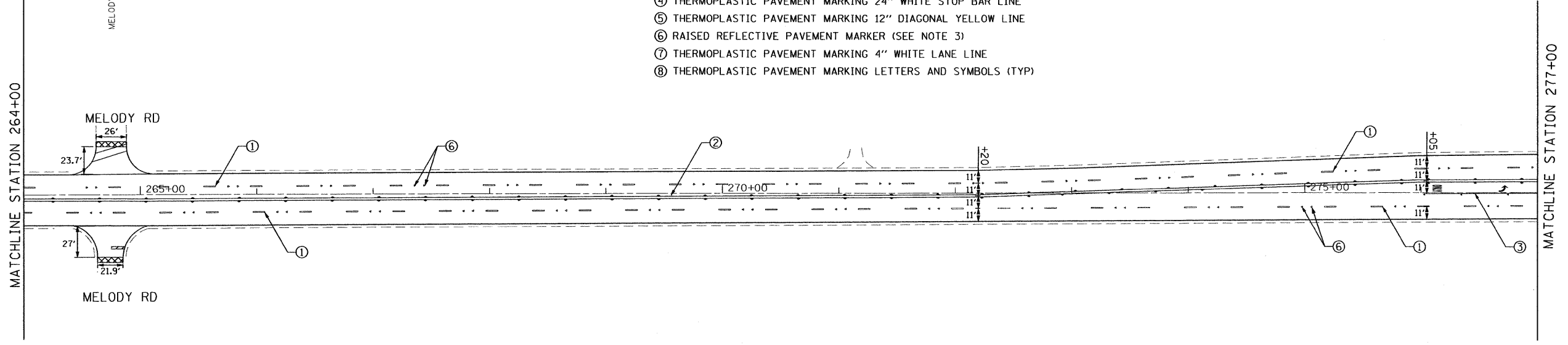
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PAVEMENT MARKING LEGEND (SEE NOTE 2)

- ① THERMOPLASTIC PAVEMENT MARKING 4" WHITE LANE LINE (30' SKIP 10' DASH)
- ② THERMOPLASTIC PAVEMENT MARKING 4" DOUBLE YELLOW LINE, 11" C-C
- ③ THERMOPLASTIC PAVEMENT MARKING 6" WHITE LINE
- ④ THERMOPLASTIC PAVEMENT MARKING 24" WHITE STOP BAR LINE
- ⑤ THERMOPLASTIC PAVEMENT MARKING 12" DIAGONAL YELLOW LINE
- ⑥ RAISED REFLECTIVE PAVEMENT MARKER (SEE NOTE 3)
- ⑦ THERMOPLASTIC PAVEMENT MARKING 4" WHITE LANE LINE
- ⑧ THERMOPLASTIC PAVEMENT MARKING LETTERS AND SYMBOLS (TYP)

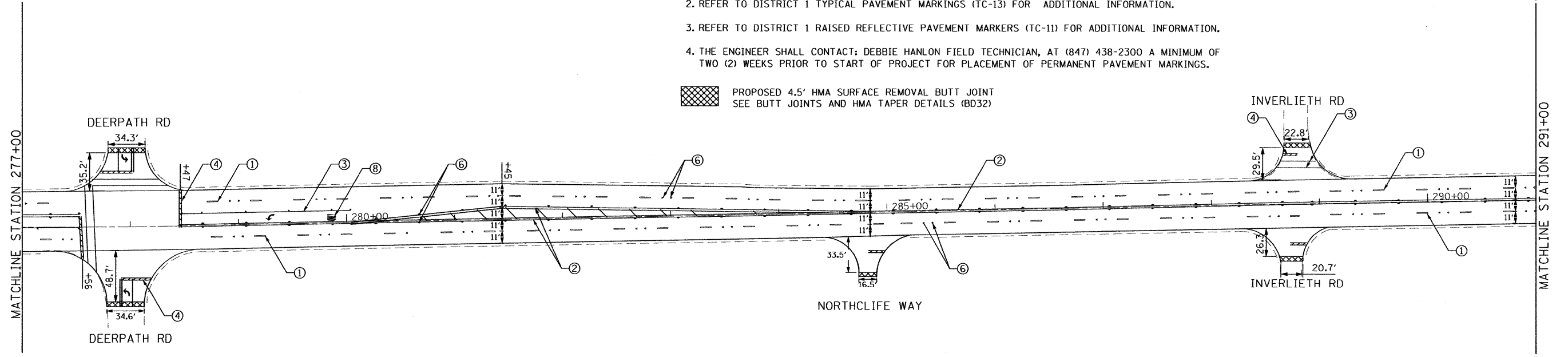
HMA SURFACE REMOVAL, 2 1/2"  
 REPLACE WITH:  
 POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 -3/4"  
 POLYMERIZED HMA SURFACE COURSE, MIX F, N90 -1 3/4" "



NOTES:

1. THE CONTRACTOR SHALL CONDUCT THE PAVEMENT PATCHING OPERATION PRIOR TO THE BITUMINIOUS SURFACE REMOVAL OPERATION. ALL PAVEMENT PATCHING LOCATION WILL BE DETERMINED BY THE RESIDENT ENGINEER.
2. REFER TO DISTRICT 1 TYPICAL PAVEMENT MARKINGS (TC-13) FOR ADDITIONAL INFORMATION.
3. REFER TO DISTRICT 1 RAISED REFLECTIVE PAVEMENT MARKERS (TC-11) FOR ADDITIONAL INFORMATION.
4. THE ENGINEER SHALL CONTACT: DEBBIE HANLON FIELD TECHNICIAN, AT (847) 438-2300 A MINIMUM OF TWO (2) WEEKS PRIOR TO START OF PROJECT FOR PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

PROPOSED 4.5' HMA SURFACE REMOVAL BUTT JOINT  
 SEE BUTT JOINTS AND HMA TAPER DETAILS (BD32)



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 USER NAME : PHILIPPO ENGINEERING

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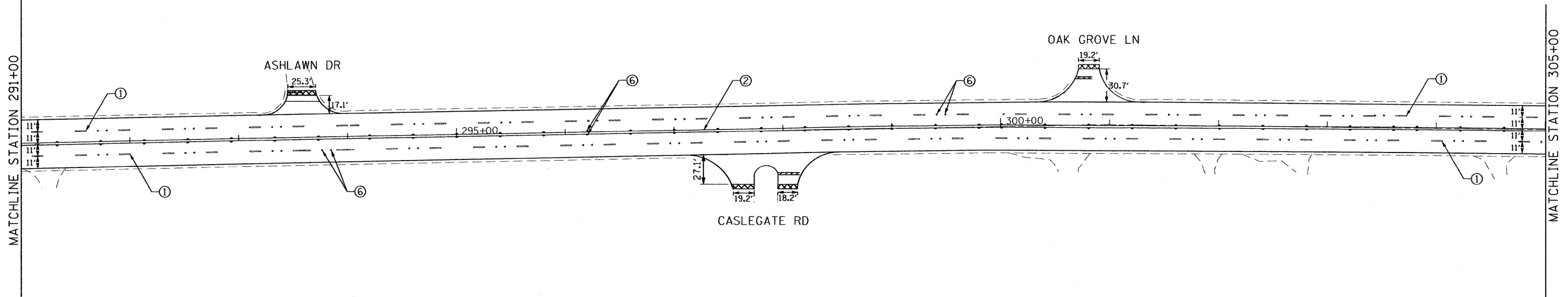
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**DEPARTMENT OF TRANSPORTATION**

<b>IL ROUTE 43</b>		<b>ROADWAY &amp; PAVEMENT MARKING PLAN</b>	
ILLINOIS ROUTE 60 TO GAGE LANE		CONTRACT NO. 60H90	
SCALE: 1"=50'	SHEET NO. OF SHEETS	STA. 264+00 TO STA. 291+00	

F.A.U. RTE. 2706	SECTION CY-RS-6	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 6
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

p:\2007\ME070808\_02\_Ver\_Ver\_Plan\cadd\017.1L43\Shs\Plan-shs-IL43-07.dgn

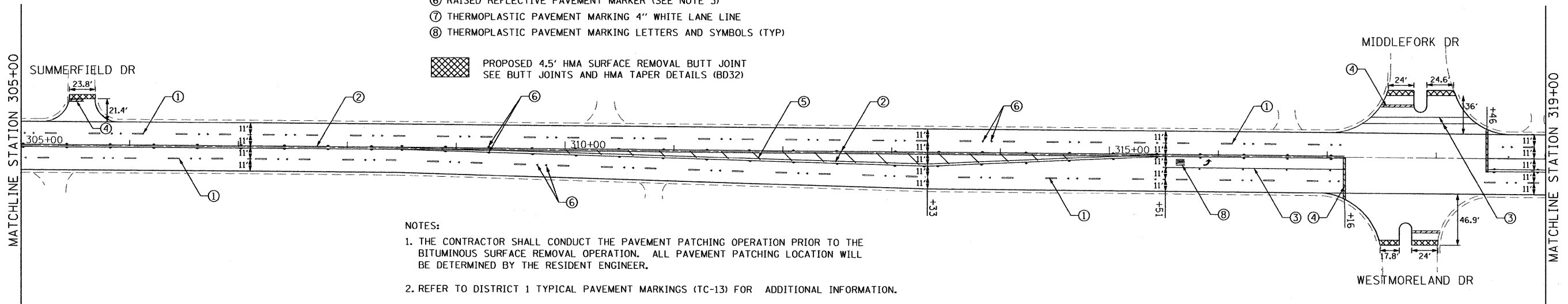
HMA SURFACE REMOVAL, 2 1/2"  
 REPLACE WITH:  
 POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 -3/4"  
 POLYMERIZED HMA SURFACE COURSE, MIX F, N90 -1 3/4"



PAVEMENT MARKING LEGEND (SEE NOTE 2)

- ① THERMOPLASTIC PAVEMENT MARKING 4" WHITE LANE LINE (30' SKIP 10' DASH)
- ② THERMOPLASTIC PAVEMENT MARKING 4" DOUBLE YELLOW LINE, 11" C-C
- ③ THERMOPLASTIC PAVEMENT MARKING 6" WHITE LINE
- ④ THERMOPLASTIC PAVEMENT MARKING 24" WHITE STOP BAR LINE
- ⑤ THERMOPLASTIC PAVEMENT MARKING 12" DIAGONAL YELLOW LINE
- ⑥ RAISED REFLECTIVE PAVEMENT MARKER (SEE NOTE 3)
- ⑦ THERMOPLASTIC PAVEMENT MARKING 4" WHITE LANE LINE
- ⑧ THERMOPLASTIC PAVEMENT MARKING LETTERS AND SYMBOLS (TYP)

PROPOSED 4.5' HMA SURFACE REMOVAL BUTT JOINT  
 SEE BUTT JOINTS AND HMA TAPER DETAILS (BD32)



NOTES:

1. THE CONTRACTOR SHALL CONDUCT THE PAVEMENT PATCHING OPERATION PRIOR TO THE BITUMINOUS SURFACE REMOVAL OPERATION. ALL PAVEMENT PATCHING LOCATION WILL BE DETERMINED BY THE RESIDENT ENGINEER.
2. REFER TO DISTRICT 1 TYPICAL PAVEMENT MARKINGS (TC-13) FOR ADDITIONAL INFORMATION.
3. REFER TO DISTRICT 1 RAISED REFLECTIVE PAVEMENT MARKERS (TC-11) FOR ADDITIONAL INFORMATION.
4. THE ENGINEER SHALL CONTACT: DEBBIE HANLON FIELD TECHNICIAN, AT (847) 438-2300 A MINIMUM OF TWO (2) WEEKS PRIOR TO START OF PROJECT FOR PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

FILE NAME : p:\2007\ME07080\_Ver\_Ver\_Phil\Cadd\W017\_IL43\Shrs\Plan\sh-IL43-08.dgn  
 USER NAME : Millennium Engineering

200 22ND Street, Suite 316, Lombard, IL 60148  
 630.705.8110 voice, 630.839.2564 fax  
 WWW.MPS-IL.COM  
**MILLENNIA PROFESSIONAL SERVICES**

DESIGNED - TVN	REVISED -
DRAWN - TVN	REVISED -
CHECKED - RPD	REVISED -
DATE - 7/8/2009	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>IL ROUTE 43</b>		<b>ROADWAY &amp; PAVEMENT MARKING PLAN</b>	
ILLINOIS ROUTE 60 TO GAGE LANE		SECTION	
SCALE: 1"=50'	SHEET NO. OF SHEETS	2706	CY-RS-6
STA. 291+00 TO STA. 319+00		COUNTY	TOTAL SHEETS
		LAKE	21
		CONTRACT NO.	60H90
		SHEET NO.	7

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT  
 CONTRACT NO. 60H90  
 SHEET NO. 7

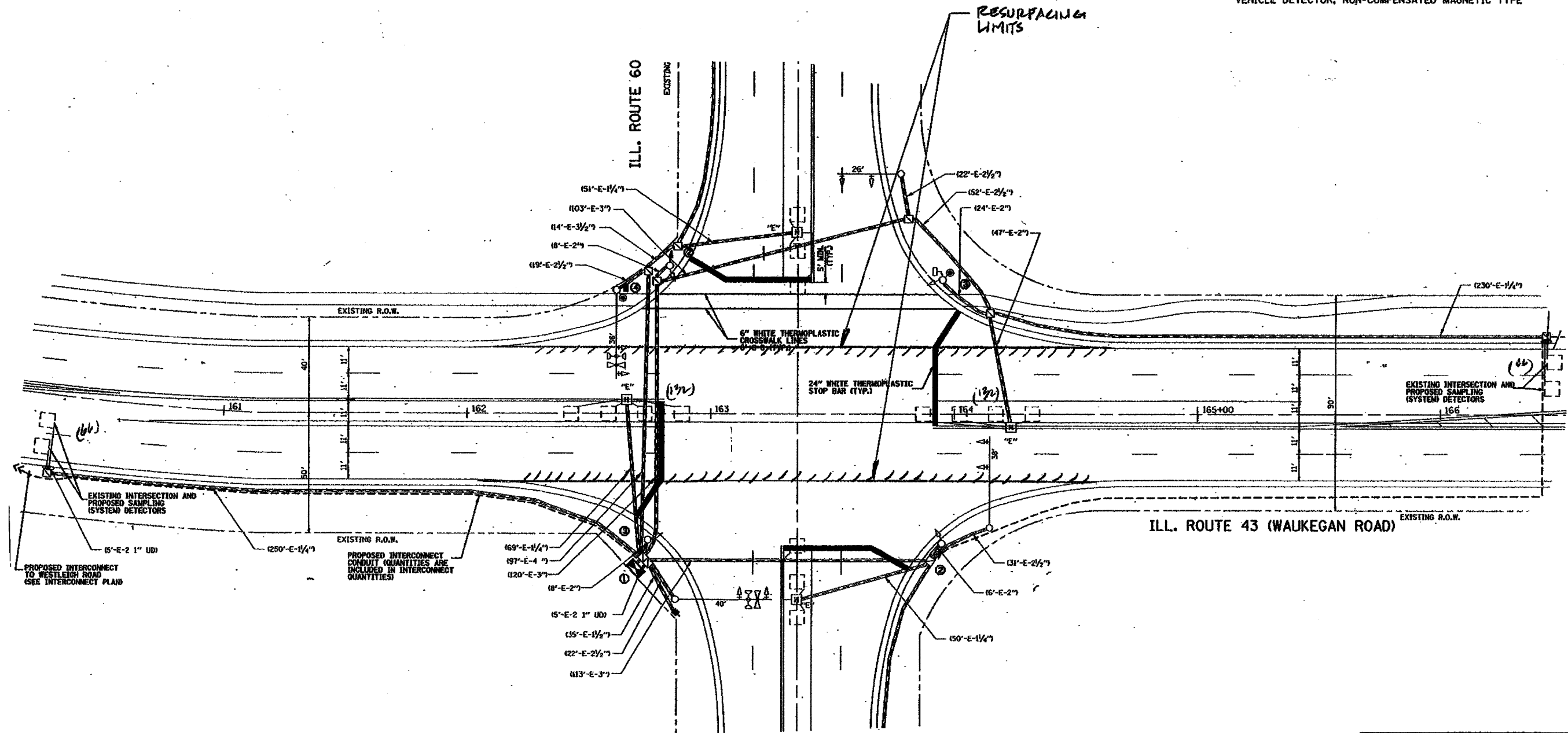
p:\2007\ME07080\_Ver\_Ver\_Phil\Cadd\W017\_IL43\Shrs\Plan\sh-IL43-08.dgn





**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
DETECTOR LOOP		
SIGNAL HEAD		
G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD WITH BACKPLATE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR II		
VEHICLE DETECTOR, NON-COMPENSATED MAGNETIC TYPE		



THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY

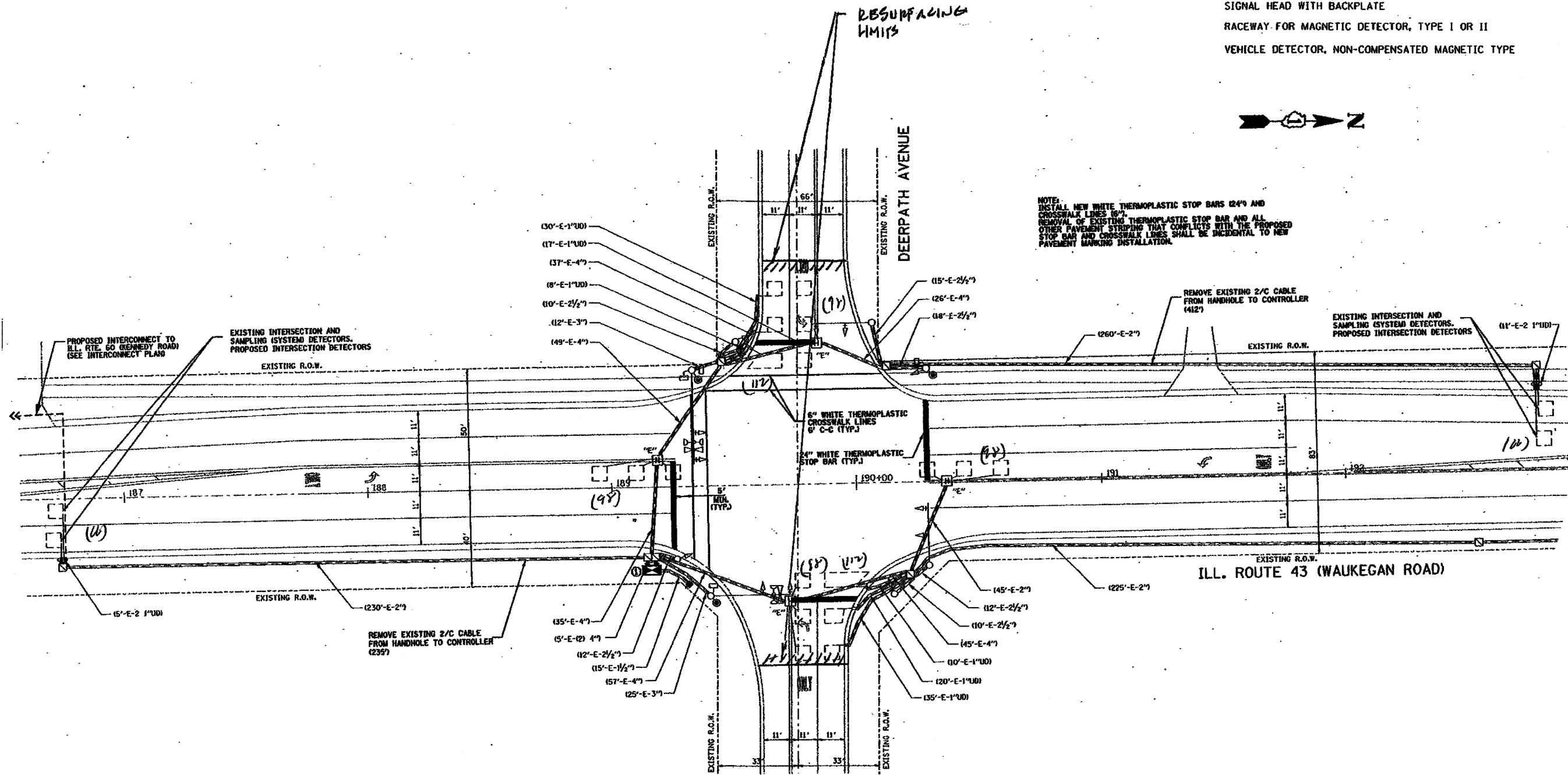
REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMITS)

CODE	QUANTITY	UNIT	ITEM
86600600	396	FOOT	DETECTOR LOOP, REPLACEMENT

FILE NAME =	USER NAME = kenthphixgbo	DESIGNED - BCK	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE - DETECTOR LOOP REPLACEMENT ILL. RTE. 43 @ ILL. RTE. 60</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
at\pwwork\PHIDOT\KANTHAPHIXAYBC\d01126	at\pwwork\PHIDOT\KANTHAPHIXAYBC\d01126	DRAWN - BCK	REVISED -			2760	CY-RS-6	LAKE	21	9	
		CHECKED - DAD	REVISED -			SCALE: NONE	SHEET NO. OF SHEETS	60H90	CONTRACT NO.		
		DATE	REVISED -			STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
DETECTOR LOOP		
SIGNAL HEAD		
G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD WITH BACKPLATE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR II		
VEHICLE DETECTOR, NON-COMPENSATED MAGNETIC TYPE		



NOTE:  
 INSTALL NEW WHITE THERMOPLASTIC STOP BARS (24\"/>

THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY

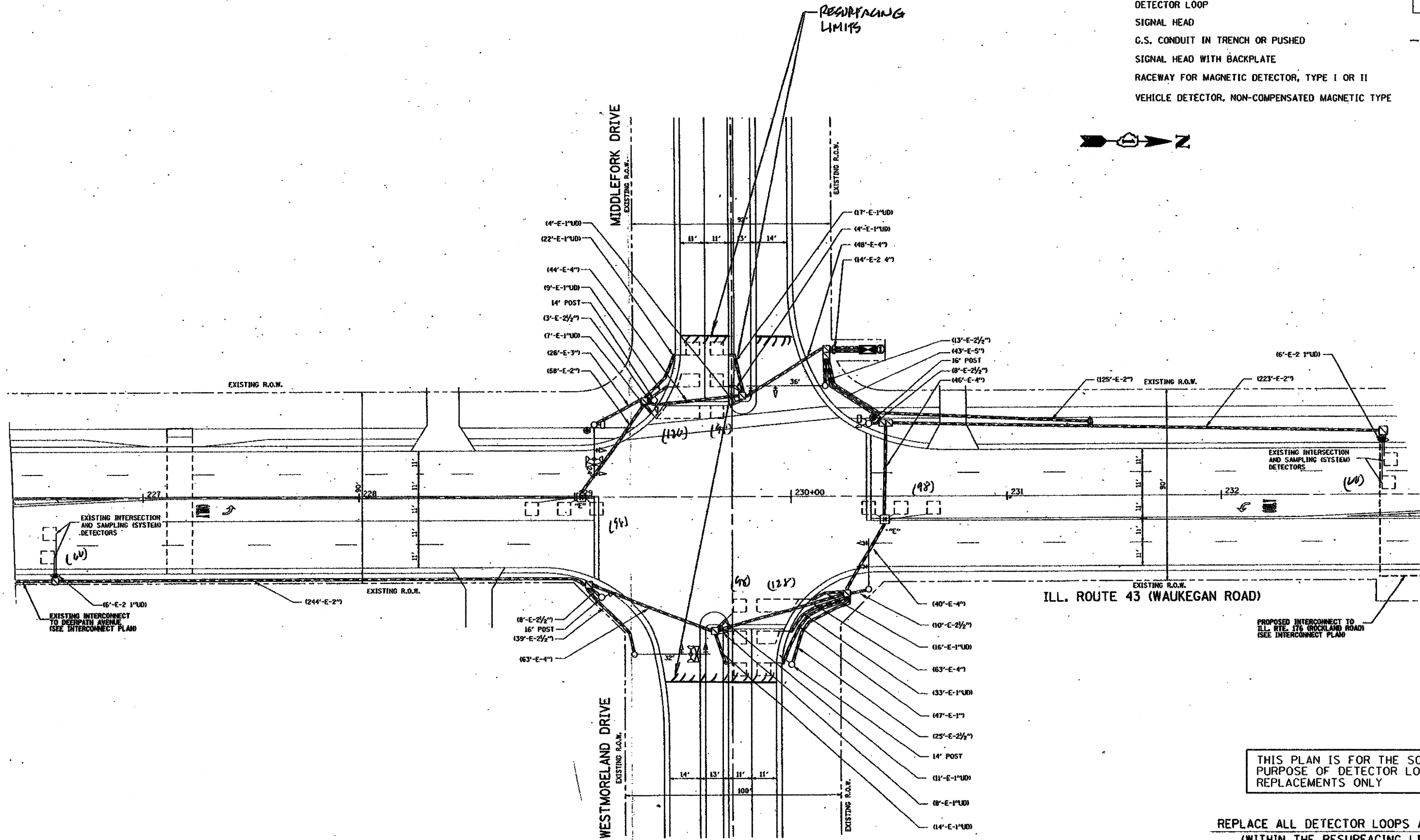
REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMITS)

CODE	QUANTITY	UNIT	ITEM
86600600	748	FOOT	DETECTOR LOOP, REPLACEMENT

FILE NAME =	USER NAME = konthaphaybc	DESIGNED - BCK	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE - DETECTOR LOOP REPLACEMENT ILL. RTE. 43 @ DEERPATH AVENUE</b>	F.A.I. RTE. 2760	SECTION CY-RS-6	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 10	
onpwwork\PI007\KANTHAPHAYBC\d01126	traffic_legend_v7.dgn	DRAWN - BCK	REVISED -			SCALE: NONE	SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS	FED. AID PROJECT	CONTRACT NO.	
	PLOT SCALE = 3/4" = 1' IN.	CHECKED - DAD	REVISED -								
	PLOT DATE = 4/3/2009	DATE -	REVISED -								

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
DETECTOR LOOP		
SIGNAL HEAD		
C.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD WITH BACKPLATE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR II		
VEHICLE DETECTOR, NON-COMPENSATED MAGNETIC TYPE		

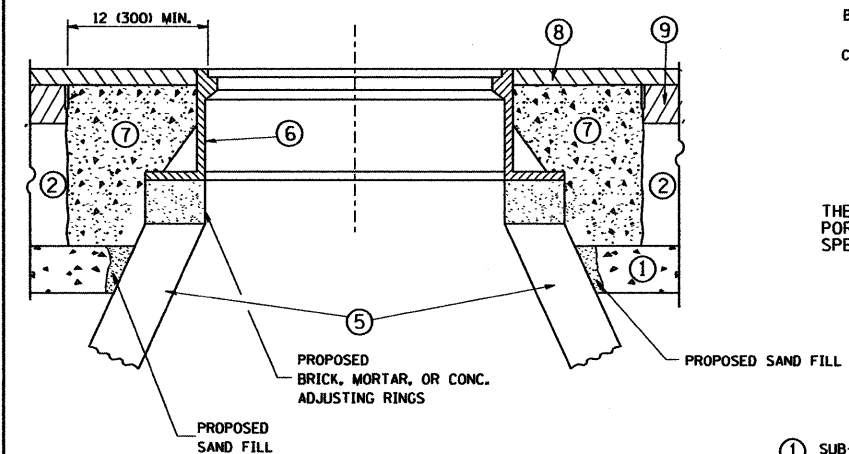
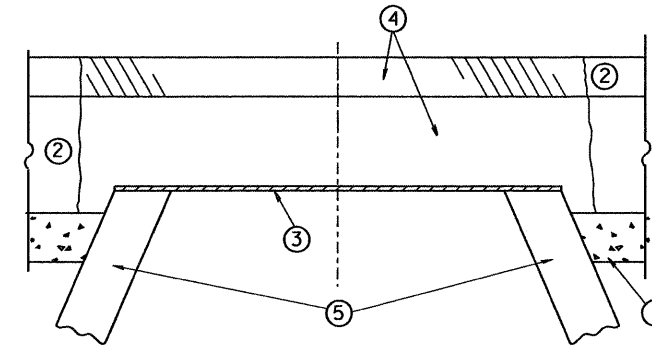


THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY

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

CODE	QUANTITY	UNIT	ITEM
86600600	778	FOOT	DETECTOR LOOP, REPLACEMENT

FILE NAME =	USER NAME = kanthaphtxgbo	DESIGNED - BCK	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE - DETECTOR LOOP REPLACEMENT ILL. ROUTE 43 @ WESTMORELAND DR.</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pwwork\PMID007\KANTHAPHIXAYBC\081126	ct:\pwwork\PMID007\KANTHAPHIXAYBC\081126	DRAWN - BCK	REVISED -			2760	CY-RS-6	LAKE	21	11
		CHECKED - DAD	REVISED -			60H90				
		DATE	REVISED -							



**CONSTRUCTION PROCEDURES**

**STAGE 1 (BEFORE PAVEMENT MILLING)**

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

**STAGE 2 (AFTER PAVEMENT MILLING)**

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

**LEGEND**

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- ⑧ PROPOSED HMA SURFACE COURSE
- 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.

**NOTES:**

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.

**DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING**

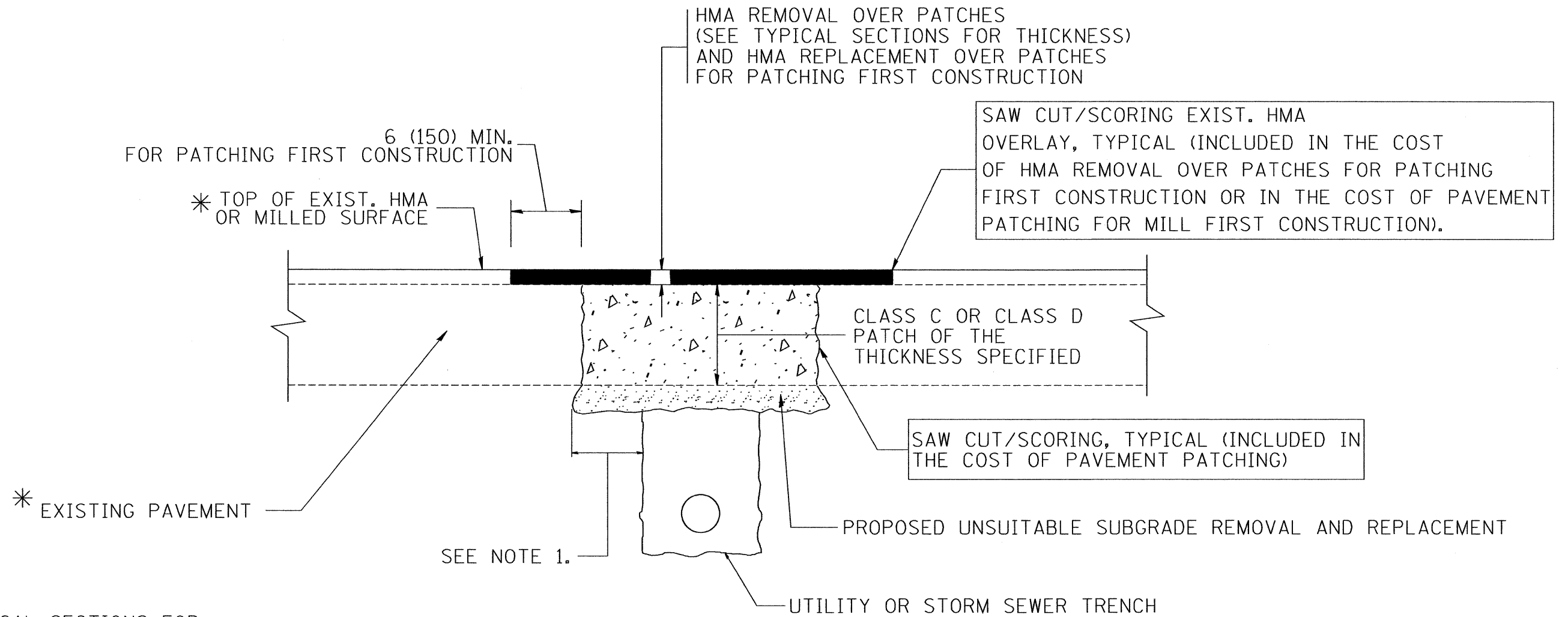
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME = W:\diststd\22x34\bd88.dgn	USER NAME = gegl1enobt	DESIGNED - R. SHAH	REVISED - R. SHAH 03-10-95
		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000 "/ IN.	CHECKED -	REVISED - R. WIEDEMAN 05-14-04
	PLOT DATE = 1/4/2008	DATE - 10-25-94	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING</b>	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS
STA. _____	TO STA. _____

F.A.U. RTE. 2706	SECTION CY-RS-6	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 12
<b>BD600-03 (BD-8)</b>		<b>CONTRACT NO. 60H90</b>		
FED. ROAD DIST. NO. 1 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 (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 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

FILE NAME = c:\projects\diststd22x34\bd22.dgn	USER NAME = bouerd1	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT</b>			F.A.U. RTE. 2706	SECTION CY-RS-6	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 13
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED - R. BORO 01-01-07					BD400-04 (BD-22)			CONTRACT NO. 60H90	
PLOT DATE = 10/27/2008	DATE - 10-25-94	REVISED - K. ENG 10-27-08	SCALE: NONE		SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

VARIABLE - TO MEET EXISTING DIMENSIONS AND FIELD CONDITIONS (SEE NOTE ②)

PROP. CONC. CURB OR CURB AND GUTTER REPLACEMENT IN ACCORDANCE WITH STATE STANDARD 606001. (SEE NOTE ②)

SAW CUT FULL DEPTH - INCLUDED IN THE COST OF SIDEWALK, DRIVEWAY OR MEDIAN SURFACE REMOVAL PAY ITEM.

SEE STATE STANDARD 606001  
EXISTING OR PROPOSED HMA SURFACE (IF APPLICABLE)

18" (450) MAX.

1/4" (5) \*\*

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE OR GROUND.

PROPOSED SIDEWALK, DRIVEWAY PAVEMENT, MEDIAN SURFACE OR SALT TOLERANT SOD AND TOP SOIL, 4" (100) SOD RESTORATION (SEE NOTE ①).

EXISTING CONCRETE PAVEMENT, CONCRETE BASE COURSE OR FLEXIBLE PAVEMENT

SUITABLE BACKFILL MATERIAL (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT)

3" (75) MIN.

PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

\* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

\*\* IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SALT TOLERANT SOD AND TOP SOIL, 4" (100) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

② CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

③ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

④ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑤ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑥ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

⑦ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

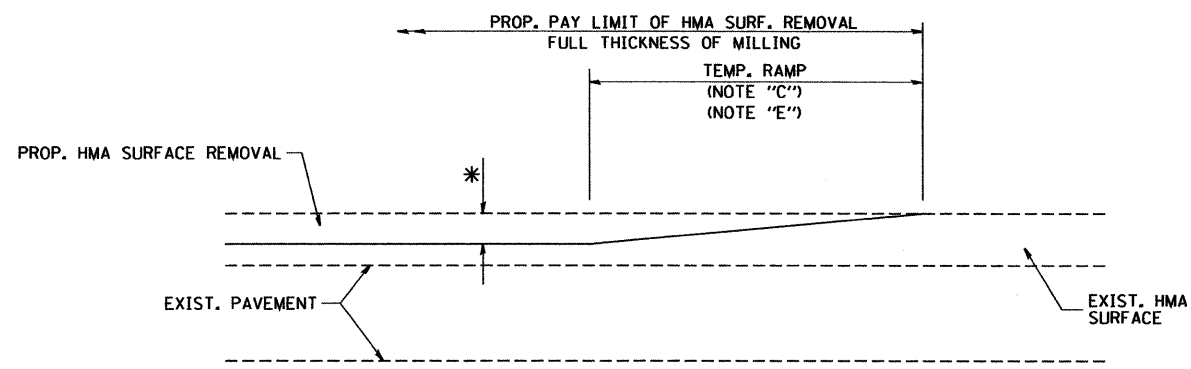
**BASIS OF PAYMENT:**

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

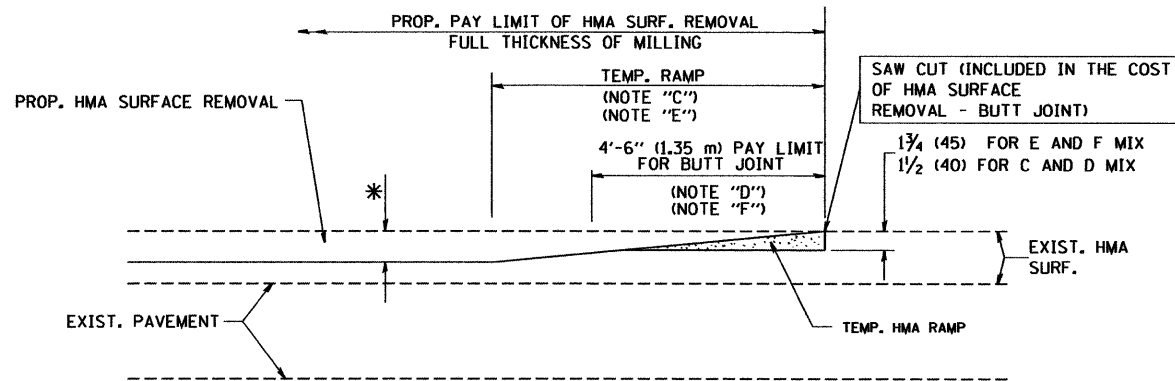
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\distad\22x34\bd24.dgn	USER NAME = geglrenobt	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT</b>			F.A.U. RTE. 2706	SECTION CY-RS-6	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 14
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED - A. ABBAS 03-21-97		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	<b>BD600-06 (BD-24)</b>		CONTRACT NO. 60H90	
	PLOT DATE = 1/4/2008	DATE - 03-11-94	REVISED - M. GOMEZ 01-22-01		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
			REVISED - R. BORO 01-01-07									



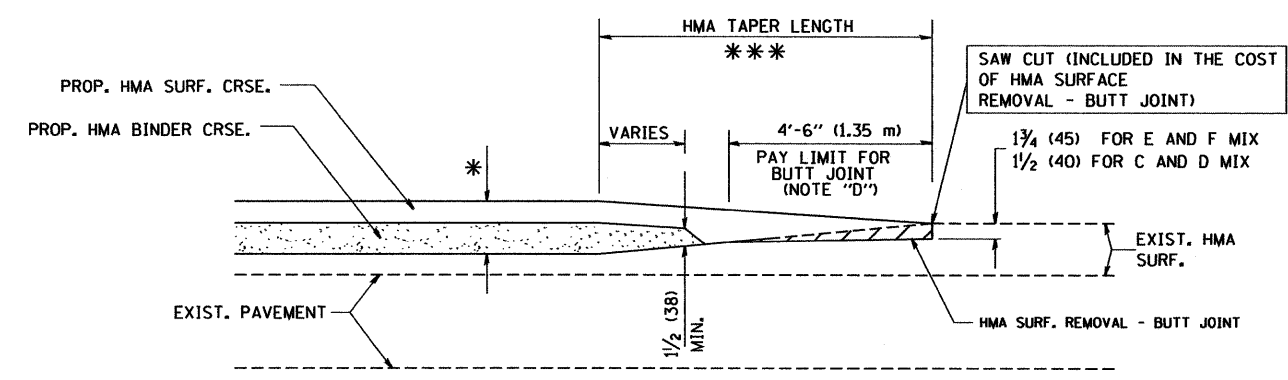
MILLED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

**OPTION 1**

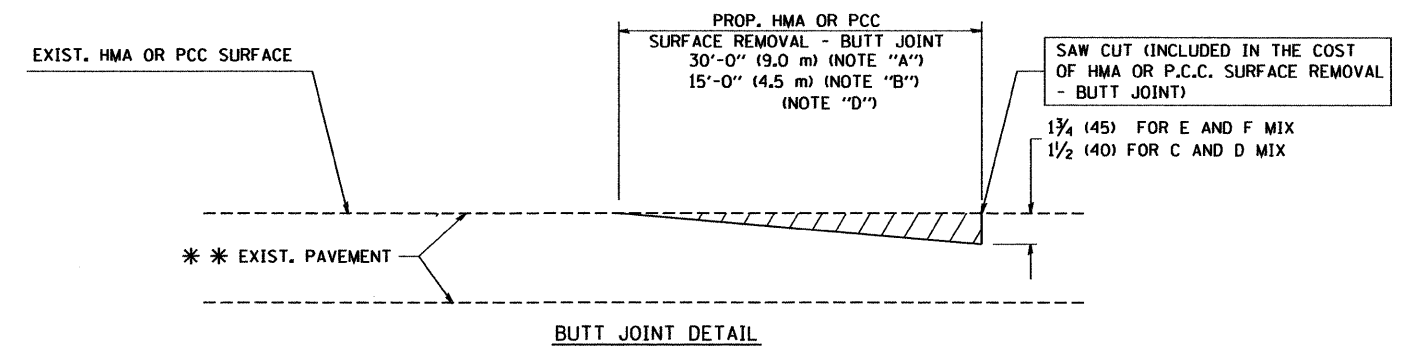


HMA CONSTRUCTED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

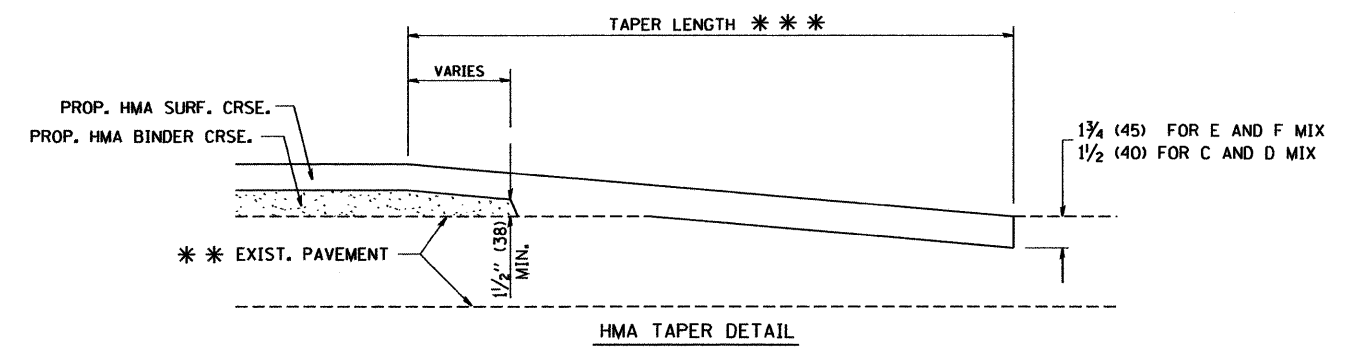
**OPTION 2**  
**TYPICAL TEMPORARY RAMP**



BUTT JOINT AND HMA TAPER  
**TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING**



BUTT JOINT DETAIL



HMA TAPER DETAIL

**TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY**

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

**NOTES**

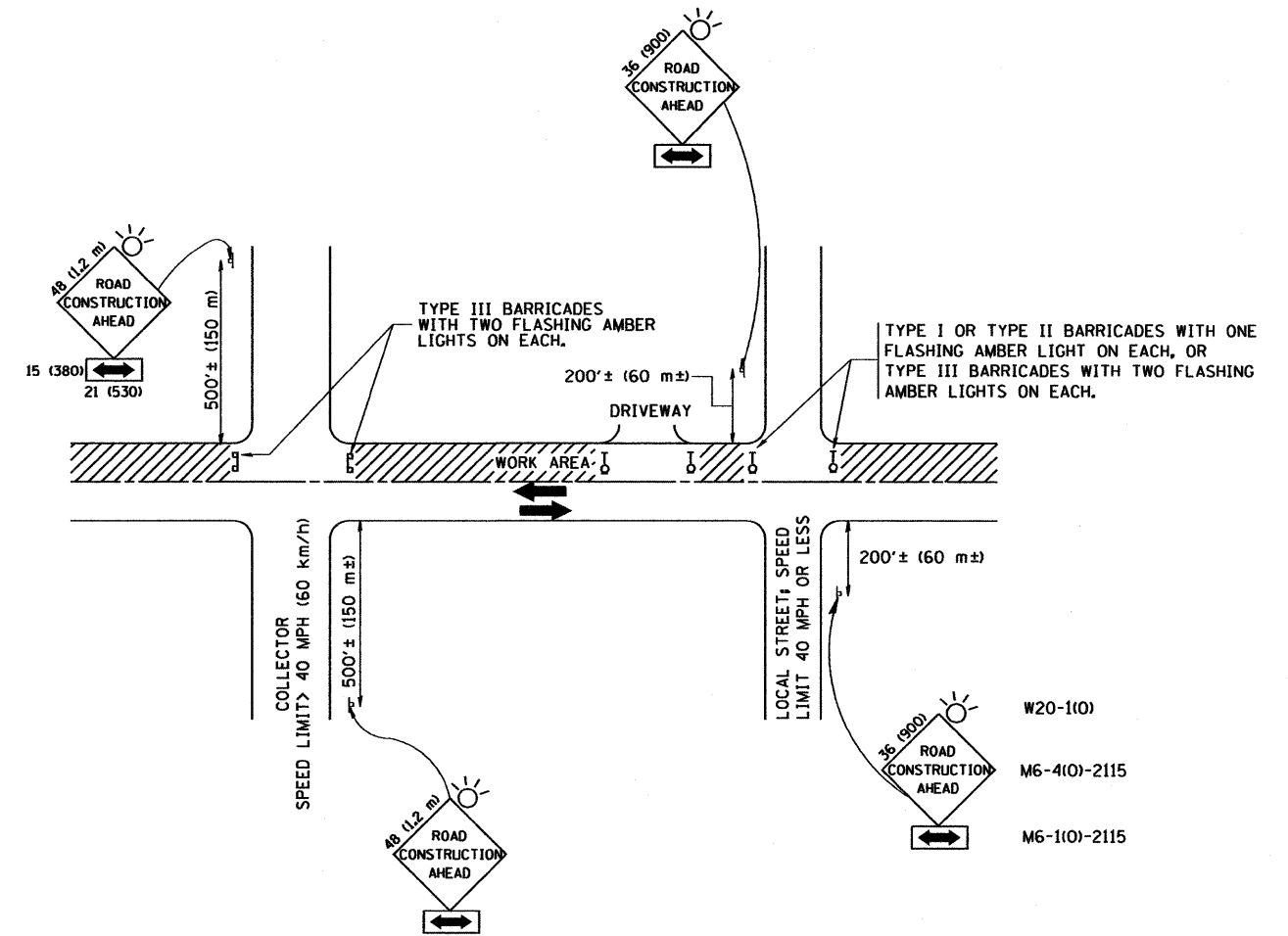
- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (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.

FILE NAME = W:\dststd\22x34\bd32.dgn	USER NAME = gaglianob	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>BUTT JOINT AND HMA TAPER DETAILS</b>		F.A.U. RTE. 2706	SECTION CY-RS-6	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 15	
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - A. ABBAS 03-21-97	REVISED - M. GOMEZ 04-06-01		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	<b>BD400-05 BD32</b>		CONTRACT NO. 60H90		
PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07							FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			



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

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (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. 70150L, 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 = W:\dststd\22x34\to10.dgn	USER NAME = gaglianobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50,000 / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

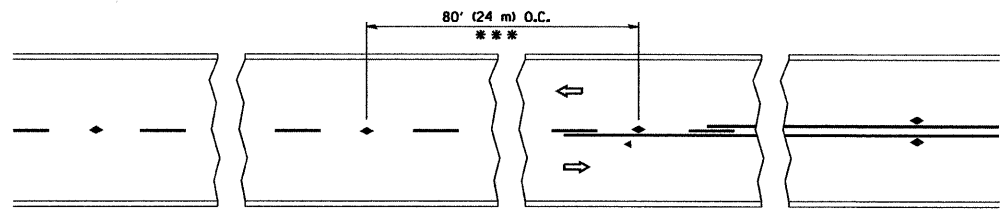
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

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

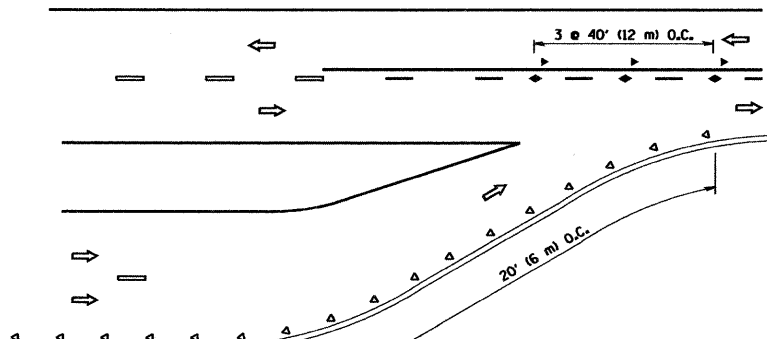
F.A.U. RTE. 2706	SECTION CY-RS-6	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 16
TC-10		CONTRACT NO. 60H90		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



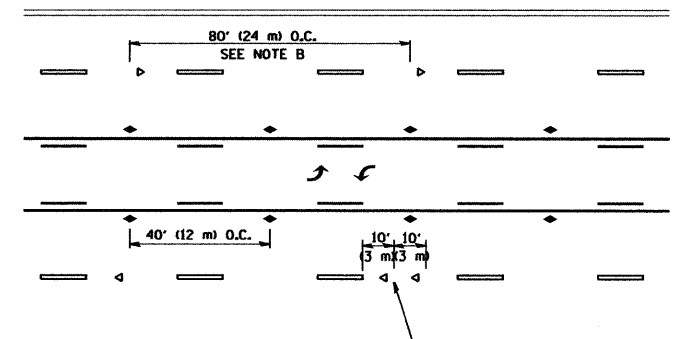


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

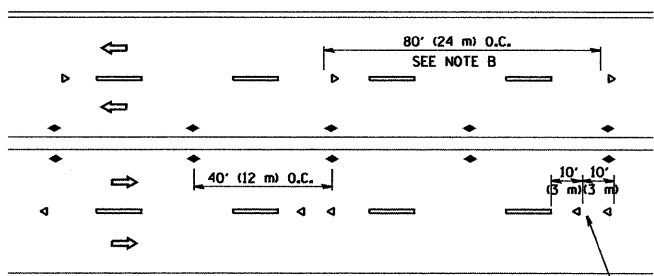
TWO-LANE/TWO-WAY



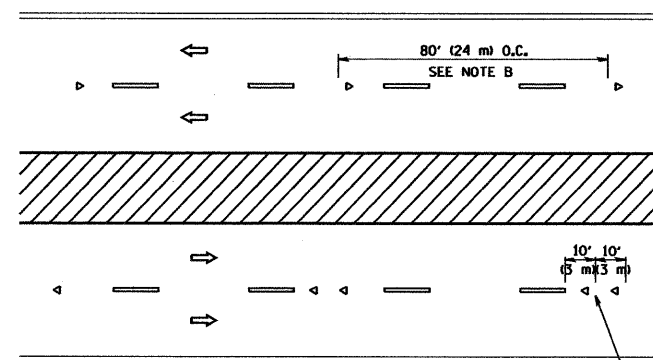
LANE REDUCTION TRANSITION



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

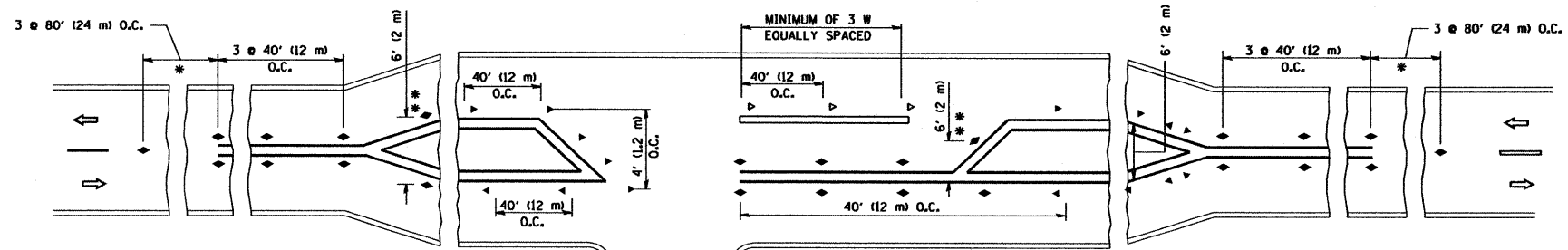
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

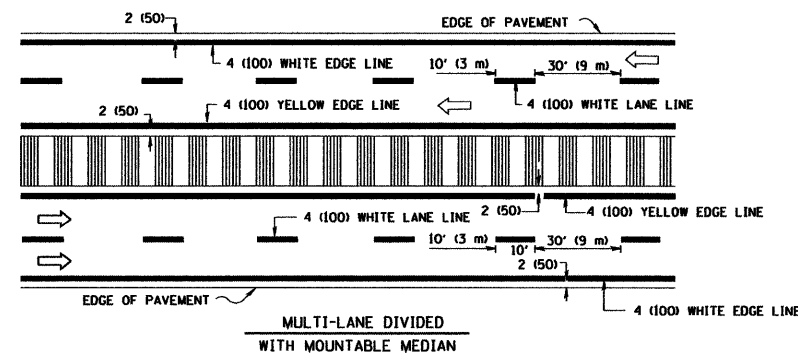
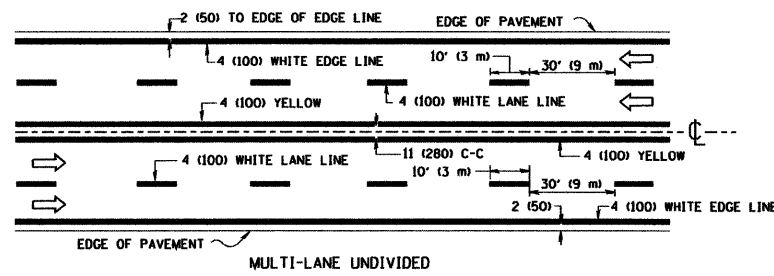
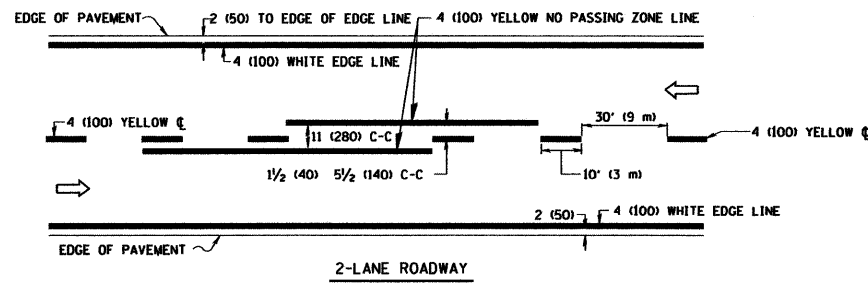


LEFT TURN

\* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE  
 \*\* WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

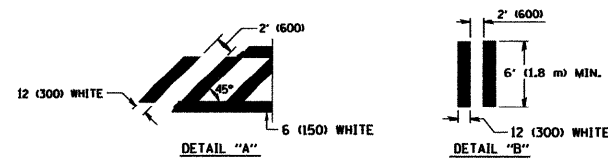
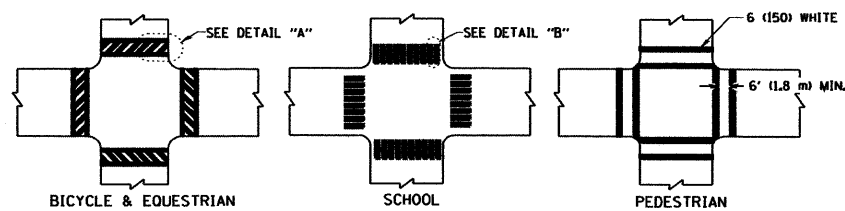
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = W:\diststd\22x34\to11.dgn	USER NAME = geglianobt	DESIGNED - DRAWN -	REVISED - T. RAMMACHER 09-19-94 REVISED - T. RAMMACHER 03-12-99 REVISED - T. RAMMACHER 01-06-00 REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)</b>			F.A.U. RTE. 2706	SECTION CY-RS-6	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 17
PLOT SCALE = 50,000' / IN. PLOT DATE = 1/4/2008					SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	TC-11 CONTRACT NO. 60H90 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

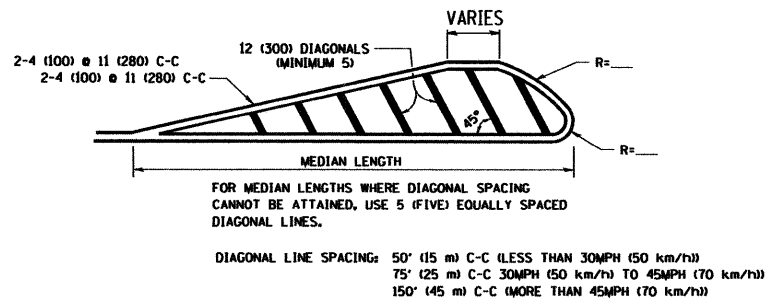
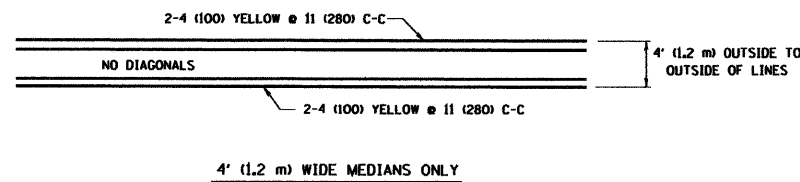


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

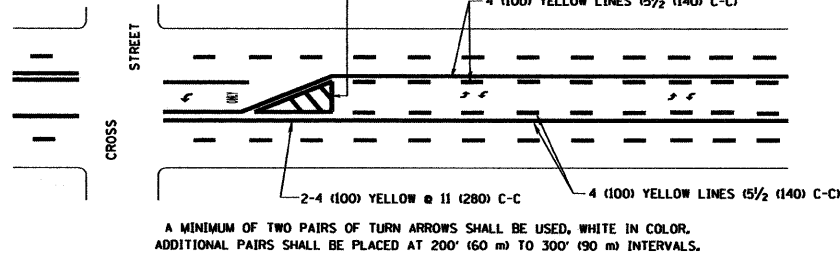
**TYPICAL LANE AND EDGE LINE MARKING**



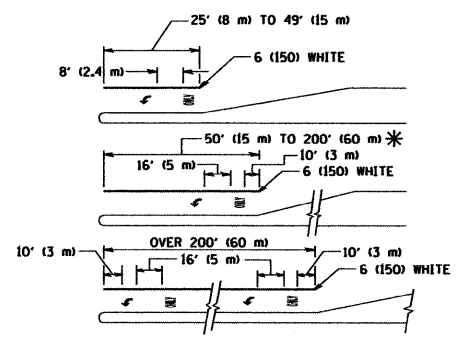
**TYPICAL CROSSWALK MARKING**



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



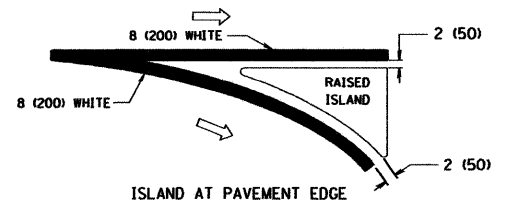
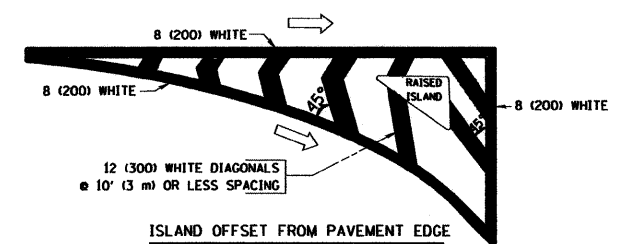
**TYPICAL PAINTED MEDIAN MARKING**



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
 \* AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) □ AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)  
 \* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

**TYPICAL LEFT (OR RIGHT) TURN LANE**

**TYPICAL TURN LANE MARKING**

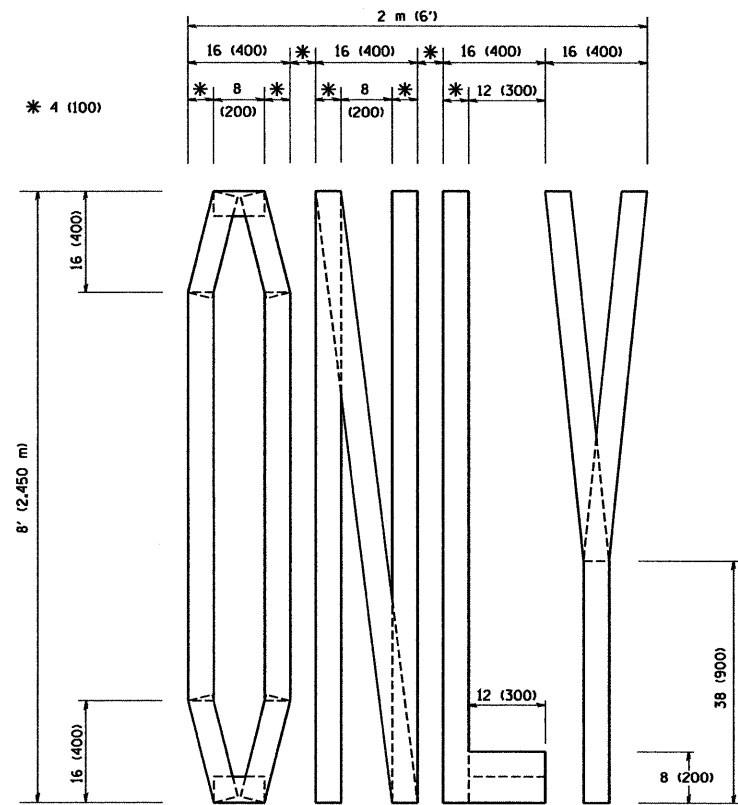


**TYPICAL ISLAND MARKING**

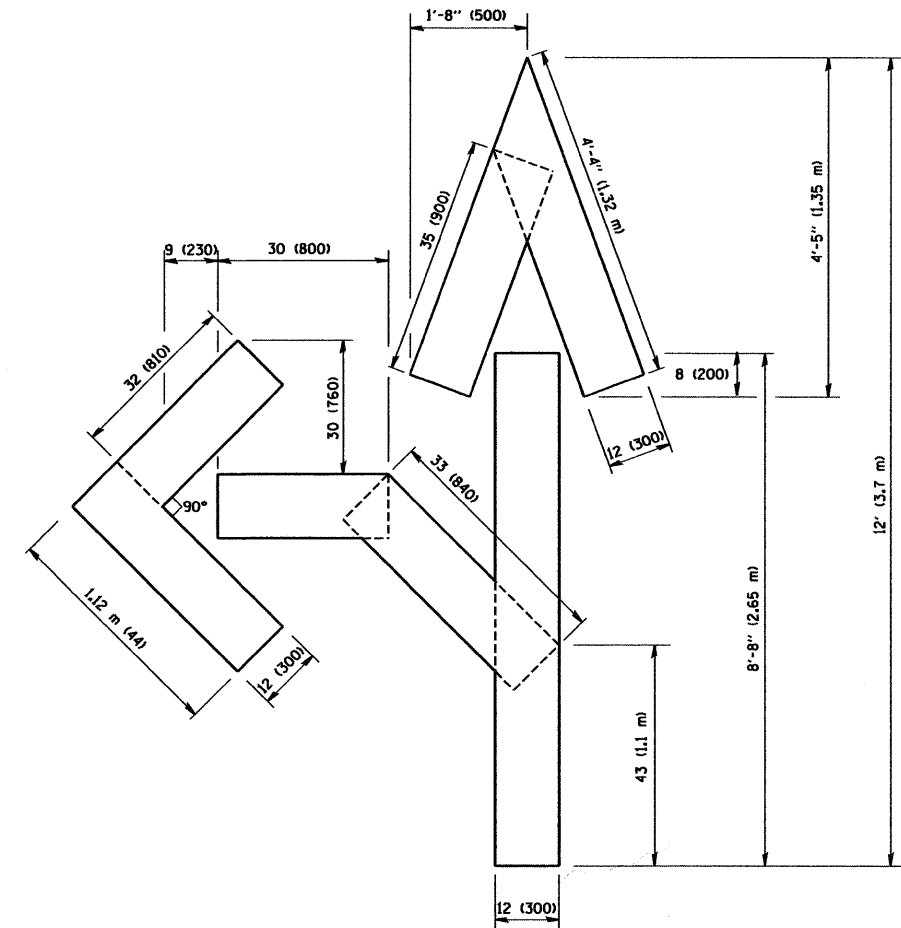
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (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 18' (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; 5/2 (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: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
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.

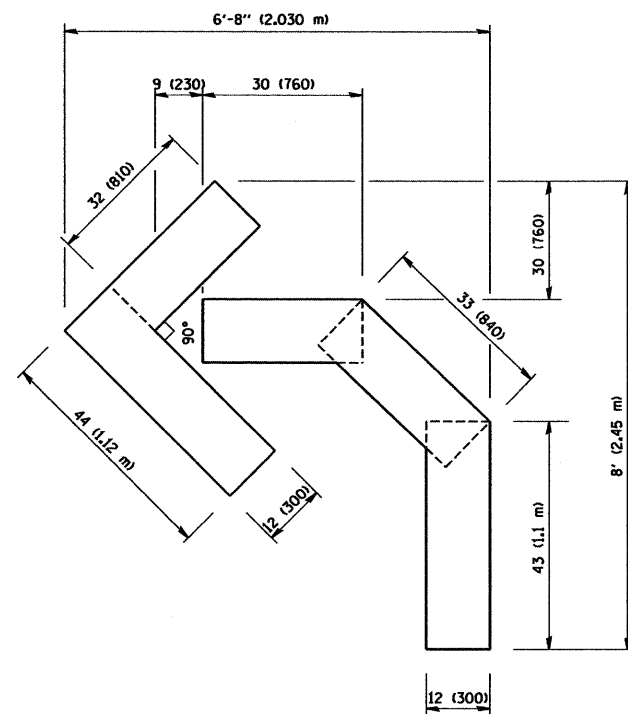
All dimensions are in inches (millimeters) unless otherwise shown.



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



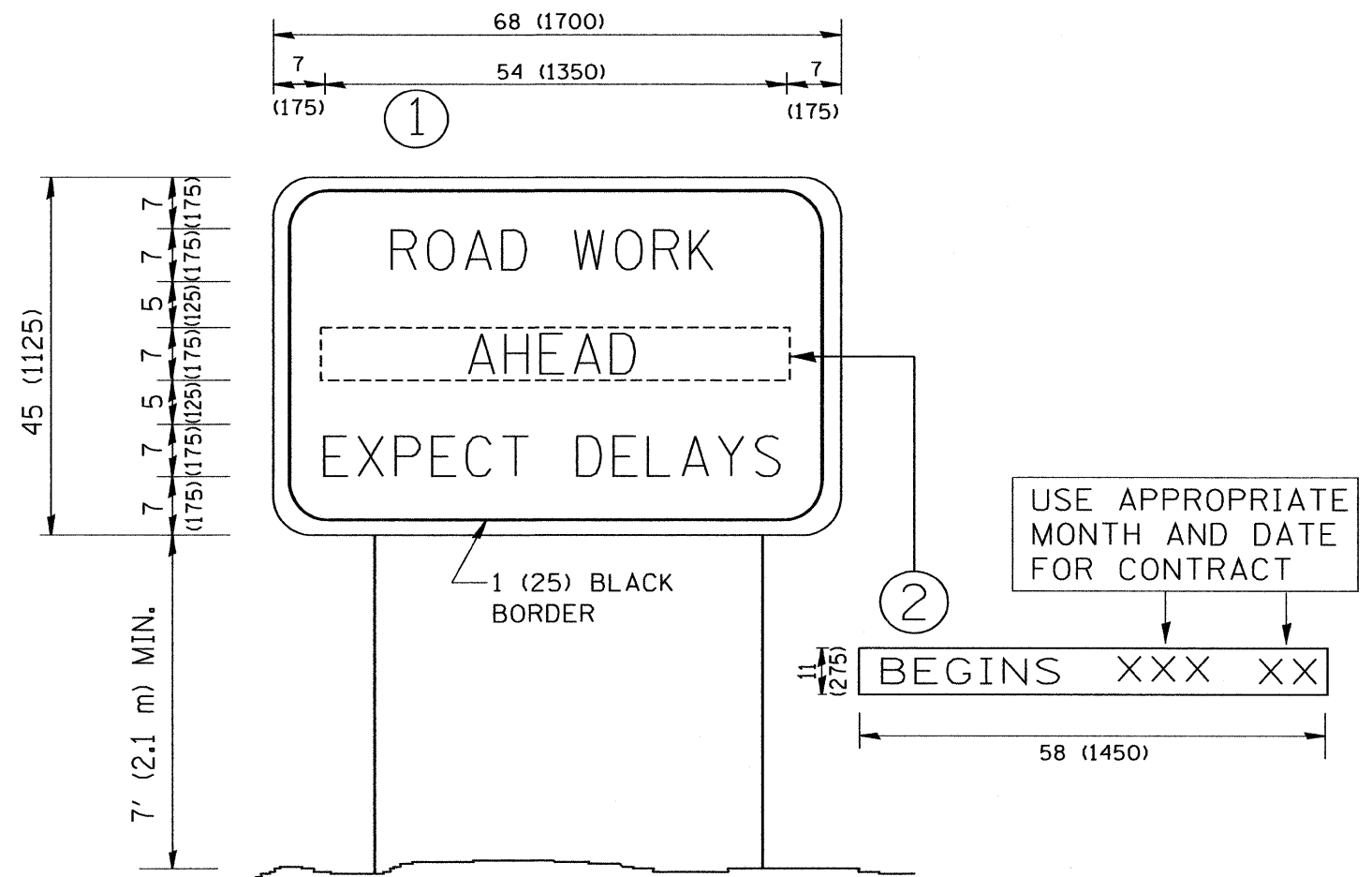
QUANTITY  
 4 (100) LINE = 82.5 ft. (25.3 m)  
 27.5 sq. ft. (2.53 sq. m)



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:\distsd\22x34\to16.dgn	USER NAME = geglienobt	DESIGNED -	REVISED -T. RAMMACHER 06-05-96	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING</b>			F.A.U. RTE. 2706	SECTION CY-RS-6	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 19	
	PLOT SCALE = 50.0000 "/ IN.	DRAWN -	REVISED -T. RAMMACHER 11-04-97		SCALE: NONE	SHEET NO. 1	OF 1 SHEETS	STA.	TO STA.	<b>TC-16</b>			CONTRACT NO. 60H90
	PLOT DATE = 1/4/2008	CHECKED -	REVISED -T. RAMMACHER 03-02-98		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT								
		DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00										



**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:\disto\td\22x34\to22.dgn	USER NAME = geglionbt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50,000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCLUS 01-31-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

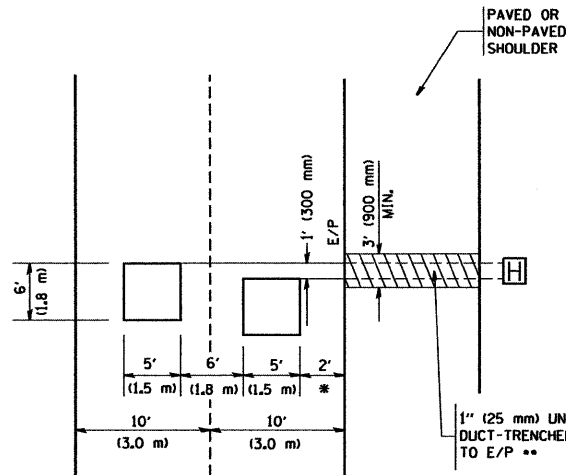
**ARTERIAL ROAD  
INFORMATION SIGN**

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

F.A.LL RTE. 2706	SECTION CY-RS-6	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 20
TC-22		CONTRACT NO. 60H90		
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.

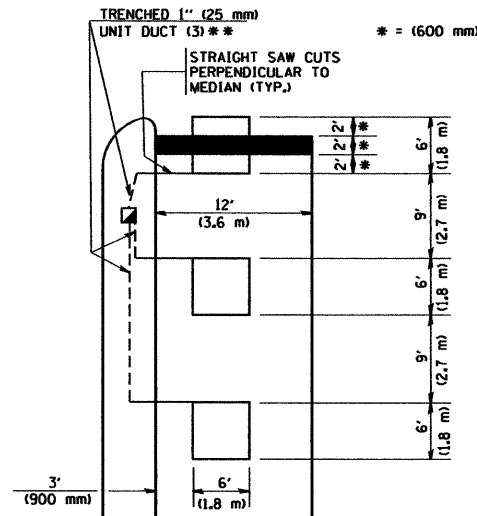


\* = (600 mm)

\*\* 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)**

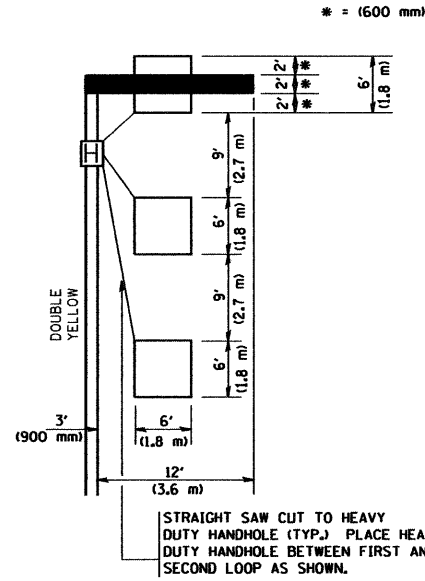
HANDHOLE LOCATION MAY  
VARY DEPENDING ON GEOMETRICS  
AND DESIGN OF TRAFFIC SIGNALS.  
HEAVY-DUTY HANDHOLES TO BE  
USED WHEN THE MEDIAN IS  
MOUNTABLE. REFER TO STANDARD  
814001 TO ENSURE THAT HANDHOLE  
FITS IN MEDIAN.



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

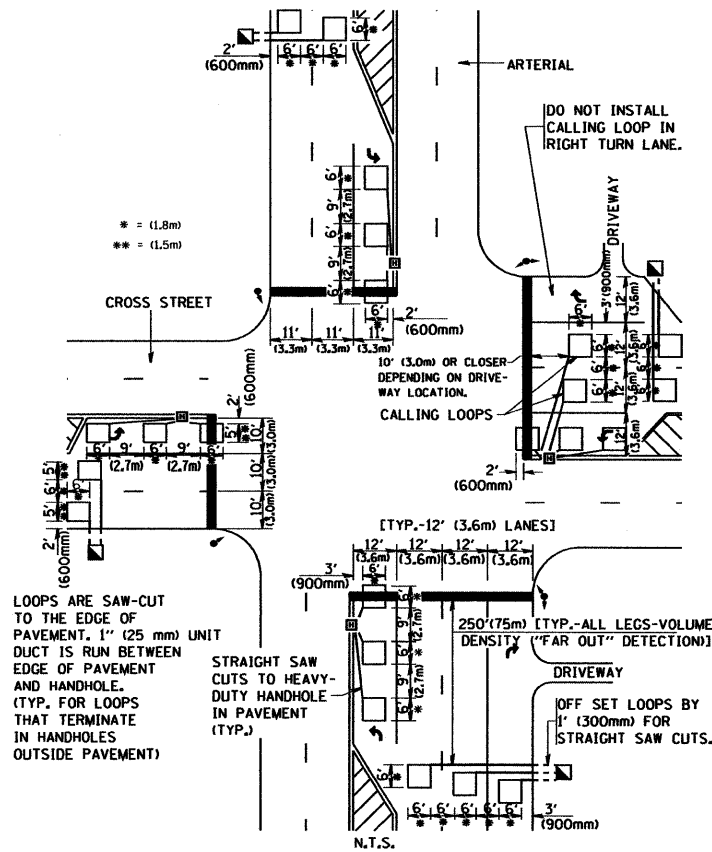
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO  
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



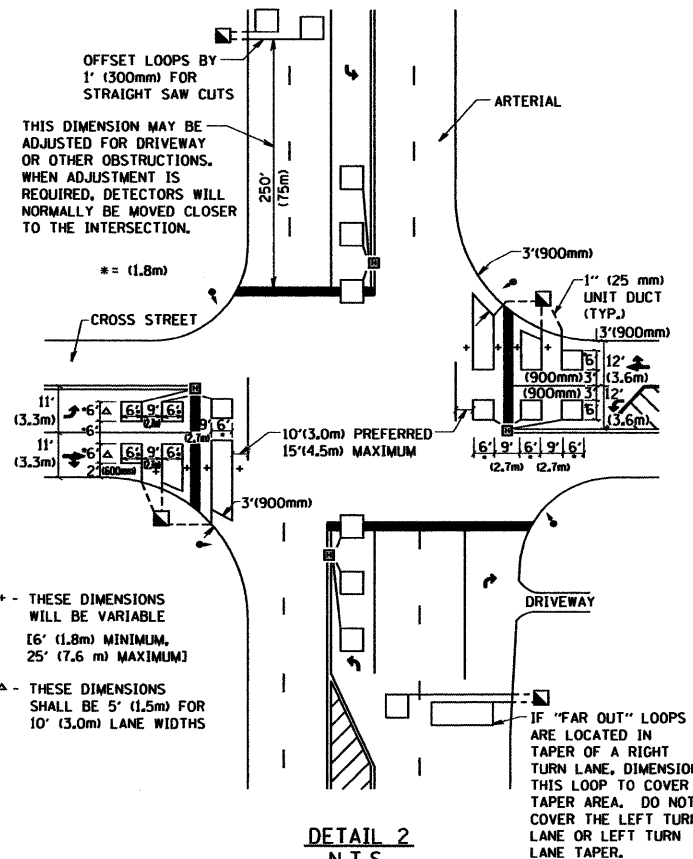
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO  
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**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 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.

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

USER NAME = gegljanobt  
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.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	CY-RS-6	LAKE	21	21
TS-07			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				