# **STATE OF ILLINOIS**

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

# PROPOSED HIGHWAY PLANS

FAP ROUTE 352 (IL. RTE. 137)
BLANCHARD RD. TO GREENWOOD AVE.
AND IL 137 TO JOE FAVERO DRIVE
SECTION (E, M, D) RS-6
PROJECT: NHF-0352(009)
RESURFACING (3P)
LAKE COUNTY

NEWPORT TWP. C-91-480-08 BENTON TWP.

W YORKHOUSE RD

REENWOOD AVE

GRAND AVE

132

PROJECT ENDS
SHERIDAN RD.
STA 71+27

PROJECT BEGINS
GREENWOOD AVE.
STA 22+04

WASHINGTON ST

WARREN TWP. R 11 E | R 12 E

WAUKEGAN TWP.

GROSS & NET LENGTH OF PROJECT = 6049 FT = 1.15 MILES

LOCATION MAP

<u>William J. Vegran 5-22-08</u> Expires: 11-30-07

PROFESSIONAL

ENGINEER

(E, M, D) RS-6

FED. ROAD DIST. NO. 1

S-6 LAKE 21 1
ILLINOIS CONTRACT NO. 60E56

D-91-480-08

STEPHENSON WINNERAGO BOOKE MC PENNY LAKE

CAPROLL

OGLE

DE KALB KAME TOU PAGE
COOK

WHITESIDE

LEE

NEMDALL

WILL

GRINDY

KANKAKEE

LLVINGS ON

BOOKI SLAND

MARCHALL

LLVINGS ON

BOOKI SLAND

MARCHALL

LLVINGS ON

FILTT

CHAMPAIGN

WERNALL

GRINDY

KANKAKEE

LLVINGS ON

BOOKI SLAND

MACOUPIN

MACOUPIN

MACOUPIN

MACOUPIN

MACOUPIN

MACOUPIN

MARCHALL

LLVINGS ON

FAYETTE

EFFINONAM

JASPER CHAMPORD

GREENE

MANOUPIN

MARCHALL

LAWRENCE

CLAY

FIGURAND

LAWRENCE

MANOUPIN

MARCHALL

MACOUPIN

MARCHALL

MACOUPIN

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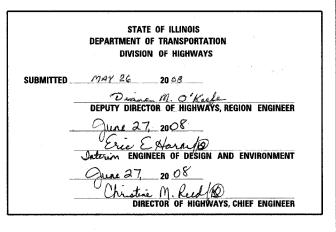
MACOUPIN

MARCHALL

MACOUPIN

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MARC



LOCATION OF SECTION INDICATED THUS: - -



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FOR INDEX OF SHEETS, SEE SHEET NO. 2

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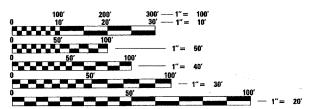
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PROJECT LOCATED IN CITY OF WAUKEGAN

2006 ADT = 18,800 VEHICLES PER DAY SPEED LIMIT = 40 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

PROJECT ENGINEER: MICHELLE AQUINO (847) 705–4606
PROJECT MANAGER: LONG TRAN (847) 705–4232

CONTRACT NO. 60E56

## **INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
1.	TITLE SHEET
2.	INDEX OF SHEETS, STATE STANDARDS, GENERAL NOTES
3.	SUMMARY OF QUANTITIES
4.	EXISTING TYPICAL SECTIONS
5.	PROPOSED TYPICAL SECTIONS
6-8.	ROADWAY AND PAVEMENT MARKING PLAN
9.	LOOP DETECTOR PLANS
10.	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING
11.	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
12.	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT
13.	BUTT JOINT AND HMA TAPER DETAILS
14.	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, 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.	ARTERIAL ROAD INFORMATION SIGN
20.	DRIVEWAY ENTRANCE SIGNING
21.	DISTRICT 1 DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING

## **STATE STANDARDS**

STANDARD NO.	DESCRIPTION
000001 <b>-05</b>	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERN
442201 <b>-03</b>	CLASS C AND D PATCHES
604006 <b>-03</b>	FRAME AND GRATE, TYPE 3
604051 <b>-02</b>	FRAME AND GRATE, TYPE 11
701606- <b>05</b>	URBAN LANE CLOSURE, 2W WITH MOUNTABLE MEDIA
701701 <b>-05</b>	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901	TRAFFIC CONTROL DEVICES

## **GENERAL NOTES**

- 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 UTILITIES. (48 HOUR NOTIFICATION IS REQUIRED.)
- 2. ALL PAVEMENT MARKING SHALL BE PLACED THROUGHOUT THE PROJECT ACCORDING TO DISTRICT 1 TYPICAL PAVEMENT MARKING.
- 3. ALL HMA PAVEMENT PATCHING SHALL BE CLASS D.
- 4. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE
- 5. 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.
- 6. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD (FOR FUTURE REFERENCES), ALL EXISTING PAVEMENT MARKING LINES IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING, EXACT LOCATIONS OF ALL STRIPING SHALL BE AS DIRECTED BY
- 7. ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 8. DRAINAGE STRUCTURE ADJUSTMENT OR RECONSTRUCTION LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- LOCATIONS FOR TYPE 3 GRATES TO REPLACE EXISTING NON-BICYCLE-SAFE GRATES AND REPLACEMENT OF BROKEN TYPE 11 FRAMES AND GRATES WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 10. FRAMES AND GRATES ADJUSTMENT OF PRIVATE UTILITIES WITHIN THE LIMITS OF THE IMPROVEMENTS SHALL BE DONE BY THEIR RESPECTIVE OWNERS AND ARE NOT PART OF THIS CONTRACT.
- 11. THE RESIDENT ENGINEER SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.

- 12. THE ENGINEER SHALL CONTACT MS. DEBBIE HANLON, THE TRAFFIC FIELD ENGINEER, @ 847-438-2300 TWO (2) WEEKS PRIOR TO THE START OF THIS PROJECT SO THAT EXACT STATIONING OF NO PASSING ZONES AND OTHER PERMANENT PAVEMENT MARKINGS MAY BE ESTABLISHED.
- 13. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS
- EXISTING BROKEN FRAMES AND LIDS, OR NON-BICYCLE-SAFE GRATES SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND GRATES OR LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS, UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.
- 15. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- 16. DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL FOR TYPICAL APPLICATION OF RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) SHOWN IN THE PLANS.
- WHEN ARTIFICIAL LIGHTING IS USED IN NIGHT OPERATIONS THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.
- WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 11/2INCHES (40 MM) WHERE THE SPEED LIMIT IS 45 MPH (80 KM/H) OR LESS AND 1 INCH (25 MM) WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH (80 KM/H). WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM CRADE DIFFERENTIAL OF 3 INCHES (75 MM) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H)
- 19. 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.
- 20. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- 21. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, AND WITH THE CITY OF WAUKEGAN.

DATE NAME SCALE NAME



DESIGNED WJV REVISED DRAWN WJV REVISED BLB REVISED CHECKED 200 West Front Street Wheaton, il 60187 DATE 5/23/08 REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

IL ROUTE 137 (GREENWOOD AVE. - BLANCHARD RD.) INDEX OF SHEETS, STATE STANDARDS, AND GENEERAL NOTES SHEET NO. OF SHEETS STA.

	SUMMARY OF QUANTITIES    CODE NO.   ITEM DESCRIPTION UNIT OF				CONSTRUCTION TYPE CODE		
	40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	QUANTITY 23.1	23 <b>.</b> 1		
	40600300	AGGREGATE (PRIME COAT)	TON	115	115		
	40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	177.2	177.2		
	40600895	CONSTRUCTING TEST STRIP	EACH	1	1		
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	194	194		
	40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	411	411		
	40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	3,765	3,765		
	44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	38,415	38,415		
	44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	1,070	1,070		
	44002216	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 4"	SQ YD	1,836	1,836		
	44201789	CLASS D PATCHES, TYPE II, 12 INCH	SQ YD	155	155		
	44201794	CLASS D PATCHES, TYPE III, 12 INCH	SQ YD	19	19		
	44201796	CLASS D PATCHES, TYPE IV, 12 INCH	SQ YD	1,597	1,597		
	60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	1	1		
	60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	62	62		
	60401810	GRATES, TYPE 3	EACH	23	23		
	60404800	FRAMES AND GRATES, TYPE 11	EACH	1	1		
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3		
	67100100	MOBILIZATION	L SUM	1	1		
	70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1		
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1		
	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	4,908	4,908		
	70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	436	436		
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	23,042	23,042		
	70300240		FOOT	1,628	1,628		
	70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	480	480		
		TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	259	259		
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1,636	1,636		
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	437	437		
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	23,042	23,042		
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1,628	1,628		
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	480	480		
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	259	259		
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	300	300		
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	300	300		
*	88600600	DETECTOR LOOP REPLACEMENT	FOOT	664	664		
	X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	320.9	320.9		
	X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL 4.75, N50	TON	2,020	2,020		
NO	Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	48	48		
INF		TRAINES	HOUR	,,,	10		
		111 IAI MANON -	.1001				

• SPECIALTY ITEM
NP = Non-participating

Excellence through Ownership

200 West Front Street Wheaton, II 60187

DESIGNED - WJV REVISED DRAWN WJV REVISED CHECKED BLB REVISED DATE 5/23/08 REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 137 (GREENWOOD AVE. - BLANCHARD RD.) SUMMARY OF QUANTITIES
SHEET NO. OF SHEETS STA. TO STA.

SCALE:

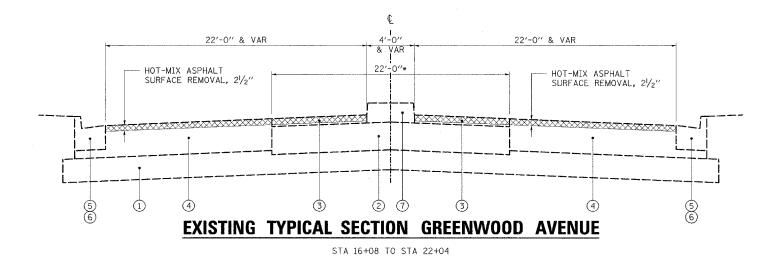
STA 14+46 TO STA 22+25

COMBINATION CURB AND GUTTER
REMOVAL AND REPLACEMENT AS
DIRECTED BY THE ENGINEER, TYP.

10 1 4 2 3 4 5

# **EXISTING TYPICAL SECTION SHERIDAN ROAD**

STA 22+25 TO STA 71+27



\* WIDTH OF PCC PAVEMENT BASED ON RECORD DRAWINGS. CONTRACTOR SHALL VERIFY IN FIELD,

## **LEGEND**

- 1) EXISTING AGGREGATE BASE COURSE
- 2) EXISTING PCC PAVEMENT, 14"
- (3) EXISTING HOT-MIX ASPHALT PAVEMENT, 4" (BEFORE SURFACE REMOVAL)
- (4) EXISTING HOT-MIX ASPHALT PAVEMENT, 16" (BEFORE SURFACE REMOVAL)
- (5) EXISTING COMBINATION CURB AND GUTTER, TYPE B-6.24
- 6 EXISTING COMBINATION CURB AND GUTTER, TYPE B-6.12
- 7 EXISTING MEDIAN
- 8 PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- (9) PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, "MIX F", N90, 13/4"

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Excellence through Ownership

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

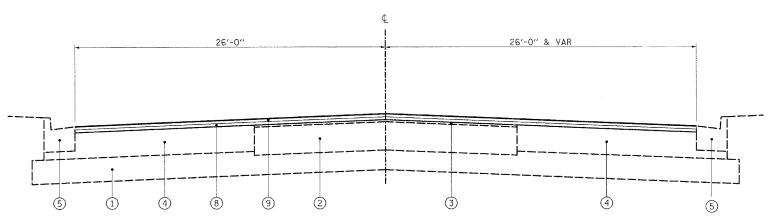
IL ROUTE 137 (GREENWOOD AVE. – BLANCHARD RD.)

EXISTING TYPICAL SECTIONS

SHEET NO. OF SHEETS STA. TO STA.

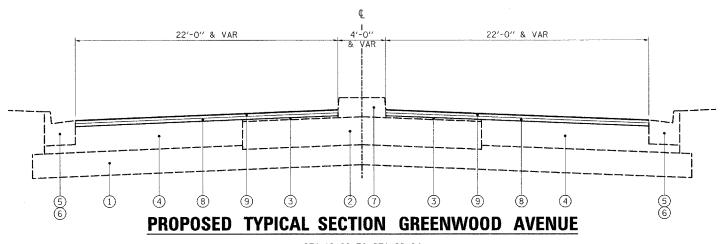
SCALE:

STA 14+46 TO STA 22+25



# PROPOSED TYPICAL SECTION SHERIDAN ROAD

STA 22+25 TO STA 71+27



STA 16+08 TO STA 22+04

# **HOT-MIX ASPHALT MIXTURE**

MIXTURE	AC TYPE	AIR VOIDS (%)
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL 9.5 mm)	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.
HMA REPLACEMENT OVER PATCHES (HMA BINDER, IL-19 mm)	PG 64-22*	4% @ 70 GYR.
CLASS D PATCH (HMA BINDER, IL-19 mm)	PG 64-22*	4% ⊚ 70 GYR.

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

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

# **LEGEND**

- EXISTING AGGREGATE BASE COURSE
- 2 EXISTING PCC PAVEMENT, 14"
- (3) EXISTING HOT-MIX ASPHALT PAVEMENT, 4" (BEFORE SURFACE REMOVAL)
- 4 EXISTING HOT-MIX ASPHALT PAVEMENT, 16" (BEFORE SURFACE REMOVAL)
- 5 EXISTING COMBINATION CURB AND GUTTER, TYPE B-6.24
- 6 EXISTING COMBINATION CURB AND GUTTER, TYPE B-6.12
- 7 EXISTING MEDIAN
- (8) PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- (9) PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, "MIX F", N90, 13/4"

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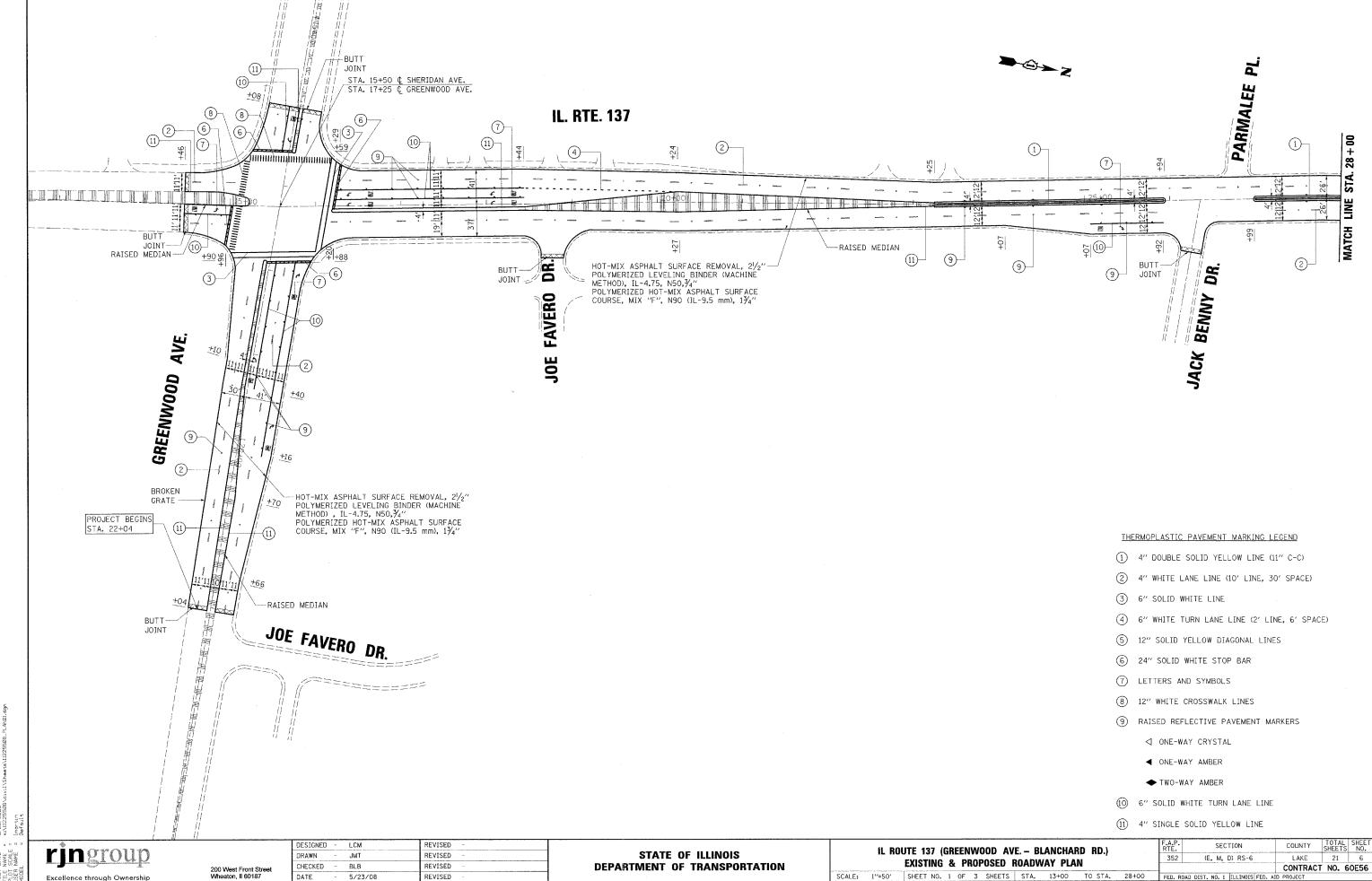
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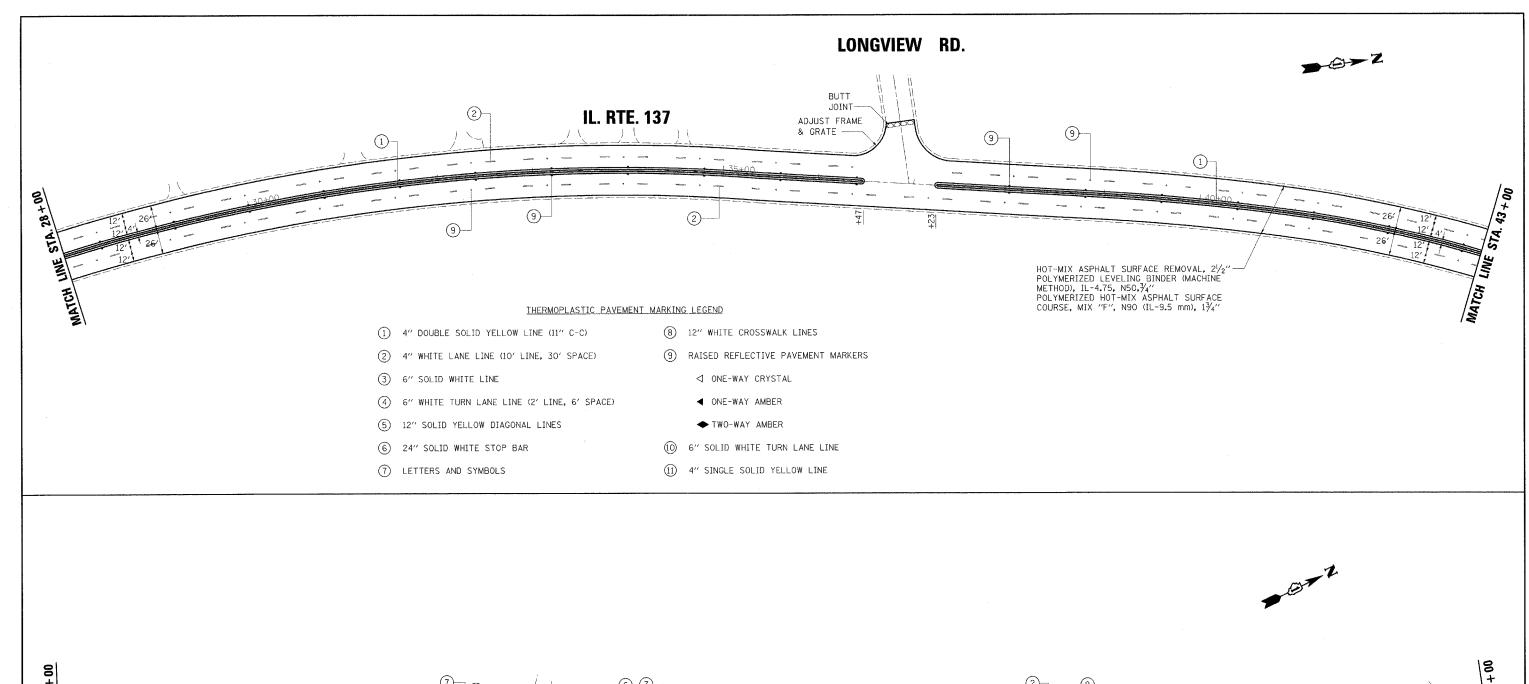
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

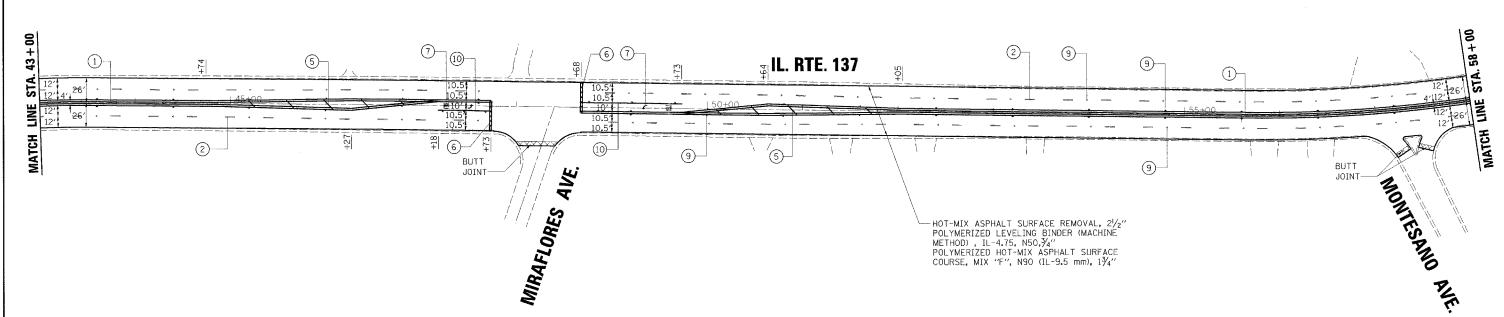
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IL ROUTE 137 (GREENWOOD AVE. – BLANCHARD RD.)
PROPOSED TYPICAL SECTIONS

SHEET NO. OF SHEETS STA. TO STA.





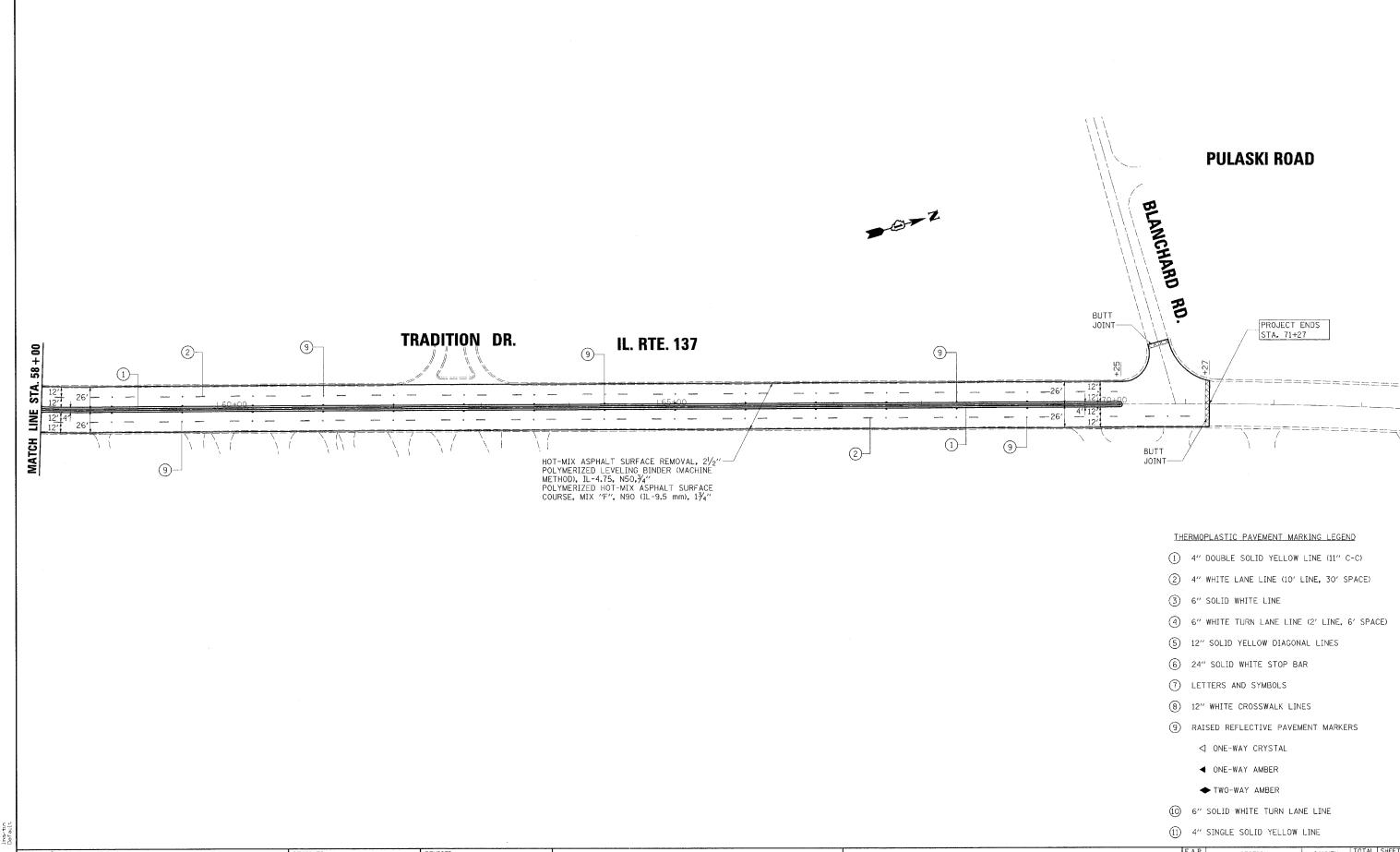


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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

IL ROUTE 137 (GREENWOOD AVE. – BLANCHARD RD.)
EXISTING & PROPOSED ROADWAY PLAN

SCALE: 1"=50" SHEET NO. 2 OF 3 SHEETS STA. 28+00 TO STA. 58+00



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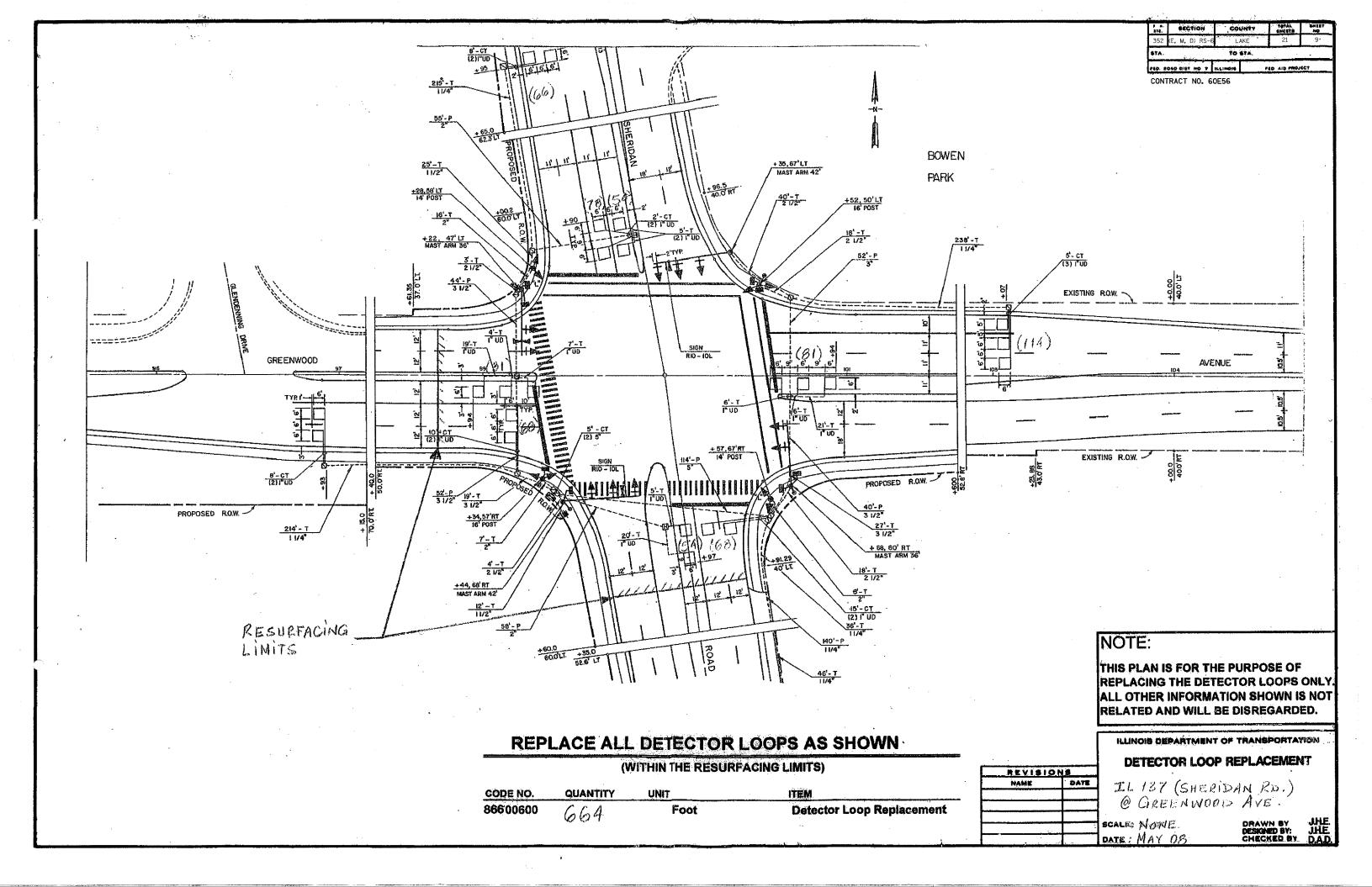
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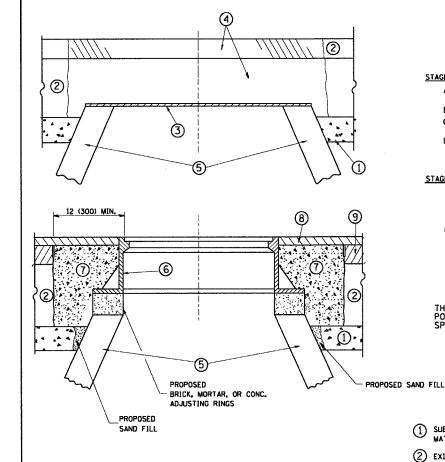
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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

IL ROUTE 137 (GREENWOOD AVE. - BLANCHARD RD.) **EXISTING & PROPOSED ROADWAY PLAN** SCALE: 1"=50" SHEET NO. 3 OF 3 SHEETS STA. 58+00 TO STA. 73+00

COUNTY CONTRACT NO. 60E56





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.

#### 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 11/2 (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
- 6 FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT
- CLASS SI CONCRETE.
  HMA SURFACE COURSE OR
  HMA BINDER COURSE
- 3 36 (900) DIAMETER METAL PLATE
- 8 PROPOSED HMA SURFACE COURSE
- (5) EXISTING STRUCTURE
- 9 PROPOSED HMA BINDER COURSE

#### LOCATION OF STRUCTURES:

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

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

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

## DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

TOTAL SHEET

CONTRACT NO. 60E56

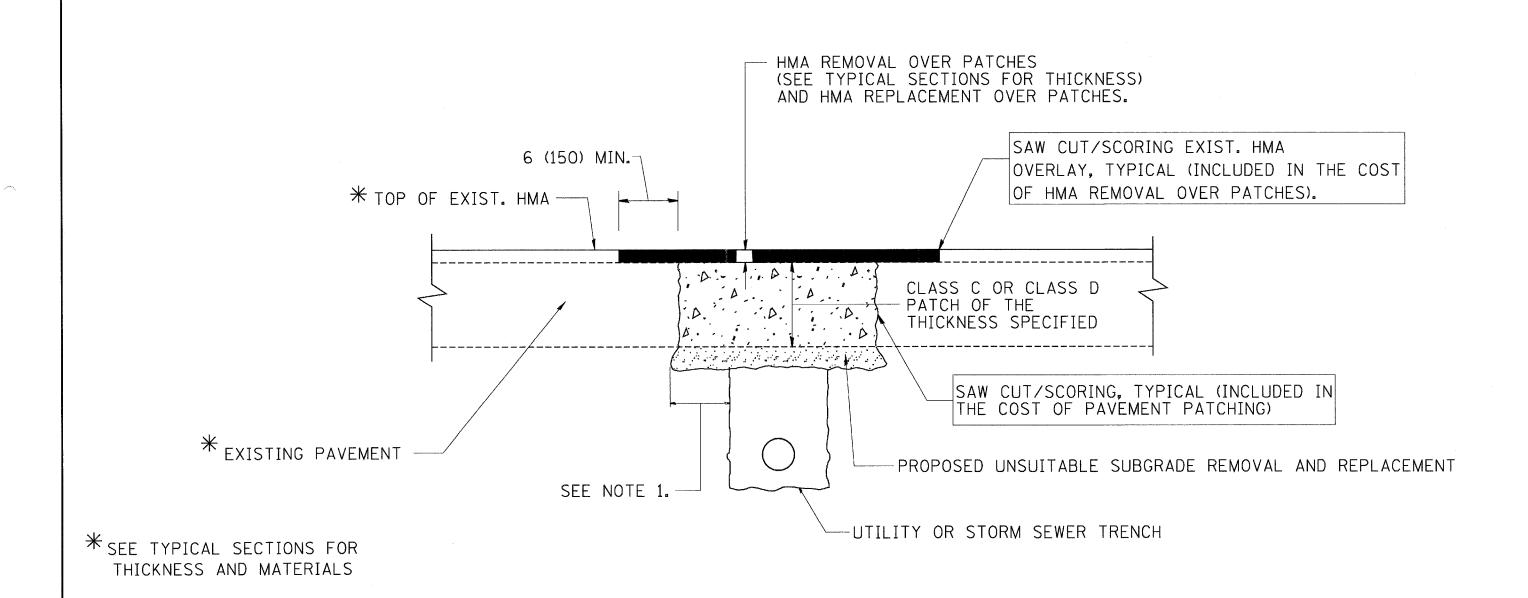
COUNTY

DESIGNED - R. SHAH REVISED - R. SHAH 03-10-95 FILE NAME : USER NAME = gaglianobt W:\diststd\22x34\bdØ8.dgn DRAWN REVISED - A. ABBAS 03-21-97 CHECKED REVISED - R. WIEDEMAN 05-14-04 PLOT SCALE = 50.0000 '/ IN. REVISED - R. BORO 01-01-07 PLOT DATE = 1/4/2008 DATE - 10-25-94

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

**DETAILS FOR** FRAMES AND LIDS ADJUSTMENT WITH MILLING BD600-03 (BD-8) CONTRA SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA.

DATE NAME SCALE



#### NOTES:

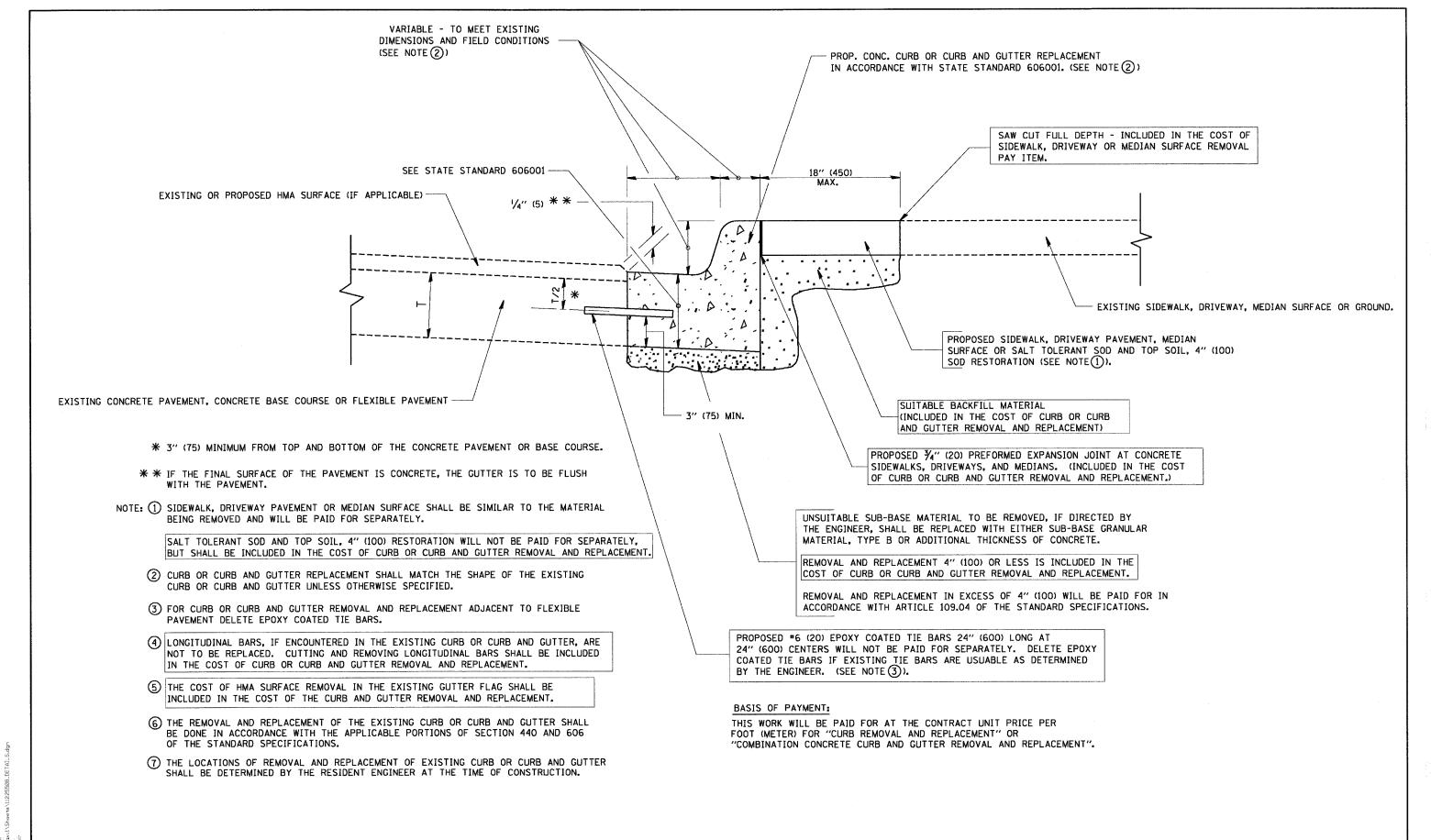
- 1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
- 2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

# 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.

REVISED - A. ABBAS 01-20-98 FILE NAME = USER NAME = gaglianobt PAVEMENT PATCHING FOR STATE OF ILLINOIS REVISED - A. ABBAS 04-27-98 /i\diststd\22x34\bd22.dqr DRAWN (E, M, D) RS-6 HMA SURFACED PAVEMENT **DEPARTMENT OF TRANSPORTATION** PLOT SCALE = 50.000 '/ IN. CHECKED REVISED - R. BORO 01-01-07 CONTRACT NO. 60E56 BD400-04 (BD-22) SHEET NO. 1 OF 1 SHEETS STA. TO STA. PLOT DATE = 1/4/2008 10-25-94 REVISED - R. BORO 09-04-07



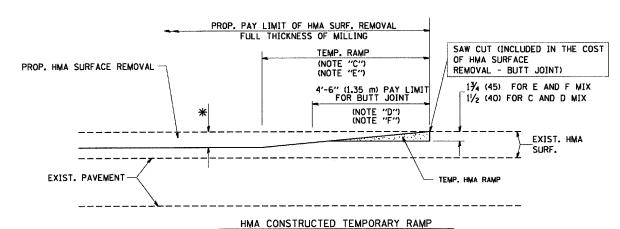
# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

REVISED - R. SHAH 10-03-96 TOTAL SHEETS NO. FILE NAME = USER NAME = gaglianobt DESIGNED - A. HOUSEH SECTION COUNTY CURB OR CURB AND GUTTER REVISED - A. ABBAS 03-21-97 STATE OF ILLINOIS DRAWN LAKE /i\diststd\22x34\bd24.dgn (E. M. D) RS-6 REMOVAL AND REPLACEMENT REVISED - M. GOMEZ 01-22-01 **DEPARTMENT OF TRANSPORTATION** CHECKED BD600-06 (BD-24) CONTRACT NO. 60E56 PLOT SCALE = 50.000 '/ IN. SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA. PLOT DATE = 1/4/2008 DATE - 03-11-94 REVISED - R. BORO 01-01-07

### OPTION 1

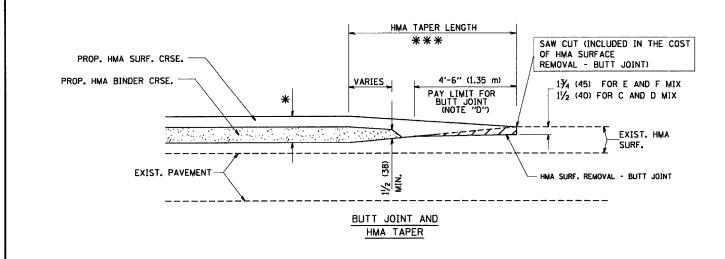
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)



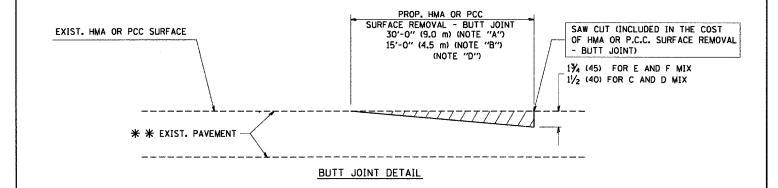
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

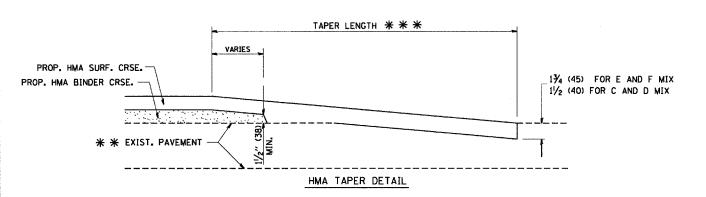
#### OPTION 2

#### TYPICAL TEMPORARY RAMP



# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING





# TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

\* \* 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".

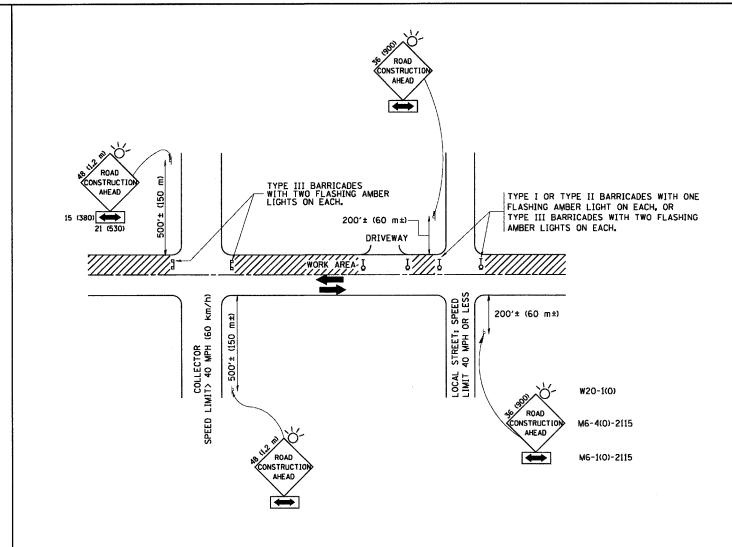
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) LINLESS OTHERWISE SHOWN.

FILE NAME = ggglianobt DESIGNED - M. DE YONG REVISED - R. SHAH 10-25-94
W:\distatd\22x34\bd32.dgn

PLOT SCALE = 56.0000 '/ IN. CHECKED - REVISED - N. GOMEZ 04-06-01
PLOT DATE = 1/4/2008 DATE - 06-13-90 REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| RUT | JOINT AND | | F.A.P. | SECTION | COUNTY | SHEET | NO. | NO. | SHEET | STA. | TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | NO. | SHEET | SHEET | NO. | SHEET | NO. | SHEET | NO. | SHEET | NO. | SHEET | S



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:
- O) 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:
- g) ONE ROAD CONSTRUCTION AHEAD SIGN 48  $\times$  48 (1.2 m  $\times$  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 (MG-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

#### B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

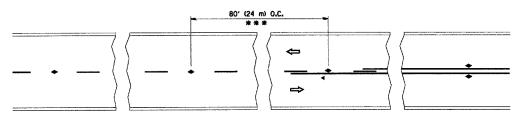
DESIGNED - LHA REVISED - J. OBERLE 10-18-95 FILE NAME = USER NAME = gaglianobt REVISED - A. HOUSEH 03-06-96 W:\diststd\22x34\tc10.dgn DRAWN PLOT SCALE = 50.000 '/ IN. CHECKED REVISED - A. HOUSEH 10-15-96 PLOT DATE = 1/4/2008 DATE REVISED -T. RAMMACHER 01-06-00

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHEET NO. 1 OF 1 SHEETS STA. TO STA. SCALE: NONE

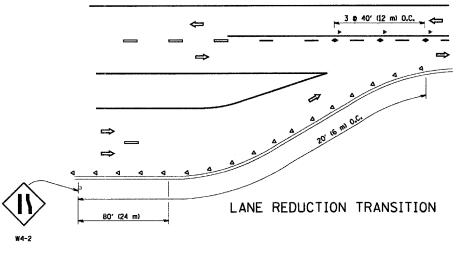
(E. M. D) RS-6 LAKE CONTRACT NO. 60E56 TC-10

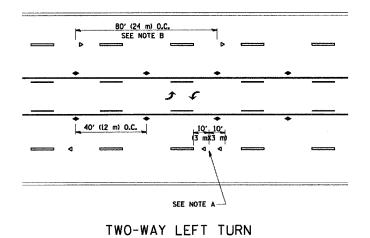
DATE NAME SCALE NAME



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

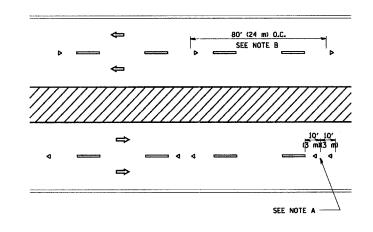
TWO-LANE/TWO-WAY





SEE NOTE B \_40' (12 m) O.C. SEE NOTE A-

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.

#### LANE MARKER NOTES

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

#### SYMBOLS

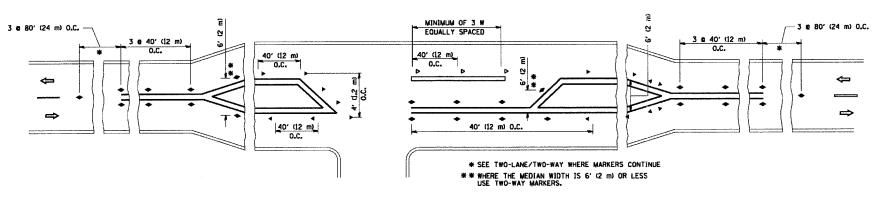
- YELLOW STRIPE

WHITE STRIPE

- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- TWO-WAY AMBER MARKER

#### **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
- 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

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

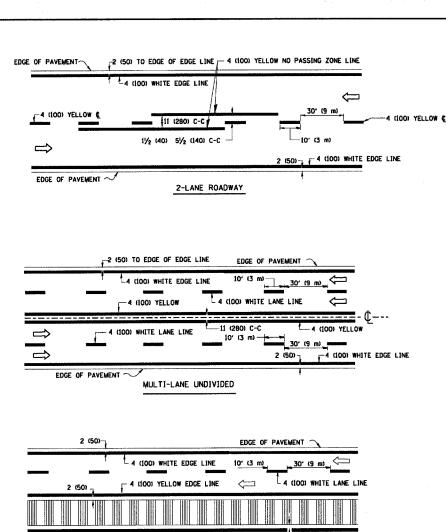
REVISED - T. RAMMACHER 09-19-94 DESIGNED -FILE NAME = USER NAME = gaglianobt REVISED - T. RAMMACHER 03-12-99 √:\dıststa\22x34\tol1.dgr DRAWN -PLOT SCALE = 52.800 '/ IN. CHECKED REVISED -T. RAMMACHER 01-06-00 PLOT DATE = 1/4/2008 DATE REVISED

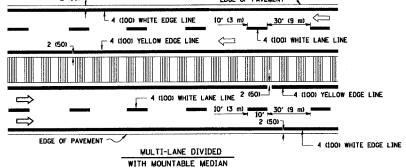
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

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

(E, M, D) RS-6 LAKE CONTRACT NO. 60E56 TC-11

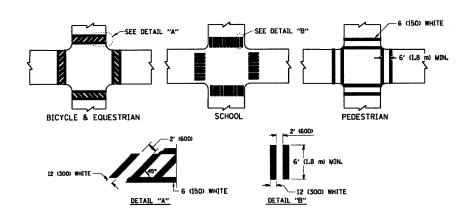
DATE NAME SCALE NAME



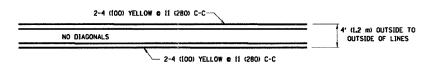


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

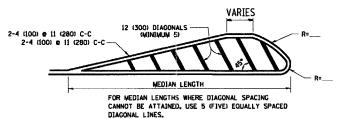
#### TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

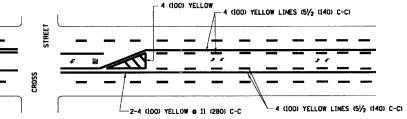


#### 4' (1.2 m) WIDE MEDIANS ONLY



DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

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

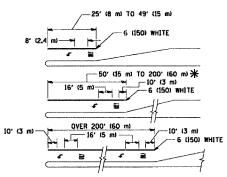


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

#### TYPICAL PAINTED MEDIAN MARKING

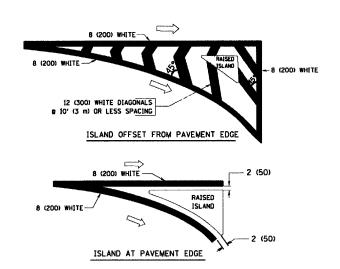


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup> )  $\P$  AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

\* 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

TYPICAL LEFT (OR RIGHT) TURN LANE

#### TYPICAL TURN LANE MARKING



#### TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	DATTERN	coron	SPACING / REMARKS
		PATTERN	COLOR	
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVEDED PAVEMENT	2 0 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 <b>0</b> 4 (100)	SOLID SOLID	AETTOM AETTOM	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 1280) C-C OWIT 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 WARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOL 10	WHITE	SEE TYPICAL TURN LANE WARKING DETAIL
TWO WAY LEFT TURN MARKING	2 e 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH: 51/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLIO	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 e 4 (100) WITH 12 (300) DIAGONALS e 45°	SOLID	YELLOW: TWO WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
	NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS		WHITE: ONE WAY TRAFFIC	
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS # 45"	SOL 1D	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: "M"-3.6 SO. FT. (0.33 m <sup>2</sup> ) EACH "X"-54.0 SO. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) <b>e</b> 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.

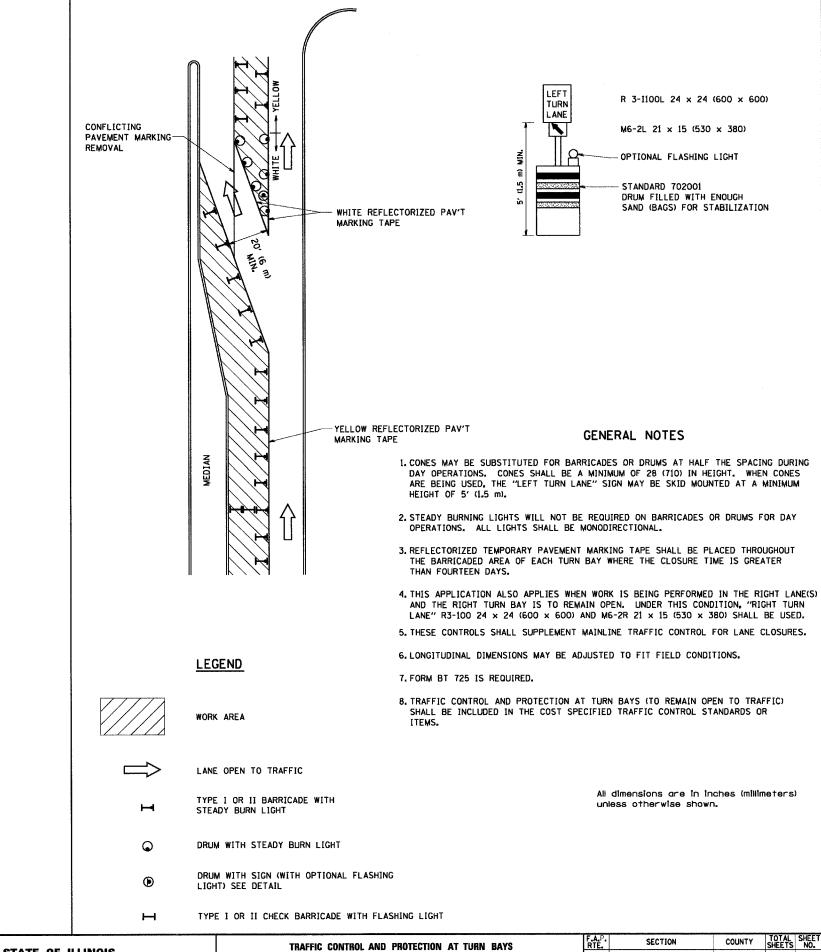
All dimensions are in inches (millimeters) unless otherwise shown.

LE NAME =	USER NAME = gaglianobt	DESIGNED - EVERS	REVISED	-T. RAMMACHER 10-27-94
\diststd\22x34\to13.dgn		DRAWN -	REVISED	-A. HOUSEH 10-09-96
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED	-A. HOUSEH 10-17-96
	PLOT DATE = 1/4/2008	DATE - 03-19-90	REVISED	-T. RAMMACHER 01-06-00

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

1		DISTRICT	ONE		F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEI
ı		TYPICAL PAVEME			352	(E, M, D) RS-6	LAKE	21	16
		ITPICAL PAVENIE	NI MANKINGS			TC-13	CONTRACT	NO. 6	0E56
	SCALE: NONE	SHEET NO. 1 OF 1 SHEET	S STA.	TO STA.	FED. ROA	AD DIST. NO. 1 ILLINOIS FED. AI	ID PROJECT		

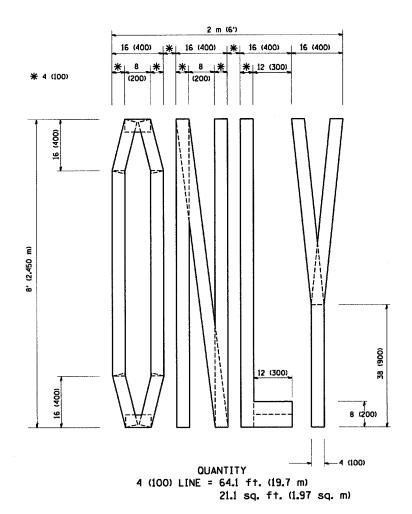
DATE NAME SCALE NAME

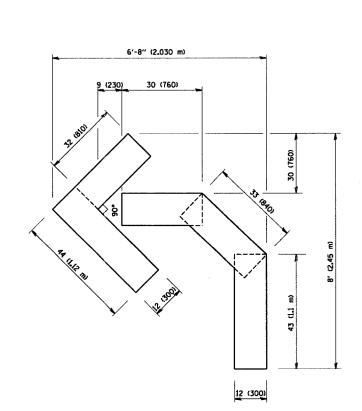


FILE NAME = USER NAME = gaglianobt DESIGNED -REVISED -T. RAMMACHER 09-08-94 DRAWN REVISED - A. HOUSEH 11-07-95 w:\diststd\22x34\tc14.dgn CHECKED REVISED - A. HOUSEH 10-12-96 PLOT SCALE = 50.0000 '/ IN. PLOT DATE = 1/4/2008 DATE REVISED -T. RAMMACHER 01-06-00

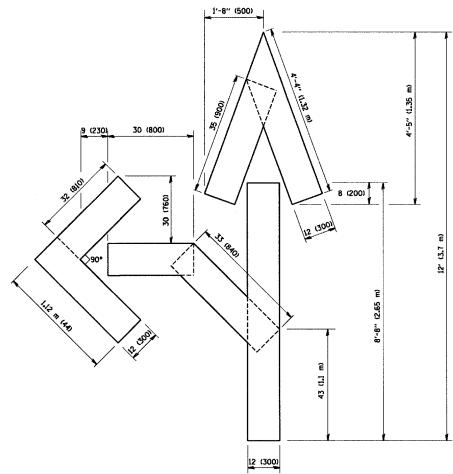
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

(E, M, D) RS-6 LAKE 352 21 17 (TO REMAIN OPEN TO TRAFFIC) CONTRACT NO. 60E56 TC-14 SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA. FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT





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



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

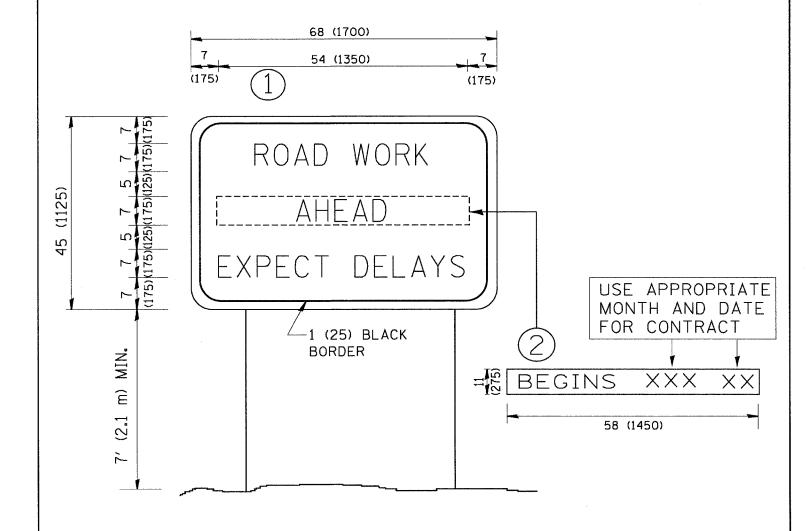
All dimensions are in inches (millimeters) unless otherwise shown.

iTE = 5/22/2008 ME = kill225508\crvil\Sheeta\ll22 ALE = linertin MT = 1016

LE NAME =	USER NAME = geglienobt	DESIGNED -	REVISED -T. RAMMACHER 06-05-96
\datatd\22x34\tc16.dgn		DRAWN ~	REVISED -T. RAMMACHER 11-04-97
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98
	PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00

STATI	E OI	ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

PAVEMENT MARKING LETTERS AND SYMBOLS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FOR TRAFFIC STAGING	352	(E, M, D) RS-6	LAKE	21	18
TOU INALLIC STAGING		TC-16	CONTRACT	NO. 60	E56
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. RO	OAD DIST. NO. 1   ILLINOIS FED. A	ID 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.

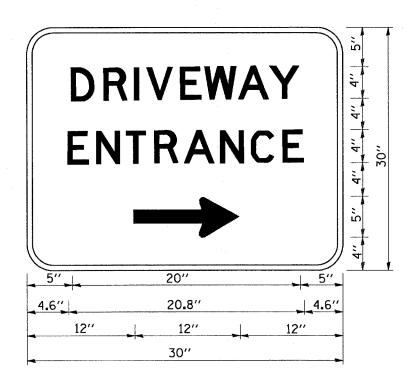
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

Imar TC22	
0 0	FILE N
NAME	Wi/dia
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E NAME =	USER NAME = gaglamobt	DESIGNED -	REVISED	-	R. MIRS 09-15-97
distatd\22x34\tc22.dgn		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. JUCIUS 01-31-07

STATI	E OI	: ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
			352	(E, M, D) RS-6	LAKE	21	19	
INFUNINATION SIDIY				TC-22		CONTRACT NO. 60E56		
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST, NO. 1   ILLINOIS FED. AID PROJECT				



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

#### NOTES:

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

= K:\|I225588\cry1\\Sheets\ = Imartin = TC26

FILE NAME = gglianobt DESIGNED - REVISED - C. JUCIUS 02-15-07
Wi\distatd\22x34\to26.dgn

PLOT SCALE = 50.000 // IN.

CHECKED - REVISED PLOT DATE = 1/4/2000 DATE - REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

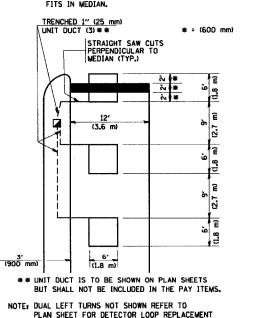
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# LEFT TURN LANES WITH MEDIANS VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH (PROTECTED / PERMITTED LEFT TURN PHASING)

ED / PERMITTED LEFT TURN PHAS

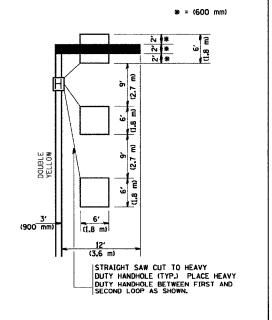
HANDHOLE LOCATION MAY
VARY DEPRODING ON DECOMETRICS
AND DESIGN OF TRAFFIC SIGNALS.
HEAVY-DUTY HANDHOLES TO BE
USED WHEN THE MEDIAN IS
MOUNTABLE. REFER TO STANDARD
814001 TO ENSURE THAT HANDHOLE
FITS IN MEDIAN.

TDENCHED 17 (25 mm)



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

(PROTECTED / PERMITTED LEFT TURN PHASING)

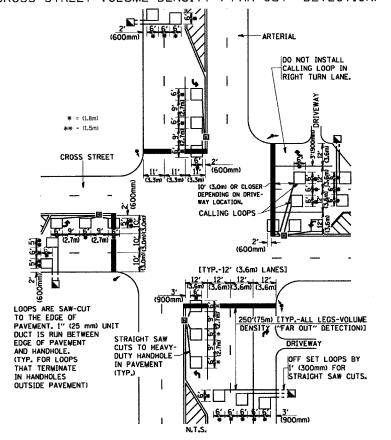


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

SCALE: NONE

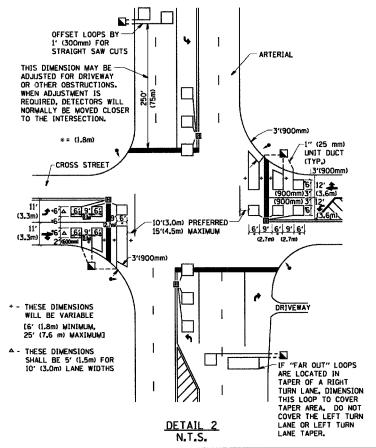
ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-VOLUME DENSITY ("FAR OUT" DETECTION)

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



DETAIL 1

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 SEPARATLY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- \* ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- \* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- \* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE
  THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR
  (1.e. 1-1/2, 1-3/4, 2).
- \* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

#### PLACEMENT OF DETECTORS

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

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON  $\underline{\text{ALL}}$  SIGNAL LAYOUT PLAN SHEETS.

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

#### NOTE:

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

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

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 - DETECTOR LOOP INSTALLATION

DETAILS FOR ROADWAY RESURFACING

SHEET NO. 1 OF 1 SHEETS STA. TO STA.

:\||1225508\|>:\||\Sheets\||1225508\_DETA||LS.dgr