STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

FOR INDEX OF SHEETS, SEE SHEET NO. 2

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PROPOSED HIGHWAY PLANS

F.A.P. ROUTE 334: US RTE 12 (RAND ROAD) IL RTE 22 TO OLD RAND ROAD SECTION: SY-1-RS-4 **RESURFACING (3P)** LAKE COUNTY C-91-594-09

IMPROVEMENT LOCATED IN THE VILLAGES OF LAKE ZURICH AND NORTH BARRINGTON

2007 ADT = 42,500 VEHICLES PER DAY SPEED LIMIT = 50 MPH

ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

1-800-892-0123 OR 811

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

R 9 E R 10 E LAKEWO()D FOREST **IMPROVEMENT** ENDS STA 240+54 **IMPROVEMENT** OMISSION: BEGINS STA 39+21 STA 197 + 62 TO ZURICH GOLF COURSE STA 206 + 56

> GROSS LENGTH OF PROJECT = 20,133 FT = 3.81 MILES NET LENGTH OF PROJECT = 19.039 FT = 3.61 MILES

ELA, WAUCONDA, AND FREMONT TOWNSHIPS

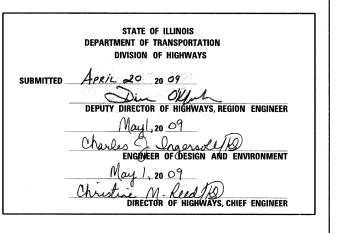
LOCATION MAP NOT TO SCALE



ILLINOIS CONTRACT NO. 60H24 FED. ROAD DIST, NO. 1

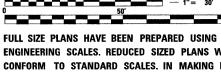
D-91-594-09







PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS



JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION

CONTRACT NO. 60H24

INDEX OF SHEETS

STATE STANDARDS

DESCRIPTION

CLASS C AND D PATCHES.

TRAFFIC CONTROL DEVICES

STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY,

URBAN LANE CLOSURE MULTILANE INTERSECTION

LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS FOR SPEEDS \geq 45 MPH

HMA SHOULDER STRIPS WITH RESURFACING OR WIDENING RESURFACING PROJECTS

URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE

HFF	T NO.	DESCRIPTION	SIAIE SIA
J1 166		SCOM TOTAL	STANDARD NO.
	1	TITLE SHEET	
	2	INDEX OF SHEETS, STATE STANDARDS, GENERAL NOTES	000001-05
	3	SUMMARY OF QUANTITIES	442201-03
	4-5	TYPICAL SECTIONS	482011-03
	6-12	PLAN AND PAVEMENT MARKING DETAILS	701421-02
	13-16	DETECTOR LOOP REPLACEMENT PLANS	701426-03
	17	FRAMES AND LIDS ADJUSTMENT WITH MILLING	701602-04
	**	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT	701701-06
	18		701901-01
	19	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT	
	20	BUTT JOINTS AND HMA TAPER DETAILS	
	21	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS	
	22	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)	
	23	DISTRICT ONE TYPICAL PAVEMENT MARKINGS	
	24	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)	
	25	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING	
	26	ARTERIAL ROAD INFORMATION SIGN	
	27	DRIVEWAY ENTRANCE SIGNING	
	28	DISTRICT 1 DETECTOR LOOP INSTALLATION DETAIL FOR ROADWAY	RESURFACING

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.)

GENERAL NOTES

- 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 THE ENGINEER.
- 7. ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 8. DRAINAGE ADJUSTMENT, CLEANING OR RECONSTRUCTION LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 9. 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.
- 10. 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
- 11. 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.
- 12. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS
- 13. 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.
- 14. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS
- 15. 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.
- 16. 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.
- 17. WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1½INCHES (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 GRADE DIFFERENTIAL OF 3 INCHES (75 MM) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H)
- 18. 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.
- 19. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND
- 20. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.

ringroup Excellence through Ownership

DESIGNED -BI B REVISED DRAWN JMT REVISED MAK REVISED CHECKED Wheaton, II 60187 DATE 4/13/2009 REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** US RTE 12 (RAND RD)

INDEX OF SHEETS, STATE STANDARDS, GENERAL NOTES

TOTAL SHEETS NO. SECTION COUNTY SY-1-RS-4 LAKE 334 CONTRACT NO.60H24 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

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				10001	
discontinuo di controlo del con		SUMMARY OF QUANTITIES		100% STATE TOTAL	CONSTRUCTION TYPE CODE
	CODE NO.	ITEM DESCRIPTION	UNIT	QUANTITY	
	40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	115	115
	40600300	AGGREGATE (PRIME COAT)	TON	574	574
	40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	23	23
	40600895	CONSTRUCTING TEST STRIP	EACH	2	2
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	2,404	2, 404
	40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	2,508	2,508
	40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	18,748	18,748
	42001300	PROTECTIVE COAT	SQ YD	89	89
	44000159	HOT-MIX ASPHALT SURFACE REMOVAL 2 1/2"	SQ YD	191,303	191, 303
	44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	400	400
	44002216	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 4"	SQ YD	11, 193	11,193
	44201761	CLASS D PATCHES, TYPE I, 10 INCH	SQ YD	600	600
	44201765	CLASS D PATCHES, TYPE II, 10 INCH	SQ YD	800	800
	44201769	CLASS D PATCHES, TYPE III, 10 INCH	SQ YD	500	500
	44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SQ YD	8,800	8,800
	55039700	STORM SEWERS TO BE CLEANED	FOOT	1,000	1,000
	60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	20	20
	60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	10	10
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6
	67100100	MOBILIZATION	L SUM	1	1
	70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701421	L SUM	1	1
	70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1	1
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1
	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	1,924	1,924
	70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	2, 278	2, 278
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	85, 327	85, 327
	70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	8, 223	8, 223
	70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	903	903
	70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	558	558
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	642	642
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	2, 278	2, 278
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	85, 327	85, 327
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	8, 223	8, 223

* SPECIALTY ITEM

		100% STATE TOTAL	CONSTRUCTION TYPE CODE		
	CODE NO.	ITEM DESCRIPTION	UNIT	QUANTITY	1000
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	903	903
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	558	558
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	676	676
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	609	609
*	88600600	DETECTOR LOOP REPLACEMENT	FOOT	1,580	1,580
	X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	52	52
	X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	8,035	8,035
	Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	65	65
		3			

* SPECIALTY ITEM

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DESIGNED - BLB REVISED - ____

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CHECKED - MAK REVISED - ___

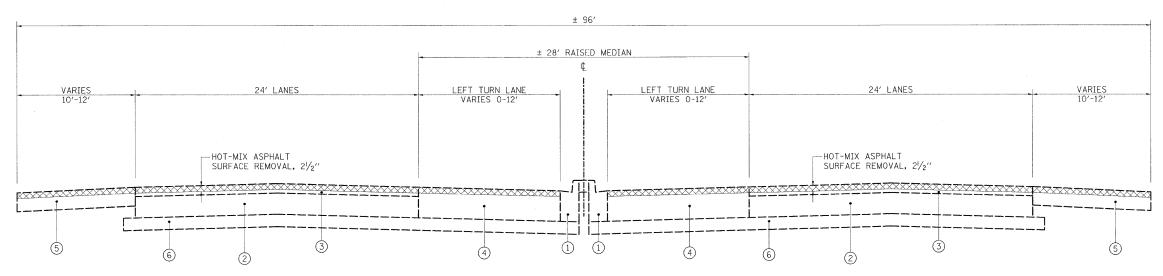
DATE - 4/13/2009 REVISED - ___

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

US RTE 1	2 (RAND RD)	SUMMARY	OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	
	M V V			334	SY-1-RS-4	LAKE	28	
						CONTRACT	NO.60H	2
SCALE:	SHEET NO. 3 OF 28 SH	EETS STA	TO STA	FED. RO	DAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		_

EXISTING TYPICAL SECTION RAND ROAD

STA. 83+50 TO STA. 240+54



EXISTING TYPICAL SECTION RAND ROAD

STA. 39+03 TO STA. 83+50

LEGEND

- 1) EXISTING COMBINATION CURB AND GUTTER, TYPE B-6.24
- EXISTING PCC PAVEMENT, ±10"
- EXISTING HOT-MIX ASPHALT PAVEMENT, ±4" (BEFORE SURFACE REMOVAL)
- EXISTING HOT-MIX ASPHALT PAVEMENT, ±14" (BEFORE SURFACE REMOVAL)
- EXISTING HOT-MIX ASPHALT SHOULDER, ±8" (BEFORE SURFACE REMOVAL)
- EXISTING AGGREGATE BASE COURSE
- PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 134"

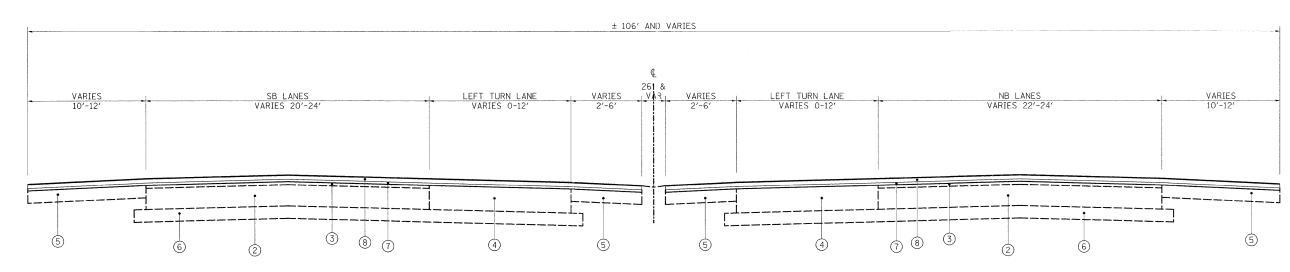
rjngroup

200 West Front Street Wheaton, II 60187

DESIGNED BLB REVISED REVISED DRAWN MAK REVISED REVISED 4/13/2009

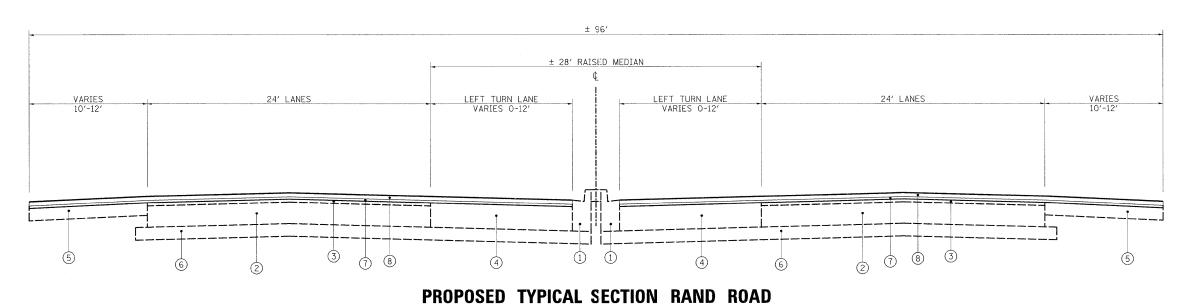
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** US RTE 12 (RAND RD) **EXISTING** TYPICAL SECTIONS SHEET NO. 4 OF 28 SHEETS STA.

F.A.P. RTE. 334 SECTION COUNTY TOTAL SHEE LAKE SY-1-RS-4 CONTRACT NO.60H24 FED. ROAD DIST, NO. 1 ILLINOIS FED. AID PROJECT



PROPOSED TYPICAL SECTION RAND ROAD

STA. 83+50 TO STA. 260+54



HOT-MIX ASPHALT MIXTURE

AC TYPE

AIR VOIDS (%)

MIXTURE

(HMA BINDER, IL-19 mm)

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

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.

STA. 39+03 TO STA. 83+50

LEGEND

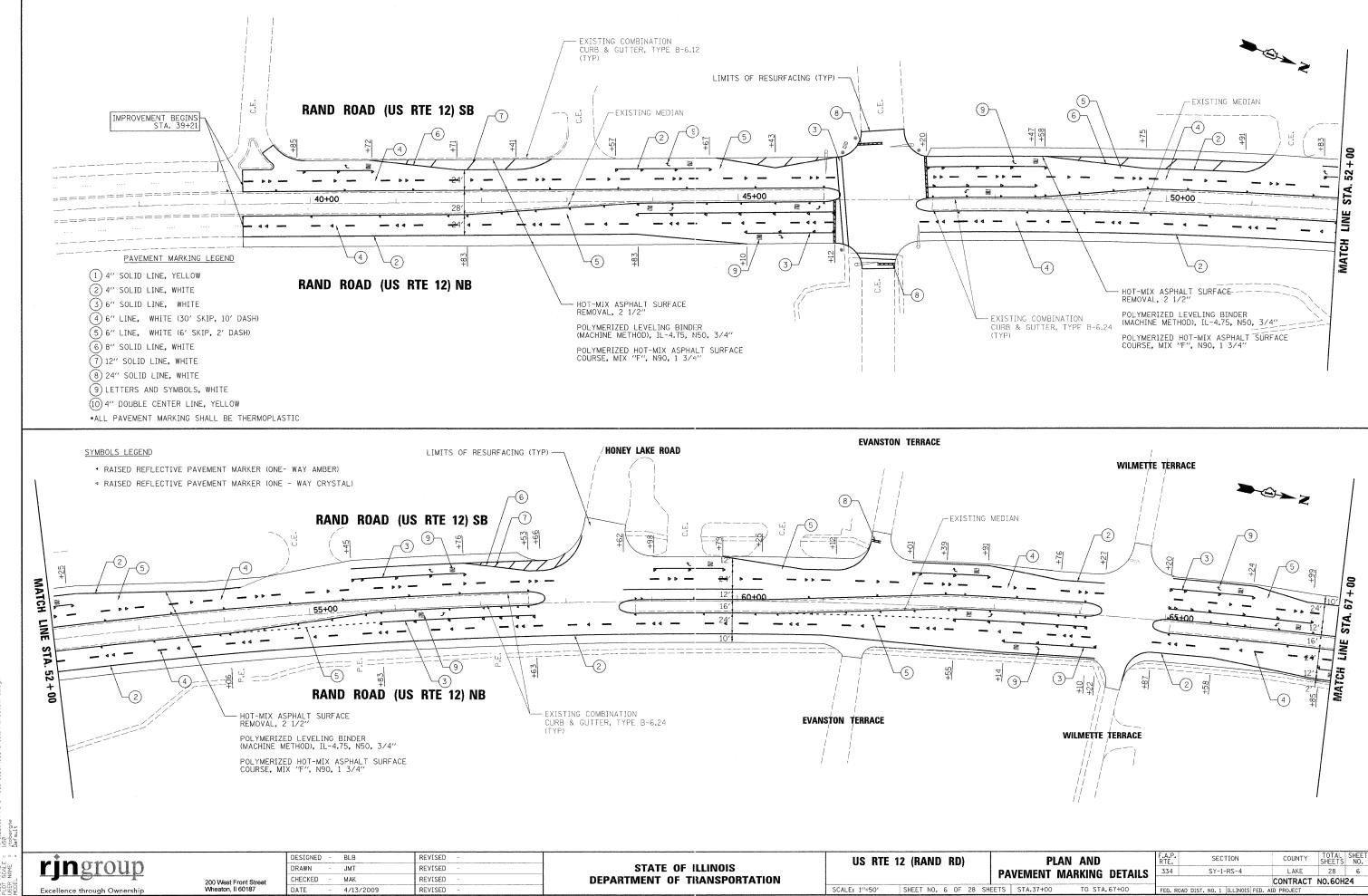
- 1) EXISTING COMBINATION CURB AND GUTTER, TYPE B-6.24
- EXISTING PCC PAVEMENT, ±10"
- EXISTING HOT-MIX ASPHALT PAVEMENT, ±4" (BEFORE SURFACE REMOVAL)
- EXISTING HOT-MIX ASPHALT PAVEMENT, ±14" (BEFORE SURFACE REMOVAL)
- EXISTING HOT-MIX ASPHALT SHOULDER, ±8" (BEFORE SURFACE REMOVAL)
- 6 EXISTING AGGREGATE BASE COURSE
- PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 13/4"

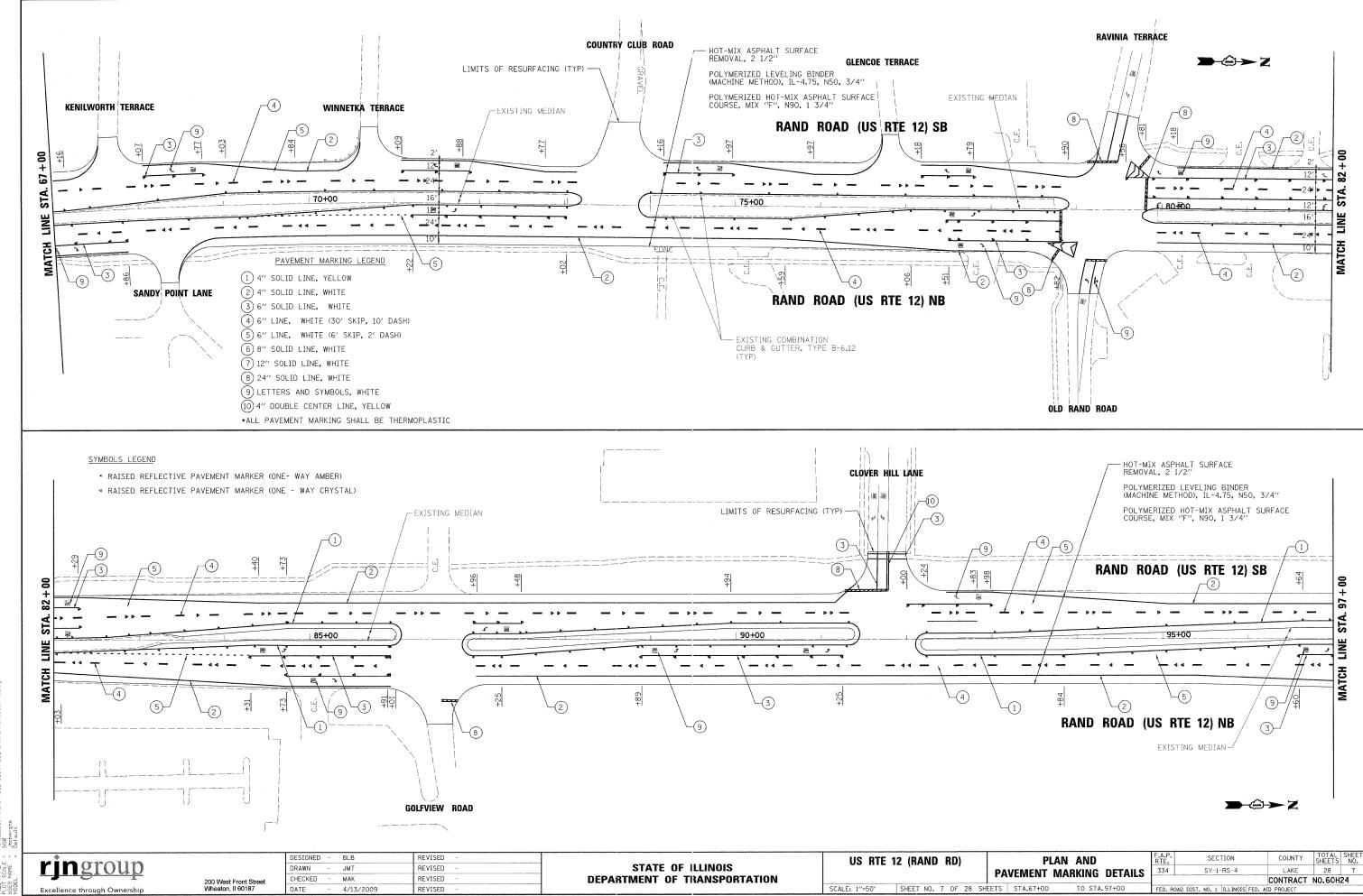
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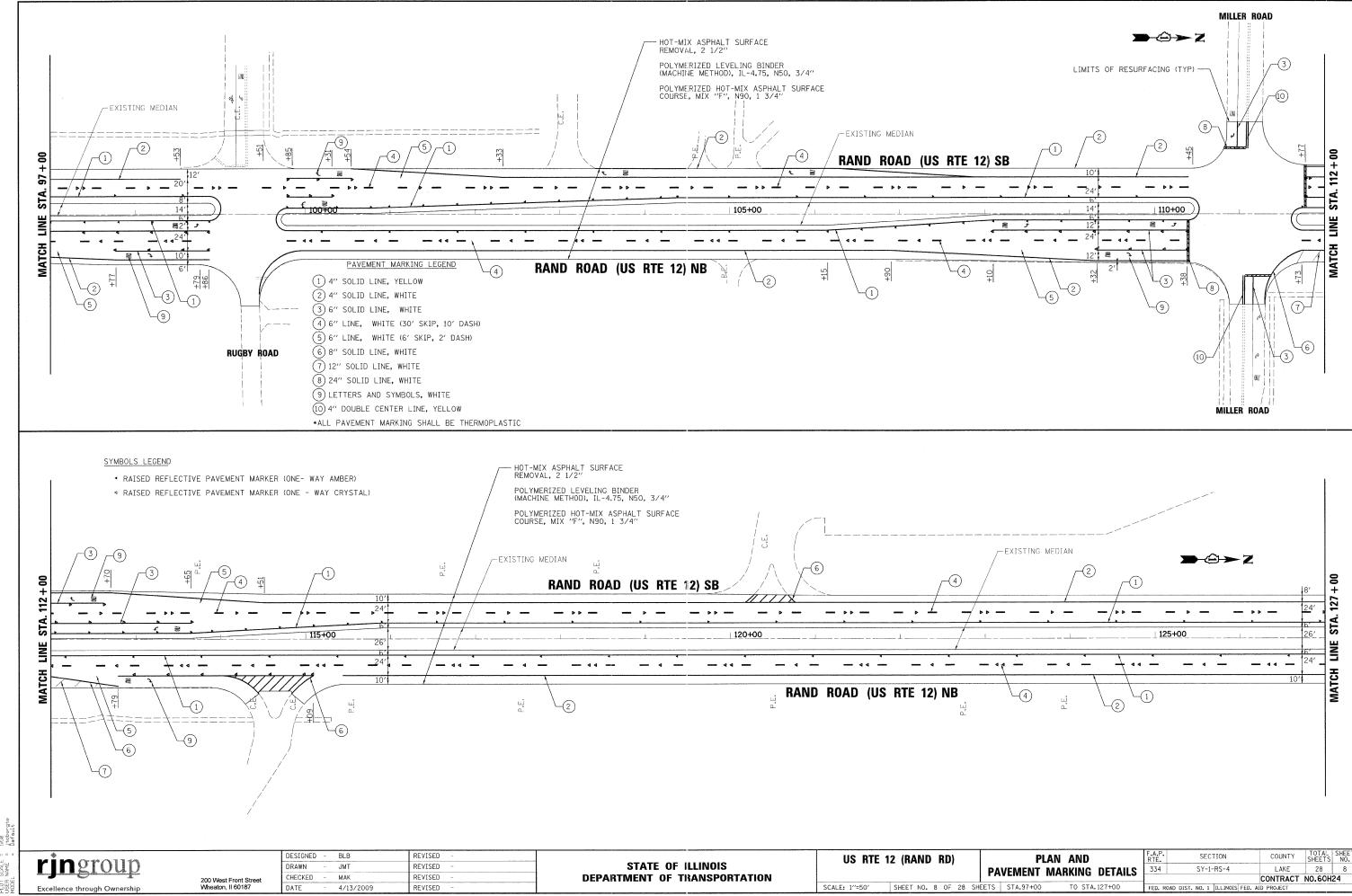
ngroup	Mark 1 2007 V	DESIGNED DRAWN	-	BLB JMT	REVISED REVISED	-
	200 West Front Street Wheaton, II 60187	CHECKED		MAK	REVISED	-
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STATE OF ILLINOIS				
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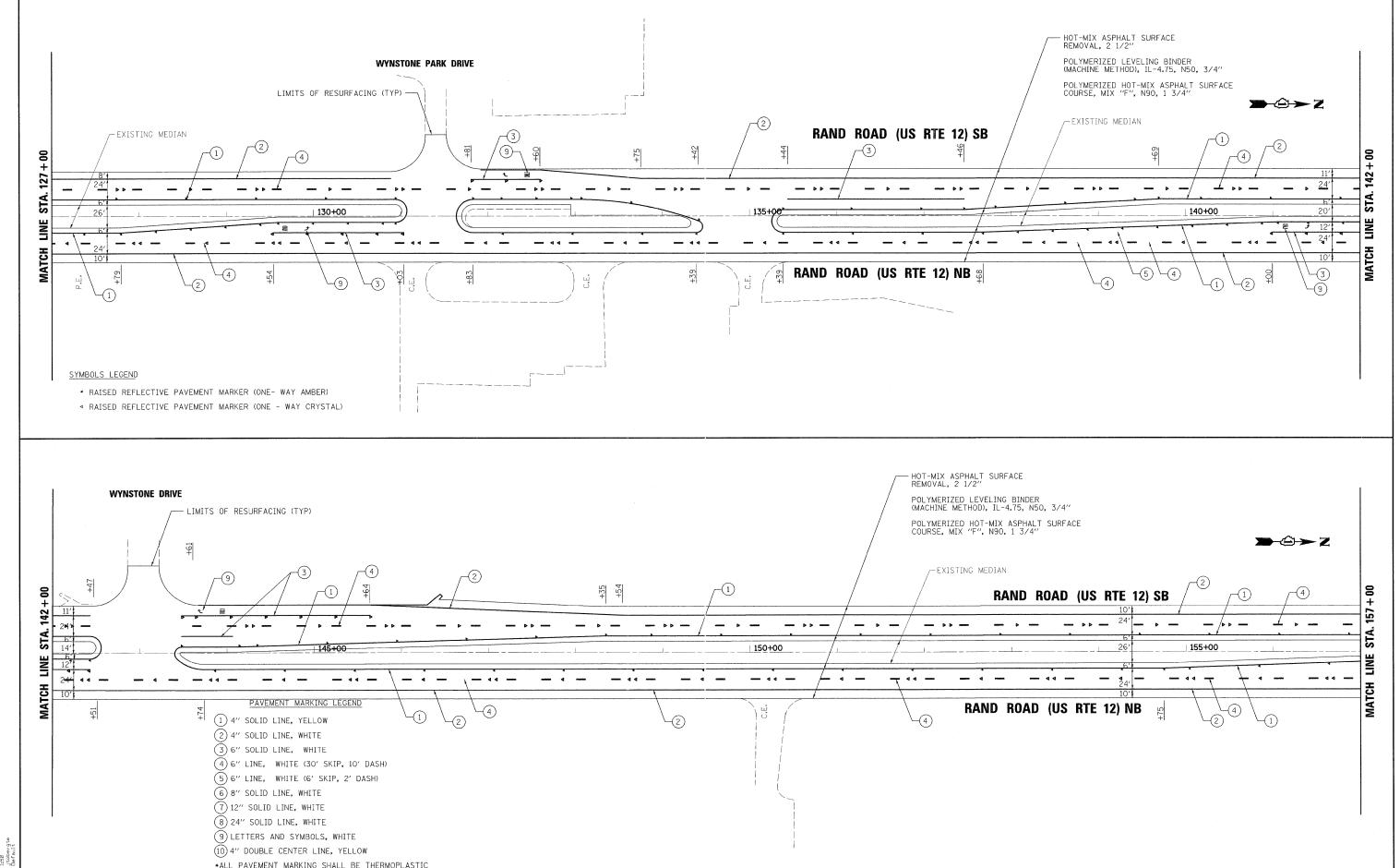
US RTE 12 (RAND RD)				PROPOSED			SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	•		•		TYF	PICAL SECTIONS	334	SY-1-RS-4	LAKE	28	5
I I I IOAL OLUTIONO								CONTRACT	NO.60H	24	
SCALE:	SHEET NO.	5 0	28	SHEETS	STA.	TO STA.	FED. R	OAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		







DATE = 4/20/2009 NAME = k:\11225514\rend road south\cad\sheets\RandSouth-1 SCALE = 150 NAME = jtobergte



STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

US RTE 12 (RAND RD)

SCALE: 1"=50" SHEET NO. 9 OF 28 SHEETS STA.127+00

PLAN AND

PAVEMENT MARKING DETAILS

TO STA.157+00

334

SHEETS

CONTRACT NO.60H24

NAYE = 4/28/2809 NAYE = k:\IZ255[4\rand road south\cad\sheets\RandSouth\0 SCALE = 1:58 NAYE = Ubbergte = Defoult

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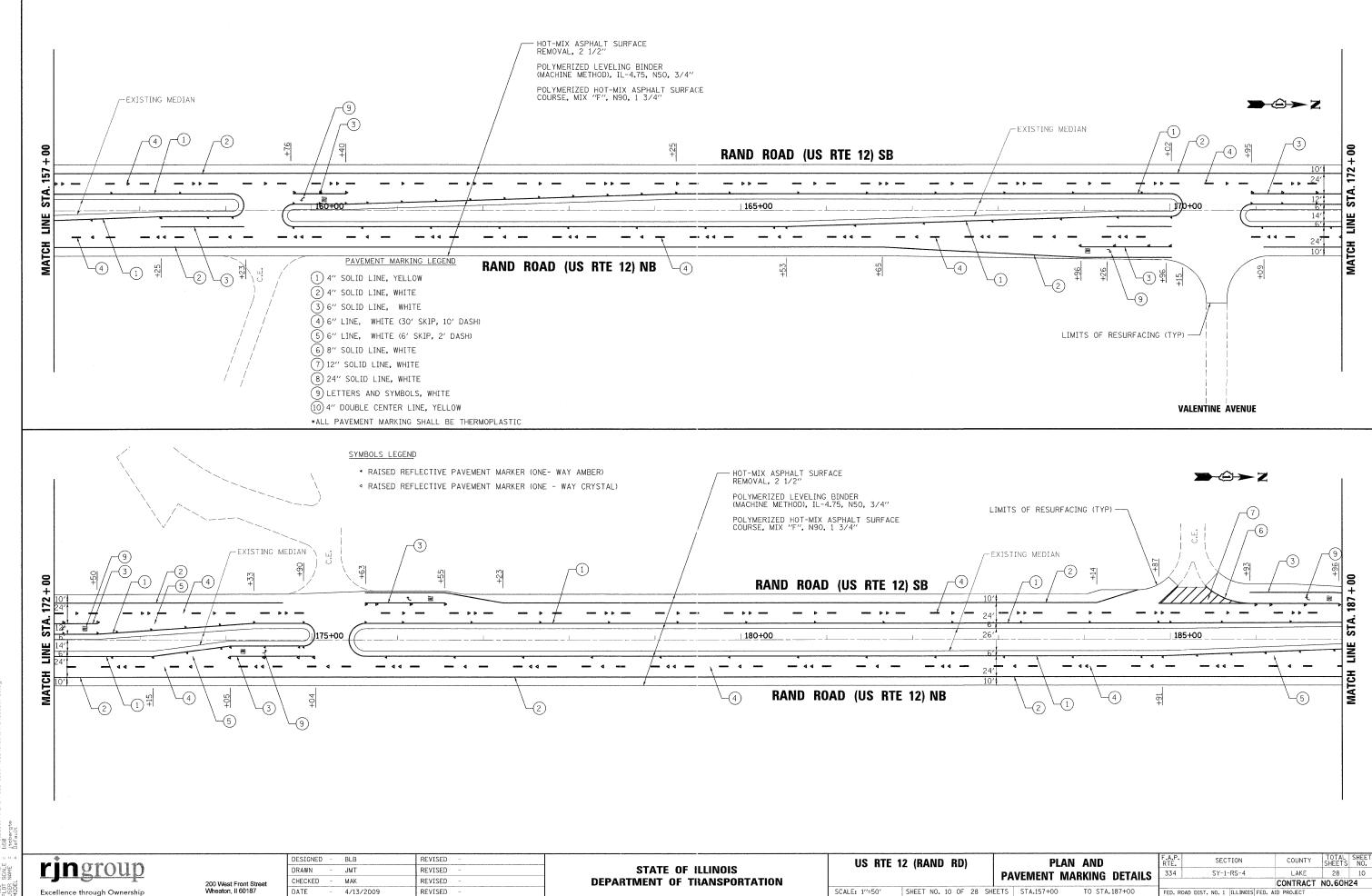
200 West Front Street Wheaton, II 60187 CHECKED

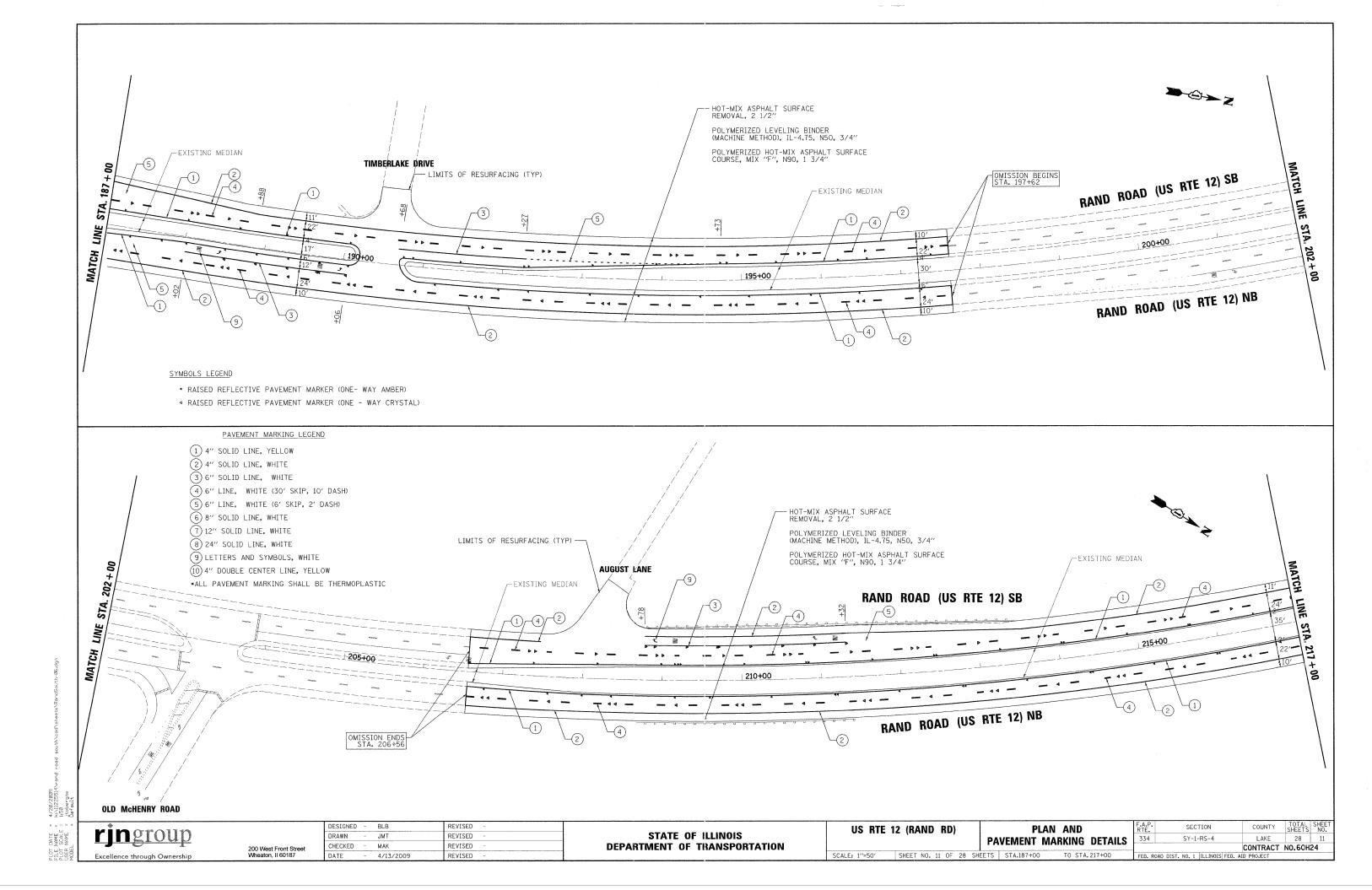
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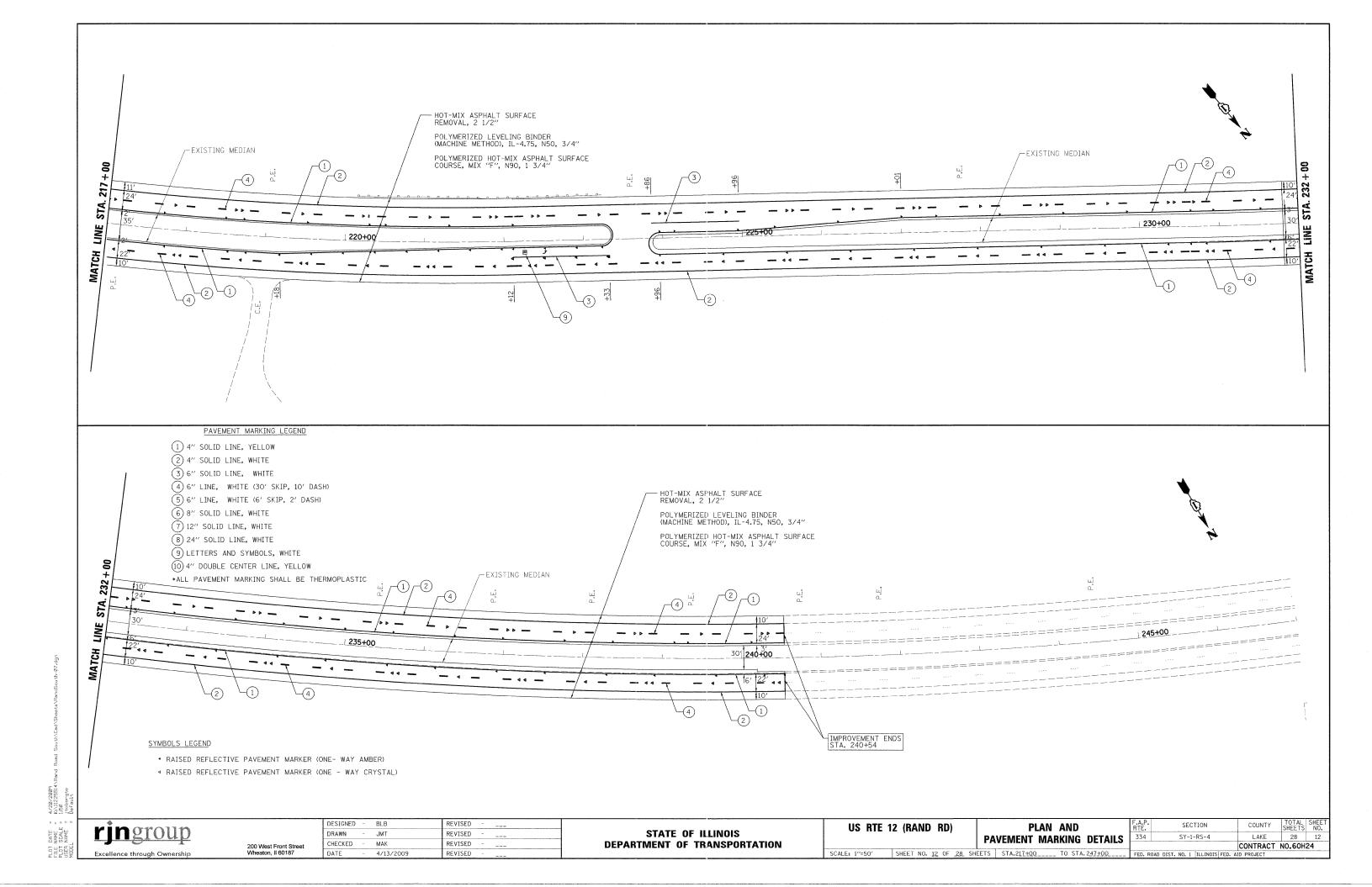
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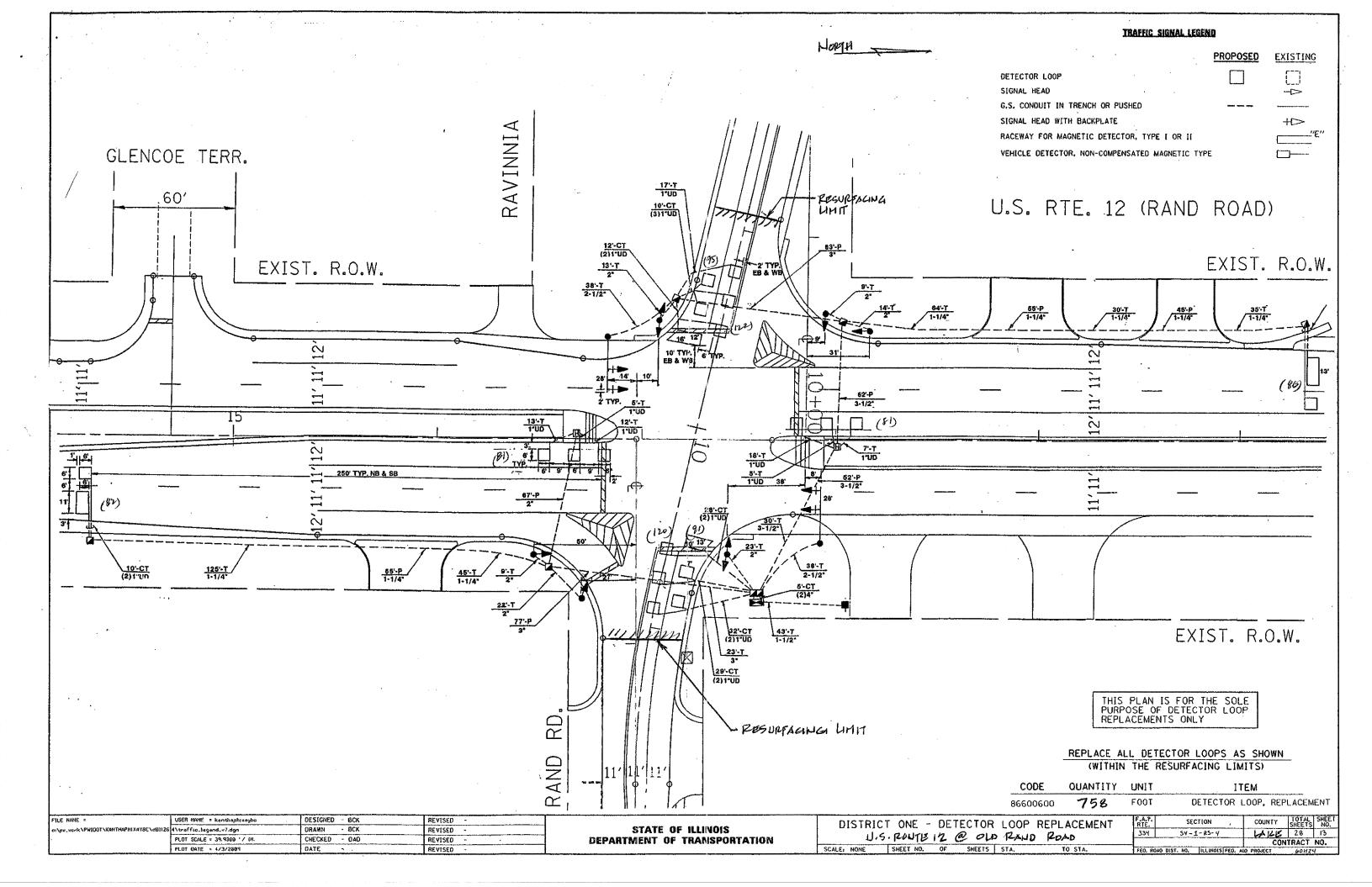
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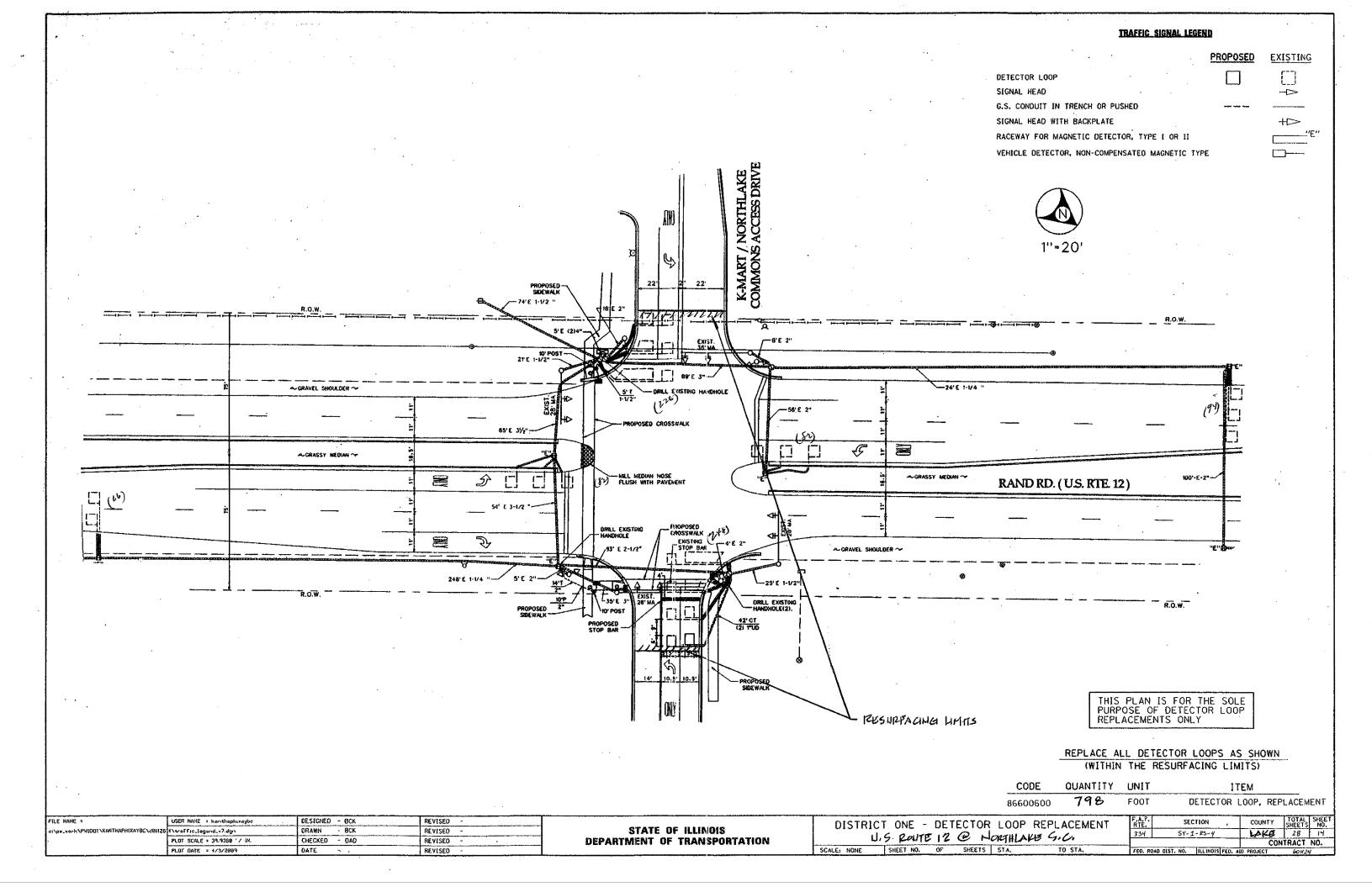
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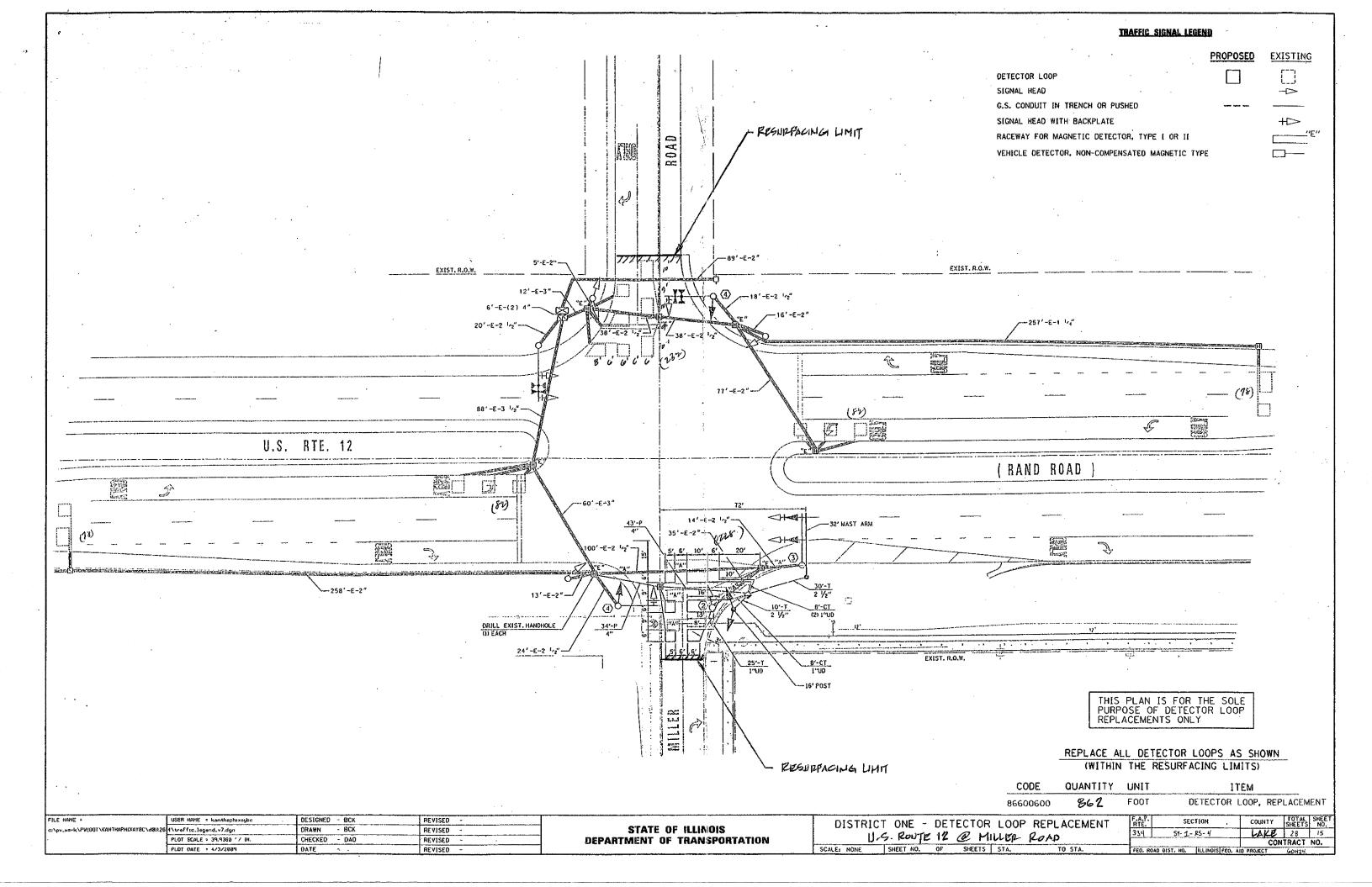


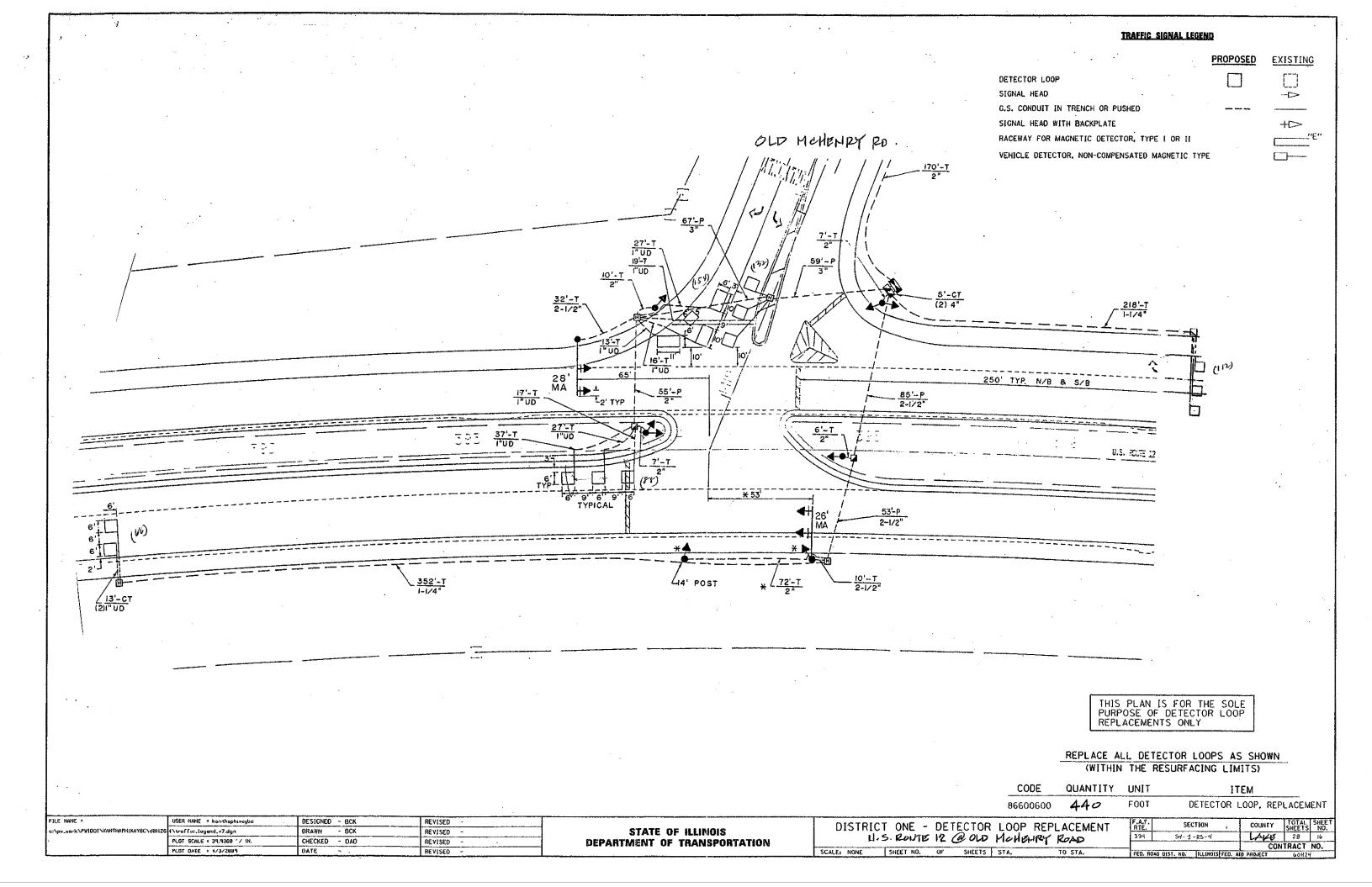


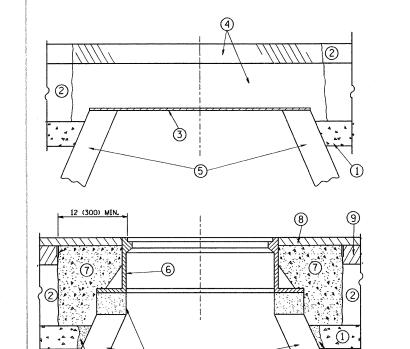












PROPOSED

PROPOSED

NOTES:

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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 PAYEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

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

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

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

BRICK, MORTAR, OR CONC. ADJUSTING RINGS

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 $1\frac{1}{2}$ (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 SURPACE 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
- 8 PROPOSED HMA SURFACE COURSE
- (5) EXISTING STRUCTURE
- 9 PROPOSED HMA BINDER COURSE

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

USER NAME = gaglianobt DESIGNED - R. SHAH REVISED - R. SHAH 03-10-95 K:\11225514\Rand Road South\Cad\District Details\Details.pdf DRAWN REVISED - A. ABBAS 03-21-97 PLOT SCALE = 50.0000 '/ IN. CHECKED REVISED - R. WIEDEMAN 05-14-04 PLOT DATE = 1/4/2008 - 10-25-94 REVISED - R. BORO 01-01-07

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

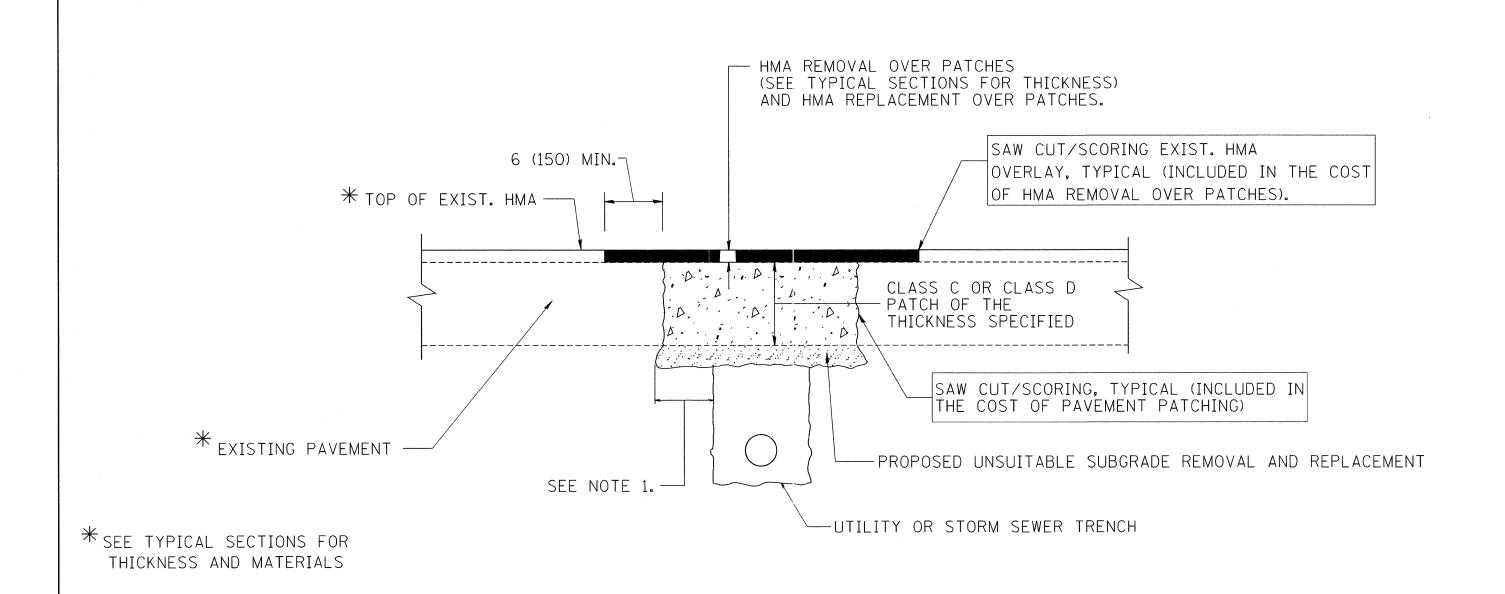
TOTAL SHEET NO. 28 17 SECTION **DETAILS FOR** SY-1-RS-4 LAKE FRAMES AND LIDS ADJUSTMENT WITH MILLING BD600-03 (BD-8)
FED. ROAD DIST. NO. 1 ILLINOIS F CONTRACT NO. 60H24 SHEET NO. 1 OF 1 SHEETS STA. SCALE: NONE TO STA.

PROPOSED SAND FILL

3 36 (900) DIAMETER METAL PLATE

PROPOSED CRUSHED STONE AND HMA SURFACE MIX

LOCATION OF STRUCTURES:



NOTES:

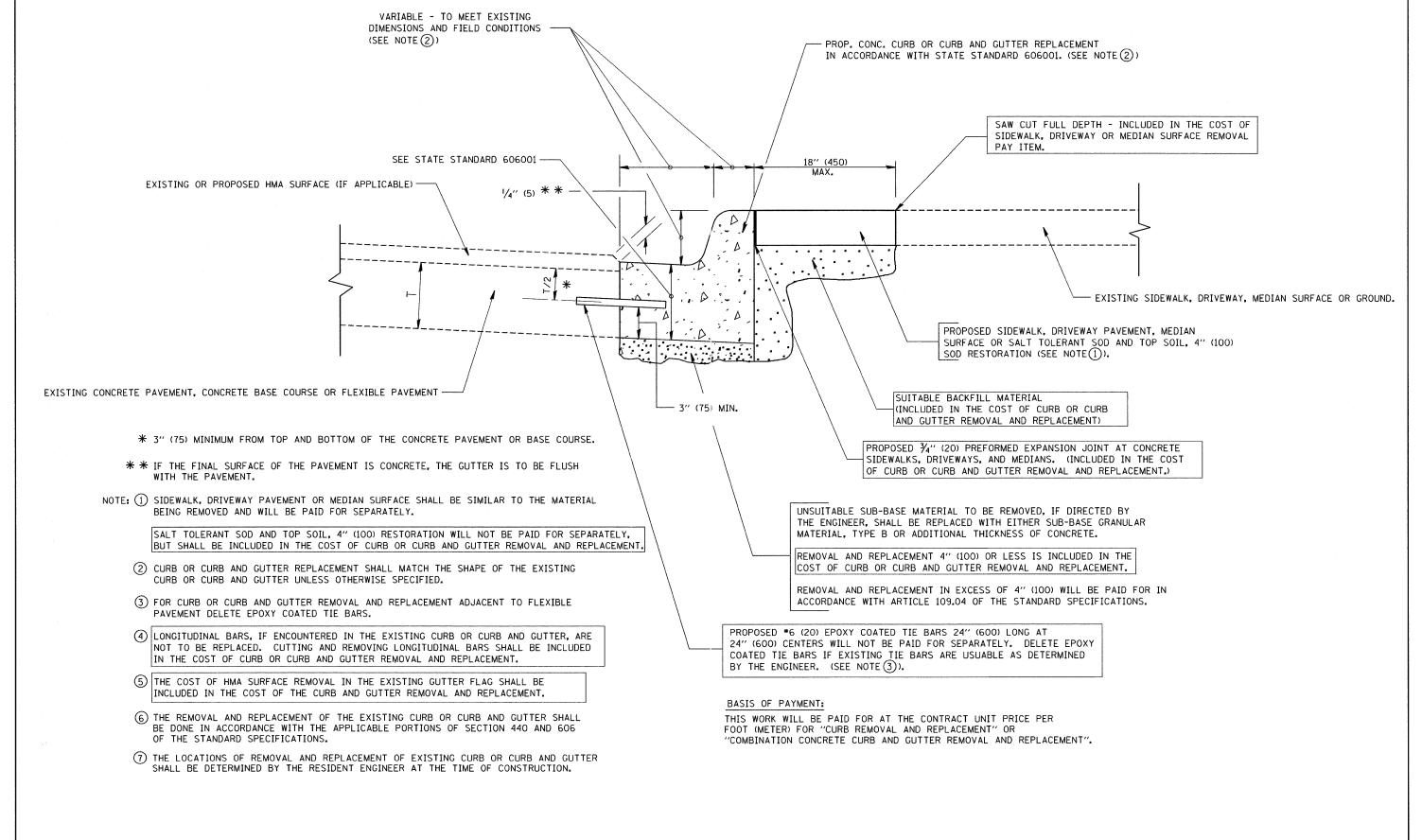
- 1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
- 2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

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.

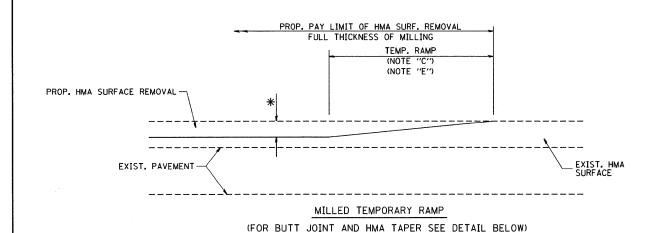
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K:\11225514\Rand Road South\Cad\District 1 Details\Details.pdf		DRAWN -	REVISED - A. ABBAS 04-27-98	STATE OF ILLINOIS	HMA SURFACED PAVEMENT	334 SY-1-RS-4	LAKE 28 18
Details/Details.pdf	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - R. BORO 01-01-07	DEPARTMENT OF TRANSPORTATION	HMA SUKFACED PAVEMENT	BD400-04 (BD-2	2) CONTRACT NO. 60H24
	PLOT DATE = 1/4/2008	DATE - 10-25-94	REVISED - R. BORO 09-04-07		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA.	TO STA. FED. ROAD DIST. NO. 1 ILLIN	OIS FED. AID PROJECT



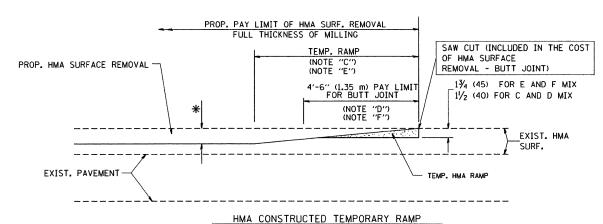
CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

FILE NAME =	USER NAME = gaglianobt	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96		CURB OR CURB AND GUTTER	F.A. SECTION	COUNTY TOTAL SHEET SHEETS NO.
K:\11225514\Rand Road South\Cad\District 1 Details\Details.pdf		DRAWN -	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS	REMOVAL AND REPLACEMENT	334 SY-1-RS-4	LAKE 28 19
Details Details pui	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01	DEPARTMENT OF TRANSPORTATION	REMUVAL AND REPLACEMENT	BD600-06 (BD-24)	CONTRACT NO. 60H24
	PLOT DATE = 1/4/2008	DATE - 03-11-94	REVISED - R. BORO 01-01-07		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED.	AID PROJECT



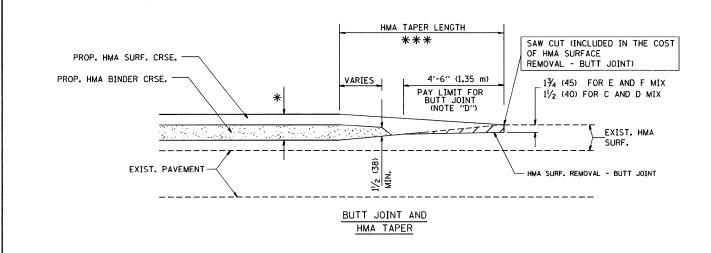
OPTION 1



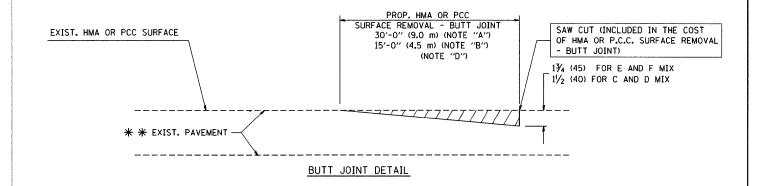
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

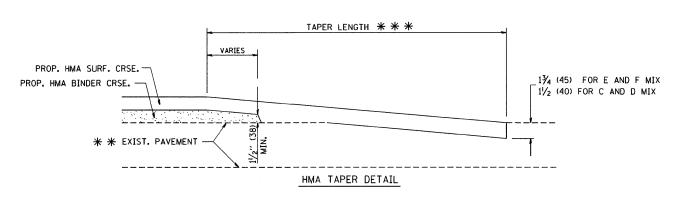
OPTION 2

TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING





TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

* * 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'-O" (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.

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SOUARE YARD (SOUARE 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.

SY-1-RS-4

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

BD400-05 BD32

TO STA.

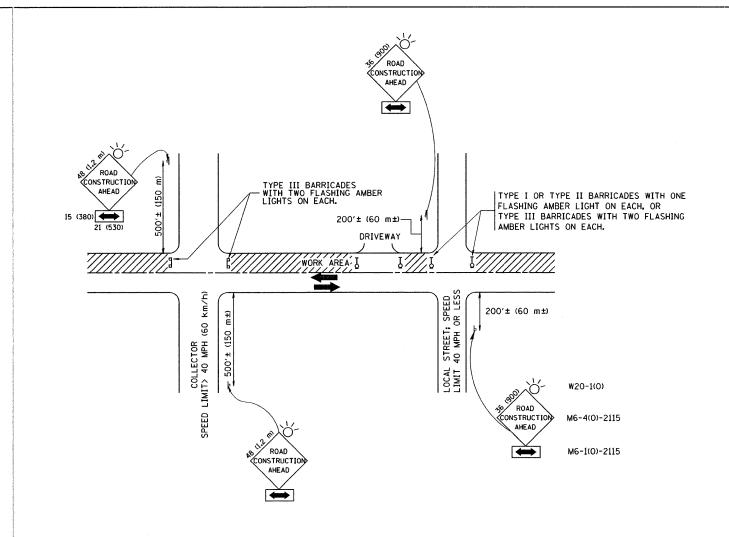
COUNTY

LAKE

TOTAL SHEET NO. 28 20

CONTRACT NO. 60H24

FILE NAME = K:\11225514\Rand Road South\Cad\District 1		DESIGNED - M. DE YONG DRAWN -	REVISED - R. SHAH 10-25-94 REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS		BUTT JOINT AND
Details\Details.pdf		CHECKED -	REVISED - M. GOMEZ 04-06-01	DEPARTMENT OF TRANSPORTATION		HMA TAPER DETAILS
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.



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:
- 0) ONE ROAD CONSTRUCTION AHEAD SIGN 36 \times 36 (900×900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- 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 (MG-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (MG-4).

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

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

FILE NAME = | USER NAME = goglionobt | DESIGNED - LHA | REVISED - J. OBERLE 10-18-95 |
K:\11225514\Rand Road South\Cad\District 1 | DRAWN - REVISED - A. HOUSEH 03-06-96 |
PLOT SCALE = 58.000 '/ 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 THANSPORTATION

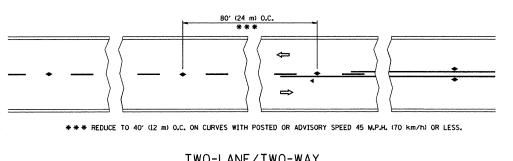
TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

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

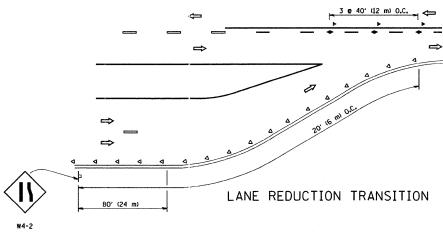
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 SECTION
 COUNTY SHEETS NO.
 TOTAL SHEETS NO.

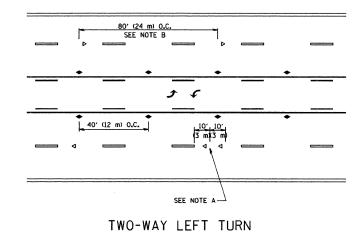
 334
 SY-1-RS-4
 LAKE
 28
 21

 TC-10
 CONTRACT NO. 60H24

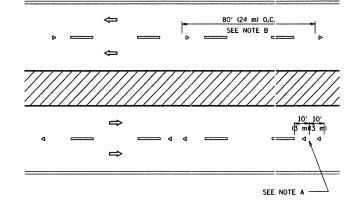


TWO-LANE/TWO-WAY





80' (24 m) O.C. SEE NOTE B SEE NOTE A-MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

- MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
- 2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
- 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

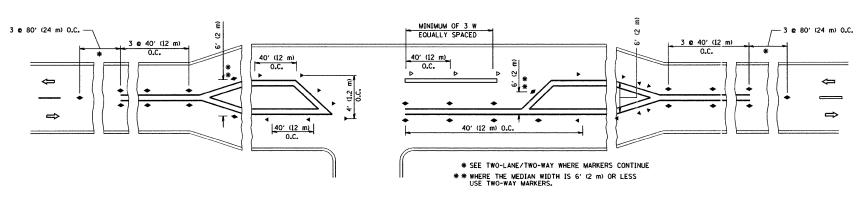
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

SYMBOLS

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

DESIGN NOTES

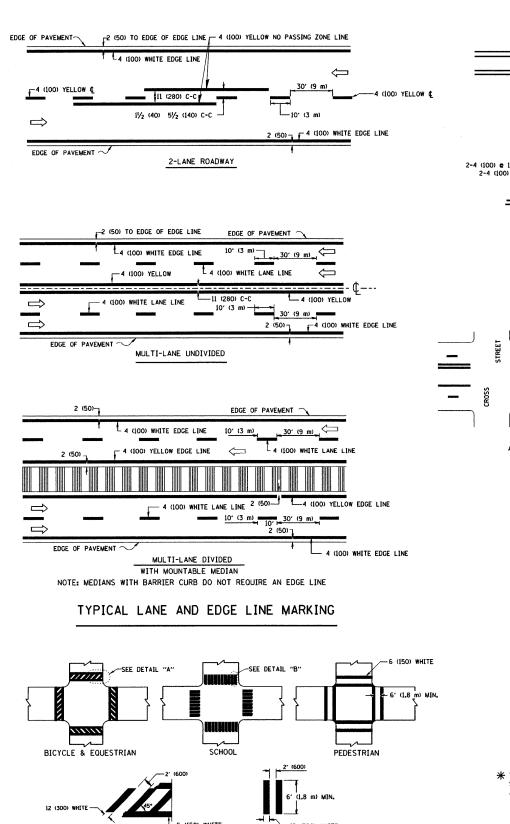
- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
- 4. MARKERS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



LEFT TURN

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

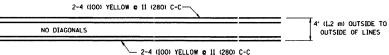
FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - T. RAMMACHER 09-19-94		T	TYPICAL APPLICATIONS	F.A RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
K:\11225514\Rand Road South\Cad\District 1		DRAWN -	REVISED - T. RAMMACHER 03-12-99	STATE OF ILLINOIS			334	SY-1-RS-4	LAKE	28	22
Details\Details.pdf	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -T. RAMMACHER 01-06-00	DEPARTMENT OF TRANSPORTATION	RAISED	REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)	TC_11 CC		CONTRACT	NO. 6	0H24
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROA	AD DIST. NO. 1 ILLINOIS FED.	AID PROJECT		



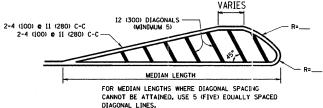
TYPICAL CROSSWALK MARKING

DETAIL "B"

DETAIL "A"

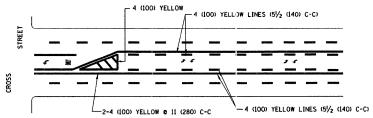


4' (1.2 m) WIDE MEDIANS ONLY

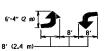


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (NORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

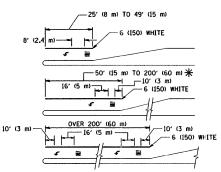


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

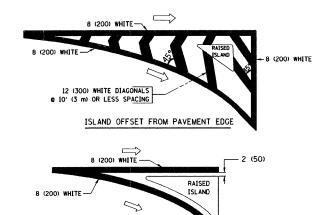


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. \P AREA = 15.6 SO. FT. (1.5 m²) (1.7 m²) (1.9 m²)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

ISLAND AT PAVEMENT EDGE

- 2 (50)

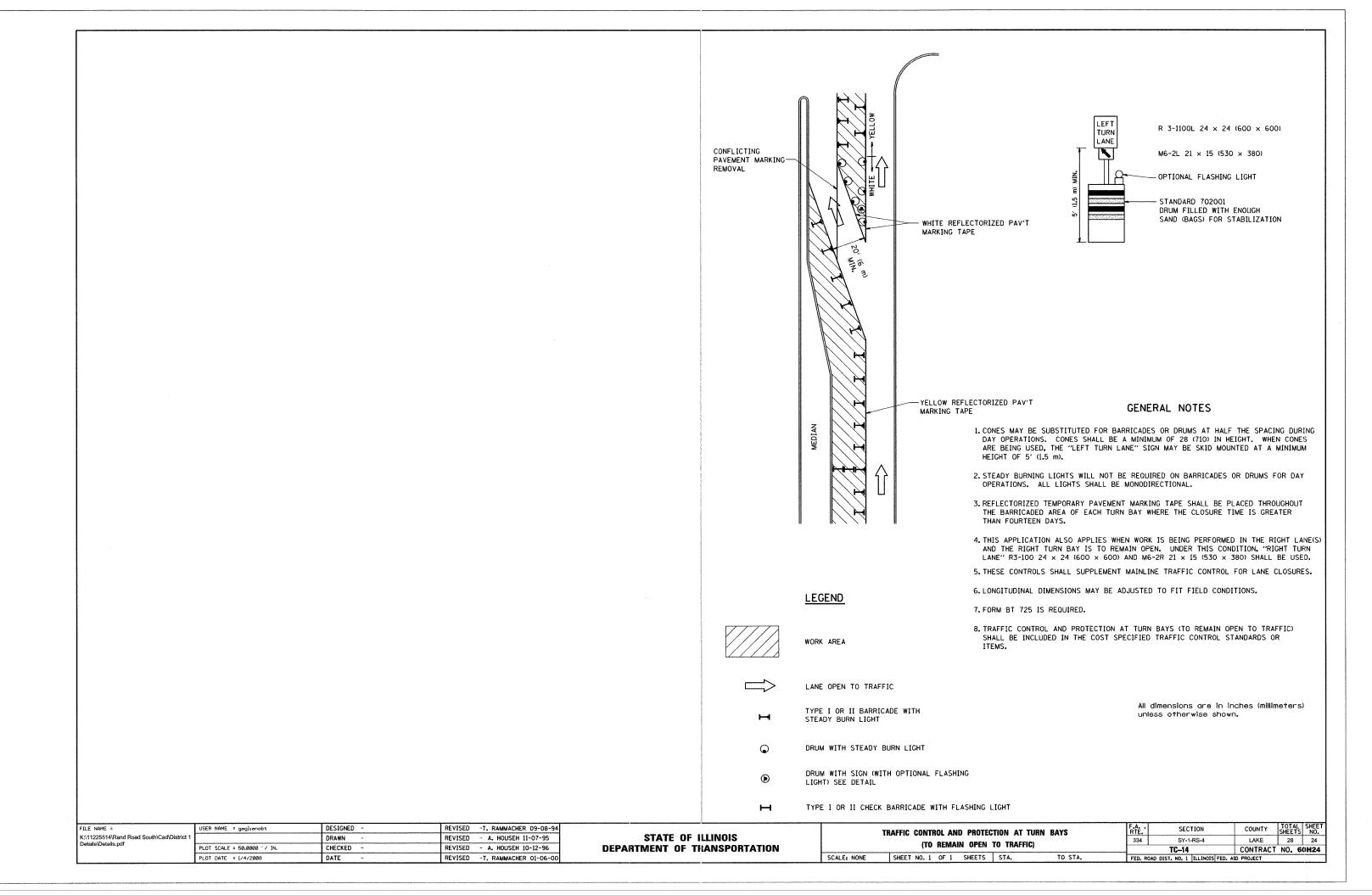
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVEDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 c 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 1280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW: EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 e 6 (150) 12 (300) e 45° 12 (300) e 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 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	SEE TIFICAL FAIRTED 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 (0VER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES: "RR" IS 6' (1.8 ml LETTERS: 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"*3.6 SO, FT. (0.33 m²) EACH "X"=54.0 SO. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) c 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))

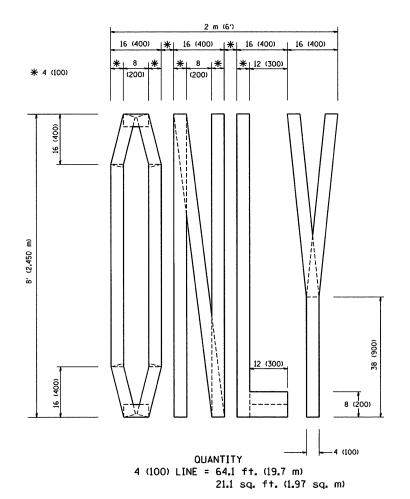
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

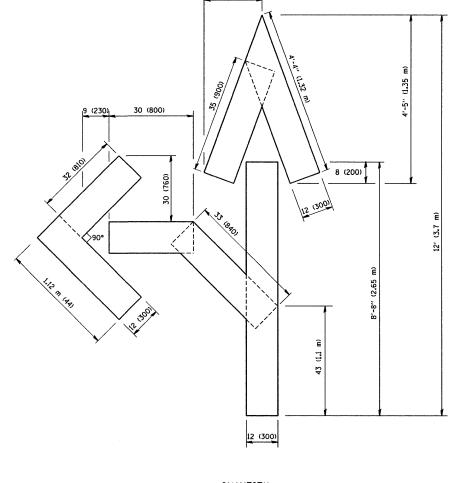
All dimensions are in inches (millimeters) unless otherwise shown.

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Details/Details.pdf	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -A. HOUSEH 10-17-96	DEPARTMENT OF THANSPORTATION	TYPICAL PAVEMENT MARKINGS	TC-13	CONTRACT NO. 60H24
	PLOT DATE = 1/4/2008	DATE - 03-19-90	REVISED -T. RAMMACHER 01-06-00		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. A	AID PROJECT

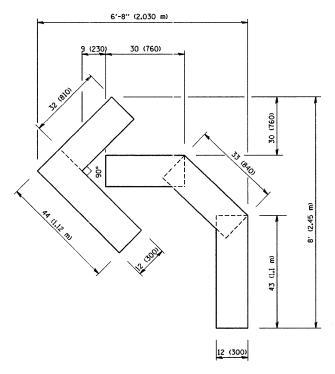






1'-8" (500)

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



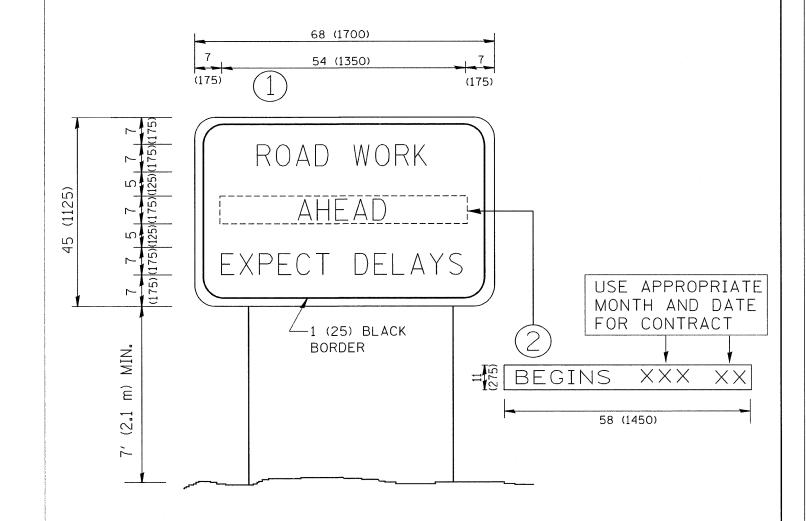
QUANTITY 4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.39 sq. m)

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

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED -T. RAMMACHER 06-05-96
K:\11225514\Rand Road South\Cad\District 1		DRAWN -	REVISED -T. RAMMACHER 11-04-97
Details\Details.pdf	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

STAT	E OI	F ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

	PAVEMENT MARKING LETTE	RS AND	SYMBOLS	F.A RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FOR TRAFFIC ST	ACING		334	SY-1-RS-4	LAKE	28	25
	FUN INAFFIC 31	AUINU			TC-16	CONTRACT	NO. 6	0H24
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	FED. RO	DAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT				



NOTES:

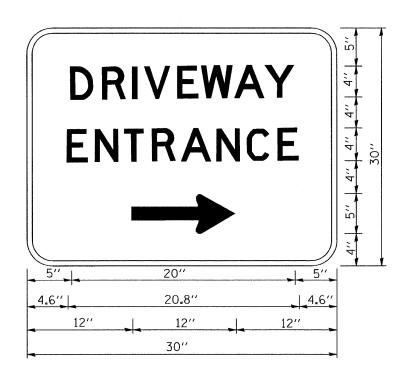
- 1. USE BLACK LETTERING ON ORANGE BACKGROUND.
- 2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
- 3. ERECT SIGN () WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
- 4. REMOVE PANEL 2 SOON AFTER THE START 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 =	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97
K:\11225514\Rand Road South\Cad\District 1		DRAWN -	REVISED - R. MIRS 12-11-97
Details\Details.pdf	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

STATE	OF	ILLINOIS	
DEPARTMENT	0F	TRANSPORTATION	

		ARTERIAL RO	AD		F.A RTÉ.	SECTION	COUNTY	TOTAL SHEETS	
	IN		334	SY-1-RS-4	LAKE	28			
	IN		TC-22	CONTRACT	NO. 6	;			
LE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.						OAD DIST. NO. 1 ILLINOIS FED.	AID PROJECT		•



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED "ORIVEWAY" 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".

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - C. JUCIUS 02-15-07
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	PLOT DATE = 1/4/2008	DATE -	REVISED -

STATI	E OF	: ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

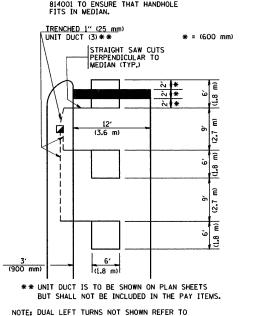
DRIVEWAY ENTRANCE SIGNING			F.A RTE.	SECTION	COUNTY	SHEETS	SHEET NO.			
				334	SY-1-RS-4	LAKE	28	27		
						TC-26	CONTRACT	NO. 6	0H24	
SCALE: NONE	SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER. PAVED OR NON-PAVED SHOULDER PAVED OR NON-PAVED SHOULDER 10' (3.0 m) ** ** 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)

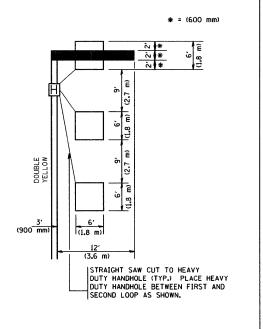
HANDHOLE LOCATION MAY
VARY DEPENDING ON GEOMETRICS
AND DESIGN OF TRAFFIC SIGNALS.
HEAVY-DUTY HANDHOLES TO BE
USED WHEN THE MEDIAN IS
MOUNTABLE. REFER TO STANDARD
BIAGOI TO ENSURE THAT HANDHOLE
FITS IN MEDIAN.



PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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

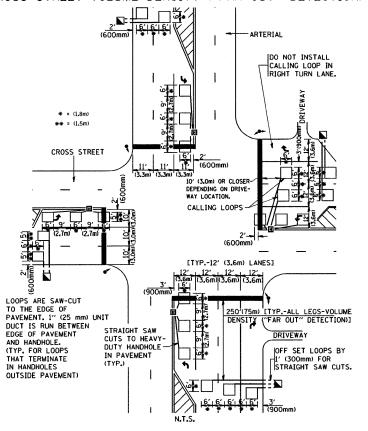
(PROTECTED / PERMITTED LEFT TURN PHASING)

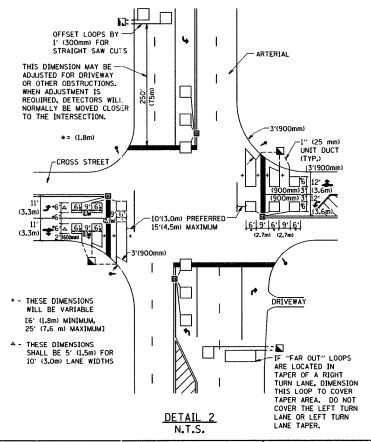


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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

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





NOTES:

VEHICLES LOOP DETECTORS

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

PLACEMENT OF DETECTORS

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

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

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

TOTAL SHEET NO. 28 28

CONTRACT NO. 60H24

COUNTY

LAKE

ID PROJECT

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STATE OF ILLINOIS
DEPARTMENT OF THANSPORTATION

DISTRICT 1 – DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING					SECTION			
					4 SY-1-RS-4			
					TS-07			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. RO	DAD DIST. NO. 1 ILLINOIS FED. A			