08-22-14 LETTING ITEM 008

FOR INDEX OF SHEETS, SEE SHEET NO. 2

STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

**DIVISION OF HIGHWAYS** 

**FAP 335 (IL RTE. 176)** SECTION 145X-RS-2 U.S. ROUTE 12 TO HILLTOP TERRACE RESURFACING (3P) LAKE COUNTY C-91-332-11

# **PROPOSED** HIGHWAY PLANS

IMPROVEMENT LOCATED IN THE **VILLAGES OF WAUCONDA** AND HAWTHORN WOODS

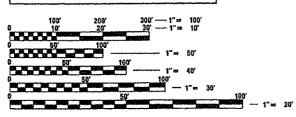
**DESIGN DESIGNATION:** 

2013 ADT = 12,500

SPEED LIMIT: 30 TO 45 M.P.H.

IMPROVEMENT OMISSION ENDS STA. 261+00 IMPROVEMENT OMISSION BEGINS STA. 213+00 R 9-10 E (60) [12] Cty A36 Bangs Lake Nauconda IMPROVEMENT ENDS STA. 364+67 (59) Sylvan t IMPROVEMENT BEGINS ower Lakes (59) [12] Lake Cottoy 2

**HRGreen** 



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.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123

(HRGREEN) PROJECT ENGINEER: BENJAMIN HARTMAN (815) 385-1778 (IDOT) PROJECT MANAGER: KEN ENG (847) 705-4247

CONTRACT NO. 60N62

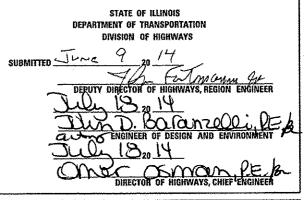
GROSS LENGTH OF IMPROVEMENT = 27,967 FT. = 5.30 MILE NET LENGTH OF IMPROVEMENT = 23,167 FT. = 4.39 MILE

WAUCONDA AND FREMONT TOWNSHIPS

COUNTY TOTAL SHEET NO. 335 145X-RS-2 FED. ROAD DIST, NO. ILLINOIS CONTRACT NO. 60N62

### D-91-332-11





PROFESSIONAL ENGINEER'S SIGN & SEAL

EXPIRES: 11/30/2015

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

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### LIST OF STATE STANDARDS

STANDARD NO. DESCRIPTION

STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS 000001-06

PERPENDICULAR CURB RAMP FOR SIDEWALKS 424001-07

CLASS C AND D PATCHES 442201-03

FRAME AND LID TYPE 1 604001-03

FRAME AND GRATE TYPE 24 404091~0Z

CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB 606001-05

URBAN LANE CLOSURE 2L. 2W. UNDIVIDED

701501-06

URBAN LANE CLOSURE, ZL. 2W. WITH BIDIRECTIONAL LEFT TURN LANE 701502±06

URBAN LANE CLOSURE, MULTILANE INTERSECTION 701701-09

TRAFFIC CONTROL DEVICES 701901-03

### GENERAL NOTES

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" (JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION) AT 8-1-1 OR (800) 892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES (48 HOUR NOTIFICATION IS REQUIRED).
- 2. 10 FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER ITEMS OF WORK TO EXISTING CURBS AND CUTTERS AND CONDITIONS IN THE FIELD UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLACES OF WALLCONDA AND HAWTHORNE WOODS.
- 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.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- SAW CUTTING OF PAVEMENTS, SIDEWALK, CURB & GUTTER, ETC. SHALL BE TO FULL DEPTH AND SHALL RESULT IN A CLEAN STRAIGHT EDGE ON THE PORTION REMAINING, ALL SAW CUTTING SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEM REMOVED.
- DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- THE CONTRACTOR SHALL USE CARE IN REMOVING OR EXCAVATING NEAR ALL EXISTING ITEMS WHICH WILL REMAIN. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
- WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1.5 INCHES (40mm) 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 MILLING IS SLOPED A MINIMUM OF 1:3 (V:H).
- 10. UNLESS OTHER CONDITIONS WARRANT EXTENDED LANE CLOSURE AS DETERMINED AND APPROVED IN WRITING BY THE ENGINEER OR AS PROVIDED FOR IN THE CONTRACT SPECIFICATIONS, OVERNIGHT CLOSURES SHALL NOT BE ALLOWED FOR REHABILITATION PROJECTS INVOLVING DAYTIME MILLING AND RESURFACING OPERATIONS AND CLASS D PATCHING.
- BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE FEFERENCE ALL EXISTING PAVEMENT MARKING LINES AND RAISED REFLECTIVE PAVEMENT MARKERS IN ORDER THAT THESE LOCATIONS CAN BE-REESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVENENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.
- 12. 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 SHALL BE INCLUDED IN THE COST OF SHORT TERM PAVEMENT MARKINGS.
- THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.
- 14. THE RESIDENT ENGINEER SHALL CONTACT MS. DEBBIE HANLON, THE AREA TRAFFIC FIELD ENGINEER, AT (847) 438-2300 AT LEAST TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- 15. LOCATIONS OF PAVEMENT PATCHING AND CURB & GUTTER REMOVAL & REPLACEMENT WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 16. BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE THE "BUTT JOINT AND HMA TAPER DETAILS" INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
- 17. MATCH EXISTING PAVEMENT MARKINGS AT THE PROJECT LIMITS.
- 18. ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.
- 19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING OWNERS OF ALL UTILITIES PRIOR TO CONSTRUCTION TO DETERMINE THE LOCATION OF ALL UTILITY EQUIPMENT. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY OWNERS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS IF UTILITY RELOCATION, ADJUSTMENT, OR PROTECTION IS
- 20. THE LOCATION OF EXISTING DRAINAGE STRUCTURES, STORM SEWERS, WATER MAINS, SANITARY SEWERS, AND ANY OTHER PUBLIC OR PRIVATE UTILITIES AS SHOWN ON THE PLANS IS APPROXIMATE AND THEIR EXACT LOCATION IS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR
- 21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND AND SURFACE UTILITIES EVEN THOUGH THEY MIGHT NOT BE SHOWN ON THE PLANS. ANY UTILITY PROPERTY DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER.
- 22. ANY LOOSE MATERIAL DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES, WHICH OBSTRUCTS THE NATURAL FLOW OF WATER SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. PRIOR TO ACCEPTANCE OF THE IMPROVEMENT, ALL DRAINAGE STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT.
- 23. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR THE CONSTRUCTION AND ORDERING MATERIALS.
- 24. 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 ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED. TOTAL SHEE SHEETS NO.

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	USER NAME . Shortmo	DESIGNED - B. HARTMAN	REVISED -
		DRAWN -	REVISED -
gign Pirm	PLOT SCALE + N.T.S.	CHECKED - T. HAMILTON	REVISED -
	PLOT DATE + 6/9/2014	DATE - 6/9/14	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

INDEX OF SHEETS, LIST OF STATE STANDARDS AND GENERAL NOTES LAKE 44 2 145×-R5-2 ILLINOIS ROUTE 176 (US ROUTE 12 TO HILLTOP TER.) 335 CONTRACT NO. 60N62 SCALE: N.T.S. SHEET NO. 1 OF 1 SHEETS STA.

1	CONSTRUCTION
	CODE
	100% STATE
	POADWAY

				ROADWAY
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ØØØ5 URBAN
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	7.7	77
25200110	SODDING, SALT TOLERANT	SO YD	7.7	77
35501316	HOT-MIX ASPHALT BASE COURSE, 8"	SO YD	25	25
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	50	50
40600827	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	5, 473	5, 473
40600895	CONSTRUCTING TEST STRIP	EACH	2	2
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YO	690	690
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	840	840
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	8, 957	8, 957
42001300	PROTECTIVE COAT	SQ YD	185	185
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	103, 040	103, 040
44000200	DRIVEWAY PAVEMENT REMOVAL	SO YD	25	25
44002216	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 4"	SQ YD	3, 745	3, 745
44201761	CLASS D PATCHES, TYPE I. 10 INCH	SO YD	115	115
44201765	CLASS O PATCHES. TYPE 11, 10 INCH	SO YD	604	604
44201769	CLASS D PATCHES, TYPE III. 10 INCH	SO YD	1,007	1, 007
44201771	CLASS D PATCHES. TYPE IV. 10 INCH	SQ YD	1,151	1, 151

• SPECIALTY ITEMS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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ILLINO	IS ROUTE	176	(US	ROUTE	12 TO	HILLTOP	TER. )	
SCALE: N.T.S.	SHEET NO.	1 OF	4	SHEETS	STA. NA	Į	Q STA, NA	

	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	335	145X-R5-2	LAKE	44	3
			CONTRACT	NO.	60N62
	FE0. RC	DAO DIST. NO.   ILLINOIS FED. A	D PROJECT		

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	SUMMARY	OF	QUANTITIE	S
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CONSTRUCTION CODE 100% STATE ROADWAY

				ROADWAY
CODE NO.	ITEM	UNIT	TOTAL OUANTITY	0005 URBAN
44201798	CLASS D PATCHES, TYPE I, 13 INCH	SO YD	5	5
44201803	CLASS D PATCHES, TYPE II, 13 INCH	SQ YD	15	15
44201807	CLASS D PATCHES, TYPE III, 13 INCH	so yo	25	25
44201809	CLASS D PATCHES, TYPE IV, 13 INCH	SQ YD	30	30
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	1,270	1, 270
60266600	VALVE BOXES TO BE ADJUSTED	EACH	7	7
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	11	11
60406100	FRAMES AND LIDS, TYPE 1. CLOSED LID	EACH	10	10
60404950	FRAMES AND GRATES, TYPE 24	EACH	11	11
67000400	ENGINEER'S FIELD OFFICE. TYPE A	CAL MO	8	8
67100100	MOBILIZATION	L SUM	1	1
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1
70102622	TRAFFIC CONTROL AND PROTECTION, STANDARD 701502	L SUM	T-A	1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	Total Control	1
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	31, 150	31, 150
70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SQ FT	1.520	1, 520
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	89, 760	89, 760

SPECIALTY ITEMS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
ILLINOIS ROUTE 176 (US ROUTE 12 TO HILLTOP TER.)

SCALE: N.T.S. SHEET NO. 2 OF 4 SHEETS STA. NA TO STA. NA

F.A. RTE,	SECT	ION	COUNTY	TOTAL	SHEET NO.
335	145X~	RS-2	LAKE	44	4
	·		CONTRACT	NO.	60N62
fED. RO	ON TRIG GAG	ILLINOIS FED. AT	D PROJECT		

SHEET NO. 2 OF 4 SHEETS | STA. NA TO STA. NA 14

	SUMMARY OF QUANTITIES			CONSTRUCTION CODE 100% STATE
			TOTAL	ROADWAY ØØØ5
CODE NO.	ITEM	UNIT		
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	4,870	4.870
70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	430	430
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	960	960
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	860	860
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	10, 385	10, 385
78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	1,520	1,520
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	89, 760	89, 760
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	4,870	4,870
78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	430	430
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	960	960
78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	860	860
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	1,020	1,020
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	1,301	1,301
88600600	DETECTOR LOOP REPLACEMENT	FOOT	3, 094	3, 094
X2020110	GRADING AND SHAPING SHOULDERS	UNIT	380	380
40800025	BITUMINOUS MATERIALS (PRIME COAT)	POUND	7, 730	7,730
X5537800	STORM SEWERS TO BE CLEANED 12"	FOOT	500	500

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SPECIALTY ITEMS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
ILLINOIS ROUTE 176 (US ROUTE 12 TO HILLTOP TER.)

SCALE: N.T.S. SHEET NO. 3 OF 4 SHEETS STA. NA TO STA. NA F

SUMMARY	OF	QUANTITIES	

CONSTRUCTION CODE 100% STATE

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CODE NO.	ITEM	UNIT	QUANTITY	URBAN
X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	47	47
Z0004562	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	540	540
Z0017700	DRAINAGE & UTILITY STRUCTURES TO BE RECONSTRUCTED	EACH	1	1
Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	25	25
Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	257	257
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SPECIALITY ITEMS

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PLOT SCALE . N.T.S.	CHECKED	-	T. HAMILTON	REVISED -	
PLOT DATE + 6/18/2014	DATE	-	6/10/14	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

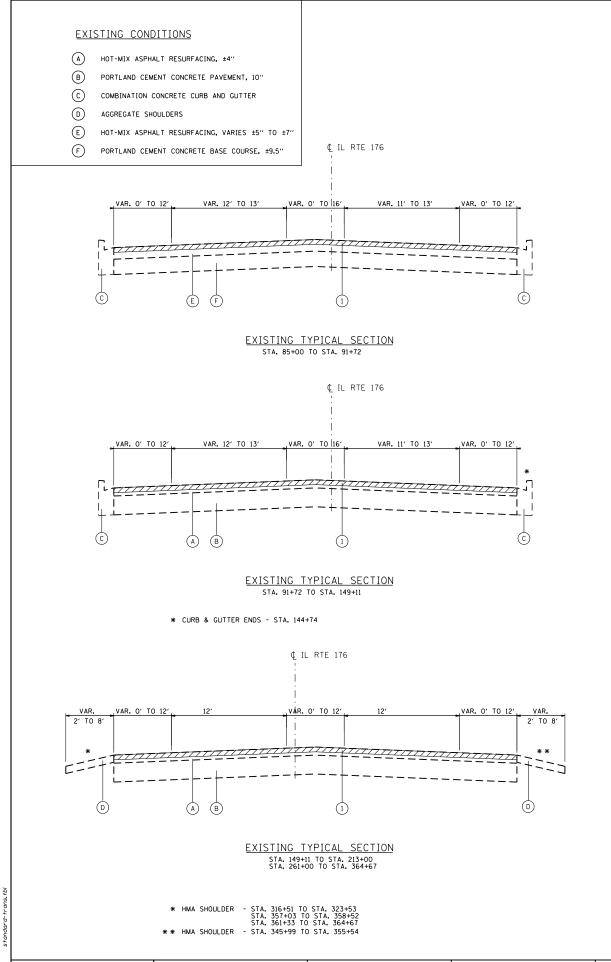
SUMMARY OF QUANTITIES
ILLINOIS ROUTE 176 (US ROUTE 12 TO HILLTOP TER.)

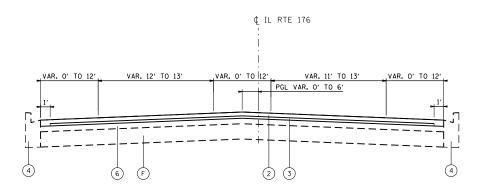
SCALE: N.T.S. SHEET NO. 4 OF 4 SHEETS STA, NA TO STA, NA

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SCALE: N.T.S. SHEET

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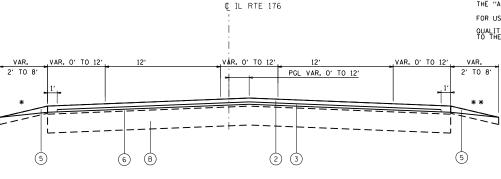


# PROPOSED TYPICAL SECTION STA. 85+00 TO STA. 91+72

# VAR. 0' TO 12' VAR. 12' TO 13' VAR. 0' TO 12' VAR. 11' TO 13' VAR. 0' TO 12' | PGL VAR. 0' TO 6' | PGL VA

### PROPOSED TYPICAL SECTION STA. 91+72 TO STA. 149+11

• CURB & GUTTER ENDS - STA. 144+74



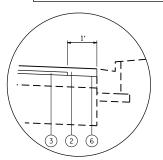
PROPOSED TYPICAL SECTION

STA. 149+11 TO STA. 213+00
STA. 261+00 TO STA. 364+67

\* HMA SHOULDER - STA. 316+51 TO STA. 323+53 STA. 357+03 TO STA. 358+52 STA. 361+33 TO STA. 364+67 \*\* HMA SHOULDER - STA. 345+99 TO STA. 355+54

### PROPOSED IMPROVEMENTS

- 1) HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"
- 2) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2"
- 3) POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 1"
- COMBINATION CONCRETE CURB & GUTTER REMOVAL AND REPLACEMENT (AT LOCATIONS AS DETERMINED BY THE ENGINEER)
- AGGREGATE WEDGE SHOULDER, TYPE B
  (TAPER 3" TO 1" THICKNESS) SEE SAFETY EDGE DETAIL
- 6 EXISTING HOT-MIX ASPHALT SURFACE AFTER PROPOSED SURFACE REMOVAL



### RESURFACING TREATMENT AT EDGE OF PAVEMENT

NOTE: THE POLYMERIZED LEVELING BINDER SHALL RECEDE 1' FROM THE EDGE OF PAVEMENT. THE INCREASED THICKNESS OF HMA SURFACE COURSE ALONG THE EDGE SHALL BE INCLUDED IN THE COST OF HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N7O.

### HOT-MIX ASPHALT MIXTURE REQUIREMENTS

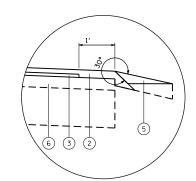
MIXTURE TYPE	AIR VOIDS	QUALITY MANAGEMENT PROGRAM (QMP)
PAVEMENT RESURFACING		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL-9.5mm)	4% @ 70 GYR.	PFP
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	3.5% @ 50 GYR.	QCP
HMA SHOULDER RESURFACING		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL-9.5mm)	4% @ 70 GYR.	PFP
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	3.5% @ 50 GYR.	QCP
PATCHING		
CLASS D PATCHES (HMA BINDER, IL-19mm)	4% @ 70 GYR.	OC/OA
HMA REPLACEMENT OVER PATCHES (HMA BINDER IL-19mm)	4% @ 70 GYR.	OC/OA
DRIVEWAYS		
HMA SURFACE COURSE, MIX "D", N70 (IL-9.5mm); 2"	4% @ 70 GYR.	PFP
HMA BASE COURSE (HMA BINDER IL-19mm); 8"	4% @ 50 GYR.	OC/OA
OMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (OC/QA); OF PAY FOR PERFORMANCE (PFP)	UALITY CONTROL F	OR PERFORMANCE (QCP) ;

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

THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.

FOR USE OF RECYCLED MATERIALS SEE DISTRICT ONE SPECIAL PROVISIONS.

OUALITY MANAGEMENT PROGRAM IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE



SAFETY EDGE DETAIL N.T.S.

### NOTE:

THE CONTRACTOR SHALL MILL FIRST BEFORE PATCHING FROM APPROXIMATELY STA. 85+00 TO STA. 91+72. THE CONTRACTOR SHALL PATCH FIRST BEFORE MILLING FROM APPROXIMATELY STA. 91+72 TO STA. 364+67. SEE DISTRICT 1 DETAIL PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT.



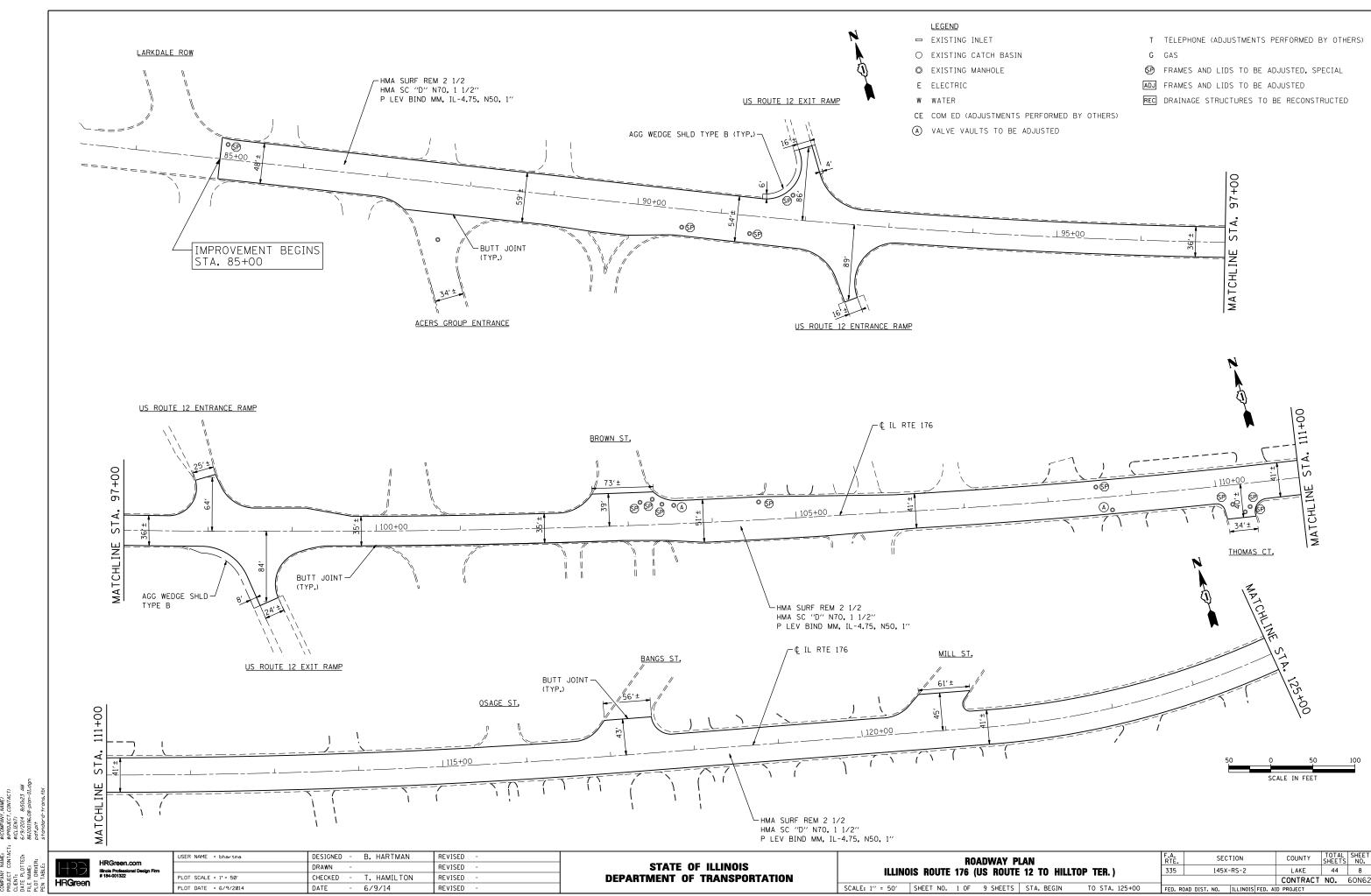
USER NAME = bhartma	DESIGNED	-	B. HARTMAN	REVISED	-
	DRAWN	-		REVISED	-
PLOT SCALE = N.T.S.	CHECKED	-	T. HAMILTON	REVISED	-
PLOT DATE = 6/9/2014	DATE	-	6/9/14	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINO	IS ROUTE		CAL SECT IS ROUTE	IONS 12 to Hillt	OP TER.)
SCALE: N.T.S.	SHEET NO.	1 OF	1 SHEETS	STA. BEGIN	TO STA. END

F.A. RTE.		SEC	COUNTY	TOTAL SHEETS	SHEET NO.			
335	145X-RS-2				LAKE	44	7	
					CONTRACT	NO.	60N62	
FED. RO	DAD DIST	NO.	TLL INOIS	FED. A	ID PROJECT			

C-91-332-11 IL RTE 176 86100196.08-+yp-01.dgn



C-91-332-11 IL RTE 176 86100196.08-plan-01.dgn

N. OLD RAND RD. S. CHURCH ST. S. MAPLE ST. -¢ IL RTE 176 -BUTT JOINT (TYP.) (5) — HMA SURF REM 2 1/2 HMA SC "D" N7O, 1 1/2" P LEV BIND MM, IL-4.75, N5O, 1" 48′± KIMBALL AVE S. CHURCH ST. BARRINGTON RD. S. MAIN ST. - ¢ IL RTE 176 E. MILL ST. 145+00 MATCHLINE 1111 BUTT JOINT (TYP.) LOTUS ST. RIDGE ST. HAMMOND AVE ─ HMA SURF REM 2 1/2 HMA SC "D" N7O, 1 1/2" P LEV BIND MM, IL-4.75, N5O, 1" <u>LEGEND</u> □ EXISTING INLET T TELEPHONE (ADJUSTMENTS PERFORMED BY OTHERS) O EXISTING CATCH BASIN G GAS © EXISTING MANHOLE FRAMES AND LIDS TO BE ADJUSTED, SPECIAL E ELECTRIC ADJ FRAMES AND LIDS TO BE ADJUSTED REC DRAINAGE STRUCTURES TO BE RECONSTRUCTED W WATER CE COM ED (ADJUSTMENTS PERFORMED BY OTHERS) (A) VALVE VAULTS TO BE ADJUSTED COUNTY TOTAL SHEET NO.

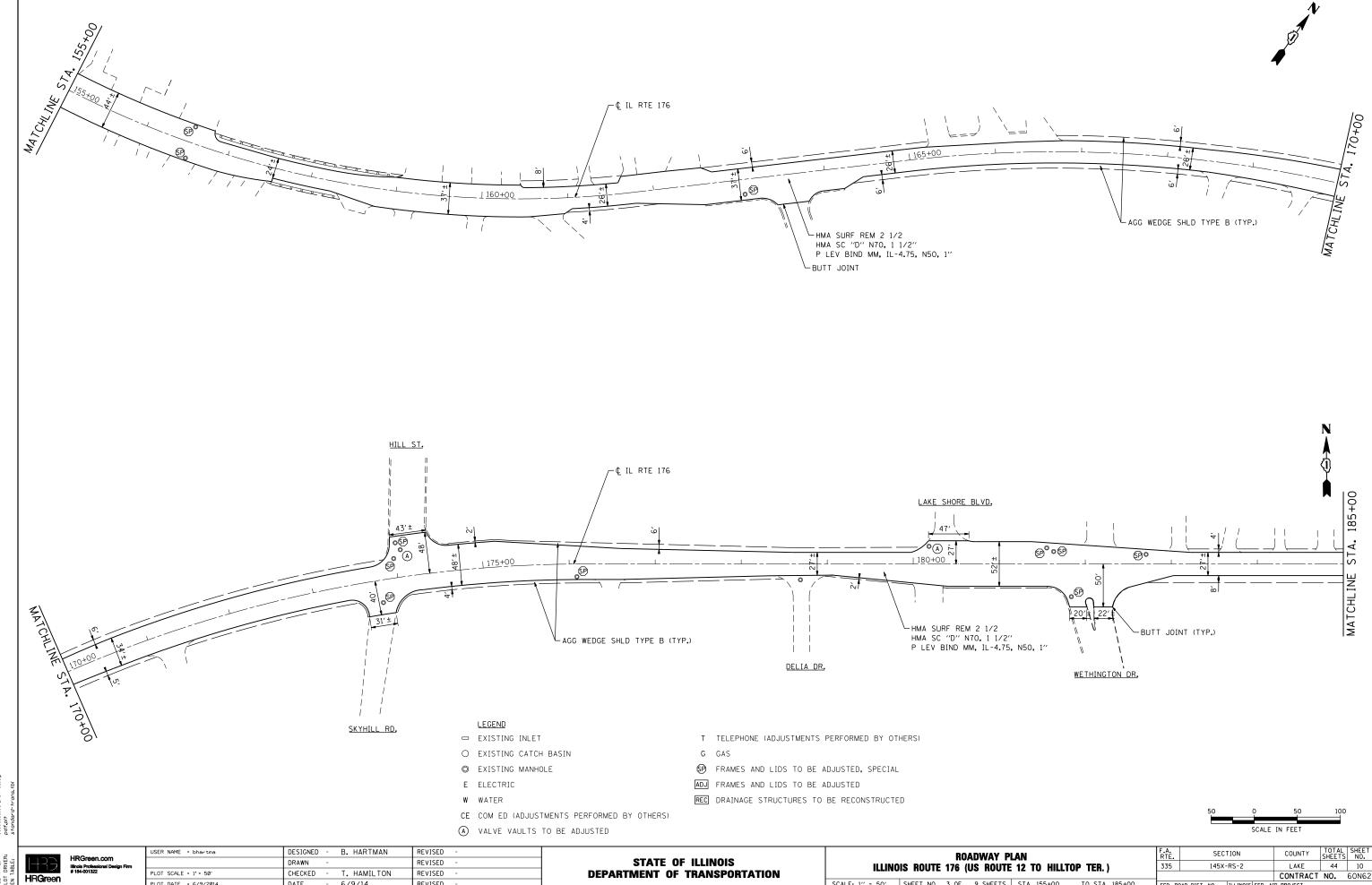
LAKE 44 9

CONTRACT NO. 60N62 USER NAME = bhartma DESIGNED - B. HARTMAN REVISED SECTION ROADWAY PLAN
ILLINOIS ROUTE 176 (US ROUTE 12 TO HILLTOP TER.) STATE OF ILLINOIS REVISED 145X-RS-2 CHECKED T. HAMILTON REVISED **DEPARTMENT OF TRANSPORTATION HRGreen** SCALE: 1" = 50' SHEET NO. 2 OF 9 SHEETS STA. 125+00 TO STA. 155+00 PLOT DATE = 6/9/2014 - 6/9/14

C-91-332-11 IL RTE 176 86100196.08-plan-02.dgn

O EXISTING CATCH BASIN ♠ FRAMES AND LIDS TO BE ADJUSTED, SPECIAL EXISTING MANHOLE E ELECTRIC ADJ FRAMES AND LIDS TO BE ADJUSTED REC DRAINAGE STRUCTURES TO BE RECONSTRUCTED CE COM ED (ADJUSTMENTS PERFORMED BY OTHERS) (A) VALVE VAULTS TO BE ADJUSTED DESIGNED - B. HARTMAN REVISED USER NAME = bhartma STATE OF ILLINOIS REVISED CHECKED T. HAMILTON REVISED **DEPARTMENT OF TRANSPORTATION HRGreen** - 6/9/14

SECTION ROADWAY PLAN
ILLINOIS ROUTE 176 (US ROUTE 12 TO HILLTOP TER.) 145X-RS-2 SCALE: 1" = 50' SHEET NO. 3 OF 9 SHEETS STA. 155+00 TO STA. 185+00



WOODLAND AVE. GRAND BLVD. FOSTER RD. ←BUTT JOINT (TYP.) +i 190+00 MATCHL INE └─HMA SURF REM 2 1/2 HMA SC "D" N70, 1 1/2" P LEV BIND MM, IL-4.75, N50, 1" AGG WEDGE SHLD TYPE B (TYP.) CRESTVIEW DR. \_\_ € IL RTE 176 200+00 215+00 PROJECT OMISSION
STA. 213+00 TO STA. 261+00 STA. MATCHLINE — HMA SURF REM 2 1/2 HMA SC "D" N70, 1 1/2" P LEV BIND MM, IL-4.75, N50, 1" AGG WEDGE SHLD TYPE B (TYP.) <u>LEGEND</u> T TELEPHONE (ADJUSTMENTS PERFORMED BY OTHERS) O EXISTING CATCH BASIN © EXISTING MANHOLE (SP) FRAMES AND LIDS TO BE ADJUSTED, SPECIAL ADJ FRAMES AND LIDS TO BE ADJUSTED E ELECTRIC W WATER REC DRAINAGE STRUCTURES TO BE RECONSTRUCTED CE COM ED (ADJUSTMENTS PERFORMED BY OTHERS) (A) VALVE VAULTS TO BE ADJUSTED COUNTY TOTAL SHEET NO.

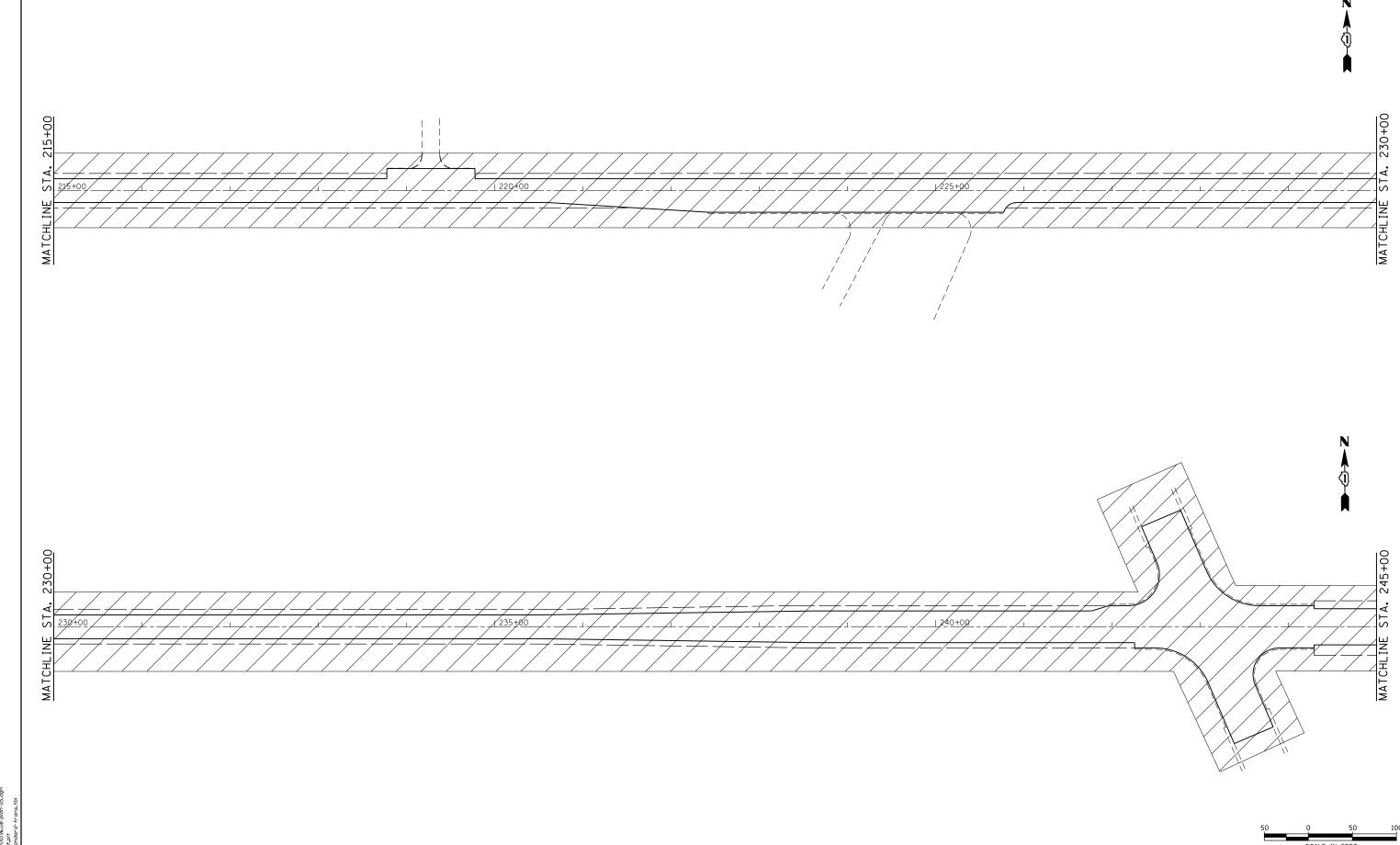
LAKE 44 11

CONTRACT NO. 60N62 DESIGNED - B. HARTMAN REVISED USER NAME = bhartma ROADWAY PLAN
ILLINOIS ROUTE 176 (US ROUTE 12 TO HILLTOP TER.) STATE OF ILLINOIS REVISED 145X-RS-2 T. HAMILTON CHECKED REVISED **DEPARTMENT OF TRANSPORTATION HRGreen** SCALE: 1" = 50' SHEET NO. 4 OF 9 SHEETS STA. 185+00 TO STA. 215+00 - 6/9/14

C-91-332-11 IL RTE 176 86100196.08-plan-04.dgn

**HRGreen** 

| COUNTY | TOTAL SHEET NO. | STEET NO. | S USER NAME = bhartma DESIGNED - B. HARTMAN REVISED ROADWAY PLAN
ILLINOIS ROUTE 176 (US ROUTE 12 TO HILLTOP TER.) STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION DRAWN REVISED CHECKED T. HAMILTON REVISED PLOT DATE = 6/9/2014 DATE - 6/9/14 SCALE: 1" = 50' SHEET NO. 5 OF 9 SHEETS STA. 215+00 TO STA. 245+00



PROJECT OMISSION STA 213+00 TO STA 261+00 -¢ IL RTE 176 <u>| 265+00</u> W. IVANHOE RD. HMA SURF REM 2 1/2 HMA SC "D" N70, 1 1/2" P LEV BIND MM, IL-4.75, N50, 1" AGG WEDGE SHLD TYPE B (TYP.) <u>LEGEND</u> T TELEPHONE (ADJUSTMENTS PERFORMED BY OTHERS) □ EXISTING INLET O EXISTING CATCH BASIN © EXISTING MANHOLE \$P FRAMES AND LIDS TO BE ADJUSTED, SPECIAL E ELECTRIC ADJ FRAMES AND LIDS TO BE ADJUSTED REC DRAINAGE STRUCTURES TO BE RECONSTRUCTED CE COM ED (ADJUSTMENTS PERFORMED BY OTHERS) (A) VALVE VAULTS TO BE ADJUSTED 
 COUNTY
 TOTAL SHEETS NO.

 LAKE
 44
 13

 CONTRACT NO.
 60N62
 USER NAME = bhartma DESIGNED - B. HARTMAN REVISED ROADWAY PLAN
ILLINOIS ROUTE 176 (US ROUTE 12 TO HILLTOP TER.) STATE OF ILLINOIS REVISED 145X-RS-2 CHECKED T. HAMILTON REVISED **DEPARTMENT OF TRANSPORTATION HRGreen** SCALE: 1" = 50' SHEET NO. 6 OF 9 SHEETS STA. 245+00 TO STA. 275+00 PLOT DATE = 6/9/2014 FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT - 6/9/14

C-91-332-11 IL RTE 176 86100196.08-plan-06.dgn

-HMA SURF REM 2 1/2 HMA SC "D" N70, 1 1/2" P LEV BIND MM, IL-4.75, N50, 1" LAGG WEDGE SHLD TYPE B (TYP.) -¢ IL RTE 176 <u>×</u> 1300+00 -AGG WEDGE SHLD TYPE B (TYP.) <u>LEGEND</u> □ EXISTING INLET T TELEPHONE (ADJUSTMENTS PERFORMED BY OTHERS) O EXISTING CATCH BASIN P FRAMES AND LIDS TO BE ADJUSTED, SPECIAL O EXISTING MANHOLE ADJ FRAMES AND LIDS TO BE ADJUSTED REC DRAINAGE STRUCTURES TO BE RECONSTRUCTED CE COM ED (ADJUSTMENTS PERFORMED BY OTHERS) (A) VALVE VAULTS TO BE ADJUSTED COUNTY TOTAL SHEET NO.

LAKE 44 14

CONTRACT NO. 60N62 JSER NAME = bhartma DESIGNED - B. HARTMAN REVISED SECTION ROADWAY PLAN
ILLINOIS ROUTE 176 (US ROUTE 12 TO HILLTOP TER.) STATE OF ILLINOIS DRAWN REVISED 145X-RS-2 T. HAMILTON **DEPARTMENT OF TRANSPORTATION** CHECKED REVISED **HRGreen** PLOT DATE = 6/9/2014 SCALE: 1" = 50' SHEET NO. 7 OF 9 SHEETS STA. 275+00 TO STA. 305+00 DATE 6/9/14

\_\_¢ IL RTE 176

←¢ IL RTE 176 -- HMA SURF REM 2 1/2 HMA SC "D" N70, 1 1/2" P LEV BIND MM, IL-4.75, N50, 1" AGG WEDGE SHLD TYPE B (TYP.) BUTT JOINT-W. HAWLEY ST. N. GILMER RD. BUTT JOINT -(TYP.) -¢ IL RTE 176 <u>| 325+00</u> MATCHL INE └─HMA SURF REM 2 1/2 HMA SC ''D'' N7O, 1 1/2'' P LEV BIND MM, IL-4.75, N5O, 1'' LAGG WEDGE SHLD TYPE B (TYP.) 48'± <u>LEGEND</u> □ EXISTING INLET T TELEPHONE (ADJUSTMENTS PERFORMED BY OTHERS) O EXISTING CATCH BASIN ♠ FRAMES AND LIDS TO BE ADJUSTED, SPECIAL © EXISTING MANHOLE E ELECTRIC ADJ FRAMES AND LIDS TO BE ADJUSTED N. GILMER RD. REC DRAINAGE STRUCTURES TO BE RECONSTRUCTED CE COM ED (ADJUSTMENTS PERFORMED BY OTHERS) (A) VALVE VAULTS TO BE ADJUSTED COUNTY TOTAL SHEET NO.

LAKE 44 15

CONTRACT NO. 60N62 USER NAME = bhartma DESIGNED - B. HARTMAN REVISED ROADWAY PLAN
ILLINOIS ROUTE 176 (US ROUTE 12 TO HILLTOP TER.) STATE OF ILLINOIS REVISED 145X-RS-2 **DEPARTMENT OF TRANSPORTATION** CHECKED T. HAMILTON REVISED **HRGreen** 6/9/14 SCALE: 1" = 50' SHEET NO. 8 OF 9 SHEETS STA. 305+00 TO STA. 335+00

C-91-332-11 IL RTE 176 86100196.08-plan-08.dgn

-¢ IL RTE 176 HIGH POINT ESTATES ST <u>| 340+00</u> MATCHL INE -AGG WEDGE SHLD TYPE B (TYP.) HMA SURF REM 2 1/2 HMA SC "D" N70, 1 1/2" P LEV BIND MM, IL-4.75, N50, 1" HMA SURF REM 2 1/2 HMA SC "D" N70, 1 1/2" P LEV BIND MM, IL-4.75, N50, 1" N. HILLTOP TER. -¢ IL RTE 176 -HMA SURF REM 2 1/2 HMA SC "D" N70, 1 1/2" P LEV BIND MM, IL-4.75, N50, 1" IMPROVEMENT ENDS -AGG WEDGE SHLD TYPE B (TYP.) STA. 364+67 **LEGEND** □ EXISTING INLET T TELEPHONE (ADJUSTMENTS PERFORMED BY OTHERS) G GAS O EXISTING CATCH BASIN © EXISTING MANHOLE ♠ FRAMES AND LIDS TO BE ADJUSTED, SPECIAL E ELECTRIC ADJ FRAMES AND LIDS TO BE ADJUSTED REC DRAINAGE STRUCTURES TO BE RECONSTRUCTED CE COM ED (ADJUSTMENTS PERFORMED BY OTHERS) (A) VALVE VAULTS TO BE ADJUSTED COUNTY TOTAL SHEET NO.

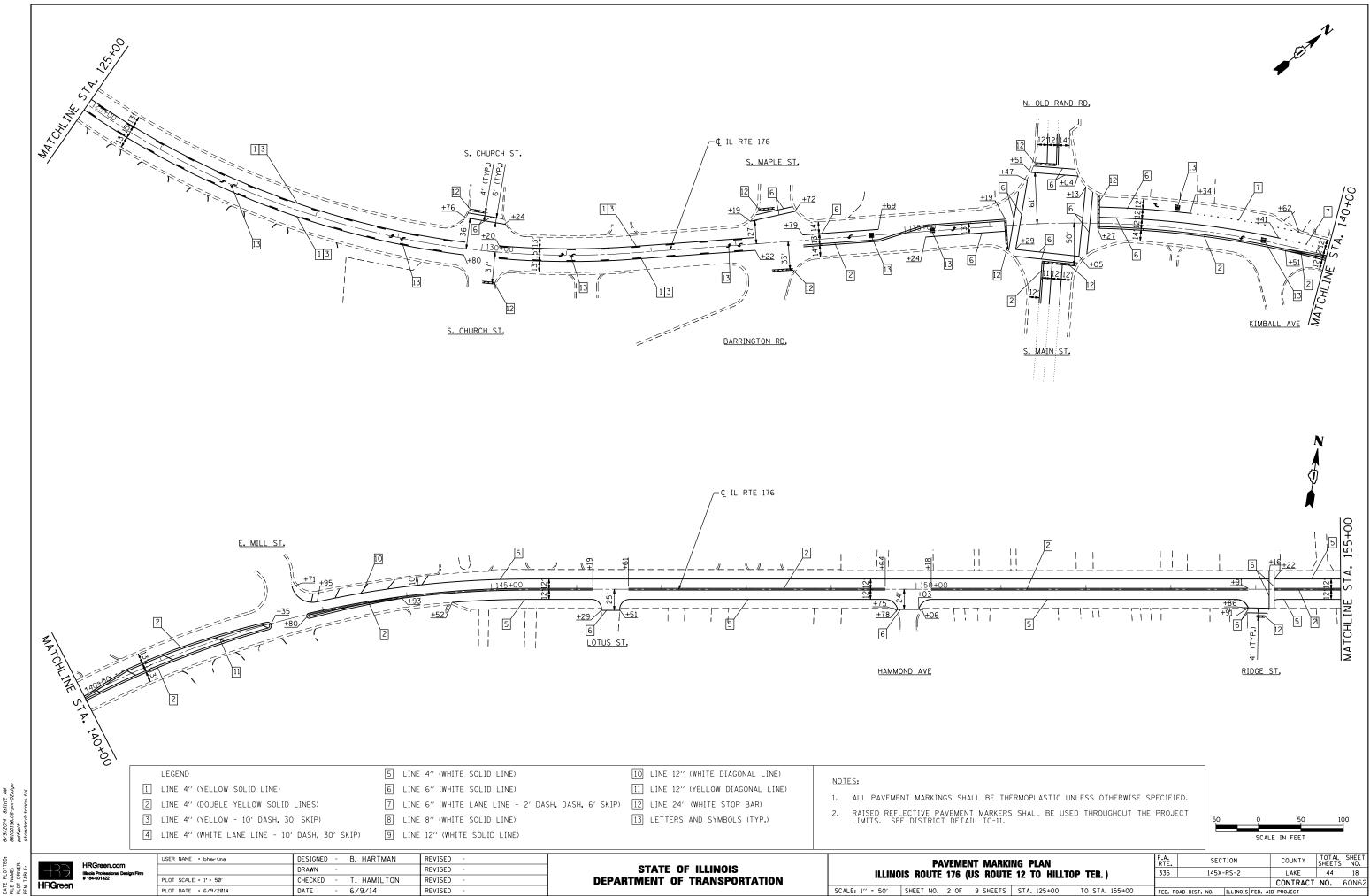
LAKE 44 16

CONTRACT NO. 60N62 DESIGNED - B. HARTMAN USER NAME = bhartma REVISED SECTION ROADWAY PLAN
ILLINOIS ROUTE 176 (US ROUTE 12 TO HILLTOP TER.) STATE OF ILLINOIS REVISED 335 145X-RS-2 CHECKED T. HAMILTON REVISED **DEPARTMENT OF TRANSPORTATION HRGreen** SCALE: 1" = 50' SHEET NO. 9 OF 9 SHEETS STA. 335+00 TO STA. END PLOT DATE = 6/9/2014 6/9/14

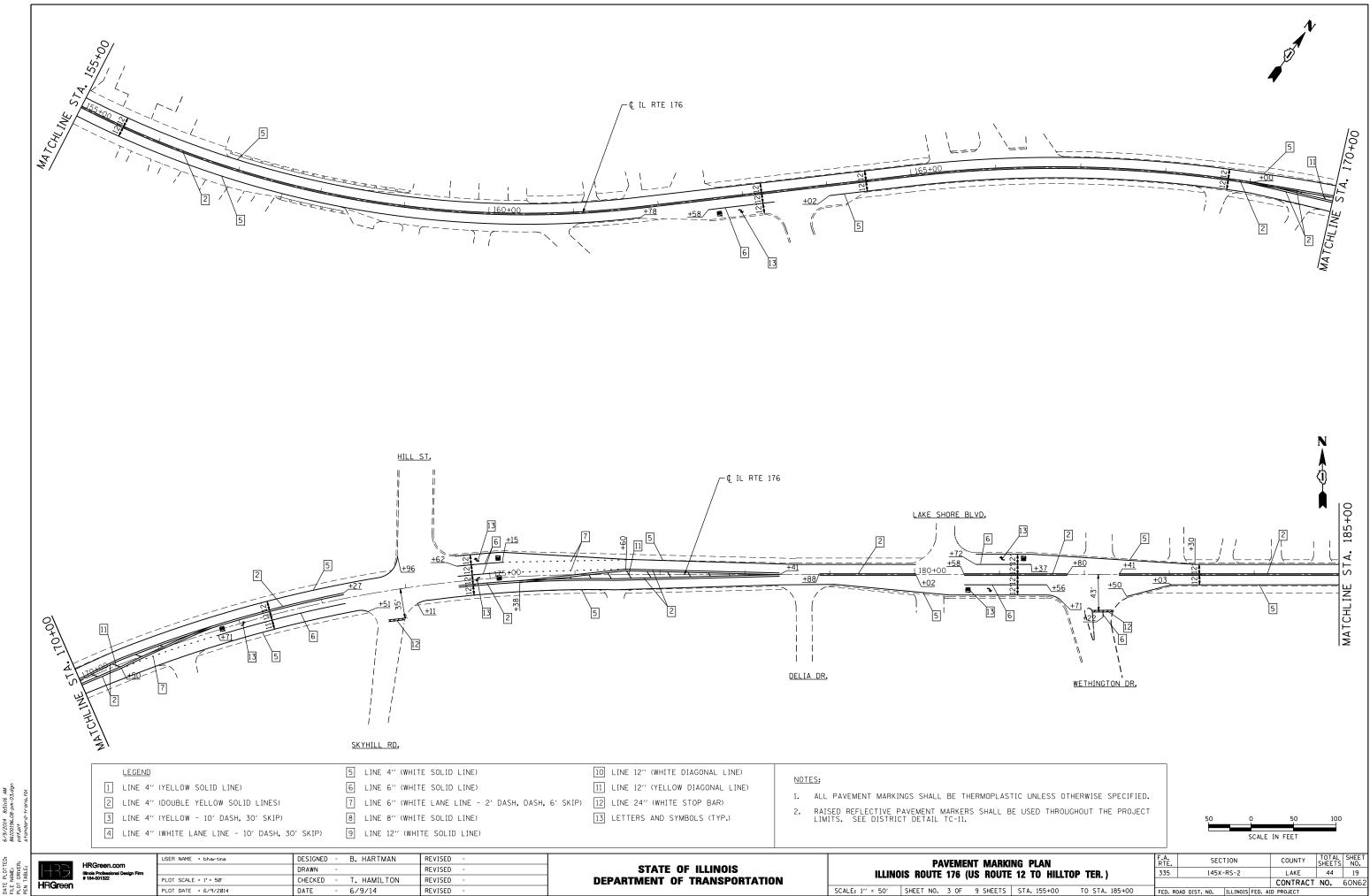
C-91-332-11 IL RTE 176 86100196.08-plan-09.dgn

5 LINE 4" (WHITE SOLID LINE) 10 LINE 12" (WHITE DIAGONAL LINE) 1 LINE 4" (YELLOW SOLID LINE) 6 LINE 6" (WHITE SOLID LINE) 11 LINE 12" (YELLOW DIAGONAL LINE) 1. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE SPECIFIED. 2 LINE 4" (DOUBLE YELLOW SOLID LINES) T LINE 6" (WHITE LANE LINE - 2' DASH, DASH, 6' SKIP) 12 LINE 24" (WHITE STOP BAR) LARKDALE ROW 2. RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE USED THROUGHOUT THE PROJECT LIMITS. SEE DISTRICT DETAIL TC-11. 3 LINE 4" (YELLOW - 10' DASH, 30' SKIP) 8 LINE 8" (WHITE SOLID LINE) 13 LETTERS AND SYMBOLS (TYP.) 9 LINE 12" (WHITE SOLID LINE) 4 LINE 4" (WHITE LANE LINE - 10' DASH, 30' SKIP) US ROUTE 12 EXIT RAMP IMPROVEMENT BEGINS STA. 85+00 MATCH EXISTING PAVEMENT MARKINGS MATCHLI ACRES GROUP ENTRANCE US ROUTE 12 ENTRANCE RAMP US ROUTE 12 ENTRANCE RAMP BROWN ST. MATCHLINE THOMAS CT. US ROUTE 12 EXIT RAMP -¢ IL RTE 176 OSAGE ST. 13 1 DESIGNED -B. HARTMAN REVISED TOTAL SHEETS NO. JSER NAME = bhartma SECTION **PAVEMENT MARKING PLAN** STATE OF ILLINOIS DRAWN REVISED LAKE 44 17
CONTRACT NO. 60N62 ILLINOIS ROUTE 176 (US ROUTE 12 TO HILLTOP TER.) 145X-RS-2 LOT SCALE = 1° = 50° CHECKED T. HAMILTON REVISED **DEPARTMENT OF TRANSPORTATION HRGreen** SCALE: 1" = 50' SHEET NO. 1 OF 9 SHEETS STA. BEGIN PLOT DATE = 6/9/2014 DATE 6/9/14

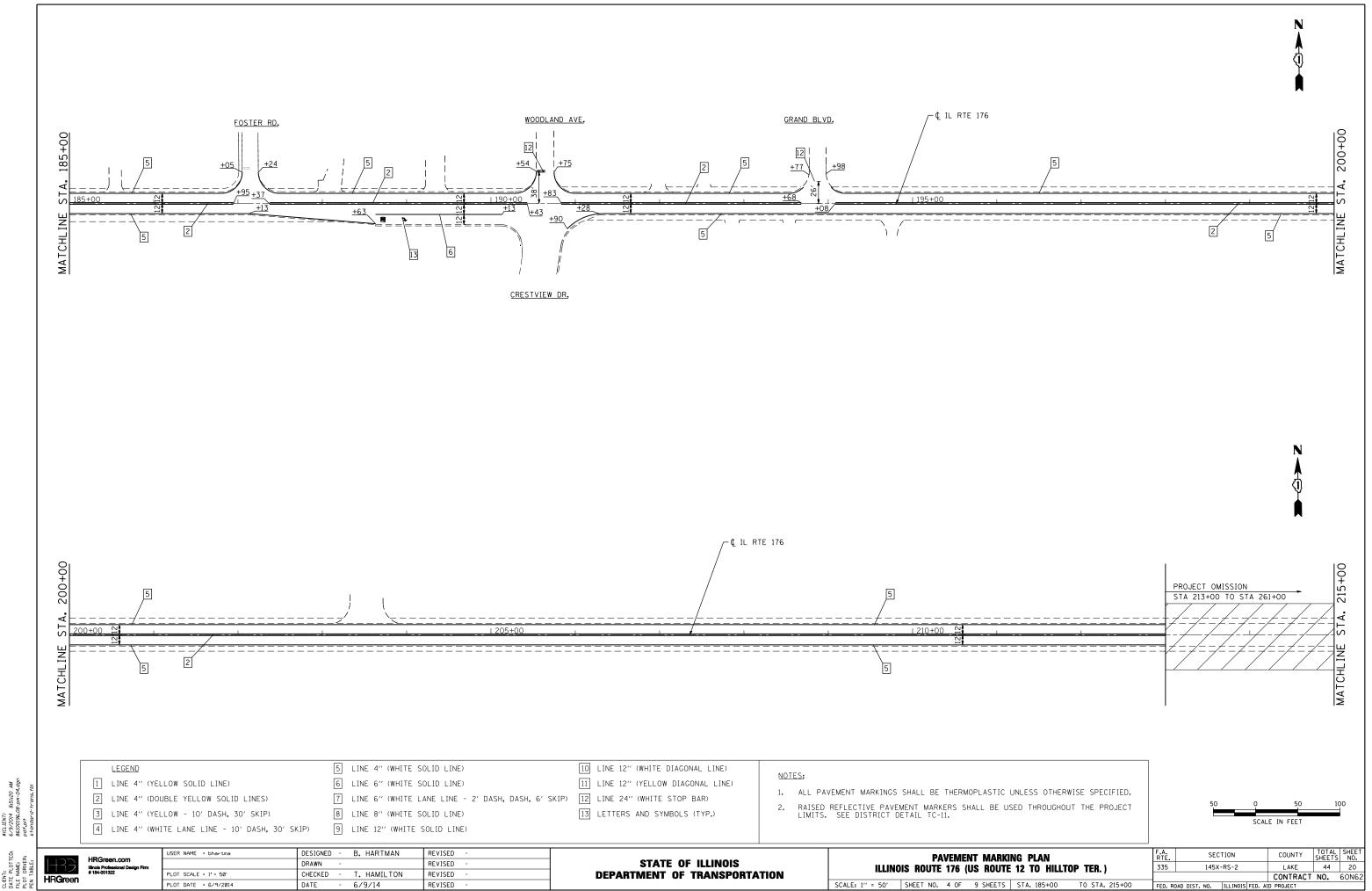
C-91-332-11 IL RTE 176 86100196.08-pm-01.dgn



C-91-332-11 IL RTE 176 86100196.08-pm-02.dgn



C-91-332-11 IL RTE 176 86100196.08-pm-03.dg∩

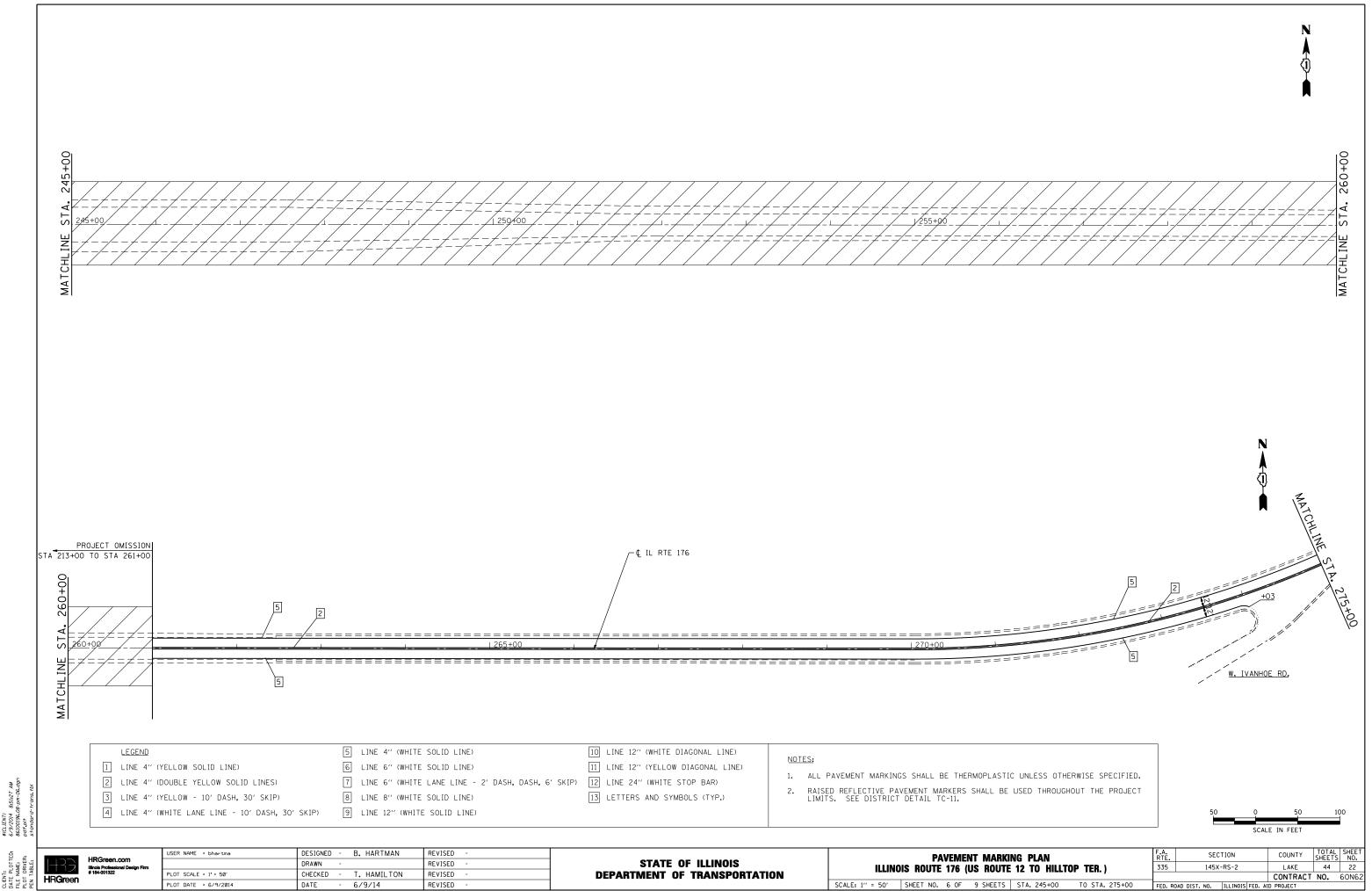


C-91-332-11 IL RTE 176 86100196.08-pm-04.dgn

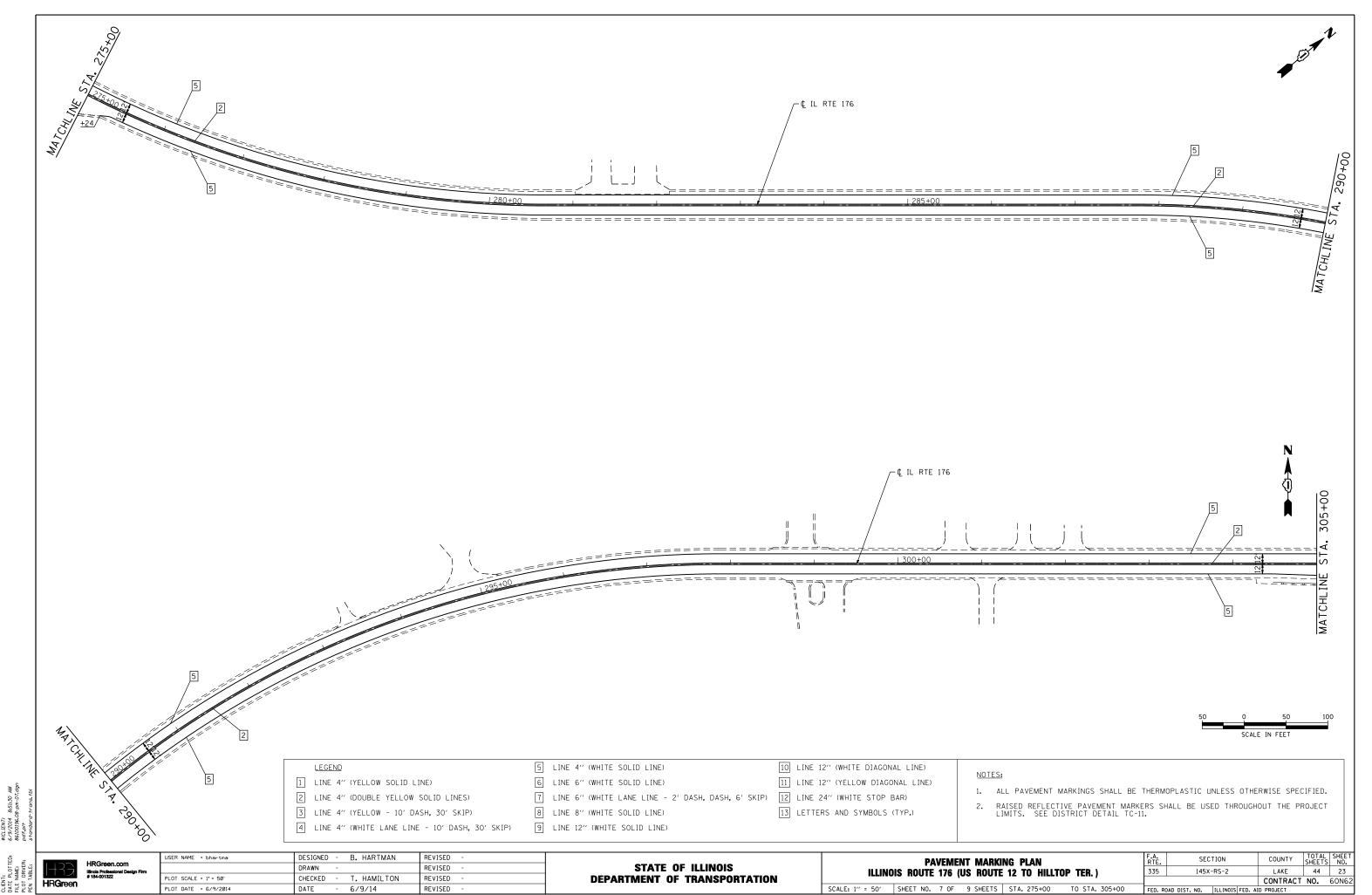
MATCHL INE MATCHL INE COUNTY TOTAL SHEET NO.

LAKE 44 21

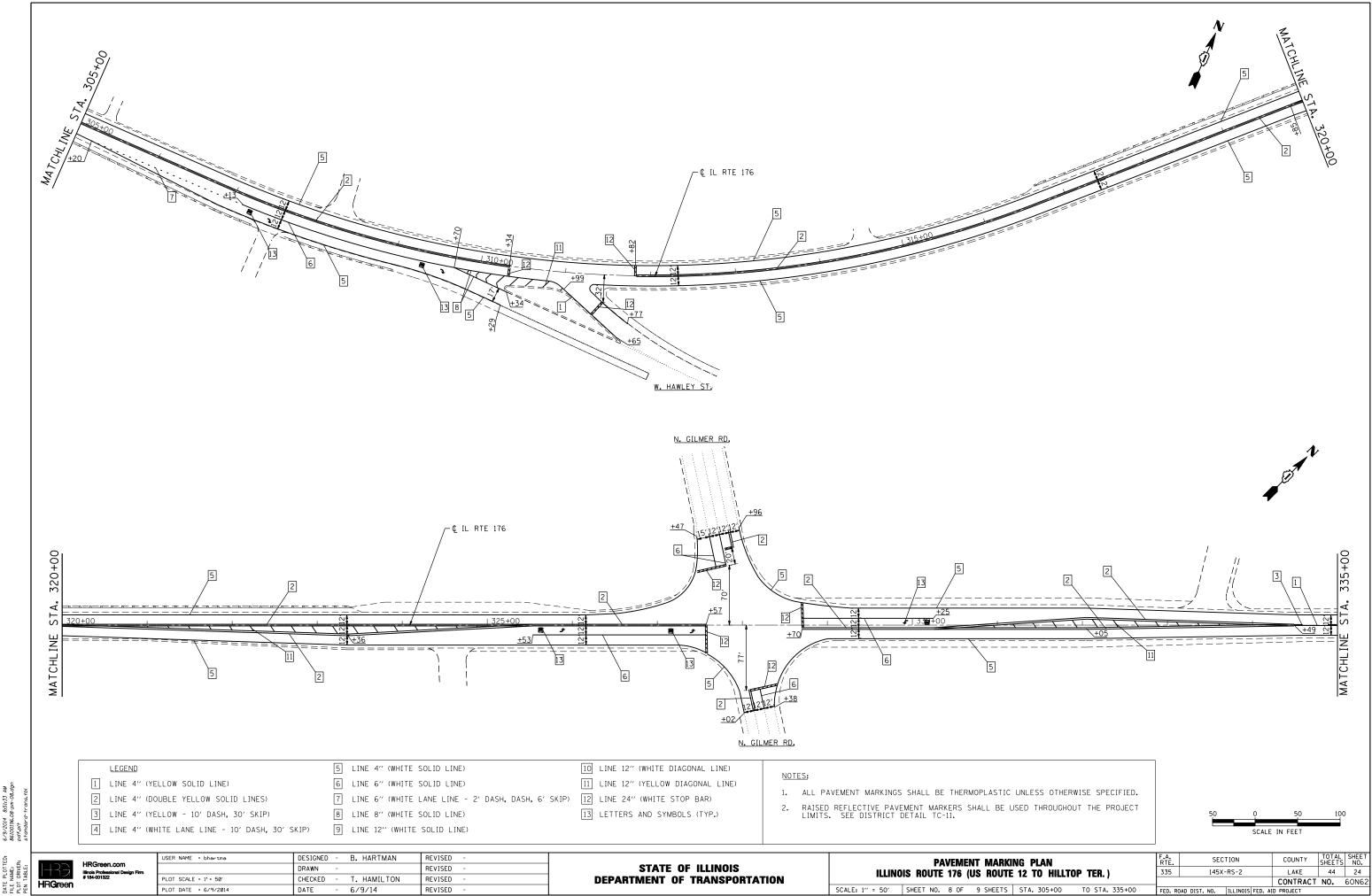
CONTRACT NO. 60N62 USER NAME = bhartma DESIGNED - B. HARTMAN REVISED F.A. RTE. 335 PAVEMENT MARKING PLAN
ILLINOIS ROUTE 176 (US ROUTE 12 TO HILLTOP TER.) SECTION STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION DRAWN REVISED 145X-RS-2 CHECKED T. HAMILTON REVISED **HRGreen** PLOT DATE = 6/9/2014 DATE - 6/9/14 REVISED SCALE: 1" = 50' SHEET NO. 5 OF 9 SHEETS STA. 215+00 TO STA. 245+00



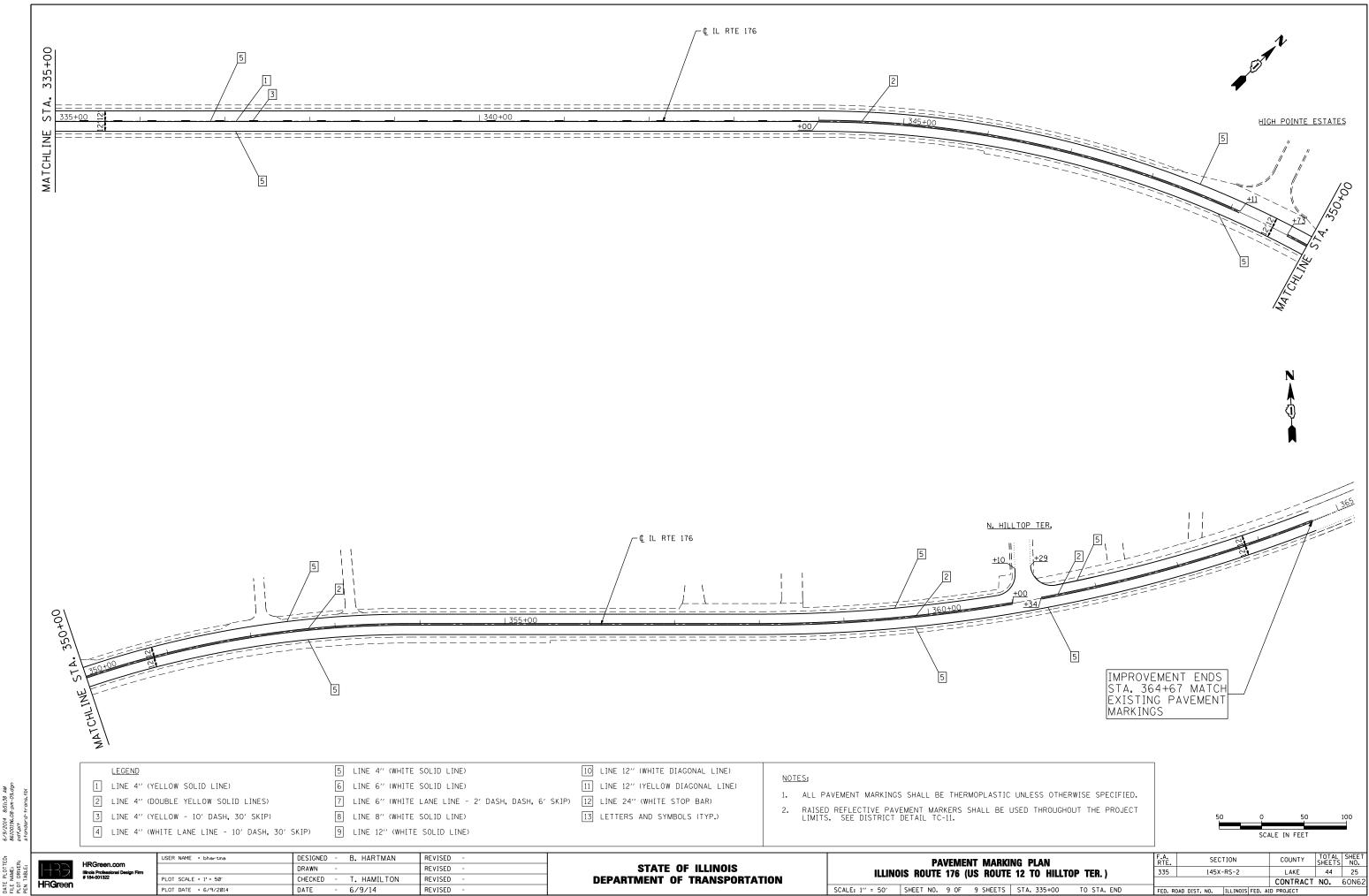
C-91-332-11 IL RTE 176 86100196.08-pm-06.dgn



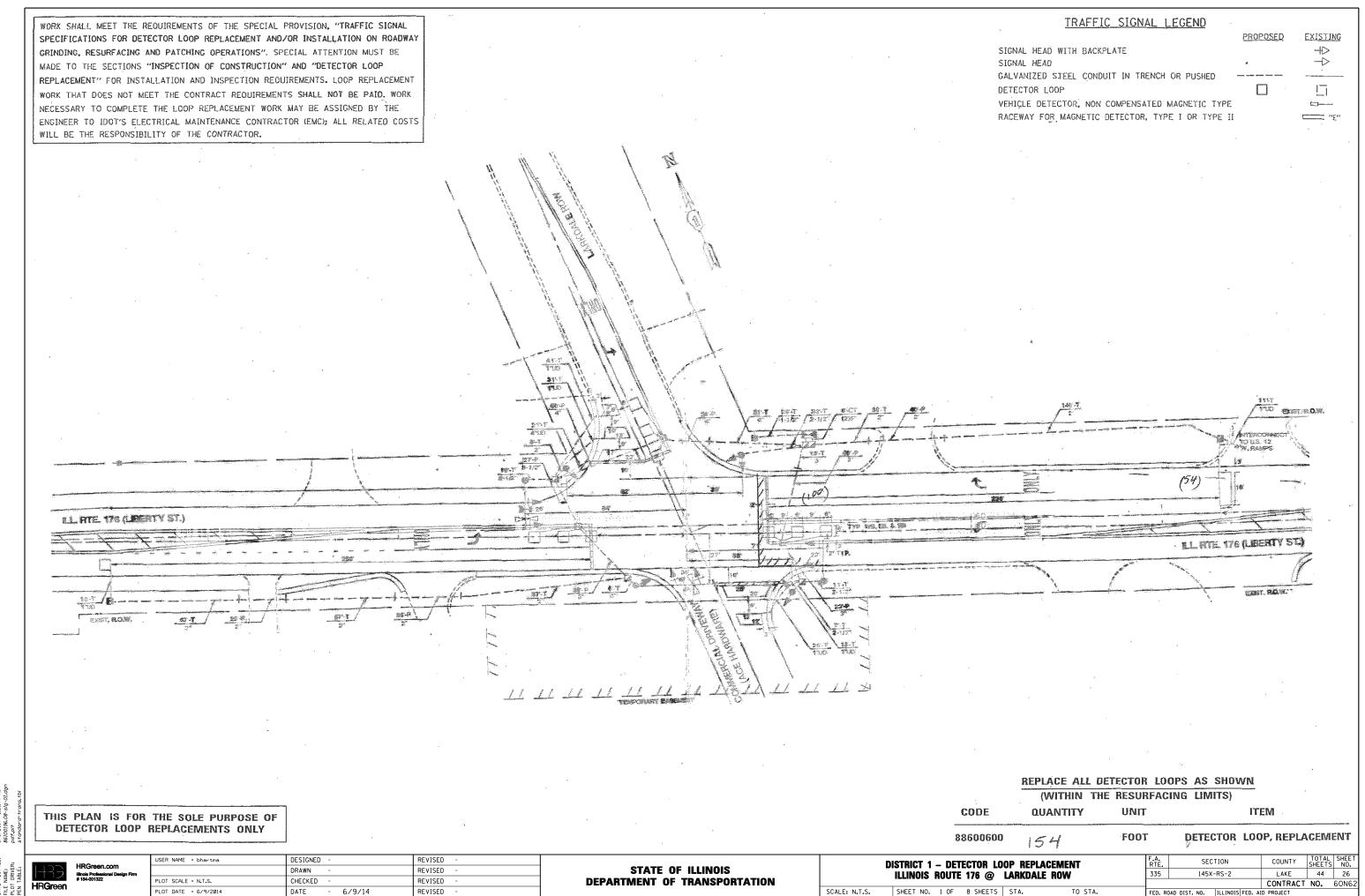
C-91-332-11 IL RTE 176 86100196.08-pm-07.dgn



C-91-332-11 IL RTE 176 86100196.08-pm-08.dgn



C-91-332-11 IL RTE 176 86100196.08-pm-09.dgn



C-91-332-11 IL RTE 176 86100196.08-sig-01.dgn

WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL TRAFFIC SIGNAL LEGEND SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY **EXISTING** GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE <u>PROPOSED</u> MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID, WORK SIGNAL HEAD NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE G.S. CONDUIT IN TRENCH OR PUSHED ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS SIGNAL HEAD WITH BACKPLATE WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR II VEHICLE DETECTOR, NON-COMPENSATED MAGNETIC TYPE ILLINOIS ROUTE 176 (104) (124) tunnantananan manananan mananan manana RESURFACING LIMIT REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMITS) QUANTITY UNIT 86600600 DETECTOR LOOP REPLACEMENT JSER NAME = bhartma DESIGNED REVISED

COMPANY NAME: 8%C PROJECT CONTACT; 8% OLICHY: 8% PATE PLOTTED: 6/ FILE NAME: 86, PLOT DRIVER: PP

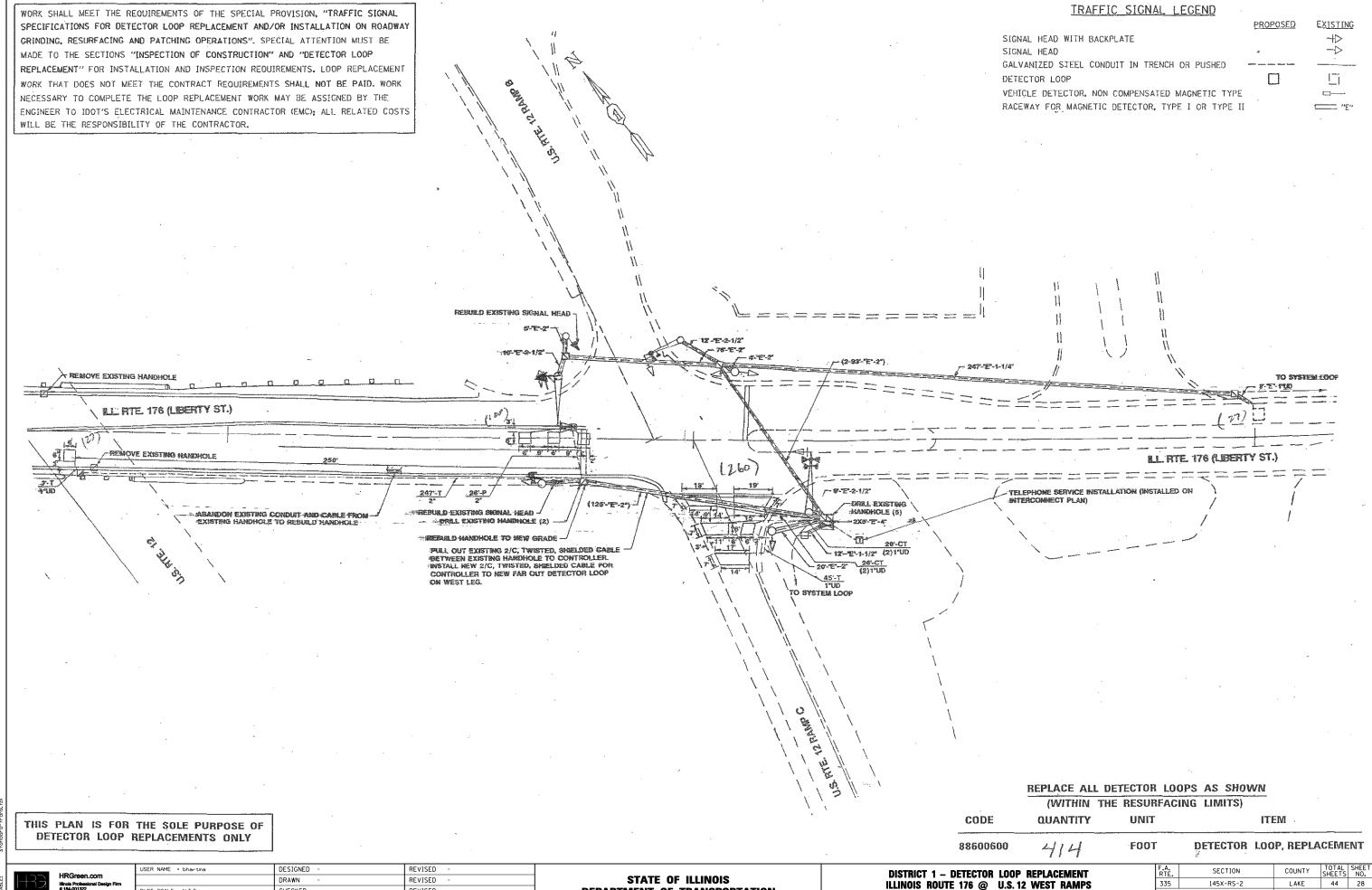
**HRGreen** 

com nal Design Firm

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 - DETECTOR LOOP REPLACEMENT
ILLINOIS ROUTE 176 @ ACERS GROUP ENTRANCE

SCALE: N.T.S. SHEET NO. 2 OF 8 SHEETS STA. TO STA. FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT|



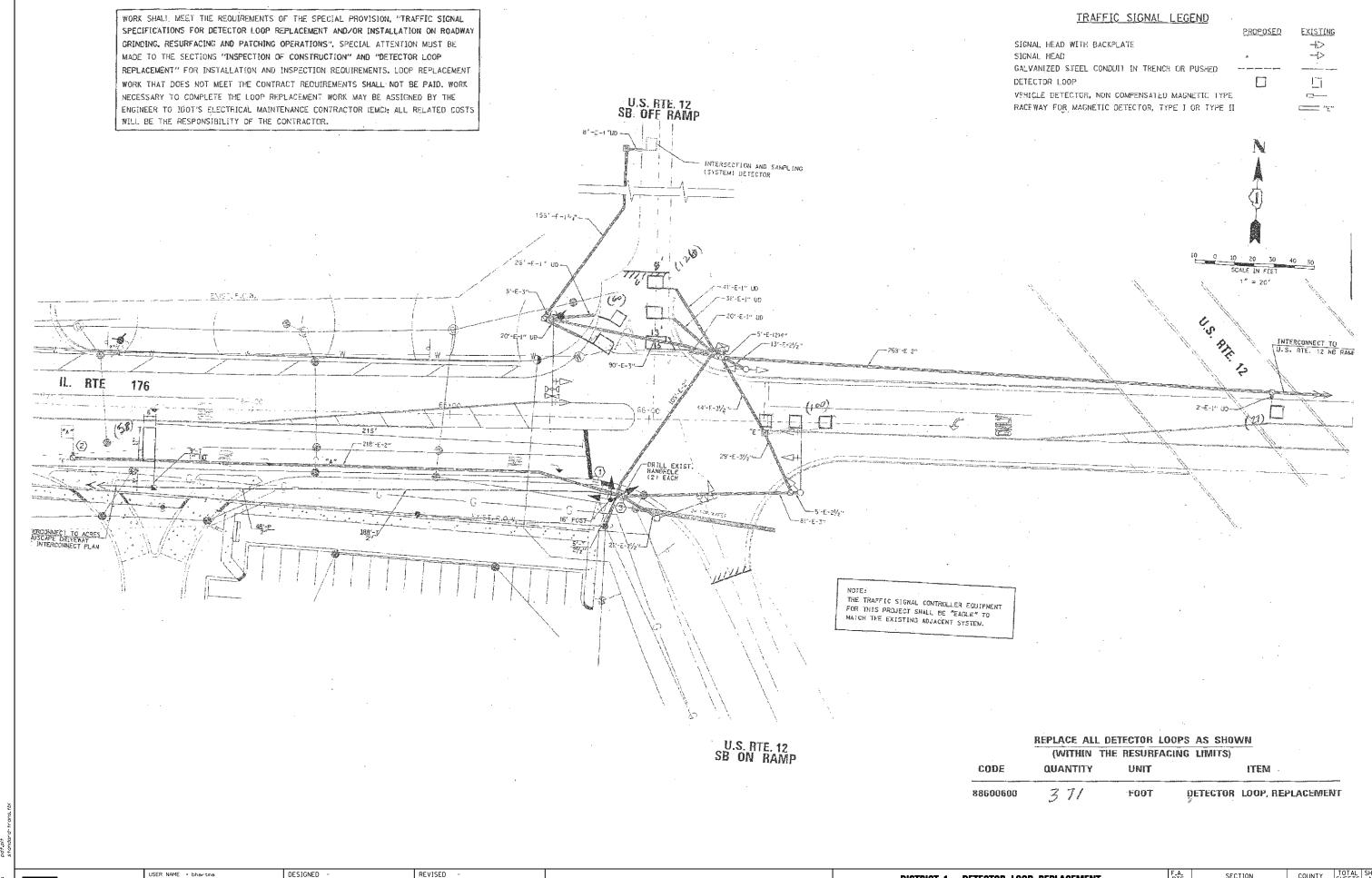
HRGreen

CHECKED REVISED DATE

**DEPARTMENT OF TRANSPORTATION** 

ILLINOIS ROUTE 176 @ U.S. 12 WEST RAMPS SCALE: N.T.S. SHEET NO. 3 OF 8 SHEETS STA.

145X-RS-2 LAKE CONTRACT NO. 60N62



COMPANY NAME:
COMPANY NAME:
PROJECT CONTA
CLIENT:
DATE PLOTTED:
FILE NAME:

HRGreen.com
Illinois Professional Design Firm
# 184-001322
HRGreen

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 – DETECTOR LOOP REPLACEMENT ILLINOIS ROUTE 176 @ U.S. 12 EAST RAMPS

SCALE: N.T.S. | SHEET NO. 4 OF 8 SHEETS | STA. TO STA

C-91-332-11 IL RTE 176 86100196.08-sig-04.dgn

TRAFFIC SIGNAL LEGEND WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL EXISTING SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY SIGNAL HEAD WITH BACKPLATE GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE  $\rightarrow$ SIGNAL HEAD MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS, LOOP REPLACEMENT DETECTOR LOOP WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE \_\_ NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK WAY BE ASSIGNED BY THE "E," RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. RESURFACING RESURFACTING LIMIT REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMITS) ITEM QUANTITY UNIT CODE THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY DETECTOR LOOP, REPLACEMENT FOOT 88600600 DESIGNED -JSER NAME = bhartma REVISED SECTION

MET: \*\*COMPANY.NAME)
NITCT: \*\*PROJECT.CONTACT)
\*\*CLED: 6-97-2014 8:52-21 AM
86:00196.08-5ig-05-dgn
R: \*\*CONTACT)\*\*CLED: \*\*CONTACT)\*\*CLED: \*\*CONTACT)\*\*CLED: \*\*CONTACT
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Illinole Professions
# 184-001322

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 - DETECTOR LOOP REPLACEMENT ILLINOIS ROUTE 176 @ MAIN ST/OLD RAND RD.

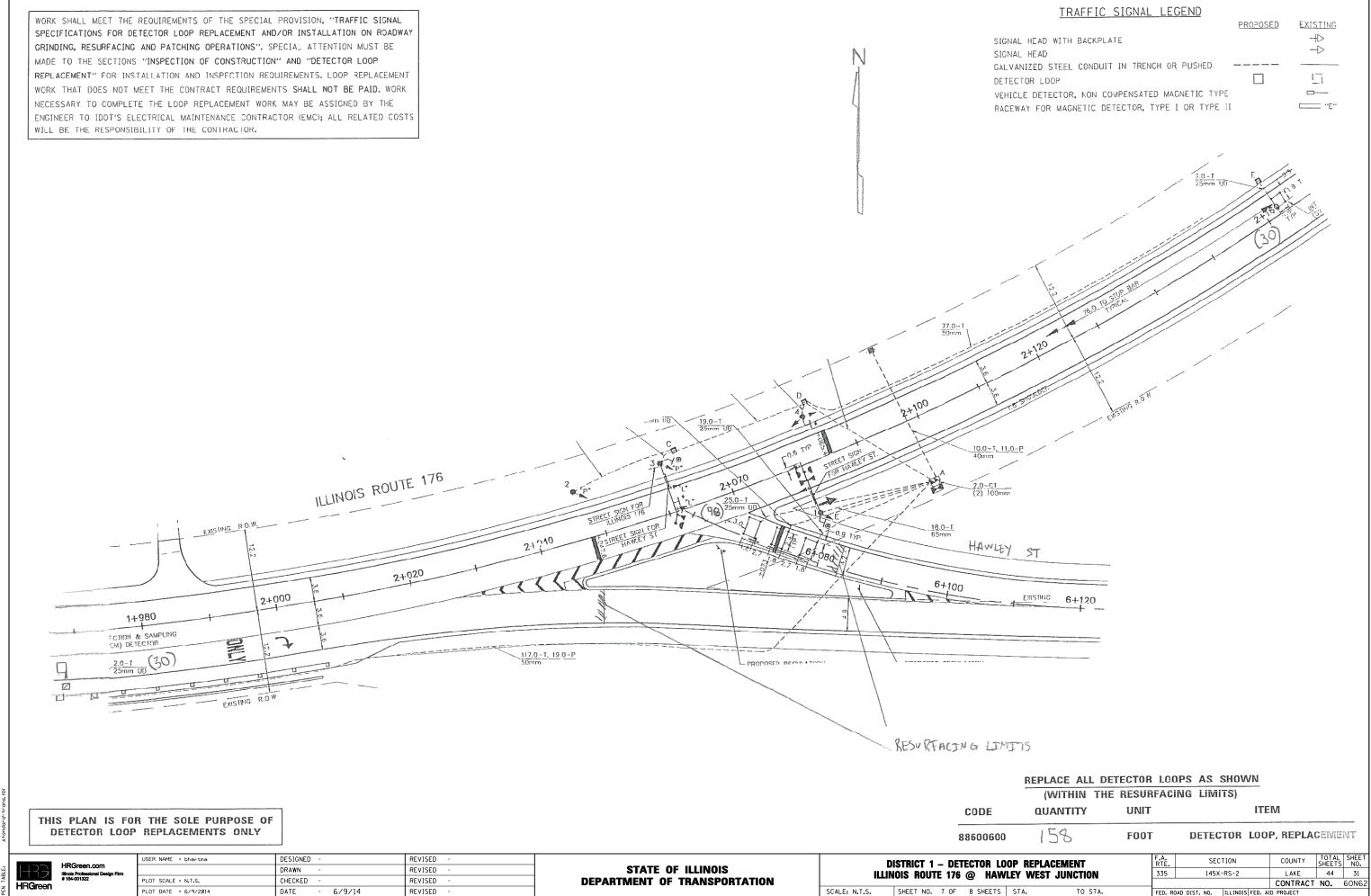
SCALE: N.T.S. SHEET NO. 5 OF 8 SHEETS STA. TO STA.

 
 F.A. RTE.
 SECTION
 COUNTY
 TOTAL SHEETS
 SHEETS NO.

 335
 145X-RS-2
 LAKE
 44
 30

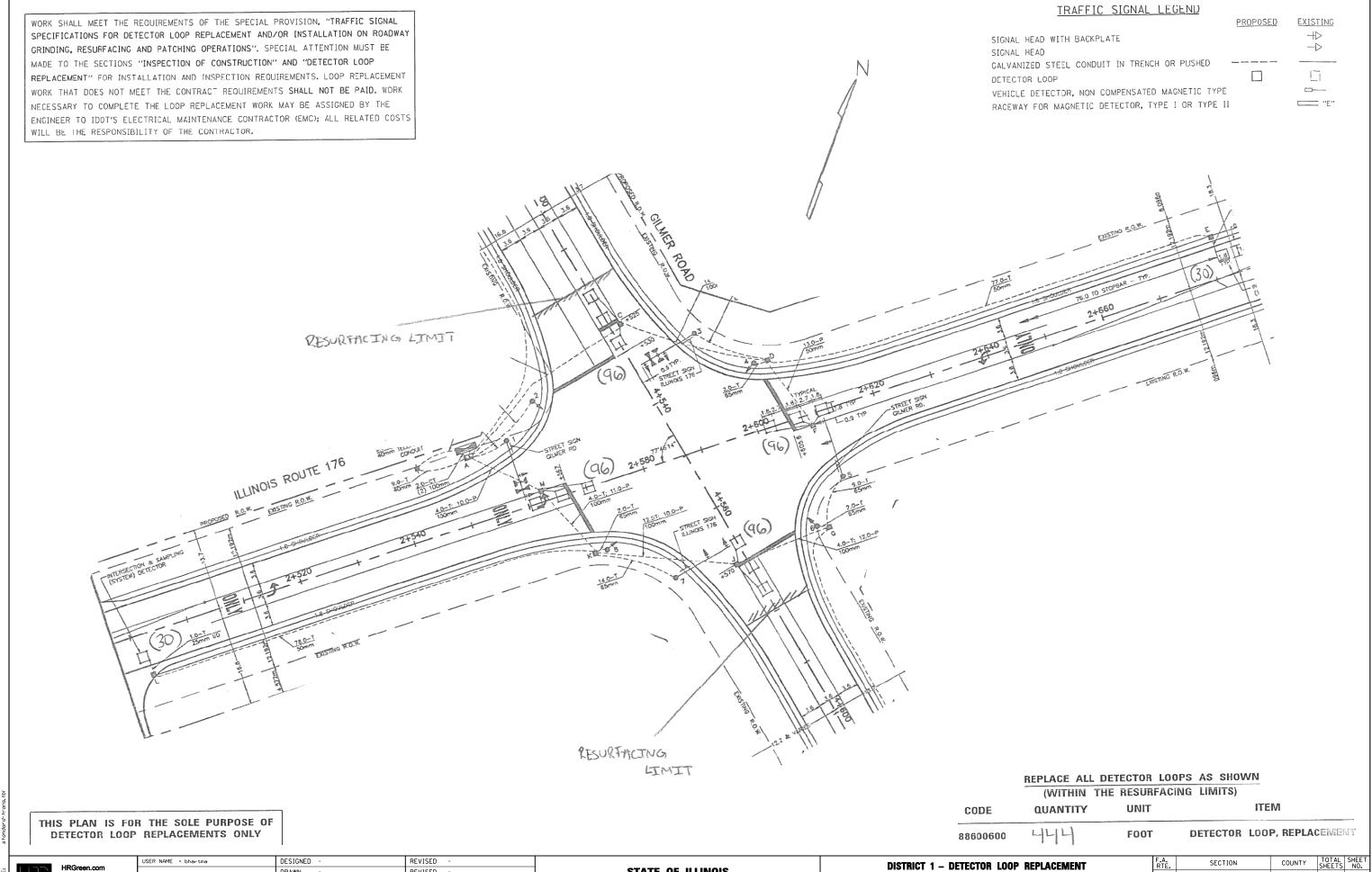
 CONTRACT NO. 60N62

C-91-332-11 IL RTE 176 86100196.08-sig-05.dgr



PLOT DATE = 6/9/2014 6/9/14 DATE REVISED

CONTRACT NO. 60N62



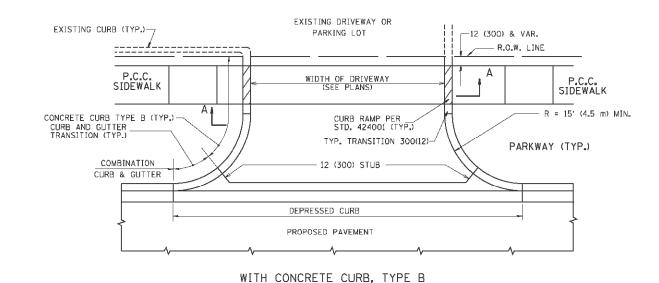
**HRGreen** 

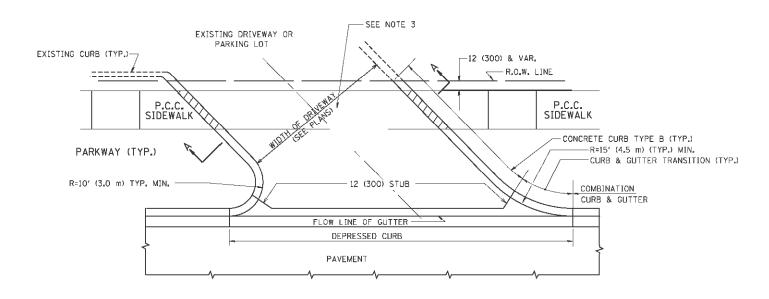
DRAWN REVISED LOT SCALE = N.T.S. CHECKED REVISED PLOT DATE = 6/9/2014 - 6/9/14 REVISED DATE

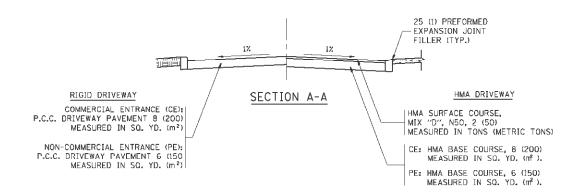
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

ILLINOIS ROUTE 176 @ GILMER RD. SCALE: N.T.S. SHEET NO. 8 OF 8 SHEETS STA.

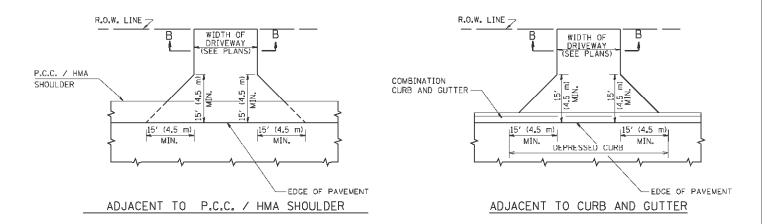
TOTAL SHEET NO. 335 145X-RS-2 CONTRACT NO. 60N62

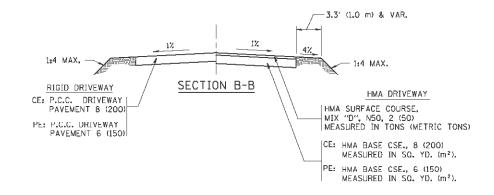






WITH CONCRETE CURB, TYPE B





### RURAL FIELD ENTRANCE (FE)

HMA SURFACE COURSE, MIX "D", N50, 2 (50) MEASURED IN TONS (METRIC TONS)

AGGREGATE BASE CSE., TYPE B, 8 (200) MEASURED IN SQ. YD.  $(m^2)$ .

### GENERAL NOTES:

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HICHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENCINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

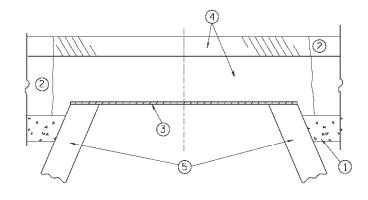
WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

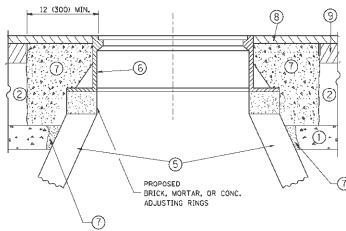
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'EN LABLE:	HRGreen.com  HRGreen.com  #164-01322

USER NAME = leyso	DESIGNED - R. SHAH	REVISED - P. LaFLUER 04-15-03
	DRAWN -	REVISED - R. BORO 01-01-07
PLOT SCALE = 50.0000 '/ in.	CHECKED -	REVISED - R. BORO 06-11-08
PLOT DATE = 9/6/2011	DATE - 11-04-95	REVISED - R RORO 09-06-11

STATE	0F	ILLINOIS
<b>DEPARTMENT</b>	OF 1	TRANSPORTATION

	DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W.  AND FACE OF CURB & EDGE OF SHOULDER > = 15'(4.5 m)				F.A RTE.	SECTION	COUNTY	TOTAL SHEETS	SHE
					335	145X-RS-2	LAKE	44	33
	AND FACE OF CORD & EDGE OF SHOULDER > = 13 (4.3 III)					BD0156-07 (BD-01)	CONTRACT	NO.	60N
	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. R	GAD DIST. NO. 1   ILLINOIS FED.	AID PROJECT		





### 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.

### 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 PP-1\*
  CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING
  BASE COURSE OR THE BINDER COURSE.
- \* UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE FNGINFFR."

### LEGEND

- 1 SUB-BASE GRANULAR MATERIAL
- 6 FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT

(5) EXISTING STRUCTURE

- (7) CLASS PP-1\* CONCRETE
- 3 36 (900) DIAMETER METAL PLATE
- 8) PROPOSED HMA SURFACE COURSE
- PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- (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:

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

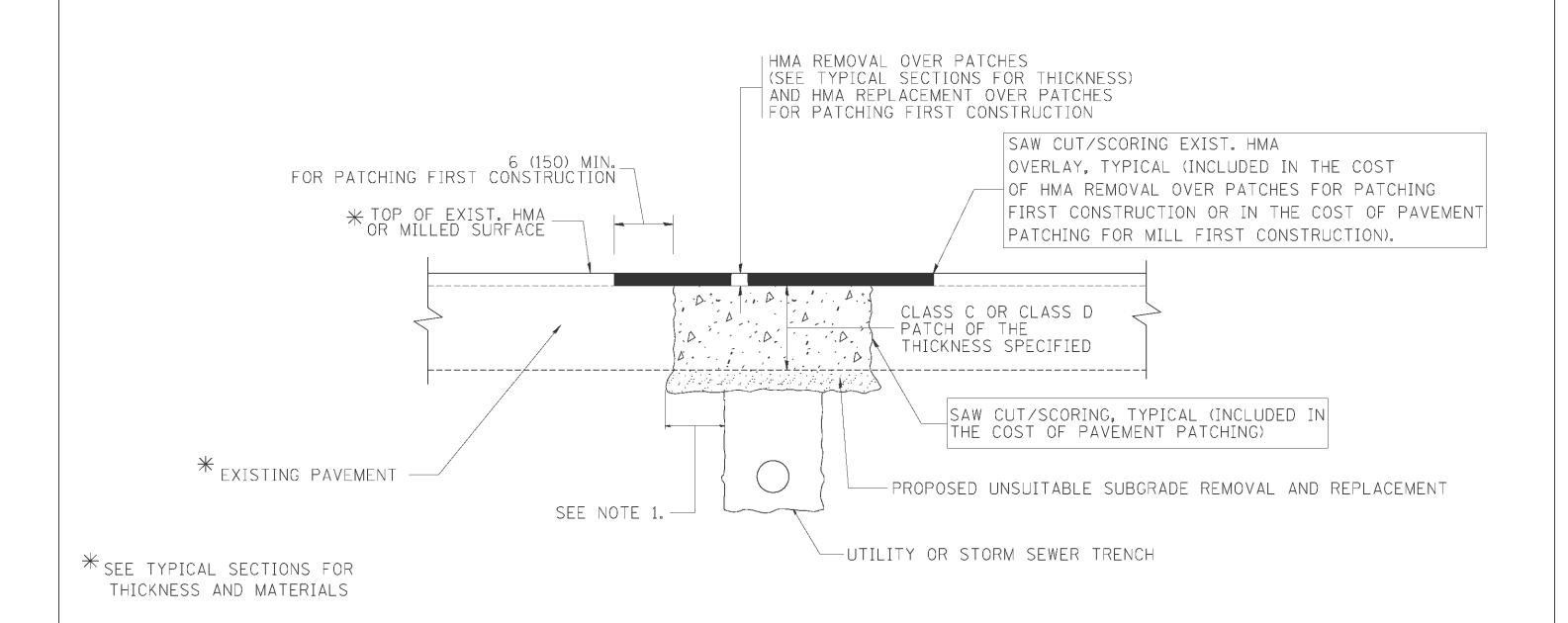
NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN



	USER NAME = bauerdl	DESIGNED	-	R. SHAH	REVISED	-	R.	WIEDEN	AN (	05-14-04
1Ø8.	lgn	DRAWN	-		REVISED	-	R.	BORO (	01-01	-07
	PLOT SCALE = 1968.5000 '/ m	CHECKED	-		REVISED	-	R.	BORO (	03-09	9-11
	PLOT DATE = 12/6/2011	DATE	-	10-25-94	REVISED	-	R.	BORO 1	2-06	-11



### NOTES:

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

### SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

### SEQUENCE OF CONSTRUCTION (MILLING FIRST)

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

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

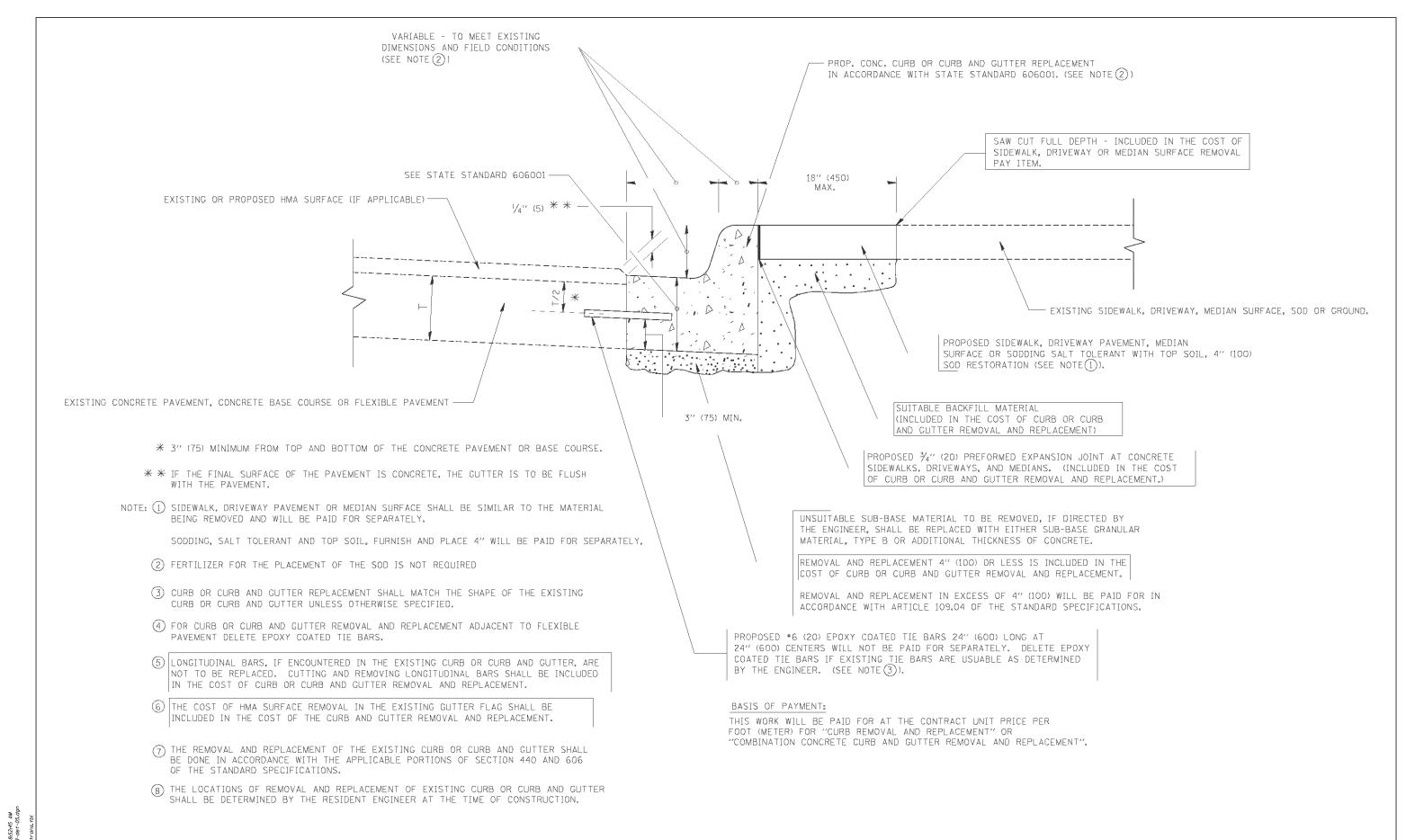
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Illinois Professional Design Firm
# 184-001322

ISER NAME = bouerdl	DESIGNED	-	R. SHAH	REVISED	-	A. ABBAS 04-27-98
	DRAWN	-		REVISED	-	R. BORO 01-01-07
LOT SCALE = 50.000 '/ IN.	CHECKED	-		REVISED	-	R. BORO 09-04-07
LOT DATE = 10/27/2008	DATE	-	10-25-94	REVISED	-	K. ENG 10-27-08

STATE	OF	ILLINOIS
DEPARTMENT	0F	TRANSPORTATION

PAVEMENT PATCHING FOR				F.A RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HMA SURFACED PAVEMENT			335	145X-RS-2	LAKE	44	35		
NIMA SUNFACED PAVEMENT					BD400-04 (BD-22)	CONTRACT	NO.	60N62	
.E: NONE	SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	FED. R	OAD DIST. NO. 1 [LLINOIS FED. A	ID PROJECT		



# CURB AND GUTTER REMOVAL AND REPLACEMENT

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



C-91-332-11 IL RTE 176 86100196.08-det-05.dox

DESIGNED A. HOUSEH REVISED R. SHAH 10-03-96 DRAWN REVISED A. ABBAS 03-21-97 CHECKED REVISED M. GOMEZ 01-22-01 03-11-94 DATE REVISED R. BORO 12-15-09

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  **CURB OR CURB AND GUTTER** REMOVAL AND REPLACEMENT

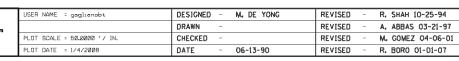
145X-RS-2 BD600-06 (BD-24)

LAKE 44 36 CONTRACT NO. 60N62

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



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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

**BUTT JOINT AND** HMA TAPER DETAILS SHEET NO. 1 OF 1 SHEETS STA. SCALE: NONE TO STA.

SECTION COUNTY 145X-RS-2 LAKE 44 37 BD400-05 BD32 CONTRACT NO. 60N6

OTHERWISE SHOWN.

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

HMA TAPER

### HMA TAPER LENGTH \*\*\* SAW CUT (INCLUDED IN THE COST OF HMA SURFACE PROP. HMA SURF. CRSE. REMOVAL - BUTT JOINT) PROP. HMA BINDER CRSE. 4'-6" (1.35 m) VARIES\_ 1¾ (45) FOR E AND F MIX PAY LIMIT FOR BUTT JOINT (NOTE "D") 1/2 (40) FOR C AND D MIX EXIST. HMA SURF. EXIST. PAVEMENT HMA SURF. REMOVAL - BUTT JOINT BUTT JOINT AND

TYPICAL TEMPORARY RAMP

OPTION 2

PROP. PAY LIMIT OF HMA SURF. REMOVAL FULL THICKNESS OF MILLING SAW CUT (INCLUDED IN THE COST OF HMA SURFACE (NOTE "C") (NOTE "E") PROP. HMA SURFACE REMOVAL REMOVAL - BUTT JOINT) 13/4 (45) FOR E AND F MIX 4'-6" (1.35 m) PAY LIMIT FOR BUTT JOINT 11/2 (40) FOR C AND D MIX EXIST. HMA SURF. EXIST. PAVEMENT TEMP, HMA RAME HMA CONSTRUCTED TEMPORARY RAMP (FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW) OPTION 1

PROP. PAY LIMIT OF HMA SURF. REMOVAL

FULL THICKNESS OF MILLING

PROP. HMA SURFACE REMOVAL

EXIST. PAVEMENT

TEMP. RAMP

(NOTE "C")

(NOTE "E")

EXIST. HMA SURFACE MILLED TEMPORARY RAMP

TAPER LENGTH \* \* \* VARIES PROP. HMA SURF. CRSE. 13/4 (45) FOR E AND F MIX PROP. HMA BINDER CRSE. 1/2 (40) FOR C AND D MIX \* \* EXIST. PAVEMENT

BUTT JOINT DETAIL

PROP. HMA OR PCC

SURFACE REMOVAL - BUTT JOINT

30'-0" (9.0 m) (NOTE "A")

15'-0" (4.5 m) (NOTE "B")

(NOTE "D")

## TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

HMA TAPER DETAIL

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

\* \* EXIST. PAVEMENT

### NOTES

EXIST. HMA OR PCC SURFACE

- 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.

### 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

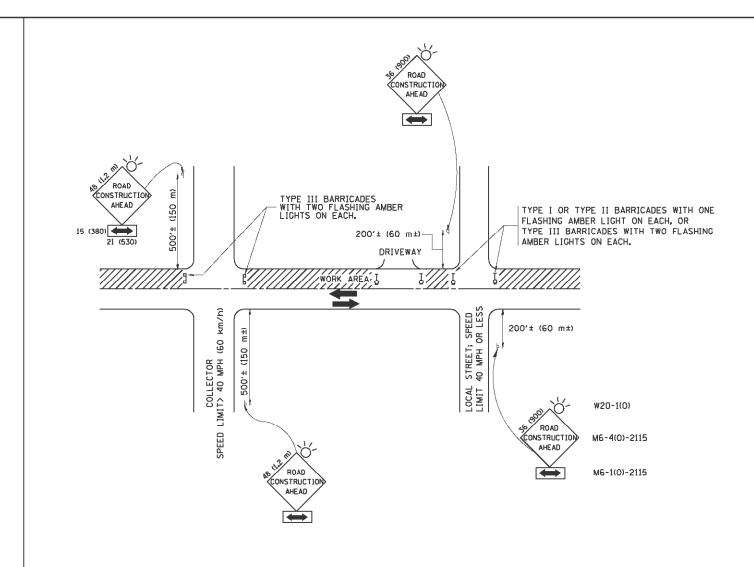
SAW CUT (INCLUDED IN THE COST

- BUTT JOINT)

134 (45) FOR E AND F MIX 11/2 (40) FOR C AND D MIX

OF HMA OR P.C.C. SURFACE REMOVAL

C-91-332-11 IL RTE 176 86100196.08-det-06.dor



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

### NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER;
- Q) 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:
- o) 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 (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

SCALE: NONE

### 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.

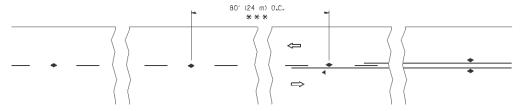


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USER NAME = gaglianobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
	DRAWN -	REVISED - A. HOUSEH 03-06-96
PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
PLOT DATE = 1/4/2008	DATE - 06-89	REVISED -T. RAMMACHER 01-06-0

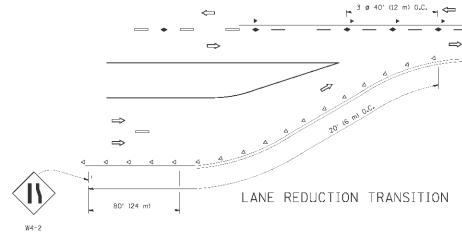
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DEPARTMENT	<b>OF</b>	TRANSPORTATION

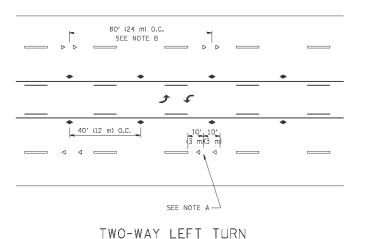
TRAFFIC CONTROL AND PROTECTION FOR			F.A RTE.	SECTION	COUNTY	TÓTAL SHEETS	SHE			
					335	145X-RS-2	LAKE	44	38	
	SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS				TC-10	CONTRACT	NO.	60N		
	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.	FED. RO	OAD DIST. NO. [   ILLINOIS FED. A)	D PROJECT		



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

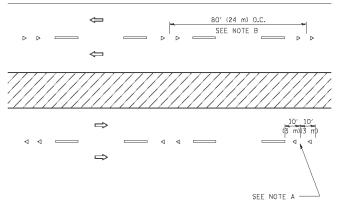
TWO-LANE/TWO-WAY





 $\Rightarrow$  $\Rightarrow$ 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

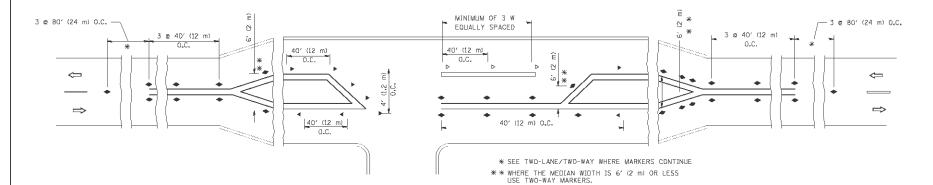
A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

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.

### SYMBOLS

---- YELLOW STRIPE

- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (₩/O)
- ◆ TWO-WAY AMBER MARKER



LEFT TURN

### 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

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

LAKE

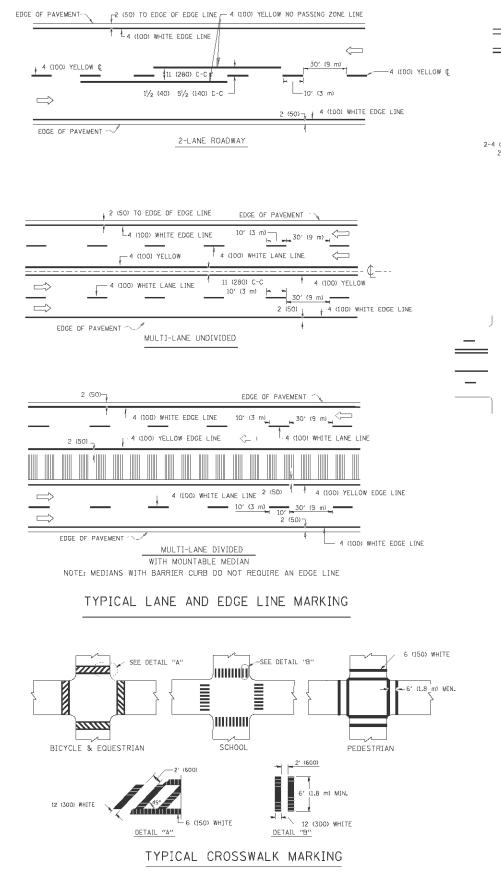
44 39

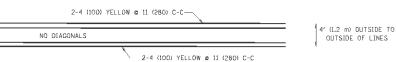
**HRGreen** 

DESIGNED REVISED T. RAMMACHER 09-19-94 SER NAME = dervakoson DRAWN REVISED T. RAMMACHER 03-12-99 CHECKED REVISED T. RAMMACHER 01-06-00 C. JUCIUS 09-09-0 DATE

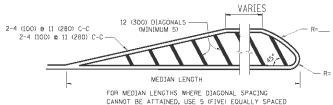
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

SECTION TYPICAL APPLICATIONS 335 145X-RS-2 RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) TC-11 CONTRACT NO. 60N62 SHEET NO. 1 OF 1 SHEETS STA.

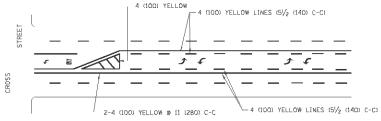




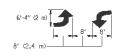
### 4' (1.2 m) WIDE MEDIANS ONLY



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

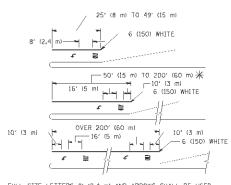


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

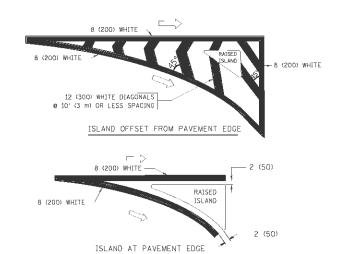
### TYPICAL PAINTED MEDIAN MARKING



\* 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	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLO₩	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/ <sub>2</sub> (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: 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 to 6 (150) 12 (300) to 45° 12 (300) to 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 m 4 (100) WITH 12 (300) DIAGONALS	SOLID	YELLOW: TWO WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE
	0 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS		WHITE: ONE WAY TRAFFIC	SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4,5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1,8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA 0F: "M"=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.

DESIGNED - EVERS COUNTY TOTAL SHEET NO.

LAKE 44 40 REVISED -T. RAMMACHER 10-27-94 SER NAME dravakosyni SECTION COUNTY DISTRICT ONE HRGreen.com STATE OF ILLINOIS DRAWN REVISED -C. JUCIUS 09-09-09 335 145X-RS-2 TYPICAL PAVEMENT MARKINGS CHECKED REVISED **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 60N62 TC-13 **HRGreen** DATE 03-19-90 REVISED SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA. LOT DATE 3/9/2009

**HRGreen** 

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JSER NAME = gaglianobt DESIGNED REVISED -T. RAMMACHER 06-05-96 REVISED -T. RAMMACHER 11-04-97 DRAWN CHECKED REVISED -T. RAMMACHER 03-02-98 PLOT DATE = 1/4/2008 DATE 09-18-94 REVISED - E. GOMEZ 08-28-00

--- 4 (100)

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

QUANTITY

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

PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA.

TO STA.

1'-8" (500)

12 (300)

27.5 sq. ft. (2.53 sq. m)

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

30 (800)

9 (230)

SECTION 335 145X-RS-2 TC-16 FED. ROAD DIST. NO. 1 | ILLINOIS FED. AID PROJECT

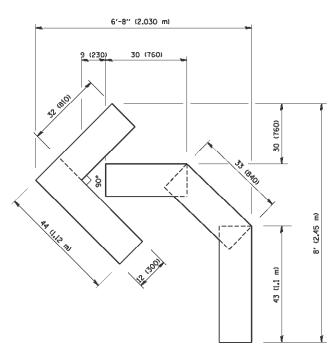
All dimensions are in inches (millimeters) unless otherwise shown. COUNTY SHEETS NO.

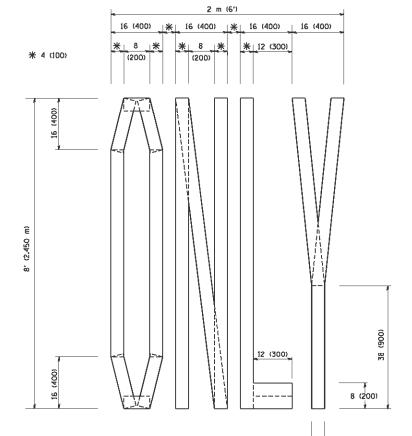
LAKE 44 41

CONTRACT NO. 60N62

8 (200)

6′-8″ (2.030 m)	=
9 (230) 30 (760)	43 (L.1 m)
21 (30)	8' (2.45 m)





QUANTITY

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

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PROJECT CONTACT: SCOURANY, MAKE)
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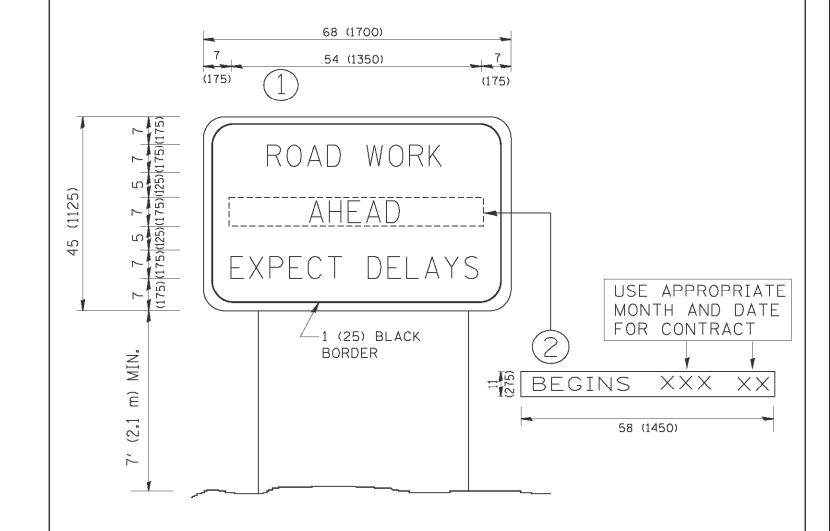
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD
INFORMATION SIGN
SHEET NO. 1 OF 1 SHEETS STA.

F.A. SECTION COUNTY TOTAL SHEETS NO. 335 145X-RS-2 LAKE 44 42

TC-22 CONTRACT NO. 60N6

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



# NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.

SCALE: NONE

- 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.

TO STA.

- 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.

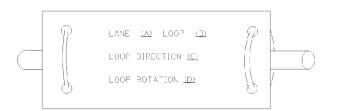
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

W O II II I O O O II II I C-91-332-11 I RTE 176 36100196.08-det-12.dgn

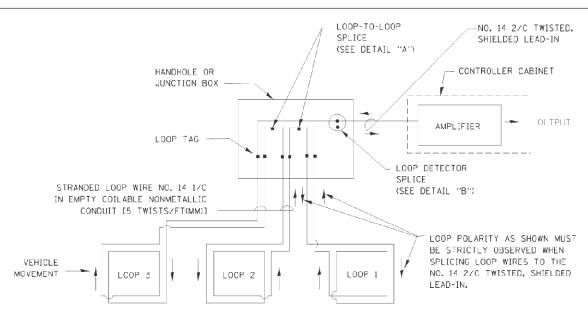
### **LOOP DETECTOR NOTES**

- 1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- 2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- 3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- 4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- 5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- 6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- 7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

### LOOP LEAD-IN CABLE TAG

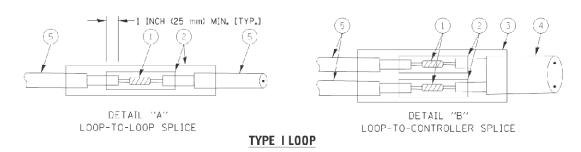


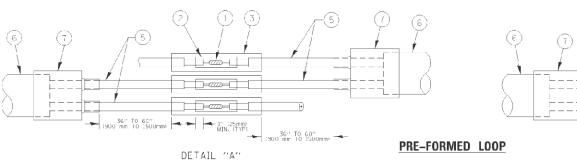
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

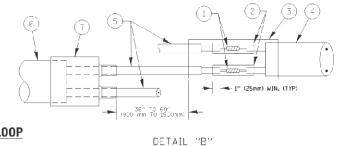


### DETECTOR LOOP WIRING SCHEMATIC

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







LOOP-TO-CONTROLLER SPLICE

### LOOP DETECTOR SPLICE

- (1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- (2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- (3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.

SCALE: NONE

SHEE

LOOP-TO-LOOP SPLICE

- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- (6) PRE-FORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

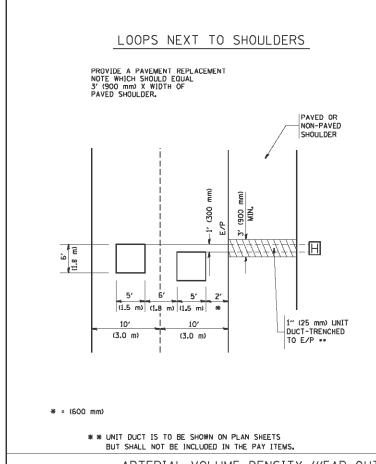
4 NO. 14 2/C TWISTED, SHIELDED CABLE.

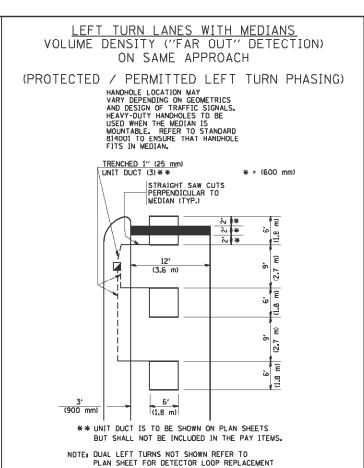
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JSER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14
٦	DRAWN - BCK	REVISED -
PLOT SCALE = 50.0000 1/ in.	CHECKED - DAD	REVISED -
PLOT DATE = 1/:3/2014	DATE - 10-28-09	REVISED -

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

DISTRICT ONE ANDARD TRAFFIC SIGNAL DESIGN DETAILS		F.A RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
		335	145X-RS-2	LAKE	44	43
			TS-05	CONTRACT	NO.	60N62
ET NO. 2 OF 17 SHEETS STA.	TO STA.	FED. R	DAD DIST. NO. 1 [LLINO]S FED. A	3 PROJECT		

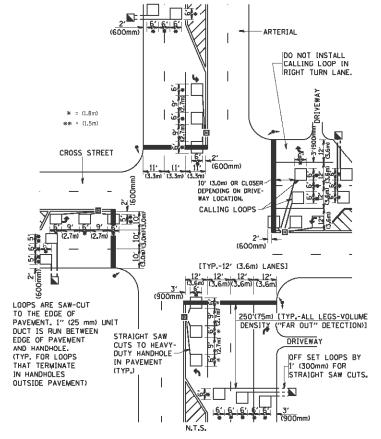




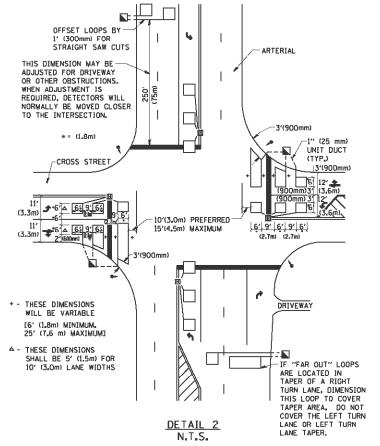
LEFT TURN LANES WITHOUT MEDIANS VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH (PROTECTED / PERMITTED LEFT TURN PHASING) \* = (600 mm) (900 m (1.8 m) (3.6 m) STRAIGHT SAW CUT TO HEAVY DUTY HANDHOLE (TYP.) PLACE HEAVY DUTY HANDHOLE BETWEEN FIRST AND SECOND LOOP AS SHOWN. NOTE: DUAL LEFT TURNS NOT 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)



DETAIL 1 N.T.S.



SCALE: NONE

NOTES:

VEHICLES LOOP DETECTORS

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED.
- \* 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 (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.

44 44

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DESIGNED REVISED SER NAME = gaglianobt **ULVANN** REVISED CHECKED REVISED LOT DATE = 1/4/2008 DATE REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

SECTION COUNTY DISTRICT 1 - DETECTOR LOOP INSTALLATION 335 145X-RS-2 I AKE **DETAILS FOR ROADWAY RESURFACING** TS-07 CONTRACT NO. 60N62 SHEET NO. 1 OF 1 SHEETS STA. TO STA.