# STATE OF ILLINOIS

# **DEPARTMENT OF TRANSPORTATION**

**DIVISION OF HIGHWAYS** 

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THESE IMPROVEMENTS ARE LOCATED WITHIN THE CITY OF HIGHLAND PARK

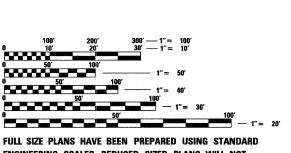
# **PROPOSED HIGHWAY PLANS**

F.A.U. 1251 /2784 (WALKER AVENUE /SHERIDAN ROAD) **SECTION: 2009-042 RS** LAKEVIEW AVENUE TO CENTRAL AVENUE & **MULBERRY PLACE TO LAKE COOK ROAD RESURFACING (3P)** 

> LAKE COUNTY C-91-481-09

# TRAFFIC DATA

2007 ADT - 6,200 POSTED SPEED LIMIT - 30 MPH



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 OR 811

Ciorba Group, Inc. DESIGN FIRM

> REGISTRATION NUMBER 184-001016

CONSULTING ENGINEERS SLITTE 402, 5507 NORTH CHMBERLAND AVE

STA. 147 + 50 LAKE MICHIGAN OMISSION STA. 150 + 12 **BEGIN PROJECT** STA. 155 + 37 OMISSION STA. 158 + 16 HTGHL AND STA. 189 + 83 OMISSION STA. 189 + 91 STA, 194 + 44 OMISSION DEERFIEL STA. 197 + 73 ● DEERFIELD STA. 347 + 61 T 43N AKE-COOK RD OMISSION T 42N STA. 349 + 72 **END PROJECT** DUNDEE RD STA. 371 + 81 ■ GLENCOE

DEERFIELD TOWNSHIP

R 12E R 13E

LOCATION MAP 1" = 5.000"

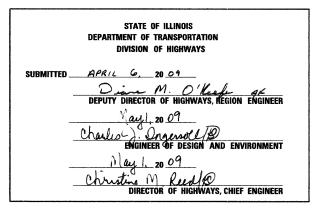
GROSS LENGTH OF PROJECT = 26,808 FT = 5.08 MI. NET LENGTH OF PROJECT = 25,719 FT = 4.87 MI.

DATE: 4/2/2009

SECTION LAKE 26 1 1251/2784 2009-042 RS FED. ROAD DIST. NO. 1 ILLINOIS CONTRACT NO. 60G49

#### D-91-481-09





PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 60G49

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	ROADWAY RESURFACING (TS-07)			

## S

5	TATE STANDARDS								
	000001- <i>0</i> <b>5</b>	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS							
	442201 <i>-03</i>	CLASS C AND D PATCHES							
	604001 <b>-03</b>	FRAME AND LIDS, TYPE 1							
	606001 <b>-04</b>	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER							
	701301 <i>-<b>03</b></i>	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS							
	701311 <b>-03</b>	LANE CLOSURE, 2L, 2W, MOVING DAY OPERATIONS-DAY ONLY							
	701501 <i>-05</i>	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED							
	701901-01	TRAFFIC CONTROL DEVICES							
	780001 <b>-02</b>	TYPICAL PAVEMENT MARKINGS							
	886001- <i>01</i>	DETECTOR LOOP INSTALLATIONS							
	886006-01	TYPICAL LAYOUTS FOR DETECTION LOOPS							

## **GENERAL NOTES**

- 1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED)
- 2. 10 FEET (3 METER) TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURB AND GUTTER AND MEDIANS IN THE FIELD UNLESS OTHERWISE SHOWN, THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.
- 3. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.
- 4. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- 5. 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.
- 6. THE FOLLOWING RATES OF APPLICATION HAVE BEEN ASSUMED IN CALCULATING PLAN QUANTITIES:

BITUMINOUS	MATERIALS	(PRIME	COAT)	0.0004	TONS/SQ '	ΥD
DT I CIVITIAODO	MINITIMES	() I (TIME	COATT	0.0001	10113734	, ,

HOT-MIX ASPHALT SURFACE COURSE

112 LBS/SQ YD/INCH

POLYMERIZED LEVELING BINDER

(MACHINE METHOD)

105 LBS/SQ YD/INCH

- 7. THE ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISORS AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE START OF WORK.
- 8. TWO WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS THE ENGINEER SHALL CONTACT DEBBI HANLON, AREA TRAFFIC FIELD ENGINEER, AT (847) 438-2300.
- 9. WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2" (40 MM) WHERE THE SPEED LIMIT IS 45 MPH (80 KM/H) OR LESS AND 1" (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" (75 MM) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 3:1 (H:V).
- 10. BUTT JOINTS WILL BE INSTALLED AT THE END OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT). IN ACCORDANCE WITH THE "BUTT JOINT AND HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
- 11. FOR PAVEMENT MARKING, REFER TO DISTRICT ONE TYPICAL MARKINGS FOR DETAILS SHOWN.
- 12. MATCH EXISTING PAVEMENT MARKINGS AT PROJECT AND OMISSION LIMITS.
- 13. ALL PATCHES OPENED ON A PARTICULAR DAY MUST BE FILLED THAT DAY TO THE TOP OF THE EXISTING PAVEMENT SURFACE.
- 14. THE CONTRACTOR SHALL USE EXTREME CARE WHEN PERFORMING CONSTRUCTION ACTIVITIES OVER THE PEDESTRIAN UNDERPASS LOCATED ON SHERIDAN AVENUE, APPROXIMATELY 380' NORTH OF ELM PLACE.

- 15. IDOT TRAFFIC SIGNAL AND SYSTEM DETECTION LOOPS ARE PRESENT AT LAUREL AVENUE, AND LAKE-COOK ROAD. THE CONTRACTOR MUST NOTIFY THE IDOT AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER AT (847) 705-4139 AND THE DEPARTMENT'S ELECTRICAL MAINTENANCE CONTRACTOR PRIOR TO BEGINNING WORK, AT WHICH TIME ARRANGEMENTS WILL BE MADE TO ADJUST THE TRAFFIC CONTROLLER TIMING TO COMPENSATE FOR THE ABSENCE OF DETECTION. REPLACEMENT OF LOOPS DOES NOT REQUIRE MAINTENANCE TRANSFER, BUT DOES REQUIRE NOTIFICATION OF WORK AND INSPECTION. COORDINATION WITH THE DISTRICT IS CONSIDERED INCIDENTAL TO THIS CONTRACT.
- 16. NO OVERNIGHT LANE CLOSURES SHALL BE ALLOWED.
- 17. CONTINGENCY QUANTITIES HAVE BEEN INCLUDED FOR THE FOLLOWING ITEMS TO BE USED AT THE DIRECTION OF THE ENGINEER:

60406000 FRAMES AND LIDS, TYPE 1, OPEN LID - 5 EACH 60406100 FRAMES AND LIDS, TYPE 1, CLOSED LID - 5 EACH

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	DRAWN	RJR	REVISED	-	1
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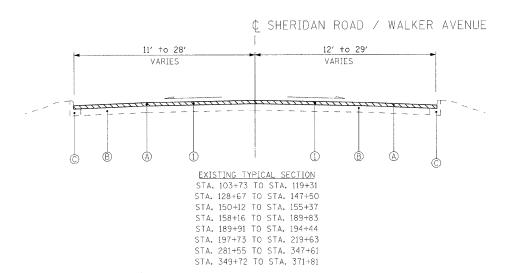
	SUMMARY OF QUANTITIES	URBAN 1001. STATE	CONSTRUCTION TYPE CODE	
CODE	O. DESCRIPTION	UNIT		ROADWAY 1000
20200	DO EARTH EXCAVATION	CU YD	150	150
202010	O6 GRADING AND SHAPING SHOULDERS	UNIT	110	110
35501	16 HOT-MIX ASPHALT BASE COURSE, 8"	SQ YD	35	35
358002	OO AGGREGATE BASE REPAIR	TON	175	175
402010	OO AGGREGATE FOR TEMPORARY ACCESS	TON	25	25
40600	DO BITUMINOUS MATERIALS (PRIME COAT)	TON	66	66
40600	OO AGGREGATE (PRIME COAT)	TON	340	340
40600	OO MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	84	84
40600	25 LEVELING BINDER (HAND METHOD), N50	TON	55	55
40600	95 CONSTRUCTING TEST STRIP	EACH	4	4
40600	82 HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	1,770	1,770
40600	TEMPORARY RAMP	SQ YD	1,940	1,940
406010	D5 HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	390	390
40603	10 HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	31	31
40603	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	7,300	7,300
44000	58 HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ. YD.	83,400	83,400
44000	DO DRIVEWAY PAVEMENT REMOVAL	SQ YD	215	215
440017	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	3,000	3,000
44002	12 HOT-MIX ASPHALT REMOVAL OVER PATCHES, 3"	SQ YD	2,220	2,220
44201	19 CLASS D PATCHES, TYPE I, 9 INCH	SQ YD	120	120
44201	CLASS D PATCHES, TYPE II, 9 INCH	SQ YD	820	820
44201	CLASS D PATCHES, TYPE III, 9 INCH	SQ YD	510	510
44201	CLASS D PATCHES, TYPE IV, 9 INCH	SQ YD	480	480
481021	AGGREGATE WEDGE SHOULDER, TYPE B	TON	220	220
55039	OO STORM SEWERS TO BE CLEANED	FOOT	7,800	7,800
60300	D5 FRAMES AND LIDS TO BE ADJUSTED	EACH	32	32

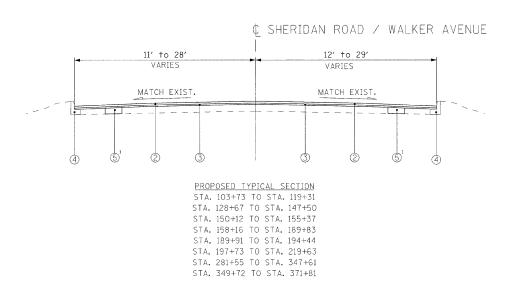
*	DENOTES	SPECIAL	TY	ITF

		SUMMARY OF QUANTITIES	URBAN 1001.STATE TOTAL QUANTITY	CONSTRUCTION TYPE CODE	
	CODE NO.	DESCRIPTION	UNIT		ROADWAY IOOO
	60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	120	120
	60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	5	5
	60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	5	5
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3
	67100100	MOBILIZATION	L SUM	1	1
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1
	70300100	SHORT-TERM PAVEMENT MARKING	F00T	9,300	9,300
	70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	500	500
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	76,500	76,500
	70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	F00T	5,700	5,700
	70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	5,100	5,100
	70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	F00T	1,800	1,800
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	22,900	22,900
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	160	160
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	F00T	56,500	56,500
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1,900	1,900
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	F00T	1,700	1,700
	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	F00T	600	600
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	600	600
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	580	580
*	88600600	DETECTOR LOOP REPLACEMENT	F00T	700	700
	X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	103	103
	X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	4,600	4,600
	X4400100	PORTLAND CEMENT CONCRETE REMOVAL (VARIABLE DEPTH) (SURFACE)	SQ YD	260	260
	Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	220	220



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# EXISTING CONDITIONS:

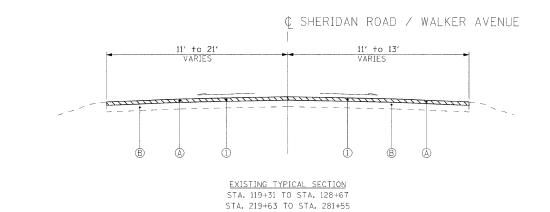
- (A) HOT-MIX ASPHALT SURFACE AND BINDER COURSE, 3" AND VARIES
- B PORTLAND CEMENT CONCRETE BASE COURSE, 9"
- © COMBINATION CONCRETE CURB AND GUTTER

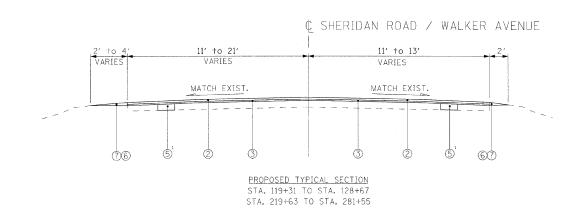
# PROPOSED IMPROVEMENTS:

- ① HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"
- ② HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1 1/2"
- 3 POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- (4) COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (AS DIRECTED BY ENGINEER)
- (5) CLASS D PATCHES, 9" (DETERMINED BY ENGINEER IN FIELD)
- 6 AGGREGATE WEDGE SHOULDER, TYPE B
- GRADING AND SHAPING SHOULDERS

A QUANTITY FOR LEVELING BINDER (HAND METHOD) HAS BEEN PROVIDED FOR USE AT ENTRANCES, AROUND HAND HOLES, PRIVATE UTILITY STRUCTURE FRAMES AND ANY OTHER STRUCTURE FRAMES THAT ARE NOT ABLE TO BE LOWERED UNDER THE ITEM "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)" AFTER GRINDING OF THE EXISTING PAVEMENT.

<sup>1</sup> QUANTITIES FOR EARTH EXCAVATION AND AGGREGATE BASE REPAIR HAVE BEEN INCLUDED FOR SUBGRADE FAILURES BELOW THE CLASS D PATCHES





## HOT-MIX ASPHALT MIXTURE REQUIREMENTS CHART

OPERATIONS	MIXTURE TYPE	AC TYPE	PERCENT AIR VOIDS
SAASWAY SECUREACING	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL-9.5MM)	PG 64-22	4% <b>⊘</b> 50 GYR
ROADWAY RESURFACING	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	SBS/SBR PG 76-28/-22	4% @ 50 GYR
MAINTENANCE OF TRAFFIC	LEVELING BINDER (HAND METHOD), N50 (IL-9,5MM)	PG 64-22 *	4% @ 50 GYR
PAVEMENT PATCHING	CLASS D PATCHES, 9" (HMA BINDER IL-19 MM)	PG 64-22 *	4% @ 70 GYR
PAVEMENT PATCHING	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES (HMA BINDER IL-19 MM)	PG 64-22 *	4% © 70 GYR
DRIVES BEHIND CURB	HOT-MIX ASPHALT SURFACE COURSE MIX "C" N50 (IL-9.5MM) 1.5" THICKNESS	PG 64-22 *	4% @ 50 GYR
DUIAE2 BEHIND COMP	HOT-MIX ASPHALT BASE COURSE, 8" (HMA BINDER IL-19 MM)	PG 64-22/58-22	4% ⊚ 50 GYR

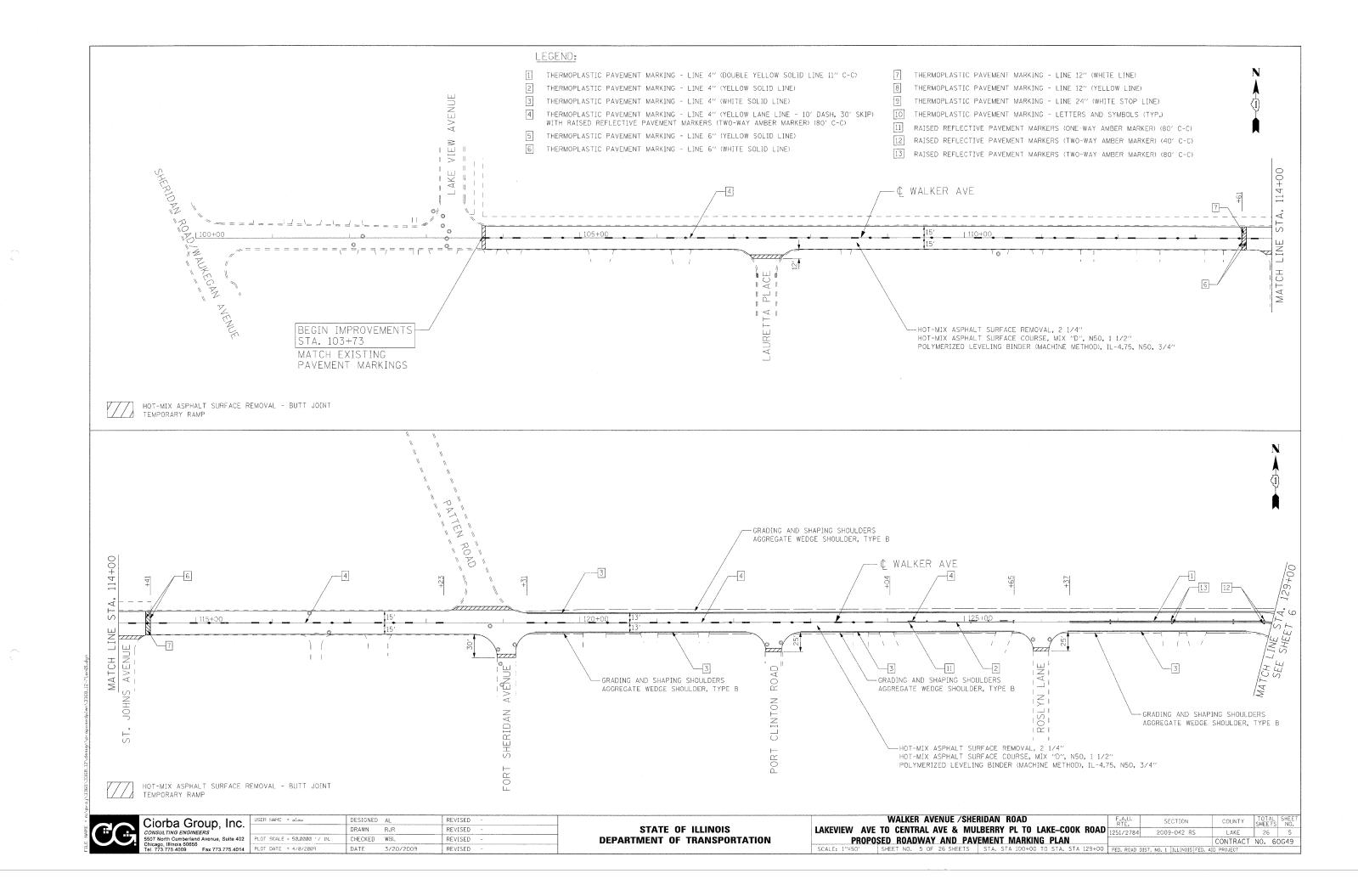
THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

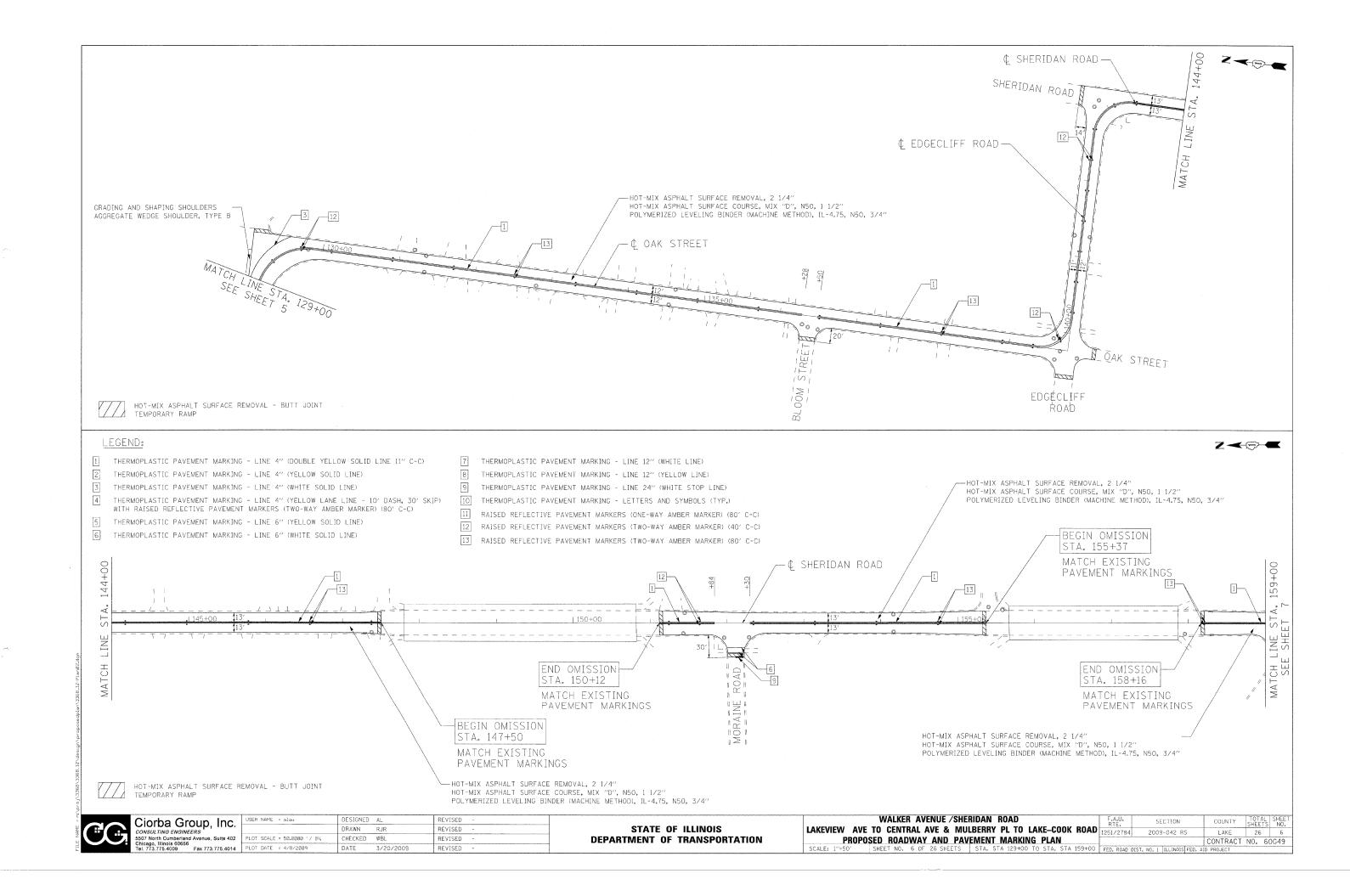
\* WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22.

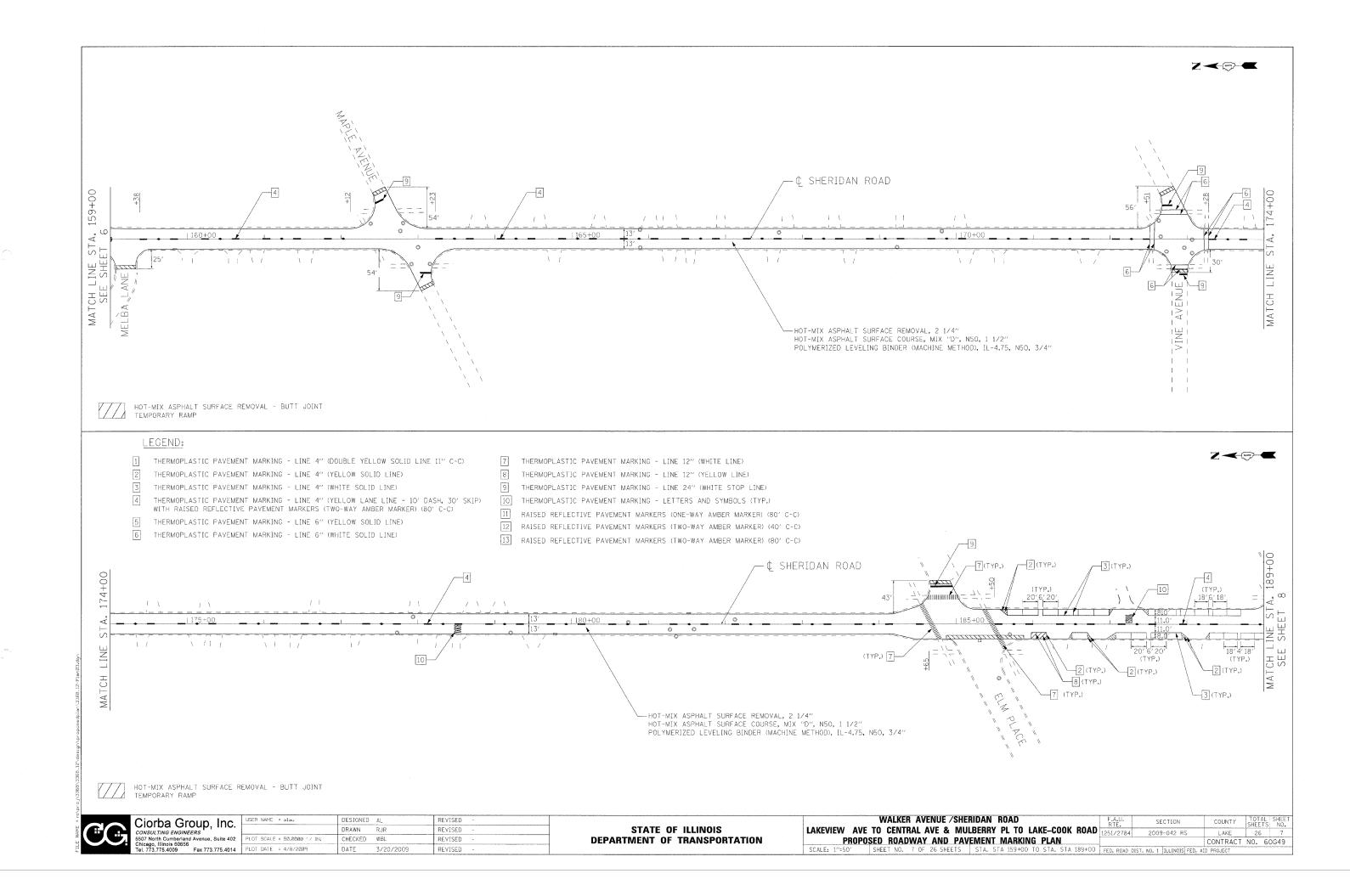


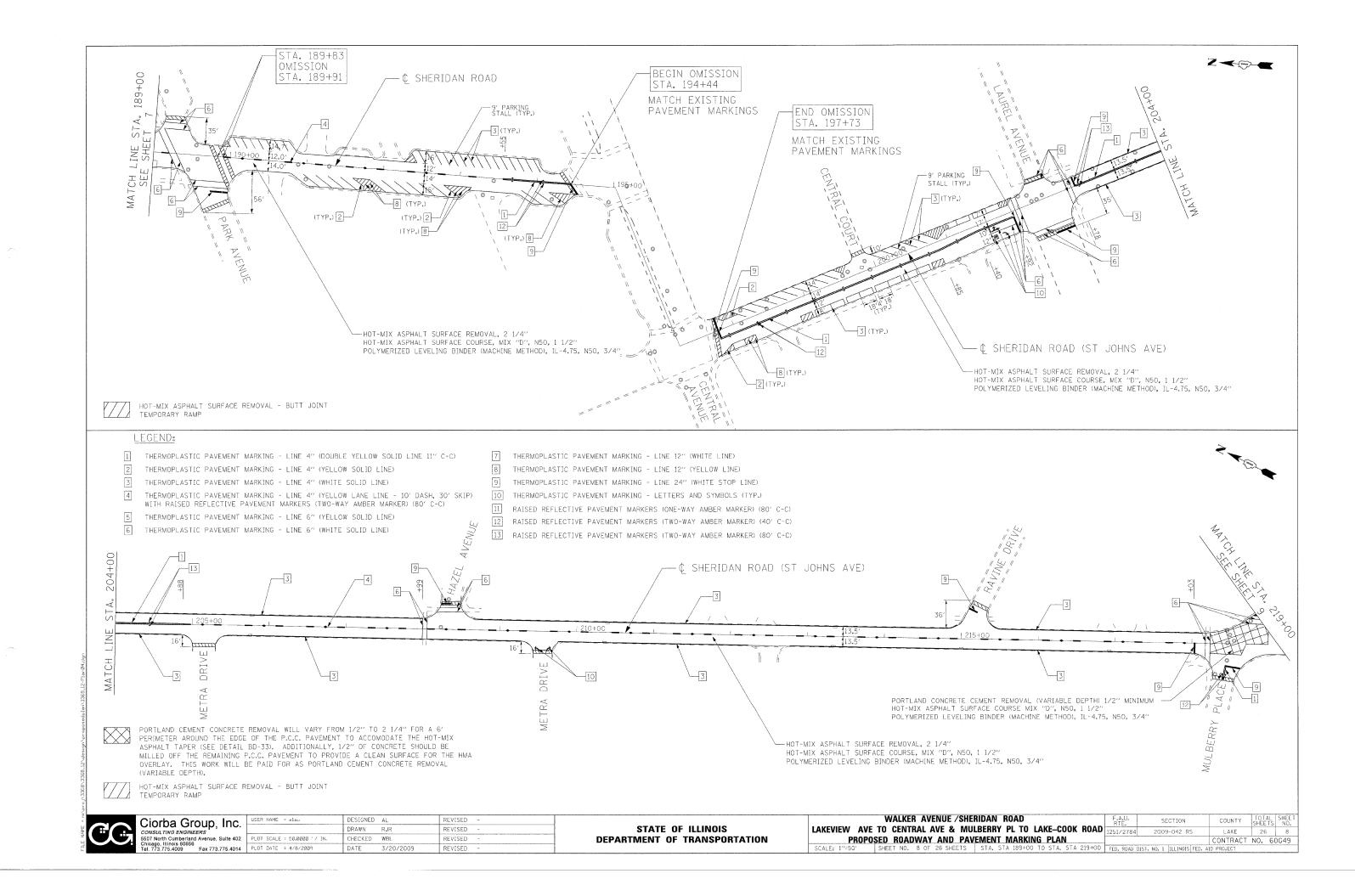
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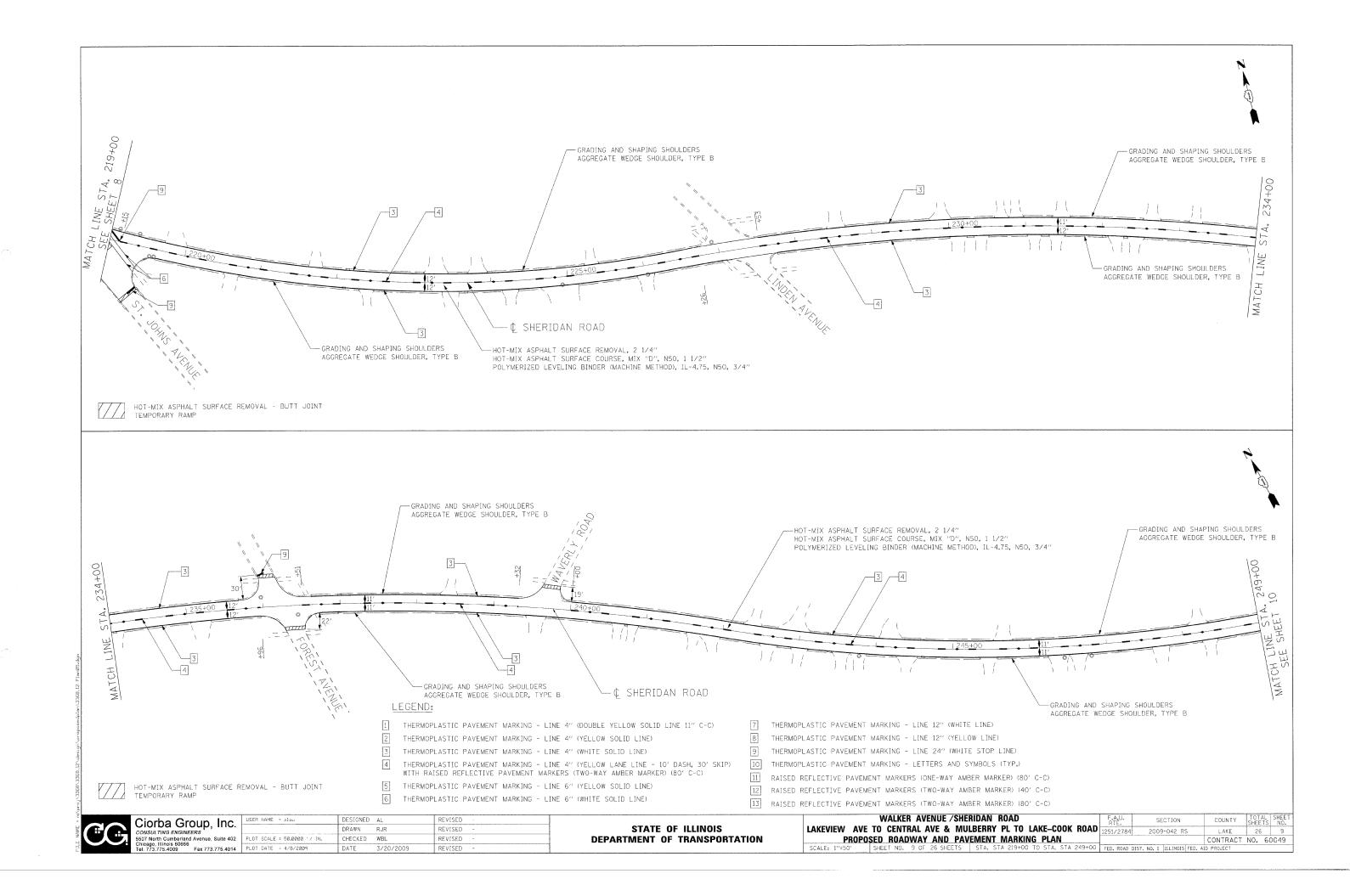
WALKER AVENUE /SHERIDAN ROAD LAKEVIEW AVE TO CENTRAL AVE & MULBERRY PL TO LAKE-COOK ROAD						SECTION	COUNTY	TOTAL	SHEET NO.
	LAKEVIEW AVE			LAKE-COOK ROAD	1251/2784	2009-042 RS	LAKE	26	4
	TYPICAL SECTIONS						CONTRACT	NO. 6	0G49
	SCALE: 1%508.	SHEET NO. 4 OF 26 SHEETS	STA.	TO STA.	FED. ROAD D	DIST. NO. 1   ILLINOIS FED. A	ID PROJECT		

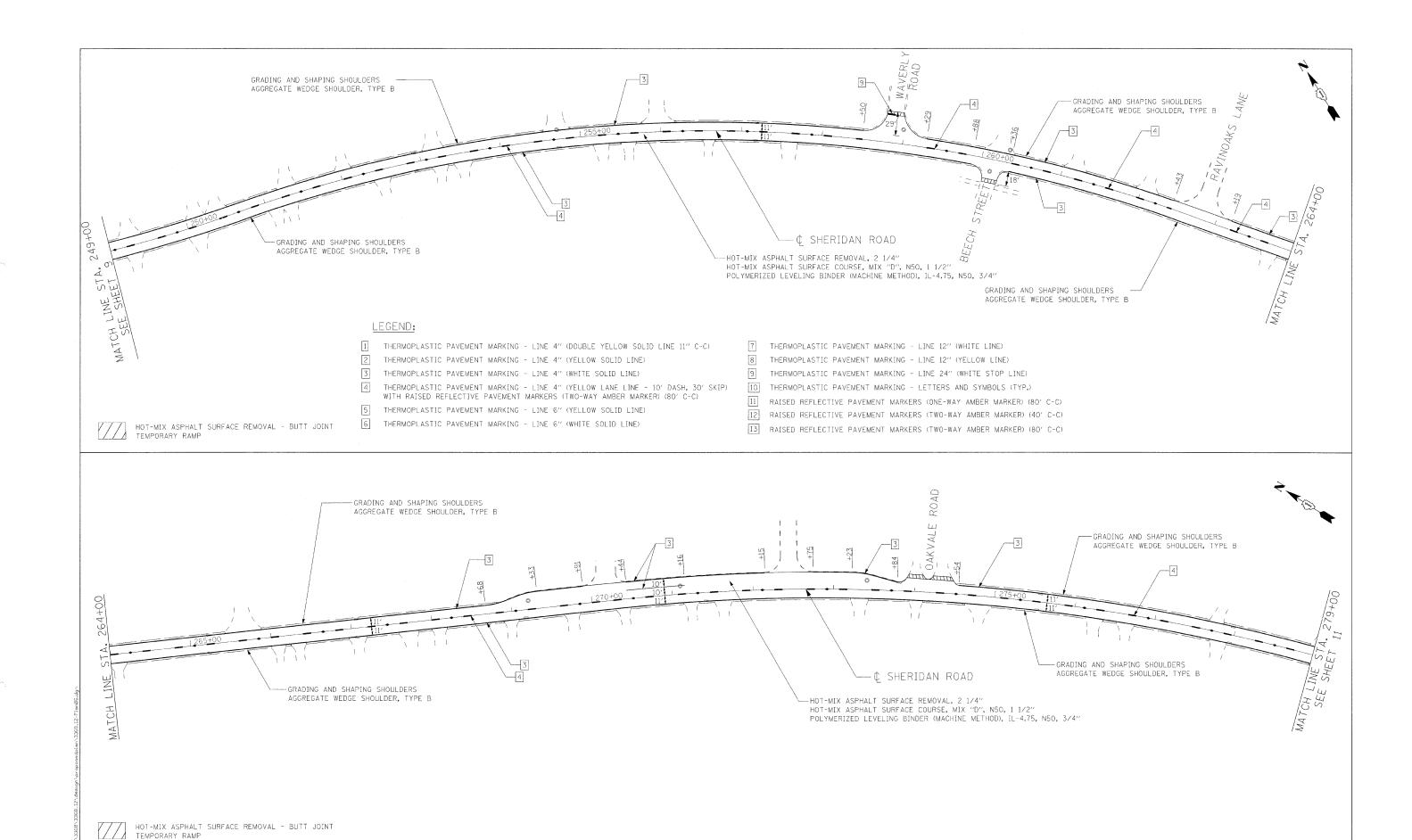










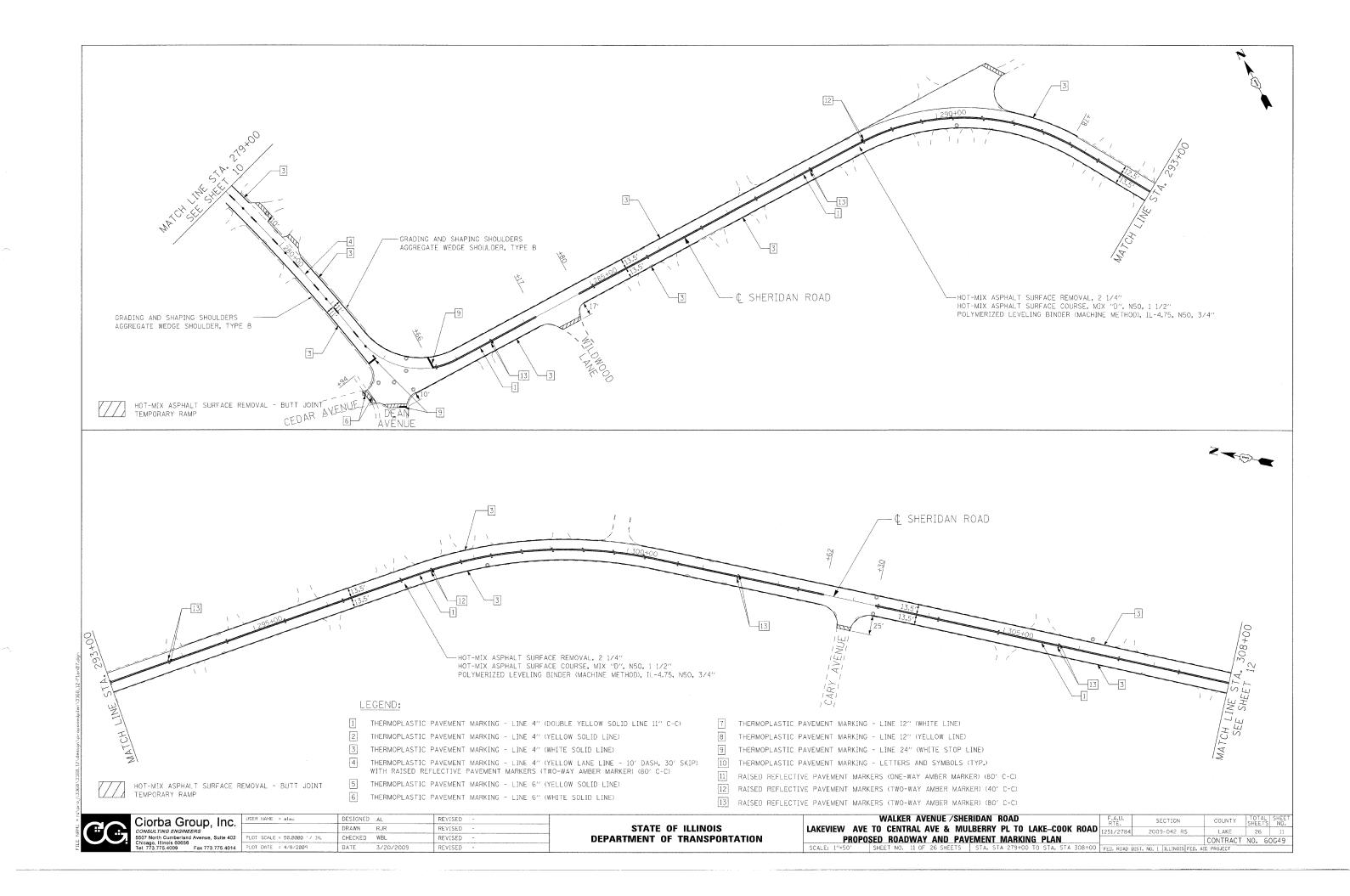


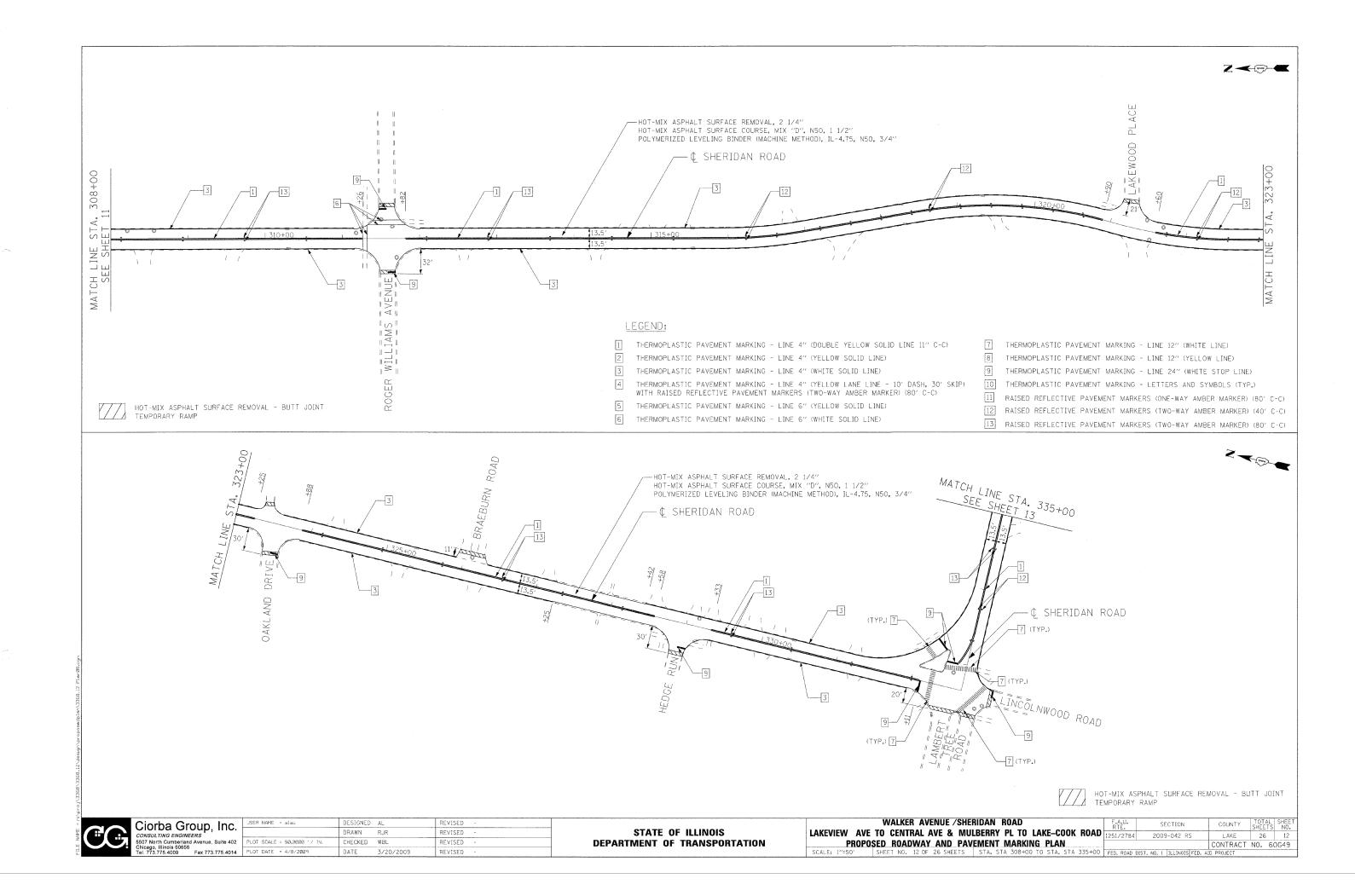
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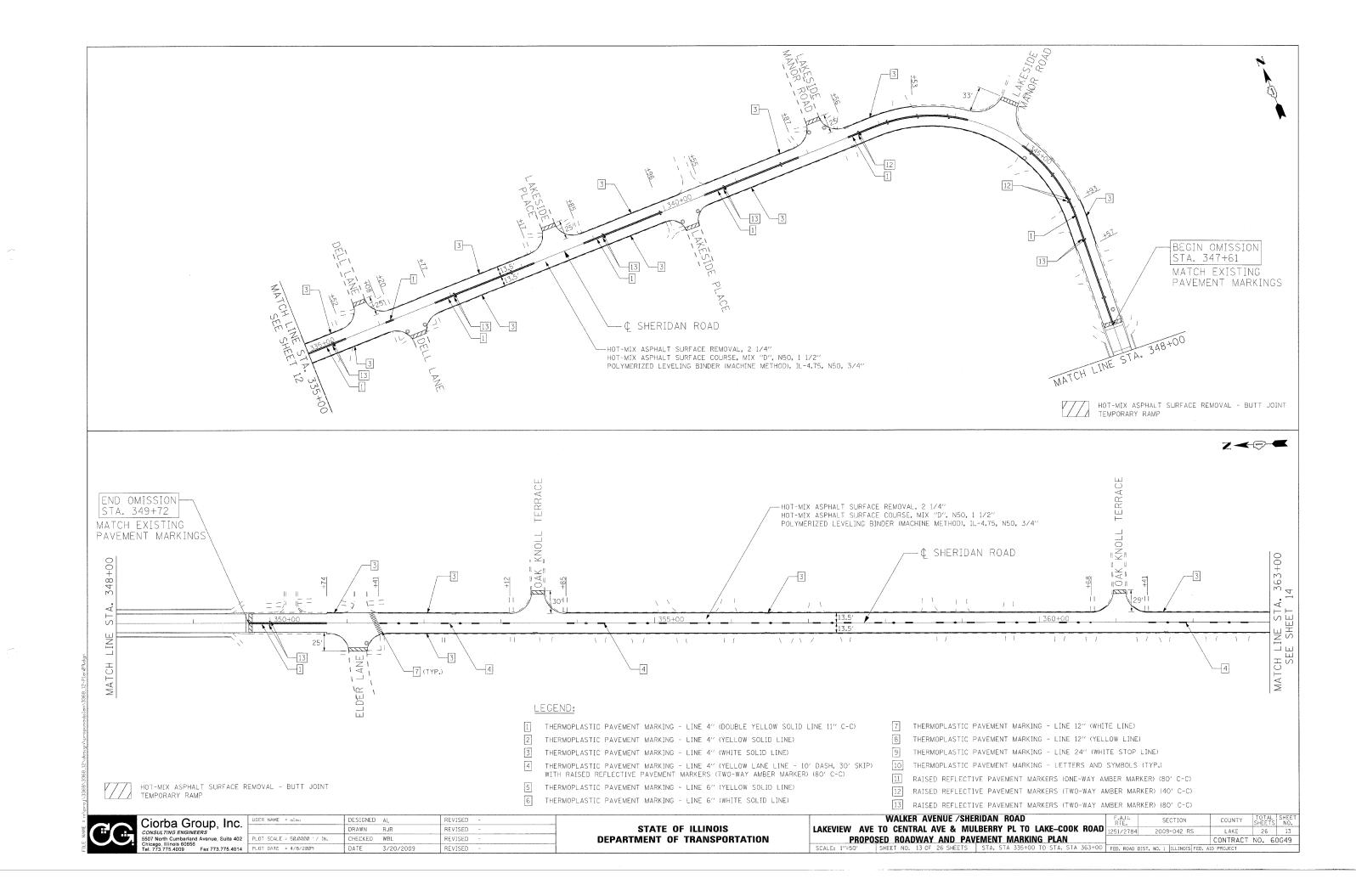
Ciorba Group, Inc.

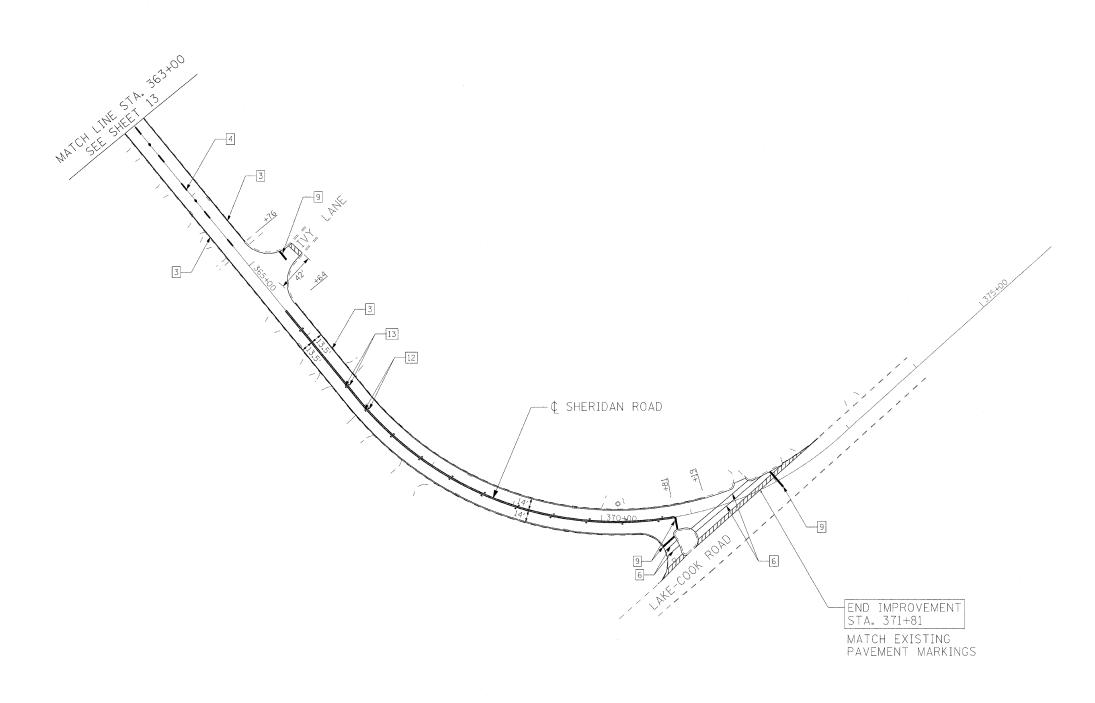
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656

	WALKER AVI				F.A.L RTE	50	CTION	COUNTY	TOTAL	SHEET NO.
				LAKE-COOK ROA	D 1251/2	784 2009	1-042 RS	LAKE	26	10
PROPOSED ROADWAY AND PAVEMENT MARKING PLAN								CONTRACT	NO. 6	0G49
SCALE: 1"=50"	SHEET NO. 10 OF	26 SHEETS	STA, STA 249+0	) TO STA. STA 279+0	O FED. R	OAD DIST. NO. 1	ILLINOIS FED. A	ID PROJECT		









# LEGEND:

- THERMOPLASTIC PAVEMENT MARKING LINE 4" (DOUBLE YELLOW SOLID LINE 11" C-C)
  THERMOPLASTIC PAVEMENT MARKING LINE 4" (YELLOW SOLID LINE)
  THERMOPLASTIC PAVEMENT MARKING LINE 4" (WHITE SOLID LINE)

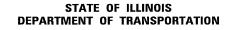
- THERMOPLASTIC PAVEMENT MARKING LINE 4" (YELLOW LANE LINE 10' DASH, 30' SKIP) WITH RAISED REFLECTIVE PAVEMENT MARKERS (TWO-WAY AMBER MARKER) (80' C-C)
- 5 THERMOPLASTIC PAVEMENT MARKING LINE 6" (YELLOW SOLID LINE)

  6 THERMOPLASTIC PAVEMENT MARKING LINE 6" (WHITE SOLID LINE)

- 7 THERMOPLASTIC PAVEMENT MARKING LINE 12" (WHITE LINE)
- 8 THERMOPLASTIC PAVEMENT MARKING LINE 12" (YELLOW LINE)
- 9 THERMOPLASTIC PAVEMENT MARKING LINE 24" (WHITE STOP LINE)
- 10 THERMOPLASTIC PAVEMENT MARKING LETTERS AND SYMBOLS (TYP.) RAISED REFLECTIVE PAVEMENT MARKERS (ONE-WAY AMBER MARKER) (80' C-C)
- 12 RAISED REFLECTIVE PAVEMENT MARKERS (TWO-WAY AMBER MARKER) (40' C-C)
- 13 RAISED REFLECTIVE PAVEMENT MARKERS (TWO-WAY AMBER MARKER) (80' C-C)



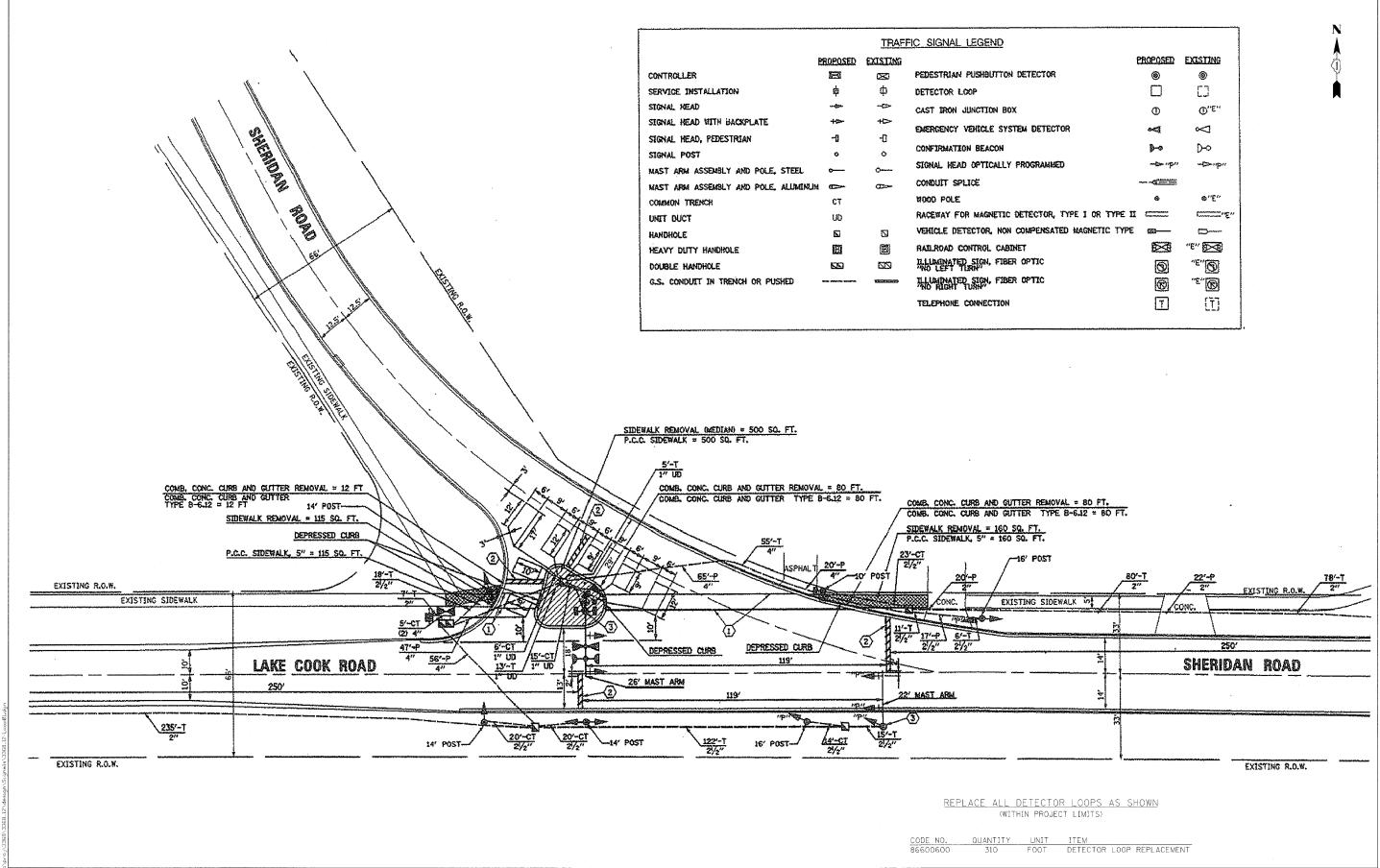
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	WALKER AVENUE /SHE		F.A.U. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
		LBERRY PL TO LAKE-COOK ROAD	1251/2784	2009-042 RS	LAKE	26	14
	<u>SED ROADWAY AND PAV</u>				CONTRACT	NO. 6	)G49
SCALE: 1"=50"	SHEET NO. 14 OF 26 SHEETS	STA. STA 363+00 TO STA. STA 372+00	FED, ROAD I	DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT TEMPORARY RAMP

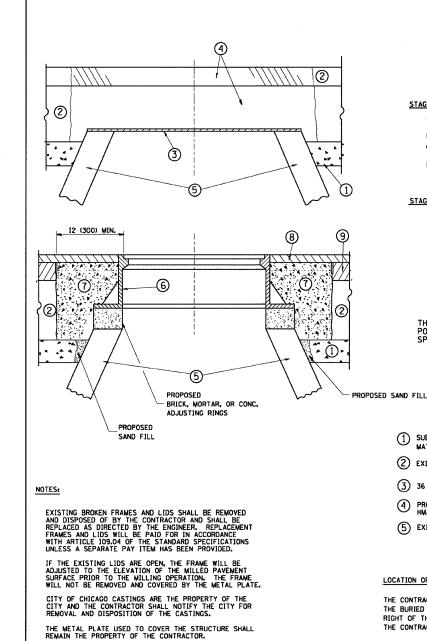
Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 90656
Tel. 773.775.4009 Fax 773.775.4014



Ciorba Group, Inc.

CONSULTING ENGINEERS
5507 North Cumberland Avenue, Sulte 402
Chicago, Illinois 60656
761. 773.775.4009
Fex 773.775.4014

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



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

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

# 9 PROPOSED HMA BINDER COURSE

#### LOCATION OF STRUCTURES:

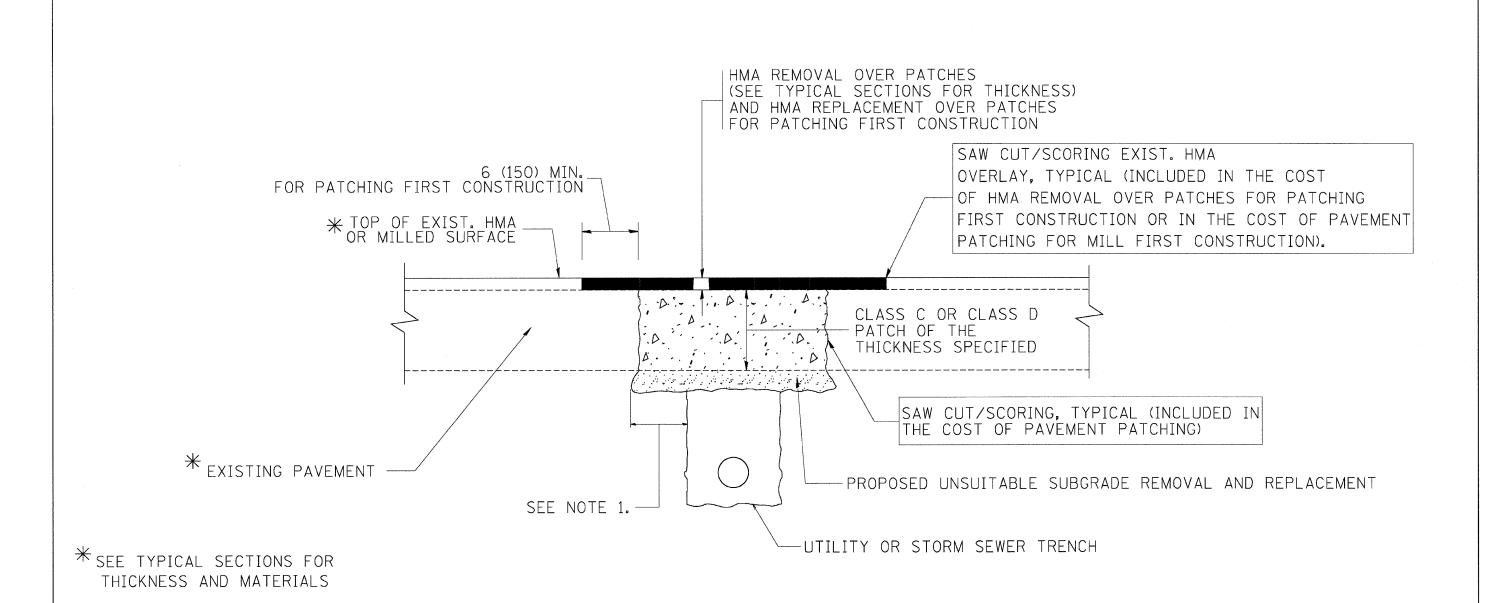
THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

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

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

# DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

FILE NAME =	USER NAME = geglianobt	DESIGNED - R. SHAH	REVISED - R. SHAH 03-10-95		DETAILS FOR	F.A.U. SECTION	COUNTY SHEET NO.
W:\distatd\22x34\bdØ8.dgn		DRAWN -	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS	·	1251/2784 2009-042 RS	LAKE 26 16
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - R. WIEDEMAN 05-14-04	DEPARTMENT OF TRANSPORTATION	FRAMES AND LIDS ADJUSTMENT WITH MILLING	BD600-03 (BD-8)	CONTRACT NO. 60G49
	PLOT DATE = 1/4/2008	DATE - 10-25-94	REVISED - R. BORO 01-01-07		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED.	



# NOTES:

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

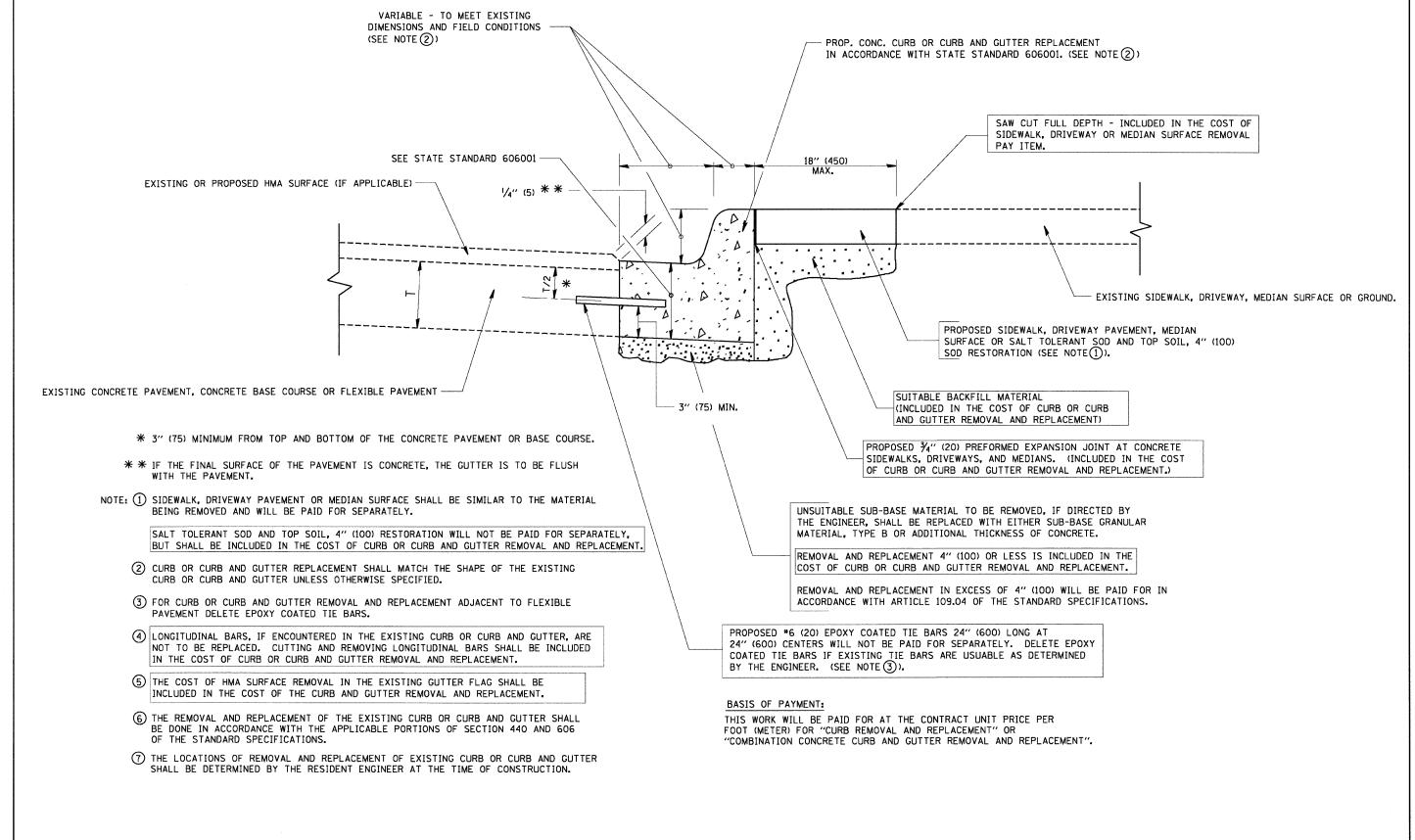
# SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

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

# SEQUENCE OF CONSTRUCTION (MILLING FIRST)

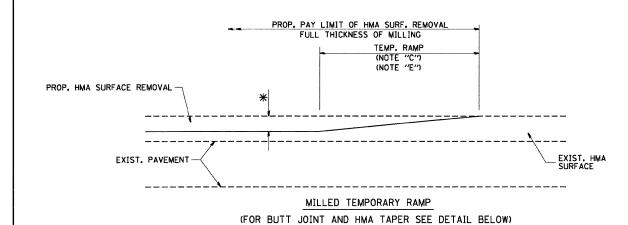
- 1. MILL HMA FIRST IF THERE IS AT LEAST  $4\frac{1}{2}$  INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

F	FILE NAME =	USER NAME = bouerdl	DESIGNED - R. SHAH	REVISED -	A. ABBAS 04-27-98			PAVEMENT PATCHING FOR	F.A.U	SECTION	COUNTY SHEETS NO.
٥	c:\projects\diststd22x34\bd22.dgn		DRAWN -	REVISED -	R. BORO 01-01-07	STATE OF ILLINOIS			125	1/2784 2009-042 RS	LAKE 26 17
- 1		PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -	R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION		HMA SURFACED PAVEMENT		BD400-04 (BD-22)	CONTRACT NO. 60G49
		PLOT DATE = 10/27/2008	DATE - 10-25-94	REVISED -	K. ENG 10-27-08		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED.	ROAD DIST. NO. 1 ILLINOIS FE	D. AID PROJECT

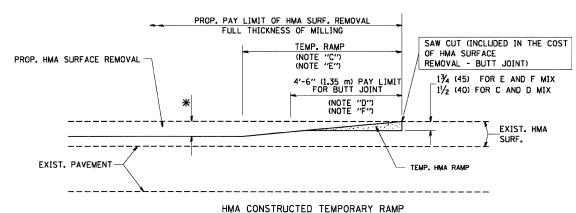


# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

FILE NAME =	USER NAME = gaglianobt	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96			CURB OR CURB AND GUTTER		F.A.U. SECTION	COUNTY TOTAL SHEET
Wi\diststd\22x34\bd24.dgn		DRAWN -	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS				1251/2784 2009-042 RS	LAKE 26 18
	PLOT SCALE ≈ 50.000 ′/ IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01	DEPARTMENT OF TRANSPORTATION		REMOVAL AND REPLACEMENT		BD600-06 (BD-24)	CONTRACT NO. 60G49
	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



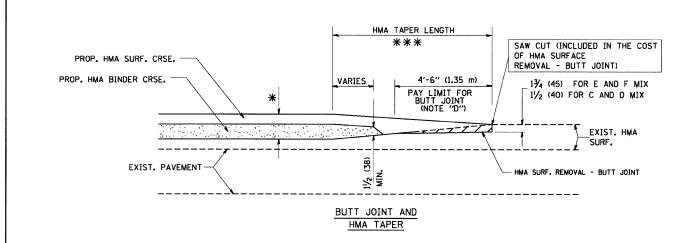
# OPTION 1



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

# OPTION 2

# TYPICAL TEMPORARY RAMP



# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

PROP. HMA OR PCC
SURFACE REMOVAL - BUTT JOINT
30'-0" (9.0 m) (NOTE "B")

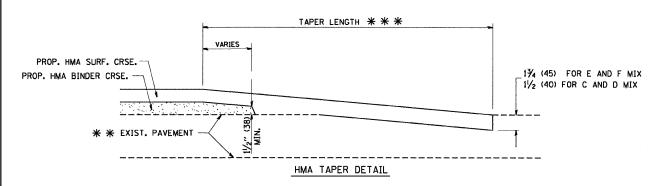
SAW CUT (INCLUDED IN THE COST OF HMA OR P.C.C. SURFACE REMOVAL - BUTT JOINT)

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

1½ (45) FOR E AND F MIX

1½ (40) FOR C AND D MIX

BUTT JOINT DETAIL



# TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

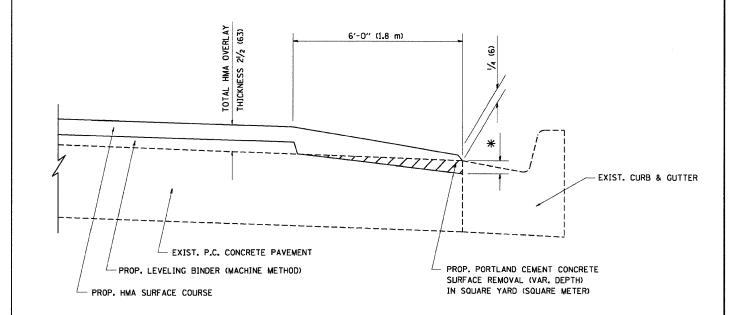
## NOTES

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

# BASIS OF PAYMENT:

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

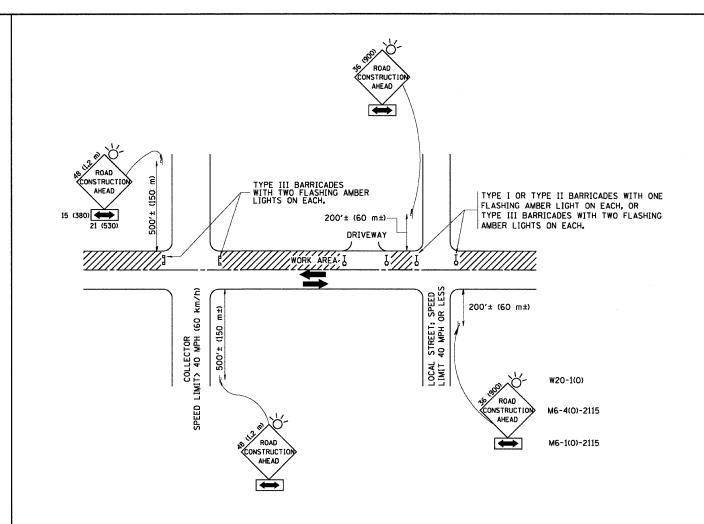
FILE NAME =	USER NAME = geglienobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94		BUTT JOINT AND	F.A.U. SECTION	COUNTY TOTAL SHEET
W:\diststd\22x34\bd32.dgn		DRAWN -	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS		1251/2784 2009-042 RS	LAKE 26 19
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01	DEPARTMENT OF TRANSPORTATION	HMA TAPER DETAILS	BD400-05 BD32	CONTRACT NO. 60649
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AIR	D PROJECT



# HMA TAPER AT EDGE OF P.C.C PAVEMENT

HMA SURFACE		LEVELING BINDER	
MIX	THICKNESS	THICKNESS	★ MILLING AT GUTTER FLAG
C OR D	11/2 (38)	1 (25)	11/4 (33)
F	1¾ (44)	<b>¾</b> (19)	1½ (38)

FILE NAME = W:\diststd\22x34\bd33.dgn	USER NAME = geglienobt	DESIGNED - R. SH	IAH REVISED	) - R. SHAH 10-25-94		HMA TAPER AT	F.A.U. SECTION	COUNTY TOTAL SHE
W:\diststd\22x34\bd33.dgn		DRAWN - JIS	REVISED	- A. ABBAS 05-05-99	STATE OF ILLINOIS		1251/2784 2009-042	RS LAKE 26 2
W:\diststd\22x34\bd33.dgn	PLOT SCALE = 50.0000 '/ IN.	CHECKED - A. AB	BAS REVISED	) - E. GOMEZ 12-21-00	DEPARTMENT OF TRANSPORTATION	EDGE OF P.C.C. PAVEMENT	BD400_06 /8	D33) CONTRACT NO. 60649
	PLOT DATE = 1/4/2008	DATE - 09-10	-94 REVISED	- R. BORO 01-01-07		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.		NOIS FED. AID PROJECT



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

## NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- 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:
- QI ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 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:
- O) 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 ROLUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

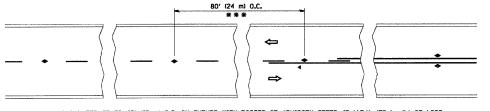
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL 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 = geglenobt DESIGNED - LHA REVISED - J. OBERLE 10-18-95
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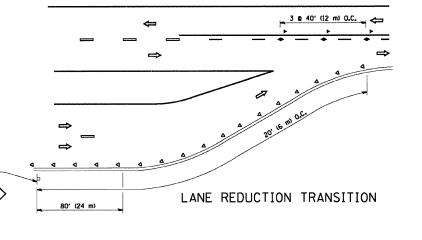
| DRAWN - REVISED - A. HOUSEH 03-06-96
| PLOT SCALE = 58.000 '/ IN. CHECKED - REVISED - A. HOUSEH 10-15-96
| PLOT DATE = 1/4/2008 | DATE - 06-89 | REVISED - T. RAMMACHER 01-06-00

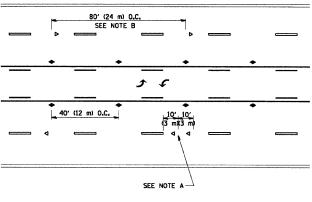
	TRAFFIC CONTROL AND	PROTECTION	I FOR	RTE.	SECTION	COUNTY	SHEETS	S SHEE
	SIDE ROADS, INTERSECTION	C AND DOI	VEIMAVS	1251/	2784 2009-042 RS	LAKE	26	21
	SIDE NUADS, INTENSECTION	S, AND DRI	AFANUS	_	TC-10	CONTRACT	. NO*	60G49
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. R	OAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		



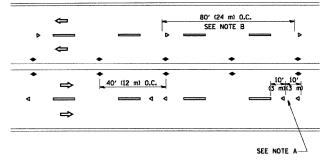
\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO-LANE/TWO-WAY

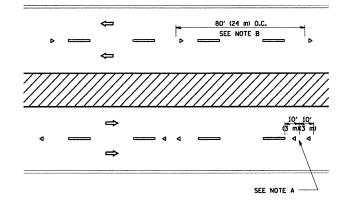




TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

# GENERAL NOTES

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

# LANE MARKER NOTES

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

# SYMBOLS

---- YELLOW STRIPE

WHITE STRIPE

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

# DESIGN NOTES

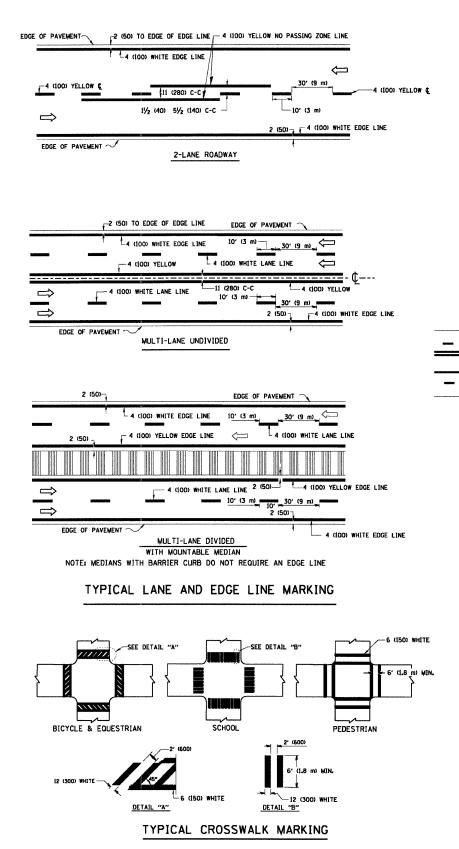
- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY
  EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
- MARKERS SHOULD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

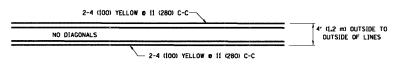
i\_\_\_\_\_\_

LEFT TURN

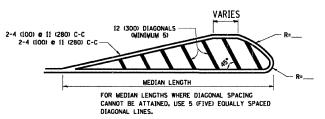
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - T. RAMMACHER 09-19-94		TYPICAL APPLICATIONS	F.A.U. SECTION	COUNTY TOTAL SHEET NO.
W:\d:ststd\22x34\to11.dgn		DRAWN ~	REVISED - T. RAMMACHER 03-12-99	STATE OF ILLINOIS		1251/2784 2009-042 RS	LAKE 26 22
	PLOT SCALE = 50.000 '/ IN.	CHECKED ~	REVISED -T. RAMMACHER 01-06-00	DEPARTMENT OF TRANSPORTATION	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)	TC-11	CONTRACT NO. 60G49
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT



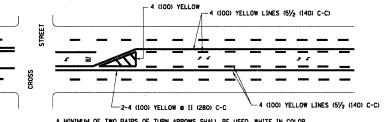


## 4' (1.2 m) WIDE MEDIANS ONLY

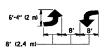


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

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

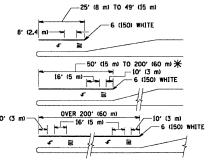


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR, ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

## TYPICAL PAINTED MEDIAN MARKING



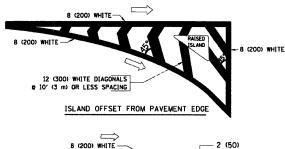
FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.

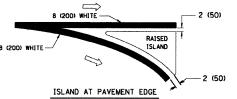
AREA = 15.6 SQ. FT. (1.5 m²) DILY AREA = 20.8 SQ. FT. (1.9 m²)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

## TYPICAL TURN LANE MARKING





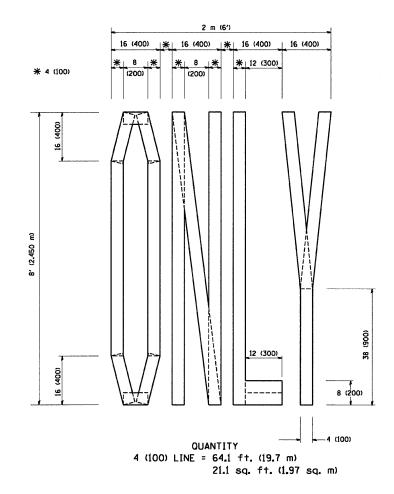
# TYPICAL ISLAND MARKING

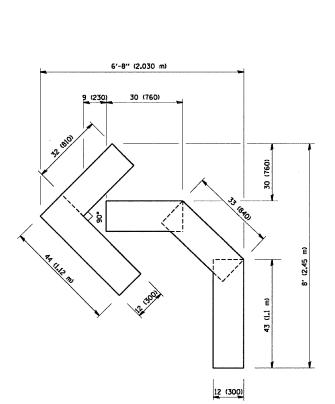
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVEDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 <b>0</b> 4 (100)	SOLID SOLID	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 0 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 & EDUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (I.B m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' 11,2 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° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED WEDIAN 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 ml LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA 0F: "R"*-3.6 SQ. FT. (0.33 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) <b>e</b> 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h) 150' (45 m) C-C (OVER 45MPH (70 km/h))

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

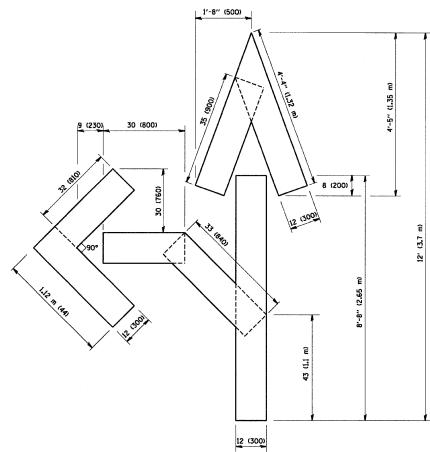
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = gaglianobt	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94		DISTRICT ONE	F.A.U.	SECTION	COUNTY	TOTAL SHEET
Wi\diststd\22x34\tol3.dgn		DRAWN -	REVISED -A. HOUSEH 10-09-96	STATE OF ILLINOIS		1251/2784 2/	009-042 RS	LAKE	26 23
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - A. HOUSEH 10-17-96	DEPARTMENT OF TRANSPORTATION	TYPICAL PAVEMENT MARKINGS	7	ГС-13	CONTRACT N	
	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. I	······		





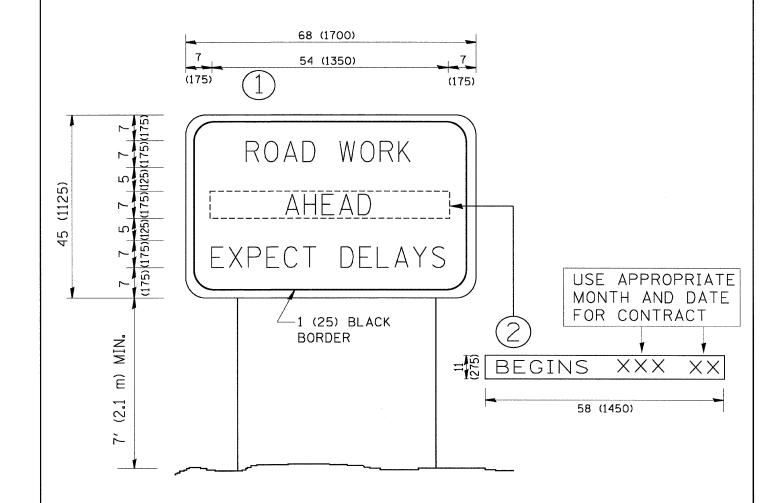
OUANTITY 4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.39 sq. m)



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

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

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED -T. RAMMACHER 06-05-96		PAVEMENT MARKING LETTERS AND SYMBOLS	F.A.U. SECTION	COUNTY TOTAL SHEET
W:\d:etetd\22x34\to16.dgn		DRAWN -	REVISED -T. RAMMACHER 11-04-97		FOR TRAFFIC STAGING	1251/2784 2009-042 RS	LAKE 26 24
į.	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98	DEPARTMENT OF TRANSPORTATION	FUR INAFFIC STAGING	TC-16	CONTRACT NO. 60G49
	PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT



# NOTES:

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

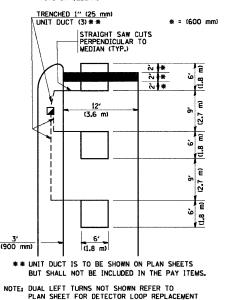
	FILE NAME =	USER NAME = geglienobt	DESIGNED -	REVISED - R. MIRS 09-15-97		ARTERIAL ROAD	F.A.U.	SECTION		TOTAL SI	HEET NO.
	Wi\diststd\22x34\tc22.dgn		DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS	INFORMATION SIGN	1251/2784 20	009-042 RS	LAKE	26	25
1	1	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION	INFUNIWATIUN SIGN	1	T <b>C-22</b> C	ONTRACT N	NO. 601	349
		PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST.	NO. 1 ILLINOIS FED. AID P	ROJECT		

# PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER. PAVED OR NON-PAVED SHOULDER \* = (600 mm) \*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS. ARTERIAL - VOLUME DENSITY ("FAR OL

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

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



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

(PROTECTED / PERMITTED LEFT TURN PHASING)

# = (600 mm)

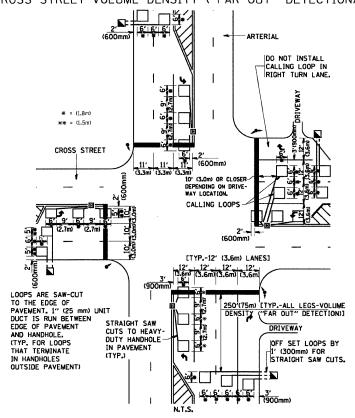
NOTE:

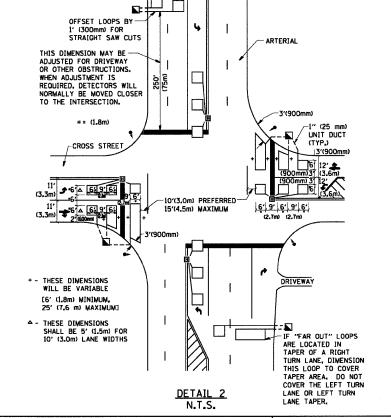
OFFICIAL SAW CUT TO HEAVY
DUTY HANDHOLE BETWEEN FIRST AND
SECOND LOOP AS SHOWN.

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)





## NOTES:

## VEHICLES LOOP DETECTORS

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED. SHIELDED.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATLY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- \* ONE DIMENSION OF <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 PAVEMENT EXTENDED.

# NOTE:

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

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

FILE NAME =	USER NAME = geglianobt	DESIGNED -	REVISED -
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	PLOT SCALE = 50.0000 '/ IN.	CHECKED - R.K.F.	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

N.T.S.

	DISTRICT 1 - DETECTOR L	OOP INSTALLAT	ION	RTE.	SECTION	COUNTY	SHEETS	NO.		
	DETAILS FOR BOADW	AV DEGLIDEACIN	c.	1251/2	2784 2009-042 RS	LAKE	26	26		
DETAILS FOR ROADWAY RESURFACING					TS-07	CONTRAC	T NO. 6	60G49		
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. RO	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					