

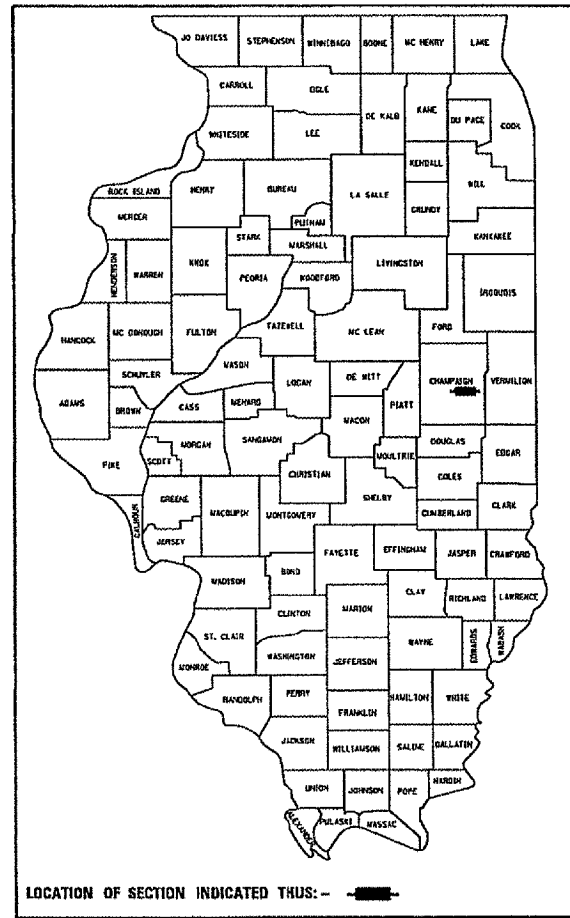
CONTRACT NO. 70471				
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512		CHAMPAIGN	13	1
• D5 CONTRACT MAINT 2005-14				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

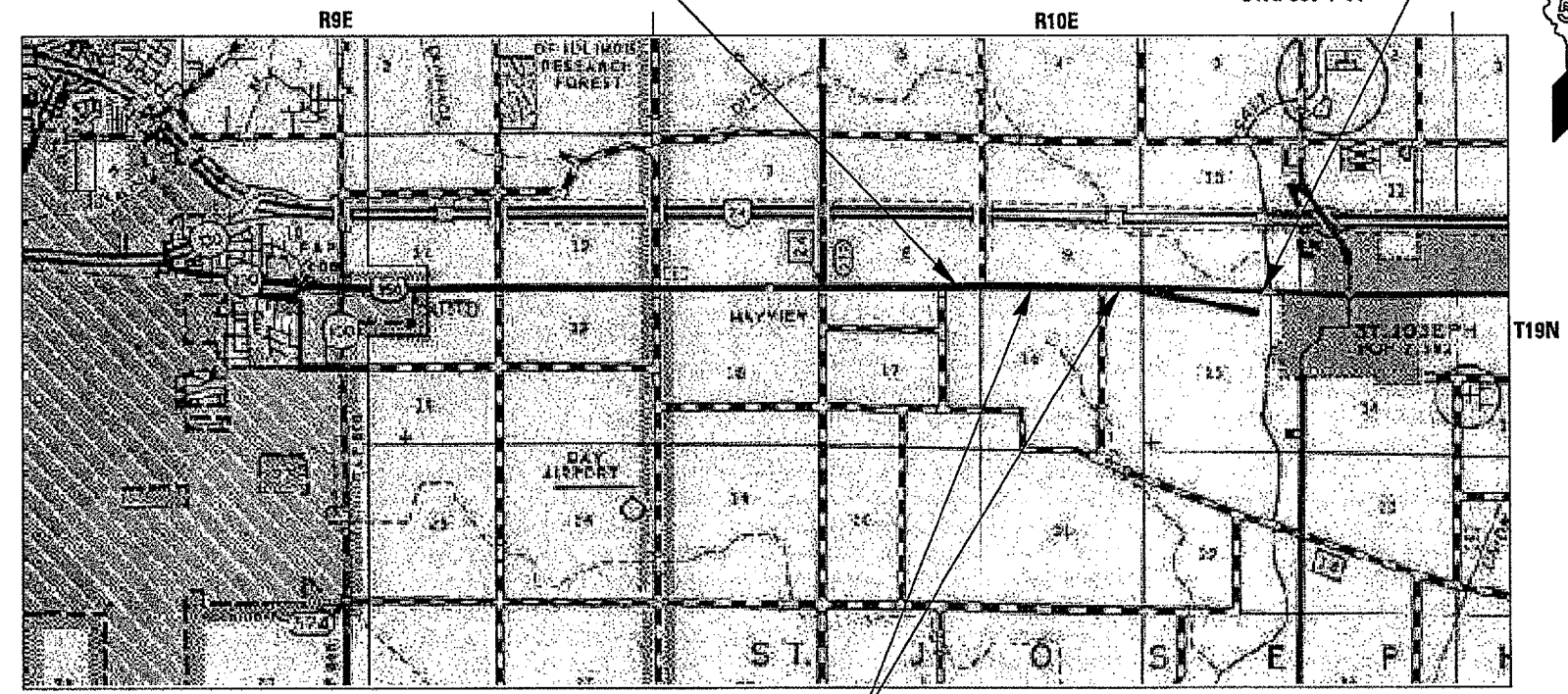
F.A.S. ROUTE 1512 (U.S. 150)  
SECTION D5 CONTRACT MAINT 2005-14  
CHAMPAIGN COUNTY

FOR INDEX OF SHEETS, SEE SHEET NO. 2  
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4

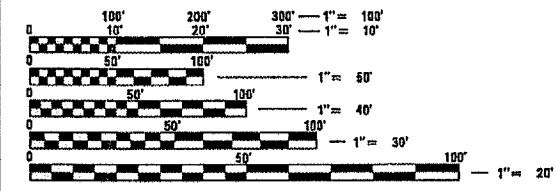


**C-95-020-05  
PATCHING AND INLAY**

START OF PROJECT STA. 301+48  
END OF PROJECT STA. 397+44



ADT = 4750 (2003)



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
ST. JOSEPH TOWNSHIP

CONTRACT NO. 70471

TOTAL LENGTH OF SECTION AND PROJECT = 9596 FEET = 1.817 MILES  
NET LENGTH OF SECTION AND PROJECT = 6479 FEET = 1.227 MILES



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED *April 20 05*  
*[Signature]*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION 3 ENGINEER

*May 13 20 05*  
*[Signature]*  
ENGINEER OF DESIGN AND ENVIRONMENT

*May 13 20 05*  
*[Signature]*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS**

PROJECT ENGINEER: TIM BRANDENBURG 466-7211  
DESIGNER: JASON W. STULTS 465-4181

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512	•	CHAMPAIGN	13	2

CONTRACT NO. 70471  
• D5 CONTRACT MAINT 2005-14

## INDEX OF SHEETS

<u>SHEET NUMBER</u>	<u>ITEM</u>
1	COVER SHEET
2	INDEX OF SHEETS
2	LISTING OF HIGHWAY STANDARDS
3	GENERAL NOTES
4	SUMMARY OF QUANTITIES
5-6	EXISTING TYPICAL CROSS SECTIONS
7-8	PROPOSED TYPICAL CROSS SECTIONS
9	SCHEDULE OF QUANTITIES
10	DETAIL OF PAVEMENT PATCHING (PARTIAL DEPTH)
11-13	DETAIL OF TYPICAL APPLICATIONS OF PAVEMENT MARKINGS AND MARKERS

## HIGHWAY STANDARDS

<u>NUMBER</u>	<u>DESCRIPTION</u>
000001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
701201-02	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-01	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS > 45 MPH
701311-02	LANE CLOSURE, SL, 2W, MOVING OPERATIONS-DAY ONLY
702001-05	TRAFFIC CONTROL DEVICES
780001-01	TYPICAL PAVEMENT MARKINGS
781001-02	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

**GENERAL NOTES**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512	*	CHAMPAIGN	13	3

CONTRACT NO. 70471

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G. N. -100  
ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

G. N. -406  
THE QUANTITIES INCLUDED IN THE PLANS FOR BITUMINOUS CONCRETE RESURFACING ARE INTENDED TO GIVE THE COVERAGE SHOWN ON THE TYPICAL CROSS SECTIONS. IT IS NOT INTENDED TO INCREASE THE THICKNESS OF THE BITUMINOUS MIXTURE IN ORDER TO USE ALL OF THE QUANTITIES INCLUDED IN THE CONTRACT.

G. N. -406H

## MIXTURE REQUIREMENTS

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

LOCATION(S):	US 150	US 150
MIXTURE USE(S):	SURFACE	PD PATCHING
AC/PG:	PG-64-22	PG-64-22
RAP%: (MAX)**	15%	25%
DESIGN AIR VOIDS:	4.0% @ NDESIGN=50	4.0% @ NDESIGN=50
MIXTURE COMPOSITION:	IL-9.5	IL-19.0
FRICTION AGREGATE:	MIX C	N/A

G. N. -442B -- PATCHING SCHEDULES  
THE PATCHING SCHEDULES INCLUDED IN THE PLANS REPRESENT THE BEST INFORMATION AVAILABLE AT THE TIME OF COMPLETION OF THE PLANS FOR LETTING. VARIATIONS IN LOCATION AND SIZES OF BOTH FULL-DEPTH AND PARTIAL-DEPTH PATCHES MAY OCCUR.

G. N. -442C -- PARTIAL DEPTH PATCHING DIMENSIONS  
FOR PARTIAL DEPTH PAVEMENT PATCHING, THE MINIMUM SIZE OF ANY PATCH SHALL BE 4 FT BY 4 FT. IF THE REPAIR OF ANY SMALLER AREAS IS REQUIRED, THAT WORK SHALL BE DESIGNATED AS \*PAVEMENT CLEANING\* AND WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.

G. N. -703A  
SHORT TERM PAVEMENT MARKING SHALL BE APPLIED TO THE PAVEMENT AFTER ANY OF THE FOLLOWING: COLD MILLING AND/OR PLACING BITUMINOUS MATERIALS (PRIME COAT), LEVELING BINDER (MACHINE METHOD), BINDER AND SURFACE COURSES. SHORT TERM PAVEMENT MARKING PLACED ON THE SURFACE, SHALL COINCIDE WITH THE FINAL PAVEMENT STRIPING. SHORT TERM PAVEMENT MARKING PLACED PRIOR TO THE SURFACE SHALL COINCIDE WITH THE EXISTING PAVEMENT MARKINGS. USE 4 FEET PER 40 FEET (OR 10% PER STATION).

G. N. -781

RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH STANDARD 781001, AND THE DETAILS SHOWN IN THE PLANS. IF THERE IS ANY DISCREPANCY BETWEEN THE STANDARD AND THE DETAILS IN THE PLANS, THE DETAILS IN THE PLANS SHALL GOVERN. THE FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING THE RAISED REFLECTIVE PAVEMENT MARKERS AND THE RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED MIDWAY IN THE 30 FOOT (9 m) SPACE BETWEEN THE DASHED CENTERLINE STRIPES (WHEN APPLICABLE).

G. N. -1004.01

COARSE AGGREGATE GRADATION CA-10 MAY BE USED WHENEVER COARSE AGGREGATE CA-6 IS SPECIFIED IN THE STANDARD SPECIFICATIONS.

G. N. -1004.03

REVISE ARTICLE 1004.03 (c) NOTE 5/ OF THE STANDARD SPECIFICATIONS TO READ:

' 5/ GRADATION CA-16 SHALL BE USED IN LIEU OF CA-13 WHEN THE SURFACE COURSE IS LESS THAN 1 3/4 INCHES IN THICKNESS. CA-13 OR CA-16 MAY BE USED WHEN THE SURFACE COURSE IS 1 3/4 INCHES OR MORE IN THICKNESS.'

**SUMMARY OF QUANTITIES**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512	.	CHAMPAIGN	13	4

CONTRACT NO. 70471  
D5 CONTRACT MAINT 2005-14

LOCATION OF WORK:

FAS 1512 (US 150)

Sta. 301+48 to

Sta. 323+66

Sta. 354+83 to

Sta. 397+44

100% STATE  
RURAL TWO-LANE

CONSTRUCTION TYPE CODE:

1000  
TOTAL  
QUANTITY

<u>CODE NO</u>	<u>ITEM</u>	<u>UNIT</u>	<u>1000 TOTAL QUANTITY</u>
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	432.0
40600300	AGGREGATE (PRIME COAT)	TON	9.0
40600990	TEMPORARY RAMP	SQ YD	27.0
44000006	BITUMINOUS SURFACE REMOVAL 1 1/2"	SQ YD	8,639.0
48101200	AGGREGATE SHOULDERS, TYPE B	TON	108.0
67100100	MOBILIZATION	L SUM	1.0
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1.0
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1.0
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	1,178.0
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	196.0
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	8,099.0
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	83.0
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	83.0
X4066414	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N50	TON	726.0
X4401705	PARTIAL DEPTH REMOVAL	SQ YD	192.0
Z0004800	BITUMINOUS MIXTURE FOR PATCHING	TON	70.0

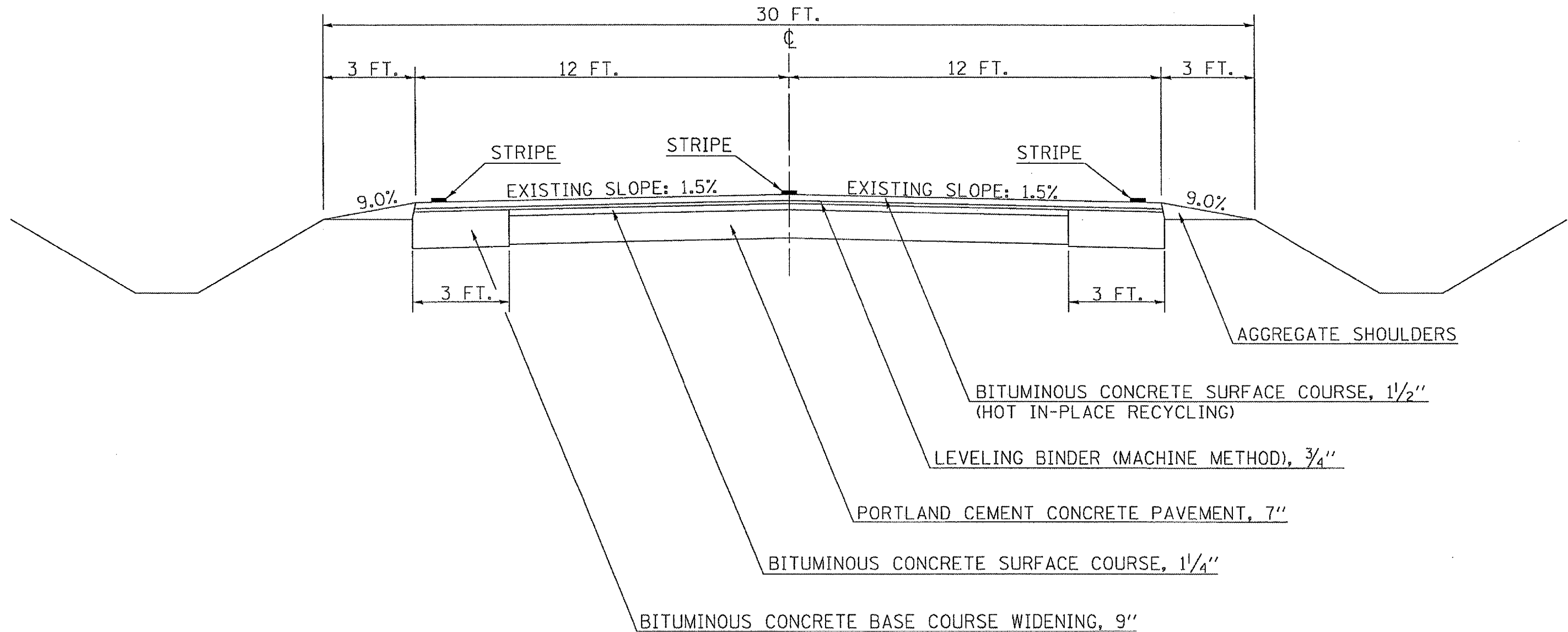
\* SPECIALITY ITEMS

# EXISTING TYPICAL CROSS SECTION

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512	•	CHAMPAIGN	13	5

STATION 301+48 TO STATION 323+66

CONTRACT NO. 70471  
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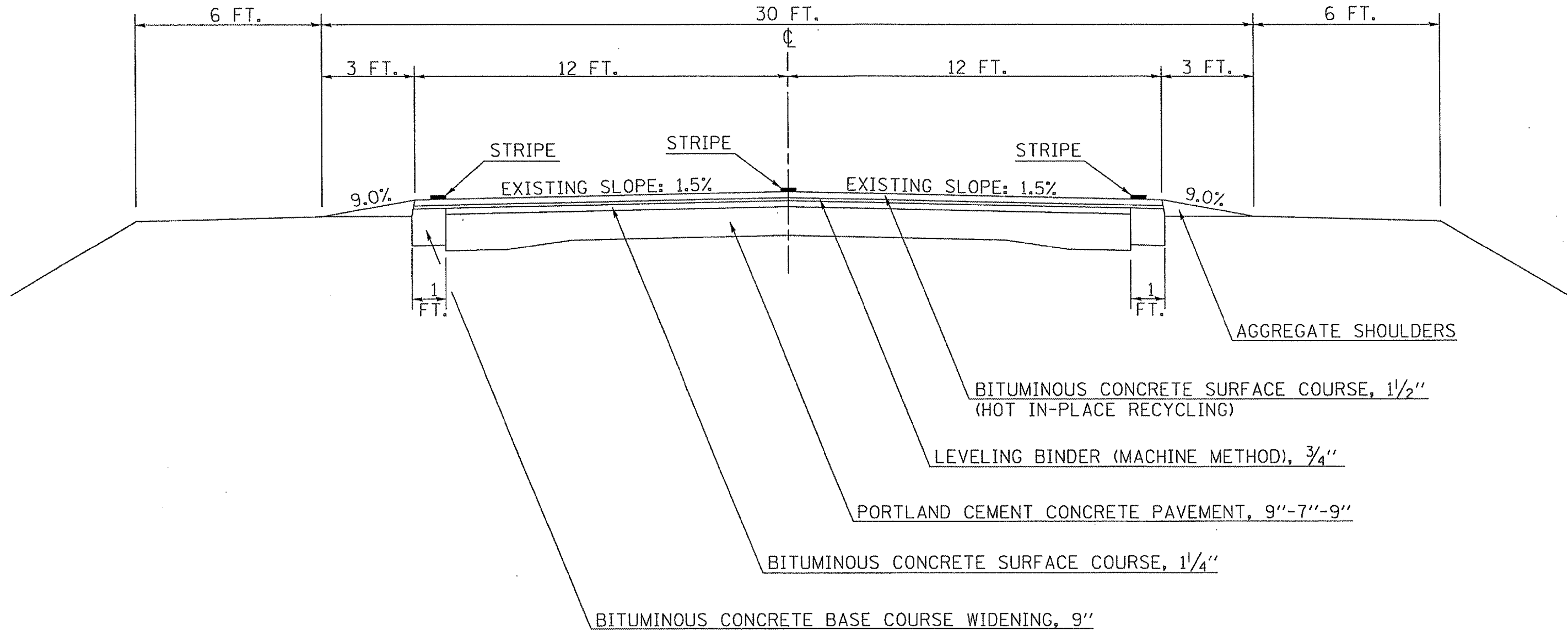


# EXISTING TYPICAL CROSS SECTION

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512	•	CHAMPAIGN	13	6

STATION TO STATION  
354+83 397+44

CONTRACT NO. 70471  
• D5 CONTRACT MAINT 2005-14

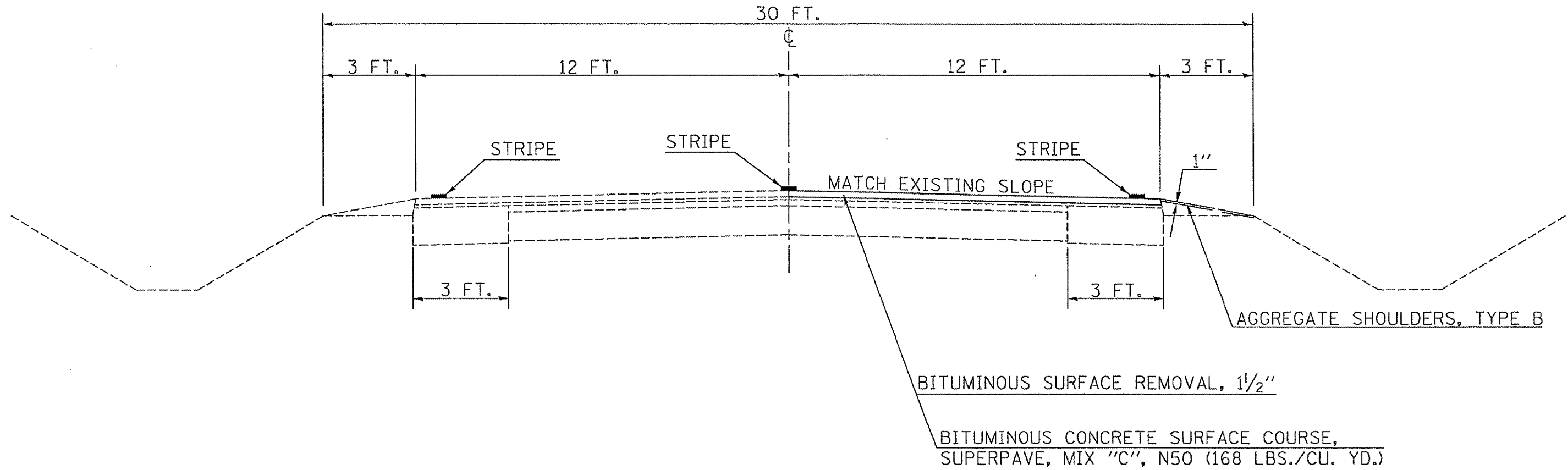


# PROPOSED TYPICAL CROSS SECTION ①

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512	•	CHAMPAIGN	13	7

CONTRACT NO. 70471  
 • D5 CONTRACT MAINT 2005-14

STATION TO STATION  
 301+48 TO 323+66  
 323+66 TO 354+83 OMISSION FROM PATCHING & RESURFACING ②

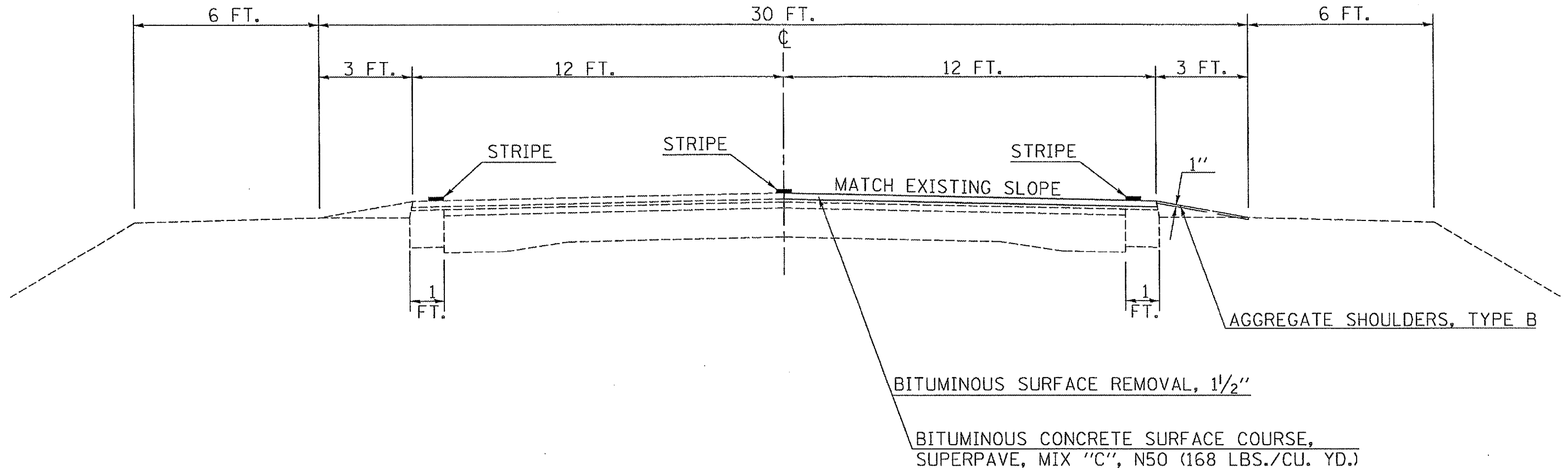


# PROPOSED TYPICAL CROSS SECTION ②

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512	•	CHAMPAIGN	13	8

STATION ① 354+83 TO STATION 397+44

CONTRACT NO. 70471  
• D5 CONTRACT MAINT 2005-14





# SCHEDULE OF QUANTITIES

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512	*	CHAMPAIGN	13	9

CONTRACT NO. 70471  
\* D5 CONTRACT MAINT 2005-14

TEMPORARY RAMP - 40600990

STATION	DIRECTION	AREA
301+48	EASTBOUND	6.7
323+66	EASTBOUND	6.7
354+83	EASTBOUND	6.7
397+44	EASTBOUND	6.7
<u>SUB-TOTAL = 26.7 SQ YD</u>		
<u>FINAL TOTAL = 27.0 SQ YD</u>		

PAINT PAVEMENT MARKING LINE. 4 INCH - 78001110

YELLOW

STATION	TO	STATION	LENGTH
301+48		323+66	554.5
354+83		397+44	1065.3
<u>TOTAL = 1619.8 FT</u>			

WHITE

STATION	TO	STATION	LENGTH
301+48		323+66	2218.0
354+83		397+44	4261.0
<u>TOTAL = 6479.0 FT</u>			
<u>SUB-TOTAL = 8098.8 FT</u>			
<u>FINAL TOTAL = 8099.0 FT</u>			

SCHEDULE FOR PARTIAL DEPTH PATCHING

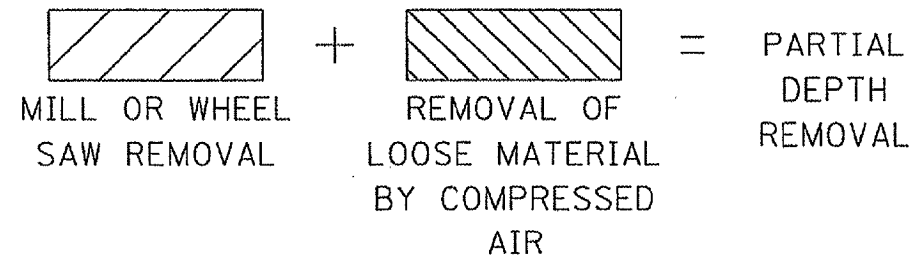
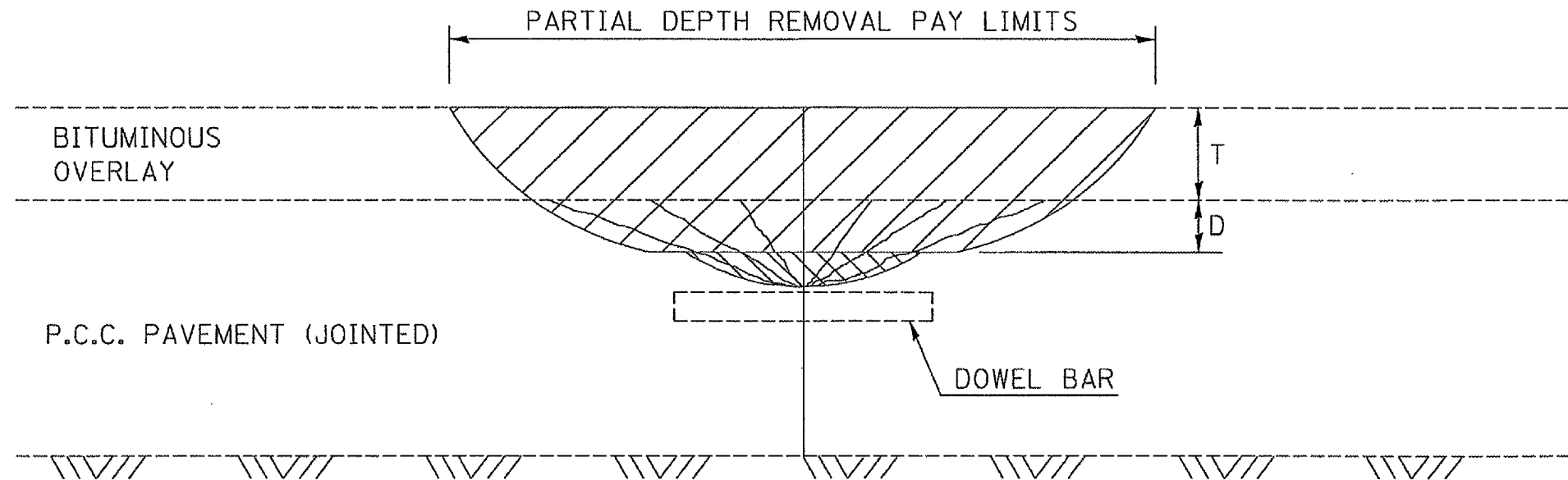
STATION	DIRECTION	LANE	LENGTH	WIDTH	EXISTING OVERLAY THICKNESS	PARTIAL DEPTH REMOVAL	BIT MIX FOR PATCHING
			(ft)	(ft)	(inch)	X4401705 (sq. yd)	Z0004800 (Ton)
302+08	EASTBOUND	DL	25	12	3.5	33.3	12.1
305+81	EASTBOUND	DL	10	6	3.5	6.7	2.4
308+41	EASTBOUND	DL	6	12	3.5	8.0	2.9
309+32	EASTBOUND	DL	15	6	3.5	10.0	3.6
312+02	EASTBOUND	DL	4	12	3.5	5.3	1.9
313+22	EASTBOUND	DL	8	12	3.5	10.7	3.9
315+19	EASTBOUND	DL	30	6	3.5	20.0	7.3
318+33	EASTBOUND	DL	25	6	3.5	16.7	6.1
322+00	EASTBOUND	DL	10	6	3.5	6.7	2.4
322+36	EASTBOUND	DL	30	6	3.5	20.0	7.3
359+08	EASTBOUND	DL	10	6	3.5	6.7	2.4
362+08	EASTBOUND	DL	6	12	3.5	8.0	2.9
364+69	EASTBOUND	DL	6	12	3.5	8.0	2.9
378+28	EASTBOUND	DL	10	12	3.5	13.3	4.9
379+27	EASTBOUND	DL	8	12	3.5	10.7	3.9
380+92	EASTBOUND	DL	6	12	3.5	8.0	2.9
<u>SUB-TOTALS = 192.0</u>							69.9
(sq. yd)							(Ton)
<u>FINAL TOTALS = 192.0</u>							70.0
(sq. yd)							(Ton)

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512	•	CHAMPAIGN	13	10

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# PAVEMENT PATCHING (PARTIAL DEPTH)

( PREVIOUSLY RESURFACED JOINTED P. C. C. PAVEMENT )



### GENERAL NOTES

ALL VOLUME OF REMOVAL LIMITS TO BE REPLACED WITH BITUMINOUS MIXTURE FOR PATCHING.

T = THICKNESS OF BITUMINOUS OVERLAY(S). SEE TYPICAL CROSS SECTIONS.

D = DEPTH OF MACHINE REMOVAL INTO EXISTING P. C. C. PAVEMENT ( 3" ( 75 mm ) ± OR TO SOUND CONCRETE ).

JOINT LOCATION SHOWN - OTHER LOCATIONS SIMILAR.

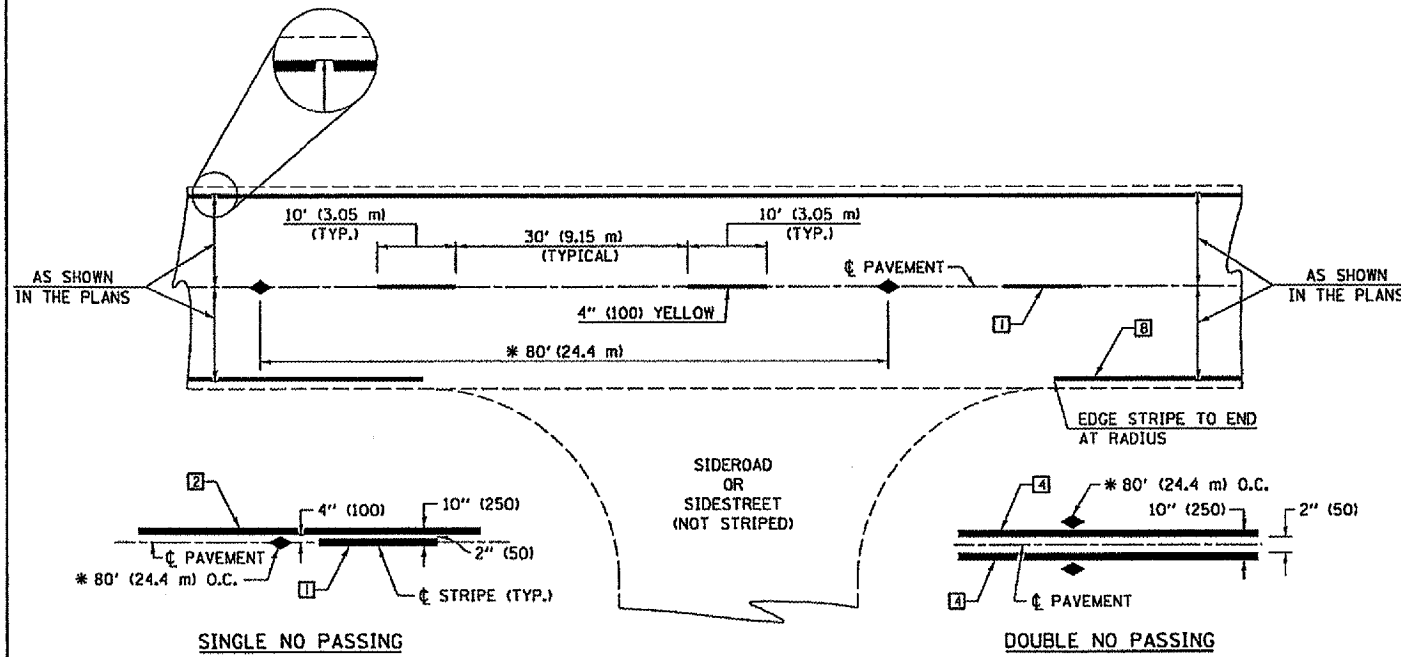
		NAME	DATE	REVISIONS	
DESIGNED	D.L.P.	2/99	NAME	DATE	
CHECKED	J.M.S.	2/99	D.L.P.	03/99	
CADD NO.	C-5.01		K.A.G.	06/03	

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

### TYPICAL APPLICATIONS OF PAVEMENT MARKINGS AND MARKERS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512		CHAMPAIGN	13	11

CONTRACT NO. 70471  
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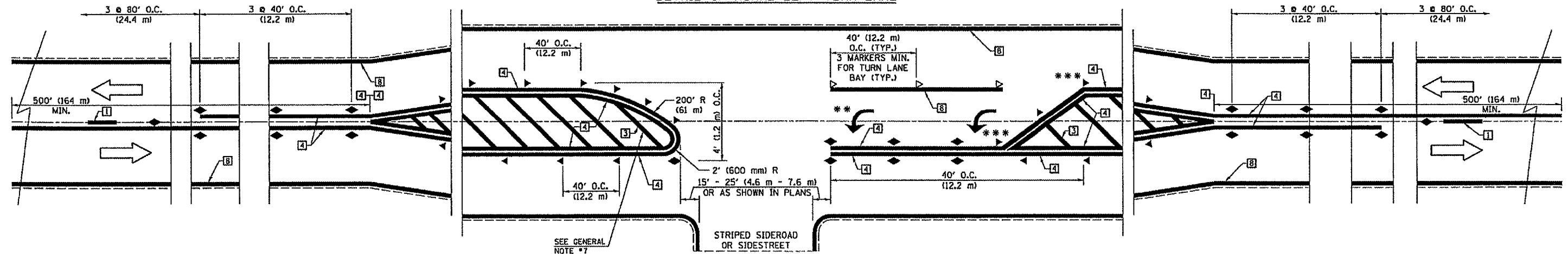
#### TYPICAL PAVEMENT MARKING LEGEND

- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 RESERVED
- 6 RESERVED
- 7 4" (100) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) CROSS WALK (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 4" (100) LANE LINE EXTENSIONS (WHITE)
- 14 4" (100) PARKING WHITE

#### TYPICAL PAVEMENT MARKERS LEGEND

- ◆ TWO-WAY AMBER MARKER
- ▶ ONE-WAY AMBER MARKER
- ▷ ONE-WAY CRYSTAL MARKER

#### DETAIL OF RURAL LEFT TURN LANE



\*\*\* REDUCE SPACING IF NECESSARY TO ASSURE MARKERS AT CORNER POINTS.  
 \*\* TURN ARROWS SHALL BE PLACED AS SHOWN ON SHEET #2.

SHEET 1 OF 3

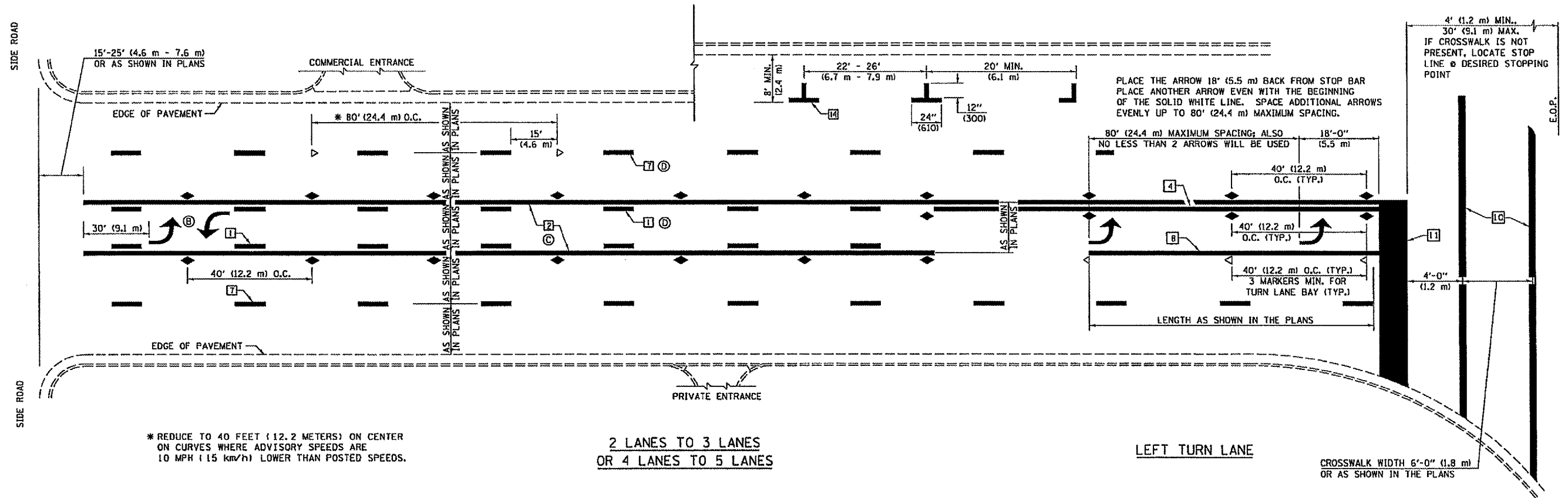
DESIGNED	NAME	DATE	REVISIONS	DATE
J.M.H.	J.M.H.	5/85		
CHECKED	FWS	6/85	GEOMETRICS/K.A.G.	07/02
CADD NO.	F-5.25	6/88	K.A.G.	08/04

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512	•	CHAMPAIGN	13	12

### TYPICAL APPLICATIONS OF PAVEMENT MARKINGS AND MARKERS

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\* REDUCE TO 40 FEET (12.2 METERS) ON CENTER ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH (15 km/h) LOWER THAN POSTED SPEEDS.

2 LANES TO 3 LANES  
 OR 4 LANES TO 5 LANES

LEFT TURN LANE

CROSSWALK WIDTH 6'-0" (1.8 m)  
 OR AS SHOWN IN THE PLANS

SHEET 2 OF 3

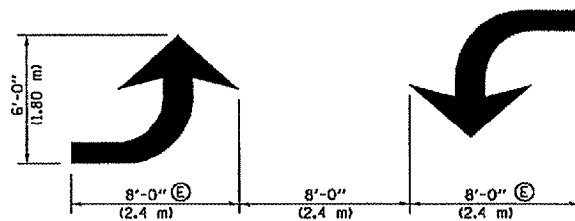
DESIGNED	NAME	DATE	REVISIONS	NAME	DATE
J.M.H.	J.M.H.	5/85			
CHECKED	FMS	6/85		GEOMETRICS/K.A.G.	07/02
CADD NO.	F-5.25	6/88		K.A.G.	08/04

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

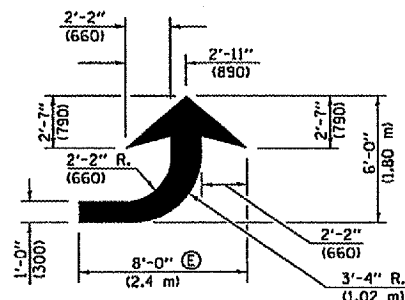
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512		CHAMPAIGN	13	13

CONTRACT NO. 70471  
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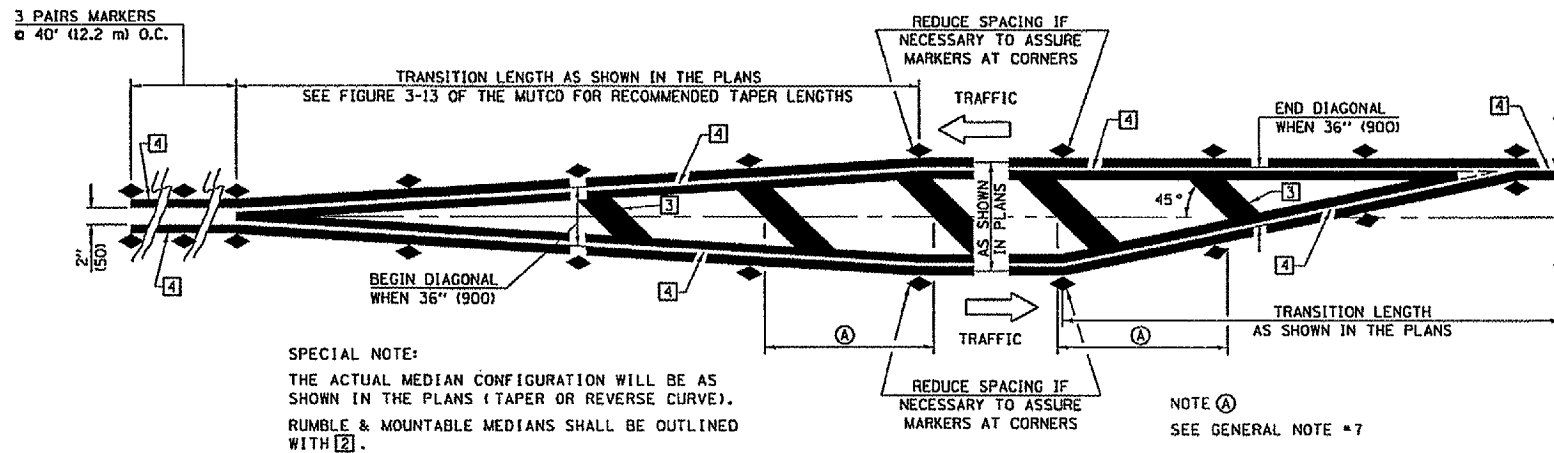
### TYPICAL APPLICATIONS OF PAVEMENT MARKINGS AND MARKERS



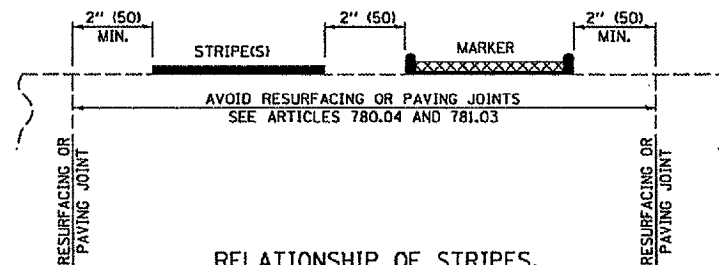
TYPICAL DOUBLE TURN ARROWS (WHITE)



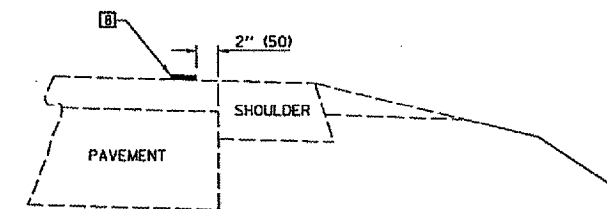
LEFT ARROW  
 REVERSE FOR RIGHT ARROW  
 AREA = 15.6 SQ. FT. (1.47 m<sup>2</sup>)  
 (WHITE)



TYPICAL MEDIAN TRANSITIONS



RELATIONSHIP OF STRIPES, MARKERS AND JOINTS



RELATIONSHIP OF EDGE STRIPE TO SAFETY SHOULDER OR PAVED SURFACE

SPECIAL NOTES:

- ⓑ TURN ARROW PAIRS SHALL BE PLACED AT 250' (75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE.
- ⓒ THE SOLID YELLOW PAVEMENT MARKINGS [2] SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE STOP BARS.
- ⓓ THE SKIP-DASH PAVEMENT MARKINGS [1] OR [7] SHOULD BE CENTERED BETWEEN BOTH ENDS OF EACH CITY BLOCK AND SHALL BE PLACED SO THEY LINE UP ACROSS FROM EACH OTHER. SEE EXAMPLE ON SHEET 2 OF 3.
- ⓔ TURN ARROW SIZE DEPENDS ON THE LOCATION.  
 RURAL LOCATION - LARGE ARROW SIZE  
 URBAN LOCATION - SMALL ARROW SIZE

GENERAL NOTES

1. WHEN MEDIANS ARE PRESENT, PAVEMENT MARKINGS ARE TO BE PLACED ADJACENT TO MEDIANS.
2. SCALE: NONE
3. SOME OF THE INFORMATION INCLUDED WITH THIS DETAIL MAY NOT BE APPLICABLE TO THIS IMPROVEMENT.
4. PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.
5. A STRIPING KEY IS AVAILABLE ELSEWHERE AND SHALL BE SHOWN WHERE THE QUANTITIES ARE LISTED.
6. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING ANY RAISED REFLECTIVE PAVEMENT MARKERS.
7. THE FOLLOWING CRITERIA SHALL BE USED FOR SELECTING THE DIAGONAL PAVEMENT MARKING SPACING,  
 < 30 MPH USE 15' (< 50 km/h USE 4.5 m)  
 30-45 MPH USE 20' (50-75 km/h USE 6.0 m)  
 > 45 MPH USE 30' (> 75 km/h USE 9.0 m)

SHEET 3 OF 3

DESIGNED	NAME	DATE	REVISIONS	NAME	DATE
J.M.H.	J.M.H.	5/85			
CHEKED	FMS	6/85		GEOMETRICS/K.A.G.	07/02
CADD NO.	F-5.25			K.A.G.	08/04

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