# STATE OF ILLINOIS

FOR INDEX OF SHEETS, SEE SHEET NO. 2

# DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

DESIGN DESIGNATION:

SPEED LIMIT: 45 M.P.H.

2007 ADT = 21,100

0

 $\circ$ 

 $\circ$ 

 $\bigcirc$ 

# PROPOSED HIGHWAY PLANS

PROJECT LOCATED IN THE VILLAGE OF JUSTICE AND THE VILLAGE OF WILLOW SPRINGS

F.A.U. RTE. 1549 / 3565 IL. RTE. 171 WEST BOUND CONNECTOR SECTION: BR-RS
IL. RTE. 171 TO U.S. 12 / 20 / 45
RESURFACING (3P)

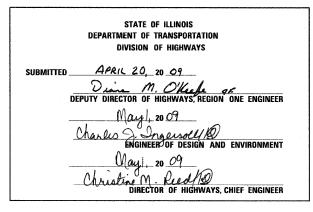
COOK COUNTY C-91-612-09

PROJECT ENDS STA. 49 + 06 D-91-612-09

BR-RS

COOK





10' 20' 30' — 1" = 10'

50' — 100'

1" = 40'

100' — 1" = 30'

50' — 100' — 1" = 30'

STA. 33 + 19 TO

STA. 37 + 17

**PROJECT BEGINS** 

STA. 10 + 00

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 LOCATING INFORMATION FOR EXCAVATORS
1-800-892-0123

DISTRICT ONE – PLAN PREP ENGINEER: KEN ENG (847) 705–4247 GROSS LENGTH OF PROJECT = 3,906 FEET = 0.740 MILES

NET LENGTH OF PROJECT = 3,508 FEET = 0.664 MILES

62-37259
LICENSED ALL PROFESSIONAL PROFESSIO

Birinder S. Sachdava

BIRINDER S. SACHDEVA, P.E.

EXPIRES: 11-30-2009

April 20, 2009

CHRISTIAN-ROGE & ASSOCIATES, INC.
ENGINEERS - PLANNERS - SURVEYORS
211 W. WACKER DRIVE CHICAGO, IL. 60606
TELEPHONE: 312-372-2023

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 60H42

#### INDEX OF SHEETS

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2	INDEX OF SHEETS, LIST OF STATE STANDARDS AND GENERAL NOTES
3	SUMMARY OF QUANTITIES
4	TYPICAL SECTIONS
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7	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING
8	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
9	BUTT JOINT AND HMA TAPER DETAILS
10	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
11	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
12	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
13	ARTERIAL ROAD INFORMATION SIGN

## LIST OF STATE STANDARDS

STANDARD NO.	DESCRIPTION
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
442201-03	CLASS C AND D PATCHES
701421-02	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS > 45 MPH TO 55 MPH
701601-06	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701901 - 01	TRAFFIC CONTROL DEVICES
780001-02	TYPICAL PAVEMENT MARKINGS

#### 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 FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER ITEMS OF WORK TO EXISTING CURBS AND GUTTERS 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.
- 3. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, THE VILLAGE OF SUMMIT AND THE VILLAGE OF WILLOW SPRINGS.
- 4. 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.
- 5. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- 6. SAW CUTTING PRIOR TO ANY REMOVAL ITEMS NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEMS BEING REMOVED.
- 7. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- 8. 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 CONTRACTOR'S EXPENSE.
- 9. WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES (40mm) WHERE THE SPEED LIMIT IS 40 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 THE MILLING IS SLOPED A MINIMUM 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.
- 11. PAVEMENT MARKING TAPE, TYPE III SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS AND TEMPORARY 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 AND TEMPORARY PAVEMENT MARKINGS.
- 12. 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.
- 13. THE CONTRACTOR SHALL CONTACT MR. WALTER CZARNY, THE AREA TRAFFIC FIELD ENGINEER, AT (773) 685-8386 AT LEAST TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- 14. BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINT AND HMA TAPER DETAILS" INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
- 15. MATCH EXISTING PAVEMENT MARKINGS AT THE PROJECT AND OMISSION LIMITS.
- 16. ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- 17. PAY ITEM 55039700 STORM SEWERS TO BE CLEANED SHALL ONLY BE UTILIZED TO CLEAN STORM SEWER LATERAL PIPES BETWEEN INLETS OR CATCH BASINS AND THE MAIN SEWER.

FILE NAME = D160H42-sht-gennote.dgn PLOT DATE = 4/21/2009



Ç.	DESIGNED	-	G.F.L.	REVISED	-
•	DRAWN	-	A.C.S.	REVISED	-
	CHECKED	-	M.P.	REVISED	
274	DATE	-	APRIL 2009	REVISED	-

INDEX OF	SHEETS, LIST OF STATE STA	NDARDS AND	GENERAL NOTES	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	
	IL. RTE. 171 WEST BOU			1549/ 3565	BR-RS	COOK	13	2
				_		CONTRACT	NO. 6	OH42
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. 10+00	TO STA. 49+06	FED. ROAD	DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		

	SUMMARY OF QUANTITIES		URBAN 1001.STATE	CONSTRUCTION TYPE CODE
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	IOOO URBAN
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	15	15
40600300	AGGREGATE (PRIME COAT)	TON	43	43
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	20	20
40600895	CONSTRUCTING TEST STRIP	EACH	2	., 2
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	166	166
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	102	102
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACECOURSE, MIX "F", N90	TON	688	688
44000156	HOT-MIX ASPHALT SURFACE REMOVAL, 13/4"	SQ YD	4,954	4,954
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	8,180	8,180
44002214	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 3 1/2"	SQ YD	520	520
44201753	CLASS D PATCHES, TYPE II, 9 INCH	SQ YD	280	280
44201757	CLASS D PATCHES, TYPE III, 9 INCH	SQ YD	120	120
44201759	CLASS D PATCHES, TYPE IV, 9 INCH	SQ YD	120	120
48101200	AGGREGATE SHOULDERS, TYPE B	TON	100	100
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4
67100100	MOBILIZATION	L SUM	1	1

	SUMMARY OF QUANTITIES		URBAN 1001.STATE	CONSTRUCTION TYPE CODE
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	IOOO- URBAN
70100310	TRAFFIC CONTROL AND PROTECTION, STANDARD 701421	L SUM	1	1
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	10,000	10,000
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	109	109
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	7,435	7,435
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	1,660	1,660
70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	819	819
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	720	720
78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	109	109
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	7,435	7,435
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1,660	1,660
78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	819	819
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	121	121
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	121	121
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	52	52
X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	344	344
Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	4	4
				,

\* SPECIALTY ITEM

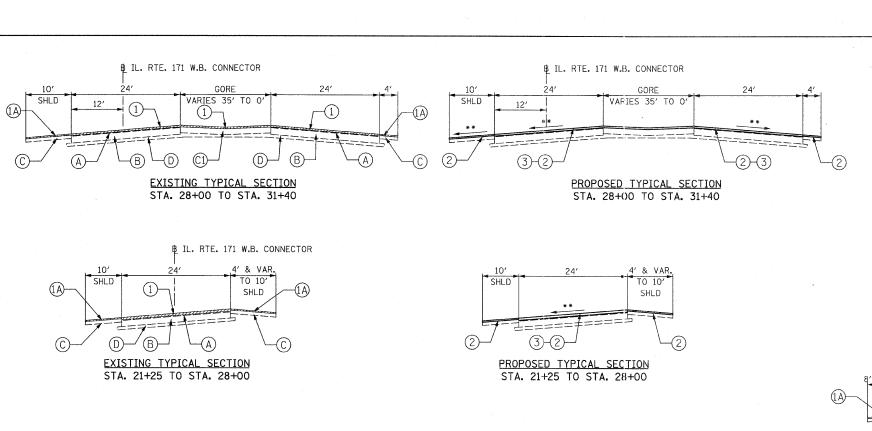
FILE NAME = D160H42-sht-S0Q.dgn PLOT DATE = 4/21/2009 NC. DESIGNED - G.F.L. REVISED 
DRAWN - A.C.S. REVISED 
CHECKED - M.P. REVISED 
DATE - APRIL 2009 REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

 SUMMARY
 OF QUANTITIES

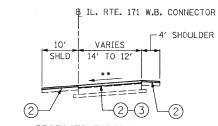
 IL. RTE. 171
 WEST BOUND CONNECTOR

 SCALE:
 NONE
 SHEET NO. 1 OF 1 SHEETS STA. 10+00 TO STA. 49+06

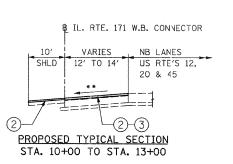




#### EXISTING TYPICAL SECTION PROPOSED TYPICAL SECTION STA. 18+50 TO STA. 21+25 STA. 18+50 TO STA. 21+25



PROPOSED TYPICAL SECTION STA. 13+00 TO STA. 18+50

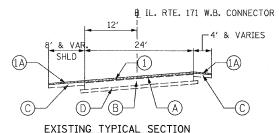


# **EXISTING CONDITIONS**

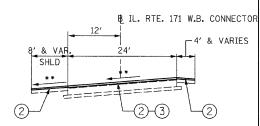
- (A) HOT-MIX ASPHALT SURFACE AND BINDER COURSE, 3" & VARIES
- (B) P.C.CONCRETE BASE COURSE, 9" & VARIES
- C HMA SHOULDER
- (C1) HMA GORE
- (D) AGGREGATE SUNGRADE, 4" & VARIES

## PROPOSED IMPROVEMENTS

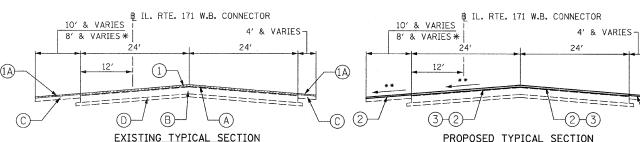
- 1) HOT-MIX ASPHALT SURFACE REMOVAL, 21/2"
- (1A) HOT-MIX ASPHALT SURFACE REMOVAL, 13/4"
- 2) POLYMERIZED HMA SURFACE COURSE, MIX "F", N90, 13/4"
- (3) POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"



STA. 39+20 TO STA. 49+06



PROPOSED TYPICAL SECTION STA. 39+20 TO STA. 49+06



EXISTING TYPICAL SECTION STA. 31+40 TO STA. 33+19 STA. 33+19 TO STA. 37+17 - BRIDGE OMISSION \*STA. 37+17 TO STA. 39+20

PROPOSED TYPICAL SECTION STA. 31+40 TO STA. 33+19 STA. 33+19 TO STA. 37+17 - BRIDGE OMISSION \*STA. 37+17 TO STA. 39+20

\* \* NOTE:

MATCH EXISTING CROSS SLOPES.

THE CONTRACTOR SHALL PATCH FIRST BEFORE MILLING.

ROADWAY NAME	HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
ROADWAT NAME	MIXTURE TYPE	AC TYPE	AIR VOIDS
	POLYMERIZED HMA SURFACE COURSE, MIX "F", N90, 13/4"	PG 64-22	4% @ 70 GYR.
	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	SBS/SBR PG 76-28/-22	4% @ 50 GYR.
W.B. CONNECTOR	CLASS D PATCHES (HMA BINDER IL-19 mm)	₩ PG 64-22	4% @ 70 GYR.
	HMA REPLACEMENT OVER PATCHES (HMA BINDER IL-19 mm)	* PG 64-22	4% @ 70 GYR.

\* WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22. THE UNIT WEIGHT USED TO CALCULATE ALL HMA MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

FILE NAME = D160H42-sht-typical.dg PLOT DATE = 4/21/2009

CHRISTIAN-ROGE & ASSOCIATES, INC. 211 WEST WACKER DRIVE CHICAGO, ILLINOIS 60606 PHONE: (312)372-2023 FAX: (312)372-5274

₿ IL. RTE. 171 W.B. CONNECTOR

NB LANES

US RTE'S 12,

₿ IL. RTE. 171 W.B. CONNECTOR

VARIES

14' TO 12'

EXISTING TYPICAL SECTION STA. 13+00 TO STA. 18+50

VARIES

12' TO 14'

EXISTING TYPICAL SECTION

STA. 10+00 TO STA. 13+00

10'

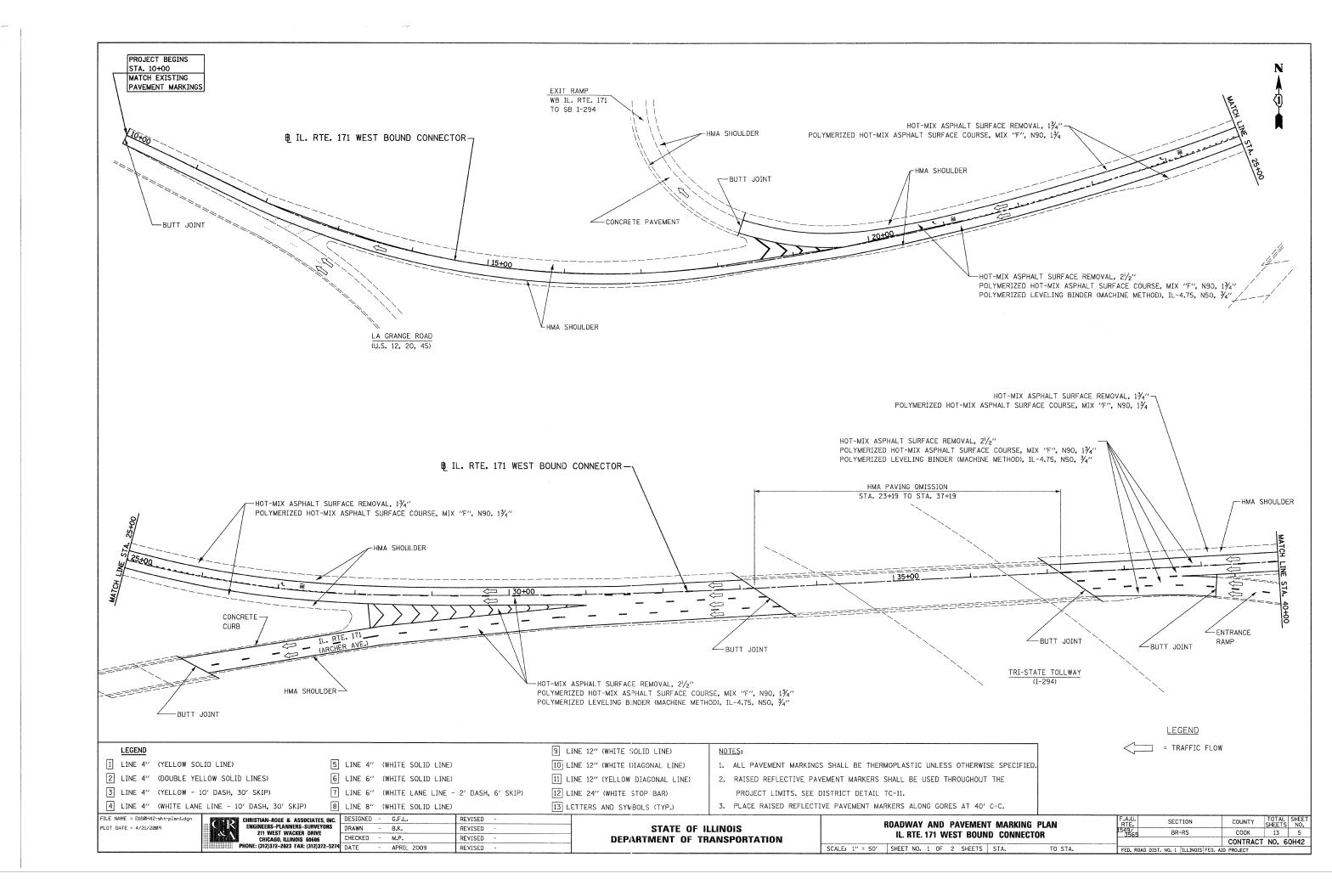
SHLD

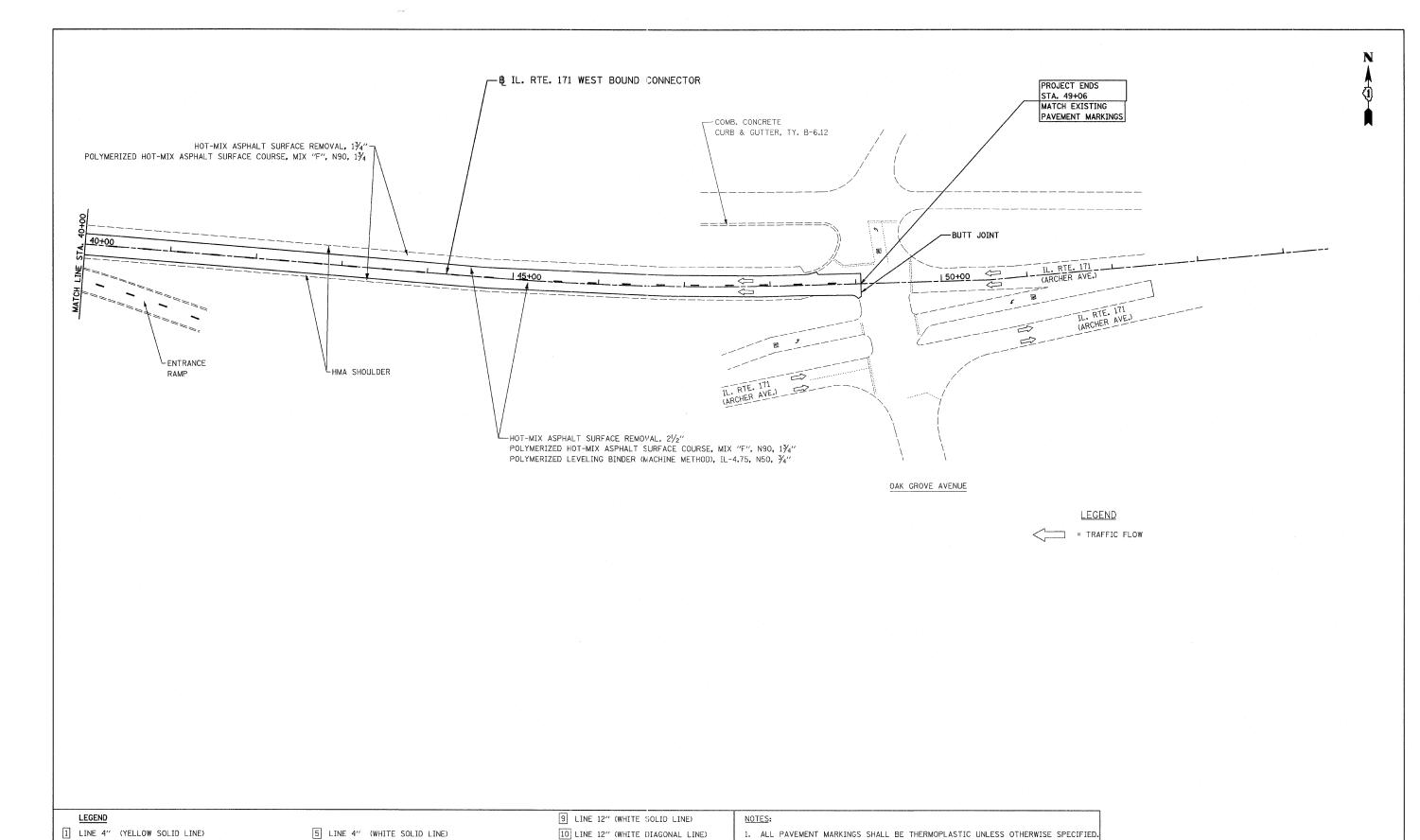
SHLD

SHOULDER

DESIGNED - G.F.L. REVISED DRAWN ~ B.K. REVISED CHECKED - M.P. REVISED APRIL 2009 REVISED

TYPICAL SECTIONS	F.A.U. SECTION		TOTAL SHEETS	SHEET NO.
IL RTE. 171 WEST BOUND CONNECTOR	1549/ 3565 BR-RS	COOK	13	4
		CONTRACT	NO. 6	OH42
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AI	D PROJECT		





2 LINE 4" (DOUBLE YELLOW SOLID LINES) 6 LINE 6" (WHITE SOLID LINE) 11 LINE 12" (YELLOW DIAGONAL LINE) 3 LINE 4" (YELLOW - 10' DASH, 30' SKIP) 7 LINE 6" (WHITE LANE LINE - 2' DASH, 6' SKIP) 12 LINE 24" (WHITE STOP BAR) 4 LINE 4" (WHITE LANE LINE - 10' DASH, 30' SKIP) B LINE 8" (WHITE SOLID LINE) 13 LETTERS AND SYMBOLS (TYP.) FILE NAME = D160H42-sht-plan2.dgn CHRISTIAN-ROGE & ASSOCIATES, INC. ENGIRERS -PLANNERS-SURVEYORS 211 WEST WACKER DRIVE CHICAGO, ILLINOIS 60606 CHECKED - M.P. REVISED PLOT DATE = 4/21/2009

1. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE SPECIFIED. 2. RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE USED THROUGHOUT THE PROJECT LIMITS. SEE DISTRICT DETAIL TC-11.

3. PLACE RAISED REFLECTIVE PAVEMENT MARKERS ALONG GORES AT 40' C-C.

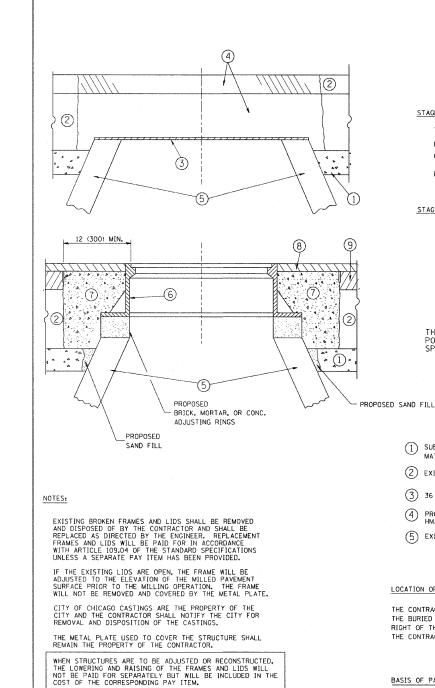
PHONE: (312)372-2023 FAX: (312)372-5274 DATE

REVISED REVISED - APRIL 2009 REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

ROADWAY AND PAVEMENT MARKING PLAN IL. RTE. 171 WEST BOUND CONNECTOR SCALE: 1" = 50' SHEET NO. 2 OF 2 SHEETS STA.

COUNTY TOTAL SHEET NO.
COOK 13 6 SECTION BR-RS CONTRACT NO. 60H42 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



## CONSTRUCTION PROCEDURES

# STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM  $1^{\prime}/_{2}$  (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

## STAGE 2 (AFTER PAVEMENT MILLING)

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

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

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

6 FRAME AND LID (SEE NOTES)

- 8 PROPOSED HMA SURFACE COURSE
- 9 PROPOSED HMA BINDER COURSE

#### LOCATION OF STRUCTURES:

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

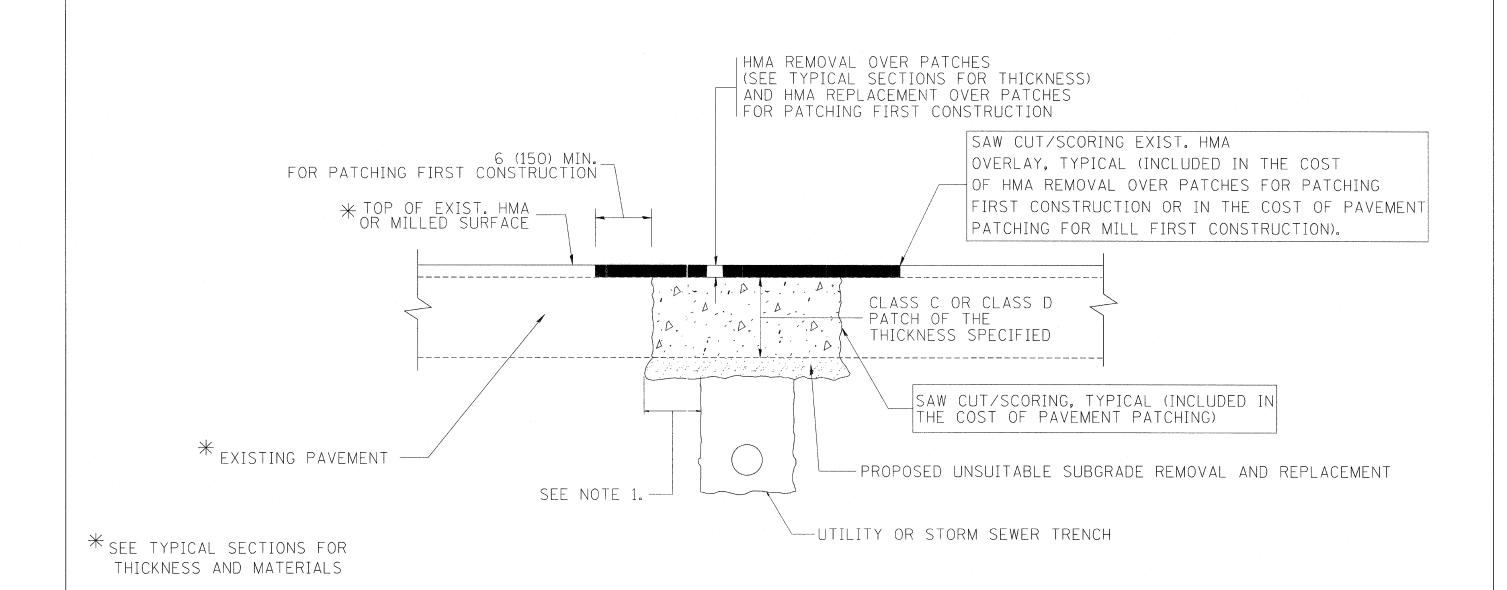
BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"

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

# DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = gaglianobt	DESIGNED - R. SHAH	REVISED - R. SHAH 03-10-95		DETAILS FOR	F.A.U. SECTION	COUNTY TOTAL SHEET
W:\diststd\22x34\bd08.dgn		DRAWN ~	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS	FRAMES AND LIDS ADJUSTMENT WITH MILLING		COOK 13 7
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - R. WIEDEMAN 05-14-04	DEPARTMENT OF TRANSPORTATION	FRANCES AND LIDS ADJUSTIMENT WITH WILLING	BD600-03 (BD-8)	CONTRACT NO. 60H42
	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	D. AID PROJECT



# 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)

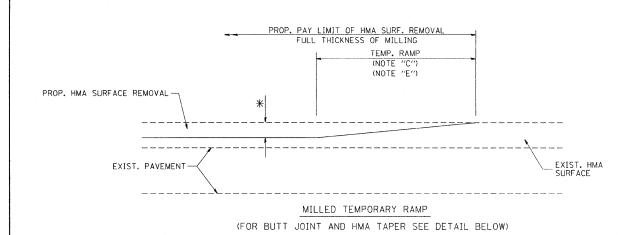
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

# SEQUENCE OF CONSTRUCTION (MILLING FIRST)

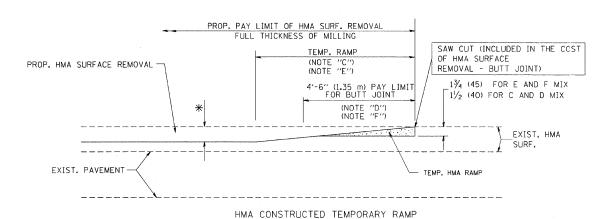
- 1. MILL HMA FIRST IF THERE IS AT LEAST 41/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

FILE NAME =	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED -	A. ABBAS 04-27-98			PAVEMENT PATCHIN	C FOR	F.A.U.	SECTION	COUNTY	TOTAL	HEET
c:\projects\diststd22x34\bd22.dgn		DRAWN -	REVISED -	R. BORO 01-01-07	STATE OF ILLINOIS				15/0	BR-RS	соок	13	110.
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED ~	R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION		HMA SURFACED PAV	EMENT	R	D400-04 (BD-22)	CONTRACT	NO. 60H	142
	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.		D DIST. NO. 1   ILLINOIS FED. A	<u> </u>		



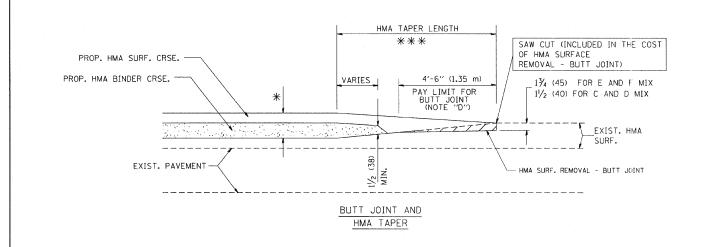
# OPTION 1



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

# OPTION 2

# TYPICAL TEMPORARY RAMP



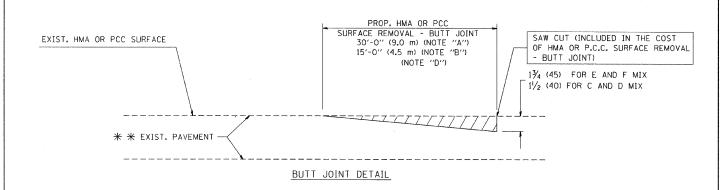
# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

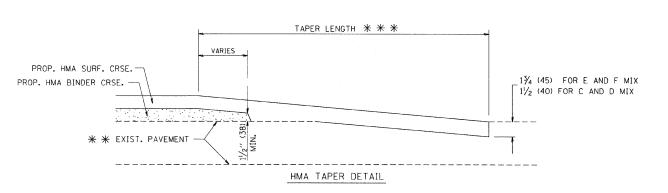
FILE NAME = USER NAME = geglionobt DESIGNED - M. DE YONG REVISED - R. SHAH 10-25-94
Wikdiststd\22x34\bd32.dgn

| DRAWN - REVISED - A. ABBAS 03-21-97
| PLOT SCALE = 50.0000 '/ In. CHECKED - REVISED - M. GOMEZ 04-06-01
| PLOT DATE = 1/4/2008 DATE - 06-13-90 REVISED - R. BORO 01-01-07

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

| FAU SECTION COUNTY | TOTAL SHEET NO. | 1549 | BR-RS | COOK | 13 | 9 | | 1549 | BR-RS | CONTRACT | NO. 60 | HMA TAPER DETAILS | SCALE: NONE | SHEET NO. 1 | 0 | 1 | SHEETS | STA. | TO STA. | FED. ROAD DIST, NO. 1 | LILLINGS | FED. AID PROJECT | STA. | TO STA. | FED. ROAD DIST, NO. 1 | LILLINGS | FED. AID PROJECT | STA. | SHEET NO. 1 | OF 1 | SHEETS | STA. | TO STA. | FED. ROAD DIST, NO. 1 | LILLINGS | FED. AID PROJECT | SHEETS | NO. 1 | OF 1 | SHEETS | STA. | TO STA. | FED. ROAD DIST, NO. 1 | LILLINGS | FED. AID PROJECT | SHEETS | NO. 1 | OF 1 | SHEETS | SHEETS | NO. 1 | OF 1 1 | OF





# TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

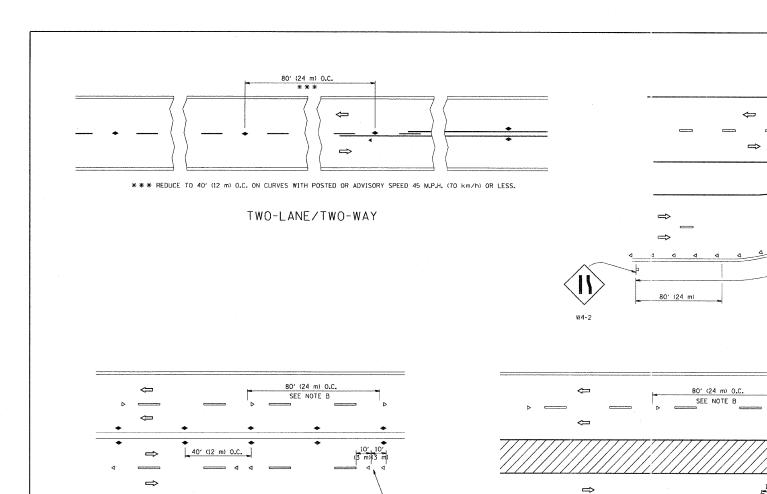
## NOTES

- 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.
- $\mbox{\em $\star$}\mbox{\em $\star$}$

# BASIS OF PAYMENT:

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

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



SEE NOTE A

MULTI-LANE/UNDIVIDED

# MULTI-LANE/DIVIDED

 $\Rightarrow$ 

# GENERAL NOTES

3 @ 40' (12 m) O.C.

LANE REDUCTION TRANSITION

- 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

80' (24 m) O.C.

40' (12 m) O.C.

J (

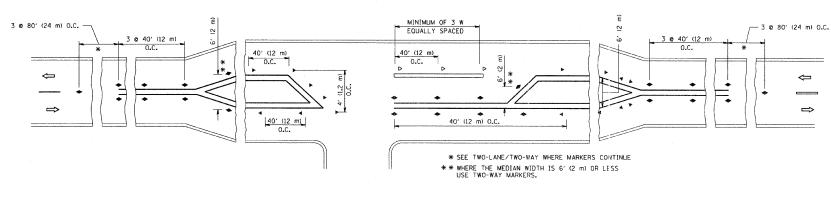
SEE NOTE A

TWO-WAY LEFT TURN

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

# DESIGN NOTES

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

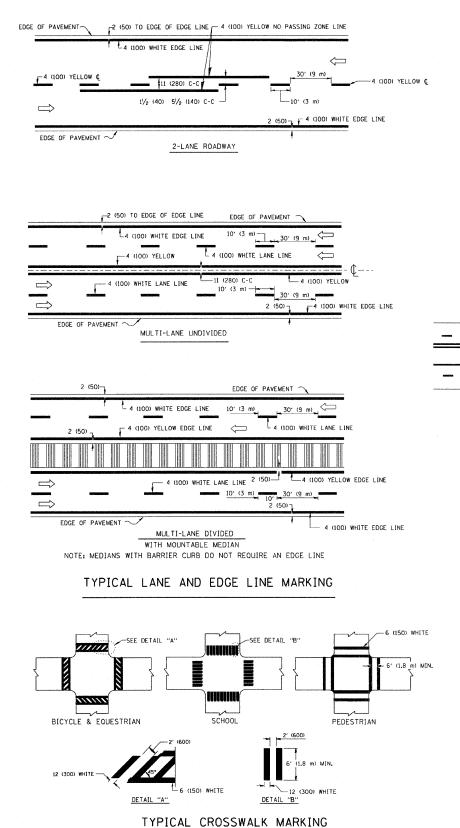


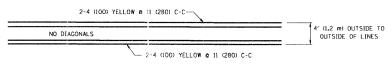
LEFT TURN

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

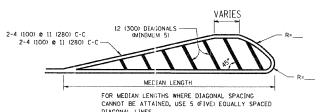
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W:\diststd\22x34\tcl1.dgn		DRAWN -	REVISED -T. RAMMACHER 03-12-99	STATE OF ILLINOIS	TYPICAL APPLICATIONS	1549	BR-RS	COOK 13 10
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 01-06-00	DEPARTMENT OF TRANSPORTATION	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)	12.0	TC-11	CONTRACT NO. 60H42
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD C	IST. NO. 1 ILLINOIS	FED. AID PROJECT

SEE NOTE A



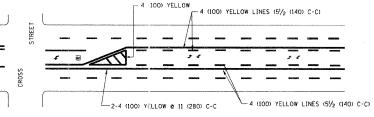


# 4' (1.2 m) WIDE MEDIANS ONLY

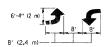


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

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

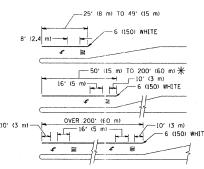


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

# TYPICAL PAINTED MEDIAN MARKING

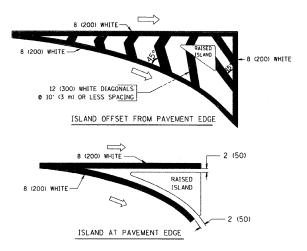


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SO. FT. (1.5 m<sup>2</sup> +  $\P$  AREA = 20.8 SO. FT. (1.9 m<sup>2</sup>)

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

TYPICAL LEFT (CR RIGHT) TURN LANE

# TYPICAL TURN LANE MARKING



# TYPICAL ISLAND MARKING

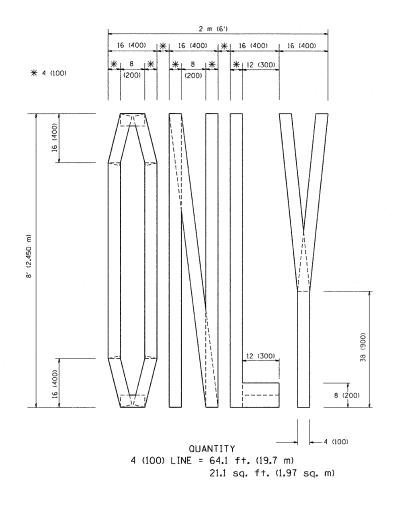
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVEDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 g 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SK(P-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH: 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART 5EE 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 @ 4 (100) WITH 12 (300) DIAGONALS	SOLID	YELLOW: TWO WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE
	e 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 OF: "R"=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) <b>©</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 (0VER 45MPH (70 km/h))

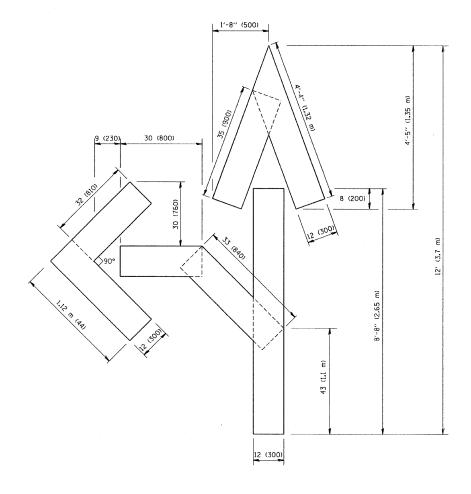
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

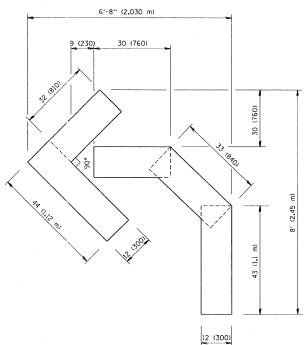
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	PLOT SCALE = 50.000 '/ IN.	CHECKED -		REVISED	- A.	HOUSEH 10-17-96	
	PLOT DATE = 1/4/2008	DATE -	 03-19-90	REVISED	- T.	RAMMACHER 01-06-00	

	DISTRICT OF	VΕ		FAU. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TYPICAL PAVEMENT MARKINGS					BR-RS	COOK	13	11
					TC-13	CONTRACT	NO. 60	)H42
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				





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

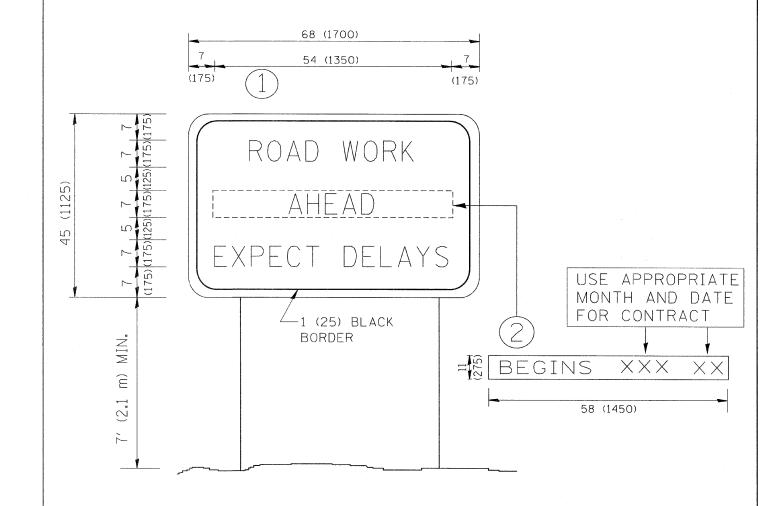


OUANTITY 4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.39 sq. m)

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

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED -T. RAMMACHER 06-05-96
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·	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98
	PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00

	PAVEMENT MARKIN	IG LETTER	S AND	SYMBOLS	F.A.U.	SECTION	COUNTY	SHEETS	SHEE
	FOR TR	AFFIC ST	ACING		1549	BR-RS	COOK	13	12
			TC-16	CONTRACT	NO. 60	H42			
SCALE: NONE	SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	FED. R	DAD DIST. NO. 1   ILLINOIS FED. A	D PROJECT		



# NOTES:

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

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

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·	PLOT SCALE = 50.000 ' / [N.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION	INFORMATION SIGN	TC-22	CONTRACT NO. 60H42
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07	·	SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.		AID PROJECT