INDEX OF SHEETS 04-22-2016 LETTING ITEM 158

STATE OF ILLINOIS

**COVER SHEET. INDEX OF SHEETS & STATE STANDARDS** DEPARTMENT OF TRANSPORTATION

**SUMMARY OF QUANTITIES & GENERAL NOTES** 2.

TYPICAL CROSS SECTIONS 3.

**PAVEMENT PLAN & PAVEMENT MARKING PLAN** 4.-6.

**IDOT DISTRICT 1 STANDARD DETAILS** 

# **HIGHWAY STANDARDS**

886001-01

STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS PERPENDICULAR CURB RAMPS 424001-08 442201-03 CLASS C AND D PATCHES 701311-03 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE 701006-05 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS 701501-06 **URBAN LANE CLOSURE. 2L. 2W. UNDIVIDED** 701801-06 SIDEWALK, CORNER OR CROSSWALK CLOSURE TRAFFIC CONTROL DEVICES 701901-05 TYPICAL PAVEMENT MARKINGS

DETECTOR LOOP INSTALLATIONS

**DIVISION OF HIGHWAYS** PLANS FOR PROPOSED FEDERAL AID HIGHWAY

> **FAU 2796(122ND STREET) CENTRAL AVENUE TO CICERO AVENUE** ROADWAY RESURFACING SECTION NO.: 14-00098-00-RS

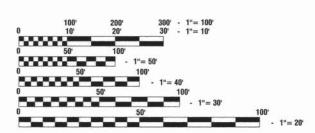
> > PROJECT NO.: M-4003(428)

**VILLAGE of ALSIP COOK COUNTY** 

JOB NO.: C-91-146-15

122ND STREET 2016 ADT -6,150 2040 ADT -10,500 POSTED SPEED LIMIT -25 mph 20 YEARS DESIGN SPEED LIMIT -30 mph STREET CLASSIFICATION -MAJOR COLLECTOR

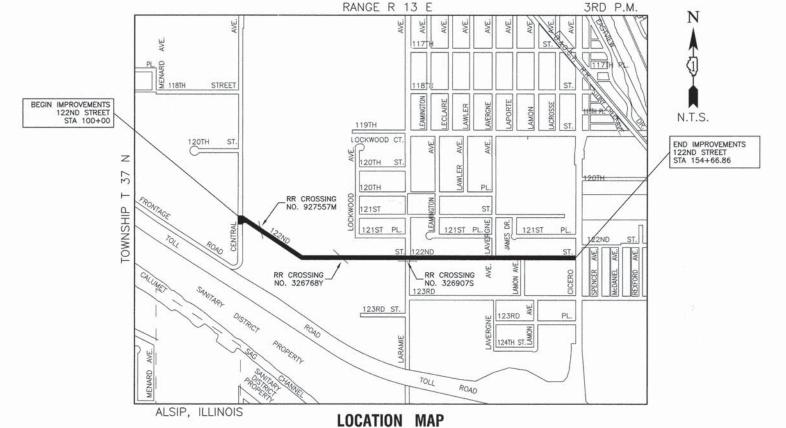
PROFILE HORIZ. - 1"=50" PROFILE VERT. - 1"=5"



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 or 811

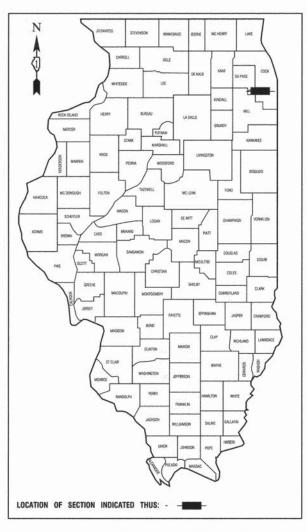
CONTRACT NO. 61C52

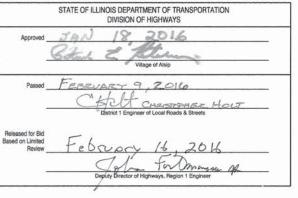


GROSS LENGTH= 5,466.86 FEET= 1.03 MILES NET LENGTH= 5,466.86 FEET= 1.03 MILES

соок 2796 14-00098-00-RS TO STA FED. ROMO DIST. NO. 1 | ELLINOIS | FED. NO PROJECT M-4003(428)

CONTRACT #61C52





PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:



14647\_02-COVR-01 - IDOT CO

	SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE		
.1.	CODE NO.	PAY ITEM	UNIT	QUAN	ROADWAY 0005	SAFETY 0021		
	20200100	EARTH EXCAVATION	CU YD	17	17			
	21101625	TOPSOIL FURNISH AND PLACE, 6"	SQ YD	726	726			
	25000210	SEEDING, CLASS 2A	ACRE	0.15	0.15			
	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	50	50			
	25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	50	50			
	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	50	50			
	25003210	INTERSEEDING, CLASS 2A	ACRE	0.4	0.4			
	35101600	AGGREGATE BASE COURSE, TYPE B 4"	SQ YD	247		24		
	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	10039	10039			
	40600825	POLYMERIZED LEVELING BINDER (MACHINE METHOD), N50	TON	937	937			
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	149	149			
	40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	1874	1874			
	42300300	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 7 INCH	SQ YD	20	20			
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	2046		204		
	42400400	PORTLAND CEMENT CONCRETE SIDEWALK 7 INCH	SQ FT	419		41		
	42400800	DETECTABLE WARNINGS	SQ FT	81		8		
	44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	22309	22309			
	44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	168	168			
	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	2068	2068			
	44000600	SIDEWALK REMOVAL	SQ FT	285		28		
	44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SQ YD	282	282			
	60250200	CATCH BASINS TO BE ADJUSTED	EACH	34	34			
	60255500	MANHOLES TO BE ADJUSTED	EACH	14	14			
1	67100100	MOBILIZATION	L SUM	1	1			

	SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE	
S.I.	CODE NO.	PAY ITEM	UNIT	QUAN	ROADWAY 0005	SAFETY 0021	
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1		
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1		
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	1150		1150	
	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	384		384	
*	78000100	THERMOPLASTIC PAVEMENT MARKING — LETTERS AND SYMBOLS	SQ FT	310		310	
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	10452		10452	
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	133		133	
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	264		264	
*	88600600	DETECTOR LOOP REPLACEMENT	FOOT	80		80	
	Z0004530	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 8"	SQ YD	102	102		
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	52		52	
	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1		
	X6026050	SANITARY MANHOLES TO BE ADJUSTED	EACH	1	1		
	X6061815	COMBINATION CONCRETE CURB AND GUTTER, TYPE M (SPECIAL)	FOOT	2068	2068		

#### \* - INDICATES SPECIALTY ITEMS

#### **GENERAL NOTES**

- 1. THE ROBINSON ENGINEERING, LTD. FIELD OFFICE (708-331-6700), AND THE STREET SUPERINTENDENT, MIKE FRAIDER, AT THE VILLAGE OF ALSIP (708-385-6902 EXT. 415) SHALL BE NOTIFIED TWO (2) WORKING DAYS BEFORE CONSTRUCTION BEGINS.
- 2. BEFORE STARTING ANY EXCAVATION THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 AND (312) 744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. (48 HOUR NOTIFICATION REQUIRED)
- 3. UTILITIES INDICATED ON THE PLANS ARE PROVIDED FOR THE CONTRACTOR'S USE AND ARE BASED UPON INFORMATION AVAILABLE AT THE TIME OF THE ADVERTISEMENT FOR BIDS. THE OWNER AND ENGINEER DO NOT GUARANTEE THE ACCURACY OF UTILITY INFORMATION.
- 4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- 5. THE THICKNESS OF HMA MIXTURE STATED IN THE SPECIFICATIONS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA SURFACE IS PLACED.
- 6. ACCESS TO DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES BY LIMITING CURB AND GUTTER REPAIR TO ONE—HALF THE DRIVEWAY WIDTH AT ONE TIME AS WELL AS TEMPORARY AGGREGATE. ANY TEMPORARY AGGREGATE REQUIRED SHALL BE CONSIDERED INCLUDED IN THE COST OF THE RELATED PAY ITEM IT IS NEEDED FOR WHEN DIRECTED BY THE ENGINEER.
- 7. THE REMOVAL AND/OR REPLACEMENT OF ANY DRIVEWAYS, PAVEMENT, CURB, SIDEWALK, ETC. SHALL BE ACCOMPLISHED BY MEANS OF A SAW CUT JOINT, AT THE DIRECTION OF THE ENGINEER. SAW CUTTING WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE UNIT PRICE FOR THE VARIOUS REMOVAL ITEMS.
- 8. ANY LOOSE MATERIAL DEPOSITED IN THE FLOW LINE OF DITCHES, GUTTERS OR OTHER DRAINAGE STRUCTURES SHALL BE REMOVED BY THE END OF EACH DAY BY THE CONTRACTOR AT THEIR EXPENSE.
- 9. THE CONTRACTOR SHALL LEAVE ANY CLEAN EXCESS ORGANIC FILL EXCAVATED DURING THE CURB AND GUTTER AND SIDEWALK REMOVAL AND REPLACEMENT OPERATIONS ON SITE. ANY EXCESS MATERIAL SHALL BE SPREAD OR PLACED AT LOCATIONS DETERMINED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE UNIT PRICE FOR THE VARIOUS REMOVAL AND REPLACEMENT ITEMS. RESTORATION OF AREAS WHERE EXCESS MATERIALS IS PLACED SHALL BE PAID FOR AS SEEDING, CLASS 2A.
- 10. CLASS D PATCHING QUANTITIES FOR THIS CONTRACT SHALL BE PERFORMED AT THE DIRECTION OF THE ENGINEER AFTER PAVEMENT MILLING.

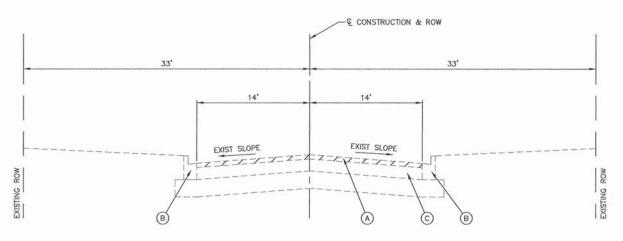
SCALE: NONE

11. CONTRACTOR SHALL RESTORE DAMAGED TURF AREA DUE TO REMOVAL AND REPLACEMENT OF VARIOUS ITEMS ALONG THE PARKWAY WITH TOPSOIL FURNISH AND PLACE, 6" AND SEEDING, CLASS 2A AS DIRECTED BY THE ENGINEER (SEE SPECIAL PROVISIONS). INTERSEEDING, CLASS 2A SHALL BE USED TO REPAIR EXISTING BARREN TURF AREA IN THE PARKWAY AT LOCATIONS INDICATED ON THE PLANS.

#### \* - INDICATES SPECIALTY ITEMS

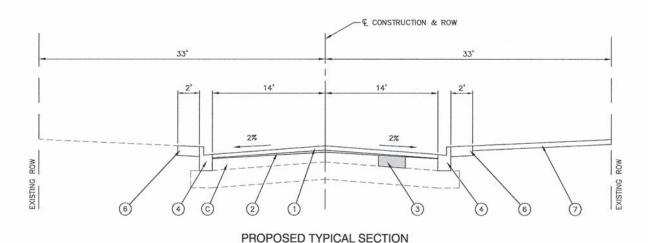
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		CHECKED — WD	REVISED —
	PLOT SCALE =	DRAWN — RG	REVISED —
SASE PARKETS IN MADERN COLLEGING  PARKETS SYMMETRIC SCHOOL COLLEGING	PLOT DATE = 1-18-16	CHECKED — AG	REVISED —

FAU 2796 (122ND STREET)	F.A.U RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
ROADWAY RESURFACING	2796	14-00098-00-RS	COOK	14	2
SUMMARY OF QUANTITIES & GENERAL NOTES			CONTRACT	NO. 61C	52
SHEET NO. 2 OF 14 SHEETS STA. TO STA.	FED. ROAD I	DIST. NO. 1 ILLINOIS FED	AID PROJECT M-4	003(428)	



#### **EXISTING TYPICAL SECTION**

122ND STREET
CENTRAL AVENUE TO LARAMIE AVENUE



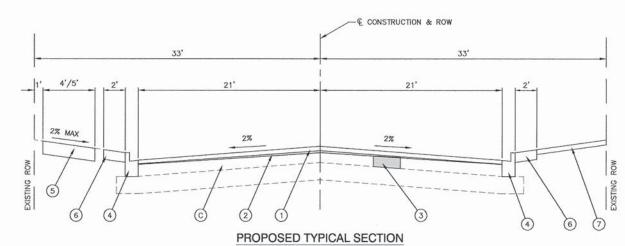
122ND STREET
CENTRAL AVENUE TO LARAMIE AVENUE

# EXIST SLOPE EXIST SLOPE **EXISTING TYPICAL SECTION**

21'

CONSTRUCTION & ROW

122ND STREET
LARAMIE AVENUE TO CICERO AVENUE
NOTE: CONTRACTOR SHALL MILL BEFORE PATCHING



122ND STREET
LARAMIE AVENUE TO CICERO AVENUE
NOTE: CONTRACTOR SHALL MILL BEFORE PATCHING

#### **EXISTING LEGEND**

- HOT MIX ASPHALT SURFACE REMOVAL, 2"
- EXISTING CURB & GUTTER, TYPE M, TO BE REMOVED AT LOCATIONS SHOWN ON PLANS OR DIRECTED BY ENGINEER
- B
- 0 EXISTING HOT-MIX ASPHALT PAVEMENT
- EXISTING PCC SIDEWALK TO BE REMOVED AT LOCATIONS SHOWN ON PLANS OR DIRECTED BY ENGINEER (D)

### PROPOSED LEGEND

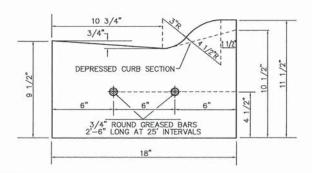
- HOT MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2"
- 2 POLYMERIZED LEVELING BINDER (MACHINE METHOD), N50, 3/4"
- 3 CLASS D PATCH, 10", AT LOCATIONS SHOWN ON PLANS OR DIRECTED BY ENGINEER
- PROPOSED CURB AND GUTTER, TYPE M (SPECIAL), TO BE INSTALLED AT 4 LOCATIONS SHOWN ON PLAN OR DIRECTED BY ENGINEER (IN KIND)
- PROPOSED PORTLAND CEMENT CONCRETE SIDEWALK 5"
- (REPLACEMENT AT LOCATIONS DIRECTED BY THE ENGINEER)
- TOPSOIL FURNISH AND PLACE, 6" AND SEEDING, CLASS 2A AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER
- INTERSEEDING, CLASS 2A AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER

#### HOT-MIX ASPHALT MIXTURE REQUIREMENTS

(CONTRACTOR SHALL MILL BEFORE PATCHING)

(Control of the belone through	
MIXTURE TYPE	AIR VOIDS @ Ndes
RESURFACING	· · · · · · · · · · · · · · · · · · ·
HOT-MIX ASPHALT SURFACE COURSE, N70, 1-1/2"	4% @ 70 Gyr.
POLYMERIZED LEVELING BINDER (MACHINE METHOD), N50, 3/4"	3.5% @ 50 Gyr.
PATCHING	
CLASS D PATCHES, (HMA BINDER IL-19.0mm): 10" (IN 3 LIFTS)	4% @ 70 Gyr.
DRIVEWAYS	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, (IL 9.5 MM), 2"	4% @ 50 Gyr.
HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL-19mm); PE-6"	4% @ 50 Gyr.

- 1. THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN. FOR "AC TYPE" AND "PERCENT RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.
- 2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.
- 3. CLASS D PATCHES, AT APPROXIMATE STATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.



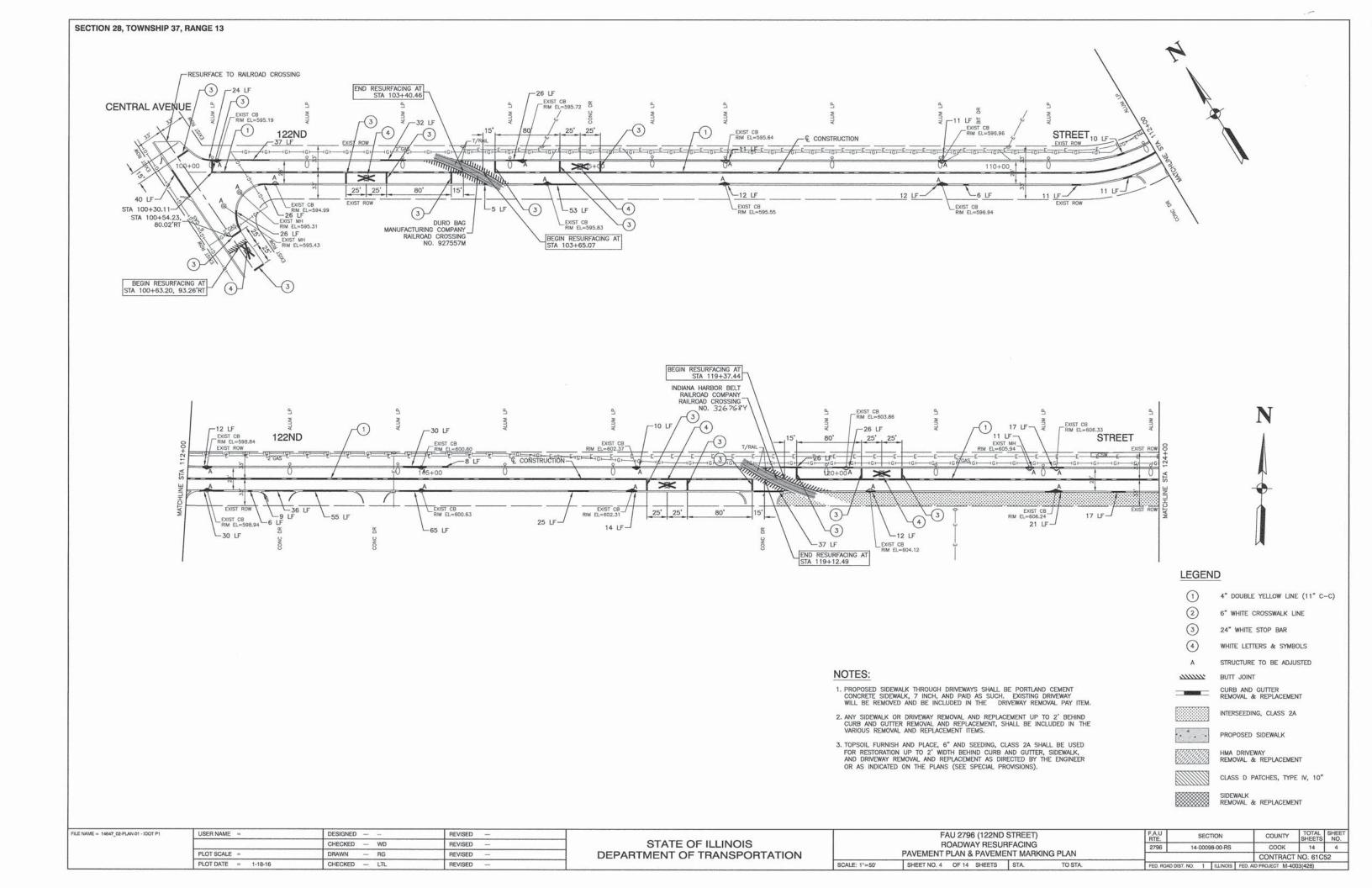
FORM SIZES TO BE USED 2"x10" IN FRONT AND 2"x12" IN BACK. ANY UNDERCUT BENEATH THE CURB SHALL BE BROUGHT UP TO GRADE WITH SAND OR STONE SCREENINGS, THE COST OF WHICH SHALL BE BORNE BY THE CONTRACTOR.

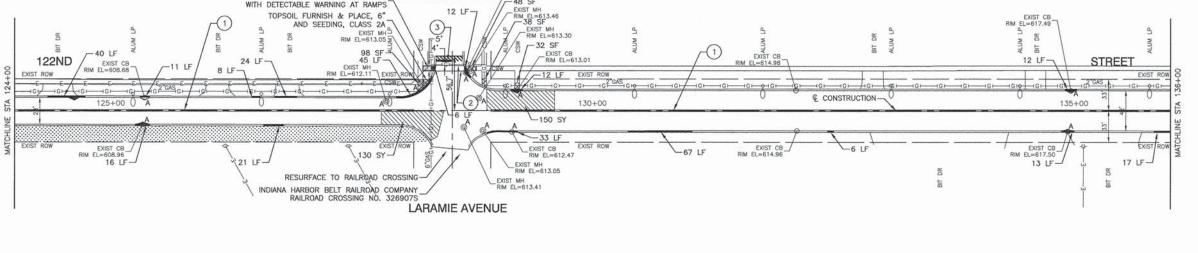
#### TYPE M CURB AND GUTTER DETAIL

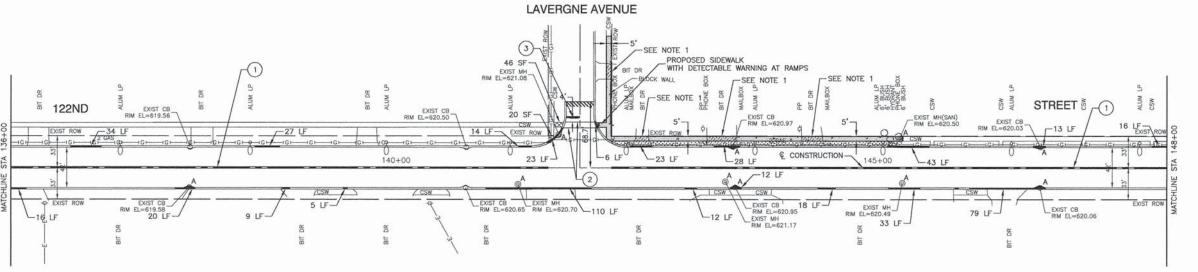
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		CHECKED — WD	REVISED —	
	PLOT SCALE =	DRAWN — RG	REVISED —	
Lyne Christo BY: Harrisdak DN 125/18 HUDE ING DY, RECORDS BERDAK DN 125/19	PLOT DATE = 1-18-16	CHECKED — LTL	REVISED —	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAU 2796 (122ND STREET)	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEET NO.	
ROADWAY RESURFACING	2796	14-00098-00-RS	COOK	14 3	
TYPICAL CROSS SECTIONS			CONTRACT	NO. 61C52	٦
SHEET NO. 3 OF 14 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-4003(428)				٦







SCALE: 1"=50"

- 1. PROPOSED SIDEWALK THROUGH DRIVEWAYS SHALL BE PORTLAND CEMENT CONCRETE SIDEWALK, 7 INCH, AND PAID AS SUCH. EXISTING DRIVEWAY WILL BE REMOVED AND BE INCLUDED IN THE DRIVEWAY REMOVAL PAY ITEM.
- ANY SIDEWALK OR DRIVEWAY REMOVAL AND REPLACEMENT UP TO 2' BEHIND CURB AND GUTTER REMOVAL AND REPLACEMENT, SHALL BE INCLUDED IN THE VARIOUS REMOVAL AND REPLACEMENT ITEMS.
- 3. TOPSOIL FURNISH AND PLACE, 6" AND SEEDING, CLASS 2A SHALL BE USED FOR RESTORATION UP TO 2' WIDTH BEHIND CURB AND GUTTER, SIDEWALK, AND DRIVEWAY REMOVAL AND REPLACEMENT AS DIRECTED BY THE ENGINEER OR AS INDICATED ON THE PLANS (SEE SPECIAL PROVISIONS).



## LEGEND

- 4" DOUBLE YELLOW LINE (11" C-C)
- 2 6" WHITE CROSSWALK LINE
- (3) 24" WHITE STOP BAR
- 4 WHITE LETTERS & SYMBOLS
- STRUCTURE TO BE ADJUSTED

'IIIII' BUTT JOINT

REMOVAL & REPLACEMENT

INTERSEEDING, CLASS 2A

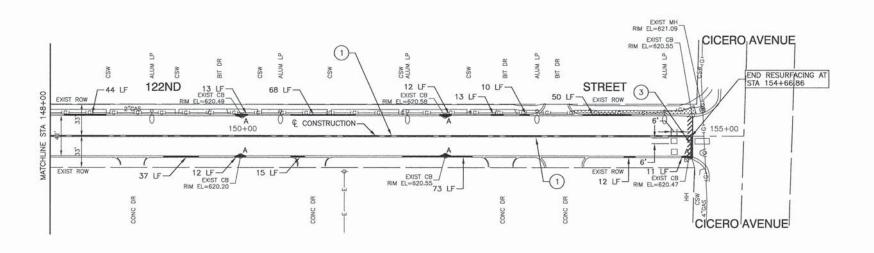
PROPOSED SIDEWALK

HMA DRIVEWAY REMOVAL & REPLACEMENT

CLASS D PATCHES, TYPE IV, 10" SIDEWALK REMOVAL & REPLACEMENT

FILE NAME = 14647_02-PLAN-01 - IDOT P2	USER NAME =	DESIGNED	REVISED —
		CHECKED — WD	REVISED —
	PLOT SCALE =	DRAWN — MED	REVISED —
	PLOT DATE = 1-18-16	CHECKED — AG	REVISED —





SCALE: 1"=50'

- PROPOSED SIDEWALK THROUGH DRIVEWAYS SHALL BE PORTLAND CEMENT CONCRETE SIDEWALK, 7 INCH, AND PAID AS SUCH. EXISTING DRIVEWAY WILL BE REMOVED AND BE INCLUDED IN THE DRIVEWAY REMOVAL PAY ITEM.
- ANY SIDEWALK OR DRIVEWAY REMOVAL AND REPLACEMENT UP TO 2' BEHIND CURB AND GUTTER REMOVAL AND REPLACEMENT, SHALL BE INCLUDED IN THE VARIOUS REMOVAL AND REPLACEMENT ITEMS.
- 3. TOPSOIL FURNISH AND PLACE, 6" AND SEEDING, CLASS 2A SHALL BE USED FOR RESTORATION UP TO 2' WIDTH BEHIND CURB AND GUTTER, SIDEWALK, AND DRIVEWAY REMOVAL AND REPLACEMENT AS DIRECTED BY THE ENGINEER OR AS INDICATED ON THE PLANS (SEE SPECIAL PROVISIONS).

## LEGEND

- 4" DOUBLE YELLOW LINE (11" C-C)
- 2 6" WHITE CROSSWALK LINE
- 3 24" WHITE STOP BAR
- 4 WHITE LETTERS & SYMBOLS
- STRUCTURE TO BE ADJUSTED

BUTT JOINT mm,

CURB AND GUTTER REMOVAL & REPLACEMENT

INTERSEEDING, CLASS 2A

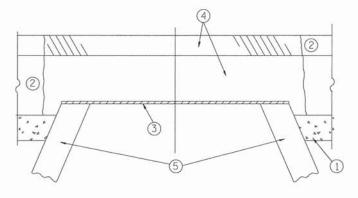
PROPOSED SIDEWALK

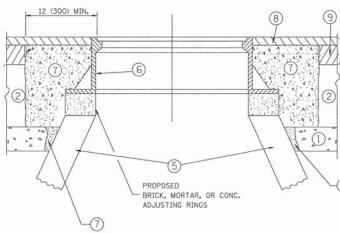
HMA DRIVEWAY REMOVAL & REPLACEMENT

CLASS D PATCHES, TYPE IV, 10"

SIDEWALK REMOVAL & REPLACEMENT

FILE NAME = 14647_02-PLAN-01 - IDOT P3	USER NAME =	DESIGNED	REVISED —
		CHECKED — WD	REVISED —
	PLOT SCALE =	DRAWN — MED	REVISED —
1	PLOT DATE = 1-18-16	CHECKED — AG	REVISED —





EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

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

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

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

#### CONSTRUCTION PROCEDURES

#### STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 11/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

#### STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1\*
  CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING
  BASE COURSE OR THE BINDER COURSE.
- \* UNLESS OTHERWISE SPECIFIED IN THE PLANS.

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

#### LEGEND

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

(5) EXISTING STRUCTURE

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

#### LOCATION OF STRUCTURES:

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

#### BASIS OF PAYMENT:

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

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

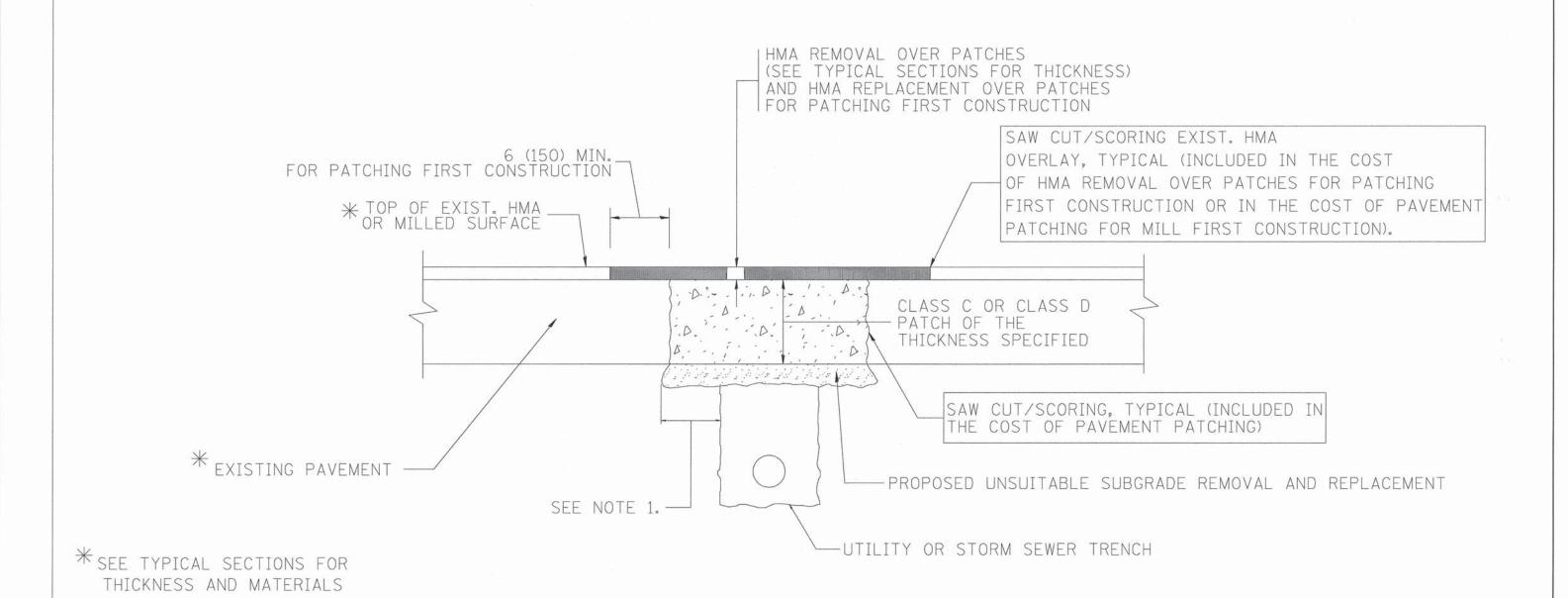
NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME = USER NAME = bauerdl DESIGNED - R. SHAH REVISED - R. WIEDEMAN 05-14-04
ct\pw\_work\pwidot\bauerdl\d0108315\bd08.dgn DRAWN - REVISED - R. BORO 01-01-07
PLOT SCALE = 1968.5800 '/ m CHECKED - REVISED - R. BORO 03-09-11
PLOT DATE = 12/6/2011 DATE - 10-25-94 REVISED - R. BORO 12-06-11

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



- 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)

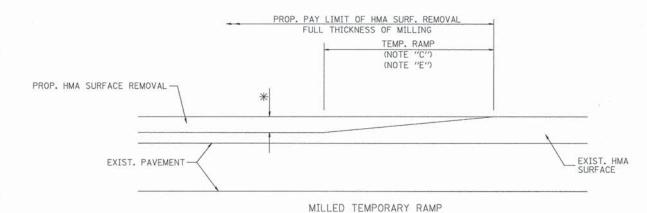
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

# 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.

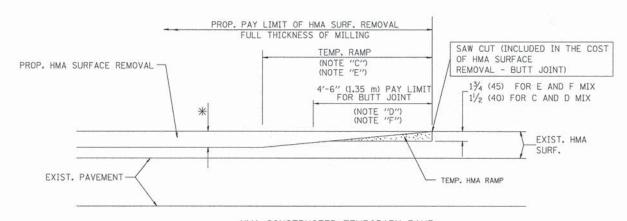
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

DESIGNED - R. SHAH FILE NAME = USER NAME = bauerdl REVISED - A. ABBAS 04-27-98 DISTRICT ONE COUNTY SHEETS NO. ngb.SSbd/kxSSbteteib/etoejorg/ STATE OF ILLINOIS PAVEMENT PATCHING FOR DRAWN REVISED - R. BORO 01-01-07 14-00098-00-RS COOK 14 8 DEPARTMENT OF TRANSPORTATION HMA SURFACED PAVEMENT PLOT SCALE = 50.000 '/ IN. CHECKED -REVISED - R. BORO 09-04-07 BD400-04 (BD-22) CONTRACT NO. 61C52 PLOT DATE = 10/27/2008 SHEET NO. 8 OF 14 SHEETS STA. DATE FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-4003(428



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

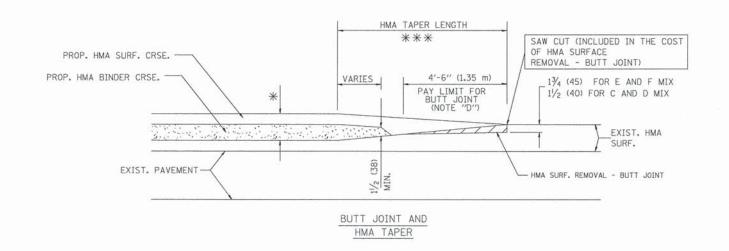
## OPTION 1



HMA CONSTRUCTED TEMPORARY RAMP (FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

# OPTION 2

## TYPICAL TEMPORARY RAMP

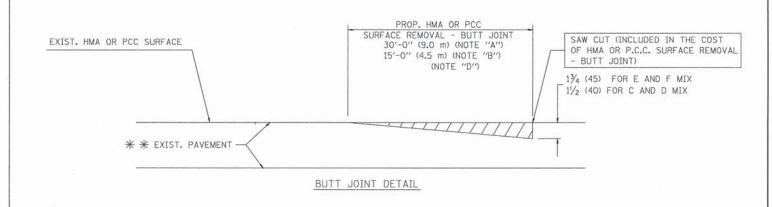


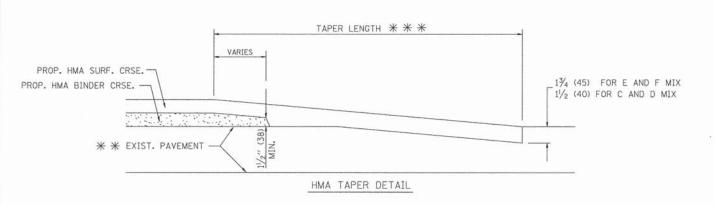
# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

USER NAME = gaglianobt FILE NAME = DESIGNED - M. DE YONG W:\dietatd\22x34\bd32.dgn DRAWN REVISED - A. ABBAS 03-21-97 PLOT SCALE = 50.0000 ' / IN. CHECKED -REVISED - M. GOMEZ 04-06-01 DATE 06-13-90 REVISED - R. BORO 01-01-07

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TOTAL SHEE NO. DISTRICT ONE SECTION COUNTY BUTT JOINT AND 14-00098-00-RS соок 2796 14 9 HMA TAPER DETAILS BD400-05 BD32 CONTRACT NO. 61C52 SHEET NO. 9 OF 14 SHEETS STA. TO STA.





# TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

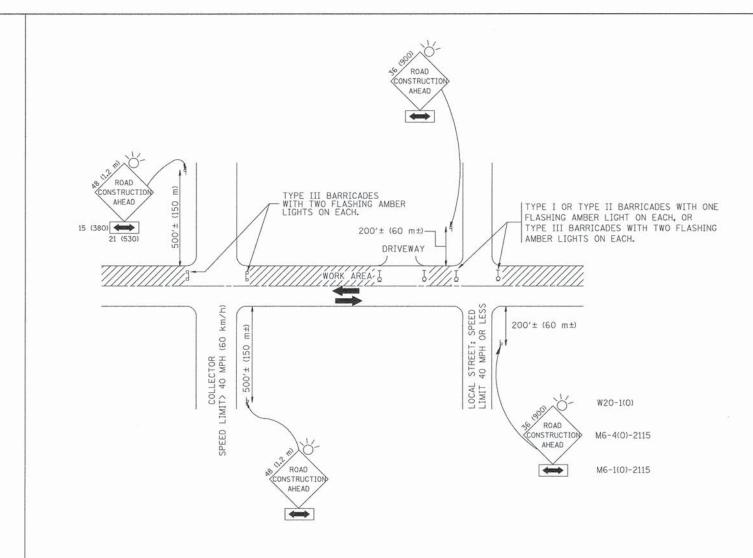
- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (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.
- \* \* \* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A") 10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

## BASIS OF PAYMENT:

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

SCALE: NONE

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



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:
- O) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 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 ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

SCALE: NONE

 WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (MG-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (MG-4).

#### B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

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

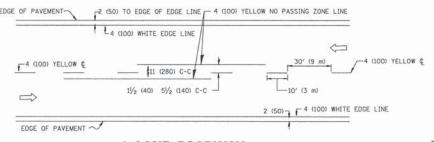
All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME = USER NAME = gaglianobt DESIGNED - LHA REVISED - J. OBERLE 10-18-95
Wi\distatd\22x34\to18.dgn - DRAWN - REVISED - A. HOUSEH 03-06-96
PLOT SCALE = 58.888 '/ IN. CHECKED - REVISED - A. HOUSEH 10-15-96
PLOT DATE = 1/4/2888 DATE - 06-89 REVISED - T. RAMMACHER 01-06-00

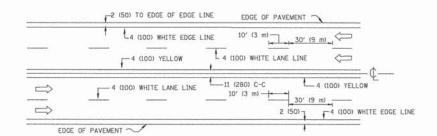
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

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

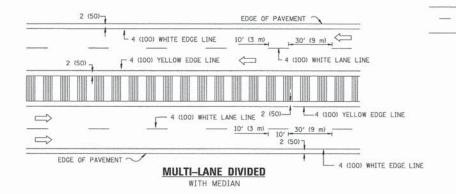
SHEET NO. 10 OF 14 SHEETS STA.



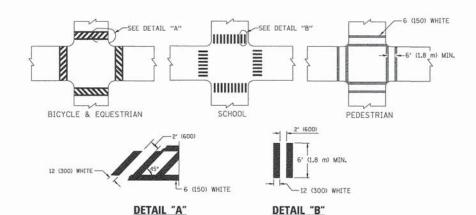
## 2-LANE ROADWAY



# MULTI-LANE UNDIVIDED



## TYPICAL LANE AND EDGE LINE MARKING



# TYPICAL CROSSWALK MARKING

DESIGNED -

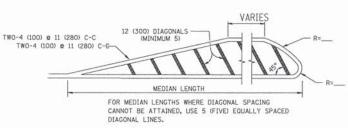
\* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES

PLOT SCALE = 50.000 ' / in-

FILE NAME =

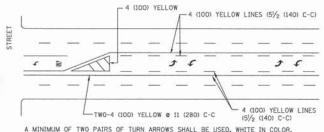
### 4' (1.2 m) OUTSIDE TO NO DIAGONALS OUTSIDE OF LINES -TWO-4 (100) YELLOW @ 11 (280) C-C

# 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))

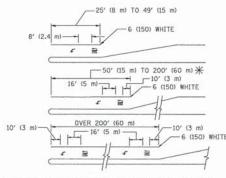
#### MEDIANS OVER 4' (1.2 m) WIDE





#### MEDIAN WITH TWO-WAY LEFT TURN LANE

#### TYPICAL PAINTED MEDIAN MARKING

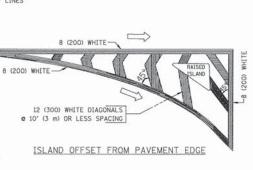


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\uparrow$  AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup> ) **(NLY** AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

\* 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".

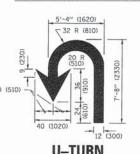
#### TYPICAL LEFT (OR RIGHT) TURN LANE

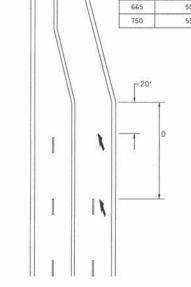
# TYPICAL TURN LANE MARKING





# COMBINATION LEFT AND U-TURN





D(FT)

345

425

500

580

SPEED LIMIT

30

35

40

45

# LANE REDUCTION TRANSITION

\* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

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 UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 <b>9</b> 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-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 MEDIANS IN YELLOW
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 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE 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 5' (500) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO GROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO GROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 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 MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (0VER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8′)	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) T0 45MPH (70 km/h)) 150' (45 m) C-C (0VER 45MPH (70 km/h))
J TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

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

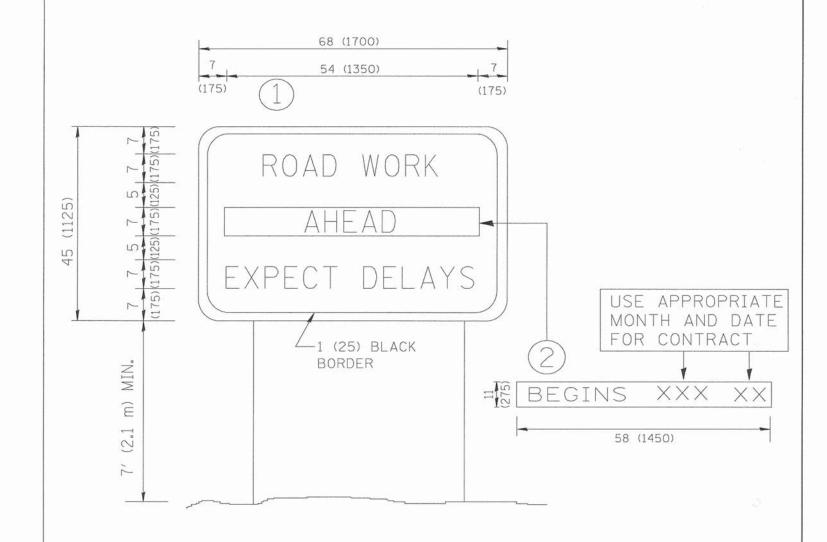
SCALE: NONE

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

EVERS REVISED -T. RAMMACHER 10-27-94 REVISED -C. JUCIUS 09-09-09 CHECKED -REVISED -C. JUCIUS 07-01-13

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE	F.A.U RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
TYPICAL PAVEMENT MARKINGS	2796	2796 14-00098-00-RS		14	11
		TC-13	CONTRACT	NO. 61C	52
SHEET NO 11 OF 14 SHEETS STA	TO STA	ADDIET NO. 4 THUNDIS LEED	ND DDO IECT M 400	22(420)	



- 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.

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97
W:\diststd\22x34\to22.dgn		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2009	DATE	DEVICED - C HICTHS 01-31-07

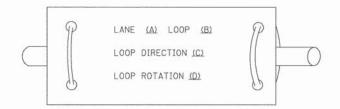
STATE OF ILLINOIS						
DEPARTMENT OF TRANSPORTATION						

DISTRICT ONE ARTERIAL ROAD INFORMATION SIGN			F.A.U RTE.	F.A.U RTE. SECTI			COUNTY	TOTAL	5	
			2796	2796 14-00098-00-RS			COOK	14	Г	
			TC-22 CON				CONTRACT	ONTRACT NO. 61C52		
	SHEET NO. 12 OF 14 SHEETS	STA.	TO STA.	FED. ROAD D	FED. ROAD DIST. NO. 1 ILLINOIS FED. A				03(428)	_

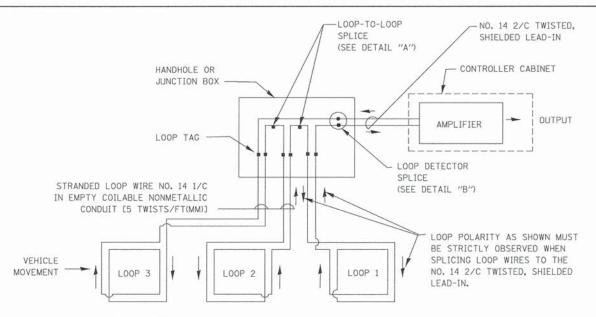
#### LOOP DETECTOR NOTES

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

#### LOOP LEAD-IN CABLE TAG

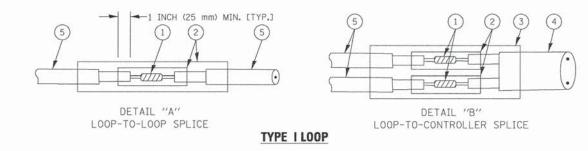


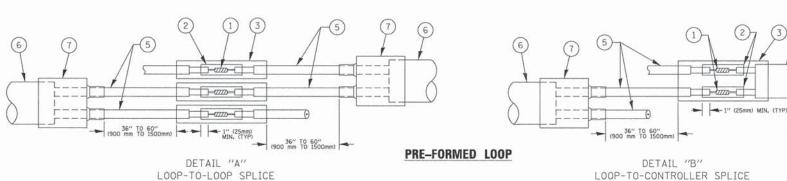
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



#### **DETECTOR LOOP WIRING SCHEMATIC**

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





#### LOOP DETECTOR SPLICE

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

SCALE: NONE

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

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

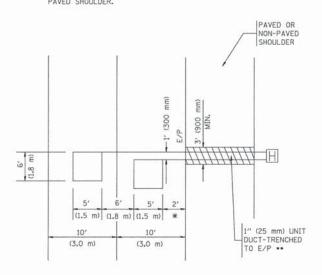
FILE NAME =	USER NAME = footemj	DESIGNED -	DAD	REVISED - DAG 1-1-14
c:\pw_work\pwidot\footemj\dØ1Ø8315\tsØ5.	lgn	DRAWN -	BCK	REVISED ~
	PLOT SCALE = 50.0000 ' / in.	CHECKED -	DAD	REVISED -
L.	PLOT DATE = 1/13/2014	DATE -	10-28-09	REVISED -

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS		F.A.U RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.	
		2796	14-0009	98-00-RS		COOK	14	13
		TS-05B CONTRACT NO. 61C52						52
1	SHEET NO. 13 OF 14 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-4003(428)					

### LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER.



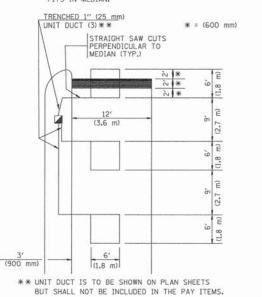
\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS
BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

\* = (600 mm)

# 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
EITS IN MEDIAN

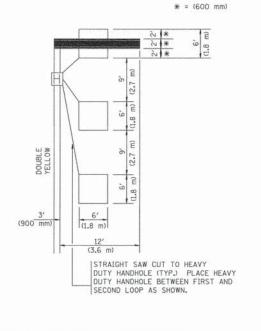


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

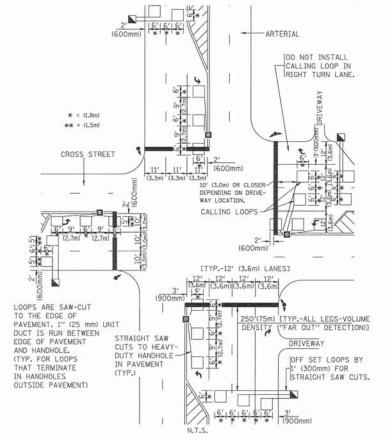


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

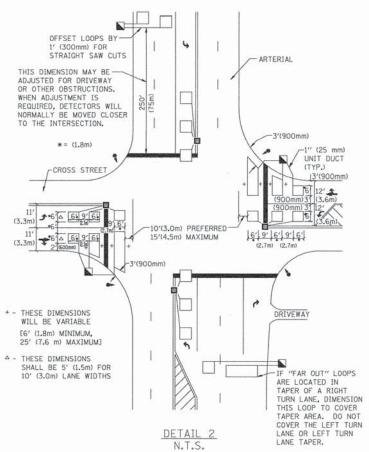
SCALE: NONE

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

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



DETAIL 1



NOTES:

VEHICLES LOOP DETECTORS

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

#### PLACEMENT OF DETECTORS

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

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

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

#### NOTE:

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

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

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
DETECTOR LOOP INSTALLATION	2796	14-00098-00-RS	COOK	14	14	
DETAILS FOR ROADWAY RESURFACING	TS-07 CONTRACT NO. 61C52					
SHEET NO. 14 OF 14 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-4003(428)					