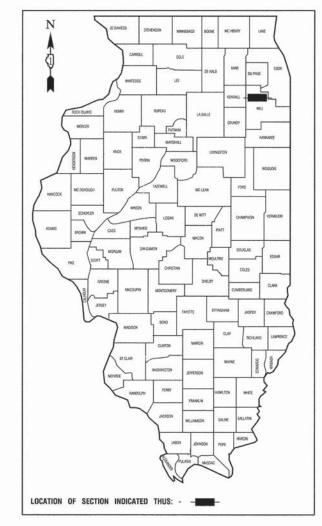
# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

# PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FAU 345 (BELMONT DRIVE)
135TH STREET TO IL ROUTE 53
ROADWAY RESURFACING
SECTION NO.: 15-00061-00-RS
PROJECT NO.: M-4003 (485)
VILLAGE of ROMEOVILLE
WILL COUNTY
JOB NO.: C-91-218-15

CONTRACT #61B64





PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PREPARED BY OR UNDER THE

The Rivery 24, 2015



#### INDEX OF SHEETS

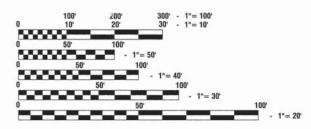
- . COVER SHEET, INDEX OF SHEETS & STATE STANDARDS
- 2. SUMMARY OF QUANTITIES & GENERAL NOTES
- 3. TYPICAL SECTIONS
- 4.-7. PAVEMENT PLAN
- 8.-11. PAVEMENT MARKING PLAN
- 12.-21. IDOT DISTRICT 1 STANDARD DETAILS

#### HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
424001-08	PERPENDICULAR CURB RAMPS
442201-03	CLASS C AND D PATCHES
606001-06	CONCRETE CURB TYPE B AND COMBINATION
	CONCRETE CURB AND GUTTER
701301-04	LANE CLOSURE, 2L,2W, SHORT TIME OPERATION
701311-03	LANE CLOSURE, 2L,2W, MOVING OPERATIONS-DAY ONL
701501-06	URBAN LANE CLOSURE, 2L,2W, UNDIVIDED
701701-09	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-05	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-04	TRAFFIC CONTROL DEVICES

	BELMONT DRIVE
2014 ADT — 2040 ADT —	2,000 VPD 3,000 VPD
POSTED SPEED LIMIT -	25 mph
DESIGN PERIOD — DESIGN SPEED LIMIT — STREET CLASSIFICATION —	20 YEARS 30 mph MAJOR COLLECTOR





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. 61B64

	RANGE F	R 10 E	3RD P.M.	
		BELMONT	N A STATE OF THE S	
TOWNSHIP T 37 N	BEGIN IMPROVEMENTS BELMONT DRIVE STA 10+19.66	STREET	END IMPROVEME BELMONT DRIVE STA 83+86.00	NTS
	DUPAGE TOWNSHIP LOCATIO	N MAP		

GROSS LENGTH= 7,366 FEET= 1.40 MILES NET LENGTH= 7,366 FEET= 1.40 MILES

EDERAL AID DESIGN ENGINEER: FAWARS PROBINSON FINCINFERING 1TD 708-331-6

	SUMMARY OF QUANTITIES CONSTRUCTION TYPE CODE					
S.I.	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWA'	
1	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	230	230	
	40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	12970	12970	
	40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	10	10	
	40600827	POLYMERIZED LEVELING BINDER (MACHINE METHOD) - IL-4.5, N50	TON	1250	1250	
	40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	3320	3320	
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	500	500	
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	2800	2800	
	42400800	DETECTABLE WARNINGS	SQ FT	900	900	
	44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	28820	28820	
	44000600	SIDEWALK REMOVAL	SQ FT	2760	2760	
	44201725	CLASS D PATCHES, TYPE I, 7 INCH	SQ YD	15	15	
	44201729	CLASS D PATCHES, TYPE II, 7 INCH	SQ YD	10	10	
	44201733	CLASS D PATCHES, TYPE III, 7 INCH	SQ YD	20	20	
	44201735	CLASS D PATCHES, TYPE IV. 7 INCH	SQ YD	25	25	
	60266600	VALVE BOXES TO BE ADJUSTED	EACH	2	2	
	67100100	MOBILIZATION	LSUM	1	1	
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	LSUM	1	1	
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	1	1	
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1	1	
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	580		
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	200		
k	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	70		
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	380		

		SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE
S.I.	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	3750	3750
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	310	310
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	500	500
*	88600600	DETECTOR LOOP REPLACEMENT	FOOT	190	190
*	X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	70	70
	XX006343	SEEDING (COMPLETE)	SQ YD	230	230
2	Z0018400	DRAINAGE STRUCTURES TO BE ADJUSTED	EACH	90	90
	<b>Z0</b> 004562	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	1280	1280

\* - INDICATES SPECIALTY ITEMS

SCALE: NONE

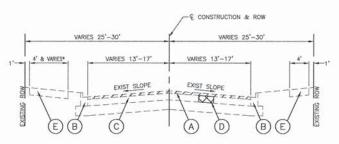
#### **GENERAL NOTES**

- THE ROBINSON ENGINEERING, LTD. FIELD OFFICE (708-331-6700) AND ERIC BJORK AT THE VILLAGE OF ROMEOVILLE (815-886-1870) SHALL BE NOTIFIED TWO (2) WORKING DAYS BEFORE CONSTRUCTION BEGINS.
- 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)
- 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 (COMPLETE).

#### \* - INDICATES SPECIALTY ITEMS

FILE NAME = 14610-QUAN-01 - IDOT P01	USER NAME =	DESIGNED — LR	REVISED —
1		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — RG	REVISED —
THE REAL PROPERTY OF BUILDING	DIOT DATE - 02 10 15	CHECKED VC	DEMOSE

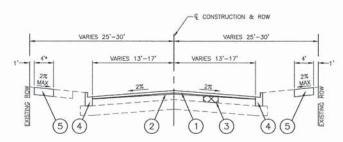
Vie	BELMONT D			F.A.U. RTE.
	ROADWAY RESULT SUMMARY OF QUANTITIES	A STATE OF THE PARTY OF THE PAR	AL NOTES	345
7.0	SHEET NO 2 OF 21 SHEETS	STA	TO STA	



#### **EXISTING TYPICAL SECTION**

BELMONT DRIVE STA 10+19.66 TO STA 83+68.63

\*EXISTING SIDEWALK IS 12' WIDE, STA 10+20 TO STA 15+40 ON LEFT SIDE. BUT ONLY A PORTION WILL BE REPLACED, AS SHOWN ON THE PLANS.



#### PROPOSED TYPICAL SECTION

BELMONT DRIVE STA 10+19.66 TO STA 83+68.63

#### HOT-MIX ASPHALT MIXTURE REQUIREMENTS

(CONTRACTOR SHALL MILL BEFORE PATCHING)	
MIXTURE TYPE	AIR VOIDS @ Ndes
RESURFACING	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 2" (IL 9.5 MM)	4% @ 50 Gyr.
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"	3.5% @ 50 Gyr.
PATCHING	
CLASS D PATCHES, TYPE I, II, III, IV, (HMA BINDER IL-19.0mm): 7" (IN 3 LIFTS)	4% @ 70 Gyr.

#### **EXISTING LEGEND**

- (A) HOT MIX ASPHALT SURFACE REMOVAL, 2 1/2"
- EXISTING CURB & GUTTER TO BE REMOVED AT LOCATIONS SHOWN B
- ON PLANS OR DIRECTED BY ENGINEER
- (C) EXISTING HOT-MIX ASPHALT PAVEMENT (VARIES 4" TO 5 1/2")
- (D) PAVEMENT REMOVAL FOR CLASS D PATCHES
- EXISTING PCC SIDEWALK TO BE REMOVED AT LOCATIONS SHOWN ON PLANS OR DIRECTED BY ENGINEER

#### PROPOSED LEGEND

- HOT MIX ASPHALT SURFACE COURSE, MIX "D", N50, 2"
- POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- (3) CLASS D PATCH, 7" AT LOCATIONS SHOWN ON PLANS OR DIRECTED BY ENGINEER
- PROPOSED CURB AND GUTTER TO BE INSTALLED AT LOCATIONS SHOWN ON PLAN 4 OR DIRECTED BY ENGINEER (IN KIND)
- PROPOSED PORTLAND CEMENT CONCRETE SIDEWALK 5" (REPLACEMENT AT LOCATIONS DIRECTED BY THE ENGINEER)

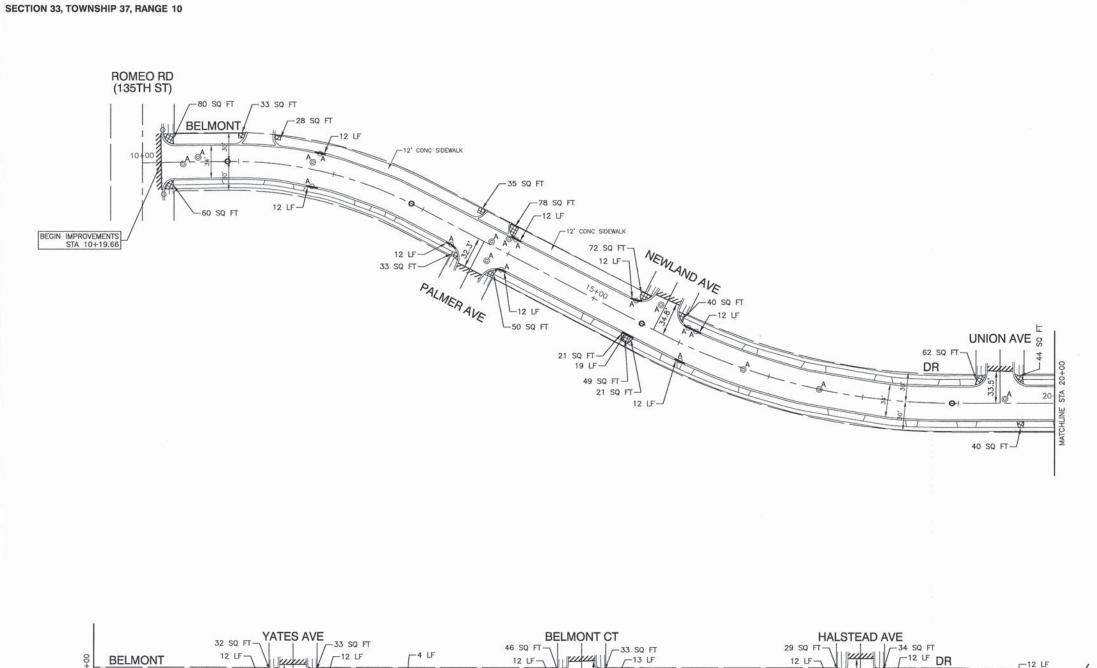
- THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN. FOR "AC TYPE" AND "PERCENT RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.
- 2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

NOTE: CLASS D PATCHES, TYPE I, II, III & IV AT APPROXIMATE STATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

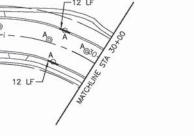
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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

	BELMONT DR			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	ROADWAY RESUR			345	15-00061-00-RS	WILL	21	3
	TYPICAL SECTI	ONS				CONTRACT	NO. 61B	64
SCALE: NONE	SHEET NO. 3 OF 21 SHEETS	STA.	TO STA.	FED. ROAD D	ST. NO. 1 ILLINOIS FED.	AID PROJECT M-40	03 (485)	300







8888)

HMA PAVEMENT REPAIR

CONCRETE SIDEWALK REMOVAL AND REPLACEMENT

BUTT JOIN

CURB REMOVAL AND REPLACEMENT

"A" STRUCTURE TO BE ADJUSTED

DETECTOR LOOP TO BE REPLACED

FILE NAME = 14610-PLAN-01 - IDOT P01	USER NAME =	DESIGNED — LR	REVISED —	
		CHECKED — PKB	REVISED —	
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7 SQ YDS-

L-12 LF

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

12 LF

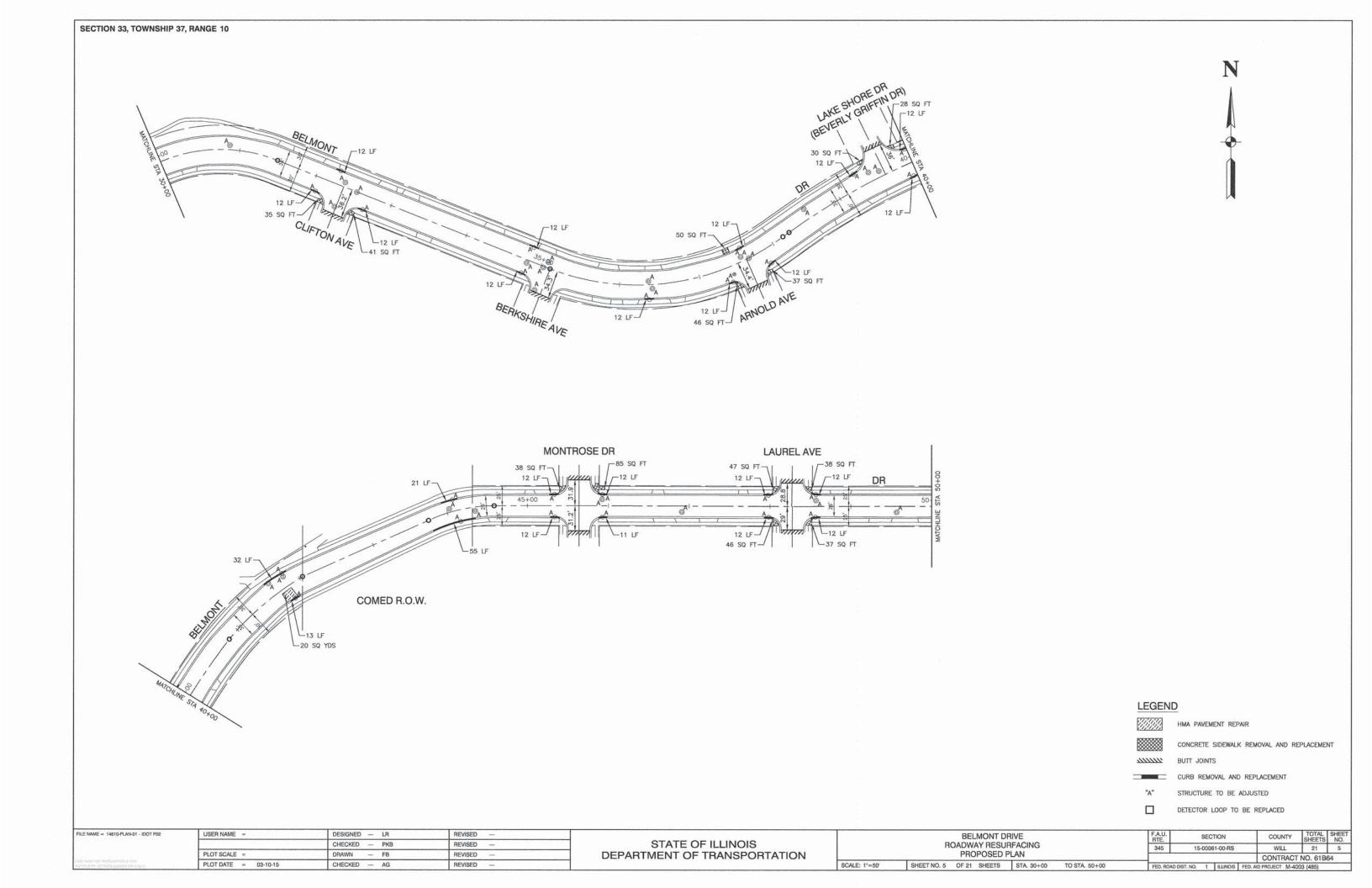
─34 SQ FT

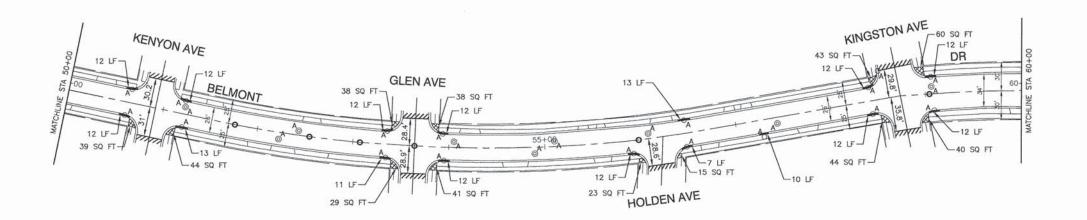
12 LF-

	R	OADW	MONT DI AY RESU POSED F	RFACING	
_	SHEET NO. 4	OF 21	SHEETS	STA. 10+19.66	TO STA. 30+00

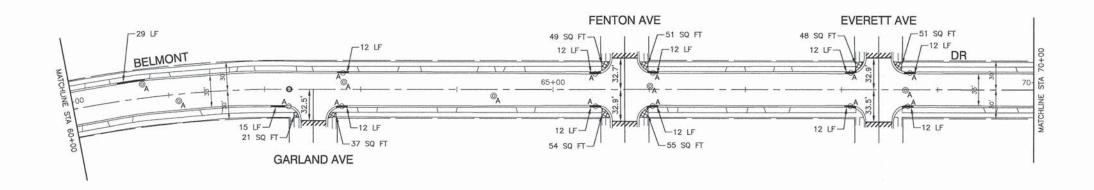
SCALE: 1"=50"

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			CONTRACT NO. 61B64					
FED 0010 0	100 110	11111000	etition 4		200 (100)			









HMA PAVEMENT REPAIR

TO STA. 70+00

CONCRETE SIDEWALK REMOVAL AND REPLACEMENT

WILL 21 6

CONTRACT NO. 61B64

BUTT JOIN

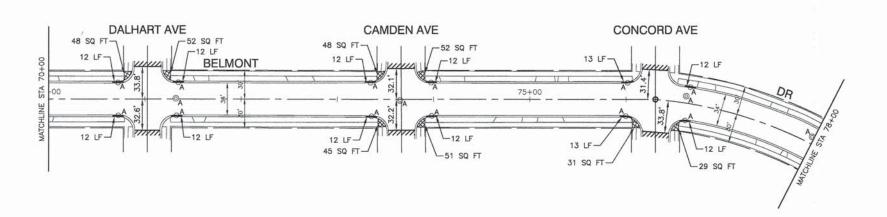
CURB REMOVAL AND REPLACEMENT

"A" STRUCTURE TO BE ADJUSTED

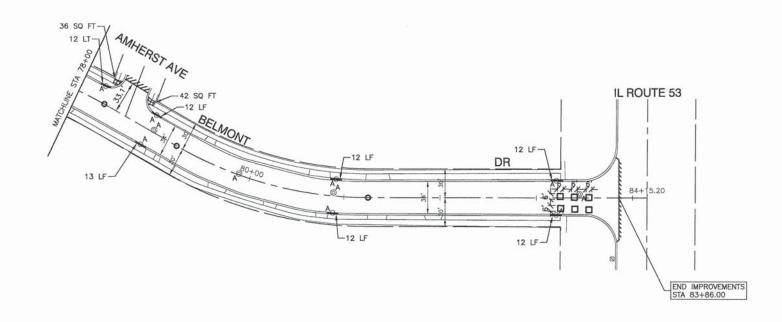
DETECTOR LOOP TO BE REPLACED

15-00061-00-RS

FILE NAME = 14810-PLAN-01 - IDOT P03  List? Aveal en mathicus on Arris II NOTERIAS Michell policies de Arris II	USER NAME = DESIGNED — LR REVISED —				BELMONT DRIVE				
		CHECKED — PKB	REVISED —	STATE OF ILLINOIS		R	OADWAY RESU		
	PLOT SCALE = 1"=50"	DRAWN FB	REVISED —	DEPARTMENT OF TRANSPORTATION			PROPOSED	PLAN	
	PLOT DATE = 03-10-15	CHECKED — AG	REVISED —		SCALE: 1"=50"	SHEET NO. 6	OF 21 SHEETS	STA. 50+00	







888

HMA PAVEMENT REPAIR

CONCRETE SIDEWALK REMOVAL AND REPLACEMENT

BUTT JOINTS

CURB REMOVAL AND REPLACEMENT

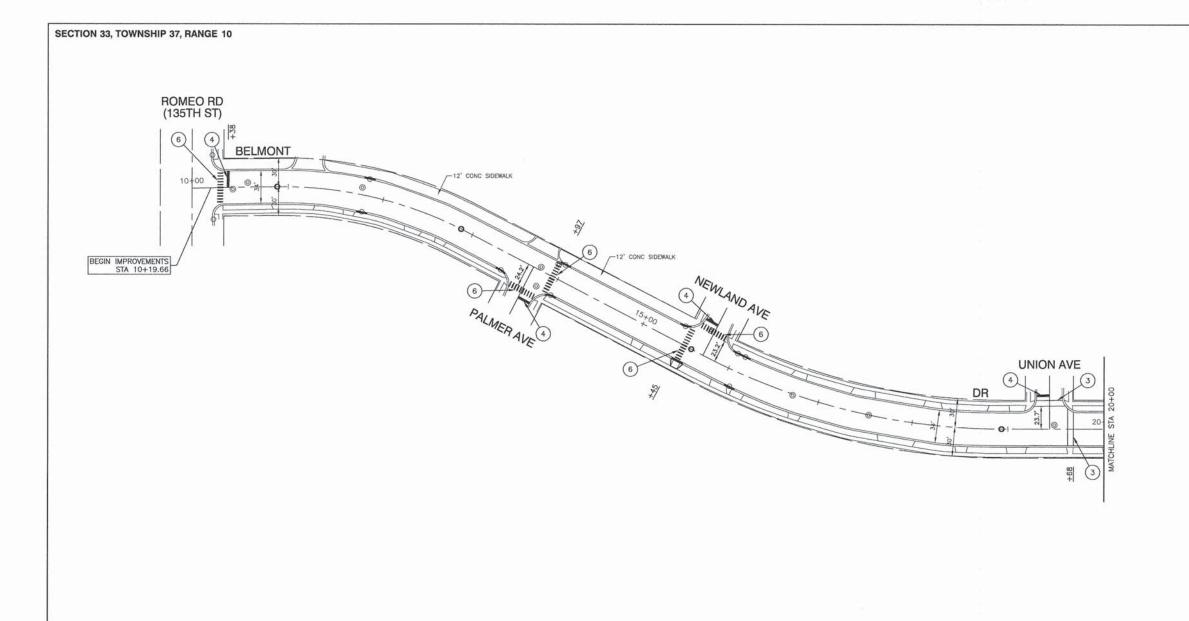
A" STRUCTURE TO BE ADJUSTED

DETECTOR LOOP TO BE REPLACED

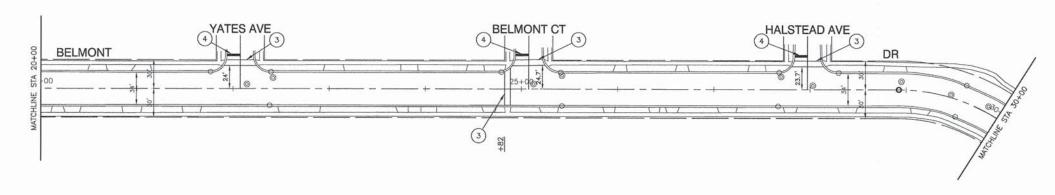
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LEST SANSTERN PROMOTOR DESIRE FLOTTER BY WITH STANSFER DESIRED DESIRED	PLOT DATE = 03-10-15	CHECKED — AG	REVISED —	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.U. RTE.		BELMONT DRIVE					
345		ROADWAY RESURFACING PROPOSED PLAN					
FED. ROAD	TO STA. 83+86	STA, 70+00	SHEETS	OF 21	SHEET NO. 7		







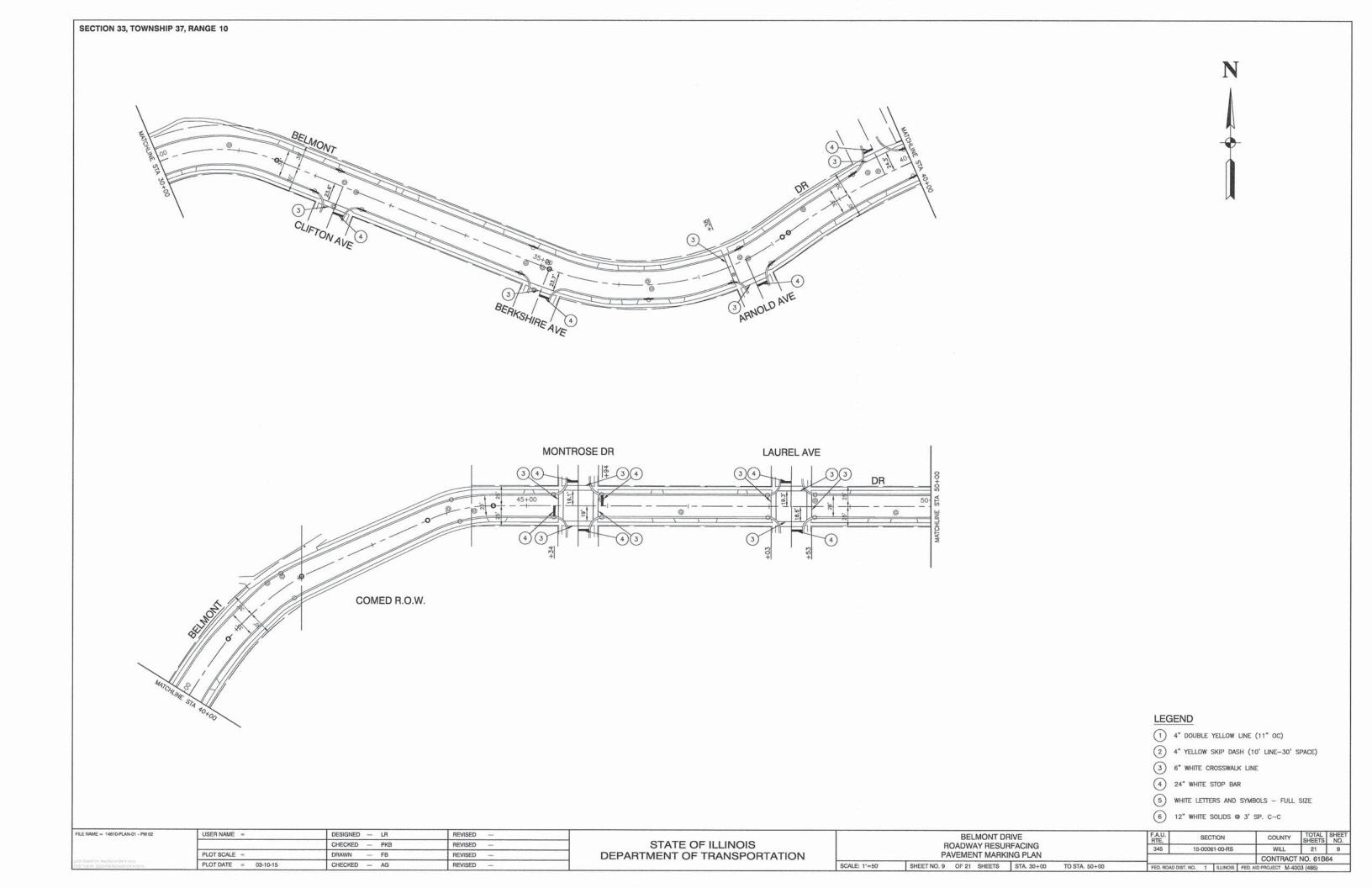
- 1) 4" DOUBLE YELLOW LINE (11" OC)
- 2 4" YELLOW SKIP DASH (10' LINE-30' SPACE)
- (3) 6" WHITE CROSSWALK LINE
- 4) 24" WHITE STOP BAR
- 5 WHITE LETTERS AND SYMBOLS FULL SIZE
- (6) 12" WHITE SOLIDS @ 3' SP. C-C

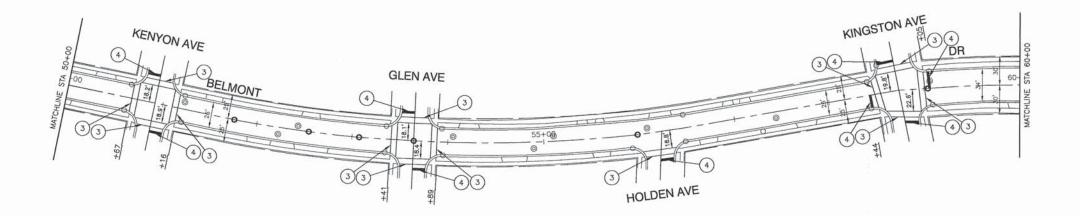
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

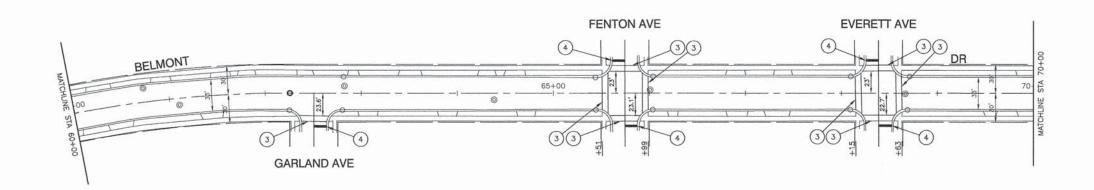
SCALE: 1"=50"

BELMONT DRIVE		F.A.U. RTE. SECTION		TOTAL SHEETS	SHEET NO.
ROADWAY RESURFACING	345	15-00061-00-RS	WILL	21	8
PAVEMENT MARKING PLAN			CONTRACT	NO. 61B	64
EET NO. 8 OF 21 SHEETS STA. 10+19.66 TO STA. 30+00				-	-







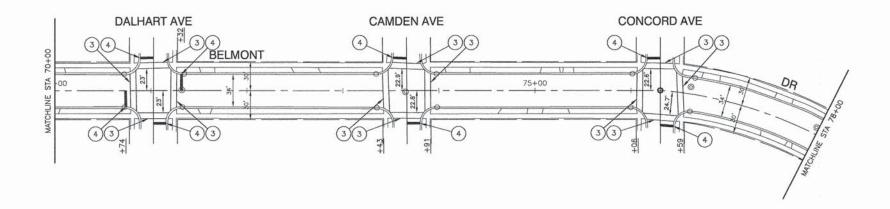


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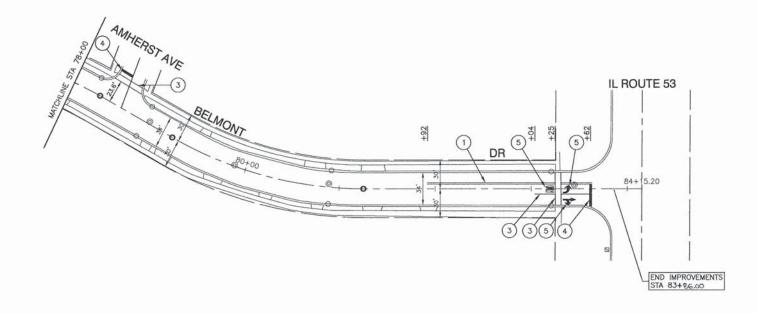
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	PLOT SCALE =	DRAWN — FB	REVISED —	DEPARTMENT OF TRANSPORT
SUBSTRUCTOR PROPERTY OF THE TELL SECTION OF THE SEC	PLOT DATE = 03-10-15	CHECKED — AG	REVISED	

STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

	BELMONT DI	11. 5 75 a. m. m. m. a.		F.A.U. RTE.	SECTION	COUNTY	TOTAL	SHI
	ROADWAY RESURFACING PAVEMENT MARKING PLAN			345	15-00061-00-RS	WILL	21	1
						CONTRACT	NO. 61B6	34
	CHEET NO 10 OF 21 CHEETO	STA FOLOD	TO STA 70+00		ion via di Turnique I con		00 (100)	_

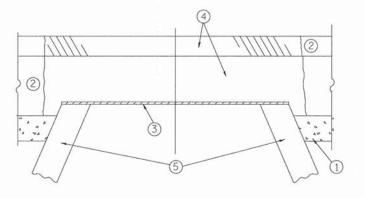


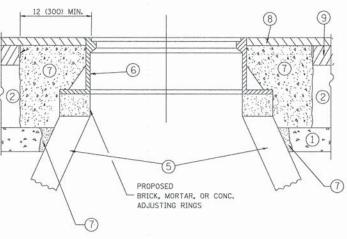




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- 4 24" WHITE STOP BAR
- 5) WHITE LETTERS AND SYMBOLS FULL SIZE
- 6 12" WHITE SOLIDS @ 3' SP. C-C

FILE NAME = 14610-PLAN-01 - PM 04	USER NAME =	DESIGNED - LR	REVISED —			BELMONT DRIVE		F.A.U.	SECTION	COUNTY	TOTAL	SHEET
		CHECKED — PKB	REVISED —	STATE OF ILLINOIS	BELMONT DRIVE   F.A.U.   SECTION   COUNTY   TO SH.	15-00061-00-RS	235711/1	21	11			
	PLOT SCALE =	DRAWN — FB	REVISED —	DEPARTMENT OF TRANSPORTATION		T NO. 61E	364					
LAST SAVED EN HEIGHEICH CONTRE DA	PLOT DATE = 03-10-15	CHECKED — AG	REVISED —		SCALE: 1"=50"	SHEET NO. 11 OF 21 SHEETS STA. 70+00 TO STA.	. 83+86	FED BOAD D	ST NO. 1 ILLINOIS FED.	AID PROJECT M-40	003 (485)	





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.

SCALE: NONE

#### 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
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1/2 (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

#### LEGEND

- 1 SUB-BASE GRANULAR MATERIAL
- (6) FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT
- (7) CLASS PP-1\* CONCRETE
- (3) 36 (900) DIAMETER METAL PLATE
- (8) PROPOSED HMA SURFACE COURSE
- PROPOSED CRUSHED STONE AND HMA SURFACE MIX (5) EXISTING STRUCTURE
- 9 PROPOSED HMA BINDER COURSE

#### LOCATION OF STRUCTURES:

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

#### BASIS OF PAYMENT:

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

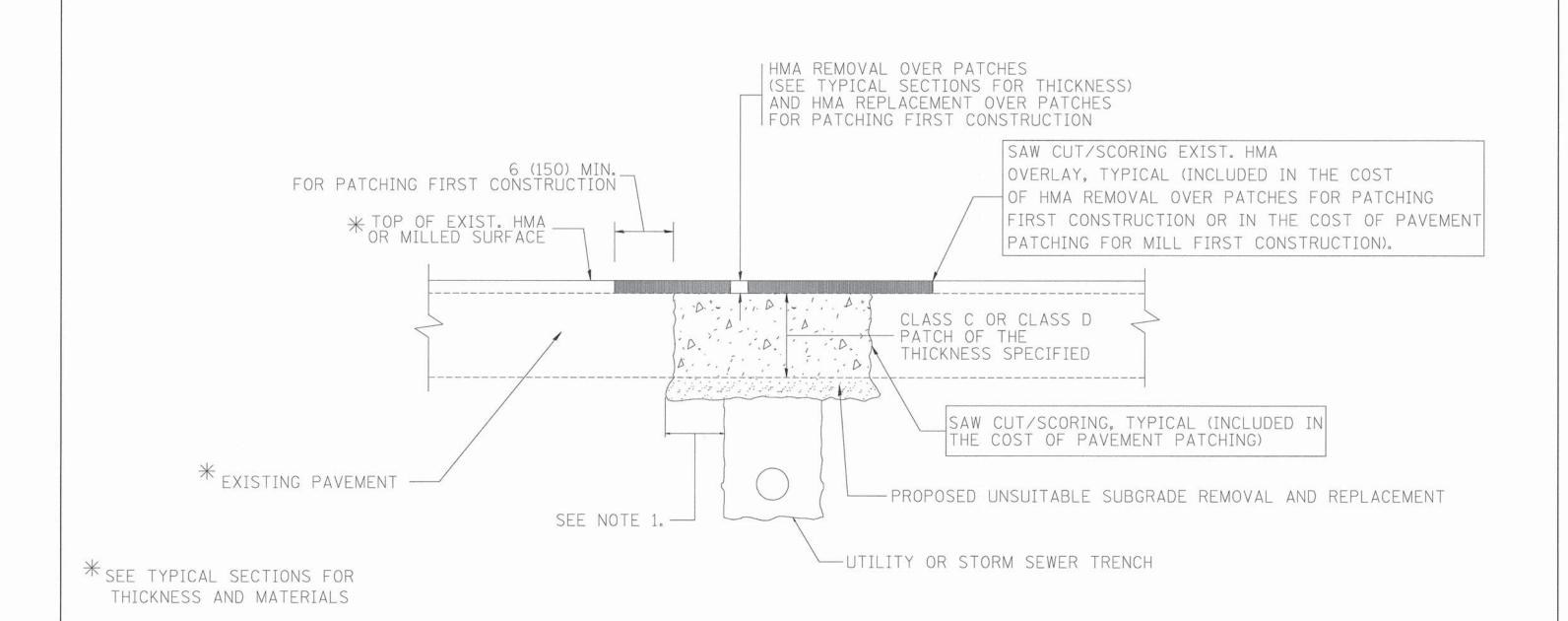
TOTAL SHEE SHEETS NO.

21 12

FILE NAME = DESIGNED - R. SHAH REVISED - R. WIEDEMAN 05-14-04 c:\pw\_work\pwidot\bouerdl\dØ108315\bdØ8.dgr DRAWN REVISED - R. BORO 01-01-07 PLOT SCALE = 1968.5000 '/ m CHECKED REVISED - R. BORO 03-09-11 REVISED - R. BORO 12-06-11 DATE 10-25-94

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

D	ETAILS FO	R			F.A.U. RTE.	SEC	TION		COUNTY	TOTAL	SHE
FRAMES AND LIDS	AD HICTM	ENIT MIT	u MILLING	- [	345	15-0006	1-00-RS		WILL	21	12
THAINES AND LIDS	ADJUSTIN	ICIAI AAII	n Milling			BD600-03 (	BD-8)		CONTRACT	NO. 61B	64
SHEET NO. 12 OF 21	SHEETS	STA.	TO STA.		FED. ROA	AD DIST. NO. 1	ILLINOIS	FED. A	D PROJECT M-40	03 (485)	



#### 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)

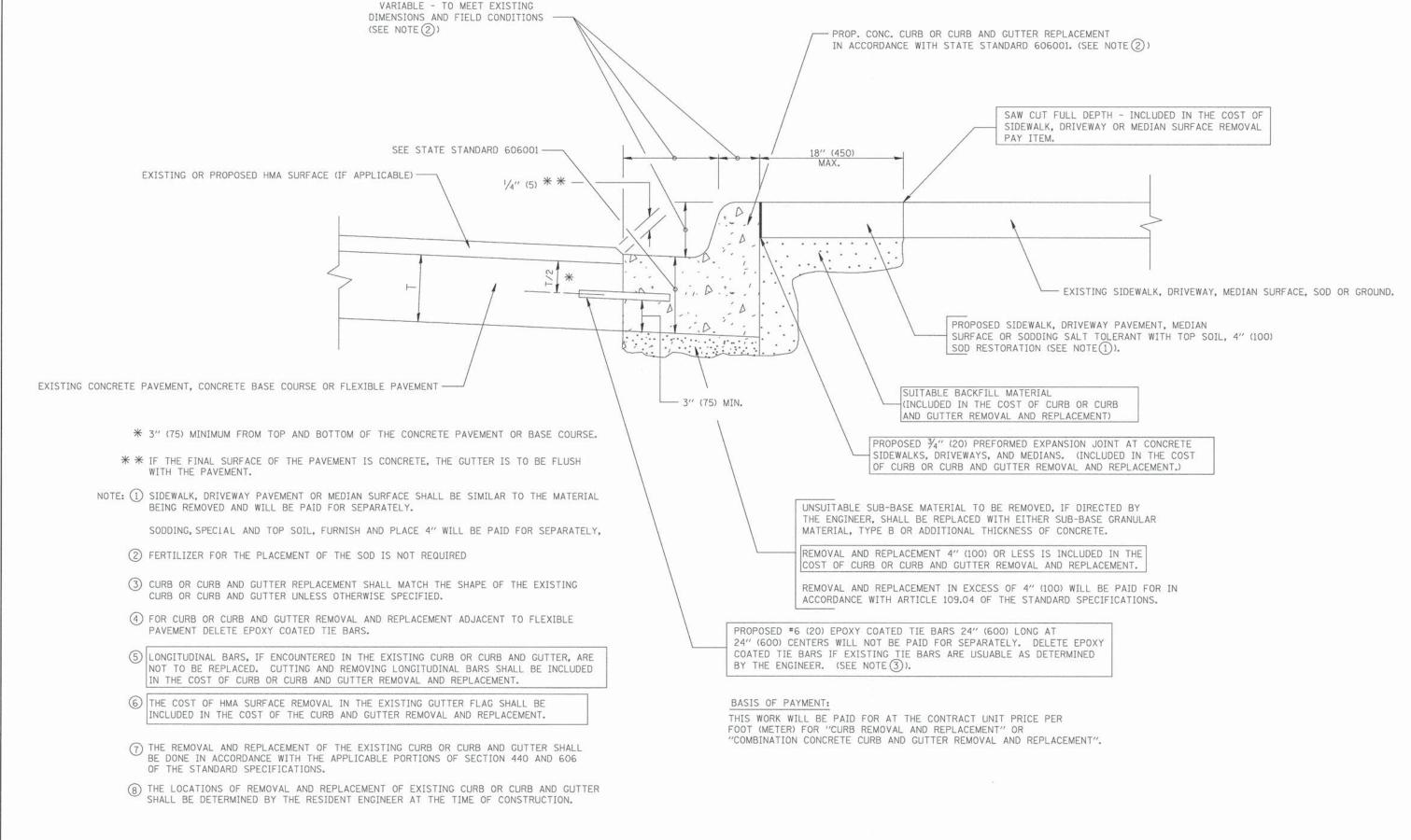
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

#### 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			DISTRICT ONE		F.A.U.	SECTION	COUNT	Y TOTAL	S NO.
c:\projects\distatd22x34\bd22.dgn		DRAWN -	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS		PAVEMENT PATCHING FOR		345	15-00061-00-RS	WILL	21	13
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION		HMA SURFACED PAVEMENT		0.0	BD400-04 (BD-22)	CONTRA	CT NO. 61	
	PLOT DATE = 10/27/2008	DATE - 10-25-94	REVISED - K. ENG 10-27-08		SCALE: NONE	SHEET NO. 13 OF 21 SHEETS STA.	TO STA.			FED. AID PROJECT M		



OR CURB AND GUTTER REMOVAL AND REPLACEMENT

SCALE: NONE

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

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		PLOT SCALE = 50.000 ' / IN.	CHECKED	. + .		REVISED	-	M. GOMEZ 01-22-01	DEPARTMENT OF TRA
		PLOT DATE = 12/15/2009	DATE	-	03-11-94	REVISED	-	R. BORO 12-15-09	
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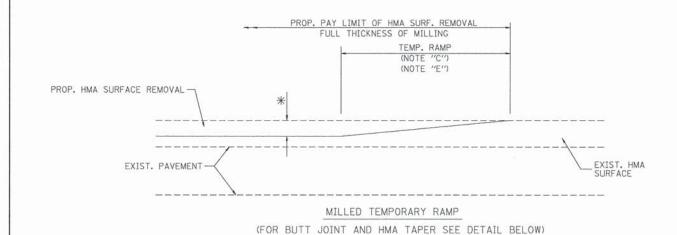
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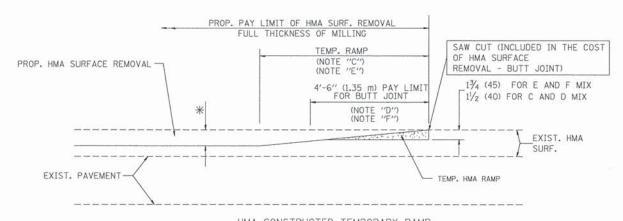
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	CURB OR CURE	AND GUTTI	ACEMENT 345 15-00061-00-RS WILL 21 14 BD600-06 (BD-24) CONTRACT NO. 61B64								
REMOVAL AND REPLACEMENT			345	15-	15-00061-00-RS			WILL	21	14	
	REMIOVAL AND	NEPLAGEMEN	"		D600-06	(BD	-24)		CONTRACT	NO. 61B	64
	SHEET NO. 14 OF 21 SHEET	S STA.	TO STA.	FED. RO	AD DIST. NO.	1	ILLINOIS	FED. A	D PROJECT M-40	03 (485)	



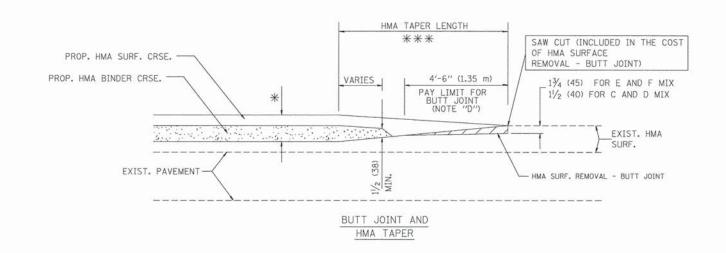
#### OPTION 1



HMA CONSTRUCTED TEMPORARY RAMP

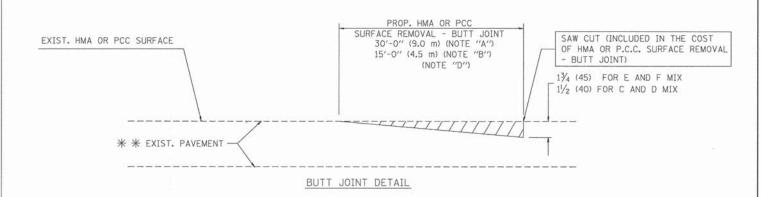
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

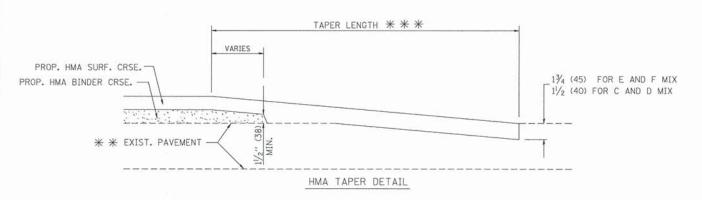
# OPTION 2 TYPICAL TEMPORARY RAMP



# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

### STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION





## TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

#### NOTES

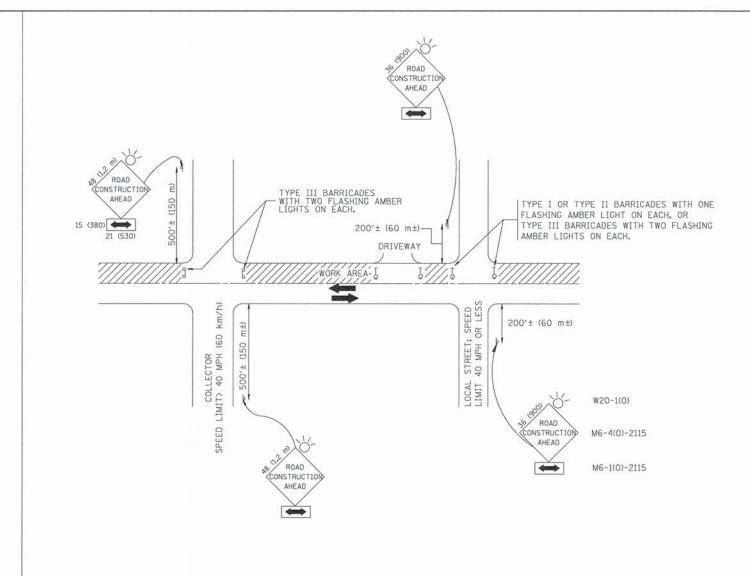
- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (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.
- \*\* \* 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 SOUARE YARD (SOUARE 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



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:
- d) ONE ROAD CONSTRUCTION AHEAD SIGN 48  $\times$  48 (1.2 m  $\times$  1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 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).

SCALE: NONE

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

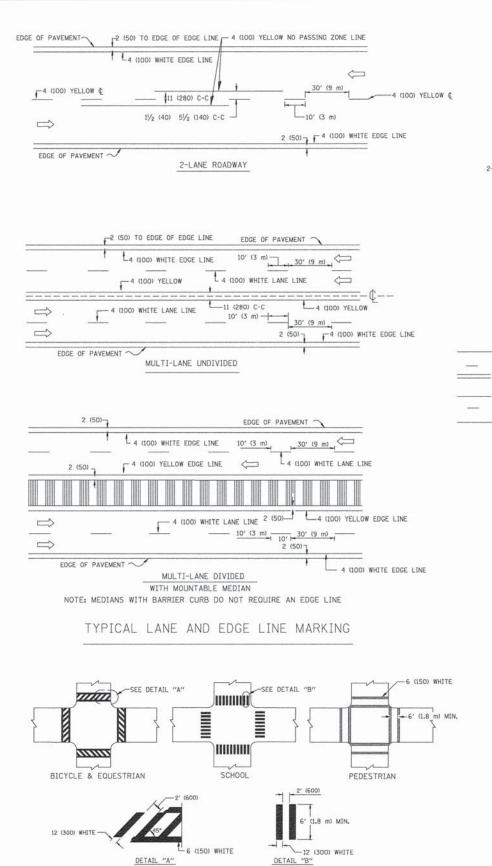
All dimensions are in millimeters (inches) unless otherwise shown.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

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

TO STA.

SHEET NO. 16 OF 21 SHEETS STA.



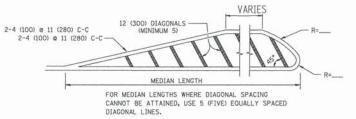
2-4 (100) YELLOW © 11 (280) C-C

NO DIAGONALS

4' (1.2 m) OUTSIDE TO OUTSIDE OF LINES

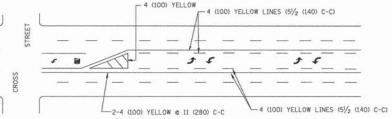
2-4 (100) YELLOW © 11 (280) C-C

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

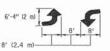


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) T0 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

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

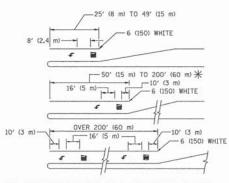


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR, ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

#### TYPICAL PAINTED MEDIAN MARKING

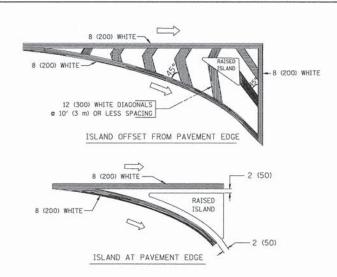


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SO. FT. (1.5 m²)  $\P$  AREA = 20.8 SO. FT. (1.9 m²)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

#### TYPICAL TURN LANE MARKING



#### TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW	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 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; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 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 CROSSMALK, IF PRESENT. OTHERWISE, PLACE AT DESIFIED STOPPING POINT. PARALLEL TO CROSSROAD 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 (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 SO. FT. (0.33 m²) EACH "X"=54.0 SO. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h) 150' (45 m) C-C (0VER 45MPH (70 km/h))

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

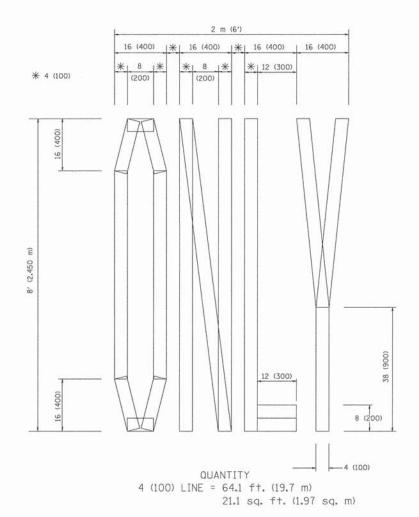
All dimensions are in inches (millimeters) unless otherwise shown.

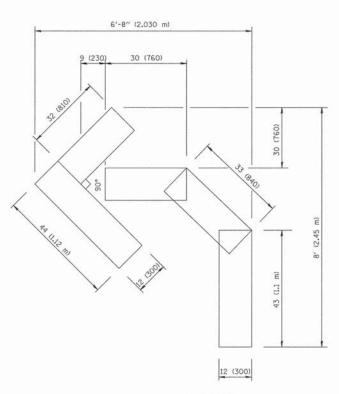
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c:\pw_work\pwidot\drivakosgn\d0108315\tc	3.dgn	DRAWN -	REVISED -C. JUCIUS 09-09-09
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

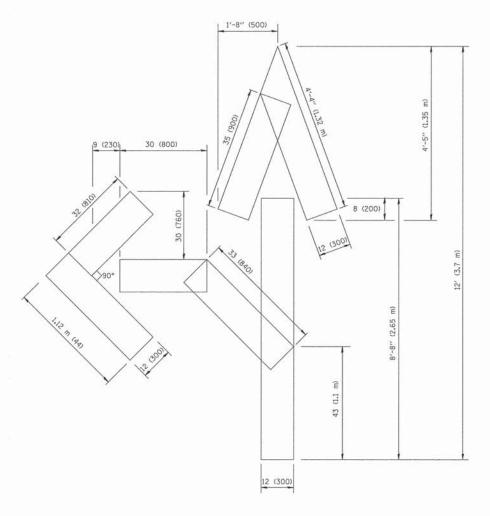
TYPICAL CROSSWALK MARKING

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

		F.A.U. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.	
	DISTRICT O		345	15-00061-00-RS	WILL	21	17
	TYPICAL PAVEMENT	MARKINGS		TC-13	CONTRACT NO. 61B64		
CALE: NONE	SHEET NO. 17 OF 21 SHEETS	STA. TO STA.	FED. ROAD DI	ST. NO. 1 ILLINOIS F	ED. AID PROJECT M-40	03 (485)	







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

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

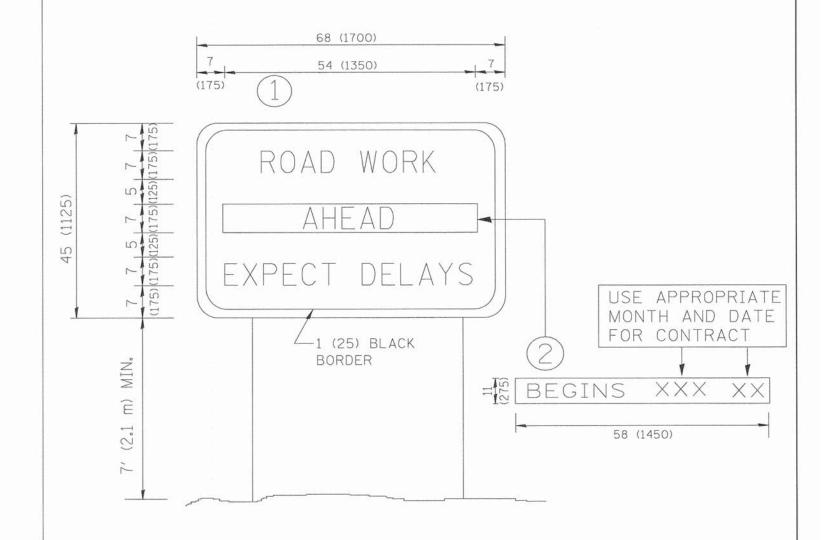
SCALE: NONE

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

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED -T. RAMMACHER 06-05-96
W:\diststd\22x34\tc16.dgn		DRAWN -	REVISED -T. RAMMACHER 11-04-97
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98
	PLOT DATE = 1/4/2008	DATE - 09-18-94	DEVISED -E COMEZ 08-28-00

STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

	F.A.U. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
DISTRICT ONE - PAVEMENT MARKING LETTERS AND	345	15-00061-00-RS	WILL	21	18
SYMBOLS FOR TRAFFIC STAGING		CONTRACT	CONTRACT NO. 61B64		
SHEET NO 18 OF 21 SHEETS STA TO STA	SED DOAD D	HET NO 4 HILIMONE EED	AID DDO JECT M 40	02 (405)	



#### 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 () 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.

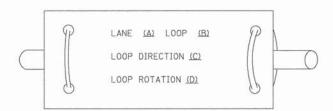
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97		ARTERIAL ROAD		F.,	F.A.U. SECTION		COUNTY TOTAL SHEET NO.		S NO.
W:\diststd\22x34\to22.dgn		DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION					15-00061-00-RS	WILL	21	19
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99			INFORMATION SIGN		TC-22		CONTRACT NO. 61B64		
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07		SCALE: NONE	SHEET NO. 19 OF 21 SHEETS STA. TO STA.	FE	FED. ROAD DIST. NO. 1 ILLINOIS FED.		ED. AID PROJECT M-4003 (485)		

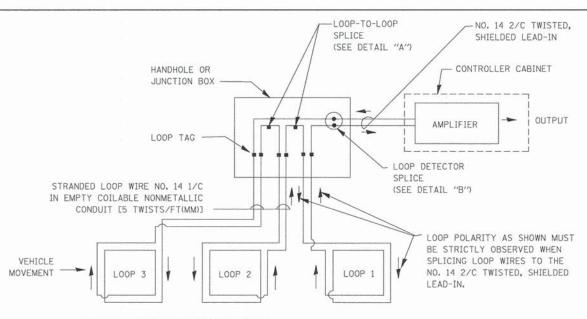
#### LOOP DETECTOR NOTES

- 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

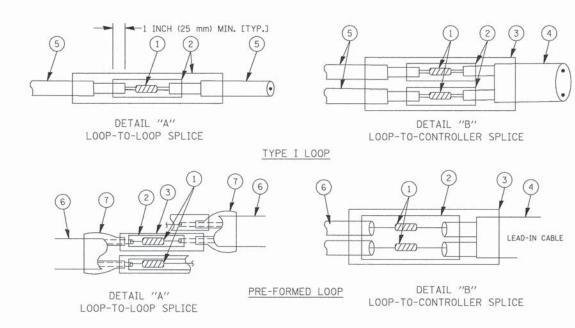


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



#### 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.
- (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.
- (4) NO. 14 2/C TWISTED, SHIELDED CABLE.
- (5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- (6) PRE-FORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

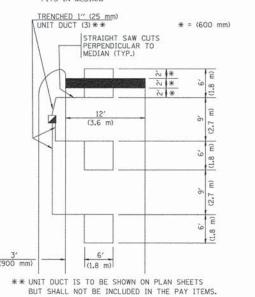
발표 경기를 가면 보면 가게 있는데 전 경기가 되었다면 하는데 하면 하면 하는데 하는데 보고 있다면 보다 되었다. 그 사람들이 다른데 하는데 하는데 다른데 다른데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는							
DISTRICT ONE	F.A.U. RTE. SECTION		COUNTY	TOTAL SHEETS	SHEET NO.		
STANDARD TRAFFIC SIGNAL DESIGN DETAILS	345	15-00061-00-RS	WILL	21	20		
STANDARD TRAFFIC SIGNAL DESIGN DETAILS	TS-05 CONTRACT NO. 61B64						
SHEET NO. 20 OF 21 SHEETS STA. TO STA.	FED. ROAD D	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-4003 (485)					

# PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER. PAVED OR NON-PAVED SHOULDER PAVED OR NON-PAVED SHOULDER "" (25 mm) UNIT DUCT TRENCHED TO E/P •• \* \* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

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

#### (PROTECTED / PERMITTED LEFT TURN PHASING)

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

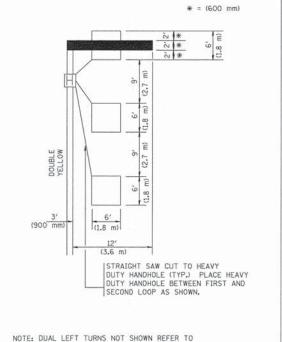


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

# VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)



PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

SCALE: NONE

\* EACH

(1.8 m)

NOTES:

VEHICLES LOOP DETECTORS

FOR DETECTOR LOOPS.

\* 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.

\* ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET

\* 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

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

\* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT

\* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (1.e. 1-1/2, 1-3/4, 2).

\* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

#### PLACEMENT OF DETECTORS

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

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

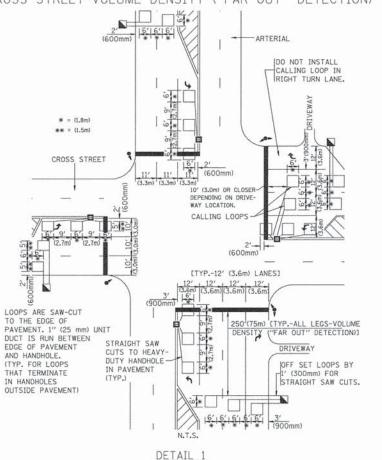
"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0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

#### NOTE:

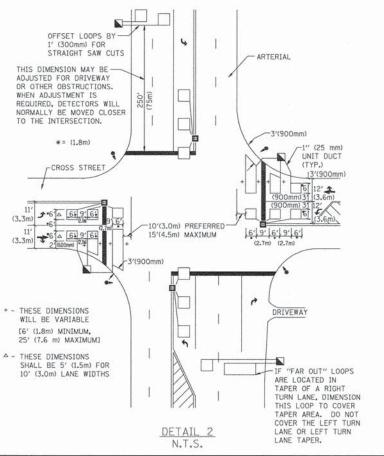
ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1
TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

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

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)



N.T.S.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION