

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

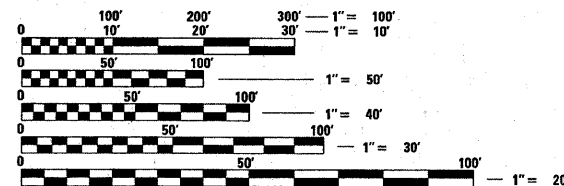
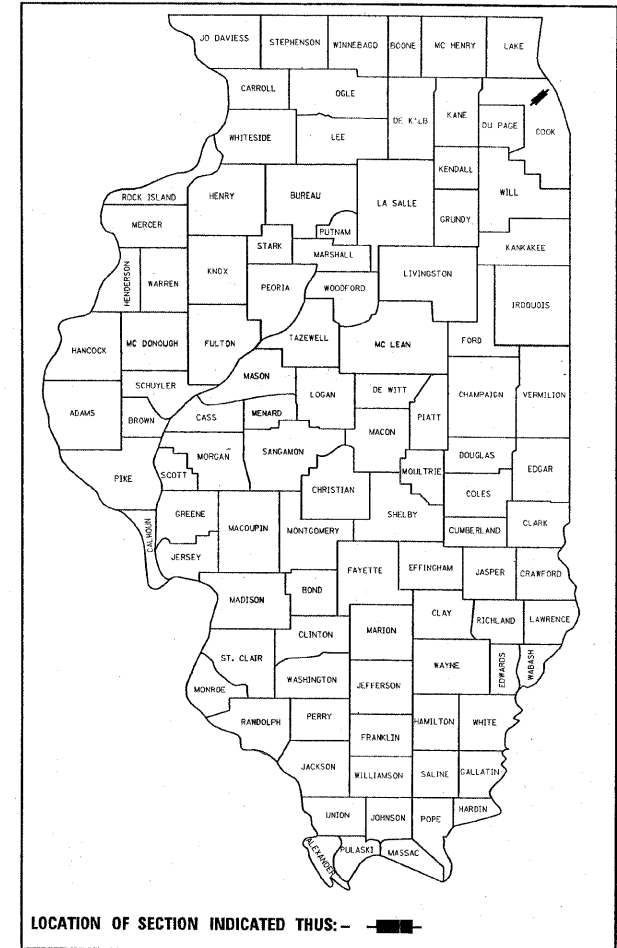
FAU ROUTE 3520 (GROSS POINT ROAD)  
SECTION 0405 RS-9  
CENTRAL STREET TO GOLF ROAD (SIMPSON STREET)  
RESURFACING (MAINTANENCE)  
COOK COUNTY  
C-91-547-09

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3520	0405 RS-9	COOK	21	1
ILLINOIS			CONTRACT NO. 60G91	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

IMPROVEMENT IS LOCATED  
IN THE VILLAGE OF SKOKIE  
AND CITY OF EVANSTON

D-91-547-09

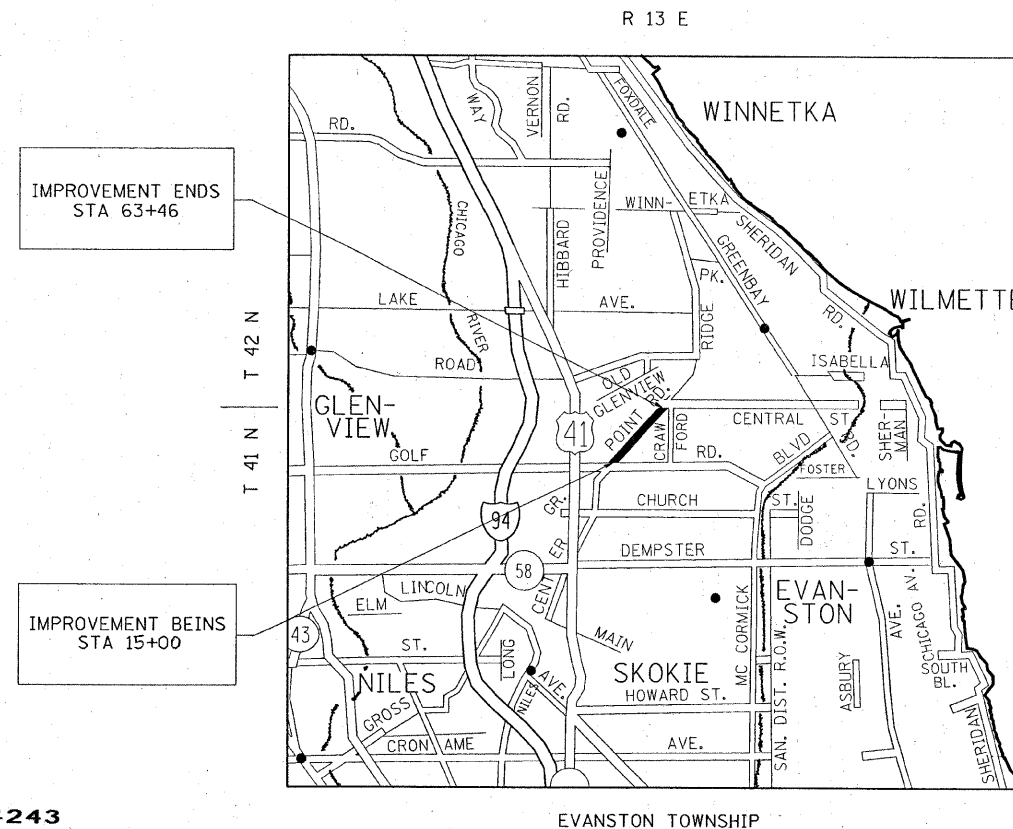


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

PROJECT ENGINEER: DAN WILGREEN 847-705-4243  
PROJECT MANAGER: KEN ENG

CONTRACT NO. 60G91



EVANSTON TOWNSHIP



TRAFFIC DATA  
2006 ADT: 14,400  
POSTED SPEED LIMIT: 30 MPH

GROSS & NET LENGTH OF PROJECT = 4,846 FT. = 0.917 MILE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED APRIL 14, 2009  
Diana M. O'Keefe DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER  
May 1, 2009  
Charles G. Ingersoll ENGINEER OF DESIGN AND ENVIRONMENT  
May 1, 2009  
Christine M. Reed DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

INDEX OF SHEETS:

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4-5	TYPICAL SECTIONS
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12	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT
13	BUTT JOINT AND BITUMINOUS TAPER DETAILS
14	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
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17	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
18	PAVEMENT MARKINGS, LETTERS AND SYMBOLS FOR TRAFFIC STAGING
19	ARTERIAL ROAD INFORMATION SIGN
20	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAIL
21	DETECTOR LOOP INSTALLATION DETAIL FOR ROADWAY RESURFACING

STATE STANDARDS:

000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
442201-03	CLASS C AND D PATCHES
701301-03	LANE CLOSURE, 2L 2W, SHORT TIME OPERATIONS
701306-02	LANE CLOSURE, 2L 2W SLOW MOVING DAY ONLY OPERATIONS, FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH
701336-05	LANE CLOSURE, 2L, 2W WORK AREAS IN SERIES FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH
701501-05	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701601-06	LANE CLOSURE, MULTILANE, 2W, WITH NON-TRAVERSABLE MEDIAN
701606-06	LANE CLOSURE, MULTILANE, 2-W, WITH MOUNTABLE MEDIAN
701701-06	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-01	TRAFFIC CONTROL DEVICES

GENERAL NOTES:

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED).

THE RESIDENT ENGINEER SHALL VERIFY THE LOCATIONS OF ALL EXISTING PAVEMENT MARKINGS PRIOR TO START OF CONSTRUCTION

3 METER (10 FEET) TRANSITION SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS & GUTTERS AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF PLAINFIELD.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 40 MM ( 1 1/2 INCHES WHERE THE SPEED LIMIT IS 80 KM/H (45 MPH) OR LESS AND 25 MM (1 INCH) WHERE THE SPEED LIMIT IS GREATER THAN 80 KM/H (45 MPH). WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 75 MM (3 INCHES) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).

THE ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705- 4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TRAFFIC CONTROL DEVICES

PERMANENT PAVEMENT MARKINGS SHALL BE THERMOPLASTIC (OF THE EXTRUDED TYPE) AND SHOULD BE PLACED IN ACCORDANCE WITH "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" DETAIL. TWO WEEKS PRIOR TO PLACING PERMANENT PAVEMENT MARKINGS, CONTACT MR. WALLY CZARNY, AREA TRAFFIC FIELD TECHNICIAN AT (773) 685-4342

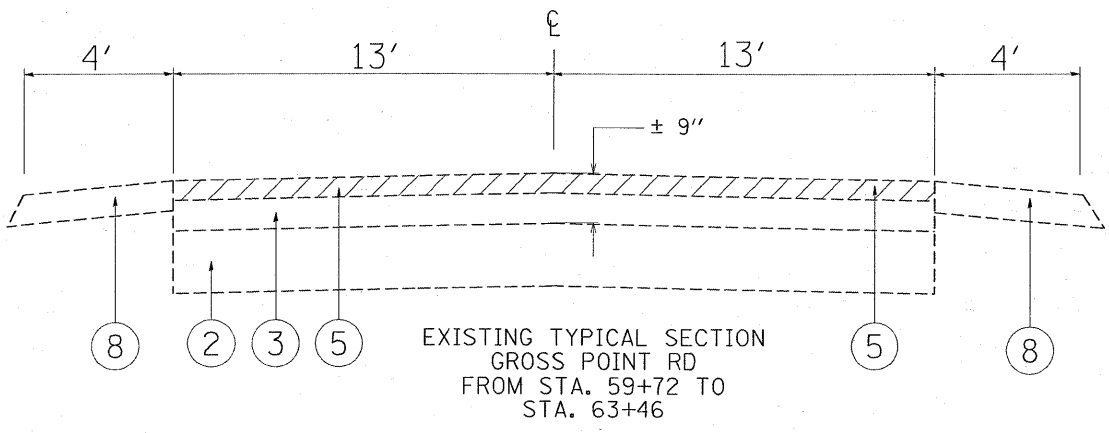
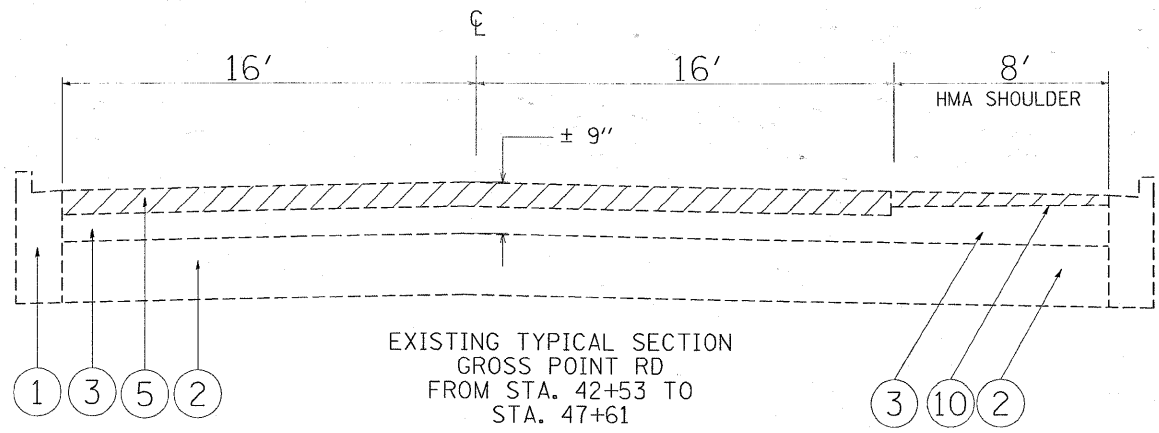
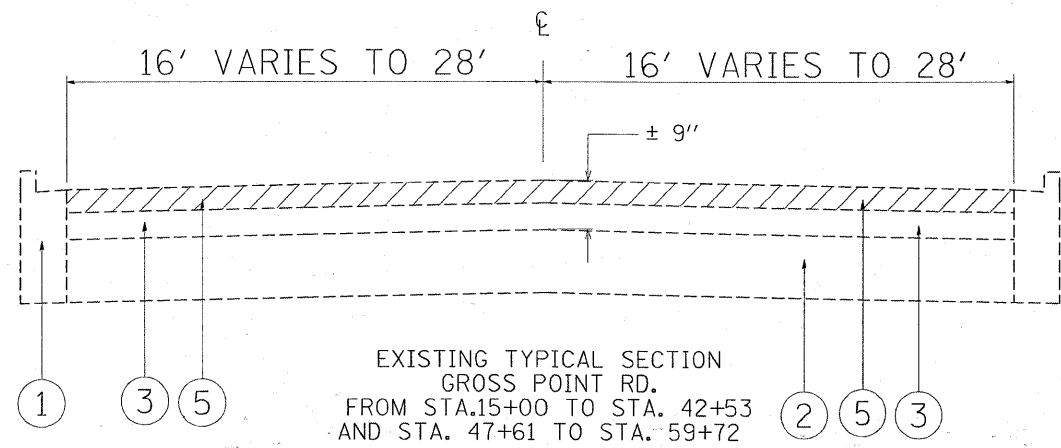
BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINT AND HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.

FILE NAME =	USER NAME = bgunsh	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GROSS POINT ROAD CENTRAL STREET TO GOLF ROAD (SIMPSON STREET) INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ca:\p-work\p\1DOT\BYUNSH\d013724B\Gross	Point Rd-shr-plan.dgn	DRAWN -	REVISED -			3520	0405 RS-9	COOK	21	2	
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -			CONTRACT NO. 60691					
	PLOT DATE = 4/17/2009	DATE -	REVISED -			SCALE:	SHEET NO.	OF	SHEETS	STA.	TO
						FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT					

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE						SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	100 % STATE ROADWAY I 000					CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	100 % STATE ROADWAY I 000				
20201006	GRADING AND SHAPING SHOULDERS	UNIT	80	80					70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	14000	14000				
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	7.6	7.6					70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	520	520				
40600300	AGGREGATE (PRIME COAT)	TON	38	38					70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	300	300				
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	6	6					70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	240	240				
40600895	CONSTRUCTING TEST STRIP	EACH	1	1					70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	790	790				
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	157	157					* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	328	328				
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	1600	1600					* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	14000	14000				
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	18500	18500					* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	520	520				
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	120	120					* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	300	300				
44200192	PAVEMENT PATCHING, TYPE II, 16 INCH	SQ YD	265	265					* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	240	240				
44200196	PAVEMENT PATCHING, TYPE III, 16 INCH	SQ YD	260	260					* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	125	125				
44200198	PAVEMENT PATCHING, TYPE IV, 16 INCH	SQ YD	165	165					78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	99	99				
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	40	40					* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	434	434				
50300300	PROTECTIVE COAT	SQ YD	21	21					X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	51.4	51.4				
55039700	STORM SEWERS TO BE CLEANED	FOOT	320	320					X0656100	DRIVEWAY PAVEMENT REMOVAL AND REPLACEMENT	SQ YD	8	8				
60250200	CATCH BASINS TO BE ADJUSTED	EACH	2	2					X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	750	750				
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	28	28					Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	20	20				
60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	28	28													
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6													
67100100	MOBILIZATION	L SUM	1	1													
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1													
70100600	TRAFFIC CONTROL AND PROTECTION, STANDARD 701336	L SUM	1	1													
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1													
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1													
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1													
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1													
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	3500	3500													
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	328	328													

\* SPECIALTY ITEM

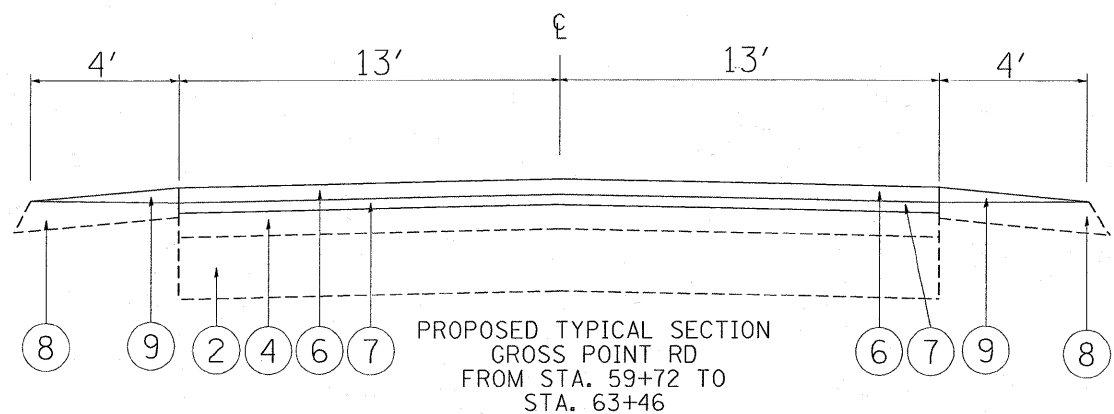
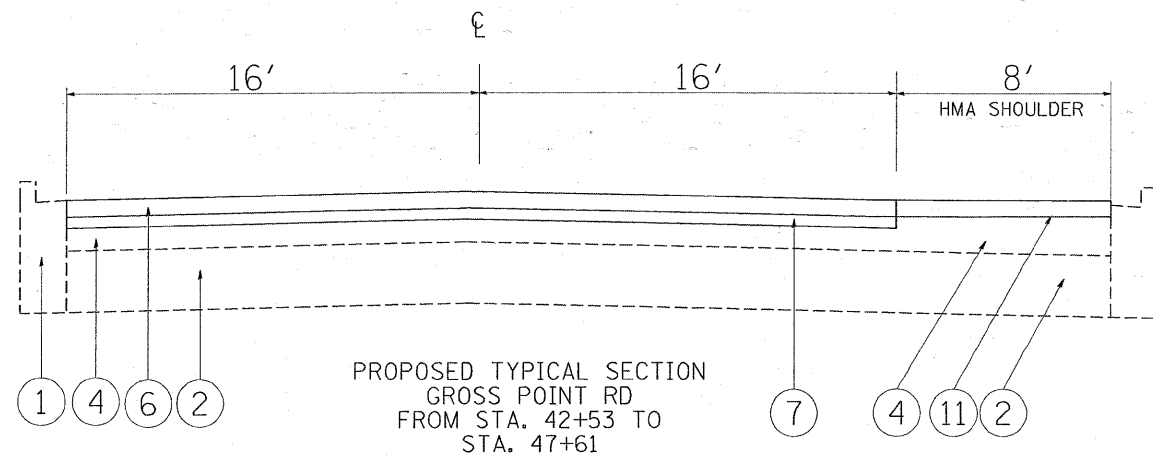
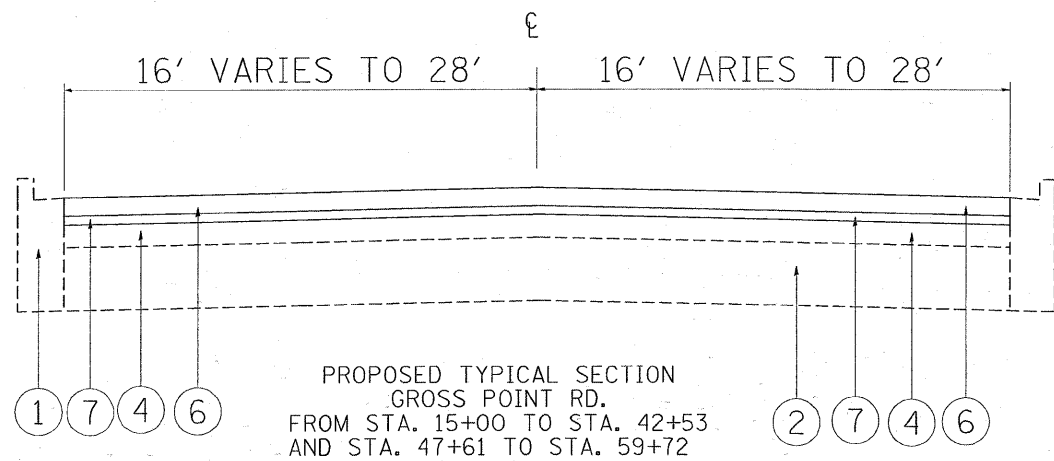
FILE NAME =	USER NAME = byunsh	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GROSS POINT ROAD CENTRAL STREET TO GOLF ROAD (SIMPSON STREET) SUMMARY OF QUANTITIES</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2:\pw\work\PWIDOT\BYUNSH\0131240\GrossPointRd\st-plan.dgn		DRAWN -	REVISED -		3520	0405 RS-9	COOK	21	3			
PLOT SCALE = 50,000' / IN.		CHECKED -	REVISED -					CONTRACT NO. 60G91				
PLOT DATE = 4/17/2009		DATE -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



- LEGEND**
- ① EXISTING COMBINATION CONCRETE CURB AND GUTTER
  - ② EXISTING P.C.C. BASE (±9")
  - ③ EXISTING HMA OVERLAY (±9")
  - ④ HMA OVERLAY AFTER MILLING
  - ⑤ PROPOSED HMA SURFACE REMOVAL, 2-1/4 "
  - ⑥ PROPOSED HMA SURFACE COURSE, MIX D, N70, 1-1/2 "
  - ⑦ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), N50, 3/4 "
  - ⑧ EXISTING AGGREGATE SHOULDER
  - ⑨ PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
  - ⑩ HMA SURFACE REMOVAL 1-1/2 "
  - ⑪ HMA SURFACE COURSE, MIX D, N70, 1 1/2 "

NOTE: CONTRACTOR IS TO MILL ROADWAY BEFORE PATCHING

FILE NAME =	USER NAME = byunsh	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GROSS POINT ROAD CENTRAL STREET TO GOLF ROAD (SIMPSON STREET) EXISTING TYPICAL SECTIONS</b>			F.A.U. RTE. 3520	SECTION 0405 RS-9	COUNTY COOK	TOTAL SHEETS 21	SHEET NO. 4
c:\pwork\pwidot\BYUNSH\0137242\Gross	PointRd-shr-plan.dgn	DRAWN -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 60G91	
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -								ILLINOIS FED. AID PROJECT	
	PLOT DATE = 4/17/2009	DATE -	REVISED -									



**LEGEND**

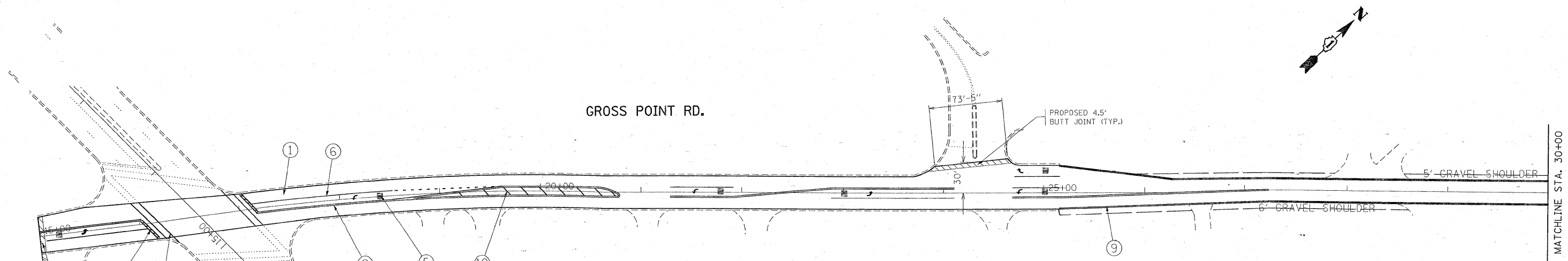
- ① EXISTING COMBINATION CONCRETE CURB AND GUTTER
- ② EXISTING P.C.C. BASE (±9")
- ③ EXISTING HMA OVERLAY (±9")
- ④ HMA OVERLAY AFTER MILLING
- ⑤ PROPOSED HMA SURFACE REMOVAL, 2-1/4 "
- ⑥ PROPOSED HMA SURFACE COURSE, MIX D, N70, 1-1/2 "
- ⑦ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), N50, 3/4 "
- ⑧ EXISTING AGGREGATE SHOULDER
- ⑨ PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- ⑩ HMA SURFACE REMOVAL (VARIABLE DEPTH) 1-1/2 " TO 1/2 "
- ⑪ HMA SURFACE COURSE, MIX D, N70 [1 1/2 " TO 1"]

NOTE: CONTRACTOR IS TO MILL ROADWAY BEFORE PATCHING

**HOT-MIX ASPHALT MIXTURE REQUIREMENT**

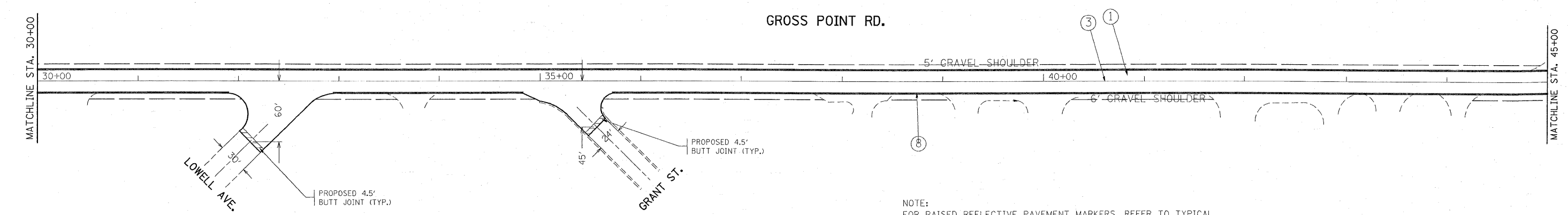
MIXTURE TYPE	AC/PG	AIR VOIDS (%)	UNIT WEIGHT
POLY. LEVELING BINDER (MACHINE METHOD), IL 4.75, N50	SBS/SBR PG 76-28/22	4% @ 70 GYR	105 LBS/IN/SQ YD
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	PG 64-22	4% @ 70 GYR	112 LBS/IN/SQ YD
CLASS D PATCHES (HMA BINDER IL-19)	PG 64-22*	4% @ 70 GYR	112 LBS/IN/SQ YD

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



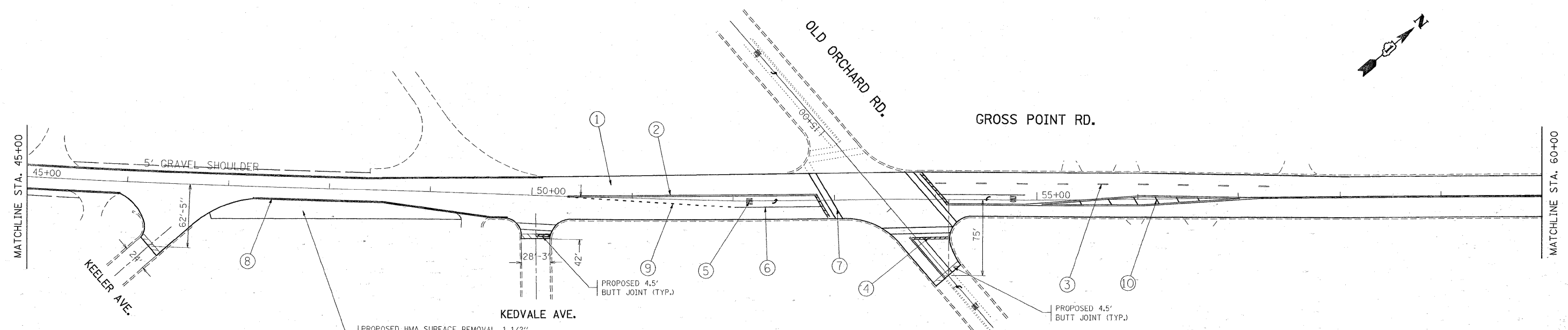
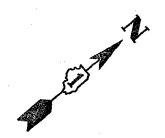
IMPROVEMENT BEGINS  
STA. 15+00

- ① PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4 " PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL 4.75, N50, 3/4 " PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2 "
- ② THERMOPLASTIC PAVEMENT MARKINGS 4" DOUBLE YELLOW LINE @ 11" C-C (TYP.)
- ③ THERMOPLASTIC PAVEMENT MARKINGS 4" YELLOW LINE, SKIP DASH 10' DASH, 30' SPACE (TYP.)
- ④ THERMOPLASTIC PAVEMENT MARKINGS 24" WHITE LINE STOP BAR (TYP.)
- ⑤ THERMOPLASTIC PAVEMENT MARKINGS LETTERS AND SYMBOLS (TYP.)
- ⑥ THERMOPLASTIC PAVEMENT MARKINGS 6" WHITE LANE LINE (TYP.)
- ⑦ THERMOPLASTIC PAVEMENT MARKINGS 6" WHITE LINE, CROSSWALK (TYP.)
- ⑧ THERMOPLASTIC PAVEMENT MARKINGS 4" WHITE EDGE LINE (TYP.)
- ⑨ THERMOPLASTIC PAVEMENT MARKINGS 6" WHITE LANE LINE 2' DASH, 6' SPACE (TYP.)
- ⑩ THERMOPLASTIC PAVEMENT MARKINGS 12" YELLOW LINE DIAGONAL (TYP.)



NOTE:  
FOR RAISED REFLECTIVE PAVEMENT MARKERS, REFER TO TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLow RESISTANT) AND DISTRICT TYPICAL PAVEMENT MARKINGS

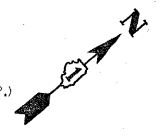
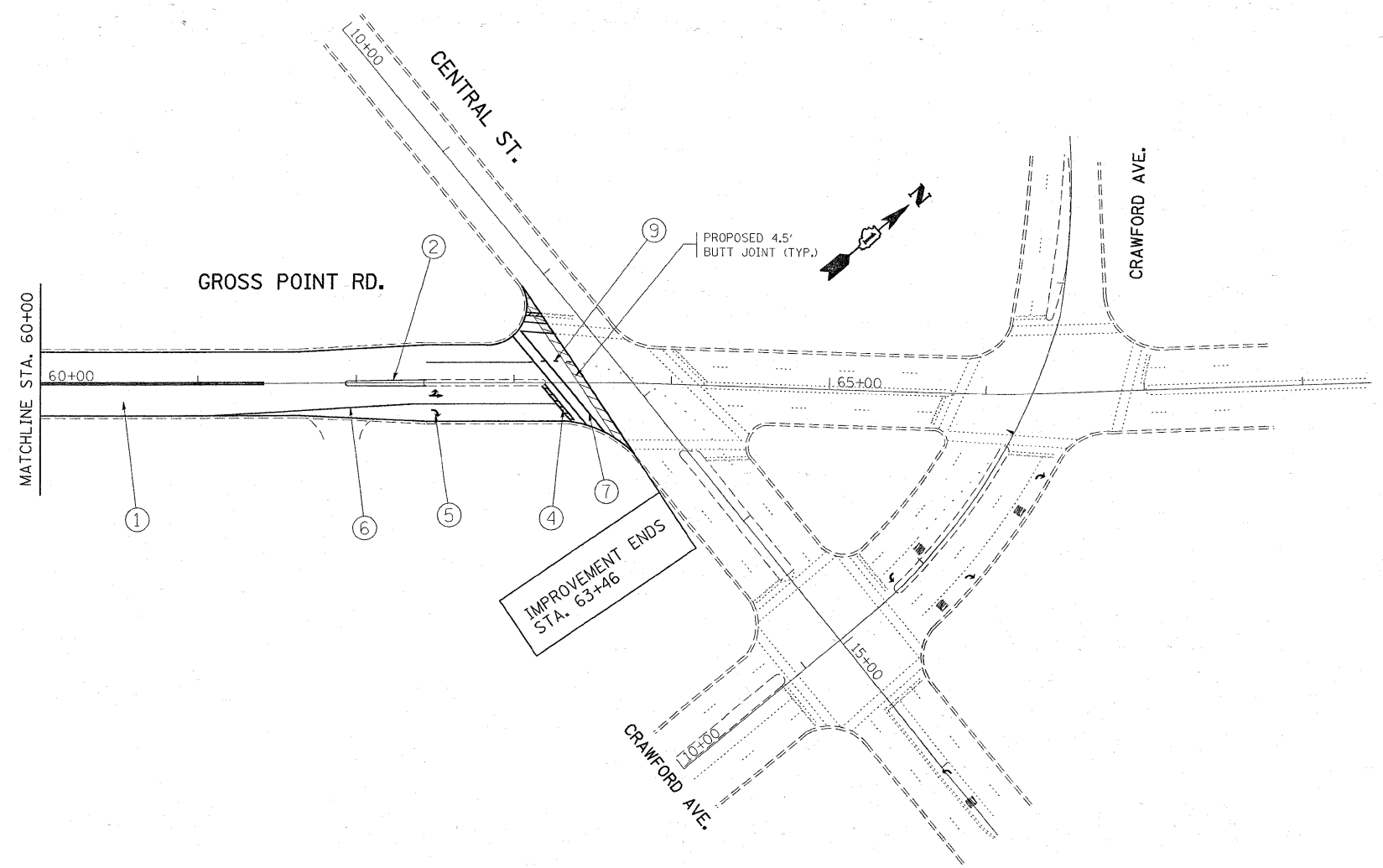
FILE NAME =	USER NAME = byunsh	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GROSS POINT ROAD CENTRAL STREET TO GOLF ROAD (SIMPSON STREET) ROADWAY &amp; PAVEMENT MARKING PLAN</b>				F.A.U. RTE. 3520	SECTION 0405 RS-9	COUNTY COOK	TOTAL SHEETS 21	SHEET NO. 6
et:\pwork\PWIDDT\BYUNSH\d0137240\Gross	PointRd-shr-plan.dgn	DRAWN -	REVISED -		SCALE: 1"=50'	SHEET NO.	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 60G91		
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -								ILLINOIS FED. AID PROJECT		
	PLOT DATE = 4/17/2009	DATE -	REVISED -										



PROPOSED HMA SURFACE REMOVAL, 1 1/2"  
 PROPOSED HOT-MIX ASPHALT SURFACE COURSE  
 MIX "D", N70, 1 1/2"  
 NOTE: CONTRACTOR IS TO USE CAUTION TO NOT DAMAGE  
 A FIRE HYDRANT LOCATED ON THE EAST SIDE OF THE HMA SHOULDER

- ① PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4 " PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL 4.75, N50, 3/4 " PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2 "
- ② THERMOPLASTIC PAVEMENT MARKINGS 4" DOUBLE YELLOW LINE @ 11" C-C (TYP.)
- ③ THERMOPLASTIC PAVEMENT MARKINGS 4" YELLOW LINE, SKIP DASH 10' DASH, 30' SPACE (TYP.)
- ④ THERMOPLASTIC PAVEMENT MARKINGS 24" WHITE LINE STOP BAR (TYP.)
- ⑤ THERMOPLASTIC PAVEMENT MARKINGS LETTERS AND SYMBOLS (TYP.)
- ⑥ THERMOPLASTIC PAVEMENT MARKINGS 6" WHITE LANE LINE (TYP.)
- ⑦ THERMOPLASTIC PAVEMENT MARKINGS 6" WHITE LINE, CROSSWALK (TYP.)
- ⑧ THERMOPLASTIC PAVEMENT MARKINGS 4" WHITE EDGE LINE (TYP.)
- ⑨ THERMOPLASTIC PAVEMENT MARKINGS 6" WHITE LANE LINE 2' DASH, 6' SPACE (TYP.)
- ⑩ THERMOPLASTIC PAVEMENT MARKINGS 12" YELLOW LINE DIAGONAL (TYP.)

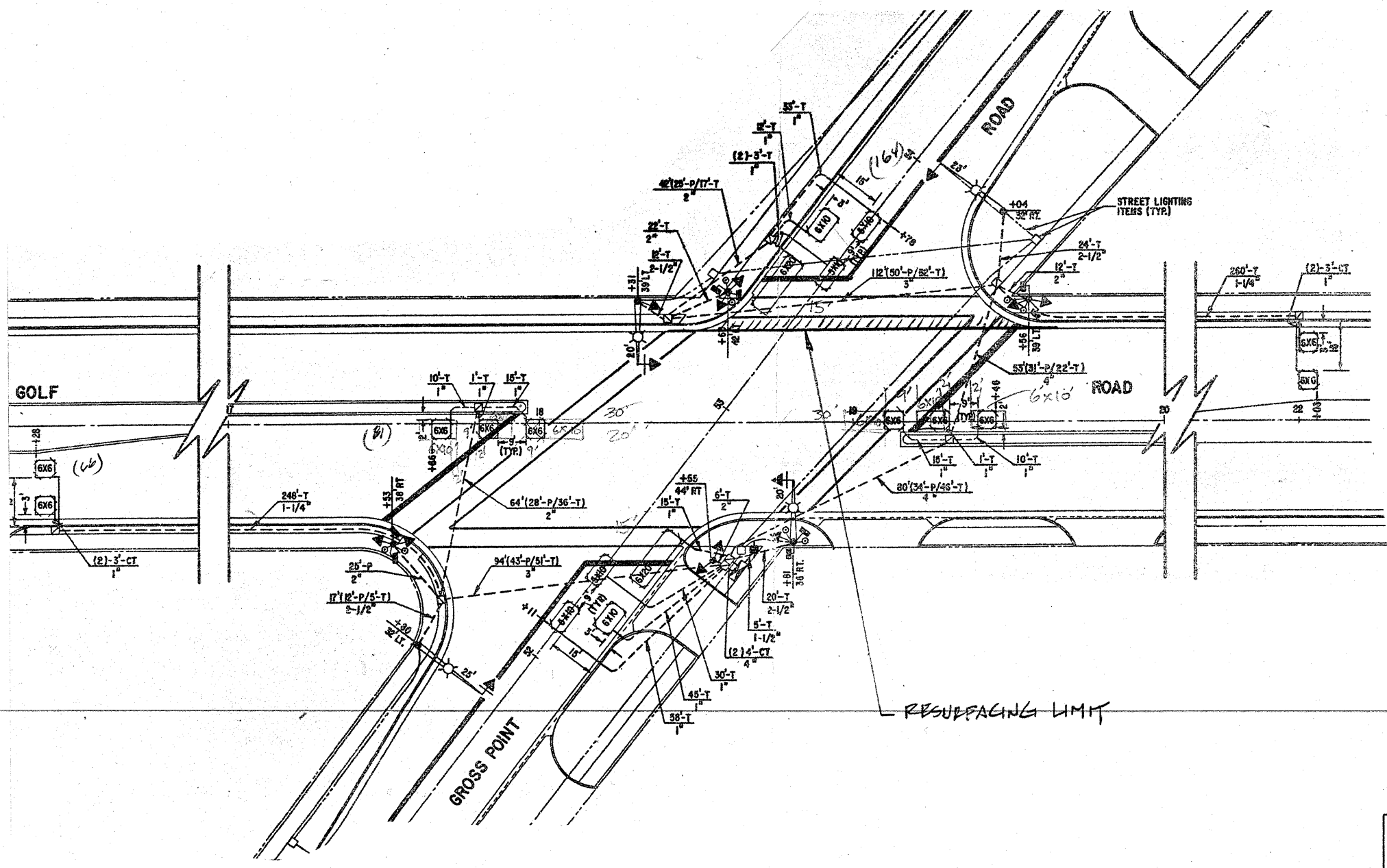
NOTE:  
 FOR RAISED REFLECTIVE PAVEMENT MARKERS, REFER TO TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) AND DISTRICT TYPICAL PAVEMENT MARKINGS



FILE NAME =	USER NAME = byunsh	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GROSS POINT ROAD CENTRAL STREET TO GOLF ROAD (SIMPSON STREET) ROADWAY &amp; PAVEMENT MARKING PLAN</b>				F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pw\work\PWIDOT\BYUNSH\d0137248\Gross	PointRd-sh-t-plan.dgn	DRAWN -	REVISED -		3520	0405 RS-9	COOK	21	7				
PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -	REVISED -		CONTRACT NO. 60G91								
PLOT DATE = 4/17/2009	DATE -	REVISED -	REVISED -		ILLINOIS FED. AID PROJECT								

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
DETECTOR LOOP		
SIGNAL HEAD		
G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD WITH BACKPLATE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR II		
VEHICLE DETECTOR, NON-COMPENSATED MAGNETIC TYPE		



THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY

REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMITS)

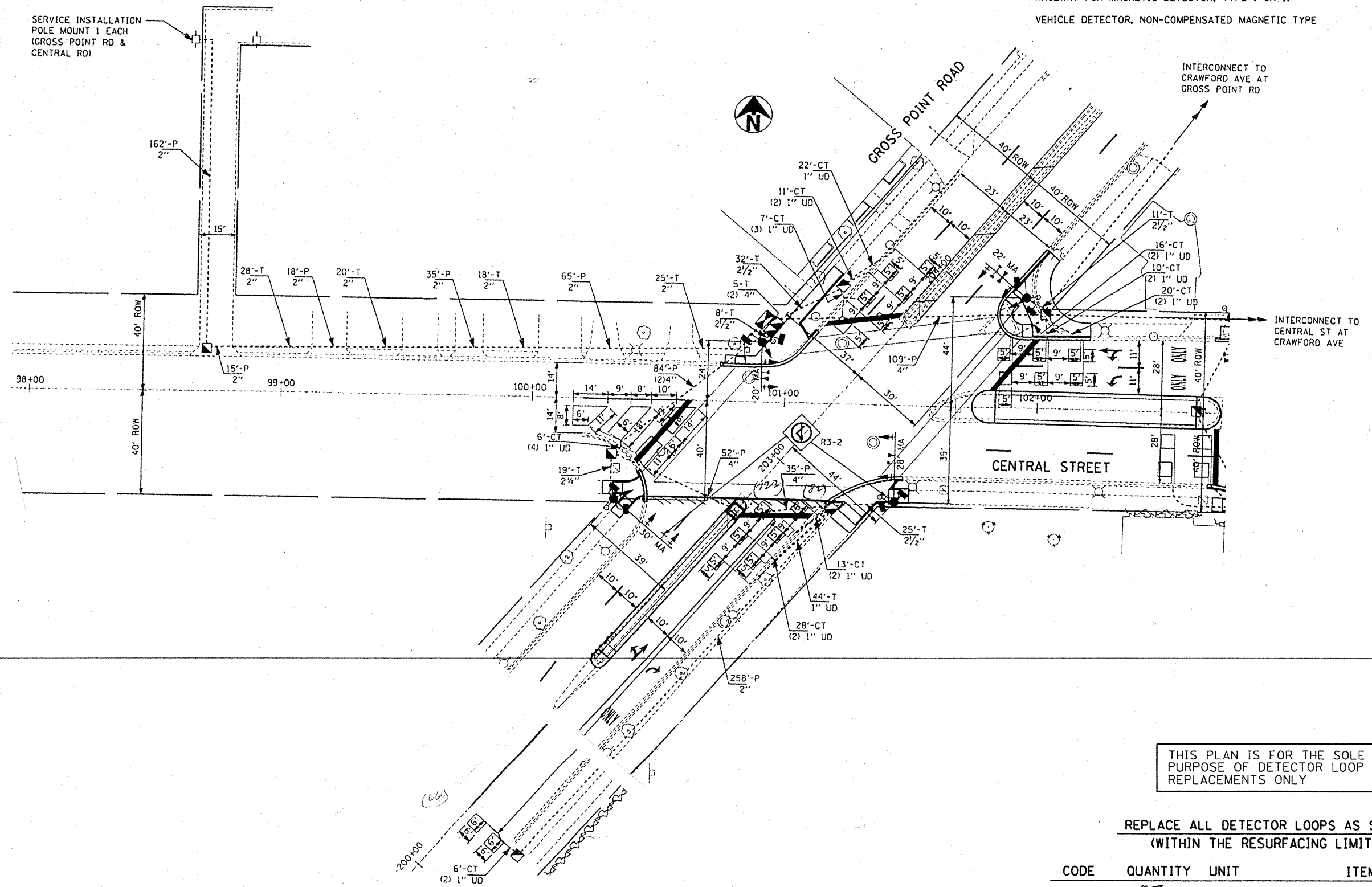
CODE	QUANTITY	UNIT	ITEM
88600600	164	FOOT	DETECTOR LOOP, REPLACEMENT

FILE NAME =	USER NAME = kanthaphixeybo	DESIGNED - BCK	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE - DETECTOR LOOP REPLACEMENT GROSS POINT RD. @ GOLF ROAD</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ct:\p\work\KANTHAPHIXAYBC\d011264\traffic_Legead_v7.dgn		DRAWN - BCK	REVISED -			3520	0405 RS-9	Cook	21	8	
PLOT SCALE = 39.9368 1/ IN.		CHECKED - DAD	REVISED -			CONTRACT NO.					
PLOT DATE = 4/3/2009		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT 60691					



**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
DETECTOR LOOP		
SIGNAL HEAD		
G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD WITH BACKPLATE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR II		
VEHICLE DETECTOR, NON-COMPENSATED MAGNETIC TYPE		



THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY

REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMITS)

CODE	QUANTITY	UNIT	ITEM
88600600	270	FOOT	DETECTOR LOOP, REPLACEMENT

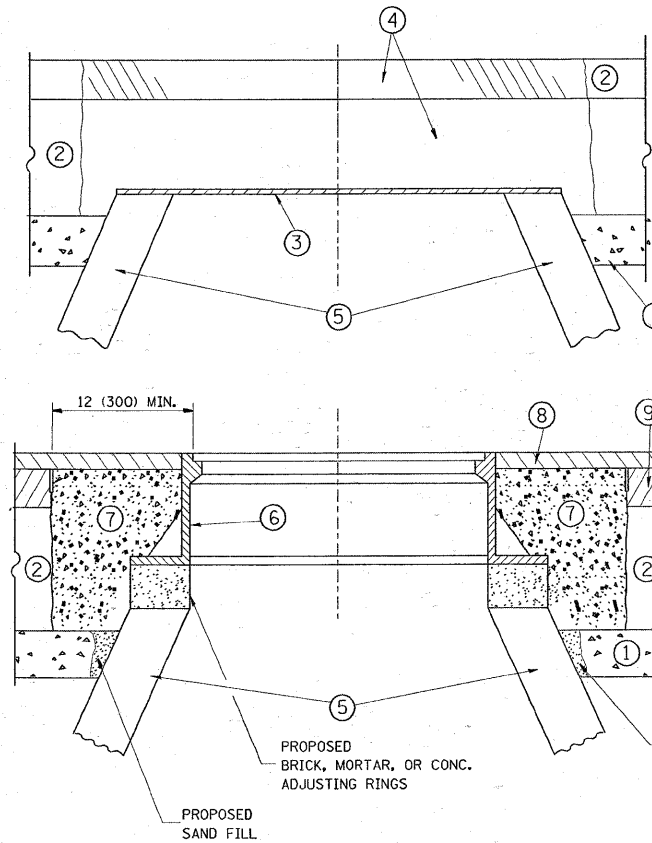
FILE NAME =	USER NAME = kenthaphixabc	DESIGNED - BCK	REVISED -
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	PLOT DATE = 4/3/2009	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE - DETECTOR LOOP REPLACEMENT  
CROSS POINT RD. @ CENTRAL ROAD**

SCALE: NONE SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3520	0405 RS-9	COOK	21	9
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			60691	



**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 1/2 (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 HMA SURFACE COURSE OR HMA 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.

**LEGEND**

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

**NOTES:**

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.

**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.

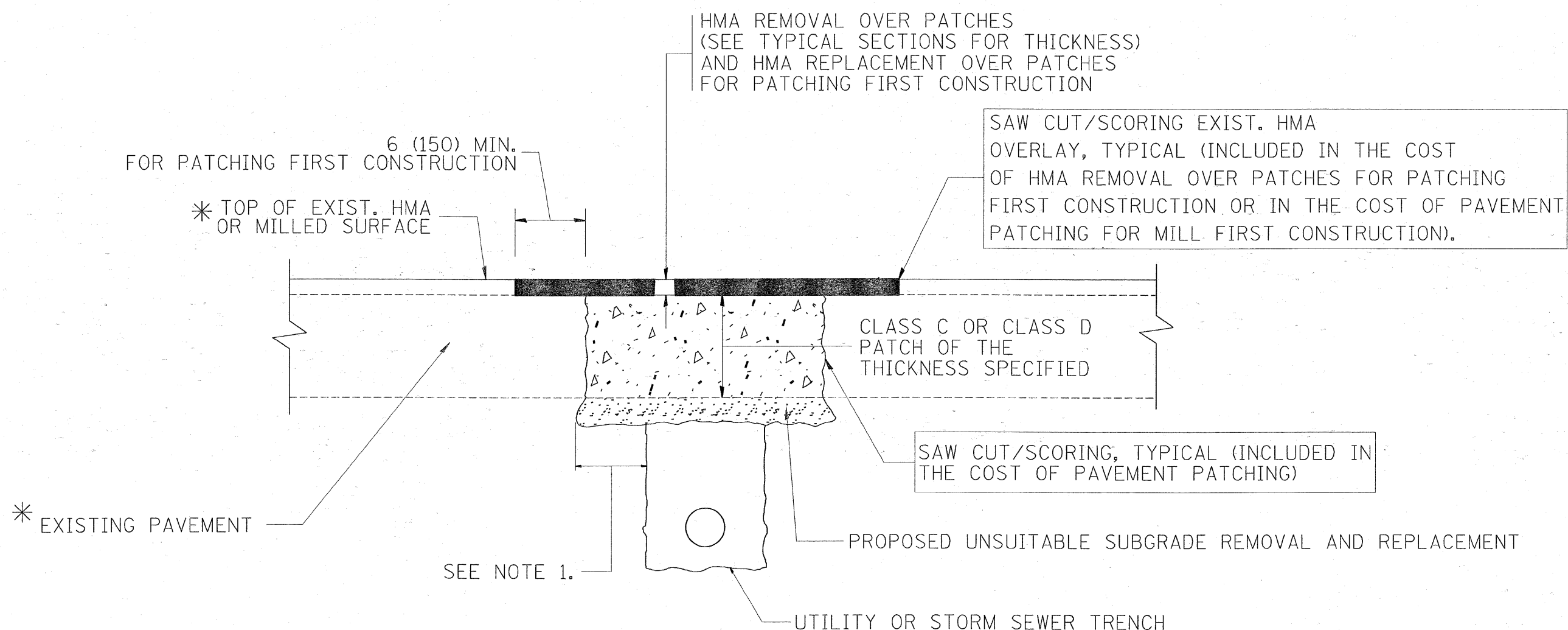
**BASIS OF PAYMENT:** THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"

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 = byunsh	DESIGNED - R. SHAH	REVISED - R. SHAH 03-10-95	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING</b>		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
cr\pw_work\p\WIDOT\BYUNSH\0137291\DistS.dgn		DRAWN -	REVISED - A. ABBAS 03-21-97		3520	0405 RS-9	COOK	21	10		
PLOT SCALE = 50.0000' / IN.		CHECKED -	REVISED - R. WIEDEMAN 05-14-04		<b>BD600-03 (BD-8)</b>		<b>CONTRACT NO. 60691</b>				
PLOT DATE = 4/17/2009		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. AID PROJECT			



\* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

**NOTES:**

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

**SEQUENCE OF CONSTRUCTION (PATCHING FIRST)**

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

**SEQUENCE OF CONSTRUCTION (MILLING FIRST)**

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

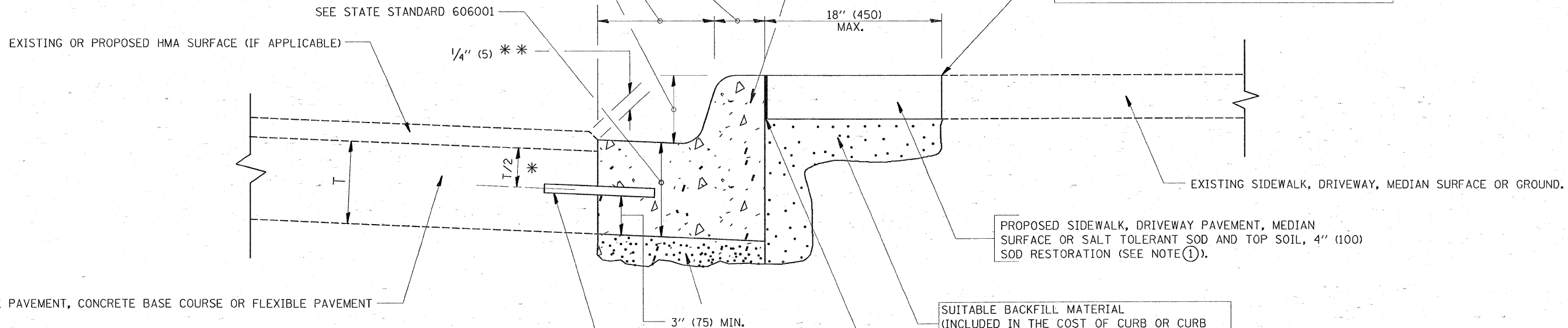
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = byunsh	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
os\pw_work\PW\DDT\BYUNSH\08137291\DistS	DRAWN	REVISED - R. BORO 01-01-07	3520			0405 RS-9	COOK	21	11	
PLOT SCALE = 50.0000' / IN.	CHECKED	REVISED - R. BORO 09-04-07	<b>BD400-04 (BD-22)</b>			CONTRACT NO.	60691			
PLOT DATE = 4/17/2009	DATE - 10-25-94	REVISED - K. ENG 10-27-08	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

VARIABLE - TO MEET EXISTING DIMENSIONS AND FIELD CONDITIONS (SEE NOTE ②)

PROP. CONC. CURB OR CURB AND GUTTER REPLACEMENT IN ACCORDANCE WITH STATE STANDARD 606001. (SEE NOTE ②)

SAW CUT FULL DEPTH - INCLUDED IN THE COST OF SIDEWALK, DRIVEWAY OR MEDIAN SURFACE REMOVAL PAY ITEM.



\* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

\*\* IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SALT TOLERANT SOD AND TOP SOIL, 4" (100) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

② CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

③ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

④ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑤ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑥ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

⑦ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

PROPOSED SIDEWALK, DRIVEWAY PAVEMENT, MEDIAN SURFACE OR SALT TOLERANT SOD AND TOP SOIL, 4" (100) SOD RESTORATION (SEE NOTE ①).

SUITABLE BACKFILL MATERIAL (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT)

PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

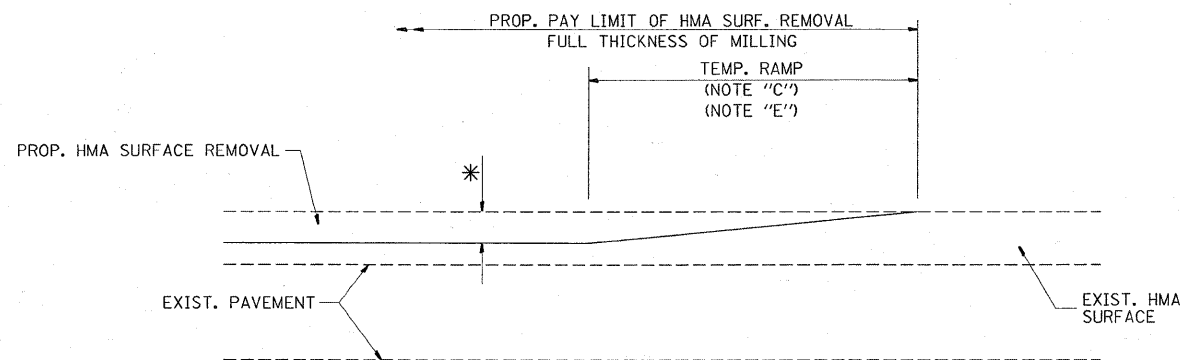
PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

**BASIS OF PAYMENT:**  
THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

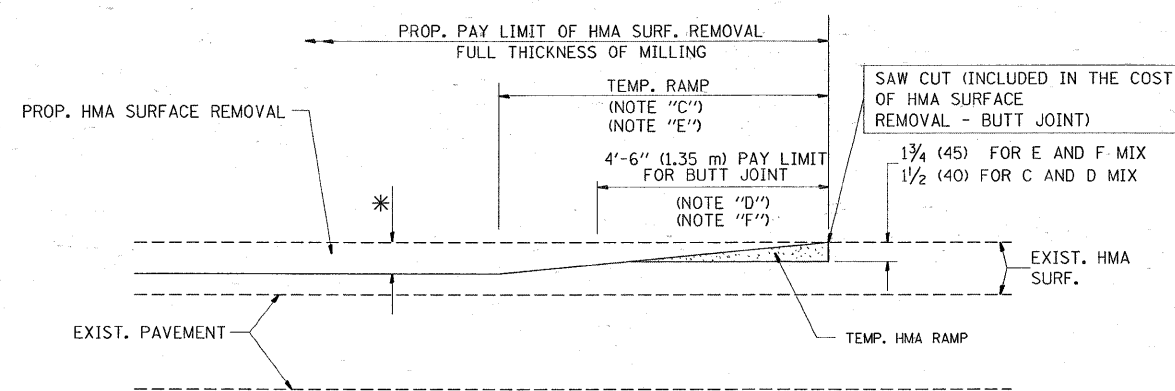
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = lbyunsh	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0:\pwork\PWIDOT\BYUNSH\d0137291\dst5.dgn	DRAWN -	REVISED - A. ABBAS 03-21-97	3520			0405 RS-9	COOK	21	12	
PLDT SCALE = 50.0000' / IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01	<b>BD600-06 (BD-24)</b>			CONTRACT NO. 60691				
PLDT DATE = 4/17/2009	DATE - 03-11-94	REVISED - R. BORO 01-01-07	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
					SCALE: NONE	SHEET NO. 1 OF 1 SHEETS		STA.	TO STA.	



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

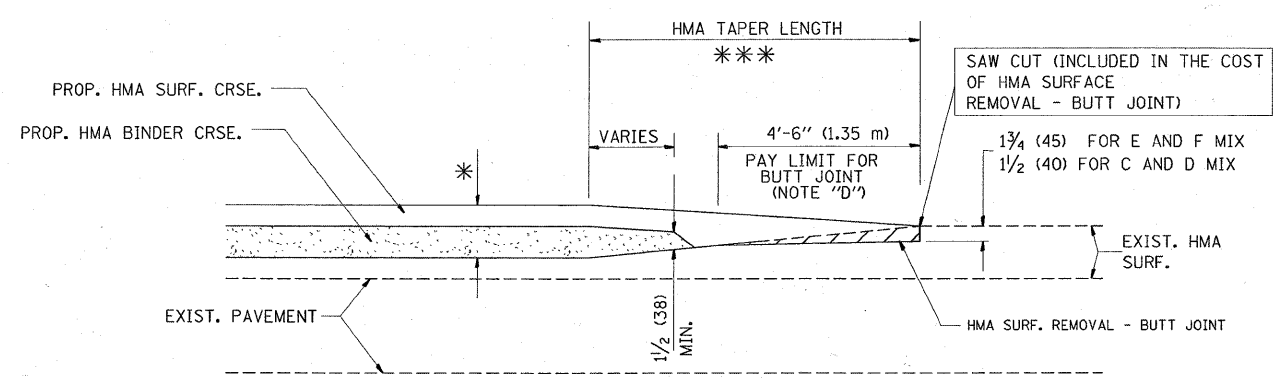
OPTION 1



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

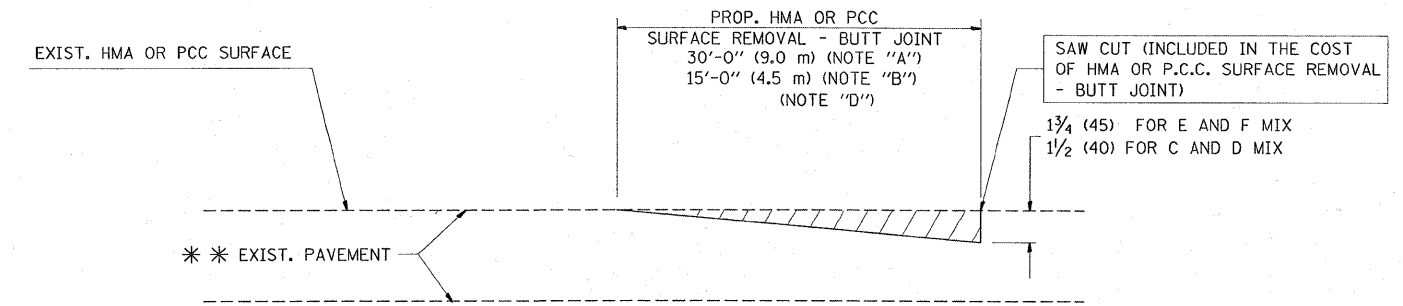
OPTION 2

TYPICAL TEMPORARY RAMP

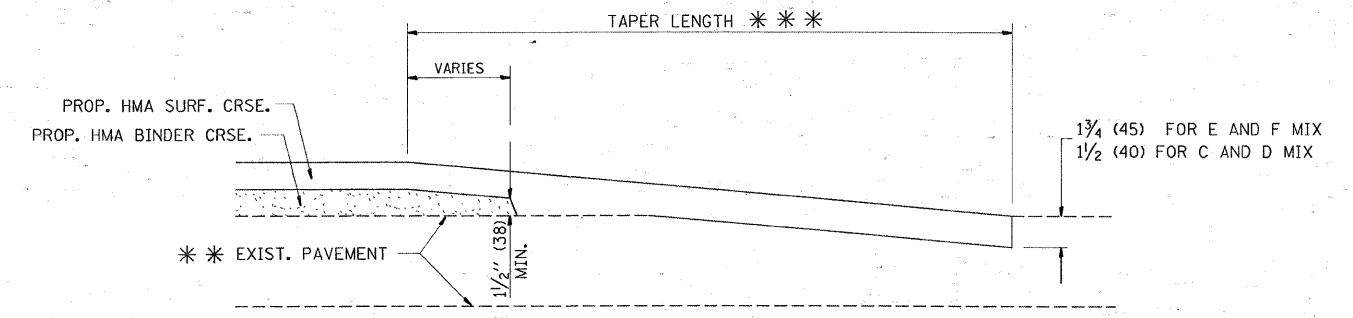


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER  
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER  
FOR RESURFACING ONLY

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

NOTES

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

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

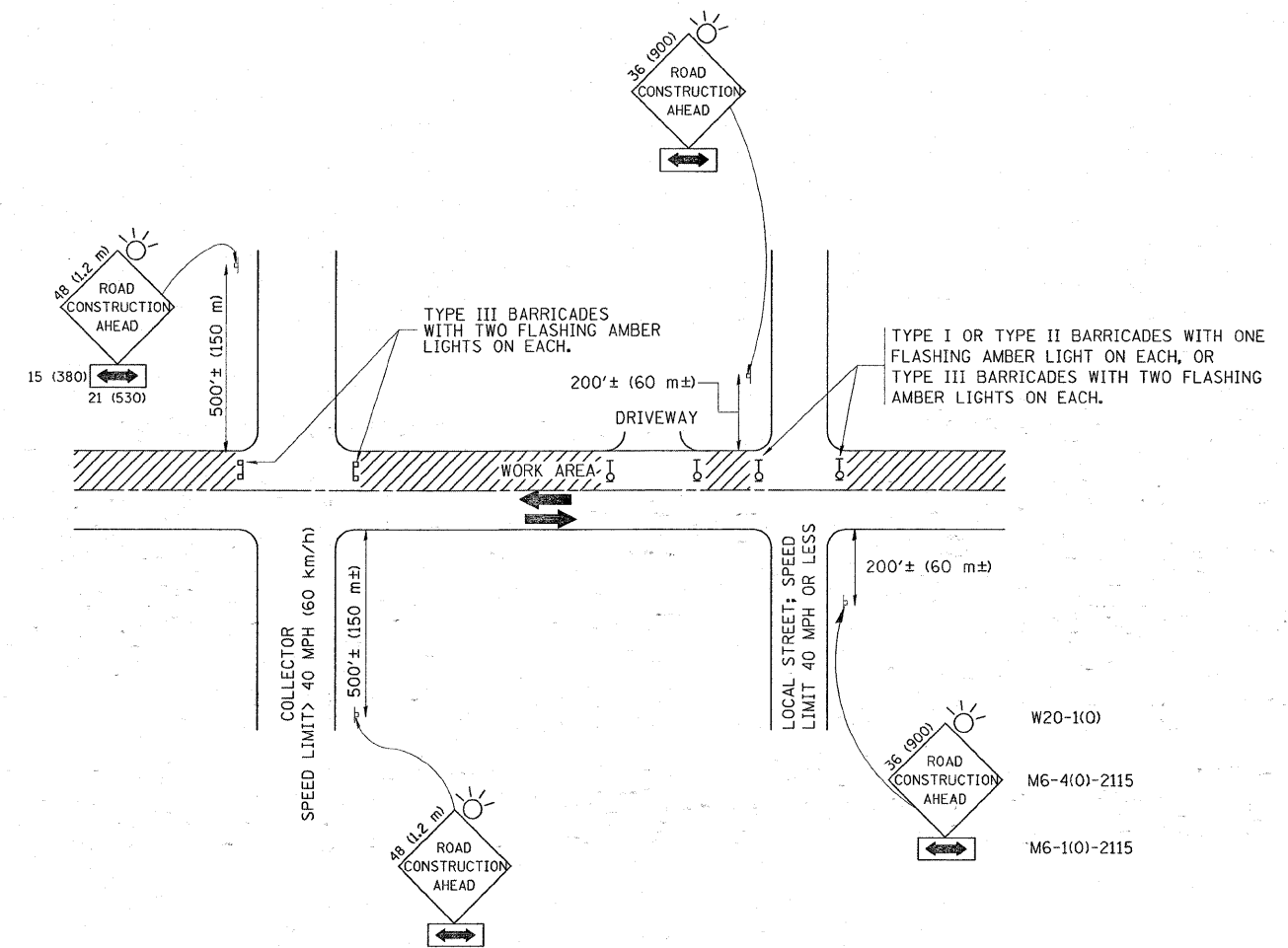
FILE NAME =	USER NAME = byunah	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
ct:\pw_work\PW\DDT\BYUNSH\0137291\01stS	d.dgn	DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 4/17/2009	DATE - 06-13-90	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND  
HMA TAPER DETAILS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3520	0405 RS-9	COOK	21	13
BD400-05 BD32			CONTRACT NO. 60691	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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

NOTES:

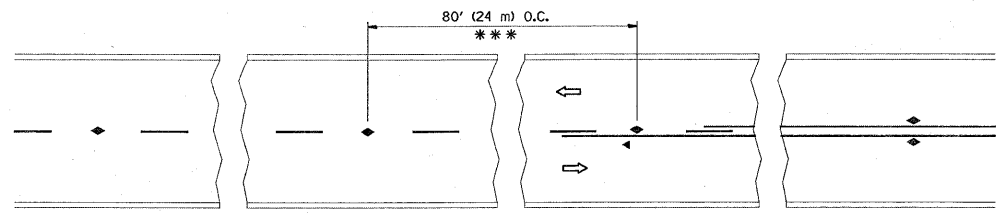
- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
  - 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 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.
  - 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - a) 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.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

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

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

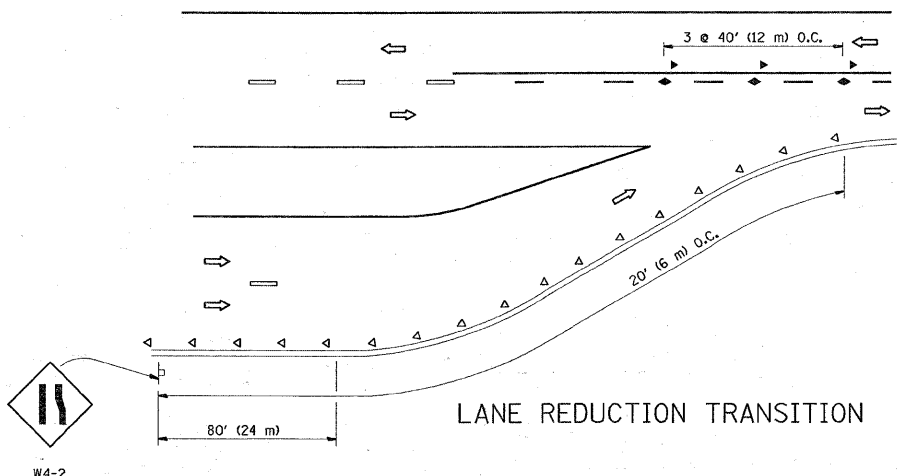
All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME =	USER NAME = byunsh	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pw_work\PWJ00T\BYUNSH\vd0137291\01st5.dgn	DRAWN -	REVISED - A. HOUSEH 03-06-96	REVISED - A. HOUSEH 10-15-96		3520	0405 RS-9	COOK	21	14			
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96			<b>TC-10</b>		<b>CONTRACT NO. 60G91</b>					
PLOT DATE = 4/17/2009	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

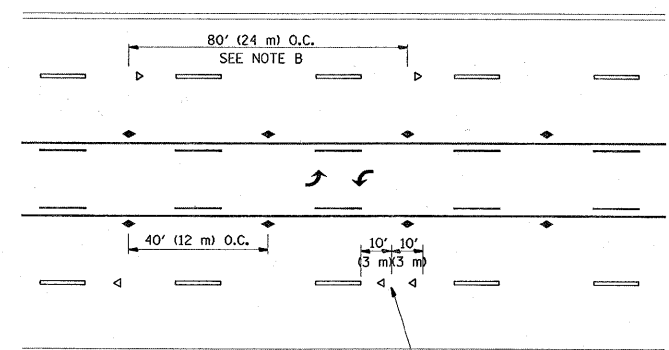


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

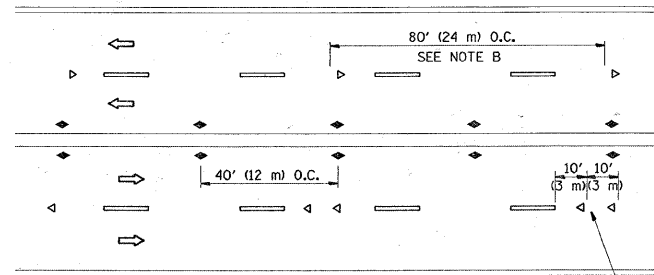
TWO-LANE/TWO-WAY



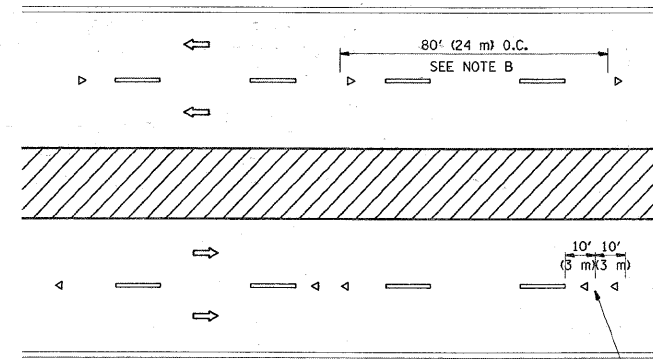
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

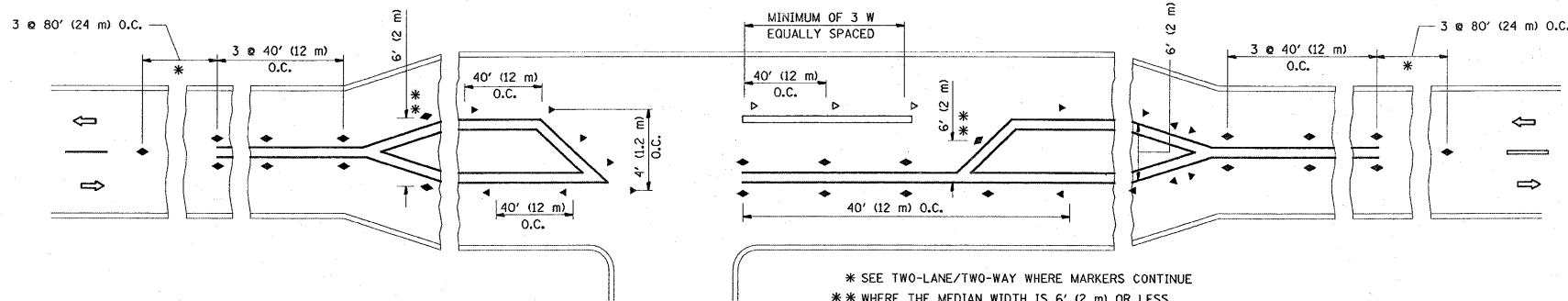
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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.

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.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

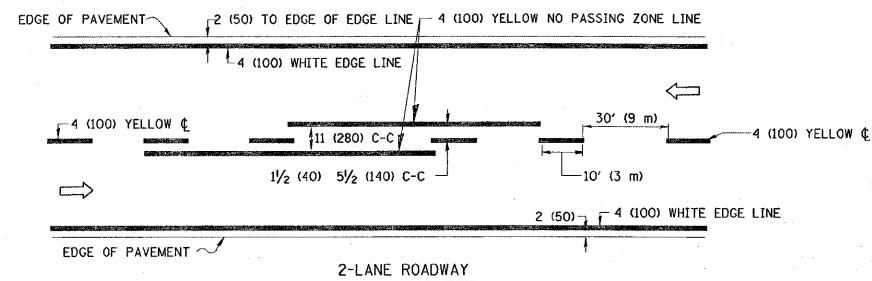


LEFT TURN

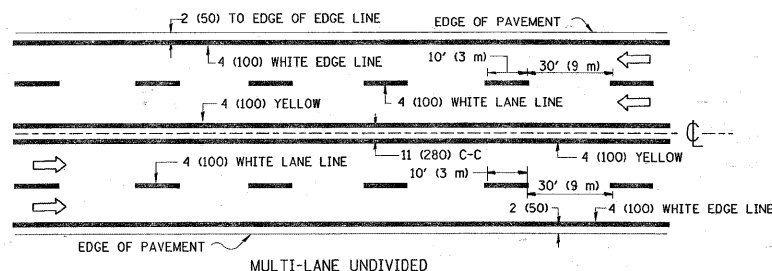
\* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE  
 \*\* WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

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

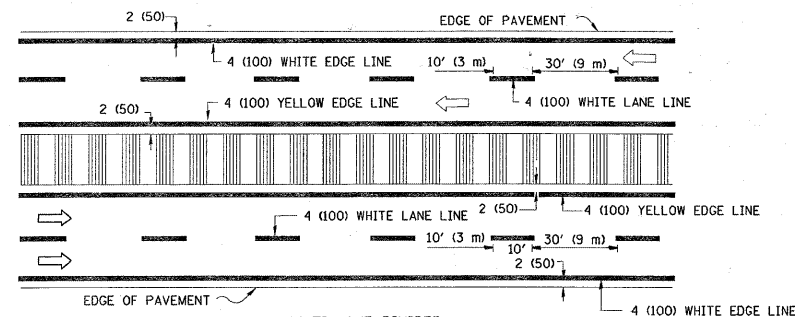
FILE NAME = c:\pw_work\PWIDOT\BYUNSH\d8137291\DistS.dgn	USER NAME = byunsh	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)</b>			F.A.U. RTE. 3520	SECTION 0405 RS-9	COUNTY COOK	TOTAL SHEETS 21	SHEET NO. 15
	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED - T. RAMMACHER 03-12-99		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	<b>TC-11</b>		CONTRACT NO. 60G91		
	PLOT DATE = 4/17/2009	CHECKED -	REVISED - T. RAMMACHER 01-06-00		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
		DATE -	REVISED -									



2-LANE ROADWAY



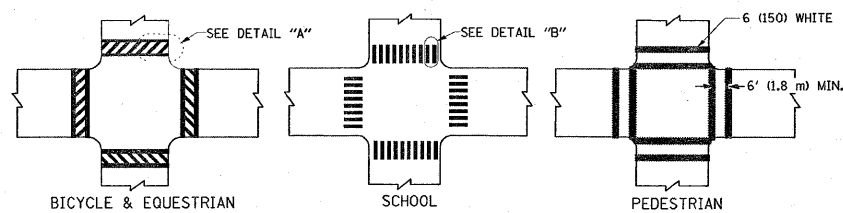
MULTI-LANE UNDIVIDED



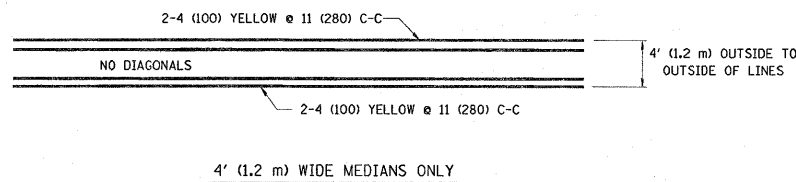
MULTI-LANE DIVIDED WITH MOUNTABLE MEDIAN

NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

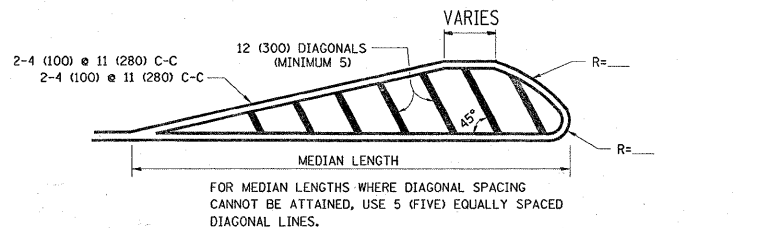
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

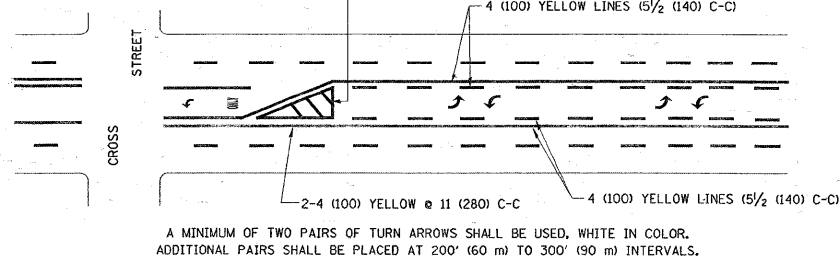


4' (1.2 m) WIDE MEDIANS ONLY

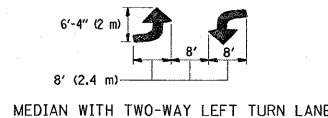


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))  
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)  
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

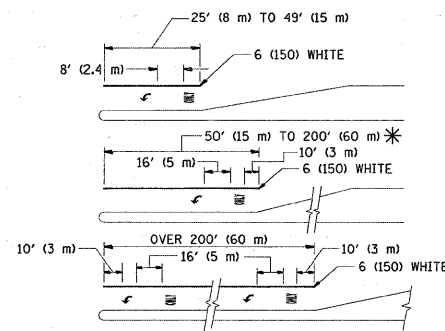


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

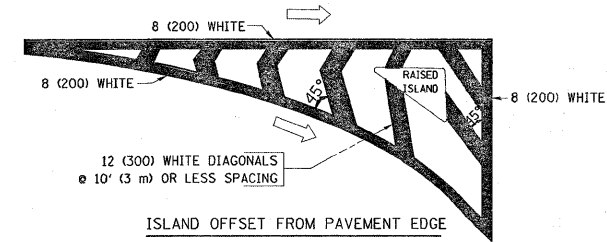


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
\* AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

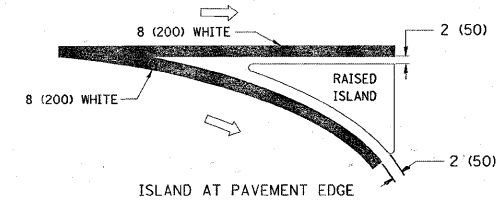
\* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

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 YELLOW	5/2 (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 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (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 SEE 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 @ 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" 15 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) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

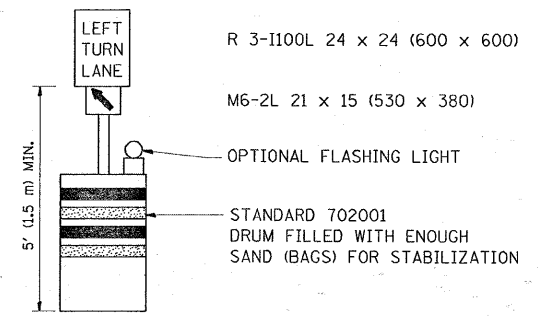
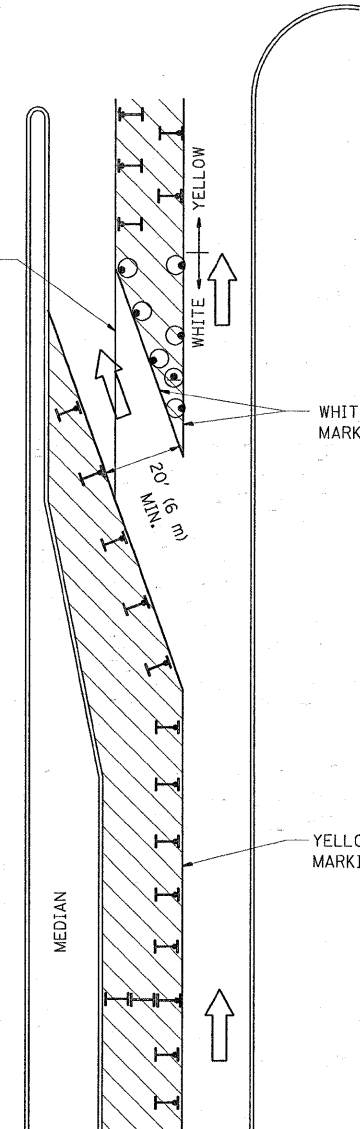
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

FILE NAME =	USER NAME = byunah	DESIGNED - EVERS	REVISED - T. RAMMACHER 10-27-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE TYPICAL PAVEMENT MARKINGS	F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLDT SCALE = 50.00000' / IN.	CHECKED -	REVISOR - A. HOUSEH 10-09-96	REVISOR - A. HOUSEH 10-09-96			3520	0405 RS-9	COOK	21	16
PLOT DATE = 4/17/2009	DATE - 03-19-90	REVISOR - A. HOUSEH 10-17-96	REVISOR - T. RAMMACHER 01-06-00			TC-13				
						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				CONTRACT NO. 60G91



CONFLICTING PAVEMENT MARKING REMOVAL

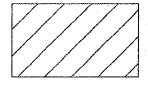







**GENERAL NOTES**

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM BT 725 IS REQUIRED.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

**LEGEND**

-  WORK AREA
-  LANE OPEN TO TRAFFIC
-  TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
-  DRUM WITH STEADY BURN LIGHT
-  DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
-  TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

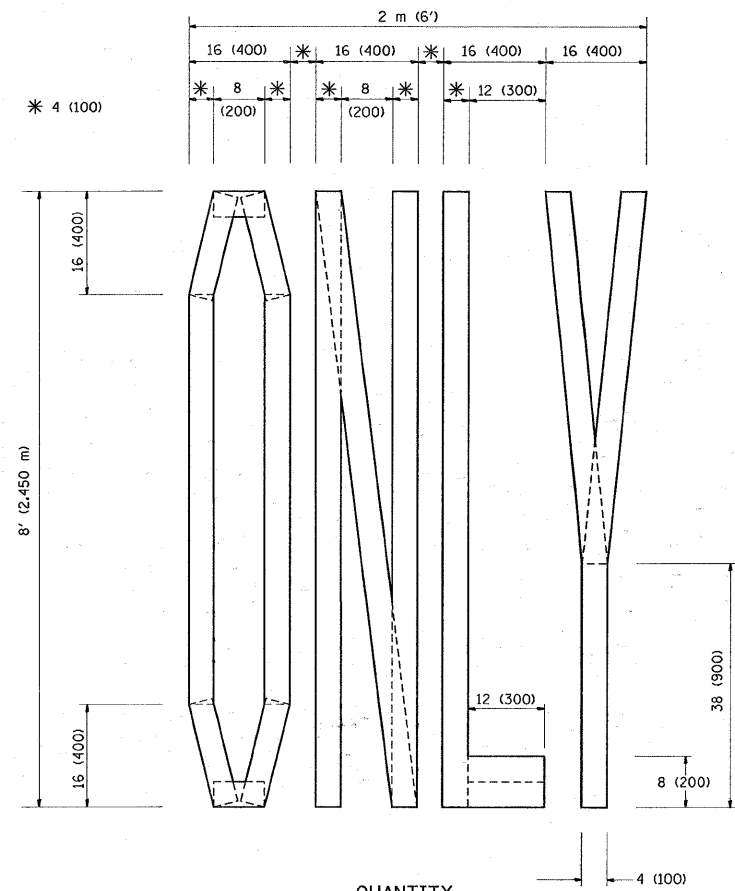
FILE NAME =	USER NAME = byunah	DESIGNED -	REVISED -T. RAMMACHER 09-08-94
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		CHECKED -	REVISED - A. HOUSEH 10-12-96
		DATE -	REVISED -T. RAMMACHER 01-06-00

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

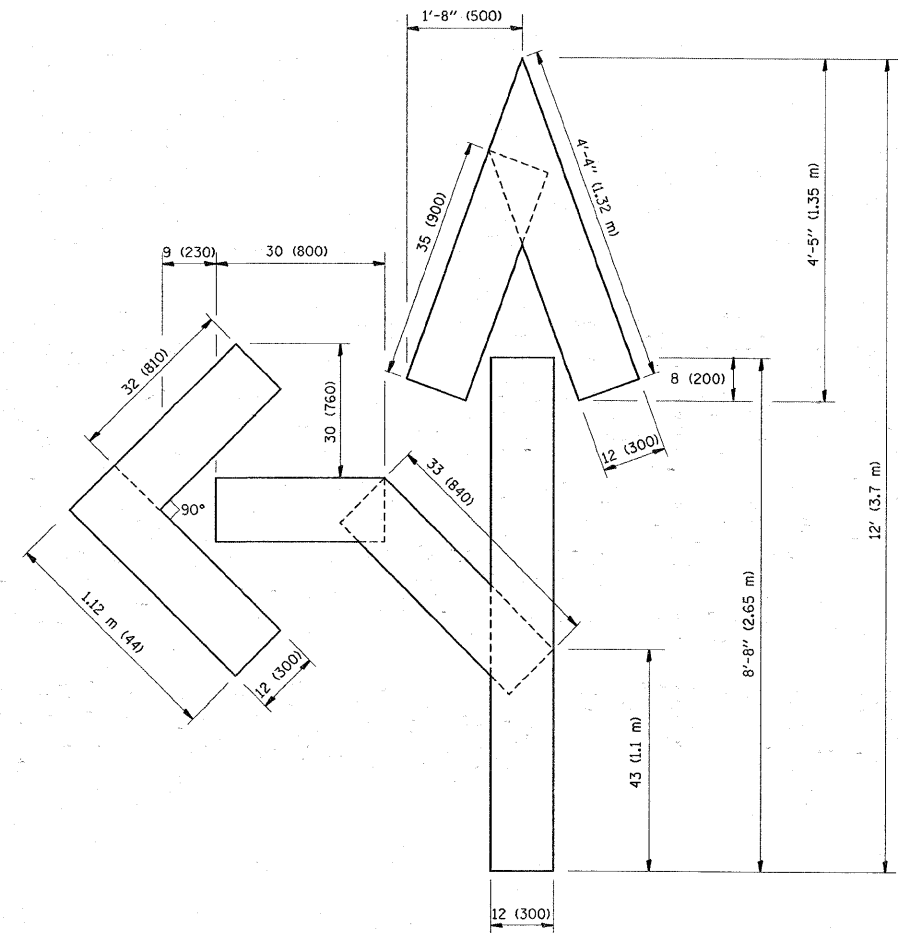
**TRAFFIC CONTROL AND PROTECTION AT TURN BAYS  
(TO REMAIN OPEN TO TRAFFIC)**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3520	0405 RS-9	COOK	21	17
TC-14		CONTRACT NO. 60G91		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

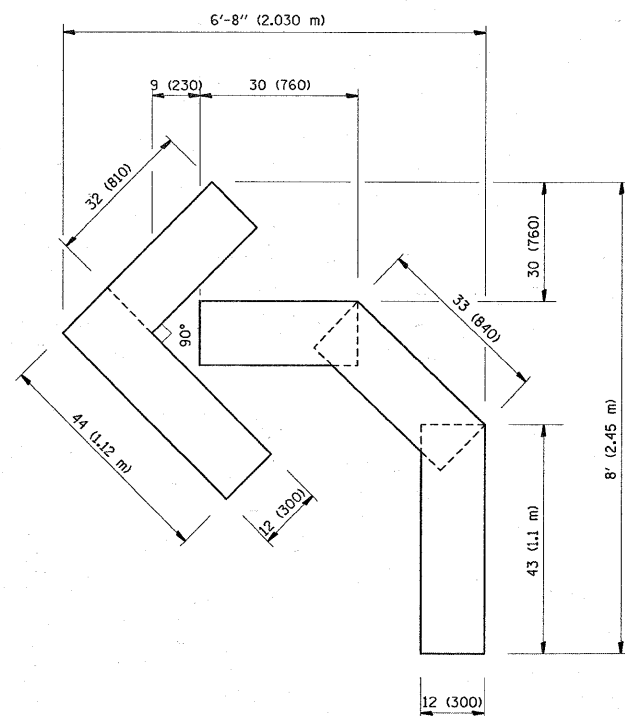
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.



QUANTITY  
 4 (100) LINE = 64.1 ft. (19.7 m)  
 21.1 sq. ft. (1.97 sq. m)



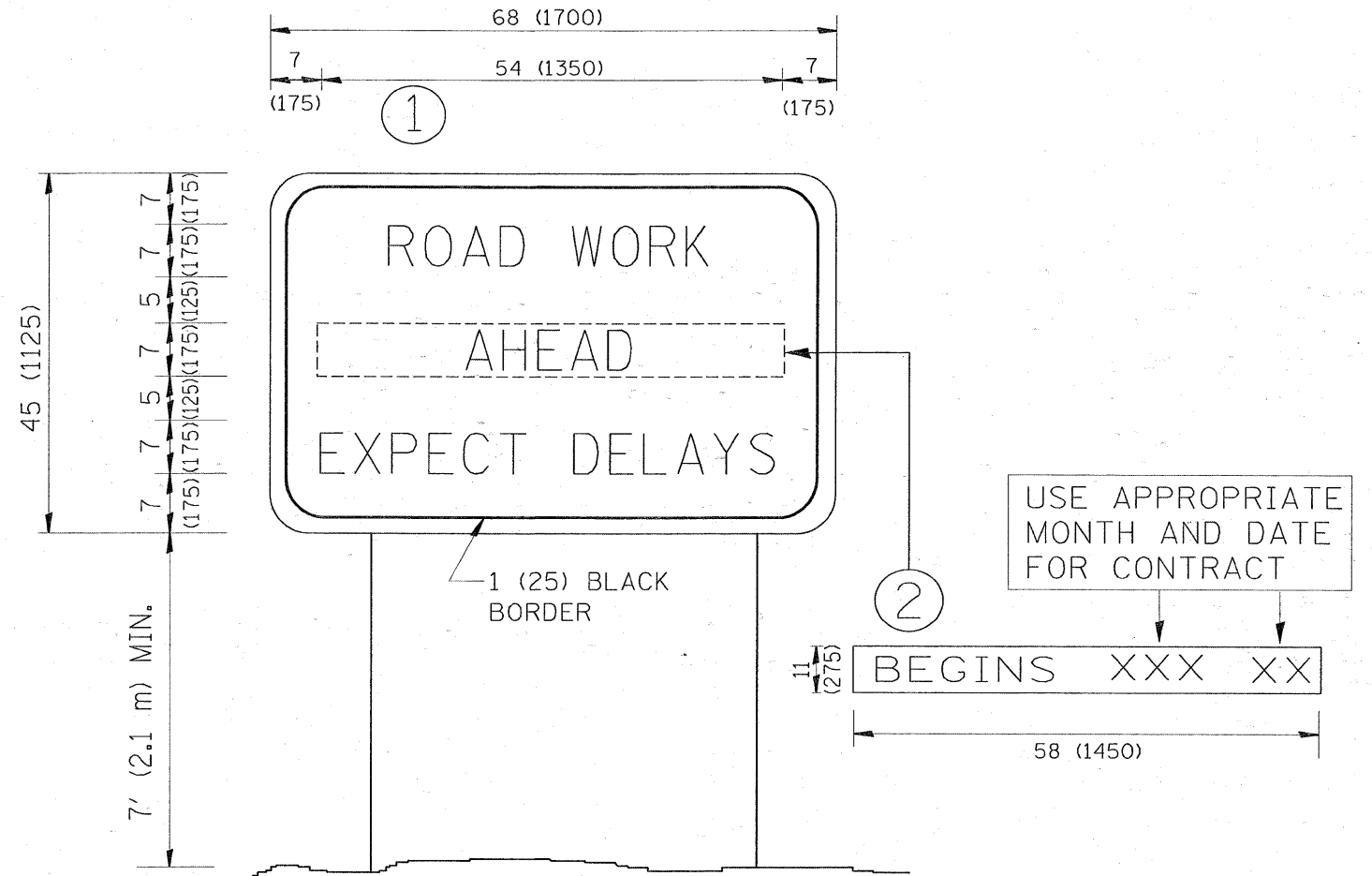
QUANTITY  
 4 (100) LINE = 82.5 ft. (25.3 m)  
 27.5 sq. ft. (2.53 sq. m)



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

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

FILE NAME =	USER NAME = byunsh	DESIGNED -	REVISED -T. RAMMACHER 06-05-96	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\PW\DOT\BYUNSH\d0137291\d1st5.dgn	DRAWN -	REVISED -T. RAMMACHER 11-04-97	3520					0405 RS-9	COOK	21	18	
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98	TC-16			CONTRACT NO. 60691						
PLOT DATE = 4/17/2009	DATE = 09-18-94	REVISED -E. GOMEZ 08-28-00	SCALE: NONE		SHEET NO. 1	OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				



**NOTES:**

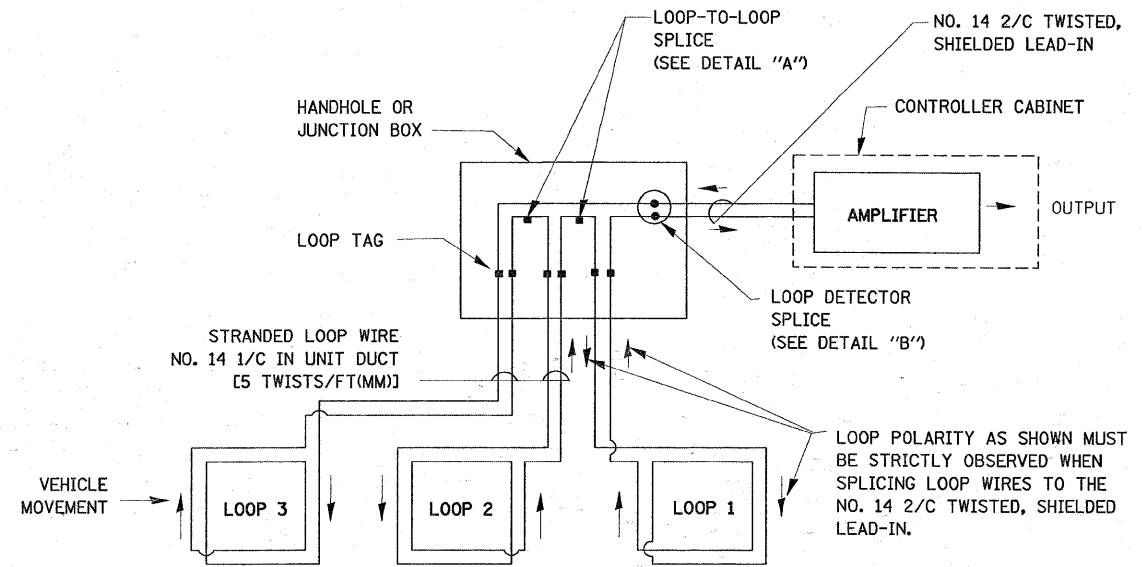
1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
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.

FILE NAME =	USER NAME = byunah	DESIGNED -	REVISED - R. MIRS 09-15-97	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ARTERIAL ROAD INFORMATION SIGN</b>			F.A.U. RTE. 3520	SECTION 0405 RS-9	COUNTY COOK	TOTAL SHEETS 21	SHEET NO. 19
cr:\pw\work\PWIDOT\BYUNSH\d0137291\DistS	d.dgn	DRAWN -	REVISED - R. MIRS 12-11-97		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	TC-22	CONTRACT NO.	60691	
		PLOT SCALE = 50.0000' / IN.	CHECKED -		REVISED - T. RAMMACHER 02-02-99	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						
		PLOT DATE = 4/17/2009	DATE -		REVISED - C. JUCIUS 01-31-07							

**LOOP DETECTOR NOTES**

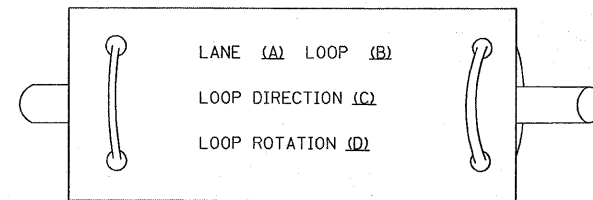
- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED 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.
- 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.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- 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.
- 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.
- 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.



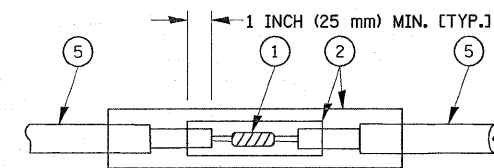
**DETECTOR LOOP WIRING SCHEMATIC**

- 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.

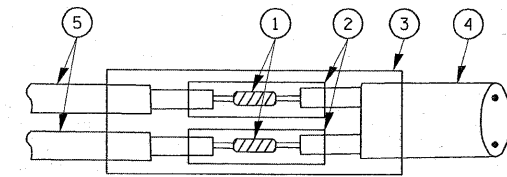
**LOOP LEAD-IN CABLE TAG**



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



**DETAIL "A"  
LOOP-TO-LOOP SPLICE**



**DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE**

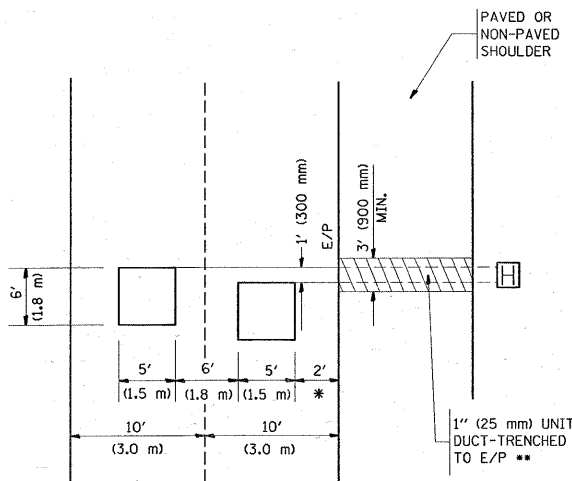
**LOOP DETECTOR SPLICE**

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

FILE NAME =	USER NAME = byunsh	DESIGNED - D.A.D.	REVISED - 11-12-01	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
cr\pw_work\PWIDOT\BYUNSH\0137291\DistS	d.dgn	DRAWN - R.W.P.	REVISED - BUR. TRAFFIC 01-01-02			3520	0405 RS-9	COOK	21	20
PLOT SCALE = 50.0000' / IN.	CHECKED - D.A.Z.	DATE - 05-30-00	REVISED -			<b>TS-05</b>		<b>CONTRACT NO. 60G91</b>		
PLOT DATE = 4/17/2009	DATE - 05-30-00	REVISED -		SCALE: NONE	SHEET NO. 1 OF 4 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			

**LOOPS NEXT TO SHOULDERS**

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

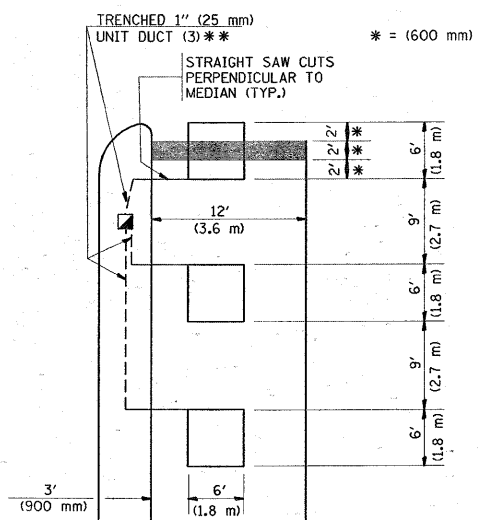


\* = (600 mm)

\*\* 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.



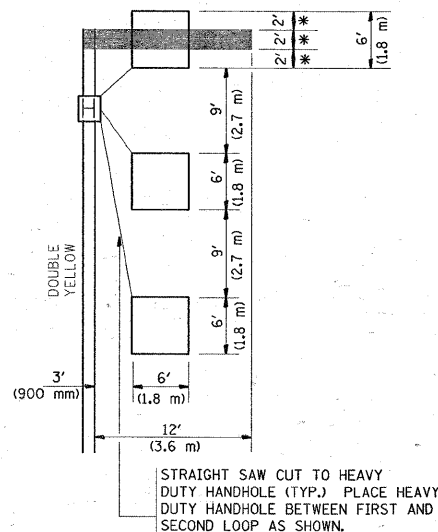
\* = (600 mm)

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

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

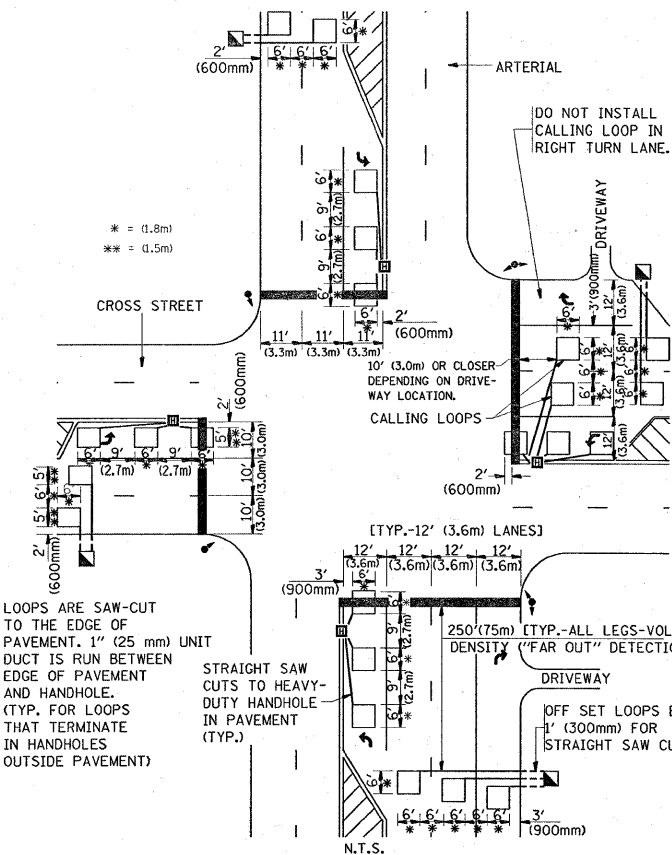
**LEFT TURN LANES WITHOUT MEDIANS**  
VOLUME DENSITY ("FAR OUT" DETECTION)  
ON SAME APPROACH  
(PROTECTED / PERMITTED LEFT TURN PHASING)

\* = (600 mm)



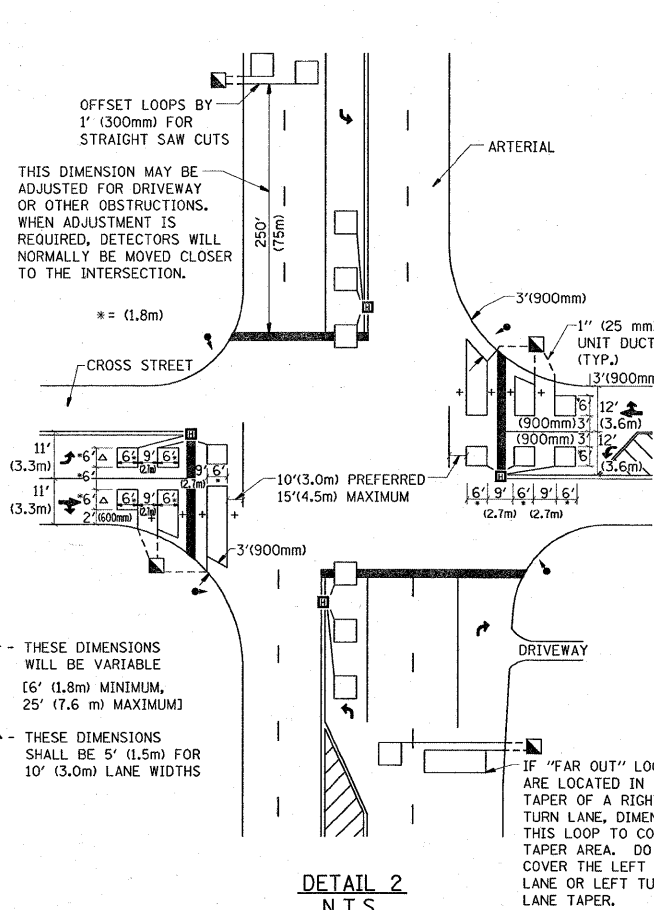
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



**DETAIL 1**  
N.T.S.

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



**DETAIL 2**  
N.T.S.

**NOTES:**

**VEHICLES LOOP DETECTORS**

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

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

**NOTE:**

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

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

FILE NAME =	USER NAME = byunah	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT 1 - DETECTOR LOOP INSTALLATION</b> <b>DETAILS FOR ROADWAY RESURFACING</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwwork\FWIDOT\BYUNSH\d0137291\d1st5.dgn	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED -			3520	0405 RS-9	COOK	21	21
	PLOT DATE = 4/17/2009	CHECKED - R.K.F.	REVISED -			<b>TS-07</b>		<b>CONTRACT NO. 60G91</b>		
		DATE -	REVISED -			SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.
						FED. ROAD DIST. NO. 1 ILLINOIS/FED. AID PROJECT				