

01-20-2017 LETTING ITEM 021

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3519	(66&0103)RS	COOK	33	1
		ILLINOIS	CONTRACT NO. 62D21	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THE IMPROVEMENT IS LOCATED IN THE VILLAGE OF NILES

# PROPOSED HIGHWAY PLANS

F.A.U. ROUTE 3519: HARTS RD.  
MILWAUKEE AVE. TO CRONAME RD.  
SECTION: (66&0103)RS  
PROJECT: ACM-3519(001)  
RESURFACING (3P), PEDESTRIAN RAMPS  
COOK COUNTY

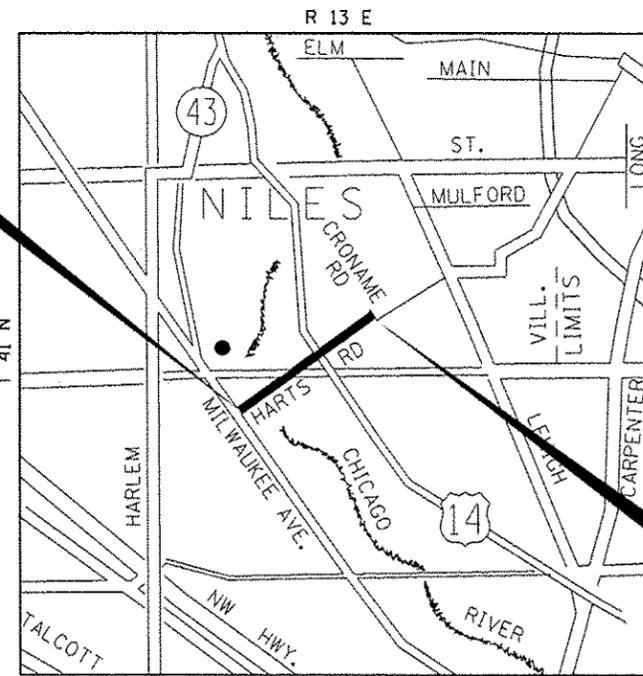
C-91-439-16

TRAFFIC DATA:  
2014 ADT = 4,750  
POSTED SPEED LIMIT = 35 MPH

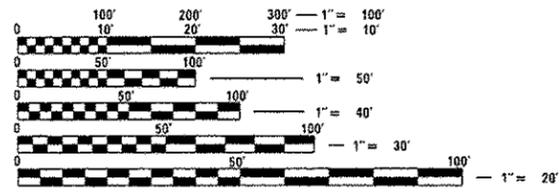


IMPROVEMENT BEGINS  
STA. 10+30

OMISSION:  
STA. 14+23.4 TO STA. 16+26.4  
STA. 27+67.4 TO STA. 37+82.5



IMPROVEMENT ENDS  
STA. 51+64



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 KARI SMITH (847) 705-4437  
PROJECT MANAGER FAWAD AQUEEL (847) 705-4247

CONTRACT NO. 62D21

GROSS LENGTH = 4,134 FT. = 0.78 MILE  
NET LENGTH = 2,915.9 FT. = 0.55 MILE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED *October 20, 2016*

*John Fawcett*  
REGIONAL ENGINEER

*December 9, 2016*  
*Muhammad M. Adis*  
ENGINEER OF DESIGN AND ENVIRONMENT

*December 9, 2016*  
DIRECTOR OF PROGRAM DEVELOPMENT

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS





URBAN

URBAN

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	80% FED 20% STATE 0005			
60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	3	3			
60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	3	3			
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	19	19			
* 66900450	SPECIAL WASTE PLANS AND REPORTS	LSUM	1	1			
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	3	3			
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6			
67100100	MOBILIZATION	LSUM	1	1			
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	LSUM	1	1			
70102622	TRAFFIC CONTROL AND PROTECTION, STANDARD 701502	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	2155	2155			
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SO FT	719	719			

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	80% FED 20% STATE 0005			
70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SO FT	198	198			
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	8332	8332			
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	1255	1255			
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	222	222			
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	143	143			
70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	1078	1078			
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	198	198			
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	8332	8332			
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1255	1255			
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	222	222			
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	143	143			
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	143	143			
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	115	115			

FILE NAME :	USER NAME : parayool	DESIGNED -	REVISED -
D:\NLD\ME\BID\HTC\Illinois\gov\PI\DOT\Document\10007	Offices\Dr\ltd\Projects\04396\CADD\02\Design\04396	DRAWN -	REVISED -
	PLOT SCALE = 1000000' / 1"	CHECKED -	REVISED -
	PLOT DATE = 10/21/2016	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES			
SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3519	(66&0103)RS	COOK	33	4
CONTRACT NO. 62021				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

\* SPECIALTY ITEM



**LEGEND**

- ① EXISTING P.C.C PAVEMENT, ± 8"
- ② EXISTING HMA SURFACE AFTER MILLING, ± 3"
- ③ EXISTING COMB. CONCRETE CURB & GUTTER
- ④ EXISTING HMA SHOULDER
- ⑤ EXISTING AGGREGATE SHOULDER
- ⑥ PROPOSED HMA SURFACE REMOVAL, 2 1/4"
- ⑦ PROPOSED HMA SURFACE REMOVAL, 1 1/2"
- ⑧ PROPOSED HMA SURFACE COURSE, MIX "D", N70, 1 1/2"
- ⑨ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- ⑩ PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- ⑪ PROPOSED GRADING AND SHAPING SHOULDERS

**HOT-MIX ASPHALT MIXTURE REQUIREMENTS**

MIXTURE TYPE	AIR VOIDS @ Ndes	QMP
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*ROADWAY RESURFACING:*

HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 mm)	4% AT 70 GYR.	QCP
POLY. LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	3.5% AT 50 GYR.	QC / OA

*PARKING LANE RESURFACING:*

* HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 mm)	4% AT 70 GYR.	QC / OA
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*HOT-MIX ASPHALT PATCHING:*

CLASS D PATCHES (HMA BINDER IL-19 mm)	4% AT 70 GYR.	QC / OA
---------------------------------------	---------------	---------

QMP Designation: Quality Control/Quality Assurance (QC/OA);  
Quality Control for Performance (QCP); Pay for Performance (PFP)

**NOTES:**

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

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 USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.

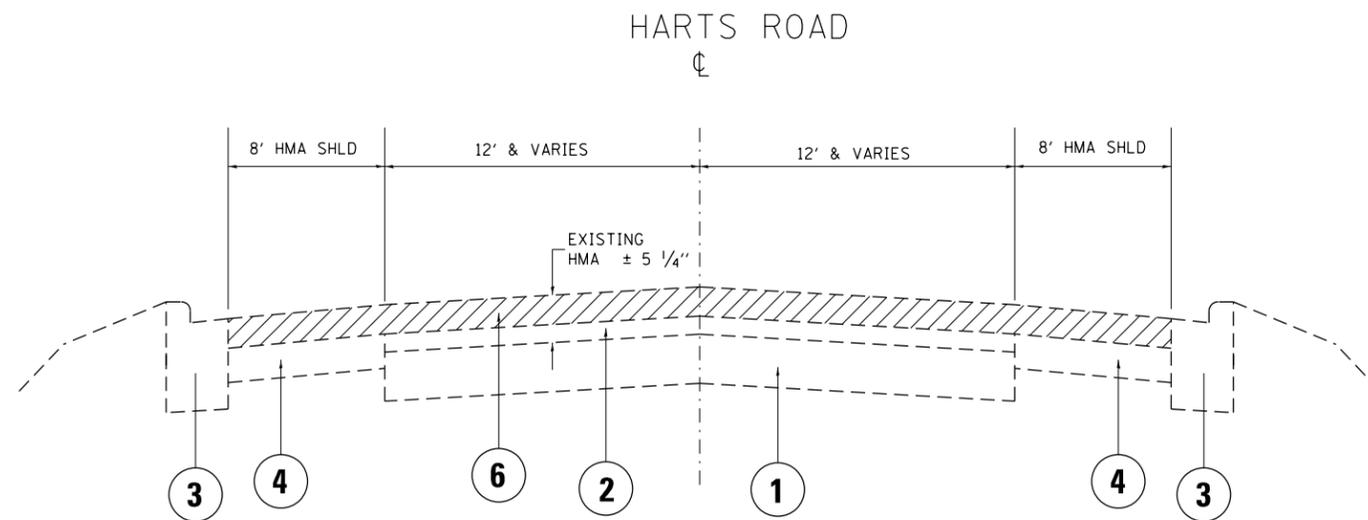
QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.

**NOTE:**

THE CONTRACTOR SHALL MILL THE ROADWAY FIRST, THEN DO PAVEMENT PATCHING PER BD-22 DETAIL.

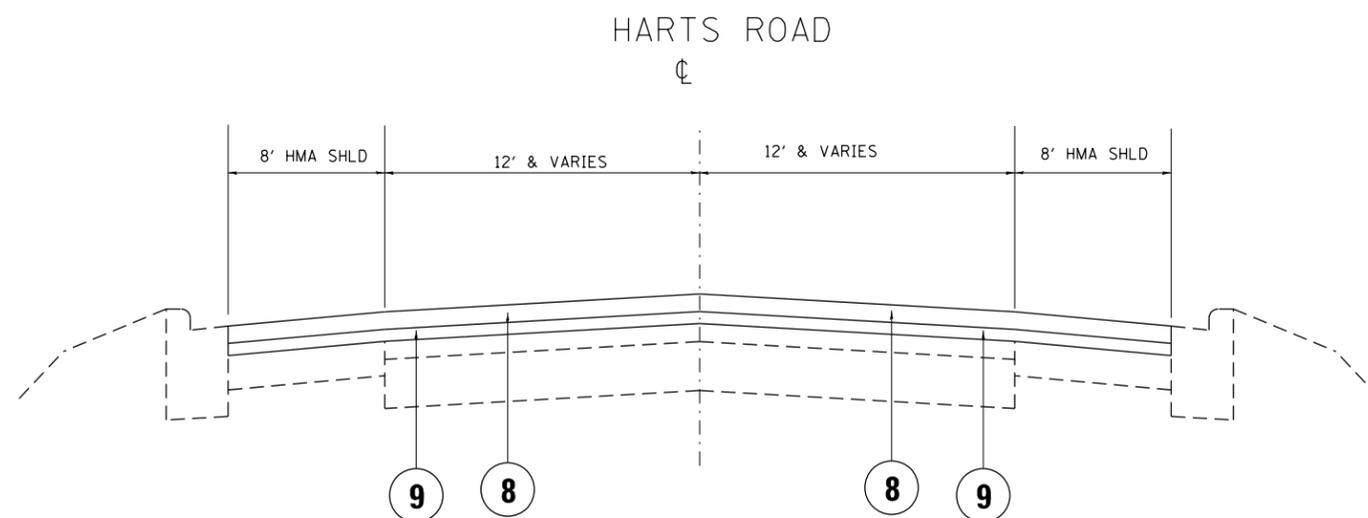
WHERE GUARDRAILS ARE PRESENT ON HMA SHOULDER THE MILLING AND RESURFACING LIMIT SHALL BE A MINIMUM OF ONE FOOT AWAY FROM THE GUARDRAIL FACE.

\* THE HMA MIXTURE USED FOR THIS APPLICATION SHALL MEET MINIMUM QC / OA TESTING REQUIREMENTS IN ACCORDANCE WITH ART. 1030 OF THE STANDARD SPECIFICATIONS.



EXIST. TYPICAL SECTION

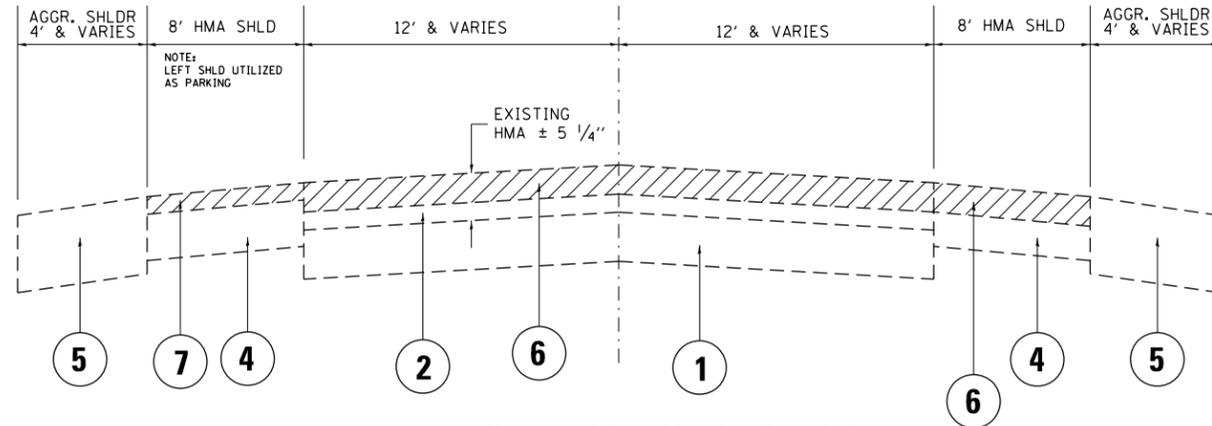
STA. 10+30 TO STA. 14+23.4  
STA. 16+26.4 TO STA. 18+50  
STA. 25+95 TO STA. 31+02  
STA. 32+50 TO STA. 51+64



PROP. TYPICAL SECTION

STA. 10+30 TO STA. 14+23.4  
STA. 16+26.4 TO STA. 18+50  
STA. 25+95 TO STA. 31+02  
STA. 32+50 TO STA. 51+64

HARTS ROAD



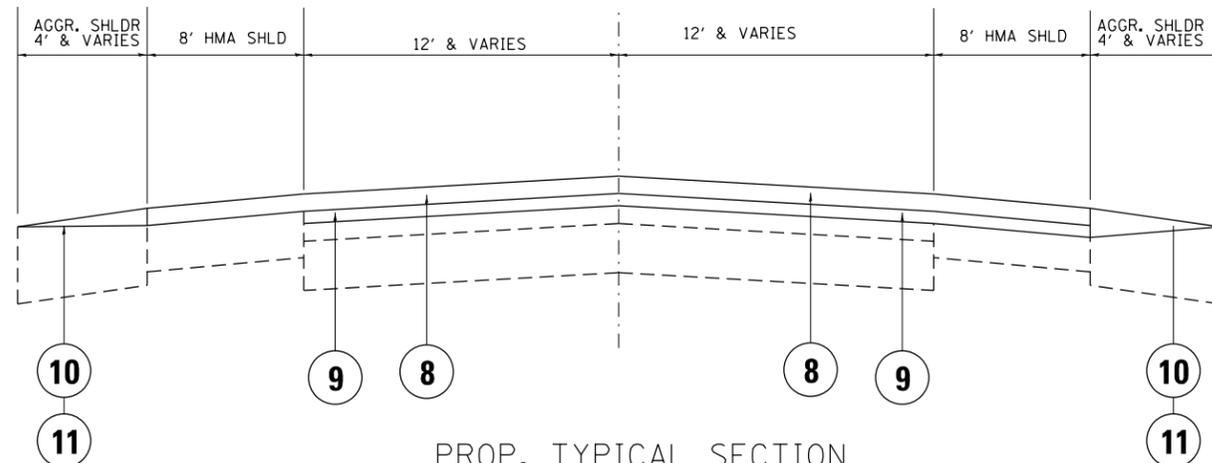
EXIST. TYPICAL SECTION

STA. 18+50 TO STA. 25+95

LEGEND

- ① EXISTING P.C.C PAVEMENT, ± 8"
- ② EXISTING HMA SURFACE AFTER MILLING, ± 3"
- ③ EXISTING COMB. CONCRETE CURB & GUTTER
- ④ EXISTING HMA SHOULDER
- ⑤ EXISTING AGGREGATE SHOULDER
- ⑥ PROPOSED HMA SURFACE REMOVAL, 2 1/4"
- ⑦ PROPOSED HMA SURFACE REMOVAL, 1 1/2"
- ⑧ PROPOSED HMA SURFACE COURSE, MIX "D", N70, 1 1/2"
- ⑨ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- ⑩ PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- ⑪ PROPOSED GRADING AND SHAPING SHOULDERS

HARTS ROAD

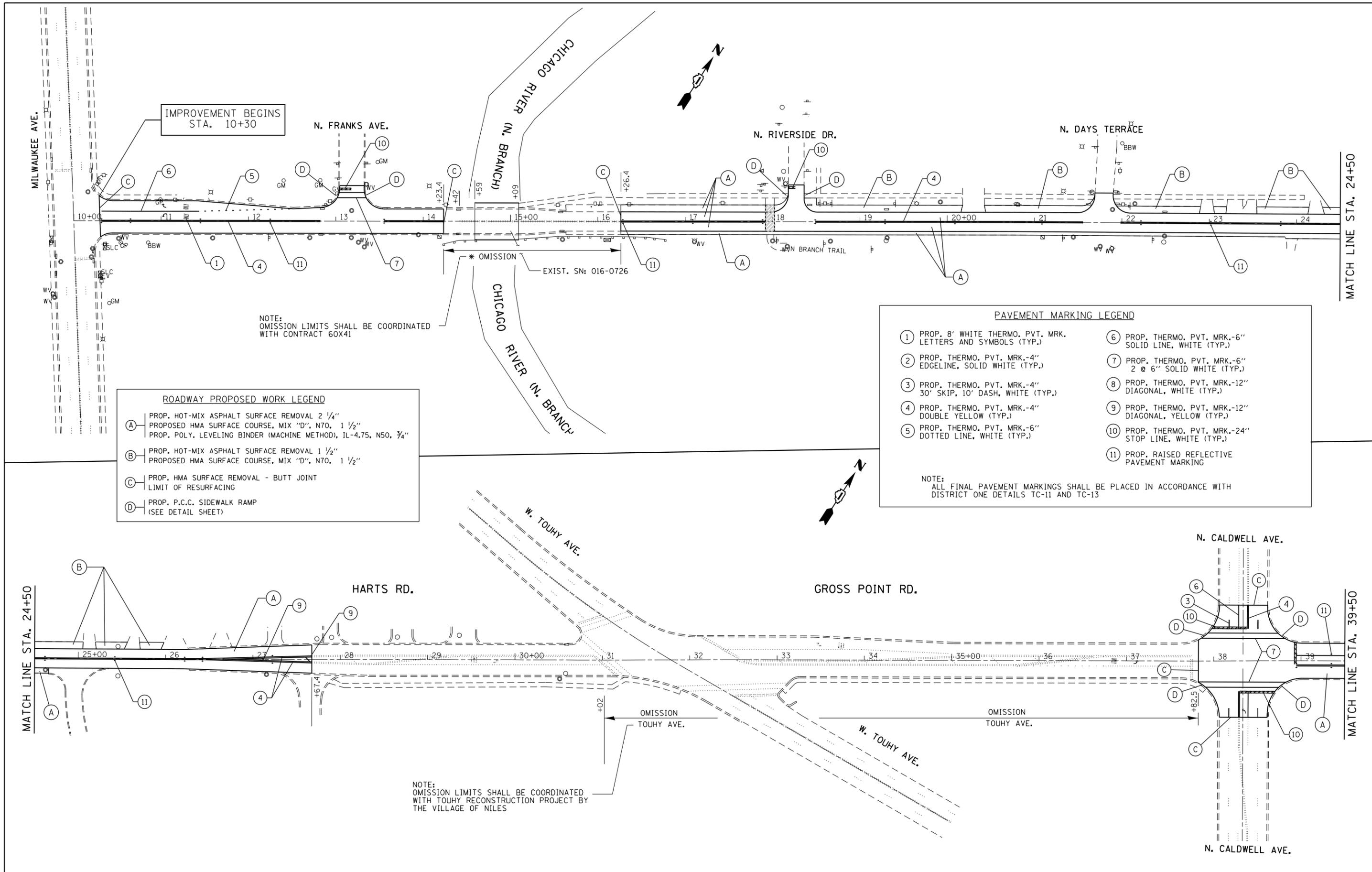


PROP. TYPICAL SECTION

STA. 18+50 TO STA. 25+95

NOTE:  
THE CONTRACTOR SHALL MILL THE ROADWAY FIRST, THEN DO PAVEMENT PATCHING PER BD-22 DETAIL.  
WHERE GUARDRAILS ARE PRESENT ON HMA SHOULDER THE MILLING AND RESURFACING LIMIT SHALL BE A MINIMUM OF ONE FOOT AWAY FROM THE GUARDRAIL FACE.

FILE NAME =	USER NAME = paraynoal	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>HARTS RD (MILWAUKEE AVE. TO CRONAME RD.)</b>	F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\1\1084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI43916\Drawings\Design\DI43916-sh-t-plan.dgn		CHECKED -	REVISED -			3519	(66&0103)RS	COOK	33	7
PLOT SCALE = 100.0000' / 1in.		DATE -	REVISED -			CONTRACT NO. 62D21				
PLOT DATE = 10/20/2016						SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.



**ROADWAY PROPOSED WORK LEGEND**

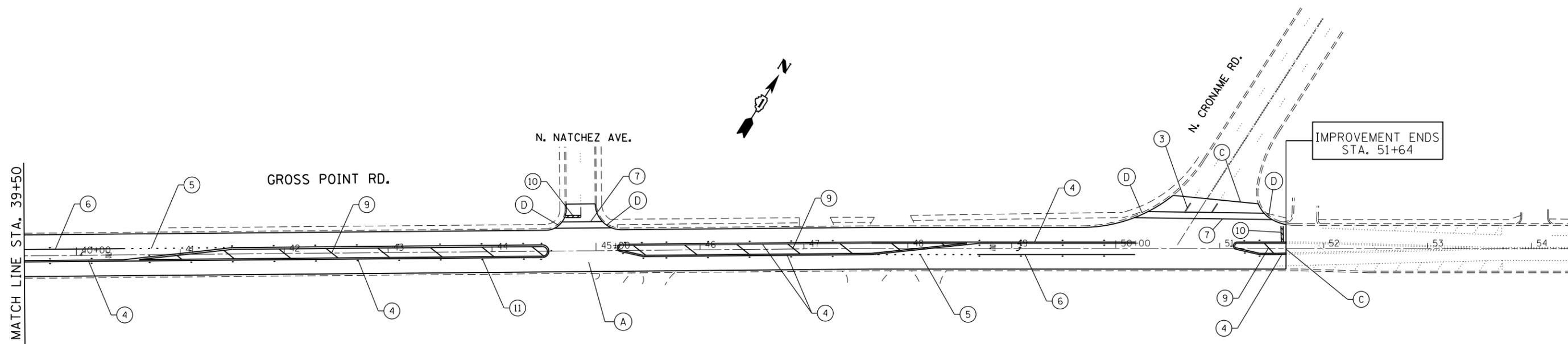
(A)	PROP. HOT-MIX ASPHALT SURFACE REMOVAL 2 1/4" PROPOSED HMA SURFACE COURSE, MIX "D", N70, 1 1/2" PROP. POLY. LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
(B)	PROP. HOT-MIX ASPHALT SURFACE REMOVAL 1 1/2" PROPOSED HMA SURFACE COURSE, MIX "D", N70, 1 1/2"
(C)	PROP. HMA SURFACE REMOVAL - BUTT JOINT LIMIT OF RESURFACING
(D)	PROP. P.C.C. SIDEWALK RAMP (SEE DETAIL SHEET)

**PAVEMENT MARKING LEGEND**

(1)	PROP. 8' WHITE THERMO. PVT. MRK. LETTERS AND SYMBOLS (TYP.)	(6)	PROP. THERMO. PVT. MRK.-6" SOLID LINE, WHITE (TYP.)
(2)	PROP. THERMO. PVT. MRK.-4" EDGE LINE, SOLID WHITE (TYP.)	(7)	PROP. THERMO. PVT. MRK.-6" 2 @ 6" SOLID WHITE (TYP.)
(3)	PROP. THERMO. PVT. MRK.-4" 30' SKIP, 10' DASH, WHITE (TYP.)	(8)	PROP. THERMO. PVT. MRK.-12" DIAGONAL, WHITE (TYP.)
(4)	PROP. THERMO. PVT. MRK.-4" DOUBLE YELLOW (TYP.)	(9)	PROP. THERMO. PVT. MRK.-12" DIAGONAL, YELLOW (TYP.)
(5)	PROP. THERMO. PVT. MRK.-6" DOTTED LINE, WHITE (TYP.)	(10)	PROP. THERMO. PVT. MRK.-24" STOP LINE, WHITE (TYP.)
		(11)	PROP. RAISED REFLECTIVE PAVEMENT MARKING

NOTE:  
ALL FINAL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH  
DISTRICT ONE DETAILS TC-11 AND TC-13

FILE NAME =	USER NAME = paraynoal	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ROADWAY PLAN HARTS RD (MILWAUKEE AVE. TO CRONAME RD.)</b>				F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\IL\084EBIDINTEG\illinois.gov\PIDOT\Documents\IDOT Offices\District 1\Projects\DI43916\Design\DI43916-shr-plan.dgn		CHECKED -	REVISED -		3519	166&01031RS	COOK	33	8				
PLOT SCALE = 100.0000' / in.		DATE -	REVISED -		CONTRACT NO. 62D21								
Default					ILLINOIS FED. AID PROJECT								



ROADWAY PROPOSED WORK LEGEND	
(A)	PROP. HOT-MIX ASPHALT SURFACE REMOVAL 2 1/4" PROPOSED HMA SURFACE COURSE, MIX "D", N70, 1 1/2" PROP. POLY. LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
(B)	PROP. HOT-MIX ASPHALT SURFACE REMOVAL 1 1/2" PROPOSED HMA SURFACE COURSE, MIX "D", N70, 1 1/2"
(C)	PROP. HMA SURFACE REMOVAL - BUTT JOINT LIMIT OF RESURFACING
(D)	PROP. P.C.C. SIDEWALK RAMP (SEE DETAIL SHEET)

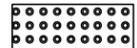
PAVEMENT MARKING LEGEND	
(1)	PROP. 8' WHITE THERMO. PVT. MRK. LETTERS AND SYMBOLS (TYP.)
(2)	PROP. THERMO. PVT. MRK.-4" EDGELINE, SOLID WHITE (TYP.)
(3)	PROP. THERMO. PVT. MRK.-4" 30' SKIP, 10' DASH, WHITE (TYP.)
(4)	PROP. THERMO. PVT. MRK.-4" DOUBLE YELLOW (TYP.)
(5)	PROP. THERMO. PVT. MRK.-6" DOTTED LINE, WHITE (TYP.)
(6)	PROP. THERMO. PVT. MRK.-6" SOLID LINE, WHITE (TYP.)
(7)	PROP. THERMO. PVT. MRK.-6" 2 @ 6" SOLID WHITE (TYP.)
(8)	PROP. THERMO. PVT. MRK.-12" DIAGONAL, WHITE (TYP.)
(9)	PROP. THERMO. PVT. MRK.-12" DIAGONAL, YELLOW (TYP.)
(10)	PROP. THERMO. PVT. MRK.-24" STOP LINE, WHITE (TYP.)
(11)	PROP. RAISED REFLECTIVE PAVEMENT MARKING

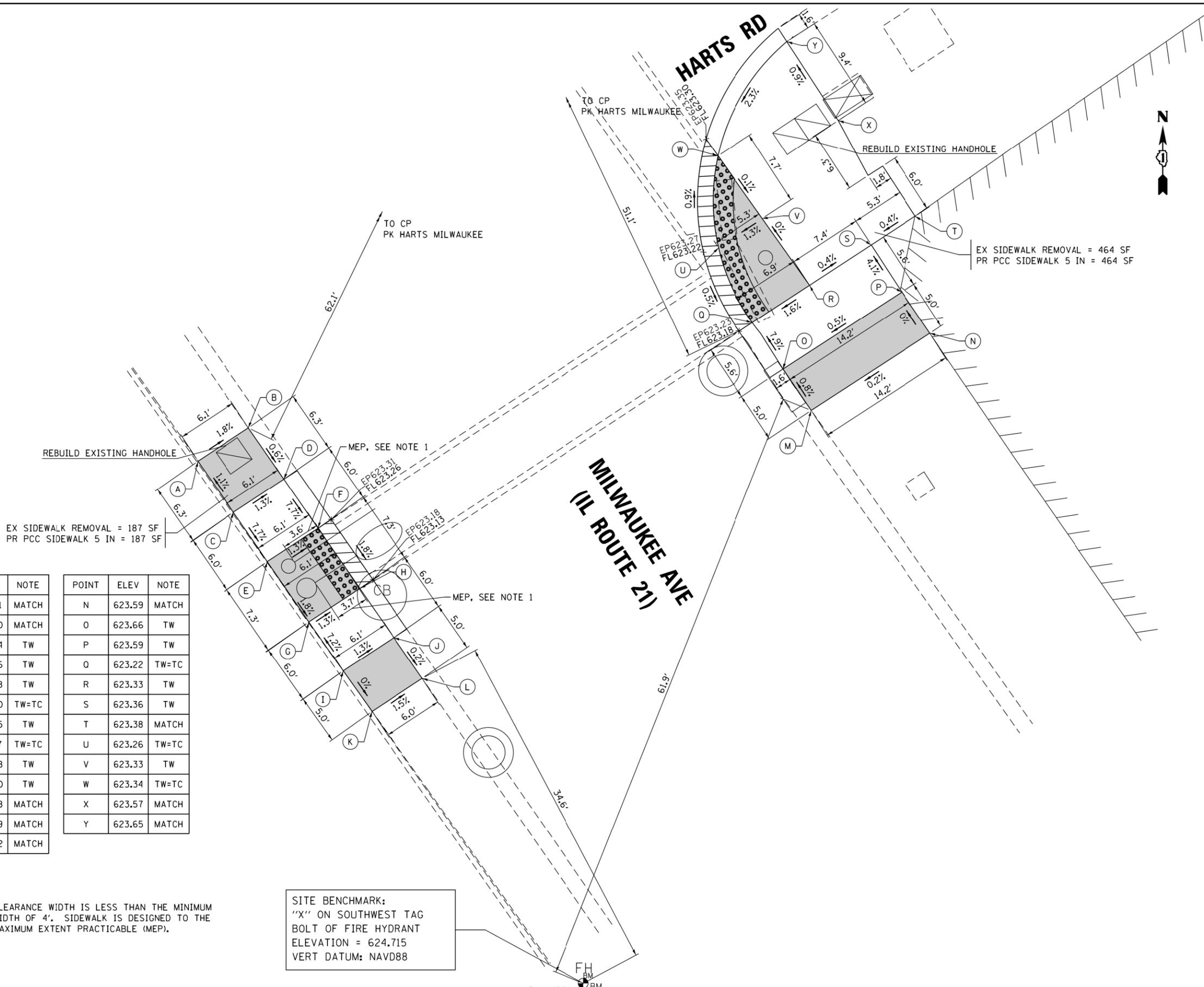
NOTE:  
ALL FINAL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH DISTRICT ONE DETAILS TC-11 AND TC-13





**LEGEND**

-  DETECTABLE WARNINGS
-  DEPRESSED CURB AND GUTTER
-  SIDEWALK REMOVAL  
REPLACE W/TOPSOIL & SOD
-  PROPOSED SIDEWALK TURNING SPACE
  
- TW PROPOSED TOP-OF-WALK ELEVATION
- TC PROPOSED TOP-OF-CURB ELEVATION
- EOP PROPOSED EDGE-OF-PAVEMENT ELEVATION
- MATCH MATCH EXISTING ELEVATION
- EP EXISTING EDGE-OF-PAVEMENT ELEVATION
- FL PROPOSED DEPRESSED CURB FLOWLINE ELEVATION



POINT	ELEV	NOTE	POINT	ELEV	NOTE
A	623.91	MATCH	N	623.59	MATCH
B	623.80	MATCH	O	623.66	TW
C	623.84	TW	P	623.59	TW
D	623.76	TW	Q	623.22	TW=TC
E	623.38	TW	R	623.33	TW
F	623.30	TW=TC	S	623.36	TW
G	623.25	TW	T	623.38	MATCH
H	623.17	TW=TC	U	623.26	TW=TC
I	623.68	TW	V	623.33	TW
J	623.60	TW	W	623.34	TW=TC
K	623.68	MATCH	X	623.57	MATCH
L	623.59	MATCH	Y	623.65	MATCH
M	623.62	MATCH			

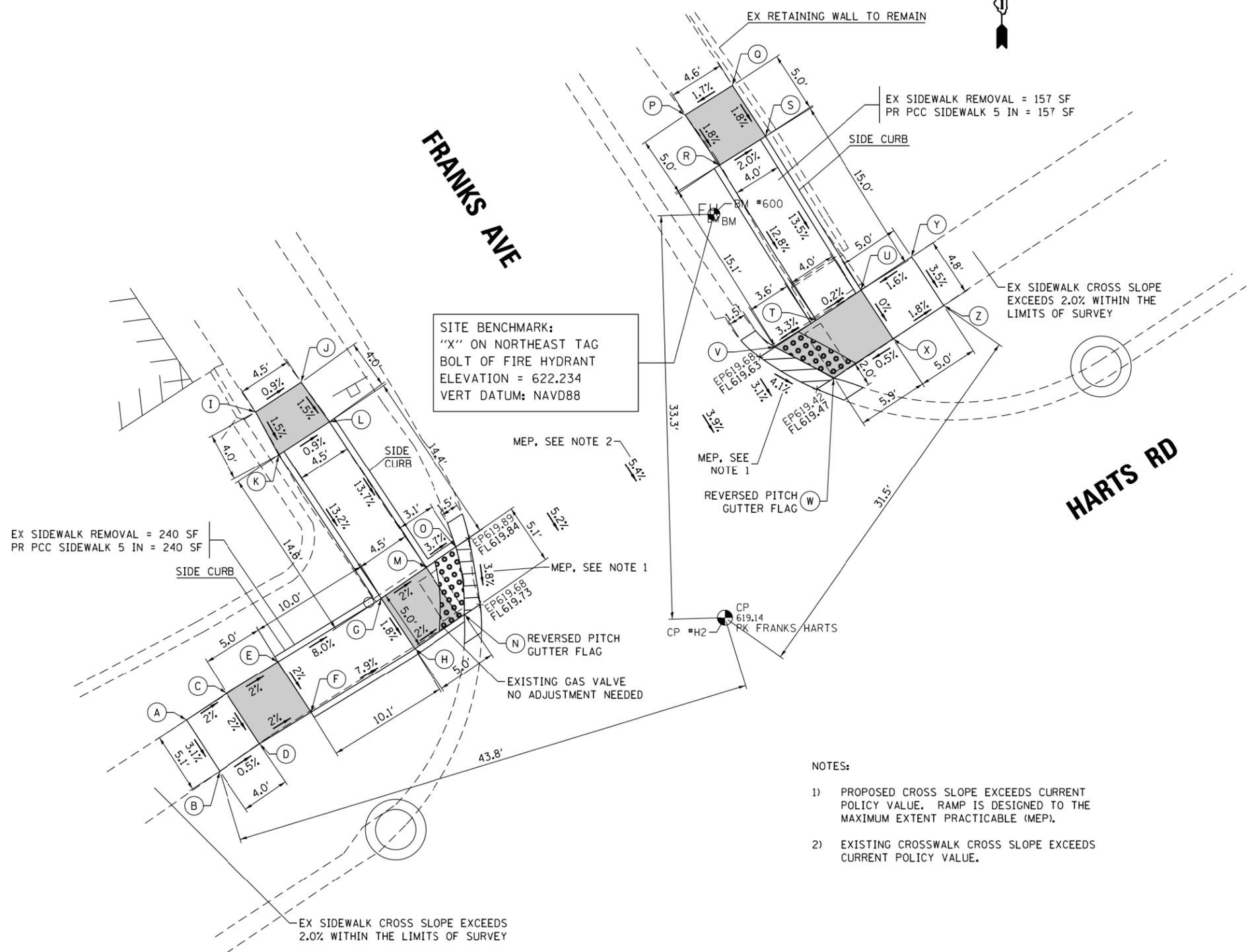
NOTES:  
 1) CLEARANCE WIDTH IS LESS THAN THE MINIMUM WIDTH OF 4'. SIDEWALK IS DESIGNED TO THE MAXIMUM EXTENT PRACTICABLE (MEP).

SITE BENCHMARK:  
 "X" ON SOUTHWEST TAG  
 BOLT OF FIRE HYDRANT  
 ELEVATION = 624.715  
 VERT DATUM: NAVD88

**LEGEND**

-  DETECTABLE WARNINGS
-  DEPRESSED CURB AND GUTTER
-  SIDEWALK REMOVAL  
REPLACE W/TOPSOIL & SOD
-  PROPOSED SIDEWALK TURNING SPACE

- TW PROPOSED TOP-OF-WALK ELEVATION
- TC PROPOSED TOP-OF-CURB ELEVATION
- EOP PROPOSED EDGE-OF-PAVEMENT ELEVATION
- MATCH MATCH EXISTING ELEVATION
- EP EXISTING EDGE-OF-PAVEMENT ELEVATION
- FL PROPOSED DEPRESSED CURB FLOWLINE ELEVATION



- NOTES:
- 1) PROPOSED CROSS SLOPE EXCEEDS CURRENT POLICY VALUE. RAMP IS DESIGNED TO THE MAXIMUM EXTENT PRACTICABLE (MEP).
  - 2) EXISTING CROSSWALK CROSS SLOPE EXCEEDS CURRENT POLICY VALUE.

POINT	ELEV	NOTE
A	620.85	MATCH
B	620.69	MATCH
C	620.77	TW
D	620.67	TW
E	620.67	TW
F	620.57	TW
G	619.86	TW
H	619.77	TW
I	621.84	MATCH
J	621.80	MATCH
K	621.78	TW
L	621.74	TW
M	619.77	TW
N	619.77	TW=TC
O	619.88	TW=TC
P	621.57	MATCH
Q	621.65	MATCH
R	621.48	TW
S	621.56	TW
T	619.55	TW
U	619.54	TW
V	619.67	TW=TC
W	619.51	TW=TC
X	619.54	TW
Y	619.62	MATCH
Z	619.45	MATCH

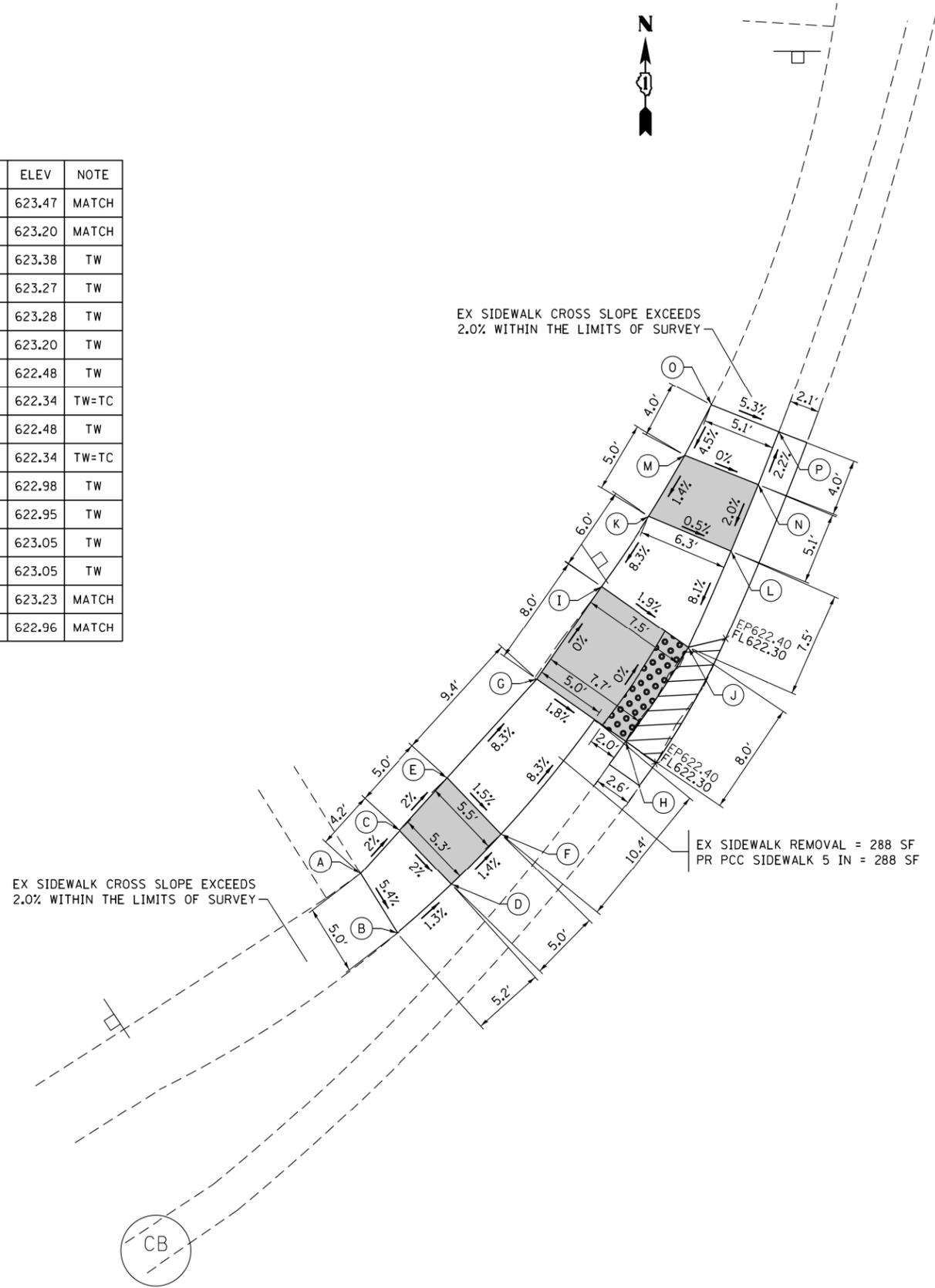








POINT	ELEV	NOTE
A	623.47	MATCH
B	623.20	MATCH
C	623.38	TW
D	623.27	TW
E	623.28	TW
F	623.20	TW
G	622.48	TW
H	622.34	TW=TC
I	622.48	TW
J	622.34	TW=TC
K	622.98	TW
L	622.95	TW
M	623.05	TW
N	623.05	TW
O	623.23	MATCH
P	622.96	MATCH



**LEGEND**

-  DETECTABLE WARNINGS
-  DEPRESSED CURB AND GUTTER
-  SIDEWALK REMOVAL  
REPLACE W/TOPSOIL & SOD
-  PROPOSED SIDEWALK TURNING SPACE
- TW PROPOSED TOP-OF-WALK ELEVATION
- TC PROPOSED TOP-OF-CURB ELEVATION
- EOP PROPOSED EDGE-OF-PAVEMENT ELEVATION
- MATCH MATCH EXISTING ELEVATION
- EP EXISTING EDGE-OF-PAVEMENT ELEVATION
- FL PROPOSED DEPRESSED CURB FLOWLINE ELEVATION

FILE NAME = 62021-sht-plan11.dgn  
Default

USER NAME = Dwhite  
PLOT SCALE = 10.0000' / in.  
PLOT DATE = 10/19/2016

DESIGNED -  
DRAWN -  
CHECKED -  
DATE -

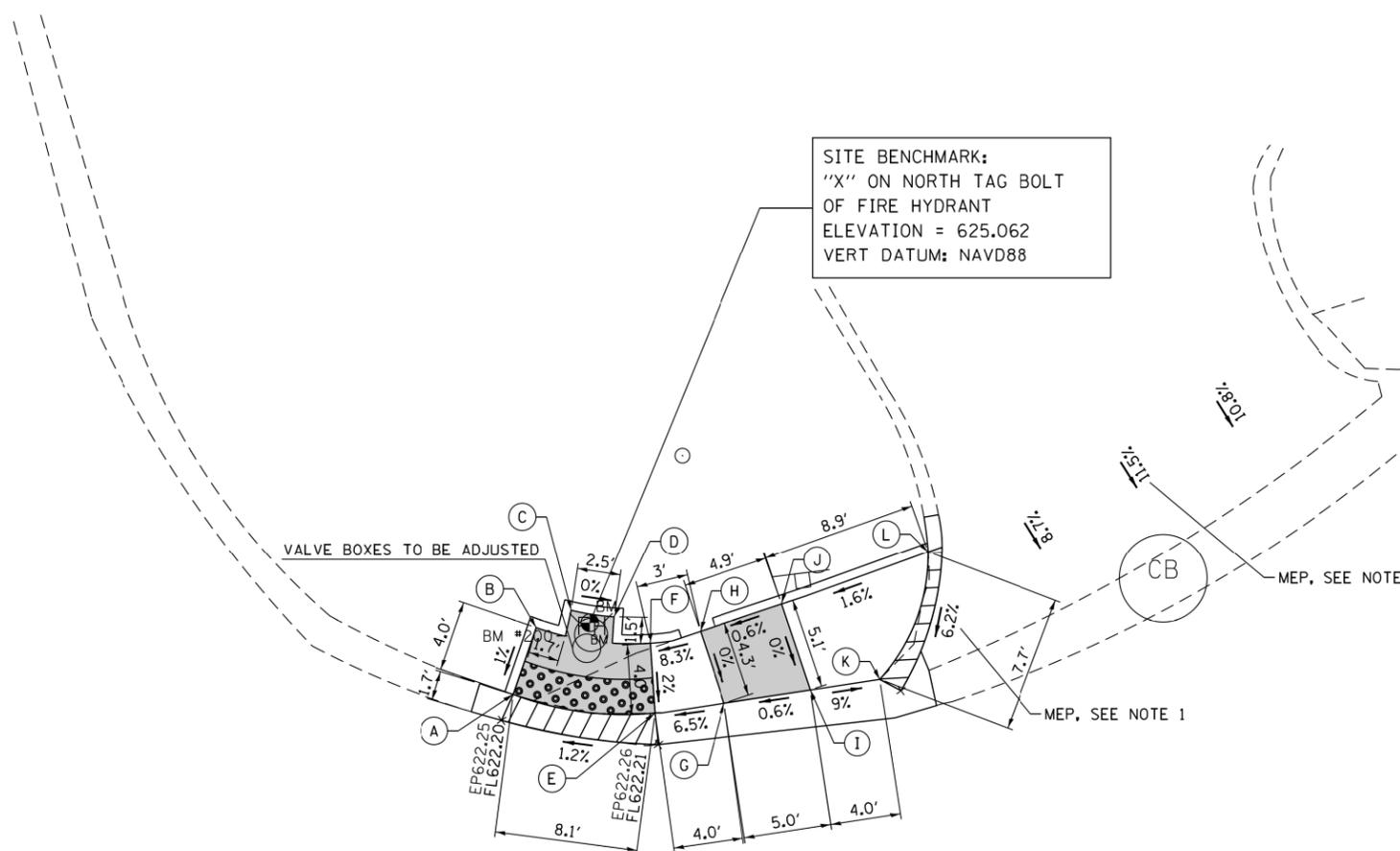
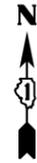
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REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SIDEWALK DETAIL PLAN  
HARTS ROAD AT CRONAME ROAD**  
SCALE: 1" = 5'  
SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3519	(66&0103)RS	COOK	33	18
ILLINOIS FED. AID PROJECT				CONTRACT NO. 62D21

**CRONAME RD**



SITE BENCHMARK:  
"X" ON NORTH TAG BOLT  
OF FIRE HYDRANT  
ELEVATION = 625.062  
VERT DATUM: NAVD88

VALVE BOXES TO BE ADJUSTED

MEP, SEE NOTE 2

MEP, SEE NOTE 1

**HARTS RD**

EX SIDEWALK REMOVAL = 92 SF  
PR PCC SIDEWALK 5 IN = 125 SF

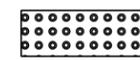
CP #H9  
CP 623.21  
PK IN MEDIAN CRONAME HARTS

POINT	ELEV	NOTE
A	622.24	TW=TC
B	622.28	TW
C	622.32	TW
D	622.32	TW
E	622.25	TW=TC
F	622.33	TW
G	622.58	TW
H	622.58	TW
I	622.61	TW
J	622.61	TW
K	622.25	TW=EOP
L	622.74	TW=EOP

**NOTES:**

- 1) PROPOSED CROSS SLOPE EXCEEDS CURRENT POLICY VALUE. RAMP IS DESIGNED TO THE MAXIMUM EXTENT PRACTICABLE (MEP).
- 2) EXISTING CROSSWALK CROSS SLOPE EXCEEDS CURRENT POLICY VALUE.

**LEGEND**

-  DETECTABLE WARNINGS
-  DEPRESSED CURB AND GUTTER
-  SIDEWALK REMOVAL  
REPLACE W/TOPSOIL & SOD
-  PROPOSED SIDEWALK TURNING SPACE
- TW PROPOSED TOP-OF-WALK ELEVATION
- TC PROPOSED TOP-OF-CURB ELEVATION
- EOP PROPOSED EDGE-OF-PAVEMENT ELEVATION
- MATCH MATCH EXISTING ELEVATION
- EP EXISTING EDGE-OF-PAVEMENT ELEVATION
- FL PROPOSED DEPRESSED CURB FLOWLINE ELEVATION

FILE NAME = 62021-sht-plan12.dgn	USER NAME = Dwhite	DESIGNED -	REVISED -
Default	PLOT SCALE = 10.0000' / in.	DRAWN -	REVISED -
	PLOT DATE = 10/19/2016	CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>SIDEWALK DETAIL PLAN</b>			
<b>HARTS ROAD AT CRONAME ROAD</b>			
SCALE: 1" = 5'	SHEET	OF SHEETS	STA. TO STA.

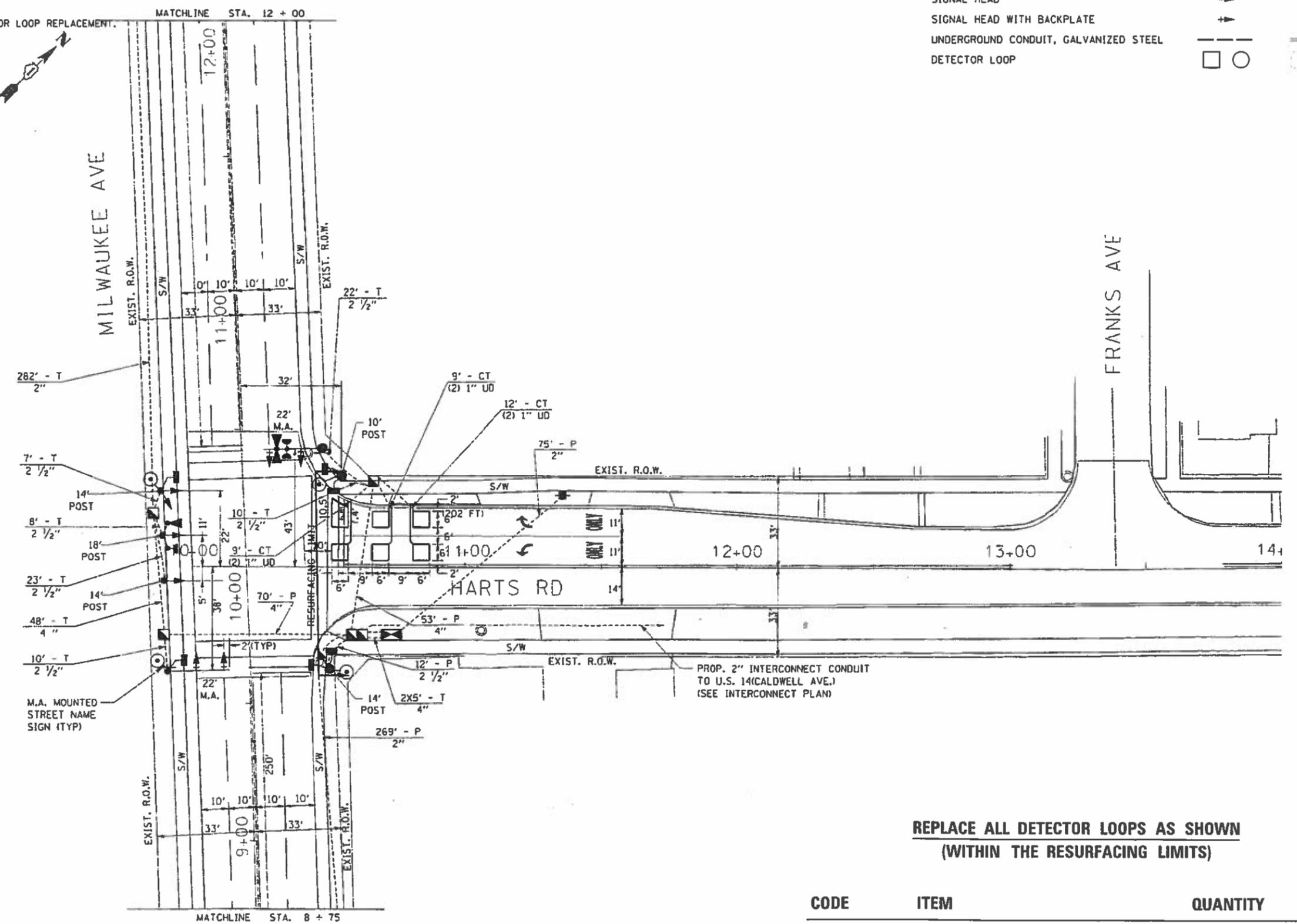
F.A.U. RTE. 3519	SECTION (66&0103)RS	COUNTY COOK	TOTAL SHEETS 33	SHEET NO. 19
CONTRACT NO. 62D21				
ILLINOIS FED. AID PROJECT				

**NOTES:**

1. WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION (ROADWAY GRINDING, RESURFACING & PATCHING OPERATIONS).
2. THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENT.

**TRAFFIC SIGNAL LEGEND:**

	PROPOSED	EXISTING
SIGNAL HEAD	→	→
SIGNAL HEAD WITH BACKPLATE	→	→
UNDERGROUND CONDUIT, GALVANIZED STEEL	---	---
DETECTOR LOOP	□ ○	□ ○



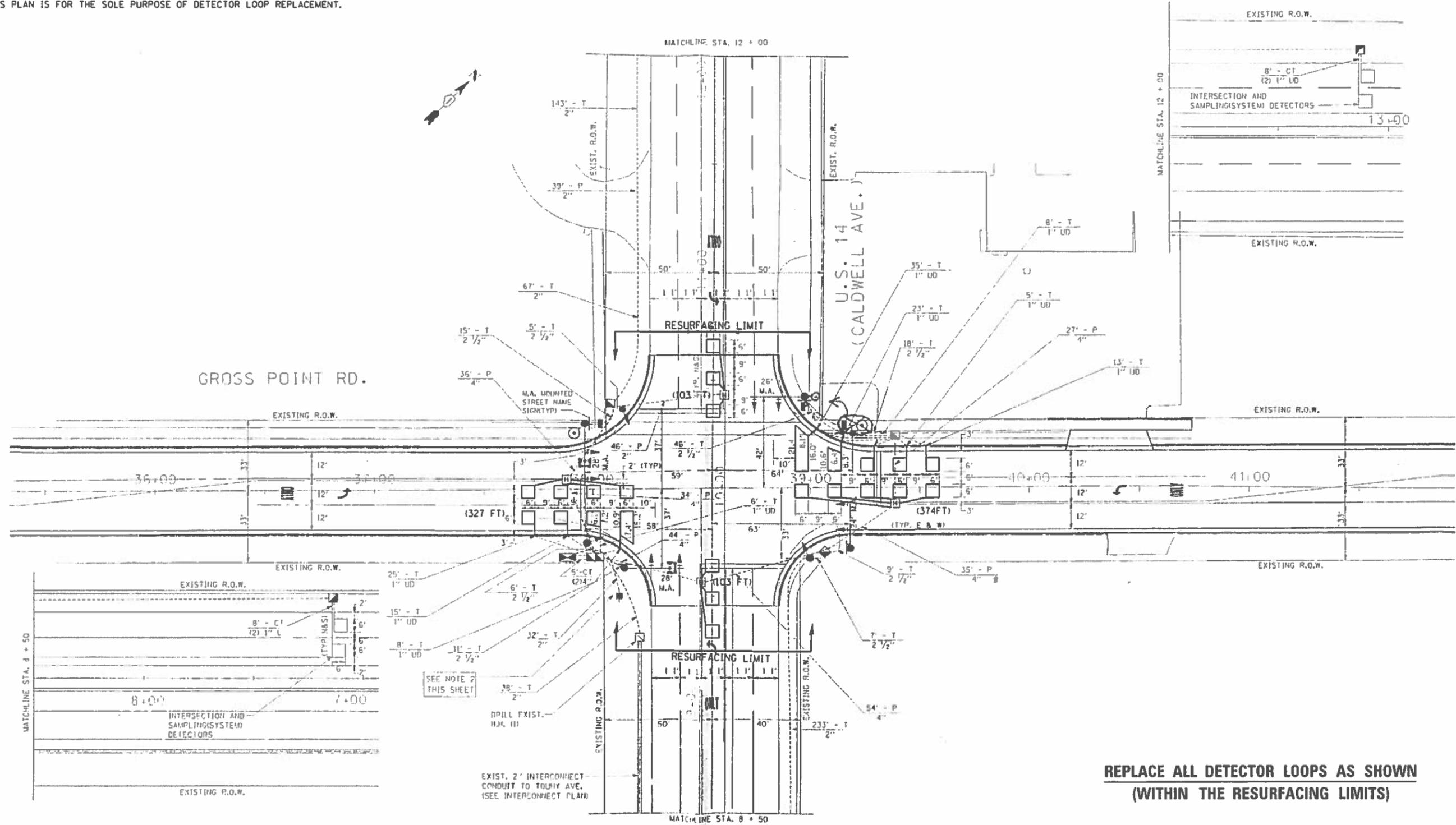
**REPLACE ALL DETECTOR LOOPS AS SHOWN  
(WITHIN THE RESURFACING LIMITS)**

CODE	ITEM	QUANTITY	UNIT
88600600	DETECTOR LOOP REPLACEMENT	202	FOOT

FILE NAME *	USER NAME *	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DETECTOR LOOP REPLACEMENT PLAN IL 21 HARTS RD</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
S:\WP\Design\JC\Detector Loop Details\2	16 62021\Detector Loop Replacement Sheet.Blor	DRAWN -	REVISED -			3519	(66 & 0103) RS	COOK	33	20	
Default	PLOT SCALE * 40,0000 / in.	CHECKED -	REVISED -			SCALE: SHEET OF SHEETS STA. TO STA.		CONTRACT NO. 62021		ILLINOIS FED. AID PROJECT	
	PLOT DATE * 8/22/2016	DATE -	REVISED -								

**NOTES:**

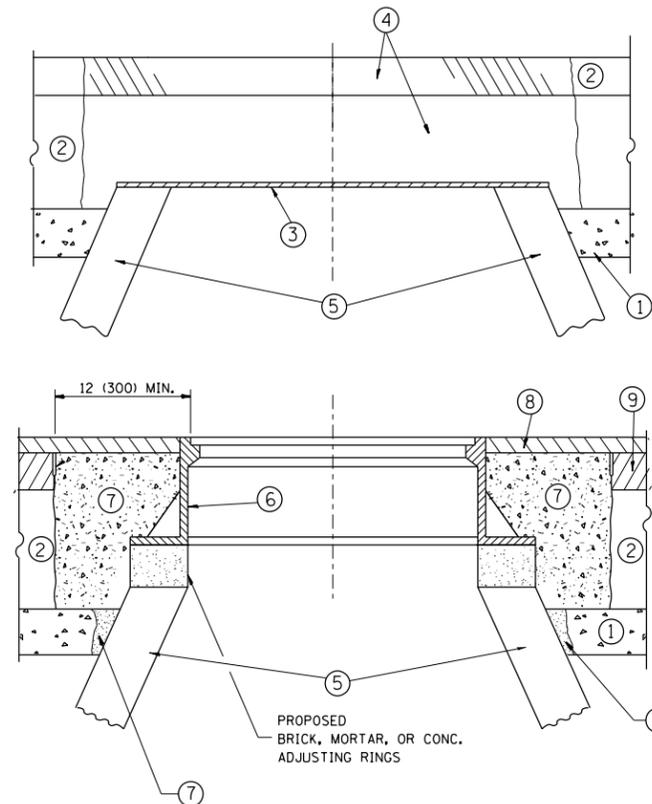
1. WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION (ROADWAY GRINDING, RESURFACING & PATCHING OPERATIONS).
2. THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENT.



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

CODE	ITEM	QUANTITY	UNIT
88600600	DETECTOR LOOP REPLACEMENT	907	FOOT

FILE NAME: S:\WP\Design\JC\Detector Loop Details	USER NAME: curryje	DESIGNED: ---	REVISED: ---	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DETECTOR LOOP REPLACEMENT PLAN US 14 CALDWELL AT GROSS POINT RD</b>	F.A.U. RTE: 3519	SECTION: 166 & 0103 RS	COUNTY: COOK	TOTAL SHEETS: 33	SHEET NO.: 21	
PLOT SCALE: 40,0000 1/2" = 1'	DRAWN: align---	CHECKED: ---	REVISED: ---			SCALE: SHEET OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT			
PLOT DATE: 8-22-2016	DATE: ---	REVISED: ---	REVISED: ---			CONTRACT NO. 62021					
Default	Default	Default	Default								



**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 PP-1\* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

\* UNLESS OTHERWISE SPECIFIED IN THE PLANS.

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

**LEGEND**

- ① SUB-BASE GRANULAR MATERIAL
- 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 PP-1\* CONCRETE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

**LOCATION OF STRUCTURES:**

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

**BASIS OF PAYMENT:**

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.

**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.

**DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING**

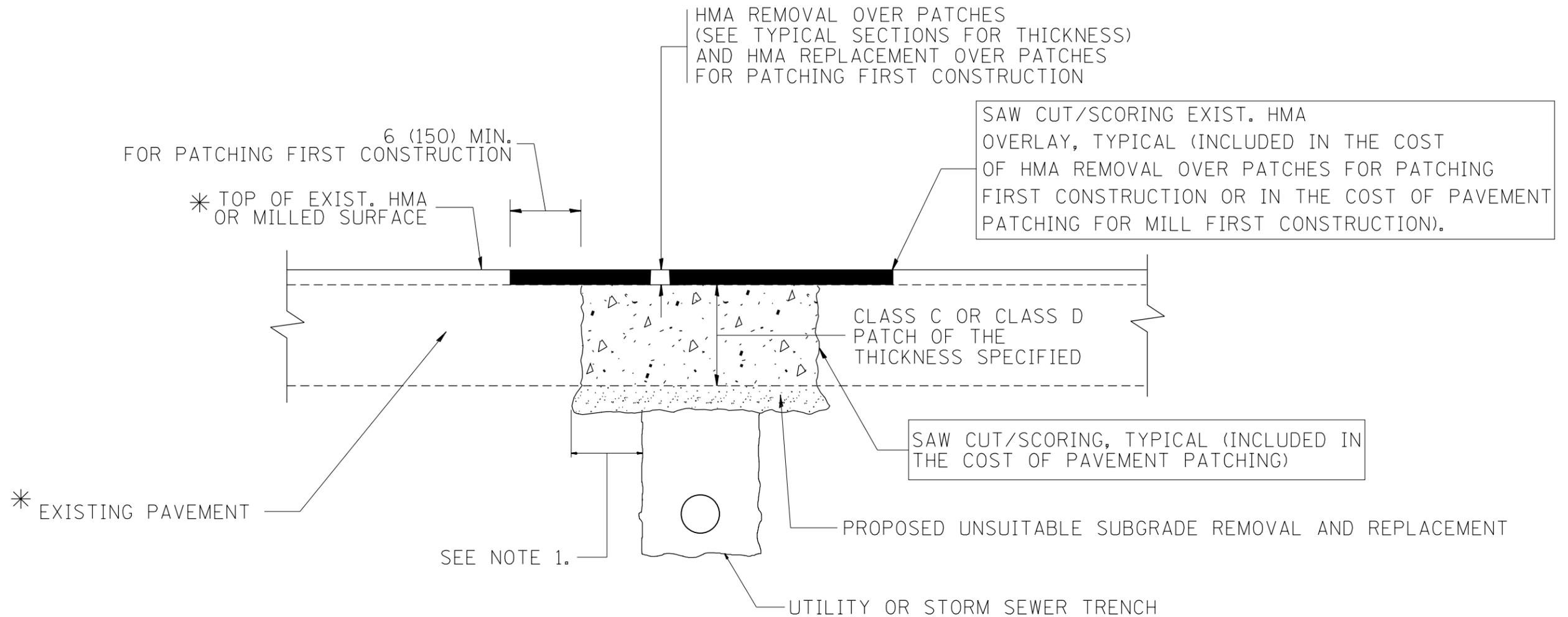
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = paraynoal	DESIGNED - R. SHAH	REVISED - R. WIEDEMAN 05-14-04
pw:\IL\084EBIDINTEG\illinois.gov\PWIDOT\Documents\DOT Offices\District 1\Projects\1439\Drawings\Design\Diststd.dgn			REVISED - R. BORO 01-01-07
	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED - R. BORO 03-09-11
	PLOT DATE = 10/20/2016	DATE - 10-25-94	REVISED - R. BORO 12-06-11

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3519	(66 & 0103) RS	COOK	33	22
<b>BD600-03 (BD-8)</b>		<b>CONTRACT NO. 62D21</b>		
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)

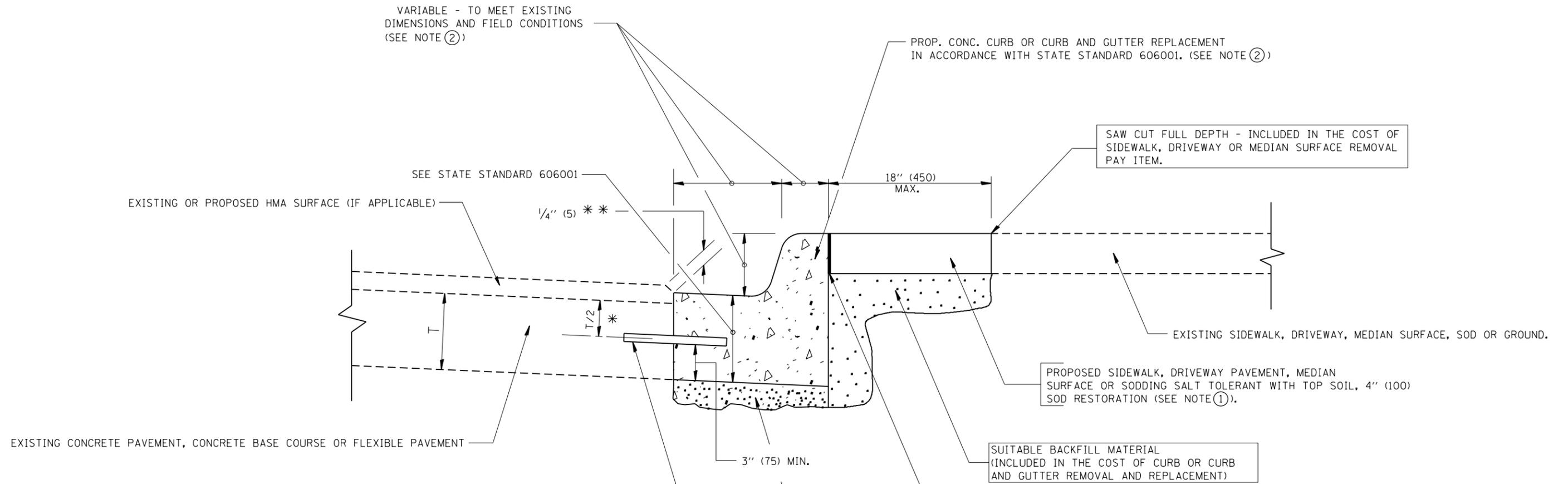
1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

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 = paraynoal	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. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\11\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 1\Projects\1439\BROWNS\Design\Diststd.dgn	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED - R. BORO 01-01-07					3519	(66 & 0103) RS	COOK	33	23
	PLOT DATE = 10/20/2016	DATE - 10-25-94	REVISED - R. BORO 09-04-07		<b>BD400-04 (BD-22)</b>				<b>CONTRACT NO. 62D21</b>			
			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				



- \* 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.
- SODDING, SALT TOLERANT AND TOP SOIL, FURNISH AND PLACE 4" WILL BE PAID FOR SEPARATELY.
- ② FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED
  - ③ CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.
  - ④ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.
  - ⑤ 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.
  - ⑥ 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.
  - ⑦ 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.
  - ⑧ 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.

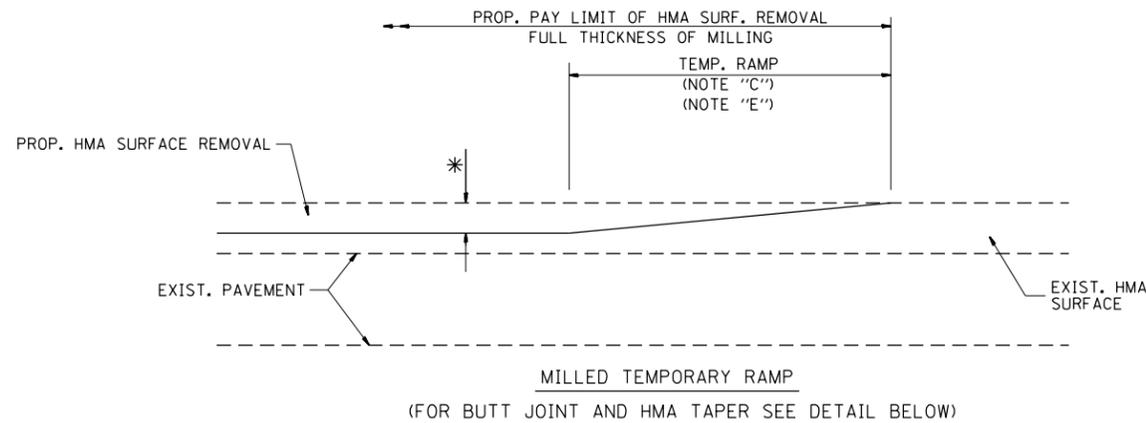
- PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)
- UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, 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".

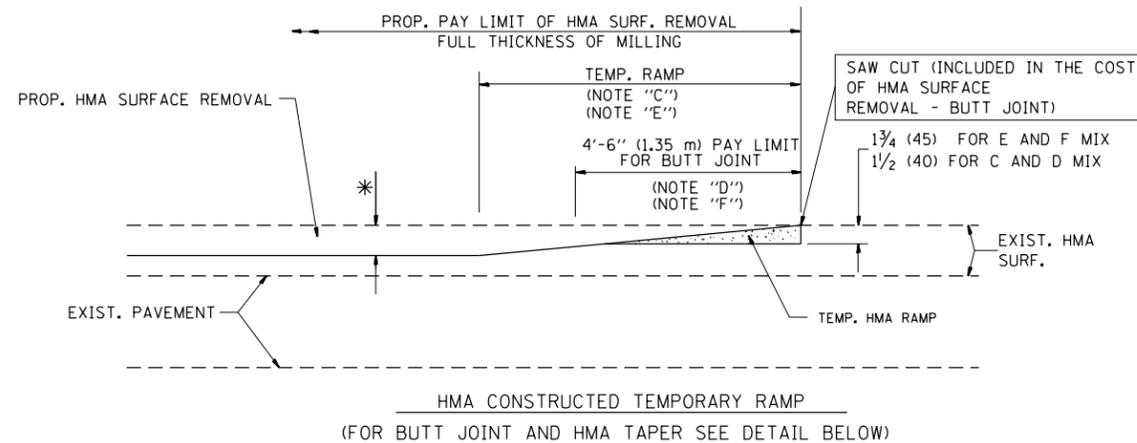
# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

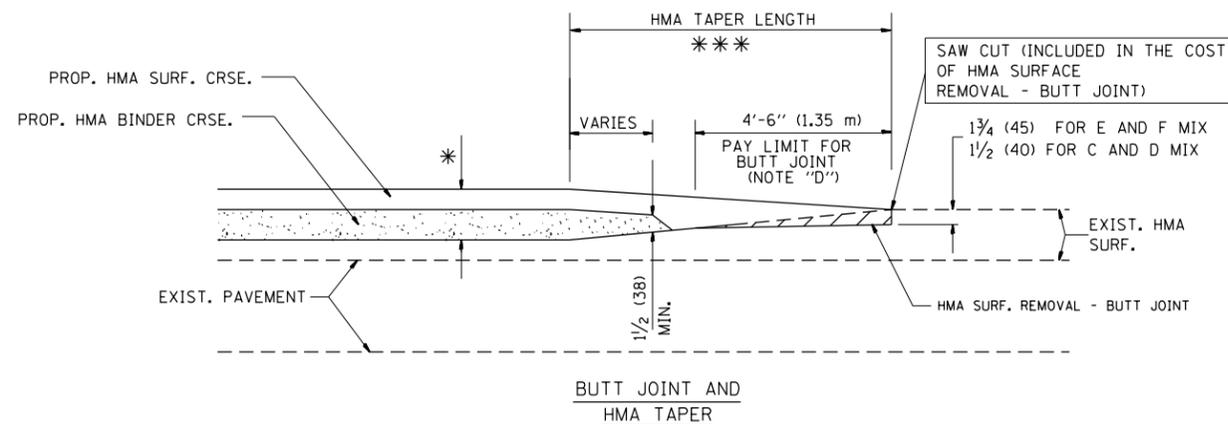
FILE NAME =	USER NAME = paraynoal	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT</b>	F.A.U. RE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
pw\1\1084EBIDINTEG\illinois.gov\PIWIDOT\Documents\DOT Offices\District 1\Projects\DI439\Drawings\Design\Diststd.dgn						REVISED - A. ABBAS 03-21-97	3519	(66 & 0103) RS	COOK	33	24
PLOT SCALE = 100.0000' / 1in.						REVISED - M. GOMEZ 01-22-01	<b>BD600-06 (BD-24) CONTRACT NO. 62D21</b>				
PLOT DATE = 10/20/2016						REVISED - R. BORO 12-15-09	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
					SCALE: NONE	SHEET NO. 1 OF 1 SHEETS		STA. TO STA.			



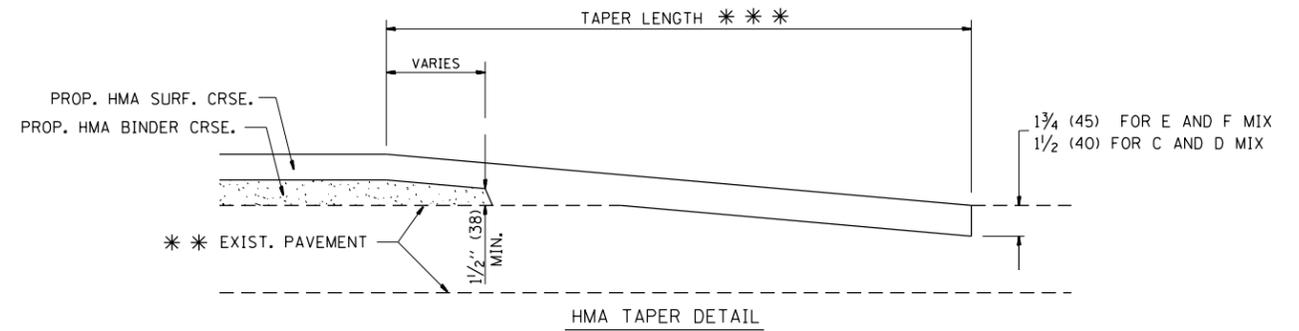
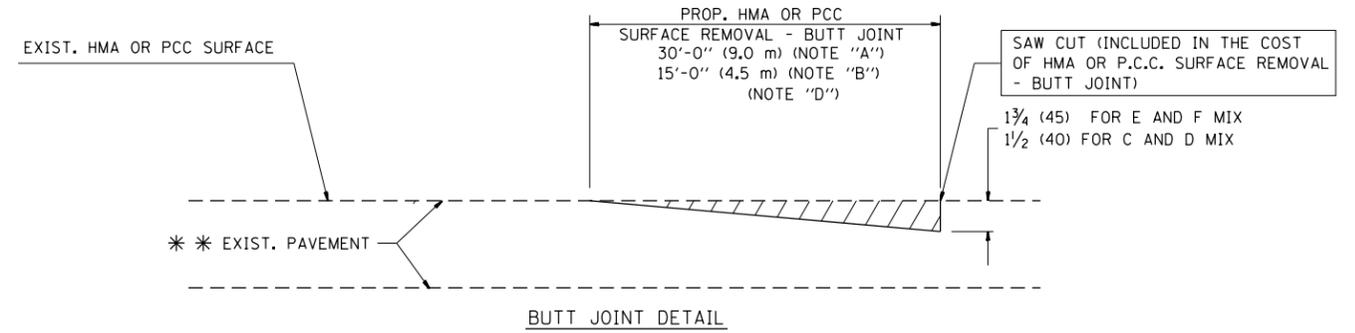
**OPTION 1**



**OPTION 2  
TYPICAL TEMPORARY RAMP**



**TYPICAL BUTT JOINT AND HMA TAPER  
FOR MILLING AND RESURFACING**



**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".

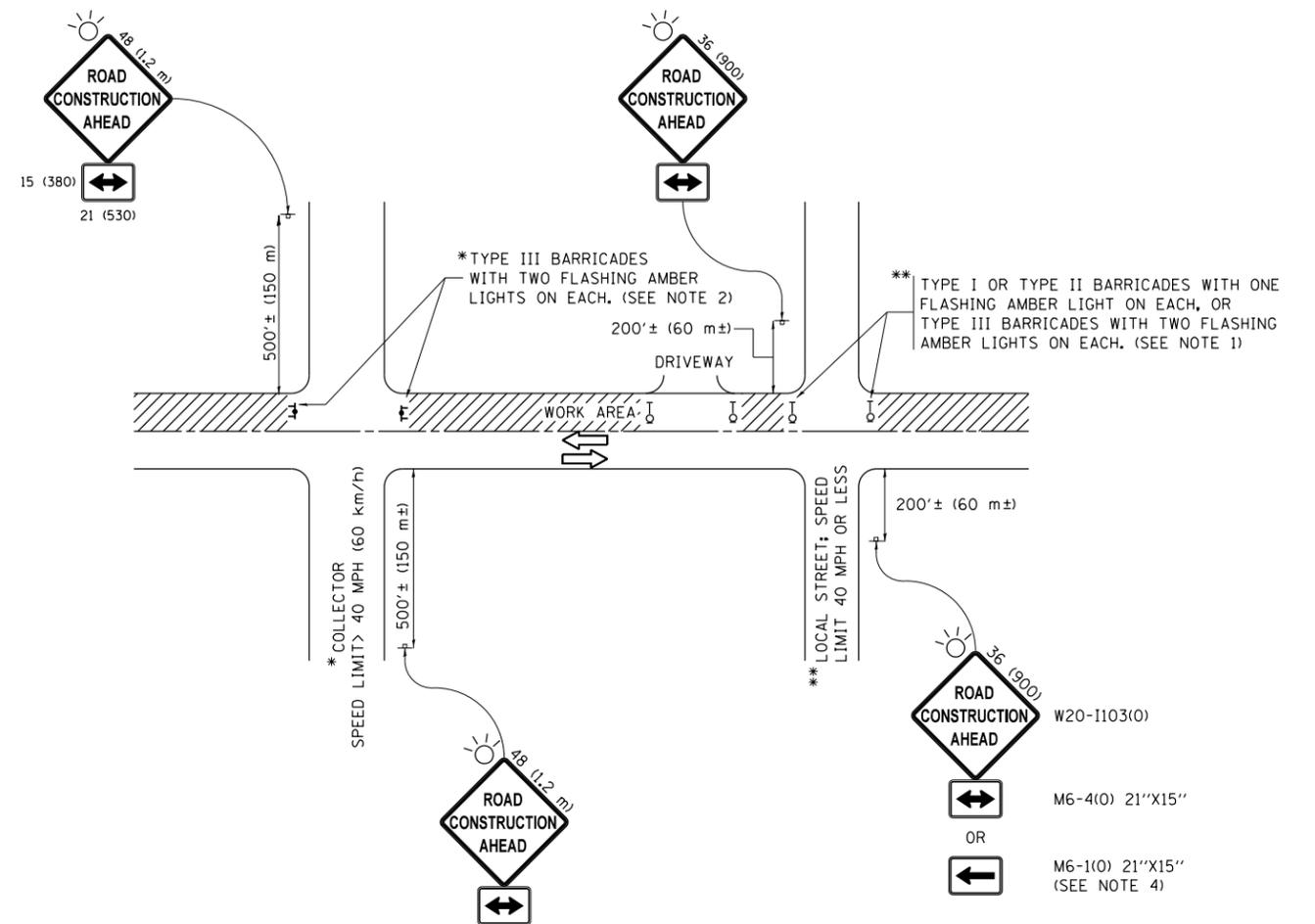
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = paraynoal	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
p:\1\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 1\Projects\01439\Drawings\Design\Diststd.dgn		CHECKED -	REVISED - A. ABBAS 03-21-97
		DATE - 06-13-90	REVISED - M. GOMEZ 04-06-01
			REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>BUTT JOINT AND HMA TAPER DETAILS</b>	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS
STA.	TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3519	(66 & 0103) RS	COOK	33	25
<b>BD400-05 BD32</b>		<b>CONTRACT NO. 62D21</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**NOTES:**

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 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. 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.
4. 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).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

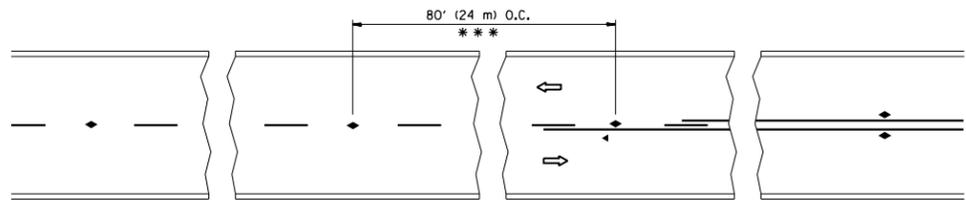
FILE NAME =	USER NAME = paraynoal	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96
p:\11084EBIDINTEG\illinois.gov\PWIDOT\Documents\IDOT Offices\District 1\Projects\1439\Drawings\Design\Diststd.dgn			REVISED - T. RAMMACHER 01-06-00
Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - A. SCHUETZE 07-01-13
	PLOT DATE = 10/20/2016	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

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

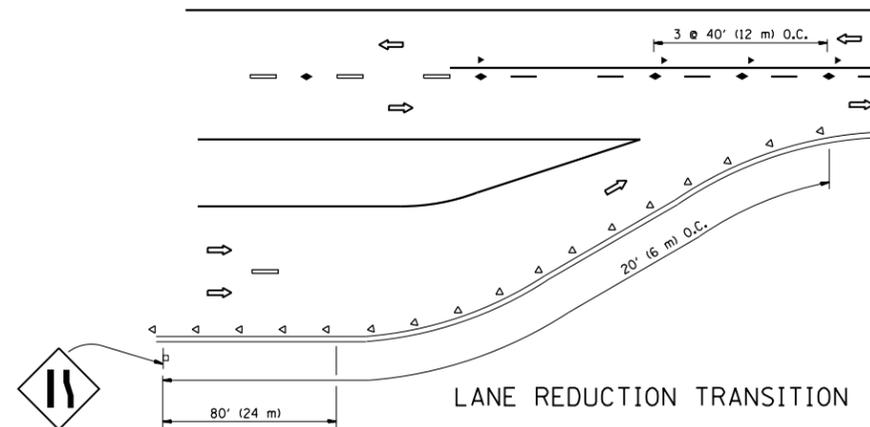
SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3519	(66 & 0103) RS	COOK	33	26
<b>TC-10</b>			<b>CONTRACT NO. 62D21</b>	
ILLINOIS FED. AID PROJECT				

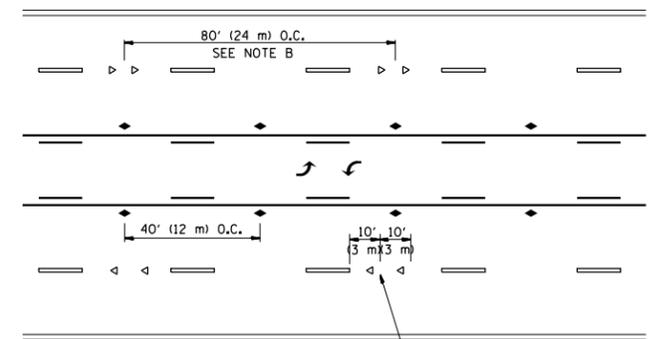


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

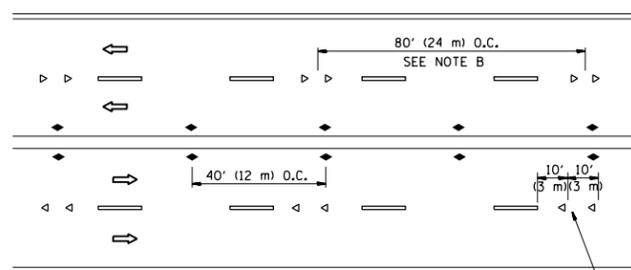
TWO-LANE/TWO-WAY



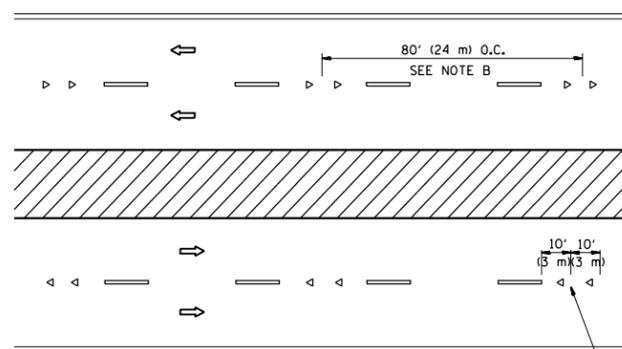
LANE REDUCTION TRANSITION



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

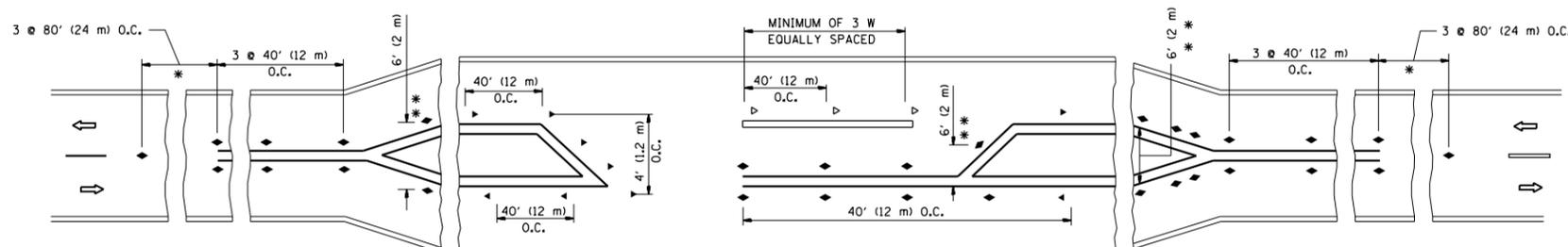
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- 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.

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 SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
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.

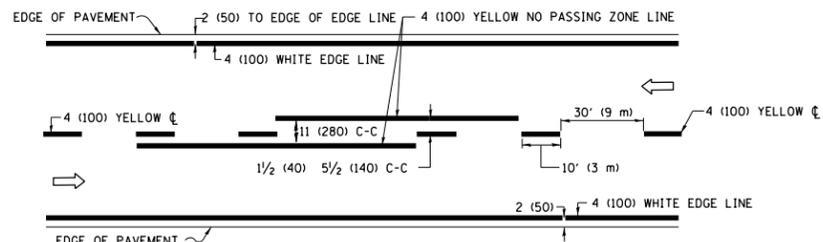
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = paraynoal	DESIGNED -	REVISED - T. RAMMACHER 09-19-94
pw:\IL\084EBIDINTEG\illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI439\Drawings\Design\Diststd.dgn		CHECKED -	REVISED - T. RAMMACHER 03-12-99
		DATE -	REVISED - T. RAMMACHER 01-06-00
			REVISED - C. JUCIUS 09-09-09

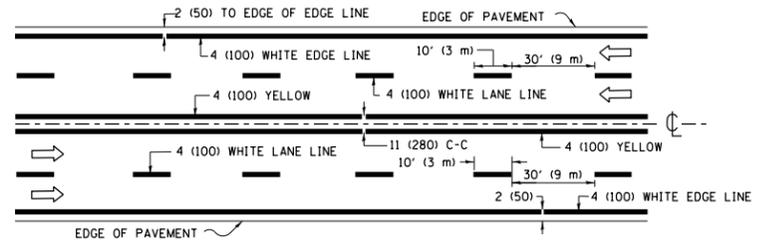
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS			
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

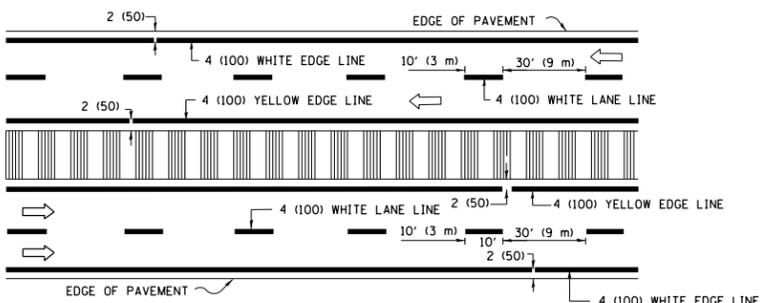
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3519	(66 & 0103) RS	COOK	33	27
TC-11			CONTRACT NO. 62D21	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**2-LANE ROADWAY**

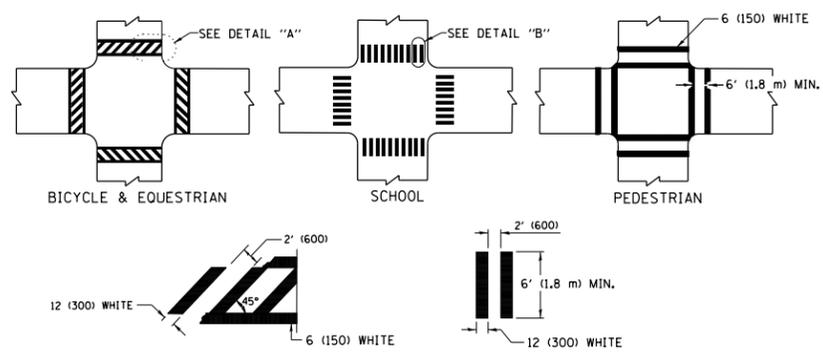


**MULTI-LANE UNDIVIDED**



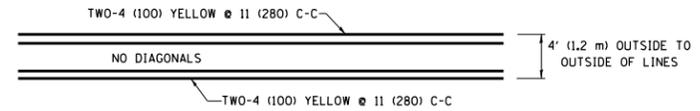
**MULTI-LANE DIVIDED WITH MEDIAN**

**TYPICAL LANE AND EDGE LINE MARKING**

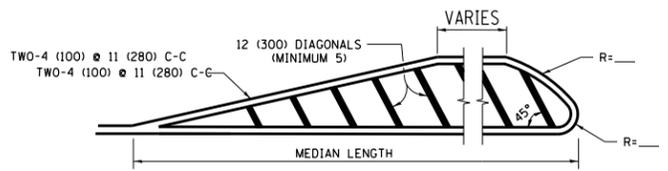


**TYPICAL CROSSWALK MARKING**

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

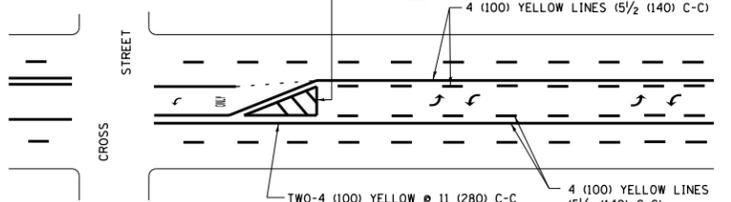


**4' (1.2 m) WIDE MEDIANS ONLY**



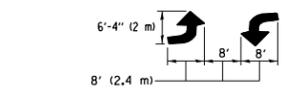
**MEDIANS OVER 4' (1.2 m) WIDE**

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))



**MEDIAN WITH TWO-WAY LEFT TURN LANE TYPICAL PAINTED MEDIAN MARKING**

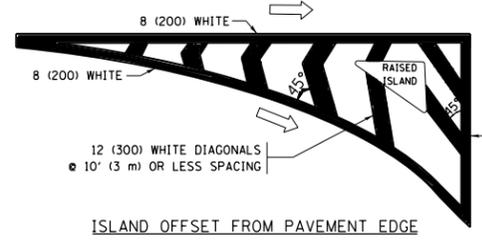
A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



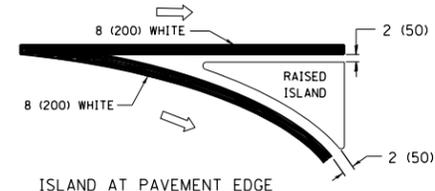
**TYPICAL LEFT (OR RIGHT) TURN LANE**

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".

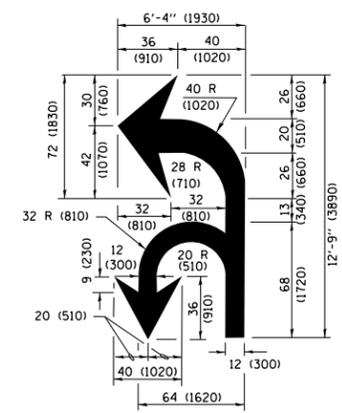
**TYPICAL TURN LANE MARKING**



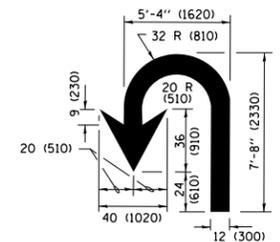
**ISLAND OFFSET FROM PAVEMENT EDGE**



**ISLAND AT PAVEMENT EDGE TYPICAL ISLAND MARKING**



**COMBINATION LEFT AND U-TURN**



**U-TURN**

**LANE REDUCTION TRANSITION**

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

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

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 1/2 (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 MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (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 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" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

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

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

FILE NAME =	USER NAME = paraynoal	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09
pw\1\084EBIDINTEG\illinois.gov\PIWIDOT\Documents\DOT Offices\District 1\Projects\01439\Browns\Design\Diststd.dgn		CHECKED -	REVISED - C. JUCIUS 07-01-13
Default	PLOT SCALE = 100.0000' / in.	DATE - 03-19-90	REVISED - C. JUCIUS 12-21-15
	PLOT DATE = 10/20/2016		REVISED - C. JUCIUS 04-12-16

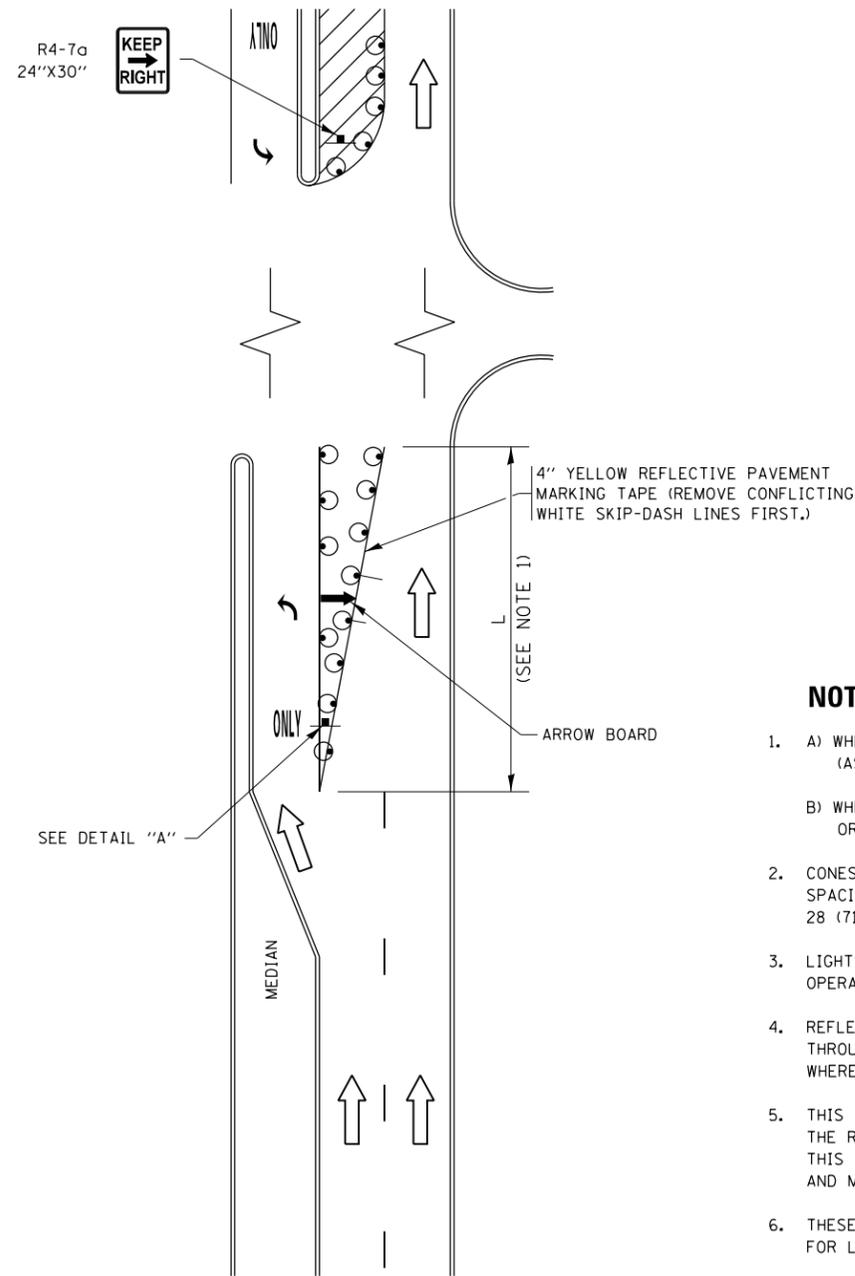
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE TYPICAL PAVEMENT MARKINGS**

SCALE: NONE	SHEET 1	OF 1 SHEETS	STA.	TO STA.
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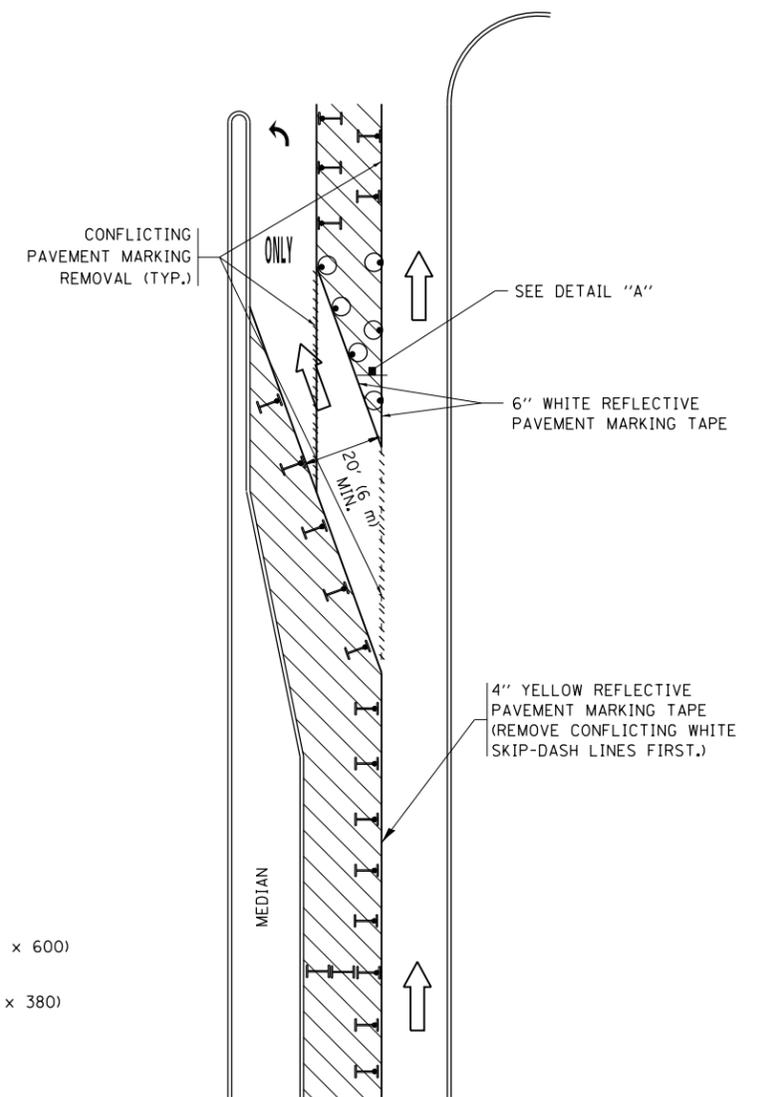
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3519	(66 & 0103) RS	COOK	33	28
<b>TC-13</b>		<b>CONTRACT NO.</b>	<b>62D21</b>	
ILLINOIS FED. AID PROJECT				

# TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER

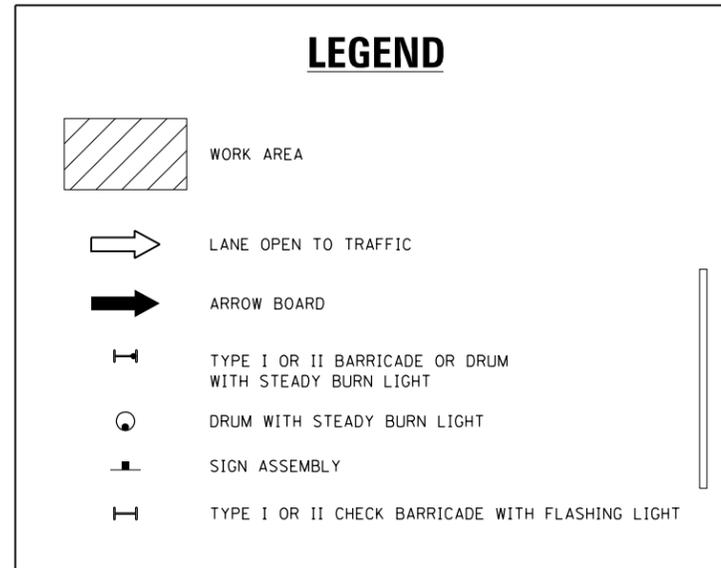


**FIGURE 1**

# TURN BAY ENTRANCE WITHIN A LANE CLOSURE

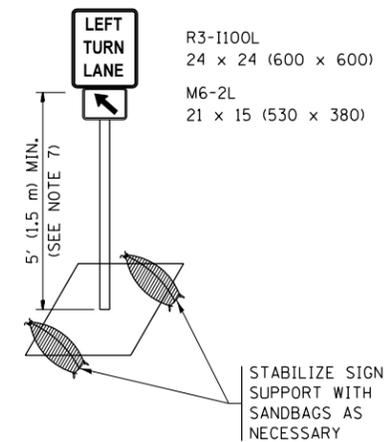


**FIGURE 2**



### NOTES:

1. A) WHEN "L" IS  $\leq$  THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.  
B) WHEN "L" IS  $>$  THE STORAGE LENGTH OF THE TURN LANE OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.
2. 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.
3. LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.
5. 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" R3-1100R 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
6. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PREQUIREMENTS.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

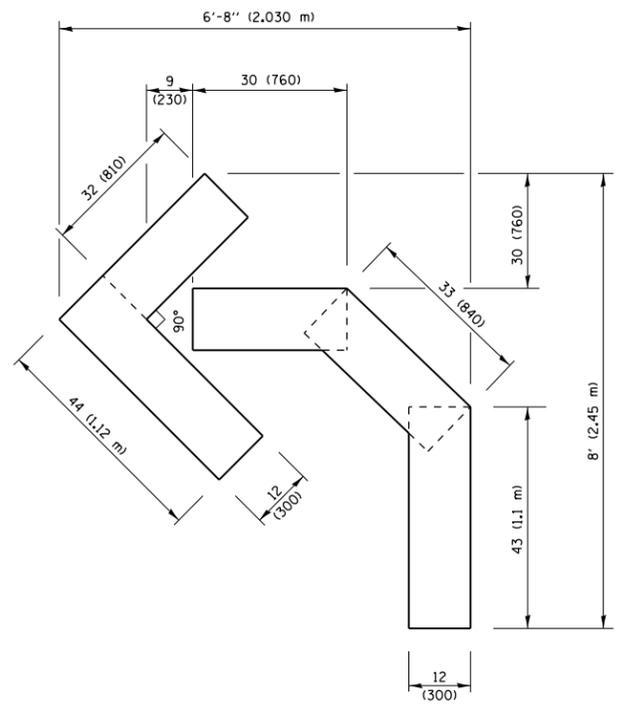


**DETAIL A**

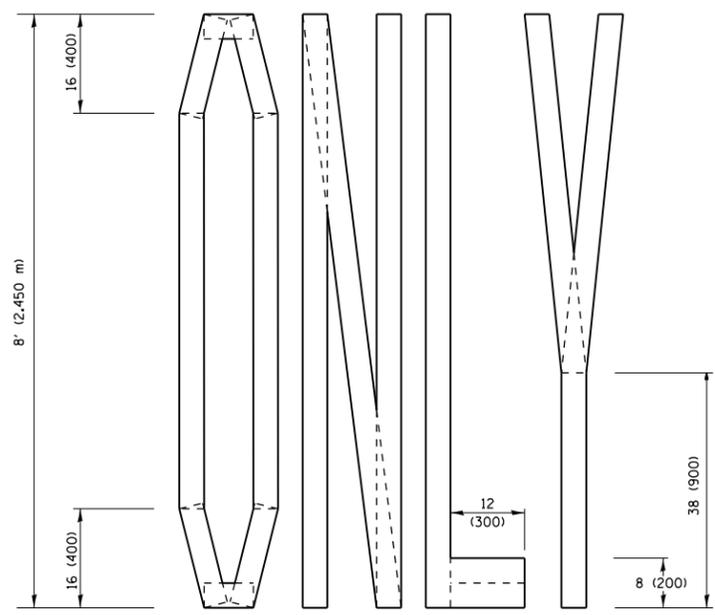
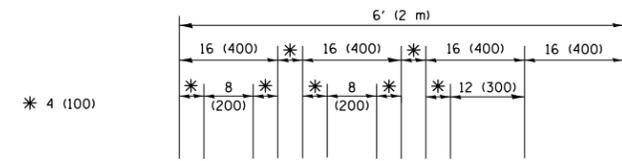
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = parayno1	REVISED - T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)</b>	F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\IL\084EBIDINTEG\illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\01439\REVISED Design\HOUSEH 11-07-95	REVISED - A. HOUSEH 11-07-95	REVISED - A. SCHUETZE 07-01-13	REVISED - A. SCHUETZE 07-01-13			3519	(66 & 0103) RS	COOK	33	29
Default	PLOT SCALE = 100.0000' / in.	REVISED - A. HOUSEH 10-12-96	REVISED - A. SCHUETZE 09-15-16			<b>TC-14</b>		<b>CONTRACT NO. 62D21</b>		
	PLOT DATE = 10/20/2016	REVISED - T. RAMMACHER 01-06-00	REVISED -			SCALE: NONE		SHEET 1 OF 1 SHEETS		STA. TO STA.

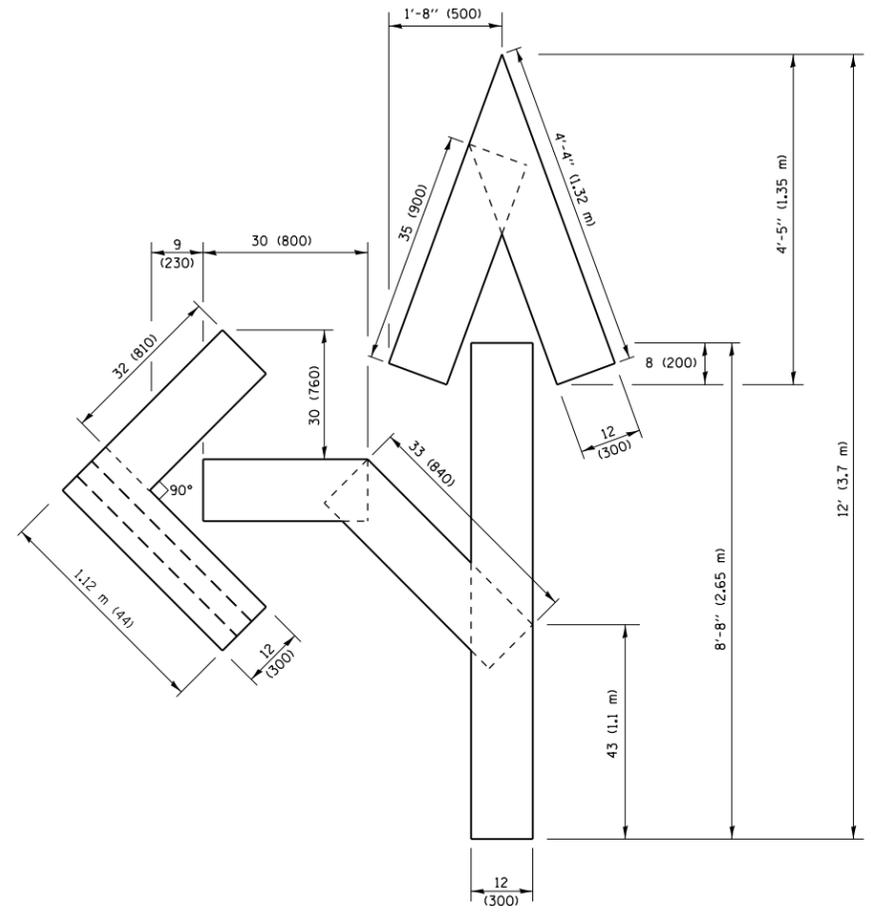
ILLINOIS FED. AID PROJECT



**QUANTITY**  
 4 (100) LINE = 45.5 ft. (13.9 m)  
 15.2 sq. ft. (1.41 sq. m)

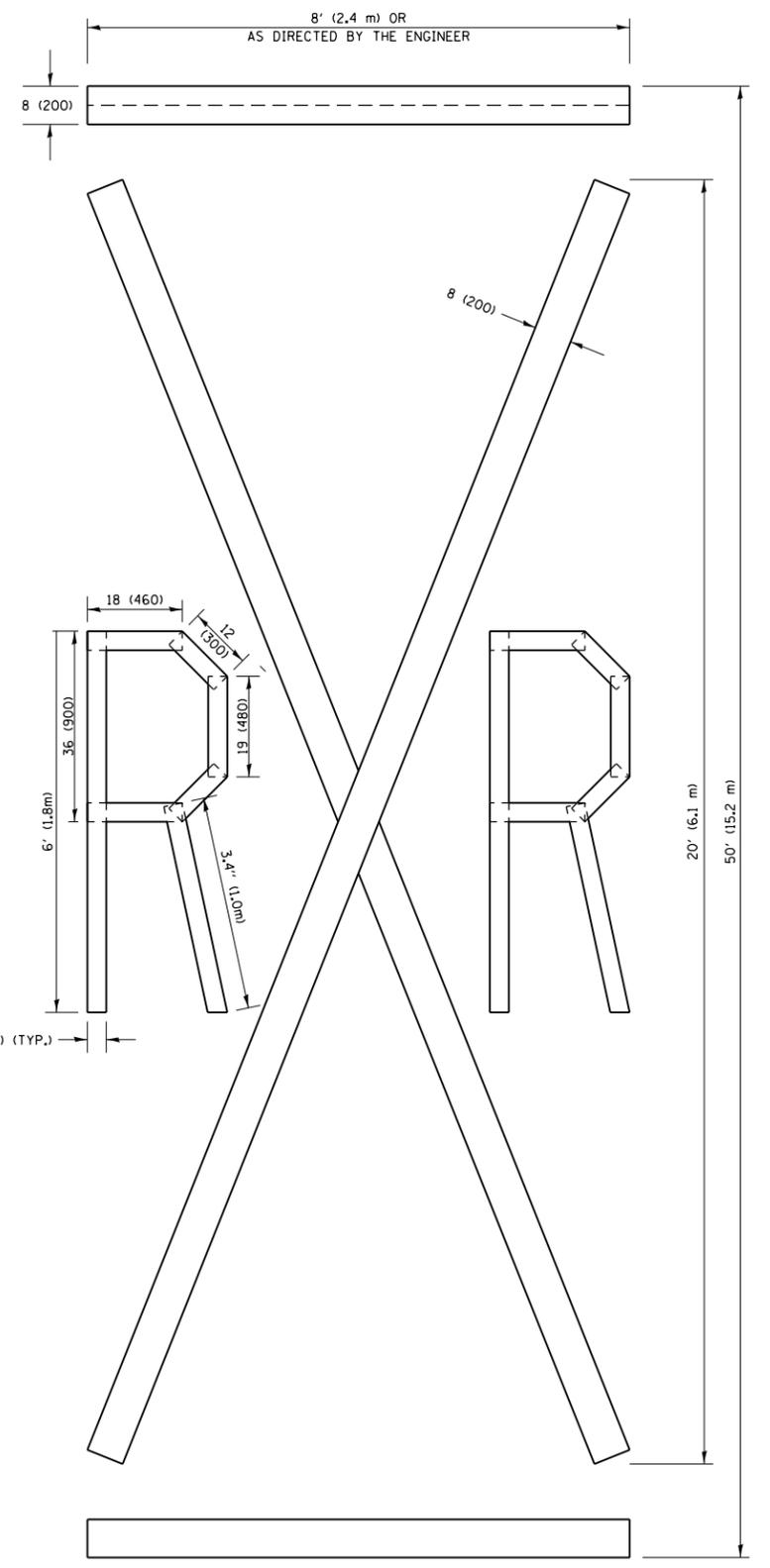


**QUANTITY**  
 4 (100) LINE = 64.1 ft. (19.5 m)  
 21.4 sq. ft. (1.99 sq. m)



**QUANTITY**  
 4 (100) LINE = 82.5 ft. (25.1 m)  
 27.5 sq. ft. (2.53 sq. m)

**NOTE:**  
 ALL QUANTITIES OF PLACEMENT ARE REPRESENTED IN LINEAR FEET OF 4" LINES TO MATCH THE 4" TEMPORARY TAPE PAY ITEM AND REPRESENTS THE TOTAL QUANTITY OF 4" TAPE REQUIRED.



**QUANTITY**  
 4 (100) LINE = 225.9 ft. (68.9 m)  
 75.3 sq. ft. (6.99 sq. m)

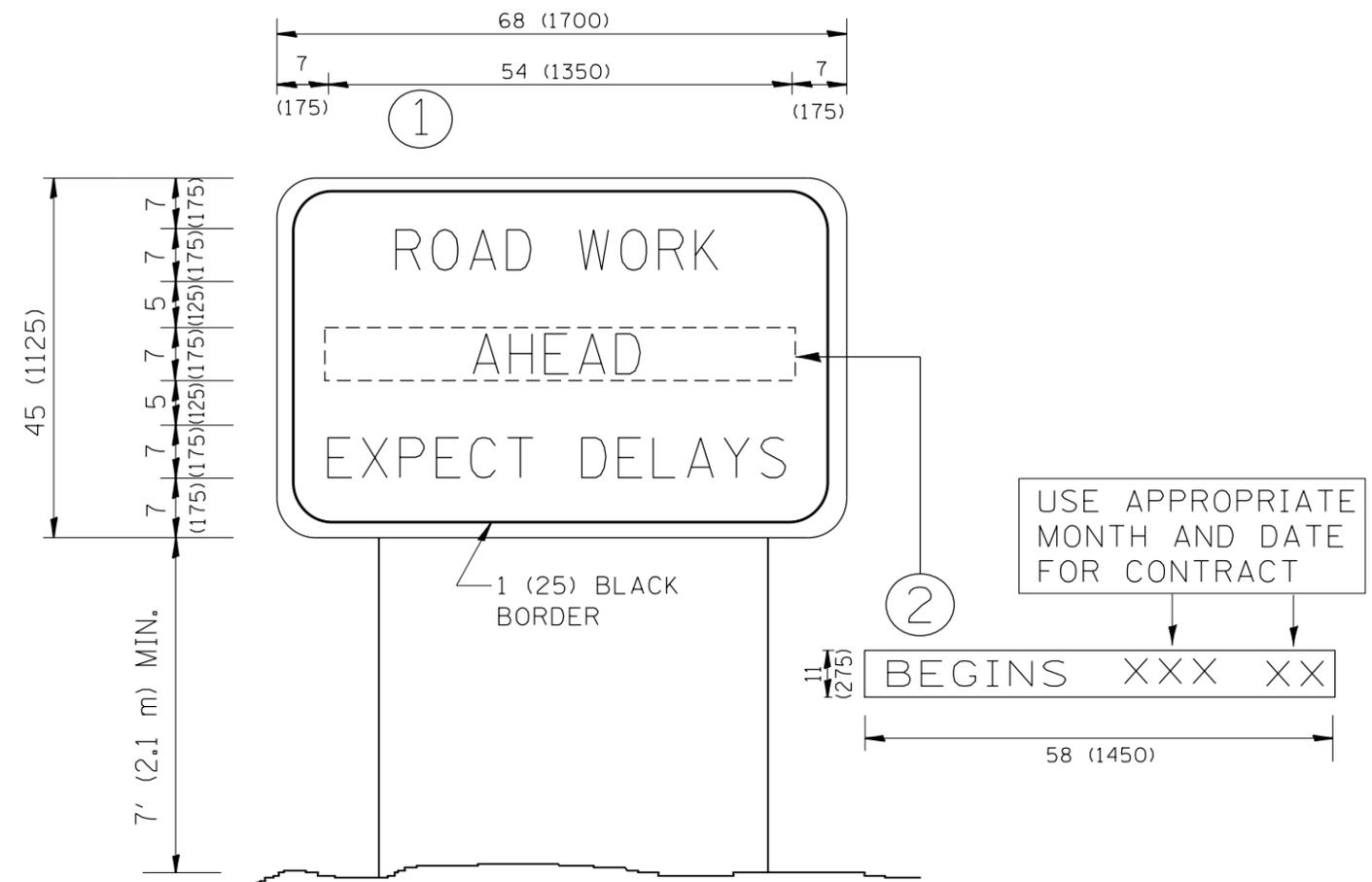
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = paraynoal	DESIGNED -	REVISED -T. RAMMACHER 03-02-98
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		DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00
			REVISED -A. SCHUETZE 09-15-16

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3519	(66 & 0103) RS	COOK	33	30
<b>TC-16</b>		<b>CONTRACT NO. 62D21</b>		
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 = paraynoal	DESIGNED -	REVISED - R. MIRS 09-15-97
p:\11\084EBIDINTEG.illinois.gov\PWIDOT\Documents\DOT Offices\District 1\Projects\1439\Drawings\Design\Diststd.dgn		CHECKED -	REVISED - R. MIRS 12-11-97
		PLOT SCALE = 100.0000' / 1in.	REVISED - T. RAMMACHER 02-02-99
		DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD  
INFORMATION SIGN**

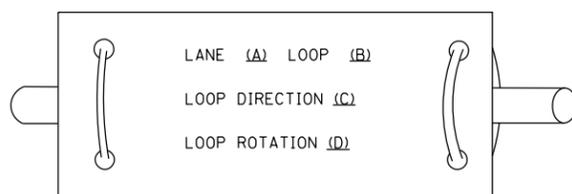
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3519	(66 & 0103) RS	COOK	33	31
<b>TC-22</b>		<b>CONTRACT NO. 62D21</b>		
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

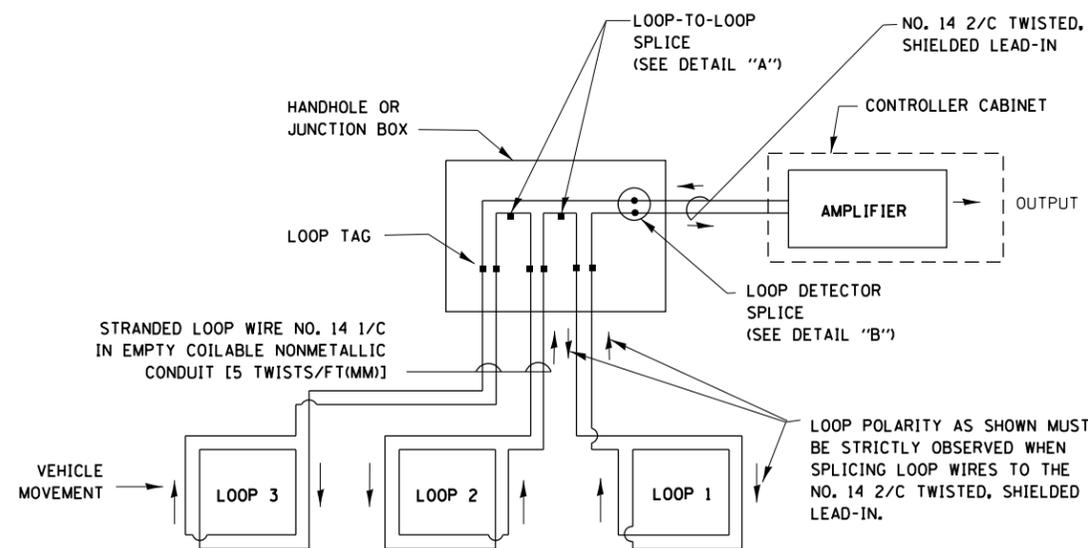
**LOOP DETECTOR NOTES**

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**

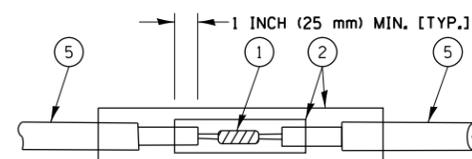


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

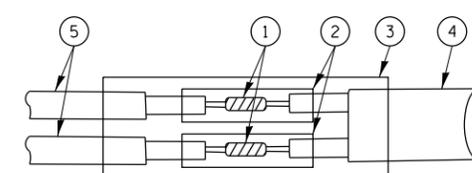


**DETECTOR LOOP WIRING SCHEMATIC**

- 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.

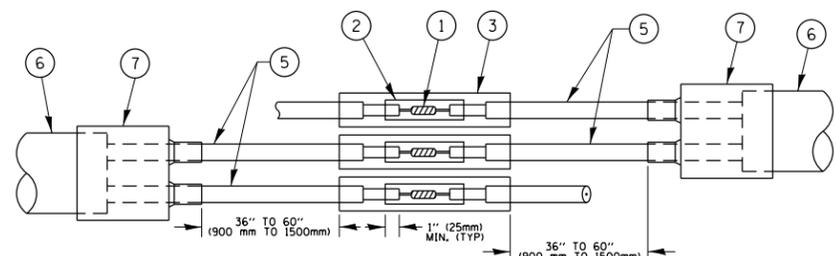


DETAIL "A"  
LOOP-TO-LOOP SPLICE

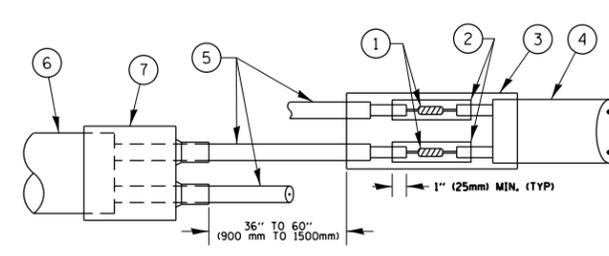


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**TYPE I LOOP**



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**LOOP DETECTOR SPLICE**

- ① WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH, THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- ② WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- ③ WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 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

FILE NAME =	USER NAME = parayno1	DESIGNED -	REVISED -
pw:\IL\084EBID\INTEG\Illinois.gov\PIWIDOT\Documents\DOT Offices\District 1\Projects\01439\Drawings\Design\Diststd.dgn		CHECKED -	REVISED -
Default	PLOT DATE = 10/20/2016	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

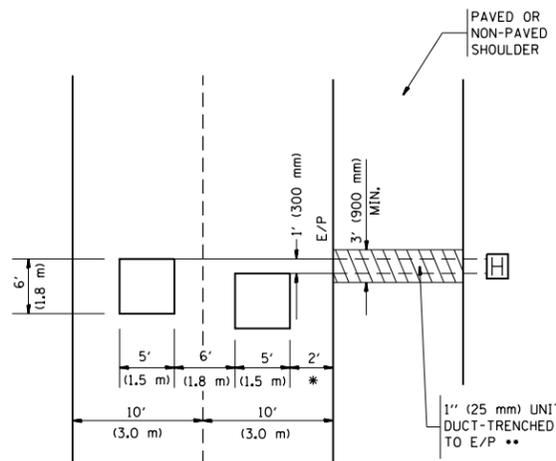
**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET 2 OF 7 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3519	(66 & 0103) RS	COOK	33	32
TS-05		CONTRACT NO. 62D21		
ILLINOIS FED. AID PROJECT				

**LOOPS NEXT TO SHOULDERS**

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



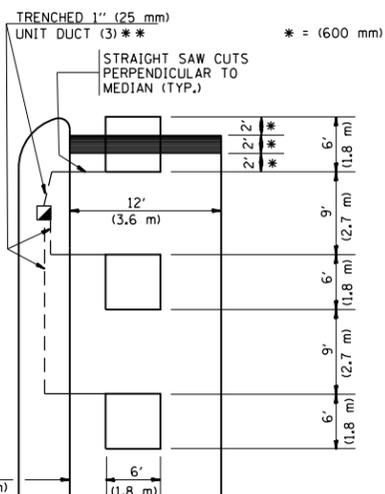
\* = (600 mm)

\*\* 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.



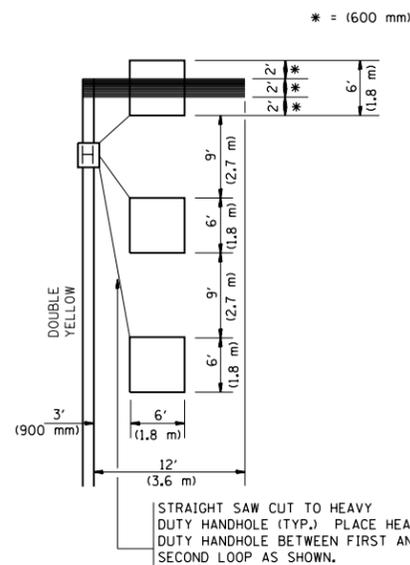
\* = (600 mm)

\*\* 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**

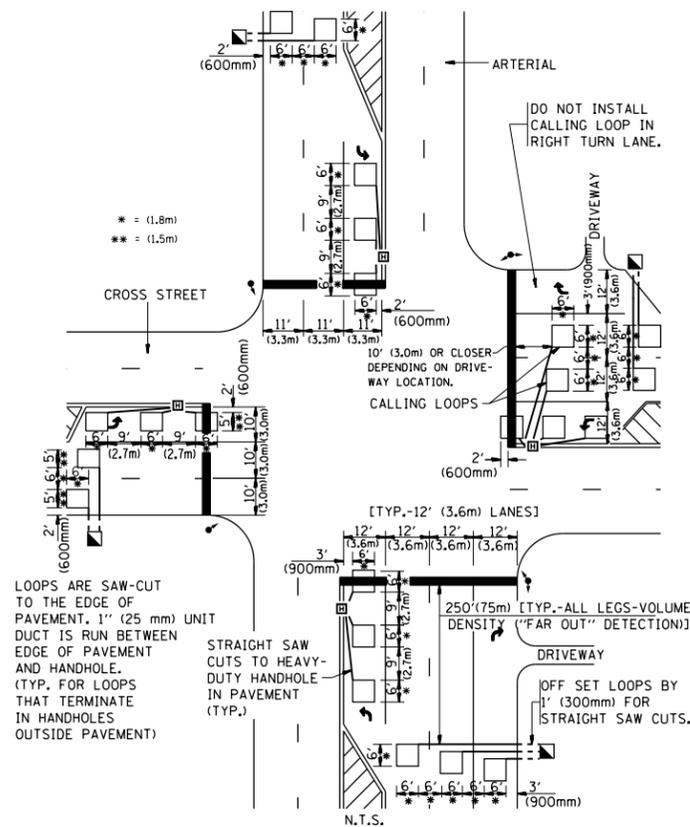
(PROTECTED / PERMITTED LEFT TURN PHASING)



\* = (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)**



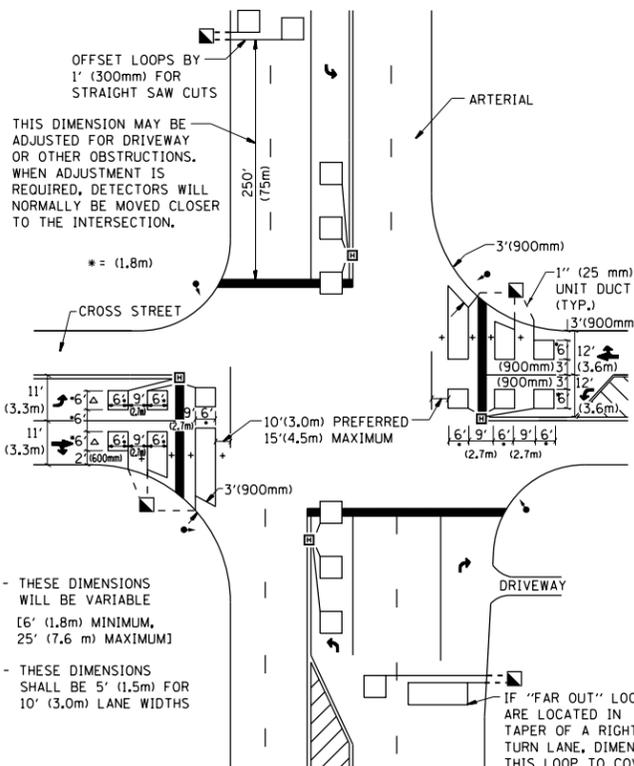
\* = (1.8m)  
\*\* = (1.5m)

LOOPS ARE SAW-CUT TO THE EDGE OF PAVEMENT. 1" (25 mm) UNIT DUCT IS RUN BETWEEN EDGE OF PAVEMENT AND HANDHOLE. (TYP. FOR LOOPS THAT TERMINATE IN HANDHOLES OUTSIDE PAVEMENT)

STRAIGHT SAW CUTS TO HEAVY-DUTY HANDHOLE IN PAVEMENT (TYP.)

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

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



+ - THESE DIMENSIONS WILL BE VARIABLE [6' (1.8m) MINIMUM, 25' (7.6 m) MAXIMUM]

△ - THESE DIMENSIONS SHALL BE 5' (1.5m) FOR 10' (3.0m) LANE WIDTHS

IF "FAR OUT" LOOPS ARE LOCATED IN TAPER OF A RIGHT TURN LANE, DIMENSION THIS LOOP TO COVER TAPER AREA. DO NOT COVER THE LEFT TURN LANE OR LEFT TURN LANE TAPER.

**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 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.

FILE NAME =	USER NAME = paraynoal	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING</b>			F.A.U. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\11\084EBIDINTEG\illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\01439\Drawings\Design\Diststd.dgn		DRAWN -	REVISED -					3519	(66 & 0103) RS	COOK	33	33
PLOT SCALE = 100.0000' / 1in.		CHECKED - R.K.F.	REVISED -					<b>TS-07</b>			<b>CONTRACT NO. 62D21</b>	
PLOT DATE = 10/20/2016		DATE -	REVISED -					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
				SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.				