

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	1
FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT 37LZ(304)		

**CONTRACT NO. 61J70**

01-19-2024 LETTING ITEM 048

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

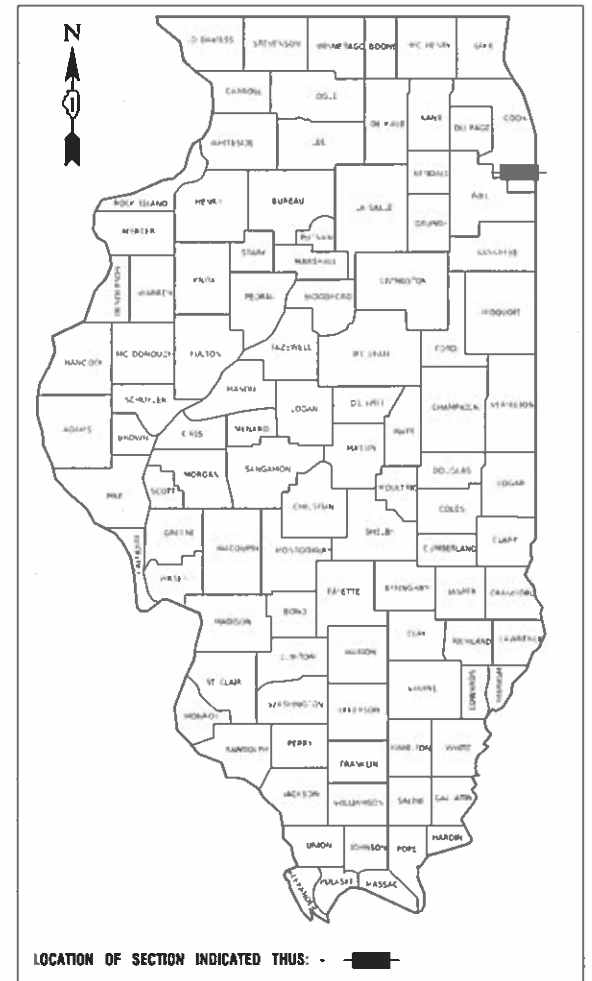
**PLANS FOR PROPOSED  
FEDERAL AID HIGHWAY**

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR HIGHWAY STANDARDS, SEE SHEET NO. 2

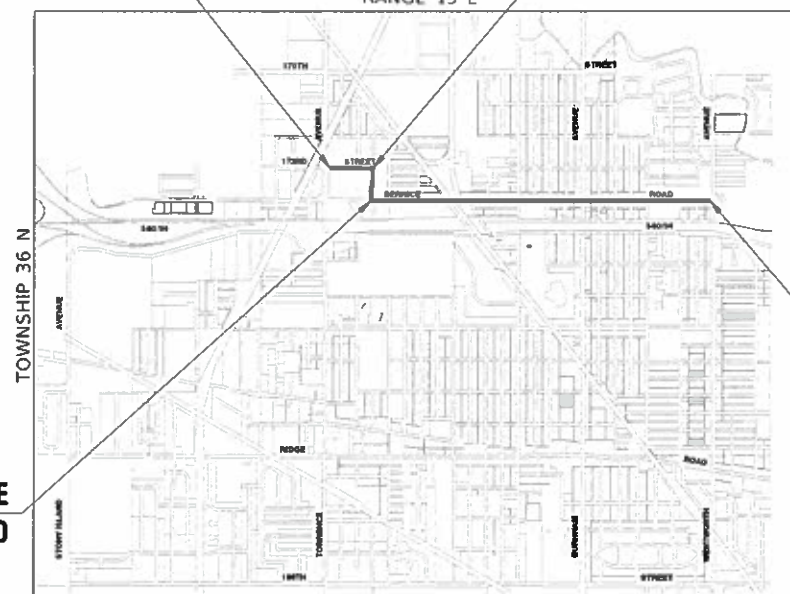
<b>TORRENCE AVENUE TO BURNHAM AVENUE</b>	
2022 ADT-	4,900
<b>BURNHAM AVENUE TO WENTWORTH AVENUE</b>	
2022 ADT-	5,250
POSTED SPEED LIMIT-	30 MPH
FUNCTIONAL CLASSIFICATION-	MAJOR COLLECTOR

**FAU 1683 (BERNICE ROAD)  
FAP 0358 (TORRENCE AVENUE) TO  
FAU 2946 (WENTWORTH AVENUE)  
ROADWAY RESURFACING  
SECTION NO.: 23-00178-00-RS  
PROJECT NO.: 37LZ(304)  
VILLAGE of LANSING  
COOK COUNTY  
JOB NO.: C91-134-23**



BEGIN PROJECT  
STA 11+67.08 173RD STREET  
STA 20+03.25 173RD STREET=  
STA 36+68.23 OAK AVENUE

VILLAGE OF LANSING

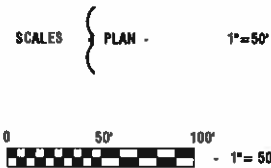


END PROJECT  
STA 119+24.81 BERNICE ROAD

STA 30+00 OAK AVENUE  
STA 50+00 BERNICE ROAD

LOCATION MAP  
NOT TO SCALE

GROSS LENGTH = 8,430 FEET = 1.60 MILES  
NET LENGTH = 8,430 FEET = 1.60 MILES



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

I.D.O.T. FEDERAL AID PROGRAM ENGINEER: CARMEN RAMOS, PE, SCHAUMBURG, IL  
CONSULTANTS: ROBINSON ENGINEERING, LTD. 708-331-6700

**CONTRACT NO. 61J70**



LICENSE EXPIRES 11/30/23

10-31-23

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	
APPROVED	6-9-2023 <i>Patricia L. Eiden</i> VILLAGE OF LANSING, MAYOR
PASSED	NOVEMBER 6, 2023 <i>C. J. Hoyle</i> DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS
RELEASING FOR BID BASED ON LIMITED REVIEW	NOVEMBER 6, 2023 <i>Jose Rios</i> REGIONAL ENGINEER

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THE STATE OF ILLINOIS**

## INDEX OF SHEETS

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424016-05	MID-BLOCK CURB RAMPS FOR SIDEWALKS
424026-03	ENTRANCE/ALLEY PEDESTRIAN CROSSINGS
442201-03	CLASS C AND D PATCHES
604001-05	FRAMES AND LIDS TYPE 1
606001-08	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701006-05	OFF ROAD OPERATIONS, 2L, 2W, 15'(4.5m) TO 24"(600mm) FROM PAVEMENT EDGE
701011-04	OFF ROAD MOVING OPERATIONS, 2L,2W, DAY ONLY
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
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701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701502-09	URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
701606-10	URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
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720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
728001-01	TELESCOPING STEEL SIGN SUPPORT
731001-01	BASE FOR TELESCOPING STEEL SIGN SUPPORT
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886006-01	TYPICAL LAYOUTS FOR DETECTOR LOOPS

## DISTRICT ONE DETAILS

BD-02	DRIVEWAY DETAILS - DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5m)
BD-08	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING
BD-22	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
BD-32	BUTT JOINTS AND HMA TAPER
TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC-16	SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS
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TC-26	DRIVEWAY ENTRANCE SIGNING
TS-07	DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAIL FOR ROADWAY RESURFACING

## GENERAL NOTES

- ITEMS OF WORK LISTED IN THE SUMMARY OF QUANTITIES NOT SPECIFICALLY CALLED OUT ON THE PLANS SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER.
- THE ROBINSON ENGINEERING, LTD. FIELD OFFICE (708-331-6700), AND THE PUBLIC WORKS DIRECTOR, AT THE VILLAGE OF LANSING (708-895-7190), SHALL BE NOTIFIED THREE (3) WORKING DAYS BEFORE CONSTRUCTION BEGINS.
- BEFORE STARTING ANY EXCAVATION THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 AND (312) 744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. (48 HOUR NOTIFICATION REQUIRED)
- UTILITIES INDICATED ON THE PLANS ARE PROVIDED FOR THE CONTRACTOR'S USE AND ARE BASED UPON INFORMATION AVAILABLE AT THE TIME OF THE ADVERTISEMENT FOR BIDS. THE OWNER AND ENGINEER DO NOT GUARANTEE THE ACCURACY OF UTILITY INFORMATION.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- THE THICKNESS OF HMA MIXTURE STATED IN THE SPECIFICATIONS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA SURFACE IS PLACED.
- ANY LOOSE MATERIAL DEPOSITED IN THE FLOW LINE OF DITCHES, GUTTERS OR OTHER DRAINAGE STRUCTURES SHALL BE REMOVED BY THE END OF EACH DAY BY THE CONTRACTOR.
- CLASS D PATCHING QUANTITIES FOR THIS CONTRACT SHALL BE PERFORMED AT THE DIRECTION OF THE ENGINEER AFTER PAVEMENT MILLING.
- CONTRACTOR SHALL TAKE PRECAUTION BY PRESERVING EXISTING TREES WITHIN THE RIGHT OF WAY. IF ANY DAMAGE OCCURS, TREES SHALL BE REPLACED IN KIND PER ARTICLE 201.07 REPAIR OR REPLACEMENT OF EXISTING PLANT MATERIAL REQUIREMENTS STATED HEREIN.
- NO PAVEMENT PATCHING SHALL BE PERMITTED AFTER FRIDAY AT 3:00 PM OF EACH AND EVERY WEEK AND NO HOLES WILL BE ALLOWED TO REMAIN OPEN OVERNIGHT OR OVER THE WEEKEND.
- ALL EQUIPMENT SHALL BE REMOVED OFF THE VILLAGE STREETS DURING ALL HOLIDAY WEEKENDS AS COORDINATED WITH THE VILLAGE.
- HMA PAVING SHALL BE PERFORMED WITH HOT JOINTS.
- THE CONTRACTOR SHALL CONTACT KALPANA KANNAN-HOSADURGA, THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR, AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- THE ENGINEER SHALL CONTACT PATRICE HARRIS, AREA TRAFFIC FIELD TECHNICIAN, AT PATRICE.HARRIS@ILLINOIS.GOV A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD, FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.
- THE "ROAD CONSTRUCTION AHEAD" SIGNS SHALL REMAIN INSTALLED UNTIL THE COMPLETION OF THE PROJECT OR WHEN NO ROADWAY HAZARDS REMAIN WITHIN THE WORK ZONE.
- PAVEMENT MARKING TAPE, TYPE III SHALL BE USED ON ALL FINAL PAVEMENT SURFACES AND EXISTING PAVEMENT SURFACES TO REMAIN.

FILE NAME = 22R0648-INDX-01 - P01	USER NAME =	DESIGNED -- JF	REVISED --	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BERNICE ROAD ROADWAY RESURFACING INDEX OF SHEETS, STANDARDS & GENERAL NOTES			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -- WPD	REVISED --		1683	23-00178-00-RS	COOK	44	2			
	PLOT SCALE =	DRAWN -- RG	REVISED --		CONTRACT NO. 61J70							
	PLOT DATE = 10-31-23	CHECKED -- AG	REVISED --		SCALE: NONE	SHEET NO. 2 OF 44 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT 37LZ(304)		

SPECIALTY ITEM	PAY CODE	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
					ROADWAY		SAFETY		TRAINEES	
					0005		0021		0042	
					URBAN		URBAN		URBAN	
FED 80%/LOCAL 20%		FED 80%/LOCAL 20%		FED 80%/LOCAL 20%						
	20200100	EARTH EXCAVATION	CU YD	10			10			
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	1,465	1,465					
	25200110	SODDING, SALT TOLERANT	SQ YD	1,465	1,465					
	25200200	SUPPLEMENTAL WATERING	UNIT	80	80					
	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	36	36					
	28000510	INLET FILTERS	EACH	73	73					
	35101600	AGGREGATE BASE COURSE, TYPE B 4"	SQ YD	2,315			2,315			
	35800100	PREPARATION OF BASE	SQ YD	2,950	2,950					
	35800200	AGGREGATE BASE REPAIR	TON	330	330					
	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	25,495	25,495					
	40600370	LONGITUDINAL JOINT SEALANT	FOOT	20,900	20,900					
	40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	50	50					
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	410	410					
	40602978	HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N50	TON	3,175	3,175					
	40604060	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50	TON	3,175	3,175					
	42300300	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 7 INCH	SQ YD	255	255					
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	6,340			6,340			

FILE NAME = 22R0648-QUAN-01 - P01

USER NAME =	DESIGNED -- JF	REVISED --
	CHECKED -- SDK	REVISED --
PLOT SCALE =	DRAWN -- BG	REVISED --
PLOT DATE = 10-31-23	CHECKED -- AG	REVISED --

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>BERNICE ROAD ROADWAY RESURFACING SUMMARY OF QUANTITIES</b>			
SCALE: NONE	SHEET NO. 3	OF 44 SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	3
CONTRACT NO. 61J70				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)				

SPECIALTY ITEM	PAY CODE	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
					ROADWAY		SAFETY		TRAINEES	
					0005		0021		0042	
					URBAN		URBAN		URBAN	
FED 80%/LOCAL 20%		FED 80%/LOCAL 20%		FED 80%/LOCAL 20%						
	42400800	DETECTABLE WARNINGS	SQ FT	780			780			
	44000160	HOT-MIX ASPHALT SURFACE REMOVAL, 2 3/4"	SQ YD	37,770	37,770					
	44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	1,610	1,610					
	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	7,525	7,525					
	44000600	SIDEWALK REMOVAL	SQ FT	6,520			6,520			
	44201737	CLASS D PATCHES, TYPE I, 8 INCH	SQ YD	100	100					
	44201741	CLASS D PATCHES, TYPE II, 8 INCH	SQ YD	100	100					
	44201745	CLASS D PATCHES, TYPE III, 8 INCH	SQ YD	150	150					
	44201747	CLASS D PATCHES, TYPE IV, 8 INCH	SQ YD	2,600	2,600					
	60266600	VALVE BOXES TO BE ADJUSTED	EACH	22	22					
	60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	2	2					
	60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	2	2					
	60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	860	860					
	60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	365	365					
	60608562	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.12	FOOT	6,360	6,360					
	67100100	MOBILIZATION	LSUM	1	1					
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	LSUM	1	1					

FILE NAME = 22R0648-QUAN-01 - P02

USER NAME =	DESIGNED -- JF	REVISED --
	CHECKED -- SDK	REVISED --
PLOT SCALE =	DRAWN -- BG	REVISED --
PLOT DATE = 10-31-23	CHECKED -- AG	REVISED --

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BERNICE ROAD  
ROADWAY RESURFACING  
SUMMARY OF QUANTITIES

SCALE: NONE SHEET NO. 4 OF 44 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	4
CONTRACT NO. 61J70				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)				

SPECIALTY ITEM	PAY CODE	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE						
					ROADWAY		SAFETY		TRAINEES		
					0005		0021		0042		
					URBAN		URBAN		URBAN		
FED 80%/LOCAL 20%		FED 80%/LOCAL 20%		FED 80%/LOCAL 20%							
	70102622	TRAFFIC CONTROL AND PROTECTION, STANDARD 701502	LSUM	1	1						
	70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	LSUM	1	1						
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	1	1						
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1	1						
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	60			60				
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	4,795			4,795				
	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	1,600			1,600				
	70300211	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS -- PAINT	SQ FT	220			220				
	70300221	TEMPORARY PAVEMENT MARKING -- LINE 4"-- PAINT	FOOT	3,320			3,320				
	70300241	TEMPORARY PAVEMENT MARKING -- LINE 6"-- PAINT	FOOT	2,100			2,100				
	70300261	TEMPORARY PAVEMENT MARKING -- LINE 12"-- PAINT	FOOT	720			720				
	70300281	TEMPORARY PAVEMENT MARKING -- LINE 24"-- PAINT	FOOT	430			430				
	70306120	TEMPORARY PAVEMENT MARKING -- LINE 4" -- TYPE III TAPE	FOOT	3,320			3,320				
X	72000100	SIGN PANEL -- TYPE 1	SQ FT	335			335				
X	72400100	REMOVE SIGN PANEL ASSEMBLY -- TYPE A	EACH	41			41				
X	72400310	REMOVE SIGN PANEL -- TYPE 1	SQ FT	30			30				
X	72400500	RELOCATE SIGN PANEL ASSEMBLY -- TYPE A	EACH	2			2				

FILE NAME = 22R0648-QUAN-01 - P03

USER NAME =	DESIGNED -- JF	REVISED --
	CHECKED -- SDK	REVISED --
PLOT SCALE =	DRAWN -- BG	REVISED --
PLOT DATE = 10-31-23	CHECKED -- AG	REVISED --

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BERNICE ROAD  
ROADWAY RESURFACING  
SUMMARY OF QUANTITIES

SCALE: NONE SHEET NO. 5 OF 44 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	5
CONTRACT NO. 61J70				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)				

SPECIALTY ITEM	PAY CODE	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
					ROADWAY		SAFETY		TRAINEES	
					0005		0021		0042	
					URBAN		URBAN		URBAN	
FED 80%/LOCAL 20%		FED 80%/LOCAL 20%		FED 80%/LOCAL 20%						
X	72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	630				630		
X	73100100	BASE FOR TELESCOPING STEEL SIGN SUPPORT	EACH	44				44		
X	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	220				220		
X	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	16,595				16,595		
X	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	2,100				2,100		
X	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1,465				1,465		
X	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	430				430		
X	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	13				13		
X	81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	13				13		
X	85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1				1		
X	87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	170				170		
X	87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	175				175		
X	87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	16				16		
X	87900200	DRILL EXISTING HANDHOLE	EACH	1				1		
X	88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8				8		
X	89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	250				250		
X	89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1				1		

FILE NAME = 22R0648-QUAN-01 - P04

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PLOT DATE = 10-31-23	CHECKED -- AG	REVISED --

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BERNICE ROAD  
ROADWAY RESURFACING  
SUMMARY OF QUANTITIES

SCALE: NONE SHEET NO. 6 OF 44 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	6
CONTRACT NO. 61J70				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)				

SPECIALTY ITEM	PAY CODE	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
					ROADWAY		SAFETY		TRAINEES	
					0005		0021		0042	
					URBAN		URBAN		URBAN	
FED 80%/LOCAL 20%		FED 80%/LOCAL 20%		FED 80%/LOCAL 20%						
X	89502376	REBUILD EXISTING HANDHOLE	EACH	1			1			
X	88600100	DETECTOR LOOP, TYPE I	FOOT	750			750			
X	X8860105	DETECTOR LOOP REPLACEMENT	FOOT	110			110			
X	X1400367	PEDESTRIAN SIGNAL POST, 10 FT.	EACH	1			1			
	X4021000	TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	18	18					
	X4022000	TEMPORARY ACCESS (COMMERCIAL ENTRANCE)	EACH	21	21					
X	X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	8			8			
X	X8780012	CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	4			4			
	Z0004514	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 4"	SQ YD	1,355	1,355					
	Z0017400	DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED	EACH	137	137					
	Z0017700	DRAINAGE & UTILITY STRUCTURES TO BE RECONSTRUCTED	EACH	3	3					
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	104			104			
	Z0076600	TRAINEES	HOUR	500					500	
	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500					500	

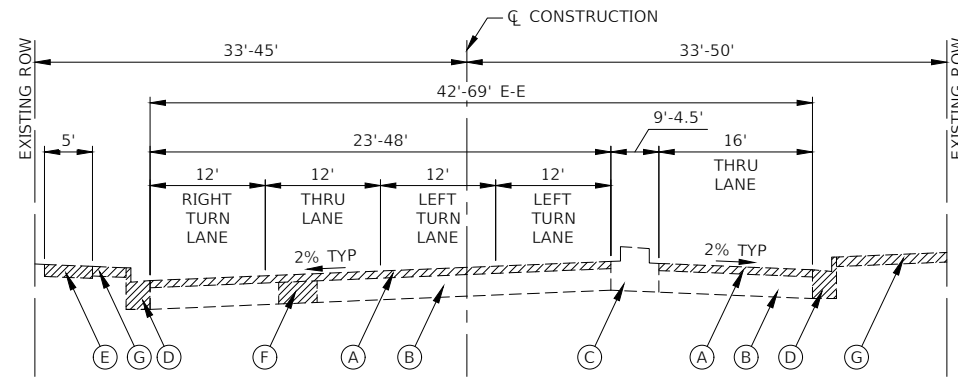
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PLOT DATE = 10-31-23	CHECKED -- AG	REVISED --

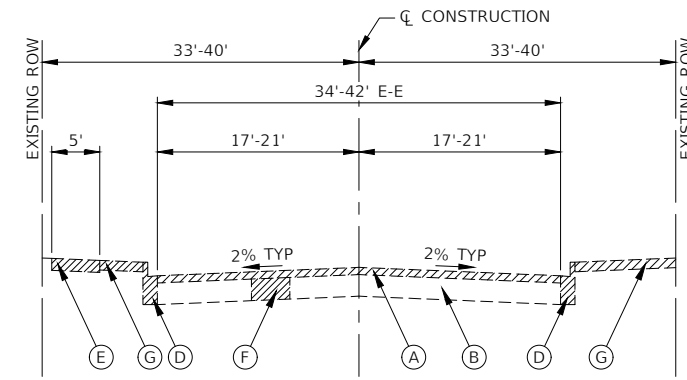
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BERNICE ROAD ROADWAY RESURFACING SUMMARY OF QUANTITIES			
SCALE: NONE	SHEET NO. 7 OF 44 SHEETS	STA.	TO STA.

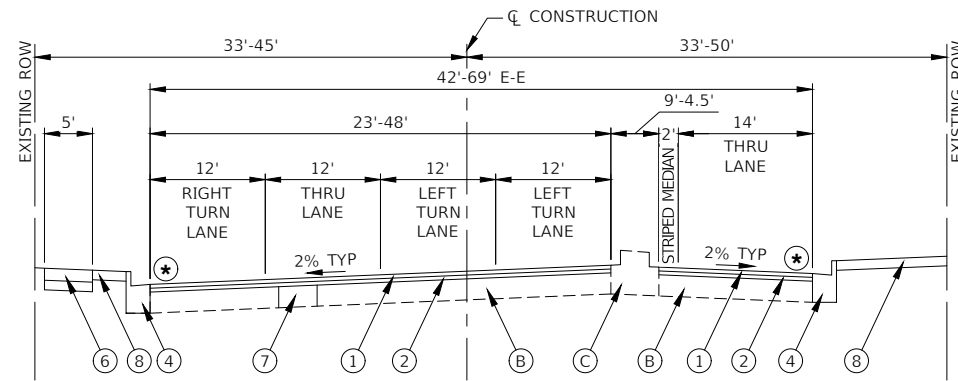
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	7
CONTRACT NO. 61J70				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)				



**EXISTING TYPICAL SECTION**  
**173RD STREET**  
**STA 11+67.08 TO STA 15+67.25**

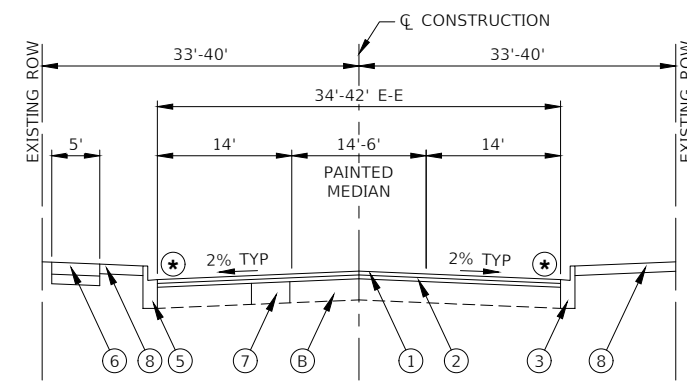


**EXISTING TYPICAL SECTION**  
**173RD STREET - STA 15+67.25 TO STA 20+03.26**  
**OAK AVENUE - STA 30+00.00 TO STA 37+19.54**  
**BERNICE ROAD - STA 49+44.70 TO STA 53+64.38**



**PROPOSED TYPICAL SECTION**  
**173RD STREET**  
**STA 11+67.08 TO STA 15+67.25**

⊛ FINISHED PAVEMENT SURFACE SHALL BE 1/4" ABOVE TOP OF GUTTER



**PROPOSED TYPICAL SECTION**  
**173RD STREET - STA 15+67.25 TO STA 20+03.26**  
**OAK AVENUE - STA 30+00.00 TO STA 37+19.54**  
**BERNICE ROAD - STA 49+44.70 TO STA 53+64.38**

⊛ FINISHED PAVEMENT SURFACE SHALL BE 1/4" ABOVE TOP OF GUTTER

**EXISTING LEGEND**

- (A) HOT-MIX ASPHALT SURFACE REMOVAL, 2 3/4"
- (B) EXISTING ASPHALT TO REMAIN, ±8"-10"
- (C) EXISTING CONCRETE MEDIAN TO REMAIN
- (D) EXISTING CURB AND GUTTER TO BE REMOVED (AT LOCATIONS AS SHOWN ON PLANS OR DIRECTED BY ENGINEER)
- (E) EXISTING PORTLAND CEMENT CONCRETE SIDEWALK TO BE REMOVED (AT LOCATIONS AS SHOWN ON PLANS OR DIRECTED BY ENGINEER)
- (F) PAVEMENT REMOVAL FOR CLASS D PATCHES, 8 INCH (AT LOCATIONS AS SHOWN ON PLANS OR DIRECTED BY ENGINEER)
- (G) EXISTING PARKWAY COMPOSITION TO BE REMOVED (AT LOCATIONS AS SHOWN ON PLANS OR DIRECTED BY ENGINEER)  
 -HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 4"  
 -PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 7 INCH  
 -TOPSOIL FURNISH AND PLACE, 4" AND SODDING, SALT TOLERANT

**NOTE**

LONGITUDINAL JOINT SEALANT SHALL BE PLACED ON THE HOT-MIX ASPHALT BINDER COURSE.

**PROPOSED LEGEND**

- (1) HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50, 1 1/2"
- (2) HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N50, 1 1/2"
- (3) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (AT LOCATIONS AS SHOWN ON PLANS OR DIRECTED BY ENGINEER)
- (4) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 (AT LOCATIONS AS SHOWN ON PLANS OR DIRECTED BY ENGINEER)
- (5) COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.12 (AT LOCATIONS AS SHOWN ON PLANS OR DIRECTED BY ENGINEER)
- (6) PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH AGGREGATE BASE COURSE, TYPE B 4" (AT LOCATIONS AS SHOWN ON PLANS OR DIRECTED BY ENGINEER)
- (7) CLASS D PATCHES, 8 INCH (AT LOCATIONS AS SHOWN ON PLANS OR DIRECTED BY ENGINEER)
- (8) RESTORATION PER PARKWAY COMPOSITION (AT LOCATIONS AS SHOWN AS PLANS OR DIRECTED BY ENGINEER)  
 -HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 4"  
 -PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 7 INCH  
 -TOPSOIL FURNISH AND PLACE, 4" AND SODDING, SALT TOLERANT

**HOT-MIX ASPHALT MIXTURE REQUIREMENTS**

MIXTURE TYPE	AIR VOIDS @ Ndes	QMP
ROADWAY RESURFACING		
HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50, 1.5"	4% @ 50 Gyr.	LR 1030-2
HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N50, 1.5"	4% @ 50 Gyr.	LR 1030-2
HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 4"		
HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50, 1.5"	4% @ 50 Gyr.	LR 1030-2
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 2.5"	4% @ 50 Gyr.	LR 1030-2
CLASS D PATCHES		
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	4% @ 70 Gyr.	LR 1030-2
QMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA) PER LR1030-2		

**NOTES:**

1. THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE IS 112 LBS/SQ/IN.
2. ALL PATCHING OPERATIONS SHALL TAKE PLACE AFTER SURFACE MILLING HAS BEEN COMPLETED.
3. 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 RECLAIMED MATERIALS SPECIFICATIONS.

FILE NAME = 22R0648-TYPX-01 - P01

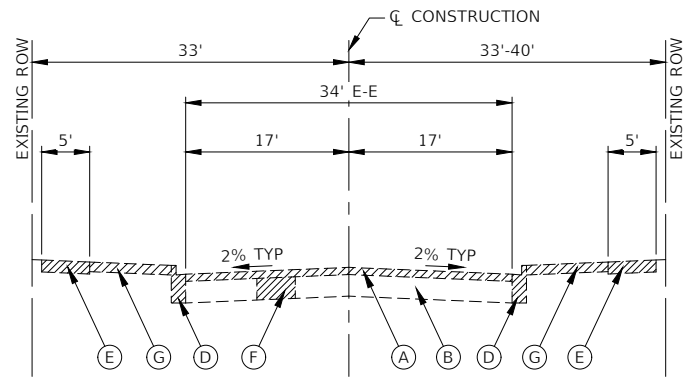
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

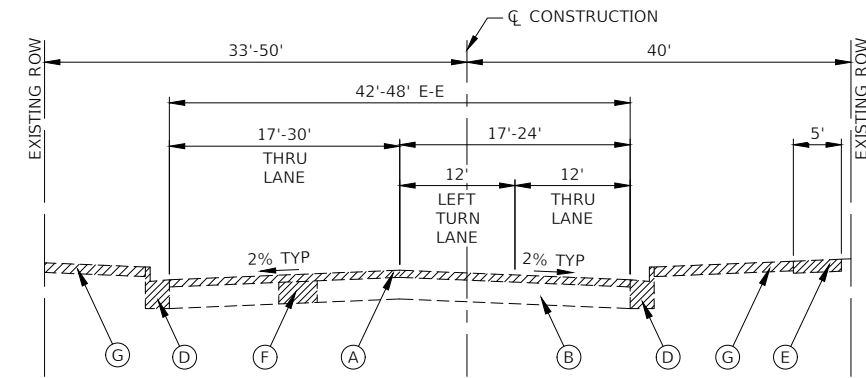
BERNICE ROAD ROADWAY RESURFACING TYPICAL CROSS SECTIONS		
SCALE:	SHEET NO. 8 OF 44 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	8
CONTRACT NO. 61J70				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)				

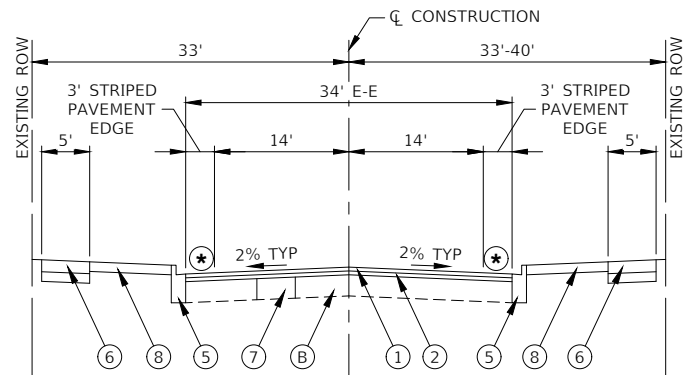




**EXISTING TYPICAL SECTION**  
**BERNICE ROAD**  
**STA 53+64.38 TO STA 117+43.25**

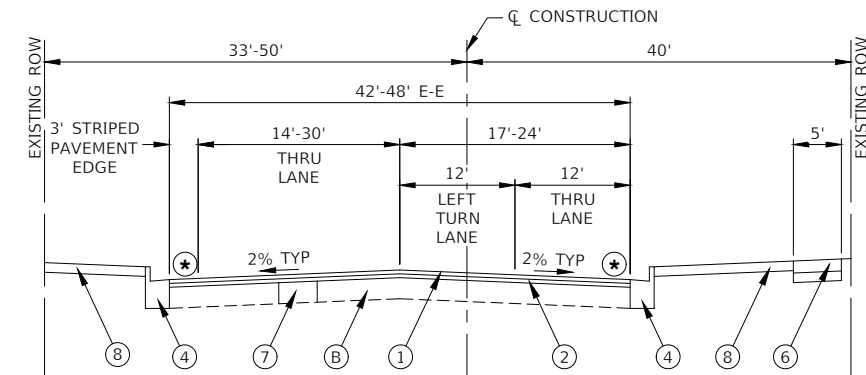


**EXISTING TYPICAL SECTION**  
**BERNICE ROAD**  
**STA 117+43.25 TO STA 119+24.81**



**PROPOSED TYPICAL SECTION**  
**BERNICE ROAD**  
**STA 53+64.38 TO STA 117+43.25**

⊛ FINISHED PAVEMENT SURFACE SHALL BE 1/4" ABOVE TOP OF GUTTER



**PROPOSED TYPICAL SECTION**  
**BERNICE ROAD**  
**STA 117+43.25 TO STA 119+24.81**

⊛ FINISHED PAVEMENT SURFACE SHALL BE 1/4" ABOVE TOP OF GUTTER

**EXISTING LEGEND**

- (A) HOT-MIX ASPHALT SURFACE REMOVAL, 2 3/4"
- (B) EXISTING ASPHALT TO REMAIN, ±8"-10"
- (C) EXISTING CONCRETE MEDIAN TO REMAIN
- (D) EXISTING CURB AND GUTTER TO BE REMOVED (AT LOCATIONS AS SHOWN ON PLANS OR DIRECTED BY ENGINEER)
- (E) EXISTING PORTLAND CEMENT CONCRETE SIDEWALK TO BE REMOVED (AT LOCATIONS AS SHOWN ON PLANS OR DIRECTED BY ENGINEER)
- (F) PAVEMENT REMOVAL FOR CLASS D PATCHES, 8 INCH (AT LOCATIONS AS SHOWN ON PLANS OR DIRECTED BY ENGINEER)
- (G) EXISTING PARKWAY COMPOSITION TO BE REMOVED (AT LOCATIONS AS SHOWN ON PLANS OR DIRECTED BY ENGINEER)  
 -HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 4"  
 -PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 7 INCH  
 -TOPSOIL FURNISH AND PLACE, 4" AND SODDING, SALT TOLERANT

**NOTE**

LONGITUDINAL JOINT SEALANT SHALL BE PLACED ON THE HOT-MIX ASPHALT BINDER COURSE.

**PROPOSED LEGEND**

- (1) HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50, 1 1/2"
- (2) HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N50, 1 1/2"
- (3) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (AT LOCATIONS AS SHOWN ON PLANS OR DIRECTED BY ENGINEER)
- (4) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 (AT LOCATIONS AS SHOWN ON PLANS OR DIRECTED BY ENGINEER)
- (5) COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.12 (AT LOCATIONS AS SHOWN ON PLANS OR DIRECTED BY ENGINEER)
- (6) PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH AGGREGATE BASE COURSE, TYPE B 4" (AT LOCATIONS AS SHOWN ON PLANS OR DIRECTED BY ENGINEER)
- (7) CLASS D PATCHES, 8 INCH (AT LOCATIONS AS SHOWN ON PLANS OR DIRECTED BY ENGINEER)
- (8) RESTORATION PER PARKWAY COMPOSITION (AT LOCATIONS AS SHOWN AS PLANS OR DIRECTED BY ENGINEER)  
 -HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 4"  
 -PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 7 INCH  
 -TOPSOIL FURNISH AND PLACE, 4" AND SODDING, SALT TOLERANT

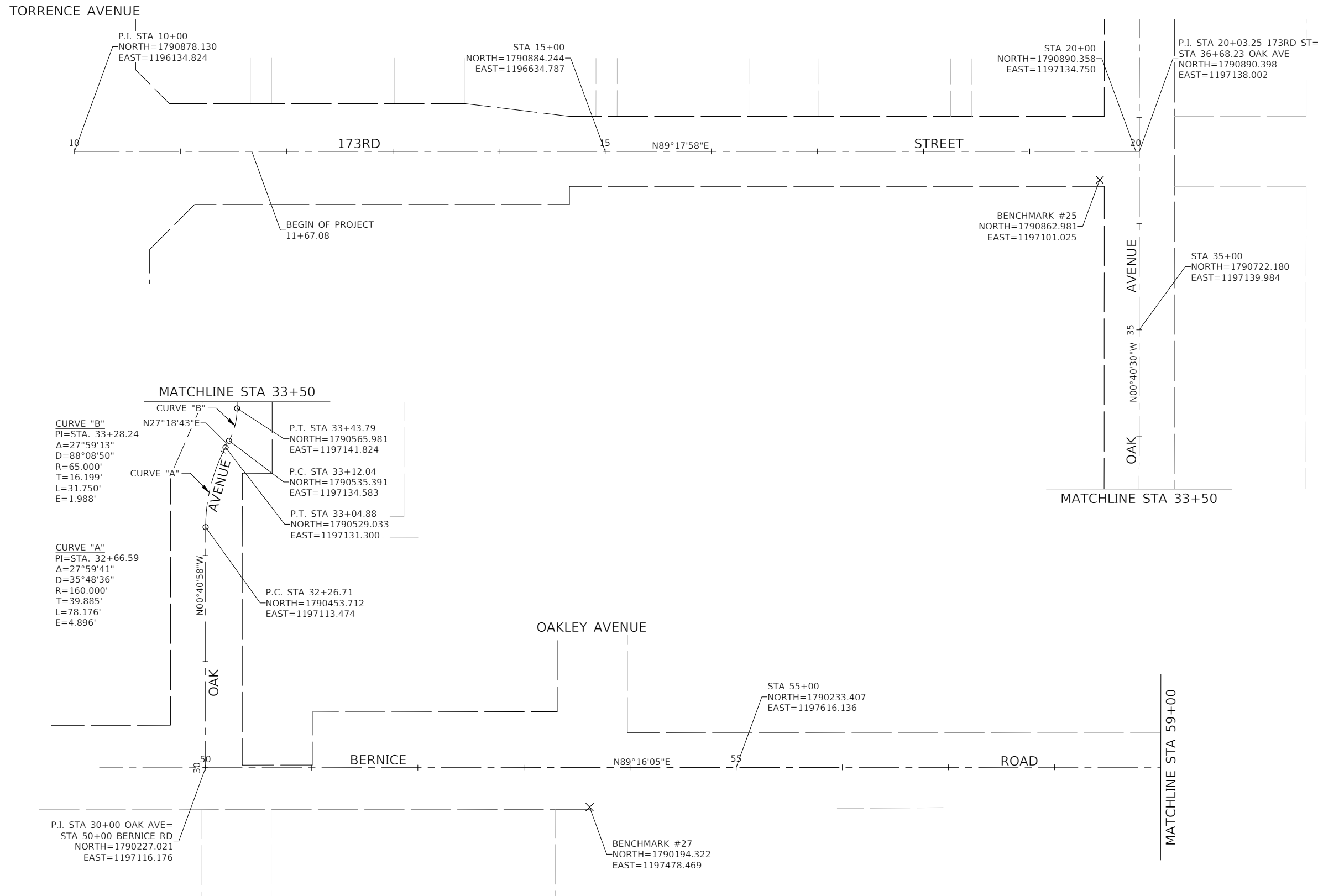
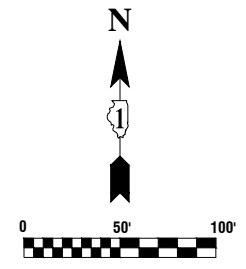
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PLOT SCALE =	DRAWN -- ACAD	REVISED --
PLOT DATE = 10-31-23	CHECKED -- ACAD	REVISED --

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BERNICE ROAD ROADWAY RESURFACING TYPICAL CROSS SECTIONS		
SCALE:	SHEET NO. 9 OF 44 SHEETS	STA. TO STA.

F.A. -- RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	9
CONTRACT NO. 61J70				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)				



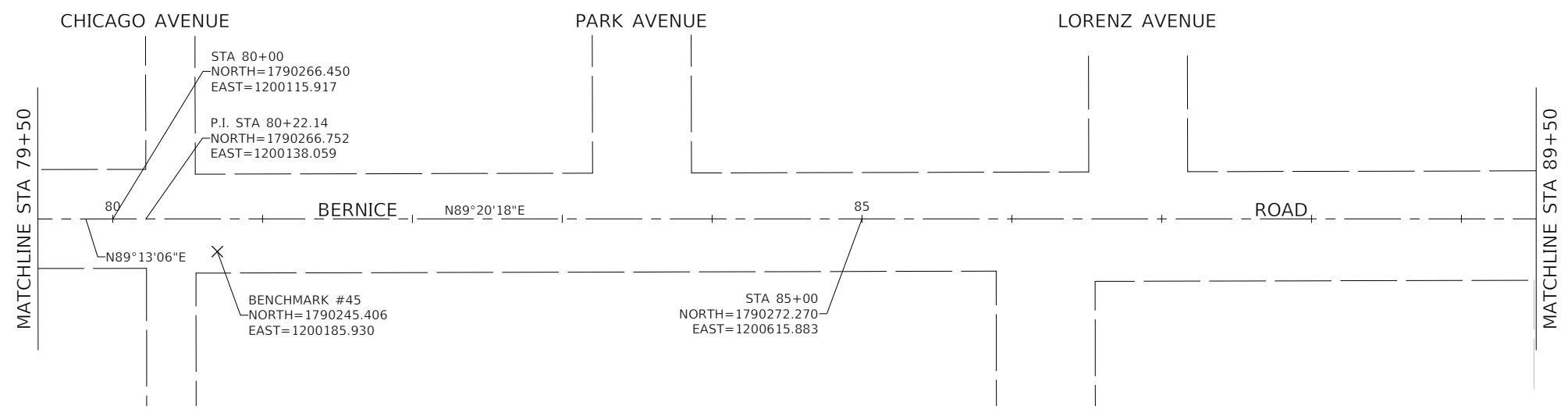
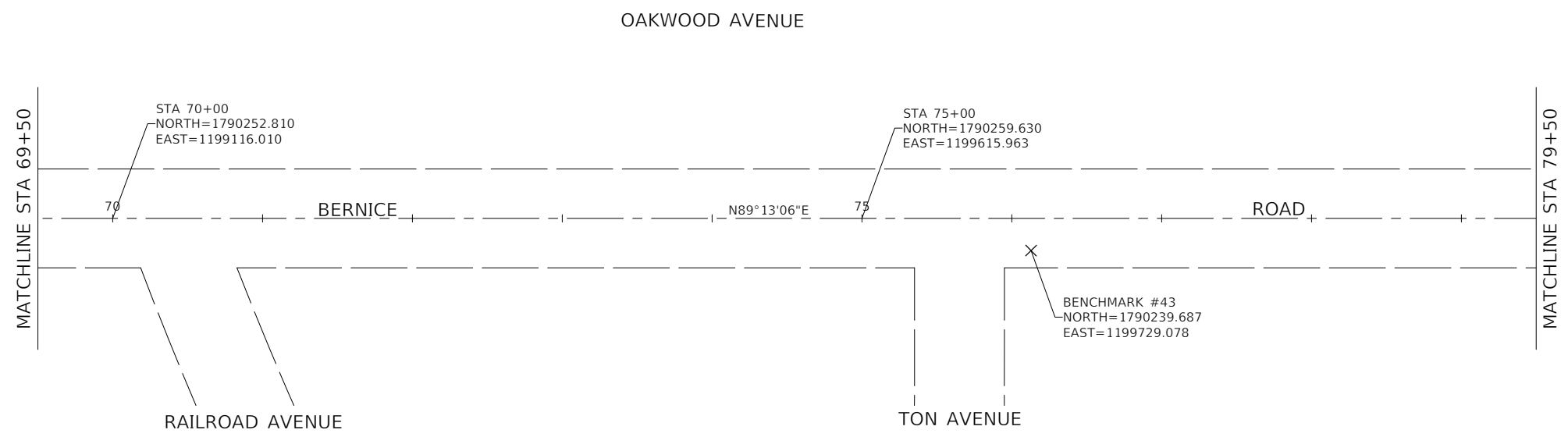
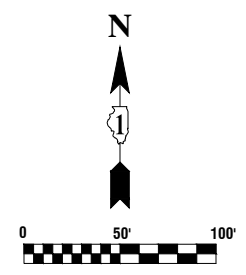
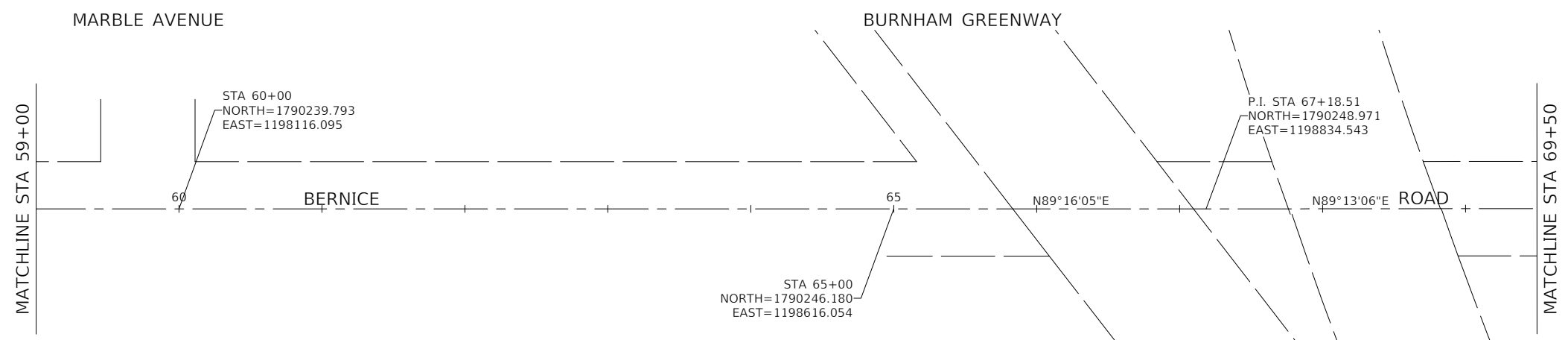
- NOTES**
- COORDINATES ARE BASED ON ILLINOIS STATE PLANE EASTERN ZONE NORTH AMERICAN DATUM 1983
  - SURVEY FEET UNITS WERE USED.
  - ALL ELEVATIONS REFER TO NAVD88 DATUM.

**BENCHMARKS**

BENCHMARK #25  
 RR SPIKE IN NORTHEAST FACE OF PP W/LIGHT AT SOUTHWEST COR 173RD ST & OAK AVE. ELEV=600.94

BENCHMARK #27  
 RR SPIKE IN WEST FACE OF PP ON SOUTH SIDE BERNICE RD, 3RD PP EAST OF OAK AVE. ELEV=600.39

FILE NAME = 22R0648-TIES-01 - P01	USER NAME =	DESIGNED -- JF	REVISED --	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>BERNICE ROAD ROADWAY RESURFACING ALIGNMENT, TIES AND BENCHMARKS</b>			F.A. --	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED -- SDK	REVISED --		1683	23-00178-00-RS	COOK	44	10			
	PLOT DATE = 10-31-23	DRAWN -- BG	REVISED --		CONTRACT NO. 61J70							
		CHECKED -- AG	REVISED --		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)							
				SCALE: 1"=50'	SHEET NO. 10 OF 44 SHEETS	STA.	TO STA.					



**NOTES**

- COORDINATES ARE BASED ON ILLINOIS STATE PLANE EASTERN ZONE NORTH AMERICAN DATUM 1983
- SURVEY FEET UNITS WERE USED.
- ALL ELEVATIONS REFER TO NAVD88 DATUM.

**BENCHMARKS**

BENCHMARK #43  
 SQUARE ON TOP OF NORTH SIDE OF CONC BASE FOR LIGHT POLE ON SOUTH SIDE BERNICE RD, 1ST LIGHT POLE EAST OF TON AVE.  
 ELEV=599.74

BENCHMARK #45  
 SQUARE ON TOP OF NORTH SIDE OF CONC BASE FOR LIGHT POLE ON SOUTH SIDE BERNICE RD, 1ST LIGHT POLE EAST OF CHICAGO AVE.  
 ELEV=599.60

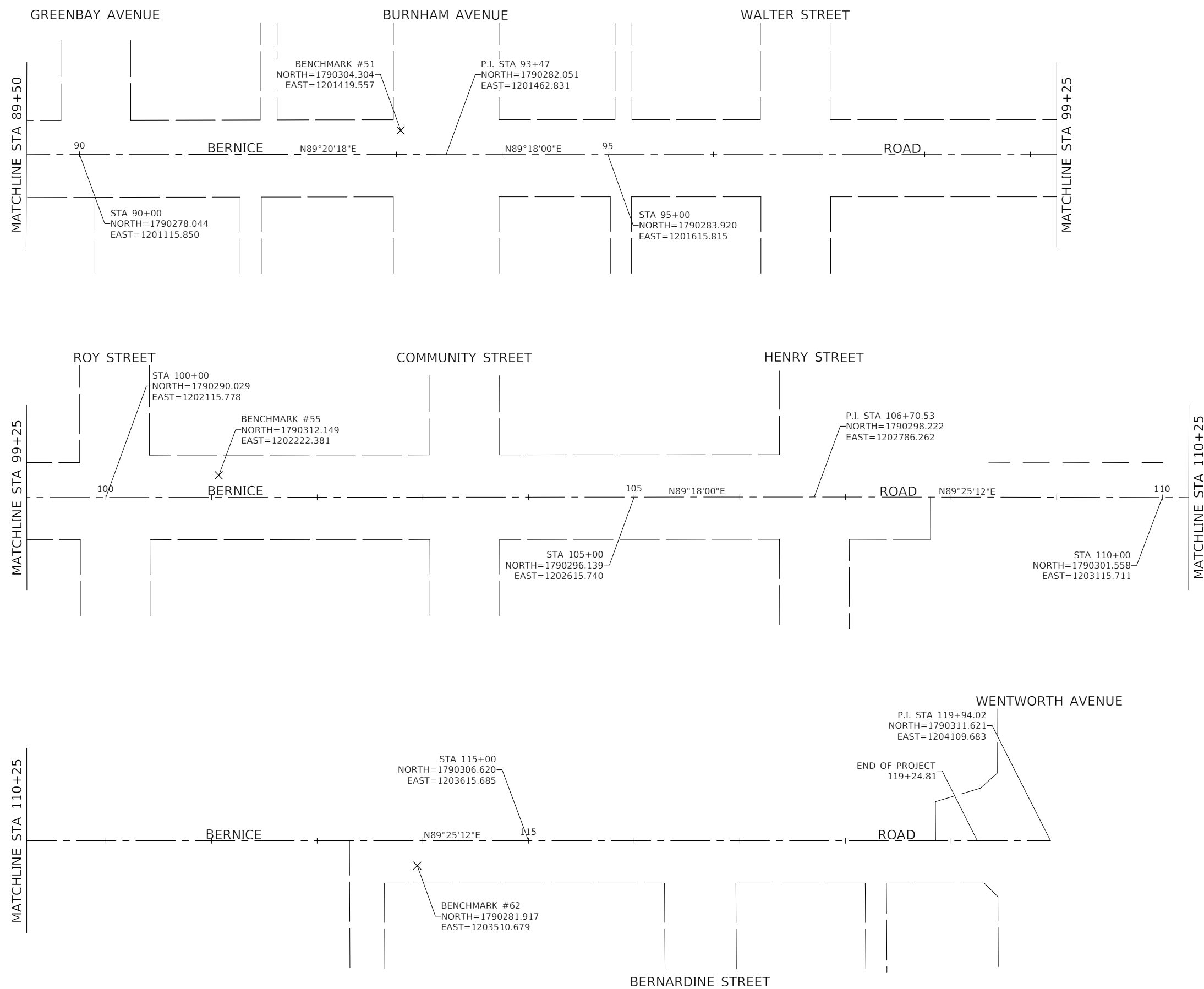
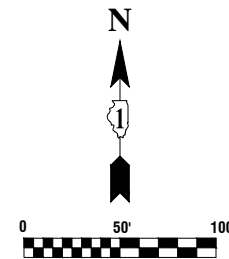
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BERNICE ROAD  
 ROADWAY RESURFACING  
 ALIGNMENT, TIES AND BENCHMARKS

SCALE: 1"=50'      SHEET NO. 11 OF 44 SHEETS      STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	11
CONTRACT NO. 61J70				
FED. ROAD DIST. NO. 1    ILLINOIS    FED. AID PROJECT 37LZ(304)				



- NOTES**
- COORDINATES ARE BASED ON ILLINOIS STATE PLANE EASTERN ZONE NORTH AMERICAN DATUM 1983
  - SURVEY FEET UNITS WERE USED.
  - ALL ELEVATIONS REFER TO NAVD88 DATUM.

- BENCHMARKS**
- BENCHMARK #51**  
 SQUARE ON TOP OF SOUTH SIDE OF CONC BASE FOR LIGHT POLE AT NORTHWEST COR BERNICE RD & BURNHAM AVE.  
 ELEV=599.26
- BENCHMARK #55**  
 SPIKENAIL IN SOUTH FACE OF PP ON NORTH SIDE BERNICE RD, 1ST PP EAST OF ROY ST.  
 ELEV=598.44
- BENCHMARK #62**  
 CROSS ON TOP OF SOUTH SIDE OF CONC BASE FOR LIGHT POLE ON SOUTH SIDE BERNICE RD, 3RD LIGHT POLE WEST OF WENTWORTH AVE.  
 ELEV=595.70

FILE NAME = 22R0648-TIES-01 - P03	USER NAME =	DESIGNED -- JF	REVISED --
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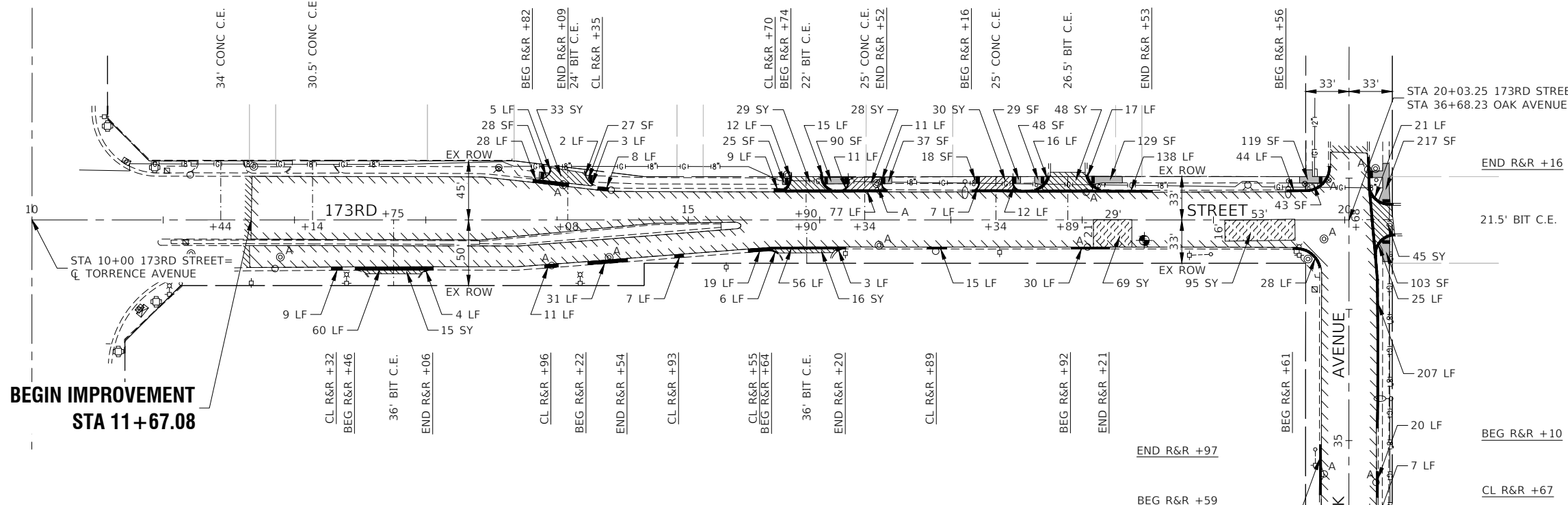
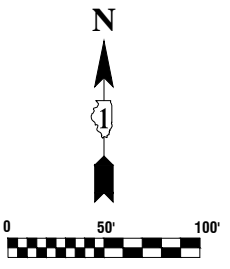
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**BERNICE ROAD  
 ROADWAY RESURFACING  
 ALIGNMENT, TIES AND BENCHMARKS**

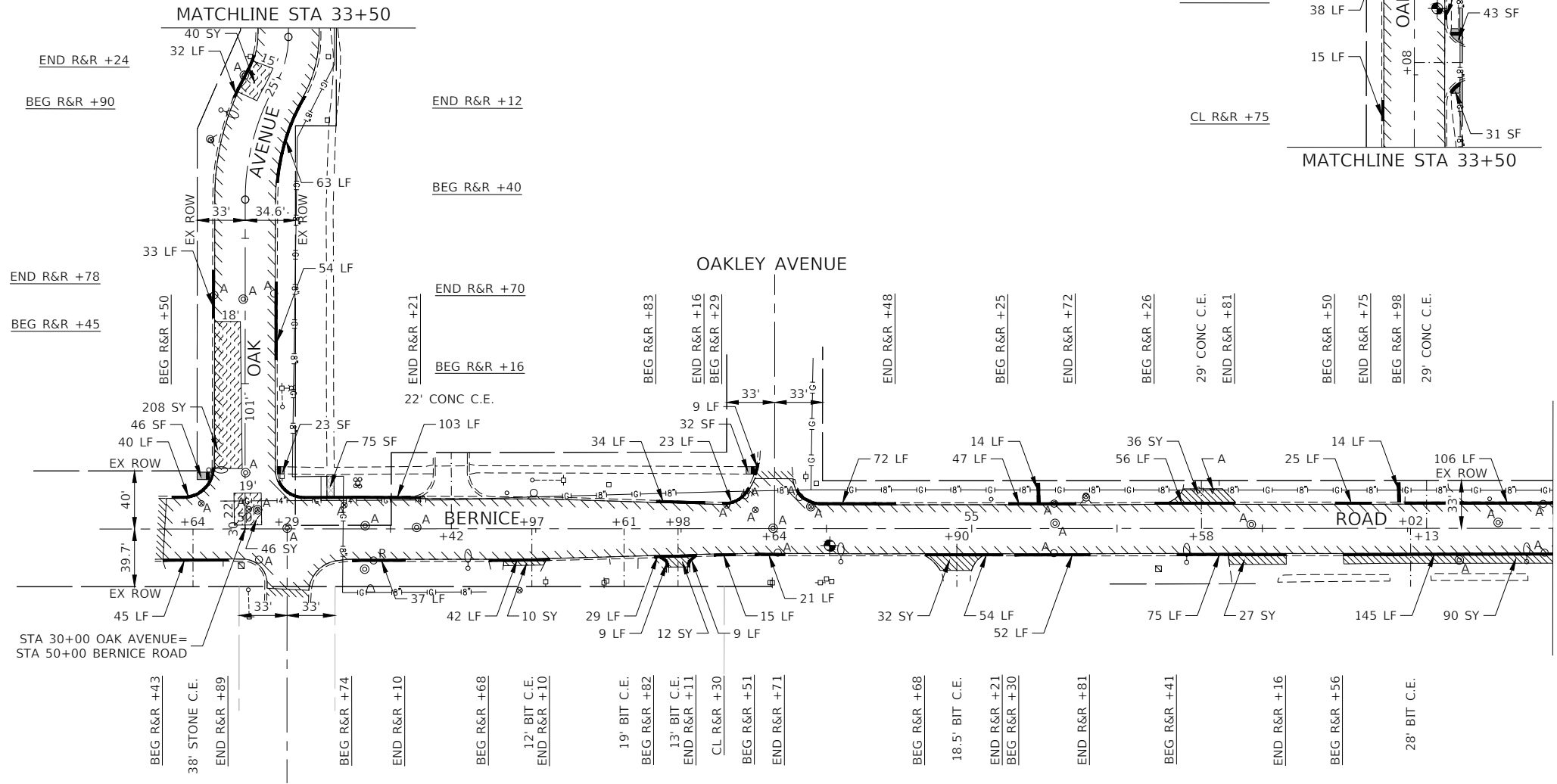
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	12
CONTRACT NO. 61J70				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)				

TORRENCE AVENUE



**BEGIN IMPROVEMENT  
STA 11+67.08**



- LEGEND**
- HMA SURFACE REMOVAL, 2 3/4"
  - HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N50, 1 1/2"
  - HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50, 1 1/2"
  - SIDEWALK REMOVAL
  - SIDEWALK REMOVAL  
PCC SIDEWALK, 5" (7" THRU DRIVEWAYS)  
AGGREGATE BASE COURSE, TYPE B, 4"
  - CLASS D PATCHES, 8"
  - DRIVEWAY PAVEMENT REMOVAL  
HMA DRIVEWAY PAVEMENT, 4"
  - DRIVEWAY PAVEMENT REMOVAL  
PCC DRIVEWAY PAVEMENT, 7"
  - DETECTABLE WARNING
  - CONCRETE CURB & COMBINATION CONCRETE CURB AND GUTTER  
REMOVAL AND REPLACEMENT
  - "A" STRUCTURE OR VALVE BOX TO BE ADJUSTED
  - "R" STRUCTURE TO BE RECONSTRUCTED
  - HMA SURFACE REMOVAL - BUTT JOINT
  - PAVEMENT CORE
  - BEG R&R +XX** BEGIN STATION FOR CURB AND GUTTER REMOVAL AND REPLACEMENT
  - END R&R +XX** END STATION OF CURB AND GUTTER REMOVAL AND REPLACEMENT
  - CL R&R +XX** CENTER STATION OF CURB AND GUTTER REMOVAL AND REPLACEMENT (UNDER 20 LINEAL FEET)

**NOTE:**  
ALL SIDEWALK RAMP WILL BE IN ACCORDANCE WITH THE HIGHWAY STANDARDS REFERENCED ON SHEET 2.

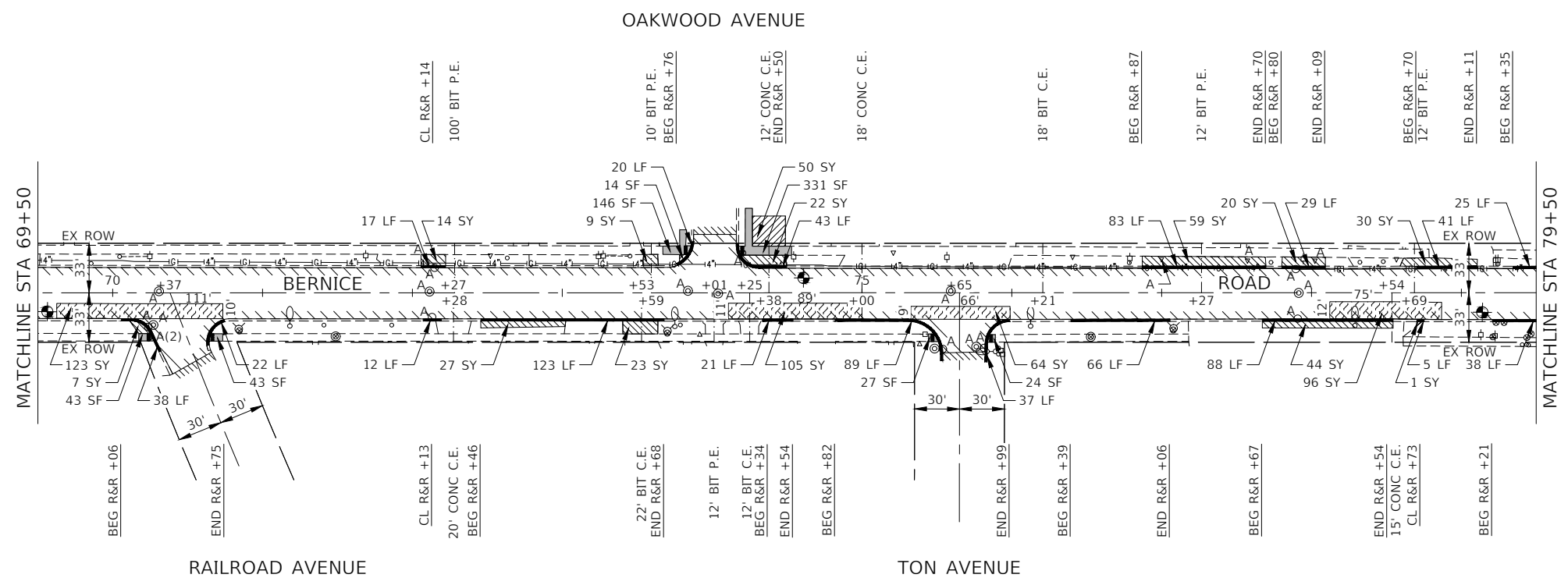
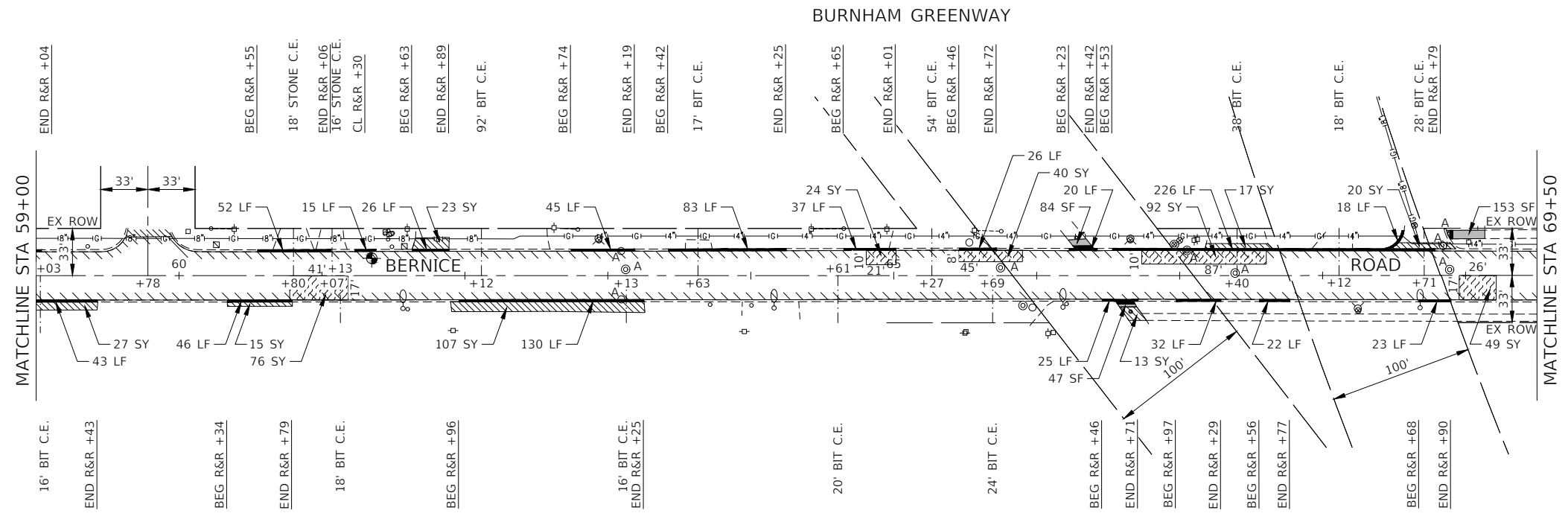
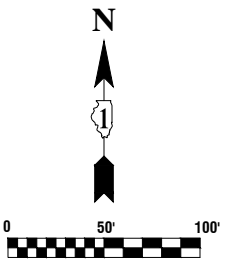
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PLOT SCALE =	DRAWN - BG	REVISED -
PLOT DATE = 10-31-23	CHECKED - AG	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BERNICE ROAD ROADWAY RESURFACING PROPOSED IMPROVEMENT PLAN			
SCALE: 1"=50'	SHEET NO. 13 OF 44 SHEETS	STA. 11+67.08 TO STA. 59+00	

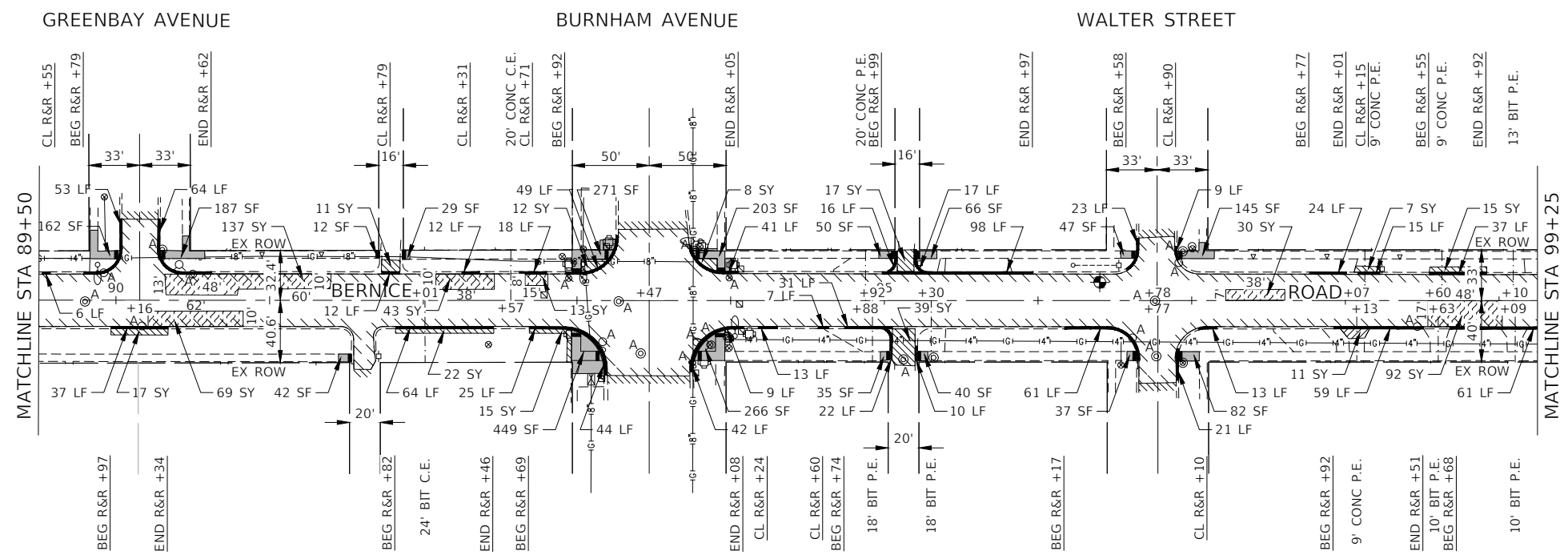
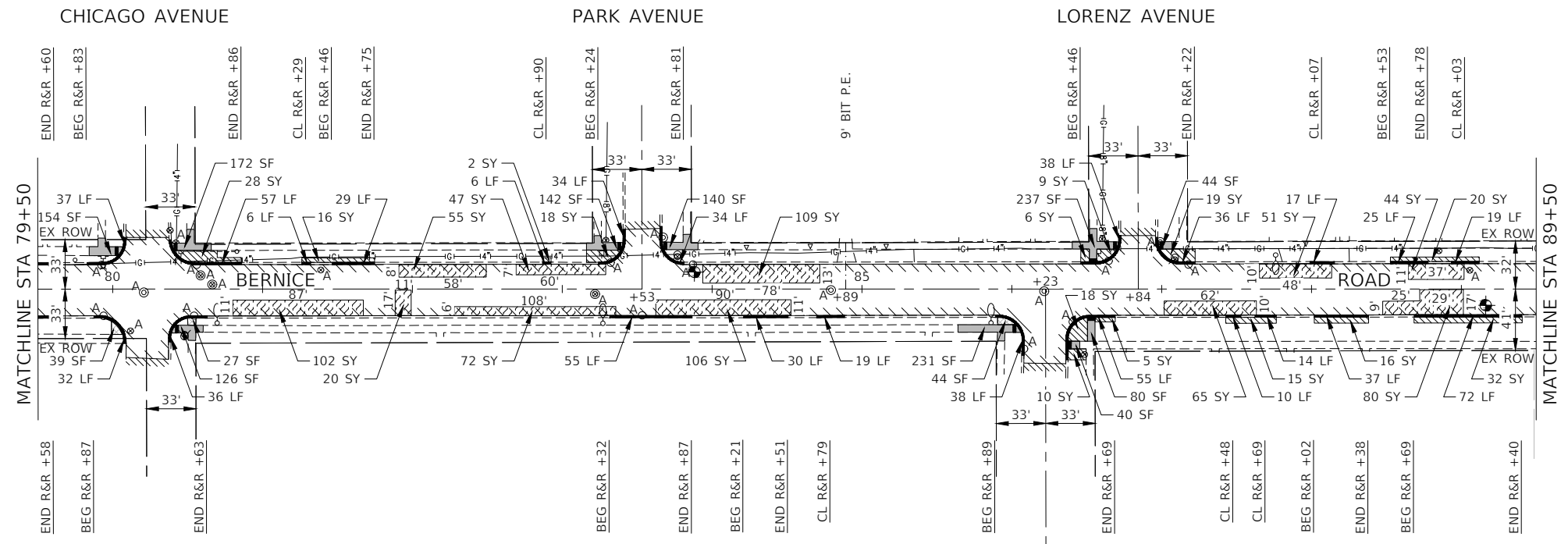
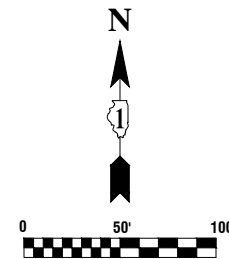
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	13
CONTRACT NO. 61J70				
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	37LZ(304)	



- LEGEND**
- HMA SURFACE REMOVAL, 2 3/4"
  - HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N50, 1 1/2"
  - HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50, 1 1/2"
  - SIDEWALK REMOVAL
  - SIDEWALK REMOVAL  
PCC SIDEWALK, 5" (7" THRU DRIVEWAYS)  
AGGREGATE BASE COURSE, TYPE B, 4"
  - CLASS D PATCHES, 8"
  - DRIVEWAY PAVEMENT REMOVAL  
HMA DRIVEWAY PAVEMENT, 4"
  - DRIVEWAY PAVEMENT REMOVAL  
PCC DRIVEWAY PAVEMENT, 7"
  - DETECTABLE WARNING
  - CONCRETE CURB & COMBINATION CONCRETE CURB AND GUTTER  
REMOVAL AND REPLACEMENT
  - "A" STRUCTURE OR VALVE BOX TO BE ADJUSTED
  - "R" STRUCTURE TO BE RECONSTRUCTED
  - HMA SURFACE REMOVAL - BUTT JOINT
  - PAVEMENT CORE
  - BEG R&R +XX BEGIN STATION FOR CURB AND GUTTER REMOVAL AND REPLACEMENT
  - END R&R +XX END STATION OF CURB AND GUTTER REMOVAL AND REPLACEMENT
  - CL R&R +XX CENTER STATION OF CURB AND GUTTER REMOVAL AND REPLACEMENT (UNDER 20 LINEAL FEET)

**NOTE:**  
ALL SIDEWALK RAMP WILL BE IN ACCORDANCE WITH THE HIGHWAY STANDARDS REFERENCED ON SHEET 2.

FILE NAME = 22R0648-PLAN-01 - P02	USER NAME =	DESIGNED -- JF	REVISED --	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BERNICE ROAD ROADWAY RESURFACING PROPOSED IMPROVEMENT PLAN			F.A. --	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	DRAWN -- BG	REVISED --		1683	23-00178-00-RS	COOK	44	14			
PLOT DATE = 10-31-23	CHECKED -- AG	REVISED --		SCALE: 1"=50'	SHEET NO. 14 OF 44 SHEETS	STA. 59+00 TO STA. 79+50	CONTRACT NO. 61J70					
							FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)					



**LEGEND**

- HMA SURFACE REMOVAL, 2 3/4"
- HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N50, 1 1/2"
- HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50, 1 1/2"
- SIDEWALK REMOVAL
- SIDEWALK REMOVAL  
PCC SIDEWALK, 5" (7" THRU DRIVEWAYS)  
AGGREGATE BASE COURSE, TYPE B, 4"
- CLASS D PATCHES, 8"
- DRIVEWAY PAVEMENT REMOVAL  
HMA DRIVEWAY PAVEMENT, 4"
- DRIVEWAY PAVEMENT REMOVAL  
PCC DRIVEWAY PAVEMENT, 7"
- DETECTABLE WARNING
- CONCRETE CURB & COMBINATION CONCRETE CURB AND GUTTER  
REMOVAL AND REPLACEMENT
- "A" STRUCTURE OR VALVE BOX TO BE ADJUSTED
- "R" STRUCTURE TO BE RECONSTRUCTED
- HMA SURFACE REMOVAL - BUTT JOINT
- PAVEMENT CORE
- BEG R&R +XX BEGIN STATION FOR CURB AND GUTTER REMOVAL AND  
REPLACEMENT
- END R&R +XX END STATION OF CURB AND GUTTER REMOVAL AND  
REPLACEMENT
- CL R&R +XX CENTER STATION OF CURB AND GUTTER REMOVAL AND  
REPLACEMENT (UNDER 20 LINEAL FEET)

**NOTE:**

ALL SIDEWALK RAMP WILL BE IN ACCORDANCE WITH THE HIGHWAY STANDARDS REFERENCED ON SHEET 2.

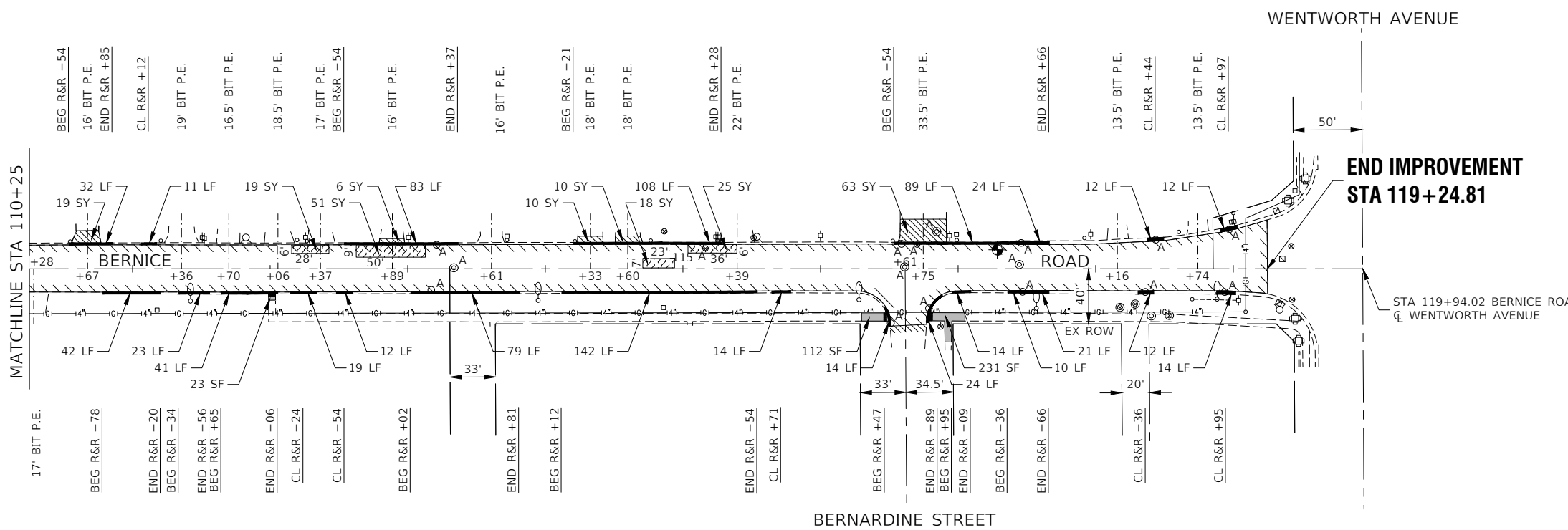
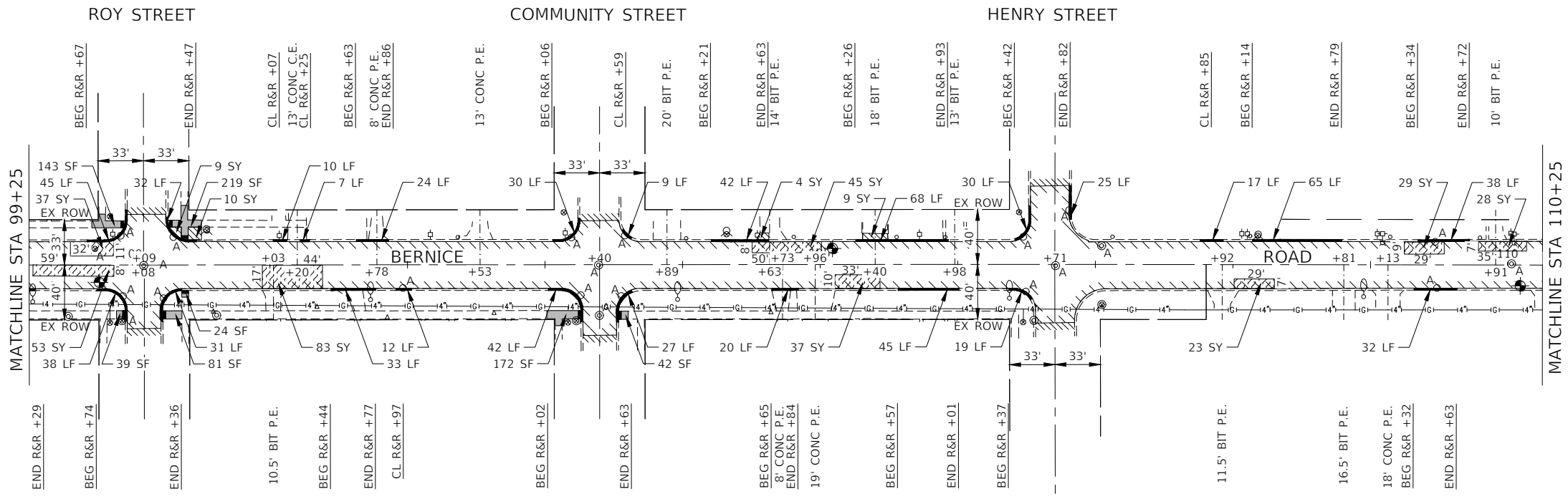
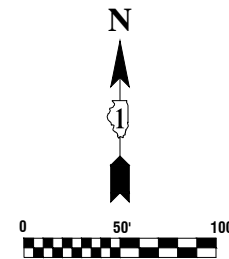
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USER NAME =	DESIGNED -- JF	REVISED --
	CHECKED -- SDK	REVISED --
PLOT SCALE =	DRAWN -- BG	REVISED --
PLOT DATE = 10-31-23	CHECKED -- AG	REVISED --

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

BERNICE ROAD ROADWAY RESURFACING PROPOSED IMPROVEMENT PLAN	
SCALE: 1"=50'	SHEET NO. 15 OF 44 SHEETS
STA. 79+50	TO STA. 99+25

F.A. -- RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	15
CONTRACT NO. 61J70				
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT 37LZ(304)		



- LEGEND**
- HMA SURFACE REMOVAL, 2 3/4" HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N50, 1 1/2" HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50, 1 1/2"
  - SIDEWALK REMOVAL
  - SIDEWALK REMOVAL PCC SIDEWALK, 5" (7" THRU DRIVEWAYS) AGGREGATE BASE COURSE, TYPE B, 4"
  - CLASS D PATCHES, 8"
  - DRIVEWAY PAVEMENT REMOVAL HMA DRIVEWAY PAVEMENT, 4"
  - DRIVEWAY PAVEMENT REMOVAL PCC DRIVEWAY PAVEMENT, 7"
  - DETECTABLE WARNING
  - CONCRETE CURB & COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT
  - "A" STRUCTURE OR VALVE BOX TO BE ADJUSTED
  - "R" STRUCTURE TO BE RECONSTRUCTED
  - HMA SURFACE REMOVAL - BUTT JOINT
  - PAVEMENT CORE
  - BEG R&R +XX BEGIN STATION FOR CURB AND GUTTER REMOVAL AND REPLACEMENT
  - END R&R +XX END STATION OF CURB AND GUTTER REMOVAL AND REPLACEMENT
  - CL R&R +XX CENTER STATION OF CURB AND GUTTER REMOVAL AND REPLACEMENT (UNDER 20 LINEAL FEET)

**NOTE:**  
ALL SIDEWALK RAMPs WILL BE IN ACCORDANCE WITH THE HIGHWAY STANDARDS REFERENCED ON SHEET 2.

FILE NAME = 22R0648-PLAN-01 - P04

USER NAME =	DESIGNED - JF	REVISED -
CHECKED - SDK	REVISOR -	
PLOT SCALE =	DRAWN - BG	REVISED -
PLOT DATE = 10-31-23	CHECKED - AG	REVISED -

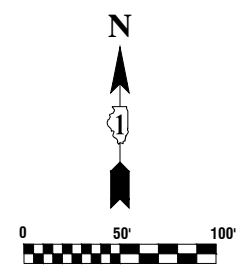
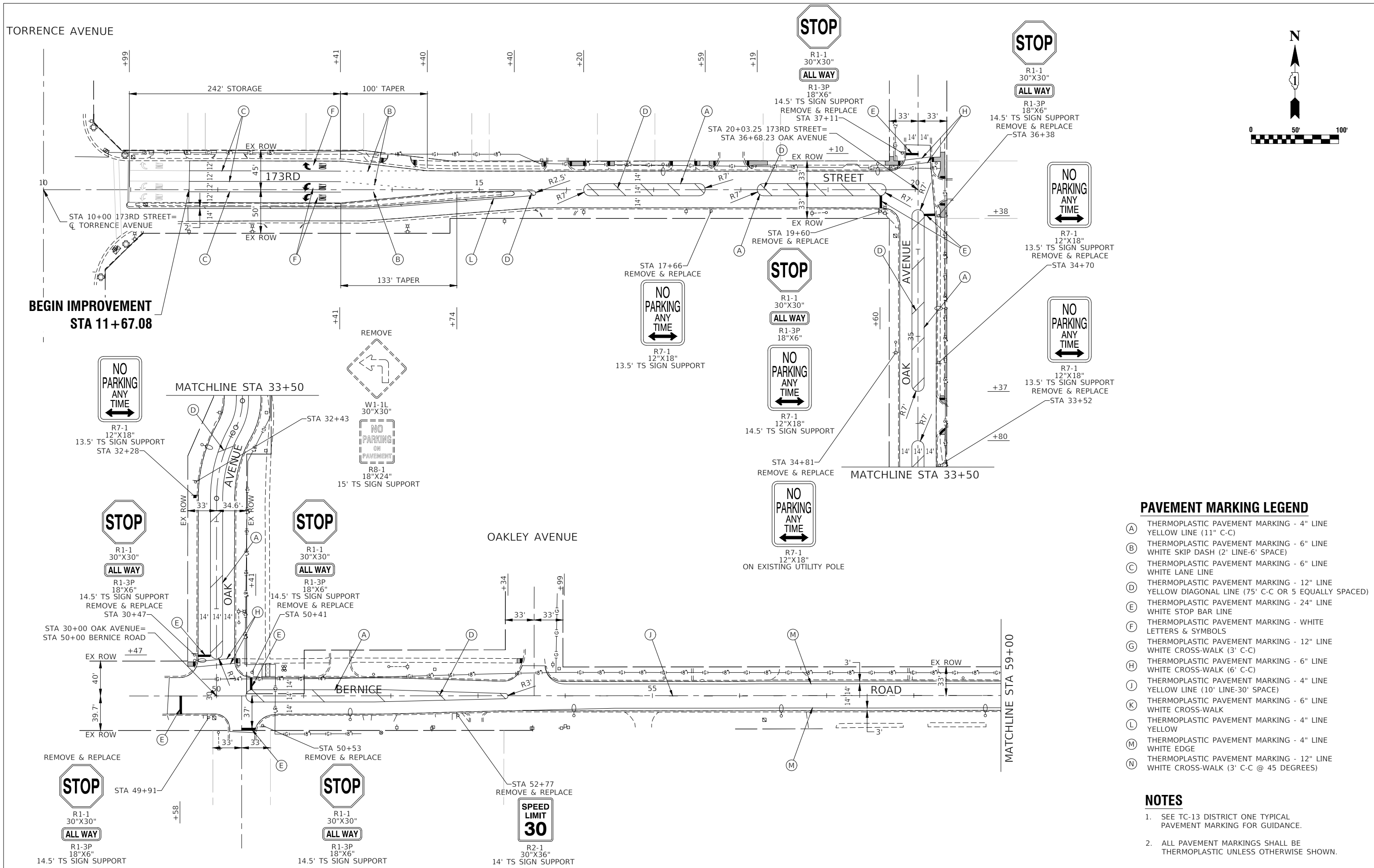
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BERNICE ROAD ROADWAY RESURFACING PROPOSED IMPROVEMENT PLAN	
SCALE: 1"=50'	SHEET NO. 16 OF 44 SHEETS
STA. 99+25	TO STA. 119+24.81

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	16
CONTRACT NO. 61J70				
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT 37LZ(304)		



TORRENCE AVENUE



**PAVEMENT MARKING LEGEND**

- (A) THERMOPLASTIC PAVEMENT MARKING - 4" LINE YELLOW LINE (11" C-C)
- (B) THERMOPLASTIC PAVEMENT MARKING - 6" LINE WHITE SKIP DASH (2' LINE-6' SPACE)
- (C) THERMOPLASTIC PAVEMENT MARKING - 6" LINE WHITE LANE LINE
- (D) THERMOPLASTIC PAVEMENT MARKING - 12" LINE YELLOW DIAGONAL LINE (75' C-C OR 5 EQUALLY SPACED)
- (E) THERMOPLASTIC PAVEMENT MARKING - 24" LINE WHITE STOP BAR LINE
- (F) THERMOPLASTIC PAVEMENT MARKING - WHITE LETTERS & SYMBOLS
- (G) THERMOPLASTIC PAVEMENT MARKING - 12" LINE WHITE CROSS-WALK (3' C-C)
- (H) THERMOPLASTIC PAVEMENT MARKING - 6" LINE WHITE CROSS-WALK (6' C-C)
- (J) THERMOPLASTIC PAVEMENT MARKING - 4" LINE YELLOW LINE (10' LINE-30' SPACE)
- (K) THERMOPLASTIC PAVEMENT MARKING - 6" LINE WHITE CROSS-WALK
- (L) THERMOPLASTIC PAVEMENT MARKING - 4" LINE YELLOW
- (M) THERMOPLASTIC PAVEMENT MARKING - 4" LINE WHITE EDGE
- (N) THERMOPLASTIC PAVEMENT MARKING - 12" LINE WHITE CROSS-WALK (3' C-C @ 45 DEGREES)

**NOTES**

1. SEE TC-13 DISTRICT ONE TYPICAL PAVEMENT MARKING FOR GUIDANCE.
2. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE SHOWN.

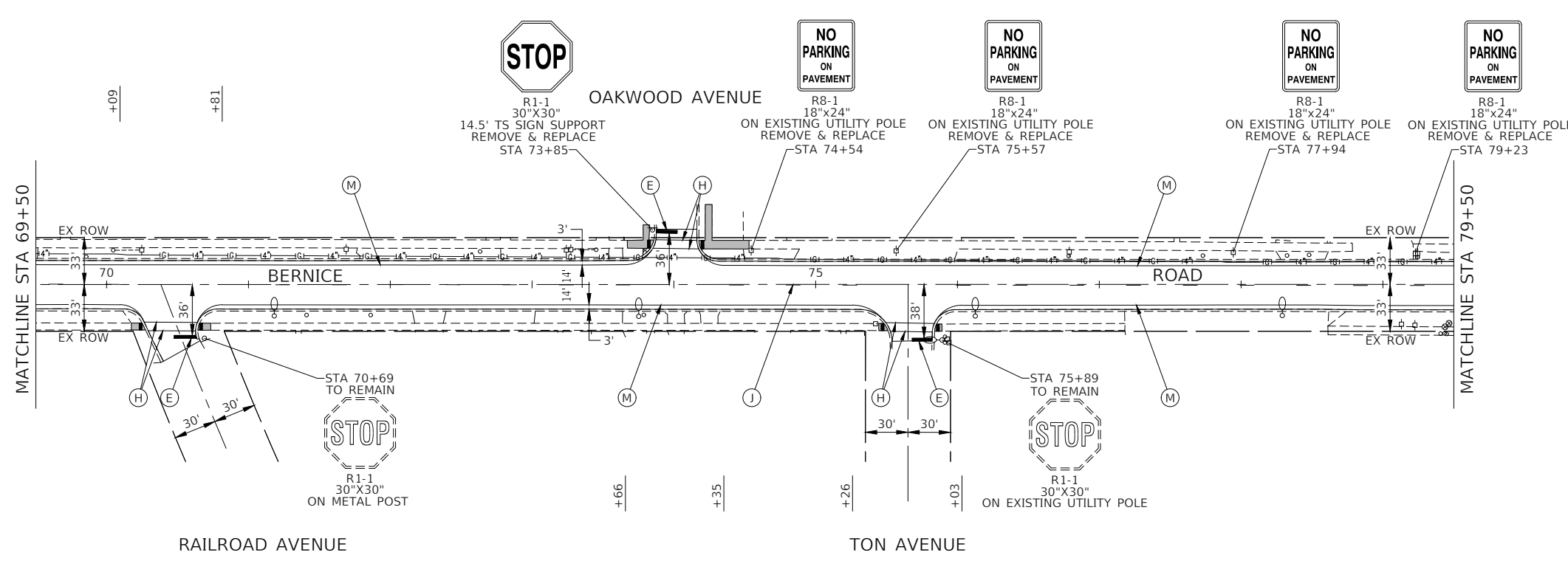
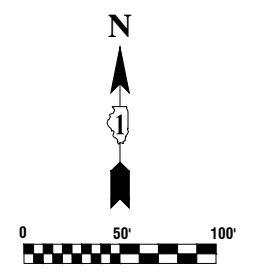
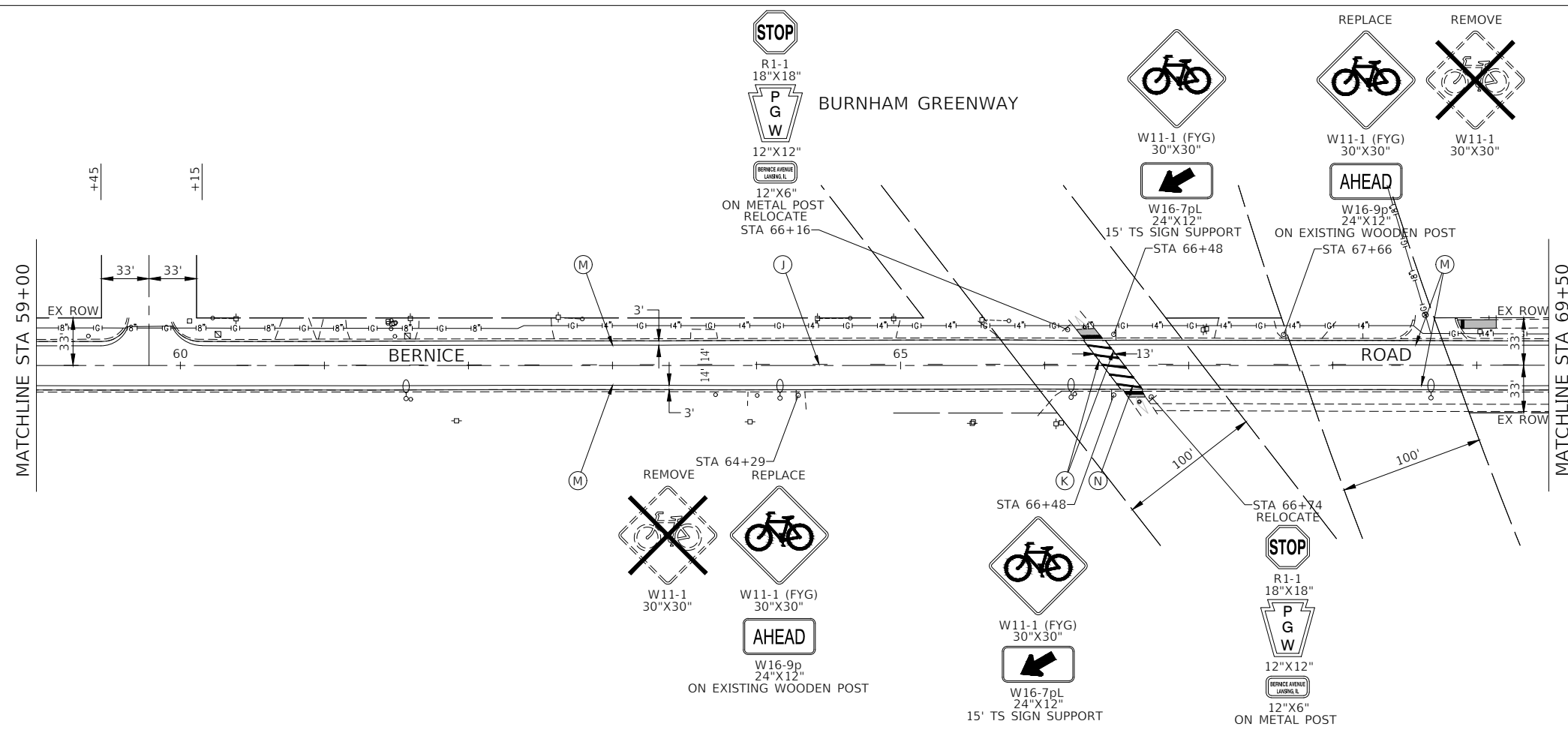
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 PLOT DATE = 10-31-23

DESIGNED -- JF	REVISED --
CHECKED -- SDK	REVISED --
DRAWN -- BG	REVISED --
CHECKED -- AG	REVISED --

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BERNICE ROAD  
 ROADWAY RESURFACING  
 PAVEMENT MARKING AND SIGNAGE PLAN  
 SCALE: 1"=50'  
 SHEET NO. 17 OF 44 SHEETS  
 STA. 11+67.08 TO STA. 59+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	17
CONTRACT NO. 61J70				
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT 37LZ(804)		



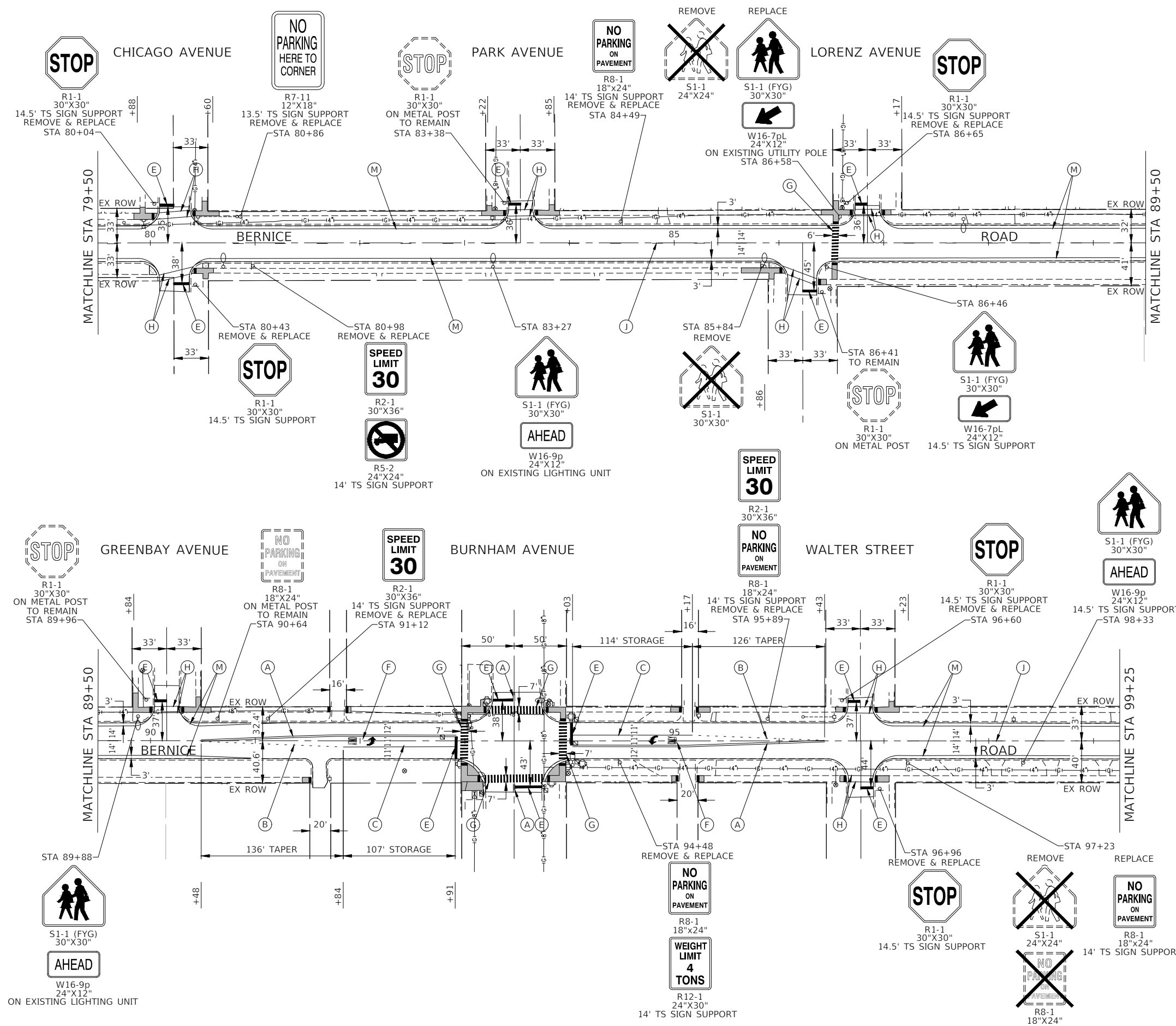
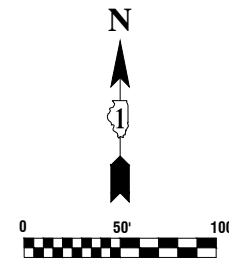
**PAVEMENT MARKING LEGEND**

- (A) THERMOPLASTIC PAVEMENT MARKING - 4" LINE YELLOW LINE (11" C-C)
- (B) THERMOPLASTIC PAVEMENT MARKING - 6" LINE WHITE SKIP DASH (2' LINE-6' SPACE)
- (C) THERMOPLASTIC PAVEMENT MARKING - 6" LINE WHITE LANE LINE
- (D) THERMOPLASTIC PAVEMENT MARKING - 12" LINE YELLOW DIAGONAL LINE (75' C-C OR 5 EQUALLY SPACED)
- (E) THERMOPLASTIC PAVEMENT MARKING - 24" LINE WHITE STOP BAR LINE
- (F) THERMOPLASTIC PAVEMENT MARKING - WHITE LETTERS & SYMBOLS
- (G) THERMOPLASTIC PAVEMENT MARKING - 12" LINE WHITE CROSS-WALK (3' C-C)
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- (L) THERMOPLASTIC PAVEMENT MARKING - 4" LINE YELLOW
- (M) THERMOPLASTIC PAVEMENT MARKING - 4" LINE WHITE EDGE
- (N) THERMOPLASTIC PAVEMENT MARKING - 12" LINE WHITE CROSS-WALK (3' C-C @ 45 DEGREES)

**NOTES**

1. SEE TC-13 DISTRICT ONE TYPICAL PAVEMENT MARKING FOR GUIDANCE.
2. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE SHOWN.

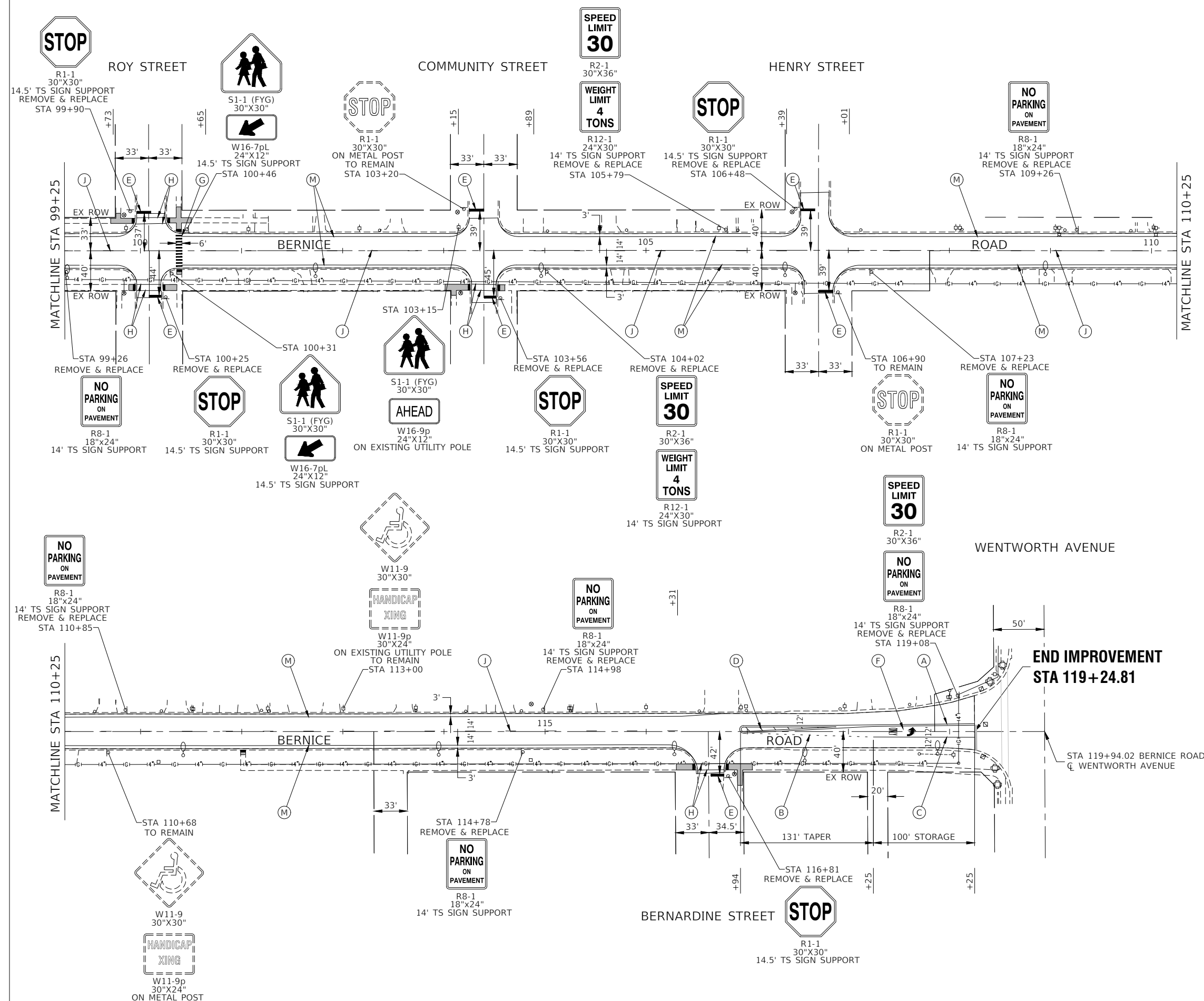
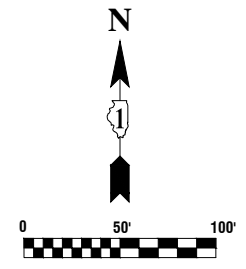
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	PLOT SCALE =	DRAWN -- BG	REVISED --		SCALE: 1"=50'	SHEET NO. 18 OF 44 SHEETS	STA. 59+00 TO STA. 79+50		CONTRACT NO. 61J70		
	PLOT DATE = 10-31-23	CHECKED -- AG	REVISED --					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)			



- ### PAVEMENT MARKING LEGEND
- (A) THERMOPLASTIC PAVEMENT MARKING - 4" LINE YELLOW LINE (11" C-C)
  - (B) THERMOPLASTIC PAVEMENT MARKING - 6" LINE WHITE SKIP DASH (2' LINE-6' SPACE)
  - (C) THERMOPLASTIC PAVEMENT MARKING - 6" LINE WHITE LANE LINE
  - (D) THERMOPLASTIC PAVEMENT MARKING - 12" LINE YELLOW DIAGONAL LINE (75' C-C OR 5' EQUALLY SPACED)
  - (E) THERMOPLASTIC PAVEMENT MARKING - 24" LINE WHITE STOP BAR LINE
  - (F) THERMOPLASTIC PAVEMENT MARKING - WHITE LETTERS & SYMBOLS
  - (G) THERMOPLASTIC PAVEMENT MARKING - 12" LINE WHITE CROSS-WALK (3' C-C)
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  - (J) THERMOPLASTIC PAVEMENT MARKING - 4" LINE YELLOW LINE (10' LINE-30' SPACE)
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  - (L) THERMOPLASTIC PAVEMENT MARKING - 4" LINE YELLOW
  - (M) THERMOPLASTIC PAVEMENT MARKING - 4" LINE WHITE EDGE
  - (N) THERMOPLASTIC PAVEMENT MARKING - 12" LINE WHITE CROSS-WALK (3' C-C @ 45 DEGREES)

- ### NOTES
1. SEE TC-13 DISTRICT ONE TYPICAL PAVEMENT MARKING FOR GUIDANCE.
  2. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE SHOWN.

FILE NAME = 22R0648-PVMK-01 - P03	USER NAME =	DESIGNED -- JF	REVISED --	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>BERNICE ROAD</b> <b>ROADWAY RESURFACING</b> <b>PAVEMENT MARKING AND SIGNAGE PLAN</b>			F.A. --	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -- SDK	REVISED --		1683	23-00178-00-RS	COOK	44	19			
	PLOT SCALE =	DRAWN -- BG	REVISED --		CONTRACT NO. 61J70							
	PLOT DATE = 10-31-23	CHECKED -- AG	REVISED --		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)							



**PAVEMENT MARKING LEGEND**

- (A) THERMOPLASTIC PAVEMENT MARKING - 4" LINE YELLOW LINE (11" C-C)
- (B) THERMOPLASTIC PAVEMENT MARKING - 6" LINE WHITE SKIP DASH (2' LINE-6' SPACE)
- (C) THERMOPLASTIC PAVEMENT MARKING - 6" LINE WHITE LANE LINE
- (D) THERMOPLASTIC PAVEMENT MARKING - 12" LINE YELLOW DIAGONAL LINE (75' C-C OR 5 EQUALLY SPACED)
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- (N) THERMOPLASTIC PAVEMENT MARKING - 12" LINE WHITE CROSS-WALK (3' C-C @ 45 DEGREES)

**NOTES**

1. SEE TC-13 DISTRICT ONE TYPICAL PAVEMENT MARKING FOR GUIDANCE.
2. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE SHOWN.

FILE NAME = 22R0648-PVMK-01 - P04	USER NAME =	DESIGNED -- JF	REVISED --	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>BERNICE ROAD ROADWAY RESURFACING PAVEMENT MARKING AND SIGNAGE PLAN</b>	F.A. -- RTE. 1683	SECTION 23-00178-00-RS	COUNTY COOK	TOTAL SHEETS 44	SHEET NO. 20	
	PLOT SCALE =	DRAWN -- BG	REVISED --		SCALE: 1"=50'	SHEET NO. 20 OF 44 SHEETS	STA. 99+25 TO STA. 119+24.81		CONTRACT NO. 61J70		
	PLOT DATE = 10-31-23	CHECKED -- AG	REVISED --					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)			

# TRAFFIC SIGNAL LEGEND

(NOT TO SCALE)

ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
CONTROLLER CABINET			HANDHOLE -SQUARE -ROUND			SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD		
COMMUNICATION CABINET			HEAVY DUTY HANDHOLE -SQUARE -ROUND			SIGNAL HEAD WITH BACKPLATE -(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE		
MASTER CONTROLLER			DOUBLE HANDHOLE			PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS		
MASTER MASTER CONTROLLER			JUNCTION BOX			PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		
UNINTERRUPTABLE POWER SUPPLY			RAILROAD CANTILEVER MAST ARM			ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
SERVICE INSTALLATION -(P) POLE MOUNTED			RAILROAD FLASHING SIGNAL			NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED		
SERVICE INSTALLATION -(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED			RAILROAD CROSSING GATE			GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)		
TELEPHONE CONNECTION			RAILROAD CROSSBUCK			ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1/C		
STEEL MAST ARM ASSEMBLY AND POLE			RAILROAD CONTROLLER CABINET			COAXIAL CABLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE			UNDERGROUND CONDUIT (UC), GALVANIZED STEEL			VENDOR CABLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE			COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED		
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY			SYSTEM ITEM			FIBER OPTIC CABLE -NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F		
WOOD POLE			INTERSECTION ITEM			GROUND ROD -(C) CONTROLLER -(M) MAST ARM -(P) POST -(S) SERVICE		
GUY WIRE			REMOVE ITEM					
SIGNAL HEAD			RELOCATE ITEM					
SIGNAL HEAD WITH BACKPLATE			RELOCATE ITEM					
SIGNAL HEAD OPTICALLY PROGRAMMED			ABANDON ITEM					
FLASHER INSTALLATION -(FS) SOLAR POWERED			CONTROLLER CABINET AND FOUNDATION TO BE REMOVED					
PEDESTRIAN SIGNAL HEAD			MAST ARM POLE AND FOUNDATION TO BE REMOVED					
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON			SIGNAL POST AND FOUNDATION TO BE REMOVED					
RADAR DETECTION SENSOR			DETECTOR LOOP, TYPE I					
VIDEO DETECTION CAMERA			PREFORMED DETECTOR LOOP					
RADAR/VIDEO DETECTION ZONE			SAMPLING (SYSTEM) DETECTOR					
PAN, TILT, ZOOM (PTZ) CAMERA			INTERSECTION AND SAMPLING (SYSTEM) DETECTOR					
EMERGENCY VEHICLE LIGHT DETECTOR			QUEUE AND SAMPLING (SYSTEM) DETECTOR					
CONFIRMATION BEACON			WIRELESS DETECTOR SENSOR					
WIRELESS INTERCONNECT			WIRELESS ACCESS POINT					
WIRELESS INTERCONNECT RADIO REPEATER								

TS SHT NO. 1

MODEL: Default; FILE: \\mhc-pw\ill0848\BID\NTEG\Illinois.gov\PWIDOT\Documents\DOT\_Offices\District 1\Projects\Dist1\S273-21\CADD\Dist1\CAD\sheet\ts05.dgn

USER NAME = footemj	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 50,0000 ' / ft.	CHECKED - LP	REVISED -
PLOT DATE = 3/4/2019	DATE - 9/29/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

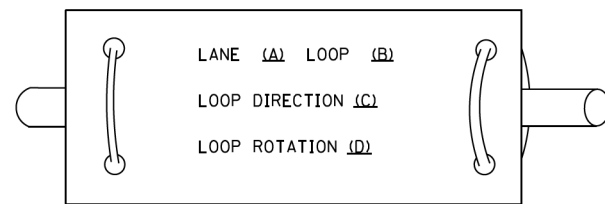
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-R5	COOK	44	21
<b>TS-05</b>		CONTRACT NO. 61J70		
ILLINOIS FED. AID PROJECT 37LZ(304)				

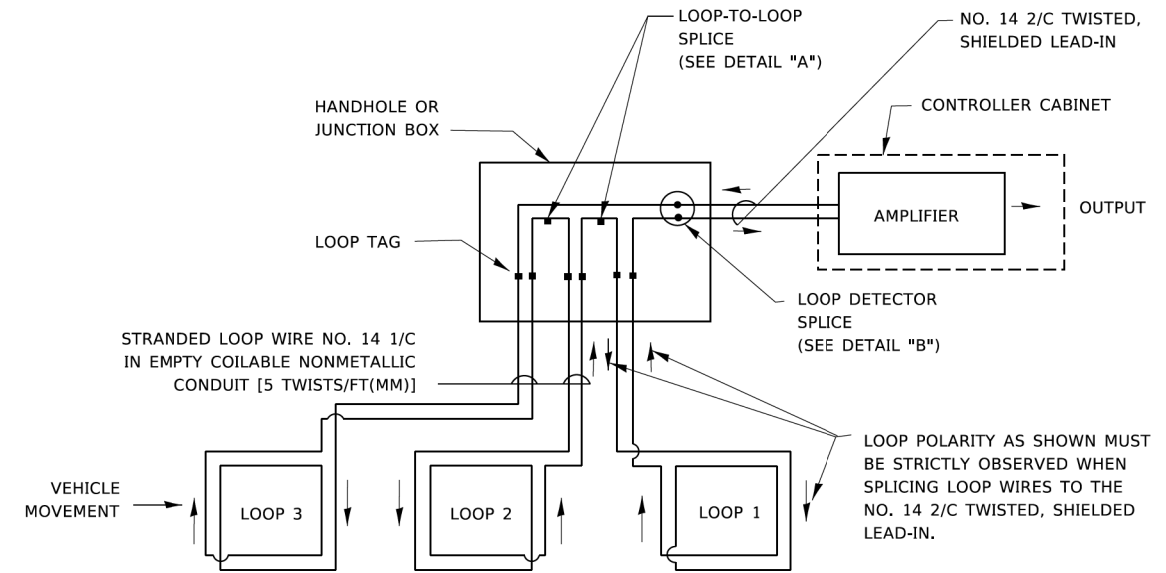
**LOOP DETECTOR NOTES**

- 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.
- 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 DIVESHOLES 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.

**LOOP LEAD-IN CABLE TAG**

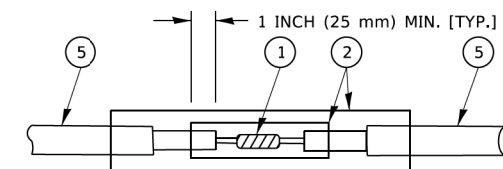


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

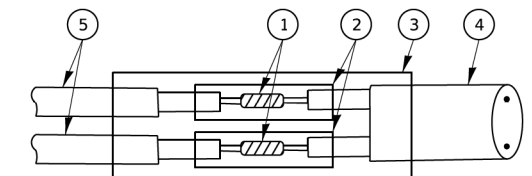


**DETECTOR LOOP WIRING SCHEMATIC**

- 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.

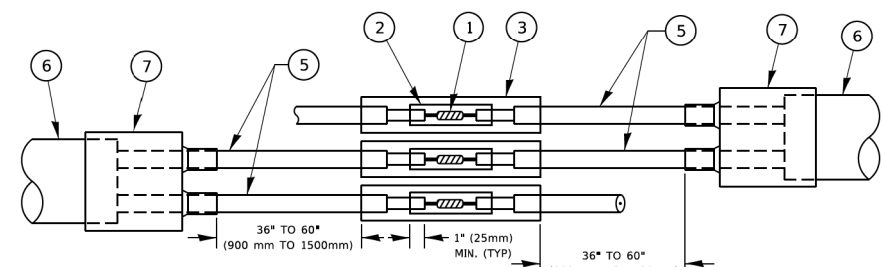


DETAIL "A"  
LOOP-TO-LOOP SPLICE

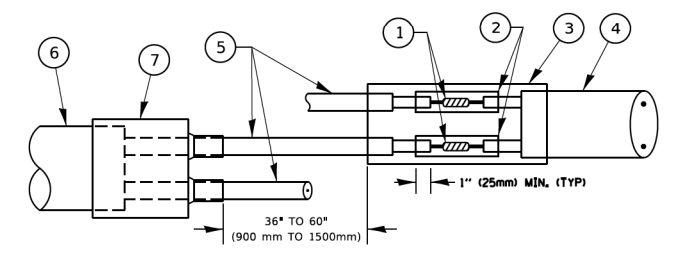


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**TYPE I LOOP**



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**PREFORMED LOOP**

**LOOP DETECTOR SPLICE**

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- 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. PREFORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR
- BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

TS SHT NO. 2

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

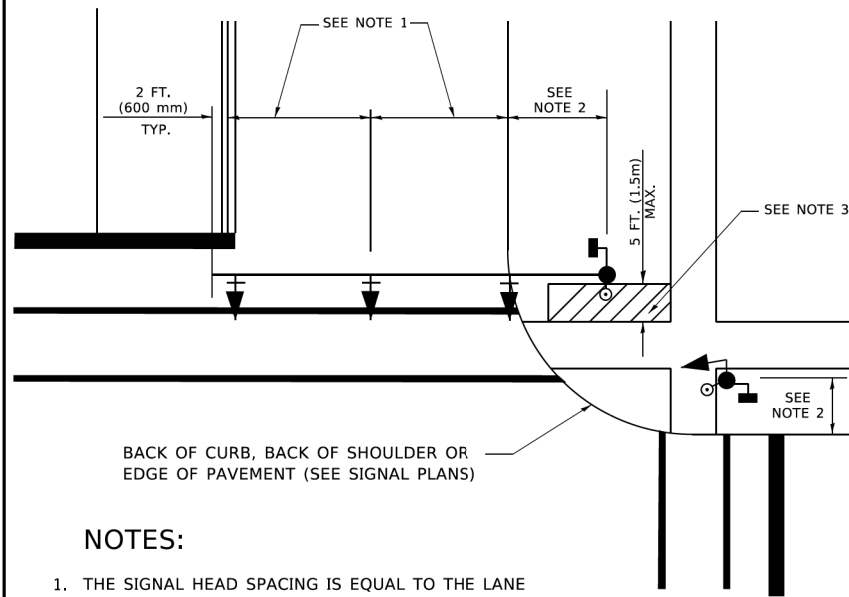
**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

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

F.A.U. RTE. 1683	SECTION 23-00178-00-R5	COUNTY COOK	TOTAL SHEETS 44	SHEET NO. 22
TS-05		CONTRACT NO. 61J70		
ILLINOIS FED. AID PROJECT 37LZ(304)				

**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST**

MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.

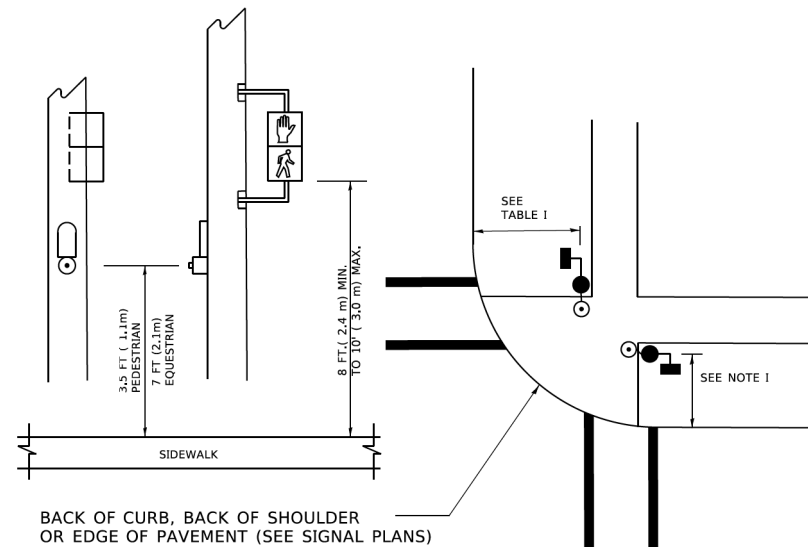


BACK OF CURB, BACK OF SHOULDER OR EDGE OF PAVEMENT (SEE SIGNAL PLANS)

**NOTES:**

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

**PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST**

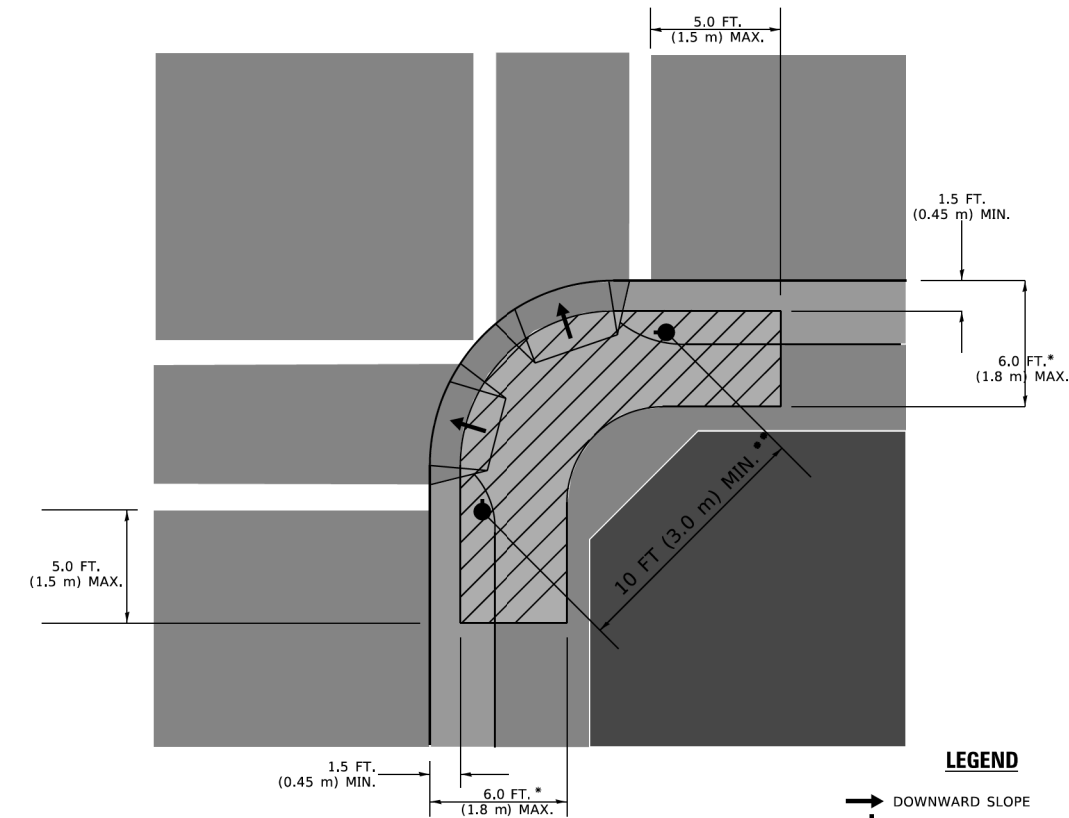


BACK OF CURB, BACK OF SHOULDER OR EDGE OF PAVEMENT (SEE SIGNAL PLANS)

**NOTES:**

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

**RECOMMENDED PUSHBUTTON LOCATIONS**



**LEGEND**

- DOWNWARD SLOPE
- PEDESTRIAN PUSHBUTTON
- RECOMMENDED PUSHBUTTON LOCATIONS

- \* WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT ( 1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- \*\* WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

**NOTES:**

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

**TRAFFIC SIGNAL EQUIPMENT OFFSET**

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.5m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.5m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.5m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.5m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.5m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.3m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.3m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

**NOTES:**

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

TS SHT NO. 3

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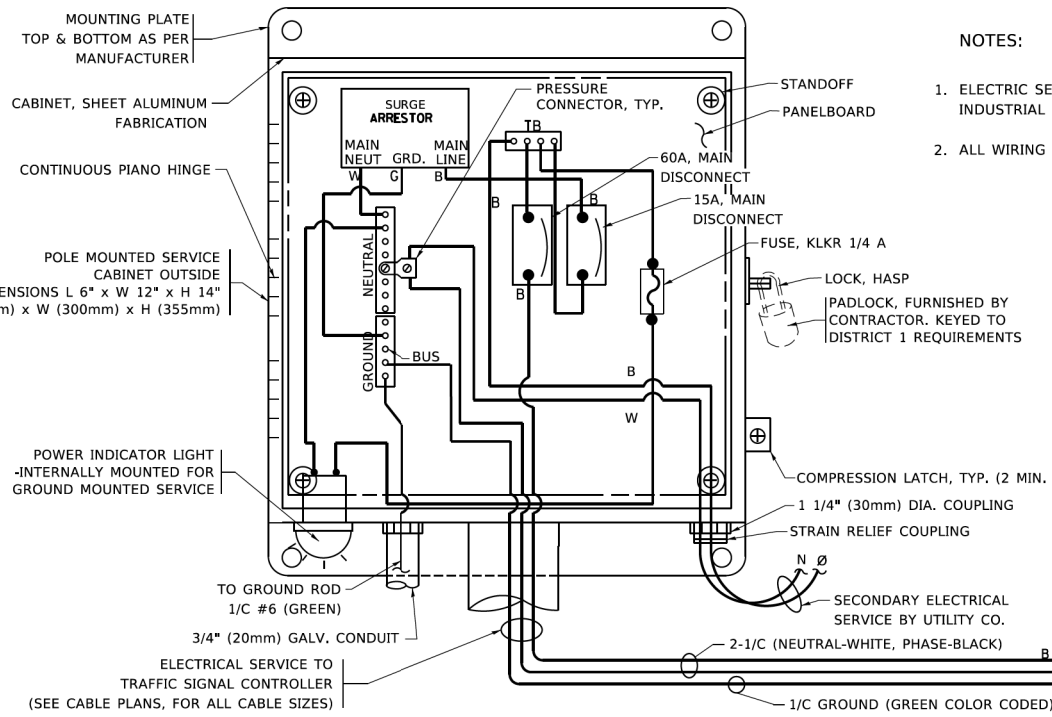
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

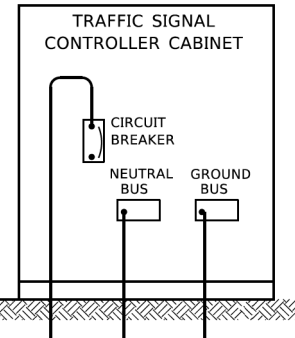
**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET 3 OF 7 SHEETS STA. TO STA.

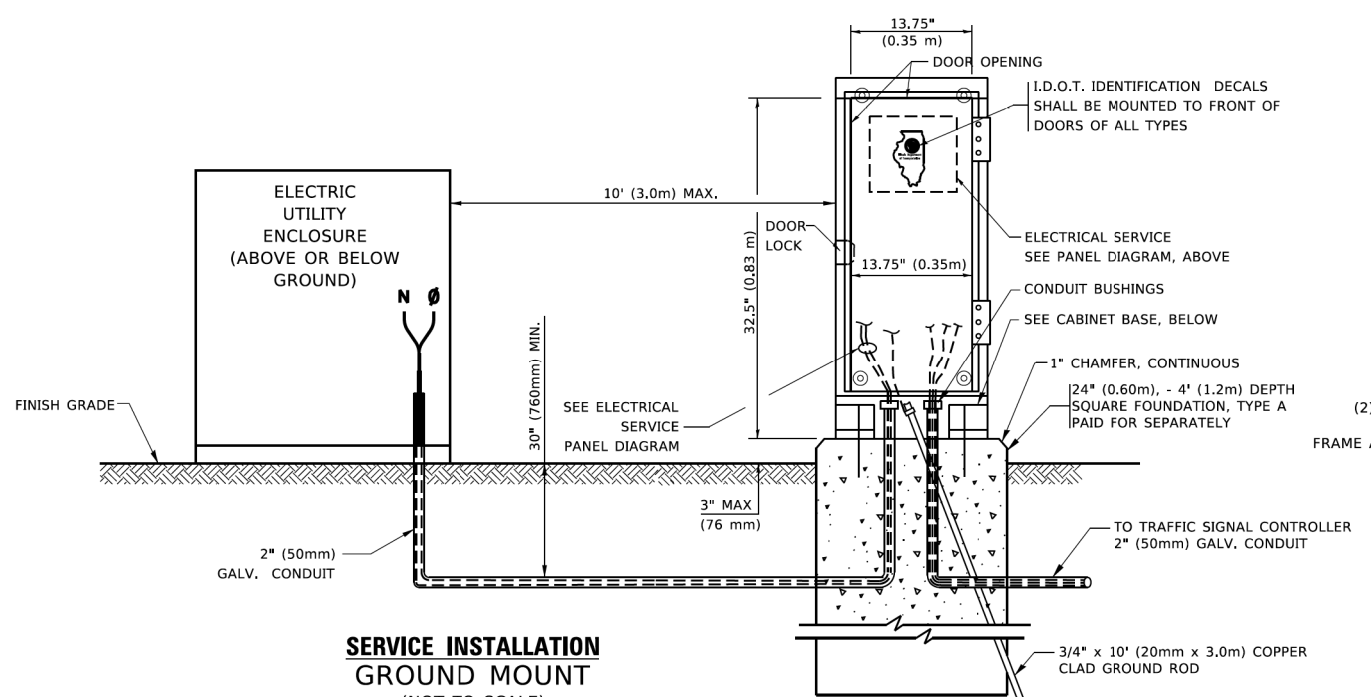
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-R5	COOK	44	23
<b>TS-05</b>		CONTRACT NO. 61J70		
ILLINOIS   FED. AID PROJECT 37LZ(304)				



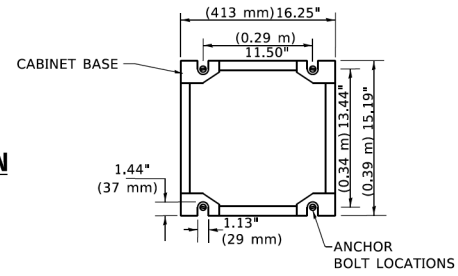
- NOTES:
1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
  2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.



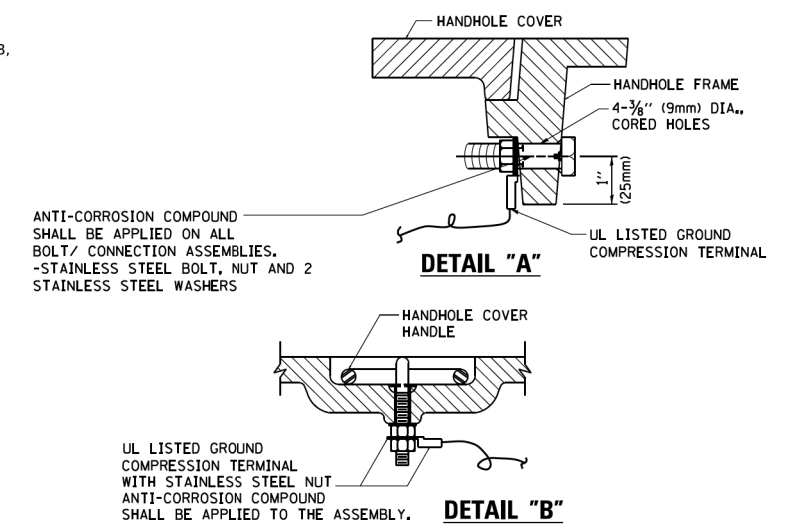
**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**  
**SERVICE INSTALLATION POLE MOUNT (SHOWN)**  
 (NOT TO SCALE)



**SERVICE INSTALLATION GROUND MOUNT**  
 (NOT TO SCALE)

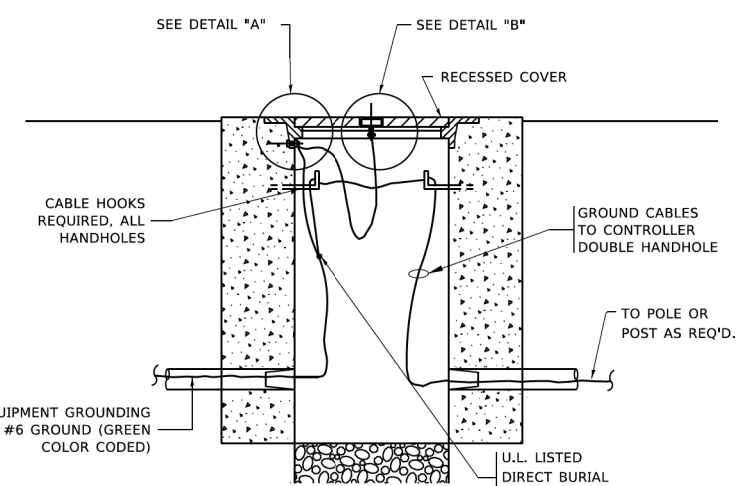


**CABINET - BASE BOLT PATTERN**  
 (NOT TO SCALE)

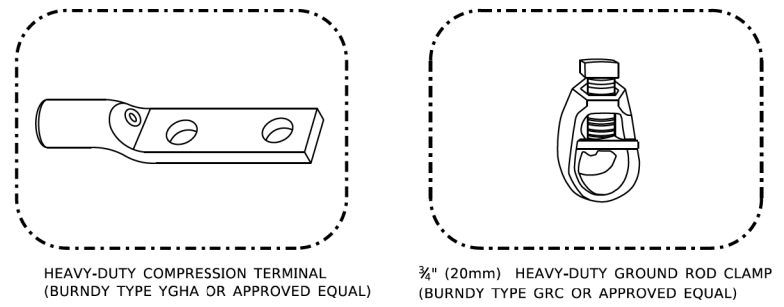


**NOTES:**  
**GROUNDING SYSTEM**

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

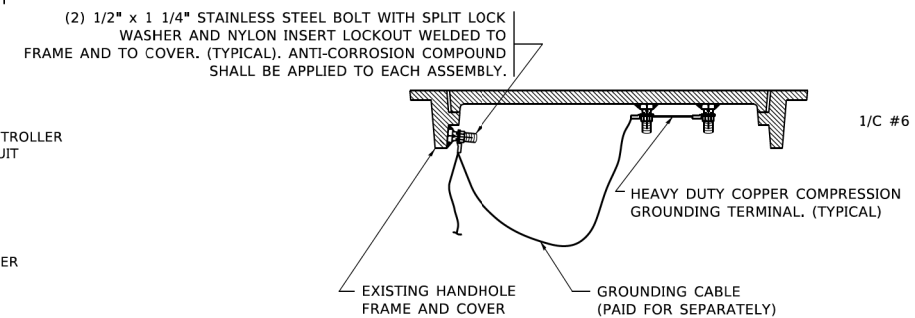


**HANDHOLE COVER & FRAME - GROUNDING DETAIL**  
 (NOT TO SCALE)

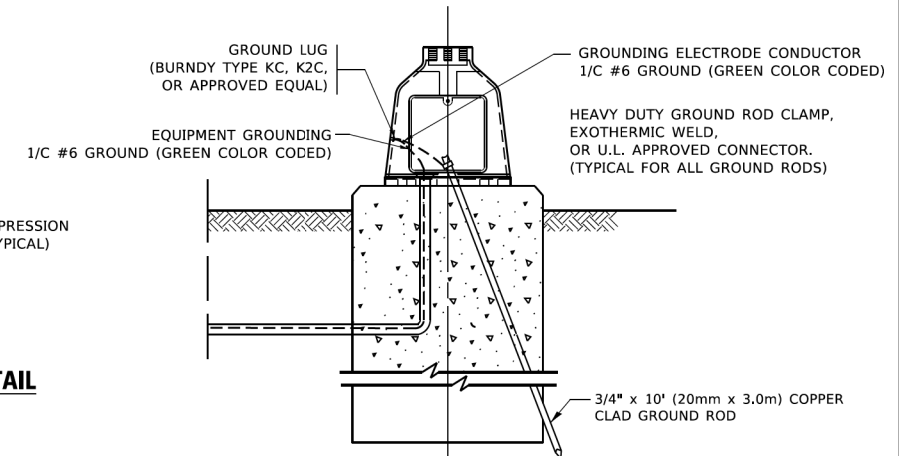


**NOTES:**

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES
- 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES
- 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES.
- 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



**EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL**  
 (NOT TO SCALE)



**MAST ARM POLE /POST-GROUNDING DETAIL**  
 (NOT TO SCALE)

TS SHT NO. 4

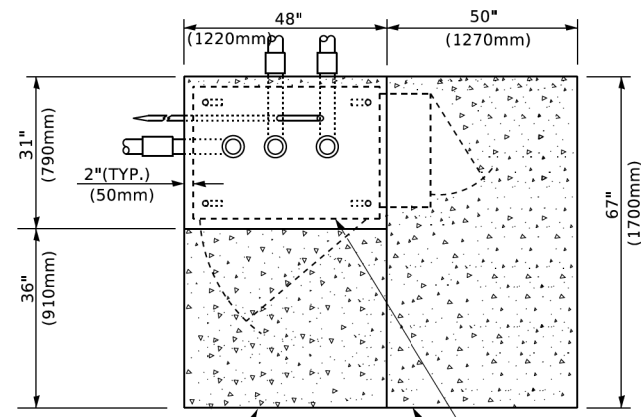
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

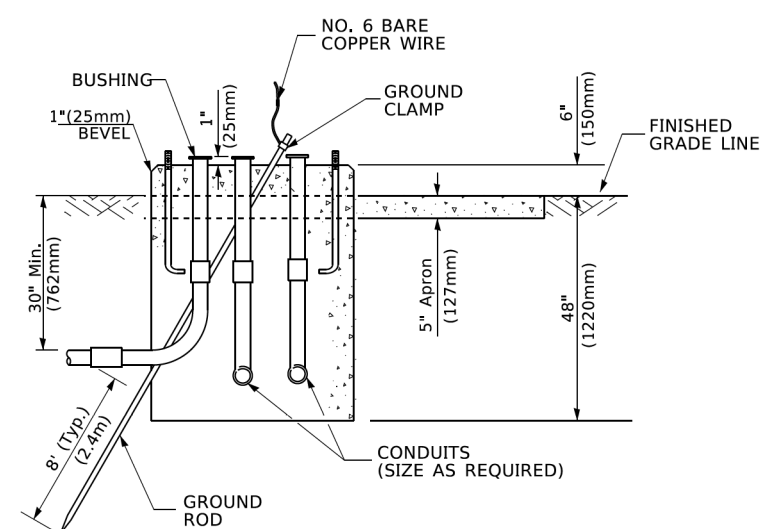
<b>DISTRICT ONE</b>			
<b>STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			
SCALE: NONE	SHEET 4	OF 7 SHEETS	STA. TO STA.

F.A.U. RTE. 1683	SECTION 23-00178-00-R5	COUNTY COOK	TOTAL SHEETS 44	SHEET NO. 24
<b>TS-05</b>		CONTRACT NO. 61J70		
ILLINOIS / FED. AID PROJECT 37LZ(304)				

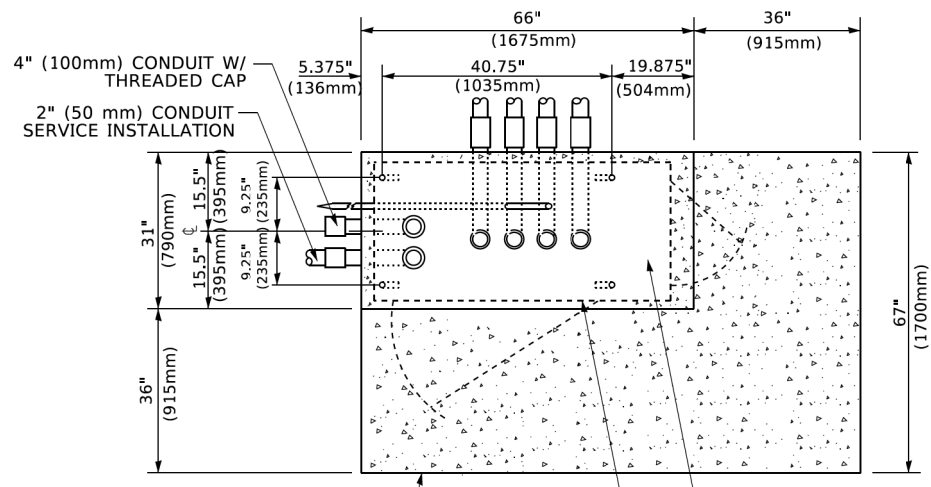




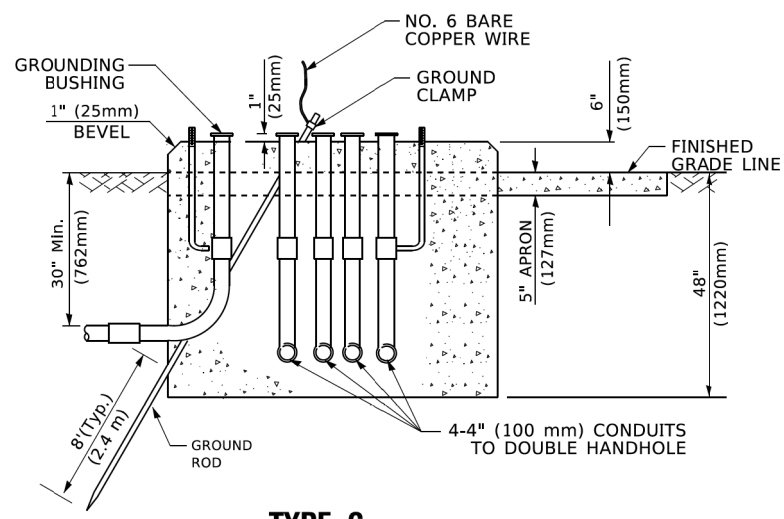
**TOP VIEW**



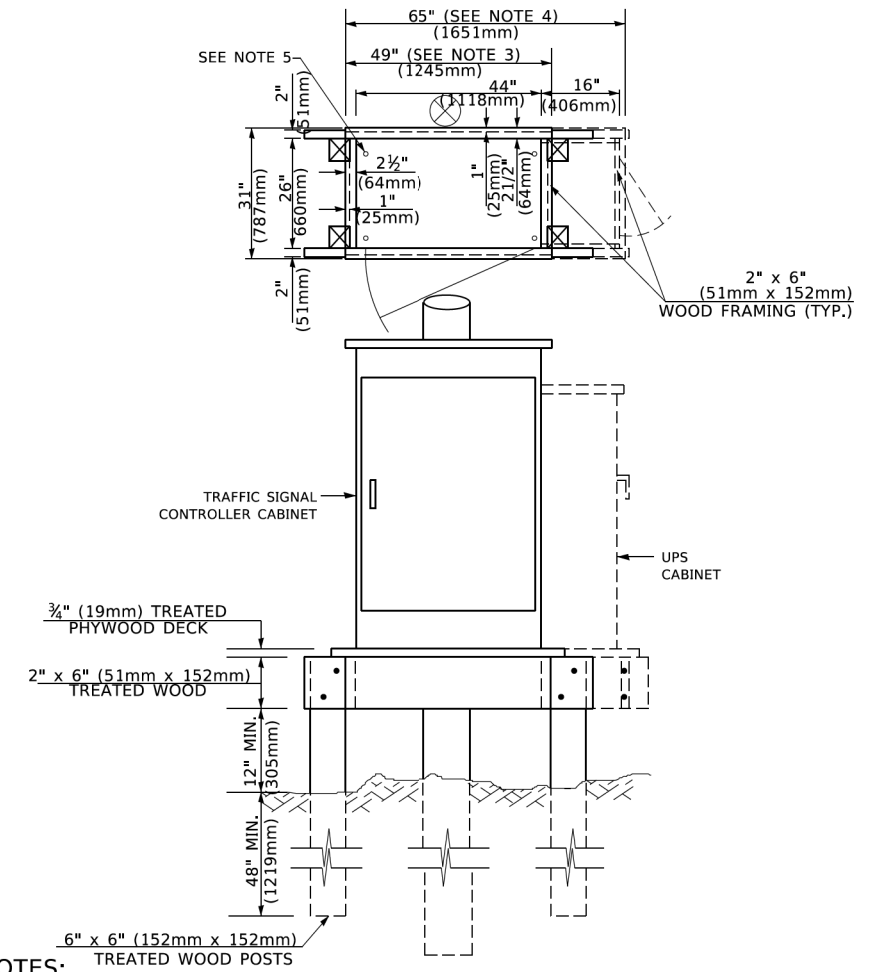
**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**



**TOP VIEW**



**TYPE C  
FOR GROUND MOUNTED  
SUPER P (TYPE IV) AND SUPER R (TYPE V)  
CONTROLLER CABINETS**



**NOTES:**

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION..

**TEMPORARY SIGNAL CONTROLLER  
WOOD SUPPORT PLATFORM**

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

**CABLE SLACK**

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE ( MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

**VERTICAL CABLE LENGTH**

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

**DEPTH OF FOUNDATION**

MAST ARM LENGTH	① FOUNDATION DEPTH	FOUNDATION DIAMETER	SPIRAL DIAMETER	QUANTITY OF REBARS	SIZE OF REBARS
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and less than 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

**NOTES:**

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
4. For mast arm assemblies with dual arms refer to state standard 878001..

**DEPTH OF MAST ARM FOUNDATIONS, TYPE E**

TS SHT NO. 5

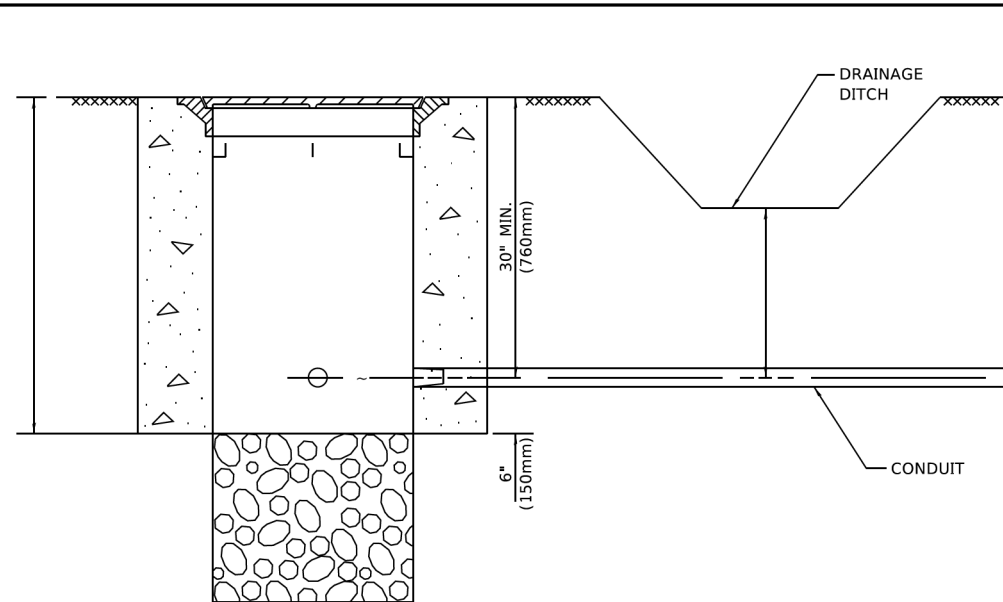
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE: NONE		SHEET 5 OF 7 SHEETS		STA. TO STA.	
<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>					

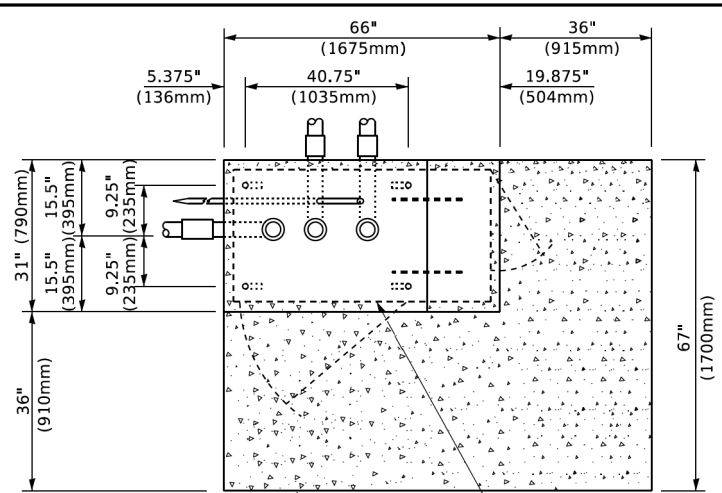
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<b>TS-05</b>			CONTRACT NO. 61J70	
ILLINOIS FED. AID PROJECT 37LZ(304)				



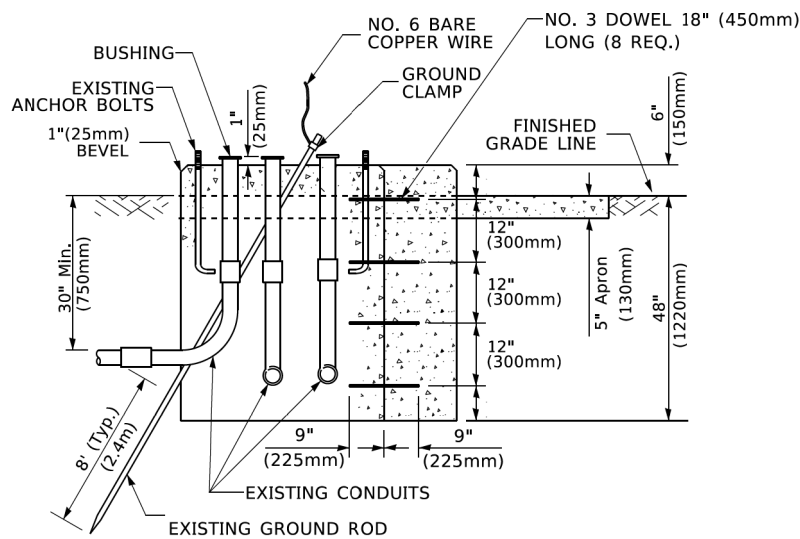
**NOTES:**

- CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
- THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
- THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

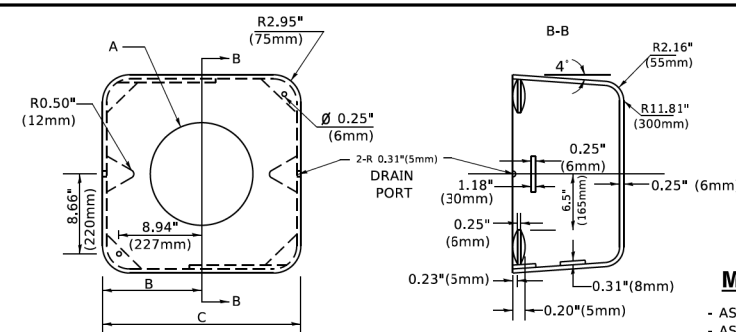
**HANDHOLE WITH MINIMUM CONDUIT DEPTH**  
(NOT TO SCALE)



**TOP VIEW**  
(NOT TO SCALE)



**MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION**  
(NOT TO SCALE)



A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5" (241mm)	19" (483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIABLES	10.75" (273mm)	21.5" (546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIABLES	13.0" (330mm)	26" (660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIABLES	18.5" (470mm)	37" (940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

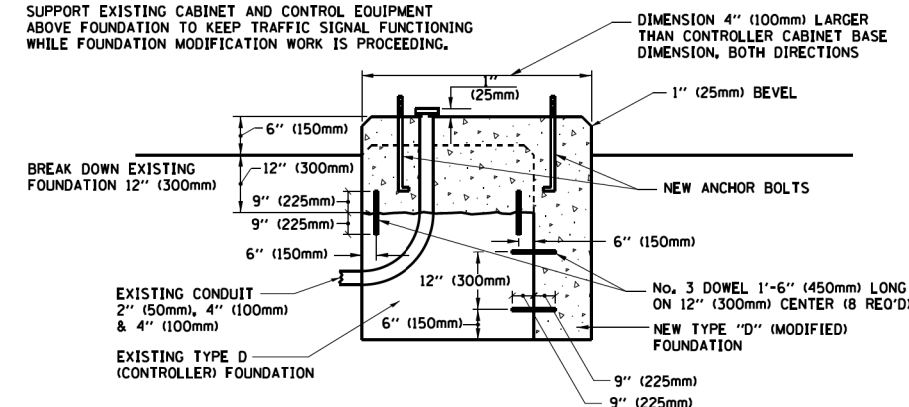
**SHROUD**

**NOTES:**

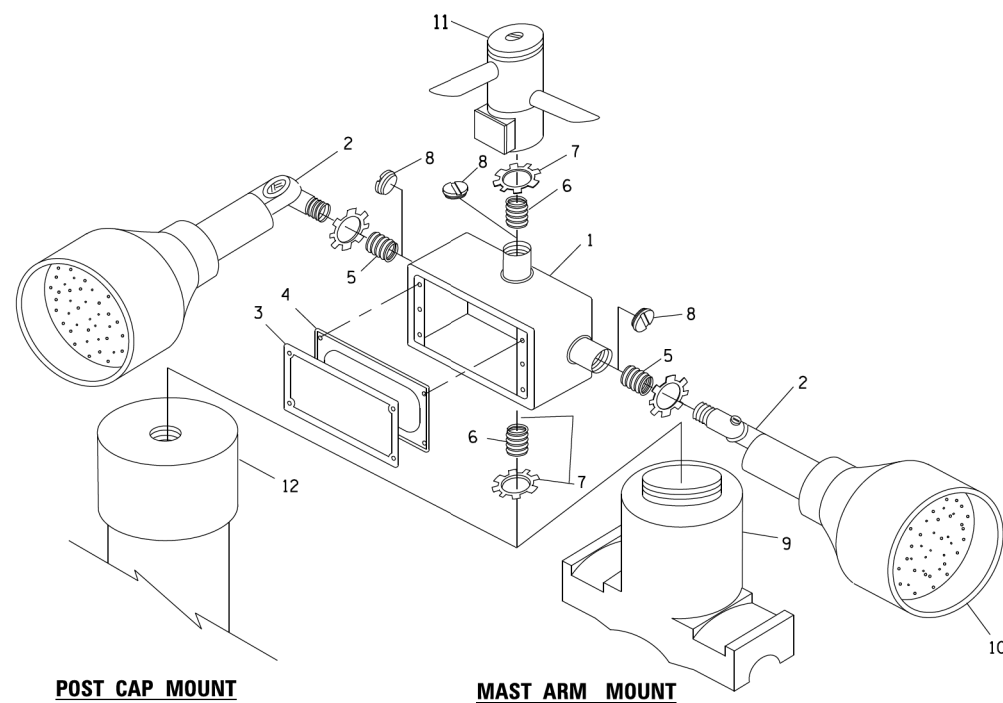
- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
- THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

**NOTE:**

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



**MODIFY EXISTING TYPE "D" FOUNDATION**



**POST CAP MOUNT**

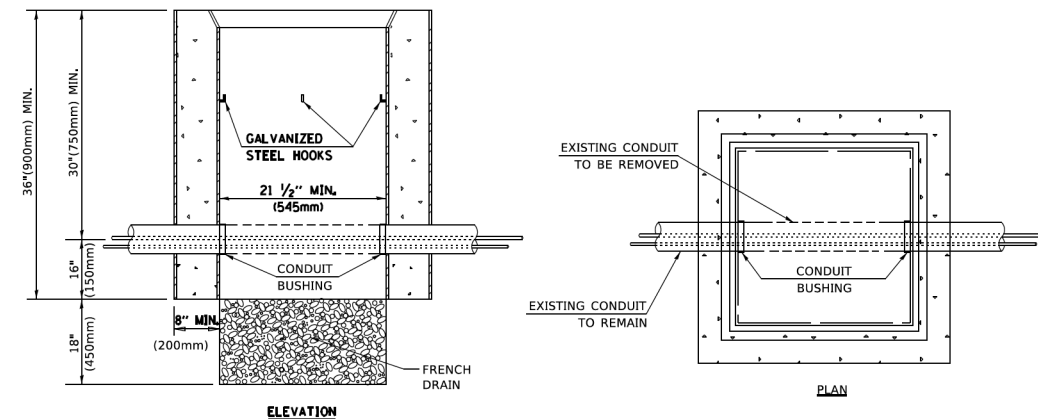
**MAST ARM MOUNT**

**EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL**

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4" (19 mm) CLOSE NIPPLE
7	3/4" (19 mm) LOCKNUT
8	3/4" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

**NOTES:**

- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT  
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4 " (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



**NOTES:**

- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
- REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

**HANDHOLE TO INTERCEPT EXISTING CONDUIT**

TS SHT NO. 6

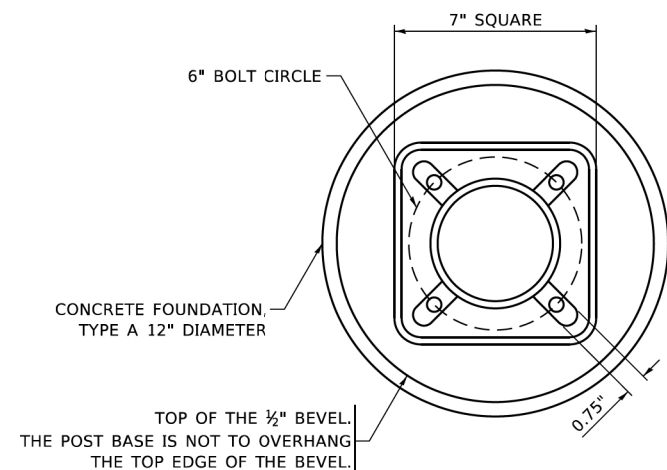
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USER NAME	DESIGNED	REVISED
[footem]	-	-
	DRAWN -	REVISED -
	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS	
SCALE: NONE	SHEET 6 OF 7 SHEETS STA. TO STA.

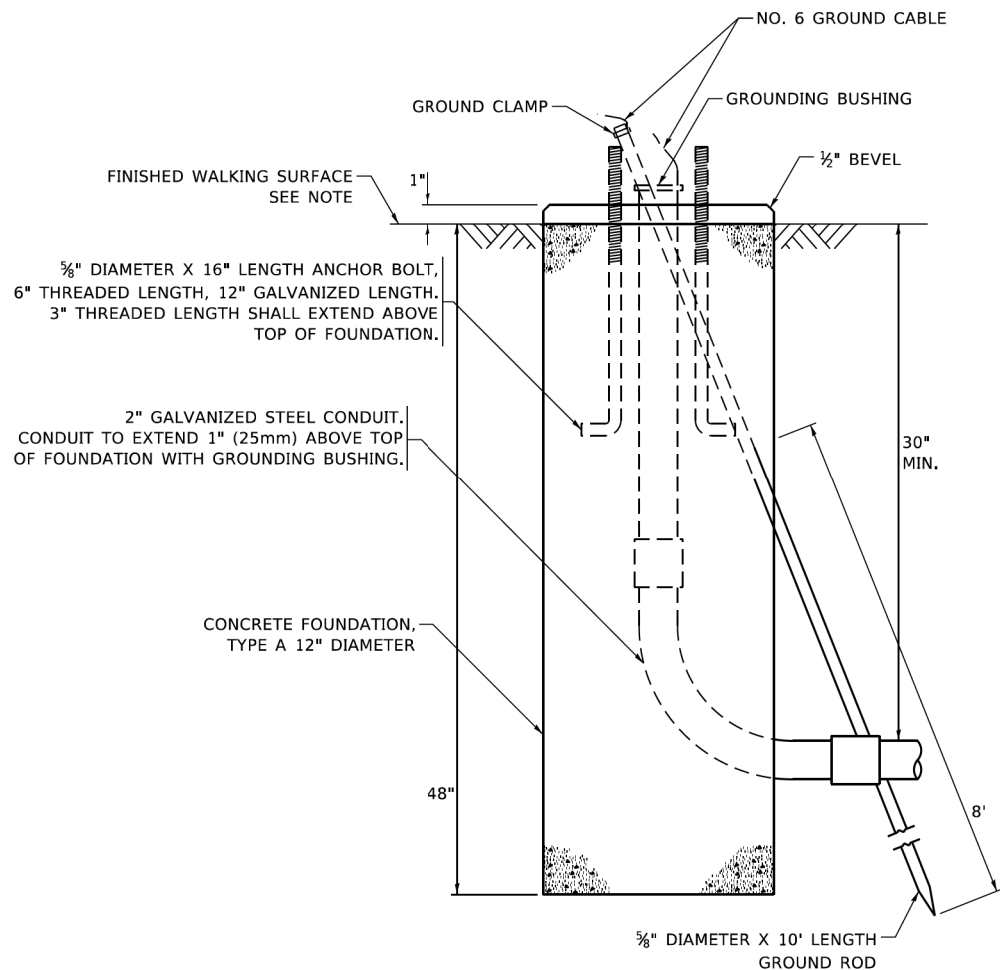
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-R5	COOK	44	26
<b>TS-05</b>		CONTRACT NO. 61J70		
ILLINOIS FED. AID PROJECT 37LZ(304)				



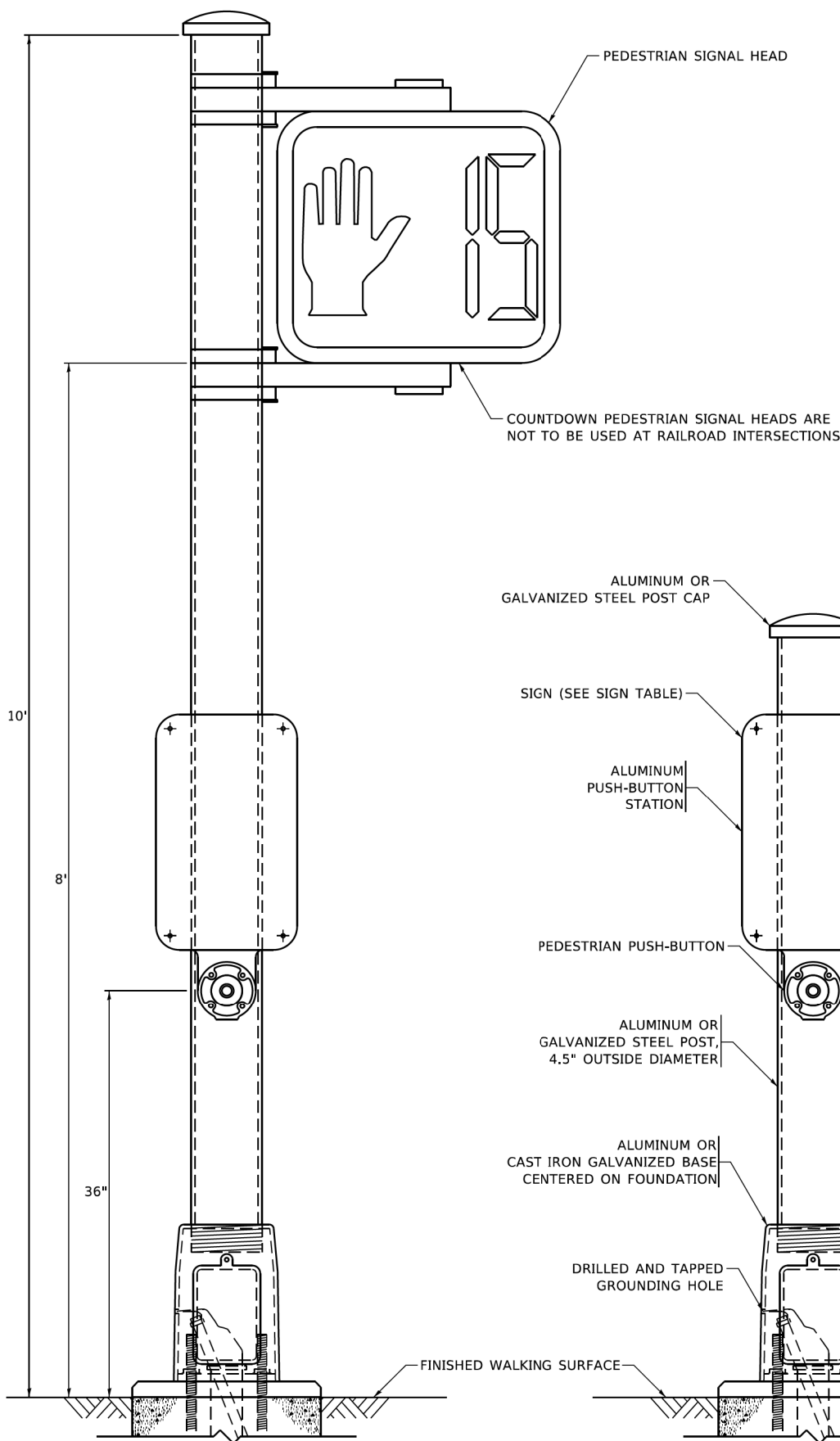
**BOLT PATTERN**

**NOTE:**

1. IF THE PEDESTRIAN SIGNAL POST FOUNDATION IS INSTALLED WITHIN OR BEHIND A BARRIER CURB, THE TOP OF THE FOUNDATION SHALL BE INSTALLED FLUSH WITH THE TOP OF THE BARRIER CURB.



**CONCRETE FOUNDATION,  
TYPE A 12-INCH DIAMETER**



**PEDESTRIAN SIGNAL POST, 10 FT.**

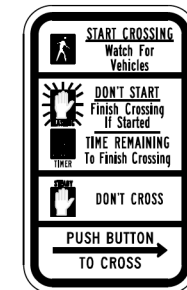
**PEDESTRIAN SIGNAL POST, 5 FT.**



**R10-3b**



**R10-3d**



**R10-3e**

COUNTDOWN PEDESTRIAN SIGNAL HEADS ARE NOT TO BE USED AT RAILROAD INTERSECTIONS

**SIGN TABLE**

SIGN	DIMENSIONS
R10-3b (RAILROAD ONLY)	9" X 12"
R10-3d (RAILROAD ONLY)	9" X 12"
R10-3e	9" X 12"

**NOTES:**

1. THE SIGN PANELS SHALL BE TYPE AP SHEETING.
2. THE ARROW ON SIGNS FOR PUSH-BUTTONS SERVING TWO DIRECTIONS ON THE SAME PHASE SHALL BE BI-DIRECTIONAL.
3. THE SIGN FOR DUAL-CALL PUSH-BUTTONS SHALL HAVE NO ARROW.

TS SHT NO. 7

MODEL Detail  
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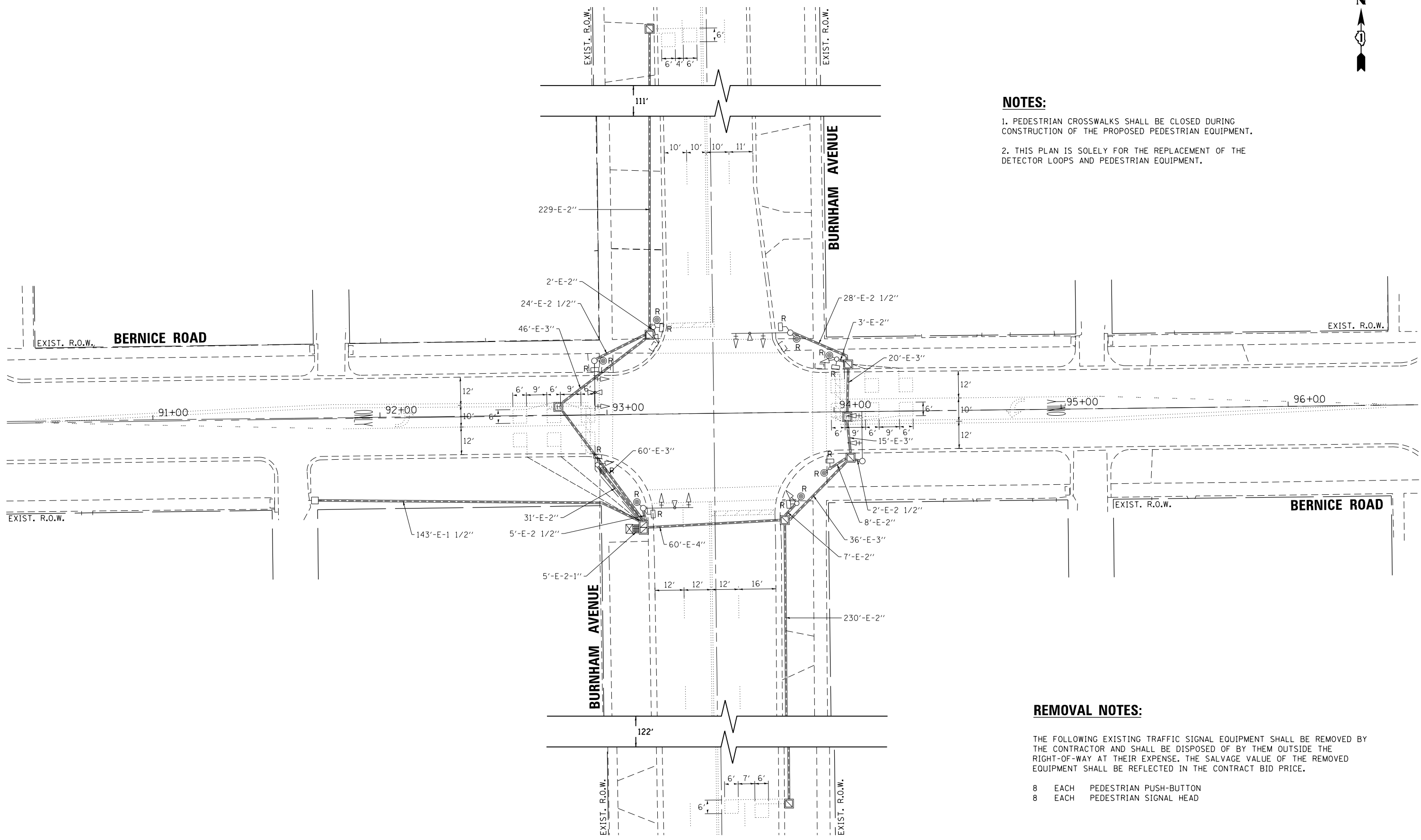
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-R5	COOK	44	27
TS-05		CONTRACT NO. 61J70		
ILLINOIS FED. AID PROJECT 37LZ(304)				





**NOTES:**

- 1. PEDESTRIAN CROSSWALKS SHALL BE CLOSED DURING CONSTRUCTION OF THE PROPOSED PEDESTRIAN EQUIPMENT.
- 2. THIS PLAN IS SOLELY FOR THE REPLACEMENT OF THE DETECTOR LOOPS AND PEDESTRIAN EQUIPMENT.

**REMOVAL NOTES:**

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 8 EACH PEDESTRIAN PUSH-BUTTON
- 8 EACH PEDESTRIAN SIGNAL HEAD

TS SHT NO. 9

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PLOT SCALE = 40.0000 "/>	DATE - 04/03/2023	REVISED -
PLOT DATE = 10/31/2023		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN  
BURNHAM AVENUE AT BERNICE ROAD**

SCALE: \_\_\_\_\_ SHEET \_\_\_\_ OF \_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

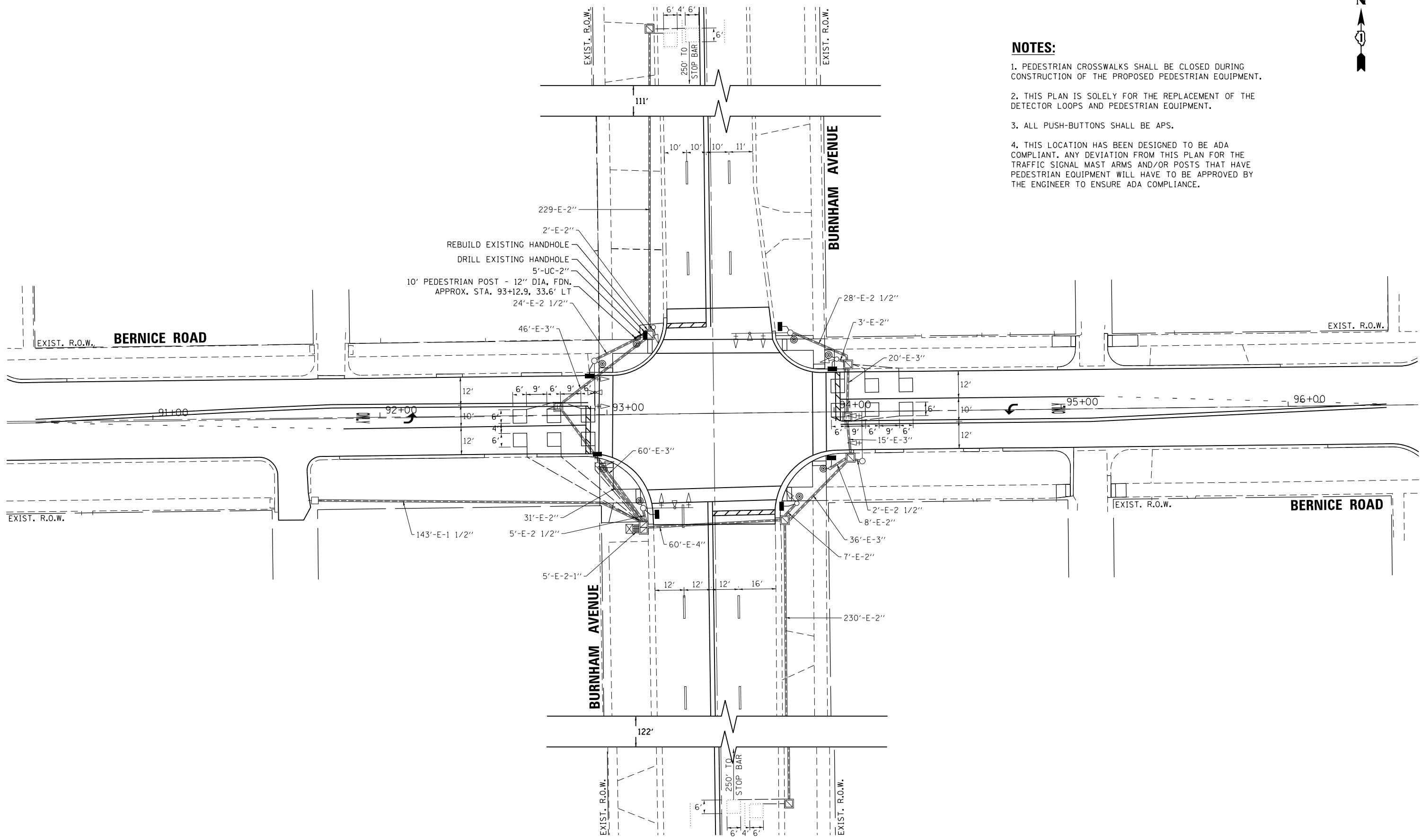
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	29
CONTRACT NO. 61170				
ILLINOIS FED. AID PROJECT 37LZ(304)				

TS 13955



**NOTES:**

1. PEDESTRIAN CROSSWALKS SHALL BE CLOSED DURING CONSTRUCTION OF THE PROPOSED PEDESTRIAN EQUIPMENT.
2. THIS PLAN IS SOLELY FOR THE REPLACEMENT OF THE DETECTOR LOOPS AND PEDESTRIAN EQUIPMENT.
3. ALL PUSH-BUTTONS SHALL BE APS.
4. THIS LOCATION HAS BEEN DESIGNED TO BE ADA COMPLIANT. ANY DEVIATION FROM THIS PLAN FOR THE TRAFFIC SIGNAL MAST ARMS AND/OR POSTS THAT HAVE PEDESTRIAN EQUIPMENT WILL HAVE TO BE APPROVED BY THE ENGINEER TO ENSURE ADA COMPLIANCE.



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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

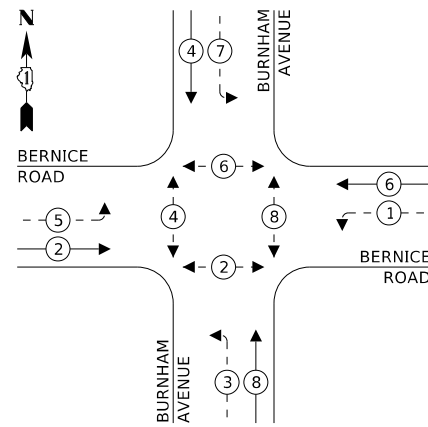
**TRAFFIC SIGNAL MODERNIZATION PLAN (PEDESTRIAN EQUIPMENT ONLY)  
BURNHAM AVENUE AT BERNICE ROAD**

SCALE: \_\_\_\_\_ SHEET \_\_\_\_\_ OF \_\_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-R5	COOK	44	30
CONTRACT NO. 61170				
ILLINOIS FED. AID PROJECT 37LZ(304)				

**TS 13955**

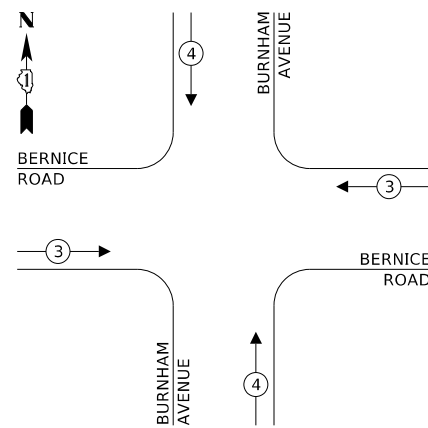
**PROPOSED CONTROLLER SEQUENCE**



**LEGEND:**

- ← ⊙ ← PROTECTED PHASE
- ← ⊙ - - PROTECTED/PERMITTED PHASE
- ← ⊙ → PEDESTRIAN PHASE
- ← ⊙ OL OVERLAP

**PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PERMISSIVE ARROW	12	10	10	12.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	-	-	-
BLANK-OUT SIGN	-	-	-	-
FLASHER	-	-	-	-
STREET NAME SIGN	-	-	-	-
LUMINAIRE	-	-	-	-
<b>TOTAL =</b>				<b>439.8</b>

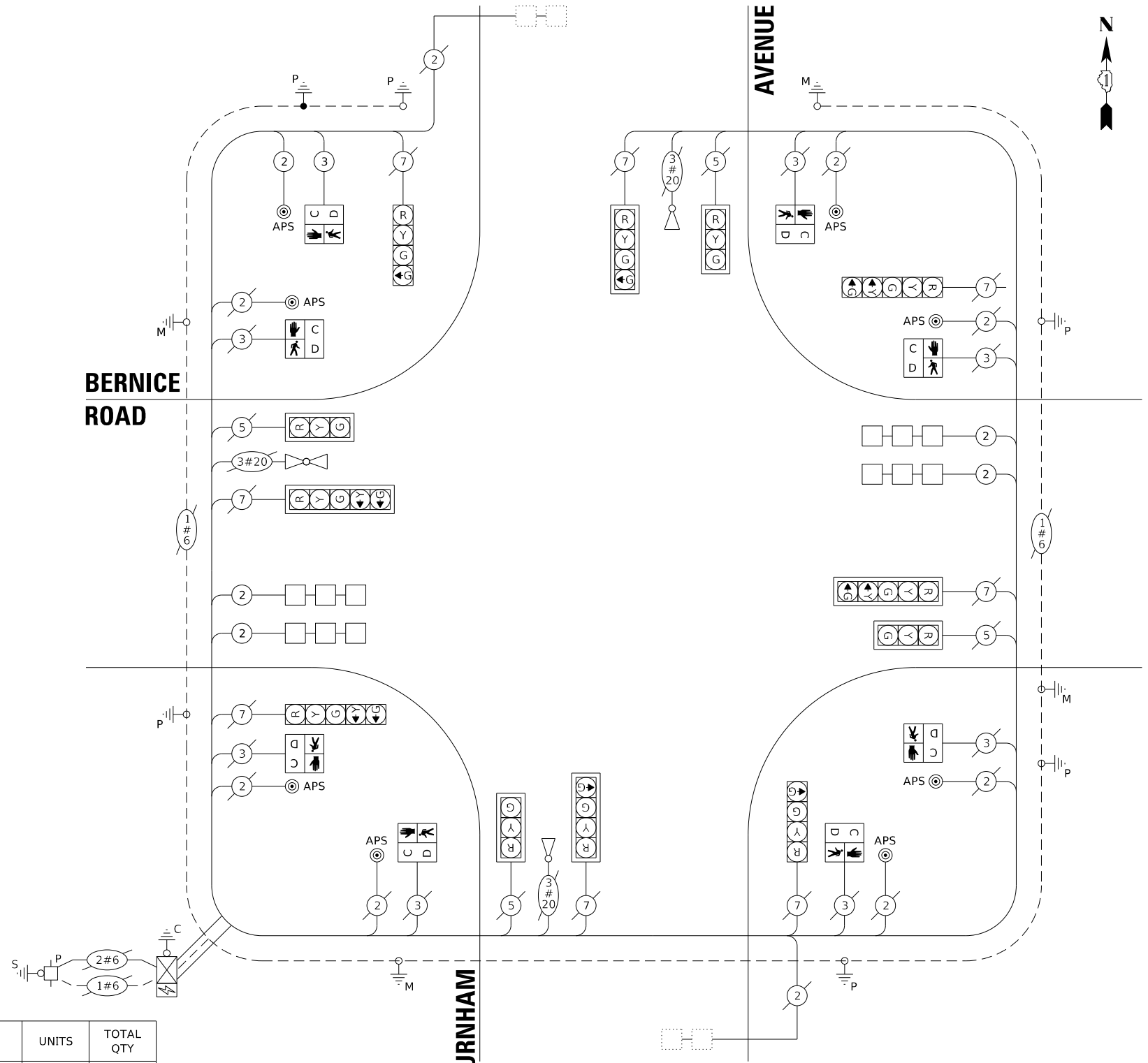
ENERGY COSTS TO:

VILLAGE OF LANSING  
3141 RIDGE ROAD  
LANSING, ILLINOIS 60438

ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPARTMENT  
PHONE: (866) 639-3532  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: 62350-62018

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	13
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	170
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	175
DRILL EXISTING HANDHOLE	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	250
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REBUILD EXISTING HANDHOLE	EACH	1
DETECTOR LOOP, TYPE 1	FOOT	750
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	8
CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	4
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR NO. 6 1C	FOOT	16
PEDESTRIAN SIGNAL POST, 10 FT	EACH	1



**CABLE PLAN**  
NOT TO SCALE

TS SHT NO. 11

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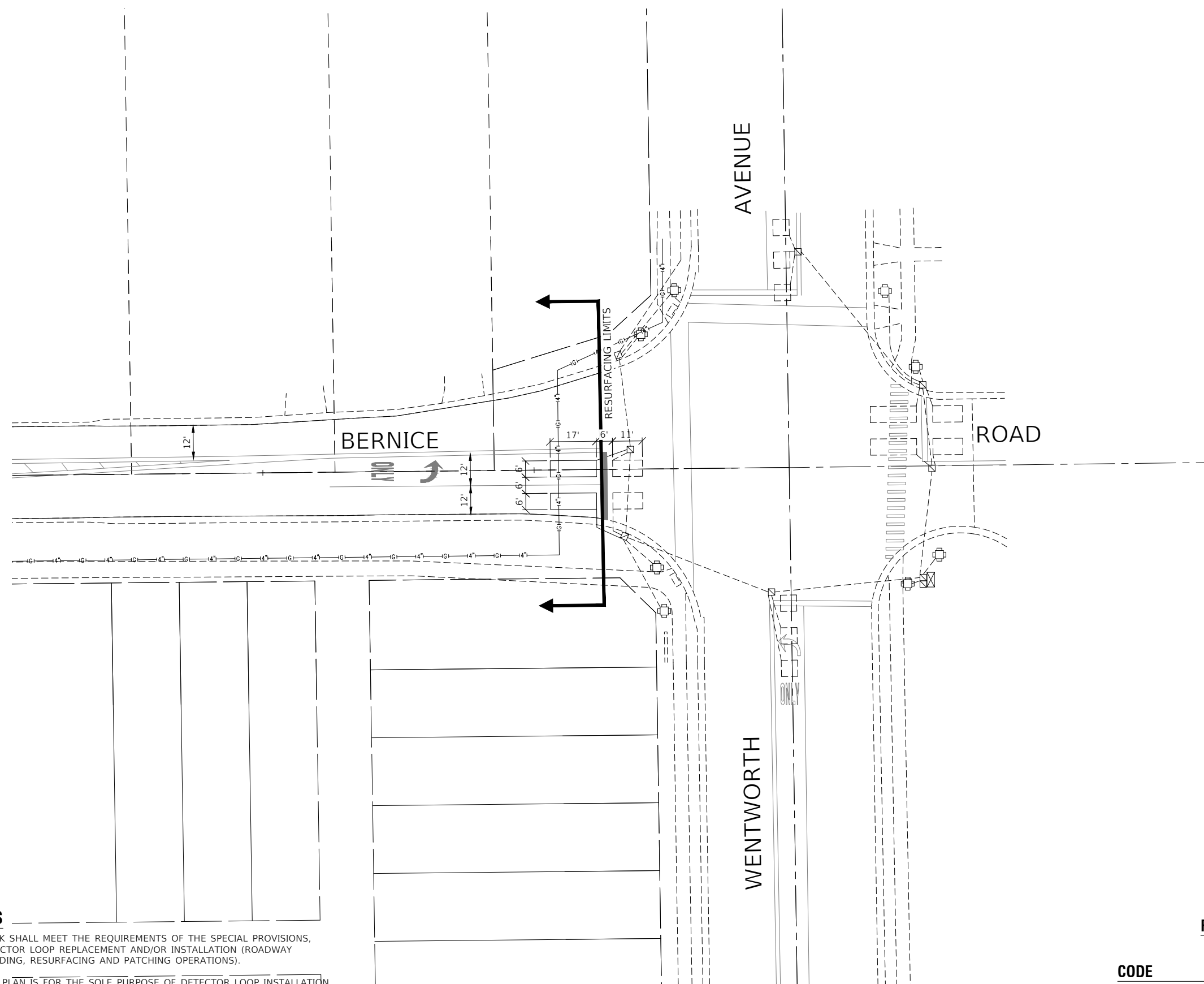
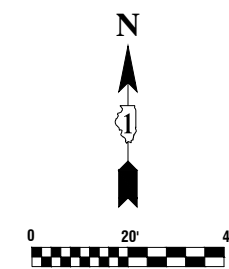
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**CABLE PLAN, PHASE DESIGNATION DIAGRAM,  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
BURNHAM AVENUE AT BERNICE ROAD**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-R5	COOK	44	31
CONTRACT NO. 61J70				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)				

TS 13955



**NOTES**

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

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

CODE	ITEM	QUANTITY	UNIT
88600600	DETECTOR LOOP REPLACEMENT	110	FOOT

**TS 13970**

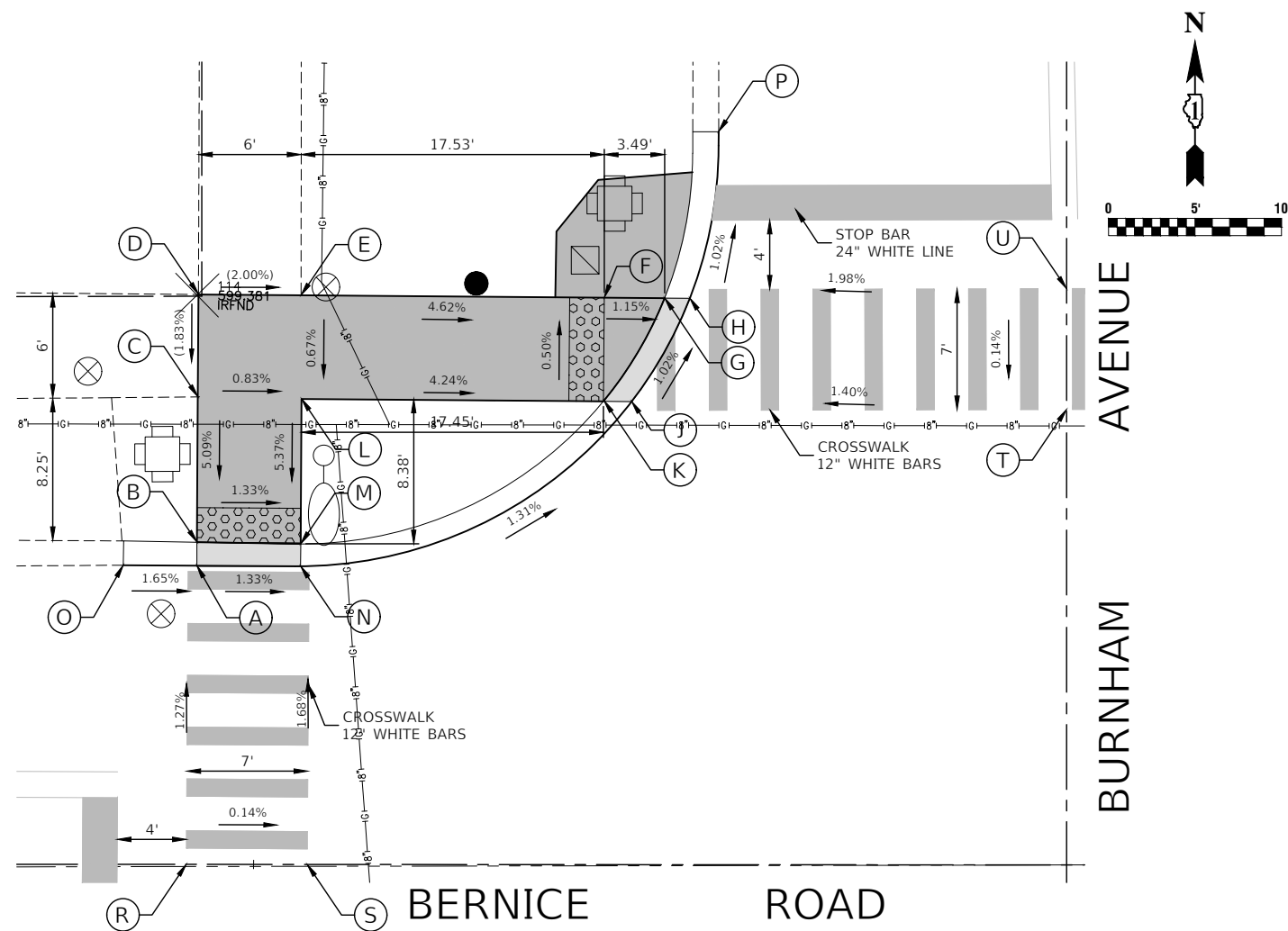
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

BERNICE ROAD ROADWAY RESURFACING DETECTOR LOOP REPLACEMENT PLAN	
SCALE: 1"=20'	SHEET NO. 32 OF 44 SHEETS STA. TO STA.

F.A. -- RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	32
CONTRACT NO. 61J70				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)				





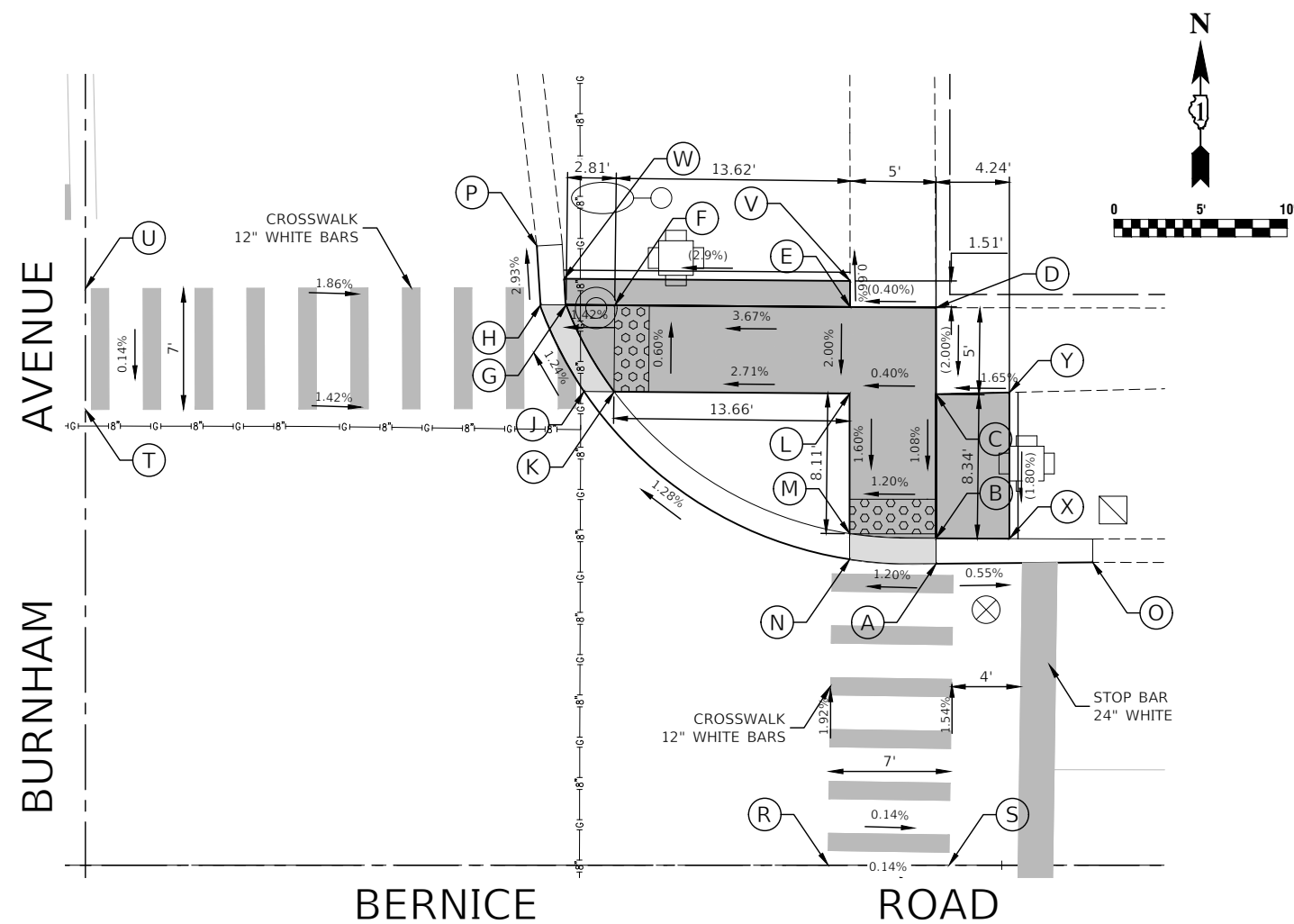
**FIGURE 1 NW CORNER**

	STATION	OFFSET	ELEVATION	DESCRIPTION
A	92+96.70	17.29' LT	598.80	EP
B	92+96.71	18.64' LT	598.79	TC, CW
C	92+96.76	27.05' LT	599.21	CW, M.E.
D	92+96.79	32.97' LT	599.32	CW, M.E.
E	93+02.72	32.93' LT	599.20	CW, M.E.
F	93+20.25	32.81' LT	598.39	CW
G	93+23.75	32.78' LT	598.35	TC, CW
H	93+25.21	32.77' LT	598.36	EP
J	93+21.84	26.80' LT	598.43	EP
K	93+20.21	26.81' LT	598.42	TC, CW

	STATION	OFFSET	ELEVATION	DESCRIPTION
L	93+02.76	26.93' LT	599.16	CW
M	93+02.71	18.55' LT	598.71	TC, CW
N	93+02.70	17.26' LT	598.72	EP
O	92+92.45	17.31' LT	598.87	EP, M.E.
P	93+26.86	42.40' LT	598.26	EP, M.E.
R	92+96.10	0.00' LT	599.02	BIT
S	93+03.10	0.00' LT	599.01	BIT
T	93+46.99	26.35' LT	598.78	BIT
U	93+46.98	33.35' LT	598.79	BIT

**LEGEND**

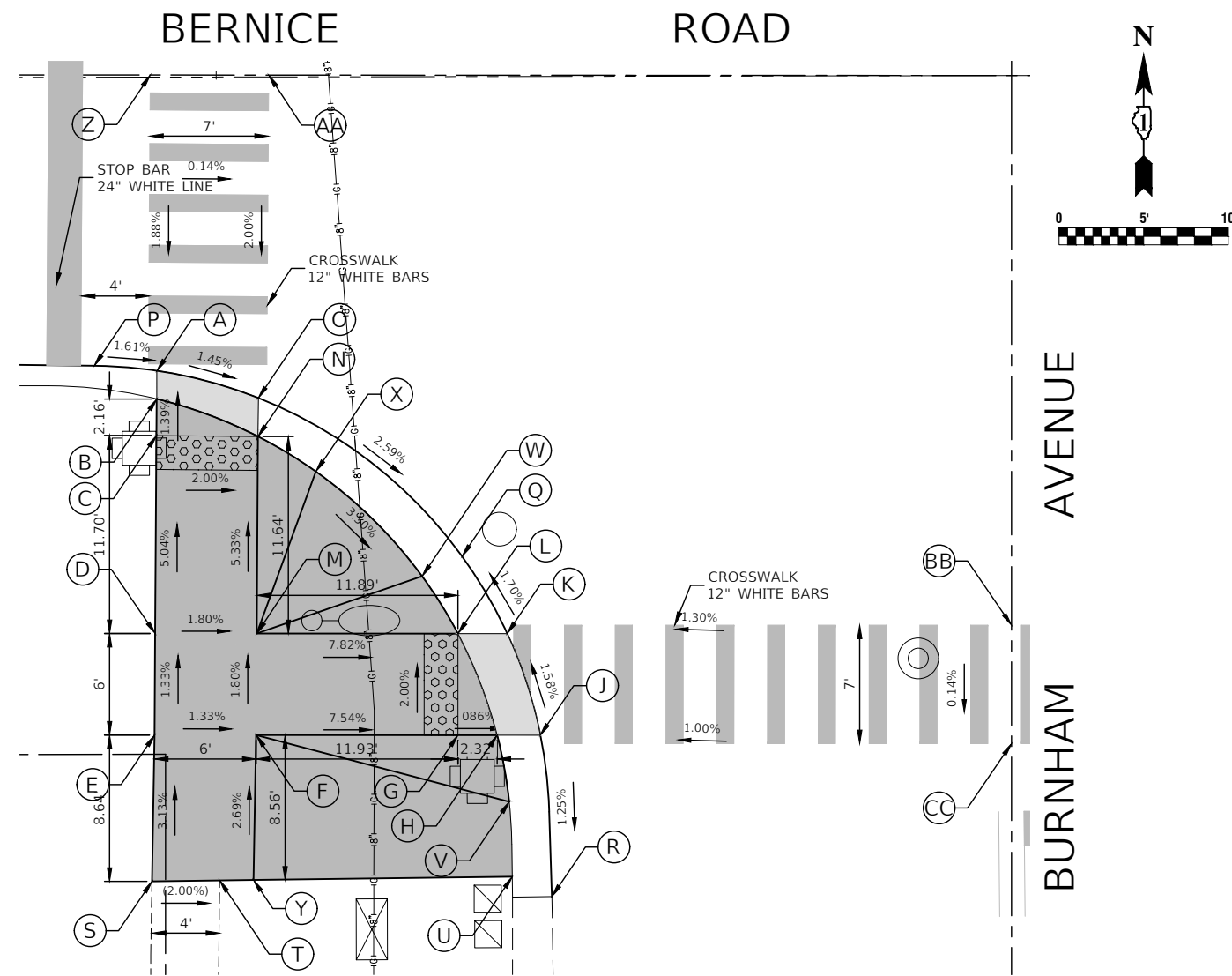
- xx.xx ' EXISTING LENGTH
- ==== EXISTING SIDE CURB
- ==== PROPOSED SIDE CURB
- ==== PROPOSED DEPRESSED CURB
- ( ) EXISTING ELEVATION/SLOPE
- EXISTING SIDEWALK
- ▒ PROPOSED SIDEWALK & DETECTABLE WARNINGS



**FIGURE 2 NE CORNER**

	STATION	OFFSET	ELEVATION	DESCRIPTION
A	93+96.20	17.44' LT	598.67	EP
B	93+96.20	18.90' LT	598.67	TC, CW
C	93+96.20	27.55' LT	598.76	CW
D	93+96.21	32.24' LT	598.86	CW, M.E.
E	93+91.23	32.28' LT	598.84	CW, M.E.
F	93+77.61	32.38' LT	598.34	CW
G	93+74.80	32.40' LT	598.30	CW, TC
H	93+73.32	32.42' LT	598.30	EP
J	93+75.84	27.40' LT	598.37	EP

	STATION	OFFSET	ELEVATION	DESCRIPTION
K	93+77.58	27.38' LT	598.37	TC, CW
L	93+91.20	27.28' LT	598.74	CW
M	93+91.20	19.17' LT	598.61	TC, CW
N	93+91.20	17.69' LT	598.61	EP
O	94+05.27	17.51' LT	598.62	EP, M.E.
P	93+73.10	35.81' LT	598.20	EP, M.E.
R	93+89.95	0.00' LT	598.95	BIT
S	93+96.95	0.00' LT	598.94	BIT
T	93+46.99	26.35' LT	598.78	BIT
U	93+46.98	33.35' LT	598.79	BIT
V	93+91.23	33.78' LT	598.83	CW
W	93+74.69	33.91' LT	598.35	CW
X	94+00.45	18.88' LT	598.68	CW
Y	94+00.45	27.34' LT	598.83	CW



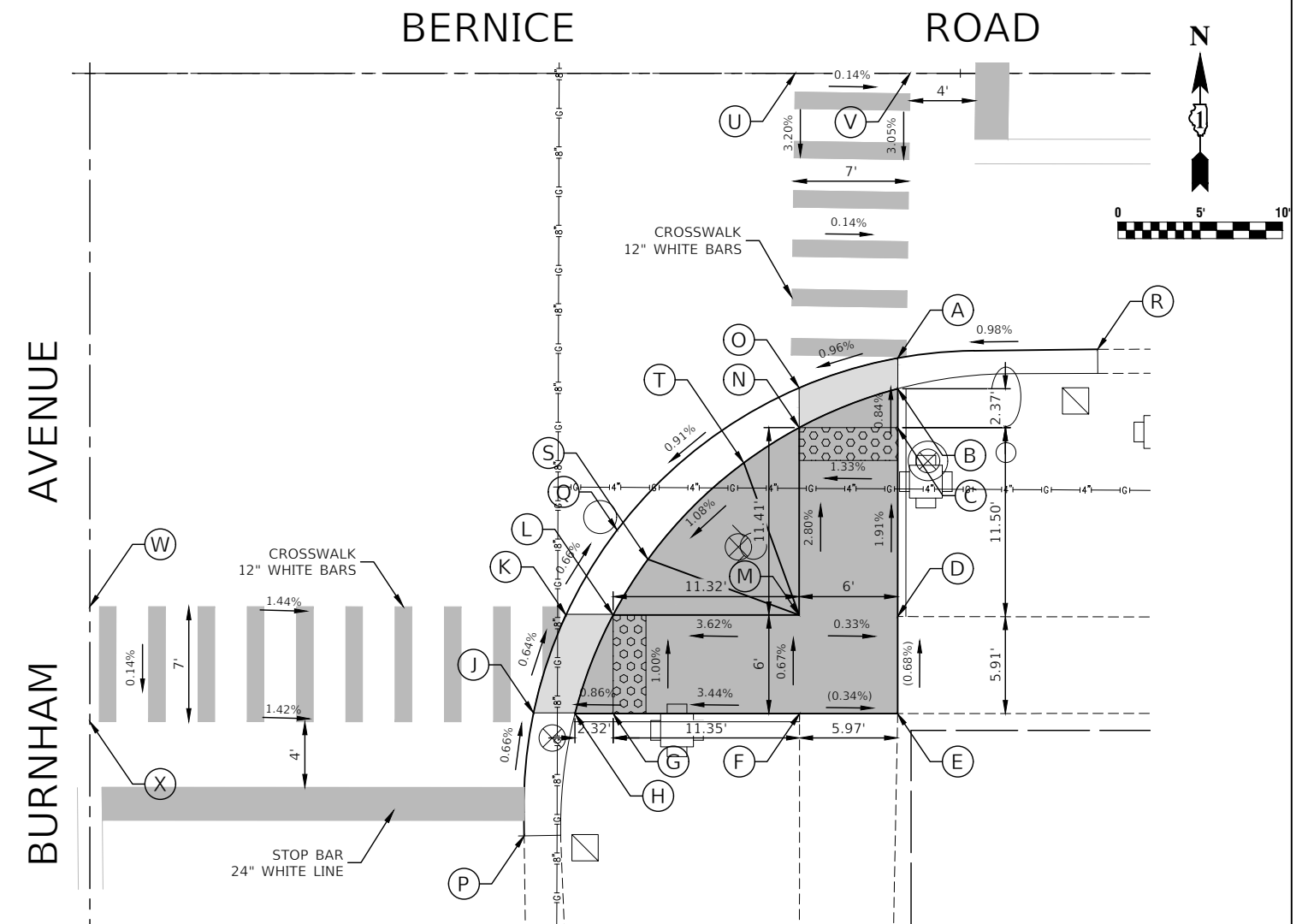
**FIGURE 3 SW CORNER**

	STATION	OFFSET	ELEVATION	DESCRIPTION
A	92+96.50	17.47' RT	598.69	EP
B	92+96.50	19.14' RT	598.69	TC, CW
C	92+96.48	21.30' RT	598.72	CW
D	92+96.42	32.99' RT	599.31	CW, M.E.
E	92+96.38	38.99' RT	599.39	CW, M.E.
F	93+02.38	38.99' RT	599.31	CW
G	93+14.31	38.98' RT	598.41	CW
H	93+16.63	38.98' RT	598.39	TC, CW
J	93+19.18	38.98' RT	598.39	EP
K	93+17.21	32.98' RT	598.29	EP
L	93+14.31	32.98' RT	598.29	TC, CW
M	93+02.42	32.99' RT	599.22	CW
N	93+02.48	21.35' RT	598.60	TC, CW
O	93+02.50	19.08' RT	598.60	EP
P	92+92.79	17.18' RT	598.75	EP
Q	93+14.54	28.42' RT	598.20	EP, RIM
R	93+19.87	48.51' RT	598.51	EP, M.E.

	STATION	OFFSET	ELEVATION	DESCRIPTION
S	92+96.24	47.63' RT	599.66	CW, M.E.
T	93+00.24	47.58' RT	599.58	CW, M.E.
U	93+17.53	47.34' RT	599.00	TC, M.E.
V	93+17.35	42.92' RT	598.71	TC
W	93+42.19	29.60' RT	598.61	TC
X	93+05.90	23.42' RT	598.92	TC
Y	93+02.24	47.55' RT	599.54	CW, M.E.
Z	92+96.10	0.00' RT	599.02	BIT
AA	93+03.10	0.00' RT	599.01	BIT
BB	93+47.00	32.47' RT	598.68	BIT
CC	93+47.00	39.47' RT	598.67	BIT

**LEGEND**

- xx.xx ' EXISTING LENGTH
- EXISTING SIDE CURB
- PROPOSED SIDE CURB
- PROPOSED DEPRESSED CURB
- EXISTING ELEVATION/SLOPE
- EXISTING SIDEWALK
- PROPOSED SIDEWALK & DETECTABLE WARNINGS



**FIGURE 4 SE CORNER**

	STATION	OFFSET	ELEVATION	DESCRIPTION
A	93+96.19	17.34' RT	598.41	EP
B	93+96.19	19.20' RT	598.41	TC, CW
C	93+96.19	21.57' RT	598.43	CW
D	93+96.19	33.07' RT	598.65	CW, M.E.
E	93+96.18	38.98' RT	598.69	CW, M.E.
F	93+90.21	38.97' RT	598.71	CW, M.E.
G	93+78.86	38.97' RT	598.32	CW
H	93+76.54	38.97' RT	598.30	TC, CW
J	93+74.01	38.93' RT	598.30	EP
K	93+75.99	32.97' RT	598.26	EP
L	93+78.86	32.97' RT	598.26	TC, CW

	STATION	OFFSET	ELEVATION	DESCRIPTION
M	93+90.19	32.97' RT	598.67	CW
N	93+90.19	21.57' RT	598.35	TC, CW
O	93+90.19	19.15' RT	598.35	EP
P	93+73.45	46.42' RT	598.35	EP, M.E.
Q	93+79.10	27.80' RT	598.22	EP, RIM
R	94+08.36	16.80' RT	598.53	EP, M.E.
S	93+80.98	29.58' RT	598.58	TC
T	93+86.82	23.71' RT	598.67	TC
U	93+89.95	0.00' RT	598.95	BIT
V	93+96.95	0.00' RT	598.94	BIT
W	93+47.00	32.47' RT	598.68	BIT
X	93+47.00	39.47' RT	598.67	BIT

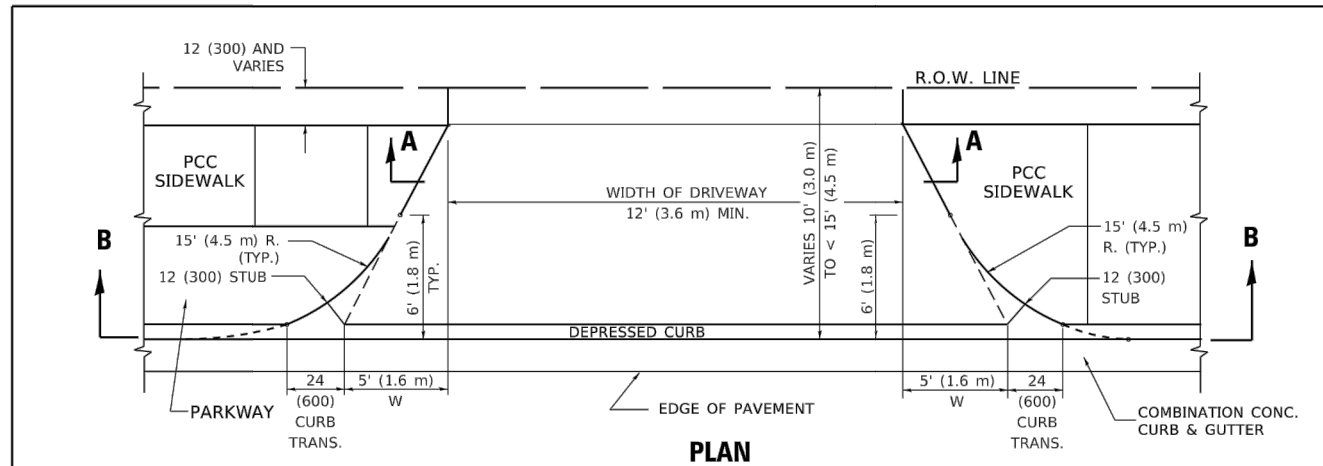
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PLOT DATE = 10-31-23	CHECKED -- ACAD	REVISED --

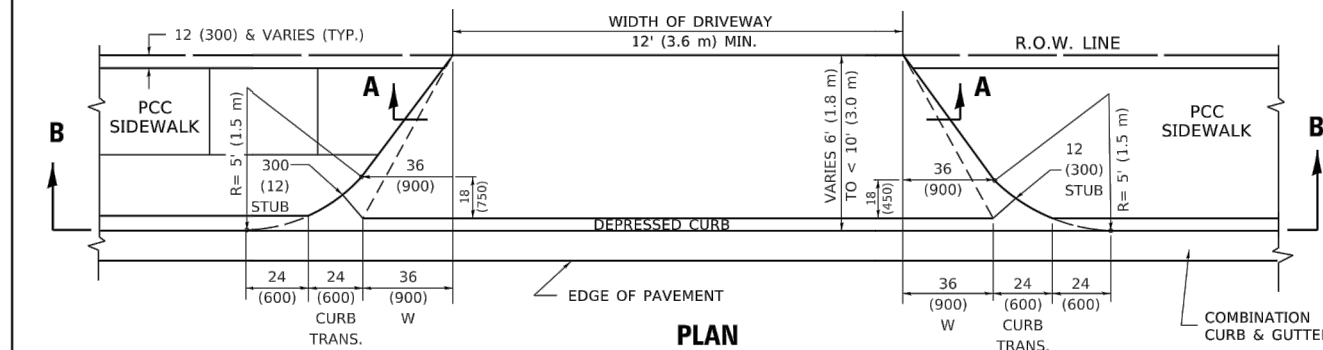
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BERNICE ROAD ROADWAY RESURFACING ADA RAMP DETAILS			
SCALE: 1"=5'	SHEET NO. 34	OF 44 SHEETS	STA. TO STA.

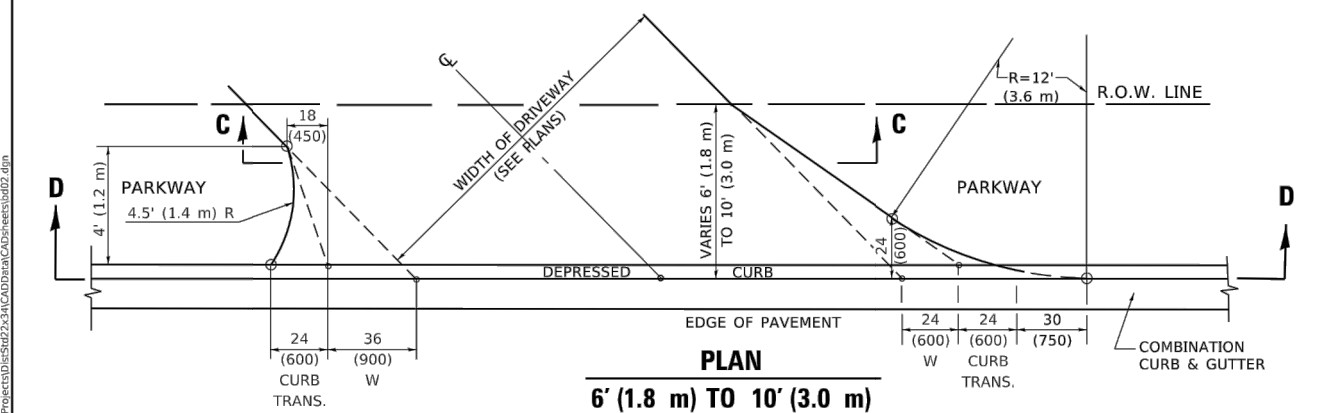
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	34
CONTRACT NO. 61J70				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)				



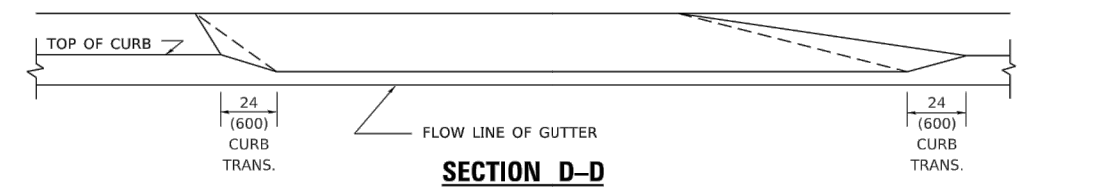
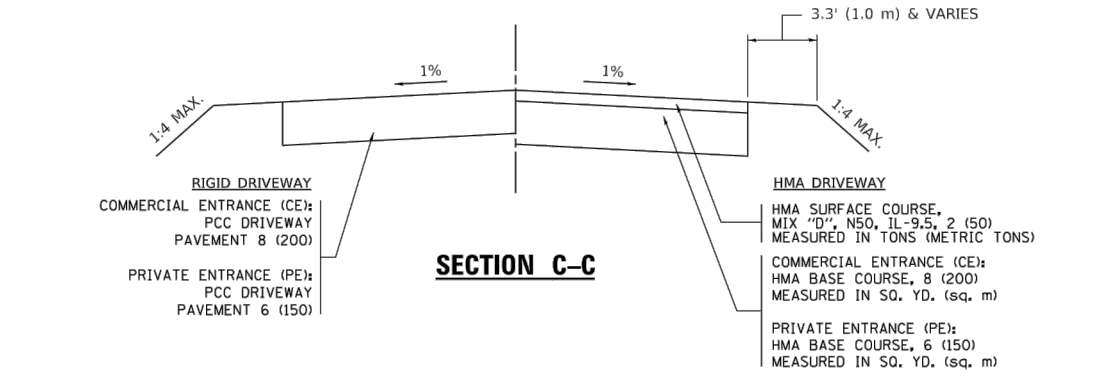
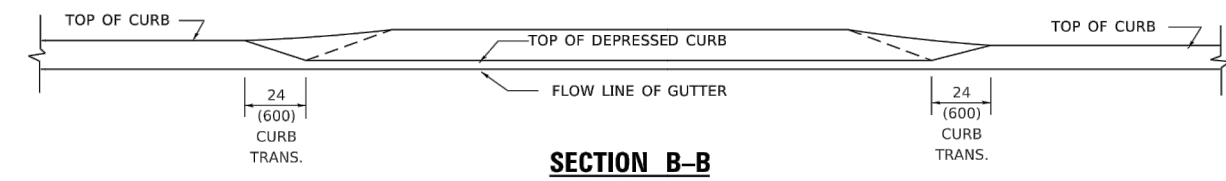
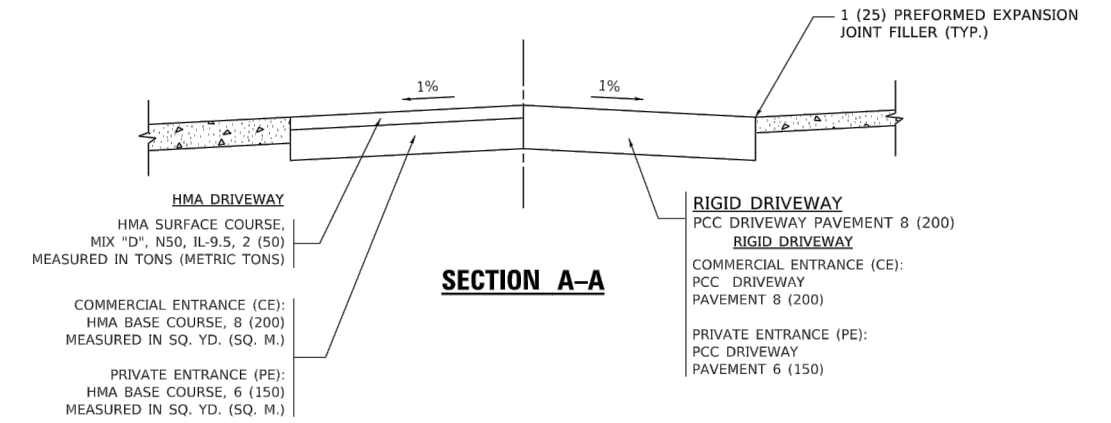
**PLAN**  
10' (3.0 m) TO < 15' (4.5 m)



**PLAN**  
6' (1.8 m) TO < 10' (3.0 m)



**PLAN**  
6' (1.8 m) TO 10' (3.0 m)



**GENERAL NOTES**

1. DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATION 10 IN THE PERMIT HANDBOOK. WHERE SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED WITH RIGID PAVEMENT. WHERE NO SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED IN KIND. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.
2. WHEN THE DISTANCE BETWEEN R.O.W. AND THE BACK OF CURB IS EQUAL TO OR LESS THAN 8' (2.4 m), THE PCC SIDEWALK SHALL EXTEND TO THE BACK OF CURB.
3. "W" VARIES FROM 36 (900) TO 5' (1.5 m) PROPORTIONAL TO THE LENGTH (L), FROM 6' (1.8 m) TO 10' (3 m).

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

FILE NAME: p:\user-gw-bentley.com\p\1101\Documents\DOT Offices\District 1\Projects\11-06-95\23-00178-00-RS\CA\Drawings\BD02.dwg

USER NAME = Lawrence.DeManche	DESIGNED - R. SHAH	REVISED - R. BORO 01-01-07
PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED - R. BORO 09-06-11
PLOT DATE = 11/18/2022	CHECKED -	REVISED - K. SMITH 08-27-19
	DATE - 11-06-95	REVISED - K. SMITH 11-18-22

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DRIVEWAY DETAILS**  
**DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5m)**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BD400-02 (BD-02)			
ILLINOIS			FED. AID PROJECT	

FILE NAME = 22R0648-DTL5-01 - BD02

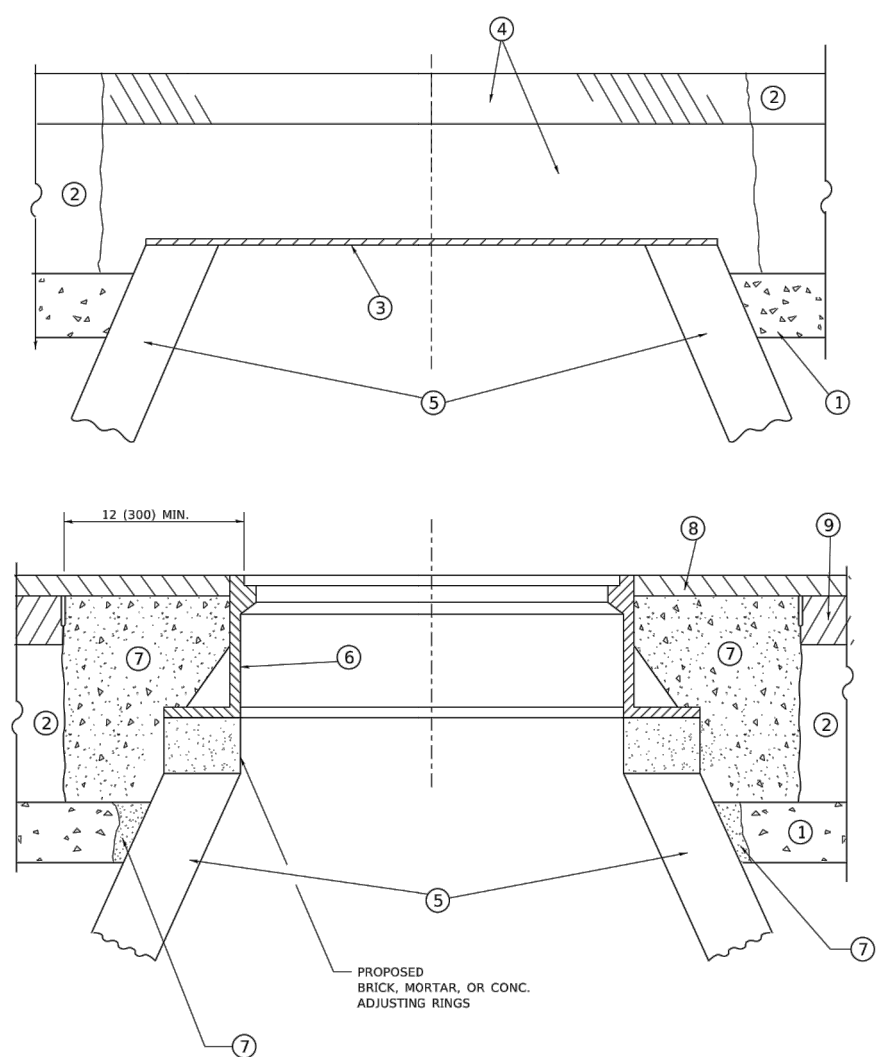
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PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1 DETAILS**

SCALE: SHEET NO. 35 OF 44 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	35
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT 37LZ(304)	



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

**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.
- THE CONTRACTOR SHALL REMOVE ALL TRAFFIC CONTROL DEVICES BY THE END OF EACH WORK SHIFT.

**CONSTRUCTION PROCEDURES**

- STAGE 1 (BEFORE PAVEMENT MILLING)**
- REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
  - REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
  - COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
  - BACKFILL WITH CRUSHED STONE AND HMA SURFACE MIX APPROVED BY THE ENGINEER. (MIN. 3 (80) HMA TO REMAIN AFTER MILLING).
- STAGE 2 (AFTER PAVEMENT MILLING)**
- REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
  - INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
  - THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-2\* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.
- \* UNLESS OTHERWISE SPECIFIED IN THE PLANS.

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

**LEGEND**

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

**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.
- 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.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

USER NAME = Lawrence.DeManche PLOT SCALE = 100.0000' / in. PLOT DATE = 9/15/2023	DESIGNED - R. SHAH	REVISED - R. BORO 03-09-11	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DETAILS FOR</b> <b>FRAMES AND LIDS ADJUSTMENT WITH MILLING</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN -	REVISED - R. BORO 12-06-11					BD600-03	BD-08	CONTRACT NO.		
	CHECKED -	REVISED - K. SMITH 11-18-22					ILLINOIS	FED. AID PROJECT			
DATE - 10-25-94	REVISED - K. SMITH 09-15-23	SCALE: NONE	SHEET 1 OF 1 SHEETS	STA. TO STA.							

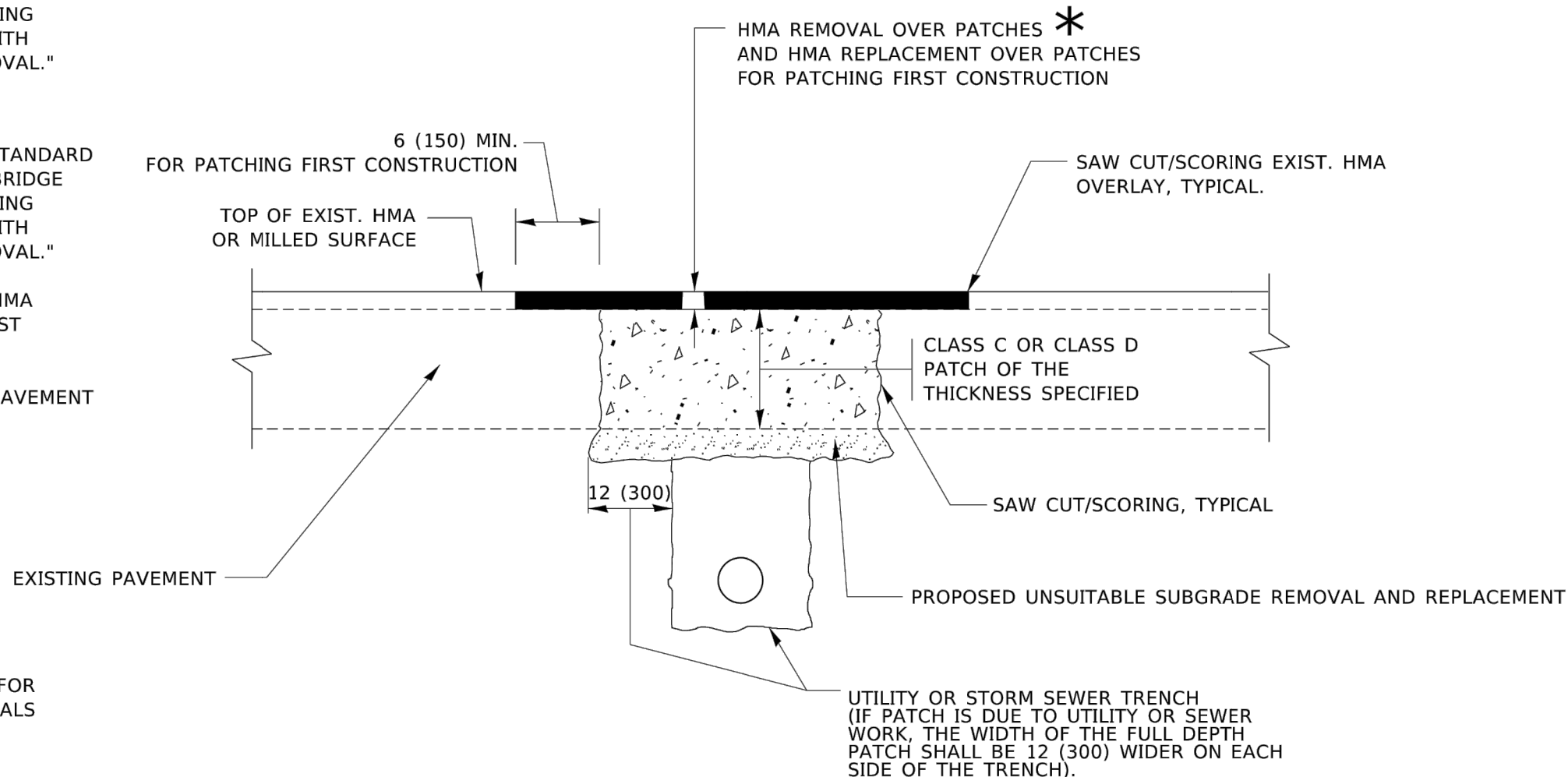
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	CHECKED -	REVISED -					1683	23-00178-00-RS	COOK	44	36
	DRAWN -	REVISED -					CONTRACT NO. 61J70				
DATE -	CHECKED -	REVISED -	SCALE:	SHEET NO. 36 OF 44 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT 37LZ(304)			

**METHOD OF MEASUREMENT**

REFER TO SECTION 442 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL."

**BASIS OF PAYMENT**

1. REFER TO SECTION 442 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL."
2. SAW CUT/SCORING OF EXISTING HMA OVERLAY IS INCLUDED IN THE COST OF PAVEMENT PATCHING.
3. SAW CUT/SCORING OF EXISTING PAVEMENT IS INCLUDED IN THE COST OF PAVEMENT PATCHING.



\* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

**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)**

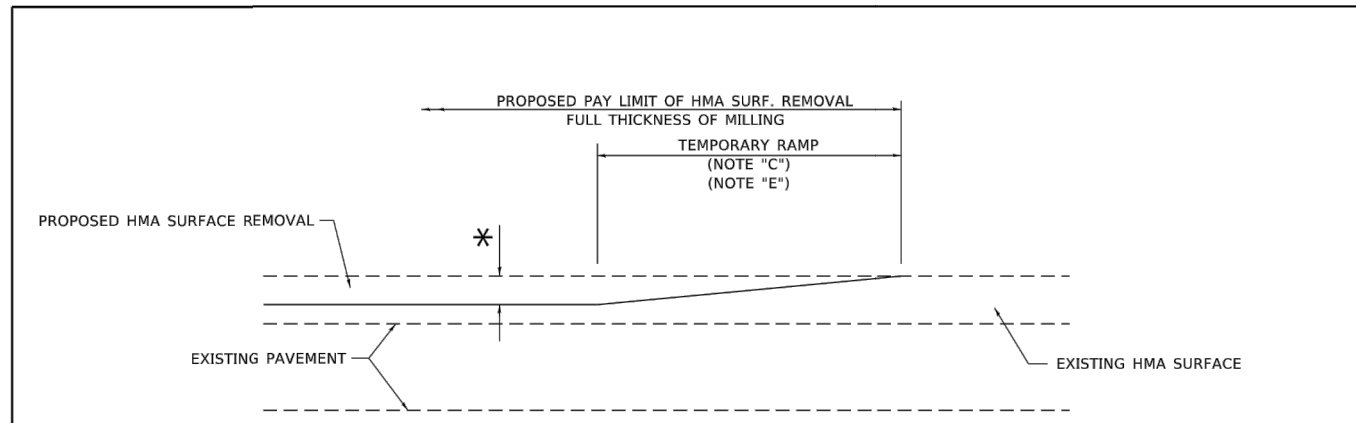
1. MILL HMA FIRST IF THERE IS AT LEAST 4½ INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

FILE NAME: p:\work\pw\_bentley.com\p\work\Documents\DOT Offices\District 1\Projects\515622\31\CAD\31A\CAD\Sheet\bd22.dgn

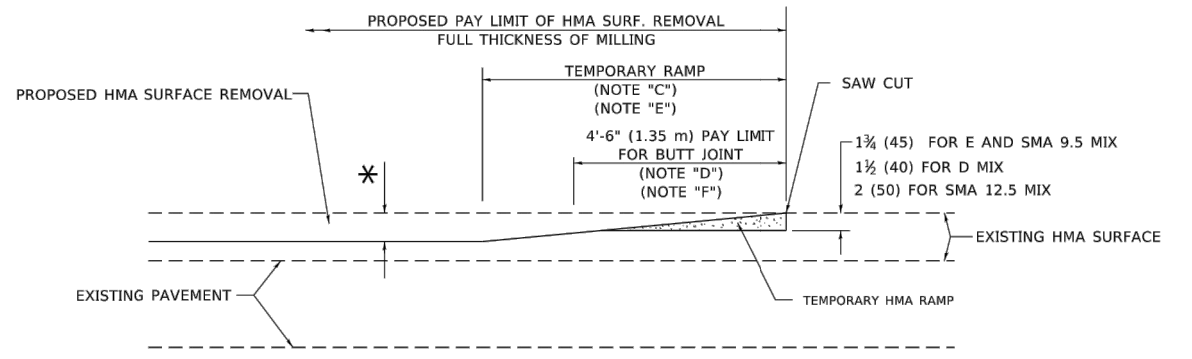
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PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - R. BORO 09-04-07			SCALE: NONE	SHEET 1 OF 1 SHEETS	STA. TO STA.	BD400-04 (BD-22) CONTRACT NO.			
PLOT DATE = 11/18/2022	DATE - 10-25-94	REVISED - K. ENG 10-27-08			ILLINOIS FED. AID PROJECT						
	REVISED - K. SMITH 11-18-22										

FILE NAME = 22R0648-DTLS-01 - BD22	USER NAME =	DESIGNED --	REVISED --	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT 1 DETAILS</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
	CHECKED --	REVISED --	SCALE:			SHEET NO. 37 OF 44 SHEETS	STA. TO STA.	1683 23-00178-00-RS COOK 44 37 CONTRACT NO. 61J70				
	PLOT SCALE =	DRAWN --	REVISED --			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)						
	PLOT DATE =	CHECKED --	REVISED --									



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

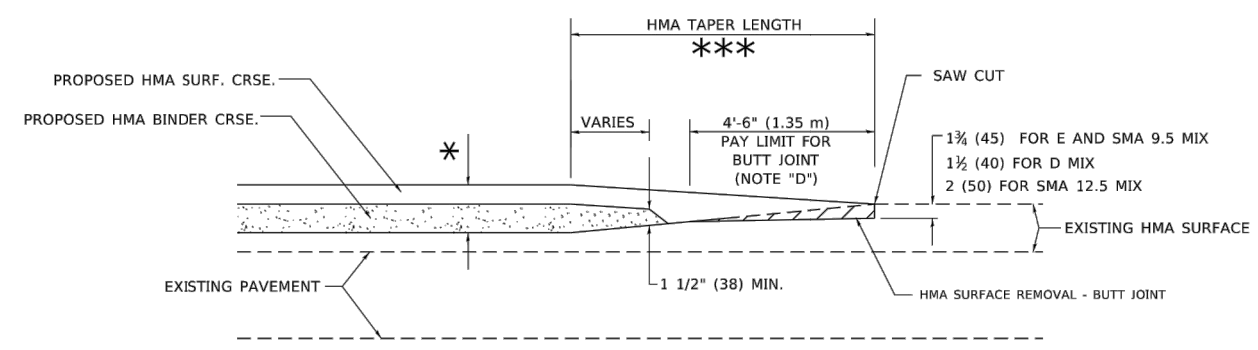
**OPTION 1**



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

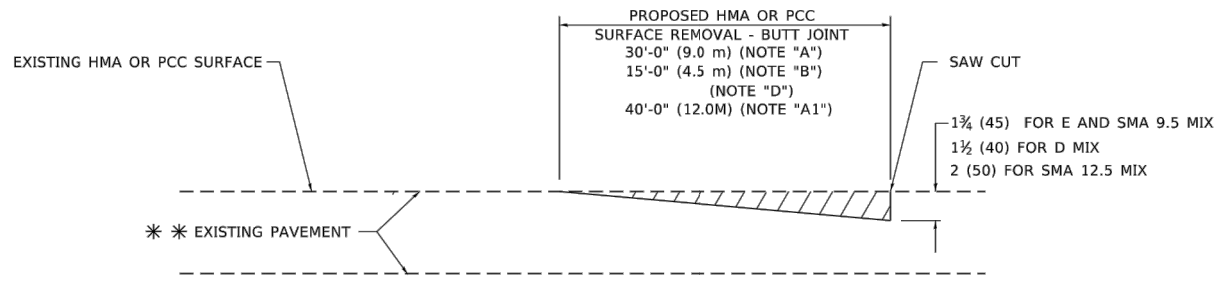
**OPTION 2**

**TYPICAL TEMPORARY RAMP**

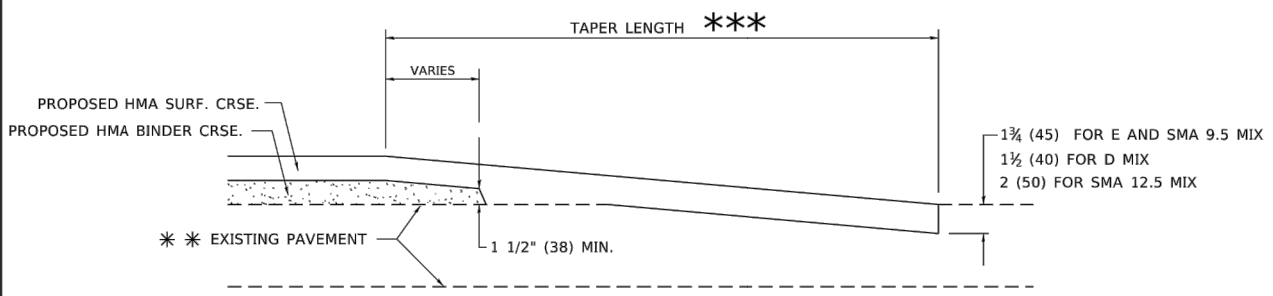


**BUTT JOINT AND HMA TAPER**

**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.

**GENERAL NOTES**

- A. MAINLINE ARTERIAL ROADWAYS AND MAJOR SIDE ROADS.
- A1. INTERSTATES
- 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' - 4" (1.02m) PER 1 INCH (25 mm) OF MILLING THICKNESS.  
\* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- F. SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL - BUTT JOINT".
- \*\*\* 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**

- 1. 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".
- 2. THE TEMPORARY RAMP AND SAW CUT SHALL BE INCLUDED IN THE UNIT COST FOR HMA OR PCC SURFACE REMOVAL-BUTT JOINT.

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

FILE NAME: p:\work\paw\_bentley.com\paw\DOT\Documents\DOT Offices\District 1\Projects\1515022\23\CA\CD\HMA\CD\Sheet\bd3.dgn

USER NAME = Lawrence.DeManche	DESIGNED - M. DE YONG	REVISED - A. ABBAS 03-21-97
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - M. GOMEZ 04-06-01
PLOT DATE = 11/18/2022	DATE - 06-13-90	REVISED - R. BORO 01-01-07
		REVISED - K. SMITH 11-18-22

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>BUTT JOINT AND HMA TAPER DETAILS</b>	
SCALE: NONE	SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BD400-05	BD-32	COOK	44	38
CONTRACT NO. 61J70				
ILLINOIS FED. AID PROJECT				

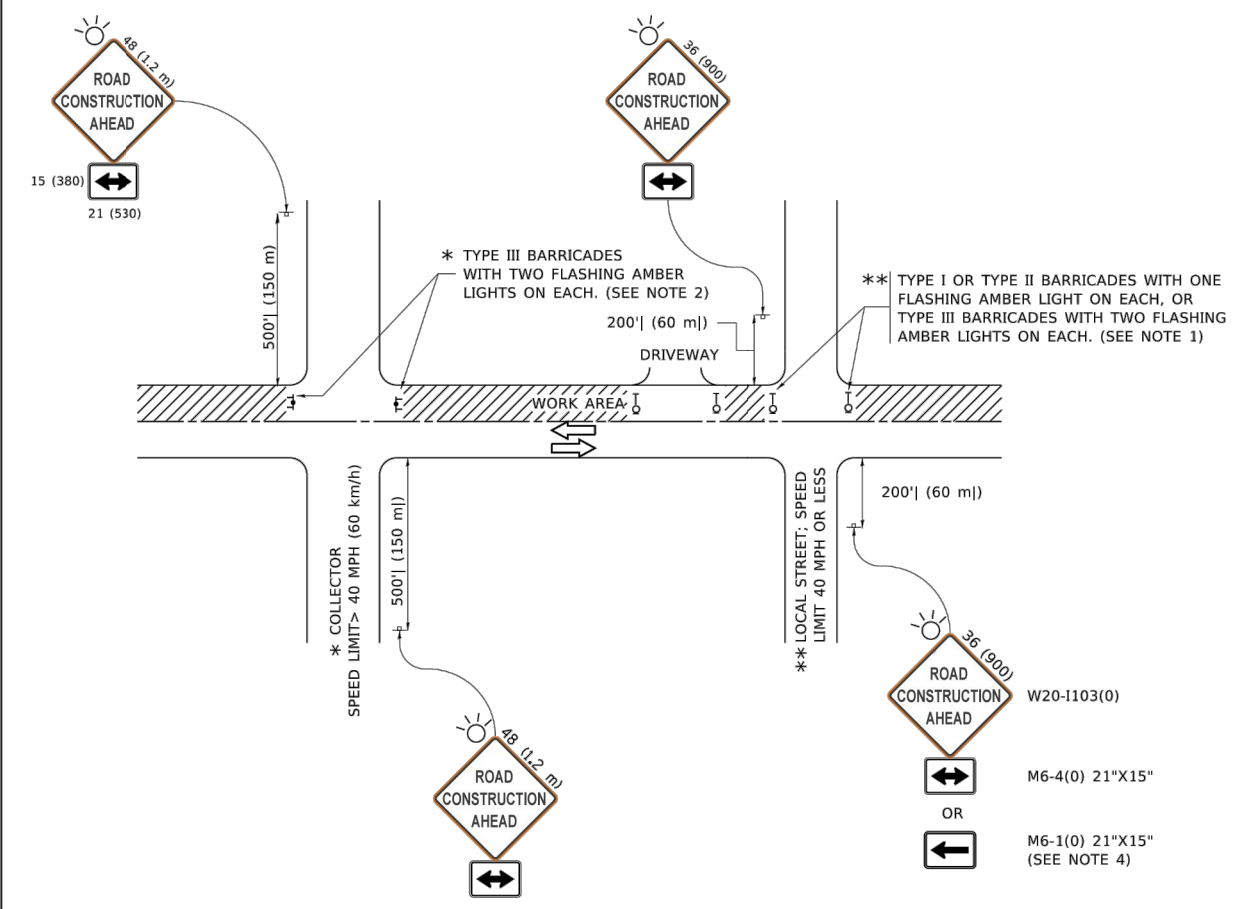
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USER NAME =	DESIGNED --	REVISED --
	CHECKED --	REVISED --
PLOT SCALE =	DRAWN --	REVISED --
PLOT DATE =	CHECKED --	REVISED --

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT 1 DETAILS</b>	
SCALE:	SHEET NO. 38 OF 44 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	38
CONTRACT NO. 61J70				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)				



**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. 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.

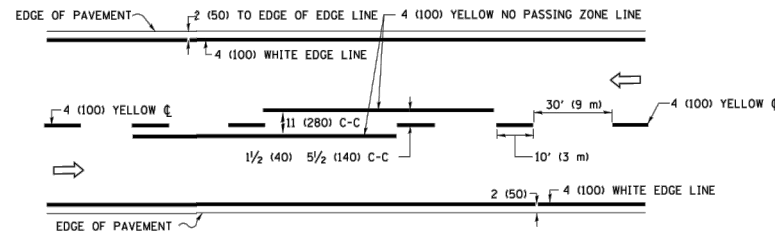
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USER NAME = footemj	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96
PLOT SCALE = 50.0000' / in.	CHECKED -	REVISED - T. RAMMACHER 01-06-00
PLOT DATE = 3/4/2019	DATE - 06-89	REVISED - A. SCHUETZE 07-01-13
		REVISED - A. SCHUETZE 09-15-16

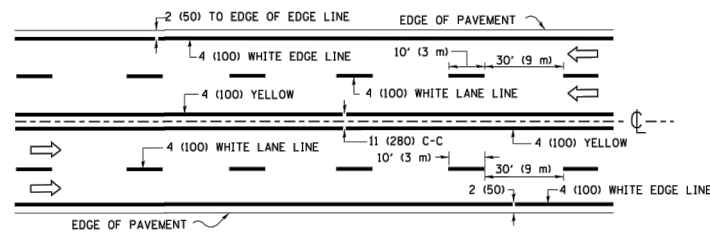
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SCALE: NONE		SHEET 1 OF 1 SHEETS		TC-10		CONTRACT NO.		
				ILLINOIS		FED. AID PROJECT		

FILE NAME = 22R0648-DTLS-01 - TC10	USER NAME =	DESIGNED --	REVISED --
		CHECKED --	REVISED --
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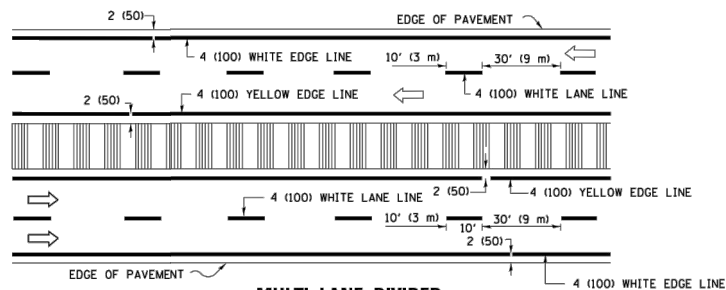
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SCALE:		SHEET NO. 39 OF 44 SHEETS		1683		23-00178-00-RS		COOK 44 39
				FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT 37LZ(304)



**2-LANE ROADWAY**

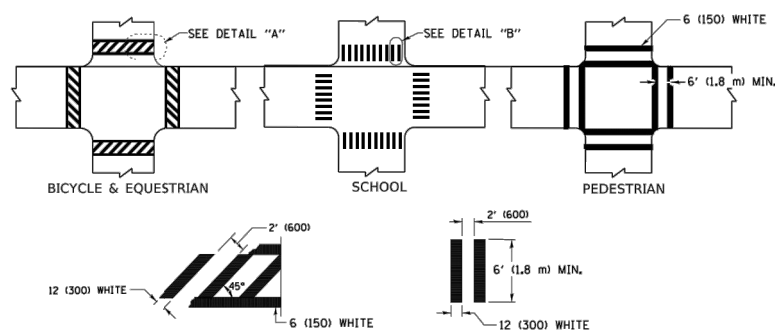


**MULTI-LANE UNDIVIDED**



**MULTI-LANE DIVIDED WITH MEDIAN**

**TYPICAL LANE AND EDGE LINE MARKING**

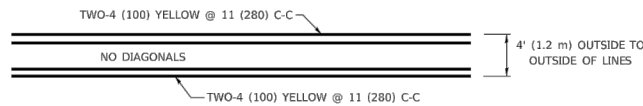


**DETAIL "A"**

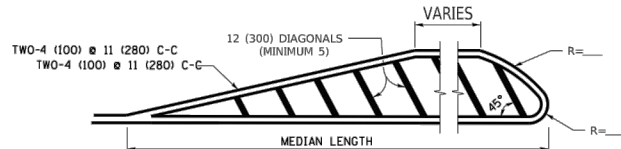
**DETAIL "B"**

**TYPICAL CROSSWALK MARKING**

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



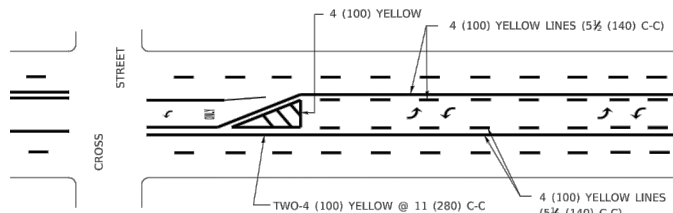
**4' (1.2 m) WIDE MEDIANS ONLY**



FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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))

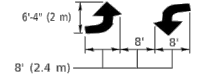
**MEDIANS OVER 4' (1.2 m) WIDE**



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

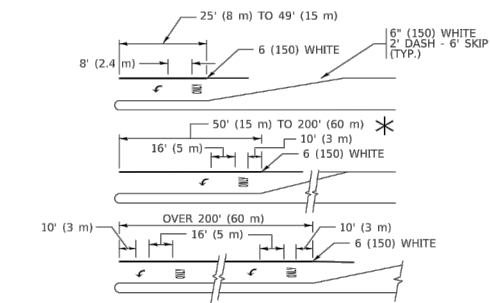
**TYPICAL PAINTED MEDIAN MARKING**

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.



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

**TYPICAL PAINTED MEDIAN MARKING**

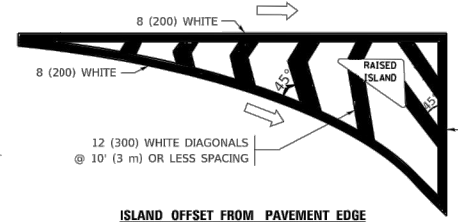


**TYPICAL LEFT (OR RIGHT) TURN LANE**

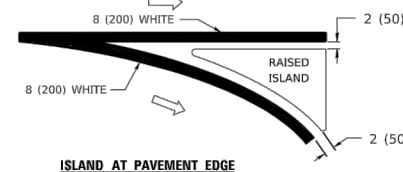
**TYPICAL TURN LANE MARKING**

FULL SIZE LETTERS 8" (2.4 m) AND ARROWS SHALL BE USED.

\* 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".

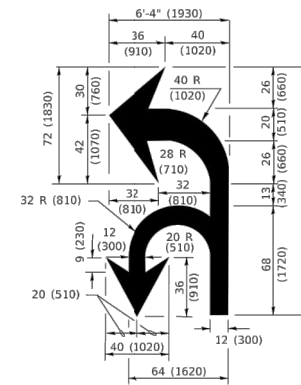


**ISLAND OFFSET FROM PAVEMENT EDGE**

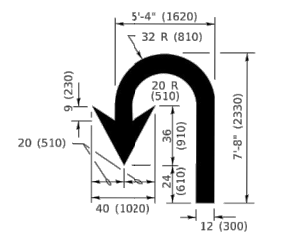


**ISLAND AT PAVEMENT EDGE**

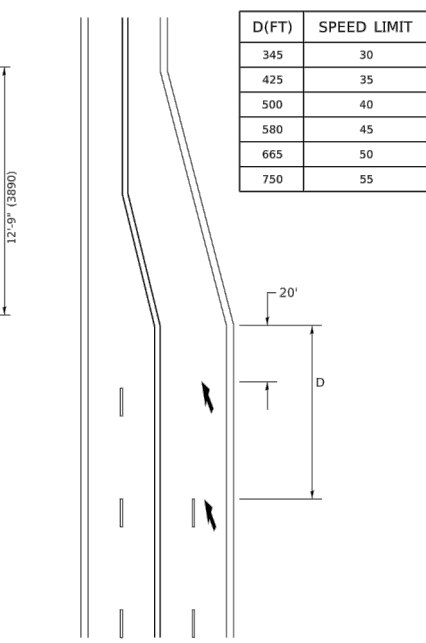
**TYPICAL ISLAND MARKING**



**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 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.

USER NAME = foostemj	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09
PLOT SCALE = 50.0000' / in.	DRAWN -	REVISED - C. JUCIUS 07-01-13
PLOT DATE = 3/4/2019	CHECKED -	REVISED - C. JUCIUS 12-21-15
	DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
TYPICAL PAVEMENT MARKINGS**

SCALE: NONE SHEET 1 OF 2 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
<b>TC-13</b>		CONTRACT NO.		
ILLINOIS		FED. AID PROJECT		

FILE NAME = 22R0648-DTLS-01 - TC13

USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE =	DRAWN -	REVISED -
	CHECKED -	REVISED -

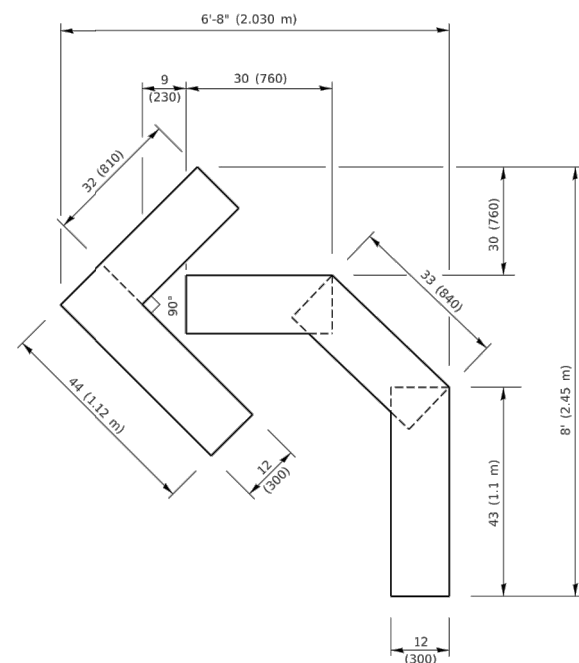
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1 DETAILS**

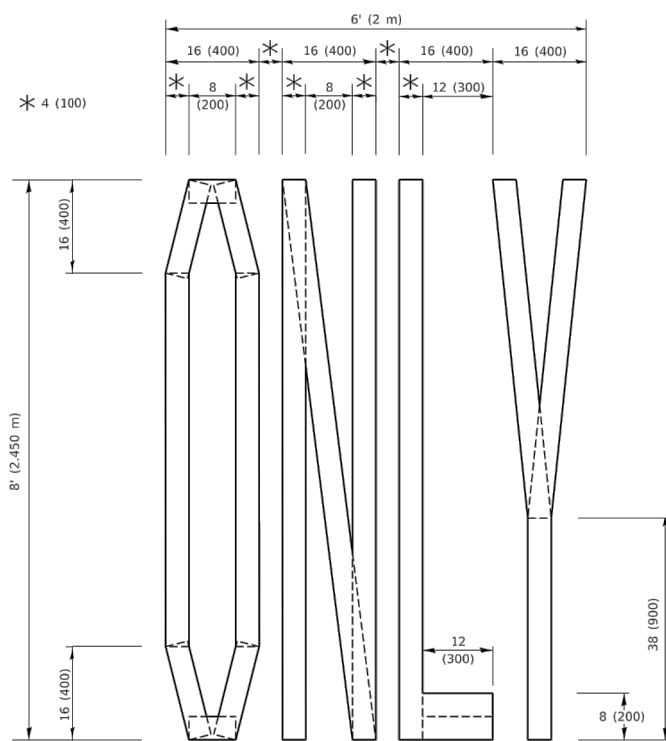
SCALE: SHEET NO. 40 OF 44 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	40
ILLINOIS		CONTRACT NO. 61J70		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT 37LZ(304)		

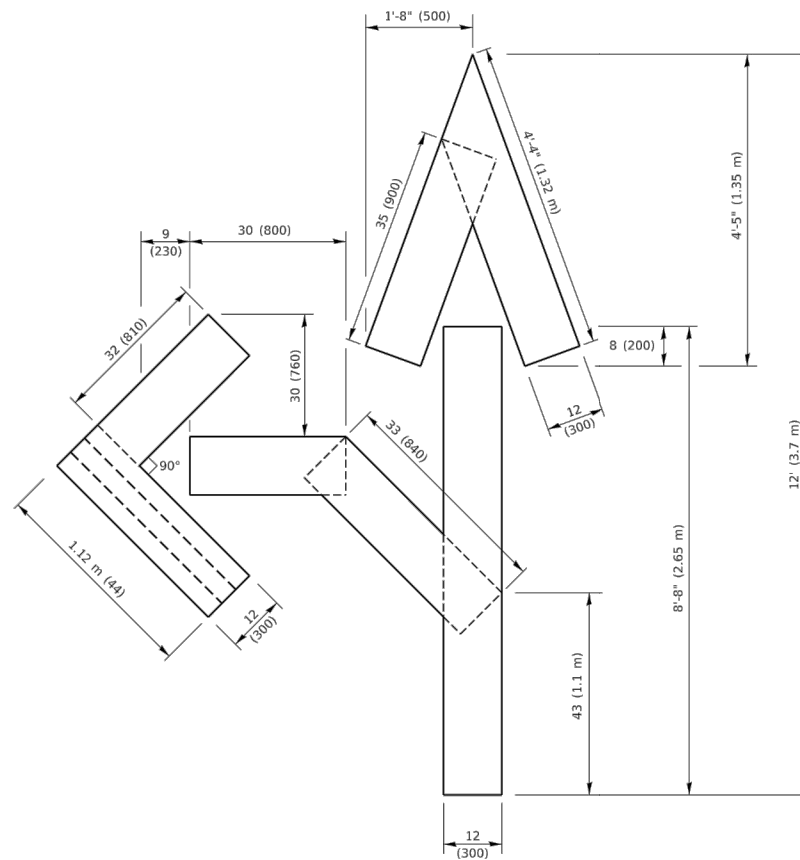




**QUANTITY**  
 4 (100) LINE = 45.5 ft. (13.9 m)  
 15.2 sq. ft. (1.41 sq. m)

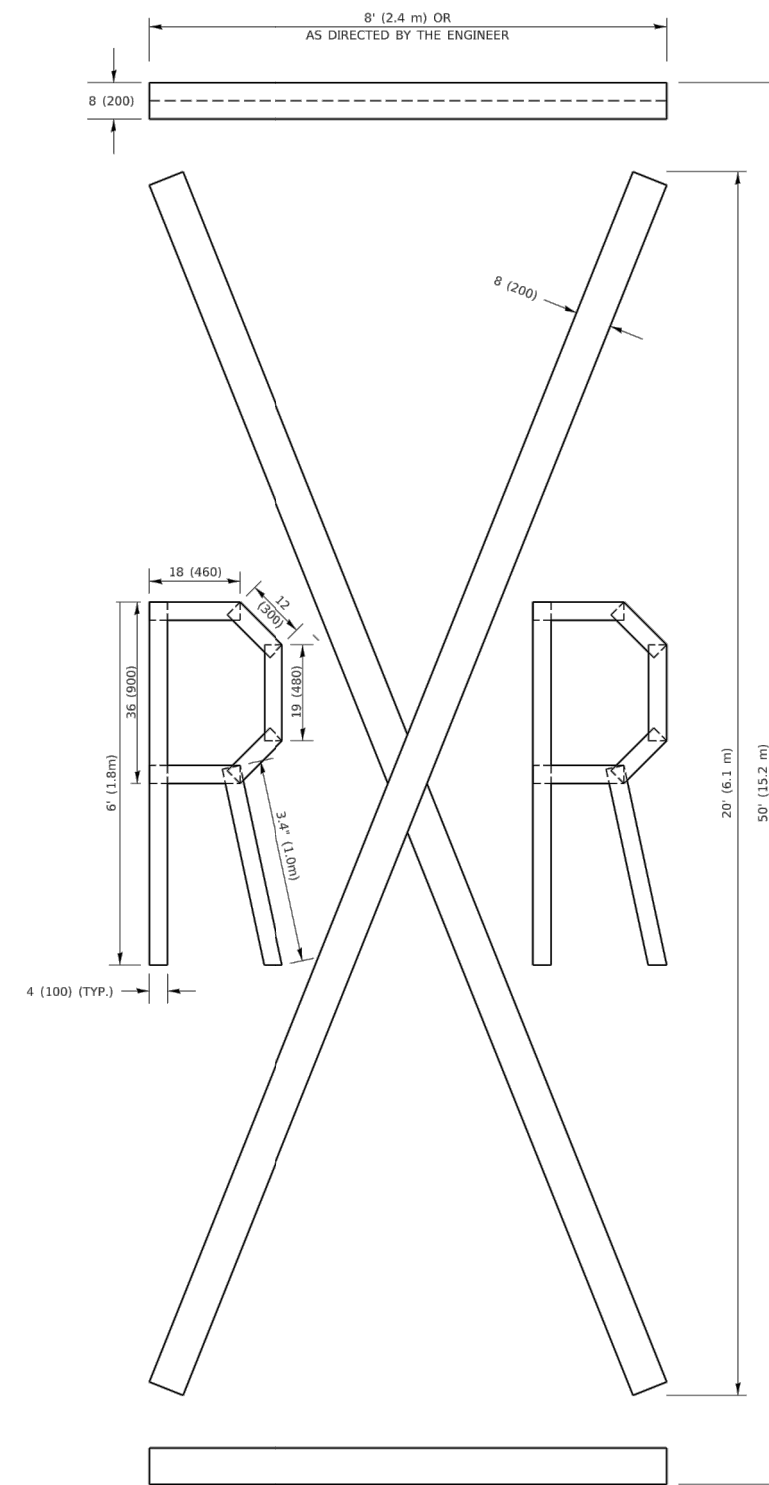


**QUANTITY**  
 4 (100) LINE = 64.1 ft. (19.5 m)  
 21.4 sq. ft. (1.99 sq. m)



**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: P:\A\1084E\BID\NTEC\Illinois.gov\PIV\DOT\Documents\DOT\_Offices\District\_1\Projects\DSHS\02234\CADD\Drawings\Sheet16.dgn

USER NAME = footemj	DESIGNED -	REVISED - T. RAMMACHER 03-02-98
PLOT SCALE = 50.0068' / in.	DRAWN -	REVISED - E. GOMEZ 08-28-00
PLOT DATE = 3/4/2019	CHECKED -	REVISED - E. GOMEZ 08-28-00
	DATE - 09-18-94	REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TC-16			
ILLINOIS FED. AID PROJECT			CONTRACT NO.	

FILE NAME = 22R0648-DTLS-01 - TC16

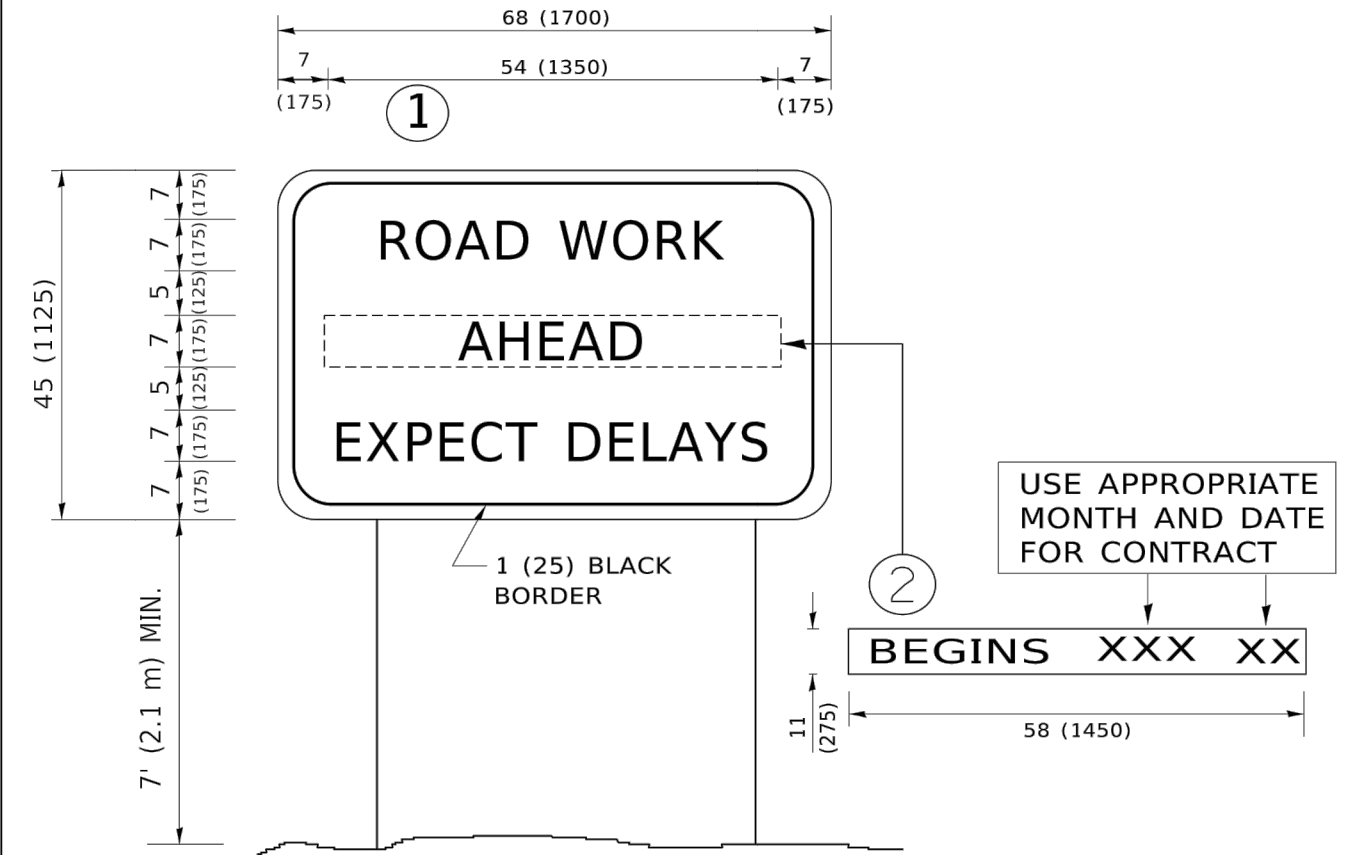
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PLOT SCALE =	DRAWN --	REVISED --
PLOT DATE =	CHECKED --	REVISED --

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1 DETAILS**

SCALE: SHEET NO. 41 OF 44 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	41
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)			CONTRACT NO. 61J70	



**NOTES:**

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

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

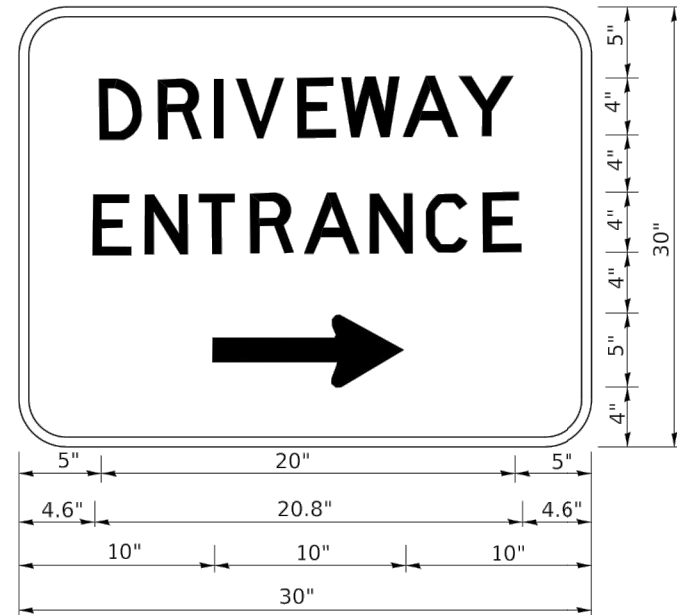
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USER NAME = foctermj	DESIGNED -	REVISED - R. MIRS 09-15-97
PLOT SCALE = 50.0000' / in.	DRAWN -	REVISED - R. MIRS 12-11-97
PLOT DATE = 3/4/2019	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	DATE -	REVISED - C. JUCIUS 01-31-07

<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>				<b>ARTERIAL ROAD INFORMATION SIGN</b>				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
SCALE: NONE				SHEET 1 OF 1 SHEETS				STA.	TO STA.		TC-22		CONTRACT NO.
ILLINOIS FED. AID PROJECT													

FILE NAME = 22R0648-DTL5-01 - TC22	USER NAME =	DESIGNED --	REVISED --
		CHECKED --	REVISED --
	PLOT SCALE =	DRAWN --	REVISED --
	PLOT DATE =	CHECKED --	REVISED --

<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>				<b>DISTRICT 1 DETAILS</b>				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.				
SCALE:				SHEET NO. 42 OF 44 SHEETS				STA.	TO STA.		1683		23-00178-00-RS	COOK	44	42
ILLINOIS FED. AID PROJECT 37LZ(304)																



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED  
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

**NOTES:**

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

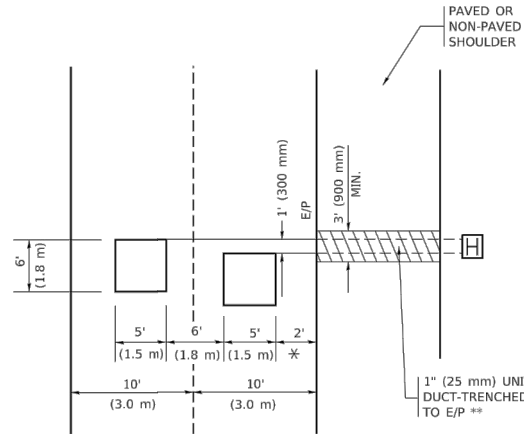
FILE NAME: p:\planningroom\dst\_illinois.gov\p\DOT\Documents\DOT\_Offices\District 1\Projects\District 1\CA\DD\Map\CA\Sheet26.dgn

USER NAME = feysa	DESIGNED -	REVISED - C. JUCIUS 02-15-07	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DRIVEWAY ENTRANCE SIGNING</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 50.0000' / in.	CHECKED -	REVISED -					<b>TC-26</b>		CONTRACT NO.		
PLOT DATE = 8/6/2021	DATE -	REVISED -		SCALE: NONE	SHEET 1 OF 1 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT				

FILE NAME = 22R0648-DTSL-01 - TC26	USER NAME =	DESIGNED --	REVISED --	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT 1 DETAILS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED --	REVISED --					1683	23-00178-00-RS	COOK	44	43
	PLOT SCALE =	DRAWN --	REVISED --		SCALE:	SHEET NO. 43 OF 44 SHEETS	STA. TO STA.	CONTRACT NO. 61J70				
	PLOT DATE =	CHECKED --	REVISED --		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)							

**LOOPS NEXT TO SHOULDERS**

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

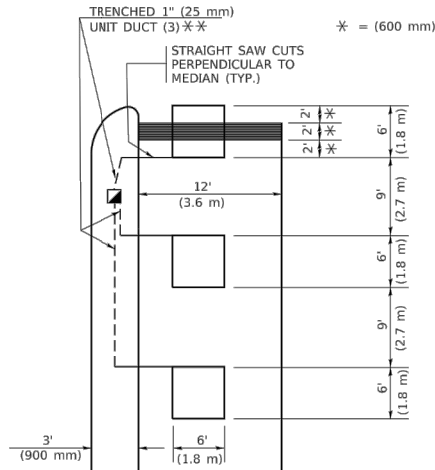


\* = (600 mm)

\*\* 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.

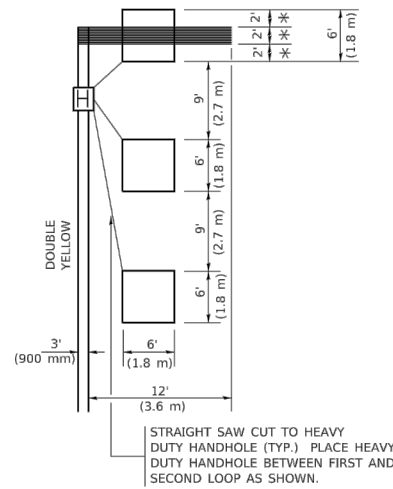


\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

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

**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.

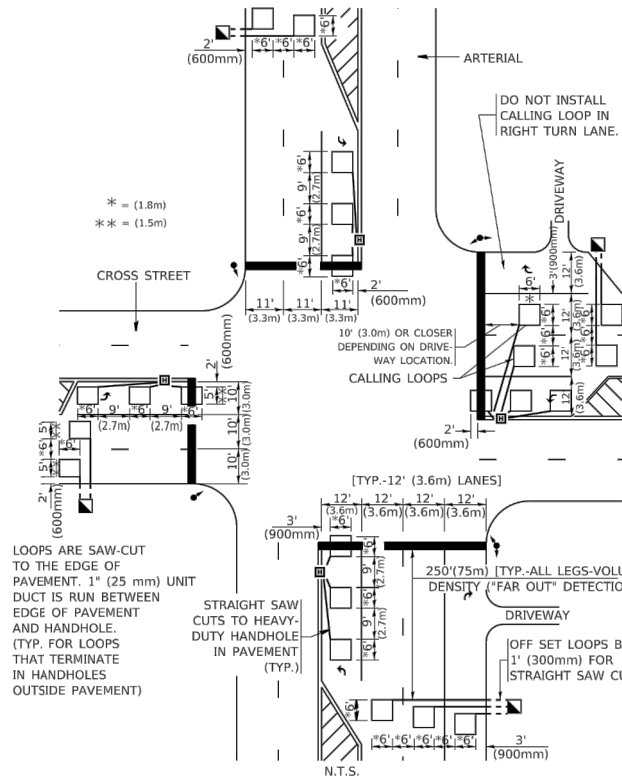
"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0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

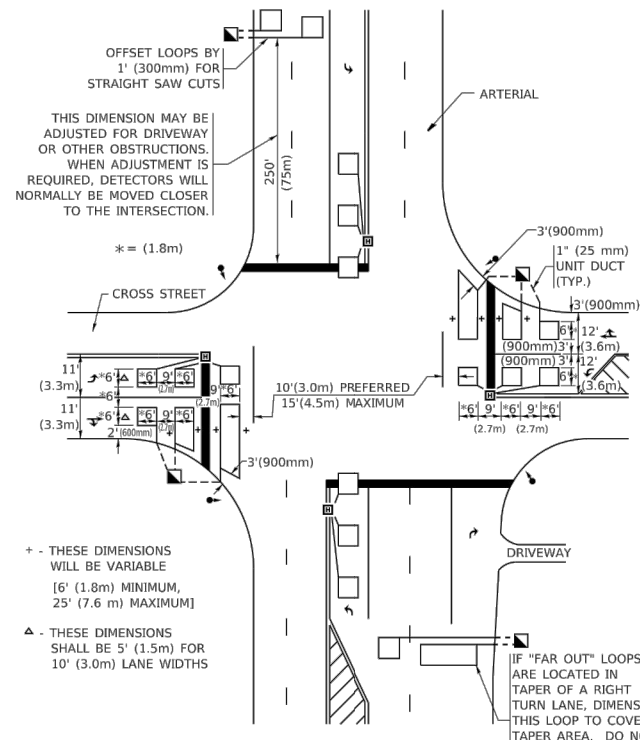
THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

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

USER NAME = foosternj	DESIGNED -	REVISED -
PLOT SCALE = 50.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 3/4/2019	CHECKED - R.K.F.	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1 - DETECTOR LOOP INSTALLATION**  
**DETAILS FOR ROADWAY RESURFACING**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TS-07			CONTRACT NO.	
ILLINOIS FED. AID PROJECT				

FILE NAME = 22R0648-DTLS-01 - TS07

USER NAME =	DESIGNED -	REVISED -
	CHECKED -	REVISED -
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1 DETAILS**

SCALE: SHEET NO. 44 OF 44 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1683	23-00178-00-RS	COOK	44	44
CONTRACT NO. 61J70				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 37LZ(304)				