07-31-2015 LETTING ITEM 008

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	1
	ILLINOIS	CONTRACT NO. 60Y78		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAP 374: IL RTE. 21 (MILWAUKEE AVENUE)
AT IL. RTE. 58 (GOLF ROAD) AND AT GREENWOOD AVENUE
SECTION : 2014–059–I
TRAFFIC SIGNAL MODERNIZATION, SIDEWALKS AND PEDESTRIAN RAMPS

PROJECT: ACHSIP-0347(031)

COOK COUNTY
C–91–022–15

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT IS LOCATED IN THE VILLAGE OF GLENVIEW AND NILES

TRAFFIC DATA:

IL. RTE. 21:
2013 ADT = 30,100
SPEED LIMIT = 35 MPH

IL. RTE. 58:
2013 ADT = 31,500
SPEED LIMIT = 35 MPH

GREENWOOD AVE.:
2010 ADT = 12,700
SPEED LIMIT = 35 MPH

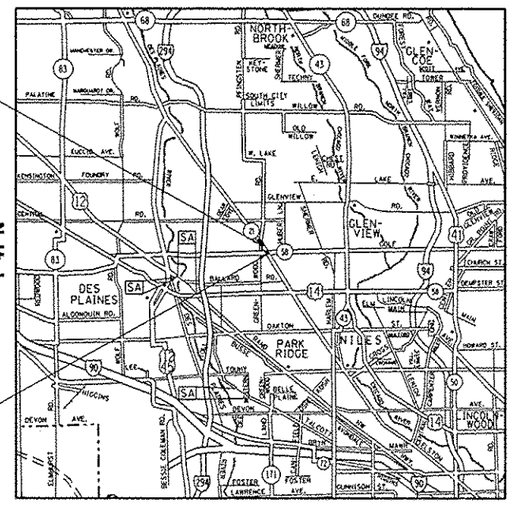
D-91-022-15

LOCATION OF SECTION INDICATED THUS: –■–

N

R 12 E

T 41 N



IL ROUTE 21 AT GREENWOOD AVE. INTERSECTION

IL ROUTE 21 AT IL ROUTE 58 INTERSECTION

ILLINOIS ROUTE 21: GROSS LENGTH = 1400 FEET (1/4 MILE)
NET LENGTH = 800 FEET

100' 200' 300' — 1" = 100'
10' 20' 30' — 1" = 10'
50' 100' — 1" = 50'
50' 100' — 1" = 40'
50' 100' — 1" = 30'
50' 100' — 1" = 20'

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED May 6 2015
John Fahrman
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
June 26 2015
John D. Baranzelli P.E. by
acting ENGINEER OF DESIGN AND ENVIRONMENT
June 26 2015
Omer Osman, P.E. by
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PROJECT ENGINEER: KEN ENG
PROJECT MANAGER: JENPAI CHANG (847) 705–4432

CONTRACT NO. 60Y78

INDEX OF SHEETS

STATE STANDARDS

STANDARD NO.	DESCRIPTION
000001-06	TYPICAL SYMBOLS, ABBREVIATIONS AND PATTERNS
442201-03	CLASS C AND D PATCHES
606001-06	CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER
701101-04	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 2' FROM PAVEMENT EDGE
701427-03	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS SPEED < 40 MPH
701601-09	URBAN LANE CLOSURE, MULTILANE, NONTRAVERSABLE MEDIAN
701701-09	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-05	SIDEWALK, CORNER, CROSSWALK CLOSURE
701901-04	TRAFFIC CONTROL DEVICES

DISTRICT DETAILS

BD-2

BD-5

BD-22

BD-24

TC-10

TC-11

TC-13

TC-14

TC-22

TC-26

TS-05

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR "CUAN" (CHICAGO UTILITY ALERT) NETWORK) AT 312-744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES, (48 HOURS NOTIFICATION IS REQUIRED).

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

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

THE RESIDENT ENGINEER SHOULD CONTACT JOE ECKERT, AREA TRAFFIC TECHNICIAN, USING EMAIL ONLY AT JOE.ECKERT@ILLINOIS.GOV 72 HOURS PRIOR TO PLACING ANY PAVEMENT MARKINGS.

THE CONTRACTOR SHALL CONTRACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO START OF WORK.

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

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

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 CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.

ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

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		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 21 AT ILLINOIS ROUTE 58 AND GREENWOOD AVE
INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	2
		CONTRACT NO. 60Y78		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE: 90% FED 10% ST 0021 HSIP	80% ST 20% NILES 0021 SIDEWALK	100% NILES 0021 EVP & TS			
35501316	HOT-MIX ASPHALT BASE COURSE, 8"	SQ YD	53		53				
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	75	69	6				
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	27		27				
42001300	PROTECTIVE COAT	SQ YD	698	612	86				
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	3934	3337	597				
42400410	PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH	SQ FT	176		176				
42400800	DETECTABLE WARNINGS	SQ FT	275	265	10				
44000100	PAVEMENT REMOVAL	SQ YD	138	138					
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	72		72				
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	676	676					
44000600	SIDEWALK REMOVAL	SQ FT	71	71					
44201670	CLASS D PATCHES, TYPE I, 2 INCH	SQ YD	16	14	2				
44201672	CLASS D PATCHES, TYPE II, 2 INCH	SQ YD	39	26	13				
44201674	CLASS D PATCHES, TYPE III, 2 INCH	SQ YD	112	112					

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE: 90% FED 10% ST 0021 HSIP	80% ST 20% NILES 0021 SIDEWALK	100% NILES 0021 EVP & TS			
44201798	CLASS D PATCHES, TYPE I, 13 INCH	SQ YD	3	3					
44201803	CLASS D PATCHES, TYPE II, 13 INCH	SQ YD	51	51					
44201809	CLASS D PATCHES, TYPE IV, 13 INCH	SQ YD	72	72					
60603500	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.06	FOOT	121	121					
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	580	580					
60618300	CONCRETE MEDIAN SURFACE, 4 INCH	SQ FT	555	555					
60620800	CONCRETE MEDIAN, TYPE SB-9.12	SQ FT	165	165					
60624600	CORRUGATED MEDIAN	SQ FT	289	289					
*66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	35	35					
*66900450	SPECIAL WASTE PLANS AND REPORTS	LSUM	1	1					
*66900530	SOIL DISPOSAL ANALYSIS	EACH	1	1					
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3					
67100100	MOBILIZATION	LSUM	1	1					
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	LSUM	1	1					

* SPECIALTY ITEMS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 21 AT ILLINOIS ROUTE 58 AND GREENWOOD AVE
SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	3
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES			URBAN	CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	90% FED 10% ST 0021 HSIP	80% ST 20% NILES 0021 SIDEWALK	100% NILES 0021 EVP & TS			
70102635	TRAFFIC CONTROL AND PROTECTION,	LSUM	1	1					
	STANDARD 701701								
70102640	TRAFFIC CONTROL AND PROTECTION,	LSUM	1	1					
	STANDARD 701801								
*72000100	SIGN PANEL - TYPE 1	SQ FT	63	63					
*72000200	SIGN PANEL - TYPE 2	SQ FT	114	114					
•78000100	THERMOPLASTIC PAVEMENT MARKING -	SQ FT	473	473					
	LETTERS AND SYMBOLS								
•78000200	THERMOPLASTIC PAVEMENT MARKING - LINE	FOOT	5950	5950					
	4"								
•78000600	THERMOPLASTIC PAVEMENT MARKING - LINE	FOOT	2082	2082					
	12"								
•78000650	THERMOPLASTIC PAVEMENT MARKING - LINE	FOOT	322	322					
	24"								
78300100	PAVEMENT MARKING REMOVAL	SQ FT	631	631					
80500020	SERVICE INSTALLATION - POLE MOUNTED	EACH	2	2					
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL,	FOOT	3390	3390					
	2" DIA.								
81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL,	FOOT	128	128					
	2 1/2" DIA.								

SUMMARY OF QUANTITIES			URBAN	CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	90% FED 10% ST 0021 HSIP	80% ST 20% NILES 0021 SIDEWALK	100% NILES 0021 EVP & TS			
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL,	FOOT	148	148					
	3" DIA.								
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL,	FOOT	1869	1869					
	4" DIA.								
81400100	HANDHOLE	EACH	15	15					
81400200	HEAVY-DUTY HANDHOLE	EACH	7	7					
81400300	DOUBLE HANDHOLE	EACH	6	6					
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL	EACH	3	3					
	INSTALLATION								
85100500	PAINT NEW TRAFFIC SIGNAL POST	EACH	9			9			
85100600	PAINT NEW MAST ARM AND POLE, UNDER 40	EACH	1			1			
	FOOT								
85100701	PAINT NEW MAST ARM AND POLE, 40 FOOT	EACH	7			7			
	AND OVER								
86400100	TRANSCEIVER - FIBER OPTIC	EACH	2	2					
87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO.	FOOT	3707	3707					
	14 1C								
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO.	FOOT	4875	4875					
	14 2C								
	• SPECIALTY ITEMS								

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 21 AT ILLINOIS ROUTE 58 AND GREENWOOD AVE
SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	4
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE: 90% FED 10% ST 0021 HSIP	80% ST 20% NILES 0021 SIDEWALK	100% NILES 0021 EVP & TS			
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO.	FOOT	7528	7528					
	14 3C								
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO.	FOOT	10446	10446					
	14 5C								
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO.	FOOT	2541	2541					
	14 7C								
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO.	FOOT	9330	9330					
	14 1 PAIR								
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO.	FOOT	90	90					
	6 2 C								
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT	FOOT	2016	2016					
	GROUNDING CONDUCTOR, NO. 6 1C								
87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL	EACH	5	5					
	10 FT.								
87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL	EACH	2	2					
	14 FT.								
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL	EACH	2	2					
	16 FT.								
87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36	EACH	1	1					
	FT.								

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SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE: 90% FED 10% ST 0021 HSIP	80% ST 20% NILES 0021 SIDEWALK	100% NILES 0021 EVP & TS			
87700240	STEEL MAST ARM ASSEMBLY AND POLE, 40	EACH	1	1					
	FT.								
87700250	STEEL MAST ARM ASSEMBLY AND POLE, 42	EACH	1	1					
	FT.								
87700270	STEEL MAST ARM ASSEMBLY AND POLE, 46	EACH	1	1					
	FT.								
87700280	STEEL MAST ARM ASSEMBLY AND POLE, 48	EACH	1	1					
	FT.								
87700340	STEEL MAST ARM ASSEMBLY AND POLE, 58	EACH	1	1					
	FT.								
87700400	STEEL MAST ARM ASSEMBLY AND POLE, 60	EACH	2	2					
	FT.								
87700408	STEEL MAST ARM ASSEMBLY AND POLE, 64	EACH	1	1					
	FT.								
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	36	36					
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	8	8					
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH	FOOT	63	63					
	DIAMETER								
87800420	CONCRETE FOUNDATION, TYPE E 42-INCH	FOOT	63	63					
	DIAMETER								

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 21 AT ILLINOIS ROUTE 58 AND GREENWOOD AVE
SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	5
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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SUMMARY OF QUANTITIES			URBAN	CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	90% FED 10% ST 0021 HSIP	80% ST 20% NILES 0021 SIDEWALK	100% NILES 0021 EVP & TS			
87900200	DRILL EXISTING HANDHOLE	EACH	2	2					
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION,	EACH	25	25					
	MAST-ARM MOUNTED								
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION,	EACH	12	12					
	BRACKET MOUNTED								
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION,	EACH	4	4					
	BRACKET MOUNTED								
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION,	EACH	4	4					
	MAST-ARM MOUNTED								
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE,	EACH	22	22					
	BRACKET MOUNTED WITH COUNTDOWN TIMER								
88200410	TRAFFIC SIGNAL BACKPLATE, LOUVERED,	EACH	29	29					
	FORMED PLASTIC								
88500100	INDUCTIVE LOOP DETECTOR	EACH	23	23					
88600100	DETECTOR LOOP, TYPE I	FOOT	1445	1445					
88700200	LIGHT DETECTOR	EACH	6			6			
88700300	LIGHT DETECTOR AMPLIFIER	EACH	2			2			
88800100	PEDESTRIAN PUSH-BUTTON	EACH	19	19					
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	2	2					

SUMMARY OF QUANTITIES			URBAN	CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	90% FED 10% ST 0021 HSIP	80% ST 20% NILES 0021 SIDEWALK	100% NILES 0021 EVP & TS			
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2503	2503					
89502375	REMOVE EXISTING TRAFFIC SIGNAL	EACH	2	2					
	EQUIPMENT								
89502380	REMOVE EXISTING HANDHOLE	EACH	26	26					
89502382	REMOVE EXISTING DOUBLE HANDHOLE	EACH	2	2					
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	19	19					
X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE	FOOT	1666			1666			
	SENSOR CABLE, NO. 20 3/C								
X4402020	CONCRETE MEDIAN SURFACE REMOVAL	SQ FT	1401	1401					
X4403300	CONCRETE MEDIAN REMOVAL	SQ FT	729	729					
X8600105	MASTER CONTROLLER (SPECIAL)	EACH	3	3					
X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	2	2					
X8710024	FIBER OPTIC CABLE IN CONDUIT, NO.	FOOT	3811	3811					
	62.5/125, MM12F SM24F								
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	168	168					
Z0033044	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL	EACH	2	2					
	1								
Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	2	2					
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1					
X1460108	FULL-ACTUATED CONTROLLER AND TYPE SUPER	EACH	2	2					
	R CABINET (SPECIAL)								

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 21 AT ILLINOIS ROUTE 58 AND GREENWOOD AVE
SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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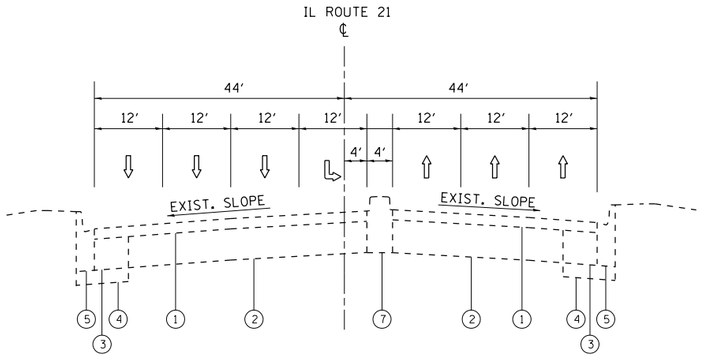
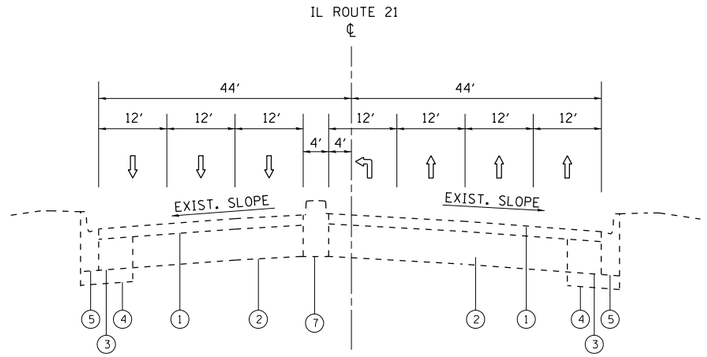
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



IL 21 AT GREENWOOD AVE (NW & SW INT.)
EXISTING TYPICAL SECTION



IL 21 AT GREENWOOD AVE (NE & SE INT.)
EXISTING TYPICAL SECTION

LEGEND

(1) EXISTING HMA SURFACING, ±4.5″

(2) EXISTING PCC PAVEMENT

(3) EXISTING PCC BASE COURSE

(4) EXISTING STABILIZED SUB-BASE

(5) EXISTING CC&G TYPE B-6.24

(6) EXISTING PCC SIDEWALK

(7) EXISTING CONCRETE BARRIER MEDIAN

(8) PROPOSED PCC SIDEWALK, 5″
(TIED-IN TO EXIST. PCC SIDEWALK)

(9) PROPOSED CONCRETE MEDIAN
(MONOLITHIC POURED MEDIAN)

(10) PROPOSED MEDIAN REMOVAL

*(11) PROPOSED CONC. COMB. C&G REM
PROPOSED CONC. COMB. C&G B.6-24
(LOCATIONS TO BE DETERMINED BY THE ENGINEER)

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		QUALITY MANAGEMENT PROGRAM (QMP)
MIXTURE TYPE	AIR VOIDS (%) @ NDES	
IL 59: HMA DRIVEWAY (C.E.)		
HMA SURFACE COURSE MIX "D", N50, (IL 9.5mm), 2″	4% @ 50 GYR.	QC/QA
HMA BASE COURSE (HMA BINDER IL-19mm), 8″	4% @ 50 GYR.	QC/QA
PATCHING		
CLASS D PATCHES 13″ (HMA BINDER IL-19 MM)	4% @ 70 GYR.	QC/QA
CLASS D PATCHES 2″ (IL-19 MM)	4% @ 50 GYR.	QC/QA
QMP DESIGNATION QUALITY CONTROL/QUALITY ASSURANCE (QC/QA) QUALITY CONTROL FOR PERFORMANCE (QCP)		

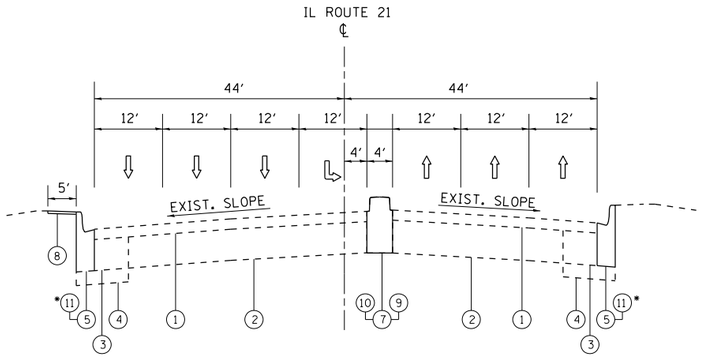
NOTE:

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 POUND PER SQUARE YARD-INCH

THE "AC TYPE" FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.

FOR USE OF RECYCLED MATERIALS SEE DISTRICT ONE SPECIAL PROVISIONS.

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



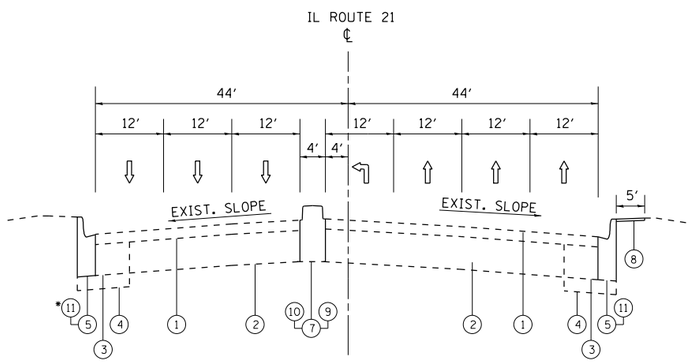
IL 21 AT GREENWOOD AVE (NW & SW INT.)
PROPOSED TYPICAL SECTION

NOTE:

SW CORNER:
PROPOSED PCC SIDEWALK, 5″ TO TIE-IN WITH THE EXISTING PCC SIDEWALK ON GREGORY LANE.

NOTE:

NW CORNER:
PROPOSED HANDICAPPED RAMP WITH 5′ LANDING WILL BE CONSTRUCTED.



IL 21 AT GREENWOOD AVE (NE & SE INT.)
PROPOSED TYPICAL SECTION

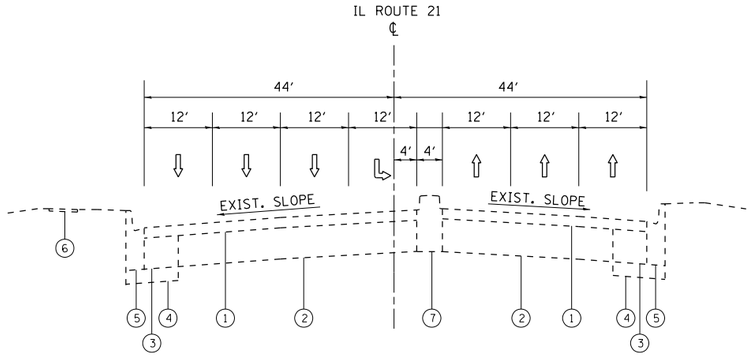
NOTE:

SE CORNER:
PROPOSED HANDICAPPED RAMP TO TIE-IN TO THE EXIT. PCC SIDEWALK.

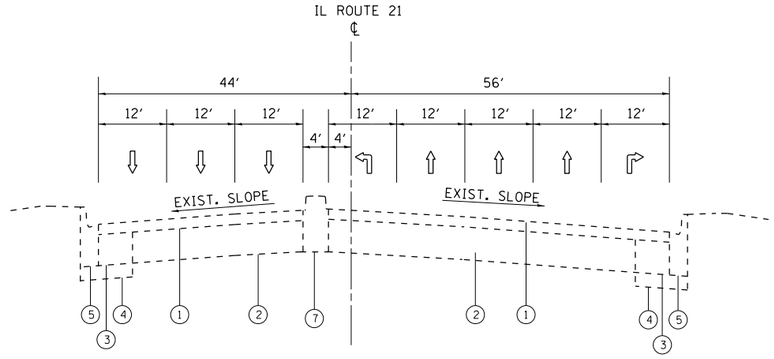
NOTE:

NE CORNER:
PROPOSED PCC SIDEWALK, 5″ TO TIE-IN TO THE EXISTING BUS PAD.

FILE NAME =	USER NAME = ledezmarm	DESIGNED -	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**TYPICAL SECTIONS ILLINOIS ROUTE 21 AT ILLINOIS ROUTE 58 AND GREENWOOD AVE**				F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pw_work\pwidot\ledezmarm\d0333875\P114713-sht-typical.dgn		DRAWN -	REVISED -						347	2014-059-I	COOK	53	7
	PLOT SCALE = 100.0000 ′ / in.	CHECKED -	REVISED -								CONTRACT NO. 60Y78		
Default	PLOT DATE = 5/19/2015	DATE -	REVISED -		SCALE: 1″ = 50′	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS	FED. AID PROJECT	



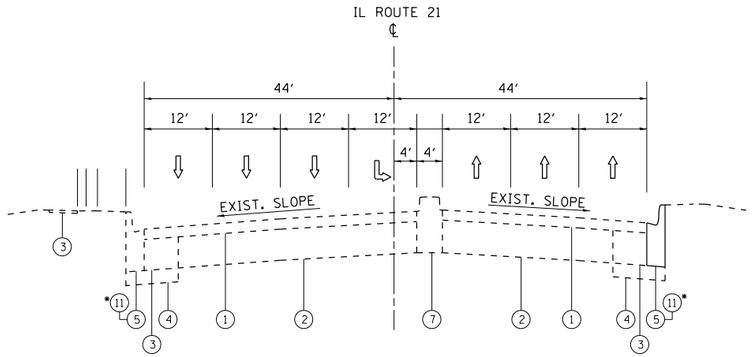
IL 21 AT IL 58 (NW & SW INT.)
EXISTING TYPICAL SECTION



IL 21 AT IL 58 (NE & SE INT.)
EXISTING TYPICAL SECTION

LEGEND

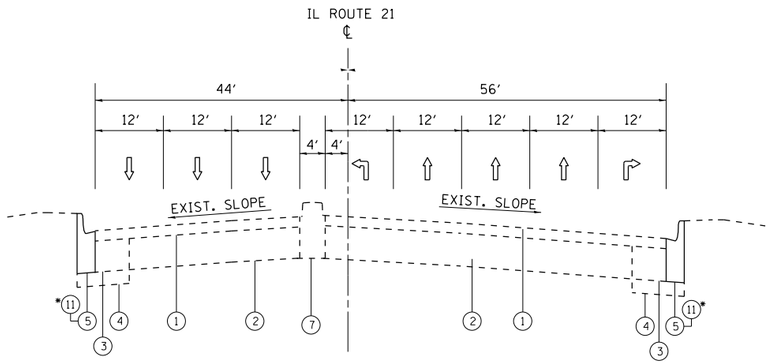
1. EXISTING HMA OVERLAY, ±2.5″
2. EXISTING PCC PAVEMENT, ±10″
3. EXISTING PCC BASE COURSE
4. EXISTING STABILIZED SUB-BASE
5. EXISTING CC&G TYPE B-6.24
6. EXISTING PCC SIDEWALK
7. EXISTING CONCRETE BARRIER MEDIAN
8. PROPOSED PCC SIDEWALK, 5″ (TIED-IN TO EXIST. PCC SIDEWALK)
9. PROPOSED CONCRETE MEDIAN (MONOLITHIC POURED MEDIAN)
10. PROPOSED MEDIAN REMOVAL
- *11. PROPOSED CONC. COMB. C&G REM
PROPOSED CONC. COMB. C&G B.6-24
(LOCATIONS TO BE DETERMINED BY THE ENGINEER)



IL 21 AT IL 58 (NW & SW INT.)
PROPOSED TYPICAL SECTION

NOTE:

NW CORNER:
PROPOSED HANDICAPPED RAMP
WILL BE CONSTRUCTED.



IL 21 AT IL 58 (NE & SE INT.)
PROPOSED TYPICAL SECTION

NOTE:

SE CORNER:
PROPOSED HANDICAPPED RAMP
WILL BE CONSTRUCTED.

NOTE:

NE CORNER:
PROPOSED HANDICAPPED RAMP
WILL BE CONSTRUCTED.

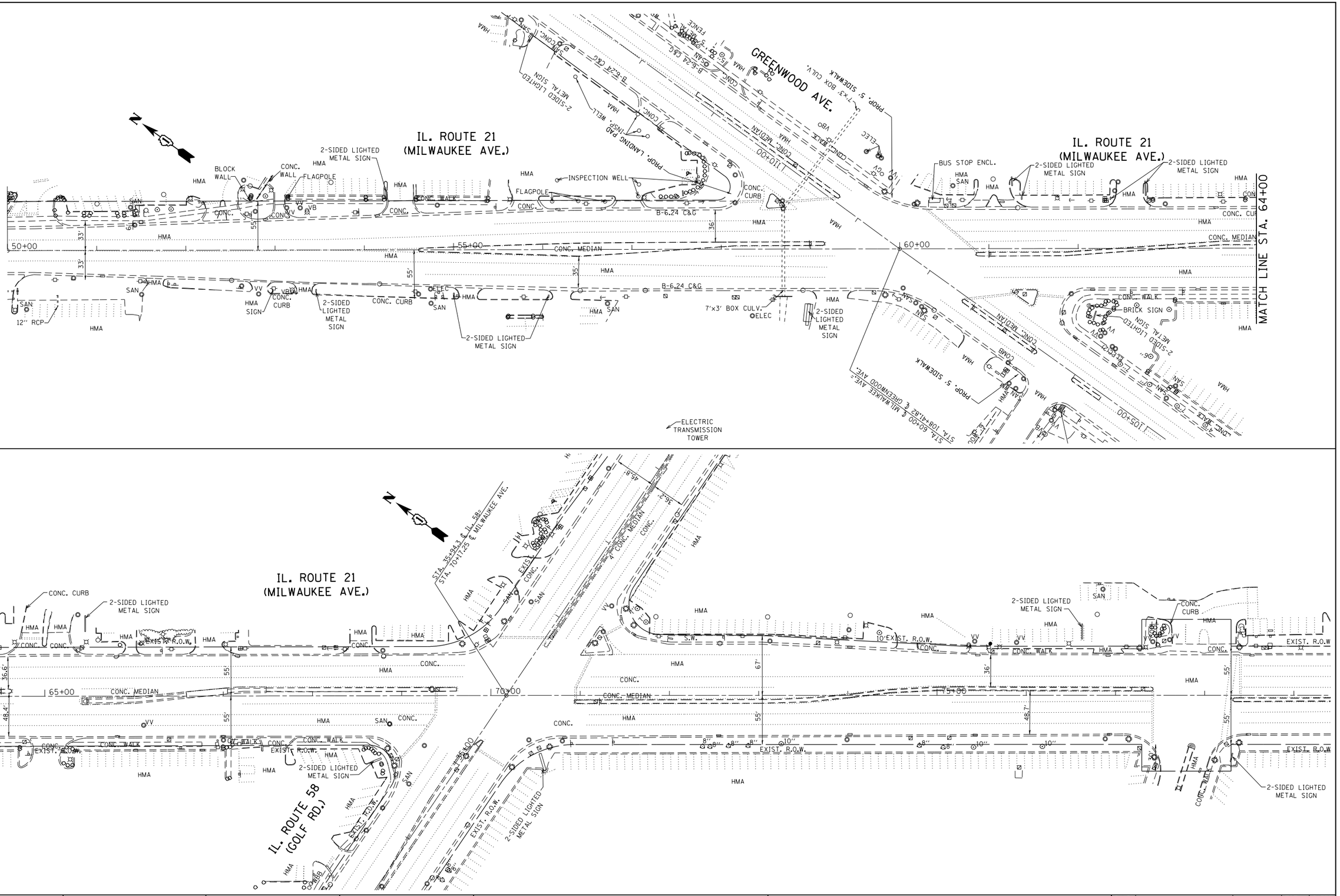
FILE NAME =	USER NAME = ledezmarm	DESIGNED -	REVISED -
c:\pw_work\pwidot\ledezmarm\d0333875\P14713-sht-typical.dgn		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ′ / in.	CHECKED -	REVISED -
Default	PLOT DATE = 5/19/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
ILLINOIS ROUTE 21 AT ILLINOIS ROUTE 58 AND GREENWOOD AVE

SCALE: 1″ = 50′ | SHEET OF SHEETS | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	8
		CONTRACT NO. 60Y78		
	ILLINOIS FED. AID PROJECT			



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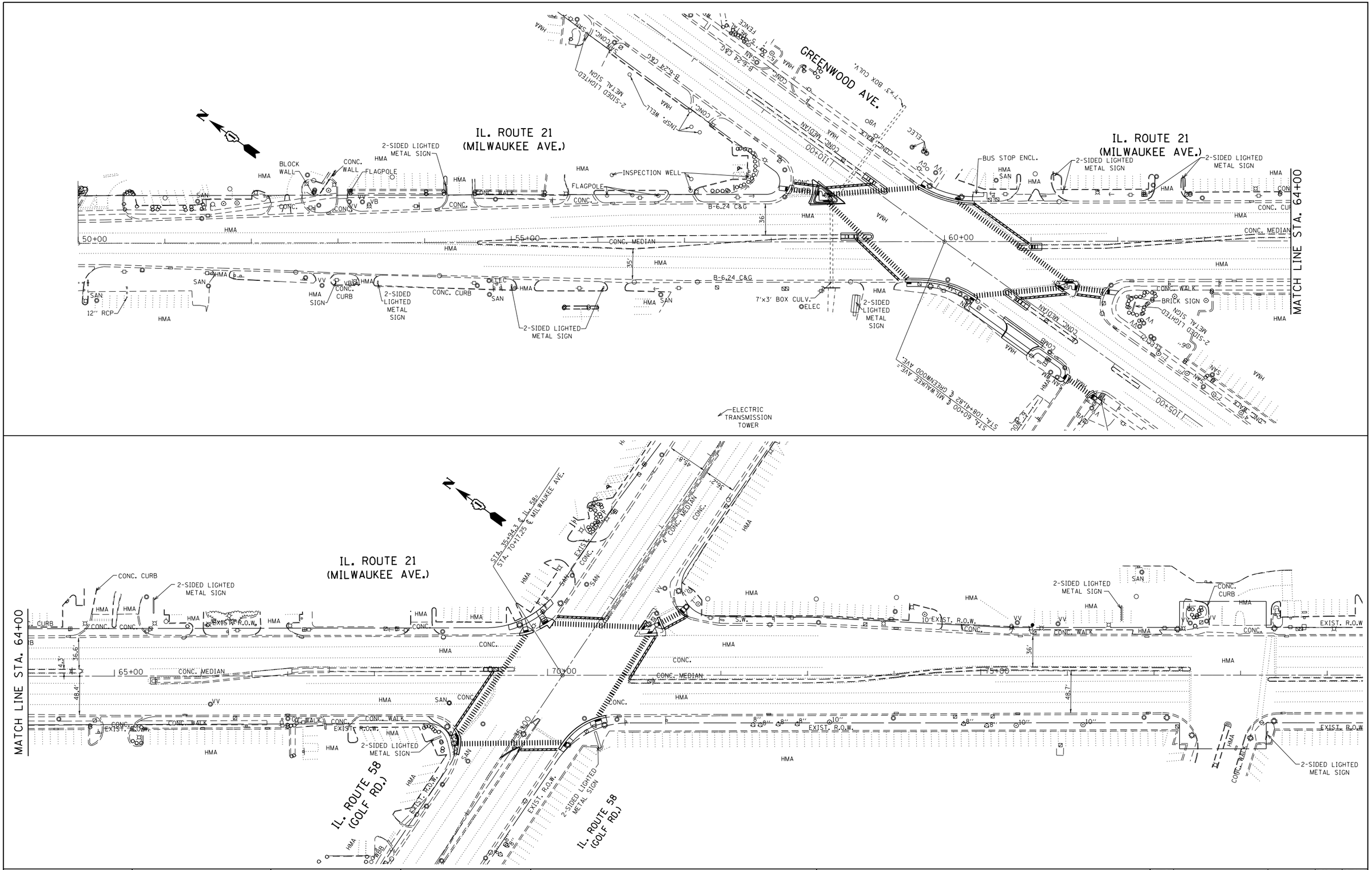
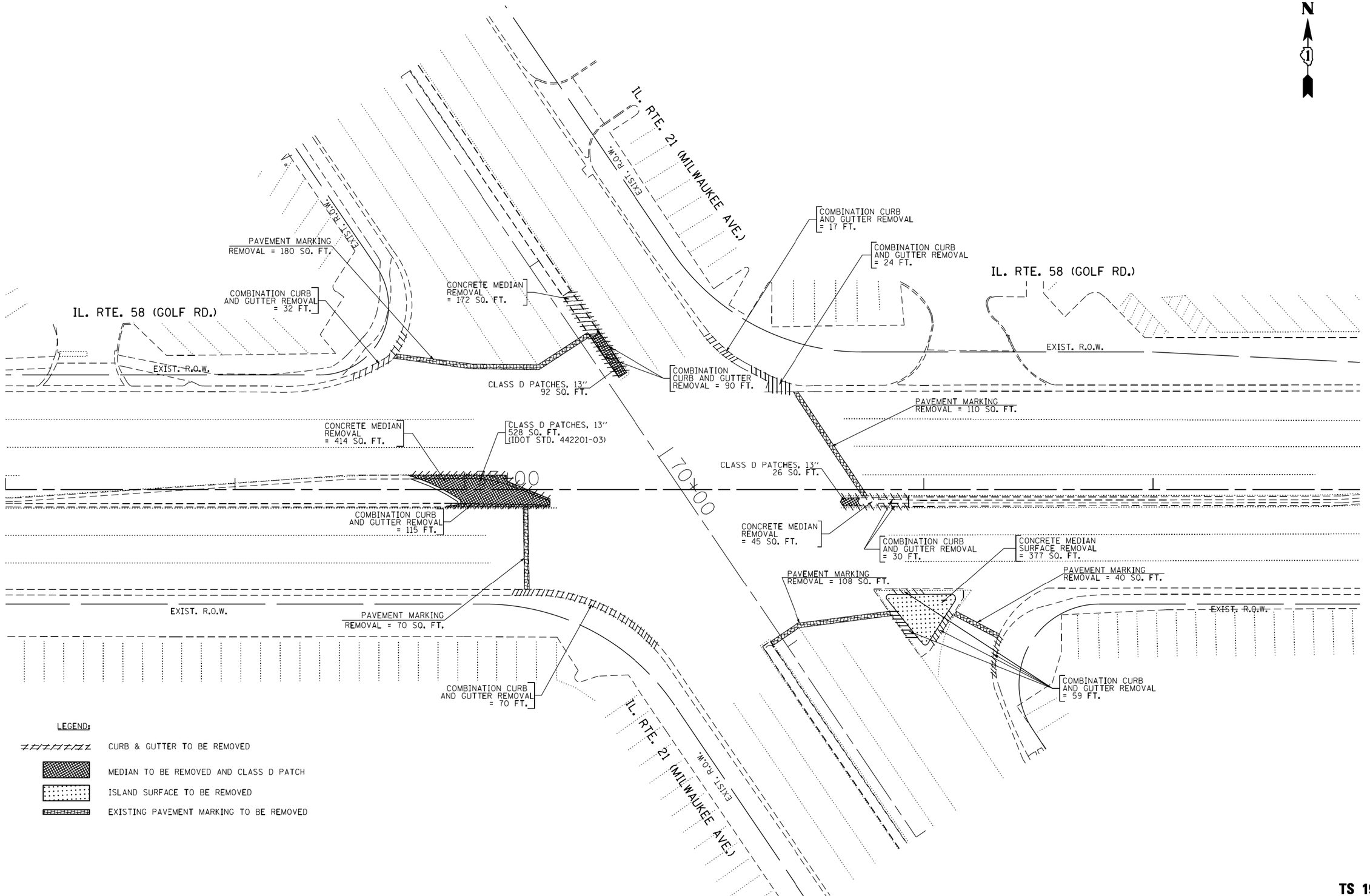
	PLOT SCALE = 100.0000 ' / in.	DRAWN -	REVISED -		**ILLINOIS ROUTE 21 AT ILLINOIS ROUTE 58 AND GREENWOOD AVE.**	347	2014-059-I	COOK	53	9
Default	PLOT DATE = 5/19/2015	CHECKED -	REVISED -					CONTRACT NO. 60Y78		
		DATE -	REVISED -		SCALE: 1"=50' SHEET OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		



FILE NAME = c:\pw_work\pwidot\ledezmarm\d0333875\P14713-sht-cover.dgn	USER NAME = ledezmarm	DESIGNED -	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**EXISTING AND PROPOSED ROADWAY PLAN**
	PLOT SCALE = 100.0000 ' / in.	DRAWN -	REVISED -		**ILLINOIS ROUTE 21 AT ILLINOIS ROUTE 58 AND GREENWOOD AVE.**
Default	PLOT DATE = 5/19/2015	CHECKED -	REVISED -		SCALE: 1"=50' SHEET OF SHEETS STA. TO STA.
		DATE -	REVISED -		

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	10
		CONTRACT NO. 60Y78		
		ILLINOIS FED. AID PROJECT		



TS 1995

FILE NAME = k:\projects\projects 2014\60y78 il 21 at il 58 at greenwood ave\signals\15.IL RTE 21 AT GOLF RD_TEMP_INT_REMOVAL.dgn

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL.: 773 774-5900

USER NAME = $USER$	DESIGNED - PKG	REVISED -	
	DRAWN - EA	REVISED -	
PLOT SCALE = 40.0000 ' / IN.	CHECKED - PKG	REVISED -	
PLOT DATE = 5/8/2015	DATE - 5/8/2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIDEWALK AND PAVEMENT MARKING REMOVAL PLAN
ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT ILLINOIS ROUTE 58 (GOLF RD)

SCALE: 1"=20' | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	11
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		

N

55'

55'

EXIST. R.O.W.

IL. RTE. 21 (MILWAUKEE AVE.)

THERMOPLASTIC PAVEMENT MARKING
TYPE I - LINE 12" = 276 FT.

THERMOPLASTIC PAVEMENT MARKING
TYPE - I LINE 24" = 78 FT.

PORTLAND CEMENT CONCRETE
SIDEWALK 5" = 337 SQ. FT.

DETECTABLE WARNING
= 28 SQ. FT.

COMBINATION CONCRETE CURB
AND GUTTER, TYPE B-6.24 = 32 FT.

IL. RTE. 58 (GOLF RD.)

EXIST. R.O.W.

TRANSITION TO
MATCH EXISTING
MEDIAN

5'x4' SB-9.12
MEDIAN

4'

10'x4' CORRUGATED
MEDIAN

COMBINATION CONCRETE CURB
AND GUTTER, TYPE B-6.24 = 17 FT.

DETECTABLE WARNING
= 11 SQ. FT.

PORTLAND CEMENT CONCRETE
SIDEWALK 5" = 535 SQ. FT.

DETECTABLE WARNING
= 14 SQ. FT.

COMBINATION CONCRETE CURB
AND GUTTER, TYPE B-6.24 = 24 FT.

IL. RTE. 58 (GOLF RD.)

EXIST. R.O.W.

THERMOPLASTIC PAVEMENT MARKING
TYPE I - LINE 12" = 234 FT.

THERMOPLASTIC PAVEMENT MARKING
TYPE - I LINE 24" = 54 FT.

50'

56'

50'

COMBINATION CONCRETE CURB
AND GUTTER, TYPE B-6.06 = 43 FT.

35+00

70+00

TRANSITION TO MATCH
EXISTING MEDIAN

5'x4' SB-9.12
MEDIAN

10'x4' CORRUGATED
MEDIAN

THERMOPLASTIC PAVEMENT MARKING
TYPE - I LINE 24" = 43 FT.

DETECTABLE WARNING
= 28 SQ. FT.

THERMOPLASTIC PAVEMENT MARKING
TYPE - 1 LINE 12" = 204 FT.

COMBINATION CONCRETE CURB
AND GUTTER, TYPE B-6.24 = 14 FT.

EXIST. R.O.W.

EXIST. R.O.W.

COMBINATION CONCRETE CURB
AND GUTTER, TYPE B-6.24 = 69 FT.

COMBINATION CONCRETE CURB
AND GUTTER, TYPE B-6.24 = 14 FT.

DETECTABLE WARNING
= 11 SQ. FT.

PORTLAND CEMENT CONCRETE
SIDEWALK 5" = 378 SQ. FT.

PORTLAND CEMENT CONCRETE
SIDEWALK 5" = 377 SQ. FT.

DETECTABLE WARNING
= 15 SQ. FT.

COMBINATION CONCRETE CURB
AND GUTTER, TYPE B-6.24 = 17 FT.

THERMOPLASTIC PAVEMENT MARKING
TYPE I - LINE 12" = 222 FT.

PORTLAND CEMENT CONCRETE
SIDEWALK 5" = 84 SQ. FT.

THERMOPLASTIC PAVEMENT MARKING
TYPE - I LINE 24" = 58 FT.

IL. RTE. 21 (MILWAUKEE AVE.)

EXIST. R.O.W.

68'

55'

DETECTABLE WARNING
= 12 SQ. FT.

THERMOPLASTIC PAVEMENT MARKING
TYPE - I LINE 24" = 28 FT.

THERMOPLASTIC PAVEMENT MARKING
TYPE I - LINE 12" = 48 FT.

COMBINATION CONCRETE CURB
AND GUTTER, TYPE B-6.24 = 14 FT.

PAVEMENT MARKING NOTE:

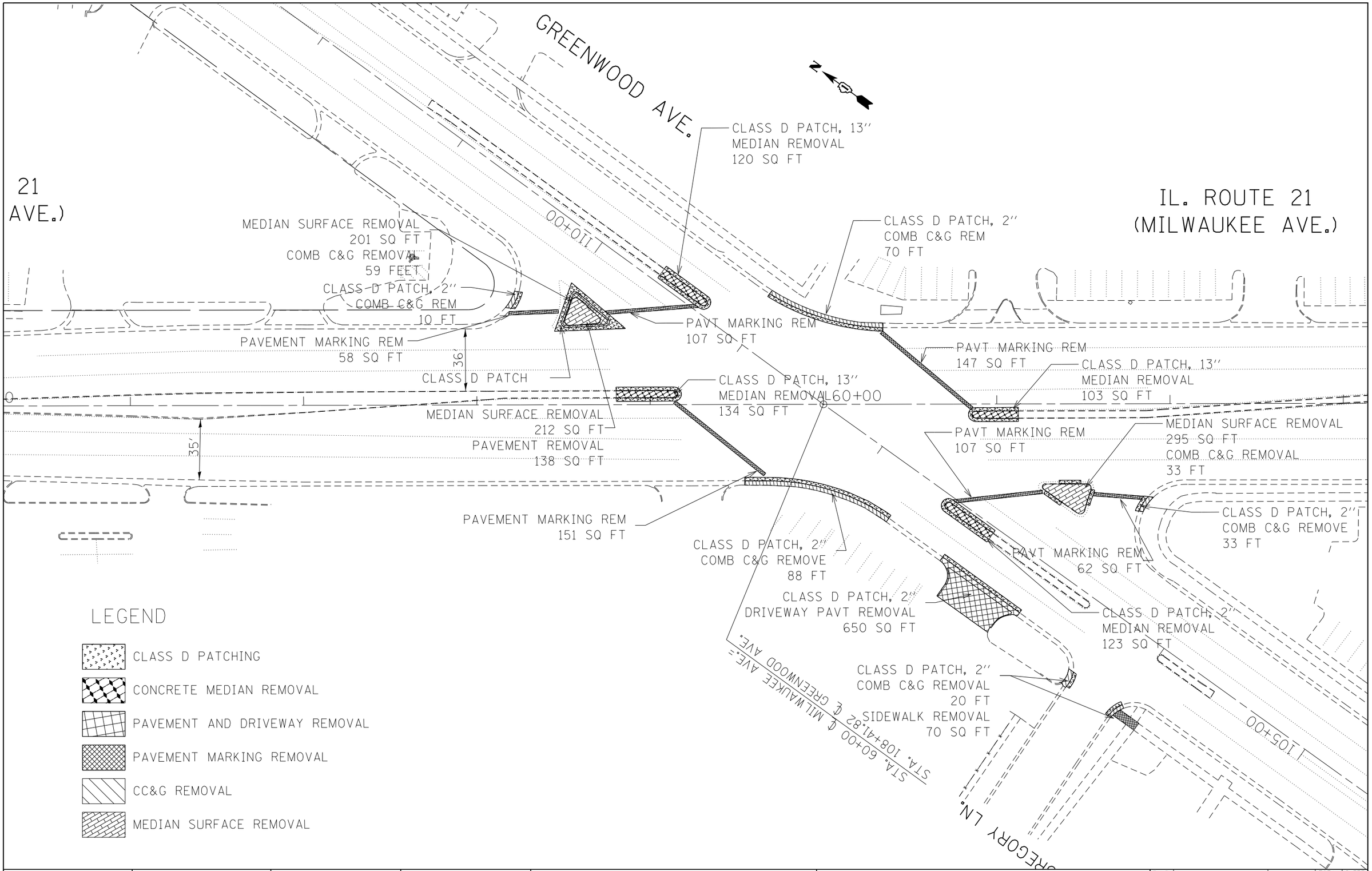
RETOUCH ALL PAVEMENT MARKINGS AND SYMBOLS 350' BEHIND STOP BARS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 1995

FILE NAME = S:\PW\PLANPREP\SQUAD.1\Des_RL\IL 21 @ IL 58 and Greenwood\Final\IL 21 (60Y78) DGN Files\Sheet Files\32_IL RTE 21 AT GOLF RD_PROP GEOM.dgn

GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 6035 N. NORTHWEST HIGHWAY SUITE 306 CHICAGO, ILLINOIS 60631 TEL: 773/774-5900	USER NAME = ledezmarm	DESIGNED - PKG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SIDEWALK AND PAVEMENT MARKING PLAN ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT ILLINOIS ROUTE 58 (GOLF RD)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - EA	REVISED -			374	2014-059-I	COOK	53	12
	PLOT SCALE = 40.0000 ' / in.	CHECKED - PKG	REVISED -					CONTRACT NO. 60Y78		
	PLOT DATE = 5/18/2015	DATE - 4/29/2015	REVISED -		SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		



FILE NAME = c:\pw_work\pwidot\ledezmarm\d0333875\P14713-sht-cover.dgn	USER NAME = ledezmarm	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 5/19/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIDEWALK AND PAVEMENT REMOVAL PLAN
ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT GREENWOOD AVE

SCALE: 1" = 25' | SHEET OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	13
		CONTRACT NO. 60Y78		
	ILLINOIS FED. AID PROJECT			

21
AVE.)

GREENWOOD AVE.

IL. ROUTE 21
(MILWAUKEE AVE.)

PROP. LANDING PAD

PROP. 5' SIDEWALK

SOLID BARRIER MEDIAN SB-9.12
CORRUGATED MEDIAN
(TYP)

STA 58+54.41
63.56 LT

STA 58+58.39
64.64 LT

STA 58+48.94
48.02 LT

STA 58+75.68
49.92 LT

STA 58+51.39
44.70 LT

STA 58+74.15
45.52 LT

MEDIAN SURF 4"
SIDEWALK 5"
DETECTABLE WARNINGS
COMB C&G B-6.06

110+00

60+00

105+00

SOLID BARRIER MEDIAN SB-9.12
CORRUGATED MEDIAN
(TYP)

MEDIAN SURF 4"
SIDEWALK 5"
DETECTABLE WARNINGS
COMB C&G B-6.06

HMA SURF CSE MIX 'D', N50, 2"
HMA BASE CSE 8"
CCG&G B-6.06

SIDEWALK, 8" ACROSS DRIVEWAY (TYP)

STA. 60+00 ℄ MILWAUKEE AVE.
STA. 108+41.82 ℄ GREENWOOD AVE.

GREGORY LN

FILE NAME = c:\pw_work\pwidot\ledezmarm\d0333875\PI4713-sht-cover.dgn	USER NAME = ledezmarm	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 5/19/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY AND SIDEWALK PLAN
ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT GREENWOOD AVE

SCALE: 1" = 25' | SHEET OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	14
		CONTRACT NO. 60Y78		
	ILLINOIS FED. AID PROJECT			

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET	R		
RAILROAD CONTROL CABINET		RR	RR
COMMUNICATIONS CABINET	R CC	ECC	CC
MASTER CONTROLLER		EMC	MC
MASTER MASTER CONTROLLER		EMMC	MMC
UNINTERRUPTABLE POWER SUPPLY	R UPS	EUPS	UPS
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	R	P	P
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT	R T	P T	P T
STEEL MAST ARM ASSEMBLY AND POLE	R		
ALUMINUM MAST ARM ASSEMBLY AND POLE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA	R PTZ	PTZ	PTZ
SIGNAL POST	R		
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM	R		
GUY WIRE	R		
SIGNAL HEAD	R		
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)			2
SIGNAL HEAD WITH BACKPLATE	R		
SIGNAL HEAD OPTICALLY PROGRAMMED	R "P"	"P"	"P"
FLASHER INSTALLATION (S DENOTES SOLAR POWER)	R "F"	"F"	"F"
PEDESTRIAN SIGNAL HEAD	R		
PEDESTRIAN PUSHBUTTON DETECTOR	R		
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR	R APS	APS	APS
ILLUMINATED SIGN "NO LEFT TURN"	R		
ILLUMINATED SIGN "NO RIGHT TURN"	R		
DETECTOR LOOP, TYPE I			
PREFORMED DETECTOR LOOP		P	P
MICROWAVE VEHICLE SENSOR	R M	M	M
VIDEO DETECTION CAMERA	R V	V	V
VIDEO DETECTION ZONE			
PAN, TILT, ZOOM CAMERA	R PTZ	PTZ	PTZ
WIRELESS DETECTOR SENSOR	R W	W	W
WIRELESS ACCESS POINT	R		

ITEM	REMOVAL	EXISTING	PROPOSED
EMERGENCY VEHICLE LIGHT DETECTOR	R		
CONFIRMATION BEACON	R		
HANDHOLE	R		
HEAVY DUTY HANDHOLE	R H	H	H
DOUBLE HANDHOLE	R		
JUNCTION BOX	R		
UNDERGROUND CONDUIT, GALVANIZED STEEL (UC)			
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE	R		
COMMON TRENCH			CT
COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC
SYSTEM ITEM		S	S
INTERSECTION ITEM		I	IP
REMOVE ITEM	R		
RELOCATE ITEM	RL		
ABANDON ITEM	A		
12" (300mm) TRAFFIC SIGNAL SECTION		R	R
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		R Y G	
SIGNAL FACE		R Y G ◄Y ◄G	R Y G ◄Y ◄G
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. "RB" INDICATES REFLECTIVE BACKPLATE		R Y G ◄Y ◄G "P"	R Y G ◄Y ◄G "P"
12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL		DW W	
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED			
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID			
PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER		C D	C D
RADIO INTERCONNECT	R		
RADIO REPEATER	R ERR	ERR	RR
DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED		5	5
GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)		1	1

ITEM	REMOVAL	EXISTING	PROPOSED
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE		I	I
COAXIAL CABLE		C	C
VENDOR CABLE FOR CAMERA		V	V
COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED		6	6
FIBER OPTIC CABLE NO. 62.5/125, MM12F		12F	
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F		24F	24F
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM24F		36F	36F
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE		C	C
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED	RCF		
STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED	RMF		
SIGNAL POST AND FOUNDATION TO BE REMOVED	RPF		
INTERSECTION & SAMPLING (SYSTEM) DETECTOR		IS	IS
SAMPLING (SYSTEM) DETECTOR		S	S
QUEUE DETECTOR		Q	Q
PREFORMED QUEUE DETECTOR		PQ	PQ
PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PIS	PIS
PREFORMED SAMPLING (SYSTEM) DETECTOR		PS	PS

RAILROAD SYMBOLS

	EXISTING	PROPOSED
RAILROAD CONTROL CABINET		
RAILROAD CANTILEVER MAST ARM		
FLASHING SIGNAL		
CROSSING GATE		
CROSSBUCK		

FILE NAME = c:\pw_work\pwidot\ledezmarm\d0333875\DistStd.dgn	USER NAME = ledezmarm	DESIGNED - DAG/BCK	REVISED - DAG 1-1-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS		
	PLOT SCALE = 100.0000 ' / in.	DRAWN - BCK	REVISED -		SCALE: NONE	SHEET NO. 1 OF 7 SHEETS	STA. TO STA.
	PLOT DATE = 5/19/2015	CHECKED - DAD	REVISED -				
		DATE - 10-28-09	REVISED -				

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	15
	TS-05	CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.

2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.

3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.

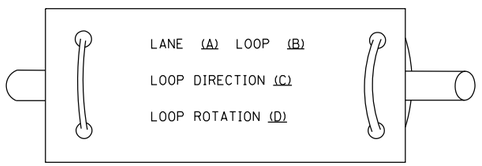
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.

6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.

7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

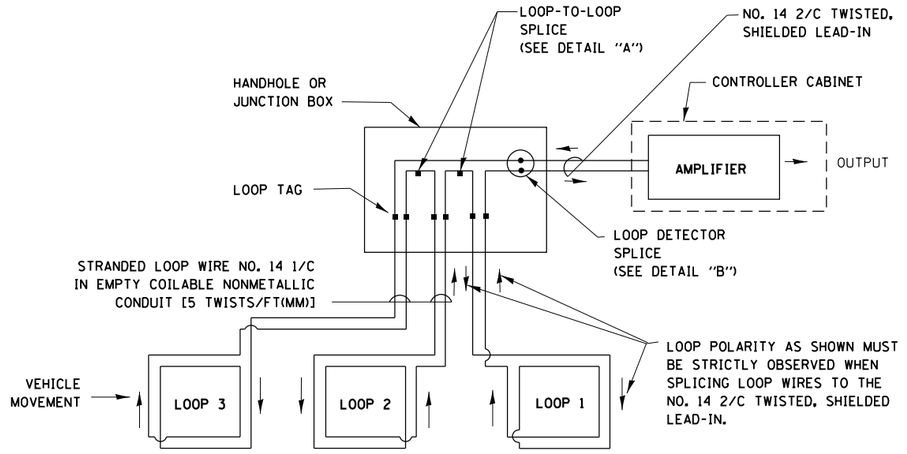


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.

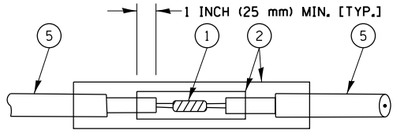
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

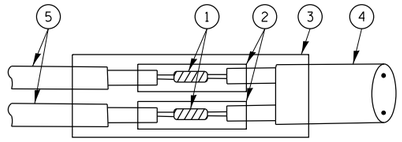


DETECTOR LOOP WIRING SCHEMATIC

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

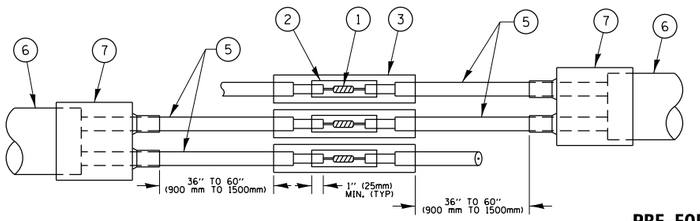


DETAIL "A"
LOOP-TO-LOOP SPLICE



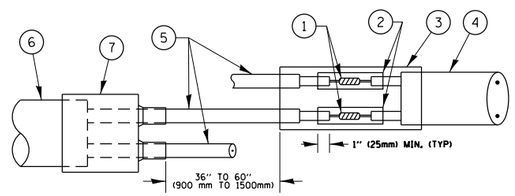
DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE

PRE-FORMED LOOP



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

(1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.

(2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.

(3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.

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

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

(6) PRE-FORMED LOOP

(7) XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

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	PLOT DATE = 5/19/2015	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

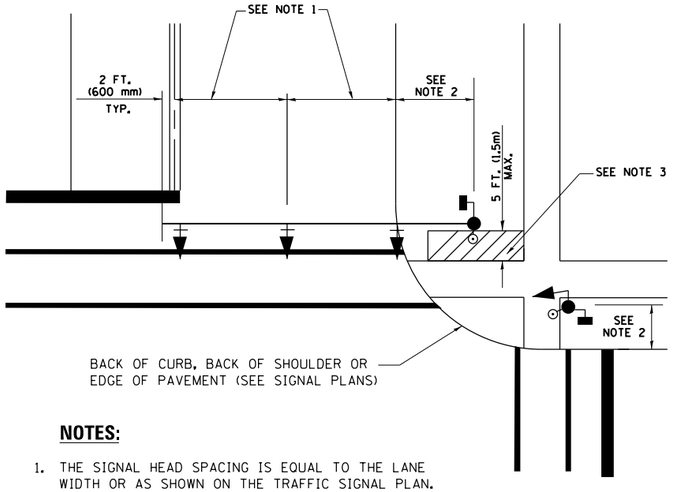
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 2 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	16
	TS-05	CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

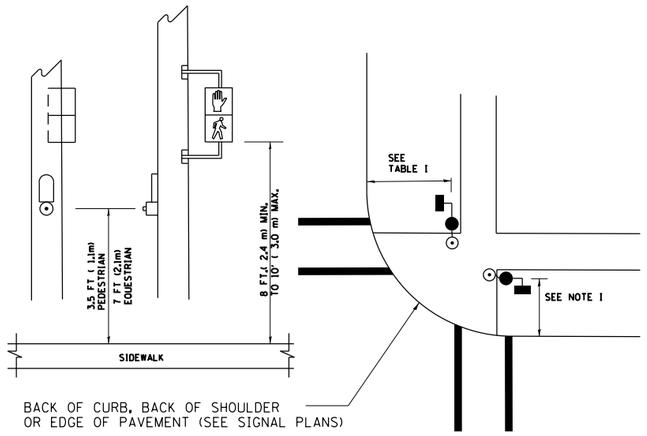
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



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."

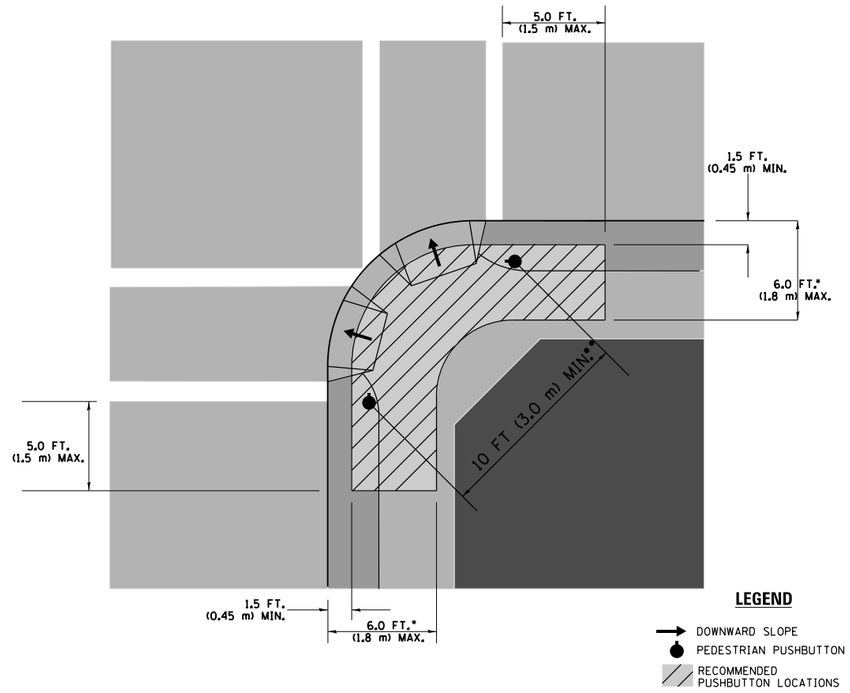
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



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



- 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 (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), 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 (1.8m), 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 TOTHE 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.

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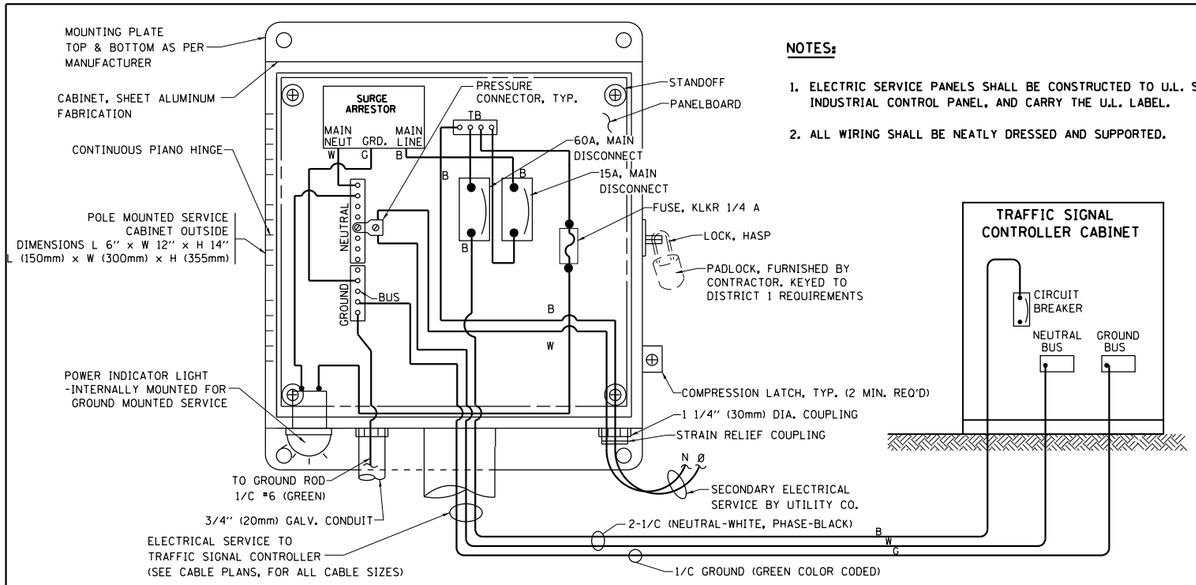
	PLOT DATE = 5/19/2015	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 3 OF 7 SHEETS | STA. | TO STA.

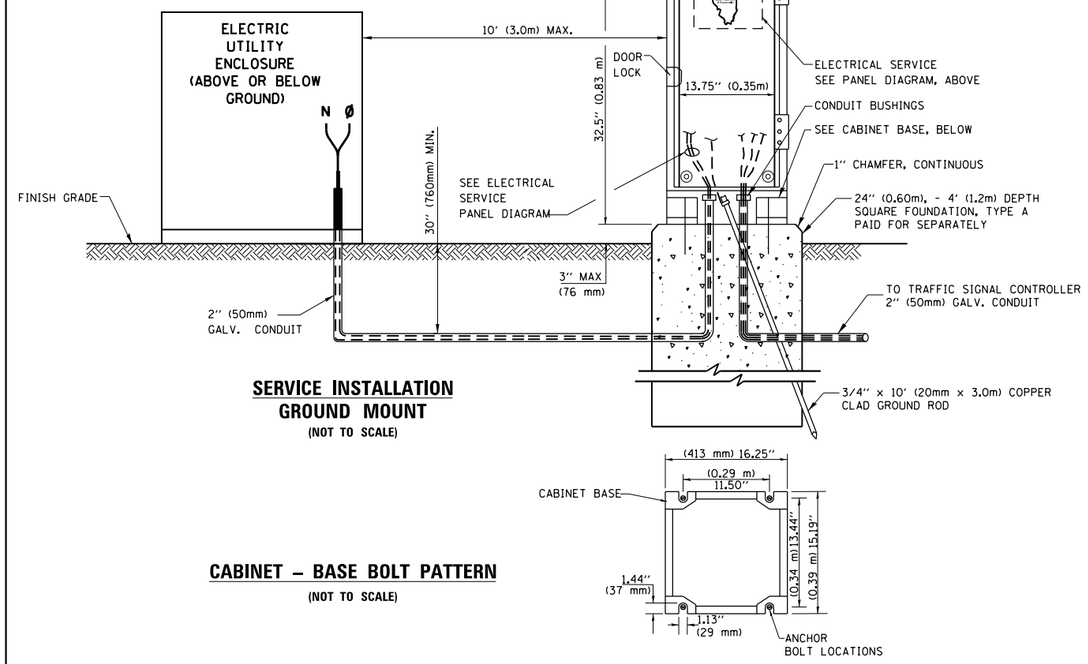
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	17
	TS-05	CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



NOTES:

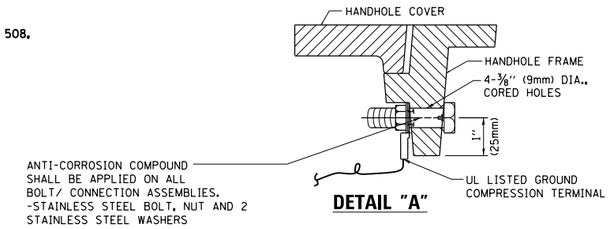
1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

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

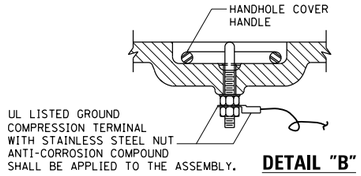


SERVICE INSTALLATION GROUND MOUNT
(NOT TO SCALE)

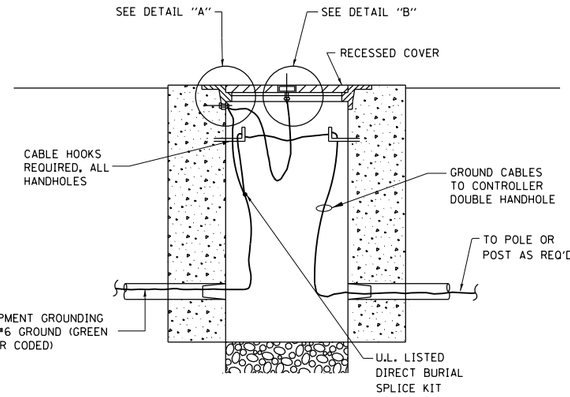
CABINET – BASE BOLT PATTERN
(NOT TO SCALE)



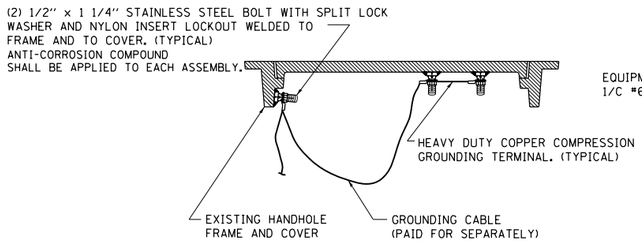
DETAIL "A"



DETAIL "B"



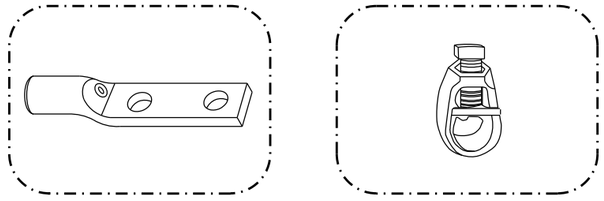
HANDHOLE COVER & FRAME – GROUNDING DETAIL
(NOT TO SCALE)



EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL
(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.

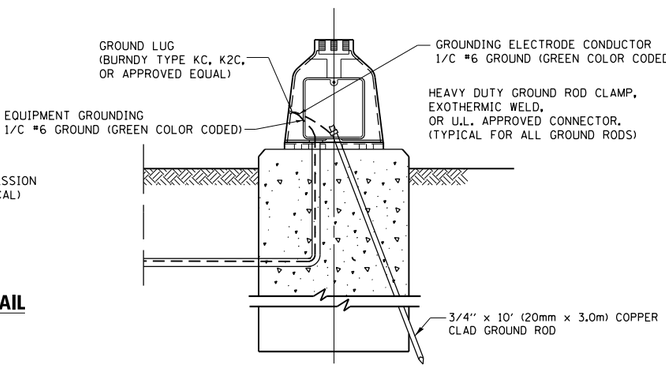


HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)

3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

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.



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

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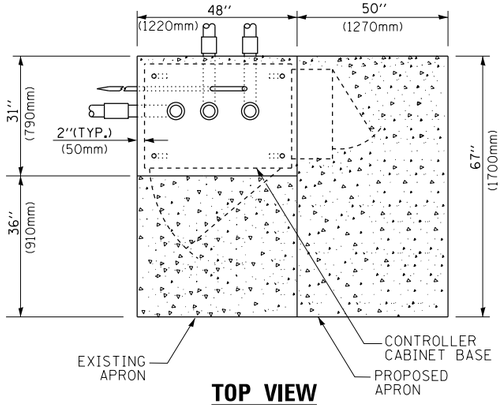
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

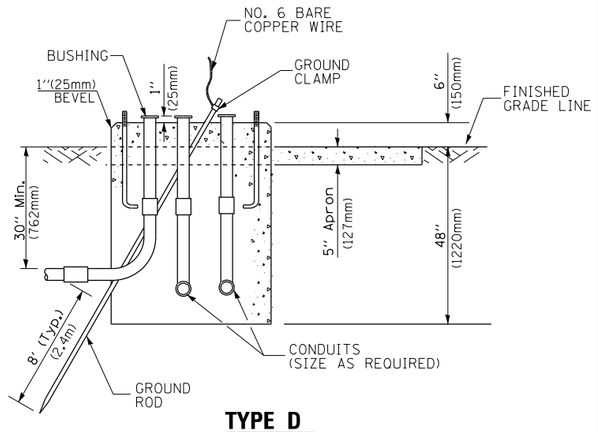
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 4 OF 7 SHEETS | STA. | TO STA.

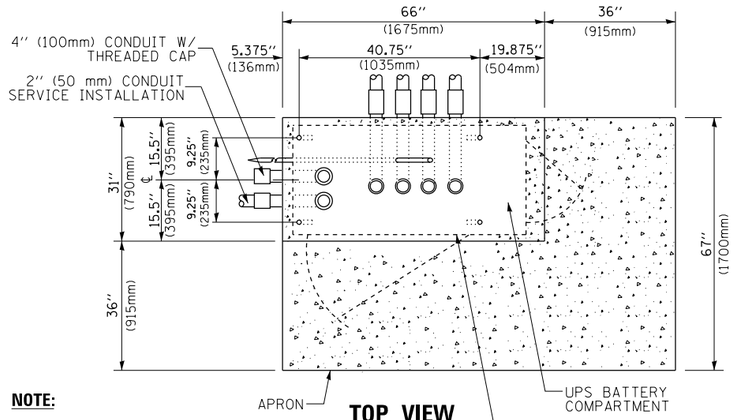
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	18
	TS-05	CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



TOP VIEW



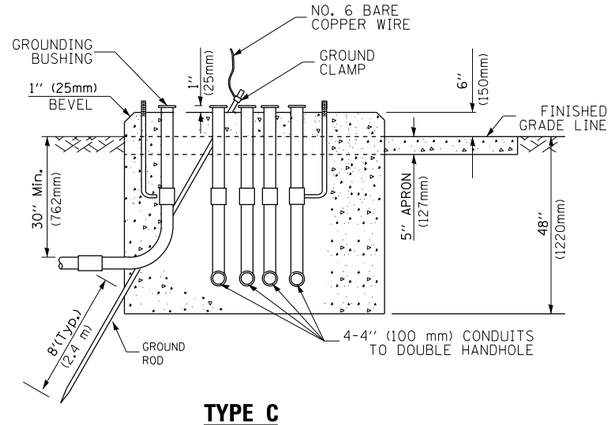
TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



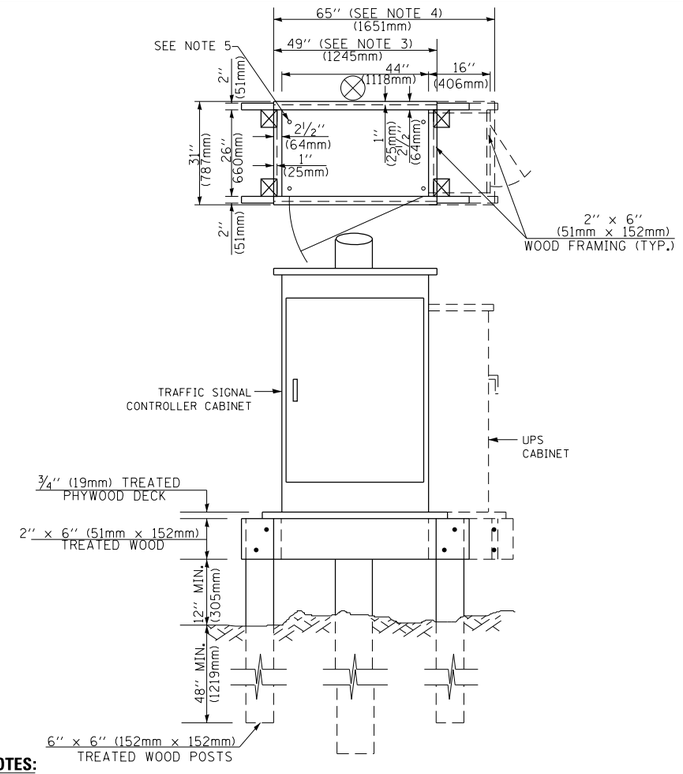
NOTE:

TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE

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)
	11'-0'' (3.4 m)	36'' (900mm)	30'' (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0'' (4.0 m)	36'' (900mm)	30'' (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0'' (4.6 m)	36'' (900mm)	30'' (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0'' (6.4 m)	42'' (1060mm)	36'' (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up 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

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	PLOT SCALE = 100.0000 '/ in.	CHECKED - DAD	REVISED -
	PLOT DATE = 5/19/2015	DATE - 10-28-09	REVISED -

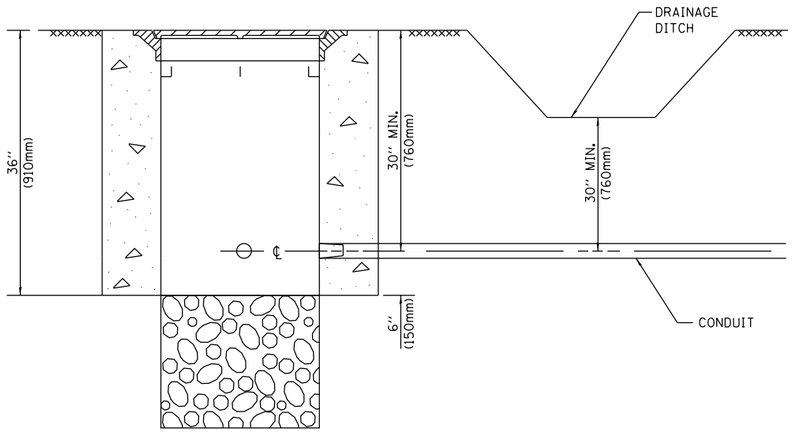
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE

STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 5 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	19
	TS-05	CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

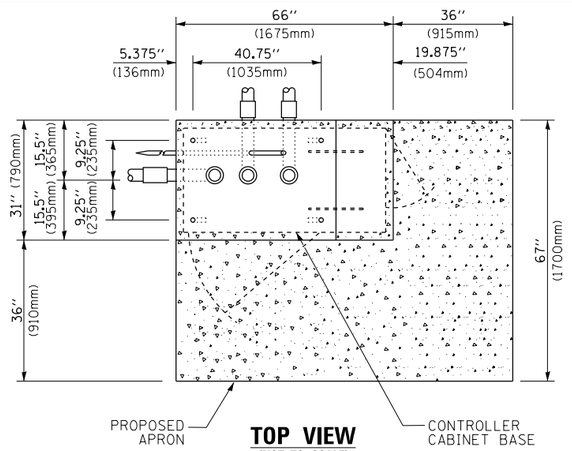


NOTES:

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

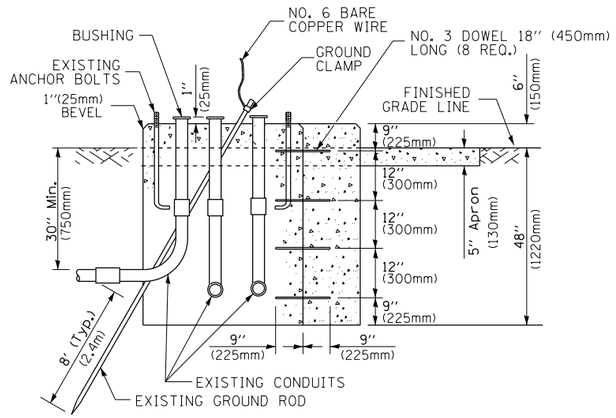
HANDHOLE WITH MINIMUM CONDUIT DEPTH

(NOT TO SCALE)



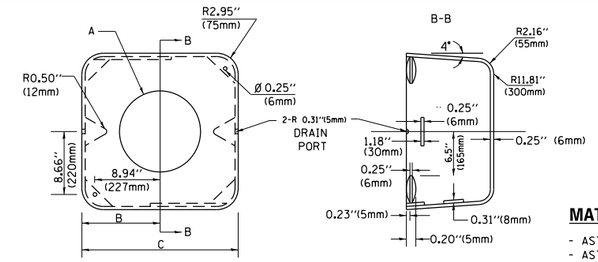
TOP VIEW

(NOT TO SCALE)



MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION

(NOT TO SCALE)



MATERIAL:

- ASTM A36 STEEL
- ASTM A-123 HOT DIPPED GALVANIZED

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

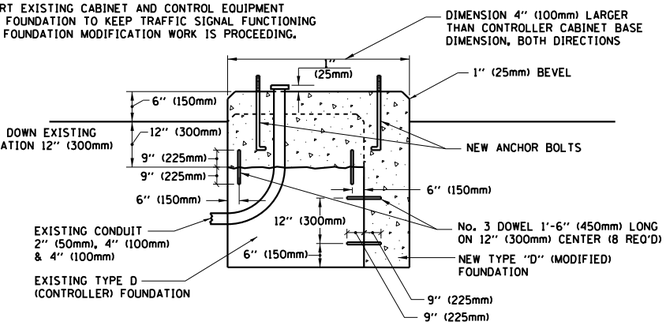
SHROUD

NOTES:

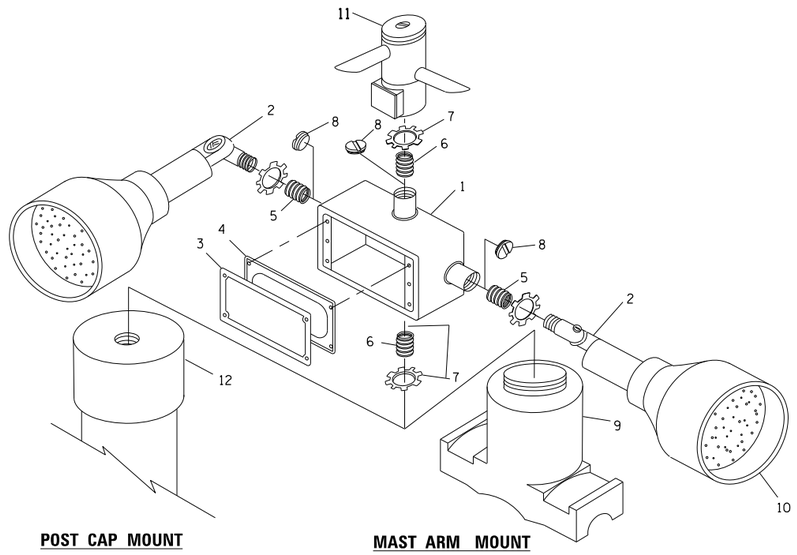
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE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



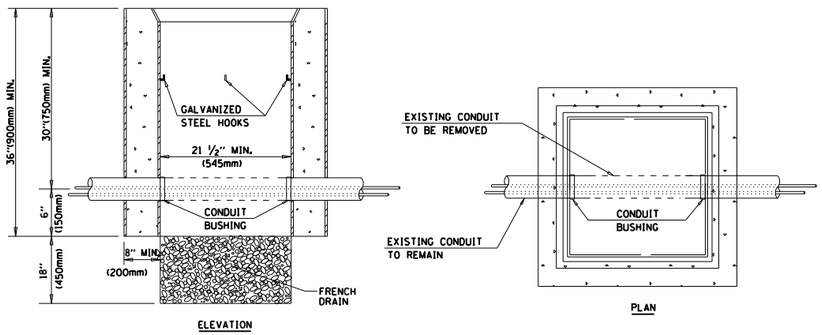
POST CAP MOUNT **MAST ARM MOUNT**

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	¾"(19 mm) CLOSE NIPPLE
7	¾"(19 mm) LOCKNUT
8	¾"(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:

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. 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
3. 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:

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. 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

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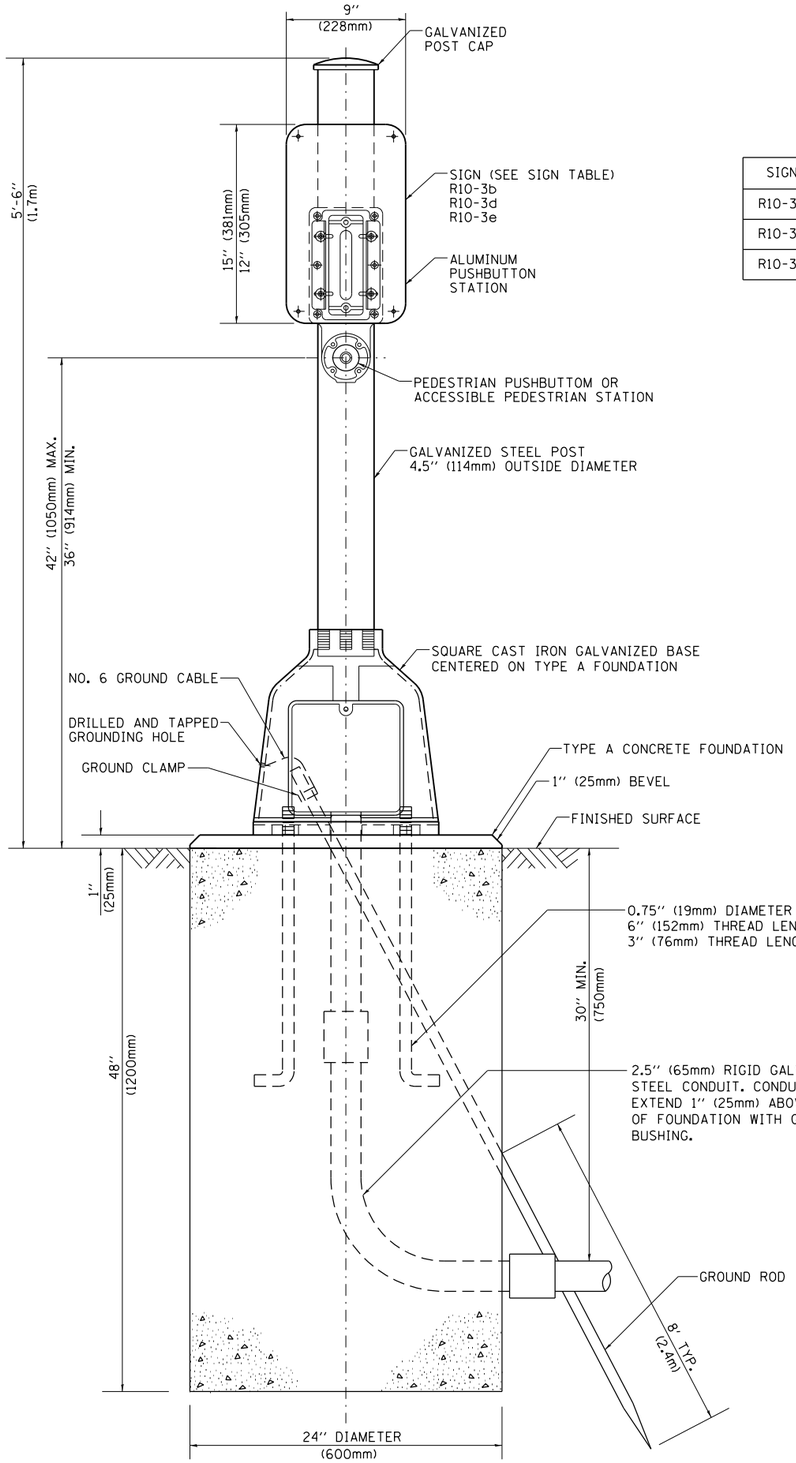
		DRAWN - BCK	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - DAD	REVISED -
	PLOT DATE = 5/19/2015	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

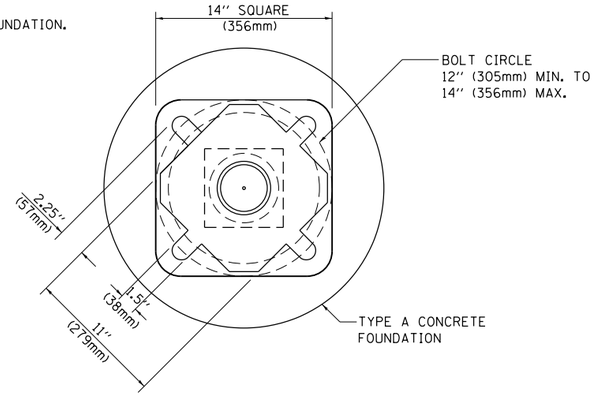
SCALE: NONE | SHEET NO. 6 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	20
	TS-05	CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



SIGN TABLE

SIGN	DIMENSIONS
R10-3b	9'' (228mm) X 12'' (305mm)
R10-3d	9'' (228mm) X 12'' (305mm)
R10-3e	9'' (228mm) X 15'' (381mm)



BOLT PATTERN

PEDESTRIAN PUSH BUTTON POST, TYPE A

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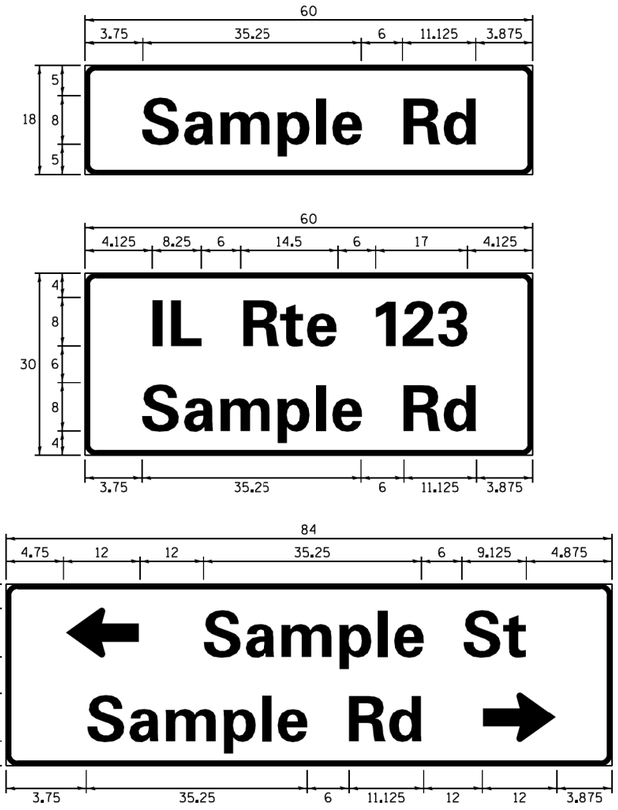
							347	2014-059-I	COOK	53	21
	PLOT SCALE = 100.0000 '/ in.	CHECKED - DAD	REVISED -					TS-05	CONTRACT NO. 60Y78		
	PLOT DATE = 5/19/2015	DATE - 10/1/2012	REVISED -		SCALE: NONE	SHEET NO. 7 OF 7 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SIGN PANEL – TYPE 1 OR TYPE 2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D OR C	-	1 OR 2	ZZ	-

COMMON STREET NAME ABBREVIATIONS AND WIDTHS

NAME	ABBREVATION	WIDTH (INCH)	
		SERIES "C"	SERIES "D"
AVENUE	Ave	15.000	18.250
BOULEVARD	Blvd	17.125	20.000
CIRCLE	Cir	11.125	13.000
COURT	Ct	8.250	9.625
DRIVE	Dr	8.625	10.125
HIGHWAY	Hwy	18.375	22.000
ILLINOIS	IL	7.000	8.250
LANE	Ln	9.125	10.750
PARKWAY	Pkwy	23.375	27.375
PLACE	Pl	7.125	7.750
ROAD	Rd	9.625	11.125
ROUTE	Rte	12.625	14.500
STREET	St	8.000	9.125
TERRACE	Ter	12.625	14.625
TRAIL	Tr	7.750	9.125
UNITED STATES	US	10.375	12.250

GENERAL NOTES

1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.

2. ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ SHEETING)

3. THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-0". ALL BORDERS SHALL BE 3/4" WIDE. CORNER RADIUS SHALL BE 1-7/8". THE SPACING BETWEEN THE WORDS SHOULD BE 6", IF POSSIBLE, BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.

4. A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18" IN HEIGHT AND A MAXIMUX OF 8'-0" IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8"-0" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-0" SIGN, A 30" HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THERE IS SPACE AVAILABLE.

5. LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLOGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.

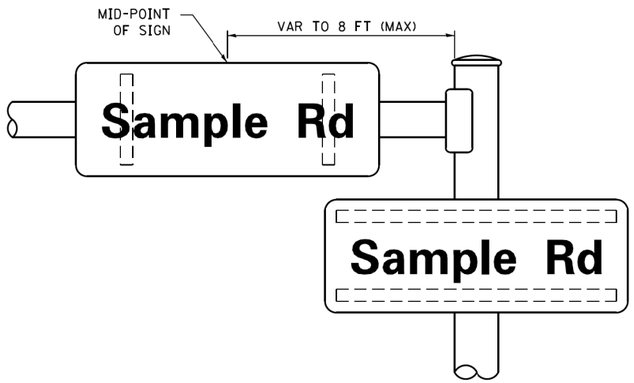
6. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

LOCAL SUPPLIERS:	PARTS LISTING:	
- J.O. HERBERT COMPANY, INC MIDLOTHIAN, VA	SIGN CHANNEL	PART #HPN053 (MED. CHANNEL)
	SIGN SCREWS	1/4" x 14 x 1" H.W.H. #3 SELF TAPPING WITH NEOPRENE WASHER
- WESTERN REMAC, INC. WOODRIDGE, IL	BRACKETS	PART #HPN034 (UNIVERSAL) CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

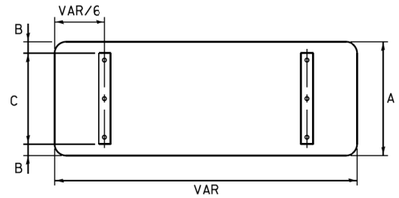
OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

MOUNTING LOCATION

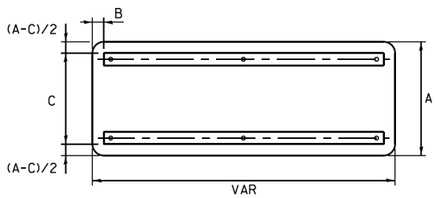
ARM OR POLE MOUNTED



SUPPORTING CHANNELS



A	B	C
18"	2"	14"
30"	2"	24"



A	B	C
18"	2"	12"
30"	2"	22"

STANDARD ALPHABETS SPACING CHART

(8") UPPER CASE AND (6") LOWER CASE

FHWA SERIES "C"				FHWA SERIES "D"			
CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)	CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)
A	0.240	5.122	0.240	A	0.240	6.804	0.240
B	0.880	4.482	0.480	B	0.960	5.446	0.400
C	0.720	4.482	0.720	C	0.800	5.446	0.800
D	0.880	4.482	0.720	D	0.960	5.446	0.800
E	0.880	4.082	0.480	E	0.960	4.962	0.400
F	0.880	4.082	0.240	F	0.960	4.962	0.240
G	0.720	4.482	0.720	G	0.800	5.446	0.800
H	0.880	4.482	0.880	H	0.960	5.446	0.960
I	0.880	1.120	0.880	I	0.960	1.280	0.960
J	0.240	4.082	0.880	J	0.240	5.122	0.960
K	0.880	4.482	0.480	K	0.960	5.604	0.400
L	0.880	4.082	0.240	L	0.960	4.962	0.240
M	0.880	5.284	0.880	M	0.960	6.244	0.960
N	0.880	4.482	0.880	N	0.960	5.446	0.960
O	0.720	4.722	0.720	O	0.800	5.684	0.800
P	0.880	4.482	0.720	P	0.960	5.446	0.240
Q	0.720	4.722	0.720	Q	0.800	5.684	0.800
R	0.880	4.482	0.480	R	0.960	5.446	0.400
S	0.480	4.482	0.480	S	0.400	5.446	0.400
T	0.240	4.082	0.240	T	0.240	4.962	0.240
U	0.880	4.482	0.880	U	0.960	5.446	0.960
V	0.240	4.962	0.240	V	0.240	6.084	0.240
W	0.240	6.084	0.240	W	0.240	7.124	0.240
X	0.240	4.722	0.240	X	0.400	5.446	0.400
Y	0.240	5.122	0.240	Y	0.240	6.884	0.240
Z	0.480	4.482	0.480	Z	0.400	5.446	0.400
a	0.320	3.842	0.640	a	0.400	4.562	0.720
b	0.720	4.082	0.480	b	0.800	4.802	0.480
c	0.480	4.002	0.240	c	0.480	4.722	0.240
d	0.480	4.082	0.720	d	0.480	4.802	0.800
e	0.480	4.082	0.320	e	0.480	4.722	0.320
f	0.320	2.480	0.160	f	0.320	2.882	0.160
g	0.480	4.082	0.720	g	0.480	4.802	0.800
h	0.720	4.082	0.640	h	0.800	4.722	0.720
i	0.720	1.120	0.720	i	0.800	1.280	0.800
j	0.000	2.320	0.720	j	0.000	2.642	0.800
k	0.720	4.322	0.160	k	0.800	5.122	0.160
l	0.720	1.120	0.720	l	0.800	1.280	0.800
m	0.720	6.724	0.640	m	0.800	7.926	0.720
n	0.720	4.082	0.640	n	0.800	4.722	0.720
o	0.480	4.082	0.480	o	0.480	4.882	0.480
p	0.720	4.082	0.480	p	0.800	4.802	0.480
q	0.480	4.082	0.720	q	0.480	4.802	0.800
r	0.720	2.642	0.160	r	0.800	3.042	0.160
s	0.320	3.362	0.240	s	0.320	3.762	0.240
t	0.080	2.882	0.080	t	0.080	3.202	0.080
u	0.640	4.082	0.720	u	0.720	4.722	0.800
v	0.160	4.722	0.160	v	0.160	5.684	0.160
w	0.160	7.524	0.160	w	0.160	9.046	0.160
x	0.000	5.202	0.000	x	0.000	6.244	0.000
y	0.160	4.962	0.160	y	0.160	6.004	0.160
z	0.240	3.362	0.240	z	0.240	4.002	0.240
1	0.720	1.680	0.880	1	0.800	2.000	0.960
2	0.480	4.482	0.480	2	0.800	5.446	0.800
3	0.480	4.482	0.480	3	1.440	5.446	0.800
4	0.240	4.962	0.720	4	0.160	6.004	0.960
5	0.480	4.482	0.480	5	0.800	5.446	0.800
6	0.720	4.482	0.720	6	0.800	5.446	0.800
7	0.240	4.482	0.720	7	0.560	5.446	0.560
8	0.480	4.482	0.480	8	0.800	5.446	0.800
9	0.480	4.482	0.480	9	0.800	5.446	0.800
0	0.720	4.722	0.720	0	0.800	5.684	0.800
-	0.240	2.802	0.240	-	0.240	2.802	0.240

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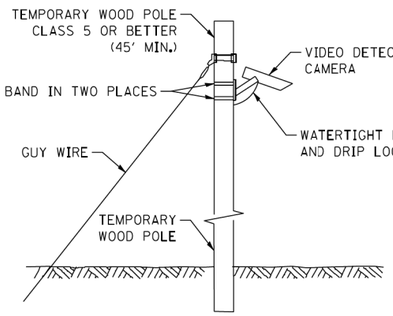
Default	PLOT DATE = 9/22/2014	CHECKED - IP	REVISED -	
		DATE - 10/01/2014	REVISED -	

DISTRICT ONE
MAST ARM MOUNTED STREET NAME SIGNS

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	22
	TS-02	CONTRACT NO. 60Y78		
	ILLINOIS FED. AID PROJECT			



TEMPORARY VIDEO DETECTION MOUNTING DETAIL

(NOT TO SCALE)

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR PICK UP OF ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

AGENCY: VILLAGE OF NILES

CONTACT INFORMATION:
MOUSA NAZZAL
VILLAGE OF NILES
PHONE: (847) 588-7924

2	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER

THE FOLLOWING ITEMS 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 CONTRACTOR'S BID PRICE.

1	EACH	CONTROLLER CABINET AND COMPLETE
3	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKETMOUNTED
4	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION, BRACKETMOUNTED
4	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
2	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, 3-FACE, 1-3 SECTION, 2-5 SECTION, BRACKET MOUNTED
4	EACH	TRAFFIC SIGNAL BACKPLATE
7	EACH	TRAFFIC SIGNAL POST
4	EACH	STEEL MAST ARM ASSEMBLY AND POLE
1	EACH	SERVICE INSTALLATION

NOTE 1:

THE VIDEO DETECTION ZONES SHOWN ON THE PLANS ARE FOR PRE-CONSTRUCTION STAGE AND SHALL BE REDEFINED FOR EACH CONSTRUCTION STAGE AS A PART OF "TEMPORARY TRAFFIC SIGNAL INSTALLATION" WORK.

(A) LEFT ON GREEN ARROW ONLY — R10-5, 30" X 36" (6 REQUIRED)

(B) R3-2, 36" X 36" (2 REQUIRED)

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 1995

FILE NAME = K:\PROJECTS\Projects 2014\60778 IL 21 at IL 58 at Greenwood Ave\Signals\12_IL RTE 21 AT GOLF RD_TEMP_INT.dgn

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL.(773)774-5900

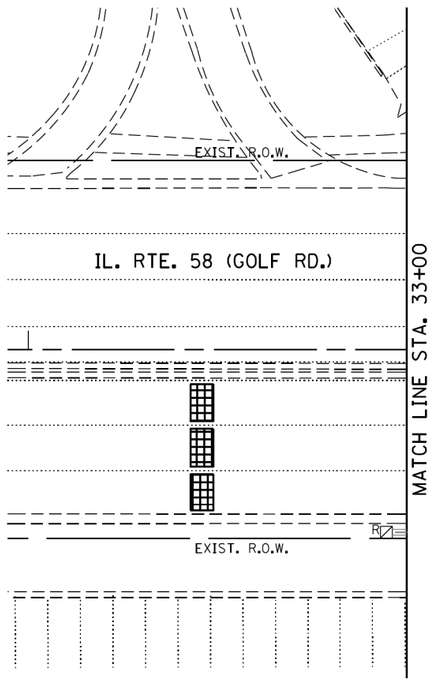
USER NAME = $USER$	DESIGNED - PKG		REVISED -
	DRAWN - EA		REVISED -
PLOT SCALE = 40.0000 ' / IN.	CHECKED - PKG		REVISED -
PLOT DATE = 5/8/2015	DATE - 5/8/2015		REVISED -

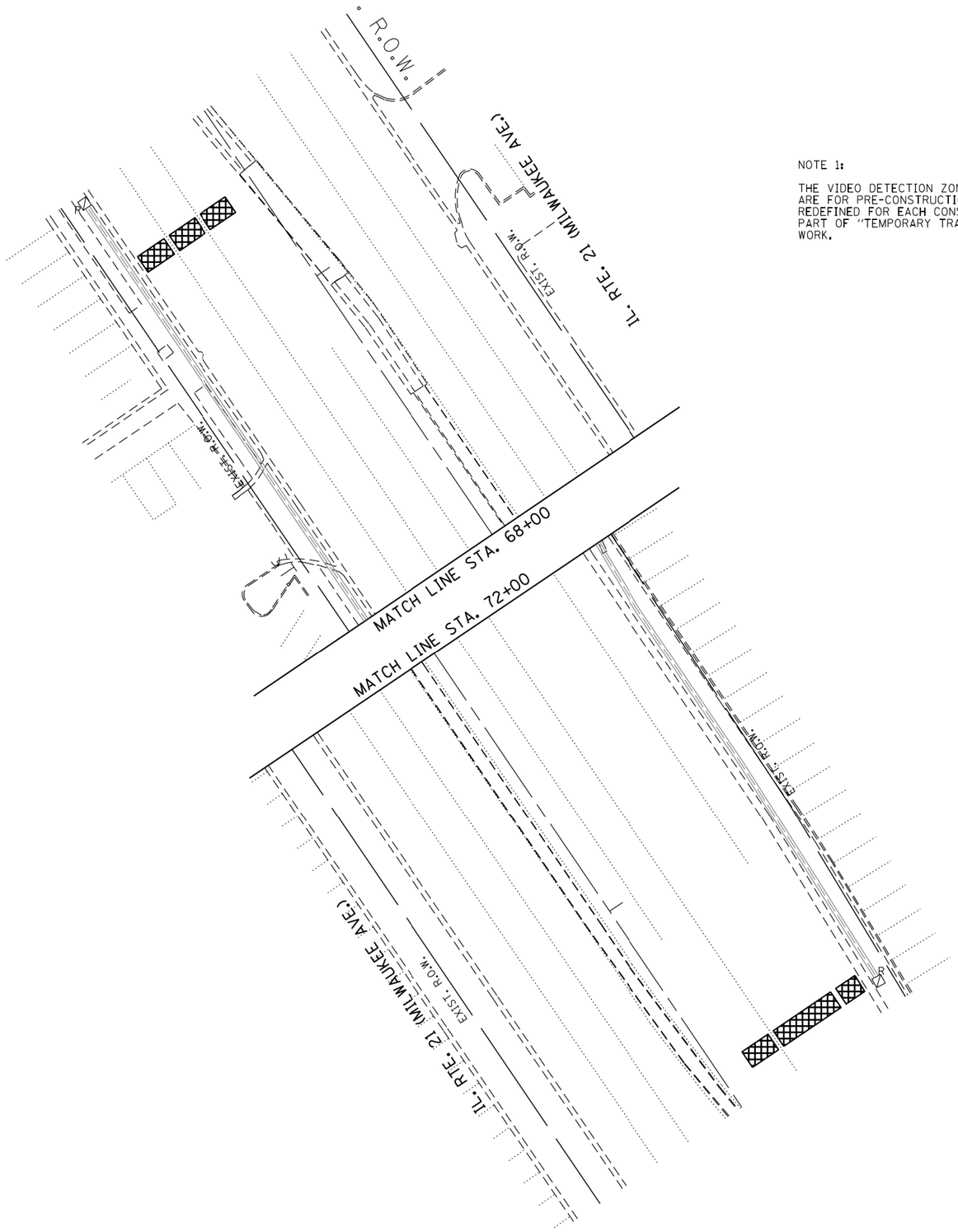
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

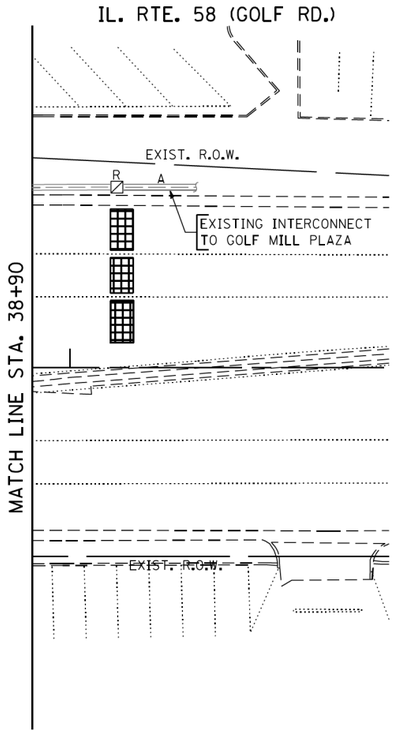
TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN AND REMOVAL PLAN
ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT ILLINOIS ROUTE 58 (GOLF RD)
(SHEET 1 OF 2)

SCALE: 1"=20' | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	23
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		







NOTE 1:

THE VIDEO DETECTION ZONES SHOWN ON THE PLANS ARE FOR PRE-CONSTRUCTION STAGE AND SHALL BE REDEFINED FOR EACH CONSTRUCTION STAGE AS A PART OF "TEMPORARY TRAFFIC SIGNAL INSTALLATION" WORK.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 1995

FILE NAME = k:\projects\projects 2014\60g78 il 21 at il 58 at greenwood ave\signals\13JL RTE 21 AT GOLF RD_TEMP_INT_2.dgn

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631TEL.(773)774-5900

USER NAME = $USER$	DESIGNED - PKG	REVISED -
	DRAWN - EA	REVISED -
PLOT SCALE = 40.0000 ' / IN.	CHECKED - PKG	REVISED -
PLOT DATE = 5/8/2015	DATE - 5/8/2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN AND REMOVAL PLAN
ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT ILLINOIS ROUTE 58 (GOLF RD)
(SHEET 2 OF 2)

SCALE: 1"=20' | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	24
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

N

WIRELESS INTERCONNECT TO
IL. ROUTE 21 (MILWAUKEE AVE.)
AT GREENWOOD AVE.

WIRELESS INTERCONNECT TO
IL. ROUTE 58 (GOLF RD.)
AT GREENWOOD AVE.

WIRELESS INTERCONNECT TO
IL. ROUTE 58 (GOLF RD.)
AT GOLF MILL PLAZA

APPROX. STA.
36+35, 65.1' LT

IL. RTE. 58 (GOLF RD.)

APPROX. STA.
34+68, 87.2' LT

IL. RTE. 58 (GOLF RD.)

EXIST. R.O.W.

EXIST. R.O.W.

IL. RTE. 21 (MILWAUKEE AVE.)

EXIST. R.O.W.

WIRELESS INTERCONNECT TO
IL. ROUTE 21 (MILWAUKEE AVE.)
AT GOLF MILL NORTH ENTRANCE

EXIST. R.O.W.

EXIST. R.O.W.

APPROX. STA.
35+43, 54.4' RT

APPROX. STA.
37+45, 63.9' RT

APPROX. STA.
37+04, 53.1' RT

IL. RTE. 21 (MILWAUKEE AVE.)

EXIST. R.O.W.

PLAN WITH UTILITY INFORMATION

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 1995

FILE NAME = k:\projects\projects 2014\60g78 il 21 at il 58 at greenwood ave\signals\13_IL RTE 21 AT GOLF RD_TEMP_INT_3_Util.dgn

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL.(773)774-5900

USER NAME = $USER$	DESIGNED - PKG	REVISED -
	DRAWN - EA	REVISED -
PLOT SCALE = 40.0000 ' / IN.	CHECKED - PKG	REVISED -
PLOT DATE = 5/8/2015	DATE - 5/8/2015	REVISED -

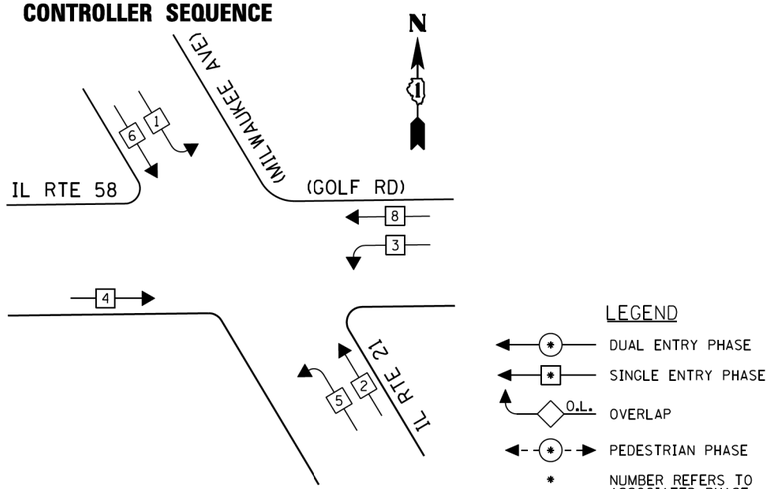
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN AND REMOVAL PLAN
ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT ILLINOIS ROUTE 58 (GOLF RD)
WITH UTILITY INFORMATION

SCALE: 1"=20' | SHEET NO. OF SHEETS | STA. TO STA.

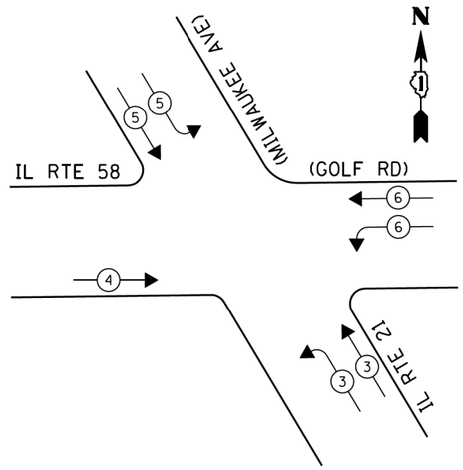
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	25
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM

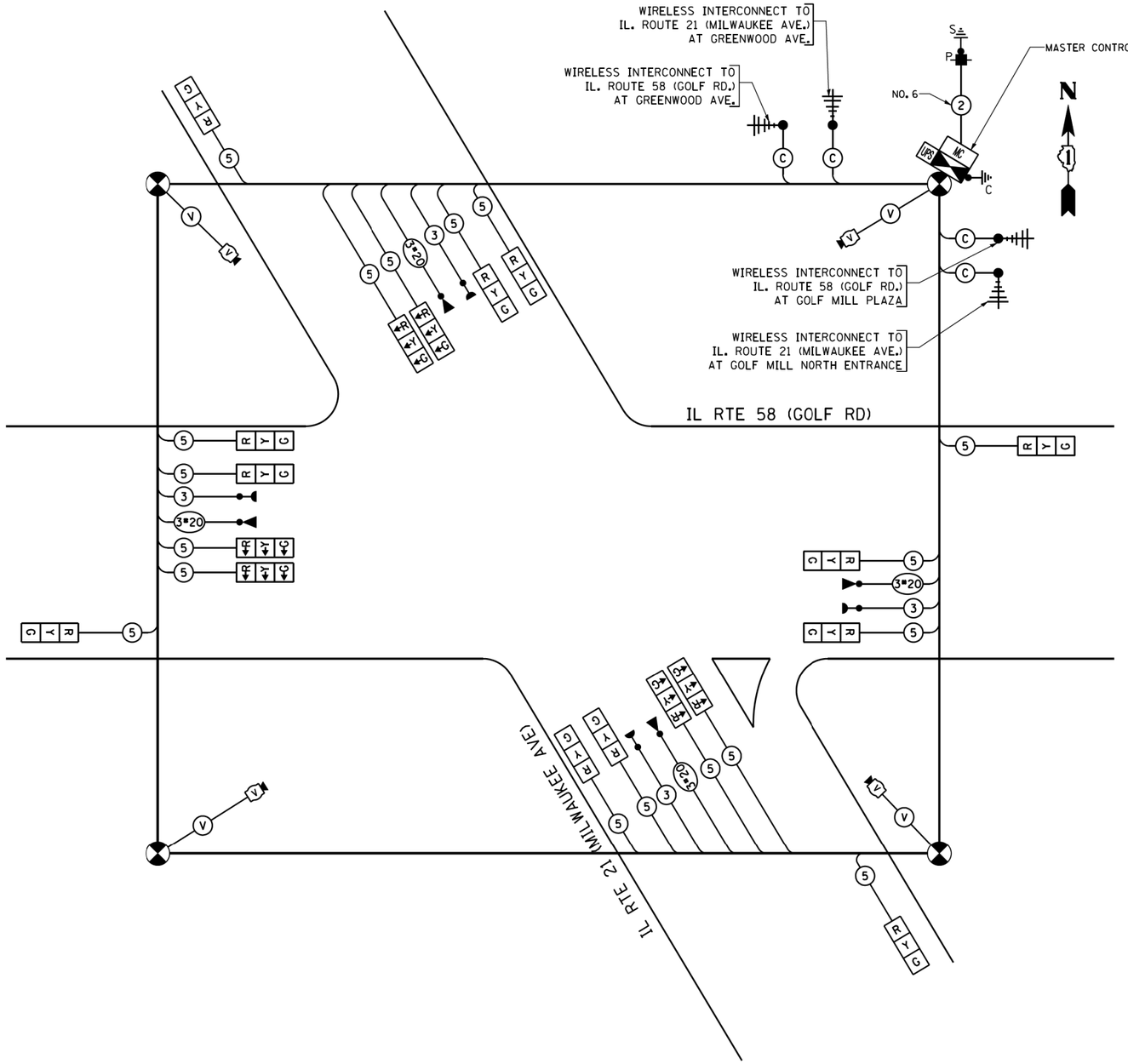
TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE INCAND.	WATTAGE LED	%OPERATION	
SIGNAL (RED)	18	135	17	0.50	153.0
(YELLOW)	18	135	25	0.25	112.5
(GREEN)	18	135	15	0.25	67.5
ARROW		135	12	0.10	
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.0
ILLUM. SIGN				0.05	
VIDEO SYSTEM	1	150		1.00	150.0
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	583.0

THE VILLAGE OF NILES
1000 CIVIC CENTER DRIVE
NILES, ILLINOIS 60714

ENERGY SUPPLY CONTACT: MAUREEN RAY
PHONE: (847) 816-5492
COMPANY: COMMONWEALTH EDISON



TEMPORARY CABLE PLAN

(NOT TO SCALE)

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 1995

FILE NAME = k:\projects\projects 2014\60y78 il 21 at il 58 at greenwood ave\signals\14_IL RTE 21 AT GOLF RD_TEMP_CD.dgn

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
5025 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60630 TEL. 773 774-5900

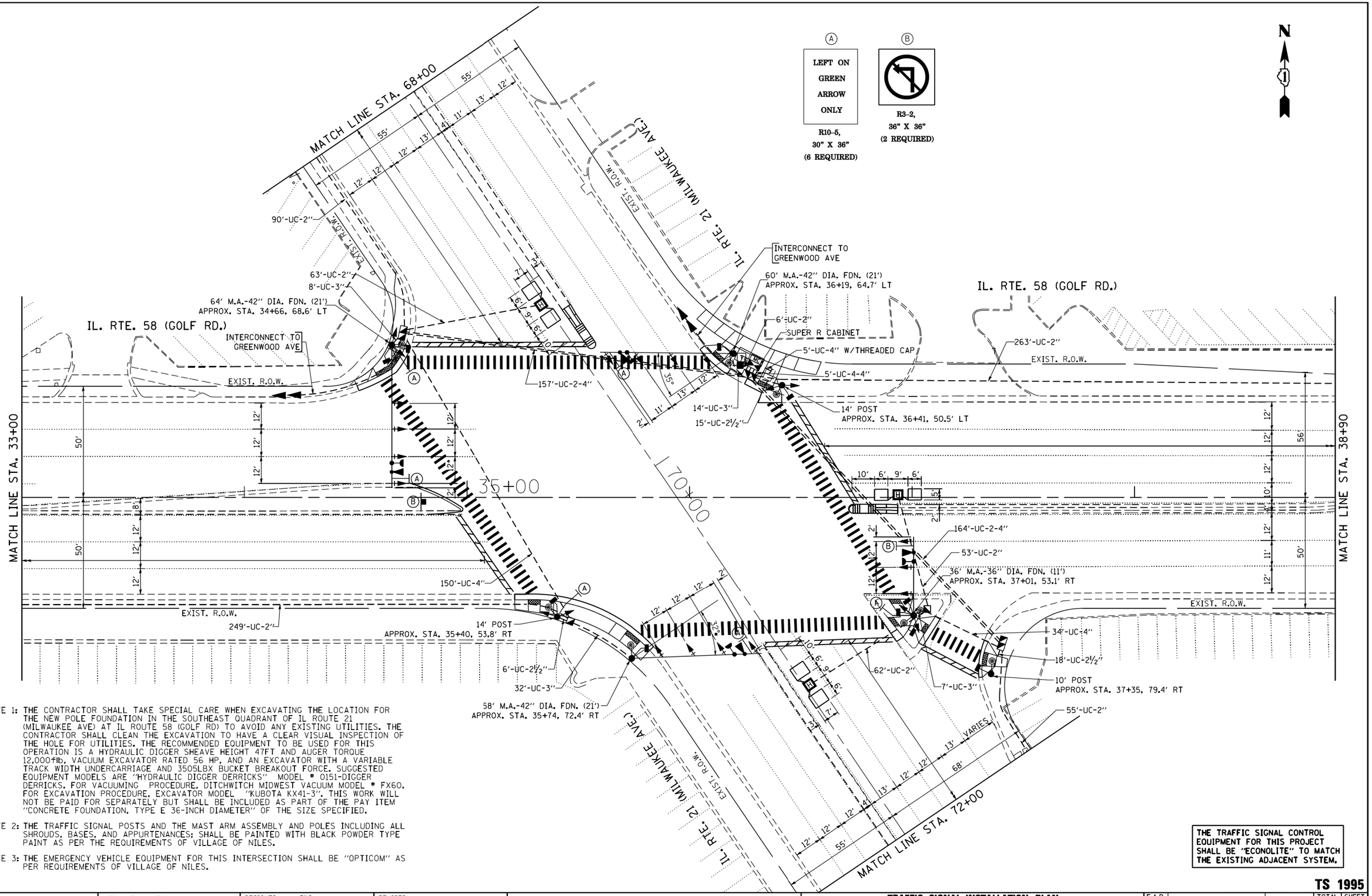
USER NAME = $USER$ | DESIGNED - PKG | REVISED -
DRAWN - EA | REVISED -
PLOT SCALE = 40.0000 ' / IN. | CHECKED - PKG | REVISED -
PLOT DATE = 5/8/2015 | DATE - 5/8/2015 | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM, AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT ILLINOIS ROUTE 58 (GOLF RD)

SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	26
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		



NOTE 1: THE CONTRACTOR SHALL TAKE SPECIAL CARE WHEN EXCAVATING THE LOCATION FOR THE NEW POLE FOUNDATION IN THE SOUTHEAST QUADRANT OF IL ROUTE 21 (MILWAUKEE AVE) AT IL ROUTE 58 (GOLF RD) TO AVOID ANY EXISTING UTILITIES. THE CONTRACTOR SHALL CLEAN THE EXCAVATION TO HAVE A CLEAR VISUAL INSPECTION OF THE HOLE FOR UTILITIES. THE RECOMMENDED EQUIPMENT TO BE USED FOR THIS OPERATION IS A HYDRAULIC DIGGER SHEAVE HEIGHT 47FT AND AUGER TORQUE 12,000#lb. VACUUM EXCAVATOR RATED 56 HP, AND AN EXCAVATOR WITH A VARIABLE TRACK WIDTH UNDERCARRIAGE AND 3505LBX BUCKET BREAKOUT FORCE. SUGGESTED EQUIPMENT MODELS ARE "HYDRAULIC DIGGER DERRICKS" MODEL # 0151-DIGGER DERRICKS. FOR VACUUMING PROCEDURE, DITCHWITCH MIDWEST VACUUM MODEL # FX60. FOR EXCAVATION PROCEDURE, EXCAVATOR MODEL "KUBOTA KX41-3". THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED AS PART OF THE PAY ITEM "CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER" OF THE SIZE SPECIFIED.

NOTE 2: THE TRAFFIC SIGNAL POSTS AND THE MAST ARM ASSEMBLY AND POLES INCLUDING ALL SHROUDS, BASES, AND APPURTENANCES; SHALL BE PAINTED WITH BLACK POWDER TYPE PAINT AS PER THE REQUIREMENTS OF VILLAGE OF NILES.

NOTE 3: THE EMERGENCY VEHICLE EQUIPMENT FOR THIS INTERSECTION SHALL BE "OPTICOM" AS PER REQUIREMENTS OF VILLAGE OF NILES.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 1995

FILE NAME = k:\projects\projects 2014\60b78 il 21 at il 58 at greenwood ave\signals\30.IL RTE 21 AT GOLF RD_INT.dgn

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL. (773)774-5900

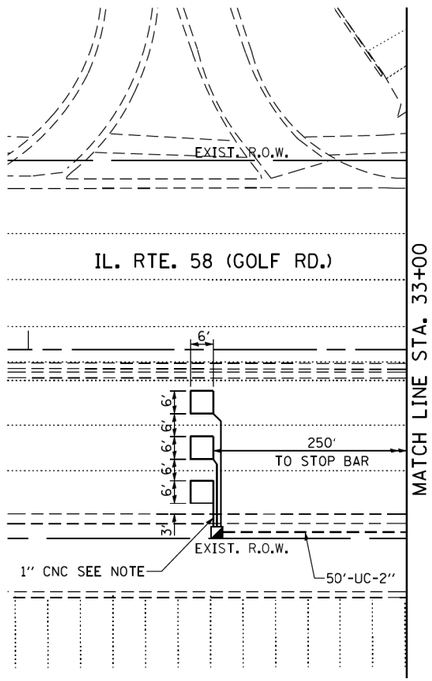
USER NAME = $USER$	DESIGNED - PKG	REVISED -
	DRAWN - EA	REVISED -
PLOT SCALE = 40.0000 ' / IN.	CHECKED - PKG	REVISED -
PLOT DATE = 5/8/2015	DATE - 5/8/2015	REVISED -

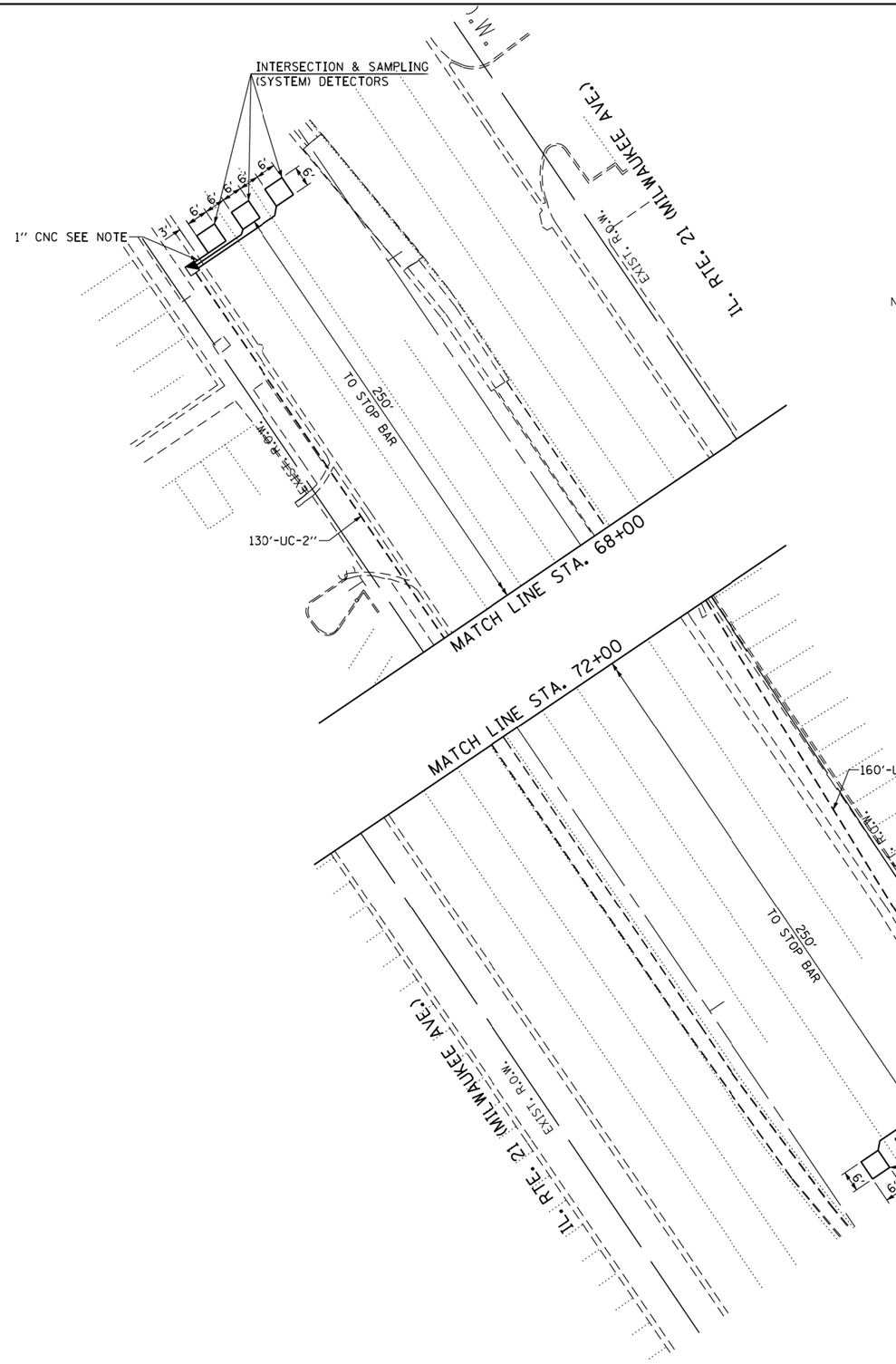
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

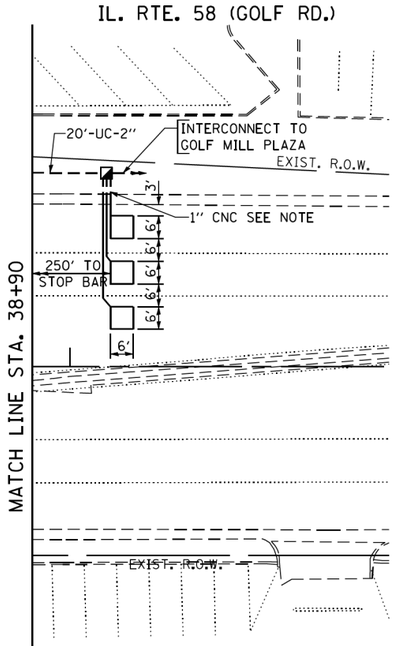
TRAFFIC SIGNAL INSTALLATION PLAN
ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT ILLINOIS ROUTE 58 (GOLF RD)
(SHEET 1 OF 2)

SCALE: 1"=20' | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	27
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		







NOTE 1: THE PROPOSED HANDHOLE SHALL BE CONSTRUCTED IN A MANNER SO AS TO INTERCEPT THE EXISTING CONDUIT.

NOTE:
EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 1995

FILE NAME = k:\projects\projects 2014\60y78 il 21 at il 58 at greenwood ave\signals\3il rte 21 at golf rd_int_2.dgn

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631TEL.:7737774-5900

USER NAME = $USER$	DESIGNED - PKG	REVISED -
	DRAWN - EA	REVISED -
PLOT SCALE = 40.0000 ' / IN.	CHECKED - PKG	REVISED -
PLOT DATE = 5/8/2015	DATE - 5/8/2015	REVISED -

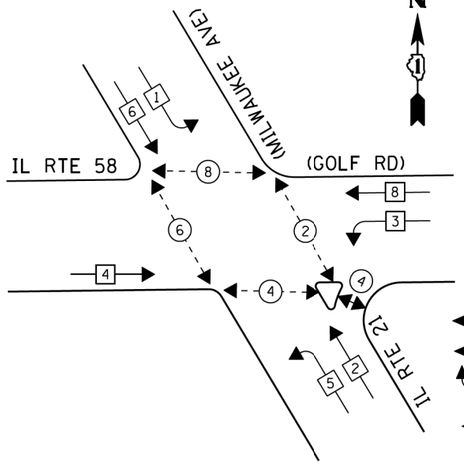
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN
ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT ILLINOIS ROUTE 58 (GOLF RD)
(SHEET 2 OF 2)

SCALE: 1"=20' | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	28
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

CONTROLLER SEQUENCE

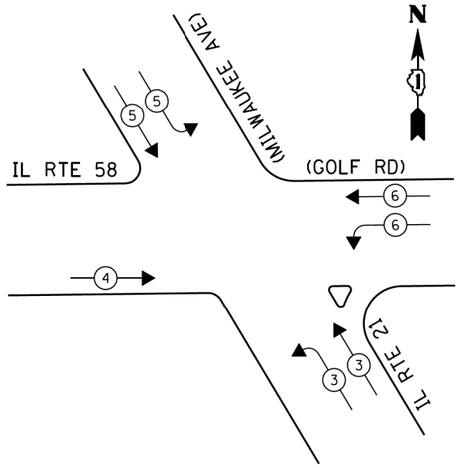


PHASE DESIGNATION DIAGRAM

LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- O.L. OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

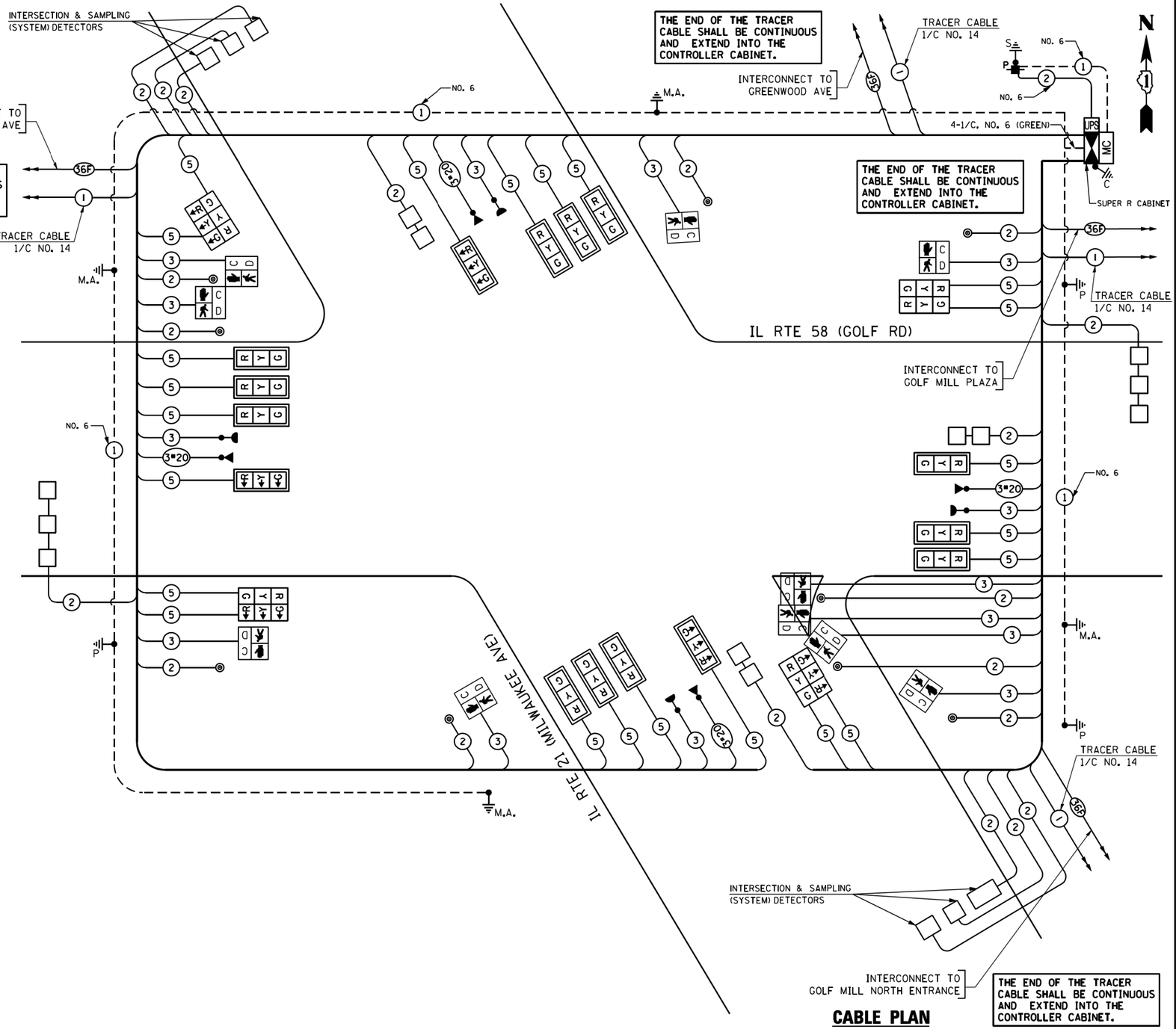
EMERGENCY VEHICLE PREEMPTION SEQUENCE



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	X WATTAGE INCAND.	WATTAGE LED	X %OPERATION	
SIGNAL (RED)	23	135	17	0.50	195.5
(YELLOW)	23	135	25	0.25	143.75
(GREEN)	23	135	15	0.25	86.25
ARROW		135	12	0.10	
PED. SIGNAL	10	90	25	1.00	250.0
CONTROLLER	1	100	100	1.00	100.0
ILLUM. SIGN				0.05	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	775.5

THE VILLAGE OF NILES
1000 CIVIC CENTER DRIVE
NILES, ILLINOIS 60714

ENERGY SUPPLY CONTACT: MAUREEN RAY
PHONE: (847) 816-5492
COMPANY: COMMONWEALTH EDISON



CABLE PLAN

(NOT TO SCALE)

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 1995

FILE NAME = k:\projects\projects 2014\60y78 il 21 at il 58 at greenwood ave\signals\35.IL RTE 21 AT GOLF RD_CD.dgn

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ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL: (773) 774-5900

USER NAME = $USER$	DESIGNED - PKG	REVISED -
	DRAWN - EA	REVISED -
PLOT SCALE = 40.0000 ' / IN.	CHECKED - PKG	REVISED -
PLOT DATE = 5/8/2015	DATE - 5/8/2015	REVISED -

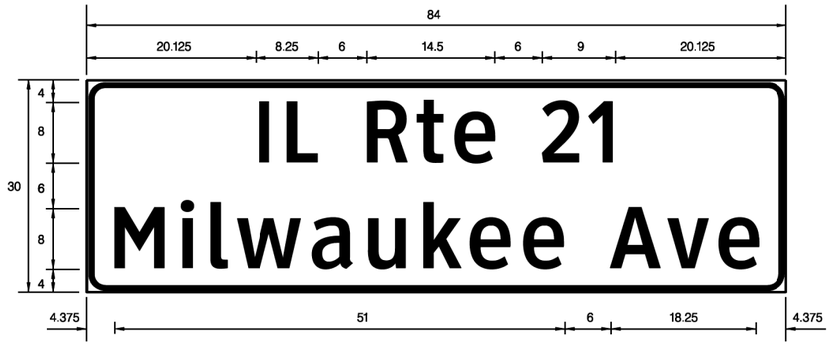
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT ILLINOIS ROUTE 58 (GOLF RD)

SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	29
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		

SIGN PANEL – TYPE 1 OR TYPE 2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	17.50	2	ZZ	2

DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	11.25	2	ZZ	2

NOTE: FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION PLEASE SEE DISTRICT ONE MAST ARM MOUNTED STRRET NAME SIGNS DETAIL.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNITS	TOTAL QTY.
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	1711
DETECTABLE WARNINGS	SQ FT	119
COMBINATION CURB AND GUTTER REMOVAL	FOOT	437
DOWEL BARS 1½"	EACH	78
CLASS D PATCHES, TYPE IV, 13 INCH	SQ YD	72
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.06	FOOT	50
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	201
CONCRETE MEDIAN, TYPE SB-9.12	SQ FT	80
CORRUGATED MEDIAN	SQ FT	80
SIGN PANEL - TYPE 1	SQ FT	63
SIGN PANEL - TYPE 2	SQ FT	57.5
POLYUREA PAVEMENT MARKING TYPE I - LINE 12"	FOOT	984
POLYUREA PAVEMENT MARKING TYPE I - LINE 24"	FOOT	261
PAVEMENT MARKING REMOVAL	SQ FT	508
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1198
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2½" DIA.	FOOT	36
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	61
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	858
HANDHOLE	EACH	6
HEAVY-DUTY HANDHOLE	EACH	3
DOUBLE HANDHOLE	EACH	3
• PAINT NEW TRAFFIC SIGNAL POST	EACH	3
• PAINT NEW MAST ARM AND POLE, UNDER 40 FOOT	EACH	1
• PAINT NEW MAST ARM AND POLE, 40 FOOT AND OVER	EACH	3
TRANSCEIVER-FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	2033
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	3539
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	5998
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3952
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	26
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	840
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE 36 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE 58 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE 60 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE 64 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	12
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	11
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	63
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	15
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	8
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	10
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	15
INDUCTIVE LOOP DETECTOR	EACH	11
DETECTOR LOOP, TYPE I	FOOT	676
• LIGHT DETECTOR	EACH	4
• LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	9
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	11
REMOVE EXISTING DOUBLE HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	12
• EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	1173
CONCRETE MEDIAN SURFACE REMOVAL	SQ FT	377
CONCRETE MEDIAN REMOVAL	SQ FT	631
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE SUPER R CABINET (SPECIAL)	EACH	1

• 100% COST TO VILLAGE OF NILES

TS 1995

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL.: (773) 774-5900

USER NAME = $USER$	DESIGNED - PKG	REVISED -	
	DRAWN - EA	REVISED -	
PLOT SCALE = 40.0000 ' / IN.	CHECKED - PKG	REVISED -	
PLOT DATE = 5/8/2015	DATE - 5/8/2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES
ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT ILLINOIS ROUTE 58 (GOLF RD)

SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	30
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		

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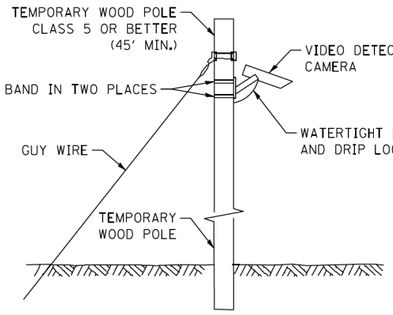

TEMPORARY VIDEO DETECTION
MOUNTING DETAIL
(NOT TO SCALE)

NOTE 1:

THE VIDEO DETECTION ZONES SHOWN ON THE PLANS ARE FOR PRE-CONSTRUCTION STAGE AND SHALL BE REDEFINED FOR EACH CONSTRUCTION STAGE AS A PART OF "TEMPORARY TRAFFIC SIGNAL INSTALLATION" WORK.

THE FOLLOWING ITEMS 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 CONTRACTOR'S BID PRICE.

1	EACH	CONTROLLER CABINET AND COMPLETE
6	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
2	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
2	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
8	EACH	TRAFFIC SIGNAL BACKPLATE
2	EACH	TRAFFIC SIGNAL POST
4	EACH	STEEL MAST ARM ASSEMBLY AND POLE
1	EACH	SERVICE INSTALLATION

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR PICK UP OF ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

AGENCY: VILLAGE OF NILES

CONTACT INFORMATION:
MOUSA NAZZAL
VILLAGE OF NILES
PHONE: (847) 588-7924

2	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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ENGINEERS AND PLANNERS
5035 N. NORTHWEST HIGHWAY
SUITE 208
CHICAGO, ILLINOIS 60631 TEL. (773)774-5900

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	DRAWN - EA	REVISED -	
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PLOT DATE = 5/8/2015	DATE - 5/8/2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN AND REMOVAL PLAN
ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT GREENWOOD AVE
(SHEET 1 OF 2)

SCALE: 1"=20' | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	31
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		

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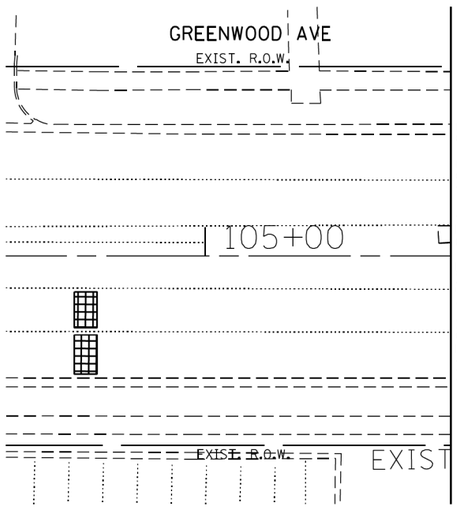

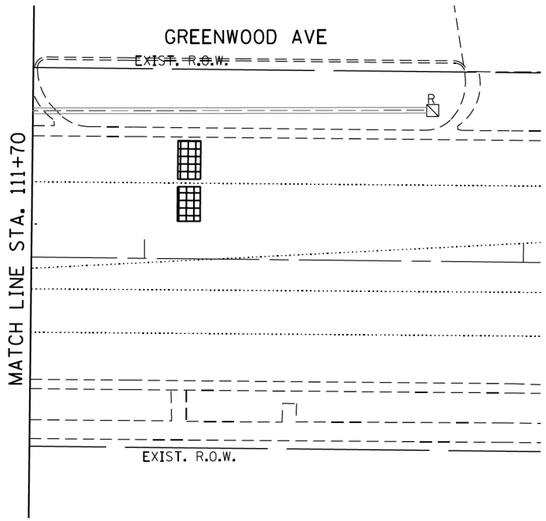

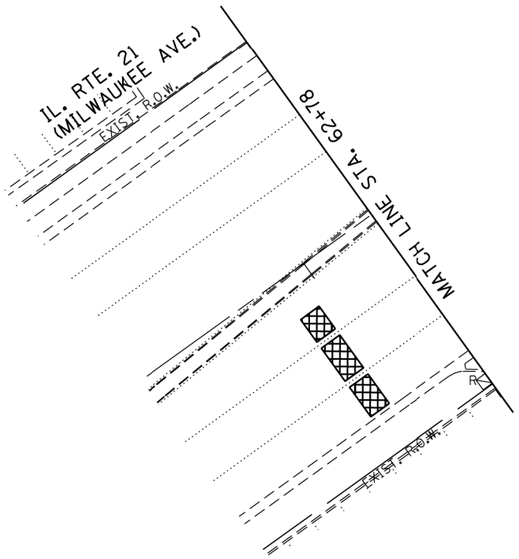

NOTE 1:

THE VIDEO DETECTION ZONES SHOWN ON THE PLANS ARE FOR PRE-CONSTRUCTION STAGE AND SHALL BE REDEFINED FOR EACH CONSTRUCTION STAGE AS A PART OF "TEMPORARY TRAFFIC SIGNAL INSTALLATION" WORK.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 2015

FILE NAME = k:\projects\projects 2014\60y78 il 21 at. il 58 at greenwood ave\signals\40.IL RTE 21 AT GREENWOOD AVE_TEMP_INT_2.dgn

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ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631TEL.7737774-5900

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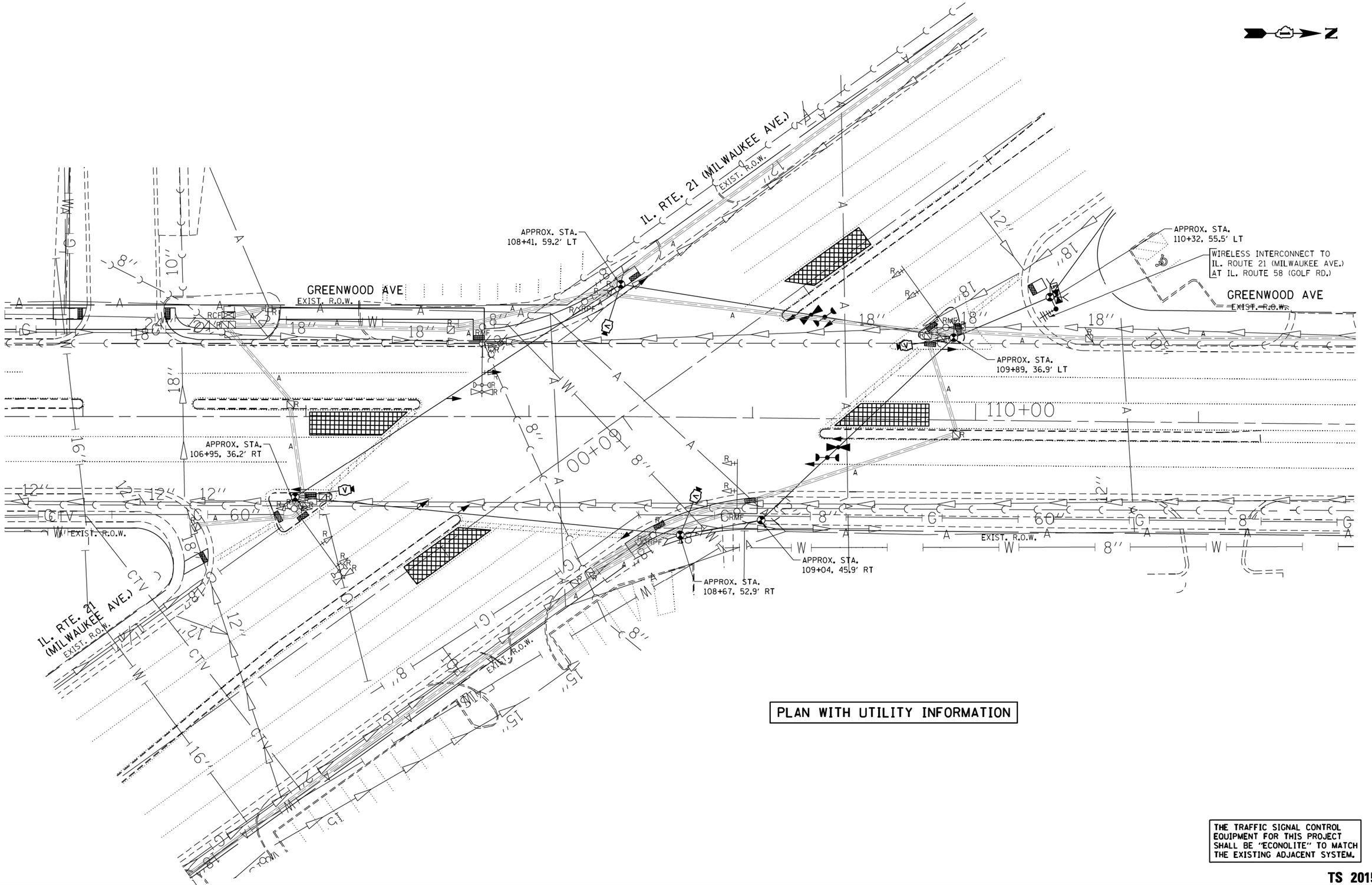
PLOT DATE = 5/8/2015	DATE - 5/8/2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN AND REMOVAL PLAN
ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT GREENWOOD AVE
(SHEET 2 OF 2)

SCALE: 1"=20' | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	32
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



PLAN WITH UTILITY INFORMATION

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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ENGINEERS AND PLANNERS
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SUITE 306
CHICAGO, ILLINOIS 60631 TEL.(773)774-5900

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PLOT SCALE = 40.0000 ' / IN.	CHECKED - PKG	REVISED -
PLOT DATE = 5/8/2015	DATE - 5/8/2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

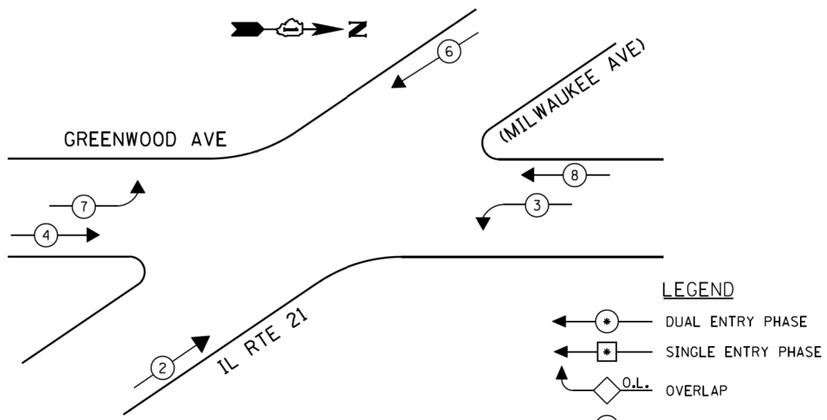
TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN AND REMOVAL PLAN
ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT GREENWOOD AVE
WITH UTILITY INFORMATION

SCALE: 1"=20' | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	33
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		

FILE NAME = k:\projects\projects 2014\60y78 il 21 at il 58 at greenwood ave\signals\40.IL RTE 21 AT GREENWOOD AVE.TEMP_INT_3.Util.dgn

CONTROLLER SEQUENCE

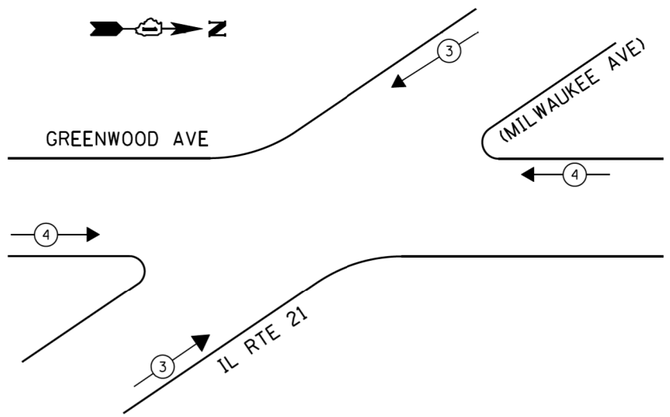


LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- O.L. OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY PHASE DESIGNATION DIAGRAM

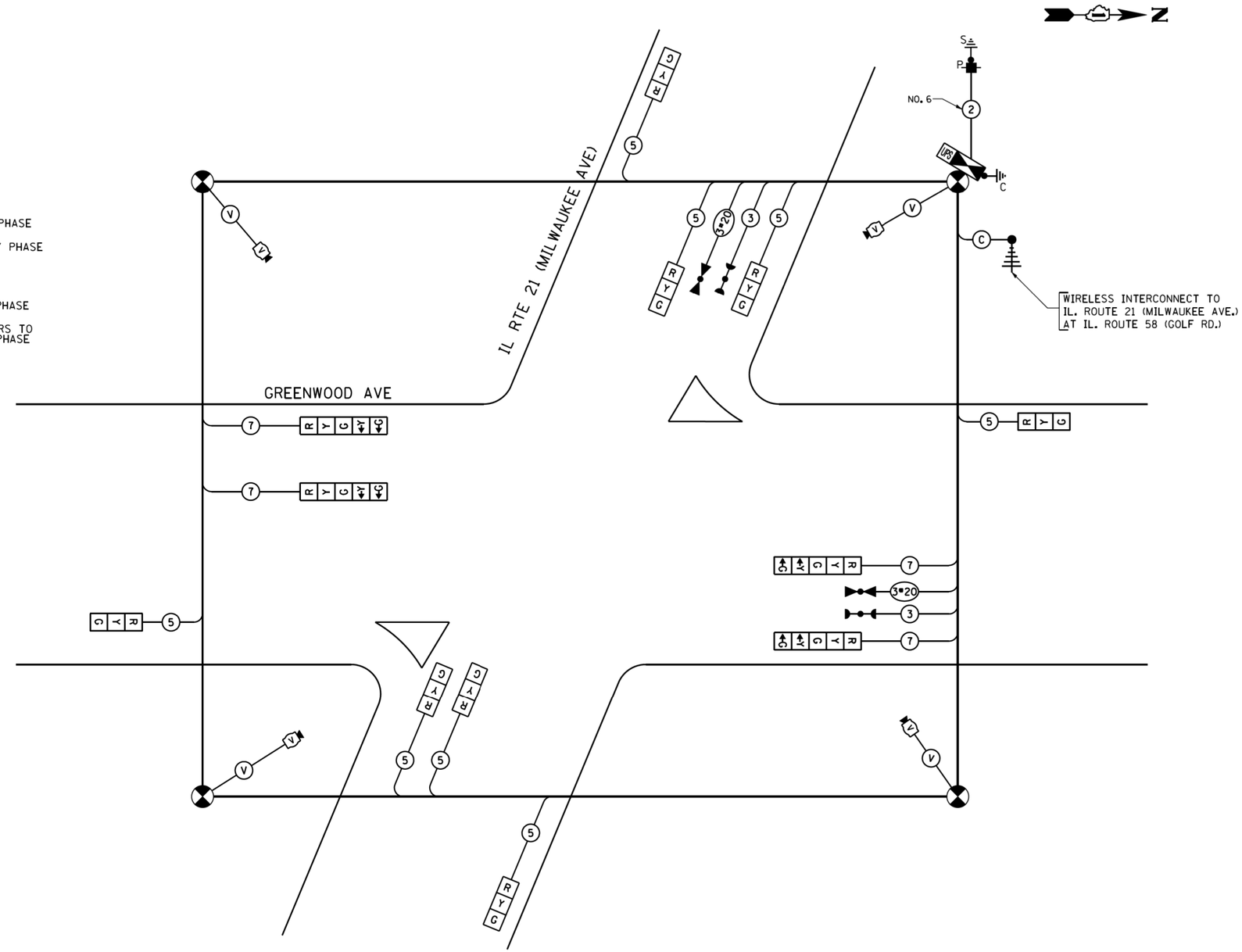
TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE INCAND.	WATTAGE LED	%OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
(YELLOW)	12	135	25	0.25	75.0
(GREEN)	12	135	15	0.25	45.0
ARROW	8	135	12	0.10	9.6
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.0
ILLUM. SIGN				0.05	
VIDEO SYSTEM	1	150		1.00	150.0
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	481.6

THE VILLAGE OF NILES
1000 CIVIC CENTER DRIVE
NILES, ILLINOIS 60714

ENERGY SUPPLY CONTACT: MAUREEN RAY
PHONE: (847) 816-5492
COMPANY: COMMONWEALTH EDISON



TEMPORARY CABLE PLAN

(NOT TO SCALE)

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL. (773)774-5900

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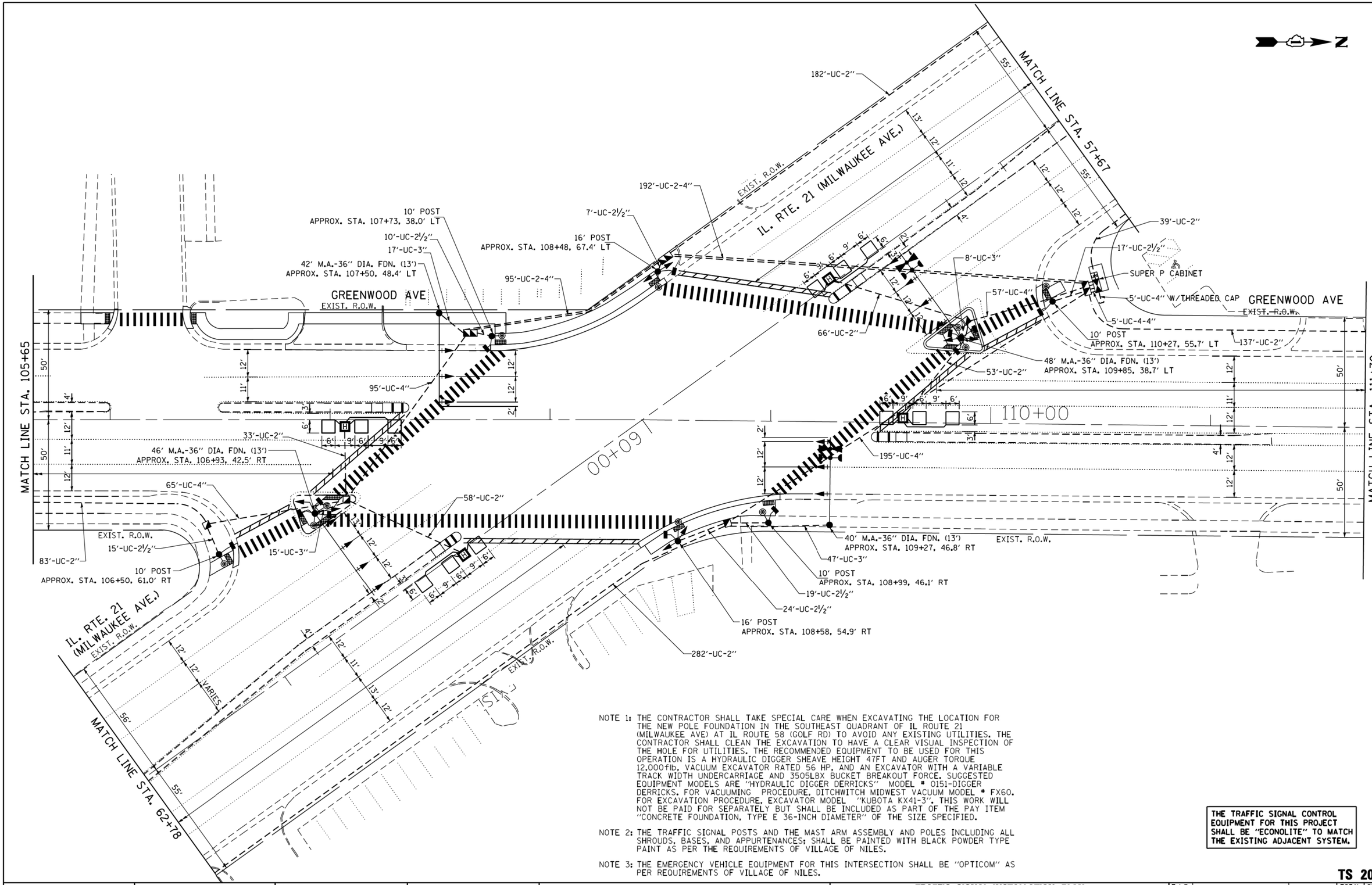
PLOT DATE = 5/8/2015	DATE - 5/8/2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM, AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE
ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT GREENWOOD AVE

SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	34
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		



NOTE 1: THE CONTRACTOR SHALL TAKE SPECIAL CARE WHEN EXCAVATING THE LOCATION FOR THE NEW POLE FOUNDATION IN THE SOUTHEAST QUADRANT OF IL ROUTE 21 (MILWAUKEE AVE) AT IL ROUTE 58 (GOLF RD) TO AVOID ANY EXISTING UTILITIES. THE CONTRACTOR SHALL CLEAN THE EXCAVATION TO HAVE A CLEAR VISUAL INSPECTION OF THE HOLE FOR UTILITIES. THE RECOMMENDED EQUIPMENT TO BE USED FOR THIS OPERATION IS A HYDRAULIC DIGGER SHEAVE HEIGHT 47FT AND AUGER TORQUE 12,000ftlb, VACUUM EXCAVATOR RATED 56 HP, AND AN EXCAVATOR WITH A VARIABLE TRACK WIDTH UNDERCARRIAGE AND 3505LBX BUCKET BREAKOUT FORCE. SUGGESTED EQUIPMENT MODELS ARE "HYDRAULIC DIGGER DERRICKS" MODEL # 0151-DIGGER DERRICKS. FOR VACUUMING PROCEDURE, DITCHWITCH MIDWEST VACUUM MODEL # FX60. FOR EXCAVATION PROCEDURE, EXCAVATOR MODEL "KUBOTA KX41-3". THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED AS PART OF THE PAY ITEM "CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER" OF THE SIZE SPECIFIED.

NOTE 2: THE TRAFFIC SIGNAL POSTS AND THE MAST ARM ASSEMBLY AND POLES INCLUDING ALL SHROUDS, BASES, AND APPURTENANCES; SHALL BE PAINTED WITH BLACK POWDER TYPE PAINT AS PER THE REQUIREMENTS OF VILLAGE OF NILES.

NOTE 3: THE EMERGENCY VEHICLE EQUIPMENT FOR THIS INTERSECTION SHALL BE "OPTICOM" AS PER REQUIREMENTS OF VILLAGE OF NILES.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 2015

GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 1035 N. NORTHWEST HIGHWAY SUITE 306 CHICAGO, ILLINOIS 60631TEL.:773)774-5900	USER NAME = $USER$	DESIGNED - PKG	REVISED -
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	PLOT DATE = 5/8/2015	DATE - 5/8/2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN
ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT GREENWOOD AVE
(SHEET 1 OF 2)

SCALE: 1"=20' | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	35
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		

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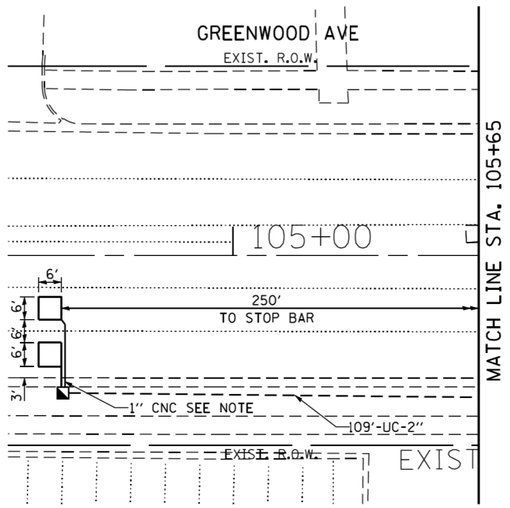

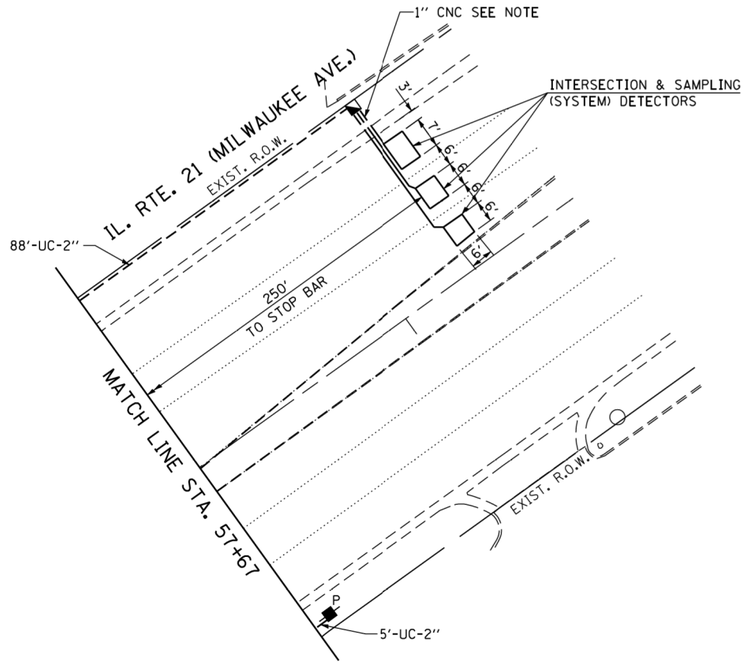

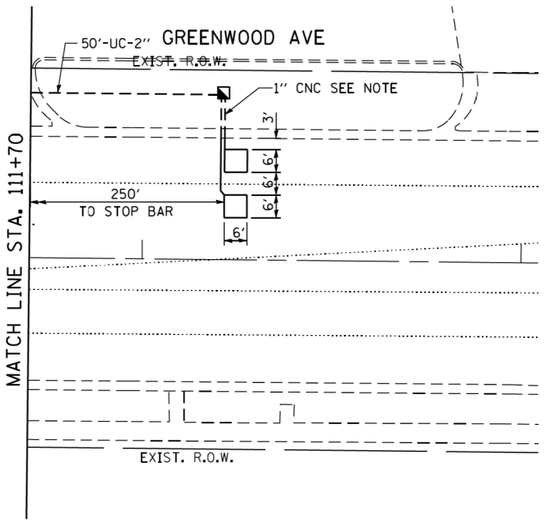

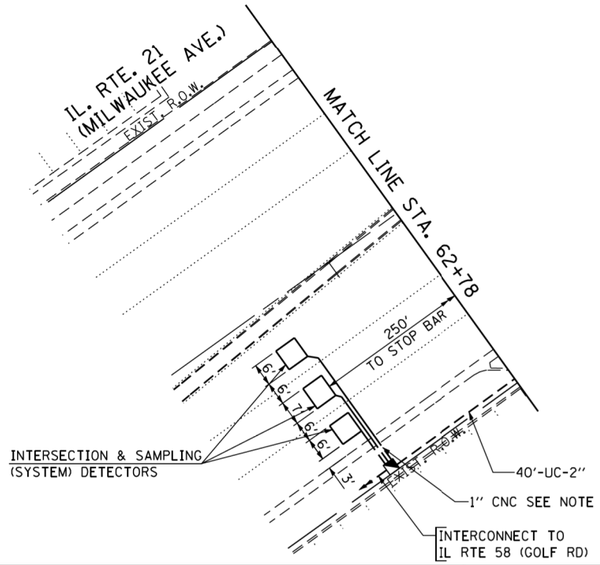

NOTE:
EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL. (773)774-5900

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN
ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT GREENWOOD AVE
(SHEET 2 OF 2)

SCALE: 1"=20' | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	36
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		

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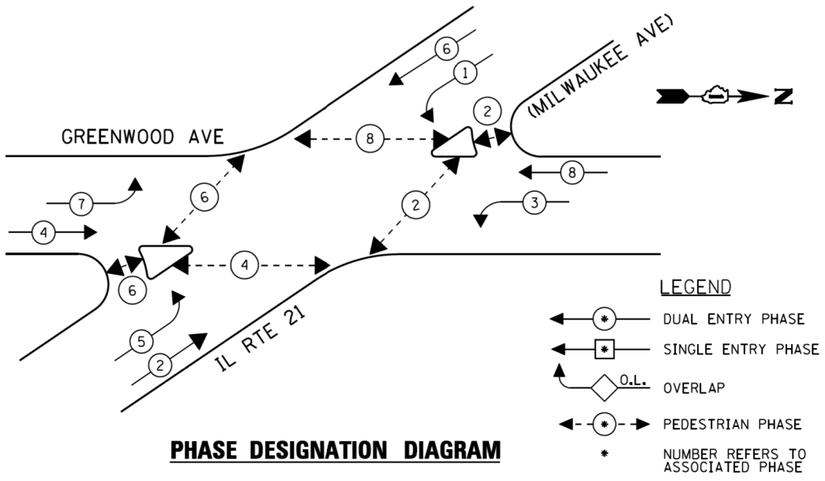
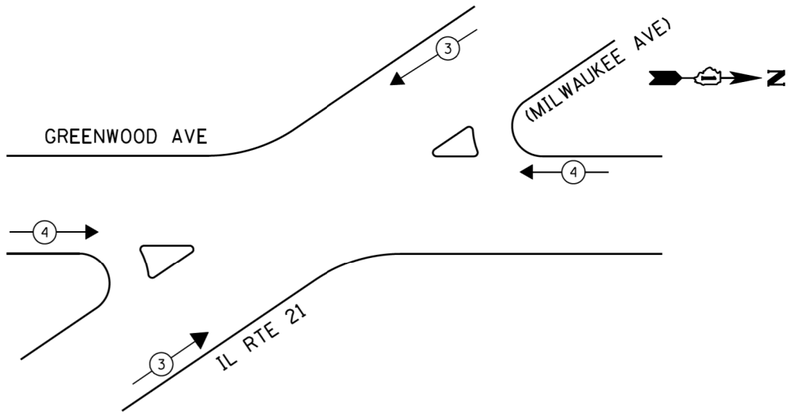
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

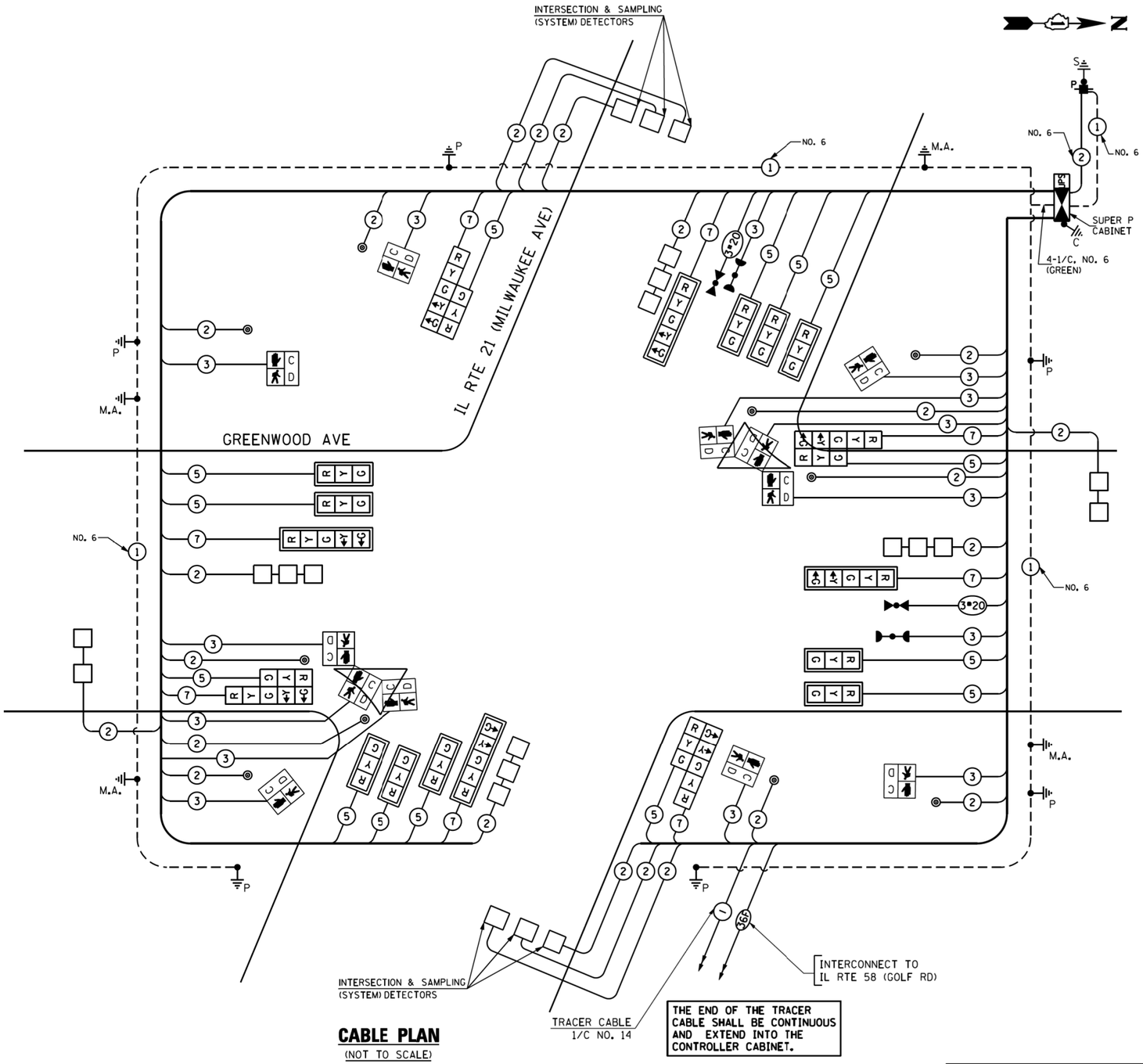
EMERGENCY VEHICLE PREEMPTION SEQUENCE



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS X	WATTAGE INCAND.	WATTAGE LED	X %OPERATION	
SIGNAL (RED)	22	135	17	0.50	187.0
(YELLOW)	22	135	25	0.25	137.5
(GREEN)	22	135	15	0.25	82.5
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	12	90	25	1.00	300.0
CONTROLLER	1	100	100	1.00	100.0
ILLUM. SIGN				0.05	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	826.2

THE VILLAGE OF NILES
1000 CIVIC CENTER DRIVE
NILES, ILLINOIS 60714

ENERGY SUPPLY CONTACT: MAUREEN RAY
PHONE: (847) 816-5492
COMPANY: COMMONWEALTH EDISON



CABLE PLAN
(NOT TO SCALE)

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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CHICAGO, ILLINOIS 60631TEL.(773)774-5900

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN
ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT GREENWOOD AVE

SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. | TO STA.

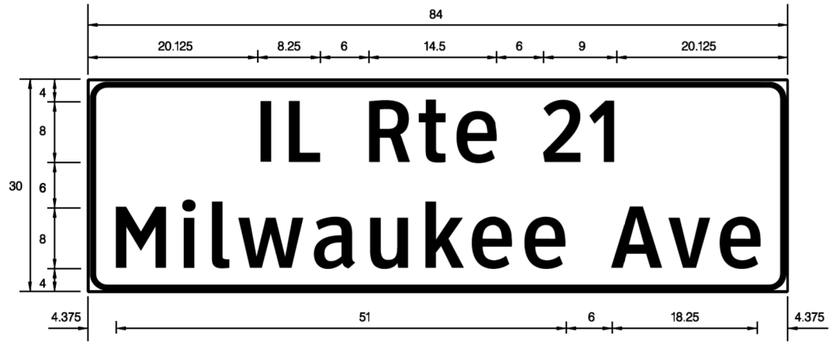
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	37
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

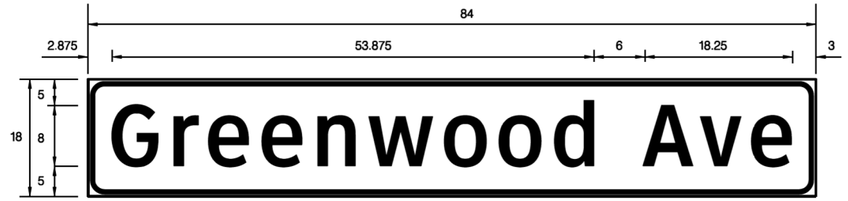
ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 2	SQ FT	56
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1225
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2½" DIA.	FOOT	92
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	87
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	1011
HANDHOLE	EACH	8
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	3
• PAINT NEW TRAFFIC SIGNAL POST	EACH	6
• PAINT NEW MAST ARM AND POLE, 40 FOOT AND OVER	EACH	4
TRANSCEIVER-FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	2842
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	3989
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	4448
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2541
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	5378
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	64
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1176
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	4
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE 40 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE 42 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE 46 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE 48 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	24
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	52
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	10
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	12
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	14
INDUCTIVE LOOP DETECTOR	EACH	12
DETECTOR LOOP, TYPE I	FOOT	769
• LIGHT DETECTOR	EACH	2
• LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	10
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	15
REMOVE EXISTING DOUBLE HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	7
• EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	493
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	EACH	1

• 100% COST TO VILLAGE OF NILES

SIGN PANEL – TYPE 1 OR TYPE 2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	17.50	2	ZZ	2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	10.50	2	ZZ	2

NOTE: FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION PLEASE SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS DETAIL.

TS 2015

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL.(773)774-5900

USER NAME = $USER$	DESIGNED - PKG	REVISED -
	DRAWN - EA	REVISED -
PLOT SCALE = 40.0000 ' / IN.	CHECKED - PKG	REVISED -
PLOT DATE = 5/8/2015	DATE - 5/8/2015	REVISED -

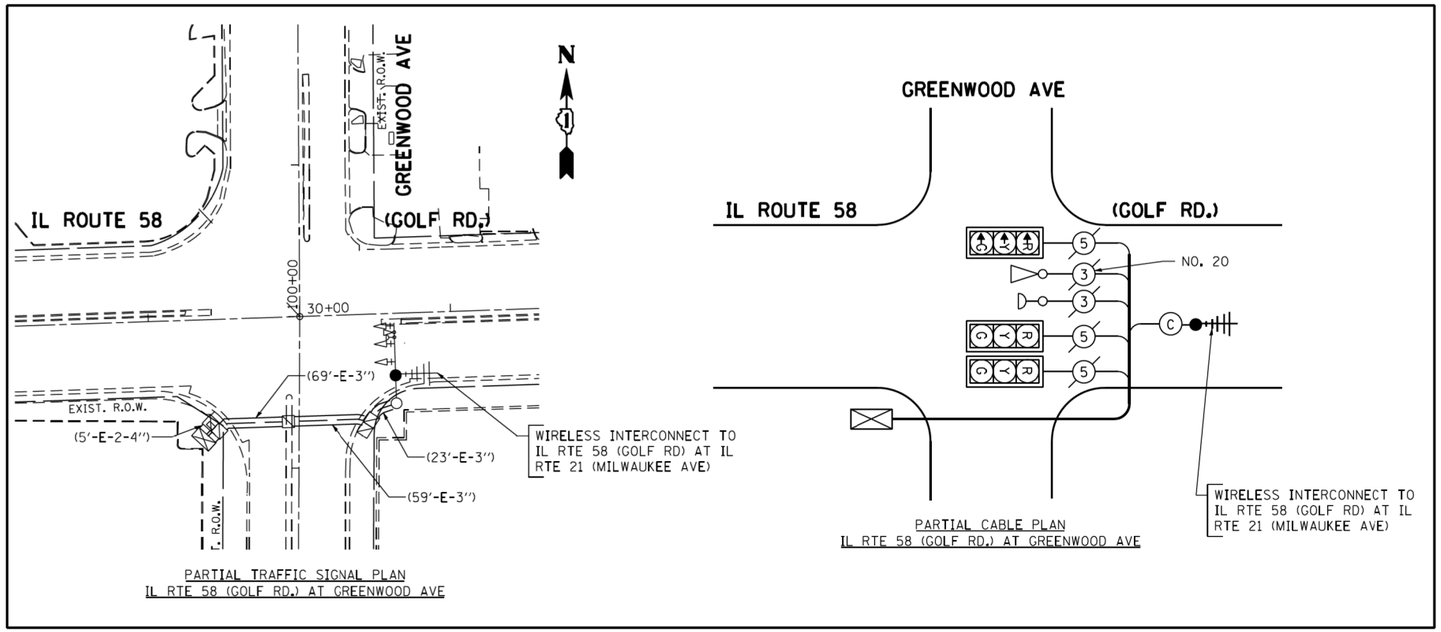
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED STREET NAME SIGNS, SCHEDULE OF QUANTITIES, PHASE DESIGNATION DIAGRAM & EMERGENCY VEHICLE PREEMPTION SEQUENCE ILLINOIS ROUTE 21 (MILWAUKEE AVE) AT GREENWOOD AVE

SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. | TO STA.

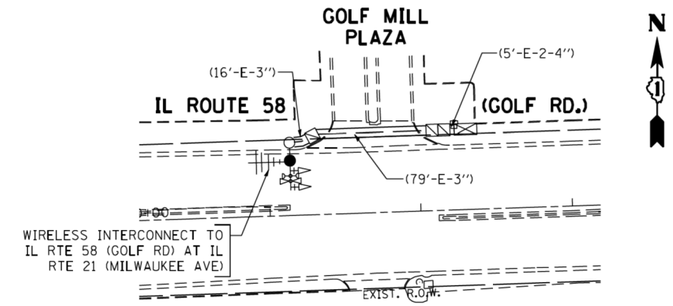
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	38
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

FILE NAME = h:\projects\projects 2014\60y78 il 21 at il 58 at greenwood ave\signals\45_IL RTE 21 AT GREENWOOD AVE_CO_2.dgn

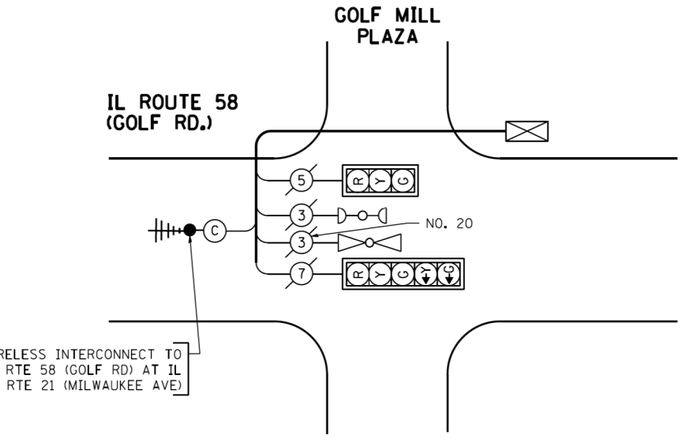


PARTIAL TRAFFIC SIGNAL PLAN
IL RTE 58 (GOLF RD.) AT GREENWOOD AVE

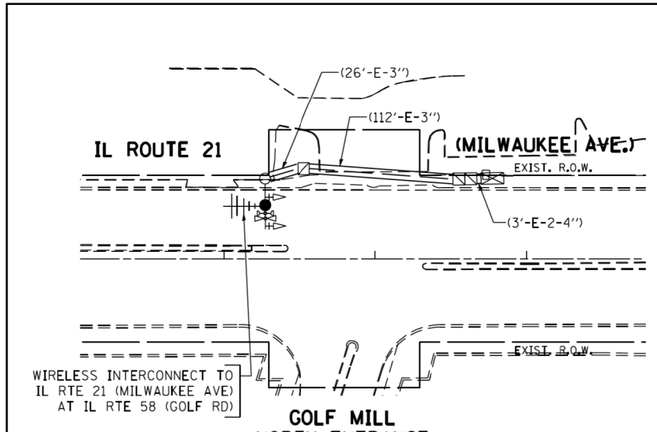
PARTIAL CABLE PLAN
IL RTE 58 (GOLF RD.) AT GREENWOOD AVE



PARTIAL TRAFFIC SIGNAL PLAN
IL RTE 58 (GOLF RD.) AT GOLF MILL PLAZA

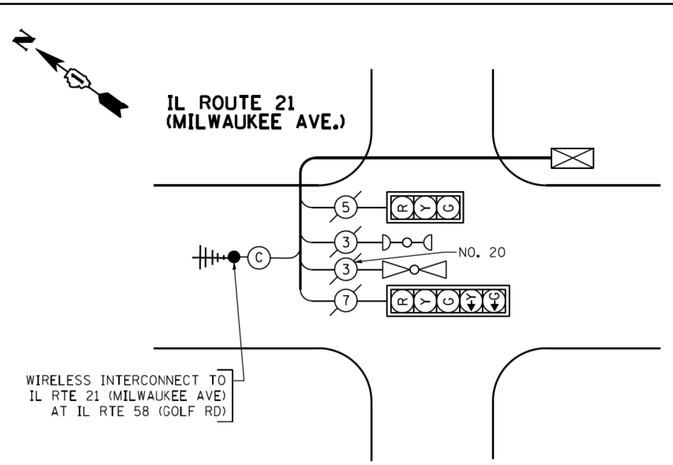


PARTIAL CABLE PLAN
IL RTE 58 (GOLF RD.) AT GOLF MILL PLAZA



GOLF MILL
NORTH ENTRANCE

PARTIAL TRAFFIC SIGNAL PLAN
IL RTE 21 (MILWAUKEE AVE.) AT GOLF MILL NORTH ENT.



GOLF MILL
NORTH ENTRANCE

PARTIAL CABLE PLAN
IL RTE 21 (MILWAUKEE AVE.) AT GOLF MILL NORTH ENT.

COST TO INSTALL WIRELESS INTERCONNECT AT THESE THREE LOCATIONS (GOLF RD AT GREENWOOD AVE; GOLF RD AT GOLF MILL PLAZA; AND MILWAUKEE AVE AT GOLF MILL NORTH ENT.) SHALL BE INCIDENTAL TO THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION AT IL RTE 21 (MILWAUKEE AVE) AT IL RTE 58 (GOLF RD.)

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

ECON. 11
ECON. 12

FILE NAME = k:\projects\projects 2014\60y78 il 21 at il 58 at greenwood ave\signals\46_IL 58 & IL 21_PARTIAL TEMPORARY INTERCONNECT.dgn

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631TEL.(773)774-5900

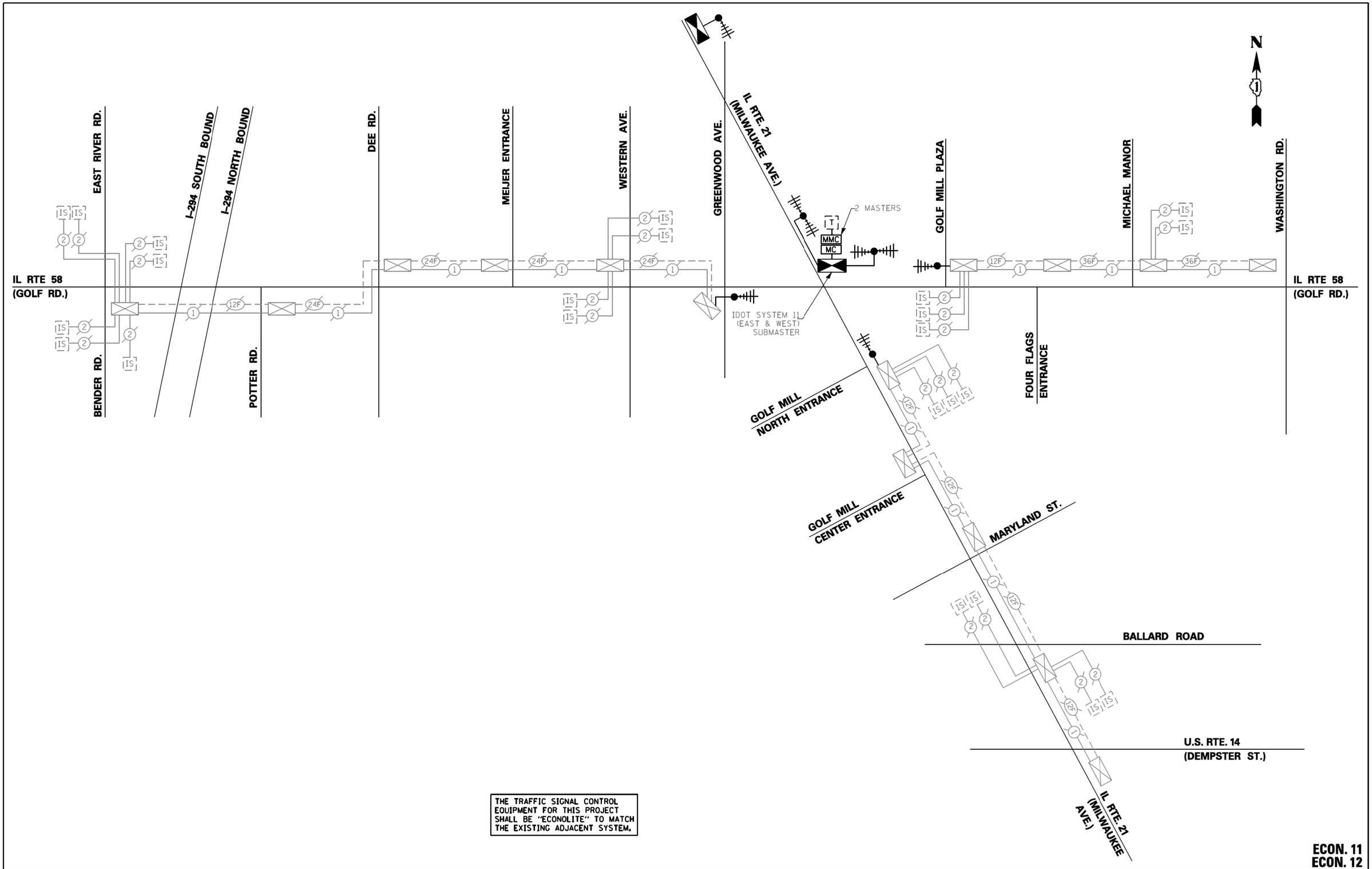
USER NAME = $USER$	DESIGNED - PKG	REVISED -	
	DRAWN - EA	REVISED -	
PLOT SCALE = 100.0000 ' / IN.	CHECKED - PKG	REVISED -	
PLOT DATE = 5/8/2015	DATE - 5/8/2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARTIAL TEMPORARY INTERCONNECT PLAN
ILL. RTE. 58 (GOLF RD.) FROM GREENWOOD AVE. TO GOLF MILL PLAZA
AND ILL. RTE. 21 (MILWAUKEE AVE) AT GOLF MILL NORTH ENTRANCE

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	39
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

ECON. 11
ECON. 12

FILE NAME = k:\projects\projects 2014\60y78 il 21 at il 58 at greenwood ave\signals\47_IL 58 & IL 21_TEMPORARY SCHEMATIC.dgn

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631TEL.(773)774-5900

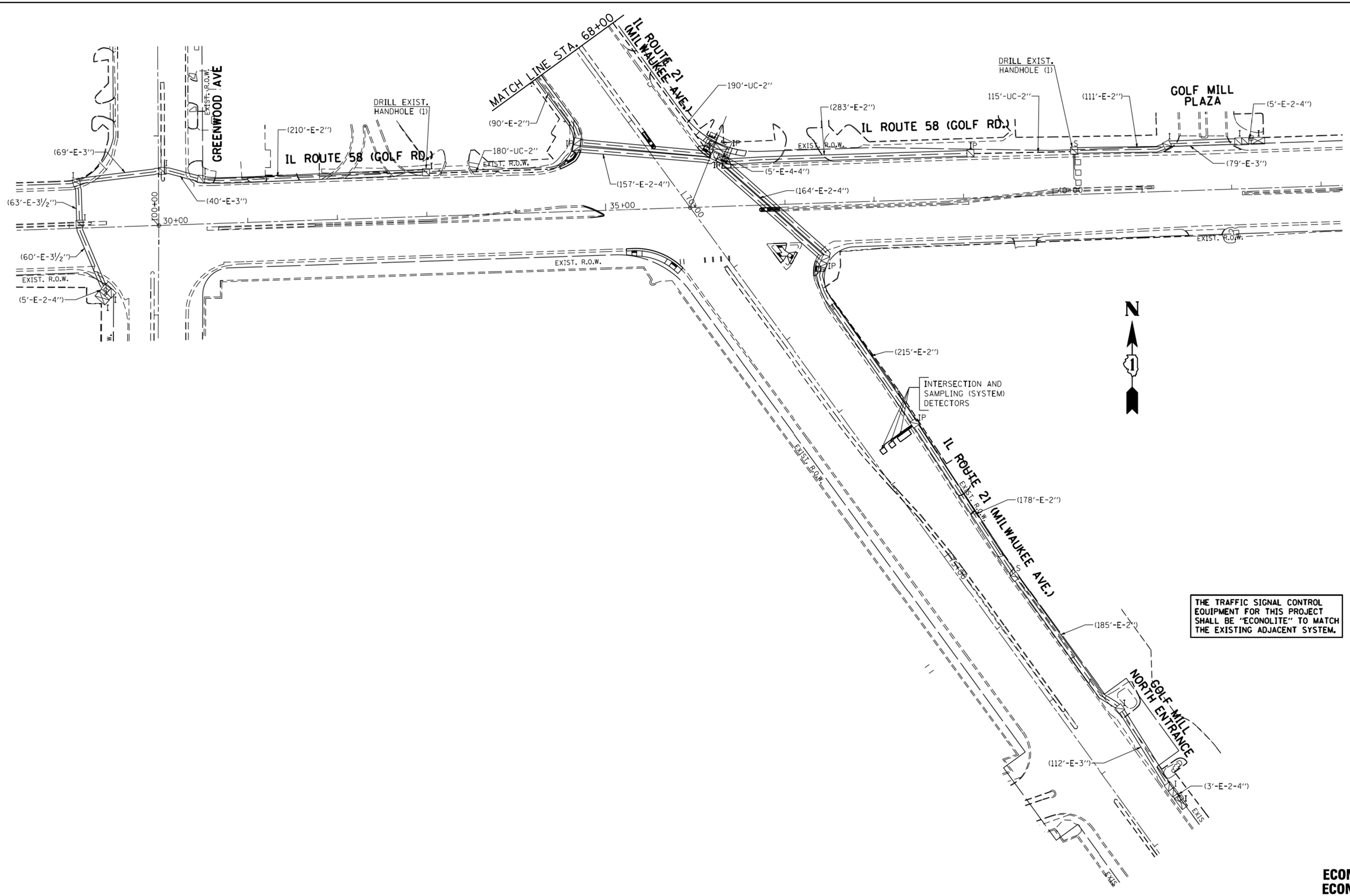
USER NAME = $USER$	DESIGNED - PKG	REVISED -
	DRAWN - EA	REVISED -
PLOT SCALE = 40.0000 ' / IN.	CHECKED - PKG	REVISED -
PLOT DATE = 5/8/2015	DATE - 5/8/2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY INTERCONNECT SCHEMATIC
ILL. RTE. 58 (GOLF RD.) FROM E. RIVER RD. TO WASHINGTON AVE.

SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	40
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



ECON. 11
ECON. 12

FILE NAME = k:\projects\projects 2014\60y78 il 21 at il 58 at greenwood ave\signals\48.IL 58 & IL 21.PROPOSED INTERCONNECT.dgn

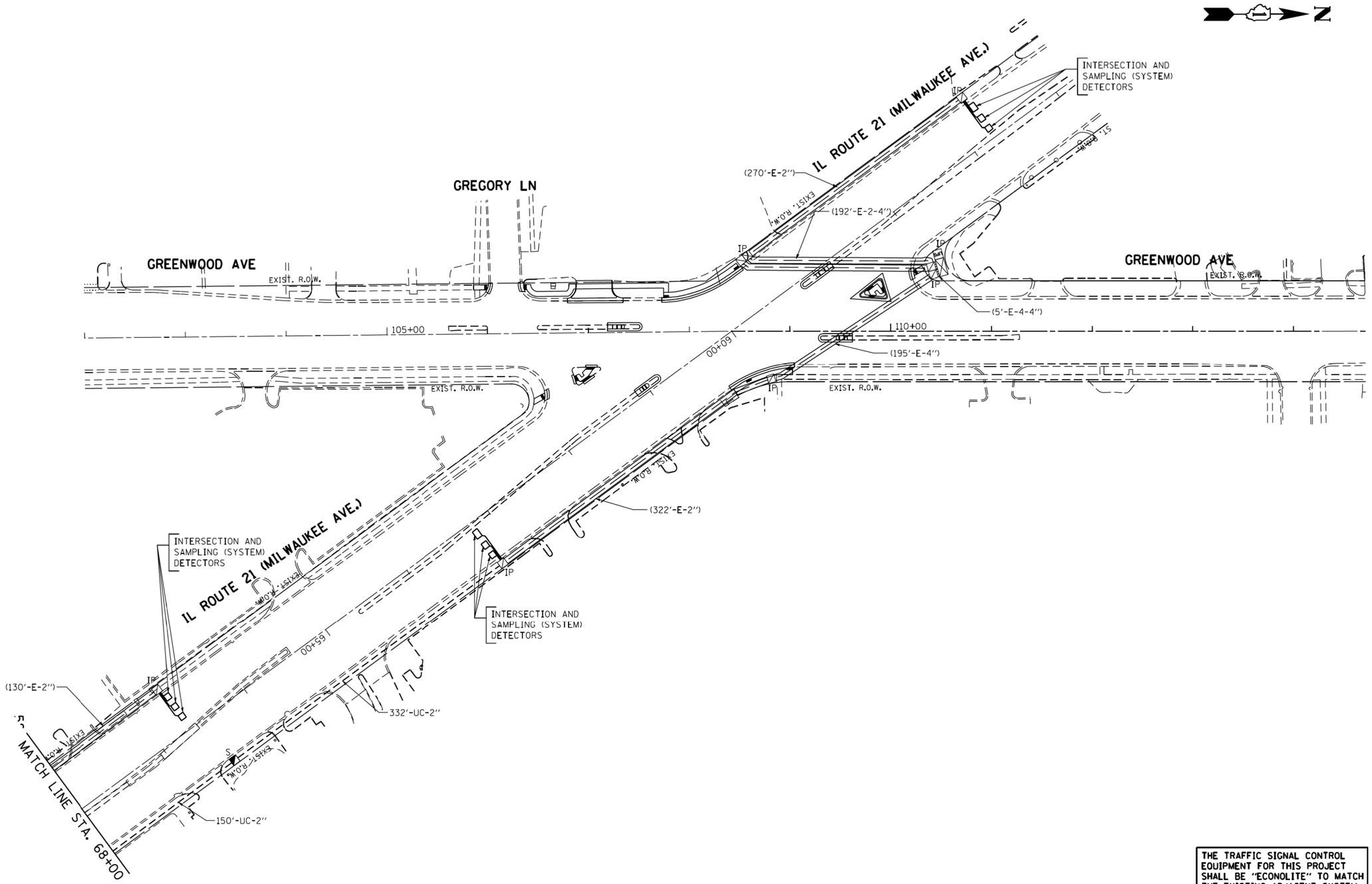
GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 6035 N. NORTHWEST HIGHWAY SUITE 306 CHICAGO, ILLINOIS 60631 TEL. (773)774-5900	USER NAME = $USER$	DESIGNED - PKG	REVISED -
		DRAWN - EA	REVISED -
	PLOT SCALE = 100.0000 ' / IN.	CHECKED - PKG	REVISED -
	PLOT DATE = 5/8/2015	DATE - 5/8/2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
ILL. RTE. 58 (GOLF RD.) FROM GREENWOOD AVE. TO GOLF MILL PLAZA AND ILL. RTE. 21 (MILWAUKEE AVE) FROM GOLF MILL NORTH ENTRANCE TO GREENWOOD AVE (SHEET 1 OF 2)

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	41
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

ECON. 11
ECON. 12

FILE NAME = k:\projects\projects 2014\60y78 il 21 at il 58 at greenwood ave\signals\49_IL 58 & IL 21_PROPOSED INTERCONNECT.dgn

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631TEL.(773)774-5900

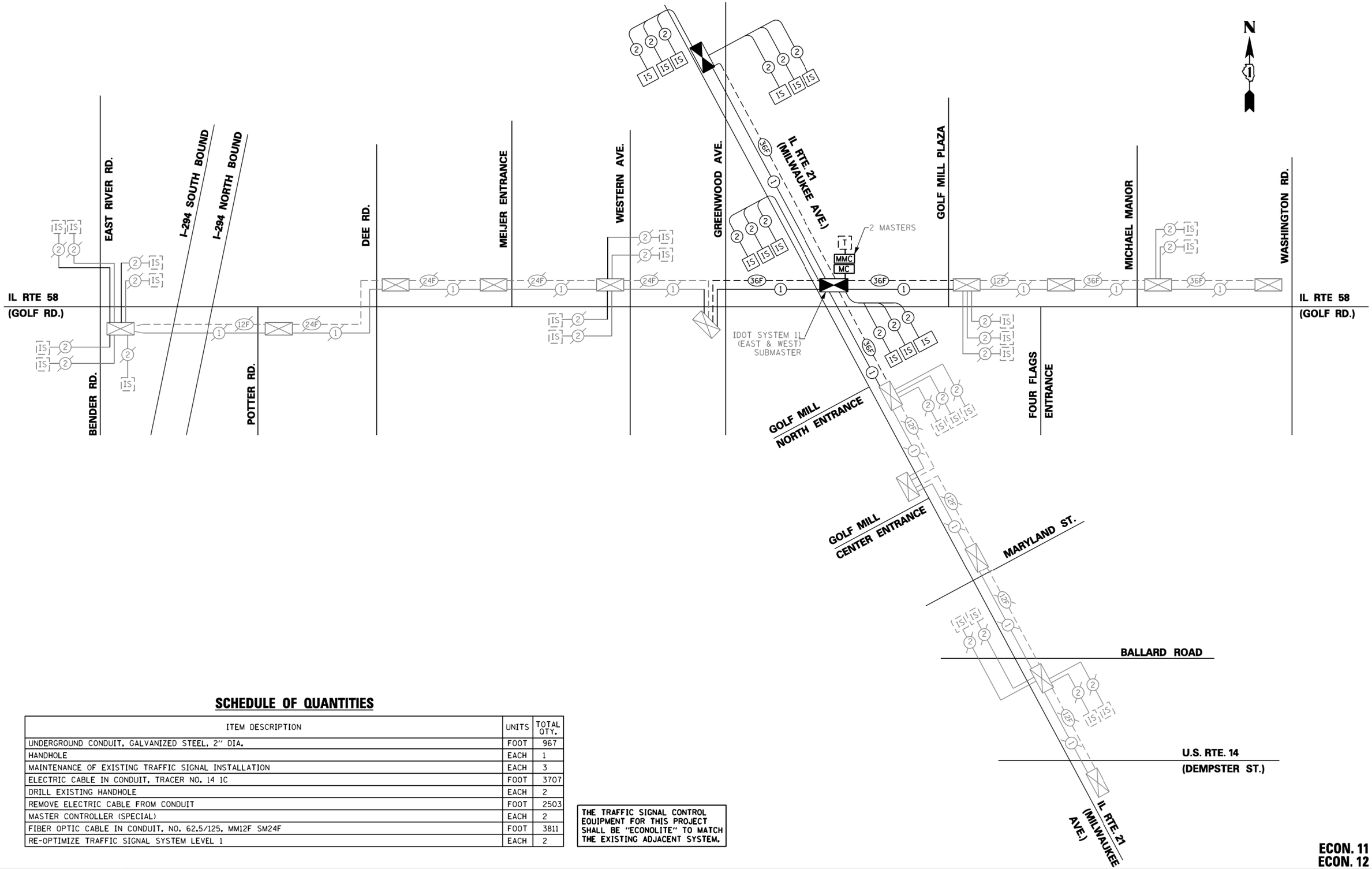
USER NAME = $USER$	DESIGNED - PKG	REVISED -
	DRAWN - EA	REVISED -
PLOT SCALE = 100.0000 ' / IN.	CHECKED - PKG	REVISED -
PLOT DATE = 5/8/2015	DATE - 5/8/2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
ILL. RTE. 58 (GOLF RD.) FROM GREENWOOD AVE. TO GOLF MILL PLAZA AND ILL. RTE. 21 (MILWAUKEE AVE) FROM GOLF MILL NORTH ENTRANCE TO GREENWOOD AVE (SHEET 2 OF 2)

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	42
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNITS	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	967
HANDHOLE	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	3
ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1C	FOOT	3707
DRILL EXISTING HANDHOLE	EACH	2
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2503
MASTER CONTROLLER (SPECIAL)	EACH	2
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	3811
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	2

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

ECON. 11
ECON. 12

FILE NAME = k:\projects\projects 2014\60y78 il 21 at il 58 at greenwood ave\signals\58.IL 58 & IL 21_PROPOSED SCHEMATIC.dgn

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
1035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631TEL.(773)774-5900

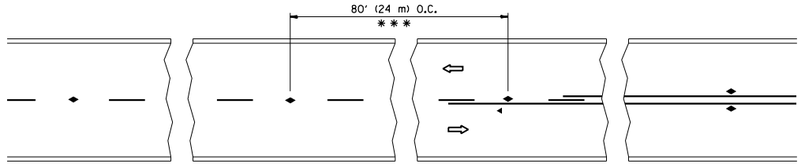
USER NAME = $USER$	DESIGNED - PKG	REVISED -	
	DRAWN - EA	REVISED -	
PLOT SCALE = 40.0000 ' / IN.	CHECKED - PKG	REVISED -	
PLOT DATE = 5/8/2015	DATE - 5/8/2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED INTERCONNECT SCHEMATIC
ILL. RTE. 58 (GOLF RD.) FROM E. RIVER RD. TO WASHINGTON AVE.

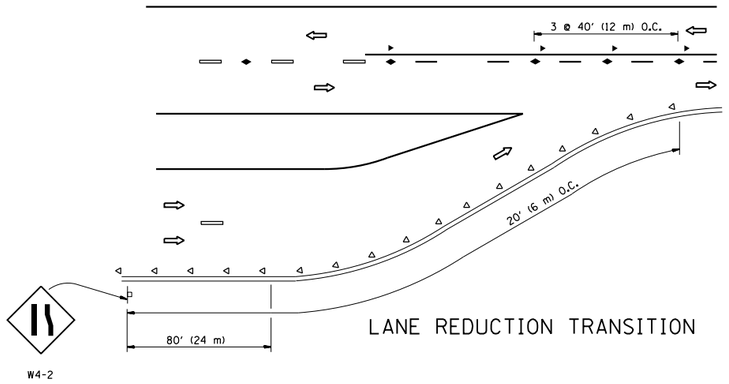
SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2014-059-I	COOK	53	43
		CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		

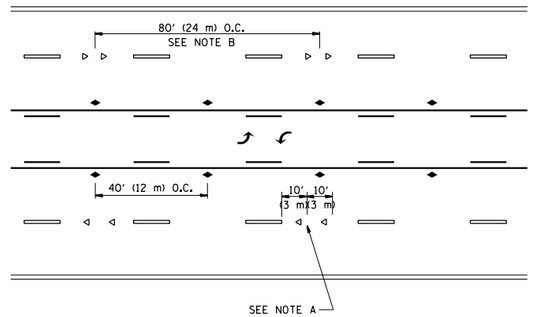


* * * REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

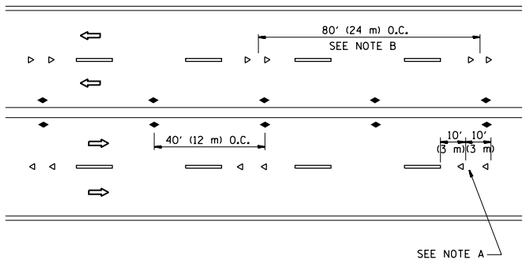
TWO-LANE/TWO-WAY



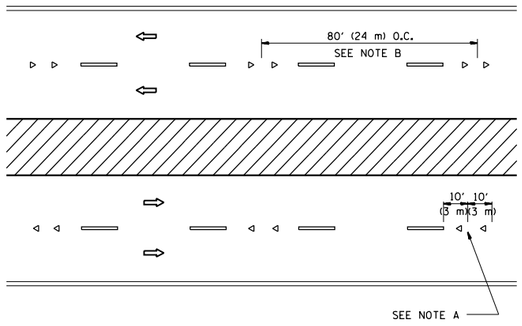
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

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

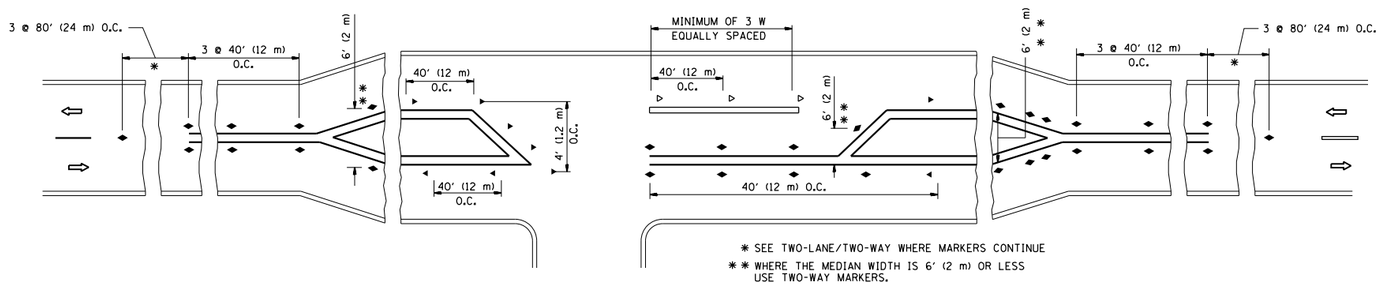
LANE MARKER NOTES

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



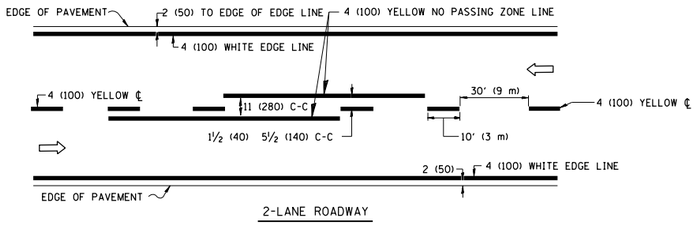
* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE

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

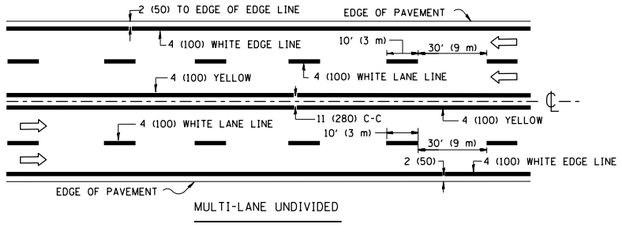
LEFT TURN

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

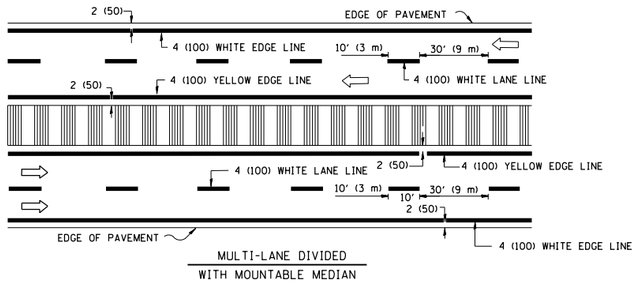
FILE NAME = c:\pw_work\pwidot\ledezmarm\d0333875\DistStd.dgn	USER NAME = ledezmarm	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - T. RAMMACHER 03-12-99					347	2014-059-I	COOK	53	44
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - T. RAMMACHER 01-06-00						TC-11		CONTRACT NO. 60Y78	
	PLOT DATE = 5/19/2015	DATE -	REVISED - C. JUCIUS 09-09-09		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.		FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	



2-LANE ROADWAY



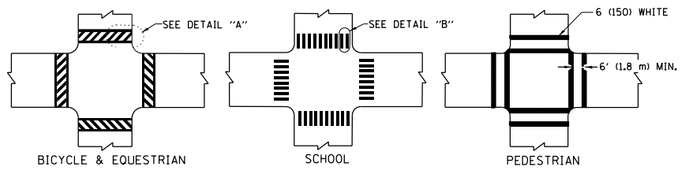
MULTI-LANE UNDIVIDED



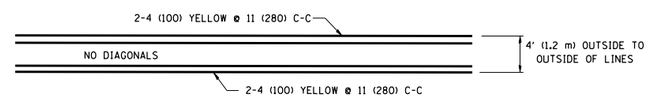
MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

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

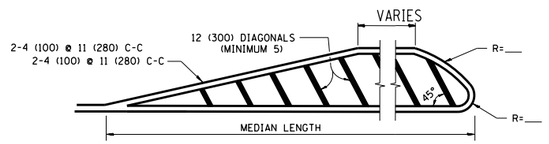
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



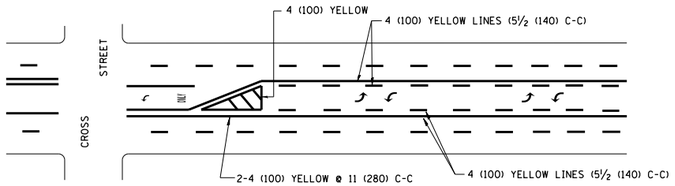
4' (1.2 m) WIDE MEDIANS ONLY



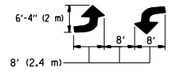
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

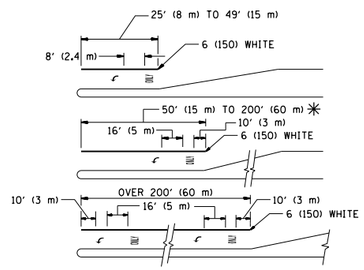


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

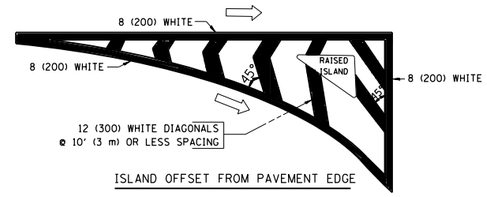


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m^2) **ONLY** AREA = 20.8 SQ. FT. (1.9 m^2)

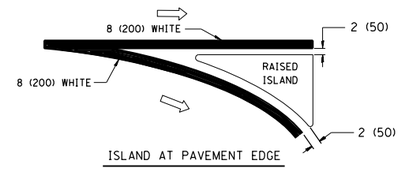
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 ⌀ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 ⌀ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 ⌀ 4 (100) EACH DIRECTION 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; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 ⌀ 6 (150) 12 (300) ⌀ 45° 12 (300) ⌀ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART 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^2) EACH "X"=54.0 SQ. FT. (5.0 m^2)
SHOULDER DIAGONALS	12 (300) ⌀ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

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

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

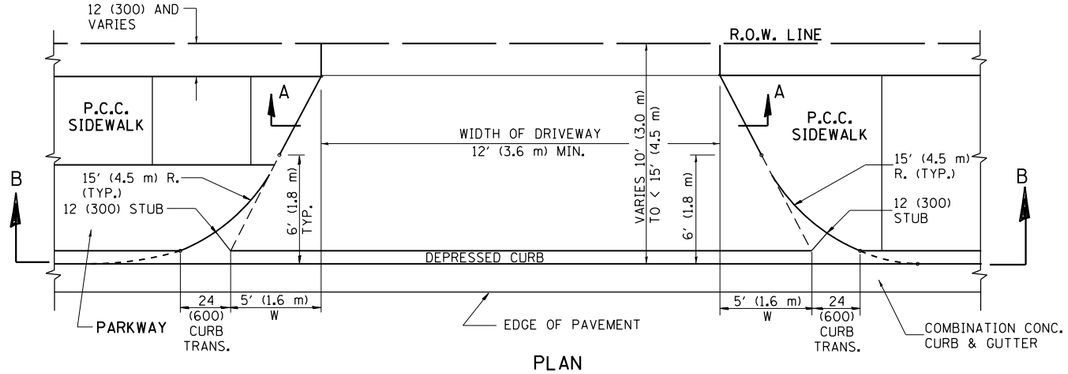
FILE NAME = c:\pw_work\pwidot\ledezmarm\d0333875\DistStd.dgn	USER NAME = ledezmarm	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94
		DRAWN -	REVISED -C. JUCIUS 09-09-09
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/19/2015	DATE - 03-19-90	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

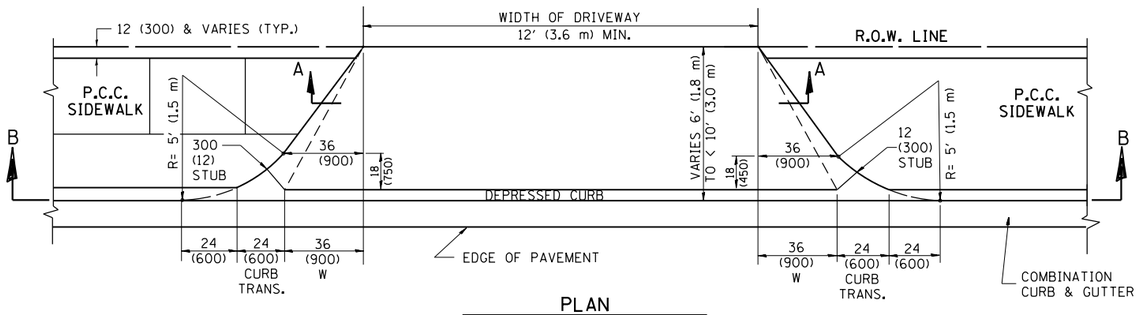
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	45
	TC-13	CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



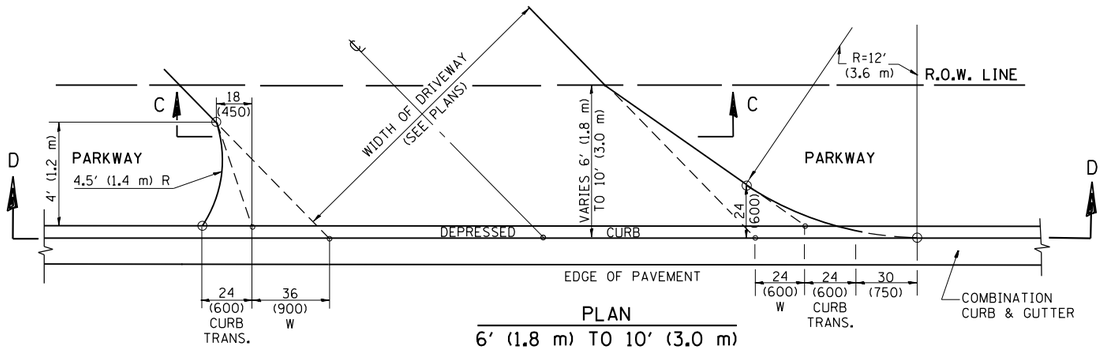
PLAN

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



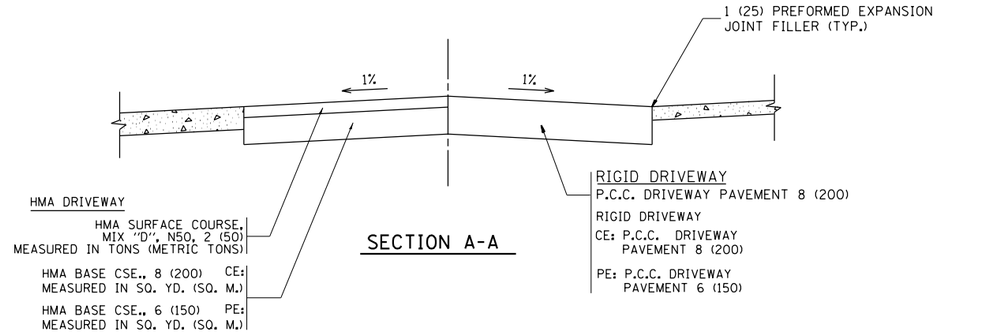
PLAN

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

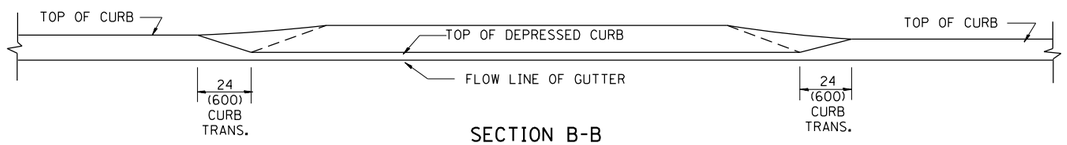


PLAN

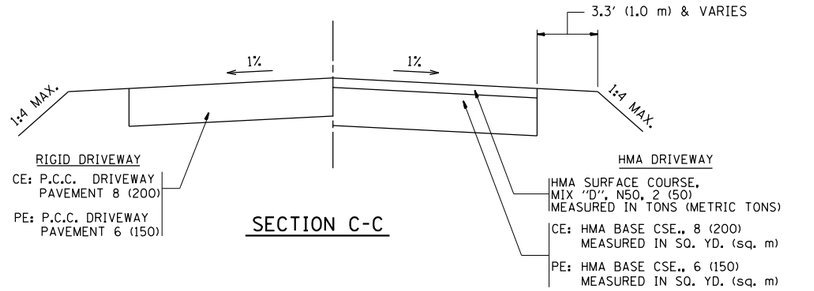
6' (1.8 m) TO 10' (3.0 m)



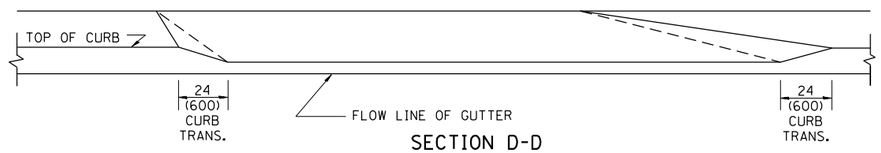
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

GENERAL NOTES

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.

WHEN THE DISTANCE BETWEEN R.O.W. AND THE BACK OF CURB IS EQUAL TO OR LESS THAN 8' (2.4 m), THE P.C.C. SIDEWALK SHALL EXTEND TO THE BACK OF CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

THE 1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

"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.

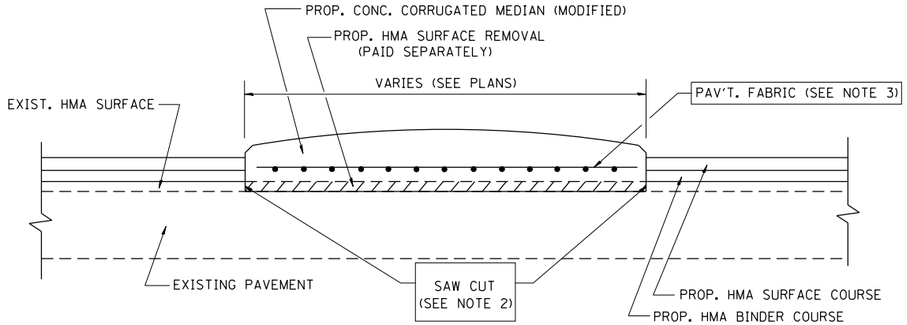
FILE NAME = c:\pw_work\pwidot\ledezmarm\d0333875\D-tStd.dgn	USER NAME = ledezmarm	DESIGNED - R. SHAH	REVISED - M. GOMEZ 04-06-01
		DRAWN -	REVISED - P. LaFLEUR 04-15-03
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - R. BORO 01-01-07
	PLOT DATE = 5/19/2015	DATE - 11-06-95	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

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

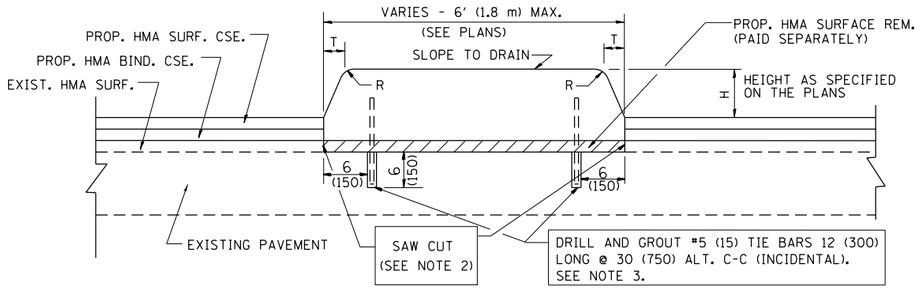
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	46
	BD400-02 (BD-02)	CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



NOTES:
1. CORRUGATED MEDIAN (MODIFIED) SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 606 OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE PORTIONS OF STATE STANDARD 606306.
2. WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY DELETE THE SAW CUT IF A NEAT JOINT CAN BE OBTAINED BY MILLING THE HMA SURFACE TO BE REMOVED. SAW CUT WILL BE INCLUDED IN THE COST OF CORRUGATED MEDIAN (MODIFIED)
3. PAVEMENT FABRIC WILL BE INCLUDED IN THE COST OF CORRUGATED MEDIAN (MODIFIED)

DETAILS FOR CORRUGATED MEDIAN (MODIFIED)

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT (SQUARE METER) FOR "CORRUGATED MEDIAN (MODIFIED)"



H	R	T
6(150)	1(25)	1(25)
9(225)	1(25)	2(50)

NOTES:
1. CONCRETE MEDIAN TYPE SB (DOWELLED) SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF STATE STANDARD 606301 AND SECTION 606 OF THE STANDARD SPECIFICATIONS.
2. WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY DELETE THE SAW CUT IF A NEAT JOINT CAN BE OBTAINED BY MILLING THE HMA SURFACE TO BE REMOVED. SAW CUT WILL BE INCLUDED IN THE COST OF "CONCRETE MEDIAN TYPE SB (DOWELLED)"
3. FOR MEDIAN WIDTH LESS THAN 4' (1.2 m) USE ONE ROW OF #5 (15) BARS @ 30 (750) C-C ALONG THE MEDIAN CENTERLINE. TIE BARS WILL BE INCLUDED IN THE COST OF "CONCRETE MEDIAN TYPE SB (DOWELLED)"

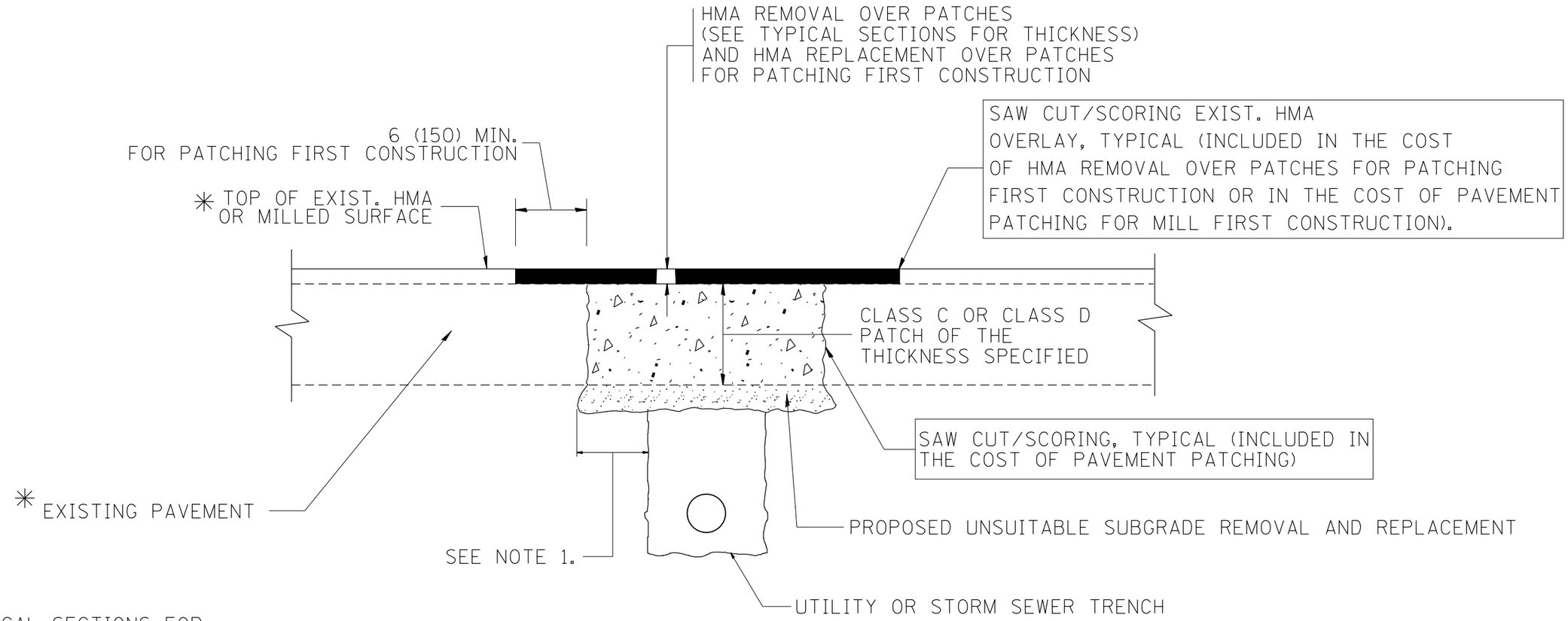
DETAILS FOR CONCRETE MEDIAN TYPE SB (DOWELLED)

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT (SQUARE METER) FOR "CONCRETE MEDIAN TYPE SB (DOWELLED)"

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

FILE NAME = c:\pw_work\pwidot\ledezmarm\d0333875\DistStd.dgn	USER NAME = ledezmarm	DESIGNED - M. DE YONG	REVISED - R. SHAH 09-09-94	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**DETAILS FOR CONCRETE MEDIAN TYPE SB (DOWELLED) CORRUGATED MEDIAN (MODIFIED)**
	PLOT SCALE = 100.0000 ' / in.	DRAWN -	REVISED - R. SHAH 10-25-94		
	PLOT DATE = 5/19/2015	CHECKED -	REVISED - E. GOMEZ 08-28-00		
		DATE - 05-14-90	REVISED - R. BORO 01-01-07		SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	47
	BD600-02 (BD-5)	CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



✳ SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

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

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

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

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

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

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

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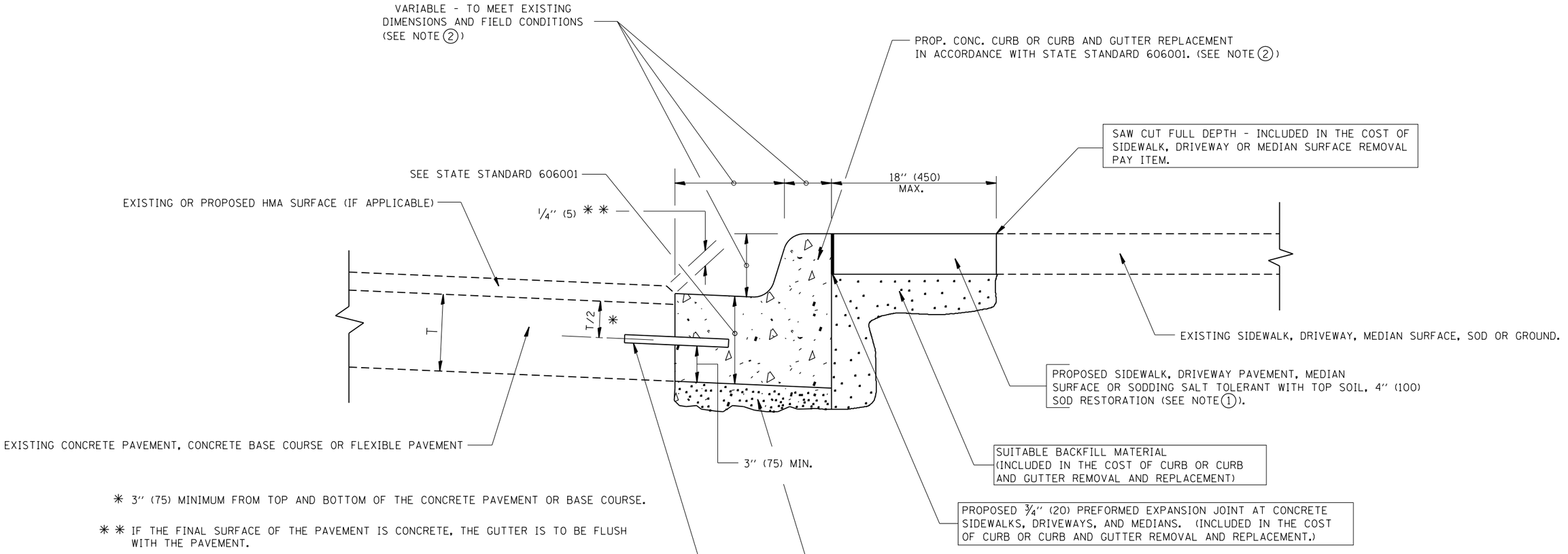
		DRAWN -	REVISED - R. BORO 01-01-07
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - R. BORO 09-04-07
	PLOT DATE = 5/19/2015	DATE - 10-25-94	REVISED - K. ENG 10-27-08

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	48
	BD400-04 (BD-22)	CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



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

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

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

SODDING, SALT TOLERANT AND TOP SOIL, FURNISH AND PLACE 4" WILL BE PAID FOR SEPARATELY.

(2) FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED

(3) CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

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

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

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

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

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

BASIS OF PAYMENT:

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

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

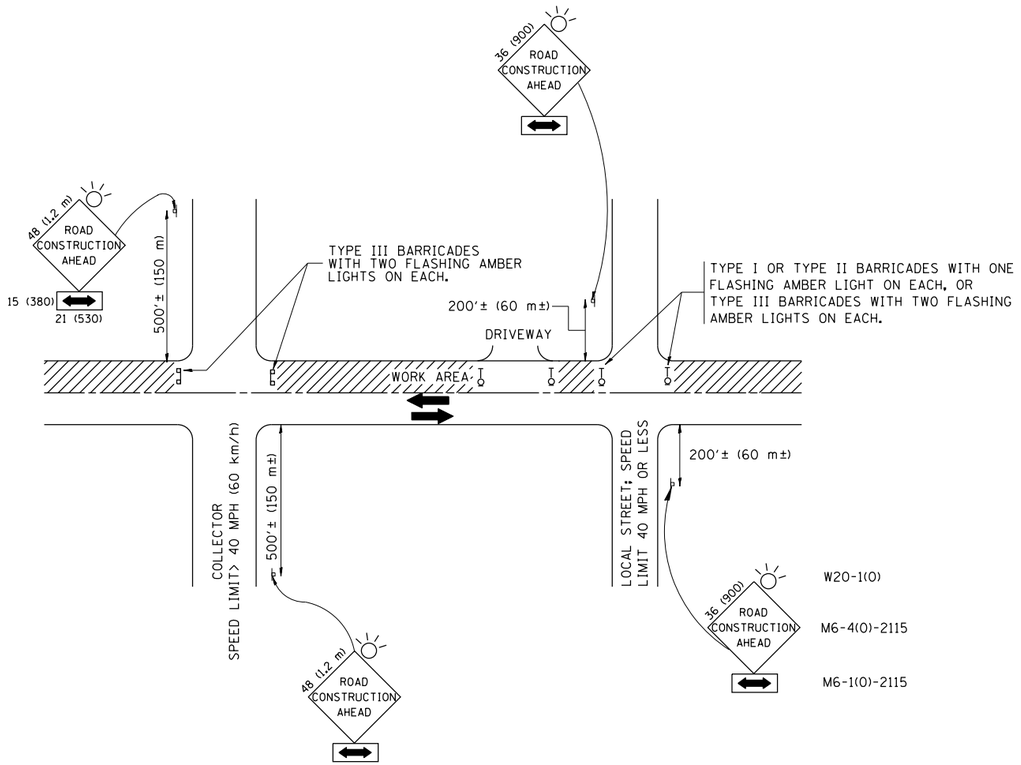
FILE NAME = c:\pw_work\pwidot\ledezmarm\d0333875\D-tStd.dgn	USER NAME = ledezmarm	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96
		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - M. GOMEZ 01-22-01
	PLOT DATE = 5/19/2015	DATE - 03-11-94	REVISED - R. BORO 12-15-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	49
	BD600-06 (BD-24)	CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



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

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

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

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

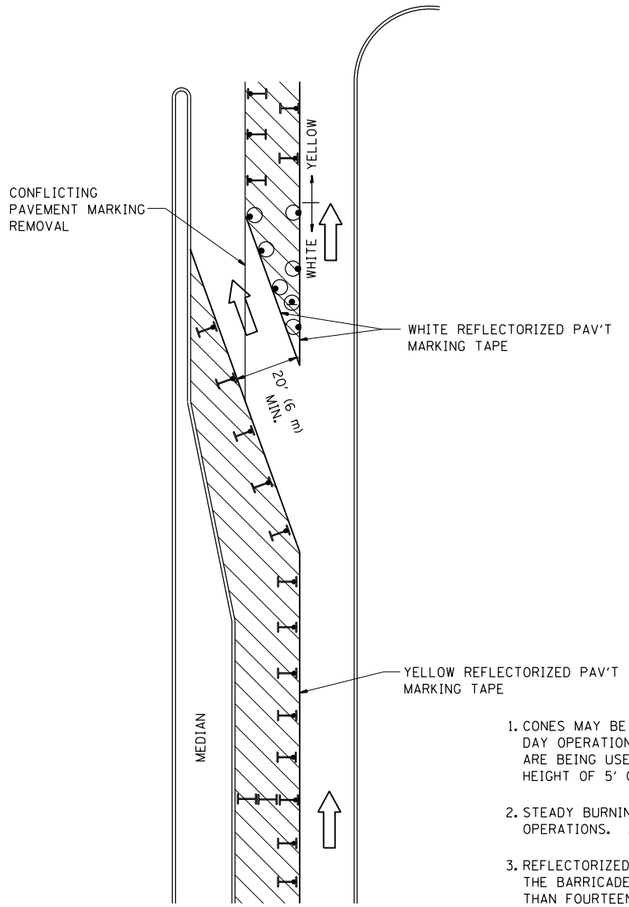
FILE NAME = c:\pw_work\pwidot\ledezmarm\d0333875\DistStd.dgn	USER NAME = ledezmarm	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 5/19/2015	DATE - 06-89	REVISED -T. RAMMACHER 01-06-00

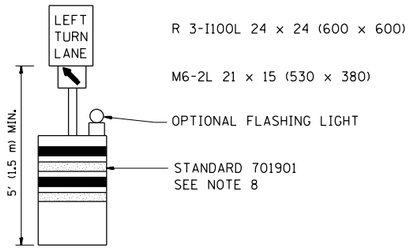
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

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

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	50
	TC-10	CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		





GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM OPER 725 IS REQUIRED.
8. IF A DRUM OR TYPE II BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHR 350 PREQUIREMENTS.
9. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

LEGEND

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

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

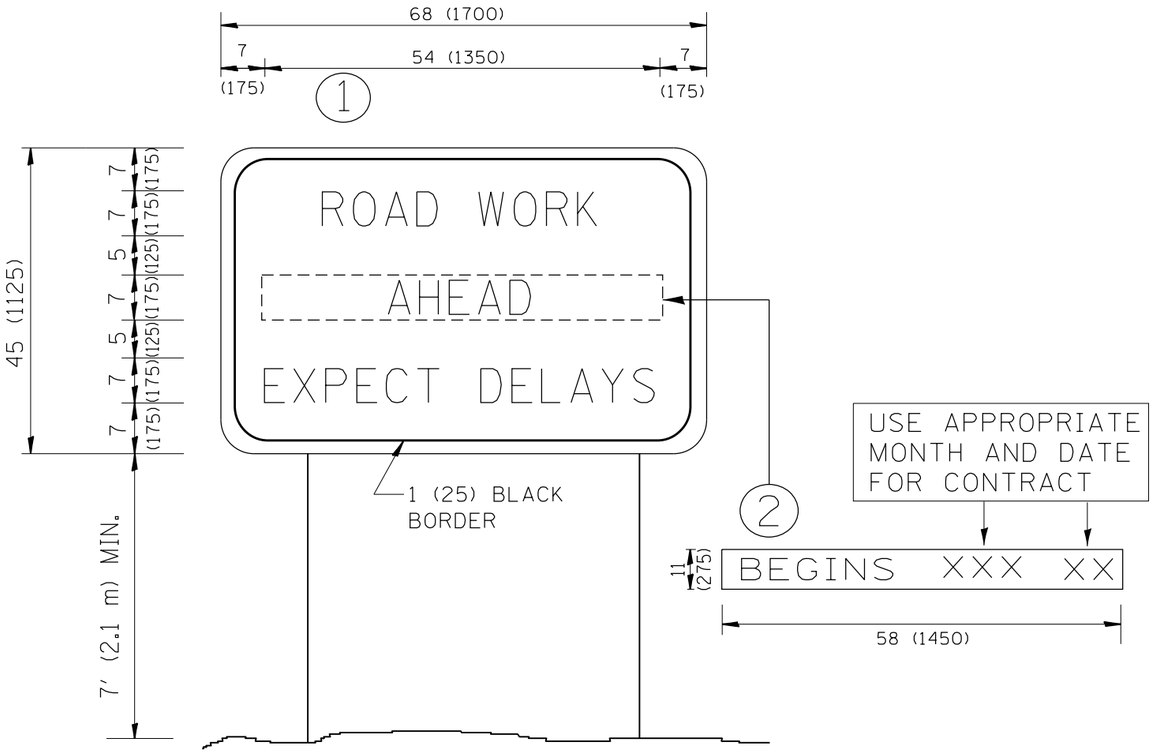
FILE NAME = c:\pw_work\pwidot\ledezmarm\d0333875\D-tStd.dgn	USER NAME = ledezmarm	REVISED -T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09
	PLOT SCALE = 100.0000 '/ in.	REVISED - A. HOUSEH 11-07-95	REVISED -
	PLOT DATE = 5/19/2015	REVISED -T. RAMMACHER 01-06-00	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	51
	TC-14	CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



NOTES:

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

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

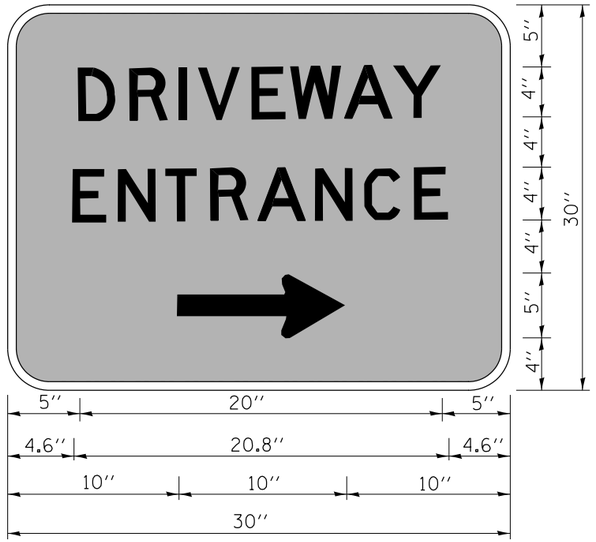
FILE NAME = c:\pw_work\pwidot\ledezmarm\d0333875\DistStd.dgn	USER NAME = ledezmarm	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -T. RAMMACHER 02-02-99
	PLOT DATE = 5/19/2015	DATE -	REVISED - C. JUCIUS 01-31-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	52
	TC-22	CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



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 = c:\pw_work\pwidot\ledezmarm\d0333875\DistStd.dgn	USER NAME = ledezmarm	DESIGNED -	REVISED - C. JUCIUS 02-15-07
		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED -
	PLOT DATE = 5/19/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRIVEWAY ENTRANCE SIGNING

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2014-059-I	COOK	53	53
	TC-26	CONTRACT NO. 60Y78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		