

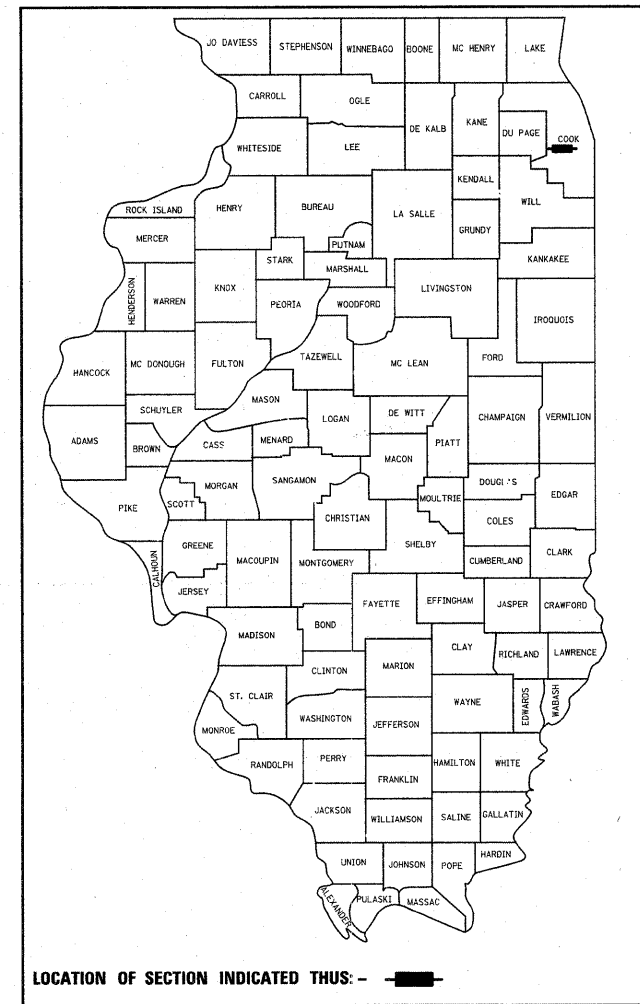
INDEX OF SHEETS
SEE SHEET NO. 2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**
TRAFFIC SIGNAL MODERNIZATION PLANS
F.A.U. ROUTE 1453 – CERMAK ROAD FROM
ILLINOIS ROUTE 43 (HARLEM AVE.) TO
ILLINOIS ROUTE 50 (CICERO AVE.)
SECTION: 2008-079 TS
C-91-242-09
COOK COUNTY
PROJECT: HSIP-1453(010)

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1453	2008-079 TS	COOK	40	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 60F81	

D-91-242-09



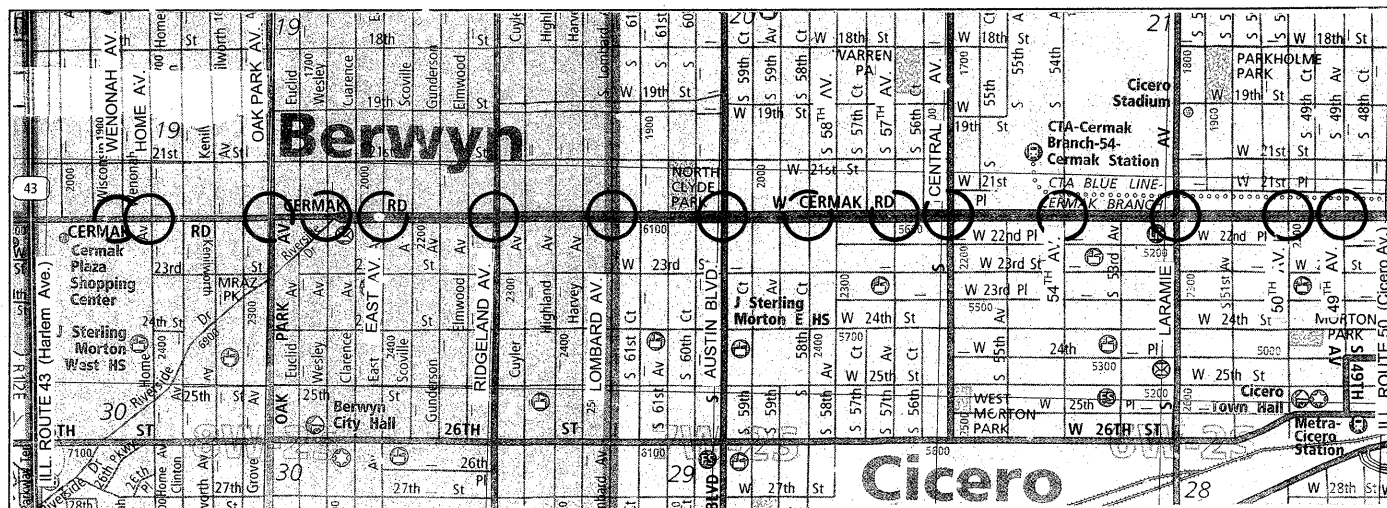
PROJECT IS IN THE
CITY OF BERWYN AND
THE TOWN OF CICERO



STANDARD DRAWINGS

701006 ⁰⁵	701011 ⁰²	701101 ⁰²	701301 ⁰⁵	701901 ⁰¹
424001 ⁰⁵	720001	813001	814001	814006
857001 ⁰¹	877001	877006	877011	
878001	880001	880006 ⁰¹	886001	
606001	862001	880001		
701201	701316	701321	701406	
701421	701501	701502	701601	
701606	701701 ⁰⁶	701801 ⁰⁴		

NOTE: STANDARD DRAWINGS REQUIRED (CIRCLED)



PROVISO TOWNSHIP

GROSS LENGTH = 15840 = 3.00 MILES
NET LENGTH = 14640 = 2.77 MILES

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

CONTRACT NO. 60F81

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Dec 12 20 08
Dennis M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

January 30, 20 09
Charles J. Ingersoll
ENGINEER OF DESIGN AND ENVIRONMENT

January 30, 20 09
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

TRAFFIC SIGNAL SUMMARY OF QUANTITIES

90% FED./5% STATE/5% BERWYN 90% FED./10% STATE 90% FED./10% STATE 90% FED./10% STATE 90% FED./10% STATE 90% FED./5% STATE 2% CICE RO/5% BERWYN 90% FED./5% STATE/5% CICE RO

TRAFFIC SIGNAL CONSTRUCTION CODE Y031-1F

CODE NUMBER	DESIGNATION	UNIT	URBAN TOTAL QUANTITIES	CERMAK RD.	CERMAK RD.	CERMAK RD.	CERMAK RD.	CERMAK RD.	CERMAK RD.	CERMAK RD.	CERMAK RD.	CERMAK RD.	CERMAK RD.	CERMAK RD.	CERMAK RD.	CERMAK RD.	CERMAK RD.	CERMAK RD.
				@ WENONAH AV.	@ HOME AV.	@ OAK PARK.	@ WESLEY AV.	@ EAST AV.	@ RIDGELAND AV.	@ LOMBARD AV.	@ AUSTIN AV.	@ 58TH.	@ 57TH AV.	@ CENTRAL AV.	@ 54TH AV.	@ LARAMIE AV.	@ 50TH AV	@ 49TH AV
67100100	MOBILIZATION	LSUM	1	.066	.066	.066	.066	.066	.066	.066	.066	.066	.066	.066	.066	.066	.066	.076
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	1	.066	.066	.066	.066	.066	.066	.066	.066	.066	.066	.066	.066	.066	.066	.076
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1	.066	.066	.066	.066	.066	.066	.066	.066	.066	.066	.066	.066	.066	.066	.076
*78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	6322	208	360	411	330	414	426	396	480	420	426	462	486	528	492	480
*78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	1699	80	92	133	80	102	140	118	127	119	93	145	114	122	121	113
*78300100	THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	5940		340	460	320	400	400	400	400	400	400	480	480	480	500	480
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
88800100	PEDESTRIAN PUSH-BUTTON	EACH	96	2	8	8	6	8		8	8	8	8	8	8		8	8
88102710	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED	EACH	24												8		8	8
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	80	2	8	8	6	8	8	8	8	8	8	8				
88102740	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED	EACH	4													4		
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	14		1	1	1	1	1	1	1	1	1	1	1	1	1	1
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	16	16														
44000600	SIDEWALK REMOVAL (PORTLAND)	SQ FT	90	90														
42400200	CEMENT CONCRETE SIDEWALK 5 INCH	SQ. FT.	90	90														
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	256	256														
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	328	328														
89502200	MODIFY EXISTING CONTROLLER	EACH	1	1														
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	102	51														51

*SPECIALTY ITEMS

INDEX OF SHEETS

SHEET NO.	DESCRIPTION	SHEET NO.	DESCRIPTION
1	TITLE SHEET	23-24	TRAFFIC SIGNAL MODERNIZATION & CABLE PLAN FOR CERMAK ROAD AT 58TH AV.
2	SUMMARY OF QUANTITIES & INDEX OF SHEETS	25-26	TRAFFIC SIGNAL MODIFICATION & CABLE PLAN FOR CERMAK ROAD AT 57TH AV.
3-6	STANDARD TRAFFIC SIGNAL DESIGN DETAILS (4-SHEETS)	27-28	TRAFFIC SIGNAL MODERNIZATION & CABLE PLAN FOR CERMAK ROAD AT CENTRAL AV.
7-8	TRAFFIC SIGNAL MODERNIZATION & CABLE PLAN FOR CERMAK ROAD AT WENONAH AV.	29-31	TRAFFIC SIGNAL MODERNIZATION & CABLE PLAN FOR CERMAK ROAD AT 54TH AV.
9-10	TRAFFIC SIGNAL MODERNIZATION & CABLE PLAN FOR CERMAK ROAD AT HOME AVENUE.	32-34	TRAFFIC SIGNAL MODERNIZATION & CABLE PLAN FOR CERMAK ROAD AT LARAMIE AV.
11-12	TRAFFIC SIGNAL MODERNIZATION & CABLE PLAN FOR CERMAK ROAD AT OAK PARK.	35-37	TRAFFIC SIGNAL MODERNIZATION & CABLE PLAN FOR CERMAK ROAD AT 50TH AV.
13-14	TRAFFIC SIGNAL MODERNIZATION & CABLE PLAN FOR CERMAK ROAD AT WESLEY AV.	38-40	TRAFFIC SIGNAL MODERNIZATION & CABLE PLAN FOR CERMAK ROAD AT 49TH AV.
15-16	TRAFFIC SIGNAL MODERNIZATION & CABLE PLAN FOR CERMAK ROAD AT EAST AVE.		
17-18	TRAFFIC SIGNAL MODERNIZATION & CABLE PLAN FOR CERMAK ROAD AT RIDGELAND AV.		
19-20	TRAFFIC SIGNAL MODERNIZATION & CABLE PLAN FOR CERMAK ROAD AT LOMBARD AV.		
21-22	TRAFFIC SIGNAL MODERNIZATION & CABLE PLAN FOR CERMAK ROAD AT AUSTIN AV.		

GENERAL NOTES:

ALL NEW PEDESTRIAN SIGNALS AND PUSH-BUTTONS WILL BE FIELD TESTED BY THE CONTRACTOR PRIOR TO CONTACTING D-1 TRAFFIC SIGNAL AREA ENGINEER FOR FINAL INSPECTION. ANY DEFECTIVE CABLES OR SPLICES FOUND WILL BE INCIDENTAL TO THE COST OF THE NEW PEDESTRIAN SIGNAL INSTALLATION.

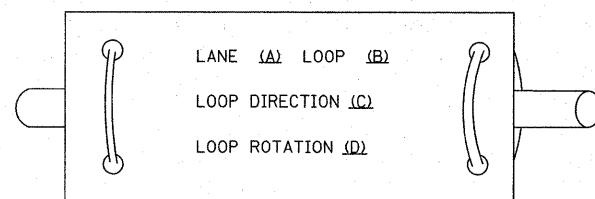
THERMOPLASTIC PAVEMENT MARKING REMOVAL QUANTITIES ARE BASE ON EXISTING WORN, OR MISSING CONDITIONS THE REMOVAL QUANTITIES SHOWN ARE APPROXIMATE.

THESE PLANS ARE FOR THE PURPOSE OF INSTALLING PEDESTRIAN SIGNALS, PUSH-BUTTONS WITH HIGH VISIBILITY CROSSWALK. ALL OTHER LABELING, DIMENSIONS AS SHOWN ARE FOR INFORMATION ONLY.

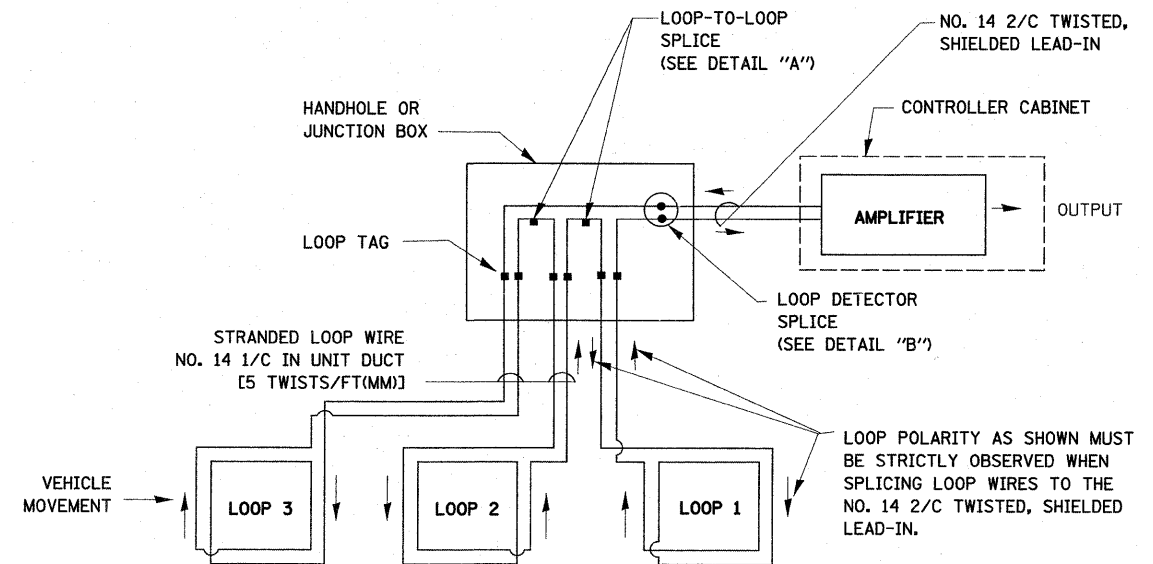
LOOP DETECTOR NOTES

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

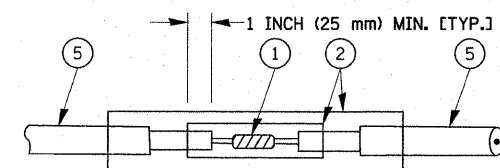


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

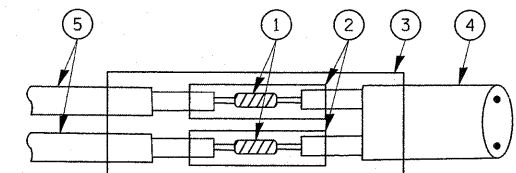


DETECTOR LOOP WIRING SCHEMATIC

- 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**

LOOP DETECTOR SPLICE

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

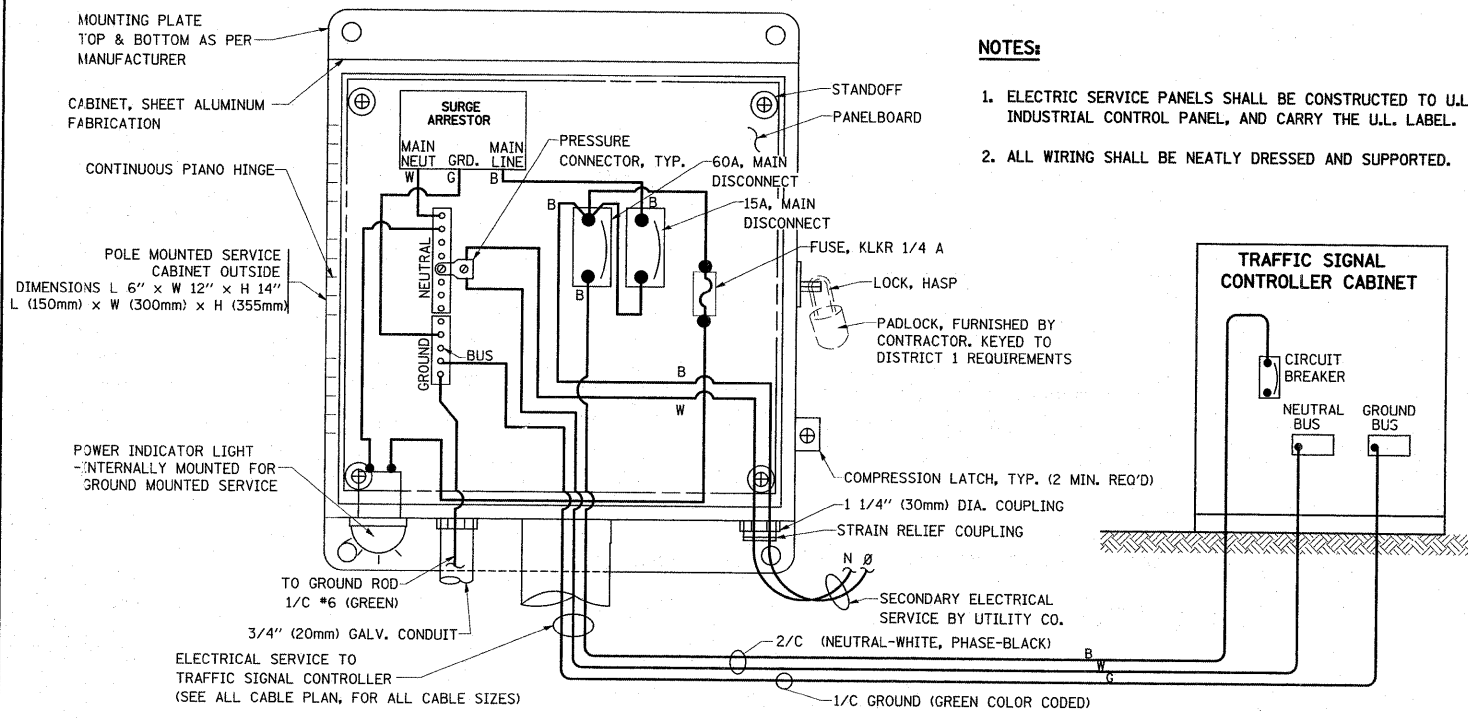
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

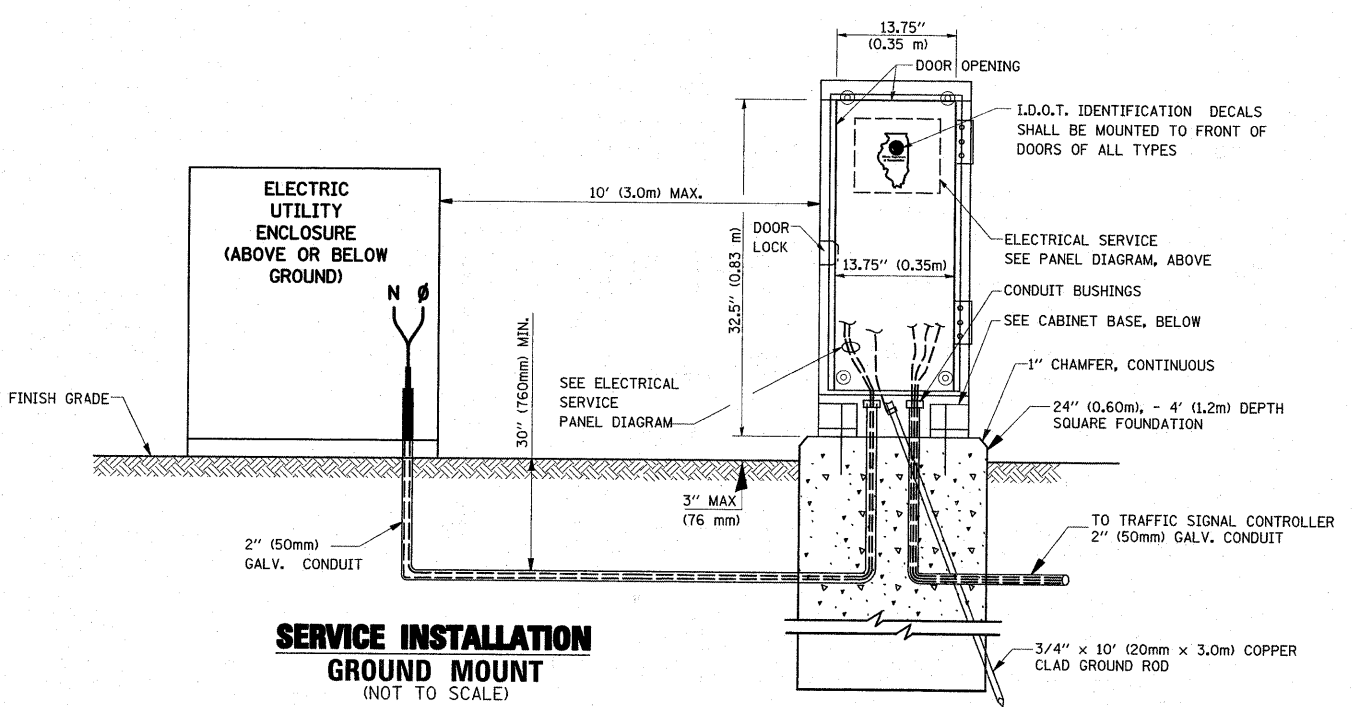
**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 60F81		

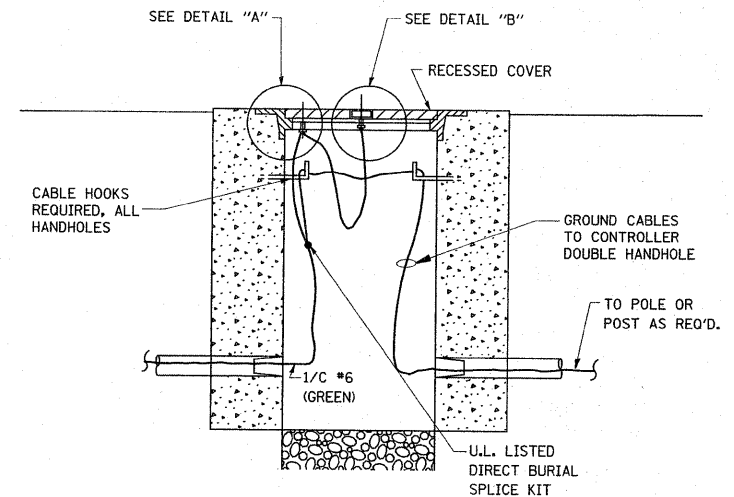
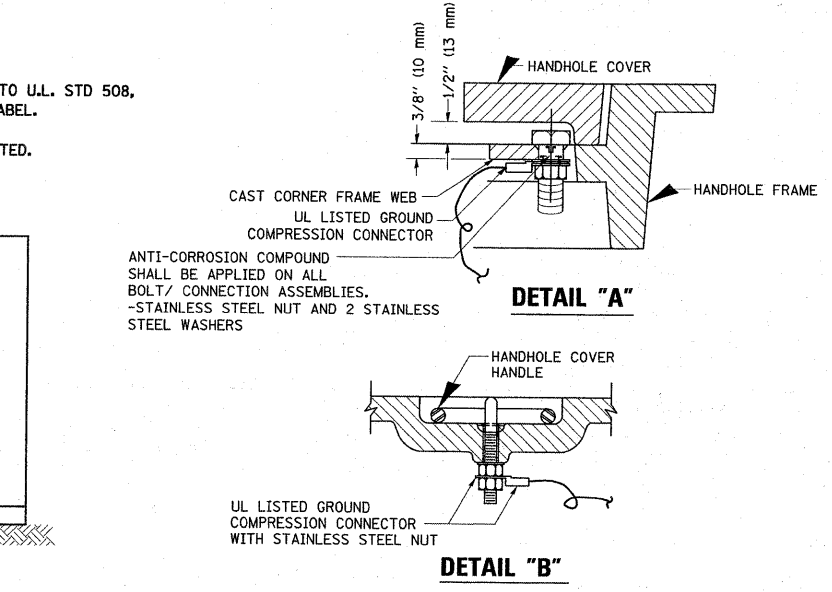
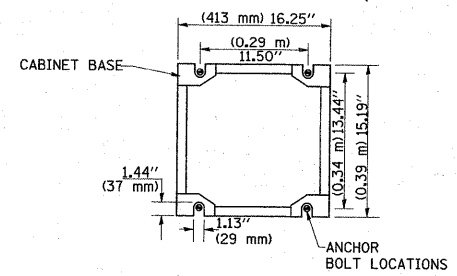


ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)

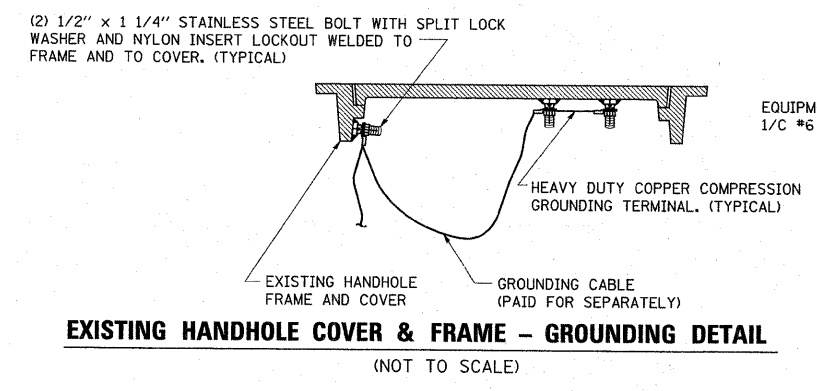


SERVICE INSTALLATION GROUND MOUNT
 (NOT TO SCALE)

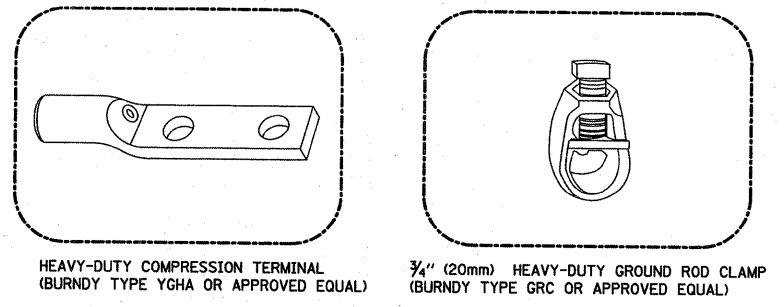
CABINET - BASE BOLT PATTERN
 (NOT TO SCALE)



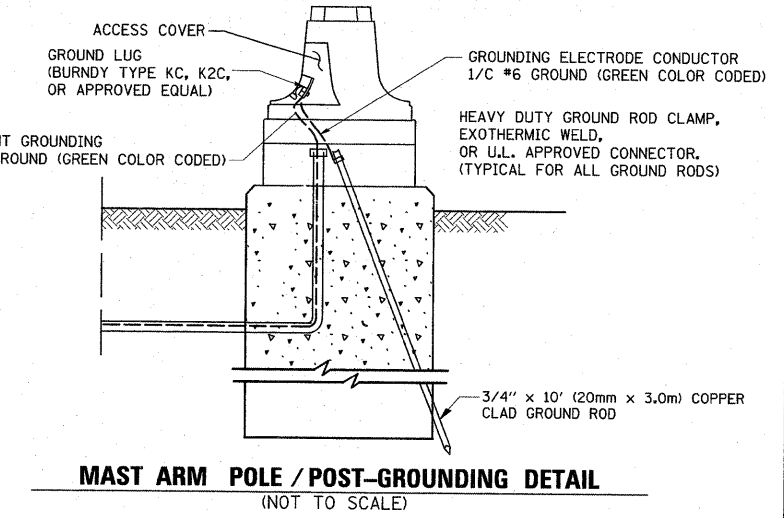
HANDHOLE COVER & FRAME - GROUNDING DETAIL
 (NOT TO SCALE)



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

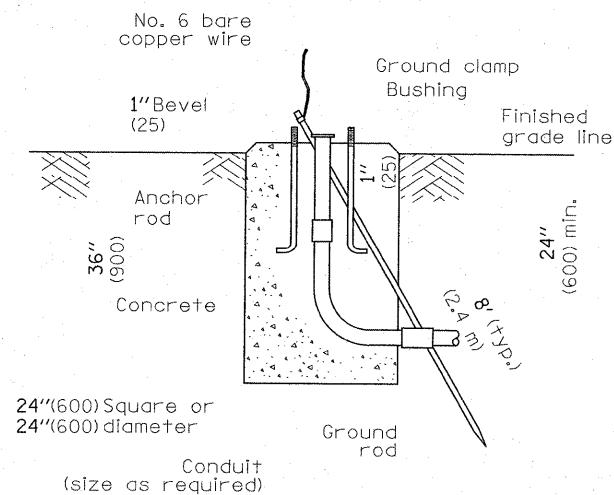


- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
 - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES
 - 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES
 - 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES.
 - 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND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

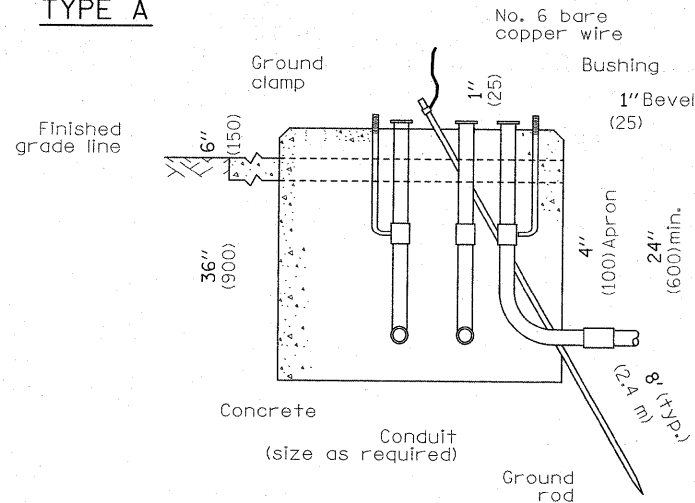


MAST ARM POLE / POST-GROUNDING DETAIL
 (NOT TO SCALE)

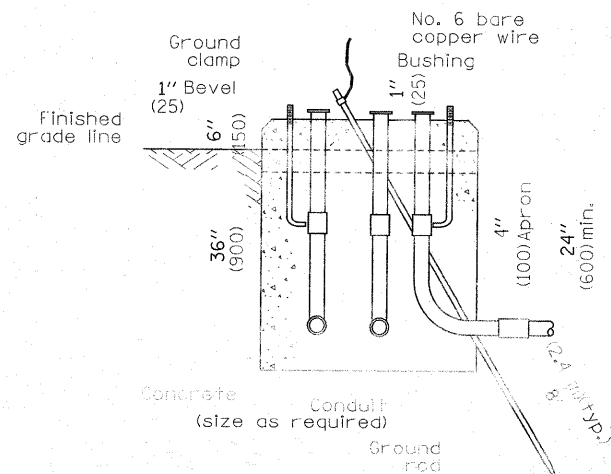
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	PLOT DATE = 12/9/2008	DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



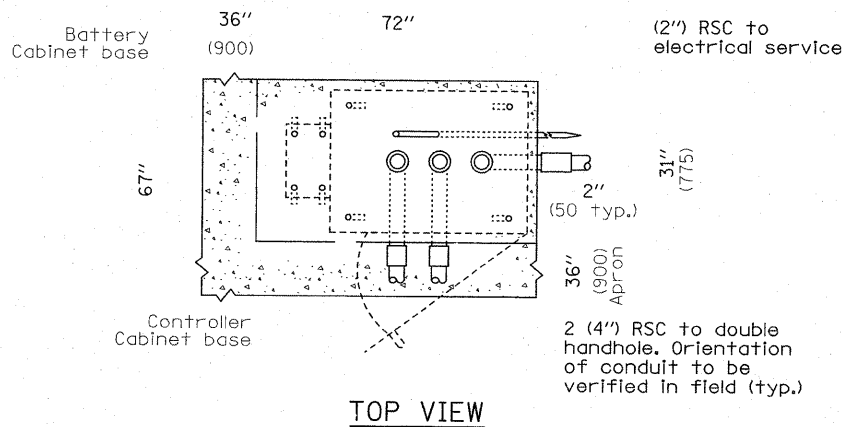
TYPE A



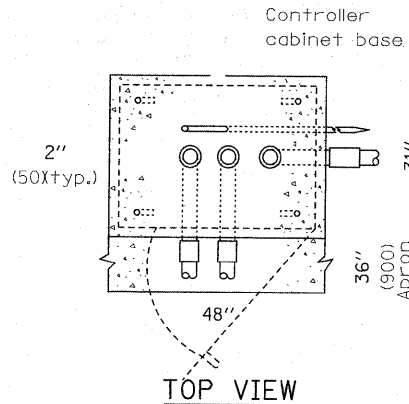
**TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**



**TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET**

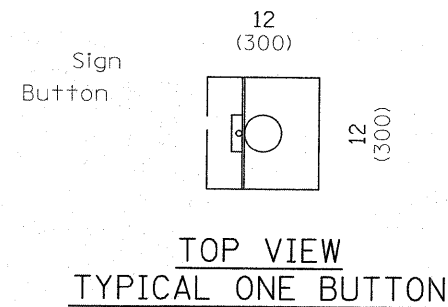


TOP VIEW

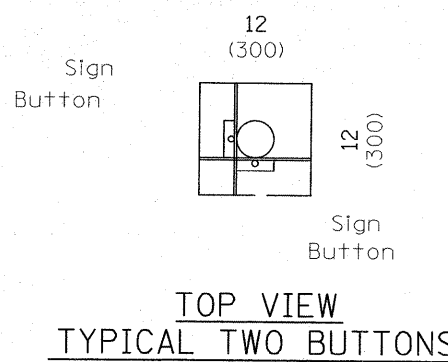


TOP VIEW

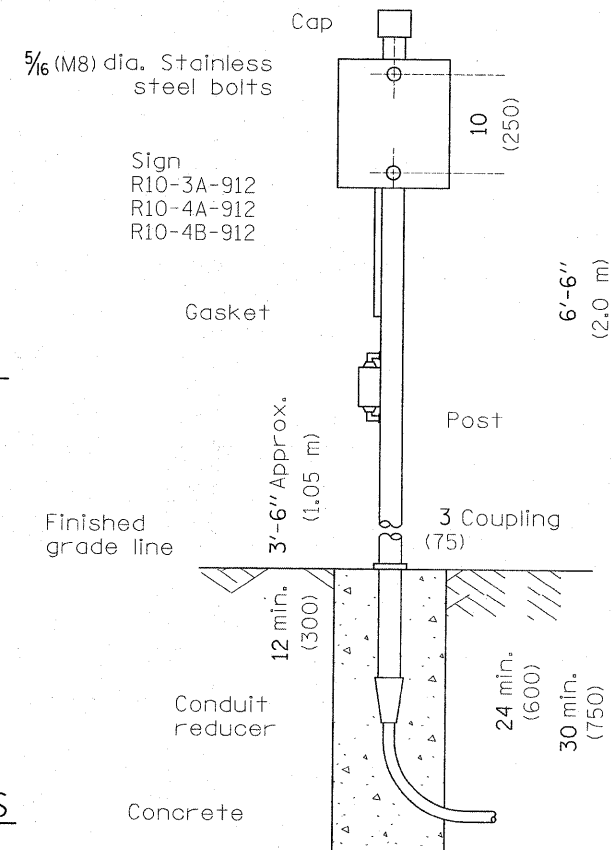
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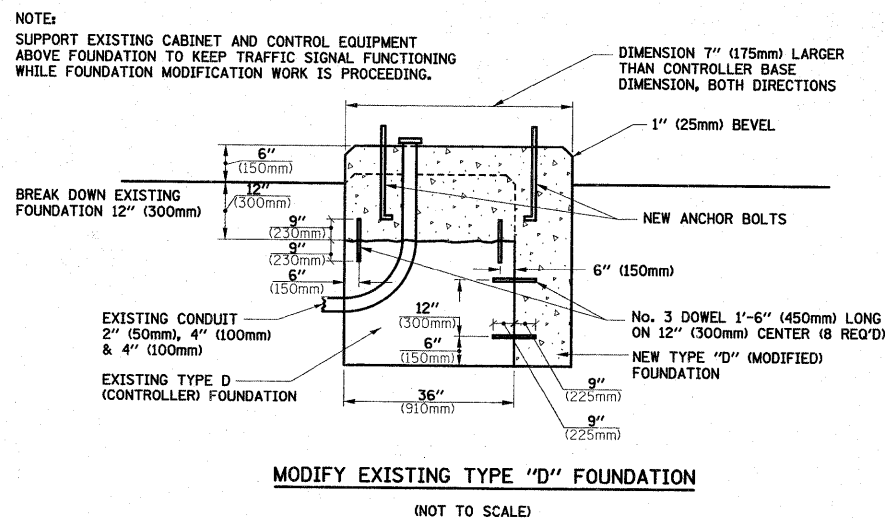
**TOP VIEW
TYPICAL ONE BUTTON**



**TOP VIEW
TYPICAL TWO BUTTONS**

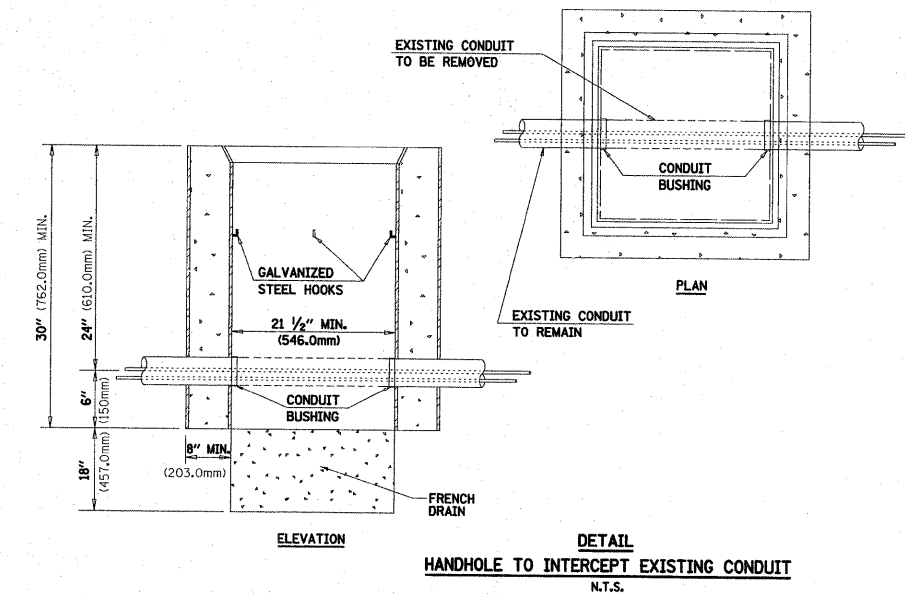


PEDESTRIAN PUSH BUTTON POST



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

NOTES:
1. REMOVAL OF EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHING SHALL BE INCIDENTAL TO THE HANDHOLE.



**DETAIL
HANDHOLE TO INTERCEPT EXISTING CONDUIT
N.T.S.**

FILE NAME =	USER NAME = kmthophsxaybc	DESIGNED =	REVISED =
c:\pwwork\pvidot\kenthophsxaybc\dms92341	061A02.DGN	DRAWN =	REVISED =
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	PLOT DATE = 07/17/2008	DATE =	REVISED =

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

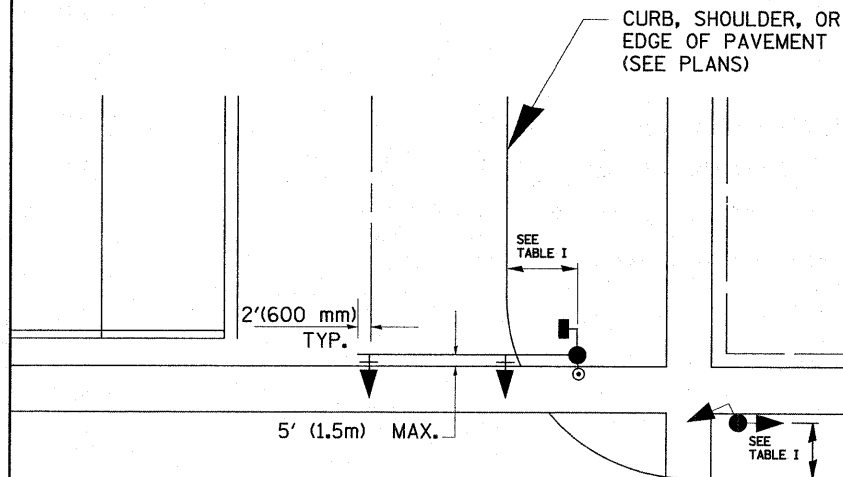
**DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

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

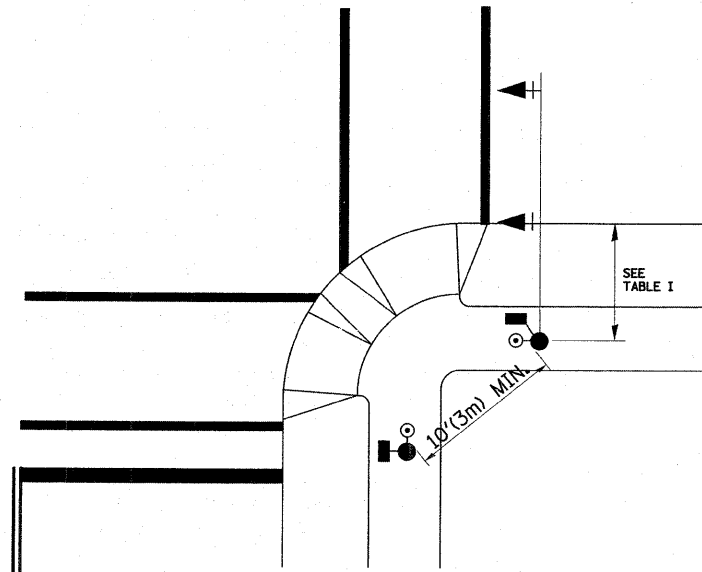
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1453	2008-079 TS	COOK	32	5
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60F81	

TRAFFIC SIGNAL MAST ARM AND POST

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



PEDESTRIAN SIGNAL PUSHBUTTON



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

NOTES:

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.

AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.

PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:
 - A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
 - B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
 - C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
 - D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
 - E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

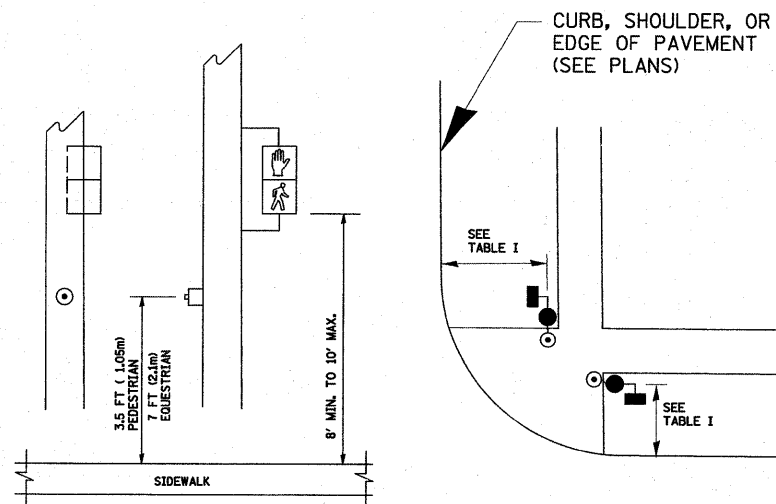
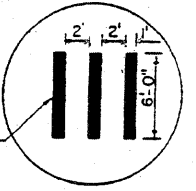


TABLE I

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

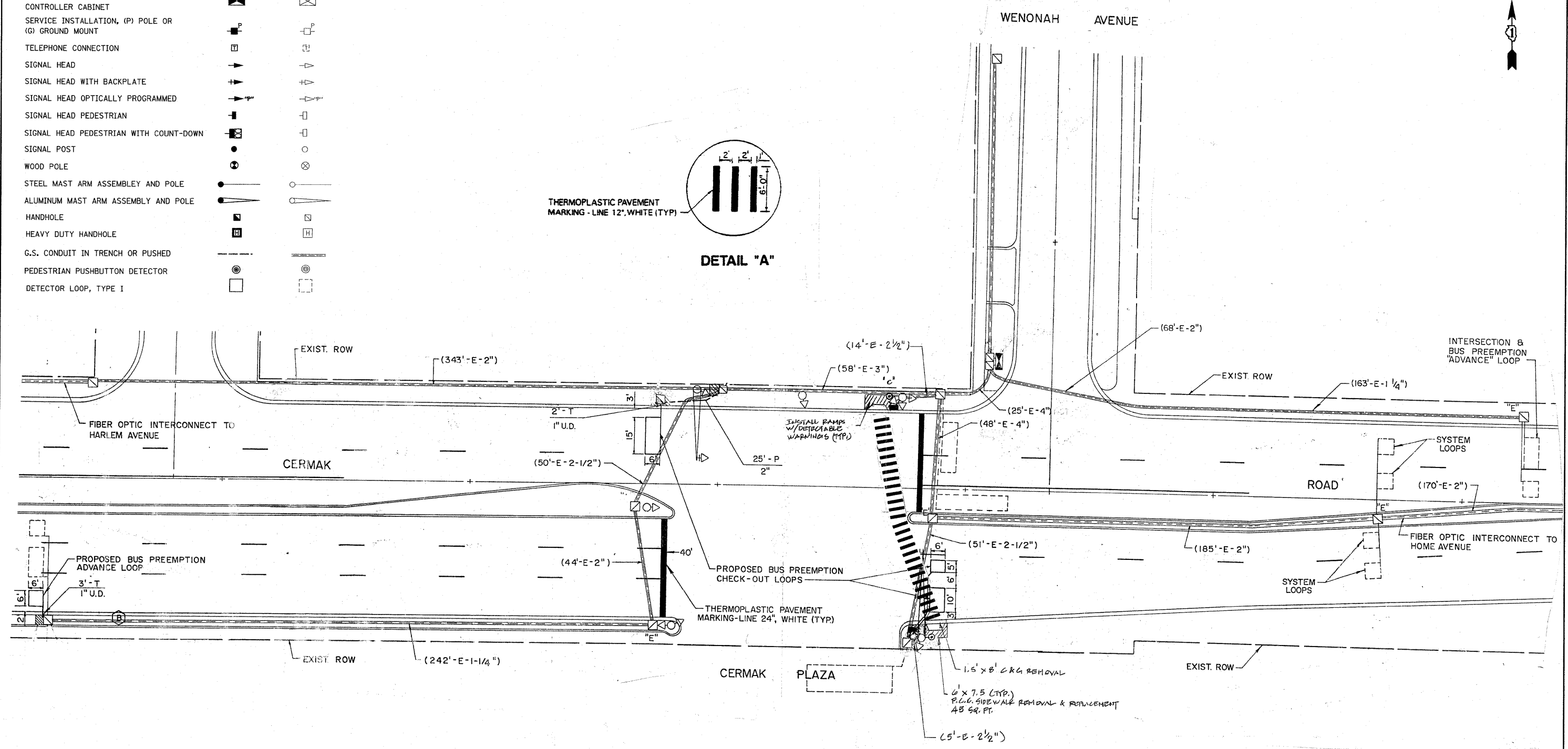
TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN		
SIGNAL HEAD PEDESTRIAN WITH COUNT-DOWN		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		



THERMOPLASTIC PAVEMENT MARKING - LINE 12" WHITE (TYP)

DETAIL "A"



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

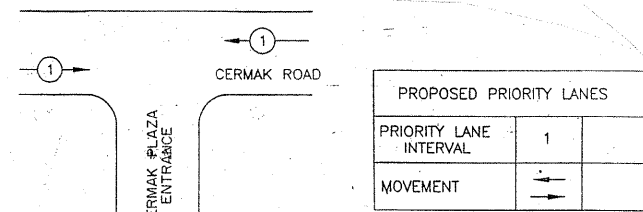
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c:\pwwork\pwwid\kanthaphixaybo\dms92381\11061A002.DGN		DRAWN -	REVISED -		1453	2008-079 TS	COOK	7			
PLOT SCALE = 50.0000' / IN.		CHECKED -	REVISED -		CONTRACT NO. 60F81						
PLOT DATE = 12/4/2008		DATE -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

CABLE PLAN LEGEND

EXISTING PROPOSED

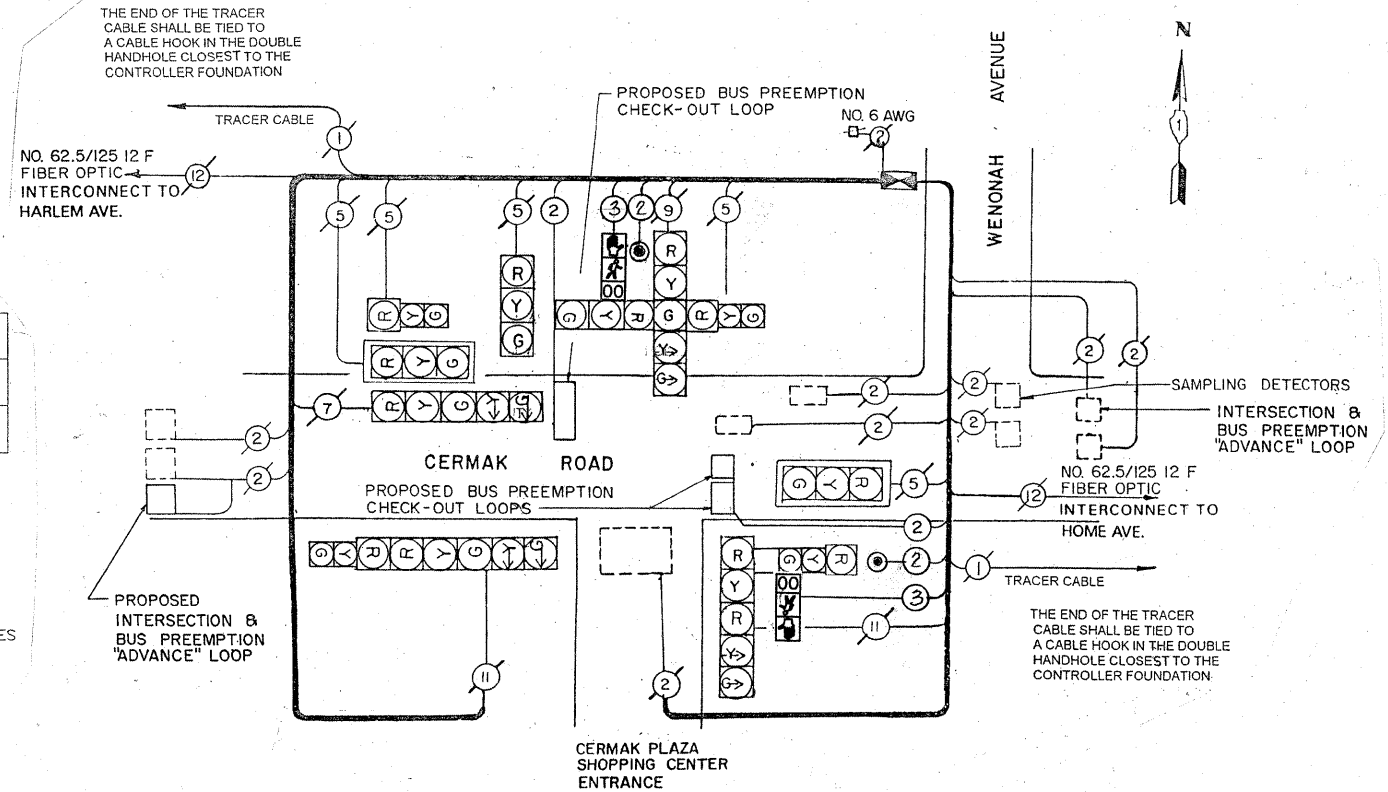
		8" (200mm)
		TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS
		ALL CABLE NO. 14 EXCEPT AS INDICATED ALL LOOP DETECTOR CABLE TO BE SHIELDED
		GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F
		SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD

BUS PREEMPTION SEQUENCE NOTES FOR DUAL ENTRY OPERATION - ALL LEGS



NOTES:

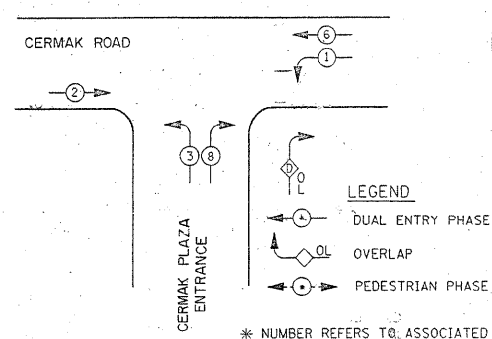
- ONCE PREEMPTION HAS BEEN CALLED, TERMINATION OF A PHASE(S) SHALL BE IDENTICAL TO THE NORMAL SEQUENCES OF OPERATION'S TERMINATION OF A PHASE(S) AS DESCRIBED IN STANDARD 2393.
- CONTINUATION OR TERMINATION OF ALL RIGHT TURN OVERLAPS SHALL BE IDENTICAL TO THE NORMAL SEQUENCE OF OPERATION'S CONTINUATION OR TERMINATION OF RIGHT TURN OVERLAPS AS DESCRIBED IN THE CLEARANCE NOTES FOR RIGHT TURN OVERLAPS.
- TERMINATION OF ALL PEDESTRIAN PHASES SHALL INCLUDE A FULL FLASHING "DON'T WALK" INTERVAL.
- IF ALL RED CLEARANCE IS USED IN THE NORMAL SEQUENCE OF OPERATION, IT MUST BE DISPLAYED AFTER THE YELLOW CLEARANCE INTERVAL WHEN ENTERING OR LEAVING THE PREEMPTION SEQUENCE.



CABLE PLAN

CONTROLLER SEQUENCE

REFERRING TO STANDARD 2393, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



PHASE DESIGNATION DIAGRAM

DUAL ENTRY PROTECTED/PERMITTED LEFT TURN PHASING WITH RIGHT TURN OVERLAPS

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE	DISPLAY
D	8	1	8

DISPLAY - THE YELLOW RIGHT ARROW OF THE OVERLAP SHALL BE INHIBITED DURING THE PERMISSIVE PHASE'S YELLOW INTERVAL. THE GREEN RIGHT ARROW OF THE OVERLAP SHALL BE INHIBITED DURING THE PERMISSIVE PHASE'S GREEN INTERVAL.

CLEARANCE NOTES FOR RIGHT TURN OVERLAPS WITH 5-SECTION RIGHT TURN SIGNAL HEAD DISPLAYS

- CONTINUATION OF AN OVERLAP DURING ITS PERMISSIVE PHASE SHALL BE WITH A CIRCULAR YELLOW DISPLAYED TOGETHER WITH A GREEN RIGHT ARROW WHEN FOLLOWED BY THAT OVERLAP'S PROTECTED PHASE.
- TERMINATION OF AN OVERLAP DURING ITS PERMISSIVE PHASE SHALL BE WITH A CIRCULAR YELLOW WHEN NOT FOLLOWED BY THAT OVERLAP'S PROTECTED PHASE.
- CONTINUATION OF AN OVERLAP DURING ITS PROTECTED PHASE SHALL BE WITH A CIRCULAR RED DISPLAYED TOGETHER WITH A GREEN RIGHT ARROW WHEN FOLLOWED BY THAT OVERLAP'S PERMISSIVE PHASE.
- TERMINATION OF AN OVERLAP DURING ITS PROTECTED PHASE SHALL BE WITH A CIRCULAR RED DISPLAYED TOGETHER WITH A YELLOW RIGHT ARROW WHEN NOT FOLLOWED BY THAT OVERLAP'S PERMISSIVE PHASE.

TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QUANTITY
COMBINATION CURB AND GUTTER REMOVAL	FOOT	16
SIDEWALK REMOVAL	SQ. FT.	90
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ. FT.	70
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER	EACH	1
PEDESTRIAN SIGNAL HEAD, I.E.D. 1-FACE BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	SQ. FT.	208
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	SQ. FT.	80
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	256
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	262

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	810
(YELLOW)	12	135	25	0.25	405
(GREEN)	12	135	15	0.25	405
ARROW	5	135	12	0.10	108
PED. SIGNAL	2	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	35	0.05	
FLASHER		135	25	0.50	
TOTAL =					1928

FILE NAME =	USER NAME = kanthaphixybc	DESIGNED -	REVISED -
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

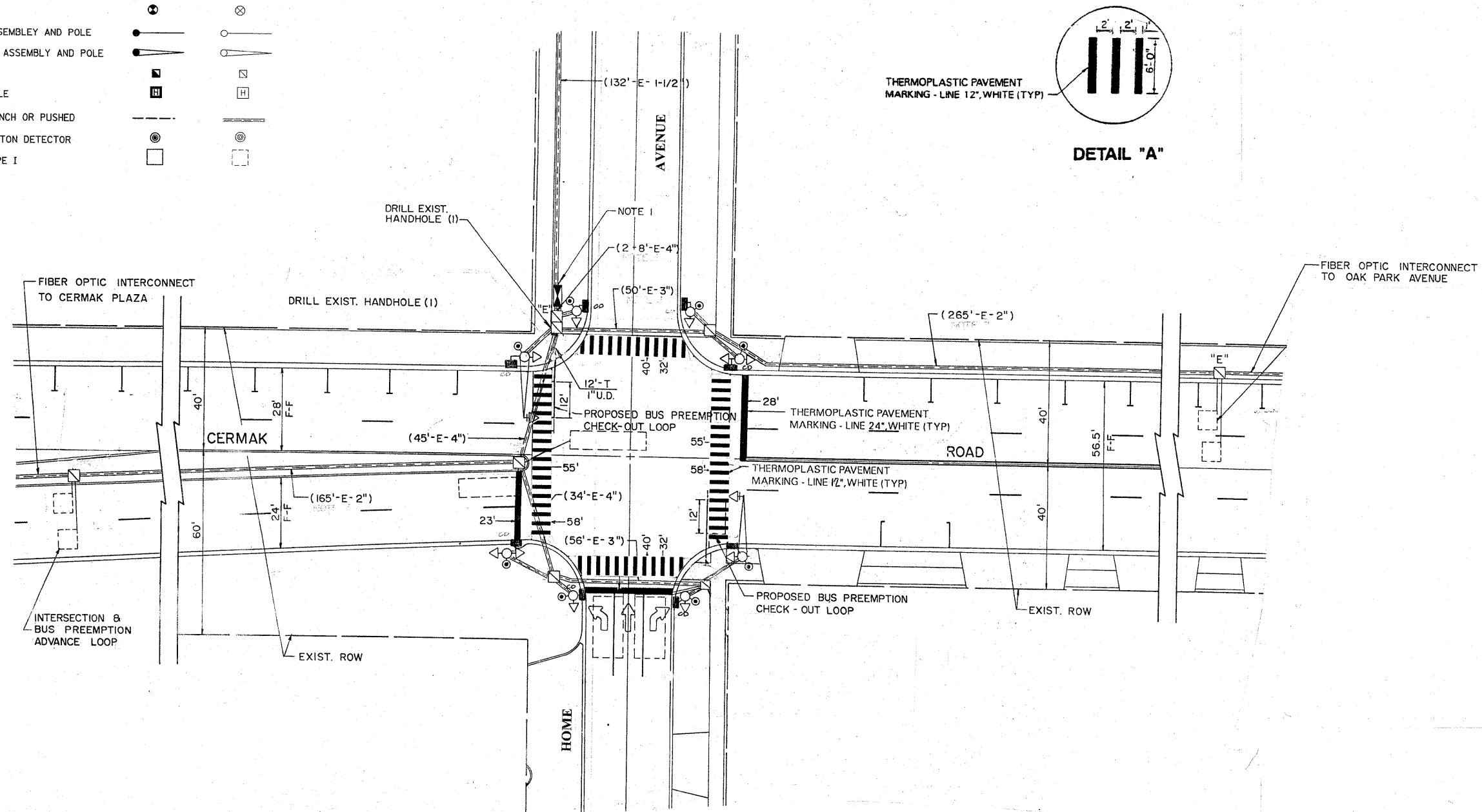
CABLE PLAN - PHASE DESIGNATION DIAGRAM CERMMAK ROAD (22ND St.) @ WENONAH AVENUE

F.A.U. RTE. 1453	SECTION 2008-079 TS	COUNTY COOK	TOTAL SHEETS 8	SHEET NO. 8
CONTRACT NO. 60F81			FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT	

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

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN		
SIGNAL HEAD PEDESTRIAN WITH COUNT-DOWN		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		



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

FILE NAME =	USER NAME = kanthaphixaybo	DESIGNED =	REVISED =	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN CERMAK ROAD (22ND St.) @ HOME AVENUE	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		DATE =	REVISED =			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

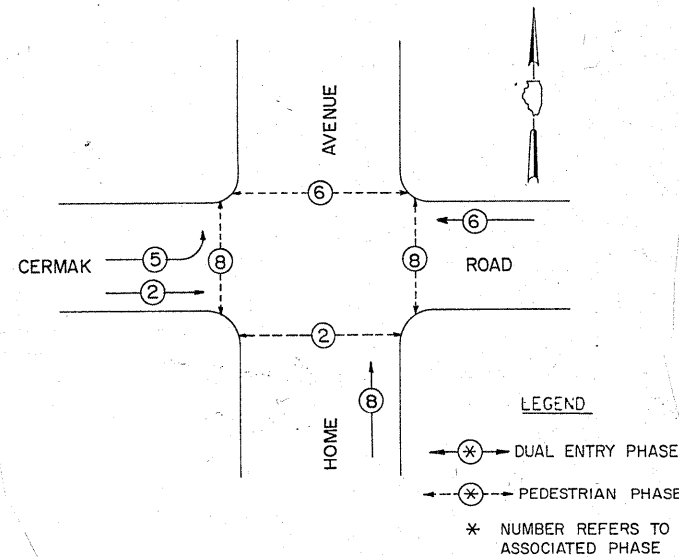
CABLE PLAN LEGEND

EXISTING	PROPOSED	
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS
		ALL CABLE NO. 14 EXCEPT AS INDICATED
		ALL LOOP DETECTOR CABLE TO BE SHIELDED
		GROUND CABLE IN CONDUIT
		NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT
		NO. 62.5/125 MM12F SM12F
		SIGNAL FACE WITH BACKPLATE
		"P" INDICATES PROGRAMMED HEAD

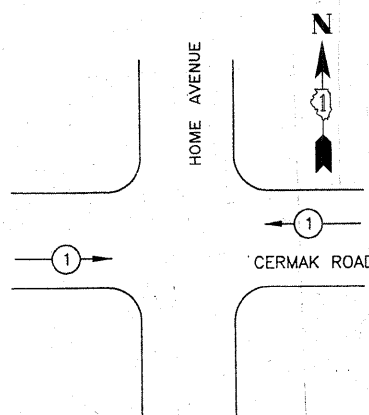
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- IF ALL RED CLEARANCE IS USED IN THE NORMAL SEQUENCE OF OPERATION, IT MUST BE DISPLAYED AFTER THE YELLOW CLEARANCE INTERVAL WHEN ENTERING OR LEAVING THE PREEMPTION SEQUENCE.

CONTROLLER SEQUENCE

REFERRING TO STANDARD 2393, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



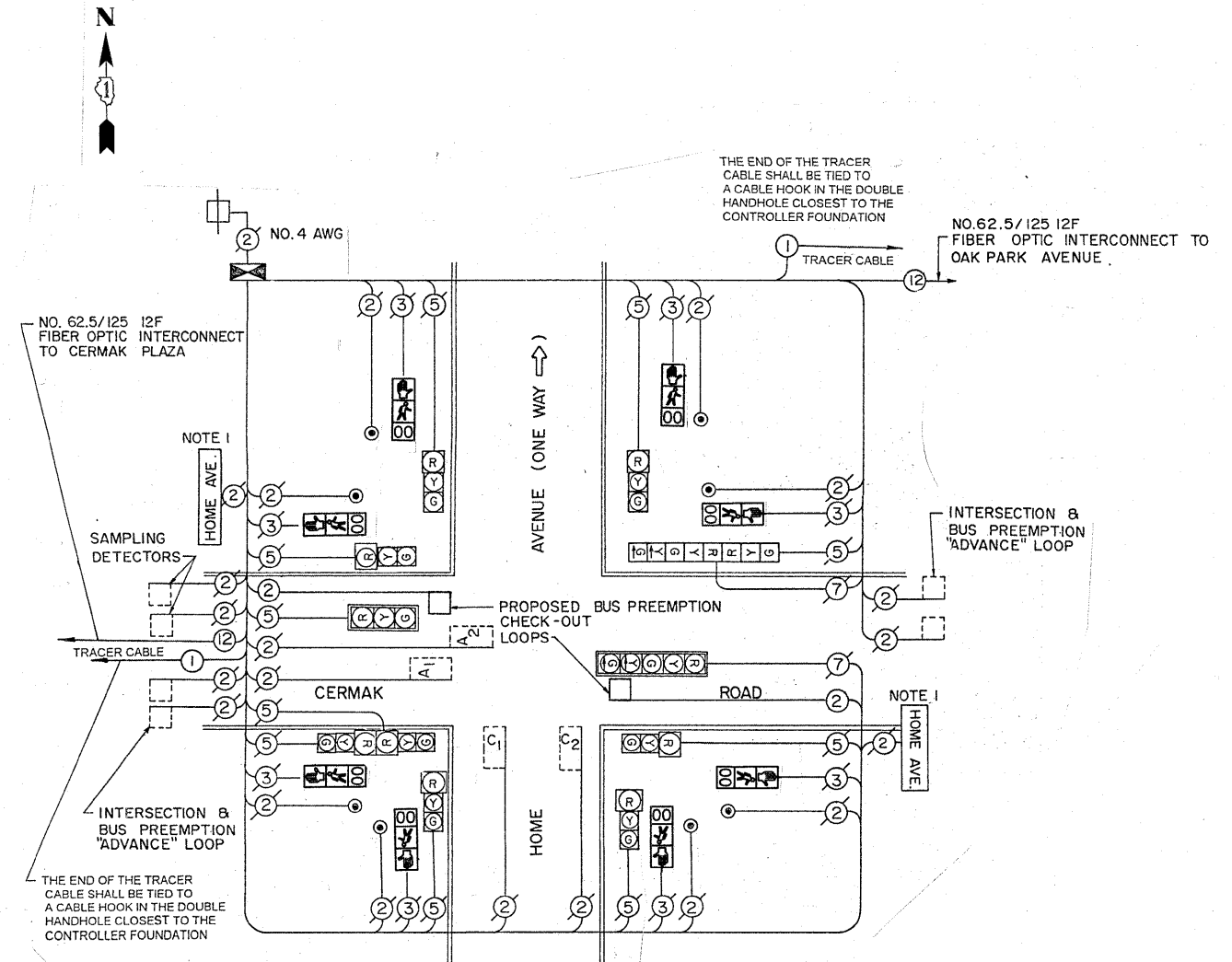
BUS PREEMPTION SEQUENCE NOTES FOR DUAL ENTRY OPERATION - ALL LEGS



PROPOSED PRIORITY LANES	
PRIORITY LANE INTERVAL	1
MOVEMENT	← →

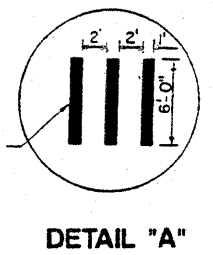
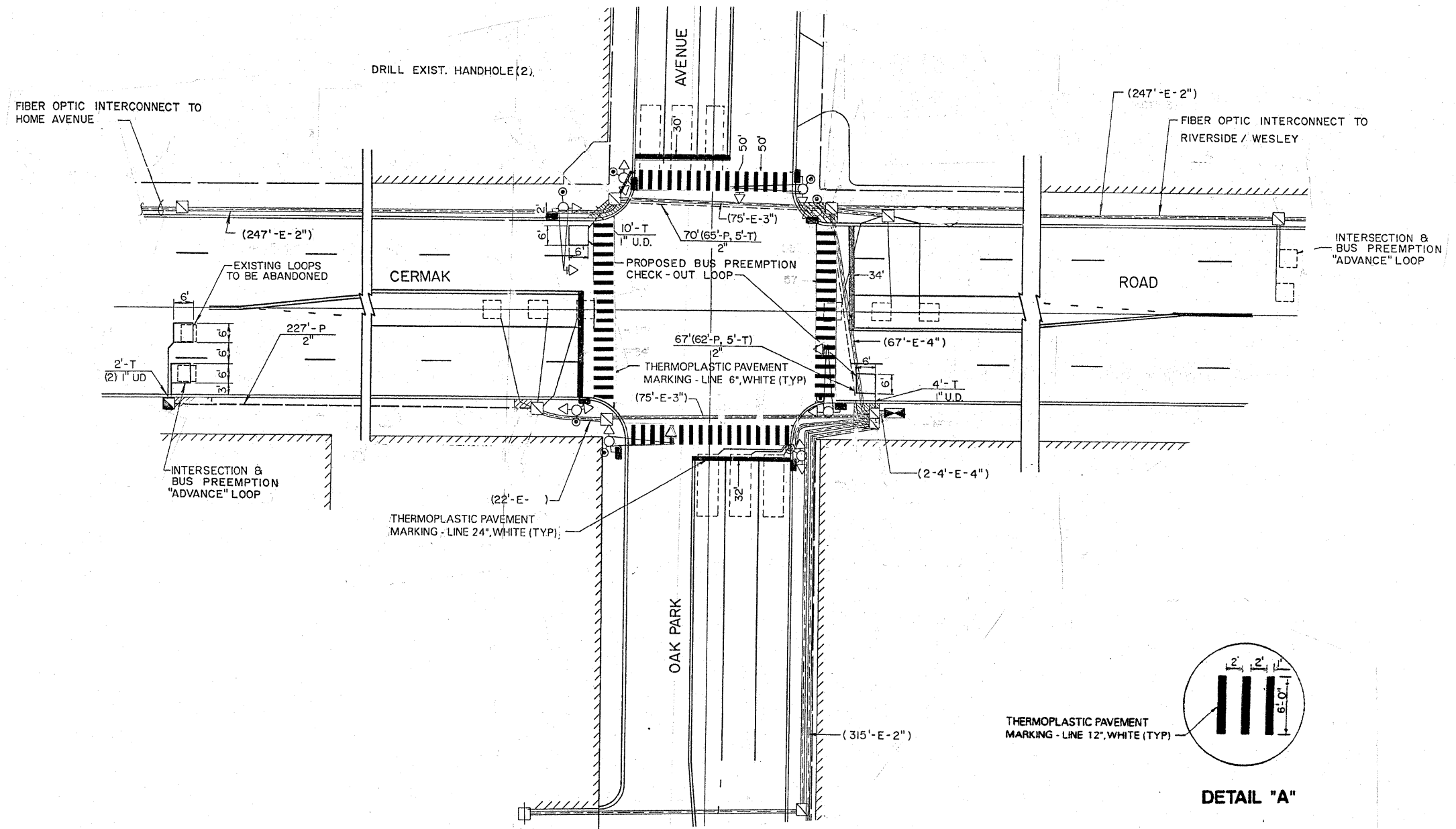
TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
PEDESTRIAN SIGNAL HEAD, L.E.D. 1-FACE BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	SQ. FT.	360
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	SQ. FT.	92
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ. FT.	450



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN		
SIGNAL HEAD PEDESTRIAN WITH COUNT-DOWN		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		



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

FILE NAME =	USER NAME = kanthaphixaybc	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN CERMAK ROAD (22ND St.) @ OAK PARK AVENUE		F.A.U. RTE. 1453	SECTION 2008-079 TS	COUNTY COOK	TOTAL SHEETS 11	SHEET NO. 11	
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	PLOT DATE = 11/25/2008	DATE -	REVISED -									

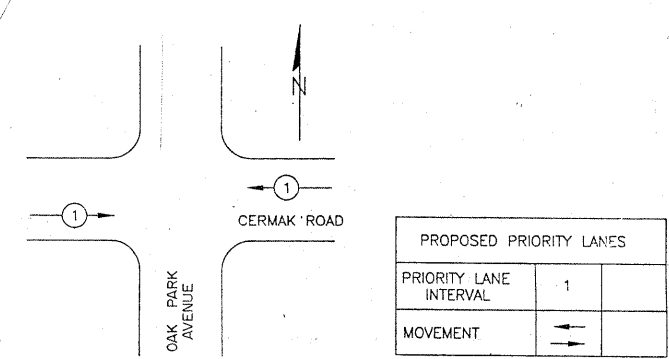


CABLE PLAN LEGEND

EXISTING

	8" (200mm)
	TRAFFIC SIGNAL SECTION
	12" (300mm)
	PEDESTRIAN SIGNAL SECTION
	12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
	CONTROLLER CABINET
	SERVICE INSTALLATION
	TELEPHONE CONNECTION
	MAGNETIC DETECTOR
	VEHICLE DETECTOR, INDUCTION LOOP
	EMERGENCY VEHICLE LIGHT DETECTOR
	CONFIRMATION BEACON
	PUSHBUTTON DETECTOR
	DENOTES NUMBER OF CONDUCTORS
	ALL CABLE NO. 14 EXCEPT AS INDICATED
	ALL LOOP DETECTOR CABLE TO BE SHIELDED
	GROUND CABLE IN CONDUIT
	FIBER OPTIC CABLE IN CONDUIT
	SIGNAL FACE WITH BACKPLATE
	"P" INDICATES PROGRAMMED HEAD

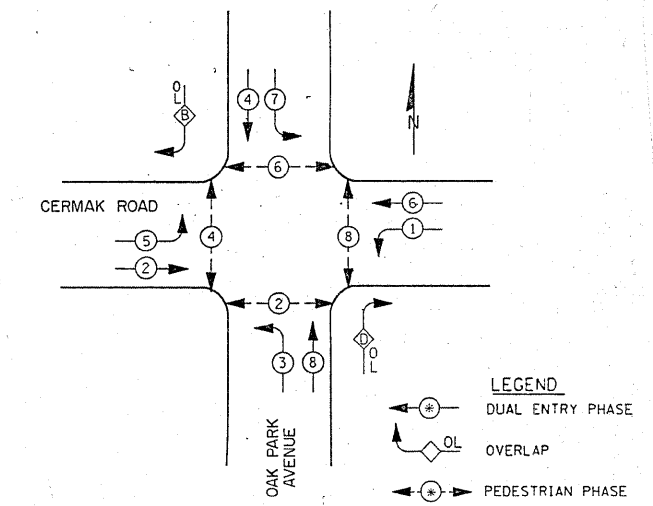
BUS PREEMPTION SEQUENCE NOTES FOR DUAL ENTRY OPERATION - ALL LEGS



- NOTES:**
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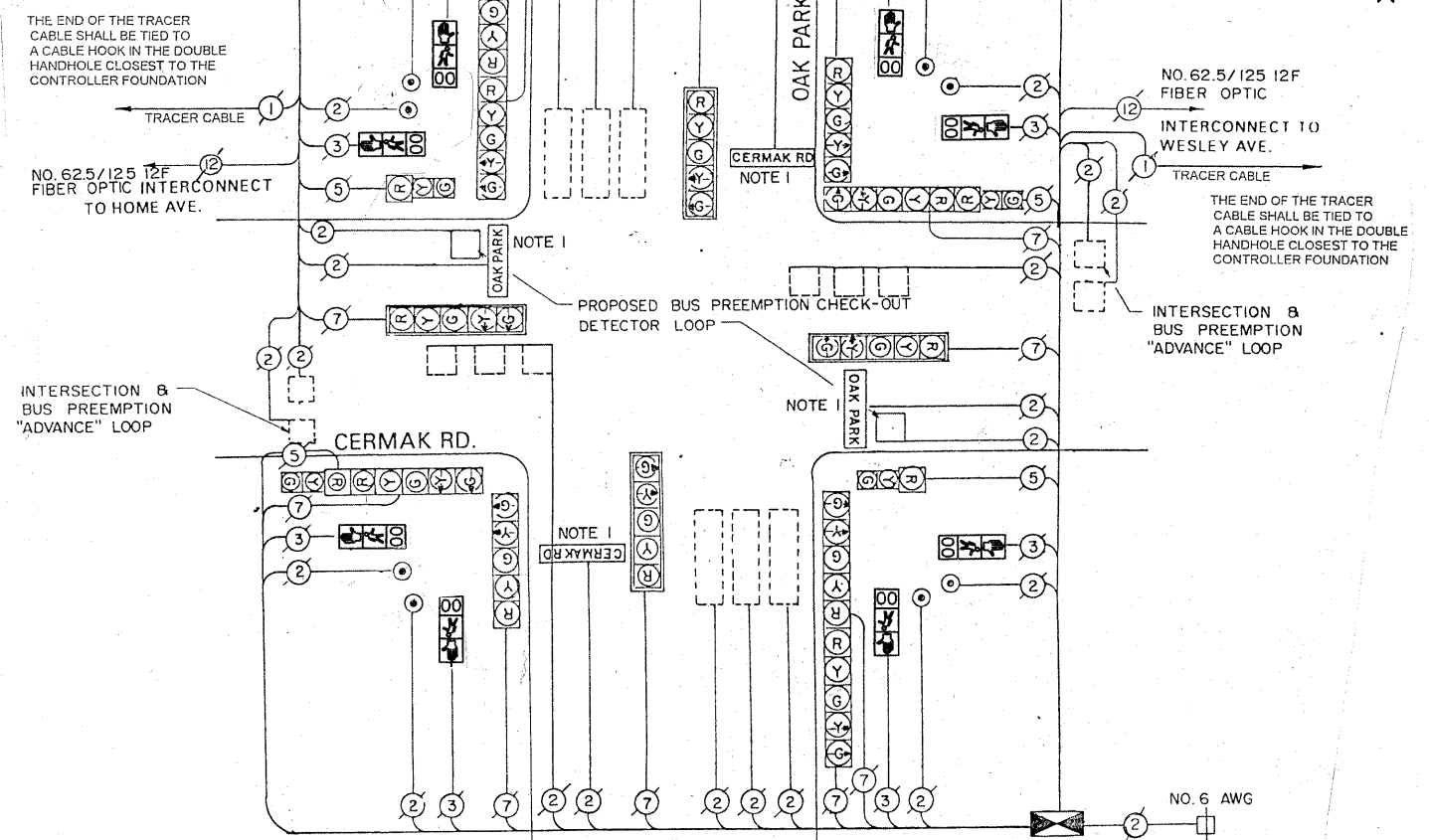
CONTROLLER SEQUENCE

REFERRING TO STANDARD 2393, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



PHASE DESIGNATION DIAGRAM

DUAL ENTRY - ALL LEGS
PROTECTED/PERMITTED LEFT TURN PHASING
WITH RIGHT TURN OVERLAPS



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	% OPERATION	
SIGNAL (RED)		135	17	0.50
(YELLOW)		135	25	0.25
(GREEN)		135	15	0.25
ARROW		135	12	0.10
PED. SIGNAL		90	25	1.00
CONTROLLER		100	100	1.00
ILLUM. SIGN		84	35	0.05
FLASHER		135	25	0.50
TOTAL =				

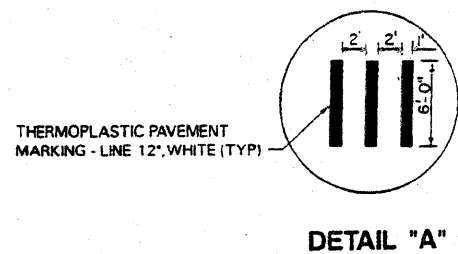
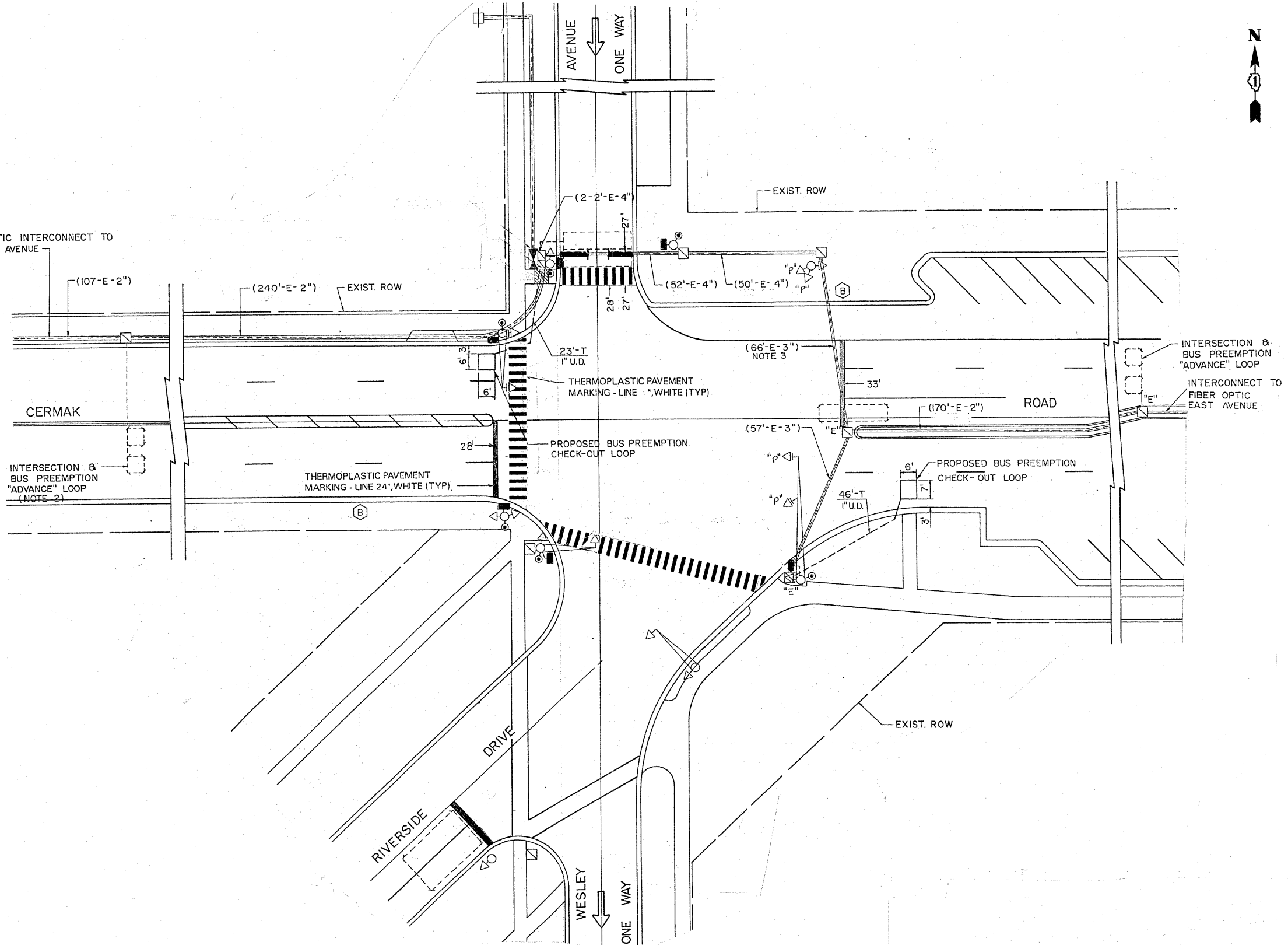
TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
PEDESTRIAN SIGNAL HEAD, L.E.D. 1-FACE BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	SQ. FT.	414
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	SQ. FT.	133
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ. FT.	500

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN		
SIGNAL HEAD PEDESTRIAN WITH COUNT-DOWN		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		

FIBER OPTIC INTERCONNECT TO OAK PARK AVENUE



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

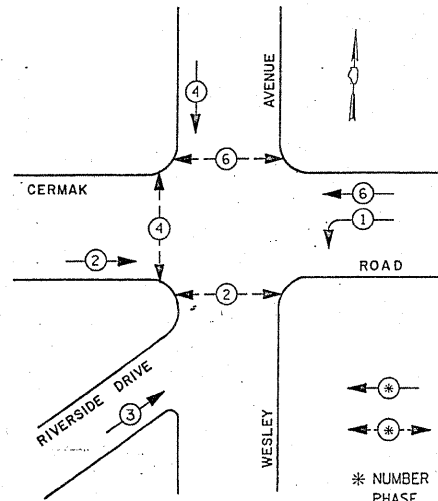
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PLOT SCALE = 50.0000' / IN.	SCALE: SHEET NO. OF SHEETS STA. TO STA.					FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT						
PLOT DATE = 11/25/2008	CONTRACT NO. 60F81											



CABLE PLAN LEGEND

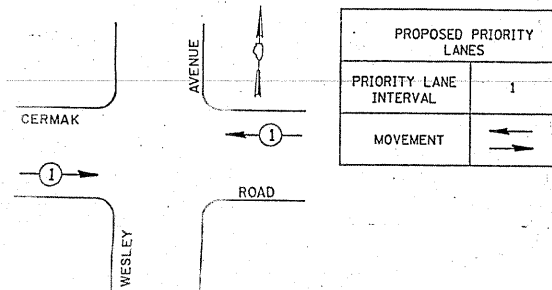
EXISTING	PROPOSED	DESCRIPTION
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
		CONTROLLER CABINET SERVICE INSTALLATION
		TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		2 DENOTES NUMBER OF CONDUCTORS ALL CABLE NO. 14 EXCEPT AS INDICATED ALL LOOP DETECTOR CABLE TO BE SHIELDED
		1 GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		24 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F
		SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD

CONTROLLER SEQUENCE
 REFERRING TO STANDARD 2393, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



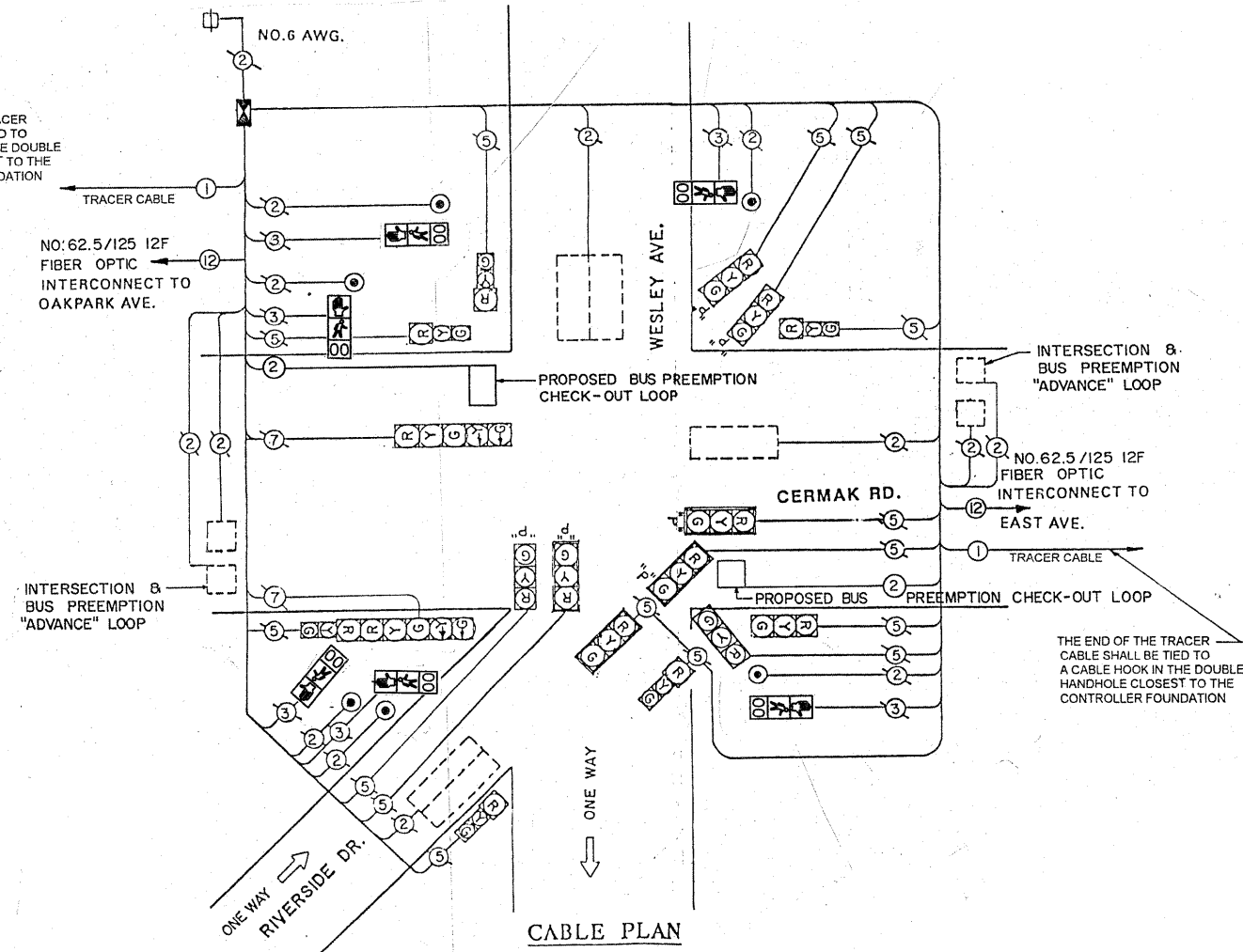
PHASE DESIGNATION DIAGRAM
 DUAL ENTRY - ALL LEGS
 PROTECTED/PERMITTED LEFT TURN PHASING

BUS PREEMPTION SEQUENCE NOTES FOR DUAL ENTRY OPERATION - ALL LEGS



NOTES:

- ONCE PREEMPTION HAS BEEN CALLED, TERMINATION OF A PHASE(S) SHALL BE IDENTICAL TO THE NORMAL SEQUENCE OF OPERATION'S TERMINATION OF A PHASE(S) AS DESCRIBED IN STANDARD 2393.
- CONTINUATION OR TERMINATION OF ALL RIGHT TURN OVERLAPS SHALL BE IDENTICAL TO THE NORMAL SEQUENCE OF OPERATION'S CONTINUATION OR TERMINATION OF RIGHT TURN OVERLAPS AS DESCRIBED IN THE CLEARANCE NOTES FOR RIGHT TURN OVERLAPS.
- TERMINATION OF ALL PEDESTRIAN PHASES SHALL INCLUDE A FULL FLASHING "DON'T WALK" INTERVAL.
- IF ALL RED CLEARANCE IS USED IN THE NORMAL SEQUENCE OF OPERATION, IT MUST BE DISPLAYED AFTER THE YELLOW CLEARANCE INTERVAL WHEN ENTERING OR LEAVING THE PREEMPTION SEQUENCE.



CABLE PLAN

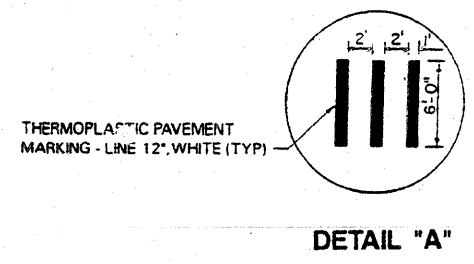
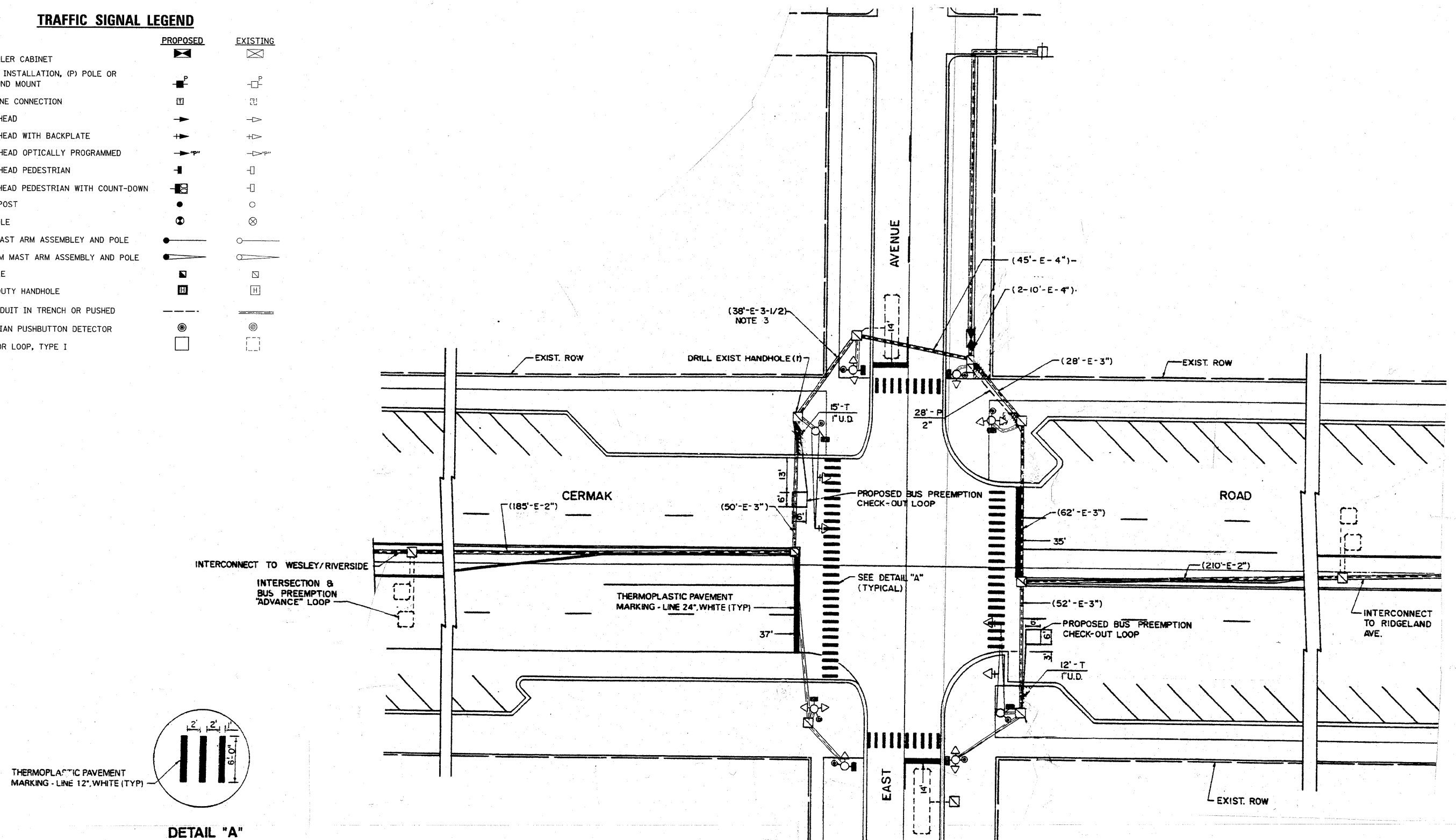
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE	% OPERATION		
SIGNAL (RED) (YELLOW) (GREEN)		INCAND	LED		
		135	17	0.50	
		135	25	0.25	
	135	15	0.25		
ARROW		135	12	0.10	
PED. SIGNAL		90	25	1.00	
CONTROLLER		100	100	1.00	
ILLUM. SIGN		84	35	0.05	
FLASHER		135	25	0.50	
TOTAL =					

TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	6
PEDESTRIAN SIGNAL HEAD, L.E.D. 1-FACE BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	SQ. FT.	330
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	SQ. FT.	80
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ. FT.	400

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN		
SIGNAL HEAD PEDESTRIAN WITH COUNT-DOWN		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		



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

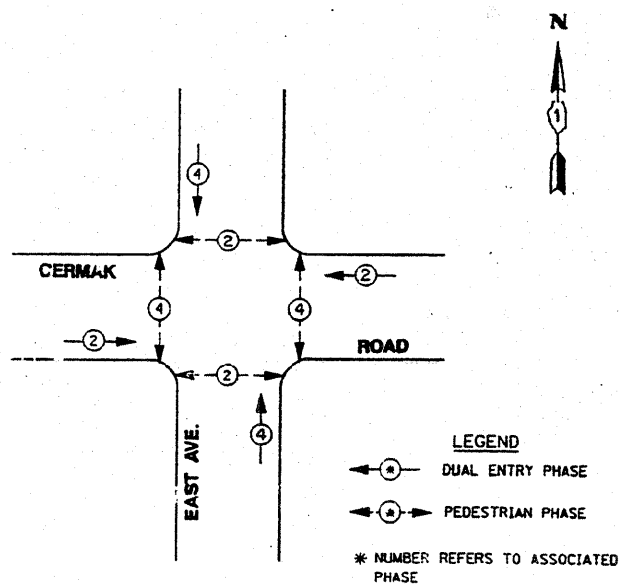
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et\pw_work\PMIDOT\KANTHAPHIXAYBC\dms92351\1061A002.DGN		DRAWN -	REVISED -			1453	2008-079 TS	COOK	15		
PLOT SCALE = 50.0000' / IN.		CHECKED -	REVISED -			CONTRACT NO. 60F81					
PLOT DATE = 11/25/2008		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

CABLE PLAN LEGEND

EXISTING PROPOSED

		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION 12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
		CONTROLLER CABINET SERVICE INSTALLATION
		TELEPHONE CONNECTION MAGNETIC DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS ALL CABLE NO. 14 EXCEPT AS INDICATED ALL LOOP DETECTOR CABLE TO BE SHIELDED GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F
		SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD

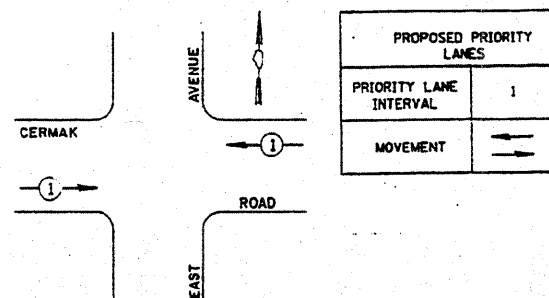
CONTROLLER SEQUENCE
REFERRING TO STANDARD 2393. THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW



PHASE DESIGNATION DIAGRAM

DUAL ENTRY - ALL LEGS
PROTECTED/PERMITTED LEFT TURN PHASING

BUS PREEMPTION SEQUENCE NOTES
FOR DUAL ENTRY OPERATION - ALL LEGS



NOTES:

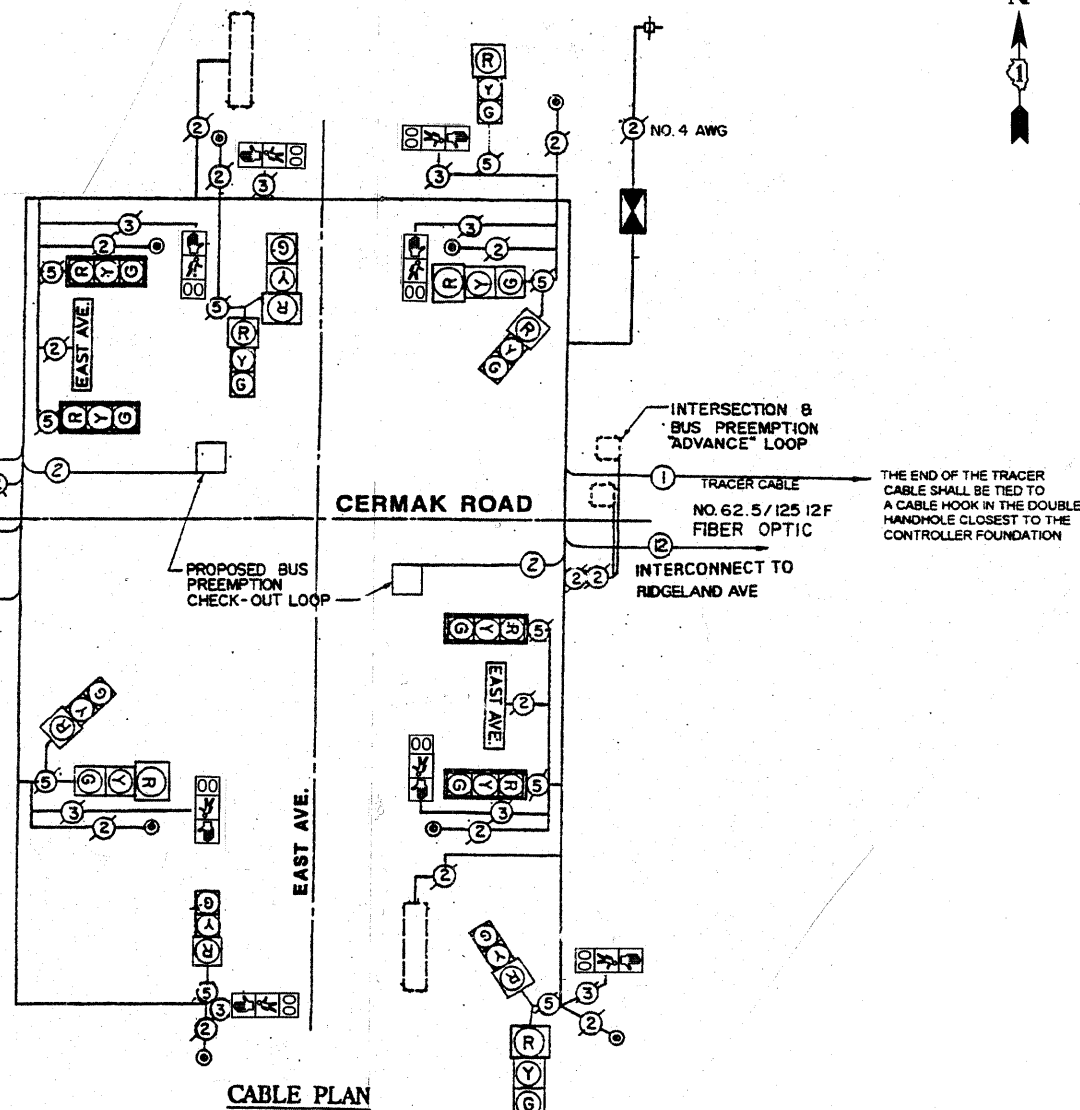
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- IF ALL RED CLEARANCE IS USED IN THE NORMAL SEQUENCE OF OPERATION, IT MUST BE DISPLAYED AFTER THE YELLOW CLEARANCE INTERVAL WHEN ENTERING OR LEAVING THE PREEMPTION SEQUENCE.

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION

TRACER CABLE NO. 62.5/125 12F FIBER OPTIC

INTERCONNECT TO WESLEY AVE

INTERSECTION 8 BUS PREEMPTION ADVANCE LOOP



CABLE PLAN

TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
PEDESTRIAN SIGNAL HEAD, L.E.D. 1-FACE BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	SQ. FT.	414
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	SQ. FT.	102
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ. FT.	450

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND LED	% OPERATION	
SIGNAL (RED)		135	17	0.50
(YELLOW)		135	25	0.25
(GREEN)		135	15	0.25
ARROW		135	12	0.10
PED. SIGNAL		90	25	1.00
CONTROLLER		100	100	1.00
ILLUM. SIGN		84	35	0.05
FLASHER		135	25	0.50
TOTAL =				

FILE NAME =	USER NAME = kanthaphixaybc	DESIGNED -	REVISED -
cr:\pwwork\pwidot\KANTHAPHIXAYBC\dms922	SI\1061A@02.DGN	DRAWN -	REVISED -
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 11/25/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

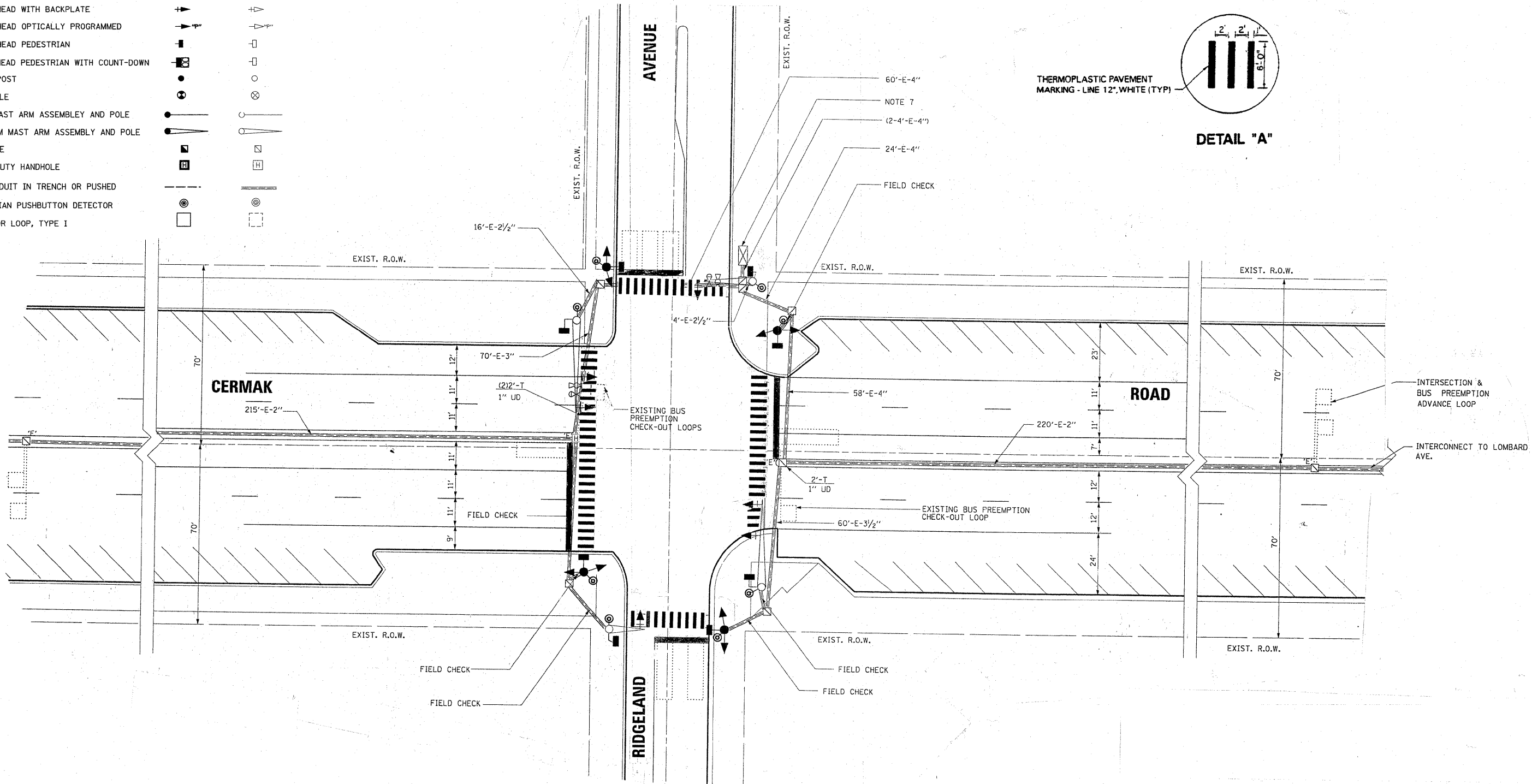
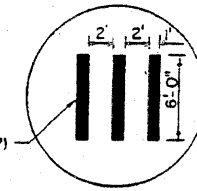
CABLE PLAN - PHASE DESIGNATION DIAGRAM
CERMAK ROAD (22ND St.) @ EAST AVENUE

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1453	2008-079 TS	COOK		12
CONTRACT NO. 60F81				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN		
SIGNAL HEAD PEDESTRIAN WITH COUNT-DOWN		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		



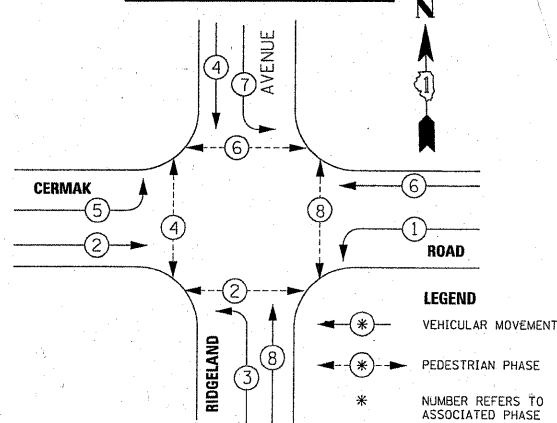
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = kanthapixajbc	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN CERMAK ROAD (22ND St.) @ RIDGELAND AVENUE	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	PLOT DATE = 11/25/2008	CHECKED -	REVISED -			CONTRACT NO. 60F81					
		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

CABLE PLAN LEGEND

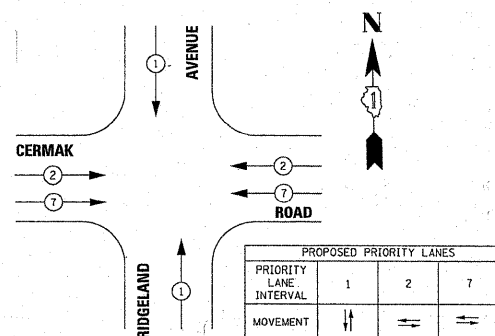
EXISTING	PROPOSED	
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS
		ALL CABLE NO. 14 EXCEPT AS INDICATED
		ALL LOOP DETECTOR CABLE TO BE SHIELDED
		GROUND CABLE IN CONDUIT
		NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT
		NO. 62.5/125 MM12F SM12F
		SIGNAL FACE WITH BACKPLATE
		"P" INDICATES PROGRAMMED HEAD

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM
DUAL ENTRY - ALL LEGS
PROTECTED / PERMITTED LEFT TURN PHASING

EXISTING VEHICLE AND BUS PREEMPTION SEQUENCE



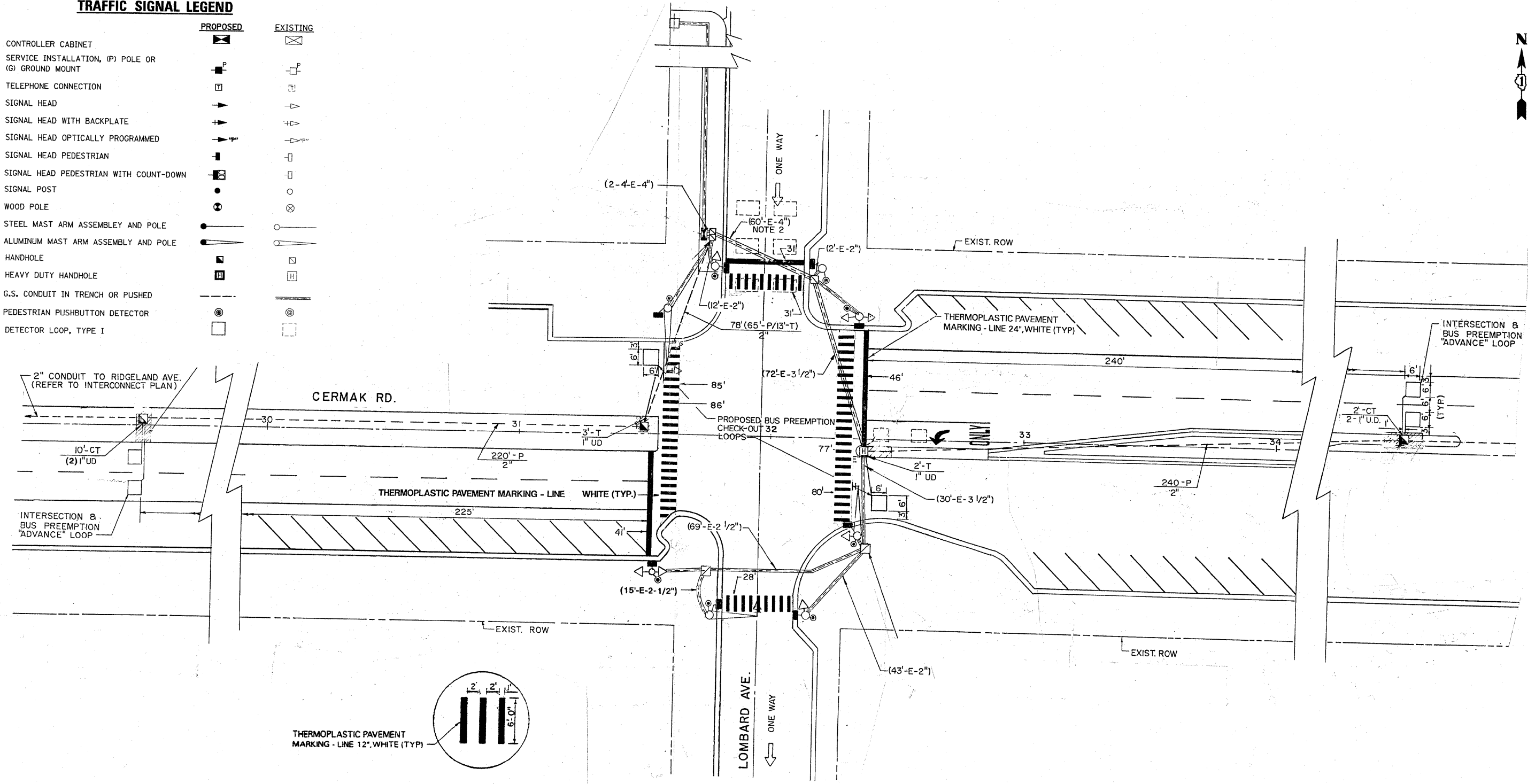
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	
SIGNAL (RED)		135	17	0.50	
(YELLOW)		135	25	0.25	
(GREEN)		135	15	0.25	
ARROW		135	12	0.10	
PED. SIGNAL		90	25	1.00	
CONTROLLER		100	100	1.00	
ILLUM. SIGN		84	35	0.05	
FLASHER		135	25	0.50	
TOTAL =					

TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, L.E.D. 1-FACE BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	SQ. FT.	426
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	SQ. FT.	140
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ. FT.	450

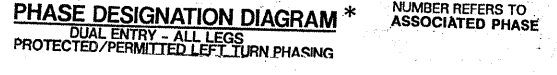
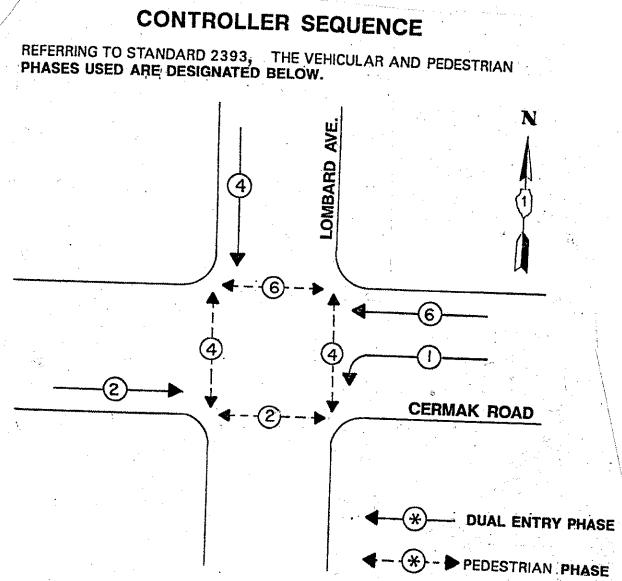
TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN		
SIGNAL HEAD PEDESTRIAN WITH COUNT-DOWN		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		

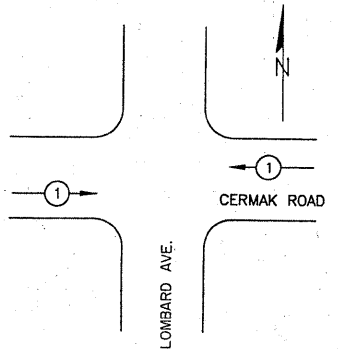


THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = kanthaphixaybc	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN CERMAK ROAD (22ND Street) @ LOMBARD AVENUE	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	PLOT DATE = 11/25/2008	CHECKED -	REVISED -			CONTRACT NO. 60F81					
		DATE -	REVISED -			SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.
						FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT					



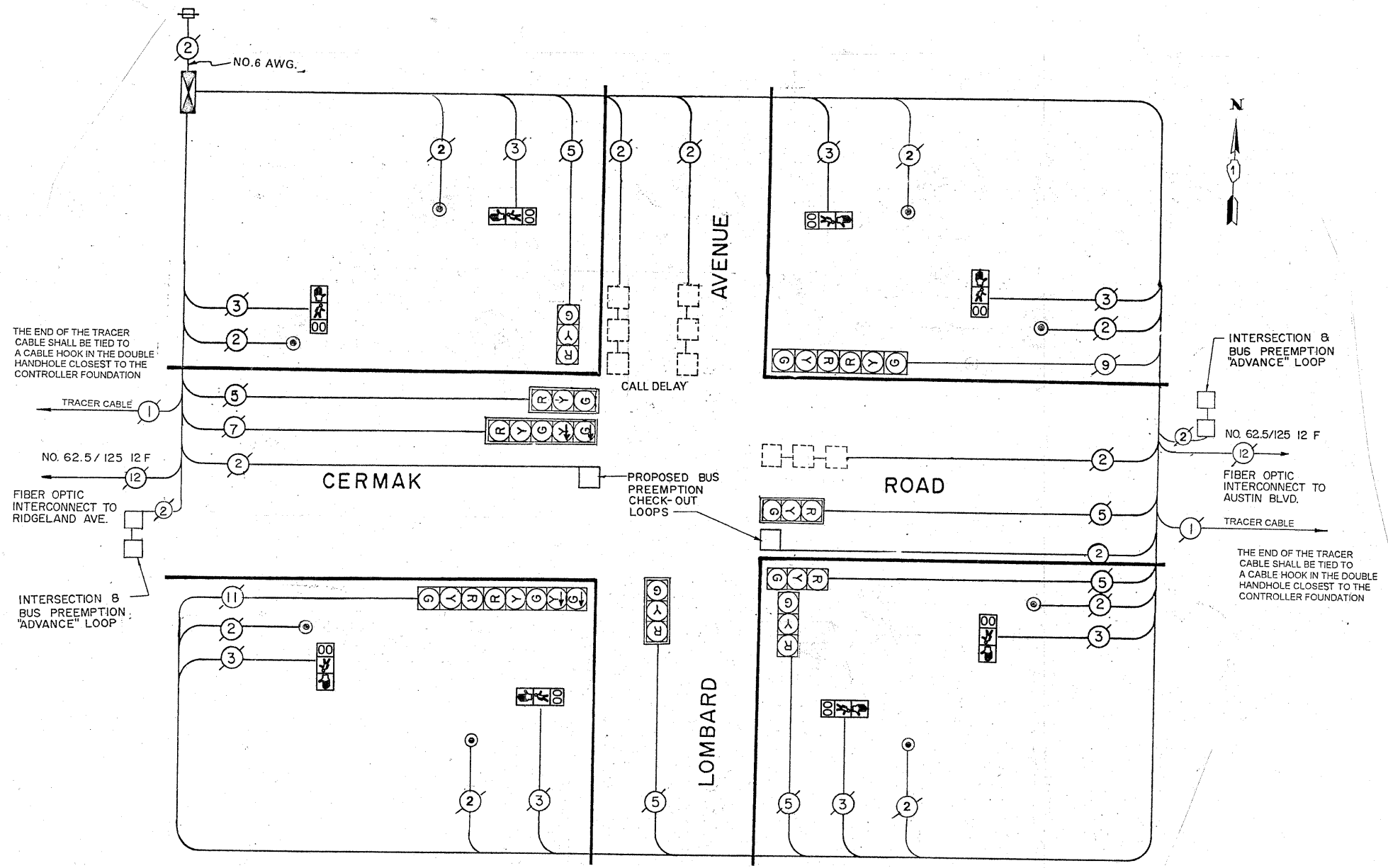
BUS PREEMPTION SEQUENCE NOTES FOR DUAL ENTRY OPERATION - ALL LEGS



PROPOSED PRIORITY LANES	
PRIORITY LANE INTERVAL	1
MOVEMENT	← →

NOTES:

- ONCE PREEMPTION HAS BEEN CALLED, TERMINATION OF A PHASE(S) SHALL BE IDENTICAL TO THE NORMAL SEQUENCES OF OPERATION'S TERMINATION OF A PHASE(S) AS DESCRIBED IN STANDARD 2393.
- CONTINUATION OR TERMINATION OF ALL RIGHT TURN OVERLAPS SHALL BE IDENTICAL TO THE NORMAL SEQUENCE OF OPERATION'S CONTINUATION OR TERMINATION OF RIGHT TURN OVERLAPS AS DESCRIBED IN THE CLEARANCE NOTES FOR RIGHT TURN OVERLAPS.
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- IF ALL RED CLEARANCE IS USED IN THE NORMAL SEQUENCE OF OPERATION, IT MUST BE DISPLAYED AFTER THE YELLOW CLEARANCE INTERVAL WHEN ENTERING OR LEAVING THE PREEMPTION SEQUENCE.



CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
⊙	⊙	8" (200mm) TRAFFIC SIGNAL SECTION
⊙	⊙	12" (300mm) TRAFFIC SIGNAL SECTION
⊙	⊙	12" (300mm) PEDESTRIAN SIGNAL SECTION
⊙	⊙	12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
⊙	⊙	CONTROLLER CABINET SERVICE INSTALLATION
⊙	⊙	TELEPHONE CONNECTION
⊙	⊙	MAGNETIC DETECTOR
⊙	⊙	VEHICLE DETECTOR, INDUCTION LOOP

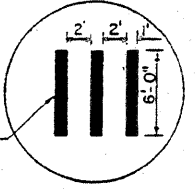
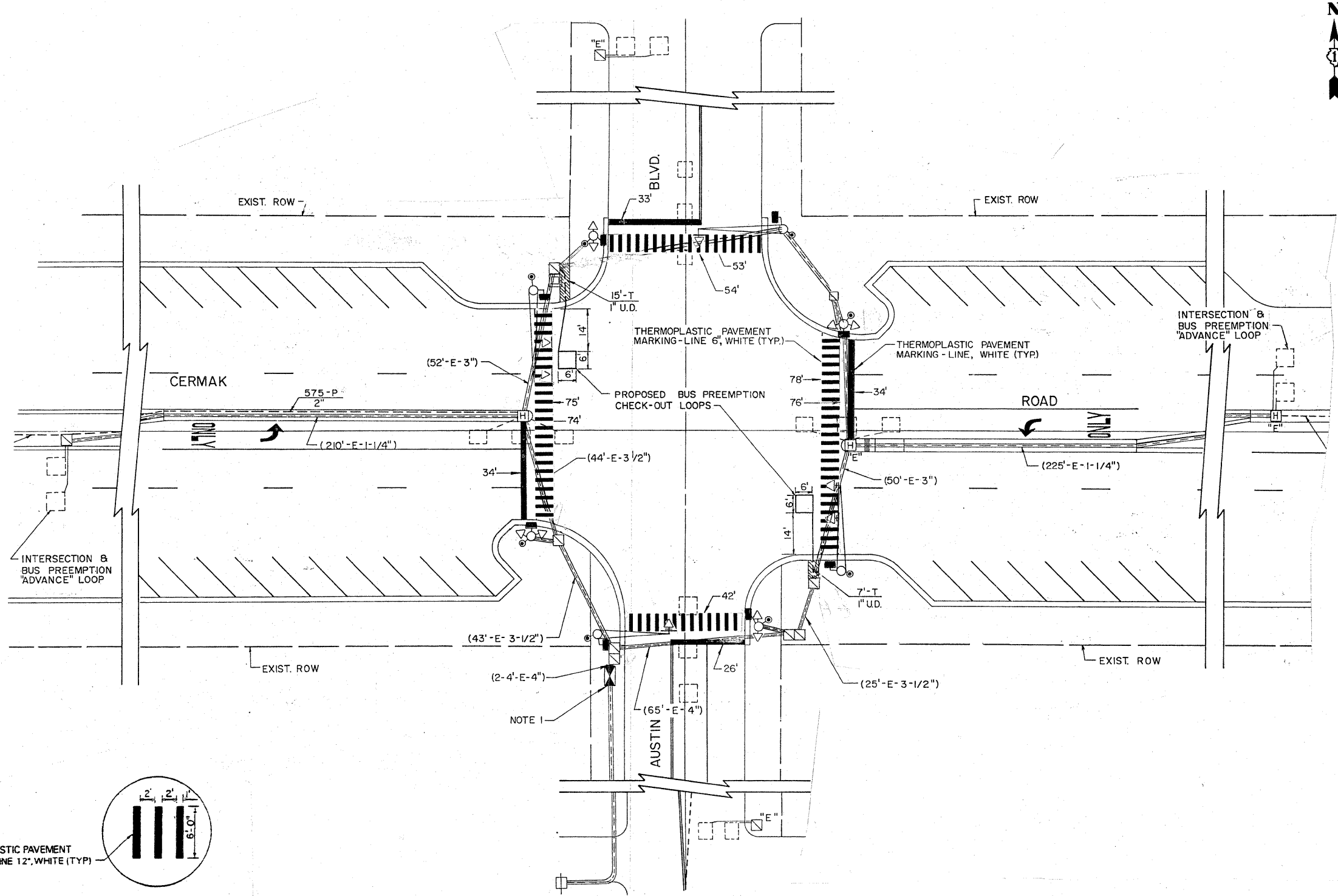
⊙	⊙	EMERGENCY VEHICLE LIGHT DETECTOR
⊙	⊙	CONFIRMATION BEACON
⊙	⊙	PUSHBUTTON DETECTOR
⊙	⊙	DENOTES NUMBER OF CONDUCTORS ALL CABLE NO. 14 EXCEPT AS INDICATED ALL LOOP DETECTOR CABLE TO BE SHIELDED
⊙	⊙	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
⊙	⊙	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F
⊙	⊙	SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD

TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
PEDESTRIAN SIGNAL HEAD, L.E.D. 1-FACE BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	SQ. FT.	396
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	SQ. FT.	118
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ. FT.	500

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN		
SIGNAL HEAD PEDESTRIAN WITH COUNT-DOWN		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		



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

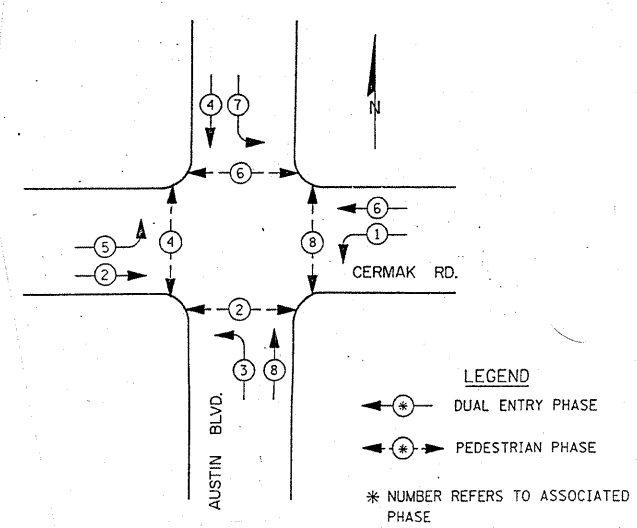
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ct:\pwwork\pwwid\KANTHAPHIXAYBC\dms923	61\1061A002.DGN	DRAWN -	REVISED -			1453	2008-079 TS	COOK	21	21
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	PLOT DATE = 12/1/2008	DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

CABLE PLAN LEGEND

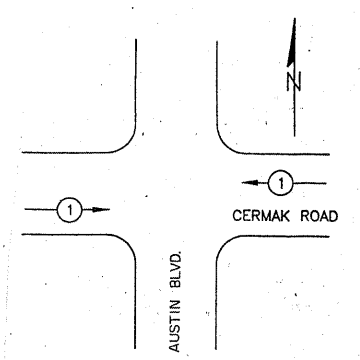
EXISTING	PROPOSED	
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		2 DENOTES NUMBER OF CONDUCTORS
		1 ALL CABLE NO. 14 EXCEPT AS INDICATED
		24 ALL LOOP DETECTOR CABLE TO BE SHIELDED
		1 GROUND CABLE IN CONDUIT
		24 NO. 62.5/125 MM12F SM12F FIBER OPTIC CABLE IN CONDUIT

CONTROLLER SEQUENCE

REFERRING TO STANDARD 2393, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



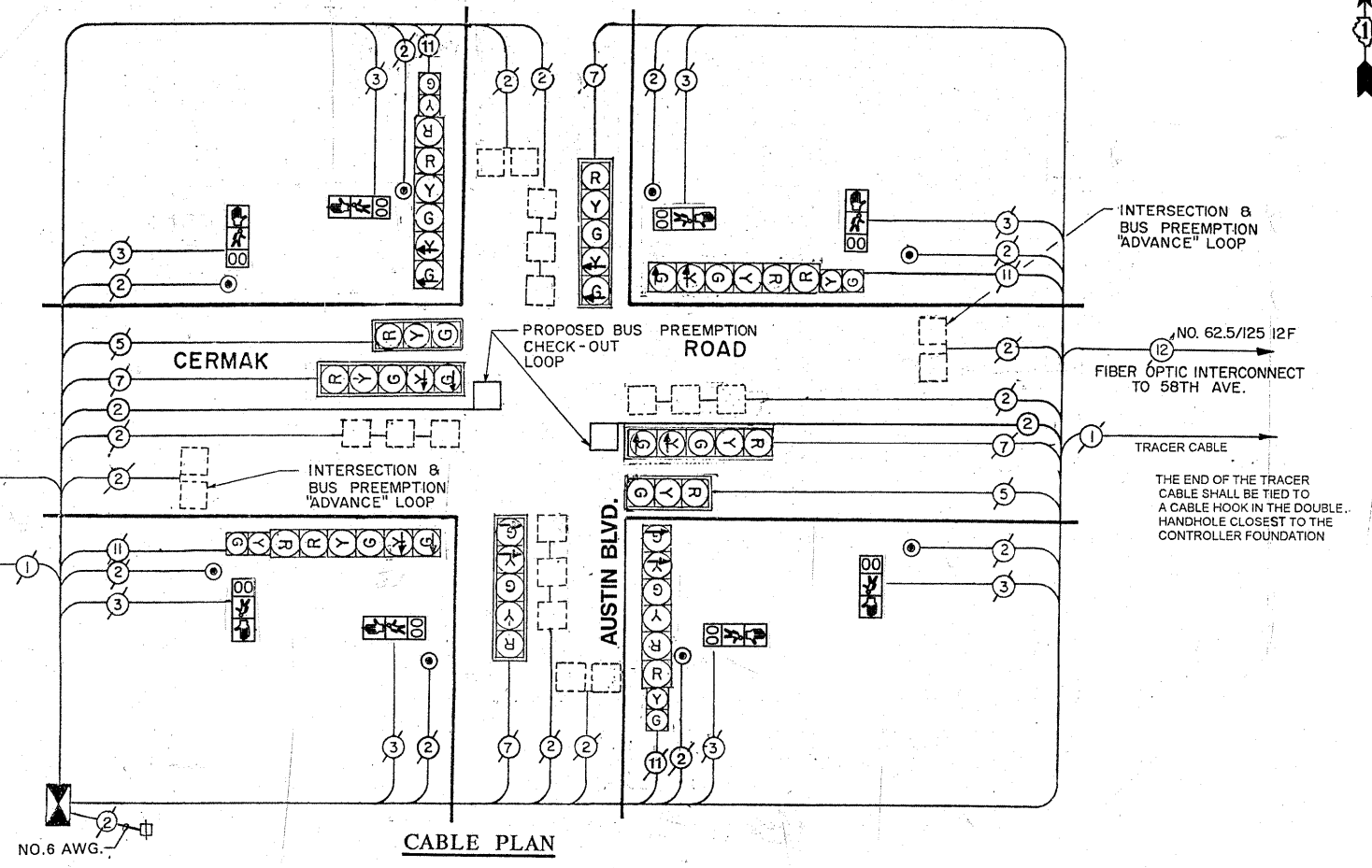
BUS PREEMPTION SEQUENCE NOTES FOR DUAL ENTRY OPERATION - ALL LEGS



PROPOSED PRIORITY LANES	
PRIORITY LANE INTERVAL	1
MOVEMENT	← →

NOTES:

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- IF ALL RED CLEARANCE IS USED IN THE NORMAL SEQUENCE OF OPERATION, IT MUST BE DISPLAYED AFTER THE YELLOW CLEARANCE INTERVAL WHEN ENTERING OR LEAVING THE PREEMPTION SEQUENCE.



CABLE PLAN

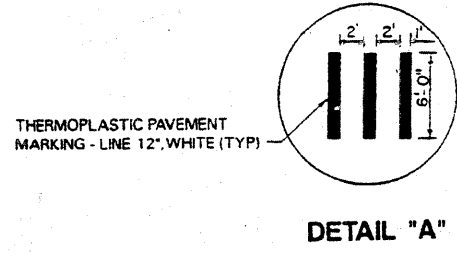
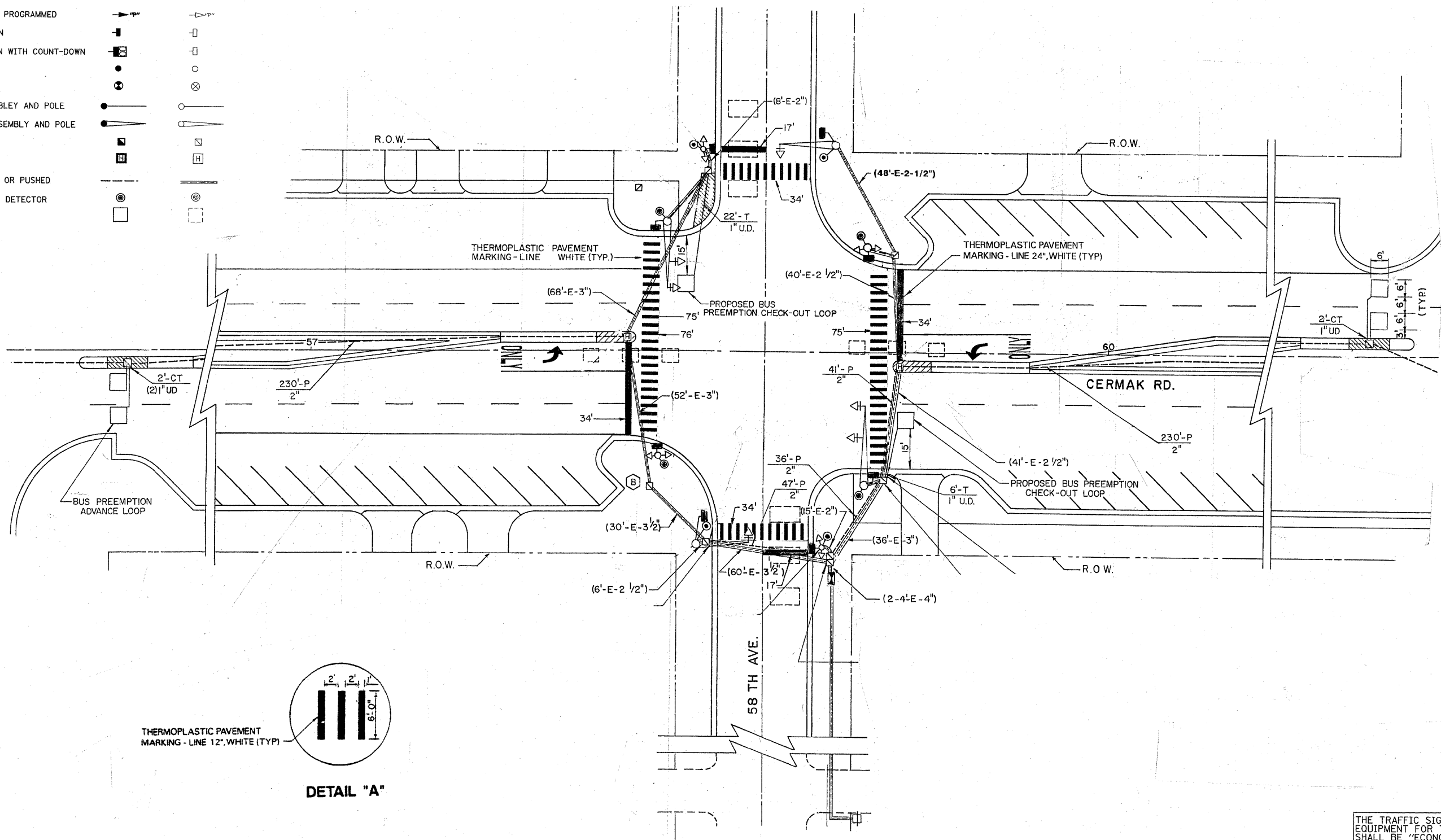
TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
PEDESTRIAN SIGNAL HEAD, L.E.D. 1-FACE BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	SQ. FT.	480
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	SQ. FT.	127
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ. FT.	500

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

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN		
SIGNAL HEAD PEDESTRIAN WITH COUNT-DOWN		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		



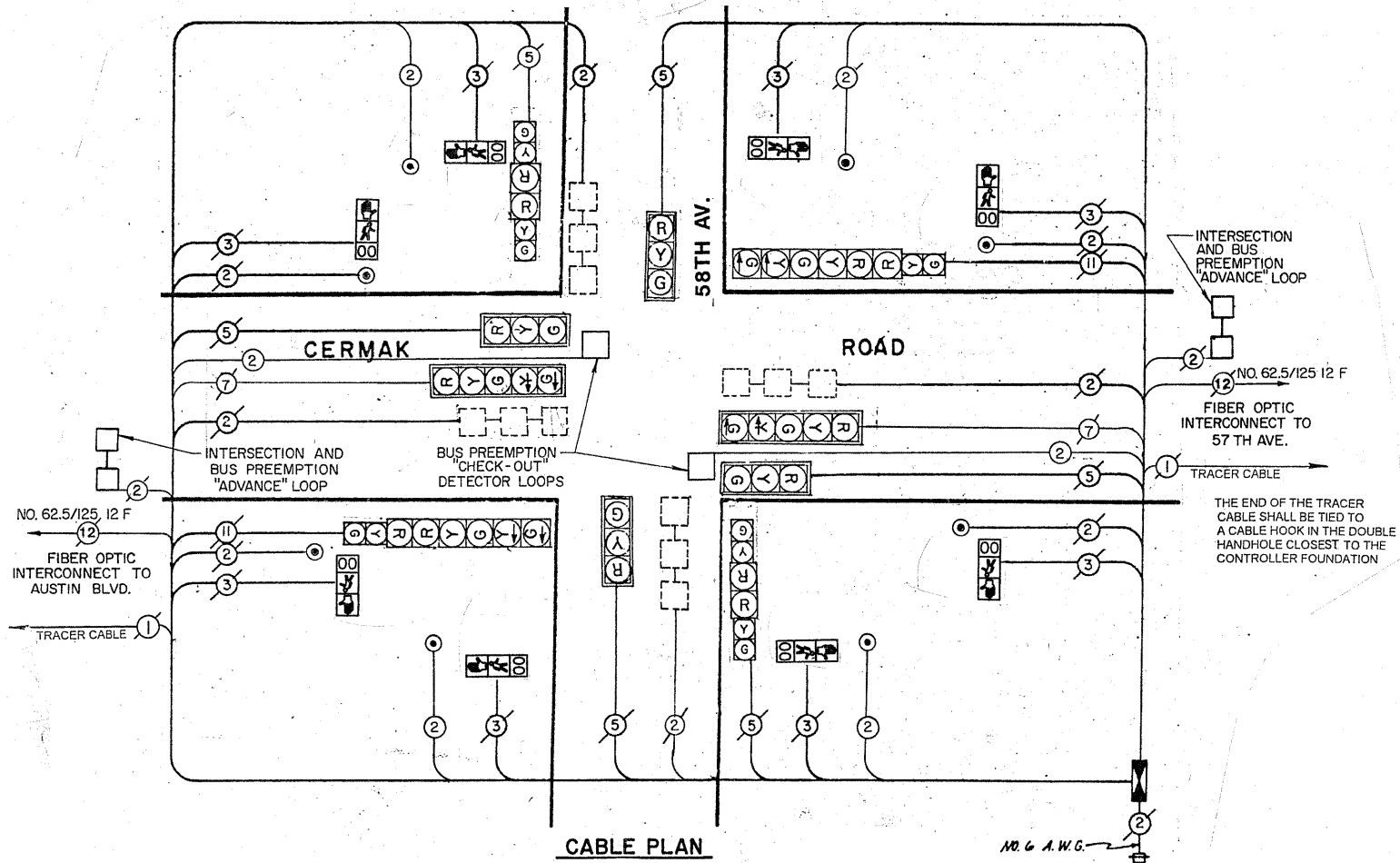
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = kanthaphixaybc	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN CERMAK ROAD (22ND St.) @ 58TH AVENUE	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
cs:\pwwork\pwidot\KANTHAPHIXAYBC\dms92361\11061A02.DGN	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED -			1453	2008-079 TS	COOK	23		
PLOT DATE = 12/1/2008	DATE -	CHECKED -	REVISED -			CONTRACT NO. 60F81					
						FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



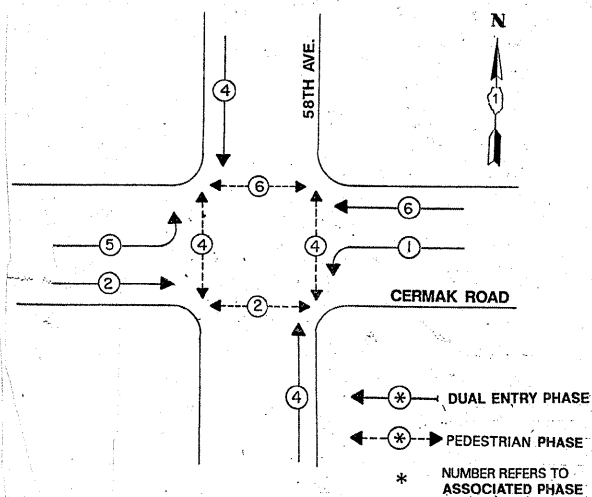
CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS ALL CABLE NO. 14 EXCEPT AS INDICATED ALL LOOP DETECTOR CABLE TO BE SHIELDED
		GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F
		SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD



CONTROLLER SEQUENCE

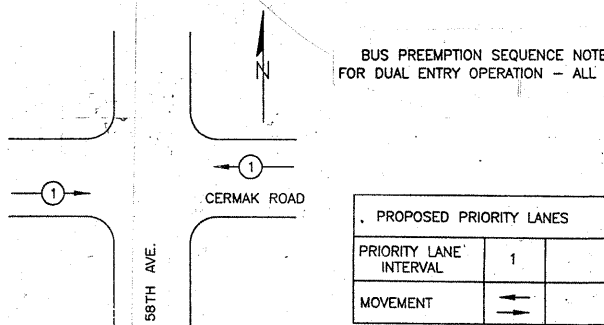
REFERRING TO STANDARD 2393, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



PHASE DESIGNATION DIAGRAM

DUAL ENTRY - ALL LEGS
PROTECTED/PERMITTED LEFT TURN PHASING

BUS PREEMPTION SEQUENCE NOTES FOR DUAL ENTRY OPERATION - ALL LEGS



PROPOSED PRIORITY LANES	
PRIORITY LANE INTERVAL	1
MOVEMENT	← →

NOTES:

- ONCE PREEMPTION HAS BEEN CALLED, TERMINATION OF A PHASE(S) SHALL BE IDENTICAL TO THE NORMAL SEQUENCES OF OPERATION'S TERMINATION OF A PHASE(S) AS DESCRIBED IN STANDARD 2393.
- CONTINUATION OR TERMINATION OF ALL RIGHT TURN OVERLAPS SHALL BE IDENTICAL TO THE NORMAL SEQUENCE OF OPERATION'S CONTINUATION OR TERMINATION OF RIGHT TURN OVERLAPS AS DESCRIBED IN THE CLEARANCE NOTES FOR RIGHT TURN OVERLAPS.
- TERMINATION OF ALL PEDESTRIAN PHASES SHALL INCLUDE A FULL FLASHING "DON'T WALK" INTERVAL.
- IF ALL RED CLEARANCE IS USED IN THE NORMAL SEQUENCE OF OPERATION, IT MUST BE DISPLAYED AFTER THE YELLOW CLEARANCE INTERVAL WHEN ENTERING OR LEAVING THE PREEMPTION SEQUENCE.

TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
PEDESTRIAN SIGNAL HEAD, I.E.D. 1-FACE BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	SQ. FT.	420
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	SQ. FT.	119
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ. FT.	500

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	
SIGNAL (RED)		135	17	0.50	
(YELLOW)		135	25	0.25	
(GREEN)		135	15	0.25	
ARROW		135	12	0.10	
PED. SIGNAL		90	25	1.00	
CONTROLLER		100	100	1.00	
ILLUM. SIGN		84	35	0.05	
FLASHER		135	25	0.50	
TOTAL =					

FILE NAME =	USER NAME = kanthaphixajbc	DESIGNED -	REVISED -
et\pwwork\PWIDOT\KANTHAPHIXAYBC\dms9261\1061A002.DGN		DRAWN -	REVISED -
PLOT SCALE = 5/8"=1' / IN.		CHECKED -	REVISED -
PLOT DATE = 12/1/2008		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

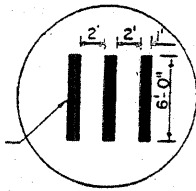
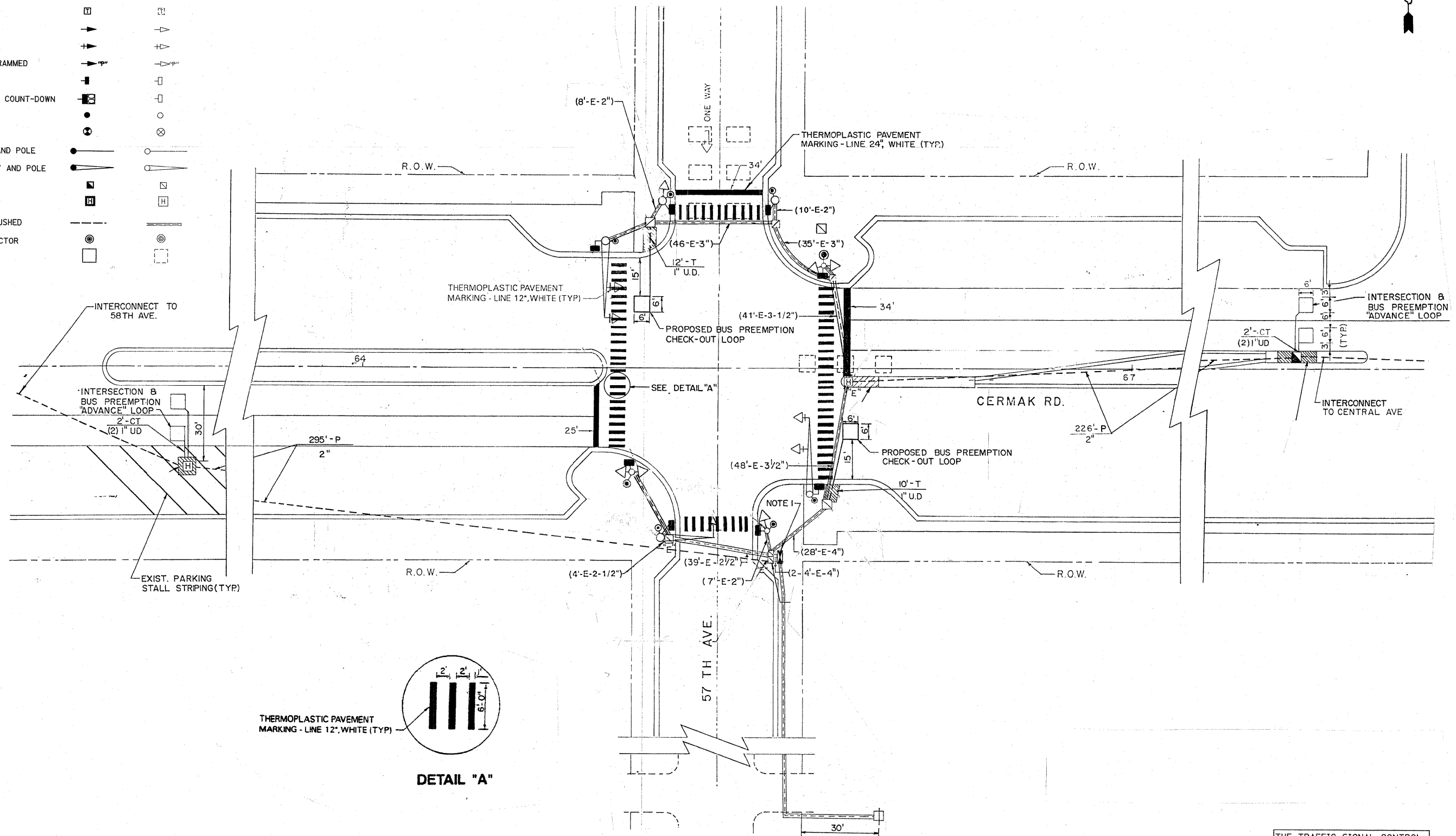
**CABLE PLAN - PHASE DESIGNATION DIAGRAM
CERMAIK ROAD (22ND St.) @ 58TH AVENUE**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1453	2008-079 TS	COOK		24
CONTRACT NO. 60F81				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN		
SIGNAL HEAD PEDESTRIAN WITH COUNT-DOWN		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		



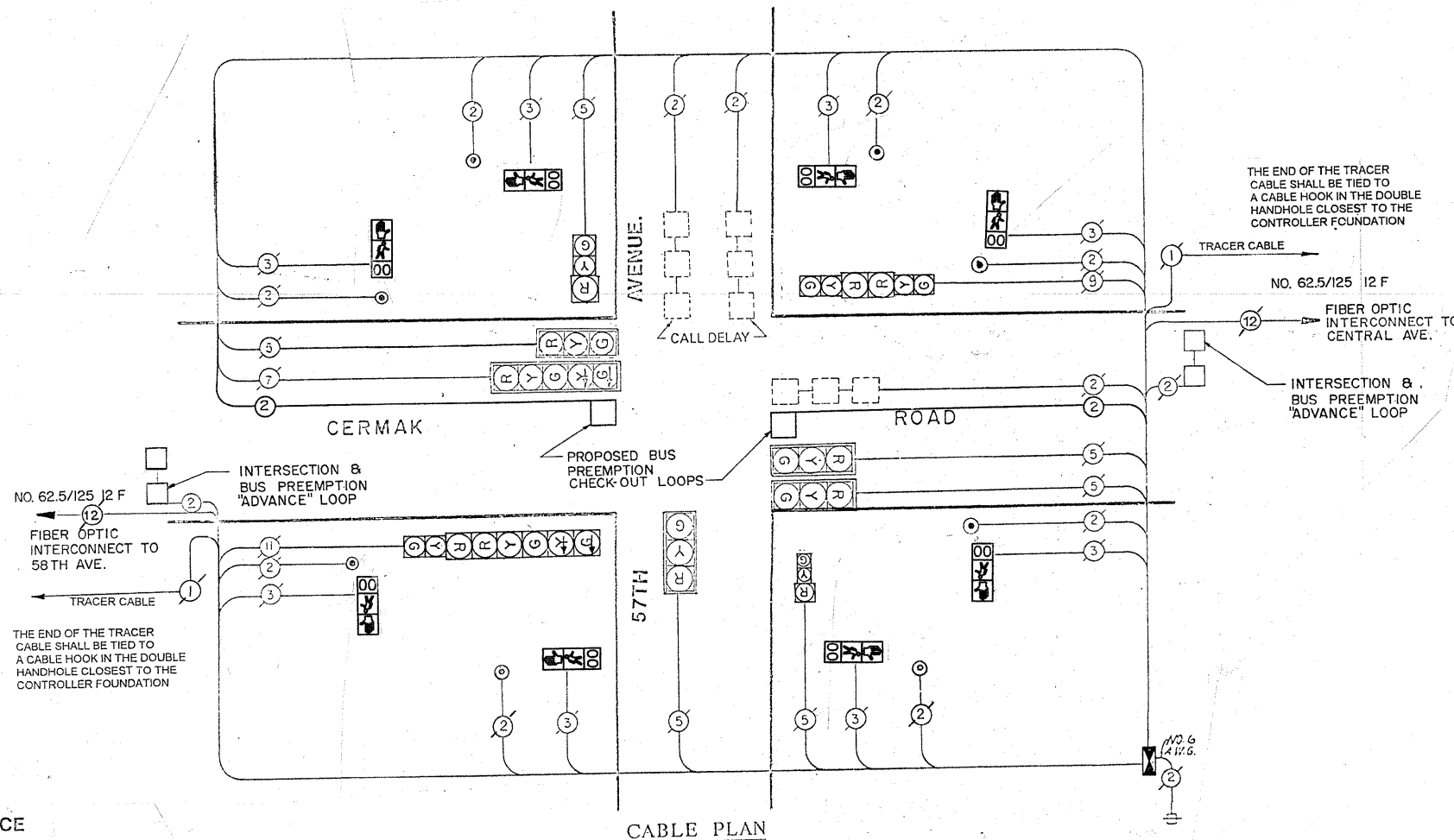
DETAIL "A"

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

FILE NAME =	USER NAME = kanthaphixaybo	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN CERMAK ROAD (22ND Street) @ 57TH AVENUE	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ct:\pwwork\pwwork\KANTHAPHIXAYBO\dms923	81\1061A002.DGN	DRAWN -	REVISED -			1453	2008-079 TS	COOK	75		
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -			CONTRACT NO. 60F81					
	PLOT DATE = 12/1/2008	DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

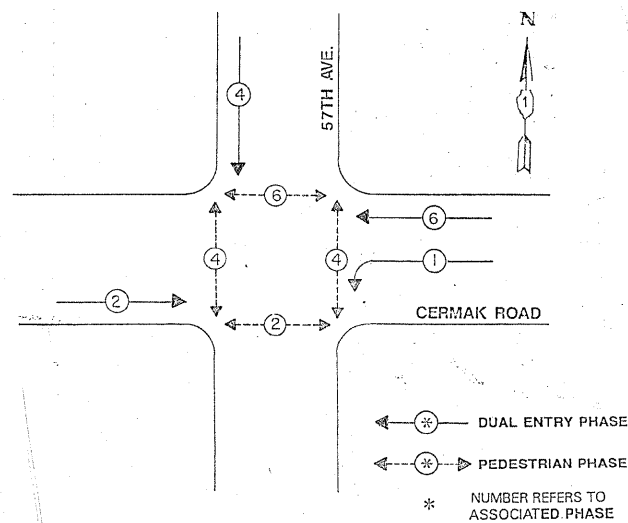
CABLE PLAN LEGEND

EXISTING	PROPOSED	
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS
		ALL CABLE NO. 14 EXCEPT AS INDICATED
		ALL LOOP DETECTOR CABLE TO BE SHIELDED
		GROUND CABLE IN CONDUIT
		FIBER OPTIC CABLE IN CONDUIT
		SIGNAL FACE WITH BACKPLATE
		"P" INDICATES PROGRAMMED HEAD



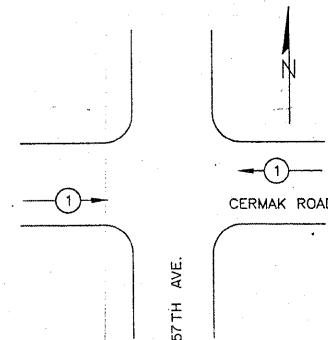
CONTROLLER SEQUENCE

REFERRING TO STANDARD 2393, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



PHASE DESIGNATION DIAGRAM

BUS PREEMPTION SEQUENCE NOTES FOR DUAL ENTRY OPERATION - ALL LEGS



PROPOSED PRIORITY LANES		
PRIORITY LANE INTERVAL	1	
MOVEMENT	←	→

NOTES:

- ONCE PREEMPTION HAS BEEN CALLED, TERMINATION OF A PHASE(S) SHALL BE IDENTICAL TO THE NORMAL SEQUENCES OF OPERATION'S TERMINATION OF A PHASE(S) AS DESCRIBED IN STANDARD 2393.
- CONTINUATION OR TERMINATION OF ALL RIGHT TURN OVERLAPS SHALL BE IDENTICAL TO THE NORMAL SEQUENCE OF OPERATION'S CONTINUATION OR TERMINATION OF RIGHT TURN OVERLAPS AS DESCRIBED IN THE CLEARANCE NOTES FOR RIGHT TURN OVERLAPS.
- TERMINATION OF ALL PEDESTRIAN PHASES SHALL INCLUDE A FULL FLASHING "DON'T WALK" INTERVAL.
- IF ALL RED CLEARANCE IS USED IN THE NORMAL SEQUENCE OF OPERATION, IT MUST BE DISPLAYED AFTER THE YELLOW CLEARANCE INTERVAL WHEN ENTERING OR LEAVING THE PREEMPTION SEQUENCE.

TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
PEDESTRIAN SIGNAL HEAD, L.E.D. 1-FACE BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
THERMOPLASTIC PAVEMENT MARKING - LINE 12'	SQ. FT.	426
THERMOPLASTIC PAVEMENT MARKING - LINE 24'	SQ. FT.	93
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ. FT.	500

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	
SIGNAL (RED)		135	17	0.50	
(YELLOW)		135	25	0.25	
(GREEN)		135	15	0.25	
ARROW		135	12	0.10	
PED. SIGNAL		90	25	1.00	
CONTROLLER		100	100	1.00	
ILLUM. SIGN		84	35	0.05	
FLASHER		135	25	0.50	
TOTAL =					

FILE NAME =	USER NAME = kenthaphixagbc	DESIGNED -	REVISED -
es:\pwwork\pwwid\KANTHAPHIXAYBC\dms92361\101061A002.DGN		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

PLOT SCALE = 50.0000' / IN.	DATE -
PLOT DATE = 12/1/2008	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

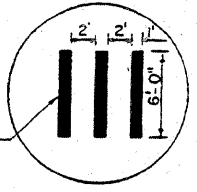
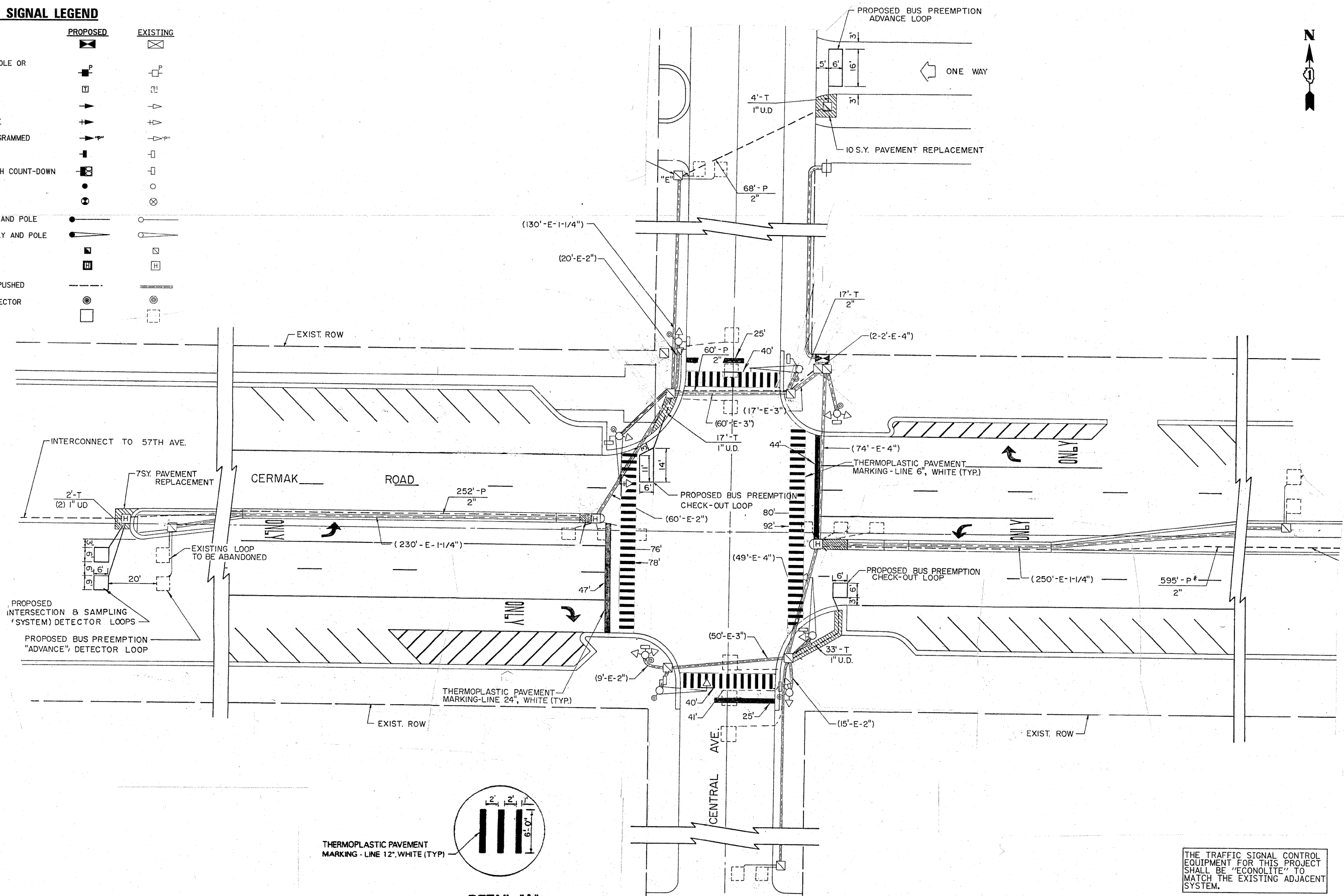
CABLE PLAN - PHASE DESIGNATION DIAGRAM
CERMAIK ROAD (22ND Street) @ 57TH AVENUE

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1453	2008-079 TS	COOK		26
CONTRACT NO. 60F81				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN		
SIGNAL HEAD PEDESTRIAN WITH COUNT-DOWN		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		



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

FILE NAME =	USER NAME = kanthaphixaybo	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN CERMAK ROAD (22 ND St.) @ CENTRAL AVENUE	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ct:\pw_work\VP\WIDOT\KANTHAPHIXAYBC\dms9261\st061A02.DGN	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED -			1453	2008-079 TS	COOK	27		
PLOT DATE = 12/1/2008	DATE -	CHECKED -	REVISED -			CONTRACT NO. 60F81					
				SCALE:	SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

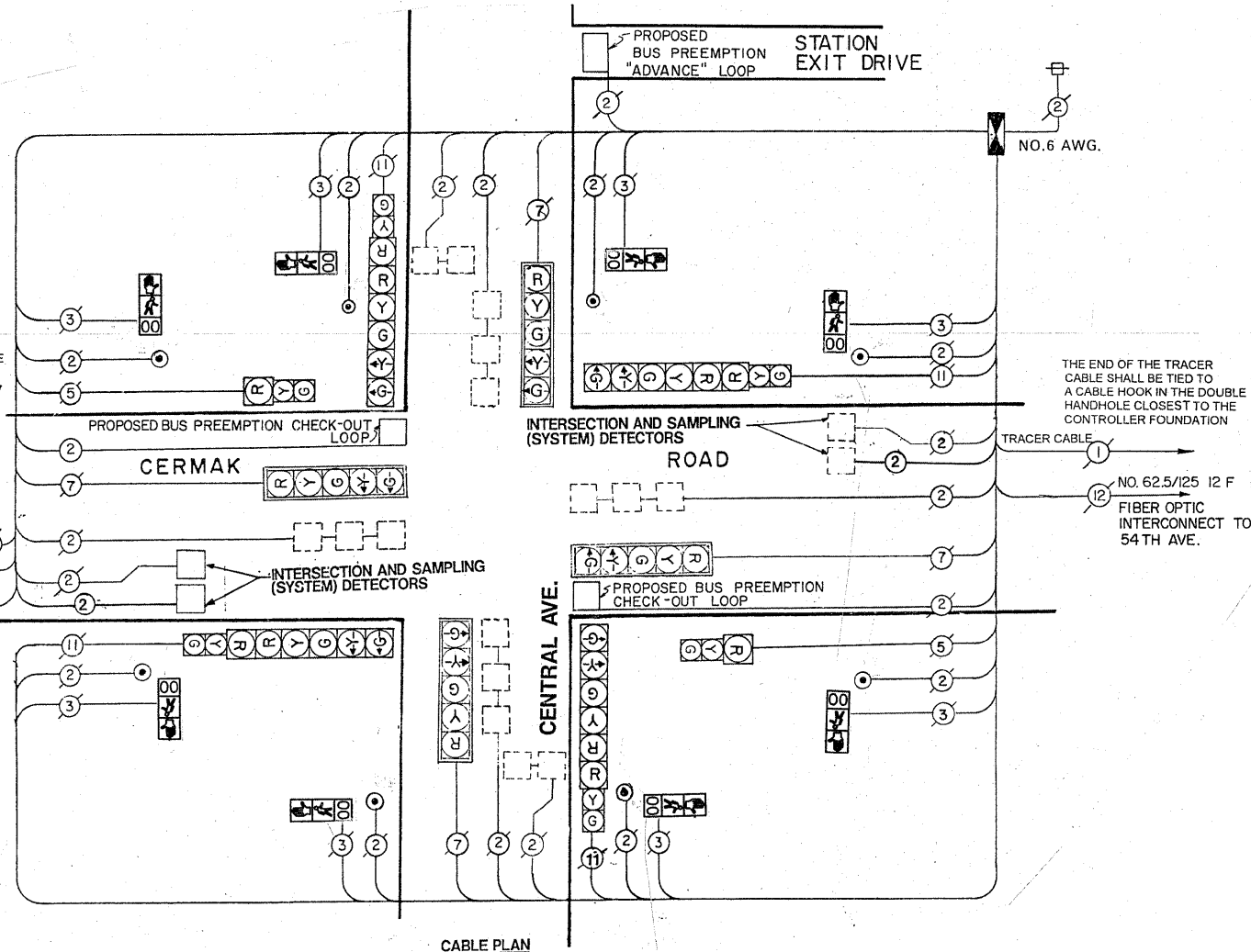
CABLE PLAN LEGEND

EXISTING	PROPOSED	
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS
		ALL CABLE NO. 14 EXCEPT AS INDICATED
		ALL LOOP DETECTOR CABLE TO BE SHIELDED
		GROUND CABLE IN CONDUIT
		FIBER OPTIC CABLE IN CONDUIT
		SIGNAL FACE WITH BACKPLATE
		"P" INDICATES PROGRAMMED HEAD

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION

NO. 62.5/125 12 F FIBER OPTIC INTERCONNECT TO 57TH AVE.

PROPOSED BUS PREEMPTION "ADVANCE" LOOP

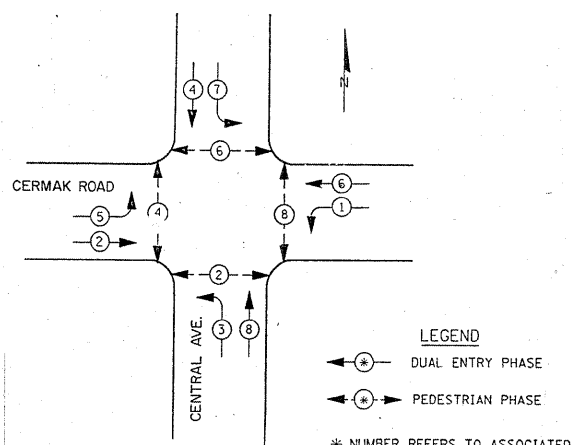


THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION

NO. 62.5/125 12 F FIBER OPTIC INTERCONNECT TO 54TH AVE.

CONTROLLER SEQUENCE

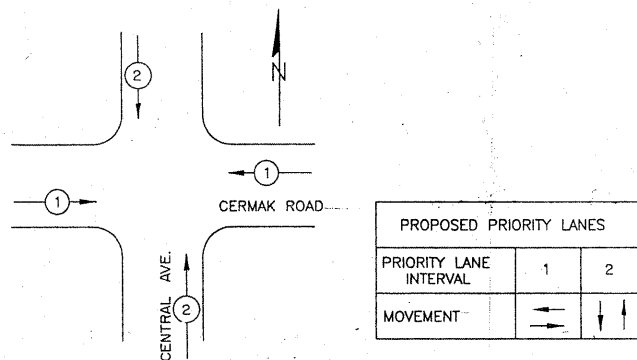
REFERRING TO STANDARD 2393, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



PHASE DESIGNATION DIAGRAM

DUAL ENTRY - ALL LEGS
PROTECTED/PERMITTED LEFT TURN PHASING

BUS PREEMPTION SEQUENCE NOTES FOR DUAL ENTRY OPERATION - ALL LEGS



NOTES:

- ONCE PREEMPTION HAS BEEN CALLED, TERMINATION OF A PHASE(S) SHALL BE IDENTICAL TO THE NORMAL SEQUENCES OF OPERATION'S TERMINATION OF A PHASE(S) AS DESCRIBED IN STANDARD 2393.
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- TERMINATION OF ALL PEDESTRIAN PHASES SHALL INCLUDE A FULL FLASHING "DON'T WALK" INTERVAL.
- IF ALL RED CLEARANCE IS USED IN THE NORMAL SEQUENCE OF OPERATION, IT MUST BE DISPLAYED AFTER THE YELLOW CLEARANCE INTERVAL WHEN ENTERING OR LEAVING THE PREEMPTION SEQUENCE.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND. LED	% OPERATION	
SIGNAL (RED)		135	17	0.50
(YELLOW)		135	25	0.25
(GREEN)		135	15	0.25
ARROW		135	12	0.10
PED. SIGNAL		90	25	1.00
CONTROLLER		100	100	1.00
ILLUM. SIGN		84	35	0.05
FLASHER		135	25	0.50
TOTAL =				

TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
PEDESTRIAN SIGNAL HEAD, L.E.D. 1-FACE BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	SQ. FT.	462
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	SQ. FT.	145
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ. FT.	600

FILE NAME =	USER NAME = kanthaphixaybc	DESIGNED -	REVISED -
cr:\pwork\pwidot\KANTHAPHIXAYBC\dms92361\1s061A02.DGN		DRAWN -	REVISED -
PLOT SCALE = 50.0000' / 1"		CHECKED -	REVISED -
PLOT DATE = 12/1/2008		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

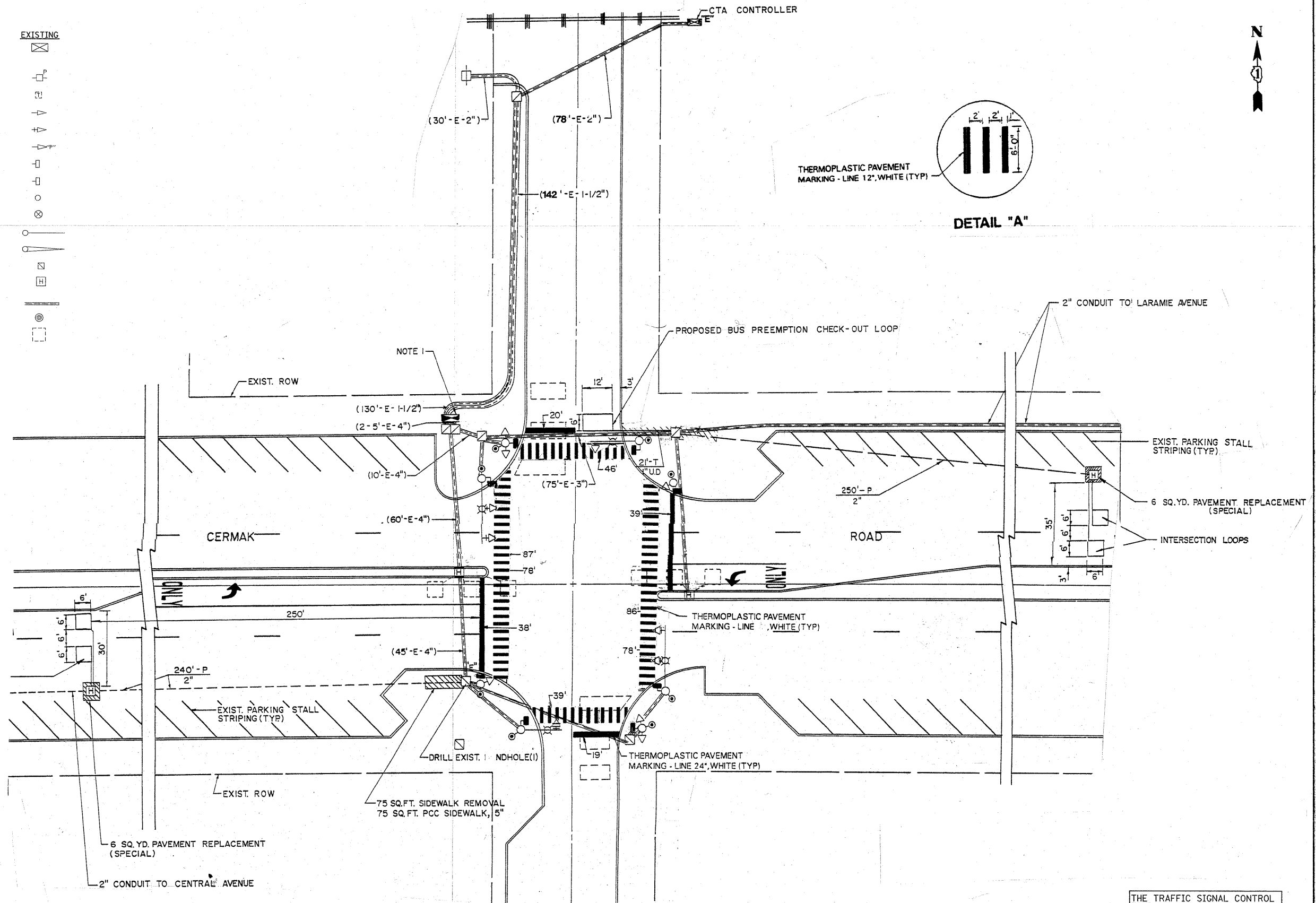
**TRAFFIC SIGNAL MODERNIZATION PLAN
CERMAK ROAD (22ND St.) @ CENTRAL AVENUE**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1453	2008-079 TS	COOK		28
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60FB1	

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN		
SIGNAL HEAD PEDESTRIAN WITH COUNT-DOWN		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		



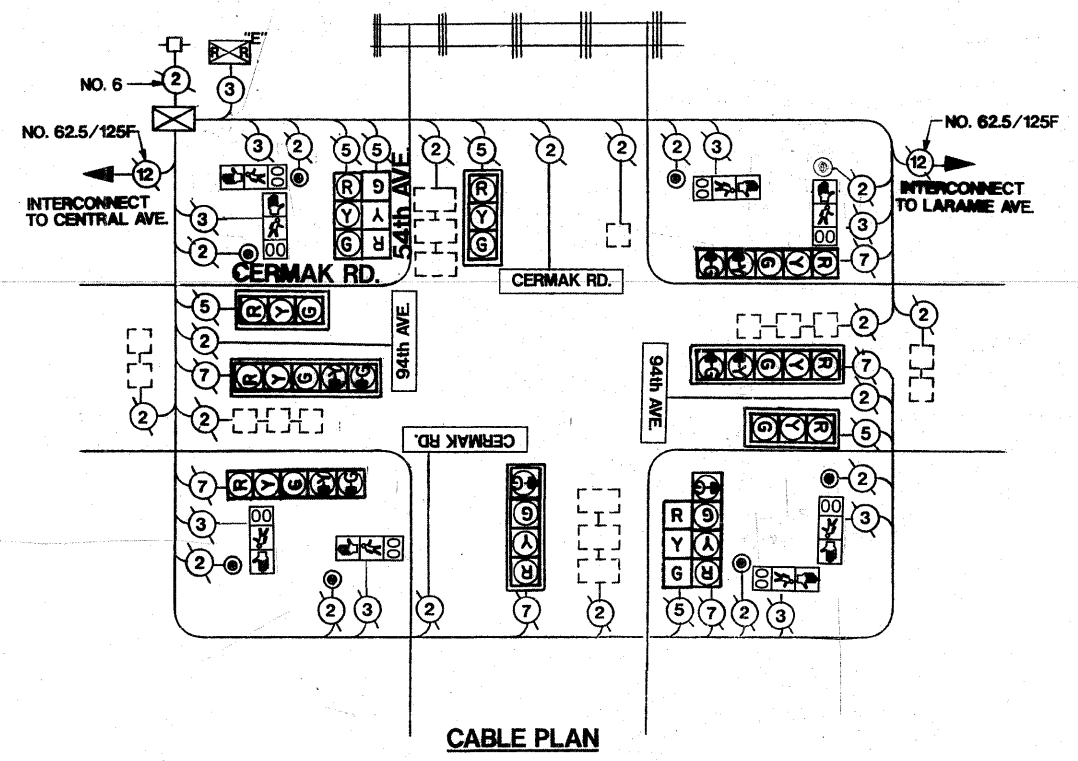
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = kanthaphixaybc	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN CERMAK ROAD (22ND St.) @ 54TH AVENUE	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
et:\pwwork\pwwid\KANTHAPHIXAYBC\dms92	61\1061A002.DGN	DRAWN -	REVISED -			1453	2008-079 TS	COOK	29		
	PLOT SCALE = 50,0000' / IN.	CHECKED -	REVISED -			CONTRACT NO. 60F81					
	PLOT DATE = 12/1/2008	DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



CABLE PLAN LEGEND

EXISTING	PROPOSED	
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS
		ALL CABLE NO. 14 EXCEPT AS INDICATED
		ALL LOOP DETECTOR CABLE TO BE SHIELDED
		GROUND CABLE IN CONDUIT
		NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT
		NO. 62.5/125 MM12F SM12F
		SIGNAL FACE WITH BACKPLATE
		"P" INDICATES PROGRAMMED HEAD



CABLE PLAN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	
SIGNAL (RED)		135	17	0.50	
(YELLOW)		135	25	0.25	
(GREEN)		135	15	0.25	
ARROW		135	12	0.10	
PED. SIGNAL		90	25	1.00	
CONTROLLER		100	100	1.00	
ILLUM. SIGN		84	35	0.05	
TOTAL =					

TRAFFIC SIGNAL SCHEDULE OF QUANTITIES		
PAY ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
PEDESTRIAN SIGNAL HEAD, L.E.D. 1-FACE BRACKET MOUNTED	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	SQ. FT.	486
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	SQ. FT.	114
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ. FT.	600

SEQUENCE OF OPERATION

MOVEMENT	1 + 5				1 + 6			2 + 5			2 + 6				4 + 8				F L A S H
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13A	13B	14	15	16A	16B	
CHANGE TO		1+6	2+5	2+6	ϕ	ϕ		ϕ	ϕ	2+6								1+5 1+6 2+5 2+6	
CERMAK ROAD E/B END MAST ARM AND FAR LEFT SIGNALS	R	R	R	R	R	R	R	G	G	G	G	G	Y	R	R	R	R	R	
CERMAK ROAD E/B FAR RIGHT SIGNAL	R	R	R	R	R	R	R	G	G	G	G	G	Y	R	R	R	R	R	
CERMAK ROAD W/B END MAST ARM AND FAR LEFT SIGNALS	R	R	R	R	G	G	G	R	R	R	G	G	Y	R	R	R	R	R	
CERMAK ROAD W/B FAR RIGHT SIGNAL	R	R	R	R	G	G	G	R	R	R	G	G	Y	R	R	R	R	R	
54TH AVENUE N/B ALL SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	
54TH AVENUE S/B END MAST ARM AND FAR LEFT SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	
54TH AVENUE S/B NEAR RIGHT SIGNAL	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	
PEDESTRIAN SIGNALS CROSSING 54TH AVENUE ON NORTHSIDE OF CERMAK ROAD	DW	DW	DW	DW	*W	**FL DW	DW	DW	DW	DW	*W	**FL DW	DW	DW	DW	DW	DW	DW	
PEDESTRIAN SIGNALS CROSSING 54TH AVENUE ON SOUTHSIDE OF CERMAK ROAD	DW	DW	DW	DW	DW	DW	DW	*W	**FL DW	DW	*W	**FL DW	DW	DW	DW	DW	DW	DW	
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON EASTSIDE OF 54TH AVENUE	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	*W	**FL DW	DW	DW	
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON WESTSIDE OF 54TH AVENUE	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	*W	**FL DW	DW	DW	

- * TO APPEAR ONLY UPON PUSHBUTTON ACTUATION
 - ** FLASHING "DON'T WALK" IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.
 - ϕ THIS "WALK" OR FLASHING "DON'T WALK" INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE "WALK" OR FLASHING "DON'T WALK" INTERVALS.
- W = "WALK"
 FL = FLASHING "DON'T WALK"
 DW = "DON'T WALK"
- PHASE 2 AND 6 SHALL BE PLACED ON RECALL.
 PHASE 1 ON OMITTS PHASE 5.
 PHASE 5 ON OMITTS PHASE 1.

◇ BUS SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION.

RAILROAD PREEMPTION SEQUENCE OF OPERATION

FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1	5	8	11	14														
FROM BUS PRIORITY SEQUENCE INTERVAL NUMBER														2					
RAILROAD PREEMPTION INTERVAL	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	2	3	4	5	6	7		
CHANGE TO	2	1C	2	1E	2	1G	2	1J	2	1L	2	3	4	5	6	7	RESUME NORMAL PHASE 4+8		
CERMAK ROAD E/B END MAST ARM AND FAR LEFT SIGNALS	R	R	R	Y	R	Y	R	R	R	Y	R	R	R	R	G	Y	R		
CERMAK ROAD E/B FAR RIGHT SIGNAL	R	R	R	Y	R	Y	R	R	R	Y	R	R	R	R	G	Y	R		
CERMAK ROAD W/B END MAST ARM AND FAR LEFT SIGNALS	R	Y	R	R	R	Y	R	R	R	Y	R	R	R	R	G	Y	R		
CERMAK ROAD W/B FAR RIGHT SIGNAL	R	Y	R	R	R	Y	R	R	R	Y	R	R	R	R	G	Y	R		
54TH AVENUE N/B ALL SIGNALS	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R		
54TH AVENUE S/B END MAST ARM AND FAR LEFT SIGNALS	R	R	R	R	R	R	R	G	G	R	R	G	Y	R	R	R	R		
54TH AVENUE S/B NEAR RIGHT SIGNAL	R	R	R	R	R	R	R	G	G	R	R	G	Y	R	R	R	R		
PEDESTRIAN SIGNALS CROSSING 54TH AVENUE ON NORTHSIDE OF CERMAK ROAD	DW	FL DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW		
PEDESTRIAN SIGNALS CROSSING 54TH AVENUE ON SOUTHSIDE OF CERMAK ROAD	DW	DW	DW	FL DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW		
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON EASTSIDE OF 54TH AVENUE	DW	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW		
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON WESTSIDE OF 54TH AVENUE	DW	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW		

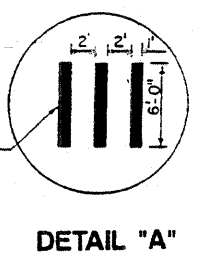
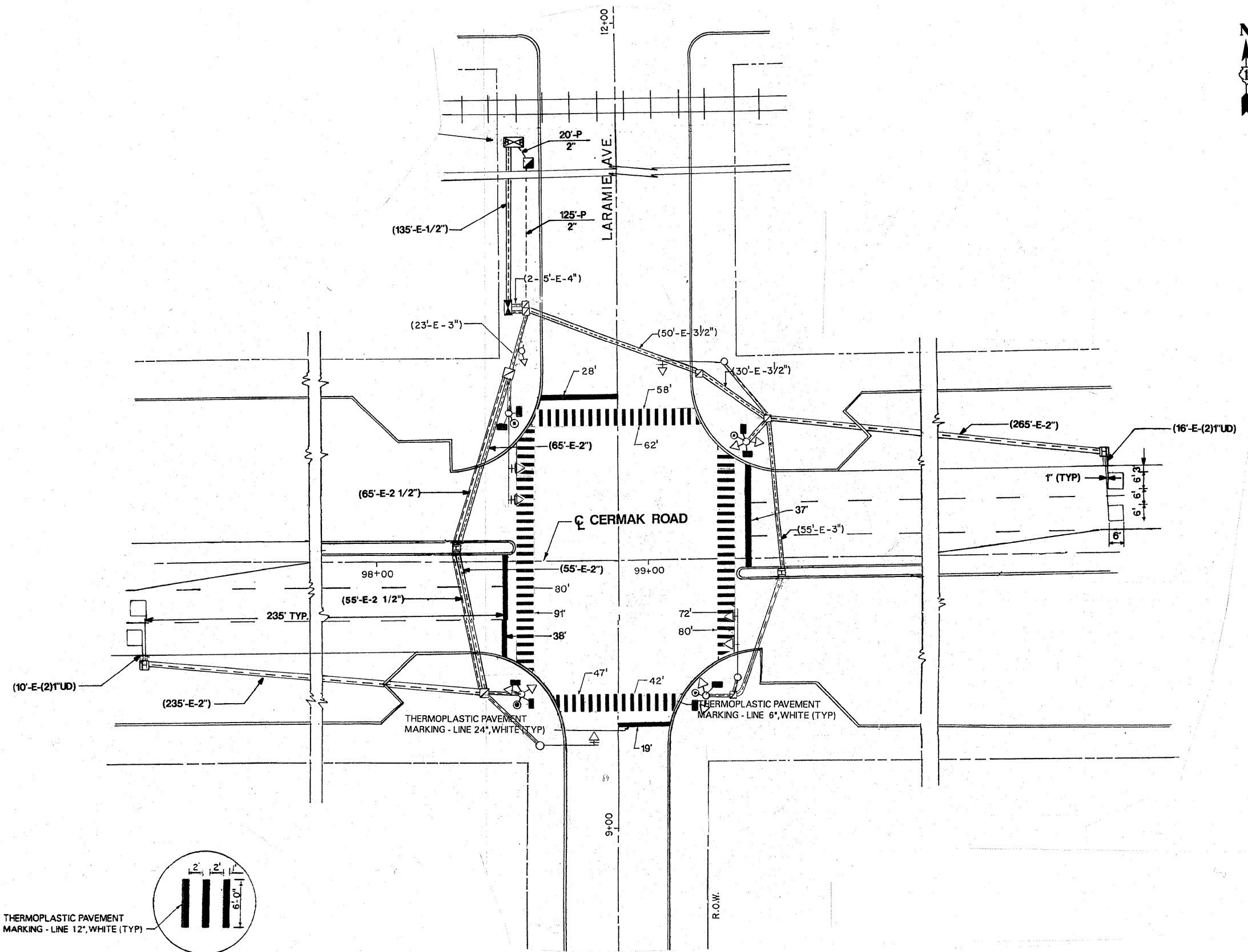
HOLD

BUS PRIORITY SEQUENCE OF OPERATION

FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1	5	8	11	14	BUS INTERVAL					CLEAR TO NORMAL SEQUENCE
BUS PREEMPTION SEQUENCE INTERVAL	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	
CHANGE TO	2	1C	2	1E	2	1G	2	1J	1K	2	◇
CERMAK ROAD E/B END MAST ARM AND FAR LEFT SIGNALS	R	R	R	G	G	G	G	R	R	R	◇
CERMAK ROAD E/B FAR RIGHT SIGNAL	R	R	R	G	G	G	G	R	R	R	◇
CERMAK ROAD W/B END MAST ARM AND FAR LEFT SIGNALS	R	G	G	R	R	G	G	R	R	R	◇
CERMAK ROAD W/B FAR RIGHT SIGNAL	R	G	G	R	R	G	G	R	R	R	◇
54TH AVENUE N/B ALL SIGNALS	R	R	R	R	R	R	R	G	Y	R	◇
54TH AVENUE S/B END MAST ARM AND FAR LEFT SIGNALS	R	R	R	R	R	R	R	G	Y	R	◇
54TH AVENUE S/B NEAR RIGHT SIGNAL	R	R	R	R	R	R	R	G	Y	R	◇
PEDESTRIAN SIGNALS CROSSING 54TH AVENUE ON NORTHSIDE OF CERMAK ROAD	DW	FL DW	DW	DW	DW	FL DW	DW	DW	DW	DW	◇
PEDESTRIAN SIGNALS CROSSING 54TH AVENUE ON SOUTHSIDE OF CERMAK ROAD	DW	DW	DW	FL DW	DW	FL DW	DW	DW	DW	DW	◇
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON EASTSIDE OF 54TH AVENUE	DW	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	◇
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON WESTSIDE OF 54TH AVENUE	DW	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	◇

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN		
SIGNAL HEAD PEDESTRIAN WITH COUNT-DOWN		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		

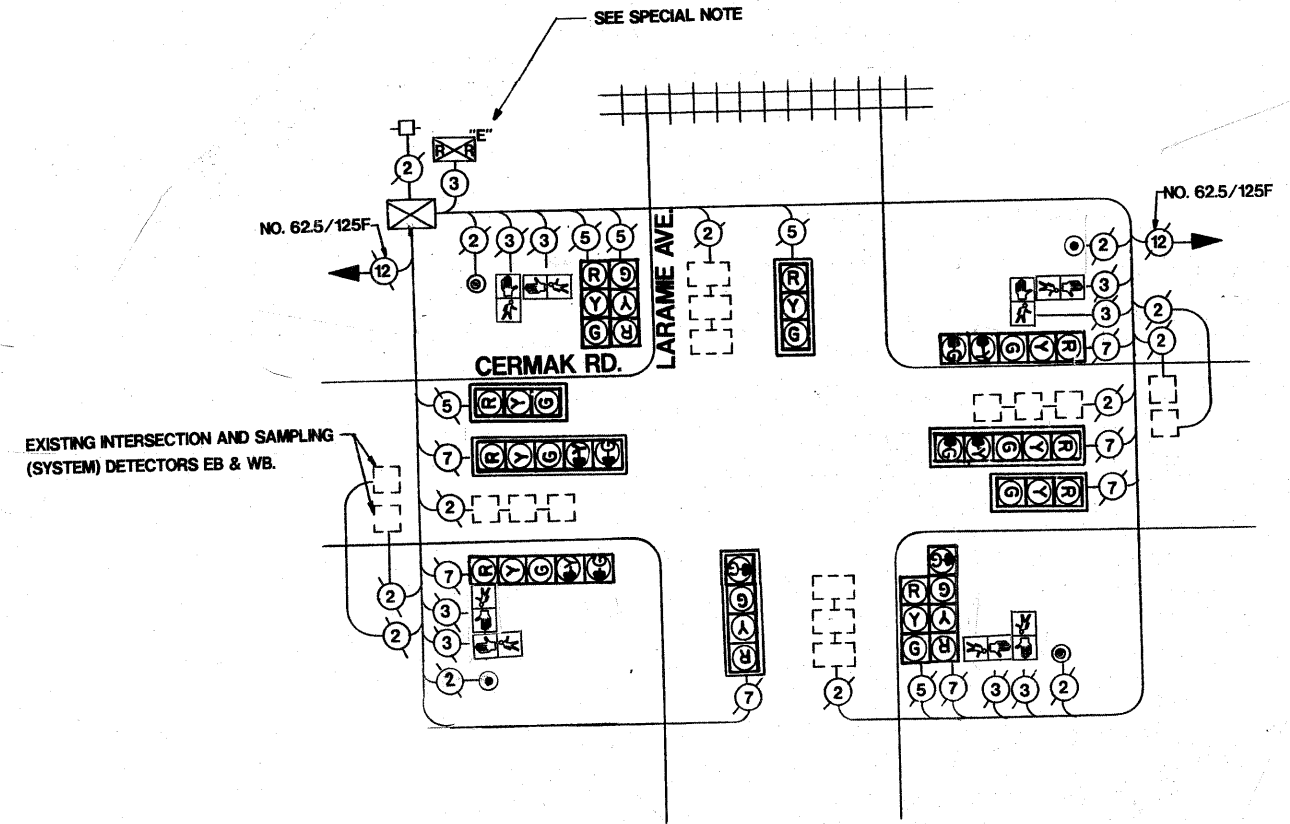


THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = kanthaphixaybc	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN CERMAK ROAD (22ND St.) @ LARAMIE AVENUE	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ca\pwwork\pwwid\KANTHAPHIXAYBC\dms922	S1\st061A002.DGN	DRAWN -	REVISED -			1453	2008-079 TS	COOK	32	32
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -			CONTRACT NO. 60F81				
	PLOT DATE = 12/1/2008	DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

CABLE PLAN LEGEND

EXISTING	PROPOSED	
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS
		ALL CABLE NO. 14 EXCEPT AS INDICATED
		ALL LOOP DETECTOR CABLE TO BE SHIELDED
		GROUND CABLE IN CONDUIT
		NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT
		NO. 62.5/125 MM12F SM12F
		SIGNAL FACE WITH BACKPLATE
		"P" INDICATES PROGRAMMED HEAD



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	LED	% OPERATION	
SIGNAL (RED)		135	17	0.50	
(YELLOW)		135	25	0.25	
(GREEN)		135	15	0.25	
ARROW		135	12	0.10	
PED. SIGNAL		90	25	1.00	
CONTROLLER		100	100	1.00	
ILLUM. SIGN		84	35	0.05	
FLASHER		135	25	0.50	
TOTAL =					

TRAFFIC SIGNAL SCHEDULE OF QUANTITIES		
PAY ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, L.E.D. 2-FACE, BRACKET MOUNTED	EACH	4
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	SQ. FT.	528
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	SQ. FT.	122
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ. FT.	600

SEQUENCE OF OPERATION

MOVEMENT	1 + 5				1 + 6			2 + 5			2 + 6				4 + 8				F L A S H
PHASE	1 + 5				1 + 6			2 + 5			2 + 6				4 + 8				
INTERVAL	1	2	3	4	5	6	7	8	9	10	11	12	13A	13B	14	15	16A	16B	
CHANGE TO		1+6	2+5	2+6	φ	φ		φ	φ	2+6								1+5 1+6 2+5 2+6	
CERMAK ROAD FAR RIGHT SIGNAL E/B	R	R	R	R	R	R	R	G	G	G	G	G	Y	R	R	R	R	R	
CERMAK ROAD END MAST ARM AND FAR LEFT SIGNALS E/B	R	R	R	R	R	R	R	G	G	G	G	G	Y	R	R	R	R	R	
CERMAK ROAD FAR RIGHT SIGNAL W/B	R	R	R	R	G	G	G	R	R	R	G	G	Y	R	R	R	R	R	
CERMAK ROAD END MAST ARM AND FAR LEFT SIGNALS W/B	R	R	R	R	G	G	G	R	R	R	G	G	Y	R	R	R	R	R	
LARAMIE AVENUE ALL SIGNALS N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	
LARAMIE AVENUE NEAR RIGHT SIGNAL S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	
LARAMIE AVENUE END MAST ARM AND FAR LEFT SIGNALS S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	
PEDESTRIAN SIGNALS CROSSING LARAMIE AVENUE ON NORTH SIDE OF CERMAK ROAD	DW	DW	DW	DW	*W	**FL DW	DW	DW	DW	DW	*W	**FL DW	DW	DW	DW	DW	DW	DW	
PEDESTRIAN SIGNALS CROSSING LARAMIE AVENUE ON SOUTH SIDE OF CERMAK ROAD	DW	DW	DW	DW	DW	DW	DW	*W	**FL DW	DW	*W	**FL DW	DW	DW	DW	DW	DW	DW	
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON EAST SIDE OF LARAMIE AVENUE	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	*W	**FL DW	DW	DW	
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON WEST SIDE OF LARAMIE AVENUE	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	*W	**FL DW	DW	DW	

- * TO APPEAR ONLY UPON PUSHBUTTON ACTUATION
 - ** FLASHING "DON'T WALK" IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.
 - φ THIS "WALK" OR FLASHING "DON'T WALK" INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE "WALK" OR FLASHING "DON'T WALK" INTERVALS.
- W = "WALK"
FL = FLASHING "DON'T WALK"
DW = "DON'T WALK"

PHASE 2+6 SHALL BE PLACED ON RECALL.

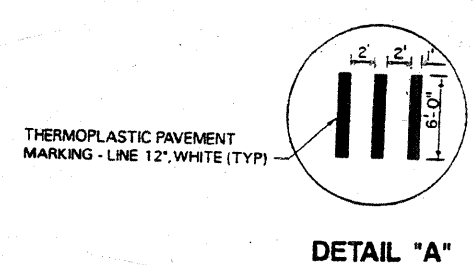
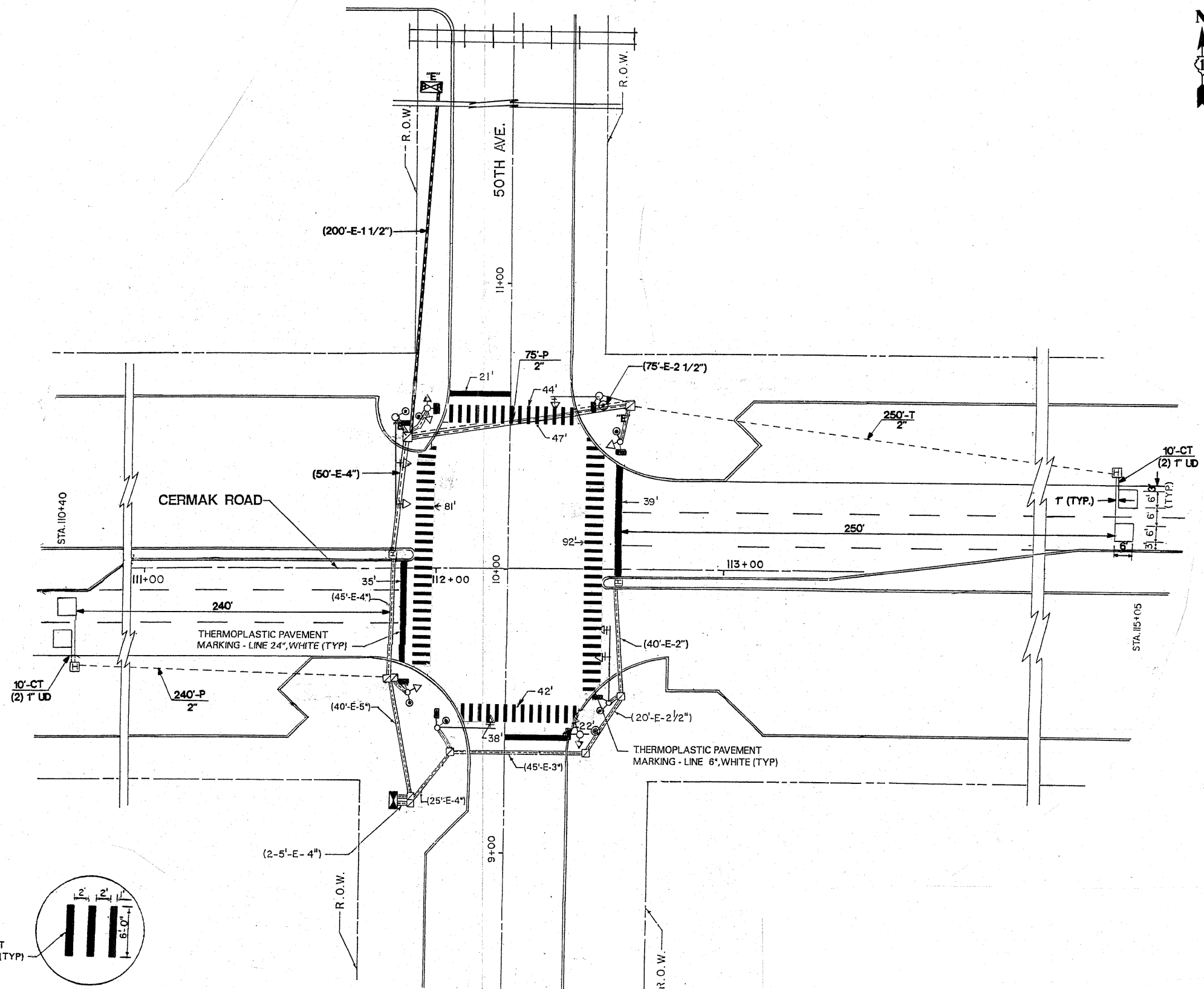
RAILROAD PREEMPTION SEQUENCE OF OPERATION

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	PREEMPTOR NUMBER 2														CLEAR TO NORMAL SEQUENCE
	1	5	8	11	14	2	3	4	5						
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	2	3	4	5		
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2	1C	2	1E	2	1G	2	1J	2	3	4	5			
CERMAK ROAD FAR RIGHT SIGNAL E/B	R	R	R	Y	R	Y	R	R	R	R	R	R	G	△	
CERMAK ROAD END MAST ARM AND FAR LEFT SIGNALS E/B	R	R	R	Y	R	Y	R	R	R	R	R	R	G	△	
CERMAK ROAD FAR RIGHT SIGNAL W/B	R	Y	R	R	R	Y	R	R	R	R	R	R	G	△	
CERMAK ROAD END MAST ARM AND FAR LEFT SIGNALS W/B	R	Y	R	R	R	Y	R	R	R	R	R	R	G	△	
LARAMIE AVENUE ALL SIGNALS N/B	R	R	R	R	R	R	R	Y	R	R	R	R	R	△	
LARAMIE AVENUE NEAR RIGHT SIGNAL S/B	R	R	R	R	R	R	R	G	G	G	Y	R	R	△	
LARAMIE AVENUE END MAST ARM AND FAR LEFT SIGNALS S/B	R	R	R	R	R	R	R	G	G	G	Y	R	R	△	
PEDESTRIAN SIGNALS CROSSING LARAMIE AVENUE ON NORTH SIDE OF CERMAK ROAD	DW	FL DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	△	
PEDESTRIAN SIGNALS CROSSING LARAMIE AVENUE ON SOUTH SIDE OF CERMAK ROAD	DW	DW	DW	FL DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	△	
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON EAST SIDE OF LARAMIE AVENUE	DW	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	△	
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON WEST SIDE OF LARAMIE AVENUE	DW	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	△	

△ RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 5 IS TERMINATED.

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN		
SIGNAL HEAD PEDESTRIAN WITH COUNT-DOWN		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		

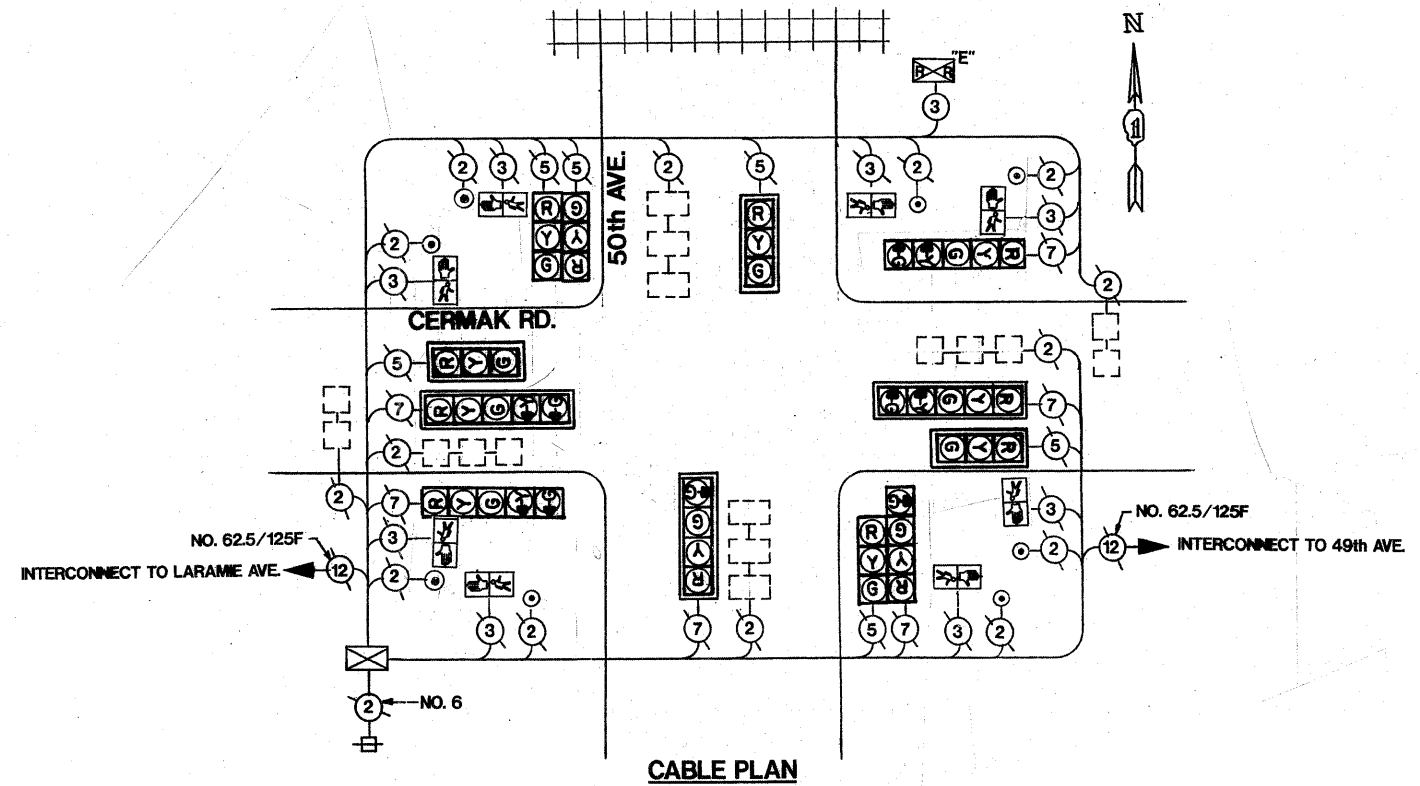


THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = kenthaphixaybo	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN CERMAK ROAD (22ND St.) @ 50TH AVENUE	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
cs:\pw_work\PIWIDOT\KANTHAPHIXAYBC\dms92	61\st061a002.DGN	DRAWN -	REVISED -			1453	2008-079 TS	COOK		35	
	PLOT SCALE = 50,0000' / IN.	CHECKED -	REVISED -			CONTRACT NO. 60F81					
	PLOT DATE = 12/1/2008	DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

CABLE PLAN LEGEND

EXISTING	PROPOSED	
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS ALL CABLE NO. 14 EXCEPT AS INDICATED ALL LOOP DETECTOR CABLE TO BE SHIELDED
		GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F
		SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD



CABLE PLAN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND LED	% OPERATION	
SIGNAL (RED)		135	17	0.50
(YELLOW)		135	25	0.25
(GREEN)		135	15	0.25
ARROW		135	12	0.10
PED. SIGNAL		90	25	1.00
CONTROLLER		100	100	1.00
ILLUM. SIGN		84	35	0.05
FLASHER		135	25	0.50
TOTAL =				

PAY ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
PEDESTRIAN SIGNAL HEAD, L.E.D. 1-FACE BRACKET MOUNTED	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	SQ. FT.	492
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	SQ. FT.	121
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ. FT.	650

SEQUENCE OF OPERATION

MOVEMENT	5 → 1		← 6		5 → 2		← 6		4 ↑ 8		F L A S H								
	1 + 5	1 + 6	2 + 5	2 + 6	4 + 8														
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13A	13B	14	15	16A	16B	
CHANGE TO		1+6	2+5	2+6	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
CERMAK ROAD (22ND STREET) FAR RIGHT MAST ARM SIGNAL E/B	R	R	R	R	R	R	R	G	G	G	G	G	Y	R	R	R	R	R	
CERMAK ROAD (22ND STREET) END MAST ARM AND FAR LEFT SIGNALS E/B	R	R	R	R	R	R	R	G	G	G	G	G	Y	R	R	R	R	R	
CERMAK ROAD (22ND STREET) FAR RIGHT MAST ARM SIGNAL W/B	R	R	R	R	G	G	G	R	R	R	G	G	Y	R	R	R	R	R	
CERMAK ROAD (22ND STREET) END MAST ARM AND FAR LEFT SIGNALS W/B	R	R	R	R	G	G	G	R	R	R	G	G	Y	R	R	R	R	R	
50TH AVENUE ALL SIGNALS N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	
50TH AVENUE NEAR RIGHT SIGNAL S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	
50TH AVENUE END MAST ARM AND FAR LEFT SIGNALS S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	
PEDESTRIAN SIGNALS CROSSING 50TH AVENUE ON NORTH SIDE OF CERMAK ROAD	DW	DW	DW	DW	**FL	**FL	DW	DW	DW	DW	**FL	**FL	DW	DW	DW	DW	DW	DW	
PEDESTRIAN SIGNALS CROSSING 50TH AVENUE ON SOUTH SIDE OF CERMAK ROAD	DW	DW	DW	DW	DW	DW	**FL	**FL	DW	DW	**FL	**FL	DW	DW	DW	DW	DW	DW	
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON EAST SIDE OF 50TH AVENUE	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	**FL	**FL	DW	DW	
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON WEST SIDE OF 50TH AVENUE	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	**FL	**FL	DW	DW	

- * TO APPEAR ONLY UPON PUSHBUTTON ACTUATION
- ** FLASHING "DON'T WALK" IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.
- ⊕ THIS "WALK" OR FLASHING "DON'T WALK" INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE "WALK" OR FLASHING "DON'T WALK" INTERVALS.

W = "WALK"
 FL = FLASHING "DON'T WALK"
 DW = "DON'T WALK"

PHASE 2+6 SHALL BE PLACED ON RECALL.

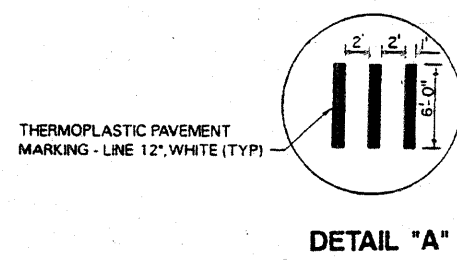
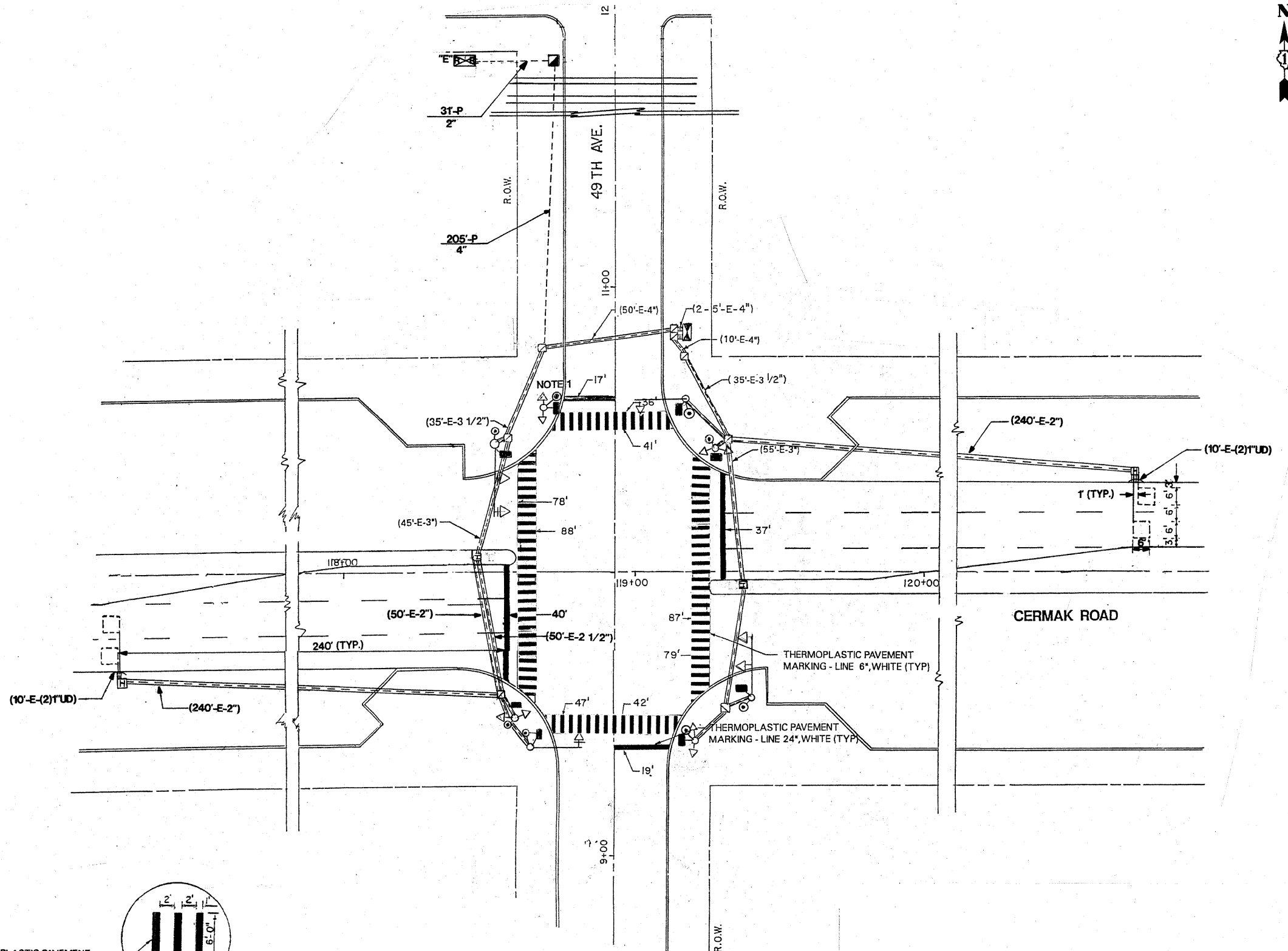
RAILROAD PREEMPTION SEQUENCE OF OPERATION

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	PREEMPTOR NUMBER 2														CLEAR TO NORMAL SEQUENCE				
	1	5	8	11	14	2	3	4	5	1A	1B	1C	1D	1E		1F	1G	1H	1J
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	2	3	4	5						
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2	1C	2	1E	2	1G	2	1J	2	3	4	5							
CERMAK ROAD (22ND STREET) FAR RIGHT MAST ARM SIGNAL E/B	R	R	R	Y	R	Y	R	R	R	R	R	R	G	△					
CERMAK ROAD (22ND STREET) END MAST ARM AND FAR LEFT SIGNALS E/B	R	R	R	Y	R	Y	R	R	R	R	R	R	G	△					
CERMAK ROAD (22ND STREET) FAR RIGHT MAST ARM SIGNAL W/B	R	Y	R	R	R	Y	R	R	R	R	R	R	G	△					
CERMAK ROAD (22ND STREET) END MAST ARM AND FAR LEFT SIGNALS W/B	R	Y	R	R	R	Y	R	R	R	R	R	R	G	△					
50TH AVENUE ALL SIGNALS N/B	R	R	R	R	R	R	R	Y	R	R	R	R	R	△					
50TH AVENUE NEAR RIGHT SIGNAL S/B	R	R	R	R	R	R	R	G	G	G	Y	R	R	△					
50TH AVENUE END MAST ARM AND FAR LEFT SIGNALS S/B	R	R	R	R	R	R	R	G	G	G	Y	R	R	△					
PEDESTRIAN SIGNALS CROSSING 50TH AVENUE ON NORTH SIDE OF CERMAK ROAD	DW	FL	DW	DW	DW	FL	DW	DW	DW	DW	DW	DW	DW	△					
PEDESTRIAN SIGNALS CROSSING 50TH AVENUE ON SOUTH SIDE OF CERMAK ROAD	DW	DW	DW	FL	DW	FL	DW	DW	DW	DW	DW	DW	DW	△					
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON EAST SIDE OF 50TH AVENUE	DW	DW	DW	DW	DW	DW	DW	FL	DW	DW	DW	DW	DW	△					
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON WEST SIDE OF 50TH AVENUE	DW	DW	DW	DW	DW	DW	DW	FL	DW	DW	DW	DW	DW	△					

△ RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 5 IS TERMINATED.

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN		
SIGNAL HEAD PEDESTRIAN WITH COUNT-DOWN		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		



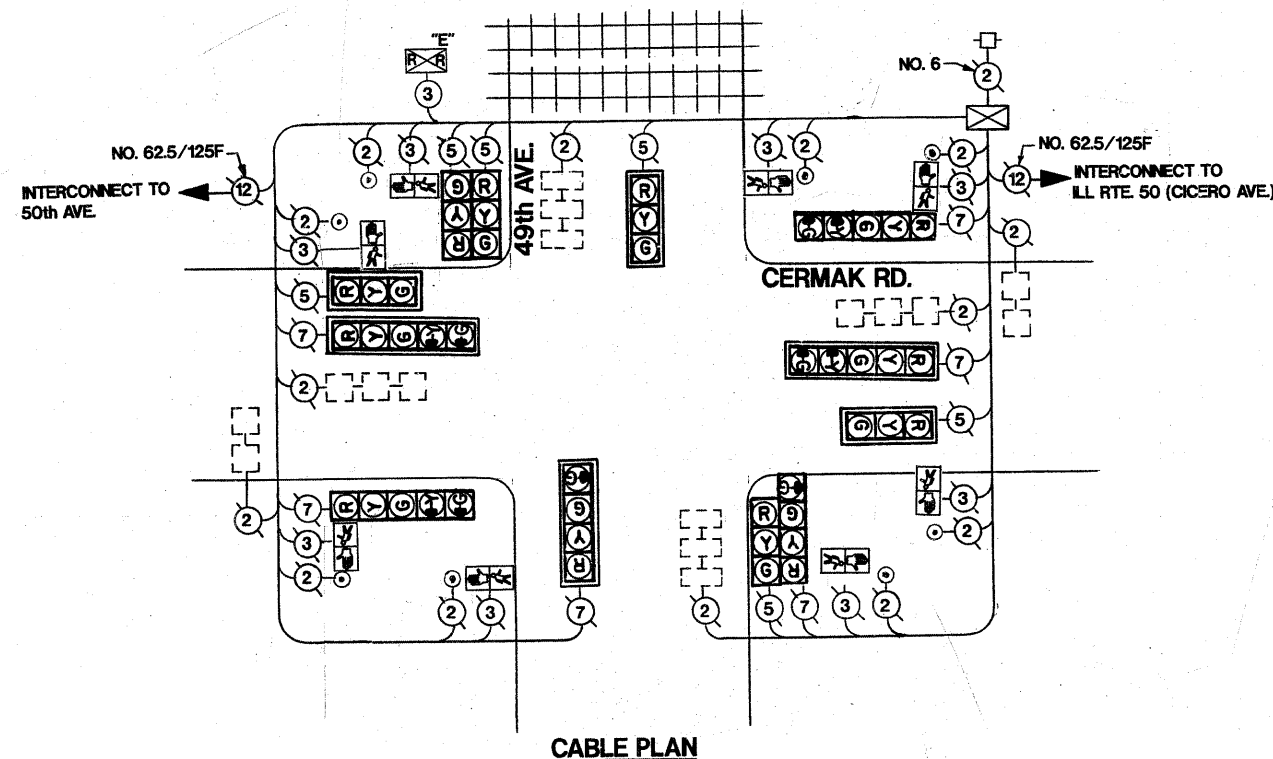
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = kanthaphixaybc	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN CERMAK ROAD (22ND St.) @ 49TH AVENUE	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
et:\pw_work\VP\WIDOT\KANTHAPHIXAYBC\dms92361\11061A002.DGN	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED -			1453	2008-079 TS	COOK	38	38	
	PLOT DATE = 12/1/2008	CHECKED -	REVISED -			CONTRACT NO. 60F81					
		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
					SCALE:	SHEET NO. OF SHEETS STA.		TO STA.			



CABLE PLAN LEGEND

EXISTING	PROPOSED	
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS ALL CABLE NO. 14 EXCEPT AS INDICATED ALL LOOP DETECTOR CABLE TO BE SHIELDED
		GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F
		SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD



CABLE PLAN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE	
TYPE	NO. LAMPS	WATTAGE INCAND LED	% OPERATION		
SIGNAL (RED)		135	17	0.50	
(YELLOW)		135	25	0.25	
(GREEN)		135	15	0.25	
ARROW		135	12	0.10	
PED. SIGNAL		90	25	1.00	
CONTROLLER		100	100	1.00	
ILLUM. SIGN		84	35	0.05	
FLASHER		135	25	0.50	
TOTAL =					

TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
PEDESTRIAN SIGNAL HEAD, L.E.D. 1-FACE BRACKET MOUNTED	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	SQ. FT.	480
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	SQ. FT.	113
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ. FT.	620

SEQUENCE OF OPERATION

MOVEMENT	1 + 5				1 + 6				2 + 5				2 + 6				4 + 8				F L A S H
PHASE	1 + 5				1 + 6				2 + 5				2 + 6				4 + 8				
INTERVAL	1	2	3	4	5	6	7	8	9	10	11	12	13A	13B	14	15	16A	16B			
CHANGE TO	1+6		2+5		2+6		∅	∅	2+6		∅	∅	2+6		4+8		1+5 1+6 2+5 2+6				
CERMAK ROAD (22ND STREET) FAR RIGHT MAST ARM SIGNAL	R	R	R	R	R	R	R	G	G	G	G	G	Y	R	R	R	R	R			
CERMAK ROAD (22ND STREET) END MAST ARM AND FAR LEFT SIGNALS	R	R	R	R	R	R	R	G	G	G	G	Y	R	R	R	R	R	R			
CERMAK ROAD (22ND STREET) FAR RIGHT MAST ARM SIGNAL	R	R	R	R	G	G	G	R	R	R	G	G	Y	R	R	R	R	R			
CERMAK ROAD (22ND STREET) END MAST ARM AND FAR LEFT SIGNALS	R	R	R	R	G	G	G	R	R	R	G	G	Y	R	R	R	R	R			
49TH AVENUE ALL SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R			
49TH AVENUE NEAR RIGHT SIGNAL	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R			
49TH AVENUE END MAST ARM AND FAR LEFT SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R			
PEDESTRIAN SIGNALS CROSSING 49TH AVENUE ON NORTH SIDE OF CERMAK ROAD	DW	DW	DW	DW	*W	**FL DW	DW	DW	DW	DW	*W	**FL DW	DW	DW	DW	DW	DW	DW			
PEDESTRIAN SIGNALS CROSSING 49TH AVENUE ON SOUTH SIDE OF CERMAK ROAD	DW	DW	DW	DW	DW	DW	DW	*W	**FL DW	DW	*W	**FL DW	DW	DW	DW	DW	DW	DW			
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON EAST SIDE OF 49TH AVENUE	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	*W	**FL DW	DW	DW			
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON WEST SIDE OF 49TH AVENUE	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	*W	**FL DW	DW	DW			

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PHASE 2+6 SHALL BE PLACED ON RECALL.

RAILROAD PREEMPTION SEQUENCE OF OPERATION

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	PREEMPTION NUMBER 2														CLEAR TO NORMAL SEQUENCE			
	1	5	8	11	14	2	3	4	5	6	7	8	9	10				
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	2	3	4	5	6	7	8	9	10
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2	1C	2	1E	2	1G	2	1J	2	3	4	5	6	7	8	9	10	11
CERMAK ROAD (22ND STREET) FAR RIGHT MAST ARM SIGNAL	R	R	R	Y	R	Y	R	R	R	R	R	R	G	∆				
CERMAK ROAD (22ND STREET) END MAST ARM AND FAR LEFT SIGNALS	R	R	R	Y	R	Y	R	R	R	R	R	R	G	∆				
CERMAK ROAD (22ND STREET) FAR RIGHT MAST ARM SIGNAL	R	Y	R	R	R	Y	R	R	R	R	R	R	G	∆				
CERMAK ROAD (22ND STREET) END MAST ARM AND FAR LEFT SIGNALS	R	Y	R	R	R	Y	R	R	R	R	R	R	G	∆				
49TH AVENUE ALL SIGNALS	R	R	R	R	R	R	R	Y	R	R	R	R	R	∆				
49TH AVENUE NEAR RIGHT SIGNAL	R	R	R	R	R	R	R	G	G	G	Y	R	R	∆				
49TH AVENUE END MAST ARM AND FAR LEFT SIGNALS	R	R	R	R	R	R	R	G	G	G	Y	R	R	∆				
PEDESTRIAN SIGNALS CROSSING 49TH AVENUE ON NORTH SIDE OF CERMAK ROAD	DW	FL DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	∆				
PEDESTRIAN SIGNALS CROSSING 49TH AVENUE ON SOUTH SIDE OF CERMAK ROAD	DW	DW	DW	FL DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	∆				
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON EAST SIDE OF 49TH AVENUE	DW	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	∆				
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON WEST SIDE OF 49TH AVENUE	DW	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	∆				

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