

### SIGNAL DISPLAY CHART

SIGNAL HEAD	#2				#4				FLASH
	R/W	CLEAR	R/W	CLEAR	R/W	CLEAR	R/W	CLEAR	
A	G	G	Y	R	R	R	R	R	Y
B	G	G	Y	R	R	R	R	R	Y
C	G	G	Y	R	R	R	R	R	Y
D	G	G	Y	R	R	R	R	R	Y
E	R	R	R	R	G	G	Y	R	R
F	R	R	R	R	G	G	Y	R	R
G	R	R	R	R	G	G	Y	R	R
H	R	R	R	R	G	G	Y	R	R
Y-Y	W	FDW	DW	DW	DW	DW	DW	DW	DARK
Z-Z	DW	DW	DW	DW	W	FDW	DW	DW	DARK

### SIGNAL TIMING

INTERVAL	#2	#4
INITIAL	28	10
PASSAGE		3.0
YELLOW	3.3	3.3
RED CLEAR	2.0	2.0
MAX I	60	30
MAX II	60	30
WALK	10	10
PED CLEAR	17	12
RECALL	MAX	NONE
MEMORY	ON	OFF

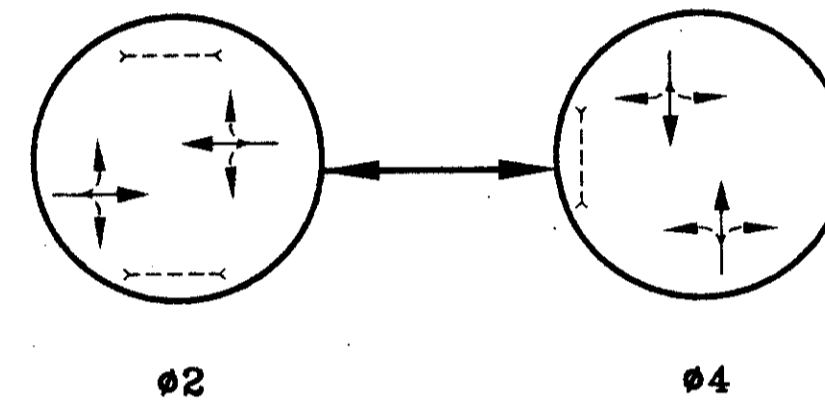
### LOOP DETECTOR CHART

LOOP #	SIZE	# TURNS	MODE	DELAY	AMP #	PHASE
L1	1.8m X 8.2m	2-4-2	PRESENCE	8	1	4
L2	3.8m X 6.6m	2-4-2	PRESENCE	8	2	4
L3	1.8m X 13.1m	2-4-2	PRESENCE	8	3	4
L4	1.8m X 5.0m	2-4-2	PRESENCE	8	4	4

### ESTIMATED QUANTITIES

ITEM	QUANT	UNIT	DESCRIPTION
202	11.1	SQ. METER	WALK REMOVED, AS PER PLAN
608	11.1	SQ. METER	100mm CONCRETE WALK
625	102.9	METER	CONDUIT, 51 mm, 713.04
625	1.5	METER	CONDUIT, 102 mm, 713.04
625	15.7	METER	CONDUIT, JACKED OR DRILLED, SIZE: 51 mm
625	68.8	METER	CONDUIT, JACKED OR DRILLED, SIZE: 76 mm
625	104.5	METER	TRENCH
625	7	EACH	PULLBOX, 713.08, 450 mm
625	6	EACH	GROUND ROD
630	4	EACH	SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN
630	1.8	SQ. METER	SIGN, FLAT SHEET, TYPE G
631	1	EACH	REMOVAL MISC.: SCHOOL SPEED LIMIT ASSEMBLY
631	1	EACH	SCHOOL SPEED LIMIT ASSEMBLY, 600 mm x 1200 mm
632	8	EACH	VEHICULAR SIGNAL HEAD, 3-SECT., 300 mm LENS, 1-WAY, AS PER PLAN
632	6	EACH	PEDESTRIAN SIGNAL HEAD, TYPE D2, AS PER PLAN
632	8	EACH	COVERING OF VEHICULAR SIGNAL HEAD
632	6	EACH	PEDESTRIAN PUSHBUTTON, AS PER PLAN
632	4	EACH	DETECTOR LOOP
632	2	EACH	LOOP DETECTOR UNIT, AS PER PLAN
632	2	EACH	LOOP DETECTOR UNIT, DELAY & EXTENSION TYPE, AS PER PLAN
632	203.3	METER	SIGNAL CABLE, 3 CONDUCTOR, NO. 14 AWG
632	374.9	METER	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG
632	106.8	METER	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG
632	203.3	METER	SIGNAL CABLE, MISC.: PREEMPT DETECTOR CABLE
632	1	EACH	PHONE DROP
632	1	EACH	STRAIN POLE FOUNDATION
632	4	EACH	SIGNAL SUPPORT FOUNDATION
632	372.5	METER	LOOP DETECTOR LEAD-IN CABLE
632	18.3	METER	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG
632	1	EACH	CONDUIT RISER, 51mm DIAMETER
632	2	EACH	SIGNAL SUPPORT, TYPE TC-81.20M, DES. 2
632	2	EACH	SIGNAL SUPPORT, TYPE TC-81.20M, DES. 3
632	1	EACH	STRAIN POLE, TYPE TC-81.10, DESIGN 1, 6.1m
632	1	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION
633	1	EACH	CONTROLLER, ACTUATED, 4 PHASE, SOLID-STATE DIGITAL MICROPROCESSOR, AS PER PLAN
633	.72	CU. METER	CONCRETE FOR CABINET FOUNDATION
633	.80	SQ. METER	CONTROLLER WORK PAD
633	4	EACH	CONTROLLER ITEM, MISC.: PREEMPT DETECTORS
633	1	EACH	CONTROLLER ITEM, MISC.: PREEMPT PHASE SELECTOR
633	4	EACH	CONTROLLER ITEM, MISC.: CONFIRMATION LIGHT

### PHASING DIAGRAM



### PREEMPT CHANNELS

CHANNEL 1 = #2 (EASTBOUND ONLY)      CHANNEL 3 = #4 (NORTHBOUND ONLY)  
 CHANNEL 2 = #2 (WESTBOUND ONLY)      CHANNEL 4 = #4 (SOUTHBOUND ONLY)

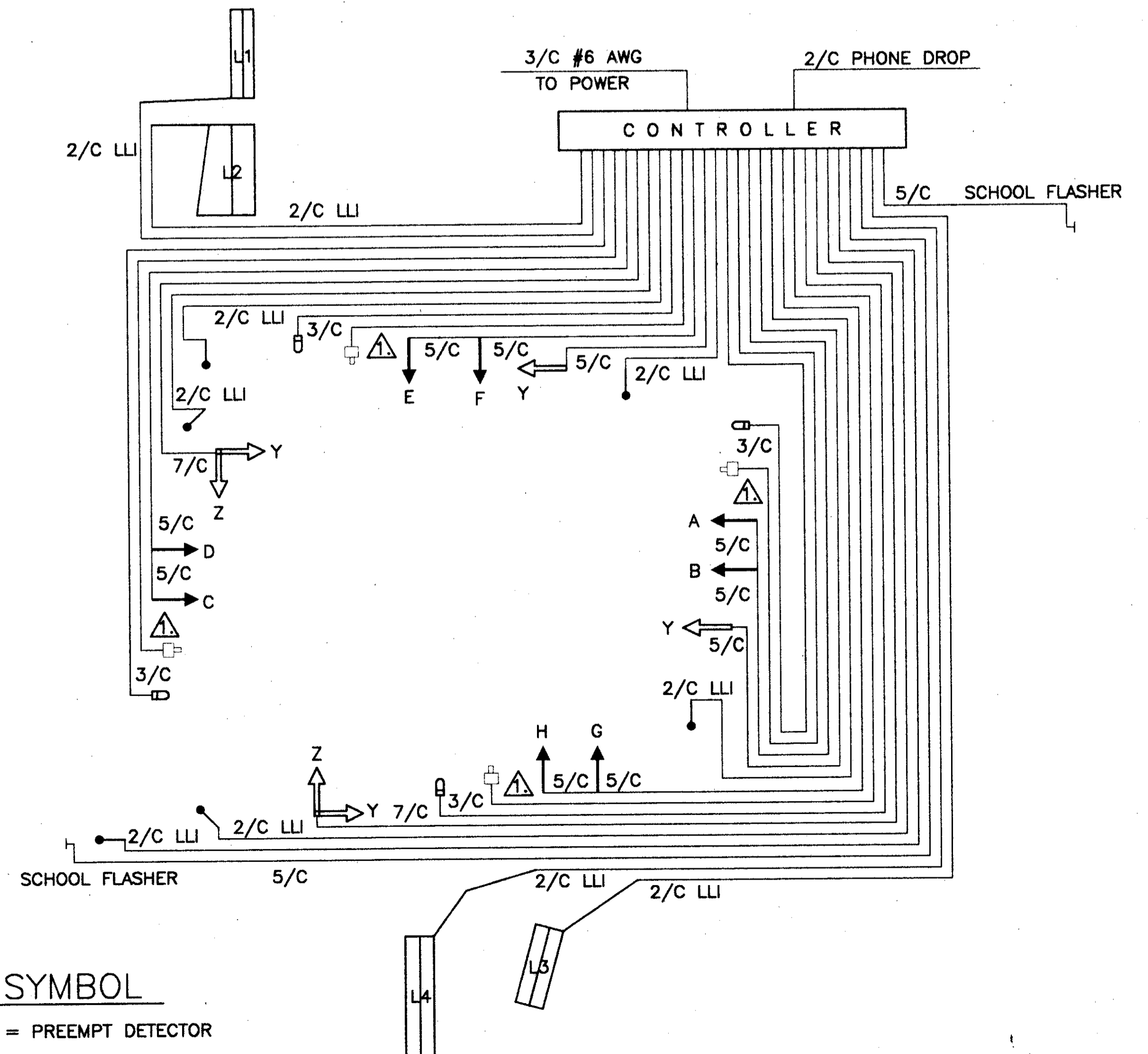
#### PREEMPT NOTES:

- ACTIVE WALK INDICATIONS SHALL IMMEDIATELY GO TO "DON'T WALK" UPON RECEIVING PREEMPTION SIGNAL.
- IF PHASE ACTIVE CONFLICTS WITH PREEMPT PHASE CALLED, IT SHALL IMMEDIATELY TIME ITS YELLOW AND ALL RED CLEARANCES.
- IF ACTIVE PHASE = THE PREEMPT PHASE, THEN THE PHASE SHALL HOLD FOR THE DURATION OF THE PREEMPT SIGNAL.
- AFTER RELEASE FROM PREEMPT, YELLOW AND ALL RED CLEARANCE SHALL BE DISPLAYED AND RETURN PHASE SHALL BE #2.
- IF PREEMPT PHASES = RETURN PHASE #2 THEN YELLOW AND ALL RED CLEARANCE AFTER PREEMPT SHALL NOT BE DISPLAYED.

#### NOTE:

ALL PUSHBUTTON(S) SHALL BE WIRED WITH 2 CONDUCTOR LOOP LEAD-IN CABLE (2/C LLI). CONTRACTOR SHALL HOOK-UP THE DRAIN WIRE TO THE CONTROLLER GROUND.

### WIRING DIAGRAM



### SYMBOL

- = PREEMPT DETECTOR
- ⊕ = CONFIRMATION LIGHT
- △ = PREEMPT DETECTOR CABLE



CALCULATED  
CHECKED

TRAFFIC CONTROL PLAN  
CEDARBROOK DRIVE & MONROE BOULEVARD

LAKE COUNTY  
LAK-20-22.916/VARIOUS