

SIGNAL DISPLAY CHART

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

COORDINATION TIMING

| | DIAL 1 | DIAL 2 | DIAL 3 |
|----------------------|-----------------|--------------------------|--------------------------|
| CYCLE LENGTH | 80 SEC. | 80 SEC. | 90SEC. |
| PHASE 2 SPLIT | 66% | 66% | 71% |
| PHASE 4 SPLIT | 34% | 34% | 29% |
| PERMISSIVE | 15% | 15% | 15% |
| OFFSET | 100% | 100% | 100% |
| TIME OF DAY SCHEDULE | ALL OTHER TIMES | 6:30AM TO 9:00AM MON-SAT | 3:30PM TO 6:30PM MON-SAT |

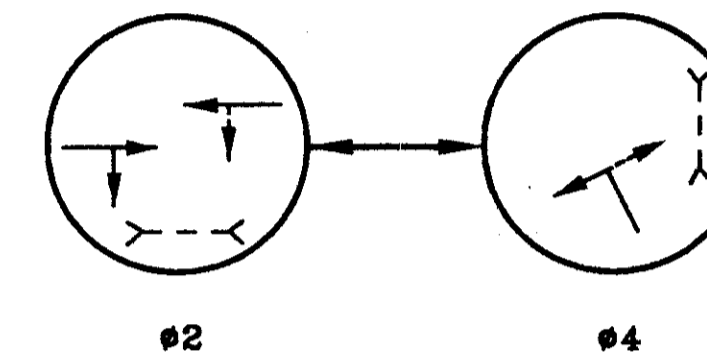
LOOP DETECTOR CHART

| LOOP # | SIZE | # TURNS | MODE | DELAY | AMP # | PHASE |
|--------|---------------|---------|----------|-------|-------|--------|
| L1 | 2.4 m x 9.1 m | 2-4-2 | PRESENCE | 8 | 1 | 4 |
| S9 | 1.8 m x 3.7 m | 3 | PRESENCE | 0 | 2 | SYSTEM |

NOTES:

1. PHASE SPLITS SHALL INCLUDE ALL GREEN PLUS YELLOW & ALL RED
2. PERMISSIVES SHALL START AT THE ZERO POINT OF THE CYCLE
3. OFFSETS SHALL BE REFERENCED TO THE BEGINNING OF PHASE 2 YELLOW

PHASING DIAGRAM



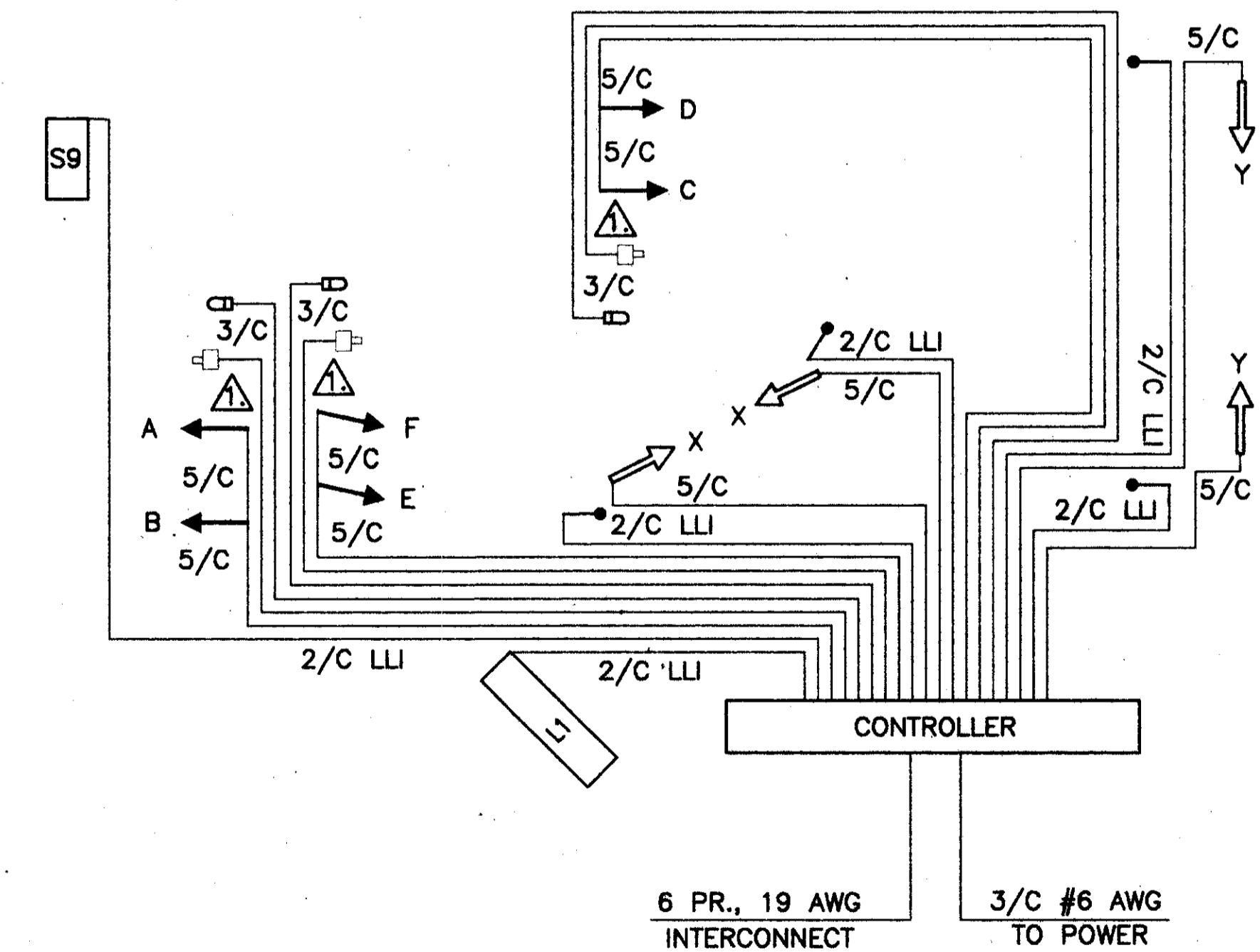
ESTIMATED QUANTITIES

| ITEM | QUANT | UNIT | DESCRIPTION |
|------|-------|-----------|--|
| 202 | 31.1 | SQ. METER | WALK REMOVED, AS PER PLAN |
| 608 | 20 | SQ. METER | 100mm CONCRETE WALK |
| 608 | 1 | EACH | CURB RAMP, TYPE 2 |
| 608 | 2.3 | SQ. METER | CURB RAMP, TYPE 2 |
| 608 | 7.3 | SQ. METER | CURB RAMP, TYPE 6 |
| 625 | 109.7 | METER | CONDUIT, 51 mm, 713.04 |
| 625 | 4.3 | METER | CONDUIT, 76 mm, 713.04 |
| 625 | 4.6 | METER | CONDUIT, 102 mm, 713.04 |
| 625 | 11.6 | METER | CONDUIT, JACKED OR DRILLED, SIZE: 51 mm |
| 625 | 44.7 | METER | CONDUIT, JACKED OR DRILLED, SIZE: 76 mm |
| 625 | 118.6 | METER | TRENCH |
| 625 | 7 | EACH | PULLBOX, 713.08, 450 mm |
| 625 | 1 | EACH | PULLBOX, 713.08, 600 mm |
| 625 | 7 | EACH | GROUND ROD |
| 632 | 6 | EACH | VEHICULAR SIGNAL HEAD, 3-SECT., 300 mm LENS, 1-WAY, AS PER PLAN |
| 632 | 4 | EACH | PEDESTRIAN SIGNAL HEAD, TYPE D2, AS PER PLAN |
| 632 | 6 | EACH | COVERING OF VEHICULAR SIGNAL HEAD |
| 632 | 4 | EACH | PEDESTRIAN PUSHBUTTON, AS PER PLAN |
| 632 | 2 | EACH | DETECTOR LOOP |
| 632 | 2 | EACH | LOOP DETECTOR UNIT, AS PER PLAN |
| 632 | 214.2 | METER | SIGNAL CABLE, 3 CONDUCTOR, NO. 14 AWG |
| 632 | 324 | METER | SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG |
| 632 | 214.2 | METER | SIGNAL CABLE, MISC.: PREEMPT DETECTOR CABLE |
| 632 | 1 | EACH | PHONE DROP |
| 632 | 2 | EACH | SIGNAL SUPPORT FOUNDATION |
| 632 | 4 | EACH | PEDESTAL FOUNDATION |
| 632 | 195.4 | METER | LOOP DETECTOR LEAD-IN CABLE |
| 632 | 14.8 | METER | POWER CABLE, 3 CONDUCTOR, NO. 6 AWG |
| 632 | 2 | EACH | CONDUIT RISER, 51mm DIAMETER |
| 632 | 1 | EACH | SIGNAL SUPPORT, TYPE TC-81.20M, DES. 1 |
| 632 | 1 | EACH | SIGNAL SUPPORT, TYPE TC-81.20M, DES. 11 |
| 632 | 4 | EACH | PEDESTAL, 2.4M, TRANSFORMER BASE |
| 632 | 1 | EACH | REMOVAL OF TRAFFIC SIGNAL INSTALLATION |
| 632 | 1 | EACH | INTERCONNECT, MISC.: TYPE 84.20, BOX TYPE SPLICE ENCLOSURE |
| 633 | 1 | EACH | CONTROLLER, ACTUATED, 4 PHASE, SOLID-STATE DIGITAL MICROPROCESSOR, AS PER PLAN |
| 633 | 1 | EACH | CONTROLLER, MASTER, SOLID-STATE, MICROPROCESSOR, TRAFFIC RESPONSIVE, AS PER PLAN |
| 633 | 1.4 | CU. METER | CONCRETE FOR CABINET FOUNDATION |
| 633 | 1.04 | SQ. METER | CONTROLLER WORK PAD |
| 633 | 11.1 | SQ. METER | SEEDING & MULCHING |
| 633 | 3 | EACH | CONTROLLER ITEM, MISC.: PREEMPT DETECTORS |
| 633 | 1 | EACH | CONTROLLER ITEM, MISC.: PREEMPT PHASE SELECTOR |
| 633 | 3 | EACH | CONTROLLER ITEM, MISC.: CONFIRMATION LIGHT |

SIGNAL TIMING

| INTERVAL | #2 | #4 |
|-----------|-----|------|
| INITIAL | 7 | 16 |
| PASSAGE | 7.9 | 4.3 |
| YELLOW | 6.9 | 4.3 |
| RED CLEAR | 7.9 | 4.3 |
| MAX I | 49 | 18 |
| MAX II | 49 | 18 |
| WALK | 7 | 7 |
| PED CLEAR | 9 | 9 |
| RECALL | MIN | NONE |
| MEMORY | ON | OFF |

WIRING DIAGRAM



PREEMPT CHANNELS

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

PREEMPT NOTES:

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

SYMBOL

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



CALCULATED
CHECKED

TRAFFIC CONTROL PLAN
MENTOR AVE. (U.S. 20) & WASHINGTON STREET

LAKE COUNTY
LAK-20-22.916/VARIOUS