

PHASE TIMING

INTERSECTION: GRAND AVENUE @ BADILLO STREET

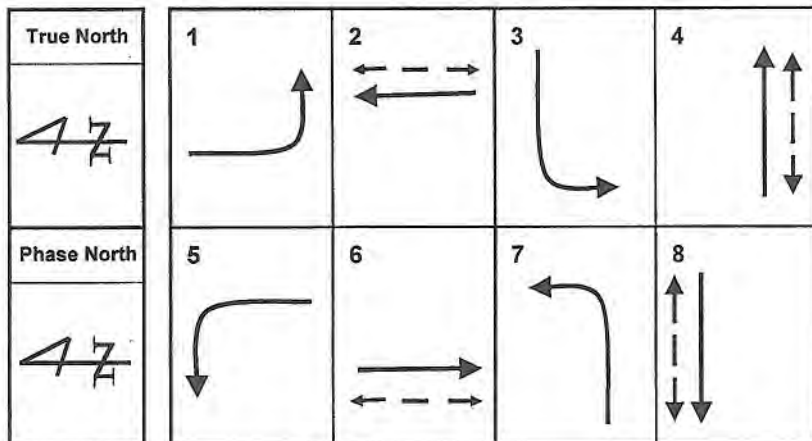
Date Prepared: 10/18/12 By: EMD

T.S. No.: 3866

Date Implemented: 3/29/13 By: [Signature]

Keystroke: 1 + Phase + Interval

| Interval              |   | Phase |      |     |      |     |      |     |      |
|-----------------------|---|-------|------|-----|------|-----|------|-----|------|
|                       |   | 1     | 2    | 3   | 4    | 5   | 6    | 7   | 8    |
| Walk                  | 0 | 0     | 7    | 0   | 7    | 0   | 7    | 0   | 7    |
| Flashing Don't Walk   | 1 | 0     | 20   | 0   | 20   | 0   | 21   | 0   | 21   |
| Minimum Green         | 2 | 4     | 6    | 4   | 6    | 4   | 6    | 4   | 6    |
| Queue Maximum         | 3 | 0     | 25   | 0   | 25   | 0   | 25   | 0   | 25   |
| Added Green/Actuation | 4 | 0.0   | 0.0  | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0  |
| Vehicle Extension     | 5 | 1.5   | 4.5  | 1.5 | 4.5  | 1.5 | 4.5  | 1.5 | 4.5  |
| Time Before Reduction | 6 | 0.0   | 10.0 | 0.0 | 10.0 | 0.0 | 10.0 | 0.0 | 10.0 |
| Minimum Gap           | 7 | 1.5   | 3.0  | 1.5 | 3.0  | 1.5 | 3.0  | 1.5 | 3.0  |
| Max Green 1 (Free)    | 8 | 25    | 50   | 25  | 50   | 25  | 50   | 25  | 50   |
| Max Green 2 (Coord.)  | 9 | 25    | 130  | 25  | 130  | 25  | 130  | 25  | 130  |
| Max Added Green       | A | 0     | 0    | 0   | 0    | 0   | 0    | 0   | 0    |
| Unused                | B |       |      |     |      |     |      |     |      |
| Unused                | C |       |      |     |      |     |      |     |      |
| Time to Reduce        | D | 0.0   | 15.0 | 0.0 | 15.0 | 0.0 | 15.0 | 0.0 | 15.0 |
| Yellow Clearance      | E | 3.0   | 5.0  | 3.0 | 5.0  | 3.0 | 5.0  | 3.0 | 5.0  |
| Red Clearance         | F | 1.0   | 1.0  | 1.0 | 1.0  | 1.0 | 1.0  | 1.0 | 1.0  |



| MISCELLANEOUS TIMERS          |          |     |
|-------------------------------|----------|-----|
| Timer                         | Location |     |
| Red Rest Delay Time           | 106      | 0   |
| Green Rest Delay Time         | 107      | 0   |
| Stuck All Red Fail Delay Time | 10E      | 30  |
| Red Revert Time               | 10F      | 2.0 |

Comments:

**LACO - 4E**  
**CONFIGURATION**

INTERSECTION: GRAND AVENUE @ BADILLO STREET

Date Prepared: 10/18/12 By: EMP

T.S. No.: 3866

Date Implemented: 3/29/13 By: MP

| PHASE FUNCTION FLAGS        |   |   |   |   |   |   |   |   |   |
|-----------------------------|---|---|---|---|---|---|---|---|---|
| Keystrokes: 1 + F + row     |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Permitted Phases            | 0 | X | X | X | X | X | X | X | X |
| Red Lock                    | 1 |   |   |   |   |   |   |   |   |
| Red & Yellow Lock           | 2 |   | X |   | X |   | X |   | X |
| Minimum Vehicle Recall      | 3 |   | X |   |   |   | X |   |   |
| Maximum Vehicle Recall      | 4 |   |   |   |   |   |   |   |   |
| Rest In Green               | 5 |   |   |   |   |   |   |   |   |
| Rest in Red                 | 6 |   |   |   |   |   |   |   |   |
| Barrier Recall              | 7 |   |   |   |   |   |   |   |   |
| Double Entry                | 8 |   |   |   | X |   |   |   | X |
| Exclusive Phases            | 9 |   |   |   |   |   |   |   |   |
| Restricted Phases           | A |   |   |   |   |   |   |   |   |
| Prot/Perm Left Turn         | B |   |   |   |   |   |   |   |   |
| Lag Phases (Free)           | C |   | X |   | X |   | X |   | X |
| First Phases After Start-Up | D |   |   |   |   |   |   |   |   |
| Yellow Start-Up Phases      | E |   | X |   |   |   | X |   |   |
| Yellow Start-Up Overlaps    | F | A | B | C | D | E | F |   |   |

| STREET CONFIGURATION FLAGS |   |   |   |   |   |   |   |   |   |
|----------------------------|---|---|---|---|---|---|---|---|---|
| Keystrokes: 1 + E + row    |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Main Street Phases         | 0 | X | X |   |   | X | X |   |   |
| Side Street Phases         | 1 |   |   | X | X |   |   | X | X |
| 2 Ped Load Switch          | 2 |   | X |   |   |   |   |   |   |
| 4 Ped Load Switch          | 3 |   |   |   | X |   |   |   |   |
| 6 Ped Load Switch          | 4 |   |   |   |   |   | X |   |   |
| 8 Ped Load Switch          | 5 |   |   |   |   |   |   |   | X |
| Ped A Load Switch          | 6 |   |   |   |   |   |   |   |   |
| Ped B Load Switch          | 7 |   |   |   |   |   |   |   |   |
| Ped Recall - Rest in Walk  | 8 |   |   |   |   |   |   |   |   |
| STA Mode Phases            | 9 |   |   |   |   |   |   |   |   |
| Unused                     | A |   |   |   |   |   |   |   |   |
| Unused                     | B |   |   |   |   |   |   |   |   |
| Unused                     | C |   |   |   |   |   |   |   |   |
| Driveway Flash             | D |   |   |   |   |   |   |   |   |
| 2 Head Driveway Flash      | E |   |   |   |   |   |   |   |   |
| Overlap Driveway Flash     | F | A | B | C | D | E | F |   |   |

| MISCELLANEOUS FLAGS          |   |   |   |   |   |   |   |   |   |
|------------------------------|---|---|---|---|---|---|---|---|---|
| Keystrokes: 1 + D + row      |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Unused                       | 0 |   |   |   |   |   |   |   |   |
| Assoc. Phase Recall - 1      | 1 |   |   |   |   |   |   |   |   |
| Assoc. Phase Recall - 2      | 2 |   |   |   |   |   |   |   |   |
| Assoc. Phase Recall - 3      | 3 |   |   |   |   |   |   |   |   |
| Assoc. Phase Recall - 4      | 4 |   |   |   |   |   |   |   |   |
| Assoc. Phase Recall - 5      | 5 |   |   |   |   |   |   |   |   |
| Assoc. Phase Recall - 6      | 6 |   |   |   |   |   |   |   |   |
| Assoc. Phase Recall - 7      | 7 |   |   |   |   |   |   |   |   |
| Assoc. Phase Recall - 8      | 8 |   |   |   |   |   |   |   |   |
| Yellow Calling Phases        | 9 |   |   |   |   |   |   |   |   |
| Yellow Phases Called         | A |   |   |   |   |   |   |   |   |
| User Flags (See Options Box) | B |   |   |   |   |   |   |   |   |
| Green Offset Sync Pulse      | C |   |   |   |   |   |   |   |   |
| Yellow Offset Sync Pulse     | D |   |   |   |   |   |   |   |   |
| Yellow Ranging Phase         | E |   |   |   |   |   |   |   |   |
| Yellow Ranging Overlap       | F | A | B | C | D | E | F |   |   |

Controller (Card) IP Address : 10.240.206.134

Subnet Mask IP Address : 255.255.254.0 298

Default Gateway IP Address : 10.240.206.254 200

Local/Remote Port Number : 53866

Remote Host (Server) IP Address : 10.12.3.15

| COMMUNICATIONS OPTIONS |            |          |  |   |  |   |   |   |   |   |
|------------------------|------------|----------|--|---|--|---|---|---|---|---|
| Systems ID (1 to 63)   | 190        | 6        | <b>Port Mode Options</b><br>1 = W W V<br>2 = Transmit 7 Wire<br>3 = Receive 7 Wire<br>4 = Transmit Time/Date<br>5 = Receive Time/Date<br>6 = Transmit Plan<br>7 = AB3418 Master<br>8 = AB3418 Slave<br>9 = Bus Signal Priority |   |  |   |   |   |   |   |
| Port 1 Mode            | 191        | 1        |  |   |  |   |   |   |   |   |
| Port 2 Mode            | 192        |          |  |   |  |   |   |   |   |   |
| Port 3 Mode            | 193        | 8        |  |   |  |   |   |   |   |   |
| Port 4 Mode            | 194        |          |  |   |  |   |   |   |   |   |
|                        |            |          | 1  | 2 | 3  | 4 | 5 | 6 | 7 | 8 |
| Port 1 Baud            | 1C0        |          |  |   |  |   |   |   |   | X |
| Port 2 Baud            | 1C1        |          |  |   |  |   |   |   |   |   |
| Port 3 Baud            | 1C2        |          |  |   | X  |   |   |   |   |   |
| Port 4 Baud            | 1C3        |          |  |   |  |   |   |   |   |   |
|                        |            |          | <b>Baud Rate:</b>  |   |  |   |   |   |   |   |
| 1 - 115.2 K            | 4 - 19.2 K | 7 - 2400 |  |   |  |   |   |   |   |   |
| 2 - 57.6 K             | 5 - 9600   | 8 - 1200 |  |   |  |   |   |   |   |   |
| 3 - 38.4 K             | 6 - 4800   |          |  |   |  |   |   |   |   |   |
|                        |            |          | 1  | 2 |  |   |   |   |   |   |
| Port 1 Parity          | 1C4        |          |  |   | <b>Parity:</b><br>0 - No Parity<br>1 - Odd Parity<br>2 - Even Parity |   |   |   |   |   |
| Port 2 Parity          | 1C5        |          |  |   |  |   |   |   |   |   |
| Port 3 Parity          | 1C6        |          |  |   |  |   |   |   |   |   |
| Port 4 Parity          | 1C7        |          |  |   |  |   |   |   |   |   |

| MANUAL CONTROL CONFIGURATIONS |                             |    |                                  |   |   |   |   |   |   |
|-------------------------------|-----------------------------|----|----------------------------------|---|---|---|---|---|---|
| Option                        | Location                    | 1  | 2                                | 3 | 4 | 5 | 6 | 7 | 8 |
| Omit Phases                   | 3C1                         |    |                                  |   |   |   |   |   |   |
| Lag Phases                    | 3C2                         |    | X                                |   | X |   | X |   | X |
| Recall Type                   | 309                         | 00 |                                  |   |   |   |   |   |   |
|                               |                             |    | <b>Recall Type Options (309)</b> |   |   |   |   |   |   |
| 00 = Manual Control Disabled  | 02 = Vehicle Recall Only    |    |                                  |   |   |   |   |   |   |
| 01 = Fully Actuated           | 03 = Ped and Vehicle Recall |    |                                  |   |   |   |   |   |   |

| User Flag Options (1DB)  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|
| 1 = Enable Mid-Block Ped Crossing Logic.                         |  |  |  |  |  |  |  |  |
| 2 = Modify Main Street Phases at Location (1E0).                 |  |  |  |  |  |  |  |  |
| 3 = Delay RR/EV Clearance Until All Overlaps Finish Terminating. |  |  |  |  |  |  |  |  |
| 4 = Modified Barrier Crossing (Ignore True Max).                 |  |  |  |  |  |  |  |  |
| 5 = Disable Daylight Savings Time Update.                        |  |  |  |  |  |  |  |  |
| 6 = Disable Ped Recycle Logic For STA Mode & Ped Recall Phases.  |  |  |  |  |  |  |  |  |
| 7 = Enable Freeway Off-Ramp Anti-Backup Logic.                   |  |  |  |  |  |  |  |  |
| 8 = Ignore Stuck-All-Red Failure.                                |  |  |  |  |  |  |  |  |

INTERSECTION: GRAND AVENUE @ BADILLO STREET

Date Prepared: 10/18/12 By: EMD

T.S. No.: 3866

Date Implemented: 3/29/13 By: nj

| App | Lanes   | Description   | File/Slot/<br>Channel | Delay |     | Extended Call |     | Phase Flags |   |   |   |   |   |   |   | Attribute Flags |      |     |     |     |   |   |   |   |   |  |  |  |
|-----|---------|---------------|-----------------------|-------|-----|---------------|-----|-------------|---|---|---|---|---|---|---|-----------------|------|-----|-----|-----|---|---|---|---|---|--|--|--|
|     |         |               |                       | Code  | Sec | Code          | Sec | Code        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8               | Code | 1   | 2   | 3   | 4 | 5 | 6 | 7 | 8 |  |  |  |
| N   | LT      | FIRST VEHICLE | 111U                  | 210   |     | 230           |     | 2B0         | X |   |   |   |   |   |   |                 |      | 2D0 |     |     |   |   |   |   |   |  |  |  |
|     |         |               | 11L                   |       |     |               |     |             |   |   |   |   |   |   |   |                 |      |     |     |     |   |   |   |   |   |  |  |  |
| S   | 1,2     | ADVANCE       | 212U                  | 211   |     | 231           |     | 2B1         |   | X |   |   |   |   |   |                 |      | 2D1 |     |     |   |   |   |   |   |  |  |  |
| S   | 2-2     | QUEUE         | 212L                  | 212   |     | 232           | 2.0 | 2B2         |   | X |   |   |   |   |   |                 |      | 2D2 |     |     |   |   |   |   | X |  |  |  |
|     |         |               | 13U                   | 213   |     | 233           |     | 2B3         |   |   |   |   |   |   |   |                 |      |     | 2D3 |     |   |   |   |   |   |  |  |  |
|     |         |               | 13L                   | 214   |     | 234           |     | 2B4         |   |   |   |   |   |   |   |                 |      | 2D4 |     |     |   |   |   |   |   |  |  |  |
| S   | 1       | QUEUE         | 214U                  | 215   |     | 235           | 2.0 | 2B5         | X |   |   |   |   |   |   |                 |      | 2D5 |     |     |   |   |   |   | X |  |  |  |
| S   | 2-1     | QUEUE         | 214L                  |       |     |               |     |             |   |   |   |   |   |   |   |                 |      |     |     |     |   |   |   |   |   |  |  |  |
| E   | LT      | FIRST VEHICLE | 315U                  | 216   |     | 236           |     | 2B6         |   |   | X |   |   |   |   |                 |      | 2D6 |     |     |   |   |   |   |   |  |  |  |
|     |         |               | 15L                   |       |     |               |     |             |   |   |   |   |   |   |   |                 |      |     |     |     |   |   |   |   |   |  |  |  |
| W   | 1,2     | ADVANCE       | 416U                  | 217   |     | 237           |     | 2B7         |   |   |   | X |   |   |   |                 |      | 2D7 |     |     |   |   |   |   |   |  |  |  |
|     |         |               | 16L                   | 218   |     | 238           |     | 2B8         |   |   |   |   |   |   |   |                 |      |     | 2D8 |     |   |   |   |   |   |  |  |  |
|     |         |               | 17U                   | 219   |     | 239           |     | 2B9         |   |   |   |   |   |   |   |                 |      |     |     | 2D9 |   |   |   |   |   |  |  |  |
|     |         |               | 17L                   | 21A   |     | 23A           |     | 2BA         |   |   |   |   |   |   |   |                 |      |     |     | 2DA |   |   |   |   |   |  |  |  |
| W   | 1       | QUEUE         | 418U                  | 21B   |     | 23B           | 2.0 | 2BB         |   |   |   | X |   |   |   |                 |      | 2DB |     |     |   |   |   |   | X |  |  |  |
| W   | 2-1,2-2 | QUEUE         | 418L                  |       |     |               |     |             |   |   |   |   |   |   |   |                 |      |     |     |     |   |   |   |   |   |  |  |  |
|     |         |               | 19U                   | 21C   |     | 23C           |     | 2BC         |   |   |   |   |   |   |   |                 |      | 2DC |     |     |   |   |   |   |   |  |  |  |
|     |         |               | 19L                   | 21D   |     | 23D           |     | 2BD         |   |   |   |   |   |   |   |                 |      | 2DD |     |     |   |   |   |   |   |  |  |  |

| App | Lanes   | Description   | File/Slot/<br>Channel | Delay |     | Extended Call |     | Phase Flags |   |   |   |   |   |   |   | Attribute Flags |      |     |     |     |   |   |   |   |   |  |  |  |
|-----|---------|---------------|-----------------------|-------|-----|---------------|-----|-------------|---|---|---|---|---|---|---|-----------------|------|-----|-----|-----|---|---|---|---|---|--|--|--|
|     |         |               |                       | Code  | Sec | Code          | Sec | Code        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8               | Code | 1   | 2   | 3   | 4 | 5 | 6 | 7 | 8 |  |  |  |
| S   | LT      | FIRST VEHICLE | 5J1U                  | 220   |     | 240           |     | 2C0         |   |   |   |   | X |   |   |                 |      | 2E0 |     |     |   |   |   |   |   |  |  |  |
|     |         |               | J1L                   |       |     |               |     |             |   |   |   |   |   |   |   |                 |      |     |     |     |   |   |   |   |   |  |  |  |
| N   | 1,2     | ADVANCE       | 6J2U                  | 221   |     | 241           |     | 2C1         |   |   |   |   |   | X |   |                 |      | 2E1 |     |     |   |   |   |   |   |  |  |  |
|     |         |               | J2L                   | 222   |     | 242           |     | 2C2         |   |   |   |   |   |   |   |                 |      |     | 2E2 |     |   |   |   |   |   |  |  |  |
|     |         |               | J3U                   | 223   |     | 243           |     | 2C3         |   |   |   |   |   |   |   |                 |      |     |     | 2E3 |   |   |   |   |   |  |  |  |
|     |         |               | J3L                   | 224   |     | 244           |     | 2C4         |   |   |   |   |   |   |   |                 |      |     |     | 2E4 |   |   |   |   |   |  |  |  |
| N   | 1       | QUEUE         | 6J4U                  | 225   |     | 245           | 2.0 | 2C5         |   |   |   |   |   | X |   |                 |      | 2E5 |     |     |   |   |   |   | X |  |  |  |
| N   | 2-1,2-2 | QUEUE         | 6J4L                  |       |     |               |     |             |   |   |   |   |   |   |   |                 |      |     |     |     |   |   |   |   |   |  |  |  |
| W   | LT      | FIRST VEHICLE | 7J5U                  | 226   |     | 246           |     | 2C6         |   |   |   |   |   |   |   | X               |      | 2E6 |     |     |   |   |   |   |   |  |  |  |
|     |         |               | J5L                   |       |     |               |     |             |   |   |   |   |   |   |   |                 |      |     |     |     |   |   |   |   |   |  |  |  |
| E   | 1,2     | ADVANCE       | 8J6U                  | 227   |     | 247           |     | 2C7         |   |   |   |   |   |   |   | X               |      | 2E7 |     |     |   |   |   |   |   |  |  |  |
|     |         |               | J6L                   | 228   |     | 248           |     | 2C8         |   |   |   |   |   |   |   |                 |      |     | 2E8 |     |   |   |   |   |   |  |  |  |
|     |         |               | J7U                   | 229   |     | 249           |     | 2C9         |   |   |   |   |   |   |   |                 |      |     |     | 2E9 |   |   |   |   |   |  |  |  |
|     |         |               | J7L                   | 22A   |     | 24A           |     | 2CA         |   |   |   |   |   |   |   |                 |      |     |     | 2EA |   |   |   |   |   |  |  |  |
| E   | 1       | QUEUE         | 8J8U                  | 22B   |     | 24B           | 2.0 | 2CB         |   |   |   |   |   |   |   | X               |      | 2EB |     |     |   |   |   |   | X |  |  |  |
| E   | 2, RT   | QUEUE         | 8J8L                  |       |     |               |     |             |   |   |   |   |   |   |   |                 |      |     |     |     |   |   |   |   |   |  |  |  |
|     |         |               | J9U                   | 22C   |     | 24C           |     | 2CC         |   |   |   |   |   |   |   |                 |      | 2EC |     |     |   |   |   |   |   |  |  |  |
|     |         |               | J9L                   | 22D   |     | 24D           |     | 2CD         |   |   |   |   |   |   |   |                 |      | 2ED |     |     |   |   |   |   |   |  |  |  |

Comments:

| DETECTOR ATTRIBUTES        |                                 |
|----------------------------|---------------------------------|
| Flag 1 - Non-Calling       | Flag 5 - Queue Clearing         |
| Flag 2 - Red & Yellow Lock | Flag 6 - Non-Counting           |
| Flag 3 - Yellow Disconnect | Flag 7 - Special Delay Option 1 |
| Flag 4 - Red Calling Only  | Flag 8 - Special Delay Option 2 |

Note: Shaded Phase Flags call by default.

| SPECIAL DETECTOR DELAY ASSIGNMENTS   |     | PHASE |   |   |   |   |   |   |  |
|--|-----|-------|---|---|---|---|---|---|--|
| Code   | 1   | 2     | 3 | 4 | 5 | 6 | 7 | 8 |  |
| All Options: Delay Timer resets during detector phase yellow.                              |     |       |   |   |   |   |   |   |  |
| Special Delay Option 1 (Attribute Bit 7) - Bypasses delay while flagged phases are timing. | 2F8 |       |   |   |   |   |   |   |  |
| Special Delay Option 2 (Attribute Bit 8) - Bypasses delay while flagged phases are timing. | 2F9 |       |   |   |   |   |   |   |  |

**LACO - 4E**  
**SYSTEM DETECTORS**

INTERSECTION: GRAND AVENUE @ BADILLO STREET

Date Prepared: 10/18/12 By: E.M.D.

T.S. No.: 3866

Date Implemented: 3/24/13 By: [Signature]

| Parameter                        | Location | Data | Units      |
|----------------------------------|----------|------|------------|
| Stuck ON Threshold <sup>1</sup>  | 21F      | 30   | Minutes    |
| Stuck OFF Threshold <sup>1</sup> | 22F      | 120  | Minutes    |
| Chatter Threshold <sup>1</sup>   | 23F      | 50   | Actuations |
| Period <sup>2</sup>              | 24F      | 60   | Seconds    |

- 1 - Set Data to "0" to disable Error Checking
- 2 - Default = 60 seconds

| Approach | Lanes | Description | System Detector | C1 Pin | File/Slot/Channel |
|----------|-------|-------------|-----------------|--------|-------------------|
|          |       |             | Det 1           | 39     | I2U               |
|          |       |             | Det 2           | 40     | J2U               |
|          |       |             | Det 3           | 41     | I6U               |
|          |       |             | Det 4           | 42     | J6U               |
|          |       |             | Det 5           | 43     | I2L               |
|          |       |             | Det 6           | 44     | J2L               |
|          |       |             | Det 7           | 45     | I6L               |
|          |       |             | Det 8           | 46     | J6L               |
|          |       |             | Det 9           | 47     | I4U/L             |
|          |       |             | Det 10          | 48     | J4U/L             |
|          |       |             | Det 11          | 49     | I8U/L             |
|          |       |             | Det 12          | 50     | J8U/L             |
|          |       |             | Det 13          | 55     | J1U/L             |
|          |       |             | Det 14          | 56     | I1U/L             |
|          |       |             | Det 15          | 57     | J5U/L             |
|          |       |             | Det 16          | 58     | I5U/L             |
|          |       |             | Det 17          | 59     | J9U               |
|          |       |             | Det 18          | 60     | I9U               |
|          |       |             | Det 19          | 61     | J9L               |
|          |       |             | Det 20          | 62     | I9L               |
|          |       |             | Det 21          | 63     | I3U               |
|          |       |             | Det 22          | 64     | J3U               |
|          |       |             | Det 23          | 65     | I7U               |
|          |       |             | Det 24          | 66     | J7U               |
|          |       |             | Det 25          | 76     | I3L               |
|          |       |             | Det 26          | 77     | J3L               |
|          |       |             | Det 27          | 78     | I7L               |
|          |       |             | Det 28          | 79     | J7L               |

**Memory Locations of Interest**  
 (Press "8" key first)

1503 - Set to non-zero value to reset all System Detector Logic.  
 150F - Collection Period Timer  
 15FF - Data Collection Sequence Counter

LACO - 4E  
OVERLAPS

INTERSECTION: GRAND AVENUE @ BADILLO STREET

Date Prepared: 10/18/12 By: END

T.S. No.: 3866

Date Implemented: 3/29/13 By: JF

| OVERLAP A               |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|
| Keystrokes: 3 + row + A |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Normal Parents          | A |   |   |   |   |   |   |   |   |
| Green Omit Parents      | B |   |   |   |   |   |   |   |   |
| RR Preempt Parents      | C |   |   |   |   |   |   |   |   |
| EV Preempt Parents      | D |   |   |   |   |   |   |   |   |
| Load Switch Assignment  | 0 |   |   |   |   |   |   |   |   |
| Delay Time              | 1 |   |   |   |   |   |   |   |   |
| Green Extension Time    | 2 |   |   |   |   |   |   |   |   |
| Yellow Clearance Time   | 3 |   |   |   |   |   |   |   |   |
| Red Clearance Time      | 4 |   |   |   |   |   |   |   |   |

| OVERLAP B               |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|
| Keystrokes: 3 + row + B |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Normal Parents          | A |   |   |   |   |   |   |   |   |
| Green Omit Parents      | B |   |   |   |   |   |   |   |   |
| RR Preempt Parents      | C |   |   |   |   |   |   |   |   |
| EV Preempt Parents      | D |   |   |   |   |   |   |   |   |
| Load Switch Assignment  | 0 |   |   |   |   |   |   |   |   |
| Delay Time              | 1 |   |   |   |   |   |   |   |   |
| Green Extension Time    | 2 |   |   |   |   |   |   |   |   |
| Yellow Clearance Time   | 3 |   |   |   |   |   |   |   |   |
| Red Clearance Time      | 4 |   |   |   |   |   |   |   |   |

| OVERLAP C               |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|
| Keystrokes: 3 + row + C |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Normal Parents          | A |   |   |   |   |   |   |   |   |
| Green Omit Parents      | B |   |   |   |   |   |   |   |   |
| RR Preempt Parents      | C |   |   |   |   |   |   |   |   |
| EV Preempt Parents      | D |   |   |   |   |   |   |   |   |
| Load Switch Assignment  | 0 |   |   |   |   |   |   |   |   |
| Delay Time              | 1 |   |   |   |   |   |   |   |   |
| Green Extension Time    | 2 |   |   |   |   |   |   |   |   |
| Yellow Clearance Time   | 3 |   |   |   |   |   |   |   |   |
| Red Clearance Time      | 4 |   |   |   |   |   |   |   |   |

| OVERLAP D               |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|
| Keystrokes: 3 + row + D |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Normal Parents          | A |   |   |   |   |   |   |   |   |
| Green Omit Parents      | B |   |   |   |   |   |   |   |   |
| RR Preempt Parents      | C |   |   |   |   |   |   |   |   |
| EV Preempt Parents      | D |   |   |   |   |   |   |   |   |
| Load Switch Assignment  | 0 |   |   |   |   |   |   |   |   |
| Delay Time              | 1 |   |   |   |   |   |   |   |   |
| Green Extension Time    | 2 |   |   |   |   |   |   |   |   |
| Yellow Clearance Time   | 3 |   |   |   |   |   |   |   |   |
| Red Clearance Time      | 4 |   |   |   |   |   |   |   |   |

| OVERLAP E               |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|
| Keystrokes: 3 + row + E |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Normal Parents          | A |   |   |   |   |   |   |   |   |
| Green Omit Parents      | B |   |   |   |   |   |   |   |   |
| RR Preempt Parents      | C |   |   |   |   |   |   |   |   |
| EV Preempt Parents      | D |   |   |   |   |   |   |   |   |
| Load Switch Assignment  | 0 |   |   |   |   |   |   |   |   |
| Delay Time              | 1 |   |   |   |   |   |   |   |   |
| Green Extension Time    | 2 |   |   |   |   |   |   |   |   |
| Yellow Clearance Time   | 3 |   |   |   |   |   |   |   |   |
| Red Clearance Time      | 4 |   |   |   |   |   |   |   |   |

| OVERLAP F               |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|
| Keystrokes: 3 + row + F |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Normal Parents          | A |   |   |   |   |   |   |   |   |
| Green Omit Parents      | B |   |   |   |   |   |   |   |   |
| RR Preempt Parents      | C |   |   |   |   |   |   |   |   |
| EV Preempt Parents      | D |   |   |   |   |   |   |   |   |
| Load Switch Assignment  | 0 |   |   |   |   |   |   |   |   |
| Delay Time              | 1 |   |   |   |   |   |   |   |   |
| Green Extension Time    | 2 |   |   |   |   |   |   |   |   |
| Yellow Clearance Time   | 3 |   |   |   |   |   |   |   |   |
| Red Clearance Time      | 4 |   |   |   |   |   |   |   |   |

Comments:

**LACO - 4E**  
**PREEMPTION**

INTERSECTION: GRAND AVENUE @ BADILLO STREET

Date Prepared: 10/18/12 By: EMD

T.S. No.: 3866

Date Implemented: 3/24/13 By: [Signature]

| RAILROAD CONFIGURATION                      |     |
|---|-----|
| Railroad Select (1, 2 or 3)                 | 360 |
| All Red Time After Railroad Flash           | 361 |
| Railroad Track Clearance Time               | 362 |
| Limited Service Max Time                    | 363 |
| Railroad Link to EV (See EV Setup Note # 5) | 364 |
| Free Time After Preemption                  | 365 |
| Free Time After Preemption (Timer)          | 366 |
| Max Timer (Minutes)                         | 367 |
| Max Timer (Seconds)                         | 368 |

Observation Only

| RAILROAD PHASES   |     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|-----|---|---|---|---|---|---|---|---|
| Track Clearance   | 3A0 |   |   |   |   |   |   |   |   |
| Railroad Exit     | 3A1 |   |   |   |   |   |   |   |   |
| Railroad Ped Only | 3A2 |   |   |   |   |   |   |   |   |
| Limited Service   | 3A3 |   |   |   |   |   |   |   |   |

Comments:

| EV CONFIGURATION                  |     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-----------------------------------|-----|---|---|---|---|---|---|---|---|
| EV Flags (See Notes to the Right) | 390 |   |   |   |   |   |   |   |   |
| EV-A Clearance Phases             | 391 |   |   |   |   |   |   |   |   |
| EV-B Clearance Phases             | 392 |   |   |   |   |   |   |   |   |
| EV-C Clearance Phases             | 393 |   |   |   |   |   |   |   |   |
| EV-D Clearance Phases             | 394 |   |   |   |   |   |   |   |   |

**EV FLAGS**

- 1 = Not Used
- 2 = Not Used
- 3 = Not Used
- 4 = Not Used
- 5 = EV-A Truncates Ped Flashing Don't Walk Interval
- 6 = EV-B Truncates Ped Flashing Don't Walk Interval
- 7 = EV-C Truncates Ped Flashing Don't Walk Interval
- 8 = EV-D Truncates Ped Flashing Don't Walk Interval

| EV-A SETUP     |     |
|----------------|-----|
| Delay (1)      | 310 |
| Active (2)     | 311 |
| Clearance (3)  | 312 |
| Maximum (4)    | 313 |
| Link to EV (5) | 314 |
| Minimum (6)    | 315 |

| EV-B SETUP     |     |
|----------------|-----|
| Delay (1)      | 320 |
| Active (2)     | 321 |
| Clearance (3)  | 322 |
| Maximum (4)    | 323 |
| Link to EV (5) | 324 |
| Minimum (6)    | 325 |

**EV SETUP NOTES**

- (1). The length of time before the controller responds to EV input. HOLD, CALL, ALLOW & Coordination Functions are not affected during this time.
- (2). The length of time that HOLD & CALL are set. Coordination functions are suspended during this time.
- (3). The length of Green Clearance time. HOLD, CALL & FORCE OFF are set by preemption logic during this time.
- (4). The maximum time (in seconds) that the preempt will remain in control of the intersection.
- (5). Causes the selected EV to time after the current EV times out.
- (6). Minimum time (in seconds) allowed from the end of one EV until the start of another EV.

| EV-C SETUP     |     |
|----------------|-----|
| Delay (1)      | 330 |
| Active (2)     | 331 |
| Clearance (3)  | 332 |
| Maximum (4)    | 333 |
| Link to EV (5) | 334 |
| Minimum (6)    | 335 |

| EV-D SETUP     |     |
|----------------|-----|
| Delay (1)      | 340 |
| Active (2)     | 341 |
| Clearance (3)  | 342 |
| Maximum (4)    | 343 |
| Link to EV (5) | 344 |
| Minimum (6)    | 345 |

| AUX 3 YELLOW OUTPUT CONTROL<br>(Keystrokes: 3 + C + 0) |                     |
|--|---------------------|
| 1  | Railroad A          |
| 2  | Railroad B          |
| 3  | Emergency Vehicle A |
| 4  | Emergency Vehicle B |
| 5  | Emergency Vehicle C |
| 6  | Emergency Vehicle D |
| 7  | Manual Control      |
| 8  | Unused              |

INTERSECTION: GRAND AVENUE @ BADILLO STREET

Date Prepared: 10/18/12 By: EMD

T.S. No.: 3866

Date Implemented: 3/25/13 By: ny

**NOTE: All data is located in the Extended Memory and must be accessed with "8" followed by the 4 digit address.**

| BUS PRIORITY CONTROL |      |
|----------------------|------|
| Manual Control       | 1E00 |
| Primary Address      | 1E01 |
| Secondary Address    | 1E02 |
| City Code            | 1E03 |
| Hardwired ETA        | 1E04 |
| Trip Point           | 1E05 |

**Manual Control (1E00) Options**

- 0 = Auto
- 1 = Logic OFF
- 2 = Logic ON / No Communications
- 4 = Headway / No Communications
- 7 = Hardwire
- 14 = BSP OFF

| BUS PHASES |      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------------|------|---|---|---|---|---|---|---|---|
| Priority   | 1E08 |   |   |   |   |   |   |   |   |
| Demand     | 1E09 |   |   |   |   |   |   |   |   |
| Northbound | 1E0A |   |   |   |   |   |   |   |   |
| Southbound | 1E0B |   |   |   |   |   |   |   |   |
| Eastbound  | 1E0C |   |   |   |   |   |   |   |   |
| Westbound  | 1E0D |   |   |   |   |   |   |   |   |

| BSP OVERRIDE TABLE |            |     |   |   |   |   |   |   |   |  |
|--------------------|------------|-----|---|---|---|---|---|---|---|--|
|                    | Hour : Min | Dir | S | M | T | W | T | F | S |  |
| 0                  | :          |     |   |   |   |   |   |   |   |  |
| 1                  | :          |     |   |   |   |   |   |   |   |  |
| 2                  | :          |     |   |   |   |   |   |   |   |  |
| 3                  | :          |     |   |   |   |   |   |   |   |  |
| 4                  | :          |     |   |   |   |   |   |   |   |  |
| 5                  | :          |     |   |   |   |   |   |   |   |  |
| 6                  | :          |     |   |   |   |   |   |   |   |  |
| 7                  | :          |     |   |   |   |   |   |   |   |  |
| 8                  | :          |     |   |   |   |   |   |   |   |  |
| 9                  | :          |     |   |   |   |   |   |   |   |  |
| A                  | :          |     |   |   |   |   |   |   |   |  |
| B                  | :          |     |   |   |   |   |   |   |   |  |
| C                  | :          |     |   |   |   |   |   |   |   |  |
| D                  | :          |     |   |   |   |   |   |   |   |  |
| E                  | :          |     |   |   |   |   |   |   |   |  |
| F                  | :          |     |   |   |   |   |   |   |   |  |

**Data Entry for BSP Override Table**

1. "9" + "9" sets the controller to Table Entry mode pointing to the BSP Override Table, Event 0.
2. Press "A" or "D" key to move to desired Event.
3. Enter 4 digit Time of Day.
4. Enter one digit Directional Override.  
 1 = N    3 = N+S    A = S+W    D = N+S+W  
 2 = S    5 = N+E    C = E+W    E = S+E+W  
 4 = E    6 = S+E    7 = N+S+E    F = ALL  
 8 = W    9 = N+W    B = N+E+W  
 Then press "E" to select the Days of Week.
5. Select Day(s) of Week.
6. Press "A" or "D" to move to next Event.
7. Repeat steps 3 through 6 for each event.
8. Press "F" key to finish.

Comments:

**LACO - 4E**  
**ZIP COORDINATION**

INTERSECTION: GRAND AVENUE @ BADILLO STREET

Date Prepared: 10/18/12 By: DAD

T.S. No.: 3866

Date Implemented: 3/25/13 By: af

**KEYSTROKE: 4 + Plan # + Parameter**

| TIME OF DAY OPERATIONS SUMMARY |  |        |  |        |  |
|--------------------------------|--|--------|--|--------|--|
| PLAN 1                         |  | PLAN 4 |  | PLAN 7 |  |
| PLAN 2                         |  | PLAN 5 |  | PLAN 8 |  |
| PLAN 3                         |  | PLAN 6 |  | PLAN 9 |  |
| FREE                           |  |        |  |        |  |

| OFFSET TIMES |          |        |
|--------------|----------|--------|
| PLAN         | Location | Offset |
| 1            | 7-A-1    |        |
| 2            | 7-A-2    |        |
| 3            | 7-A-3    |        |
| 4            | 7-A-4    |        |
| 5            | 7-A-5    |        |
| 6            | 7-A-6    |        |
| 7            | 7-A-7    |        |
| 8            | 7-A-8    |        |
| 9            | 7-A-9    |        |

| Midnight Sync Pulse |      |  |       |        |
|---------------------|------|--|-------|--------|
| 7-A-B               | Hour |  | 7-A-C | Minute |
|                     |      |  |       |        |

|                            |       |     |
|----------------------------|-------|-----|
| ** ZIP Coordination Enable | 7-A-D | 000 |
|----------------------------|-------|-----|

\*\* Set to "000" to DISABLE Zip Coordination

Observation Only Location

|                  | Parameters        |   | Plan 1 | Plan 2 | Plan 3 | Plan 4 | Plan 5 | Plan 6 | Plan 7 | Plan 8 | Plan 9 |
|------------------|-------------------|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0                |                   |   | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      |
| System Manual    | Cycle Length      | 0 |        |        |        |        |        |        |        |        |        |
| Local Manual     | Force Off Phase 1 | 1 |        |        |        |        |        |        |        |        |        |
| Master Plan      | Force Off Phase 2 | 2 |        |        |        |        |        |        |        |        |        |
| Local Plan       | Force Off Phase 3 | 3 |        |        |        |        |        |        |        |        |        |
| TMC Override     | Force Off Phase 4 | 4 |        |        |        |        |        |        |        |        |        |
| Time Of Day Plan | Force Off Phase 5 | 5 |        |        |        |        |        |        |        |        |        |
| Special Function | Force Off Phase 6 | 6 |        |        |        |        |        |        |        |        |        |
| Current Table    | Force Off Phase 7 | 7 |        |        |        |        |        |        |        |        |        |
| Min Cycle Length | Force Off Phase 8 | 8 |        |        |        |        |        |        |        |        |        |
| Max Cycle Length | Hold Release      | 9 |        |        |        |        |        |        |        |        |        |

|                     |           |
|---------------------|-----------|
| Master Cycle Timer  | COMMENTS: |
| Local Cycle Timer   |           |
| New Offset          |           |
| Current Offset Time |           |
| Last Master Cycle   |           |
| Last Local Cycle    |           |





**LACO - 4E**  
**COORDINATION 2**

INTERSECTION: GRAND AVENUE @ BADILLO STREET

Date Prepared: 10/18/12 By: EMD

T.S. No.: 3866

Date Implemented: 3/25/13 By: ↑

**KEYSTROKE: 5 + column + row**

|   | INTERVALS<br>(In Seconds) |        |        | COORDINATION FUNCTION FLAGS |      |              |      |           |      |              |      |           |      |              |      |
|---|---------------------------|--------|--------|-----------------------------|------|--------------|------|-----------|------|--------------|------|-----------|------|--------------|------|
|   |                           |        |        | PLAN 4                      |      |              |      | PLAN 5    |      |              |      | PLAN 6    |      |              |      |
|   | Plan 4                    | Plan 5 | Plan 6 | Force Off                   | Hold | Ped Restrict | Call | Force Off | Hold | Ped Restrict | Call | Force Off | Hold | Ped Restrict | Call |
|   | 1                         | 2      | 3      | 4                           | 5    | 6            | 7    | 8         | 9    | A            | B    | C         | D    | E            | F    |
| 0 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 1 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 2 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 3 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 4 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 5 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 6 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 7 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 8 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 9 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| A |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| B |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| C |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| D |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| E |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| F |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |

COMMENTS:

**LACO - 4E**  
**COORDINATION 3**

INTERSECTION: GRAND AVENUE @ BADILLO STREET

Date Prepared: 10/10/12 By: EMD

T.S. No.: 3866

Date Implemented: 3/29/13 By: mf

**KEYSTROKE: 6 + column + row**

| INTERVALS<br>(In Seconds) |        | COORDINATION FUNCTION FLAGS |        |           |      |              |      |           |      |              |      |           |      |              |      |
|---------------------------|--------|-----------------------------|--------|-----------|------|--------------|------|-----------|------|--------------|------|-----------|------|--------------|------|
|                           |        | PLAN 7                      |        |           |      | PLAN 8       |      |           |      | PLAN 9       |      |           |      |              |      |
|                           | Plan 7 | Plan 8                      | Plan 9 | Force Off | Hold | Ped Restrict | Call | Force Off | Hold | Ped Restrict | Call | Force Off | Hold | Ped Restrict | Call |
|                           | 1      | 2                           | 3      | 4         | 5    | 6            | 7    | 8         | 9    | A            | B    | C         | D    | E            | F    |
| 0                         |        |                             |        |           |      |              |      |           |      |              |      |           |      |              |      |
| 1                         |        |                             |        |           |      |              |      |           |      |              |      |           |      |              |      |
| 2                         |        |                             |        |           |      |              |      |           |      |              |      |           |      |              |      |
| 3                         |        |                             |        |           |      |              |      |           |      |              |      |           |      |              |      |
| 4                         |        |                             |        |           |      |              |      |           |      |              |      |           |      |              |      |
| 5                         |        |                             |        |           |      |              |      |           |      |              |      |           |      |              |      |
| 6                         |        |                             |        |           |      |              |      |           |      |              |      |           |      |              |      |
| 7                         |        |                             |        |           |      |              |      |           |      |              |      |           |      |              |      |
| 8                         |        |                             |        |           |      |              |      |           |      |              |      |           |      |              |      |
| 9                         |        |                             |        |           |      |              |      |           |      |              |      |           |      |              |      |
| A                         |        |                             |        |           |      |              |      |           |      |              |      |           |      |              |      |
| B                         |        |                             |        |           |      |              |      |           |      |              |      |           |      |              |      |
| C                         |        |                             |        |           |      |              |      |           |      |              |      |           |      |              |      |
| D                         |        |                             |        |           |      |              |      |           |      |              |      |           |      |              |      |
| E                         |        |                             |        |           |      |              |      |           |      |              |      |           |      |              |      |
| F                         |        |                             |        |           |      |              |      |           |      |              |      |           |      |              |      |

COMMENTS:





**LACO - 4E**  
**PROGRAMMABLE LOGIC**

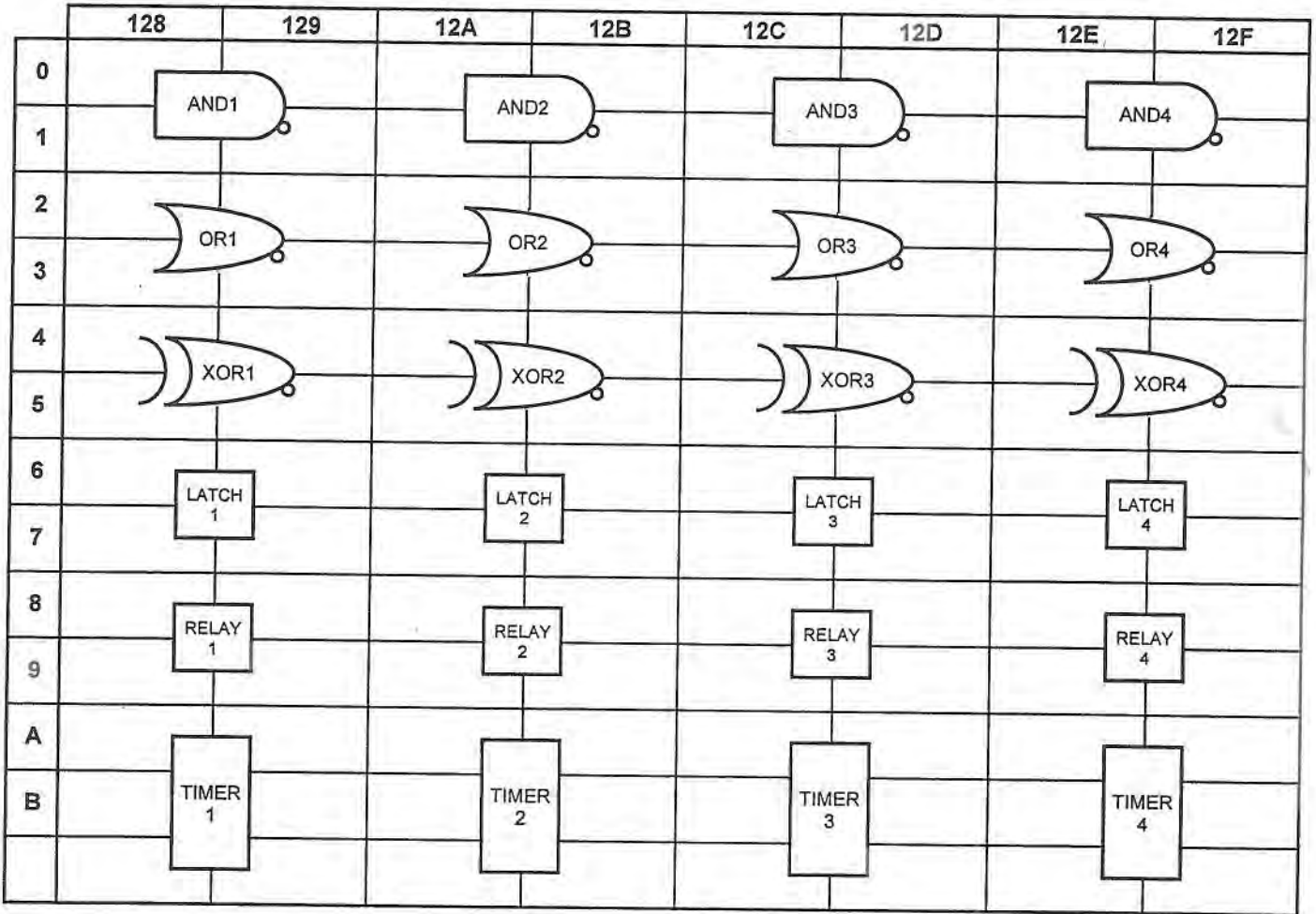
INTERSECTION: GRAND AVENUE @ BADILLO STREET

Date Prepared: 10/18/12 By: EMP

T.S. No.: 3866

Date Implemented: 3/29/13 By: hf

KEYSTROKE: 8 + column + row



Comments:

WV TIME BASE  
LACO-17 TYPE 170 PROGRAM

Page 1 of 6

9-24-02  
LACO 112

DKS Associates  
BOYE

BARRANCA AV. AT ROWLAND ST.

DATE REQUESTED: 8-5-97  
DATE COMPLETED: 8-15-97

BY: GNH

INTERSECTION:  
TS No.:

Keystrokes: F + FAZE + INTERVAL

Table with 10 rows and 10 columns for timing parameters like WALK, FLASH D/W, MIN GREEN, QUEUE MAX, etc.

Keystrokes: F + E + FUNCTION

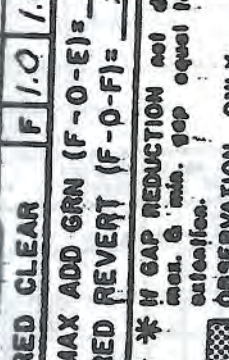
Table with 10 rows and 10 columns for preemption parameters like RR DELAY, EV A DELAY, etc.

Keystrokes: F + F + FUNCTION

Table with 10 rows and 10 columns for phase and function flags like PHASES PERMITTED, RED LOCK, etc.

\* PHASES PERMITTED must be set with a power down exceeding 2 seconds.

LAG FAZES  
LAG FREE, LAG DIAL 1, LAG DIAL 2, LAG DIAL 3



REMARKS: 9-9-04 - PLACED LOCATION ON COORDINATION

2-9-04 - 4 PLACES DOY  
LOC IN APPROX. 4 PLACES DOY

13-3-04 UPGRADED SOFTWARE TO LACO 1-2 9-24-02 C-PLAN BOYE

INTERSECTION: Barranca Av / Rowland St **LACO-1 DETECTOR ASSIGNMENT**

TS No. \_\_\_\_\_ DATE: 3-2-91 BY: GNH

| APP | LANES | DESCRIPTION | FAZE FILE SLOT CHANNEL | DELAY |         | EXTENDED CALL |         | REMARKS | YELLOW DISCONNECT |      |    | QUEUE CLEARING |      |    |
|-----|-------|-------------|------------------------|-------|---------|---------------|---------|---------|-------------------|------|----|----------------|------|----|
|     |       |             |                        | CODE  | SECONDS | CODE          | SECONDS |         | CODE              | LITE | ON | CODE           | LITE | ON |
| N   | LT    | LT Loop     | 1I1U                   | D10   |         | D30           |         | 6'x100' | DF4               | 1    |    | DF8            | 1    |    |
|     |       |             | 1I1L                   |       |         |               |         |         |                   |      |    |                |      |    |
| S   | 1&2   | Advance     | 2I2U                   | D11   |         | D31           |         |         | DF4               | 2    |    | DF8            | 2    |    |
|     |       |             | 2I2L                   | D12   |         | D32           |         |         | DF4               | 3    |    | DF8            | 3    |    |
|     |       |             | 2I3U                   | D13   |         | D33           |         |         | DF4               | 4    |    | DF8            | 4    |    |
| S   | 1&2   | Queue Cl.   | 2I3L                   | D14   |         | D34           |         |         | DF4               | 5    |    | DF8            | 5    |    |
|     |       |             | 2I4U                   | D15   |         | D35           | 1.5     |         | DF4               | 6    |    | DF8            | 6    | ✓  |
|     |       |             | 2I4L                   |       |         |               |         |         |                   |      |    |                |      |    |
| W   | LT    | LT Loop     | 3I5U                   | D16   |         | D36           |         | 6'x100' | DF4               | 7    |    | DF8            | 7    |    |
|     |       |             | 3I5L                   |       |         |               |         |         |                   |      |    |                |      |    |
| E   | 1&2   | Advance     | 4I6U                   | D17   |         | D37           |         |         | DF4               | 8    |    | DF8            | 8    |    |
|     |       |             | 4I6L                   | D18   |         | D38           |         |         | DF5               | 1    |    | DF9            | 1    |    |
|     |       |             | 4I7U                   | D19   |         | D39           |         |         | DF5               | 2    |    | DF9            | 2    |    |
| E   | 1&2   | Queue Cl.   | 4I7L                   | D1A   |         | D3A           |         |         | DF5               | 3    |    | DF9            | 3    |    |
|     |       |             | 4I8U                   | D1B   |         | D3B           | 1.5     |         | DF5               | 4    |    | DF9            | 4    | ✓  |
|     |       |             | 4I8L                   |       |         |               |         |         |                   |      |    |                |      |    |
|     |       |             | 1I9U                   | D1C   |         | D3C           |         |         | DF5               | 5    |    | DF9            | 5    |    |
| S   | LT    | LT Loop     | 5J1U                   | D20   |         | D40           |         | 6'x100' | DF5               | 6    |    | DF9            | 6    |    |
|     |       |             | 5J1L                   |       |         |               |         |         |                   |      |    |                |      |    |
| N   | 1&2   | Advance     | 6J2U                   | D21   |         | D41           |         |         | DF6               | 1    |    | DFA            | 1    |    |
|     |       |             | 6J2L                   | D22   |         | D42           |         |         | DF6               | 2    |    | DFA            | 2    |    |
|     |       |             | 6J3U                   | D23   |         | D43           |         |         | DF6               | 3    |    | DFA            | 3    |    |
|     |       |             | 6J3L                   | D24   |         | D44           |         |         | DF6               | 4    |    | DFA            | 4    |    |
| N   | 1&2   | Queue Cl.   | 6J4U                   | D25   |         | D45           | 1.5     |         | DF6               | 5    |    | DFA            | 5    |    |
|     |       |             | 6J4L                   |       |         |               |         |         |                   |      |    |                |      |    |
| E   | LT    | LT Loop     | 7J5U                   | D26   |         | D46           | 1.5     | 6'x100' | DF6               | 6    |    | DFA            | 6    | ✓  |
|     |       |             | 7J5L                   |       |         |               |         |         |                   |      |    |                |      |    |
| W   | 1&2   | Advance     | 8J6U                   | D27   |         | D47           |         |         | DF6               | 7    |    | DFA            | 7    |    |
|     |       |             | 8J6L                   | D28   |         | D48           |         |         | DF6               | 8    |    | DFA            | 8    |    |
|     |       |             | 8J7U                   | D29   |         | D49           |         |         | DF7               | 1    |    | DFB            | 1    |    |
|     |       |             | 8J7L                   | D2A   |         | D4A           |         |         | DF7               | 2    |    | DFB            | 2    |    |
| W   | 1&2   | Queue Cl.   | 8J8U                   | D2B   |         | D4B           | 1.5     |         | DF7               | 3    |    | DFB            | 3    |    |
|     |       |             | 8J8L                   |       |         |               |         |         |                   |      |    |                |      |    |
|     |       |             | 5J9U                   | D2C   |         | D4C           |         |         | DF7               | 4    |    | DFB            | 4    | ✓  |
|     |       |             | 7J9L                   | D2D   |         | D4D           |         |         | DF7               | 5    |    | DFB            | 5    |    |
|     |       |             |                        |       |         |               |         |         | DF7               | 6    |    | DFB            | 6    |    |

YELLOW DISCONNECT QUICK REFERENCE

| CODE / LITE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------|---|---|---|---|---|---|---|---|
| DF4         |   |   |   |   |   |   |   |   |
| DF5         |   |   |   |   |   |   |   |   |
| DF6         |   |   |   |   |   |   |   |   |
| DF7         |   |   |   |   |   |   |   |   |

REMARKS: 6-29-04 IMPLEMENTED  
1.5 EXT. TIME ON ALL  
QUEUE LOOPS D35-D3B-D45-D4B

QUEUE CLEARING DETECTOR QUICK REFERENCE

| CODE / LITE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------|---|---|---|---|---|---|---|---|
| DF8         |   |   |   |   |   |   |   |   |
| DF9         |   |   |   |   |   |   |   |   |
| DFA         |   |   |   |   |   |   |   |   |
| DFB         |   |   |   |   |   |   |   |   |



COORDINATION TIMING SHEET

INTERSECTION: Barranca Av / Rowland St TS No:           

SYSTEM LIMITS: Maua Loa Av to Rowland St

MASTER: VWV <sup>PPPPPP</sup> <sub>WES</sub>

DATE REQUESTED: 8-5-97 <sup>PPPPPP</sup> <sub>WES</sub> BY: GNH

DATE COMPLETED: 8-15-97 BY: DA

HOURS OF OPERATION

|      | OFFSET 1        | OFFSET 2 | OFFSET 3 |
|------|-----------------|----------|----------|
| D1   |                 |          |          |
| D2   | 0700-0900 M-F   |          |          |
| D3   | 1600-1800 M-F   |          |          |
| FREE | ALL OTHER TIMES |          |          |

System No. 86 A

INTERCONNECT SELECT  Check  
 At D-O set (17-7 wire or 170-Time based mode)  
 SYNC. WIDTH (observe master sync. at D-O)  
 At D-O-E set max. width 4.0 sec.  
 At D-O-F set min. width 1.0 sec.

SET PHASE(S) USING CALL/ACTIVE LITE

| INTERVAL | INTERVAL                                 |                      |                      | DIAL 1                |                |           | DIAL 2                |              |                | DIAL 3                |      |              |                |     |
|----------|--|----------------------|----------------------|-----------------------|----------------|-----------|-----------------------|--------------|----------------|-----------------------|------|--------------|----------------|-----|
|          | DIAL 1                                   | DIAL 2               | DIAL 3               | PHASE(S) PER INTERVAL |                |           | PHASE(S) PER INTERVAL |              |                | PHASE(S) PER INTERVAL |      |              |                |     |
|          | INTERVAL TIME (SEC.)                     | INTERVAL TIME (SEC.) | INTERVAL TIME (SEC.) | PEO RESTRICT          | HOLD WITH CALL | FORCE-OFF | HOLD                  | PEO RESTRICT | HOLD WITH CALL | FORCE-OFF             | HOLD | PEO RESTRICT | HOLD WITH CALL |     |
| 0        | SYSTEM MANUAL                            | 80                   | 80                   |                       |                |           |                       | 2,6          |                |                       |      | 2,6          |                |     |
| 1        | MANUAL <input type="radio"/>             | 1                    | 1                    |                       |                |           |                       | -            |                |                       |      | -            |                |     |
| 2        | MTRDIL                                   | 13                   | 12                   |                       |                |           |                       | 3            |                |                       |      | 7            |                |     |
| 3        | CURDIL                                   | 14                   | 13                   |                       |                |           |                       | -            |                |                       |      | -            |                |     |
| 4        | OFFNUM                                   | 17                   | 14                   |                       |                |           |                       | 7            |                |                       |      | 3            |                |     |
| 5        | TODS <input checked="" type="checkbox"/> | 18                   | 15                   |                       |                |           |                       | -            |                |                       |      | -            |                |     |
| 6        | FUNC6 14                                 | 22                   | 19                   |                       |                |           |                       |              |                | 4,8                   |      | 4            |                | 4,8 |
| 7        | TABLE                                    | 28                   | 25                   |                       |                |           |                       | 2,6          | 4,8            |                       |      | 2,6          | 4,8            |     |
| 8        | MINCY <input type="radio"/>              | 40                   | 37                   |                       |                |           |                       | 4,8          | 2,6            | -                     |      | 4,8          | 2,6            | -   |
| 9        | MAXCY 255                                | 41                   | 38                   |                       |                |           |                       | -            | 2,6            |                       |      | -            | 2,6            |     |
| A        | MFCYCLE                                  | 53                   | 49                   |                       |                |           |                       | 1,5          | 2,6            |                       |      | 1,5          | 2,6            |     |
| B        | LCYCLE                                   | 53                   | 50                   |                       |                |           |                       | -            | 2,6            |                       |      | -            | 2,6            |     |
| C        | NEWOFF                                   | 60                   | 60                   |                       |                |           |                       | 2,6          | 2,6            |                       |      | 2,6          | 2,6            |     |
| D        | OFFSET                                   | 74                   | 66                   |                       |                |           |                       | -            | 2,6            |                       |      | -            | 2,6            |     |
| E        | LMASTR                                   | 80                   | 80                   |                       |                |           |                       |              |                |                       |      |              |                |     |
| F        | LLOCAL                                   |                      |                      |                       |                |           |                       |              |                |                       |      |              |                |     |

**DIRECTIONS:**  
 \*With C-O-1 (Manual) set at 14 (free), set all times and intervals shown before release to master control.  
 Enter 0 at C-O-1 to release from manual control.  
 \*Note: Time of day must be set before coordination can be implemented. If the EVENT TABLE is not used, then enter 0 at C-O-5. (See other side for CLOCK and EVENT TABLE.)

**OBSERVE:**  
 HOLD W/CALL D-F-C  
 HOLD D-F-D  
 PEO RESTRICT D-F-E  
 FORCE-OFF D-F-F  
 CYCLE W/FIELD CALLS C-O-B

Observation only.  
**REMARKS:**

*Temp off per Overlook 3.12.9*

LACO-1 CLOCK AND EVENT TABLE SHEET

INTERSECTION: Barranca Av/Rowland St DATE: 3-2-91 BY: GNH

TS No: \_\_\_\_\_ COMPLETED DATE: 8-15-97 BY: 02

CONTROL CODE A-C

CLOCK

CONTROL CODE A-D

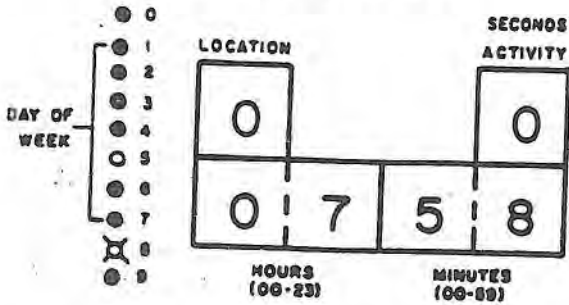


FIG. 1

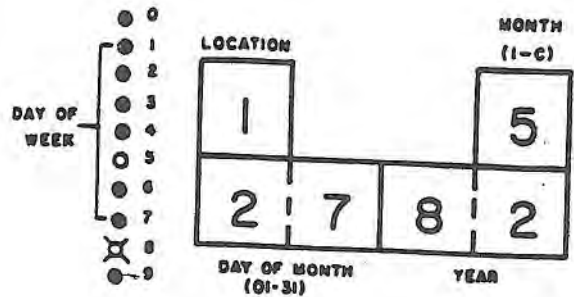


FIG. 2

ABOVE EXAMPLES

7:50 A.M. ON THURSDAY (FIG. 1)  
MAY 27, 1982 (FIG. 2)

DAY OF WEEK

- 1 SUNDAY
- 2 MONDAY
- 3 TUESDAY
- 4 WEDNESDAY
- 5 THURSDAY
- 6 FRIDAY
- 7 SATURDAY

MONTH

- 1 JANUARY
- 2 FEBRUARY
- 3 MARCH
- 4 APRIL
- 5 MAY
- 6 JUNE
- 7 JULY
- 8 AUGUST
- 9 SEPTEMBER
- A OCTOBER
- B NOVEMBER
- C DECEMBER

DIRECTIONS

At control code A-C, key in hours and minutes, then key in 0 for seconds activity. Enter key E and turn on coil light corresponding to day of the week. (NOTE: Seconds start at 0 seconds - for observation and correction use address D-4-F).  
At control code A-D, key in day of month, year and month, then enter key E.

CONTROL CODE 9-3

EVENT TABLE

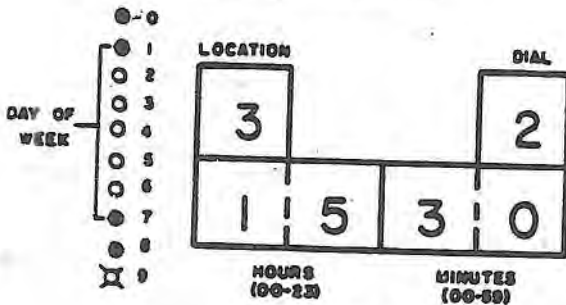


FIG. 3

ABOVE EXAMPLE

THE EXAMPLE (FIG. 3), SHOWS A TIME OF DAY EVENT AT CONTROL CODE 9-3 WITH DIAL 2 TO START AT 3:30 P.M. EACH WEEKDAY FROM MONDAY THROUGH FRIDAY.

DIRECTIONS

To set an event, key in 9 + the table location, key in hour, minute, and event, then enter key E. Set day(s) with call/active lites. To observe current event use address C-0-5. (NOTE: These time of day events are local - not system events.)

REMARKS

PLAN

|                |                |                |                |
|----------------|----------------|----------------|----------------|
|                | D <sub>1</sub> | D <sub>2</sub> | D <sub>3</sub> |
| O <sub>1</sub> | 1              | 2              | 3              |
| O <sub>2</sub> | 4              | 5              | 6              |
| O <sub>3</sub> | 7              | 8              | 9              |

|       |      | DAY AND LITE                   |     |     |     |     |     |     |     |
|-------|------|--------------------------------|-----|-----|-----|-----|-----|-----|-----|
|       |      | Set DAY using Call/Active LITE |     |     |     |     |     |     |     |
| LOC.  | TIME | EVENT                          | SUN | MON | TUE | WED | THU | FRI | SAT |
| 9 + ↓ |      | * DIAL                         | 1   | 2   | 3   | 4   | 5   | 6   | 7   |
| 0     |      |                                |     |     |     |     |     |     |     |
| 1     |      |                                |     |     |     |     |     |     |     |
| 2     |      |                                |     |     |     |     |     |     |     |
| 3     |      |                                |     |     |     |     |     |     |     |
| 4     |      |                                |     |     |     |     |     |     |     |
| 5     |      |                                |     |     |     |     |     |     |     |
| 6     |      |                                |     |     |     |     |     |     |     |
| 7     |      |                                |     |     |     |     |     |     |     |
| 8     |      |                                |     |     |     |     |     |     |     |
| 9     |      |                                |     |     |     |     |     |     |     |
| A     |      |                                |     |     |     |     |     |     |     |
| B     |      |                                |     |     |     |     |     |     |     |
| C     |      |                                |     |     |     |     |     |     |     |
| D     |      |                                |     |     |     |     |     |     |     |
| E     |      |                                |     |     |     |     |     |     |     |
| F     |      |                                |     |     |     |     |     |     |     |

\* DIAL 1=1, 2=2, 3=3, FREE = E, OFF = 0.  
(NOTE: At C-0-5, FREE = 14)

TS# INTERSECTION: Barranca Av / Rowland St DATE REQUESTED 5/26/92 BY: GNH WRS DATE COMPLETED 8/15/97 BY: DA

TABLE 1 s m t w t f s\* CODE! HH:mm !P#[1 2 3 4 5 6 7] 1-0 | 00:00 | E | X | X | X | X | X | X |

DEFAULT TABLE 0 s m t w t f s\* CODE! HH:mm !P#[1 2 3 4 5 6 7] 0-0 | 00:00 | E | X | X | X | X | X | X |

ANNUAL PROG A s m t w t f s\* CODE! MM/dd !T#[1 2 3 4 5 6 7] 5-0 | / | / | / | / | / | / | / | / |

TABLE 2 s m t w t f s\* CODE! HH:mm !P#[1 2 3 4 5 6 7] 0-0 | : | : | : | : | : | : | : | : |

<< \*Set DOW = all VALID days>> 8=every day 9=mon-fri 0=none if phase digit stops flashing, then table # & event # match ! <<< P# = Plan Number D1 D2 D3 01= 1 2 3 02= 4 5 6 03= 7 8 9 FREE= E (14) T# = Table Number (0-3) >>> if requested table produces plan zero, then default table will be searched automatically

ANNUAL PROG B s m t w t f s\* CODE! MM/dd !T#[1 2 3 4 5 6 7] 6-0 | / | / | / | / | / | / | / | / |

TABLE 3 s m t w t f s\* CODE! HH:mm !P#[1 2 3 4 5 6 7] 0-0 | : | : | : | : | : | : | : | : |

FLOAT HOLIDAYS s m t w t f s\* CODE! MM/nn !T#[1 2 3 4 5 6 7] 4-0 | 02n03 | / | / | X | / | / | / | / |

ANNUAL PROG C s m t w t f s\* CODE! MM/dd !T#[1 2 3 4 5 6 7] 7-0 | / | / | / | / | / | / | / | / |

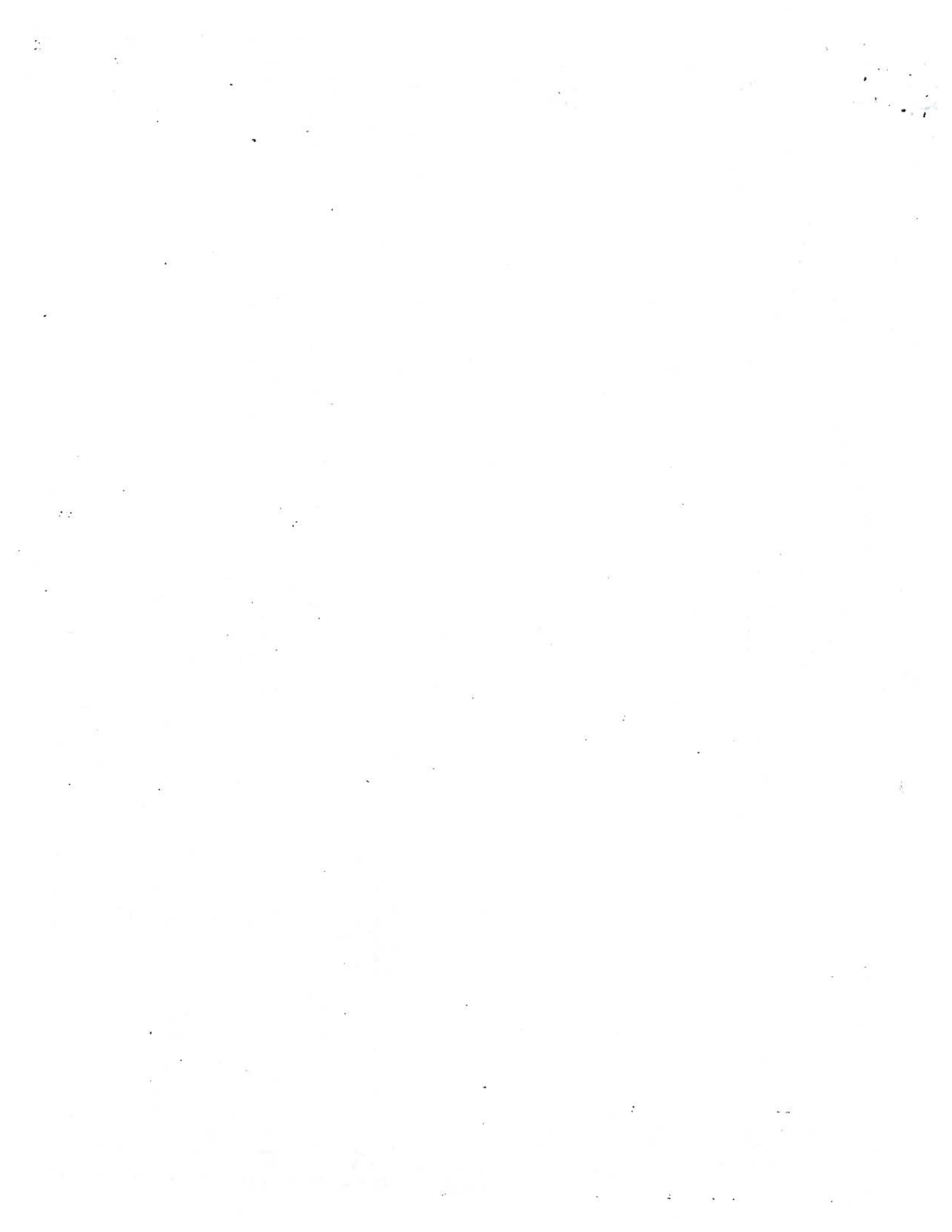
MARKS: nn= Nth occurrence DOWs (1-5 & 99=last) (D-0-3 ≠ 170 = recalc) (D-0-3 = 999 = clear tables, then blank)

Handwritten text at the top of the page, including a date and possibly a name, which is mostly illegible due to fading and bleed-through.

Main body of handwritten text, consisting of several lines of cursive script. The text is significantly faded and difficult to decipher, but appears to be a letter or a set of notes.

A small, dark, circular scribble or mark located in the middle-left portion of the page.

Bottom section of the page containing faint handwritten text and possibly a signature or closing, which is mostly illegible.



PHASE TIMING

INTERSECTION: Azusa Ave. at Cypress St.

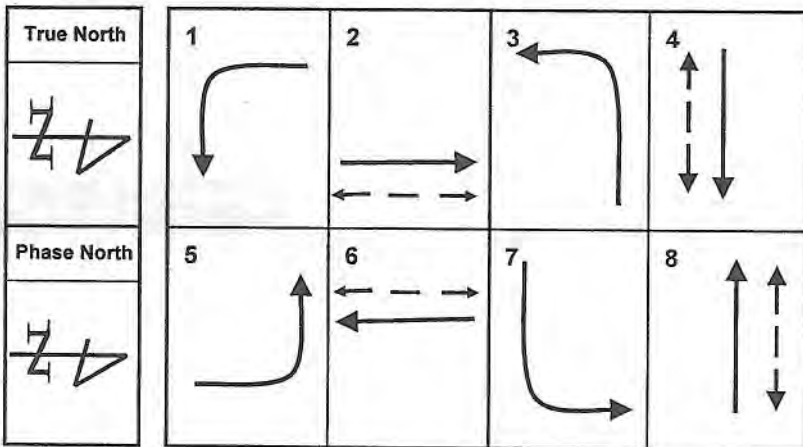
Date Prepared: 11/5/12 By: SMP

T.S. No.: 8349

Date Implemented: 2/12/13 By: JP

Keystroke: 1 + Phase + Interval

| Interval              |   | Phase |      |     |      |     |      |     |      |
|-----------------------|---|-------|------|-----|------|-----|------|-----|------|
|                       |   | 1     | 2    | 3   | 4    | 5   | 6    | 7   | 8    |
| Walk                  | 0 | 0     | 9    | 0   | 7    | 0   | 9    | 0   | 7    |
| Flashing Don't Walk   | 1 | 0     | 15   | 0   | 23   | 0   | 15   | 0   | 22   |
| Minimum Green         | 2 | 4     | 10   | 4   | 6    | 4   | 10   | 4   | 6    |
| Queue Maximum         | 3 | 0     | 0    | 0   | 25   | 0   | 0    | 0   | 25   |
| Added Green/Actuation | 4 | 0.0   | 2.2  | 0.0 | 0.0  | 0.0 | 2.2  | 0.0 | 0.0  |
| Vehicle Extension     | 5 | 1.5   | 4.0  | 1.5 | 4.0  | 1.5 | 4.0  | 1.5 | 4.0  |
| Time Before Reduction | 6 | 0.0   | 15.0 | 0.0 | 15.0 | 0.0 | 15.0 | 0.0 | 15.0 |
| Minimum Gap           | 7 | 1.5   | 3.0  | 1.5 | 3.0  | 1.5 | 3.0  | 1.5 | 3.0  |
| Max Green 1 (Free)    | 8 | 25    | 60   | 25  | 60   | 25  | 60   | 25  | 60   |
| Max Green 2 (Coord.)  | 9 | 25    | 130  | 25  | 60   | 25  | 130  | 25  | 60   |
| Max Added Green       | A | 0     | 25   | 0   | 0    | 0   | 25   | 0   | 0    |
| Unused                | B |       |      |     |      |     |      |     |      |
| Unused                | C |       |      |     |      |     |      |     |      |
| Time to Reduce        | D | 0.0   | 15.0 | 0.0 | 15.0 | 0.0 | 15.0 | 0.0 | 15.0 |
| Yellow Clearance      | E | 3.5   | 4.5  | 3.5 | 4.5  | 3.5 | 4.5  | 3.5 | 4.5  |
| Red Clearance         | F | 1.0   | 1.0  | 1.0 | 0.5  | 1.0 | 1.0  | 1.0 | 0.5  |



| MISCELLANEOUS TIMERS          |          |     |
|-------------------------------|----------|-----|
| Timer                         | Location |     |
| Red Rest Delay Time           | 106      | 0   |
| Green Rest Delay Time         | 107      | 0   |
| Stuck All Red Fail Delay Time | 10E      | 30  |
| Red Revert Time               | 10F      | 2.0 |

Comments:

# LACO - 4E CONFIGURATION

INTERSECTION: Azusa Ave. at Cypress St.

Date Prepared: MS-17-12 By: SMP

T.S. No.: 8349

Date Implemented: 2/12/13 By: rp

| PHASE FUNCTION FLAGS        |   |   |   |   |   |   |   |   |   |
|-----------------------------|---|---|---|---|---|---|---|---|---|
| Keystrokes: 1 + F + row     |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Permitted Phases            | 0 | X | X | X | X | X | X | X | X |
| Red Lock                    | 1 |   |   |   |   |   |   |   |   |
| Red & Yellow Lock           | 2 |   | X |   | X |   | X |   | X |
| Minimum Vehicle Recall      | 3 |   | X |   |   |   | X |   |   |
| Maximum Vehicle Recall      | 4 |   |   |   |   |   |   |   |   |
| Rest In Green               | 5 |   |   |   |   |   |   |   |   |
| Rest in Red                 | 6 |   |   |   |   |   |   |   |   |
| Barrier Recall              | 7 |   |   |   |   |   |   |   |   |
| Double Entry                | 8 |   |   |   |   |   |   |   |   |
| Exclusive Phases            | 9 |   |   |   |   |   |   |   |   |
| Restricted Phases           | A |   |   |   |   |   |   |   |   |
| Prot/Perm Left Turn         | B |   |   |   |   |   |   |   |   |
| Lag Phases (Free)           | C |   | X |   | X |   | X |   | X |
| First Phases After Start-Up | D |   |   |   |   |   |   |   |   |
| Yellow Start-Up Phases      | E |   | X |   |   |   | X |   |   |
| Yellow Start-Up Overlaps    | F | A | B | C | D | E | F |   |   |

| STREET CONFIGURATION FLAGS |   |   |   |   |   |   |   |   |   |
|----------------------------|---|---|---|---|---|---|---|---|---|
| Keystrokes: 1 + E + row    |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Main Street Phases         | 0 | X | X |   |   | X | X |   |   |
| Side Street Phases         | 1 |   |   | X | X |   |   | X | X |
| 2 Ped Load Switch          | 2 |   | X |   |   |   |   |   |   |
| 4 Ped Load Switch          | 3 |   |   |   | X |   |   |   |   |
| 6 Ped Load Switch          | 4 |   |   |   |   |   | X |   |   |
| 8 Ped Load Switch          | 5 |   |   |   |   |   |   |   | X |
| Ped A Load Switch          | 6 |   |   |   |   |   |   |   |   |
| Ped B Load Switch          | 7 |   |   |   |   |   |   |   |   |
| Ped Recall - Rest in Walk  | 8 |   |   |   |   |   |   |   |   |
| STA Mode Phases            | 9 |   |   |   |   |   |   |   |   |
| Unused                     | A |   |   |   |   |   |   |   |   |
| Unused                     | B |   |   |   |   |   |   |   |   |
| Unused                     | C |   |   |   |   |   |   |   |   |
| Driveway Flash             | D |   |   |   |   |   |   |   |   |
| 2 Head Driveway Flash      | E |   |   |   |   |   |   |   |   |
| Overlap Driveway Flash     | F | A | B | C | D | E | F |   |   |

| MISCELLANEOUS FLAGS          |   |   |   |   |   |   |   |   |   |
|------------------------------|---|---|---|---|---|---|---|---|---|
| Keystrokes: 1 + D + row      |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Unused                       | 0 |   |   |   |   |   |   |   |   |
| Assoc. Phase Recall - 1      | 1 |   |   |   |   |   |   |   |   |
| Assoc. Phase Recall - 2      | 2 |   |   |   |   |   |   |   |   |
| Assoc. Phase Recall - 3      | 3 |   |   |   |   |   |   |   |   |
| Assoc. Phase Recall - 4      | 4 |   |   |   |   |   |   |   |   |
| Assoc. Phase Recall - 5      | 5 |   |   |   |   |   |   |   |   |
| Assoc. Phase Recall - 6      | 6 |   |   |   |   |   |   |   |   |
| Assoc. Phase Recall - 7      | 7 |   |   |   |   |   |   |   |   |
| Assoc. Phase Recall - 8      | 8 |   |   |   |   |   |   |   |   |
| Yellow Calling Phases        | 9 |   |   |   |   |   |   |   |   |
| Yellow Phases Called         | A |   |   |   |   |   |   |   |   |
| User Flags (See Options Box) | B |   |   |   |   |   |   |   |   |
| Green Offset Sync Pulse      | C |   |   |   |   |   |   |   |   |
| Yellow Offset Sync Pulse     | D |   |   |   |   |   |   |   |   |
| Yellow Ranging Phase         | E |   |   |   |   |   |   |   |   |
| Yellow Ranging Overlap       | F | A | B | C | D | E | F |   |   |

Controller (Card) IP Address : 10.240.205.54

Subnet Mask IP Address : 255.255.248.0

Default Gateway IP Address : 10.240.200.254

Local/Remote Port Number : 58349

Remote Host (Server) IP Address : 10.12.3.15

| COMMUNICATIONS OPTIONS |     |                   |   |          |   |   |   |   |   |
|------------------------|-----|-------------------|---|----------|---|---|---|---|---|
| Systems ID (1 to 63)   |     | 1                 | 2 | 3        | 4 | 5 | 6 | 7 | 8 |
| Port 1 Mode            | 190 | 9                 |   |          |   |   |   |   |   |
| Port 2 Mode            | 191 | 1                 |   |          |   |   |   |   |   |
| Port 3 Mode            | 192 |                   |   |          |   |   |   |   |   |
| Port 4 Mode            | 193 | 8                 |   |          |   |   |   |   |   |
| Port 1 Mode            | 194 |                   |   |          |   |   |   |   |   |
| Port 1 Baud            | 1C0 |                   |   |          |   |   |   |   | X |
| Port 2 Baud            | 1C1 |                   |   |          |   |   |   |   |   |
| Port 3 Baud            | 1C2 |                   |   | X        |   |   |   |   |   |
| Port 4 Baud            | 1C3 |                   |   |          |   |   |   |   |   |
|                        |     | <b>Baud Rate:</b> |   |          |   |   |   |   |   |
| 1 - 115.2 K            |     | 4 - 19.2 K        |   | 7 - 2400 |   |   |   |   |   |
| 2 - 57.6 K             |     | 5 - 9600          |   | 8 - 1200 |   |   |   |   |   |
| 3 - 38.4 K             |     | 6 - 4800          |   |          |   |   |   |   |   |
| Port 1 Parity          | 1C4 |                   |   |          |   |   |   |   |   |
| Port 2 Parity          | 1C5 |                   |   |          |   |   |   |   |   |
| Port 3 Parity          | 1C6 |                   |   |          |   |   |   |   |   |
| Port 4 Parity          | 1C7 |                   |   |          |   |   |   |   |   |
|                        |     | <b>Parity:</b>    |   |          |   |   |   |   |   |
|                        |     | 0 - No Parity     |   |          |   |   |   |   |   |
|                        |     | 1 - Odd Parity    |   |          |   |   |   |   |   |
|                        |     | 2 - Even Parity   |   |          |   |   |   |   |   |

| MANUAL CONTROL CONFIGURATIONS |          |                                  |    |   |   |   |   |   |   |  |
|-------------------------------|----------|----------------------------------|----|---|---|---|---|---|---|--|
| Option                        | Location | 1                                | 2  | 3 | 4 | 5 | 6 | 7 | 8 |  |
| Omit Phases                   | 3C1      |                                  |    |   |   |   |   |   |   |  |
| Lag Phases                    | 3C2      |                                  | X  |   | X |   | X |   | X |  |
| Recall Type                   | 309      |                                  | 00 |   |   |   |   |   |   |  |
|                               |          | <b>Recall Type Options (309)</b> |    |   |   |   |   |   |   |  |
| 00 = Manual Control Disabled  |          | 02 = Vehicle Recall Only         |    |   |   |   |   |   |   |  |
| 01 = Fully Actuated           |          | 03 = Ped and Vehicle Recall      |    |   |   |   |   |   |   |  |

| User Flag Options (1DB)  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|
| 1 = Enable Mid-Block Ped Crossing Logic.                         |  |  |  |  |  |  |  |  |
| 2 = Modify Main Street Phases at Location (1E0).                 |  |  |  |  |  |  |  |  |
| 3 = Delay RR/EV Clearance Until All Overlaps Finish Terminating. |  |  |  |  |  |  |  |  |
| 4 = Modified Barrier Crossing (Ignore True Max).                 |  |  |  |  |  |  |  |  |
| 5 = Disable Daylight Savings Time Update.                        |  |  |  |  |  |  |  |  |
| 6 = Disable Ped Recycle Logic For STA Mode & Ped Recall Phases.  |  |  |  |  |  |  |  |  |
| 7 = Enable Freeway Off-Ramp Anti-Backup Logic.                   |  |  |  |  |  |  |  |  |
| 8 = Ignore Stuck-All-Red Failure.                                |  |  |  |  |  |  |  |  |

LACO - 4E  
DETECTORS

INTERSECTION: Azusa Ave. at Cypress St.

Date Prepared: JK 5.17.12 By: SMP

T.S. No.: 8349

Date Implemented: 2/12/13 By: JK

| App | Lanes | Description | File/Slot/<br>Channel | Delay |     | Extended Call |     | Phase Flags |   |   |   |   |   |   |   | Attribute Flags |      |     |     |   |   |   |   |   |   |  |
|-----|-------|-------------|-----------------------|-------|-----|---------------|-----|-------------|---|---|---|---|---|---|---|-----------------|------|-----|-----|---|---|---|---|---|---|--|
|     |       |             |                       | Code  | Sec | Code          | Sec | Code        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8               | Code | 1   | 2   | 3 | 4 | 5 | 6 | 7 | 8 |  |
| N   | LT    | 4-6'X6'     | 111U                  | 210   |     | 230           | 2B0 | X           |   |   |   |   |   |   |   |                 |      | 2D0 |     |   |   |   |   |   |   |  |
|     |       |             | 11L                   |       |     |               |     |             |   |   |   |   |   |   |   |                 |      |     |     |   |   |   |   |   |   |  |
| S   | 1     | ADVANCE     | 212U                  | 211   |     | 231           | 2B1 |             | X |   |   |   |   |   |   |                 | 2D1  |     |     |   |   |   |   |   |   |  |
| S   | 2     | ADVANCE     | 212L                  | 212   |     | 232           | 2B2 |             | X |   |   |   |   |   |   |                 | 2D2  |     |     |   |   |   |   |   |   |  |
|     |       |             | I3U                   | 213   |     | 233           | 2B3 |             |   |   |   |   |   |   |   |                 | 2D3  |     |     |   |   |   |   |   |   |  |
|     |       |             | I3L                   | 214   |     | 234           | 2B4 |             |   |   |   |   |   |   |   |                 |      | 2D4 |     |   |   |   |   |   |   |  |
|     |       |             | I4U                   | 215   |     | 235           | 2B5 |             |   |   |   |   |   |   |   |                 |      |     | 2D5 |   |   |   |   |   |   |  |
|     |       |             | I4L                   |       |     |               |     |             |   |   |   |   |   |   |   |                 |      |     |     |   |   |   |   |   |   |  |
| E   | LT    | 4-6' X 6'   | 315U                  | 216   |     | 236           | 2B6 |             |   | X |   |   |   |   |   |                 | 2D6  |     |     |   |   |   |   |   |   |  |
|     |       |             | I5L                   |       |     |               |     |             |   |   |   |   |   |   |   |                 |      |     |     |   |   |   |   |   |   |  |
| W   | 1     | ADVANCE     | 416U                  | 217   |     | 237           | 2B7 |             |   |   | X |   |   |   |   | 2D7             |      |     |     |   |   |   |   |   |   |  |
| W   | 2     | ADVANCE     | 416L                  | 218   |     | 238           | 2B8 |             |   |   | X |   |   |   |   | 2D8             |      |     |     |   |   |   |   |   |   |  |
| W   | 2     | QUEUE       | 417U                  | 219   |     | 239           | 2B9 |             |   |   | X |   |   |   |   | 2D9             |      |     |     |   |   |   | X |   |   |  |
|     |       |             | I7L                   | 21A   |     | 23A           | 2BA |             |   |   |   |   |   |   |   |                 | 2DA  |     |     |   |   |   |   |   |   |  |
| W   | 1     | QUEUE       | 418U                  | 21B   |     | 23B           | 2BB |             |   | X |   |   |   |   |   |                 | 2DB  |     |     |   |   |   |   |   | X |  |
|     |       |             | I8L                   |       |     |               |     |             |   |   |   |   |   |   |   |                 |      |     |     |   |   |   |   |   |   |  |
|     |       |             | I9U                   | 21C   |     | 23C           | 2BC |             |   |   |   |   |   |   |   | 2DC             |      |     |     |   |   |   |   |   |   |  |
|     |       |             | I9L                   | 21D   |     | 23D           | 2BD |             |   |   |   |   |   |   |   | 2DD             |      |     |     |   |   |   |   |   |   |  |

| App | Lanes | Description | File/Slot/<br>Channel | Delay |     | Extended Call |     | Phase Flags |   |   |   |   |   |   |   | Attribute Flags |      |     |     |   |   |   |   |   |   |
|-----|-------|-------------|-----------------------|-------|-----|---------------|-----|-------------|---|---|---|---|---|---|---|-----------------|------|-----|-----|---|---|---|---|---|---|
|     |       |             |                       | Code  | Sec | Code          | Sec | Code        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8               | Code | 1   | 2   | 3 | 4 | 5 | 6 | 7 | 8 |
| S   | LT    | 4-6'X6'     | 5J1U                  | 220   |     | 240           | 2C0 |             |   |   |   |   |   |   | X |                 |      | 2E0 |     |   |   |   |   |   |   |
|     |       |             | J1L                   |       |     |               |     |             |   |   |   |   |   |   |   |                 |      |     |     |   |   |   |   |   |   |
| N   | 1     | ADVANCE     | 6J2U                  | 221   |     | 241           | 2C1 |             |   |   |   |   |   |   | X | 2E1             |      |     |     |   |   |   |   |   |   |
| N   | 2     | ADVANCE     | 6J2L                  | 222   |     | 242           | 2C2 |             |   |   |   |   |   |   | X | 2E2             |      |     |     |   |   |   |   |   |   |
|     |       |             | J3U                   | 223   |     | 243           | 2C3 |             |   |   |   |   |   |   |   | 2E3             |      |     |     |   |   |   |   |   |   |
|     |       |             | J3L                   | 224   |     | 244           | 2C4 |             |   |   |   |   |   |   |   | 2E4             |      |     |     |   |   |   |   |   |   |
|     |       |             | J4U                   | 225   |     | 245           | 2C5 |             |   |   |   |   |   |   |   |                 |      |     | 2E5 |   |   |   |   |   |   |
| J4L |       |             |                       |       |     |               |     |             |   |   |   |   |   |   |   |                 |      |     |     |   |   |   |   |   |   |
| W   | LT    | 4-6' X 6'   | 7J5U                  | 226   |     | 246           | 2C6 |             |   |   |   |   |   |   | X |                 |      | 2E6 |     |   |   |   |   |   |   |
|     |       |             | J5L                   |       |     |               |     |             |   |   |   |   |   |   |   |                 |      |     |     |   |   |   |   |   |   |
| E   | 1     | ADVANCE     | 8J6U                  | 227   |     | 247           | 2C7 |             |   |   |   |   |   |   | X | 2E7             |      |     |     |   |   |   |   |   |   |
| E   | 2     | ADVANCE     | 8J6L                  | 228   |     | 248           | 2C8 |             |   |   |   |   |   |   | X | 2E8             |      |     |     |   |   |   |   |   |   |
| E   | 2     | QUEUE       | 8J7U                  | 229   |     | 249           | 2C9 |             |   |   |   |   |   |   | X | 2E9             |      |     |     |   |   |   | X |   |   |
|     |       |             | J7L                   | 22A   |     | 24A           | 2CA |             |   |   |   |   |   |   |   | 2EA             |      |     |     |   |   |   |   |   |   |
| E   | 1     | QUEUE       | 8J8U                  | 22B   |     | 24B           | 2CB |             |   |   |   |   |   |   | X |                 |      | 2EB |     |   |   |   |   |   | X |
|     |       |             | J8L                   |       |     |               |     |             |   |   |   |   |   |   |   |                 |      |     |     |   |   |   |   |   |   |
|     |       |             | J9U                   | 22C   |     | 24C           | 2CC |             |   |   |   |   |   |   |   |                 |      |     |     |   |   |   |   |   |   |
|     |       |             | J9L                   | 22D   |     | 24D           | 2CD |             |   |   |   |   |   |   |   |                 |      |     |     |   |   |   |   |   |   |

Comments:

| DETECTOR ATTRIBUTES        |     |
|----------------------------|-----|
| Flag 1 - Non-Calling       | Fla |
| Flag 2 - Red & Yellow Lock | Fl  |
| Flag 3 - Yellow Disconnect | F   |
| Flag 4 - Red Calling Only  | T   |

Note: Shaded Phase Flags call by default.

**SPECIAL DETECTOR DELAY ASSIGNMENTS**

All Options: Delay Timer resets during detector phase yellow.

Special Delay Option 1 (Attribute Bit 7) - Bypasses delay while flagged phases are timing.

Special Delay Option 2 (Attribute Bit 8) - Bypasses delay while flagged phases are timing.



**LACO - 4E**  
**SYSTEM DETECTORS**

INTERSECTION: Azusa Ave. at Cypress St.

Date Prepared: JK 5-17-12 By: SMP

T.S. No.: 8349

Date Implemented: 2/12/13 By: [Signature]

| Parameter                        | Location | Data | Units      |
|----------------------------------|----------|------|------------|
| Stuck ON Threshold <sup>1</sup>  | 21F      | 30   | Minutes    |
| Stuck OFF Threshold <sup>1</sup> | 22F      | 120  | Minutes    |
| Chatter Threshold <sup>1</sup>   | 23F      | 50   | Actuations |
| Period <sup>2</sup>              | 24F      | 60   | Seconds    |

1 - Set Data to "0" to disable Error Checking

2 - Default = 60 seconds

| Approach | Lanes | Description | System Detector | C1 Pin | File/Slot/Channel |
|----------|-------|-------------|-----------------|--------|-------------------|
|          |       |             | Det 1           | 39     | I2U               |
|          |       |             | Det 2           | 40     | J2U               |
|          |       |             | Det 3           | 41     | I6U               |
|          |       |             | Det 4           | 42     | J6U               |
|          |       |             | Det 5           | 43     | I2L               |
|          |       |             | Det 6           | 44     | J2L               |
|          |       |             | Det 7           | 45     | I6L               |
|          |       |             | Det 8           | 46     | J6L               |
|          |       |             | Det 9           | 47     | I4U/L             |
|          |       |             | Det 10          | 48     | J4U/L             |
|          |       |             | Det 11          | 49     | I8U/L             |
|          |       |             | Det 12          | 50     | J8U/L             |
|          |       |             | Det 13          | 55     | I1U/L             |
|          |       |             | Det 14          | 56     | J1U/L             |
|          |       |             | Det 15          | 57     | I5U/L             |
|          |       |             | Det 16          | 58     | J5U/L             |
|          |       |             | Det 17          | 59     | I9U               |
|          |       |             | Det 18          | 60     | I9U               |
|          |       |             | Det 19          | 61     | J9L               |
|          |       |             | Det 20          | 62     | I9L               |
|          |       |             | Det 21          | 63     | I3U               |
|          |       |             | Det 22          | 64     | J3U               |
|          |       |             | Det 23          | 65     | I7U               |
|          |       |             | Det 24          | 66     | J7U               |
|          |       |             | Det 25          | 76     | I3L               |
|          |       |             | Det 26          | 77     | J3L               |
|          |       |             | Det 27          | 78     | I7L               |
|          |       |             | Det 28          | 79     | J7L               |

**Memory Locations of Interest**  
 (Press "8" key first)

1503 - Set to non-zero value to reset all System Detector Logic.  
 150F - Collection Period Timer  
 15FF - Data Collection Sequence Counter

LACO - 4E  
 OVERLAPS

INTERSECTION: Azusa Ave. at Cypress St.

Date Prepared: 11/5/12 By: SMP

T.S. No.: 8349

Date Implemented: 9/12/13 By: JP

| OVERLAP A               |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------------|---|---|---|---|---|---|---|---|---|
| Keystrokes: 3 + row + A |   |   |   |   |   |   |   |   |   |
| Normal Parents          | A |   |   |   |   |   |   |   |   |
| Green Omit Parents      | B |   |   |   |   |   |   |   |   |
| RR Preempt Parents      | C |   |   |   |   |   |   |   |   |
| EV Preempt Parents      | D |   |   |   |   |   |   |   |   |
| Load Switch Assignment  | 0 |   |   |   |   |   |   |   |   |
| Delay Time              | 1 |   |   |   |   |   |   |   |   |
| Green Extension Time    | 2 |   |   |   |   |   |   |   |   |
| Yellow Clearance Time   | 3 |   |   |   |   |   |   |   |   |
| Red Clearance Time      | 4 |   |   |   |   |   |   |   |   |

| OVERLAP B               |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------------|---|---|---|---|---|---|---|---|---|
| Keystrokes: 3 + row + B |   |   |   |   |   |   |   |   |   |
| Normal Parents          | A |   |   |   |   |   |   |   |   |
| Green Omit Parents      | B |   |   |   |   |   |   |   |   |
| RR Preempt Parents      | C |   |   |   |   |   |   |   |   |
| EV Preempt Parents      | D |   |   |   |   |   |   |   |   |
| Load Switch Assignment  | 0 |   |   |   |   |   |   |   |   |
| Delay Time              | 1 |   |   |   |   |   |   |   |   |
| Green Extension Time    | 2 |   |   |   |   |   |   |   |   |
| Yellow Clearance Time   | 3 |   |   |   |   |   |   |   |   |
| Red Clearance Time      | 4 |   |   |   |   |   |   |   |   |

| OVERLAP C               |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------------|---|---|---|---|---|---|---|---|---|
| Keystrokes: 3 + row + C |   |   |   |   |   |   |   |   |   |
| Normal Parents          | A |   |   |   |   |   |   |   |   |
| Green Omit Parents      | B |   |   |   |   |   |   |   |   |
| RR Preempt Parents      | C |   |   |   |   |   |   |   |   |
| EV Preempt Parents      | D |   |   |   |   |   |   |   |   |
| Load Switch Assignment  | 0 |   |   |   |   |   |   |   |   |
| Delay Time              | 1 |   |   |   |   |   |   |   |   |
| Green Extension Time    | 2 |   |   |   |   |   |   |   |   |
| Yellow Clearance Time   | 3 |   |   |   |   |   |   |   |   |
| Red Clearance Time      | 4 |   |   |   |   |   |   |   |   |

| OVERLAP D               |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------------|---|---|---|---|---|---|---|---|---|
| Keystrokes: 3 + row + D |   |   |   |   |   |   |   |   |   |
| Normal Parents          | A |   |   |   |   |   |   |   |   |
| Green Omit Parents      | B |   |   |   |   |   |   |   |   |
| RR Preempt Parents      | C |   |   |   |   |   |   |   |   |
| EV Preempt Parents      | D |   |   |   |   |   |   |   |   |
| Load Switch Assignment  | 0 |   |   |   |   |   |   |   |   |
| Delay Time              | 1 |   |   |   |   |   |   |   |   |
| Green Extension Time    | 2 |   |   |   |   |   |   |   |   |
| Yellow Clearance Time   | 3 |   |   |   |   |   |   |   |   |
| Red Clearance Time      | 4 |   |   |   |   |   |   |   |   |

| OVERLAP E               |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------------|---|---|---|---|---|---|---|---|---|
| Keystrokes: 3 + row + E |   |   |   |   |   |   |   |   |   |
| Normal Parents          | A |   |   |   |   |   |   |   |   |
| Green Omit Parents      | B |   |   |   |   |   |   |   |   |
| RR Preempt Parents      | C |   |   |   |   |   |   |   |   |
| EV Preempt Parents      | D |   |   |   |   |   |   |   |   |
| Load Switch Assignment  | 0 |   |   |   |   |   |   |   |   |
| Delay Time              | 1 |   |   |   |   |   |   |   |   |
| Green Extension Time    | 2 |   |   |   |   |   |   |   |   |
| Yellow Clearance Time   | 3 |   |   |   |   |   |   |   |   |
| Red Clearance Time      | 4 |   |   |   |   |   |   |   |   |

| OVERLAP F               |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------------|---|---|---|---|---|---|---|---|---|
| Keystrokes: 3 + row + F |   |   |   |   |   |   |   |   |   |
| Normal Parents          | A |   |   |   |   |   |   |   |   |
| Green Omit Parents      | B |   |   |   |   |   |   |   |   |
| RR Preempt Parents      | C |   |   |   |   |   |   |   |   |
| EV Preempt Parents      | D |   |   |   |   |   |   |   |   |
| Load Switch Assignment  | 0 |   |   |   |   |   |   |   |   |
| Delay Time              | 1 |   |   |   |   |   |   |   |   |
| Green Extension Time    | 2 |   |   |   |   |   |   |   |   |
| Yellow Clearance Time   | 3 |   |   |   |   |   |   |   |   |
| Red Clearance Time      | 4 |   |   |   |   |   |   |   |   |

Comments:

INTERSECTION: Azusa Ave. at Cypress St.

Date Prepared: NS-17-12 By: SMB

T.S. No.: 8349

Date Implemented: 2/12/13 By: nt

| RAILROAD CONFIGURATION                      |     |
|---|-----|
| Railroad Select (1, 2 or 3)                 | 360 |
| All Red Time After Railroad Flash           | 361 |
| Railroad Track Clearance Time               | 362 |
| Limited Service Max Time                    | 363 |
| Railroad Link to EV (See EV Setup Note # 5) | 364 |
| Free Time After Preemption                  | 365 |
| Free Time After Preemption (Timer)          | 366 |
| Max Timer (Minutes)                         | 367 |
| Max Timer (Seconds)                         | 368 |

Observation Only

| RAILROAD PHASES   |     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|-----|---|---|---|---|---|---|---|---|
| Track Clearance   | 3A0 |   |   |   |   |   |   |   |   |
| Railroad Exit     | 3A1 |   |   |   |   |   |   |   |   |
| Railroad Ped Only | 3A2 |   |   |   |   |   |   |   |   |
| Limited Service   | 3A3 |   |   |   |   |   |   |   |   |

Comments:

| EV CONFIGURATION                  |     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-----------------------------------|-----|---|---|---|---|---|---|---|---|
| EV Flags (See Notes to the Right) | 390 |   |   |   |   |   |   |   |   |
| EV-A Clearance Phases             | 391 |   |   |   |   |   |   |   |   |
| EV-B Clearance Phases             | 392 |   |   |   |   |   |   |   |   |
| EV-C Clearance Phases             | 393 |   |   |   |   |   |   |   |   |
| EV-D Clearance Phases             | 394 |   |   | X |   |   |   |   | X |

**EV FLAGS**

- 1 = Not Used
- 2 = Not Used
- 3 = Not Used
- 4 = Not Used
- 5 = EV-A Truncates Ped Flashing Don't Walk Interval
- 6 = EV-B Truncates Ped Flashing Don't Walk Interval
- 7 = EV-C Truncates Ped Flashing Don't Walk Interval
- 8 = EV-D Truncates Ped Flashing Don't Walk Interval

| EV-A SETUP     |     |
|----------------|-----|
| Delay (1)      | 310 |
| Active (2)     | 311 |
| Clearance (3)  | 312 |
| Maximum (4)    | 313 |
| Link to EV (5) | 314 |
| Minimum (6)    | 315 |

| EV-B SETUP     |     |
|----------------|-----|
| Delay (1)      | 320 |
| Active (2)     | 321 |
| Clearance (3)  | 322 |
| Maximum (4)    | 323 |
| Link to EV (5) | 324 |
| Minimum (6)    | 325 |

**EV SETUP NOTES**

- (1). The length of time before the controller responds to EV input. HOLD, CALL, ALLOW & Coordination Functions are not affected during this time.
- (2). The length of time that HOLD & CALL are set. Coordination functions are suspended during this time.
- (3). The length of Green Clearance time. HOLD, CALL & FORCE OFF are set by preemption logic during this time.
- (4). The maximum time (in seconds) that the preempt will remain in control of the intersection.
- (5). Causes the selected EV to time after the current EV times out.
- (6). Minimum time (in seconds) allowed from the end of one EV until the start of another EV.

| EV-C SETUP     |     |
|----------------|-----|
| Delay (1)      | 330 |
| Active (2)     | 331 |
| Clearance (3)  | 332 |
| Maximum (4)    | 333 |
| Link to EV (5) | 334 |
| Minimum (6)    | 335 |

| EV-D SETUP     |     |    |
|----------------|-----|----|
| Delay (1)      | 340 | 2  |
| Active (2)     | 341 | 0  |
| Clearance (3)  | 342 | 50 |
| Maximum (4)    | 343 | 60 |
| Link to EV (5) | 344 | 0  |
| Minimum (6)    | 345 | 0  |

| AUX 3 YELLOW OUTPUT CONTROL<br>(Keystrokes: 3 + C + 0) |                     |
|--|---------------------|
| 1  | Railroad A          |
| 2  | Railroad B          |
| 3  | Emergency Vehicle A |
| 4  | Emergency Vehicle B |
| 5  | Emergency Vehicle C |
| 6  | Emergency Vehicle D |
| 7  | Manual Control      |
| 8  | Unused              |

INTERSECTION: Azusa Ave. at Cypress St.

Date Prepared: JK 5.17.12 By: SMP

T.S. No.: 8349

Date Implemented: 2/18/13 By: 1P

**NOTE: All data is located in the Extended Memory and must be accessed with "8" followed by the 4 digit address.**

| BUS PRIORITY CONTROL |      |
|----------------------|------|
| Manual Control       | 1E00 |
| Primary Address      | 1E01 |
| Secondary Address    | 1E02 |
| City Code            | 1E03 |
| Hardwired ETA        | 1E04 |
| Trip Point           | 1E05 |

**Manual Control (1E00) Options**

- 0 = Auto
- 1 = Logic OFF
- 2 = Logic ON / No Communications
- 4 = Headway / No Communications
- 7 = Hardwire
- 14 = BSP OFF

| BUS PHASES |      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------------|------|---|---|---|---|---|---|---|---|
| Priority   | 1E08 |   |   |   |   |   |   |   |   |
| Demand     | 1E09 |   |   |   |   |   |   |   |   |
| Northbound | 1E0A |   |   |   |   |   |   |   |   |
| Southbound | 1E0B |   |   |   |   |   |   |   |   |
| Eastbound  | 1E0C |   |   |   |   |   |   |   |   |
| Westbound  | 1E0D |   |   |   |   |   |   |   |   |

| BSP OVERRIDE TABLE |            |     |   |   |   |   |   |   |   |
|--------------------|------------|-----|---|---|---|---|---|---|---|
|                    | Hour : Min | Dir | S | M | T | W | T | F | S |
| 0                  | :          |     |   |   |   |   |   |   |   |
| 1                  | :          |     |   |   |   |   |   |   |   |
| 2                  | :          |     |   |   |   |   |   |   |   |
| 3                  | :          |     |   |   |   |   |   |   |   |
| 4                  | :          |     |   |   |   |   |   |   |   |
| 5                  | :          |     |   |   |   |   |   |   |   |
| 6                  | :          |     |   |   |   |   |   |   |   |
| 7                  | :          |     |   |   |   |   |   |   |   |
| 8                  | :          |     |   |   |   |   |   |   |   |
| 9                  | :          |     |   |   |   |   |   |   |   |
| A                  | :          |     |   |   |   |   |   |   |   |
| B                  | :          |     |   |   |   |   |   |   |   |
| C                  | :          |     |   |   |   |   |   |   |   |
| D                  | :          |     |   |   |   |   |   |   |   |
| E                  | :          |     |   |   |   |   |   |   |   |
| F                  | :          |     |   |   |   |   |   |   |   |

**Data Entry for BSP Override Table**

1. "9" + "9" sets the controller to Table Entry mode pointing to the BSP Override Table, Event 0.
2. Press "A" or "D" key to move to desired Event.
3. Enter 4 digit Time of Day.
4. Enter one digit Directional Override.  
 1 = N    3 = N+S    A = S+W    D = N+S+W  
 2 = S    5 = N+E    C = E+W    E = S+E+W  
 4 = E    6 = S+E    7 = N+S+E    F = ALL  
 8 = W    9 = N+W    B = N+E+W  
 Then press "E" to select the Days of Week.
5. Select Day(s) of Week.
6. Press "A" or "D" to move to next Event.
7. Repeat steps 3 through 6 for each event.
8. Press "F" key to finish.

Comments:

LACO - 4E  
ZIP COORDINATION

INTERSECTION: Azusa Ave. at Cypress St.

Date Prepared: JK 5-17-12 By: SMP

T.S. No.: 8349

Date Implemented: 2/12/13 By: rf

KEYSTROKE: 4 + Plan # + Parameter

| TIME OF DAY OPERATIONS SUMMARY |  |        |  |        |  |
|--------------------------------|--|--------|--|--------|--|
| PLAN 1                         |  | PLAN 4 |  | PLAN 7 |  |
| PLAN 2                         |  | PLAN 5 |  | PLAN 8 |  |
| PLAN 3                         |  | PLAN 6 |  | PLAN 9 |  |
| FREE                           |  |        |  |        |  |

| OFFSET TIMES |          |        |
|--------------|----------|--------|
| PLAN         | Location | Offset |
| 1            | 7-A-1    |        |
| 2            | 7-A-2    |        |
| 3            | 7-A-3    |        |
| 4            | 7-A-4    |        |
| 5            | 7-A-5    |        |
| 6            | 7-A-6    |        |
| 7            | 7-A-7    |        |
| 8            | 7-A-8    |        |
| 9            | 7-A-9    |        |

| Midnight Sync Pulse |      |    |       |        |    |
|---------------------|------|----|-------|--------|----|
| 7-A-B               | Hour | 00 | 7-A-C | Minute | 00 |

|                            |       |     |
|----------------------------|-------|-----|
| ** ZIP Coordination Enable | 7-A-D | 000 |
|----------------------------|-------|-----|

\*\* Set to "000" to DISABLE Zip Coordination

Observation Only Location

|                  | Parameters        |   | Plan 1 | Plan 2 | Plan 3 | Plan 4 | Plan 5 | Plan 6 | Plan 7 | Plan 8 | Plan 9 |
|------------------|-------------------|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0                |                   |   | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      |
| System Manual    | Cycle Length      | 0 |        |        |        |        |        |        |        |        |        |
| Local Manual     | Force Off Phase 1 | 1 |        |        |        |        |        |        |        |        |        |
| Master Plan      | Force Off Phase 2 | 2 |        |        |        |        |        |        |        |        |        |
| Local Plan       | Force Off Phase 3 | 3 |        |        |        |        |        |        |        |        |        |
| TMC Override     | Force Off Phase 4 | 4 |        |        |        |        |        |        |        |        |        |
| Time Of Day Plan | Force Off Phase 5 | 5 |        |        |        |        |        |        |        |        |        |
| Special Function | Force Off Phase 6 | 6 |        |        |        |        |        |        |        |        |        |
| Current Table    | Force Off Phase 7 | 7 |        |        |        |        |        |        |        |        |        |
| Min Cycle Length | Force Off Phase 8 | 8 |        |        |        |        |        |        |        |        |        |
| Max Cycle Length | Hold Release      | 9 |        |        |        |        |        |        |        |        |        |

|                     |           |
|---------------------|-----------|
| Master Cycle Timer  | COMMENTS: |
| Local Cycle Timer   |           |
| New Offset          |           |
| Current Offset Time |           |
| Last Master Cycle   |           |
| Last Local Cycle    |           |



**LACO - 4E**  
**COORDINATION 2**

INTERSECTION: Azusa Ave. at Cypress St.

Date Prepared: 11/5/12 By: SMP

T.S. No.: 8349

Date Implemented: 2/12/13 By: Y

**KEYSTROKE: 5 + column + row**

|   | INTERVALS<br>(In Seconds) |        |        | COORDINATION FUNCTION FLAGS |      |              |      |           |      |              |      |           |      |              |      |
|---|---------------------------|--------|--------|-----------------------------|------|--------------|------|-----------|------|--------------|------|-----------|------|--------------|------|
|   |                           |        |        | PLAN 4                      |      |              |      | PLAN 5    |      |              |      | PLAN 6    |      |              |      |
|   | Plan 4                    | Plan 5 | Plan 6 | Force Off                   | Hold | Ped Restrict | Call | Force Off | Hold | Ped Restrict | Call | Force Off | Hold | Ped Restrict | Call |
|   | 1                         | 2      | 3      | 4                           | 5    | 6            | 7    | 8         | 9    | A            | B    | C         | D    | E            | F    |
| 0 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 1 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 2 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 3 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 4 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 5 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 6 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 7 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 8 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 9 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| A |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| B |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| C |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| D |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| E |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| F |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |

COMMENTS:

**LACO - 4E**  
**COORDINATION 3**

INTERSECTION: Azusa Ave. at Cypress St.

Date Prepared: AK 5.17.12 By: SMK

T.S. No.: 8349

Date Implemented: 02/12/13 By: 17

**KEYSTROKE: 6 + column + row**

| X | INTERVALS<br>(In Seconds) |        |        | COORDINATION FUNCTION FLAGS |      |              |      |           |      |              |      |           |      |              |      |
|---|---------------------------|--------|--------|-----------------------------|------|--------------|------|-----------|------|--------------|------|-----------|------|--------------|------|
|   |                           |        |        | PLAN 7                      |      |              |      | PLAN 8    |      |              |      | PLAN 9    |      |              |      |
|   | Plan 7                    | Plan 8 | Plan 9 | Force Off                   | Hold | Ped Restrict | Call | Force Off | Hold | Ped Restrict | Call | Force Off | Hold | Ped Restrict | Call |
| X | 1                         | 2      | 3      | 4                           | 5    | 6            | 7    | 8         | 9    | A            | B    | C         | D    | E            | F    |
| 0 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 1 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 2 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 3 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 4 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 5 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 6 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 7 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 8 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| 9 |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| A |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| B |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| C |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| D |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| E |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |
| F |                           |        |        |                             |      |              |      |           |      |              |      |           |      |              |      |

COMMENTS:



# LACO - 4E

## COORDINATION ATTRIBUTES

INTERSECTION: Azusa Ave. at Cypress St.

Date Prepared: AK 5.17.12 By: SMJ

T.S. No.: 8349

Date Implemented: 9/12/13 By: AP

**KEYSTROKE: 7 + Plan Number + Attribute**

| COORDINATION PHASE ATTRIBUTES (Plans 1 through 9) |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
|---|---|--------|---|---|---|---|---|---|---|--------|---|---|---|---|---|---|---|--------|---|---|---|---|---|---|---|
| ATTRIBUTES  |   | PLAN 1 |   |   |   |   |   |   |   | PLAN 2 |   |   |   |   |   |   |   | PLAN 3 |   |   |   |   |   |   |   |
|   |   | 1      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1      | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Coordination Lag Phases                           | 0 |        | x |   | x |   | x |   | x |        | x |   | x |   | x |   | x |        | x |   | x |   | x |   | x |
| Minimum Vehicle Recall Phases                     | 1 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Pedestrian Recall Phases                          | 2 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Maximum Vehicle Recall Phases                     | 3 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Barrier Recall Phases                             | 4 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Green Calling Phases                              | 5 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Green "Call To" Phases                            | 6 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
|   | 7 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Phases to use Max 1                               | 8 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Red Rest Phases                                   | 9 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Omitted Phases                                    | A |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Phases to Omit System Detectors                   | B |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| STA Mode Phases                                   | C |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
|   | D |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
|   | E |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
|   | F |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| COORDINATION PHASE ATTRIBUTES (Plans 1 through 9) |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| ATTRIBUTES  |   | PLAN 4 |   |   |   |   |   |   |   | PLAN 5 |   |   |   |   |   |   |   | PLAN 6 |   |   |   |   |   |   |   |
|   |   | 1      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1      | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Coordination Lag Phases                           | 0 |        | x |   | x |   | x |   | x |        | x |   | x |   | x |   | x |        | x |   | x |   | x |   | x |
| Minimum Vehicle Recall Phases                     | 1 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Pedestrian Recall Phases                          | 2 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Maximum Vehicle Recall Phases                     | 3 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Barrier Recall Phases                             | 4 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Green Calling Phases                              | 5 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Green "Call To" Phases                            | 6 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
|   | 7 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Phases to use Max 1                               | 8 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Red Rest Phases                                   | 9 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Omitted Phases                                    | A |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Phases to Omit System Detectors                   | B |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| STA Mode Phases                                   | C |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
|   | D |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
|   | E |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
|   | F |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| COORDINATION PHASE ATTRIBUTES (Plans 1 through 9) |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| ATTRIBUTES  |   | PLAN 7 |   |   |   |   |   |   |   | PLAN 8 |   |   |   |   |   |   |   | PLAN 9 |   |   |   |   |   |   |   |
|   |   | 1      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1      | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Coordination Lag Phases                           | 0 |        | x |   | x |   | x |   | x |        | x |   | x |   | x |   | x |        | x |   | x |   | x |   | x |
| Minimum Vehicle Recall Phases                     | 1 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Pedestrian Recall Phases                          | 2 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Maximum Vehicle Recall Phases                     | 3 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Barrier Recall Phases                             | 4 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Green Calling Phases                              | 5 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Green "Call To" Phases                            | 6 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
|   | 7 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Phases to use Max 1                               | 8 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Red Rest Phases                                   | 9 |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Omitted Phases                                    | A |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| Phases to Omit System Detectors                   | B |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
| STA Mode Phases                                   | C |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
|   | D |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
|   | E |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |
|   | F |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |



**LACO - 4E**  
**PROGRAMMABLE LOGIC**

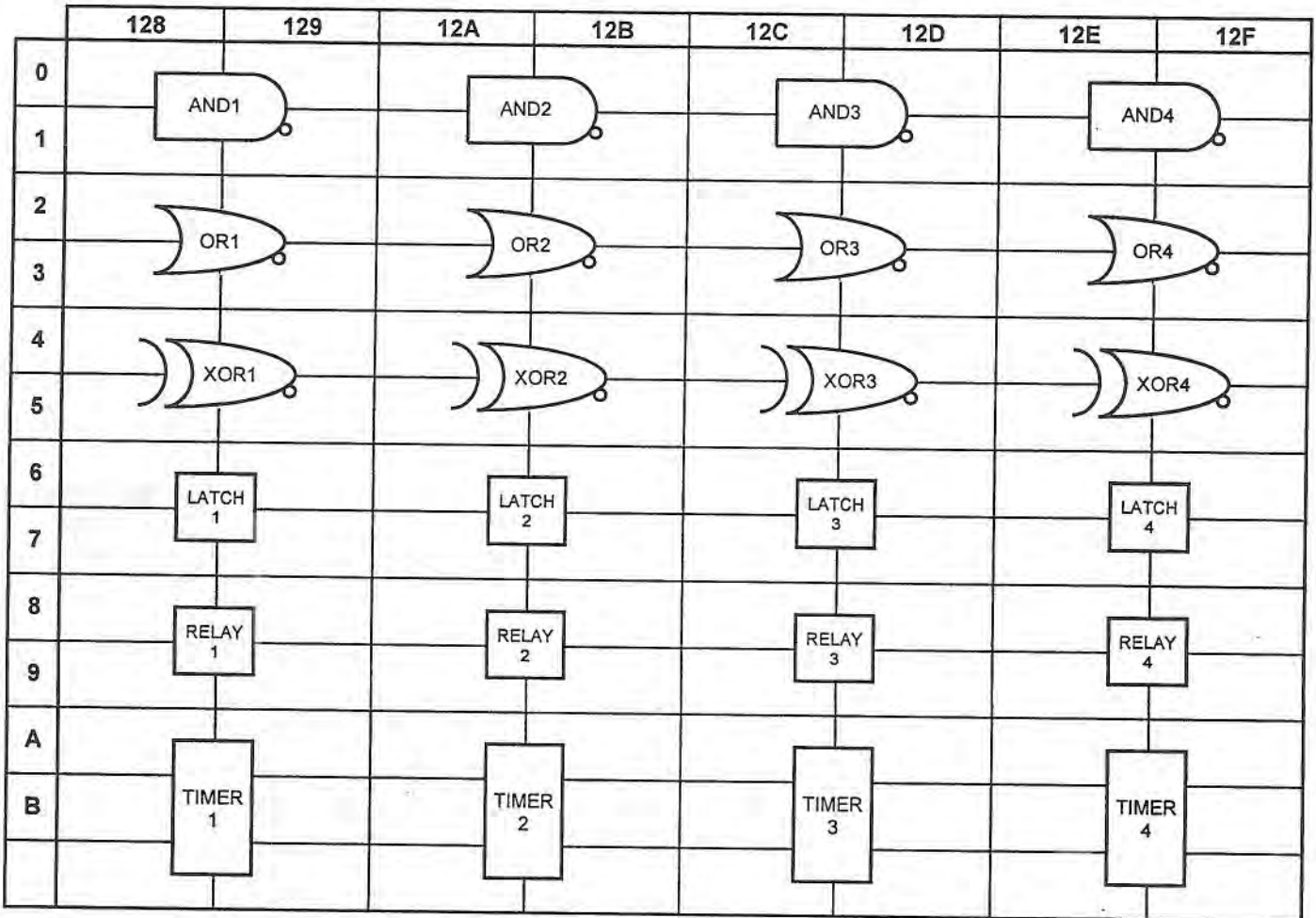
INTERSECTION: Azusa Ave. at Cypress St.

Date Prepared: JK 5-17-12 By: SMF

T.S. No.: 8349

Date Implemented: 2/12/13 By: NY

**KEYSTROKE: 8 + column + row**



Comments: