## SIGNAL PHASE DIAGRAM

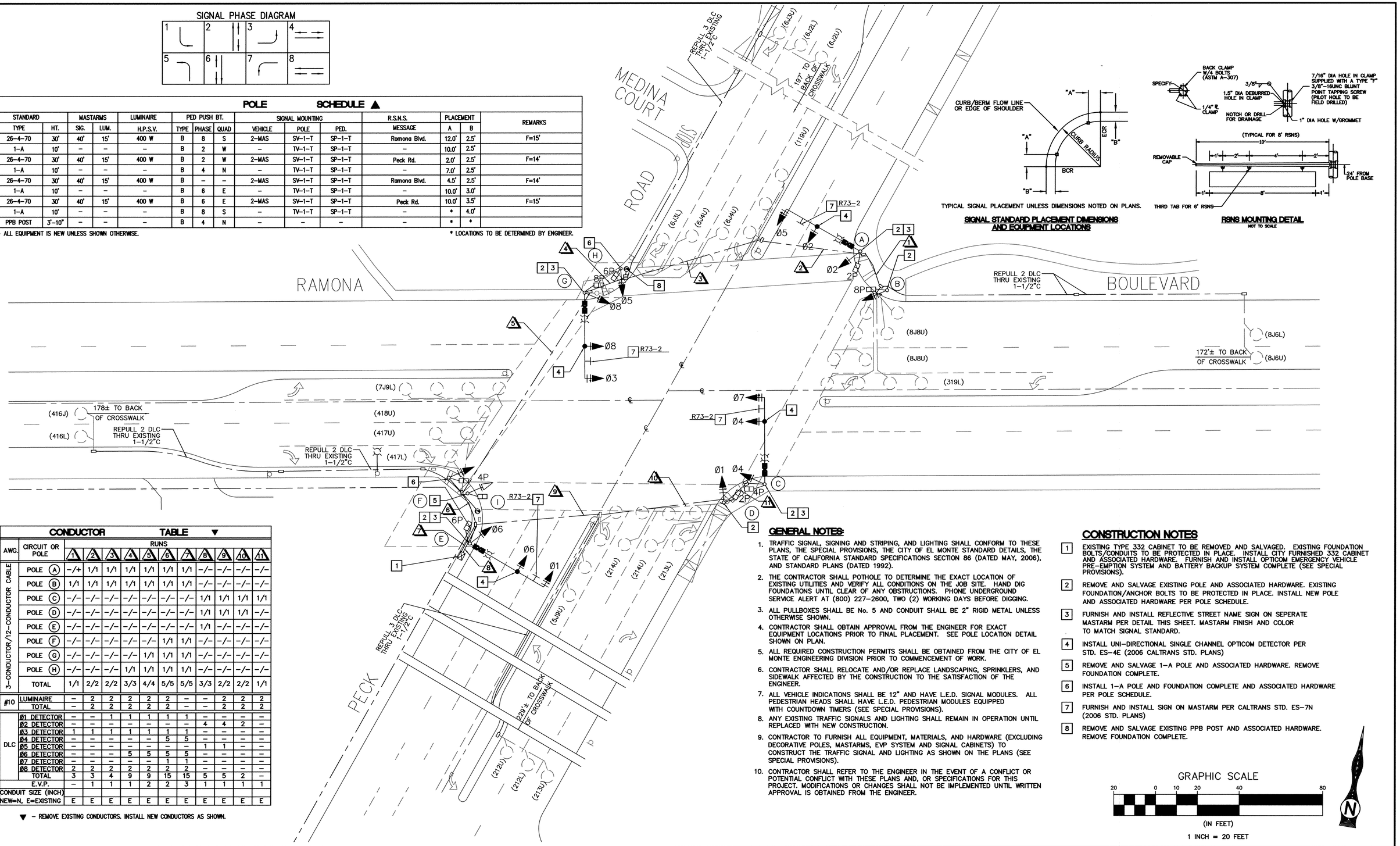



## POLE SCHEDULE ▲

| LOC | STANDARD TYPE | STANDARD HT. | MASTARMS SIG. | MASTARMS LUM. | LUMINAIRE H.P.S.V. | PED PUSH BT. TYPE | PED PUSH BT. PHASE | PED PUSH BT. QUAD | SIGNAL MOUNTING VEHICLE | SIGNAL MOUNTING POLE | SIGNAL MOUNTING PED. | R.S.N.S. MESSAGE | PLACEMENT A | PLACEMENT B | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 26-4-70 | 30' | 40' | 15' | 400 W | B | 8 | S | 2-MAS | SV-1-T | SP-1-T | Ramona Blvd. | 12.0' | 2.5' | F=15' |
| B | 1-A | 10' | – | – | – | B | 2 | W | – | TV-1-T | SP-1-T | – | 10.0' | 2.5' | |
| C | 26-4-70 | 30' | 40' | 15' | 400 W | B | 2 | W | 2-MAS | SV-1-T | SP-1-T | Peck Rd. | 2.0' | 2.5' | F=14' |
| D | 1-A | 10' | – | – | – | B | 4 | N | – | TV-1-T | SP-1-T | – | 7.0' | 2.5' | |
| E | 26-4-70 | 30' | 40' | 15' | 400 W | B | – | – | 2-MAS | SV-1-T | SP-1-T | Ramona Blvd. | 4.5' | 2.5' | F=14' |
| F | 1-A | 10' | – | – | – | B | 6 | E | – | TV-1-T | SP-1-T | – | 10.0' | 3.0' | |
| G | 26-4-70 | 30' | 40' | 15' | 400 W | B | 6 | E | 2-MAS | SV-1-T | SP-1-T | Peck Rd. | 10.0' | 3.5' | F=15' |
| H | 1-A | 10' | – | – | – | B | 8 | S | – | TV-1-T | SP-1-T | – | * | 4.0' | |
| I | PPB POST | 3'-10" | – | – | – | B | 4 | N | – | – | – | – | * | * | |

▲ – ALL EQUIPMENT IS NEW UNLESS SHOWN OTHERWISE.

* LOCATIONS TO BE DETERMINED BY ENGINEER.







TYPICAL SIGNAL PLACEMENT UNLESS DIMENSIONS NOTED ON PLANS.

**SIGNAL STANDARD PLACEMENT DIMENSIONS AND EQUIPMENT LOCATIONS**




**RSNS MOUNTING DETAIL**
NOT TO SCALE

## CONDUCTOR TABLE ▼

| AWG. | CIRCUIT OR POLE | RUNS 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3-CONDUCTOR/12-CONDUCTOR CABLE | POLE A | –/+ | 1/1 | 1/1 | 1/1 | 1/1 | 1/1 | 1/1 | –/– | –/– | –/– | –/– |
| | POLE B | 1/1 | 1/1 | 1/1 | 1/1 | 1/1 | 1/1 | 1/1 | –/– | –/– | –/– | –/– |
| | POLE C | –/– | –/– | –/– | –/– | –/– | –/– | –/– | 1/1 | 1/1 | 1/1 | 1/1 |
| | POLE D | –/– | –/– | –/– | –/– | –/– | –/– | –/– | 1/1 | 1/1 | 1/1 | –/– |
| | POLE E | –/– | –/– | –/– | –/– | –/– | –/– | –/– | 1/1 | –/– | –/– | –/– |
| | POLE F | –/– | –/– | –/– | –/– | –/– | 1/1 | 1/1 | –/– | –/– | –/– | –/– |
| | POLE G | –/– | –/– | –/– | –/– | 1/1 | 1/1 | 1/1 | –/– | –/– | –/– | –/– |
| | POLE H | –/– | –/– | –/– | 1/1 | 1/1 | 1/1 | 1/1 | –/– | –/– | –/– | –/– |
| | TOTAL | 1/1 | 2/2 | 2/2 | 3/3 | 4/4 | 5/5 | 5/5 | 3/3 | 2/2 | 2/2 | 1/1 |
| #10 | LUMINAIRE | – | 2 | 2 | 2 | 2 | 2 | – | – | 2 | 2 | 2 |
| | TOTAL | – | 2 | 2 | 2 | 2 | 2 | – | – | 2 | 2 | 2 |
| DLC | Ø1 DETECTOR | – | – | 1 | 1 | 1 | 1 | 1 | – | – | – | – |
| | Ø2 DETECTOR | – | – | – | – | – | – | – | 4 | 4 | 2 | – |
| | Ø3 DETECTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | – | – | – | – |
| | Ø4 DETECTOR | – | – | – | – | – | 5 | 5 | – | – | – | – |
| | Ø5 DETECTOR | – | – | – | – | – | – | – | 1 | 1 | – | – |
| | Ø6 DETECTOR | – | – | – | 5 | 5 | 5 | 5 | – | – | – | – |
| | Ø7 DETECTOR | – | – | – | – | – | 1 | 1 | – | – | – | – |
| | Ø8 DETECTOR | 2 | 2 | 2 | 2 | 2 | 2 | 2 | – | – | – | – |
| | TOTAL | 3 | 3 | 4 | 9 | 9 | 15 | 15 | 5 | 5 | 2 | – |
| | E.V.P. | – | 1 | 1 | 1 | 2 | 2 | 3 | 1 | 1 | 1 | 1 |
| CONDUIT SIZE (INCH) NEW=N, E=EXISTING | | E | E | E | E | E | E | E | E | E | E | E |

▼ – REMOVE EXISTING CONDUCTORS. INSTALL NEW CONDUCTORS AS SHOWN.

## GENERAL NOTES:

1. TRAFFIC SIGNAL, SIGNING AND STRIPING, AND LIGHTING SHALL CONFORM TO THESE PLANS, THE SPECIAL PROVISIONS, THE CITY OF EL MONTE STANDARD DETAILS, THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS SECTION 86 (DATED MAY, 2006), AND STANDARD PLANS (DATED 1992).
2. THE CONTRACTOR SHALL POTHOLE TO DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES AND VERIFY ALL CONDITIONS ON THE JOB SITE. HAND DIG FOUNDATIONS UNTIL CLEAR OF ANY OBSTRUCTIONS. PHONE UNDERGROUND SERVICE ALERT AT (800) 227-2600, TWO (2) WORKING DAYS BEFORE DIGGING.
3. ALL PULLBOXES SHALL BE No. 5 AND CONDUIT SHALL BE 2" RIGID METAL UNLESS OTHERWISE SHOWN.
4. CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER FOR EXACT EQUIPMENT LOCATIONS PRIOR TO FINAL PLACEMENT. SEE POLE LOCATION DETAIL SHOWN ON PLAN.
5. ALL REQUIRED CONSTRUCTION PERMITS SHALL BE OBTAINED FROM THE CITY OF EL MONTE ENGINEERING DIVISION PRIOR TO COMMENCEMENT OF WORK.
6. CONTRACTOR SHALL RELOCATE AND/OR REPLACE LANDSCAPING, SPRINKLERS, AND SIDEWALK AFFECTED BY THE CONSTRUCTION TO THE SATISFACTION OF THE ENGINEER.
7. ALL VEHICLE INDICATIONS SHALL BE 12" AND HAVE L.E.D. SIGNAL MODULES. ALL PEDESTRIAN HEADS SHALL HAVE L.E.D. PEDESTRIAN MODULES EQUIPPED WITH COUNTDOWN TIMERS (SEE SPECIAL PROVISIONS).
8. ANY EXISTING TRAFFIC SIGNALS AND LIGHTING SHALL REMAIN IN OPERATION UNTIL REPLACED WITH NEW CONSTRUCTION.
9. CONTRACTOR TO FURNISH ALL EQUIPMENT, MATERIALS, AND HARDWARE (EXCLUDING DECORATIVE POLES, MASTARMS, EVP SYSTEM AND SIGNAL CABINETS) TO CONSTRUCT THE TRAFFIC SIGNAL AND LIGHTING AS SHOWN ON THE PLANS (SEE SPECIAL PROVISIONS).
10. CONTRACTOR SHALL REFER TO THE ENGINEER IN THE EVENT OF A CONFLICT OR POTENTIAL CONFLICT WITH THESE PLANS AND, OR SPECIFICATIONS FOR THIS PROJECT. MODIFICATIONS OR CHANGES SHALL NOT BE IMPLEMENTED UNTIL WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER.

## CONSTRUCTION NOTES

1. EXISTING TYPE 332 CABINET TO BE REMOVED AND SALVAGED. EXISTING FOUNDATION BOLTS/CONDUITS TO BE PROTECTED IN PLACE. INSTALL CITY FURNISHED 332 CABINET AND ASSOCIATED HARDWARE. FURNISH AND INSTALL OPTICOM EMERGENCY VEHICLE PRE-EMPTION SYSTEM AND BATTERY BACKUP SYSTEM COMPLETE (SEE SPECIAL PROVISIONS).
2. REMOVE AND SALVAGE EXISTING POLE AND ASSOCIATED HARDWARE. EXISTING FOUNDATION/ANCHOR BOLTS TO BE PROTECTED IN PLACE. INSTALL NEW POLE AND ASSOCIATED HARDWARE PER POLE SCHEDULE.
3. FURNISH AND INSTALL REFLECTIVE STREET NAME SIGN ON SEPERATE MASTARM PER DETAIL THIS SHEET. MASTARM FINISH AND COLOR TO MATCH SIGNAL STANDARD.
4. INSTALL UNI-DIRECTIONAL SINGLE CHANNEL OPTICOM DETECTOR PER STD. ES-4E (2006 CALTRANS STD. PLANS)
5. REMOVE AND SALVAGE 1-A POLE AND ASSOCIATED HARDWARE. REMOVE FOUNDATION COMPLETE.
6. INSTALL 1-A POLE AND FOUNDATION COMPLETE AND ASSOCIATED HARDWARE PER POLE SCHEDULE.
7. FURNISH AND INSTALL SIGN ON MASTARM PER CALTRANS STD. ES-7N (2006 STD. PLANS)
8. REMOVE AND SALVAGE EXISTING PPB POST AND ASSOCIATED HARDWARE. REMOVE FOUNDATION COMPLETE.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 INCH = 20 FEET

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.
Underground Service Alert
Call: TOLL FREE
1-800 227-2600
TWO WORKING DAYS BEFORE YOU DIG

| MARK | DATE | INITIAL | DESCRIPTION | REC. | APPR | DATE |
|---|---|---|---|---|---|---|
| | | E.O.R. | REVISION | | | |

CITY OF EL MONTE APPROVAL

JAMES A. ENRIQUEZ
DIRECTOR OF PUBLIC WORKS
R.C.E. #55520 EXP. 12/31/2012
DATE

ENGINEER OF RECORD'S SEAL
REGISTERED PROFESSIONAL ENGINEER
TERRY M. RENNER
No.69984
Exp.9-30-12
CIVIL
STATE OF CALIFORNIA


TKE ENGINEERING
2305 CHICAGO AVE.
RIVERSIDE, CA 92507
P:(951) 680-0440
F:(951) 680-0490


UNDER THE SUPERVISION OF:
TERRY M. RENNER
R.C.E. #69984 EXP. 09/30/2012
2/28/12
DATE

TRAFFIC SIGNAL MODIFICATION PLAN
CITY OF EL MONTE
RAMONA BOULEVARD AT PECK ROAD

SHEET NO. 1 OF 1 SHEETS

FOR:

W.O.