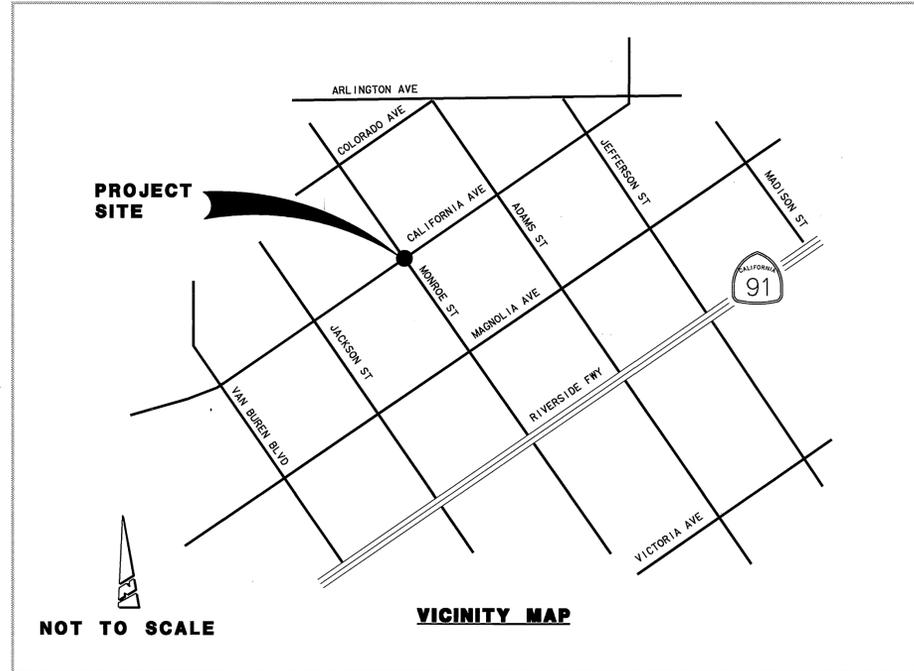


CITY OF RIVERSIDE

TRAFFIC SIGNAL MODIFICATION PLAN

AT THE INTERSECTION OF:

CALIFORNIA AVENUE AND MONROE STREET



INDEX TO SHEETS

SHEET NO	DESCRIPTION
1	TITLE SHEET
2	TRAFFIC SIGNAL MODIFICATION PLAN

GENERAL CONSTRUCTION NOTES:

- ALL MATERIAL AND WORK SHALL CONFORM TO THE FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (MUTCD), 2003 EDITION, AND THE MAY 20, 2004 CALTRANS MUTCD CALIFORNIA SUPPLEMENT. SIGN CODES WITHIN PARENTHESES SHALL REFER TO THE SIGNS CONTAINED IN THE MUTCD CALIFORNIA SUPPLEMENT. ALL OTHER SIGN CODES SHALL REFER TO THE 2003 MUTCD, AND JULY 2004 STANDARD PLANS AND 2002 SPECIFICATIONS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION. ALL SIGN SIZES OTHERWISE ON THE PLAN.
- LOCATIONS OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS AND VERIFY ALL CONDITIONS ON THE JOB SITE PRIOR TO COMMENCING WORK. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY ALL CONCERNED UTILITY COMPANIES AT LEAST 48 HOURS IN ADVANCE OF EXCAVATION. CALL UNDERGROUND SERVICE ALERT AT (800) 227-2600. HAND DIG UNTIL CLEAR OF OBSTRUCTIONS AS DIRECTED BY THE ENGINEER.
- SEE CALTRANS STANDARD PLANS ES-1A AND ES-1B FOR SYMBOL AND ABBREVIATION LEGEND.
- EXISTING PRIVATELY OWNED IMPROVEMENTS ON PUBLIC RIGHT-OF-WAY SHALL BE PROTECTED OR REPLACED, AS DIRECTED BY THE ENGINEER.
- THE CITY RIGHT-OF-WAY SHALL BE KEPT CLEAN OF DEBRIS, WITH DUST AND OTHER NUISANCES BEING CONTROLLED AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CLEAN UP ON CITY RIGHT-OF-WAY AFFECTED BY HIS CONSTRUCTION. METHOD OF STREET CLEANING SHALL BE DRY SWEEPING OF ALL PAVED AREAS. THERE SHALL BE NO STOCKPILING OF CONSTRUCTION MATERIALS WITHIN THE CITY RIGHT-OF-WAY WITHOUT THE PERMISSION OF THE INSPECTOR.

LEGEND:

- MATERIAL: P = PAINT (2 COATS), T=THERMOPLASTIC
- INSTALL PER CALTRANS DETAIL
- DETAIL NUMBER
- TYPE OF TRAFFIC STRIPING MATERIAL
- T = THERMOPLASTIC, P = PAINT (2 COATS)
- INSTALL PAVEMENT MARKING (AS SHOWN) PER PAGE A24A THRU A24E OF THE STANDARD PLANS, CALTRANS
- TYPE NUMBER OF PAVEMENT MARKING. W=WHITE, Y=YELLOW
- SIGN TYPE
- MOUNT SIGN AS INDICATED
- MA = MOUNT ON MAST-ARM
- SP = MOUNT ON SIGNAL POLE
- TP = MOUNT ON TELESPEAR POST
- REMOVE AND SALVAGE TO THE CITY OF RIVERSIDE.
- REMOVE ALL CONFLICTING STRIPING AND/OR PAVEMENT MARKINGS BY WET SANDBLASTING.

GENERAL SIGNING & STRIPING NOTES:

- ALL REQUIRED STRIPING, PAVEMENT MARKERS AND SIGNAGE SHALL BE PROVIDED AND INSTALL BY THE CONTRACTOR.
- ALL STRIPING AND PAVEMENT MARKING REMOVALS SHOWN ON THE PLAN SHALL BE REMOVED BY WET SANDBLASTING AS DIRECTED BY THE ENGINEER.
- THE LOCATION OF ALL SIGNS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- DOUBLE YELLOW STRIPES SHALL HAVE A 3 INCH BLACK LINE SEPARATING 4 INCH YELLOW LINES.
- THERMOPLASTIC CROSSWALK SHALL HAVE 10 FEET BETWEEN 12 INCH WHITE STRIPES
- TURN ARROWS SHALL BE LOCATED AS SHOWN ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- STRIPING LAYOUT (CAT-TRACKING) SHALL BE APPROVED BY THE TRAFFIC ENGINEER OR HIS REPRESENTATIVE PRIOR TO INSTALLATION OF STRIPING. A MINIMUM OF ONE WEEK NOTICE PRIOR TO CAT-TRACKING IS REQUIRED.
- ALL EXISTING RAISED PAVEMENT MARKERS WITHIN THE PROJECT AREA SHALL BE REPLACED IN KIND AS DETAILED ON THE SIGNING AND STRIPING PLAN AND AS DIRECTED BY THE TRAFFIC ENGINEER.
- SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE NOTED ON THE PLAN. SALVAGED SIGNS SHALL BE DELIVERED TO THE CITY OF RIVERSIDE MAINTENANCE YARD.
- ALL EXISTING STRIPING SHALL BE REPAINTED/REAPPLIED WITHIN 500' OF THE INTERSECTION.

GENERAL TRAFFIC SIGNAL NOTES:

- ALL PULL BOXES SHALL BE #5 EXCEPT AS SHOWN OTHERWISE OR APPROVED BY THE ENGINEER. MAXIMUM SPACING SHALL BE 200'.
- EACH CONDUCTOR, IN EACH PULL BOX SHALL BE IDENTIFIED AS DETAILED IN THE CONDUCTOR SCHEDULE WITH A PERMANENT IDENTIFICATION BAND IN PULL BOXES AND NEAR THE END OF EACH CONDUCTOR WHERE CONDUCTORS ARE TERMINATED. PERMANENT IDENTIFICATION BANDS SHALL BE EMBOSSED ALUMINUM FOIL TYPE WITH PRESSURE SENSITIVE OIL RESISTANT ADHESIVE BACKING.
- ALL SPARE CONDUCTORS SHALL BE CONTINUOUS WITH 6' OF SLACK IN EACH PULL BOX.
- DETECTOR CURB TERMINATIONS SHALL BE TYPE "A" PER STANDARD PLAN ES-5E.
- A MINIMUM OF 2 FEET OF CLEARANCE SHALL BE MAINTAINED BETWEEN TELEPHONE CONDUIT AND ELECTRICAL CONDUITS.
- A MINIMUM OF 15 FEET OF CLEARANCE SHALL BE MAINTAINED BETWEEN THE CONTROLLER CABINET AND THE SERVICE EQUIPMENT ENCLOSURE.
- ALL PULL BOXES IN UNIMPROVED AREAS SHALL BE TRAFFIC BEARING.
- OBTAIN APPROVAL FOR EXACT EQUIPMENT LOCATIONS PRIOR TO FINAL PLACEMENT. STRIPING LAYOUT (CAT-TRACKING) SHALL BE APPROVED PRIOR TO LOOP DETECTOR INSTALLATION.
- ALL VEHICLE INDICATIONS SHALL BE 12" DIA. PEDESTRIAN SIGNALS SHALL BE TYPE "A" SYMBOL. ALL SIGNAL HEADS AND BACKPLATES SHALL BE METAL WITH LOUVERS.
- LOOP DETECTORS SHALL BE TYPE E, LOOP DETECTORS WITHIN INTERIOR LANES SHALL BE CENTERED IN THE LANE, WITHIN SINGLE LANE OR OUTSIDE LANES THEY SHALL BE SPACED 3' FROM LANE LINE. INDUCTIVE LOOPS SHALL BE 6" DIAMETER WITH SPACING IN DIRECTION OF TRAVEL AS SHOWN ON SIGNAL PLANS DETAIL. DETECTOR PLACEMENT SHALL BE APPROVED BY CITY ENGINEER PRIOR TO SAWCUTTING.
- CONDUIT SHALL BE 2 INCH RIGID METAL UNLESS OTHERWISE NOTED ON THE PLANS.
- A MINIMUM OF 6' OF SLACK SHALL BE PROVIDED AT EACH PULL BOX AND 15 FEET OF SLACK AT EACH CONTROLLER CABINET FOR SIGNAL INTERCONNECT CABLE.
- ALL 12" SECTIONS AND THE ARROW SECTIONS TRAFFIC SIGNAL FACES PLUS PED SECTIONS SHALL UTILIZE LIGHT EMITTING DIODE SIGNAL MODULES.
- CONTRACTOR SHALL REMOVE ALL EXISTING WIRES FROM CONTROLLER CABINET TO SIGNAL EQUIPMENT AND INSTALL NEW WIRE (CONDUCTORS) AS INDICATED ON PROPOSED CONDUCTOR SCHEDULE OF SIGNAL PLAN MODIFICATION.
- EXISTING SIGNAL SHALL REMAIN IN OPERATION DURING CONSTRUCTION WORK.

**CONTRACTOR'S LICENSE REQUIRED FOR THIS PROJECT:
CLASS A OR C-10**

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18 JUL 2006 09:59

DIG ALERT



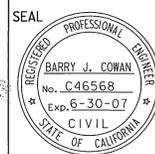
CALL BEFORE YOU DIG!

1-800-227-2600
UNDERGROUND SERVICE ALERT
Call at least 2 working days prior to excavating.

PRIVATE ENGINEERING NOTE

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT.

INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.



PLANS PREPARED UNDER SUPERVISION OF

Barry J. Cowan 7/16/06
BARRY J. COWAN R.C.E. 46568 (EXP. 6-30-07)

BENCH MARK:

RICK
ENGINEERING COMPANY
ONE CITY BOULEVARD WEST - SUITE 1285
ORANGE, CA 92668
714.939.1440
(949) 714.939.1441
rickengineering.com
San Diego Riverside Sacramento Phoenix Tucson

MARK	REVISIONS	APPR.	DATE

DESIGNED BY: *RL/TM*, DRAWN BY: *AM/RL*, CHECKED BY: *CS*

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY: _____ BY: _____ DATE: _____
PRINCIPAL ENGINEER

TRAFFIC DIVISION

APPROVED BY: *[Signature]*
CITY ENGINEER

DATE: 7/21/06

CITY OF RIVERSIDE
TITLE SHEET
TRAFFIC SIGNAL MODIFICATION
CALIFORNIA AVENUE AND
MONROE STREET

JOB NO. _____

X-329A

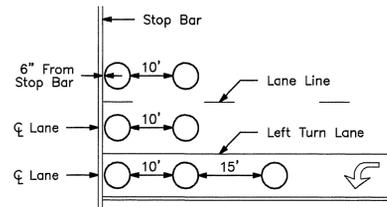
SHEET **1** OF **2**

EQUIPMENT		SCHEDULE		REMARKS		
NO.	SIGNAL STANDARD	LUMINAIRE	I.I.S.N.S.	SIGNAL MOUNTINGS	PPB	
	TYPE	HGHT. M.A. H.P.S.V.	LEGEND	VEHICLE PEDESTRIAN AUDIBLE	PHASE	
(A)	1A(E)	10'		TV-1-T(N) SP-1-T(N) ((P)) (N)	4(N)	
(B)	17-2-80(N)	30'	20'(N) 12'(N) 200W(N)	MAS(N)		
				SV-1-T(N) SP-1-T(N) ((C)) (N)	2(N)	
(C)	1A(E)	10'		TV-1-T(N) SP-1-T(N) ((C)) (N)	2(N)	REUSE EXISTING FOUNDATION
(D)	24-4-80(N)	30'	35'(N) 12'(N) 200W(N)	MAS(N)		
				SV-1-T(N) SP-1-T(N) ((P)) (N)	8(N)	
(E)	1A(E)	10'		TV-1-T(N) SP-1-T(N) ((P)) (N)	8(N)	REUSE EXISTING FOUNDATION
(F)	19-2-80(N)	30'	25'(N) 12'(N) 200W(N)	MAS(N)		
				SV-1-T(N) SP-1-T(N) ((C)) (N)	8(N)	
(G)	1A(N)	10'		TV-1-T(N) SP-1-T(N) ((C)) (N)	6(N)	
(H)	24-4-80(N)	30'	35'(N) 12'(N) 200W(N)	MAS(N)		
				SV-1-T(N) SP-1-T(N) ((P)) (N)	4(N)	PPB ON EXISTING PPB POST

(E)=EXISTING (N)=NEW (R)=RELOCATE

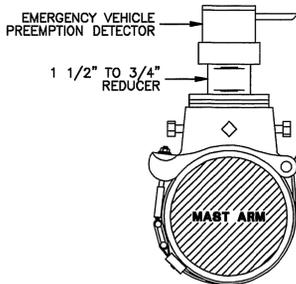
NOTES:

- ALL VEHICULAR HEADS SHALL HAVE 12" LENSES.
- ALL LEFT TURN HEADS SHALL HAVE ALL ARROWS.
- LUMINAIRES SHALL BE HIGH PRESSURE SODIUM VAPOR.
- ((C)) OR ((P)) INDICATES AUDITORY PEDESTRIAN SIGNAL TO BE INSTALLED. ((C)) INDICATES CUCKOO SOUND; ((P)) INDICATES PEEP-PEEP SOUND.
- PEDESTRIAN PUSH BUTTONS SHALL BE INSTALLED ON THE POLE IN THE QUADRANT NEAREST THE CROSSWALK SERVING THE PHASE.
- FOUNDATIONS NOT TO BE REUSED SHALL BE COMPLETELY REMOVED.



Loops shall be 6' diameter, centered in interior lanes, and installed 3' from lane lines in outside lanes

DETECTOR LOOP INSTALLATION DETAIL



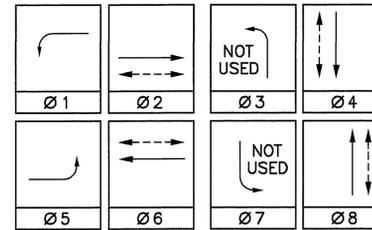
MAST-ARM MOUNTING CLAMP FOR OPTICAL DETECTOR

CONSTRUCTION NOTES

- Furnish and install MODEL 170 Controller Assembly in a TYPE 332 cabinet. See Special Provisions.
- Remove and salvage existing controller assembly and cabinet. The Contractor shall deliver the salvaged controller and cabinet to City of Riverside Maintenance yard, 8095A Lincoln Avenue.
- Remove existing pole and equipment. Marbelite poles shall become the property of the Contractor. The Contractor shall deliver 1A poles and equipment to the City of Riverside Maintenance yard, 8095A Lincoln Avenue.
- Furnish and install R73-3 sign (36"x36") on signal mast arm per CALTRANS Standard Plan ES-6T, Detail U.
- Furnish and install OPTICAL DETECTOR on signal mast arm per detail. Verify locations with manufacturer's representative prior to installing.
- Remove existing pull box. Furnish and install new pull box.
- Install detector loops and detector loop stubouts as shown on the plan.

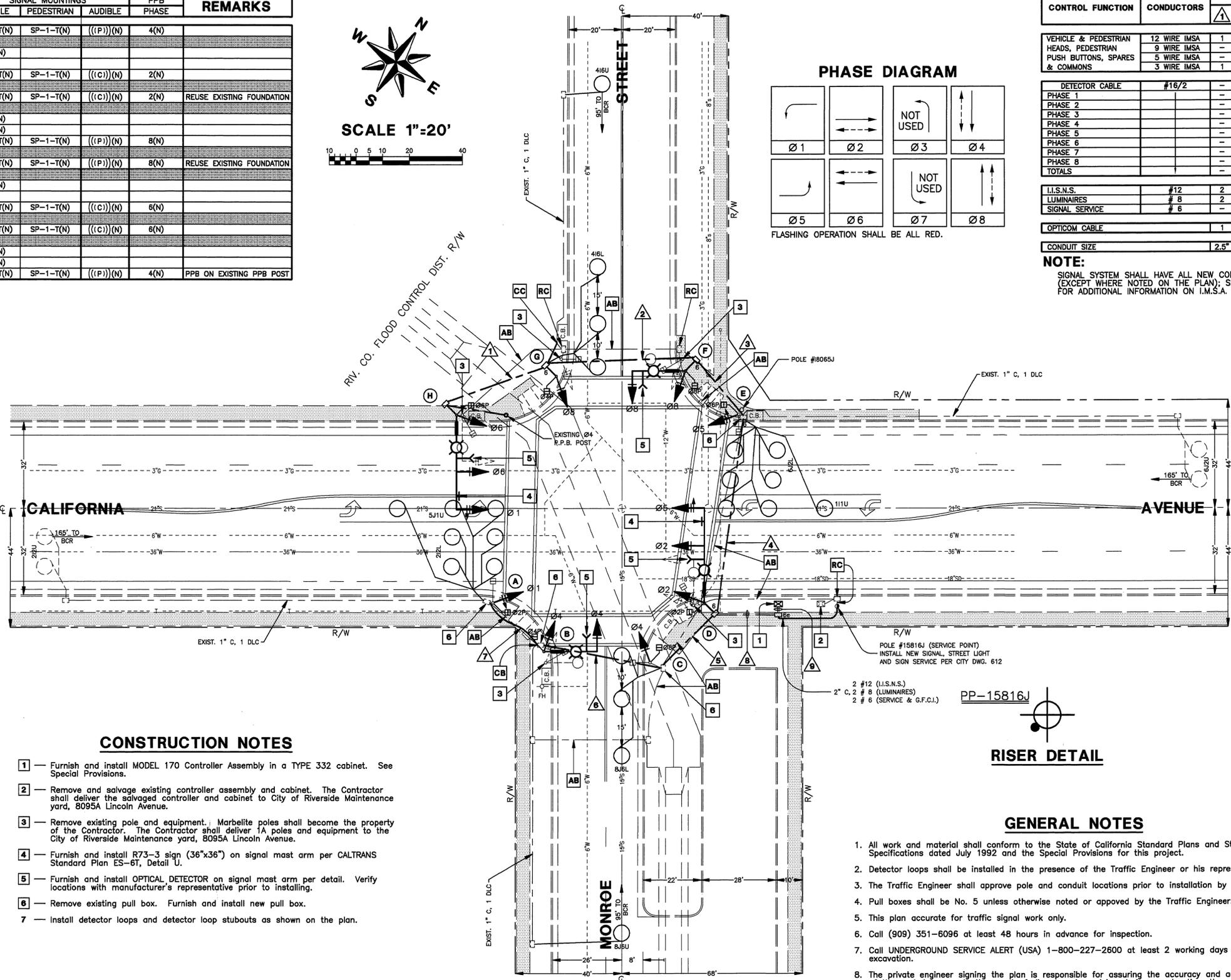


PHASE DIAGRAM



CONDUCTOR		TABLE								
CONTROL FUNCTION	CONDUCTORS	CONDUCTOR RUNS								
		1	2	3	4	5	6	7	8	
VEHICLE & PEDESTRIAN HEADS, PEDESTRIAN PUSH BUTTONS, SPARES & COMMONS	12 WIRE IMSA 9 WIRE IMSA 5 WIRE IMSA 3 WIRE IMSA	1	1	2	2	1	1	1	4	4
DETECTOR CABLE	#16/2	-	-	-	-	-	-	-	-	-
PHASE 1		-	-	-	-	-	-	-	-	-
PHASE 2		-	-	-	-	-	-	-	-	-
PHASE 3		-	-	-	-	-	-	-	-	-
PHASE 4		-	-	-	-	-	-	-	-	-
PHASE 5		-	-	-	-	-	-	-	-	-
PHASE 6		-	-	-	-	-	-	-	-	-
PHASE 7		-	-	-	-	-	-	-	-	-
PHASE 8		-	-	-	-	-	-	-	-	-
TOTALS		-	-	-	-	-	-	-	-	-
I.I.S.N.S.	#12	2	2	2	2	2	2	2	2	2
LUMINAIRES	# 8	2	2	2	2	2	2	2	2	2
SIGNAL SERVICE	# 6	-	-	-	-	-	-	-	-	-
OPTICOM CABLE		1	1	2	2	1	1	-	4	4
CONDUIT SIZE		2.5"	3"	3"	3.5"	3"	2.5"	2"	2-3"	2-3"

NOTE: SIGNAL SYSTEM SHALL HAVE ALL NEW CONDUITS, CABLES AND CONDUCTORS (EXCEPT WHERE NOTED ON THE PLAN); SEE CONTRACT SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION ON I.M.S.A. CABLE.



GENERAL NOTES

- All work and material shall conform to the State of California Standard Plans and Standard Specifications dated July 1992 and the Special Provisions for this project.
- Detector loops shall be installed in the presence of the Traffic Engineer or his representative.
- The Traffic Engineer shall approve pole and conduit locations prior to installation by Contractor.
- Pull boxes shall be No. 5 unless otherwise noted or approved by the Traffic Engineer.
- This plan accurate for traffic signal work only.
- Call (909) 351-6096 at least 48 hours in advance for inspection.
- Call UNDERGROUND SERVICE ALERT (USA) 1-800-227-2600 at least 2 working days prior to excavation.
- The private engineer signing the plan is responsible for assuring the accuracy and acceptability of the work hereon. In the event of discrepancies arising during construction, the private engineer shall be responsible for determining an acceptable solution and revising the plan for approval by the City.

CONTRACT TE-98-3

IMPORTANT NOTICE:
Section 416.4217 of the Government Code requires a Dig Alert Identification Number to be issued before a "Permit to Excavate" will be valid. For your Dig Alert ID, Number call: CALL TOLL FREE TWO WORKING DAYS BEFORE YOU DIG UNDERGROUND SERVICE ALERT 1-800-227-2600

PRIVATE ENGINEERING NOTE
CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

ENGINEER IN RESPONSIBLE CHARGE:
LAWRENCE S. EISENHART RCE NO. 13493
EXPIRATION DATE: 3-31-01 DATE: 11/15/98

LAWRENCE S. EISENHART
CONSULTING ENGINEER
2070 Locust Court
San Bernardino, California 92404
Tel: (909) 864-5406 Fax: (909) 864-5047

SCALE: AS SHOWN
DATE: DEC. 1998

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY: BY DATE
PRINCIPLE ENGINEER: [Signature] 11/19/98
P.W. INSPECTION: [Signature] 11/19/98
TRAFFIC DIVISION: [Signature] 11/19/98
CHIEF P.W. ENGINEER: [Signature] 11/19/98
PUBLIC UTILITIES: [Signature] 11/19/98

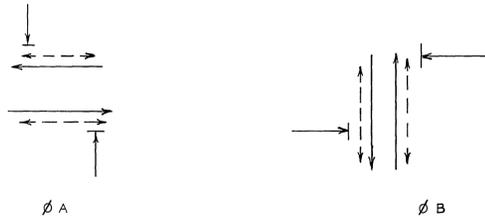
APPROVED BY: BY DATE
DIRECTOR OF PUBLIC WORKS: [Signature] 4-22-99
DATE: 4-22-99

TRAFFIC SIGNAL MODIFICATION PLAN
CALIFORNIA AVENUE and MONROE STREET
SCALE: 1"=20'

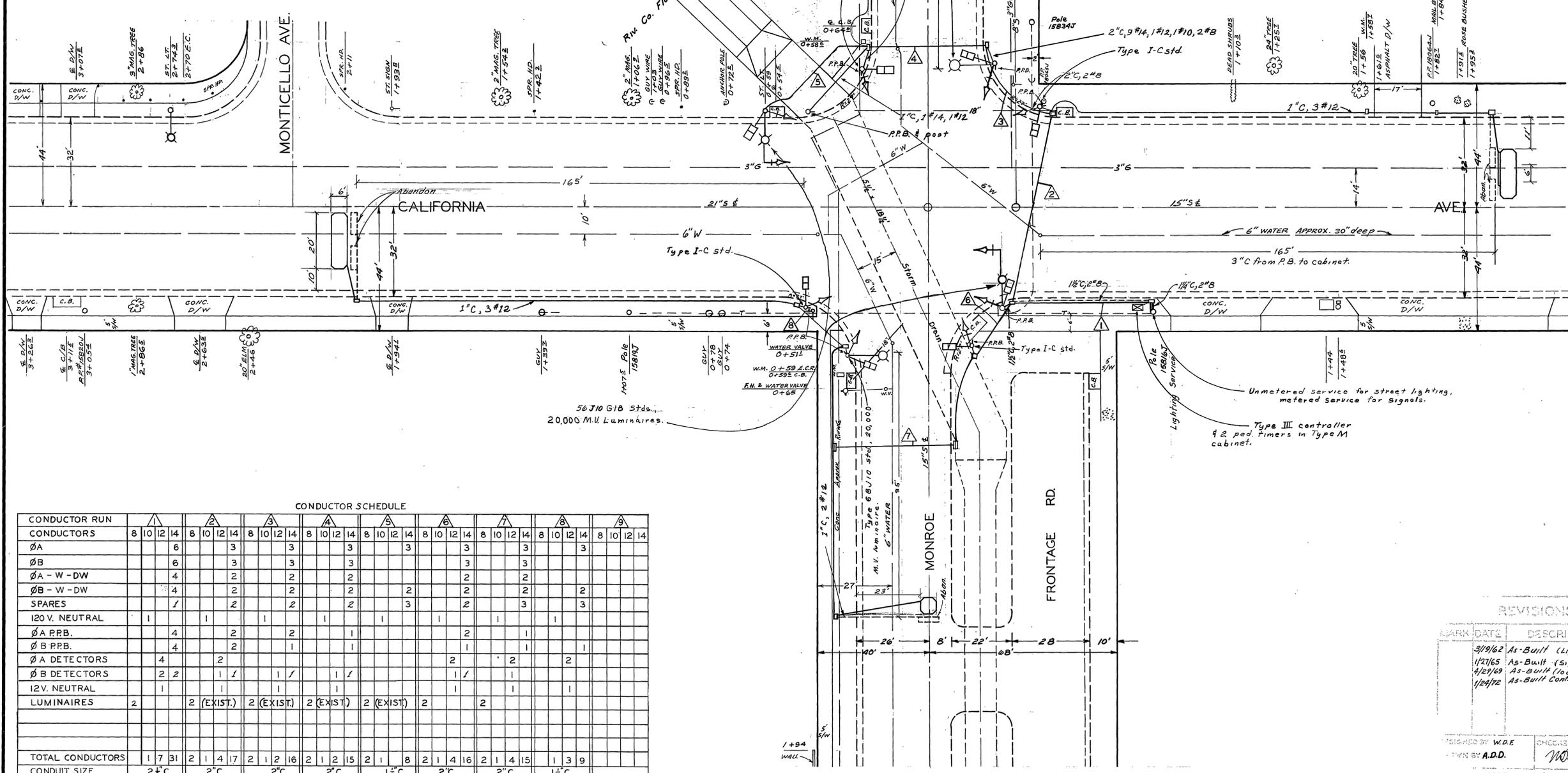
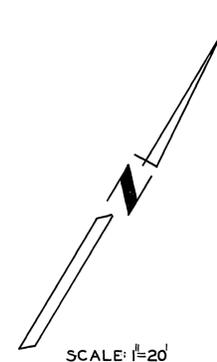
ACCT. NO. A30-541600-440303-35095
X-329
SHEET 1 OF 1
FILE NAME: X329.DWG

MONTICELLO AVE.

PHASE DIAGRAMS



FLASHING INDICATIONS
Ø A YELLOW, Ø B RED



CONDUCTOR SCHEDULE

CONDUCTOR RUN	CONDUCTOR SCHEDULE																														
	8	10	12	14	8	10	12	14	8	10	12	14	8	10	12	14	8	10	12	14	8	10	12	14							
Ø A																															
Ø B			6			3				3				3				3				3									
Ø A - W - DW			4			2				2				2				2				2									
Ø B - W - DW			4			2				2				2				2				2									
SPARES			1			2				2				3				3				3									
120 V. NEUTRAL			1			1				1				1				1				1									
Ø A PPB.			4			2				1				2				1				1									
Ø B PPB.			4			2				1				1				1				1									
Ø A DETECTORS			4			2				2				2				2				2									
Ø B DETECTORS			2			1				1				1				1				1									
12 V. NEUTRAL			1			1				1				1				1				1									
LUMINAIRES			2		2 (EXIST.)				2 (EXIST.)				2 (EXIST.)				2				2										
TOTAL CONDUCTORS	1	7	31		2	1	4	17	2	1	2	16	2	1	2	15	2	1	8	2	1	4	16	2	1	4	15	1	3	9	
CONDUIT SIZE	2 1/2" C				2" C				2" C				1 1/2" C				2" C				1 1/2" C				2" C				1 1/2" C		

REVISIONS		CITY OF TRINIDAD CALIFORNIA DEPARTMENT OF PUBLIC WORKS	
MARK	DATE	DESCRIPTION	
3/10/62		As-Built (Lighting)	ADD
1/21/65		As-Built (Signals)	ABD
4/21/69		As-Built (loop 5/2)	JMM
1/24/72		As-Built Cont. TE-11-6	JMM

TRAFFIC SIGNALS

CALIFORNIA AVE.
&
MONROE ST.

DESIGNED BY W.D.E.	CHECKED BY A.D.D.	APPROVED BY <i>[Signature]</i>
DATE 3/20/62	DATE 3/20/62	DATE 3/20/62

X-329
SHEET