

GENERAL NOTES

- All work embodied on these plans shall be in conformance with applicable provisions of the Standard Specifications of the State of California, Department of Transportation, January 1988, and the Special Provisions.
- Refer to the Standard Plans of the State of California, Department of Transportation, January 1988, for complete traffic signal and highway lighting installation details as indicated on this plan.
- The existing controller contains the necessary equipment for eight phases. The Contractor shall make the necessary field wiring to make the intersection operate as shown on the phase diagram.
- The private engineer signing these plans is responsible for the accuracy and acceptability of the work, herein. In the event of discrepancies arising during construction, the private engineer shall be responsible for determining an acceptable solution and revising the plans for approval by the City of Riverside.

JURUPA AVENUE

PP #23299 ADD NEW SERVICE (BREAKER & ENCLOSURE) PLUS NEW SERVICE CONDUCTORS: 2 #8 S.L., 2#12 ISNS & 2 #6 SIG.

EXISTING CONDUIT ADD 2 #6, 2 #8 & 2 #12

EXISTING CONTROLLER SEE GENERAL NOTE #3

Exist. I.C. P.B.

2" C-I.C.C.

Exist. 2" C-I.C.C.

A.N.G. OR D.L.C.	CIRCUIT	RUNS							
		1	2	3	4	5	6	7	8
	Ø 1 VEHICLE								
	Ø 2 VEHICLE								
	Ø 3 VEHICLE								
	Ø 4 VEHICLE								
	Ø 5 VEHICLE								
	Ø 6 VEHICLE								
	Ø 7 VEHICLE								
	Ø 8 VEHICLE								
	Ø 2 PEDESTRIAN								
	Ø 4 PEDESTRIAN								
	Ø 6 PEDESTRIAN								
	Ø 8 PEDESTRIAN								
	Ø 2 P.P.B.								
	Ø 4 P.P.B.								
	Ø 6 P.P.B.								
	Ø 8 P.P.B.								
	P.P.B. COMMON								
	SPARES								
	TOTAL #14								
	#12 I.S.N.S.								
	#10 SIGNAL COMMON								
	#8 LUMINAIRES								
	#6 SIGNAL SERVICE								
	Ø 1 DETECTOR								
	Ø 2 DETECTOR								
	Ø 3 DETECTOR								
	Ø 4 DETECTOR								
	Ø 5 DETECTOR								
	Ø 6 DETECTOR								
	Ø 7 DETECTOR								
	Ø 8 DETECTOR								
	TOTAL D.L.C.								

CONDUIT SIZE 2.5" 2.5" 2.5" 2" 2" 2-3" 2"

Indicates existing conduit run.

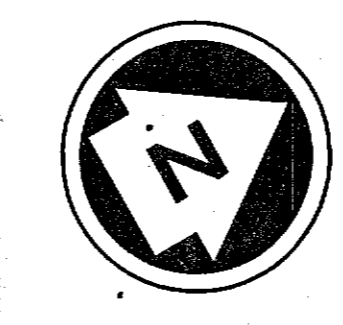
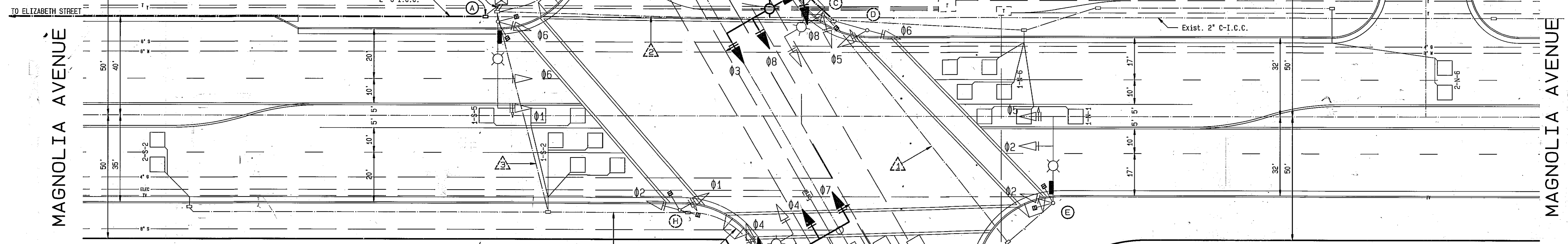
NOTES: CONDUCTOR SCHEDULE

- Remove and discard all existing conductors and DLC's.
- Completely re-wire intersection as shown on CONDUCTOR SCHEDULE.

MAPLEWOOD PLACE

MAGNOLIA AVENUE

MAGNOLIA AVENUE

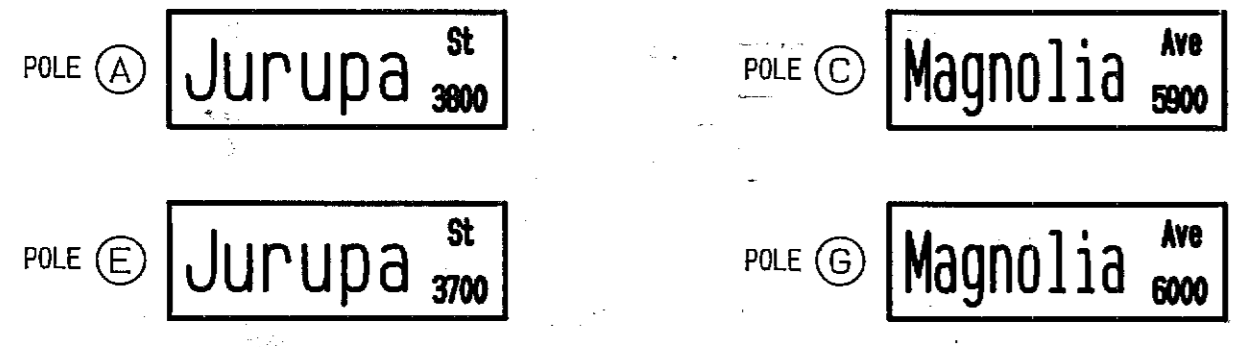


SCALE: 1" = 20'

POLE AND EQUIPMENT SCHEDULE							
NO.	STANDARD		PLACEMENT DIMENSIONS		VEH. SIGNAL MTG.		H.P.S. LUMINAIRE
	TYPE	SIG. W.A. / LUM. W.A.	"A"	"B"	MAST ARM	POLE	
(A)	24A-4-70	35 15	E	E	MAS/MAS	SV-1-T	400W
(B)	1-A	-	E	E	-	TV-1-T	-
(C)	24A-4-80	35 15	3	5	MAS/MAS	SV-1-T	400W
(D)	1-A	-	E	E	-	TV-2-T	-
(E)	24A-4-70	35 15	E	E	MAS/MAS	SV-1-T	400W
(F)	1-A	-	E	E	-	TV-1-T	-
(G)	26A-4-80	40 15	3	0	MAS/MAS	SV-1-T	400W
(H)	1-A	-	E	E	-	TV-2-T	-

(X) Existing pole to remain.
 (X) New or modified existing pole.
 E Existing pole foundation location.

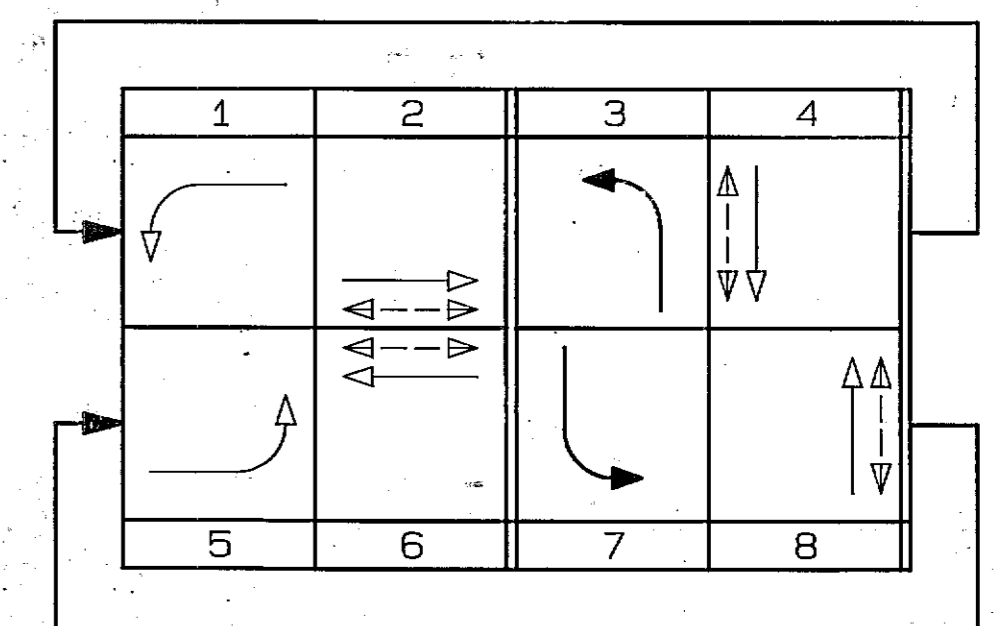
INTERNALLY ILLUMINATED STREET NAME SIGN FACES



NOTES: POLE AND EQUIPMENT SCHEDULE

- Poles (D) and (H) shall remain as is.
- Modify Pole (A) as follows:
 a. Install new ISNS on existing mast arm.
- Modify Pole (E) as follows:
 a. Remove and salvage existing Ø 4 signal head from existing mounting.
 b. Install new Ø 3 tri-arrow signal head on new mounting.
- Remove and salvage existing Pole (C) and equipment.
- Install new Pole (C) and new equipment on new foundation.
- Modify Pole (E) as follows:
 a. Install new ISNS on existing mast arm.
- Modify Pole (F) as follows:
 a. Remove and salvage existing Ø 4 signal head from existing mounting.
 b. Install new Ø 7 tri-arrow signal head on new mounting.
- Remove and salvage existing Pole (G) and equipment.
- Install new Pole (G) and new equipment on new foundation.

PHASE DIAGRAM



NOTE: Phases 1, 2, 4, 5, 6, & 8 are existing.
 Phases 3 & 7 are new.

CITY OF RIVERSIDE WATER SYSTEM Approved By: <i>Richard J. Dredok</i> 3-12-92 Date: 3-12-92	SOUTHERN CALIFORNIA GAS COMPANY Approved By: <i>H.D. Sandoz</i> 3-12-92 Date: 3-12-92	LAWRENCE S. EISENHART CONSULTING ENGINEER 4351 Latham Street, Suite 210 Riverside, California 92501 Telephone: (714) 788-4959 Approved By: <i>Lawrence S. Eisenhart</i> 3-6-92 DATE: 3-6-92	CITY OF RIVERSIDE PUBLIC WORKS DEPARTMENT APPROVED BY: <i>Dan Bed</i> DATE: 1/7/93 TRAFFIC DIVISION CHIEF P.W. ENGINEER PUBLIC UTILITIES	TRAFFIC SIGNAL PLAN MAGNOLIA AVENUE and JURUPA AVENUE HORIZ. SCALE: 1"=20' VERT. SCALE: 1"=	ACCOUNT NO. X-205A SHEET 1 OF 1
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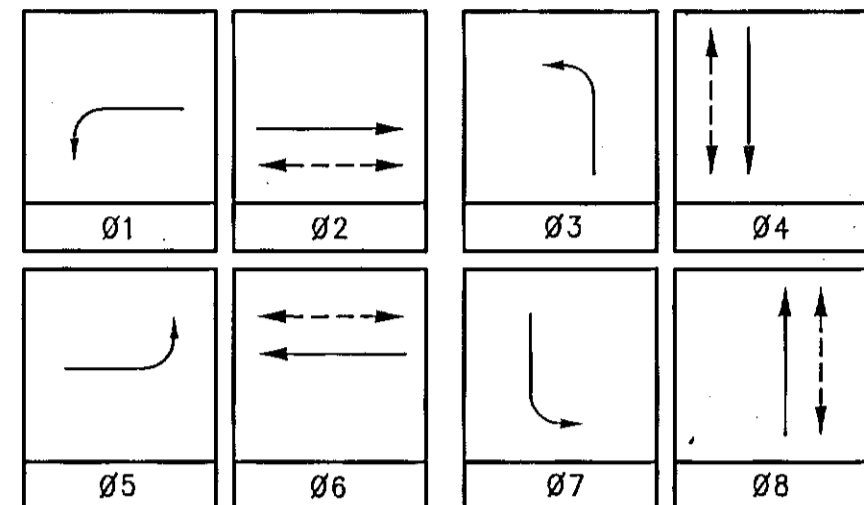
TRAFFIC SIGNAL GENERAL NOTES:

- ALL ITEMS FURNISHED AND ALL WORK TO BE DONE SHALL CONFORM TO THE REQUIREMENTS OF: THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD PLANS AND SPECIFICATIONS, DATED 2018; THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES ADOPTED 2014; AND THE SPECIAL PROVISIONS.
- UTILITIES SHOWN ON THE PLAN ARE CORRECT AND ACCURATE TO THE EXTENT OF AVAILABLE RECORDS. THE CONTRACTOR IS REQUIRED TO TAKE STEPS TO ASCERTAIN THE EXACT LOCATION OF ALL KNOWN SUBSTRUCTURES PRIOR TO DOING WORK THAT MAY DAMAGE OR INTERFERE WITH SUCH FACILITIES ("UNDERGROUND SERVICE ALERT" (800) 227-2600).
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS TO NOTIFY ALL AFFECTED AGENCIES AND THE RIVERSIDE UTILITY COMPANIES A MINIMUM OF 48 HOURS PRIOR TO START OF CONSTRUCTION.
- UNLESS SHOWN OTHERWISE, INDUCTIVE LOOPS SHALL BE MODIFIED TYPE "D" & TYPE "E" WITH 10', 15' AND 30" SPACING IN THE DIRECTION OF TRAVEL. NECESSARY STRIPING SHALL BE LOCATED PRIOR TO POSITIONING LOOPS. LOOPS SHALL BE SEALED WITH HOT MELT SEALANT. SEE DETAIL.
- CONDUCTOR SCHEDULE IS FURNISHED AS AN INSTALLATION GUIDELINE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CORRECT CONDUCTORS, REQUIRED FOR THE INTENDED OPERATION.
- CONDUIT BETWEEN ADJOINING PULL BOXES SHALL BE 2" UNLESS SHOWN OTHERWISE. ALL CONDUIT AND FITTINGS SHALL BE RIGID METAL, UNLESS SHOWN OTHERWISE (BURIED IN A MINIMUM OF 30" OF COVER IN THE STREET AND PARKWAY).
- TRAFFIC SIGNAL INTERCONNECT (SIC) SHALL BE 2" UNLESS SHOWN OTHERWISE, BURIED IN A MINIMUM OF 30" OF COVER IN THE STREET AND PARKWAY. NO. 6 PULL BOXES WITH LIDS LABELED "COMMUNICATORS", SHALL BE SPACED AT 400' AND THE MAXIMUM SIC BENDING RADIUS SHALL NOT EXCEED 45'. SIC CONDUIT SHALL ONLY INCLUDE SIGNAL INTERCONNECT CONDUCTORS.
- UNDERGROUND SIGNAL CONDUCTORS SHALL NOT BE SPLICED.
- PULL BOXES SHALL BE NO. 6 WITH FIBERLITE LIDS LABELED "TRAFFIC SIGNAL" UNLESS OTHERWISE NOTED ON THE PLAN.
- PULL BOXES SHALL NOT BE LOCATED IN OR WITHIN 1' OF ANY CURB ACCESS RAMP OR DRIVEWAY.
- THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER THE PRECISE FIELD LOCATIONS OF ALL TRAFFIC SIGNAL EQUIPMENT PRIOR TO THE INSTALLATION.
- ALL LANDSCAPING WHICH IS DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE CITY AND THE PROPERTY OWNER.
- NEW MAST ARM MOUNTED SIGN SHALL BE FABRICATED WITH 3M DIAMOND GRADE D63 REFLECTIVE SHEETING (ASTM TYPE XI) OR APPROVED EQUAL. SIGNS SHALL BE STANDARD SIZE AND HAVE A MINIMUM SIDE DIMENSION OF 30".
- VEHICLE HEADS SHALL BE 12" LED TYPE. THE HOUSING, BACKPLATES AND VISORS SHALL BE METAL.
- INTERNALLY ILLUMINATED STREET NAME SIGNS (ISNS) SHALL BE TYPE A. STREET NAME LEGENDS SHALL BE UPPER/LOWER CASE AND SHALL INCLUDE BLOCK NUMBERS AND ROAD NAME SUFFIXES.
- SALVAGED TRAFFIC SIGNAL EQUIPMENT SHALL BE DELIVERED TO THE CITY OF RIVERSIDE TRAFFIC SIGNAL MAINTENANCE YARD.
- DAMAGED SIDEWALK CONCRETE SHALL BE REPLACED PER CITY OF RIVERSIDE STANDARD.
- THE CONTRACTOR SHALL REMOVE ALL UNUSED PULL BOXES AND RE-PAVE SURROUNDING AREA TO MATCH EXISTING OR PROPOSED GRADE. ALL UNUSED CONDUIT SHALL BE ABANDONED AND CAPPED ONCE UNUSED CONDUCTORS ARE REMOVED.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH AND INSTALL ANY ADDITIONAL LOAD SWITCHES AND/OR DETECTOR CARDS, IF NECESSARY, FOR THE PROPOSED OPERATION.
- ALL 1A POLES SHALL BE ALUMINUM PER THE CITY'S STANDARD SPECIFICATIONS.
- ALL CONTRACTORS WORKING ON OR AROUND THE CITY OF RIVERSIDE'S UNDERGROUND ELECTRICAL FACILITIES MUST HAVE THE PROPERLY QUALIFIED PERSONNEL AND EQUIPMENT TO PERFORM THE SPECIFIED WORK. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE TO ESTABLISH AND MAINTAIN A SAFE WORKING ENVIRONMENT INCLUDING, BUT NOT LIMITED TO WORK AROUND ENERGIZED HIGH VOLTAGE FACILITIES, GAS TESTING OF CONFINED SPACES, TRAFFIC AND PROTECTION.

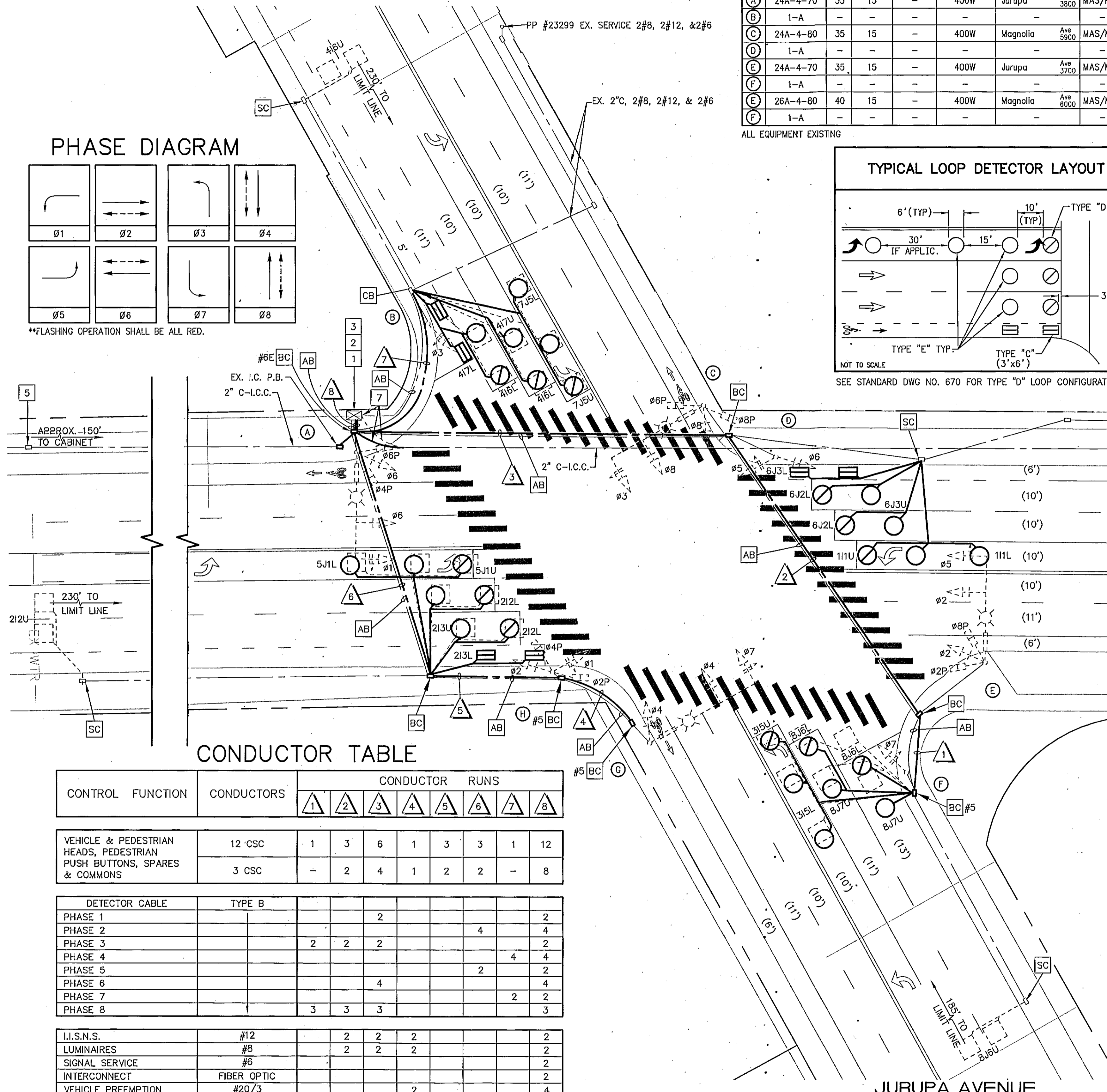
EVERY ENTRY BY ANY PERSONNEL INTO A PUBLIC UTILITIES HIGH VOLTAGE STRUCTURE WILL REQUIRE THE PRESENCE OF A QUALIFIED ELECTRICAL WORKER IN ACCORDANCE WITH Cal/OSHA. ALL DEVELOPERS AND CONTRACTORS ARE REQUIRED TO SUBMIT REQUIRED DOCUMENTATION AND FOLLOW REQUIRED PROCEDURES. COPIES OF THE POLICY AND DOCUMENTS MAY BE OBTAINED AT 3900 MAIN ST. RIVERSIDE, CA OR AT WWW.RIVERSIDECA.GOV/UTILITIES/QEW.

- ALL STREET LIGHT AND SERVICE/FEED POINT FACILITIES INSTALLED BY THE CONTRACTOR SHALL BE INSPECTED AND APPROVED BY THE RIVERSIDE PUBLIC UTILITIES (RPU) CONSTRUCTION INSPECTOR (951-826-2335 OR 951-826-2416). ANY CHANGES SHALL BE APPROVED BY THE RPU PRIOR TO EXECUTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL PHASES OF CONSTRUCTION OF THESE FACILITIES WITH THE RPU CONSTRUCTION INSPECTOR. THE RPU INSPECTOR SHALL BE CONTACTED TWO WORKING DAYS IN ADVANCE OF ANY CONSTRUCTION INSPECTION TO ARRANGE FOR INSPECTION TIMES.
- PROVIDE AND INSTALL ALL STREET LIGHT FACILITIES SHOWN ON TRAFFIC SIGNAL AND UTILITY PLANS, INCLUDING STREET LIGHT CABLE, IN CONFORMANCE WITH THE FOLLOWING STANDARD DRAWINGS: UGS-100, UGS-800, UGS-801, AND STREET LIGHT SPECIFICATION #2-6
- CONTRACTOR SHALL COORDINATE WITH CALTRANS TO PROVIDE AND INSTALL PRE-INSPECTED AND PRE-APPROVED TRAFFIC SIGNAL POLES WITHIN CALTRANS RIGHT-OF-WAY.

PHASE DIAGRAM



**FLASHING OPERATION SHALL BE ALL RED.



CONDUCTOR TABLE

CONTROL FUNCTION	CONDUCTORS	CONDUCTOR RUNS							
		1	2	3	4	5	6	7	8
VEHICLE & PEDESTRIAN HEADS, PEDESTRIAN PUSH BUTTONS, SPARES & COMMONS	12 CSC 3 CSC	1	3	6	1	3	3	1	12
DETECTOR CABLE	TYPE B								
PHASE 1				2					2
PHASE 2							4		4
PHASE 3		2	2	2					2
PHASE 4							4		4
PHASE 5					2				2
PHASE 6				4					4
PHASE 7							2		2
PHASE 8		3	3	3					3
I.I.S.N.S.	#12		2	2	2				2
LUMINAIRES	#8		2	2	2				2
SIGNAL SERVICE	#6								2
INTERCONNECT	FIBER OPTIC								2
VEHICLE PREEMPTION	#20/3				2				4
CONDUIT SIZE		3"	3"	4"	3"	3"	3"	3"	2-4"

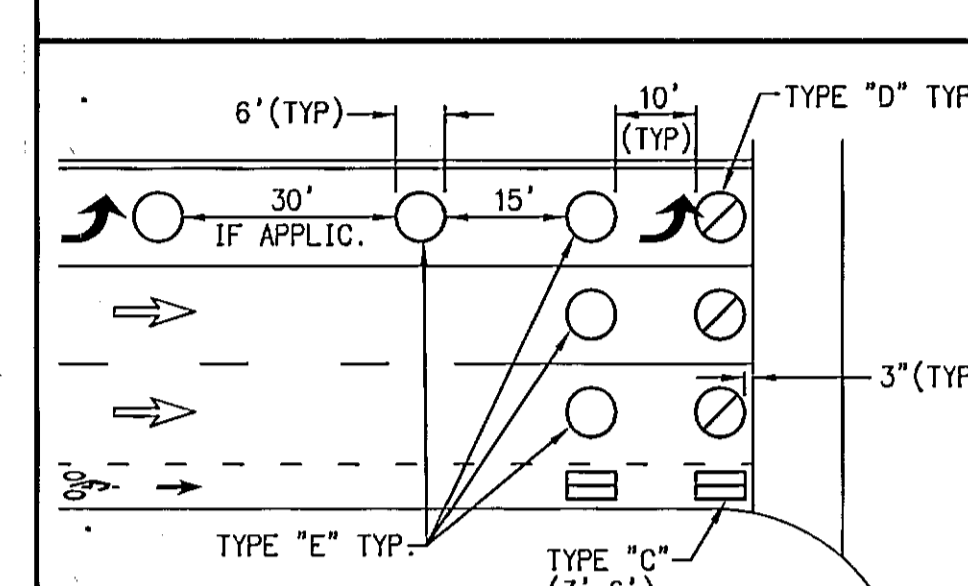
1. ALL CONDUITS AND CONDUCTORS SHALL BE NEW. ALL EXISTING CONDUCTORS SHALL BE REMOVED AND REPLACED WITH NEW CABLE.

EQUIPMENT SCHEDULE

No.	TYPE	STANDARD				LUMINAIRE H.P.S.	ISNS LEGEND	SIGNAL MOUNTING			PPB PHASE	POLE LOCATION		REMARKS		
		HGT.	SIG. M.A.	LUM. M.A.				VEHICLE	PED	AUDIBLE		A	B			
(A)	24A-4-70	35	15	-	-	400W	Jurupa	Ave 3800	MAS/MAS	SV-1-T	SP-2-T	-	#4+#6	-	3'	
(B)	1-A	-	-	-	-	-	-	-	-	TV-1-T	-	-	-	-	3'	
(C)	24A-4-80	35	15	-	-	400W	Magnolia	Ave 5900	MAS/MAS	SV-1-T	SP-2-T	-	#6	-	3'	
(D)	1-A	-	-	-	-	-	-	-	-	TV-2-T	-	-	-	-	3'	
(E)	24A-4-70	35	15	-	-	400W	Jurupa	Ave 3700	MAS/MAS	SV-1-T	SP-2-T	-	#2+#8	-	3'	
(F)	1-A	-	-	-	-	-	-	-	-	TV-1-T	-	-	-	-	3'	
(E)	26A-4-80	40	15	-	-	400W	Magnolia	Ave 6900	MAS/MAS	SV-1-T	SP-2-T	-	#2	-	3'	
(F)	1-A	-	-	-	-	-	-	-	-	TV-2-T	-	-	-	-	3'	

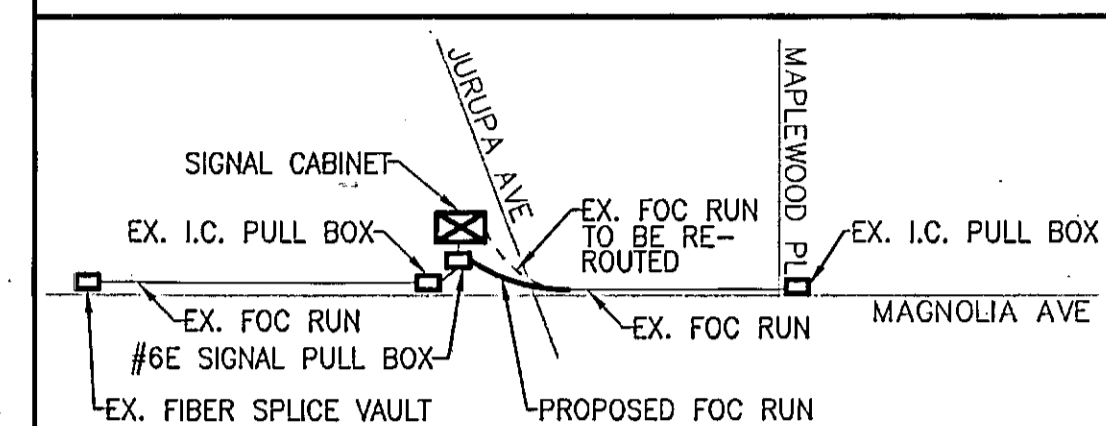
ALL EQUIPMENT EXISTING

TYPICAL LOOP DETECTOR LAYOUT



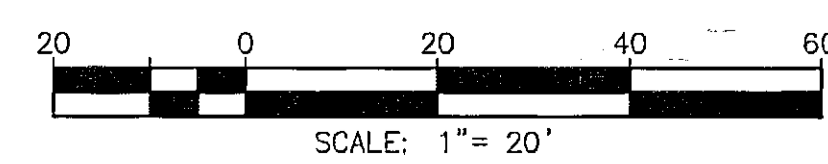
SEE STANDARD DWG NO. 670 FOR TYPE "D" LOOP CONFIGURATION

FIBER OPTIC REROUTE DETAIL



CONSTRUCTION NOTES:

- CONTRACTOR SHALL REMOVE AND SALVAGE EXISTING CONTROLLER ASSEMBLY AND EQUIPMENT TO CITY YARD, AND REMOVE EXISTING CABINET AND FOUNDATION. CONTRACTOR SHALL CONSTRUCT (TYPE 332 CABINET) FOUNDATION AND FURNISH AND INSTALL A NEW MODEL 332 ANODIZED ALUMINUM CABINET.
- CONTRACTOR SHALL FURNISH AND INSTALL NEW MODEL 2070 CONTROLLER ASSEMBLY, COMPLETE WITH DETECTION SHOWN AND AUXILIARY EQUIPMENT WITHIN THE NEW TYPE 332 CABINET PER CITY OF RIVERSIDE SPECIFICATIONS.
- REMOVE AND RELOCATE EXISTING 210 CONFLICT MONITOR AND FIBER OPTIC RACK AND EQUIPMENT FROM EXISTING CABINET TO NEW CABINET.
- LOOP DETECTORS SHALL BE NEW AS INDICATED ON PLAN. INSTALL PER TYPICAL LOOP DETECTOR LAYOUT DETAIL.
- CONTRACTOR TO SEVER EXISTING TRUNK 48SMFO AND REROUTE FOC RUN FROM SIGNAL CABINET DIRECTLY TO PULL BOX NORTH OF MAPLEWOOD. PULL BACK 12SMFO BRANCH CABLE AND CONNECT TO NEW TRAFFIC SIGNAL CABINET AT MAGNOLIA AND JURUPA. ONCE REROUTED, 48SMFO IS TO BE RECONNECTED. FIBER SHALL BE DISCONNECTED TO FACILITATE WORK FOR NO MORE THAN 5 DAYS. CONTRACTOR TO COMPLETE ALL WORK NECESSARY TO ENSURE FIBER PERFORMANCE IS THE SAME AS PRIOR TO CONSTRUCTION.
- PULL BACK AND COIL FIBER OPTIC CABLES TO FACILITATE REROUTING. SEE CONSTRUCTION NOTES 5 AND 7.
- BREAK EXISTING 2" CONDUIT FROM CONTROLLER FOUNDATION, REROUTE, AND CONNECT TO NEW #6E PULL BOX PER THE "FIBER OPTIC REROUTE DETAIL".
- REMOVE EXISTING PULL BOX AND INSTALL NEW NO. 6 PULL BOX, UNLESS OTHERWISE SPECIFIED, WITH FIBERLITE LID, LABELED "TRAFFIC SIGNAL".
- ABANDON EXISTING IN PLACE. EXISTING CONDUCTORS TO BE REMOVED.
- INSTALL NEW CONDUIT IN EXISTING TRAFFIC SIGNAL PULLBOX.
- SPLICE NEW TO EXISTING CONDUCTORS.



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ENGINEER IN RESPONSIBLE CHARGE
NATHAN T. MUSTAFA
R.C.E. No. 83954 EXPIRES: 3-31-23
DATE: 3/20/21

REGISTERED PROFESSIONAL ENGINEER
NATHAN T. MUSTAFA
No. 83954
Exp. 03-31-23
CIVIL
STATE OF CALIFORNIA

MARK	REVISIONS	APPR.	DATE

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	DATE	APPROVED BY	DATE
ENGINEERING MANAGER	EM	3/26/21	
PRINCIPAL ENGINEER			
TRAFFIC DIVISION			
CONSTRUCTION ADMIN.	DC	3/30/21	DATE: March 25, 2021

TRAFFIC SIGNAL PLAN
MAGNOLIA AVENUE AND JURUPA AVENUE
SCALE: 1" = 20' WORK ORDER #

X-205B
SHEET 1 OF 1
FILE NAME: X-205B.DWG