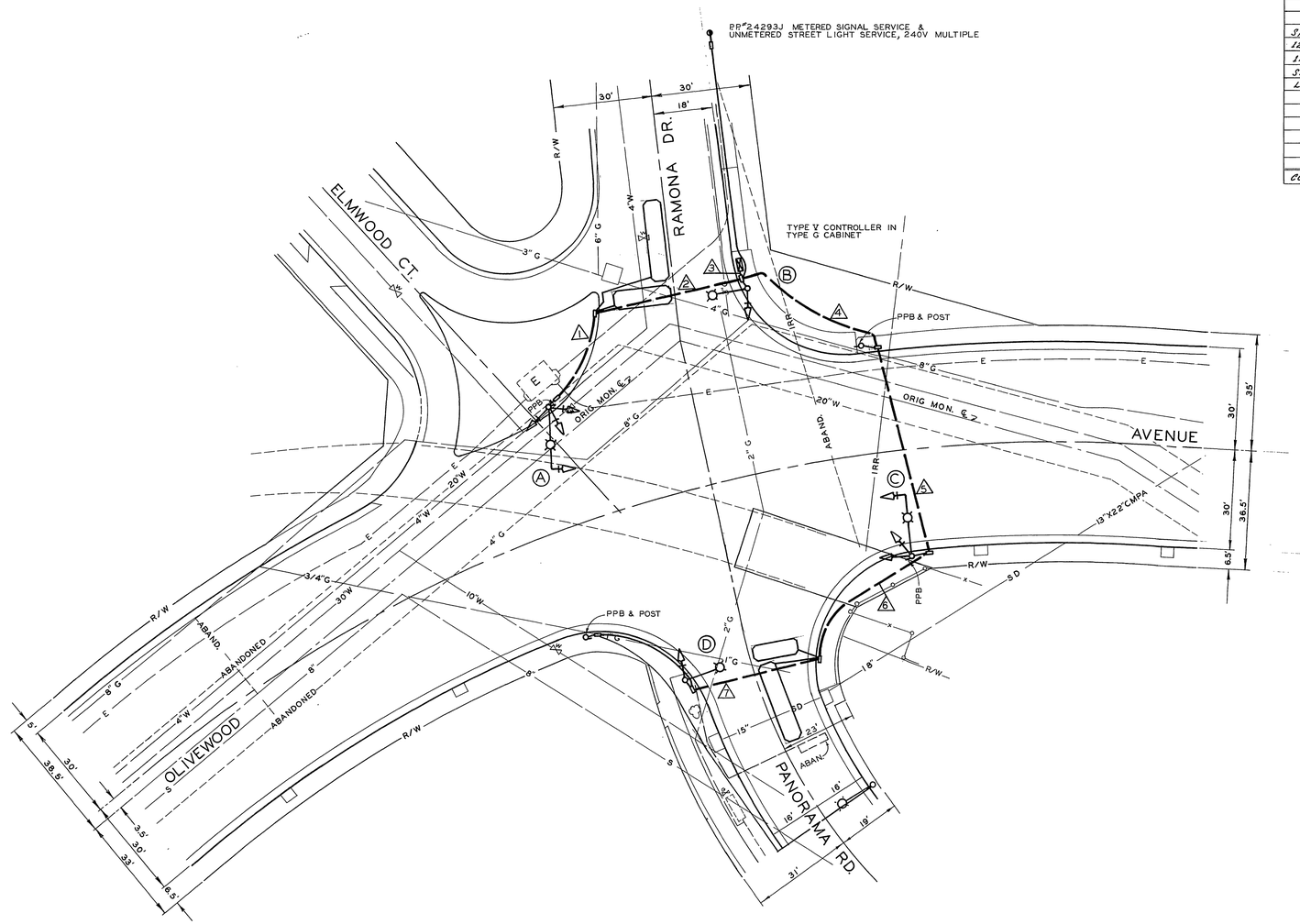
EQUIPMENT SCHEDULE

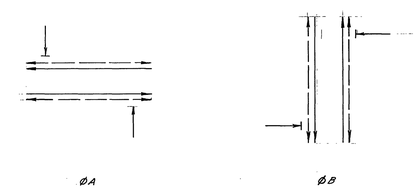
Loc.	Std.	Vehicle Equipment				Pedestrian Equipment			Luminaires
		Heads	Mtg.	Back Plate	Louver	Heads	Mtg.	P.P.B's	
A	PUM00	2-W3C(8")	B-4	4				1	20,000MV
	TC-7010	2-W3C(12")	M2,20MA						
B	4SD6	1-W3C(12")	B-1	1					7,000MV
C	PUM00	2-W3C(8")	B-2	3				1	20,000MV
	TC-7010	1-W3C(12")	M2,20MA						
D	4SD6	1-W3C(12")		1					7,000MV

CONDUCTOR SCHEDULE

Control Function	Conductors Size	Conductors Insulation	Conduit Run 1	2	3	4	5	6	7		
Vehicle Heads	#14	TW									
ØA			3	3	6	3	3				
ØB			3	3	9	3	3	3	3		
Ped. Push Button											
ØB			1	1	4	3	2	1	1		
Detector Cable	#12/2	U.S.E. or UF									
ØB					2	1	1	1	1		
Spares	#14	TW	3	3	3	3	3	3	3		
12V Common	#12		1	1	1	1	1	1	1		
120V Common	#10		1	1	1	1	1	1	1		
Signal Service	#8				2						
Luminaire			2	2		2	2	2	2		
Total	#14	TW	10	10	22	12	11	7	7		
	#12/2	U.S.E. or UF			2	1	1	1	1		
	#12	TW	1	1	1	1	1	1	1		
	#10		1	1	1	1	1	1	1		
	#8		2	2	2	2	2	2	2		
Conduit Size			2"	2"	3"	2"	2"	2"	2"		



PHASE DIAGRAM



Flashing Indications: ØA - yellow, ØB - red

REVISIONS			CITY OF RIVERSIDE, CALIFORNIA DEPARTMENT OF PUBLIC WORKS
MARK	DATE	DESCRIPTION	
	2/24/70	As Built revisions per contract TE-67-61 JMW	OLIVEWOOD AVE., RAMONA DR., ELMWOOD CT. & PANORAMA RD.
			TRAFFIC SIGNALS
DESIGNED BY	SUBMITTED BY	APPROVED BY	PROJ. NO.
DRAWN BY JMW	PARK DEPT. / TRAFFIC DIV.	DIRECTOR OF PUBLIC WORKS	X-410
CHECKED BY	RECOMMENDED BY ASSISTANT CITY ENGINEER	DATE	SHEET ___ OF ___

EQUIPMENT SCHEDULE

LOCATION	STANDARD	VEHICLE HEADS: HEAD	VEHICLE HEADS: MOUNTING	VEHICLE HEADS: BACK PLATE	PEDESTRIAN HEADS: HEAD	PEDESTRIAN HEADS: MOUNTING	PEDESTRIAN HEADS: PPB	LUMINAIRES: WATTAGE	MT. NAME STREET NAME SIGN	REMARKS
A	17-2-80	1W12L(12")	M1AS	1				200W		Salvage TC 7000 STD. and 1W Luminaire. Install as indicated. Relocate other equipment as noted. Provide foundation, conduit, and other equipment indicated.
	90W/M1A	1W12L(12")	M1AS	1						
		1W12L(12")	M1AS	1						
		1W12L(12")	M1-1-T	1	1W16L	M1-1-T	1			
B	1A(10)	1W12L(12")	M1-1-T	1	1W16L	M1-1-T	1			Provide and install equipment indicated.
C	17-2-80	1W12L(12")	M1AS	1						Salvage 8B(TS) Std. Veh. head and PPB. Install luminaire, brace (LH), shaft and install equipment indicated.
	90W/M1A	1W12L(12")	M1-1-T	1	1W16L	M1-1-T	1	200W		
D	1A(10)	1W12L(12")	M1-1-T	1	1W16L	M1-1-T	1			Provide and install equipment indicated.
E	17-2-80	1W12L(12")	M1AS	1				200W		Salvage TC 7000 STD. Std. head, luminaire, brace (LH), shaft and equipment. Install equipment indicated.
	90W/M1A	1W12L(12")	M1AS	1						
		1W12L(12")	M1-1-T	1	1W16L	M1-1-T	1			
F	1A(10)	1W12L(12")	M1-1-T	1	1W16L	M1-1-T	1			Provide and install equipment indicated.
G	1A(10)	1W12L(12")	M1-1-T	1	1W16L	M1-1-T	1	200W		Salvage std. head. Provide and install equipment indicated.
H	1A(10)	1W12L(12")	M1-1-T	1	1W16L	M1-1-T	1			Provide and install equipment indicated.

NOTE
1. All standards shall be City Furnished; includes anchor bolts.
2. Vehicular heads for turn indications shall have red, yellow and green arrows.
3. All signs existing on standards, to be salvaged shall be relocated to new standards unless otherwise noted.
4. Abandoned foundations shall be completely removed.
5. Install I.S.N.S. conductors in mastarms and shafts of poles at Locations A, C, and E.

DETECTOR SCHEDULE

No. of Channels	Loop Designation	No. of Loops	Features
1	1-N-1	1	●
2	2-N-2	3	
3	1-S-5	1	●
4	2-S-5	3	
5	1-S-2	2	■
6	1-S-2	2	●
7	2-S-2	4	
8	1-N-6	2	●
9	1-N-6	2	■
10	2-N-6	4	
11	1-W-4	3	
12	2-W-4	1	▲
13	1-E-8	1	■
14	1-E-8	1	
15	2-E-8	3	

Detectors shall be rack-mounted 2 channel (also see Special Provisions)
■ Call Hold (Extension)
● Future Sampling
▲ Delay
NOTES:
1. Detector timing features may be accomplished thru internal logic of the Controller Unit.
2. See Special Provisions regarding Detector Disconnect.
3. QUEUE DETECTOR LOOP OPERATION: Uninterrupted occupancy on this detector loop for a pre-determined time (selectable from 0 to 200 seconds and) shall cause the termination of any conflicting phase(s) being served. After termination of said phase(s), Phase 8 shall be served until the detection area becomes vacant.

LOCATION "C" (Sidemount)

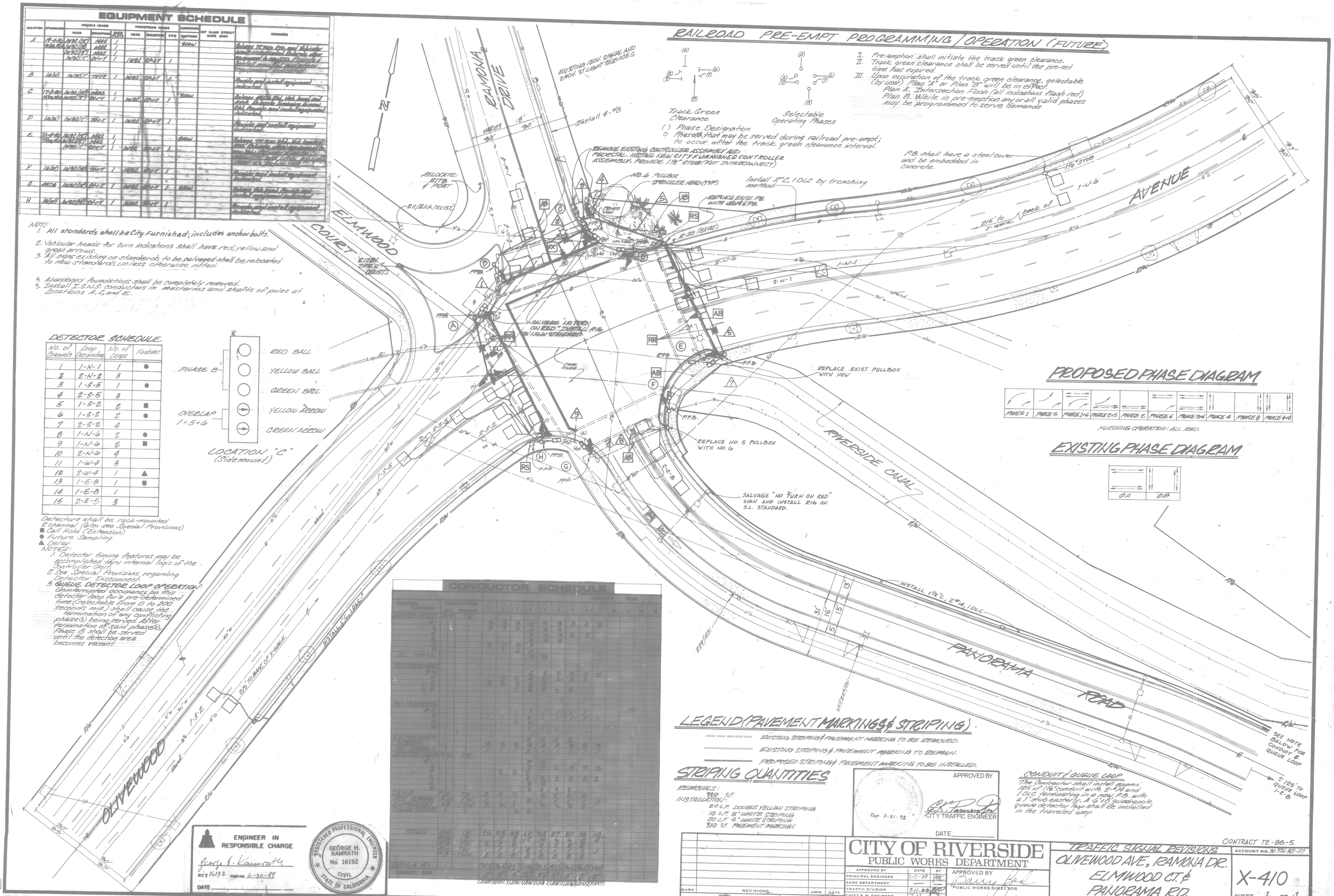
RAILROAD PRE-EMPT PROGRAMMING / OPERATION (FUTURE)

Track Green Clearance

Selectable Operating Phases

( ) Phase Designation
○ Phase(s) that may be served during railroad pre-empt; to occur after the track green clearance interval.

I. Pre-emption shall initiate the track green clearance.
II. Track green clearance shall be served until the pre-set time has expired.
III. Upon expiration of the track green clearance, selectable (by user) Plan "A" or Plan "B" will be in effect:
Plan A. Intersection Flash (all indications flash red)
Plan B. While in pre-emption any or all valid phases may be programmed to serve demands.



PROPOSED PHASE DIAGRAM

FLASHING OPERATION: ALL RED

EXISTING PHASE DIAGRAM

LEGEND (PAVEMENT MARKINGS & STRIPING)

EXISTING STRIPING & PAVEMENT MARKING TO BE REMOVED.
EXISTING STRIPING & PAVEMENT MARKING TO REMAIN.
PROPOSED STRIPING & PAVEMENT MARKING TO BE INSTALLED.

STRIPING QUANTITIES

REMOVALS:
300 S.F.
INSTALLATION:
20 L.F. DOUBLE YELLOW STRIPING
10 L.F. 8" WHITE STRIPING
20 L.F. 4" WHITE STRIPING
310 S.F. PAVEMENT MARKINGS

CONDUCTOR SCHEDULE

CONTROL FUNCTION	CONDUCTORS SIZE	CONDUCTORS MINIMUM	1	2	3	4	5	6	7	8	9	10	11	12	13
											CONDUIT RUN				
VEHICLE HEADS	#14	TW													
#1			3	3	3	6	3	3	3	3	3				
#2			3	3	3	6	3	3							
#3						3	3	3	3	3					
#4						3	3	3							
#5			3	3	3	6									
#6					3	6	3								
OL 1+5+6															
PEDESTRIAN HDS.															
#2						2	2	2	2	2	2				
#4				2	2	4	2	2	2	2					
#6			2	2	2	4	2	2							
#8					2	4	2	2	2						
PEDESTRIAN															
#2							1	1	1	1					
#4			1	1	1	2	1	1	1	1	1				
#6				1	2	2	1	1							
#8							1	1							
I.S.N.S. PRE-EMPT CABLES						2	2	2	2						
I.S.N.S. TRAFFIC COMMON			3	3	3	2	3	3	3	3	3				
DETECTOR LOOP	#14	TW	1		1	2	1	1	1	1	1				
#1						2	2								
#2						2	2	2	2	2	2				
#3			2	2	2	2									
#4						2	2	2	2	2	2				
#5						2	2	2	2	2	2				
#6						2	2	2	2						
#7						2	2	2	2						
#8						2	2	2	2						
I.S.N.S. (SOL. COMMON W/O CLOCK)	#12	THW	2	2	2		2	2	2	2					
I.S.N.S. (SOL. COMMON W/ CLOCK)	#8	THW	2	2	2		2	2	2	2	1				
SIGNAL SERVICE					2	2									
TOTALS	#14	TW	16	22	28	60	32	27	20	16	10				
	#12	THW		2	2	12	10	6	4	4	4				
	#10	THW	2	2	2		2	2	2	2					
	#8	THW	2	2	2	2	1	1	1	1	1				
	#8	THHN	2	2	2	2	2	2	2	2	2				
CONDUIT # (#)			(24.5)	(36.5)	(40.7)	(70.6)	(70.5)	(53.5)	(46.5)	(36.5)	(33.5)				
CONDUIT SIZE			2"	2"	3"	2½"	3½"	3"	3"	2"	2"				

CONDUIT & QUEUE LOOP
The Contractor shall install approx. 125 of 1½" conduit with 2-#14's and 1 DLC terminating in a new P.B. with a 1" stub easterly. A 6'x8' quadrapole queue detector loop shall be installed in the traveled way.

ENGINEER IN RESPONSIBLE CHARGE
George H. Kamrath
RCE 16152 expires 6-30-88
DATE

REGISTERED PROFESSIONAL ENGINEER
GEORGE H. KAMRATH
No. 16152
CIVIL
STATE OF CALIFORNIA

APPROVED BY
CITY TRAFFIC ENGINEER
DATE

Exp. 3-31-92

MARK	REVISIONS	APPR.	DATE

DESIGNED BY TMW DRAWN BY MRL CHECKED BY

CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT

APPROVED BY	DATE	BY
PRINCIPAL ENGINEER	7-11-88	
PARK DEPARTMENT	—	
TRAFFIC DIVISION	7-11-88	
CHIEF P. W. ENGINEER	7-11	
PUBLIC UTILITIES		

APPROVED BY
PUBLIC WORKS DIRECTOR
DATE 7/11/88

TRAFFIC SIGNAL REVISIONS
OLIVEWOOD AVE., RAMONA DR.
ELMWOOD CT. & PANORAMA RD.

CONTRACT TE-88-5
ACCOUNT NO. 30-776-321-07

X-410
SHEET 1 OF 1

HORIZ. SCALE: 1" = 80' VERT. SCALE: 1" =

88531
OZALID NO.2

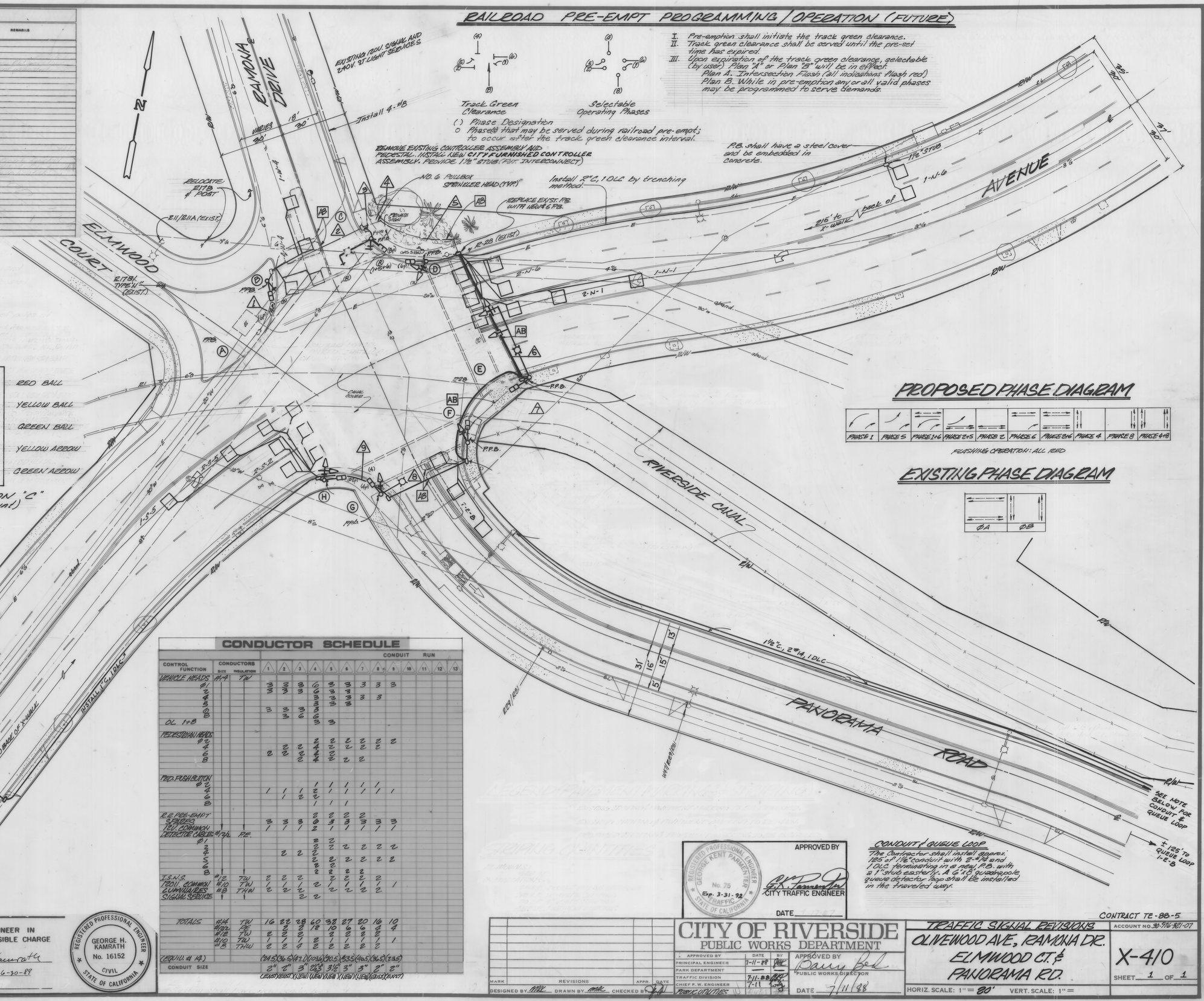
EQUIPMENT SCHEDULE

LOCATION	STANDARD	VEHICLE HEADS: HEAD	VEHICLE HEADS: MOUNTING	VEHICLE HEADS: BACK PLATE	PEDESTRIAN HEADS: HEAD	PEDESTRIAN HEADS: MOUNTING	PPB	LUMINAIRE WATTAGE	INT ILLUM STREET NAME SIGN	REMARKS
A	94A-1-70	1W12C(12")	MAS	1				200W		
	95B/10A	1W12C(12")	MAS	1						
		1W12C(12")	SP-1-T	1	1W12C	SP-1-T	1			
B	1A(10)	1W12C(12")	TV-1-T	1	1W12C	SP-1-T	1			
C	17-2-80	1W12C(12")	MAS	1				200W		
	95B/10A	1W12C(12")	SP-1-T	1	1W12C	SP-1-T	1			
D	1A(10)	1W12C(12")	TV-1-T	1	1W12C	SP-1-T	1			
E	94-1-80	1W12C(12")	MAS	1				200W		
	95B/10A	1W12C(12")	MAS	1						
		1W12C(12")	SP-1-T	1	1W12C	SP-1-T	1			
F	1A(10)	1W12C(12")	TV-1-T	1	1W12C	SP-1-T	1			
G	95D6	1W12C(12")	SP-1-T	1	1W12C	SP-1-T	1	200W		
H	1A(10)	1W12C(12")	TV-1-T	1	1W12C	SP-1-T	1			

RAILROAD PRE-EMPT PROGRAMMING / OPERATION (FUTURE)

I. Pre-emption shall initiate the track green clearance.
II. Track green clearance shall be served until the pre-set time has expired.
III. Upon expiration of the track green clearance, selectable (by user) Plan "A" or Plan "B" will be in effect.
Plan A. Intersection Flash (all indications flash red)
Plan B. While in pre-emption any or all valid phases may be programmed to serve demands.

() Phase Designation
O Phase(s) that may be served during railroad pre-empt; to occur after the track green clearance interval.

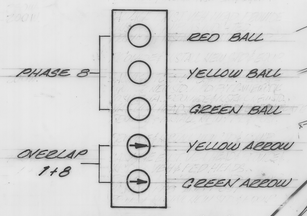


DETECTOR SCHEDULE

No. of Channels	Loop Designation	No. of Loops	Features
1	1-N-1	1	●
2	2-N-2	3	
3	1-S-5	1	●
4	2-S-5	3	
5	1-S-2	2	■
6	1-S-2	2	●
7	2-S-2	4	
8	1-N-6	2	●
9	1-N-6	2	■
10	2-N-6	4	
11	1-W-4	3	
12	2-W-4	1	▲
13	1-E-8	1	■
14	1-E-8	1	
15	2-E-8	3	

Detectors shall be rack-mounted
2 channel (also see Special Provisions)
■ Call Hold (Extension)
● Future Sampling
▲ Delay

NOTES:
1. Detector timing features may be accomplished thru internal logic of the controller unit.
2. See Special Provisions regarding Detector Disconnect.
3. **QUEUE DETECTOR LOOP OPERATION:** Uninterrupted occupancy on this detector loop for a pre-determined time (selectable from 0 to 200 seconds min.) shall cause the termination of any conflicting phase(s) being served. After termination of said phase(s), Phase 8 shall be served until the detection area becomes vacant.



LOCATION "C" (Sidemount)

CONDUCTOR SCHEDULE

CONTROL FUNCTION	CONDUCTORS: SIZE	CONDUCTORS: INSULATION	CONDUIT RUN 1	2	3	4	5	6	7	8	9	10	11	12	13
VEHICLE HEADS	#14	THW													
#1			3	3	3	6	3	3	3	3	3				
2			3	3	3	6	3	3							
4						3	3	3	3	3					
5						3	3	3							
6			3	3	3	3									
8				3	6	6	3								
OL 1+8															
PEDESTRIAN HEADS															
#2						2	2	2	2	2	2				
4				2	2	4	2	2	2	2					
6			2	2	2	4	2								
8					2	4	2	2	2						
PED. PUSH BUTTON															
#2						1	1	1	1	1					
4			1	1	1	2	1	1	1	1	1				
6				1	2	2									
8						1	1	1							
R.R. PRE-EMPT SERVICE						2	2	2	2						
P.U. COMMON			3	3	3	6	3	3	3	3	3				
DETECTOR CABLE	#14	P.E.	1	1	1	2	1	1	1	1	1				
#1						2	2								
2						2	2	2	2	2	2				
4				2	2	2									
5						2	2	2	2	2	2				
6						2	2								
8						2	2	2	2						
T.S.N.S.	#12	TW	2	2	2		2	2	2	2					
POL. COMMON	#10	THW	1	1	1	2	1	1	1	1	1				
LUMINAIRES	#8	THW	2	2	2		2	2	2	2					
SIGNAL SERVICE					2	2									
TOTALS	#14	TW	16	22	28	60	32	27	20	16	10				
	#12	PE		2	2	12	10	6	6	4	4				
	#12	TW	2	2	2		2	2	2	2					
	#10	TW	1	1	1	2	1	1	1	1	1				
	#8	THW	2	2	4	2	2	2	2	2					
(EQUIV. # 14)			(24.5)	(36.5)	(47.0)	(104)	(90.5)	(53.5)	(46.5)	(36.5)	(23.5)				
CONDUIT SIZE			2"	2"	3"	4"	3½"	3"	3"	2"	2"				
			(EXIST)	(EXIST)	(EXIST)	(NEW)	(NEW)	(NEW)	(NEW)	(EXIST)	(EXIST)				

PROPOSED PHASE DIAGRAM

FLASHING OPERATION: ALL RED

EXISTING PHASE DIAGRAM

CONDUIT & QUEUE LOOP

The Contractor shall install approx. 125 of 1½" conduit with 2-#14 and 1 DLC terminating in a new P.B. with a 1" drilled easterly. A 6"x6" quadrapole queue detector loop shall be installed in the traveled way.

ENGINEER IN RESPONSIBLE CHARGE
George H. Kamrath
RCE 16152 expires 6-30-88
DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE H. KAMRATH No. 16152 CIVIL STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER GEORGE KENT PARKETTER No. 75 TRAFFIC STATE OF CALIFORNIA
Exp. 3-31-92

APPROVED BY
G.K. Parketter
CITY TRAFFIC ENGINEER
DATE

CONTRACT TE-88-5

CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT

APPROVED BY	DATE	BY
PRINCIPAL ENGINEER	7-11-88	
PARK DEPARTMENT	—	—
TRAFFIC DIVISION	7-11-88	
CHIEF P.W. ENGINEER	7-11	
PUBLIC UTILITIES		

MARK | REVISIONS | APPR. | DATE

DESIGNED BY MAC DRAWN BY MAC CHECKED BY

APPROVED BY
Barry Bell
PUBLIC WORKS DIRECTOR
DATE 7/11/88

TRAFFIC SIGNAL REVISIONS
ACCOUNT NO. 30-776-201-07

OLIVEWOOD AVE., RAMONA DR.
ELMWOOD CT. & PANORAMA RD.

X-410

SHEET 1 OF 1

HORIZ. SCALE: 1" = 20' VERT. SCALE: 1" =

OZALID NO. 2