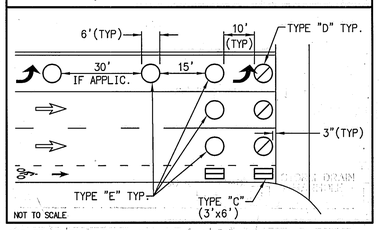
EQUIPMENT SCHEDULE

No.	STANDARD TYPE	HGT.	SIG. M.A.	LUM. M.A.	LUMINAIRE H.P.S. (CALTRANS)	LEGEND	SIGNAL MOUNTING VEHICLE	SIGNAL MOUNTING PED	PPB PHASE	REMARKS
(A)	17-3-100	30'	20'	12'	250W	Pine St 3600	MAS	SV-1-T	–	
(B)	1A	10'	–	–	–	–	–	TV-1-T	SP-1-T	ø6
(C)	17-3-100	30'	20'	12'	250W	Mission Inn Ave 4300	MAS	SV-1-T	SP-1-T	ø6
(D)	1A	10'	–	–	–	–	–	TV-1-T	SP-1-T	ø8
(E)	19-4-100	30'	25'	12'	250W	Pine St 3700	2-MAS	SV-1-T	SP-1-T	ø8
(F)	1A	10'	–	–	–	–	–	TV-1-T	SP-1-T	ø2
(G)	17-3-100	30'	20'	12'	250W	Mission Inn Ave 4400	MAS	SV-1-T	SP-1-T	ø2
(H)	1A	10'	–	–	–	SEE 1	–	TV-1-T	–	–

PEDESTRIAN AUDIBLES: C=CUCKOO (NORTH/SOUTH), P=PEEP PEEP (EAST/WEST)

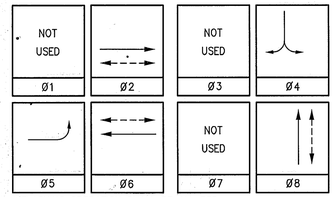
1. ALL VEHICULAR HEADS SHALL HAVE 12" LENSES.
2. PEDESTRIAN PUSH BUTTONS SHALL BE INSTALLED ON THE POLE IN THE QUADRANT NEAREST THE CROSSWALK SERVING THE PHASE.
3. CONTRACTOR SHALL POTHOLE MAST ARM POLE FOUNDATIONS PRIOR TO ORDERING POLES AND MAST ARMS.
4. ALL PEDESTRIAN HEADS SHALL BE LED COUNTDOWN HEADS.
5. ALL LEFT TURN VEHICLE HEADS SHALL HAVE ALL ARROWS.
6. PEDESTRIAN PUSH BUTTONS SHALL BE 2-WIRE POLARA ACCESSIBLE PEDESTRIAN SIGNALS (APS) OR CITY APPROVED EQUAL.

TYPICAL LOOP DETECTOR LAYOUT



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

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	1	2	3	4	5	8	1	2
	3 CSC	1	2	3	4	5	8	1	2
DETECTOR CABLE	TYPE B								
PHASE 1									
PHASE 2							4	4	4
PHASE 3									
PHASE 4			2	2	2	2	2		
PHASE 5							2	2	2
PHASE 6					4	4	4		
PHASE 7									
PHASE 8							2		
I.I.S.N.S.	#12	2	2	2	2	2			2
LUMINAIRES	#8	2	2	2	2	2			2
SIGNAL SERVICE	#6						2		
INTERCONNECT	6PR#19				1	1	2	1	1
VEHICLE PREEMPTION	#20/3	1	1	2	1	2	4		1
CONDUIT SIZE		3"	3"	3"	3"	3"	2-4"	3"	3"

SYSTEM SHALL HAVE ALL NEW CABLES, CONDUCTORS AND CONDUITS.

TRAFFIC SIGNAL GENERAL NOTES:

1. 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 2015; THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES ADOPTED 2014; AND THE SPECIAL PROVISIONS.
2. 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).
3. 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.
4. 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
5. 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.
6. 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).
7. 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 "COMMUNICATINS", SHALL BE SPACED AT 400' AND THE MAXIMUM SIC BENDING RADIUS SHALL NOT EXCEED 45'. SIC CONDUIT SHALL ONLY INCLUDE SIGNAL INTERCONNECT CONDUCTORS.
8. UNDERGROUND SIGNAL CONDUCTORS SHALL NOT BE SPLICED.
9. PULL BOXES SHALL BE No. 6 WITH FIBERLITE LIDS LABELED "TRAFFIC SIGNAL" UNLESS OTHERWISE NOTED ON THE PLAN.
10. PULL BOXES SHALL NOT BE LOCATED IN OR WITHIN 1' OF ANY CURB ACCESS RAMP OR DRIVEWAY.
11. THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER THE PRECISE FIELD LOCATIONS OF ALL TRAFFIC SIGNAL EQUIPMENT PRIOR TO THE INSTALLATION.
12. ALL LANDSCAPING WHICH IS DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE CITY AND THE PROPERTY OWNER.
13. NEW MAST ARM MOUNTED SIGN SHALL BE FABRICATED WITH 3M DIAMOND GRADE DG3 REFLECTIVE SHEETING (ASTM TYPE XI) OR APPROVED EQUAL. SIGNS SHALL BE STANDARD SIZE AND HAVE A MINIMUM SIDE DIMENSION OF 30".
14. VEHICLE HEADS SHALL BE 12" LED TYPE. THE HOUSING, BACKPLATES AND VISORS SHALL BE METAL.
15. INTERNALLY ILLUMINATED STREET NAME SIGNS (IISNS) SHALL BE TYPE A. STREET NAME LEGENDS SHALL BE UPPER/LOWER CASE AND SHALL INCLUDE BLOCK NUMBERS AND ROAD NAME SUFFIXES.
16. SALVAGED TRAFFIC SIGNAL EQUIPMENT SHALL BE DELIVERED TO THE CITY OF RIVERSIDE TRAFFIC SIGNAL MAINTENANCE YARD.
17. DAMAGED SIDEWALK CONCRETE SHALL BE REPLACED PER CITY OF RIVERSIDE STANDARD.
18. 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.
19. 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.
20. 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 3901 ORANGE ST. RIVERSIDE, CA OR AT **www.RIVERSIDEPUBLICUTILITIES.COM.**

( ) REMOVE AND SALVAGE EXISTING EQUIPMENT REMOVED COMPLETELY (AS APPLICABLE). CONTRACTOR SHALL COORDINATE W/ STREET LIGHT R. WAL

( ) REMOVE PAVEMENT MARKING OR STRIPING DETAIL AS NOTED

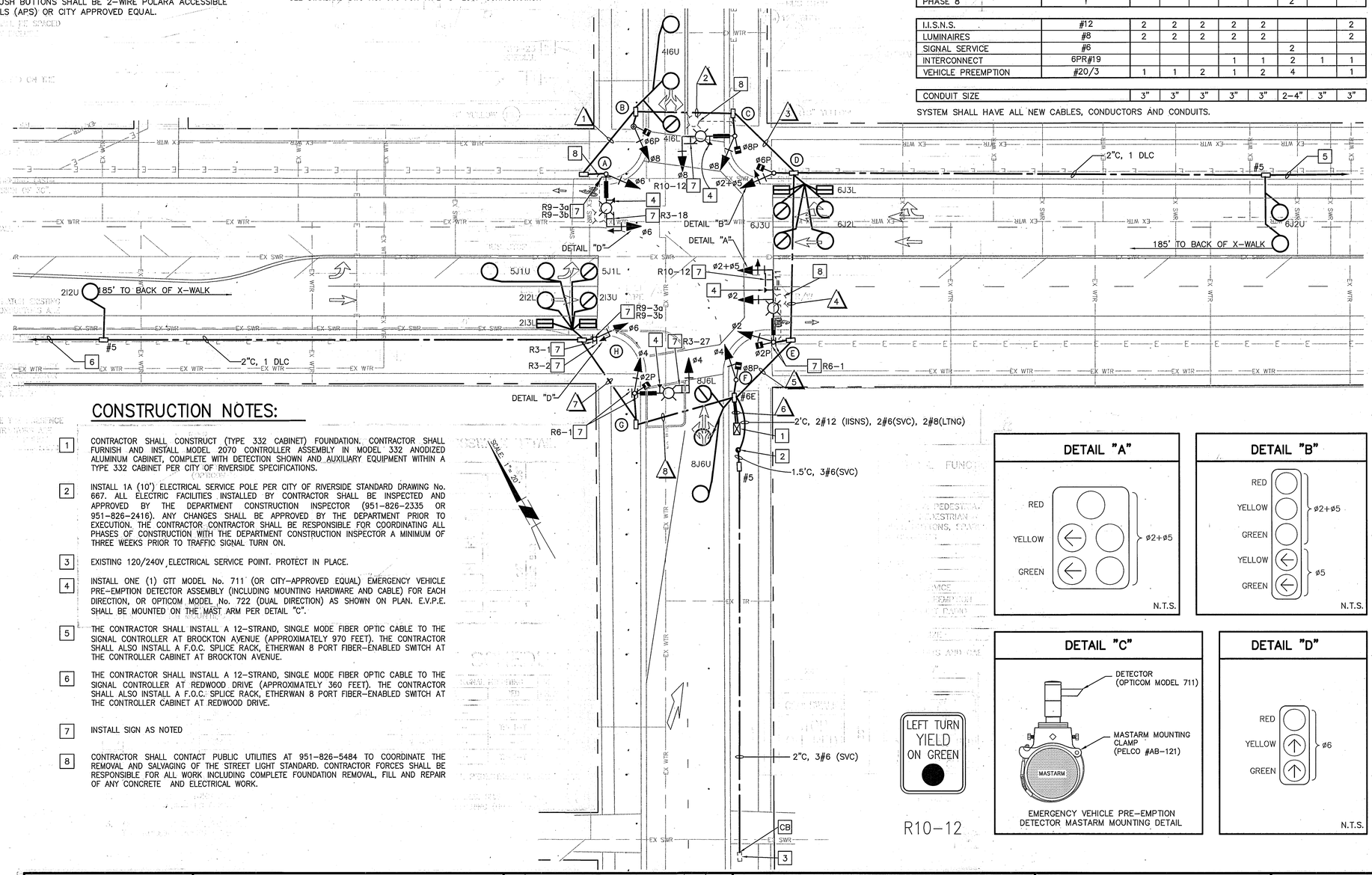
( ) REMOVE ALL EXISTING CONFLICTING TRAFFIC STRIPING AS NOTED, INCLUDING PAVEMENT MARKING

20 40 60

SCALE: 1" = 20'

CONSTRUCTION NOTES:

1. CONTRACTOR SHALL CONSTRUCT (TYPE 332 CABINET) FOUNDATION. CONTRACTOR SHALL FURNISH AND INSTALL MODEL 2070 CONTROLLER ASSEMBLY IN MODEL 332 ANODIZED ALUMINUM CABINET, COMPLETE WITH DETECTION SHOWN AND AUXILIARY EQUIPMENT WITHIN A TYPE 332 CABINET PER CITY OF RIVERSIDE SPECIFICATIONS.
2. INSTALL 1A (10') ELECTRICAL SERVICE POLE PER CITY OF RIVERSIDE STANDARD DRAWING No. 667. ALL ELECTRIC FACILITIES INSTALLED BY CONTRACTOR SHALL BE INSPECTED AND APPROVED BY THE DEPARTMENT CONSTRUCTION INSPECTOR (951-826-2335 OR 951-826-2416). ANY CHANGES SHALL BE APPROVED BY THE DEPARTMENT PRIOR TO EXECUTION. THE CONTRACTOR CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL PHASES OF CONSTRUCTION WITH THE DEPARTMENT CONSTRUCTION INSPECTOR A MINIMUM OF THREE WEEKS PRIOR TO TRAFFIC SIGNAL TURN ON.
3. EXISTING 120/240V ELECTRICAL SERVICE POINT. PROTECT IN PLACE.
4. INSTALL ONE (1) GTT MODEL No. 711 (OR CITY-APPROVED EQUAL) EMERGENCY VEHICLE PRE-EMPTION DETECTOR ASSEMBLY (INCLUDING MOUNTING HARDWARE AND CABLE) FOR EACH DIRECTION, OR OPTICOM MODEL No. 722 (DUAL DIRECTION) AS SHOWN ON PLAN. E.V.P.E. SHALL BE MOUNTED ON THE MAST ARM PER DETAIL "C".
5. THE CONTRACTOR SHALL INSTALL A 12-STRAND, SINGLE MODE FIBER OPTIC CABLE TO THE SIGNAL CONTROLLER AT BROCKTON AVENUE (APPROXIMATELY 970 FEET). THE CONTRACTOR SHALL ALSO INSTALL A F.O.C. SPLICE RACK, ETHERWAN 8 PORT FIBER-ENABLED SWITCH AT THE CONTROLLER CABINET AT BROCKTON AVENUE.
6. THE CONTRACTOR SHALL INSTALL A 12-STRAND, SINGLE MODE FIBER OPTIC CABLE TO THE SIGNAL CONTROLLER AT REDWOOD DRIVE (APPROXIMATELY 360 FEET). THE CONTRACTOR SHALL ALSO INSTALL A F.O.C. SPLICE RACK, ETHERWAN 8 PORT FIBER-ENABLED SWITCH AT THE CONTROLLER CABINET AT REDWOOD DRIVE.
7. INSTALL SIGN AS NOTED
8. CONTRACTOR SHALL CONTACT PUBLIC UTILITIES AT 951-826-5484 TO COORDINATE THE REMOVAL AND SALVAGING OF THE STREET LIGHT STANDARD. CONTRACTOR FORCES SHALL BE RESPONSIBLE FOR ALL WORK INCLUDING COMPLETE FOUNDATION REMOVAL, FILL AND REPAIR OF ANY CONCRETE AND ELECTRICAL WORK.



R10-12

CALL BEFORE YOU DIG — Underground Service Alert of Southern California — Call: TOLL FREE 1-800-227-2600 — TWO WORKING DAYS BEFORE YOU DIG

CITY OF RIVERSIDE

ENGINEER IN RESPONSIBLE CHARGE

GILBERT M. HERNANDEZ
R.C.E. No. 69170 EXPIRES: 06-30-18
DATE 3-16-18

REGISTERED PROFESSIONAL ENGINEER — GILBERT M. HERNANDEZ — No. 69170 — Exp. 06-30-18 — CIVIL — STATE OF CALIFORNIA

MARK	REVISIONS	APPR.	DATE

DESIGNED BY MAB DRAWN BY MAB CHECKED BY GMH

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE	APPROVED BY
ENGINEERING MANAGER	FM	3/9/18	
PRINCIPAL ENGINEER			CITY ENGINEER
TRAFFIC DIVISION			
CONSTRUCTION ADMIN.	DC	3/12/18	DATE 3/16/18
PUBLIC UTILITIES			

TRAFFIC SIGNAL PLAN

MISSION INN AVENUE AND PINE STREE

SCALE: 1" = 20'

X-559

SHEET 1 OF 1

FILE NAME: X-559.DWG