

- 1 REPLACE EXISTING TS1 CABINET AND CONTROLLER ASSEMBLY WITH NEW TS2 – TYPE 2 PER COUNTY SPECIFICATIONS. FURNISH AND INSTALL VIDEO DETECTION EQUIPMENT PER O.C. SPECIFICATIONS AND MISCELLANEOUS EQUIPMENT AS REQUIRED TO PROVIDE THE OPERATION SHOWN. FURNISH AND INSTALL A BATTERY BACK-UP SYSTEM PER O.C. SPECIFICATIONS IN A SEPARATE CABINET MOUNTED ON THE SIDE OF THE CONTROLLER CABINET. FOUNDATION SHALL EXTEND UNDER BATTERY BACK-UP CABINET.
- 2 INSTALL A 4" AND A 2" CONDUIT INTO THIS FOUNDATION TO THE NEW CABINET AND NEW CONTROLLER AS SHOWN.
- 3 PROTECT IN PLACE EXISTING TYPE 3 SERVICE. CONNECT TO EXISTING 2" CONDUIT AND EXTEND TO NEW #6 PULL BOX AS SHOWN WITH NEW CONDUCTORS.
- 4 FURNISH AND INSTALL NEW SPURCE CABINET PER O.C. SPECIFICATIONS. INSTALL #6 DEEP PULL BOX ON EXISTING 3" CONDUIT LEAVING CABINET AS SHOWN. INSTALL NEW 2" CONDUIT FROM PULL BOX TO CONTROLLER CABINET VIA BATTERY BACK-UP CABINET AND FOUNDATION. INTERCEPT AND JOIN EXISTING INTERCONNECT CONDUITS AS INDICATED. EXISTING I.C. CONDUCTORS CAN BE REMOVED AND REUSED.
- 5 INTERCEPT EXISTING 2-3" CONDUITS TO CONTROLLER AND INSTALL #6 PULL BOX. INSTALL NEW 4" CONDUIT TO BATTERY BACK-UP CABINET AND FOUNDATION.
- 6 INSTALL #6 PULL BOX ON EXISTING 3" CONDUIT TO SPURCE CABINET. INTERCEPT INTERCONNECT CONDUITS AND EXTEND TO NEW PULL BOX. DETERMINE LOCATION OF EXISTING 2" CONDUIT TO TELEPHONE SERVICE. INTERCEPT CONDUIT AND EXTEND TO PULL BOX. REMOVE AND REINSTALL 1-2" PVC I.C. CONDUCTORS AND FIBER OPTIC CABLE.
- 7 INSTALL VIDEO CAMERA ON SIGNAL MAST ARM WITH 5' EXTENSION POLE PER O.C. AND MANUFACTURER'S SPECIFICATIONS.
- 8 REMOVE AND SALVAGE ALL EXISTING EVP DETECTORS AND PHASE DETECTORS IN CABINET. RELOCATE EVP DETECTORS PER PLAN AS SHOWN. FURNISH AND INSTALL EVP CABLE AND MOUNTING BRACKET AS NECESSARY FOR INTENDED LOCATIONS. RE-USE PHASE DETECTOR IN CONTROLLER CABINET.
- 9 RELOCATE EXISTING POLE PER POLE SCHEDULE. REMOVE EXISTING POLE FOUNDATION.
- 10 REMOVE AND SALVAGE EXISTING POLE COMPLETE, RELOCATE CCTV CAMERA AND M-WI ANTENNA AND PROVIDE NEW CABLE AS NECESSARY TO NEW POLE LOCATION. REMOVE EXISTING POLE FOUNDATION.
- 11 INSTALL SIGN AS INDICATED.
- 12 FURNISH AND INSTALL NEW L.E.D. ISNS PER O.C. SPECIFICATIONS.
- 13 INSTALL 6" DIA. DETECTION LOOPS PER O.C. SPECIFICATIONS.
- 14 EXISTING I.C. CONDUCTORS AND TELEPHONE CONNECTION CAN BE REMOVED AND REUSED.
- 15 ALL EXISTING FRONT CALL LOOPS DETECTION SHALL BE ABANDONED.



1. ALL WORK, MATERIAL AND EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF THE STATE OF CALIFORNIA, DEPT. OF TRANSPORTATION, STANDARD PLANS AND STANDARD SPECIFICATIONS DATED MAY, 2006, AND THE SPECIAL PROVISIONS FOR THIS PROJECT.

2. UTILITIES SHOWN ON THESE PLANS ARE CORRECT AND ACCURATE TO THE EXTENT OF AVAILABLE RECORDS AND KNOWLEDGE. THE CONTRACTOR, HOWEVER IS REQUIRED TO ASCERTAIN THE EXACT LOCATION OF UNDERGROUND FACILITIES PRIOR TO DOING WORK THAT MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR SERVICE.

3. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND NOTIFY ALL UTILITY COMPANIES A MINIMUM OF 48 HOURS PRIOR TO START OF CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL PHASES OF CONSTRUCTION WITH THE VARIOUS UTILITY COMPANIES INVOLVED. VERIFY SERVICE LOCATION PRIOR TO CONSTRUCTION.

4. THE CONTRACTOR SHALL NOTIFY TRAFFIC OPERATIONS AT (714)834-4502 48 HOURS PRIOR TO START OF CONSTRUCTION.

5. ALL TRAFFIC SIGNAL EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE SPECIFIED.

6. THE ENGINEER SHALL APPROVE THE EXACT LOCATION OF ALL PULLBOXES, CONDUITS, LOOP DETECTORS, CONTROLLER AND POLES IN THE FIELD.

7. ALL CONDUIT SHALL BE 2" UNLESS OTHERWISE SPECIFIED.

8. ALL PULLBOXES SHALL BE NO. 5 UNLESS OTHERWISE SPECIFIED.

9. THE CONTRACTOR MAY PLACE CONDUIT BY JACKING OR DRILLING.

10. ALL VEHICLE INDICATIONS SHALL BE 12" AND L.E.D. ALL PEDESTRIAN INDICATIONS SHALL BE L.E.D. COUNTDOWN TYPE.

11. ALL NEW LOOPS SHALL HAVE 4-TURNS, BE 6" CIRCULAR, WITH 9" SPACING IN THE DIRECTION OF TRAVEL, CENTERED IN THESESE UNLESS OTHERWISE SPECIFIED. INSTALL LOOPS WITH HOT-MELT RUBBERIZED ADHESANT SEALANT.

12. ALL TRAFFIC LOOPS, SIGNING, PAVEMENT MARKINGS AND STRIPING SHALL BE INSTALLED PRIOR TO TURN ON.

13. THE CONDUCTOR SCHEDULE IS FURNISHED AS AN INSTALLATION GUIDELINE ONLY, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE CORRECT CONDUCTORS REQUIRED FOR THE INTENDED OPERATION.

14. ALL WIRING AND EQUIPMENT SHALL BE MARKED (TAGGED) WITHIN THE CONTROLLER CABINET FOR PHASE IDENTIFICATION AND DESIGNATION OF POLE.

15. UNGROUNDED SIGNAL LIGHT CONDUCTORS SHALL NOT BE SPLICED.

16. CONTRACTOR SHALL POT-HOLE POLE LOCATIONS AND VERIFY FOUNDATION LOCATIONS.

17. ALL PULL BOX LIDS SHALL BE OF A NON-PCC MATERIAL PER CALTRANS SPECIFICATIONS AND STANDARD PLANS.

18. CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT ALL COMMUNICATION EQUIPMENT SUCH AS MODEM, SWITCHES, ETC. AND EXISTING FIBER OPTIC CABLE & I.C. WHEN TRANSFER FROM OLD TO NEW CABINET AND REINSTALL IT TO BE FULLY FUNCTIONAL AS EXISTING STATE.

19. HANDLING FIBER OPTIC CABLE SHALL BE BY CERTIFIED FIBER OPTIC TECHNICIAN / PERSONEL WHEN REMOVE, RE-USE AND INSTALL FIBER OPTIC.

20. CONTRACTOR SHALL BE PROVIDED NEW I.C. AND FIBER OPTIC CABLE THIS LOCATION TO NEXT CONTROLLER CABINET LOCATION IF NOT AVAILABLE.

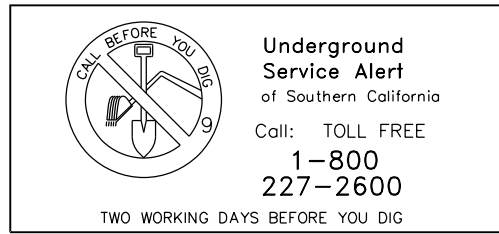
21. CONTRACTOR SHALL BE DELIVERED TO O.C. YARD ALL SALVAGE TRAFFIC SIGNAL EQUIPMENT SUCH AS CONTROLLER CABINET, BBS CABINET, POLES ETC. - UN-DAMAGED.

EXIST. 2" C. 1-12PR #19;
1 FIBER OPTIC CABLE
FROM BENJAMIN

Underground
Service Alert
of Southern California

Call: TOLL FREE
1-800
227-2600

TWO WORKING DAYS FOR YOU TO DO



POLE SCHEDULE															
POLE DATA			SIGNAL M.A.	(NEW) L.E.D.		SIGNAL HEADS AND MOUNTINGS			PED. PUSH BUTTON			POLE LOCATION			(NEW) L.E.D. I.S.N.S. NAME SIGN (dbl. face)
NO.	TYPE	HEIGHT		M.A.	WATTS	VEHICULAR	M.A.	PEDESTRIAN**	TYPE	PHASE	QUAD.	"B"	"E"	"C"	
(A)	61-5-100	30'	65'	15'	157	SV-1-T	3 MAS	SP-1-CS	-	-	-	-	4'	5'	Oso
(B)	PPB POST	4'7"	-	-	-	-	-	-	B	4P	N	-	17'	3'	-
(C)	15(R)	30'	-	15'(R)	157	SV-2-TA(R)	-	SP-1-CS(R)	B(N)	6P	E	12'	-	2.5'	-
(D)	29-5-80(R)	30'	55'(R)	12'(R)	157	SV-1-T	3 MAS(R)	SP-1-CS(R)	B	6P	E	-1'	-	2.5'	Antonio
(E)	15(R)	30'	-	12'(R)	157	SV-2-TA(R)	-	SP-1-CS(R)	B(N)	8P	S	-5	-	2.5'	-
(F)	61-5-100	30'	65'	15'	157	SV-1-T	2 MAS	SP-1-CS	B	-	-	-	0'	3'	Oso
(G)	PPB POST	4'7"	-	-	-	-	-	-	B	8P	S	-	15'	5'	-
(H)	15(R)	30'	-	15'(R)	157	SV-2-TA(R)	-	SP-1-CS(R)	B(R)	2P	W	14.5'	-	2.5'	-
(I)	29-5-80(R) SPECIAL**	30'	65'(R)	15'(R)	157	SV-1-T	3 MAS(R)	SP-1-CS(R)	B(N)	2P	W	-	5'	2.5'	Antonio
(J)	15(R)	30'	-	15'(R)	157	SV-2-TA(R)	-	SP-1-CS(R)	B(R)	4P	N	5'	-	2.5'	-

* - ALL PEDESTRIAN HEADS SHALL BE I.E.D. COUNTDOWN TYPE - RELOCATED PEDESTRIAN HEADS SHALL HAVE NEW I.E.D. COUNTDOWN MODULES
 ** - SPECIAL MANUFACTURED POLE - MATCH ANCHOR BOLTS DIA AND PATTERN (DEPTH 60" X 6") CIH PILE FOUNDATION PER 61-5-100 POLE
 ALL EQUIPMENT IS NEW UNLESS NOTED (R) FOR RELOCATE

PHASE — FUNCTION — SEQUENCE DIAGRAM

VEHICLE & PEDESTRIAN MOVEMENTS PER FUNCTION								
NEMA PHASE DESIGNATION	1	5	6	2	7	3	4	8
COORDINATED FUNCTION	*	*	*	*	*	*	*	*

■ ■ ■ ■ ■ ■ ■ ■

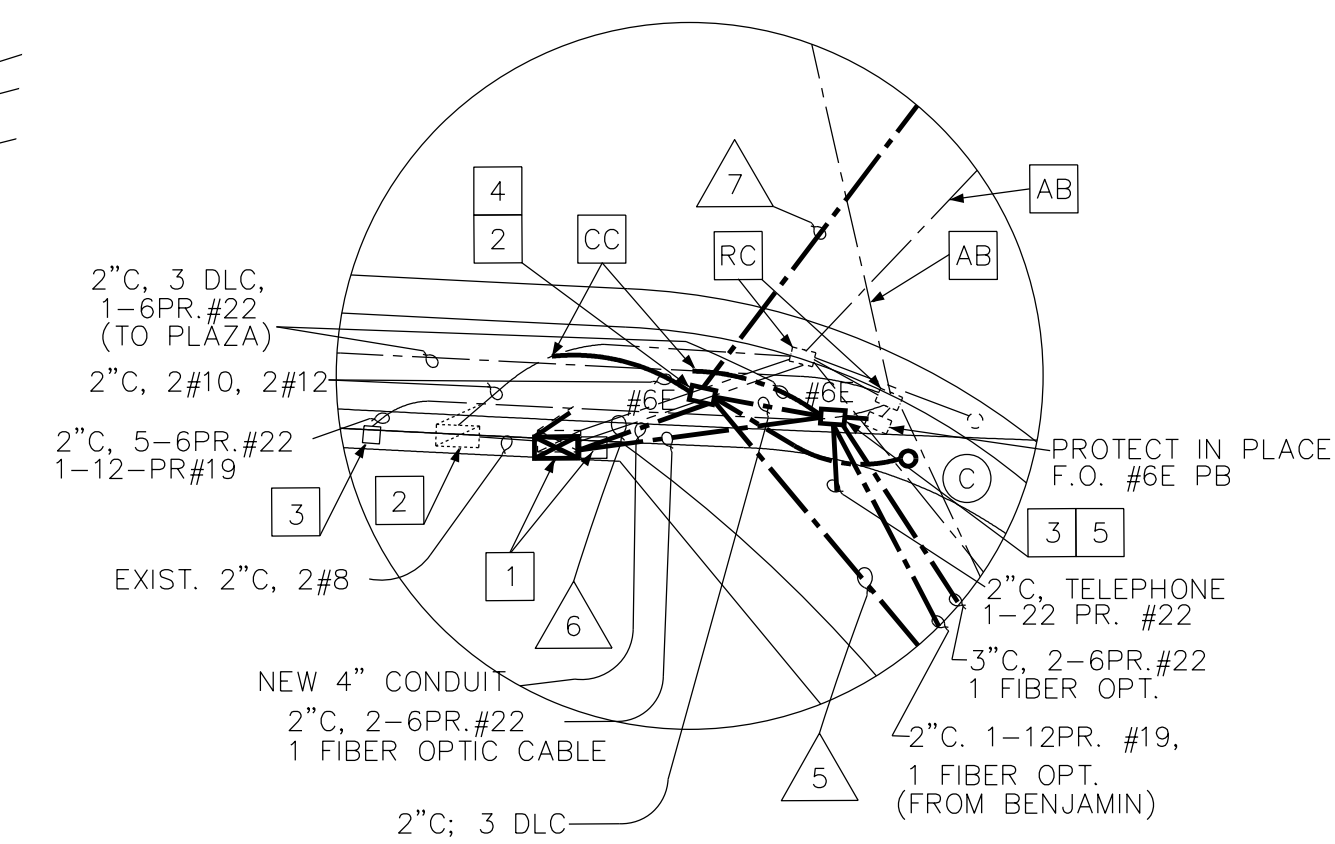
• Determined by Master Computer During Coordination Operation

```

graph LR
    15[1+5] --> 16[1+6]
    15 --> 25[2+5]
    16 --> 26[2+6]
    25 --> 26
    26 --> 37[3+7]
    37 --> 38[3+8]
    37 --> 47[4+7]
    38 --> 48[4+8]
    47 --> 48
        
```

SEQUENCE WITH CALLS ON ALL PHASES

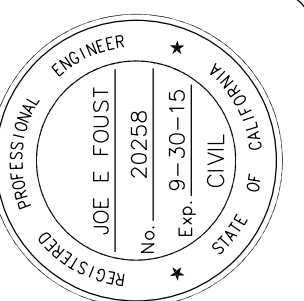
■ - EVP RELAY CIRCUIT REQUIRED IN CABINET



DETAIL B

CONDUCTOR			SCHEDULE							
AWG SIZE, WIRE OR CABLE TYPE	STD	PHASES	CONDUIT SIZE AND RUN NUMBER							
			1	2	3	4	5	6	7	8
12 WIRE CONDUCTOR CABLE 11-#14 1-#12	(A)	#1, #6, #6P	-	-	-	-	1/0	1/0	-	-
	(B)		/#4PPB	-	-	-	0/1	0/1	-	-
	(C)	#3, #4, #4P	/#6PPB	-	-	-	-	1/1	-	-
	(D)	#3, #8, #8P	/#6PPB	-	-	-	-	1/1	1/1	-
	(E)	#5, #6, #6P	/#8PPB	-	-	-	-	1/1	1/1	1/1
	(F)	#2, #5, 0LA, #2P	-	1/1	1/1	1/1	1/1	1/1	-	-
	(G)		/#8PPB	0/1	0/1	0/1	0/1	0/1	-	-
	(H)	#7, #8, #8P	/#2PPB	-	1/1	1/1	1/1	1/1	-	-
	(J)	#7, #7, 0LA	/#2PPB	-	1/1	1/1	1/1	1/1	-	-
	(U)	#1, #2, 0LA, #2P	/#4PPB	-	-	1/2	1/2	1/2	1/2	-
	TOTAL CABLES		1/2	2/3	3/4	4/5	5/7	8/10	2/2	1/1
#10	LED LUMINAIRE		2	2	2	2	2	-	2	2
#12	LED I.S.N.S.		2	2	2	2	2	-	2	-
3-#16	VDE POWER CABLE		1	1	2	2	3	4	1	-
	FIBER OPTIC CABLE		-	-	-	-	-	1	-	-
OPTICOM CABLE			1	1	3	3	4	4	-	-
TYPE C DLC	#2		-	-	3	3	3	-	-	-
	#4		-	-	-	-	3	-	-	-
	#6		-	-	-	-	4	4	4	-
	#8		3	3	3	3	3	-	-	-
			-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-
	TOTAL		3	3	6	6	13	4	4	4
PERCENT FILL			14	24	20	26	21	23	19	6
CONDUIT SIZES (INCHES)			3"	4"	4"	4"	4"	2-3/4" (1-4"N)	4"	3"

* ALL CONDUCTORS EXCEPT I.C. CONDUCTORS SHALL BE NEW. ALL CONDUIT IS NEW UNLESS OTHERWISE SHOWN.
* - BELDON #8281 COAXIAL CABLE (IF APPLICABLE)

[illegible]

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

OE E. FOUST
CE C 20258 (EXP. 09-30-15)

DATE _____

DESIGNED BY:			
<u>SR/RP</u>			
DRAWN BY:	CHECKED BY:		
<u>SR/RP</u>	CT		
DRAWING CODE:			
XXXX			
JOB NO.			
10-1411-01			
PLOT DATE:		SCALE: AS SHOWN	

DESIGNED BY:

COUNTY OF ORANGE
OC PUBLIC WORKS

stantec Consulting Inc.
9 Technology Drive, Suite 200
Irvine California 92618 USA
Tel: (949) 923-6000 Fax: (949) 923-6121
www.stantec.com

Stantec

OSO PARKWAY WIDENING

SIGNAL MODIFICATION PLAN
OSO PARKWAY AND
ANTONIO PARKWAY

Sheet
Reference
Number

19

OF 63