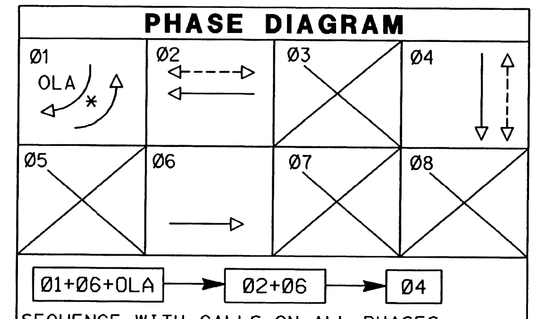
POLE SCHEDULE

POLE DATA NO.	TYPE	HEIGHT	SIGNAL M.A.	H.P.S. LIGHTS M.A.	WATTS	SIGNAL MOUNTING VEH.	M.A.	PED.	P.P.B. PHASE	QUAD	FOUNDATION TYPE	SIZE	LED IISNS
1	29-5-100	30'	40'	15'	250	SV-2-TA	MAS-5A 2-MAS	SP-1-CS	4	W	C	3'-0" X 9'-2"	Hewes Ave
2	17-3-100	30'	15'	12'	250	SV-1-T*	MAS	-	-	-	C	3'-0" X 9'-0"	Seventeenth St■
3	19-3-100	30'	30'	15'	250	SV-1-T	MAS	SP-1-CS	-	-	C	3'-0" X 9'-0"	Hewes Ave
4	1-A	10'	-	-	-	TV-1-T*	-	-	2 4●	S E●	S	2'-0" X 3'-0"	-
5	15TS	30'	-	12'	250	-	-	SP-1-CS	2	S	C	2'-6" X 5'-0"	-
6	PPB	3'-4"	-	-	-	-	-	-	4	W	S	1'-6" X 1'-6"	-
7	1-A	10'	-	-	-	TV-1-T*	-	SP-1-CS	-	-	S	2'-0" X 3'-0"	-

ALL EQUIPMENT SHALL BE NEW.
IISNS = INTERNALLY ILLUMINATED STREET NAME SIGN
● = BICYCLE PUSH BUTTON
* = 5 SECTION HEAD
■ = 18" X 96"
S = SQUARE
C = C.I.D.H.

PHASE DIAGRAM



SEQUENCE WITH CALLS ON ALL PHASES.
* = PROTECTED / PERMISSIVE
OLA = Ø4+Ø1

☒ INDUCTIVE LOOP DETECTOR SCHEDULE

SENSOR UNIT	CHANNEL	DETECTOR
# 1	1 1	1-Ø2 (1)
	2 2	2-Ø2 (2)
# 2	1 3	1-Ø6 (3)
	2 4	2-Ø6 (4)

☒ DETECTOR LOOP LOCATIONS SHALL BE APPROVED BY ENGINEER IN FIELD PRIOR TO INSTALLATION.
⊞ VEHICLE COUNTING SYSTEM NUMBER.
(#) SYSTEM SAMPLER NUMBER.

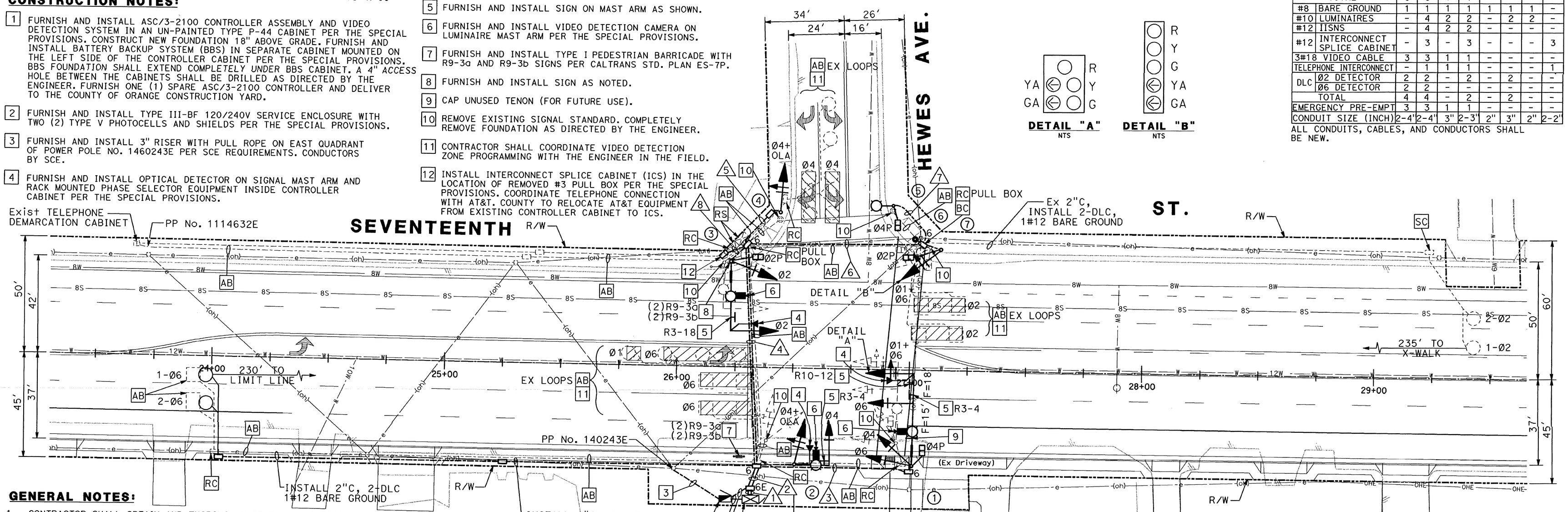
CONDUCTOR SCHEDULE

AWG OR CABLE		RUN 1	2	3	4	5	6	7	8
12 CONDUCTORS 3 CONDUCTORS	POLE 1	1 1	1 1	1 1	- -	- -	- -	- -	- -
	POLE 2	1 -	1 -	- -	- -	- -	- -	- -	- -
	POLE 3	1 -	1 -	- -	1 -	- -	- -	- -	- -
	POLE 4	1 1	1 1	- -	1 1	1 1	- -	- -	- -
	POLE 5	1 1	1 1	- -	1 -	- -	1 1	1 1	- -
	POLE 6	- 1	- 1	- -	- 1	- -	- 1	- -	- -
	POLE 7	1 -	1 -	- -	1 -	- -	1 -	- -	- -
TOTAL		6 4	6 4	1 1	4 3	1 1	2 2	- 1	- -
5 CONDUCTORS	POLE 1	1	1	1	-	-	-	-	-
	POLE 2	1	1	-	-	-	-	-	-
	POLE 3	1	1	-	1	-	-	-	-
TOTAL		3	3	1	1	-	-	-	-
#8	BARE GROUND	1	1	1	1	1	1	1	-
#10	LUMINAIRES	-	4	2	2	-	2	2	-
#12	IISNS	-	4	2	2	-	-	-	-
#12	INTERCONNECT SPLICE CABINET	-	3	-	3	-	-	-	3
3#18	VIDEO CABLE	3	3	1	1	-	-	-	-
TELEPHONE INTERCONNECT		-	1	1	1	-	-	-	1
DLC	Ø2 DETECTOR	2	2	-	2	-	2	-	-
	Ø6 DETECTOR	2	2	-	-	-	-	-	-
TOTAL		4	4	-	2	-	2	-	-
EMERGENCY PRE-EMPT		3	3	1	1	-	-	-	-
CONDUIT SIZE (INCH)		2-4"	2-4"	3"	2-3"	2"	3"	2"	2-2"

ALL CONDUITS, CABLES, AND CONDUCTORS SHALL BE NEW.

CONSTRUCTION NOTES:

1. FURNISH AND INSTALL ASC/3-2100 CONTROLLER ASSEMBLY AND VIDEO DETECTION SYSTEM IN AN UN-PAINTED TYPE P-44 CABINET PER THE SPECIAL PROVISIONS. CONSTRUCT NEW FOUNDATION 18" ABOVE GRADE. FURNISH AND INSTALL BATTERY BACKUP SYSTEM (BBS) IN SEPARATE CABINET MOUNTED ON THE LEFT SIDE OF THE CONTROLLER CABINET PER THE SPECIAL PROVISIONS. BBS FOUNDATION SHALL EXTEND COMPLETELY UNDER BBS CABINET. A 4" ACCESS HOLE BETWEEN THE CABINETS SHALL BE DRILLED AS DIRECTED BY THE ENGINEER. FURNISH ONE (1) SPARE ASC/3-2100 CONTROLLER AND DELIVER TO THE COUNTY OF ORANGE CONSTRUCTION YARD.
2. FURNISH AND INSTALL TYPE III-BF 120/240V SERVICE ENCLOSURE WITH TWO (2) TYPE V PHOTOCELLS AND SHIELDS PER THE SPECIAL PROVISIONS.
3. FURNISH AND INSTALL 3" RISER WITH PULL ROPE ON EAST QUADRANT OF POWER POLE NO. 1460243E PER SCE REQUIREMENTS. CONDUCTORS BY SCE.
4. FURNISH AND INSTALL OPTICAL DETECTOR ON SIGNAL MAST ARM AND RACK MOUNTED PHASE SELECTOR EQUIPMENT INSIDE CONTROLLER CABINET PER THE SPECIAL PROVISIONS.
5. FURNISH AND INSTALL SIGN ON MAST ARM AS SHOWN.
6. FURNISH AND INSTALL VIDEO DETECTION CAMERA ON LUMINAIRE MAST ARM PER THE SPECIAL PROVISIONS.
7. FURNISH AND INSTALL TYPE I PEDESTRIAN BARRICADE WITH R9-3a AND R9-3b SIGNS PER CALTRANS STD. PLAN ES-7P.
8. FURNISH AND INSTALL SIGN AS NOTED.
9. CAP UNUSED TENON (FOR FUTURE USE).
10. REMOVE EXISTING SIGNAL STANDARD. COMPLETELY REMOVE FOUNDATION AS DIRECTED BY THE ENGINEER.
11. CONTRACTOR SHALL COORDINATE VIDEO DETECTION ZONE PROGRAMMING WITH THE ENGINEER IN THE FIELD.
12. INSTALL INTERCONNECT SPLICE CABINET (ICS) IN THE LOCATION OF REMOVED #3 PULL BOX PER THE SPECIAL PROVISIONS. COORDINATE TELEPHONE CONNECTION WITH AT&T. COUNTY TO RELOCATE AT&T EQUIPMENT FROM EXISTING CONTROLLER CABINET TO ICS.



GENERAL NOTES:

1. CONTRACTOR SHALL OBTAIN AND THOROUGHLY READ THE TRAFFIC SIGNAL SPECIAL PROVISIONS FOR THIS PROJECT PRIOR TO ORDERING EQUIPMENT. NO ADDITIONAL COMPENSATION WILL BE MADE FOR COSTS RELATED TO UNSPECIFIED EQUIPMENT.
2. EXISTING TRAFFIC SIGNAL SHALL REMAIN FULLY OPERATIONAL DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE ALL NECESSARY WIRING AND TRAFFIC CONTROL TO MAINTAIN SIGNAL OPERATION.
3. CONTRACTOR SHALL POTHOLE POLE LOCATIONS AND VERIFY FOUNDATION LOCATIONS PRIOR TO ORDERING POLES.
4. THE ENGINEER SHALL APPROVE THE EXACT LOCATIONS OF ALL POLES, CABINETS, CONDUITS, PULLBOXES AND DETECTORS IN THE FIELD PRIOR TO INSTALLATION.
5. THE CONDUCTOR SCHEDULE IS FURNISHED AS AN INSTALLATION GUIDE ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE CORRECT CONDUCTORS REQUIRED FOR THE INTENDED OPERATION.
6. ALL WIRING AND EQUIPMENT SHALL BE MARKED (TAGGED) WITHIN THE CONTROLLER CABINET FOR PHASE AND POLE IDENTIFICATION.
7. ALL CONDUITS SHALL BE SCHEDULE 80 WITH BELL BUSHINGS AND BARE BOND WIRES PER THE SPECIAL PROVISIONS.
8. CONTRACTOR SHALL COORDINATE REQUIRED CHANGES WITH ELECTRIC SERVICE PROVIDER AS NEEDED TO ENERGIZE NEW TRAFFIC SIGNAL.
9. CONTRACTOR SHALL HAVE AUTHORIZED/CERTIFIED REPRESENTATIVES OF RESPECTIVE EQUIPMENT MANUFACTURERS PRESENT AT THE TIME OF SIGNAL TURN-ON AS DIRECTED BY THE ENGINEER.
10. THE CONTRACTOR SHALL REPAIR OR REPLACE, AT HIS/HER EXPENSE, ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS IN A PROMPT MANNER. CONTRACTOR SHALL NOTIFY RESIDENT ENGINEER OF ANY DAMAGE TO CITY OR COUNTY OWNED EQUIPMENT CAUSED BY CONTRACTOR.
11. ALL INDICATIONS AND ILLUMINATED SIGNS SHALL BE LED TYPE AS SPECIFIED IN THE SPECIAL PROVISIONS.
12. USE ANCHOR BOLT WITH SLEEVE NUTS FOR ALL TYPE 1-A FOUNDATIONS, AS PER DETAIL ON ES-7B.
13. ALL PEDESTRIAN/BICYCLE PUSH BUTTONS SHALL CONFORM TO CALTRANS STD. PLAN ES-5C AND THE SPECIAL PROVISIONS.
14. ALL SALVAGED EQUIPMENT SHALL BE DELIVERED UNDAMAGED TO THE COUNTY OF ORANGE CONSTRUCTION YARD AT 1152 EAST FRUIT STREET, SANTA ANA. PROVIDE 24 HOUR ADVANCED NOTICE.

SCALE: 1"=20'

FPL and Associates, Inc.
Traffic • Transportation • Civil • CAD
10 Corporate Park, Suite 310
Irvine, CA 92606
PHONE: 949-252-1688

Washington
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17300 REDHILL AVE, SUITE 150
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MARK	DATE	DESCRIPTION

REVISIONS

PREPARED UNDER RESPONSIBLE CHARGE OF:
REGISTERED PROFESSIONAL ENGINEER ALEXANDER D. ZUPANSKI No. C 59351 Exp. 06/30/09 CIVIL STATE OF CALIFORNIA
ALEXANDER ZUPANSKI DATE 5/23/08
FPL AND ASSOCIATES, INC.

APPROVED Grant Anderson 6/23/08
GRANT ANDERSON DATE
COUNTY TRAFFIC ENGINEER
COUNTY OF ORANGE
OC PUBLIC WORKS

SEVENTEENTH STREET AT HEWES AVENUE SIGNAL MODIFICATION PLAN

DESIGNED DS		SHEET
DRAWN DS	CHECKED ADZ	15
SCALE AS SHOWN	DATE JUNE 08	DRAWING NO. ER08955
		OF 19

File Name: ...\TS-01.dgn
Date Plotted: 5/27/2008

Last modified: 4/29/08

DRAWING NO. 10A