

GENERAL NOTES:

1. CONTRACTOR AND CONTRACTOR'S EMPLOYEES WHO WILL PERFORM WORK WITHIN 10' OF THE MUNI RAIL TRACKS AT THIS INTERSECTION SHALL FIRST RECEIVE "ON TRACK SAFETY TRAINING" AND CERTIFICATION FROM THE SFMTA BEFORE STARTING THE WORK. CONTRACTOR SHALL SCHEDULE TRAINING BY CONTACTING DARRYL KESECKER, SFMTA SAFETY MANAGER AT (415) 646-2506. CONTRACTOR SHALL SIGN A "HOLD HARMLESS" AGREEMENT WITH RESPECT TO THE SAFETY TRAINING (SEE CONTRACT SPECIFICATIONS). IN ADDITION TO THE SAFETY TRAINING, THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE MUNI OPERATIONS CONTROL CENTER (OCC) BEFORE WORKING WITHIN 10' OF THE MUNI TRACKS. MUNI OCC PERMIT APPLICATION PROCEDURE WILL BE DISCUSSED AS PART OF THE SFMTA SAFETY TRAINING.

SHEET NOTES:

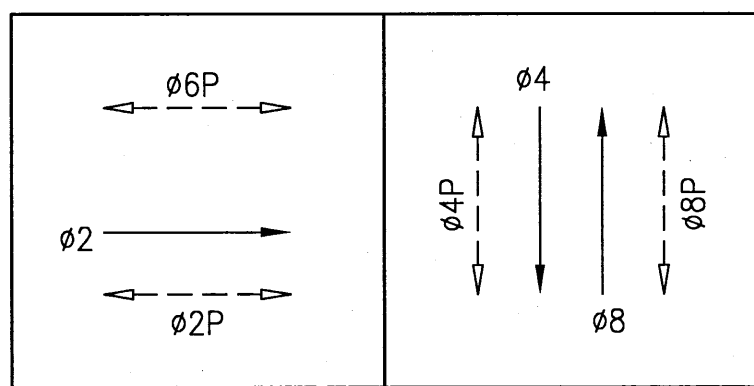
- 1 THE PG&E SERVICE POINT IS THE WOOD POLE ON THE SOUTHWEST CORNER. COORDINATE WITH PG&E THROUGH SFPUC FOR ACTIVATION OF SERVICE POINT.
- 2 CONDUITS SHALL BE INSTALLED UNDER CABLE CAR TRACKS. SEE SSDPWSF SECTION 601.03 (TYPICAL). CONDUITS SHALL BE INSTALLED 1' BELOW THE BOTTOM OF THE BALLAST BED AND INSTALLED BY JACKING OR PUSHING OR PULLING. CONTRACTOR SHALL NOT PREVENT THE FUNCTIONAL OPERATION OF CABLE CAR OPERATIONS AT ANY TIME. CONTRACTOR SHALL NOTIFY DAVID BANBURY FROM MUNI CABLE CAR OPERATIONS AT 292-2071 SEVEN DAYS PRIOR TO WORKING UNDER CABLE CAR TRACKS AND/OR ACCESSING MUNI PULL BOX(ES). PULL BOX(ES) CAN BE ONLY ACCESSED DURING CABLE NON-OPERATION HOURS (1:30 AM TO 4:30 AM).

- 3 CONDUIT SHALL BE TERMINATED IN A MUNI CABLE CAR PREEMPT BOX TO BE IDENTIFIED DURING CONSTRUCTION. SEE CABLE CAR SLOT/TRACK DETAIL (E-0.5) COORDINATE WITH CITY FORCES FOR TERMINATION OF CABLE CAR PREEMPTION WIRES IN THE CABLE CAR PREEMPT BOX.
- 4 FURNISH AND INSTALL 316 STAINLESS STEEL NEMA 4X ENCLOSURE DIMENSIONS (12" H X 12" W X 6" D) WITH CONTINUOUS HINGE COVER AND PAD LOCKABLE LATCH. ENCLOSURE SHALL INCLUDE BACK PLATE FOR DIN RAIL AND 12 POSITION KNIFE DISCONNECT TERMINAL BLOCK. ENCLOSURE SHALL BE MOUNTED ONTO TRAFFIC SIGNAL CABINET WITH 5/16" STAINLESS STEEL SCREW SET AT 26" ABOVE FINISH GRADE TO THE BOTTOM OF THE ENCLOSURE. CONTRACTOR TO DRILL 2" HOLE ON THE ENCLOSURE AND TRAFFIC CABINET AND PROVIDE WATERPROOFING FOR WIRING. PRE-EMPT WIRING SHALL BE TERMINATED IN THE SIGNAL CABINET VIA THE ENCLOSURE TERMINAL BLOCK. EXACT CONDUIT HOLE AND PLACEMENT OF ENCLOSURE TO BE DETERMINED IN THE FIELD. PROVIDE WATER AND RUBBER SEAL TO ALL HOLES AND CONDUIT OPENING AND CAULKING TO SEAL THE ENCLOSURE BETWEEN THE SIGNAL CABINET AND ENCLOSURE. PROVIDE GROUND BONDING JUMPER TO METAL ENCLOSURE. CONTRACTOR SHALL ROUTE CONDUITS IN SAME TRENCH.
- 5
- 6 EXERCISE CAUTION TO AVOID CONFLICT WITH OVERHEAD MUNI AND UTILITY WIRES AT THIS INTERSECTION.
- 7 CONTRACTOR SHALL CONTACT AND COORDINATE WITH THE POSTMASTER OF THE USPS AT 1-800-222-1811 TO RELOCATE MAILBOX.
- 8 FIRE STATION WILL CONSTRUCT FIRE PREEMPTION SYSTEM WITHIN STATION AND BRING WIRES TO PULL BOX. CONTRACTOR TO F/I FIRE PREEMPTION WIRES TO THE PULL BOX PER CONDUIT AND WIRING SCHEDULE. PROVIDE ±50' OF SLACK WIRE IN PULL BOX.

NEW SIGNAL ACTIVATION - 5/19/2020  
FLASH: 8:15 AM  
3-COLOR: 9:05 AM

Wei Zhang, Leonard Wong, Brigido Franco  
(Signal Shop)  
Jim Lau (BAL)  
Daniel Larson, Robert Bergeson, Eric Lee  
(Cable Car)  
Karl Johnson (PW) Nikki Kobayashi (MTA)

PHASE DIAGRAM



NOTE:  
THIS AUTOCAD DRAWING HAS BEEN REVISED AND REPLOTTED SUBSEQUENT TO INTERNAL ENGINEERING APPROVAL AND SIGN-OFF. FOR THOSE SIGNATURES, SEE THE DRAWING PLOTTED AND ISSUED PREVIOUSLY DURING BIDDING. THE SIGNED DRAWING REMAINS VALID EXCEPT FOR THE CHANGES ONLY AS CLEARLY MARKED ON THIS DRAWING AND ISSUED UNDER THIS LATEST REVISION NUMBER AS SHOWN IN THE TABLE OF REVISIONS LOCATED AT THE LOWER LEFT CORNER OF THE DRAWING. ALL ISSUED REVISIONS SUBSEQUENT TO PREVIOUSLY PLOTTED DRAWING DURING BIDDING REMAIN VALID UNLESS SUPERSEDED BY LATER ISSUED REVISIONS. CHECK ALL ISSUED REVISIONS OF THIS DRAWING.

NO.	DATE	DESCRIPTION	BY	APP.
2	5/2019	PCO 4-Preemption Wire Changes	NK/ST	GD/SL
1	11/2018	PCO 1-Miscellaneous Pole Layout Changes	NK/ST	GD/SL

TABLE OF REVISIONS

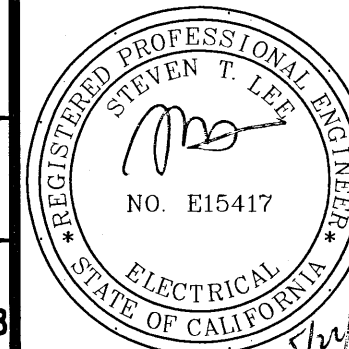
REFERENCE INFORMATION  
& FILE NO. OF SURVEYS



BUREAU OF DESIGN & ENGINEERING  
CITY & COUNTY OF SAN FRANCISCO  
SAN FRANCISCO PUBLIC WORKS  
30 VAN NESS AVENUE, 5TH FLOOR  
SAN FRANCISCO, CA 94102 - 6028

Section Mgr:	PHILIP THWIN
Deputy Bureau Mgr:	IQBALBHAI DHAPA
Bureau Mgr:	PATRICK RIVERA

DESIGNED:	DATE:
NK/CMF	3/2018
DRAWN:	DATE:
NK/CMF	3/2018
CHECKED:	DATE:
GD/SL	3/2018







SCALE:
1"=10'
SHEET OF SHEETS
24 OF 43



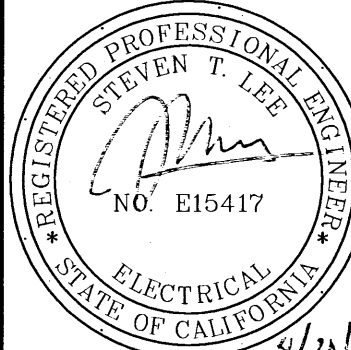
CONTRACT 64 NEW TRAFFIC SIGNALS
LEAVENWORTH STREET & WASHINGTON STREET TRAFFIC SIGNAL WORK

CONTRACT NO. 100009385
DRAWING NO. E-8.0
FILE NO. 111,772
REV. NO. 2



POLE AND EQUIPMENT SCHEDULE											
POLE No.	TYPE OF POLE	LUMINAIRE VOLTAGE/ WATTAGE	VEHICLE SIGNAL					PEDESTRIAN SIGNAL			REMARKS
			No.	TYPE	MOUNTING	VISORS	LOUVERS	No.	TYPE	MOUNTING	
①	CITY STANDARD STREET LIGHT		81	3S12"	SV-1-T	T		88	1S-COUNT	SP-1	MOUNT SIGNAL #81 AT 13' APS-2W
②	1-A (13')		22	3S12"	TV-1-T	T		69	1S-COUNT	SP-1	APS-2W
③	CITY STANDARD STREET LIGHT		21	3S12"	SV-1-T	T		28	1S-COUNT	SP-1	MOUNT SIGNAL #21 AT 13' APS-2W
④	CITY STANDARD STREET LIGHT		42	3S12"	SV-1-T	T		89	1S-COUNT	SP-1	MOUNT SIGNAL #42 AT 13' APS-2W
⑤	1-A (13)		41	3S12"	TV-1-T	T		48	1S-COUNT	SP-1	APS-2W
⑥	CITY STANDARD STREET LIGHT		25	3S12"	SV-1-T	T		29	1S-COUNT	SP-1	APS-2W
⑦	1-A (10')							68	1S-COUNT	SP-1	APS-2W
⑧	1-A (13')		82	3S12"	TV-1-T	T		49	1S-COUNT	SP-1	APS-2W



<table><tr><td>NO.</td><td>DATE</td><td>DESCRIPTION</td><td>BY</td><td>APP.</td></tr><tr><td colspan="5">TABLE OF REVISIONS</td></tr></table>					NO.	DATE	DESCRIPTION	BY	APP.	TABLE OF REVISIONS					REFERENCE INFORMATION & FILE NO. OF SURVEYS				 <div>BUREAU OF DESIGN &amp; ENGINEERING CITY &amp; COUNTY OF SAN FRANCISCO SAN FRANCISCO PUBLIC WORKS 30 VAN NESS AVENUE, 5TH FLOOR SAN FRANCISCO, CA 94102 - 6028</div>		<table><tr><td>Section Mgr:</td><td>PHILIP THWIN</td><td>Date:</td><td>4/23/18</td></tr><tr><td>Deputy Bureau Mgr:</td><td>IQBALBHAI DHAPA</td><td>Date:</td><td>4/23/18</td></tr><tr><td>Bureau Mgr:</td><td>PATRICK RIVERA</td><td>Date:</td><td>4/24/18</td></tr></table>		Section Mgr:	PHILIP THWIN	Date:	4/23/18	Deputy Bureau Mgr:	IQBALBHAI DHAPA	Date:	4/23/18	Bureau Mgr:	PATRICK RIVERA	Date:	4/24/18	<table><tr><td>DESIGNED:</td><td>DATE:</td></tr><tr><td>NK/CMF</td><td>3/2018</td></tr><tr><td>DRAWN:</td><td>DATE:</td></tr><tr><td>NK/CMF</td><td>3/2018</td></tr><tr><td>CHECKED:</td><td>DATE:</td></tr><tr><td>GD/SL</td><td>3/2018</td></tr></table>		DESIGNED:	DATE:	NK/CMF	3/2018	DRAWN:	DATE:	NK/CMF	3/2018	CHECKED:	DATE:	GD/SL	3/2018			SCALE: AS SHOWN SHEET OF SHEETS 26 OF 43		CONTRACT 64 NEW TRAFFIC SIGNALS LEAVENWORTH STREET & WASHINGTON STREET POLE AND EQUIPMENT SCHEDULE		<table><tr><td>CONTRACT NO.</td><td>1000009385</td></tr><tr><td>DRAWING NO.</td><td>E-8.1</td></tr><tr><td>FILE NO.</td><td>111,773</td></tr><tr><td>REV. NO.</td><td>0</td></tr></table>		CONTRACT NO.	1000009385	DRAWING NO.	E-8.1	FILE NO.	111,773	REV. NO.	0
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CONDUIT AND WIRING SCHEDULE (FURNISH AND INSTALL CONDUIT AND WIRES)																																																		
CONDUIT RUN NUMBER		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47		
CONDUIT SIZE (INCH)		2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	UNK	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	3	2	2	2		
					SP						SP				SP					GRS	GRS	GRS	GRS	GRS	GRS	GRS	GRS	EX								SP							SP			SP				
NOTES																																																		
	VEHICLE SIGNAL 22	3		3				3		3																																								
	PED SIGNAL 69	2		2				2		2																																								
	APS PPB XING WASHINGTON ON POLE 2	2		2				2		2																																								
	VEHICLE SIGNAL 81		3	3				3		3																																								
	PED SIGNAL 88		2	2				2		2																																								
	APS PPB XING LEAVENWORTH ON POLE 1		2	2				2		2																																								
	VEHICLE SIGNAL 82					3			3	3																																								
	PED SIGNAL 49					2			2	2																																								
	APS PPB XING WASHINGTON ON POLE 8					2			2	2																																								
	PED SIGNAL 68							2		2	2																																							
	APS PPB XING LEAVENWORTH ON POLE 7							2		2	2																																							
	VEHICLE SIGNAL 21												3		3																																			
	PED SIGNAL 28												2		2																																			
	APS PPB XING WASHINGTON ON POLE 3												2		2																																			
	VEHICLE SIGNAL 42													3	3																																			
	PED SIGNAL 89													2	2																																			
	APS PPB XING LEAVENWORTH ON POLE 4													2	2																																			
	VEHICLE SIGNAL 41																3		3																															
	PED SIGNAL 48																2		2																															
	APS PPB XING LEAVENWORTH ON POLE 5																2		2																															
	VEHICLE SIGNAL 25																	3	3																															
	PED SIGNAL 29																	2	2																															
	APS PPB XING WASHINGTON ON POLE 6																2	2																																
	#14 NEUTRAL	2	2			2	1					2	2			2	2																																	
	#14 SPARE			3				3		3				3				3																																
	TOTAL #14 WIRES	9	9	17		9	5	17	11	28		9	9	17		9	9	17																																
	#10 WIRES NEUTRAL			1				1	1	2				1				2																																
	#10 WIRES STREET LIGHT																		2				2				2	2																						
	#8 WIRES STREET LIGHT																			2			2	2		2	2																							
	#8 WIRES (120 V SERVICE)																		2																															
	#8 AWG LOCATING WIRES																																																	
	FIRE PREEMPTION																																																	
	CABLE CAR PREEMPTION			2																																														

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SHEET NOTES:

1 F/1 4-2" HDPE CONDUIT WITH 3/8" PULL TAPE IN EACH CONDUIT. IN ONE OF THE EMPTY CONDUITS, INSTALL TWO #8 AWG STRANDED COPPER LOCATING WIRES (ONE WITH BLACK INSULATION AND THE OTHER WITH WHITE INSULATION). SEE SECTION 26-05-00 IN CONTRACT SPECIFICATIONS.


25/2019 PCO 4-Preemption Wire Changes NK/ST GD/SL

11/2018 PCO 1-Miscellaneous Pole Layout Changes NK/ST GD/SL

NO. DATE DESCRIPTION BY APP.

TABLE OF REVISIONS

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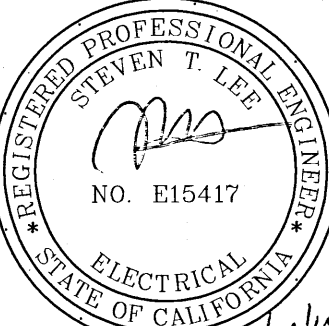
Bureau Mgr: PATRICK RIVERA

Date:

DESIGNED: DATE: NK/CMF 3/2018

DRAWN: DATE: NK/CMF 3/2018

CHECKED: DATE: GD/SL 3/2018



SCALE: AS SHOWN

SHEET OF SHEETS 26 OF 43

CONTRACT 64  
NEW TRAFFIC SIGNALS

LEAVENWORTH STREET AND WASHINGTON STREET  
CONDUIT AND WIRING SCHEDULE

CONTRACT NO. 1000009385

DRAWING NO. E-8.2

FILE NO. 111,774

REV. NO. 2