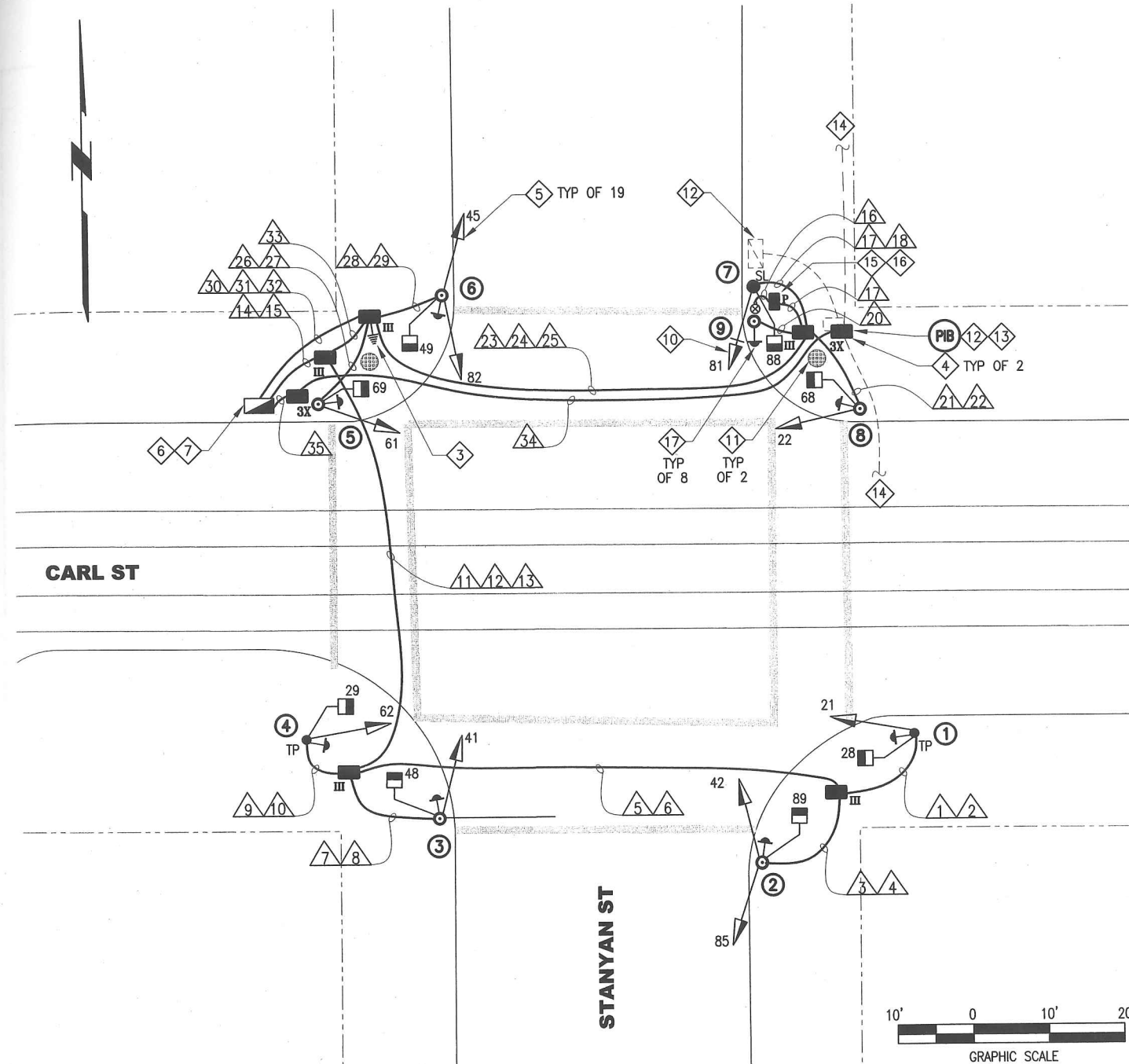
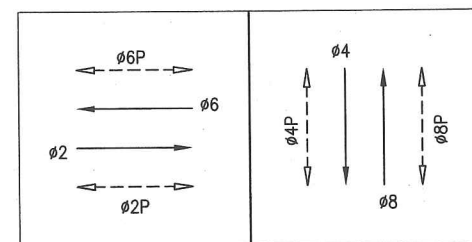


G:\M579\F N-Line Carl Street Track Improvement\DRAWINGS\2-DETAIL DESIGN\Traffic\MGREEN\M579F-ES-03_LAYOUT.dwg mgreen Thu Sep 01 2011 2:18 pm



PHASE DIAGRAM



PHASE SEQUENCE

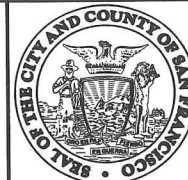
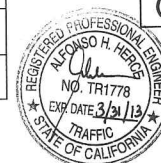
G		Y	R			CARL ST	
R			G		Y	R	STANYAN ST
WM	FRH	RH				PED XING STANYAN ST	
RH		WM	FRH		RH	PED XING CARL ST	

NOTES:

- SEE ES-02 FOR (E) TRAFFIC SIGNAL DEMOLITION WORK.
- SEE ES-04 FOR CONDUIT & WIRING SCHEDULE.
- F/I GROUNDING LAYOUT AS SHOWN ON ES-08.
- SEE ES-05 FOR INTERCONNECT CONDUIT AND TYPE 3X PULL BOX INSTALLATION DETAILS.
- SEE ES-07 FOR TRAFFIC SIGNAL MOUNTING BRACKET DETAILS.
- F/I TYPE "G" I/C CABINET & FOUNDATION AND 2070 CONTROLLER. SEE ES-06 FOR TYPE "G" I/C CABINET & FOUNDATION DETAILS.
- F/I IN-LINE FUSE HOLDER WITH 40 AMP FUSE FOR THE I/C SERVICE.
- SEE OV-SERIES PLANS FOR TROLLEY POLE INSTALLATION WORK TO INCLUDE TRAFFIC SIGNAL CONDUITS, AND CONDUIT ELBOWS & COUPLINGS IN (N) TROLLEY POLE FOUNDATION.
- SEE EL-SERIES PLANS FOR STREETLIGHT POLE INSTALLATION WORK TO INCLUDE TRAFFIC SIGNAL CONDUITS, AND CONDUIT ELBOWS & COUPLINGS IN (N) STREETLIGHT POLE FOUNDATION.
- F/I BACKPLATE FOR (N) VEHICLE TRAFFIC SIGNAL #81 AND MOUNT 14-FT FROM GRADE TO BOTTOM OF SIGNAL HEAD.
- CONTRACTOR SHALL ASSUME A ONE-FOOT DEPTH FROM TOP OF GRADE TO TOP OF MUNI "MRY" MANHOLES, IN ORDER TO ACHIEVE A MINIMUM 18" DEPTH WHEN INSTALLING CONDUITS IN THE NE & NW CORNERS.
- SEE ES-02 FOR I/C REMOVAL WORK.
- F/I (N) TYPE 3X PULL BOX IN PLACE OF (E) PULL BOX AND MODIFY CONDUITS AS NECESSARY. 12/C CABLE TO REMAIN.
- (E) INTERCONNECT CONDUIT AND 12/C CABLE TO REMAIN.
- F/I (N) PG&E TYPE II PULL BOX A MAXIMUM OF 3 FT FROM (E) PG&E WOODEN POLE.
- F/I (N) CONDUIT RUN #16 FROM (N) PG&E TYPE II PULL BOX TO (E) PG&E WOODEN POLE AND STUB-UP ONE FOOT FROM GRADE. CONTRACTOR SHALL CONTACT PG&E THROUGH THE ENGINEER A MINIMUM OF 4 WEEKS IN ADVANCE TO SCHEDULE THE FOLLOWING SERVICE CONNECTION RELATED WORK REQUIRING A PG&E CREW AND/OR INSPECTOR TO INCLUDE THE FOLLOWING:
 - PG&E SHALL DETERMINE AND INFORM CONTRACTOR WHICH QUADRANT ON PG&E WOODEN POLE TO INSTALL CONDUIT STUB-UP.
 - PG&E SHALL PROVIDE CONNECTIONS TO & EXTENSION OF CONDUIT STUB-UP ALONG PG&E WOODEN POLE; AND SHALL INSTALL SERVICE WIRES FROM PG&E WOODEN POLE TO (N) PG&E TYPE II PULL BOX.
 - PG&E SHALL INSPECT AND APPROVE CONTRACTOR'S WORK OF (N) PG&E TYPE II PULL BOX AND CONDUIT RUNS #16 & #17 BEFORE CONTRACTOR IS PERMITTED TO INSTALL WIRES IN CONDUIT RUN #17.
 - PG&E SHALL MAKE FINAL SERVICE WIRE CONNECTIONS IN (N) PG&E TYPE II PULL BOX.
 - CONTRACTOR SHALL INSTALL TYPE II PULL BOX AND CONDUIT RUNS IN OR ON PG&E FACILITIES PER PG&E GREEN BOOK STANDARDS FOR DEPTH, RADIUS BENDS, & BOX CONSTRUCTION.
- F/I APS ON POLE. ALL APS UNITS SHALL HAVE A 4' X 4' LANDING CLEARANCE AND BE A MINIMUM DISTANCE OF 10' APART FROM ONE ANOTHER. THE APPROVAL OF THE ENGINEER.

POLE & EQUIPMENT SCHEDULE (F/I, UON)

POLE NO.	TYPE OF POLE	VEHICLE SIGNAL				PEDESTRIAN SIGNAL			REMARKS
		NO.	TYPE	MOUNTING	VISORS	NO.	TYPE	MOUNTING	
①	MUNI TROLLEY POLE #199	21	3S12"	SV-1-T	T	28	1S-COUNT	SP-1	8 17
②	TYPE 1-A (12')	42 85	3S12" 3S12"	TV-2-T	T	89	1S-COUNT	SP-1	17
③	TYPE 1-A (10')	41	3S12"	SV-1-T	T	48	1S-COUNT	SP-1	17
④	MUNI TROLLEY POLE #201	62	3S12"	SV-1-T	T	29	1S-COUNT	SP-1	8 17
⑤	TYPE 1-A (10')	61	3S12"	TV-1-T	T	69	1S-COUNT	SP-1	17
⑥	TYPE 1-A (10')	82 45	3S12" 3S12"	TV-2-T	T	49	1S-COUNT	SP-1	17
⑦	STREETLIGHT	81	3S12"	SV-1-T (30")	T	88	1S-COUNT	SP-1	9 10
⑧	TYPE 1-A (10')	22	3S12"	TV-1-T	T	68	1S-COUNT	SP-1	17
⑨	TYPE 1-A (4')	--	---	---	---	--	---	---	17



CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY

APPROVED
for the EXECUTIVE DIRECTOR / CEO

MUNI METRO SYSTEM
N-LINE ALONG CARL STREET
TRACK IMPROVEMENT PROJECT

CARL ST & STANYAN ST
NEW TRAFFIC SIGNAL WORK

CONTRACT 1248

DRAWING CL-21542

ES-03 REVISION

ES-08 0

[illegible]

APPROVED



for the EXECUTIVE DIRECTOR / CEO

1. SEE ES-03 FOR (N) TRAFFIC SIGNAL EQUIPMENT LAYOUT, POLE & EQUIPMENT SCHEDULE, AND PHASE DIAGRAM & SEQUENCE TABLES.
2. SEE ES-02 FOR TRAFFIC SIGNAL DEMOLITION WORK.
3. PROVIDE GROUND WIRES IN ALL (N) TRAFFIC SIGNAL CONDUITS PER ES-08, GROUNDING LAYOUT, DETAIL 4.
4. WIRING TO BE PROVIDED BY PG&E.
5. F/I BELDEN #8489 CABLE BETWEEN THE FOLLOWING SIGNALS AND PROVIDE CONNECTIONS PER MANUFACTURER'S INSTRUCTIONS:
 - APS UNIT ON POLE 1 & PEDESTRIAN TRAFFIC SIGNAL ON POLE 2
 - APS UNIT ON POLE 2 & PEDESTRIAN TRAFFIC SIGNAL ON POLE 1
 - APS UNIT ON POLE 3 & PEDESTRIAN TRAFFIC SIGNAL ON POLE 4
 - APS UNIT ON POLE 4 & PEDESTRIAN TRAFFIC SIGNAL ON POLE 3
 - APS UNIT ON POLE 5 & PEDESTRIAN TRAFFIC SIGNAL ON POLE 6
 - APS UNIT ON POLE 6 & PEDESTRIAN TRAFFIC SIGNAL ON POLE 5
 - APS UNIT ON POLE 8 & PEDESTRIAN TRAFFIC SIGNAL ON POLE 7
 - APS UNIT ON POLE 9 & PEDESTRIAN TRAFFIC SIGNAL ON POLE 8

CARL ST & STANYAN ST CONDUIT & WIRING SCHEDULE

CONTRACT		1248
DRAWING		CL-21543
ES-04	REVISION	
ES-08	0	