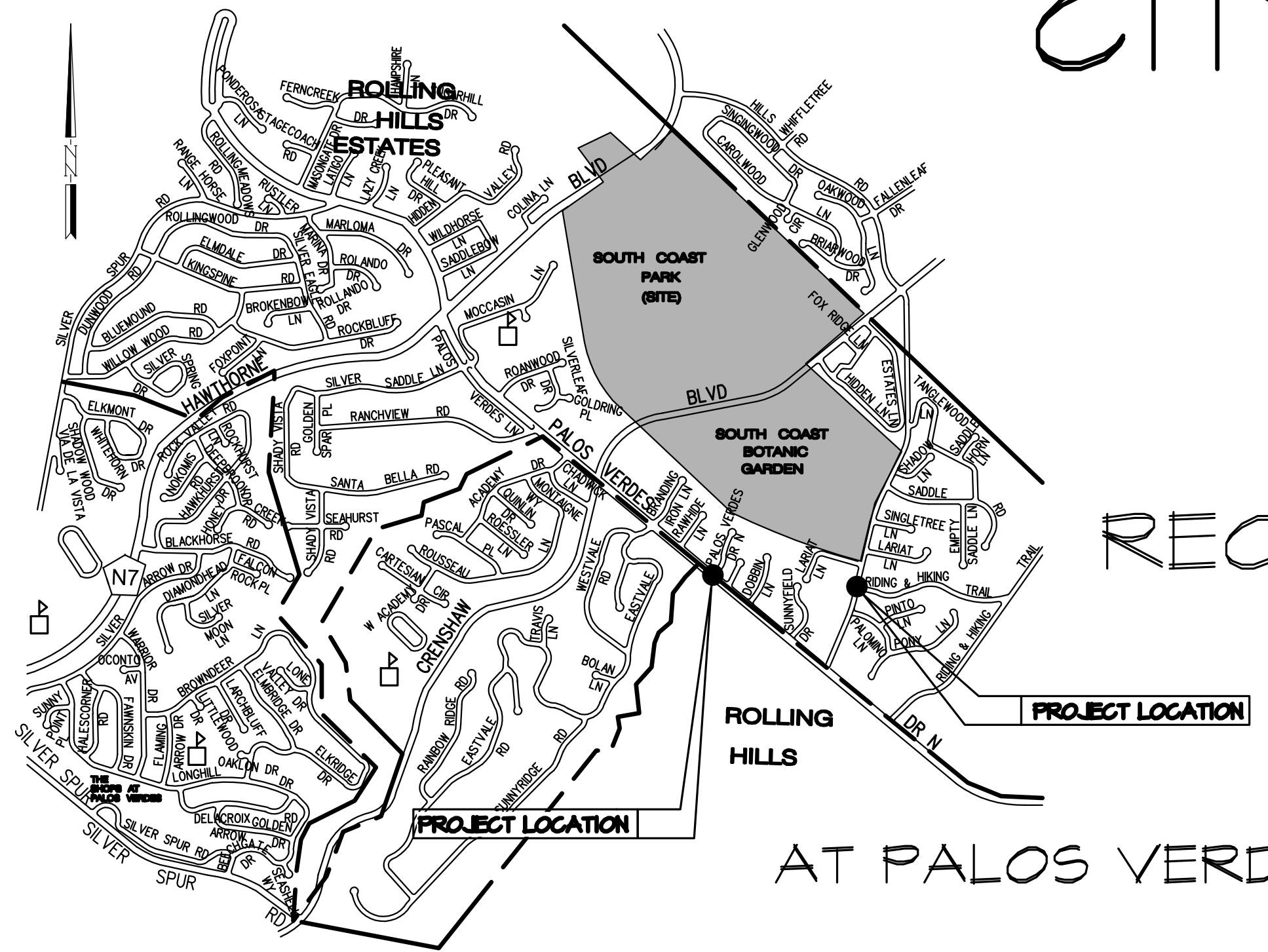


CITY OF ROLLING HILLS ESTATES CALIFORNIA CONSTRUCTION PLANS

FOR

RECTANGULAR RAPID FLASHING BEACON (RRFB) AND IN-ROADWAY WARNING LIGHT (IRWL) INSTALLATION PROJECT

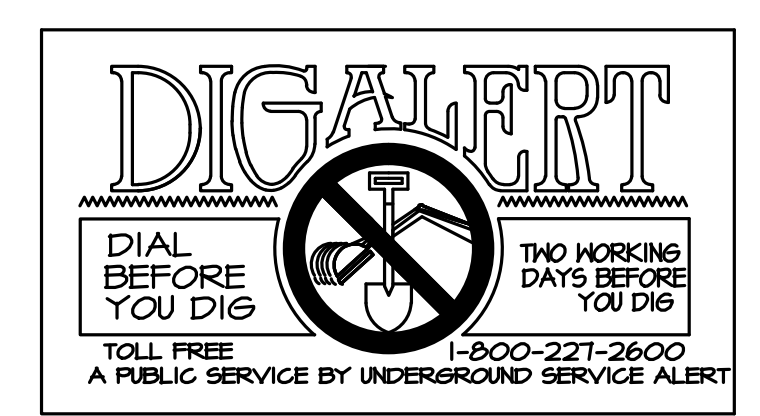
AT ROLLING HILLS ROAD AND PALOMINO RANCHOS TRAIL
 AT PALOS VERDES DRIVE NORTH AT 3739 PALOS VERDES DRIVE NORTH ("NO NAME STREET")



VICINITY MAP
 N.T.S.

SHEET INDEX

SHEET NO.	DESCRIPTION
SHEET NO. 1	TITLE SHEET
SHEET NO. 2	RECTANGULAR RAPID FLASHING BEACON AND IN-ROADWAY WARNING LIGHT INSTALLATION PLAN ROLLING HILLS ROAD AND PALOMINO RANCHOS TRAIL
SHEET NO. 3	RECTANGULAR RAPID FLASHING BEACON AND IN-ROADWAY WARNING LIGHT INSTALLATION PLAN PALOS VERDES DRIVE NORTH AT 3739 PALOS VERDES DRIVE NORTH ("NO NAME STREET")



NOT FOR CONSTRUCTION

REVISIONS			CITY OF ROLLING HILLS ESTATES	
NO.	DESCRIPTION	APP. DATE	TITLE SHEET	
			RECTANGULAR RAPID FLASHING BEACON (RRFB) AND IN-ROADWAY WARNING LIGHT (IRWL) PROJECT	
			DRAWN BY: RG	PLAN NO.
			DESIGNED BY: RG	SHT. 1 OF 3 SHTS.
			CHECKED BY: JL	



PLANS PREPARED BY:
WILLDAN Engineering *extending your reach*
 1941 CROSSROADS PARKWAY NORTH
 SUITE 405 INDUSTRY, CA 91746-3447
 (562) 908-6200
 UNDER THE SUPERVISION OF
Vanessa Minoz 3/20/17
 VANESSA MINOZ, RCE No. 67583 Date

BENCH MARK:
 NO. _____ ELEV. _____
 DATE ADJ. _____ QUAD. _____
 NONE

RECTANGULAR RAPID FLASHING BEACON (RRFB) AND IN-ROADWAY WARNING LIGHTS (IRWL) GENERAL NOTES:

- RECTANGULAR RAPID FLASHING BEACONS, IN-ROADWAY WARNING LIGHTS, SIGNING AND STRIPING, AND THE INSTALLATION THEREOF SHALL CONFORM TO CALTRANS STANDARD PLANS AND SPECIFICATIONS, DATED 2015, THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CALIFORNIA MUTCD), DATED 2014, THIS PLAN, AND THE SPECIAL PROVISIONS.
- THE CONTRACTOR SHALL EXERCISE EXTREME CARE IN LOCATING ALL SUBSTRUCTURES PRIOR TO CONSTRUCTION. HAND DIG FOUNDATIONS UNTIL CLEAR OF OBSTRUCTIONS. COORDINATE POLE INSTALLATIONS WITH OVERHEAD UTILITY OR SUBSTRUCTURE OWNERS. CONTACT UNDERGROUND SERVICE ALERT AT (800) 422-4233, 48 HOURS PRIOR TO CONSTRUCTION.
- OBTAIN APPROVAL FOR EXACT SIGNAL EQUIPMENT LOCATIONS WITH THE ENGINEER IN THE FIELD PRIOR TO FINAL PLACEMENT.
- PRELIMINARY CROSSWALK LAYOUT SHALL BE PERFORMED PRIOR TO FINAL PLACEMENT OF TRAFFIC SIGNAL POLES, PER THE ENGINEER IN THE FIELD. TRAFFIC SIGNAL POLES SHALL BE LOCATED NO MORE THAN 5' FROM BACK OF THE CROSSWALK.
- IN-ROADWAY WARNING LIGHTS SHALL BE INSTALLED IN THE CENTER OF EACH TRAVEL LANE, THE EDGE OF EACH TRAVEL LANE AND THE EDGE OF BIKE LANES AND AS SHOWN ON PLAN.
- BEACONS SHALL BE YELLOW RECTANGULAR RAPID FLASHING BEACONS AND SHALL BE INTEGRATED INTO THE IN-ROADWAY WARNING LIGHT SYSTEM.
- PEDESTRIAN PUSH BUTTONS AND SIGNS SHALL BE TYPE B (2" BUTTON) AND RIO-25 SIGNS.
- NEW CONDUIT SHALL BE MIN. SIZE 2" RIGID STEEL AND ALL PULL BOXES SHALL BE NO. 5T UNLESS OTHERWISE NOTED.
- ALL CONDUCTORS SHALL BE PROTECTED IN CONDUITS BETWEEN POLES AND ELECTRICAL EQUIPMENT.
- ALL CONNECTIONS THROUGH POLES OR CABINETS SHALL BE PROTECTED WITH BUSHINGS OR CONDULETS.
- ALL POLE MOUNTED EQUIPMENT SHALL BE BOLTED TO POLE.
- ALL CONDUCTORS SHALL BE PER MANUFACTURER'S SPECIFICATIONS.
- ALL STRIPING DETAILS AND PAVEMENT LEGENDS SHALL BE PAINT, THREE COATS, UNLESS OTHERWISE NOTED.

RECTANGULAR RAPID FLASHING BEACON (RRFB) AND IN-ROADWAY WARNING LIGHTS (IRWL) CONSTRUCTION NOTES:

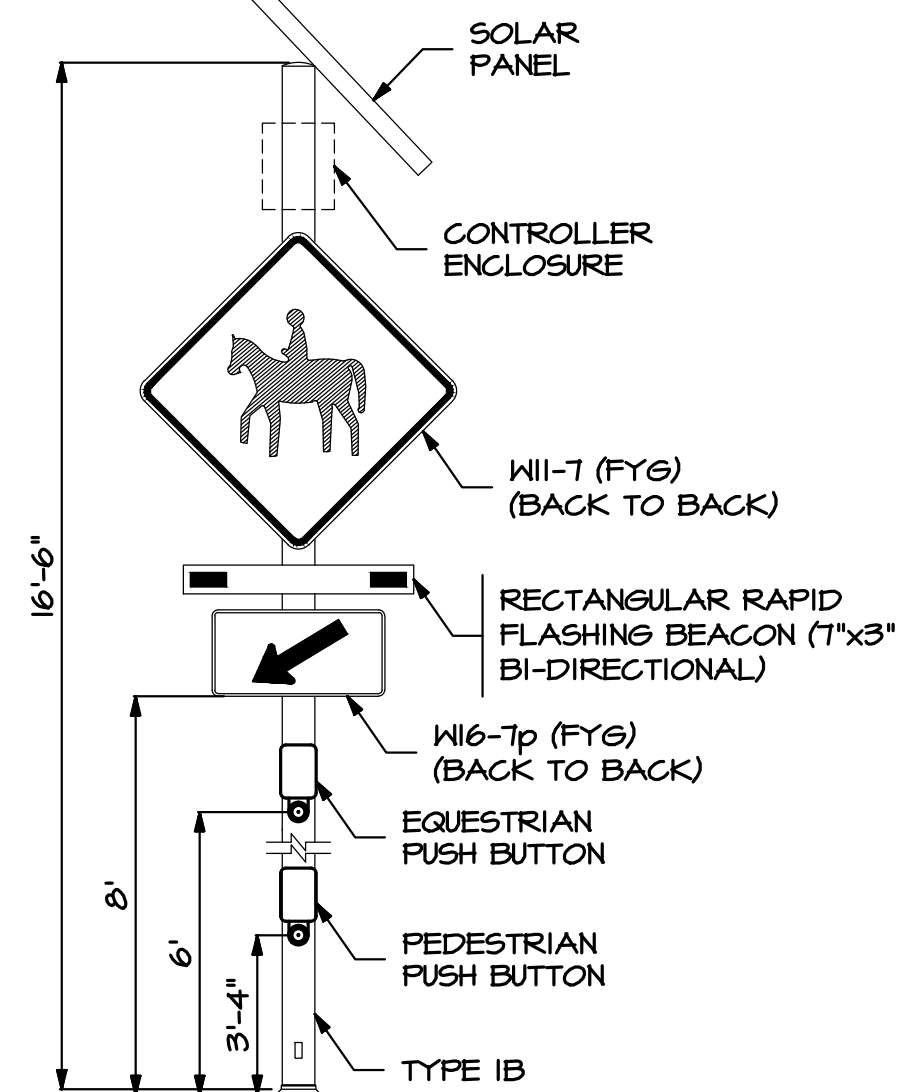
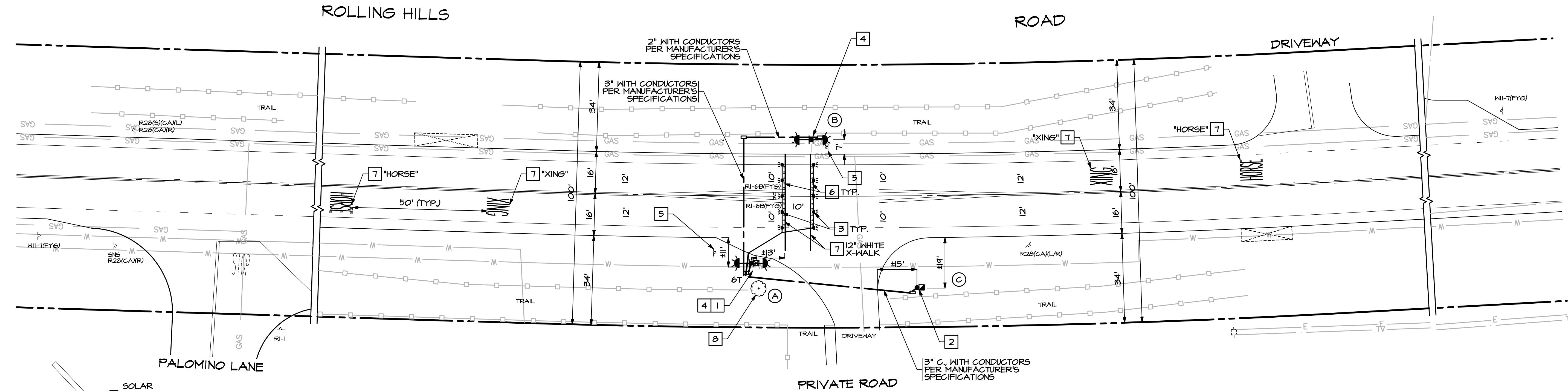
- INSTALL LANELIGHT RRFB AND IRWL CONTROLLER ASSEMBLY COMPLETE WITH PUSH BUTTON ACTUATED RE-SETTABLE ADJUSTABLE TIMER IN NEMA 4X ENCLOSURE. ENCLOSURE SHALL BE MOUNTED ON SIGNAL POLE AWAY FROM ONCOMING TRAFFIC AND PER MANUFACTURER'S SPECIFICATIONS (SEE SPECIAL PROVISIONS).
- INSTALL SOLAR PANEL FOR RRFB AND IRWL SYSTEM ON TYPE IB SIGNAL POLE.
- INSTALL UNI-DIRECTIONAL IRWL COMPLETE PER MANUFACTURER'S SPECIFICATIONS AND AS SHOWN ON PLAN.
- INSTALL SIGNS PER DETAIL "A," UNLESS OTHERWISE NOTED.
- REMOVE W11-7, W16-7p, AND R28(CA) SIGNS AND POST.
- REMOVE WHITE RAISED PAVEMENT MARKER (RPM).
- REPAINT STRIPING DETAIL OR PAVEMENT MARKING AS INDICATED.
- TRIM TREE LIMBS FOR SIGN VISIBILITY.

POLE SCHEDULE																	
No.	STANDARD			LUM HPSV	VEHICLE SIGNAL MOUNTING		PED SIGNAL		PPB		EPB*		POLE LOCATION				
	TYPE	SIG. M.A.	LUM. M.A.		MAST ARM	POLE	MTG.	Φ	QUAD	ARROW	Φ	QUAD	ARROW	I.I.S.N.S.	E	B	C
(A)	IB(16.5')	-	-	-	-	2-RRFB	-	-	S	-	-	N	RT	-	-	-	SEE PLAN
(B)	IB(16.5')	-	-	-	-	2-RRFB	-	-	S	-	-	S	RT	-	-	-	SEE PLAN
(C)	IB(16.5')	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	SEE PLAN

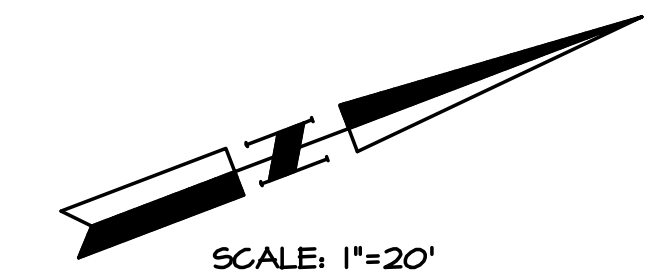
* MOUNT EQUESTRIAN PUSH BUTTON (EPB) 6' ABOVE GRADE.

LEGEND

- BI-DIRECTIONAL RAPID FLASHING BEACON (RRFB). SEE DETAIL "A."
- UNI-DIRECTIONAL IN-ROADWAY WARNING LIGHT.



RECTANGULAR RAPID FLASHING BEACON (RRFB) DETAIL "A"



PLANS PREPARED BY:
WILLDAN Engineering *extending your reach*
 1941 CROSSROADS PARKWAY NORTH
 SUITE 405 INDUSTRY, CA 91746-3441
 (562) 908-6200
 UNDER THE SUPERVISION OF
Vanessa Munoz 3/20/17
 VANESSA MUNOZ, RCE No. 67583 Date

BENCH MARK:
 NO. _____ ELEV. _____
 DATE ADJ. _____ QUAD. _____
 NONE

REVISIONS		
NO.	DESCRIPTION	APP. DATE

CITY OF ROLLING HILLS ESTATES
 RECTANGULAR RAPID FLASHING BEACON (RRFB) AND IN-ROADWAY WARNING LIGHT (IRWL) INSTALLATION PLAN
 ROLLING HILLS ROAD AND PALOMINO RANCHOS TRAIL

DRAWN BY: RG
 DESIGNED BY: RG
 CHECKED BY: JL

SHT. 2 OF 3 SHTS.

PLAN NO. _____

RECTANGULAR RAPID FLASHING BEACON (RRFB) AND IN-ROADWAY WARNING LIGHTS (IRWL) GENERAL NOTES:

- RECTANGULAR RAPID FLASHING BEACONS, IN-ROADWAY WARNING LIGHTS, SIGNING AND STRIPING, AND THE INSTALLATION THEREOF SHALL CONFORM TO CALTRANS STANDARD PLANS AND SPECIFICATIONS, DATED 2015, THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CALIFORNIA MUTCD), DATED 2014, THIS PLAN, AND THE SPECIAL PROVISIONS.
- THE CONTRACTOR SHALL EXERCISE EXTREME CARE IN LOCATING ALL SUBSTRUCTURES PRIOR TO CONSTRUCTION. HAND DIG FOUNDATIONS UNTIL CLEAR OF OBSTRUCTIONS. COORDINATE POLE INSTALLATIONS WITH OVERHEAD UTILITY OR SUBSTRUCTURE OWNERS. CONTACT UNDERGROUND SERVICE ALERT AT (800) 422-4233, 48 HOURS PRIOR TO CONSTRUCTION.
- OBTAIN APPROVAL FOR EXACT SIGNAL EQUIPMENT LOCATIONS WITH THE ENGINEER IN THE FIELD PRIOR TO FINAL PLACEMENT.
- PRELIMINARY CROSSWALK LAYOUT SHALL BE PERFORMED PRIOR TO FINAL PLACEMENT OF TRAFFIC SIGNAL POLES, PER THE ENGINEER IN THE FIELD. TRAFFIC SIGNAL POLES SHALL BE LOCATED NO MORE THAN 5' FROM BACK OF THE CROSSWALK.
- IN-ROADWAY WARNING LIGHTS SHALL BE INSTALLED IN THE CENTER OF EACH TRAVEL LANE, THE EDGE OF EACH TRAVEL LANE AND THE EDGE OF BIKE LANES AND AS SHOWN ON PLAN.
- BEACONS SHALL BE YELLOW RECTANGULAR RAPID FLASHING BEACONS AND SHALL BE INTEGRATED INTO THE IN-ROADWAY WARNING LIGHT SYSTEM.
- PEDESTRIAN PUSH BUTTONS AND SIGNS SHALL BE TYPE B (2" BUTTON) AND R10-25 SIGNS.
- NEW CONDUIT SHALL BE MIN. SIZE 2" RIGID STEEL AND ALL PULL BOXES SHALL BE NO. 5T UNLESS OTHERWISE NOTED.
- ALL CONDUCTORS SHALL BE PROTECTED IN CONDUITS BETWEEN POLES AND ELECTRICAL EQUIPMENT.
- ALL CONNECTIONS THROUGH POLES OR CABINETS SHALL BE PROTECTED WITH BUSHINGS OR CONDULETS.
- ALL POLE MOUNTED EQUIPMENT SHALL BE BOLTED TO POLE.
- ALL CONDUCTORS SHALL BE PER MANUFACTURER'S SPECIFICATIONS.
- ALL STRIPING DETAILS AND PAVEMENT LEGENDS SHALL BE PAINT, THREE COATS, UNLESS OTHERWISE NOTED.

RECTANGULAR RAPID FLASHING BEACON (RRFB) AND IN-ROADWAY WARNING LIGHTS (IRWL) CONSTRUCTION NOTES:

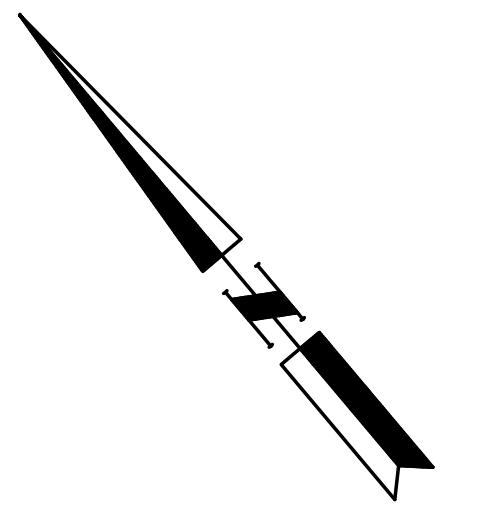
- INSTALL LANELIGHT RRFB AND IRWL CONTROLLER ASSEMBLY COMPLETE WITH PUSH BUTTON ACTUATED RE-SETTABLE ADJUSTABLE TIMER IN NEMA 4X ENCLOSURE. ENCLOSURE SHALL BE MOUNTED ON SIGNAL POLE AWAY FROM ONCOMING TRAFFIC AND PER MANUFACTURER'S SPECIFICATIONS (SEE SPECIAL PROVISIONS).
- INSTALL SOLAR PANEL FOR RRFB AND IRWL SYSTEM ON TYPE 1B SIGNAL POLE.
- INSTALL UNI-DIRECTIONAL IRWL COMPLETE PER MANUFACTURER'S SPECIFICATIONS AND AS SHOWN ON PLAN.
- INSTALL 12" WHITE CROSSWALK. CROSSWALK SHALL BE 10' IN WIDTH (INSIDE TO INSIDE), UNLESS OTHERWISE NOTED.
- INSTALL STRIPING DETAIL OR PAVEMENT MARKING AS INDICATED.
- REMOVE EXISTING STRIPING BY WET SANDBLASTING, INCLUDING RAISED PAVEMENT MARKERS.
- INSTALL SIGNS PER DETAIL "B."
- INSTALL W11-7 SIGN AND POST. SIGN SHALL BE FLUORESCENT YELLOW-GREEN (FYG) IN COLOR.

No.	STANDARD			LUM HPSV	VEHICLE SIGNAL MOUNTING		PED SIGNAL		PPFB		EPB*		I.I.S.N.S.	POLE LOCATION (SEE DETAIL "A")		
	TYPE	SIG. M.A.	LUM. M.A.		MAST ARM	POLE	MTG.	Φ	QUAD	ARROW	Φ	QUAD		ARROW	E	B
(A)	1B(16.5')	-	-	-	-	2-RRFB	-	-	W	-	-	W	LT	-	SEE PLAN	7'
(B)	1B(16.5')	-	-	-	-	2-RRFB	-	-	E	-	-	E	LT	-	7'	4'

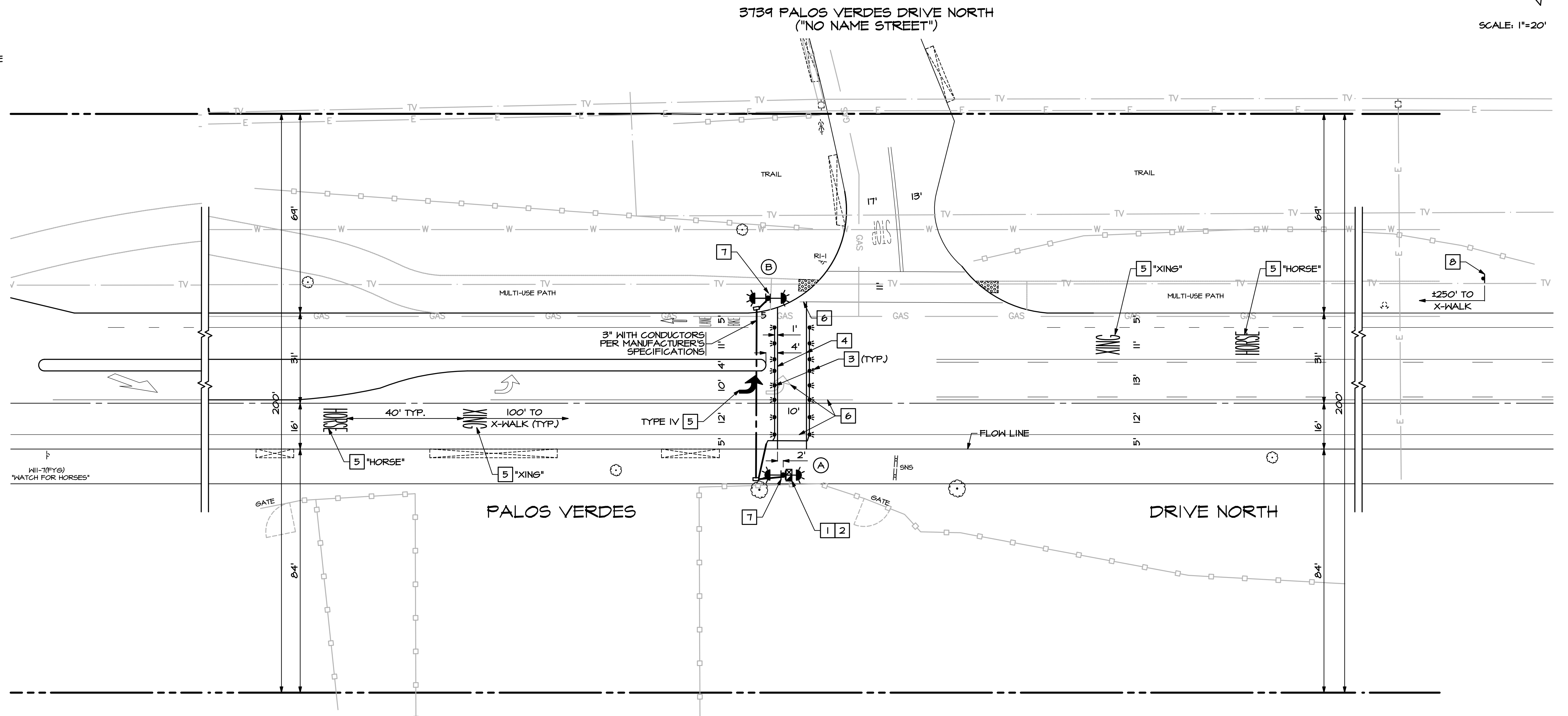
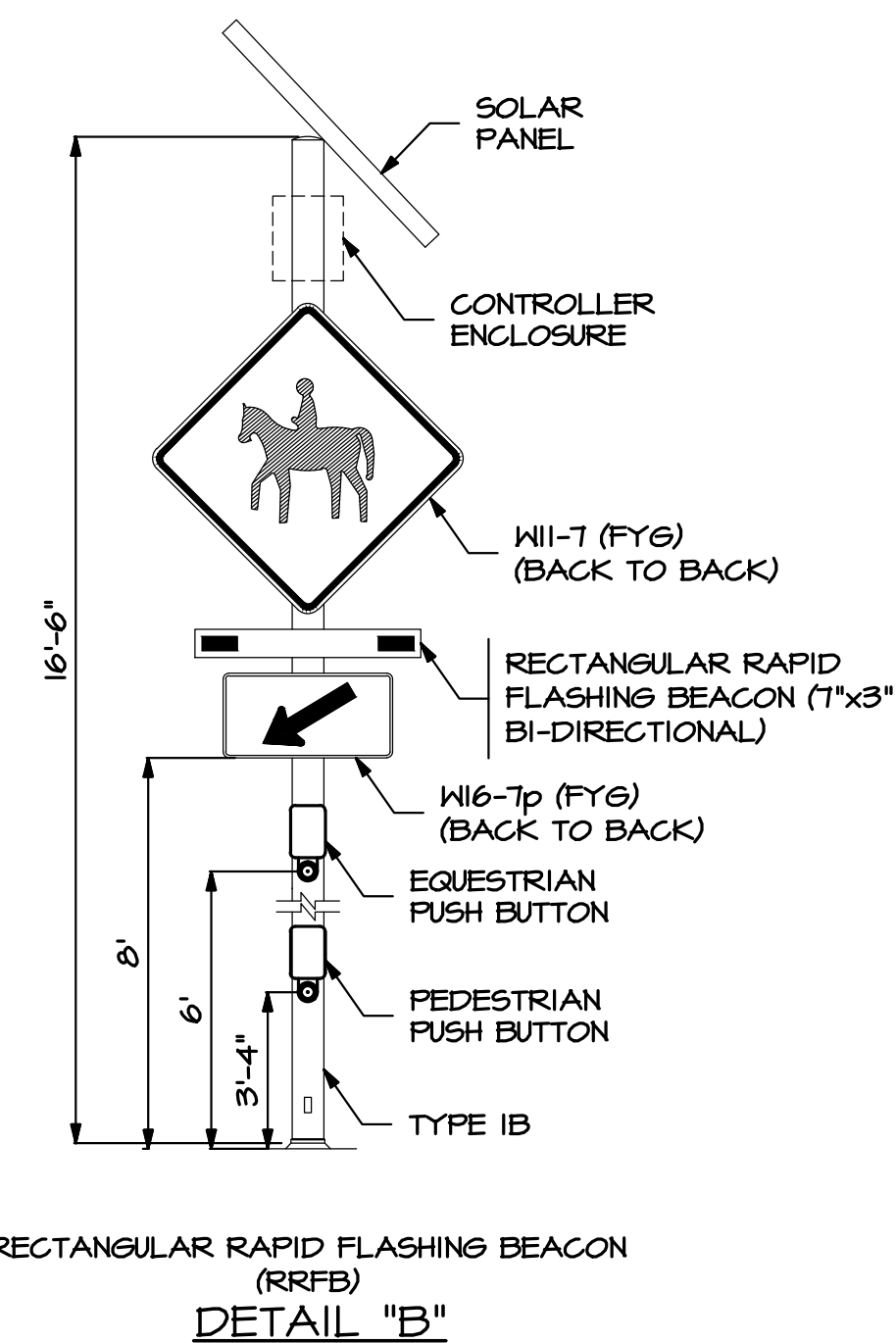
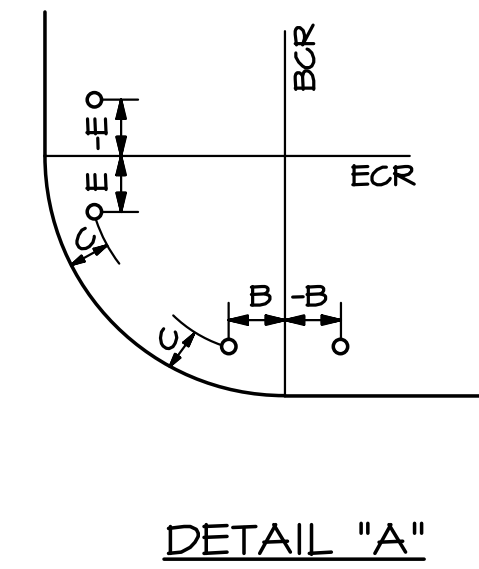
* MOUNT EQUESTRIAN PUSH BUTTON (EPB) 6' ABOVE GRADE.

LEGEND

- BI-DIRECTIONAL RECTANGULAR RAPID FLASHING BEACON (RRFB). SEE DETAIL "B."
- UNI-DIRECTIONAL IN-ROADWAY WARNING LIGHT.



SCALE: 1"=20'



NOT FOR CONSTRUCTION



PLANS PREPARED BY:
WILLDAN Engineering *extending your reach*
 18141 CROSSROADS PARKWAY NORTH
 SUITE 405 INDUSTRY, CA 91746-3441
 (562) 908-6200
 UNDER THE SUPERVISION OF
Vanessa Minoz 3/20/17
 VANESSA MINOZ, RCE No. 67583 Date

BENCH MARK:
 NO. _____ ELEV. _____
 DATE ADJ. _____ QUAD. _____
 NONE

REVISIONS		
NO.	DESCRIPTION	APP. DATE

CITY OF ROLLING HILLS ESTATES
 RECTANGULAR RAPID FLASHING BEACON (RRFB) AND IN-ROADWAY WARNING LIGHT (IRWL) INSTALLATION PLAN
 PALOS VERDES DRIVE NORTH AND 3739 PALOS VERDES DRIVE NORTH ("NO NAME STREET")

DRAWN BY: RG
 DESIGNED BY: RG
 CHECKED BY: JL

SHT. 3 OF 3 SHTS.

PLAN NO. _____