

HPA-45R Multi-Band Antenna
Electrical Specifications

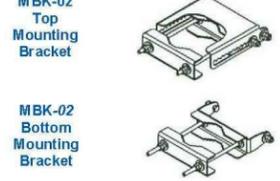
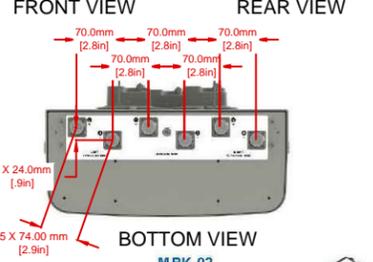
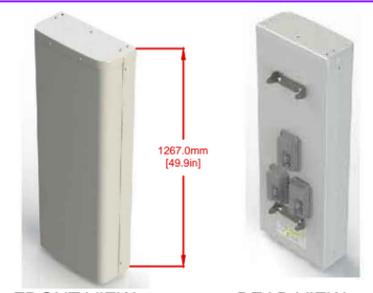
Frequency Range	2 X Low Band Ports which cover the full range from 698-894 MHz		4 X High Band Ports which cover the full range from 1710-2360 MHz			
	698-806 MHz	824-894 MHz	1850-1990	1710-1755/2110-2155 MHz	2305-2360 MHz	
Gain	14.2 dBi	14.2 dBi	17.0 dBi	16.5 dBi	17.2 dBi	17.1 dBi
Azimuth Beamwidth (-3dB)	50°	44°	48°	49°	46°	44°
Elevation Beamwidth (-3dB)	17.6°	15.0°	9.3°	10.4°	8.5°	8.1°
Electrical Downtilt	0° to 14°	0° to 14°	0° to 10°	0° to 10°	0° to 10°	0° to 10°
Elevation Sidelobes (1st Upper)	< -17 dB	< -17 dB	< -16 dB	< -16 dB	< -16 dB	< -16 dB
Front-to-Back Ratio @ 180°	> 30 dB	> 30 dB	> 30 dB	> 30 dB	> 30 dB	> 30 dB
Front-to-Back Ratio over ±20°	> 30 dB	> 30 dB	> 30 dB	> 30 dB	> 30 dB	> 30 dB
Cross-Polar Discrimination (at Peak)	> 25 dB	> 25 dB	> 20 dB	> 20 dB	> 20 dB	> 20 dB
Cross-Polar Discrimination (at ±45°)	> 20 dB	> 20 dB	> 18 dB	> 18 dB	> 20 dB	> 20 dB
Cross-Polar Port-to-Port Isolation	> 30 dB	> 27 dB	> 25 dB	> 25 dB	> 25 dB	> 25 dB
VSWR	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1
Passive Intermodulation (2x20W)	≤ -150dBc	≤ -150dBc	≤ -150dBc	≤ -150dBc	≤ -150dBc	≤ -150dBc
Input Power	500 Watts CW	500 Watts CW	300 Watts CW	300 Watts CW	300 Watts CW	300 Watts CW
Polarization	Dual Pol 45°	Dual Pol 45°	Dual Pol 45°	Dual Pol 45°	Dual Pol 45°	Dual Pol 45°
Input Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground	DC Ground	DC Ground

Mechanical Specifications

Dimensions (LxWxD)	49.9 x 18.9 x 8.3 inches (1267 x 480 x 211 mm)
Survival Wind Speed	> 150 mph
Front Wind Load	202 lbs (897 N) @ 100 mph (161 kph)
Side Wind Load	100 lbs (444 N) @ 100 mph (161 kph)
Equivalent Flat Plate Area	7.9 ft ² (0.7 m ²)
Weight (without Ret/Mounting)	39.9 lbs (18.1 kg)
RET System Weight	5.1 lbs (2.3 kg)
Connector	6; 7-16 DIN female long neck
Mounting Pole	2-5 inches (5-12 cm)

Ordering Information:

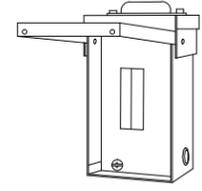
HPA-45R-BUU-H4	4 Foot Hexport Antenna with 45° Azimuth Beamwidth and factory installed RET Actuators (3)
HPA-45R-BUU-H4-K	Complete Kit with Antenna, Factory Installed Actuators (3) and MBK-02 Mounting Bracket
BSA-RET200	RET Actuator
MBK-02	Mounting Bracket (Top & Bottom) with 0° through 10° Mechanical tilt Adjustments: See Installation Guide 50-000038-01 for Details: Weight 10.3 Lbs. (4.7 kg)



1 SCALE N.T.S.

SQUARE D BY SCHNEIDER ELECTRIC

LOAD CENTER, 70A
(MODEL #QO24L70RB)



TECHNICAL CHARACTERISTICS

AMPERE RATING	70A
MAXIMUM SINGLE POLE CIRCUITS	4
WIDTH	4.88 INCHES
APPLICATION	DESIGNED TO MEET RESIDENTIAL, COMMERCIAL AND INDUSTRIAL REQUIREMENTS TO PROTECT ELECTRICAL SYSTEMS, EQUIPMENT AND PEOPLE.
SPACES	2
WIRE SIZE	#12 TO 3 AWG(AL) - #14 TO 4 AWG(CU)
MAXIMUM TANDEM CIRCUIT BREAKERS	2
VOLTAGE RATING	120/240VAC
WIRING CONFIGURATION	3-WIRE
PHASE	1-PHASE
DEPTH	4.00 INCHES
HEIGHT	9.38 INCHES
BUS MATERIAL	TIN PLATED ALUMINUM
COVER TYPE	SURFACE
CATALOG REFERENCE NUMBER	1100CT9901
ENCLOSURE TYPE	OUTDOOR/RAINPROOF
ENCLOSURE RATING	NEMA 3R
GROUNDING BAR	ORDER SEPARATELY
APPROVALS	UL LISTED
SHORT CIRCUIT CURRENT RATING	10KA
MAIN TYPE	FIXED - FACTORY INSTALLED MAIN LUGS

SHIPPING AND ORDERING

CATEGORY	00101 - LOAD CENTERS, 1 PHASE, NEMA1 & 3R, 2 - 8 CIRCUIT, TYPE QO
DISCOUNT SCHEDULE	3A
ARTICLE NUMBER	785901785132
PACKAGE QUANTITY	1
WEIGHT	5 LBS.
AVAILABILITY CODE	S
RETURNABILITY	Y

2 SCALE N.T.S.

ASG45

PHASE II
CROWN CASTLE PROJECT NO.
242727



PROPRIETARY INFORMATION
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REVISION / ISSUE	DATE

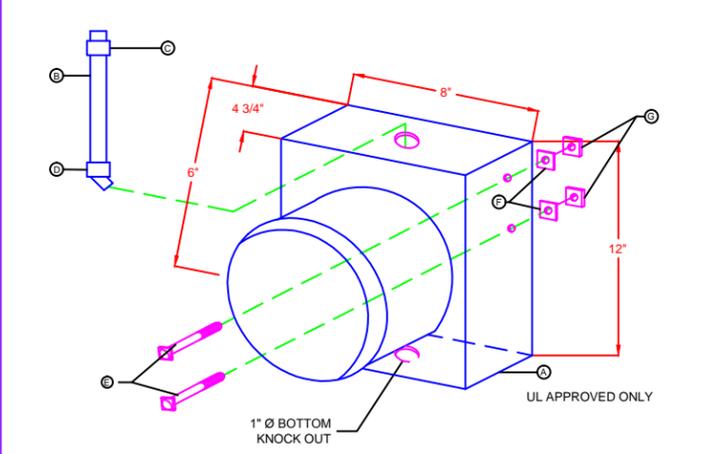
SITE NAME & ADDRESS:
ASG45
SAN NICOLAS DR -
WEST OF LOMO DR
RANCHO PALOS VERDES, CA

DETAILS & NOTES

DRAWN BY:	DRAFT DATE:	APPROVED BY:
AC	10/07/15	GA

SHEET NO.
D-2

POWER METER

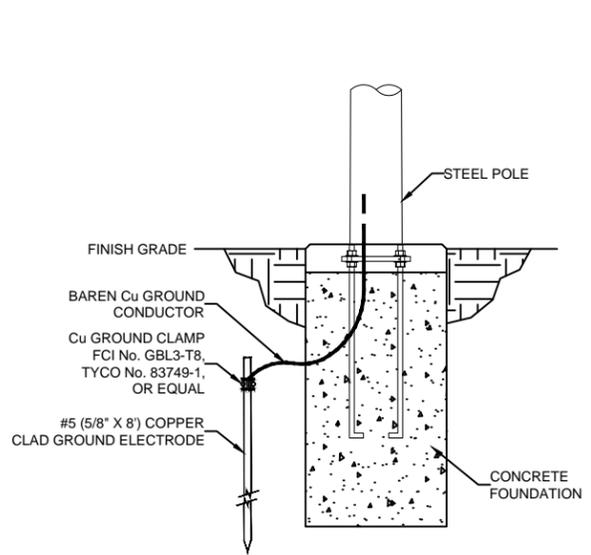


NOTES:
1. TOP KNOCK OUT WITH LIQUID FLEX 45° AND STRAIGHT CONNECTORS AVAILABLE TO POWER UTILITY CREW CONNECTION.
2. BOTTOM KNOCK OUT FOR CONNECTING TO CUSTOMER FUSE DISCONNECT BOX.
3. HEIGHT MAY BE DETERMINED BY POWER UTILITY.

CALLOUT QTY	DESCRIPTION	CALLOUT QTY	DESC.
A	1 METER CABINET W/TR PART # 2 POLE 120/140 SINGLE PHASE		
B	1 4' X 1" LIQUID TIGHT METALLIC FLEX CONDUIT		
C	1 1" LIQUID TIGHT CONNECTOR STR POINT		
D	1 1" LIQUID TIGHT CONNECTOR-45°		
E	2 5/16" X 1" BOLT - STAINLESS STEEL		
F	2 5/16" LOCK WASHER - STAINLESS STEEL		
G	2 5/16" NUT - STAINLESS STEEL		

3 SCALE N.T.S.

GROUND ROD INSTALLATION FOR STEEL POLE
TYPICAL SECTION: N.T.S.



4 SCALE N.T.S.



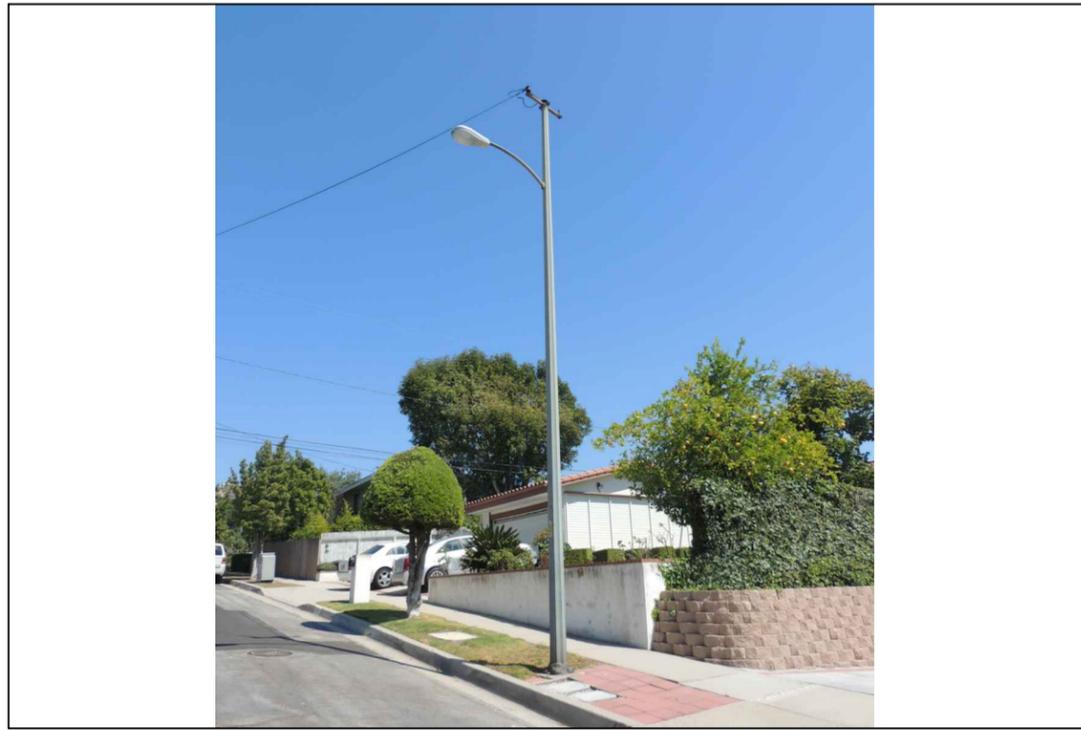
A KEY MAP



B 12 O'CLOCK VIEW



C 3 O'CLOCK VIEW



D 9 O'CLOCK VIEW

ASG45

PHASE II
CROWN CASTLE PROJECT NO.
242727

CLIENT:
CROWN CASTLE
NG WEST LLC
300 SPECTRUM CENTER DR, STE. 1200
IRVINE, CA 92618
www.crowncastle.com

PREPARED BY:
Coastal Communications
Telecommunications Engineering
5841 EDISON PLACE, SUITE 110
CARLSBAD, CA 92008
PHONE: (760) 929-0910
FAX: (760) 929-0936

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DIGALERT
1-800-227-2600
CALL AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT
TICKET # _____

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SITE PHOTOS

DRAWN BY: AC DRAFT DATE: 10/07/15 APPROVED BY: GA

SHEET NO.
S-1



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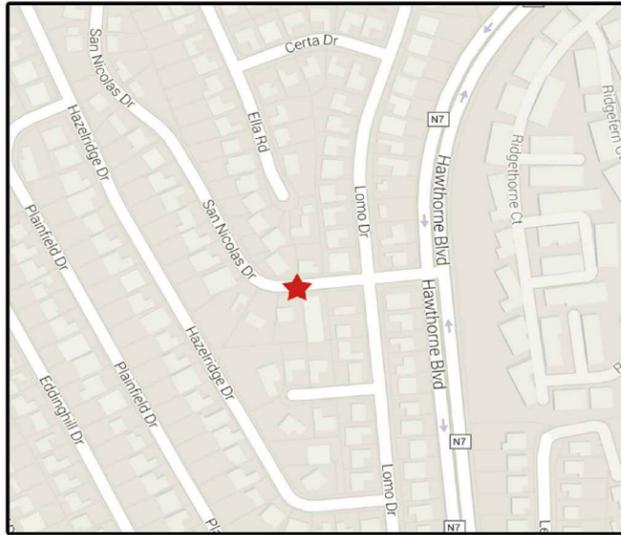
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Existing Site



Vicinity Map



Proposed Site ASG45





ASG45

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Existing Site



Vicinity Map



Proposed Site ASG45

ASG45

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POLE PROFILE & SITE PLAN

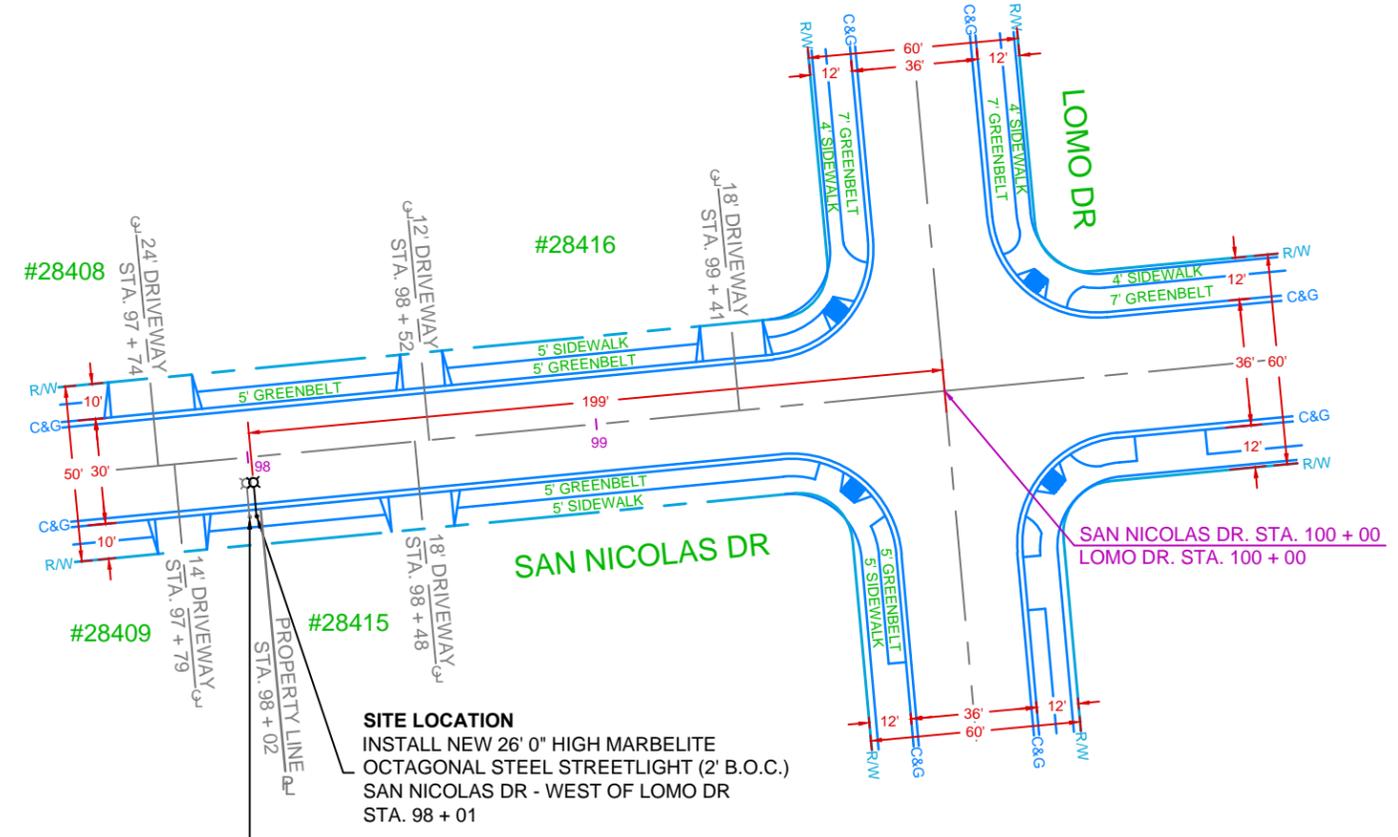
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SHEET NO.
P-1

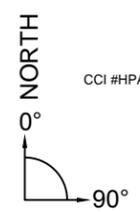
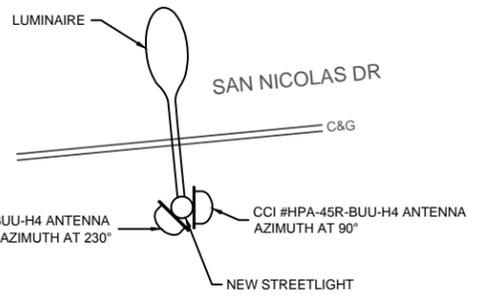
NEW CONSTRUCTION

- DECOMMISSION & REMOVE EXISTING 31' 0" HIGH MARBELITE OCTAGONAL STEEL STREETLIGHT (POLE ID #1486351) AND REPLACE WITH A NEW 26' 0" HIGH MARBELITE OCTAGONAL STEEL STREETLIGHT WITH MAST ARM AND LUMINAIRE.
- INSTALL (2) ML IONS.
- INSTALL POWER METER WITH DISCONNECT BOX.
- INSTALL (2) 50" CCI #HPA-45R-BUU-H4 ANTENNAS WITH DOWNTILT BRACKETS.
- INSTALL 2" POWER RISER.
- INSTALL VGR.
- EQUIPMENT AND ANTENNAS TO BE PAINTED TO MATCH POLE.
- 100AMP PANEL
- 120/240V 1PHASE
- 1.1KW 0TON

NODE COORDINATE	
LATITUDE:	33.77618
LONGITUDE:	-118.39398



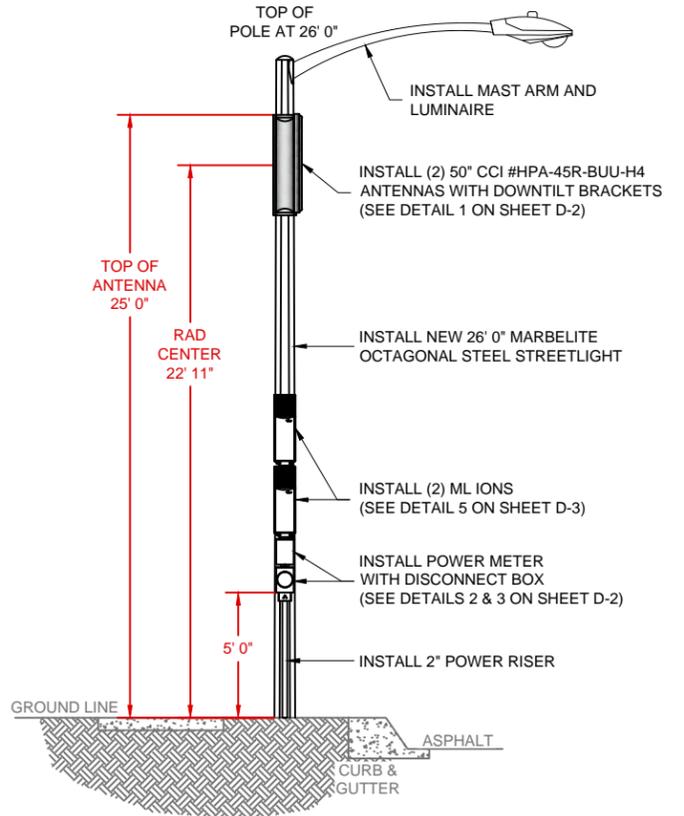
SCALE: 1" = 50'



A ANTENNA DETAILS N.T.S.

STREETLIGHT #1486351
TOP OF EXISTING POLE: 31' 0"
TOP OF NEW POLE: 26' 0"
TOP OF ANTENNA: 25' 0"
RAD CENTER: 22' 11"
AZIMUTHS: 90° & 230°

EQUIPMENT AND ANTENNAS TO BE PAINTED TO MATCH POLE.



B 3 O'CLOCK VIEW N.T.S.