



Electromagnetic Energy (EME) FCC Compliance Report

Site FA #	14272794	Site Name	CRAN_CROWN CHAPPARRAL
US ID	184467	Site ID	PHX01_010
Street Address	5401 N Scottsdale Rd	Latitude	33°30'55.2"N
City, State, Zip	Scottsdale, AZ 85250	Longitude	111°55'33.0"W
Site Type	Light Pole	Max MPE by AT&T	0.02 %
Area Classification	General Population	Report Type	Post-Study
Survey Date	11/28/2019	Survey Time	4:05 pm
Surveyed By	Joseph Kwofie	Report Creation	Firoz Shaik
Report Review	Gourav Soni	Report Date	12/03/2019
Construction Drawing	PHX01_010_A_AE201_Rev 0 Stamped Final CD_10.28.2019 revised		
RF Data Sheet	AZ-NM_ARIZONA_CRAN_RANM_PHX01_HUB03_2017-CRAN_CRAN-Build_vp975a_3901A0AGFC_14272794_184467_02-02-2018_As-Built-In-Progress_v1.00 (3)		
FCC & AT&T Compliance Status	<input type="checkbox"/> Compliant <input checked="" type="checkbox"/> Site will be compliant following the recommendations in Section 6		



Environmental Assessment Specialists, Inc.

71 San Marino Avenue, Ventura, CA 93003 | Office (805) 650-0949 | Fax (805) 650-8054 | www.easenv.com

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1 General Information

The Antenna Inventory Table ([Section 3](#)) shows all transmitting antennas on the site. The use of “Unknown” for an operator means the information with regard to the carrier, their FCC license and / or antenna information was not available. Generic values used as estimation for Effective Radiated Power (ERP) and antenna characteristics for unknown antennas. Z reference specifies the bottom of the antenna to the indicated level.

In this report, it is assumed that all antennas are operating at full power at all times. Software modeling was performed for all transmitting antennas located on the site. EAS has further assumed a 100% duty cycle and maximum radiated power. Obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. As a result, the predicted signal levels are more conservative (higher) than the actual signal levels will be from the measurement conclusions. In this report, all accessible areas that are within 30 feet radius of antennas are modeled and taken under consideration. The modeling software that EAS used to create this report is Roofmaster 19.9.7.19

Roofmaster Data Sheet ([Section 5](#)) indicates Roofmaster exported data sheet that contains data used.

Statement of Compliance ([Section 6](#)) indicated details Roofmaster d actions required to bring the site compliant to FCC and OSHA rules and regulations with regard to Human Exposure to Radio Frequency Radiation by use of AT&T RF signage, barriers and Demarcation Policy. The whole report is true and accurate to the best of Report Creator and Report Reviewer’s (mentioned in first page) knowledge.

Additional information about how the report is created and modeled is located in [Appendix A](#) and [Appendix B](#) of this report.

A survey was performed on 11/28/2019 to determine the RF emission levels present at the site. Measurements were performed on the areas considered accessible to the general population. The results of the measurements were the combined energy levels of AT&T antennas. To measure the RF emissions within the vicinity, EAS Inc., utilized NARDA E Field Probe Model EA5091, Frequency Range 300 KHz - 50 GHz with NARDA Electromagnetic Survey Meter Model NBM-550. Calibration was performed by Narda Safety Test Solutions on June 05, 2018 for a total interval of 24 month.

Relevant administrative and compliance–related information about the antenna site area is summarized in the table below:

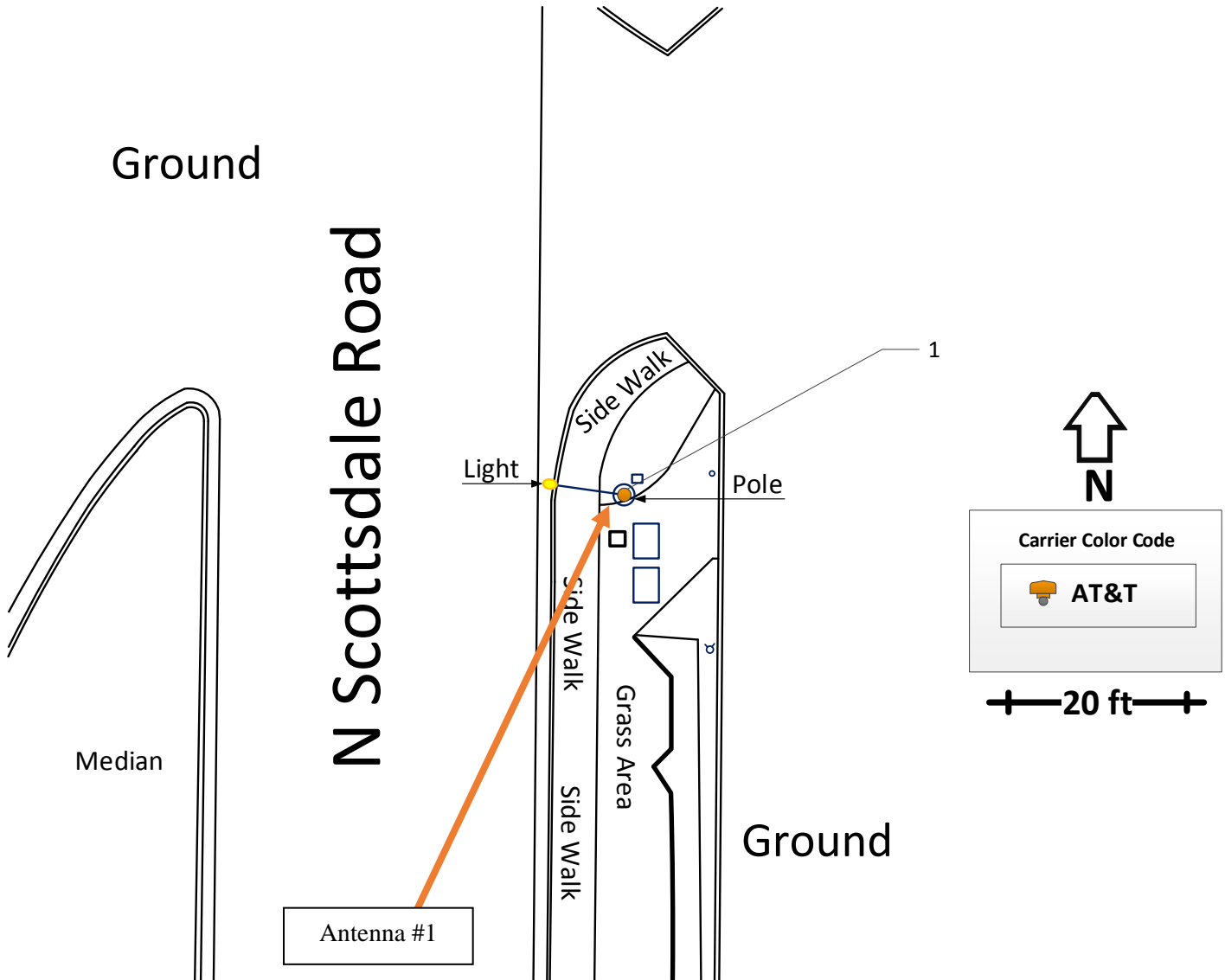
Access Method	Open Area	Collocation Status	<input type="checkbox"/> Collocated <input checked="" type="checkbox"/> Not Collocated
Access to Keys?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sky Conditions	<input checked="" type="checkbox"/> Sunny <input type="checkbox"/> Cloudy <input type="checkbox"/> Rainy
Door Locked?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Access Info	N/A		
Access to antennas locked?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	RF Sign(s) at Access point(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
RF Sign(s) @ antennas?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Barrier(s) @ sectors	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Site Predictive RF Modeling Summary

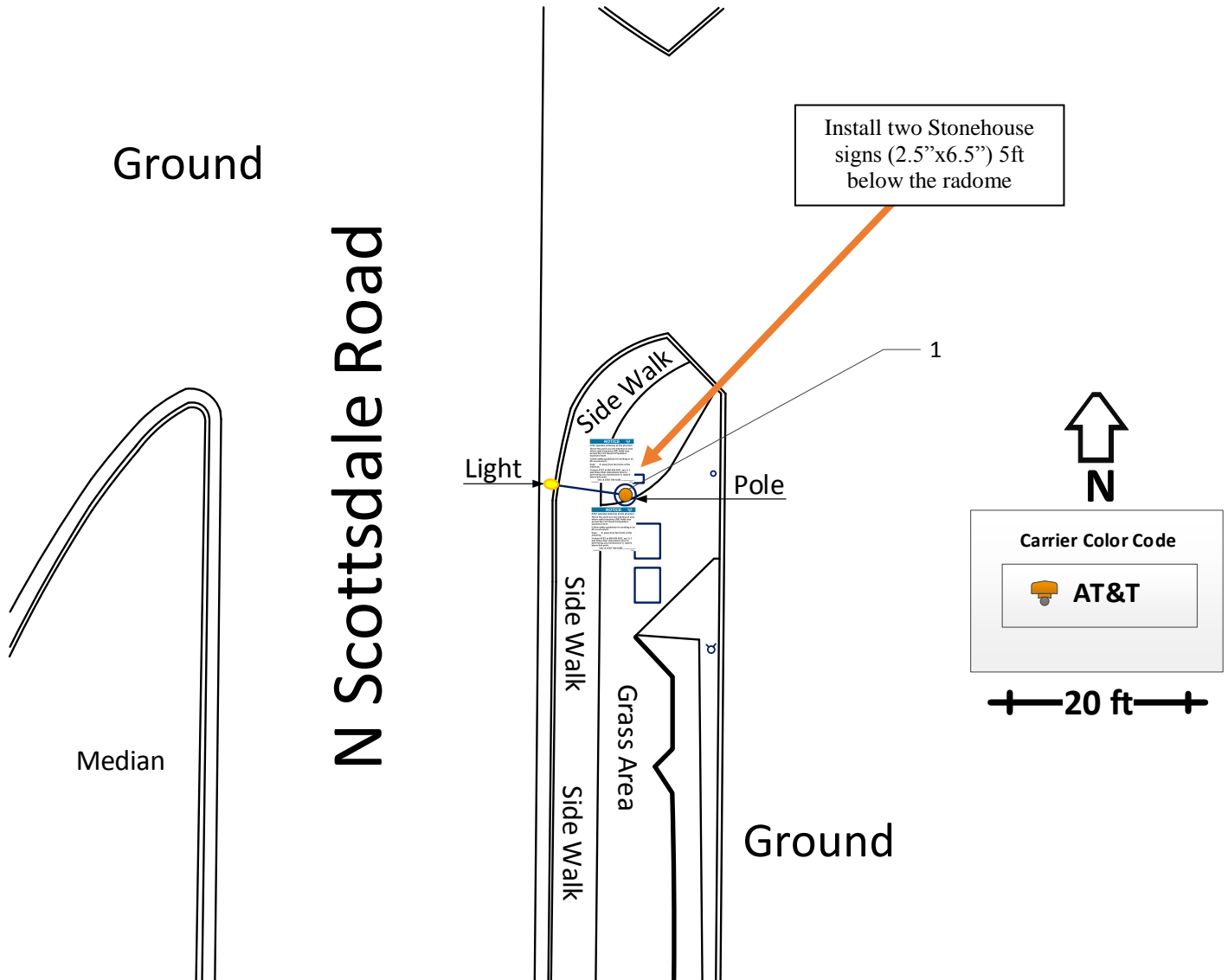
Max Predictive Spatial Average MPE% - Antenna level (General Public)	86.79 %
Max Predictive Spatial Average MPE% - Light level (General Public)	17.83 %
Max Predictive Spatial Average MPE% - Ground level (General Public)	0.02 %
Overall Site Compliance	Will be compliant following the recommendations in Section 6

2 Site Scale Map

a. Existing Signs and Barriers (AT&T Only)



b. Signs and Barriers Required for Compliance (AT&T Only)



3 Antenna Inventory Table

Antenna ID	Operator	Antenna Type	Frequency (MHz)	Technology	ERP (Watts)	Gain (dBd)	Manufacturer	Model	Azimuth (deg.)	Aperture (ft.)	TX Count	H-BW (deg.)	X (ft)	Y (ft)	Z Antenna Level (ft)	Z Light (ft)	Z Ground (ft)
1	ATT	Pole	1900	LTE	96.83	6.85	ACE	ACOM-2F15D-12P R2	0	2	4	360	86.7	71.4	1	2.5	37.5
1	ATT	Pole	2100	LTE	96.83	6.85	ACE	ACOM-2F15D-12P R2	0	2	4	360	86.7	71.4	1	2.5	37.5
1	ATT	Pole	5200	LAA	2.16	3.35	ACE	ACOM-2F15D-12P R2	0	2	2	360	86.7	71.4	1	2.5	37.5

4 Site Photos

4.1. AT&T Proposed Location



4.2.Overall Site Photos



Site Overview



Site Overview



Site Overview



Site Overview



Site Overview



Site Overview



Site Overview



Site Overview

5 Site Area Measurements

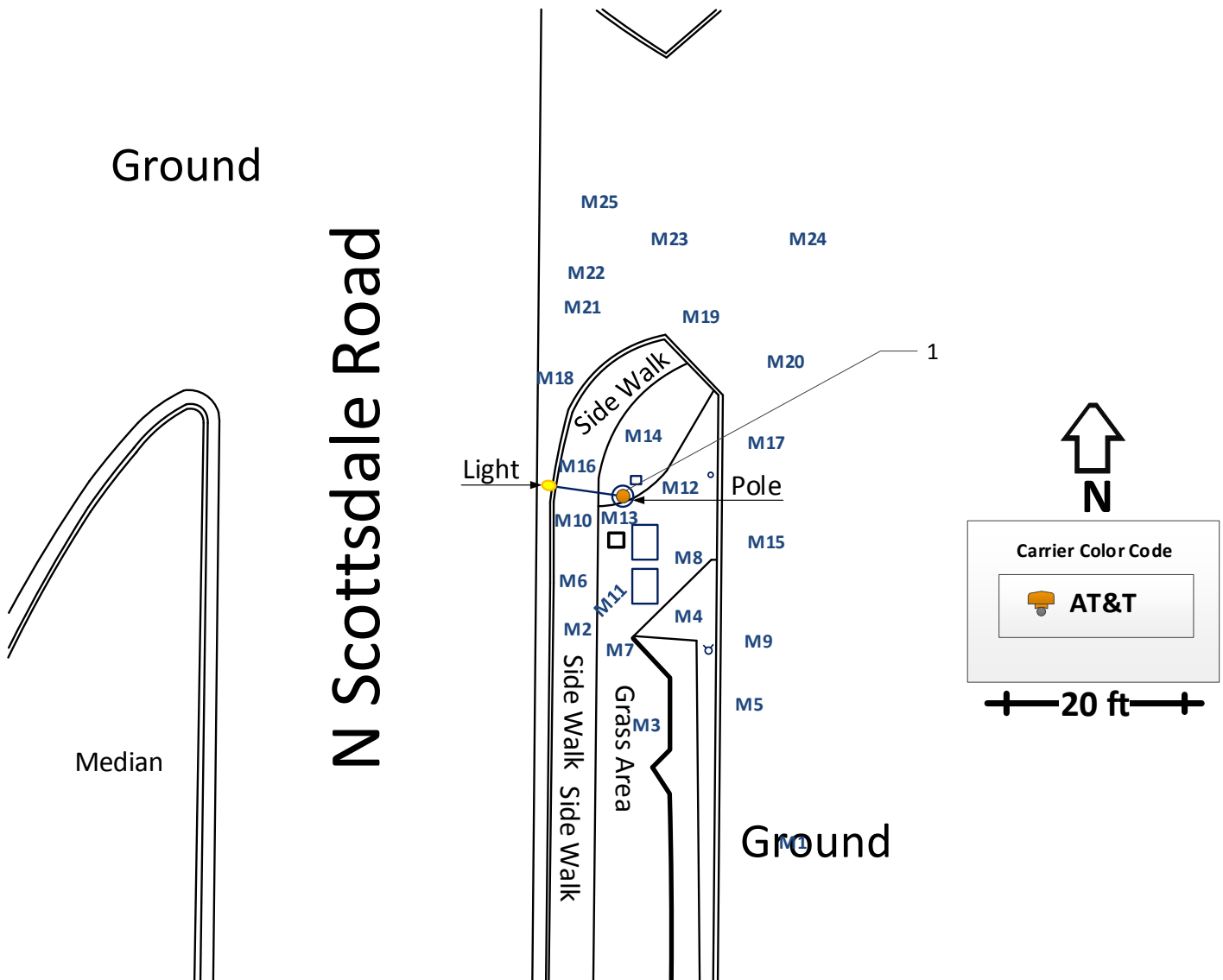
5.1. Site Measurements

The site survey crew has provided the sketch of the site location with a visual representation of the RF environment at the site and depict antenna locations and site structures. Next figure depicts the surveyed measurements in percentage of MPE limits for General Population standards. Percentages greater than 100% exceed the FCC MPE limits. These measurements depict the energy levels that can be encountered by an individual at the site.

Maximum value for General Population Standard based on Spatial Averaging: 0.0184%

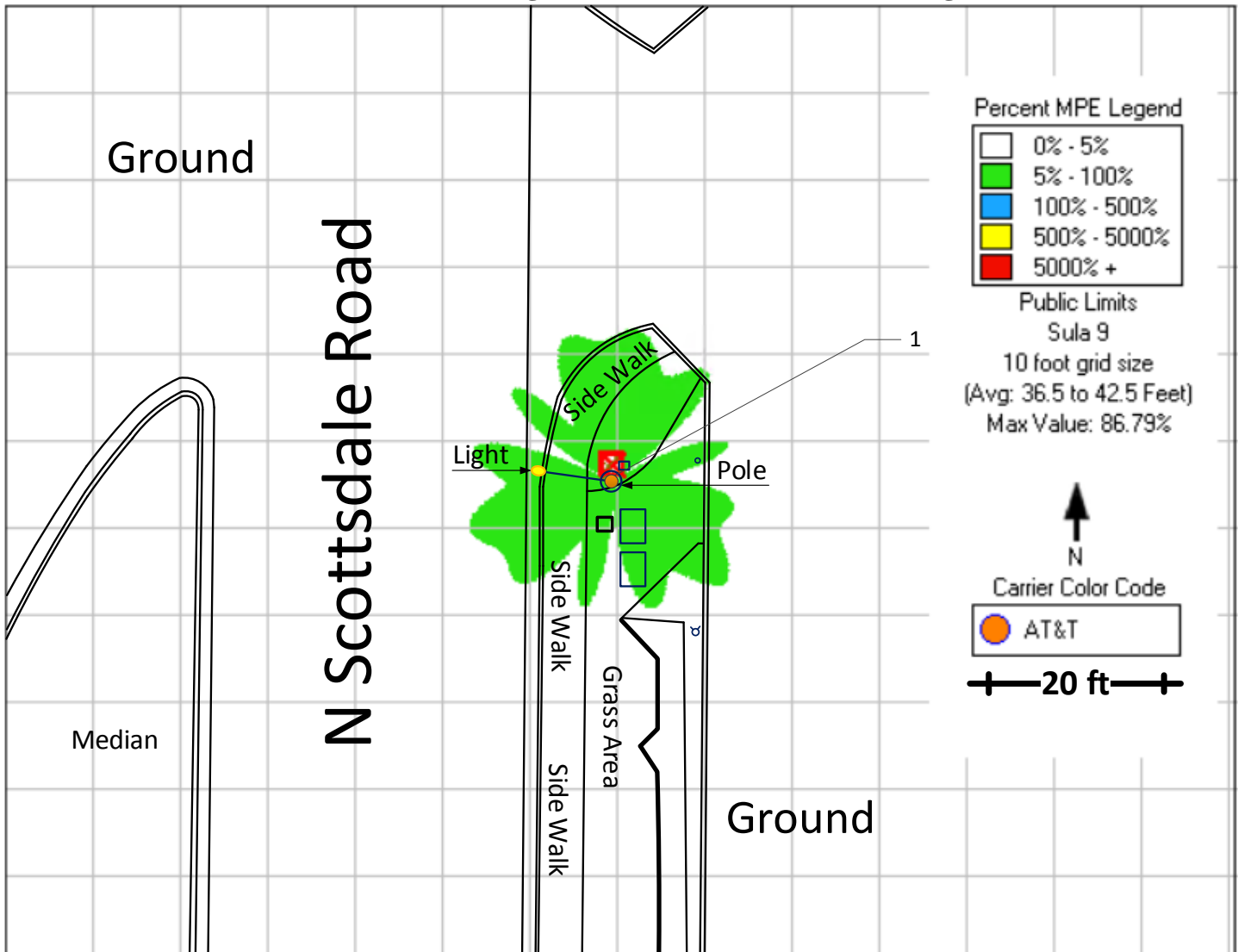
Maximum value for General Population Standard based on Maximum Spatial: 0.092%

Measurement Location	Spatial Average (%GP)	Spatial Max (%GP)
M1 - Ground	< 1	< 1
M2 - Ground	< 1	< 1
M3 - Ground	< 1	< 1
M4 - Ground	< 1	< 1
M5 - Ground	< 1	< 1
M6 - Ground	< 1	< 1
M7 - Ground	< 1	< 1
M8 - Ground	< 1	< 1
M9 - Ground	< 1	< 1
M10 - Ground	< 1	< 1
M11 - Ground	< 1	< 1
M12 - Ground	< 1	< 1
M13 - Ground	< 1	< 1
M14 - Ground	< 1	< 1
M15 - Ground	< 1	< 1
M16 - Ground	< 1	< 1
M17 - Ground	< 1	< 1
M18 - Ground	< 1	< 1
M19 - Ground	< 1	< 1
M20 - Ground	< 1	< 1
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M23 - Ground	< 1	< 1
M24 - Ground	< 1	< 1
M25 - Ground	< 1	< 1

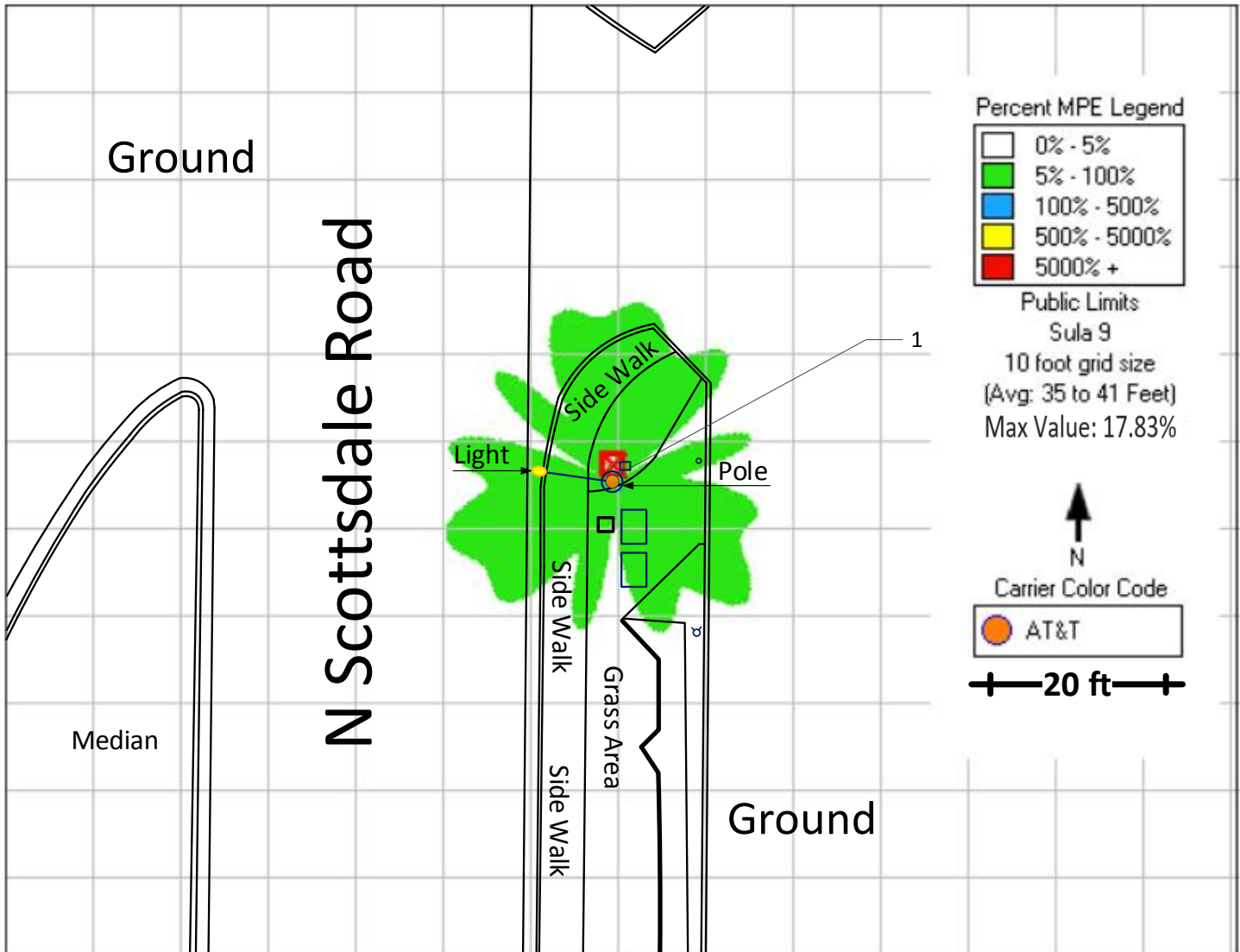


5.2. RF Predictive Modeling

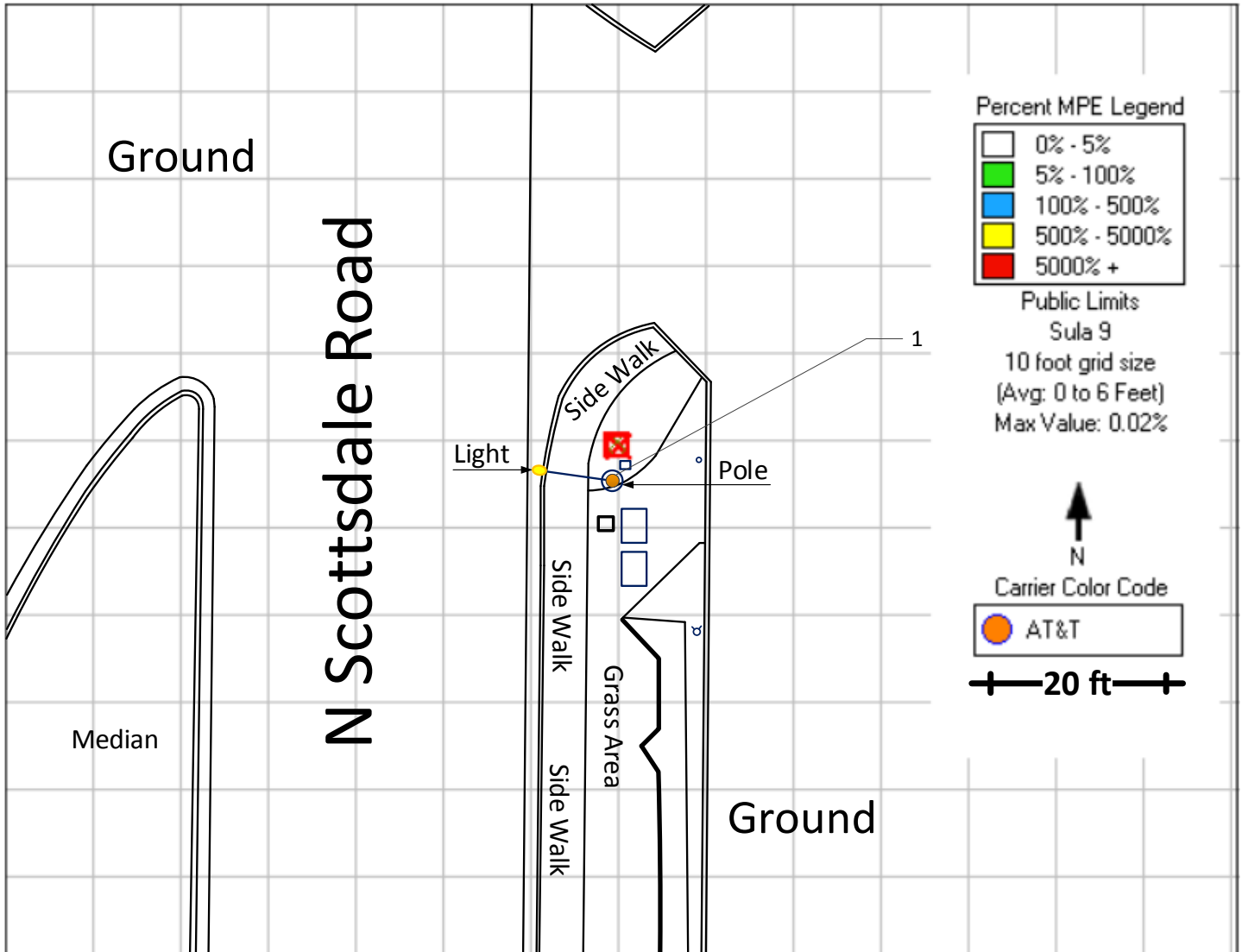
5.3.1. Antenna Level Modeling with AT&T Carriers Transmitting



5.3.2. Light Level Modeling with AT&T Carriers Transmitting



5.3.3. Ground Level Modeling with AT&T Carriers Transmitting



6 Roofmaster Data Sheet

Carrier	Antenna Number	Emitter Number	Pattern	Frequency	Power	Length	Azimuth(n)	Downtilt	Height(ft)	X(ft)	Y(ft)
AT&T	1	1	ACOM-2F15D-12P R2	1900	158.80854	0.6096	0	0	37.5	86.7	71.4
AT&T	1	2	ACOM-2F15D-12P R2	2100	158.80854	0.6096	0	0	37.5	86.7	71.4
AT&T	1	3	ACOM-2F15D-12P R2	5200	3.54686	0.6096	0	0	37.5	86.7	71.4

7 Statement of Compliance

At the time of our analysis, AT&T Mobility is required to take following action to fulfill their obligations to comply with the FCC's mandate as defines in OET-65.

7.1. Site Action requirements

Pole	Install two Stonehouse signs (2.5"x6.5") 5ft below the radome
AT&T Antenna	N/A

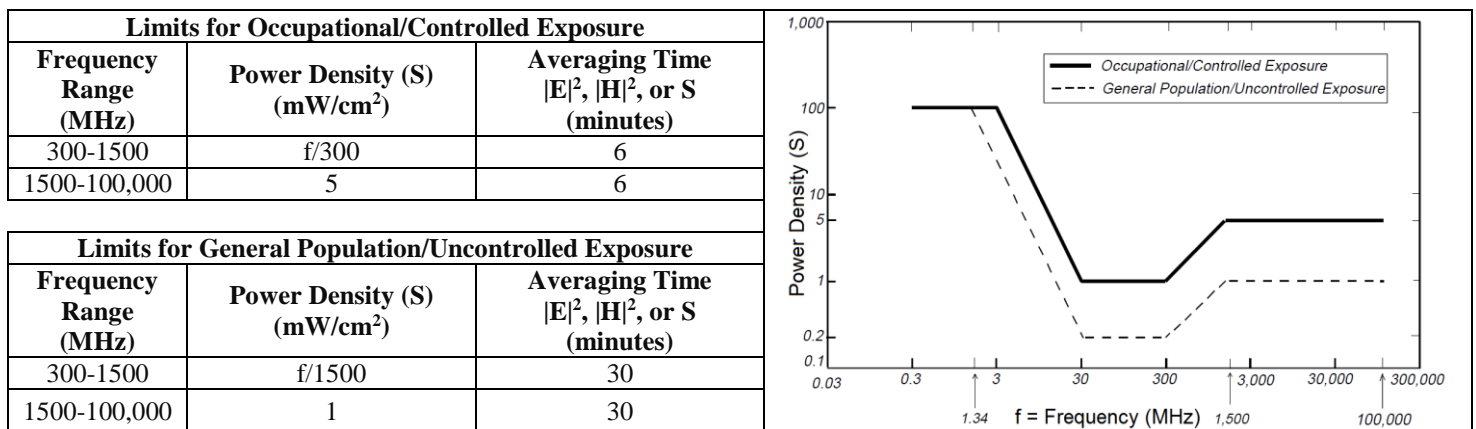
8 Appendix A

8.1. FCC Rules and Regulations

This appendix summarizes the policies, guidelines and requirements that were adopted by the FCC on August 1, 1996, amending Part 1 of Title 47 of the Code of Federal Regulations, and further amended by action of the Commission on August 25, 1997 (see 47 CFR Sections 1.1307(b), 1.1310, 2.1091 and 2.1093, as amended from FCC "OET Bulletin 65"). Commission actions granting construction permits, licenses to transmit or renewals thereof, equipment authorizations or modifications in existing facilities, require the preparation of an Environmental Assessment (EA), as described in 47 CFR Section 1.1311, if the particular facility, operation or transmitter would cause human exposure to levels of radiofrequency (RF) electromagnetic fields in excess of these limits. For exact language, see the relevant FCC rule sections.

The FCC-adopted limits for Maximum Permissible Exposure (MPE) are generally based on recommended exposure guidelines published by the National Council on Radiation Protection and Measurements (NCRP) in "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," NCRP Report No. 86, Sections 17.4.1, 17.4.1.1, 17.4.2 and 17.4.3. Copyright NCRP, 1986, Bethesda, Maryland 20814. In the frequency range from 100 MHz to 1500 MHz, exposure limits for field strength and power density are also generally based on the MPE limits found in Section 4.1 of, "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," ANSI/IEEE C95.1-1992, Copyright 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017, and approved for use as an American National Standard by the American National Standards Institute (ANSI). The exposure guidelines are based on thresholds for known adverse effects and they incorporate appropriate margin of safety. The federal health and safety agencies such as: the Environmental Protection Agency ("EPA"), the Food and Drug Administration ("FDA"), the National Institute on Occupational Safety and Health ("NIOSH") and the Occupational Safety and Health Administration ("OSHA") have also been actively involved in monitoring and investigating issues related to RF exposure.

The formulas used in Roofmaster 19.9.7.19 for calculating Power density is based on FCC "OET Bulletin 65", Section 2: PREDICTION METHODS, August 1997, Edition 97-01. Power density is converted to Maximum Permissible Exposure Limits (MPE Limits) based on Limits of General population/Uncontrolled Exposure and Limits of Occupational/Controlled Exposure presented in the following table generated from Appendix A of "OET Bulletin 65"



8.2. Safety Recommendations



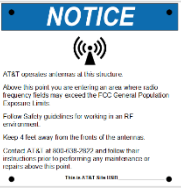
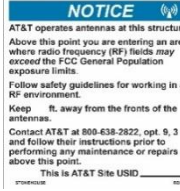


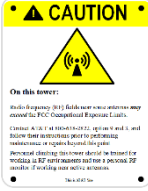
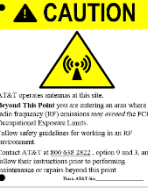
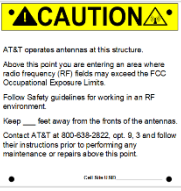


12.1.1. Occupational Safety and Health Administration (OSHA) Requirements

OSHA requires that those in the Occupational classification must complete training in RF Safety, RF Awareness, and Utilization of Personal Protective Equipment. OSHA also provides options for Hazard Prevention and Control:

Hazard Prevention	Control
<ul style="list-style-type: none"> Utilization of good equipment Enact control of hazard areas Limit exposures Employ medical surveillance and accident response 	<ul style="list-style-type: none"> Employ Lockout/Tag out Utilize personal alarms & protective clothing Prevent access to hazardous locations Develop or operate an administrative control program

12.1.2. RF Signage and Barriers

RF signs and preventive barriers have an important role in appropriately alerting a worker before entering into a potential RF exposure area. All RF signs should be abided by at all times.

					
Notice	Notice 2	Notice - Small Cells	Notice - Stonehouse	Caution	Caution 2
This sign indicates that RF emissions may exceed the FCC General Population MPE limit.	This sign is used as combination of Information sign and Notice sign	This sign indicates that RF emissions may exceed the FCC General Population MPE limit on the pole	This sign indicates that RF emissions may exceed the FCC General Population MPE limit on the pole	This sign indicates that RF emissions may exceed the FCC Occupational MPE limit.	This sign is used as combination of Information sign and Caution sign
					
Caution 2B	Caution 2C	Caution - Small Cells	Warning	Warning 1B	
This sign indicates that RF emissions may exceed the FCC Occupational MPE limit on the tower	This sign indicates that RF emissions may exceed the FCC Occupational MPE limit at side mounted antennas	This sign indicates that RF emissions may exceed the FCC Occupational MPE limit on the pole	This sign indicates that RF emissions may exceed at least 10x the FCC Occupational MPE limit.	This sign is used as combination of Information sign and Warning sign	

EAS, Inc. recommends coordinating with all wireless tenants before performing services in front of or near any transmitting antennas. During these activities, it may be appropriate to utilize Lockout/Tagout Procedures as specified in ATT-002-290-078, "RF Exposure: Responsibilities, Procedures & Guidelines" for scheduled outages to eliminate RF hazards during these activities.

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9 Appendix B

9.1. Contribution to Co-Located areas

Any wireless operator that contributes 5% or greater of the MPE limit in an area that is identified to be greater than 100% of the MPE limit is responsible taking corrective actions to bring the site into compliance. All co-located sites should have a separate 5% modeling that shows only AT&T antennas transmitting. This separate modeling indicates AT&T's contribution in all areas that is recognized to be greater %100 MPE limits.

9.2. Occupational limits

Apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

9.3. General population limits

Apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure. (Those without significant and documented RF Safety & Awareness training)

9.4. Controlled Environment

Applies to environments that are restricted or “controlled” in order to prevent access from members of the General Population classification.

9.5. Uncontrolled Environment

Applies to environments that are unrestricted or “uncontrolled” that allow access from members of the General Population classification.

9.6. Generic Values

The use of “Unknown” for an operator means the information with regard to the carrier, their FCC license and / or antenna information was not available. Generic values used as estimation for Effective Radiated Power (ERP) and antenna characteristics for unknown antennas.

10 Certificate of Calibration

Narda Safety Test Solutions
 435 Moreland Road, Hauppauge, NY 11788
 Phone: 631-231-1700 · Fax: 631-231-1711
 E-mail: nardaeast@L-3com.com
 www.nardamicrowave.com



Calibration Certificate

Narda Safety Test Solutions hereby certifies that the referenced equipment has been calibrated by qualified personnel to Narda's approved procedures. The calibration was carried out within a certified quality management system conforming to ISO 9001.

The metrological confirmation system for test equipment complies with ISO 10012-1.

Object	EA5091 Electric Field Probe
Part Number (P/N)	2402/07B
Serial Number (S/N)	01086
Manufacturer	Narda Safety Test Solutions
Date of Calibration	Tue 05/Jun/2018
Results of Calibration	Test Results within Specification
Confirmation interval (recommended)	24 Months
Ambient Conditions	(23 +/- 4) °C (50 +/- 15) % RH
Calibration Procedure	Probe ATE Software, 990313 v3.0.2
Probe Definition File Set	990313-04 v1.05
Results Filed Under	01086_05Jun2018.xlsx

Hauppauge, NY

V. M.
 Calibrated by

6/6/18
 Quality Assurance

This certificate may only be published in full, unless permission for the publication of an approved extract has been obtained in writing from the Director of Quality Assurance.

Certificate No. 2402/07B-01086

Date of issue: Tue 05/Jun/2018

Page 1 of 5

Narda Safety Test Solutions GmbH
435 Moreland Road, Hauppauge, NY 11788
Phone: 631-231-1700 · Fax: 631-231-1711
E-mail: nardaeast@L-3com.com
www.nardamicrowave.com




Calibration Certificate

Narda Safety Test Solutions hereby certifies that the referenced equipment has been calibrated by qualified personnel to Narda's approved procedures. The calibration was carried out within a certified quality management system conforming to ISO 9001.

The metrological confirmation system for test equipment complies with ISO 10012-1.

Object	Broadband Field Meter NBM-550
Part Number (P/N)	2401/01B
Serial Number (S/N)	E-0306
Manufacturer	Narda Safety Test Solutions
Date of Calibration	2018-05-21
Results of Calibration	Test results within specifications
Confirmation interval (recommended)	24 months
Ambient conditions	(23 ± 3)°C (20 ... 60) % rel. humidity
Calibration procedure	2401-8700-00A

Hauppauge NY, 2018-05-22



Calibrated by
J. Woitulevich



Quality Assurance

This certificate may only be published in full, unless permission for the publication of an approved extract has been obtained in writing from the Director of Quality Assurance.

Certificate No. NBM-550-E-0306-180521-1070

Date of issue: 2018-05-22

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11 Engineering Certification

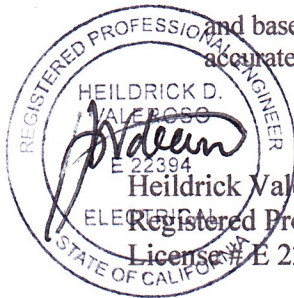
I, Heildrick Valeroso, P.E. State:

The stamp and signature on this page certifies the following:

- I am a Registered Professional Engineer in the state of California, license # E 22394 with expiration date of 9/30/2020
- That I am familiar with the Rules and Regulations of the Federal Communications Commission (FCC) as well as the regulations of the Occupational Safety and Health Administration (OSHA), both in general and specifically as they apply to the FCC Guidelines for Human Exposure to Radio-frequency Radiation.
- I reviewed the RFE-EME Compliance Report for the AT&T site

Site ID	PHX01 010
Site Name	CRAN CROWN CHAPPARRAL
Address	5401 N. Scottsdale Rd Scottsdale, AZ 85250

and based on supplied data and to the best of my knowledge I believe the Report to be true and accurate.



Heildrick Valeroso, P.E.
Registered Professional Engineer,
License # E 22394 Expiration date 9/30/2020

Date: 12/04/2019



December 15, 2020

Mr. George Burton
Planner
Town of Paradise Valley
6401 E Lincoln Drive
Paradise Valley, AZ 85253

cc: NPE RAN RF Safety (gl6887@att.com)

Subject: AT&T RF Safety Policy

Dear Mr. Burton,

You have been identified as the owner, manager, or operator of a property where AT&T is proposing and will maintain cell sites. As you may know, cell sites operate using radio frequency ("RF") energy and exposure to this energy is regulated by the Federal Communications Commission ("FCC"). This letter is intended to inform you of AT&T's RF Safety Plan for complying with those regulations at these sites. An RF Safety Plan may include signs to minimize exposure to RF energy, education about the potential for RF exposure and how to avoid it, or a program for entry to areas where RF exposure could occur.

AT&T's RF Safety Policy. This policy requires a qualified RF safety engineer to periodically review AT&T's cell sites to confirm compliance with FCC RF exposure rules (see Exhibit A). For some sites, alerting signs (see Exhibit A) are needed to restrict the public or workers access to RF energy beyond maximum permissible levels. These Alerting signs (i.e. Notice, Caution, or Warning) may notify workers and the public that may have access to areas near the antennas of the presence and risks of RF energy. AT&T periodically conducts audits to evaluate their continued presence and integrity. Where appropriate, these preventative measures should also be combined with the entry restrictions discussed below, such as locks at all access points. The sections below explain the RF Safety Plan for these sites.

Site Exposure Mitigation. Our most current review of AT&T sites (refer to table in below section) indicates that the following signs are required at the cell site on your property to ensure compliance with FCC RF Safety rules

- 1) Two AT&T 2.5" x 6.5" Notice decals must be placed opposite each other around the bottom of the antenna radome. The Notice decal text must specify that a distance of 2 (two) feet must be kept from the antenna. The drawing in Exhibit B of this document illustrates signage placement. Other options for deployment of signage may be discussed with HQ if the pole/post owner refuses to allow signage to be posted on the pole or if other obstacles arise. The sign will inform the person of the potential for high exposure levels and provide a phone number to call and arrange for power to be removed from the antennas for the duration of work.
- 2) The pole/post owner should advise all employees that AT&T antennas are located on some poles/posts and that the guidance provided by the signs should be followed.
- 3) The CRAN or Small Cell team managing the cell(s) must upload this letter into FileNet for each pole/post site as confirmation that RF safety signage has been properly installed.



AT&T or its site vendor will contact you to arrange a time for the placement of the above signs and to discuss controlling access to the cell site area. AT&T will incur all costs pertaining to the installation of any RF Safety signs.

Master FA Number	Antenna USID	Site Name	Antenna Location	Antenna Latitude (Decimal)	Antenna Longitude (Decimal)
14806281	184514	PHX01_008	5303 N Scottsdale Rd	33.513944	-111.925836
14806283	184515	PHX01_010	5391 N Scottsdale Rd	33.515319	-111.925819

Should the Landlord decline AT&T's proposed posting of Alerting Signage, then the following RF Safety Plan shall be followed by the Landlord.

These steps below should be followed by employees, contract workers, and others (Covered Persons) that may gain proximity to the antennas.

1. Ensure all authorized personnel working near antennas have certified RF Safety training
2. Personnel working near antennas should carry Personal RF Exposure Monitoring Device
3. Instruct all Covered Persons to remain at least (2) two feet from the antennas;
4. Instruct all Covered Persons to inform the pole/post owner if there is a need to get closer than (2) two feet from the antennas;
5. Instruct all Covered Persons to coordinate work near the antennas with the pole/post owner

If the above steps are not possible then proceed with the Site Shut-Down procedure below:

Site Shut-down Procedure

- a. Instruct all persons that may need to ascend the pole to contact the owner prior to ascending the pole;
- b. Call the AT&T Network Operations Center at 1-800-638-2822 (**Option 9 and 3**) to arrange for turning off power to the antennas. Provide the FA (at top of letter). Please allow 2 weeks' notice.
- c. Wait for confirmation from the NOC (Network Operations Center) that the antennas are de-energized before permitting the workers to ascend the pole;
- d. Inform the NOC (Network Operations Center) when the workers have left pole.

Upon any RF modifications to a site, AT&T must also reassess the technical parameters of the CRAN/Small cells identified above to confirm continued compliance with the FCC exposure limits.



Please sign below and return to me acknowledging receipt of this letter and your agreement to follow these processes to control entry to the area where AT&T's antennas are located. Please do not hesitate to contact me if you have any additional questions.

Sincerely,


Landlord Name (printed)

Landlord Signature

Date



Exhibit A
RF Safety Information
AT&T Cell Sites on Third Party Property

NOTICE 	
AT&T operates antennas at this structure.	
Above this point you are entering an area where radio frequency (RF) fields <i>may</i> exceed the FCC General Population exposure limits.	
Follow safety guidelines for working in an RF environment.	
Keep ft. away from the fronts of the antennas.	
Contact AT&T at 800-638-2822, opt. 9, 3 and follow their instructions prior to performing any maintenance or repairs above this point.	
This is AT&T Site USID _____	
ETD-010402C	10/01/02

⚠ CAUTION ⚠	
AT&T operates antennas at this structure.	
Above this point you are entering an area where radio frequency (RF) fields <i>may</i> exceed the FCC Occupational exposure limits.	
Follow safety guidelines for working in an RF environment.	
Keep ft. away from the fronts of the antennas.	
Contact AT&T at 800-638-2822, opt. 9, 3 and follow their instructions prior to performing any maintenance or repairs above this point.	
Cell Site USID _____	
ETD-010402C	10/01/02

RF Exposure. Guidance on the potential risks of exposure to RF emissions can be found in the FCC's publication OET 56-Questions and Answers about Biological Effects and Potential Hazards of Radiofrequency Electromagnetic Fields (1999), which may be accessed via this link: http://transition.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet56/oet56e4.pdf. The FCC's RF exposure rules are at 47 CFR §1.1307(b) and can be accessed at: http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&tpl=/ecfrbrowse/Title47/47cfrv1_02.tpl.



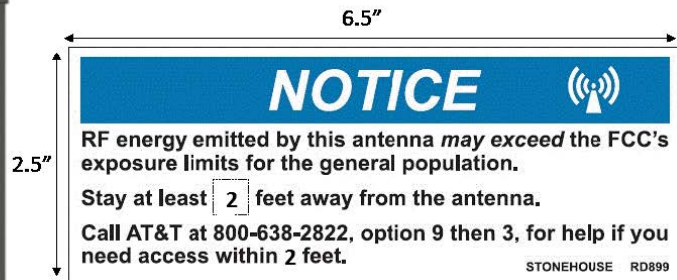
Exhibit B
Placement of RF Safety Signage.

Small Cells_CRAN Compliance Documents

Signage can be ordered from Stonehouse Signs, Inc., according to the guidance in Section 6.2, "Stonehouse Signs Ordering Process (CRAN)," in ATT-790-202-062

DAS (Distributed Antenna System) and CRAN (Centralized Radio Access Network) Signage Standard." Use this link to access the document:

<http://apex.web.att.com/bookview/bookview.jsp?bookname=ATT-790-202-062&fulltext>



Place two NOTICE decals opposite each other around the bottom of the antenna radome.

Table 1. LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

(A) Limits for Occupational/Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

(B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz

*Plane-wave equivalent power density

NOTE 1: *Occupational/controlled* limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2: *General population/uncontrolled* exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

AT&T MOBILITY
CRAN/ SMALL CELL RADIO FREQUENCY (RF)
SAFETY COMPLIANCE CERTIFICATION

21 MAY 2018

ANTENNA: ACE ACOM 2F15D-12P-R2

Band	700	850	PCS	AWS	WCS	5 GHz	mmw
Antenna Input Power (W)	0	0	20	20	0	1	0

PURPOSE OF THIS DOCUMENT

This document certifies that the AT&T Mobility Centralized Radio Access Network (CRAN) or Small Cell outdoor cell defined below meets Federal Communications Commission (FCC) RF safety compliance requirements specified in 47 CFR §1.1310, provided that the actions specified in the “Compliance Actions” and “Completing this Certification Document” sections of this document are completed before the CRAN or Small Cell is placed into service.

DEFINITION OF SMALL CELLS INCLUDED IN THIS CERTIFICATION

The small cell antenna and its operating parameters covered by this certification are:

- a) Antenna: ACE ACOM2F15D-12P-R2;
- b) Antenna centerline height: 20 feet above ground level (AGL) or higher;
- c) Transmission Frequencies: PCS band, AWS band, 5 GHz band;
- d) Maximum Total Power into Antenna: 20W at PCS band, 20W at AWS band, 1W 5 GHz;
- e) Antenna positioning: The antennas are mounted on tops or sides of poles/posts;
- f) Co-locators: No other emitters are on pole/post/mounting location;
- g) No accessible locations (e.g., other poles, apartment balconies) within 8 feet of the antenna at or near antenna level.

INVALIDATION OF THIS CERTIFICATION

This certification becomes invalid when:

- a) Antenna models other than the ACE ACOM2F15D-12P-R2 are deployed;
- b) Antenna centerline is lower than 20 feet AGL;
- c) Transmission frequencies other than: PCS band, AWS band, 5 GHz band;
- d) Total input power to antenna exceeds: 20W at PCS band, 20W at AWS band, 1W 5 GHz;
- e) The antenna positioning is changed;
- f) Other emitters become co-located on the pole/post;
- g) There are accessible locations (e.g., other poles, apartment balconies) within 8 feet of the antenna at or near antenna level.

The CRAN or Small Cell team managing the cell(s) to which this certification applies must inform HQ RAN when any of the listed changes occur and request a new certification study

RF SAFETY COMPLIANCE ANALYSIS

RF safety compliance was computationally evaluated using computational modeling contained in the FCC's OET Bulletin 65. A worst-case analysis in which peak power was transmitted 100% of the time was assumed. The results are based on the FCC's maximum permissible exposure limits for the general population.

Exposure predictions based on the antenna and RF data stated above indicate that a separation distance of 2 (two) feet must be kept from the nearest point of the ACE ACOM2F15D-12P-R2 antenna that is deployed alone on the pole/post.

COMPLIANCE ACTIONS

Leasing Agreements

In anticipation of inquiries and concerns of employees, contract workers, and others that may gain proximity to the antennas (collectively, "Covered Persons"), leasing agreements will include language that obligates site owners to:

- 1) Show the antennas to all Covered Persons, as necessary;
- 2) Instruct all Covered Persons to remain at least 2 (two) feet from the antennas;
- 3) Instruct all Covered Persons to inform the pole/post owner if there is a need to get closer than 2 (two) feet from the antennas;
- 4) Instruct all Covered Persons to coordinate work near the antennas with the pole/post owner;
- 5) Contact AT&T at the number provided in the lease to arrange for the appropriate antenna(s) to be de-energized when needed if Covered Persons must work near the antennas, to provide confirmation to the Covered Persons when the antenna(s) have been de-energized, and to inform AT&T when it's safe to restore energy to the antennas.

Upon any RF modifications to a site, AT&T must also reassess the technical parameters of the small cells identified above to confirm continued compliance with the FCC exposure limits.

Signage Actions

- 1) Two AT&T 2.5" x 6.5" Notice decals must be placed opposite each other around the bottom of the antenna radome. The Notice decal text must specify that a distance of 2 (two) feet must be kept from the antenna. The drawing in Appendix D of this document illustrates signage placement. Other options for deployment of signage may be discussed with HQ if the pole/post owner refuses to allow signage to be posted on the pole or if other obstacles arise. The sign will inform the person of the potential for high exposure levels and provide a phone number to call and arrange for power to be removed from the antennas for the duration of work.
- 2) The pole/post owner should advise all employees that AT&T antennas are located on some poles/posts and that the guidance provided by the signs should be followed.
- 3) The CRAN or Small Cell team managing the cell(s) must upload this letter into FileNet for each pole/post site as confirmation that RF safety signage has been properly installed.

COMPLETING THIS CERTIFICATION DOCUMENT

Review the CRAN and Small Cell RF Safety Compliance Job Aid for assistance with completing this certification letter. The job aid may be retrieved from the RAN HQ RF Safety SharePoint using the link in Appendix C.

Actions to be taken by the HQ RF Safety Compliance Team

The HQ RF Safety Compliance Team will collaborate with the small cells team to address new issues with signage formatting, deployments, etc., as those issues arise during small cell deployment.

Actions to be taken by the AT&T Market Site Acquisition PM (AMSAP)

The AMSAP shall complete the section below for each site. However, the AMSAP may account for multiple sites/nodes by entering USIDs, FA#,s, and addresses for each in the spaces below.

CRAN or Small Cell USID: 184506,184514,184509,184515,184510,184516

CRAN or Small Cell FA# 14272794

Address: Northland Dr. & 73RD St. Scottsdale AZ, 85251 | 5001 N. Scottsdale RD. Scottsdale AZ, 85251 | Scottsdale Road & Vista Drive, Scottsdale AZ, 85250 | 5401 Scottsdale Road. Scottsdale AZ, 85250 | Scottsdale RD & Jackrabbit Rd. Scottsdale AZ, 85250 | Scottsdale RD and Chaparral. Phoenix Az,85 | 5401 N Scottsdale RD, Scottsdale AZ, 85250 |

Name of CRAN or Small Cell POC: Ajay Sawant

Phone: 4804444835

Date of certification:

Signature



Title RF Engineer

Upon completing the information above and signing, the AMSAP will upload the completed CL as instructed in Appendix B below.

Actions to be taken by the Mobility C&E National PMO

The Mobility C&E National PMO shall upload a copy of the uncompleted CL into a SharePoint location managed by the Mobility C&E National PMO.

APPENDIX A: Accessing the CRAN and Small Cell Certification Library

A library of previously-issued CLs may be consulted to determine whether one of them is applicable to a new deployment.

Use this link to access previously issued certification letters: [CRAN/Small Cells Certification Letters](#).

Contact Jan Wise (hw8938) to request access for the CL s/p link above.

1. If all the conditions in a CL are congruent with the conditions for a prospective new deployment, the CL may be applied according to guidance given in the main body of this document.
2. If changes, e.g., increase in power, to an existing CL would appear to make it applicable to a new deployment, a request for modification may be made to HQ.
3. If no usable CLS are found in the library, a request for a new CL must be made through HQ

APPENDIX B: Naming Conventions for Uploading Completed CLs into Filenet.

CLs completed by the field must be uploaded into Filenet using the following naming convention:

1. Certification letters will be uploaded into Filenet with Doc ID “RS102”
2. If the multiple site/node option is used, the completed CL must be uploaded into all applicable locations.
3. Following file naming convention will be used for CLs when uploading into Filenet
 - a. **RFS Cert_SC_FA_USID_MMDDYY** (Applies to Small Cells)
 - b. **RFS Cert_CRAN_FA_USID_MMDDYY** (Applies to CRAN)
4. Certification letters shall be uploaded into Filenet by C&E or its vendor.

APPENDIX C: RAN HQ RF Safety SharePoint Link

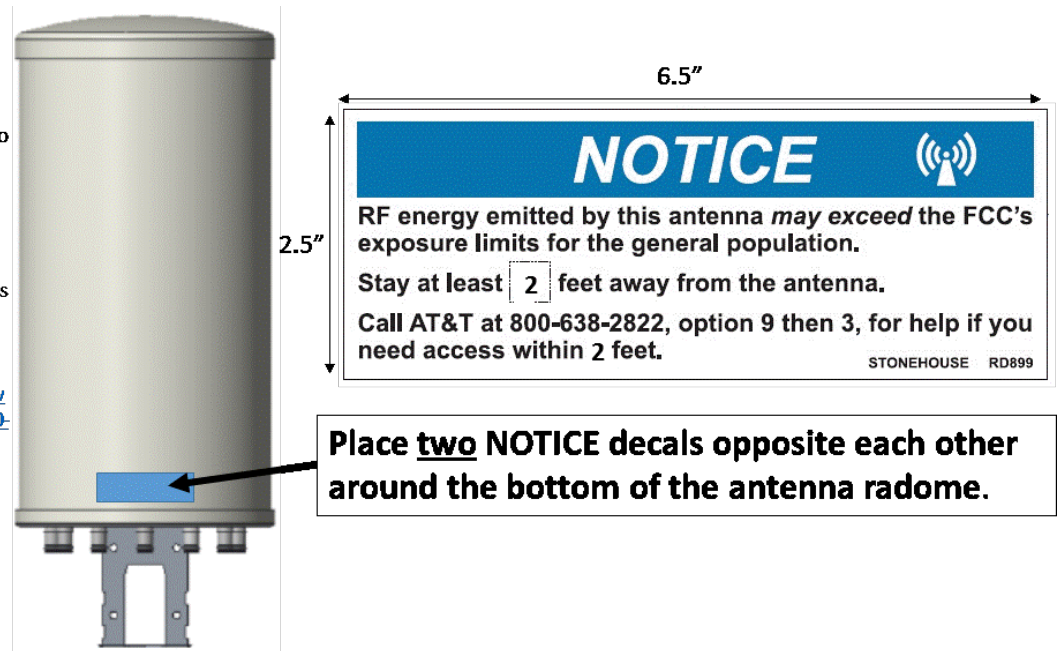
The RAN HQ RF Safety SharePoint link may be consulted to access:

1. CRAN and Small Cell compliance certification process PowerPoint presentation
2. CRAN and Small Cell RF Safety Compliance job aid

[Small Cells CRAN Compliance Documents](#)

APPENDIX D: Placement of RF Safety Signage.

Signage can be ordered from Stonehouse Signs, Inc., according to the guidance in Section 6.2, "Stonehouse Signs Ordering Process (CRAN)," in ATT-790-202-062 DAS (Distributed Antenna System) and CRAN (Centralized Radio Access Network) Signage Standard." Use this link to access the document:
<http://apex.web.att.com/bookview/bookview.jsp?bookname=ATT-790-202-062&fulltext>



STREET LIGHT SITE LICENSE AGREEMENT

This Site License Agreement is made pursuant to the Master License Agreement for Wireless Attachments to APS Streetlight Poles ("Master License Agreement"), Master License Agreement Number JU19-003 between Arizona Public Service Company and New Cingular Wireless PCS, LLC, a Delaware limited liability company("Licensee") dated August 13, 2019__. This Site License Agreement is governed by the provisions of the Master License Agreement, the provisions of which are specifically incorporated herein by this reference, and remains in effect only as long as the Master License Agreement remains in effect.

1. Licensee site name and number: PHX01 010 A
2. Streetlight Pole number: 12
3. Licensee site legal description: Paradise Valley Right of Way adjacent to APN 173-17-001, 5401 N Scottsdale Road, Paradise Valley
4. Site Latitude and Longitude (Approximate): 33.515319 -111.925819
5. Commencement Date: 4/13/2020
6. Fees: [REDACTED]
7. Term: one (1) five (5) year term
8. Renewal Options: four (4) additional five (5) year renewals possible
9. Ownership of underlying fee: Town of Paradise Valley
10. APS contact for emergencies: 602-371-7171
11. Licensee contact for emergencies: 800-638-2822, option 9, then 3
12. Description of Communications Facility: Pico Design consisting of one 35' replacement light pole with one antenna mounted on top in concealment housing, three RRH units below antenna in concealment housing, one power meter pedestal, one fiber meet vault, one electrical pull box.
13. Provide detailed drawing of streetlight Pole showing proposed installation including attachment points for all equipment, dimensional specifications, cabling, etc. See Attached Construction Drawings
14. List each piece of equipment, including make, model number, size and weight. Attach manufacturer specification sheets for each. See Attached Equipment Cut Sheets

15. Input power requirements (watts, kwh per month):
1.5
- a. Grounding of wireless attachment (please describe): See Construction Drawings Sheet G-1-Grounding Plan and Sheet G-2-Grounding Details
16. Radio Frequency Emissions: PCS MHz E+F+C3+C4 (20Mhz) E-ULTRA Band 2, AWS1 A (10MHz) Band 4, LAA Unlicensed (5 GHz) Band 46 39 GHz
17. Maximum ERP level: 50W
18. Will the Wireless installation identified above, as installed, comply fully with the RFR exposure limitations as specified by the Federal Communications Commission at 47 C.F.R. §1.1310 (or its successor regulation) and any state RFR standards?
- Yes X
- No
19. Special provisions, if any (site specific): Power meter/equipment cabinets to be located within Town of Paradise Valley ROW adjacent to new light pole.

LICENSEE

ARIZONA PUBLIC SERVICE COMPANY

By: [Signature]

By: [Signature]

Name: Steve Curcio

Name: Ryan Jagels

Title: Area Mgr Const & Eng

Title: Supv Const Program Mgmt

Date: 03/26/2020

Date: 4/13/2020



at&t

AT&T SITE ID: CRAN_RANM: PHX01_010_A

LAT/LOG: 33.515319, -111.925819

CROSS STREETS: N SCOTTSDALE RD & E JACKRABBIT RD

LIGHT POLE ADDRESS: 5401 N SCOTTSDALE RD SCOTTSDALE, AZ 85250

SERVICES ADDRESS: 5391 N SCOTTSDALE RD SCOTTSDALE, AZ 85250

POLE NUMBER: 12

UTILITY JOB #: PENDING

PROJECT TEAM

CLIENT REPRESENTATIVE

COMPANY
SMARTLINK, LLC
ADDRESS
400 E. WILSON AVE. SUITE 200
SCOTTSDALE, AZ 85250
CITY, STATE, ZIP
SCOTTSDALE, AZ 85250
PHONE
(480) 674-4471
FAX
(480) 674-4471
EMAIL
BRAD.LOVE@SMARTLINK.ILL.COM

PROJECT OWNER

COMPANY
AT&T
ADDRESS
1901 WEST JORDAN STREET
MESA, AZ 85201
CITY, STATE, ZIP
MESA, AZ 85201
CONTACT
SHAH KHALID
PHONE
(480) 644-8695
FAX
(480) 644-8695
EMAIL
SHAH.KHALID@ATT.COM

PROFESSIONAL OF RECORD

COMPANY
SMARTLINK CONSULTING
ADDRESS
400 E. WILSON AVE. SUITE 200
SCOTTSDALE, AZ 85250
CITY, STATE, ZIP
SCOTTSDALE, AZ 85250
CONTACT
DANIEL MENDOZA
PHONE
(480) 674-4471
FAX
(480) 674-4471
EMAIL
DANIEL.MENDOZA@SMARTLINK.COM

SURVEYOR

COMPANY
AMRT CONSULTING
ADDRESS
400 E. WILSON AVE
SCOTTSDALE, AZ 85250
CITY, STATE, ZIP
SCOTTSDALE, AZ 85250
CONTACT
MICHAEL AMRT
PHONE
(480) 654-4072

PROPERTY OWNER

COMPANY
TOWN OF PARADISE VALLEY
ADDRESS
6401 E. LINCOLN DR. PARADISE VALLEY, AZ 85239
CITY
PARADISE VALLEY
PHONE
(480) 344-9000

POWER COMPANY

NAME
APS
PHONE
(602) 371-2771

GENERAL NOTES

DO NOT SCALE DRAWINGS
CONTRACTOR SHALL VERIFY ALL LINES AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE. NO SANITARY SEWER SERVICE. POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SERVICE IS NEW.

SITE INFORMATION

LATITUDE
33.515319
LONGITUDE
-111.925819
LAT. LONG. TYPE
NAD 83
APN #
R004 ADJACENT TO PARCEL NO. 1751-009
CURRENT ZONING
R004
ZONING JURISDICTION
TOWN OF PARADISE VALLEY
COUNTY
MARICOPA COUNTY

PROJECT DESCRIPTION

THIS PROJECT WILL BE COMPLETED BY THE ARCHITECT/ENGINEER AND SHALL INCLUDE THE FOLLOWING:
- REPLACEMENT OF EXISTING STREET LIGHT POLE WITH NEW LIGHT POLE
- INSTALLATION OF 11 METER FREESTANDING ANTENNA
- INSTALLATION OF 11 NEW ANTENNA MOUNTED TOP OF REPLACEMENT STREET LIGHT POLE IN CONFORMANCE WITH THE FOLLOWING:
- INSTALLATION OF 11 NEW ANTENNA MOUNTED TOP OF REPLACEMENT STREET LIGHT POLE IN CONFORMANCE WITH THE FOLLOWING:
- INSTALLATION OF 11 NEW FREESTANDING ANTENNA

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100. 10/15/19	DESIGN COMMENCEMENT

CHECKED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____

PROJECT NO: _____

PROJECT NAME: _____

PROJECT ADDRESS: _____

PROJECT CITY: _____

PROJECT STATE: _____

PROJECT ZIP: _____

PROJECT PHONE: _____

PROJECT FAX: _____

PROJECT EMAIL: _____

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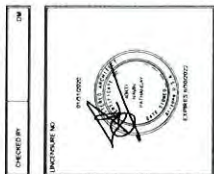


THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS IS THE PROPERTY OF SMARTLINK, LLC. IT IS TO BE USED FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. NO PART OF THIS SET OF DRAWINGS IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF SMARTLINK, LLC.



State 48
Development Consulting
1001 N. WILSON AVE. SUITE 200
SCOTTSDALE, AZ 85250
PH: (480) 674-4471
FAX: (480) 674-4471
WWW.STATE48.COM

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99. 10/15/19	DESIGN COMMENCEMENT
100. 10/15/19	DESIGN COMMENCEMENT



AT&T SITE ID:
CRAN_RANM:
PHX01_010_A
5391 N SCOTTSDALE RD
SCOTTSDALE, AZ 85250

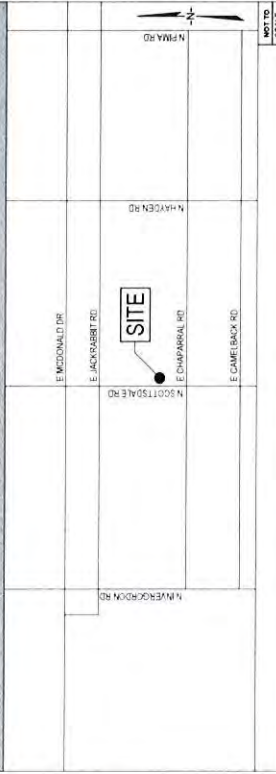
TITLE SHEET

T-1

SITE PHOTO



VICINITY MAP



DRIVING DIRECTIONS

FROM AT&T OFFICE: 1901 WEST UNIVERSITY DRIVE, MESA, AZ 85201-5419
1. TAKE I-19 SOUTH ON UNIVERSITY DR. TURN LEFT ONTO W UNIVERSITY DR. TURN LEFT ONTO N WILSON RD. USE THE MIDDLE 2 LANES TO TURN LEFT ONTO E CHAPARRAL RD. TURN LEFT ONTO E CHAPARRAL RD. TURN LEFT ONTO N SCOTTSDALE RD.
2. ARRIVE AT SITE ON THE RIGHT HAND SIDE OF THE ROAD.

CODE COMPLIANCE

BUILDING CODE
INTERNATIONAL BUILDING CODE 2015
ELECTRICAL CODE
NATIONAL ELECTRICAL CODE 2014
LIGHTNING PROTECTION CODE
NFPA 780-2011 LIGHTNING PROTECTION CODE
SURGE PROTECTORS SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AND STANDARDS. THE DESIGNER SHALL BE RESPONSIBLE FOR THE LOCATION, THE EDITION OF THE ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
FOR ANY CONFLICTS BETWEEN DESIGNER'S USED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN, WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.



Know what's below.
Call before you dig.

TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN ARIZONA, CALL ARIZONA 811 TOLL FREE 1-800-782-5348 OR www.arizona811.com

ARIZONA STATE UTILITY WORKING DAYS NOTICE BEFORE YOU EXCAVATE



SURVEY DATE
01/06/2018

BASES OF BEARING
BEARINGS SHOWN HEREON ARE BASED UPON U.S. STATE
PLANE NAD83 COORDINATE SYSTEM ARIZONA STATE
PLANE COORDINATE CENTRAL ZONE, DETERMINED BY GPS

FLOOD_ZONE
THIS PROJECT APPEARS TO BE LOCATED WITHIN FLOOD
ZONE "X" ACCORDING TO FEDERAL EMERGENCY
MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP(S).

SURVEYOR'S NOTES
SURVEYOR HAS NOT PERFORMED A SEARCH OF PUBLIC RECORDS TO DETERMINE ANY DEFECT IN TITLE ISSUED

THE BOUNDARY SHOWN HEREON IS PLOTTED FROM RECORD INFORMATION AND DOES NOT CONSTITUTE A BOUNDARY SURVEY OF THE PROPERTY

BENCHMARK
PROJECT ELEVATIONS ESTABLISHED FROM GPS DERIVED
ORTHOMETRIC HEIGHTS BY APPLICATION OF NGS "GEOID
MODEL 2012" MODELED SEPARATIONS TO ELLIPSOID HEIGHTS
DETERMINED BY SINGLE BASELINE OBSERVATIONS FROM
ARIZONA HEIGHT MODERNIZATION PROJECT GPS AZC
STATION ELEVATIONS SHOWN HEREIN ARE REFERENCED TO
NAVD83

UTILITY NOTES

LOCATIONS ARE DEFINITE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND DEVELOPER TO CONTACT BLUE STAKE AND ANY OTHER INVOLVED AGENCIES TO OBTAIN ALL UTILITIES PRIOR TO CONSTRUCTION. REMOVAL, RELOCATION AND/OR REPLACEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR.

NOTE

NO CONFLICT WITH AMERICAN TELEPHONE & TELEGRAPH CO./FIBER PER BUQUEST
AND NO CONFLICT WITH CITY OF SCOTSDALE ELECTRIC PER BUQUEST
CITY OF SCOTSDALE ELECTRIC NO RESPONSE PER BUQUEST
NO CONFLICT WITH COX COMMUNICATIONS CITY/FIBER PER BUQUEST
NO CONFLICT WITH CENTURY LINKS CITY/FIBER PER BUQUEST
NO CONFLICT WITH UPGRADED PER BUQUEST
NO CONFLICT WITH SOUTHWEST GAS PER BUQUEST
ARCADIA VISTA IMPROVEMENT IRRIGATION NO RESPONSE PER BUQUEST

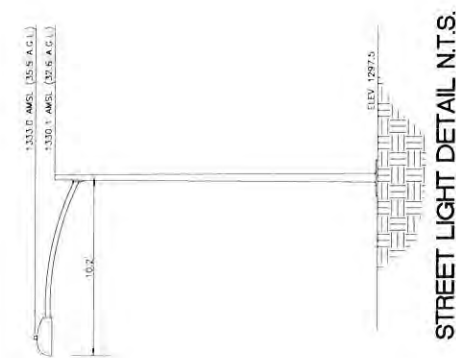
LESSOR'S LEGAL DESCRIPTION

LESSOR'S LEGAL DESCRIPTION
PARADISE VALLEY RIGHT OF WAY
ADJACENT TO APN 173-17-007

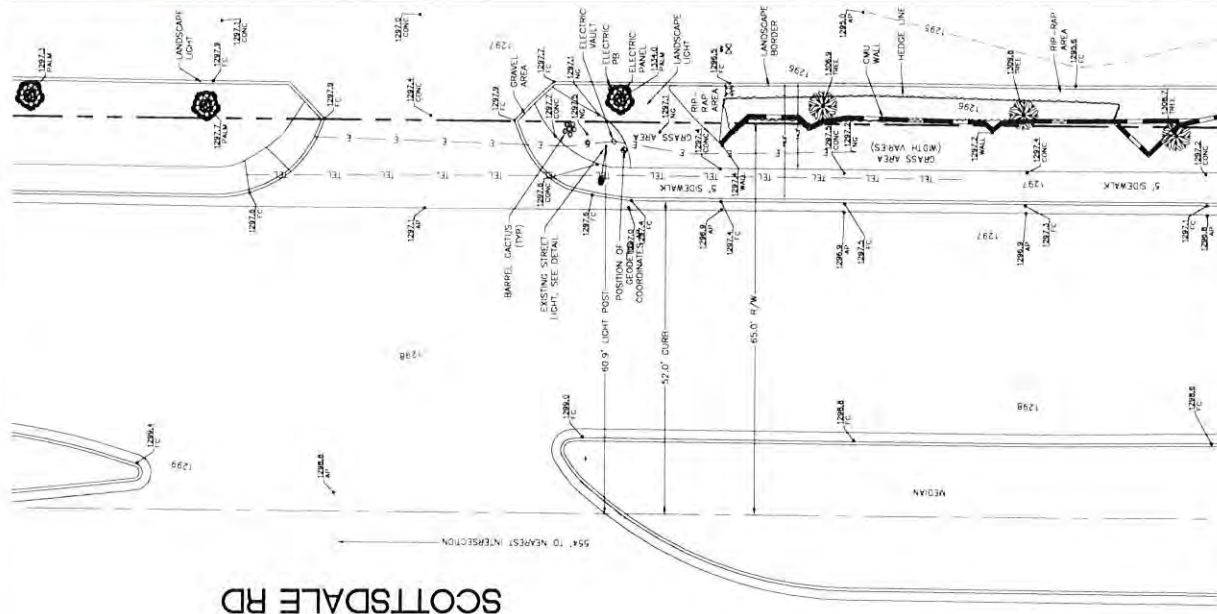
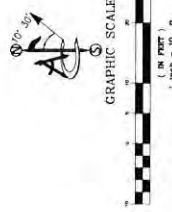
POSITION OF GEOTECTIC COORDINATES
LATITUDE 33° 30' 55.15" (33.515319°) NORTH (NAD83)
LONGITUDE 111° 55' 32.95" (111.925819°) WEST (NAD83)
GROUND ELEVATION @ 1297 m (NAVD83)

LEGEND

- | | | | |
|----------------------|----------------------|------------------------|--|
| ASPHALT | STREET LIGHT | UTILITY MANHOLES | |
| EDGE OF CONCRETE | POLE | POSITION OF | |
| ED LIGHT POLE | GEODETIC COORDINATES | SPOT ELEVATION | |
| NATURAL GRADE | | POWER POLE | |
| W/ WOODEN RAIL FENCE | | SUN | |
| THATCH | | ELECTRIC UNITS | |
| PINE TREES | | TELEPHONE LINES | |
| | | CURB LINES | |
| | | RAILROAD TRACKS | |
| | | SWITCH CHANGES | |
| | | RIGHT OF WAY LINES | |
| | | MAJOR CONTOUR INTERVAL | |



STREET LIGHT DETAIL N.T.S.



PHX01_010_A

5401 N. SCOTTSDALE RD
SCOTTSDALE, AZ 85250
MARICOPA COUNTY

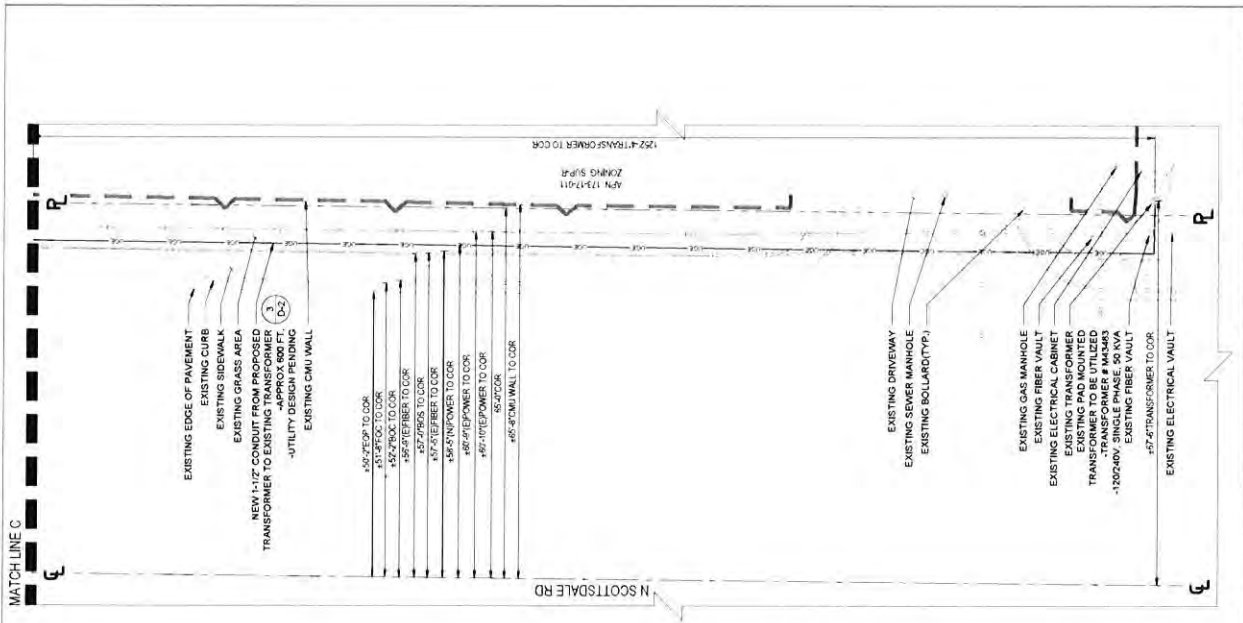
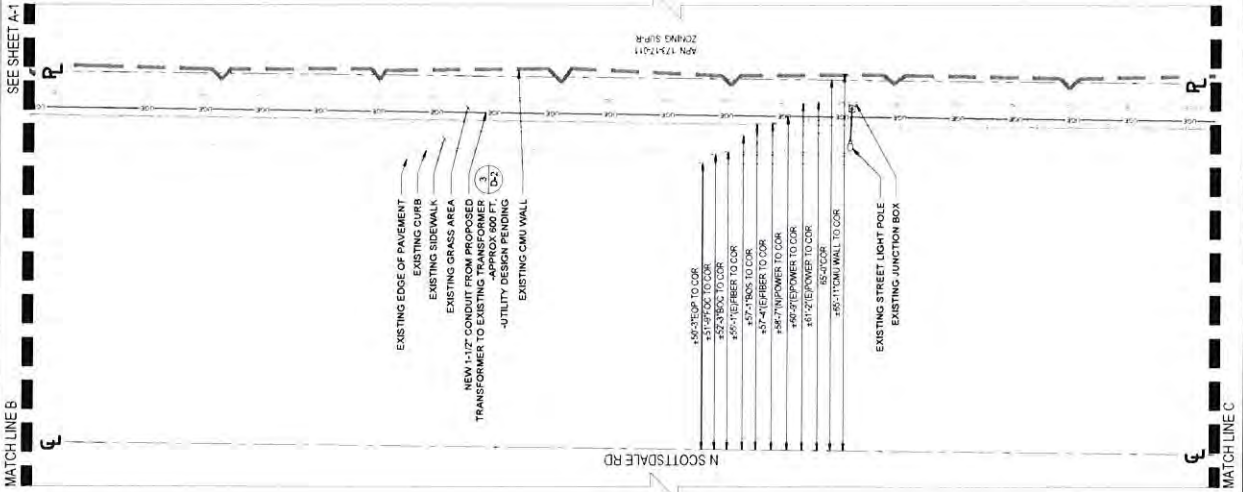
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5	06/26/76	NS	FINAL/CONFIRMATION	NS
4	06/10/76	LC	FINAL/2	NS
3	12/10/76	REG	COMMISSION/2	PT



[illegible]

GENERAL NOTES

- UNDERGROUND UTILITIES: EXISTING UNDERGROUND UTILITIES ARE BASED ON BLUE STATE MARKINGS AND ARE APPROXIMATE. CONTRACTOR TO LOCATE & PROTECT ALL EXISTING UNDERGROUND UTILITIES DURING CONSTRUCTION.
- CONTRACTOR SHALL REPAIR ALL DAMAGE RESULTING FROM CONSTRUCTION BACK TO PRE-CONSTRUCTION CONDITION AT COMPLETION OF WORK.
- CONTRACTOR SHALL COORDINATE SITE ACCESS TIMES & EQUIPMENT STAGING LOCATIONS WITH APS.
- THERE ARE NO PROTECTED PLANTS ON THIS PROPERTY.
- NO ILLAGE OR DRAINAGE ISSUES ON THIS PROPERTY.



THE AT&T UNIVERSITY PARTNERSHIP
APRIL 2007

THE FOLLOWING CONTRACT IS A PART OF THE STANDARD CONTRACT DOCUMENTS FOR THE STATE OF ARIZONA. ANY USE OF THESE DOCUMENTS WITHOUT THE STANDARD CONTRACT DOCUMENTS IS PROHIBITED.

SMARTLINK
1001 N. CENTRAL AVE. SUITE 200
SCOTTSDALE, AZ 85250

State 48
Development Consulting
1001 N. CENTRAL AVE. SUITE 200
SCOTTSDALE, AZ 85250

NO.	DATE	DESCRIPTION
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2	10/1/07	ISSUED FOR PERMIT
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4	10/1/07	ISSUED FOR PERMIT
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7	10/1/07	ISSUED FOR PERMIT
8	10/1/07	ISSUED FOR PERMIT
9	10/1/07	ISSUED FOR PERMIT
10	10/1/07	ISSUED FOR PERMIT

DAVID J. SMITH
12345
STATE OF ARIZONA
REGISTERED PROFESSIONAL ENGINEER

AT&T SITE ID:
CRAN_RANM:
PHX01_010_A
5301 N SCOTTSDALE RD
SCOTTSDALE, AZ 85250

SHEET TITLE:
OVERALL SITE PLAN

SHEET NO.:
A-1.1



Variable	Unit	Value
...

[illegible]

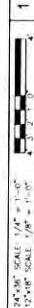
2	collected in:
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SECRET

ENLARGED SITE PLAN

A-2



UNDERGROUND UTILITIES
EXISTING UNDERGROUND UTILITIES ARE BASED ON BLUE STAKE MARKINGS AND ARE
APPROXIMATE. CONTRACTOR TO LOCATE & PROTECT ALL EXISTING UNDERGROUND
UTILITIES DURING CONSTRUCTION

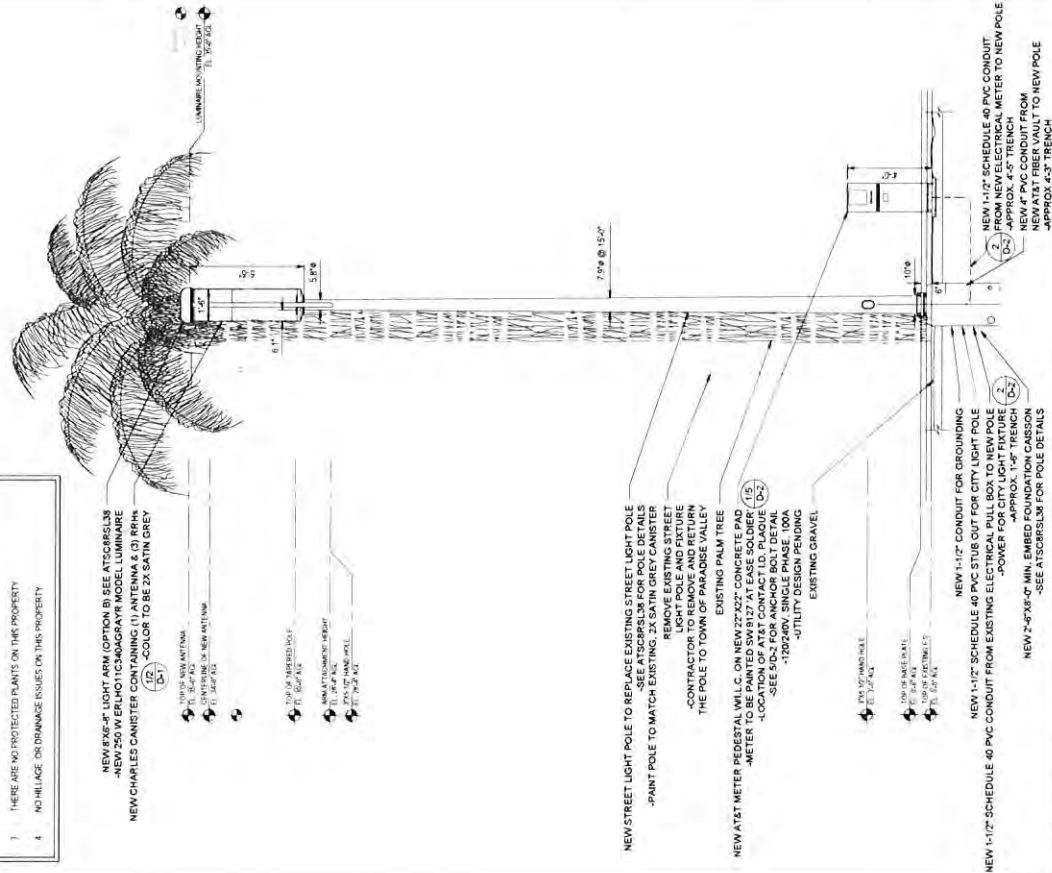
- CONTRACTOR NOTES:
CONTRACTOR SHALL REPAIR ALL DAMAGE RESULTING FROM CONSTRUCTION
BACK TO PRE-CONSTRUCTION CONDITION AT COMPLETION OF WORK.
CONTRACTOR SHALL COORDINATE SITE ACCESS, TIMES & EQUIPMENT
STAGING LOCATIONS WITH A/Ps.
THERE ARE NO PROTECTED PLANTS ON THIS PROPERTY.
NO ILLAGE OR DRAINAGE ISSUES ON THIS PROPERTY.

ENLARGED SITE PLAN

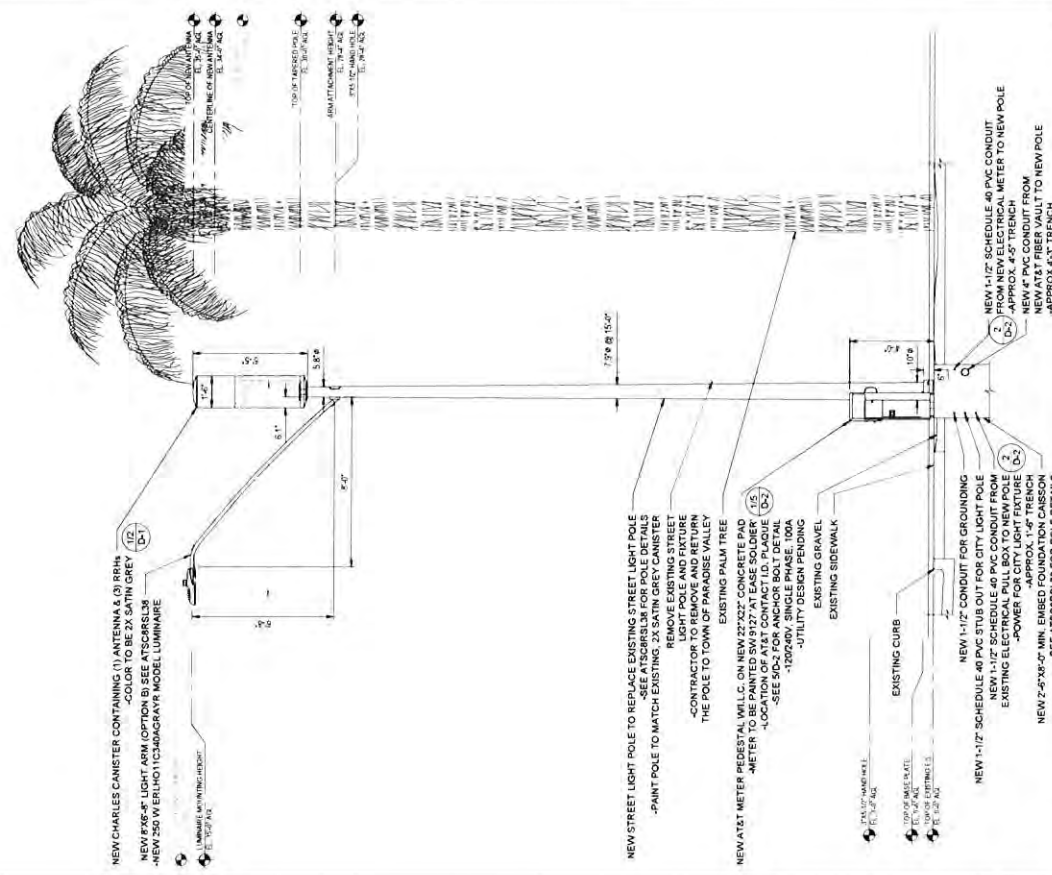
GENERAL NOTES

UNDERGROUND UTILITIES:
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- CONTRACTOR NOTES:
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 - THERE ARE NO PROTECTED PLANTS ON THE PROPERTY.
 - NO HILLAGE OR DRAINAGE ISSUES ON THIS PROPERTY.

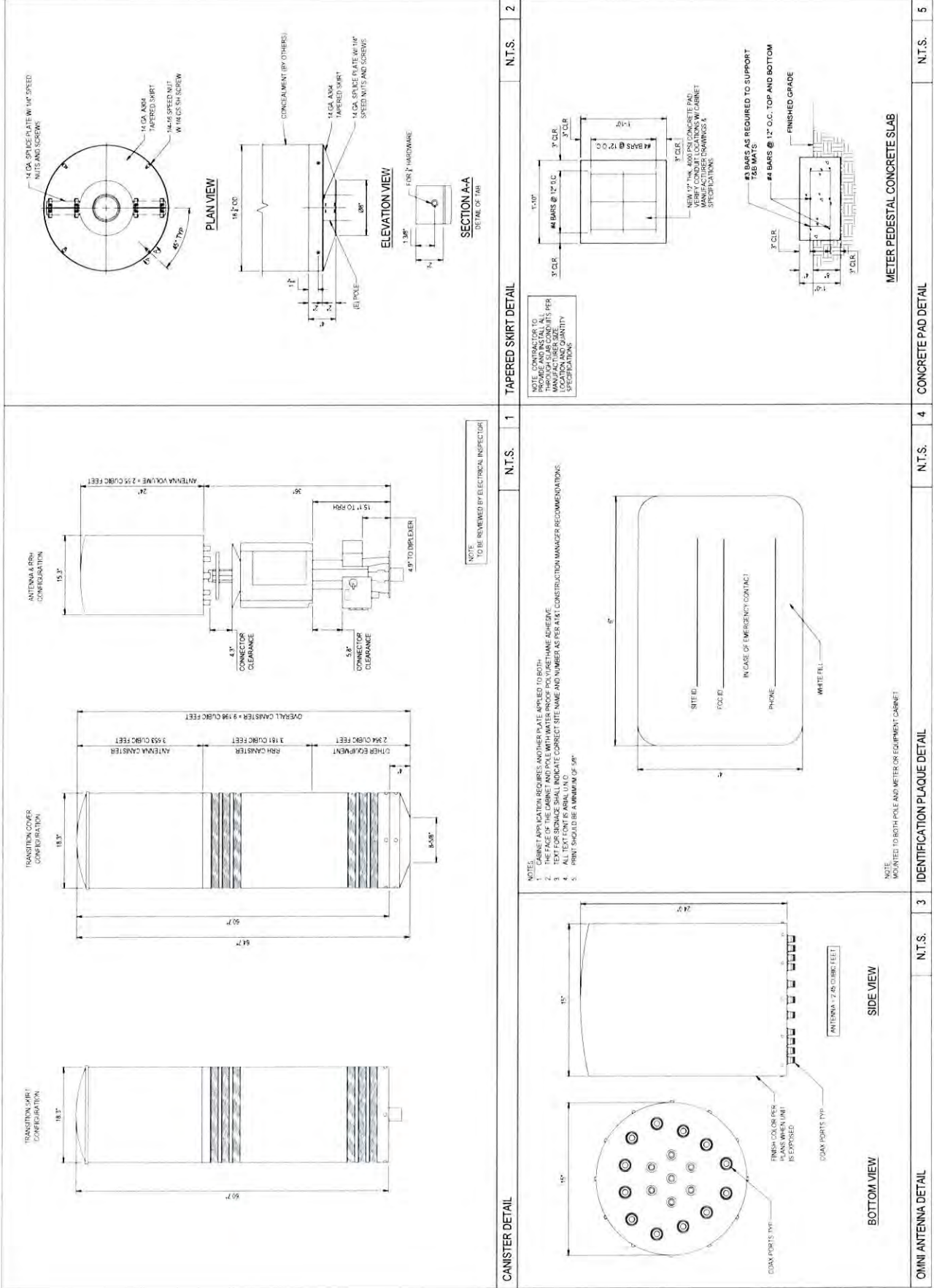


PROPOSED AND EXISTING WEST ELEVATION



PROPOSED AND EXISTING SOUTH ELEVATION

<p>1000 WEST UNIVERSITY DRIVE AT&T, AT, APT</p>	<p>THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS IS THE PROPERTY OF AT&T INTELLECTUAL PROPERTY. ANY REUSE OR MODIFICATION OF THIS INFORMATION WITHOUT THE WRITTEN PERMISSION OF AT&T INTELLECTUAL PROPERTY IS PROHIBITED.</p>	<p>1000 WEST UNIVERSITY DRIVE AT&T, AT, APT</p>	<p>STATE 48 Development Consulting 1000 WEST UNIVERSITY DRIVE AT&T, AT, APT</p>	<table border="1"> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td>1</td> <td>10/11/17</td> <td>NEW DETAILED</td> </tr> <tr> <td>2</td> <td>10/11/17</td> <td>NEW DETAILED</td> </tr> </table>	NO.	DATE	DESCRIPTION	1	10/11/17	NEW DETAILED	2	10/11/17	NEW DETAILED	<p>STATE OF ARIZONA PROFESSIONAL ENGINEER 1000 WEST UNIVERSITY DRIVE AT&T, AT, APT</p>	<p>AT&T SITE ID: CRAN_RANM PHX01_010_A 5391 N SCOTTSDALE RD SCOTTSDALE, AZ 85250</p>	<p>ELEVATIONS</p>	<p>A-3</p>
NO.	DATE	DESCRIPTION															
1	10/11/17	NEW DETAILED															
2	10/11/17	NEW DETAILED															





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WWW.STATEENCOUNTERS.COM

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1000



AT&T SITE ID:
CRAN_RANM:
PHX01_010 A

5391 N SCOTTSDALE RD
SCOTTSDALE, AZ 85250

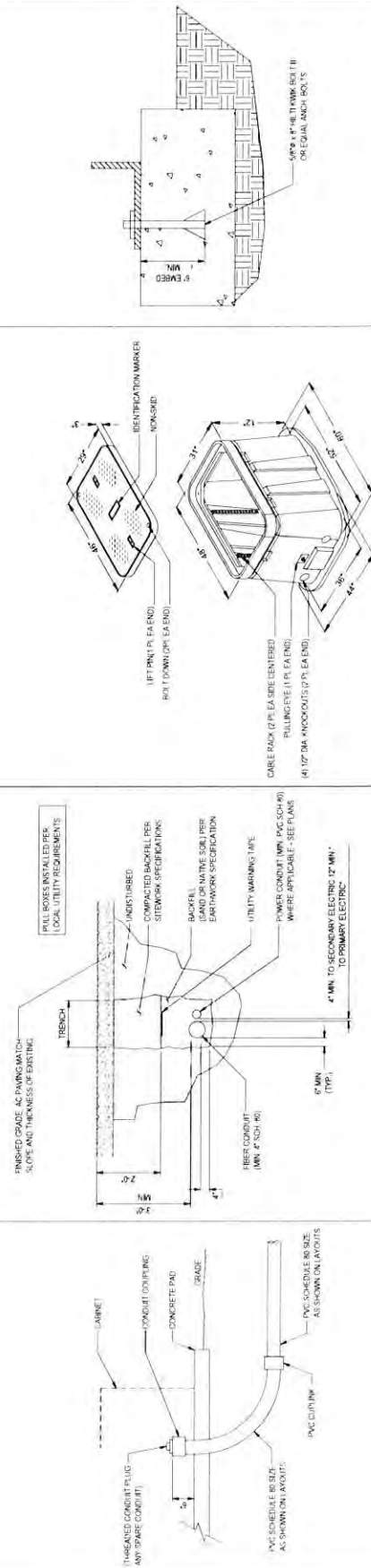
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D-2



METER CABINET WITH LOAD CENTER DETAIL

NTS	1
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NOTE
SLAB NOT TO EXCEED 4" ABOVE GRADE

CONDUIT STUBUP DETAIL

INDUIT TRENCH DETAIL

VAULT DETAIL

N.T.S.	4
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TYPICAL ANCHOR BOLT DETAIL

N.T.S.	5
--------	---



smartlink

ANSWER PAGE D 80

State 48
Development Consulting

WWW.STATE48CONSULTING.COM
HART E. ASHBY VENTURA 570 995
10140 LINDSEY BLVD. SUITE 200

UIN	DATE	REASON FOR DISCONTINUATION
AJ	08/23/18	WALKING
AJ	03/27/20	CLIENT COMMUNING

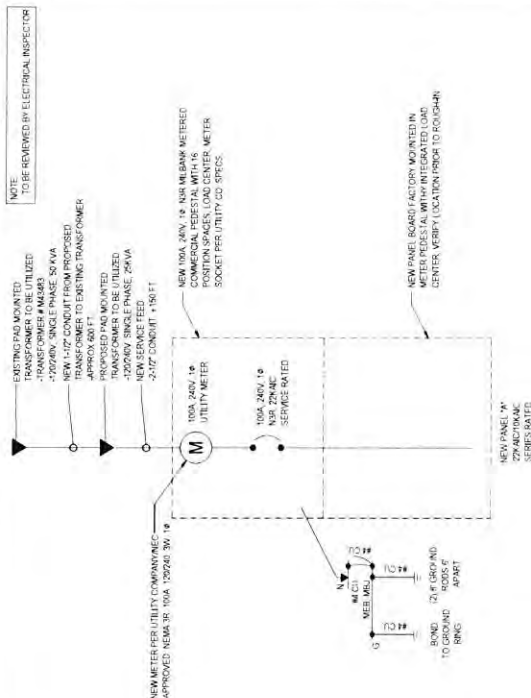


AT&T SITE ID:
CRAN_RANM:
PHX01_010_A

TEST TITLE
ELECTRICAL PANEL SCHEDULE
AND ONE-LINE DIAGRAM

E-1

1991



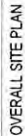
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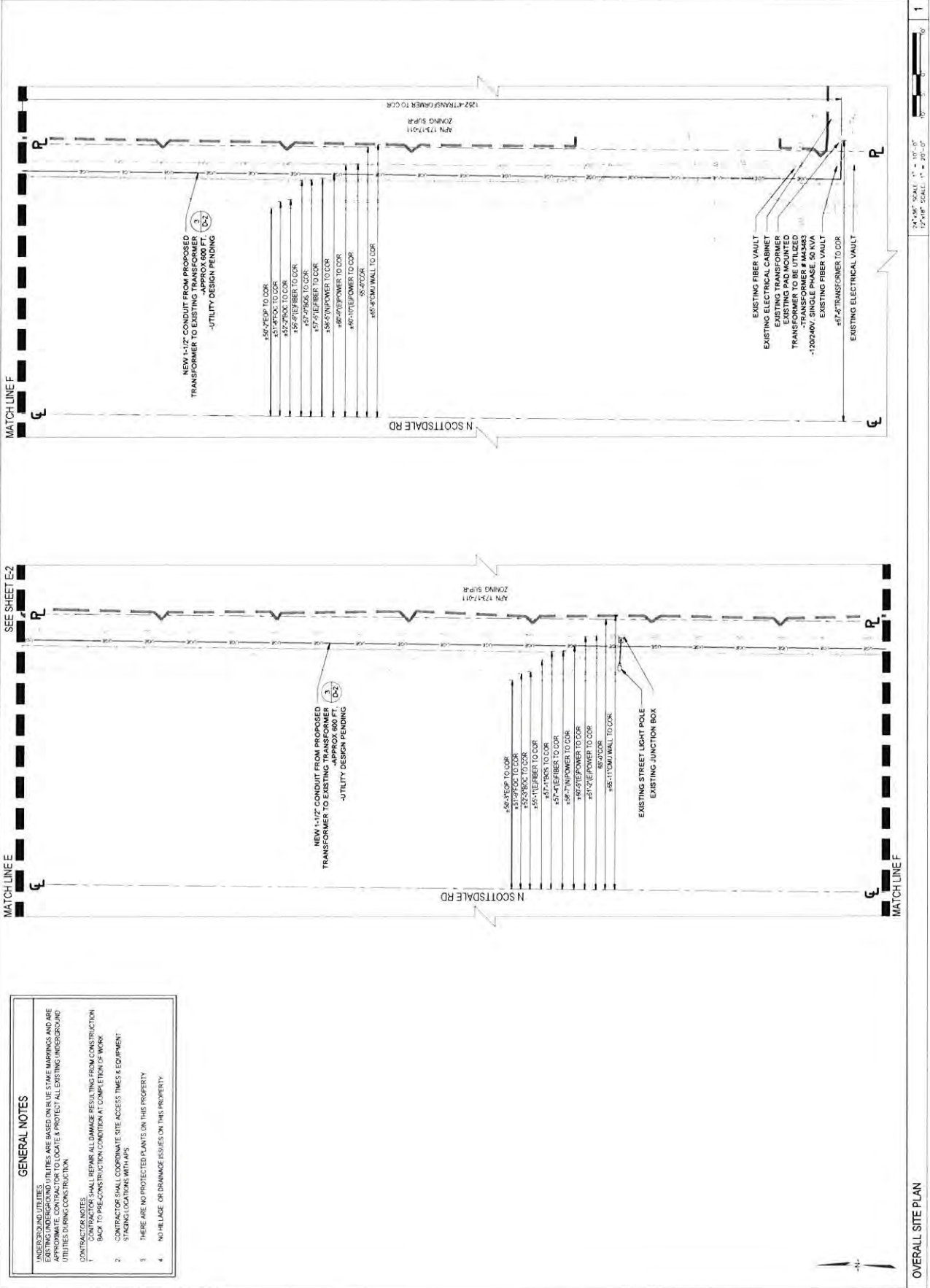
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PANEL SCHEDULE(PICO)

ELECTRICAL INSTALLATION NOTES:

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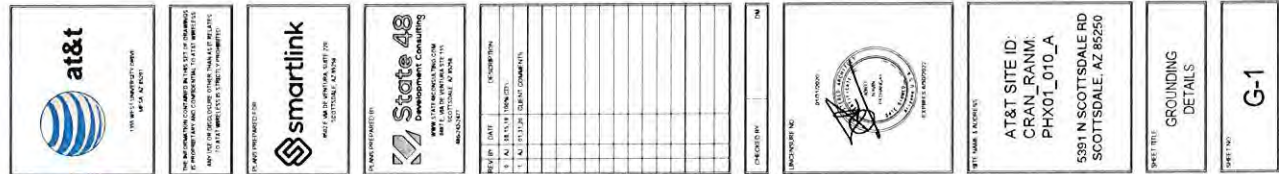




GENERAL NOTES

- UNDERGROUND UTILITIES: EXISTING UNDERGROUND UTILITIES ARE BASED ON BLUE STATE MARKINGS AND ARE APPROXIMATE. CONTRACTOR TO LOCATE & PROTECT ALL EXISTING UNDERGROUND UTILITIES DURING CONSTRUCTION.
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- THERE ARE NO PROTECTED PLANTS ON THIS PROPERTY.
- NO HILLAGE OR DRAINAGE ISSUES ON THIS PROPERTY.

OVERALL SITE PLAN



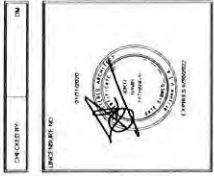


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State 48
Development Consulting
1000 N. GILBERT AVE.
SUITE 100
SCOTTSDALE, AZ 85250

NO.	DATE	DESCRIPTION
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2	10/15/19	ISSUED FOR PERMIT
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AT&T SITE ID:
CRAN_RANM:
PHX01_010_A
5391 N SCOTTSDALE RD
SCOTTSDALE, AZ 85250

GROUNDING
DETAILS

G-2

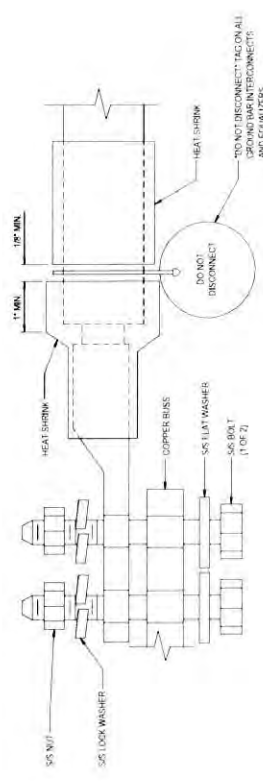
NOTE

1. ALL DETAIL ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION SHALL BE DETERMINED BY THE ELECTRICAL CONTRACTOR AND SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70B.
2. ALL GROUNDING CONNECTIONS SHALL BE MADE TO THE EQUIPMENT FRAME OR OTHER EQUIPMENT PROVIDED FOR GROUNDING.
3. GROUND BAR LOCATED IN BASE OF EQUIPMENT WILL BE PROVIDED. FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
4. ALL BELOW GRADE CONNECTIONS EXOTHERMIC WELD TYPE ABOVE GRADE CONNECTIONS EXOTHERMIC WELD TYPE.
5. GROUND RING SHALL BE LOCATED A MINIMUM OF 3" BELOW GRADE OR 4" MINIMUM FROM THE EQUIPMENT FRAME.
6. INSTALL GROUND CONDUCTORS AND GROUND ROD MINIMUM OF 1/2" FROM EQUIPMENT FRAME.
7. EXOTHERMIC WELD GROUND CONNECTION TO FENCE POST. FENCE POST SHALL BE LOCATED AT BOTTOM OF ANTENNA DOWNCAST FOR MAKING GROUNDING JUMPER CONNECTIONS TO DOWN FEEDER CABLES SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. JUMPER (FURNISHED BY OWNERS) SHALL BE INSTALLED BY ELECTRICAL CONTRACTOR.
8. MAIN GROUND BUS BAR LOCATED NEAR THE BASE OF THE RADIO EQUIPMENT CABINET(S) SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
9. ALL GROUNDING INSTALLATIONS AND CONNECTIONS SHALL BE MADE BY ELECTRICAL CONTRACTOR.
10. OBSERVE N.E.C. AND LOCAL UTILITY REQUIREMENTS FOR ELECTRICAL SERVICE GROUNDING.
11. GROUNDING ATTACHMENT TO TOWER SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS OR ALL GROUNDING POINTS PROVIDED (A MINIMUM).

GROUNDING NOTES

N.T.S.

2



NOTE

1. ALL HARDWARE 1/4\"/>
2. ALL HARDWARE SHALL BE 304 STAINLESS STEEL OR LARGER.
3. HARDWARE SHALL BE 304 STAINLESS STEEL OR LARGER.

CADWELDS

N.T.S.

1

TWO LUG GROUND DETAIL

N.T.S.

3



PHX01_010

5401 N. SCOTTSDALE RD
SCOTTSDALE, AZ 85250
MARICOPA COUNTY

ISSUED FOR:				
SERIAL	DATE	DRIVEN	DESCRIPTION	DWS, Q.A.
1	01/18/18	B.G.	PRELIMINARY	N/A
1	06/06/18	J.K.	ADDITIONAL TUNING	MP

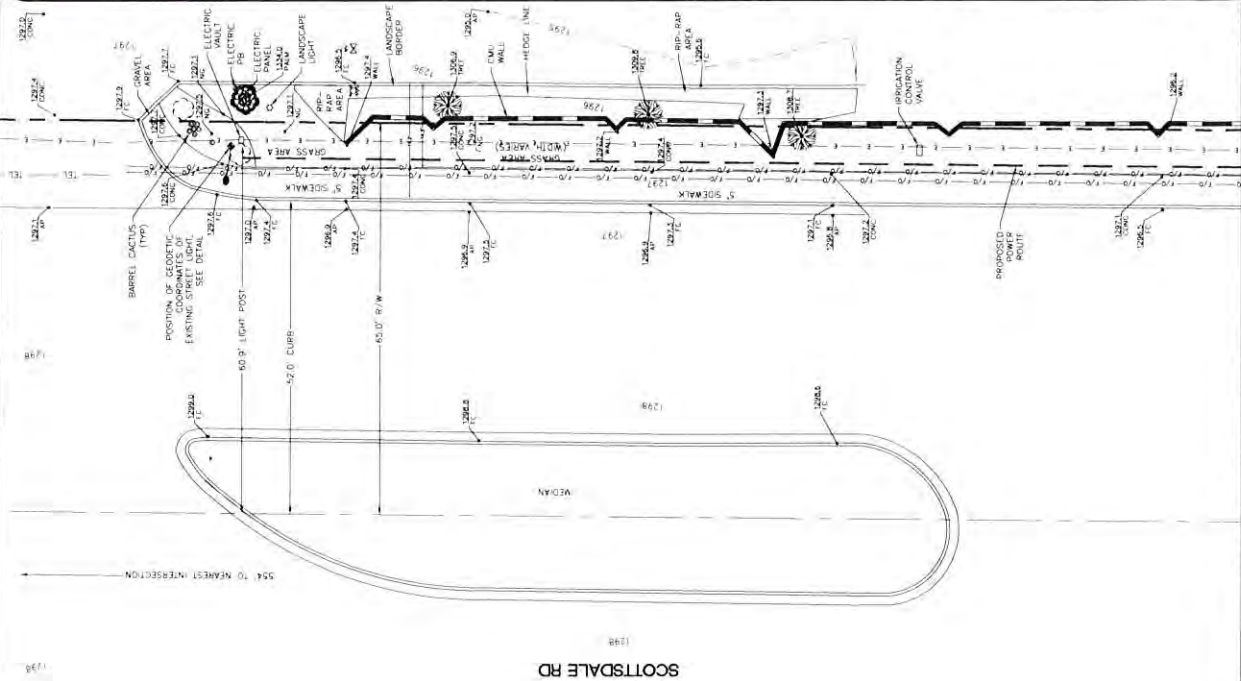


ambit consulting

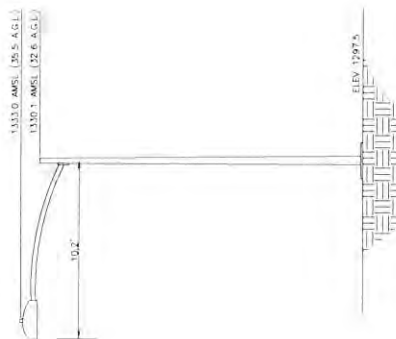
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SEALED DOCUMENT**

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SHEET NUMBER: SV-1
REVISION: 1



MATCH LINE SHEET SV-2 LEFT TOP



STREET LIGHT DETAIL N.T.S.

POSITION OF GLOIDETIC COORDINATES
LATITUDE 33° 30' 55.18" (33.515328°) NORTH (NAD83)
LONGITUDE 111° 55' 32.95" (111.925819°) WEST (NAD83)
GROUND ELEVATION 1297.5' (NAVD83)



GRAPHIC SCALE



A vicinity map showing the project area. The map includes McDonald St, Scott St, and Caribach St. The project area is located at the intersection of McDonald St and Scott St. The Child Hospital is located to the north of the project area. The Caribach St intersection is to the east. A north arrow is shown in the bottom left corner.

SURVEY DATE

BASIS OF BEARING

MEASUREMENTS SHOWN HEREON ARE BASED UPON U.S. STATE PLANE NAD83 COORDINATE SYSTEM ARIZONA STATE PLANE COORDINATE CENTRAL ZONE, DETERMINED BY GPS OBSERVATIONS.

FLOOD ZONE

THIS PROJECT APPEARS TO BE LOCATED WITHIN FLOOD ZONE "X" ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP(S). MAP ID #040131770L DATED 10/16/2013

SURVEYOR'S NOTES

THE BOUNDARY SHOWN HEREON IS PLOTTED FROM RECORD INFORMATION AND DOES NOT CONSTITUTE A BOUNDARY SURVEY OF THE PROPERTY.

ALL DISTANCES SHOWN HEREON ARE GRID DISTANCES

BENCHMARK

PROJECT ELEVATIONS ESTABLISHED FROM GPS DERIVED GEOMETRIC HEIGHTS BY APPLICATION OF NGS "GEOID 2011" MODELED SEPARATIONS TO ELLIPSOID HEIGHTS DETERMINED BY SINGLE BASELINE OBSERVATIONS FROM ARIZONA HEIGHT MODERNIZATION PROJECT CORPS AZCS. ALL ELEVATIONS SHOWN HEREON ARE REFERENCED TO NAVD83.

UTILITY NOTES

UTILITY NOTES
SURVEYOR DOES NOT GUARANTEE THAT ALL UTILITIES ARE SHOWN, OR THEIR LOCATIONS ARE DEFINITE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND DEVELOPER TO CONTACT BLUE STAKE AND ANY OTHER INVOLVED AGENCIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. REMOVAL, RELOCATION AND/OR REPLACEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR.

LESSOR'S LEGAL DESCRIPTION

SCOTTSDALE ROAD RIGHT OF WAY

[illegible]



8502 E VIA DE VENTURA, SUITE 220
SCOTTSDALE, AZ 85258

PHX01_010

5401 N. SCOTTSDALE RD
SCOTTSDALE, AZ 85250
MARICOPA COUNTY

ISSUED FOR:				
REV	DATE	TOWN	DESCRIPTION	DEN. BY
1	07/19/18	AK	PRELIMINARY	AK
2	08/08/18	AK	SCOTTSDALE TOWN	AK

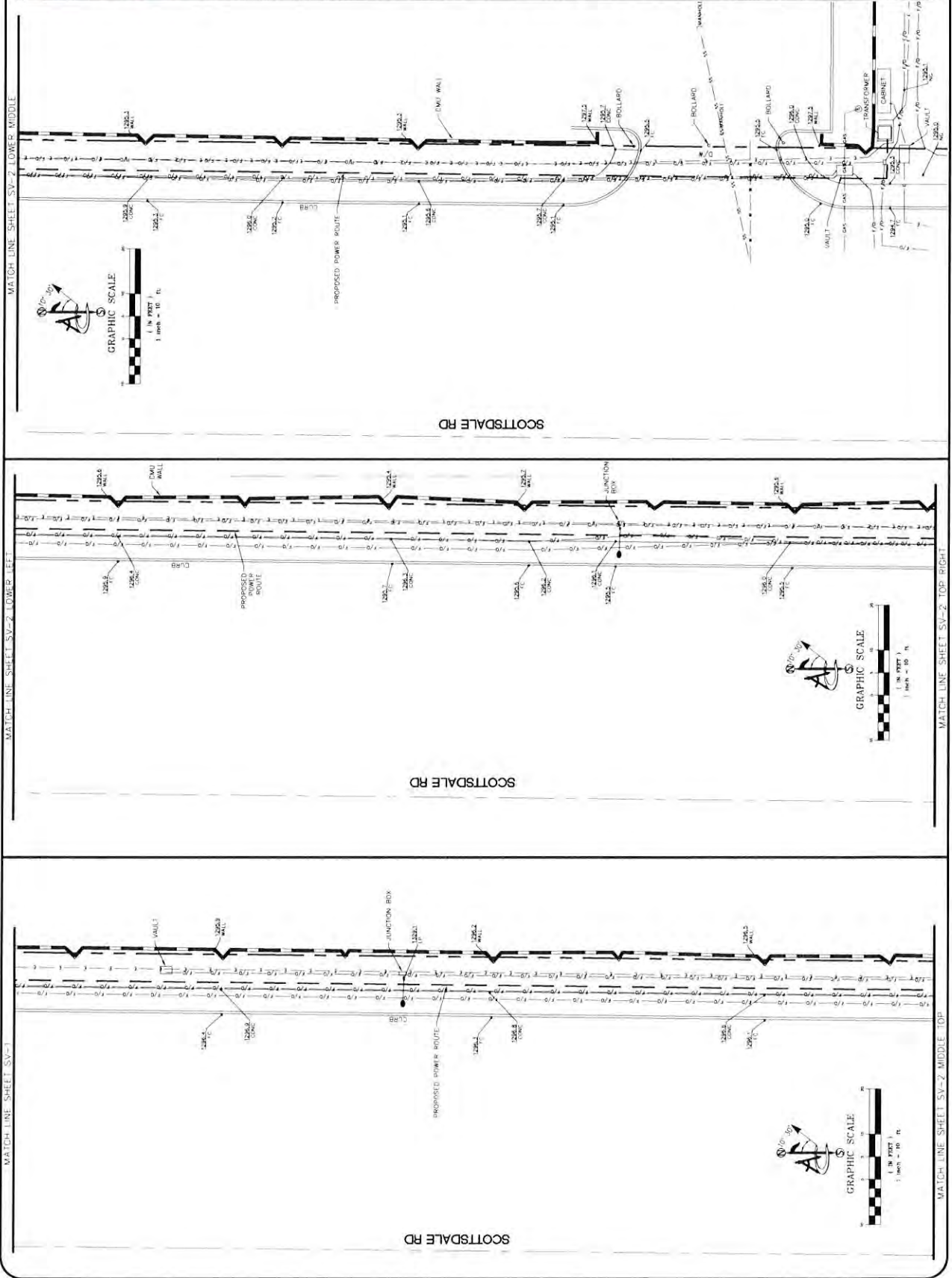
410 E. SOUTHERN AVE.
TEMPE, ARIZONA 85282
PH: (480) 655-4072
www.ambitconsulting.us

ambit consulting

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THE CONTENTS OF THIS DOCUMENT.

SHEET NUMBER: **SV-2**
REVISION: **1**



GENERAL STRUCTURAL NOTES

BUILDING CODE

2015 EDITION OF THE INTERNATIONAL BUILDING CODE

LOADS

WIND
WIND SPEED (ULTIMATE 3-SEE GUST), $V_{ult} = 115$ MPH
WIND SPEED (SERVICE), $V_{ser} = 85$ MPH (SEC 1608.1.1)
WIND EXPOSURE CATEGORY = C
RISK CATEGORY = II

SEISMIC
 $S_{DS} = 0.3005$ (MAX)
 $S_{D1} = 0.1504$ (MAX)
SOIL CLASS = MB-2.2
SEISMIC FORCE RESISTING SYSTEM = C
SEISMIC FORCE RESISTANCE ($R = 3$)
DETAILED FOR SEISMIC RESISTANCE ($R = 3$)

FOUNDATIONS

DRILLED PIER FOUNDATIONS ARE BASED ON THE PRESUMPTIVE SOIL BEARING VALUES OF 1500 PSF (110 KPa) FOR MB-2.2 SOIL CLASS 5 AND HAVE BEEN INCREASED BY A FACTOR OF TWO PER 1806.1.4. ALLOWABLE LATERAL BEARING PRESSURE = 100 PSF/FT $\times 2 = 200$ PSF/FT

CONCRETE

ALL CONCRETE WORK SHALL COMPLY WITH THE LATEST EDITION OF THE ACI 318. ALL CONCRETE SHALL BE LIMITED TO A MAXIMUM OF 232 CONCRETE MIXTURES BY WEIGHT. WHERE PLASTICIZER OR OTHER ADJUTIVES ARE USED, SUBMIT CONCRETE DESIGN AND SPECIFIED SLUMP TO THE ENGINEER OF RECORD FOR REVIEW.

ALL CONCRETE SHALL BE MECHANICALLY VIBRATED. PLACEMENT OF PLUMBING ELEMENTS, OR OTHER MATERIALS WITHIN CONCRETE FOUNDATIONS OR STRUCTURAL ELEMENTS IS PROHIBITED EXCEPT WHERE SHOWN.

SPECIFIED MINIMUM 28 DAY STRENGTH AS FOLLOWS:

DRILLED PIER CONCRETE: $f'_c = 3,000$ PSI MIN

REINFORCING STEEL (REBAR)

ALL REINFORCING SHALL COMPLY WITH ACI 308 SPECIFICATIONS FOR #5 BARS. BARS SHALL BE EPOXY COATED AND SHALL BE USED IN ALL CONCRETE. CONTRACTORS DISCRETION, GRADE 40 REINFORCING BARS ($f_y = 40$ KSI) AT ALL JOINTS SHALL BE USED. CONTRACTORS SHALL BE RESPONSIBLE FOR PROVIDING THE REINFORCING BARS AND WELDING. NO WELDING OF REINFORCING BARS IS PERMITTED FOR THIS PROJECT.

CLEAR DISTANCE FROM THE EDGE OF REINFORCING BAR TO THE EDGE OF CONCRETE SHALL BE PER ACI 318 AND IS AS FOLLOWS:

CONCRETE AGAINST WEATHER = 2" CLR

CONCRETE AGAINST WEATHER = 2" CLR

ALL REINFORCING IS TO BE CHAINED IN ORDER TO MEET THE CLEAR DISTANCES AND SPACING SPECIFIED IN THE PLANS OR DETAILS. REINFORCING IS TO BE KEPT DRY AND FREE OF MOISTURE. WHERE BENDING IS REQUIRED, BARS SHALL BE BENT ONLY ONCE AND BENT NO MORE THAN 90 DEGREES UNLESS SHOWN OTHERWISE.

REINFORCING STEEL SHALL BE PLACED AS SHOWN IN THE PLANS AND MUST NOT BE MOVED OR LESS THAN $3/8"$ OF THE DIMENSIONS SPECIFIED. THIS INCLUDES MINIMUM AND CLEAR DISTANCES.

ANCHOR RODS (ANCHOR BOLTS)

ANCHORAGE TO THE CONCRETE FOUNDATION IS ACHIEVED VIA A DOUBLE-NUT MOMENT JOINT. ANCHOR BOLTS SHALL BE TENSIONED TO THE SPECIFICATIONS BELOW. ANCHOR BOLTS SHALL BE THREADED AND NUTTED OR HEADED AT BOTTOM OF ROD. CONTRACTOR SHALL PROVIDE APPROVED TIGHTENING MECHANISM FOR THE ANCHOR BOLTS. ANCHOR BOLTS SHALL BE GALVANIZED IN SAME PROCESS TO ENSURE WORKABLE THREADS.

ANCHOR BOLT GRADE: F1554 GR. 36

TIGHTENING: ANCHOR BOLTS SHALL BE TENSIONED BEFORE TIGHTENING. TIGHTENING SHALL BE PERFORMED IN A STAIR PATTERN. TOP NUTS SHALL BE TIGHTENED TO A SNUG TIGHT CONDITION. THEN LEVELING NUTS SHALL BE MADE SNUG TIGHT. CONFIRM TORQUE AT TOP NUT IS WITHIN THE INITIAL TORQUE SHOWN IN TABLE BELOW. MARK BOLTS AFTER INITIAL TORQUE IS ACHIEVED.

TOP NUTS SHALL THEN BE TENSIONED USING THE TURN OF THE NUT METHOD BY ROTATING TOP NUT A TOTAL OF TWO FULL TURNS. THIS METHOD IS RECOMMENDED FOR ALL TOP NUTS. CONTRACTOR SHALL PROVIDE EVIDENCE OF TIGHTENING STEPS WITH VERIFICATION TORQUE HAS BEEN REACHED. AFTER AT LEAST 48 HOURS, THE CONTRACTOR SHALL RE-VISIT THE SITE AND CONFIRM THAT A TORQUE OF AT LEAST 110% OF THE VERIFICATION TORQUE CAN BE REACHED TO ENSURE BOLTS WILL REMAIN TENSIONED AND HAVE NOT RELAXED. INSTALL SECOND NUT OR JAMB NUT ON TOP OF ASSEMBLY AND TIGHTEN SNUG TIGHT.

DO NOT OVER TIGHTEN, CONTACT FOR ANY EXCESSIVE TIGHTENING, STRIPPED THREADS, OR OTHER CONCERNS.

TORQUE VALUES (FT-LBS)			
FOR 1-1/4" DIA. F1554 GR. 36	INITIAL TORQUE (SNUG TIGHT)	VERIFICATION TORQUE (110% OF INITIAL)	110% \times 1 (48 HOURS LATER)
	70 - 105	260	385

STRUCTURAL STEEL

ALL STRUCTURAL STEEL CONSTRUCTION SHALL COMPLY WITH THE LATEST EDITION OF THE AISC STEEL CONSTRUCTION MANUAL. ALL STRUCTURAL MEMBERS ARE TO BE HOT DIPPED GALVANIZED ACCORDING TO THE APPROPRIATE ASTM STANDARD UNLESS NOTED OTHERWISE. THE FOLLOWING STEEL GRADES SHALL APPLY:

ROUND HSS (POLE STEEL): ASTM A500 GR. B ($F_y = 42$ KSI)
PLATE STEEL: ASTM A572 ($F_y = 50$ KSI)
PIPE STEEL (LESS THAN 4" DIA.): ASTM A53 GR. B ($F_y = 35$ KSI)

WELDING SHALL COMPLY WITH THE LATEST EDITION OF THE AWS STANDARD. ALL WELDING SHALL UTILIZE TYPE E70 RODS. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS. THESE PLANS DO NOT INDICATE WHETHER WELDING MUST BE DONE IN THE FIELD OR SHOP. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE WELDING METHOD. CONTRACTORS DISCRETION AS TO BEST SUITS THE PROJECT'S MEANS AND METHODS.

BOLTS: BOLT TYPE CONDITIONS SHALL HAVE A WASHER AT EACH SIDE OF THE CONNECTION AND BE TIGHTENED TO A SNUG TIGHT CONDITION UNLESS NOTED OTHERWISE. SEE CONNECTION DETAILS FOR BOLT GRADE.

GENERAL NOTES

ALL WORK PRESENTED WITHIN THESE DRAWINGS AND DETAILS SHALL ONLY BE PERFORMED BY A CONTRACTOR THAT IS EXPERIENCED AND KNOWLEDGEABLE IN THE TYPE AND SCOPE OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRODUCTS ONLY A CONTRACTOR THAT IS LICENSED AND REGISTERED IN THE STATE WHERE THE WORK IS TO BE PERFORMED SHALL BE PERMITTED TO PERFORM THE WORK. THE STRUCTURAL PLANS AND DETAILS DEPICT THE REQUIREMENTS FOR THE FINISHED STRUCTURAL ELEMENTS. THE PLANS AND DETAILS DO NOT PROVIDE THE CONTRACTOR WITH "MEANS AND METHODS" OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MEET THE STRUCTURAL REQUIREMENTS OF THESE PLANS. ANY ADDITIONAL INFORMATION NEEDED FROM THE ENGINEER OF RECORD CAN BE OBTAINED WITH A FORMAL "REQUEST FOR INFORMATION".

THE PLANS AND DETAILS DO NOT PROVIDE ENGINEERING FOR ANY SHORING, TEMPORARY BRACING, SCAFFOLDING, OR OTHERWISE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE A SAFE WORK ENVIRONMENT AND TO OBTAIN ANY ADDITIONAL ENGINEERING INFORMATION NEEDED FOR THE CONSTRUCTION OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SEQUENCING, PROCEDURES, OR TECHNIQUES USED BY THE CONTRACTOR FOR THE SEQUENCING, PROCEDURES, OR TECHNIQUES USED BY THE CONTRACTOR.

SPECIAL STRUCTURAL INSPECTIONS

THE SPECIAL INSPECTIONS LISTED BELOW ARE IN ADDITION TO THE LOCAL BUILDING INSPECTIONS AND ARE REQUIRED PER CH. 17 OF THE INTERNATIONAL BUILDING CODE. DRILLED PIER CONSTRUCTION - PERFORMED BY GEOTECHNICAL ENGINEER

1. CONTINUOUS INSPECTION OF DRILLING OPERATIONS
2. INSPECTION OF DRILLED SHAFT SIZE AND CONFORMANCE TO FOUNDATION DETAIL

CONCRETE CONSTRUCTION
1. INSPECTION AND TESTING OF SPECIMENS IS REQUIRED FOR PLACEMENT OF PIER FOUNDATION CONCRETE. FOUNDATION DESIGN IS BASED ON $f'_c = 3,000$ PSI. $f'_c = 3,000$ PSI CONCRETE TO BE PROVIDED PER CONCRETE SECTION OF GSN.

STEEL REINFORCING
1. IN-PLACE REINFORCING IN FOUNDATIONS PRIOR TO CONCRETE PLACEMENT.
2. VERIFICATION OF CONFORMANCE TO SPECIFICATIONS AND DETAILS.

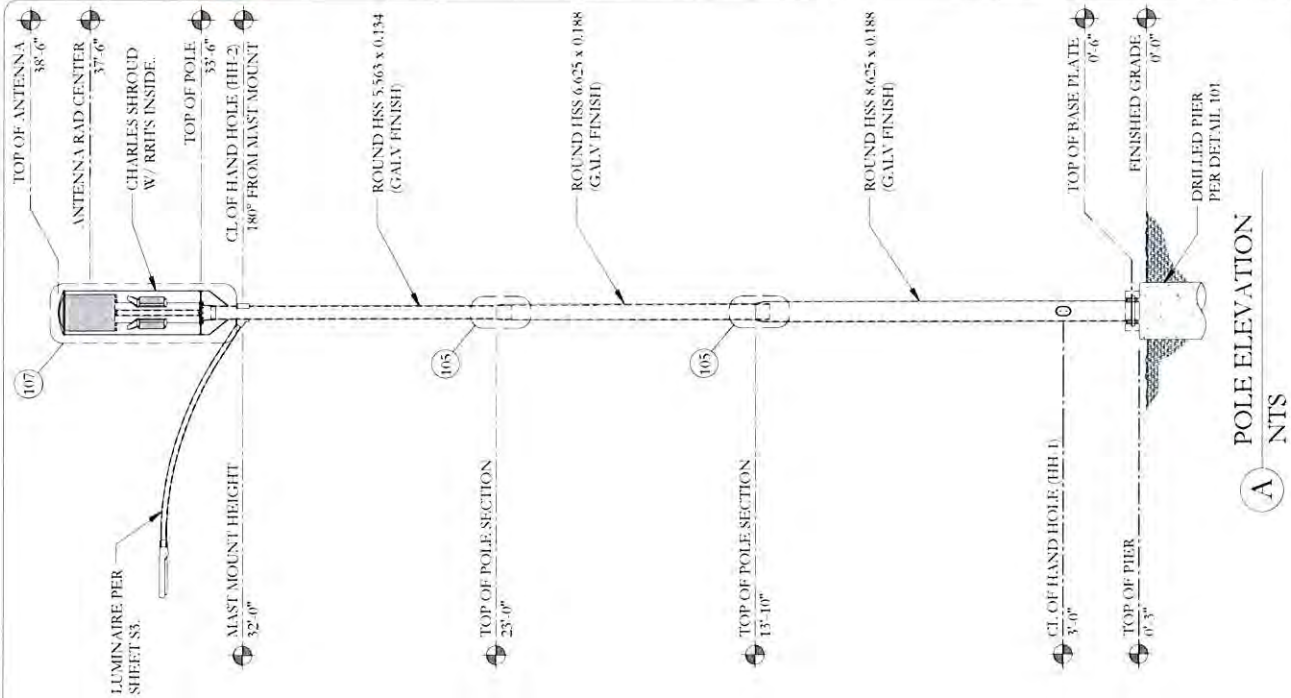
ANCHOR BOLTS
1. VERIFICATION OF PROPER MATERIAL SPECIFICATIONS AND CONFORMANCE TO DETAILS.
2. VERIFICATION OF PROPER LUBRICATING AND TIGHTENING OF BOLTS.

WELDING
1. VERIFY WELDERS CERTIFICATES.
2. PERIODIC INSPECTION OF ALL FIELD WELDS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SEQUENCING, PROCEDURES, OR TECHNIQUES USED BY THE CONTRACTOR.

NO RIP OR TILLET WELDS LARGER THAN 5/16" ARE SPECIFIED FOR THIS PROJECT.

RESPONSIBILITIES OF THE CONTRACTOR
1. ANY VARIATIONS MUST BE APPROVED IN WRITING FROM THE ENGINEER OF RECORD AND MUST BE ORIGINATED IN WRITING BY THE CONTRACTOR WITH A REQUEST FOR INFORMATION (RFI).
2. INFORMATION (RFI) IS REQUIRED TO BE COMPLETED IN THE PRESENCE OF THE SPECIAL INSPECTOR. THE CONTRACTOR SHALL BE SURE TO PERFORM THE WORK UNDER THE SUPERVISION OF THE SPECIAL INSPECTOR.
3. ACCESS TO THE SPECIAL INSPECTIONS ARE TO BE MADE SAFELY.
4. FOR ANY QUESTIONS REGARDING SPECIAL INSPECTIONS, CONTACT THE ENGINEER OF RECORD.

RESPONSIBILITIES OF THE SPECIAL INSPECTOR
1. THE SPECIAL INSPECTOR SHALL VISIT THE SITE AND ENSURE THE WORK PERFORMED CONFORMS TO THE DETAILS AND SPECIFICATIONS SHOWN ON THE PLANS.
2. VARIATIONS FROM WHAT IS SHOWN ON THE PLANS.
3. THE SPECIAL INSPECTOR MUST BE KNOWLEDGEABLE IN THE WORK BEING PERFORMED, KNOW THE MANUFACTURER'S REQUIREMENTS AND UNDERSTAND ITEMS REQUIRING INSPECTION.
4. THE SPECIAL INSPECTOR MUST PROVIDE WRITTEN INSPECTION REPORTS TO BOTH THE ENGINEER OF RECORD AND THE BUILDING OFFICIAL.
5. ANY DISCREPANCIES REQUIRING CORRECTION MUST BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING DISCREPANCIES MUST BE MADE KNOWN TO THE ENGINEER OF RECORD AND BUILDING OFFICIAL.



A POLE ELEVATION

NTS

S1

0



ATPV8RS1.35
SMALL CELL LIGHT POLE
MULTI-USE DESIGN
PARADISE VALLEY, AZ

REV. ISSUED DATE
01 ISSUED FOR PERMIT 08-05-19



CES
Caliber Engineering
10000 N. 100th Ave.
Suite 100
Scottsdale, AZ 85258
480.330.8883
WWW.CALIBER-ES.COM

FOR 17-001 1 ENG. MEN
GSN & ELEVATION



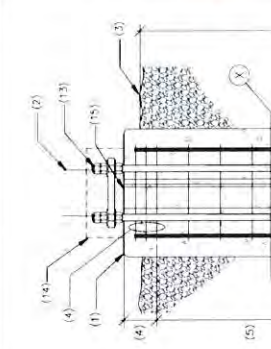
ATPV8RS1.35
SMALL CELL LIGHT POLE
MULTI-USE DESIGN
PARADISE VALLEY, AZ

REV. ISSUED DATE
D. ISSUED FOR PERMIT 06/05/19



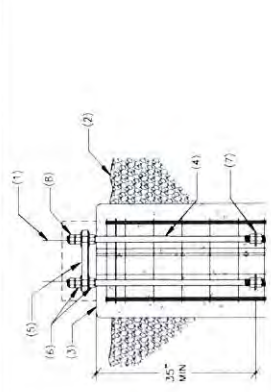
Caliber Engineering
SOLUTIONS
INTEGRITY. QUALITY. EXPERTISE.
440 S. GILBERT ST. STE. 106 (660)
CHURCH, AZ 85009
WWW.CALIBER-EN.COM
FOR: 19/001 ENG: MEN

POLE DETAILS
S2 0



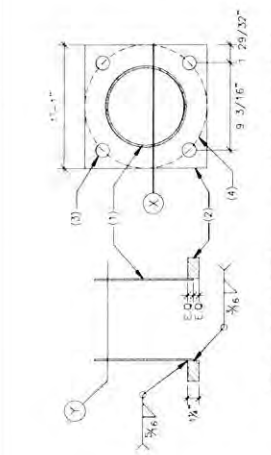
1. STEEL MONOPOLE
2. FINISHED GRADE
3. DRILLED PIER PER DETAIL 101
4. (A) 1-1/4" DIA. X 44" LONG ANCHOR RODS LEAVE 6"
5. BASE PLATE AND CONNECTION TO POLE PER DETAIL 104
6. HEAVY HEX NUT W/ STRUCTURAL WASHER AT EACH SIDE OF PLATE - PRETENSIONED - TIGHTEN PER GSN
7. PLATE PRETENSIONED - TIGHTEN PER GSN
8. AFTER TENSIONING RODS - INSTALL SECOND NUT PER GSN

102 NTS. BASE ANCHORAGE TO DRILLED PIER



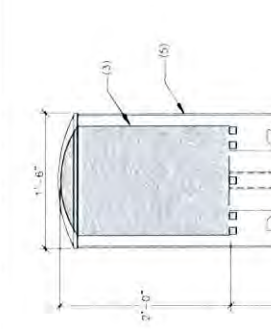
1. STEEL MONOPOLE BASE
2. 1/4\"/>
3. 1-1/2\"/>
4. 1/2\"/>

104 NTS. BASE PLATE & BASE PLATE CONNECTION



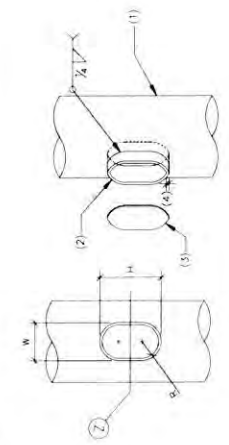
1. STEEL POLE PER ELEVATION
2. STEPPED POLE REDUCER WITH FLANGE PLATE PER DETAIL 106
3. RADIO EQUIPMENT
4. SHROUD BY CHARLES INDUSTRIES
5. MOUNTING PLATE ASSEMBLY PROVIDED BY CHARLES INDUSTRIES
6. (1) 3/8\"/>
7. SIDE

105 NTS. POLE SPLICER CONNECTION



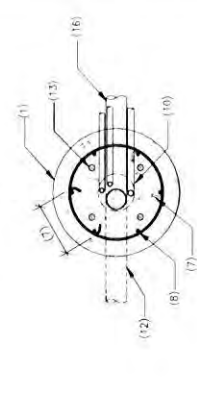
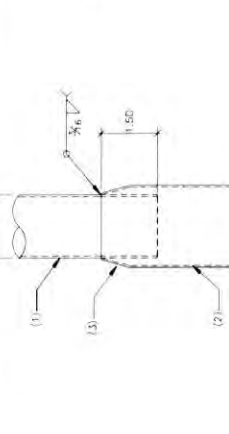
1. 9-7/8\"/>
2. 3/16\"/>
3. (1) 1/2\"/>
4. 8-5/8\"/>
5. 1/4\"/>
6. 2\"/>
7. (4) WELDS, 2\"/>

106 NTS. STEPPED POLE REDUCER W/ FLANGE



1. STEEL POLE PER ELEVATION
2. STEPPED POLE REDUCER WITH FLANGE PLATE PER DETAIL 106
3. RADIO EQUIPMENT
4. SHROUD BY CHARLES INDUSTRIES
5. MOUNTING PLATE ASSEMBLY PROVIDED BY CHARLES INDUSTRIES
6. (1) 3/8\"/>
7. SIDE

107 NTS. TOP OF POLE ASSEMBLY

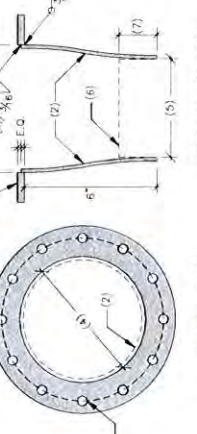
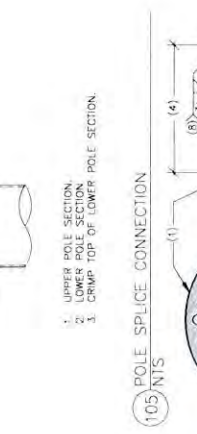
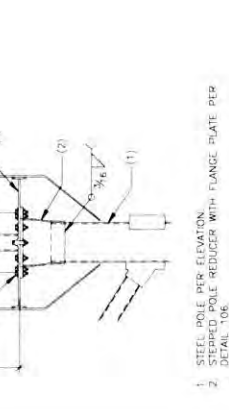


HAND HOLE SCHEDULE

MARK	HEIGHT (H)	WIDTH (W)	DEPTH (D)	RADIUS (R)	THICK (T)
HH-1	6 3/4 IN	4 IN	2 IN	1 3/4 IN	1/4 IN
HH-2	5 3/8 IN	3 IN	2 IN	1 3/4 IN	1/4 IN

1. STEEL MONOPOLE PER ELEVATION
2. HAND HOLE - SEE SCHEDULE FOR LOCATION AND MARK. SEE SCHEDULE BELOW FOR DIMENSIONS
3. PROVIDE LOWER PLATE ASSEMBLY AT HAND HOLES. THICKNESS PER 1/2\"/>

109 NTS. HAND HOLE SCHEDULE



1. CONCRETE DRILLED PIER
2. STEEL MONOPOLE PER ELEVATION
3. FINISHED GRADE
4. (A) 1-1/4\"/>
5. #3 TIES AT 6\"/>
6. #3 TIES AT 12\"/>
7. LAP TIES 12\"/>
8. (B) #6 LONGITUDINAL BARS EQUALLY SPACED
9. (C) 1/2\"/>
10. CONTRACTOR TO BIND VERTICAL RUN OF CONDUIT TOGETHER SUCH THAT BOUND CONDUIT RUN DOES NOT EXCEED 7\"/>
11. VERTICAL RUN IN CENTER OF DRILLED PIER
12. ALTERNATE CONDUIT APPROACH
13. ANCHOR RODS AND ANCHORAGE PER DETAIL 102
14. SQUARE BASE COVER
15. CONDUIT AS TOP OF FOUNDATION - MAKE WATER TIGHT
16. CONDUIT SIZE AND QUANTITY PER BELOW. INSTALL PER AT&T AND CITY STANDARDS.
- (1) 4\"/>
- (2) 1-1/4\"/>
- (3) 3/4\"/>

112 NTS. DRILLED PIER FOUNDATION



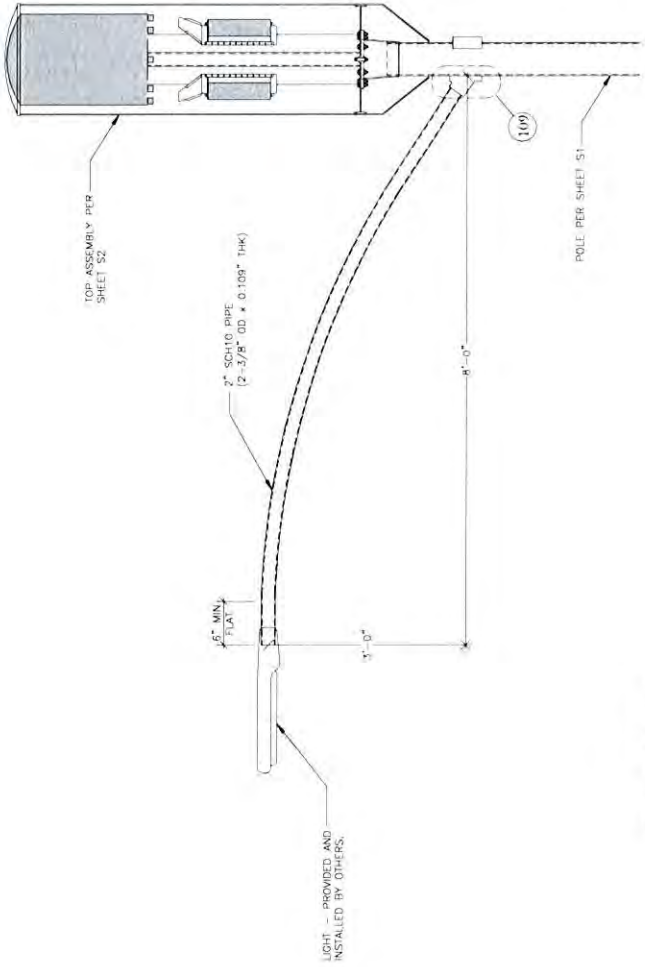
ATPV8RS1.35
SMALL CELL LIGHT POLE
MULTI-USE DESIGN
PARADISE VALLEY, AZ

REV. ISSUED DATE
0 ISSUED FOR PERMIT 09/05/19

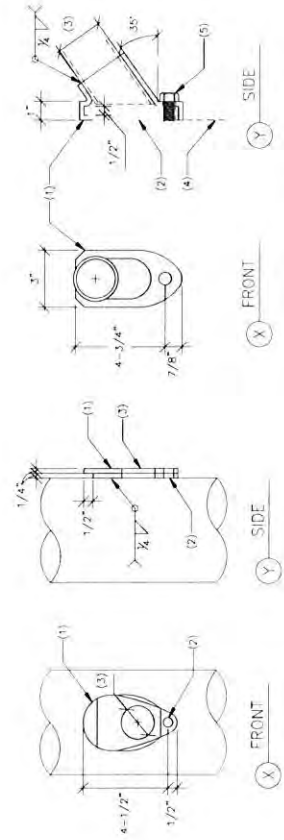


SOLUTIONS
INTEGRITY QUALITY EXPERIENCE
3447 S. GILBERT AVENUE, SUITE 100, 85007
GILBERT, AZ 85134
480.370.0093
WWW.CALIBERENG.COM
FOR: 19/001 ENG: MEN

LIGHT MAST DETAILS	
S3	0



109 NTS LUMINAIRE MAST



- 1. APS SIMPLEX FITTING SHOE
- 2. 1/2" DIA. HOLE, DRILL AND TAP TO RECEIVE 1/2" HEX HEAD CAP SCREW
- 3. 1-3/4" DIA. HOLE

110 NTS FITTING SHOE

109 NTS FITTING FOOT

MANUFACTURER _____		TITLE 4" TAPERED SKIRT Charles Industries	
PROJECT NUMBER _____		DRAWING NUMBER _____	
SHEET S1		STD. _____	

ACOM-2F15D-12P-R2,- 12-Port, Quasi-omni Outdoor Canister Antennas

Ace Omnidirectional SmallCell Antennas

- Quasi-omni radiation patterns for smallcells
- 12-Port, Quasi-omni Outdoor Canister Antennas
- Multiband, 12 port Fixed Antenna

698 - 894	1695 - 2400	3550 - 3700	5150 - 5925
2 ports	4 ports	4 ports	2 ports
±45°	±45°	±45°	±45°
360°	360°	360°	360°
39°	20°	27°	24°

ELECTRICAL SPECIFICATIONS				
Frequency Range [MHz]	698-894	1695-2400	3550-3700	5150-5925
Gain, maximum [dBi]	4.5	9.0	6.0	5.5
Azimuth Beamwidth [°]	360° (Quasi-Omni)			
Elevation Beamwidth [°]	39°	20°	27°	24°
Electrical Downtilt [°]	0° (fixed)			
Polarization [°]	±45			
Impedance [Ω]	50			
VSWR	< 1.6:1			
Cross Polar Isolation [dB]	> 20			
Passive Intermodulation [2x43 dBm Carrier, dBc]	< -153	< -153	-	
Light protection	DC Ground			
Maximum Effective Power Per Port [W]	50			

MECHANICAL SPECIFICATIONS	
Antenna Dimensions: Length, Diameter [mm]	610 x 381 (24.0" x 15.0")
Weight (lbs/kg)	33.07 lbs / 15.0 kg
Connector Type	4.3-10 type Fmale
Connector Quantity	12
Wind load, Calculation (mph)	93.2
Windload, Frontal [N]	175.3 (34.5 lbf)
Windload, Lateral [N]	175.3 (34.5 lbf)
Maximum Wind Speed [km/h]	241 (150 mph)
Radome Material	Fiberglass, UV resistance
Radome Color	Light gray



Revised: 01/12/18_5GHz EIRP Adjusted

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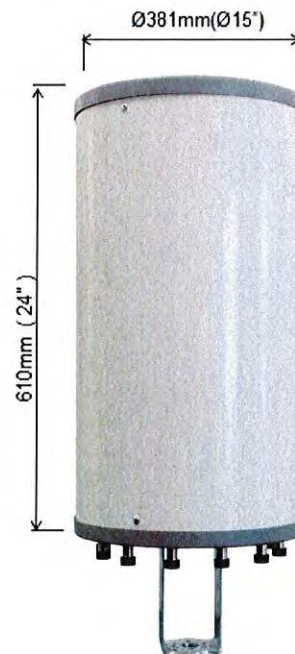
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ACOM-2F15D-12P-R2, 12-Port, Quasi-omni Outdoor Canister Antennas

LAYOUT OF INTERFACE
(BOTTOM VIEW)

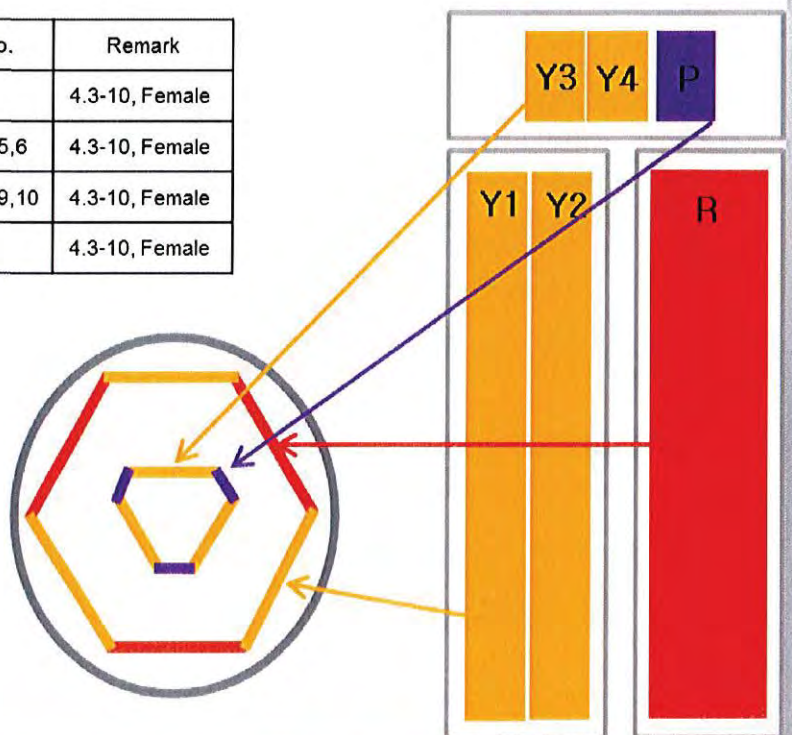


ANTENNA LAYOUT



CORRELATION TABLE

Color code	Column	Frequency	Connector No.	Remark
	R1	698~894 MHz	R1 : 1,2	4.3-10, Female
	Y1, Y2	1695~2400 MHz	Y1 : 3,4 / Y2 : 5,6	4.3-10, Female
	Y3, Y4	3550~3700 MHz	Y3 : 7,8 / Y4 : 9,10	4.3-10, Female
	P1	5150~5925 MHz	P1 : 11,12	4.3-10, Female



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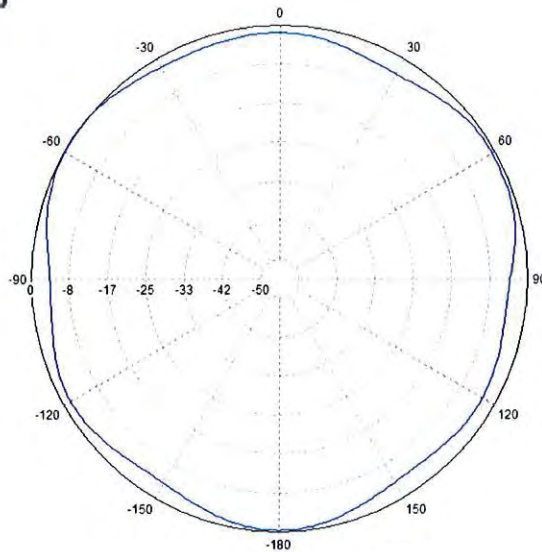
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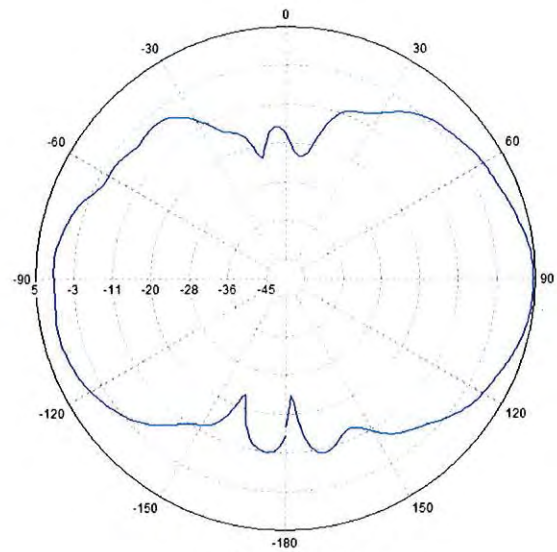
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ACOM-2F15D-12P-R2, 12-Port, Quasi-omni Outdoor Canister Antennas

800 M

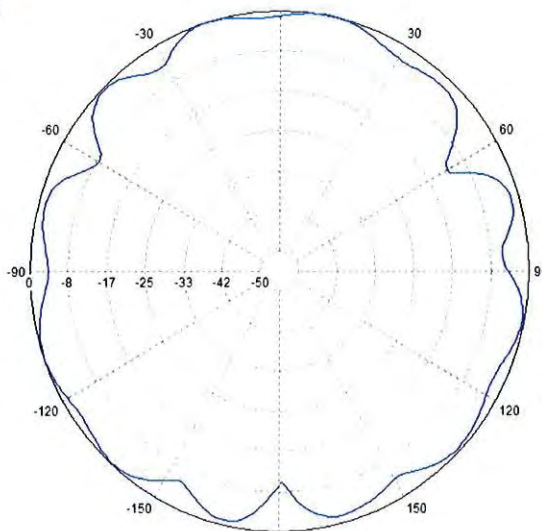


Horizontal pattern

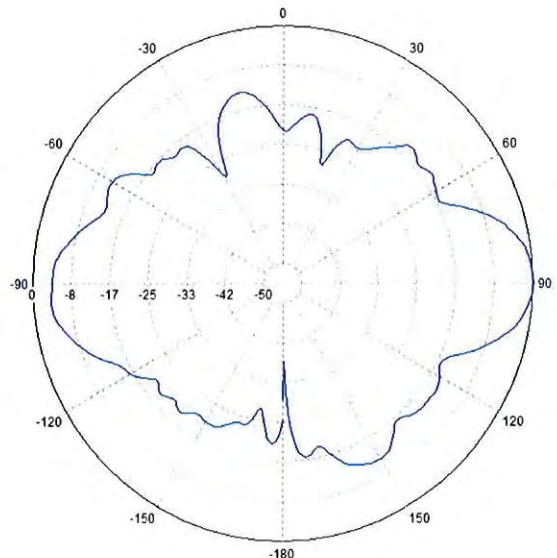


Vertical pattern

2000 M



Horizontal pattern



Vertical pattern

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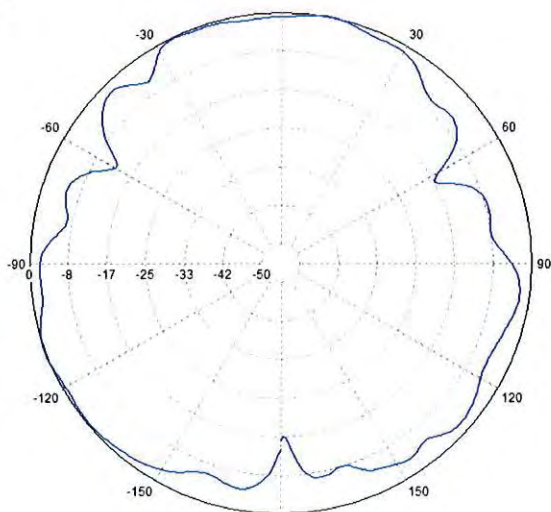
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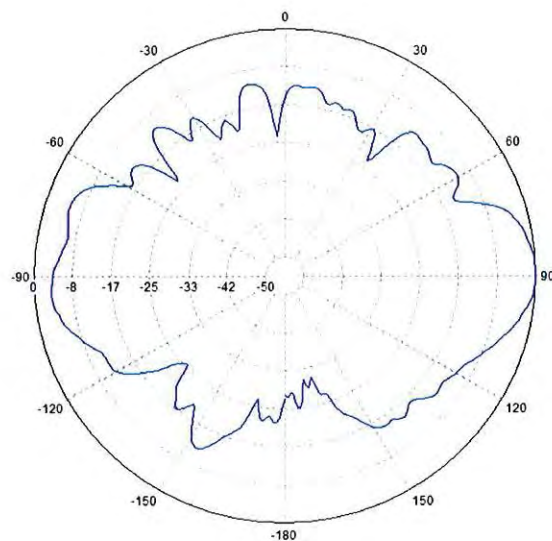
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3500 M

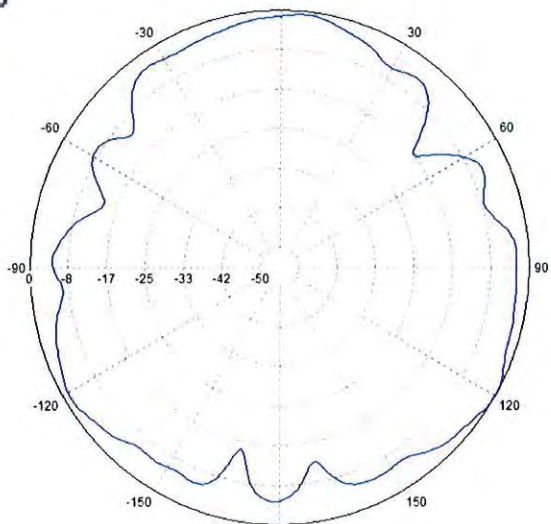


Horizontal pattern

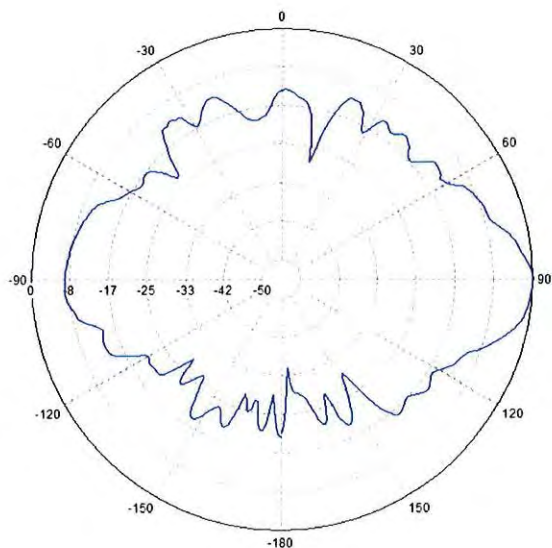


Vertical pattern

5500 M



Horizontal pattern



Vertical pattern

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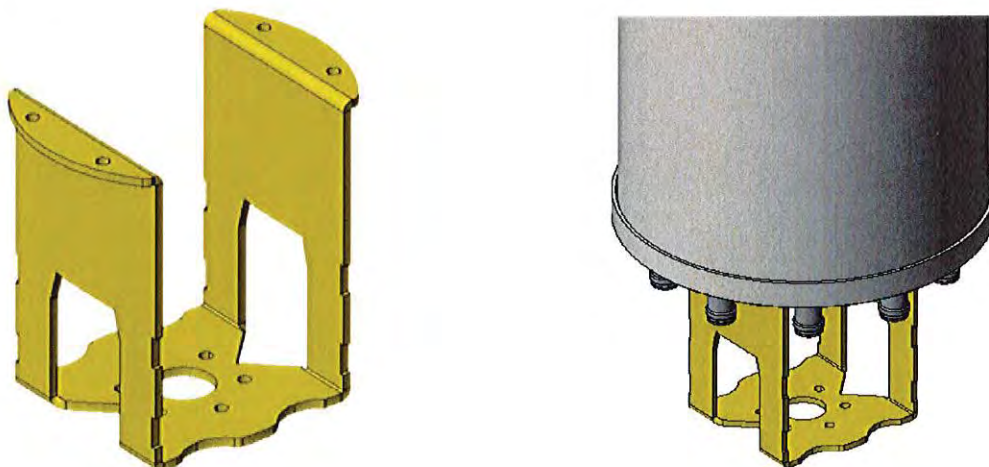
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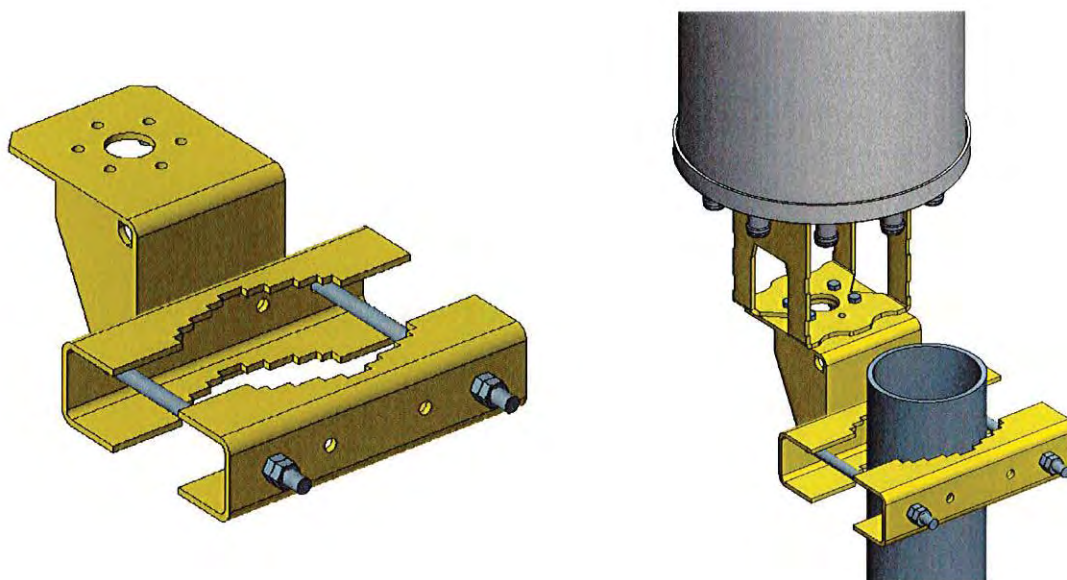
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ACOM-2F15D-12P-R2, 12-Port, Quasi-omni Outdoor Canister Antennas

**Top of Pole Mounting [Type No. ACOM-MK-TOP]
(Bundle)**



**Offset of Pole Mounting Option [Type No. ACOM-MK-SIDE]
(Option)**





RADIO, ANTENNA AND ANCILLARY
EQUIPMENT CONFIGURATION

OVERALL VOLUME: 9.8 CU FT
ESTIMATED WEIGHT: 195 LBS

MULTIPLE COLOR OPTIONS
AVAILABLE TO MATCH EXISTING POLES

SUITABLE FOR ROUND OR SQUARE POLES

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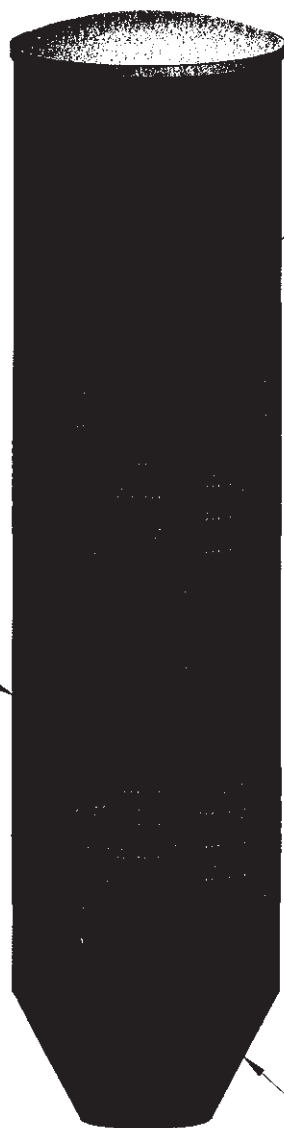
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SCALE 1:60	CAD FILE NAME CI_POLE_TOP	REV. A
SHEET		of 5

REV 07 28 99

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VENTED ALUMINUM SHROUD
CAN BE REPLACED WITH
RF TRANSPARENT
VENTED RADIO COVER



ANTENNA RADOME COVER

TRANSITION SKIRT

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A

DRAWING NO.

C: POLE-70P NODE

ISS.
SJR
REV.
A

SCALE

080 CAD FILE NAME
C: POLE 10P

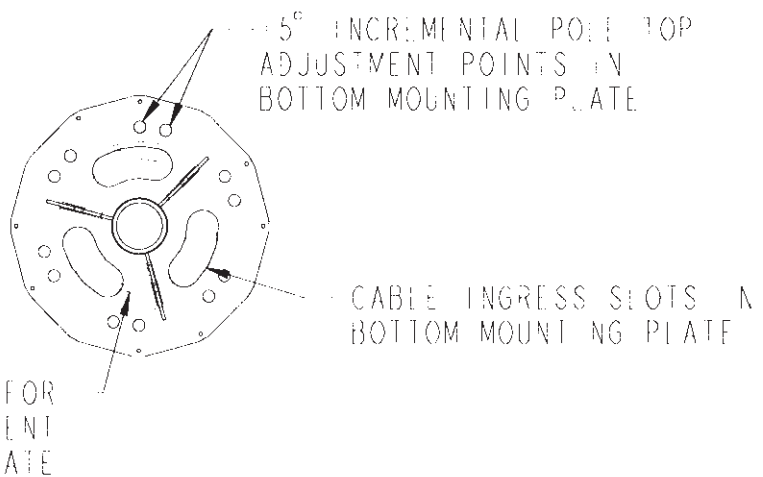
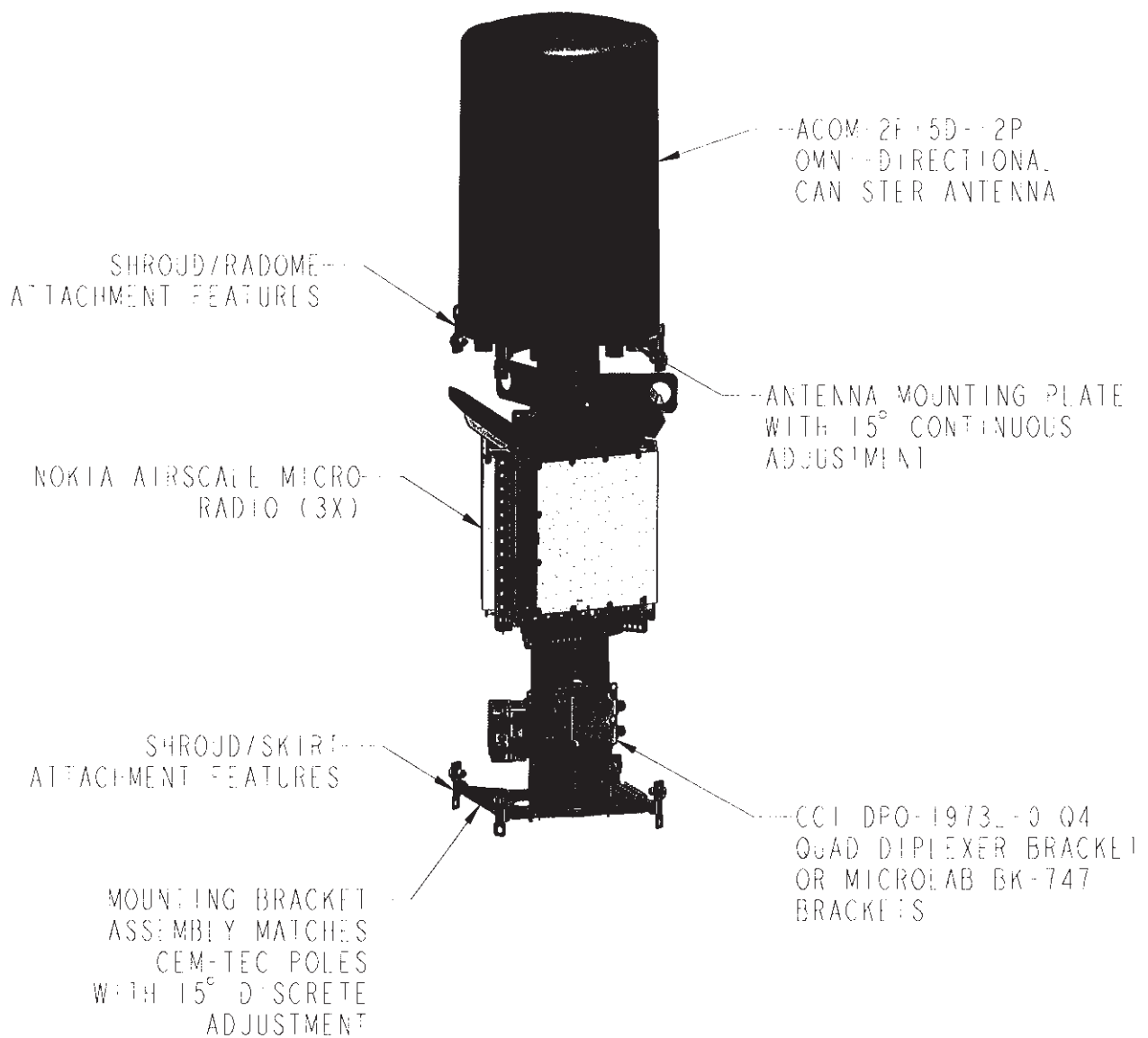
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2 of 5

REV 07-28-99

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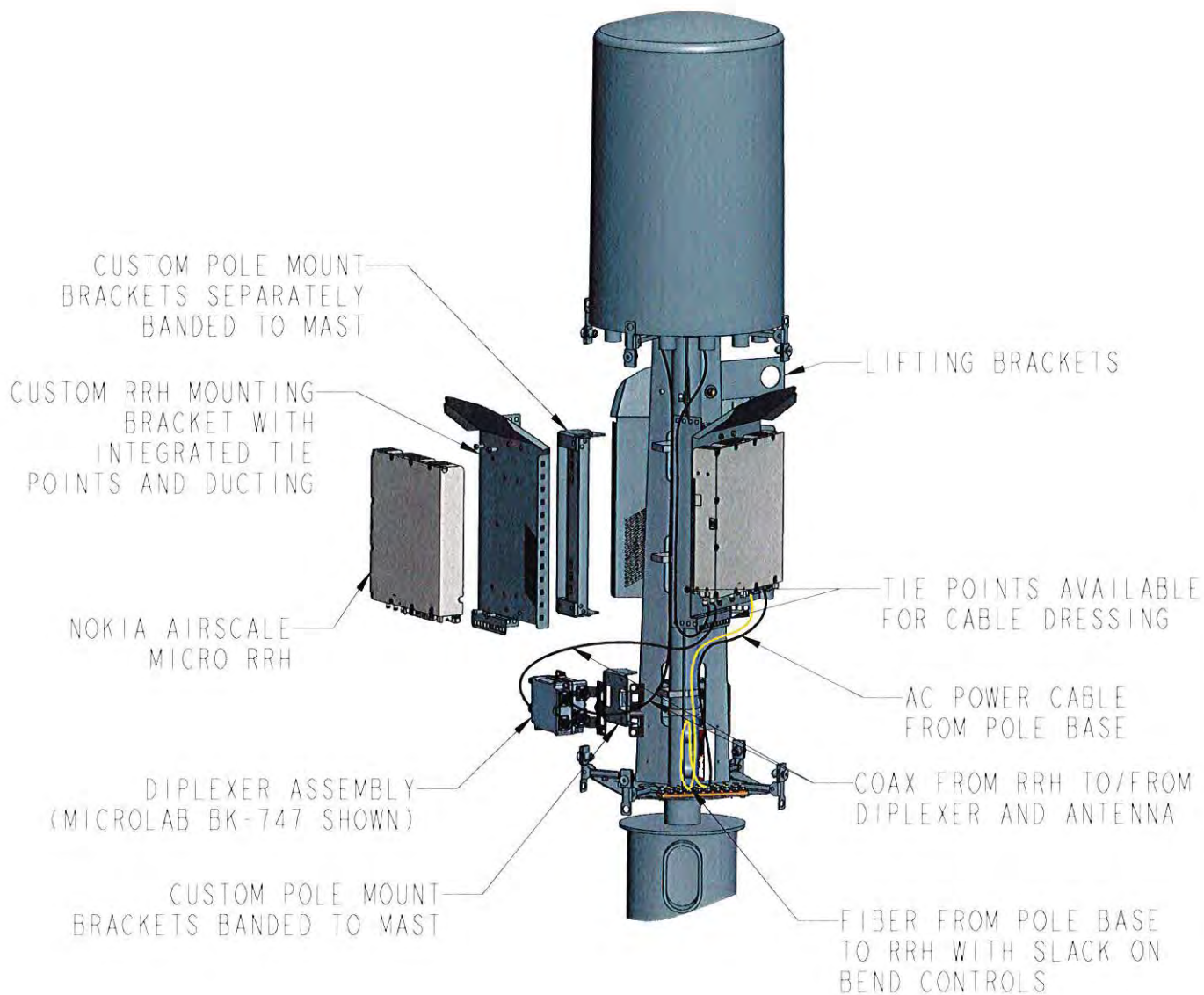
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SCALE 680	CAD FILE NAME CI.POLE.10P	REV. A
SHEET		3 of 5

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SIZE
A

DRAWING NO.
CI POLE-TOP NODE

ISS.
SJR
REV.
A

SCALE

080

CAD FILE NAME
CI-POLE-TOP

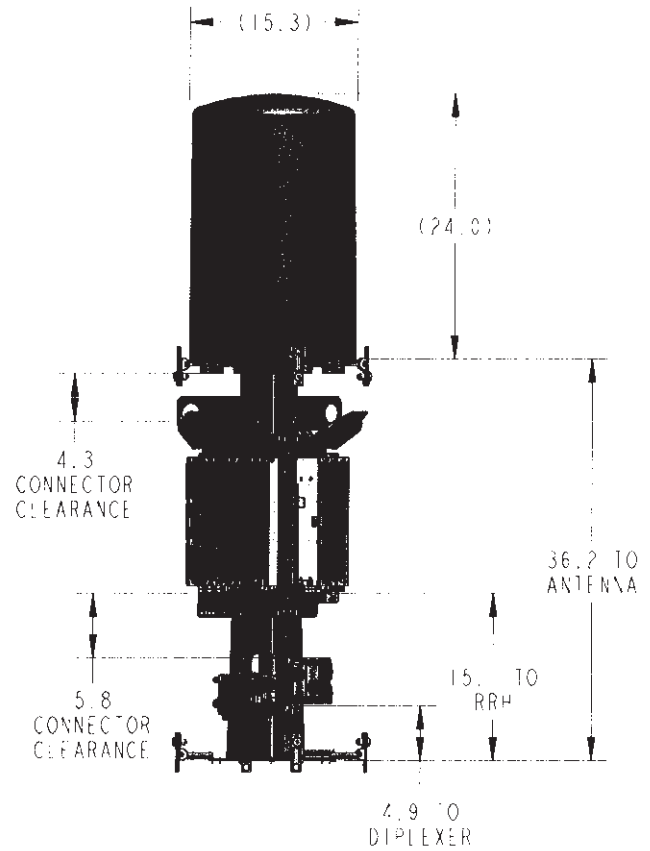
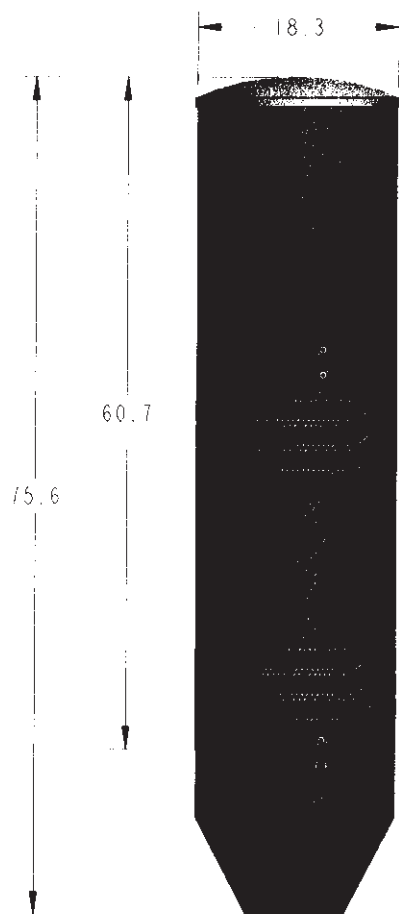
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4 of 5

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SCALE 060	CAD FILE NAME C_POLE_TOP	REV. A
	SHEET 5 of 5	

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