



Agenda Item B.2
PUBLIC HEARING
Meeting Date: September 7, 2021

TO: Mayor and Councilmembers

FROM: Charles W. Ebeling, Public Works Director

CONTACT: Melissa Angeles, Assistant Engineer

SUBJECT: Appeal of Public Works Director Approval of an Encroachment Permit for the Installation of a Small Cell Wireless Facility in Public Right-of-Way near 293 Forest Drive

Applicant: Crown Castle

Appellants: Barbara Gaughen-Muller, C. Dave Gaughen

RECOMMENDATION:

Adopt Resolution No. 21-___ entitled "A Resolution of the City Council of the City of Goleta, California, Denying C. Dave Gaughen & Barbara Gaughen-Muller's Appeal of the Public Works Director Approval of an Encroachment Permit for the Installation of a Small Cell Wireless Facility in the public right-of-way near 293 Forest Drive (EP-19-095) and Approving EP-19-095 Under Goleta Municipal Code Chapter 12.20."

BACKGROUND:

On June 27, 2019, the Public Works Department received an encroachment permit application from Crown Castle (Applicant) for the installation of a new steel pole and small cell wireless facility at 293 Forest Drive. Shortly after, the City of Goleta finalized the purchase of streetlights from Southern California Edison and directed Crown Castle to redesign the project to install the antenna and associated facilities on the City-owned streetlight near 293 Forest Drive instead of erecting a new pole. This is in compliance with the City's Design and Development Standards for Wireless Facilities in the Public Rights-of-Way, adopted by the City Council on May 7, 2019, which states the City's preference is for wireless facilities to be installed on existing infrastructure and that new poles are prohibited unless a waiver is approved by the City.

On February 16, 2021, Crown Castle submitted their revised plans proposing to place a small cell wireless facility on an existing streetlight in front of 293 Forest Drive. In compliance with Goleta Municipal Code (GMC) Section 12.20.080, notice of the proposed project was provided to property owners located within 300 feet from the proposed project

site. The notice allowed for a 14-day public comment period. Appellants Barbara Gaughen-Muller and C. Dave Gaughen submitted a comment requesting that the City deny the application based on the fact that they were “highly sensitive to wireless and cell phone irradiation.” In compliance with federal law limitations on local authority to regulate the placement of wireless facilities based on the environmental and health effects of radio frequency emissions, which limitations are discussed in detail below, staff did not deny the application based upon this public comment.

Following the public comment period, Public Works completed its review of the application, plans and supporting documents and determined that the proposed facility complies with all City, State and Federal standards and laws. The Public Works Director issued a Notice of Application Approval to Crown Castle on July 28, 2021 (see Attachment 2).

On July 30, 2021, a request to appeal the Public Works Director’s approval of Crown Castle’s encroachment permit for a small cell wireless facility in the public right-of-way near 293 Forest Drive was submitted by Barbara Gaughen-Muller and C. Dave Gaughen (see Attachment 3).

Notice of this public hearing was published in the Santa Barbara Independent on August 26, 2021 and notices were mailed to property owners located within 300 feet of the proposed project site.

60-Day Shot Clock

The City must issue a final decision on the appeal by September 8, 2021. Under federal law, the City has 60 days to process an application for a small cell wireless facility proposed to be collocated on an existing structure such as the City light pole. Based on Federal Communication Commission (FCC) Order 18-133 which established this shot clock, the failure of the City to meet the deadline for action will be presumed to violate federal law (both a failure to act within a reasonable period of time and an effective prohibition of personal wireless services).

The shot clock was set to expire on August 18, 2021, however, the Applicant agreed to extend the shot clock to September 8, 2021 to accommodate the public hearing. All statutes of limitation, including a claim for unreasonable delay, with respect to the application, will begin to accrue on September 9, 2021.

DISCUSSION:

Appeal

Section 12.20.040(B) of the GMC allows any person adversely affected by the decision of the Public Works Director on a wireless encroachment permit to appeal the decision to the City Council within two business days after the issuance of a published determination letter, stating the specific reasons for appeal. The City Council may decide the issues *de*

novo, and its written decision will be the final decision of the City and not be subject to further administrative appeal.

Appellant's Appeal

1. Appellants claim that their fruit trees, garden, bees, and they will be harmed by the emissions of the proposed small cell wireless facility.

Section 332(c)(7) of the Telecommunications Act preempts local regulation premised directly or indirectly on the environmental effects of radio frequency (RF) emissions and prohibits a local entity from denying a wireless facility application based on concerns about RF emissions so as long the applicant has demonstrated that its facilities will comply with FCC standards. Consistent with this federal prohibition, GMC Section 12.20.040(B)(3) prohibits appeals to be premised on the environmental effects of RF emissions. The City's regulatory power pertaining to RF emissions is limited to ensuring that facilities will comply with FCC standards. The Applicant has demonstrated compliance with FCC standards by providing a Radio Frequency Electromagnetic Exposure Report, prepared by Dtech Communications on February 4, 2021, which concludes that the exposure levels for the proposed facility are below the FCC's most stringent General Population Maximum Permissible Exposure Limits (see Attachment 4).

2: Appellants state that the application should be denied because it proposes to install 4G technology instead of 5G technology.

The City has no authority to deny an application based on the radio frequencies and technology proposed to be used, e.g., 4G versus 5G. Under state law, telephone companies have a state franchise right to use the public right-of-way for their facilities. (California Public Utilities Code Section 7901). The City has the authority under state and federal law to regulate the installation of physical facilities of telephone companies, including wireless facilities, in the public right-of-way to ensure that the installations do not "incommode" the public use (California Public Utilities Code Section 7901) and impose standards regarding the facilities' aesthetics (*T-Mobile West LLC v. City & Cty. of San Francisco*, 6 Cal. 5th 1107, 438 P.3d. 239 (2019); FCC Order 18-133). The City's regulations are limited to the regulation of when and how the facilities are installed, whether the installation meets applicable safety standards, and how the facilities will look. In short, the City cannot regulate the technology or the radio frequencies that are used. The City cannot deny an application because it proposes to install 4G, and not 5G, technology.

Further, the Appellants claim that the application should be denied because AT&T, the wireless provider who will use the facility, appears to have sufficient 4G and 5G coverage based on maps shown on its website. However, GMC Section 12.20.080(D) does not require a finding as to need.

3: Appellants claim that the facility proposed to be installed has been discontinued.

The City has no authority to deny an application because the proposed equipment has been discontinued. It is not uncommon for new models of equipment to be introduced and other models to be discontinued. The Applicant confirmed that the antenna proposed to be installed was pre-ordered prior to the manufacturer's discontinuation and has it available for use with this project.

De Novo Review

The City Council can approve the application because the Public Works Director previously found that it meets all of the City's standards under GMC Chapter 12.20 (see Attachments 2 and 5), and the issues raised by the Appellants have not challenged any of the required findings.

Conclusion

The appeal should be denied because the City cannot under its own regulations and federal law deny an application based upon (1) the RF emissions so long as the applicant has demonstrated compliance with federal RF standards, (2) the type of technology (4G v. 5G) the applicant proposes to use, and (3) the type of equipment that will be installed. In addition, the findings required by GMC Section 12.20.080 for approval of the application can be made with respect to this project.

Staff recommends that the City Council deny the Appellants' appeal and adopt the proposed resolution affirming the Public Works Director's approval of an encroachment permit for the installation of a small cell wireless facility in the public right-of-way in front of 293 Forest Drive.

FISCAL IMPACTS:

There are no fiscal impacts to the City's adoption of the resolution.

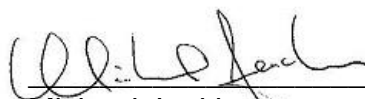
ALTERNATIVES:

The City Council can deny the application based upon an inability to make a finding under GMC Chapter 12.20 and specify the finding that cannot be made and the reasons it cannot be made.


Reviewed By:


Kristine Schmidt
Assistant City Manager

Legal Review By:


Michael Jenkins
City Attorney

Approved By:


Michelle Greene
City Manager

ATTACHMENTS:

1. Resolution 21-____ entitled "A Resolution of the City Council of the City of Goleta, California, Denying C. Dave Gaughen & Barbara Gaughen-Muller's Appeal of the Public Works Director Approval of an Encroachment Permit for the Installation of a Small Cell Wireless Facility in the public right-of-way near 293 Forest Drive (EP-19-095) and Approving EP-19-095 Under Goleta Municipal Code Chapter 12.20"
2. Notice of Application Approval, dated July 28, 2021
3. Barbara Gaughen-Muller and C. Dave Gaughen Appeal Letter, dated July 30, 2021
4. Radio Frequency Electromagnetic Exposure Report, Dtech Communications, prepared on 2/4/2021
5. Goleta Municipal Code Chapter 12.20
6. PowerPoint Presentation Site Diagram and Project Rendering

ATTACHMENT 1

Resolution 21-____ entitled “A Resolution of the City Council of the City of Goleta, California, Denying C. Dave Gaughen & Barbara Gaughen-Muller’s Appeal of the Public Works Director Approval of an Encroachment Permit for the Installation of a Small Cell Wireless Facility in the public right-of-way near 293 Forest Drive (EP-19-095) and Approving EP-19-095 Under Goleta Municipal Code Chapter 12.20”

RESOLUTION NO. 21- ____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GOLETA, CALIFORNIA, DENYING C. DAVE GAUGHEN & BARBARA GAUGHEN-MULLER'S APPEAL OF THE PUBLIC WORKS DIRECTOR APPROVAL OF AN ENCROACHMENT PERMIT FOR THE INSTALLATION OF A SMALL CELL WIRELESS FACILITY IN THE PUBLIC RIGHT-OF-WAY NEAR 293 FOREST DRIVE (EP-19-095) AND APPROVING EP-19-095 UNDER GOLETA MUNICIPAL CODE CHAPTER 12.20

The City Council does resolve as follows:

SECTION 1: Recitals. The City Council finds and declares that:

- A. On February 16, 2021, an application was submitted by Crown Castle for the installation of a wireless facility on an existing streetlight in front of 293 Forest Drive (project);
- B. On July 28, 2021, the Public Works Director issued a Notice of Application Approval to Crown Castle for the project.
- C. On July 30, 2021, an appeal of the Public Works Director's decision to approve the project was filed by Mr. C. Dave Gaughen and Ms. Barbara Gaughen-Muller.
- D. The procedures for processing the appeal have been followed as required by state and local laws.
- E. On September 7, 2021, the City Council conducted a duly noticed public hearing.
- F. The City Council has considered the entire administrative record, including, without limitation, staff reports, and oral and written testimony from interested persons, all of whom were given an opportunity to be heard.
- G. The City Council finds that the proposed project meets all of the required findings required by Section 12.20.080 of the Goleta Municipal Code for approval and issuance of an Encroachment Permit.

SECTION 2: Actions. The City Council take the following actions:

- A. Deny Mr. C. Dave Gaughen & Ms. Barbara Gaugen-Muller's appeal of the Public Works Director approval of an encroachment permit for the installation of a small cell wireless facility at 293 Forest Drive based on the following reasons:
 - 1. Appellants claim that their fruit trees, garden, bees, and they will be harmed by the emissions of the proposed small cell wireless facility.**

Section 332(c)(7) of the Telecommunications Act preempts local regulation premised directly or indirectly on the environmental effects of radio frequency (RF) emissions and prohibits a local entity from denying a wireless facility application based on concerns about RF emissions so as long the applicant has demonstrated that its facilities will comply with FCC standards. Consistent with this federal prohibition, GMC Section 12.20.040(B)(3) prohibits appeals to be premised on the environmental effects of RF emissions. The City's regulatory power pertaining to RF emissions is limited to ensuring that facilities will comply with FCC standards. The Applicant has demonstrated compliance with FCC standards by providing a Radio Frequency Electromagnetic Exposure Report, prepared by Dtech Communications on February 4, 2021, which concludes that the exposure levels for the proposed facility are below the FCC's most stringent General Population Maximum Permissible Exposure Limits (see Attachment 4).

2. Appellants state that the application should be denied because it proposes to install 4G technology instead of 5G technology.

The City has no authority to deny an application based on the radio frequencies and technology proposed to be used, e.g., 4G versus 5G. Under state law, telephone companies have a state franchise right to use the public right-of-way for their facilities. (California Public Utilities Code Section 7901). The City has the authority under state and federal law to regulate the installation of physical facilities of telephone companies, including wireless facilities, in the public right-of-way to ensure that the installations do not "incommode" the public use (California Public Utilities Code Section 7901) and impose standards regarding the facilities' aesthetics (T-Mobile West LLC v. City & Cty. of San Francisco, 6 Cal. 5th 1107, 438 P.3d. 239 (2019); FCC Order 18-133). The City's regulations are limited to the regulation of when and how the facilities are installed, whether the installation meets applicable safety standards, and how the facilities will look. In short, the City cannot regulate the technology or the radio frequencies that are used. The City cannot deny an application because it proposes to install 4G, and not 5G, technology.

Further, the Appellants claim that the application should be denied because AT&T, the wireless provider who will use the facility, appears to have sufficient 4G and 5G coverage based on maps shown on its website. However, GMC Section 12.20.080(D) does not require a finding as to need.

3: Appellants claim that the facility proposed to be installed has been discontinued.

The City has no authority to deny an application because the proposed equipment has been discontinued. It is not uncommon for new models

of equipment to be introduced and other models to be discontinued. The Applicant confirmed that the antenna proposed to be installed was pre-ordered prior to the manufacturer's discontinuation and has it available for use with this project.

- B. Affirm the Public Works Director approval of an encroachment permit for the installation of a small cell wireless facility at 293 Forest Drive.

SECTION 3: This Resolution will remain effective until superseded by a subsequent Resolution.

SECTION 4: This Resolution will become effective upon adoption.

SECTION 5: The City Clerk shall certify to the passage and adoption of this resolution and enter it into the book of original resolutions.

PASSED, APPROVED, AND ADOPTED this 7th day of September, 2021.

PAULA PEROTTE
MAYOR

ATTEST:

APPROVED AS TO FORM:

DEBORAH S. LOPEZ
CITY CLERK

MICHAEL JENKINS
CITY ATTORNEY

STATE OF CALIFORNIA)

COUNTY OF SANTA BARBARA) ss.
CITY OF GOLETA)

I, DEBORAH LOPEZ, City Clerk of the City of Goleta, California, DO HEREBY CERTIFY that the foregoing Resolution No. 21-____ was duly adopted by the City Council of the City of Goleta at a regular meeting held on the 7th day of September, 2021 by the following vote of the City Council:

AYES:

NOES:

ABSENT:

ABSTAIN:

(SEAL)

DEBORAH S. LOPEZ
CITY CLERK

ATTACHMENT 2

Notice of Application Approval, Dated July 28, 2021



VIA ELECTRONIC AND REGULAR MAIL

CITY COUNCIL

July 28, 2021

Paula Perotte
Mayor

James Kyriaco
Mayor Pro Tempore

Roger S. Aceves
Councilmember

Stuart Kasdin
Councilmember

Kyle Richards
Councilmember

Crown Castle NG West, LLC
Attn: Tricia Knight
123 Seacliff Drive
Pismo Beach, CA 93449

**RE: Notice of Application Approval
Crown Castle Small Cell Wireless Facility
Encroachment Permit EP-19-095, 293 Forest Drive**

Dear Ms. Knight:

CITY MANAGER
Michelle Greene

City staff has reviewed the materials submitted for the above referenced project and determined the application to be approved pending the execution of a supplement agreement and payment of license and permit fees.

Our review is based on the following project description:

Installation of a new small cell site facility on an existing streetlight in the public right-of-way with an Omni directional antenna, (2) remote radio units with shroud, (2) quad-duplexers and vault.

Supporting Reasons:

1. The proposed facility complies with all applicable provisions of the Goleta Municipal Code (GMC) Chapter 12.20.
2. The proposed facility will not incommode the public use of the public right-of-way.
3. The proposed construction plan and schedule will not unduly interfere with the public's use of the public right-of-way.
4. The proposed facility complies with any standards adopted by the Director under GMC Section 12.20.040(A).
5. The proposed facility complies with all Federal and State standards and laws.

If you have any questions or would like to schedule a meeting to discuss this letter, please contact Assistant Engineer, Melissa Angeles at (805) 690-5122

or at mangleles@cityofgoleta.org.

Sincerely,

DocuSigned by:

Charles Ebeling

Charles W. Ebeling, P.E., T.E.

Director of Public Works/City Engineer

cc: Melissa Angeles, Assistant Engineer
Other Interested Parties (via email)

ATTACHMENT 3

Barbara Gaughen-Muller and C. Dave Gaughen Appeal Letter, dated July 30, 2021

BARBARA GAUGHEN-MULLER
C. DAVE GAUGHEN
7456 Evergreen Drive
Goleta, CA 93117
Telephone: (805) 275 – 6457
Email: cdg55@earthlink.net

July 30, 2021

Attn: City of Goleta Council Members
130 Cremona Drive, Suite B
Goleta, CA 93117

Subj: Request to Appeal the Decision to Approve Crown Castle's Encroachment Permit (EP-19-095) for a Small Cell Wireless Facility in the Public Rights-of-Way at 293 Forest Drive, Goleta, CA 93117 by the Director of Public Works

- Encl. (1) Initial Email Request entitled "Please Deny Crown Castle's Encroachment Permit Application" dated June 14, 2021.
- (2) Amendment to Initial Email Request entitled "Subj: Amendment to email Response from C. Dave Gaughen & Barbara Gaughen-Muller entitled Please Deny Crown Castle's Encroachment Permit Application" dated June 29, 2021
- (3) Letter from Director of Public Works entitled "RE: Notice of Application Approval Crown Castle Small Cell Wireless Facility Encroachment Permit EP-19-095, 293 Forest Drive" dated July 28, 2021
- (4) AT&T 4G and 5G Wireless Coverage at 493 Forest Drive
- Ref. (1) City of Goleta, Notice of Proposed Project, "Crown Castle Small Cell Wireless Facility" at "293 Forest Drive, Goleta, CA 93117," mailed on May 28, 2021.
- (2) Email from Melissa Angeles entitled RE: "Please Deny Crown Castle's Encroachment Permit Application" dated June 16, 2021.
- (3) Crown Castle's Project Plans for Project #ATTSBW01m2 dated 12/04/2020.
- (4) Dtech Communication's Report entitled "Radio Frequency Electromagnetic Exposure Report" prepared for Crown Castle dated 2/04/2021 (the "Exposure Report")
- (5) City of Goleta Public Hearing for "Proposed Ordinance regarding Wireless Facilities in the Public Rights-of-Way, Fee Resolution and Master License Agreement" dated May 07, 2019 (the "Proposed Ordinance")
- (6) Goleta Municipal Code (GMC) Chapter 12.20 Wireless Facilities in Public Road Rights-of-Way

Dear City of Goleta Council Members:

We collectively (i.e., the homeowners at 7456 Evergreen Dr. and the homeowners at 297 Forest Dr.) respectfully request to appeal the decision to approve Crown Castle's Encroachment Permit (EP-19-095) for a small cell wireless facility in the public rights-of-way at 293 Forest Drive, Goleta, CA 93117 by the Director of Public Works.

Per Reference 1, Enclosure 1 was submitted by the homeowners at 7456 Evergreen Dr. which highlighted the fact that we are devout gardeners, own multiple fruit trees in extremely close proximity to the proposed cell site, sleep in a bedroom that is a mere 42 feet from the proposed site, and maintain an opt-

out status regarding Southern California Edison's wireless transmission of electrical usage data. Our submittal was greeted with a Public Works response that included Section 332(c)(7) of the Telecommunications Act which preempts local decisions premised directly or indirectly on the environmental effects of radio frequency (RF) emissions, and appeals of the Director's decision premised on the environmental effects of radio frequency emissions will not be considered. (Ord. 19-09 § 3).

As such, References 2 – 6 were reviewed and Enclosure 2 was subsequently submitted which detailed that fact that: A) Crown Castle's Antenna submittal was discontinued on 12/30/2018, last time to repair date of 12/30/2019, and is FCC Certified exclusively for use with radio frequencies typically associated with 4G technology and Not the much anticipated mid-band 5G, B) Crown Castle's Radio submittal is also FCC Certified exclusively for use with radio frequencies typically associated with 4G technology and Not the much anticipated mid-band 5G, and C) Crown Castle's Exposure Report is based upon radio frequencies typically associated with 4G technology and not the soon to be rolled out mid-band 5G.

Nevertheless, on July 28, 2021 the Director of Public Works approved Crown Castle's Small Cell Wireless Facility Encroachment Permit EP-19-095 (see Enclosure 3) which employs a discontinued antenna with both a radio and the antenna FCC Certified for use with radio frequencies typically associated with 4G technology and Not mid-band 5G. Additionally, it is also unclear as to why the Director of Public Works would approve this permit on behalf of AT&T when AT&T most certainly appears to have sufficient 4G and 5G coverage according to their website at 493 Forest Drive (see Enclosure 4).

On July 29 at 1:53 pm the Appellant (i.e., the homeowners of 7456 Evergreen Dr.) requested a two week extension to properly identify additional reasons as to why the homeowners at 7456 Evergreen Dr. and the homeowners at 297 Forest Dr. are adversely affected by the decision of the Public Works Director. Unfortunately, this request was denied and our appeal is required to meet the deadline of July 30, 2021. As such, we plan to provide a more detailed explanation of the additional reasons that support our appeal at the hearing.

Respectfully,

Barbara Gaughen-Muller & C. Dave Gaughen

ENCLOSURE 1

ENCLOSURE 1

Please Deny Crown Castle's Encroachment Permit Application

From: "C. Dave G" <cdg55@earthlink.net>
To: <publicworkspemits@cityofgoleta.org>
Cc: <bgaughenmu@aol.com>
Subject: Please Deny Crown Castle's Encroachment Permit Application
Date: Jun 14, 2021 12:24 AM
Attachments: [Exhibit 1.pdf](#), [Exhibit 2 Bee Report.pdf](#)

Hi again Melissa - the below that I sent to you for some reason didn't make it to Public works? Here it is again ~ thanks, Dave

Dear Melissa, City of Goleta, and Dept. of Public Works: My mother (Barbara Gaughen-Muller) and I (C. Dave Gaughen) humbly request that our Public Comment be accepted due in whole to my mother living at two separate locations in Santa Barbara County whereby she did not receive or review your letter for public comment until on or after June 03, 2021 which was addressed to her at 7456 Evergreen Dr, Goleta, CA 93117.

Nevertheless, we are strongly opposed to this project especially since the Cell Site/Streetlight is only 42 feet from the bedroom where I sleep (see Photos 1, 2, and 3 of Exhibit 1). Additionally, I am personally highly sensitive to wireless and cell phone irradiation : 1) When wireless routers first came out I purchased one for my desktop computer and could not use it due to the unknown fact that it actually caused my heart to palpitate, and 2) I continue to only use my cell phone in emergency situations due in whole to the risks associated with radio frequencies that are actually in the microwave range (regarding science, I do have a degree in Chemistry from UCSB). Additionally, my mother believes the same specifically when it comes to the effect of microwaves on bees and the subsequent pollination of her organic fruit trees and her organic garden (see Exhibit 1 Photos 4 & 5, and Exhibit 2 Bee Report). Furthermore, my mother has opted-out of Edison's automated wireless meter reading for approximately 12 years since she believes that our air waves are already maxed out with toxic irradiation from wireless/microwave technologies (i.e., cell sites: see Exhibit 1 Photo 6).

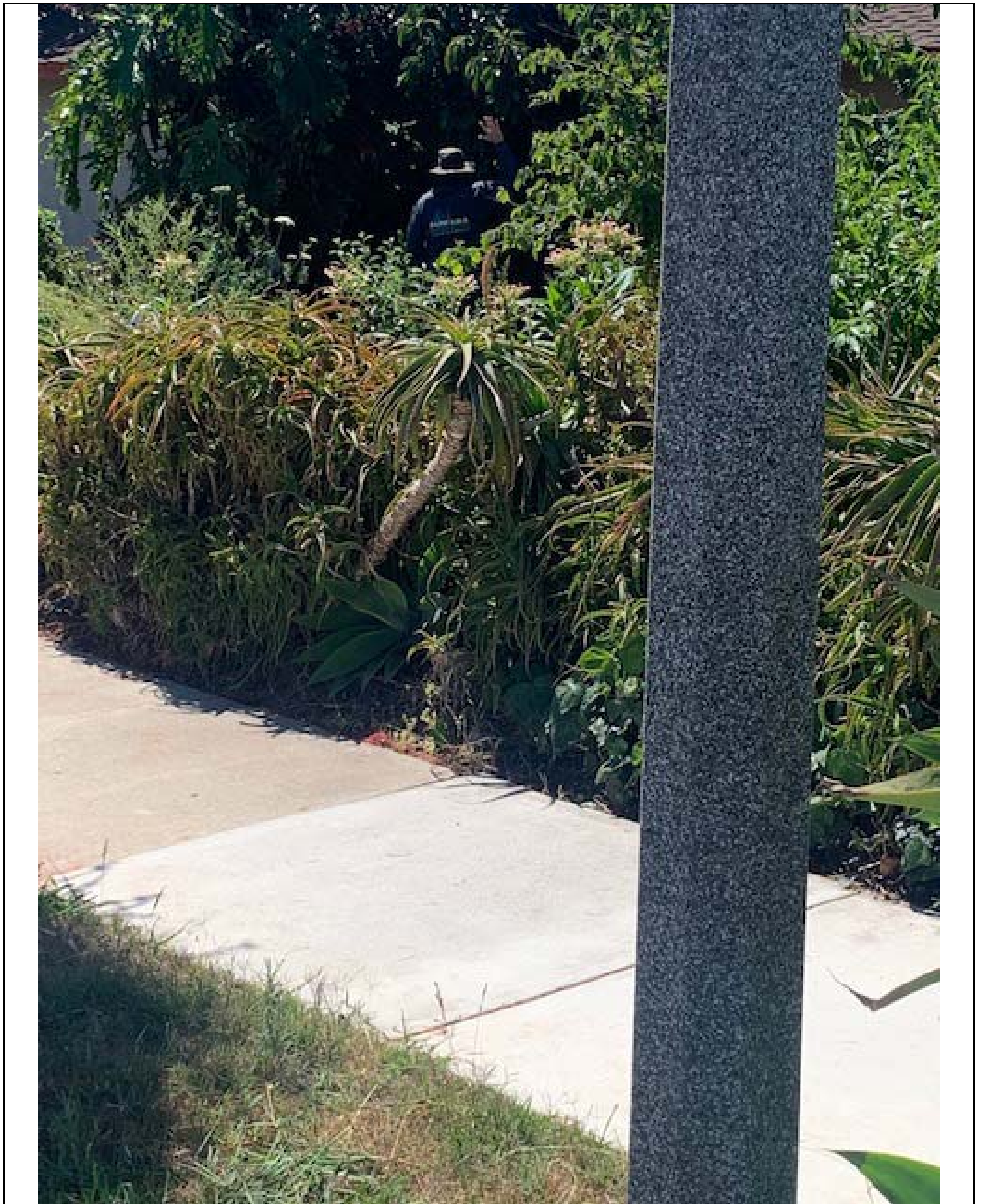
As such, please deny Crown Castle's encroachment permit application for 293 Forest Drive, Goleta, CA 93117 which in fact is located in the residential parkway at the property line of 7456 Evergreen Dr.*

Respectfully, Barbara Gaughen-Muller and C. Dave Gaughen, 7456 Evergreen Dr., Goleta, CA 93117

*If required, we will oppose this permit/project to the maximum extent of law.



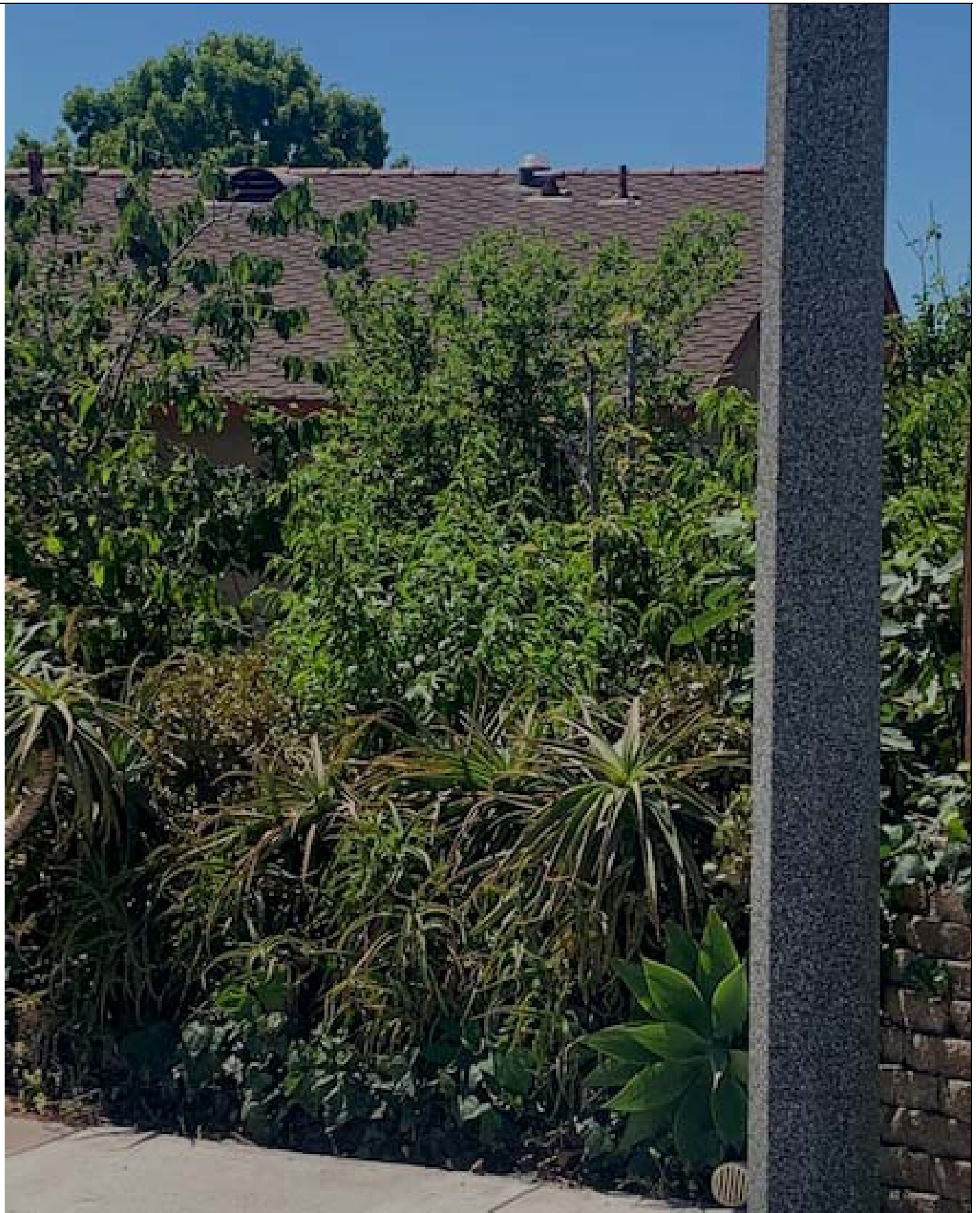
1. Photo of Streetlight at 7456 Evergreen Dr



2. Photo of Streetlight & Resident in front of Bedroom.



3. Residential Bedroom is 42 feet from Streetlight/Cell Site.



4. Photo of Organic Fruit Trees: Cherimoya, Plum, Peach, etc.



5. Photo of Organic Garden: Carrots & Citrus Trees to Left



6. Edison Opt-Out Customer for approximately 12 years.

Barrie Trower's Paper on the bees and microwave radiation. -
"Will the Communications Industry be the final straw for Our Planet's Ecosystems?" - Safe Land for Bees
Presented at the Glastonbury Symposium - July 24, 2010:
<http://www.safelandforbees.org.uk/bees-and-microwave-radiation.html>

Barrie Trower's Paper on the bees and microwave radiation.

"Will the Communications Industry be the final straw for Our Planet's Ecosystems?"

Presented at the Glastonbury Symposium, July 24th 2010

During a recent visit to Africa, a gentleman took me to a field full of plants and said *"What do you hear Barrie?"* I replied: *"Nothing"*. He said: *"Normally you and I would not be able to hear each other now, there would be so many bees buzzing, however, since that mobile phone transmitter went up, we haven't seen a single bee."* I received other similar reports concerning bees, birds, even ants during my stay in Africa. It was explained to me that the ants are very important for their symbiotic relationship with plants. The plants produce a sweet substance to feed the ants and in return the ants prevent insects landing on and eating the plant's leaves. Hence, ants guarantee plant crop safety and harvest.

It appeared that the common denominator in all cases was the proximity of mobile phone transmitters transmitting low-level continuous microwaves with added modulations (pulses) causing cellular distress to species within range. Residents who complained were told that such installations were within 'International Safety Guidelines'; other residents were either totally ignored, mocked or ridiculed.

Yet proof of such effects from low-level microwave irradiation has been known to Government(s) and published since 1932. (1) By 1971 the US Naval Medical Research institute referenced 2300 research articles listing in excess of 120 illnesses from low-level microwaves. (2) This was reinforced by confirmation from the US Defence Intelligence Agency Documents from 1972-76. (3)

So what does all this have to do with bees, birds and ants? Well, quite a lot really.

Biologically, apart from some specialist organelles within the cytoplasm or the amount of genetic material etc, all animal and plant cells are very similar; in fact at the atomic and nuclear level, they are identical. Thus, if you are going to affect human cellular activity, you will inevitably affect other animal and plant cells from the same source. In this case according to Government reports, low-level microwave irradiation. The reader does not have to look far to discover that many experimental trials, evaluating harmful microwave levels, are carried out on animal cells / tissue first; or even live animals. These reference levels are then applied to human beings. Arguably the World's foremost scientific journal, 'Nature', published an article explaining how oscillating magnetic fields disrupt the magnetic orientation behaviour of migratory birds. (4) The frequencies referred to within this article are well within the modulation frequencies used by the mobile phone industry.

Dr Andrew Goldsworthy, retired Lecturer from Imperial College, London; extends this mechanism to speeches in his written 'comment': 'Establishing Why Bees Die Off' dated 13th January 2010.

Prof Karl Richter also extends this explanation and references the plight of bees subjected to such irradiation. He notes that these insects' immune systems seem to have collapsed with many bees suffering five to six infections simultaneously. Interestingly, suppression of the immune system is also described by the US Government as a symptom for humans exposed to low-level microwave irradiation. (5)

Similarly, Prof Ferdinand Ruzicka, who is a bee keeper himself, says: *"The problem only appeared since several transmitters have been installed in the immediate proximity to my hives"*.

"Dragnose-Funk" continues: *'According to Ruzicka's observations, the bee colonies are so weakened by the mobile telecommunications radiation that they become more prone to various diseases.'* (6) In his two-part, 13 page document, Guy Cramer includes the military and its Worldwide use of similar telecommunications transmitters as partly complicit to this cause for the demise of the bee population. In particular he singles out the US multi-transmitting towers in Alaska which can focus anywhere on the Planet by reflecting their transmissions off of the ionosphere. This is otherwise known as HAARP. (7)

Researchers like Colin Buchanan have actually outlined time-lines plotting the demise of bees and its relation to human induced electromagnetic radiation. (8)

Within my presentation to the beekeepers' association at Glastonbury in 2008, I referenced 14 articles explaining why the bees are particularly susceptible to microwave irradiation. I stressed that bees could be exposed to magnetic fields roughly 640 times more powerful than they normally encounter with the Earth's field. The consequences of this can be two-fold: i) the ferromagnetic compounds within their heads, thorax and abdomen can produce hysteresis loops affecting proprioception (spatial awareness); and ii) the very size of the bee's antennas, brain and body render it susceptible to resonance (unwanted vibrations). (9) Put simply, I would argue that the bee is disorientated with a failing immune system and like AIDS in humans will become victim of any infection(s) or infestation(s) which came along.

The reader will not be surprised to learn that there is a plethora of research data documenting ill-effects on virtually all animal species from insects to cattle, listing long-term low-level microwave irradiation as the cause. I will reference just a few of the many thousands that exist.

The Research Institute for Nature and Forest clearly state in their publication that '*....long-term exposure to higher levels of radiation (GSM) negatively affects the abundance or behaviour of House Sparrows in the wild*' (10)

Twenty pages of Laboratory Studies citing suppression of the immune system by e.m. radiation upon cows, cats, dogs, hamsters, whales, birds, bees, bats and butterflies were published in Feb 2005. (11)

Prof. Denis Henshaw references in excess of 8000 research articles describing low-level radiation and its effects on animal navigation, plants and health of the animal kingdom.

Prof. Henshaw states that in his estimation, less than 10% of the available scientific evidence is cited by official review bodies; also, in some areas, none of the literature has been cited. (12)

An article published in 'Microwave News' describes how low-level microwave radiation, when modulated, can cause nonthermal neurological effects in both humans and birds. Exactly what the US Government published thirty years earlier and seems to have been 'overlooked'. (13)

Internet researcher Sylvia Wright listed 27 peer reviewed studies showing effects, or possible effects, of low-level irradiation upon seeds and plants. All of these papers had been published in scientific journals.(14)

Remembering that all planetary eco-environmental systems are interconnected, the monetary value of the World's ecosystems has been estimated at 33 Trillion US Dollars annually. (15) With an understanding of the potential risk to nature; should the Global Telecommunications Industry cover our Planet with microwave transmitters, without further investigation or restriction? Could this potential financial loss be sustainable to many poorer countries?

The UK Government are advising populations to switch off all unnecessary lights, drive less, even restrict flying for holidays in order to reduce our carbon footprint. It has been estimated that the annual carbon footprint for the worldwide telecommunications industry is approximately 110.7 million tonnes of CO2 into our atmosphere. This is equivalent to the use of 29 million vehicles. Simultaneously all of our state schools are 'encouraged' to install wi-fi; virtually turning each school into a full-blown transmitter from the accumulative effect of microwaves. I find this a Governmental regulatory paradox. If for no other reason, than their total and absolute ambivalence on this matter! (16)

Are there solutions? Of course. In 2007 an international group of scientists studied 2000 peer reviews and published research papers. They recommended an acceptable level of radiation, based on the interaction between low-level microwaves and all known cellular processes. This became known as the bio-initiative level. (17)

The problem with this recommended level is that the telecommunications industry would suffer a reduction in profits. Consequently it is seldom adhered to.

There is a recent Legal Instrument. The European Parliament Guideline 2004/35/EG and advice from 21st April 2004, states that the 'causer pays the principle' for damage to animal, plants, natural habitats, water resources and soil. I must state here that I have no training in Law and should the reader wish to pursue this line of inquiry, expert international legal advice should be sought .

However, since September 1960, I have received several years of Governmental tuition on all aspects of microwave technology. At that time, microwave research was paramount Worldwide with many papers

published; including dangers of irradiation to living tissues from very low-level microwaves.

Knowing what we were all taught in the 60s, forces me to question the total ambivalence of today's Governmental Advisers. The microwaves haven't changed, only the colour and shape of the box emitting them.

Opinion

Could all of this potential damage to the Planet's eco-systems be a result of nothing more than Blind Corruption and Intentional Ignorance from our decision makers? Or is it planned? After all, if a country loses most of its pollinating insects (which tend to pollinate Vitamin C type plants), the health and financial status of such a country could be in jeopardy. The 'causer' could then offer a solution - at a price!

An interesting observation may be to look at the countries suffering the most; and those sweeping across such lands, installing a myriad of transmitters.

Barrie Trower

Scientific Advisor to several organisations

3 Flowers Meadow

Liverton

Devon TQ12 6UP

United Kingdom

01626 821014

Or ++1626 821014

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ENCLOSURE 2

ENCLOSURE 2

BARBARA GAUGHEN-MULLER
C. DAVE GAUGHEN
7456 Evergreen Drive
Goleta, CA 93117
Telephone: (805) 275 – 6457
Email: cdg55@earthlink.net

June 29, 2021

Attn: Department of Public Works and City Clerk
130 Cremona Drive, Suite B
Goleta, CA 93117

Subj: Amendment to email Response from C. Dave Gaughen & Barbara Gaughen-Muller entitled
“Please Deny Crown Castle’s Encroachment Permit Application” dated June 14, 2021

- Ref. (1) City of Goleta, Notice of Proposed Project, “Crown Castle Small Cell Wireless Facility” at “293 Forest Drive, Goleta, CA 93117,” mailed on May 28, 2021.
(2) Email from Melissa Angeles entitled RE: “Please Deny Crown Castle’s Encroachment Permit Application” dated June 16, 2021.
(3) Crown Castle’s Project Plans for Project #ATTSBW01m2 dated 12/04/2020.
(4) Dtech Communication’s Report entitled “Radio Frequency Electromagnetic Exposure Report” prepared for Crown Castle dated 2/04/2021 (the “Exposure Report”)
(5) City of Goleta Public Hearing for “Proposed Ordinance regarding Wireless Facilities in the Public Rights-of-Way, Fee Resolution and Master License Agreement” dated May 07, 2019 (the “Proposed Ordinance”)
(6) Goleta Municipal Code (GMC) Chapter 12.20 Wireless Facilities in Public Road Rights-of-Way

Dear City of Goleta, Dept. of Public Works, and City Clerk:

After review of References 1 – 6, we respectfully request to submit an amendment to our initial email response entitled “Please Deny Crown Castle’s Encroachment Permit Application,” dated June 14, 2021.

1. Crown Castle’s Antenna: Discontinued on 12/30/2018, Not FCC Compliant to 5GHz UNII Band, & Last time to Repair date of 12/30/2019

Reference 5, the Proposed Ordinance, reads in relevant part as follows:

“To accommodate the ever-growing demand for wireless broadband telecommunications, the industry is starting to look for small cell, 5G (fifth generation of cellular mobile communications) technology, which represents a 10x improvement in capacity over existing broadband. 5G technology is distinguished from the present 4G based wireless service by use of low power transmitters with a coverage radius of approximately 400 feet; thus, 5G requires close spacing of antennas and more of them. Street light poles and other poles are therefore ideally suited for 5G antenna placement due to their sheer numbers and widespread deployment throughout municipalities.”

It most certainly appears that the City’s public hearing (Ref. 5) and subsequent municipal code (Ref. 6) is specific for use in the rollout of 5G technology throughout the City of Goleta and Not for the continued

development of 4G technology. However, Reference 3 presents the proposed Antenna (i.e., Galtronics Extent P6480i) which received: A) Manufacture Discontinuance (MD) Date of December 30, 2018, B) Last time to Repair Date of December 30, 2019, and C) Reasons for End-of-Life (EOL) of this Product as, “An upgraded antenna model, GQ2410-06621, is being introduced with improved specifications and FCC compliance to the 5GHz UNII Band.” Exhibit 3 contains Galtronic’s Product Data Sheet for the Extent P6480i Antenna and Galtronic’s End-of-Life (EOL) Notification for the P6480i Antenna.

Additionally,

“Low-band 5G uses a similar frequency range to 4G cellphones, 600–850 MHz, giving download speeds a little higher than 4G: ... Low-band cell towers have a range and coverage area similar to 4G towers. Mid-band 5G uses microwaves of 2.5–3.7 GHz, ... with each cell tower providing service up to several kilometers in radius. This level of service is the most widely deployed, and was deployed in many metropolitan areas in 2020. Some regions are not implementing low-band, making this the minimum service level. High-band 5G uses frequencies of 25–39 GHz, near the bottom of the millimeter wave band, although higher frequencies may be used in the future ... The above speeds are those achieved in actual tests in 2020, and speeds are expected to increase during rollout.”¹

Reference 4 (i.e., the Exposure Report) employs frequency values that are substantially lower than mid-band 5G. These values are more in line with 4G technology and are similar to the frequency values of low-band 5G. Further, as stated above, some regions are not implementing low-band making mid-band the minimal service level [see Reference 4, Page 5, Section 2.2 “Antenna Inventory” for P6480i at 1900 MHz – 2100 MHz (mid-band 5G is 2.5 – 3.7 GHz or 2500 – 3700 MHz: Not 1900 MHz – 2100 MHz)].

As such, Crown Castle’s proposed antenna (see Ref. 3) and the submitted Exposure Report (see Ref. 4) may in fact be acceptable for the continued development of a 4G Wireless Communication Facilities (WCF); however, regarding the City’s clearly defined intent of 5G over 4G, the Director of Public Works should classify Crown Castle’s antenna submittal, including all related exposure data submitted per the Exposure Report, as a “misrepresentation of a material fact” and deny Crown Castle’s permit application.²

The Goleta Municipal Code (GMC) §12.20.140 “Revocation and Appeal of Revocation” states in relevant part as follows:

C. Required Findings. The Director may revoke or modify the permit if it makes any of the following findings:

1. The permittee obtained the approval by means of fraud or misrepresentation of a material fact;

///
///

¹“5G,” June 2021, <https://en.wikipedia.org/wiki/5G>, (accessed June 28, 2021).

²On a related side note, if Crown Castle’s permit were to be approved by the Director of Public Works (i.e., as is, employing the submitted antenna) followed by the rollout of either mid-band and/or high-band 5G, the residents at 7456 Evergreen Dr., pursuant to Section 12.20.160 “Breach—Termination of Permit” of the GMC, would file a complaint for failure to comply with the conditions of the permit or applicable law.

2. Crown Castle's Radio: No FCC Certification for Mid-Band 5G

As previously stated, the City's plans are to participate in the rollout of 5G technology as compared to the continued development of 4G technology. However, Reference 3 presents the proposed Remote Radio Unit (i.e., Ericsson Radio 4402) which does not appear to be certified by the FCC for mid-band 5G frequencies between 2.5 – 3.7 GHz. Exhibit 3 presents: a) Screen shot of internet search identifying Ericsson Radio 4402 as FCC ID TA8AKRC161742-1 (see P. 7, search result titled as "Ericsson AB New Certification ..."), b) FCC Certification, date of Grant 05/18/2020, for FCC ID TA8AKRC161742-1 (i.e., Ericsson Radio 4402) beginning on Page 8, and c) FCC Certification, date of Grant 08/08/2019, for FCC ID TA8AKRC161742-1 (i.e., Ericsson Radio 4402) beginning on Page 21. Furthermore, Exhibit 3 Page 19 identifies FCC certification for frequencies below 2179.8 MHz and Page 29 identifies FCC certification for frequencies below 2179.8 MHz:

In short, Crown Castle's proposed radio (see Ref. 3) may in fact be acceptable for the continued development of a 4G WCF but appears to remain uncertified by the FCC for the City's clearly defined intent of implementing 5G technology. As such, the Director of Public Works should classify Crown Castle's radio submittal as a "misrepresentation of a material fact" and deny Crown Castle's permit application

Respectfully,

Barbara Gaughen-Muller & C. Dave Gaughen

EXHIBIT 3

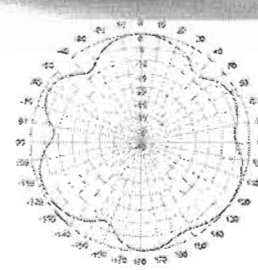
EXHIBIT 3

10" x 24" Outdoor Pseudo Omni Canister Antenna [1695-2400, 3550-3700 and 5150-5950 MHz]

EXTENT™ P6480i

Description:

- Pseudo Omni Canister Antenna for Outdoor DAS and Small Cells.
- 4x ports for AWS/WCS Band 1695-2400 MHz
- 4x ports for CBR5 Band 3550-3700 MHz
- 2x ports for UNII Band 5150-5950 MHz



1695-2400, 3550-3700 and 5150-5950 MHz Pseudo Omni Canister Antenna

Electrical Specifications

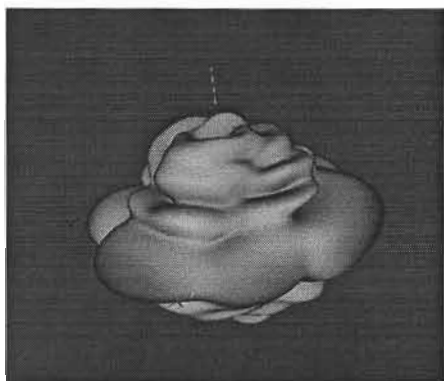
Frequency Band [MHz]	1695-2180	2180-2400	3550-3700	5150-5950
Input Connector Type	4x 4.3-10 DIN(F)		4x 4.3-10 DIN(F)	2x 4.3-10 DIN(F)
Isolation (typ.)	-20 dB		-25 dB	-25 dB
Inter-band Isolation	-30 dB (typ)			
VSWR/Return Loss	1.5:1 / 14.0 dB (Typ.)			
Impedance	50 Ω			
Polarization	Dual slant 45° (±45°)			
Horizontal Beamwidth	Omni (360°)			
Vertical Beamwidth	15°	12°	15°	19°
Max. Gain	9 dBi	9.5 dBi	8.5 dBi	5.5 dBi(Max.)
Avg. Gain	7.5 dBi	8 dBi	8 dBi	3 dBi
Downtilt	0° Fixed			
Max Power / Port	100 Watts		50 Watts	1 Watts
PIM @ 2x43 dBm	<-153 dBc		N/A	N/A

Mechanical Specifications

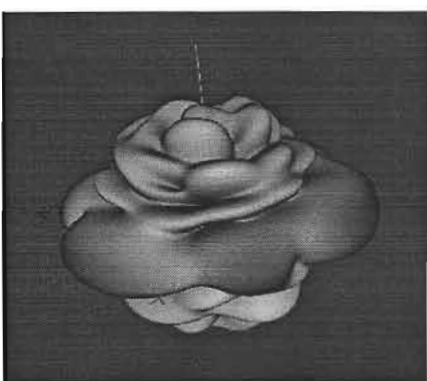
Operating Temperature	-40° to 158°F (-40° to +70°C)
Antenna Weight	23 lbs (~10.5kg)
Antenna Diameter	10" (254 mm)
Antenna Height	24.9" (634 mm)
Radome Material	ASA
RoHS	Compliant
Radome Color	Gray, Brown, Black, 3M™ Conceal Film, Custom Colors Possible
Ingress Protection	Outdoor (IP65)
Wind Survival Rating	150 mph (241 km/h)
Shipping Dimensions - L x W x D	30"x19"x19" (762x483x483 mm)
Shipping Weight (Gross Weight)	30 lbs (12 kg)

Release Date: March 05, 2018; Revision: A : RFD#6480

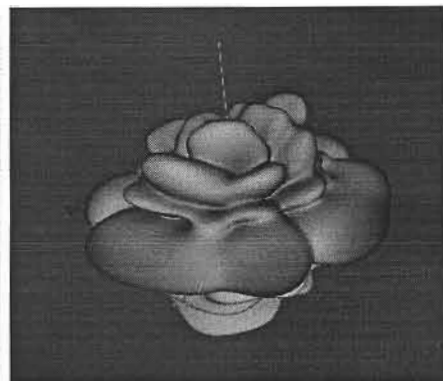
3D Antenna Patterns



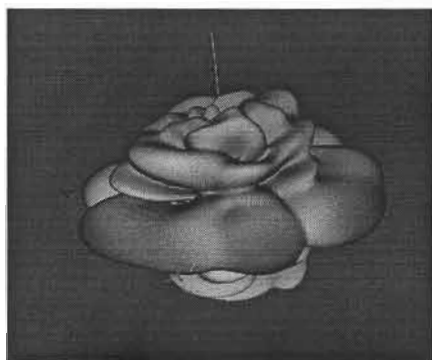
1730MHz



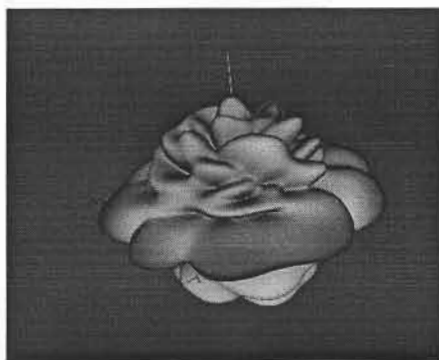
1930MHz



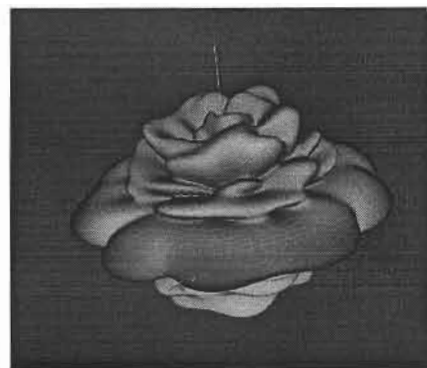
2130MHz



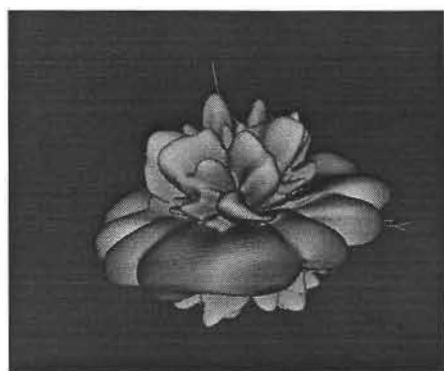
2170MHz



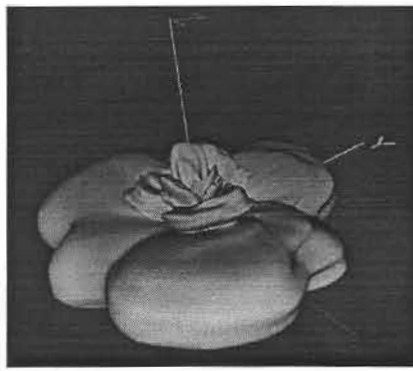
2320MHz



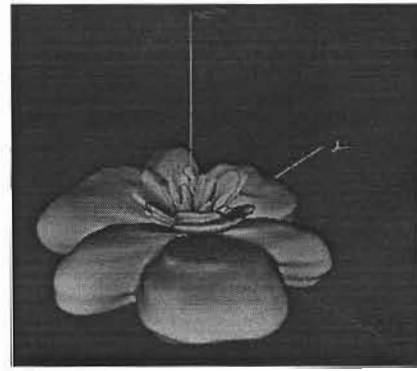
2355MHz



3650MHz



5200MHz

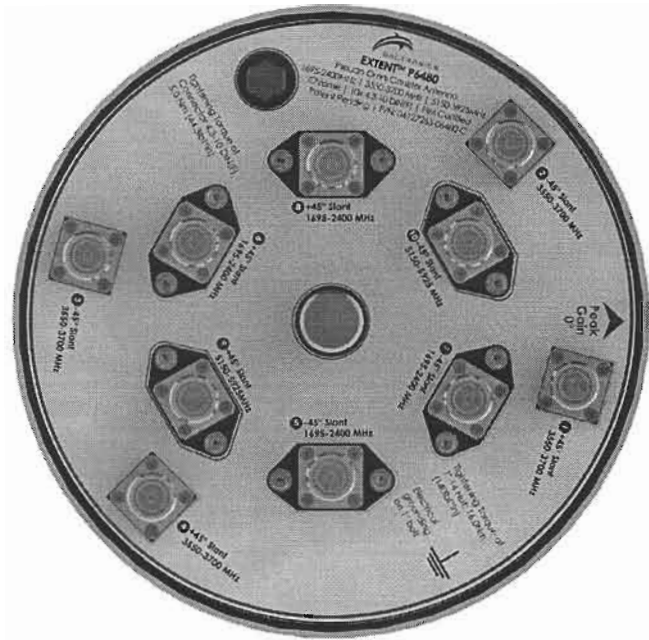
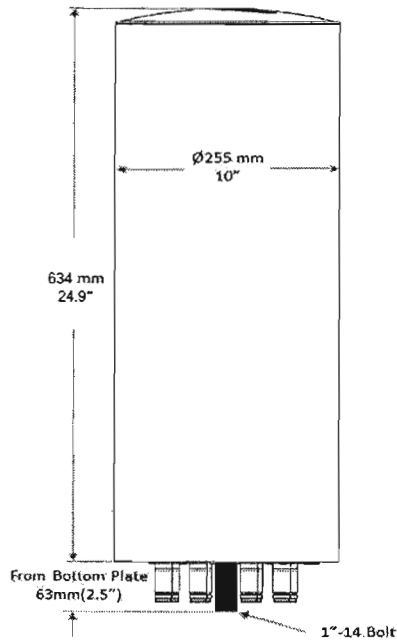


5850MHz




Release Date: March 05, 2018; Revision: A : RFD#6480

Additional Technical Information

Mechanical Dimensions



Part Numbers, Ordering Options and Accessories

Description:	Part Number:
Antenna with 10x 4.3-10 DIN (F) Connectors, Gray	04127265-06480-1
Antenna with 10x 4.3-10 DIN (F) Connectors, Brown	04127265-06480-6
Antenna with 10x 4.3-10 DIN (F) Connectors, Black	04127265-06480-B
Antenna with 10x 4.3-10 DIN (F) Connectors, Chrome (3M™ Conceal Film)	04127265-06480-C
Mounting Bracket(s):	Part Number:
Pole Side Mounting Bracket (wind speed of 150 mph) Offers easy pole side installation.* *Not recommended for placement parallel to a pole/structure due to insufficient spacing.	 62-50-09
Pole Top Mounting Bracket (wind speed of 150 mph) Bracket base attached directly to wood, metal and cement poles.	 62-20-09
1" Mount Rod Adapter (wind speed of 150 mph) Universal interface for pole top installation.	 62-57-09

Matting Male Connector Torque:
4.3-10: 3.7 ft-lb (5 Nm)

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End-of-Life (EOL) Notification

EOL Number: GT6480EOL

**Galtronics 24"x10" Outdoor Pseudo Omni Canister Antenna:
EXTENT™ P6480i**

Notification Date: March 31, 2018

Galtronics announces the end-of-sale and end-of-life dates for the Galtronics P6480i. The last time to buy the product is June 30, 2018.

Last Time Buy (LTB) Date*:	June 30, 2018
Manufacture Discontinuance (MD) Date:	December 30, 2018
End of Life (EOL) Date:	December 30, 2018
Last Time for Order Shipments:	December 30, 2018
Last Time to Repair:	December 30, 2019
Market Regions Affected:	All
<i>*All orders placed after the date of this notice cannot be canceled or returned. Please check with your Galtronics Sales Representative for details and availability of inventory.</i>	

Reason for End of Life of this Product

An upgraded antenna model, GQ2410-06621, is being introduced with improved specifications and FCC compliance to the 5GHz UNII Band.

Product Repairs of EXTENT™ P6480i will be performed in accordance with existing contractual agreements or customer specific service plans as negotiated prior to EOL or within twelve (12) months of the original purchase date.

Manufacture Discontinuance and Last Time Buy Definition – As part of ending the life of hardware elements this notice serves as a formal communication of Galtronics intent to Manufacture Discontinuance (MD) and offer Last Time Buy (LTB) date for the product(s) noted.

Galtronics Corporation LTD
8930 S. Beck Avenue, Suite 103 Tempe, Arizona 85284 USA Phone: 1-480-496-5100



Alternative/Replacement Solutions

Model Number	Suggested Replacement Model Number*	Specification Deltas	
		EXTENT™ P6480i (discontinued)	GQ2410-06621 (new model)
EXTENT™ P6480i <u>Ordering Options:</u> 04127265-06480-1 04127265-06480-6 04127265-06480-B 04127265-06480-C	GQ2410-06621 <u>Ordering Options:</u> GQ2410-06621-111 GQ2410-06621-611 GQ2410-06621-B11 GQ2410-06621-C11 GQ2410-06621-112 GQ2410-06621-612 GQ2410-06621-B12 GQ2410-06621-C12	(1) P6480i is characterized over 1695-2700 MHz, 3550-3700 MHz and 5150-5950 MHz (no FCC compliance)	(1) M6319i is characterized over 695-2360 MHz, 3550-3700 MHz and 5150-5925 MHz with FCC compliance
		(2) Uses 10x 4.3-10 DIN connectors with 4 colors and 4 ordering options.	(2) Uses 10x 4.3-10 DIN connectors with 4 colors and 8 ordering options.
		(3) Max. Gain: 9.5/8.5/5.5 dBi	(3) Max. Gain: 8.9/8.0/5.5 dBi
		(4) Vertical BW: 15°/15°/19°	(4) Vertical BW: 19°/18.7°/23°
		(5) Dimension (HxD): 24.9" (634mm) x 10" (254mm)	(5) Dimension (HxD): 24.9" (634mm) x 10" (255mm)
		(6) Weight: 23 lbs. (10.5 Kg)	(6) Weight: 17.2 lbs. (7.8 Kg)

*Galtronics suggests all users verify equivalency for use. Specifications are available from www.galtronics.com

CUSTOMER ACKNOWLEDGEMENT OF RECEIPT:

Please complete the EOL acknowledgement receipt form below and email it to john.dobiesz@galtronics.com and the Galtronics Contact listed above.

Galtronics will deem this change accepted unless specific conditions of acceptance are provided in writing within 30 days from the date of this notice.

Attention Distributors: Product(s) identified in this notification will become obsolete and as such this EOL notification will act as the official written notification. All obsolete products will be listed in the next published quarterly distributor price book, following an EOL change, and listed on the obsolescence form which accompanies said price book. Within thirty (30) days from the published date of the price book, Distributor shall notify Galtronics in writing of Distributor's then current inventory of the obsolete product.

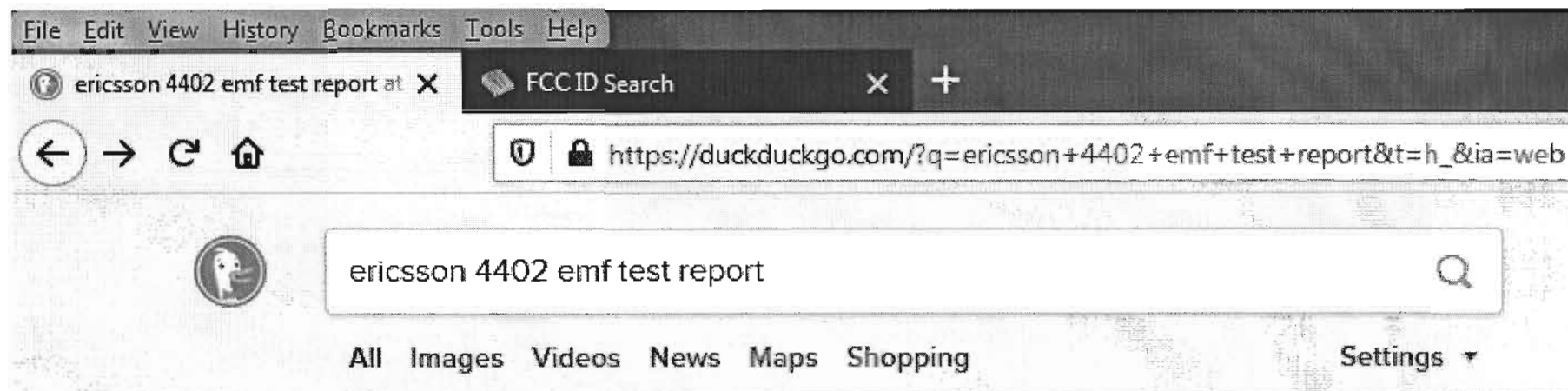
Galtronics Corporation LTD
8930 S. Beck Avenue, Suite 103 Tempe, Arizona 85284 USA Phone: 1-480-496-5100



EOL ACKNOWLEDGEMENT RECEIPT FORM


<p>Company: Contact Name: Title: Date: Email Address: Phone Number: Comments:</p>	
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Galtronics Corporation LTD
8930 S. Beck Avenue, Suite 103 Tempe, Arizona 85284 USA Phone: 1-480-496-5100



All regions ▾ Safe search: moderate ▾ Any time ▾

EMF Test Report: Ericsson RD 4442 B48 - FCC ID

 <https://fccid.io/TA8AKRY901385-1/RF-Exposure-Info/Exhibit-06-EMF-Test-Report-Erics...>

EMF Test Report: Ericsson RD 4442 B48 Ackred. Nr 1761 Provning ISO/IEC 17025 Rapport utfärdad av ackrediterat provningslaboratorium Test report issued by an Accredited Testing Laboratory Document number: GFTB-17:001789 Uen, Rev B Date of report: 2017-11-04 Testing laboratory: Ericsson EMF Research Laboratory Ericsson AB SE-164 80 Stockholm Sweden

Ericsson AB Single New Certification ... - FCC ID Search

 <https://fccid.io/TA8AKRC161742-1/RF-Exposure-Info/RF-Exposure-Report-4389927>

Single New Certification, Limited Modular Approval RF Exposure Report details for FCC ID TA8AKRC161742-1 made by Ericsson AB. Document Includes RF Exposure Info EMF Test Report: Ericsson Radio 4402 B66A (FCC).

FCC ID TA8AKRC161742-1

TA8-AKRC161742-1, TA8 AKRC1617421, TA8AKRC161742-1, TA8AKRC161742-1

Ericsson AB Single New Certification, Limited Modular Approval **AKRC161742-1**

FCC ID (<https://fccid.io/>)» / Ericsson AB (<https://fccid.io/TA8>)»

/ AKRC161742-1 (<https://fccid.io/TA8AKRC1617421>)

An FCC ID is the product ID assigned by the FCC to identify wireless products in the market. The FCC chooses 3 or 5 character "Grantee" codes to identify the business that created the product. For example, the grantee code for **FCC ID: TA8AKRC161742-1** is **TA8** (<https://fccid.io/TA8>). The remaining characters of the FCC ID, **AKRC161742-1**, are often associated with the product model, but they can be random. These letters are chosen by the applicant. In addition to the application, the FCC also publishes *internal images*, *external images*, *user manuals*, and *test results* for wireless devices. They can be under the "exhibits" tab below.

Purchase on Amazon: Single New Certification, Limited Modular Approval (http://target.georiot.com/Proxy.ashx?tsid=17750&GR_URL=http%3A%2F%2Fwww.amazon.com%2Fgp%2Fsearch%3Fie%3DUTF8%26camp%3D1789%26creative%3D9325%26index%3Dele)

Application: Single New Certification, Limited Modular Approval

Equipment Class: TNB - Licensed Non-Broadcast Station Transmitter

Alternate Sources: FCC.gov (<https://gov.fccid.io/TA8AKRC161742-1>) | FCC.report (<https://fcc.report/FCC-ID/TA8AKRC161742-1>)

Registered By: Ericsson AB - TA8 (Sweden) (<https://fccid.io/TA8>)

App #	Purpose	Date	Unique ID
1	Original Equipment	2019-08-08	+mUBThls6T0jfdW5WLGc0g==
2	Class II Permissive Change	2020-05-18	7QCbmYi18Xf0n337uq1PVQ==

Operating Frequencies

Device operates within approved frequencies overlapping with the following cellular bands: LTE 1,2100 DOWN | LTE 10,AWS-1+ DOWN | LTE 65,2100+ DOWN | LTE 66,AWS-3 DOWN | UMTS CH 1 DOWN | UMTS CH 10 DOWN |

Frequency Range	Power Output	Tolerance	Emission Designator	Rule Parts	Grant Notes	App #
2.1102-2.1798 GHz (/frequency-explorer.php?lower=2110.2&upper=2179.8)	2 Watts	0.05ppm	200KG7D (/Emissions-Designator /200KG7D)	27 (https://ecfr.io /Title- 47/pt47.2.27)	(/Grant- Note/)	1.8
2.1102-2.1798 GHz (/frequency-explorer.php?lower=2110.2&upper=2179.8)	2 Watts	0.05ppm	200KG7D (/Emissions-Designator /200KG7D)	27 (https://ecfr.io /Title- 47/pt47.2.27)	(/Grant- Note/)	2.8
2.1107-2.1793 GHz (/frequency-explorer.php?lower=2110.7&upper=2179.3)	5 Watts	0.05ppm	1M40F9W (/Emissions-Designator /1M40F9W)	27 (https://ecfr.io /Title- 47/pt47.2.27)	MO (/Grant- Note/MO)	1.2
2.1107-2.1793 GHz (/frequency-explorer.php?lower=2110.7&upper=2179.3)	5 Watts	0.05ppm	1M40F9W (/Emissions-Designator /1M40F9W)	27 (https://ecfr.io /Title- 47/pt47.2.27)	MO (/Grant- Note/MO)	2.2

Frequency Range	Power Output	Tolerance	Emission Designator	Rule Parts	Grant Notes	App #
2.1115-2.1785 GHz (/frequency-explorer.php?lower=2111.5&upper=2178.5)	5 Watts	0.05ppm	3M00F9W (/Emissions-Designator /3M00F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.3
2.1115-2.1785 GHz (/frequency-explorer.php?lower=2111.5&upper=2178.5)	5 Watts	0.05ppm	3M00F9W (/Emissions-Designator /3M00F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.3
2.1124-2.1526 GHz (/frequency-explorer.php?lower=2112.4&upper=2152.6)	5 Watts	0.05ppm	5M00F9W (/Emissions-Designator /5M00F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	(/Grant-Note/)	1.1
2.1125-2.1775 GHz (/frequency-explorer.php?lower=2112.5&upper=2177.5)	5 Watts	0.05ppm	5M00F9W (/Emissions-Designator /5M00F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.4
2.1125-2.1775 GHz (/frequency-explorer.php?lower=2112.5&upper=2177.5)	5 Watts	0.05ppm	5M00F9W (/Emissions-Designator /5M00F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.4
2.1125-2.1775 GHz (/frequency-explorer.php?lower=2112.5&upper=2177.5)	5 Watts	0.05ppm	4M48F9W (/Emissions-Designator /4M48F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.9
2.115-2.175 GHz (/frequency-explorer.php?lower=2115&upper=2175)	5 Watts	0.05ppm	10M0F9W (/Emissions-Designator /10M0F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.5
2.115-2.175 GHz (/frequency-explorer.php?lower=2115&upper=2175)	5 Watts	0.05ppm	9M31F9W (/Emissions-Designator /9M31F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.1
2.115-2.175 GHz (/frequency-explorer.php?lower=2115&upper=2175)	5 Watts	0.05ppm	10M0F9W (/Emissions-Designator /10M0F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.5

Frequency Range	Power Output	Tolerance	Emission Designator	Rule Parts	Grant Notes	App #
2.1175-2.1725 GHz (/frequency-explorer.php?lower=2117.5&upper=2172.5)	5 Watts	0.05ppm	15M0F9W (/Emissions-Designator /15M0F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.6
2.1175-2.1725 GHz (/frequency-explorer.php?lower=2117.5&upper=2172.5)	5 Watts	0.05ppm	15M0F9W (/Emissions-Designator /15M0F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.6
2.1175-2.1725 GHz (/frequency-explorer.php?lower=2117.5&upper=2172.5)	5 Watts	0.05ppm	14M1F9W (/Emissions-Designator /14M1F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.11
2.12-2.17 GHz (/frequency-explorer.php?lower=2120&upper=2170)	5 Watts	0.05ppm	20M0F9W (/Emissions-Designator /20M0F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.7
2.12-2.17 GHz (/frequency-explorer.php?lower=2120&upper=2170)	5 Watts	0.05ppm	20M0F9W (/Emissions-Designator /20M0F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.7
2.12-2.17 GHz (/frequency-explorer.php?lower=2120&upper=2170)	5 Watts	0.05ppm	18M9F9W (/Emissions-Designator /18M9F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.12

Exhibits

All

1 (2019-08-08)

2 (2020-05-18)

Available Exhibits

App #	Document	Type	Submitted Available
2	Test Report Part 11 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-11-4727598)	Test Report Adobe Acrobat PDF (550 kB)	2020-05-17 2020-05-18
2	Test Report Part 10 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-10-4727597)	Test Report Adobe Acrobat PDF (5615 kB)	2020-05-17 2020-05-18
2	Test Report Part 9 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-9-4727596)	Test Report Adobe Acrobat PDF (5502 kB)	2020-05-17 2020-05-18
2	Test Report Part 8 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-8-4727595)	Test Report Adobe Acrobat PDF (5585 kB)	2020-05-17 2020-05-18
2	Test Report Part 7 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-7-4727594)	Test Report Adobe Acrobat PDF (5565 kB)	2020-05-17 2020-05-18
2	Test Report Part 6 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-6-4727573)	Test Report Adobe Acrobat PDF (5532 kB)	2020-05-17 2020-05-18
2	Test Report Part 5 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-5-4727572)	Test Report Adobe Acrobat PDF (5519 kB)	2020-05-17 2020-05-18
2	Test Report Part 4 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-4-4727571)	Test Report Adobe Acrobat PDF (5583 kB)	2020-05-17 2020-05-18
2	Test Report Part 3 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-3-4727570)	Test Report Adobe Acrobat PDF (5524 kB)	2020-05-17 2020-05-18

App #	Document	Type	Submitted Available
2	Test Report Part 2 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-2-4727569)	Test Report Adobe Acrobat PDF (5554 kB)	2020-05-17 2020-05-18
2	Test Report Part 1 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-1-4727568)	Test Report Adobe Acrobat PDF (739 kB)	2020-05-17 2020-05-18
2	Agents Letter (https://fccid.io/TA8AKRC161742-1/Letter/Agents-Letter-4727567)	Cover Letter(s) Adobe Acrobat PDF (313 kB)	2020-05-17 2020-05-18
2	FCC C2PC Letter (https://fccid.io/TA8AKRC161742-1/Letter/FCC-C2PC-Letter-4727566)	Cover Letter(s) Adobe Acrobat PDF (96 kB)	2020-05-17 2020-05-18
2	Confidentiality Letter (https://fccid.io/TA8AKRC161742-1/Letter/Confidentiality-Letter-4727565)	Cover Letter(s) Adobe Acrobat PDF (115 kB)	2020-05-17 2020-05-18
2	Test Setup Photos (https://fccid.io/TA8AKRC161742-1/Test-Setup-Photos/Test-Setup-Photos-4727564)	Test Setup Photos Adobe Acrobat PDF (385 kB)	2020-05-17 2020-05-18
1	Confidentiality Letter (https://fccid.io/TA8AKRC161742-1/Letter/Confidentiality-Letter-4389931)	Cover Letter(s) Adobe Acrobat PDF (82 kB)	2019-08-07 2019-08-08
1	FCC Cover Letter (https://fccid.io/TA8AKRC161742-1/Letter/FCC-Cover-Letter-4389930)	Cover Letter(s) Adobe Acrobat PDF (72 kB)	2019-08-07 2019-08-08
1	Limited Modular Approval Letter (https://fccid.io/TA8AKRC161742-1/Letter/Limited-Modular-Approval-Letter-4389929)	Cover Letter(s) Adobe Acrobat PDF (80 kB)	2019-08-07 2019-08-08
1	Agents Letter (https://fccid.io/TA8AKRC161742-1/Letter/Agents-Letter-4389928)	Cover Letter(s) Adobe Acrobat PDF (313 kB)	2019-08-07 2019-08-08
1	RF Exposure Report (https://fccid.io/TA8AKRC161742-1/RF-Exposure-Info/RF-Exposure-Report-4389927)	RF Exposure Info Adobe Acrobat PDF (616 kB)	2019-08-07 2019-08-08

App #	Document	Type	Submitted Available
1	Test Setup Photos (https://fccid.io/TA8AKRC161742-1/Test-Setup-Photos/Test-Setup-Photos-4389926)	Test Setup Photos Adobe Acrobat PDF (415 kB)	2019-08-07 2019-08-08
1	External Photos (https://fccid.io/TA8AKRC161742-1/External-Photos/External-Photos-4389925)	External Photos Adobe Acrobat PDF (298 kB)	2019-08-07 2019-08-08
1	ID Label and Location (https://fccid.io/TA8AKRC161742-1/Label/ID-Label-and-Location-4389924)	ID Label/Location Info Adobe Acrobat PDF (119 kB)	2019-08-07 2019-08-08
1	Test Report I Part 8 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-8-4389923)	Test Report Adobe Acrobat PDF (1531 kB)	2019-08-07 2019-08-08
1	Test Report I Part 7 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-7-4389922)	Test Report Adobe Acrobat PDF (4933 kB)	2019-08-07 2019-08-08
1	Test Report I Part 6 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-6-4389921)	Test Report Adobe Acrobat PDF (4972 kB)	2019-08-07 2019-08-08
1	Test Report I Part 5 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-5-4389920)	Test Report Adobe Acrobat PDF (5004 kB)	2019-08-07 2019-08-08
1	Test Report I Part 4 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-4-4389919)	Test Report Adobe Acrobat PDF (4620 kB)	2019-08-07 2019-08-08
1	Test Report I Part 3 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-3-4389918)	Test Report Adobe Acrobat PDF (4763 kB)	2019-08-07 2019-08-08
1	Test Report I Part 2 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-2-4389917)	Test Report Adobe Acrobat PDF (4969 kB)	2019-08-07 2019-08-08
1	Test Report I Part 1 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-1-4389916)	Test Report Adobe Acrobat PDF (4710 kB)	2019-08-07 2019-08-08

Application Forms

1 (2019-08-08)	2 (2020-05-18)
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Application for Equipment Authorization FCC Form 731 TCB Version

Applicant Information

Applicant's complete, legal business name:Ericsson AB (<https://fccid.io/TA8>)
FCC Registration Number (FRN):0013476155 (<https://fccid.io/TA8>)
Alphanumeric FCC ID:TA8AKRC1617421
Unique Application Identifier:7QCbmYi18Xf0n337uq1PVQ==
Line one:PDU Radio
Line two:Torshamnsgatan 23
City:Stockholm
State:N/A
Country:Sweden
Zip Code:164 80

TCB Information

TCB Application Email andy.zhang@tuvsud.com
Address:
TCB Scope:B1: Commercial mobile radio services equipment in the following 47 CFR Parts 20, 22 (cellular), 24,25 (below 3 GHz) & 27

FCC ID

Grantee Code:TA8
Product Code: AKRC161742-1

Person at the applicant's address to receive grant or for contact

Name:Igor Tasevski
Title: Head of PDU Radio
Telephone Number:+46 10 719 00 00Extension:
Fax Number:+46 10 716 00 28
Email: igor.tasevski@ericsson.com

Long-Term Confidentiality

Does this application include a request for confidentiality for any portion(s) of the data contained in this application pursuant to 47 CFR § 0.459 of the Commission Rules?: Yes

Short-Term Confidentiality

Does short-term confidentiality apply to this application?: No
If so, specify the short-term confidentiality release date (MM/DD/YYYY format):
Note: If no date is supplied, the release date will be set to 45 calendar days past the date of grant.

Software Defined/Cognitive Radio

Is this application for software defined/cognitive radio authorization? No

Equipment Class

Equipment Class: TNB - Licensed Non-Broadcast Station Transmitter
Description of product as it is marketed: (NOTE: This text will appear below the equipment class on the grant): Remote Radio Unit which supports WCDMA, LTE, NB-IoT and NR

Related OET KnowledgeDataBase Inquiry

Is there a KDB inquiry associated with this application? No

Modular Equipment

Modular Type: Limited Single Modular Approval

Application Purpose

Application is for: Class II permissive change or modification of presently authorized equipment

Composite/Related Equipment

Is the equipment in this application a composite device subject to an additional equipment authorization? No
Is the equipment in this application part of a system that operates with, or is marketed with, another device that requires an equipment authorization? No

Test Firm Information

Name of test firm and contact person on file with the FCC:

Firm Name: Intertek Testing Services Limited, Shanghai (/Test-Firm/Intertek-Testing-Services-Limited-Shanghai)

First Name: Leah

Last Name: Xu

Telephone Number: +86 21 61278200 Extension:

E-mail: leah.xu@intertek.com

Grant Comments

Enter any text that you would like to appear at the bottom of the Grant of Equipment Authorization:

Class II Permissive change as described in this filing. Limited Modular Approval. The power output listed is rated conducted per output port. This transmitter must only be operated in the grantee's RBS systems. RF exposure is addressed at the time of licensing, as required by the responsible FCC Bureau(s), including antenna co-locating requirements of 1.1307 (b)(3).

Set the grant of this application to be deferred to a specified date:

No

Equipment Authorization Waiver

Is there an equipment authorization waiver associated with this application? No

If there is an equipment authorization waiver associated with this application, has the associated waiver been approved and all information uploaded?: No

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

SECTION 5301 (ANTI-DRUG ABUSE) CERTIFICATION:

The applicant must certify that neither the applicant nor any party to the application is subject to a denial of Federal benefits, that include FCC benefits, pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862 because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the definition of a "party" for these purposes.

Does the applicant or authorized agent so certify? Yes

Applicant/Agent Certification:

I certify that I am authorized to sign this application. All of the statements herein and the exhibits attached hereto, are true and correct to the best of my knowledge and belief. In accepting a Grant of Equipment Authorization as a result of the representations made in this application, the applicant is responsible for (1) labeling the equipment with the exact FCC ID specified in this application, (2) compliance statement labeling pursuant to the applicable rules, and (3) compliance of the equipment with the applicable technical rules. If the applicant is not the actual manufacturer of the equipment, appropriate arrangements have been made with the manufacturer to ensure that production units of this equipment will continue to comply with the FCC's technical requirements.

Authorizing an agent to sign this application, is done solely at the applicant's discretion; however, the applicant remains responsible for all statements in this application.

If an agent has signed this application on behalf of the applicant, a written letter of authorization which includes information to enable the agent to respond to the above section 5301 (Anti-Drug Abuse) Certification statement has been provided by the applicant. It is understood that the letter of authorization must be submitted to the FCC upon request, and that the FCC reserves the right to contact the applicant directly at any time.

Signature of Authorized Person Filing: Igor Tasevski

Title of authorized signature:

Applications are submitted for FCC ID and Grant requests. Click an above application to view details

Grants

1 TCB (2019-08-08)

1 EAS (2019-08-08)

2 TCB (2020-05-18)

2 EAS (2020-05-18)

COPY

FEDERAL COMMUNICATIONS
COMMISSION
WASHINGTON, D.C. 20554

COPY

GRANT OF EQUIPMENT
AUTHORIZATION
Certification

Ericsson AB
PDU Radio Torshamnsgatan 23
Stockholm, 164 80
Sweden

Date of Grant: 05/18/2020

Application Dated: 05/17/2020

Attention: Igor Tasevski , Head of PDU Radio

NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE,
and is VALID ONLY for the equipment identified hereon for use under the
Commission's Rules and Regulations listed below.

FCC IDENTIFIER: TA8AKRC161742-1

Name of Grantee: Ericsson AB

Equipment Class: Licensed Non-Broadcast Station Transmitter

Notes: Remote Radio Unit which supports WCDMA,
LTE, NB-IoT and NR

Modular Type: Limited Single Modular

Grant Notes	FCC Rule Parts	Frequency Range (MHZ)	Output Watts	Frequency Tolerance	Emission Designator
MO	27	2112.4 - 2152.6	5.0	0.05 PM	5M00F9W
MO	27	2110.7 - 2179.3	5.0	0.05 PM	1M40F9W
MO	27	2111.5 - 2178.5	5.0	0.05 PM	3M00F9W
MO	27	2112.5 - 2177.5	5.0	0.05 PM	5M00F9W
MO	27	2115.0 - 2175.0	5.0	0.05 PM	10M0F9W
MO	27	2117.5 - 2172.5	5.0	0.05 PM	15M0F9W
MO	27	2120.0 - 2170.0	5.0	0.05 PM	20M0F9W
	27	2110.2 - 2179.8	2.0	0.05 PM	200KG7D
MO	27	2112.5 - 2177.5	5.0	0.05 PM	4M48F9W
MO	27	2115.0 - 2175.0	5.0	0.05 PM	9M31F9W
MO	27	2117.5 - 2172.5	5.0	0.05 PM	14M1F9W
MO	27	2120.0 - 2170.0	5.0	0.05 PM	18M9F9W

Class II Permissive change as described in this filing.


Limited Modular Approval. The power output listed is rated conducted per output
port. This transmitter must only be operated in the grantee's RBS systems. RF
exposure is addressed at the time of licensing, as required by the responsible FCC
Bureau(s), including antenna co-locating requirements of 1.1307 (b)(3).

MO: This Multiple Input Multiple Output (MIMO) device was evaluated for multiple transmitted signals as indicated in the filing.

Mail To:

EA280112

Grants authorize equipment for operation at approved frequencies and sale within the USA.
Click an above grant to view details

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2021

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[report this ad](#)

FCC ID TA8AKRC161742-1

TA8-AKRC161742-1, TA8 AKRC1617421, TA8AKRC161742-1, TA8AKRC161742-I

Ericsson AB Single New Certification, Limited Modular Approval **AKRC161742-1**

FCC ID (<https://fccid.io/>)» / Ericsson AB (<https://fccid.io/TA8>)» / AKRC161742-1 (<https://fccid.io/TA8AKRC1617421>)

An FCC ID is the product ID assigned by the FCC to identify wireless products in the market. The FCC chooses 3 or 5 character "Grantee" codes to identify the business that created the product. For example, the grantee code for **FCC ID: TA8AKRC161742-1** is **TA8** (<https://fccid.io/TA8>). The remaining characters of the FCC ID, **AKRC161742-1**, are often associated with the product model, but they can be random. These letters are chosen by the applicant. In addition to the application, the FCC also publishes *internal images*, *external images*, *user manuals*, and *test results* for wireless devices. They can be under the "exhibits" tab below.

Purchase on Amazon: Single New Certification, Limited Modular Approval (http://target.georiot.com/Proxy.ashx?tsid=17750&GR_URL=http%3A%2F%2Fwww.amazon.com%2Fgp%2Fsearch%3Fie%3DUTF8%26camp%3D1789%26creative%3D9325%26index%3Delectronics%26keywords%3DSingle%2B)

Application: Single New Certification, Limited Modular Approval

Equipment Class: TNB - Licensed Non-Broadcast Station Transmitter

Alternate Sources: FCC.gov (<https://gov.fccid.io/TA8AKRC161742-1>) | FCC.report (<https://fcc.report/FCC-ID/TA8AKRC161742-1>)

Registered By: Ericsson AB - TA8 (Sweden) (<https://fccid.io/TA8>)

App #	Purpose	Date	Unique ID
1	Original Equipment	2019-08-08	+mUBThls6T0jfdW5WLGc0g==
2	Class II Permissive Change	2020-05-18	7QCbmYi18Xf0n337uq1PVQ==

Operating Frequencies

Device operates within approved frequencies overlapping with the following cellular bands: LTE 1,2100 DOWN | LTE 10,AWS-1+ DOWN | LTE 65,2100+ DOWN | LTE 66,AWS-3 DOWN | UMTS CH 1 DOWN | UMTS CH 10 DOWN |

Frequency Range	Power Output	Tolerance	Emission Designator	Rule Parts	Grant Notes	App #
2.1102-2.1798 GHz (/frequency-explorer.php?lower=2110.2&upper=2179.8)	2 Watts	0.05ppm	200KG7D (/Emissions-Designator/200KG7D)	27 (https://ecfr.io/Title-47/pt47.2.27)	(/Grant-Note/)	1.8
2.1102-2.1798 GHz (/frequency-explorer.php?lower=2110.2&upper=2179.8)	2 Watts	0.05ppm	200KG7D (/Emissions-Designator/200KG7D)	27 (https://ecfr.io/Title-47/pt47.2.27)	(/Grant-Note/)	2.8
2.1107-2.1793 GHz (/frequency-explorer.php?lower=2110.7&upper=2179.3)	5 Watts	0.05ppm	1M40F9W (/Emissions-Designator/1M40F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.2
2.1107-2.1793 GHz (/frequency-explorer.php?lower=2110.7&upper=2179.3)	5 Watts	0.05ppm	1M40F9W (/Emissions-Designator/1M40F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.2
2.1115-2.1785 GHz (/frequency-explorer.php?lower=2111.5&upper=2178.5)	5 Watts	0.05ppm	3M00F9W (/Emissions-Designator/3M00F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.3
2.1115-2.1785 GHz (/frequency-explorer.php?lower=2111.5&upper=2178.5)	5 Watts	0.05ppm	3M00F9W (/Emissions-Designator/3M00F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.3
2.1124-2.1526 GHz (/frequency-explorer.php?lower=2112.4&upper=2152.6)	5 Watts	0.05ppm	5M00F9W (/Emissions-Designator/5M00F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	(/Grant-Note/)	1.1
2.1125-2.1775 GHz (/frequency-explorer.php?lower=2112.5&upper=2177.5)	5 Watts	0.05ppm	5M00F9W (/Emissions-Designator/5M00F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.4
2.1125-2.1775 GHz (/frequency-explorer.php?lower=2112.5&upper=2177.5)	5 Watts	0.05ppm	5M00F9W (/Emissions-Designator/5M00F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.4
2.1125-2.1775 GHz (/frequency-explorer.php?lower=2112.5&upper=2177.5)	5 Watts	0.05ppm	4M48F9W (/Emissions-Designator/4M48F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.9
2.115-2.175 GHz (/frequency-explorer.php?lower=2115&upper=2175)	5 Watts	0.05ppm	10M0F9W (/Emissions-Designator/10M0F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.5
2.115-2.175 GHz (/frequency-explorer.php?lower=2115&upper=2175)	5 Watts	0.05ppm	9M31F9W (/Emissions-Designator/9M31F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.1
2.115-2.175 GHz (/frequency-explorer.php?lower=2115&upper=2175)	5 Watts	0.05ppm	10M0F9W (/Emissions-Designator/10M0F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.5
2.1175-2.1725 GHz (/frequency-explorer.php?lower=2117.5&upper=2172.5)	5 Watts	0.05ppm	15M0F9W (/Emissions-Designator/15M0F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.6
2.1175-2.1725 GHz (/frequency-explorer.php?lower=2117.5&upper=2172.5)	5 Watts	0.05ppm	15M0F9W (/Emissions-Designator/15M0F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.6
2.1175-2.1725 GHz (/frequency-explorer.php?lower=2117.5&upper=2172.5)	5 Watts	0.05ppm	14M1F9W (/Emissions-Designator/14M1F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.11
2.12-2.17 GHz (/frequency-explorer.php?lower=2120&upper=2170)	5 Watts	0.05ppm	20M0F9W (/Emissions-Designator/20M0F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.7
2.12-2.17 GHz (/frequency-explorer.php?lower=2120&upper=2170)	5 Watts	0.05ppm	20M0F9W (/Emissions-Designator/20M0F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.7
2.12-2.17 GHz (/frequency-explorer.php?lower=2120&upper=2170)	5 Watts	0.05ppm	18M9F9W (/Emissions-Designator/18M9F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.12

Exhibits

All	1 (2019-08-08)	2 (2020-05-18)
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Available Exhibits

App #	Document	Type	Submitted Available
2	Test Report Part 11 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-11-4727598)	Test Report Adobe Acrobat PDF (550 kB)	2020-05-17 2020-05-18
2	Test Report Part 10 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-10-4727597)	Test Report Adobe Acrobat PDF (5615 kB)	2020-05-17 2020-05-18
2	Test Report Part 9 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-9-4727596)	Test Report Adobe Acrobat PDF (5502 kB)	2020-05-17 2020-05-18
2	Test Report Part 8 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-8-4727595)	Test Report Adobe Acrobat PDF (5585 kB)	2020-05-17 2020-05-18
2	Test Report Part 7 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-7-4727594)	Test Report Adobe Acrobat PDF (5565 kB)	2020-05-17 2020-05-18
2	Test Report Part 6 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-6-4727573)	Test Report Adobe Acrobat PDF (5532 kB)	2020-05-17 2020-05-18
2	Test Report Part 5 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-5-4727572)	Test Report Adobe Acrobat PDF (5519 kB)	2020-05-17 2020-05-18
2	Test Report Part 4 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-4-4727571)	Test Report Adobe Acrobat PDF (5583 kB)	2020-05-17 2020-05-18
2	Test Report Part 3 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-3-4727570)	Test Report Adobe Acrobat PDF (5524 kB)	2020-05-17 2020-05-18
2	Test Report Part 2 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-2-4727569)	Test Report Adobe Acrobat PDF (5554 kB)	2020-05-17 2020-05-18

App #	Document	Type	Submitted Available
2	Test Report Part 1 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-1-4727568)	Test Report Adobe Acrobat PDF (739 kB)	2020-05-17 2020-05-18
2	Agents Letter (https://fccid.io/TA8AKRC161742-1/Letter/Agents-Letter-4727567)	Cover Letter(s) Adobe Acrobat PDF (313 kB)	2020-05-17 2020-05-18
2	FCC C2PC Letter (https://fccid.io/TA8AKRC161742-1/Letter/FCC-C2PC-Letter-4727566)	Cover Letter(s) Adobe Acrobat PDF (96 kB)	2020-05-17 2020-05-18
2	Confidentiality Letter (https://fccid.io/TA8AKRC161742-1/Letter/Confidentiality-Letter-4727565)	Cover Letter(s) Adobe Acrobat PDF (115 kB)	2020-05-17 2020-05-18
2	Test Setup Photos (https://fccid.io/TA8AKRC161742-1/Test-Setup-Photos/Test-Setup-Photos-4727564)	Test Setup Photos Adobe Acrobat PDF (385 kB)	2020-05-17 2020-05-18
1	Confidentiality Letter (https://fccid.io/TA8AKRC161742-1/Letter/Confidentiality-Letter-4389931)	Cover Letter(s) Adobe Acrobat PDF (82 kB)	2019-08-07 2019-08-08
1	FCC Cover Letter (https://fccid.io/TA8AKRC161742-1/Letter/FCC-Cover-Letter-4389930)	Cover Letter(s) Adobe Acrobat PDF (72 kB)	2019-08-07 2019-08-08
1	Limited Modular Approval Letter (https://fccid.io/TA8AKRC161742-1/Letter/Limited-Modular-Approval-Letter-4389929)	Cover Letter(s) Adobe Acrobat PDF (80 kB)	2019-08-07 2019-08-08
1	Agents Letter (https://fccid.io/TA8AKRC161742-1/Letter/Agents-Letter-4389928)	Cover Letter(s) Adobe Acrobat PDF (313 kB)	2019-08-07 2019-08-08
1	RF Exposure Report (https://fccid.io/TA8AKRC161742-1/RF-Exposure-Info/RF-Exposure-Report-4389927)	RF Exposure Info Adobe Acrobat PDF (616 kB)	2019-08-07 2019-08-08
1	Test Setup Photos (https://fccid.io/TA8AKRC161742-1/Test-Setup-Photos/Test-Setup-Photos-4389926)	Test Setup Photos Adobe Acrobat PDF (415 kB)	2019-08-07 2019-08-08
1	External Photos (https://fccid.io/TA8AKRC161742-1/External-Photos/External-Photos-4389925)	External Photos Adobe Acrobat PDF (298 kB)	2019-08-07 2019-08-08
1	ID Label and Location (https://fccid.io/TA8AKRC161742-1/Label/ID-Label-and-Location-4389924)	ID Label/Location Info Adobe Acrobat PDF (119 kB)	2019-08-07 2019-08-08
1	Test Report I Part 8 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-8-4389923)	Test Report Adobe Acrobat PDF (1531 kB)	2019-08-07 2019-08-08
1	Test Report I Part 7 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-7-4389922)	Test Report Adobe Acrobat PDF (4933 kB)	2019-08-07 2019-08-08
1	Test Report I Part 6 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-6-4389921)	Test Report Adobe Acrobat PDF (4972 kB)	2019-08-07 2019-08-08
1	Test Report I Part 5 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-5-4389920)	Test Report Adobe Acrobat PDF (5004 kB)	2019-08-07 2019-08-08

App #	Document	Type	Submitted Available
1	Test Report I Part 4 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-4-4389919)	Test Report Adobe Acrobat PDF (4620 kB)	2019-08-07 2019-08-08
1	Test Report I Part 3 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-3-4389918)	Test Report Adobe Acrobat PDF (4763 kB)	2019-08-07 2019-08-08
1	Test Report I Part 2 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-2-4389917)	Test Report Adobe Acrobat PDF (4969 kB)	2019-08-07 2019-08-08
1	Test Report I Part 1 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-1-4389916)	Test Report Adobe Acrobat PDF (4710 kB)	2019-08-07 2019-08-08

Application Forms

1 (2019-08-08) 2 (2020-05-18)

Application for Equipment Authorization FCC Form 731 TCB Version

Applicant Information

Applicant's complete, legal business name: Ericsson AB (<https://fccid.io/TA8>)
 FCC Registration Number (FRN): 0013476155 (<https://fccid.io/TA8>)
 Alphanumeric FCC ID: TA8AKRC1617421
 Unique Application Identifier: +mUBThs6T0jfdW5WLGc0g==
 Line one: PDU Radio
 Line two: Torshamnsgatan 23
 City: Stockholm
 State: N/A
 Country: Sweden
 Zip Code: 164 80

TCB Information

TCB Application Email Address: andy.zhang@tuvsud.com
 TCB Scope: B1: Commercial mobile radio services equipment in the following 47 CFR Parts 20, 22 (cellular), 24, 25 (below 3 GHz) & 27

FCC ID

Grantee Code:TA8

Product Code: AKRC161742-1

Person at the applicant's address to receive grant or for contact

Name:Igor Tasevski

Title: Head of PDU Radio

Telephone Number:+46 10 719 00 00Extension:

Fax Number:+46 10 716 00 28

Email: igor.tasevski@ericsson.com

Long-Term Confidentiality

Does this application include a request for confidentiality for any portion(s) of the data contained in this application pursuant to 47 CFR § 0.459 of the Commission Rules?: Yes

Short-Term Confidentiality

Does short-term confidentiality apply to this application?: No

If so, specify the short-term confidentiality release date (MM/DD/YYYY format):

Note: If no date is supplied, the release date will be set to 45 calendar days past the date of grant.

Software Defined/Cognitive Radio

Is this application for software defined/cognitive radio authorization? No

Equipment Class

Equipment Class: TNB - Licensed Non-Broadcast Station Transmitter

Description of product as it is marketed: (NOTE: This text will appear below the equipment class on the Single New Certification, Limited Modular Approval grant):

Related OET KnowledgeDataBase Inquiry

Is there a KDB inquiry associated with this application? No

Modular Equipment

Modular Type: Limited Single Modular Approval

Application Purpose

Application is for: Original Equipment

Composite/Related Equipment

Is the equipment in this application a composite device subject to an additional equipment authorization? No

Is the equipment in this application part of a system that operates with, or is marketed with, another device that requires an equipment authorization? No

Test Firm Information

Name of test firm and contact person on file with the FCC:

Firm Name: Telecommunications Technology Labs, CAICT (/Test-Firm/Telecommunications-Technology-Labs-CAICT)

First Name: Yaqin

Last Name: Shen

Telephone Number:8610-62304633Extension:2583

Fax Number: 8610-62300586

Grant Comments

Enter any text that you would like to appear at the bottom of the Grant of Equipment Authorization:

Limited Modular Approval. The power output listed is rated conducted per output port. This transmitter must only be operated in the grantees RBS systems. RF exposure is addressed at the time of licensing, as required by the responsible FCC Bureau(s), including antenna co-locating requirements of 1.1307 (b)(3).

Set the grant of this application to be deferred to a specified date:

No

Equipment Authorization Waiver

Is there an equipment authorization waiver associated with this application? No

If there is an equipment authorization waiver associated with this application, has the associated waiver been approved and all information uploaded?: No

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

SECTION 5301 (ANTI-DRUG ABUSE) CERTIFICATION:

The applicant must certify that neither the applicant nor any party to the application is subject to a denial of Federal benefits, that include FCC benefits, pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862 because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the definition of a "party" for these purposes.

Does the applicant or authorized agent so certify? Yes

Applicant/Agent Certification:

I certify that I am authorized to sign this application. All of the statements herein and the exhibits attached hereto, are true and correct to the best of my knowledge and belief. In accepting a Grant of Equipment Authorization as a result of the representations made in this application, the applicant is responsible for (1) labeling the equipment with the exact FCC ID specified in this application, (2) compliance statement labeling pursuant to the applicable rules, and (3) compliance of the equipment with the applicable technical rules. If the applicant is not the actual manufacturer of the equipment, appropriate arrangements have been made with the manufacturer to ensure that production units of this equipment will continue to comply with the FCC's technical requirements.

Authorizing an agent to sign this application, is done solely at the applicant's discretion; however, the applicant remains responsible for all statements in this application.

If an agent has signed this application on behalf of the applicant, a written letter of authorization which includes information to enable the agent to respond to the above section 5301 (Anti-Drug Abuse) Certification statement has been provided by the applicant. It is understood that the letter of authorization must be submitted to the FCC upon request, and that the FCC reserves the right to contact the applicant directly at any time.

Signature of Authorized Person Filing: Preeti Nagarajan

Title of authorized signature:

Applications are submitted for FCC ID and Grant requests. Click an above application to view details

Grants

1 TCB (2019-08-08) 1 EAS (2019-08-08) 2 TCB (2020-05-18) 2 EAS (2020-05-18)

TCB	GRANT OF EQUIPMENT AUTHORIZATION Certification Issued Under the Authority of the Federal Communications Commission By: TUV SUD BABT Octagon House, Concorde Way, Segensworth North, Fareham, PO15 5RL United Kingdom	TCB
		Date of Grant: 08/08/2019
		Application Dated: 08/07/2019
Ericsson AB PDU Radio Torshamnsgatan 23 Stockholm, 164 80 Sweden Attention: Igor Tasevski , Head of PDU Radio		
NOT TRANSFERABLE EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.		
FCC IDENTIFIER: TA8AKRC161742-1 Name of Grantee: Ericsson AB Equipment Class: Licensed Non-Broadcast Station Transmitter Notes: Single New Certification, Limited Modular Approval Modular Type: Limited Single Modular		
Grant Notes	FCC Rule Parts	Frequency Range (MHZ)
	27	2112.4 - 2152.6
MO	27	2110.7 - 2179.3
MO	27	2111.5 - 2178.5
MO	27	2112.5 - 2177.5
MO	27	2115.0 - 2175.0
MO	27	2117.5 - 2172.5
MO	27	2120.0 - 2170.0
	27	2110.2 - 2179.8
		Output Watts
		5.0
		5.0
		5.0
		5.0
		5.0
		5.0
		5.0
		2.0
		Frequency Tolerance
		0.05 PM
		0.05 PM
		0.05 PM
		0.05 PM
		0.05 PM
		0.05 PM
		0.05 PM
		Emission Designator
		5M00F9W
		1M40F9W
		3M00F9W
		5M00F9W
		10M0F9W
		15M0F9W
		20M0F9W
		200KG7D

Limited Modular Approval. The power output listed is rated conducted per output port. This transmitter must only be operated in the grantees RBS systems. RF exposure is addressed at the time of licensing, as required by the responsible FCC Bureau(s), including antenna co-locating requirements of 1.1307 (b)(3).

MO: This Multiple Input Multiple Output (MIMO) device was evaluated for multiple transmitted signals as indicated in the filing.

Grants authorize equipment for operation at approved frequencies and sale within the USA. Click an above grant to view details

ENCLOSURE 3

ENCLOSURE 3



VIA ELECTRONIC AND REGULAR MAIL

CITY COUNCIL

July 28, 2021

Paula Perotte
Mayor

James Kyriaco
Mayor Pro Tempore

Roger S. Aceves
Councilmember

Stuart Kasdin
Councilmember

Kyle Richards
Councilmember

Crown Castle NG West, LLC
Attn: Tricia Knight
123 Seacliff Drive
Pismo Beach, CA 93449

**RE: Notice of Application Approval
Crown Castle Small Cell Wireless Facility
Encroachment Permit EP-19-095, 293 Forest Drive**

Dear Ms. Knight:

CITY MANAGER
Michelle Greene

City staff has reviewed the materials submitted for the above referenced project and determined the application to be approved pending the execution of a supplement agreement and payment of license and permit fees.

Our review is based on the following project description:

Installation of a new small cell site facility on an existing streetlight in the public right-of-way with an Omni directional antenna, (2) remote radio units with shroud, (2) quad-duplexers and vault.

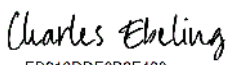
Supporting Reasons:

1. The proposed facility complies with all applicable provisions of the Goleta Municipal Code (GMC) Chapter 12.20.
2. The proposed facility will not incommode the public use of the public right-of-way.
3. The proposed construction plan and schedule will not unduly interfere with the public's use of the public right-of-way.
4. The proposed facility complies with any standards adopted by the Director under GMC Section 12.20.040(A).
5. The proposed facility complies with all Federal and State standards and laws.

If you have any questions or would like to schedule a meeting to discuss this letter, please contact Assistant Engineer, Melissa Angeles at (805) 690-5122

or at mangeles@cityofgoleta.org.

Sincerely,

DocuSigned by:

EB910DDE6B3F483...
Charles W. Ebeling, P.E., T.E.
Director of Public Works/City Engineer

cc: Melissa Angeles, Assistant Engineer
Other Interested Parties (via email)

ENCLOSURE 4

ENCLOSURE 4

see <https://www.att.com/maps/wireless-coverage.html> accessed on 7/30/21

The screenshot displays the AT&T Maps - Wireless Coverage website in a web browser. The browser's address bar shows the URL <https://www.att.com/maps/wireless-coverage.html>. The website's navigation bar includes links for Deals, Wireless, Internet, TV, Prepaid, and Business, along with a search bar and links for Support and Account.

The main content area features a map of the Goleta area, California. A location pin is placed at 293 Forest Dr CA 93117, with a pop-up box indicating "5G Coverage & 4G LTE Coverage". The map is color-coded to show different levels of coverage: 5G+ (dark blue), 5G (medium blue), 4G LTE (light blue), and Other AT&T coverage (green). A legend on the left side of the map provides details about these coverage levels and includes a link to "Learn more about the legend".

The left sidebar contains a "Wireless coverage" section with tabs for Wireless, AT&T PREPAID, International, and AT&T stores. Below these tabs is a "Location" search bar with the text "293 Forest Dr CA 93117" and a "Use my current location" button. A "Shop 5G Devices" button is also visible.

The bottom of the screenshot shows the Windows taskbar with icons for the Start menu, Firefox, File Explorer, and a web browser. The system clock in the bottom right corner indicates the time is 6:37 PM on 7/30/2021.

ATTACHMENT 4

Radio Frequency Electromagnetic Exposure Report, Dtech Communications,
prepared on 2/4/2021



YOUR RF SAFETY PARTNER

RADIO FREQUENCY ELECTROMAGNETIC FIELDS EXPOSURE REPORT

Prepared for Crown Castle

Site ID: **ATTSBW01m2**
Site Type: **Street Light**

Located at:

**F/O 293 Forest Dr
Goleta, CA 93117
Latitude: 34.44102 / Longitude: -119.8886**

Report Date: **2/4/2021**
Report By: **Christopher Stollar, P.E.**

**Based on FCC Rules and Regulations, Crown Castle will be compliant provided
recommendation(s) are implemented.**

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1.0 EXECUTIVE SUMMARY

Dtech Communications, LLC (“Dtech”) has been retained by Crown Castle to determine whether its wireless communications facility complies with the Federal Communications Commission (“FCC”) Radio Frequency (“RF”) Safety Guidelines. This report contains a computer-simulated analysis of the Electromagnetic Fields (“EMF”) exposure resulting from the facility. The analysis also includes assessment of existing wireless carriers on site, where information is provided. The table below summarizes the results at a glance:

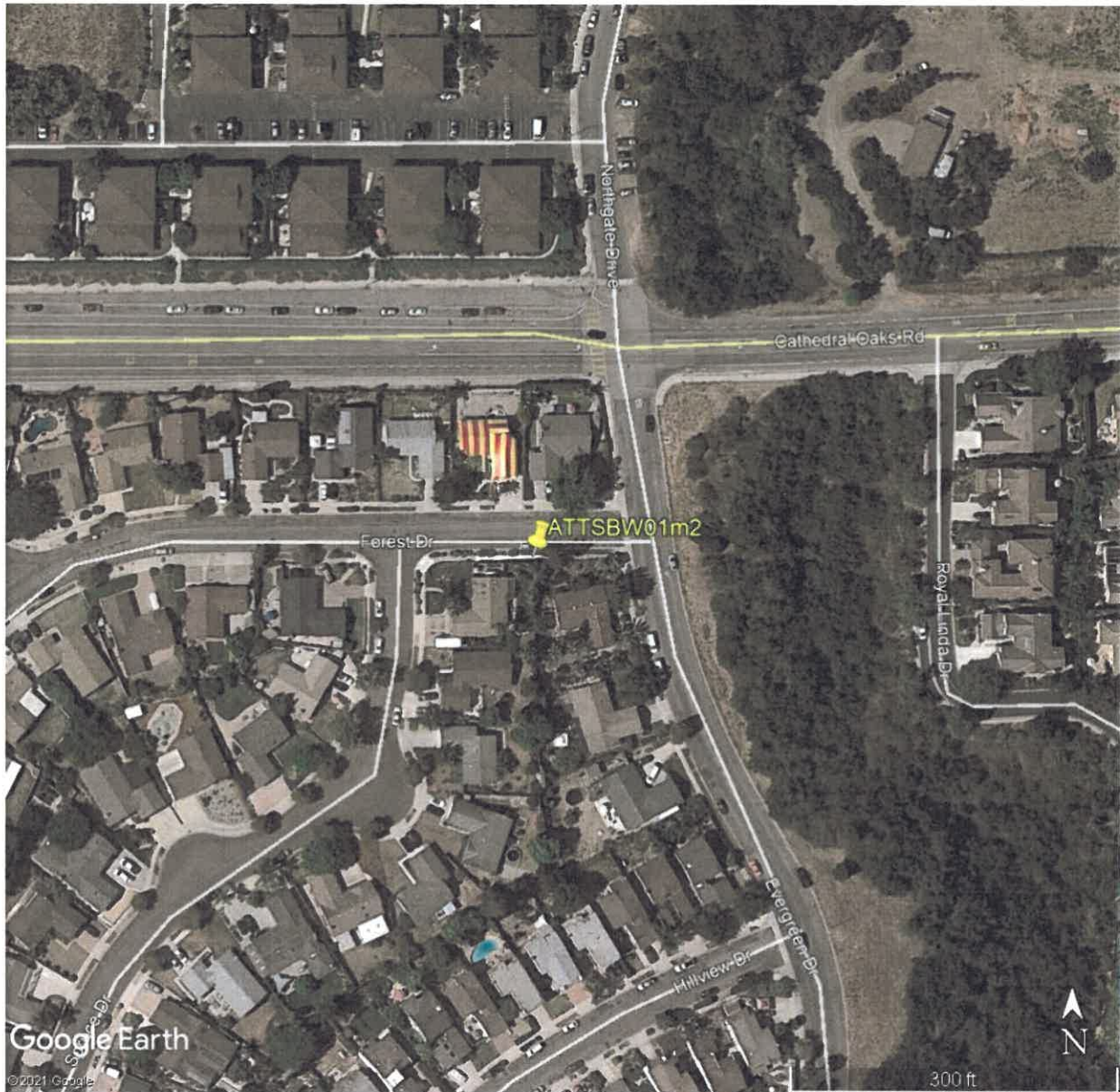
Table 1: EMF Summary

Crown Castle	Summary
Access Type	Man-Lift/Ladder
Access to antennas locked	NA
RF Sign(s) @ access point(s)	Notice (Recommended @ Base)
RF Sign(s) @ antennas	Caution (Recommended)
Barrier(s) @ sectors	NA
Max EMF level for Crown Castle on Ground	1.5% General Population (0.3% Occupational)
General Population Keep Back Distance (At Antenna Elevation)	2 Feet

2.0 SITE DESCRIPTION

The wireless telecommunication facility is located on the ground. The antenna(s) are omni-directional, designed to achieve 360 degrees of coverage. Crown Castle's antenna(s) are mounted on a street light pole and connected to the equipment via cables.

2.1 Site Map



2.2 Antenna Inventory

Technical specifications in the table below are provided by our clients and/or gathered from physical field surveys where applicable and/or possible. Conservative estimates are used where information is not provided or available.

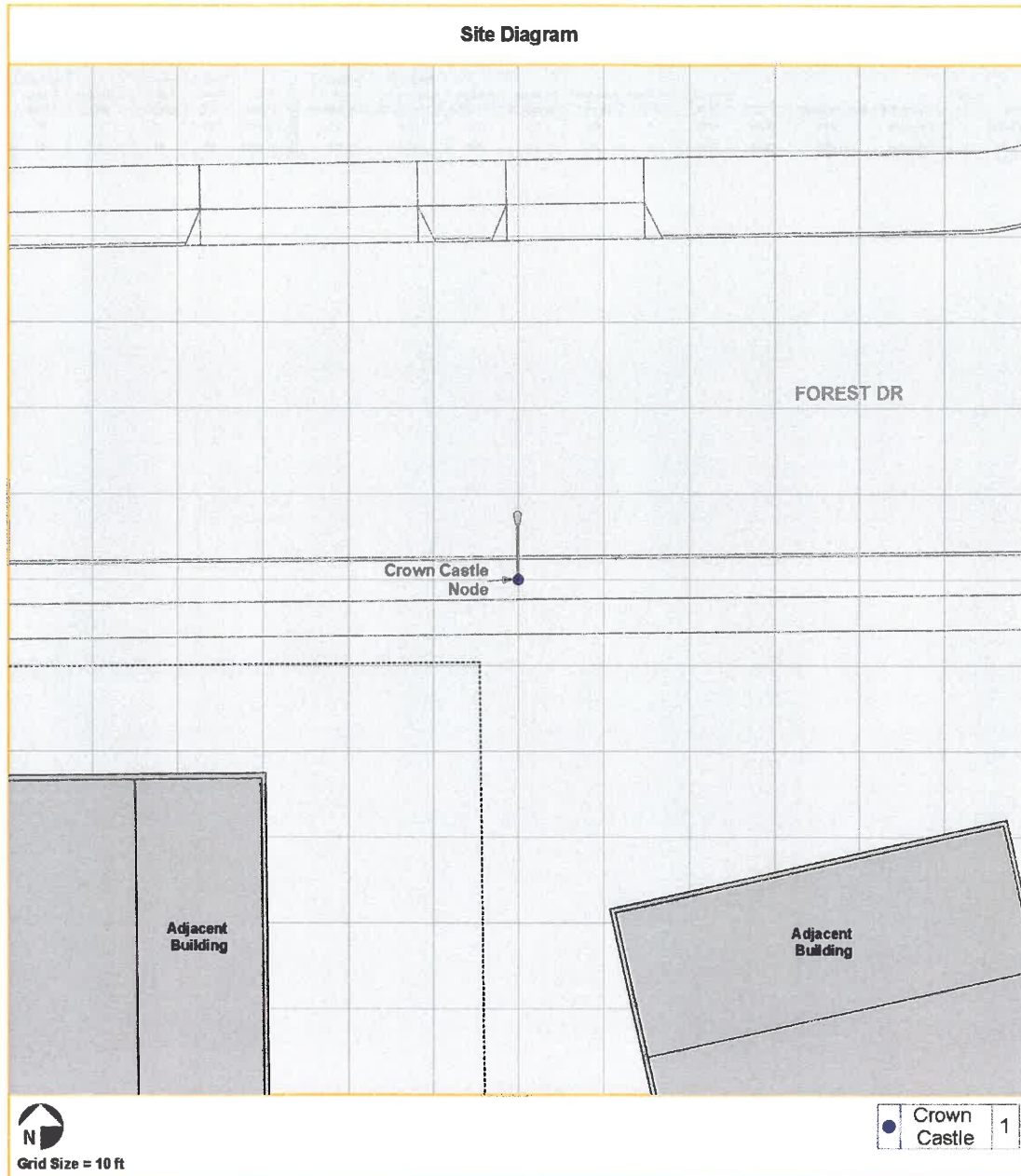
Table 2: Site Technical Specifications

Antenna ID	Operator	Carrier #	Antenna Mfg	Antenna Model	Type	Frequency (MHz)	Orientation (°T)	Horizontal BWidth (°)	Antenna Aperture (ft)	Antenna Gain (dBd)	Bottom Tip Height Above Ground (Z) (ft)	Bottom Tip Height Ant Level (Z) (ft)	Radio Model	Total Tx Power (W)	Total Tx Power (dBm)	Total Loss (dB)	Net Input Power (dBm)	Net Input Power (W)	Total ERP (W)
A1	Crown Castle	1	Galtronics	P6480i	Omni	1900	0	360	2.1	6.9	27.8	0.0	(1) 4402	20	43	0	43	20.0	97.7
A1	Crown Castle	1	Galtronics	P6480i	Omni	2100	0	360	2.1	7.4	27.8	0.0	(1) 4402	20	43	0	43	20.0	109.6

3.0 ANALYSIS

3.1 Site Diagram

Figure 1: Site Diagram - Plan (bird's eye) view map



3.2 Emission Predictions

Figure 2: Plan (bird's eye) view map of results compared to the FCC's General Population MPE (Maximum Permissible Exposure) Limits for a typical 6-foot tall person. Gray represents areas where exposure levels are calculated to be at or below 5%; Green- between 5% & 100% (below MPE limits); blue, yellow & red – greater than 100% (exceeds MPE limits). Individuals can safely occupy areas in gray and green for an indefinite amount of time; whereas areas in blue, yellow & red must be restricted to RF trained personnel who have been made fully aware of the potential for exposure, have control and know how to reduce their exposure with the use of personal protection equipment or have the ability to power down the transmitters.

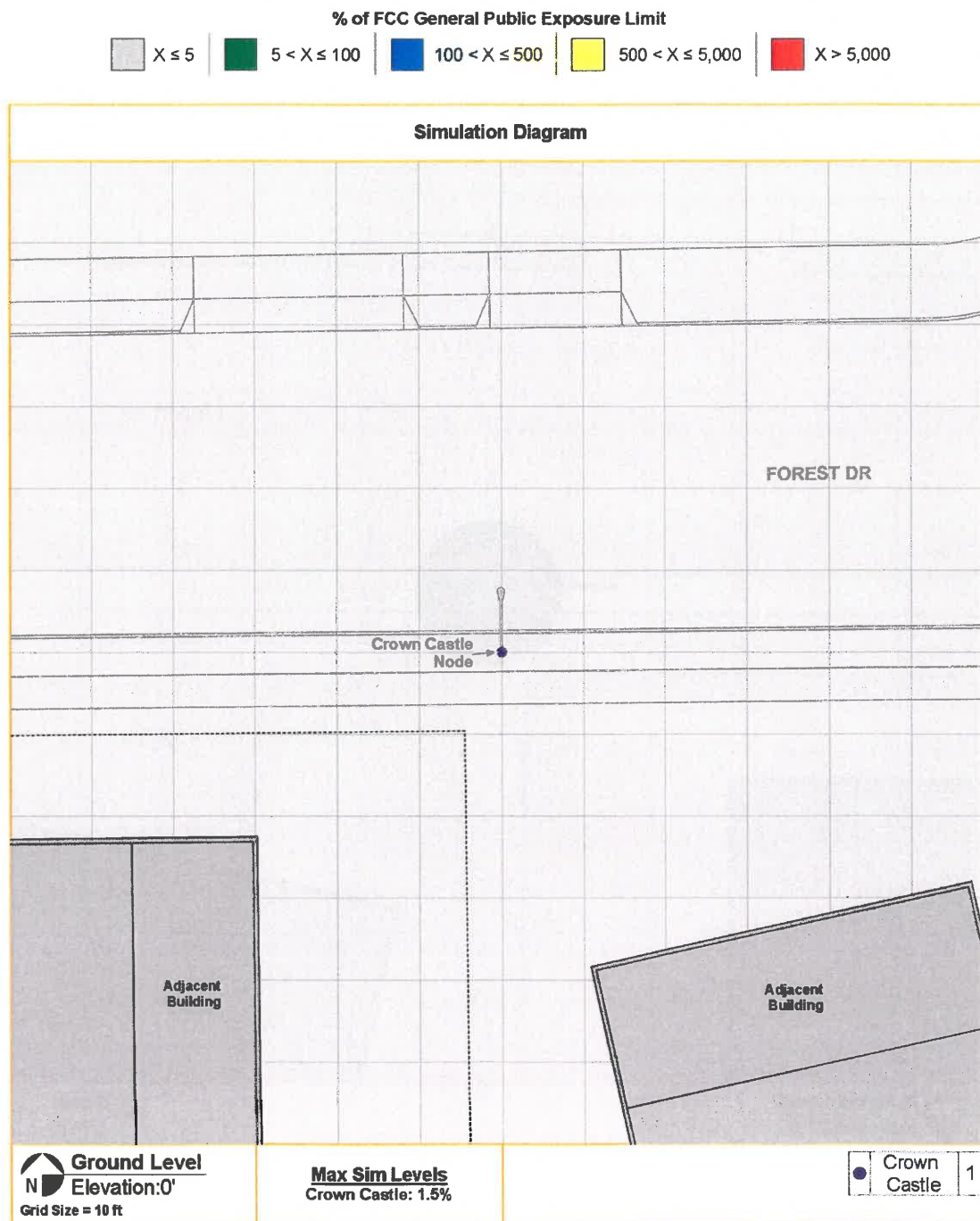
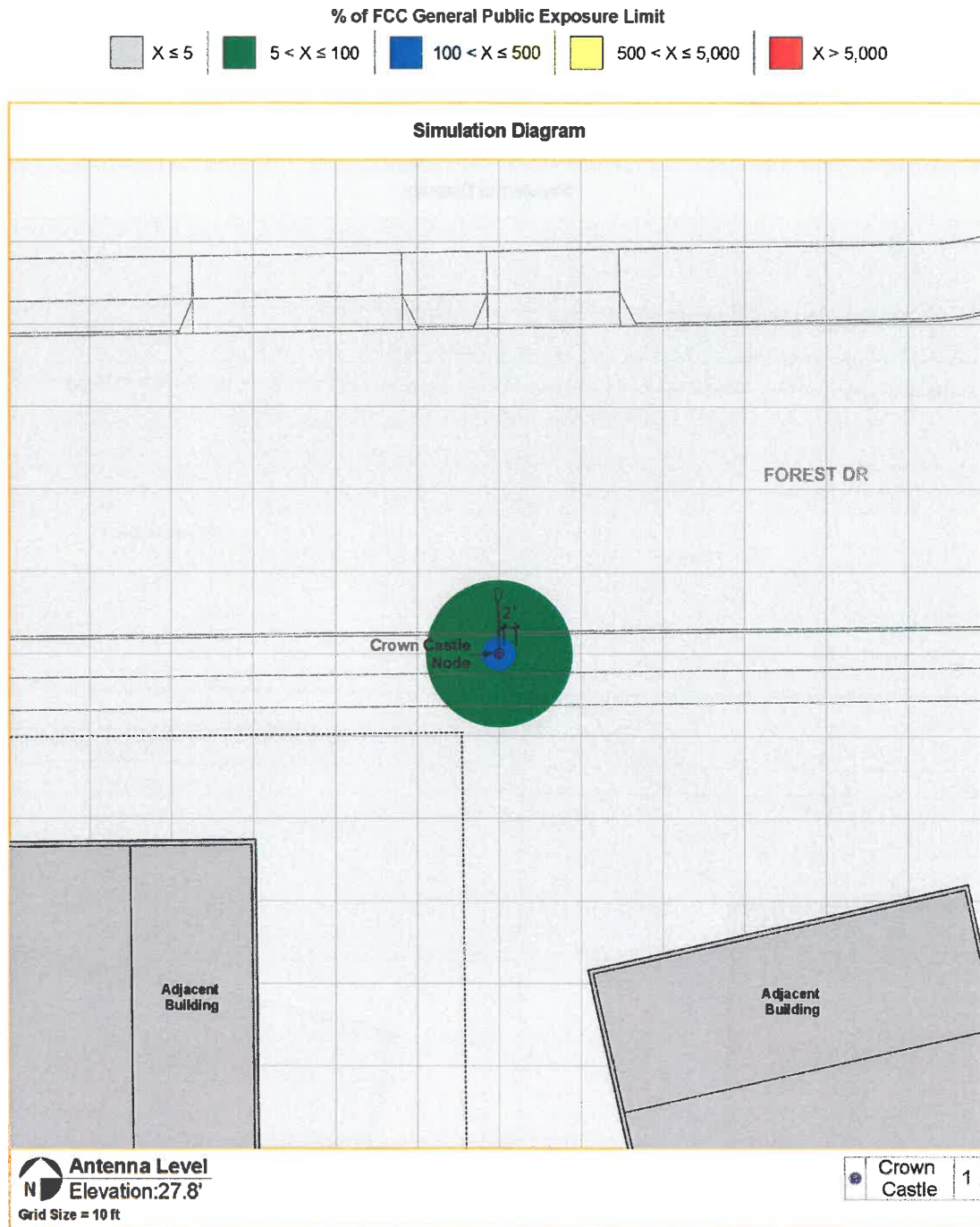


Figure 3: Plan (bird's eye) view map of results compared to the FCC's General Population MPE (Maximum Permissible Exposure) Limits for a typical 6-foot tall person. Gray represents areas where exposure levels are calculated to be at or below 5%; Green- between 5% & 100% (below MPE limits); blue, yellow & red – greater than 100% (exceeds MPE limits). Individuals can safely occupy areas in gray and green for an indefinite amount of time; whereas areas in blue, yellow & red must be restricted to RF trained personnel who have been made fully aware of the potential for exposure, have control and know how to reduce their exposure with the use of personal protection equipment or have the ability to power down the transmitters.



4.0 CONCLUSION

4.1 Results

For a person standing in accessible areas on the ground, calculations for Crown Castle's site resulted in exposure levels below the FCC's most stringent General Population MPE Limits (see figure 2).

At antenna elevation, the highest calculated exposure level is above the FCC's General Population MPE Limits near the Crown Castle antenna(s) (see figure 3). The overexposed (blue) areas extend 2-feet from the front face of the Crown Castle antenna(s). From the provided drawings, there are no other buildings or surrounding structures within 2-feet of the Crown Castle antenna(s). Beyond 2-feet, exposure levels are predicted to be below the FCC's most stringent General Population MPE Limits.

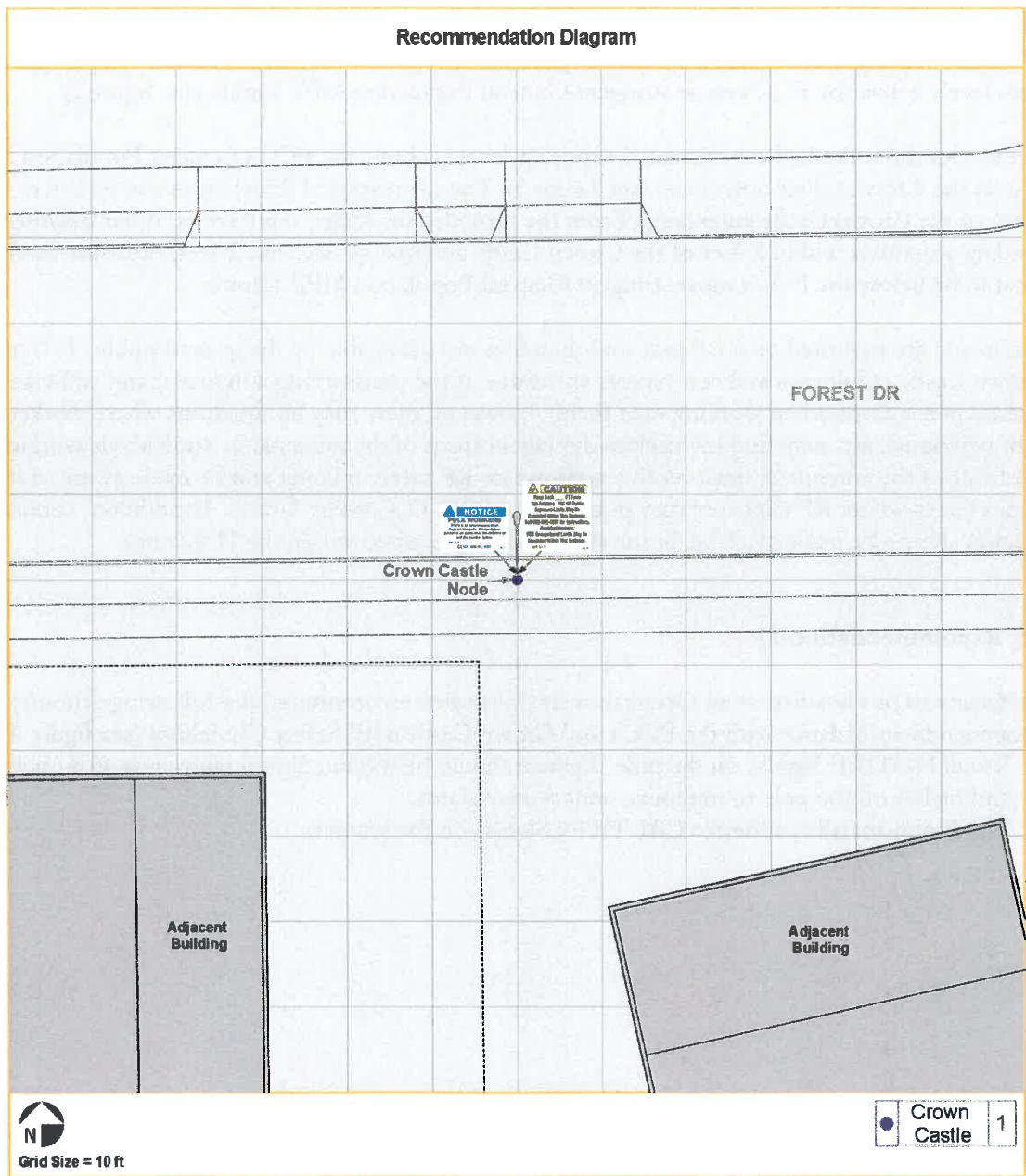
The antenna(s) are mounted on a tall pole and therefore not accessible by the general public. It is presumed that Crown Castle employees and contractors are aware of the transmitting antenna(s) and will take appropriate precautions when working near them. However, there may be situations where workers i.e. city and light personnel, etc. may find themselves directly in front of the antenna(s). Individuals working near/in front of the antenna(s) must receive appropriate RF safety training and be made aware of the HotZones (areas where RF exposure may potentially exceed FCC safety limits). In addition, contact information should be made available in the event work is required within the HotZones.

4.2 Recommendation(s)

For the facility to be classified as an Occupational/Controlled environment, the following action(s) are recommended in accordance with the FCC's and Crown Castle's RF Safety Guidelines (see figure 4):

- 1) Install NOTICE Sign(s) on the pole. Signage should be mounted preferably away from public view and higher on the pole to minimize unnecessary alarm.
- 2) Install non-metallic, adhesive CAUTION Sign(s) on the antenna.

Figure 4: Recommendation(s)



4.3 Statement of Compliance

Based on the above results, analysis and recommendation(s), it is the undersigned's professional opinion that Crown Castle's site will be compliant with the FCC's RF Safety Guidelines provided recommendation(s) are implemented.

4.4 Engineer Certification

This report has been prepared by or under the direction of the following Registered Professional Engineer: Darang Tech, holding California registration number 16000. I have reviewed this report and believe it to be both true and accurate to the best of my knowledge.


Darang Tech, P.E.



Appendix A: Background

Dtech uses the FCC's guidelines described in detail in Office of Engineering & Technology, Bulletin No. 65 ("OET-65") "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields". The table below summarizes the current Maximum Permissible Exposure ("MPE") safety limits classified into two groups: General population and Occupational.

Table 3: FCC MPE Limits (from OET-65)

Frequency (Mhz)	General Population/ Uncontrolled MPE (mW/cm ²)	Averaging Time (minutes)	Occupational/ Controlled MPE (mW/cm ²)	Averaging Time (minutes)
30 - 300	0.2	30	1.0	6
300 - 1500	Frequency (Mhz)/1500 (0.2 – 1.0)	30	Frequency (Mhz)/300 (1.0 – 5.0)	6
1500 - 100,000	1.0	30	5.0	6

General population/uncontrolled limits apply in situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment, and may not be fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public always fall under this category when exposure is not employment-related.

Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment, and those persons have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits, as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

It is important to understand that the FCC guidelines specify *exposure* limits not *emission* limits. For a transmitting facility to be out of compliance with the FCC's RF safety guidelines an area or areas where levels exceed the MPE limits must, first of all, be in some way *accessible* to the public or to workers. When accessibility to an area where excessive levels is appropriately restricted, the facility or operation can certify that it complies with the FCC requirements.

Appendix B: Measurement and/or Computer Simulation Methods

Spatial averaging measurement technique is used. An area between 2 and 6 feet, approximately the size of an average human, is scanned in single passes from top to bottom in multiple planes. When possible, measurements were made at very close proximity to the antennas and inside the main beam where most of the energy is emitted. The spatial averaged values were recorded.

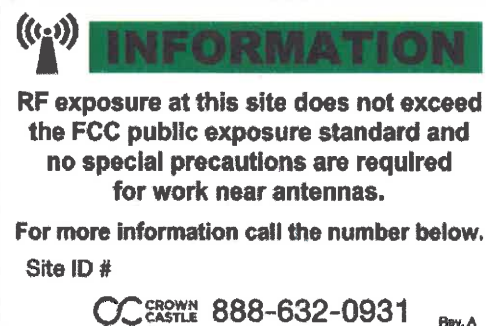
Dtech uses an industry standard power density prediction computer Model¹ to assess the worse-case, cumulative EMF impact of the surrounding areas of the subject site. The Model does not take into account losses due to buildings. Its methodologies are conservative enough to account for typical down-tilts deployed in wireless communications. In addition, the analysis is performed at 100% duty cycle-all transmitters are active at all times and transmitting at maximum power. For purposes of a cumulative study, nearby transmitters are included where possible. The result is a surrounding area map color-coded to percentages of the applicable FCC's MPE Limits. A result higher than 100% exceeds the Limits.

Appendix C: Limitations

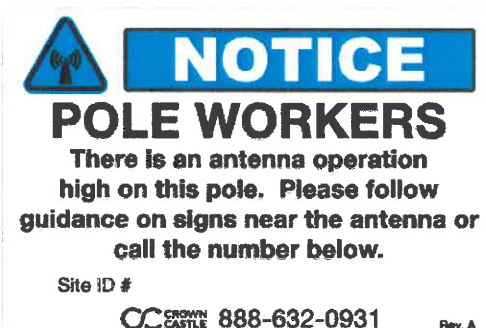
The conclusions in this document rendered by Dtech are based solely upon the information collected during the site survey and/or furnished by our Client which Dtech believes is accurate and correct. Dtech, however, has no responsibility should such Client provided information prove to be inaccurate or incorrect. Third party specification estimates used for cumulative computer simulation purposes, where applicable, are based on common industry practices and our best interpretation of available information. Data, results and conclusions in this document are valid as of its date. However, as mobile technologies continuously change, these data, results and conclusions may also be at variance with such future changes. Dtech has no responsibility to update its survey or report to account for such future technology changes. This document was prepared for the use of our Client only and cannot be utilized by any third party for any purpose without Dtech's written consent. Dtech shall have no liability for any unauthorized use of this document and any such unauthorized user shall defend, indemnify and hold Dtech and its owners, directors, officers and employees harmless from and against any liability, claim, demand, loss or expense (including reasonable attorney's fees) arising from such unauthorized use.

¹ Roofview®

Appendix D: Sample Crown Castle² RF Advisory Signs



INFORMATION Sign



NOTICE Sign



(Please refer to Table 1 for General Population Keep Back Distance)

CAUTION Sign

² The above signage is for reference only. Actual signs may be updated in accordance to Crown Castle RF policy. See cover page for site specific information.

Appendix E: Crown Castle Carrier MPE Contributions

Crown Castle	MPE Contribution	
	Ground	Antenna Elevation
Carrier 1 - AT&T	1.5% GP (0.3% OC)	113.9% GP (22.8% OC)

ATTACHMENT 5

Goleta Municipal Code Chapter 12.20

Goleta Municipal Code Chapter 12.20
Wireless Facilities in Public Road Rights-of-Way

12.20.010 Definitions.

The terms used in this chapter shall have the following meanings:

“Accessory equipment” means any equipment serving or being used in conjunction with a wireless communication facility. This equipment includes, but is not limited to, utility or transmission equipment, power supplies, batteries, cables, cabinets, vaults, or equipment structures.

“Antenna” means a device used to transmit and/or receive radio or electromagnetic waves for the provision of services including, but not limited to, cellular, paging, personal communications services (PCS) and microwave communications. Such devices include, but are not limited to, directional antennas, such as panel antenna, microwave dishes, and satellite dishes; omnidirectional antennas; wireless access points (Wi-Fi); and stand mounted wireless access points.

This definition does not include broadcast antennas, antennas designed for amateur radio use, or over-the-air reception devices as defined in 47 Code of Federal Regulations (CFR) 1.4000 such as satellite dishes designed for residential or household purposes.

“Applicant” means a person filing an application for placement or modification of a wireless facility in the public right-of-way.

“Application” means a formal request, including all required and requested documentation and information, submitted by an applicant to the City for a wireless encroachment permit.

“Base station” shall have the meaning as set forth in 47 CFR Section 1.40001(b)(1), or any successor provision.

“Camouflage” means the means and methods by which a WCF is designed to be concealed and blend the installation with the surrounding environment.

“City Code” means the Goleta Municipal Code.

“Director” means the City of Goleta’s Public Works Director or designee.

“Eligible facilities request” shall have the meaning as set forth in 47 CFR Section 1.40001(b)(3), or any successor provision.

“Existing height” means the height of the tower, base station, or existing public infrastructure as originally approved or as of the most recent modification that received regulatory approval prior to the passage of the Spectrum Act. Height shall be measured from natural grade to the top of all appurtenances.

“FCC” means the Federal Communications Commission or its lawful successor.

“Municipal infrastructure” means City-owned or controlled property structures, objects, and equipment in the PROW, including, but not limited to, street lights, traffic control structures, banners, street furniture, bus stops, other poles, or lighting fixtures, located within the PROW.

“Permittee” means any person or entity granted a wireless encroachment permit pursuant to this chapter.

“Personal wireless services” shall have the same meaning as set forth in 47 U.S.C. Section 332(c)(7)(C)(i).

“Personal wireless services facility” means a wireless facility used for the provision of personal wireless services.

“Public right-of-way” or “PROW” means the public road right-of-way.

“Small cell facility” shall have the same meaning as “small wireless facility” in 47 CFR 1.6002(l), or any successor provision (which is a personal wireless services facility that meets the following conditions that, solely for convenience, have been set forth below):

1. The facility(ies):
 - a. Is mounted on a structure 50 feet or less in height, including antennas, as defined in 47 CFR Section 1.1320(d), or
 - b. Are mounted on structures no more than 10% taller than other adjacent structures, or
 - c. Do not extend existing structures on which they are located to a height of more than 50 feet or by more than 10%, whichever is greater;
2. Each antenna associated with the deployment, excluding associated antenna equipment (as defined in the definition of antenna in 47 CFR Section 1.1320(d)), is no more than three cubic feet in volume;
3. All other wireless equipment associated with the structure, including the wireless equipment associated with the antenna and any pre-existing associated equipment on the structure, is no more than 28 cubic feet in volume;
4. The facility does not require antenna structure registration under 47 CFR Part 17;
5. The facility is not located on Tribal lands, as defined under 36 CFR Section 800.16(x); and
6. The facility does not result in human exposure to radiofrequency radiation in excess of the applicable safety standards specified in 47 CFR Section 1.1307(b).

“Support structure” means any structure capable of supporting a base station.

“Tower” means any structure built for the sole or primary purpose of supporting any FCC-licensed or authorized antennas and their associated facilities, including structures that are constructed for personal wireless services including, but not limited to, private, broadcast, and public safety services, as well as unlicensed wireless services and fixed wireless services such as microwave backhaul, and the associated site. This definition does not include utility poles.

“Underground areas” means those areas where there are no electrical facilities or facilities of the incumbent local exchange carrier in the right-of-way; or where the wires associated with the same are or are required to be located underground; or where the same are scheduled to be converted from overhead to underground. Electrical facilities are distribution facilities owned by an electric utility and do not include transmission facilities used or intended to be used to transmit electricity at nominal voltages in excess of 35,000 volts.

“Utility pole” means a structure in the PROW designed to support electric, telephone and similar utility lines. A tower is not a utility pole.

“Wireless communication facility (WCF)” or “wireless facility” means any fixed facility established for the purpose of providing wireless transmission of voice, data, images, or other information including, but not limited to, personal wireless services. A WCF can consist of one or more antennas, accessory equipment and a support structure.

“Wireless encroachment permit” means a permit issued pursuant to this chapter authorizing the placement or modification of a wireless facility of a design specified in

the permit at a particular location within the PROW; and the modification of any existing support structure to which the wireless facility is proposed to be attached.

“Wireless infrastructure provider” means a person that owns, controls, operates or manages a wireless facility or portion thereof within the PROW.

“Wireless regulations” means those regulations adopted pursuant to the provisions of this chapter. (Ord. 19-09 § 3)

12.20.020 Purpose.

The purpose of this chapter is to establish a process for managing, and uniform standards for acting upon, requests for the placement of wireless facilities within the PROW of the City consistent with the City’s obligation to promote the public health, safety, and welfare, to manage the PROW, and to ensure that the public is not inconvenienced by the use of the PROW for the placement of wireless facilities. The City recognizes the importance of wireless facilities to provide high-quality communications service to the residents and businesses within the City, and the City also recognizes its obligation to comply with applicable Federal and State law regarding the placement of personal wireless services facilities in its PROW. This chapter shall be interpreted consistent with those provisions. (Ord. 19-09 § 3)

12.20.030 Scope.

A. In General. There shall be a type of encroachment permit entitled a “Wireless Encroachment Permit,” which shall be subject to all the same requirements as an encroachment permit would under Chapter 12.20 of the Goleta Municipal Code in addition to all the requirements of this chapter. Unless exempted, every person who desires to place a wireless facility or modify an existing wireless facility in the PROW must obtain a wireless encroachment permit authorizing the placement or modification in accordance with this chapter. Except for small cell facilities, facilities qualifying as eligible facilities requests, or any other type of facility expressly allowed in the PROW by State or Federal law, no other wireless facilities shall be permitted pursuant to this chapter.

B. Exemptions. This chapter does not apply to the placement or modification of facilities by the City or by any other agency of the State solely for public safety purposes.

C. Other Applicable Requirements. In addition to the wireless encroachment permit required herein, the placement of a wireless facility in the PROW requires the person(s) who will own or control those facilities to obtain all permits required by applicable law, and to comply with applicable law, including, but not limited to, applicable law governing radio frequency (RF) emissions.

D. Pre-existing Facilities in the PROW. Any wireless facility already existing in the PROW as of the date of this chapter’s adoption shall remain subject to the provisions of the City Code in effect prior to this chapter, unless and until an extension of such facility’s then-existing permit is granted, at which time the provisions of this chapter shall apply in full force going forward as to such facility. The review of any request for a renewal of a permit for such pre-existing facilities shall be conducted pursuant to this chapter, rather than the portion(s) of the City Code that it was previously reviewed under.

E. Public Use. Except as otherwise provided by California law, any use of the PROW authorized pursuant to this chapter will be subordinate to the City's use and use by the public. (Ord. 19-09 § 3)

12.20.040 Administration.

A. Public Works Director. The Director is responsible for administering this chapter. As part of the administration of this chapter, the Director may:

1. Interpret the provisions of this chapter;
2. Develop and implement standards governing the placement and modification of wireless facilities consistent with the requirements of this chapter, including regulations governing collocation and resolution of conflicting applications for placement of wireless facilities;
3. Develop and implement acceptable designs and development standards for wireless facilities in the PROW, considering the zoning districts bounding the PROW;
4. Develop forms and procedures for submission of applications for placement or modification of wireless facilities, and proposed changes to any support structure consistent with this chapter;
5. Determine the amount of and collect, as a condition of the completeness of any application, any fee established by this chapter;
6. Establish deadlines for submission of information related to an application, and extend or shorten deadlines where appropriate and consistent with State and Federal laws and regulations;
7. Issue any notices of incompleteness, requests for information, or conduct or commission such studies as may be required to determine whether a permit should be issued;
8. Require, as part of, and as a condition of completeness of any application, notice to members of the public that may be affected by the placement or modification of the wireless facility and proposed changes to any support structure;
9. Subject to appeal as provided herein, determine whether to approve, approve subject to conditions, or deny an application; and
10. Take such other steps as may be required to timely act upon applications for placement of wireless facilities, including issuing written decisions and entering into agreements to mutually extend the time for action on an application.

B. Appeals.

1. Any person adversely affected by the decision of the Public Works Director on a wireless encroachment permit pursuant to this chapter may appeal the decision to the City Council (Appeal Body), which may decide the issues de novo, and whose written decision will be the final decision of the City and not be subject to further administrative appeal. An appeal must be filed within two business days after the published determination letter and shall state the specific reason for the appeal. The Director may extend the time for an aggrieved party to file an appeal but an extension may not be granted where extension would result in approval of the application by operation of law.
2. Any appeal shall be conducted so that a timely written decision may be issued in accordance with applicable law unless an extension of the time requirements of rendering a decision is mutually agreed upon.

3. As section 332(c)(7) of the Telecommunications Act preempts local decisions premised directly or indirectly on the environmental effects of radio frequency (RF) emissions, appeals of the Director's decision premised on the environmental effects of radio frequency emissions will not be considered. (Ord. 19-09 § 3)

12.20.050 General Standards for Wireless Facilities in the Public Rights-of-Way.

A. Generally. Wireless facilities in the PROW shall meet the minimum requirements set forth in this chapter, Design and Development Guidelines issued by the Director pursuant to this chapter, and State and Federal wireless regulations, in addition to the requirements of any other applicable law.

B. Regulations. The wireless regulations and decisions on applications for placement of wireless facilities in the PROW shall, at a minimum, ensure that the requirements of this section are satisfied, unless it is determined that the applicant has established that denial of an application would, within the meaning of Federal law, prohibit or effectively prohibit the provision of personal wireless services, or otherwise violate applicable laws or regulations. If that determination is made, the requirements of this chapter may be waived, but only to the minimum extent required to avoid the prohibition or violation.

C. Minimum Standards. Wireless facilities shall be installed and modified in a manner that minimizes risks to public safety, avoids placement of aboveground facilities in underground areas, avoids installation of new support structures or equipment cabinets in the PROW, and otherwise maintains the integrity and character of the neighborhoods and corridors in which the facilities are located; ensures that installations are subject to periodic review to minimize the intrusion on the rights-of-way; and ensures that the City bears no risk or liability as a result of the installations, and that such use does not inconvenience the public, interfere with the primary uses of the PROW, or hinder the ability of the City or other government agencies to improve, modify, relocate, abandon, or vacate the PROW or any portion thereof, or to cause the improvement, modification, relocation, vacation, or abandonment of facilities in the rights-of-way; and is consistent with the City of Goleta's Small Cell Design Guidelines.

D. Location Preferences. All applicants should, to the extent feasible, collocate new facilities and substantial changes to existing facilities with existing facilities. Collocations should, to the extent feasible, be proposed on structures in accordance with the preferences contained in the associated Design and Development Standards for Wireless Facilities in the PROW promulgated by the Director pursuant to this chapter.

E. Design Standards. Wireless encroachment permits shall incorporate specific concealment elements to minimize visual impacts and design requirements ensuring compliance with all standards for noise emissions. Unless it is determined that another design is less intrusive, or placement is required under applicable law and in accordance with the Design and Development Standards for Wireless Facilities in the PROW promulgated by the Director pursuant to this chapter. (Ord. 19-09 § 3)

12.20.060 Application.

A. Submission. Applicant shall submit both a paper copy and an electronic copy of all application materials to the City of Goleta, Public Works Department, 130 Cremona Drive, Suite B, Goleta CA 93117.

B. Content. The applicant for a wireless encroachment permit shall submit an application on a Director-approved form to the Public Works Department, which may be updated from time to time, and all required fee(s) and deposit, documents, information, and any other materials necessary to allow the Director to make required findings and ensure that the proposed facility will comply with applicable Federal and State law and the City Code. In the event a State or Federal law prohibits the collection of any information required by this section, the Director is authorized to omit, modify or add to that request from the City's application form with the written approval of the City Attorney, which approval shall be a public record.

C. Fees. The application shall be accompanied by the application processing fee or deposit established by resolution of the City Council pursuant to this chapter. The City Council is hereby authorized to determine, or cause to be determined, the amount, type, and other terms of such fee(s) from time to time by means of resolution. Notwithstanding the foregoing, no application fee shall be refundable, in whole or in part, to an applicant for a wireless encroachment permit unless paid as a refundable deposit. All fees must be paid in full before any permit shall be issued from the City. Application processing fees must be paid at the time that the application is submitted. These fees are for permit processing and issuance only and are in addition to any other applicable fee or any separate payment that may be required for rent of City infrastructure.

D. Waivers. Requests for waivers from any requirement of this section shall be made in writing to the Director. The Director may grant or deny a request for a waiver pursuant to this subsection. The Director may grant a request for a waiver if it is demonstrated that, notwithstanding the issuance of a waiver, the City will be provided all information necessary to understand the nature of the construction or other activity to be conducted pursuant to the permit sought. All waivers approved pursuant to this subsection shall be: (1) granted only on a case-by-case basis; and (2) narrowly-tailored to minimize deviation from the requirements of the City Code.

E. Shot Clock. The City acknowledges there are Federal and State shot clocks which may be applicable to an application for a proposed wireless facility. As such, the applicant is required to provide the City written notice when it believes any applicable shot clock is about to expire, which the applicant shall ensure is received by the City (e.g., overnight mail) no later than 20 days prior to the alleged expiration. (Ord. 19-09 § 3)

12.20.070 Administrative Review.

A. The following wireless encroachment permit applications are subject to administrative review:

1. Routine maintenance to an existing WCF; and
2. Eligible facilities requests.

B. The Director may designate staff to review and approve applications for administrative review. These applications are reviewed as an "over the counter" permit.

C. Administrative review approval shall be granted if the Director, or designee, finds that:

1. The application is complete;
2. The proposed facility meets the definition for the type of activity proposed; and
3. The proposed facility complies with the requirements of the City Code and all other applicable laws.

D. Following administrative review and approval of a wireless encroachment permit is issued, the applicant may pursue construction and other permits and inspections as required. A wireless encroachment permit issued under this section is not valid without all required construction and other permits and any required license under Section 12.20.110. (Ord. 19-09 § 3)

12.20.080 Discretionary Review.

A. Small cell facilities applications are subject to discretionary review.

B. Applications for discretionary review shall require noticing as follows:

The Director shall provide notice by First Class mail for all applications at least 10 calendar days before a decision on the applications is made to property owners and, if feasible, tenants, located within 300 feet from each antenna location being proposed. The notice shall describe the proposal and the 14-day comment period. The Director will accept comments from the public during the comment period.

C. The Director, or designee, is the review authority for discretionary review applications.

D. Determination. Following the 14-day comment period, the Director shall review the application, pertinent documentation and public comments, and issue a decision and mail it to the applicant and any person that submitted written comments on the application. The following findings are prerequisites of an approval.

1. The proposed facility complies with all of the applicable provisions of the City Code.
2. The proposed facility will not incommode the public use of the PROW.
3. The proposed construction plan and schedule will not unduly interfere with the public's use of the PROW.
4. The proposed facility will comply with any standards adopted by the Director under Section 12.20.040(A).
5. The proposed facility is in compliance with all Federal and State standards and laws.

E. The permit issued under this section is not valid without all required traffic control plans, construction and other permits and any required license under Section 12.20.110. (Ord. 19-09 § 3)

12.20.090 Incomplete Applications and Applications Denied Without Prejudice.

A. The Director shall review all applications and provide notice of incompleteness, including the materials omitted, in conformity with State, local, and Federal law.

B. The Director shall deny, in writing, an application without prejudice if the City has sent the applicant a communication requiring a response from the applicant and more than 60 days lapse without a response from the applicant. Once an application has been denied without prejudice, it may not be reopened and a new application must

be made. No refunds of fees will be provided for applications denied without prejudice pursuant to this section. (Ord. 19-09 § 3)

12.20.100 Independent Consultants.

A. Independent Consultants. The Director or the Appeal Body, as the case may be, is authorized, in its discretion, to select and retain independent consultant(s) with expertise in telecommunications in connection with the review of any application under this chapter. Such independent consultant review may be retained on any issue that involves specialized or expert knowledge in connection with an application, including, but not limited to, application completeness or accuracy, structural engineering analysis, or compliance with FCC radio frequency emissions standards.

B. Where the City determines that it requires expert assistance in evaluating an application, the City may hire a consultant and the fee charged by the consultant shall be reimbursed to the City by the applicant regardless of the outcome of the application. (Ord. 19-09 § 3)

12.20.110 Municipal Infrastructure.

The City, as a matter of policy, will negotiate agreements for use of municipal infrastructure. The placement of wireless facilities on those structures shall be subject to an agreement. The agreement shall specify the compensation to the City for use of the structures. The person seeking the agreement shall additionally reimburse the City for all costs the City incurs in connection with its review of, and action upon the person's request for an agreement. (Ord. 19-09 § 3)

12.20.120 Construction and Other Permits.

Concurrent with the processing of and any required license, an applicant may begin the process of applying for other required and/or traffic control plans and any other permit required by law. These permits shall not be issued until the two day appeal period as referenced in Section 12.20.040 has passed, or the decision on the wireless encroachment permit application becomes final. (Ord. 19-09 § 3)

12.20.130 Inspection and Reporting.

The owner of the WCF when directed by the City must perform an inspection of the WCF and submit a report to the Director on the condition of the system to include any identified concerns and corrective action taken. Further, as the City performs maintenance on City infrastructure additional maintenance concerns may be identified. These will be reported to the owner of the WCF. The City shall give the applicant 30 days to correct the identified maintenance concerns after which the City reserves the right to take any action it deems necessary, which could include revocation of the permit. The burden is on the permittee to demonstrate that it complies with the requirements herein. Prior to the issuance of a permit under this chapter, the owner of the WCF shall sign an affidavit attesting to understanding the City's requirement for performance of annual inspections and reporting. (Ord. 19-09 § 3)

12.20.140 Revocation and Appeal of Revocation.

Any permit or other authorized use of the PROW granted under this chapter may be revoked or modified for cause in accordance with the provisions of this section.

- A. Revocation proceedings may be initiated by the Director.
- B. Public Notice, Hearing and Action. After conducting a duly-noticed public hearing, the Director shall act on the proposed revocation.
- C. Required Findings. The Director may revoke or modify the permit if it makes any of the following findings:
 - 1. The permittee obtained the approval by means of fraud or misrepresentation of a material fact;
 - 2. The permittee substantially expanded or altered the use or structure beyond what is set forth in the permit or substantially changed the installation's character;
 - 3. The use in question has ceased to exist or has been suspended for time periods based on the type of facility outlined in Section 12.20.150 (A) (21);
 - 4. Failure to comply with any condition of a permit issued;
 - 5. Failure to comply with this chapter;
 - 6. A substantive change of law affecting a utility's authority to occupy or use the PROW of the City's ability to impose regulations relating such occupation or use;
 - 7. A facility interference with a City project;
 - 8. A facility's interference with vehicular or pedestrian use of the PROW; or
 - 9. Failure to make a safe and timely restoration of the PROW.
- D. Notice of Action. The Director shall issue a written determination of revocation and mail the determination to the WCF owner within 10 calendar days of such determination.
- E. A permittee whose permit or right has been revoked may have the revocation reviewed, upon written appeal, to the Appeal Body as follows:
 - 1. File such appeal with the City Clerk within 14 calendar days of the revocation, and
 - 2. Provide a statement of any reasons why the permittee believes that the revocation should be reviewed. (Ord. 19-09 § 3)

12.20.150 Conditions of Approval.

A. Generally. In addition to any supplemental conditions imposed by the Director or Appeal Body, all permits granted pursuant to this chapter must comply with all the policies and standards promulgated by the Director pursuant to this chapter and be subject to the following conditions, unless modified by the approving authority. Further, if an application were ever deemed approved by application of law, these same conditions would be applicable:

- 1. Code Compliance. The permittee shall at all times comply with all applicable Federal, State and local laws, regulations and other rules, including, without limitation, those applying to use of PROW. The permittee is responsible for obtaining permits from other permitting agencies, including, but not limited to, the California Coastal Commission, California Fish and Wildlife, Santa Barbara Flood Control District, and the Regional Water Quality Control Board.
- 2. Permit Duration. A wireless encroachment permit shall be valid for the same time period as the time period associated with the lease agreement, unless pursuant to

another provision of the Code or these conditions, it expires sooner or is terminated. At the end of the lease agreement term, such permit shall automatically expire, unless an extension or renewal has been granted. A person holding a wireless encroachment permit must either: (a) remove the facility within 30 days following the permit's expiration (provided that removal of support structure owned by City, a utility, or another entity authorized to maintain a support structure in the right-of-way need not be removed, but must be restored to its prior condition, except as specifically permitted by the City); or (b) at least 90 days prior to expiration, submit an application to renew the permit, which application must, among all other requirements, demonstrate that the impact of the wireless facility cannot be reduced. The wireless facility must remain in place until it is acted upon by the City and all appeals from the City's decision exhausted.

3. **Timing of Installation.** The installation and construction authorized by a wireless encroachment permit shall begin within 90 days after its approval, or it will expire without further action by the City. The installation and construction authorized by a wireless encroachment permit shall conclude, including any necessary post-installation repairs and/or restoration to the PROW, within 30 days following the day construction commenced.

4. **Commencement of Operations.** The operation of the approved facility shall commence no later than 30 days after the completion of installation, or the wireless encroachment permit will expire without further action by the City.

5. **As-Built/Record Drawings.** The permittee shall submit an as-built/record drawing within 90 days after installation of the facility. As-built record drawings shall be provided in an electronic format acceptable to the City.

6. **Inspections; Emergencies.** The Director may enter onto the facility area to inspect the facility anytime during an emergency and provide notice to the permittee within 48 hours of an emergency. The permittee shall cooperate with all inspections and may be present for any inspection of its facility by the Director. The Director reserves the right to enter or direct his or her designee to enter the facility and support, repair, disable, or remove any elements of the facility in emergencies or when the facility threatens imminent harm to persons or property. The Director shall make an effort to contact the permittee prior to disabling or removing any facility elements, but in any case, shall notify permittee within 24 hours of doing so.

7. **Reporting; Ongoing.** The permittee shall submit annually, at a minimum, report regarding the maintenance status of the system as outlined in Section 12.20.130. The permittee shall submit the operation status of WCF attached to traffic signal on a quarterly basis (every three months) and yearly (every 12 months) for WCF attached to street lights. All reports must be submitted to the Director.

8. **Contact.** The permittee shall always maintain accurate contact information for all parties responsible for the facility, which shall include a phone number, street mailing address and email address for at least one natural person.

9. **Insurance.** permittee shall obtain and maintain throughout the term of the permit commercial general liability insurance with a limit of at least \$1,000,000.00 per occurrence for bodily injury and property damage and at least \$5,000,000.00 general aggregate including premises operations, contractual liability, personal injury, and products completed operations. The relevant policy(ies) shall name the City, its elected/appointed officials, commission members, officers, representatives, agents, and

employees as additional insureds. Permittee shall use its best efforts to provide 30 days' prior notice to the City of to the cancellation or material modification of any applicable insurance policy.

10. Indemnities. The permittee and, if applicable, the owner of the property upon which the wireless facility is installed shall defend, indemnify and hold harmless the City, its agents, officers, officials, and employees: (a) from any and all damages, liabilities, injuries, losses, costs, and expenses, and from any and all claims, demands, law suits, writs of mandamus, and other actions or proceedings brought against the City or its agents, officers, officials, or employees to challenge, attack, seek to modify, set aside, void or annul the City's approval of the permit; and (b) from any and all damages, liabilities, injuries, losses, costs, and expenses, and any and all claims, demands, law suits, or causes of action and other actions or proceedings of any kind or form, whether for personal injury, death or property damage, arising out of or in connection with the activities or performance of the permittee or, if applicable, the private property owner or any of each one's agents, employees, licensees, contractors, subcontractors, or independent contractors. In the event the City becomes aware of any such actions or claims the City shall promptly notify the permittee and, if applicable, the private property owner and shall reasonably cooperate in the defense. The City shall have the right to approve, which approval shall not be unreasonably withheld, the legal counsel providing the City's defense, and the property owner and/or permittee (as applicable) shall reimburse the City for any costs and expenses directly and necessarily incurred by the City in the course of the defense.

11. Performance Security. Prior to issuance of a wireless encroachment permit, the permittee shall file with the City, and shall maintain in good standing throughout the term of the approval, a performance surety in the form of a letter of credit or other security acceptable to the Director for the removal of the facility in the event that the use is abandoned, or the permit expires, or is revoked, or is otherwise terminated. The security shall be in the amount equal to \$5,000.00 per street light and/or public/private poles and \$20,000.00 per traffic signal during the timeframe of the lease. The permittee shall reimburse the City for staff time associated with the processing and tracking of the bond, based on the hourly rate adopted by the City Council. Reimbursement shall be paid when the security is posted and during each administrative review.

12. Adverse Impacts on Adjacent Properties. Permittee shall undertake all reasonable efforts to avoid undue adverse impacts to adjacent properties and/or uses that may arise from the construction, operation, maintenance, modification, and removal of the facility.

13. Noninterference. Permittee shall not move, alter, temporarily relocate, change, or interfere with any existing structure, improvement, or property without the prior consent of the owner of that structure, improvement, or property. No structure, improvement, or property owned by the City shall be moved to accommodate a permitted activity or encroachment, unless the City determines that such movement will not adversely affect the City or any surrounding businesses or residents, and the permittee pays all costs and expenses related to the relocation of the City's structure, improvement, or property. Prior to commencement of any work pursuant to a wireless encroachment permit, the permittee shall provide the City with documentation establishing to the City's satisfaction that the permittee has the legal right to use or

interfere with any other structure, improvement, or property within PROW or City utility easement to be affected by permittee's facilities.

14. No Right, Title, or Interest. The permission granted by a wireless encroachment permit shall not in any event constitute an easement on or an encumbrance against the PROW. No right, title, or interest (including franchise interest) in the PROW, or any part thereof, shall vest or accrue in permittee by reason of a wireless encroachment permit or the issuance of any other permit or exercise of any privilege given thereby.

15. No Possessory Interest. No possessory interest is created by a wireless encroachment permit. However, to the extent that a possessory interest is deemed created by a governmental entity with taxation authority, the permittee acknowledges that City has given to permittee notice pursuant to California Revenue and Taxation Code Section 107.6 that the use or occupancy of any public property pursuant to a wireless encroachment permit may create a possessory interest which may be subject to the payment of property taxes levied upon such interest. Permittee shall be solely liable for, and shall pay and discharge prior to delinquency, any and all possessory interest taxes or other taxes, fees, and assessments levied against permittee's right to possession, occupancy, or use of any public property pursuant to any right of possession, occupancy, or use created by this permit.

16. General Maintenance. The site and the facility, including, but not limited to, all landscaping, fencing, and related transmission equipment, must be maintained in a neat and clean manner and in accordance with all approved plans. All graffiti on facilities must be removed at the sole expense of the permittee within 48 hours after notification from the City.

17. RF Exposure Compliance. All facilities must comply with all standards and regulations of the FCC and any other State or Federal government agency with the authority to regulate RF exposure standards. After transmitter and antenna system optimization, but prior to unattended operations of the facility, permittee or its representative must conduct on-site post-installation RF emissions testing to demonstrate actual compliance with the FCC OET Bulletin 65 RF emissions safety rules for general population/uncontrolled RF exposure in all sectors. For this testing, the transmitter shall be operating at maximum operating power, and the testing shall occur outwards to a distance where the RF emissions no longer exceed the uncontrolled/general population limit.

18. Testing. Testing of any equipment shall take place on weekdays only, and only between the hours of 8:30 a.m. and 4:30 p.m., except that testing is prohibited on a holiday that falls or is observed on a weekday. In addition, testing is prohibited on weekend days and in the evenings between 4:30 p.m. to 8:30 a.m.

19. Modifications. No changes shall be made to the approved plans without review and approval in accordance with this chapter.

20. Conflicts with Improvements. For all facilities located within the PROW, the permittee shall remove or relocate, at its expense and without expense to the City, any or all of its facilities when such removal or relocation is deemed necessary by the City by reason of any change of grade, alignment, or width of any right-of-way, for installation of services, water pipes, drains, storm drains, power or signal lines, traffic control devices, right-of-way improvements, or for any other construction, repair, or improvement to the right-of-way.

21. Abandonment. If a facility located on a traffic signal is not operated for a continuous period of 90 days or if a facility located on a streetlight or public/private pole is not operated for a continuous period of 90 days, the wireless encroachment permit and any other permit or approval therefor shall be deemed abandoned and terminated automatically, unless before the end of the 90 days: (a) the Director or Appeal Body has determined that the facility has resumed operations; or (b) the City has received an application to transfer the permit to another service provider. No later than 90 days from the date the facility is determined to have ceased operation, or the permittee has notified the Director or Appeal Body of its intent to vacate the site, the permittee shall remove all equipment and improvements associated with the use and shall restore the site to its original condition to the satisfaction of the Director. The permittee shall provide written verification of the removal of the facilities within 30 days of the date the removal is completed. If the facility is not removed within 30 days after the permit has been discontinued pursuant to this subsection, the site shall be deemed to be a nuisance, and the City may cause the facility to be removed at permittee's expense or by calling any bond or other financial assurance to pay for removal. If there are two or more users of a single facility or support structure, then this provision shall apply to the specific elements or parts thereof that were abandoned but will not be effective for the entirety thereof until all users cease use thereof.

22. Encourage Co-location. Where the facility site is capable of accommodating a co-located facility upon the same site in a manner consistent with the permit conditions for the existing facility, the owner and operator of the existing facility shall allow co-location of third-party facilities, provided the parties can mutually agree upon reasonable terms and conditions.

23. Records. The permittee must maintain complete and accurate copies of all permits and other regulatory approvals issued in connection with the facility, which includes, without limitation, this approval, the approved plans and photo simulations incorporated into this approval, all conditions associated with this approval and any ministerial permits or approvals issued in connection with this approval. In the event that the permittee does not maintain such records as required in this condition or fails to produce true and complete copies of such records within a reasonable time after a written request from the City, any ambiguities or uncertainties that would be resolved through an inspection of the missing records will be construed against the permittee.

24. Attorney's Fees. In the event the City determines that it is necessary to take legal action to enforce any of these conditions, or to revoke a permit, and such legal action is taken, the permittee shall be required to pay any and all costs of such legal action, including reasonable attorney's fees, incurred by the City, even if the matter is not prosecuted to a final judgment or is amicably resolved, unless the City should otherwise agree with permittee to waive said fees or any part thereof. The foregoing shall not apply if the permittee prevails in the enforcement proceeding.

25. Other Permits. The applicant is responsible for obtaining permits from permitting agencies, including, but not limited to, California Coastal Commission, California Fish and Wildlife, US Fish and Wildlife, Santa Barbara County Flood Control District, and Regional Water Quality Control Board. Failure to comply with other permitting agency requirements/permits may be grounds for revocation of this encroachment permit.

26. Lease Agreement. Prior to the wireless encroachment permit becoming effective, the applicant must execute a lease agreement or other agreement as determined appropriate by and with the City of Goleta prior to constructing, attaching, or operating a facility within the City's PROW. A wireless encroachment permit is not a substitute for such agreement.

27. Use of Generators. Generators that support wireless facilities are prohibited from being placed in the PROW and within setback areas on adjacent private properties.

28. Electrical Source. Wireless infrastructure providers must have their own electrical metering/source for their use of electricity.

29. Prevention of Graffiti. Installation design must prevent creating an attractive nuisance and must deter incidents of graffiti, vandalism and unauthorized access such as climbing.

30. Existing Trees. All existing trees in the PROW must be protected in place. If a street tree is removed or damaged because of the installation or maintenance of the small cell antenna, then the affected street tree must be replaced at a three to one ratio with City approved street trees type in a location(s) determined by the City.

31. Compliance with Americans with Disabilities Act. Wireless facilities cannot endanger public/property, impede the flow of vehicular or pedestrian traffic, impair the use of poles, traffic signs, traffic signals, outdoor dining areas, emergency facilities or result in a failure to comply with the Americans with Disabilities Act.

32. Signs. Installation of signs are prohibited, except those that contain safety warnings or decals that indicate ownership or equipment as outlined in subsection A of this section.

33. Landscaping. Wireless infrastructure providers are required to maintain or enhance existing landscaping consistent with surrounding vegetation.

34. Passive Cooling. In residential areas, only passive cooling systems are permitted. If a fan is needed in non-residential areas, a cooling fan with a noise profile that does not exceed 50 decibels must be used.

35. No Lighting Unless FAA Required. No facility may be illuminated unless specifically required by the Federal Aviation Administration (FAA) or other government agency. Beacon lights are not permitted unless required by the FAA or other government agency.

36. Height Calculations. Legally required lightning arresters and beacons must be included when calculating the height of facilities.

37. Shielding of Lights. Any required lighting must be shielded to eliminate, to the maximum extent possible, impacts on the surrounding neighborhood.

38. Use of Motion Sensitive Lights. Unless otherwise required under FAA or Federal Communications Commission (FCC) regulations, applicants may install only timed or motion-sensitive light controllers and must deflect lights to avoid illumination impacts to adjacent properties to the maximum extent feasible. The City may, in its discretion, exempt an applicant from the foregoing requirement when the applicant demonstrates a substantial public safety need.

B. Eligible Facilities Requests. In addition to the conditions provided in Section 12.20.150 of this chapter and any supplemental conditions imposed by the Director or Appeal Body, as the case may be, all permits for an eligible facilities request

granted pursuant to this chapter shall be subject to the following additional conditions, unless modified by the approving authority:

1. Permit Subject to Conditions of Underlying Permit. Any permit granted in response to an application qualifying as an eligible facilities request shall be subject to the terms and conditions of the underlying permit.

2. No Permit Term Extension. The City's grant or grant by operation of law of an eligible facilities request permit constitutes a Federally-mandated modification to the underlying permit or approval for the subject tower or base station. Notwithstanding any permit duration established in another permit condition, the City's grant or grant by operation of law of an eligible facility request permit will not extend the permit term for the underlying permit or any other underlying regulatory approval, and its term shall be coterminous with the underlying permit or other regulatory approval for the subject tower or base station.

3. No Waiver of Standing. The City's grant or grant by operation of law of an eligible facilities request does not waive, and shall not be construed to waive, any standing by the City to challenge Section 6409(a) of the Spectrum Act, any FCC rules that interpret Section 6409(a) of the Spectrum Act, or any modification to Section 6409(a) of the Spectrum Act.

C. Small Cell Facilities Requests. In addition to the conditions provided in Section 12.20.150 of this chapter and any supplemental conditions imposed by the Public Works Director or the Appeal Body, as the case may be, all permits for a small cell facility granted pursuant to this chapter shall be subject to the following condition, unless modified by the approving authority:

1. No Waiver of Standing. The City's grant of a permit for a small cell facility request does not waive, and shall not be construed to waive, any standing by the City to challenge any FCC orders or rules related to small cell facilities, or any modification to those FCC orders or rules. (Ord. 19-09 § 3)

12.20.160 Breach—Termination of Permit.

A. For Breach. A wireless encroachment permit may be revoked for failure to comply with the conditions of the permit or applicable law. Upon revocation, the wireless facility must be removed; provided, that removal of a support structure owned by City, a utility, or another entity authorized to maintain a support structure in the right-of-way need not be removed, but must be restored to its prior condition, except as specifically permitted by the City. All costs incurred by the City in connection with the revocation and removal shall be paid by entities who own or control any part of the wireless facility.

B. For Installation Without a Permit. A wireless facility installed without a wireless encroachment permit (except for those exempted by this chapter) must be removed; provided, that removal of support structure owned by City, a utility, or another entity authorized to maintain a support structure in the PROW need not be removed, but must be restored to its prior condition, except as specifically permitted by the City. All costs incurred by the City in connection with the revocation and removal shall be paid by entities who own or control any part of the wireless facility.

C. Municipal Infraction. Any violation of this chapter will be subject to the same penalties as a violation of Chapters 1.02 and 12.13 of the Goleta Municipal Code and the associated lease agreement. (Ord. 19-09 § 3)

12.20.170 Infrastructure Controlled by City.

The City, as a matter of policy, will negotiate agreements for use of municipal infrastructure. The placement of wireless facilities on those structures shall be subject to the agreement. The agreement shall specify the compensation to the City for use of the structures. The person seeking the agreement shall additionally reimburse the City for all costs the City incurs in connection with its review of, and action upon the person's request for an agreement. (Ord. 19-09 § 3)

12.20.180 Nondiscrimination.

In establishing the rights, obligations and conditions set forth in this chapter, it is the intent of the City to treat each applicant or PROW user in a competitively neutral and nondiscriminatory manner, to the extent required by law, and with considerations that may be unique to the technologies, situation and legal status of each particular applicant or request for use of the PROW. (Ord. 19-09 § 3)

ATTACHMENT 6

PowerPoint Presentation Site Diagram and Project Rendering

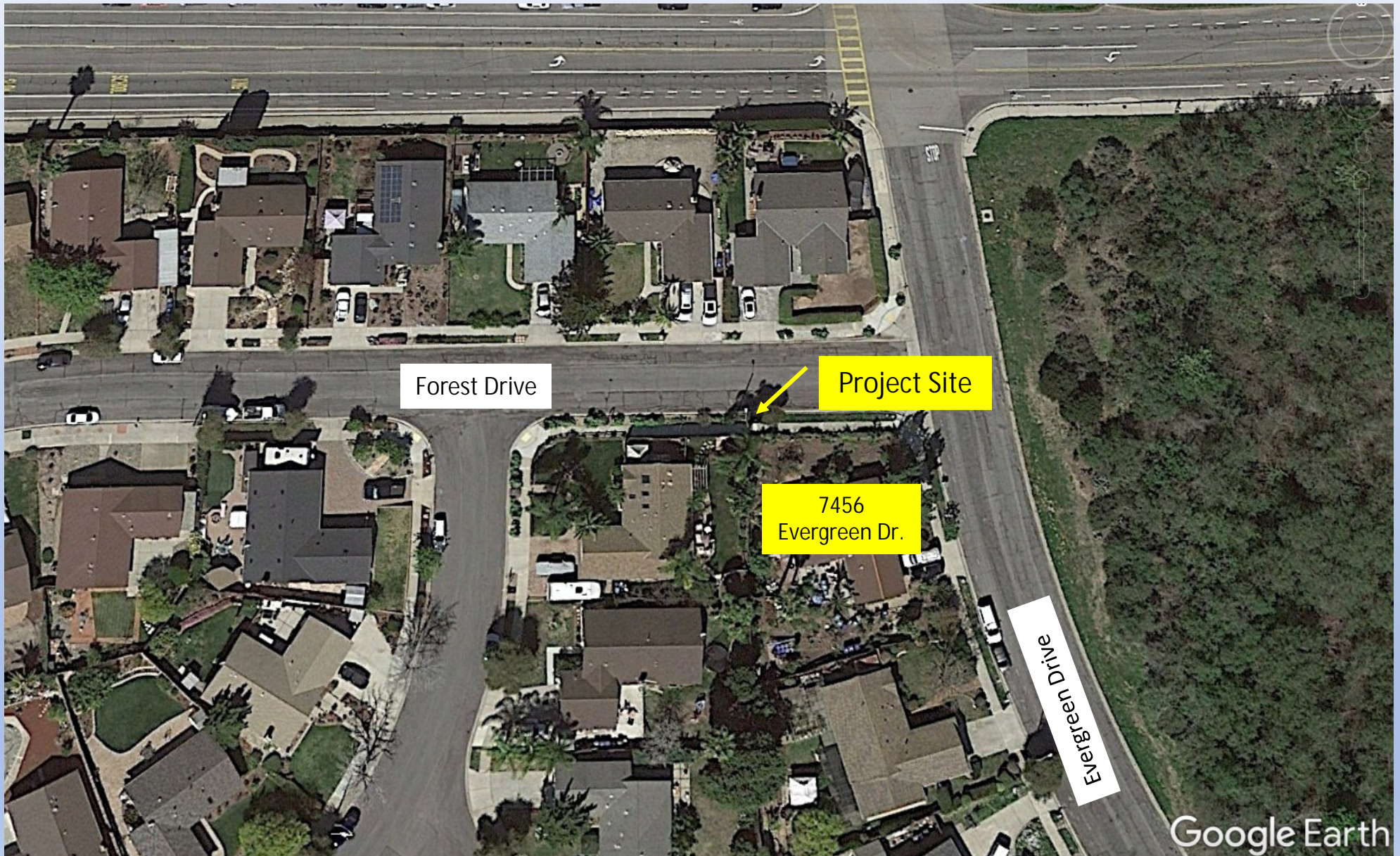


City of Goleta
DEPARTMENT OF PUBLIC WORKS

City Council Meeting
September 7, 2021

City of Goleta
DEPARTMENT OF PUBLIC WORKS

Proposed Small Cell Wireless Facility in Public Right-of-Way near 293 Forest Drive



City of Goleta
DEPARTMENT OF PUBLIC WORKS

Proposed Small Cell Wireless Facility in Public Right-of-Way near 293 Forest Drive



Existing



Proposed

BARBARA GAUGHEN-MULLER
C. DAVE GAUGHEN
7456 Evergreen Drive
Goleta, CA 93117
Telephone: (805) 275 – 6457
Email: cdg55@earthlink.net

July 30, 2021

Attn: City of Goleta Council Members
130 Cremona Drive, Suite B
Goleta, CA 93117

Subj: Request to Appeal the Decision to Approve Crown Castle's Encroachment Permit (EP-19-095) for a Small Cell Wireless Facility in the Public Rights-of-Way at 293 Forest Drive, Goleta, CA 93117 by the Director of Public Works

- Encl. (1) Initial Email Request entitled "Please Deny Crown Castle's Encroachment Permit Application" dated June 14, 2021.
- (2) Amendment to Initial Email Request entitled "Subj: Amendment to email Response from C. Dave Gaughen & Barbara Gaughen-Muller entitled Please Deny Crown Castle's Encroachment Permit Application" dated June 29, 2021
- (3) Letter from Director of Public Works entitled "RE: Notice of Application Approval Crown Castle Small Cell Wireless Facility Encroachment Permit EP-19-095, 293 Forest Drive" dated July 28, 2021
- (4) AT&T 4G and 5G Wireless Coverage at 493 Forest Drive
- Ref. (1) City of Goleta, Notice of Proposed Project, "Crown Castle Small Cell Wireless Facility" at "293 Forest Drive, Goleta, CA 93117," mailed on May 28, 2021.
- (2) Email from Melissa Angeles entitled RE: "Please Deny Crown Castle's Encroachment Permit Application" dated June 16, 2021.
- (3) Crown Castle's Project Plans for Project #ATTSBW01m2 dated 12/04/2020.
- (4) Dtech Communication's Report entitled "Radio Frequency Electromagnetic Exposure Report" prepared for Crown Castle dated 2/04/2021 (the "Exposure Report")
- (5) City of Goleta Public Hearing for "Proposed Ordinance regarding Wireless Facilities in the Public Rights-of-Way, Fee Resolution and Master License Agreement" dated May 07, 2019 (the "Proposed Ordinance")
- (6) Goleta Municipal Code (GMC) Chapter 12.20 Wireless Facilities in Public Road Rights-of-Way

Dear City of Goleta Council Members:

We collectively (i.e., the homeowners at 7456 Evergreen Dr. and the homeowners at 297 Forest Dr.) respectfully request to appeal the decision to approve Crown Castle's Encroachment Permit (EP-19-095) for a small cell wireless facility in the public rights-of-way at 293 Forest Drive, Goleta, CA 93117 by the Director of Public Works.

Per Reference 1, Enclosure 1 was submitted by the homeowners at 7456 Evergreen Dr. which highlighted the fact that we are devout gardeners, own multiple fruit trees in extremely close proximity to the proposed cell site, sleep in a bedroom that is a mere 42 feet from the proposed site, and maintain an opt-

out status regarding Southern California Edison's wireless transmission of electrical usage data. Our submittal was greeted with a Public Works response that included Section 332(c)(7) of the Telecommunications Act which preempts local decisions premised directly or indirectly on the environmental effects of radio frequency (RF) emissions, and appeals of the Director's decision premised on the environmental effects of radio frequency emissions will not be considered. (Ord. 19-09 § 3).

As such, References 2 – 6 were reviewed and Enclosure 2 was subsequently submitted which detailed that fact that: A) Crown Castle's Antenna submittal was discontinued on 12/30/2018, last time to repair date of 12/30/2019, and is FCC Certified exclusively for use with radio frequencies typically associated with 4G technology and Not the much anticipated mid-band 5G, B) Crown Castle's Radio submittal is also FCC Certified exclusively for use with radio frequencies typically associated with 4G technology and Not the much anticipated mid-band 5G, and C) Crown Castle's Exposure Report is based upon radio frequencies typically associated with 4G technology and not the soon to be rolled out mid-band 5G.

Nevertheless, on July 28, 2021 the Director of Public Works approved Crown Castle's Small Cell Wireless Facility Encroachment Permit EP-19-095 (see Enclosure 3) which employs a discontinued antenna with both a radio and the antenna FCC Certified for use with radio frequencies typically associated with 4G technology and Not mid-band 5G. Additionally, it is also unclear as to why the Director of Public Works would approve this permit on behalf of AT&T when AT&T most certainly appears to have sufficient 4G and 5G coverage according to their website at 493 Forest Drive (see Enclosure 4).

On July 29 at 1:53 pm the Appellant (i.e., the homeowners of 7456 Evergreen Dr.) requested a two week extension to properly identify additional reasons as to why the homeowners at 7456 Evergreen Dr. and the homeowners at 297 Forest Dr. are adversely affected by the decision of the Public Works Director. Unfortunately, this request was denied and our appeal is required to meet the deadline of July 30, 2021. As such, we plan to provide a more detailed explanation of the additional reasons that support our appeal at the hearing.

Respectfully,

Barbara Gaughen-Muller & C. Dave Gaughen

ENCLOSURE 1

ENCLOSURE 1

Please Deny Crown Castle's Encroachment Permit Application

From: "C. Dave G" <cdg55@earthlink.net>
To: <publicworkspemits@cityofgoleta.org>
Cc: <bgaughenmu@aol.com>
Subject: Please Deny Crown Castle's Encroachment Permit Application
Date: Jun 14, 2021 12:24 AM
Attachments: [Exhibit 1.pdf](#), [Exhibit 2 Bee Report.pdf](#)

Hi again Melissa - the below that I sent to you for some reason didn't make it to Public works? Here it is again ~ thanks, Dave

Dear Melissa, City of Goleta, and Dept. of Public Works: My mother (Barbara Gaughen-Muller) and I (C. Dave Gaughen) humbly request that our Public Comment be accepted due in whole to my mother living at two separate locations in Santa Barbara County whereby she did not receive or review your letter for public comment until on or after June 03, 2021 which was addressed to her at 7456 Evergreen Dr, Goleta, CA 93117.

Nevertheless, we are strongly opposed to this project especially since the Cell Site/Streetlight is only 42 feet from the bedroom where I sleep (see Photos 1, 2, and 3 of Exhibit 1). Additionally, I am personally highly sensitive to wireless and cell phone irradiation : 1) When wireless routers first came out I purchased one for my desktop computer and could not use it due to the unknown fact that it actually caused my heart to palpitate, and 2) I continue to only use my cell phone in emergency situations due in whole to the risks associated with radio frequencies that are actually in the microwave range (regarding science, I do have a degree in Chemistry from UCSB). Additionally, my mother believes the same specifically when it comes to the effect of microwaves on bees and the subsequent pollination of her organic fruit trees and her organic garden (see Exhibit 1 Photos 4 & 5, and Exhibit 2 Bee Report). Furthermore, my mother has opted-out of Edison's automated wireless meter reading for approximately 12 years since she believes that our air waves are already maxed out with toxic irradiation from wireless/microwave technologies (i.e., cell sites: see Exhibit 1 Photo 6).

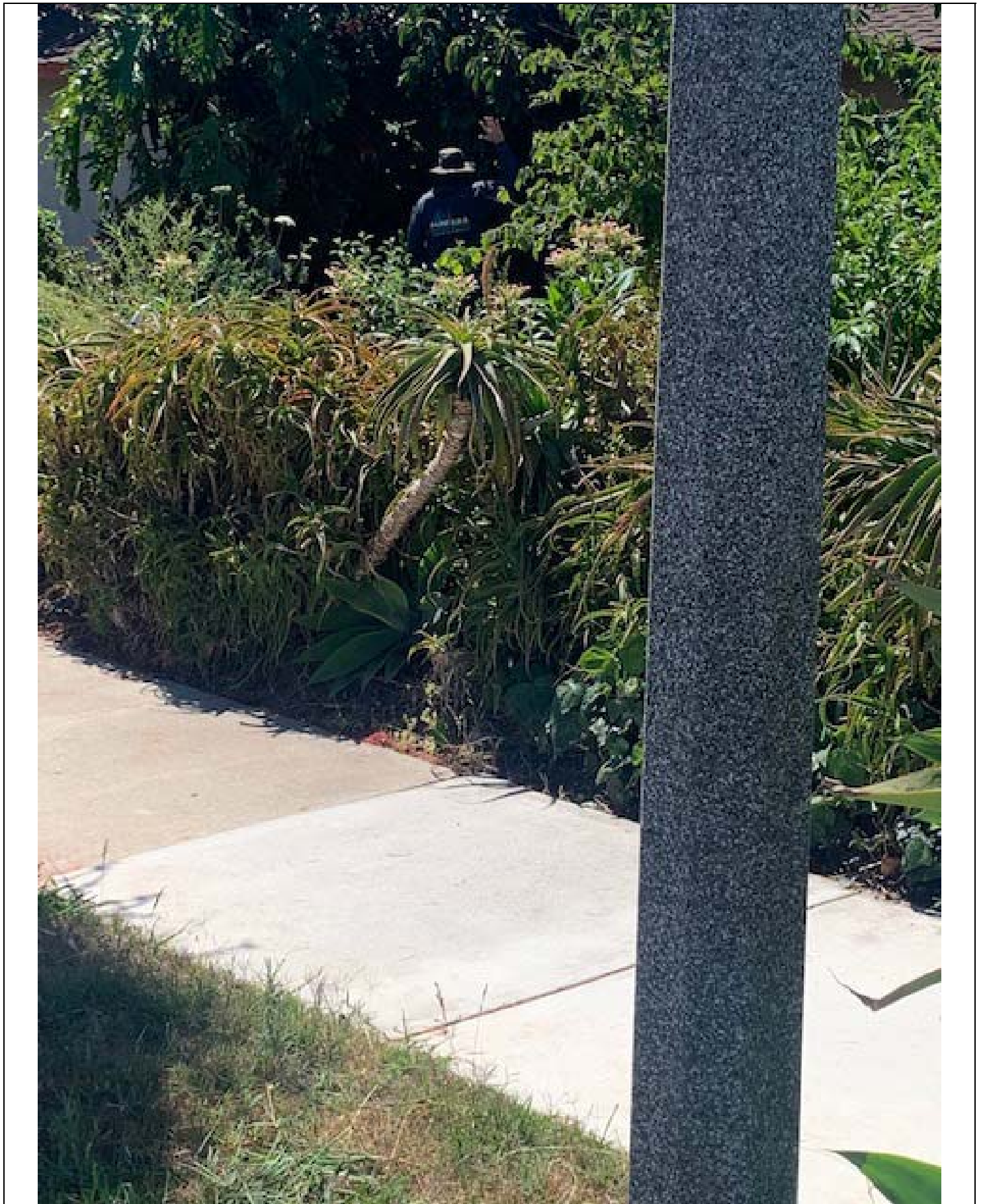
As such, please deny Crown Castle's encroachment permit application for 293 Forest Drive, Goleta, CA 93117 which in fact is located in the residential parkway at the property line of 7456 Evergreen Dr.*

Respectfully, Barbara Gaughen-Muller and C. Dave Gaughen, 7456 Evergreen Dr., Goleta, CA 93117

*If required, we will oppose this permit/project to the maximum extent of law.



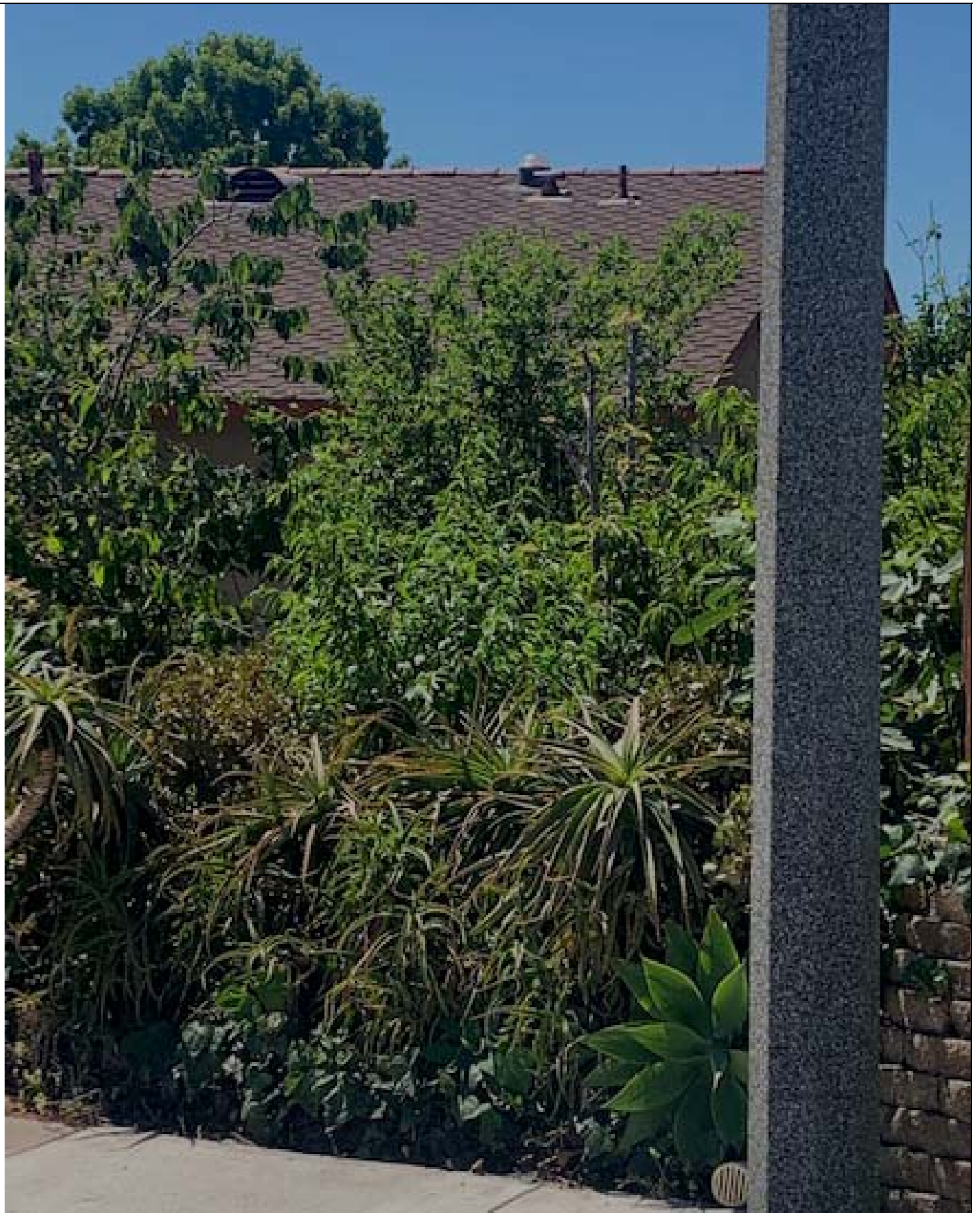
1. Photo of Streetlight at 7456 Evergreen Dr



2. Photo of Streetlight & Resident in front of Bedroom.



3. Residential Bedroom is 42 feet from Streetlight/Cell Site.



4. Photo of Organic Fruit Trees: Cherimoya, Plum, Peach, etc.



5. Photo of Organic Garden: Carrots & Citrus Trees to Left



6. Edison Opt-Out Customer for approximately 12 years.

Barrie Trower's Paper on the bees and microwave radiation. -
"Will the Communications Industry be the final straw for Our Planet's Ecosystems?" - Safe Land for Bees
Presented at the Glastonbury Symposium - July 24, 2010:
<http://www.safelandforbees.org.uk/bees-and-microwave-radiation.html>

Barrie Trower's Paper on the bees and microwave radiation.

"Will the Communications Industry be the final straw for Our Planet's Ecosystems?"

Presented at the Glastonbury Symposium, July 24th 2010

During a recent visit to Africa, a gentleman took me to a field full of plants and said *"What do you hear Barrie?"* I replied: *"Nothing"*. He said: *"Normally you and I would not be able to hear each other now, there would be so many bees buzzing, however, since that mobile phone transmitter went up, we haven't seen a single bee."* I received other similar reports concerning bees, birds, even ants during my stay in Africa. It was explained to me that the ants are very important for their symbiotic relationship with plants. The plants produce a sweet substance to feed the ants and in return the ants prevent insects landing on and eating the plant's leaves. Hence, ants guarantee plant crop safety and harvest.

It appeared that the common denominator in all cases was the proximity of mobile phone transmitters transmitting low-level continuous microwaves with added modulations (pulses) causing cellular distress to species within range. Residents who complained were told that such installations were within 'International Safety Guidelines'; other residents were either totally ignored, mocked or ridiculed.

Yet proof of such effects from low-level microwave irradiation has been known to Government(s) and published since 1932. (1) By 1971 the US Naval Medical Research institute referenced 2300 research articles listing in excess of 120 illnesses from low-level microwaves. (2) This was reinforced by confirmation from the US Defence Intelligence Agency Documents from 1972-76. (3)

So what does all this have to do with bees, birds and ants? Well, quite a lot really.

Biologically, apart from some specialist organelles within the cytoplasm or the amount of genetic material etc, all animal and plant cells are very similar; in fact at the atomic and nuclear level, they are identical. Thus, if you are going to affect human cellular activity, you will inevitably affect other animal and plant cells from the same source. In this case according to Government reports, low-level microwave irradiation. The reader does not have to look far to discover that many experimental trials, evaluating harmful microwave levels, are carried out on animal cells / tissue first; or even live animals. These reference levels are then applied to human beings. Arguably the World's foremost scientific journal, 'Nature', published an article explaining how oscillating magnetic fields disrupt the magnetic orientation behaviour of migratory birds. (4) The frequencies referred to within this article are well within the modulation frequencies used by the mobile phone industry.

Dr Andrew Goldsworthy, retired Lecturer from Imperial College, London; extends this mechanism to speeches in his written 'comment': 'Establishing Why Bees Die Off' dated 13th January 2010.

Prof Karl Richter also extends this explanation and references the plight of bees subjected to such irradiation. He notes that these insects' immune systems seem to have collapsed with many bees suffering five to six infections simultaneously. Interestingly, suppression of the immune system is also described by the US Government as a symptom for humans exposed to low-level microwave irradiation. (5)

Similarly, Prof Ferdinand Ruzicka, who is a bee keeper himself, says: *"The problem only appeared since several transmitters have been installed in the immediate proximity to my hives"*.

"Dragnose-Funk" continues: *'According to Ruzicka's observations, the bee colonies are so weakened by the mobile telecommunications radiation that they become more prone to various diseases.'* (6) In his two-part, 13 page document, Guy Cramer includes the military and its Worldwide use of similar telecommunications transmitters as partly complicit to this cause for the demise of the bee population. In particular he singles out the US multi-transmitting towers in Alaska which can focus anywhere on the Planet by reflecting their transmissions off of the ionosphere. This is otherwise known as HAARP. (7)

Researchers like Colin Buchanan have actually outlined time-lines plotting the demise of bees and its relation to human induced electromagnetic radiation. (8)

Within my presentation to the beekeepers' association at Glastonbury in 2008, I referenced 14 articles explaining why the bees are particularly susceptible to microwave irradiation. I stressed that bees could be exposed to magnetic fields roughly 640 times more powerful than they normally encounter with the Earth's field. The consequences of this can be two-fold: i) the ferromagnetic compounds within their heads, thorax and abdomen can produce hysteresis loops affecting proprioception (spatial awareness); and ii) the very size of the bee's antennas, brain and body render it susceptible to resonance (unwanted vibrations). (9) Put simply, I would argue that the bee is disorientated with a failing immune system and like AIDS in humans will become victim of any infection(s) or infestation(s) which came along.

The reader will not be surprised to learn that there is a plethora of research data documenting ill-effects on virtually all animal species from insects to cattle, listing long-term low-level microwave irradiation as the cause. I will reference just a few of the many thousands that exist.

The Research Institute for Nature and Forest clearly state in their publication that '*....long-term exposure to higher levels of radiation (GSM) negatively affects the abundance or behaviour of House Sparrows in the wild*' (10)

Twenty pages of Laboratory Studies citing suppression of the immune system by e.m. radiation upon cows, cats, dogs, hamsters, whales, birds, bees, bats and butterflies were published in Feb 2005. (11)

Prof. Denis Henshaw references in excess of 8000 research articles describing low-level radiation and its effects on animal navigation, plants and health of the animal kingdom.

Prof. Henshaw states that in his estimation, less than 10% of the available scientific evidence is cited by official review bodies; also, in some areas, none of the literature has been cited. (12)

An article published in 'Microwave News' describes how low-level microwave radiation, when modulated, can cause nonthermal neurological effects in both humans and birds. Exactly what the US Government published thirty years earlier and seems to have been 'overlooked'. (13)

Internet researcher Sylvia Wright listed 27 peer reviewed studies showing effects, or possible effects, of low-level irradiation upon seeds and plants. All of these papers had been published in scientific journals.(14)

Remembering that all planetary eco-environmental systems are interconnected, the monetary value of the World's ecosystems has been estimated at 33 Trillion US Dollars annually. (15) With an understanding of the potential risk to nature; should the Global Telecommunications Industry cover our Planet with microwave transmitters, without further investigation or restriction? Could this potential financial loss be sustainable to many poorer countries?

The UK Government are advising populations to switch off all unnecessary lights, drive less, even restrict flying for holidays in order to reduce our carbon footprint. It has been estimated that the annual carbon footprint for the worldwide telecommunications industry is approximately 110.7 million tonnes of CO₂ into our atmosphere. This is equivalent to the use of 29 million vehicles. Simultaneously all of our state schools are 'encouraged' to install wi-fi; virtually turning each school into a full-blown transmitter from the accumulative effect of microwaves. I find this a Governmental regulatory paradox. If for no other reason, than their total and absolute ambivalence on this matter! (16)

Are there solutions? Of course. In 2007 an international group of scientists studied 2000 peer reviews and published research papers. They recommended an acceptable level of radiation, based on the interaction between low-level microwaves and all known cellular processes. This became known as the bio-initiative level. (17)

The problem with this recommended level is that the telecommunications industry would suffer a reduction in profits. Consequently it is seldom adhered to.

There is a recent Legal Instrument. The European Parliament Guideline 2004/35/EG and advice from 21st April 2004, states that the 'causer pays the principle' for damage to animal, plants, natural habitats, water resources and soil. I must state here that I have no training in Law and should the reader wish to pursue this line of inquiry, expert international legal advice should be sought .

However, since September 1960, I have received several years of Governmental tuition on all aspects of microwave technology. At that time, microwave research was paramount Worldwide with many papers

published; including dangers of irradiation to living tissues from very low-level microwaves.

Knowing what we were all taught in the 60s, forces me to question the total ambivalence of today's Governmental Advisers. The microwaves haven't changed, only the colour and shape of the box emitting them.

Opinion

Could all of this potential damage to the Planet's eco-systems be a result of nothing more than Blind Corruption and Intentional Ignorance from our decision makers? Or is it planned? After all, if a country loses most of its pollinating insects (which tend to pollinate Vitamin C type plants), the health and financial status of such a country could be in jeopardy. The 'causer' could then offer a solution - at a price!

An interesting observation may be to look at the countries suffering the most; and those sweeping across such lands, installing a myriad of transmitters.

Barrie Trower

Scientific Advisor to several organisations

3 Flowers Meadow

Liverton

Devon TQ12 6UP

United Kingdom

01626 821014

Or ++1626 821014

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ENCLOSURE 2

ENCLOSURE 2

BARBARA GAUGHEN-MULLER
C. DAVE GAUGHEN
7456 Evergreen Drive
Goleta, CA 93117
Telephone: (805) 275 – 6457
Email: cdg55@earthlink.net

June 29, 2021

Attn: Department of Public Works and City Clerk
130 Cremona Drive, Suite B
Goleta, CA 93117

Subj: Amendment to email Response from C. Dave Gaughen & Barbara Gaughen-Muller entitled
“Please Deny Crown Castle’s Encroachment Permit Application” dated June 14, 2021

- Ref. (1) City of Goleta, Notice of Proposed Project, “Crown Castle Small Cell Wireless Facility” at “293 Forest Drive, Goleta, CA 93117,” mailed on May 28, 2021.
- (2) Email from Melissa Angeles entitled RE: “Please Deny Crown Castle’s Encroachment Permit Application” dated June 16, 2021.
- (3) Crown Castle’s Project Plans for Project #ATTSBW01m2 dated 12/04/2020.
- (4) Dtech Communication’s Report entitled “Radio Frequency Electromagnetic Exposure Report” prepared for Crown Castle dated 2/04/2021 (the “Exposure Report”)
- (5) City of Goleta Public Hearing for “Proposed Ordinance regarding Wireless Facilities in the Public Rights-of-Way, Fee Resolution and Master License Agreement” dated May 07, 2019 (the “Proposed Ordinance”)
- (6) Goleta Municipal Code (GMC) Chapter 12.20 Wireless Facilities in Public Road Rights-of-Way

Dear City of Goleta, Dept. of Public Works, and City Clerk:

After review of References 1 – 6, we respectfully request to submit an amendment to our initial email response entitled “Please Deny Crown Castle’s Encroachment Permit Application,” dated June 14, 2021.

1. Crown Castle’s Antenna: Discontinued on 12/30/2018, Not FCC Compliant to 5GHz UNII Band, & Last time to Repair date of 12/30/2019

Reference 5, the Proposed Ordinance, reads in relevant part as follows:

“To accommodate the ever-growing demand for wireless broadband telecommunications, the industry is starting to look for small cell, 5G (fifth generation of cellular mobile communications) technology, which represents a 10x improvement in capacity over existing broadband. 5G technology is distinguished from the present 4G based wireless service by use of low power transmitters with a coverage radius of approximately 400 feet; thus, 5G requires close spacing of antennas and more of them. Street light poles and other poles are therefore ideally suited for 5G antenna placement due to their sheer numbers and widespread deployment throughout municipalities.”

It most certainly appears that the City’s public hearing (Ref. 5) and subsequent municipal code (Ref. 6) is specific for use in the rollout of 5G technology throughout the City of Goleta and Not for the continued

development of 4G technology. However, Reference 3 presents the proposed Antenna (i.e., Galtronics Extent P6480i) which received: A) Manufacture Discontinuance (MD) Date of December 30, 2018, B) Last time to Repair Date of December 30, 2019, and C) Reasons for End-of-Life (EOL) of this Product as, “An upgraded antenna model, GQ2410-06621, is being introduced with improved specifications and FCC compliance to the 5GHz UNII Band.” Exhibit 3 contains Galtronic’s Product Data Sheet for the Extent P6480i Antenna and Galtronic’s End-of-Life (EOL) Notification for the P6480i Antenna.

Additionally,

“Low-band 5G uses a similar frequency range to 4G cellphones, 600–850 MHz, giving download speeds a little higher than 4G: ... Low-band cell towers have a range and coverage area similar to 4G towers. Mid-band 5G uses microwaves of 2.5–3.7 GHz, ... with each cell tower providing service up to several kilometers in radius. This level of service is the most widely deployed, and was deployed in many metropolitan areas in 2020. Some regions are not implementing low-band, making this the minimum service level. High-band 5G uses frequencies of 25–39 GHz, near the bottom of the millimeter wave band, although higher frequencies may be used in the future ... The above speeds are those achieved in actual tests in 2020, and speeds are expected to increase during rollout.”¹

Reference 4 (i.e., the Exposure Report) employs frequency values that are substantially lower than mid-band 5G. These values are more in line with 4G technology and are similar to the frequency values of low-band 5G. Further, as stated above, some regions are not implementing low-band making mid-band the minimal service level [see Reference 4, Page 5, Section 2.2 “Antenna Inventory” for P6480i at 1900 MHz – 2100 MHz (mid-band 5G is 2.5 – 3.7 GHz or 2500 – 3700 MHz: Not 1900 MHz – 2100 MHz)].

As such, Crown Castle’s proposed antenna (see Ref. 3) and the submitted Exposure Report (see Ref. 4) may in fact be acceptable for the continued development of a 4G Wireless Communication Facilities (WCF); however, regarding the City’s clearly defined intent of 5G over 4G, the Director of Public Works should classify Crown Castle’s antenna submittal, including all related exposure data submitted per the Exposure Report, as a “misrepresentation of a material fact” and deny Crown Castle’s permit application.²

The Goleta Municipal Code (GMC) §12.20.140 “Revocation and Appeal of Revocation” states in relevant part as follows:

C. Required Findings. The Director may revoke or modify the permit if it makes any of the following findings:

1. The permittee obtained the approval by means of fraud or misrepresentation of a material fact;

///
///

¹“5G,” June 2021, <https://en.wikipedia.org/wiki/5G>, (accessed June 28, 2021).

²On a related side note, if Crown Castle’s permit were to be approved by the Director of Public Works (i.e., as is, employing the submitted antenna) followed by the rollout of either mid-band and/or high-band 5G, the residents at 7456 Evergreen Dr., pursuant to Section 12.20.160 “Breach—Termination of Permit” of the GMC, would file a complaint for failure to comply with the conditions of the permit or applicable law.

2. Crown Castle's Radio: No FCC Certification for Mid-Band 5G

As previously stated, the City's plans are to participate in the rollout of 5G technology as compared to the continued development of 4G technology. However, Reference 3 presents the proposed Remote Radio Unit (i.e., Ericsson Radio 4402) which does not appear to be certified by the FCC for mid-band 5G frequencies between 2.5 – 3.7 GHz. Exhibit 3 presents: a) Screen shot of internet search identifying Ericsson Radio 4402 as FCC ID TA8AKRC161742-1 (see P. 7, search result titled as "Ericsson AB New Certification ..."), b) FCC Certification, date of Grant 05/18/2020, for FCC ID TA8AKRC161742-1 (i.e., Ericsson Radio 4402) beginning on Page 8, and c) FCC Certification, date of Grant 08/08/2019, for FCC ID TA8AKRC161742-1 (i.e., Ericsson Radio 4402) beginning on Page 21. Furthermore, Exhibit 3 Page 19 identifies FCC certification for frequencies below 2179.8 MHz and Page 29 identifies FCC certification for frequencies below 2179.8 MHz:

In short, Crown Castle's proposed radio (see Ref. 3) may in fact be acceptable for the continued development of a 4G WCF but appears to remain uncertified by the FCC for the City's clearly defined intent of implementing 5G technology. As such, the Director of Public Works should classify Crown Castle's radio submittal as a "misrepresentation of a material fact" and deny Crown Castle's permit application

Respectfully,

Barbara Gaughen-Muller & C. Dave Gaughen

EXHIBIT 3

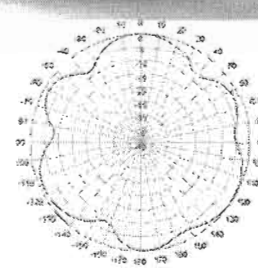
EXHIBIT 3

10" x 24" Outdoor Pseudo Omni Canister Antenna [1695-2400, 3550-3700 and 5150-5950 MHz]

EXTENT™ P6480i

Description:

- Pseudo Omni Canister Antenna for Outdoor DAS and Small Cells.
- 4x ports for AWS/WCS Band 1695-2400 MHz
- 4x ports for CBR5 Band 3550-3700 MHz
- 2x ports for UNII Band 5150-5950 MHz



1695-2400, 3550-3700 and 5150-5950 MHz Pseudo Omni Canister Antenna

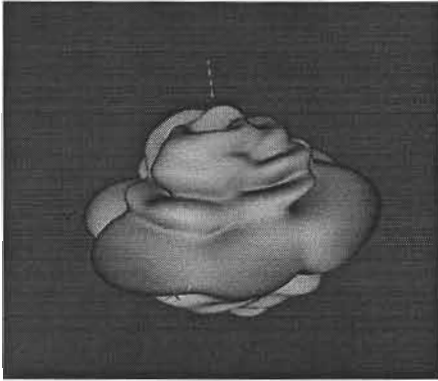
Electrical Specifications

Frequency Band [MHz]	1695-2180	2180-2400	3550-3700	5150-5950
Input Connector Type	4x 4.3-10 DIN(F)		4x 4.3-10 DIN(F)	2x 4.3-10 DIN(F)
Isolation (typ.)	-20 dB		-25 dB	-25 dB
Inter-band Isolation	-30 dB (typ)			
VSWR/Return Loss	1.5:1 / 14.0 dB (Typ.)			
Impedance	50 Ω			
Polarization	Dual slant 45° (±45°)			
Horizontal Beamwidth	Omni (360°)			
Vertical Beamwidth	15°	12°	15°	19°
Max. Gain	9 dBi	9.5 dBi	8.5 dBi	5.5 dBi(Max.)
Avg. Gain	7.5 dBi	8 dBi	8 dBi	3 dBi
Downtilt	0° Fixed			
Max Power / Port	100 Watts		50 Watts	1 Watts
PIM @ 2x43 dBm	<-153 dBc		N/A	N/A

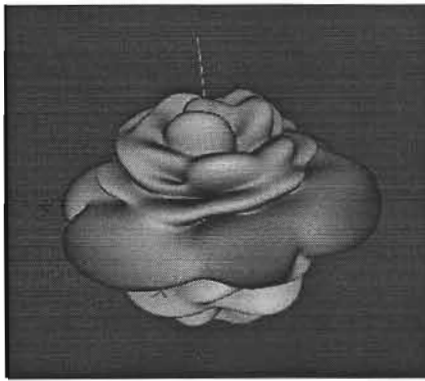
Mechanical Specifications

Operating Temperature	-40° to 158°F (-40° to +70°C)
Antenna Weight	23 lbs (~10.5kg)
Antenna Diameter	10" (254 mm)
Antenna Height	24.9" (634 mm)
Radome Material	ASA
RoHS	Compliant
Radome Color	Gray, Brown, Black, 3M™ Conceal Film, Custom Colors Possible
Ingress Protection	Outdoor (IP65)
Wind Survival Rating	150 mph (241 km/h)
Shipping Dimensions - L x W x D	30"x19"x19" (762x483x483 mm)
Shipping Weight (Gross Weight)	30 lbs (12 kg)

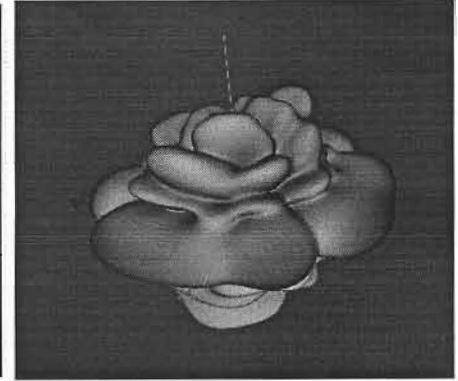
3D Antenna Patterns



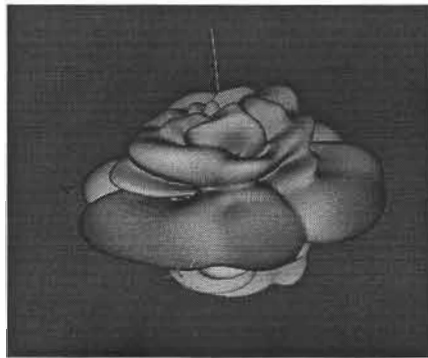
1730MHz



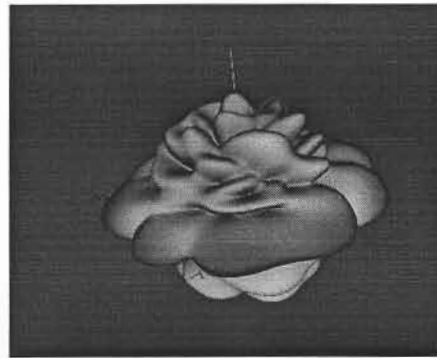
1930MHz



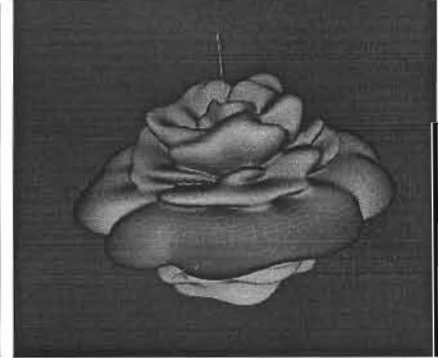
2130MHz



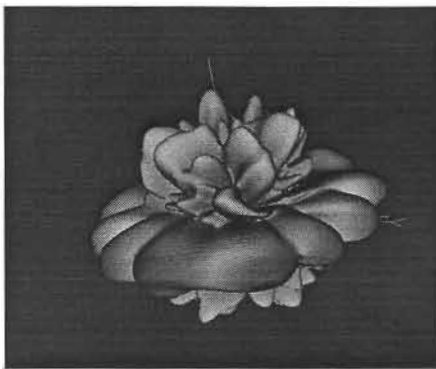
2170MHz



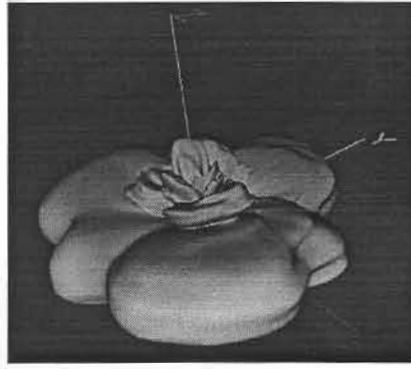
2320MHz



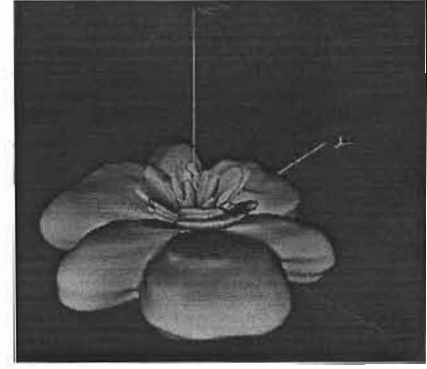
2355MHz



3650MHz



5200MHz

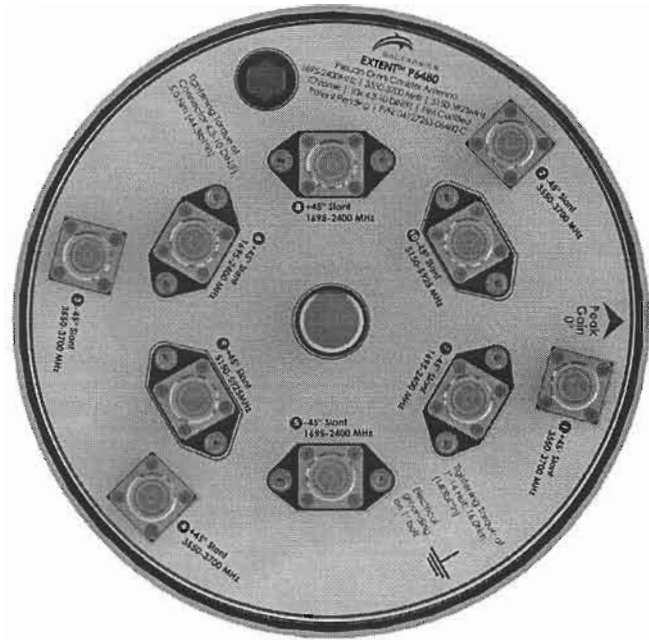
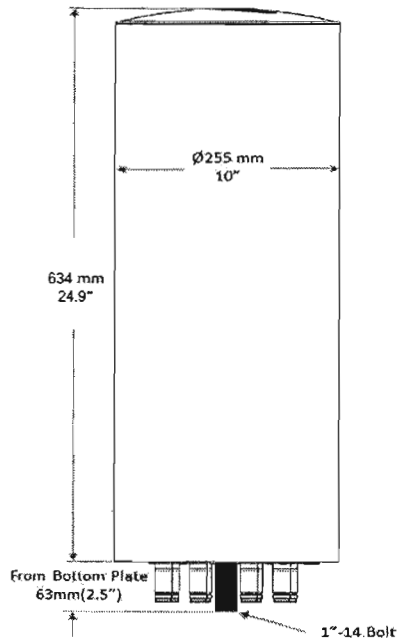


5850MHz




Release Date: March 05, 2018; Revision: A : RFD#6480

Additional Technical Information

Mechanical Dimensions



Part Numbers, Ordering Options and Accessories

Description:	Part Number:
Antenna with 10x 4.3-10 DIN (F) Connectors, Gray	04127265-06480-1
Antenna with 10x 4.3-10 DIN (F) Connectors, Brown	04127265-06480-6
Antenna with 10x 4.3-10 DIN (F) Connectors, Black	04127265-06480-B
Antenna with 10x 4.3-10 DIN (F) Connectors, Chrome (3M™ Conceal Film)	04127265-06480-C
Mounting Bracket(s):	Part Number:
Pole Side Mounting Bracket (wind speed of 150 mph) Offers easy pole side installation.* *Not recommended for placement parallel to a pole/structure due to insufficient spacing.	 62-50-09
Pole Top Mounting Bracket (wind speed of 150 mph) Bracket base attached directly to wood, metal and cement poles.	 62-20-09
1" Mount Rod Adapter (wind speed of 150 mph) Universal interface for pole top installation.	 62-57-09

Matting Male Connector Torque:
4.3-10: 3.7 ft-lb (5 Nm)

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End-of-Life (EOL) Notification

EOL Number: GT6480EOL

**Galtronics 24"x10" Outdoor Pseudo Omni Canister Antenna:
EXTENT™ P6480i**

Notification Date: March 31, 2018

Galtronics announces the end-of-sale and end-of-life dates for the Galtronics P6480i. The last time to buy the product is June 30, 2018.

Last Time Buy (LTB) Date*:	June 30, 2018
Manufacture Discontinuance (MD) Date:	December 30, 2018
End of Life (EOL) Date:	December 30, 2018
Last Time for Order Shipments:	December 30, 2018
Last Time to Repair:	December 30, 2019
Market Regions Affected:	All
<i>*All orders placed after the date of this notice cannot be canceled or returned. Please check with your Galtronics Sales Representative for details and availability of inventory.</i>	

Reason for End of Life of this Product

An upgraded antenna model, GQ2410-06621, is being introduced with improved specifications and FCC compliance to the 5GHz UNII Band.

Product Repairs of EXTENT™ P6480i will be performed in accordance with existing contractual agreements or customer specific service plans as negotiated prior to EOL or within twelve (12) months of the original purchase date.

Manufacture Discontinuance and Last Time Buy Definition – As part of ending the life of hardware elements this notice serves as a formal communication of Galtronics intent to Manufacture Discontinuance (MD) and offer Last Time Buy (LTB) date for the product(s) noted.

Galtronics Corporation LTD
8930 S. Beck Avenue, Suite 103 Tempe, Arizona 85284 USA Phone: 1-480-496-5100



Alternative/Replacement Solutions

Model Number	Suggested Replacement Model Number*	Specification Deltas	
		EXTENT™ P6480i (discontinued)	GQ2410-06621 (new model)
EXTENT™ P6480i <u>Ordering Options:</u> 04127265-06480-1 04127265-06480-6 04127265-06480-B 04127265-06480-C	GQ2410-06621 <u>Ordering Options:</u> GQ2410-06621-111 GQ2410-06621-611 GQ2410-06621-B11 GQ2410-06621-C11 GQ2410-06621-112 GQ2410-06621-612 GQ2410-06621-B12 GQ2410-06621-C12	(1) P6480i is characterized over 1695-2700 MHz, 3550-3700 MHz and 5150-5950 MHz (no FCC compliance)	(1) M6319i is characterized over 695-2360 MHz, 3550-3700 MHz and 5150-5925 MHz with FCC compliance
		(2) Uses 10x 4.3-10 DIN connectors with 4 colors and 4 ordering options.	(2) Uses 10x 4.3-10 DIN connectors with 4 colors and 8 ordering options.
		(3) Max. Gain: 9.5/8.5/5.5 dBi	(3) Max. Gain: 8.9/8.0/5.5 dBi
		(4) Vertical BW: 15°/15°/19°	(4) Vertical BW: 19°/18.7°/23°
		(5) Dimension (HxD): 24.9" (634mm) x 10" (254mm)	(5) Dimension (HxD): 24.9" (634mm) x 10" (255mm)
		(6) Weight: 23 lbs. (10.5 Kg)	(6) Weight: 17.2 lbs. (7.8 Kg)

*Galtronics suggests all users verify equivalency for use. Specifications are available from www.galtronics.com

CUSTOMER ACKNOWLEDGEMENT OF RECEIPT:

Please complete the EOL acknowledgement receipt form below and email it to john.dobiesz@galtronics.com and the Galtronics Contact listed above.

Galtronics will deem this change accepted unless specific conditions of acceptance are provided in writing within 30 days from the date of this notice.

Attention Distributors: Product(s) identified in this notification will become obsolete and as such this EOL notification will act as the official written notification. All obsolete products will be listed in the next published quarterly distributor price book, following an EOL change, and listed on the obsolescence form which accompanies said price book. Within thirty (30) days from the published date of the price book, Distributor shall notify Galtronics in writing of Distributor's then current inventory of the obsolete product.

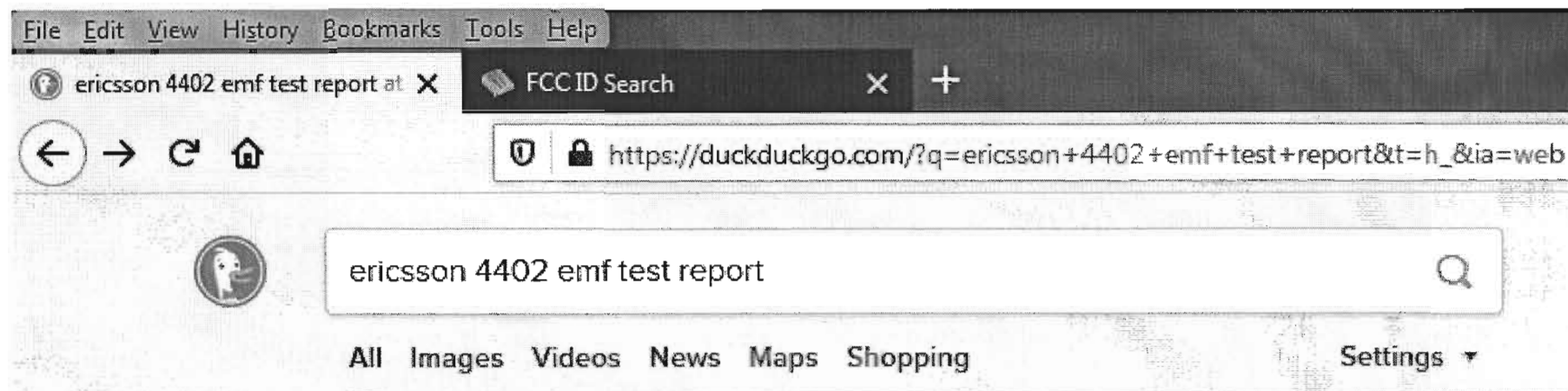
Galtronics Corporation LTD
8930 S. Beck Avenue, Suite 103 Tempe, Arizona 85284 USA Phone: 1-480-496-5100



EOL ACKNOWLEDGEMENT RECEIPT FORM


Company: Contact Name: Title: Date: Email Address: Phone Number: Comments:	
---	--

Galtronics Corporation LTD
8930 S. Beck Avenue, Suite 103 Tempe, Arizona 85284 USA Phone: 1-480-496-5100



All regions ▾ Safe search: moderate ▾ Any time ▾

EMF Test Report: Ericsson RD 4442 B48 - FCC ID

 <https://fccid.io/TA8AKRY901385-1/RF-Exposure-Info/Exhibit-06-EMF-Test-Report-Erics...>

EMF Test Report: Ericsson RD 4442 B48 Ackred. Nr 1761 Provning ISO/IEC 17025 Rapport utfärdad av ackrediterat provningslaboratorium Test report issued by an Accredited Testing Laboratory Document number: GFTB-17:001789 Uen, Rev B Date of report: 2017-11-04 Testing laboratory: Ericsson EMF Research Laboratory Ericsson AB SE-164 80 Stockholm Sweden

Ericsson AB Single New Certification ... - FCC ID Search

 <https://fccid.io/TA8AKRC161742-1/RF-Exposure-Info/RF-Exposure-Report-4389927>

Single New Certification, Limited Modular Approval RF Exposure Report details for FCC ID TA8AKRC161742-1 made by Ericsson AB. Document Includes RF Exposure Info EMF Test Report: Ericsson Radio 4402 B66A (FCC).

FCC ID TA8AKRC161742-1

TA8-AKRC161742-1, TA8 AKRC1617421, TA8AKRC161742-1, TA8AKRC161742-I

Ericsson AB Single New Certification, Limited Modular Approval **AKRC161742-1**

FCC ID (<https://fccid.io/>)» / Ericsson AB (<https://fccid.io/TA8>)»

/ AKRC161742-1 (<https://fccid.io/TA8AKRC1617421>)

An FCC ID is the product ID assigned by the FCC to identify wireless products in the market. The FCC chooses 3 or 5 character "Grantee" codes to identify the business that created the product. For example, the grantee code for **FCC ID: TA8AKRC161742-1** is **TA8** (<https://fccid.io/TA8>). The remaining characters of the FCC ID, **AKRC161742-1**, are often associated with the product model, but they can be random. These letters are chosen by the applicant. In addition to the application, the FCC also publishes *internal images*, *external images*, *user manuals*, and *test results* for wireless devices. They can be under the "exhibits" tab below.

Purchase on Amazon: Single New Certification, Limited Modular Approval (http://target.georiot.com/Proxy.ashx?tsid=17750&GR_URL=http%3A%2F%2Fwww.amazon.com%2Fgp%2Fsearch%3Fie%3DUTF8%26camp%3D1789%26creative%3D9325%26index%3Dele)

Application: Single New Certification, Limited Modular Approval

Equipment Class: TNB - Licensed Non-Broadcast Station Transmitter

Alternate Sources: FCC.gov (<https://gov.fccid.io/TA8AKRC161742-1>) | FCC.report (<https://fcc.report/FCC-ID/TA8AKRC161742-1>)

Registered By: Ericsson AB - TA8 (Sweden) (<https://fccid.io/TA8>)

App #	Purpose	Date	Unique ID
1	Original Equipment	2019-08-08	+mUBThls6T0jfdW5WLGc0g==
2	Class II Permissive Change	2020-05-18	7QCbmYi18Xf0n337uq1PVQ==

Operating Frequencies

Device operates within approved frequencies overlapping with the following cellular bands: LTE 1,2100 DOWN | LTE 10,AWS-1+ DOWN | LTE 65,2100+ DOWN | LTE 66,AWS-3 DOWN | UMTS CH 1 DOWN | UMTS CH 10 DOWN |

Frequency Range	Power Output	Tolerance	Emission Designator	Rule Parts	Grant Notes	App #
2.1102-2.1798 GHz (/frequency-explorer.php?lower=2110.2&upper=2179.8)	2 Watts	0.05ppm	200KG7D (/Emissions-Designator /200KG7D)	27 (https://ecfr.io /Title-47/pt47.2.27)	(/Grant-Note/)	1.8
2.1102-2.1798 GHz (/frequency-explorer.php?lower=2110.2&upper=2179.8)	2 Watts	0.05ppm	200KG7D (/Emissions-Designator /200KG7D)	27 (https://ecfr.io /Title-47/pt47.2.27)	(/Grant-Note/)	2.8
2.1107-2.1793 GHz (/frequency-explorer.php?lower=2110.7&upper=2179.3)	5 Watts	0.05ppm	1M40F9W (/Emissions-Designator /1M40F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.2
2.1107-2.1793 GHz (/frequency-explorer.php?lower=2110.7&upper=2179.3)	5 Watts	0.05ppm	1M40F9W (/Emissions-Designator /1M40F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.2

Frequency Range	Power Output	Tolerance	Emission Designator	Rule Parts	Grant Notes	App #
2.1115-2.1785 GHz (/frequency-explorer.php?lower=2111.5&upper=2178.5)	5 Watts	0.05ppm	3M00F9W (/Emissions-Designator /3M00F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.3
2.1115-2.1785 GHz (/frequency-explorer.php?lower=2111.5&upper=2178.5)	5 Watts	0.05ppm	3M00F9W (/Emissions-Designator /3M00F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.3
2.1124-2.1526 GHz (/frequency-explorer.php?lower=2112.4&upper=2152.6)	5 Watts	0.05ppm	5M00F9W (/Emissions-Designator /5M00F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	(/Grant-Note/)	1.1
2.1125-2.1775 GHz (/frequency-explorer.php?lower=2112.5&upper=2177.5)	5 Watts	0.05ppm	5M00F9W (/Emissions-Designator /5M00F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.4
2.1125-2.1775 GHz (/frequency-explorer.php?lower=2112.5&upper=2177.5)	5 Watts	0.05ppm	5M00F9W (/Emissions-Designator /5M00F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.4
2.1125-2.1775 GHz (/frequency-explorer.php?lower=2112.5&upper=2177.5)	5 Watts	0.05ppm	4M48F9W (/Emissions-Designator /4M48F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.9
2.115-2.175 GHz (/frequency-explorer.php?lower=2115&upper=2175)	5 Watts	0.05ppm	10M0F9W (/Emissions-Designator /10M0F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.5
2.115-2.175 GHz (/frequency-explorer.php?lower=2115&upper=2175)	5 Watts	0.05ppm	9M31F9W (/Emissions-Designator /9M31F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.1
2.115-2.175 GHz (/frequency-explorer.php?lower=2115&upper=2175)	5 Watts	0.05ppm	10M0F9W (/Emissions-Designator /10M0F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.5

Frequency Range	Power Output	Tolerance	Emission Designator	Rule Parts	Grant Notes	App #
2.1175-2.1725 GHz (/frequency-explorer.php?lower=2117.5&upper=2172.5)	5 Watts	0.05ppm	15M0F9W (/Emissions-Designator /15M0F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.6
2.1175-2.1725 GHz (/frequency-explorer.php?lower=2117.5&upper=2172.5)	5 Watts	0.05ppm	15M0F9W (/Emissions-Designator /15M0F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.6
2.1175-2.1725 GHz (/frequency-explorer.php?lower=2117.5&upper=2172.5)	5 Watts	0.05ppm	14M1F9W (/Emissions-Designator /14M1F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.11
2.12-2.17 GHz (/frequency-explorer.php?lower=2120&upper=2170)	5 Watts	0.05ppm	20M0F9W (/Emissions-Designator /20M0F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.7
2.12-2.17 GHz (/frequency-explorer.php?lower=2120&upper=2170)	5 Watts	0.05ppm	20M0F9W (/Emissions-Designator /20M0F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.7
2.12-2.17 GHz (/frequency-explorer.php?lower=2120&upper=2170)	5 Watts	0.05ppm	18M9F9W (/Emissions-Designator /18M9F9W)	27 (https://ecfr.io /Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.12

Exhibits

All

1 (2019-08-08)

2 (2020-05-18)

Available Exhibits

App #	Document	Type	Submitted Available
2	Test Report Part 11 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-11-4727598)	Test Report Adobe Acrobat PDF (550 kB)	2020-05-17 2020-05-18
2	Test Report Part 10 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-10-4727597)	Test Report Adobe Acrobat PDF (5615 kB)	2020-05-17 2020-05-18
2	Test Report Part 9 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-9-4727596)	Test Report Adobe Acrobat PDF (5502 kB)	2020-05-17 2020-05-18
2	Test Report Part 8 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-8-4727595)	Test Report Adobe Acrobat PDF (5585 kB)	2020-05-17 2020-05-18
2	Test Report Part 7 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-7-4727594)	Test Report Adobe Acrobat PDF (5565 kB)	2020-05-17 2020-05-18
2	Test Report Part 6 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-6-4727573)	Test Report Adobe Acrobat PDF (5532 kB)	2020-05-17 2020-05-18
2	Test Report Part 5 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-5-4727572)	Test Report Adobe Acrobat PDF (5519 kB)	2020-05-17 2020-05-18
2	Test Report Part 4 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-4-4727571)	Test Report Adobe Acrobat PDF (5583 kB)	2020-05-17 2020-05-18
2	Test Report Part 3 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-3-4727570)	Test Report Adobe Acrobat PDF (5524 kB)	2020-05-17 2020-05-18

App #	Document	Type	Submitted Available
2	Test Report Part 2 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-2-4727569)	Test Report Adobe Acrobat PDF (5554 kB)	2020-05-17 2020-05-18
2	Test Report Part 1 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-1-4727568)	Test Report Adobe Acrobat PDF (739 kB)	2020-05-17 2020-05-18
2	Agents Letter (https://fccid.io/TA8AKRC161742-1/Letter/Agents-Letter-4727567)	Cover Letter(s) Adobe Acrobat PDF (313 kB)	2020-05-17 2020-05-18
2	FCC C2PC Letter (https://fccid.io/TA8AKRC161742-1/Letter/FCC-C2PC-Letter-4727566)	Cover Letter(s) Adobe Acrobat PDF (96 kB)	2020-05-17 2020-05-18
2	Confidentiality Letter (https://fccid.io/TA8AKRC161742-1/Letter/Confidentiality-Letter-4727565)	Cover Letter(s) Adobe Acrobat PDF (115 kB)	2020-05-17 2020-05-18
2	Test Setup Photos (https://fccid.io/TA8AKRC161742-1/Test-Setup-Photos/Test-Setup-Photos-4727564)	Test Setup Photos Adobe Acrobat PDF (385 kB)	2020-05-17 2020-05-18
1	Confidentiality Letter (https://fccid.io/TA8AKRC161742-1/Letter/Confidentiality-Letter-4389931)	Cover Letter(s) Adobe Acrobat PDF (82 kB)	2019-08-07 2019-08-08
1	FCC Cover Letter (https://fccid.io/TA8AKRC161742-1/Letter/FCC-Cover-Letter-4389930)	Cover Letter(s) Adobe Acrobat PDF (72 kB)	2019-08-07 2019-08-08
1	Limited Modular Approval Letter (https://fccid.io/TA8AKRC161742-1/Letter/Limited-Modular-Approval-Letter-4389929)	Cover Letter(s) Adobe Acrobat PDF (80 kB)	2019-08-07 2019-08-08
1	Agents Letter (https://fccid.io/TA8AKRC161742-1/Letter/Agents-Letter-4389928)	Cover Letter(s) Adobe Acrobat PDF (313 kB)	2019-08-07 2019-08-08
1	RF Exposure Report (https://fccid.io/TA8AKRC161742-1/RF-Exposure-Info/RF-Exposure-Report-4389927)	RF Exposure Info Adobe Acrobat PDF (616 kB)	2019-08-07 2019-08-08

App #	Document	Type	Submitted Available
1	Test Setup Photos (https://fccid.io/TA8AKRC161742-1/Test-Setup-Photos/Test-Setup-Photos-4389926)	Test Setup Photos Adobe Acrobat PDF (415 kB)	2019-08-07 2019-08-08
1	External Photos (https://fccid.io/TA8AKRC161742-1/External-Photos/External-Photos-4389925)	External Photos Adobe Acrobat PDF (298 kB)	2019-08-07 2019-08-08
1	ID Label and Location (https://fccid.io/TA8AKRC161742-1/Label/ID-Label-and-Location-4389924)	ID Label/Location Info Adobe Acrobat PDF (119 kB)	2019-08-07 2019-08-08
1	Test Report I Part 8 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-8-4389923)	Test Report Adobe Acrobat PDF (1531 kB)	2019-08-07 2019-08-08
1	Test Report I Part 7 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-7-4389922)	Test Report Adobe Acrobat PDF (4933 kB)	2019-08-07 2019-08-08
1	Test Report I Part 6 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-6-4389921)	Test Report Adobe Acrobat PDF (4972 kB)	2019-08-07 2019-08-08
1	Test Report I Part 5 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-5-4389920)	Test Report Adobe Acrobat PDF (5004 kB)	2019-08-07 2019-08-08
1	Test Report I Part 4 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-4-4389919)	Test Report Adobe Acrobat PDF (4620 kB)	2019-08-07 2019-08-08
1	Test Report I Part 3 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-3-4389918)	Test Report Adobe Acrobat PDF (4763 kB)	2019-08-07 2019-08-08
1	Test Report I Part 2 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-2-4389917)	Test Report Adobe Acrobat PDF (4969 kB)	2019-08-07 2019-08-08
1	Test Report I Part 1 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-1-4389916)	Test Report Adobe Acrobat PDF (4710 kB)	2019-08-07 2019-08-08

Application Forms

1 (2019-08-08)

2 (2020-05-18)

Application for Equipment Authorization FCC Form 731 TCB Version

Applicant Information

Applicant's complete, legal business name:

Ericsson AB (<https://fccid.io/TA8>)

FCC Registration Number (FRN):

0013476155 (<https://fccid.io/TA8>)

Alphanumeric FCC ID:

TA8AKRC1617421

Unique Application Identifier:

7QCbmYi18Xf0n337uq1PVQ==

Line one:

PDU Radio

Line two:

Torshamnsgatan 23

City:

Stockholm

State:

N/A

Country:

Sweden

Zip Code:

164 80

TCB Information

TCB Application Email Address:

andy.zhang@tuvsud.com

TCB Scope:

B1: Commercial mobile radio services equipment in the following 47 CFR Parts 20, 22 (cellular), 24,25 (below 3 GHz) & 27

FCC ID

Grantee Code:TA8
Product Code: AKRC161742-1

Person at the applicant's address to receive grant or for contact

Name:Igor Tasevski
Title: Head of PDU Radio
Telephone Number:+46 10 719 00 00Extension:
Fax Number:+46 10 716 00 28
Email: igor.tasevski@ericsson.com

Long-Term Confidentiality

Does this application include a request for confidentiality for any portion(s) of the data contained in this application pursuant to 47 CFR § 0.459 of the Commission Rules?: Yes

Short-Term Confidentiality

Does short-term confidentiality apply to this application?: No
If so, specify the short-term confidentiality release date (MM/DD/YYYY format):
Note: If no date is supplied, the release date will be set to 45 calendar days past the date of grant.

Software Defined/Cognitive Radio

Is this application for software defined/cognitive radio authorization? No

Equipment Class

Equipment Class: TNB - Licensed Non-Broadcast Station Transmitter
Description of product as it is marketed: (NOTE: This text will appear below the equipment class on the grant): Remote Radio Unit which supports WCDMA, LTE, NB-IoT and NR

Related OET KnowledgeDataBase Inquiry

Is there a KDB inquiry associated with this application? No

Modular Equipment

Modular Type: Limited Single Modular Approval

Application Purpose

Application is for: Class II permissive change or modification of presently authorized equipment

Composite/Related Equipment

Is the equipment in this application a composite device subject to an additional equipment authorization? No
Is the equipment in this application part of a system that operates with, or is marketed with, another device that requires an equipment authorization? No

Test Firm Information

Name of test firm and contact person on file with the FCC:

Firm Name: Intertek Testing Services Limited, Shanghai (/Test-Firm/Intertek-Testing-Services-Limited-Shanghai)

First Name: Leah

Last Name: Xu

Telephone Number: +86 21 61278200 Extension:

E-mail: leah.xu@intertek.com

Grant Comments

Enter any text that you would like to appear at the bottom of the Grant of Equipment Authorization:

Class II Permissive change as described in this filing. Limited Modular Approval. The power output listed is rated conducted per output port. This transmitter must only be operated in the grantee's RBS systems. RF exposure is addressed at the time of licensing, as required by the responsible FCC Bureau(s), including antenna co-locating requirements of 1.1307 (b)(3).

Set the grant of this application to be deferred to a specified date:

No

Equipment Authorization Waiver

Is there an equipment authorization waiver associated with this application? No

If there is an equipment authorization waiver associated with this application, has the associated waiver been approved and all information uploaded?: No

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

SECTION 5301 (ANTI-DRUG ABUSE) CERTIFICATION:

The applicant must certify that neither the applicant nor any party to the application is subject to a denial of Federal benefits, that include FCC benefits, pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862 because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the definition of a "party" for these purposes.

Does the applicant or authorized agent so certify? Yes

Applicant/Agent Certification:

I certify that I am authorized to sign this application. All of the statements herein and the exhibits attached hereto, are true and correct to the best of my knowledge and belief. In accepting a Grant of Equipment Authorization as a result of the representations made in this application, the applicant is responsible for (1) labeling the equipment with the exact FCC ID specified in this application, (2) compliance statement labeling pursuant to the applicable rules, and (3) compliance of the equipment with the applicable technical rules. If the applicant is not the actual manufacturer of the equipment, appropriate arrangements have been made with the manufacturer to ensure that production units of this equipment will continue to comply with the FCC's technical requirements.

Authorizing an agent to sign this application, is done solely at the applicant's discretion; however, the applicant remains responsible for all statements in this application.

If an agent has signed this application on behalf of the applicant, a written letter of authorization which includes information to enable the agent to respond to the above section 5301 (Anti-Drug Abuse) Certification statement has been provided by the applicant. It is understood that the letter of authorization must be submitted to the FCC upon request, and that the FCC reserves the right to contact the applicant directly at any time.

Signature of Authorized Person Filing: Igor Tasevski

Title of authorized signature:

Applications are submitted for FCC ID and Grant requests. Click an above application to view details

Grants

1 TCB (2019-08-08)

1 EAS (2019-08-08)

2 TCB (2020-05-18)

2 EAS (2020-05-18)

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FEDERAL COMMUNICATIONS
COMMISSION
WASHINGTON, D.C. 20554

COPY

GRANT OF EQUIPMENT
AUTHORIZATION
Certification

Ericsson AB
PDU Radio Torshamnsgatan 23
Stockholm, 164 80
Sweden

Date of Grant: 05/18/2020

Application Dated: 05/17/2020

Attention: Igor Tasevski , Head of PDU Radio

NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE,
and is VALID ONLY for the equipment identified hereon for use under the
Commission's Rules and Regulations listed below.

FCC IDENTIFIER: TA8AKRC161742-1

Name of Grantee: Ericsson AB

Equipment Class: Licensed Non-Broadcast Station Transmitter

Notes: Remote Radio Unit which supports WCDMA,
LTE, NB-IoT and NR

Modular Type: Limited Single Modular

Grant Notes	FCC Rule Parts	Frequency Range (MHZ)	Output Watts	Frequency Tolerance	Emission Designator
MO	27	2112.4 - 2152.6	5.0	0.05 PM	5M00F9W
MO	27	2110.7 - 2179.3	5.0	0.05 PM	1M40F9W
MO	27	2111.5 - 2178.5	5.0	0.05 PM	3M00F9W
MO	27	2112.5 - 2177.5	5.0	0.05 PM	5M00F9W
MO	27	2115.0 - 2175.0	5.0	0.05 PM	10M0F9W
MO	27	2117.5 - 2172.5	5.0	0.05 PM	15M0F9W
MO	27	2120.0 - 2170.0	5.0	0.05 PM	20M0F9W
	27	2110.2 - 2179.8	2.0	0.05 PM	200KG7D
MO	27	2112.5 - 2177.5	5.0	0.05 PM	4M48F9W
MO	27	2115.0 - 2175.0	5.0	0.05 PM	9M31F9W
MO	27	2117.5 - 2172.5	5.0	0.05 PM	14M1F9W
MO	27	2120.0 - 2170.0	5.0	0.05 PM	18M9F9W

Class II Permissive change as described in this filing.



Limited Modular Approval. The power output listed is rated conducted per output
port. This transmitter must only be operated in the grantee's RBS systems. RF
exposure is addressed at the time of licensing, as required by the responsible FCC
Bureau(s), including antenna co-locating requirements of 1.1307 (b)(3).

MO: This Multiple Input Multiple Output (MIMO) device was evaluated for multiple transmitted signals as indicated in the filing.

Mail To:

EA280112

Grants authorize equipment for operation at approved frequencies and sale within the USA.
Click an above grant to view details

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FCC ID TA8AKRC161742-1

TA8-AKRC161742-1, TA8 AKRC1617421, TA8AKRC161742-1, TA8AKRC161742-I

Ericsson AB Single New Certification, Limited Modular Approval **AKRC161742-1**

FCC ID (<https://fccid.io/>)» / Ericsson AB (<https://fccid.io/TA8>)» / AKRC161742-1 (<https://fccid.io/TA8AKRC1617421>)

An FCC ID is the product ID assigned by the FCC to identify wireless products in the market. The FCC chooses 3 or 5 character "Grantee" codes to identify the business that created the product. For example, the grantee code for **FCC ID: TA8AKRC161742-1** is **TA8** (<https://fccid.io/TA8>). The remaining characters of the FCC ID, **AKRC161742-1**, are often associated with the product model, but they can be random. These letters are chosen by the applicant. In addition to the application, the FCC also publishes *internal images*, *external images*, *user manuals*, and *test results* for wireless devices. They can be under the "exhibits" tab below.

Purchase on Amazon: Single New Certification, Limited Modular Approval (http://target.georiot.com/Proxy.ashx?tsid=17750&GR_URL=http%3A%2F%2Fwww.amazon.com%2Fgp%2Fsearch%3Fie%3DUTF8%26camp%3D1789%26creative%3D9325%26index%3Delectronics%26keywords%3DSingle%2B)

Application: Single New Certification, Limited Modular Approval

Equipment Class: TNB - Licensed Non-Broadcast Station Transmitter

Alternate Sources: FCC.gov (<https://gov.fccid.io/TA8AKRC161742-1>) | FCC.report (<https://fcc.report/FCC-ID/TA8AKRC161742-1>)

Registered By: Ericsson AB - TA8 (Sweden) (<https://fccid.io/TA8>)

App #	Purpose	Date	Unique ID
1	Original Equipment	2019-08-08	+mUBThls6T0jfdW5WLGc0g==
2	Class II Permissive Change	2020-05-18	7QCbmYi18Xf0n337uq1PVQ==

Operating Frequencies

Device operates within approved frequencies overlapping with the following cellular bands: LTE 1,2100 DOWN | LTE 10,AWS-1+ DOWN | LTE 65,2100+ DOWN | LTE 66,AWS-3 DOWN | UMTS CH 1 DOWN | UMTS CH 10 DOWN |

Frequency Range	Power Output	Tolerance	Emission Designator	Rule Parts	Grant Notes	App #
2.1102-2.1798 GHz (/frequency-explorer.php?lower=2110.2&upper=2179.8)	2 Watts	0.05ppm	200KG7D (/Emissions-Designator/200KG7D)	27 (https://ecfr.io/Title-47/pt47.2.27)	(/Grant-Note/)	1.8
2.1102-2.1798 GHz (/frequency-explorer.php?lower=2110.2&upper=2179.8)	2 Watts	0.05ppm	200KG7D (/Emissions-Designator/200KG7D)	27 (https://ecfr.io/Title-47/pt47.2.27)	(/Grant-Note/)	2.8
2.1107-2.1793 GHz (/frequency-explorer.php?lower=2110.7&upper=2179.3)	5 Watts	0.05ppm	1M40F9W (/Emissions-Designator/1M40F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.2
2.1107-2.1793 GHz (/frequency-explorer.php?lower=2110.7&upper=2179.3)	5 Watts	0.05ppm	1M40F9W (/Emissions-Designator/1M40F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.2
2.1115-2.1785 GHz (/frequency-explorer.php?lower=2111.5&upper=2178.5)	5 Watts	0.05ppm	3M00F9W (/Emissions-Designator/3M00F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.3
2.1115-2.1785 GHz (/frequency-explorer.php?lower=2111.5&upper=2178.5)	5 Watts	0.05ppm	3M00F9W (/Emissions-Designator/3M00F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.3
2.1124-2.1526 GHz (/frequency-explorer.php?lower=2112.4&upper=2152.6)	5 Watts	0.05ppm	5M00F9W (/Emissions-Designator/5M00F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	(/Grant-Note/)	1.1
2.1125-2.1775 GHz (/frequency-explorer.php?lower=2112.5&upper=2177.5)	5 Watts	0.05ppm	5M00F9W (/Emissions-Designator/5M00F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.4
2.1125-2.1775 GHz (/frequency-explorer.php?lower=2112.5&upper=2177.5)	5 Watts	0.05ppm	5M00F9W (/Emissions-Designator/5M00F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.4
2.1125-2.1775 GHz (/frequency-explorer.php?lower=2112.5&upper=2177.5)	5 Watts	0.05ppm	4M48F9W (/Emissions-Designator/4M48F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.9
2.115-2.175 GHz (/frequency-explorer.php?lower=2115&upper=2175)	5 Watts	0.05ppm	10M0F9W (/Emissions-Designator/10M0F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.5
2.115-2.175 GHz (/frequency-explorer.php?lower=2115&upper=2175)	5 Watts	0.05ppm	9M31F9W (/Emissions-Designator/9M31F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.1
2.115-2.175 GHz (/frequency-explorer.php?lower=2115&upper=2175)	5 Watts	0.05ppm	10M0F9W (/Emissions-Designator/10M0F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.5
2.1175-2.1725 GHz (/frequency-explorer.php?lower=2117.5&upper=2172.5)	5 Watts	0.05ppm	15M0F9W (/Emissions-Designator/15M0F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.6
2.1175-2.1725 GHz (/frequency-explorer.php?lower=2117.5&upper=2172.5)	5 Watts	0.05ppm	15M0F9W (/Emissions-Designator/15M0F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.6
2.1175-2.1725 GHz (/frequency-explorer.php?lower=2117.5&upper=2172.5)	5 Watts	0.05ppm	14M1F9W (/Emissions-Designator/14M1F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.11
2.12-2.17 GHz (/frequency-explorer.php?lower=2120&upper=2170)	5 Watts	0.05ppm	20M0F9W (/Emissions-Designator/20M0F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	1.7
2.12-2.17 GHz (/frequency-explorer.php?lower=2120&upper=2170)	5 Watts	0.05ppm	20M0F9W (/Emissions-Designator/20M0F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.7
2.12-2.17 GHz (/frequency-explorer.php?lower=2120&upper=2170)	5 Watts	0.05ppm	18M9F9W (/Emissions-Designator/18M9F9W)	27 (https://ecfr.io/Title-47/pt47.2.27)	MO (/Grant-Note/MO)	2.12

Exhibits

All	1 (2019-08-08)	2 (2020-05-18)
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Available Exhibits

App #	Document	Type	Submitted Available
2	Test Report Part 11 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-11-4727598)	Test Report Adobe Acrobat PDF (550 kB)	2020-05-17 2020-05-18
2	Test Report Part 10 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-10-4727597)	Test Report Adobe Acrobat PDF (5615 kB)	2020-05-17 2020-05-18
2	Test Report Part 9 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-9-4727596)	Test Report Adobe Acrobat PDF (5502 kB)	2020-05-17 2020-05-18
2	Test Report Part 8 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-8-4727595)	Test Report Adobe Acrobat PDF (5585 kB)	2020-05-17 2020-05-18
2	Test Report Part 7 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-7-4727594)	Test Report Adobe Acrobat PDF (5565 kB)	2020-05-17 2020-05-18
2	Test Report Part 6 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-6-4727573)	Test Report Adobe Acrobat PDF (5532 kB)	2020-05-17 2020-05-18
2	Test Report Part 5 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-5-4727572)	Test Report Adobe Acrobat PDF (5519 kB)	2020-05-17 2020-05-18
2	Test Report Part 4 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-4-4727571)	Test Report Adobe Acrobat PDF (5583 kB)	2020-05-17 2020-05-18
2	Test Report Part 3 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-3-4727570)	Test Report Adobe Acrobat PDF (5524 kB)	2020-05-17 2020-05-18
2	Test Report Part 2 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-2-4727569)	Test Report Adobe Acrobat PDF (5554 kB)	2020-05-17 2020-05-18

App #	Document	Type	Submitted Available
2	Test Report Part 1 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-Part-1-4727568)	Test Report Adobe Acrobat PDF (739 kB)	2020-05-17 2020-05-18
2	Agents Letter (https://fccid.io/TA8AKRC161742-1/Letter/Agents-Letter-4727567)	Cover Letter(s) Adobe Acrobat PDF (313 kB)	2020-05-17 2020-05-18
2	FCC C2PC Letter (https://fccid.io/TA8AKRC161742-1/Letter/FCC-C2PC-Letter-4727566)	Cover Letter(s) Adobe Acrobat PDF (96 kB)	2020-05-17 2020-05-18
2	Confidentiality Letter (https://fccid.io/TA8AKRC161742-1/Letter/Confidentiality-Letter-4727565)	Cover Letter(s) Adobe Acrobat PDF (115 kB)	2020-05-17 2020-05-18
2	Test Setup Photos (https://fccid.io/TA8AKRC161742-1/Test-Setup-Photos/Test-Setup-Photos-4727564)	Test Setup Photos Adobe Acrobat PDF (385 kB)	2020-05-17 2020-05-18
1	Confidentiality Letter (https://fccid.io/TA8AKRC161742-1/Letter/Confidentiality-Letter-4389931)	Cover Letter(s) Adobe Acrobat PDF (82 kB)	2019-08-07 2019-08-08
1	FCC Cover Letter (https://fccid.io/TA8AKRC161742-1/Letter/FCC-Cover-Letter-4389930)	Cover Letter(s) Adobe Acrobat PDF (72 kB)	2019-08-07 2019-08-08
1	Limited Modular Approval Letter (https://fccid.io/TA8AKRC161742-1/Letter/Limited-Modular-Approval-Letter-4389929)	Cover Letter(s) Adobe Acrobat PDF (80 kB)	2019-08-07 2019-08-08
1	Agents Letter (https://fccid.io/TA8AKRC161742-1/Letter/Agents-Letter-4389928)	Cover Letter(s) Adobe Acrobat PDF (313 kB)	2019-08-07 2019-08-08
1	RF Exposure Report (https://fccid.io/TA8AKRC161742-1/RF-Exposure-Info/RF-Exposure-Report-4389927)	RF Exposure Info Adobe Acrobat PDF (616 kB)	2019-08-07 2019-08-08
1	Test Setup Photos (https://fccid.io/TA8AKRC161742-1/Test-Setup-Photos/Test-Setup-Photos-4389926)	Test Setup Photos Adobe Acrobat PDF (415 kB)	2019-08-07 2019-08-08
1	External Photos (https://fccid.io/TA8AKRC161742-1/External-Photos/External-Photos-4389925)	External Photos Adobe Acrobat PDF (298 kB)	2019-08-07 2019-08-08
1	ID Label and Location (https://fccid.io/TA8AKRC161742-1/Label/ID-Label-and-Location-4389924)	ID Label/Location Info Adobe Acrobat PDF (119 kB)	2019-08-07 2019-08-08
1	Test Report I Part 8 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-8-4389923)	Test Report Adobe Acrobat PDF (1531 kB)	2019-08-07 2019-08-08
1	Test Report I Part 7 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-7-4389922)	Test Report Adobe Acrobat PDF (4933 kB)	2019-08-07 2019-08-08
1	Test Report I Part 6 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-6-4389921)	Test Report Adobe Acrobat PDF (4972 kB)	2019-08-07 2019-08-08
1	Test Report I Part 5 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-5-4389920)	Test Report Adobe Acrobat PDF (5004 kB)	2019-08-07 2019-08-08

App #	Document	Type	Submitted Available
1	Test Report I Part 4 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-4-4389919)	Test Report Adobe Acrobat PDF (4620 kB)	2019-08-07 2019-08-08
1	Test Report I Part 3 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-3-4389918)	Test Report Adobe Acrobat PDF (4763 kB)	2019-08-07 2019-08-08
1	Test Report I Part 2 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-2-4389917)	Test Report Adobe Acrobat PDF (4969 kB)	2019-08-07 2019-08-08
1	Test Report I Part 1 (https://fccid.io/TA8AKRC161742-1/Test-Report/Test-Report-I-Part-1-4389916)	Test Report Adobe Acrobat PDF (4710 kB)	2019-08-07 2019-08-08

Application Forms

1 (2019-08-08) 2 (2020-05-18)

Application for Equipment Authorization FCC Form 731 TCB Version

Applicant Information

Applicant's complete, legal business name: Ericsson AB (<https://fccid.io/TA8>)
FCC Registration Number (FRN): 0013476155 (<https://fccid.io/TA8>)
Alphanumeric FCC ID: TA8AKRC1617421
Unique Application Identifier: +mUBThs6T0jfdW5WLGc0g==
Line one: PDU Radio
Line two: Torshamnsgatan 23
City: Stockholm
State: N/A
Country: Sweden
Zip Code: 164 80

TCB Information

TCB Application Email Address: andy.zhang@tuvsud.com
TCB Scope: B1: Commercial mobile radio services equipment in the following 47 CFR Parts 20, 22 (cellular), 24, 25 (below 3 GHz) & 27

FCC ID

Grantee Code:TA8

Product Code: AKRC161742-1

Person at the applicant's address to receive grant or for contact

Name:Igor Tasevski

Title: Head of PDU Radio

Telephone Number:+46 10 719 00 00Extension:

Fax Number:+46 10 716 00 28

Email: igor.tasevski@ericsson.com

Long-Term Confidentiality

Does this application include a request for confidentiality for any portion(s) of the data contained in this application pursuant to 47 CFR § 0.459 of the Commission Rules?: Yes

Short-Term Confidentiality

Does short-term confidentiality apply to this application?: No

If so, specify the short-term confidentiality release date (MM/DD/YYYY format):

Note: If no date is supplied, the release date will be set to 45 calendar days past the date of grant.

Software Defined/Cognitive Radio

Is this application for software defined/cognitive radio authorization? No

Equipment Class

Equipment Class: TNB - Licensed Non-Broadcast Station Transmitter

Description of product as it is marketed: (NOTE: This text will appear below the equipment class on the Single New Certification, Limited Modular Approval grant):

Related OET KnowledgeDataBase Inquiry

Is there a KDB inquiry associated with this application? No

Modular Equipment

Modular Type: Limited Single Modular Approval

Application Purpose

Application is for: Original Equipment

Composite/Related Equipment

Is the equipment in this application a composite device subject to an additional equipment authorization? No

Is the equipment in this application part of a system that operates with, or is marketed with, another device that requires an equipment authorization? No

Test Firm Information

Name of test firm and contact person on file with the FCC:

Firm Name: Telecommunications Technology Labs, CAICT (/Test-Firm/Telecommunications-Technology-Labs-CAICT)

First Name: Yaqin

Last Name: Shen

Telephone Number:8610-62304633Extension:2583

Fax Number: 8610-62300586

Grant Comments

Enter any text that you would like to appear at the bottom of the Grant of Equipment Authorization:

Limited Modular Approval. The power output listed is rated conducted per output port. This transmitter must only be operated in the grantees RBS systems. RF exposure is addressed at the time of licensing, as required by the responsible FCC Bureau(s), including antenna co-locating requirements of 1.1307 (b)(3).

Set the grant of this application to be deferred to a specified date:

No

Equipment Authorization Waiver

Is there an equipment authorization waiver associated with this application? No

If there is an equipment authorization waiver associated with this application, has the associated waiver been approved and all information uploaded?: No

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

SECTION 5301 (ANTI-DRUG ABUSE) CERTIFICATION:

The applicant must certify that neither the applicant nor any party to the application is subject to a denial of Federal benefits, that include FCC benefits, pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862 because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the definition of a "party" for these purposes.

Does the applicant or authorized agent so certify? Yes

Applicant/Agent Certification:

I certify that I am authorized to sign this application. All of the statements herein and the exhibits attached hereto, are true and correct to the best of my knowledge and belief. In accepting a Grant of Equipment Authorization as a result of the representations made in this application, the applicant is responsible for (1) labeling the equipment with the exact FCC ID specified in this application, (2) compliance statement labeling pursuant to the applicable rules, and (3) compliance of the equipment with the applicable technical rules. If the applicant is not the actual manufacturer of the equipment, appropriate arrangements have been made with the manufacturer to ensure that production units of this equipment will continue to comply with the FCC's technical requirements.

Authorizing an agent to sign this application, is done solely at the applicant's discretion; however, the applicant remains responsible for all statements in this application.

If an agent has signed this application on behalf of the applicant, a written letter of authorization which includes information to enable the agent to respond to the above section 5301 (Anti-Drug Abuse) Certification statement has been provided by the applicant. It is understood that the letter of authorization must be submitted to the FCC upon request, and that the FCC reserves the right to contact the applicant directly at any time.

Signature of Authorized Person Filing: Preeti Nagarajan

Title of authorized signature:

Applications are submitted for FCC ID and Grant requests. Click an above application to view details

Grants

1 TCB (2019-08-08) 1 EAS (2019-08-08) 2 TCB (2020-05-18) 2 EAS (2020-05-18)

TCB	GRANT OF EQUIPMENT AUTHORIZATION Certification Issued Under the Authority of the Federal Communications Commission By: TUV SUD BABT Octagon House, Concorde Way, Segensworth North, Fareham, PO15 5RL United Kingdom	TCB
		Date of Grant: 08/08/2019
		Application Dated: 08/07/2019
Ericsson AB PDU Radio Torshamnsgatan 23 Stockholm, 164 80 Sweden Attention: Igor Tasevski , Head of PDU Radio		
NOT TRANSFERABLE EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.		
FCC IDENTIFIER: TA8AKRC161742-1 Name of Grantee: Ericsson AB Equipment Class: Licensed Non-Broadcast Station Transmitter Notes: Single New Certification, Limited Modular Approval Modular Type: Limited Single Modular		
Grant Notes	FCC Rule Parts	Frequency Range (MHZ)
	27	2112.4 - 2152.6
MO	27	2110.7 - 2179.3
MO	27	2111.5 - 2178.5
MO	27	2112.5 - 2177.5
MO	27	2115.0 - 2175.0
MO	27	2117.5 - 2172.5
MO	27	2120.0 - 2170.0
	27	2110.2 - 2179.8
		Output Watts
		5.0
		5.0
		5.0
		5.0
		5.0
		5.0
		5.0
		2.0
		Frequency Tolerance
		0.05 PM
		0.05 PM
		0.05 PM
		0.05 PM
		0.05 PM
		0.05 PM
		0.05 PM
		Emission Designator
		5M00F9W
		1M40F9W
		3M00F9W
		5M00F9W
		10M0F9W
		15M0F9W
		20M0F9W
		200KG7D

Limited Modular Approval. The power output listed is rated conducted per output port. This transmitter must only be operated in the grantees RBS systems. RF exposure is addressed at the time of licensing, as required by the responsible FCC Bureau(s), including antenna co-locating requirements of 1.1307 (b)(3).

MO: This Multiple Input Multiple Output (MIMO) device was evaluated for multiple transmitted signals as indicated in the filing.

Grants authorize equipment for operation at approved frequencies and sale within the USA. Click an above grant to view details

ENCLOSURE 3

ENCLOSURE 3



VIA ELECTRONIC AND REGULAR MAIL

CITY COUNCIL

July 28, 2021

Paula Perotte
Mayor

James Kyriaco
Mayor Pro Tempore

Roger S. Aceves
Councilmember

Stuart Kasdin
Councilmember

Kyle Richards
Councilmember

Crown Castle NG West, LLC
Attn: Tricia Knight
123 Seacliff Drive
Pismo Beach, CA 93449

**RE: Notice of Application Approval
Crown Castle Small Cell Wireless Facility
Encroachment Permit EP-19-095, 293 Forest Drive**

Dear Ms. Knight:

CITY MANAGER
Michelle Greene

City staff has reviewed the materials submitted for the above referenced project and determined the application to be approved pending the execution of a supplement agreement and payment of license and permit fees.

Our review is based on the following project description:

Installation of a new small cell site facility on an existing streetlight in the public right-of-way with an Omni directional antenna, (2) remote radio units with shroud, (2) quad-duplexers and vault.

Supporting Reasons:

1. The proposed facility complies with all applicable provisions of the Goleta Municipal Code (GMC) Chapter 12.20.
2. The proposed facility will not incommode the public use of the public right-of-way.
3. The proposed construction plan and schedule will not unduly interfere with the public's use of the public right-of-way.
4. The proposed facility complies with any standards adopted by the Director under GMC Section 12.20.040(A).
5. The proposed facility complies with all Federal and State standards and laws.

If you have any questions or would like to schedule a meeting to discuss this letter, please contact Assistant Engineer, Melissa Angeles at (805) 690-5122

or at mangelles@cityofgoleta.org.

Sincerely,

DocuSigned by:

Charles Ebeling

Charles W. Ebeling, P.E., T.E.

Director of Public Works/City Engineer

cc: Melissa Angeles, Assistant Engineer
Other Interested Parties (via email)

ENCLOSURE 4

ENCLOSURE 4

see <https://www.att.com/maps/wireless-coverage.html> accessed on 7/30/21

The screenshot displays the AT&T Maps - Wireless Coverage website in a web browser. The browser's address bar shows the URL <https://www.att.com/maps/wireless-coverage.html>. The website's navigation bar includes links for Deals, Wireless, Internet, TV, Prepaid, and Business, along with a search bar and links for Support and Account.

The main content area features a map of the Goleta area, California. A location pin is placed at 293 Forest Dr CA 93117. A pop-up window for this location indicates "5G Coverage & 4G LTE Coverage". The map uses a color-coded system to show coverage levels: 5G+ (dark blue), 5G (medium blue), 4G LTE (light blue), and Other AT&T coverage (green). The map also shows major roads like Pacific Coast Highway (101) and local streets like Cathedral Oaks Rd and Calle Real.

On the left side of the map, there is a sidebar titled "Wireless coverage" with tabs for Wireless, AT&T PREPAID, International, and AT&T stores. Below these tabs is a "Location" search bar containing "293 Forest Dr CA 93117" and a "Use my current location" button. A legend on the left lists the coverage types and includes a link to "Available 5G+ venues". At the bottom of the sidebar is a "Shop 5G Devices" button and a link to "Learn more about the legend".

The bottom of the screenshot shows the Windows taskbar with icons for Bing, Firefox, and other applications, along with the system clock showing 6:37 PM on 7/30/2021.

Public Comment Received

David Cutaia

From: Melanie Rogers <melbeemusic@yahoo.com>
Sent: Friday, August 13, 2021 8:50 AM
To: City Clerk Group
Subject: Public Comment - small cell wireless facility
Attachments: Bio-WG-FCC-16421-comment.pdf

Dear Deborah Lopez,

I hereby submit my public comment to officially oppose the installation of a small cell wireless facility at 293 Forest Drive in Goleta. It is my strong belief that this cell station is not needed, as we currently have adequate cell service in our area. Furthermore, as a home owner and resident of this neighborhood, I believe it would be an eye sore to have a cell station on top of a light post. And, my greatest concern is the many yet-to-be discovered negative health impacts of having such a cell station in such close proximity to a residential neighborhood.

Even if this cell installation is "FCC approved," that is **not** good enough, as the FCC has clearly been remiss in granting permission for the roll-out of small cell networks without first confirming the health safety of such cell networks on people or animals (see attached). The truth is, even if the FCC claims that this technology is safe, they don't really know that it is actually safe and we will become human test subjects in a large experiment that puts our health and our children's health at risk, without informed consent.

I therefore urge the Goleta City Council members to respect the wishes of the residents of Goleta and the Brandon School neighborhood and deny the application for this small cell station installation.

Thank you for your consideration,

Melanie Rogers
239 Hillview Drive



FCC 16-421

Before the Federal Communications Commission

Washington, D.C. 20554

In the Matter of

STREAMLINING DEPLOYMENT OF SMALL CELL) FCC Docket 16-421
INFRASTRUCTURE BY IMPROVING)
WIRELESS FACILITIES SITING POLICIES)

To: Office of the Secretary
Federal Communications Commission, Washington, DC 20554

Date: 6 February 2017

Comment filed by: Cindy Sage, MA, Lennart Hardell, MD, PhD and David O. Carpenter
on behalf of the BioInitiative Working Group.

Cindy Sage, MA, Sage Associates, 1396 Danielson Road, Santa Barbara, CA 93108 USA

Email: sage@silcom.com

Prof. Lennart Hardell, MD, PhD. Department of Oncology Orebro University Hospital Orebro,
Sweden. E-mail: lennart.hardell@regionorebrolan.se

David O. Carpenter, MD, 5 University Place, Room A-217, University at Albany, Rensselaer,
NY 12144. Email: dcarpenter@albany.edu



The BioInitiative Working Group Comment on
FCC Docket 16-421 - STREAMLINING DEPLOYMENT OF SMALL CELL
INFRASTRUCTURE BY IMPROVING WIRELESS FACILITIES SITING POLICIES

The FCC is proposing to streamline the process for small wireless facility permitting, without completing its investigation of RF health effects of low-intensity radiofrequency radiation (Docket No. 13-39, Docket No 13-84 - In the Matter of Reassessment of Federal Communications Commission Radiofrequency Exposure Limits and Policies and Docket No. 03-137 Regarding Human Exposure to Radiofrequency Electromagnetic Fields). This fact alone argues against the FCC speeding and easing the approval of millions of new 'small cell' wireless antenna sites under **Docket 16-421**. It also argues against permitting thousands of new satellite RF sources (Boeing **Docket No. 16-1244**, SAT-LOA-20160622-00058).

Health consequences have not been identified nor been factored into public safety limits. This is particularly true for the new 5G wireless technologies using millimeter wave frequencies (~28 GHz to ~71 GHz) that will be transmitted by small cells in the future. Adey (1993) warns:

"Biomolecular and cell research in this spectral region has been meager. There may be special significance to biomolecular interactions with millimeter wave EM fields. At frequencies within the range 10-1,000 GHz, resonant vibrational or rotational interactions, not seen at lower frequencies, may occur with molecules or portions of molecules."

*"Grundler and Kaiser (1992) have shown that growth appears finely "tuned" to applied field frequencies around 42 GHz, with successive peaks and troughs at intervals of about 10 MHz. In recent studies, they noted that the sharpness of the tuning increases as the intensity of the imposed field decreases; but the tuning peak occurs at the same frequency when the field intensity is progressively reduced. Moreover, clear responses occur with **incident fields as weak as 5 picowatts/cm²**." (emphasis added)*

New public safety limits taking into account non-thermal, low-intensity effects of chronic exposure to 900 MHz to the low GHz frequencies are vitally needed but the FCC has failed to complete this step. There is no basis for the FCC to make a positive assertion of safety of existing RF levels to which the public is perpetually exposed. Certainly unaddressed health concerns should stop the FCC from expediting new wireless technologies facilitating new small cell siting and satellite RF sources. The existing FCC public safety limits are grossly inadequate

to protect public health from the body burden of the existing proliferation of RF-emitting devices and the wireless infrastructure supporting them, let alone from new RF sources that will make the situation worse for public health. There is a broad consensus that new, biologically-based public safety limits for chronic exposure are warranted, given the scientific and public health evidence for health risks from low-intensity radiofrequency radiation exposures from wireless technology applications (BioInitiative 2007 and 2012 Reports, accessed at www.bioinitiative.org).

The 2008 NAS Report on Research Needs for Wireless Device summarizes deficiencies for wireless effects on children, adolescents and pregnant women; wireless personal computers and base station antennas; multiple element base station antennas under highest radiated power conditions; hand-held cell phone compliance testing; and better dosimetric absorbed power calculations using realistic anatomic models for both men, women and children of different height and ages. Realistic assessments of cumulative RF exposures need to be addressed, taking into account the high variability in environmental situations; and safety buffers below ‘effects levels’ need to be built into new FCC public safety limits. The FCC has failed to do so. Instead the agency has sold off new spectrum, fails to complete its open reviews on RF health effects, and now proposes to fast-track application procedures for new RF sources.

The FCC ignores studies establishing human health harm at currently permissible exposure levels. The National Toxicology Program under the National Institutes of Health has completed the largest-ever animal study on cell phone radiation and cancer. The relationship between radiofrequency radiation and cancer is clearly established. Dr. John Bucher, Associate Director of the NTP and the lead researcher on this study confirms that the exposure of 1.5 W/Kg is lower than currently allowed for the public, including children, under FCC public safety limits. Testing on rats is standard in predicting human cancers.

The NTP results confirm that cell phone radiation exposure levels within the currently allowable safety limits are the “likely cause” of brain and heart cancers in these animals. Tumors called schwannomas were induced in the heart. Hyperplastic lesions and glial cell neoplasms of the heart and brain observed in male rats are considered likely the result of whole-body exposures to GSM- or CDMA-modulated RFR. One in twelve (12) male rats developed either malignant cancer (glioma) and rare heart tumors. Pre-cancerous lesions were observed that can lead to cancer. The NTP says it is important to release these completed findings now given the implications to global health. No cancers occurred in the control group. The animal study confirms prior findings in epidemiological studies of an increased risk for glioma and acoustic

neuroma among people that use wireless phones, both cell phones and cordless phones (DECT). Acoustic neuroma is a type of Schwannoma, so interestingly this study confirms findings in humans of increased risk for glioma and acoustic neuroma. This supports upgrading the risk in humans to Group 1, the agent is carcinogenic to humans. The NTP evidence has filled the gap on animal toxicity of RF, and has greatly strengthening the evidence of risk for humans. It is sufficient to reclassify cell phone radiation as a known cancer-causing agent, and confirms the inadequacy of existing public safety limits.

The FCC needs to consider mounting evidence that even Wi-Fi level exposures are reported to cause DNA damage, brain damage and heat-shock protein (Dushmukh et al, 2017). The authors report statistically significant effects of subchronic low level microwave radiation (MWR) on cognitive function, heat shock protein 70 (HSP70) level and DNA damage in brain of Fischer rats. Experiments performed on male Fischer rats exposed to microwave radiation for 90 days at three different frequencies: 900, 1800, and 2450 MHz. Animals were exposed to microwave radiation at 900 MHz and specific absorption rate (SAR) 0.0005953 W/kg; animals exposed to 1800 MHz at SAR 0.0005835 W/kg and animals exposed to 2450 MHz at SAR 0.0006672 W/kg. These exposures are roughly equivalent to 1.5 to 2 uW/cm². All the animals were tested for cognitive function using elevated plus maze and Morris water maze at the end of the exposure period and subsequently sacrificed to collect brain tissues. HSP70 levels were estimated by ELISA and DNA damage was assessed using alkaline comet assay. Results showed microwave exposure at 900-2450 MHz with SAR values as mentioned above lead to decline in cognitive function, increase in HSP70 level and DNA damage in brain. They conclude that low level microwave exposure at frequencies 900, 1800, and 2450 MHz may lead to hazardous effects on brain.

Evidence from microRNA studies at Wi-Fi intensities report damage, i.e., modulation of microRNA is presented by Dasdag et al. (2015a, 2015b) in new studies on 900 MHz cell phone radiation and 2450 MHz Wi-Fi levels of exposure. Dasdag et al. (2015b) report that very low intensity Wi-Fi exposures over a year-long period (24 hrs per day) at 141.4 uW/Kg (whole body SAR) and a maximum SAR of 7127 uW/Kg lowered activity of microRNAs in the brain of adult rats. Van den Hove et al. (2014) previously reported miR-107 as epigenetically-regulated miRNA linked to Alzheimer's disease and correlated with changes in neuronal development and neuronal activity.

The scientific evidence is more than sufficient in 2007, and certainly in 2012 (www.bioinitiative.org) that the Commission has not struck the right balance between uncontrolled wireless rollout and health impacts resulting for Americans, particularly for children. The increased risk for cancers, neurological diseases, memory and learning impairment in children, and other serious medical problems associated with wireless technologies and chronic exposure to low-intensity RF are now clearly available to the Commission.

The FCC should not approve streamlining the process for small wireless cell rollout, nor expedite any other approval process for siting of wireless facilities, nor grant exemptions for any RF source or low-power device or enabling network. The incremental increase in daily RF exposure already exceeds human health tolerance. Cumulative effects of RF exposures from multiple wireless devices and environmental exposures are not addressed at all; nor measured or tested under current or proposed FCC rules.

Respectfully submitted:

Cindy Sage, MA, Lennart Hardell, MD, PhD and David O. Carpenter, MD

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Editors

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BioInitiative 2007 and 2012 Reports

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David Cutaia

From: mike-christina@cox.net mike-christina@cox.net <mike-christina@cox.net>
Sent: Friday, August 13, 2021 3:59 PM
To: City Clerk Group
Subject: Aug 17, 2021 City Council Meeting

Re: Appeal of public works approval of cell Wireless Facility to be installed in front of 293 Forest Dr. Goleta.

I am writing today to indicate that I do not support the placement of a cell wireless facility being proposed for my neighborhood. I am concerned about the health and safety of our residential neighborhood. Many researchers believe that there is a risk of adverse health effects from electric and magnetic fields (EMF). This facility is being proposed is in the middle of a residential neighborhood. It seems that this facility could be placed in an area that would not have such an impact on residents.

Christina Contreras-Pfau

268 Forest Dr.

Goleta, Ca 93117

David Cutaia

From: dollygrace@juno.com
Sent: Tuesday, August 17, 2021 9:23 AM
To: City Clerk Group
Subject: 5G

I live on Hillview Drive in Goleta, a few houses from where a 5G box is proposed to be installed. After researching the matter, I am opposed to this installation. (I was already curious because a friend said she had to move after such installation because of health effects.) This a journal article on the NIH website confirms the theory that EMF radiation opens the calcium-channels within the body's cells. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3780531/>

Other researchers wondered if giving the calcium-channel blocker medication (used for high blood pressure) would treat those symptoms caused by the EMF. They did. So it does look as if EMF can cause the calcium channels in the cells to open up unnecessarily. Apparently that increases the nitric oxide in the body which isn't good in excess "It may **cause headache in migraine**. It may damage brain cells leading to neurodegenerative diseases like Parkinson disease, Alzheimer disease, Huntington disease and amyotrophic lateral sclerosis." (This latter is general info not a journal article.)

In my research I also found a local interview with Monika Krajewska on this very topic:

<https://spaces.hightail.com/receive/7MoLYxUZgJ/fi-581f4468-518d-4d94-8122-4a066106152d/fv-e27d6d9b-2b59-42f6-ae1c-28596dad37f7/072821voices.mp3>

For some reason this interview was removed from the internet since I heard it last month. Her business does testing for EMF radiation. You can reach her at elegantliving27@gmail.com (ElegantHealthyHomes.com) Most people might not make the connection with 5G and health to even ask the right questions.

This not to deny the technological benefits of 5G but to suggest it is inviting downstream health costs, in terms of dollars and quality of life.

Thank you,
Dolly Dickinson

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David Cutaia

From: Heike Hyson <heikehyson@gmail.com>
Sent: Tuesday, August 17, 2021 10:32 AM
To: City Clerk Group
Subject: Appeal to the City Council of the Public Works Director's decision

Dear Deborah Lopez:

I live on Hillview, just one block from the installation of the cell station proposed for 293 Forest Drive. I am not in agreement with choosing this location for a cell station and oppose continued work towards the installation. My primary reason is that this is a residential neighborhood and just two blocks from Brandon Elementary School. As the occurrence of adverse health effects depends on a combination of the intensity of radiofrequency EMF exposure, how long you are exposed to radiofrequency EMF and the distance of your body from the source of radiofrequency EMF, I believe this is an awful choice for a location and am proposing a non-residential alternate site be selected. Our children's health needs to be everyone's priority!

Sincerely,
Heike Hyson

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David Cutaia

From: Charu Chaubal <charu.chaubal@gmail.com>
Sent: Thursday, August 19, 2021 8:30 AM
To: City Clerk Group
Subject: Support for cell wireless facility on Forest Drive

Dear City Clerk:

I am writing to indicate my strong support for the planned installation of a cellular wireless facility on Forest Drive. This part of the neighborhood has terrible cell service, at least for me. When driving up Evergreen turning right onto Cathedral Oaks, inevitably the data signal on my cellular devices becomes unusable until I've driven past Glen Annie. This is a gap in coverage that should be addressed, and will (hopefully) benefit many people.

I also would ask you to please not succumb to disinformation about the supposed dangers of EMF radiation from these facilities. People can find support on the internet for just about any view they have, but the quality and accuracy of it is not questioned enough. Not only have I seen credible scientific reports that demonstrate there is no evidence of harm from them, but I've also spoken with experts who have actual education and expertise in this area, and they agree.

Thank you for your consideration.

Regards,
Charu