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CITY OF PIEDMONT

CITY OF PIEDMONT
120 VISTA AVENUE
PIEDMONT, CA 94611
TEL: (510) 420-3050
FAX: (510) 658-3167

RECEIVED BY KJ
DEPOSIT PAID \$3,050
DATE FILED 7/9/19
NUMBER 19-0189
PLANNER PMP
(For staff use only)

**SUPPLEMENTAL APPLICATION FOR:
WIRELESS COMMUNICATIONS FACILITIES (WCF)
IN PUBLIC RIGHT-OF-WAY**

Purpose: In addition to the application for an excavation permit for any work within the public right-of-way, persons applying for a wireless communication facilities ("WCF") permit under the City of Piedmont Municipal Code (the "Code") for the installation and operation of wireless communication facilities in the public right-of-way ("ROW") must also fill out this supplemental application form and submit it (with all necessary information and documentation) at the same time as their excavation permit application for work within ROW. **All WCF application forms and materials must be filed and application payment submitted at a meeting that is scheduled one day in advance with the planning department staff and occurs in City Hall.** The purpose of the application is to provide a mechanism for an applicant to supply necessary information to the City of Piedmont so that it can review the proposed project for conformance with all applicable regulations and guidelines. .

Piedmont Municipal Code Division 17.46 applies to applications for approval of the installation of new or modified wireless communication facilities, including applications previously received by the City but not yet approved, disapproved or conditionally approved by a final city decision, including facilities on private property, public property, and within the ROW.

For additional information regarding application requirements and all other requirements, please review the Piedmont Municipal Code Division 17.46, *Wireless Communication Facilities*, at <http://www.ci.piedmont.ca.us/citycode.shtml>, and City of Piedmont Public Works Standard Details at <http://www.ci.piedmont.ca.us/forms/index.shtml>. For questions, contact the Planning and Building Department at (510) 420-3050. If your response to a question includes attachments, label the attachments as exhibits that reference the Part and Question numbers (e.g. for information requested in Part A, Question 5(a), label the attachment document: "Exhibit A(5)(a)").

Fees: ☒ \$3,050 Initial deposit, per site (total fee will equal the reasonable cost to process)
☐ \$910 One variance, if applicable
☐ \$450 Each additional variance, if applicable
☐ \$ 0 Request for Exception pursuant to Piedmont Code Section 17.46.080.D(2)
☐ **TOTAL**

Project Address: Across 314 Wildwood Ave

Application Fees:

The reasonable cost to process the application will determine the final application fees. You will be charged for any amount not covered by the initial deposit. If the reasonable cost to process the application is less than the initial deposit, you will receive a partial refund of your deposit. Deposit includes \$50 records management fee.

Three (3) sets of plans drawn to scale must be submitted with this application for an initial staff review for completeness.

Eight (8) additional sets of plans may be requested by city staff if this application is to be heard by the Planning Commission and/or the City Council.

Please indicate what steps you have taken to discuss this project with City staff prior to submittal, if applicable: Crown Castle & SureSite have had multiple meetings with the City staff to discuss the project.

Detailed Description of Proposed Project: Please provide a detailed description, including existing and proposed equipment, intended type(s) of service, transmission and receiving/uplink signal frequencies, radio power, effective radiated power, construction requirements (construction phasing, staging, construction route, equipment to be used, estimated off-haul and/or fill quantities, and duration of construction), variances, and/or exceptions required: *Please attach additional pages, as needed.*

Crown Castle is proposing to install a Small Cell wireless facility on at City light pole in the public right of way. Install new 24'-10" luminaire deco pole. Install (1) db spectra antenna model #db362nxd3s-m. Install new (1) 48" x 24" x 21" cube - sc2nn12nn1 with (1) ericsson radio 8843 inside, behind existing bushes. Install new (1) disconnect box, attach to cabinet. Install new (1) power meter, attach cabinet. All equipment will be painted to match.

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PART A: Applicant Information:

The applicant shall submit and maintain current at all times basic contact information set forth below. The applicant shall notify City of any changes to the information submitted within fifteen (15) calendar days following any such change. Include the identity, including name, address, email, and telephone number of the owner of the proposed wireless facility, including official identification numbers and FCC certifications and, if different from the owner, the identity of the person or entity responsible for operating the proposed wireless facility:

Name of Commercial Wireless Provider (e.g. AT&T, Sprint, T-Mobile, Verizon, etc.):

Company Name: Crown Castle Fiber LLC

Contact Person at Company: Sharon James

Company Address: 1 Park Place, Ste 300

City Dublin **State** CA **Zip** 94568

Office phone #: 408-468-5553 **Mobile Phone #:** 408-426-6629

Fax #: _____ **Email Address:** Sharon.James@crowncastle.com

Project Applicant (e.g. the wireless provider's agent or neutral host carrier):

Company Name: SureSite

Contact Person at Company: Joey Acquistapace

Company Address: 2033 Gateway Place 5th floor

City San Jose **State** CA **Zip** 95110

Office phone #: _____ **Mobile Phone #:** 916-549-6646

Fax #: _____ **Email Address:** j.acquistapace@sure-site.com

Agent's Prof. License #: _____ **Expiration Date:** _____

Piedmont Business License # of Agent: _____ **Expiration Date:** _____
(Please contact the City Clerk at 510-420-3040 for Piedmont Business License information.)

Property Owner Information:

Property Owner Name: City of Piedmont

Mailing Address: 120 Vista Avenue

City Piedmont **State** CA **Zip** 95611

Office phone #: 510-420-3039 **Mobile Phone #:** _____

Fax #: _____ **Email Address:** _____

Name, address, email, and telephone number of a local emergency contact person:

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1. Purpose of Wireless Facility:

Is the proposed wireless communications facility to be used for the provision of "personal wireless services" as defined by 47 U.S.C. Section 332(c)(7)(C)(i) on a sole or comingled basis?

- ☐ No. Specify the type(s) of wireless communications services to be provided using the proposed facility: _____.
- ☒ Yes. Specify the type(s) of personal wireless services: Telecommunication Service _____.

2. Type of Application:

Please check the applicable box(es) and provide the information required below as an attachment to this Application, along with a written explanation identifying the facts relied upon to support the claimed treatment.

- ☐ Eligible Facilities Requests. Applicant asserts that the application qualifies as an "eligible facilities request" (EFR) (as defined in 47 CFR § 1.6100(b)(3), or any successor provision). Applicant shall submit the information required in the Application Requirements Part C, Section I below. *The applicable FCC shot clock is sixty (60) days.*
- ☒ Collocation – Small Cell Facility (Existing Structure). Applicant asserts that the application is being submitted for approval of a Collocation of a Small Wireless Facility, that is, the proposed facility both meets the definition of "small wireless facility" and is a "collocation" (both as defined by 47 C.F.R. § 1.6002). Replacements of existing structures are not "collocations". Applicant shall submit the information required in Part B and the Application Requirements Part C, Section III below. *The applicable FCC shot clock is sixty (60) days if application is submitted when FCC 18-133 is in effect.*
- ☐ Small Cell Facility (New Structure). Applicant asserts that the application is being submitted for approval to deploy a Small Wireless Facility (as defined by 47 C.F.R. § 1.6002(l)) involving placement of a new structure. Replacements of existing structures are considered new structures. Applicant shall submit the information required in Part B and the Application Requirements Part C, Section III below. *The applicable FCC shot clock is ninety (90) days if application is submitted when FCC 18-133 is in effect.*
- ☐ Other Wireless Facility Expressly Permitted by State or Federal Law to be in the ROW. Applicant asserts that the application is being submitted for approval of a type of wireless services facility that applicable state or federal laws expressly permit to be in the City's public rights-of-way. If you checked this box, please attach an explanation of the basis for your assertion, including citations to supporting law, and state what FCC shot clock you assert applies to this application, if any. Submit the information required in the Application Requirements Part C, Sections III and IV below.
- ☐ Permit Renewal. Applicant asserts that the application is being submitted for a renewal of an existing wireless encroachment permit or predecessor permit. If you checked this box, please submit a copy of the original permit, any prior renewals or extensions thereof, and the information required in the Application Requirements Section Part C, Section II, below.

Also check the following Exception Request box, if applicable to your application.

- ☐ **Exception Request.** Applicant asserts that its application includes an exception request. Applicant shall include a request for an exception, as set forth in Section 17.46.080.D (2) of the Piedmont City Code, and any additional information required in the Application Requirements Part C, Section IV, below. A request for exception may be submitted at a later time if it is determined that the proposed facility, as originally submitted, will not meet the requirements and restrictions of the City Code.

3. Application Fees and Deposits:

Applicant shall pay all applicable fee deposit(s) in the amounts established by the current fee schedule. In the event applicant has pre-paid all or a portion of applicable fees, please include a copy of the receipt from that transaction.

4. Franchises, Authorizations and Licenses:

To have a complete application, the applicant must have: (a) authorization to use the public rights-of-way; (b) licenses to provide proposed services; and (c) authorization to use the proposed structure¹.

- a) Does applicant have an existing franchise or other authorization to place wireless facilities in the public rights-of-way?

☐ No.

If no, the application will be considered incomplete.

☒ Yes.

If yes, explain source of applicant's right to use the public rights-of-way and submit related documentation.

- b) Has applicant obtained all applicable licenses or other authorizations to provide the services proposed in connection with the application, whether required by the Federal Communications Commission, California Public Utilities Commission, or any other agency with authority over the proposed services?

☐ No.

☒ Yes.

If yes, submit related documentation such as FCC licenses or authorizations, a certificate of public convenience and necessity or a wireless identification registration (WIR) from the California Public Utilities Commission.

- c) Is proposed wireless facility to be attached to a structure owned or controlled by a third party (not the owner of the proposed wireless facility)?

☐ No.

☒ Yes.

If yes, identify the owner as one of the following: ☒ The City ☐ Other: _____
(insert name)

If you selected **Other** in question 4(c), provide a copy of the authorization or license to use the structure.

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If you selected the **City**, select one of the following:

- ☒ I have a master license or other agreement with the City for use of the facility.
[If you check this box, provide the document.]
- ☐ I have no license or other agreement, but I am applying/have applied for one.
[If you check this box, the application must be provided, along with payment or proof of payment of required fees.]
- ☐ By checking this box and signing below, you acknowledge and agree that the wireless communication facilities permit applied for is not a substitute for a license or other agreement to use the City facility and must be separately applied for; that any deadline for action on that application will not begin to run until the complete application is submitted; and that this wireless permit application will remain incomplete until and unless a complete application for a license or other agreement is submitted to the City..¹

Agreed: _____ Date: _____

5. Existing Facilities:

If the project is an "upgrade" to an existing facility, please identify any of the following descriptions that apply:

- | | | |
|--|--|--------------|
| a) Replacement of antenna(s): | <input type="checkbox"/> Yes <input type="checkbox"/> No | number _____ |
| b) Addition of antenna(s): | <input type="checkbox"/> Yes <input type="checkbox"/> No | number _____ |
| c) Replacement of feed line(s): | <input type="checkbox"/> Yes <input type="checkbox"/> No | number _____ |
| d) Addition of feed line(s) and/or risers: | <input type="checkbox"/> Yes <input type="checkbox"/> No | number _____ |
| e) Replacement of ground-mounted equipment: | <input type="checkbox"/> Yes <input type="checkbox"/> No | number _____ |
| f) Addition of ground-mounted equipment: | <input type="checkbox"/> Yes <input type="checkbox"/> No | number _____ |
| g) Changes to access, parking, or landscaping: | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| h) Increase in the height of freestanding tower: | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| i) Replacing wireless tower or foundation: | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| j) Changes to conceal or camouflage exterior: | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| k) Changes to, or new, excavation or boring: | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| l) Other (describe): | _____ | |

6. **High Fire-Threat District:**

Is the proposed wireless facility in a High Fire-Threat District (HFTD) (as demarcated on the current version of the California Public Utility Commission Fire-Threat Map)?

- ☒ No.
☐ Yes.

If you answered yes to this question, please answer the following:

- a) Identify the structure or proposed structure on which the facility will be attached, and the owner of the structure: _____

¹We encourage informal discussions with respect to use of City-owned or City-controlled facilities prior to filing an application.

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b) Check one of the following:

- ☐ The facility is being installed on a structure that applicant contends is, or will be, under the jurisdiction of General Order 95 ("GO 95"), or GO 165, or GO 166.
- ☒ The facility is NOT being installed on a structure that applicant contends is, or will be, under the jurisdiction of General Order 95 ("GO 95"), or GO 165, or GO 166.

i. If the facility is being installed on a GO 95, 165, or 166 structure, attach sworn statements by qualified experts attesting to: (1) the specific HFTD in which the wireless facility will be located; (2) whether the structure has been inspected by qualified experts for compliance with all applicable General Orders; (3) whether the structure, any existing facilities, and any planned structures and facilities would comply with standards for placement on structures in an HFTD; and (4) whether all required Fire Prevention Plans are in place. If existing or proposed structures or facilities are or will be non-compliant in any respect, the application shall identify steps proposed to ensure the structure and existing and proposed facilities are compliant.

ii. If the facility is NOT being installed on a GO 95, 165, or 166 structure, submit sworn statements by qualified experts attesting to: (1) the specific HFTD in which the wireless facilities will be located, as demarcated on the current version of the California Public Utility Commission Fire-Threat Map, if applicable; (2) a description of the steps the applicant has taken to reduce hazards to public safety, including fire safety hazards, that may be caused by the proposed wireless facility; and (3) the steps applicant proposes to take to maintain the safety of the wireless facility, which steps shall be at least as rigorous as if GO 95, 165, and 166 applied.

7. Height:

What is the maximum height (measured from lowest adjacent grade) of the new or replacement antenna, pole and/or equipment? 29 feet 8.5 inches

(Please be aware of the maximum height from grade for each zone in which the wireless communication facility is located, including existing structures or facilities to which the antennae are proposed to be mounted.)

8. California Environmental Quality Act (CEQA):

Do you believe the project is exempt from CEQA? ☒ Yes ☐ No

If yes, please cite the statutory or categorical exemption in Articles 18 and 19 of the CEQA Guidelines, Title 14 of the California Code Regulations and explain how the project meets this exemption:

Section 15301(b)

PART B: PERSONAL WIRELESS SERVICES FACILITIES

(Respond To Relevant Sections and Mark "Not Applicable" All That Do Not Apply)

1. Is the proposed wireless communications facility part of a distributed antenna system ("DAS")?

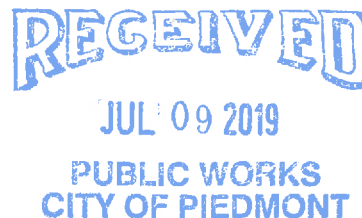
☒ No.

☐ Yes. [By signing below you acknowledge that all applications for wireless communications facilities comprising the DAS must be submitted contemporaneously.]

Agreed: _____ Date: _____

2. Based on the work proposed in connection with this project, identify any and all additional permits, approvals, or agreements ("Ancillary Permissions") that will be required for any work within the boundaries of the City in order to deploy the wireless facilities which you contend must be issued (absent agreement or exceptional circumstances) no later than by the same time the City must take action on the wireless application. It is your responsibility to review Code and policies and other state or FCC regulations applicable to the deployment of the wireless facility within the City and identify every Ancillary Permission that will be sought in conjunction with that deployment. The failure to conduct the investigation and to accurately identify all Ancillary Permissions may be grounds for denying the application or for declaring it incomplete. For example, if the wireless facility would be placed on a structure where historical review would be required at the state, federal or local level, the applications required for that review must be identified. Please check whether the work proposed will require the following ancillary permits:

- a) ☒ Building Permit
b) ☒ Traffic Control Permit
c) ☐ Excavation Permit
d) ☐ Tree Removal Permit
e) ☐ Other(s). Identify: _____



Alternatively, rather than identifying all Ancillary Permissions now, you may agree as follows by signing below: "I agree that, except for those applications identified and submitted in response to Question 3 (below) separately for any and all required Ancillary Permissions, any deadlines for action on any Ancillary Permissions will run from the date of those applications, and not from the date of this application; and that no work may be undertaken should this wireless application be granted, or granted subject to conditions, until and unless the same are obtained."

Agreed: _____ Date: _____

3. Please provide an attachment that identifies that Ancillary Permission you seek now, and with respect to that Ancillary Permission, include the following completed checklist:

☐ I have the required permit. [If you check this box, attached the required permit.]

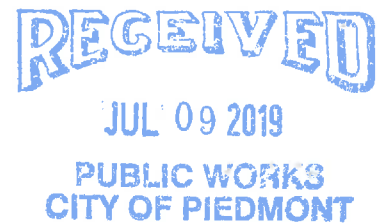
☒ I have no permit, but I am applying or have applied for one. [If you check this box, the application must be provided and all fees or proof of fee payment provided.]

PART C: DETAILED APPLICATION REQUIREMENTS

The information required to be included in your application is dependent upon whether it is an eligible facilities request, a renewal of an existing permit, or any other application type. Please reference the appropriate section below for your application type to read a detailed list of its requirements. A detailed description of the submittal requirements is provided in the Appendix.

I. ELIGIBLE FACILITIES REQUESTS: *For an application asserted to be an eligible facilities request*, the application must provide the following information:

- 1. Cover Sheet**
- 2. Location and Zoning Information**
- 3. Description of the Proposed Project**
- 4. Prior Approvals / Permits and Plans**
- 5. Existing Site Plan and Proposed Site Plan**
- 6. Elevation Drawings (preferred scale ¼" = 1')**
- 7. Site Photograph(s)**
- 8. Visual Impact and Sightline Analysis**
- 9. Noise Study**
- 10. FCC Radio Frequency Standards Report**
- 11. Structural Analysis Report**
- 12. Existing and Proposed Equipment Schedule (Microsoft Excel spreadsheet)**
- 13. CPUC Determination of CEQA status, if applicable**



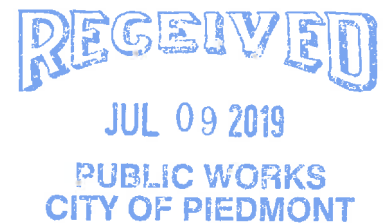
II. RENEWAL REQUESTS: *For a renewal of an existing permit*, the application must provide the following information:

- 1. Cover Sheet**
- 2. Location and Zoning Information**
- 3. Description of the Project for Renewal**
- 4. Prior Approvals/Permits and Plans**
- 5. Site Plan**
- 6. Elevation Drawings (preferred scale ¼" = 1')**
- 7. Facility Plan and Photograph(s)**
- 8. Noise Study**
- 9. FCC Radio Frequency Standards Report**
- 10. Structural Analysis Report**

11. **Notice and Affidavit**
12. **Equipment Schedule (Microsoft Excel spreadsheet)**
13. **CPUC Determination of CEQA status, if applicable**

III. ALL OTHER APPLICATIONS: *For all other types of applications*, the following must be provided:

1. **Location and Zoning Information**
2. **Description of the Proposed Project**
3. **Prior Approvals/Permits and Plans**
4. **Existing Site Plan and Proposed Site Plan**
5. **Elevation Drawings (preferred scale 1/4" = 1')**
6. **Landscape Plan**
7. **Site Photograph(s)**
8. **Visual Impact and Sightline Analysis**
9. **Noise Study**
10. **FCC Radio Frequency Standards Report**
11. **Structural Analysis Report**
12. **Notice and Affidavit**
13. **Justification for Location/Collocation**
14. **Existing and Proposed Equipment Schedule (Microsoft Excel spreadsheet)**
15. **Full-scale Mock-up(s)**
16. **CPUC Determination of CEQA status, if applicable**



IV. EXCEPTION REQUEST [if applicable]

Pursuant to Section 17.46.080.D (2) of the Piedmont City Code, an applicant may apply for an exception to the standards for wireless communication facilities. If the applicant contends that the City is required by federal or state law to approve the facility, the applicant must submit the information it relies upon to support that claim, identifying: (i) the legal standard(s) it claims applies; and (ii) the showings it relies upon for its claim(s). Applicants are cautioned that, if the City believes that applicant misapplies or relies on the wrong legal standard, the exception (and consequently the application) may be denied.

PART D: CERTIFICATION (ALL APPLICANTS)

My signature below signifies that I:

- have read and provided all applicable information per this Supplemental Application for Wireless Communications Facilities, including the information listed in PART C: DETAILED APPLICATION REQUIREMENTS and the Appendix.
- have reviewed the legal description on the property deed and indicated all recorded easements and deed restrictions on the submitted site plan (*Please provide a description here of the easements and restrictions that were indicated on the property deed of the subject property*) _____

- believe the information provided in this application is accurate to the best of my knowledge.
- am aware that my initial deposits of \$10,000 (exclusive of variance fees) may not cover the reasonable cost to process this application and that additional deposits may be required. I agree to provide additional deposits if they are required. I am aware that the City will deduct the reasonable costs to cover the processing of this application from the deposit(s), and that any unused money remaining after action has been taken on the project, will be returned to me.
- am aware that City staff, Planning Commissioners, and/or City Council Members will be on the property to view proposed construction. (Please note any special instructions regarding access to the property such as gates, alarms, etc.) _____

- understand that if this application is approved, a building permit and/or excavation permit (issued within one year from the approval date) is required for construction and that no construction may commence prior to the issuance of the building permit and/or excavation permit. No changes may be made without City approval, and changes may require a new application.

SIGNATURE OF PROPERTY OWNER / LEASE HOLDER:

Print Name

Signature

Date

SIGNATURE OF WIRELESS SERVICE PROVIDER'S AUTHORIZED REPRESENTATIVE:

Print Name

Signature

Date

AGENT AUTHORIZATION: This authorization must be signed by the wireless service provider if the applicant is not the wireless service provider. This authorization also permits City staff to contact the Wireless Service Provider its agent, if necessary.

I authorize Joey Acquistapace to act as my agent in the processing of all matters pertaining to this application.

SIGNATURE OF PROPERTY OWNER / LEASE HOLDER: _____ date _____

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PART E. Applicant's Wireless Communications Facilities Findings:

The following information is required from all applicants.

Please describe how the proposed project meets the following summarized Wireless Communications Facilities Development Standards outlined in Section 17.46.070 of the City's Municipal Code. *Attach additional pages as necessary.* If an exception is requested pursuant to Section 17.46.080.D (2), please note the exception request in the application form below.

- a) **New wireless communications facilities must be collocated with existing facilities and with other planned new facilities whenever feasible.** Please note that §17.46.070.A.1 states "A new wireless tower must be designed and constructed to accommodate future collocation(s) unless ... collocation would be infeasible because of physical or design issues specific to the site." *(Indicate whether the proposed facility will be collocated with another facility. If it will not, comment on the feasibility of collocation and indicate what measures have been taken to attempt to collocate the facility with another facility. Additionally, indicate the aesthetic benefits and drawbacks of the proposed facility.):*

Crown Castle approves this location as eligible for collocation with other carriers.

- b) **No wireless communication facility may exceed 35 feet in height, measured from the ground to the highest point of the wireless communication facility, unless the zoning district in which the wireless communication facility is located expressly provides a higher height limit, or an exception pursuant to Section 17.46.080.D(2) is requested and granted. Ground mounted wireless communication equipment, base station, antenna, pole, or tower must be the minimum functional height, unless a variance or exception is granted. Roof mounted equipment and antennas must be located to minimize visibility. (Indicate the height of any ground mounted equipment, antennas, poles or towers and explain why the proposed heights are required.):**

The existing pole is 24' 10" and after installation of antenna and equipment node the height will be 29' 8.5". All other equipment will be located in equipment cabinet 28' from light pole.

- c) **Wireless communication facility(ies) must be designed to minimize visual impacts. When feasible, the facility(ies) must be concealed or camouflaged. The facility(ies) must have a non-reflective finish and be painted or otherwise treated to minimize visibility and the obstruction of views. The facility(ies) may not bear signs, other than certification, warning, emergency contacts, or other signage required by law or expressly required by the City. (Describe the materials and finishes of the equipment,**

antennas, poles, and towers and indicate how these materials and finishes will be non-reflective and will minimize any visual impacts.):

Antenna node and materials and finish will be durable and non-reflective and will minimize the potential visual impacts.

Equipment to be painted to match and to satisfaction of city engineering staff.

- d) **A wireless communication receiving and transmission facility may not adversely affect the public health, peace and safety. (Indicate any measures proposed to address the public health, peace and safety.):** _____

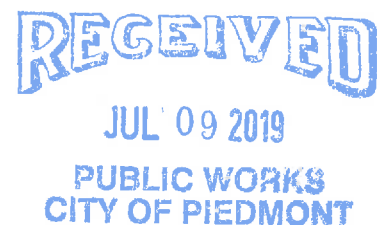
Crown Castle performs an EME study that will comply with the all FCC regulations. This project will have no adversely affect the public health, peace and safety.

- e) **A wireless communication facility located in the public right-of-way may not cause: (i) physical or visual obstruction, or safety hazard, to pedestrians, cyclists, or motorists; or (ii) inconvenience to the public's use of the right-of-way. Equipment, walls, and landscaping located above grade must be at least 18 inches from the front of the curb and not interfere with the public's use of the right-of-way (Indicate conformance to Public Works Standard Details, including standard sidewalk width requirements and ADA requirements).** _____

This site is located on an existing city light pole. equipment will be located in equipment cabinet 28' from light pole. : No equipment will be placed on the public sidewalk. Pole mounted equipment will have no affect on traffic or pedestrians use of the public sidewalk. Materials and finish will be durable and non-reflective and will minimize the potential visual impacts. See attached RF EMF study for frequency hazard.

- f) **Indicate whether the facility will comply with all applicable federal, state, and local laws..** _____

Crown Castle's facility will comply with all federal, state, and local laws. Crown Castle is authorized by the FCC and has been granted a certificate of public convenience and necessity ("CPCN") by the California Public Utility Commission. As a result, Crown Castle has granted access to the public rights of way in the same manner and on the same terms applicable to other certificated telecommunications providers and utilities.



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PART F: Applicant's Wireless Communications Facilities Priority for Location Findings:

The following information is required from all projects located in Zones A, B, C, D and E, projects in or on publicly-owned facilities, and projects in the public right-of-way.

Please describe how the proposed project meets the following summarized Wireless Communications Facilities Development Standards outlined in Section 17.46.040 of the City's Municipal Code. If an exception is requested pursuant to Section 17.46.080.D (2), please note the exception request in the application form below.

a) The facility capacity. Please	This finding is pre-empted in the public right-of-way by the FCC Declaratory Ruling and Third Report and Order, issued in In the Matter of Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment; Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment, WT Docket No. 17-79, adopted on September 26, 2018.	coverage or

- b) The proposal satisfies each of the applicable development standards in section 17.46.070 above. *Please comment:*

Yes

- c) The applicant has evaluated and met the priority for location standards of section 17.46.040(A)(1), because the facility will be located in the public right-of-way, on publicly owned property in Zone B, or on publicly-owned facilities in any other zone outside of the public right-of-way. *Please comment:*

There are no viable options in Zone B to cover zone A because of the Piedmont topography. Therefore, the equipment is placed on an existing public utility infrastructure.

- d) The proposed design is consistent with City of Piedmont Design Guidelines, including General Plan policies regarding wireless communication facilities and the Public Works Standard Details for the public right-of-way. *Please comment:*

Yes. This project was designed using the design standards and guidelines.

- e) The proposed facility has been located and designed for collocation to the greatest extent reasonably feasible, and the applicant has submitted a statement of its willingness or not to allow other wireless service providers to collocate on the proposed facility. *Please comment:*

Crown Castle has agreed to allow collocation at this location.

The development standards in 17.46.070 shall be fully considered. Please make sure you have completed the Findings in Part E of this application form.

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PART G: Applicant's Variance Findings:

The following information is required from all projects that require a variance, if applicable.

In order for the Planning Commission to approve an application for a variance, required findings must be made. Please describe how the proposed project meets the variance criteria of Section 17.70 of the City's Municipal Code.

- a) **The property and existing improvements present unusual physical circumstances of the property (including but not limited to size, shape, topography, location and surroundings), so that strictly applying the terms of this chapter would keep the property from being used in the same manner as other conforming properties in the zone; Describe specific, unique problems with the property, such as location, surroundings, mature trees, natural obstacles or formations, and explain why the improvements cannot be made in conformity with codes and regulations:**

- b) **The project is compatible with the immediately surrounding neighborhood and the public welfare; and Explain why, without the variance, the property cannot be used in the same manner as others in the same zone, and explain how the variance will not give the property an advantage over others in the same zone:**

- c) **Accomplishing the improvement without a variance would cause unreasonable hardship in planning, design, or construction. Unreasonable hardship" for purposes of this subsection refers to the unusual physical characteristics of the underlying lot and existing improvements on the lot which prohibit development of the lot in a manner consistent with lots conforming to City standards. "Unreasonable hardship" shall not refer to any conditions personal to the applicant. Please describe the hardship(s) inherit to this property:**



RE: CROWN CASTLE WIRELESS COMMUNICATIONS FACILITIES IN PUBLIC RIGHT-OF-WAY

Crown Site: CA-PHS09m

Address: Across 314 Wildwood Ave. Piedmont, CA

Applicant: Crown Castle Fiber LLC / SureSite Consulting

ENGINEER:

Mountain LTD

Mike Rivera

19 Yarmouth Dr. Ste. 301

New Gloucester, Maine 04260

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Project Description and Statement

Crown Castle is proposing to install a Small Cell wireless facility on an existing pole in the PROW. Crown Castle is proposing to install a Small Cell wireless facility on at City light pole in the public right of way. Install new 24'-10" luminaire deco pole. Install (1) db spectra antenna model #db362nxd3s-m. Install new (1) 48" x 24" x 21" cube - sc2nn12nn1 with (1) ericsson radio 8843 inside, behind existing bushes. Install new (1) disconnect box, attach to cabinet. Install new (1) power meter, attach to cabinet. All equipment will be painted to match. This project will provide telecommunication service to the surrounding Piedmont area.

Crown Castle has agreed to allow co-locations at this facility for future carriers. The existing pole is 30'6" and after installation of antenna and shroud the top of the pole will be 33'1". Max height is 35' so we are within height limits. The proposed Base Station is 4 feet above ground level. The equipment on the pole will be painted to match the wood and will be compatible with other poles in the area. The installation will not adversely affect abutting and surrounding neighborhoods and will have no effect on traffic.

All construction activities comply with the recommendations of the arborist report as it pertains to protection of the existing trees, shrubs, and root systems related. Construction crew to follow procedures entailed within report to ensure no damage will occur per the arborist notes. All landscaping will be restored to original condition to the satisfaction of the city inspector. The proposed facility will use existing electrical and telephone services, which are readily available to the site. No nuisances will be generated by the proposed facility, nor will the facility injure the public health, safety, morals or general welfare of the community. The technology does not interfere with any other forms of communication devices whether public or private.

Crown Castle is a public utility that is authorized by the FCC and the California Public Utilities Code § 7901 that grants a statewide franchise to telephone corporations to place telephone equipment in the public rights of way. Site is in compliance with FCC standards. Crown Castle performs an EME study will comply with the prevailing standards for limiting public exposure to radio frequency energy and will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. Crown Castle's findings are consistent with measurements of actual exposure conditions taken at other operating nodes. Trained authorized personnel and posting explanatory signs are proposed in compliance with occupational exposure limits.

The site of the proposed facility is located in a public right-of-way. This particular location falls within Zone A, and is not preferred by the City. As a follow up to material noted in our application, it is impossible to cover "Zone A" from "Zone B", due to the topography of the area, or without placing a number of highly visible "macro" sites (large monopoles or monopines) surrounding the area which would "send in" a signal, but these would be highly visible and not provide the service intended. It is also important to mention, we are a 'telephone corporation' (Section D, section D.1, D.3 when applicable). We are utilizing existing utility infrastructure which is design specifically of a "minimum functional



height', while placing a Macro site in Zone B would require a much larger (taller) structure with an antenna array consistent with a typical macro site seen throughout the Bay Area. These "small cell" facilities as designed are only intended to cover a small area, and this design presented to the City of Piedmont and its residents presents the least visual impact possible. The sites (also referred to as nodes) are strategically placed throughout the City to enhance cellular coverage, but moving them, or placing them in different "zones" we would jeopardize the overall network.

Crown Castle provides telecommunications services to wireless carriers. It does so via telecommunications networks installed in the public rights of way that integrate elements including fiber optic cables as well as personal wireless services facilities, such as antennas and related equipment.

Crown Castle NG West LLC ("Crown Castle") is submitting the accompanying complete application to install its telecommunications network facilities in accordance with your code, ordinances and regulations. Please be advised the Federal Communications Commission (FCC) has adopted Rules and Regulations that impact how you must process this application. In addition, state law also limits your regulation of Crown Castle's access to the public rights of way.

Pursuant to the California Public Utility Commission, Crown Castle has been granted a certificate of public convenience and necessity ("CPCN"). As a result, Crown Castle must be granted access to the public rights of way in the same manner and on the same terms applicable to other certificated telecommunications providers and utilities.

1. Street use permit shall be obtained by contractor prior to commencing work.
2. All work to be conducted in the right of way.
3. All disturbed landscaping shall be replaced to similar existing conditions.
4. Any sidewalk closure shall be coordinated with the city and proper signing will be placed.
5. No materials or equipment shall be stored on private property or block access to private property.
6. Cleanup of site will be completed each evening and the site will be returned to existing conditions at the completion of construction.

The Following Equipment Will Be Installed:

- INSTALL NEW 24'-10" LUMINAIRE DECO POLE.
- INSTALL (1) DB SPECTRA ANTENNA MODEL #DB362NND3S-M.
- INSTALL NEW (1) 48" X 24" X 21" CUBE - SC2NN12NN1 WITH (1) ERICSSON RADIO 8843 INSIDE, BEHIND EXISTING BUSHES.
- INSTALL NEW (1) DISCONNECT BOX, ATTACH TO CABINET.
- INSTALL NEW (1) POWER METER, ATTACH TO CABINET.

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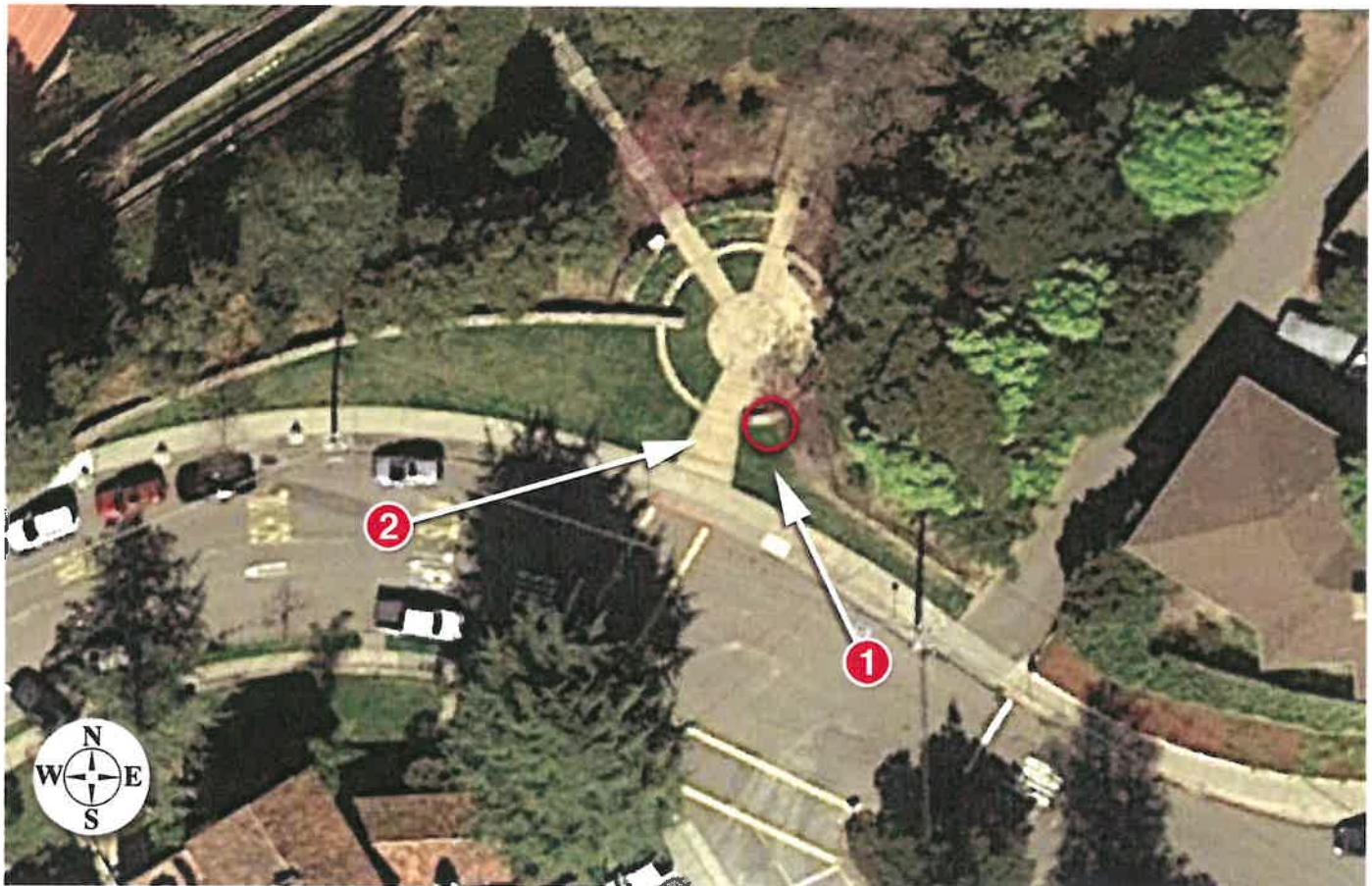
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June 28, 2019

Michael Miller
Crown Castle
1 Park Place Suite 300
Dublin, CA 94568

Subject: **Arborist Report – Location CA-PHS09m2**
Small Cell Wireless project, Piedmont CA

Dear Mr. Miller:

Crown Castle is proposing to install small cell wireless communications devices at 19 locations in Piedmont. HortScience | Bartlett Consulting (Divisions of the F. A. Bartlett Tree Expert Co.) was asked to prepare **Arborist Reports** for each of the 19 locations to meet the City of Piedmont requirements. This letter responds to that request.

Overview

The proposed new antenna installations would either use existing city street light poles or power poles or install new poles that will support the antenna. Some sights require installation of an underground vault that will hold equipment. Trenching between the pole/antenna and the vault, as well as between the vault and nearby utility poles, may be required where a vault is installed. At this location, the antenna measures 3' tall by 8" across. The antenna and associated equipment will extend a total of 5' above the light pole.

Potential impacts to trees (including both City street trees and trees on private property) would be associated with 1) trenching between the vault and the pole, and 2) installation of new light/utility poles. Trenching may sever roots and equipment working in close proximity to trees may damage trunks and/or require pruning of tree crowns to provide clearance. New poles must be lifted from a horizontal to vertical position which may also damage tree trunks and require pruning ahead of pole installation and/or following pole installation, if branches are damaged.

Description of Site and Trees

Site CA-PHS09m2 is located across from 314 Wildwood Ave., near an entry to Piedmont Park. An existing utility pole was located in a narrow planting strip between the curb and sidewalk, on the east side of Wildwood Avenue. However, at this location a new light pole will be installed in the Piedmont Park landscape that will be used to support the wireless antenna. A vault is proposed in the parking strip and a disconnect box is proposed in the Park landscape, connected by a series of trenches.

Four trees were located within 25' of the estimated location of the new light pole, including a two red buds (*Cercis canadensis*), a Victorian box (*Pittosporum undulatum*) and a coast live oak (*Quercus agrifolia*). Approximate locations of trees are shown on the **Tree Assessment Plan** (see attachments). Trees #1 and 2 were red buds located in the Piedmont Park landscape. Both were young, with trunk diameters between 2" and 5". Tree #1 was in good condition (rated a 4 on a scale of 0 to 5, where 0=dead and 5=excellent) and #2 was in fair (rated a 3).

Victorian box #3 was mature in form and development with three trunks, measuring 6" to 9" in diameter. Overall condition was fair (rated a 3) and there was a moderate amount of twig dieback in the crown (**Photo 1**).

Coast live oak #4 was mature, with two trunks measuring 12" and 19" in trunk diameter. Tree #4 was in good condition (rated a 4) with a one-sided crown to the west.

The distances between the trees and the proposed new light pole location were estimated at 9' for tree #1, 15' for tree #2, 25' for tree #3 and 40' for tree #4.

Crowns were measured at 6' to the west for tree #1, 8' to the west for tree #2, 12' to the west for tree #3 and 23' to the west for tree #4.

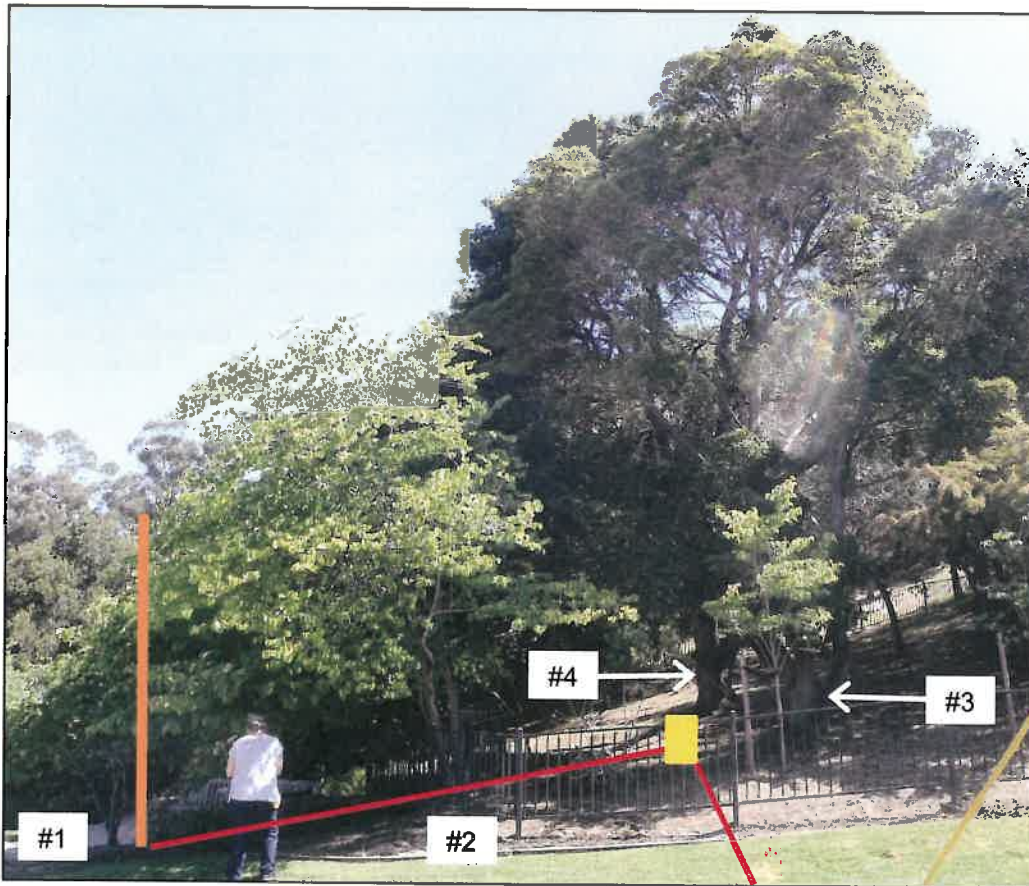


Photo 1: Looking east at trees #1-4 (L to R), with tree #4 in the background. The proposed trenching (red lines) from the street would connect to a disconnect box between trees #2 and 3 (yellow box) and continue north to the new pole location in the area of tree #1 (orange line).

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Evaluation of Impacts

At this location, a new 25' light pole will be installed in the Piedmont Park landscape (Photo 1). In order to install the pole, the following is also proposed:

- A 17" x 30" vault would be installed in the planting strip between the curb and sidewalk, with a 20' trench connecting to the existing power pole southwest of the trees.
- A second trench would connect the vault to a proposed 24"x21"x48" disconnect box located 30' east of the vault, in the vicinity of tree #3. The disconnect box would require a 51" X 73" concrete pad.
- A third trench would connect the disconnect box to the new light pole, 28' to the northwest. A 3' antenna and associated equipment will be mounted at the top of the light pole, extending to a total height of approximately 30'.

Based on my assessment of the plans, trees #1, 2 and 3 would be directly impacted by the proposed trenching, requiring the removal of all three trees. Tree #4 is estimated to be approximately 13' east of the disconnect box and trenching and is expected to tolerate the root loss. Minor crown pruning of tree #4 may be required to allow for trenching equipment access and movement. I would estimate that no more than 5% of the crown of tree #4, would need to be pruned.

Preservation of trees #1, 2 and 3 would require keeping the closest edge of the trench a minimum of 5' from trees #1 and 2 and 8' from tree #3. This would have the added benefit of moving the disconnect box and tranches further from tree #4.

If preserved, I do not believe trees # 1 and 2 would require crown pruning. If preserved, I would estimate that approximately 10% of the crown of tree #3 would need to be pruned to provide clearance for equipment movement/access.

Summary

I evaluated the possible impacts to four trees from installing a new 24' light pole, 3' antenna and associated wireless telecommunications equipment at site CA-PHS09m2, in Piedmont CA. In addition to the light pole and antenna, a vault and disconnect box would be installed, requiring 3 trenches and a concrete pad.

In this case, trees #1, 2 and 3 would all be directly impacted by the proposed trenching. Tree #4 can be preserved but will require canopy pruning on the west side for equipment clearance.

To preserve trees #1-3 would require adjusting the tranches and disconnect box and concrete pad locations to provide a minimum of 5' from trees #1 and 2 and 8' from tree #3. Preservation of trees is predicated on adhering to the *Tree Protection Guidelines* that follow.

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Tree Preservation Guidelines

The goal of tree preservation is not merely tree survival during development but maintenance of tree health and beauty for many years. The response of individual trees will depend on the amount of excavation and grading, the care with which demolition is undertaken, and the construction methods.

The following recommendations will help reduce impacts to trees from the proposed construction and maintain and improve their health and vitality through all phases of the process.

1. The demolition contractor shall meet with the Consulting Arborist before beginning work to discuss work procedures and tree protection.
2. Fence trees to be retained prior to demolition, grubbing or grading. Fences may not be relocated or removed without permission of the Consulting Arborist. Fencing shall be installed at the edge of the proposed trench approximately 5' west of trees #1 and 2 and 8' northwest of tree #3, and at the dripline in all other directions. Tree #4 does not require fencing.

The **TREE PROTECTION ZONE** shall be defined by the limit of the dripline in all directions.

3. Damage to tree(s) or unauthorized removal is subject to replacement or fine equal to the estimated value of the tree.
4. No materials, equipment, vehicles, spoil, waste or wash-out water may be deposited, stored, or parked within the **TREE PROTECTION ZONE**.
5. Where needed, prune trees to be preserved to clean the crown and to provide clearance. All pruning shall be done by a State of California Licensed Tree Contractor (C61/D49). All pruning shall be done by Certified Arborist or Certified Tree Worker in accordance with the Best Management Practices for Pruning (International Society of Arboriculture, 2002) and adhere to the most recent editions of the American National Standard for Tree Care Operations (Z133.1) and Pruning (A300).
6. All tree work shall comply with the Migratory Bird Treaty Act as well as California Fish and Wildlife code 3503-3513 to not disturb nesting birds. To the extent feasible tree pruning and removal should be scheduled outside of the breeding season. Breeding bird surveys should be conducted prior to tree work. Qualified biologists should be involved in establishing work buffers for active nests.
7. Demolition of existing improvement such as pavement shall use appropriate size equipment to perform the task and protect the tree from damage. Equipment shall be sited outside the **TREE PROTECTION ZONE**. Pull spoil and debris away from the trees. If necessary, tie back branches and wrap trunks with protective materials to protect from injury as directed by the Consulting Arborist.
8. Excavation shall not tear or rip tree roots 2 inches or greater in diameter. As the operator encounters tree roots, excavation should stop while the root is exposed by hand and cut cleanly at the edge of excavation.
9. Demolition personnel shall not prune trees to provide clearance. If pruning is needed, a qualified arborist shall perform the task at the direction of the Consulting Arborist.

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Please contact me if you have any questions regarding my observations or recommendations.

Sincerely,



John Leffingwell
Board Certified Master Arborist WE-3966B
Registered Consulting Arborist #442

Attached: *Tree Assessment Map*

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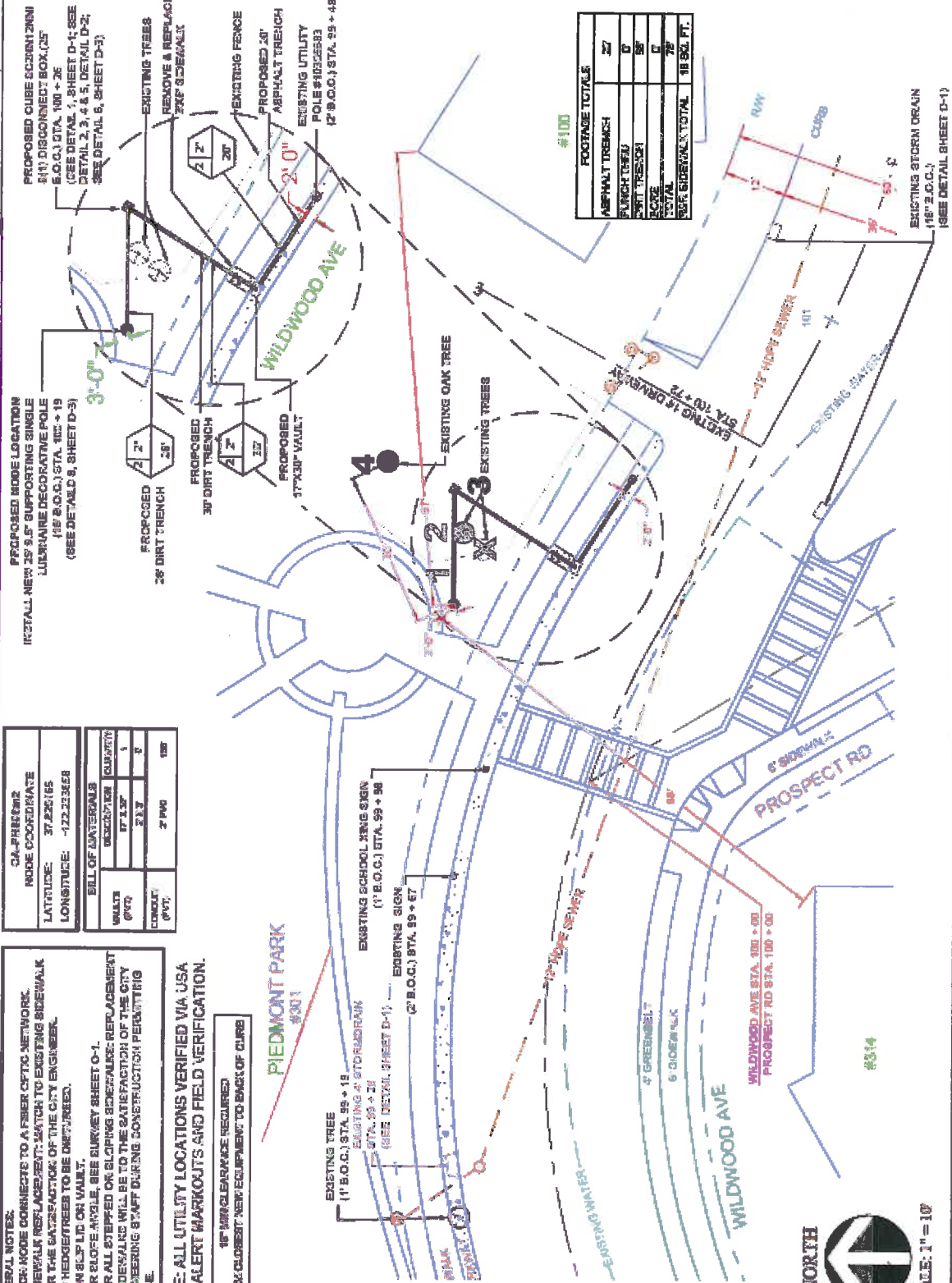
GENERAL NOTES:

1. EACH NODE CONNECTS TO A FIBER OPTIC NETWORK.
2. SIDEWALK REPLACEMENT: MATCH TO EXISTING SIDEWALK PER THE SATISFACTION OF THE CITY ENGINEER.
3. NO HEDGES/TREES TO BE OBTAINED.
4. NON 80.3% LID ON VAULT.
5. FOR SLOPE ANGLE, SEE SURVEY SHEET 0-1.
6. FOR ALL STEPPED OR SLOPING SIDEWALKS: REPLACEMENT OF SIDEWALKS WILL BE TO THE SATISFACTION OF THE CITY ENGINEERING STAFF DURING CONSTRUCTION PERMITS/ITING PHASE.

NOTE: ALL UTILITY LOCATIONS VERIFIED VIA USA DIG ALERT LOCATIONS AND FIELD VERIFICATION.

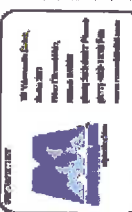
18" MIN CLEARANCE REQUIRED FROM CLOSEST NEW EQUIPMENT TO BACK OF CURB

CA-PHS09m2	
NORTH COORDINATE	
LATITUDE:	37°26'16S
LONGITUDE:	-122°23'36S
BILL OF MATERIALS	
VAULTS (PVT)	17.13"
CONDUIT (PVT)	2.13"
CONDUIT (PVT)	2.13"
CONDUIT (PVT)	2.13"



PROPOSED NODE LOCATION
INSTALL NEW 25" 9.5" SUPPORTING SINGLE LUMINAIRE DECORATIVE POLE (18" B.O.C.) STA. 85+19 (SEE DETAIL D-1, SHEET D-3)

CA-PHS09m2
FIBER OPTIC NETWORK
CROWN CASTLE
V25R04C



DIG ALERT
UNDERGROUND UTILITY LOCATIONS
CALL 800-4-A-HEAD OR VISIT
WWW.DIG-ALERT.COM



ITEM	QUANTITY
ASPHALT TRENCH	27
CLAY TRENCH	0
DIRT TRENCH	58
POLE	0
TOTAL	85
SEE SIDEWALK TOTAL	18 SQ. FT.

PROPOSED SITE PLAN
ACKNOWLEDGEMENT
WILLOWWOOD AVE,
PIEDMONT, CA
(SEE DETAIL SHEET D-1)

DATE	5/22/2019
BY	SP-1

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HORT SCIENCE
BARTLETT CONSULTING
325 Ray Street
Pleasanton, California 94566
Phone 925.484.0211

Tree Assessment Plan

Prepared for
Beacon Development, LLC
Petaluma, CA

June 2019



Acoustical & Audiovisual Consultants

OUTDOOR SOUND STUDY FOR:

**CA-PHS09M2 WIRELESS COMMUNICATION TOWER
AND ASSOCIATED EQUIPMENT**

Piedmont, CA
RGD Project #: 19-055

PREPARED FOR:

Crown Castle
1 Park Place, Suite 300
Dublin, CA 94568

PREPARED BY:

Alan Rosen
Principal

Tsz "Anthony" Wong
Consultant

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DATE:

8 July 2019

1. Introduction

The proposed project is the installation of a new cellular wireless antenna and associated equipment on a City of Piedmont owned parcel along Wildwood Avenue in the City of Piedmont. This report compares the noise levels generated by the proposed equipment with the noise level limits as presented in the City of Piedmont Municipal Code. This report also compares the noise level from the equipment with the existing ambient noise level at the nearest residences.

2. Environmental Noise Fundamentals

Noise can be defined as unwanted sound. It is commonly measured with an instrument called a sound level meter. The sound level meter detects the sound with a microphone and assigns it a number called a sound level. Sound levels are expressed in units of decibels. To correlate the microphone signal to a level that corresponds to the way humans perceive noise, the A-weighting filter is used. A-weighting de-emphasizes low-frequency and very high-frequency sound in a manner similar to human hearing. The use of A-weighting is required by most local General Plans as well as federal and state noise regulations (e.g. Caltrans, EPA, OSHA and HUD). The abbreviation dBA is sometimes used when the A-weighted sound level is reported.

Because of the time-varying nature of environmental sound, there are many descriptors that are used to quantify the sound level. Although one individual descriptor alone does not fully describe a particular noise environment, taken together, they can more accurately represent the noise environment. The maximum instantaneous noise level (L_{max}) is often used to identify the loudness of a single event such as a car passby or airplane flyover. To express the average noise level the L_{eq} (equivalent noise level) is used. The L_{eq} can be measured over any length of time but is typically reported for periods of 5 minutes to 1 hour.

The background noise level (or residual noise level) is the sound level during the quietest moments. It is usually generated by steady sources such as distant freeway traffic. It can be quantified with a descriptor called the L_{90} which is the sound level exceeded 90 percent of the time. The median sound level is the L_{50} which is the sound level exceeded 50% of the time.

In environmental noise, a change in noise level of 3 dB is considered a just noticeable difference. A 5 dB change is clearly noticeable, but not dramatic. A 10 dB change is perceived as a halving or doubling in loudness.

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3. Acoustical Criteria

3.1. Piedmont Municipal Code

Section 17.46.070.B.5

This section states that a wireless communication facility must be operated to minimize noise that is audible as provided in Chapter 5 of the City Code. According to Chapter 5 of the Municipal Code, mechanically generated noise sources such as the proposed cube with exhaust fans shall be limited to not exceed a sound level of 50 dBA beyond the property perimeters. The specific language in the code is repeated below.

Section 5.2 – 2016 Piedmont Residential Code - Amendments

5.2.32 Appendix K. Add a new Section AK103.2 – Mechanically Generated Noise Sources to read as follows: "Machines and other devices located on the exterior of structures which generate sounds perceptible outside the perimeters of the lot on which they are located shall be installed with such sound transmission control measures to adequately minimize or eliminate the transmission of the sound to a level not to exceed 50 decibels, A-weighted, beyond property perimeters. This section is directed to and includes, but is not limited to pool and spa filter systems, air conditioning units, and exterior mounted blowers for exhaust systems." (Ord. 548 N.S., 10/93, Ord. 607 N.S. 6/99; Ord. 634 N.S. 12/02, Ord. 696 N.S. 01/11, Ord. 713 N.S. 02/14)

Section 5.4 – 2016 Piedmont Building Code - Amendments

5.4.11 Add a new Section 1207.6 – Mechanically Generated Noise Sources to read as follows: "Machines and other devices located on the exterior of structures which generate sounds perceptible outside the perimeters of the lot on which the machine or other device is located shall be installed with such sound transmission control measures to adequately minimize or eliminate the transmission of the sound to a level not to exceed 50 decibels, A-weighted, beyond property perimeters. This section is directed to and includes, but is not limited to, pool and spa filter systems, air conditioning units, and exterior mounted blowers for exhaust systems." (Ord. 548 N.S., 10/93, Ord. 607 N.S. 6/99; Ord. 634 N.S. 12/02, Ord. 696 N.S. 01/11, Ord. 713 N.S. 02/14, Ord. 730 N.S. 05/17)

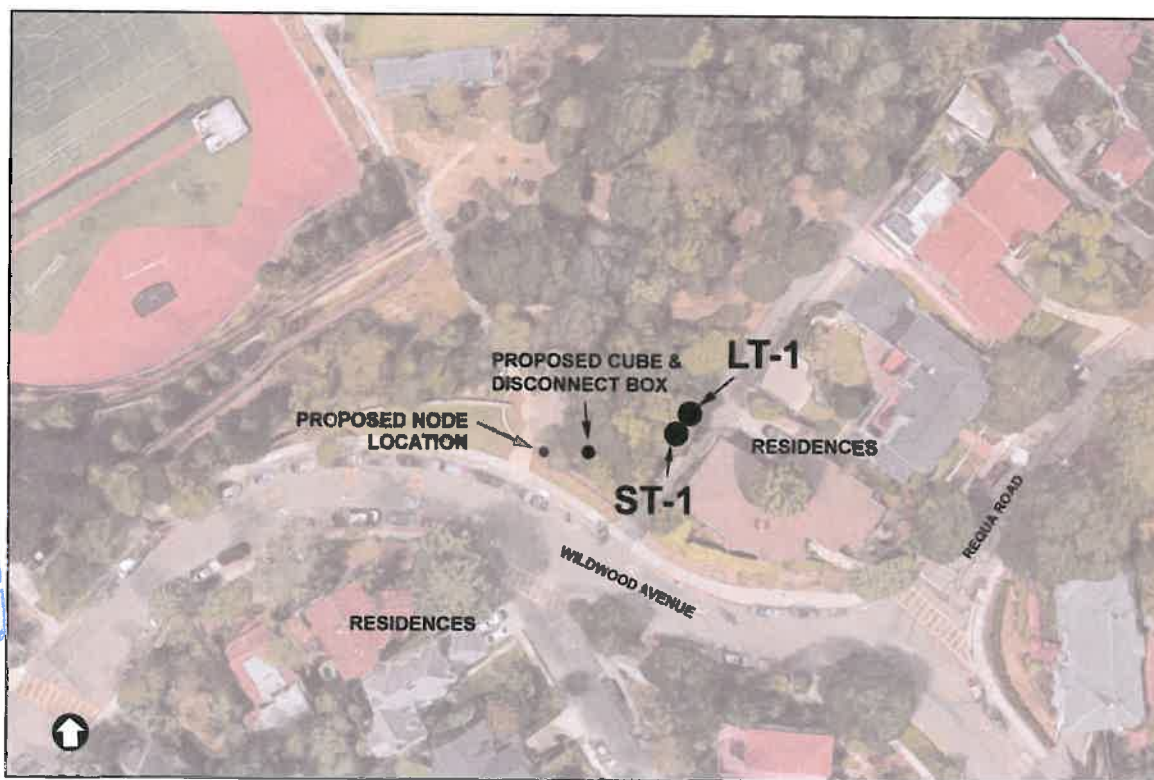
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4. Ambient Sound Measurements

One continuous unattended long term (24-hour) noise measurement and one short-term attended (15-minute) noise measurement was made at the project site to quantify the existing ambient noise level. The noise measurements began on Thursday, 27 June 2019 and ended on Friday, 28 June 2019.

The long-term noise measurement monitor was located on a tree near the perimeter of the project site, approximately 10 feet above ground. The short-term measurement was made near the monitor but at five feet above ground. The locations of the measurements were chosen based on the proximity of the nearest residence to the east. The long-term (LT-1) and short-term (ST-1) measurement locations are shown in Figure 1. Figure 1 also shows the location of the node (antenna/tower), cube (equipment enclosure) and disconnect box (meter and circuit breaker).

Figure 1: Ambient Sound Measurement Locations



The noise measurements were made with Larson-Davis Model 820 and Model 824 precision integrating sound level meters meeting Type 1 specifications (ANSI S1.4). The sound level meter calibration was checked with an acoustical calibrator (Larson-Davis Model Cal200).

The existing ambient consisted of the steady sound of distant traffic and intermittent sounds from vehicles on Wildwood Avenue, voices of students playing in the outdoor fields of the nearby schools, birds, and aircraft flyovers. During our initial

site visit there was also the sound of a distant leaf blower. The long-term hourly sound levels are plotted in Figure 2. Table 1 shows a summary of the short-term measurement results in terms of the average sound level (L_{eq}) and the background sound level (L_{90}).

Figure 2: Long-Term Measurement Results (LT-1)

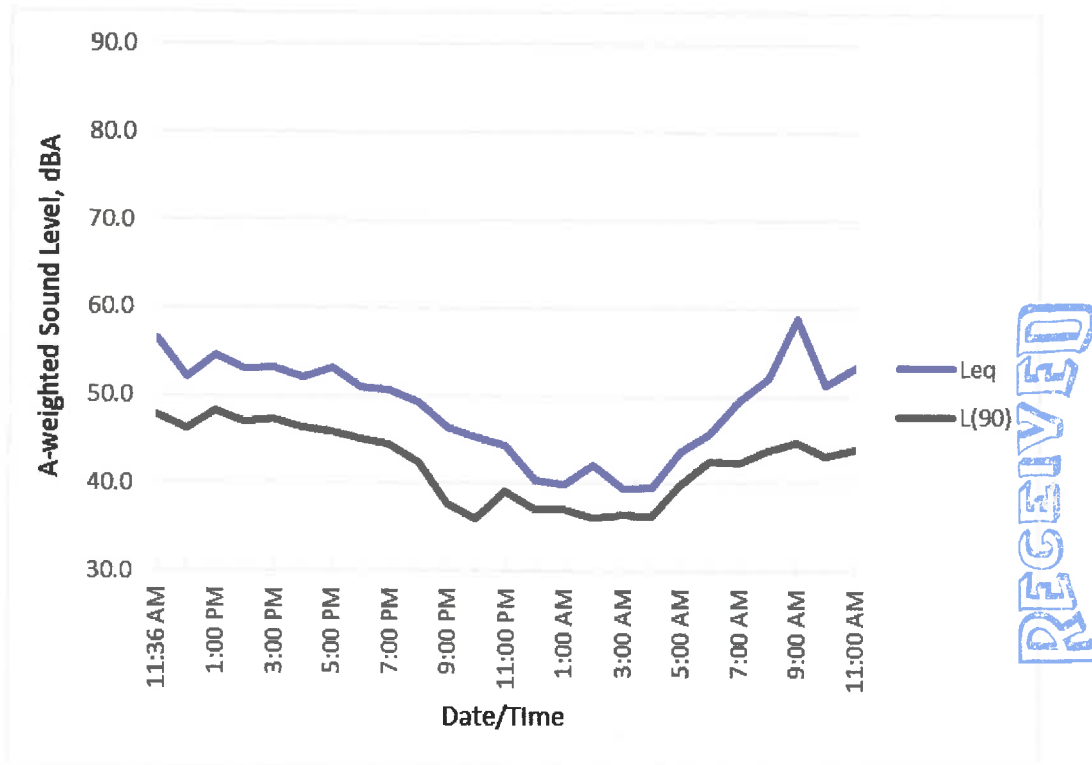


Table 1: Short-term Measurement Results (ST-1)

Location/ Height Above Ground		Time	L_{eq}	L_{90}	L_{max}
ST-1	5 feet	11:00 AM – 11:15 AM	51 dBA	43 dBA	Cars: 50 – 56 typ. Aircraft: 47, 54 Student at field: 43 – 48, 53, 56, 58 Bird: < 45, 61, 63

5. Project Generated Noise Level Analysis and Conclusion

The project includes a node (antenna), cube (enclosure with radio equipment) & disconnect box (meter/circuit breaker). The antenna and disconnect box are not expected to generate any audible noise. However, the project's cube (model CUBE-SC3NN12NN1) is an enclosure with an active ventilation system that uses several small fans mounted on the inside of the enclosure.

Comparison with City Municipal Code

The City's municipal code requires that noise levels from the project equipment be limited to 50 dBA at the property boundary of the lot on which the noise source is located. According to the manufacturer, the cube would generate a sound level of up to 55 dBA at a distance of 5 feet. We calculate that noise from the project cube would be 40 dBA at the nearest residential property line to the east (28 feet) and 44 dBA at the property line along the sidewalk to the south (17 feet). Therefore, the project's equipment would comply with the property line noise level limit of 50 dBA (See Table 2). Our calculations take into account the noise attenuation due to distance using a standard rate of 6 dBA per doubling of distance.

Table 2: Comparison of Project Generated Noise and Municipal Code

Location	Equipment Noise Level	Municipal Code Noise Limit
Property Boundary to the east	40 dBA	50 dBA
Property Boundary to the south	44 dBA	

Comparison with Ambient Noise

To help put the sound of the equipment into perspective, we compare the calculated sound from the equipment with the typical measured hourly background ambient levels (L_{90}). At this location, the background sound level is dominated by the sound of distant traffic.

We calculate that noise from the project cube (ventilation fans) would be 35 dBA at the setback of the nearest house to the east and 29 dBA at the setback of the nearest house to the south. Table 3 shows a comparison of the project generated noise levels at the setback of the nearest residences and the typical hourly average ambient noise level. In general, the proposed equipment noise source is below the background L_{90} levels. This means that the noise from the equipment would tend to blend in with the ambient noise.

Table 3: Comparison of Project Generated Noise and Existing Ambient Noise

Location	Equipment Noise Level	Typical Hourly Ambient Sound Level (L_{90})	
		Daytime	Nighttime
Residence to the east	35 dBA	45 to 48 dBA	36 to 39 dBA
Residence to the south	29 dBA		

In summary, noise from the project is calculated to comply with the City's 50 dBA noise limit at the project boundary. In addition, noise from the equipment would be less than the existing ambient noise level (L_{90}) and therefore, it would tend to blend in with other background noises at the nearest residences to the east and south.

* * *

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WATERFORD

RF EMISSIONS COMPLIANCE REPORT

Prepared for:

Crown Castle
695 River Oaks Pkwy
San Jose, CA 95134

Site:

CA-PHS09m2 (2ft Antenna, 2 panels, Radio
8843)
Across 314 Wildwood Ave
Piedmont, CA 94611

June 19, 2019

This site will be in compliance with

FCC Regulations and MPE Limits:

Crown Castle Is 1.135% of General Population (GP) Limit

(0.227% of Occupational (Occ) Limit)

Certification

I have reviewed this RF Emissions assessment report and believe it to be both true and accurate to the best of my knowledge.



Analysis completed using Waterford's NIERTool© software

Only clients and client representatives are authorized to provide input data through the Waterford web portal. In securing that authorization, clients and client representatives warrant the accuracy of all input data. Waterford Consultants, LLC attests to the accuracy of the engineering calculations. Waterford also attests that the results of those engineering calculations are correctly summarized in this report.

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201 Loudoun Street SE, Suite 300

Leesburg, Virginia 20175

(703) 596-1022 Phone

www.waterfordconsultants.com

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RF EMISSIONS COMPLIANCE STATEMENT

Site:
CA-PHS09m2 (2ft Antenna, 2 panels, Radio 8843)
Across 314 Wildwood Ave
Piedmont, CA 94611

Compliance Statement

Subject site COMPLIES with Radiofrequency Radiation Exposure Limits of 47 C.F.R. §§ 1.1307(b)(3) and 1.1310.

Ground Level Site Summary

Predicted cumulative RF power density at ground level as a percentage of the FCC General Population limits. This result is the sum of the maximum ground level MPE for each RF emitter by band of operation. Sites below 100% are in full compliance.

Source	Predicted Power Density, % of Limit (GP)
Crown 2100 MHz	0.58 %
Crown 1900 MHz	0.56 %
Sum of Listed Sources	1.14%

Antenna Level Site Summary

Predicted cumulative RF power density at elevated levels near the antenna(s) has been evaluated with respect to the FCC General Population limits. The mitigation measures recommended herein are necessary to achieve and maintain compliance at the site based on the following assessment:

Antenna Level Assessment

Signage directives for this report are specified in the Elevation Detail Plot which depicts predicted RF power density near the antenna as a percentage of the FCC General Population limits. Areas exceeding 100% of the General Population limits are depicted as blue. Any work required within areas exceeding 100% of the limits should be coordinated with wireless operators or performed by personnel trained in RF safety and equipped with personal protection equipment. Workers in areas depicted as green or clear will not be exposed to hazardous levels of RF energy and no action is required to maintain a safe working environment.

As shown in the Elevation Detail Plot, the following keep-back distances to the FCC limits have been determined:

Reference Level Limit(%)	Maximum Level: General Population (%)	Maximum Level: Occupational (%)
Ground Level	1.135	0.227
Antenna Level	851.00	170.20

Distance to FCC 100% MPE Limits at Antenna Level

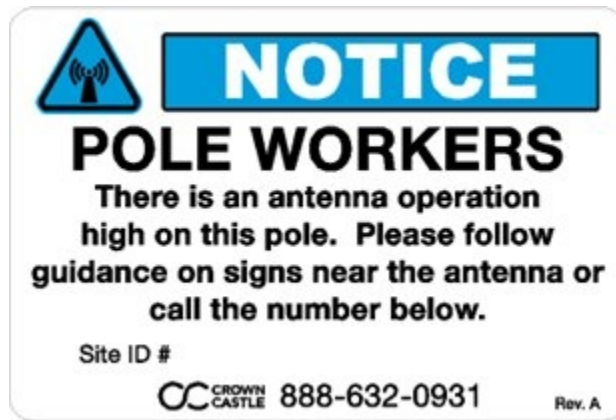
- Vertical Stand Off Distance (General Population) 4 feet
- Vertical Stand Off Distance (Occupational) 3 feet
- Horizontal Stand Off Distance (General Population) 9 feet
- Horizontal Stand Off Distance (Occupational) 3 feet

Distance to FCC 100% MPE Limits at Ground Level

- Horizontal Stand Off Distance (General Population) N/A
- Horizontal Stand Off Distance (Occupational) N/A

RF Alerting Signage

The "Notice" sign must be posted near the bottom of the pole or on the shroud any time there is a zone near the antenna that exceeds the General Population limit. This sign should be mounted where it is easily visible to workers on the ground as they approach the pole. Suggested locations include on the pole about 8-10' from the ground or on the front of the equipment shroud if it is mounted on the pole.



The "Caution" sign must be posted on the antenna any time there is an area that exceeds the FCC General Public exposure limit. The keep-back distance for the General Population limit must be filled in on the sign as depicted below. This sign must be mounted on or just below the radiating antenna so that it is maximally visibility to workers approaching the antenna in a lift or bucket truck. If there is more than one radiating antenna and they are less than 5' apart then the sign should be mounted on or near the lower antenna. If there are multiple radiating antennas and they are >5' apart then separate signs should be mounted on or near each antenna.



Technical Framework: Basis for Compliance Statement

The compliance framework is derived from the Federal Communications Commission (FCC) Rules and Regulations for preventing human exposure in excess of the applicable Maximum Permissible Exposure (“MPE”) limits listed in Table 1 of 47 C.F.R. § 1.1310. Calculations using input data provided to Waterford by client or client's representative numerically confirm the subject site can operate at a 100% duty cycle without exceeding the FCC MPE limits in areas of uncontrolled access.

At this site, the radio frequency (RF) power density resulting from each transmitter at any location may be expressed as a percentage of the frequency-specific limits and added to determine if 100% of the exposure limit has been exceeded. The FCC Rules define two tiers of permissible exposure differentiated by the situation in which the exposure takes place and/or the status of the individuals who are subject to exposure. General Population / Uncontrolled exposure limits apply to those situations in which persons may not be aware of the presence of electromagnetic energy, where exposure is not employment related, or where persons cannot exercise control over their exposure. Occupational / Controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment, have been made fully aware of the potential for exposure, and can exercise control over their exposure. Based on the criteria for these classifications, continuous exposure to RF power density levels below the FCC General Population limits is not hazardous. The FCC General Population limits are 5 times more restrictive than the Occupational limits..

Frequency (MHz)	<i>Limits for General Population/ Uncontrolled Exposure</i>		<i>Limits for Occupational/ Controlled Exposure</i>	
	Power Density (mW/cm ²)	Averaging Time (minutes)	Power Density (mW/cm ²)	Averaging Time (minutes)
30-300	0.2	30	1	6
300-1500	f/1500	30	f/300	6
1500-100,000	1.0	30	5.0	6

In situations where the predicted MPE exceeds the General Population threshold in an accessible area because of emissions from multiple transmitters, FCC licensees that contribute greater than 5% of the aggregate MPE share responsibility for mitigation.

For any location where radiofrequency (RF) power densities exceed 100% MPE of the General Population limits, access controls with appropriate RF alerting signage must be available to be visible upon approach from any direction to provide notification of potential conditions within these areas. Subject to other site security requirements, occupational personnel should be trained in RF safety and equipped with personal protective equipment (e.g. RF personal monitor) designed for safe work in the vicinity of RF emitters. Waterford Consultants, LLC recommends that any work activity in these designated areas or in front of any transmitting antennas be coordinated with the wireless operators.

Predictive Modeling

Based on the computational guidelines set forth in FCC Office of Engineering and Technology, Bulletin 65 ("OET65"), Waterford Consultants, LLC has developed software to predict the overall MPE possible at any particular location given the spatial orientation and operating parameters of multiple RF sources. These theoretical results represent worst-case predictions as emitters are assumed to be operating at 100% duty cycle.

The tabular analysis in this report calculates the spatial peak power density produced at ground level from each RF emitter. The far field power density in milliWatts per square centimeter is expressed as $S_{ff} = 33.4 \times ERP / R^2$ where ERP is the Effective Radiated Power along a specific azimuth in Watts and R is the distance from the antenna radiation center in meters. The antenna manufacturer's horizontal and vertical radiation patterns have been considered in determining the ERP in any direction. This computation is based on the maximum ERP and includes a 1.6-fold increase in field strength due to ground reflection. The result provides a conservative estimate of spatially averaged power density at ground level and may be higher than predicted MPE in the graphical plots described below.

As the limits are frequency dependent, the contribution of any RF source at a specific location may be expressed as a percentage of the FCC General Population MPE limits at the associated operating frequency. The percentage contributions from all RF sources are added to determine the overall exposure level. If this result is less than 100%, the predicted cumulative exposure level is below the General Population limits set forth in the FCC Rules. The cumulative MPE depicted on the summary page is the summation of maximum MPE values for each emitter regardless of antenna orientation.

A graphical plot of calculated spatially averaged RF power density, based on the Cylindrical Model as described in OET65, predicts spatially averaged MPE conditions at areas in near proximity to the antenna. In the vertical display, predicted MPE is depicted at the center of the 6 ft vertical zone that a person could occupy.

Qualifications of Waterford

With more than 100 team-years of experience, Waterford Consultants, LLC [Waterford] provides technical consulting services to clients in the radio communications and antenna locating industry. Waterford retains professional engineers who are placed in responsible charge of the processes for analysis.

Waterford is familiar with 47 C.F.R. § § 1.1307(b)(3) and 1.1310 along with the general Rules, Regulations and policies of the FCC. Waterford work processes incorporate all specifications of FCC Office of Engineering and Technology, Bulletin 65 ("OET65"), from the website: www.fcc.gov/oet/rfsafety and follow criteria detailed in 47 CFR § 1.1310 "Radiofrequency radiation exposure Limits".

Within the technical and regulatory framework detailed above, Waterford developed tools according to recognized and generally accepted good engineering practices. Permissible exposure limits are band specific, and the Waterford computerized modeling tools correctly calculate permissible exposure based on the band(s) specified in the input data. Only clients and client representatives are authorized to provide input data through the Waterford web portal. In securing that authorization, clients and client representatives attest to the accuracy of all input data.

Waterford Consultants, LLC attests to the accuracy of the engineering calculations computed by those modeling tools. Furthermore, Waterford attests that the results of those engineering calculations are correctly summarized in this report.

Certification

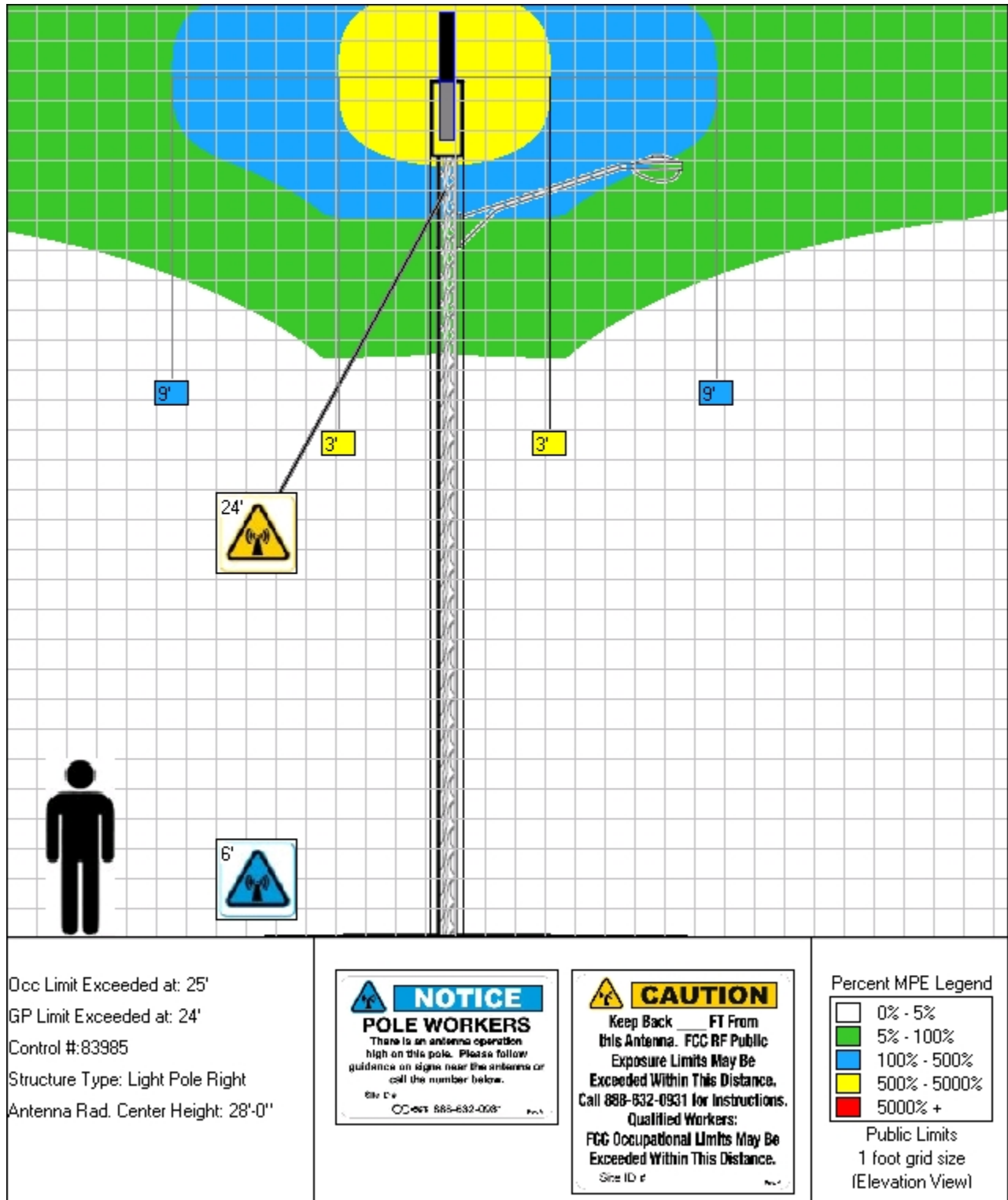
My stamp and signature on the cover indicates that I am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation, specifically in accordance with FCC's OET Bulletin 65. I have reviewed this Radio Frequency Exposure Assessment report and believe it to be both true and accurate to the best of my knowledge.

Antenna Inventory

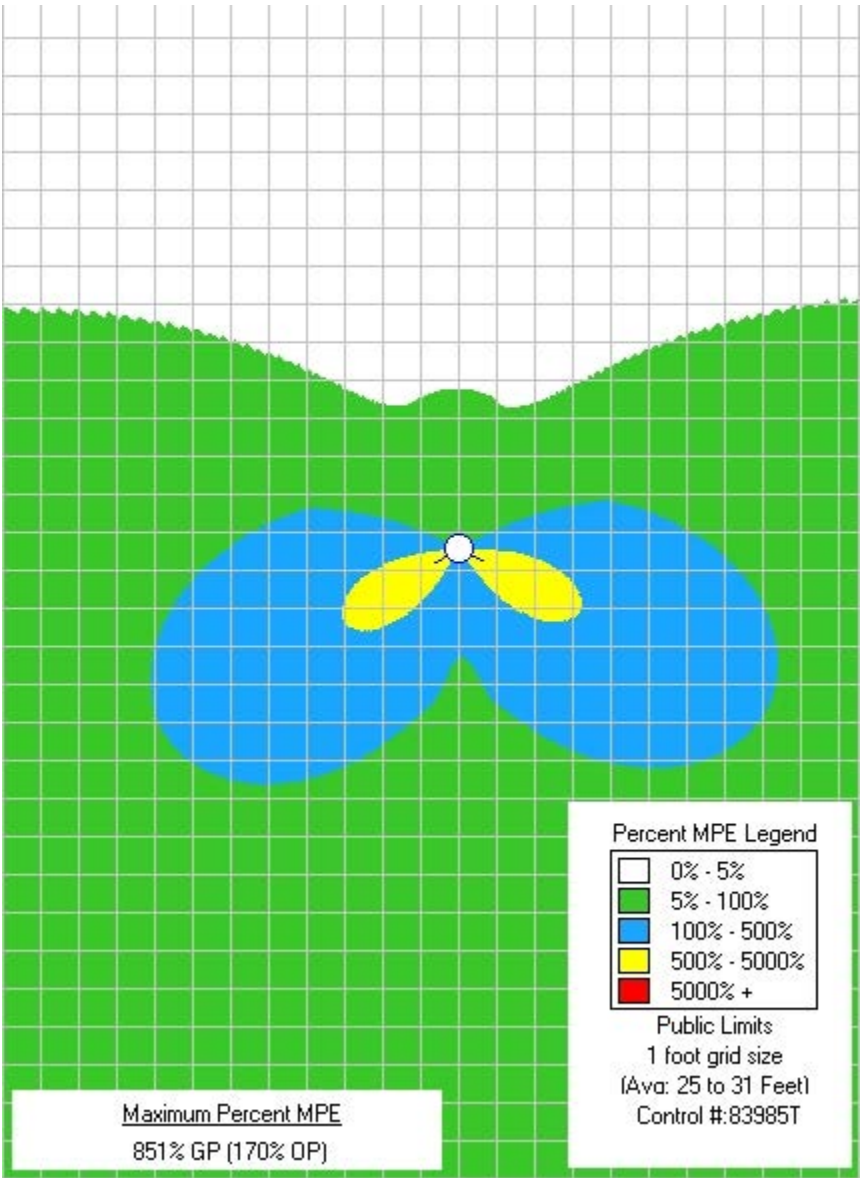
#	Operator	Make	Model	Freq (MHz)	Az (deg)	Tilt (deg)	HorBW (deg)	Ant (ft)	TPO (w)	Paths	Loss (db)	Ant Gain	ERP/EIRP (W)	RC AGL (ft)
1	Crown	dbSpectra	DB362NXD3S-M 1900	1900	120	0	65	2	40	4	5	7.85dBd	505.78 EIRP	28
2	Crown	dbSpectra	DB362NXD3S-M 1900	1900	240	0	65	2	40	4	5	7.85dBd	505.78 EIRP	28
3	Crown	dbSpectra	DB362NXD3S-M 2100	2100	120	0	65	2	40	4	5	7.85dBd	505.78 EIRP	28
4	Crown	dbSpectra	DB362NXD3S-M 2100	2100	240	0	65	2	40	4	5	7.85dBd	505.78 EIRP	28

ELEVATION DETAIL

[Predicted MPE depicted at the center of the 6 ft vertical zone that a person could occupy]



TOP DOWN DETAIL



GROUND LEVEL MPE BY RF EMITTER

The maximum ground level MPE along the azimuth of orientation for each RF emitter by band of operation is listed below. The computational approach is described in the Predictive Modeling section. The maximum MPE by operator and band is contributive to the cumulative ground level MPE summary table presented above.

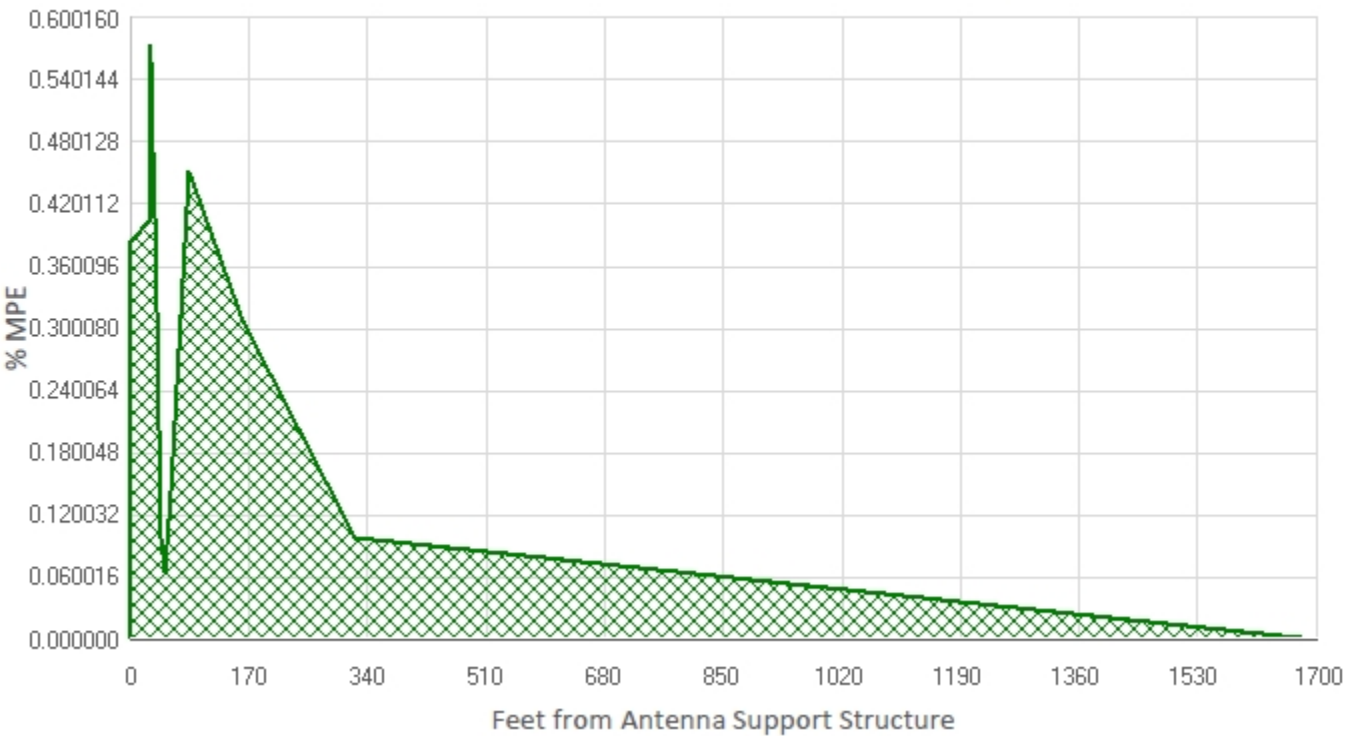
Crown

CA-PHS09m2 (2ft Antenna, 2 panels, Radio 8843)
dbSpectra - DB362NXD3S-M 2100 240° Sector

Maximum Exposure Limit - 2100 MHz
Limit (GP): 1000 $\mu\text{W}/\text{cm}^2$

EIRP		Height		Downtilt	
(Watts)	505.78	(feet)	28	(Degrees)	0

Ground Level MPE as Percent of FCC General Population Limits



Maximum power density at ground level: 5.75 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Exposure Limit: 0.58 %

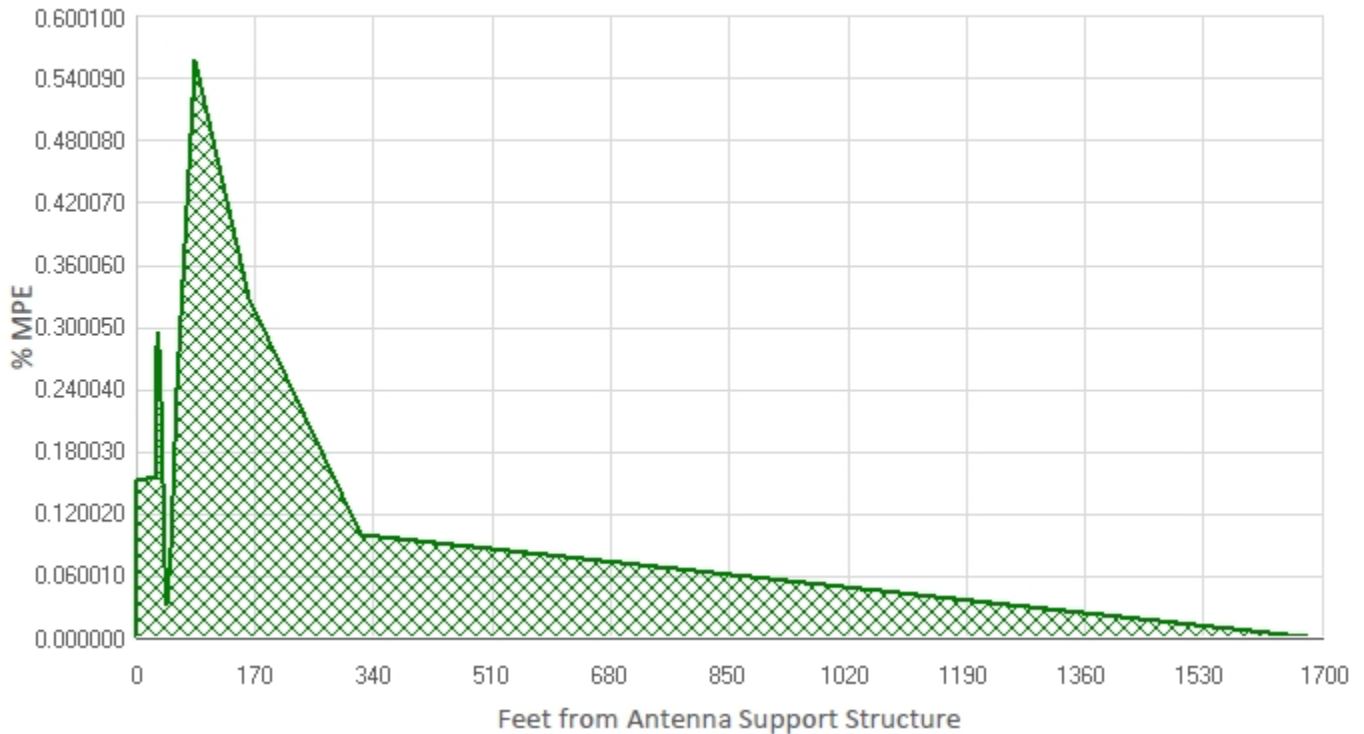
Crown
CA-PHS09m2 (2ft Antenna, 2 panels, Radio 8843)
dbSpectra - DB362NXD3S-M 1900 240° Sector

Maximum Exposure Limit - 1900 MHz

Limit (GP): 1000 $\mu\text{W}/\text{cm}^2$

EIRP		Height		Downtilt	
(Watts)	505.78	(feet)	28	(Degrees)	0

Ground Level MPE as Percent of FCC General Population Limits



Maximum power density at ground level: 5.6 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Exposure Limit: 0.56 %

Crown

CA-PHS09m2 (2ft Antenna, 2 panels, Radio 8843)
dbSpectra - DB362NXD3S-M 2100 120° Sector

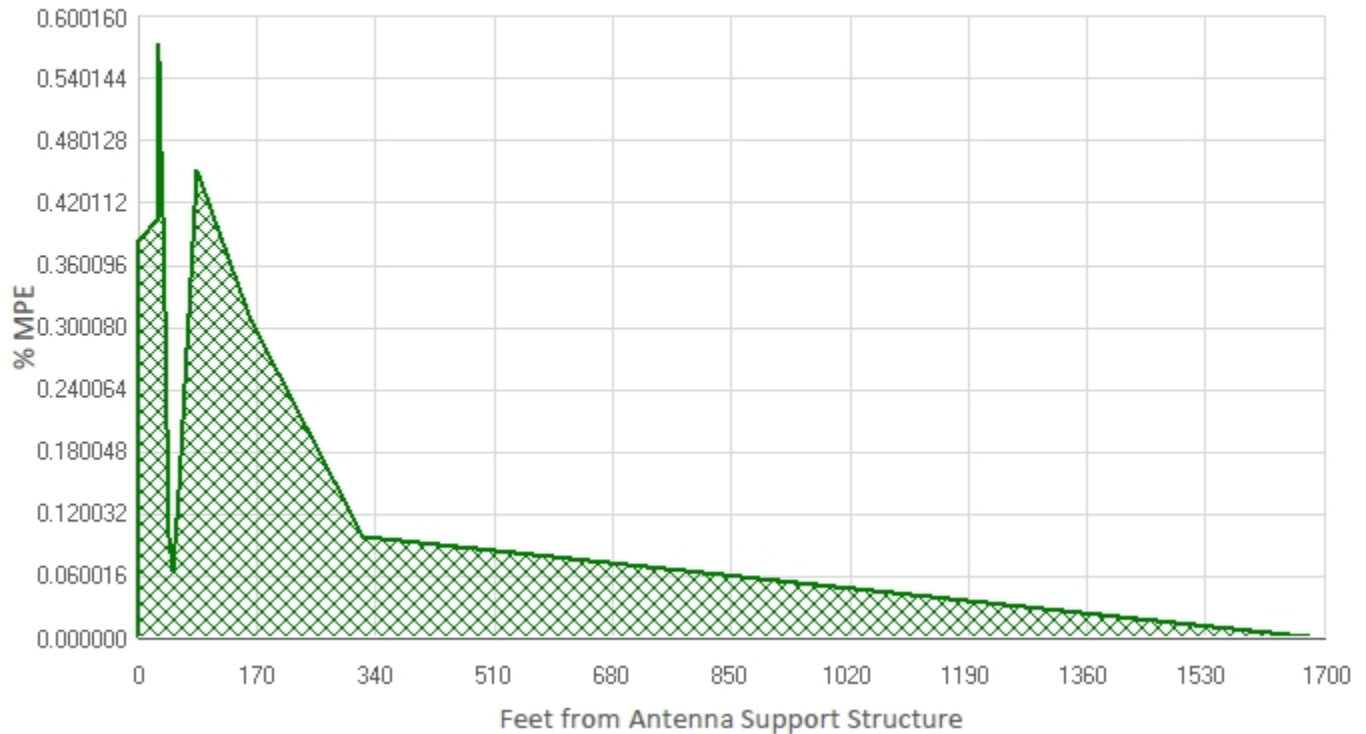
Maximum Exposure Limit - 2100 MHz

Limit (GP):

1000 $\mu\text{W}/\text{cm}^2$

EIRP (Watts)	505.78	Height (feet)	28	Downtilt (Degrees)	0
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Ground Level MPE as Percent of FCC General Population Limits



Maximum power density at ground level:

5.75 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Exposure Limit:

0.58 %

Crown

CA-PHS09m2 (2ft Antenna, 2 panels, Radio 8843)
dbSpectra - DB362NXD3S-M 1900 120° Sector

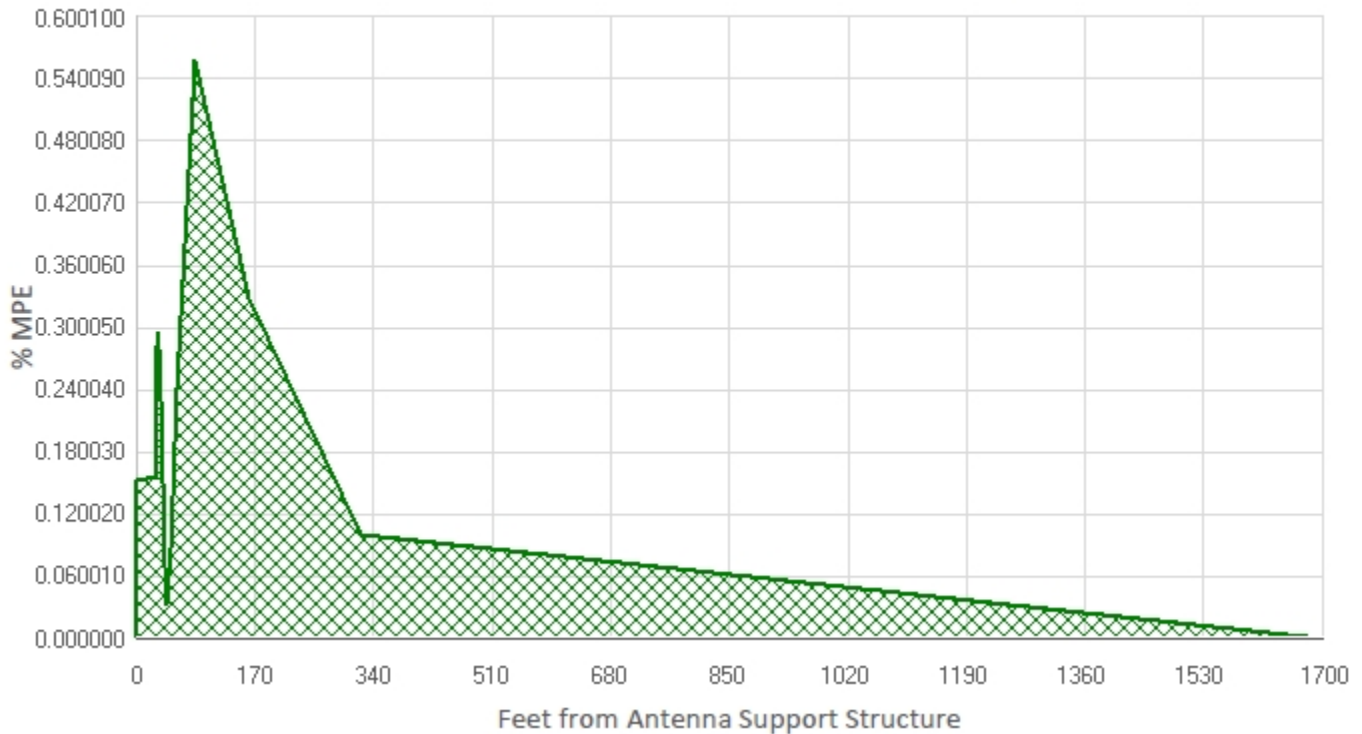
Maximum Exposure Limit - 1900 MHz

Limit (GP):

1000 $\mu\text{W}/\text{cm}^2$

EIRP		Height		Downtilt	
(Watts)	505.78	(feet)	28	(Degrees)	0

Ground Level MPE as Percent of FCC General Population Limits



Maximum power density at ground level:

5.6 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Exposure Limit:

0.56 %



Antenna Locations and Nearby Buildings

Predicted MPE for buildings within 150'

Building	Crown Max MPE (% GP)
A	
Ground Level (0')	0.0009
1st Floor (10')	0.0022
Roof (30')	0.1349
B	
Ground Level (0')	0.0110
1st Floor (10')	0.0255
Roof (30')	0.9293
C	
Ground Level (0')	0.0008
1st Floor (10')	0.0022
Roof (25')	0.1820
D	
Ground Level (0')	0.0006
1st Floor (10')	0.0017
Roof (35')	0.0086
E	
Ground Level (0')	0.0021
1st Floor (10')	0.0056
Roof (30')	0.2729
F	
Ground Level (0')	0.0033
1st Floor (10')	0.0091
Roof (30')	0.4240