CITY OF AGOURA HILLS

DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

ACTION DATE:	March 19, 2015
TO:	Planning Commission
APPLICANT:	Crown Castle NG West LLC 2125 Wright Avenue, Suite C-9 La Verne, CA 91750
CASE NO.:	14-CUP-005
LOCATION:	South Side of Thousand Oaks Boulevard, just West of Silver Valley Avenue
REQUEST:	Request for approval of a Wireless Telecommunications Facilities Permit/Conditional Use Permit to install a wireless telecommunications facility on a street light pole with above ground and below ground accessory equipment.
ENVIRONMENTAL DETERMINATION:	City staff has preliminarily determined the Project is Categorically Exempt from CEQA per Section 15303 and independently, exempt pursuant to the general rule in Section 15061(b)(3).
RECOMMENDATION:	Staff recommends approval of Wireless Telecommunications Facilities/Conditional Use Permit Case No. 14-CUP-005, subject to conditions, based on the findings of the attached Draft Resolution.
ZONING DESIGNATION:	Single Family Residential – 3-10,000 (RS-(3)-10,000)
GENERAL PLAN DESIGNATION:	Residential Single Family

I. PROJECT BACKGROUND AND DESCRIPTION

Crown Castle has applied for a Wireless Telecommunications Facilities Permit/Conditional Use Permit to install a wireless telecommunications facility in the City of Agoura Hills near the intersection of Thousand Oaks Boulevard and Silver Valley Avenue. The applicant is seeking to expand its Distributed Antenna System (DAS) by installing an antenna on an existing Southern

California Edison (SCE) street light pole located in the public right-of-way (ROW). An electric meter and a Remote Radio Unit (RRU) are also proposed on the ground in proximity to the existing pole. Below ground would be a new connection handhole in the sidewalk, also in proximity to the pole, and fiber and electrical lines below the travel lane closest to the sidewalk. The street light pole is owned by SCE and the pole will continue to be owned by SCE after the antenna is installed on the pole. This specific portion of the right-of-way is an arterial street located in the Single Family Residential zone (RS-(3)-10,000) near the Chateau Park residential neighborhood.

A distributed antenna system is a type of wireless telecommunication facility that is an alternative to a larger, taller "macro" cell site, and consists of multiple "nodes," which are small low-powered antennas, connected to each other by fiber optic cable. Wireless signals are picked up by the nodes, carried over fiber optic lines to a central hub, and handed off to wireless carriers. DAS facilities can be used to receive and transmit both wireless telecommunications and wireless data communication signals. The antennas do not need to be located as high as macro cell sites, but instead require multiple shorter pole locations to cover the same area as a macro site. By using a DAS, carriers can fill in coverage gaps and dead spots in their macro network and help add capacity to their network. DAS is a shared-infrastructure or neutral host that serves to expand a wireless network footprint. Crown Castle's customers are not individual wireless users, but rather the commercial wireless carriers that provide wireless service to consumers. In this case, MetroPCS/T-Mobile is the commercial wireless carrier that is seeking to expand or fill the gaps in its service by using the DAS that Crown Castle proposes to install.

In 2005, the City and NextG Networks of California, Inc. ("NextG") entered into a Right-Of-Way Use Agreement that allows NextG to install antennas and other equipment on existing facilities in the City's ROW, subject to certain terms and conditions. In 2012, NextG became Crown Castle NG West Inc. ("Crown Castle"). The Agreement requires Crown Castle to obtain all required permits and comply with all applicable laws prior to installing its antennas and other equipment in the public ROW.

II. STAFF ANALYSIS

The Wireless Telecommunications Facilities (WTF) Ordinance provides a review process that consists of three tiers. Tier I can be approved by the Director of the Planning and Community Development Department, and consists of certain types of facilities in the Business Park-Manufacturing zone only. Tier II includes most other wireless facilities and locations, and requires a Conditional Use Permit or an Amendment to an existing Conditional Use Permit, and is subject to the Planning Commission's review and approval. Finally, Tier III requires Planning Commission approval, and includes the projects that require an exception to the provisions of the Ordinance (e.g. dimensions, design characteristics, location).

Per the Ordinance, this application falls under the Tier II review process, which requires a new Conditional Use permit subject to the Planning Commission's approval. The antenna is proposed for installation on an existing SCE street light pole in the ROW.

This application is the third application submitted to the City by Crown Castle in the ROW. The SCE street light pole is located on the south side of Thousand Oaks Boulevard west of Silver

Valley Avenue, and is owned and maintained by SCE. The primary function of the existing pole is to provide lighting for pedestrian and vehicular traffic on the arterial street.

The applicant is proposing to attach a 24-inch tall by 8-inch in diameter omni-directional antenna contained within a 5 feet 6 inches tall radome atop the pole, which conceals the antenna from view. Due to the wireless telecommunications facility installation, SCE requires the existing pole to be replaced with a similar pole matching the color, style and height. The replacement pole is 29 feet 6 inches tall, and with the installation of the antenna, it is 33 feet tall. The proposed shroud would have a maximum height of 5 feet 6 inches for the total pole height of 35 feet. The coaxial cables will be contained within the light pole and routed underground to a new ground mounted electric meter. The new, 20" l x 24" w x 60" h tall meter would be installed on the sidewalk 13 feet west of the pole. The cabinet would operate as an electrical meter and would also house the Remote Radio Unit (RRU) instead of being attached to the pole. SCE will continue to own and maintain the pole.

The following paragraphs describe the project's consistency with the design and development standards of the Ordinance Section 9661.6 of the Agoura Hills Municipal Code.

The Ordinance requires that an antenna on a replacement light pole not exceed a height that is the difference between the height of the existing and replacement poles subtracted from six (6) feet. The Ordinance also requires that screening and camouflaging techniques in the placement of wireless telecommunications facilities be used to ensure the facilities are as visually inconspicuous as possible. In screening, the design must blend with the color, texture, materials, quality and style of the pole so as to minimize the facility's visual impact on surrounding properties and achieve community compatibility.

Accessory equipment must be placed underground unless City staff determines that there is no room in the public ROW for undergrounding or that undergrounding is not feasible. When undergrounded and pole-mounted installations are not feasible for a particular type of accessory equipment, such accessory equipment shall be enclosed within a structure, and cannot exceed a height of five (5) feet and a total footprint of fifteen (15) square feet, and must be fully screened and/or camouflaged, including the use of landscaping, architectural treatment, or acceptable alternate screening.

The proposed structure, which is specific to this request and this location, conforms to SCE adopted network wide design. SCE specifications for street light poles with wireless telecommunications facilities installation consist of an antenna which would be concealed in a metal radome at the top of the pole. Staff finds with respect to the height, the antenna meets the height requirement for an installation on a replacement pole, and the ground mounted equipment complies with the maximum footprint and height allowed. With respect to the screening and camouflaging, the antenna is contained within a grey metal radome shroud to minimize attention to the pole, and at the same time, the proposed design maintains the slim-line utilitarian aspect of the pole. With regard to the remote radio unit, the Ordinance requires that the unit be screened. It would be located and fully concealed within the ground-mounted electric meter cabinet, and thus screened by the cabinet. In this particular case, City staff recommends the design of the pole and installation, which is a requirement of SCE for its street light pole accoutered with wireless telecommunications facilities installations.

Finally, with respect to the ground mounted electric meter, staff determined that undergrounding is not feasible for the following reasons. The equipment box would be 20" l x 24" w x 60" h which is less than a 15 square-foot footprint, consistent with the Ordinance. The meter allows for pedestrian circulation and does not obstruct the view of drivers making a turn onto Silver Valley Avenue or cause a traffic hazard. The proposed meter is of standard construction and would be painted similar to other meters used by other public utility companies in the ROW. If the equipment was to be placed underground, four above ground vents would be installed and a metal plate placed on the sidewalk surface. Staff believes the alternative is more visually intrusive than the proposed above ground equipment, and therefore not desired or feasible from that standpoint. Due to the size of the sidewalk and ROW, there is no additional space for screening of the meter. The meter cabinet would be similar to other utility meters found in the ROW.

The applicant states that the new facility would not generate noise that would potentially impact the public outside. The project is conditioned not to be audible at the property line of any residential property and also not to exceed an exterior noise level of fifty-five (55) dBA three feet from the noise source. Based on the information provided, the project is consistent with Section 9661.6 of the Ordinance.

This project complies with the Right-of-Way Use Agreement that the City entered into in 2005. The equipment type and the placement of the equipment would be in keeping with the equipment installation specified in the Use Agreement and the placement of the equipment would not conflict with regulatory requirements established by other agencies.

The applicant claims that the project is needed to fill a significant gap in MetroPCS/T-Mobile's communications network, and the applicant claims it is using the least intrusive means to fill that gap in service. Attached to this staff report are the applicant's justifications in support of its position, including the applicant's significant gap analysis, least intrusive alternatives analysis, and RF Coverage Maps. Federal law prohibits a City from using its regulations to "effectively prohibit" wireless service. A City regulation may not prevent a wireless service provider from closing a significant gap in its service coverage when the manner in which the wireless service provider proposes to fill the significant gap in service is the least intrusive on the values that the denial sought to serve. Because the project complies with the Ordinance and staff is recommending approval of the project, it is not necessary to determine whether a significant gap exists, or whether the applicant's method is the least intrusive means to fill the gap, and staff has not made those determinations.

Conditional Use Permit Findings:

In order for a Conditional Use Permit to be approved, the applicant must demonstrate compliance with all six of the Conditional Use Permit findings, as well as all four of the wireless telecommunication facilities specific findings specified in the Zoning Ordinance in Section Nos. 9673.2.E and 9661.7.

1. The Planning Commission must find that the proposed use is consistent with the objectives of the Zoning Ordinance and the purposes of the district in which the use is located. Wireless telecommunications facilities are allowed in the public rights-of-way of arterial streets that are adjacent to single family residential neighborhoods subject to

the issuance of a Conditional Use Permit. The pole mounted antenna is screened by a radome and the electric meter and remote radio unit would be within a cabinet shell.

2. A second finding the Planning Commission must make to approve the Conditional Use Permit is that the proposed use is compatible with the surrounding properties. The pole is a lighting fixture which is utilitarian in nature and which is considered a necessity to the community in that it helps with visibility and safety for vehicular and pedestrian traffic. The pole is located on a major arterial street that is bordered by residential development on its north and south sides. The proposed installation of an antenna on an existing light pole is not considered a new structure. The antenna would be screened by a shroud radome, and would not constitute a new visual impact. The electric meter and remote radio unit are proposed within a cabinet on the sidewalk over a 13-foot distance from the pole and similar to other utility companies' meters. The use is appropriate for this heavily traveled corridor since the use provides a communication service to neighboring residential properties, as well as to motorists.

3. The Planning Commission must also find the proposed use and the conditions under which it would be operated or maintained will not be detrimental to the public health, safety or welfare. Wireless telecommunications facilities must be built in compliance with the City's Building Code, and are subject to inspection by the City's Building Department to ensure they are constructed in a safe manner. The Federal Communication Commission (FCC) regulates wireless telecommunications facilities, with regards to other related health and safety issues, particularly radio frequency (RF) emissions, and establishes thresholds of RF emissions beyond which a facility cannot exceed. As part of the conditions of approval, and pursuant to the Ordinance, the applicant would be required to demonstrate continued compliance with the FCC emission standards.

4. Another finding is that the proposed use will comply with each of the applicable provisions of the Zoning Ordinance. Telecommunication facilities are allowed in the public right-of-way of arterial streets, subject to the issuance of a Conditional Use Permit. The facilities are designed and located in compliance with the Zoning Ordinance, and with the conditions of approval imposed, will comply with the applicable provisions of the Ordinance.

5. A finding must also be made that the distance from other similar and like uses is sufficient to maintain the diversity within the community. The street light pole is one of many on Thousand Oaks Boulevard. In this case, the proposed antenna, remote radio unit and electric meter would be similar to existing utility equipment in the right-of-way and inconspicuous to the public eye and would not contribute to visual over-concentration of similar uses. The next wireless telecommunication facility installation is located 3,500 feet to the west and 3,900 feet to the east. Attached is an exhibit showing all wireless telecommunications facilities approved in the City (Exhibit B).

6. Finally, a finding must be made that the proposed use is consistent with the goals and policies of the General Plan with respect to wireless telecommunication facilities. The General Plan states that:

> Goal U-6: Telecommunication System. Quality communication systems that meet the demands of new and existing developments in the City.

The project will provide quality communications systems to meet the demands of new and existing developments in the City by extending coverage, and adding capacity, with minimal equipment installation.

> Policy U-6.1: Access and Availability. Work with service providers to ensure access to and availability of a wide range of state-of-the-art telecommunications systems and services for households, businesses and institutions throughout the City.

The project will provide state-of-the art wireless telecommunication services.

> Policy U-6.2: Design and Siting of Facilities. Require that the installation of telecommunications infrastructure, such as cellular sites and towers, be designed in a manner to minimize visual impacts on the surrounding environment and neighborhood, and to be as unobtrusive as possible.

The proposed Distributed Antenna System (DAS) will use smaller antennas on shorter poles, separated in space so as to provide coverage over the same area as a taller, larger "macro" antenna site. This reduces the need for larger panel antennas and taller macro antenna sites, causing less visual impact while improving service connections. Additionally, mounting the antenna within a radome to an existing pole makes the wireless telecommunications facility as unobtrusive as possible. The screened antenna blends in with the pole by acting as an extension to the pole without enlarging the structure from the ground up. The electric meter and Remote Radio Unit would be concealed in a cabinet similar to other utility cabinets in the ROW.

Wireless Telecommunication Facilities Findings:

In addition to the Conditional Use Permit findings, the Planning Commission must make the following wireless telecommunications facilities findings per Section 9661.7 of the Ordinance:

1. The proposed facility has been designed and located in compliance with all applicable provisions of the Ordinance. The wireless use remains secondary to the street light pole and is permitted in this zone with a conditional use permit. It is designed with minimal equipment. Further, the applicant has completed the supplemental application for wireless telecommunications facilities to the satisfaction of the Director of Planning and Community Development, which serves, in part, as compliance verification.

2. The proposed facility has been designed and located to achieve compatibility with the community. Wireless telecommunications facilities are being incorporated into an existing street light pole structure, and are sufficiently small so as not to be visually intrusive.

3. The applicant has submitted a statement of its willingness to allow other carriers to collocate on the proposed wireless telecommunications facility wherever technically and economically feasible and where collocation would not harm community compatibility.

4. Noise generated by equipment will not be excessive, annoying, nor be detrimental to the public health, safety, and welfare, and will not exceed the standards set forth in the Ordinance. The noise will not be audible at the property line of any residentially zoned property within 500 feet from the project location, and will not exceed an exterior noise level of fifty-five (55) dBA three feet from the noise source.

5. The applicant has provided substantial written evidence supporting the applicant's claim that it has the right to enter the public right-of-way pursuant to state or federal law, or the applicant has entered into a franchise agreement with the City permitting them to use the public right-of-way. In this case, the applicant has done both. The applicant submitted to the City a copy of applicant's certificate of public convenience and necessity, issued by the Public Utilities Commission, and the applicant entered into a Right-of-Way Use Agreement with the City on October 26, 2005.

6. The applicant has demonstrated that the facility will not interfere with the use of the public right-of-way and existing subterranean infrastructure and will not interfere with the City's plans for modification of such location and infrastructure. The selected location for the electric meter would be similar and consistent with other utility poles and meters and will not extend into the pedestrian path so as to obstruct traffic.

Conditions of Approval specific to wireless telecommunications facilities, as outlined in the Ordinance, are included in the Draft Resolution and Conditions of Approval, and are attached to this report.

III. ENVIRONMENTAL REVIEW

Staff recommends that the Planning Commission find that the approval of the project is categorically exempt from the California Environmental Quality Act (Public Resources Code Section 2100 et seq., "CEQA"), pursuant to Section 15303 (Class 3), because the project involves the construction and location of limited numbers of new, small facilities or installation of small equipment into a structure, and does not have any potential for causing a significant effect on the environment. Additionally and independently, staff recommends that the Planning Commission finds that the Project is covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. It can be seen with certainty that there is no possible significant effect directly related to the project, therefore no further action is required under CEQA pursuant to Section 15061(b)(3) of the State CEQA Guidelines (14 CCR § 15061(b)(3)).

IV. RECOMMENDATION

Based on the above analysis, staff recommends approval of Conditional Use Permit Case No. 14-CUP-005, subject to the conditions of approval included in the attached Draft Resolution.

V. ATTACHMENTS

- Draft Resolution of Approval and Conditions of Approval
- Exhibit A: Vicinity/Zoning Map

- Exhibit B: Approved and Proposed Telecommunications Facilities Map
- Exhibit C: Copy of Reduced Plans
- Exhibit D: Photo-Simulation of Proposed Wireless Telecommunications Facilities
- Exhibit E: Applicant Attachments to Application: Significant Gap Analysis, Least Intrusive Summary Statement, Report on Maximum RF Emissions, Alternative Location Maps, Appendix A, and City Consultant Report

Case Planner: Valerie Darbouze, Associate Planner

DRAFT RESOLUTION NO. 15-____

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF AGOURA HILLS CONDITIONALLY APPROVING WIRELESS TELECOMMUNICATIONS FACILITIES/ CONDITIONAL USE PERMIT CASE NO. 14-CUP-005; AND MAKING A FINDING OF EXEMPTION UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

THE PLANNING COMMISSION OF THE CITY OF AGOURA HILLS HEREBY FINDS, RESOLVES AND ORDERS AS FOLLOWS:

Section 1. An application was duly filed by Crown Castle NG West LLC with respect to improvements in the public right-of-way on the south side of Thousand Oaks Boulevard, west of Silver Valley Avenue, for a Wireless Telecommunications Facilities/Conditional Use Permit, Case No. 14-CUP-005, to install a new antenna on a street light pole and accessory equipment on the sidewalk with miscellaneous cabling and undergrounding work.

Section 2. The Planning Commission of the City of Agoura Hills considered the application at a public hearing held on March 19, 2015, at 6:30 p.m. in the Council Chambers of City Hall at 30001 Ladyface Court, Agoura Hills, California. Notice of the time, date, place and purpose of the aforesaid was duly given.

Section 3. Evidence, both written and oral, including the staff report and supporting documentation, was presented to and considered by the Planning Commission at the aforesaid public hearing.

Section 4. Pursuant to Section 9673.2.E. of the Agoura Hills Zoning Ordinance, and based upon the evidence presented at the hearing, including the staff report and oral and written testimony, the Planning Commission finds, that:

1. The proposed use is consistent with the objectives of the Zoning Ordinance and the purposes of the district in which the use is located. Wireless telecommunications facilities are allowed in the public rights-of-way of arterial streets that are adjacent to single family residential neighborhoods subject to the issuance of a Conditional Use Permit. The pole mounted antenna is screened by a radome and the electric meter and remote radio unit would be within a cabinet shell.

2. The proposed use is compatible with the surrounding properties. The pole is a lighting fixture which is utilitarian in nature and which is considered a necessity to the community in that it helps with visibility and safety for vehicular and pedestrian traffic. The pole is located on a major arterial street that is bordered by residential development on its north and south sides. The proposed installation of an antenna on an existing light pole is not considered a new structure. The antenna would be screened by a shroud radome, and would not constitute a new visual impact. The electric meter and remote radio unit are proposed within a cabinet on the sidewalk over a 13-foot distance from the pole and similar to other utility companies' meters. The use is appropriate for this heavily traveled

corridor since the use provides a communication service to neighboring residential properties, as well as to motorists.

3. The conditions under which it would be operated or maintained will not be detrimental to the public health, safety or welfare. Wireless telecommunications facilities must be built in compliance with the City's Building Code, and are subject to inspection by the City's Building Department to ensure they are constructed in a safe manner. The Federal Communication Commission (FCC) regulates wireless telecommunications facilities, with regards to other related health and safety issues, particularly radio frequency (RF) emissions, and establishes thresholds of RF emissions beyond which a facility cannot exceed. As part of the conditions of approval, and pursuant to the Ordinance, the applicant would be required to demonstrate continued compliance with the FCC emission standards.

4. The proposed use will comply with each of the applicable provisions of the Zoning Ordinance. Telecommunication facilities are allowed in the public right-of-way of arterial streets, subject to the issuance of a Conditional Use Permit. The facilities are designed and located in compliance with the Zoning Ordinance, and with the conditions of approval imposed, will comply with the applicable provisions of the Ordinance.

5. The distance from other similar and like uses is sufficient to maintain the diversity within the community. The street light pole is one of many on Thousand Oaks Boulevard. In this case, the proposed antenna, remote radio unit and electric meter would be similar to existing utility equipment in the right-of-way and inconspicuous to the public eye and would not contribute to visual over-concentration of similar uses. The next wireless telecommunication facility installation is located 3,500 feet to the west and 3,900 feet to the east.

6. The proposed use is consistent with the goals and policies of the General Plan with respect to wireless telecommunications facilities, particularly with Goal U-6 and Policies U-6.1 and U-6.2. The General Plan seeks quality communication systems that meet the demands of new and existing developments in the City, which this proposed use does by providing improved wireless telecommunication services and implementation of state-of-the-art telecommunications services. The General Plan requires that the installation of telecommunication infrastructure, such as cellular sites, be designed in a manner as to minimize visual impacts on the surrounding environment and neighborhood, and to be as unobtrusive as possible. The pole mounted antenna and the accessory equipment are relatively small in size and cause less of a visual impact than a taller macro antenna site. Additionally, mounting the antenna on a street light pole makes the wireless telecommunications facility as unobtrusive as possible.

Section 5. Pursuant to Section 9661.7(A) and (B) of the Agoura Hills Zoning Ordinance, and based upon the evidence presented at the hearing, including the staff report and oral and written testimony, the Planning Commission finds that:

1. The proposed facility has been designed and located in compliance with all applicable provisions of the Ordinance. The wireless use remains secondary to the street light pole

and is permitted in this zone with a conditional use permit. It is designed with minimal equipment. Further, the applicant has completed the supplemental application for wireless telecommunications facilities to the satisfaction of the Director of Planning and Community Development, which serves, in part, as compliance verification.

2. The proposed facility has been designed and located to achieve compatibility with the community. Wireless telecommunications facilities are being incorporated into an existing street light pole structure, and are sufficiently small so as not to be visually intrusive.

3. The applicant has submitted a statement of its willingness to allow other carriers to collocate on the proposed wireless telecommunications facility wherever technically and economically feasible and where collocation would not harm community compatibility.

4. Noise generated by equipment will not be excessive, annoying, nor be detrimental to the public health, safety, and welfare, and will not exceed the standards set forth in the Ordinance. The noise will not be audible at the property line of any residentially zoned property within 500 feet from the project location, and will not exceed an exterior noise level of fifty-five (55) dBA three feet from the noise source.

5. The applicant has provided substantial written evidence supporting the applicant's claim that it has the right to enter the public right-of-way pursuant to state or federal law, or the applicant has entered into a franchise agreement with the City permitting them to use the public right-of-way. In this case, the applicant has done both. The applicant submitted to the City a copy of applicant's certificate of public convenience and necessity, issued by the Public Utilities Commission, and the applicant entered into a Right-of-Way Use Agreement with the City on October 26, 2005.

6. The applicant has demonstrated that the facility will not interfere with the use of the public right-of-way and existing subterranean infrastructure and will not interfere with the City's plans for modification of such location and infrastructure. The selected location for the electric meter would be similar and consistent with other utility poles and meters and will not extend into the pedestrian path so as to obstruct traffic.

Section 6. CEQA Findings.

A. The Planning Commission hereby finds that the approval of the project is categorically exempt from the California Environmental Quality Act (Public Resources Code Section 2100 et seq., "CEQA"), pursuant to Section 15303 (Class 3), because the project involves the construction and location of limited numbers of new, small facilities or installation of small equipment into a structure, and does not have any potential for causing a significant effect on the environment. Additionally and independently, the Planning Commission finds that the Project is covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. It can be seen with certainty that there is no possible significant effect directly related to the project, therefore no

further action is required under CEQA pursuant to Section 15061(b)(3) of the State CEQA Guidelines (14 CCR § 15061(b)(3)).

B. The custodian of records for all materials that constitute the record of proceeding upon which this decision is based is the City Clerk, and those documents are available for public review in the City Clerk's office located at 30001 Ladyface Court, Agoura Hills, California 91301.

Section 7. Based on the aforementioned findings, the Planning Commission hereby approves Wireless Telecommunications Facilities/Conditional Use Permit No. 14-CUP-005, subject to the attached Conditions of Approval, with respect to the property described in Section 1.

Section 8. The Secretary of the Planning Commission shall certify to the passage, approval, and adoption of this resolution, and shall cause this resolution and this certification to be entered in the Book of Resolutions of the Planning Commission of the City.

PASSED, APPROVED and ADOPTED this 19th day of March, 2015, by the following vote to wit:

AYES: (0)
NOES: (0)
ABSTAIN: (0)
ABSENT: (0)

_____
Linda Northrup, Chairperson

ATTEST:

_____
Doug Hooper, Secretary

Conditions of Approval
(Case No. 14-CUP-005)

STANDARD CONDITIONS

1. This decision, or any aspect of this decision, can be appealed to the City Council within fifteen (15) days from the date of Planning Commission action, subject to filing the appropriate forms and related fees.

2. This action shall not be effective for any purpose until the applicant has agreed in writing that the applicant is aware of, and accepts all Conditions of this Permit with the Department of Planning and Community Development.

3. Except as modified herein, the approval of this action is limited to and requires complete conformation to the approved labeled exhibits: Site Plan; Elevation Plan; and Details Plan.

4. All exterior materials used in this project shall be in conformance with the materials samples submitted as a part of this application.

5. It is hereby declared to be the intent that if any provision of this Permit is held or declared to be invalid, the Permit shall be void and the privileges granted hereunder shall lapse.

6. It is further declared and made a Condition of this action that if any Condition herein is violated, the Permit shall be suspended and the privileges granted hereunder shall lapse; provided that the applicant has been given written notice to cease such violation and has failed to do so for a period of thirty (30) days.

7. All requirements of the Zoning Ordinance and of the specific zoning designation of the subject property must be complied with unless set forth in the Conditional Use Permit.

8. Unless this permit is used within two (2) years from the date of City approval, Case No. 14-CUP-005 will expire. A written request for a one (1) year extension may be considered prior to the expiration date.

9. Operation of the use shall not be granted until all Conditions of Approval have been complied with as determined by the Director of Planning and Community Development.

10. The facility shall require the approval of the Building and Safety Department prior to installation and operation.

WIRELESS TELECOMMUNICATIONS FACILITIES STANDARD CONDITIONS

1. The permittee shall submit an as built drawing within ninety (90) days after installation of the facility.

2. The permittee shall submit and maintain current at all times basic contact and site information on a form to be supplied by the city. The permittee shall notify the city of any changes to the information submitted within seven (7) days of any change, including change of the name or legal status of the owner or operator. This information shall include, but is not limited to, the following:

   a. Identity, including the name, address and 24-hour local or toll free contact phone number of the permittee, the owner, the operator, and the agent or person responsible for the maintenance of the facility.

   b. The legal status of the owner of the wireless telecommunications facility, including official identification numbers and Federal Communications Commission certification.

   c. Name, address and telephone number of the property owner if different than the permittee.

3. Upon any transfer or assignment of the permit, the Director of Planning and Community Development may require submission of any supporting materials or documentation necessary to determine that the proposed use is in compliance with the existing permit and all of its conditions of approval including, but not limited to, statements, photographs, plans, drawings, models, and analysis by a qualified radio frequency engineer demonstrating compliance with all applicable regulations and standards of the Federal Communications Commission and the California Public Utilities Commission. If the director determines that the proposed operation is not consistent with the existing permit, the director shall notify the permittee who shall either revise the application or apply for modification of the permit pursuant to the requirements of the Agoura Hills Municipal Code.

4. The facility shall bear no signs or advertising devices other than certification, warning or other signage required by law or permitted by the City. At all times, all required notices and signs shall be posted on the site as required by the Federal Communications Commission and California Public Utilities Commission, and as approved by the City. The location and dimensions of a sign bearing the emergency contact name and telephone number shall be posted pursuant to the approved plans.

5. At all times, the permittee shall ensure that the facility complies with the most current regulatory and operational standards including, but not limited to, radio

frequency emissions standards adopted by the Federal Communications Commission and antenna height standards adopted by the Federal Aviation Administration, and shall timely submit all monitoring reports required pursuant to section 9661.13 of the Agoura Hills Municipal Code.

6. If the Director of Planning and Community Development determines there is good cause to believe that the facility may emit radio frequency emissions that are likely to exceed Federal Communications Commission standards, the director may require post-installation testing, at permittee's expense, or the director may require the permittee to submit a technically sufficient written report certified by a qualified radio frequency emissions engineer at other than the regularly required intervals specified in Section 9661.13 of the Agoura Hills Municipal Code, certifying that the facility is in compliance with such FCC standards.

7. Permittee shall pay for and provide a performance bond, which shall be in effect until the facilities are fully and completely removed and the site reasonably returned to its original condition, to cover permittee's obligations under these conditions of approval and the City of Agoura Hills Municipal Code. The bond coverage shall include, but not be limited to, removal of the facility, maintenance obligations and landscaping obligations. Such performance bond shall be in a form satisfactory to the City Attorney and Risk Manager, naming the City as obligee, in an amount equal to $25,000.

8. If a nearby property owner registers a noise complaint and such complaint is verified as valid by the city, the city may hire a consultant to study, examine and evaluate the noise complaint and the permittee shall pay the fee for the consultant. The matter shall be reviewed by the Director of Planning and Community Development. If the Director determines sound proofing or other sound attenuation measures should be required to bring the project into compliance with the Code, the director may impose that condition on the project after notice and a public hearing.

9. "Permittee" shall include the applicant and all successors in interest to this permit.

10. This permit shall be valid for a period of ten (10) years from the date of Planning Commission approval, which is the date of issuance, unless pursuant to another provision of the Agoura Hills Municipal Code it lapses sooner or is revoked. At the end of ten (10) years from the date of issuance, this permit shall expire.

11. Blending/Stealthing Methods. The facilities shall have subdued colors and non-reflective materials that blend with the materials and colors of the surrounding area, structures, and pole on which the equipment is mounted. Permittee shall use the least visible antennas possible to accomplish the coverage objectives. Antenna elements shall be flush mounted, to the extent feasible. The approved radome is designed to conceal antenna electronic equipment from public view, and blend with the existing streamline design of the light pole. The streamline design of the wireless telecommunications facility, with the antenna(s) mounted

to the light pole to give the appearance the facility is part of the pole so it blends in with the surroundings, is an integral feature of the project's compliance with the concealment requirements of the Agoura Hills Municipal Code including blending, stealthing, screening, and camouflaging, and must be complied with at all times. The light pole owner, Southern California Edison, has adopted a network-wide design for radomes and antennas mounted to its light poles. Permittee has represented to the City that the light pole owner will not permit a shorter or smaller radome at this time. In the event the light pole owner adopts or approves a network-wide design that allows for a shorter or smaller radome, or in the event the light pole owner grants Permittee approval to install a shorter or smaller radome, permittee shall promptly apply for all required permits and replace the radome with a shorter, smaller radome to the extent physically feasible.

12. The facility shall be properly engineered to withstand high wind loads. An evaluation of high wind load capacity shall include the impact of modification of an existing facility.

13. The facilities shall be designed and located in such a manner as to avoid adverse impacts on traffic safety. Each component part of the facility shall be located so as not to cause any physical or visual obstruction to pedestrian or vehicular traffic, inconvenience to the public's use of the right-of-way, or safety hazards to pedestrians and motorists and in compliance with section 9661.14. Permittee shall not install, use or maintain any wireless telecommunications facility which in whole or in part rests upon, in or over any public sidewalk or parkway, when such installation, use or maintenance endangers or is reasonably likely to endanger the safety of persons or property, or when such site or location is used for public utility purposes, public transportation purposes or other governmental use, or when such facility unreasonably interferes with or impedes the flow of pedestrian or vehicular traffic including any legally parked or stopped vehicle, the ingress into or egress from any residence or place of business, the use of poles, posts, traffic signs or signals, hydrants, mailboxes, permitted sidewalk dining, permitted street furniture or other objects permitted at or near said location.

14. The facility shall not be located within any portion of the public right-of-way interfering with access to fire hydrants, fire stations, fire escapes, water valves, underground vaults, valve housing structures, or any other vital public health and safety facility.

15. In no case shall any ground-mounted facility, above-ground accessory equipment, or walls, fences, landscaping or other screening methods be less than eighteen (18) inches from the front of curb.

16. All cables, including, but not limited to, electrical and utility cables, between the pole and any accessory equipment shall be placed underground. All cables, including, but not limited to, electrical and utility cables, shall be run within the

interior of the pole and shall be camouflaged or hidden to the fullest extent feasible without jeopardizing the physical integrity of the pole.

17. The facility shall be built and located in compliance with the Americans with Disabilities Act (ADA).

18. The facility shall not be illuminated unless specifically required by the Federal Aviation Administration or other government agency. Lightning arresters and beacon lights are not permitted unless required by the Federal Aviation Administration or other government agency. Any required lighting shall be shielded to eliminate, to the maximum extent possible, impacts on the surrounding neighborhoods, and a lighting study shall be prepared by a qualified lighting professional to evaluate potential impacts to adjacent properties, which must be reviewed and approved by the City prior to the installation of any lighting.

19. Permittee shall submit to the City within ninety (90) days of beginning operations under this permit, and every two years from the date the facility begins operations, a technically sufficient report ("monitoring report") that demonstrates the following:

    a. The facility is in compliance with applicable federal regulations, including Federal Communications Commission RF emissions standards, as certified by a qualified radio frequency emissions engineer;

    b. The facility is in compliance with all provisions of Agoura Hills Municipal Code Section 9661.13 and these conditions of approval.

    c. The bandwidth of the facility has not been changed since the original application or last report, as applicable, and if it has, a full written description of that change.

20. Noise.

    a. The facility shall be operated in such a manner so as to minimize any possible disruption caused by noise.

    b. The facility is not approved for a backup generator. In the event of an emergency that results in a loss of power to the facility, a temporary emergency backup generator may be employed and shall only be operated during periods of power outages, and shall not be tested on weekends or holidays, or between the hours of 7:00 PM and 7:00 AM. The temporary emergency backup generator shall be promptly removed from the premises once the emergency is terminated.

    c. At no time shall equipment noise from the facility exceed an exterior noise level of fifty-five (55) dBA three (3) feet from the source of the noise and

such equipment noise shall at no time be audible at the property line of any property zoned residential or improved with a residential use.

d. Any equipment that may emit noise that would be audible from beyond three (3) feet from the source of the noise shall be enclosed or equipped with noise attenuation devices to the extent necessary to ensure compliance with applicable noise limitations under this permit and the Agoura Hills Municipal Code.

21. Features designed to make the facility resistant to, and minimize opportunities for, unauthorized access, climbing, vandalism, graffiti and other conditions that would result in hazardous situations, visual blight or attractive nuisances shall not be removed by permittee and shall be maintained in good condition. In the event the facility, because of its location and/or accessibility, becomes an attractive nuisance, the Director of Planning and Community Development may require the provision of warning signs, fencing, anti-climbing devices, or other techniques to prevent unauthorized access and vandalism.

22. Modification. In the event Permittee desires to modify the facility, Permittee shall apply for and obtain all permits or permit amendments required by the Agoura Hills Municipal Code prior to making any modification to the facility. At a minimum, any application for modification to the facility shall use the concealment design approved by this permit including without limitation, blending, stealthing, screening, and camouflaging, unless a more effective concealment design is proposed by the permittee or required by the Agoura Hills Municipal Code, or the pole is redesigned or replaced such that it necessitates a new concealment design that is consistent with the redesigned or replaced pole. Additionally, to the extent feasible, when the facility is modified existing equipment shall be replaced with equipment that reduces visual, noise and other impacts, including, but not limited to, undergrounding the equipment and replacing larger, more visually intrusive facilities with smaller, less visually intrusive facilities. "Modification" means a change to an existing wireless telecommunications facility that involves any of the following: collocation, expansion, alteration, enlargement, intensification, reduction, or augmentation, including, but not limited to, changes in size, shape, color, visual design, or exterior material. "Modification" does not include repair, replacement or maintenance if those actions do not involve a change to the existing facility involving any of the following: collocation, expansion, alteration, enlargement, intensification, reduction, or augmentation.

23. The facility, including, but not limited to, antennas, accessory equipment, walls, shields, cabinets, screens, camouflage, and the facility site, shall be maintained in good condition, including ensuring the facility is reasonably free of:

a. General dirt and grease;

b. Chipped, faded, peeling, and cracked paint;

c. Rust and corrosion;

d. Cracks, dents, and discoloration;

e. Missing, discolored or damaged screening or other camouflage;

f. Graffiti, bills, stickers, advertisements, litter and debris;

g. Broken and misshapen structural parts; and

h. Any damage from any cause.

The permittee shall replace its facility, or part thereof, after obtaining all required permits, if maintenance or repair is not sufficient to return the facility to the condition it was in at the time of installation. The permittee shall routinely inspect the facility and site to ensure compliance with the standards set forth in the Agoura Hills Municipal Code and these conditions of approval.

24. Graffiti shall be removed from a facility as soon as practicable, and in no instance more than twenty-four (24) hours from the time of notification by the City, unless a provision of the Agoura Hills Municipal Code provides a shorter time period for removal.

25. In the event the facility ceases to provide wireless telecommunications services for ninety (90) or more consecutive days, the facility shall be considered abandoned and shall be promptly removed as provided in these conditions of approval and the Agoura Hills Municipal Code. If there are two (2) or more users of a single facility, then this provision shall not become effective until all users cease using the facility.

26. Permittee shall notify the City in writing of its intent to abandon or cease use of the facility within ten (10) days of ceasing or abandoning use. Additionally, the Permittee shall provide written notice to the Director of any discontinuation of operations of thirty (30) days or more.

27. Failure to inform the Director of cessation or discontinuation of operations of the facility as required by these conditions of approval shall constitute a violation of the conditions of approval and be grounds for:

a. Prosecution;

b. Revocation or modification of the permit;

c. Calling of any bond or other assurance required by the Agoura Hills Municipal Code or conditions of approval of the permit;

d. Removal of the facility by the City in accordance with the procedures established under the Agoura Hills Municipal Code for abatement of a public nuisance at the permittee's expense; and/or

e. Any other remedies permitted under the Agoura Hills Municipal Code.

28. Upon the expiration date of the permit, including any extensions, earlier termination or revocation of the permit or abandonment of the facility, the permittee shall remove the facility and restore the site to its natural condition except for retaining the landscaping improvements and any other improvements at the discretion of the City. Removal shall be in accordance with proper health and safety requirements and all ordinances, rules, and regulations of the City. The facility shall be removed from the property, at no cost or expense to the City. To the extent the facility is attached to or placed on property that is not owned or controlled by the City, the owner of such non-City property shall be independently responsible for the expense of timely removal and restoration.

29. Failure of the permittee, the non-City property owner, or both to promptly remove the facility and restore the property within thirty (30) days after expiration of this permit, earlier termination or revocation of this permit, or abandonment of the facility, shall be a violation of the Agoura Hills Municipal Code, and shall be grounds for:

a. Prosecution;

b. Calling of any bond or other assurance required by the Agoura Hills Municipal Code or conditions of approval of permit;

c. Removal of the facility by the City in accordance with the procedures established under the Agoura Hills Municipal Code for abatement of a public nuisance at the permittee and/or property owner's expense; and/or

d. Any other remedies permitted under the Agoura Hills Municipal Code.

30. Summary Removal. In the event the director or city engineer determines that the condition or placement of a wireless telecommunications facility or wireless telecommunications collocation facility located in the public right-of-way constitutes a dangerous condition, obstruction of the public right-of-way, or an imminent threat to public safety, or determines other exigent circumstances require immediate corrective action (collectively, "exigent circumstances"), the director or city engineer may cause the facility to be removed summarily and immediately without advance notice or a hearing, in accordance with the Agoura Hills Municipal Code, or the director or city engineer may take any other action permitted under applicable law.

31. The facility shall comply at all times with any and all applicable local, state, and federal laws, regulations and guidelines. Any violation of these conditions of

approval or the Agoura Hills Municipal Code may be subject to the citations, penalties and fines as set forth in the Agoura Hills Municipal Code, other available remedies and/or revocation or modification of this permit at the discretion of the City Attorney and City Prosecutor.

32. The wireless telecommunications facility shall be subject to such conditions, changes or limitations as are from time to time deemed necessary by the city engineer for the purpose of: (a) protecting the public health, safety, and welfare; (b) preventing interference with pedestrian and vehicular traffic; and/or (c) preventing damage to the public right-of-way or any property adjacent to it. The City may modify the permit to reflect such conditions, changes or limitations by following the same notice and public hearing procedures as are applicable to the grant of a wireless telecommunications facility permit for similarly located facilities, except the permittee shall be given notice by personal service or by registered or certified mail at the last address provided to the City by the permittee.

33. The permittee shall not transfer the permit to any person prior to completion of construction of the facility covered by the permit.

34. The permittee shall not move, alter, temporarily relocate, change, or interfere with any existing structure, improvement or property without the prior written 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 wireless telecommunications facility 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 an encroachment permit issued for any facility within the public right-of-way, 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 the public right-of-way to be affected by applicant's facilities.

35. The permittee shall assume full liability for damage or injury caused to any property or person by the facility.

36. The permitee shall repair, at its sole cost and expense, any damage including, but not limited to subsidence, cracking, erosion, collapse, weakening, or loss of lateral support to city streets, sidewalks, walks, curbs, gutters, trees, parkways, street lights, traffic signals, improvements of any kind or nature, or utility lines and systems, underground utility line and systems, or sewer systems and sewer lines that result from any activities performed in connection with the installation and/or maintenance of a wireless telecommunications facility in the public right-of-way. The permittee shall restore such areas, structures and systems to the condition in which they existed prior to the installation or maintenance that necessitated the repairs. In the event the permittee fails to complete such repair within the number

of days stated on a written notice by the city engineer, the city engineer shall cause such repair to be completed at permittee's sole cost and expense.

37. Insurance. The permittee shall obtain, pay for and maintain, in full force and effect until the facility approved by the permit is removed in its entirety from the public right-of-way, an insurance policy or policies of commercial general liability insurance, with minimum limits of Two Million Dollars ($2,000,000) for each occurrence and Four Million Dollars ($4,000,000) in the aggregate, that fully protects the city from claims and suits for bodily injury and property damage. The required limits may be met by a combination of primary and excess or umbrella policies. The insurance must name the city and its elected and appointed council members, boards, commissions, officers, officials, agents, consultants, employees and volunteers as additional named insureds, be issued by an insurer admitted in the State of California with a rating of at least a A:VII in the latest edition of A.M. Best's Insurance Guide, and include an endorsement providing thirty (30) days prior written notice to the city for cancellation except for non-payment of premium. The insurance provided by permittee shall be primary to any coverage available to the city, and any insurance or self-insurance maintained by the city and its elected and appointed council members, boards, commissions, officers, officials, agents, consultants, employees and volunteers shall be excess of permittee's insurance and shall not contribute with it. The policies of insurance required by this permit shall include provisions for waiver of subrogation. In accepting the benefits of this permit, permittee hereby waives all rights of subrogation against the city and its elected and appointed council members, boards, commissions, officers, officials, agents, consultants, employees and volunteers. The insurance must afford coverage for the permittee's and the wireless provider's use, operation and activity, vehicles, equipment, facility, representatives, agents and employees, as reasonably determined by the city's risk manager. Before issuance of any building permit for the facility, the permittee shall furnish the city risk manager certificates of insurance and endorsements, in the form reasonably satisfactory to the city attorney or the risk manager, evidencing the coverage required by the city. In the event permittee's insurance required pursuant to this condition is reduced or canceled for any reason, permittee shall notify the City in writing within ten (10) days of such reduction or cancellation.

38. Indemnification. To the fullest extent permitted by law, the permittee, and every permittee and person in a shared permit, jointly and severally, shall defend, indemnify, protect and hold the city and its elected and appointed council members, boards, commissions, officers, officials, agents, consultants, employees and volunteers harmless from and against all claims, suits, demands, actions, losses, liabilities, judgments, settlements, costs (including, but not limited to, attorney's fees, interest and expert witness fees), or damages claimed by third parties against the city for any bodily or personal injury, and for property damage sustained by any person, arising out of, resulting from, or are in any way related to the wireless telecommunications facility, or to any work done by or use of the

public right-of-way by the permittee, owner or operator of the wireless telecommunications facility, or their agents, excepting only liability arising out of the sole negligence or willful misconduct of the city and its elected and appointed council members, boards, commissions, officers, officials, agents, consultants, employees and volunteers.

39. Permittee shall also defend, indemnify, protect and hold harmless city, its elected and appointed council members, boards, commissions, officers, officials, agents, consultants, employees, and volunteers from and against any and all claims, actions, or proceeding against the city, and its elected and appointed council members, boards, commissions, officers, officials, agents, consultants, employees, and volunteers to attack, set aside, void or annul, an approval of the city, planning commission or city council concerning this permit and the project. Such indemnification shall include damages, judgments, settlements, penalties, fines, defensive costs or expenses, including, but not limited to, interest, attorneys' fees and expert witness fees, or liability of any kind related to or arising from such claim, action, or proceeding. The city shall promptly notify the permittee of any claim, action, or proceeding. Nothing contained herein shall prohibit City from participating in a defense of any claim, action or proceeding. The City shall have the option of coordinating the defense, including, but not limited to, choosing counsel for the defense at permittee's expense.

40. Should any utility company offer electrical service that does not require the use of a meter cabinet, the permittee shall at its sole cost and expense remove the meter cabinet and any related foundation within thirty (30) days of such service being offered and reasonably restore the area to its prior condition.

41. Relocation. The permittee shall modify, remove, or relocate its facility, or portion thereof, without cost or expense to city, if and when made necessary by (i) any public improvement project, including, but not limited to, the construction, maintenance, or operation of any underground or above ground facilities including but not limited to sewers, storm drains, conduits, gas, water, electric or other utility systems, or pipes owned by city or any other public agency, (ii) any abandonment of any street, sidewalk or other public facility, (iii) any change of grade, alignment or width of any street, sidewalk or other public facility, or (iv) a determination by the director that the wireless telecommunications facility has become incompatible with public health, safety or welfare or the public's use of the public right-of-way. Such modification, removal, or relocation of the facility shall be completed within ninety (90) days of notification by city unless exigencies dictate a shorter period for removal or relocation. Modification or relocation of the facility shall require submittal, review and approval of a modified permit pursuant to the Code. The permittee shall be entitled, on permittee's election, to either a pro-rata refund of fees paid for the original permit or to a new permit, without additional fee, at a location as close to the original location as the standards set forth in the Code allow. In the event the facility is not modified, removed, or relocated within said period of time, city may cause the

same to be done at the sole cost and expense of permittee. Further, due to exigent circumstances as provided in the Code, the city may modify, remove, or relocate wireless telecommunications facilities without prior notice to permittee provided permittee is notified within a reasonable period thereafter.

42. This Conditional Use Permit (Case No. 14-CUP-005) does not confer any exclusive right, privilege, license or franchise to occupy or use the public right-of-way of the city for delivery of telecommunications services or any other purposes and shall not be construed as any warranty of title. In the performance and exercise of its rights and obligations under this Conditional Use Permit, the permittee shall not place any facilities that will deny access to, or otherwise interfere with, any public utility, easement, or right-of-way located on the site, without the express written approval of the owner or owners of the affected property or properties, except as authorized by applicable laws. The permittee shall allow the city reasonable access to, and maintenance of, all utilities and existing public improvements within or adjacent to the site, including, but not limited to, poles, pavement, trees, public utilities, lighting and public signage.

43. A right-of-way agreement between the permittee and the City must be in effect at all times the permittee has its wireless telecommunications facility in the public right-of-way, which agreement shall establish the particular terms and provisions under which the right to occupy city-owned property or the public right-of-way, or both, shall be used or maintained. Permittee entered into a right-of-way use agreement with the city on October 26, 2005 (the "2005 ROW Agreement"). To the extent that any of these conditions of approval conflict with permittee's 2005 ROW Agreement with the City, the 2005 ROW Agreement shall control until such time as the current term of the 2005 ROW Agreement expires. At the expiration of the 2005 ROW Agreement, the permittee is required to enter into a successor agreement that includes, but is not limited to, the terms listed in Section 9661.8 of the Agoura Hills Municipal Code, and which is consistent with these conditions of approvals.

END

CROWN CASTLE NG WEST LLC

SITE: THOUSAND OAKS/SILVER VALLEY

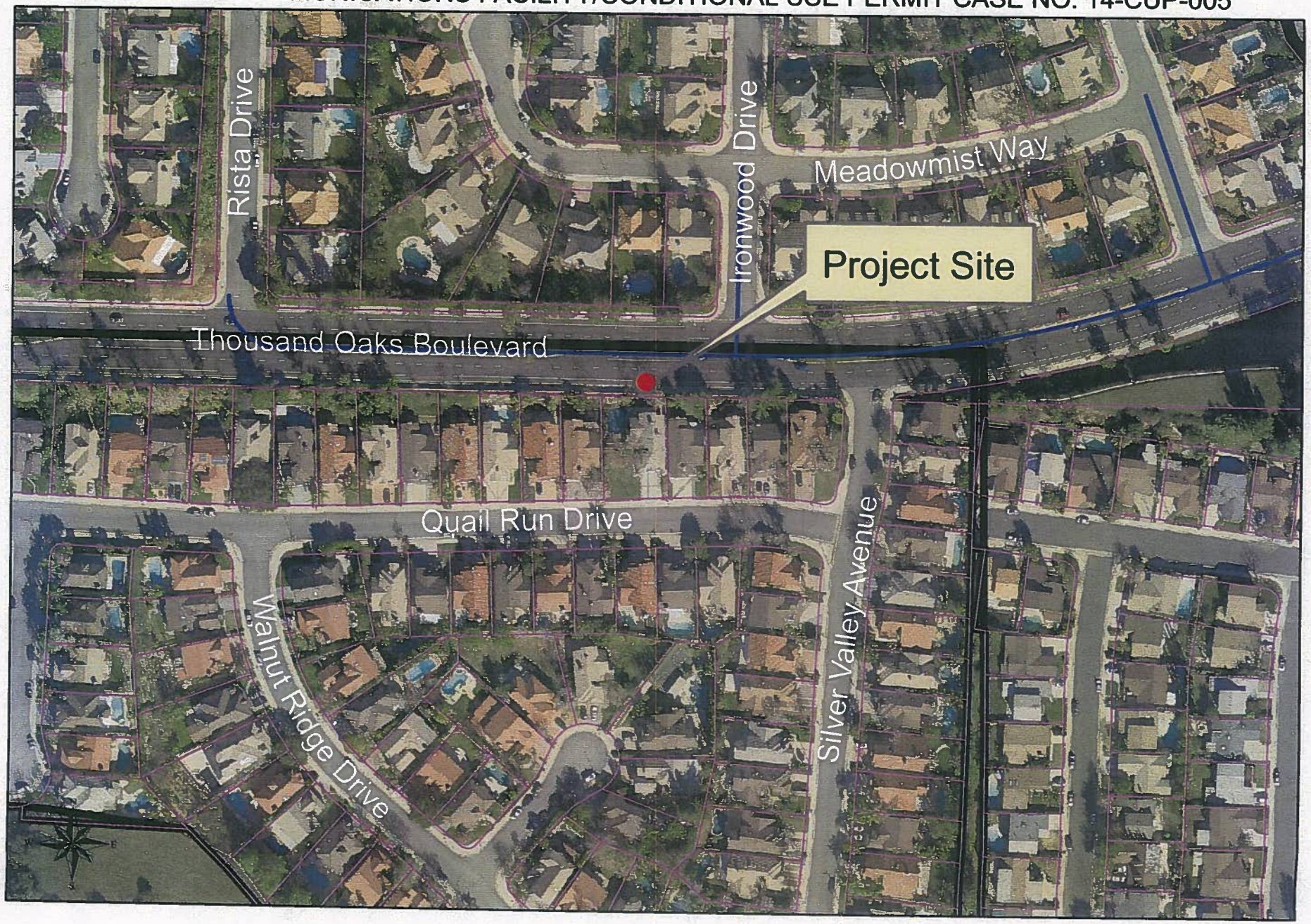
EXHIBIT A

Vicinity Map

City of Agoura Hills

Vicinity/Zoning Map

WIRELESS TELECOMMUNICATIONS FACILITY/CONDITIONAL USE PERMIT CASE NO. 14-CUP-005



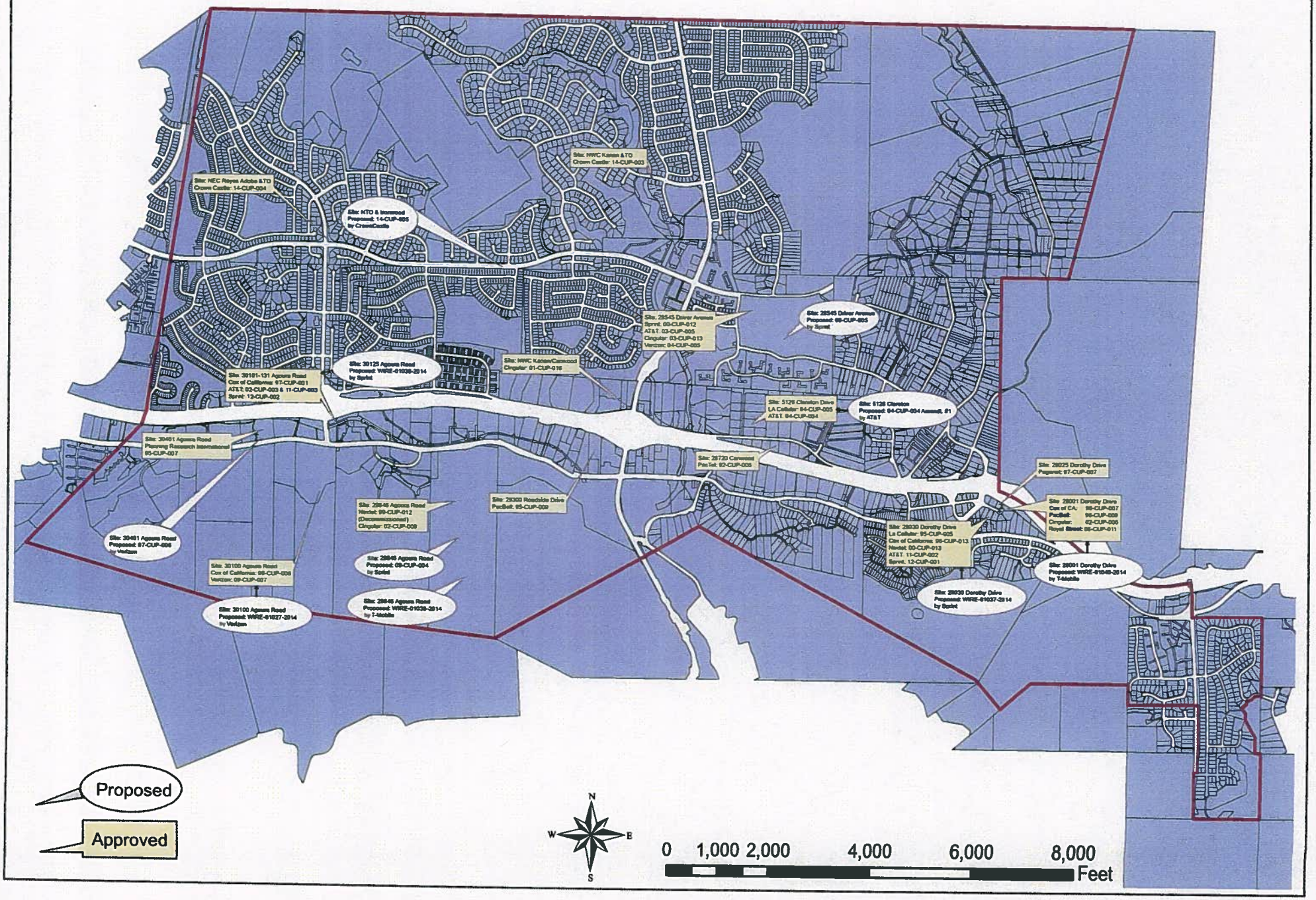
CROWN CASTLE NG WEST LLC

SITE: THOUSAND OAKS/SILVER VALLEY

EXHIBIT B

Approved Wireless Telecommunication Facilities Map

Approved and Proposed Wireless Telecommunication Facilities (As of March 2015)



CROWN CASTLE NG WEST LLC

SITE: THOUSAND OAKS/SILVER VALLEY

EXHIBIT C

Copy of Reduced Plans

CROWN CASTLE NG WEST, LLC

MPC1048CA-TDOK15m1

ROW ADJACENT TO 27010 THOUSAND OAKS BLVD
POLE NUMBER: REPLACEMENT STREET LIGHT

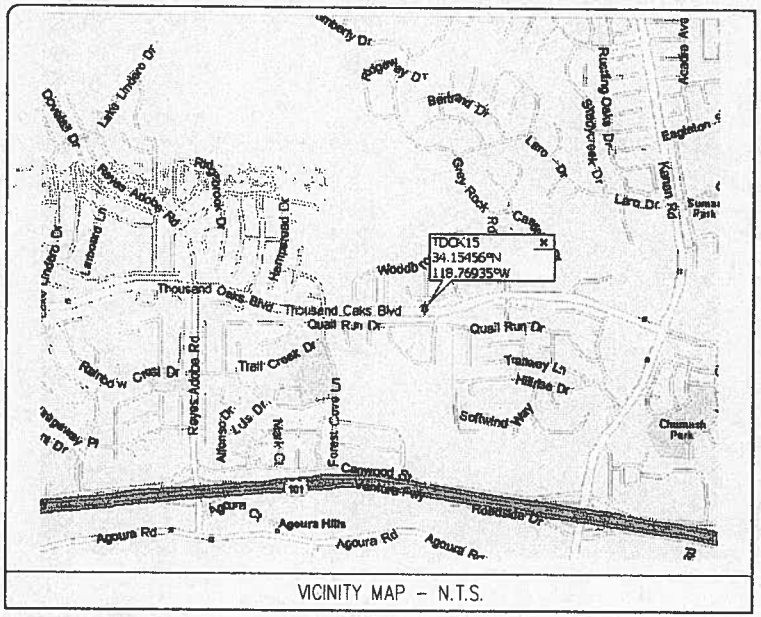
GENERAL NOTES

1. APPROVAL OF THESE PLANS BY THE CITY ENGINEER DOES NOT AUTHORIZE ANY WORK TO BE PERFORMED UNTIL A PERMIT HAS BEEN ISSUED.
2. UPON ISSUANCE OF A PERMIT, NO WORK WILL BE PERMITTED ON WEEKENDS OR HOLIDAYS WITHOUT PERMISSION FROM THE ENGINEERING DEPARTMENT.
3. THE APPROVAL OF THIS PLAN OR ISSUANCE OF A PERMIT BY THE LOCAL JURISDICTION DOES NOT AUTHORIZE THE SUBMITTER AND OWNER TO VIOLATE ANY FEDERAL, STATE OR CITY LAWS, ORDINANCES, REGULATIONS, OR POLICIES, INCLUDING, BUT NOT LIMITED TO, THE FEDERAL ENDANGERED SPECIES ACT OF 1973 AND AMENDMENTS THERETO (16 USC SECTION 1531 ET.SEQ.).
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION. A LAND SURVEYOR MUST FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK. IF DESTROYED, SUCH MONUMENTS SHALL BE REPLACED WITH APPROPRIATE MONUMENTS BY A LAND SURVEYOR, A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS ACT. IF ANY VERTICAL CONTROL IS TO BE DISTURBED OR DESTROYED, THE LOCAL JURISDICTION FIELD SURVEY SECTION MUST BE NOTIFIED, IN WRITING, AT LEAST 3 DAYS PRIOR TO THE CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPLACING ANY VERTICAL CONTROL BENCHMARKS DESTROYED BY THE CONSTRUCTION.
5. IMPORTANT NOTICE: SECTION 4216 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT, TWO DAYS BEFORE YOU DIG.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR THE POTHOLE AND LOCATING OF ALL EXISTING UTILITIES THAT CROSS THE PROPOSED TRENCH LINE AND MUST MAINTAIN 1' MINIMUM VERTICAL CLEARANCE.
7. CONTRACTOR SHALL SUBMIT TO THE LOCAL JURISDICTION, A CONSTRUCTION PLAN TO PROTECT WATER MAINS PRIOR TO COMMENCING CONSTRUCTION.
8. CONTRACTOR SHALL REPLACE OR REPAIR ALL TRAFFIC SIGNAL LOOPS, CONDUIT, AND LANE STRIPING DAMAGED DURING CONSTRUCTION.
9. CONTRACTOR SHALL NOTIFY THE LOCAL JURISDICTION, A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK WITHIN 10' OF ALL SEWER, WATER, AND STORMDRAIN MAIN INCLUDING ALL CROSSINGS.
10. THIS PROJECT WILL BE INSPECTED BY ENGINEERING AND CAPITAL PROJECTS DEPARTMENT, FIELD ENGINEERING DIVISION.
11. AS-BUILT DRAWINGS MUST BE SUBMITTED TO THE CITY RESIDENT ENGINEER PRIOR TO THE ACCEPTANCE OF THIS PROJECT.
12. PUBLIC IMPROVEMENT SUBJECT TO DESUETUDE OR DAMAGE." IF REPAIR OR REPLACMENT OF SUCH PUBLIC IMPROVEMENTS IS REQUIRED, THE OWNER SHALL OBTAIN THE REQUIRED PERMITS FOR WORK IN THE PUBLIC RIGHT-OF-WAY, SATISFACTORY TO THE PERMIT - ISSUING AUTHORITY.
13. PRIOR TO ANY DISTURBANCE TO THE SITE, EXCLUDING UTILITY MARKS-OUTS AND SURVEYING, THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR A PRE-CONSTRUCTION MEETING WITH THE LOCAL JURISDICTION FIELD ENGINEERING DIVISION.
14. PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION SHOWN ON THESE PLANS, IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE. THE CONTRACTOR IS RESPONSIBLE TO ATTEND THE LOCAL JURISDICTIONS MONTHLY UTILITY COORDINATION COMMITTEE THE CONSTRUCTION ACTIVITIES WITH THE CITY AND ALL OTHER CONTRACTORS SO THAT NO TRENCH IS CUT WITHIN ANY OF THE CITY STREETS THAT HAVE BEEN CONSTRUCTED, REPAIRED, OR SLURRY SEALED WITHIN THREE YEARS OF THE STREET CONSTRUCTION/RESURFACING DATE.
15. MANHOLES OR COVERS SHALL BE LABELED "CROWN CASTLE" OR "CROWN CASTLE NG WEST".
16. CONTRACTOR SHALL IMPLEMENT AN EROSION AND SEDIMENT CONTROL PROGRAM DURING THE PROJECT CONSTRUCTION ACTIVITIES. THE PROGRAM SHALL MEET THE APPLICABLE REQUIREMENTS OF THE STATE WATER RESOURCE CONTROL BOARD.
17. THE CONTRACTOR SHALL HAVE EMERGENCY MATERIALS AND EQUIPMENT ON HAND FOR UNFORESEEN SITUATIONS, SUCH AS DAMAGE TO UNDERGROUND WATER, SEWER, AND STORM DRAIN FACILITIES WHEREBY FLOWS MAY GENERATE EROSION AND SEDIMENT POLLUTION.

SPECIAL NOTES

THE FOLLOWING NOTES ARE PROVIDED TO GIVE DIRECTIONS TO THE CONTRACTOR BY THE ENGINEER OF WORK. THE CITY ENGINEER'S SIGNATURE ON THESE PLANS DOES NOT CONSTITUTE APPROVAL OF THESE NOTES AND THE CITY WILL NOT BE RESPONSIBLE FOR THEIR ENFORCEMENT.

1. THE CONTRACTOR SHALL VERIFY THE LOCATION EXISTING UNDERGROUND UTILITIES INCLUDING SEWER LATERALS AND WATER SERVICES TO INDIVIDUAL LOTS BOTH VERTICAL AND HORIZONTAL PRIOR TO COMMENCING IMPROVEMENT OPERATIONS.
2. CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS OF PLANS IF REVISION IS NECESSARY BECAUSE OF LOCATION OF EXISTING UTILITIES.
3. LOCATION AND ELEVATIONS OF IMPROVEMENTS, TO BE MET BY WORK, SHALL BE CONFIRMED BY FIELD MEASUREMENT PRIOR TO CONSTRUCTION OF NEW WORK.
4. GRADES SHOWN ARE FINISH GRADES, CONTRACTOR SHALL DETERMINE NECESSARY SUB GRADE ELEVATIONS AND SHALL CONSTRUCT SMOOTH TRANSITION BETWEEN FINISH GRADES SHOWN.
5. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITION DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS PROVISION SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXPECTING FOR LIABILITY ARISING FROM SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
6. THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR COMPLIANCE WITH THE PROVISIONS OF THE STATE OF CALIFORNIA SAFETY ORDERS.
7. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE FROM EXISTING RECORDS AND CORROBORATED, WHERE POSSIBLE WITH FIELD TIES. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE LOCATIONS SHOWN, BOTH HORIZONTALLY AND VERTICALLY, PRIOR TO CONSTRUCTION. IF EXISTING LOCATIONS VARY SUBSTANTIALLY FROM THE PLANS, THE ENGINEER SHOULD BE NOTIFIED TO MAKE ANY CONSTRUCTION CHANGES REQUIRED.
8. THE CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT FOR ALL SEWER AND WATER MAIN UNDER CROSSING IN ACCORDANCE WITH PART 1 SECTION 5-2 OF THE STANDARD SPECIFICATION.
9. THE CONTRACTOR SHALL REPLACE OR REPAIR ALL TRAFFIC SIGNAL LOOPS, CONDUITS, AND LANE STRIPING DAMAGED DURING CONSTRUCTION.
10. THE CONTRACTOR SHALL SUBMIT WORK PLANS FOR ALL BORE OPERATIONS TWO WEEKS PRIOR TO COMMENCING WORK.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR THE POTHOLE AND LOCATING OF ALL EXISTING UTILITIES THAT CROSS THE PROPOSED TRENCH LINE AND MUST MAINTAIN 1' MINIMUM VERTICAL CLEARANCE.
12. AS-BUILT DRAWINGS MUST BE SUBMITTED TO THE CITY ENGINEER PRIOR TO ACCEPTANCE OF THIS PROJECT.



VICINITY MAP - N.T.S.

EROSION AND SEDIMENT CONTROL NOTES

TEMPORARY EROSION/SEDIMENT CONTROL PRIOR TO COMPLETION OF FINAL IMPROVEMENTS, SHALL BE PERFORMED BY THE CONTRACTOR OR QUALIFIED PERSON AS INDICATED BELOW:

1. ALL REQUIREMENTS OF THE LOCAL JURISDICTION "LAND DEVELOPMENT MANUAL, STORM WATER STANDARDS" MUST BE INCORPORATED INTO THE DESIGN AND CONSTRUCTION OF THE PROPOSED GRADING/IMPROVEMENTS CONSISTENT WITH THE APPROVED STORM WATER AND/OR WATER POLLUTION CONTROL PLAN (WPCP).
2. FOR STORM DRAIN INLETS, PROVIDE A GRAVEL BAG SILT BASIN IMMEDIATELY UPSTREAM OF INLET AS INDICATED ON DETAILS.
3. FOR INLETS LOCATED AT SUMPS ADJACENT TO TOP OF SLOPES, THE CONTRACTOR SHALL ENSURE THAT WATER DRAINING TO THE SUMP IS DIRECTED INTO THE INLET AND THAT A MINIMUM OF 1.00' FREEBOARD EXISTS AND IS MAINTAINED ABOVE THE TOP OF THE INLET. IF FREEBOARD IS NOT PROVIDED BY GRADING SHOWN ON THESE PLANS, THE CONTRACTOR SHALL PROVIDE IT VIA TEMPORARY MEASURES, I.E. GRAVEL BAGS OR DIKES.
4. THE CONTRACTOR OR QUALIFIED PERSON SHALL BE RESPONSIBLE FOR CLEANUP OF SILT AND MUD ON ADJACENT STREET(S) AND STORM DRAIN SYSTEM DUE TO CONSTRUCTION ACTIVITY.
5. THE CONTRACTOR OR QUALIFIED PERSON SHALL CHECK AND MAINTAIN ALL LINED AND UNLINED DITCHES AFTER EACH RAINFALL.
6. THE CONTRACTOR SHALL REMOVE SILT AND DEBRIS AFTER EACH MAJOR RAINFALL.
7. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON, ALL NECESSARY MATERIALS SHALL BE STOCKPILED ON SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
8. THE CONTRACTOR SHALL RESTORE ALL EROSION/SEDIMENT CONTROL MEASURES TO WORKING ORDER TO THE SATISFACTION OF THE CITY ENGINEER OR RESIDENT ENGINEER AFTER EACH RUN-OFF PRODUCING RAINFALL.
9. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL MEASURES AS MAY BE REQUIRED BY THE RESIDENT ENGINEER DUE TO UNCOMPLETED GRADING OPERATIONS OR UNFORESEEN CIRCUMSTANCES, WHICH MAY ARISE.
10. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.
11. ALL EROSION/SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED GRADING PLAN SHALL BE INCORPORATED HEREON. ALL EROSION/SEDIMENT CONTROL FOR INTERIM CONDITIONS SHALL BE DONE TO THE SATISFACTION OF THE RESIDENT ENGINEER.
12. GRADED AREAS AROUND THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE FACE OF THE SLOPE AT THE CONCLUSION OF EACH WORKING DAY.
13. ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN RAIN IS IMMINENT.
14. THE CONTRACTOR SHALL ONLY GRADE, INCLUDING CLEARING AND GRUBBING FOR THE AREAS FOR WHICH THE CONTRACTOR OR QUALIFIED PERSON CAN PROVIDE EROSION/SEDIMENT CONTROL MEASURES.
15. THE CONTRACTOR SHALL ARRANGE FOR WEEKLY MEETINGS DURING OCTOBER 1ST TO APRIL 30TH FOR PROJECT TEAM (GENERAL CONTRACTOR, QUALIFIED PERSON, EROSION CONTROL SUBCONTRACTOR IF ANY, ENGINEER OF WORK, OWNER AND THE RESIDENT ENGINEER) TO EVALUATE THE ADEQUACY OF THE EROSION/SEDIMENT CONTROL MEASURES AND OTHER RELATED CONSTRUCTION ACTIVITIES.

REV:	DATE/BY:	REVISION DESCRIPTION:
0	FC 03/03/11	ISSUED FOR REVIEW
1	FC 01/13/14	ISSUED FOR FINAL
2	FC 01/24/14	ISSUED FOR FINAL
3	FC 02/24/15	ISSUED FOR FINAL

ENGINEER/CONSULTANT:

Civil Engineer
CDG
CONNELL DESIGN GROUP, LLC
CONSULTING CIVIL ENGINEERS
26455 RANCHO PARKWAY SOUTH, LAKE FOREST, CA 92630
(949) 753-8301 OFFICE - (949) 753-8833 FAX

CLIENT:

CROWN CASTLE NG WEST, LLC

STAMP:

SITE INFO:

SITE NAME:
TDOK15m1
MPC1048CA-TDOK15m1

SITE ADDRESS: THOMAS BROS PAGE 557 GRID H5
ROW ADJACENT TO 27010 THOUSAND OAKS BLVD
AGOURA HILLS, CA 91301
LATS 34.15454
LONGS -118.76984

SHEET TITLE:

TITLE SHEET

DRAWING INFO:

DWG. NAME:	DRAWN BY:	DATE:
T1	FC	01/24/14

SHEET NUMBER:

T-1

FOOTAGE TOTALS	
ASPHALT CUT	-
DIRT TRENCH	-
PUNCH THRU	-
BORE	-
TOTAL	-
R&R SWF TOTAL	-

PROJECT DICTIONARY

SITE ADDRESS: ROW ADJACENT TO 27010 THOUSAND OAKS BLVD AGOURA HILLS, CA 91301

APPLICANT: CROWN CASTLE NG WEST, LLC
2125 WRIGHT AVE, SUITE #C9
LA VERNE, CA 91750
CONTACT: GENE MITCHELL
PHONE: (909) 593-9700

CIVIL ENGINEER: CONNELL DESIGN GROUP, LLC
26455 RANCHO PARKWAY SOUTH
LAKE FOREST, CA 92630
CONTACT: FRANK CARTER
(949) 310-8233 PHONE
(949) 753-8833 FAX

GROUND BUS BAR
MECH. GRND. CONN.
CADWELD
ELECTRIC BOX
TELEPHONE BOX
EXISTING SERVICE POLE
SIDEWALK FLAG
EX. MANHOLE
LIGHT POLE
FOUNDATION
SPOT ELEV.
SET POINT
REVISION
DETAIL REF.
ELEVATION REF.
SECTION REF.
PROP./LEASE LINE
MATCH LINE
WORK POINT
TELE. CONDUIT
CENTERLINE
ELECT. CONDUIT
COAXIAL CABLE
MYERS PEDESTAL
VAULT STANDARD 2'X3'
STEEL POLE

SYMBOLS, LINETYPES AND HATCH PATTERNS

CONSTRUCTION CHANGE TABLE

CHANGE	DATE	EFFECTED OR ADDED SHEET NUMBERS

APPLICABLE CODES

ALL WORK SHALL COMPLY WITH THE FOLLOWING APPLICABLE CODES:

*2010 CALIFORNIA BUILDING CODE
*2010 CALIFORNIA MECHANICAL CODE
*2010 CALIFORNIA PLUMBING CODE
*2010 CALIFORNIA ELECTRICAL CODE

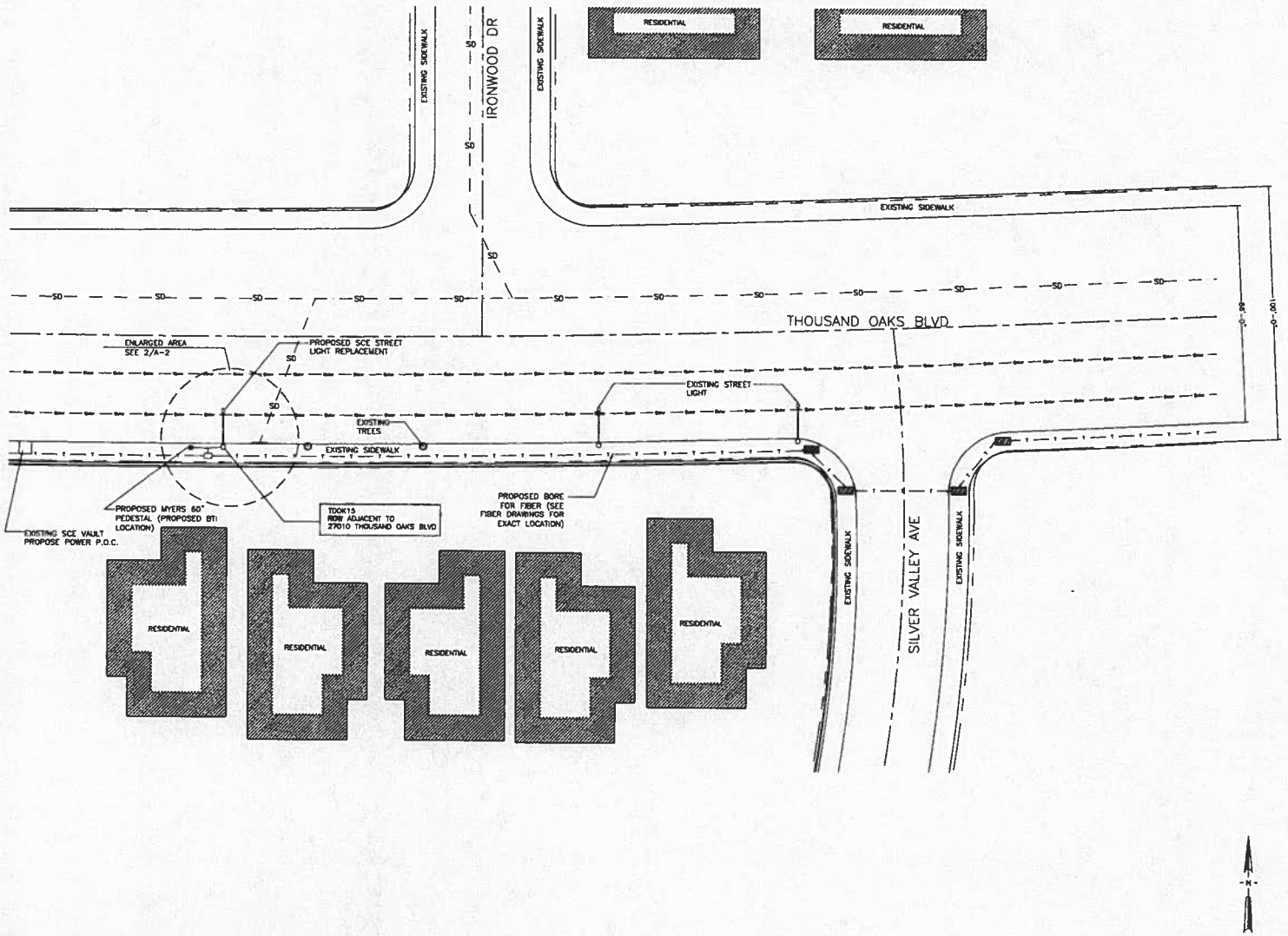
IN THE EVENT OF CONFLICT, THE MOST RESTRICTIVE CODE SHALL PREVAIL

PROJECT DESCRIPTION

PROJECT CONSISTS OF INSTALLATION OF:

1. OMNI ANTENNA ON PROPOSED STREET LIGHT
2. 200A METER PEDESTAL IN PUBLIC R.O.W. PROPOSED BTI LOCATION

SHEET INDEX:



SITE PLAN

SCALE: 1" = 20'-0"

REV:	DATE/BY:	REVISION DESCRIPTION:
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ENGINEER/CONSULTANT:

Civil Engineer

CDG

CONNELL DESIGN GROUP, LLC

CONSULTING CIVIL ENGINEERS

26111 RANCHO PARKWAY SOUTH, LAKE FOREST, CA 92630

(949) 753-0287 OFFICE - (949) 753-0833 FAX

CLIENT:

CROWN CASTLE NG WEST, LLC

STAMP:

SITE INFO:

SITE NAME:

TDOK15m1

MPC1048CA-TDOK15m1

SITE ADDRESS: THOMAS BROS PAGE 557 GRID H5

ROW ADJACENT TO 27010 THOUSAND OAKS BLVD
AGOURA HILLS, CA 91301
LATS 34.15454
LONGS -118.76961

SHEET TITLE:

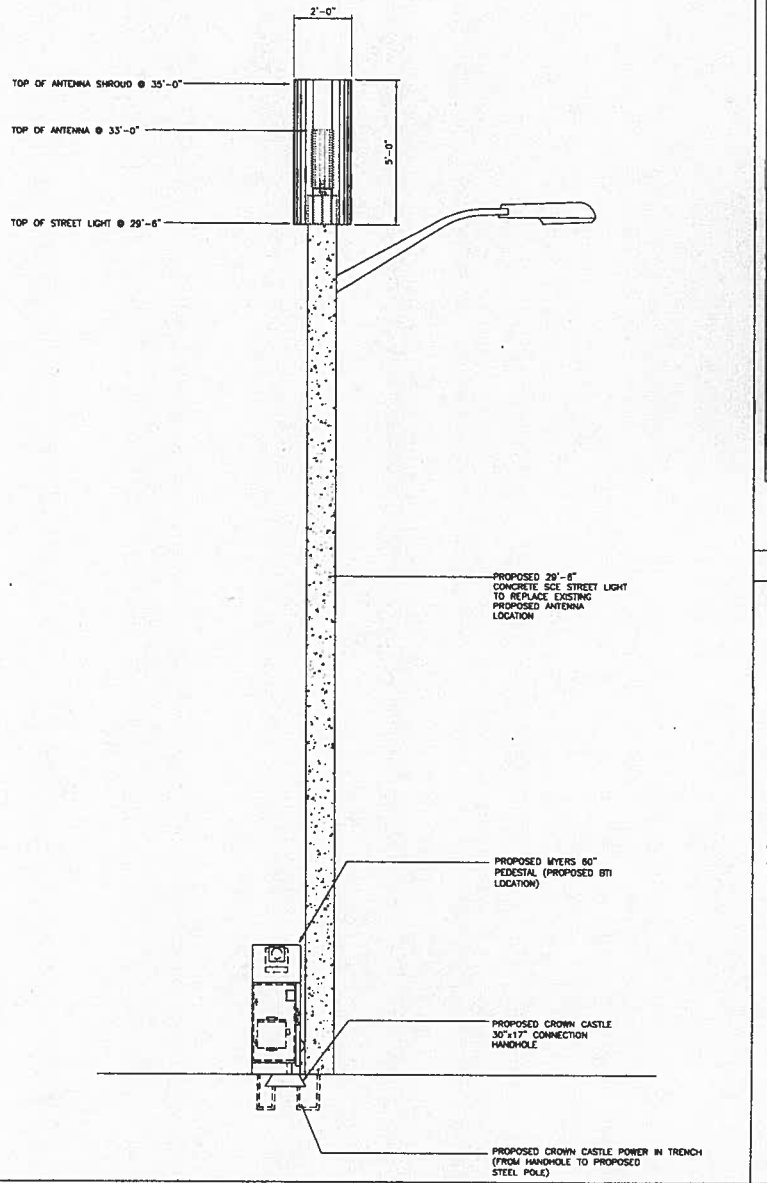
SITE PLAN AND ELEVATION

DRAWING INFO:

DWG. NAME:	DRAWN BY:	DATE:
	FC	01/24/14

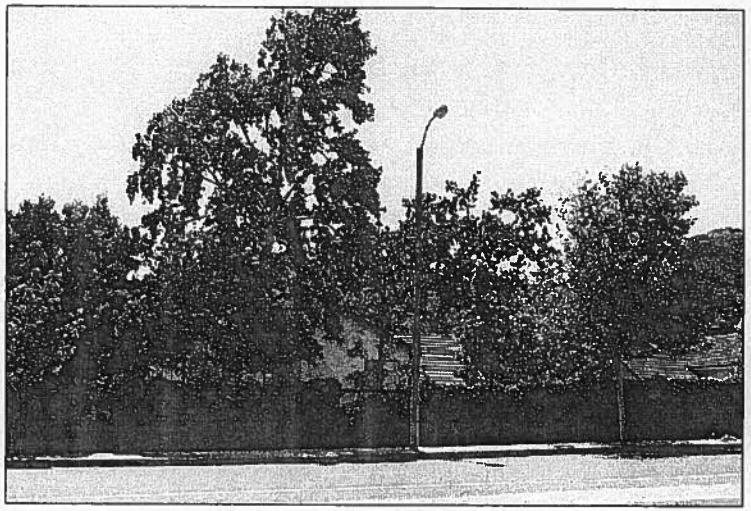
SHEET NUMBER:

A-1



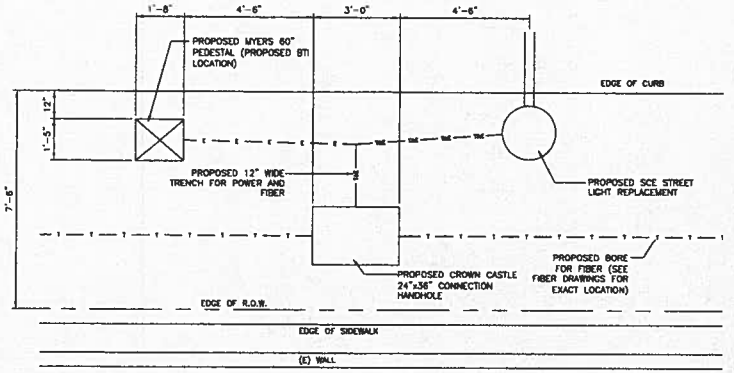
POLE ELEVATION

SCALE: 1/2"=1'-0" 4



EXISTING PHOTO

SCALE: N.T.S. 1



ENLARGED EQUIPMENT AREA

SCALE: N.T.S. 3

REV:	DATE/BY:	REVISION DESCRIPTION:
0	FC 03/03/11	ISSUED FOR REVIEW
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ENGINEER/CONSULTANT:

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CONNELL DESIGN GROUP, LLC
CONSULTING CIVIL ENGINEERS
26111 RANCHO PARKWAY SOUTH, LAKE FOREST, CA 92630
(949) 753-8080 OFFICE (949) 753-2353 FAX

CLIENT:

CROWN CASTLE NG WEST, LLC

STAMP:

SITE INFO:

SITE NAME:
TDOK15m1
MPC1048CA-TDOK15m1

SITE ADDRESS: THOMAS BROS PAGE 557 GRID H5
ROW ADJACENT TO 27010 THOUSAND OAKS BLVD
AGOURA HILLS, CA 91301
LATS 34.15454
LONGS -118.76961

SHEET TITLE:

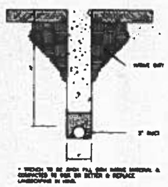
ELEVATION

DRAWING INFO:

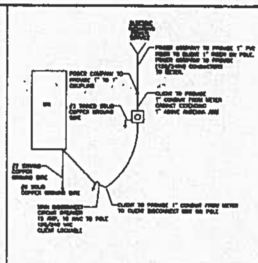
DWG. NAME:	DRAWN BY:	DATE:
	FC	01/24/14

SHEET NUMBER:

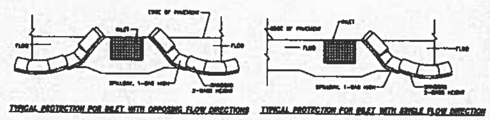
A-2



TRENCH DETAIL | N.T.S. | 5

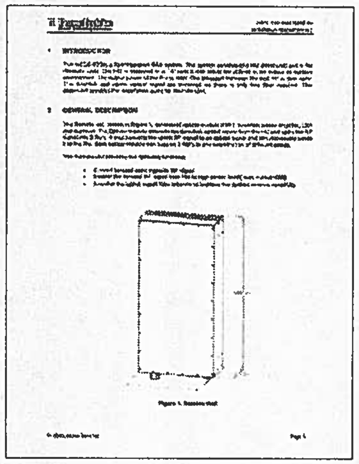


ELECTRIC SINGLE LINE DIAGRAM | N.T.S. | 3

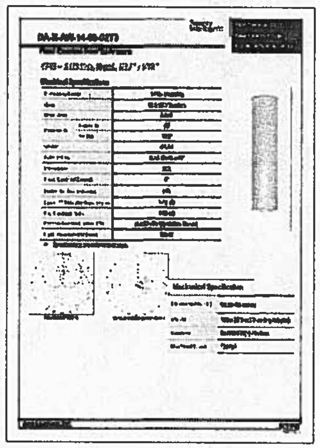


NOTES:

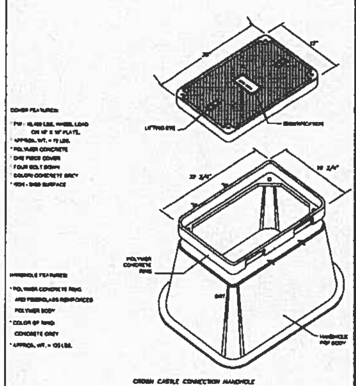
STORM DRAIN INLET PROTECTION | N.T.S. | 1



BTI SPECIFICATIONS | N.T.S. | 6



NOT USED | N.T.S. | 4



HANDHOLE DETAIL | N.T.S. | 2

REV:	DATE/BY:	REVISION DESCRIPTION:
0	FC	ISSUED FOR REVIEW
1	FC	ISSUED FOR FINAL
2	FC	ISSUED FOR FINAL
3	FC	ISSUED FOR FINAL

CDG

CONNELL DESIGN GROUP, LLC

CROWN CASTLE NG WEST, LLC

STAMP:

SITE INFO:

SITE NAME:

TDOK15m1

MPC1048CA-TDOK15m1

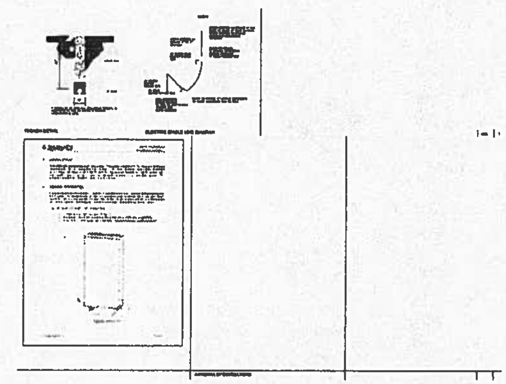
ACCURA HILLS, CA

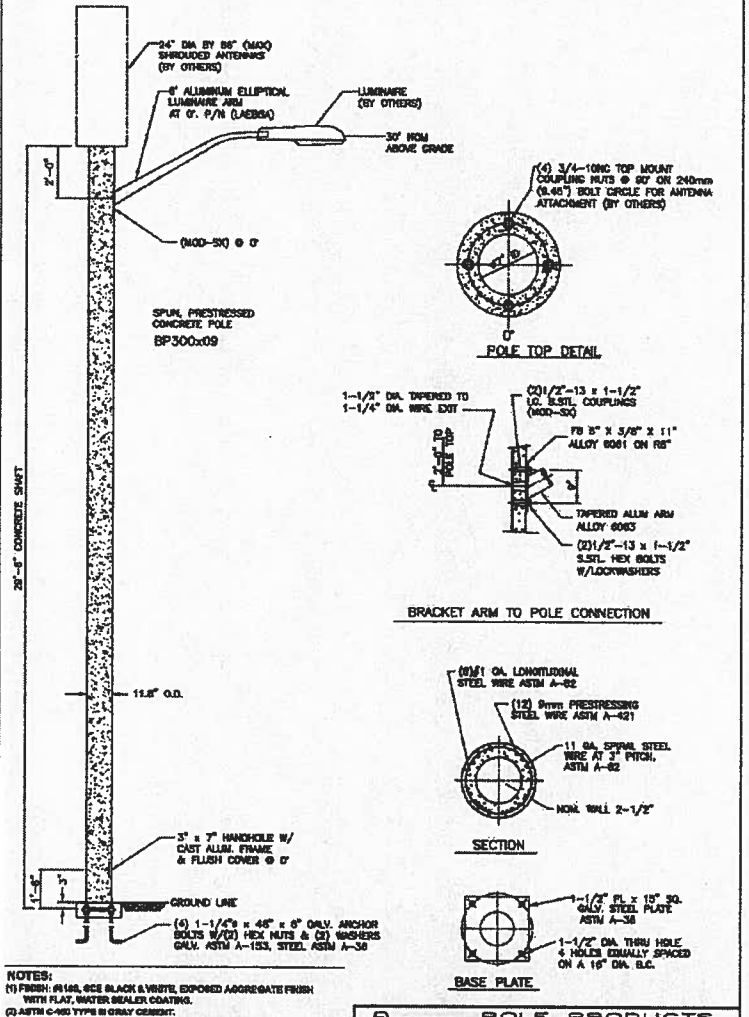
SHEET TITLE:

DETAILS

SHEET NUMBER:

D-1





NOTES:
(1) FINISH: #2160, SEE BLACK & WHITE, EXPOSED AGGREGATE FINISH WITH FLAT, WATER SEALER COATING.
(2) ASTM C-150 TYPE II GRAY CEMENT.
(3) f'c @ 28 DAYS=7,000 PSI, USING SPUN CYLINDER TEST.
(4) f'c @ 28 DAYS=8,000 PSI, USING ASTM C-31 CYLINDER TEST.
(5) POLES MANUFACTURED TO ASTM C-1089-97 SPECIFICATIONS.
(6) MOD-SX, (2) 1/2"-13 x 1-1/2" COUPLINGS.
(7) POLE WT. 2996 LBS.

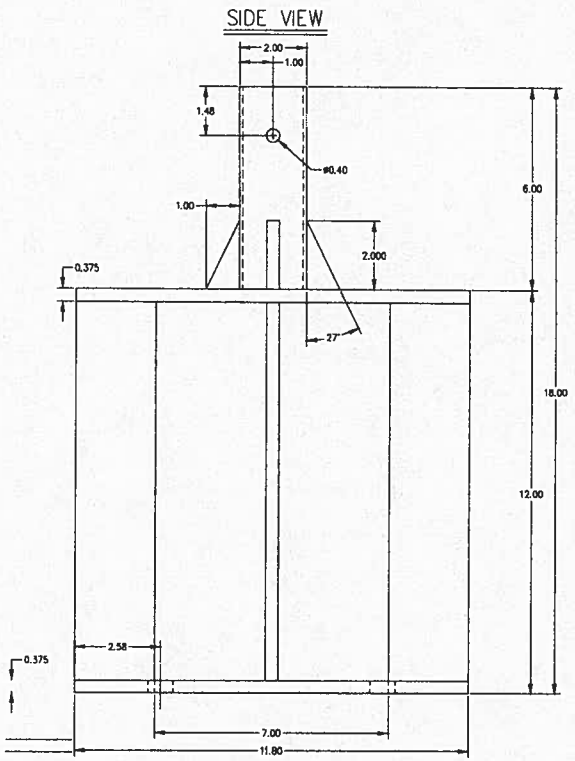
REV.	DATE	DESCRIPTION	DRN.	APPR.
A	06/04	ADDED 24"x96 ANTENNA NOTE	M.L.	

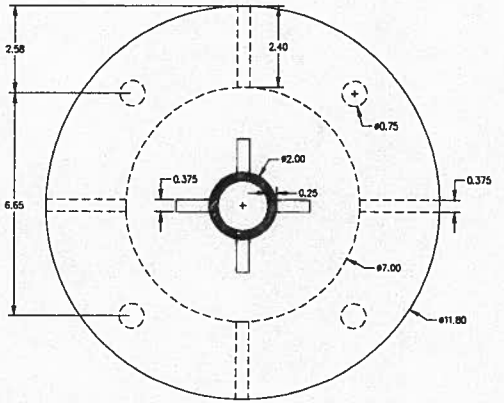
Ameron POLE PRODUCTS & SYSTEMS

SOUTHERN CALIFORNIA EDISON
BP300X09 (815S) WITH 6 FT. ARM

DRAWN: SJB	10/03	SCALE	DWG. NO.	REV
CHK'D:		AS SHOWN	040-01277	A

PROPOSED STREET LIGHT | N.T.S. | 1





ANTENNA BRACKET | N.T.S. | 2

REV:	DATE/BY:	REVISION DESCRIPTION:
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ENGINEER/CONSULTANT:

Civil Engineer

CDG

CONNELL DESIGN GROUP, LLC
CONSULTING CIVIL ENGINEERS
26455 RANCHO PARKWAY SOUTH, LAKE FOREST, CA 92630
(949) 753-8080 OFFICE (949) 753-8033 FAX

CLIENT:

CROWN CASTLE
NG WEST, LLC

STAMP:

SITE INFO:

SITE NAME:
TDOK15m1
MPC1048CA-TDOK15m1

SITE ADDRESS: THOMAS BROS PAGE 557 GRID H5
ROW ADJACENT TO 27010 THOUSAND OAKS BLVD
AGOURA HILLS, CA 91301
LAT'S 34.15454
LONG'S -118.76961

SHEET TITLE:

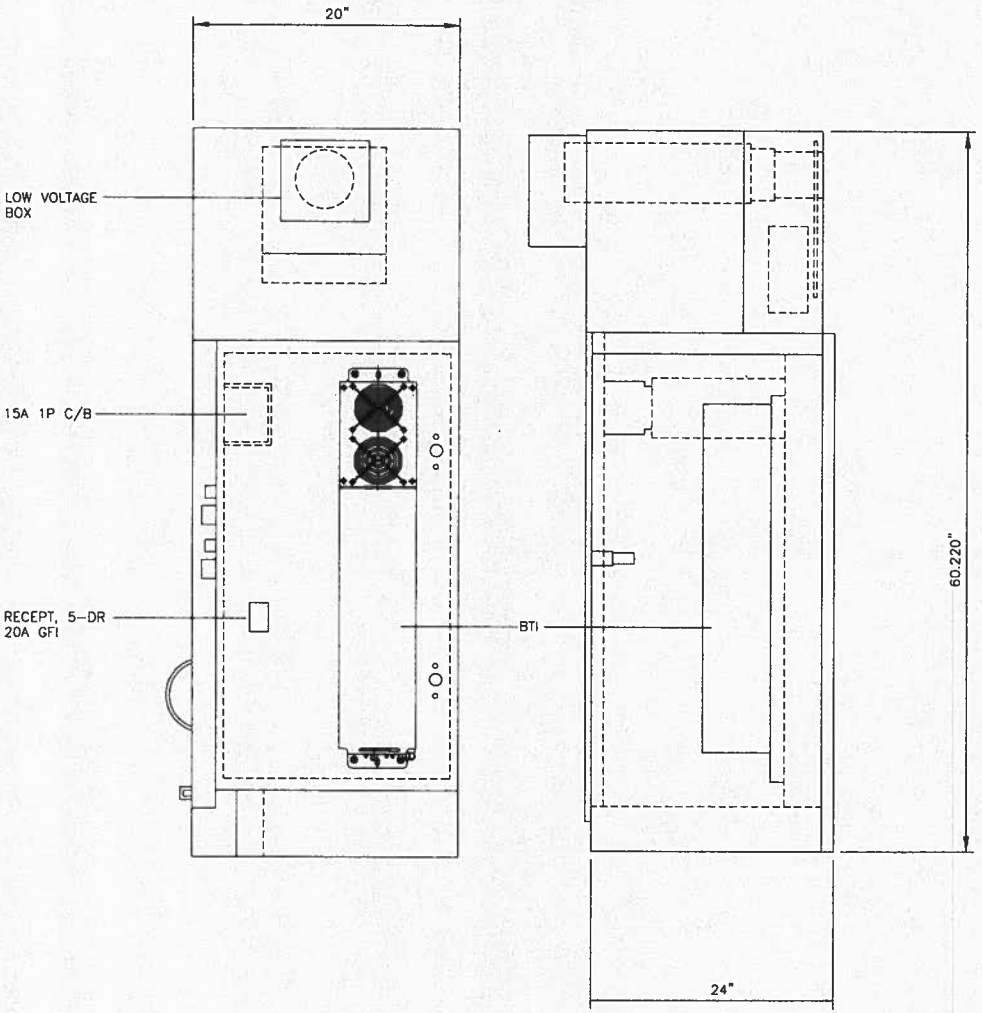
DETAILS

DRAWING INFO:

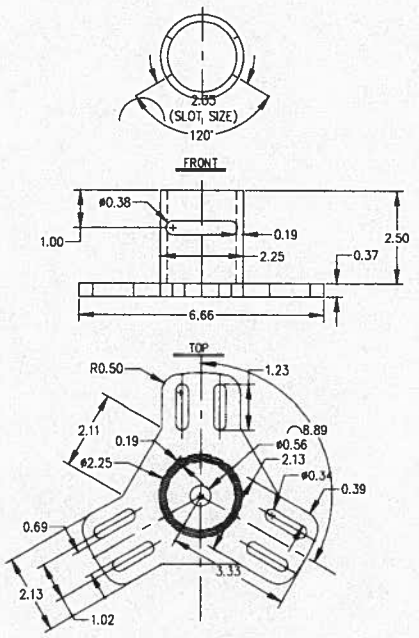
DWG. NAME:	DRAWN BY:	DATE:
	FC	01/24/14

SHEET NUMBER:

D-2



MYERS PEDESTAL (MEUG-S-2PE-CUST-STEEL) | N.T.S. | 2



KMW ANTENNA MOUNT | N.T.S. | 1

REV:	DATE/BY:	REVISION DESCRIPTION:
0	FC 03/03/11	ISSUED FOR REVIEW
1	FC 01/13/14	ISSUED FOR FINAL
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ENGINEER/CONSULTANT:

Civil Engineer

CDG

CONNELL DESIGN GROUP, LLC

CONSULTING CIVIL ENGINEERS

26453 RANCHO PARKWAY SOUTH, LAKE FOREST, CA 92630

(949) 753-8001 OFFICE - (949) 753-8823 FAX

CLIENT:

CROWN CASTLE

NG WEST, LLC

STAMP:

SITE INFO:

SITE NAME:

TDOK15m1

MPC1048CA-TDOK15m1

SITE ADDRESS: THOMAS BROS PAGE 557 GRID H5

ROW ADJACENT TO 27010 THOUSAND OAKS BLVD

AGOURA HILLS, CA 91301

LATS 34.15454

LONGS -118.76961

SHEET TITLE:

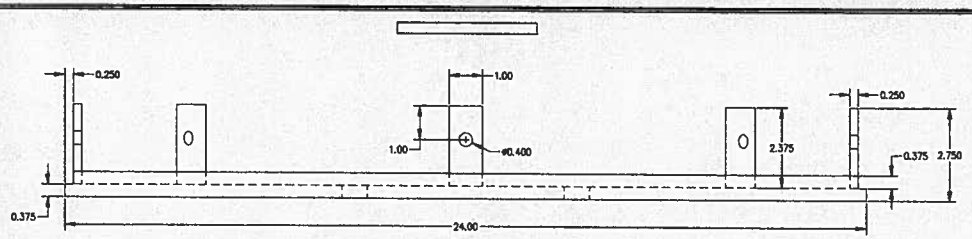
DETAILS

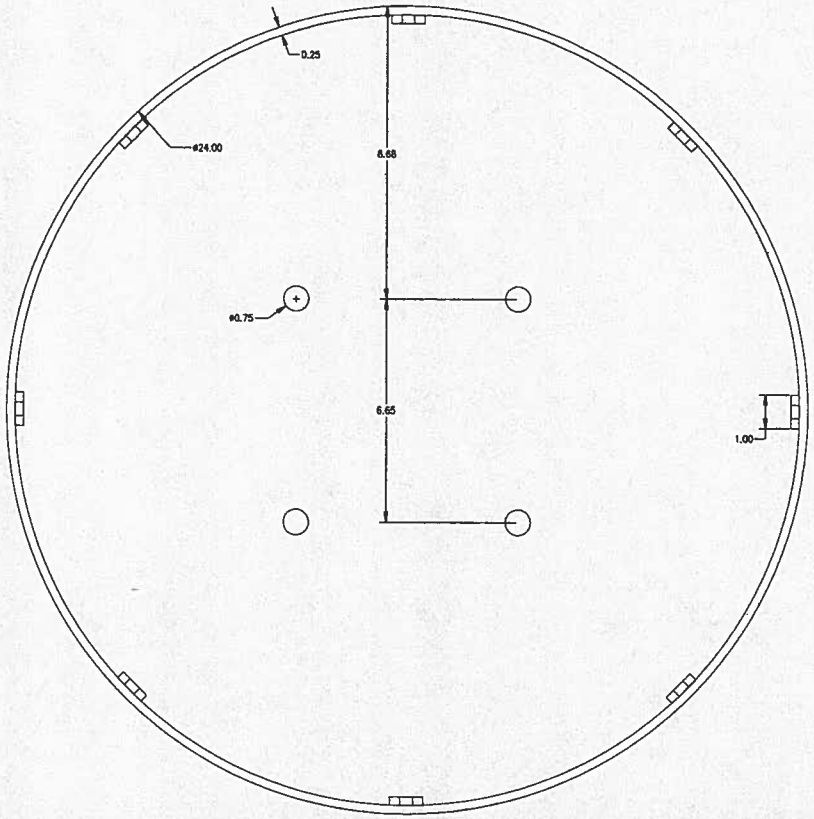
DRAWING INFO:

DWG. NAME:	DRAWN BY:	DATE:
	FC	01/24/14

SHEET NUMBER:

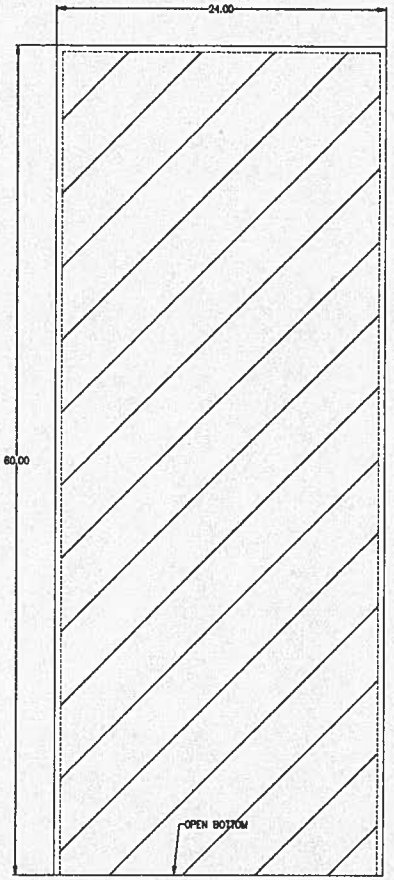
D-3





RED HIDDEN LINES — Represents any line of an object that is hidden from view.
BLUE SOLID LINES — Represents any line of an object that is visible in a particular view.
BLACK HIDDEN LINES — Represents items that are "not" included in KIT.

FIBERGLASS RADOME



RADOME ADAPTER

N.T.S. | 1

REV:	DATE/BY:	REVISION DESCRIPTION:
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3	FC 02/24/15	ISSUED FOR FINAL

ENGINEER/CONSULTANT:

Civil Engineer

CONNELL DESIGN GROUP, LLC
CONSULTING CIVIL ENGINEERS
30453 RANCHO PASEO ST SOUTH, LAKE FOREST, CA 92630
(949) 753-9397 OFFICE - (949) 753-9833 FAX

CLIENT:

CROWN CASTLE
NG WEST, LLC

STAMP:

SITE INFO:

SITE NAME:
TDOK15m1
MPC1048CA-TDOK15m1

SITE ADDRESS: THOMAS BROS PAGE 557 GRID H5
ROW ADJACENT TO 27010 THOUSAND OAKS BLVD
AGOURA HILLS, CA 91301
LATS 34.15454
LONGS -118.76961

SHEET TITLE:

DETAILS

DRAWING INFO:

DWG. NAME:	DRAWN BY:	DATE:
	FC	01/24/14

SHEET NUMBER:

D-4

Simply Intelligent

KMW Communications.
Base Station Antennas
For Mobile Communications

DA-X-AW-14-65-02T3

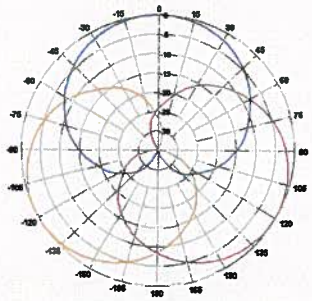
Fixed Electrical DownTilt Antenna

1710 ~ 2180MHz, X-pol., H65° / V16°

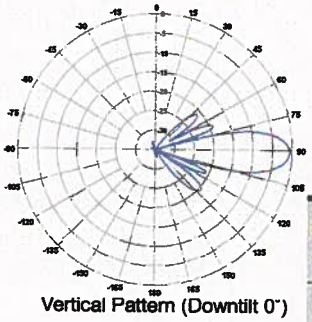
Electrical Specifications

Frequency Range		1710~2180MHz
Gain		13.5 dBi×3sectors
Omni Gain		8.8dBi
Beamwidth	Horizontal	65°
	Vertical	16.0°
VSWR		≤1.4:1
Polarization		Dual, Slant ±45°
Impedance		50Ω
Fixed Electrical Downtilt		2°
Horizontal Beam steering		N/A
Upper 1st Sidelobe Suppression		≥18 dB
Front-to-Back Ratio		≥25 dB
Passive Intermodulation, IM3		≤-150 dBc (@43dBm, 2tones)
Input Maximum CW Power		200 W

- Specifications are subject to change.



Horizontal Pattern



Vertical Pattern (Downtilt 0°)

Mechanical Specification

Dimension(Dia.×H)	Φ8.11×24 inches
Weight	18 lbs (Without Mounting Adaptor)
Connector	2x 7/16 DIN(F) / Bottom
Max Wind Speed	150mph

BTI WIRELESS™

Multi-Band
Multi-Standard
Multi-Carrier

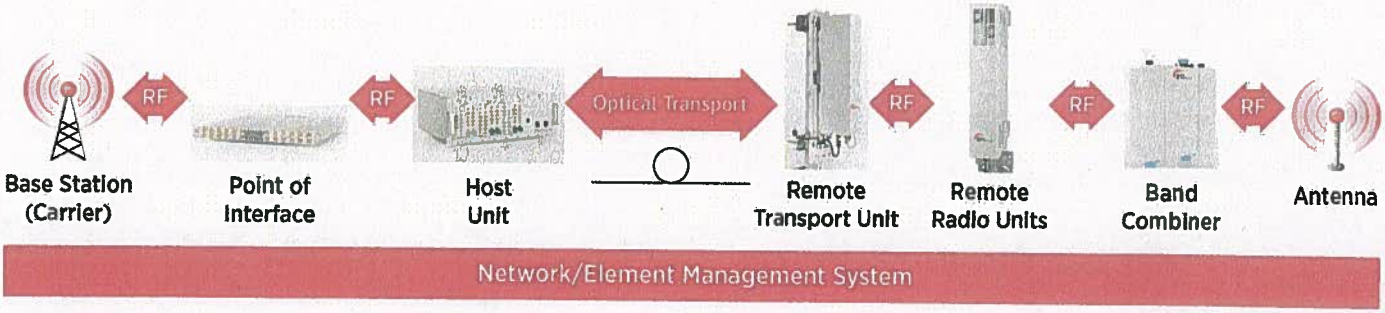
(mBSC)

DISTRIBUTED ANTENNA SYSTEMS

Extend Coverage, Maximize Performance, Save Space

With the ever-increasing user demands on carriers for coverage and capacity, distributed antenna systems (DAS) have become a key element of carrier networks. BTI Wireless is a global leader in in-door and outdoor distributed antenna system (DAS) solutions, supporting applications for extending coverage, adding capacity, minimizing space requirements, and reducing cost. BTI's customers include wireless carriers, neutral hosts, venue owners, real estate owners, enterprises, and subway/metro rail operators.

With the industry's most advanced linear power amplification technology, BTI offers its customers the highest performance DAS solution, with the smallest equipment footprint. BTI also provides a low-er-power, 19" rack-mounted remote node for indoor DAS applications – sharing a common head-end to enable mixed deployments with low & high-power remote nodes. Our mBSC solutions support 2G, 3G and 4G LTE (MIMO and SISO) and beyond, in all common frequency bands in use by the global wireless community.

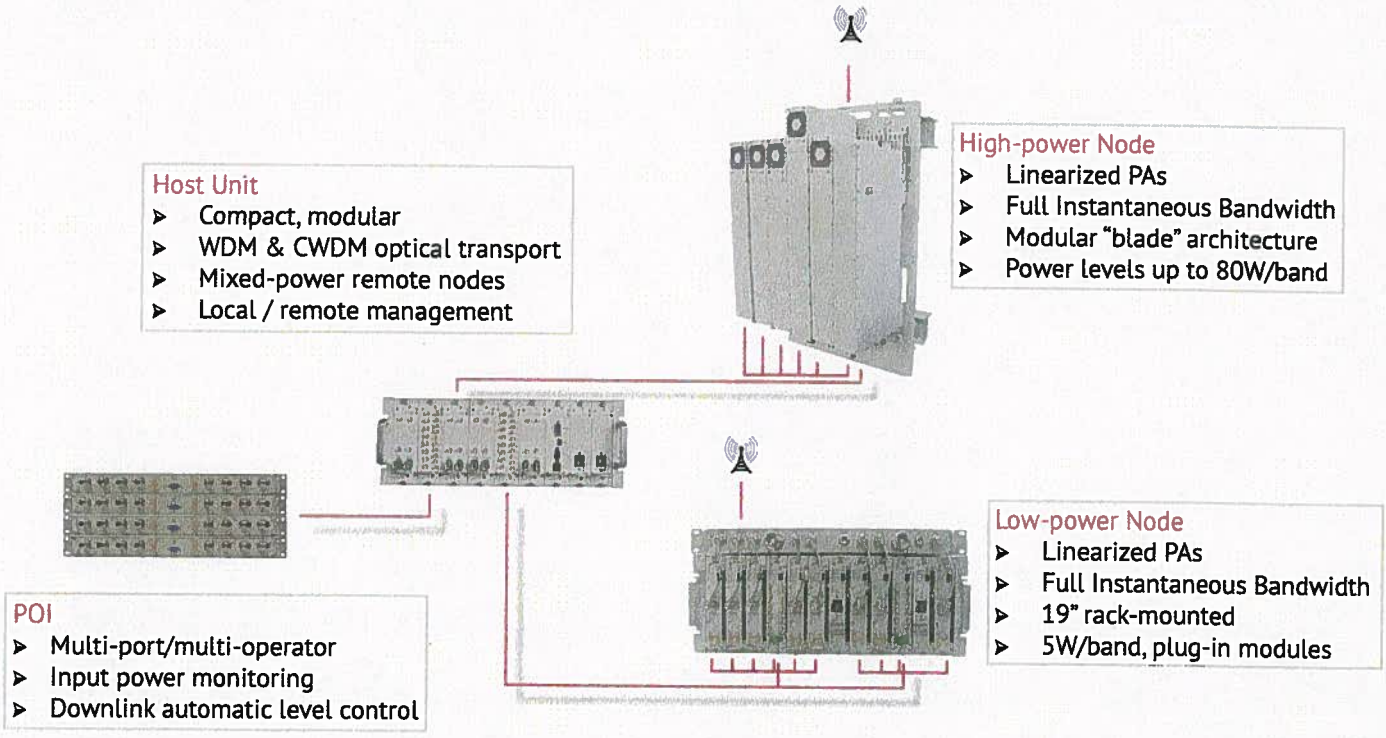


BTI provides an end-to-end solution, from the DAS hub interface to BTS equipment all the way to the service antennas. Our mBSC product line includes robust solutions for the point of interface (POI), host unit (HU), remote unit (RU), a variety of fiber transport options, and antenna combiners for coverage and capacity in multiple bands.

Neutral Host Venue and In-Building Solutions

With the burgeoning demand for seamless wireless everywhere, in-building solutions are, and will continue to be, an essential element of the network. BTI's mBSC DAS platform enables mixed deployment of high-power and low-power remote nodes to support the complex environments unique to in-building and venue coverage.

BTI's highly linear remote nodes deliver un-compromised performance with a modular design that allows you to deploy only what you need today, and inexpensively add on or upgrade as your needs require. BTI's amplifiers support full instantaneous bandwidth for all operating bands, significantly reducing deployment costs by enabling the amplifiers to be shared by all licensed operators in the network. With fully-rated output power up to 10W per band in our low-power nodes, and up to 80W per band in our high-power nodes, there is enough capacity for the most challenging environments!



Outdoor DAS

Outdoor DAS has been successfully utilized by operators around the world to rapidly deploy dense capacity in urban areas, and to extend coverage across challenging terrains. BTI has provided equipment for extensive outdoor DAS networks for operators in the United States, EMEA, Asia Pacific and Oceania.

BTI has consistently pushed the envelope for maximum output power, and power density (Watts per cubic litre). We provide natural convection-cooled solutions up to 40W per band, and active-cooled remote units up to 80W per band. BTI's modular design allows cost efficient "pay-as-you-grow" and upgrade scenarios important in today's rapidly changing environment.

Head End Solutions

The mBSC host unit (HU) product line provides optimal implementation flexibility to reduce cost, minimize space requirements at the DAS hub site, and allow for growth and expansion of the system. Each HU shelf contains fully redundant power supplies, a remote control unit for network/element management of both the host unit and remote node equipment.

Each HU can support different combinations of the BTS interface unit (BIU) and fiber interface unit (FIU) line cards. The BIU interfaces to the POI, or directly to a base station, and typically is deployed in a one-per-sector configuration, with support for Remote Node simulcast ratios from 1:1 up to 32:1. The FIU converts RF signals to analog or digital fiber (up to five bands per FIU, with support for two optical links per FIU card), and provides the interface between the HU and remote DAS nodes.

Remote Node Solutions

Delivering superior linear power amplification in the smallest footprint, BTI's modular fiber-fed remote nodes are the premier differentiating component of the BTI DAS offering. BTI supports a full range of RF coverage solutions using DAS within all common operating bands in use around the world.

The mBSC system supports up to 5 bands on a single WDM fiber, as well as supporting multi-sector and MIMO configurations on a single CWDM fiber. Delivering the highest performance standards, BTI solutions minimize the noise figure introduced by DAS deployments, and support full instantaneous bandwidth required for multi-operator, neutral-host DAS designs.

Band Name	Downlink (MHz)	Uplink (MHz)	Low-Power Node		High-Power Node		
			5W	10W	20W	40W	80W
UMTS (IMT 2100)	2110-2170	1920-1980	✓	❖	✓	✓	✓
PCS 1900	1930-1990	1850-1910	✓	❖	✓	✓	✓
DCS 1800	1805-1880	1710-1785	✓	❖	✓	✓	✓
AWS	2110-2155	1710-1755	✓	❖	✓	✓	✓
Cellular 850	869-894	824-849	✓		✓	✓	
2.6 GHz	2620-2690	2500-2570	✓	❖	✓	✓	
EGSM 900	925-960	880-915	✓		✓	✓	
Cellular 700-L	729-746	699-716	✓		✓	✓	
Cellular 700-U	746-756	777-787	✓		✓	✓	
800 MHz APAC	758-803	703-748	✓		✓	✓	
TDD 2.3 GHz	2300-2400	-	✓	❖	✓	✓	
TDD 2.5 GHz	2496-2690	-	✓	❖	✓	✓	
NA SMR 700	758-775	788-806	✓		✓	✓	
NA SMR 800	851-869	806-824	✓		✓	✓	
NA SMR 900	935-940	896-901	✓		✓	✓	

❖ Currently under development

Element Management Solutions

The mBSC DAS Element Management System (mEMS) is a software-based management tool that provides control and monitoring functions for the mBSC product line.

As one of the key components of a DAS System, the EMS is used to provision and configure a new system for operation, set the system operating parameters, retrieve/relay system alarms and status messages, and update the system firmware. mEMS provides an intuitive graphical user interface and supports SNMPv2 as the interface to a network operations center.

About BTI Wireless

BTI Wireless was founded in the United States as Bravo Tech Inc. in 1999, and has quickly become a recognized industry leader in Power Amplifier technology worldwide. By 2001, BTI had established itself as the top supplier of Power Amplifiers to the world's largest wireless operators in the Asia-Pacific region and one of the most internationally trusted OEM suppliers. As the industry evolved, BTI continued to innovate, introducing its Multi-Carrier Power Amplifier (MCPA) product family and boosting coverage for more than 14 major international carriers.

BTI offers a comprehensive suite of its patented mBSC DAS products, addressing the demand for smart coverage enhancement solutions for both indoor and outdoor applications. The mBSC product line leverages BTI's extensive experience in power amplification, while injecting the flexibility that is so necessary in today's high-tech world. BTI is also a leading supplier of Femto/Pico/ Metrocell solutions, addressing the continuous need to increase capacity.

With its headquarters & Design Center located in Cypress, California, and five global offices, BTI is proud to consider itself an extension of the global community.

Contact

For more detailed information about our products and services, contact us at:
6185 Phyllis Dr., Unit D, Cypress, CA 90630
Tel: +1 714-230-8333
Fax: +1 714-230-8341
sales@btiwireless.com
www.btiwireless.com

1 INTRODUCTION

The mBSC-020 is a fiber transport DAS system. The system consists of a HU (Host unit) and a RU (Remote unit). The HU is mounted in a 19" rack it can either be utilized in an indoor or outdoor environment. The output power of the RU is 40W. The transport between HU and RU is fiber optic. The downlink and uplink optical signal are duplexed so there is only one fiber required. This document provides the installation guide for Remote Unit.

2 GENERAL DESCRIPTION

The Remote unit, shown in Figure 1, consists of optical module (O/E), downlink power amplifier, LNA and duplexer. The Optical module converts the downlink optical signal from the HU and splits the RF signal into 3 RU's. It also converts the uplink RF signal to an optical signal and simultaneously sends it to the HU. Each optical module can support 3 RU's in any combination of different bands.

The Remote unit provides the following functions:

- Convert forward optic signal to RF signal
- Booster the forward RF signal from HU to high power level(max output:40W)
- Amplifier the uplink signal from antenna to improve the system receive sensitivity

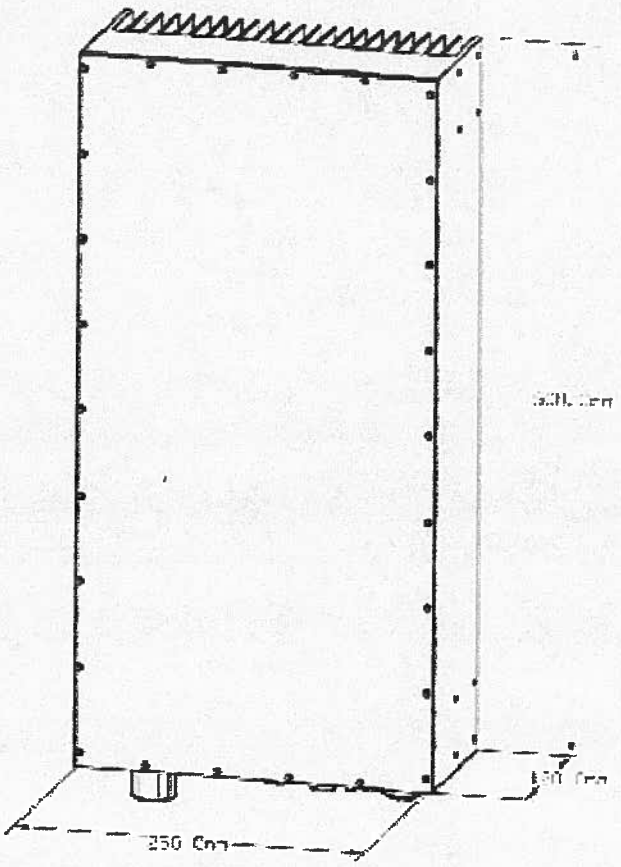


Figure 1. Remote Unit

CROWN CASTLE NG WEST LLC

SITE: THOUSAND OAKS/SILVER VALLEY

EXHIBIT D

Photo-simulations of Proposed Facility

TDOK15m1
ROW along south side of Thousand Oaks Blvd (West of Ironwood Dr)
SCE Replacement Streetlight
Agoura Hills, CA

CROWN CASTLE

These simulations are intened for graphical purposes only and not intended to be part of or to replace the information provided on the construction drawings

Photosimulation of proposed DAS communications node: Looking East along Thousand Oaks Blvd

TDOK15m1
ROW along south side of Thousand Oaks Blvd (West of Ironwood Dr)
SCE Replacement Streetlight
Agoura Hills, CA

CROWN CASTLE

These simulations are intened for graphical purposes only and not intended to be part of or to replace the information provided on the construction drawings

Photosimulation of proposed DAS communications node: Looking South across Thousand Oaks Blvd

CROWN CASTLE NG WEST LLC

SITE: THOUSAND OAKS/SILVER VALLEY

EXHIBIT E

Applicant's Attachment:
Significant Gap Analysis
(Attachment 4.12, 2.07, 6.04)
Least Intrusive Summary Statement
(Attachment 4.16)
Report on Maximum RF Emissions
(Attachment 3.18A)
Alternative Location Maps
Appendix A
(Attachment 3.18)
City Consultant Report

CROWN CASTLE

Attachment 4.12

'SIGNIFICANT' GAP IN COVERAGE – SUMMARY STATEMENT

PROPOSAL TO INSTALL DAS COMMUNICATIONS NODE ON A REPLACEMENT SCE STREETLIGHT POLE IN THE PUBLIC RIGHT-OF-WAY

TDOK15m1
Public Right-of-Way along Thousand Oaks Blvd (100' west of Ironwood Drive C/L)
Agoura Hills Oaks, CA

Prepared for:

City of Agoura Hills
Department of Planning and Community Development
30001 Ladyface Court
Agoura Hills, CA 91301

Prepared by:

Crown Castle NG West LLC
2125 Wright Avenue, Suite C-9
La Verne, CA 91750

Contact:

Carver Chiu, Government Relations Manager
(949) 290-9678

May 15, 2014

CROWN CASTLE

SIGNIFICANT GAP IN COVERAGE – SUMMARY STATEMENT

Crown Castle NG West LLC – City of Agoura Hills
Project: Proposed DAS Installation on Replacement SCE Streetlight Pole
Location: Public Right-of-Way along Thousand Oaks Blvd / 100' west of Ironwood Drive C/L (LAD015-13 / TDOK15m1)

Crown Castle NG West LLC (Crown Castle) proposes to install a DAS installation on a replacement SCE streetlight pole situated in the public right-of-way along the south side of Thousand Oaks Boulevard, approximately 100' west of the Ironwood Drive C/L. This proposed DAS facility (LAD015-13), together with two other proposed DAS node installations along Thousand Oaks Boulevard (LAD015-09 and LAD015-12), are intended to collectively address an existing coverage 'gap' in the MetroPCS communications network within the City of Agoura Hills. The following information is provided to help substantiate this coverage gap as required in the Supplemental Application for Wireless Telecommunications Facilities:

a. At present, MetroPCS has limited coverage within the City of Agoura Hills. The existing MetroPCS wireless network is largely centered along US Highway 101 with coverage near the eastern edge of the City along Agoura Rd, Cheseboro Rd, and Colony Drive (and areas in between), as well as some coverage near the western edge of the City along Agoura Rd and north into the Lake Lindero community. These areas are denoted in 'Green' and 'Yellow' in **Exhibit A** – Existing Coverage and Service Levels in the MetroPCS Wireless Network, City of Agoura Hills. This coverage is currently provided by one (1) previously approved and constructed 'Macro' installation and one (1) previously approved and constructed 'DAS' facility as identified below:

   - Existing Macro Site (LA0011) – Building Rooftop, 28030 Dorothy Drive
   - Existing DAS Installation (LAD015-01) – Wood Utility Pole, 30851 Agoura Rd

   MetroPCS has in effect little or no coverage to the balance of the City, including the core business/professional areas along Highway 101, and the residential communities generally situated north of Highway 101 between Lindero Canyon Road and Kanan Road. For illustrative purposes, this gap in coverage is denoted in general terms by the "red" and "white" areas situated within the dashed line in **Exhibit B** – Gaps in the MetroPCS Wireless Network, City of Agoura Hills.

b. Based on the general description above, the approximate size of the existing coverage gap is +/- 3.0 square miles (2.0 mi x 1.5 mi).

c. The attached coverage maps graphically display two important data sets related to the MetroPCS wireless network in Agoura Hills – 1) The geographic area affected by existing and proposed wireless facilities in the MetroPCS network, and 2) The relative levels of service (strength of the radio-frequency signal) associated with existing and proposed wireless facilities in the MetroPCS network. More specifically, the coverage maps illustrate the following levels of service:

   - In-Building (Green) >-85 dBm
   - In-Vehicle (Yellow) >-95 dBm
   - Outdoor (Red) >-102 dBm

   Each level is characterized by a minimum signal strength. Within the wireless industry, the key to network coverage is having a signal level strong enough to allow users/customers to maintain contact with the network so they can make and maintain calls. Signal level (the strength of the radio signal being registered on the devices of users/customers) is measured in negative decibels per milliwatt or "dBm". The smaller the dBm number, the weaker the signal and corresponding coverage. For example, a signal strength of -100 dBm is weaker than a signal strength of -80 dBm.

As a general rule, a minimum signal level of -85 dBm is required for optimal In-Building coverage and a minimum signal level of -95 dBm is necessary for adequate In-Vehicle coverage. With this in mind, and looking at the "existing" coverage and service levels associated with the MetroPCS wireless network in Agoura Hills, it is evident that a "significant gap" exists where current service levels consistently fall below the -95 dBM threshold for In-Vehicle coverage. Users in these areas would therefore experience an intolerably high percentage of blocked and dropped calls for outside use; with a further decline in signal strength as the user transitions into existing buildings and homes. MetroPCS seeks to provide sufficient signal strength to ensure that customers in the affected areas have adequate signal for mobile and outdoor use, as well as reliable In-Building coverage, particularly for those customers no longer using landline phone service or who may want to abandon their residential landline service. Customers must be able to count on a level of service commensurate with the accessibility and reliability afforded by their landlines. Such considerations are relevant to a determination of significant gap.

d. The courts have determined that a significant gap exists when a wireless provider "is prevented from filling a significant gap in ***its own*** service coverage." (*MetroPCS, Inc. v. City and County of San Francisco* (9th Cir. 2005) 400 F.3d 715, 733 (emphasis in original). Moreover, the courts have upheld the use of signal strengths that allow in-building coverage as a proper benchmark for determining whether a significant gap in coverage exists. (See, e.g., *MetroPCS, Inc. v City and County of San Francisco* (N.D.Cal. 2006) 2006 U.S. Dist. LEXIS 43985 ["careful reading of existing cases that contain a significant gap analysis persuades the court that any analysis should include consideration of a wireless carrier's in-building coverage."].) Accordingly, the definition of "significant gap," as used in this analysis, derives from current case law defining the term in the context of section 332(c)(7)(B)(i)(II). In this case, existing service levels in the Service Area fall well below the minimum standard even for In-Vehicle ***or*** Outdoor coverage, let alone In-Building coverage. (See **Exhibit A** – Existing Coverage and Service Levels in the MetroPCS Wireless Network, City of Agoura Hills), and **Exhibit B** – Gaps in the MetroPCS Wireless Network, City of Agoura Hills). In short, as noted above, the level of service in the affected Service Area is inadequate or virtually non-existent.

The need to address the existing coverage deficiencies in the MetroPCS network is underscored by the ever increasing numbers of wireless customers choosing to drop their landline telephone service in favor of wireless communications for their phone service. As of June 2013, 2 out of every 5 American households (nearly 40 percent) had come to rely solely on mobile phones and that number continues to grow. (Stephen J. Blumberg, Ph.D., and Julian V. Luke, Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, January-June 2013. National Center for Health Statistics. December 2013. Available from: www.cdc.gov/nchs/nhis.htm). In addition, the following is noteworthy: 1) smart phone devices, featuring mobile internet services and streaming video, are now ubiquitous with 90% of US adults owning a cell phone, and more than two-thirds (68%) of these cell phone owners indicating that they use their mobile device to go online according to a recent Pew Research Survey (Susannah Fox and Lee Rainie, Pew Research Internet Project: The Web at 25 in the U.S. Pew Research Center. February 27, 2014. Available from www.pewinternet.org/2014/02/27/the-web-at-25-in-the-u-s); 2) mobile social networking has become commonplace; and 3) the number of 911 calls made from wireless phones has increased to about 70 percent of all 911 calls and the percentage is growing (Federal Communications Commission. April 2013. Available at www.fcc.gov/guides/wireless-911-services). As more and more Americans abandon landlines in favor of mobile phones, and choose to utilize smart phones, tablets and other smart devices for their personal and professional needs, reliable In-Building coverage has become a necessity. These are some of the reasons courts now recognize that a "significant gap" can exist on the basis of inadequate In-Building coverage. (See, e.g., *MetroPCS, Inc. v. City and County of San Francisco, supra*, 2006 U.S. Dist. LEXIS 43985; *T-Mobile Central, LLC (Voicestream Kansas City, Inc.) v. Unified Government of Wyandotte County* (D.Kans. 2007) 528 F.Supp.2d 1128.)

e. Without speaking for other commercial wireless providers or the industry as a whole, it is reasonable to suggest that the terminology and definition used above to describe the 'significant' gap in coverage covered by this application is generally consistent with the terminology used by the industry and other carriers to describe similar network needs and objectives.

f. The subject application represents the first proposed Crown Castle DAS communications facility to undergo formal Land Use Review and an application for a discretionary permit. However, as noted, MetroPCS did obtain prior City approval to construct, operate and maintain a 'Macro' wireless communications facility at 28030

Dorothy Drive. It is reasonable to suggest that the terminology and definition used above to describe the "significant gap" in coverage covered by this application is generally consistent with that used by MetroPCS in connection with their prior application.

g. The following information is provided as further clarification in accordance with Section 4.12(g) of the Supplemental Application for Wireless Telecommunications Facilities.

1. The coverage gap described and shown in **Exhibit B** encompasses several commuter highways and arterial roadways, including US Highway 101, Thousand Oaks Boulevard, Kanan Road, Reyes Adobe Road, and Lindero Canyon Road.

2. The affected area includes large commercial/retail and professional/office developments along Highway 101, as well as residential neighborhoods and public/community-serving facilities situated north of Highway 101 between Kanan Road and Lindero Canyon Road.

3. As shown in **Exhibit C** – Predicted MetroPCS Coverage from the Proposed DAS Installation LAD015-13/TDOK15m1, the proposed DAS installation is expected to provide In-Building and In-Vehicle service quality to users across a broad swath of the targeted area. This expanded coverage encompasses new coverage where none exists, as well as improved service levels where some coverage may be present, but at levels inadequate for reliable wireless calls and network connections.

4. As shown in **Exhibit C**, the proposed DAS installation will provide important coverage to areas along the major arterial of Thousand Oaks Boulevard, and to the predominantly residential areas situated both north and south of Thousand Oaks Boulevard stretching from Forest Cove Lane toward Kanan Road to the east. In addition, the proposed DAS installation is capable of providing some bonus coverage to areas further south across Highway 101.

5. Anticipated coverage from the proposed DAS installation is derived from drive-test data gathered from standard industry practices/protocols and subsequently compiled, evaluated, and represented using software and modeling tools considered to be standard within the wireless communications industry.

6. As depicted in **Exhibit D** – Existing MetroPCS Coverage within the City's Commercial Areas/Districts, the coverage gap defined and described above includes the commercial area located at the northwest (Twin Oaks Shopping Center) and southwest (Agoura Meadows) corners of Thousand Oaks Boulevard and Kanan Road, as well as the commercial area located at the four corners of Thousand Oaks Boulevard and Lake Lindero Drive. The City's other, larger commercial districts situated along Highway 101 appear to have some level of existing service.

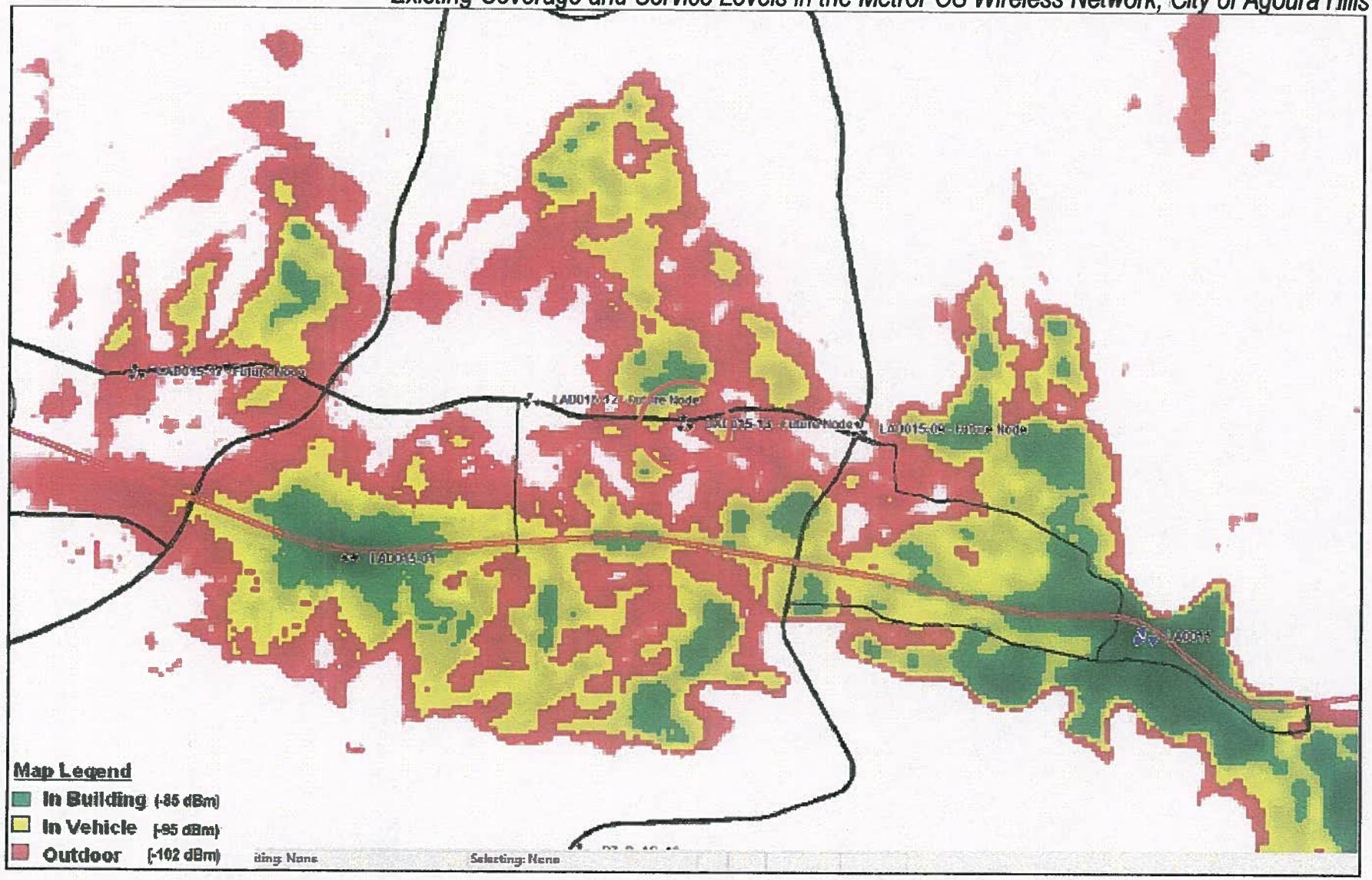
7. The proposed DAS installation will help ensure that MetroPCS subscribers and other wireless users within the affected area(s) have accessible and reliable emergency wireless (E-911) service.

h. As noted above, the proposed DAS installation is expected to provide In-Building and In-Vehicle service quality to users across a broad swath of the targeted area. This expanded coverage consists predominantly of new MetroPCS coverage where none currently exists.

i. As an important point of clarification, it should be noted that the proposed DAS installation along the south side of Thousand Oaks Boulevard, approximately 100' west of the Ironwood Drive C/L (LAD015-13/TDOK15m1), is being pursued in concert with two (2) other DAS installations within the City (LAD015-09/TDOK11m1 and LAD015-12/TDOK14m1), as well as one (1) additional node to the west in the City of Westlake Village (LAD015-17/TDOK19m1), which are collectively intended to address the "significant gap" defined and described above. This collective DAS solution is illustrated in **Exhibit E** – Predicted MetroPCS Coverage from the Proposed DAS Installation, plus three (3) other Proposed DAS installations.

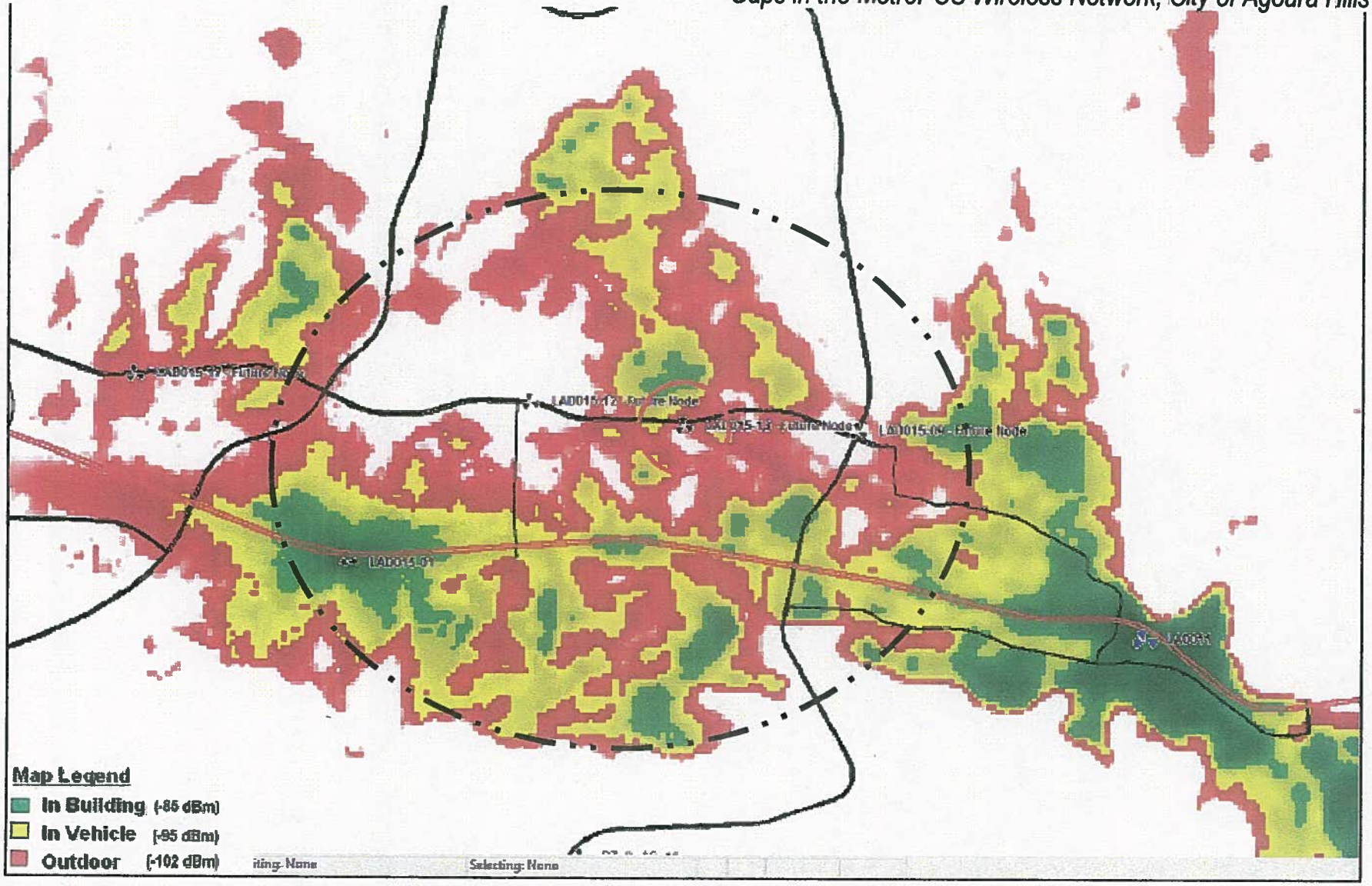
CROWN CASTLE

Exhibit A –
Existing Coverage and Service Levels in the MetroPCS Wireless Network, City of Agoura Hills



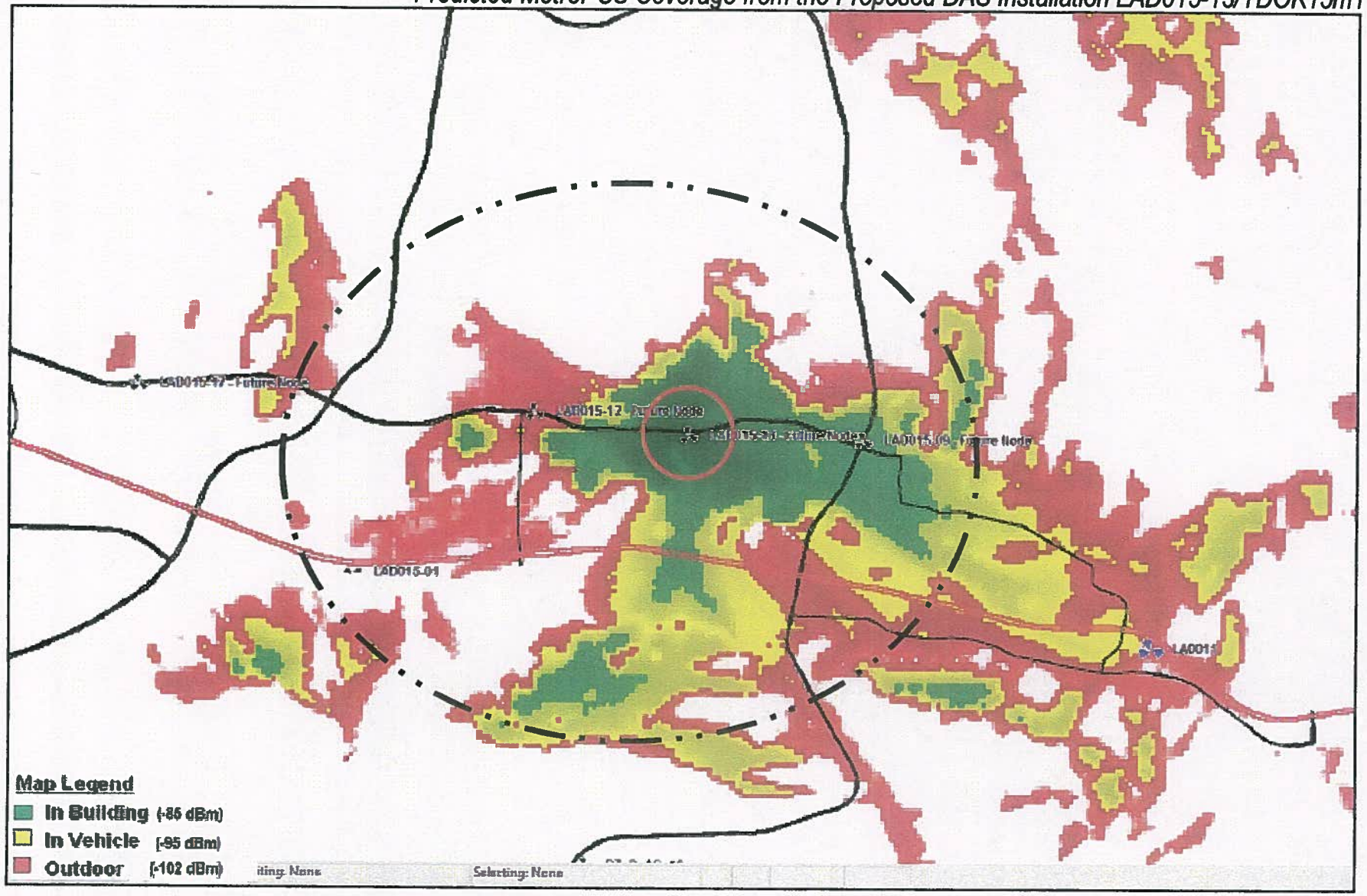
CROWN CASTLE

Exhibit B –
Gaps in the MetroPCS Wireless Network, City of Agoura Hills



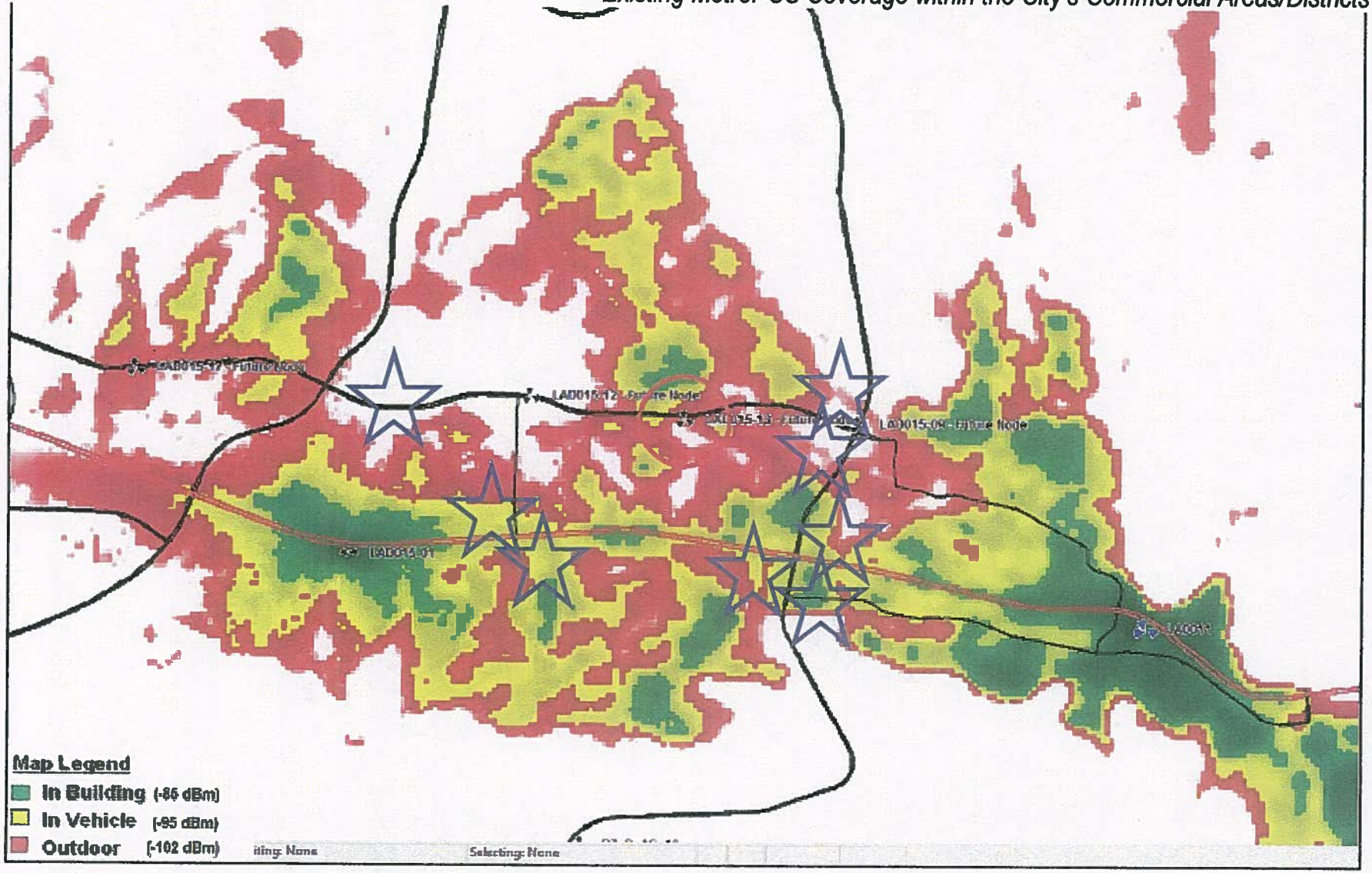
CROWN CASTLE

Exhibit C –
Predicted MetroPCS Coverage from the Proposed DAS Installation LAD015-13/TDOK15m1



CROWN CASTLE

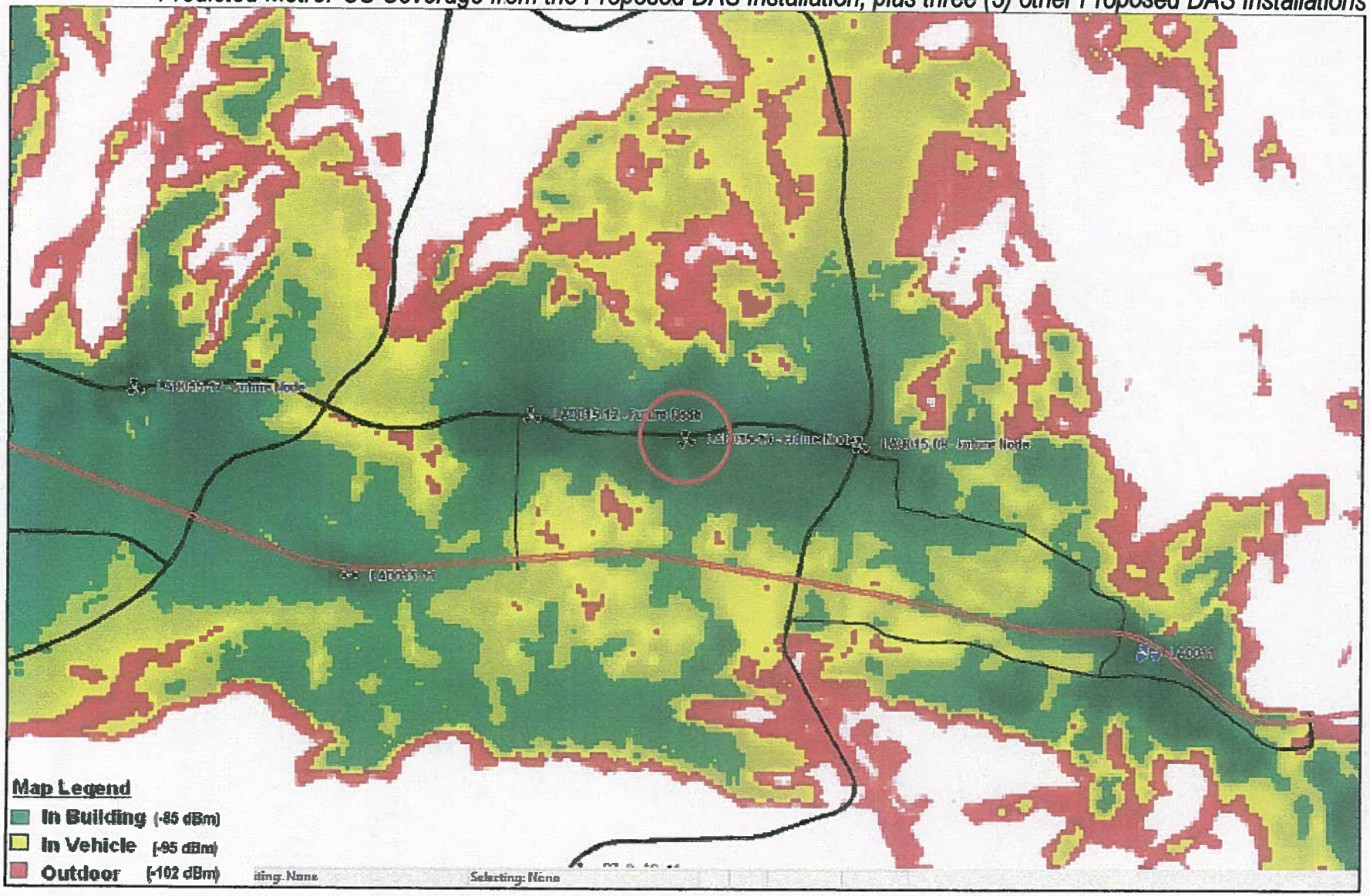
Exhibit D –
Existing MetroPCS Coverage within the City's Commercial Areas/Districts



CROWN CASTLE

Exhibit E –

Predicted MetroPCS Coverage from the Proposed DAS Installation, plus three (3) other Proposed DAS Installations



CROWN CASTLE

Attachment 2.07

GEOGRAPHIC SERVICE SUMMARY (METRO PCS)

PROPOSAL TO INSTALL DAS COMMUNICATIONS NODE ON A REPLACEMENT SCE STREETLIGHT POLE IN THE PUBLIC RIGHT-OF-WAY

TDOK15m1
Public Right-of-Way along Thousand Oaks Blvd (100' west of Ironwood Drive C/L)
Agoura Hills Oaks, CA

Prepared for:

City of Agoura Hills
Department of Planning and Community Development
30001 Ladyface Court
Agoura Hills, CA 91301

Prepared by:

Crown Castle NG West LLC
2125 Wright Avenue, Suite C-9
La Verne, CA 91750

Contact:

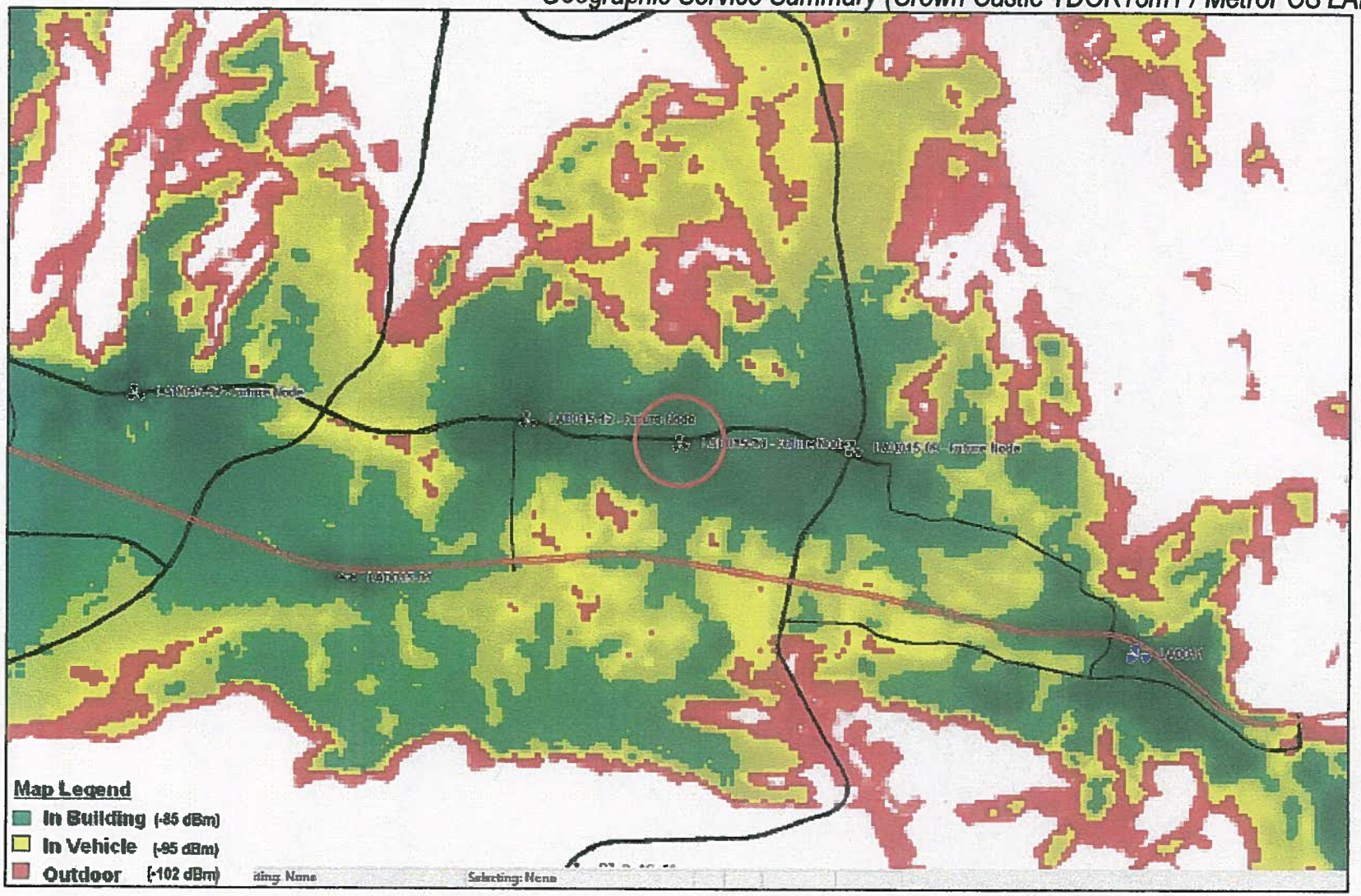
Carver Chiu, Government Relations Manager
(949) 290-9678

May 15, 2014

CROWN CASTLE

Exhibit –

Geographic Service Summary (Crown Castle TDOK15m1 / MetroPCS LAD015-13)



EXISTING MetroPCS Macro Site (LA0011) – Building Rooftop, 28030 Dorothy Drive, Agoura Hills
EXISTING Crown Castle/MetroPCS DAS Installation (LAD015-01) – Wood Utility Pole, 30851 Agoura Road, Agoura Hills
FUTURE Crown Castle/MetroPCS DAS Installation (LAD015-09) – Traffic Signal at NW Corner of Thousand Oaks Blvd/Kanan Rd, Agoura Hills
FUTURE Crown Castle/MetroPCS DAS Installation (LAD015-12) – Traffic Signal at NE Corner of Thousand Oaks Blvd/Reyes Adobe Rd, Agoura Hills
FUTURE Crown Castle/MetroPCS DAS Installation (LAD015-13) – SCE Streetlight along Thousand Oaks Blvd near Ironwood Drive, Agoura Hills

CROWN CASTLE

Attachment 6.04

PREDICTED RF COVERAGE FROM PROPOSED DAS NODE ONLY
(LAD015-13 / TDOK15m1)

PROPOSAL TO INSTALL DAS COMMUNICATIONS NODE ON A REPLACEMENT SCE STREETLIGHT POLE IN THE PUBLIC RIGHT-OF-WAY

TDOK15m1
Public Right-of-Way along Thousand Oaks Blvd (100' west of Ironwood Drive C/L)
Agoura Hills Oaks, CA

Prepared for:

City of Agoura Hills
Department of Planning and Community Development
30001 Ladyface Court
Agoura Hills, CA 91301

Prepared by:

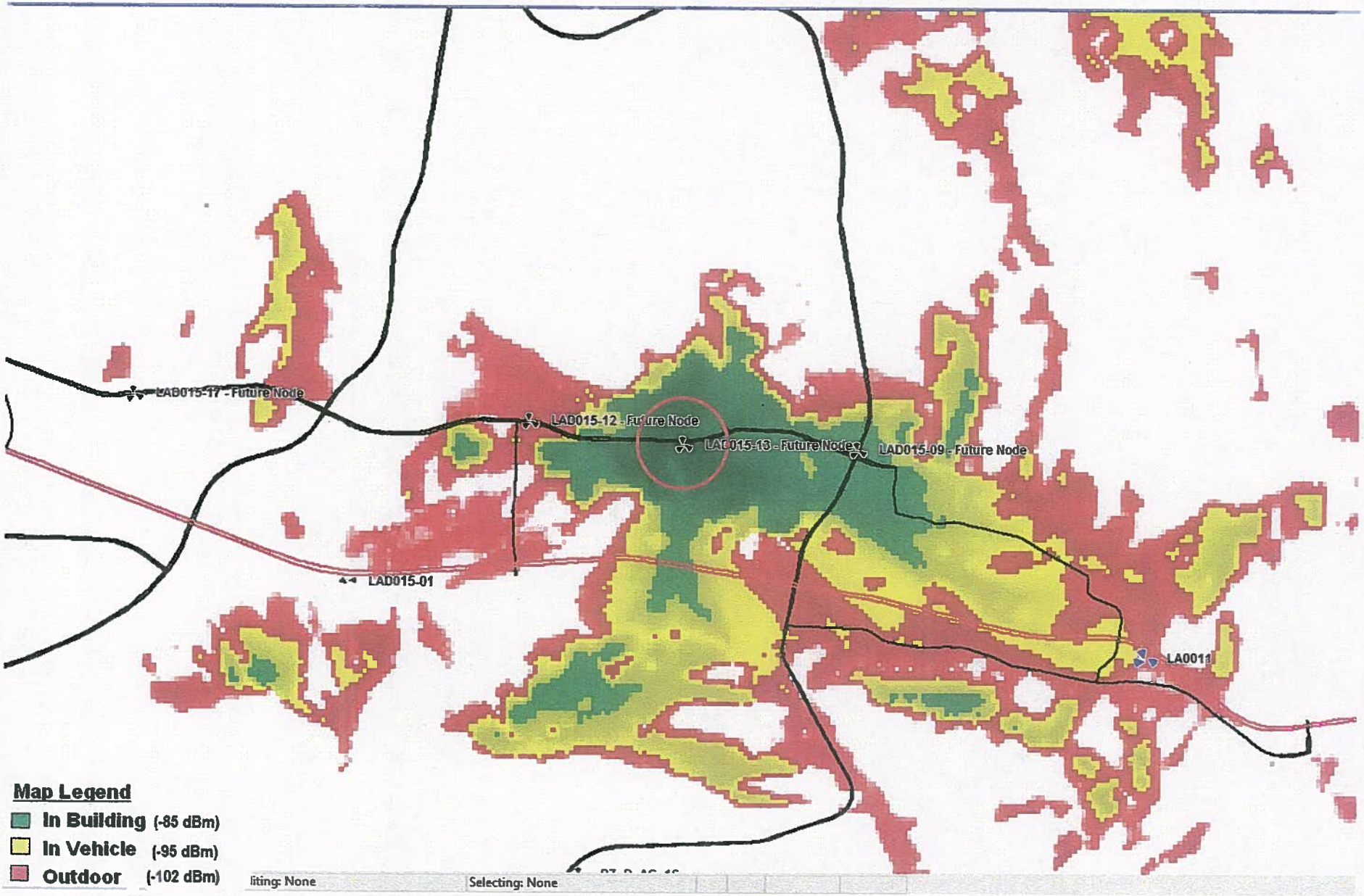
Crown Castle NG West LLC
2125 Wright Avenue, Suite C-9
La Verne, CA 91750

Contact:

Carver Chiu, Government Relations Manager
(949) 290-9678

May 15, 2014

LAD015-13 (TDOK15) Site Prediction



CROWN CASTLE

Attachment 6.05

PREDICTED RF COVERAGE WITHIN THE CITY OF AGOURA HILLS FROM METROPCS ON-AIR SITES

(with Proposed DAS Node LAD015-13 / TDOK15m1)

PROPOSAL TO INSTALL DAS COMMUNICATIONS NODE ON AN EXISTING TRAFFIC SIGNAL POLE IN THE PUBLIC RIGHT-OF-WAY

TDOK14m1
Public Right-of-Way at NE Corner of Thousand Oaks Blvd / Reyes Adobe Road
Agoura Hills Oaks, CA

Prepared for:

City of Agoura Hills
Department of Planning and Community Development
30001 Ladyface Court
Agoura Hills, CA 91301

Prepared by:

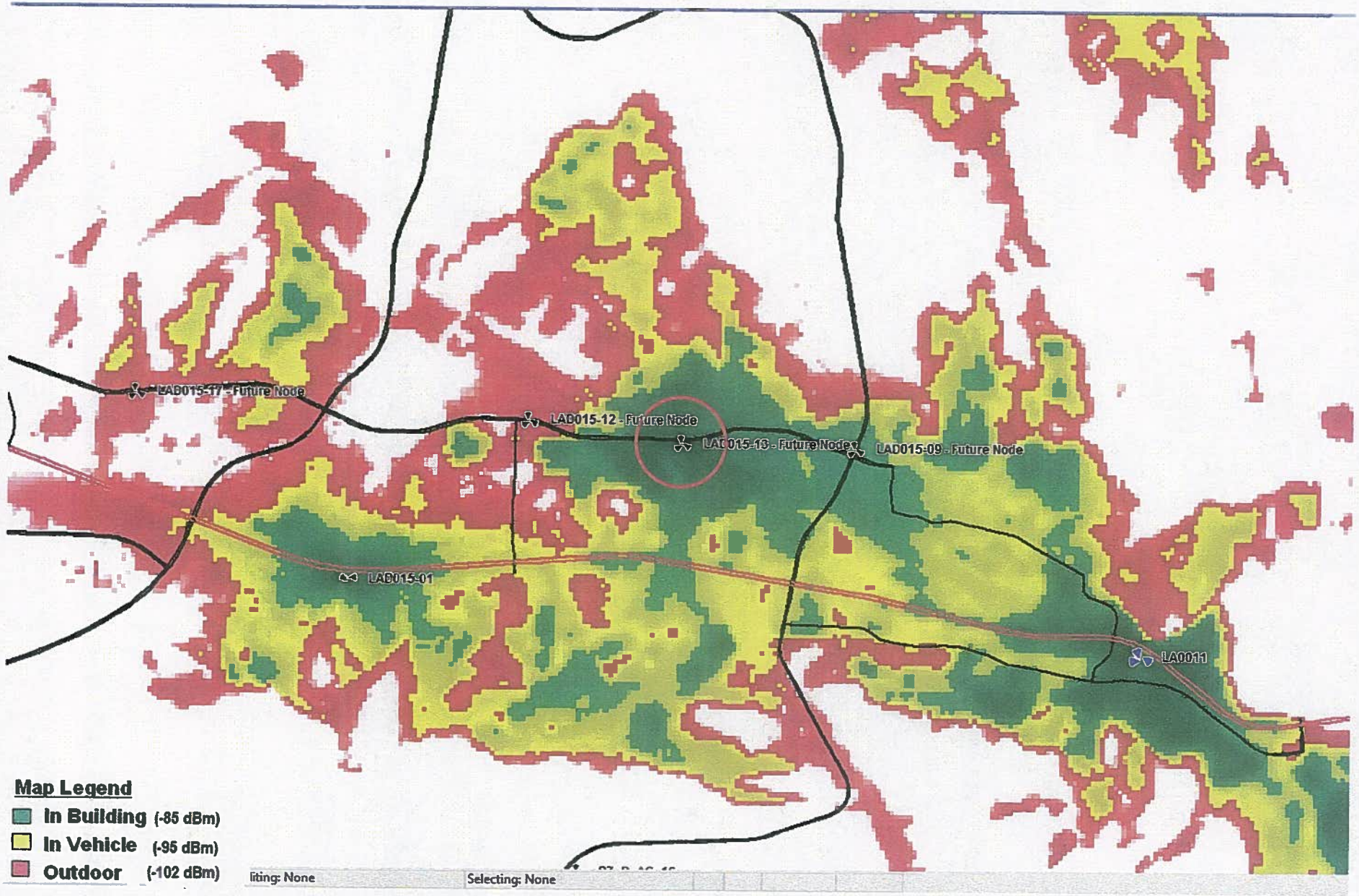
Crown Castle NG West LLC
2125 Wright Avenue, Suite C-9
La Verne, CA 91750

Contact:

Carver Chiu, Government Relations Manager
(949) 290-9678

May 15, 2014

Prediction on surrounding On-Air site w/ LAD015-13 (TDOK15)



CROWN CASTLE

Attachment 6.05A

PREDICTED RF COVERAGE WITHIN THE CITY OF AGOURA HILLS FROM METROPCS ON-AIR SITES

(with Proposed DAS Node LAD015-13 / TDOK15m1, plus other Proposed DAS Nodes along Thousand Oaks Blvd)

PROPOSAL TO INSTALL DAS COMMUNICATIONS NODE ON AN EXISTING TRAFFIC SIGNAL POLE IN THE PUBLIC RIGHT-OF-WAY

TDOK14m1
Public Right-of-Way at NE Corner of Thousand Oaks Blvd / Reyes Adobe Road
Agoura Hills Oaks, CA

Prepared for:

City of Agoura Hills
Department of Planning and Community Development
30001 Ladyface Court
Agoura Hills, CA 91301

Prepared by:

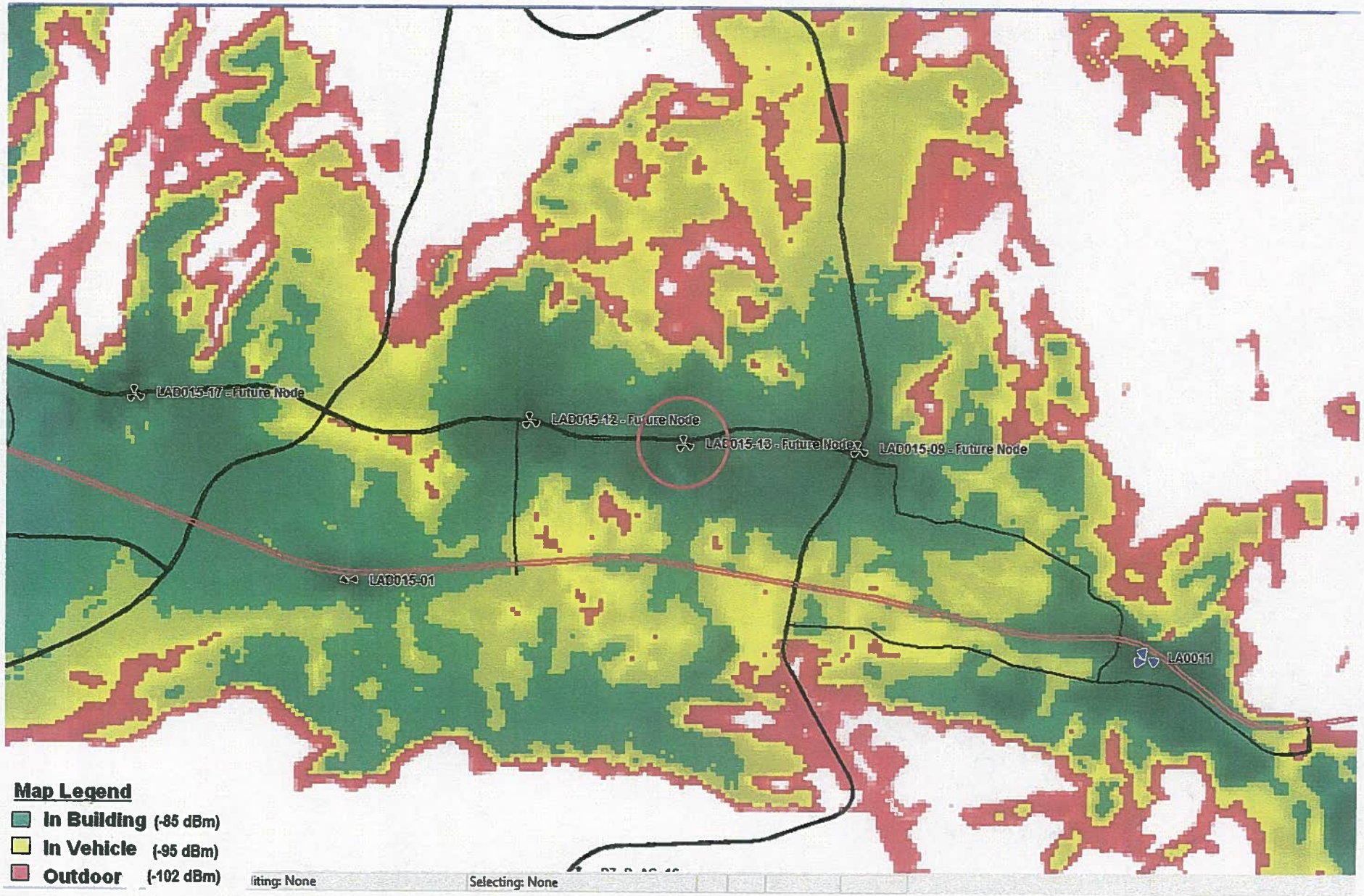
Crown Castle NG West LLC
2125 Wright Avenue, Suite C-9
La Verne, CA 91750

Contact:

Carver Chiu, Government Relations Manager
(949) 290-9678

May 15, 2014

Prediction on surrounding On-Air & Future Node site w/ LAD015-13 (TDOK14)



CROWN CASTLE

Attachment 4.16

LEAST INTRUSIVE PROJECT – SUMMARY STATEMENT

PROPOSAL TO INSTALL DAS COMMUNICATIONS NODE ON A REPLACEMENT SCE STREETLIGHT POLE IN THE PUBLIC RIGHT-OF-WAY

TDOK15m1
Public Right-of-Way along Thousand Oaks Blvd (100' west of Ironwood Drive C/L)
Agoura Hills Oaks, CA

Prepared for:

City of Agoura Hills
Department of Planning and Community Development
30001 Ladyface Court
Agoura Hills, CA 91301

Prepared by:

Crown Castle NG West LLC
2125 Wright Avenue, Suite C-9
La Verne, CA 91750

Contact:

Carver Chiu, Government Relations Manager
(949) 290-9678

May 15, 2014

CROWN CASTLE

LEAST INTRUSIVE PROJECT – SUMMARY STATEMENT

Crown Castle NG West LLC – City of Agoura Hills
Project: Proposed DAS Installation on Replacement SCE Streetlight Pole
Location: Public Right-of-Way along Thousand Oaks Blvd / 100' west of Ironwood Drive C/L (LAD015-13 / TDOK15m1)

Crown Castle NG West LLC proposes to install a new DAS installation on a replacement SCE streetlight pole situated within the public right-of-way along the south side of Thousand Oaks Boulevard, approximately 100' west of the Ironwood Drive C/L. The proposed project is intended to help fill the "significant gap" in coverage identified and described in detail in Attachment 4.12, and represents the "least intrusive means" as articulated by the Ninth Circuit in *T-Mobile U.S.A., Inc. v. City of Anacortes, supra*, 572 F.3d 987, 995. This standard, as the court noted in that case, "requires that the provider 'show that the manner in which it proposes to fill the significant gap in service is the **least intrusive on the values that the denial sought to serve**.'" (Ibid., emphasis added.) This allows

> [F]or a meaningful comparison of alternative sites before the siting application process is needlessly repeated. It also gives providers an incentive to choose the least intrusive site in their first siting applications, and it promises to ultimately identify the best solution for the community, not merely the least one remaining after a series of application denials.

(Id. At 995.)

In this case, because Crown Castle is a CLEC entitled to construct its systems in the public right-of-way (ROW), Crown's DAS networks are inherently ROW-based systems. On that basis, Crown examined those alternatives theoretically available to it in the ROW. The analysis seeks to demonstrate why the proposed DAS installation qualifies as the "least intrusive means" of filling the significant gap in service described above.

1. **Height of the Proposed Facilities.**

As designed, Crown proposes to place the new 24" omni-directional antenna and 24"dia x 66" concealment shroud atop a replacement 29'-6" SCE streetlight pole, with an overall top of antenna height of 32'-0" AGL and overall top of shroud height of 35'-0". As such, the proposed antenna would be situated well below the top of the SCE-mandated and SCE-approved concealment shroud, and remain concealed from public view regardless of size and height. The height of the antenna is the lowest reasonable height for meeting required network objectives, while concurrently meeting public safety requirements and SCE design requirements.

2. **Location of the Proposed Facilities.**

The location of the proposed DAS installation in the subject application, along with the location of two other proposed DAS installations within the City of Agoura Hills and one other proposed DAS installation in the neighboring City of Westlake Village, have been selected for the purpose of providing minimum signal-strength and coverage thresholds within the areas described in Attachment 4.12. These locations were selected to maximize the RF coverage of each proposed DAS node and to minimize the potential interference/overlap between nodes and macro facilities comprising the MetroPCS network. There are inherent constraints with Crown Castle's low-profile DAS system which consists of fiber-fed 20W-40W amplifiers, 24" to 48" antennas, and generally lower antenna centerlines (typically less than 32' AGL, compared to macro sites where antennas are in excess of 40' AGL). Despite the small form factor of the nodes, and the limitations associated with a lower-profile (underlay) system, Crown seeks to maximize the coverage of each node location and thereby reduce the overall number of facilities required to meet the coverage needs of the network. Accordingly, each location has been chosen to help provide an effective signal relay between nodes and macro facilities, so that ubiquitous In-Building and In-Vehicle coverage is provided throughout the project area with the least number of additional node locations. Further, by locating the proposed DAS with existing utility infrastructure, the additional

communications/utility equipment remains compatible with existing uses and comparable in scale to existing utility facilities.

CROWN CASTLE

Attachment 3.18A

REPORT ON MAXIMUM RF EMISSIONS

(Prepared by Dr. Jerrold T. Bushberg, Ph.D., DABMP, DABSNM)

PROPOSAL TO INSTALL DAS COMMUNICATIONS
NODE ON A REPLACEMENT SCE STREETLIGHT POLE
IN THE PUBLIC RIGHT-OF-WAY

TDOK15m1
Public Right-of-Way along Thousand Oaks Blvd (100' west of Ironwood Drive C/L)
Agoura Hills Oaks, CA

Prepared for:

City of Agoura Hills
Department of Planning and Community Development
30001 Ladyface Court
Agoura Hills, CA 91301

Prepared by:

Crown Castle NG West LLC
2125 Wright Avenue, Suite C-9
La Verne, CA 91750

Contact:

Carver Chiu, Government Relations Manager
(949) 290-9678

May 15, 2014

JERROLD T. BUSHBERG Ph.D., DABMP, DABSNM
♦HEALTH AND MEDICAL PHYSICS CONSULTING♦

7784 Oak Bay Circle Sacramento CA 95831-5800
(800) 760-8414–jbushberg@hampc.com

Christopher D. Hourigan
NextG Networks
2216 O'Toole Ave
San Jose CA 95131

May 2, 2011

Introduction

At your request, I have reviewed the technical specifications and calculated the maximum radiofrequency, (RF), power density from the proposed NextG nodes to be located in the city public right-of-way. These nodes will be used for Metro PCS (MPCS) telecommunications wireless transmission and reception utilizing one (1) KMW Inc. antenna model DX-X-AW-13-65-02T3 mounted to a utility pole or similar structure. The antenna used in this network is configured for omni-directional transmission, with a gain of 8.8 dBi, and is designed to transmit within a bandwidth between approximately 1,710 and 2,180 MHz. The distance from the antenna center to the ground is at least 19 feet and the maximum input power is 15.0 watts. An example of the site configuration is shown in attachment one. The antenna specification details are depicted in attachment two. This analysis represent the worst case of any of the proposed nodes using the antennae configuration and power input specified above.

Calculation Methodology

Calculations at the level of the antenna were made in accordance with the cylindrical model recommendations for near-field analysis contained in the Federal Communications Commission, Office of Engineering and Technology Bulletin 65 (OET 65) entitled "Evaluating Compliance with FCC-Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields." RF exposure calculations at ground level were made using equation 10 from the same OET document. Several assumptions were made in order to provide the most conservative or "worse case" projections of power densities. Calculations were made assuming that all channels were operating simultaneously at their maximum design effective radiated power. Attenuation (weakening) of the signal that would result from surrounding foliage or buildings was ignored. Buildings or other structures can reduce the signal strength by a factor of 10 (i.e., 10 dB) or more depending upon the construction material. In addition, for ground level calculations, the ground or other surfaces were considered to be perfect reflectors (which they are not) and the RF energy was assumed to overlap and interact constructively at all locations (which they would not) thereby resulting in the calculation of the maximum potential exposure. In fact, the accumulations of all these very conservative assumptions, will significantly overestimate the actual exposures that would typically be expected from such a facility. However, this method is a prudent approach that errs on the side of safety.

RF Safety Standards

The two most widely recognized standards for protection against RF field exposure are those published by the American National Standards Institute (ANSI) C95.1 and the National Council on Radiation Protection and measurement (NCRP) report #86.

The NCRP is a private, congressionally chartered institution with the charge to provide expert analysis of a variety of issues (especially health and safety recommendations) on radiations of all forms. The scientific analyses of the NCRP are held in high esteem in the scientific and regulatory community both nationally and internationally. In fact, the vast majority of the radiological health regulations currently in existence can trace their origin, in some way, to the recommendations of the NCRP.

All RF exposure standards are frequency-specific, in recognition of the differential absorption of RF energy as a function of frequency. The most restrictive exposure levels in the standards are associated with those frequencies that are most readily absorbed in humans. Maximum absorption occurs at approximately 80 MHz in adults. The NCRP maximum allowable continuous occupational exposure at this frequency is 1,000 $\mu W/cm^2$. This compares to 5,000 $\mu W/cm^2$ at the most restrictive of the PCS frequencies (~1,800 MHz) that are absorbed much less efficiently than exposures in the VHF TV band.

The traditional NCRP philosophy of providing a higher standard of protection for members of the general population compared to occupationally exposed individuals, prompted a two-tiered safety standard by which levels of allowable exposure were substantially reduced for "uncontrolled " (e.g., public) and continuous exposures. This measure was taken to account for the fact that workers in an industrial environment are typically exposed no more than eight hours a day while members of the general population in proximity to a source of RF radiation may be exposed continuously. This additional protection factor also provides a greater margin of safety for children, the infirmed, aged, or others who might be more sensitive to RF exposure. After several years of evaluating the national and international scientific and biomedical literature, the members of the NCRP scientific committee selected 931 publications in the peer-reviewed scientific literature on which to base their recommendations. The current NCRP recommendations limit continuous public exposure at PCS frequencies to 1,000 $\mu W/cm^2$.

The 1992 ANSI standard was developed by Scientific Coordinating Committee 28 (SCC 28) under the auspices of the Institute of Electrical and Electronic Engineers (IEEE). This standard, entitled "IEEE Standards for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz" (IEEE C95.1-1991), was issued in April 1992 and subsequently adopted by ANSI. A complete revision of this standard (C95.1-2005) was completed in October 2005 by SCC 39 the IEEE International Committee on Electromagnetic Safety. The current version, including minor revisions, was published in March 2010. Their recommendations are similar to the NCRP recommendation for the maximum permissible exposure (MPE) to the public PCS frequencies (950 $\mu W/cm^2$ for continuous exposure at 1,900 MHz) and incorporates the convention of providing for a greater margin of safety for public as compared with occupational exposure. Higher whole body exposures are allowed for brief periods provided that no 30 minute time-weighted average exposure exceeds these aforementioned limits.

On August 9, 1996, the Federal Communications Commission (FCC) established a RF exposure standard that is a hybrid of the current ANSI and NCRP standards. The maximum permissible exposure values used to assess environmental exposures are those of the NCRP (i.e., maximum public continuous exposure at PCS frequencies of 1,000 $\mu W/cm^2$). The FCC issued these standards in order to address its responsibilities under

the National Environmental Policy Act (NEPA) to consider whether its actions will "significantly affect the quality of the human environment." In as far as there was no other standard issued by a federal agency such as the Environmental Protection Agency (EPA), the FCC utilized their rulemaking procedure to consider which standards should be adopted. The FCC received thousands of pages of comments over a three-year review period from a variety of sources including the public, academia, federal health and safety agencies (e.g., EPA & FDA) and the telecommunications industry. The FCC gave special consideration to the recommendations by the federal health agencies because of their special responsibility for protecting the public health and safety. In fact, the maximum permissible exposure (MPE) values in the FCC standard are those recommended by EPA and FDA. The FCC standard incorporates various elements of the 1992 ANSI and NCRP standards which were chosen because they are widely accepted and technically supportable. There are a variety of other exposure guidelines and standards set by other national and international organizations and governments, most of which are similar to the current ANSI/IEEE or NCRP standard, figure one.

The FCC standards "Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation" (Report and Order FCC 96-326) adopted the ANSI/IEEE definitions for controlled and uncontrolled environments. In order to use the higher exposure levels associated with a controlled environment, RF exposures must be occupationally related (e.g., PCS company RF technicians) and they must be aware of and have sufficient knowledge to control their exposure. All other environmental areas are considered uncontrolled (e.g., public) for which the stricter (i.e., lower) environmental exposure limits apply. All carriers were required to be in compliance with the new FCC RF exposure standards for new telecommunications facilities by October 15, 1997. These standards applied retroactively for existing telecommunications facilities on September 1, 2000.

The task for the physical, biological, and medical scientists that evaluate health implications of the RF data base has been to identify those RF field conditions that can produce harmful biological effects. No panel of experts can guarantee safe levels of exposure because safety is a null concept, and negatives are not susceptible to proof. What a dispassionate scientific assessment can offer is the presumption of safety when RF-field conditions do not give rise to a demonstrable harmful effect.

Summary & Conclusions

All NextG wireless transmission systems utilizing the KMW Inc. antenna model DX-X-AW-13-65-02T3 and operating with the characteristics specified above will be in full compliance with FCC RF public safety exposure standards. These transmitters, by design and operation, are low-power devices. Even under maximal exposure conditions in which all the channels are operating at full power, the maximum exposure next to and at the elevation of the antenna will not result in RF exposures in excess of 42.8% of the FCC public safety RF exposure standard for these frequencies (see appendix A-1). An information sign containing appropriate contact information and indicating that RF exposures do not exceed the public MPE should be placed near the antenna (see appendix A-2).

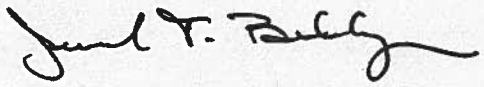
The maximum RF exposure at ground level will not result in RF exposures in excess of 0.41% of the FCC public safety standard (see appendix A-3). A chart of the electromagnetic spectrum and a comparison of RF power densities from various common sources is presented in figures two and three respectively in order to place exposures from wireless telecommunications systems in perspective.

It is important to realize that the FCC maximum allowable exposures are not set at a threshold between safety and known hazard, but rather at 50 times below a level that the majority of the scientific community believes may pose a health risk to human populations. Thus the previously mentioned maximum exposure from the site represent a "safety margin" from this threshold of potentially adverse health effects of more than 12,190 times.

Given the low levels of radiofrequency fields that would be generated from wireless installations conforming to the configuration specified above, and given the evidence on RF biological effects in a large data base, there is no scientific basis to conclude that harmful effects will attend the utilization of these proposed wireless telecommunications facilities. This conclusion is supported by a large numbers of scientists that have participated in standard-setting activities in the United States who are overwhelmingly agreed that RF radiation exposure below the FCC exposure limits has no demonstrably harmful effects on humans.

These findings are based on my professional evaluation of the scientific issues related to the health and safety of non-ionizing electromagnetic radiation and my analysis of the technical specification as provided by NextG Networks. The opinions expressed herein are based on my professional judgement and are not intended to necessarily represent the views of any other organization or institution. Please contact me if you require any additional information.

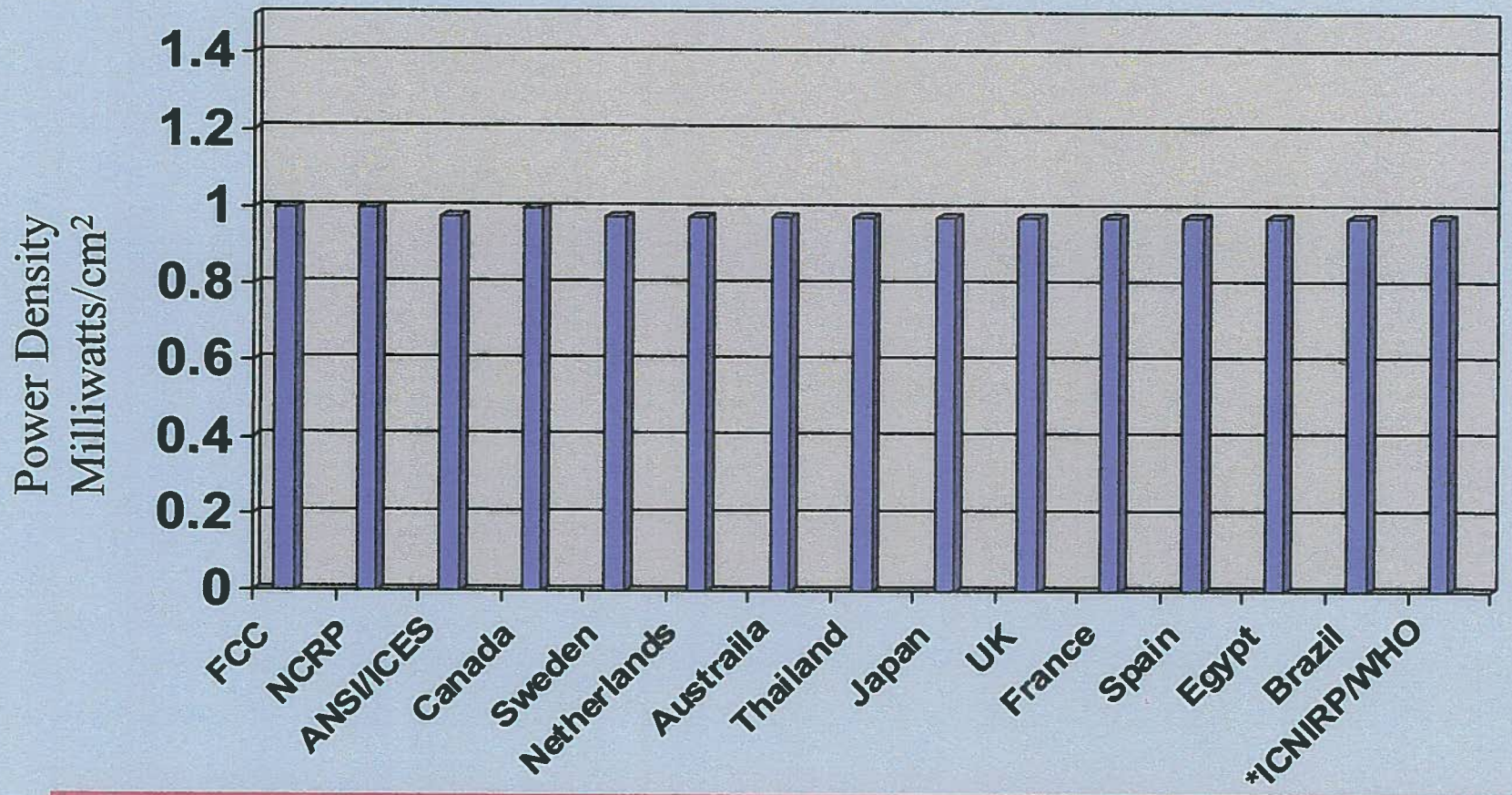
Sincerely,



Jerrold T. Bushberg Ph.D., DABMP, DABSNM
Diplomate, American Board of Medical Physics (DABMP)
Diplomate, American Board of Science in Nuclear Medicine (DABSNM)

Enclosures: Figures 1-3; Attachments 1-2; Appendices A-1, A-2, A-3 and Statement of Experience.

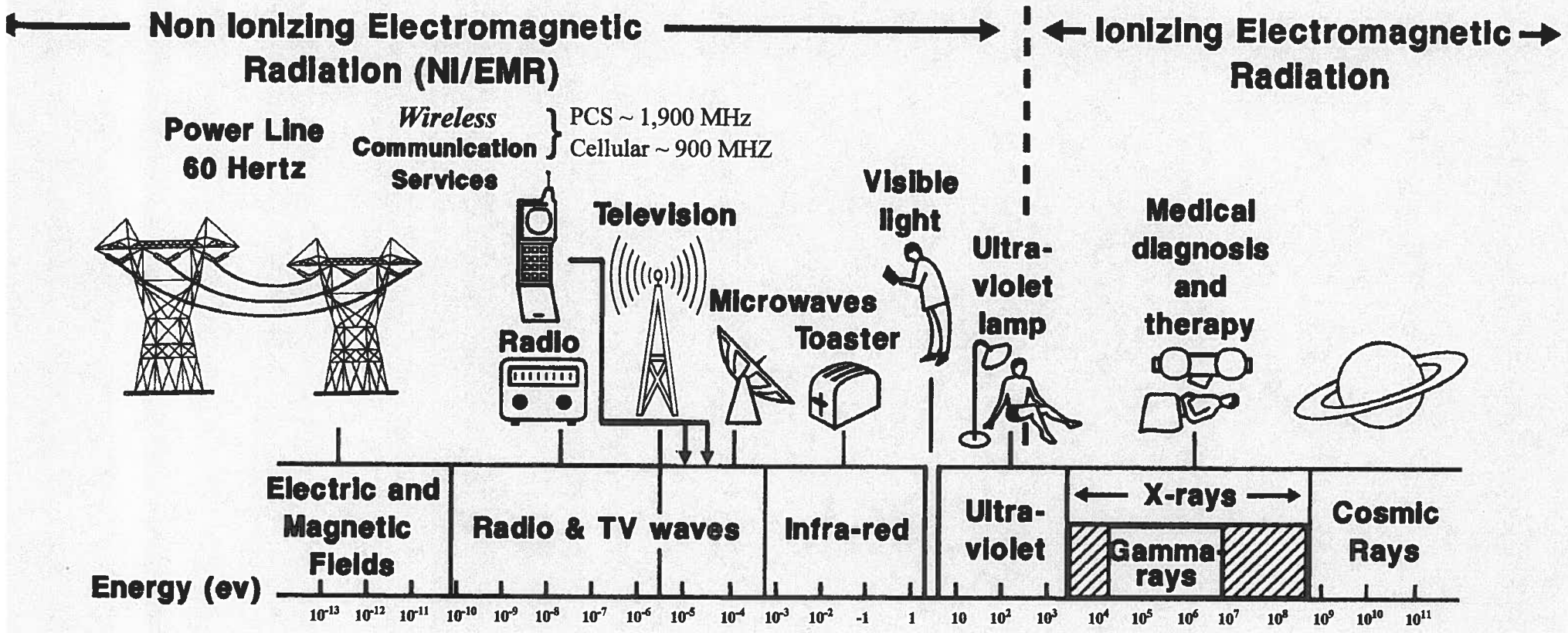
National and International Public RF Exposure Standards (DAS @ 1,950 MHz)



*International Commission on Non-Ionizing Radiation Protection (ICNIRP) Public Safety Exposure Standard. ICNIRP standard recommended by the World Health Organization (WHO). Members of the ICNIRP Scientific Committee were from:

- Australia
- Finland
- France
- Germany
- Hungary
- Italy
- Sweden
- Japan
- United Kingdom
- United States

Figure 1



The Electromagnetic Spectrum

Figure 2

Typical Exposure from Various Radio Frequency / Microwave Sources

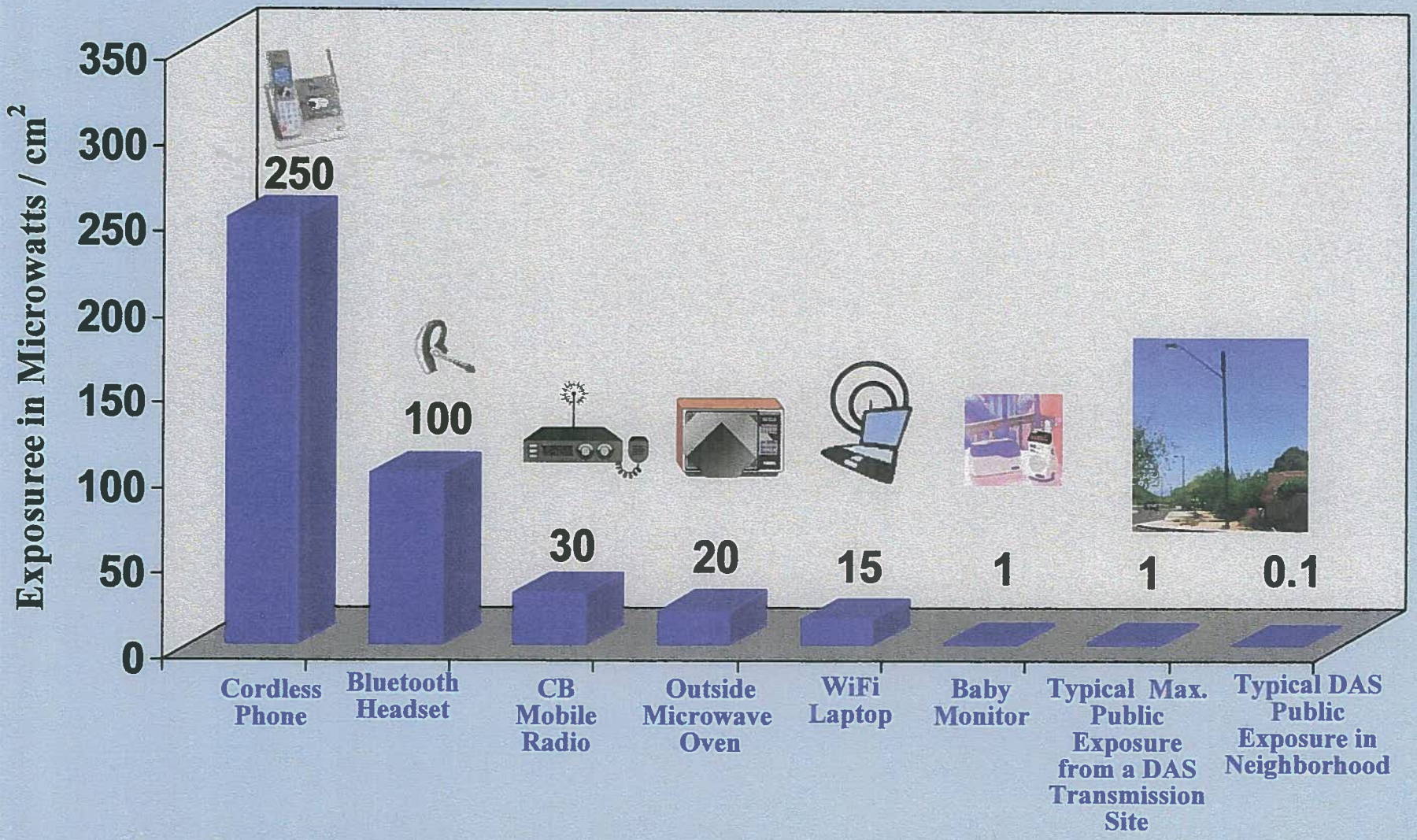
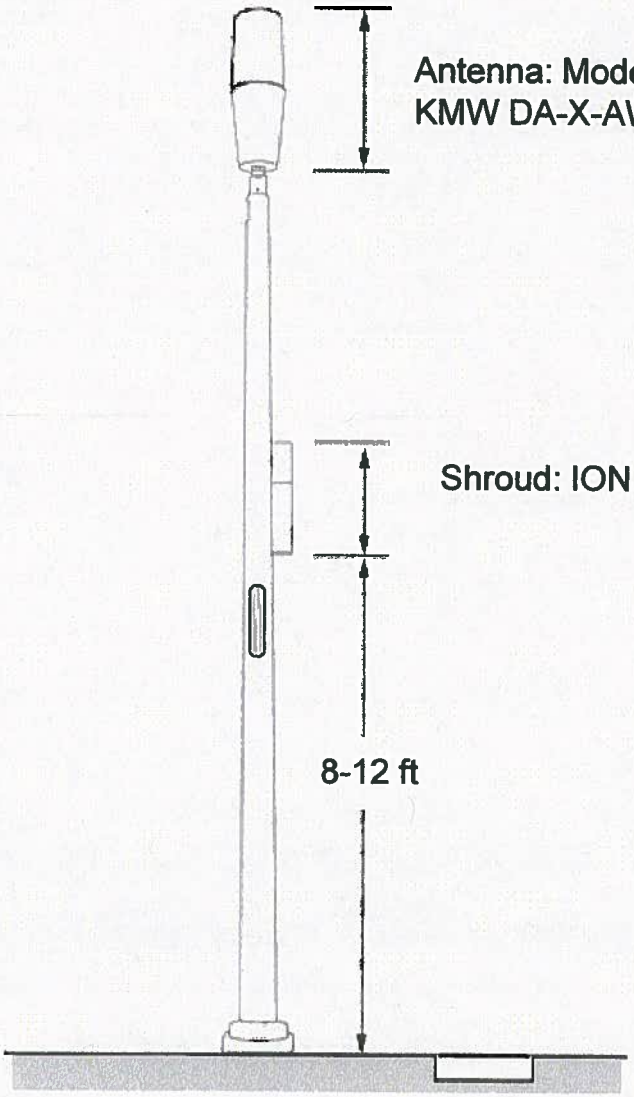


Figure 3

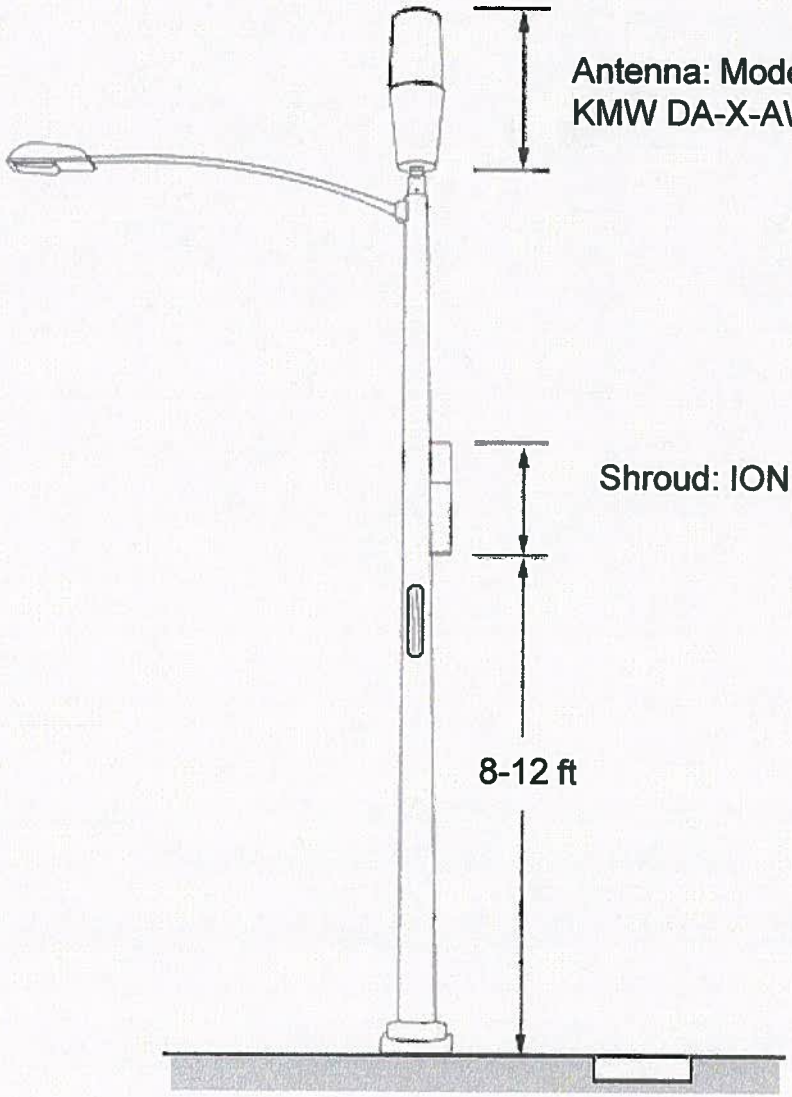
Attachment 1

Site Configuration Examples

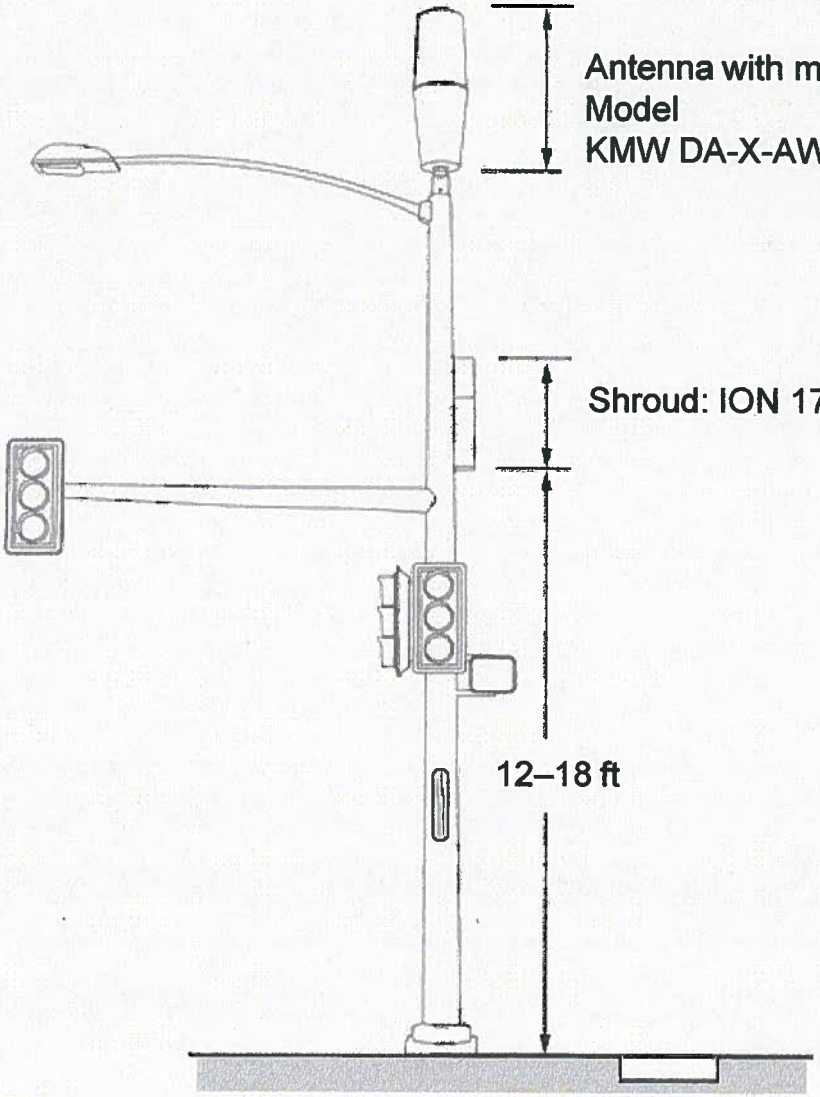
New Pole



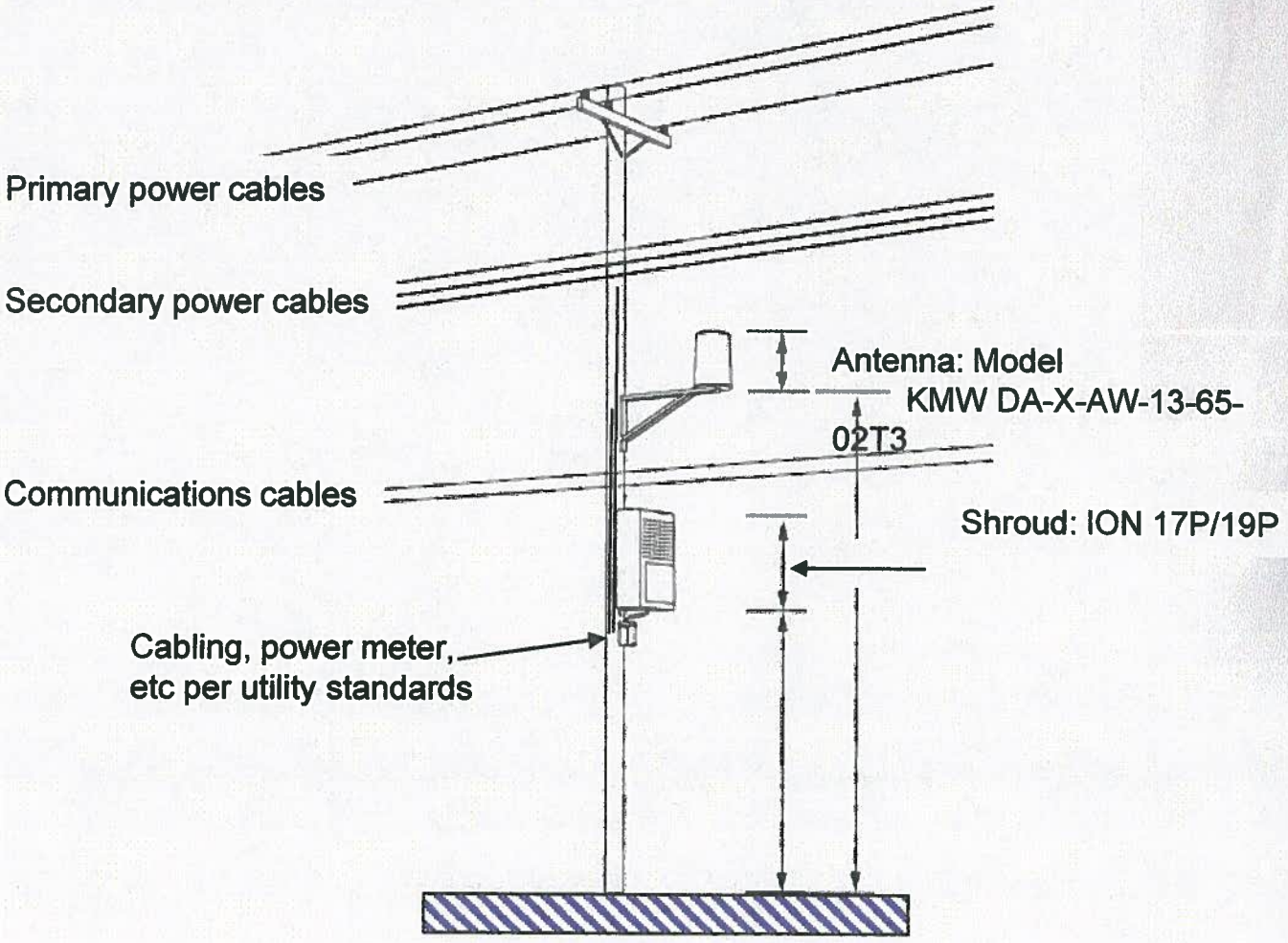
Street Light Pole



Metal Traffic Light Pole



Antenna in Communications Space on Power Pole



Attachment 2

Antenna Specifications

Simply Intelligent

KMW Communications
Base Station Antennas
For Mobile Communications

DA-X-AW-13-65-02T3

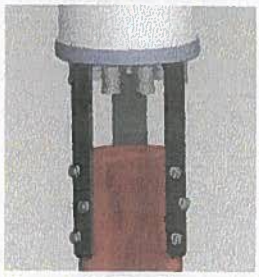
Fixed Electrical DownTilt Antenna with Mounting Fixture for Pole Top

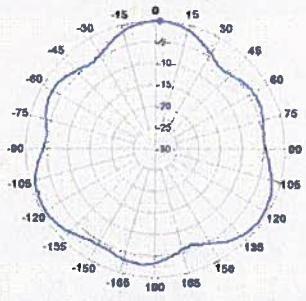
1710 ~ 2180MHz, X-pol., H65° / V16°

Electrical Specifications

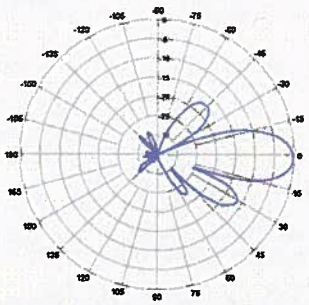
Frequency Range		1710~2180MHz
Gain		13.5 dBi×3sectors
Omni Gain		8.8dBi
Beamwidth	Horizontal	65°
	Vertical	16.0°
VSWR		≤1.4:1
Polarization		Dual, Slant ±45°
Impedance		50Ω
Fixed Electrical Downtilt		2°
Upper 1st Sidelobe Suppression		≥18 dB
Passive Intermodulation, IM3		≤-150 dBc (@43dBm, 2tones)
Input Maximum CW Power		200 W

- Specifications are subject to change.





Horizontal Pattern



Vertical Pattern (Downtilt 2°)

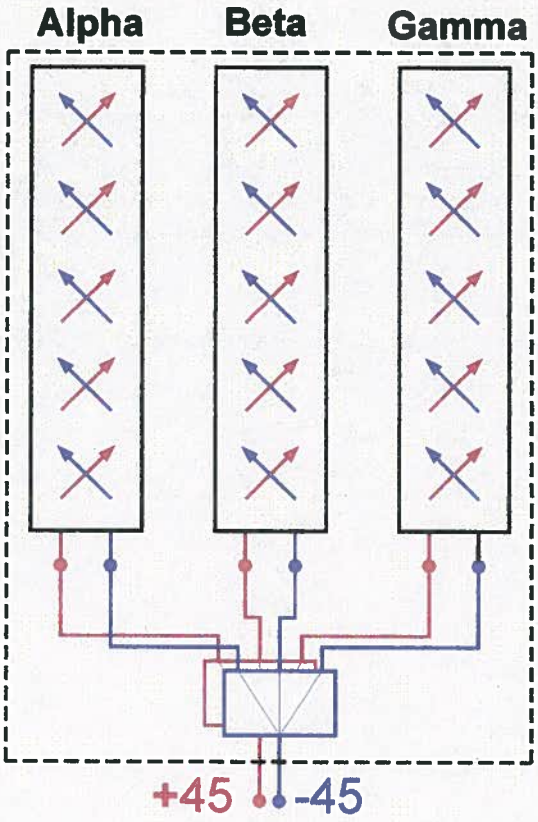
Mechanical Specifications

Dimension(Dia.×H)	Φ8.11×24 inches
Weight	22 lbs (Without Mount Adaptor)
Connector	2 x 7/16 DIN(F) / Bottom
Max Wind Speed	150mph

DA-X-AW-13-65-02T3

Fixed Electrical DownTilt Antenna with Mounting Fixture for Pole Top

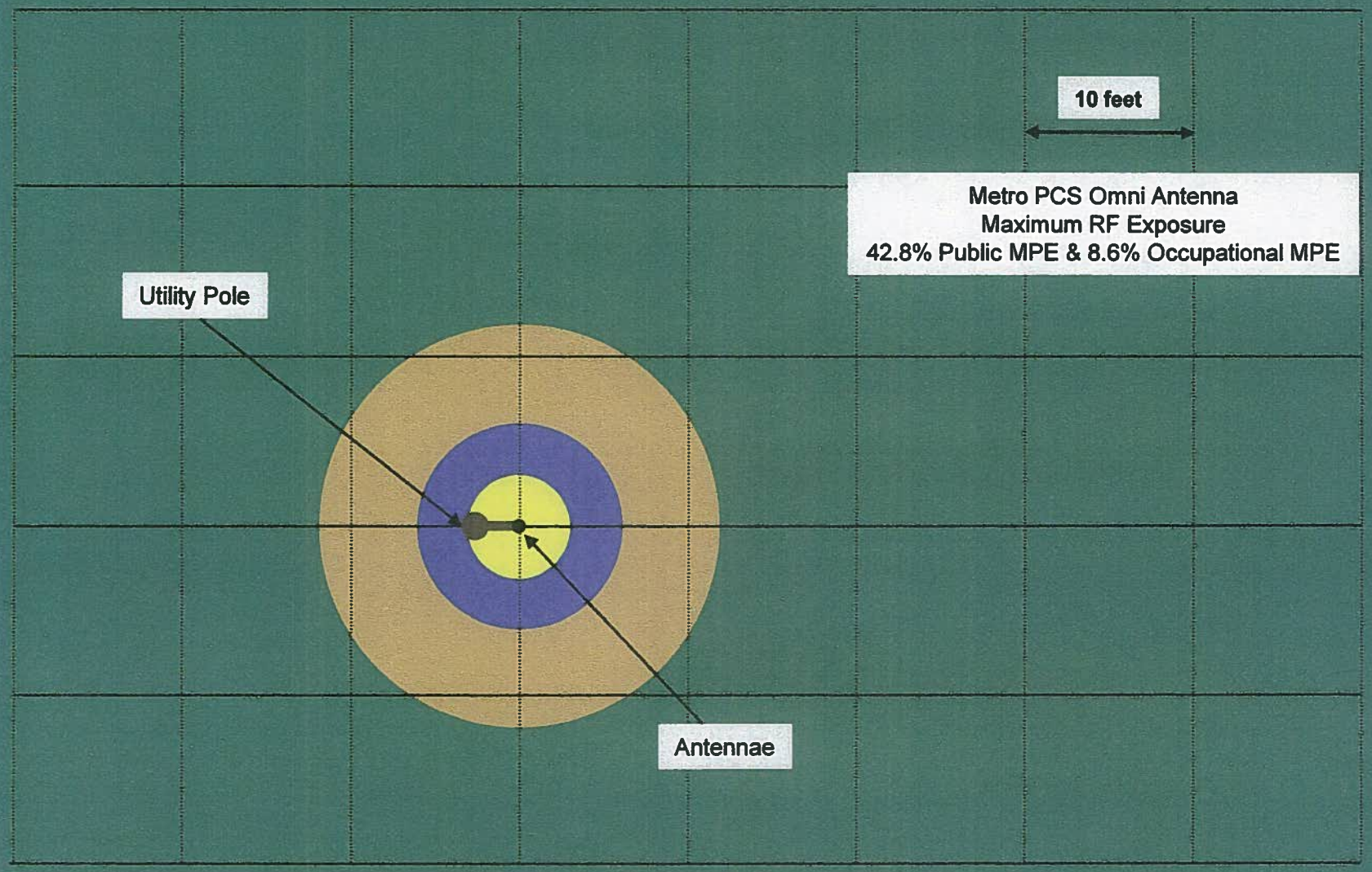
- Block Diagram



Appendix A-1

RF EXPOSURE AT THE LEVEL OF THE ANTENNA

RF EXPOSURE AT ELEVATION OF ANTENNA
PERCENTAGE OF FCC MAXIMUM PUBLIC & OCCUPATIONAL EXPOSURE (MPE) LIMIT



- Red: Greater than 100% Public MPE
- Yellow: Less than 100% Public MPE
- Blue: Less than 20% Public MPE
- Tan: Less than 5% Public MPE
- Green: Less than 1% Public MPE

Appendix A-2

RF INFORMATION SIGN

INFORMATION

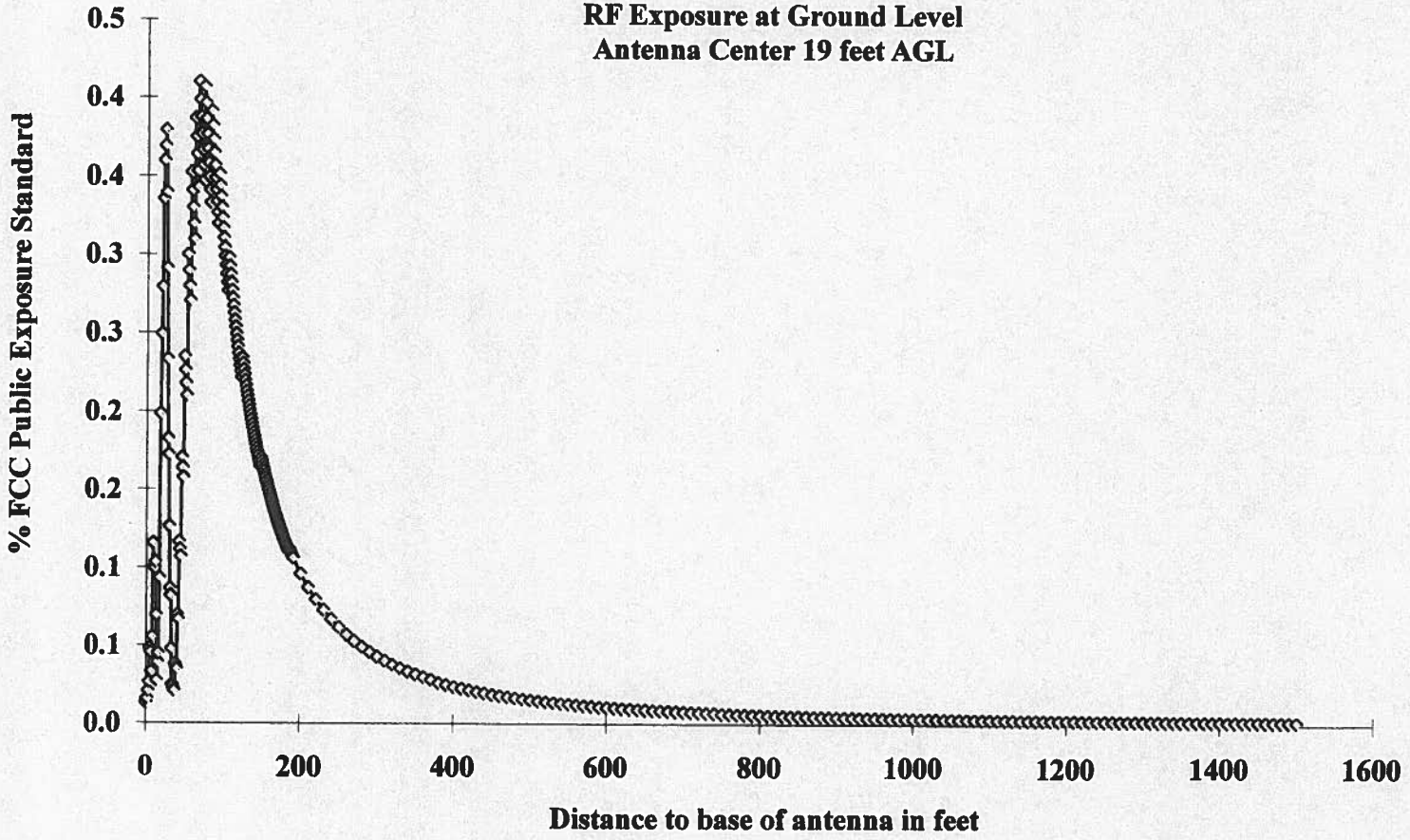
The radio frequency (RF) emissions at this site have been evaluated for potential RF exposure to personnel who may need to work near these antennae.

RF EXPOSURE AT THIS SITE DOES NOT EXCEED THE FCC PUBLIC EXPOSURE STANDARD AND THUS HAS BEEN DETERMINED TO BE SAFE FOR THE GENERAL POPULATION.

Reference: Federal Communications Commission (FCC) Public Exposure Standard. OET Bulletin-65, Edition 97-01, August 1997.

Appendix A-3

KMW Inc.model DX-X-AW-13-65-02T3
Exposure Calculation at Ground Level (AGL)
ERP 69.4 Watts (1,710- 2,180 MHz)
Antenna Center 19.0 ft AGL


RF Exposure at Ground Level
Antenna Center 19 feet AGL
% FCC Public Exposure Standard
0.5
0.4
0.4
0.3
0.3
0.2
0.2
0.1
0.1
0.0
0
200
400
600
800
1000
1200
1400
1600
Distance to base of antenna in feet

ARL	13	Max gain (dBd):	6.66	Max exposure:	0.00410038	mW/cm²

Max ERP (W): 69.4 Ant type: KMW DX-X-AW-13-65-02T3 Feet from site: 67

RF Exposure Level

Feet to Ant. base	Depress angle	Antenna gain	dB from max ERP	Prop dist in cm	Act ERP in mW	Level mW/cm²	Precent of FCC STD
0	90.000	-25.74	-32.4	396.24	39.9355	0.00013	0.01328
1	85.601	-25.04	-31.7	397.41	46.9202	0.00016	0.01551
2	81.254	-24.84	-31.5	400.90	49.1314	0.00016	0.01596
3	77.005	-23.54	-30.2	406.65	66.2765	0.00021	0.02092
4	72.897	-22.34	-29	414.57	87.3694	0.00027	0.02654
5	68.962	-19.54	-26.2	424.54	166.4790	0.00048	0.04822
6	65.225	-19.54	-26.2	436.41	166.4790	0.00046	0.04563
7	61.699	-20.64	-27.3	450.03	129.2288	0.00033	0.03331
8	58.392	-18.14	-24.8	465.26	229.8050	0.00055	0.05542
9	55.305	-14.64	-21.3	481.93	514.4693	0.00116	0.11563
10	52.431	-14.94	-21.6	499.91	480.1307	0.00100	0.10029
11	49.764	-14.64	-21.3	519.06	514.4693	0.00100	0.09968
12	47.291	-14.14	-20.8	539.25	577.2441	0.00104	0.10363
13	45.000	-15.54	-22.2	560.37	418.1764	0.00070	0.06952
14	42.879	-19.24	-25.9	582.32	178.3855	0.00027	0.02746
15	40.914	-17.34	-24	605.01	276.2864	0.00039	0.03940
16	39.094	-16.44	-23.1	628.36	339.9065	0.00045	0.04494
17	37.405	-12.94	-19.6	652.30	760.9559	0.00093	0.09336
18	35.838	-9.34	-16	676.77	1743.2492	0.00199	0.19869
19	34.380	-8.04	-14.7	701.70	2351.5784	0.00249	0.24931
20	33.024	-7.24	-13.9	727.06	2827.2191	0.00279	0.27920
21	31.759	-6.14	-12.8	752.80	3642.1638	0.00336	0.33550
22	30.579	-5.54	-12.2	778.88	4181.7635	0.00360	0.35984
23	29.476	-5.14	-11.8	805.27	4585.2125	0.00369	0.36912
24	28.443	-4.74	-11.4	831.94	5027.5856	0.00379	0.37920
25	27.474	-4.94	-11.6	858.87	4801.3069	0.00340	0.33978
26	26.565	-5.34	-12	886.02	4378.8440	0.00291	0.29118
27	25.710	-6.04	-12.7	913.38	3727.0007	0.00233	0.23321
28	24.905	-6.84	-13.5	940.94	3099.9841	0.00183	0.18278
29	24.146	-6.84	-13.5	968.67	3099.9841	0.00172	0.17247
30	23.429	-7.94	-14.6	996.56	2406.3537	0.00126	0.12649
31	22.751	-9.34	-16	1024.60	1743.2492	0.00087	0.08669
32	22.109	-9.34	-16	1052.77	1743.2492	0.00082	0.08211
33	21.501	-11.44	-18.1	1081.07	1074.8787	0.00048	0.04801
34	20.925	-14.04	-20.7	1109.49	590.6898	0.00025	0.02505
35	20.376	-14.04	-20.7	1138.01	590.6898	0.00024	0.02381
36	19.855	-14.14	-20.8	1166.63	577.2441	0.00022	0.02214

ARL	13	Max gain (dBd):	6.66	Max exposure:	0.00410038	mW/cm²

Max ERP (W): 69.4 **Ant type:** KMW DX-X-AW-13-65-02T3 **Feet from site:** 67

RF Exposure Level

Feet to Ant. base	Depress angle	Antenna gain	dB from max ERP	Prop dist in cm	Act ERP in mW	Level mW/cm²	Precent of FCC STD
37	19.359	-14.14	-20.8	1195.34	577.2441	0.00021	0.02109
38	18.886	-11.34	-18	1224.14	1099.9159	0.00038	0.03832
39	18.435	-11.34	-18	1253.02	1099.9159	0.00037	0.03657
40	18.004	-11.34	-18	1281.97	1099.9159	0.00035	0.03494
41	17.592	-8.14	-14.8	1310.99	2298.0500	0.00070	0.06980
42	17.199	-8.14	-14.8	1340.08	2298.0500	0.00067	0.06680
43	16.821	-5.54	-12.2	1369.23	4181.7635	0.00116	0.11644
44	16.460	-5.54	-12.2	1398.43	4181.7635	0.00112	0.11163
45	16.113	-5.54	-12.2	1427.69	4181.7635	0.00107	0.10710
46	15.781	-3.34	-10	1457.00	6940.0000	0.00171	0.17066
47	15.461	-3.34	-10	1486.35	6940.0000	0.00164	0.16399
48	15.154	-3.34	-10	1515.75	6940.0000	0.00158	0.15769
49	14.859	-1.44	-8.1	1545.19	10748.7873	0.00235	0.23501
50	14.574	-1.44	-8.1	1574.67	10748.7873	0.00226	0.22629
51	14.300	-1.44	-8.1	1604.19	10748.7873	0.00218	0.21804
52	14.036	-1.44	-8.1	1633.74	10748.7873	0.00210	0.21023
53	13.782	0.26	-6.4	1663.33	15898.6215	0.00300	0.29998
54	13.536	0.26	-6.4	1692.94	15898.6215	0.00290	0.28958
55	13.299	0.26	-6.4	1722.59	15898.6215	0.00280	0.27970
56	13.069	0.26	-6.4	1752.27	15898.6215	0.00270	0.27030
57	12.848	1.56	-5.1	1781.97	21446.6503	0.00353	0.35257
58	12.633	1.56	-5.1	1811.70	21446.6503	0.00341	0.34110
59	12.426	1.56	-5.1	1841.46	21446.6503	0.00330	0.33016
60	12.225	1.56	-5.1	1871.23	21446.6503	0.00320	0.31974
61	12.031	1.56	-5.1	1901.03	21446.6503	0.00310	0.30979
62	11.842	2.66	-4	1930.85	27628.6376	0.00387	0.38686
63	11.659	2.66	-4	1960.70	27628.6376	0.00375	0.37517
64	11.482	2.66	-4	1990.56	27628.6376	0.00364	0.36400
65	11.310	2.66	-4	2020.44	27628.6376	0.00353	0.35332
66	11.143	2.66	-4	2050.33	27628.6376	0.00343	0.34309
67	10.981	3.56	-3.1	2080.25	33990.6501	0.00410	0.41004
68	10.823	3.56	-3.1	2110.18	33990.6501	0.00398	0.39849
69	10.670	3.56	-3.1	2140.12	33990.6501	0.00387	0.38742
70	10.521	3.56	-3.1	2170.08	33990.6501	0.00377	0.37679
71	10.376	3.56	-3.1	2200.06	33990.6501	0.00367	0.36659
72	10.235	3.56	-3.1	2230.04	33990.6501	0.00357	0.35680
73	10.098	3.56	-3.1	2260.05	33990.6501	0.00347	0.34739
74	9.964	4.36	-2.3	2290.06	40865.7497	0.00407	0.40678
75	9.834	4.36	-2.3	2320.09	40865.7497	0.00396	0.39632
76	9.707	4.36	-2.3	2350.12	40865.7497	0.00386	0.38625
77	9.583	4.36	-2.3	2380.17	40865.7497	0.00377	0.37656

ARL	13	Max gain (dBd):	6.66	Max exposure:	0.00410038	mW/cm^2

Max ERP (W): 69.4 **Ant type:** KMW DX-X-AW-13-65-02T3 **Feet from site:** 67

RF Exposure Level

Feet to Ant. base	Depress angle	Antenna gain	dB from max ERP	Prop dist in cm	Act ERP in mW	Level mW/cm^2	Precent of FCC STD
78	9.462	4.36	-2.3	2410.23	40865.7497	0.00367	0.36723
79	9.345	4.36	-2.3	2440.30	40865.7497	0.00358	0.35823
80	9.230	4.36	-2.3	2470.38	40865.7497	0.00350	0.34956
81	9.118	4.36	-2.3	2500.47	40865.7497	0.00341	0.34120
82	9.009	4.36	-2.3	2530.57	40865.7497	0.00333	0.33313
83	8.902	5.16	-1.5	2560.68	49131.4374	0.00391	0.39115
84	8.797	5.16	-1.5	2590.80	49131.4374	0.00382	0.38211
85	8.696	5.16	-1.5	2620.93	49131.4374	0.00373	0.37337
86	8.596	5.16	-1.5	2651.06	49131.4374	0.00365	0.36493
87	8.499	5.16	-1.5	2681.20	49131.4374	0.00357	0.35678
88	8.403	5.16	-1.5	2711.35	49131.4374	0.00349	0.34889
89	8.310	5.16	-1.5	2741.51	49131.4374	0.00341	0.34125
90	8.219	5.16	-1.5	2771.67	49131.4374	0.00334	0.33386
91	8.130	5.16	-1.5	2801.84	49131.4374	0.00327	0.32671
92	8.043	5.16	-1.5	2832.02	49131.4374	0.00320	0.31979
93	7.958	5.66	-1	2862.20	55126.3795	0.00351	0.35128
94	7.874	5.66	-1	2892.39	55126.3795	0.00344	0.34399
95	7.792	5.66	-1	2922.59	55126.3795	0.00337	0.33691
96	7.712	5.66	-1	2952.79	55126.3795	0.00330	0.33006
97	7.633	5.66	-1	2982.99	55126.3795	0.00323	0.32341
98	7.556	5.66	-1	3013.21	55126.3795	0.00317	0.31695
99	7.481	5.66	-1	3043.42	55126.3795	0.00311	0.31069
100	7.407	5.66	-1	3073.65	55126.3795	0.00305	0.30461
101	7.334	5.66	-1	3103.88	55126.3795	0.00299	0.29871
102	7.263	5.66	-1	3134.11	55126.3795	0.00293	0.29297
103	7.193	5.66	-1	3164.35	55126.3795	0.00287	0.28740
104	7.125	5.66	-1	3194.59	55126.3795	0.00282	0.28198
105	7.058	5.66	-1	3224.84	55126.3795	0.00277	0.27672
106	6.992	6.06	-0.6	3255.09	60444.8731	0.00298	0.29780
107	6.927	6.06	-0.6	3285.34	60444.8731	0.00292	0.29234
108	6.864	6.06	-0.6	3315.60	60444.8731	0.00287	0.28703
109	6.801	6.06	-0.6	3345.87	60444.8731	0.00282	0.28186
110	6.740	6.06	-0.6	3376.13	60444.8731	0.00277	0.27683
111	6.680	6.06	-0.6	3406.40	60444.8731	0.00272	0.27193
112	6.621	6.06	-0.6	3436.68	60444.8731	0.00267	0.26716
113	6.563	6.06	-0.6	3466.96	60444.8731	0.00263	0.26252
114	6.506	6.06	-0.6	3497.24	60444.8731	0.00258	0.25799
115	6.450	6.06	-0.6	3527.53	60444.8731	0.00254	0.25358
116	6.394	6.06	-0.6	3557.81	60444.8731	0.00249	0.24928
117	6.340	6.06	-0.6	3588.11	60444.8731	0.00245	0.24509
118	6.287	6.06	-0.6	3618.40	60444.8731	0.00241	0.24100

ARL 13 Max gain (dBd): 6.66 Max exposure: 0.00410038 mW/cm²

Max ERP (W): 69.4 Ant type: KMW DX-X-AW-13-65-02T3 Feet from site: 67

RF Exposure Level

Feet to Ant. base	Depress angle	Antenna gain	dB from max ERP	Prop dist in cm	Act ERP in mW	Level mW/cm²	Precent of FCC STD
119	6.234	6.06	-0.6	3648.70	60444.8731	0.00237	0.23702
120	6.183	6.06	-0.6	3679.00	60444.8731	0.00233	0.23313
121	6.132	6.06	-0.6	3709.30	60444.8731	0.00229	0.22933
122	6.082	6.06	-0.6	3739.61	60444.8731	0.00226	0.22563
123	6.033	6.06	-0.6	3769.92	60444.8731	0.00222	0.22202
124	5.985	6.36	-0.3	3800.23	64767.8485	0.00234	0.23412
125	5.937	6.36	-0.3	3830.55	64767.8485	0.00230	0.23043
126	5.891	6.36	-0.3	3860.87	64767.8485	0.00227	0.22682
127	5.845	6.36	-0.3	3891.19	64767.8485	0.00223	0.22330
128	5.799	6.36	-0.3	3921.51	64767.8485	0.00220	0.21986
129	5.755	6.36	-0.3	3951.84	64767.8485	0.00216	0.21650
130	5.711	6.36	-0.3	3982.16	64767.8485	0.00213	0.21321
131	5.667	6.36	-0.3	4012.49	64767.8485	0.00210	0.21000
132	5.625	6.36	-0.3	4042.82	64767.8485	0.00207	0.20686
133	5.583	6.36	-0.3	4073.16	64767.8485	0.00204	0.20379
134	5.541	6.36	-0.3	4103.50	64767.8485	0.00201	0.20079
135	5.500	6.36	-0.3	4133.83	64767.8485	0.00198	0.19786
136	5.460	6.36	-0.3	4164.17	64767.8485	0.00195	0.19498
137	5.421	6.36	-0.3	4194.52	64767.8485	0.00192	0.19217
138	5.382	6.36	-0.3	4224.86	64767.8485	0.00189	0.18942
139	5.343	6.36	-0.3	4255.21	64767.8485	0.00187	0.18673
140	5.305	6.36	-0.3	4285.56	64767.8485	0.00184	0.18409
141	5.268	6.36	-0.3	4315.91	64767.8485	0.00182	0.18151
142	5.231	6.36	-0.3	4346.26	64767.8485	0.00179	0.17899
143	5.194	6.36	-0.3	4376.61	64767.8485	0.00177	0.17651
144	5.159	6.36	-0.3	4406.97	64767.8485	0.00174	0.17409
145	5.123	6.36	-0.3	4437.33	64767.8485	0.00172	0.17172
146	5.088	6.36	-0.3	4467.69	64767.8485	0.00169	0.16939
147	5.054	6.36	-0.3	4498.05	64767.8485	0.00167	0.16711
148	5.020	6.36	-0.3	4528.41	64767.8485	0.00165	0.16488
149	4.986	6.56	-0.1	4558.77	67820.2631	0.00170	0.17036
150	4.953	6.56	-0.1	4589.14	67820.2631	0.00168	0.16811
151	4.921	6.56	-0.1	4619.51	67820.2631	0.00166	0.16591
152	4.888	6.56	-0.1	4649.87	67820.2631	0.00164	0.16375
153	4.857	6.56	-0.1	4680.24	67820.2631	0.00162	0.16163
154	4.825	6.56	-0.1	4710.61	67820.2631	0.00160	0.15955
155	4.794	6.56	-0.1	4740.99	67820.2631	0.00158	0.15751
156	4.764	6.56	-0.1	4771.36	67820.2631	0.00156	0.15551
157	4.733	6.56	-0.1	4801.74	67820.2631	0.00154	0.15355
158	4.704	6.56	-0.1	4832.11	67820.2631	0.00152	0.15163
159	4.674	6.56	-0.1	4862.49	67820.2631	0.00150	0.14974

ARL	13	Max gain (dBd):	6.66	Max exposure:	0.00410038	mW/cm^2

Max ERP (W): 69.4 **Ant type:** KMW DX-X-AW-13-65-02T3 **Feet from site:** 67

RF Exposure Level

Feet to Ant. base	Depress angle	Antenna gain	dB from max ERP	Prop dist in cm	Act ERP in mW	Level mW/cm^2	Precent of FCC STD
160	4.645	6.56	-0.1	4892.87	67820.2631	0.00148	0.14789
161	4.616	6.56	-0.1	4923.25	67820.2631	0.00146	0.14607
162	4.588	6.56	-0.1	4953.63	67820.2631	0.00144	0.14428
163	4.560	6.56	-0.1	4984.02	67820.2631	0.00143	0.14253
164	4.532	6.56	-0.1	5014.40	67820.2631	0.00141	0.14080
165	4.505	6.56	-0.1	5044.79	67820.2631	0.00139	0.13911
166	4.478	6.56	-0.1	5075.17	67820.2631	0.00137	0.13745
167	4.451	6.56	-0.1	5105.56	67820.2631	0.00136	0.13582
168	4.425	6.56	-0.1	5135.95	67820.2631	0.00134	0.13422
169	4.399	6.56	-0.1	5166.34	67820.2631	0.00133	0.13264
170	4.373	6.56	-0.1	5196.73	67820.2631	0.00131	0.13110
171	4.347	6.56	-0.1	5227.12	67820.2631	0.00130	0.12958
172	4.322	6.56	-0.1	5257.51	67820.2631	0.00128	0.12808
173	4.297	6.56	-0.1	5287.91	67820.2631	0.00127	0.12662
174	4.273	6.56	-0.1	5318.30	67820.2631	0.00125	0.12517
175	4.248	6.56	-0.1	5348.70	67820.2631	0.00124	0.12375
176	4.224	6.56	-0.1	5379.09	67820.2631	0.00122	0.12236
177	4.201	6.56	-0.1	5409.49	67820.2631	0.00121	0.12099
178	4.177	6.56	-0.1	5439.89	67820.2631	0.00120	0.11964
179	4.154	6.56	-0.1	5470.29	67820.2631	0.00118	0.11831
180	4.131	6.56	-0.1	5500.69	67820.2631	0.00117	0.11701
181	4.108	6.56	-0.1	5531.09	67820.2631	0.00116	0.11573
182	4.086	6.56	-0.1	5561.49	67820.2631	0.00114	0.11446
183	4.063	6.56	-0.1	5591.90	67820.2631	0.00113	0.11322
184	4.041	6.56	-0.1	5622.30	67820.2631	0.00112	0.11200
185	4.020	6.56	-0.1	5652.70	67820.2631	0.00111	0.11080
186	3.998	6.66	0	5683.11	69400.0000	0.00112	0.11217
187	3.977	6.66	0	5713.52	69400.0000	0.00111	0.11098
188	3.956	6.66	0	5743.92	69400.0000	0.00110	0.10981
189	3.935	6.66	0	5774.33	69400.0000	0.00109	0.10866
190	3.914	6.66	0	5804.74	69400.0000	0.00108	0.10752
191	3.894	6.66	0	5835.15	69400.0000	0.00106	0.10640
201	3.701	6.66	0	6139.28	69400.0000	0.00096	0.09612
211	3.526	6.66	0	6443.47	69400.0000	0.00087	0.08726
221	3.366	6.66	0	6747.72	69400.0000	0.00080	0.07957
231	3.221	6.66	0	7052.02	69400.0000	0.00073	0.07285
241	3.088	6.66	0	7356.36	69400.0000	0.00067	0.06695
251	2.965	6.66	0	7660.73	69400.0000	0.00062	0.06173
261	2.851	6.66	0	7965.14	69400.0000	0.00057	0.05710
271	2.746	6.66	0	8269.58	69400.0000	0.00053	0.05298
281	2.649	6.66	0	8574.04	69400.0000	0.00049	0.04928

ARL	13	Max gain (dBd):	6.66	Max exposure:	0.00410038	mW/cm^2

Max ERP (W): 69.4 **Ant type:** KMW DX-X-AW-13-65-02T3 **Feet from site:** 67

RF Exposure Level

Feet to Ant. base	Depress angle	Antenna gain	dB from max ERP	Prop dist in cm	Act ERP in mW	Level mW/cm^2	Precent of FCC STD
291	2.558	6.66	0	8878.53	69400.0000	0.00046	0.04596
301	2.473	6.66	0	9183.03	69400.0000	0.00043	0.04296
311	2.394	6.66	0	9487.56	69400.0000	0.00040	0.04025
321	2.319	6.66	0	9792.10	69400.0000	0.00038	0.03778
331	2.249	6.66	0	10096.66	69400.0000	0.00036	0.03554
341	2.183	6.66	0	10401.23	69400.0000	0.00033	0.03349
351	2.121	6.66	0	10705.82	69400.0000	0.00032	0.03161
361	2.062	6.66	0	11010.41	69400.0000	0.00030	0.02988
371	2.007	6.66	0	11315.02	69400.0000	0.00028	0.02830
381	1.954	6.56	-0.1	11619.64	67820.2631	0.00026	0.02622
391	1.904	6.56	-0.1	11924.27	67820.2631	0.00025	0.02490
401	1.857	6.56	-0.1	12228.90	67820.2631	0.00024	0.02367
411	1.812	6.56	-0.1	12533.55	67820.2631	0.00023	0.02254
421	1.769	6.56	-0.1	12838.20	67820.2631	0.00021	0.02148
431	1.728	6.56	-0.1	13142.85	67820.2631	0.00020	0.02050
441	1.689	6.56	-0.1	13447.52	67820.2631	0.00020	0.01958
451	1.651	6.56	-0.1	13752.19	67820.2631	0.00019	0.01872
461	1.615	6.56	-0.1	14056.87	67820.2631	0.00018	0.01792
471	1.581	6.56	-0.1	14361.55	67820.2631	0.00017	0.01717
481	1.548	6.56	-0.1	14666.23	67820.2631	0.00016	0.01646
491	1.517	6.56	-0.1	14970.92	67820.2631	0.00016	0.01580
501	1.486	6.56	-0.1	15275.62	67820.2631	0.00015	0.01517
511	1.457	6.56	-0.1	15580.32	67820.2631	0.00015	0.01458
521	1.429	6.56	-0.1	15885.02	67820.2631	0.00014	0.01403
531	1.402	6.56	-0.1	16189.73	67820.2631	0.00014	0.01351
541	1.377	6.56	-0.1	16494.44	67820.2631	0.00013	0.01301
551	1.352	6.56	-0.1	16799.15	67820.2631	0.00013	0.01255
561	1.327	6.56	-0.1	17103.87	67820.2631	0.00012	0.01210
571	1.304	6.56	-0.1	17408.59	67820.2631	0.00012	0.01168
581	1.282	6.56	-0.1	17713.31	67820.2631	0.00011	0.01128
591	1.260	6.56	-0.1	18018.04	67820.2631	0.00011	0.01091
601	1.239	6.56	-0.1	18322.76	67820.2631	0.00011	0.01055
611	1.219	6.56	-0.1	18627.49	67820.2631	0.00010	0.01020
621	1.199	6.56	-0.1	18932.23	67820.2631	0.00010	0.00988
631	1.180	6.56	-0.1	19236.96	67820.2631	0.00010	0.00957
641	1.162	6.56	-0.1	19541.70	67820.2631	0.00009	0.00927
651	1.144	6.56	-0.1	19846.44	67820.2631	0.00009	0.00899
661	1.127	6.56	-0.1	20151.18	67820.2631	0.00009	0.00872
671	1.110	6.56	-0.1	20455.92	67820.2631	0.00008	0.00846
681	1.094	6.56	-0.1	20760.66	67820.2631	0.00008	0.00821
691	1.078	6.56	-0.1	21065.41	67820.2631	0.00008	0.00798

ARL	13	Max gain (dBd):	6.66	Max exposure:	0.00410038	mW/cm²

Max ERP (W): 69.4 **Ant type:** KMW DX-X-AW-13-65-02T3 **Feet from site:** 67

RF Exposure Level

Feet to Ant. base	Depress angle	Antenna gain	dB from max ERP	Prop dist in cm	Act ERP in mW	Level mW/cm²	Precent of FCC STD
701	1.062	6.56	-0.1	21370.15	67820.2631	0.00008	0.00775
711	1.047	6.56	-0.1	21674.90	67820.2631	0.00008	0.00754
721	1.033	6.56	-0.1	21979.65	67820.2631	0.00007	0.00733
731	1.019	6.56	-0.1	22284.40	67820.2631	0.00007	0.00713
741	1.005	6.56	-0.1	22589.16	67820.2631	0.00007	0.00694
751	0.992	6.36	-0.3	22893.91	64767.8485	0.00006	0.00645
761	0.979	6.36	-0.3	23198.66	64767.8485	0.00006	0.00628
771	0.966	6.36	-0.3	23503.42	64767.8485	0.00006	0.00612
781	0.954	6.36	-0.3	23808.18	64767.8485	0.00006	0.00596
791	0.942	6.36	-0.3	24112.94	64767.8485	0.00006	0.00582
801	0.930	6.36	-0.3	24417.70	64767.8485	0.00006	0.00567
811	0.918	6.36	-0.3	24722.46	64767.8485	0.00006	0.00553
821	0.907	6.36	-0.3	25027.22	64767.8485	0.00005	0.00540
831	0.896	6.36	-0.3	25331.98	64767.8485	0.00005	0.00527
841	0.886	6.36	-0.3	25636.74	64767.8485	0.00005	0.00514
851	0.875	6.36	-0.3	25941.51	64767.8485	0.00005	0.00502
861	0.865	6.36	-0.3	26246.27	64767.8485	0.00005	0.00491
871	0.855	6.36	-0.3	26551.04	64767.8485	0.00005	0.00480
881	0.845	6.36	-0.3	26855.80	64767.8485	0.00005	0.00469
891	0.836	6.36	-0.3	27160.57	64767.8485	0.00005	0.00458
901	0.827	6.36	-0.3	27465.34	64767.8485	0.00004	0.00448
911	0.818	6.36	-0.3	27770.11	64767.8485	0.00004	0.00438
921	0.809	6.36	-0.3	28074.88	64767.8485	0.00004	0.00429
931	0.800	6.36	-0.3	28379.65	64767.8485	0.00004	0.00420
941	0.791	6.36	-0.3	28684.42	64767.8485	0.00004	0.00411
951	0.783	6.36	-0.3	28989.19	64767.8485	0.00004	0.00402
961	0.775	6.36	-0.3	29293.96	64767.8485	0.00004	0.00394
971	0.767	6.36	-0.3	29598.73	64767.8485	0.00004	0.00386
981	0.759	6.36	-0.3	29903.51	64767.8485	0.00004	0.00378
991	0.752	6.36	-0.3	30208.28	64767.8485	0.00004	0.00371
1001	0.744	6.36	-0.3	30513.05	64767.8485	0.00004	0.00363
1011	0.737	6.36	-0.3	30817.83	64767.8485	0.00004	0.00356
1021	0.729	6.36	-0.3	31122.60	64767.8485	0.00003	0.00349
1031	0.722	6.36	-0.3	31427.38	64767.8485	0.00003	0.00342

STATEMENT OF EXPERIENCE

Jerrold Talmadge Bushberg, Ph.D., DABMP, DABSNM
(800) 760-8414 jbushberg@hampc.com

Dr. Jerrold Bushberg has performed health and safety analysis for RF & ELF transmissions systems since 1978 and is an expert in both health physics and medical physics. The scientific discipline of Health Physics is devoted to radiation protection, which, among other things, involves providing analysis of radiation exposure conditions, biological effects research, regulations and standards as well as recommendations regarding the use and safety of ionizing and non-ionizing radiation. In addition, Dr. Bushberg has extensive experience and lectures on several related topics including medical physics, radiation protection, (ionizing and non-ionizing), radiation biology, the science of risk assessment and effective risk communication in the public sector.

Dr. Bushberg's doctoral dissertation at Purdue University was on various aspects of the biological effects of microwave radiation. He has maintained a strong professional involvement in this subject and has served as consultant or appeared as an expert witness on this subject to a wide variety of organizations/institutions including, local governments, school districts, city planning departments, telecommunications companies, the California Public Utilities Commission, national news organizations, and the U.S. Congress. In addition, his consultation services have included detailed computer based modeling of RF exposures as well as on-site safety inspections and RF & ELF environmental field measurements of numerous transmission facilities in order to determine their compliance with FCC and other safety regulations. The consultation services provided by Dr. Bushberg are based on his professional judgement as an independent scientist, however they are not intended to necessarily represent the views of any other organization.

Dr. Bushberg is a member of the main scientific body of International Committee on Electromagnetic Safety (ICES) which reviews and evaluates the scientific literature on the biological effects of non-ionizing electromagnetic radiation and establishes exposure standards. He also serves on the ICES Risk Assessment Working Group that is responsible for evaluating and characterizing the risks of non-ionizing electromagnetic radiation. Dr. Bushberg was appointed and is serving as a member of the main scientific council of the National Council on Radiation Protection and Measurement's (NCRP). He is also a Scientific Vice-President of the NCRP, a member of the NCRP Board of Directors and chairs its committee on Radiation Protection in Medicine. In addition, Dr. Bushberg is a member of NCRP's scientific advisory committee on Non-ionizing Radiation Safety. The NCRP is the nation's preeminent scientific radiation protection organization, chartered by Congress to evaluate and provide expert consultation on a wide variety of radiological health issues. The current FCC RF exposure safety standards are based in large part on the recommendations of the NCRP. Dr. Bushberg was elected to the International Engineering in Medicine and Biology Society Committee on Man and Radiation (COMAR) which has as its primary area of responsibility the examination and interpreting the biological effects of non-ionizing electromagnetic energy and presenting its findings in an authoritative and professional manner. Dr. Bushberg is also a member of a six person U.S. expert delegation to the international scientific community on Scientific and Technical Issues for Mobile Communication Systems established by the Federal Communications Commission.

Dr. Bushberg is a full member of the Bioelectromagnetics Society, the Health Physics Society and the Radiation Research Society. Dr. Bushberg received both a Masters of Science and Ph.D. from the Department of Bionucleonics at Purdue University. Dr. Bushberg is certified by several national professional boards with specific sub-specialty certification in radiation protection and medical physics. Prior to coming to California, Dr. Bushberg was on the faculty of Yale University School of Medicine.

CROWN CASTLE

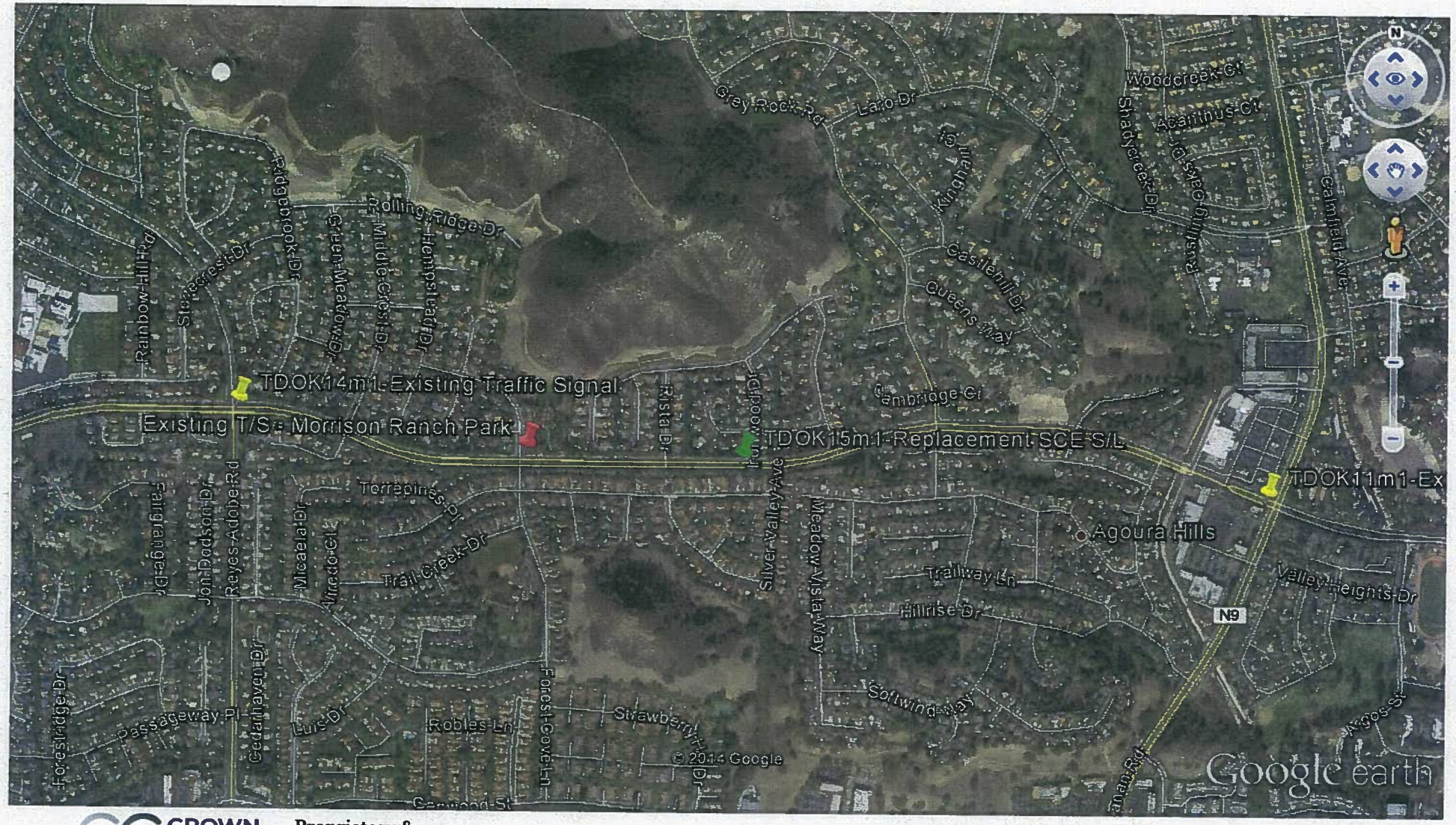
12/29/2014

T-Mobile TDOK15m1

TDOK15m1 Zoning Plots

The Foundation for a Wireless World.

Aerial Slide with TDOK15m1 Coverage Area



Coverage with TDOK15m1

Crown Desired Location

Coverage with TDOK15m1

Crown Desired Location

Coverage with TDOK15m1

City Preferred Location

CROWN CASTLE

Attachment 3.18

'APPENDIX A' FORM

("A Local Government Official's Guide to Transmitting Antenna RF Emission Safety: Rules, Procedures, and Practical Guidance")

PROPOSAL TO INSTALL DAS COMMUNICATIONS
NODE ON A REPLACEMENT SCE STREETLIGHT POLE
IN THE PUBLIC RIGHT-OF-WAY

TDOK15m1
Public Right-of-Way along Thousand Oaks Blvd (100' west of Ironwood Drive C/L)
Agoura Hills Oaks, CA

Prepared for:

City of Agoura Hills
Department of Planning and Community Development
30001 Ladyface Court
Agoura Hills, CA 91301

Prepared by:

Crown Castle NG West LLC
2125 Wright Avenue, Suite C-9
La Verne, CA 91750

Contact:

Carver Chiu, Government Relations Manager
(949) 290-9678

May 15, 2014

APPENDIX A

Optional Checklist for Determination

Of Whether a Facility is Categorically Excluded

Optional Checklist for Local Government To Determine Whether a Facility is Categorically Excluded

Purpose: The FCC has determined that many wireless facilities are unlikely to cause human exposures in excess of RF exposure guidelines. Operators of those facilities are exempt from routinely having to determine their compliance. These facilities are termed "categorically excluded." Section 1.1307(b)(1) of the Commission's rules defines those categorically excluded facilities. This checklist will assist state and local government agencies in identifying those wireless facilities that are categorically excluded, and thus are highly unlikely to cause exposure in excess of the FCC's guidelines. Provision of the information identified on this checklist may also assist FCC staff in evaluating any inquiry regarding a facility's compliance with the RF exposure guidelines.

BACKGROUND INFORMATION

1. Facility Operator's Legal Name: MetroPCS – FCC Licensee (Planned User of Crown DAS Facility)
2. Facility Operator's Mailing Address: 350 Commerce Ave, Irvine, CA 92602
3. Facility Operator's Contact Name/Title: Zeke Moreno, Director of Network Operations
4. Facility Operator's Office Telephone: (714) 730-3132
5. Facility Operator's Fax:
6. Facility Name: MPC1048CA-TDOK15m1 / LAD015-13
7. Facility Address: Public ROW / Thousand Oaks Blvd (100' west of Ironwood Dr C/L)
8. Facility City/Community: Agoura Hills
9. Facility State and Zip Code: California, 91301
10. Latitude: 34.15454
11. Longitude: -118.76961

continue →

Optional Local Government Checklist (page 2)

EVALUATION OF CATEGORICAL EXCLUSION

12. Licensed Radio Service (see attached Table 1): Personal Communications Services
13. Structure Type (free-standing or building/roof-mounted): Free-Standing/Existing Utility Pole
14. Antenna Type [omnidirectional or directional (includes sectored)]: Omni-Directional
15. Height above ground of the lowest point of the antenna (in meters): 9.14m (30'-0")
16. ☐ Check if all of the following are true:
    (a) This facility will be operated in the Multipoint Distribution Service, Paging and Radiotelephone Service, Cellular Radiotelephone Service, Narrowband or Broadband Personal Communications Service, Private Land Mobile Radio Services Paging Operations, Private Land Mobile Radio Service Specialized Mobile Radio, Local Multipoint Distribution Service, or service regulated under Part 74, Subpart I (see question 12).
    (b) This facility will not be mounted on a building (see question 13).
    (c) The lowest point of the antenna will be at least 10 meters above the ground (see question 15).

If box 16 is checked, this facility is categorically excluded and is unlikely to cause exposure in excess of the FCC's guidelines. The remainder of the checklist need not be completed. If box 16 is not checked, continue to question 17.

17. Enter the power threshold for categorical exclusion for this service from the attached Table 1 in watts ERP or EIRP* (note: EIRP = (1.64) X ERP): 1000w
18. Enter the total number of channels if this will be an omnidirectional antenna, or the maximum number of channels in any sector if this will be a sectored antenna: 3
19. Enter the ERP or EIRP per channel (using the same units as in question 17): 3.5w
20. Multiply answer 18 by answer 19: 10.5w
21. Is the answer to question 20 less than or equal to the value from question 17 (yes or no)? YES

If the answer to question 21 is YES, this facility is categorically excluded. It is unlikely to cause exposure in excess of the FCC's guidelines.

If the answer to question 21 is NO, this facility is not categorically excluded. Further investigation may be appropriate to verify whether the facility may cause exposure in excess of the FCC's guidelines.

*"ERP" means "effective radiated power" and "EIRP" means "effective isotropic radiated power

TABLE 1: TRANSMITTERS, FACILITIES AND OPERATIONS SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION

SERVICE (TITLE 47 CFR RULE PART)	EVALUATION REQUIRED IF:
Experimental Radio Services (part 5)	power > 100 W ERP (164 W EIRP)
Multipoint Distribution Service (subpart K of part 21)	non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and power > 1640 W EIRP building-mounted antennas: power > 1640 W EIRP
Paging and Radiotelephone Service (subpart E of part 22)	non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and power > 1000 W ERP (1640 W EIRP) building-mounted antennas: power > 1000 W ERP (1640 W EIRP)
Cellular Radiotelephone Service (subpart H of part 22)	non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and total power of all channels > 1000 W ERP (1640 W EIRP) building-mounted antennas: total power of all channels > 1000 W ERP (1640 W EIRP)

TABLE 1 (cont.)

SERVICE (TITLE 47 CFR RULE PART)	EVALUATION REQUIRED IF:
Personal Communications Services (part 24)	(1) Narrowband PCS (subpart D): non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and total power of all channels > 1000 W ERP (1640 W EIRP) building-mounted antennas: total power of all channels > 1000 W ERP (1640 W EIRP) (2) Broadband PCS (subpart E): non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and total power of all channels > 2000 W ERP (3280 W EIRP) building-mounted antennas: total power of all channels > 2000 W ERP (3280 W EIRP)
Satellite Communications (part 25)	all included
General Wireless Communications Service (part 26)	total power of all channels > 1640 W EIRP
Wireless Communications Service (part 27)	total power of all channels > 1640 W EIRP
Radio Broadcast Services (part 73)	all included

TABLE 1 (cont.)

SERVICE (TITLE 47 CFR RULE PART)	EVALUATION REQUIRED IF:
Experimental, auxiliary, and special broadcast and other program distributional services (part 74)	subparts A, G, L: power > 100 W ERP subpart I: non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and power > 1640 W EIRP building-mounted antennas: power > 1640 W EIRP
Stations in the Maritime Services (part 80)	ship earth stations only
Private Land Mobile Radio Services Paging Operations (part 90)	non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and power > 1000 W ERP (1640 W EIRP) building-mounted antennas: power > 1000 W ERP (1640 W EIRP)
Private Land Mobile Radio Services Specialized Mobile Radio (part 90)	non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and total power of all channels > 1000 W ERP (1640 W EIRP) building-mounted antennas: total power of all channels > 1000 W ERP (1640 W EIRP)

TABLE 1 (cont.)

SERVICE (TITLE 47 CFR RULE PART)	EVALUATION REQUIRED IF:
Amateur Radio Service (part 97)	transmitter output power > levels specified in § 97.13(c)(1) of this chapter
Local Multipoint Distribution Service (subpart L of part 101)	non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and power > 1640 W EIRP building-mounted antennas: power > 1640 W EIRP LMDS licensees are required to attach a label to subscriber transceiver antennas that: (1) provides adequate notice regarding potential radiofrequency safety hazards, *e.g.*, information regarding the safe minimum separation distance required between users and transceiver antennas; and (2) references the applicable FCC-adopted limits for radiofrequency exposure specified in § 1.1310 of this chapter.

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OUR REFERENCE:
925-655

Planning
Memorandum

To: Valerie Darbouze
From: Jonathan L. Kramer
Approved by: Jonathan L. Kramer
Date: March 12, 2015
RE: Case No. DAS 14-CUP-005 (MetroPCS, Inc.)

The City of Agoura Hills ("**City**") requested that we review the MetroPCS, Inc. ("**MetroPCS**") application tendered by Crown Castle NG West LLC ("**Crown Castle**") to install a new wireless communication facility on a replacement Southern California Edison ("**SCE**") street light standard located at public right-of-way ("**ROW**") on Thousand Oaks Boulevard approximately 100 feet west of Ironwood Drive.

1. Current Project

The proposed project involves both removing the existing SCE light standard, which does not support wireless facilities and replacing it with one that can structurally support MetroPCS's proposed sectorized panel antenna inside a new radome.

The proposed change with alter the height of the utility pole from twenty-eight feet and nine inches (28'-9") above ground level ("**AGL**") to twenty-nine feet and six inches ("29'-6") AGL. The top of the proposed street light replacement is 29' 6". The new antenna stands approximately 30 inches above the top of the street light. The proposed radome extends upwards 66 inches (5' 6") above the top of the replacement light standard.

As to the power meter and radio equipment, MetroPCS proposes to house its base-station equipment (the DAS node) inside a Myers electrical meter cabinet measuring 20"L x 24"W x 60"H in the public ROW adjacent to the pole. The pedestal will be placed within the first 2'-6" behind curb face and will provide approximately 5'-6" of clear space along the sidewalk for pedestrian access.

MetroPCS proposes that all service feeds to/from the base station will be out of public view via underground conduits.

2. RF Emissions Evaluation

The FCC completely occupies the field of radiofrequency ("RF") safety standards in the United States. The City legally cannot establish or require RF safety standards, whether more strict, more lenient, or the same as the FCC standards. The FCC does, however, permit the City to determine whether a proposed wireless project meets the federal safety standards found at 47 C.F.R. §§ 1.1307 et seq. ("FCC Rules") and FCC Office of Engineering and Technology Bulletin 65 ("OET 65") RF safety requirements.

Under the FCC Rules, certain types of wireless projects are deemed "categorically excluded" and not subject to further RF evaluation. A wireless project is categorically excluded when the antenna supporting structure is not a building or shared to perform some other function, and the lowest portion of the transmitting antenna is at least ten (10) meters AGL.

Here, the proposed project does not qualify for categorical exclusion under the FCC Rules off-pole because the replacement street light pole does not primarily serve as an antenna support structure, and the lowest portion of the antennas is lower than 10 meters AGL. Thus, we analyze the proposed emissions to determine whether they will comply with the FCC Rules.

MetroPCS has submitted the FCC's LSGAC Appendix A form to provide its proposed radio frequency emissions. We have analyzed the data contained on that form and applied those data to the FCC-approved formula in FCC OET Bulletin 65 to determine the extent of the access controlled zone in front of each sector of the antenna.

In the case of this project, there is controlled zone extending outwards from the face of the proposed antenna inside the radome for a distance of 1' 2". This is primarily due to the fact that the proposed wireless transmissions are of extremely low power levels (10.5 watts of power). Beyond the extremely limited controlled zone, which exists solely at the height of the antenna panel above the proposed replacement light standard, the radio frequency emissions are completely uncontrolled and not time limited as they will be in all cases less than the FCC's limit for uncontrolled/general population exposure.

3. Conclusion

The area of radio frequency emissions is almost entirely federally controlled. The City is limited to determine whether a project is designed to comply with the FCC rules. In this case, MetroPCS has demonstrated planned RF safety compliance with the FCC's Rules. Accordingly, the City has no basis to deny this project based on any concerns regarding radio frequency emissions.

jlk