TELECOMMUNICATIONS COMMITTEE

The Telecommunications Committee meets on the second Tuesday of each month at 9:00 a.m. in the West Annex Commission Meeting Room. All meetings are open to the public.

Those wishing to speak on any matter on the agenda are asked to complete a "Speaker Information" card (available at the meeting) and deposit it in the box at the podium before leaving the meeting.

All persons interested in the above matter are requested to be present at the meeting or to submit their written approval or disapproval to the Telecommunications Committee, Community Development Department, City Hall, 3031 Torrance Boulevard, Torrance, CA 90503.

Actions of the Community Development Director or the Telecommunications Committee may be appealed by the applicant, City Council, City Manager, or other interested parties by filing a written notice of appeal along with the required appeal fee with the City Clerk within 15 days of the action.

For further information, contact the PLANNING DIVISION of the Community Development Department at (310) 618-5990.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Community Development Department at (310) 618-5990. If you need a special hearing device to participate in this meeting, please contact the City Clerks office at (310) 618-2870. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting. [28 CFR 35.102-35.104 ADA Title II]

HOURS OF OPERATION
Monday through Friday from
7:30 a.m. to 5:30 p.m.
Offices are closed alternate Fridays.

City Hall will be closed:

Friday, December 21, 2018
Monday, December 24, 2018 (Christmas Eve)
Tuesday, December 25, 2018 (Christmas Day)
Monday, December 31, 2018 (New Year's Eve)
Tuesday, January 1, 2019 (New Year's Day)
Friday, January 4, 2019

TELECOMMUNICATIONS COMMITTEE

WEST ANNEX COMMISSION MEETING ROOM
CITY HALL, 3031 TORRANCE BOULEVARD
TORRANCE, CALIFORNIA 90503

TUESDAY, DECEMBER 11, 2018
9:00 A.M.

A G E N D A

1. **CALL TO ORDER**

2. **FLAG SALUTE**

3. **ROLL CALL**

4. **REPORT ON POSTING OF AGENDA**
   The agenda was posted on the Public Notice Board at 3031 Torrance Boulevard on Thursday, December 6, 2018.

5. **APPROVAL OF MINUTES:** October 9, 2018 & October 23, 2018

6. **AGENDA ITEMS**

-CONTINUED ITEMS

A. **WTC17-00004:** Petition of **CROWN CASTLE NG WEST** for approval of a Telecom Permit to allow the installation of a small cell antenna and support equipment attached to an existing wood utility pole (Pole ID #148620E) in the public right-of-way adjacent to 22917 Fonthill Avenue in the R-1 Zone. This project is Categorically Exempt from CEQA per Guidelines Section 15301 – Existing Facilities.

B. **WTC17-00006:** Petition of **CROWN CASTLE NG WEST** for approval of a Telecom Permit to allow the installation of a small cell antenna and support equipment attached to an existing wood utility pole (Pole ID #567481H) in the public right-of-way adjacent to 1323 Cranbrook Avenue in the R-1 Zone. This project is Categorically Exempt from CEQA per Guidelines Section 15301 – Existing Facilities.

-NEW ITEMS

C. **WTC17-00005:** Petition of **CROWN CASTLE NG WEST** for approval of a Telecom Permit to allow the installation of a small cell antenna and support equipment attached to an existing wood utility pole (Pole ID #A8562Y) in the public right-of-way adjacent to 21010 Anza Avenue in the R-3 Zone. This project is Categorically Exempt from CEQA per Guidelines Section 15301 – Existing Facilities.

D. **WTC17-00012:** Petition of **CROWN CASTLE NG WEST** for approval of a Telecom Permit to allow the installation of a small cell antenna and support equipment attached to an existing wood utility pole (Pole ID #1579018E) in the public right-of-way adjacent to 4600 Spencer Street in the R-3 Zone. This project is Categorically Exempt from CEQA per Guidelines Section 15301 – Existing Facilities.

E. **WTC17-00013:** Petition of **CROWN CASTLE NG WEST** for approval of a Telecom Permit to allow the installation of a small cell antenna and support equipment attached to a new wood utility pole in the public right-of-way adjacent to 23603 Susana Avenue within the Hillside Overlay District in the R-1 Zone. This project is Categorically Exempt from CEQA per Guidelines Section 15301 – Existing Facilities.

7. ORALS

8. ADJOURNMENT

If you challenge any of the above matters in court, you may be limited to raising only those issues you or someone else raised at the public meeting described in this notice, or in written correspondence delivered to the Community Development Department or the office of the City Clerk, prior to the public meeting and further, by the terms of Resolution No. 88-19, you may be limited to ninety (90) days in which to commence such legal action pursuant to Section 1094.6 of the Code of Civil Procedure.

DATE: December 6th, 2018

TO: Telecommunications Committee

FROM: Planning Division

SUBJECT: **WIRELESS TELECOM FACILITY (WTC17-00004) – CROWN CASTLE NG WEST LLC**

A request for approval of a Wireless Telecommunications Facility to allow the installation of a new wireless small cell and support equipment attached to an existing utility pole in the public right-of-way in the alley adjacent 22917 Fonthill Avenue within the R-1 Zone.

Applicant:	Crown Castle NG West LLC
Case No:	WTC17-00004
Location:	22917 Fonthill Avenue (ROW)
Zoning:	R-1: Single Family Residential

On September 11, 2018, the Telecommunications Committee continued WTC17-00004 indefinitely to allow the applicant identify alternative locations. As of the printing of this report, no additional alternatives have been identified by the applicant other than the alternatives previously discussed on September 11, 2018 (Attachment #1). A Minutes Excerpt from that meeting has also been included (Attachment#2).

Questions have been raised in the past regarding the number of telecom facilities that are located within Torrance, the number of street lights within the City, and the number of telecom facilities within the area bounded by Torrance Blvd to the north, Madrona Ave to the west, Crenshaw Blvd to the east, and Carson St to the south.

There are approximately 200 telecom facilities within Torrance. This number includes all co-located facilities such as buildings/towers with two or more facilities. There are approximately 10,000 street lights within Torrance and there are no telecom facilities within the area bounded by Torrance Blvd to the north, Madrona Ave to the west, Crenshaw Blvd to the east, and Carson St to the south.

Staff notes a Tolling agreement was submitted to Staff and has been attached (Attachment #3). Staff continues to recommend denial of the subject request based on the findings discussed in the original staff report (Attachment #1).

PROJECT RECOMMENDATION: DENIAL

Prepared by,

Aaron Whiting
Planning Assistant

Recommended by,

For: Danny Santana
Planning Manager

Attachments:
1. 9/11/18 Telecommunications Committee Items
2. 9/11/18 Minutes of the Telecommunications Committee
3. Copy of Tolling Agreement
4. Plans/Photo Simulations (Limited Distribution)

This request for a Telecom Permit (WTC17-00004) is ____APPROVED ____ DENIED per Ordinance No. 3561, Section 92.39.060, Satellite Antennas, of the Torrance Municipal Code, Division 9.

DATE

Felipe Segovia
Telecommunications Committee Chair

Decisions made by the Telecommunications Committee are appealable to the Planning Commission within 15 calendar days following the above date of approval/denial.

DATE: September 6, 2018

TO: Telecommunications Committee

FROM: Planning Division

SUBJECT: **WIRELESS TELECOM FACILITY (WTC17-00004) – STEPHEN GARCIA (CROWN CASTLE NG WEST LLC)**

A request for approval of a Wireless Telecommunications Facility to allow the installation of a new wireless small cell and support equipment attached to an existing utility pole in the public right-of-way adjacent to 22917 Fonthill Avenue in the R-1 Zone.

Applicant: Stephen Garcia (Crown Castle NG West LLC)
Case No: WTC17-00004
Location: 22917 Fonthill (ROW)
Zoning: R-1: Single Family Residential

The subject request is for the installation of a wireless site in the public right-of-way adjacent to 22917 Fonthill Avenue. Per Torrance Municipal Code 92.39.060(1), such requests within the public right-of-way adjacent to residentially zoned properties are reviewed by the Telecommunications Committee and requires notification to property owners within 300 feet of the proposed location. In compliance with prior city council directives, on August 30th, 2018, staff mailed notices to property owners within 500' radius and posted notification to the subject pole. (Attachment #1).

The proposal involves the installation of an omni-directional antenna and three remote radio units (RRU) within an enclosure on an existing utility pole. The RRU enclosure is designed to mount directly to the pole while the antenna is designed to attach to a 3.5' long metal pole arm. The RRU enclosure will be connected to aerially provided fiber optic cables through a new pole mounted PVC conduit.

The proposed antenna is 2.75' in height and 10" in diameter. The antenna and pole arm are proposed to be pole mounted at 22.5' above ground level with a maximum height of 26'. The RRU enclosure measures 46.1in x 13.5in x 15.7in and would be mounted 14.66' above grade with a maximum height of 18.6'. Power to the site is proposed aerially through existing lines connected to the utility pole. No additional cabinets are required as this configuration eliminates the need for above ground appurtenances.

The purpose of the proposed site, according to the applicant, is to "Increase the existing RF signal level in an existing coverage area" for AT&Ts network. The target area described in the RF Coverage maps is the surrounding residential area along

Fonthill Avenue, between 229th Street to the north and Benner Avenue to the south and between Juniper Avenue to the east and Maple Avenue to the west. The proposed antenna would propagate signal omni-directionally.
The application was reviewed by the City's telecom consultant, Telecom Law Firm PC, multiple times for technical and regulatory issues. Staff notes that the applicant, staff, and the City's consultant had various discussions to come up a design that is aesthetically compatible with the surroundings and is the least intrusive from an aesthetic perspective, while also avoiding placing new above ground cabinets.

The applicant has submitted an RF compliance report (included as part of Attachment #2) that evaluates the proposed facility's planned compliance with FCC Guidelines. Staff notes that the City cannot impose additional requirements with respect to FCC requirements with the exception of requesting verification that the site is operating in compliance. If approved, per TMC92.39.070 a radio frequency and compliance radiation report is required to be submitted within 30 days after installation of the facility.

The proposed facility utilizing an existing utility pole falls into a location that requires a special review by the Telecommunications Committee as it is in the right-of-way adjacent to a residential district. Per the Applicant's submittals, the site identified will provide the coverage needed to fulfill the applicant's objectives.

In order to recommend Approval of this Telecom Permit, the following findings must be made per 92.39.040(b)(3):

i. Other locations that do not require special approval under this Section 92.39.040(B) are either not available or not feasible; and

ii. Establishment of the facility at the requested location is necessary to provide service; and

iii. Lack of such a facility would result in a prohibition of service;

Staff notes that the proposal meets the first finding as there are no other tall non-residential structures in the vicinity which may lend themselves to a small cell installation that is on the prioritized location per the City's code. The applicant proposed two alternate locations that met coverage objectives; however, they require the placement of significant new infrastructure, new poles where none currently exist and both remain adjacent to residential districts. In the judgement of staff, however, not all of the necessary findings can be made. Per the applicant's documentation and the City's consultant confirmation, there currently is AT&T service within the coverage area and as such, establishment of the facility is not necessary to provide service and lack of this facility does not result in a prohibition of service.

Although the proposed small cell facility has been designed to provide increased capacity while simultaneously providing the least visually intrusive structure, under the narrow purview of the code, staff cannot make the findings per TMC92.39.040(b)(3) and recommends denial of the request. Should the Committee wish to approve the facility, recommended conditions and code requirements have been attached for your review (Attachment #4).

PROJECT RECOMMENDATION: Denial

Prepared by,

Aaron Whiting
Planning Assistant

Recommended by,

Danny Santana
Planning Manager

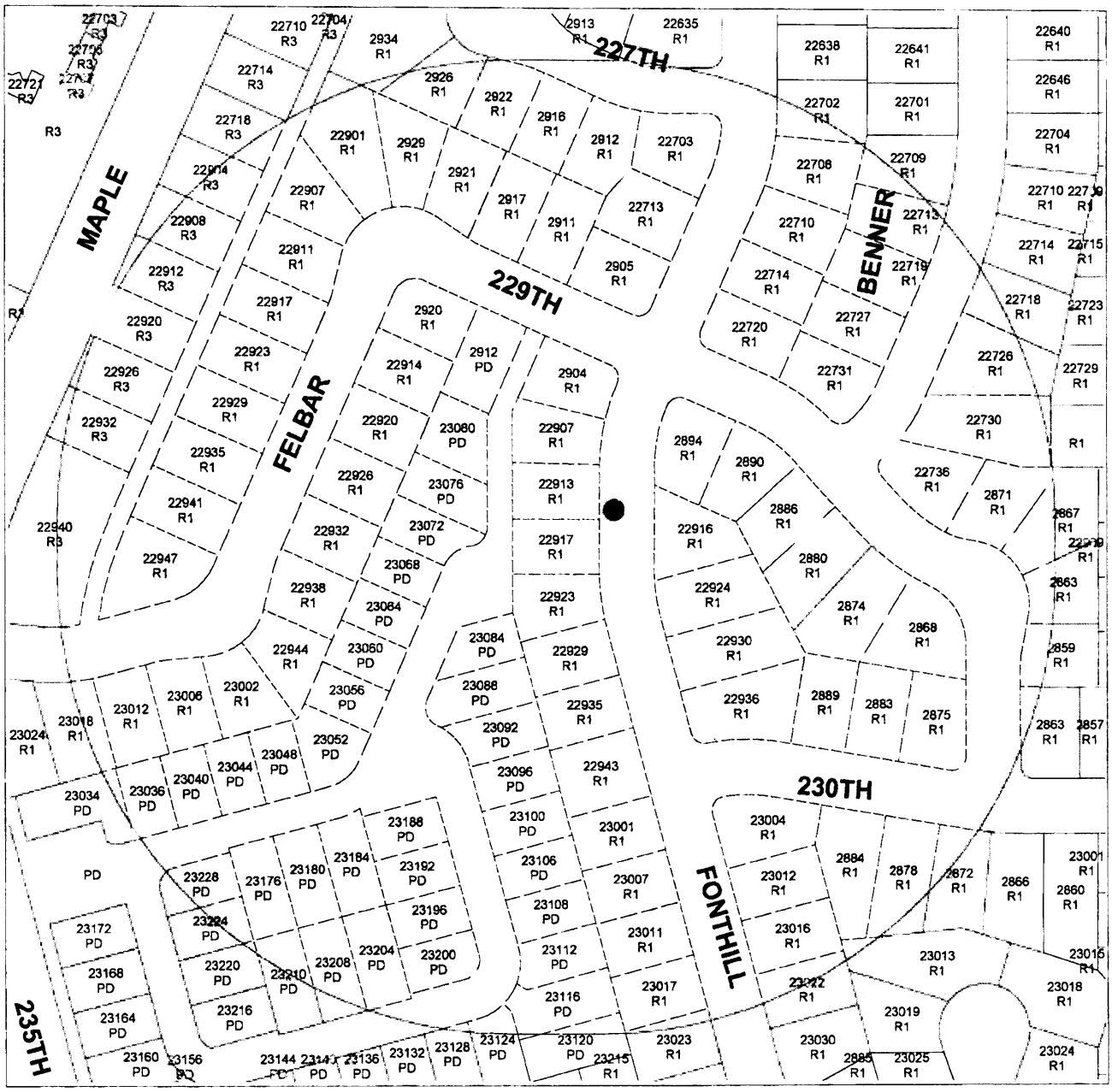
Attachments:
1. Notification Map and Posting
2. Telecom Law Firm Memorandums
3. Supplemental Technical Information Report and Documentation
4. Recommended Conditions and Code Requirements, if approved
5. Plans/Photo Simulations (Limited Distribution)

This request for a Telecom Permit (WTC17-00004) is ____APPROVED ____ DENIED per Ordinance No. 3561, Section 92.39.060, Satellite Antennas, of the Torrance Municipal Code, Division 9.

DATE

Felipe Segovia
Telecommunications Committee Chair

Decisions made by the Telecommunications Committee are appealable to the Planning Commission within 15 calendar days following the above date of approval/denial.



LOCATION AND ZONING MAP
WTC17-00004
Public Right-Of-Way
22917 Fonthill

TORRANCE COMMUNITY DEVELOPMENT GIS

LEGEND

Project Location

Notification Area

Feet
0 40 80 160

N
W E
S

Prepared using City of Torrance Community Development Geographic Information System
Jeffery W. Gibson, Community Development Director

ATTACHMENT 1

CITY OF TORRANC
NOTICE
OF PUBLIC HEARIN

TELECOM
LAW FIRM PC

APPLICATION INCOMPLETE MEMORANDUM

TO: Mr. Oscar Martinez [redacted]
FROM: Dr. Jonathan Kramer
DATE: March 8, 2018
RE: Application Completeness Review – New Proposed Wireless Facility in the Public Right-of-Way at F/O 22917 Fonthill Avenue

APPLICANT: Crown Castle NG West, LLC
APPLICANT'S ID: ATTRB-39; USID: 177979
UTILITY POLE ID: #1486120E

On August 28, 2017, Crown Castle NG West, LLC ("**Crown Castle**") on behalf of AT&T submitted wireless site application materials to the City of Torrance ("**City**"). Per the City's request, on September 20, 2017, Telecom Law Firm, PC ("**TLF**" or "**We**") submitted an Application Incomplete Memorandum (the "**First Memorandum**") to the City that evaluated the Applicant's application to operate a new wireless site in the public right-of-way ("**PROW**") on a on an existing wood utility pole ("**Pole**") located at F/O 22917 Fonthill Avenue (Coordinates N 33° 49' 9.336" W 118° 20' 19.608").

TLF's First Memorandum concluded that Crown Castle failed to submit a complete permit application that fully responded to the City's publicly stated application requirements. We recommended that the City deem Crown Castle's application incomplete and issue a timely notice, which it did.

On February 27, 2018 Crown Castle submitted additional materials (the "**February 2018 Submission**") to address the deficiencies identified in our First Memorandum related to its initial submission.

Based on the plans dated January 8, 2018 ("Plans"), on the Pole, Crown Castle proposes to install a new Pole-affixed arm mount to hold one omni-directional antenna. The omni-antenna is proposed to be situated on the side of the Pole by an arm mounting bracket that will separate the antenna from the Pole by 3-feet which meets the requirements of the California Public Utilities Commission, General Order 95, Rule 94.

Crown Castle modified site design in the current Plans, which now propose a total of three remote radio units ("**RRUs**") within two enclosures. Additionally, the previous four DC power converters have been eliminated from the new strand attached to the pole. The new strand proposed under another permit will also support the fiber optic cable used for communications backhaul from this site to AT&T's cell switching center. The height of the Pole supporting this project is to remain at 39' above ground level ("**AGL**").

This memorandum reviews the application and related materials to determine whether the applicant submitted a complete and responsive application. The following review may also discuss regulatory and technical issues related to wireless infrastructure. Although many technical issues

implicate legal issues, the analysis and recommendations contained in this memorandum do not constitute legal advice.

A. APPLICATION COMPLETENESS REVIEW

Based on the City's Submittal Requirements for Wireless Telecommunications Facility ("**Requirements Form**"), we recommend that the City deem Crown Castle's application submittal **incomplete** and issue an incomplete notice on or before March 9, 2018 regarding the items more fully discussed in this Section A.

REQUIREMENTS FORM

I. APPLICATION FORM

The City requires a Development Application and a Supplemental Technical Information Report ("**STIR**").

General note: The submitted application materials fail to provide the required Section references making the application difficult to reliably cross-reference various points. Each application material needs to identify the sections within the Requirements Form and STIR.

- **Development Application:**

  The proposed use of property and purpose of application(s) description is inconsistent with the project description found on the Plans. All remaining necessary information required on the Development Application checklist appears to be properly filled out.

- **Supplemental Technical Information Report:**

  - Sec. 3.02 - Missing Attachment FCC License for AT&T (Sec. 3.03 has cellular telephone and PCS telephone checked off; only Cellular license is provided).
  - Sec. 3.03 – Given the use of 5 GHz spectrum "Other: [Unlicensed National Information Infrastructure]" should also be checked.
  - Sec. 3.07 – The bottom of the lowest antenna in feet elevation contradicts the antenna found in the Plans.
  - Sec. 3.07 – The rad-center of the antennas in feet elevation contradicts the antenna found in the Plans.
  - Sec. 6.03 – Applicant has not provided the map required. The application requires that an Applicant provide an isolated node-specific map without the coverage of any other existing or proposed wireless sites.

- Section 7.01–subsection 2: Missing elements on the photo simulations (e.g., connecting wires, PVC conduits, etc.) See Figure 1.

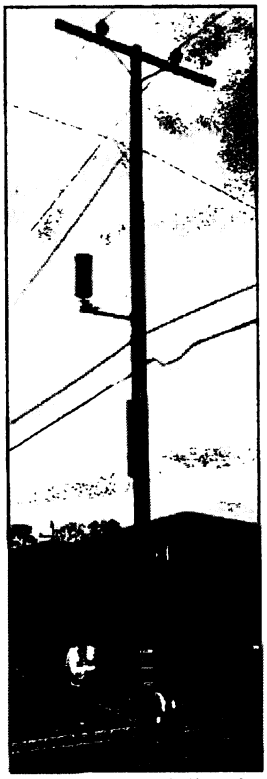


Figure 1: Omni-directional antenna, Antenna Arm, Fiber Node, (NOTE: 4 DC power converters removed/missing) RRUs enclosed within two enclosures, RF signage (Missing elements, e.g., visible connecting wires) (Source: Photo Simulations provided by Crown Castle).

- Section 7.01–subsection 3: Missing views of the overall project. STIR requires 5 or more views when a site is visible from other residential properties, only 3 views are provided.

VISUAL SIMULATIONS

As mentioned in the above sections, the photo simulations provided by the applicant are incomplete. They fail to show visible cable and conduit interconnections that will be visible to the public. The Plans show a minimum of six coaxial cables connecting the RRUs to the antennas, yet none are indicated on the photo simulations. Additionally, the photo simulations are missing views per the STIR requirements.

B. PROPERTY OWNERSHIP

Relating to property ownership, based on information presented to the City and to this firm on March 6, 2018 during a phone call with the applicant, the applicant indicated its desire to proceed forward with the process without having first submitted a clearance letter or a 45-day waiver letter from the JPA. We support this approach subject to a condition that has been verbally accepted by Crown Castle that no actual construction permit will issue until either the JPA approval or 45-day waiver letter has been received by the City.

C. ADDITIONAL COMMENTS

The materials submitted by Crown Castle on February 27, 2018 eliminate, from the Plans and the photos simulations, all of the DC power converters. Crown Castle has not mentioned this change nor has submitted any explanation to this change.

Through its August 28, 2017 submission, Crown Castle had provided a Radio Frequency Electromagnetic Fields Exposure Report dated 8/2/17 prepared by Dtech Communications (the **"8/2/17 Dtech Report"**) Table 2 of the 8/2/17 Dtech Report listed the number and frequencies of RRUs See Figure 2.

Antenna ID	Operator	Carrier #	Antenna Mfg	Antenna Model	Type	DAS Equipment	Frequency (MHz)	Orientation (°T)	Horizontal BWidth (°)	Antenna Aperture (ft)	Antenna Gain (dBd)	Total ERP (Watts)	Bottom Tip Height Above Ground (Z) (ft)	Bottom Tip Height Ant Level (Z) (ft)
A1	Crown Castle	1	Galtronics	P6480i	Omni	(2) RRU2203	1900	0	360	2.1	6.9	60.2	17.8	0.0
A1	Crown Castle	1	Galtronics	P6480i	Omni	(1) RRU2203	5000	0	360	2.1	3.9	2.5	17.8	0.0

Figure 2: A total of three RRUs shown. Two RRU 2203 in 1900 MHZ (PCS) and one RRU 2203 in 5000 MHz (Source: 8/2/17 Dtech Report, Table 2).

Through its current submission, Crown Castle the same 8/2/17 Dtech Report. Table 2 of the 8/2/17 Dtech Report listed the number and frequencies of RRUs See Figure 3.

Table 2: Site Technical Specifications

Antenna ID	Operator	Carrier #	Antenna Mfg	Antenna Model	Type	DAS Equipment	Frequency (MHz)	Orientation (°T)	Horizontal BWidth (°)	Antenna Aperture (ft)	Antenna Gain (dBd)	Total ERP (Watts)	Bottom Tip Height Above Ground (Z) (ft)	Bottom Tip Height Ant Level (Z) (ft)
A1	Crown Castle	1	Galtronics	P6480i	Omni	(2) RRU2203	1900	0	360	2.1	6.9	60.2	17.8	0.0
A1	Crown Castle	1	Galtronics	P6480i	Omni	(1) RRU2205	5000	0	360	2.1	3.9	2.5	17.8	0.0

Figure 3: A total of three RRUs shown. Two RRU 2203 in 1900 MHZ (PCS) and one RRU 2205 in 5000 MHz (Source: 8/2/17 Dtech Report, Table 2).

Also, Crown Castle has not submitted any information about the Cellular Telephone Service as checked in Section 3.03 in the STIR.
Additionally, TLF notes that Sec. 3.09 and 6.05 of the STIR has a handwritten note as: "Please See Bushberg Report". Crown Castle has not submitted any Bushberg Reports with its application materials.

D. CLOSING COMMENTS AND RECOMMENDATION

Telecom Law Firm PC

TLF believes that Crown Castle has failed to submit a complete permit application that complies with the City's Requirements Form. The list of incomplete items in this memo contains TLF's observations. The City may have other items for the incomplete notice. Under the FCC rules, there is only one incomplete notice, so it is imperative that all items which are incomplete are listed in the first notice.

We recommend that the City deem Crown Castle's application incomplete and issue a timely incomplete notice to Crown Castle no later than March 9, 2018 (based on the application materials tender date of February 27, 2018). TLF recommends the City send the incomplete notice by email and on the same day also sends it by First Class or Certified U.S. Mail postage prepaid.

Once a reply to the City's incomplete notice is received back from Crown Castle, the City has only 10 calendar days to determine whether the reply is responsive to the incomplete notice, and each of the 10 days counts against the overall 150 day shot clock, thus immediate review upon resubmission should occur.

/JLK

TELECOM LAW FIRM PC

APPLICATION INCOMPLETE MEMORANDUM

TO: Mr. Oscar Martinez
FROM: Dr. Jonathan Kramer [redacted]
DATE: September 20, 2017
RE: Application Completeness Review – New Proposed Wireless Facility in the Public Right-of-Way at F/O 22917 Fonthill Avenue

APPLICANT: Crown Castle NG West, LLC
APPLICANT'S ID: ATTRB-39; USID: 177979
UTILITY POLE ID: 1486120E

The City of Torrance (the "**City**") requested that Telecom Law Firm, PC ("**TLF**") review the Crown Castle NG West, LLC ("**Crown Castle**") application on behalf of AT&T to operate a new wireless site on an existing wood utility pole ("**Pole**") in the public right-of-way ("**ROW**") located at F/O 22917 Fonthill Avenue. The date Crown Castle submitted this project to the City was August 28, 2017.

On the Pole, Crown Castle proposes to install a new Pole-affixed arm mount to hold one omni-directional antenna. The omni-antenna is proposed to be situated on the side of the Pole by an arm mounting bracket that will separate the antenna from the Pole by 3-feet which meets the requirements of the California Public Utilities Commission, General Order 95, Rule 94.

Crown Castle also proposes to mount on the Pole a total of four remote radio units ("**RRUs**") within two enclosures, and four DC power converters on the new pole-to-pole strand. The new strand will also support the fiber optic cable used for communications backhaul from this site to AT&T's cell switching center. The height of the wood pole supporting this project is to remain at 39 feet above ground level ("**AGL**").

This memorandum reviews the application and related materials to determine whether the applicant submitted a complete and responsive application. The following review may also discuss regulatory and technical issues related to wireless infrastructure. Although many technical issues implicate legal issues, the analysis and recommendations contained in this memorandum do not constitute legal advice.

A. APPLICATION COMPLETENESS REVIEW

Based on the City's Submittal Requirements for Wireless Telecommunications Facility ("**Requirements Form**"), we recommend that the City deem Crown Castle's application submittal **incomplete** and issue an incomplete notice on or before September 27, 2017 regarding the items more fully discussed on the next pages:

[Balance of page intentionally left blank]

REQUIREMENTS FORM

I. APPLICATION FORM

The City requires a Development Application and a Supplemental Technical Information Report ("**STIR**").

General note: The submitted application materials fail to provide the required Section references making the application difficult to reliably cross-reference various points. Each application material needs to identify the sections within the Requirements Form and STIR.

- **Development Application:**

  All necessary information required on the Development Application checklist appears to be properly filled out.

- **Supplemental Technical Information Report:**

  - Sec. 3.02- Missing Attachment FCC License for AT&T
  - Sec. 3.03 is left blank-Applicant must provide the required information.
  - Sec. 3.04 is left blank-Applicant must provide the required information.
  - Sec. 3.05 is left blank-Applicant must provide the required information.
  - Sec. 3.06 is left blank-Applicant must provide the required information.
  - Sec. 3.07 is left blank-Applicant must provide the required information.
  - Sec. 3.08 is left blank-Applicant must provide the required information.
  - Sec. 3.09- Missing Attachment LSGAC Appendix A, however the Applicant provided a Radio Frequency Electromagnetic Fields Exposure Report prepared by Dtech Communications (the "**Dtech report**").
  - Sec. 3.10 is left blank-Applicant must provide the required information.
  - Sec. 3.11 is not provided, however the Applicant provided a Dtech report.
  - Sec. 3.12 is left blank-Applicant must provide the required information.
  - Sec. 3.13 is left blank-Applicant must provide the required information if applicable.
  - Sec. 3.14 is left blank-Applicant must provide the required information.
  - Sec. 3.15 is left blank-Applicant must provide the required information.
  - Sec. 4.02 is left blank-Applicant must provide the required information.
  - Sec. 5.01-5.03 is left blank-AT&T through Applicant must provide the required information.
  - Sec. 6.03-Applicant has not provided a node-isolated coverage map.
  - Section 6.05 is not provided, however the Applicant provided a Dtech report.

- Section 7.01-subsection 2: Missing elements on the photo simulations (e.g., connecting wires, PVC conduits, etc.) See Figure 1.

Figure 1: Omni-directional antenna, Antenna Arm, Fiber Node, 4 DC power converters, 4 RRUs enclosed within two enclosures, RF signage (e.g., connecting wires, PVC conduits, etc.) (Source: Photo Simulations provided by Applicant).

- Section 7.01-subsection 3: Missing views of the overall project. STIR requires 5 or more views, only 2 are provided.
- Section 8.00-8.05: Insufficient Information- Applicant needs to submit an Alternative Sites Analysis.
- Section 9- Non-responsive information - Applicant needs to submit the detailed information specified in Section 9.01.

II. PROPERTY OWNERSHIP

The applicant must provide written proof that the Joint Pole Authority has granted attachment permission for this project.

III. PROJECT PLANS

- No power source for the powered fiber indicated. The power source is a critical element of this project, which will not operate without it. Provide detailed information about the location and design of the powered fiber source. Also provide information regarding the power disconnect switch for this location.

- The depicted work area is underrepresented, depict the whole work area including the area needed to extend the strand and powered fiber. See Figure 2.

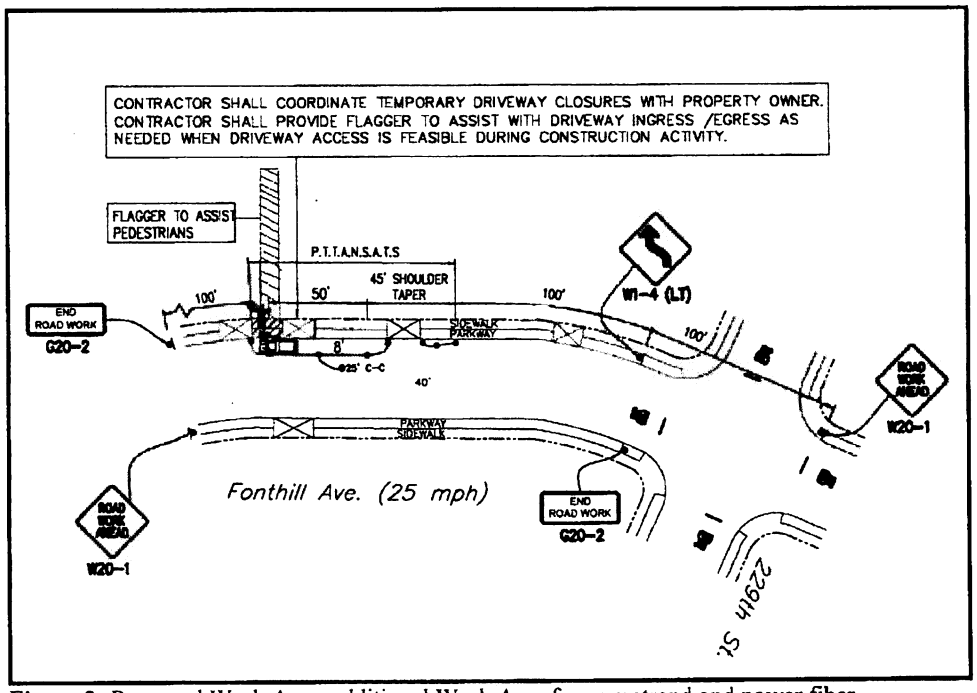


Figure 2: Proposed Work Area; additional Work Area for new strand and power fiber (hatched in red) (Source: Plans TC-1, annotated by Dr. J. Kramer).

IV. JUSTIFICATION

The purported justification from this site, while not completely clear, can be discerned from the coverage maps section of the application.

V. MAPS

As mentioned in the above sections, some of the maps are missing/incomplete.

VI. VISUAL SIMULATIONS

The photo simulations provided by the applicant are incomplete, fail to show visible cable and conduit interconnections, and do not accurately reflect the size and scope of the project elements to be constructed.

B. ADDITIONAL INCOMPLETE, INCONSISTENT ITEMS

We note that Table 2 of the Dtech Report lists the number and frequencies of RRUs that differs from details provided in the Plans. See Figure 3 and Figure 4.

Table 2: Site Technical Specifications

Antenna ID	Operator	Carrier #	Antenna Mfg	Antenna Model	Type	DAS Equipment	Frequency (MHz)	Orientation (°T)	Horizontal BWdth (°)	Antenna Aperture (ft)	Antenna Gain (dBd)	Total ERP (Watts)	Bottom Tip Height Above Ground (Z) (ft)	Bottom Tip Height Ant Level (Z) (ft)
A1	Crown Castle	1	Galtronics	P6480i	Omni	(2) RRU2203	1900	0	360	2.1	6.9	69.2	17.8	0.0
A1	Crown Castle	1	Galtronics	P6480i	Omni	(1) RRU2203	5000	0	360	2.1	3.9	2.5	17.8	0.0

Figure 3: A total of three RRUs shown. Two RRUs in 1900 MHZ (PCS) and one RRU in 5000 MHz (Source: the Dtech Report, Table 2)

[Balance of Page intentionally left blank]

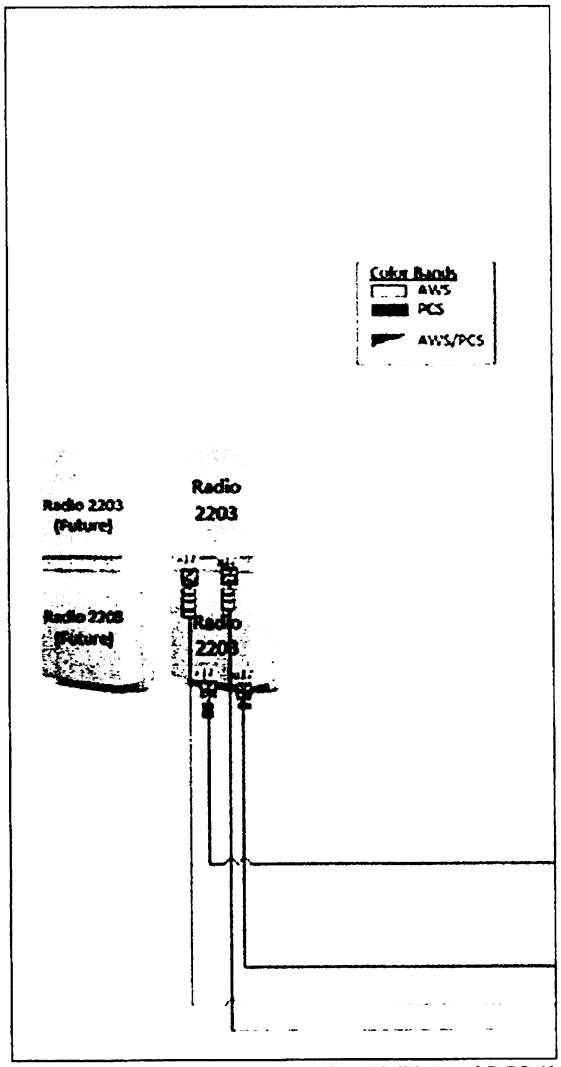


Figure 4: Two RRUS in AWS (2100 MHz) and PCS (1900 MHz) frequencies (Source: Plans page D-3; Panel 1)

We suspect that Dtech was presented with radio frequency information by Crown Castle early in its development process that subsequently changed in the Plans submitted to the City. We recommend that the City direct Crown Castle to (a) delete the "Future" elements from the project, including without limitation to the "Future RRUs" and (b) have Dtech prepare an updated report that only assesses what is actually proposed to be activated.

C. OTHER PERMITS AND APPLICATIONS REQUIRED

This project is likely to require an encroachment permit as a separate set of approvals including an excavation permit, fiber installation permit, building permit, and electrical permit.

D. CLOSING COMMENTS AND RECOMMENDATION

TLF believes that Crown Castle has failed to submit a complete permit application that complies with the City's Requirements Form. The list of incomplete items in this memo contains TLF's observations. The City may have other items for the incomplete notice. Under the FCC rules, there is only one incomplete notice, so it is imperative that all items which are incomplete are listed in the first notice.

We recommend that the City deem Crown Castle's application incomplete and issue a timely incomplete notice to Crown Castle no later than September 27, 2017(based on the application materials tender date of August 28, 2017). TLF recommends the City send the incomplete notice by email and on the same day also sends it by First Class or Certified U.S. Mail postage prepaid.

Once a reply to the City's incomplete notice is received back from Crown Castle, the City has only 10 calendar days to determine whether the reply is responsive to the incomplete notice, and each of the 10 days counts against the overall 150 day shot clock, thus immediate review upon resubmission should occur.

Finally, Crown Castle's letter dated August 29, 2017 asserts that this project is subject to a 90-day shot clock. Crown Castle is incorrect. It relies on documents adopted after the FCC's October 21, 2014 Order. Newer documents are not applicable to the shot clock. The correct shot clock for this project is 150 days.

/JLK

City of Torrance, Community Development Department Jeffery W. Gibson, Director
3031 Torrance Blvd., Torrance, CA 90503, Phone (310) 618-5990 Fax (310) 618-5829

SUBMITTAL REQUIREMENTS FOR WIRELESS TELECOMMUNICATION FACILITIES

APPLICATION FORM

☐ One original Development Application and Supplemental Technical Information Report.

PROPERTY OWNERSHIP

☐ Evidence of ownership of the real property on which the proposed telecom facility will be located, and evidence of authorization from the real property owner to place the facility on the property.

SEVEN (7) SETS OF THE FOLLOWING:

PROJECT PLANS

☐ Full size (24"X36") Plot Plan, Floor Plans and Elevations need to be stapled, collated and folded to approximately 9"X12" in size.

JUSTIFICATION

☐ A brief narrative, accompanied by written documentation where appropriate, which explains the purpose of the facility and validates the applicant's efforts to comply with the design, location, and co-location standards of Article 39 of Chapter 2 of Division 9. Please refer to section 4.00 of the SUPPLEMENTAL TECHNICAL INFORMATION REPORT.

MAPS

☐ A map or maps showing the geographic area to be served by the facility. Please refer to section 6.00 of the SUPPLEMENT TECHNICAL INFORMATION REPORT.

VISUAL SIMULATIONS

☐ Visual simulations showing "before" and "after" views of the proposed facility. Consideration shall be given to views from both public areas and private residence. Please refer to section 7.00 of the SUPPLEMENTAL TECHNICAL INFORMATION REPORT.

City of Torrance, Community Development Department Jeffery W. Gibson, Director
3031 Torrance Blvd., Torrance, CA 90503, Phone (310) 618-5990 Fax (310) 618-5829

SUPPLEMENTAL TECHNICAL INFORMATION REPORT FOR WIRELESS TELECOMMUNICATION FACILITIES

1.00: Project Address ROW F/O 22917 Fonthill Ave

Assessor Parcel Number N/A Public ROW

2.00: Disclose the Name and Address of all Project Owners, and attach a letter of agency appointing the Applicant as representative of the Project Owners in connection with this application. Designate the letter of agency as "Attachment 2.00".

3.00: **FCC Licensee/FAA Compliance Information**

3.01: Identify each person or legal entity that will be using the wireless site and contact information (Attach additional sheets if necessary)

Name: Crown Castle NG West LLC-Aaron Snyder

Address: 200 Spectrum Center Drive, Suite 1800

City, State, Zip: Irvine, CA 92618

Phone: (949) 344-7834 Fax: _____

Email: Aaron.Snyder@crowncastle.com

3.02: Attach a complete copy of each FCC license or FCC Construction Permit for each person/legal entity that will be subject to the FCC license for the Project site. Designate the license(s)/Construction Permit(s) as "Attachment 3.02". If none of the proposed radio facilities require an FCC license so indicate on Attachment 3.02.

3.03: What is the intended use of the facility (check all that apply):

- ☐ Broadcast Radio
- ☐ Broadcast TV
- ☑ Cellular telephone
- ☐ Enhanced Specialized Mobile Radio
- ☐ Microwave
- ☑ PCS telephone
- ☐ Paging
- ☐ Specialized Mobile Radio
- ☑ Other: 5 GHz Spectrum

3.04: Project latitude and longitude: N 33 49 9.336 W 1118 20 19.608

SUPPLEMENTAL TECHNICAL INFORMATION REPORT FOR WIRELESS TELECOMMUNICATION FACILITIES

3.05: Specify DATUM use above: ____ WGS84 ____ NAD23 x NAD83

3.06: Project Maximum height (ft): 39'0"

3.07: Bottom of lowest antenna (ft): 24'0"

3.08: Rad-center of the antennas (ft): 25'0"

3.09: For each licensee, and for each radio service, complete and attach the two page "Appendix A" form from "A Local Government Official's Guide to Transmitting Antenna RF Emission Safety: Rules, Procedures, and Practical Guidance" available from the following website: http://www.FCC.gov/oet/rfsafety. Designate the completed two page form as "Attachment 3.09". Additional RF safety disclosure information may be required by the government to determine compliance with FCC OET 65 requirements if the site is not "categorically excluded" under OET 65.

3.10 Are any areas adjacent to the antennas subject to RF emissions that are in excess of the "General Public/uncontrolled" standard in FCC OET 65? For this purpose, assume that all persons other than the Carrier's technical staff are considered to be members of the General Public.
____ Yes x No
(If the answer to 3.10 is NO proceed to 3.12)

3.11 Provide a detailed RF analysis for each emitter and each band showing the distance, in feet, in all directions to the boundary of the General Public/uncontrolled boundary.
Designate this attachment, "Attachment 3.11".

3.12 Considering your response to 3.10, above, and any other identifiable RF emitters that OET 65 requires be evaluated in connection with this project, are all portions of this project cumulatively "categorically excluded" under FCC OET 65 requirements?
x Yes ____ No
(If the answer to 3.12 is YES proceed to 3.14.)

3.13 Describe in an attachment each and every RF emitter of the project that is not "categorically excluded" under the FCC OET 65 requirements. Designate this attachment, "Attachment 3.13".

3.14: Does this project require the Applicant to file an FAA Form 7460 or other documentation under Federal Aviation Regulation Part 77.13 et seq, or under the FCC rules?
____ Yes x No
(If the answer to 3.14 is NO proceed to 4.00.)

3.15 Attach complete copies of all required FAA/FCC forms including all attachments and exhibits thereto, including without limitation FAA Form 7460. Designate this attachment, "Attachment 3.15".

4.00: **Project Purpose**

4.01: Justification. Provide a brief narrative, accompanied by written documentation where appropriate, which explains the purpose of the facility and validates the applicant's efforts to comply with the design, location, and co-location standards of Chapter 2, Division 9, Article 39 of the City's Municipal Code.

Crown Castle NG West LLC, Utility No U-6745-C, obtained a Certificate of Public Convenience and Necessity (CPCN) from the California Public Utilities Commission in Decision No. 07-04-045 to provide full facilities based radiofrequency transport services. CPCN Conclusion of Law No. 4 states: "Public convenience and necessity require NextG's full facilities-based local exchange services to be offered to the public subject to the terms and conditions set forth herein." This justification is sufficient under the California state law and under Crown's authorized provision of radiofrequency transport services. No further site justification is required.

4.02: Indicate whether the dominant purpose of the Project is to add additional network capacity, to increase existing signal level, or to provide new radio frequency coverage (check only one).
☐ Add network capacity without adding substantial new RF coverage area (Proceed to 5.00)
☑ Increase the existing RF signal level in an existing coverage area (Proceed to 5.00)
☐ Provide new radio frequency coverage in a substantial area not already served by existing radio frequency coverage (Proceed to 5.00)
☐ Other

4.03 Attach a statement fully and expansively describing the "Other" dominant purpose of this project. Designate this attachment, "Attachment 4.03".

5.00: **Build-Out Requirements**

5.01: Do any of radio services identified in 3.04 above require the licensee to provide specific radio frequency/population coverage pursuant to the underlying FCC license?
x Yes ___ No
(If the answer to 5.01 is NO proceed to 6.00.)

5.02: Have all of the FCC build-out requirements as required by all licenses covering all radio services proposed at this Project been met?
x Yes ___ No
(If the answer to 5.02 is YES proceed to 6.00.)

5.03: State by licensee all remaining build-out requirements which have yet to be met, and the known or estimated date when the remaining build-out requirements will be met. Designate this attachment "Attachment 5.03".

6.00: **Radio Frequency Coverage Maps**

6.01: Where a licensee intends to provide radio frequency geographic coverage to a defined area from the Project (including applicants in the cellular, PCS, broadcast, ESMR/SMR categories, and others as requested by the City of Torrance), the coverage maps and information requested in Section 6 are required attachments. All others proceed to 7.00.

For the coverage maps required here, the following mandatory requirements apply. Failure to adhere to these requirements may delay your application processing.

1. The size of each submitted map must be no smaller than 11" by 8.5".

2. If the FCC rules for any proposed radio service defines a minimum radio frequency signal level that level must be shown on the map in a color easily distinguishable from the base paper or transparency layer, and adequately identified by RF level and map color or gradient in the map legend. If no minimum signal level is defined by the FCC rules you must indicate that in the legend of each RF coverage map. You may show other RF signal level(s) on the map so long as they are adequately identified by objective RF level and map color or gradient in the map legend.

3. Where the City of Torrance determines that one or more submitted maps are inadequate, it reserved the right to request that one or more supplemental maps with greater or different detail be submitted.

6.02: Existing RF coverage within the City of Torrance on the same network, if any (if none, so state). This map should not depict any RF coverage to be provided by the Project. Designate this attachment "Attachment 6.02".

6.03: RF coverage to be provided by the Project. This map should not depict any RF coverage provided any other existing or proposed wireless sites. Designate this attachment "Attachment 6.03".

6.04: RF coverage to be provided by the Project and by other wireless sites on the same network should the Project site be activated. Designate this attachment "Attachment 6.04".

6.05: Provide a written certification that the facility will continuously comply with FCC OET Bulletin 65 radio frequency emissions standards, and that use of the facility will not interfere with other communication, radio, or television transmission or reception.

7.00: **Project Photographs and Photo Simulations**

7.01: Where an Applicant proposes to construct or modify a wireless site, and the wireless site is visible from other residential properties, the Applicant shall submit pre-project photographs, and photo simulations showing the project after completion of construction, all consistent with the following standards:

1. Minimum size of each photo simulation must be 11 inches by 8.5 inches (portrait or landscape orientation);

2. All elements of the project as proposed by the Applicant must be shown in one or more close-in photo simulations.

3. The overall project as proposed by the Applicant must be shown in five or more area photos and photo simulations. Photos and photo simulation views must, at a minimum, be taken from widely scattered positions separated by an angle of no greater than 72 degrees from any other photo location.

The number of site photos, and photo simulations, and the actual or simulated camera location of these photos and photo simulations is subject to City of Torrance determination. The Applicant should submit photos and photo simulations consistent with these instructions, and be prepared to provide additional photos and photo simulations should they be requested by the City of Torrance.

8.00: **Candidate Sites**

8.01: For applicants in the cellular, PCS, broadcast, ESMR/SMR categories, and others as requested by the City of Torrance, the information requested in Section 8 is required. All others proceed to 9.00.

8.02: Has the Applicant or Owner or anyone working on behalf of the Applicant or Owner secured or attempted to secure any leases or lease-options or similar formal or informal agreements in connection with this project for any sites other than the candidate site identified at 1.00?
___ Yes x No
(If the answer to 8.02 is NO, proceed to 8.05.)

8.03: Provide the physical address of each such other location, and provide an expansive technical explanation as to why each such other site was disfavored over the Project Site. Designate this attachment "Attachment 8.03".

8.04: Considering this proposed site, is it the one and only one location within or without the City of Torrance that can possibly meet the objectives of the project?
___ Yes ___ No
(If the answer to 8.04 is NO, proceed to 9.00.)

8.05: Provide a technically expansive and detailed explanation supported as required by comprehensive radio frequency data fully describing why the proposed site is the one and only one location within or without the City of Torrance that can possibly meet the radio frequency objectives of the project. Explain, in exact and expansive technical detail, all of the objectives of this project. Designate this attachment "Attachment 8.05".

9.00: **Identification of Key Persons**

9.01: Identify by name, title, company affiliation, work address, telephone number and extension, and email address the key person or persons most knowledgeable regarding:

(1) the site selection for the proposed project, including alternatives;
(2) the radio frequency engineering of the proposed project;
(3) rejection of other candidate sites evaluated, if any;
(4) approval of the selection of the proposed site identified in this project.
Designate this attachment "Attachment 9.01"

9.02 If more than one person is/was involved in any of the four functions identified in this section, attach a separate sheet providing the same information for each additional person, and identifying which function or functions are/were performed by each additional person. Designate this attachment "Attachment 9.02".

Initial here _____ to indicate that the information above is complete and there is no Attachment 9.02, or initial here _____ to indicate that Attachment 9.02 is attached hereto.

10.00: **Technical Information Report Certification**

10.01: The undersigned certifies on behalf of itself and the Applicant that the answers provided here are true and complete to the best of the undersigned's knowledge.

[redacted] GRPM
Signature Title

Aaron Snyder Aaron.Snyder@crowncastle.com
Print Name Provide Email Address

Crown Castle NG West LLC 949-344-7834
Print Company Name Provide Telephone Number

8/16/18
Date Signed

Crown Castle
200 Spectrum Center Drive
Suite 1800
Irvine, CA 92618

August 6, 2018

RE: Resubmittal of Crown Castle Applications for Wireless Facilities in the Public Rights Of Way (PROW)

This notice is to address a comment in the city incomplete letter issued by Dr Jonathan Kramer from Telecom Law.

The DTECH report submitted for each of the applications is the correct EME report for purposes of this particular type of design and respective location.

The BUSHBERG note on the application was a clerical error corresponding to another application for another city.

Also, the locations are designed using down converter units which is a method of transferring power over existing communication/power space per applicable utility code. The particular radio equipment is manufactured to be powered via this type of design. Further, this method of powering the wireless facility enables a more streamline design without added equipment components on the pole.

Any questions pertaining to the above, please call or email me at Aaron.Snyder@crowncastle.com or [redacted]

Very truly yours,
CROWN CASTLE NG WEST LLC
[redacted]
Aaron Snyder
Government Relations Project Manager

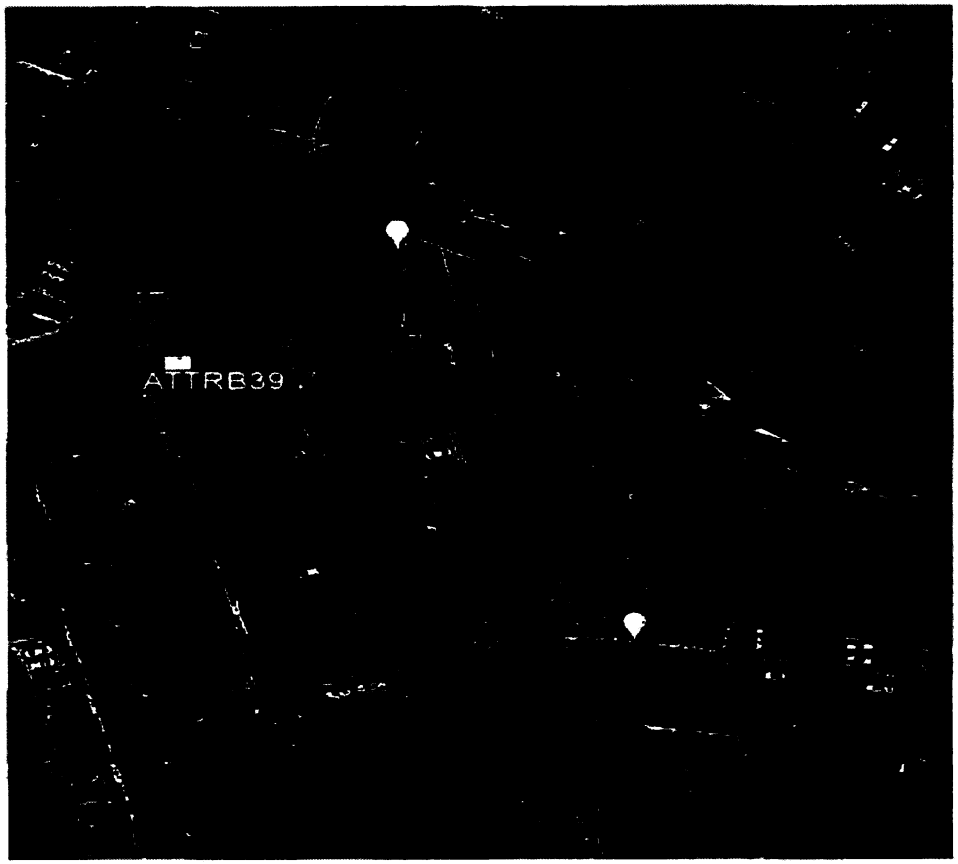
AT&T RB39

Primary

Alternate #1

Alternate #2

CROWN CASTLE



RB39 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on utility poles or new pole placements.

All locations will meet the RF coverage objective.

The alternatives have landscaping, man-made structures and screening methods at each option. However, both the new pole placements will require a large pole to meet the RF coverage objective.

This location is sighted to fill an existing gap is wireless service along Fonthill and 230th Streets. The location will provide needed service to residences, entreprenuers, users of the ROW and emergency personnel that may be in the area.

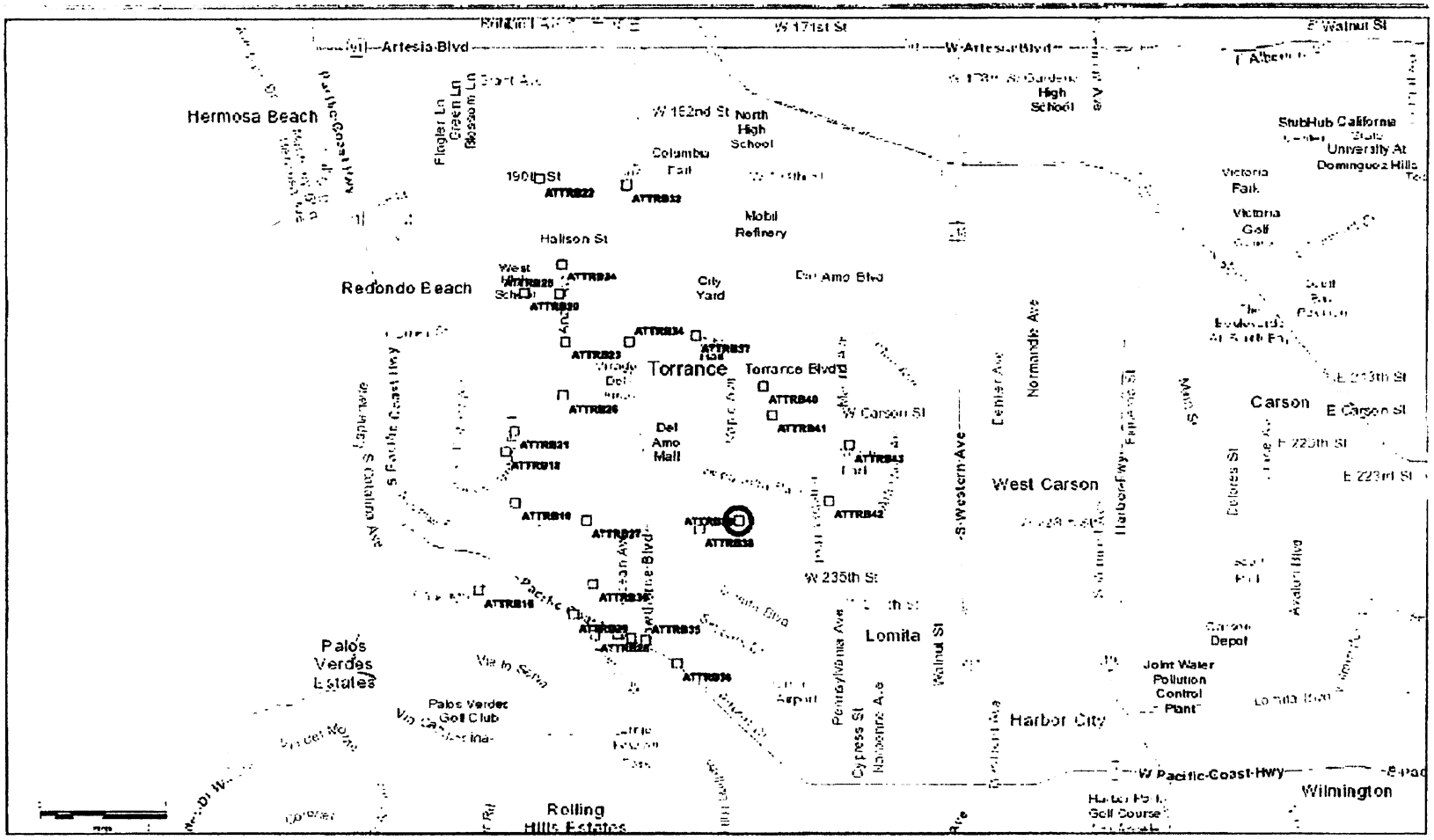
CROWN CASTLE

06/19/2018

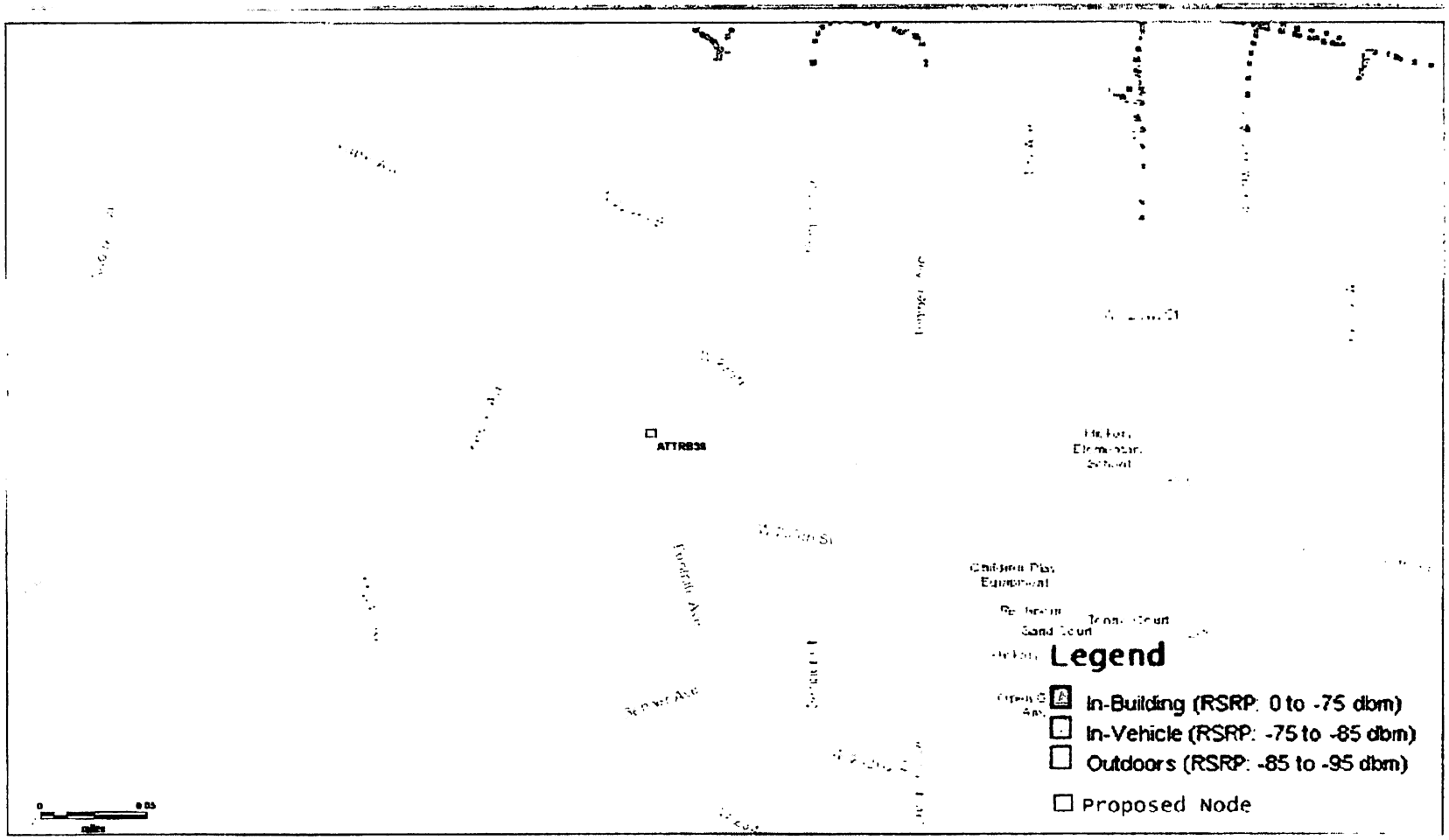
AT&T Wireless Network Densification – Torrance Jurisdiction

29

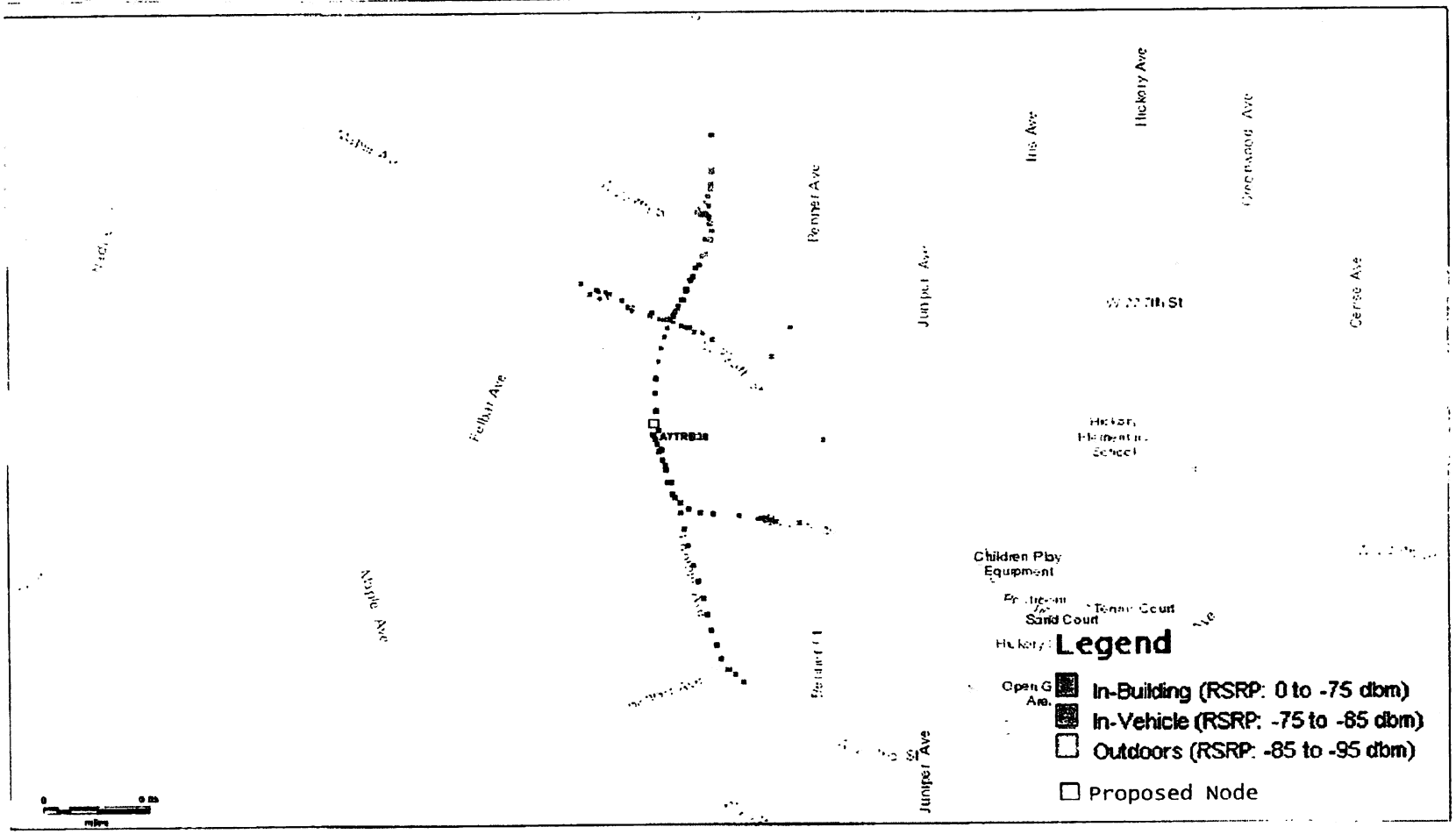
ATTRB39 Node Location



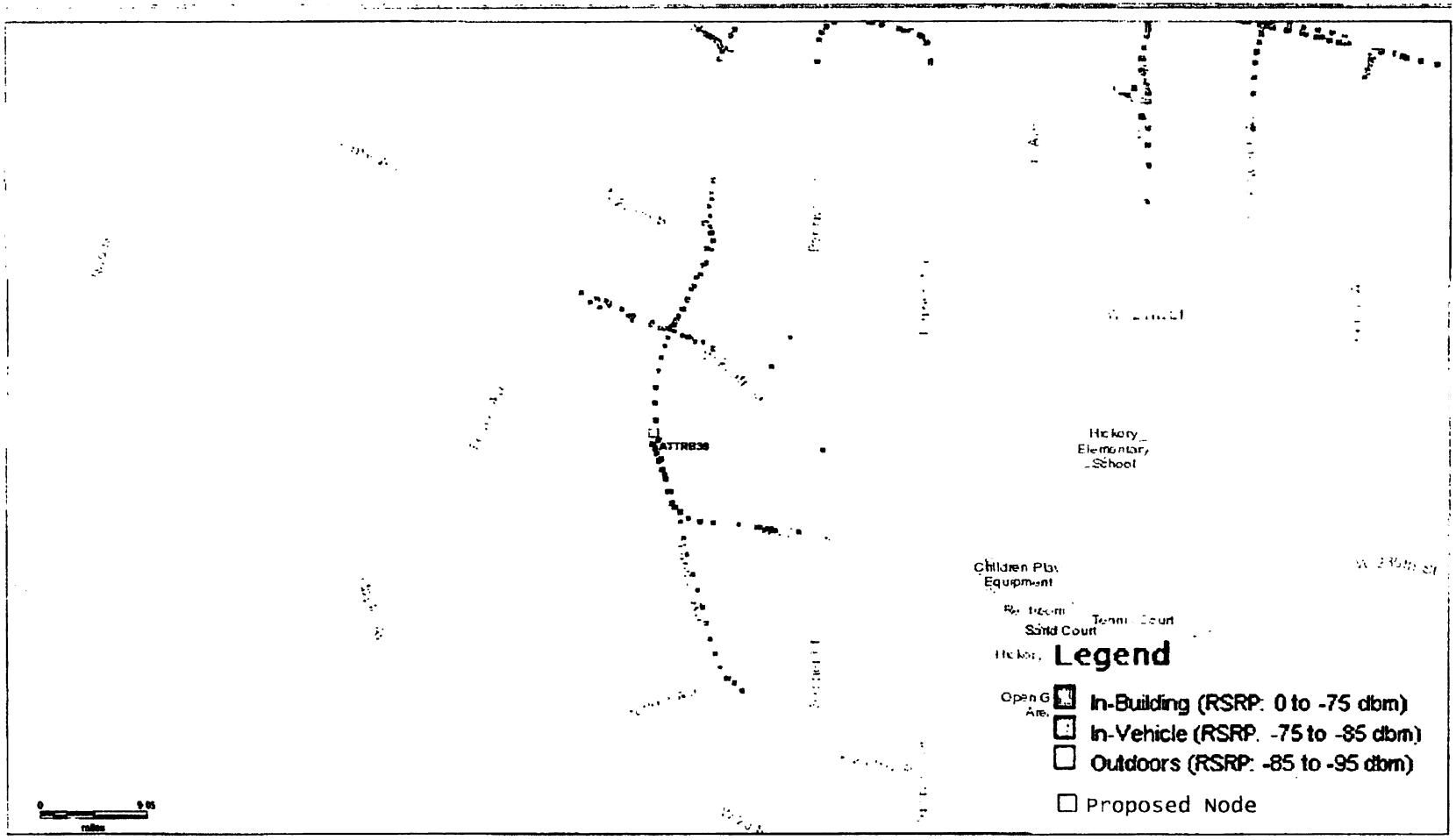
Existing Coverage



Proposed Coverage



Combined Existing and Proposed Coverage



REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: LESLIE WILSON
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
KNLF205	
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
06-05-2015	06-13-2017	06-23-2025	

Market Number	Channel Block	Sub-Market Designator
MTA002	B	37

Market Name
Los Angeles-San Diego

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
06-23-2000	06-23-2005		

Waivers/Conditions:

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

Spectrum Lease associated with this license. See Spectrum Leasing Arrangement Letter dated 12/07/2004 and File No. 0001757186.

Spectrum Leasing Arrangement associated with file number 0001757186 was extended to 01/05/2006. See file number 0002157743.

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: AT&T MOBILITY SPECTRUM LLC

ATTN: LESLIE WILSON
AT&T MOBILITY SPECTRUM LLC
208 S AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
WQHT993	
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0014980726

Grant Date	Effective Date	Expiration Date	Print Date
06-10-2015	06-08-2017	06-23-2025	

Market Number	Channel Block	Sub-Market Designator
MTA002	B	14

Market Name
Los Angeles-San Diego

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

Spectrum Lease associated with this license. See Spectrum Leasing Arrangement Letter dated 02/01/2006 and File No 0002428329

Spectrum Lease associated with this license. See Spectrum Leasing Arrangement Letter dated 02/01/2006 and File No. 0002428332.

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: AT&T MOBILITY SPECTRUM LLC

ATTN: LESLIE WILSON
AT&T MOBILITY SPECTRUM LLC
208 S AKARD
DALLAS, TX 75202

Call Sign	File Number
KNLG472	
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0014980726

Grant Date	Effective Date	Expiration Date	Print Date
04-07-2017	08-10-2017	04-28-2027	

Market Number	Channel Block	Sub-Market Designator
BTA262	D	0

Market Name
Los Angeles, CA

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
04-28-2002			

Waivers/Conditions:

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: AT&T MOBILITY SPECTRUM LLC

ATTN: LESLIE WILSON
AT&T MOBILITY SPECTRUM LLC
208 S AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
KNKA351	0007844640
Radio Service CL - Cellular	
Market Numer CMA002	**Channel Block** A
Sub-Market Designator 0	

FCC Registration Number (FRN): 0014980726

Market Name
Los Angeles-Long Beach/Anaheim

Grant Date	Effective Date	Expiration Date	Five Yr Build-Out Date	Print Date
08-29-2017	08-29-2017	10-01-2027		08-29-2017

Site Information:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
2	35-27-11.1 N	116-35-43.3 W	1604.2	18.6	

Address: I-15 & Fort Irwin Rd (97741)
City: Fort Irwin **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	660.900	506.900	555.500	669.800	723.800	630.600	597.100	722.500
Transmitting ERP (watts)	0.700	20.300	61.800	19.000	1.100	0.123	0.123	0.123
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	660.900	506.900	555.500	669.800	723.800	630.600	597.100	722.500
Transmitting ERP (watts)	0.500	0.500	1.100	52.900	240.400	59.400	1.800	0.500
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	660.900	506.900	555.500	669.800	723.800	630.600	597.100	722.500
Transmitting ERP (watts)	14.900	1.300	0.800	0.800	4.200	104.700	398.100	237.500

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA351 **File Number:** 0007844640 **Print Date:** 08-29-2017

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
18	35-21-45.8 N	117-38-27.1 W	1261.0	78.0	1200992

Address: 36753 Randsburg Loop (11660)
City: Johannesburg **County:** KERN **State:** CA **Construction Deadline:**

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	355.500	248.000	335.500	404.500	358.200	159.600	544.400	441.000
Transmitting ERP (watts)	0.636	0.636	5.600	135.100	318.400	67.700	0.900	0.636
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	355.500	248.000	335.500	404.500	358.200	159.600	544.400	441.000
Transmitting ERP (watts)	5.600	0.900	0.900	1.300	3.500	128.200	444.600	147.200
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	355.500	248.000	335.500	404.500	358.200	159.600	544.400	441.000
Transmitting ERP (watts)	444.600	147.200	5.600	0.900	0.900	1.300	3.500	128.200

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
20	33-39-17.7 N	115-27-14.4 W	1144.8	36.3	

Address: CHUCKWALLA PEAK (12334)
City: DESERT CENTER **County:** RIVERSIDE **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	845.500	899.600	526.900	229.100	487.900	651.100	687.700	555.000
Transmitting ERP (watts)	7.800	70.700	199.300	97.800	13.200	1.200	0.400	0.500
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	845.500	899.600	526.900	229.100	487.900	651.100	687.700	555.000
Transmitting ERP (watts)	33.600	3.300	0.800	0.800	11.900	115.800	383.600	227.000
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	845.500	899.600	526.900	229.100	487.900	651.100	687.700	555.000
Transmitting ERP (watts)	98.600	43.500	5.100	0.400	0.200	0.200	2.900	30.500
Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	845.500	899.600	526.900	229.100	487.900	651.100	687.700	555.000
Transmitting ERP (watts)	4.300	43.100	132.500	60.800	7.500	0.600	0.300	0.300
Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	845.500	899.600	526.900	229.100	487.900	651.100	687.700	555.000
Transmitting ERP (watts)	11.400	1.100	0.100	0.200	5.100	17.400	19.200	20.300

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA351 **File Number:** 0007844640 **Print Date:** 08-29-2017

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
30	33-37-03.6 N	114-46-20.0 W	251.8	30.8	1055655

Address: 87 BLACK ROCK MOUNTAIN (12357)
City: BLYTHE **County:** RIVERSIDE **State:** CA **Construction Deadline:**

Antenna: 3 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	112.600	147.200	182.600	191.000	158.800	129.900	141.700	30.000
Transmitting ERP (watts)	128.800	63.600	15.500	1.200	0.300	1.000	15.800	66.600

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
39	33-23-12.0 N	118-24-03.0 W	612.6	38.1	1061572

Address: BLACK JACK PEAK (12079)
City: AVALON **County:** LOS ANGELES **State:** CA **Construction Deadline:**

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	632.000	634.300	639.300	408.800	540.800	517.900	603.200	548.600
Transmitting ERP (watts)	0.708	1.300	6.400	65.700	354.000	113.600	3.700	1.300
Antenna: 2 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	632.000	634.300	639.300	408.800	540.800	517.900	603.200	548.600
Transmitting ERP (watts)	3.000	1.200	0.900	2.100	7.500	104.600	429.500	95.400

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
40	35-26-07.8 N	115-55-26.2 W	1359.1	38.1	

Address: TURQUOISE MTN (11647)
City: BAKER **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	353.000	216.900	171.500	319.100	610.800	620.900	694.600	461.800
Transmitting ERP (watts)	390.800	379.800	369.000	358.500	348.300	358.500	369.000	379.800

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
42	34-18-38.5 N	114-10-11.1 W	518.5	37.2	

Address: BLACK METAL HILL (11648)
City: Parker Dam **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	242.100	127.600	290.700	246.000	337.600	260.400	30.000	373.700
Transmitting ERP (watts)	0.100	0.100	0.500	5.800	47.200	16.700	0.300	0.100

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA351 **File Number:** 0007844640 **Print Date:** 08-29-2017

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
70	34-45-36.2 N	117-47-58.0 W	962.9	16.5	

Address: 185TH STREETE AVE E (24315)
City: LANCASTER **County:** LOS ANGELES **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	239.000	125.000	51.100	74.300	93.200	180.700	205.400	254.000
Transmitting ERP (watts)	1.000	73.800	318.700	145.100	5.300	0.637	0.637	0.637
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	239.000	125.000	51.100	74.300	93.200	180.700	205.400	254.000
Transmitting ERP (watts)	0.430	0.430	0.430	5.200	108.800	215.400	51.700	0.430
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	239.000	125.000	51.100	74.300	93.200	180.700	205.400	254.000
Transmitting ERP (watts)	243.600	23.500	0.512	0.512	0.512	0.512	27.800	256.100

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
71	34-33-00.8 N	118-40-04.4 W	747.7	31.1	

Address: 34703 GOLDEN STATE FWY (24316)
City: CASTAIC **County:** LOS ANGELES **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	229.100	349.100	275.800	248.600	156.500	30.000
Transmitting ERP (watts)	0.300	0.700	24.300	142.200	78.600	4.800	0.400	0.300
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	229.100	349.100	275.800	248.600	156.500	30.000
Transmitting ERP (watts)	157.800	6.000	1.000	1.000	1.400	3.800	137.400	476.400

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
72	34-47-39.0 N	118-51-04.7 W	1160.4	24.4	

Address: 49723 Gorman School Rd (24317)
City: GORMAN **County:** LOS ANGELES **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	175.100	30.000	84.400	111.700	91.400	30.000	30.000	30.000
Transmitting ERP (watts)	3.000	43.100	349.300	126.600	2.900	0.700	0.700	0.800

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA351 **File Number:** 0007844640 **Print Date:** 08-29-2017

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
77	33-26-12.7 N	116-50-58.4 W	655.0	18.9	

Address: 46566 HIGHWAY 79 (24340)
City: AGUANGA **County:** RIVERSIDE **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	30.000	30.000	67.700
Transmitting ERP (watts)	0.700	0.700	9.400	155.600	325.100	45.900	2.200	0.700
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	30.000	30.000	68.100
Transmitting ERP (watts)	64.900	3.000	0.700	0.700	0.700	6.100	123.600	340.400

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
78	33-27-04.7 N	117-05-51.2 W	344.7	18.0	

Address: 47835 PALA ROAD (24413)
City: TEMECULA **County:** RIVERSIDE **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	80.400	30.000	43.300
Transmitting ERP (watts)	0.607	3.200	114.100	303.900	54.000	1.200	0.900	1.000
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	80.400	30.000	43.300
Transmitting ERP (watts)	91.300	235.500	41.200	0.700	0.700	0.700	0.500	3.100
Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	80.400	30.000	43.300
Transmitting ERP (watts)	34.800	0.600	0.600	0.500	0.419	2.900	81.000	209.700

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
79	33-35-48.0 N	116-35-36.0 W	1447.8	13.7	

Address: 61600 DEVIL LADDER (48206)
City: MOUNTAIN CENTER **County:** RIVERSIDE **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	30.000	263.300	167.000	30.000	171.200	215.400	57.900	60.000
Transmitting ERP (watts)	1.500	1.900	101.700	454.200	191.800	9.000	0.908	0.908

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA351 **File Number:** 0007844640 **Print Date:** 08-29-2017

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
82	33-31-13.4 N	117-18-12.1 W	676.7	13.7	

Address: 19570 TENAJA RD (48243)
City: MURRIETA **County:** RIVERSIDE **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	157.900	214.700	243.700	329.600	444.200	30.000	130.400	30.000
Transmitting ERP (watts)	1.300	28.800	62.800	10.500	0.300	0.125	0.125	0.125
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	157.900	214.700	243.700	329.600	444.200	30.000	130.400	30.000
Transmitting ERP (watts)	0.100	0.100	0.200	4.600	49.000	44.300	3.800	0.100
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	157.900	214.700	243.700	329.600	444.200	30.000	130.400	30.000
Transmitting ERP (watts)	41.500	2.300	0.300	0.200	0.200	1.000	23.400	95.800

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
83	33-28-48.6 N	116-50-39.3 W	869.3	31.4	

Address: 46-900 HWY 371 (48207)
City: AGUANGA **County:** RIVERSIDE **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	30.000	382.200	217.800
Transmitting ERP (watts)	1.000	0.800	0.800	16.800	237.300	387.900	60.100	1.700
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	30.000	382.200	217.800
Transmitting ERP (watts)	51.100	370.400	266.300	19.300	0.800	0.900	1.100	0.740

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
85	34-05-18.1 N	114-28-54.4 W	162.2	48.8	

Address: 9250 HWY 95 (47921)
City: VIDAL **County:** SAN BERNARDINO **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	31.300	101.400	103.800	102.400	30.000	30.000	30.000
Transmitting ERP (watts)	84.000	402.100	293.500	24.400	1.400	0.804	0.804	2.800

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA351 **File Number:** 0007844640 **Print Date:** 08-29-2017

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
89	33-28-06.6 N	117-08-08.8 W	316.4	24.4	

Address: 44501 RAINBOW CANYON RD (36311)
City: TEMECULA **County:** RIVERSIDE **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	68.100	30.000	30.000
Transmitting ERP (watts)	0.600	0.600	9.100	101.700	291.700	90.700	8.900	0.600
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	68.100	30.000	30.000
Transmitting ERP (watts)	63.200	12.000	0.800	0.126	0.126	0.600	10.100	59.800

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
92	34-40-45.2 N	118-25-57.4 W	1173.8	46.0	

Address: 43758 LAKE VIEW RD (16287)
City: LAKE HUGHES **County:** LOS ANGELES **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	376.400	417.300	391.800	30.000	287.500	252.100	30.000	238.600
Transmitting ERP (watts)	0.300	8.400	111.400	139.400	17.700	0.500	0.300	0.300
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	376.400	417.300	391.800	30.000	287.500	252.100	30.000	238.600
Transmitting ERP (watts)	24.500	1.400	0.808	0.808	2.800	84.400	404.000	294.900
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	376.400	417.300	391.800	30.000	287.500	252.100	30.000	238.600
Transmitting ERP (watts)	404.000	294.900	24.500	1.400	0.808	0.808	2.800	84.400

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
93	33-24-36.4 N	117-36-04.2 W	50.3	16.2	

Address: 2401-1/2 AVENUE DEL PRESIDENTE (12480)
City: SAN CLEMENTE **County:** ORANGE **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	45.300	59.900	59.900	59.900	30.000
Transmitting ERP (watts)	0.700	4.300	25.500	193.200	188.800	11.400	2.500	0.400

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA351 **File Number:** 0007844640 **Print Date:** 08-29-2017

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
95	35-47-57.6 N	115-36-52.3 W	794.0	30.5	1264831

Address: 725 South Kingston Road (84824)
City: Sandy Valley **County:** CLARK **State:** NV **Construction Deadline:** 11-20-2015

Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000
Transmitting ERP (watts)	0.300	0.300	2.700	44.400	140.000	48.600	3.100	0.300

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
96	34-33-05.9 N	114-11-41.0 W	1436.5	22.0	

Address: 8.7 miles NE of (94158)
City: Lake Havasu City **County:** MOHAVE **State:** AZ **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	817.200	742.200	672.900	743.100	904.800	1028.000	997.400	664.600
Transmitting ERP (watts)	16.800	16.400	16.100	15.700	15.300	15.700	16.100	16.400

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
102	34-51-45.6 N	114-52-53.0 W	964.1	60.4	

Address: I-40 & HWY 95 N (50866)
City: NEEDLES **County:** SAN BERNARDINO **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	379.900	490.300	530.100	355.800	389.600	355.200	267.000	321.800
Transmitting ERP (watts)	4.900	21.700	33.700	11.300	1.100	0.200	0.100	0.600
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	379.900	490.300	530.100	355.800	389.600	355.200	267.000	321.800
Transmitting ERP (watts)	0.600	7.400	56.500	174.600	195.900	33.300	4.100	1.100
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	379.900	490.300	530.100	355.800	389.600	355.200	267.000	321.800
Transmitting ERP (watts)	4.700	1.000	0.400	2.200	19.100	91.400	141.600	41.800

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA351 **File Number:** 0007844640 **Print Date:** 08-29-2017

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
106	35-29-00.7 N	116-42-16.7 W	1196.3	19.5	

Address: ARMY TRAINING AREA/RANGE (159776)
City: FORT IRWIN **County:** SAN BERNARDINO **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	489.300	410.700	102.000	179.300	229.500	230.800	145.200	177.400
Transmitting ERP (watts)	31.300	142.400	60.400	3.000	0.400	0.300	0.300	1.100
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	489.300	410.700	102.000	179.300	229.500	230.800	145.200	177.400
Transmitting ERP (watts)	0.300	0.300	5.600	82.400	131.400	20.000	0.800	0.300
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	489.300	410.700	102.000	179.300	229.500	230.800	145.200	177.400
Transmitting ERP (watts)	2.000	0.400	0.100	0.100	1.600	19.100	48.000	22.000

Control Points:

Control Pt. No. 1
Address: 6045 EAST SLAUSON AVENUE
City: COMMERCE **County:** **State:** CA **Telephone Number:**

Control Pt. No. 2
Address: 301 NORTH CRESCENT WAY
City: ANAHEIM **County:** **State:** CA **Telephone Number:**

Control Pt. No. 3
Address: 15215 SOUTH BROADWAY
City: GARDENA **County:** **State:** CA **Telephone Number:**

Control Pt. No. 4
Address: 4135 GARNER ROAD
City: RIVERSIDE **County:** **State:** CA **Telephone Number:**

Waivers/Conditions:

This authorization is subject to the condition that, in the event cellular systems using the same frequencies granted herein are authorized in adjacent territory in Mexico, coordination of your transmitter installations which are within 72km (45 miles) ofthe U.S.-Mexico border shall be required to eliminate any harmful interference that might otherwise exist and to ensure continuance of equal access to the frequencies by both countries. The operation of this system must be advised that operation of aunit in Mexico is not permitted at this time without the express permission of the Mexican Government. The above conditions are subject to modification pending exchange of diplomatic notes between the United States and Mexico concerning coordination ofcellular system frequencies.

Dtech communications

RADIO FREQUENCY ELECTROMAGNETIC FIELDS EXPOSURE REPORT

Prepared for Crown Castle

Site Name: Arm Mount Configuration
Site Type: Omni Antenna RC ≥ 18.8 ft
Report By: Christopher Stollar, P.E.
Report Date: 8/2/2017

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

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY

Dtech Communications, LLC ("Dtech") has been retained by Crown Castle to determine whether its wireless communications facility complies with the Federal Communications Commission ("FCC") Radio Frequency ("RF") Safety Guidelines. This report contains a computer-simulated analysis of the Electromagnetic Fields ("EMF") exposure resulting from a typical, minimum 18.8-foot antenna radiation center ("RC"), utility pole facility. The analysis also includes assessment of existing wireless carriers on site, where information is provided. The table below summarizes the result at a glance:

Table 1: EMF Summary

Access Type	Walk-Up
Access to antennas locked	NA
RF Sign(s) @ access point(s)	None
RF Sign(s) @ antennas	Information (Recommended)
Barrier(s) @ sectors	NA
Max Cumulative EMF level for Crown Castle on Ground	1.4% General Population
Max Cumulative EMF level for Crown Castle at Antenna Elevation	43.2% General Population (8.6% Occupational)
General Population Keep Back Distance (At Antenna Elevation)	NA

2.0 SITE DESCRIPTION

The wireless telecommunication facility is located on the ground. The antenna is omni-directional, designed to achieve 360 degrees of coverage. For this scenario, Crown Castle's antenna is mounted on a utility pole and connected to the equipment via cables (see Appendix E).

2.1 Antenna Inventory

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

Table 2: Site Technical Specifications

Antenna ID	Operator	Carrier #	Antenna Mfg	Antenna Model	Type	DAS Equipment	Frequency (MHz)	Orientation (°T)	Horizontal BWdth (°)	Antenna Aperture (ft)	Antenna Gain (dBd)	Total ERP (Watts)	Bottom Tip Height Above Ground (Z) (ft)	Bottom Tip Height Ant Level (Z) (ft)
A1	Crown Castle	1	Galtronics	P6480i	Omni	(2) RRU2203	1900	0	360	2.1	6.9	69.2	17.8	0.0
A1	Crown Castle	1	Galtronics	P6480i	Omni	(1) RRU2203	5000	0	360	2.1	3.9	2.5	17.8	0.0

3.0 ANALYSIS

3.1 Emission Predictions

Figure 1: Plan (bird's eye) view map of results compared to the FCC's General Population MPE (Maximum Permissible Exposure) Limits. Gray represents areas where exposure levels are calculated to be at or below 5%; Green- between 5% & 100% (below MPE limits); blue, yellow & red – greater than 100% (exceeds MPE limits). Individuals can safely occupy areas in gray and green for an indefinite amount of time; whereas areas in blue, yellow & red must be restricted to RF trained personnel who have been made fully aware of potential for exposure, have control and know how to reduce their exposure with the use of personal protection equipment or have the ability to power down the transmitters.

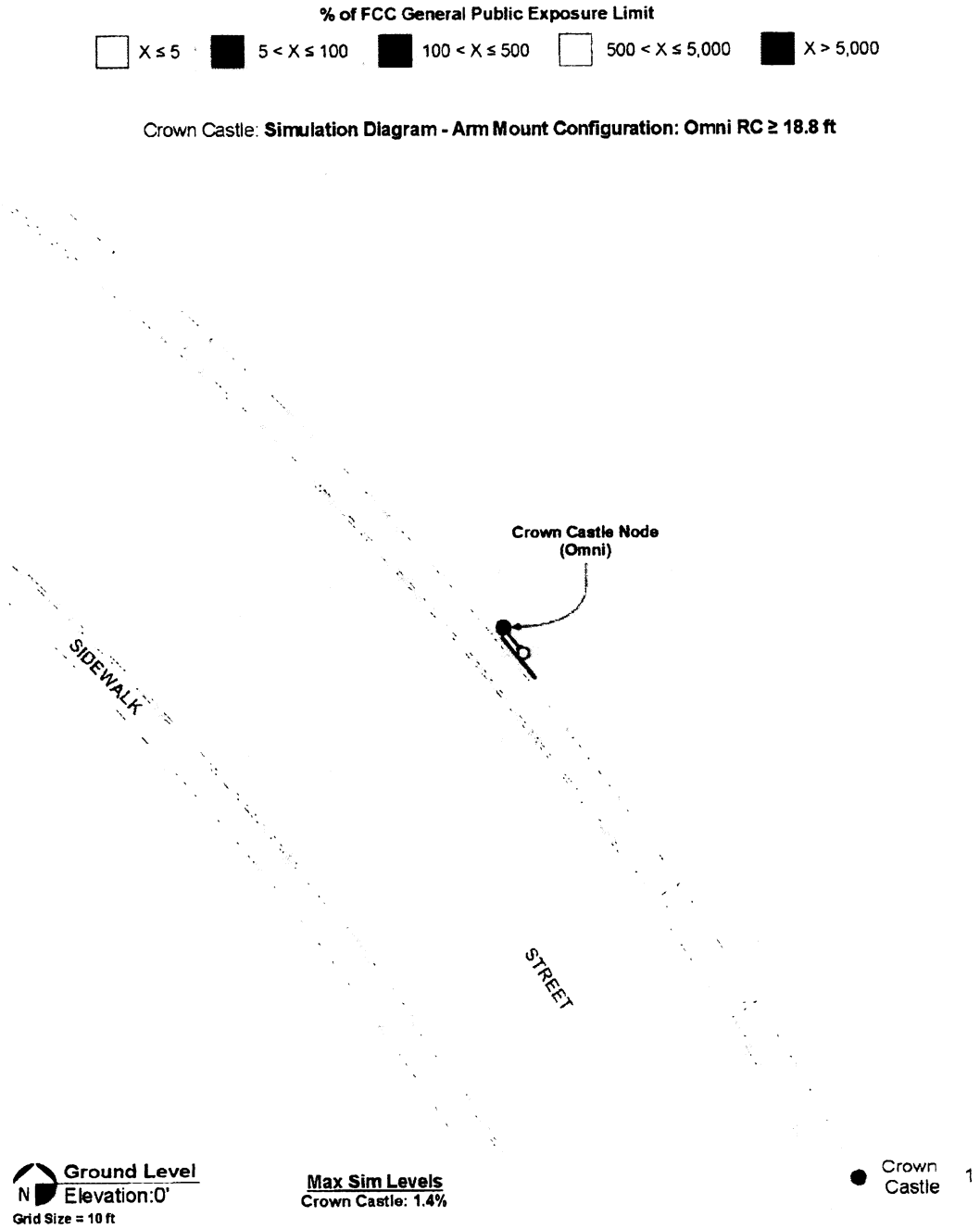
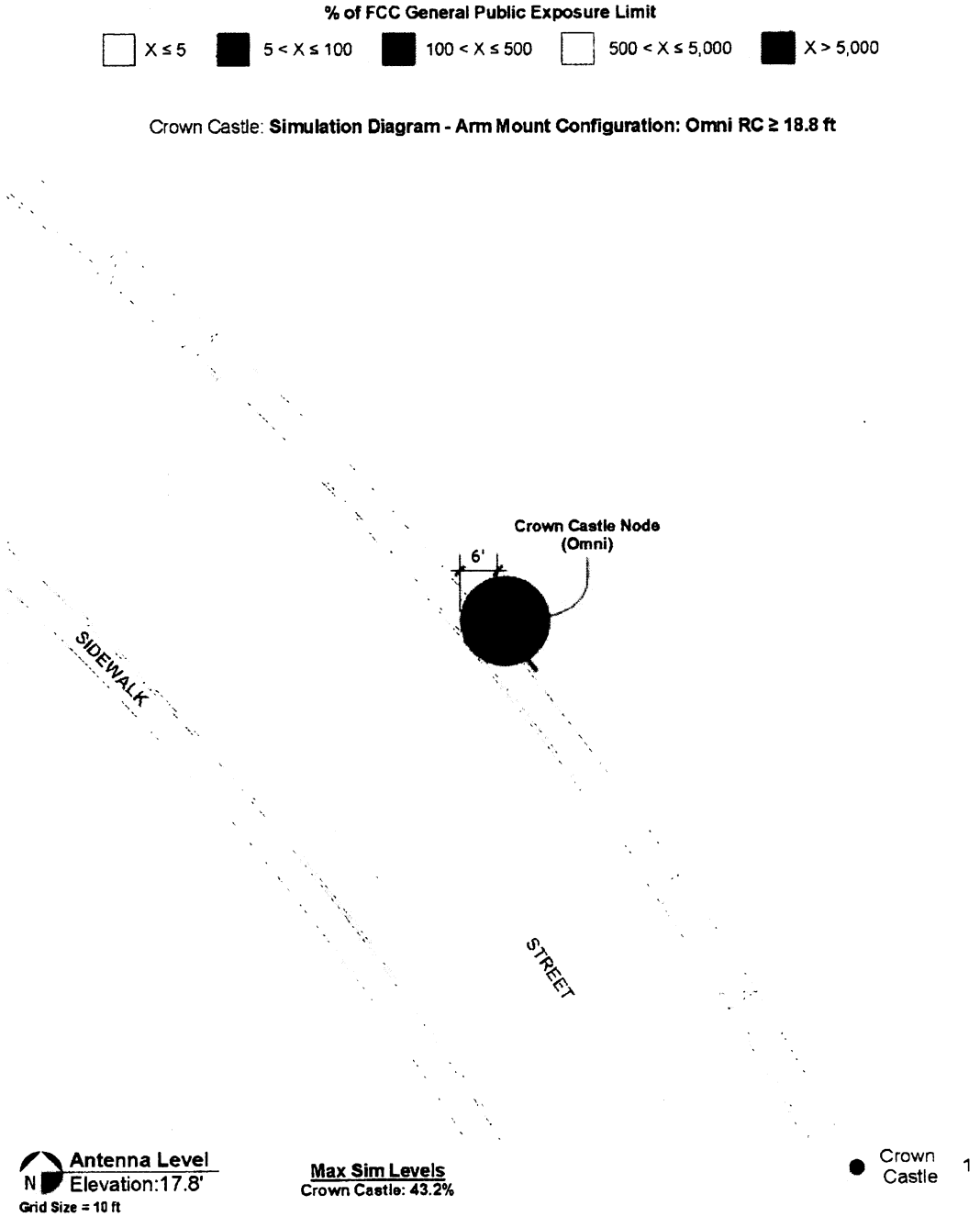


Figure 2: Plan (bird's eye) view map of results compared to the FCC's General Population MPE (Maximum Permissible Exposure) Limits. Gray represents areas where exposure levels are calculated to be at or below 5%; Green- between 5% & 100% (below MPE limits); blue, yellow & red – greater than 100% (exceeds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



4.0 CONCLUSION

4.1 Results

For a person standing on the ground, calculations for Crown Castle's site (at a minimum RC of 18.8-feet) resulted in exposure levels no higher than 1.4% of the applicable FCC's General Population MPE Limits (see figure 1). If the antenna is located higher than the minimum RC of 18.8-feet, the exposure levels on the ground would consequently be lower. The results on the ground are well below the applicable FCC's General Population MPE Limits, and members of the general public can safely occupy all areas on the ground for an indefinite amount of time.

At antenna elevation, the highest calculated exposure level is also below the FCC's General Population MPE Limits near the Crown Castle antenna (see figure 2). If the antenna is located higher than the minimum RC of 18.8-feet, the exposure levels at antenna elevation would be the same. The green areas represent exposure levels that are calculated to be between 5% and 100%, which is below the FCC's General Population MPE Limits. The green exposure area extends 6-feet from the front face of the Crown Castle antenna. Beyond 6-feet (areas represented in gray), exposure calculations would be at or below 5%, which are considered ambient levels. Individuals can safely occupy any areas in gray and green for an indefinite amount of time.

*Note: The actual MPE results of this analysis are only applicable to the specific antenna make/model, minimum heights, line/cable losses, total power output, and frequencies. Compliance actions are the same even if the antenna is raised above the minimum RC of 18.8-feet.

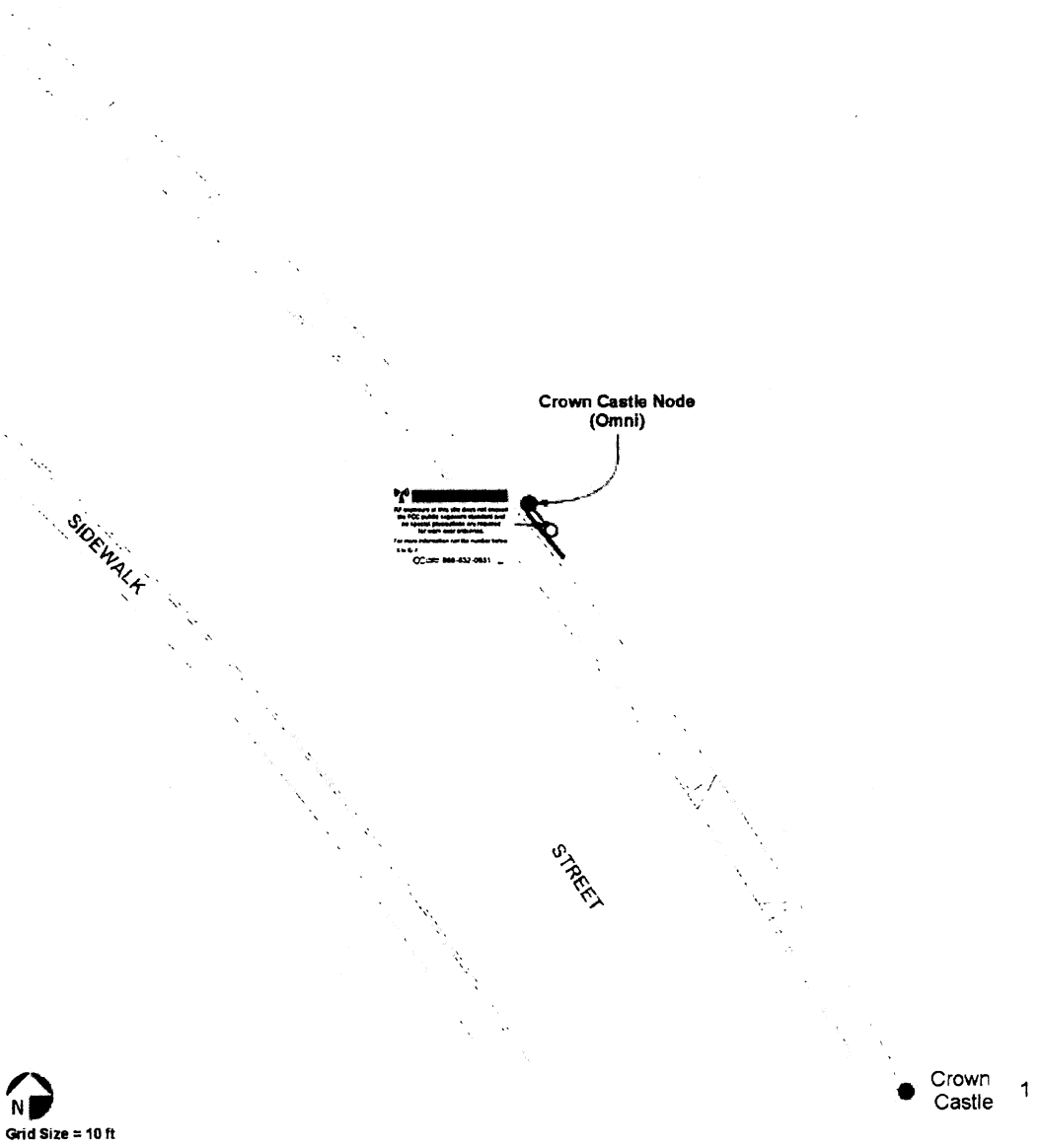
4.2 Recommendation(s)

For the facility to be classified as an Occupational/Controlled environment, the following action(s) are recommended in accordance with the FCC's and Crown Castle's RF Safety Guidelines (see figure 3):

1) Install INFORMATION Sign(s) on or near the antenna. Signage should be placed high and away from public view.

Figure 3: Recommendation(s)

Crown Castle: **Recommendation Diagram - Arm Mount Configuration: Omni RC ≥ 18.8 ft**



4.3 Statement of Compliance

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

4.4 Engineer Certification

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

Darang Tech, P.E.

Appendix A: Background

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

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

30 - 300	0.2	30	1.0	6
300 - 1500	Frequency (Mhz)/1500 (0.2 – 1.0)	30	Frequency (Mhz)/300 (1.0 – 5.0)	6
1500 - 100,000	1.0	30	5.0	6

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

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

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

Appendix B: Measurement and/or Computer Simulation Methods

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

Dtech uses an industry standard power density prediction computer Model[1] to assess the worse-case, cumulative EMF impact of the surrounding areas of the subject site. The Model does not take into account losses due to buildings. Its methodologies are conservative enough to account for typical down-tilts deployed in wireless communications. In addition, the analysis is performed at 100% duty cycle-all transmitters are active at all times and transmitting at maximum power. For purposes of a cumulative study, nearby transmitters are included where possible. The result is a surrounding area map color-coded to percentages of the applicable FCC's MPE Limits. A result higher than 100% exceeds the Limits.

Appendix C: Limitations

Dtech performed this analysis based on data provided by our clients that Dtech believes to be true and correct. Estimates where noted, are based on common industry practices and our best interpretation of available information. As mobile technologies continuously change, these data and results may also change. Therefore, Dtech disclaims all other warranties either expressed or implied. Any use of this document constitutes an agreement to hold Dtech and its employees harmless and indemnify it for any and all liability, claims, demands, litigation expenses and attorneys fees arising from such use. This is a technical document and may contain minor grammatical and/or spelling errors.

[1] Roofview® Version 4.15, Richard Tell Associates, Inc. © 1996-2000.

Appendix D: Crown Castle RF Advisory Signs

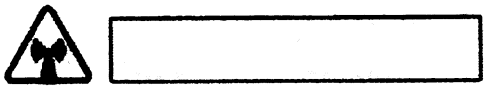
RF exposure at this site does not exceed the FCC public exposure standard and no special precautions are required for work near antennas.

For more information call the number below.

Site ID #

CROWN CASTLE 888-632-0931 Rev. A

INFORMATION Sign



POLE WORKERS

There is an antenna operation high on this pole. Please follow guidance on signs near the antenna or call the number below.

Site ID #

CROWN CASTLE 888-632-0931 Rev. A

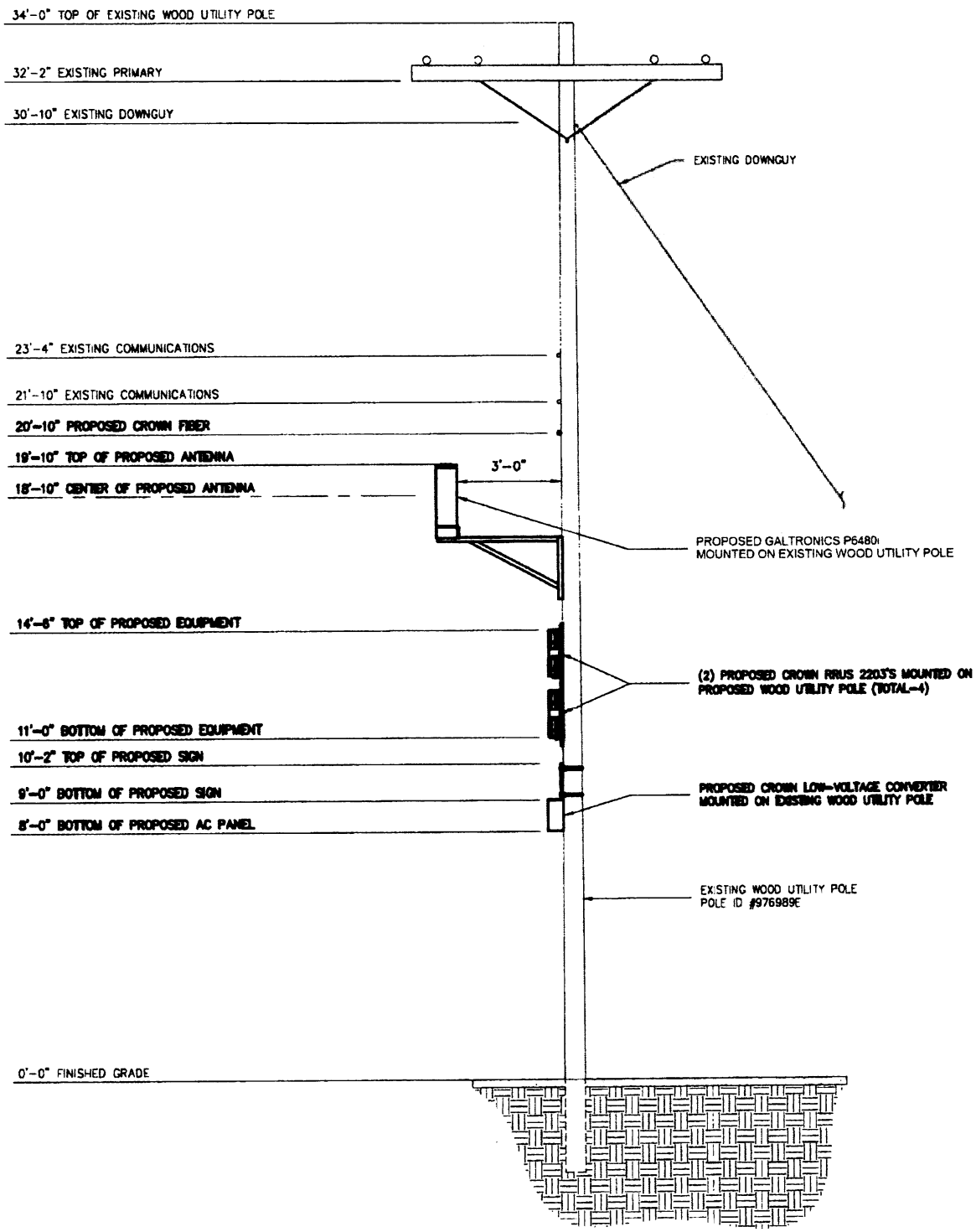
NOTICE Sign

Keep Back ____ FT From this Antenna. FCC RF Public Exposure Limits May Be Exceeded Within This Distance. Call 888-632-0931 for Instructions. Qualified Workers: FCC Occupational Limits May Be Exceeded Within This Distance.

Site ID # Rev. A

CAUTION Sign

Appendix E: Arm Mount Configuration: Omni RC ≥ 18.8 ft



Appendix F: Crown Castle Carrier MPE Contributions

Carrier 1 - AT&T	1.4% GP (0.28% OC)	43.2% GP (8.6% OC)

Code Requirements and Conditions, if approved:

The following Code Requirements are applicable to the project, if approved:

- A Construction and Excavation Permit (C&E Permit) is required from the Community Development Department, Engineering Permits and Records Division, for any work in the public right-of-way on Delos Drive.
- The traffic control plan(s) shall comply with the MUTCD manual.
- Must comply with TMC Section 92.39.070 regarding submission of RF compliance report.
- Must comply with TMC Section 92.39.090 regarding discontinued use or abandonment of facility.

Recommended Conditions, if Approved:

1. That the use of the subject site for a telecom facility shall be subject to all conditions imposed in WTC17-00004 and any amendments thereto or modifications thereof as may be approved from time to time pursuant to Section 92.39.070 et seq. of the Torrance Municipal Code on file in the office of the Community Development Director of the City of Torrance; and further, that the said use shall be established or constructed and shall be maintained in conformance with such maps, plans, specifications, drawings, applications or other documents presented by the applicant to the Community Development Department and upon which the Telecommunications Committee relied in granting approval;
2. That if this Approval is not implemented within one year after the approval, it shall expire and become null and void unless extended by the Community Development Director for an additional period, as provided for in Section 92.27.1 of the Torrance Municipal Code; (Planning)
3. That all requirements provided under Ordinance No. 3058, Section 92.2.8, Satellite Antennas, of the Torrance Municipal Code, Division 9, shall be met prior to the issuance of building permits and/or encroachment permits; (Planning)
4. That all pole mounted equipment be painted to match to the satisfaction of the Community Development Director; (Planning)
5. The permittee shall install and at all times maintain in good condition an "RF Notice" sign and network operations center sign adjacent to the bottom of the MMS shroud. The signs required in this condition must be placed in a location where they are clearly visible to a person when he or she approaches the shroud; (Planning)
6. The permittee shall ensure that all RF signage complies with FCC OET Bulletin 65 or ANSI C95.2 for color, symbol and content conventions. All such signage shall provide a working local or toll-free telephone number to its network operations center that reaches a live person who can exert transmitter power-down control over this site as required by the FCC; (Planning)
7. That the antenna and all related equipment cabinets shall be removed if the telecommunications site remains inactive for more than 180 days; (Planning)

8. That the permittee shall conceal all cables, wires, jumpers and connectors within the antenna or equipment shrouds. In addition, the permittee acknowledges and agrees that a material consideration of the City's approval of this permit is that the pole-top antenna and shroud are approximately the same width as the pole, which creates a streamlined design and concealment element that effectively blends the antenna with the underlying pole; (Planning)
9. That a minimum 10' vertical clearance above public sidewalk surface for proposed antenna and equipment mounted on existing utility pole and a minimum 16' vertical clearance above sidewalk surface for proposed antenna and equipment within 2' or less horizontally of the public street shall be maintained; (Engineering)
10. That the proposed equipment shall receive electrical power from the SCE wires already attached to the utility pole on which the proposed equipment is to be mounted; (Engineering)
11. That a minimum 10' vertical clearance above public sidewalk surface for proposed antenna and equipment mounted on existing utility pole and a minimum 16' vertical clearance above sidewalk surface for proposed antenna and equipment within 2' or less horizontally of the public street shall be maintained; (Engineering)
12. That if generators are required at the site, they must meet Torrance Municipal code requirements for noise; (Environmental)

September 11, 2018

MINUTES OF A REGULAR MEETING OF TORRANCE TELECOMMUNICATIONS COMMITTEE

1. CALL TO ORDER

The Torrance Telecommunications Committee convened in a regular session at 9:00 a.m. on Tuesday, September 11, 2018 in the in the West Annex Commission meeting room, Torrance City Hall.

2. FLAG SALUTE

The Pledge of Allegiance was led by Chair Segovia.

3. ROLL CALL

Present: Chair Segovia, Community Development Department,
Member F. Fulton, City's Manager Office, and
Member G. Pinela, General Services

Absent: None

Also Present: Planning Manager Santana,
Sr. Planning Associate Martinez,
City Attorney Patrick Q. Sullivan, and
Planning Assistant Whiting

6. BUSINESS

6A. Public Hearing to consider WTC17-00004: Petition of **STEPHEN GARCIA (CROWN CASTLE NG WEST)** for approval of a Telecom Permit to allow the installation of a small cell antenna and support equipment attached to an existing utility pole in the public right-of-way adjacent to 22917 Fonthill Avenue in the R-1 Zone. This project is Categorically Exempt from CEQA per Guidelines Section 15301 – Existing Facilities.

Planning Manager Santana introduced the request and stated that staff recommendation was for denial of the proposed wireless installation.

Chair Segovia invited the applicant's representative, Aaron Snyder, from Crown Castle to speak on the item.

Mr. Snyder stated that the staff report included a coverage map packet and secondly, an alternative analysis. Mr. Snyder informed that the staff report included two alternative locations. He expressed that there is a need for more wireless service, and that homes and all general home equipment had ties to wireless connectivity which would correlate to the installation of the facility. He concluded that this wireless facility would not only offer coverage on the street but inside homes. Mr. Snyder asked to take comments or questions.

Chair Segovia opened the public hearing.

Robert Thompson, representing the Madrona Homeowner's Association, requested that the decision be postponed due to the petition being from 2017 and public notices were mailed out on a holiday weekend. He also requested to know who picked the area, since he stated that the applicant had informed him that the City of Torrance had picked the location. Mr. Thompson expressed that the applicant had not completed the investigation of finding a viable location because the applicant needed to explore locations that did not impact residential areas. He again requested that the decision be postponed to a later date.

Responding to Mr. Thompson, Planning Manager Santana stated that notifications are to be sent 10 days before a Telecommunication Committee meeting and confirmed that the public notices were mailed out on August 30, 2018. He also confirmed that a posting was put on the proposed location for adjacent neighbors walking or driving by to see. Planning Manager Santana clarified that the staff does not choose the location, the applicant does and the staff only offers comments to any concerns they may have regarding a location. He asked that the Committee make a determination if they felt they had all the information to make an appropriate motion.

Chair Segovia inquired about any factors or regulations on making a determination.

Responding to Chair Segovia, Planning Manager Santana informed that there is a shot clock of 150 days and recommended that the Committee proceed with making a determination.

Mr. Thompson expressed that there were better locations with better altitude.

Responding to concerns, Mr. Snyder addressed that the object of these facilities was to provide a direct signal source to homes. He asked that the Committee consider alternative locations as opposed to a denial.

Chair Segovia closed the public hearing.

Planning Manager Santana discussed the committee's criteria for review, along with the three findings required for staff to recommend approval of an installation in a residential area.

Member F. Fulton proposed that the item be continued to consider alternative locations.

Planning Manager Santana recommended an indefinite continuance.

MOTION: Member Fulton moved to concur with the staff recommendation of an indefinite continuance. The motion was seconded by Member Pinela, and a roll call vote reflected unanimous approval.

6B. Public Hearing to consider WTC17-00006: Petition of **STEPHEN GARCIA (CROWN CASTLE NG WEST)** for approval of a Telecom Permit to allow the installation of a small cell antenna and support equipment attached to an existing utility pole in the public right-of-way adjacent to 1323 Cranbrook Avenue in the R-1 Zone. This project is Categorically Exempt from CEQA per Guidelines Section 15301 – Existing Facilities.

Planning Manager Santana stated that staff recommendation was for denial of the proposed wireless installation.

Chair Segovia requested the applicant's representative, Aaron Snyder, to speak on the item.

Mr. Snyder addressed that the staff report included a coverage map and alternative analysis. He asked that the Committee consider the demand for wireless coverage.

Chair Segovia opened the public hearing.

Jane Lee, resident of the proposed site, expressed opposition on behalf of the gated community, Maple Walk.

Chair Segovia closed the public hearing.

Planning Manager Santana recommended an indefinite continuance to consider alternate locations.

MOTION: Member Fulton moved to concur with the staff recommendation of an indefinite continuance to consider alternative locations. The motion was seconded by Member Pinela, and a roll call vote reflected unanimous approval.

End of Excerpt

Crown Castle
200 Spectrum Center Drive
Suite 1700
Irvine, CA 92618

October 10, 2018

Oscar Martinez
Senior Planning Associate
Community Development Department
City of Torrance
3031 Torrance Blvd, Torrance, Ca 90503

RE: Shot Clock Tolling Agreement and Notice of Shot Clock Expiration for Crown Castle Wireless Communication Facility Site RB39-ROW 22917 Fonthill Ave- New Shot Clock Expiration Date: 1/21/2019

Dear Mr. Martinez:

Crown Castle NG West LLC ("Crown Castle") has agreed to the City of Torrance' (the "City") request to extend the Shot Clock for this site from **12/3/2018**, until **1/21/2019**. The purpose of extending the Shot Clock is to allow City Staff additional time to get organized so that more meaningful presentations can be developed to better inform City decision makers. The extension will also allow Crown Castle the ability to investigate city preferred alternate locations for the proposed wireless facility.

In consideration of Crown Castle's agreement to Toll the Shot Clock, the City has agreed that:

1) The City will attest to and not challenge that Crown Castle's application is compliant with any and all Shot Clock requirements (federal, state and local) as of the date of this Tolling Agreement and Notice of Shot Clock Expiration.
2) That the Shot Clock for this site will expire on: **1/21/2019**, unless mutually extended in a written agreement by the Parties. Any and all applicable statutes of limitation will commence from the date of the Shot Clock's expiration.

[redacted]

Aaron Snyder
CROWN CASTLE NG WEST LLC

Oscar Martinez
CITY OF TORRANCE

DATE: December 6th, 2018

TO: Telecommunications Committee

FROM: Planning Division

SUBJECT: **WIRELESS TELECOM FACILITY (WTC17-00006) – CROWN CASTLE NG WEST LLC**

A request for approval of a Wireless Telecommunications Facility to allow the installation of a new wireless small cell and support equipment attached to an existing utility pole in the public right-of-way in the alley adjacent 1328 Cranbrook Avenue within the R-1 Zone.

Applicant: Crown Castle NG West LLC
Case No: WTC17-00006
Location: 1323 Cranbrook Ave (ROW)
Zoning: R-1: Single Family Residential

On September 11, 2018, the Telecommunications Committee continued WTC17-00006 indefinitely to allow the applicant identify alternative locations. As of the printing of this report, no additional alternatives have been identified by the applicant other than the alternatives previously discussed on September 11, 2018 (Attachment #1). A Minutes Excerpt from that meeting has also been included (Attachment#2).

Staff notes a Tolling agreement was submitted to Staff and has been attached (Attachment #3). continues to recommend denial of the subject request based on the findings discussed in the original staff report (Attachment #1).

PROJECT RECOMMENDATION: DENIAL

Prepared by,

Aaron Whiting
Planning Assistant

Recommended by,

For Danny Santana
Planning Manager

Attachments:
1. 9/11/18 Telecommunications Committee Items
2. 9/11/18 Minutes of the Telecommunications Committee
3. Copy of Tolling Agreement
4. Plans/Photo Simulations (Limited Distribution)

This request for a Telecom Permit (WTC17-00006) is ____APPROVED ____ DENIED per Ordinance No. 3561, Section 92.39.060, Satellite Antennas, of the Torrance Municipal Code, Division 9.

DATE

Felipe Segovia
Telecommunications Committee Chair

Decisions made by the Telecommunications Committee are appealable to the Planning Commission within 15 calendar days following the above date of approval/denial.

DATE: September 11, 2018

TO: Telecommunications Committee

FROM: Planning Division

SUBJECT: **WIRELESS TELECOM FACILITY (WTC17-00006) – STEPHEN GARCIA (CROWN CASTLE NG WEST LLC)**

A request for approval of a Wireless Telecommunications Facility to allow the installation of a new wireless small cell and support equipment attached to an existing utility pole in the public right-of-way adjacent to 1323 Cranbrook Avenue within the R-1 Zone.

Applicant: Stephen Garcia (Crown Castle NG West LLC)
Case No: WTC17-00006
Location: 1323 Cranbrook Ave (ROW)
Zoning: R-1: Single Family Residential

The subject request is for the installation of a wireless site in the public right-of-way adjacent to 1323 Cranbrook Drive. Per Torrance Municipal Code 92.39.060(1), such requests within the public right-of-way adjacent to residentially zoned properties are reviewed by the Telecommunications Committee and requires notification to property owners within 300 feet of the proposed location. In compliance with prior city council directives, on August 30th, 2018, staff mailed notices to property owners within 500' radius and posted notification to the subject pole (Attachment #1).

The proposal involves the installation of a 24.9-inch onmni-antenna on top of the existing 25.42-foot utility pole, resulting in a maximum height of 28.17-feet (including the pole top mount), a shroud kit, and power disconnect box. If approved as proposed, some modifications to the existing utility lines would be required in order to accommodate the project design. For example, an existing strand and communication line would be lowered approximately 1-foot to accommodate the antenna and equipment. The strand would be lowered from 24-feet to 23-feet and the communication line would be lowered from 22-feet 8-inches to 22-feet. A new Crown Castle fiber line is also proposed at 24-feet for communications backhaul to AT&Ts switching gear.

The proposed shroud kit measures 46.1-inches x 13.5-inches x 14.3-inches and would be mounted 16.58-feet above grade and have a maximum height of 20.5-feet to the top of the enclosure. No additional cabinets are required as this configuration eliminates the need for above ground appurtenances.

The purpose of the proposed site, according to the Supplemental Technical Information Report provided by the applicant, is to "Increase the existing RF signal level in an existing coverage area" for AT&Ts network (Attachment #3). The target area described in the RF Coverage maps is the surrounding residential that is bounded by Torrance Boulevard to the north, Sonoma Street to the south, Elm Avenue to the east, and Felbar Avenue to the west. The proposed antenna would propagate signal omni-directionally.

The application was reviewed by the City's telecom consultant, Telecom Law Firm PC, multiple times for technical and regulatory issues (Attachment #2). Per the analysis and submitted documentation, the proposed location meets the applicant's coverage objectives. According to the alternative site analysis provided by the applicant, the two alternative locations (a utility pole and a streetlight nearby) indicated that they can meet coverage objectives but a proposed streetlight design would require "intrusive undergrounding" of overhead utility lines and pole replacement (Attachment #4).

The applicant has submitted an RF compliance report (included as part of Attachment #3) that evaluates the proposed facility's planned compliance with FCC Guidelines. Staff notes that the City cannot impose additional requirements with respect to FCC requirements with the exception of requesting verification that the site is operating in compliance. If approved, per TMC92.39.070 a radio frequency and compliance radiation report is required to be submitted within 30 days after installation of the facility.

As previously mentioned, the proposal falls into a location that requires a special review by the Telecommunications Committee as it is in the right-of-way adjacent to a residential district. Per the Applicant's submittals, the site identified will provide the coverage needed to fulfill the applicant's objectives.

In order to recommend Approval of this Telecom Permit, the following findings must be made per 92.39.040(b)(3):

i. Other locations that do not require special approval under this Section 92.39.040(B) are either not available or not feasible; and
ii. Establishment of the facility at the requested location is necessary to provide service; and
iii. Lack of such a facility would result in a prohibition of service;

Staff notes that the proposal meets the first finding as there are no other tall non-residential structures in the vicinity which may lend themselves to a small cell installation that is on the prioritized location per the City's code. As previously mentioned, the applicant's two alternates locations met coverage objectives but are still adjacent to residential areas and one would require additional undergrounding of utilities. In the judgment of staff, however, not all of the necessary findings can be made. Per the applicant's documentation and the City's consultant, the proposed facility's dominant purpose is to "Increase the existing RF signal level in an existing coverage area" and there is currently AT&T service within the coverage area, and as such, establishment of the facility is not necessary to provide service and lack of this facility does not result in a prohibition of service.

Although the proposed small cell facility has been designed to provide increased capacity while simultaneously providing the least visually intrusive structure, under the narrow purview of the code, staff cannot make the findings per TMC92.39.040(b)(3) and recommends denial of the request. Should the Committee wish to approve the facility,

recommended conditions and code requirements have been attached for your review (Attachment #5).

Staff notes correspondence has been submitted requesting a continuance to the request (Attachment #6).

PROJECT RECOMMENDATION: DENIAL

Prepared by,

Oscar Martinez
Senior Planning Associate

Recommended by,

Danny Santana
Planning Manager

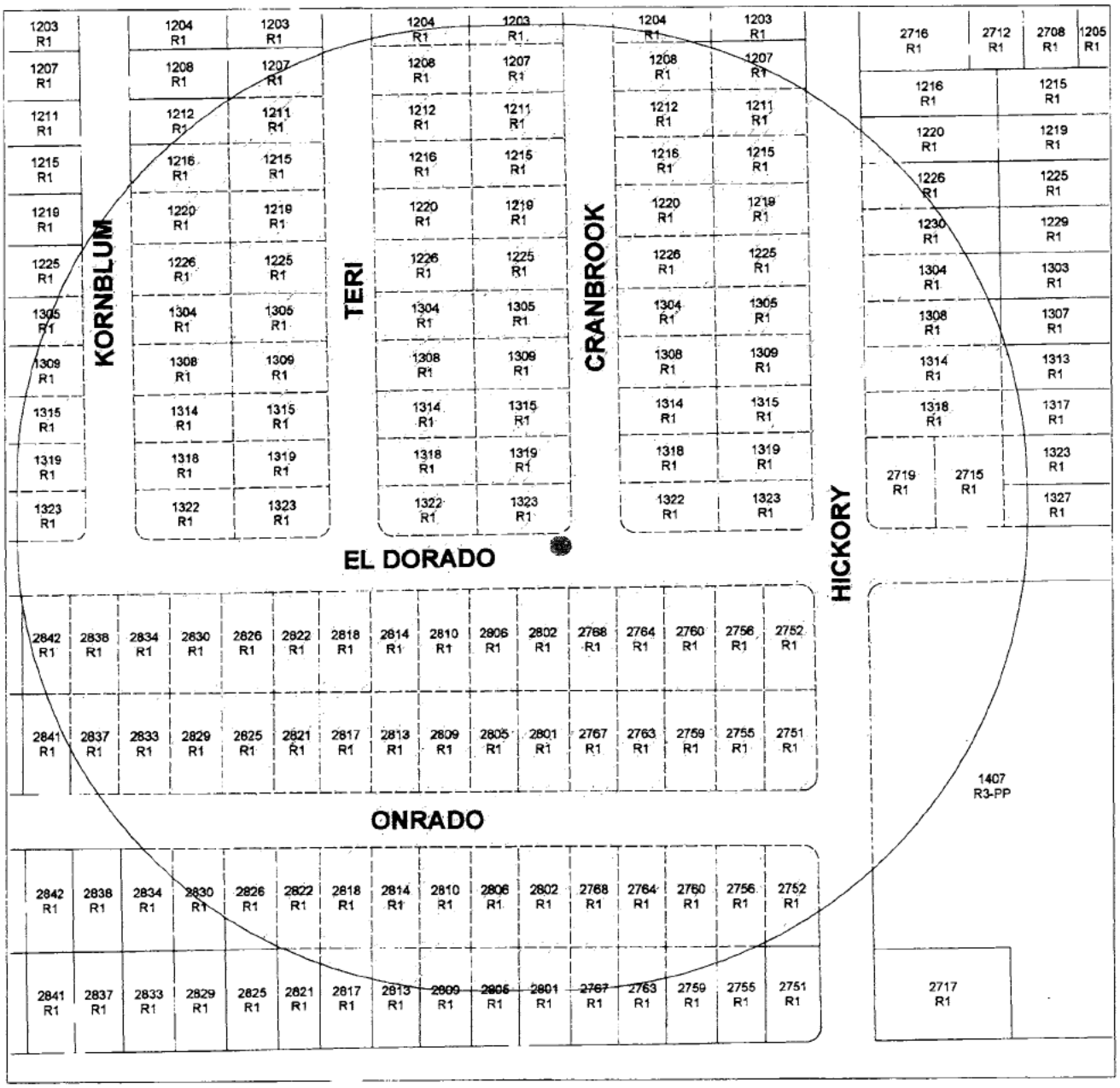
Attachments:
1. Notification Map and Posting
2. Telecom Law Firm Memorandums
3. Supplemental Technical Information Report and Documentation
4. Alternate Locations – RB40
5. Recommended Conditions and Code Requirements, if approved
6. Correspondence
7. Plans/Photo Simulations (Limited Distribution)

This request for a Telecom Permit (WTC17-00006) is ____APPROVED ____ DENIED per Ordinance No. 3561, Section 92.39.060, Satellite Antennas, of the Torrance Municipal Code, Division 9.

DATE

Felipe Segovia
Telecommunications Committee Chair

Decisions made by the Telecommunications Committee are appealable to the Planning Commission within 15 calendar days following the above date of approval/denial.



LOCATION AND ZONING MAP
WTC17-00006
Public Right-Of-Way
1323 Cranbrook

TORRANCE COMMUNITY DEVELOPMENT GIS

LEGEND

Project Location

Notification Area

Feet
0 40 80 160

N
W E
S

Prepared using City of Torrance Community Development Geographic Information System
Jeffery W. Gibson, Community Development Director

CITY OF TORRANCE
NOTICE
OF PUBLIC HEARING

CITY OF TORRANCE
POSTED BY

DATE: 8/30/18

TELECOM LAW FIRM PC

APPLICATION INCOMPLETE MEMORANDUM

TO: Mr. Oscar Martinez [redacted]
FROM: Dr. Jonathan Kramer
DATE: March 8, 2018
RE: Application Completeness Review – New Proposed Wireless Facility in the Public Right-of-Way at F/O 1323 Cranbrook Avenue

APPLICANT: Crown Castle NG West, LLC
APPLICANT'S ID: ATTRB-40; USID: 177980
UTILITY POLE ID: #56748H

On August 28, 2017, Crown Castle NG West, LLC ("**Crown Castle**") on behalf of AT&T submitted wireless site application materials to the City of Torrance ("**City**"). Per the City's request, on September 20, 2017, Telecom Law Firm, PC ("**TLF**" or "**We**") submitted an Application Incomplete Memorandum (the "**First Memorandum**") to the City that evaluated the Applicant's application to operate a new wireless site in the public right-of-way ("**PROW**") on a on an existing wood utility pole ("**Pole**") located at F/O 1323 Cranbrook Avenue (Coordinates N 33° 50' 3.8832" W 118° 20' 8.196").

TLF's First Memorandum concluded that Crown Castle failed to submit a complete permit application that fully responded to the City's publicly stated application requirements. We recommended that the City deem Crown Castle's application incomplete and issue a timely notice, which it did.

On February 27, 2018 Crown Castle submitted additional materials (the "**February 2018 Submission**") to address the deficiencies identified in our First Memorandum related to its initial submission.

Based on the plans dated January 8, 2018 ("Plans"), on the Pole, Crown Castle proposes to install a new pole-top mount to hold one omni-directional antenna. The omni-antenna is proposed to be situated on top of the Pole by a pole-top mount that will separate the antenna 2' 1" above the highest proposed communications cable which meets the requirements of the California Public Utilities Commission, General Order 95, Rule 94.

Crown Castle modified site design in the current Plans, which now propose a total of three remote radio units ("**RRUs**") within two enclosures. Additionally, the previous four DC power converters have been eliminated from the new strand attached to the pole. The new existing strand proposed under another permit will also support the fiber optic cable used for communications backhaul from this site to AT&T's cell switching center. The height of the Pole supporting this project is to remain at 25' 5" above ground level ("**AGL**"); however, the total height of the vertical elevation will increase to 28' 2" AGL due to the proposed installation of the omni-antenna.

This memorandum reviews the application and related materials to determine whether the applicant submitted a complete and responsive application. The following review may also discuss

regulatory and technical issues related to wireless infrastructure. Although many technical issues implicate legal issues, the analysis and recommendations contained in this memorandum do not constitute legal advice.

A. APPLICATION COMPLETENESS REVIEW

Based on the City's Submittal Requirements for Wireless Telecommunications Facility ("**Requirements Form**"), we recommend that the City deem Crown Castle's application submittal **incomplete** and issue an incomplete notice on or before March 9, 2018 regarding the items more fully discussed in this Section A.

REQUIREMENTS FORM

I. APPLICATION FORM

The City requires a Development Application and a Supplemental Technical Information Report ("**STIR**").

General note: The submitted application materials fail to provide the required Section references making the application difficult to reliably cr oss-reference various points. Each application material needs to identify the sections within the Requirements Form and STIR.

- **Development Application:**

  The proposed use of property and purpose of application(s) description is inconsistent with the project description found on the Plans. All remaining necessary information required on the Development Application checklist appears to be properly filled out.

- **Supplemental Technical Information Report:**

  - Sec. 3.02 - Missing Attachment FCC License for AT&T (Sec. 3.03 has cellular telephone and PCS telephone checked off; only Cellular license is provided).
  - Sec. 3.03 – Given the use of 5 GHz spectrum "Other: [Unlicensed National Information Infrastructure]" should also be checked.
  - Sec. 6.03 – Applicant has not provided the map required. The application requires that an Applicant provide an isolated node-specific map without the coverage of any other existing or proposed wireless sites.
  - Section 7.01–subsection 2: Missing elements on the photo simulations (e.g., connecting wires, PVC conduits, etc.) See Figure 1.

Figure 1: Omni-directional antenna, Pole-Top Mount, Fiber Node, (NOTE: 4 DC power converters removed/missing) RRUs enclosed within two enclosures, RF signage (Missing elements, e.g., visible connecting wires) (Source: Photo Simulations provided by Crown Castle).

- Section 7.01–subsection 3: Missing views of the overall project. STIR requires 5 or more views when a site is visible from other residential properties, only 3 views are provided.

VISUAL SIMULATIONS

As mentioned in the above sections, the photo simulations provided by the applicant are incomplete. They fail to show visible cable and conduit interconnections that will be visible to the public. The Plans show a minimum of six coaxial cables connecting the RRUs to the antennas, yet none are indicated on the photo simulations. Additionally, the photo simulations are missing views per the STIR requirements.

B. PROPERTY OWNERSHIP

Relating to property ownership, based on information presented to the City and to this firm on March 6, 2018 during a phone call with the applicant, the applicant indicated its desire to proceed forward with the process without having first submitted a clearance letter or a 45-day waiver letter from the JPA. We support this approach subject to a condition that has been verbally accepted by Crown Castle that no actual construction permit will issue until either the JPA approval or 45-day waiver letter has been received by the City.

C. ADDITIONAL COMMENTS

The materials submitted by Crown Castle on February 27, 2018 eliminate, from the Plans and the photos simulations, all of the DC power converters. Crown Castle has not mentioned this change nor has submitted any explanation to this change.

Through its August 28, 2017 submission, Crown Castle had provided a Radio Frequency Electromagnetic Fields Exposure Report dated 8/2/17 prepared by Dtech Communications (the **"8/2/17 Dtech Report"**) Table 2 of the 8/2/17 Dtech Report listed the number and frequencies of RRUs See Figure 2.

Table 2: Site Technical Specifications

Antenna ID	Operator	Carrier #	Antenna Mfg	Antenna Model	Type	DAS Equipment	Frequency (MHz)	Orientation (°T)	Horizontal BWidth (°)	Antenna Aperture (ft)	Antenna Gain (dBd)	Total ERP (Watts)	Bottom Tip Height Above Ground (Z) (ft)	Bottom Tip Height Ant Level (Z) (ft)
A1	Crown Castle	1	Galtronics	P6480i	Omni	(2) RRU2203	1900	0	360	2.1	6.9	69.2	17.0	0.0
A1	Crown Castle	1	Galtronics	P6480i	Omni	(1) RRU2203	5000	0	360	2.1	3.9	2.5	17.0	0.0

Figure 2: A total of three RRUs shown. Two RRU 2203 in 1900 MHZ (PCS) and one RRU 2203 in 5000 MHz (Source: 8/2/17 Dtech Report, Table 2).

Through its current submission, Crown Castle the same 8/2/17 Dtech Report. Table 2 of the 8/2/17 Dtech Report listed the number and frequencies of RRUs See Figure 3.

Table 2: Site Technical Specifications

Antenna ID	Operator	Carrier #	Antenna Mfg	Antenna Model	Type	DAS Equipment	Frequency (MHz)	Orientation (°T)	Horizontal BWidth (°)	Antenna Aperture (ft)	Antenna Gain (dBd)	Total ERP (Watts)	Bottom Tip Height Above Ground (Z) (ft)	Bottom Tip Height Ant Level (Z) (ft)
A1	Crown Castle	1	Galtronics	P6480i	Omni	(2) RRU2203	1900	0	360	2.1	6.9	69.2	17.0	0.0
A1	Crown Castle	1	Galtronics	P6480i	Omni	(1) RRU2205	5000	0	360	2.1	3.9	2.5	17.0	0.0

Figure 3: A total of three RRUs shown. Two RRU 2203 in 1900 MHZ (PCS) and one RRU 2205 in 5000 MHz (Source: 8/2/17 Dtech Report, Table 2).

Also, Crown Castle has not submitted any information about the Cellular Telephone Service as checked in Section 3.03 in the STIR.

Additionally, TLF notes that Sec. 3.09 and 6.05 of the STIR has a handwritten note as: "Please See Bushberg Report". Crown Castle has not submitted any Bushberg Reports with its application materials.

D. CLOSING COMMENTS AND RECOMMENDATION

TLF believes that Crown Castle has again failed to submit a complete permit application that complies with the City's Requirements Form. The list of incomplete items in this memo contains TLF's observations. The City may have other items for the incomplete notice. Under the FCC rules, there is only one incomplete notice, so it is imperative that all items which are incomplete are listed in the first notice.

We recommend that the City deem Crown Castle's application incomplete and issue a timely incomplete notice to Crown Castle no later than March 9, 2018 (based on the application materials tender date of February 27, 2018). TLF recommends the City send the incomplete notice by email and on the same day also sends it by First Class or Certified U.S. Mail postage prepaid.

Once a reply to the City's incomplete notice is received back from Crown Castle, the City has only 10 calendar days to determine whether the reply is responsive to the incomplete notice, and each of the 10 days counts against the overall 150 day shot clock, thus immediate review upon resubmission should occur.

/JLK

TELECOM LAW FIRM PC

APPLICATION INCOMPLETE MEMORANDUM

TO: Mr. Oscar Martinez
FROM: Dr. Jonathan Kramer [redacted]
DATE: September 20, 2017
RE: Application Completeness Review – New Proposed Wireless Facility in the Public Right-of-Way at F/O 1323 Cranbrook Avenue

APPLICANT: Crown Castle NG West, LLC
APPLICANT'S ID: ATTRB-40; USID: 177980
UTILITY POLE ID: 567481H

The City of Torrance (the "**City**") requested that Telecom Law Firm, PC ("**TLF**") review the Crown Castle NG West, LLC ("**Crown Castle**") application on behalf of AT&T to operate a new wireless site on an existing wood utility pole ("**Pole**") in the public right-of-way ("**ROW**") located at F/O 1323 Cranbrook Avenue. The date Crown Castle submitted this project to the City was August 28, 2017.

On top of the Pole, Crown Castle proposes to install a new pole-top mount to hold one omni-directional antenna. The omni-antenna is proposed to be situated on top of the Pole by a pole-top mount that will separate the antenna 2' 1" above the highest proposed communications cable, which meets the requirements of the California Public Utilities Commission, General Order 95, Rule 94.

Crown Castle also proposes to mount on the Pole a total of four remote radio units ("**RRUs**") within two enclosures, and four DC power converters on the new pole-to-pole strand. The new strand will also support the fiber optic cable used for communications backhaul from this site to AT&T's cell switching center. The height of the wood pole supporting this project is to remain at 25' 5" above ground level ("**AGL**"); however, the total height of the vertical elevation will increase to 28' 2" AGL due to the proposed installation of the omni-antenna.

This memorandum reviews the application and related materials to determine whether the applicant submitted a complete and responsive application. The following review may also discuss regulatory and technical issues related to wireless infrastructure. Although many technical issues implicate legal issues, the analysis and recommendations contained in this memorandum do not constitute legal advice.

A. APPLICATION COMPLETENESS REVIEW

Based on the City's Submittal Requirements for Wireless Telecommunications Facility ("**Requirements Form**"), we recommend that the City deem Crown Castle's application submittal **incomplete** and issue an incomplete notice on or before September 27, 2017 regarding the items more fully discussed on the next pages:

REQUIREMENTS FORM

I. APPLICATION FORM

The City requires a Development Application and a Supplemental Technical Information Report ("**STIR**").

General note: The submitted application materials fail to provide the required Section references making the application difficult to reliably cross-reference various points. Each application material needs to identify the sections within the Requirements Form and STIR.

- **Development Application:**

  All necessary information required on the Development Application checklist appears to be properly filled out.

- **Supplemental Technical Information Report:**

  - Sec. 3.02 - Missing Attachment FCC License for AT&T
  - Sec. 3.03 is left blank - Applicant must provide the required information.
  - Sec. 3.04 is left blank - Applicant must provide the required information.
  - Sec. 3.05 is left blank - Applicant must provide the required information.
  - Sec. 3.06 is left blank - Applicant must provide the required information.
  - Sec. 3.07 is left blank - Applicant must provide the required information.
  - Sec. 3.08 is left blank - Applicant must provide the required information.
  - Sec. 3.09 - Missing Attachment LSGAC Appendix A form, however the Applicant provided a Radio Frequency Electromagnetic Fields Exposure Report prepared by Dtech Communications (the "**Dtech report**") which is sufficient as a replacement for the LSGAC Appendix A form.
  - Sec. 3.10 is left blank - Applicant must provide the required information.
  - Sec. 3.11 is not provided, however the Applicant provided a Dtech report.
  - Sec. 3.12 is left blank - Applicant must provide the required information.
  - Sec. 3.13 is left blank - Applicant must provide the required information if applicable.
  - Sec. 3.14 is left blank - Applicant must provide the required information.
  - Sec. 3.15 is left blank - Applicant must provide the required information.
  - Sec. 4.02 is left blank - Applicant must provide the required information.
  - Sec. 5.01–5.03 is left blank - AT&T through Applicant must provide the required information.
  - Sec. 6.03 - Applicant has not provided a node-isolated coverage map.
  - Section 6.05 is not provided, however the Applicant provided a Dtech report.

- Section 7.01–subsection 2: Missing elements on the photo simulations (e.g., connecting wires, PVC conduits, etc.) See Figure 1.

Figure 1: Omni-directional antenna, Pole-top Mount, Fiber Node, 4 DC power converters, 4 RRUs enclosed within two enclosures, RF signage (Omits materially visible elements, e.g., connecting wires, PVC conduits, etc.) (Source: Photo Simulations provided by Applicant).

- Section 7.01–subsection 3: Missing views of the overall project. STIR requires 5 or more views, only 2 are provided.
- Section 8.00–8.05: Insufficient Information - Applicant needs to submit an Alternative Sites Analysis.
- Section 9 - Non-responsive information - Applicant needs to submit the detailed information specified in Section 9.01.

II. PROPERTY OWNERSHIP

The applicant must provide written proof that the Joint Pole Authority has granted attachment permission for this project.

III. PROJECT PLANS

- No power source for the powered fiber indicated. The power source is a critical element of this project, which will not operate without it. Provide detailed information about the location and design of the powered fiber source. Also provide information regarding the power disconnect switch for this location.

- The Plans incorrectly show the proposed antenna location. The enlarged site Plan, Page A-1, panel 2 shows the omni-directional panel antenna mounted on a side arm instead of the pole top mount. See Figure 2.

(Balance of page intentionally left blank)

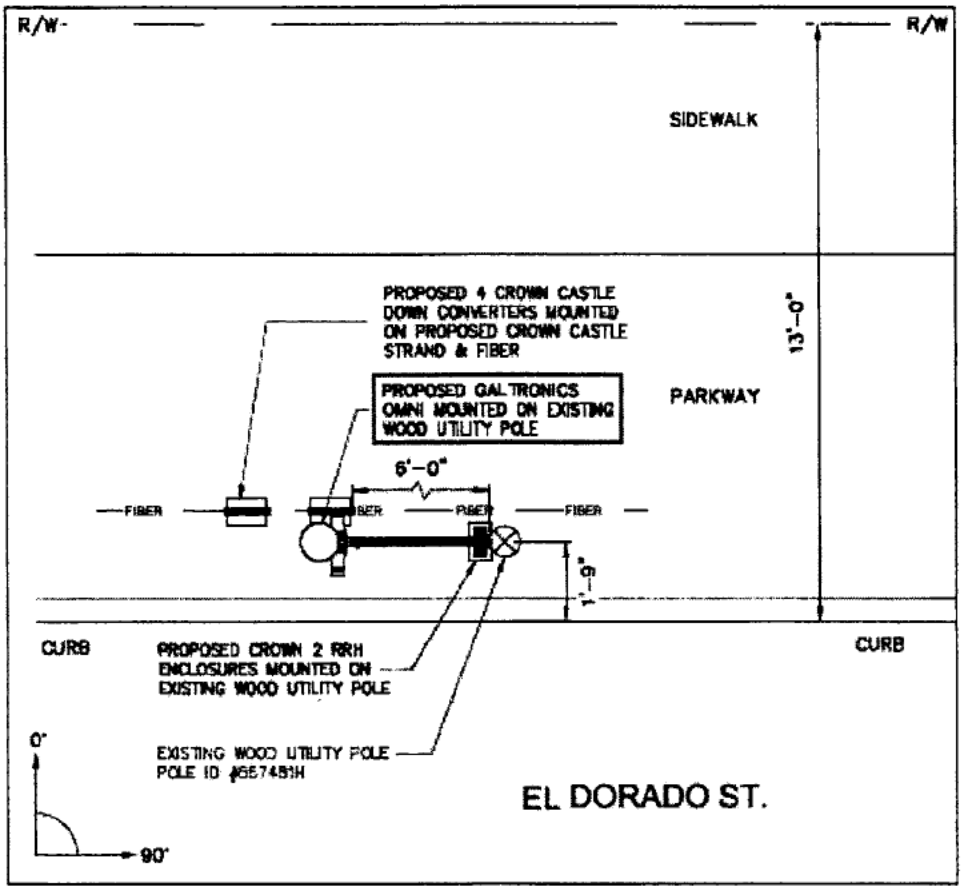


Figure 2: Enlarged Site Plan showing the antenna located incorrectly on arm, side of the pole. This is a pole top mount proposal. (Source: Plans A-1 Panel 2; Annotated by Dr. J. Kramer).

(Balance of page intentionally left blank)

- The depicted work area is underrepresented, depict the whole work area including the area needed to extend the strand and powered fiber and also relocate the existing communication lines. See Figure 3.

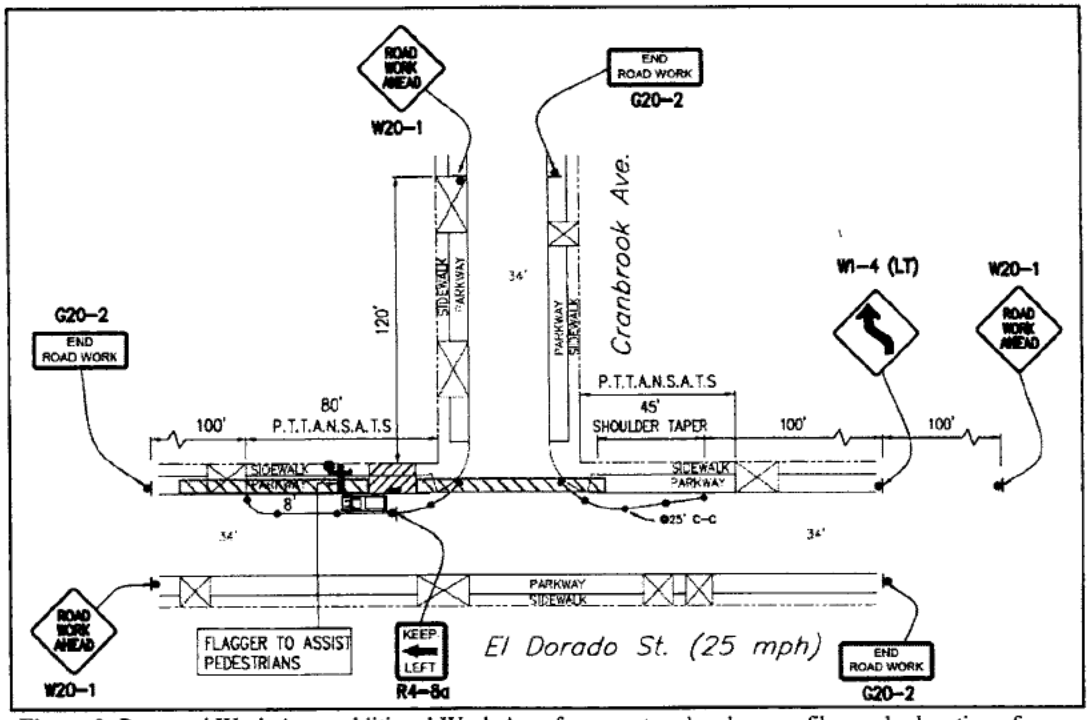


Figure 3: Proposed Work Area; additional Work Area for new strand and power fiber and relocation of existing communication cables (hatched in red) (Source: Plans TC-1; Annotated by Dr. J. Kramer).

IV. JUSTIFICATION

The purported justification from this site, while not completely clear, can be discerned from the coverage maps section of the application.

V. MAPS

As mentioned in the above sections, some of the maps are missing/incomplete.

VI. VISUAL SIMULATIONS

The photo simulations provided by the applicant are incomplete, fail to show visible cable and conduit interconnections, and do not accurately reflect the size and scope of the project elements to be constructed.

B. ADDITIONAL INCOMPLETE, INCONSISTENT ITEMS

We note that Table 2 of the Dtech Report lists the number and frequencies of RRUs that differs from details provided in the Plans. See Figure 4 and Figure 5.

Table 2: Site Technical Specifications

Antenna ID	Operator	Carrier #	Antenna Mfg	Antenna Model	Type	DAS Equipment	Frequency (MHz)	Orientation (°T)	Horizontal BWidth (°)	Antenna Aperture (ft)	Antenna Gain (dBd)	Total ERP (Watts)	Bottom Tip Height Above Ground (Z) (ft)	Bottom Tip Height Ant Level (Z) (ft)
A1	Crown Castle	1	Galtronics	P6480i	Omni	(2) RRUS2203	1900	0	360	2.1	6.9	69.2	17.0	0.0
A1	Crown Castle	1	Galtronics	P6480i	Omni	(1) RRUS2203	5000	0	360	2.1	3.9	2.5	17.0	0.0

Figure 4: A total of three RRUs shown. Two RRUs in 1900 MHZ (PCS) and one RRU in 5000 MHz (Source: the Dtech Report, Table 2)

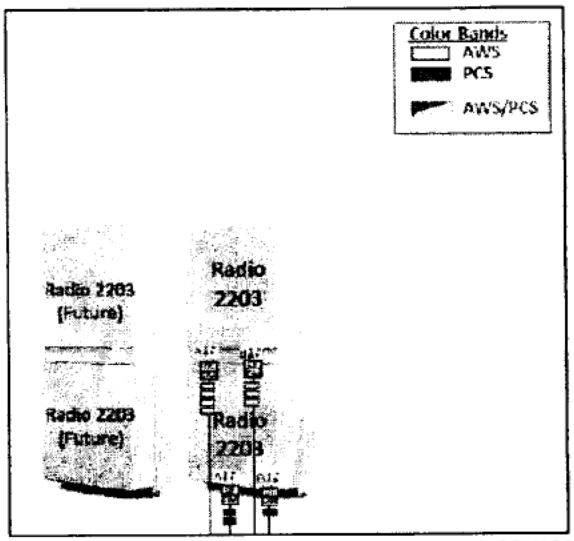


Figure 5: Two RRUS in AWS (2100 MHz) and PCS (1900 MHz) frequencies (Source: Plans page D-3; Panel 1)

We suspect that Dtech was presented with radio frequency information by Crown Castle early in its development process that subsequently changed in the Plans submitted to the City. We recommend that the City direct Crown Castle to (a) delete the "Future" elements from the project, including without limitation to the "Future RRUs" and (b) have Dtech prepare an updated report that only assesses what is actually proposed to be activated.

C. OTHER PERMITS AND APPLICATIONS REQUIRED

This project is likely to require an encroachment permit as a separate set of approvals including potentially an excavation permit, fiber installation permit, building permit, and electrical permit.

D. CLOSING COMMENTS AND RECOMMENDATION

TLF believes that Crown Castle has failed to submit a complete permit application that complies with the City's Requirements Form. The list of incomplete items in this memo contains TLF's observations. The City may have other items for the incomplete notice. Under the FCC rules, there is only one incomplete notice, so it is imperative that all items which are incomplete are listed in the first notice.

We recommend that the City deem Crown Castle's application incomplete and issue a timely incomplete notice to Crown Castle no later than September 27, 2017 (based on the application materials tender date of August 28, 2017). TLF recommends the City send the incomplete notice by email and on the same day also sends it by First Class or Certified U.S. Mail postage prepaid.

Once a reply to the City's incomplete notice is received back from Crown Castle, the City has only 10 calendar days to determine whether the reply is responsive to the incomplete notice, and each of the 10 days counts against the overall 150 day shot clock, thus immediate review upon resubmission should occur.

Finally, Crown Castle's letter dated August 29, 2017 asserts that this project is subject to a 90-day shot clock. Crown Castle is incorrect. It relies on documents adopted after the FCC's October 21, 2014 Order. Newer documents are not applicable to the shot clock. The correct shot clock for this project is 150 days.

/JLK

City of Torrance, Community Development Department Jeffery W. Gibson, Director
3031 Torrance Blvd., Torrance, CA 90503, Phone (310) 618-5990 Fax (310) 618-5829

SUBMITTAL REQUIREMENTS FOR WIRELESS TELECOMMUNICATION FACILITIES

APPLICATION FORM

☐ One original Development Application and Supplemental Technical Information Report.

PROPERTY OWNERSHIP

☐ Evidence of ownership of the real property on which the proposed telecom facility will be located, and evidence of authorization from the real property owner to place the facility on the property.

SEVEN (7) SETS OF THE FOLLOWING:

PROJECT PLANS

☐ Full size (24"X36") Plot Plan, Floor Plans and Elevations need to be stapled, collated and folded to approximately 9"X12" in size.

JUSTIFICATION

☐ A brief narrative, accompanied by written documentation where appropriate, which explains the purpose of the facility and validates the applicant's efforts to comply with the design, location, and co-location standards of Article 39 of Chapter 2 of Division 9. Please refer to section 4.00 of the SUPPLEMENTAL TECHNICAL INFORMATION REPORT.

MAPS

☐ A map or maps showing the geographic area to be served by the facility. Please refer to section 6.00 of the SUPPLEMENT TECHNICAL INFORMATION REPORT.

VISUAL SIMULATIONS

☐ Visual simulations showing "before" and "after" views of the proposed facility. Consideration shall be given to views from both public areas and private residence. Please refer to section 7.00 of the SUPPLEMENTAL TECHNICAL INFORMATION REPORT.

City of Torrance, Community Development Department Jeffery W. Gibson, Director
3031 Torrance Blvd., Torrance, CA 90503, Phone (310) 618-5990 Fax (310) 618-5829

SUPPLEMENTAL TECHNICAL INFORMATION REPORT FOR WIRELESS TELECOMMUNICATION FACILITIES

1.00: Project Address F/O 1323 Cranbrook Ave

Assessor Parcel Number N/A Public ROW

2.00: Disclose the Name and Address of all Project Owners, and attach a letter of agency appointing the Applicant as representative of the Project Owners in connection with this application. Designate the letter of agency as "Attachment 2.00".

3.00: **FCC Licensee/FAA Compliance Information**

3.01: Identify each person or legal entity that will be using the wireless site and contact information (Attach additional sheets if necessary)

Name: Crown Castle NG West LLC-Aaron Snyder

Address: 200 Spectrum Center Drive, Suite 1800

City, State, Zip: Irvine, CA 92618

Phone: (949) 344-7834 Fax: _____

Email: Aaron.Snyder@crowncastle.com

3.02: Attach a complete copy of each FCC license or FCC Construction Permit for each person/legal entity that will be subject to the FCC license for the Project site. Designate the license(s)/Construction Permit(s) as "Attachment 3.02". If none of the proposed radio facilities require an FCC license so indicate on Attachment 3.02.

3.03: What is the intended use of the facility (check all that apply):

- ☐ Broadcast Radio
- ☐ Broadcast TV
- ☑ Cellular telephone
- ☐ Enhanced Specialized Mobile Radio
- ☐ Microwave
- ☑ PCS telephone
- ☐ Paging
- ☐ Specialized Mobile Radio
- ☑ Other: 5 GHz Spectrum

3.04: Project latitude and longitude: N 33 50 3.8832 W 118 20 8.196

City of Torrance, Community Development Department Jeffery W. Gibson, Director
3031 Torrance Blvd., Torrance, CA 90503, Phone (310) 618-5990 Fax (310) 618-5829

SUPPLEMENTAL TECHNICAL INFORMATION REPORT FOR WIRELESS TELECOMMUNICATION FACILITIES

3.05: Specify DATUM use above: ____ WGS84 ____NAD23 x NAD83

3.06: Project Maximum height (ft): 28'2"

3.07: Bottom of lowest antenna (ft): 26'1"

3.08: Rad-center of the antennas (ft): 27'1"

3.09: For each licensee, and for each radio service, complete and attach the two page "Appendix A" form from "A Local Government Official's Guide to Transmitting Antenna RF Emission Safety: Rules, Procedures, and Practical Guidance" available from the following website: http://www.FCC.gov/oet/rfsafety. Designate the completed two page form as "Attachment 3.09". Additional RF safety disclosure information may be required by the government to determine compliance with FCC OET 65 requirements if the site is not "categorically excluded" under OET 65.

3.10 Are any areas adjacent to the antennas subject to RF emissions that are in excess of the "General Public/uncontrolled" standard in FCC OET 65? For this purpose, assume that all persons other than the Carrier's technical staff are considered to be members of the General Public.
____ Yes x ___ No
(If the answer to 3.10 is NO proceed to 3.12)

3.11 Provide a detailed RF analysis for each emitter and each band showing the distance, in feet, in all directions to the boundary of the General Public/uncontrolled boundary. Designate this attachment, "Attachment 3.11".

3.12 Considering your response to 3.10, above, and any other identifiable RF emitters that OET 65 requires be evaluated in connection with this project, are all portions of this project cumulatively "categorically excluded" under FCC OET 65 requirements?
x ___ Yes ____ No
(If the answer to 3.12 is YES proceed to 3.14.)

3.13 Describe in an attachment each and every RF emitter of the project that is not "categorically excluded" under the FCC OET 65 requirements. Designate this attachment, "Attachment 3.13".

3.14: Does this project require the Applicant to file an FAA Form 7460 or other documentation under Federal Aviation Regulation Part 77.13 et seq, or under the FCC rules?
___ Yes x No
(If the answer to 3.14 is NO proceed to 4.00.)

3.15 Attach complete copies of all required FAA/FCC forms including all attachments and exhibits thereto, including without limitation FAA Form 7460. Designate this attachment, "Attachment 3.15".

4.00: **Project Purpose**

4.01: Justification. Provide a brief narrative, accompanied by written documentation where appropriate, which explains the purpose of the facility and validates the applicant's efforts to comply with the design, location, and co-location standards of Chapter 2, Division 9, Article 39 of the City's Municipal Code.

Crown Castle NG West LLC, Utility No. U-6745-C, obtained a Certificate of Public Convenience and Necessity (CPCN) from the California Public Utilities Commission in Decision No. 07-04-045 to provide full facilities based radiofrequency transport services. CPCN Conclusion of Law No. 4 states: "Public convenience and necessity require NextG's full facilities-based local exchange services to be offered to the public subject to the terms and conditions set forth herein." This justification is sufficient under the California state law and under Crown's authorized provision of radiofrequency transport services. No further site justification is required

4.02: Indicate whether the dominant purpose of the Project is to add additional network capacity, to increase existing signal level, or to provide new radio frequency coverage (check only one).
- ☐ Add network capacity without adding substantial new RF coverage area (Proceed to 5.00)
- ☑ Increase the existing RF signal level in an existing coverage area (Proceed to 5.00)
- ☐ Provide new radio frequency coverage in a substantial area not already served by existing radio frequency coverage (Proceed to 5.00)
- ☐ Other

4.03 Attach a statement fully and expansively describing the "Other" dominant purpose of this project. Designate this attachment, "Attachment 4.03".

5.00: **Build-Out Requirements**

5.01: Do any of radio services identified in 3.04 above require the licensee to provide specific radio frequency/population coverage pursuant to the underlying FCC license?
x Yes ___ No
(If the answer to 5.01 is NO proceed to 6.00.)

5.02: Have all of the FCC build-out requirements as required by all licenses covering all radio services proposed at this Project been met?
x Yes ___ No
(If the answer to 5.02 is YES proceed to 6.00.)

5.03: State by licensee all remaining build-out requirements which have yet to be met, and the known or estimated date when the remaining build-out requirements will be met. Designate this attachment "Attachment 5.03".

6.00: **Radio Frequency Coverage Maps**

6.01: Where a licensee intends to provide radio frequency geographic coverage to a defined area from the Project (including applicants in the cellular, PCS, broadcast, ESMR/SMR categories, and others as requested by the City of Torrance), the coverage maps and information requested in Section 6 are required attachments. All others proceed to 7.00.

For the coverage maps required here, the following mandatory requirements apply. Failure to adhere to these requirements may delay your application processing.

1. The size of each submitted map must be no smaller than 11" by 8.5".

2. If the FCC rules for any proposed radio service defines a minimum radio frequency signal level that level must be shown on the map in a color easily distinguishable from the base paper or transparency layer, and adequately identified by RF level and map color or gradient in the map legend. If no minimum signal level is defined by the FCC rules you must indicate that in the legend of each RF coverage map. You may show other RF signal level(s) on the map so long as they are adequately identified by objective RF level and map color or gradient in the map legend.

3. Where the City of Torrance determines that one or more submitted maps are inadequate, it reserved the right to request that one or more supplemental maps with greater or different detail be submitted.

6.02: Existing RF coverage within the City of Torrance on the same network, if any (if none, so state). This map should <u>not</u> depict any RF coverage to be provided by the Project. Designate this attachment "Attachment 6.02".

6.03: RF coverage to be provided by the Project. This map should <u>not</u> depict any RF coverage provided any other existing or proposed wireless sites. Designate this attachment "Attachment 6.03".

6.04: RF coverage to be provided by the Project and by other wireless sites on the same network should the Project site be activated. Designate this attachment "Attachment 6.04".

6.05: Provide a written certification that the facility will continuously comply with FCC OET Bulletin 65 radio frequency emissions standards, and that use of the facility will not interfere with other communication, radio, or television transmission or reception.

7.00: **Project Photographs and Photo Simulations**

7.01: Where an Applicant proposes to construct or modify a wireless site, and the wireless site is visible from other residential properties, the Applicant shall submit pre-project photographs, and photo simulations showing the project after completion of construction, all consistent with the following standards:

1. Minimum size of each photo simulation must be 11 inches by 8.5 inches (portrait or landscape orientation);

2. All elements of the project as proposed by the Applicant must be shown in one or more close-in photo simulations.

3. The overall project as proposed by the Applicant must be shown in five or more area photos and photo simulations. Photos and photo simulation views must, at a minimum, be taken from widely scattered positions separated by an angle of no greater than 72 degrees from any other photo location.

The number of site photos, and photo simulations, and the actual or simulated camera location **of these photos and photo simulations is subject to City of Torrance determination. The Applicant should submit photos and photo simulations consistent with these instructions, and be prepared to provide additional photos and photo simulations should they be requested by** the City of Torrance.

8.00: **Candidate Sites**

8.01: For **applicants in the cellular, PCS, broadcast, ESMR/SMR categories, and others as requested by the City of Torrance, the information requested in Section 8 is required. All** others proceed to 9.00.

8.02: Has the Applicant or Owner or anyone working on behalf of the Applicant or Owner secured or attempted to secure any leases or lease-options or similar formal or informal agreements in connection with this project for any sites other than the candidate site identified at 1.00?
___ Yes x No
(If the answer to 8.02 is NO, proceed to 8.05.)

8.03: Provide the physical address of each such other location, and provide an expansive technical explanation as to why each such other site was disfavored over the Project Site. Designate this attachment "Attachment 8.03".

8.04: Considering this proposed site, is it the one and only one location within or without the City of Torrance that can possibly meet the objectives of the project?
___ Yes ___ No
(If the answer to 8.04 is NO, proceed to 9.00.)

8.05: Provide a technically expansive and detailed explanation supported as required by comprehensive radio frequency data fully describing why the proposed site is the one and only one location within or without the City of Torrance that can possibly meet the radio frequency objectives of the project. Explain, in exact and expansive technical detail, all of the objectives of this project. Designate this attachment "Attachment 8.05".

9.00: **Identification of Key Persons**

9.01: Identify by name, title, company affiliation, work address, telephone number and extension, and email address the key person or persons most knowledgeable regarding:

(1) the site selection for the proposed project, including alternatives;
(2) the radio frequency engineering of the proposed project;
(3) rejection of other candidate sites evaluated, if any;
(4) approval of the selection of the proposed site identified in this project.
Designate this attachment "Attachment 9.01"

9.02 If more than one person is/was involved in any of the four functions identified in this section, attach a separate sheet providing the same information for each additional person, and identifying which function or functions are/were performed by each additional person. Designate this attachment "Attachment 9.02".

Initial here _____ to indicate that the information above is complete and there is no Attachment 9.02, or initial here _____ to indicate that Attachment 9.02 is attached hereto.

10.00: **Technical Information Report Certification**

10.01: The undersigned certifies on behalf of itself and the Applicant that the answers provided here are true and complete to the best of the undersigned's knowledge.

[redacted] GRPM
Signature Title

Aaron Snyder Aaron.Snyder@crowncastle.com
Print Name Provide Email Address

Crown Castle NG West LLC 949-344-7834
Print Company Name Provide Telephone Number

8/16/18
Date Signed

Crown Castle
200 Spectrum Center Drive
Suite 1800
Irvine, CA 92618

August 6, 2018

RE: Resubmittal of Crown Castle Applications for Wireless Facilities in the Public Rights Of Way (PROW)

This notice is to address a comment in the city incomplete letter issued by Dr Jonathan Kramer from Telecom Law.

The DTECH report submitted for each of the applications is the correct EME report for purposes of this particular type of design and respective location.

The BUSHBERG note on the application was a clerical error corresponding to another application for another city.

Also, the locations are designed using down converter units which is a method of transferring power over existing communication/power space per applicable utility code. The particular radio equipment is manufactured to be powered via this type of design. Further, this method of powering the wireless facility enables a more streamline design without added equipment components on the pole.

Any questions pertaining to the above, please call or email me at Aaron.Snyder@crowncastle.com or [redacted]

Very truly yours,

CROWN CASTLE NG WEST LLC

[redacted]

Aaron Snyder
Government Relations Project Manager

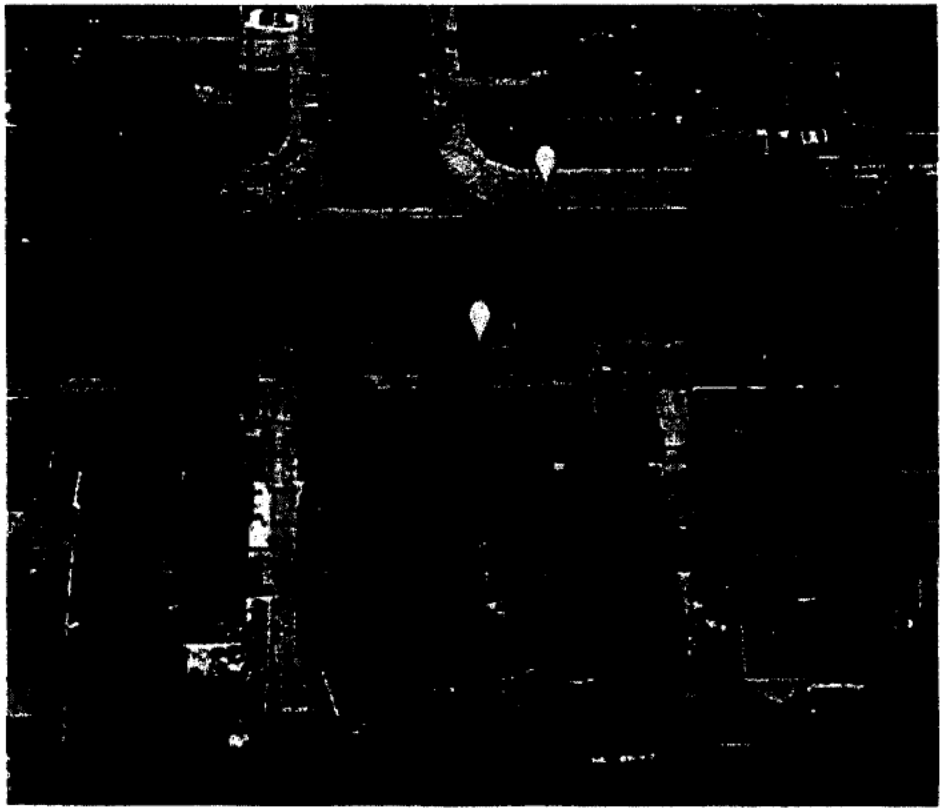
AT&T RB40

Primary

Alternate #1

Alternate #2

CROWN CASTLE



RB40 Primary and Alternate Overview:

The alternates are proposed as wireless facilities on replacement streetlights.

All locations meet the RF coverage objective for the proposal.

Alternative 1&2-not the least intrusive options. Multiple potential view corridors are impacted by these options. No landscaping or man made structures (i.e. retaining walls) are in the area to provide a method of screening. In addition, alternative 2 will require intrusive undergrounding of overhead power lines and a pole replacement due to current SCE regulations.

This location is proposed along Cranbrook to provide service in an area currently experiencing a gap in service. The facility is designed to needed wireless service to homes, entrepreneurs and schools as well local public safety and emergency officials that may be in the area.

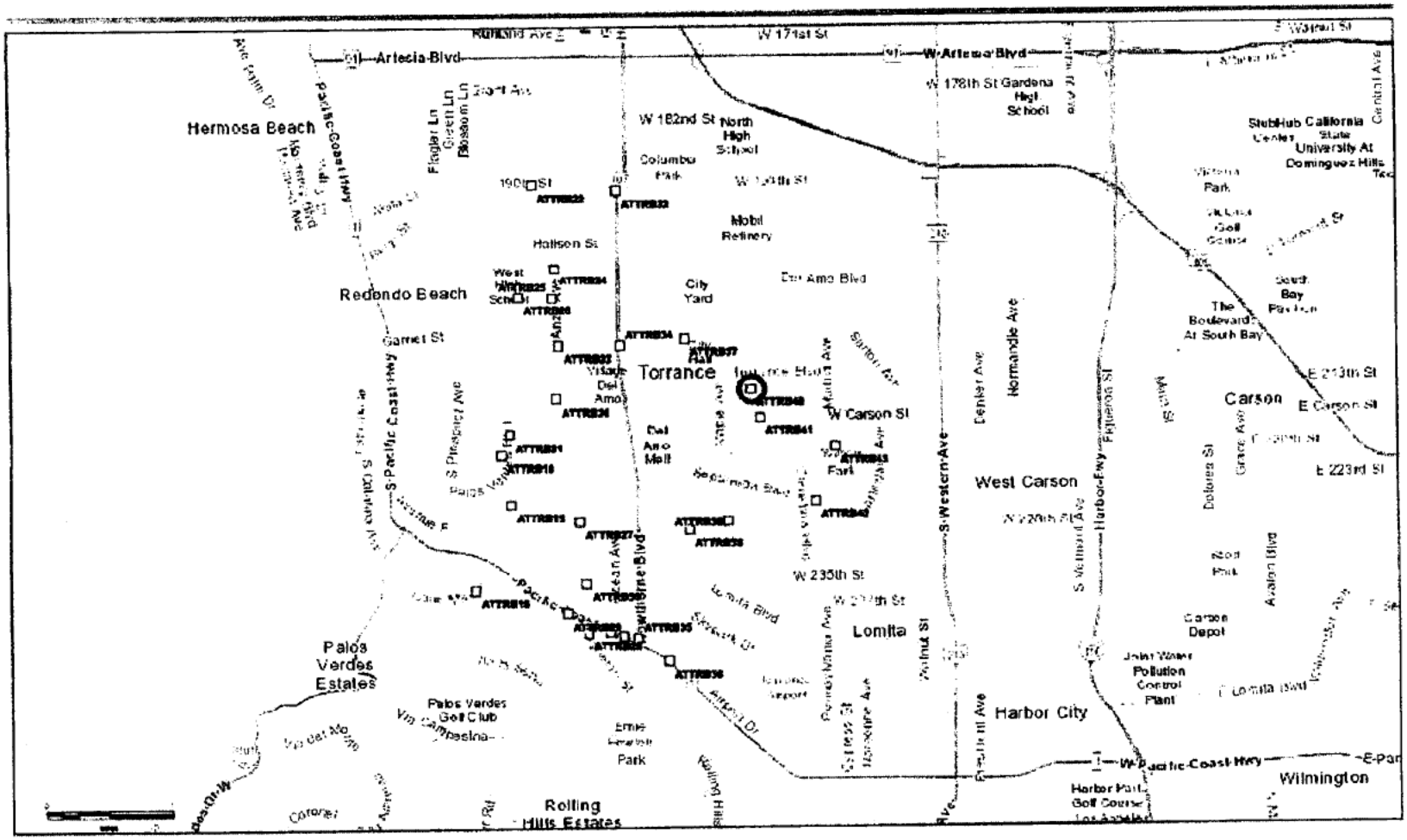
CROWN CASTLE

06/19/2018

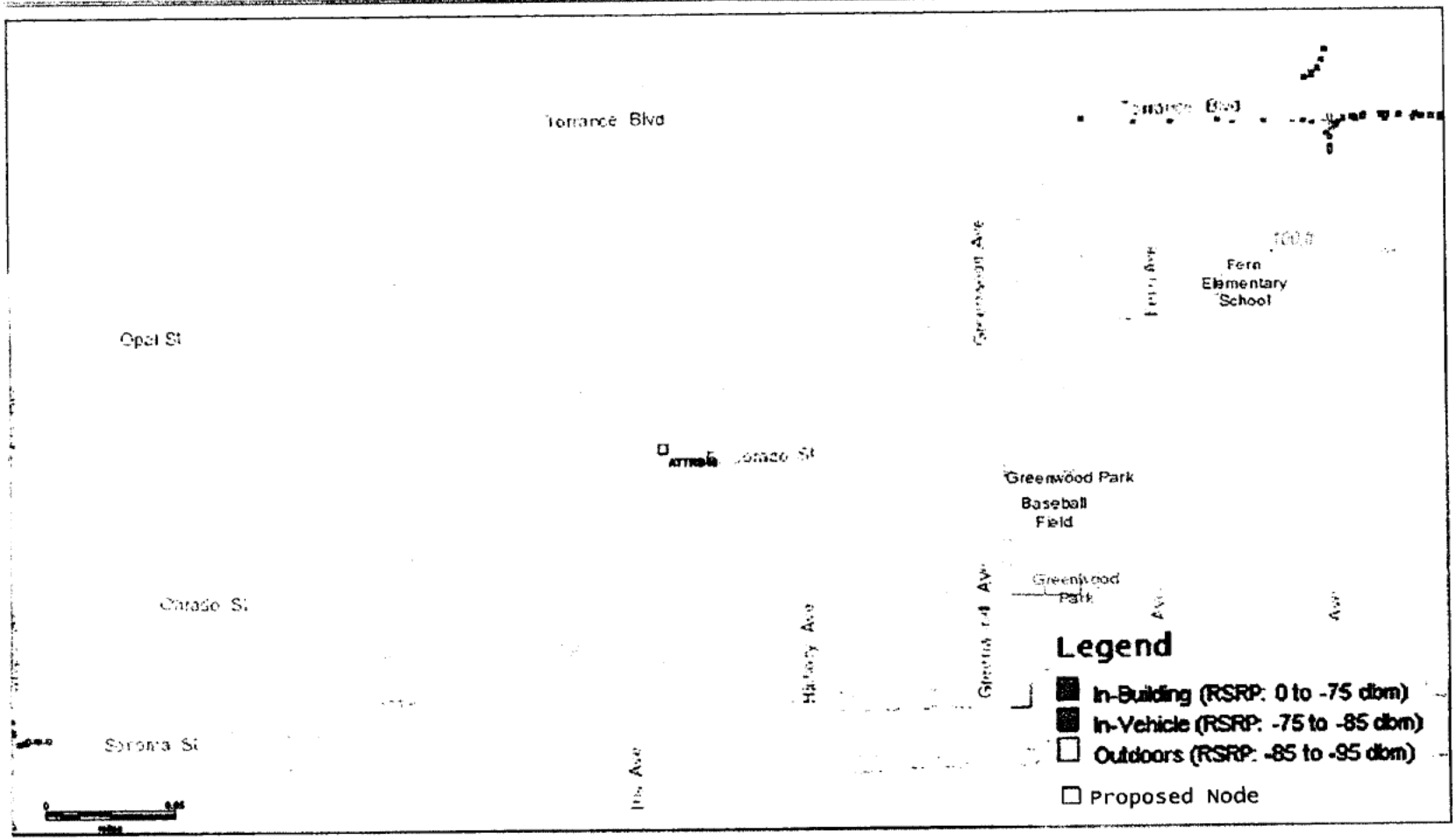
AT&T Wireless Network Densification – Torrance Jurisdiction

29
30

ATTRB40 Node Location

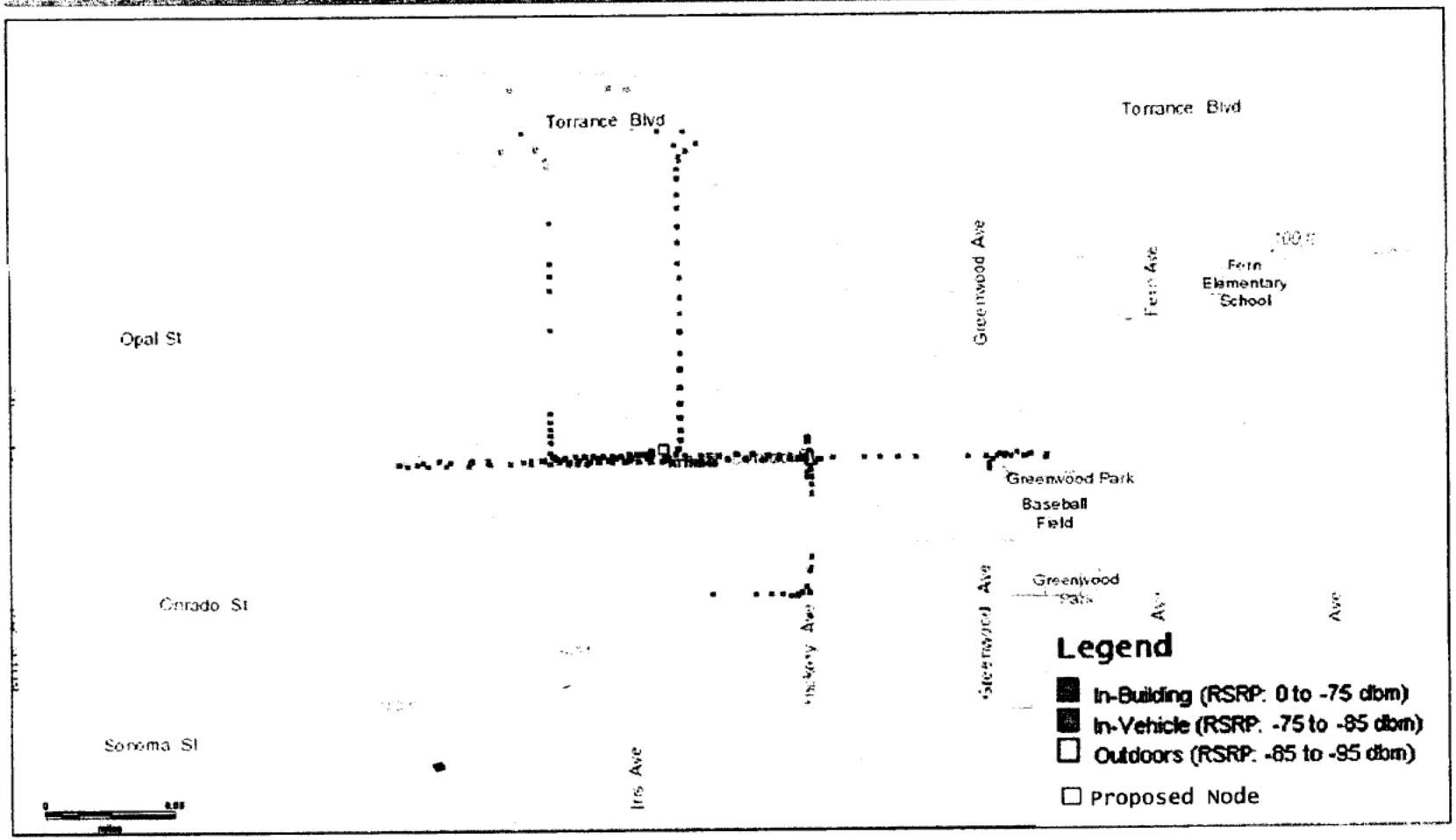


Existing Coverage



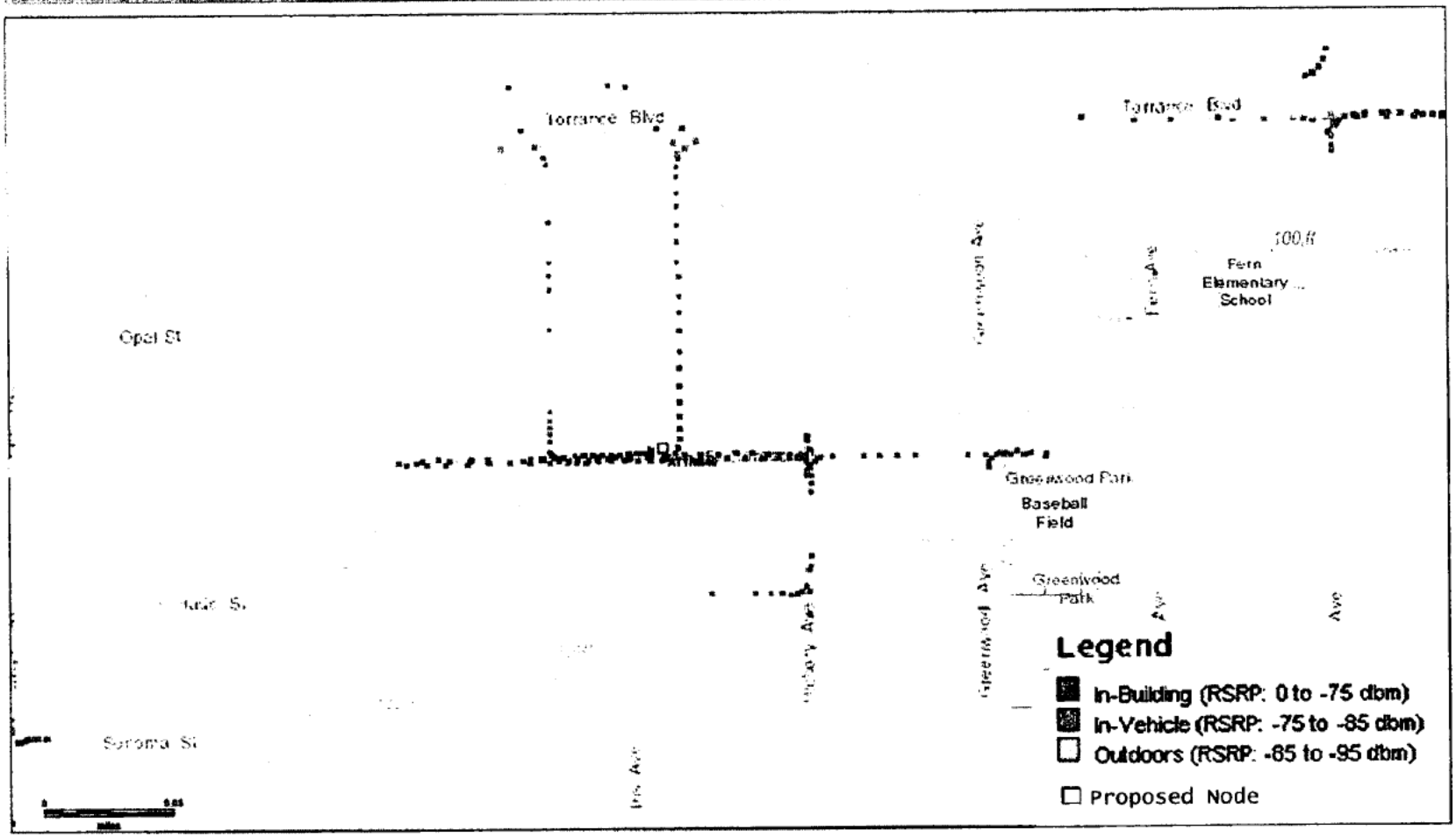
31
32

Proposed Coverage



32
33

Combined Existing and Proposed Coverage



33
34

CROWN CASTLE
Tor
Anal
June
2019
The pathway

NOTE ABOUT ALTERNATES

THIS IS A PRELIMINARY ANALYSIS OF ALTERNATES FOR CROWN CASTLE PROPOSED WIRELESS FACILITIES

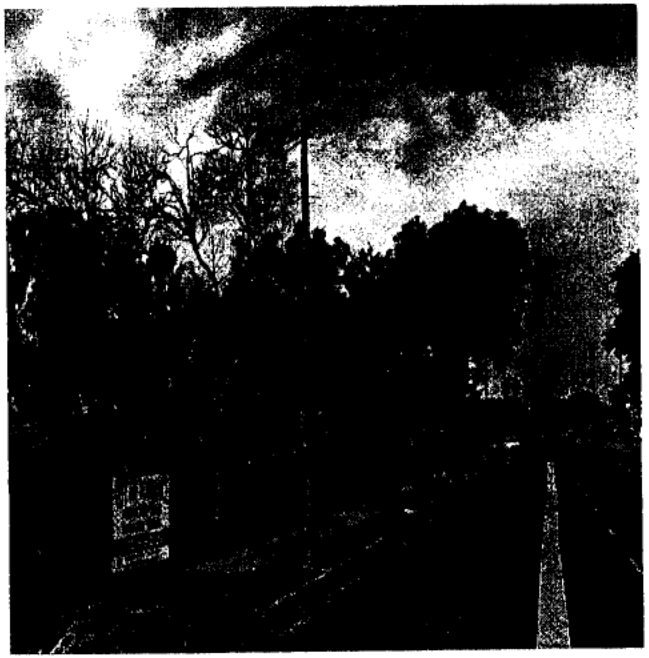
The analysis was completed using google earth with communication from the Crown Castle RF team. If an alternate is selected by the city wireless committee, Crown Castle will conduct both a field visit and drive test in order to determine the viability of the location from a construction and engineering perspective.

35
36

AT&T MB19-to be submitted at a later date.

Primary

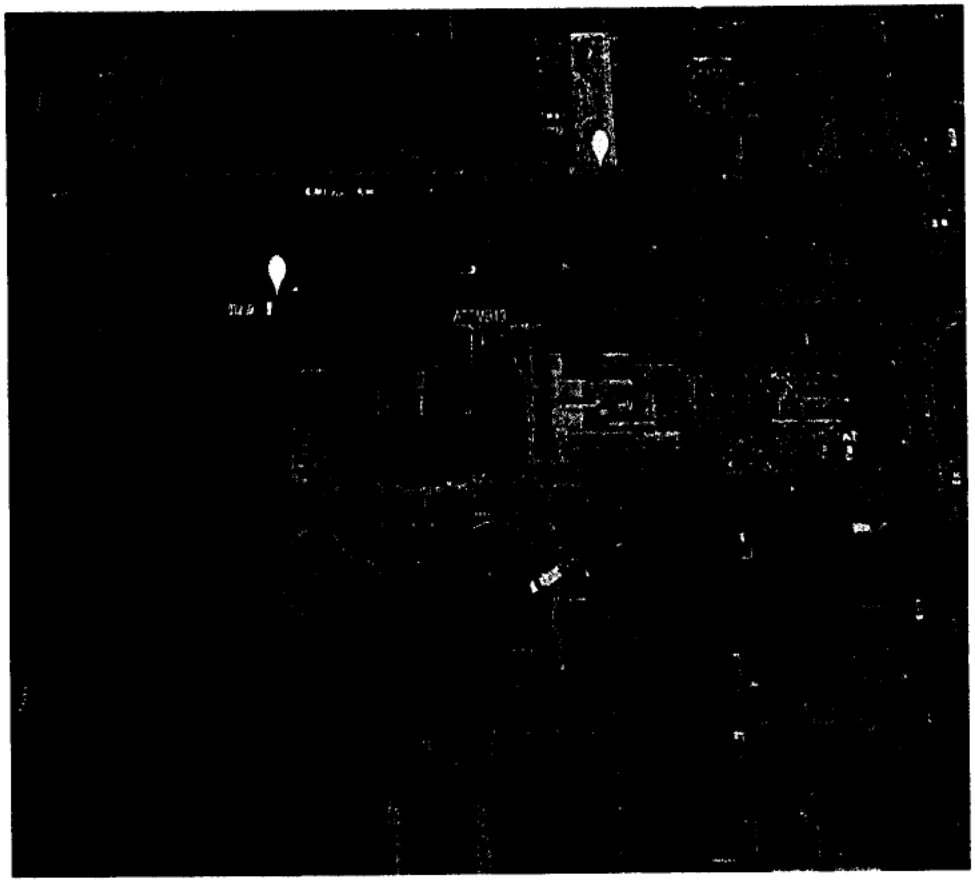
Alternate #1



Alternate #2

36
37

CROWN CASTLE



MB19 Primary and Alternate Overview:

All locations are proposed as wireless facility installations on replacement streetlights.

All locations meet the RF coverage objective for the proposal.

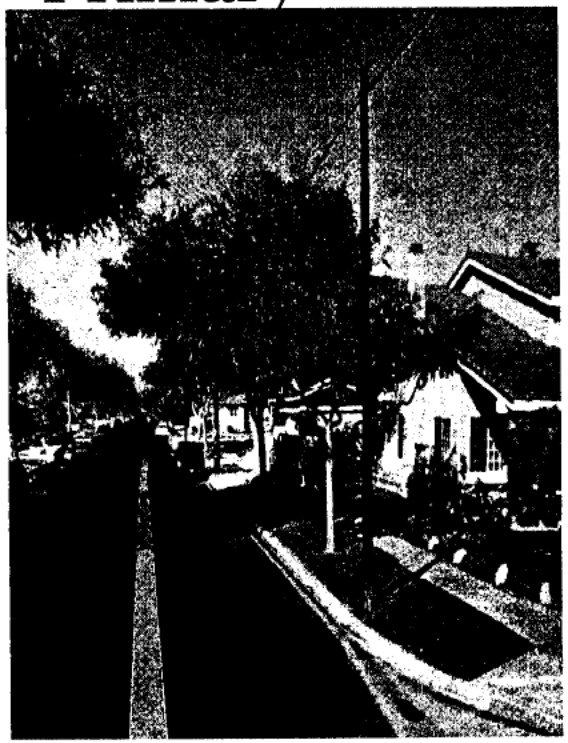
Proposal located on Artesia Blvd and designed to provide wireless service to the large amount of commuters along the road as well as the local businesses and multi family residences in the surrounding neighborhood as well as any emergency personnel or city officials in the area

37
38

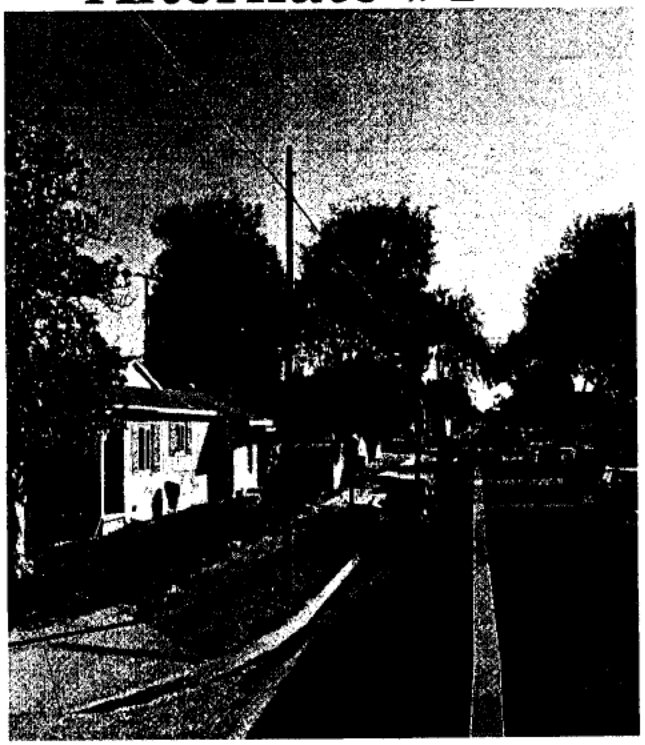
CROWN CASTLE

AT&T RB40

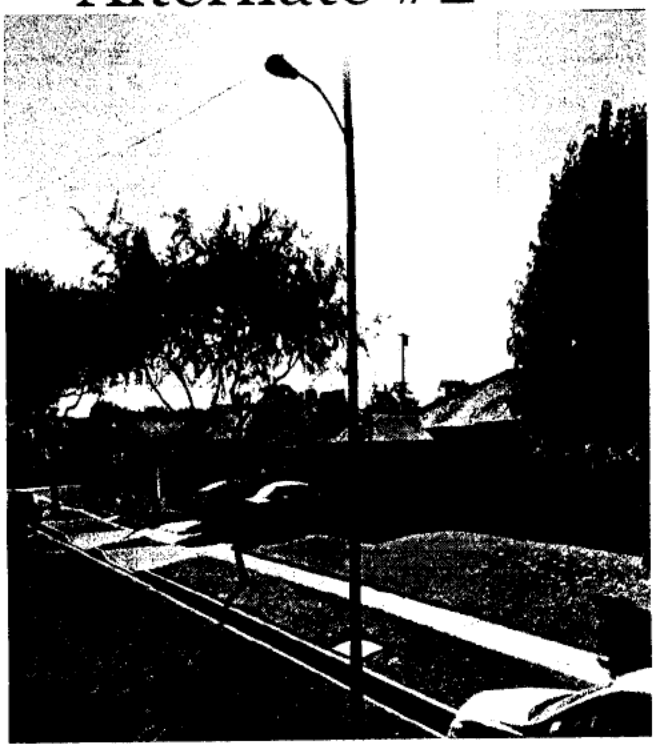
Primary



Alternate #1

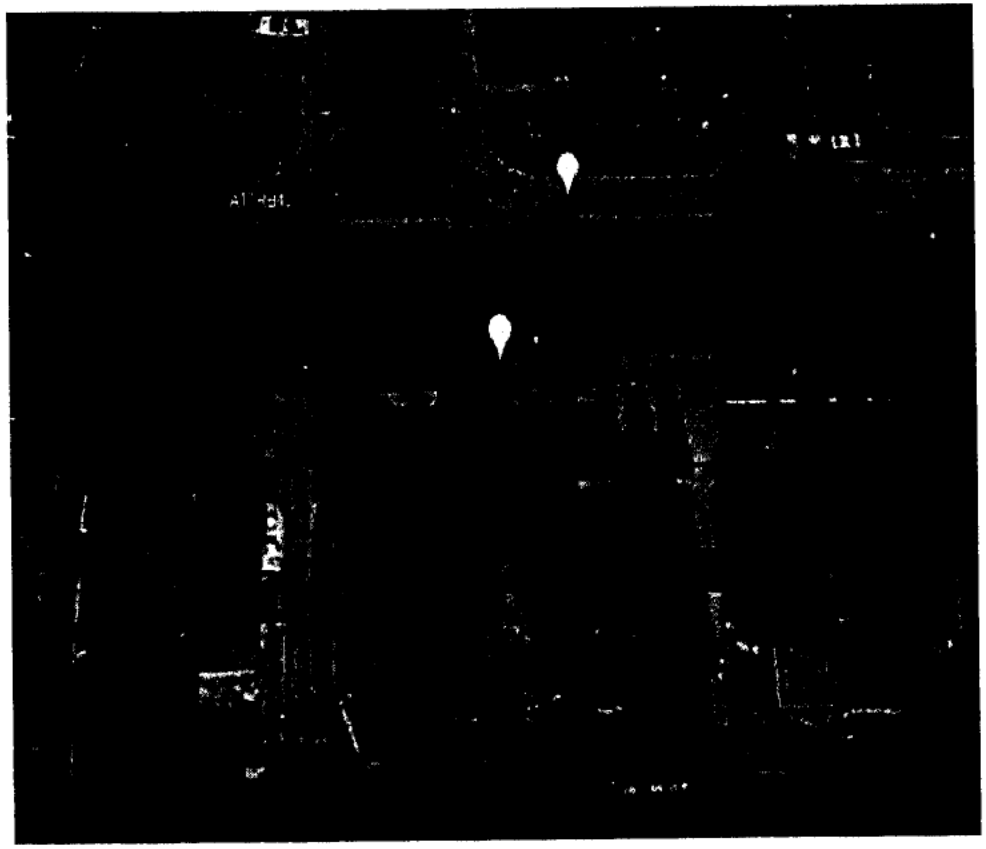


Alternate #2



38
39

CROWN CASTLE



RB40 Primary and Alternate Overview:

The alternates are proposed as wireless facilities on replacement streetlights.

All locations meet the RF coverage objective for the proposal.

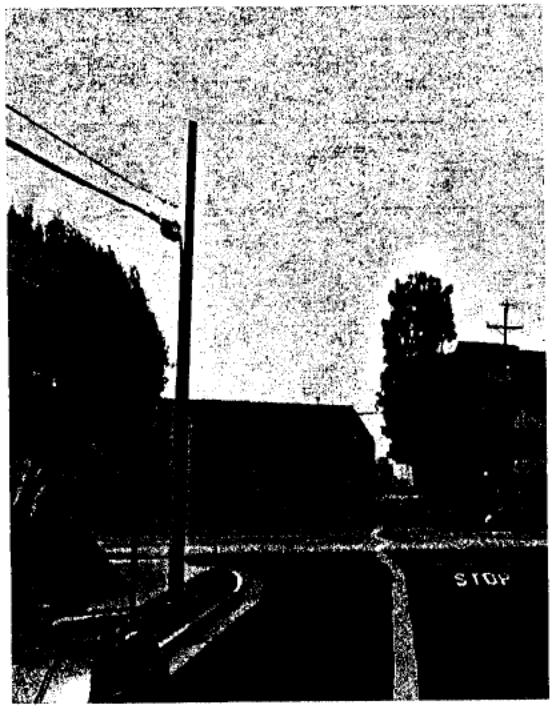
Alternative 1&2-not the least intrusive options. Multiple potential view corridors are impacted by these options. No landscaping or man made structures (i.e. retaining walls) are in the area to provide a method of screening. In addition, alternative 2 will require intrusive undergrounding of overhead power lines and a pole replacement due to current SCE regulations.

This location is proposed along Cranbrook to provide service in an area currently experiencing a gap in service. The facility is designed to needed wireless service to homes, entrepreneurs and schools as well local public safety and emergency officials that may be in the area.

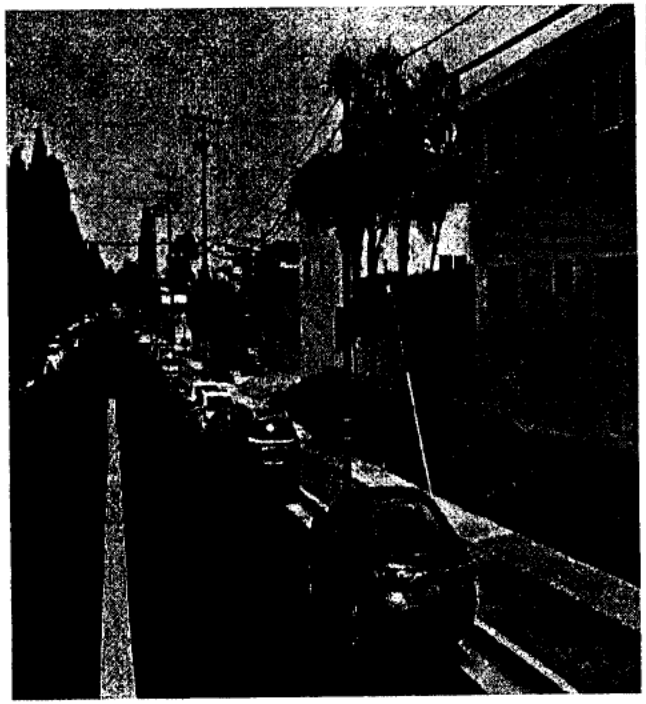
CROWN CASTLE

AT&T RB23

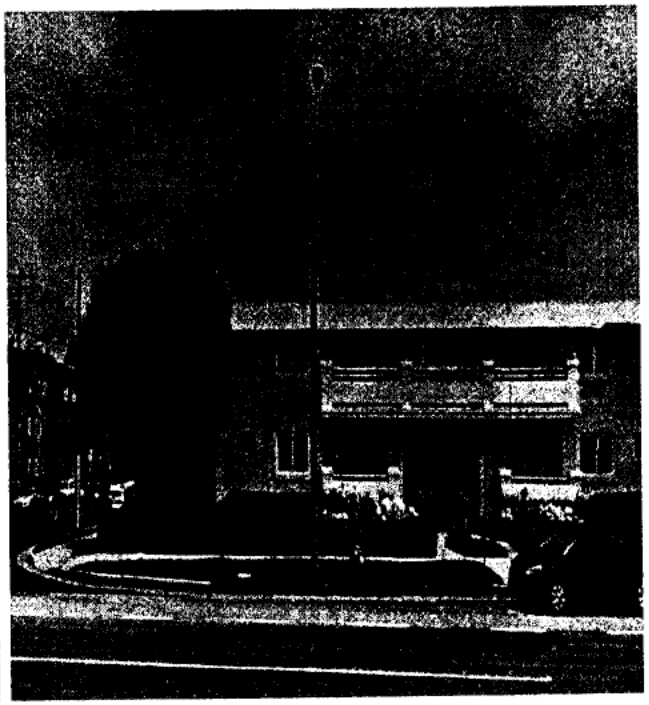
Primary



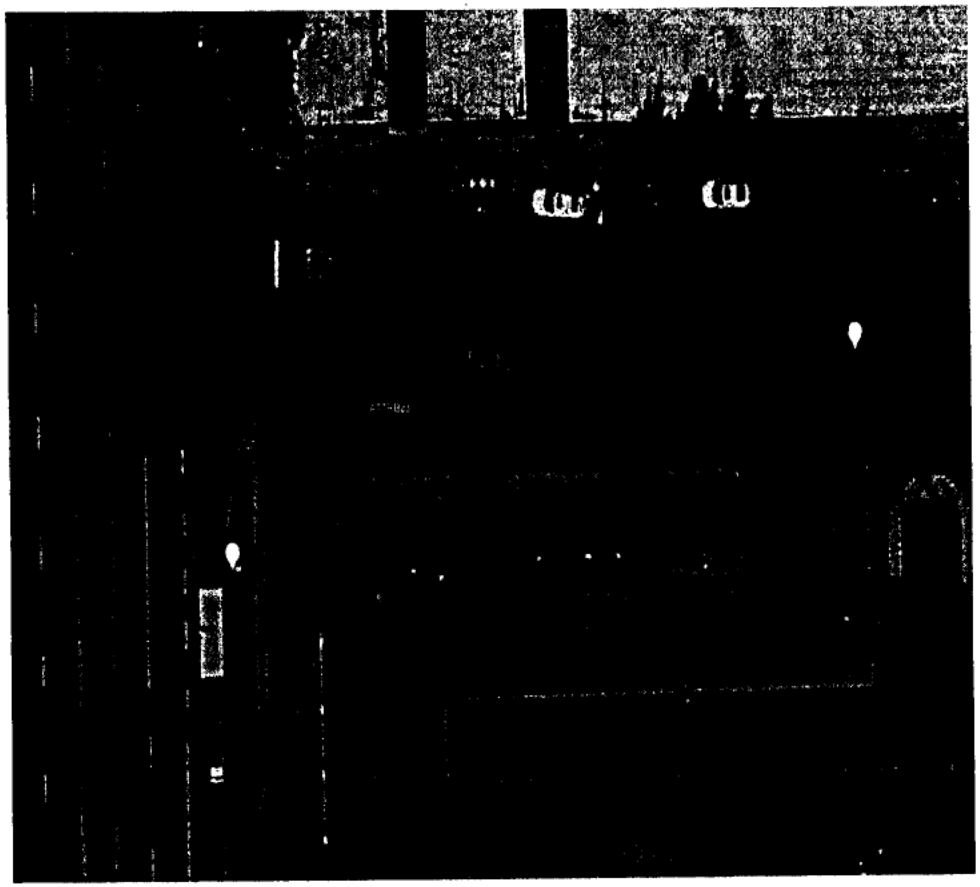
Alternate #1



Alternate #2



CROWN CASTLE



RB23 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on utility poles.

All locations meet the RF coverage objective for the proposal.

Alternative 1&2-not the least intrusive options. Multiple potential view corridors are impacted by these options. No landscaping or man made structures (i.e. retaining walls) are in the area to provide a method of screening. In addition, alternative 2 will require intrusive undergrounding of overhead power lines and a pole replacement due to current SCE regulations.

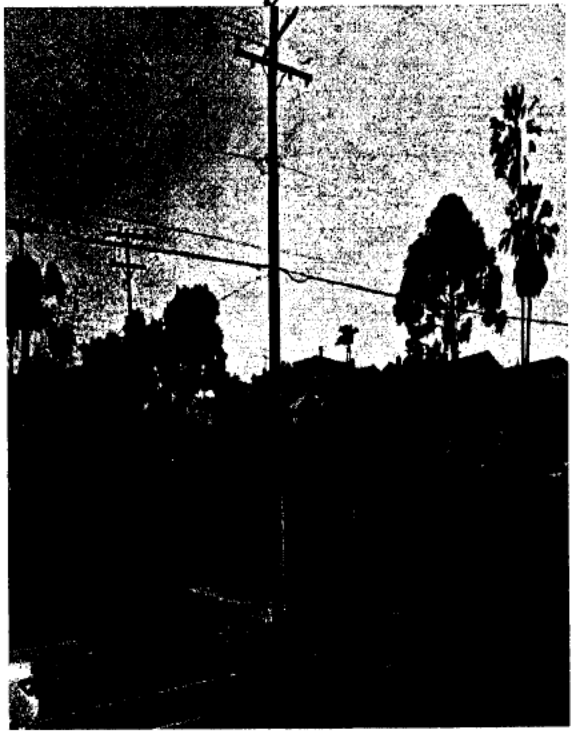
This location is proposed along Anza Blvd to provide service in an area currently experiencing a gap in service. The facility is designed to bring wireless service to commuters, homes, businesses and entrepreneurs as well local public safety and emergency officials that may be in the area.

41
42

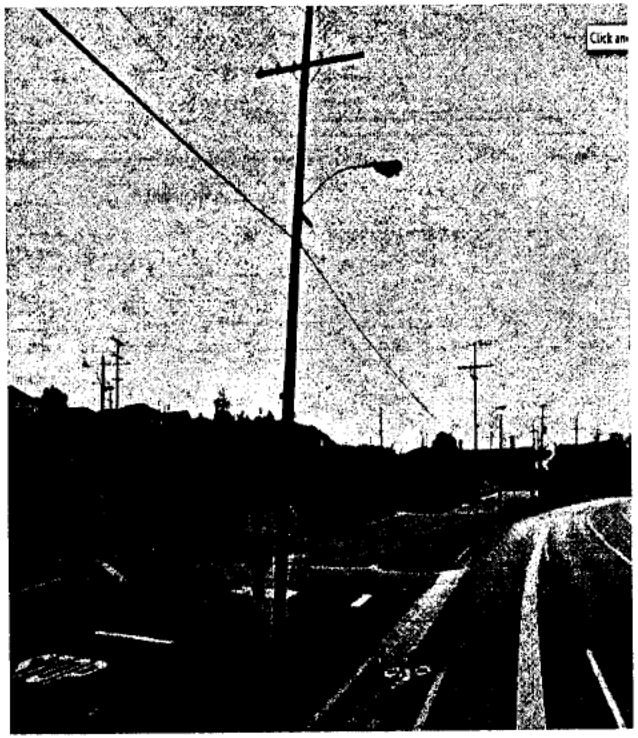
CROWN CASTLE

AT&T RB18

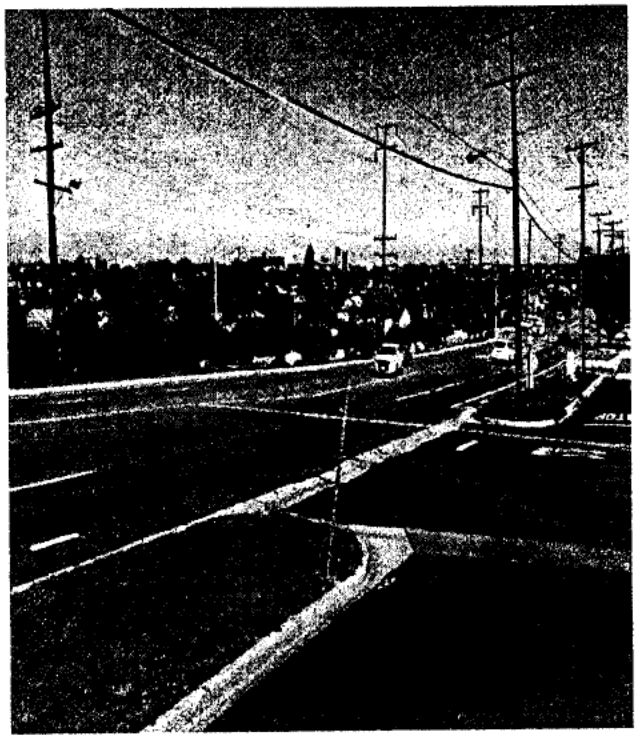
Primary



Alternate #1

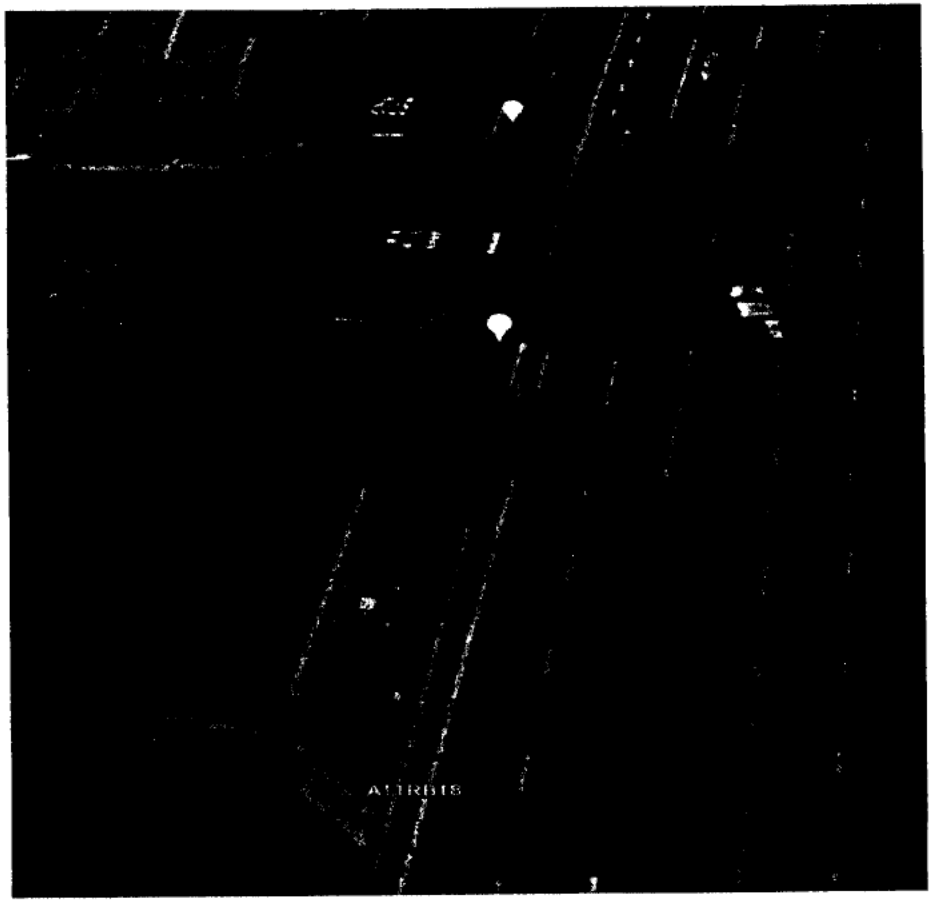


Alternate #2



42
43

CROWN CASTLE



RB18 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on utility poles and or replacement street sign poles.

All locations meet the RF coverage objective for the proposal.

Alternative 1&2-not the least intrusive options. Multiple potential view corridors are impacted by these options. No landscaping or man made structures (i.e. retaining walls) are in the area to provide a method of screening. In addition, alternative 2 involves the replacement of a street sign with a much larger pole to meet the RF coverage objective.

This location is proposed along Sepulveda and Palos Verdes drive to provide improved wireless service to commuters, homes and businesses in the area.

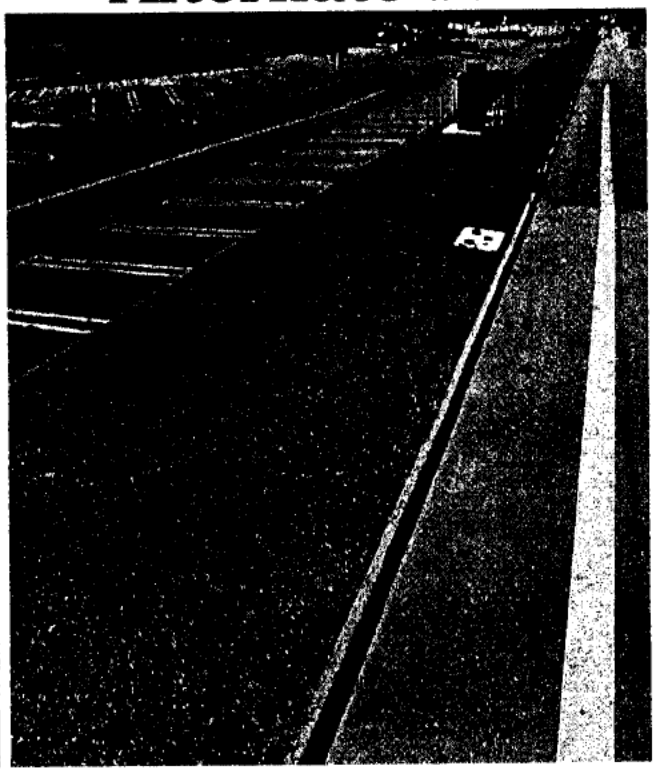
CROWN CASTLE

AT&T RB43

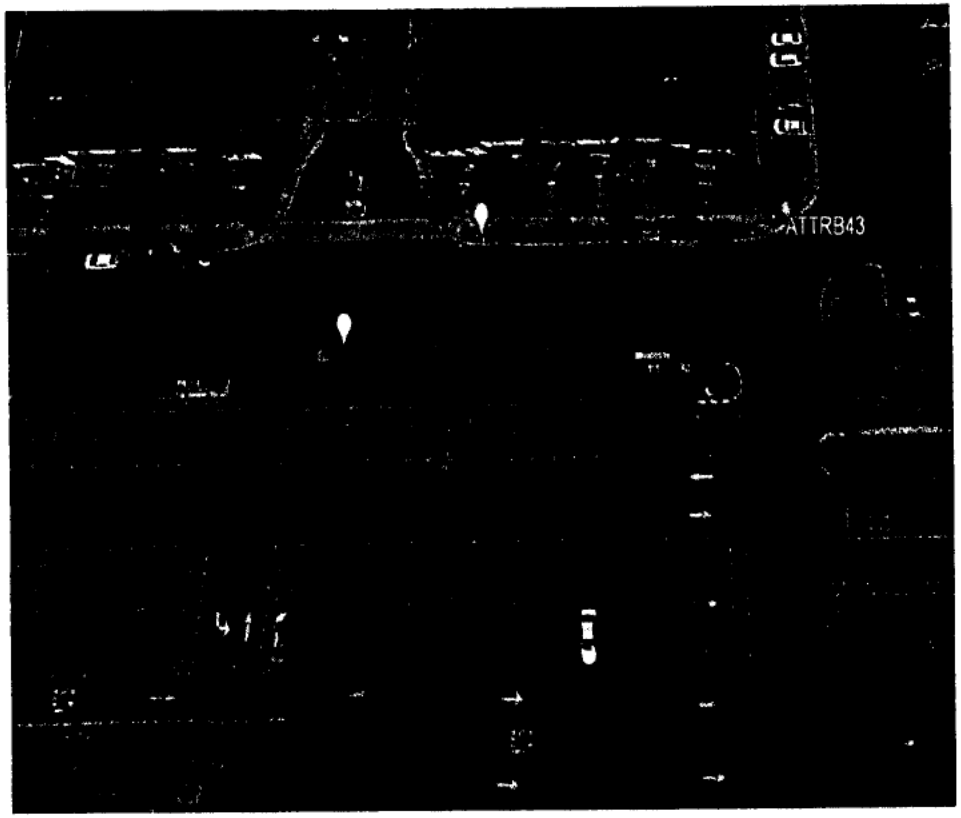
Primary

Alternate #1

Alternate #2



CROWN CASTLE



RB43 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on replacement streetlight poles or new poles placements.

All locations meet the RF coverage objective for the proposal.

Alternative 1&2-not the least intrusive options. Multiple potential view corridors are impacted by these options. No landscaping or man made structures (i.e. retaining walls) are in the area to provide a method of screening. In addition, alternative 2 involves the placement of a new pole where on currently does not exist.

The location is located near a large sports complex, school and commercial zone as well as numerous multi family residences currently in an area experiencing a gap in wireless service. This proposal will work to provide service to the users of the multiple facilities and or homes described above.

45
46

CROWN CASTLE

AT&T RB16

Primary

Alternate #1

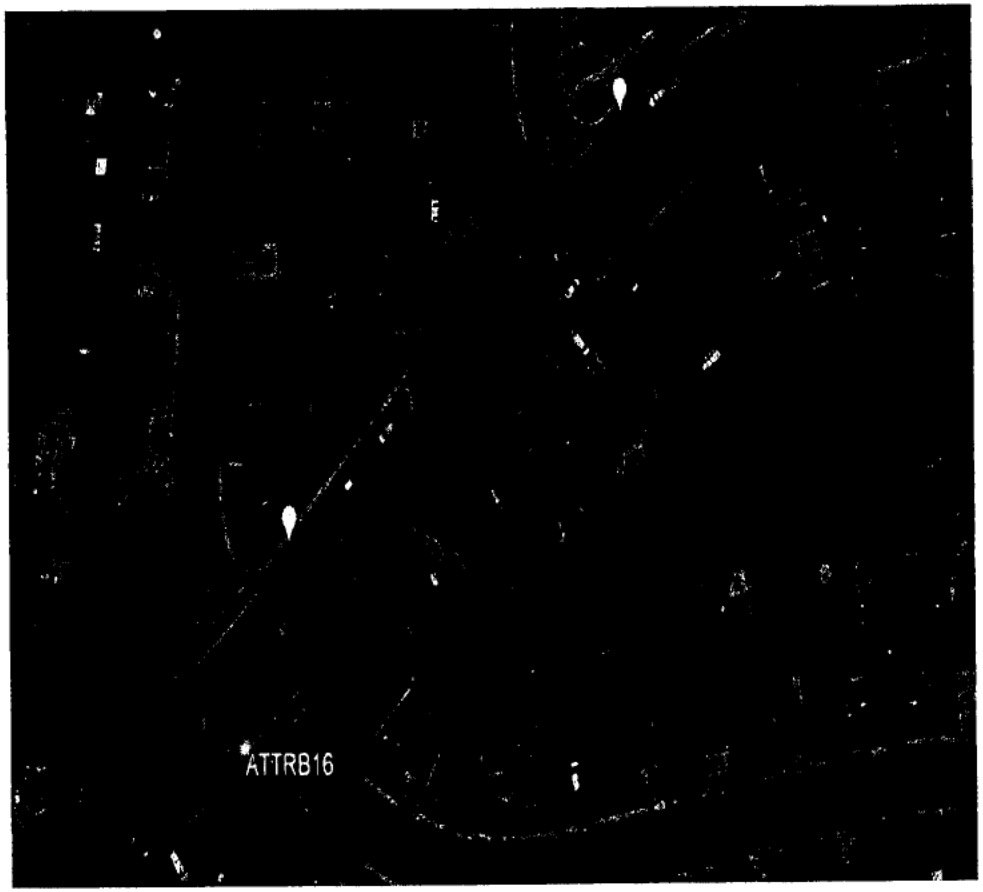
Alternate #2

46

47

CROWN CASTLE

47
48



RB16 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on new poles.

Alternate 1 will meet the RF coverage objective for the proposal. Alternate 2 will not meet the RF coverage objective.

Alternative 1&2-not the least intrusive options. Multiple potential view corridors are impacted by these alternates. No landscaping or man made structures (i.e. retaining walls) are in the area to provide a method of screening.

The location is located along Calle Mayor, a major arterial road connecting Torrance to the surrounding Peninsula. This proposal is designed to provide service to users of the ROW, homes, and emergency personnel in the area as well as children and parents leaving/arriving at the many schools in the area.

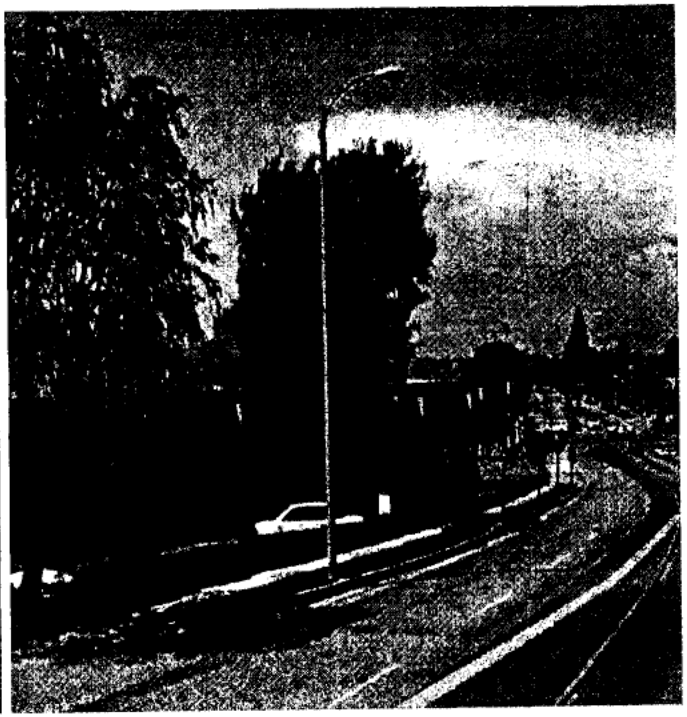
CROWN CASTLE

AT&T RB28

Primary

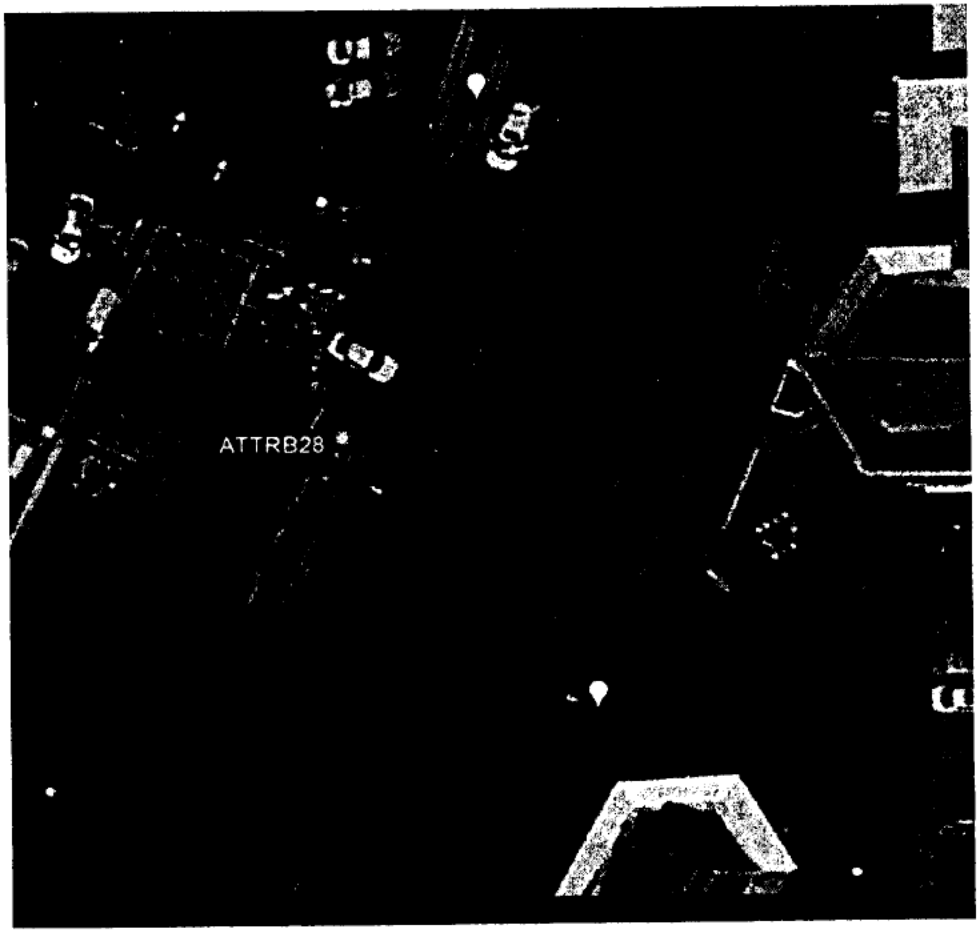
Alternate #1

Alternate #2



48
49

CROWN CASTLE



RB28 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on replacement street lights.

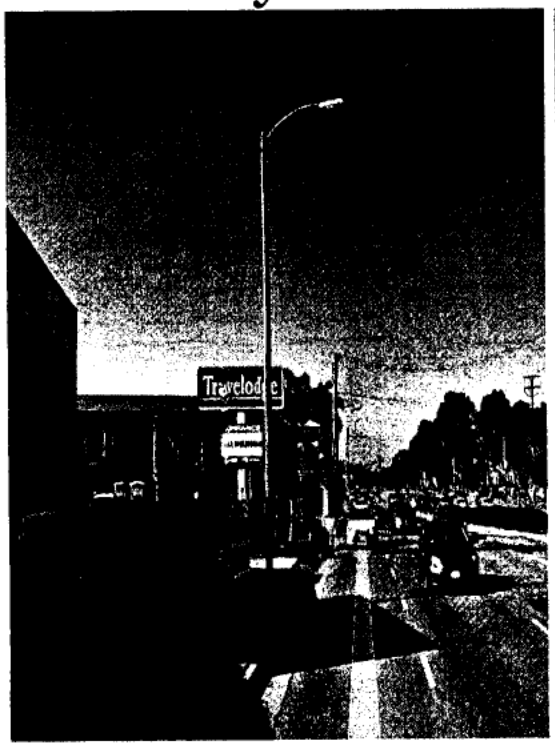
All locations will meet the RF coverage objective.

All alternatives are viable options that are not intrusive. All are located on Vista Montana near PCH with heavy residential/commercial traffic. All locations are situated amongst many commercial developments. This location is sighted to fill an existing gap in wireless service and provide expanded wireless service to all the users of the ROW (high traffic count), the shopping areas and local businesses.

CROWN CASTLE

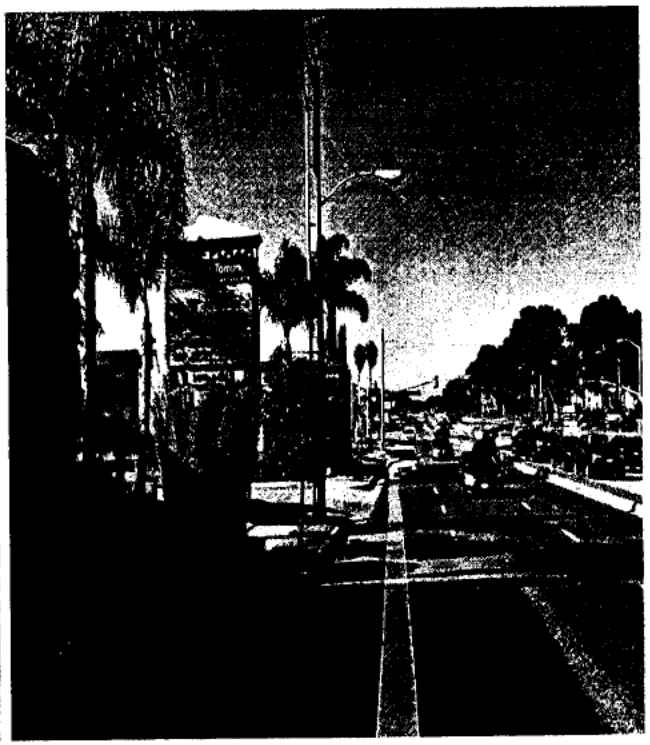
AT&T RB42

Primary



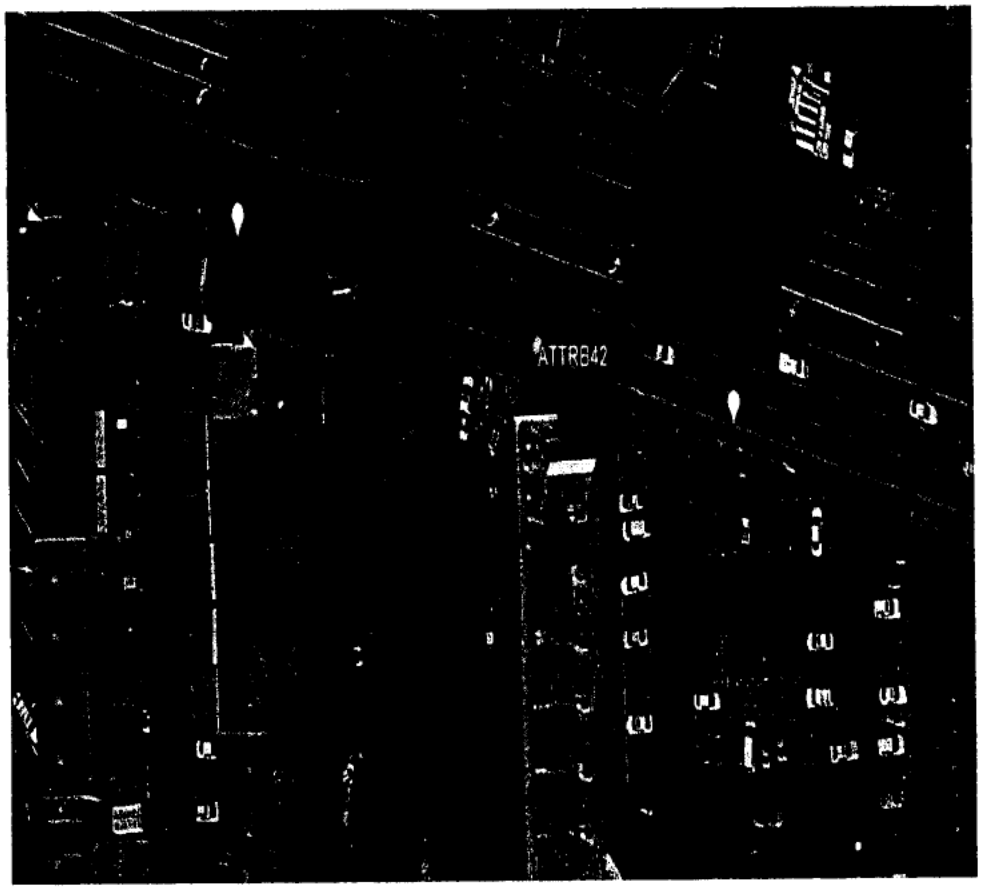
Alternate #1

Alternate #2



50
51

CROWN CASTLE



RB42 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on replacement streetlights or existing utility poles.

All locations will meet the RF coverage objective.

All alternatives are viable options that are not intrusive. All are located on Sepulveda Blvd with heavy residential/commercial traffic. All locations are situated amongst many commercial developments. This location is sighted to fill an existing gap in wireless service for users of the ROW (high traffic count), business developments and emergency personnel in the area.

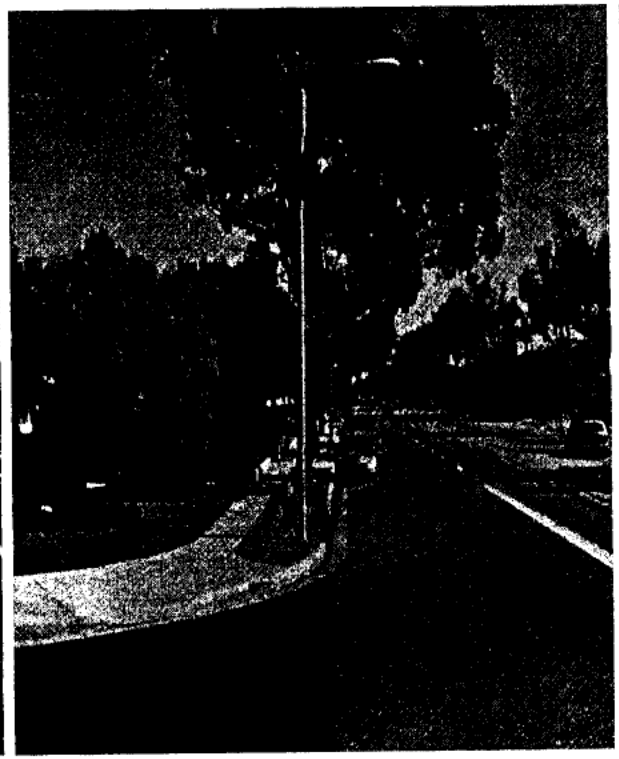
51
52

CROWN CASTLE

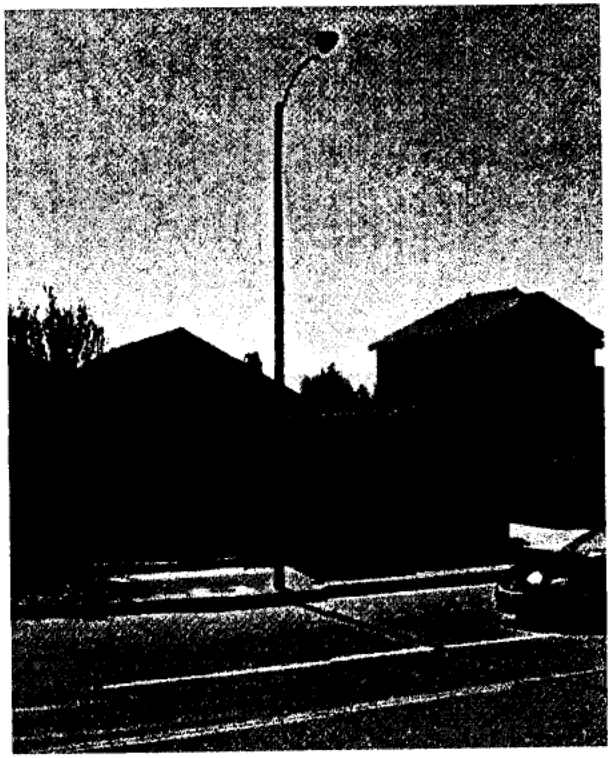
AT&T RB41

Primary

Alternate #1

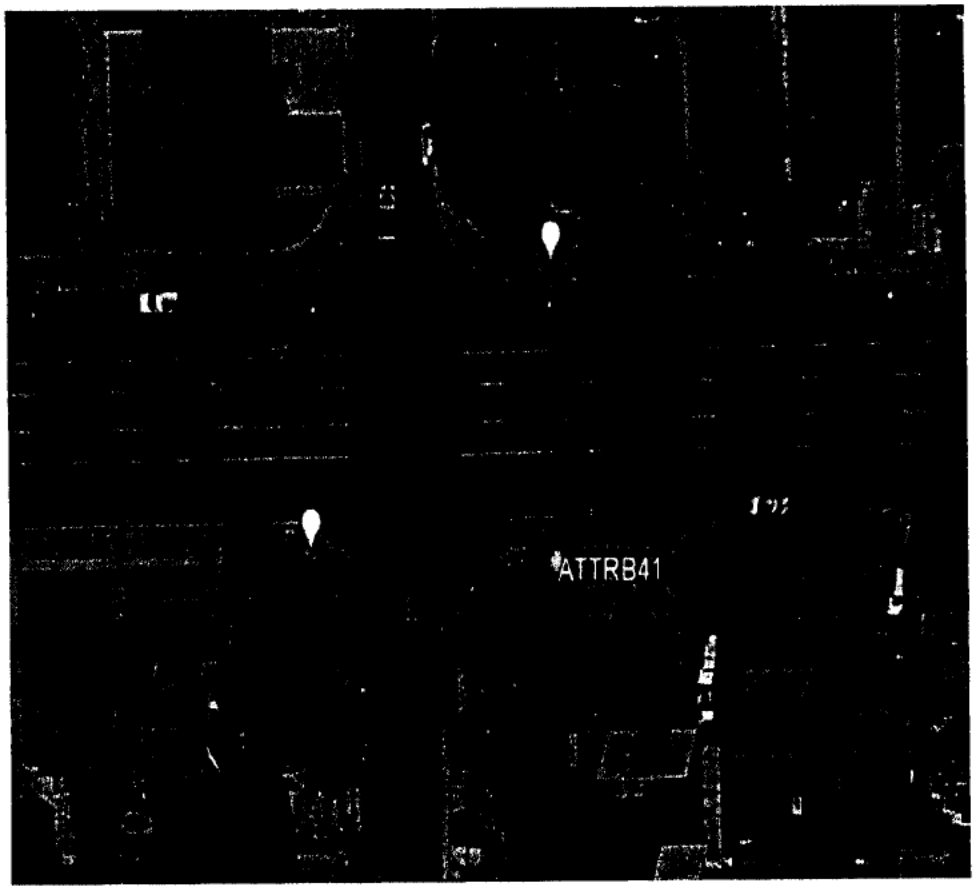


Alternate #2



52
53

CROWN CASTLE



RB41 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on replacement street lights.

All locations will meet the RF coverage objective.

All alternatives are viable options that are not intrusive. All are located on Carson Blvd with heavy residential traffic. All locations are situated amongst many residential developments. This location is sighted to fill an existing gap is wireless service to residences, cars driving down Carson and emergency personnel if in the area.

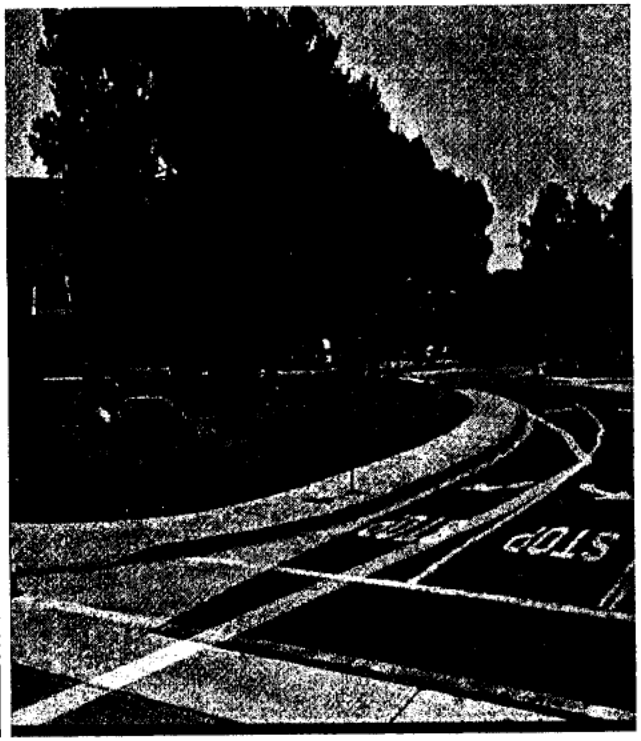
53
54

CROWN CASTLE

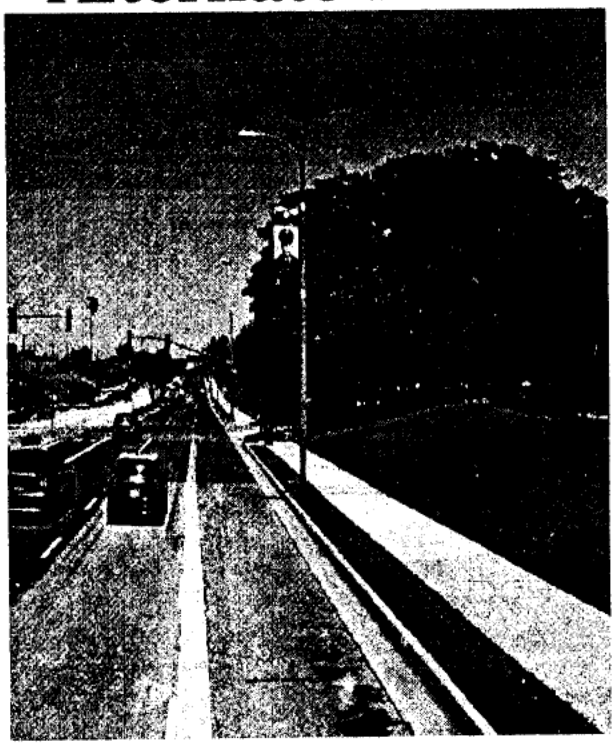
AT&T RB37

Primary

Alternate #1

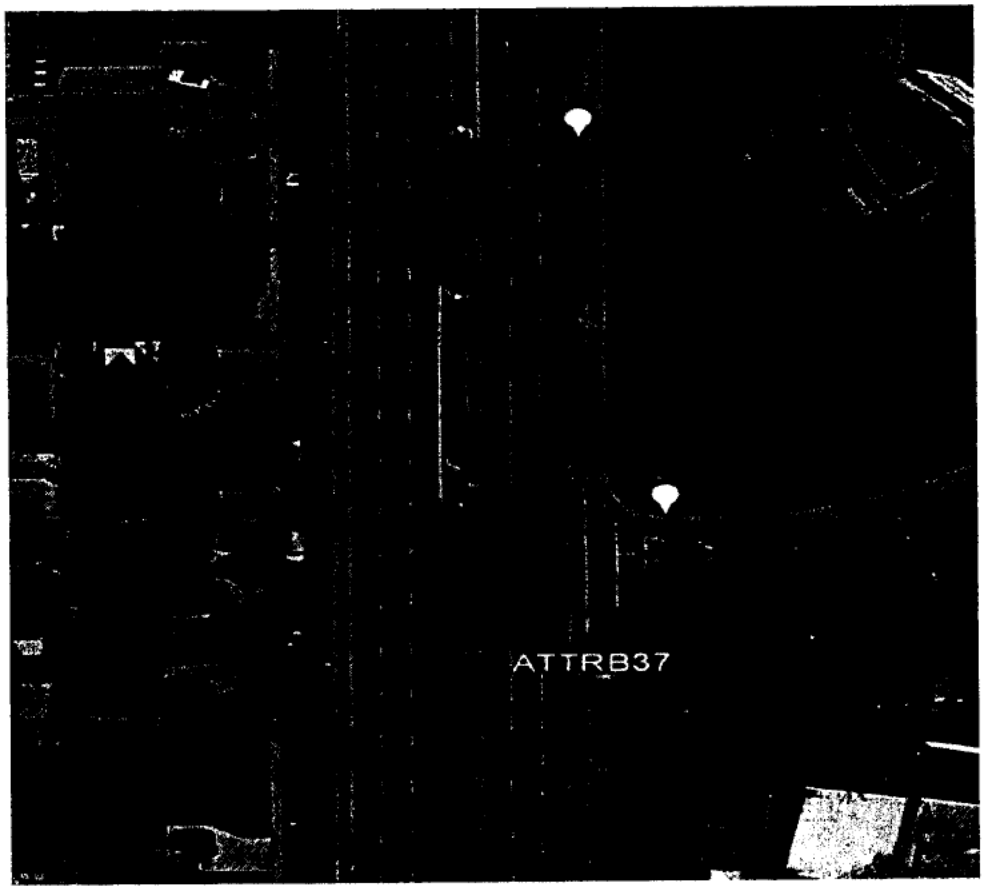


Alternate #2



54
55

CROWN CASTLE



RB37 Primary and Alternate Overview:

The alternates are proposed as either wireless facility installations on replacement street lights or street signs.

All locations will meet the RF coverage objective.

All alternatives are viable options that are not intrusive. All are located on Madrona Blvd and Civic Center Drive with heavy residential/commercial traffic. All locations are situated amongst many large business developments and city hall. This location is sighted to fill an existing gap in wireless service to residences, cars and city emergency and operational personnel in the area.

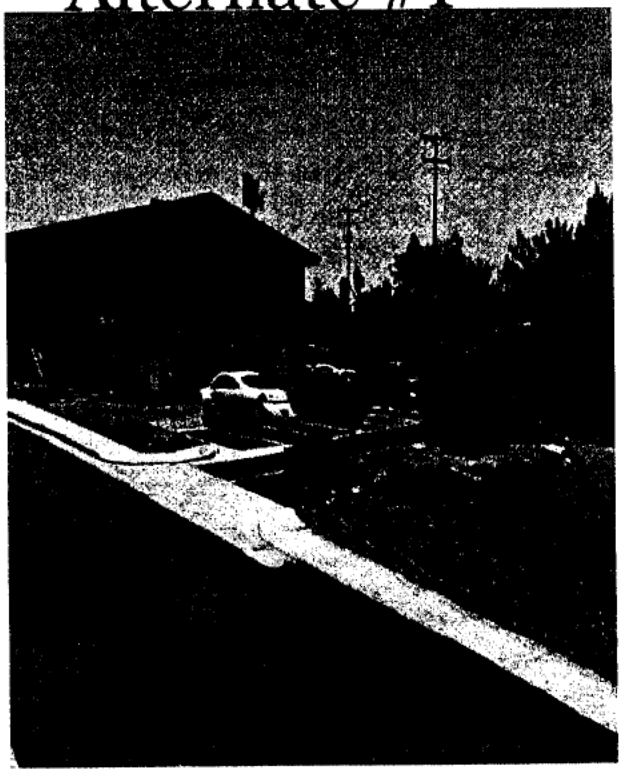
55
56

CROWN CASTLE

AT&T RB38-to be submitted at a later date.

Primary

Alternate #1



Alternate #2

56
57

CROWN CASTLE

RB38 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on replacement street lights.

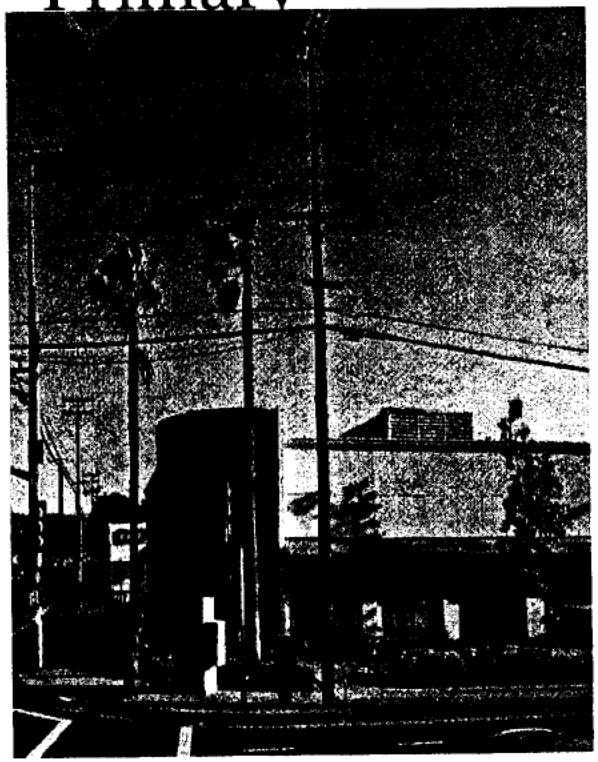
All locations will meet the RF coverage objective.

All alternatives are viable options that are not intrusive. The alternatives are either across the street, screened by landscaping or not in view corridors to homes in the area. All are located on 229 Street amidst multiple multi family developments and heavy residential traffic. All locations are sighted to fill an existing gap is wireless service to residences, entreprenuers and emergency personal that may be in the area.

57
58

AT&T RB24

Primary

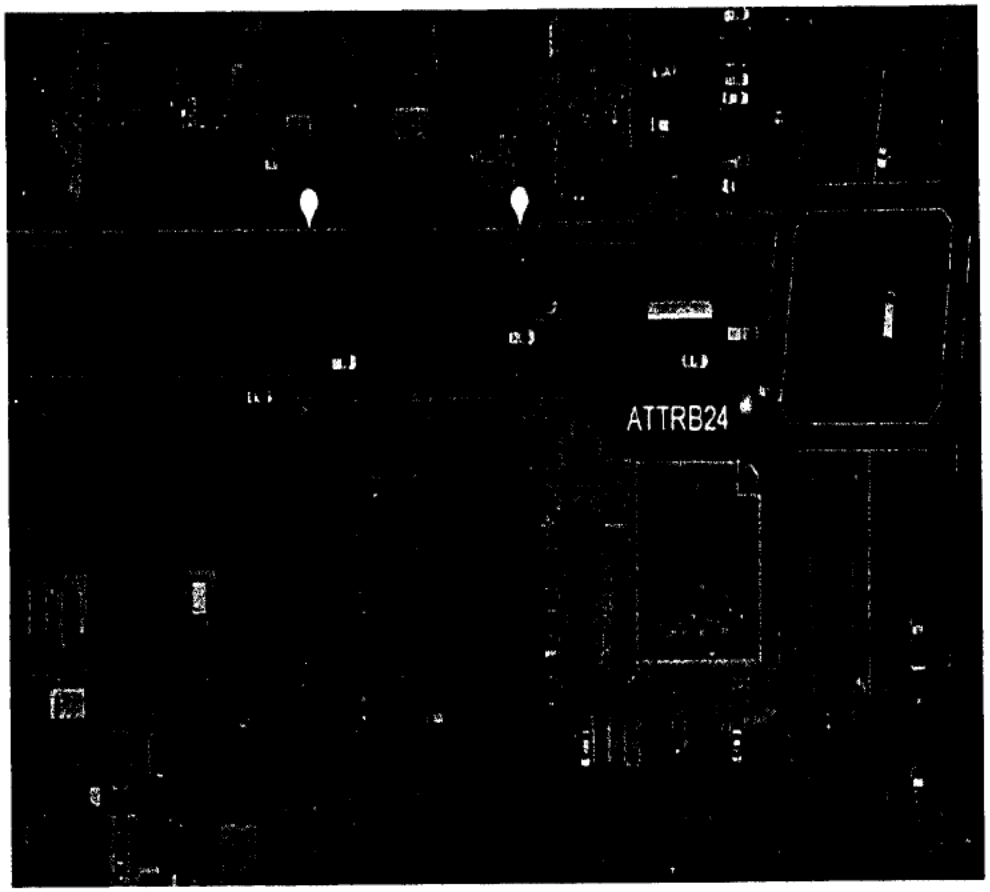


Alternate #1

Alternate #2

58
59

CROWN CASTLE



RB24 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on replacement streetlights.

All locations will meet the RF coverage objective.

All alternatives are viable options that are not intrusive. All are located near the intersection of Del Amo and Anza, amidst heavy residential/commercial traffic. This location is sighted to fill an existing gap in wireless service to residences, businesses, users of the ROW and emergency personnel that may be in the area.

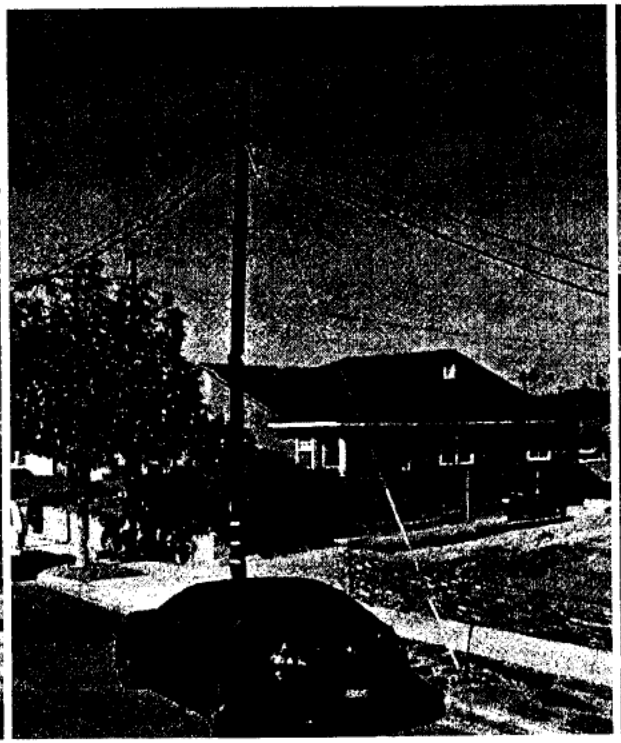
09 59 60

CROWN CASTLE

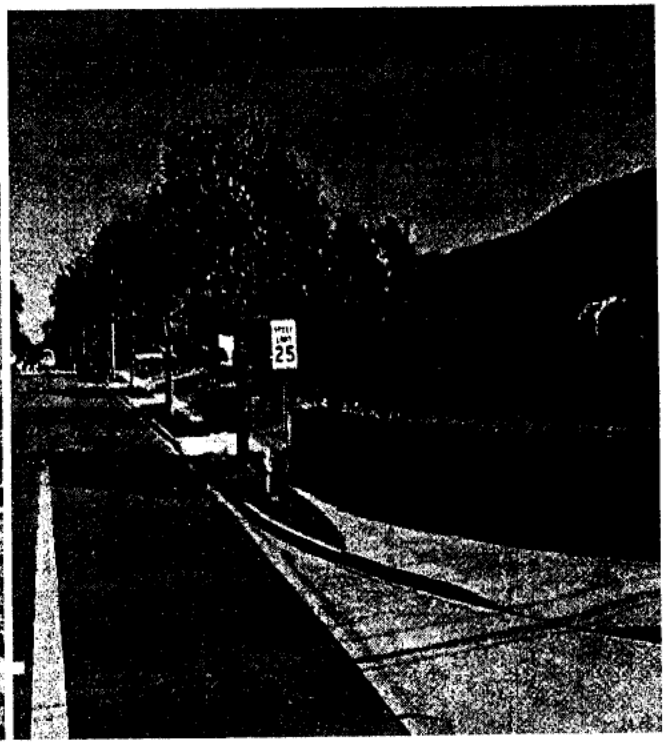
AT&T RB21

Primary

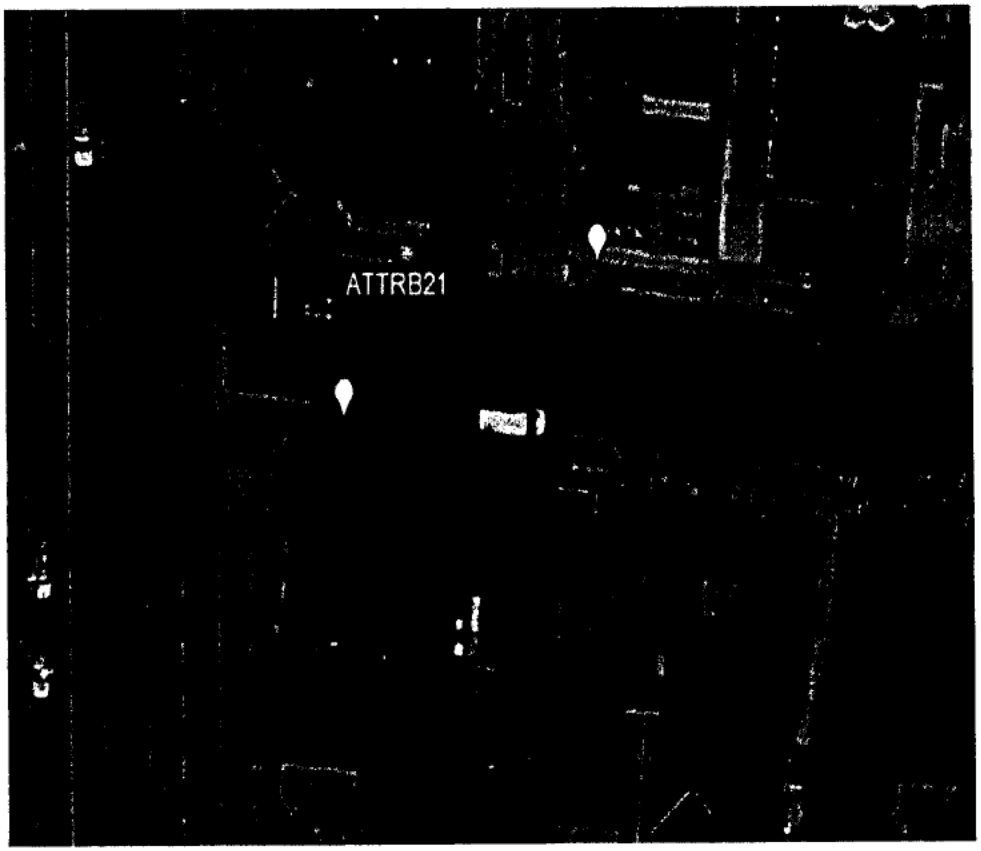
Alternate #1



Alternate #2



CROWN CASTLE



RB21 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on existing utility poles or replacement street signs.

All locations will meet the RF coverage objective.

Alternative 3 is not the least instrusive. There is no landscaping, man-made structures or screening methods for either option. Also, the replacement street sign location will require a large pole to meet the RF coverage objective.

This location is sighted to fill an existing gap is wireless service along PV Blvd and Laurette Street. The location will provide needed wireless service to residences, entrepreneurs, users of the ROW and emergency personnel that may be in the area.

61
62

CROWN CASTLE

AT&T RB30

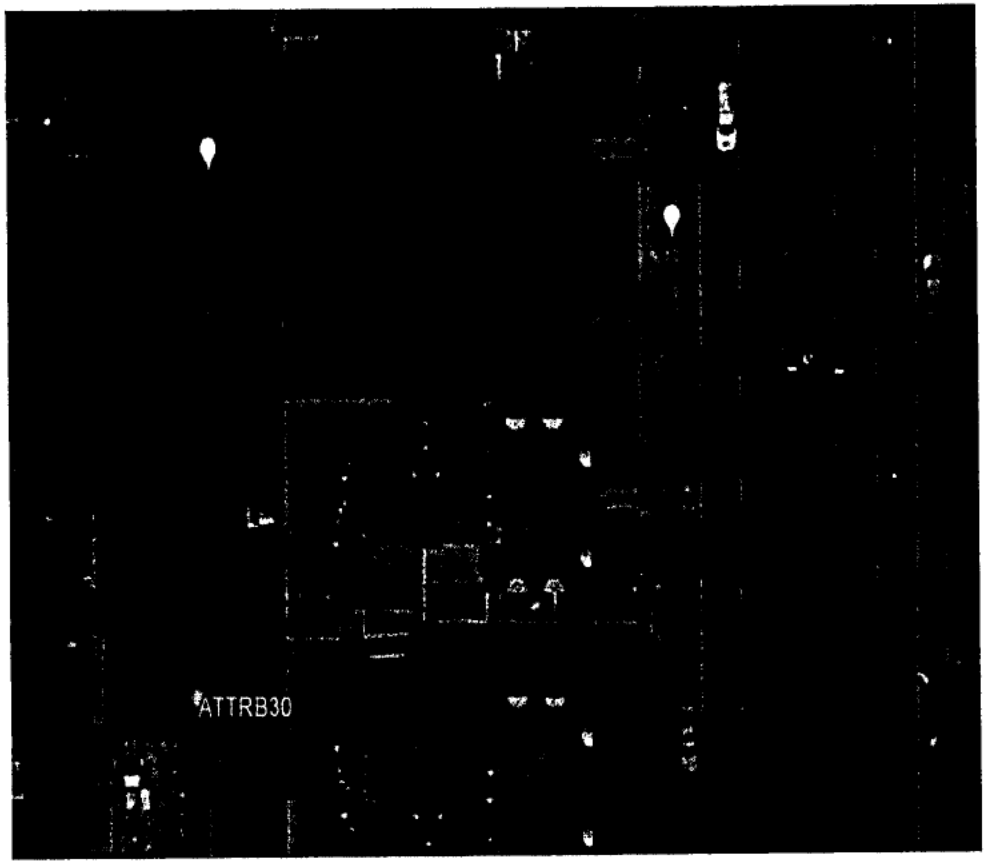
Primary

Alternate #1

Alternate #2

62
63

CROWN CASTLE



RB30 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on existing utility poles or replacement street signs.

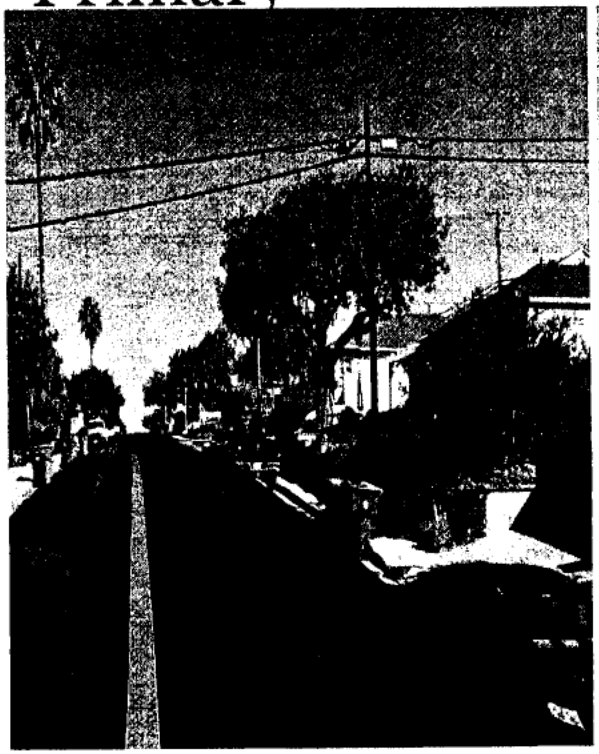
All locations will meet the RF coverage objective.

Alternative 3 is not least instrusive. There is no landscaping, man-made structures or screening methods for that option. Also, the replacement street sign location will require a large pole to meet the RF coverage objective.

This location is sighted to fill an existing gap is wireless service along Anza Blvd. The location will provide needed service to residences, entreprenuers, users of the ROW and emergency personnel that may be in the area.

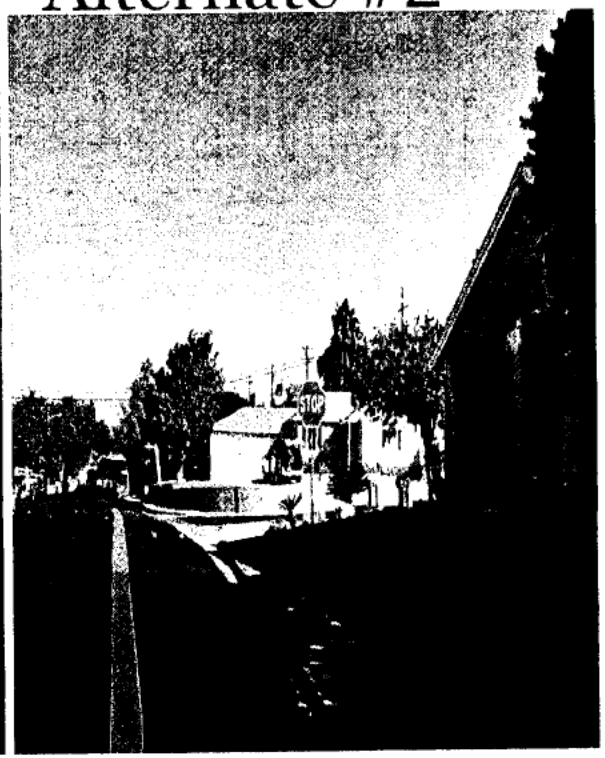
AT&T RB19

Primary



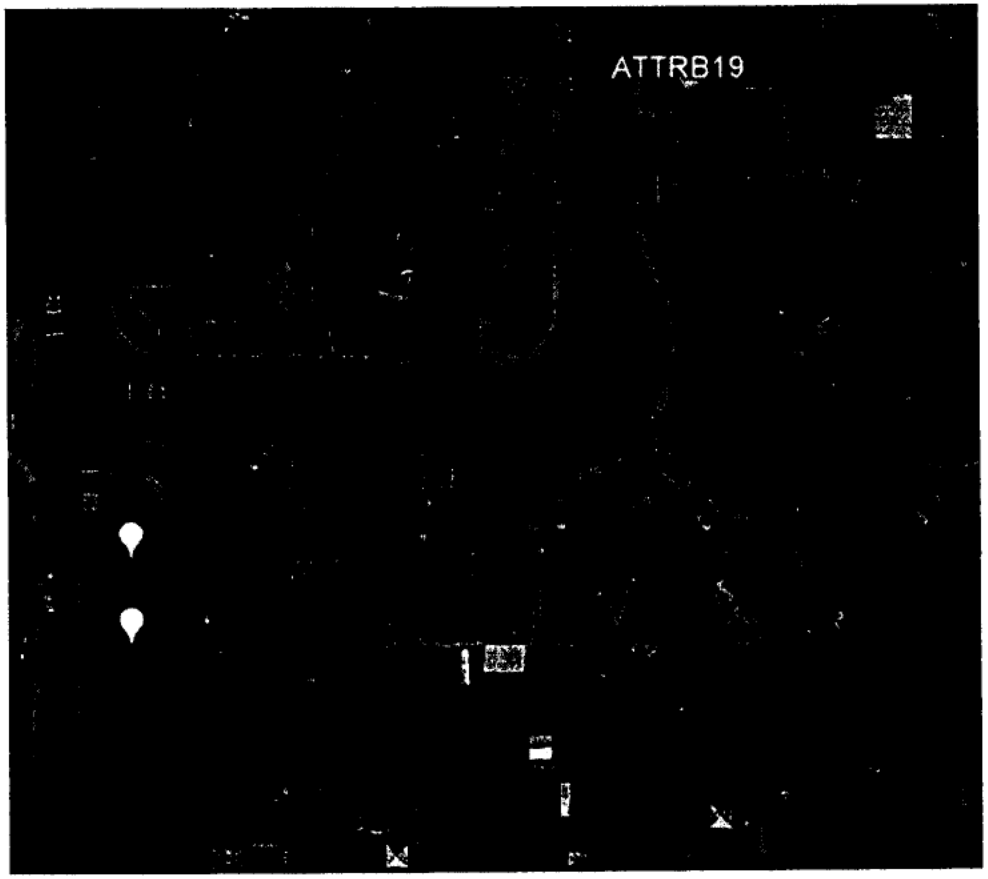
Alternate #1

Alternate #2



64
65

CROWN CASTLE



RB19 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on replacement street signs or new pole placements.

All locations will meet the RF coverage objective.

The alternatives have landscaping, man-made structures and screening methods at each option. However, both the replacement street sign location and new pole will require a large pole to meet the RF coverage objective where one does not currently exist.

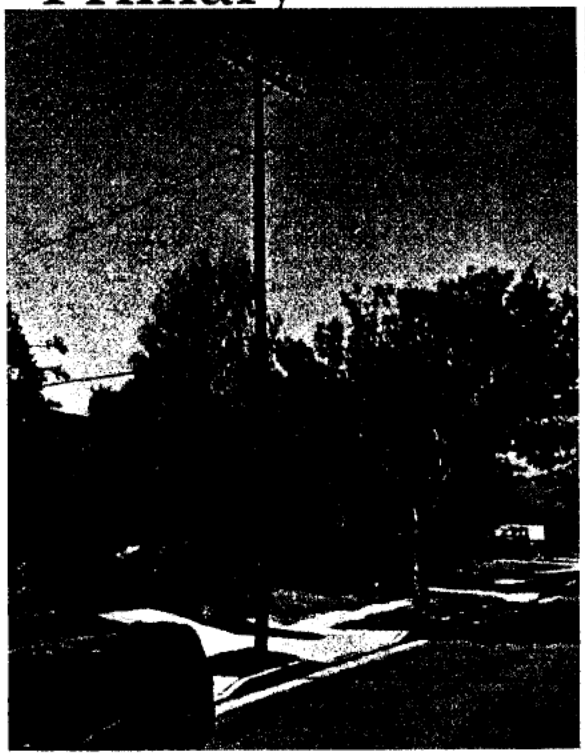
This location is sighted to fill an existing gap is wireless service around the intersection of Gaycrest and Linda Streets. The location will provide needed service to residences, entreprenuers, users of the ROW and emergency personnel that may be in the area.

99 66

CROWN CASTLE

AT&T RB39

Primary

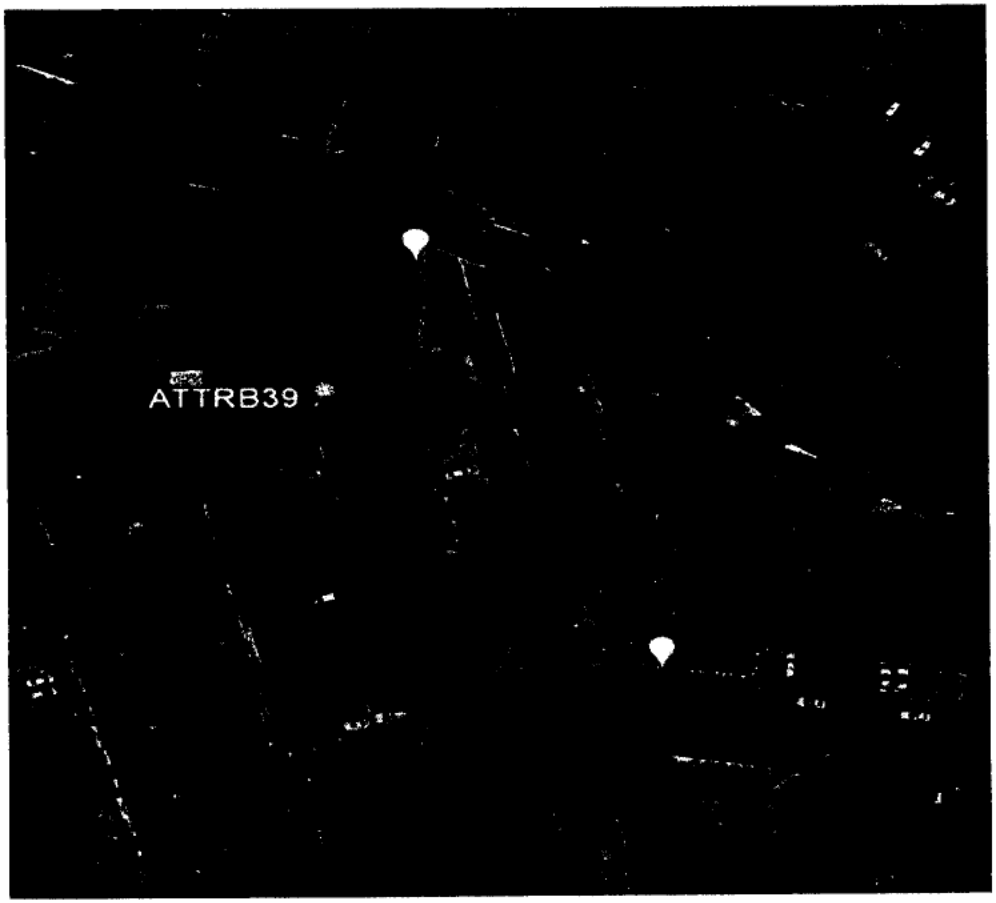


Alternate #1

Alternate #2

99 66 67

CROWN CASTLE



RB39 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on utility poles or new pole placements.

All locations will meet the RF coverage objective.

The alternatives have landscaping, man-made structures and screening methods at each option. However, both the new pole placements will require a large pole to meet the RF coverage objective.

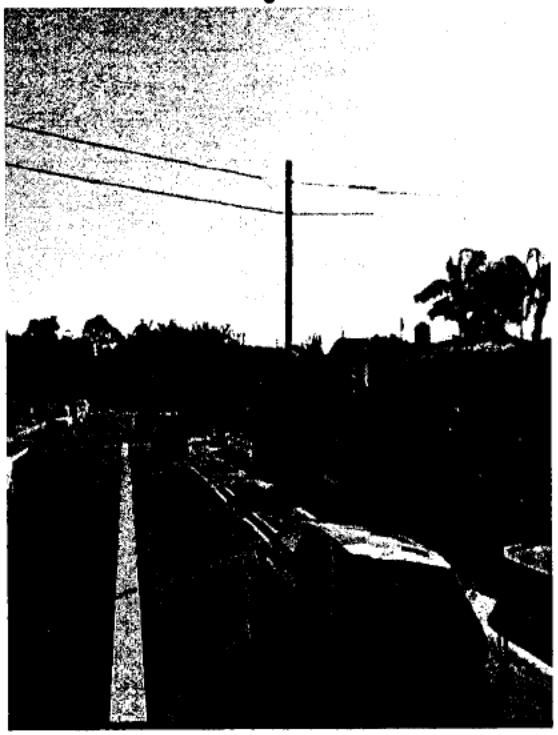
This location is sighted to fill an existing gap is wireless service along Fonthill and 230th Streets. The location will provide needed service to residences, entreprenuers, users of the ROW and emergency personnel that may be in the area.

89
67
68

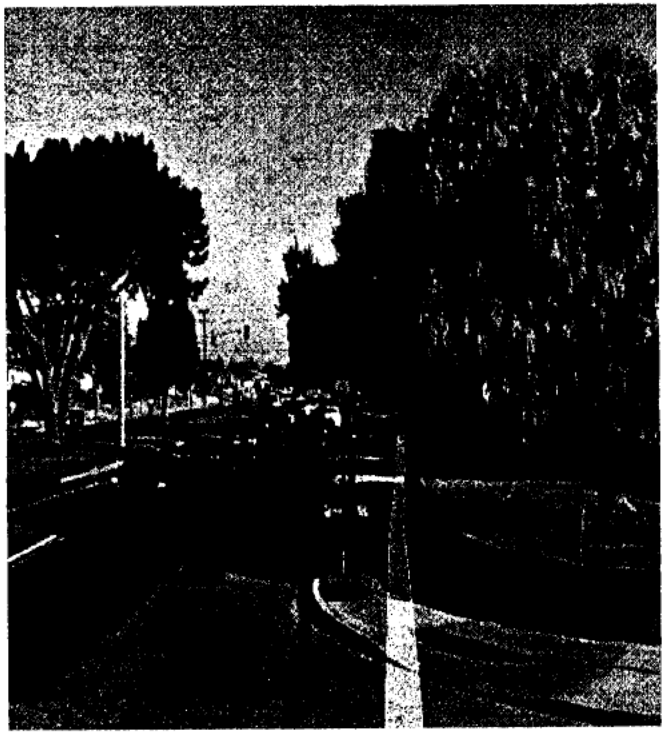
CROWN CASTLE

AT&T RB27

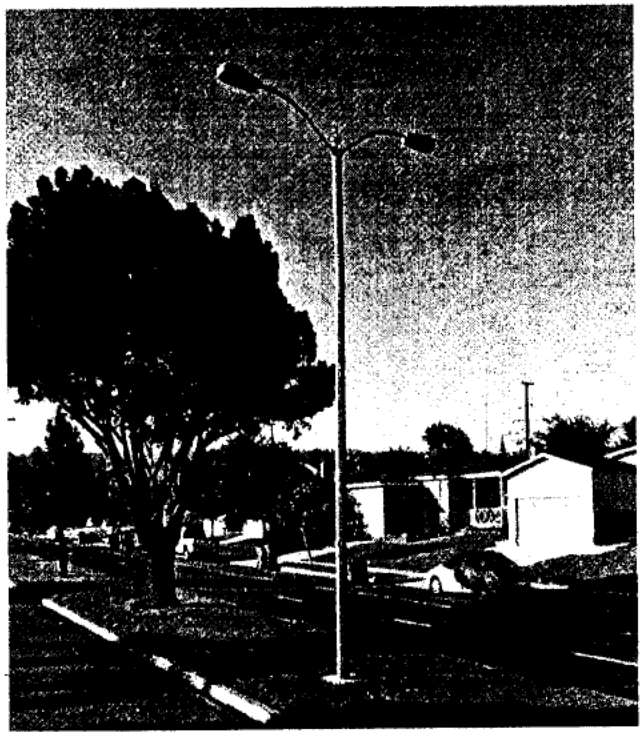
Primary



Alternate #1



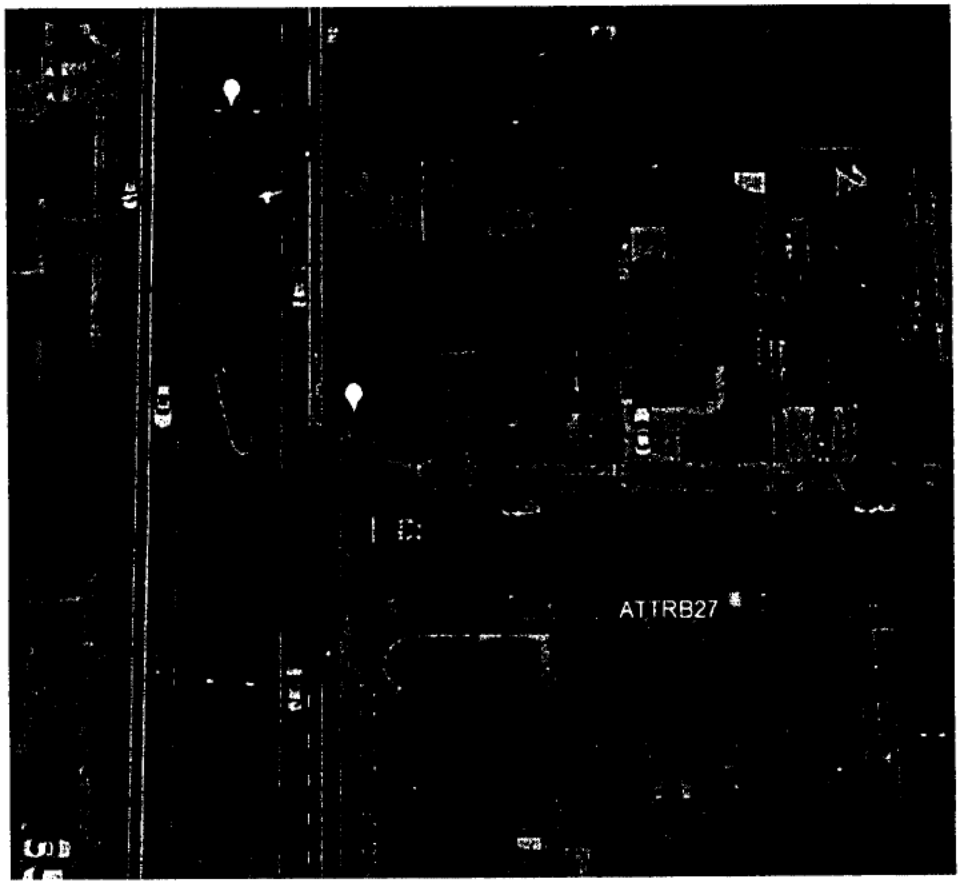
Alternate #2



69

68

CROWN CASTLE



RB27 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on replacements street lights or street signs.

All locations will meet the RF coverage objective.

The alternatives have landscaping, man-made structures and screening methods at each option. However, both the new pole placement and street sign replacement will require a large pole to meet the RF coverage objective.

This location is sighted to fill an existing gap is wireless service along Anza and 230th Streets. The location will provide needed service to residences, entrepreneurs, users of the ROW and emergency personnel that may be in the area.

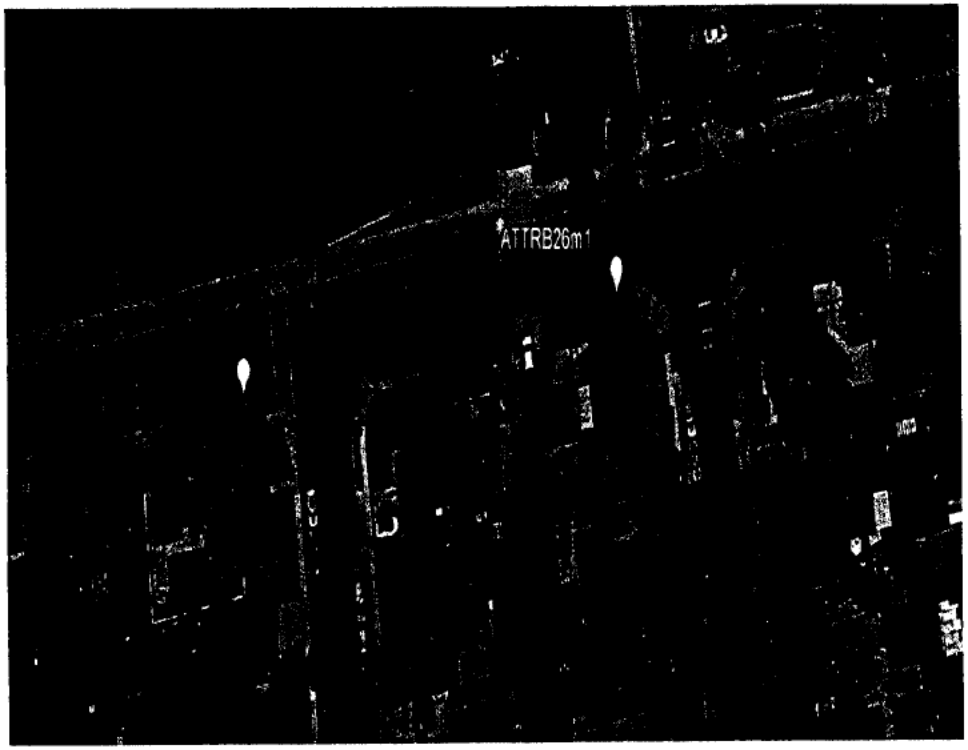
AT&T RB26

Primary

Alternate #1

Alternate #2

CROWN CASTLE



RB26 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on existing utility poles.

All locations will meet the RF coverage objective.

The alternatives have landscaping, man-made structures and screening methods at each option.

This location is sighted to fill an existing gap is wireless service along Lenore. The location will provide needed wireless service to residences, entrepreneurs, users of the ROW, students going to and from the local school and emergency personnel that may be in the area.

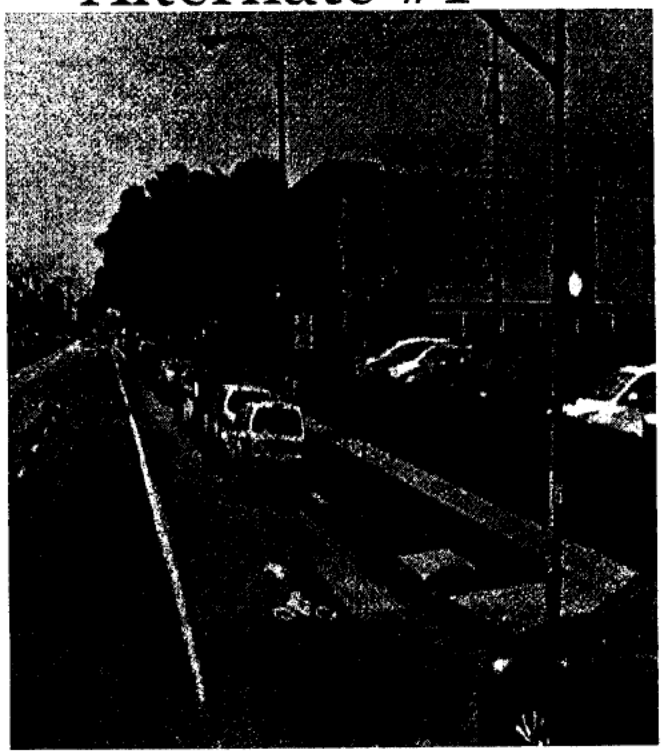
71
72

CROWN CASTLE

AT&T RB25

Primary

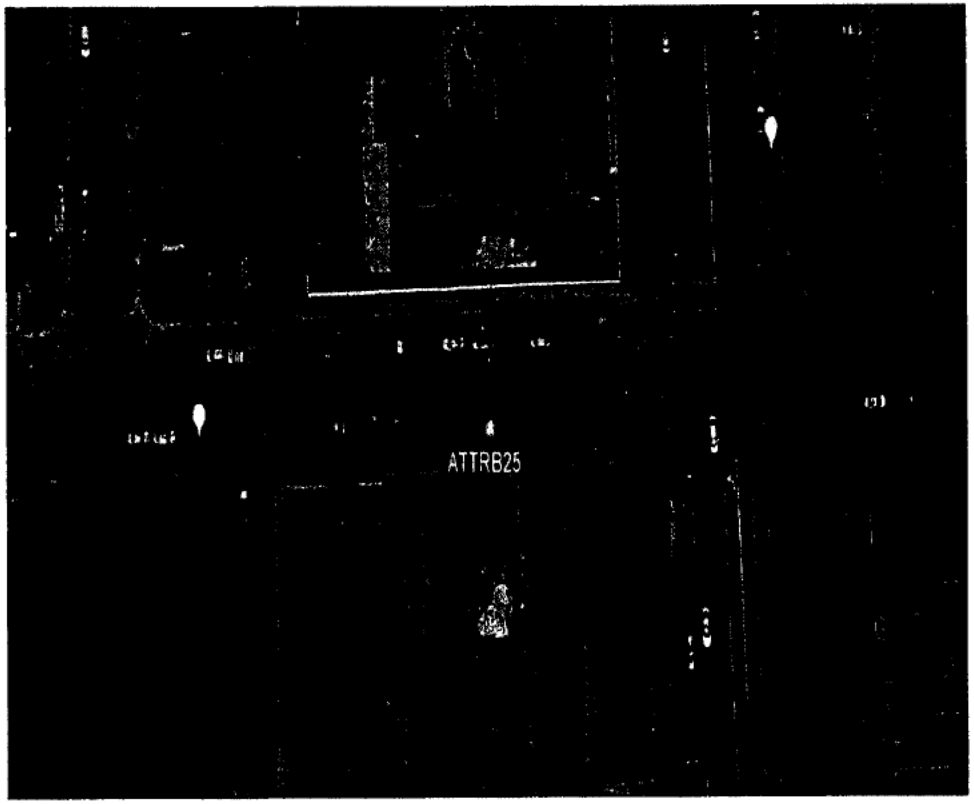
Alternate #1



Alternate #2

72
73

CROWN CASTLE



RB25 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on existing utility poles or street sign replacements.

All locations will meet the RF coverage objective.

The alternatives have landscaping, man-made structures and screening methods at each option.

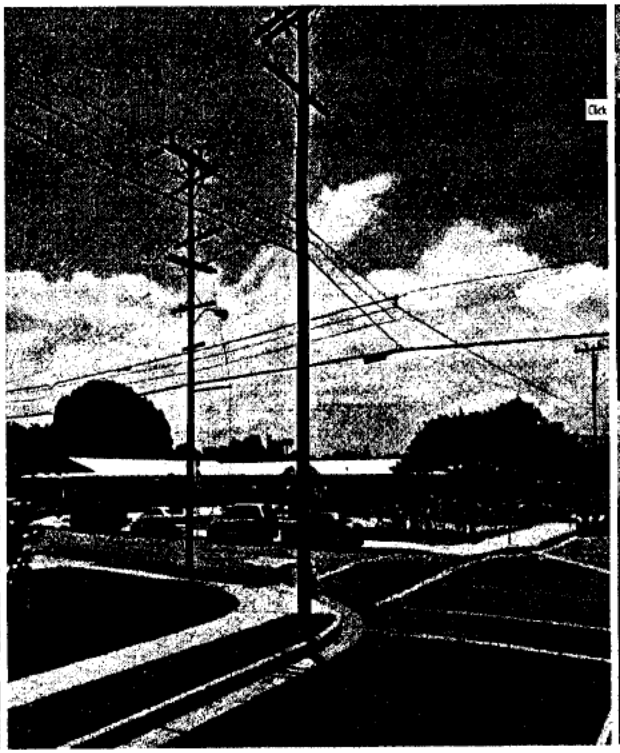
This location is sighted to fill an existing gap is wireless service around the intersection of Anza and Spencer Blvd. The location will provide needed wireless service to residences, entrepreneurs, businesses, users of the ROW, students going to and from the local schools and emergency personnel that may be in the area.

73
74

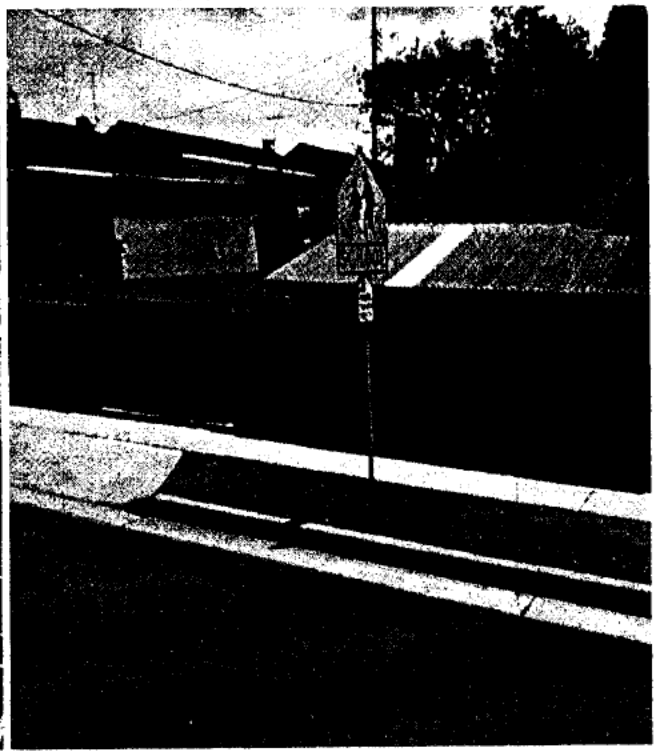
AT&T RB20

Primary

Alternate #1

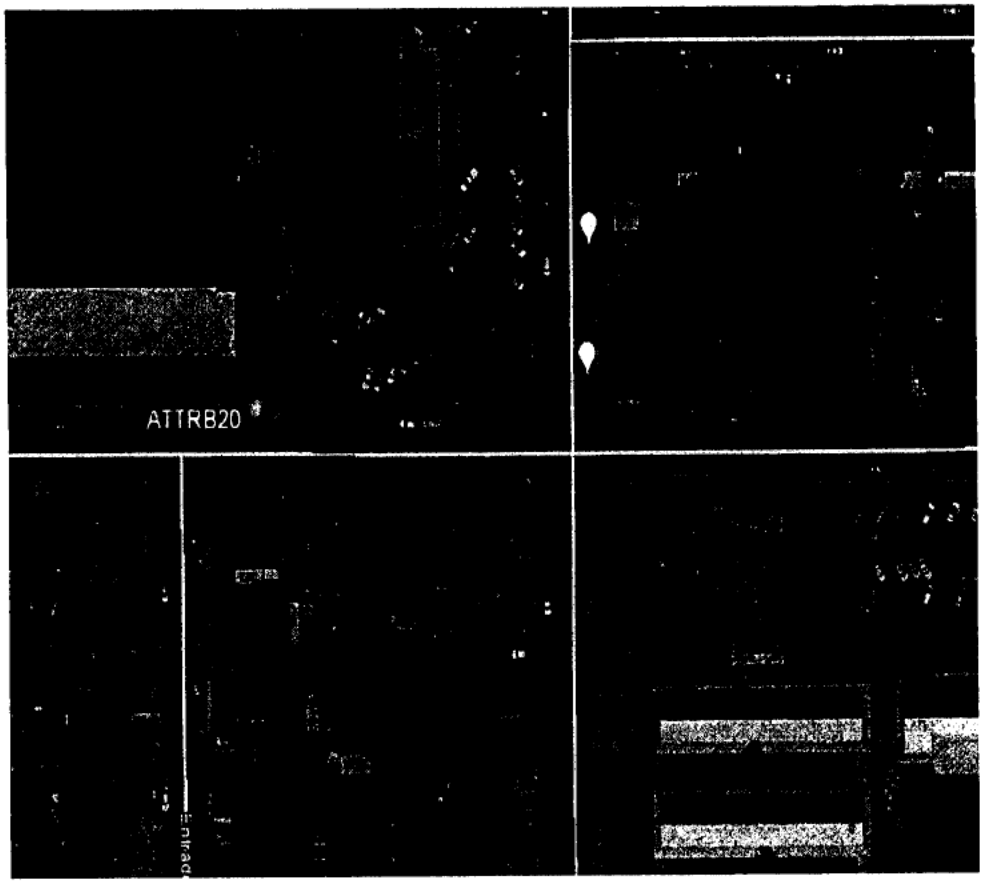


Alternate #2



74
75

CROWN CASTLE



RB20 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on existing utility poles or street sign replacements.

All locations will meet the RF coverage objective.

The alternatives have landscaping, man-made structures and screening methods at each option.

This location is sighted to fill an existing gap is wireless service along Spencer Blvd. The location will provide needed wireless service to residences, entrepreneurs, users of the ROW, students going to and from the local schools and emergency personnel that may be in the area.

75
76

CROWN CASTLE

Thank you

76 77

For further information please contact:

Aaron Snyder, Government Relations Project Manager
[redacted]-cell
(949) 344-7834-office
Aaron.Snyder@crowncastle.com

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: LESLIE WILSON
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
KNLF205	
Radio Service: CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
06-05-2015	06-13-2017	06-23-2025	

Market Number	Channel Block	Sub-Market Designator
MTA002	B	37

Market Name
Los Angeles-San Diego

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
06-23-2000	06-23-2005		

Waivers/Conditions:

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

Spectrum Lease associated with this license. See Spectrum Leasing Arrangement Letter dated 12/07/2004 and File No. 0001757186.

Spectrum Leasing Arrangement associated with file number 0001757186 was extended to 01/05/2006. See file number 0002157743.

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

FCC 601-MB
April 2009

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: AT&T MOBILITY SPECTRUM LLC

ATTN: LESLIE WILSON
AT&T MOBILITY SPECTRUM LLC
208 S AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
WQHT993	
Radio Service: CW - PCS Broadband	

FCC Registration Number (FRN): 0014980726

Grant Date	Effective Date	Expiration Date	Print Date
06-10-2015	06-08-2017	06-23-2025	

Market Number	Channel Block	Sub-Market Designator
MTA002	B	14

Market Name
Los Angeles-San Diego

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

Spectrum Lease associated with this license. See Spectrum Leasing Arrangement Letter dated 02/01/2006 and File No. 0002428329.

Spectrum Lease associated with this license. See Spectrum Leasing Arrangement Letter dated 02/01/2006 and File No. 0002428332.

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: AT&T MOBILITY SPECTRUM LLC

ATTN: LESLIE WILSON
AT&T MOBILITY SPECTRUM LLC
208 S AKARD
DALLAS, TX 75202

Call Sign	File Number
KNLG472	
Radio Service: CW - PCS Broadband	

FCC Registration Number (FRN): 0014980726

Grant Date	Effective Date	Expiration Date	Print Date
04-07-2017	08-10-2017	04-28-2027	

Market Number	Channel Block	Sub-Market Designator
BTA262	D	0

Market Name
Los Angeles, CA

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
04-28-2002			

Waivers/Conditions:

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: AT&T MOBILITY SPECTRUM LLC

ATTN: LESLIE WILSON
AT&T MOBILITY SPECTRUM LLC
208 S AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
KNKA351	0007844640
Radio Service CL - Cellular	
Market Numer CMA002	**Channel Block** A
Sub-Market Designator 0	

FCC Registration Number (FRN): 0014980726

Market Name
Los Angeles-Long Beach/Anaheim

Grant Date	Effective Date	Expiration Date	Five Yr Build-Out Date	Print Date
08-29-2017	08-29-2017	10-01-2027		08-29-2017

Site Information:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
2	35-27-11.1 N	116-35-43.3 W	1604.2	18.6	

Address: I-15 & Fort Irwin Rd (97741)
City: Fort Irwin **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	660.900	506.900	555.500	669.800	723.800	630.600	597.100	722.500
Transmitting ERP (watts)	0.700	20.300	61.800	19.000	1.100	0.123	0.123	0.123
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	660.900	506.900	555.500	669.800	723.800	630.600	597.100	722.500
Transmitting ERP (watts)	0.500	0.500	1.100	52.900	240.400	59.400	1.800	0.500
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	660.900	506.900	555.500	669.800	723.800	630.600	597.100	722.500
Transmitting ERP (watts)	14.900	1.300	0.800	0.800	4.200	104.700	398.100	237.500

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA351 **File Number:** 0007844640 **Print Date:** 08-29-2017

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
18	35-21-45.8 N	117-38-27.1 W	1261.0	78.0	1200992

Address: 36753 Randsburg Loop (11660)
City: Johannesburg **County:** KERN **State:** CA **Construction Deadline:**

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	355.500	248.000	335.500	404.500	358.200	159.600	544.400	441.000
Transmitting ERP (watts)	0.636	0.636	5.600	135.100	318.400	67.700	0.900	0.636
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	355.500	248.000	335.500	404.500	358.200	159.600	544.400	441.000
Transmitting ERP (watts)	5.600	0.900	0.900	1.300	3.500	128.200	444.600	147.200
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	355.500	248.000	335.500	404.500	358.200	159.600	544.400	441.000
Transmitting ERP (watts)	444.600	147.200	5.600	0.900	0.900	1.300	3.500	128.200

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
20	33-39-17.7 N	115-27-14.4 W	1144.8	36.3	

Address: CHUCKWALLA PEAK (12334)
City: DESERT CENTER **County:** RIVERSIDE **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	845.500	899.600	526.900	229.100	487.900	651.100	687.700	555.000
Transmitting ERP (watts)	7.800	70.700	199.300	97.800	13.200	1.200	0.400	0.500
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	845.500	899.600	526.900	229.100	487.900	651.100	687.700	555.000
Transmitting ERP (watts)	33.600	3.300	0.800	0.800	11.900	115.800	383.600	227.000
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	845.500	899.600	526.900	229.100	487.900	651.100	687.700	555.000
Transmitting ERP (watts)	98.600	43.500	5.100	0.400	0.200	0.200	2.900	30.500
Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	845.500	899.600	526.900	229.100	487.900	651.100	687.700	555.000
Transmitting ERP (watts)	4.300	43.100	132.500	60.800	7.500	0.600	0.300	0.300
Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	845.500	899.600	526.900	229.100	487.900	651.100	687.700	555.000
Transmitting ERP (watts)	11.400	1.100	0.100	0.200	5.100	17.400	19.200	20.300

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA351 **File Number:** 0007844640 **Print Date:** 08-29-2017

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
30	33-37-03.6 N	114-46-20.0 W	251.8	30.8	1055655

Address: 87 BLACK ROCK MOUNTAIN (12357)
City: BLYTHE **County:** RIVERSIDE **State:** CA **Construction Deadline:**

Antenna: 3 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	112.600	147.200	182.600	191.000	158.800	129.900	141.700	30.000
Transmitting ERP (watts)	128.800	63.600	15.500	1.200	0.300	1.000	15.800	66.600

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
39	33-23-12.0 N	118-24-03.0 W	612.6	38.1	1061572

Address: BLACK JACK PEAK (12079)
City: AVALON **County:** LOS ANGELES **State:** CA **Construction Deadline:**

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	632.000	634.300	639.300	408.800	540.800	517.900	603.200	548.600
Transmitting ERP (watts)	0.708	1.300	6.400	65.700	354.000	113.600	3.700	1.300
Antenna: 2 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	632.000	634.300	639.300	408.800	540.800	517.900	603.200	548.600
Transmitting ERP (watts)	3.000	1.200	0.900	2.100	7.500	104.600	429.500	95.400

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
40	35-26-07.8 N	115-55-26.2 W	1359.1	38.1	

Address: TURQUOISE MTN (11647)
City: BAKER **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	353.000	216.900	171.500	319.100	610.800	620.900	694.600	461.800
Transmitting ERP (watts)	390.800	379.800	369.000	358.500	348.300	358.500	369.000	379.800

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
42	34-18-38.5 N	114-10-11.1 W	518.5	37.2	

Address: BLACK METAL HILL (11648)
City: Parker Dam **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	242.100	127.600	290.700	246.000	337.600	260.400	30.000	373.700
Transmitting ERP (watts)	0.100	0.100	0.500	5.800	47.200	16.700	0.300	0.100

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA351 **File Number:** 0007844640 **Print Date:** 08-29-2017

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
70	34-45-36.2 N	117-47-58.0 W	962.9	16.5	

Address: 185TH STREETE AVE E (24315)
City: LANCASTER **County:** LOS ANGELES **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	239.000	125.000	51.100	74.300	93.200	180.700	205.400	254.000
Transmitting ERP (watts)	1.000	73.800	318.700	145.100	5.300	0.637	0.637	0.637
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	239.000	125.000	51.100	74.300	93.200	180.700	205.400	254.000
Transmitting ERP (watts)	0.430	0.430	0.430	5.200	108.800	215.400	51.700	0.430
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	239.000	125.000	51.100	74.300	93.200	180.700	205.400	254.000
Transmitting ERP (watts)	243.600	23.500	0.512	0.512	0.512	0.512	27.800	256.100

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
71	34-33-00.8 N	118-40-04.4 W	747.7	31.1	

Address: 34703 GOLDEN STATE FWY (24316)
City: CASTAIC **County:** LOS ANGELES **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	229.100	349.100	275.800	248.600	156.500	30.000
Transmitting ERP (watts)	0.300	0.700	24.300	142.200	78.600	4.800	0.400	0.300
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	229.100	349.100	275.800	248.600	156.500	30.000
Transmitting ERP (watts)	157.800	6.000	1.000	1.000	1.400	3.800	137.400	476.400

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
72	34-47-39.0 N	118-51-04.7 W	1160.4	24.4	

Address: 49723 Gorman School Rd (24317)
City: GORMAN **County:** LOS ANGELES **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	175.100	30.000	84.400	111.700	91.400	30.000	30.000	30.000
Transmitting ERP (watts)	3.000	43.100	349.300	126.600	2.900	0.700	0.700	0.800

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA351 **File Number:** 0007844640 **Print Date:** 08-29-2017

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
77	33-26-12.7 N	116-50-58.4 W	655.0	18.9	

Address: 46566 HIGHWAY 79 (24340)
City: AGUANGA **County:** RIVERSIDE **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	30.000	30.000	67.700
Transmitting ERP (watts)	0.700	0.700	9.400	155.600	325.100	45.900	2.200	0.700
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	30.000	30.000	68.100
Transmitting ERP (watts)	64.900	3.000	0.700	0.700	0.700	6.100	123.600	340.400

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
78	33-27-04.7 N	117-05-51.2 W	344.7	18.0	

Address: 47835 PALA ROAD (24413)
City: TEMECULA **County:** RIVERSIDE **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	80.400	30.000	43.300
Transmitting ERP (watts)	0.607	3.200	114.100	303.900	54.000	1.200	0.900	1.000
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	80.400	30.000	43.300
Transmitting ERP (watts)	91.300	235.500	41.200	0.700	0.700	0.700	0.500	3.100
Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	80.400	30.000	43.300
Transmitting ERP (watts)	34.800	0.600	0.600	0.500	0.419	2.900	81.000	209.700

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
79	33-35-48.0 N	116-35-36.0 W	1447.8	13.7	

Address: 61600 DEVIL LADDER (48206)
City: MOUNTAIN CENTER **County:** RIVERSIDE **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	263.300	167.000	30.000	171.200	215.400	57.900	60.000
Transmitting ERP (watts)	1.500	1.900	101.700	454.200	191.800	9.000	0.908	0.908

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA351 **File Number:** 0007844640 **Print Date:** 08-29-2017

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
82	33-31-13.4 N	117-18-12.1 W	676.7	13.7	

Address: 19570 TENAJA RD (48243)
City: MURRIETA **County:** RIVERSIDE **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	157.900	214.700	243.700	329.600	444.200	30.000	130.400	30.000
Transmitting ERP (watts)	1.300	28.800	62.800	10.500	0.300	0.125	0.125	0.125
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	157.900	214.700	243.700	329.600	444.200	30.000	130.400	30.000
Transmitting ERP (watts)	0.100	0.100	0.200	4.600	49.000	44.300	3.800	0.100
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	157.900	214.700	243.700	329.600	444.200	30.000	130.400	30.000
Transmitting ERP (watts)	41.500	2.300	0.300	0.200	0.200	1.000	23.400	95.800

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
83	33-28-48.6 N	116-50-39.3 W	869.3	31.4	

Address: 46-900 HWY 371 (48207)
City: AGUANGA **County:** RIVERSIDE **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	30.000	382.200	217.800
Transmitting ERP (watts)	1.000	0.800	0.800	16.800	237.300	387.900	60.100	1.700
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	30.000	382.200	217.800
Transmitting ERP (watts)	51.100	370.400	266.300	19.300	0.800	0.900	1.100	0.740

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
85	34-05-18.1 N	114-28-54.4 W	162.2	48.8	

Address: 9250 HWY 95 (47921)
City: VIDAL **County:** SAN BERNARDINO **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	30.000	31.300	101.400	103.800	102.400	30.000	30.000	30.000
Transmitting ERP (watts)	84.000	402.100	293.500	24.400	1.400	0.804	0.804	2.800

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA351 **File Number:** 0007844640 **Print Date:** 08-29-2017

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
89	33-28-06.6 N	117-08-08.8 W	316.4	24.4	

Address: 44501 RAINBOW CANYON RD (36311)
City: TEMECULA **County:** RIVERSIDE **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	68.100	30.000	30.000
Transmitting ERP (watts)	0.600	0.600	9.100	101.700	291.700	90.700	8.900	0.600
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	68.100	30.000	30.000
Transmitting ERP (watts)	63.200	12.000	0.800	0.126	0.126	0.600	10.100	59.800

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
92	34-40-45.2 N	118-25-57.4 W	1173.8	46.0	

Address: 43758 LAKE VIEW RD (16287)
City: LAKE HUGHES **County:** LOS ANGELES **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	376.400	417.300	391.800	30.000	287.500	252.100	30.000	238.600
Transmitting ERP (watts)	0.300	8.400	111.400	139.400	17.700	0.500	0.300	0.300
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	376.400	417.300	391.800	30.000	287.500	252.100	30.000	238.600
Transmitting ERP (watts)	24.500	1.400	0.808	0.808	2.800	84.400	404.000	294.900
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	376.400	417.300	391.800	30.000	287.500	252.100	30.000	238.600
Transmitting ERP (watts)	404.000	294.900	24.500	1.400	0.808	0.808	2.800	84.400

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
93	33-24-36.4 N	117-36-04.2 W	50.3	16.2	

Address: 2401-1/2 AVENUE DEL PRESIDENTE (12480)
City: SAN CLEMENTE **County:** ORANGE **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	45.300	59.900	59.900	59.900	30.000
Transmitting ERP (watts)	0.700	4.300	25.500	193.200	188.800	11.400	2.500	0.400

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA351 **File Number:** 0007844640 **Print Date:** 08-29-2017

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
95	35-47-57.6 N	115-36-52.3 W	794.0	30.5	1264831

Address: 725 South Kingston Road (84824)
City: Sandy Valley **County:** CLARK **State:** NV **Construction Deadline:** 11-20-2015

Antenna: 3 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000
Transmitting ERP (watts)	0.300	0.300	2.700	44.400	140.000	48.600	3.100	0.300

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
96	34-33-05.9 N	114-11-41.0 W	1436.5	22.0	

Address: 8.7 miles NE of (94158)
City: Lake Havasu City **County:** MOHAVE **State:** AZ **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	817.200	742.200	672.900	743.100	904.800	1028.000	997.400	664.600
Transmitting ERP (watts)	16.800	16.400	16.100	15.700	15.300	15.700	16.100	16.400

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
102	34-51-45.6 N	114-52-53.0 W	964.1	60.4	

Address: I-40 & HWY 95 N (50866)
City: NEEDLES **County:** SAN BERNARDINO **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	379.900	490.300	530.100	355.800	389.600	355.200	267.000	321.800
Transmitting ERP (watts)	4.900	21.700	33.700	11.300	1.100	0.200	0.100	0.600
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	379.900	490.300	530.100	355.800	389.600	355.200	267.000	321.800
Transmitting ERP (watts)	0.600	7.400	56.500	174.600	195.900	33.300	4.100	1.100
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	379.900	490.300	530.100	355.800	389.600	355.200	267.000	321.800
Transmitting ERP (watts)	4.700	1.000	0.400	2.200	19.100	91.400	141.600	41.800

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA351 **File Number:** 0007844640 **Print Date:** 08-29-2017

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
106	35-29-00.7 N	116-42-16.7 W	1196.3	19.5	

Address: ARMY TRAINING AREA/RANGE (159776)
City: FORT IRWIN **County:** SAN BERNARDINO **State:** CA **Construction Deadline:** 11-20-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	489.300	410.700	102.000	179.300	229.500	230.800	145.200	177.400
Transmitting ERP (watts)	31.300	142.400	60.400	3.000	0.400	0.300	0.300	1.100
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	489.300	410.700	102.000	179.300	229.500	230.800	145.200	177.400
Transmitting ERP (watts)	0.300	0.300	5.600	82.400	131.400	20.000	0.800	0.300
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	489.300	410.700	102.000	179.300	229.500	230.800	145.200	177.400
Transmitting ERP (watts)	2.000	0.400	0.100	0.100	1.600	19.100	48.000	22.000

Control Points:

Control Pt. No. 1
Address: 6045 EAST SLAUSON AVENUE
City: COMMERCE **County:** **State:** CA **Telephone Number:**

Control Pt. No. 2
Address: 301 NORTH CRESCENT WAY
City: ANAHEIM **County:** **State:** CA **Telephone Number:**

Control Pt. No. 3
Address: 15215 SOUTH BROADWAY
City: GARDENA **County:** **State:** CA **Telephone Number:**

Control Pt. No. 4
Address: 4135 GARNER ROAD
City: RIVERSIDE **County:** **State:** CA **Telephone Number:**

Waivers/Conditions:

This authorization is subject to the condition that, in the event cellular systems using the same frequencies granted herein are authorized in adjacent territory in Mexico, coordination of your transmitter installations which are within 72km (45 miles) ofthe U.S.-Mexico border shall be required to eliminate any harmful interference that might otherwise exist and to ensure continuance of equal access to the frequencies by both countries. The operation of this system must be advised that operation of aunit in Mexico is not permitted at this time without the express permission of the Mexican Government. The above conditions are subject to modification pending exchange of diplomatic notes between the United States and Mexico concerning coordination ofcellular system frequencies.

RADIO FREQUENCY ELECTROMAGNETIC FIELDS EXPOSURE REPORT

Prepared for Crown Castle

Site Name:	**Pole Top Configuration**
Site Type:	**Omni Antenna RC ≥ 18 ft**
Report By:	**Christopher Stollar, P.E.**
Report Date:	**8/2/2017**

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

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY

Dtech Communications, LLC ("Dtech") has been retained by Crown Castle to determine whether its wireless communications facility complies with the Federal Communications Commission ("FCC") Radio Frequency ("RF") Safety Guidelines. This report contains a computer-simulated analysis of the Electromagnetic Fields ("EMF") exposure resulting from a typical, minimum 18-foot antenna radiation center ("RC"), sign pole facility. The analysis also includes assessment of existing wireless carriers on site, where information is provided. The table below summarizes the result at a glance:

Table 1: EMF Summary

Crown Castle	Summary
Access Type	Walk-Up
Access to antennas locked	NA
RF Sign(s) @ access point(s)	None
RF Sign(s) @ antennas	Information (Recommended)
Barrier(s) @ sectors	NA
Max Cumulative EMF level for Crown Castle on Ground	1.5% General Population
Max Cumulative EMF level for Crown Castle at Antenna Elevation	43.2% General Population (8.6% Occupational)
General Population Keep Back Distance (At Antenna Elevation)	NA

2.0 SITE DESCRIPTION

The wireless telecommunication facility is located on the ground. The antenna is omni-directional, designed to achieve 360 degrees of coverage. For this scenario, Crown Castle's antenna is mounted on a sign pole and connected to the equipment via cables (see Appendix E).

2.1 Antenna Inventory

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

Table 2: Site Technical Specifications

Antenna ID	Operator	Carrier #	Antenna Mfg	Antenna Model	Type	DAS Equipment	Frequency (MHz)	Orientation (°T)	Horizontal BWdth (°)	Antenna Aperture (ft)	Antenna Gain (dBd)	Total ERP (Watts)	Bottom Tip Height Above Ground (Z) (ft)	Bottom Tip Height Ant Level (Z) (ft)
A1	Crown Castle	1	Galtronics	P6480i	Omni	(2) RRU2203	1900	0	360	2.1	6.9	69.2	17.0	0.0
A1	Crown Castle	1	Galtronics	P6480i	Omni	(1) RRU2203	5000	0	360	2.1	3.9	2.5	17.0	0.0

3.0 ANALYSIS

3.1 Emission Predictions

Figure 1: Plan (bird's eye) view map of results compared to the FCC's General Population MPE (Maximum Permissible Exposure) Limits. Gray represents areas where exposure levels are calculated to be at or below 5%; Green- between 5% & 100% (below MPE limits); blue, yellow & red – greater than 100% (exceeds MPE limits). Individuals can safely occupy areas in gray and green for an indefinite amount of time; whereas areas in blue, yellow & red must be restricted to RF trained personnel who have been made fully aware of potential for exposure, have control and know how to reduce their exposure with the use of personal protection equipment or have the ability to power down the transmitters.

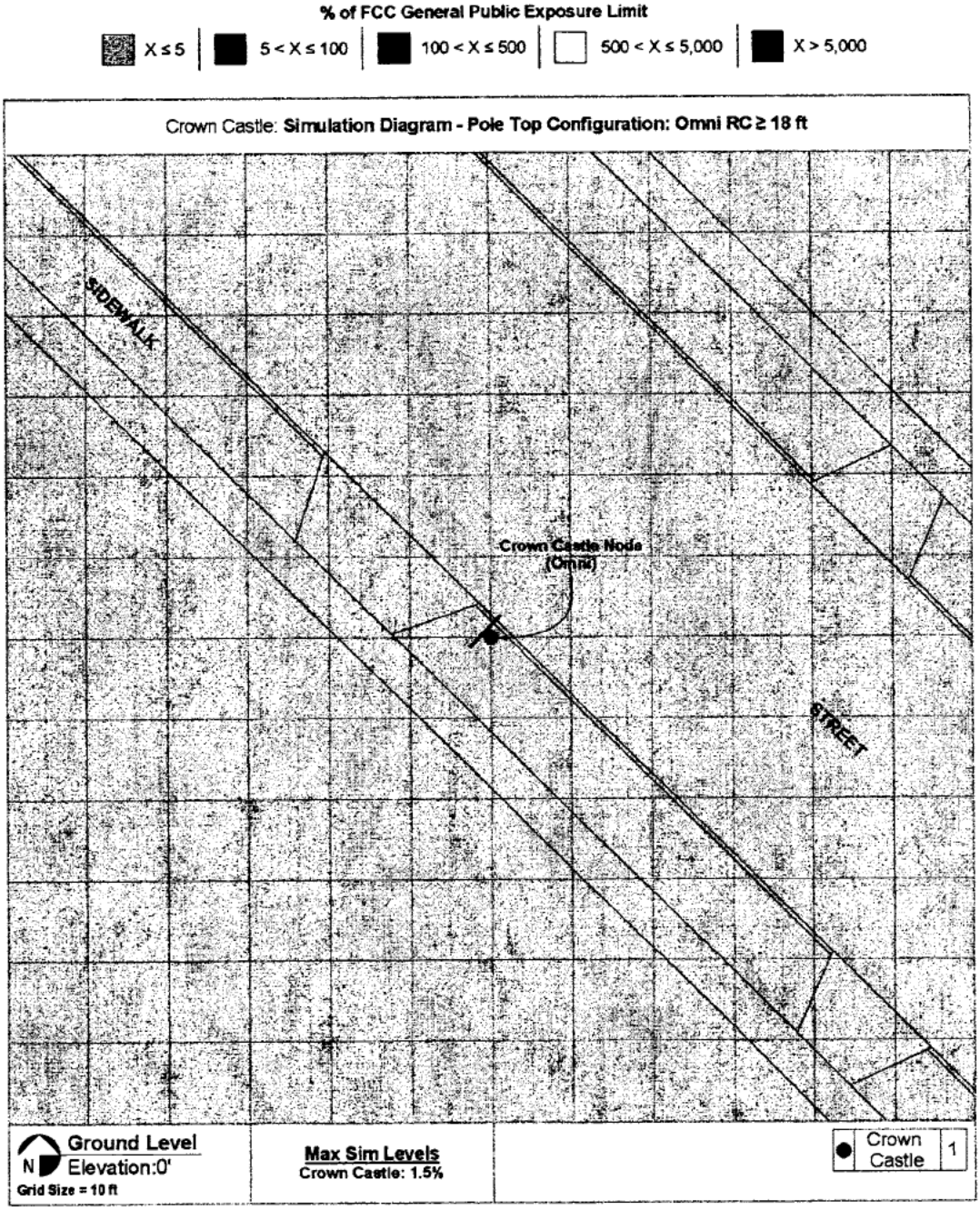
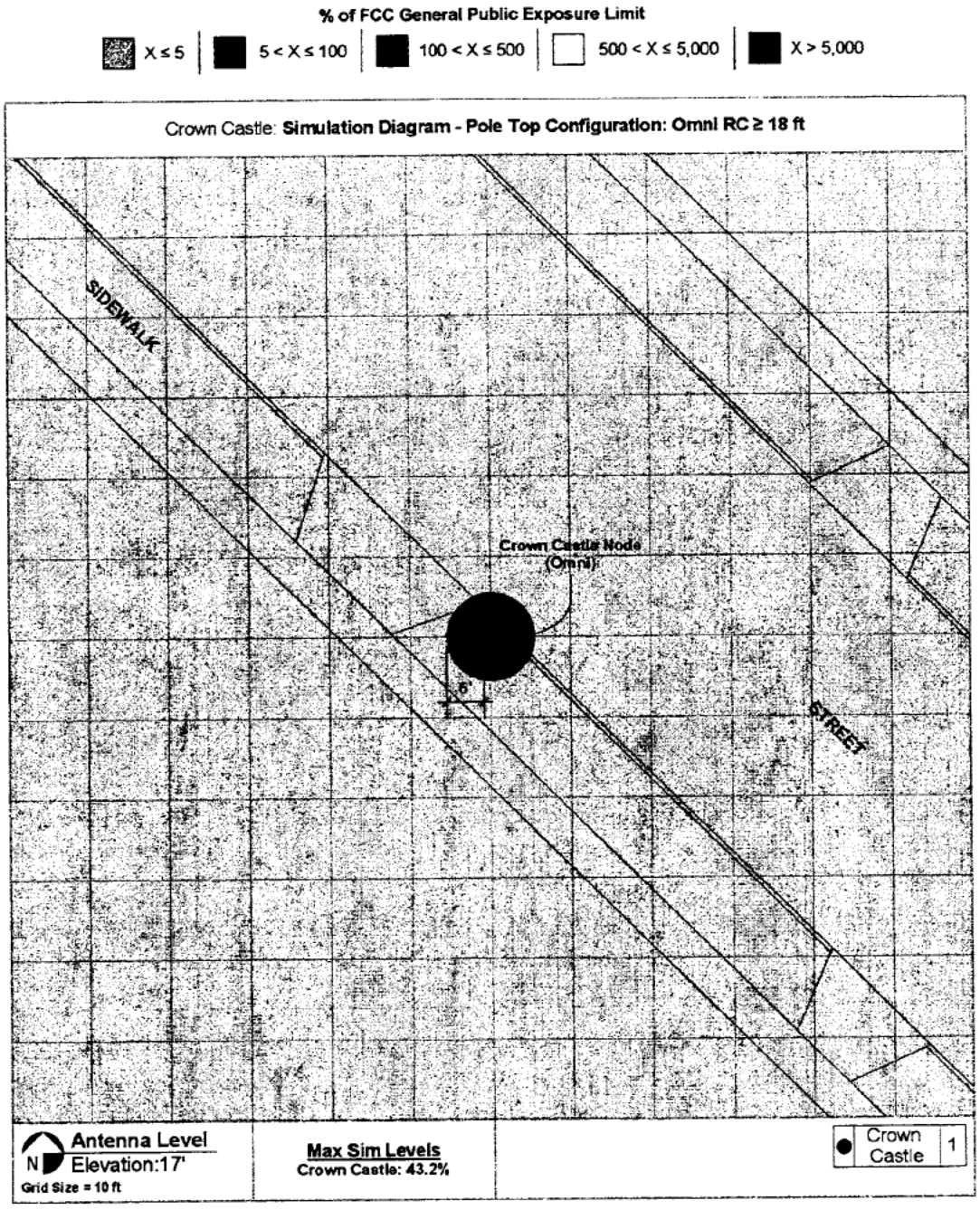


Figure 2: Plan (bird's eye) view map of results compared to the FCC's General Population MPE (Maximum Permissible Exposure) Limits. Gray represents areas where exposure levels are calculated to be at or below 5%; Green- between 5% & 100% (below MPE limits); blue, yellow & red – greater than 100% (exceeds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



4.0 CONCLUSION

4.1 Results

For a person standing on the ground, calculations for Crown Castle's site (at a minimum RC of 18-feet) resulted in exposure levels no higher than 1.5% of the applicable FCC's General Population MPE Limits (see figure 1). If the antenna is located higher than the minimum RC of 18-feet, the exposure levels on the ground would consequently be lower. The results on the ground are well below the applicable FCC's General Population MPE Limits, and members of the general public can safely occupy all areas on the ground for an indefinite amount of time.

At antenna elevation, the highest calculated exposure level is also below the FCC's General Population MPE Limits near the Crown Castle antenna (see figure 2). If the antenna is located higher than the minimum RC of 18-feet, the exposure levels at antenna elevation would be the same. The green areas represent exposure levels that are calculated to be between 5% and 100%, which is below the FCC's General Population MPE Limits. The green exposure area extends 6-feet from the front face of the Crown Castle antenna. Beyond 6-feet (areas represented in gray), exposure calculations would be at or below 5%, which are considered ambient levels. Individuals can safely occupy any areas in gray and green for an indefinite amount of time.

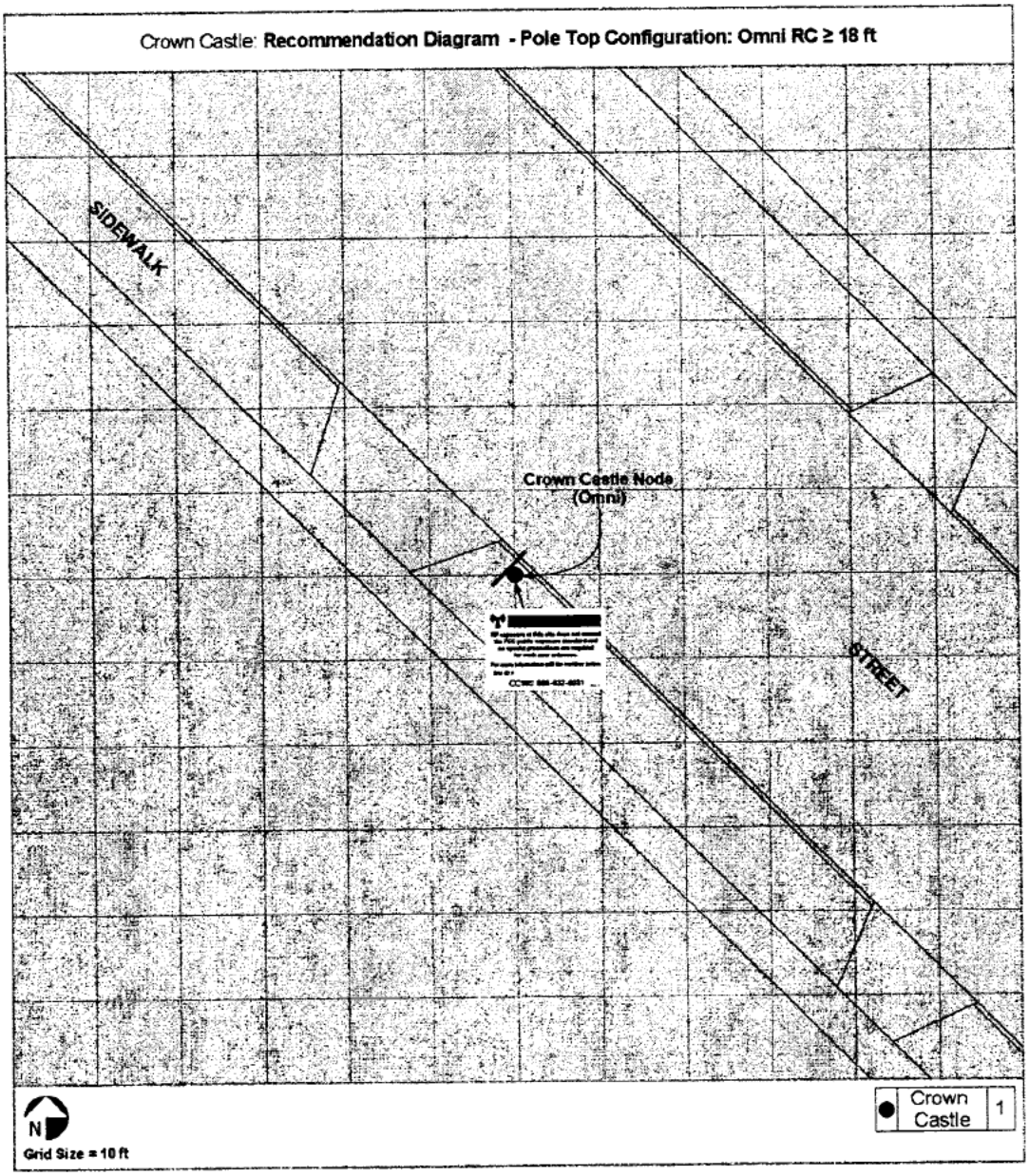
*Note: The actual MPE results of this analysis are only applicable to the specific antenna make/model, minimum heights, line/cable losses, total power output, and frequencies. Compliance actions are the same even if the antenna is raised above the minimum RC of 18-feet.

4.2 Recommendation(s)

For the facility to be classified as an Occupational/Controlled environment, the following action(s) are recommended in accordance with the FCC's and Crown Castle's RF Safety Guidelines (see figure 3):

1) Install INFORMATION Sign(s) on or near the antenna. Signage should be placed high and away from public view.

Figure 3: Recommendation(s)



4.3 Statement of Compliance

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

4.4 Engineer Certification

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

Darang Tech, P.E.

Appendix A: Background

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

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

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

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

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

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

Appendix B: Measurement and/or Computer Simulation Methods

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

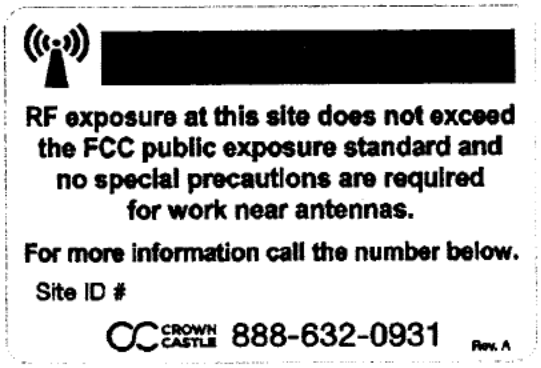
Dtech uses an industry standard power density prediction computer Model[1] to assess the worse-case, cumulative EMF impact of the surrounding areas of the subject site. The Model does not take into account losses due to buildings. Its methodologies are conservative enough to account for typical down-tilts deployed in wireless communications. In addition, the analysis is performed at 100% duty cycle-all transmitters are active at all times and transmitting at maximum power. For purposes of a cumulative study, nearby transmitters are included where possible. The result is a surrounding area map color-coded to percentages of the applicable FCC's MPE Limits. A result higher than 100% exceeds the Limits.

Appendix C: Limitations

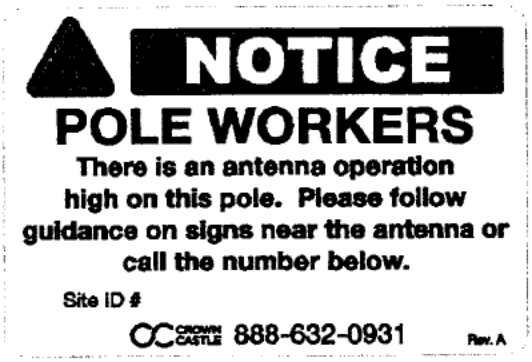
Dtech performed this analysis based on data provided by our clients that Dtech believes to be true and correct. Estimates where noted, are based on common industry practices and our best interpretation of available information. As mobile technologies continuously change, these data and results may also change. Therefore, Dtech disclaims all other warranties either expressed or implied. Any use of this document constitutes an agreement to hold Dtech and its employees harmless and indemnify it for any and all liability, claims, demands, litigation expenses and attorneys fees arising from such use. This is a technical document and may contain minor grammatical and/or spelling errors.

[1] Roofview® Version 4.15, Richard Tell Associates, Inc. © 1996-2000.

Appendix D: Crown Castle RF Advisory Signs



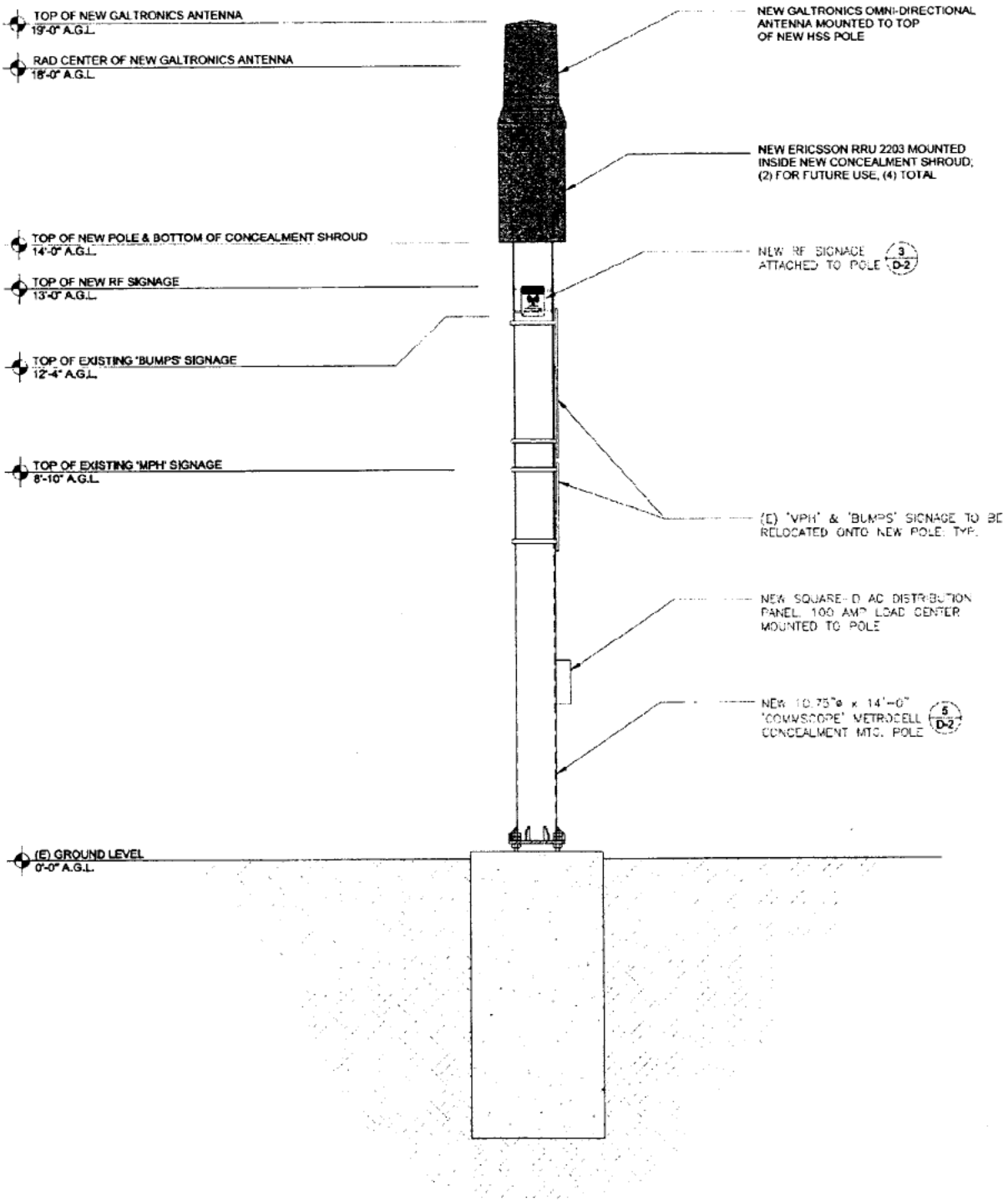
INFORMATION Sign



NOTICE Sign

CAUTION Sign

Appendix E: Pole Top Configuration: Omni RC ≥ 18 ft



Appendix F: Crown Castle Carrier MPE Contributions

Crown Castle	MPE Contribution	
	Ground	Antenna Elevation
Carrier 1 - AT&T	1.5% GP (0.3% OC)	43.2% GP (8.6% OC)

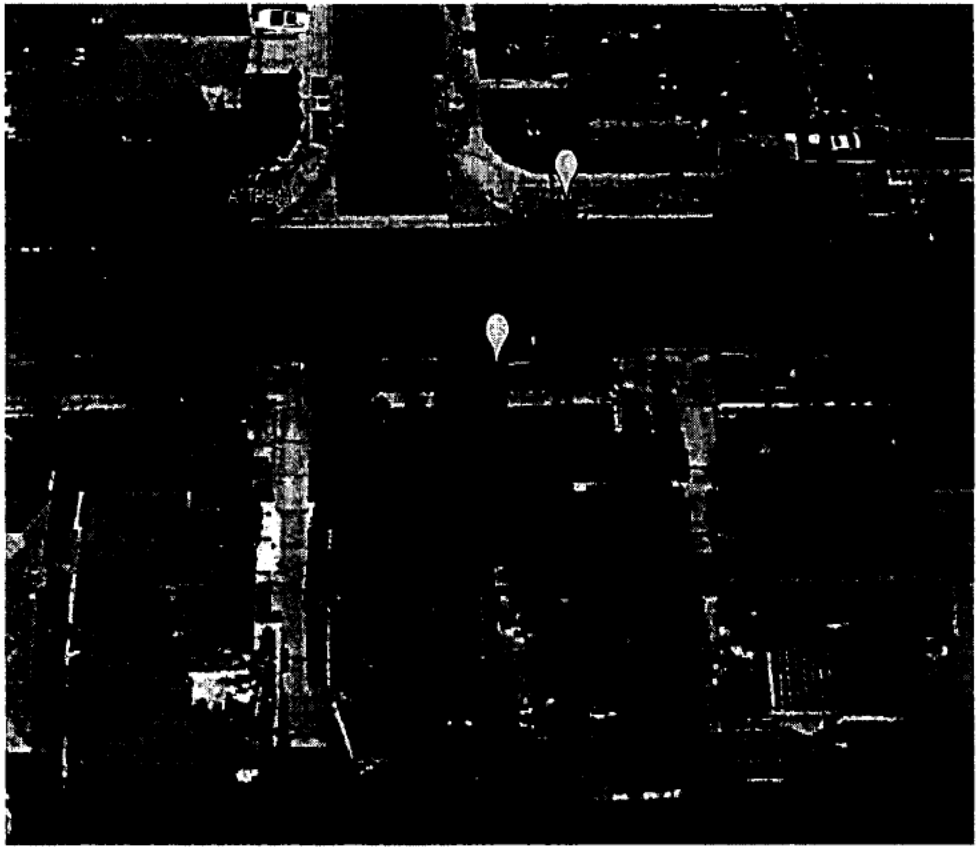
AT&T RB40

Primary

Alternate #1

Alternate #2

CROWN CASTLE



RB40 Primary and Alternate Overview:

The alternates are proposed as wireless facilities on replacement streetlights.

All locations meet the RF coverage objective for the proposal.

Alternative 1&2-not the least intrusive options. Multiple potential view corridors are impacted by these options. No landscaping or man made structures (i.e. retaining walls) are in the area to provide a method of screening. In addition, alternative 2 will require intrusive undergrounding of overhead power lines and a pole replacement due to current SCE regulations.

This location is proposed along Cranbrook to provide service in an area currently experiencing a gap in service. The facility is designed to needed wireless service to homes, entrepreneurs and schools as well local public safety and emergency officials that may be in the area.

Code Requirements and Conditions, if approved:

The following Code Requirements are applicable to the project, if approved:

- A Construction and Excavation Permit (C&E Permit) is required from the Community Development Department, Engineering Permits and Records Division, for any work in the public right-of-way.
- The traffic control plan(s) shall comply with the MUTCD manual.
- Must comply with TMC Section 92.39.070 regarding submission of RF compliance report.
- Must comply with TMC Section 92.39.090 regarding discontinued use or abandonment of facility.

Recommended Conditions, if Approved:

1. That the use of the subject site for a telecom facility shall be subject to all conditions imposed in WTC17-00006 and any amendments thereto or modifications thereof as may be approved from time to time pursuant to Section 92.39.070 et seq. of the Torrance Municipal Code on file in the office of the Community Development Director of the City of Torrance; and further, that the said use shall be established or constructed and shall be maintained in conformance with such maps, plans, specifications, drawings, applications or other documents presented by the applicant to the Community Development Department and upon which the Telecommunications Committee relied in granting approval;

2. That if this Approval is not implemented within one year after the approval, it shall expire and become null and void unless extended by the Community Development Director for an additional period, as provided for in Section 92.27.1 of the Torrance Municipal Code; (Planning)

3. That no above ground mounted pedestals be permitted and that all power be fed from the existing SCE wires already attached to the utility pole for which the proposed equipment is to be mounted; (Planning/Engineering)

4. That all requirements provided under Ordinance No. 3058, Section 92.2.8, Satellite Antennas, of the Torrance Municipal Code, Division 9, shall be met prior to the issuance of building permits and/or encroachment permits; (Planning)

5. The permittee shall paint, color or finish all the pole-mounted equipment to match the color of the underlying utility pole, to the satisfaction of the Community Development Director; (Planning)

6. The permittee shall conceal all cables, wires, jumpers and connectors within the antenna or equipment shrouds. In addition, the permittee acknowledges and agrees that a material consideration of the City's approval of this permit is that the pole-top antenna and shroud are approximately the same width as the pole, which creates a streamlined design and concealment element that effectively blends the antenna with the underlying pole; (Planning)

7. The permittee shall install and at all times maintain in good condition an "RF Notice" sign and network operations center sign adjacent to the bottom of the shroud. The signs required in this condition must be placed in a location where they are clearly visible to a person when he or she approaches the shroud; (Planning)

8. The permittee shall ensure that all RF signage complies with FCC OET Bulletin 65 or ANSI C95.2 for color, symbol and content conventions. All such signage shall provide a working local or toll-free telephone number to its network operations center that reaches a live person who can exert transmitter power-down control over this site as required by the FCC; (Planning)

9. That the antenna and all related equipment cabinets shall be removed if the telecommunications site remains inactive for more than 180 days; (Planning)

10. That at the time of plan check submittal the applicant shall provide an underground utility and infrastructure analysis to the satisfaction of the Engineering Division; (Engineering)

11. That a minimum 10' vertical clearance above public sidewalk surface for proposed antenna and equipment mounted on existing utility pole and a minimum 16' vertical clearance above sidewalk surface for proposed antenna and equipment within 2' or less horizontally of the public street shall be maintained; (Engineering)

12. That if generators are required at the site, they must meet Torrance Municipal code requirements for noise; (Environmental)

Santana, Danny

From: Poirier, Rebecca
Sent: Friday, September 07, 2018 10:40 AM
To: Santana, Danny
Subject: Fwd: WTC17-00006 - Hearing Postponement Request

FYI

Sent from my iPhone

Begin forwarded message:

From: [redacted]
Date: September 7, 2018 at 9:49:02 AM PDT
To: ljackson@torranceca.gov
Cc: rpoirier@torranceca.gov
Subject: WTC17-00006 - Hearing Postponement Request
Reply-To: [redacted]

Mr. Jackson - Per your request, we are requesting the postponement of the September 11, 2018. We have requested public records to assist us with the hearing. We would like ALL the documents for the hearing, this, given that this expansive records request will no doubtlessly take over the 10 days and we are entering the holiday season in about one month- we are formally requesting that this hearing taken place in Jan 2019.

Please get back to,us today - as we have to get all our homeowners up to speed. The association wants to make sure ALL our members are aware of how these cell phone locations and equipment are impacting the residential context of our neighborhood.

We look forward to your response.

The Madrona Homeoewmers Asso.

ATTACHMENT 6

Santana, Danny

From: Jackson, LeRoy
Sent: Friday, September 07, 2018 1:35 PM
To: Santana, Danny
Subject: FW: WTC17-00006 - Hearing Postponement Request

-----Original Message-----
From: [redacted]
Sent: Friday, September 07, 2018 1:24 PM
To: Jackson, LeRoy <LJACKSON@TorranceCA.gov>
Subject: RE: WTC17-00006 - Hearing Postponement Request

Mr.Jackson - We just spoke with the applicants company rep and he denoted the City want the cell tower on the light post on Cranbrook. Now, you informed us opposite of that - what is going on finger pointing at each other. Who is lying?

Why is the City not moving it?

All the lies will come out via our large public request. We have contacted a reporter at the Daily Breeze.

How can residents be lied to? The applicant is blaming the City and the City is blaming the applicant???

How does that work. This e-mail will be part of the public record

-----Original Message-----
>From: "Jackson, LeRoy" <LJACKSON@TorranceCA.gov>
>Sent: Sep 7, 2018 12:13 PM
>To: [redacted]
>Subject: RE: WTC17-00006 - Hearing Postponement Request
>
>I have received your request -- since this is a public advertised hearing your request must be presented to the board on the 11th -- staff is outreaching to the applicant to see if they will concur -- if not then the board will need to decide -- the city is under strict processing regs which have time restrictions -- this might affect how long a period of continuance might be permitted -- staff is recommending denial of the permit -- staff has also asked the applicant to explore a site on the park but the applicant was not interested --
>
>I am submitting your request -- if we hear from the applicant and they are agreeable staff will notify you -- if we do not hear or the applicant is no agreeable you should attend the hearing to express your concerns to the board --
>
>The department has also received a similar request from the Madrona Homeowners Assoc. which also will be forwarded to the Board --
>
>Please contact the City Clerk with regards to your public records request --
>
>LeRoy J Jackson
>
>

>
>-----Original Message-----
>From: [redacted]
>Sent: Friday, September 07, 2018 9:49 AM
>To: Jackson, LeRoy <LJACKSON@TorranceCA.gov>
>Cc: Poirier, Rebecca <RPoirier@TorranceCA.gov>
>Subject: WTC17-00006 - Hearing Postponement Request
>
>Mr. Jackson - Per your request, we are requesting the postponement of the September 11, 2018. We have requested public records to assist us with the hearing. We would like ALL the documents for the hearing, this, given that this expansive records request will no doubtlessly take over the 10 days and we are entering the holiday season in about one month- we are formally requesting that this hearing taken place in Jan 2019.
>
>Please get back to,us today - as we have to get all our homeowners up to speed. The association wants to make sure ALL our members are aware of how these cell phone locations and equipment are impacting the residential context of our neighborhood.
>
>We look forward to your response.
>
>The Madrona Homeoewmers Asso.

Santana, Danny

From: Jackson, LeRoy
Sent: Friday, September 07, 2018 1:40 PM
To: Santana, Danny; Sullivan, Patrick
Subject: FW: WTC17-00006 - Hearing Postponement Request

-----Original Message-----
From: [redacted]
Sent: Friday, September 07, 2018 12:46 PM
To: Jackson, LeRoy <LJACKSON@TorranceCA.gov>
Subject: RE: WTC17-00006 - Hearing Postponement Request

Mr. Jackson - Accordimg to PUC 7901.1 the City has reasonable control as to the time place, and matter. In fact, the placement is not guaranteed to the applicant per Federal Wireless Law 47 USC Section 332(c)(7) which states Generally preserves local authority to control placement of certain personal wireless services facilities...

And as far a time frames which the City is to comply with those have passed as you will denote this application was filed in 2017 and we are now in 2017.

Section 6490(a) eligible facilities request 60 day shot clock and deemed granted remedy to apply to local review...thus, that is for review only not to process or have a hearing.

So the City's hands are not tied but in the cookie jar - by way of making monies from the placement in the right of way. Did they get an approved encroachment permit?

In talking to my representative, this e-mail response is NOT what was discussed - that we would have to appear at the hearing. Again this notice, for this hearing was noticed on a holiday weekend - and now the hearing is a go. Wow.

THE TIME FRAME OF THIS NOTICING IS NOT BY FAULT - THE CITY IS TRYIMG TO SLIP THIS BY RESIDNETSWe will be ringing bells, calling news stations and the Daily Breeze.

-----Original Message-----
>From: "Jackson, LeRoy" <LJACKSON@TorranceCA.gov>
>Sent: Sep 7, 2018 12:13 PM
>To: [redacted]
>Subject: RE: WTC17-00006 - Hearing Postponement Request
>
>I have received your request -- since this is a public advertised hearing your request must be presented to the board on the 11th -- staff is outreaching to the applicant to see if they will concur -- if not then the board will need to decide -- the city is under strict processing regs which have time restrictions -- this might affect how long a period of continuance might be permitted -- staff is recommending denial of the permit -- staff has also asked the applicant to explore a site on the park but the applicant was not interested --
>

>I am submitting your request -- if we hear from the applicant and they are agreeable staff will notify you -- if we do not hear or the applicant is no agreeable you should attend the hearing to express your concerns to the board --
>
>The department has also received a similar request from the Madrona Homeowners Assoc. which also will be forwarded to the Board --
>
>Please contact the City Clerk with regards to your public records request --
>
>LeRoy J Jackson
>
>
>
>-----Original Message-----
>From: [redacted]
>Sent: Friday, September 07, 2018 9:49 AM
>To: Jackson, LeRoy <LJACKSON@TorranceCA.gov>
>Cc: Poirier, Rebecca <RPoirier@TorranceCA.gov>
>Subject: WTC17-00006 - Hearing Postponement Request
>
>Mr. Jackson - Per your request, we are requesting the postponement of the September 11, 2018. We have requested public records to assist us with the hearing. We would like ALL the documents for the hearing, this, given that this expansive records request will no doubtlessly take over the 10 days and we are entering the holiday season in about one month- we are formally requesting that this hearing taken place in Jan 2019.
>
>Please get back to,us today - as we have to get all our homeowners up to speed. The association wants to make sure ALL our members are aware of how these cell phone locations and equipment are impacting the residential context of our neighborhood.
>
>We look forward to your response.
>
>The Madrona Homeoewmers Asso.

Martinez, Oscar

From: Snyder, Aaron <Aaron.Snyder@crowncastle.com>
Sent: Friday, September 7, 2018 2:09 PM
To: Martinez, Oscar; Longhurst, Scott
Cc: Santana, Danny; Whiting, Aaron
Subject: Re: WTC17-00006 - Hearing Postponement Request

Hi Oscar,

Crown is not going to agree to postpone
the hearing. The application process for these locations started last July. We have been faced with a long, extensive review process involving lots of communication with the city and consultant. As a result, that has caused a large delay in our customer's deployment. As such, we are not going to postpone till 2019.

I have a meeting with Aram at 8am on Tuesday. I would suggest that you and Danny come to the meeting so we can discuss the below in detail prior to hearing #1.

Any questions, please call me.

Thanks and have a great weekend!

Thanks,

AARON L. SNYDER
Government Relations Project Manager
[redacted]
Office: (949) 344-7834

CROWN CASTLE
200 Spectrum Center Drive-18th Floor, Irvine, Ca 92618
CROWNCASTLE.COM

On Sep 7, 2018, at 1:03 PM, Martinez, Oscar <OMartinez@TorranceCA.gov> wrote:

> Aaron, we received this correspondence today. Would you be open to a postponement? Let me know, thanks.
> FYI, staff reports will be emailed to you before end of the day.

OM

From: Santana, Danny
Sent: Friday, September 7, 2018 12:24 PM
To: Martinez, Oscar <OMartinez@TorranceCA.gov>
Subject: FW: WTC17-00006 - Hearing Postponement Request

From: Poirier, Rebecca
Sent: Friday, September 07, 2018 10:40 AM
To: Santana, Danny
Subject: Fwd: WTC17-00006 - Hearing Postponement Request

FYI

Sent from my iPhone

Begin forwarded message:

From: [redacted]
Date: September 7, 2018 at 9:49:02 AM PDT
To: ljackson@torranceca.gov
Cc: rpoirier@torranceca.gov
Subject: WTC17-00006 - Hearing Postponement Request
Reply-To: [redacted]

Mr. Jackson - Per your request, we are requesting the postponement of the September 11, 2018. We have requested public records to assist us with the hearing. We would like ALL the documents for the hearing, this, given that this expansive records request will no doubtlessly take over the 10 days and we are entering the holiday season in about one month- we are formally requesting that this hearing taken place in Jan 2019.

Please get back to,us today - as we have to get all our homeowners up to speed. The association wants to make sure ALL our members are aware of how these cell phone locations and equipment are impacting the residential context of our neighborhood.

We look forward to your response.

The Madrona Homeoewmers Asso.

September 11, 2018

MINUTES OF A REGULAR MEETING OF TORRANCE TELECOMMUNICATIONS COMMITTEE

1. CALL TO ORDER

The Torrance Telecommunications Committee convened in a regular session at 9:00 a.m. on Tuesday, September 11, 2018 in the in the West Annex Commission meeting room, Torrance City Hall.

2. FLAG SALUTE

The Pledge of Allegiance was led by Chair Segovia.

3. ROLL CALL

Present: Chair Segovia, Community Development Department, Member F. Fulton, City's Manager Office, and Member G. Pinela, General Services

Absent: None

Also Present: Planning Manager Santana, Sr. Planning Associate Martinez, City Attorney Patrick Q. Sullivan, and Planning Assistant Whiting

6. BUSINESS

6A. Public Hearing to consider WTC17-00004: Petition of **STEPHEN GARCIA (CROWN CASTLE NG WEST)** for approval of a Telecom Permit to allow the installation of a small cell antenna and support equipment attached to an existing utility pole in the public right-of-way adjacent to 22917 Fonthill Avenue in the R-1 Zone. This project is Categorically Exempt from CEQA per Guidelines Section 15301 – Existing Facilities.

Planning Manager Santana introduced the request and stated that staff recommendation was for denial of the proposed wireless installation.

Chair Segovia invited the applicant's representative, Aaron Snyder, from Crown Castle to speak on the item.

Mr. Snyder stated that the staff report included a coverage map packet and secondly, an alternative analysis. Mr. Snyder informed that the staff report included two alternative locations. He expressed that there is a need for more wireless service, and that homes and all general home equipment had ties to wireless connectivity which would correlate to the installation of the facility. He concluded that this wireless facility would not only offer coverage on the street but inside homes. Mr. Snyder asked to take comments or questions.

Chair Segovia opened the public hearing.

Robert Thompson, representing the Madrona Homeowner's Association, requested that the decision be postponed due to the petition being from 2017 and public notices were mailed out on a holiday weekend. He also requested to know who picked the area, since he stated that the applicant had informed him that the City of Torrance had picked the location. Mr. Thompson expressed that the applicant had not completed the investigation of finding a viable location because the applicant needed to explore locations that did not impact residential areas. He again requested that the decision be postponed to a later date.

Responding to Mr. Thompson, Planning Manager Santana stated that notifications are to be sent 10 days before a Telecommunication Committee meeting and confirmed that the public notices were mailed out on August 30, 2018. He also confirmed that a posting was put on the proposed location for adjacent neighbors walking or driving by to see. Planning Manager Santana clarified that the staff does not choose the location, the applicant does and the staff only offers comments to any concerns they may have regarding a location. He asked that the Committee make a determination if they felt they had all the information to make an appropriate motion.

Chair Segovia inquired about any factors or regulations on making a determination.

Responding to Chair Segovia, Planning Manager Santana informed that there is a shot clock of 150 days and recommended that the Committee proceed with making a determination.

Mr. Thompson expressed that there were better locations with better altitude.

Responding to concerns, Mr. Snyder addressed that the object of these facilities was to provide a direct signal source to homes. He asked that the Committee consider alternative locations as opposed to a denial.

Chair Segovia closed the public hearing.

Planning Manager Santana discussed the committee's criteria for review, along with the three findings required for staff to recommend approval of an installation in a residential area.

Member F. Fulton proposed that the item be continued to consider alternative locations.

Planning Manager Santana recommended an indefinite continuance.

MOTION: Member Fulton moved to concur with the staff recommendation of an indefinite continuance. The motion was seconded by Member Pinela, and a roll call vote reflected unanimous approval.

6B. Public Hearing to consider WTC17-00006: Petition of **STEPHEN GARCIA (CROWN CASTLE NG WEST)** for approval of a Telecom Permit to allow the installation of a small cell antenna and support equipment attached to an existing utility pole in the public right-of-way adjacent to 1323 Cranbrook Avenue in the R-1 Zone. This project is Categorically Exempt from CEQA per Guidelines Section 15301 – Existing Facilities.

Planning Manager Santana stated that staff recommendation was for denial of the proposed wireless installation.

Chair Segovia requested the applicant's representative, Aaron Snyder, to speak on the item.

Mr. Snyder addressed that the staff report included a coverage map and alternative analysis. He asked that the Committee consider the demand for wireless coverage.

Chair Segovia opened the public hearing.

Jane Lee, resident of the proposed site, expressed opposition on behalf of the gated community, Maple Walk.

Chair Segovia closed the public hearing.

Planning Manager Santana recommended an indefinite continuance to consider alternate locations.

MOTION: Member Fulton moved to concur with the staff recommendation of an indefinite continuance to consider alternative locations. The motion was seconded by Member Pinela, and a roll call vote reflected unanimous approval.

End of Excerpt

Crown Castle
200 Spectrum Center Drive
Suite 1700
Irvine, CA 92618

October 10, 2018

Oscar Martinez
Senior Planning Associate
Community Development Department
City of Torrance
3031 Torrance Blvd, Torrance, Ca 90503

RE: Shot Clock Tolling Agreement and Notice of Shot Clock Expiration for Crown Castle Wireless Communication Facility Site RB40-ROW 1323 Cranbrook Ave- New Shot Clock Expiration Date: 1/21/2019

Dear Mr. Martinez:

Crown Castle NG West LLC ("Crown Castle") has agreed to the City of Torrance' (the "City") request to extend the Shot Clock for this site from **12/3/2018**, until **1/21/2019**. The purpose of extending the Shot Clock is to allow City Staff additional time to get organized so that more meaningful presentations can be developed to better inform City decision makers. The extension will also allow Crown Castle the ability to investigate city preferred alternate locations for the proposed wireless facility.

In consideration of Crown Castle's agreement to Toll the Shot Clock, the City has agreed that:

1) The City will attest to and not challenge that Crown Castle's application is compliant with any and all Shot Clock requirements (federal, state and local) as of the date of this Tolling Agreement and Notice of Shot Clock Expiration.
2) That the Shot Clock for this site will expire on: **1/21/2019**, unless mutually extended in a written agreement by the Parties. Any and all applicable statutes of limitation will commence from the date of the Shot Clock's expiration.

[redacted]

Aaron Snyder
CROWN CASTLE NG WEST LLC

Oscar Martinez
CITY OF TORRANCE

DATE: December 6th, 2018

TO: Telecommunications Committee

FROM: Planning Division

SUBJECT: **WIRELESS TELECOM FACILITY (WTC17-00005) – (CROWN CASTLE NG WEST, LLC)**

A request for approval of a Wireless Telecommunications Facility to allow the installation of a new wireless small cell and support equipment attached to an existing utility pole in the public right-of-way adjacent to 21010 Anza Avenue within the R-3 Zone.

Applicant: Crown Castle NG West LLC
Case No: WTC17-00005
Location: 21010 Anza Ave (ROW)
Zoning: R-3: Multiple Family Residential

The subject request is for the installation of a wireless site in the public right-of-way adjacent to 21010 Anza Avenue. Per Torrance Municipal Code 92.39.060(1), such requests within the public right-of-way adjacent to residentially zoned properties are reviewed by the Telecommunications Committee and requires notification to property owners within 300 feet of the proposed location. In compliance with prior City Council directives, on November 30th, 2018, staff mailed notices to property owners within 500' radius and also posted a notification sign to the subject pole (Attachment #1).

The proposal involves the installation of a 24.9-inch onmni-antenna on top of the existing 29.75-foot utility pole, resulting in a maximum height of 32.25-feet (when including the pole top mount), two shroud kits, and power disconnect box. A new Crown Castle fiber line is also proposed at 24.91-feet for communications backhaul to AT&Ts switching gear.

The proposed shroud kits measure 23.65-inches x 10.22-inches x 6.09-inches and would be mounted 15.25-feet above grade and have a combined maximum height of 19.2-feet to the top of the enclosure. No additional cabinets are required as this configuration eliminates the need for above ground appurtenances.

The purpose of the proposed site, according to the Supplemental Technical Information Report provided by the applicant, is to "Increase the existing RF signal level in an existing coverage area" for AT&Ts network (Attachment #3). The target area described in the RF Coverage maps is the surrounding residential that is bounded by Emerald Street to the north, Torrance Boulevard to the south, Earl Street to the east, and Reynolds Drive to the west. The proposed antenna would propagate signal omni-directionally.

The application was reviewed by the City's telecom consultant, Telecom Law Firm PC, multiple times for technical and regulatory issues (Attachment #2). Per the analysis and submitted documentation, the proposed location meets the applicant's coverage

objectives. According to the alternative site analysis provided by the applicant, the two alternative locations (a utility pole located at 4599 Maricopa Street and a streetlight located at 21010 Anza Avnue) indicated that they can meet coverage objectives but a proposed streetlight design would require "intrusive undergrounding" of overhead utility lines and pole replacement (Attachment #4). Staff notes both of the alternative sites were also adjacent to residential zones.

The applicant has submitted an RF compliance report (included as part of Attachment #3) that evaluates the proposed facility's planned compliance with FCC Guidelines. Staff notes that the City cannot impose additional requirements with respect to FCC requirements with the exception of requesting verification that the site is operating in compliance. If approved, per TMC92.39.070 a radio frequency and compliance radiation report is required to be submitted within 30 days after installation of the facility.

As previously mentioned, the proposal falls into a location that requires a special review by the Telecommunications Committee as it is in the right-of-way adjacent to a residential district. Per the Applicant's submittals, the site identified will provide the coverage needed to fulfill the applicant's objectives.

In order to recommend Approval of this Telecom Permit, the following findings must be made per 92.39.040(b)(3):

i. Other locations that do not require special approval under this Section 92.39.040(B) are either not available or not feasible; and
ii. Establishment of the facility at the requested location is necessary to provide service; and
iii. Lack of such a facility would result in a prohibition of service;

Staff notes that the proposal meets the first finding as there are no other tall non-residential structures in the vicinity which may lend themselves to a small cell installation that is on the prioritized location per the City's code. As previously mentioned, the applicant's two alternates locations met coverage objectives but are still adjacent to residential areas and one would require additional undergrounding of utilities. In the judgment of staff, however, not all of the necessary findings can be made. Per the applicant's documentation and the City's consultant, the proposed facility's dominant purpose is to "Increase the existing RF signal level in an existing coverage area" and there is currently AT&T service within the coverage area, and as such, establishment of the facility is not necessary to provide service and lack of this facility does not result in a prohibition of service.

Although the proposed small cell facility has been designed to provide increased capacity while simultaneously providing a visually less intrusive structure, under the narrow purview of the code, staff cannot make the findings per TMC92.39.040(b)(3) and recommends denial of the request. Should the Committee wish to approve the facility, recommended conditions and code requirements have been attached for your review (Attachment #5).

PROJECT RECOMMENDATION: DENIAL

Prepared by,

Aaron Whiting
Planning Assistant

Recommended by,

For: Danny Santana
Planning Manager

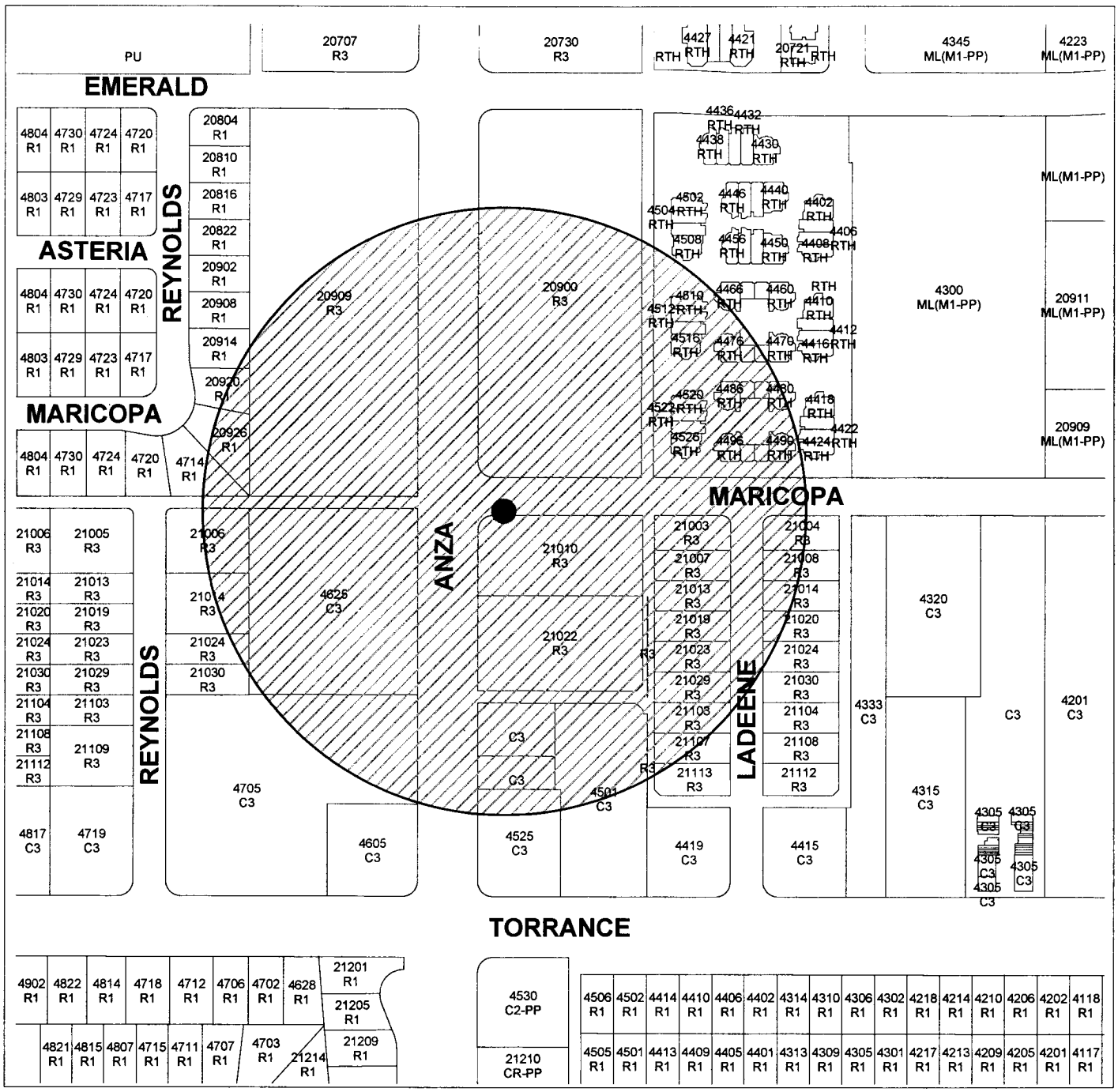
Attachments:
1. Notification Map and Posting
2. Telecom Law Firm Memorandums
3. Supplemental Technical Information Report and Documentation
4. Alternate Locations
5. Recommended Conditions and Code Requirements, if approved
6. Plans/Photo Simulations (Limited Distribution)

This request for a Telecom Permit (WTC17-00005) is ____APPROVED ____ DENIED per Ordinance No. 3561, Section 92.39.060, Satellite Antennas, of the Torrance Municipal Code, Division 9.

DATE

Felipe Segovia
Telecommunications Committee Chair

Decisions made by the Telecommunications Committee are appealable to the Planning Commission within 15 calendar days following the above date of approval/denial.



LOCATION AND ZONING MAP

WTC17-00005
21010 Anza Avenue (ROW)

TORRANCE COMMUNITY DEVELOPMENT GIS

LEGEND

Proposed Location

Notification Area

Feet

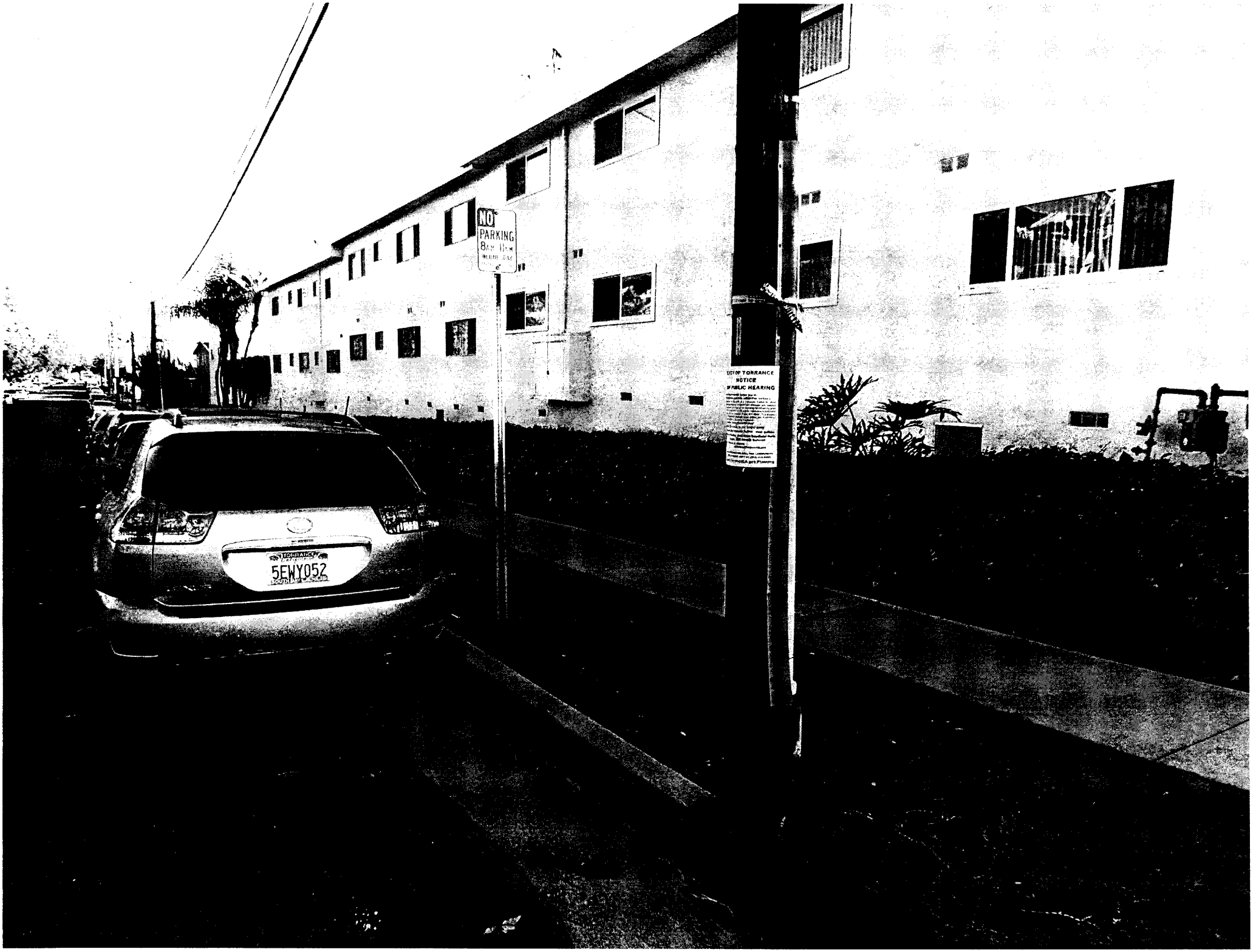
0 62.5125 250

N W E S

Prepared using City of Torrance Community Development Geographic Information System
Jeffery W. Gibson, Community Development Director

ATTACHMENT 1


CITY OF TORRANCE
NOTICE
OF PUBLIC HEARING
NOTICE IS HEREBY GIVEN that the TELECOMMUNICATIONS COMMITTEE will hear a request for approval of a Telecom Permit to allow the installation of a small cell antenna and support equipment attached to an existing wood utility pole (Pole ID #A8562Y) in the public right-of-way adjacent to 21010 Anza Avenue in the R-3 Zone. This project is Categorically Exempt from CEQA per Guidelines Section 15301 – Existing Facilities.
Applicant: Crown Castle NG West
Case Type & Case No.(s): WTC17-00005
Hearing Date: December 11, 2018 Time: 9:00am
Place of Hearing: West Annex Commission Room
City Hall, 3031 Torrance Boulevard
Case Planner: A. Whiting
(AWhiting@TorranceCA.gov)
FOR INFORMATION CALL THE COMMUNITY DEVELOPMENT DEPT AT (310) 618-5990
www.TorranceCA.gov/Planning


NO
PARKING
CITY OF TORRANCE
NOTICE
PUBLIC HEARING
TORRANCE
5EWY052

TELECOM
LAW FIRM PC

WIRELESS PLANNING MEMORANDUM

TO: Mr. Oscar Martinez
FROM: Dr. Jonathan Kramer [redacted]
DATE: September 14, 2018
RE: WTC17-00005 New Proposed Wireless Facility in the Public Right-of-Way adjacent to 21010 Anza Avenue [actual Pole is located on Maricopa Street]

APPLICANT: Crown Castle NG West LLC
APPLICANT'S ID: ATTRB-23

On August 28, 2017 ("**August 2017 Submission**"), Crown Castle NG West LLC (the "**Applicant**") on behalf of itself and its client AT&T, submitted wireless site application materials to the City of Torrance ("**City**"). The Applicant proposed to operate a new wireless site on an existing wood utility pole A8562Y ("**Pole**") in the public right-of-way ("**PROW**") adjacent to 21010 Anza Avenue (Coordinates N33.839473°; W118.362098°).

TLF notes that the actual Pole is located on Maricopa Street.

On September 20, 2017, Telecom Law Firm, PC ("**TLF**" or "**We**") submitted an Application Incomplete Memorandum (the "**September 2017 Memo**") to the City that evaluated the Applicant's August 2017 Submission. TLF's September 2017 Memo concluded that the Applicant failed to submit a complete permit application. TLF recommended that the City deem the Applicant's application incomplete and issue a timely notice, which it did.

On February 27, 2018, the Applicant submitted additional materials (the "**February 2018 Submission**") to address the deficiencies identified in TLF's September 2017 Memo related to its August 2017 Submission.

On March 8, 2018, TLF submitted another Application Incomplete Memorandum (the "**March 2018 Memo**") to the City that evaluated the Applicant's February 2018 Submission. TLF's March 2018 Memo concluded that the Applicant yet again failed to submit a complete permit. We recommended that the City deem the Applicant's application incomplete and issue a timely notice, which it did.

On August 7, 2018, the Applicant submitted additional materials (the "**August 2018 Submission**") in an attempt to address the deficiencies identified in TLF's March 2018 Memo.

This memorandum now reviews (1) the August 2018 Submission and provides the City further analysis on whether the Applicant submitted a complete and responsive application complying with the City's publicly stated application requirements and complies with the Torrance Municipal Code ("**TMC**"); (2) whether Section 6409(a) applies to the Applicant's project; and (3) whether Applicant's project demonstrates planned compliance with the federal radio frequency exposure guidelines.

Upon review, now, TLF's assessment is that the application appears to be sufficiently complete for TLF to proceed with a substantive review of the Applicant's proposal for compliance with applicable local, state and federal law.

1. Project Description

The project plans dated April 30, 2018 ("**Plans**") show that on the Pole, the Applicant proposes to install one new pole-top mount to hold one Pseudo Omni Antenna [Galtronics P6480i] ("**Antenna**") center mounted at approximately 31' 3" above ground level ("**AGL**")

The Antenna is proposed to be separated from the highest proposed communications cable by 5' 4". This separation meets the requirements of the California Public Utilities Commission, General Order 95, Rule 94. The height of the Pole supporting this project is to remain at 29' 9" AGL.

In addition to the Antenna, on the Pole the Applicant also proposes to install:

- A single new communications riser conduit.
- Two new 2203 remote radio units ("**RRUs**") and one new 2205 RRU.
- A new shroud [Charles Shrd60] to house the RRUs.
- A new NEMA (electrical circuit breaker) enclosure with a power disconnect switch.
- A new pole-to-pole strand at 24' 11" with new fiber optic cable used for communications backhaul from this project site to AT&T's cell switching center.
- Three new DC power converters mounted adjacent to the Pole on a new fiber strand.

For a photo simulations the pole configuration, see Figure 1.

[Balance of page intentionally left blank]

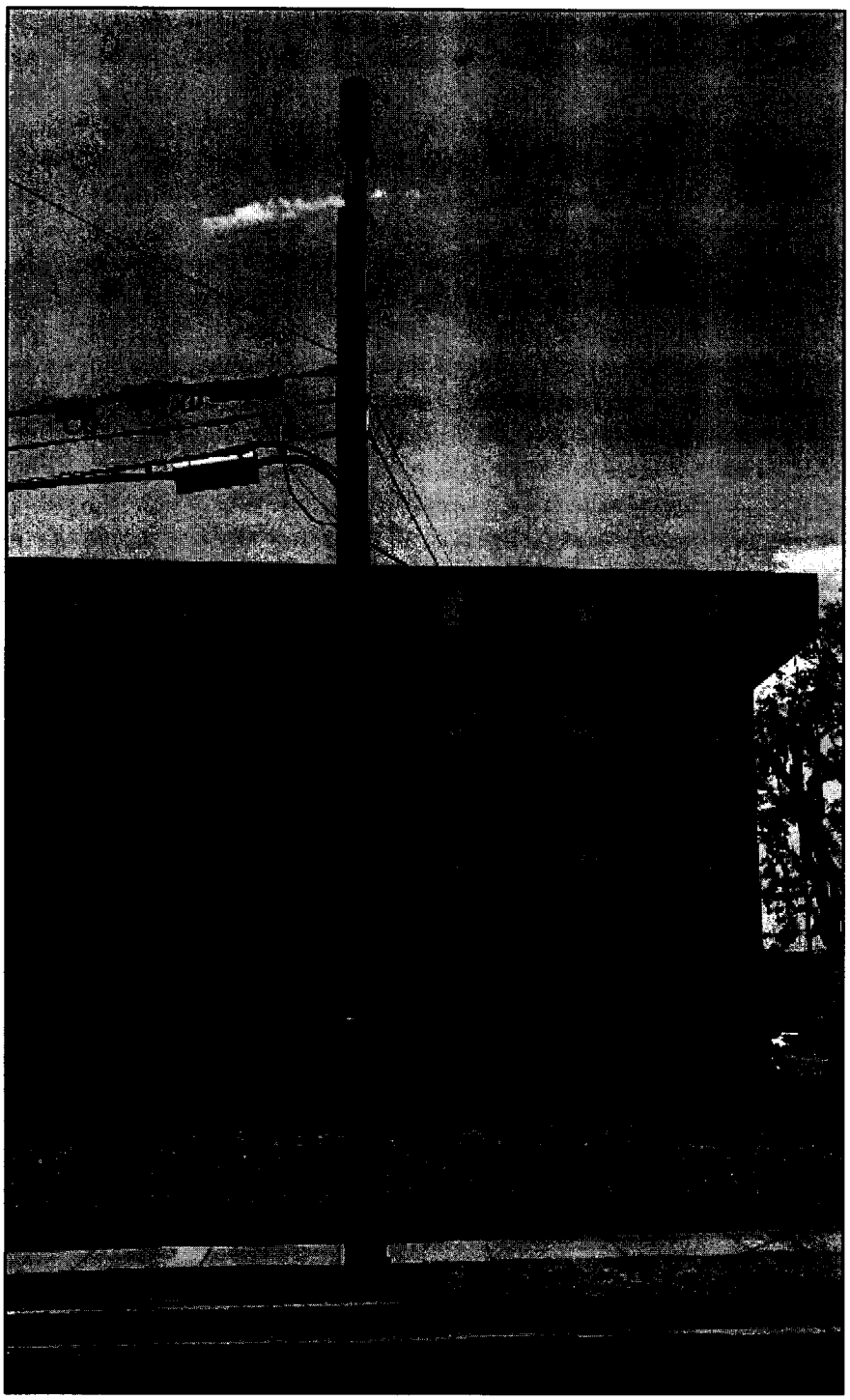


Figure 1: Proposed node on existing utility pole (Source: Applicant's Photo Simulation provided by through its August 2018 Submission).

See Figure 2 for a collar ring extension hiding the antenna wires.

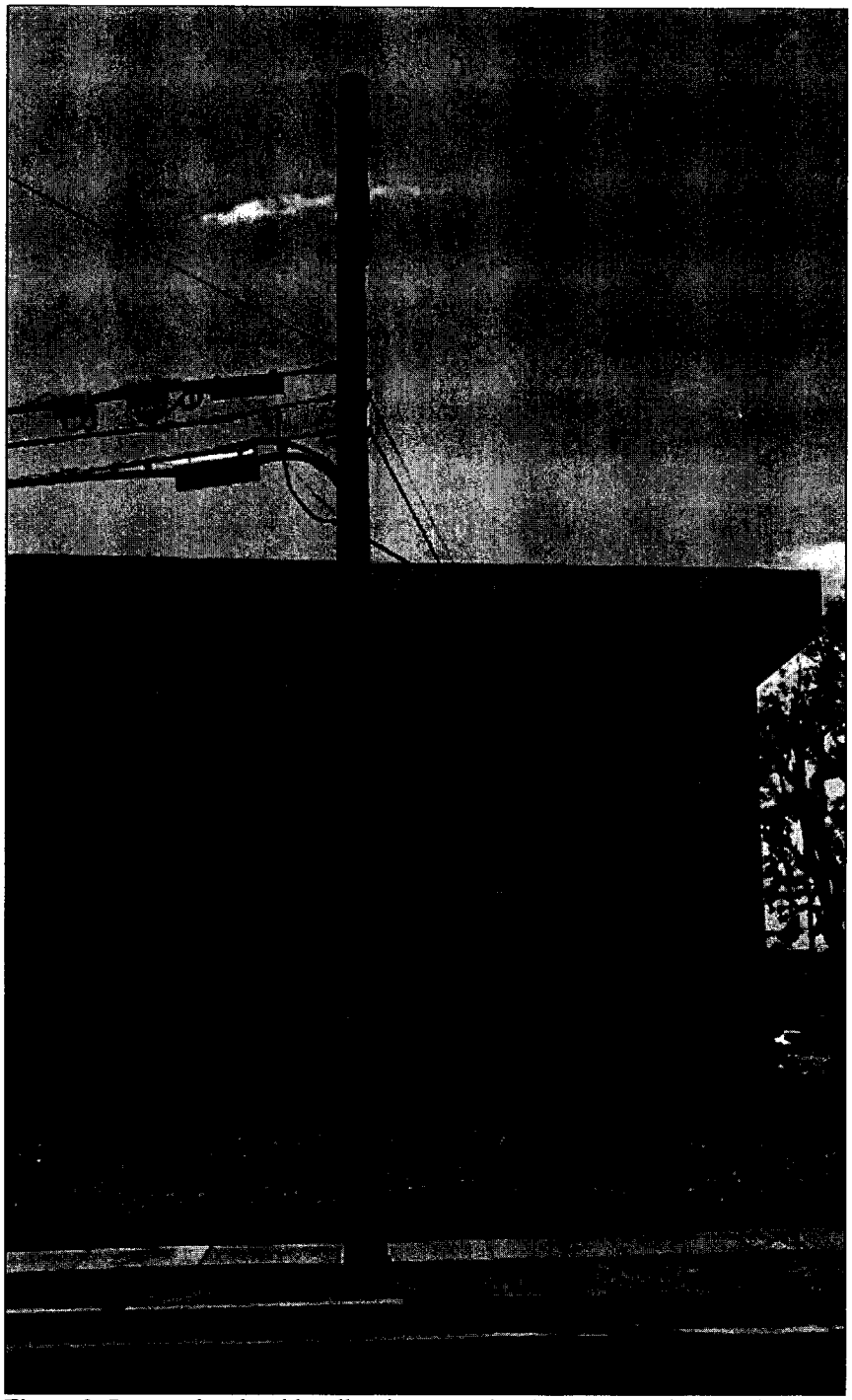


Figure 2: Proposed node with collar ring extension (Source: Applicant's Photo Simulation provided by through its August 2018 Submission; Photoshop by Dr. J. Kramer).

For an elevation view of the pole configuration see Figure 3.

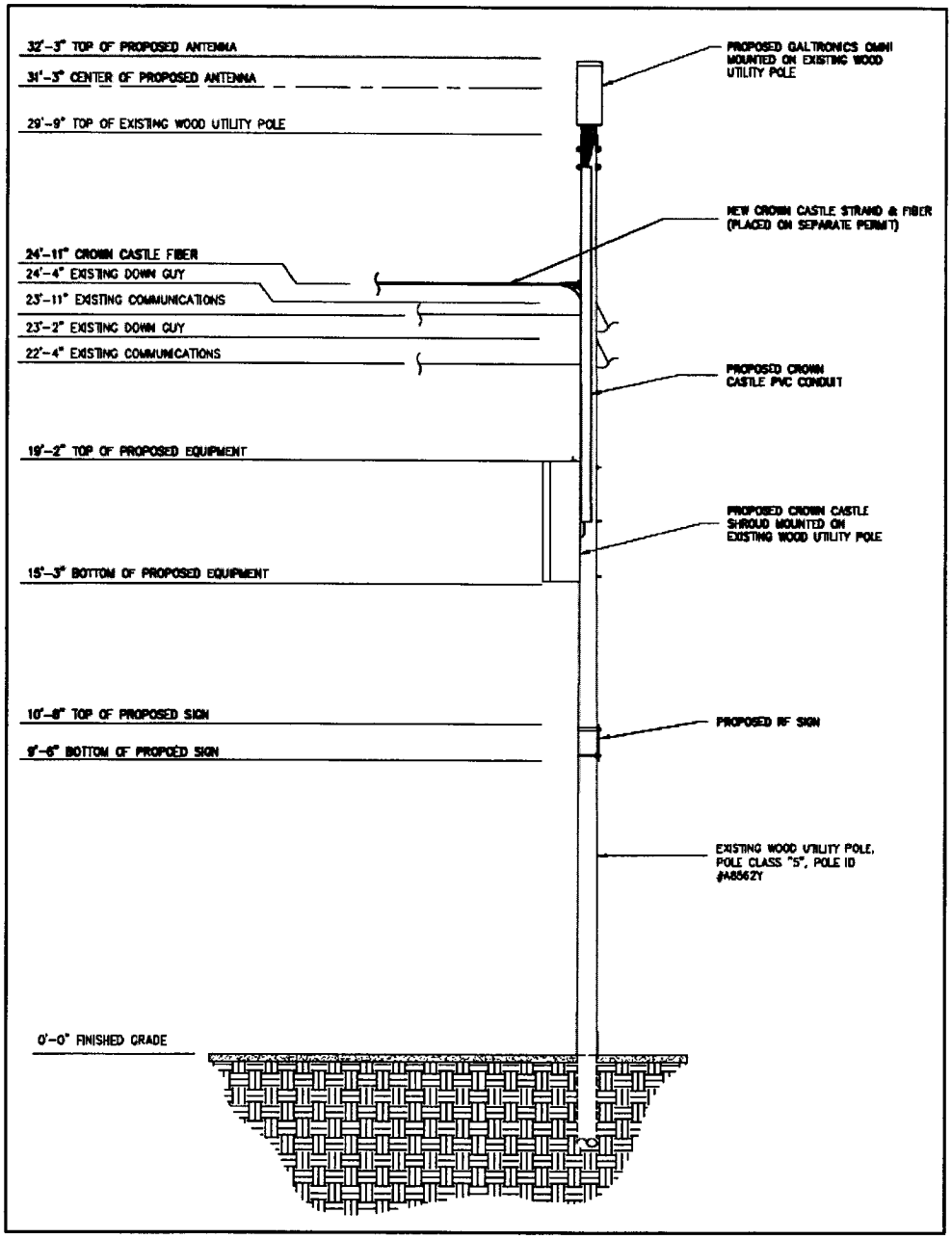


Figure 3: Proposed node on existing utility pole (Source: Plans page A-3 panel 2).

TLF notes that the Plans do not detail the three proposed DC power converters included in the Development Application and depicted on the photo simulations. The Plans must be updated to reflect all the elements of the project.

2. Section 6409(a) Analysis

As a threshold matter, the City must determine whether federal law mandates approval for this permit application. Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012 requires that State and local governments "may not deny, and shall approve" any "eligible facilities request" for a wireless site collocation or modification so long as it does not cause a "substant[ial] change in [that site's] physical dimensions."[1] FCC regulations interpret key terms in this statute and impose certain substantive and procedural limitations on local review.[2] Localities must review applications submitted for approval pursuant to Section 6409(a), but the applicant bears the burden to show it qualifies for mandatory approval.

Section 6409(a)(2) defines an "eligible facilities request" as a request to collocate, remove, or replace transmission equipment on an existing wireless tower or base station.[3] This definition necessarily excludes permit requests for new facilities. Thus, no matter how large or small, Section 6409(a) does not mandate approval for a permit to construct an entirely new wireless facility.

Here, the Applicant did **not** submit an eligible facilities request because rather than collocate on an existing wireless facility, the Applicant proposes to construct a new wireless facility where none currently exists.

Accordingly, given that Section 6409(a) does not apply, much less require that the City approve the Applicant's application and the City should review the Applicant's proposal for compliance with the local values expressed in the TMC subject to certain federal limitations in Section 704 of the Telecommunications Act of 1996 (the "**Telecom Act**").

3. Significant Gap and Least Intrusive Means Analysis

Under the Telecom Act, State and local governments cannot prohibit or effectively prohibit personal wireless communication services.[4] The United States Court of Appeals for the Ninth Circuit holds that a single permit denial can violate the Telecom Act when the applicant demonstrates that (1) a "significant gap" in its own service coverage exists and (2) its proposed site constitutes the "least intrusive means" to mitigate that significant gap.[5] This section discusses both issues as related to the present application.

---

[1] *See* Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, 126 Stat. 156. (Feb. 22, 2012) (codified as 47 U.S.C. § 1455(a)).
[2] *See* In the Matter of Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies, *Report and Order*, 29 FCC Rcd. 12864 (Oct. 17, 2014) (codified as 47 C.F.R. §§ 1.40001, *et seq.*).
[3] *See* 47 U.S.C. § 1455(a)(2).
[4] *See* Section 704 of the Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56, *codified at* 47 U.S.C. § 332(c)(7)(B)(i)(II).
[5] *See MetroPCS, Inc. v. City and County of San Francisco*, 400 F.3d 715, 733 (9th Cir. 2005).

3.1. Significant Gap

The Ninth Circuit does not precisely define what a "significant gap" in service coverage means because this "extremely fact-specific [question] def[ies] any bright-line legal rule."[6] Although sometimes courts find that weak service coverage constitutes a significant gap, the Ninth Circuit also holds that "the [Telecom Act] does not guarantee wireless service providers coverage free of small 'dead spots' . . . ."[7] Accordingly, whether a gap rises to a legally significant gap depends on the contextual factors in each individual application.[8]

To guide the analysis, the Ninth Circuit suggests that applicants and localities should focus on "context-specific factors" such as: (1) whether the gap affects a significant commuter thoroughfare; (2) how many users the alleged gap affects; (3) whether the proposed site will fill a complete void or merely improve weak signal; (4) whether the alleged gap affects a commercial area; (5) whether the alleged gap threatens public safety; and (6) whether the applicant presented empirical or merely predictive evidence.[9] The Ninth Circuit identifies those factors, just discussed, as being relevant, but does not explicitly limit the analysis to those factors or consider any particular factor more important than any of the others.

Within the August 2018 Submission section 4-Project Purpose of the City's Supplemental Technical Information Report ("**STIR**") for Wireless Telecommunication Facilities, the Applicant asserts that AT&T's proposed site is intended to "Increase the existing RF signal level in an existing coverage area."

[Balance of page intentionally left blank]

---

[6] *See id.*
[7] *See id.*
[8] *See Sprint PCS Assets, LLC v. City of Palos Verdes Estates*, 583 F.3d 716, 727 (9th Cir. 2009) (citing *San Francisco*, 400 F.3d at 733).
[9] *See id.* (collecting cases that examine each enumerated factor).

The signal map in Figure 4 depicts AT&T's existing signal strength within the area without the proposed site.

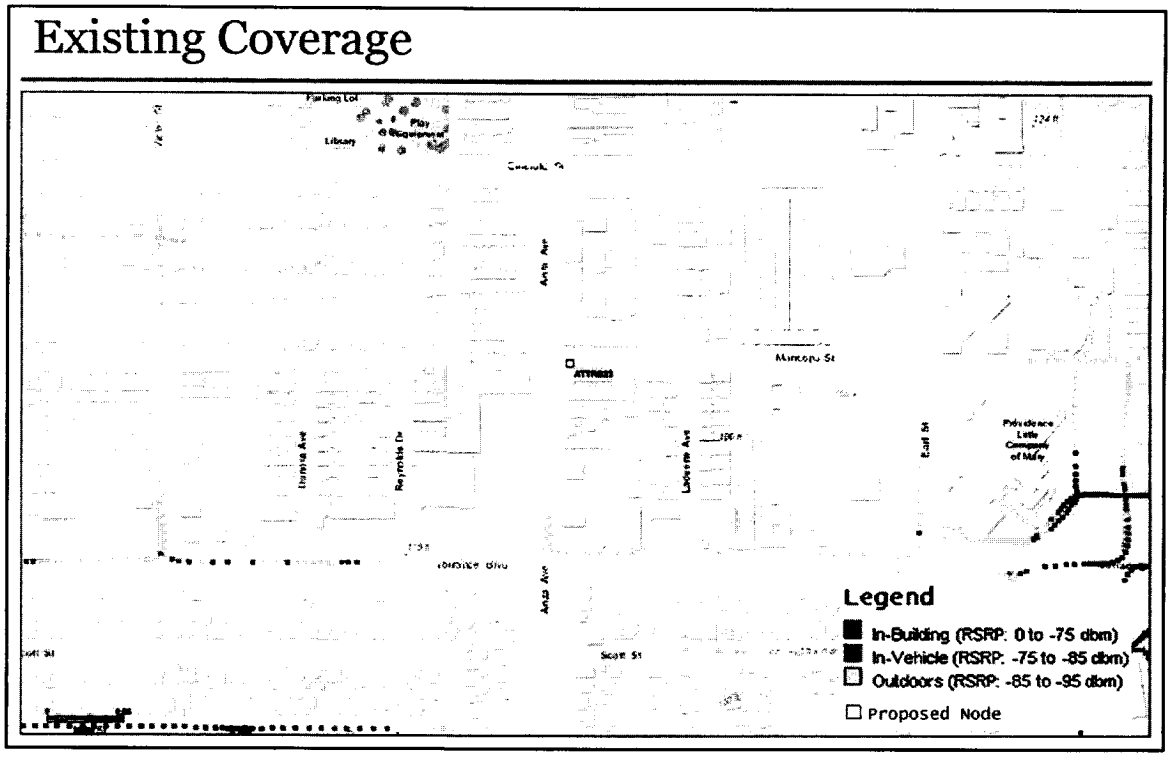


Figure 4: Existing AT&T Coverage without the proposed site (Source: AT&T August 2018 Submission).

[Balance of page intentionally left blank]

The signal map in Figure 5 depicts AT&T's proposed signal levels within the area without any other signals from other AT&T sites.

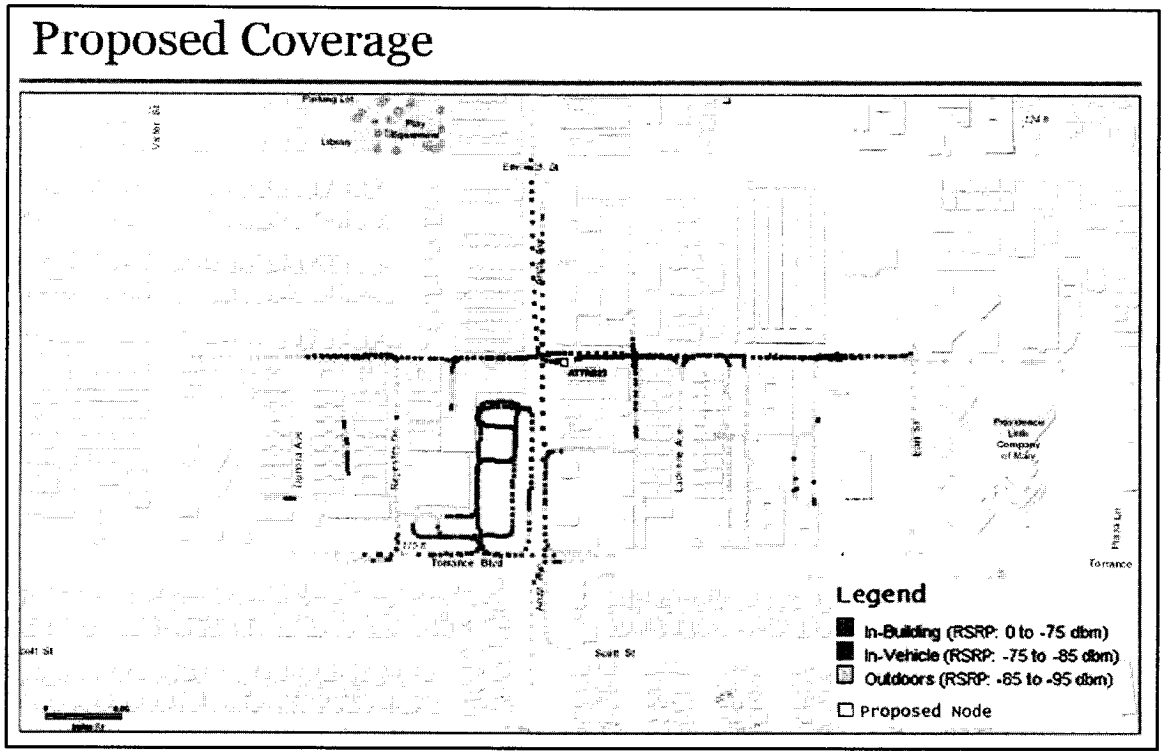


Figure 5: Proposed AT&T Coverage with the proposed site (Source: AT&T August 2018 Submission).

The map above is based on a 'drive test' of the specific streets and street segments, thus no conclusions should be drawn regarding signal coverage in any area of the City (or even nearby) not specifically shown above.

This information is helpful to the City in siting location considering the City's authority regarding time, place, and manner of wireless sites in the public right of way pursuant to the Public Utilities Code, Section 7901 and 7901.1.

3.2. Least Intrusive Means

The Telecom Act does not grant the applicant the right to build whatever site in whatever location it chooses. State and local jurisdictions may require wireless applicants to adopt the "least intrusive means" to achieve their technical objectives.[10] This balances the national interest in wireless services with the local interest in planned development.

[10] *See, e.g., American Tower Corp. v. City of San Diego*, 763 F.3d 1035, 1056 (9th Cir. 2014).

In the Ninth Circuit, the least intrusive means refers to the technically feasible and potentially available alternative design and location that most closely conforms to the local values a permit denial would otherwise serve.[11] A "technically feasible and potentially available alternative" means that the applicants can reasonably (1) meet their demonstrated service needs and (2) obtain a lease or other legal right to construct the proposed site at the proposed location.[12]

The process to determine whether a proposal constitutes the least intrusive means involves a "burden-shifting" framework. First, the applicant establishes a presumption that it proposes the least intrusive means when it submits an alternative sites analysis. Localities can rebut the presumption when it proposes other alternatives. Applicants may then rule-out proposed alternatives when it provides a "meaningful comparative analysis" for why an alternative is not technically feasible or potentially available.[13] This back-and-forth continues until either the jurisdiction fails to propose a technically feasible or potentially available alternative, or the applicant fails to rule-out a proposed alternative.[14]

Applicants cannot rule-out potential alternatives on the grounds that it believes its preferred site is subjectively "better" than the jurisdiction's preferred alternative.[15] Only the local government can decide which among several feasible and available alternatives constitutes the best option. Similarly, an applicant cannot rule-out a proposed alternative based on a bare conclusion that it is not technically feasible or potentially available—it must provide a meaningful comparative analysis that allows the jurisdiction to reach its own conclusions.[16]

3.3. Alternative Sites Analysis

Responding to Section 8.02 (Candidate Sites) in the City's STIR, AT&T provided an Alternative Sites Analysis. See Figure 6 and Figure 7.

[Balance of page intentionally left blank]

[11] *See id.*; *see also AT&T USA, Inc. v. City of Anacortes*, 572 F.3d 987, 995 (9th Cir. 2009).
[12] *See Anacortes*, 572 F.3d at 996–999.
[13] *See American Tower Corp.*, 763 F.3d at 1056.
[14] *Compare id.* (upholding a permit denial because the applicant failed to rule-out the technical feasibility or potential availability of proposed alternatives), *with Anacortes*, 572 F.3d at 999 (invalidating a permit denial because the city insisted on an unavailable location). These cases provide a guide for planners on how to evaluate alternative site analyses. Planners should also note that a strong administrative record is essential to this analysis.
[15] *See American Tower Corp.*, 763 F.3d at 1057 (finding that the applicant "did not adduce evidence allowing for a meaningful comparison of alternative designs or sites, and the [c]ity was not required to take [the applicant]'s word that these were the best options").
[16] *See id.*

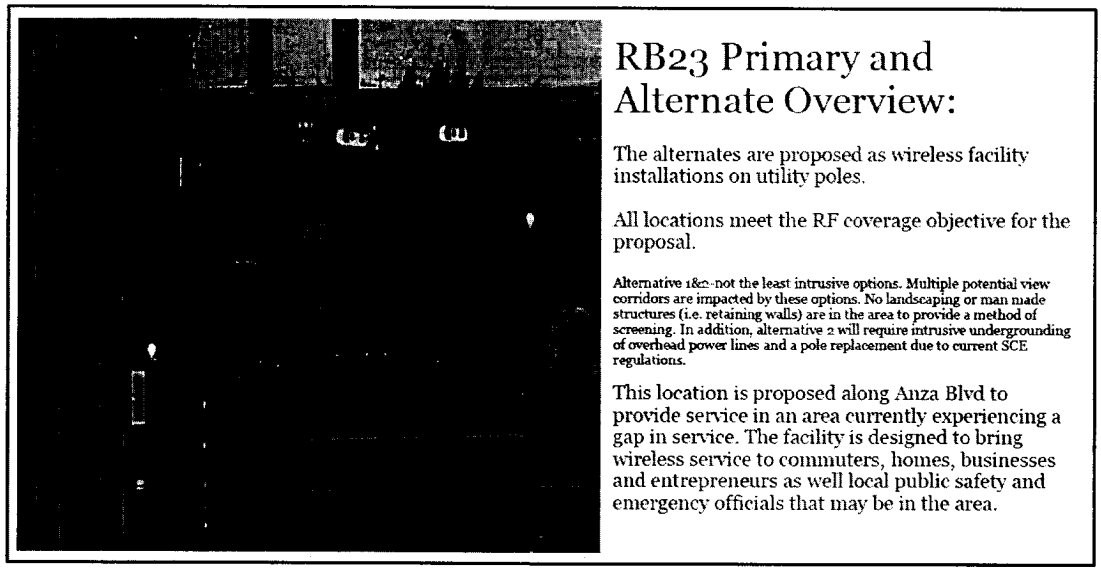


Figure 6: RB23 Primary and Alternate Overview (Source: Applicant's August 2018 Submission).

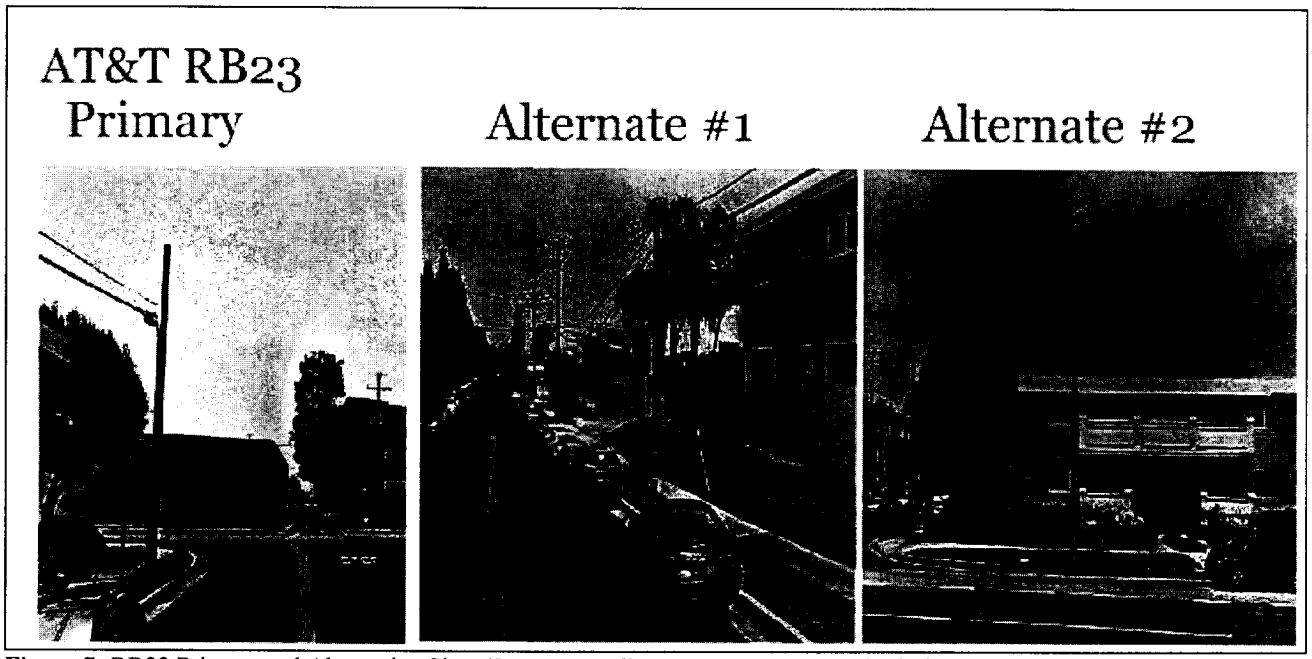


Figure 7: RB23 Primary and Alternative Sites (Source: Applicant's August 2018 Submission).

Whether the primary site is the least intrusive or if any or some of the alternate candidates depicted in Figure 5 are less intrusive is a question for the City to decide based on its aesthetic judgment of the primary site and alternatives. That said, as disclosed by the Applicant, any of the sites will meet its objectives.

4. Planned Compliance with RF Exposure Regulations

Under the Telecom Act, the FCC completely occupies the field with respect to RF emissions regulation. The FCC established comprehensive rules for human exposure to RF emissions (the "**FCC Guidelines**").[17] State and local governments cannot regulate wireless facilities based on environmental effects from RF emissions to the extent that the emissions comply with the FCC Guidelines.[18]

Although localities cannot establish their own standards for RF exposure, local officials may require wireless applicants to demonstrate compliance with the FCC Guidelines.[19] Such demonstrations usually involve a predictive calculation because the site has not yet been built.

4.1. FCC Guidelines, Categorical Exclusions and Exposure Mitigation Measures

FCC Guidelines regulate *exposure* rather than *emissions*.[20] Although the FCC establishes a maximum permissible exposure ("**MPE**") limit, it does not mandate any specific limitations on power levels applicable to all antennas and requires the antenna operator to adopt exposure-mitigation measures only to the extent that certain persons might become exposed to the emissions. Thus, a relatively low-powered site in proximity to the general population might require more comprehensive mitigation measures than a relatively high-powered site in a remote location accessible only to trained personnel.

The MPE limit also differentiates between "general population" and "occupational" people. Most people fall into the general population class, which includes anyone who either does not know about potential exposure or knows about the exposure but cannot exert control over the transmitters.[21] The narrower occupational class includes persons exposed through their employment and able to exert control over their exposure.[22] The MPE limit for the general population is five times lower than the MPE limit for the occupational class.

Lastly, the FCC "categorically excludes" certain antennas from routine environmental review when either (1) the antennas create exposures in areas virtually inaccessible to humans or (2) the antennas operate at extreme low power. As a general rule, a wireless site qualified for a

---

[17] *See* 47 U.S.C. § 332(c)(7)(B)(iv); *see also* 47 C.F.R. § 1.1307 *et seq.*; FCC Office of Engineering and Technology, *Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*, OET Bulletin 65, ed. 97-01 (1997).

[18] *See* 47 U.S.C. § 332(c)(7)(B)(iv).

[19] *See* In re Procedures for Reviewing Requests for Relief from State and Local Regulations Pursuant to Section 332(c)(7)(B)(iv) of the Communications Act of 1934, *Report and Order*, 15 FCC Rcd. 22821, 22828–22829 (Nov. 13, 2000) (declining to adopt rules that limit local authority to require compliance demonstrations).

[20] *See generally* Human Exposure to Radio Frequency Fields: Guidelines for Cellular and PCS Sites, *Consumer Guide*, FCC (Oct. 22, 2014), *available at* https://www.fcc.gov/guides/human-exposure-rf-fields-guidelines-cellular-and-pcs-sites (discussing in general terms how wireless sites transmit and how the FCC regulates the emissions).

[21] *See* 47 C.F.R. § 1.1310, Note 2.

[22] *See id.*

categorical exclusion when mounted on a structure built solely or primarily to support FCC-licensed or authorized equipment (*i.e.*, a tower) and such that the lowest point on the lowest transmitter is more than 10 meters (32.8 feet) above ground.[23]

Categorical exclusions establish a presumption that the emissions from the antennas will not significantly impact humans or the human environment. Such antennas are exempt from routine compliance evaluations but not exempt from actual compliance. Under some circumstances, such as a heavily collocated tower or when in close proximity to general population members, even a categorically excluded site will require additional analysis.

4.2. Planned Compliance Evaluation and Recommendations

The FCC Guidelines do **not** categorically exclude the Applicant's facility from routine compliance review. This is because the Pole was originally constructed for transporting electricity and wired communications circuits and not primarily to support wireless equipment. Therefore, an additional analysis for whether the facility will comply with the FCC Guidelines is appropriate.

In an attempt to demonstrate planned compliance with the FCC Guidelines, the Applicant on behalf of AT&T submitted a generic Radio Frequency Electromagnetic Fields Exposure Report prepared by Dtech Communications. That report is dated August 2, 2017 (the "**Dtech Report**"). The Dtech Report notes the site name as "Pole Top Configuration." Additionally, the application materials contained a letter from Crown Castle, signed by Mr. Aaron Snyder and dated August 6, 2018 ("**Crown August 2018 Letter**"). The Crown August 2018 Letter contained a reference for the generic Dtech Report. See Figure 8 below.

> The DTECH report submitted for each of the applications is the correct EME report for purposes of this particular type of design and respective location.

Figure 8: Explanation for Generic Dtech Report (Source: Crown Castle August 2018 Letter).

Initially, we do not believe a generic non-specific report regarding a primary public safety matter should be accepted by the City. In this situation, we believe a site-specific RF emissions analysis is both necessary and required to allow the City to comply with its duty to review for FCC rules compliance with the emissions from the particular site proposed.

[23] *See id.* § 1.1307(b)(1).

Additionally, the generic RF Report does not even provide the same type of design or configuration as the instant project. See Figure 9.

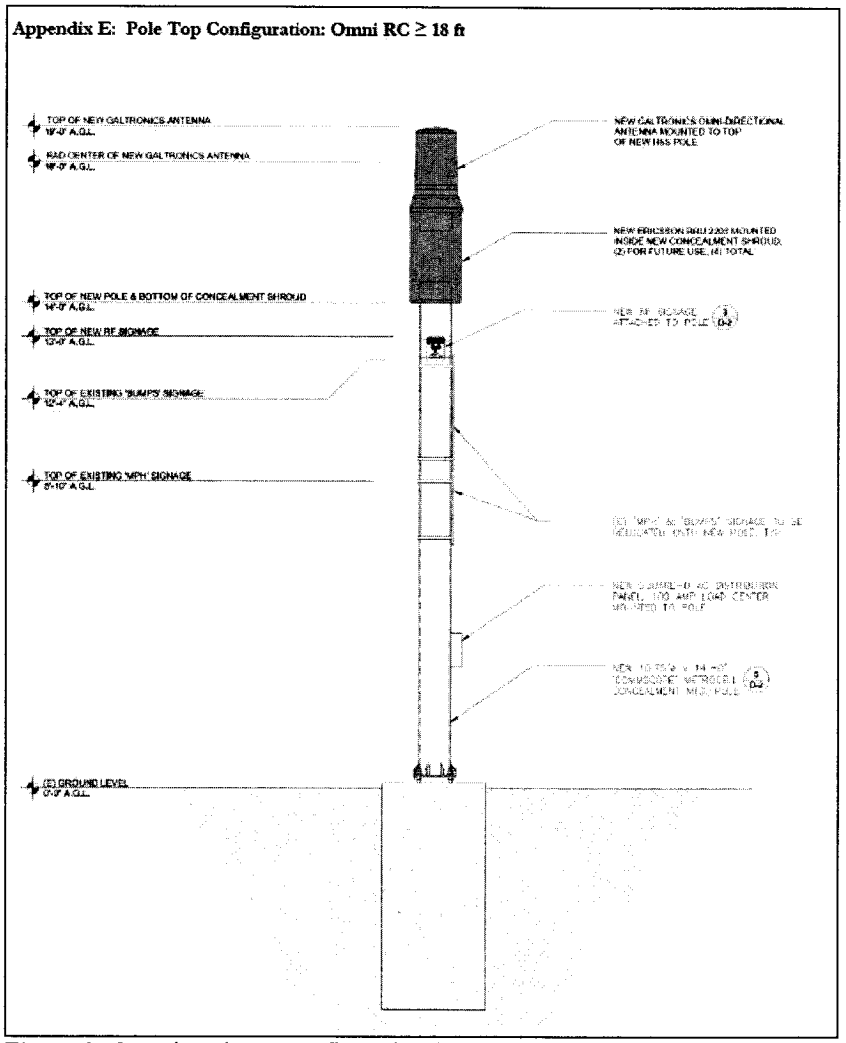


Figure 9: Generic pole-top configuration (Source: Dtech Report).

Further, it is not for Crown Castle to assert that the DTECH is correct; that duty belongs to the RF engineer who is responsible for certifying compliance with the FCC rules for a particular site and configuration. For the City to do as Crown Castle asks would be asking the owner of a car tender a generic smog certificate for a hypothetical car to the DMV claiming that the generic smog certificate is and should be applicable to that owner's particular vehicle. This is simply silly.

TLF recommends that the City condition the building permit that no construction shall commence until a site specific RF Report is submitted to the City by Crown Castle for the instant

project, and once provided, the site specific RF Report shall be reviewed by the City determine actual compliance with the FCC rules and regulations.

Finally, we note that while the Plans (Page D-2, panel 1) indicate a power disconnect box (which is required by CPUC GO95 Rule 94), that disconnect box is not shown elsewhere in the Plans. It should be a condition of approval that the power disconnect below be placed directly below and immediately adjacent to the RRU shroud, and the by condition no locking device be used with switch.

5. Permission to Access the Pole

Relating to property ownership, here the Pole, based on information presented to the City and to this firm on March 6, 2018 during a phone call with the Applicant, the Applicant indicated its desire to proceed forward with the project without having first submitted a Joint Pole Association ("**JPA**") clearance letter, or a letter from the applicant indicating that the JPAs 45-day waiver has elapsed. We support this approach subject to a condition that has been verbally accepted by Crown Castle that no actual construction permit will issue until either the JPA approval the Applicant's or 45-day waiver letter has been received by the City.

6. Conclusion

We recommend that the City determine whether the proposed location is the least intrusive compared to the alternatives.

We further recommend the City adopt the conditions contained in this memorandum in any grant of approval for the project.

/JLK

TELECOM
LAW FIRM PC

APPLICATION INCOMPLETE MEMORANDUM

TO: Mr. Oscar Martinez
FROM: Dr. Jonathan Kramer
DATE: September 20, 2017
RE: Application Completeness Review – New Proposed Wireless Facility in the Public Right-of-Way at F/O 21010 Anza Avenue

APPLICANT: Crown Castle NG West, LLC
APPLICANT'S ID: ATTRB-23; USID: 177948
UTILITY POLE ID: A8562Y

The City of Torrance (the "**City**") requested that Telecom Law Firm, PC ("**TLF**") review the Crown Castle NG West, LLC ("**Crown Castle**") application on behalf of AT&T to operate a new wireless site on an existing wood utility pole ("**Pole**") in the public right-of-way ("**ROW**") located at F/O 21010 Anza Avenue. The date Crown Castle submitted this project to the City was August 28, 2017.

On top of the Pole, Crown Castle proposes to install a new pole-top mount to hold one omni-directional antenna. The omni-antenna is proposed to be situated on top of the Pole by a pole-top mount that will separate the antenna 5' 4" above the highest proposed communications cable, which meets the requirements of the California Public Utilities Commission, General Order 95, Rule 94.

Crown Castle also proposes to mount on the Pole a total of four remote radio units ("**RRUs**") within two enclosures, and four DC power converters on the new pole-to-pole strand. The new strand will also support the fiber optic cable used for communications backhaul from this site to AT&T's cell switching center. The height of the wood pole supporting this project is to remain at 29' 9" above ground level ("**AGL**"); however, the total height of the vertical elevation will increase to 32' 3" AGL due to the proposed installation of the omni-antenna.

This memorandum reviews the application and related materials to determine whether the applicant submitted a complete and responsive application. The following review may also discuss regulatory and technical issues related to wireless infrastructure. Although many technical issues implicate legal issues, the analysis and recommendations contained in this memorandum do not constitute legal advice.

A. APPLICATION COMPLETENESS REVIEW

Based on the City's Submittal Requirements for Wireless Telecommunications Facility ("**Requirements Form**"), we recommend that the City deem Crown Castle's application submittal **incomplete** and issue an incomplete notice on or before September 27, 2017 regarding the items more fully discussed on the next pages:

REQUIREMENTS FORM

I. APPLICATION FORM

The City requires a Development Application and a Supplemental Technical Information Report ("**STIR**").

General note: The submitted application materials fail to provide the required Section references making the application difficult to reliably cross-reference various points. Each application material needs to identify the sections within the Requirements Form and STIR.

- **Development Application:**

  All necessary information required on the Development Application checklist appears to be properly filled out.

- **Supplemental Technical Information Report:**

  - Sec. 3.02 - Missing Attachment FCC License for AT&T
  - Sec. 3.03 is left blank - Applicant must provide the required information.
  - Sec. 3.04 is left blank - Applicant must provide the required information.
  - Sec. 3.05 is left blank - Applicant must provide the required information.
  - Sec. 3.06 is left blank - Applicant must provide the required information.
  - Sec. 3.07 is left blank - Applicant must provide the required information.
  - Sec. 3.08 is left blank - Applicant must provide the required information.
  - Sec. 3.09 - Missing Attachment LSGAC Appendix A form, however the Applicant provided a Radio Frequency Electromagnetic Fields Exposure Report prepared by Dtech Communications (the "**Dtech report**") which is a suitable substitute for the LSGAC Appendix A form.
  - Sec. 3.10 is left blank - Applicant must provide the required information.
  - Sec. 3.11 is not provided, however the Applicant provided a Dtech report.
  - Sec. 3.12 is left blank-Applicant must provide the required information.
  - Sec. 3.13 is left blank - Applicant must provide the required information if applicable.
  - Sec. 3.14 is left blank - Applicant must provide the required information.
  - Sec. 3.15 is left blank - Applicant must provide the required information.
  - Sec. 4.02 is left blank - Applicant must provide the required information.
  - Sec. 5.01–5.03 is left blank-AT&T through Applicant must provide the required information.
  - Sec. 6.03 - Applicant has not provided a node-isolated coverage map.
  - Section 6.05 is not provided, however the Applicant provided a Dtech report.

- Section 7.01–subsection 2: Missing elements on the photo simulations (e.g., connecting wires, PVC conduits, etc.) See Figure 1.

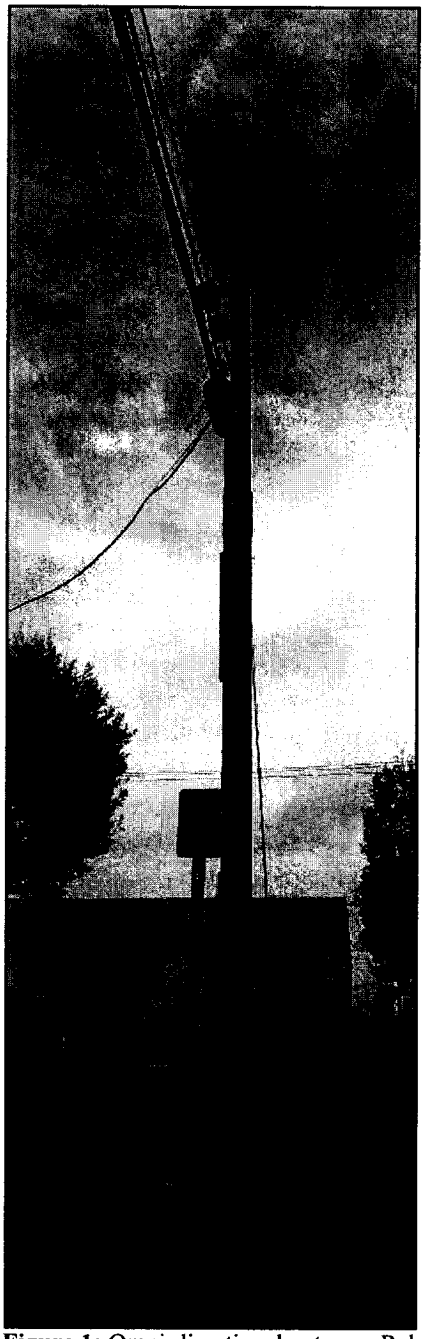


Figure 1: Omni-directional antenna, Pole-top Mount, Fiber Node, 4 DC power converters, 4 RRUs enclosed within two enclosures, RF signage. (Missing visual elements, e.g., connecting wires, PVC conduits, etc.) (Source: Photo Simulations provided by Applicant).

- Section 7.01–subsection 3: Missing views of the overall project. STIR requires 5 or more views, only 2 are provided.
- Section 8.00–8.05: Insufficient Information- Applicant needs to submit an Alternative Sites Analysis.
- Section 9 - Non-responsive information - Applicant needs to submit the detailed information specified in Section 9.01.

II. PROPERTY OWNERSHIP

The applicant must provide written proof that the Joint Pole Authority has granted attachment permission for this project.

III. PROJECT PLANS

- No power source for the powered fiber indicated. The power source is a critical element of this project, which will not operate without it. Provide detailed information about the location and design of the powered fiber source. Also provide information regarding the power disconnect switch for this location.

- The Plans incorrectly show the elevations of existing communications lines and/or existing down guys. In addition, the existing conduit along the Pole is not depicted on the Plans. See Figure 2.

[Balance of Page intentionally left blank]

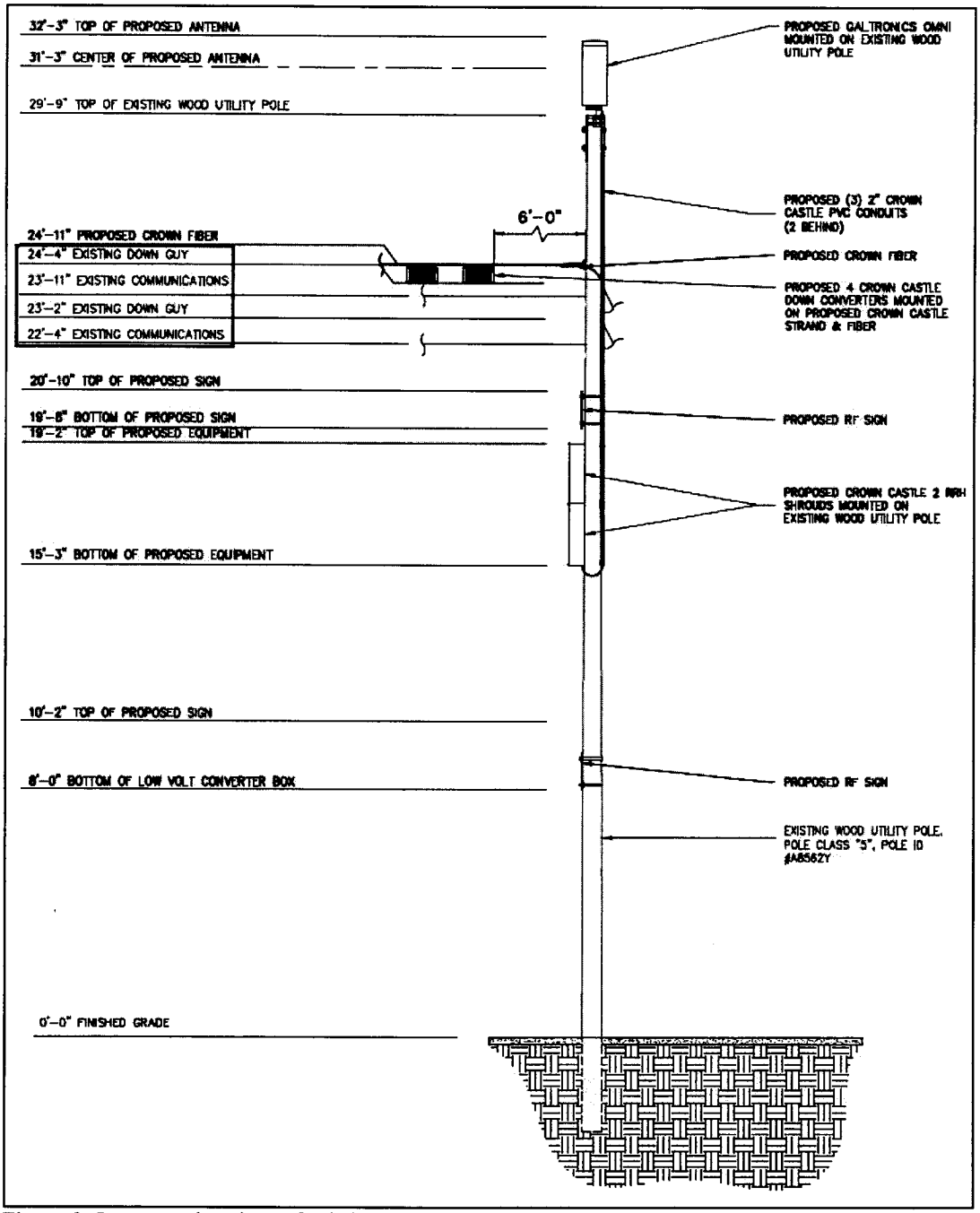


Figure 2: Incorrect elevations of existing communications and/or down guy lines (Source: Plans A-3 Panel 1, annotated by Dr. J. Kramer).

[Balance of page intentionally left blank]

- The depicted work area is underrepresented, depict the whole work area including the area needed to extend the strand and powered fiber. See Figure 3.

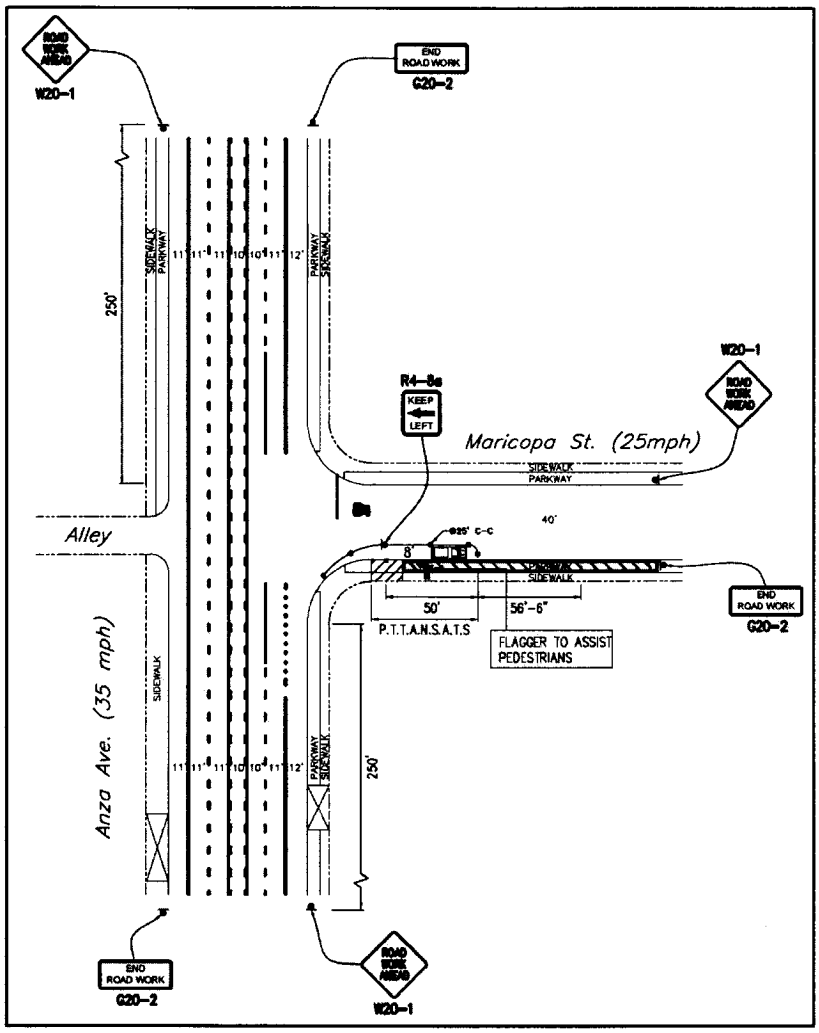


Figure 3: Proposed Work Area; additional Work Area for new strand and power fiber (hatched in red) (Source: Plans TC-1, annotated by Dr. J. Kramer).

IV. JUSTIFICATION

The purported justification for this site, while not completely clear, can be discerned from the coverage maps section of the application.

V. MAPS

As mentioned above, some of the maps are missing/incomplete.

VI. VISUAL SIMULATIONS

The photo simulations provided by the applicant are incomplete, fail to show visible cable and conduit interconnections, and do not accurately reflect the size and scope of the project elements to be constructed.

B. ADDITIONAL INCOMPLETE, INCONSISTENT ITEMS

We note that Table 2 of the Dtech Report lists the number and frequencies of RRUs that differs from details provided in the Plans. See Figure 4 and Figure 5.

Table 2: Site Technical Specifications

Antenna ID	Operator	Carrier #	Antenna Mfg	Antenna Model	Type	DAS Equipment	Frequency (MHz)	Orientation (°T)	Horizontal BWidth (°)	Antenna Aperture (ft)	Antenna Gain (dBd)	Total ERP (Watts)	Bottom Tip Height Above Ground (Z) (ft)	Bottom Tip Height Ant Level (Z) (ft)
A1	Crown Castle	1	Galtronics	P6480i	Omni	(2) RRUZ203	1900	0	360	2.1	6.9	69.2	17.0	0.0
A1	Crown Castle	1	Galtronics	P6480i	Omni	(1) RRUZ203	5000	0	360	2.1	3.9	2.5	17.0	0.0

Figure 4: A total of three RRUs shown. Two RRUs in 1900 MHZ (PCS) and one RRU in 5000 MHz (Source: the Dtech Report, Table 2)

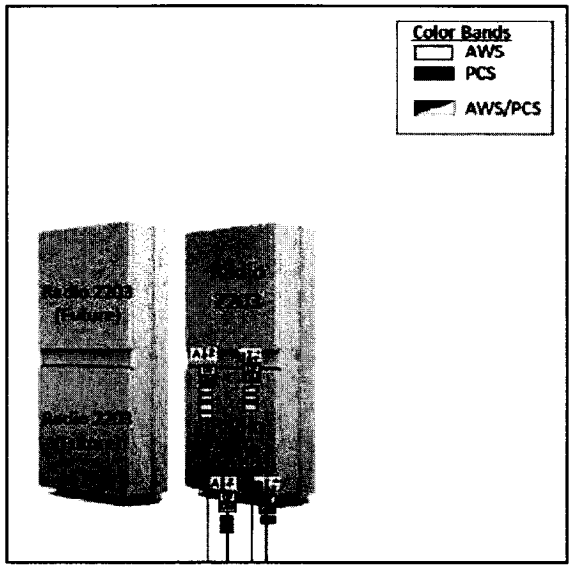


Figure 5: Two RRUS in AWS (2100 MHz) and PCS (1900 MHz) frequencies (Source: Plans page D-3; Panel 1)

We suspect that Dtech was presented with radio frequency information by Crown Castle early in its development process that subsequently changed in the Plans submitted to the City. We recommend that the City direct Crown Castle to (a) delete the "Future" elements from the project, including without limitation to the "Future RRUs" and (b) have Dtech prepare an updated report that only assesses what is actually proposed to be activated.

C. OTHER PERMITS AND APPLICATIONS REQUIRED

This project is likely to require an encroachment permit as a separate set of approvals including potentially an excavation permit, fiber installation permit, building permit, and electrical permit.

D. CLOSING COMMENTS AND RECOMMENDATION

TLF believes that Crown Castle has failed to submit a complete permit application that complies with the City's Requirements Form. The list of incomplete items in this memo contains TLF's observations. The City may have other items for the incomplete notice. Under the FCC rules, there is only one incomplete notice, so it is imperative that all items which are incomplete are listed in the first notice.

We recommend that the City deem Crown Castle's application incomplete and issue a timely incomplete notice to Crown Castle no later than September 27, 2017 (based on the application materials tender date of August 28, 2017). TLF recommends the City send the incomplete notice by email and on the same day also sends it by First Class or Certified U.S. Mail postage prepaid.

Once a reply to the City's incomplete notice is received back from Crown Castle, the City has only 10 calendar days to determine whether the reply is responsive to the incomplete notice, and each of the 10 days counts against the overall 150 day shot clock, thus immediate review upon resubmission should occur.

Finally, Crown Castle's letter dated August 29, 2017 asserts that this project is subject to a 90-day shot clock. Crown Castle is incorrect. It relies on documents adopted after the FCC's October 21, 2014 Order. Newer documents are not applicable to the shot clock. The correct shot clock for this project is 150 days.

/JLK

City of Torrance, Community Development Department Jeffery W. Gibson, Director
3031 Torrance Blvd., Torrance, CA 90503, Phone (310) 618-5990 Fax (310) 618-5829

SUPPLEMENTAL TECHNICAL INFORMATION REPORT FOR WIRELESS TELECOMMUNICATION FACILITIES

1.00: Project Address ROW F/O 21010 Anza Ave

Assessor Parcel Number N/A Public ROW

2.00: Disclose the Name and Address of all Project Owners, and attach a letter of agency appointing the Applicant as representative of the Project Owners in connection with this application. Designate the letter of agency as "Attachment 2.00".

3.00: **FCC Licensee/FAA Compliance Information**

3.01: Identify each person or legal entity that will be using the wireless site and contact information (Attach additional sheets if necessary)

Name: Crown Castle NG West LLC-Aaron Snyder

Address: 200 Spectrum Center Drive, Suite 1800

City, State, Zip: Irvine, CA 92618

Phone: (949) 344-7834 Fax: _____

Email: Aaron.Snyder@crowncastle.com

3.02: Attach a complete copy of each FCC license or FCC Construction Permit for each person/legal entity that will be subject to the FCC license for the Project site. Designate the license(s)/Construction Permit(s) as "Attachment 3.02". If none of the proposed radio facilities require an FCC license so indicate on Attachment 3.02.

3.03: What is the intended use of the facility (check all that apply):

- ☐ Broadcast Radio
- ☐ Broadcast TV
- ☑ Cellular telephone
- ☐ Enhanced Specialized Mobile Radio
- ☐ Microwave
- ☑ PCS telephone
- ☐ Paging
- ☐ Specialized Mobile Radio
- ☑ Other: 5 GHz Spectrum

3.04: Project latitude and longitude: N 33 50 22.1028 W 118 21 43.5528

ATTACHMENT 3

SUPPLEMENTAL TECHNICAL INFORMATION REPORT FOR WIRELESS TELECOMMUNICATION FACILITIES

3.05: Specify DATUM use above: ____ WGS84 ____NAD23 x NAD83

3.06: Project Maximum height (ft): 32'3"

3.07: Bottom of lowest antenna (ft): 30'3"

3.08: Rad-center of the antennas (ft): 31'3"

3.09: For each licensee, and for each radio service, complete and attach the two page "Appendix A" form from "A Local Government Official's Guide to Transmitting Antenna RF Emission Safety: Rules, Procedures, and Practical Guidance" available from the following website: http://www.FCC.gov/oet/rfsafety. Designate the completed two page form as "Attachment 3.09". Additional RF safety disclosure information may be required by the government to determine compliance with FCC OET 65 requirements if the site is not "categorically excluded" under OET 65.

3.10 Are any areas adjacent to the antennas subject to RF emissions that are in excess of the "General Public/uncontrolled" standard in FCC OET 65? For this purpose, assume that all persons other than the Carrier's technical staff are considered to be members of the General Public.
____ Yes x No
(If the answer to 3.10 is NO proceed to 3.12)

3.11 Provide a detailed RF analysis for each emitter and each band showing the distance, in feet, in all directions to the boundary of the General Public/uncontrolled boundary. Designate this attachment, "Attachment 3.11".

3.12 Considering your response to 3.10, above, and any other identifiable RF emitters that OET 65 requires be evaluated in connection with this project, are all portions of this project cumulatively "categorically excluded" under FCC OET 65 requirements?
x Yes ____ No
(If the answer to 3.12 is YES proceed to 3.14.)

3.13 Describe in an attachment each and every RF emitter of the project that is not "categorically excluded" under the FCC OET 65 requirements. Designate this attachment, "Attachment 3.13".

3.14: Does this project require the Applicant to file an FAA Form 7460 or other documentation under Federal Aviation Regulation Part 77.13 et seq, or under the FCC rules?
___ Yes x No
(If the answer to 3.14 is NO proceed to 4.00.)

3.15 Attach complete copies of all required FAA/FCC forms including all attachments and exhibits thereto, including without limitation FAA Form 7460. Designate this attachment, "Attachment 3.15".

4.00: **Project Purpose**

4.01: Justification. Provide a brief narrative, accompanied by written documentation where appropriate, which explains the purpose of the facility and validates the applicant's efforts to comply with the design, location, and co-location standards of Chapter 2, Division 9, Article 39 of the City's Municipal Code.

Crown Castle NG West LLC, Utility No. U-6745-C, obtained a Certificate of Public Convenience and Necessity (CPCN) from the California Public Utilities Commission in Decision No. 07-04-045 to provide full facilities based radiofrequency transport services. CPCN Conclusion of Law No. 4 states: "Public convenience and necessity require NextG's full facilities-based local exchange services to be offered to the public subject to the terms and conditions set forth herein." This justification is sufficient under the California state law and under Crown's authorized provision of radiofrequency transport services. No further site justification is required.

4.02: Indicate whether the dominant purpose of the Project is to add additional network capacity, to increase existing signal level, or to provide new radio frequency coverage (check only one).
☐ Add network capacity without adding substantial new RF coverage area (Proceed to 5.00)
☑ Increase the existing RF signal level in an existing coverage area (Proceed to 5.00)
☐ Provide new radio frequency coverage in a substantial area not already served by existing radio frequency coverage (Proceed to 5.00)
☐ Other

4.03 Attach a statement fully and expansively describing the "Other" dominant purpose of this project. Designate this attachment, "Attachment 4.03".

5.00: **Build-Out Requirements**

5.01: Do any of radio services identified in 3.04 above require the licensee to provide specific radio frequency/population coverage pursuant to the underlying FCC license?
x Yes ___ No
(If the answer to 5.01 is NO proceed to 6.00.)

5.02: Have all of the FCC build-out requirements as required by all licenses covering all radio services proposed at this Project been met?
x Yes ___ No
(If the answer to 5.02 is YES proceed to 6.00.)

5.03: State by licensee all remaining build-out requirements which have yet to be met, and the known or estimated date when the remaining build-out requirements will be met. Designate this attachment "Attachment 5.03".

6.00: **Radio Frequency Coverage Maps**

6.01: Where a licensee intends to provide radio frequency geographic coverage to a defined area from the Project (including applicants in the cellular, PCS, broadcast, ESMR/SMR categories, and others as requested by the City of Torrance), the coverage maps and information requested in Section 6 are required attachments. All others proceed to 7.00.

For the coverage maps required here, the following mandatory requirements apply. Failure to adhere to these requirements may delay your application processing.

1. The size of each submitted map must be no smaller than 11" by 8.5".

2. If the FCC rules for any proposed radio service defines a minimum radio frequency signal level that level must be shown on the map in a color easily distinguishable from the base paper or transparency layer, and adequately identified by RF level and map color or gradient in the map legend. If no minimum signal level is defined by the FCC rules you must indicate that in the legend of each RF coverage map. You may show other RF signal level(s) on the map so long as they are adequately identified by objective RF level and map color or gradient in the map legend.

3. Where the City of Torrance determines that one or more submitted maps are inadequate, it reserved the right to request that one or more supplemental maps with greater or different detail be submitted.

6.02: Existing RF coverage within the City of Torrance on the same network, if any (if none, so state). This map should <u>not</u> depict any RF coverage to be provided by the Project. Designate this attachment "Attachment 6.02".

6.03: RF coverage to be provided by the Project. This map should <u>not</u> depict any RF coverage provided any other existing or proposed wireless sites. Designate this attachment "Attachment 6.03".

6.04: RF coverage to be provided by the Project and by other wireless sites on the same network should the Project site be activated. Designate this attachment "Attachment 6.04".

6.05: Provide a written certification that the facility will continuously comply with FCC OET Bulletin 65 radio frequency emissions standards, and that use of the facility will not interfere with other communication, radio, or television transmission or reception.

7.00: **Project Photographs and Photo Simulations**

7.01: Where an Applicant proposes to construct or modify a wireless site, and the wireless site is visible from other residential properties, the Applicant shall submit pre-project photographs, and photo simulations showing the project after completion of construction, all consistent with the following standards:

1. Minimum size of each photo simulation must be 11 inches by 8.5 inches (portrait or landscape orientation);

2. All elements of the project as proposed by the Applicant must be shown in one or more close-in photo simulations.

3. The overall project as proposed by the Applicant must be shown in five or more area photos and photo simulations. Photos and photo simulation views must, at a minimum, be taken from widely scattered positions separated by an angle of no greater than 72 degrees from any other photo location.

The number of site photos, and photo simulations, and the actual or simulated camera location of these photos and photo simulations is subject to City of Torrance determination. The Applicant should submit photos and photo simulations consistent with these instructions, and be prepared to provide additional photos and photo simulations should they be requested by the City of Torrance.

8.00: **Candidate Sites**

8.01: For applicants in the cellular, PCS, broadcast, ESMR/SMR categories, and others as requested by the City of Torrance, the information requested in Section 8 is required. All others proceed to 9.00.

8.02: Has the Applicant or Owner or anyone working on behalf of the Applicant or Owner secured or attempted to secure any leases or lease-options or similar formal or informal agreements in connection with this project for any sites other than the candidate site identified at 1.00?
___ Yes X No
(If the answer to 8.02 is NO, proceed to 8.05.)

8.03: Provide the physical address of each such other location, and provide an expansive technical explanation as to why each such other site was disfavored over the Project Site. Designate this attachment "Attachment 8.03".

8.04: Considering this proposed site, is it the one and only one location within or without the City of Torrance that can possibly meet the objectives of the project?
___ Yes ___ No
(If the answer to 8.04 is NO, proceed to 9.00.)

SUPPLEMENTAL TECHNICAL INFORMATION REPORT FOR WIRELESS TELECOMMUNICATION FACILITIES

8.05: Provide a technically expansive and detailed explanation supported as required by comprehensive radio frequency data fully describing why the proposed site is the one and only one location within or without the City of Torrance that can possibly meet the radio frequency objectives of the project. Explain, in exact and expansive technical detail, all of the objectives of this project. Designate this attachment "Attachment 8.05".

9.00: **Identification of Key Persons**

9.01: Identify by name, title, company affiliation, work address, telephone number and extension, and email address the key person or persons most knowledgeable regarding:

(1) the site selection for the proposed project, including alternatives;
(2) the radio frequency engineering of the proposed project;
(3) rejection of other candidate sites evaluated, if any;
(4) approval of the selection of the proposed site identified in this project.
Designate this attachment "Attachment 9.01"

9.02 If more than one person is/was involved in any of the four functions identified in this section, attach a separate sheet providing the same information for each additional person, and identifying which function or functions are/were performed by each additional person. Designate this attachment "Attachment 9.02".

Initial here _____ to indicate that the information above is complete and there is no Attachment 9.02, or initial here _____ to indicate that Attachment 9.02 is attached hereto.

10.00: **Technical Information Report Certification**

10.01: The undersigned certifies on behalf of itself and the Applicant that the answers provided here are true and complete to the best of the undersigned's knowledge.

[redacted] GRPM

Signature Title

Aaron Snyder Aaron.Snyder@crowncastle.com

Print Name Provide Email Address

Crown Castle NG West LLC 949-344-7834

Print Company Name Provide Telephone Number

8/6/18

Date Signed

Crown Castle
200 Spectrum Center Drive
Suite 1800
Irvine, CA 92618

August 6, 2018

RE: Resubmittal of Crown Castle Applications for Wireless Facilities in the Public Rights Of Way (PROW)

This notice is to address a comment in the city incomplete letter issued by Dr Jonathan Kramer from Telecom Law.

The DTECH report submitted for each of the applications is the correct EME report for purposes of this particular type of design and respective location.

The BUSHBERG note on the application was a clerical error corresponding to another application for another city.

Also, the locations are designed using down converter units which is a method of transferring power over existing communication/power space per applicable utility code. The particular radio equipment is manufactured to be powered via this type of design. Further, this method of powering the wireless facility enables a more streamline design without added equipment components on the pole.

Any questions pertaining to the above, please call or email me at Aaron.Snyder@crowncastle.com or [redacted]

Very truly yours,

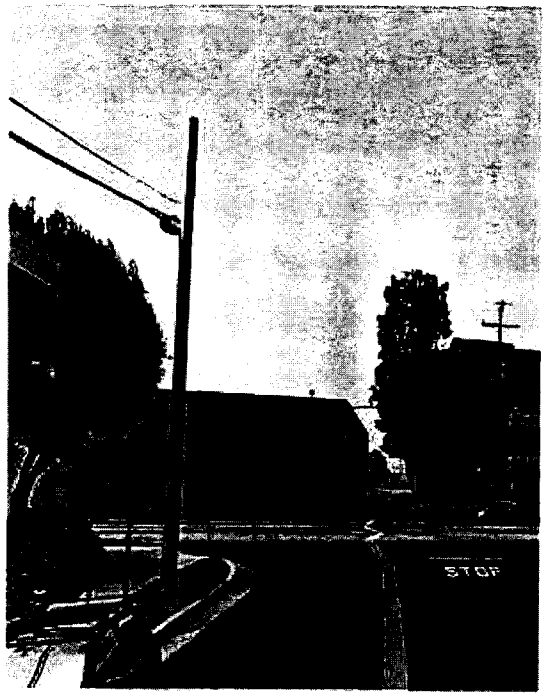
CROWN CASTLE NG WEST LLC

[redacted]

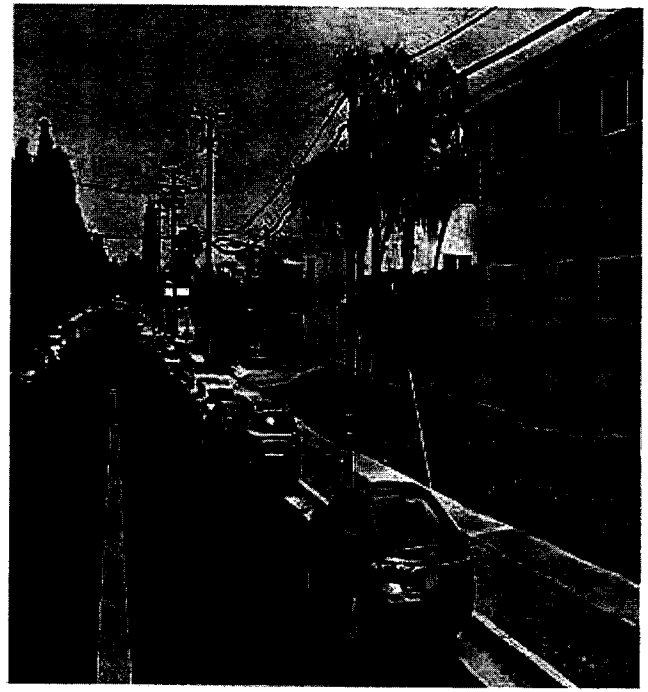
Aaron Snyder
Government Relations Project Manager

AT&T RB23

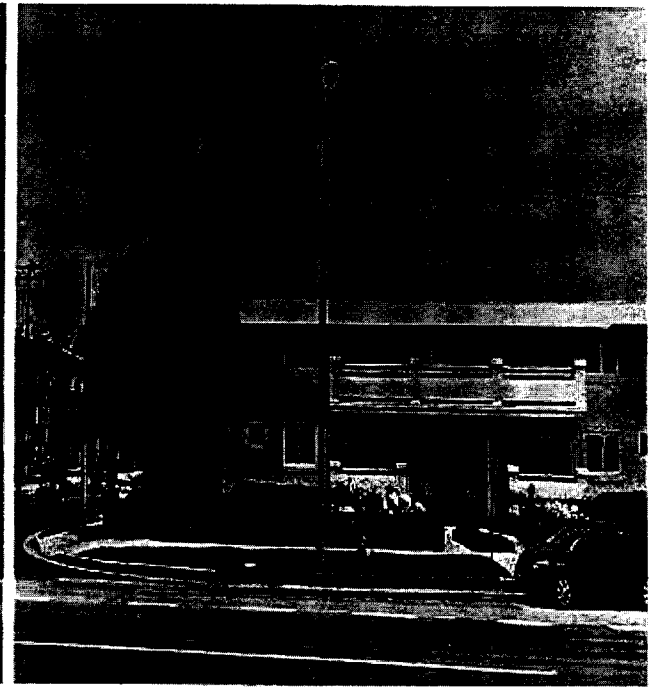
Primary



Alternate #1

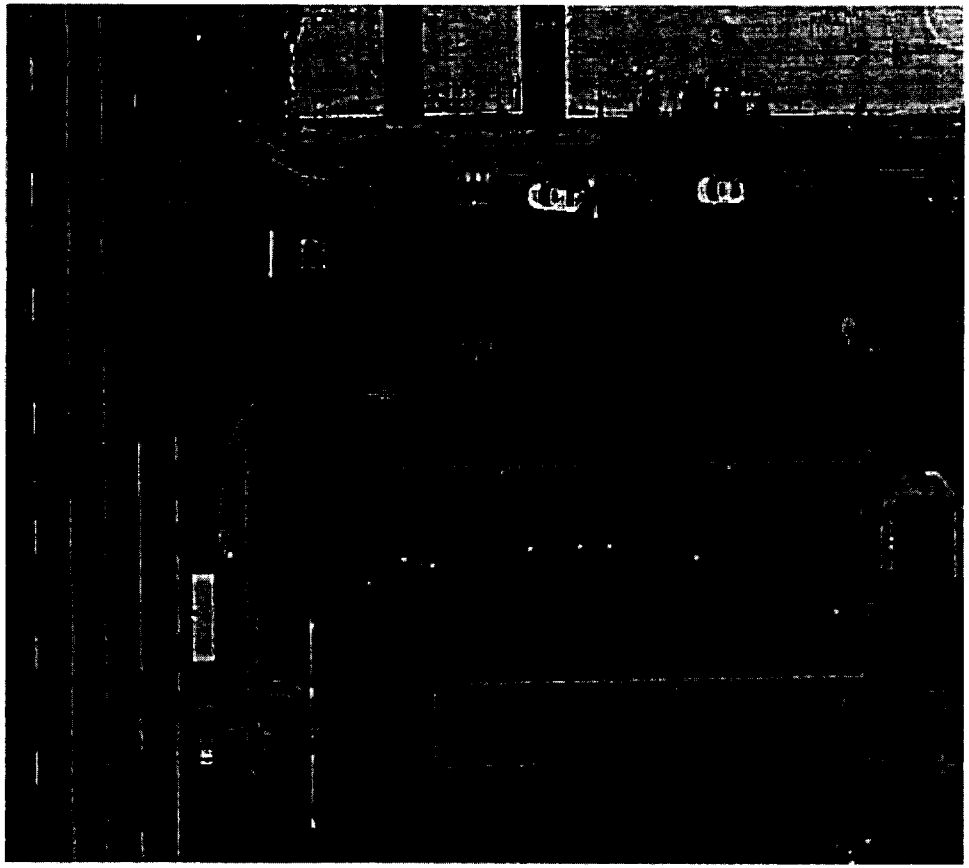


Alternate #2



CROWN CASTLE

ATTACHMENT 4



RB23 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on utility poles.

All locations meet the RF coverage objective for the proposal.

Alternative 1&2-not the least intrusive options. Multiple potential view corridors are impacted by these options. No landscaping or man made structures (i.e. retaining walls) are in the area to provide a method of screening. In addition, alternative 2 will require intrusive undergrounding of overhead power lines and a pole replacement due to current SCE regulations.

This location is proposed along Anza Blvd to provide service in an area currently experiencing a gap in service. The facility is designed to bring wireless service to commuters, homes, businesses and entrepreneurs as well local public safety and emergency officials that may be in the area.

Code Requirements and Conditions, if approved:

The following Code Requirements are applicable to the project, if approved:

- A Construction and Excavation Permit (C&E Permit) is required from the Community Development Department, Engineering Permits and Records Division, for any work in the public right-of-way.
- The traffic control plan(s) shall comply with the MUTCD manual.
- Must comply with TMC Section 92.39.070 regarding submission of RF compliance report.
- Must comply with TMC Section 92.39.090 regarding discontinued use or abandonment of facility.

Recommended Conditions, if Approved:

1. That the use of the subject site for a telecom facility shall be subject to all conditions imposed in WTC17-00005 and any amendments thereto or modifications thereof as may be approved from time to time pursuant to Section 92.39.070 et seq. of the Torrance Municipal Code on file in the office of the Community Development Director of the City of Torrance; and further, that the said use shall be established or constructed and shall be maintained in conformance with such maps, plans, specifications, drawings, applications or other documents presented by the applicant to the Community Development Department and upon which the Telecommunications Committee relied in granting approval;

2. That if this Approval is not implemented within one year after the approval, it shall expire and become null and void unless extended by the Community Development Director for an additional period, as provided for in Section 92.27.1 of the Torrance Municipal Code; (Planning)

3. That no above ground mounted pedestals be permitted and that all power be fed from the existing SCE wires already attached to the utility pole for which the proposed equipment is to be mounted; (Planning/Engineering)

4. That all requirements provided under Ordinance No. 3058, Section 92.2.8, Satellite Antennas, of the Torrance Municipal Code, Division 9, shall be met prior to the issuance of building permits and/or encroachment permits; (Planning)

5. The permittee shall paint, color or finish all the pole-mounted equipment to match the color of the underlying utility pole, to the satisfaction of the Community Development Director; (Planning)

6. The permittee shall conceal all cables, wires, jumpers and connectors within the antenna or equipment shrouds. In addition, the permittee acknowledges and agrees that a material consideration of the City's approval of this permit is that the pole-top antenna and shroud are approximately the same width as the pole, which creates a streamlined design and concealment element that effectively blends the antenna with the underlying pole; (Planning)

7. The permittee shall install and at all times maintain in good condition an "RF Notice" sign and network operations center sign adjacent to the bottom of the shroud. The signs required in this condition must be placed in a location where they are clearly visible to a person when he or she approaches the shroud; (Planning)

8. The permittee shall ensure that all RF signage complies with FCC OET Bulletin 65 or ANSI C95.2 for color, symbol and content conventions. All such signage shall provide a working local or toll-free telephone number to its network operations center that reaches a live person who can exert transmitter power-down control over this site as required by the FCC; (Planning)

9. That the antenna and all related equipment cabinets shall be removed if the telecommunications site remains inactive for more than 180 days; (Planning)

10. That the proposed equipment shall receive electrical power from the SCE wires already attached to the utility pole on which the proposed equipment is to be mounted; (Engineering)

11. That a minimum 10' vertical clearance above public sidewalk surface for proposed antenna and equipment mounted on existing utility pole and a minimum 16' vertical clearance above sidewalk surface for proposed antenna and equipment within 2' or less horizontally of the public street shall be maintained; (Engineering)

12. That if generators are required at the site, they must meet Torrance Municipal code requirements for noise; (Environmental)

DATE: December 6, 2018

TO: Telecommunications Committee

FROM: Planning Division

SUBJECT: **WIRELESS TELECOM FACILITY (WTC17-00012) – (CROWN CASTLE NG WEST, LLC)**

A request for approval of a Wireless Telecommunications Facility to allow the installation of a new wireless small cell and support equipment attached to an existing utility pole in the public right-of-way adjacent to 4600 Spencer Street within the R-3 Zone.

Applicant: Crown Castle NG West LLC
Case No: WTC17-00012
Location: 4600 Spencer Street (ROW)
Zoning: R-3: Multiple Family Residential

The subject request is for the installation of a wireless site in the public right-of-way adjacent to 4600 Spencer Street. Per Torrance Municipal Code 92.39.060(1), such requests within the public right-of-way adjacent to residentially zoned properties are reviewed by the Telecommunications Committee and requires notification to property owners within 300 feet of the proposed location. In compliance with prior city council directives, on November 30th, 2018, staff mailed notices to property owners within 500' radius and posted notification to the subject pole on December 3rd, 2018 (Attachment #1).

The proposal involves the installation of an omni-directional antenna and three remote radio units (RRU) within an enclosure on an existing utility pole. The RRU enclosure is designed to mount directly to the pole while the antenna is designed to attach to a 3.5' long metal pole arm. The RRU enclosure will be connected to aerially provided fiber optic cables through a new pole mounted PVC conduit.

Staff notes that the plans indicate an address of 4820 Spencer Street which is incorrect. Should the facility be approved, staff recommends that the applicant use the 4600 Spencer Street address as 4820 Spencer Street is Victor Elementary School.

The proposed antenna is 2.75' in height and 10" in diameter. The antenna and pole arm are proposed to be pole mounted at 23' above ground level with a maximum height of 25.75'. The RRU enclosure measures 46.1in x 13.5in x 15.7in and would be mounted 14.91' above grade with a maximum height of 18.75'. Power to the site is proposed aerially through existing lines connected to the utility pole. No additional cabinets are required as this configuration eliminates the need for above ground appurtenances.

The purpose of the proposed site, according to the Supplemental Technical Information Report provided by the applicant, is to "Increase the existing RF signal level in an existing coverage area" for AT&Ts network (Attachment #3). The target area described

in the RF Coverage maps is the surrounding residential that is bounded by Halison Street to the north, Emerald Street to the south, Earl Street to the east, and Entradero Street to the west. The proposed antenna would propagate signal omni-directionally.

The application was reviewed by the City's telecom consultant, Telecom Law Firm PC, multiple times for technical and regulatory issues (Attachment #2). Per the analysis and submitted documentation, the proposed location meets the applicant's coverage objectives. According to the alternative site analysis provided by the applicant, the two alternative locations (a utility pole located at 20523 Anza and a street sign located at 4527 Spencer Street) indicated that they can meet coverage objectives but a proposed street sign design would require "intrusive undergrounding" of overhead utility lines and pole replacement (Attachment #4). Staff notes both of the alternative sites were also adjacent to residential zones.

The applicant has submitted an RF compliance report (included as part of Attachment #3) that evaluates the proposed facility's planned compliance with FCC Guidelines. Staff notes that the City cannot impose additional requirements with respect to FCC requirements with the exception of requesting verification that the site is operating in compliance. If approved, per TMC92.39.070 a radio frequency and compliance radiation report is required to be submitted within 30 days after installation of the facility.

As previously mentioned, the proposal falls into a location that requires a special review by the Telecommunications Committee as it is in the right-of-way adjacent to a residential district. Per the Applicant's submittals, the site identified will provide the coverage needed to fulfill the applicant's objectives.

In order to recommend Approval of this Telecom Permit, the following findings must be made per 92.39.040(b)(3):

i. Other locations that do not require special approval under this Section 92.39.040(B) are either not available or not feasible; and
ii. Establishment of the facility at the requested location is necessary to provide service; and
iii. Lack of such a facility would result in a prohibition of service;

Staff notes that the proposal meets the first finding as there are no other tall non-residential structures in the vicinity which may lend themselves to a small cell installation that is on the prioritized location per the City's code. As previously mentioned, the applicant's two alternates locations met coverage objectives but are still adjacent to residential areas and one would require additional undergrounding of utilities. In the judgment of staff, however, not all of the necessary findings can be made. Per the applicant's documentation and the City's consultant, the proposed facility's dominant purpose is to "Increase the existing RF signal level in an existing coverage area" and there is currently AT&T service within the coverage area, and as such, establishment of the facility is not necessary to provide service and lack of this facility does not result in a prohibition of service.

Although the proposed small cell facility has been designed to provide increased capacity while simultaneously providing the least visually intrusive structure, under the narrow purview of the code, staff cannot make the findings per TMC92.39.040(b)(3) and recommends denial of the request. Should the Committee wish to approve the facility, recommended conditions and code requirements have been attached for your review (Attachment #5).

PROJECT RECOMMENDATION: DENIAL

Prepared by,

Aaron Whiting
Planning Assistant

Recommended by,

For: Danny Santana
Planning Manager

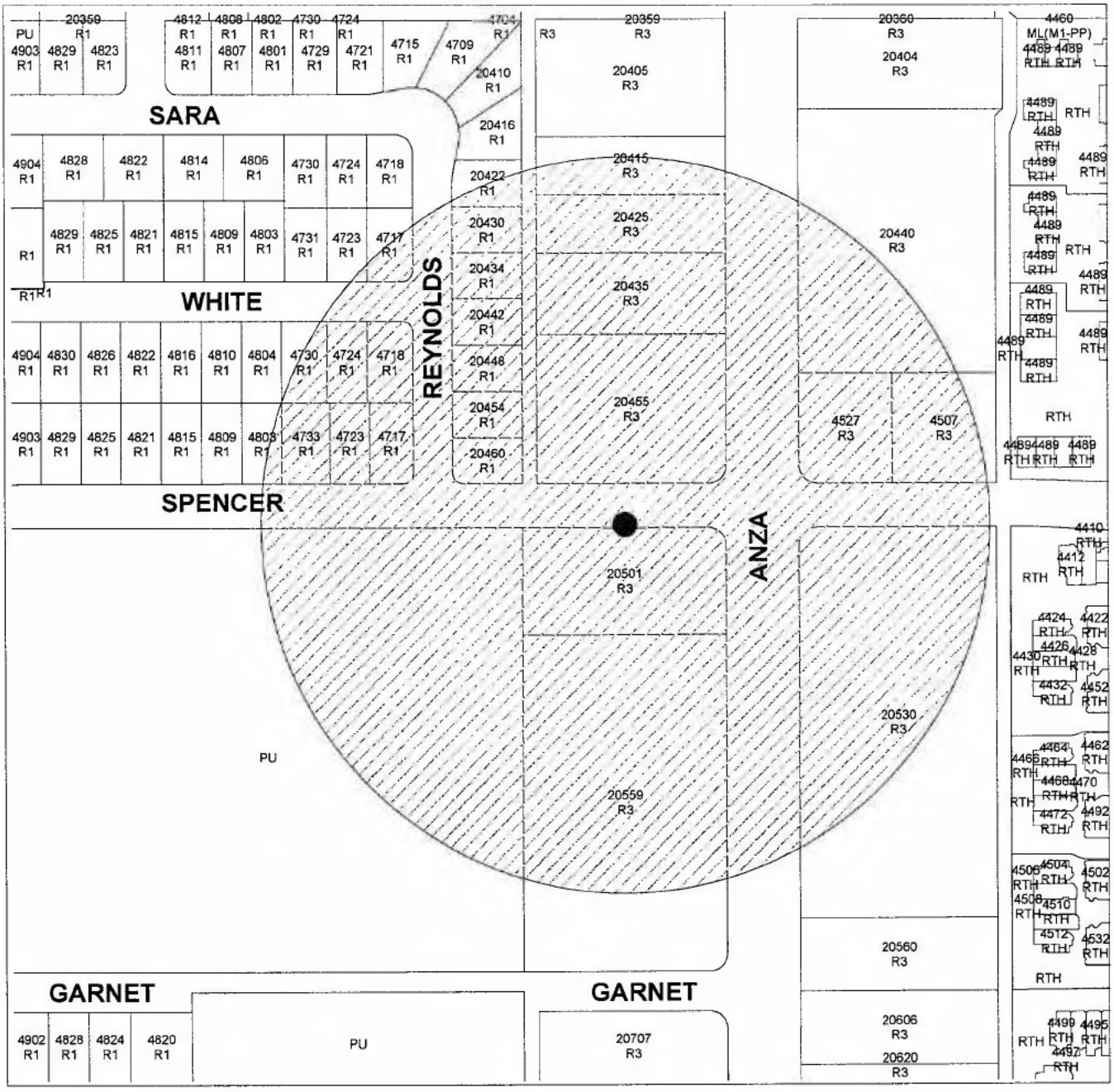
Attachments:
1. Notification Map and Posting
2. Telecom Law Firm Memorandums
3. Supplemental Technical Information Report and Documentation
4. Alternate Locations
5. Recommended Conditions and Code Requirements, if approved
6. Plans/Photo Simulations (Limited Distribution)

This request for a Telecom Permit (WTC17-00012) is ____APPROVED ____ DENIED per Ordinance No. 3561, Section 92.39.060, Satellite Antennas, of the Torrance Municipal Code, Division 9.

DATE

Felipe Segovia
Telecommunications Committee Chair

Decisions made by the Telecommunications Committee are appealable to the Planning Commission within 15 calendar days following the above date of approval/denial.



LOCATION AND ZONING MAP

WTC17-00012

Public Right-Of-Way

4820 Spencer Street

TORRANCE COMMUNITY DEVELOPMENT GIS

LEGEND

Project Location

Notification Area

0 50 100 200 Feet

N

W E

S

Prepared using City of Torrance Community Development Geographic Information System

Jeffery W. Gibson, Community Development Director

ATTACHMENT 1


CITY OF TORRANCE
NOTICE
OF PUBLIC HEARING
NOTICE IS HEREBY GIVEN that the
TELECOMMUNICATIONS COMMITEE
will be a request for
Petition of CROWN CASTLE NG WEST for
approval of a Telecom Permit to allow the installation of a small
cell canister and support equipment attached to an existing
wood utility pole (Pole ID #1579018E) in the public right-of-way
adjacent to 4600 Spencer Street in the R-3 Zone. This project is
categorically Exempt from CEQA per Guidelines Section 15301
- Existing Facilities.
Applicant: Crown Castle NG West LLC
Case Type & Case No.(s): WTC17-00012
Hearing Date: December 11, 2018 Time: 9:00am
Place of Hearing: West Annex,
City Hall, 3031 Torrance Boulevard
Case Planner: A.Whiting
FOR INFORMATION CALL THE COMMUNITY
DEVELOPMENT DEPT AT (310) 618-5990
www.TorranceCA.gov/Planning
1579018E

TELECOM
LAW FIRM PC

APPLICATION INCOMPLETE MEMORANDUM

TO: Mr. Oscar Martinez
FROM: Dr. Jonathan Kramer [redacted]
DATE: September 20, 2017
RE: Application Completeness Review – New Proposed Wireless Facility in the Public Right-of-Way at F/O 4820 Spencer Street

APPLICANT: Crown Castle NG West, LLC
APPLICANT'S ID: ATTRB-25; USID: 177965
UTILITY POLE ID: 1579018E

The City of Torrance (the "**City**") requested that Telecom Law Firm, PC ("**TLF**") review the Crown Castle NG West, LLC ("**Crown Castle**") application on behalf of AT&T to operate a new wireless site on a wood utility pole ("**Pole**") in the public right-of-way ("**ROW**") located in front of 4820 Spencer Street. The date Crown Castle submitted this project to the City was August 28, 2017.

On the Pole, Crown Castle proposes to install a new Pole-affixed arm mount to hold one omni-directional antenna. The omni-antenna is proposed to be situated on the side of the Pole by an arm mounting bracket that will separate the antenna from the Pole by 3-feet which meets the requirements of the California Public Utilities Commission, General Order 95, Rule 94.

Crown Castle also proposes to mount on the Pole a total of four remote radio units ("**RRUs**") within two enclosures, and four DC power converters on the new pole-to-pole strand. The new strand will also support the fiber optic cable used for communications backhaul from this site to AT&T's cell switching center. The height of the Pole supporting this project is to remain at 34' 0" above ground level ("**AGL**").

This memorandum reviews the application and related materials to determine whether the applicant submitted a complete and responsive application. The following review may also discuss regulatory and technical issues related to wireless infrastructure. Although many technical issues implicate legal issues, the analysis and recommendations contained in this memorandum do not constitute legal advice.

A. APPLICATION COMPLETENESS REVIEW

Based on the City's Submittal Requirements for Wireless Telecommunications Facility ("**Requirements Form**"), we recommend that the City deem Crown Castle's application submittal **incomplete** and issue an incomplete notice on or before September 27, 2017 regarding the items more fully discussed on the next pages:

REQUIREMENTS FORM

I. APPLICATION FORM

The City requires a Development Application and a Supplemental Technical Information Report ("**STIR**").

General note: The submitted application materials fail to provide the required Section references making the application difficult to reliably cross-reference various points. Each application material needs to identify the sections within the Requirements Form and STIR.

- **Development Application:**

The listed address ROW located at F/O 4600 Spencer Street should be the ROW located at F/O 4830 Spencer Street consistent with the rest of the permit package.

- **Supplemental Technical Information Report:**

  - Sec. 3.02 - Missing Attachment FCC License for AT&T
  - Sec. 3.03 is left blank - Applicant must provide the required information.
  - Sec. 3.04 is left blank - Applicant must provide the required information.
  - Sec. 3.05 is left blank - Applicant must provide the required information.
  - Sec. 3.06 is left blank - Applicant must provide the required information.
  - Sec. 3.07 is left blank - Applicant must provide the required information.
  - Sec. 3.08 is left blank - Applicant must provide the required information.
  - Sec. 3.09 - Missing Attachment LSGAC Appendix A form, however the Applicant provided a Radio Frequency Electromagnetic Fields Exposure Report prepared by Dtech Communications (the "**Dtech Report**"), which is a suitable substitute for the Appendix A form.
  - Sec. 3.10 is left blank - Applicant must provide the required information.
  - Sec. 3.11 is not provided, however the Applicant provided the Dtech Report, which is a suitable replacement for the LSGAC Appendix A form.
  - Sec. 3.12 is left blank - Applicant must provide the required information.
  - Sec. 3.13 is left blank - Applicant must provide the required information if applicable.
  - Sec. 3.14 is left blank - Applicant must provide the required information.
  - Sec. 3.15 is left blank - Applicant must provide the required information.
  - Sec. 4.02 is left blank - Applicant must provide the required information.
  - Sec. 5.01–5.03 is left blank - AT&T through Applicant must provide the required information.
  - Sec. 6.03 - Applicant has not provided a node-isolated coverage map.

- Section 6.05 is not provided, however the Applicant provided the Dtech Report.
- Section 7.01–subsection 2: Missing elements on the photo simulations (e.g., down guy relocation, connecting wires, PVC conduits, etc.) See Figure 1.

Figure 1: Omni-directional antenna, Antenna Arm, Fiber Node, 4 DC power converters, 4 RRUs enclosed within two enclosures, RF signage (Missing visible elements including, e.g., down guy relocation, connecting wires, PVC conduits, etc.) (Source: Photo Simulations provided by Applicant).

- Section 7.01–subsection 3: Missing views of the overall project. STIR requires 5 or more views, only 2 are provided.
- Section 8.00–8.05: Insufficient Information - Applicant needs to submit an Alternative Sites Analysis.
- Section 9 - Non-responsive information - Applicant needs to submit the detailed information specified in Section 9.01.

II. PROPERTY OWNERSHIP

The applicant must provide written proof that the Joint Pole Authority has granted attachment permission for this project.

III. PROJECT PLANS

- No power source for the powered fiber indicated. The power source is a critical element of this project, which will not operate without it. Provide detailed information about the location and design of the powered fiber source. Also provide information regarding the power disconnect switch for this location.

- The depicted work area is underrepresented, depict the whole work area including the area needed to extend the strand and powered fiber. See Figure 2.

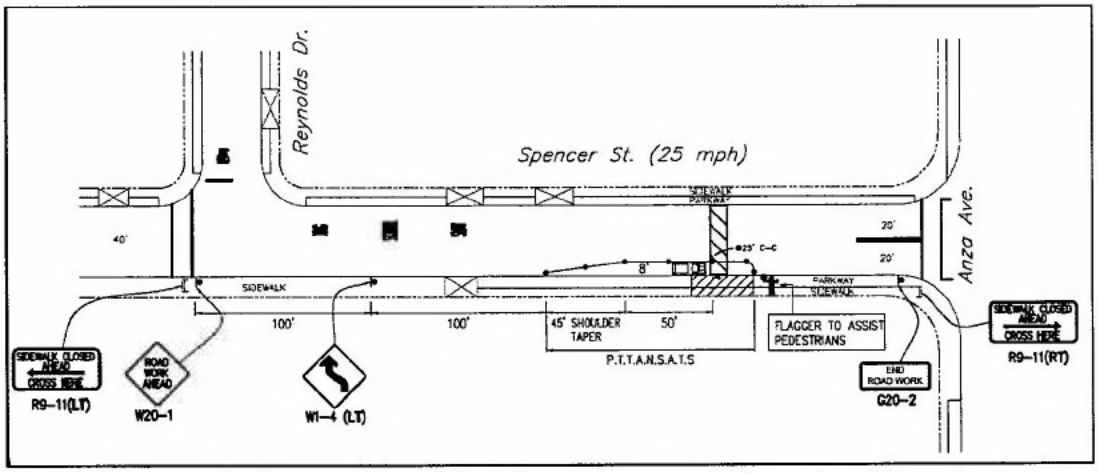


Figure 2: Proposed Work Area; additional Work Area for new strand and power fiber and relocation of existing down guy (hatched in red) (Source: Plans TC-1, annotated by Dr. J. Kramer).

IV. JUSTIFICATION

The purported justification from this site, while not completely clear, can be discerned from the coverage maps section of the application.

V. MAPS

As mentioned in the above sections, some of the maps are missing/incomplete.

VI. VISUAL SIMULATIONS

The photo simulations provided by the applicant are incomplete, fail to show visible cable and conduit interconnections, and do not accurately reflect the size and scope of the project elements to be constructed.

B. ADDITIONAL INCOMPLETE, INCONSISTANT ITEMS

We also note that Table 2 of the Dtech Report lists the number and frequencies of RRUs that differs from details provided in the Plans. See Figure 3 and Figure 4.

Table 2: Site Technical Specifications

Antenna ID	Operator	Carrier #	Antenna Mfg	Antenna Model	Type	DAS Equipment	Frequency (MHz)	Orientation (°T)	Horizontal BWidth (°)	Antenna Aperture (ft)	Antenna Gain (dBd)	Total ERP (Watts)	Bottom Tip Height Above Ground (Z) (ft)	Bottom Tip Height Ant Level (Z) (ft)
A1	Crown Castle	1	Galtronics	P8480i	Omni	(2) RRU2203	1900	0	360	2.1	6.9	69.2	17.8	0.0
A1	Crown Castle	1	Galtronics	P8480i	Omni	(1) RRU2203	5000	0	360	2.1	3.9	2.5	17.8	0.0

Figure 3: A total of three RRUs shown. Two RRUs in 1900 MHZ (PCS) and one RRU in 5000 MHz (Source: Dtech Report, Table 2)

Figure 4: Two RRUS in AWS (2100 MHz) and PCS (1900 MHz) frequencies (Source: Plans page D-3; Panel 1)

We suspect that Dtech was presented with radio frequency information by Crown Castle early in its development process that subsequently changed in the Plans submitted to the City. We

recommend that the City direct Crown Castle to (a) delete the "Future" elements from the project, including without limitation to the "Future RRUs" and (b) have Dtech prepare an updated report that only assesses what is actually proposed to be activated.

C. OTHER PERMITS AND APPLICATIONS REQUIRED

This project is likely to require an encroachment permit as a separate set of approvals including an excavation permit, fiber installation permit, building permit, and electrical permit.

D. CLOSING COMMENTS AND RECOMMENDATION

TLF believes that Crown Castle has failed to submit a complete permit application that complies with the City's Requirements Form. The list of incomplete items in this memo contains TLF's observations. The City may have other items for the incomplete notice. Under the FCC rules, there is only one incomplete notice, so it is imperative that all items which are incomplete are listed in the first notice.

We recommend that the City deem Crown Castle's application incomplete and issue a timely incomplete notice to Crown Castle no later than September 27, 2017 (based on the application materials tender date of August 28, 2017). TLF recommends the City send the incomplete notice by email and on the same day also sends it by First Class or Certified U.S. Mail postage prepaid.

Once a reply to the City's incomplete notice is received back from Crown Castle, the City has only 10 calendar days to determine whether the reply is responsive to the incomplete notice, and each of the 10 days counts against the overall 150 day shot clock, thus immediate review upon resubmission should occur.

Finally, Crown Castle's letter dated August 29, 2017 asserts that this project is subject to a 90-day shot clock. Crown Castle is incorrect. It relies on documents adopted after the FCC's October 21, 2014 Order. Newer documents are not applicable to the shot clock. The correct shot clock for this project is 150 days.

/JLK

City of Torrance, Community Development Department Jeffery W. Gibson, Director
3031 Torrance Blvd., Torrance, CA 90503, Phone (310) 618-5990 Fax (310) 618-5829

SUPPLEMENTAL TECHNICAL INFORMATION REPORT FOR WIRELESS TELECOMMUNICATION FACILITIES

1.00: Project Address F/O 4820 Spencer St

Assessor Parcel Number N/A Public ROW

2.00: Disclose the Name and Address of all Project Owners, and attach a letter of agency appointing the Applicant as representative of the Project Owners in connection with this application. Designate the letter of agency as "Attachment 2.00".

3.00: **FCC Licensee/FAA Compliance Information**

3.01: Identify each person or legal entity that will be using the wireless site and contact information (Attach additional sheets if necessary)

Name: Crown Castle NG West LLC-Aaron Snyder

Address: 200 Spectrum Center Drive, Suite 1800

City, State, Zip: Irvine, CA 92618

Phone: (949) 344-7834 Fax: _____

Email: Aaron.Snyder@crowncastle.com

3.02: Attach a complete copy of each FCC license or FCC Construction Permit for each person/legal entity that will be subject to the FCC license for the Project site. Designate the license(s)/Construction Permit(s) as "Attachment 3.02". If none of the proposed radio facilities require an FCC license so indicate on Attachment 3.02.

3.03: What is the intended use of the facility (check all that apply):

- ☐ Broadcast Radio
- ☐ Broadcast TV
- ☑ Cellular telephone
- ☐ Enhanced Specialized Mobile Radio
- ☐ Microwave
- ☑ PCS telephone
- ☐ Paging
- ☐ Specialized Mobile Radio
- ☑ Other: 5 GHz Spectrum

3.04: Project latitude and longitude: N 33 50 41.7156 W 118 21 46.6596

ATTACHMENT 3

SUPPLEMENTAL TECHNICAL INFORMATION REPORT FOR WIRELESS TELECOMMUNICATION FACILITIES

3.05: Specify DATUM use above: ____ WGS84 ____NAD23 x ___NAD83

3.06: Project Maximum height (ft): 34'0"

3.07: Bottom of lowest antenna (ft): 23'9"

3.08: Rad-center of the antennas (ft): 24'9"

3.09: For each licensee, and for each radio service, complete and attach the two page "Appendix A" form from "A Local Government Official's Guide to Transmitting Antenna RF Emission Safety: Rules, Procedures, and Practical Guidance" available from the following website: http://www.FCC.gov/oet/rfsafety. Designate the completed two page form as "Attachment 3.09". Additional RF safety disclosure information may be required by the government to determine compliance with FCC OET 65 requirements if the site is not "categorically excluded" under OET 65.

3.10 Are any areas adjacent to the antennas subject to RF emissions that are in excess of the "General Public/uncontrolled" standard in FCC OET 65? For this purpose, assume that all persons other than the Carrier's technical staff are considered to be members of the General Public.
____ Yes x___ No
(If the answer to 3.10 is NO proceed to 3.12)

3.11 Provide a detailed RF analysis for each emitter and each band showing the distance, in feet, in all directions to the boundary of the General Public/uncontrolled boundary. Designate this attachment, "Attachment 3.11".

3.12 Considering your response to 3.10, above, and any other identifiable RF emitters that OET 65 requires be evaluated in connection with this project, are all portions of this project cumulatively "categorically excluded" under FCC OET 65 requirements?
x___ Yes ____ No
(If the answer to 3.12 is YES proceed to 3.14.)

3.13 Describe in an attachment each and every RF emitter of the project that is not "categorically excluded" under the FCC OET 65 requirements. Designate this attachment, "Attachment 3.13".

3.14: Does this project require the Applicant to file an FAA Form 7460 or other documentation under Federal Aviation Regulation Part 77.13 et seq, or under the FCC rules?
___ Yes x__ No
(If the answer to 3.14 is NO proceed to 4.00.)

3.15 Attach complete copies of all required FAA/FCC forms including all attachments and exhibits thereto, including without limitation FAA Form 7460. Designate this attachment, "Attachment 3.15".

4.00: **Project Purpose**

4.01: Justification. Provide a brief narrative, accompanied by written documentation where appropriate, which explains the purpose of the facility and validates the applicant's efforts to comply with the design, location, and co-location standards of Chapter 2, Division 9, Article 39 of the City's Municipal Code.

Crown Castle NG West LLC, Utility No. U-6745-C, obtained a Certificate of Public Convenience and Necessity (CPCN) from the California Public Utilities Commission in Decision No. 07-04-045 to provide full facilities based radiofrequency transport services. CPCN Conclusion of Law No 4 states: "Public convenience and necessity require NextG's full facilities-based local exchange services to be offered to the public subject to the terms and conditions set forth herein." This justification is sufficient under the California state law and under Crown's authorized provision of radiofrequency transport services. No further site justification is required.

4.02: Indicate whether the dominant purpose of the Project is to add additional network capacity, to increase existing signal level, or to provide new radio frequency coverage (check only one).
- ☐ Add network capacity without adding substantial new RF coverage area (Proceed to 5.00)
- ☑ Increase the existing RF signal level in an existing coverage area (Proceed to 5.00)
- ☐ Provide new radio frequency coverage in a substantial area not already served by existing radio frequency coverage (Proceed to 5.00)
- ☐ Other

4.03 Attach a statement fully and expansively describing the "Other" dominant purpose of this project. Designate this attachment, "Attachment 4.03".

5.00: **Build-Out Requirements**

5.01: Do any of radio services identified in 3.04 above require the licensee to provide specific radio frequency/population coverage pursuant to the underlying FCC license?
x Yes ___ No
(If the answer to 5.01 is NO proceed to 6.00.)

5.02: Have all of the FCC build-out requirements as required by all licenses covering all radio services proposed at this Project been met?
x Yes ___ No
(If the answer to 5.02 is YES proceed to 6.00.)

5.03: State by licensee all remaining build-out requirements which have yet to be met, and the known or estimated date when the remaining build-out requirements will be met. Designate this attachment "Attachment 5.03".

6.00: **Radio Frequency Coverage Maps**

6.01: Where a licensee intends to provide radio frequency geographic coverage to a defined area from the Project (including applicants in the cellular, PCS, broadcast, ESMR/SMR categories, and others as requested by the City of Torrance), the coverage maps and information requested in Section 6 are required attachments. All others proceed to 7.00.

For the coverage maps required here, the following mandatory requirements apply. Failure to adhere to these requirements may delay your application processing.

1. The size of each submitted map must be no smaller than 11" by 8.5".

2. If the FCC rules for any proposed radio service defines a minimum radio frequency signal level that level must be shown on the map in a color easily distinguishable from the base paper or transparency layer, and adequately identified by RF level and map color or gradient in the map legend. If no minimum signal level is defined by the FCC rules you must indicate that in the legend of each RF coverage map. You may show other RF signal level(s) on the map so long as they are adequately identified by objective RF level and map color or gradient in the map legend.

3. Where the City of Torrance determines that one or more submitted maps are inadequate, it reserved the right to request that one or more supplemental maps with greater or different detail be submitted.

6.02: Existing RF coverage within the City of Torrance on the same network, if any (if none, so state). This map should not depict any RF coverage to be provided by the Project. Designate this attachment "Attachment 6.02".

6.03: RF coverage to be provided by the Project. This map should not depict any RF coverage provided any other existing or proposed wireless sites. Designate this attachment "Attachment 6.03".

6.04: RF coverage to be provided by the Project and by other wireless sites on the same network should the Project site be activated. Designate this attachment "Attachment 6.04".

6.05: Provide a written certification that the facility will continuously comply with FCC OET Bulletin 65 radio frequency emissions standards, and that use of the facility will not interfere with other communication, radio, or television transmission or reception.

7.00: **Project Photographs and Photo Simulations**

7.01: Where an Applicant proposes to construct or modify a wireless site, and the wireless site is visible from other residential properties, the Applicant shall submit pre-project photographs, and photo simulations showing the project after completion of construction, all consistent with the following standards:

1. Minimum size of each photo simulation must be 11 inches by 8.5 inches (portrait or landscape orientation);

2. All elements of the project as proposed by the Applicant must be shown in one or more close-in photo simulations.

3. The overall project as proposed by the Applicant must be shown in five or more area photos and photo simulations. Photos and photo simulation views must, at a minimum, be taken from widely scattered positions separated by an angle of no greater than 72 degrees from any other photo location.

The number of site photos, and photo simulations, and the actual or simulated camera location of these photos and photo simulations is subject to City of Torrance determination. The Applicant should submit photos and photo simulations consistent with these instructions, and be prepared to provide additional photos and photo simulations should they be requested by the City of Torrance.

8.00: **Candidate Sites**

8.01: For applicants in the cellular, PCS, broadcast, ESMR/SMR categories, and others as requested by the City of Torrance, the information requested in Section 8 is required. All others proceed to 9.00.

8.02: Has the Applicant or Owner or anyone working on behalf of the Applicant or Owner secured or attempted to secure any leases or lease-options or similar formal or informal agreements in connection with this project for any sites other than the candidate site identified at 1.00?
___ Yes x No
(If the answer to 8.02 is NO, proceed to 8.05.)

8.03: Provide the physical address of each such other location, and provide an expansive technical explanation as to why each such other site was disfavored over the Project Site. Designate this attachment "Attachment 8.03".

8.04: Considering this proposed site, is it the one and only one location within or without the City of Torrance that can possibly meet the objectives of the project?
___ Yes ___ No
(If the answer to 8.04 is NO, proceed to 9.00.)

8.05: Provide a technically expansive and detailed explanation supported as required by comprehensive radio frequency data fully describing why the proposed site is the one and only one location within or without the City of Torrance that can possibly meet the radio frequency objectives of the project. Explain, in exact and expansive technical detail, all of the objectives of this project. Designate this attachment "Attachment 8.05".

9.00: **Identification of Key Persons**

9.01: Identify by name, title, company affiliation, work address, telephone number and extension, and email address the key person or persons most knowledgeable regarding:

(1) the site selection for the proposed project, including alternatives;
(2) the radio frequency engineering of the proposed project;
(3) rejection of other candidate sites evaluated, if any;
(4) approval of the selection of the proposed site identified in this project.
Designate this attachment "Attachment 9.01"

9.02 If more than one person is/was involved in any of the four functions identified in this section, attach a separate sheet providing the same information for each additional person, and identifying which function or functions are/were performed by each additional person. Designate this attachment "Attachment 9.02".

Initial here _____ to indicate that the information above is complete and there is no Attachment 9.02, or initial here _____ to indicate that Attachment 9.02 is attached hereto.

10.00: **Technical Information Report Certification**

10.01: The undersigned certifies on behalf of itself and the Applicant that the answers provided here are true and complete to the best of the undersigned's knowledge.

[redacted] GRPM

Signature | Title

Aaron Snyder | Aaron.Snyder@crowncastle.com

Print Name | Provide Email Address

Crown Castle NG West LLC | 949-344-7834

Print Company Name | Provide Telephone Number

8/6/18

Date Signed

Crown Castle
200 Spectrum Center Drive
Suite 1800
Irvine, CA 92618

August 6, 2018

RE: Resubmittal of Crown Castle Applications for Wireless Facilities in the Public Rights Of Way (PROW)

This notice is to address a comment in the city incomplete letter issued by Dr Jonathan Kramer from Telecom Law.

The DTECH report submitted for each of the applications is the correct EME report for purposes of this particular type of design and respective location.

The BUSHBERG note on the application was a clerical error corresponding to another application for another city.

Also, the locations are designed using down converter units which is a method of transferring power over existing communication/power space per applicable utility code. The particular radio equipment is manufactured to be powered via this type of design. Further, this method of powering the wireless facility enables a more streamline design without added equipment components on the pole.

Any questions pertaining to the above, please call or email me at Aaron.Snyder@crowncastle.com or [redacted]

Very truly yours,
CROWN CASTLE NG WEST LLC
[redacted]
Aaron Snyder
Government Relations Project Manager

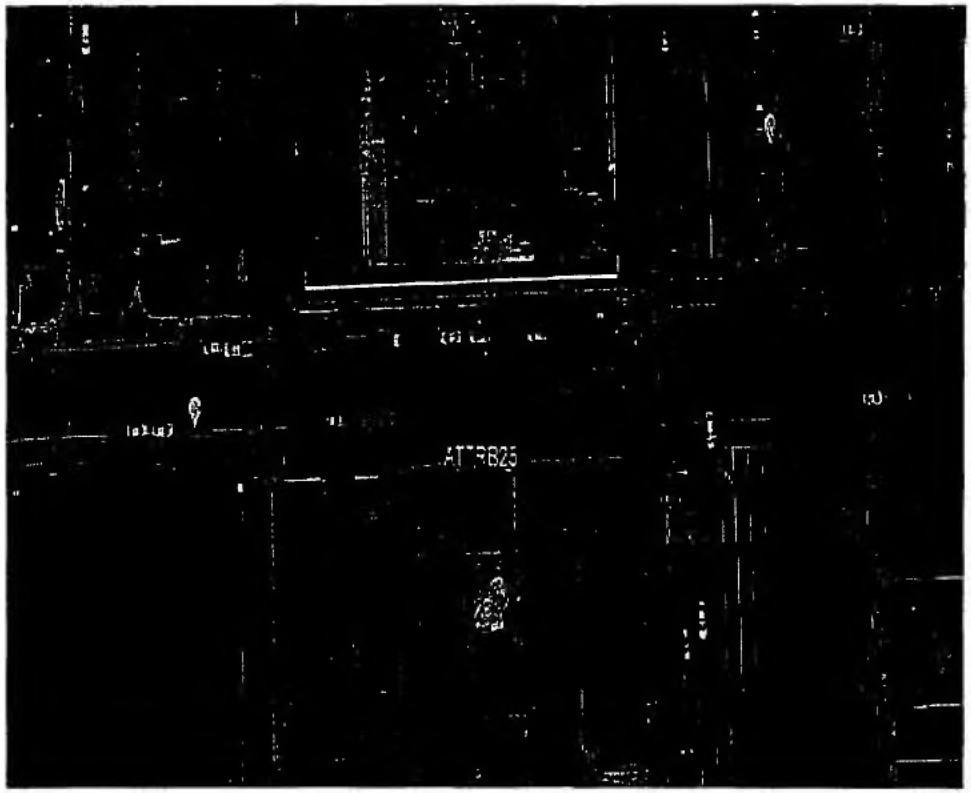
AT&T RB25

Primary

Alternate #1

Alternate #2

CROWN CASTLE



RB25 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on existing utility poles or street sign replacements.

All locations will meet the RF coverage objective.

The alternatives have landscaping, man-made structures and screening methods at each option.

This location is sighted to fill an existing gap is wireless service around the intersection of Anza and Spencer Blvd. The location will provide needed wireless service to residences, entrepreneurs, businesses, users of the ROW, students going to and from the local schools and emergency personnel that may be in the area.

Code Requirements and Conditions, if approved:

The following Code Requirements are applicable to the project, if approved:

- A Construction and Excavation Permit (C&E Permit) is required from the Community Development Department, Engineering Permits and Records Division, for any work in the public right-of-way.
- The traffic control plan(s) shall comply with the MUTCD manual.
- Must comply with TMC Section 92.39.070 regarding submission of RF compliance report.
- Must comply with TMC Section 92.39.090 regarding discontinued use or abandonment of facility.

Recommended Conditions, if Approved:

1. That the use of the subject site for a telecom facility shall be subject to all conditions imposed in WTC17-00012 and any amendments thereto or modifications thereof as may be approved from time to time pursuant to Section 92.39.070 et seq. of the Torrance Municipal Code on file in the office of the Community Development Director of the City of Torrance; and further, that the said use shall be established or constructed and shall be maintained in conformance with such maps, plans, specifications, drawings, applications or other documents presented by the applicant to the Community Development Department and upon which the Telecommunications Committee relied in granting approval;

2. That if this Approval is not implemented within one year after the approval, it shall expire and become null and void unless extended by the Community Development Director for an additional period, as provided for in Section 92.27.1 of the Torrance Municipal Code; (Planning)

3. That no above ground mounted pedestals be permitted and that all power be fed from the existing SCE wires already attached to the utility pole for which the proposed equipment is to be mounted; (Planning/Engineering)

4. That all requirements provided under Ordinance No. 3058, Section 92.2.8, Satellite Antennas, of the Torrance Municipal Code, Division 9, shall be met prior to the issuance of building permits and/or encroachment permits; (Planning)

5. The permittee shall paint, color or finish all the pole-mounted equipment to match the color of the underlying utility pole, to the satisfaction of the Community Development Director; (Planning)

6. The permittee shall conceal all cables, wires, jumpers and connectors within the antenna or equipment shrouds; (Planning)

7. The permittee shall install and at all times maintain in good condition an "RF Notice" sign and network operations center sign adjacent to the bottom of the shroud. The signs required in this condition must be placed in a location where they are clearly visible to a person when he or she approaches the shroud; (Planning)

8. The permittee shall ensure that all RF signage complies with FCC OET Bulletin 65 or ANSI C95.2 for color, symbol and content conventions. All such signage shall provide a working local or toll-free telephone number to its network operations center that reaches a live person who can exert transmitter power-down control over this site as required by the FCC; (Planning)

9. That the antenna and all related equipment cabinets shall be removed if the telecommunications site remains inactive for more than 180 days; (Planning)

10. That the applicant use 4600 Spencer street as the address; (Planning)

11. That the proposed equipment shall receive electrical power from the SCE wires already attached to the utility pole on which the proposed equipment is to be mounted; (Engineering)

12. That a minimum 10' vertical clearance above public sidewalk surface for proposed antenna and equipment mounted on existing utility pole and a minimum 16' vertical clearance above sidewalk surface for proposed antenna and equipment within 2' or less horizontally of the public street shall be maintained; (Engineering)

13. That if generators are required at the site, they must meet Torrance Municipal code requirements for noise; (Environmental)

DATE: December 6, 2018

TO: Telecommunications Committee

FROM: Planning Division

SUBJECT: **WIRELESS TELECOM FACILITY (WTC17-00013) – (CROWN CASTLE NG WEST, LLC)**

A request for approval of a Wireless Telecommunications Facility to allow the installation of a new wireless small cell and support equipment attached to a new wood utility pole in the public right-of-way adjacent to 23603 Susana Avenue within the Hillside Overlay District in the R-1 Zone.

Applicant: Crown Castle NG West LLC
Case No: WTC17-00013
Location: 23603 Susana Street (ROW)
Zoning: R-1: Single Family Residential

The subject request is for the installation of a wireless site in the public right-of-way adjacent to 23603 Susana Avenue within the Hillside Overlay District in the R-1 Zone. Per Torrance Municipal Code 92.39.060(1), such requests within the public right-of-way adjacent to residentially zoned properties are reviewed by the Telecommunications Committee and requires notification to property owners within 300 feet of the proposed location. In compliance with prior city council directives, on November 30th, 2018, staff mailed notices to property owners within 500' radius and posted notification to the subject pole on December 3rd, 2018 (Attachment #1).

The proposal involves the installation of an omni-directional antenna and three remote radio units (RRU) within an enclosure on a new wood utility pole. The existing pole measures 25.5' in height and the new pole is proposed to be 29.5' in height. The RRU enclosure is designed to mount directly to the pole while the antenna is designed to attach to a 3.5' long metal pole arm. The RRU enclosure will be connected to aerially provided fiber optic cables through a new pole mounted PVC conduit.

The proposed antenna is 2.75' in height and 10" in diameter. The antenna and pole arm are proposed to be pole mounted at 26' above ground level with the bottom of the antenna at 27.42' in height and a maximum height of 29.5', which matches the height of the new pole. The RRU enclosure measures 46.1in x 13.5in x 15.7in and would be mounted 16.5' above grade with a maximum height of 20.34'. Power to the site is proposed aerially through existing lines connected to the utility pole. No additional cabinets are required as this configuration eliminates the need for above ground appurtenances. Three down converters are also proposed on existing fiber lines that belong to Crown Castle. The down converters measure 5.5"x10"x2.8" and will be mounted at a height of 23.17'.

The purpose of the proposed site, according to the Supplemental Technical Information Report provided by the applicant, is to "Increase the existing RF signal level in an existing coverage area" for AT&Ts network (Attachment #3). The target area described

in the RF Coverage maps is the surrounding residential that is bounded by Pacific Coast Highway to the north, Villa Del Collado to the south, Newton Street to the east, and Via Sego to the west. The proposed antenna would propagate signal omni-directionally.

The application was reviewed by the City's telecom consultant, Telecom Law Firm PC, multiple times for technical and regulatory issues (Attachment #2). Per the analysis and submitted documentation, the proposed location meets the applicant's coverage objectives. According to the alternative site analysis provided by the applicant, the two alternative locations (a new utility pole located at 23528 Susana Avenue and a new utility pole located at 5429 Calle Mayor) indicated that the first of the two alternatives proposed can meet coverage objectives but a new utility pole design would potentially impact multiple view corridors and would require new overhead utility lines (Attachment #4). The applicant indicated that the second proposed alternate site (a new utility pole located at 5429 Calle Mayor) would not meet coverage objectives. Staff notes all of the alternative sites were also adjacent to residential zones.

The applicant has submitted an RF compliance report (included as part of Attachment #3) that evaluates the proposed facility's planned compliance with FCC Guidelines. Staff notes that the City cannot impose additional requirements with respect to FCC requirements with the exception of requesting verification that the site is operating in compliance. If approved, per TMC92.39.070 a radio frequency and compliance radiation report is required to be submitted within 30 days after installation of the facility.

As previously mentioned, the proposal falls into a location that requires a special review by the Telecommunications Committee as it is in the right-of-way adjacent to a residential district. Per the Applicant's submittals, the site identified will provide the coverage needed to fulfill the applicant's objectives.

In order to recommend Approval of this Telecom Permit, the following findings must be made per 92.39.040(b)(3):

i. Other locations that do not require special approval under this Section 92.39.040(B) are either not available or not feasible; and
ii. Establishment of the facility at the requested location is necessary to provide service; and
iii. Lack of such a facility would result in a prohibition of service;

Staff notes that the proposal meets the first finding as there are no other tall non-residential structures in the vicinity which may lend themselves to a small cell installation that is on the prioritized location per the City's code. As previously mentioned, the applicant's two alternates locations met coverage objectives but are still adjacent to residential areas and one would require additional undergrounding of utilities. In the judgment of staff, however, not all of the necessary findings can be made. Per the applicant's documentation and the City's consultant, the proposed facility's dominant purpose is to "Increase the existing RF signal level in an existing

coverage area" and there is currently AT&T service within the coverage area, and as such, establishment of the facility is not necessary to provide service and lack of this facility does not result in a prohibition of service.

Although the proposed small cell facility has been designed to provide increased capacity while simultaneously providing the least visually intrusive structure, under the narrow purview of the code, staff cannot make the findings per TMC92.39.040(b)(3) and recommends denial of the request. Should the Committee wish to approve the facility, recommended conditions and code requirements have been attached for your review (Attachment #5).

PROJECT RECOMMENDATION: DENIAL

Prepared by,

Aaron Whiting
Planning Assistant

Recommended by,

FOR: Danny Santana
Planning Manager

Attachments:
1. Notification Map and Posting
2. Telecom Law Firm Memorandums
3. Supplemental Technical Information Report and Documentation
4. Alternate Locations
5. Recommended Conditions and Code Requirements, if approved
6. Plans/Photo Simulations (Limited Distribution)

This request for a Telecom Permit (WTC17-000013) is ____APPROVED ____ DENIED per Ordinance No. 3561, Section 92.39.060, Satellite Antennas, of the Torrance Municipal Code, Division 9.

DATE

Felipe Segovia
Telecommunications Committee Chair

Decisions made by the Telecommunications Committee are appealable to the Planning Commission within 15 calendar days following the above date of approval/denial.

LOCATION AND ZONING MAP

WTC17-00013

Public Right-Of-Way

23603 Susana Avenue

TORRANCE COMMUNITY DEVELOPMENT GIS

LEGEND

Project Location

Notification Area

Feet

0 50 100 200

N

W E

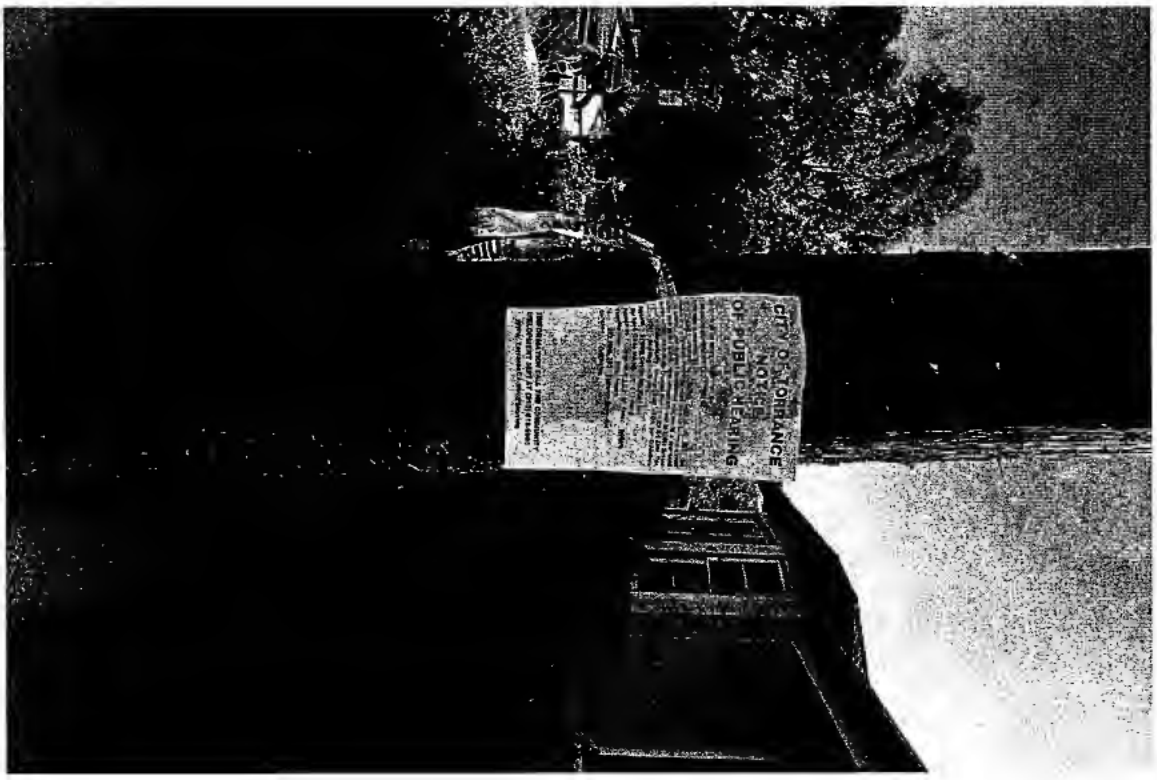
S

Prepared using City of Torrance Community Development Geographic Information System

Jeffery W. Gibson, Community Development Director

ATTACHMENT 1


Hayes


CITY OF TORRANCE
NOTICE
OF PUBLIC HEARING

TELECOM
LAW FIRM PC

WIRELESS PLANNING MEMORANDUM

TO: Mr. Oscar Martinez
FROM: Dr. Jonathan Kramer
DATE: September 14, 2018
RE: WTC17-00013 New Proposed Wireless Facility in the Public Right-of-Way adjacent to 23603 Susana Avenue [Pole situated on Calle Mayor]

APPLICANT: Crown Castle NG West LLC
APPLICANT'S ID: ATTRB-16

On August 28, 2017 ("**August 2017 Submission**"), Crown Castle NG West LLC (the "**Applicant**") on behalf of itself and its client AT&T, submitted wireless site application materials to the City of Torrance ("**City**"). The Applicant proposed to operate a new wireless site on a replacement wood utility pole ("**Pole**") in the public right-of-way ("**PROW**") adjacent to 23603 Susana Avenue (Coordinates N33.811440°; W118.373820°).

TLF notes that the actual Pole is situated on Calle Mayor.

On September 20, 2017, Telecom Law Firm, PC ("**TLF**" or "**We**") submitted an Application Incomplete Memorandum (the "**September 2017 Memo**") to the City that evaluated the Applicant's August 2017 Submission. TLF's September 2017 Memo concluded that the Applicant failed to submit a complete permit application. TLF recommended that the City deem the Applicant's application incomplete and issue a timely notice, which it did.

On February 27, 2018, the Applicant submitted additional materials (the "**February 2018 Submission**") to address the deficiencies identified in TLF's September 2017 Memo related to its August 2017 Submission.

On March 8, 2018, TLF submitted another Application Incomplete Memorandum (the "**March 2018 Memo**") to the City that evaluated the Applicant's February 2018 Submission. TLF's March 2018 Memo concluded that the Applicant yet again failed to submit a complete permit. We recommended that the City deem the Applicant's application incomplete and issue a timely notice, which it did.

On August 7, 2018, the Applicant submitted additional materials (the "**August 2018 Submission**") in an attempt to address the deficiencies identified in TLF's March 2018 Memo.

This memorandum now reviews (1) the August 2018 Submission and provides the City further analysis on whether the Applicant submitted a complete and responsive application complying with the City's publicly stated application requirements and complies with the Torrance Municipal Code ("**TMC**"); (2) whether Section 6409(a) applies to the Applicant's project; and (3) whether Applicant's project demonstrates planned compliance with the federal radio frequency exposure guidelines.

Upon review, now, TLF's assessment is that the application appears to be sufficiently complete for TLF to proceed with a substantive review of the Applicant's proposal for compliance with applicable local, state and federal law.

1. Project Description

The project plans dated April 27, 2018 ("**Plans**") show that on the Pole, the Applicant proposes to install one new antenna arm to mount one Pseudo Omni Antenna [Galtronics P6480i] ("**Antenna**") center mounted at approximately 28' 6" above ground level ("**AGL**")

The Antenna is proposed to be separated from the Pole by 3'. This separation meets the requirements of the California Public Utilities Commission, General Order 95, Rule 94. The height of the Pole supporting this project is to increase to 28' 6" AGL.

In addition to the Antenna, on the Pole the Applicant also proposes to install:

- A single new communications riser conduit.
- Two new 2203 remote radio units ("**RRUs**") and one new 2205 RRU.
- A new shroud [Charles Shrd60] to house the RRUs.
- A new NEMA (electrical circuit breaker) enclosure with a power disconnect switch.
- An existing pole-to-pole strand at 23' 2" with fiber optic cable used for communications backhaul from this project site to AT&T's cell switching center.
- Three new DC power converters mounted adjacent to the Pole on an existing fiber strand.

For a photo simulations the pole configuration, see Figure 1. For an elevation view of the pole configuration see Figure 2.

[Balance of page intentionally left blank]

Figure 1: Proposed node on replacement utility pole (Source: Applicant's Photo Simulation provided by through its August 2018 Submission).

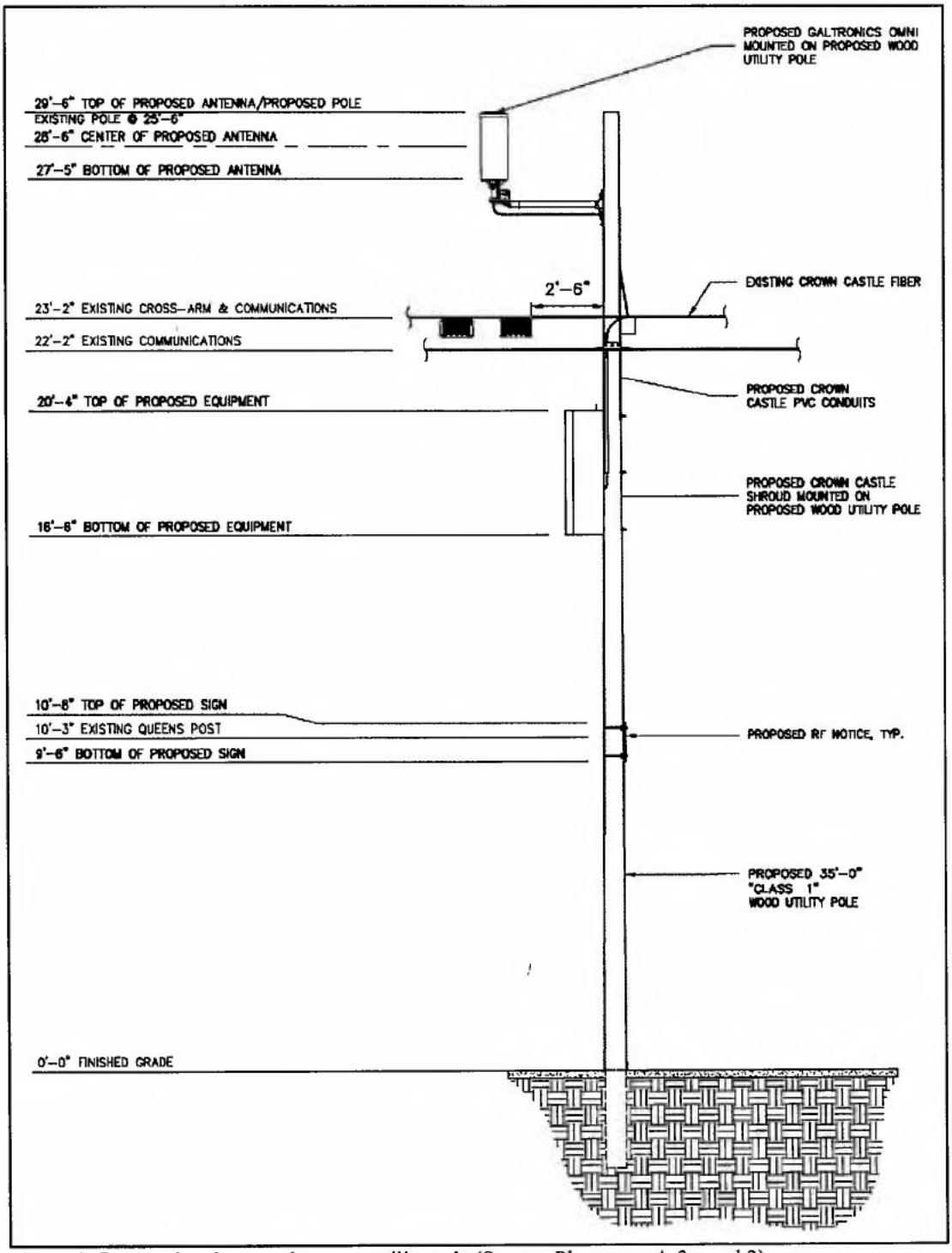


Figure 2: Proposed node on replacement utility pole (Source: Plans page A-3 panel 2).

TLF notes that the Plans do not mention whether the replacement pole will be situated at the exact same location of the old pole. Commonly, the replacement pole is placed adjacent to the existing pole, the transfer of existing facilities and addition of new facilities will occur, and then the original pole removed. In real life, that last step is often not performed for months or years. Accordingly, we recommend that conditions of approval include the following:

- The Permittee shall be solely responsible for causing the transfer of the existing pole facilities and the removal of the existing to occur within thirty (30) days after the commencement of the installation of the facilities approved in this Permit.

2. Section 6409(a) Analysis

As a threshold matter, the City must determine whether federal law mandates approval for this permit application. Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012 requires that State and local governments "may not deny, and shall approve" any "eligible facilities request" for a wireless site collocation or modification so long as it does not cause a "substant[ial] change in [that site's] physical dimensions."[1] FCC regulations interpret key terms in this statute and impose certain substantive and procedural limitations on local review.[2] Localities must review applications submitted for approval pursuant to Section 6409(a), but the applicant bears the burden to show it qualifies for mandatory approval.

Section 6409(a)(2) defines an "eligible facilities request" as a request to collocate, remove, or replace transmission equipment on an existing wireless tower or base station.[3] This definition necessarily excludes permit requests for new facilities. Thus, no matter how large or small, Section 6409(a) does not mandate approval for a permit to construct an entirely new wireless facility.

Here, the Applicant did **not** submit an eligible facilities request because rather than collocate on an existing wireless facility, the Applicant proposes to construct a new wireless facility where none currently exists.

Accordingly, given that Section 6409(a) does not apply, much less require that the City approve the Applicant's application and the City should review the Applicant's proposal for compliance with the local values expressed in the TMC subject to certain federal limitations in Section 704 of the Telecommunications Act of 1996 (the "**Telecom Act**").

3. Significant Gap and Least Intrusive Means Analysis

---

[1] *See* Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, 126 Stat. 156. (Feb. 22, 2012) (codified as 47 U.S.C. § 1455(a)).
[2] *See* In the Matter of Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies, *Report and Order*, 29 FCC Rcd. 12864 (Oct. 17, 2014) (codified as 47 C.F.R. §§ 1.40001, *et seq.*).
[3] *See* 47 U.S.C. § 1455(a)(2).

Under the Telecom Act, State and local governments cannot prohibit or effectively prohibit personal wireless communication services.[4] The United States Court of Appeals for the Ninth Circuit holds that a single permit denial can violate the Telecom Act when the applicant demonstrates that (1) a "significant gap" in its own service coverage exists and (2) its proposed site constitutes the "least intrusive means" to mitigate that significant gap.[5] This section discusses both issues as related to the present application.

3.1. Significant Gap

The Ninth Circuit does not precisely define what a "significant gap" in service coverage means because this "extremely fact-specific [question] def[ies] any bright-line legal rule."[6] Although sometimes courts find that weak service coverage constitutes a significant gap, the Ninth Circuit also holds that "the [Telecom Act] does not guarantee wireless service providers coverage free of small 'dead spots' . . . ."[7] Accordingly, whether a gap rises to a legally significant gap depends on the contextual factors in each individual application.[8]

To guide the analysis, the Ninth Circuit suggests that applicants and localities should focus on "context-specific factors" such as: (1) whether the gap affects a significant commuter thoroughfare; (2) how many users the alleged gap affects; (3) whether the proposed site will fill a complete void or merely improve weak signal; (4) whether the alleged gap affects a commercial area; (5) whether the alleged gap threatens public safety; and (6) whether the applicant presented empirical or merely predictive evidence.[9] The Ninth Circuit identifies those factors, just discussed, as being relevant, but does not explicitly limit the analysis to those factors or consider any particular factor more important than any of the others.

Within the August 2018 Submission section 4-Project Purpose of the City's Supplemental Technical Information Report ("**STIR**") for Wireless Telecommunication Facilities, the Applicant asserts that AT&T's proposed site is intended to "Increase the existing RF signal level in an existing coverage area."

[Balance of page intentionally left blank]

---

[4] *See* Section 704 of the Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56, *codified at* 47 U.S.C. § 332(c)(7)(B)(i)(II).
[5] *See MetroPCS, Inc. v. City and County of San Francisco*, 400 F.3d 715, 733 (9th Cir. 2005).
[6] *See id.*
[7] *See id.*
[8] *See Sprint PCS Assets, LLC v. City of Palos Verdes Estates*, 583 F.3d 716, 727 (9th Cir. 2009) (citing *San Francisco*, 400 F.3d at 733).
[9] *See id.* (collecting cases that examine each enumerated factor).

The signal map in Figure 3 depicts AT&T's existing signal strength within the area without the proposed site.

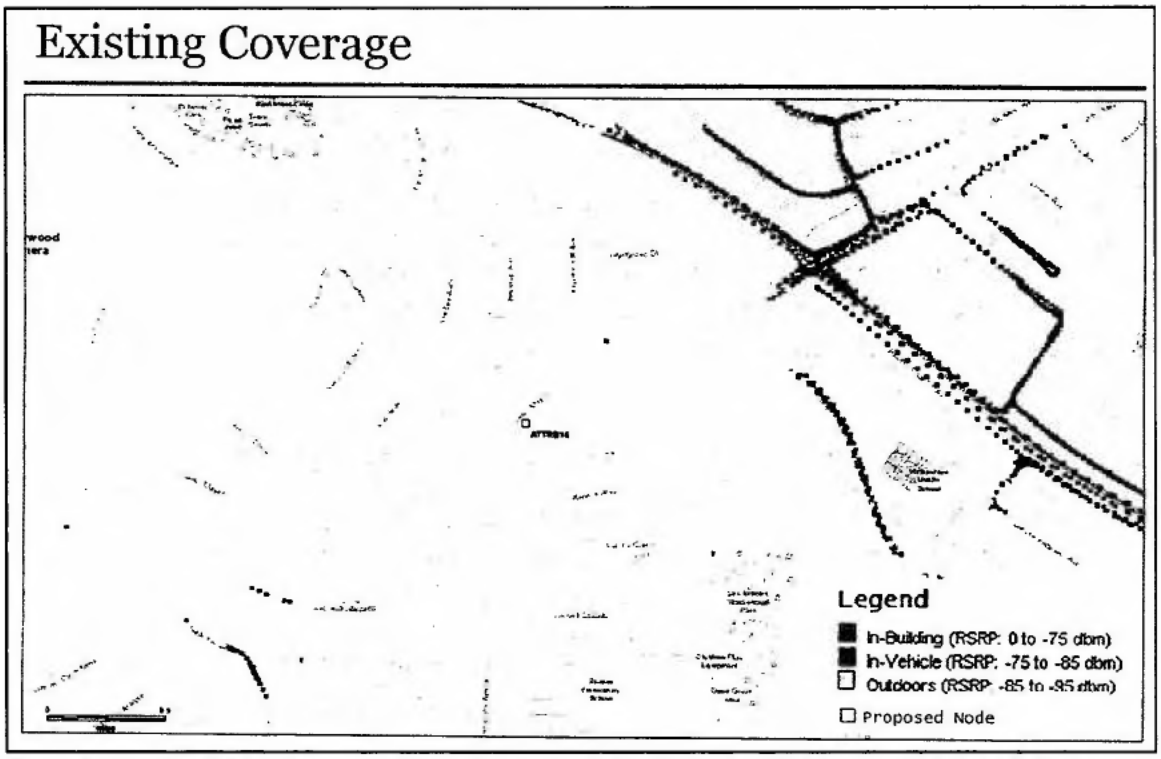


Figure 3: Existing AT&T Coverage without the proposed site (Source: AT&T August 2018 Submission).

[Balance of page intentionally left blank]

The signal map in Figure 4 depicts AT&T's proposed signal levels within the area without any other signals from other AT&T sites.

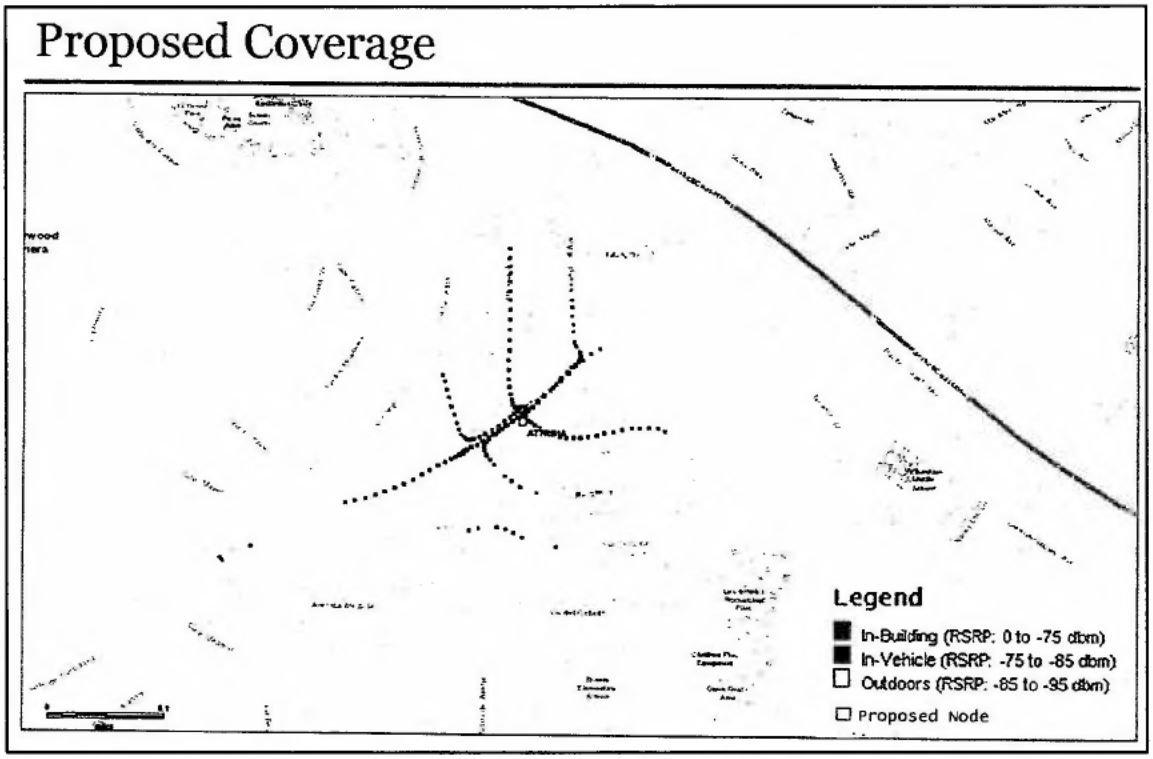


Figure 4: Proposed AT&T Coverage with the proposed site (source: AT&T August 2018 Submission).

The map above is based on a 'drive test' of the specific streets and street segments, thus no conclusions should be drawn regarding signal coverage in any area of the City (or even nearby) not specifically shown above.

This information is helpful to the City in siting location considering the City's authority regarding time, place, and manner of wireless sites in the public right of way pursuant to the Public Utilities Code, Section 7901 and 7901.1.

3.2. Least Intrusive Means

The Telecom Act does not grant the applicant the right to build whatever site in whatever location it chooses. State and local jurisdictions may require wireless applicants to adopt the "least intrusive means" to achieve their technical objectives.[10] This balances the national interest in wireless services with the local interest in planned development.

[10] *See, e.g., American Tower Corp. v. City of San Diego*, 763 F.3d 1035, 1056 (9th Cir. 2014).

In the Ninth Circuit, the least intrusive means refers to the technically feasible and potentially available alternative design and location that most closely conforms to the local values a permit denial would otherwise serve.[11] A "technically feasible and potentially available alternative" means that the applicants can reasonably (1) meet their demonstrated service needs and (2) obtain a lease or other legal right to construct the proposed site at the proposed location.[12]

The process to determine whether a proposal constitutes the least intrusive means involves a "burden-shifting" framework. First, the applicant establishes a presumption that it proposes the least intrusive means when it submits an alternative sites analysis. Localities can rebut the presumption when it proposes other alternatives. Applicants may then rule-out proposed alternatives when it provides a "meaningful comparative analysis" for why an alternative is not technically feasible or potentially available.[13] This back-and-forth continues until either the jurisdiction fails to propose a technically feasible or potentially available alternative, or the applicant fails to rule-out a proposed alternative.[14]

Applicants cannot rule-out potential alternatives on the grounds that it believes its preferred site is subjectively "better" than the jurisdiction's preferred alternative.[15] Only the local government can decide which among several feasible and available alternatives constitutes the best option. Similarly, an applicant cannot rule-out a proposed alternative based on a bare conclusion that it is not technically feasible or potentially available—it must provide a meaningful comparative analysis that allows the jurisdiction to reach its own conclusions.[16]

3.3. Alternative Sites Analysis

Responding to Section 8.02 (Candidate Sites) in the City's STIR, AT&T provided an Alternative Sites Analysis. See Figure 5 and Figure 6.

[Balance of page intentionally left blank]

---

[11] *See id.*; *see also AT&T USA, Inc. v. City of Anacortes*, 572 F.3d 987, 995 (9th Cir. 2009).
[12] *See Anacortes*, 572 F.3d at 996–999.
[13] *See American Tower Corp.*, 763 F.3d at 1056.
[14] *Compare id.* (upholding a permit denial because the applicant failed to rule-out the technical feasibility or potential availability of proposed alternatives), *with Anacortes*, 572 F.3d at 999 (invalidating a permit denial because the city insisted on an unavailable location). These cases provide a guide for planners on how to evaluate alternative site analyses. Planners should also note that a strong administrative record is essential to this analysis.
[15] *See American Tower Corp.*, 763 F.3d at 1057 (finding that the applicant "did not adduce evidence allowing for a meaningful comparison of alternative designs or sites, and the [c]ity was not required to take [the applicant]'s word that these were the best options").
[16] *See id.*

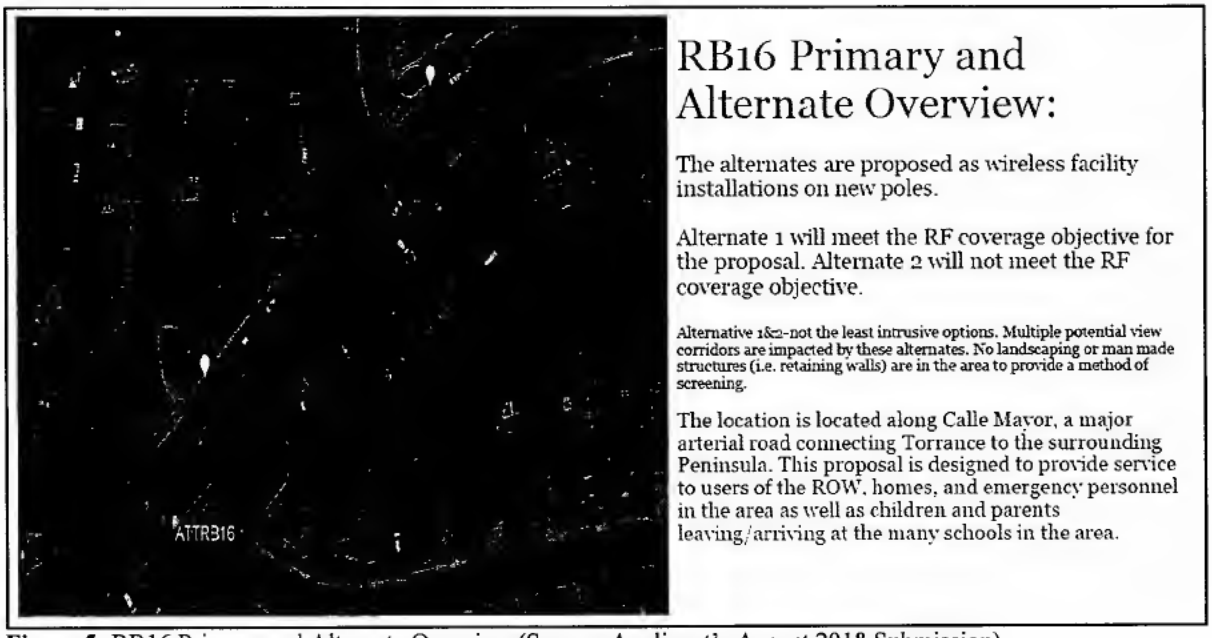


Figure 5: RB16 Primary and Alternate Overview (Source: Applicant's August 2018 Submission).

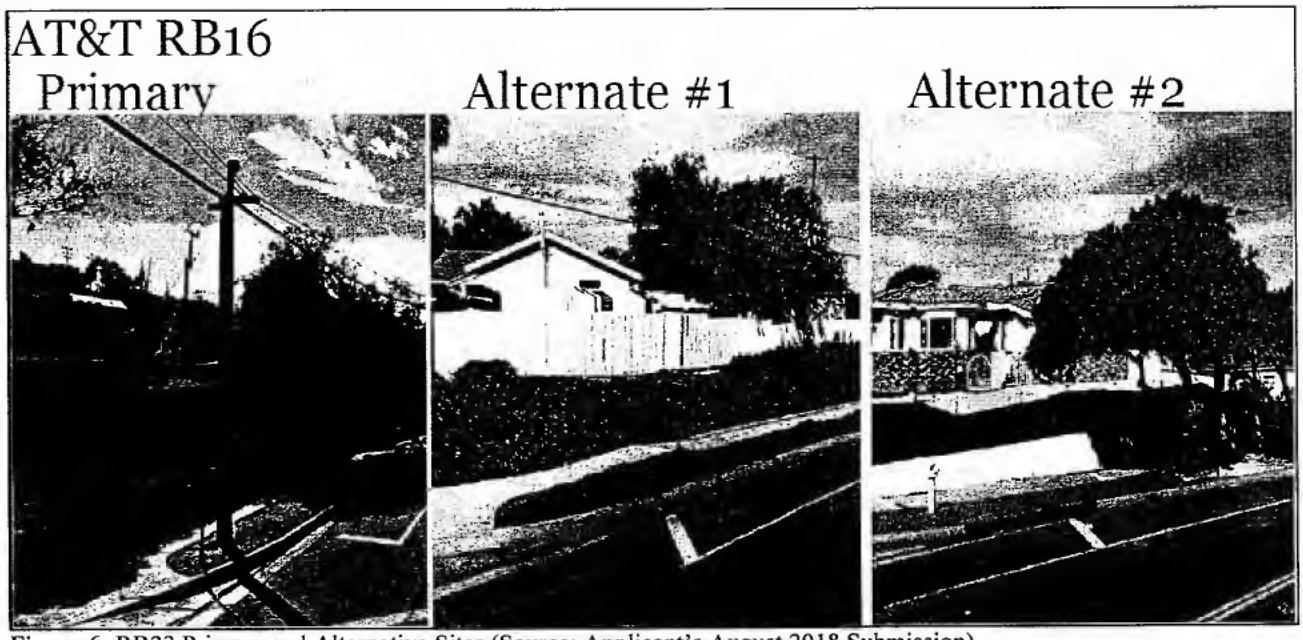


Figure 6: RB23 Primary and Alternative Sites (Source: Applicant's August 2018 Submission).

Whether the primary site is the least intrusive or if any or some of the alternate candidates depicted in Figure 5 are less intrusive is a question for the City to decide based on its aesthetic judgment of the primary site and alternatives. That said, as disclosed by the Applicant, only Alternative 1 will meet its RF objectives.

4. Planned Compliance with RF Exposure Regulations

Under the Telecom Act, the FCC completely occupies the field with respect to RF emissions regulation. The FCC established comprehensive rules for human exposure to RF emissions (the "**FCC Guidelines**").[17] State and local governments cannot regulate wireless facilities based on environmental effects from RF emissions to the extent that the emissions comply with the FCC Guidelines.[18]

Although localities cannot establish their own standards for RF exposure, local officials may require wireless applicants to demonstrate compliance with the FCC Guidelines.[19] Such demonstrations usually involve a predictive calculation because the site has not yet been built.

4.1. FCC Guidelines, Categorical Exclusions and Exposure Mitigation Measures

FCC Guidelines regulate *exposure* rather than *emissions*.[20] Although the FCC establishes a maximum permissible exposure ("**MPE**") limit, it does not mandate any specific limitations on power levels applicable to all antennas and requires the antenna operator to adopt exposure-mitigation measures only to the extent that certain persons might become exposed to the emissions. Thus, a relatively low-powered site in proximity to the general population might require more comprehensive mitigation measures than a relatively high-powered site in a remote location accessible only to trained personnel.

The MPE limit also differentiates between "general population" and "occupational" people. Most people fall into the general population class, which includes anyone who either does not know about potential exposure or knows about the exposure but cannot exert control over the transmitters.[21] The narrower occupational class includes persons exposed through their employment and able to exert control over their exposure.[22] The MPE limit for the general population is five times lower than the MPE limit for the occupational class.

Lastly, the FCC "categorically excludes" certain antennas from routine environmental review when either (1) the antennas create exposures in areas virtually inaccessible to humans or (2) the antennas operate at extreme low power. As a general rule, a wireless site qualified for a categorical

---

[17] *See* 47 U.S.C. § 332(c)(7)(B)(iv); *see also* 47 C.F.R. § 1.1307 *et seq.*; FCC Office of Engineering and Technology, *Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*, OET Bulletin 65, ed. 97-01 (1997).

[18] *See* 47 U.S.C. § 332(c)(7)(B)(iv).

[19] *See* In re Procedures for Reviewing Requests for Relief from State and Local Regulations Pursuant to Section 332(c)(7)(B)(iv) of the Communications Act of 1934, *Report and Order*, 15 FCC Rcd. 22821, 22828–22829 (Nov. 13, 2000) (declining to adopt rules that limit local authority to require compliance demonstrations).

[20] *See generally* Human Exposure to Radio Frequency Fields: Guidelines for Cellular and PCS Sites, *Consumer Guide*, FCC (Oct. 22, 2014), *available at* https://www.fcc.gov/guides/human-exposure-rf-fields-guidelines-cellular-and-pcs-sites (discussing in general terms how wireless sites transmit and how the FCC regulates the emissions).

[21] *See* 47 C.F.R. § 1.1310, Note 2.

[22] *See id.*

exclusion when mounted on a structure built solely or primarily to support FCC-licensed or authorized equipment (*i.e.*, a tower) and such that the lowest point on the lowest transmitter is more than 10 meters (32.8 feet) above ground.[23]

Categorical exclusions establish a presumption that the emissions from the antennas will not significantly impact humans or the human environment. Such antennas are exempt from routine compliance evaluations but not exempt from actual compliance. Under some circumstances, such as a heavily collocated tower or when in close proximity to general population members, even a categorically excluded site will require additional analysis.

4.2. Planned Compliance Evaluation and Recommendations

The FCC Guidelines do **not** categorically exclude the Applicant's facility from routine compliance review. This is because the Pole was originally constructed for transporting electricity and wired communications circuits and not primarily to support wireless equipment. Therefore, an additional analysis for whether the facility will comply with the FCC Guidelines is appropriate.

In an attempt to demonstrate planned compliance with the FCC Guidelines, the Applicant on behalf of AT&T submitted a generic Radio Frequency Electromagnetic Fields Exposure Report prepared by Dtech Communications. That report is dated August 2, 2017 (the "**Dtech Report**"). The Dtech Report notes the site name as "Arm Mount Configuration." Additionally, the application materials contained a letter from Crown Castle, signed by Mr. Aaron Snyder and dated August 6, 2018 ("**Crown August 2018 Letter**"). The Crown August 2018 Letter contained a reference for the generic Dtech Report. See Figure 7 below.

> The DTECH report submitted for each of the applications is the correct EME report for purposes of this particular type of design and respective location.

Figure 7: Explanation for Generic Dtech Report (Source: Crown Castle August 2018 Letter).

Initially, we do not believe a generic non-specific report regarding a primary public safety matter should be accepted by the City. In this situation, we believe a site-specific RF emissions analysis is both necessary and required to allow the City to comply with its duty to review for FCC rules compliance with the emissions from the particular site proposed.

Further, it is not for Crown Castle to assert that the DTECH is correct; that duty belongs to the RF engineer who is responsible for certifying compliance with the FCC rules for a particular site and configuration. For the City to do as Crown Castle asks would be akin to having the owner of a car

[23] *See id.* § 1.1307(b)(1).

tender a generic smog certificate for a hypothetical car to the DMV claiming that the generic smog certificate is and should be applicable to that owner's particular vehicle. This is simply silly.

TLF recommends that the City condition the building permit that no construction shall commence until a site specific RF Report is submitted to the City by Crown Castle for the instant project, and once provided, the site specific RF Report shall be reviewed by the City determine actual compliance with the FCC rules and regulations.

Finally, we note that while the Plans (Page D-2, panel 1) indicate a power disconnect box (which is required by CPUC GO95 Rule 94), that disconnect box is not shown elsewhere in the Plans. It should be a condition of approval that the power disconnect below be placed directly below and immediately adjacent to the RRU shroud, and the by condition no locking device be used with switch.

5. Permission to Access the Pole.

Relating to property ownership, here the Pole, based on information presented to the City and to this firm on March 6, 2018 during a phone call with the Applicant, the Applicant indicated its desire to proceed forward with the project without having first submitted a Joint Pole Association ("**JPA**") clearance letter, or a letter from the applicant indicating that the JPAs 45-day waiver has elapsed. We support this approach subject to a condition that has been verbally accepted by Crown Castle that no actual construction permit will issue until either the JPA approval the Applicant's or 45-day waiver letter has been received by the City.

6. Conclusion

We recommend that the City determine whether the proposed location is the least intrusive compared to the alternatives.

We further recommend the City adopt the conditions contained in this memorandum in any grant of approval for the project.

/JLK

TELECOM LAW FIRM PC

APPLICATION INCOMPLETE MEMORANDUM

TO: Mr. Oscar Martinez
FROM: Dr. Jonathan Kramer [redacted]
DATE: September 20, 2017
RE: Application Completeness Review – New Proposed Wireless Facility in the Public Right-of-Way at F/O 23603 Susana Avenue

APPLICANT: Crown Castle NG West, LLC
APPLICANT'S ID: ATTRB-16; USID: 177957
UTILITY POLE ID: No Tag for replacement wood utility pole

The City of Torrance (the "**City**") requested that Telecom Law Firm, PC ("**TLF**") review the Crown Castle NG West, LLC ("**Crown Castle**") application on behalf of AT&T to operate a new wireless site on a replacement wood utility pole ("**Pole**") in the public right-of-way ("**ROW**") located at F/O 23603 Susana Avenue. The date Crown Castle submitted this project to the City was August 28, 2017.

On the Pole, Crown Castle proposes to install a new Pole-affixed arm mount to hold one omni-directional antenna. The omni-antenna is proposed to be situated on the side of the Pole by an arm mounting bracket that will separate the antenna from the Pole by 3-feet which meets the requirements of the California Public Utilities Commission, General Order 95, Rule 94.

Crown Castle also proposes to mount on the Pole a total of four remote radio units ("**RRUs**") within two enclosures, and four DC power converters on an existing pole-to-pole strand. The existing strand will also support the fiber optic cable used for communications backhaul from this site to AT&T's cell switching center. The height of the Pole supporting this project is proposed to be 28' 3" above ground level ("**AGL**") while the existing pole is 25' 6" AGL.

This memorandum reviews the application and related materials to determine whether the applicant submitted a complete and responsive application. The following review may also discuss regulatory and technical issues related to wireless infrastructure. Although many technical issues implicate legal issues, the analysis and recommendations contained in this memorandum do not constitute legal advice.

A. APPLICATION COMPLETENESS REVIEW

Based on the City's Submittal Requirements for Wireless Telecommunications Facility ("**Requirements Form**"), we recommend that the City deem Crown Castle's application submittal **incomplete** and issue an incomplete notice on or before September 27, 2017 regarding the items more fully discussed on the next pages:

[Balance of page intentionally left blank]

REQUIREMENTS FORM

I. APPLICATION FORM

The City requires a Development Application and a Supplemental Technical Information Report ("**STIR**").

General note: The submitted application materials fail to provide the required Section references making the application difficult to reliably cross-reference various points. Each application material needs to identify the sections within the Requirements Form and STIR.

- **Development Application:**

  All necessary information required on the Development Application checklist appears to be properly filled out.

- **Supplemental Technical Information Report:**

  - Sec. 3.02 - Missing Attachment FCC License for AT&T
  - Sec. 3.03 is left blank - Applicant must provide the required information.
  - Sec. 3.04 is left blank - Applicant must provide the required information.
  - Sec. 3.05 is left blank - Applicant must provide the required information.
  - Sec. 3.06 is left blank - Applicant must provide the required information.
  - Sec. 3.07 is left blank - Applicant must provide the required information.
  - Sec. 3.08 is left blank - Applicant must provide the required information.
  - Sec. 3.09 - Missing Attachment LSGAC Appendix A form, however the Applicant provided a Radio Frequency Electromagnetic Fields Exposure Report prepared by Dtech Communications (the "**Dtech Report**"), which is a suitable substitute for the LSGAC Appendix A form.
  - Sec. 3.10 is left blank - Applicant must provide the required information.
  - Sec. 3.11 is not provided, however the Applicant provided the Dtech Report
  - Sec. 3.12 is left blank - Applicant must provide the required information.
  - Sec. 3.13 is left blank - Applicant must provide the required information if applicable.
  - Sec. 3.14 is left blank - Applicant must provide the required information.
  - Sec. 3.15 is left blank - Applicant must provide the required information.
  - Sec. 4.02 is left blank - Applicant must provide the required information.
  - Sec. 5.01–5.03 is left blank - AT&T through Applicant must provide the required information.
  - Sec. 6.03 - Applicant has not provided a node-isolated coverage map.

- Section 6.05 is not provided, however the Applicant provided the Dtech Report.
- Section 7.01–subsection 2: Missing elements on the photo simulations (e.g., replacement Pole, connecting wires, PVC conduits, etc.) See Figure 1, below.

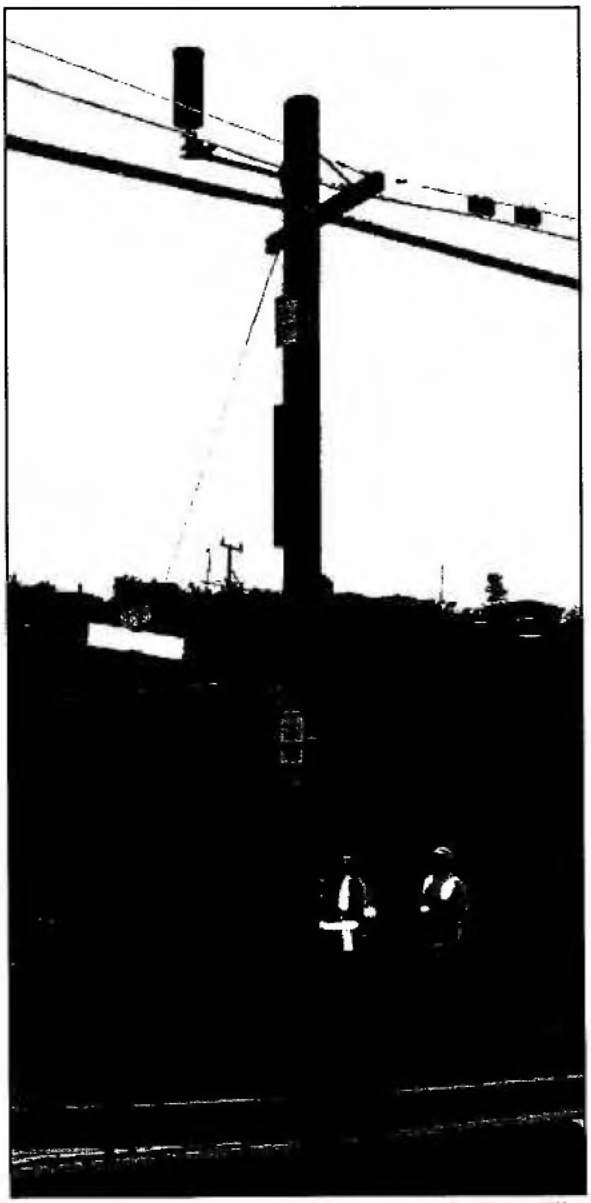


Figure 1: Omni-directional antenna, Antenna Arm, Fiber Node, 4 DC power converters, 4 RRUs enclosed within two enclosures, RF signage (Missing elements, e.g., replacement Pole, connecting wires, PVC conduits, etc.) (Source: Photo Simulations provided by Applicant).

- Section 7.01–subsection 3: Missing views of the overall project. STIR requires 5 or more views, only 2 are provided.
- Section 8.00–8.05: Insufficient Information - Applicant needs to submit an Alternative Sites Analysis.
- Section 9 - Non-responsive information - Applicant needs to submit the detailed information specified in Section 9.01.

II. PROPERTY OWNERSHIP

The applicant must provide written proof that the Joint Pole Authority has granted attachment permission for this project.

III. PROJECT PLANS

- No power source for the powered fiber indicated. The power source is a critical element of this project, which will not operate without it. Provide detailed information about the location and design of the powered fiber source. Also provide information regarding the power disconnect switch for this location.

- The plans do not reflect the proposed replacement Pole on Pages A-1 Panels 1 and 2. See Figure 2.

[Balance of page intentionally left blank]

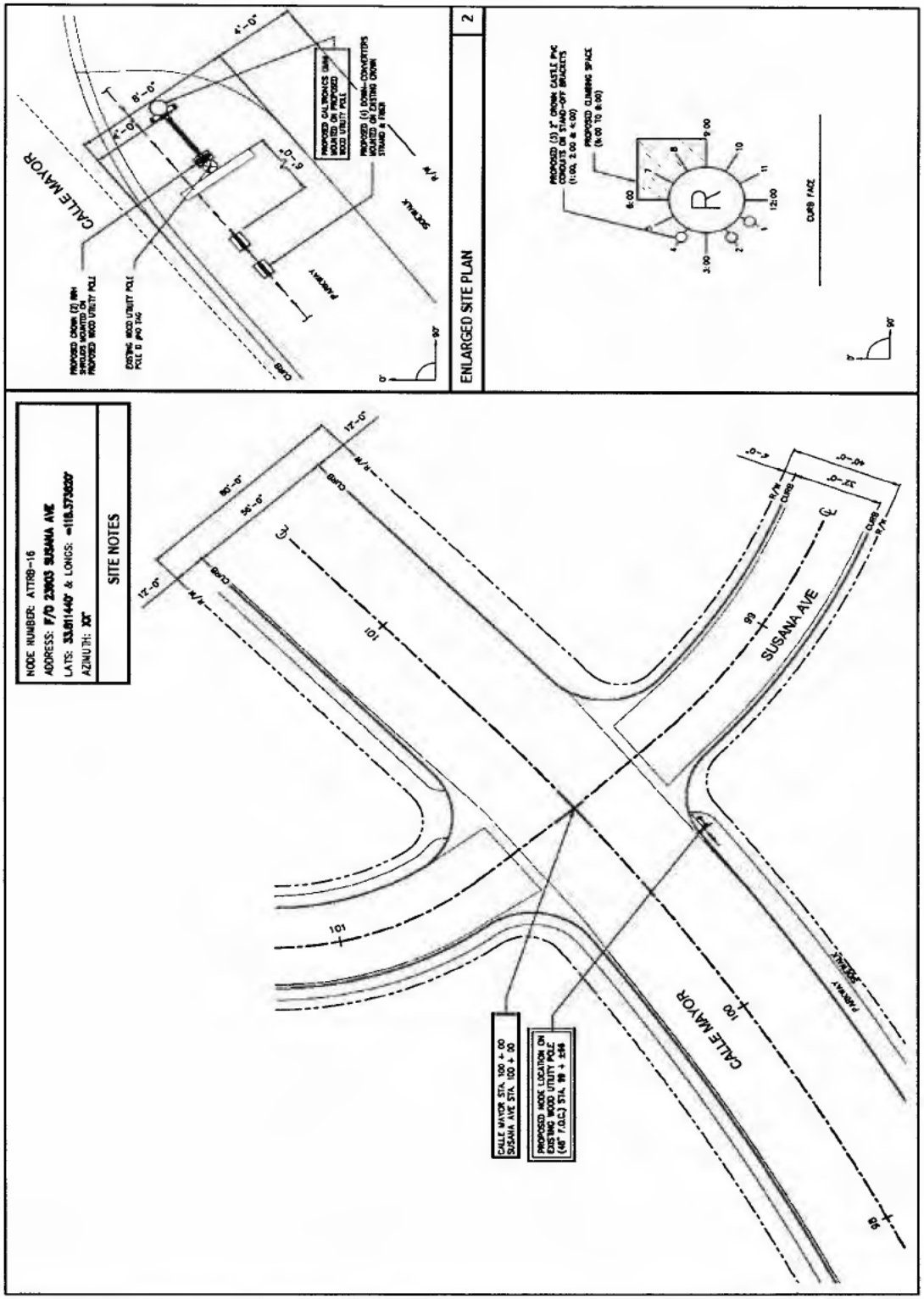


Figure 2: No replacement Pole proposed (Source: Plans A-1 Panels 1, 2, and 3. (Annotated by Dr. J. Kramer).

- The Plans excludes the existing down guy location on Pages A-2 and A-3 both Panels 1 and 2. See Figure 3.

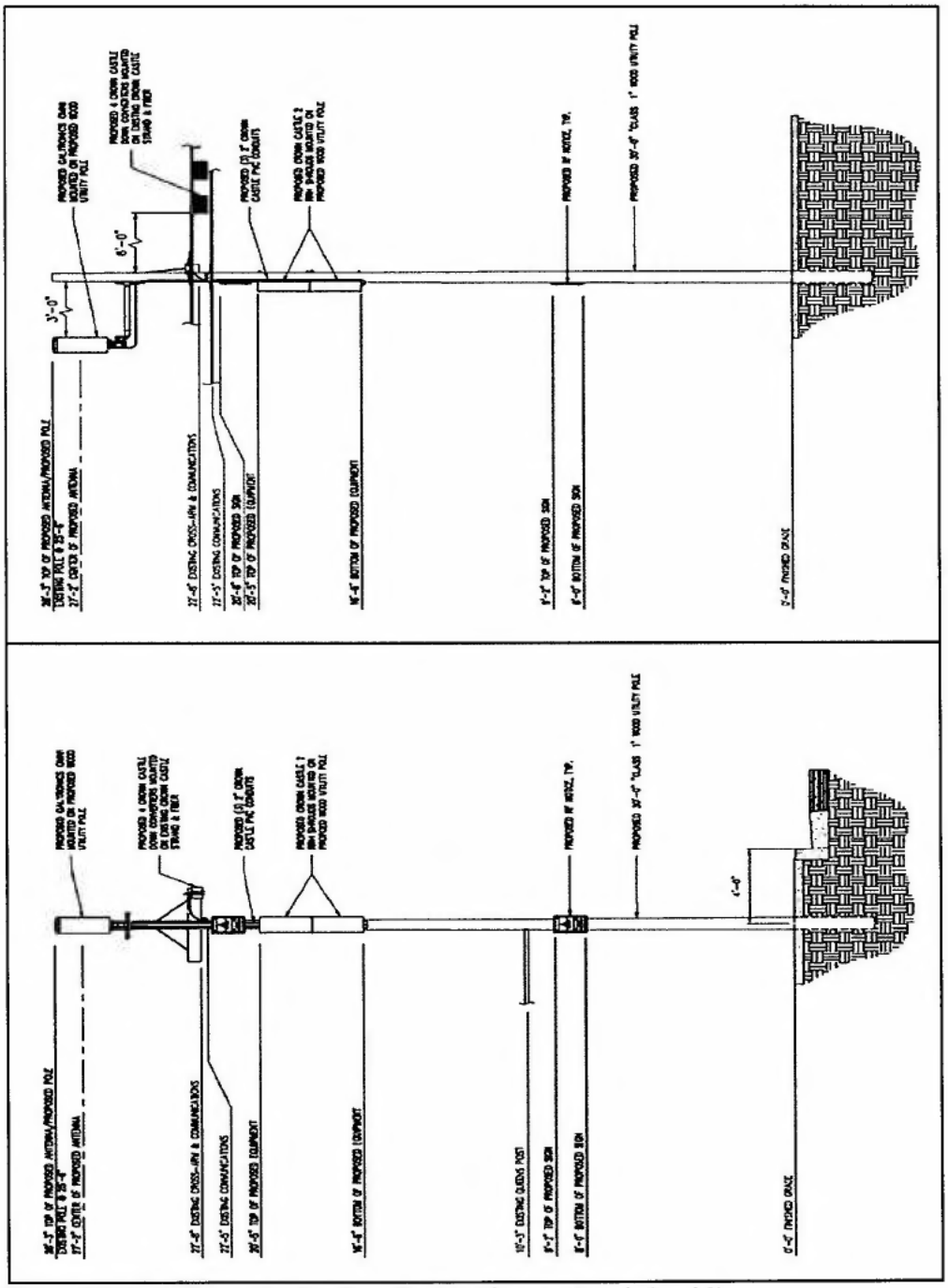


Figure 3: Missing Down Guy locations (Source: Plans A-3 Panels 1 and 2).

IV. JUSTIFICATION

The purported justification from this site, while not completely clear, can be discerned from the coverage maps section of the application.

V. MAPS

As mentioned in the above sections, some of the maps are missing/incomplete.

VI. VISUAL SIMULATIONS

The photo simulations provided by the applicant are incomplete, fail to show visible cable and conduit interconnections, and do not accurately reflect the size and scope of the project elements to be constructed.

B. ADDITIONAL INCOMPLETE, INCONSISTANT ITEMS

We note that the project description throughout the permit application details only a new Pole and not a replacement of the existing pole. See Figure 4.

PROJECT DESCRIPTION

- INSTALL (1) OMNI DIRECTIONAL ANTENNA AND (N) ARM MOUNT ON (N) WOOD UTILITY POLE
- INSTALL (4) RRUS-2203 WITHIN (2) NEW ENCLOSURES ON (N) WOOD UTILITY POLE
- INSTALL (4) DOWN-CONVERTER UNITS ON (E) CROWN CASTLE STRAND & FIBER

Figure 4: Project description missing replacement of existing pole (Source: Plans T-1)

We note that Table 2 of the Dtech Report lists the number and frequencies of RRUs that differs from details provided in the Plans. See Figure 5 and Figure 6.

Table 2: Site Technical Specifications

Antenna ID	Operator	Carrier #	Antenna Mfg	Antenna Model	Type	DAS Equipment	Frequency (MHz)	Orientation (°T)	Horizontal BWidth (°)	Antenna Aperture (ft)	Antenna Gain (dBd)	Total ERP (Watts)	Bottom Tip Height Above Ground (Z) (ft)	Bottom Tip Height Ant Level (Z) (ft)
A1	Crown Castle	1	Galtronics	P6480i	Omni	(2) RRU2203	1900	0	360	2.1	6.9	69.2	17.8	0.0
A1	Crown Castle	1	Galtronics	P6480i	Omni	(1) RRU2203	5000	0	360	2.1	3.9	2.5	17.8	0.0

Figure 5: A total of three RRUs shown. Two RRUs in 1900 MHZ (PCS) and one RRU in 5000 MHz (Source: Dtech Report, Table 2)

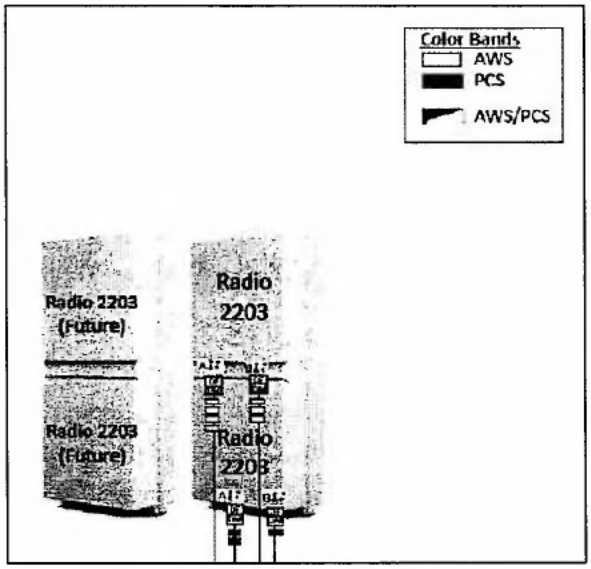


Figure 6: Two RRUS in AWS (2100 MHz) and PCS (1900 MHz) frequencies (Source: Plans page D-3; Panel 1)

We suspect that Dtech was presented with radio frequency information by Crown Castle early in its development process that subsequently changed in the Plans submitted to the City. We recommend that the City direct Crown Castle to (a) delete the "Future" elements from the project, including without limitation to the "Future RRUs" and (b) have Dtech prepare an updated report that only assesses what is actually proposed to be activated.

C. OTHER PERMITS AND APPLICATIONS REQUIRED

This project is likely to require an encroachment permit as a separate set of approvals including an excavation permit, fiber installation permit, building permit, and electrical permit.

D. CLOSING COMMENTS AND RECOMMENDATION

TLF believes that Crown Castle has failed to submit a complete permit application that complies with the City's Requirements Form. The list of incomplete items in this memo contains TLF's observations. The City may have other items for the incomplete notice. Under the FCC rules, there is only one incomplete notice, so it is imperative that all items which are incomplete are listed in the first notice.

We recommend that the City deem Crown Castle's application incomplete and issue a timely incomplete notice to Crown Castle no later than September 27, 2017 (based on the application materials tender date of August 28, 2017). TLF recommends the City send the incomplete notice by email and on the same day also sends it by First Class or Certified U.S. Mail postage prepaid.

Once a reply to the City's incomplete notice is received back from Crown Castle, the City has only 10 calendar days to determine whether the reply is responsive to the incomplete notice, and

each of the 10 days counts against the overall 150 day shot clock, thus immediate review upon resubmission should occur.

Finally, Crown Castle's letter dated August 29, 2017 asserts that this project is subject to a 90-day shot clock. Crown Castle is incorrect. It relies on documents adopted after the FCC's October 21, 2014 Order. Newer documents are not applicable to the shot clock. The correct shot clock for this project is 150 days.

/JLK

City of Torrance, Community Development Department Jeffery W. Gibson, Director
3031 Torrance Blvd., Torrance, CA 90503, Phone (310) 618-5990 Fax (310) 618-5829

SUPPLEMENTAL TECHNICAL INFORMATION REPORT FOR WIRELESS TELECOMMUNICATION FACILITIES

1.00: Project Address 23603 Susana Ave.

Assessor Parcel Number N/A Public ROW

2.00: Disclose the Name and Address of all Project Owners, and attach a letter of agency appointing the Applicant as representative of the Project Owners in connection with this application. Designate the letter of agency as "Attachment 2.00".

3.00: **FCC Licensee/FAA Compliance Information**

3.01: Identify each person or legal entity that will be using the wireless site and contact information (Attach additional sheets if necessary)

Name: Crown Castle NG West LLC - Stephen Garcia

Address: 200 Spectrum Center Drive, Suite 1800

City, State, Zip: Irvine, CA 92618

Phone: (866) 466-3984 Fax: _____

Email: stephen.garcia@crowncastle.com

3.02: Attach a complete copy of each FCC license or FCC Construction Permit for each person/legal entity that will be subject to the FCC license for the Project site. Designate the license(s)/Construction Permit(s) as "Attachment 3.02". If none of the proposed radio facilities require an FCC license so indicate on Attachment 3.02.

3.03: What is the intended use of the facility (check all that apply):

- ☐ Broadcast Radio
- ☐ Broadcast TV
- ☑ Cellular telephone
- ☐ Enhanced Specialized Mobile Radio
- ☐ Microwave
- ☑ PCS telephone
- ☐ Paging
- ☐ Specialized Mobile Radio
- ☐ Other: _____

3.04: Project latitude and longitude: N 33.811440 W -118.373820

ATTACHMENT 3

City of Torrance, Community Development Department Jeffery W. Gibson, Director
3031 Torrance Blvd., Torrance, CA 90503, Phone (310) 618-5990 Fax (310) 618-5829

SUPPLEMENTAL TECHNICAL INFORMATION REPORT FOR WIRELESS TELECOMMUNICATION FACILITIES

3.05: Specify DATUM use above: ____ WGS84 ____NAD23 x NAD83

3.06: Project Maximum height (ft): 28'3"

3.07: Bottom of lowest antenna (ft): 26'1"

3.08: Rad-center of the antennas (ft): 27'2"

3.09: For each licensee, and for each radio service, complete and attach the two page "Appendix A" form from "A Local Government Official's Guide to Transmitting Antenna RF Emission Safety: Rules, Procedures, and Practical Guidance" available from the following website: http://www.FCC.gov/oet/rfsafety. Designate the completed two page form as "Attachment 3.09". Additional RF safety disclosure information may be required by the government to determine compliance with FCC OET 65 requirements if the site is not "categorically excluded" under OET 65. (please see Bushberg Report)

3.10 Are any areas adjacent to the antennas subject to RF emissions that are in excess of the "General Public/uncontrolled" standard in FCC OET 65? For this purpose, assume that all persons other than the Carrier's technical staff are considered to be members of the General Public.

____ Yes x No

(If the answer to 3.10 is NO proceed to 3.12)

3.11 Provide a detailed RF analysis for each emitter and each band showing the distance, in feet, in all directions to the boundary of the General Public/uncontrolled boundary. Designate this attachment, "Attachment 3.11".

3.12 Considering your response to 3.10, above, and any other identifiable RF emitters that OET 65 requires be evaluated in connection with this project, are all portions of this project cumulatively "categorically excluded" under FCC OET 65 requirements?

x Yes ____ No

(If the answer to 3.12 is YES proceed to 3.14.)

3.13 Describe in an attachment each and every RF emitter of the project that is not "categorically excluded" under the FCC OET 65 requirements. Designate this attachment, "Attachment 3.13".

3.14: Does this project require the Applicant to file an FAA Form 7460 or other documentation under Federal Aviation Regulation Part 77.13 et seq, or under the FCC rules?

___ Yes x No

(If the answer to 3.14 is NO proceed to 4.00.)

3.15 Attach complete copies of all required FAA/FCC forms including all attachments and exhibits thereto, including without limitation FAA Form 7460. Designate this attachment, "Attachment 3.15".

4.00: **Project Purpose**

4.01: Justification. Provide a brief narrative, accompanied by written documentation where appropriate, which explains the purpose of the facility and validates the applicant's efforts to comply with the design, location, and co-location standards of Chapter 2, Division 9, Article 39 of the City's Municipal Code. (See FFB CPCN copy)

Crown Castle NG West LLC, Utility No. U-6745-C, obtained a Certificate of Public Convenience and Necessity (CPCN) from the California Public Utilities Commission in Decision No. 07-04-045 to provide full facilities based radiofrequency transport services. CPCN Conclusion of Law No. 4 states: "Public convenience and necessity require NextG's full facilities-based local exchange services to be offered to the public subject to the terms and conditions set forth herein." This justification is sufficient under the California state law and under Crown's authorized provision of radiofrequency transport services. No further site justification is required.

4.02: Indicate whether the dominant purpose of the Project is to add additional network capacity, to increase existing signal level, or to provide new radio frequency coverage (check only one).
- ☐ Add network capacity without adding substantial new RF coverage area (Proceed to 5.00)
- ☑ Increase the existing RF signal level in an existing coverage area (Proceed to 5.00)
- ☐ Provide new radio frequency coverage in a substantial area not already served by existing radio frequency coverage (Proceed to 5.00)
- ☐ Other

4.03 Attach a statement fully and expansively describing the "Other" dominant purpose of this project. Designate this attachment, "Attachment 4.03".

5.00: **Build-Out Requirements**

5.01: Do any of radio services identified in 3.04 above require the licensee to provide specific radio frequency/population coverage pursuant to the underlying FCC license?
x Yes ___ No
(If the answer to 5.01 is NO proceed to 6.00.)

5.02: Have all of the FCC build-out requirements as required by all licenses covering all radio services proposed at this Project been met?
x Yes ___ No
(If the answer to 5.02 is YES proceed to 6.00.)

5.03: State by licensee all remaining build-out requirements which have yet to be met, and the known or estimated date when the remaining build-out requirements will be met. Designate this attachment "Attachment 5.03".

6.00: **Radio Frequency Coverage Maps**

6.01: Where a licensee intends to provide radio frequency geographic coverage to a defined area from the Project (including applicants in the cellular, PCS, broadcast, ESMR/SMR categories, and others as requested by the City of Torrance), the coverage maps and information requested in Section 6 are required attachments. All others proceed to 7.00.

For the coverage maps required here, the following mandatory requirements apply. Failure to adhere to these requirements may delay your application processing.

1. The size of each submitted map must be no smaller than 11" by 8.5".

2. If the FCC rules for any proposed radio service defines a minimum radio frequency signal level that level must be shown on the map in a color easily distinguishable from the base paper or transparency layer, and adequately identified by RF level and map color or gradient in the map legend. If no minimum signal level is defined by the FCC rules you must indicate that in the legend of each RF coverage map. You may show other RF signal level(s) on the map so long as they are adequately identified by objective RF level and map color or gradient in the map legend.

3. Where the City of Torrance determines that one or more submitted maps are inadequate, it reserved the right to request that one or more supplemental maps with greater or different detail be submitted.

6.02: Existing RF coverage within the City of Torrance on the same network, if any (if none, so state). This map should <u>not</u> depict any RF coverage to be provided by the Project. Designate this attachment "Attachment 6.02".

6.03: RF coverage to be provided by the Project. This map should <u>not</u> depict any RF coverage provided any other existing or proposed wireless sites. Designate this attachment "Attachment 6.03".

6.04: RF coverage to be provided by the Project and by other wireless sites on the same network should the Project site be activated. Designate this attachment "Attachment 6.04".

6.05: Provide a written certification that the facility will continuously comply with FCC OET Bulletin 65 radio frequency emissions standards, and that use of the facility will not interfere with other communication, radio, or television transmission or reception.

(Please See Bushberg Report)

7.00: **Project Photographs and Photo Simulations**

7.01: Where an Applicant proposes to construct or modify a wireless site, and the wireless site is visible from other residential properties, the Applicant shall submit pre-project photographs, and photo simulations showing the project after completion of construction, all consistent with the following standards:

1. Minimum size of each photo simulation must be 11 inches by 8.5 inches (portrait or landscape orientation);

2. All elements of the project as proposed by the Applicant must be shown in one or more close-in photo simulations.

3. The overall project as proposed by the Applicant must be shown in five or more area photos and photo simulations. Photos and photo simulation views must, at a minimum, be taken from widely scattered positions separated by an angle of no greater than 72 degrees from any other photo location.

The number of site photos, and photo simulations, and the actual or simulated camera location of these photos and photo simulations is subject to City of Torrance determination. The Applicant should submit photos and photo simulations consistent with these instructions, and be prepared to provide additional photos and photo simulations should they be requested by the City of Torrance.

8.00: **Candidate Sites**

8.01: For applicants in the cellular, PCS, broadcast, ESMR/SMR categories, and others as requested by the City of Torrance, the information requested in Section 8 is required. All others proceed to 9.00.

8.02: Has the Applicant or Owner or anyone working on behalf of the Applicant or Owner secured or attempted to secure any leases or lease-options or similar formal or informal agreements in connection with this project for any sites other than the candidate site identified at 1.00?
___ Yes x No
(If the answer to 8.02 is NO, proceed to 8.05.)

8.03: Provide the physical address of each such other location, and provide an expansive technical explanation as to why each such other site was disfavored over the Project Site. Designate this attachment "Attachment 8.03".

8.04: Considering this proposed site, is it the one and only one location within or without the City of Torrance that can possibly meet the objectives of the project?
___ Yes ___ No
(If the answer to 8.04 is NO, proceed to 9.00.)

SUPPLEMENTAL TECHNICAL INFORMATION REPORT FOR WIRELESS TELECOMMUNICATION FACILITIES

8.05: Provide a technically expansive and detailed explanation supported as required by comprehensive radio frequency data fully describing why the proposed site is the one and only one location within or without the City of Torrance that can possibly meet the radio frequency objectives of the project. Explain, in exact and expansive technical detail, all of the objectives of this project. Designate this attachment "Attachment 8.05".

9.00: **Identification of Key Persons**

9.01: Identify by name, title, company affiliation, work address, telephone number and extension, and email address the key person or persons most knowledgeable regarding:
(See response for 3.01)
(1) the site selection for the proposed project, including alternatives;
(2) the radio frequency engineering of the proposed project;
(3) rejection of other candidate sites evaluated, if any;
(4) approval of the selection of the proposed site identified in this project.
Designate this attachment "Attachment 9.01"

9.02 If more than one person is/was involved in any of the four functions identified in this section, attach a separate sheet providing the same information for each additional person, and identifying which function or functions are/were performed by each additional person. Designate this attachment "Attachment 9.02".

Initial here AE to indicate that the information above is complete and there is no Attachment 9.02, or initial here _____ to indicate that Attachment 9.02 is attached hereto.

10.00: **Technical Information Report Certification**

10.01: The undersigned certifies on behalf of itself and the Applicant that the answers provided here are true and complete to the best of the undersigned's knowledge.

[redacted] — Signature

GRM — Title

Stephen Garcia — Print Name

Stephen.Garcia@crowncastle.com — Provide Email Address

Crown Castle NG West LLC — Print Company Name

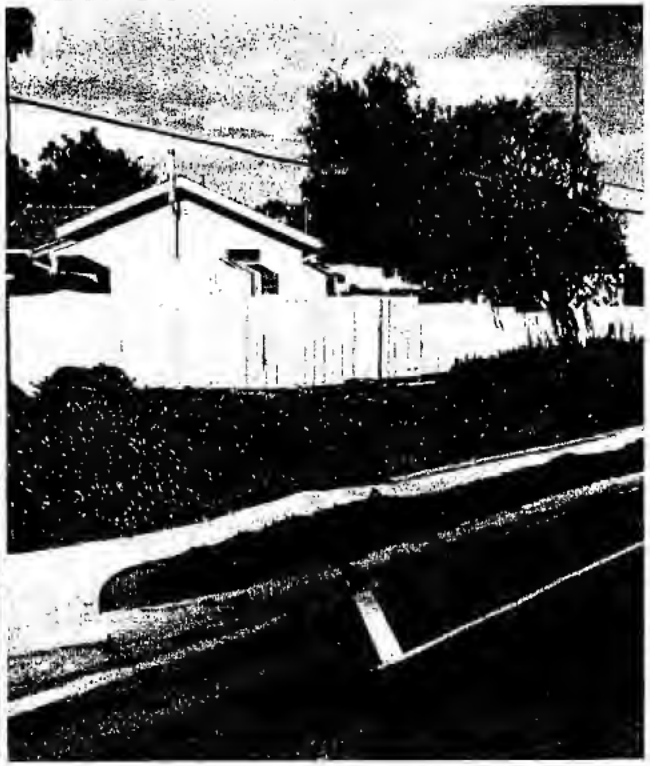
(949) 344-7834 — Provide Telephone Number

12/21/17 — Date Signed

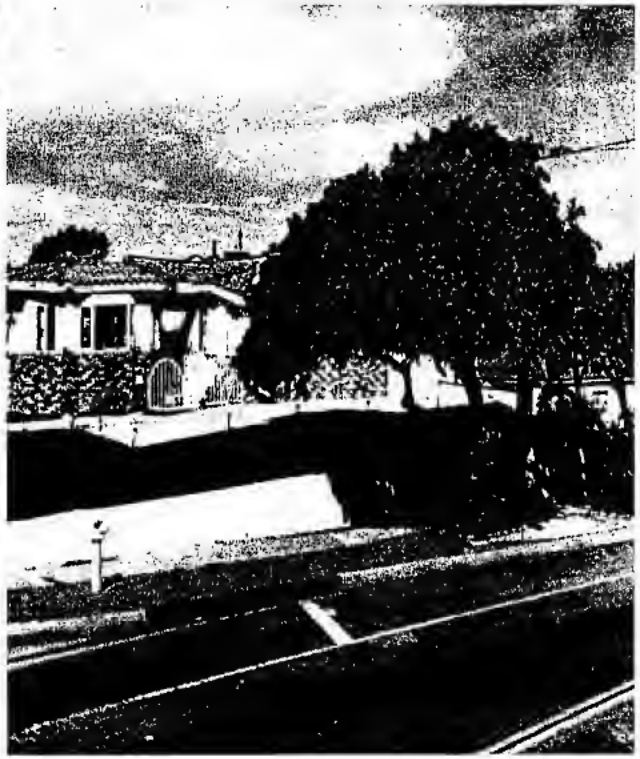
AT&T RB16

Primary

Alternate #1

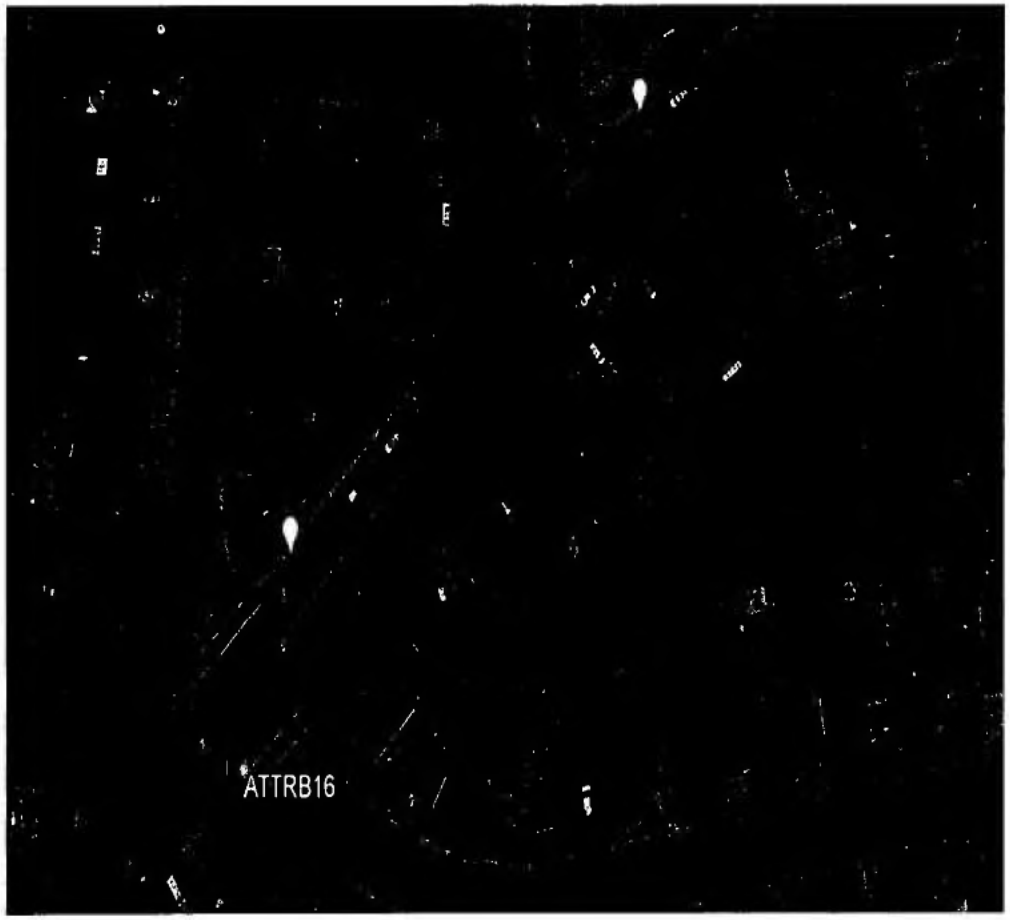


Alternate #2



CROWN CASTLE

ATTACHMENT 4



RB16 Primary and Alternate Overview:

The alternates are proposed as wireless facility installations on new poles.

Alternate 1 will meet the RF coverage objective for the proposal. Alternate 2 will not meet the RF coverage objective.

Alternative 1&2-not the least intrusive options. Multiple potential view corridors are impacted by these alternates. No landscaping or man made structures (i.e. retaining walls) are in the area to provide a method of screening.

The location is located along Calle Mayor, a major arterial road connecting Torrance to the surrounding Peninsula. This proposal is designed to provide service to users of the ROW, homes, and emergency personnel in the area as well as children and parents leaving/arriving at the many schools in the area.

Code Requirements and Conditions, if approved:

The following Code Requirements are applicable to the project, if approved:

- A Construction and Excavation Permit (C&E Permit) is required from the Community Development Department, Engineering Permits and Records Division, for any work in the public right-of-way.
- The traffic control plan(s) shall comply with the MUTCD manual.
- Must comply with TMC Section 92.39.070 regarding submission of RF compliance report.
- Must comply with TMC Section 92.39.090 regarding discontinued use or abandonment of facility.

Recommended Conditions, if Approved:

1. That the use of the subject site for a telecom facility shall be subject to all conditions imposed in WTC17-00013 and any amendments thereto or modifications thereof as may be approved from time to time pursuant to Section 92.39.070 et seq. of the Torrance Municipal Code on file in the office of the Community Development Director of the City of Torrance; and further, that the said use shall be established or constructed and shall be maintained in conformance with such maps, plans, specifications, drawings, applications or other documents presented by the applicant to the Community Development Department and upon which the Telecommunications Committee relied in granting approval;

2. That if this Approval is not implemented within one year after the approval, it shall expire and become null and void unless extended by the Community Development Director for an additional period, as provided for in Section 92.27.1 of the Torrance Municipal Code; (Planning)

3. That no above ground mounted pedestals be permitted and that all power be fed from the existing SCE wires already attached to the utility pole for which the proposed equipment is to be mounted; (Planning/Engineering)

4. That all requirements provided under Ordinance No. 3058, Section 92.2.8, Satellite Antennas, of the Torrance Municipal Code, Division 9, shall be met prior to the issuance of building permits and/or encroachment permits; (Planning)

5. The permittee shall paint, color or finish all the pole-mounted equipment to match the color of the underlying utility pole, to the satisfaction of the Community Development Director; (Planning)

6. The permittee shall conceal all cables, wires, jumpers and connectors within the antenna or equipment shrouds; (Planning)

7. The permittee shall install and at all times maintain in good condition an "RF Notice" sign and network operations center sign adjacent to the bottom of the shroud. The signs required in this condition must be placed in a location where they are clearly visible to a person when he or she approaches the shroud; (Planning)

8. The permittee shall ensure that all RF signage complies with FCC OET Bulletin 65 or ANSI C95.2 for color, symbol and content conventions. All such signage shall provide a working local or toll-free telephone number to its network operations center that reaches a live person who can exert transmitter power-down control over this site as required by the FCC; (Planning)

9. That the antenna and all related equipment cabinets shall be removed if the telecommunications site remains inactive for more than 180 days; (Planning)

10. That the proposed equipment shall receive electrical power from the SCE wires already attached to the utility pole on which the proposed equipment is to be mounted; (Engineering)

11. That a minimum 10' vertical clearance above public sidewalk surface for proposed antenna and equipment mounted on existing utility pole and a minimum 16' vertical clearance above sidewalk surface for proposed antenna and equipment within 2' or less horizontally of the public street shall be maintained; (Engineering)

12. That if generators are required at the site, they must meet Torrance Municipal code requirements for noise; (Environmental)