City of Costa Mesa
Inter Office Memorandum

TO: CITY COUNCIL, PLANNING COMMISSION

CC: TOM HATCH, BARRY CURTIS, AND JENNIFER LE

FROM: WILLA BOUWENS-KILLEEN, ZONING ADMINISTRATOR

DATE: JUNE 7, 2018

SUBJECT: ZONING ADMINISTRATOR DECISION(S)

This is to advise you of the following decision(s) made by the Zoning Administrator within the last week. Project descriptions have been kept brief for this notice. Please feel free to contact me by e-mail at willa.bouwens-killeen@costamesaca.gov if you have any questions or would like further details.

ZA-18-17 **3565 HARBOR BOULEVARD**

Request to install a small cell network on top of a Southern California Edison streetlight pole with RRUs and antennas inside a shroud. A minor conditional use permit is required because the shroud is 50 inches in height. The facility will require the removal and replacement of the existing pole and installation of an underground utility pull box for fiber and power to the new pole.

Approved, subject to conditions.

Comments received: None.

ZA-18-18 **3545 HARBOR BOULEVARD**

Request to install a small cell network on top of a Southern California Edison streetlight pole with RRUs and antennas inside a shroud. A minor conditional use permit is required because the shroud is 50 inches in height. The facility will require the removal and replacement of the existing pole and installation of an underground utility pull box for fiber and power to the new pole.

Approved, subject to conditions.

Comments received: None.

CITY OF COSTA MESA

P.O. BOX 1200 • 77 FAIR DRIVE • CALIFORNIA 92628-1200

DEVELOPMENT SERVICES DEPARTMENT

June 7, 2018

Nancy Sheridan
200 Spectrum Center Drive
Suite 1800
Irvine, CA 92618

RE: ZONING APPLICATION ZA-18-17
MINOR CONDITIONAL USE PERMIT TO INSTALL A SMALL CELL FACILITY ON TOP OF A STREETLIGHT POLE
3565 HARBOR BLVD, COSTA MESA

Dear Ms. Sheridan:

City staff's review of your zoning application for the above-referenced project has been completed. The application, as described in the attached project description, has been approved, based on the findings and subject to the conditions of approval and code requirements (attached). The decision will become final at 5:00 p.m. on June 14, 2018, unless appealed by an affected party, including filing of the necessary application and payment of the appropriate fee, or called up for review by a member of the Planning Commission or City Council.

If you have any questions regarding this letter, please feel free to contact the project planner, Johnwilly Aglupos, at either johnwilly.aglupos@costamesaca.gov or 714.754.5692.

Sincerely,

WILLA BOUWENS-KILLEEN, AICP
Zoning Administrator

Attachments:
- Intent Letter
- SCE Letter of Authorization
- SCE Streetlight Authorization Form
- CPUC
- Plans.
- SCE consent letter
- Disconnect Letter
- FCC
- Rendering

cc:
- Engineering
- Transportation

PROJECT DESCRIPTION

The applicant requests approval of a minor conditional use permit (MCUP) to install a small cell facility on top of a Southern California Edison (SCE) streetlight pole adjacent to 3565 Harbor Boulevard. The facility will include four RRUs and antennas inside a radome that is 50 inches in height and 14.6 inches in diameter. The installation will require the removal and replacement of the existing pole and an underground utility pull box for fiber and power to the new pole. The site abuts an industrial zoned and developed property.

The telecommunication industry is in constant growth and expansion. This includes an introduction of "Small Cell" facilities placed on light poles, traffic signals, or on new poles within the public right-of-way to support increased demand and capacity. "Small Cell" facilities (also referred to as "nodes") are a lower-power facility that will complement and supplement broader macro cell facilities, filling gaps in coverage from the macro facilities.

Pursuant to Municipal Code Title 19, Section 19-15(c)(2), a minor conditional use permit is required to establish and operate a wireless communication facility within the public right-of-way if: (1) the antenna is greater than 26 inches in length, (2) the volume of the radio box exceeds two cubic feet, (3) the facility requires an above ground cabinet/equipment, and (4) the facility is located within a 500-foot radius of a residentially zoned property. A Minor Conditional Use Permit is required because the shroud is 50 inches in height; remaining requirements are proposed to be satisfied.

ANALYSIS

Design and Location

The existing and replacement streetlight poles are owned by SCE. The SCE design criteria dictates the height and material of the replacement pole while the supporting small cell equipment varies in size and location in accordance to the carrier's technology (see Table 1 below). The applicant has provided an SCE letter of authorization regarding the approved Carrier's preliminary plans. Per U.S.C. 332(c)(7)(B)(i)(II), the city may not regulate the placement, construction or modification of wireless service facilities in a manner that prohibits the provision of personal wireless services; however, the law does not prohibit local government from asking the applicant to provide a design that allows for a compatible and harmonious relationship between the proposed facility and the surrounding area.

TABLE 1			
Comparison			
	Existing	Proposed	City Requirement
Top of Pole	29'-0"	29'-3"	N/A
Top of Light	30'-0"	29'-9"	N/A
Overall Height	30'-0"	33'-5"	35'-0"
Antenna Length	N/A	50"	26"
Diameter (Shroud)	Varies	14.6"	N/A
Diameter (Pole)	Varies	11.8"	N/A

Color	Gray, lightly exposed aggregate	Gray, lightly exposed aggregate	N/A

The additional antenna height is proposed to allow the incorporation of the RRUs into the same shroud (radome) as the antenna itself, providing a thinner, more streamlined design for the overall pole and cell facility. Although the actual antenna height exceeds the City's maximum requirement, the overall streetlight pole height will not exceed the City's maximum allowable height of 35 feet. The meter pedestal will be placed underground. In addition, the standard SCE pole will be in the same color and finish as the existing pole. The location, slim diameter of the shroud, height, undergrounding of supporting small cell equipment, and color/finish of the replacement pole will be the least intrusive means of supporting coverage. Therefore, the design balances visual impact and coverage with adequate spacing of the facilities to effectively relay signal with minimum number of node locations, and utilizes existing vertical elements to minimize the net number of vertical intrusions in the public right-of-way.

The selected location maximizes the coverage of the small cell facility and minimizes the overlap with other facilities of the system, which results in a lower overall number of proposed facilities within the public right-of-way. However, if necessary, this proposal allows for collocation by multiple carriers within the shroud to avoid proliferation of other small cell facilities in the immediate area.

To avoid any street light outage during the replacement process and to keep compatible spacing between the existing streetlight poles, the proposed pole will be installed three feet from the existing pole; the existing pole will be removed as soon as the new pole is activated.

Health and Safety

Pursuant to Mobile Services U.S.C 332(c)(7)(B)(iv), no state or local government may regulate the site of wireless telecommunication facilities on the basis of the perceived health effects of radio frequency (RF) emissions to the extent that the proposed facility complies with FCC regulations concerning such emissions. The applicant submitted a detailed report regarding the RF emission. Based on FCC Rules and Regulations, the applicant will be compliant provided recommendations(s) are implemented; conditions of approval requiring compliance are included.

General Plan Consistency

The City's 2015-2035 General Plan ensures that development decisions and improvements to public and private infrastructures are consistent with the goals, objectives, and policies of the City.

- Policy CD-1.5: *Encourage electric and communication lines to be placed underground and electrical substations and telephone facilities to be screened to minimize visual impacts from sidewalks, streets, and adjacent properties. Support*

utility undergrounding through conditions of project approval, preparation of undergrounding plans, and the formation of assessment districts.

- Policy C-1.2: *Allow for flexible use of public rights-of-way to accommodate all users of the street system while maintaining safety standards.*

Approval of the facility will meet the growing demand of the City's telecommunication needs while ensuring that the facility will not hinder the City's aesthetic and circulation of the public right-of-way. The proposal is in keeping with the intent of the City ordinance in that:

- The facility and support equipment are designed, textured, and painted to match existing streetlight poles;
- The facility uses the latest technology to reduce the bulk of the equipment;
- The design screens any supporting electrical and communication lines; and
- Placing all utilities underground allows flexible use of the sidewalk while maintaining safety standards.

FINDINGS

A. The information presented complies with Costa Mesa Municipal Code Section 13-29(e) in that:
    1. As proposed and conditioned, the small cell facility is compatible and harmonious to the surrounding existing facilities by locating the replacement pole as close as possible to the existing pole and using an approved SCE pole that is closely similar to the existing SCE poles.
    2. The proposed streetlight pole is engineered to withstand the weight of the equipment, the small cell will be compliant with FCC's radio frequency emissions, and the location of the replacement pole is close to the existing location which will not impede the pedestrian and automobile's path of travel. Therefore, granting the minor conditional use permit will not be detrimental to the health, safety and general welfare of the public or otherwise injurious to property or improvements within the immediate neighborhood.
    3. The proposed small cell facility complies with the maximum height of a telecommunication facility allowed within the public right-of-way.
    4. The proposed small cell facility meets Policy CD-1.5 and Policy C-1.2 of the City's General Plan.

B. The information presented complies with Costa Mesa Municipal Code Section 13-29(g)(2) in that:
    1. The proposed small cell facility is compatible and harmonious to the surrounding facilities that exist on site and will not be materially detrimental to other facilities within the area. The facility and support equipment will be designed, textured, and painted to match the existing streetlight poles.

2. Granting the minor conditional use permit will not be materially detrimental to the health, safety and general welfare of the public within the immediate neighborhood because it will be compliant with FCC's radio frequency emissions and meets SCE's design and structural standards.
3. Granting the minor conditional use permit will not allow a use, density, or intensity which is not in accordance with the General Plan designation since the facility will be of the smallest size possible while incorporating all equipment within a single shroud/radome.

C. The project has been reviewed for compliance with the California Environmental Quality Act (CEQA), the CEQA Guidelines, and the City environmental procedures, and has been found to be exempt under Section 15303(d), New Construction or Conversion of Small Structures, of the CEQA Guidelines.

CONDITIONS OF APPROVAL

Plng

1. The small cell mounted on SCE's streetlight pole shall be mounted as shown on the attached conceptual plan with appropriate treatments to minimize visual impacts to surrounding properties and uses. Any support cabinet(s) shall be installed underground.
2. Any wireless device colocating on the facility shall fit within the proposed shroud; the shroud shall remain the same size as approved.
3. All electrical and antenna wiring shall be encased within the street light pole itself.
4. Any substantial modifications to the physical dimension of the equipment or antennas shall be done with the prior approval of Planning Staff and may require filing and approval of a minor conditional use permit to ensure compliance with applicable City codes.
5. Applicant shall defend, indemnify and hold harmless the City, its officials and employees, against all legal actions filed challenging City's approval of the applicant's project and/or challenging any related City actions supporting the approval. City shall have the right to select the attorney defending it, if it elects to do so.
6. If any section, division, sentence, clause, phrase or portion of this approval is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining provisions.
7. The replacement pole will be placed as close as possible to the existing pole. The existing pole shall be immediately removed upon the activation of the new pole.
8. The replacement pole shall be of the same materials and as close as possible to the same diameter as the existing street light poles in the vicinity.
9. The Small Cell shall comply with Title 47 - FCC's rules and regulations, including those related to FCC Radio Frequency Safety Guidelines.

CODE REQUIREMENTS

The following list of federal, state, and local laws applicable to the project has been compiled by staff for the applicant's reference. Any reference to "City" pertains to the City of Costa Mesa.

Plng.

1. The approval of the zoning application shall be valid for a ten-year period from the date of approval (June 7, 2028), unless otherwise indicated in a condition imposed at the time of granting the application or unless otherwise exempted under federal or state law. Prior to the expiration of the permit, the applicant may apply for a ten-year extension of time. If notice was required for the original application, and a public hearing on the extension is allowed under federal and state law, notice of the public hearing for a time extension shall be given according to the procedures set forth in this section.
2. The antenna and all support equipment shall comply with all requirements of CMMC 19-15.

Bldg

3. Comply with the requirements of the following adopted codes: 2016 California Building Code, 2016 California Electrical code, 2016 California Mechanical code, 2016 California Plumbing code and 2016 California Energy Code (or the applicable adopted, California Building code California Electrical code, California Mechanical code California Plumbing Code and California Energy Code at the time of plan submittal or permit issuance) and California Code of Regulations also known as the California Building Standards Code, as amended by the City of Costa Mesa. Requirements for accessibility to sites, facilities, buildings and elements by individuals with disability shall comply with chapter 11B of the 2016 California Building Code.

Bus. Lic.

4. All contractors and subcontractors must have valid business licenses to do business in the City of Costa Mesa. Final inspections, final occupancy and utility releases will not be granted until all such licenses have been obtained.

Eng.

5. Obtain an Encroachment Permit from the Engineering Division for work in the City public right-of-way. Pay required permit fee and cash deposit or surety bond to guarantee construction of off-site street improvements at time of permit per section 15-31 & 15-32, C.C.M.M.C. as approved by City Engineer. Cash deposit or surety bond amount to be determined by City Engineer.

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

April 4, 2018

Willa Bouwens-Killeen
Zoning Administrator
City of Costa Mesa Planning Department
77 Fair Drive
Costa Mesa, CA 92626

Re: Minor Conditional Use Permit for Facilities within the Public Right of Way (SOC269)

Dear Ms. Bouwens-Killeen:

Crown Castle NG West LLC ("Crown Castle") is submitting a Minor Conditional Use Permit application to place an antenna node on a streetlight in the Right of Way in accordance with your code, ordinances and regulations. Please be advised the Federal Communications Commission (FCC) has adopted Rules and Regulations that impact how you must process this application. In addition, state law also limits your regulation of Crown Castle's access to the public rights of way.

Crown Castle's Deployment:

Crown Castle provides telecommunications services to its wireless carrier customers. It does so via telecommunications networks installed in the public rights of way that integrate elements including fiber optic cables as well as personal wireless services facilities, such as antennas and related equipment. Crown Castle's networks are sometimes referred to as distributed antenna systems ("DAS") or Small Cell networks. The specific equipment sought to be installed by Crown Castle in this case is set forth in the accompanying permit application.

Pursuant to the California Public Utilities Commission, Crown Castle has been granted a Certificate of Public Convenience and Necessity ("CPCN") to provide such services. As a result, Crown Castle must be granted access to the public rights of way in the same manner and on the same terms applicable to other certificated telecommunications providers and utilities.[1] (copy enclosed)

Federal and State Regulations Applicable To This Application:

[1] See CA Pub. Util. Code, §§ 7901 and 7901.1

Federal law and the FCC's rules implementing the law require that this permit application be processed to a final decision by this jurisdiction without undue delay. Specifically, this application proposes to attach new equipment on a replaced streetlight in the public rights of way, this application must be acted on within ninety (90) days from its submission, today.[2] Further, pursuant to recently passed California AB 57, if the City "fails to approve or disapprove" this application within that timeframe, it "shall be deemed approved."[3]

Moreover, pursuant to FCC regulations, this application is deemed complete 30 days after today unless you provide written notice to Crown Castle.[4] If you contend that the application is incomplete, within the next 30 days you must provide written notice specifying any items you claim are missing to make the application complete.[5] For each item alleged to be missing, you must specify the code provision, ordinance, application instruction, or otherwise publicly-stated procedure that requires the submission of the information.[6]

Please send all written requests for additional information regarding this application to:

Nancy Sheridan
Network Real Estate
Crown Castle
200 Spectrum Center Drive, Suite 1800
Irvine, CA 92618

Sincerely,

CROWN CASTLE NG WEST LLC

Nancy Sheridan

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[2] *In re Petition for Declaratory Ruling to Clarify Provisions of Section 332(c)(7)(B) to Ensure Timely Siting Review*, Declaratory Ruling, 24 FCC Rcd. 13994 ¶¶ 32, 45-46 (2009) ("*FCC Shot Clock Order*"); *In the matter of Acceleration of Broadband Deployment By Improving Wireless Facilities Siting Policies*, Report and Order, FCC 14-153, WT Docket No. 13-238, ¶272 (FCC Oct. 21, 2014) ("*Wireless Infrastructure Order*") (clarifying that DAS nodes that involve installation of new poles trigger the 150 day shot clock).
[3] See CA Government Code Section 65964.1.
[4] *Wireless Infrastructure Order* at ¶¶ 257, 259.
[5] *Id.* ¶¶ 259-260.
[6] *Id.*

EDISON
CARRIER SOLUTIONS

Brian P. Ryan
Principle Manager
Telephone: 909-274-1949
Brian.Ryan@sce.com

C

October 19, 2017

To Whom It May Concern:

Since 1994, Southern California Edison (SCE) has assisted wireless service providers in expanding their networks to meet customers' needs for telecommunications service. SCE makes available existing structures that can be used to co-locate the wireless service providers' equipment, while lessening the visual impacts on the community and constituency that is served. This letter requests that you help us in this endeavor.

In an effort to minimize the potential clutter that new vertical structures would produce, many California cities have adopted ordinances and policies encouraging wireless facilities to be mounted on street light poles within the public rights of way.

As you are aware, SCE owns and maintains street light poles in your city pursuant to our LS-1 tariff. In order to accommodate the increasing demand for micro-cell site locations, SCE has agreed to allow wireless service providers to attach their antennas to some of these streetlight poles, and contractually requires the wireless service provider to comply with certain requirements, including a requirement that the facility will not impact SCE's ability to provide street lighting service.

City of Costa Mesa has and retains full control over the entitlement and permitting process for these and future sites. The wireless service providers also pay for electrical usage resulting from their sites. This electrical service is metered and billed separately, and the City is not impacted.

While SCE believes this approach benefits local governments as well as their constituency, we would not engage in this solution if doing so resulted in extra costs to SCE. We would therefore appreciate you confirming that City of Costa Mesa consents to use of its public rights of way for the purpose of licensing space on an SCE Streetlight Pole #2193555E located at: 3565 Harbor Blvd. Crown Castle Site number: SOC0269

Please sign this letter to indicate your consent and return it to me at the below address. If you have any questions, please feel free to call Scott Haney (909) 274-1961.

Regards,

Brian P. Ryan

Signature

Name Mohcine Chirar

Title Assistant Engineer

Date: October 19, 2017

SCE Edison Carrier Solutions
2 Innovation Way 1st Floor
Pomona, CA 91768

EDISON
CARRIER SOLUTIONS℠
A Division of SOUTHERN CALIFORNIA EDISON®

Brian Ryan
Principal Manager Telecom Sales
Edison Carrier Solutions
e-mail: Brian.Ryan@sce.com

October 19, 2017

City of Costa Mesa Public Services Department

To Whom It May Concern:

Re: Letter of Authorization

SCE streetlight identified as – SCE Streetlight Pole # 2193555E located adjacent: 3565 Harbor Blvd. Crown Castle Site Name: SOC0269

Southern California Edison Company (SCE) is the owner of the Light Pole, located in City of Costa Mesa, CA. Crown Castle "Carrier" has requested that SCE replace the existing Light Pole so that it can be used for operating a wireless communications facility, ("Site").

SCE has reviewed Carrier's preliminary plans for this Site and believe these plans are compatible with SCE's use of this Light Pole. Thus, as a representative of SCE, I hereby authorize Carrier, and its representatives, to seek and secure all right(s), including any environmental review associated with granting such rights, that are needed from the Jurisdiction to use the Light Pole and other property for this purpose as long as there are no costs to SCE.

Notwithstanding this authorization, SCE reserves the right to reject Carrier's request for use of its Light Pole for any reason, including imposed conditions or required changes to the light pole by the Jurisdiction, are unacceptable to SCE.

All correspondence and/or notices regarding use of SCE's Light Pole by Carrier, or any later requests by the Carrier for authorizations or approvals needed for construction, operation or maintenance of an approved Site, should include a copy to SCE.

If you have any questions concerning this project, please contact Scott Haney @ 626-688-9344.

Sincerely,

Brian P. Ryan

2 Innovation Way, 1st Floor
Pomona, CA 91768

CITY OF COSTA MESA

P.O. BOX 1200 • 77 FAIR DRIVE • CALIFORNIA 92628-1200

FROM THE DEPARTMENT OF PUBLIC SERVICES/ENGINEERING DIVISION

October 19, 2017

Brian Ryan
Southern California Edison
Carrier Solutions Division
2 Innovation Way 1st Floor
Pomona, Ca 91768

Dear Mr. Ryan:

This letter authorizes Southern California Edison (SCE) to disconnect the SCE streetlight identified as – SCE Streetlight Pole # 2193555E located adjacent: 3565 Harbor Blvd. Crown Castle Site number: SOC0269 so that work can be performed to replace the existing Streetlight.

Crown Castle (Wireless Carrier) has requested that SCE replace the Southern California Edison streetlight with a new streetlight that will be used for operating the wireless communications facility identified as SCE Light Pole # 2193555E located adjacent: 3565 Harbor Blvd. Crown Castle Site number: SOC0269

Please coordinate the disconnecting of the streetlight directly with the City of Costa Mesa, (Mohcine Chirar, 714-754-5140) so that the light will be out only for the above referenced work to be completed.

If you have any questions, please do not hesitate to call me.

Sincerely,

Mohcine Chirar
City of Costa Mesa

PHONE: (714) 754-5335 FAX: (714) 754-5028 TDD: (714) 754-5244
www.costamesaca.gov

SOUTHERN CALIFORNIA EDISON STREETLIGHT AUTHORIZATION

DEVELOPER/APPLICANT MUST PROVIDE THIS FORM
COMPLETED BY THE PUBLIC AUTHORITY
FOR ANY SCE-OWNED STREETLIGHT INSTALLATION, REMOVAL OR CHANGE REQUESTS
Incomplete forms will be returned and not processed

PUBLIC AUTHORITY NAME: City of Costa Mesa

Builder/Developer Name: Crown Castle NG West **Phone #:**

Tract/Ref # SCE Pole No. 2193555E **Streetlight Location** 3565 Harbor Blvd., Costa Mesa 33.700050°, -117.919720°

Please Check one: ☐ **Installation** ☐ **Removal** ☐ **Change**

Number of Lamp(s)	Lamp Size	Lamp Type
1	Same as Existing	Same as Existing

New Installations
Public Authority Responsibility for Streetlight Monthly Billing
Please Check one and fill out applicable dates:

____**Upon Energizing**
☐ **If Public Authority is collecting Builder/Developer Advanced Energy Payment, indicate date collected. (_____)**

Monthly Billing: ____**Establish new Service Account (SA)** **Use existing SA #**_____

____ **Commitment Date-**
Date Agreed upon by SCE and Public Authority (_____) or no later than 36 months from first streetlight energized whichever is earlier.

Monthly Billing: ____**Establish new Service Account (SA)** **Use existing SA #**_____

X **Public Authority is not responsible**
____**HOA Area** **Name**_____ **Other Entity (please define)** Crown Castle

Public Authority Notes:

Request for "D" day outage (SOC269)

Authorized Public Authority Agent

MOHCINE CHIRAR — **Print name** | 10-13-17 — **Date** | Mohcine Chirar — **Signature**

Phone #_____ ASSISTANT ENGINEER — **Title**

TO BE COMPLETED BY SCE
ACTION: ENTER TRACT/REF# ON DM PROGRAM NAME FIELD.

District _____ **Planning AOR**_____ **PLANNER NAME (PRINT)**

DM SR # _____ **Product #**_____ **(one per SLA)**

FORWARD COMPLETED COPIES OF THE SLA FORM, MAP AND CSD272 CONTRACT, IF APPLICABLE TO:
"Street & Outdoor Lighting Organization" Santa Ana Bldg. D

Dtech communications

YOUR RF SAFETY PARTNER

RADIO FREQUENCY ELECTROMAGNETIC FIELDS EXPOSURE REPORT

Prepared for Crown Castle

Site Name: Scenario
Site Type: Min. Height AGL of 18' or Greater - Light Pole
Report By: Christopher Stollar, P.E.
Report Date: 1/24/2017

Based on FCC Rules and Regulations, Crown Castle is compliant.

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1.0 EXECUTIVE SUMMARY

Dtech Communications, LLC ("Dtech") has been retained by Crown Castle to determine whether its wireless communications facility complies with the Federal Communications Commission ("FCC") Radio Frequency ("RF") Safety Guidelines. This report contains a computer-simulated analysis of the Electromagnetic Fields ("EMF") exposure resulting from a typical, minimum antenna height above ground level ("AGL") of 18-feet, light 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 (Optional)
Barrier(s) @ sectors	NA
Max Cumulative EMF level for Crown Castle on Ground	7.2% General Population
Max Cumulative EMF level for Crown Castle @ Antenna Level	80.1% General Population (16.0% Occupational)
General Population Exclusion Zone (At Antenna Elevation)	NA
Occupational Exclusion Zone (At Antenna Elevation)	NA

2.0 SITE DESCRIPTION

The wireless telecommunication facility is located on the ground. The facility consists of 1 wireless carrier(s) or operator(s): Crown Castle – T-Mobile. For this scenario, Crown Castle's antennas are mounted on a light 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	Antenna Mfg	Antenna Model	Type	Frequency (MHz)	Technology	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	T-Mobile	Ericsson	6503	Directional	1900	LTE	330	85	0.7	6.9	21.6	19.3	1.3
A2	T-Mobile	Ericsson	6503	Directional	2100	LTE	330	74	0.7	7.9	27.2	18.0	0.0
										Total	48.8		

3.0 ANALYSIS

3.1 Emission Predictions

Figure 1: Plan (bird's eye) view map of results compared to 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).

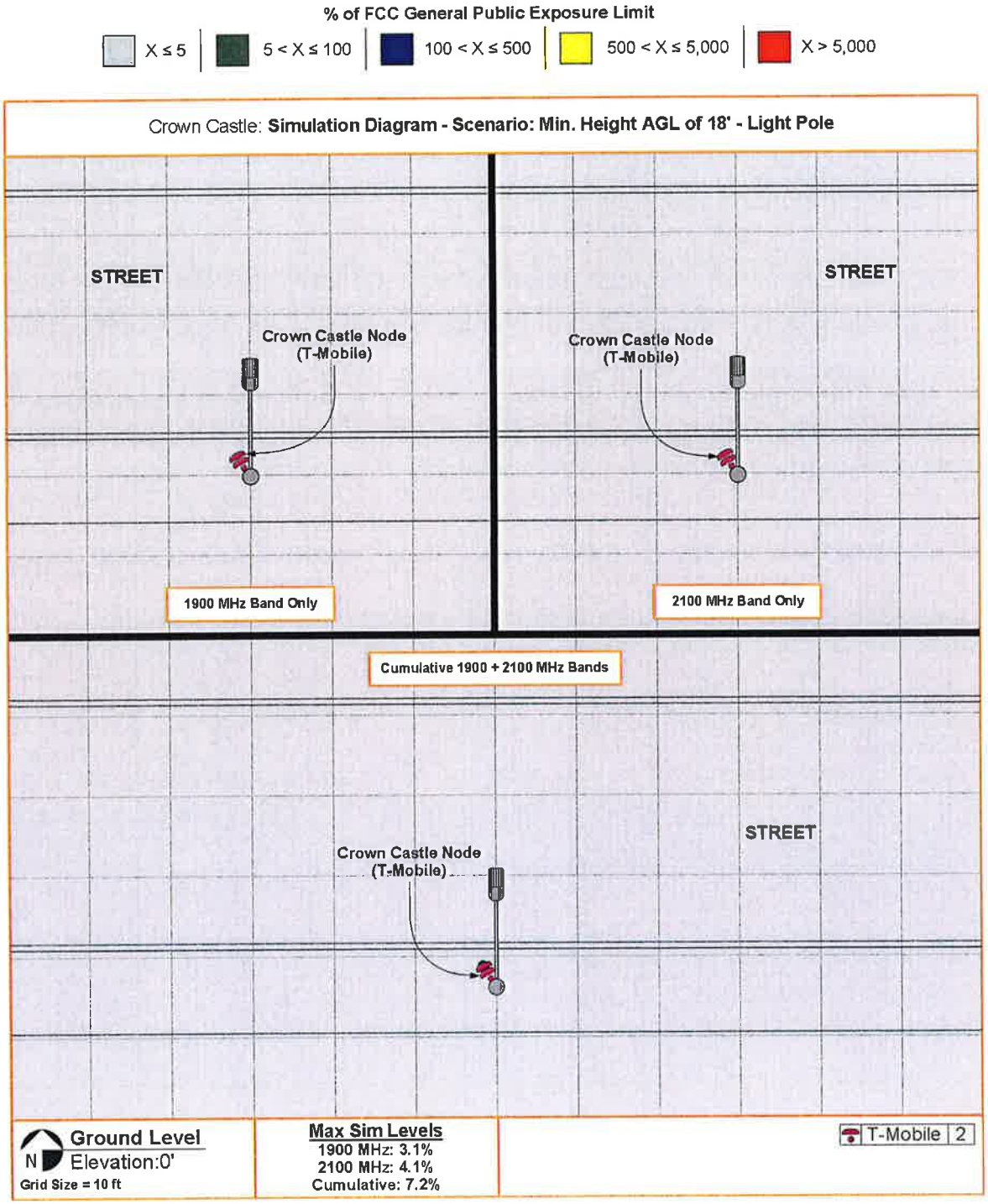
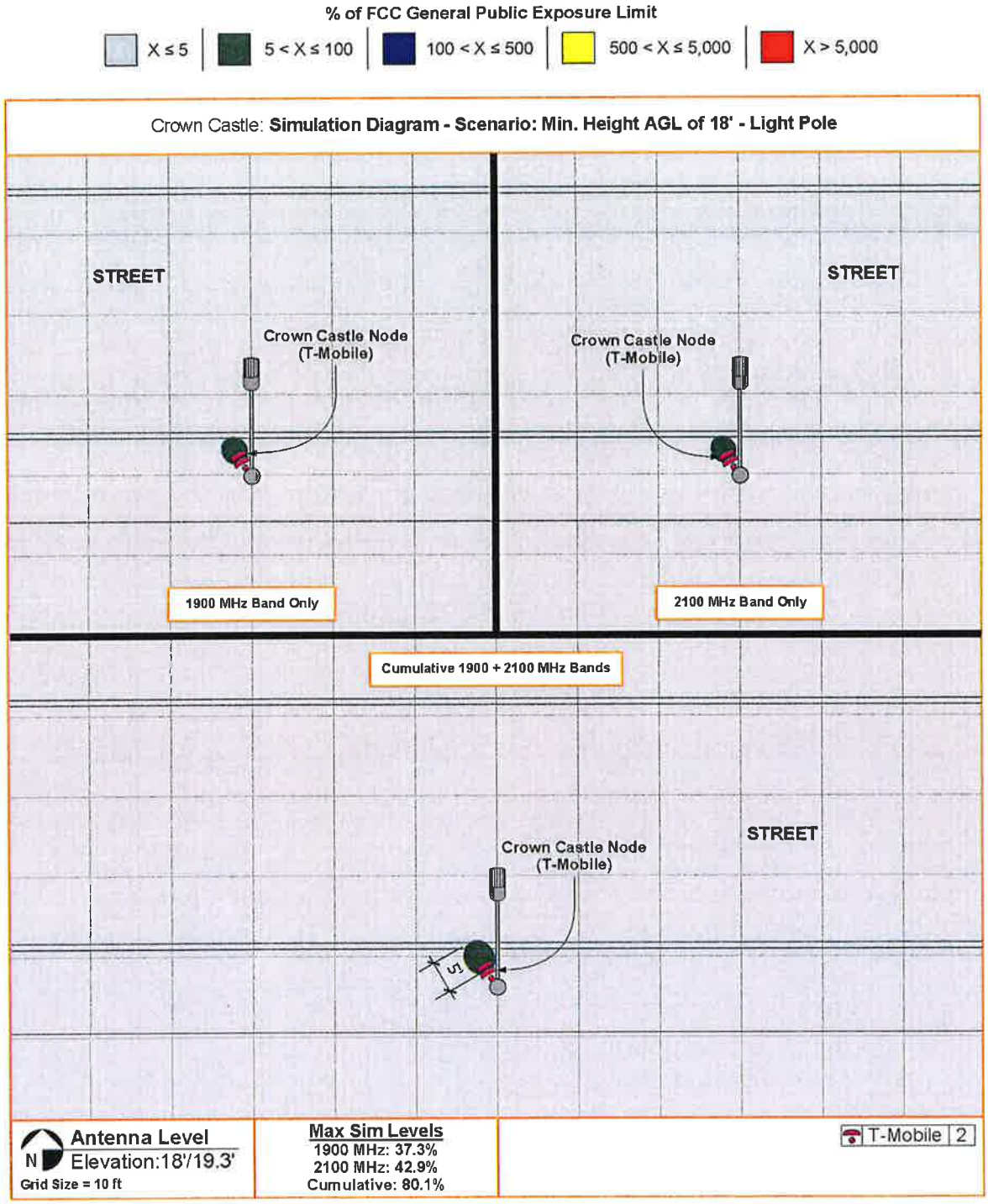


Figure 2: Plan (bird's eye) view map of results compared to FCC's General Population MPE (Maximum Permissible Exposure) Limits. Gray represents areas where exposure levels are calculated to be at or below 5%; Green- between 5% & 100% (below MPE limits); blue, yellow & red – greater than 100% (exceeds MPE limits).



4.0 CONCLUSION

4.1 Results

For a person standing on the ground, calculations for Crown Castle's site (at a minimum height AGL of 18-feet) resulted in exposure levels no higher than 7.2% of the applicable FCC's General Population MPE Limits (see figure 1). If the antennas are located higher than the minimum height AGL 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 antennas (see figure 2). If the antennas are located higher than the minimum height AGL 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 5-feet from the front face of the Crown Castle antenna(s). Beyond 5-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.

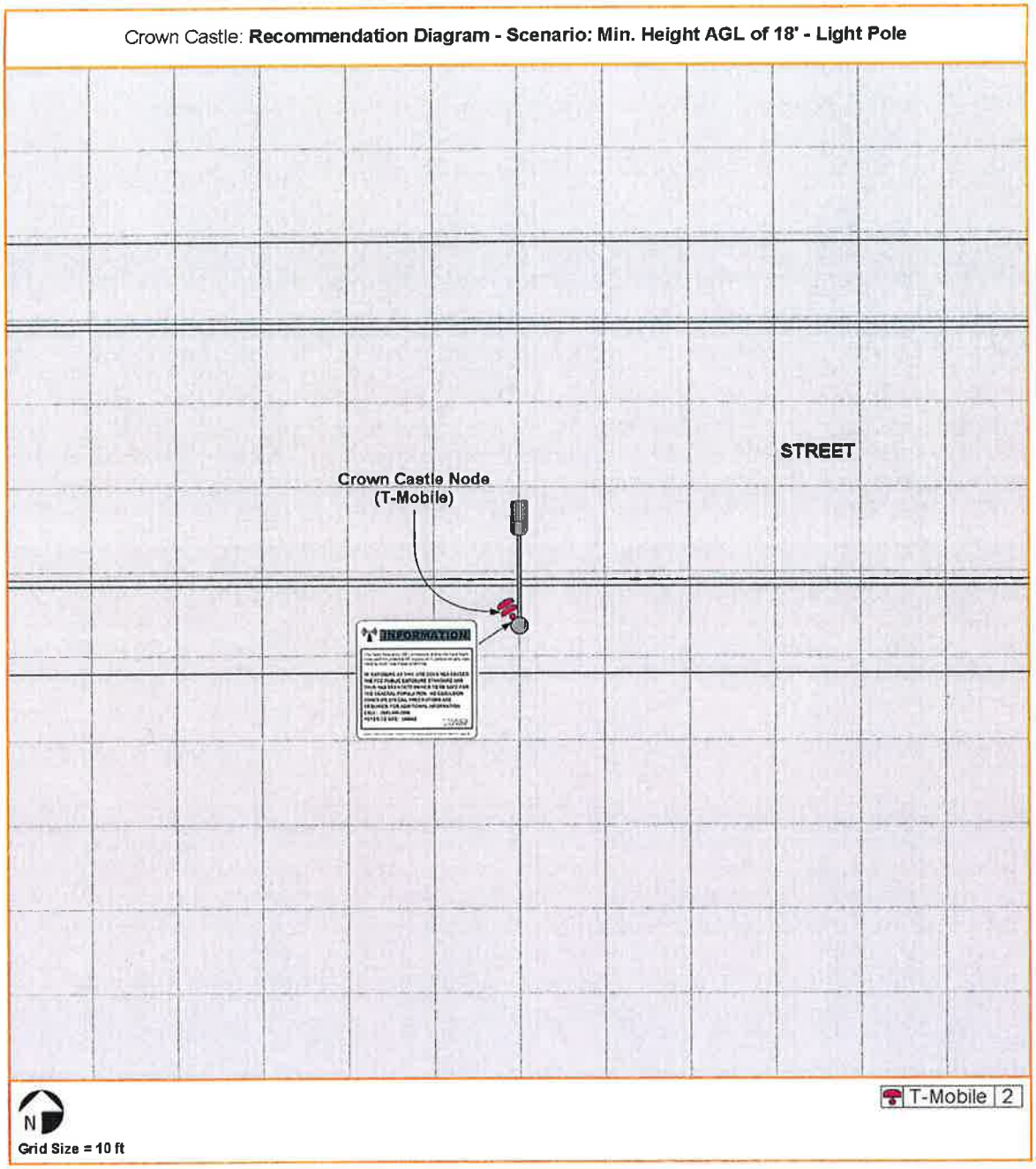
*Note: The actual MPE results of this analysis are only applicable to the specific antenna make/model, minimum heights, line/cable losses, total power output, and frequencies. Compliance is the same even if the antennas are raised above the minimum height AGL of 18-feet.

4.2 Recommendation(s)

The following conservative action(s) are recommended in accordance with the FCC's RF Safety Guidelines (see figure 3):

1) As a courtesy, install INFORMATION Sign(s) on or near the antenna(s). Signage should be placed high on the pole 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 is compliant with the FCC's RF Safety Guidelines.

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.

REGISTERED PROFESSIONAL ENGINEER
DARANG TECH
16000
Exp. 06/30/17
ELECTRICAL
STATE OF CALIFORNIA

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.

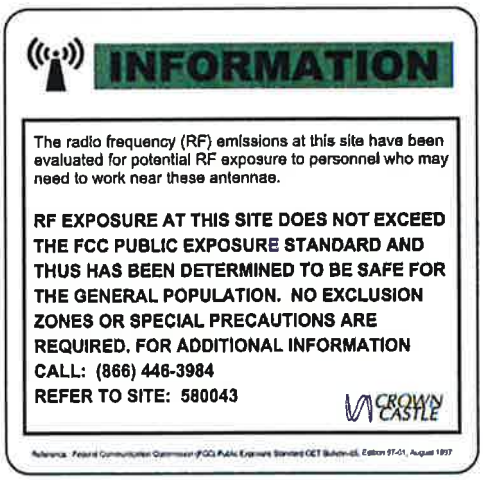
Dtech uses an industry standard power density prediction computer Model[1] to assess the worse-case, cumulative EMF impact of the surrounding areas of the subject site. The Model does not take into account losses due to buildings. Its methodologies are conservative enough to account for typical down-tilts 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



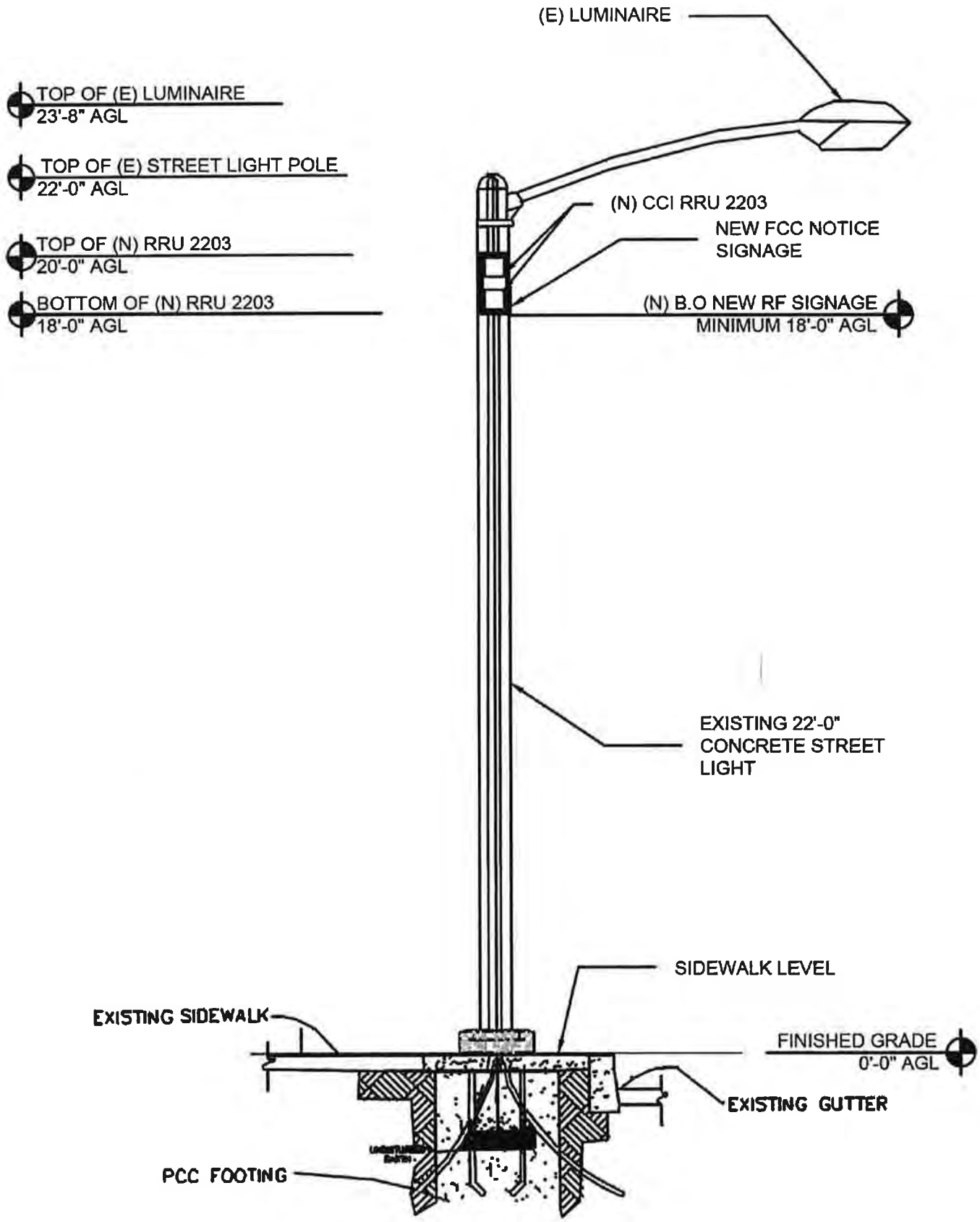
INFORMATION Sign

NOTICE Sign

CAUTION Sign

WARNING Sign

Appendix E: Scenario - Min. Height AGL of 18' or Greater - Light Pole



CALIFORNIA PUBLIC UTILITIES COMMISSION

Advice Letter Filing Summary Sheet (PAL)

(Date Filed / Received Stamp by CPUC Industry Division)

DATE - STAMP & RETURN

5 PM 1:50

Date AL served on parties: _____

Company Name: Crown Castle NG West LLC	**CPUC Utility Number U-6745-C**
Address: 1220 Augusta Drive, Suite 500	☐ GRC-LEC ☒ URF-Carrier ☐ Other
City, State, ZIP: Houston, Texas 77075	☐ Commission Resolution Requested ☐ Carrier of Last Resort (See D.96-10-066)
Filing AL #: 63 **Requested Effective Date:** July 15, 2014	**AL Tier** I ☒ II ☐ III ☐

	Name:	Email Address:	Phone No.:	Fax No.:
Filer	Brett P. Ferenchak Jean L. Kiddoo	brett.ferenchak@bingham.com jean.kiddoo@bingham.com	(202) 373-6000	202-373-6001
Certif.	Same as above	Same as above	Same as above	No. Tariff Sheets: N/A

(Name, email address & Phone and FAX numbers *are Required for "Filer"*)

Tariff Schedules: N/A **Keyword:** Carrier Information Changes

(see keyword list on reverse)

For Contract Keyword, Type: Government ☐ Other ☐ Date Executed _____ Contract Total Rev ($)_____

Subject of filing: Conversion and Associated Name Change
(Service(s) included)

Authorization for filing: G.O. 96-B and Telecommunications Industry Rule 7.1(1)
(Resolution #, Decision #, etc.)

Affected services:_____
(Other services affected, pending or replacement AL filings)

Rate Element(s) affected *and* % change: _____
(*Non-recurring* and / or *recurring*)

☐ Customer Notice Required (if so, please attach)

Notes/Comments:_____
(Other information & reference to advice letter, etc.)

File Protest and/or Correspondence to:
Director, Communications Division
505 Van Ness Ave., San Francisco, CA 94102
and if you have email capability, ALSO email to:
TD_PAL@cpuc.ca.gov
Protest also must be served on utility:
(see utility advice letter for more information)

GRC-LEC = Cost of Service LEC Carrier
URF-Carrier = Uniform Regulatory Framework Carrier (see D.06-08-030/D.07-09-019)
OTHER = Wireless (CMRS) Carrier

(FOR CPUC USE ONLY)

☐ Resolution Required
☐ Executive Action Resolution Req'd.
☐ TD Suspension on: ___ / ___ / ___
☐ Comm. Suspension on: ___ / ___ / ___

Resolution No.: T - _____

Rev. 09/24/07

Supv. / Analyst _____ / _____

Due Date to Supv.: _____

Analyst Completion Date: _____

Supervisor Approval Date: _____

AL / Tariff Effective Date: _____

Notes: _____

A/75962448 2

CALIFORNIA PUBLIC UTILITIES COMMISSION

KEYWORD LIST
FOR TELECOMMUNICATIONS UTILITY
ADVICE LETTER FILINGS

(Revised June 30, 2008)

Keywords:	***Description:***
Service Changes	Any ***permanent*** change(s) to *currently tariffed* rates, charges, and/or terms and/or conditions of service
Special / Provisional Offerings	Any ***non-permanent*** change(s) to *currently tariffed* rates, charges, and/or terms and/or conditions of service (i.e. promotions and grandfather requests, etc.)
Decision / Resolution Compliance	Any filing made in compliance with a Commission order *(indicate order number(s))*
Contracts	Any contract or agreement ***other than*** a negotiated interconnection agreement; please indicate type (government or other),date executed, and total revenue ($)
Interconnection Agreement	Any negotiated interconnection agreement per Section 252 of the Telecommunications Act
New Service	Any **new tariffed** service offering
GRC	Any General Rate Case filing
Carrier Information Changes	Name, DBA, contact information, mergers, transfers of control, and other licensing actions ***not requiring*** a formal application
California High Cost Fund-A (CHCF-A)	Any CHCF-A program filing requiring Commission action by Resolution
California High Cost Fund-B (CHCF-B)	Any CHCF-B program filing (including Carrier of Last Resort certification) requiring Commission action by Resolution
California Teleconnect Fund (CTF)	Any CTF program filing requiring Commission action by Resolution
Universal Lifeline Telephone Service (ULTS)	Any ULTS program filing requiring Commission action by Resolution
Deaf and Disabled Telephone Program (DDTP)	Any DDTP program filing requiring Commission action by Resolution
Eligible Telecommunications Carrier (ETC)	Filings made to be designated as an ETC, to continue ETC designation, or to have ETC designation rescinded.
URF Carrier detariff filing	Tier 2 filing requesting to detariff pursuant to D.07-09-018, or file notice of new detariffed offers.

BINGHAM

2014 JUL 15 PM 1:50
DIRECTOR'S OFFICE

Jean L. Kiddoo
Brett P. Ferenchak
jean.kiddoo@bingham.com
brett.ferenchak@bingham.com

July 14, 2014

Via Overnight Courier

Telecommunications Advice Letter Coordinator
Communications Division
California Public Utilities Commission
505 Van Ness Avenue
3rd Floor
San Francisco, CA 94102

Re: Advice Letter No. 63 of Crown Castle NG West LLC (U-6745-C)

Notification of Conversion and Associated Change in Legal Name

Dear Telecommunications Advice Letter Coordinator:

Crown Castle NG West LLC (formerly known as Crown Castle NG West Inc.)[1] (**U-6745-C**) (the "Company"), pursuant to General Order ("G.O.") 96-B, files this Advice Letter to notify the Commission that the Company's current name is "Crown Castle NG Central LLC" as a result of its conversion from a Delaware corporation to a Delaware limited liability company. The conversion of the Company to a limited liability company was merely a change in its corporate form accomplished through the filing of Certificate of Conversion in Delaware and did not entail any merger or other transactions that extinguish the existence of the Company. The Company, therefore, requests that the records of the Commission, including the Company's Certificates,[2] be updated to reflect its current name, "Crown Castle NG West LLC." In support of this request, attached hereto are the Company's conversion documents and authorization to transact business in California.

Although the Company's legal name changed, the conversion did not have any effect on the rates, terms or conditions of service to customers. For these reasons, this Advice Letter qualifies for processing as a Tier 1 Advice Letter pursuant to Telecommunications Industry Rule 7.1(1). The Company therefore requests that the Advice Letter be allowed

Beijing
Boston
Frankfurt
Hartford
Hong Kong
London
Los Angeles
New York
Orange County
San Francisco
Santa Monica
Silicon Valley
Tokyo
Washington

Bingham McCutchen LLP
2020 K Street NW
Washington, DC
20006-1806

+1 202 373.6000
+1 202 373.6001
bingham.com

---

1 The Company was also formerly known as and NextG Networks of California, Inc. d/b/a NextG Networks West and notified the Commission of its name change by Advice Letter No. 60.

2 The Company is authorized to provide facilities-based and resold local exchange and interexchange services as well as RF transport services pursuant to D.03-01-061 and D.07-04-045.

to become effective on July 15, 2014. The Company will separately update its Service Guide and General Terms and Conditions.

Pursuant to GO 96-B, this Advice Letter is a Tier 1 Advice Letter and is effective pending disposition. Anyone may object to this Advice Letter by sending a written protest to:

Telecommunications Advice Letter Coordinator
Communications Division
505 Van Ness Avenue
3rd Floor
San Francisco, California 94102-3298

The protest must set forth the specific grounds on which it is based. The protest must be received by the Telecommunications Advice Letter Coordinator no later twenty (20) days after the date that the advice letter was filed. On or before the day that the protest is sent to the Telecommunications Advice Letter Coordinator, the protestant must send a copy of the protest to:

Jean L. Kiddoo
Brett P. Ferenchak
Bingham McCutchen LLP
2020 K Street, N.W.
Washington, DC 20006
jean.kiddoo@bingham.com
brett.ferenchak@bingham.com

To obtain information about the Commission's procedures for advice letters and protests, go to the Commission's Internet site (www.cpuc.ca.gov) and look for document links to General Order 96-B.

* * * * *

An original copy of this filing is provided, along with an electronic version on CD-ROM. If there are any questions regarding this filing, please contact us. Thank you for your attention to this matter.

Respectfully submitted,

/s/ *Brett P. Ferenchak*

Jean L. Kiddoo
Brett P. Ferenchak

Counsel for the Company

STATE OF CALIFORNIA

EDMUND G. BROWN JR., *Governor*

PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco CA 94102-3298

Crown Castle Ng West Inc.
IEC (Corp ID 6745)
Status of Advice Letter 60
As of November 7, 2012

Subject: name change for NextG-CA to enable it to align its legal name with how it is identified and recognized by its customers and the general public-name change to "Crown Castle NG West Inc."

Division Assigned: Telecommunications

Date Filed: 10-31-2012

Date to Calendar: 11-02-2012

Authorizing Documents: None

Disposition:	**Accepted**
Effective Date:	**11-04-2012**

Resolution Required: No

Resolution Number: None

Commission Meeting Date: None

CPUC Contact Information:

415-703-1565

TD_PAL_COORDINATOR@cpuc.ca.gov

AL Certificate Contact Information:

Michelle Salisbury

724-416-2239

michelle.salisbury@crowncastle.com

STATE OF CALIFORNIA **EDMUND G. BROWN JR.,** *Governor*

PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco CA 94102-3298

To: Telecommunications Carrier Filing Advice Letter

From: Telecommunications Division PAL Coordinator

Subject: Your Advice Letter Filing

The Telecommunications Division of the California Public Utilities Commission has processed your recent Advice Letter (AL) filing and is returning an AL status certificate for your records.

The AL status certificate indicates:

Advice Letter Number
Name of Filer
CPUC Corporate ID number of Filer
Subject of Filing
Date Filed
Disposition of Filing (Accepted, Rejected, Withdrawn, etc.)
Effective Date of Filing
Other Miscellaneous Information (e.g., Resolution, if applicable, etc.)

The Telecommunications Division has made no changes to your copy of the Advice Letter Filing; please review your Advice Letter Filing with the information contained in the AL status certificate, and update your Advice Letter and tariff records accordingly.

All inquiries to the California Public Utilities Commission on the status of your Advice Letter Filing will be answered by Telecommunications Division staff based on the information contained in the Telecommunications Division's PAL database from which the AL status certificate is generated. If you have any questions on this matter please contact the:

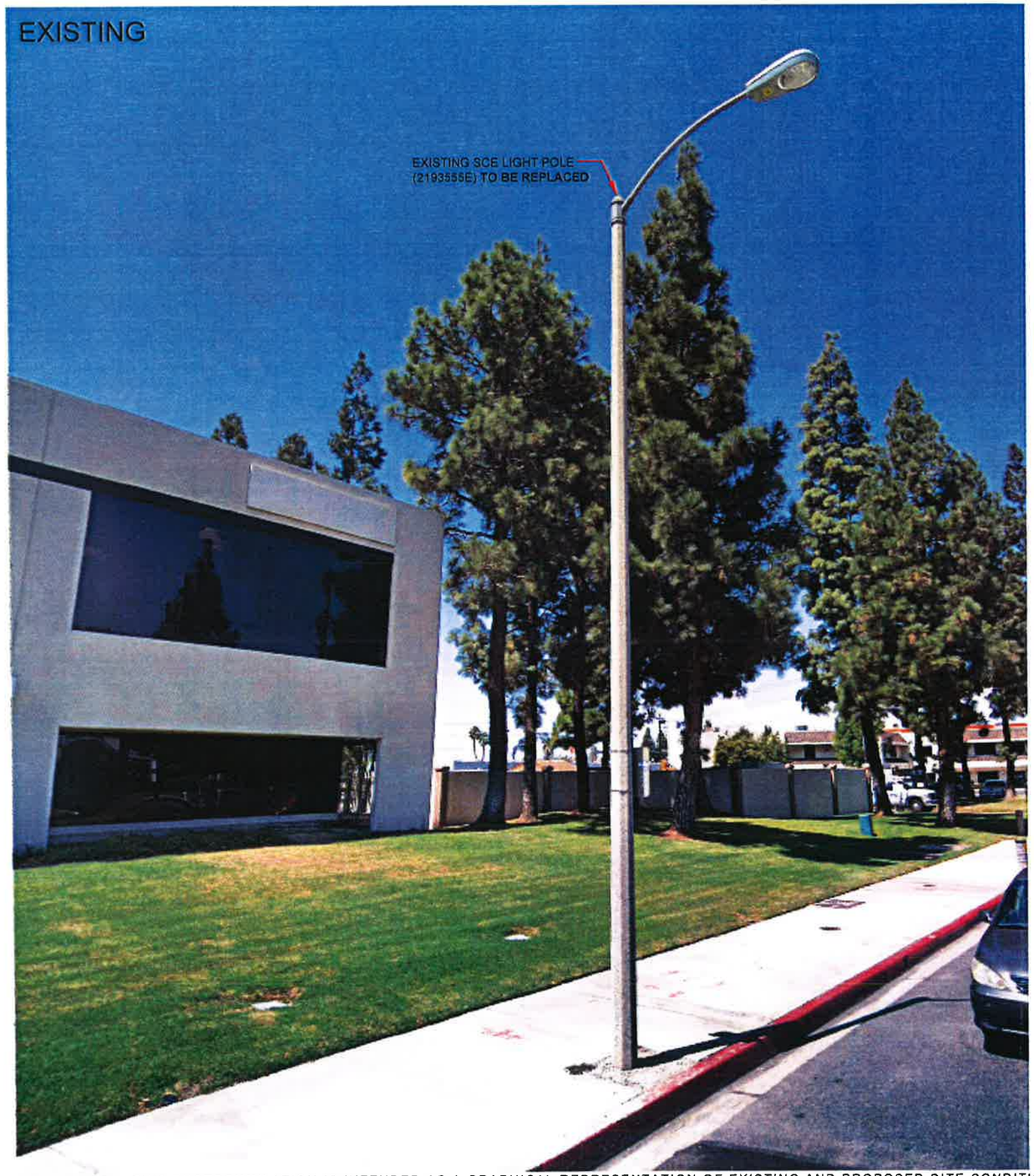
Telecommunications Division PAL Coordinator at **(415) 703-1565**, or by e-mail to ***td_pal_coordinator@cpuc.ca.gov***

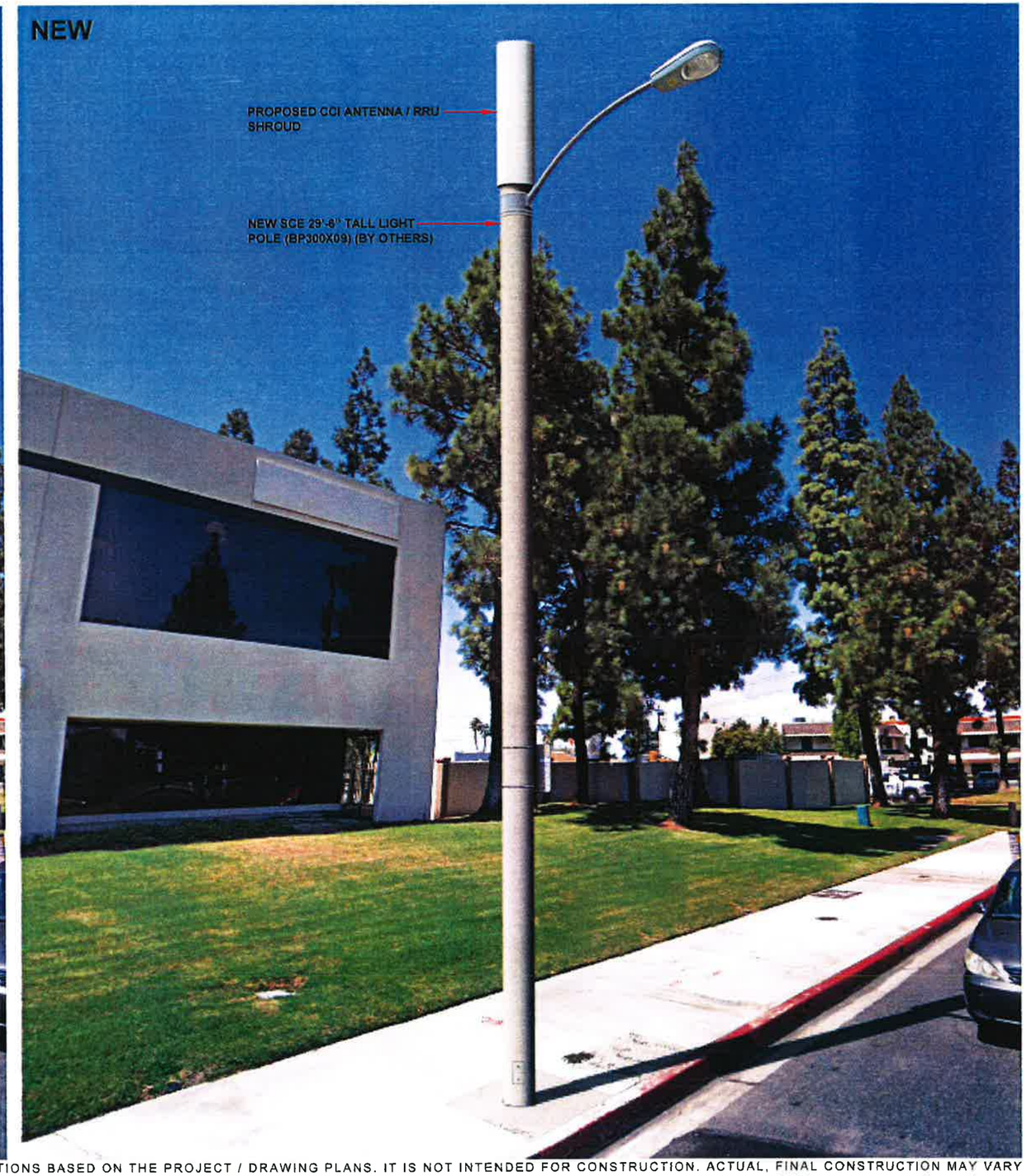
PHOTOSIMULATION VIEWPOINT

CROWN CASTLE

HUB: LA02063A
CROWN NODE ID: SOC269
T-MOBILE SITE ID: IE10_001A
SCE POLE ID: 2193555E
33.70005°, -117.91972°
3565 HARBOR BLVD
COSTA MESA, CA 92626

SAC WIRELESS
5015 SHOREHAM PLACE, SUITE 150
SAN DIEGO, CA 92122
www.sacw.com





DISCLAIMER: THIS PHOTOSIMULATION IS INTENDED AS A GRAPHICAL REPRESENTATION OF EXISTING AND PROPOSED SITE CONDITIONS BASED ON THE PROJECT / DRAWING PLANS. IT IS NOT INTENDED FOR CONSTRUCTION. ACTUAL, FINAL CONSTRUCTION MAY VARY

ORANGE COUNTY

HUB: LA02063A

CROWN NODE ID SOC269
T-MOBILE SITE ID IE10_001A
SCE POLE ID 2193555E

CROWN CASTLE NG WEST
JURISDICTION: COSTA MESA
CLUSTER: IE10
PROPOSED SMALL CELL NODES
SCE POLE #2193555E

INDEX TO SHEETS:

C-01. TITLE, LOCATION MAP, NODE PLACEMENT
C-02. EQUIPMENT DETAILS
C-03. EQUIPMENT DETAILS
C-04. EQUIPMENT DETAILS
C-05. LIGHT STANDARD DETAIL
C-06. SITE PLAN & ELEVATION
C-07. TRAFFIC CONTROL PLAN

PROJECT TEAM:

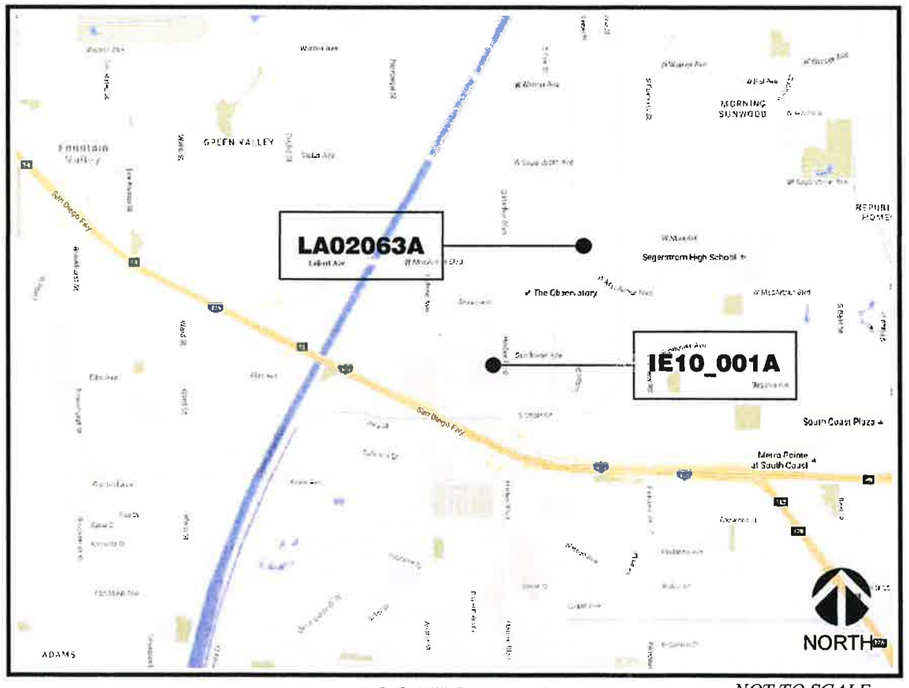
CROWN CASTLE

PROJECT MANAGER:
CONTACT: ALYA AL-DHAHER
PHONE: (949) 344-7850

CONSTRUCTION MANAGER:
CONTACT: MITCH EVERETT
PHONE: (949) 683-1347

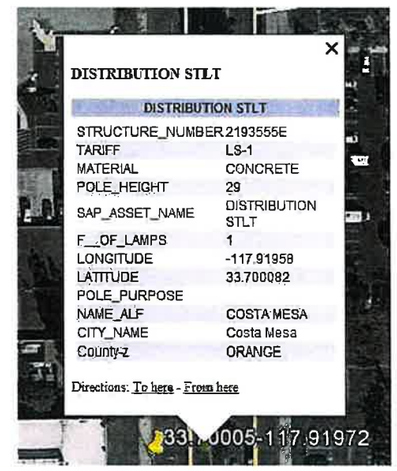
UTILITY CONTACT:
NETWORK OPERATION:
CONTACT: CROWN CASTLE
PHONE: 1-800-788-7011
POWER: SCE

NRE CONTACT:
CONTACT: NANCY SHERIDAN
PHONE: 1-714-362-5152



LOCATION MAP

NOT TO SCALE



SITE: SOC269 / IE10_001A
COORDINATES: 33.70005°, -117.91972°
ADDRESS: 3565 HARBOR BLVD
COSTA MESA, CA 92626

LATITUDE & LONGITUDE:
33.70005°, -117.91972°

ADDRESS:
3565 HARBOR BLVD
COSTA MESA, CA 92626

PROJECT DESCRIPTION:

THIS PROJECT IS FOR THE INSTALLATION AND OPERATION OF A SMALL CELL NETWORK.

SCOPE OF WORK:
- BRING UG FIBER TO LIGHT POLE VIA ENCROACHMENT PERMIT
- INSTALL RRU (REMOTE RADIO UNIT) INSIDE NEW RADOME
- INSTALL FIBER AND POWER INSIDE LIGHT POLE TO RRUs

FACING SOUTH

FACING EAST

FACING NORTH

ENGINEER:
SAC AE DESIGN GROUP, INC
5015 SHOREHAM PLACE, SUITE 150
SAN DIEGO, CA 92122
www.saow.com
619.736.3766

OWNER/DEVELOPER:
CROWN CASTLE
200 SPECTRUM CENTER DRIVE, SUITE 1800
IRVINE, CA 92618

TITLE:
CROWN CASTLE NG WEST
JOB# 365238
ORANGE COUNTY

REVISIONS

REV	DATE	DESCRIPTION	BY
00	05/15/2017	PER CC COMMENTS	FR
01	05/25/2017	PER CC COMMENTS	NB
02	06/21/2017	PER CC COMMENTS	SR
03	03/08/2018	PER CC COMMENTS	SR
04	02/12/2018	PER CC COMMENTS	NB

DRAWN BY:	CHECKED BY:	APPROVED BY:
NB	NB	NB

PROJECT NUMBER:	
FILE NAME:	TITLE SHEET
DATE DRAWN:	02/12/2018
SCALE:	AS SHOWN

SHEET: C-01

ORANGE COUNTY

ERICSSON

Table 1 Radio 2203 Technical Data

Description	Value
Maximum nominal output power	2 x 5 W
Number of carriers	WCDMA: One to four carriers. LTE: One to three carriers Mixed mode: Two to five carriers
Description	**Value**
Frequency[1]	1920–1980 MHz uplink 2110–2170 MHz downlink B1 for WCDMA and LTE.
	1710–1785 MHz uplink 1805–1880 MHz downlink B3 for WCDMA and LTE
	1744.9–1784.9 MHz uplink 1839.9–1879.9 MHz downlink B3C for WCDMA and LTE
	880–915 MHz uplink 925–960 MHz downlink B8 for WCDMA and LTE
	1710–1780 MHz uplink 2110–2180 MHz downlink

(7-7/8" in)
(7-7/8" in)
(3-15/16" in)

(7-7/8" in)
(7-7/8" in)
(4-11/16" in)

(5-1/16" in)

(9.9208 lbs)

(10 8027 lbs.)

RADIO 2203 SPECS | SCALE N.T.S. | 3

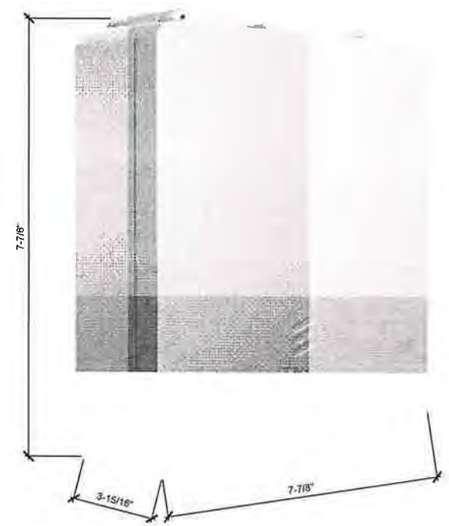
ERICSSON

Product Overview

The radio expands coverage and performance in denser urban areas, where the use of small handheld devices demand high capacity on the operators networks. It is designed to be located in cities and in demanding radio environments.

The radio is part of a modular radio building concept that enables a variety of installation alternatives that is also easy to expand. Flexible mounting solutions are provided using rails and pole clamps. The small size of the radio together with the flexible mounting solutions reduces the site volume. The lower weight also improves the handling of the radio.

The radio can be connected in a star or cascade configuration using optical cable links. An optic cable connects the radio to the main unit, or to an expanded Radio System.



RADIO 2203 DESCRIPTION | SCALE N.T.S | 2

NOT USED | SCALE N.T.S | 4

NOT USED | SCALE N.T.S | 1

HUB: LA02063A

CROWN NODE ID SOC269
T-MOBILE SITE ID IE10_001A
SCE POLE ID 2193555E

LATITUDE & LONGITUDE:
33.70005°, -117.91972°

ADDRESS:
3565 HARBOR BLVD
COSTA MESA, CA 92626

ENGINEER:
SAC WIRELESS
SAC AE DESIGN GROUP, INC
5015 SHOREHAM PLACE, SUITE 150
SAN DIEGO, CA 92122
www.sacw.com
619 736.3766

OWNER/DEVELOPER:
CROWN CASTLE
200 SPECTRUM CENTER DRIVE, SUITE 1800
IRVINE, CA 92618

TITLE:
CROWN CASTLE NG WEST
JOB# 365238
ORANGE COUNTY

REVISIONS

REV	DATE	DESCRIPTION	BY
00	05/15/2017	PER CC COMMENTS	FR
01	05/25/2017	PER CC COMMENTS	NB
02	06/21/2017	PER CC COMMENTS	SR
03	03/06/2018	PER CC COMMENTS	SR
04	02/12/2018	PER CC COMMENTS	NB

DRAWN BY:	CHECKED BY:	APPROVED BY:
NB	NB	NB

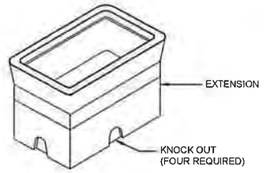
PROJECT NUMBER:	
FILE NAME:	EQUIPMENT DETAILS
DATE DRAWN:	02/12/2018
SCALE:	AS SHOWN

SHEET: C-02

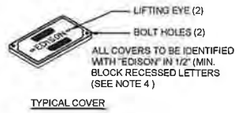
ORANGE COUNTY

HUB: LA02063A

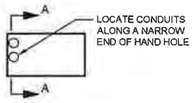
CROWN NODE ID SOC269
T-MOBILE SITE ID IE10_001A
SCE POLE ID 2193555E



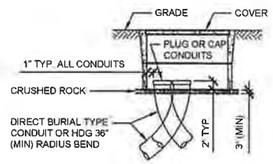
TYPICAL ASSEMBLY
(WITHOUT COVER)



TYPICAL COVER



CONDUIT LOCATION

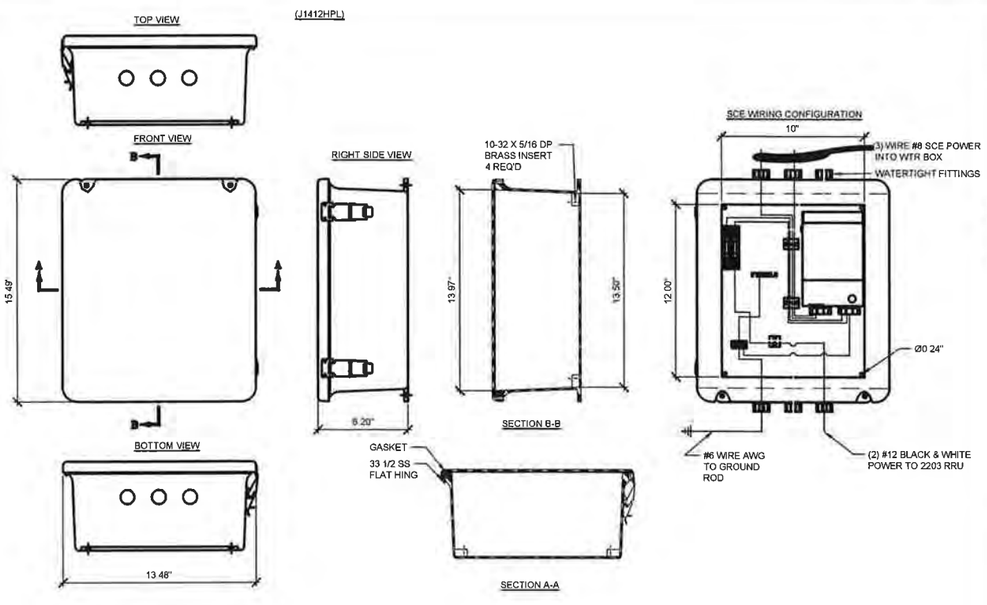


SECTION A-A

NOTES:
1 GC TO REFER TO SCE DOCUMENT *HP 200* FOR *HAND HOLE REQUIREMENTS (UNDERGROUND STRUCTURES STANDARDS)*
2 RADIUS ANGLES MAY BE REDUCED TO LESS THAN 90° PROVIDING THE PROJECTED CENTER LINE OF THE CONDUIT CLEARS HAND HOLE OPENING
3 TWO HOLD DOWN DEVICES TO BE SUPPLIED WITH EACH HAND HOLE
4 COVER SHALL BE IDENTIFIED WITH "EDISON" IN MINIMUM 2-INCH LETTERS OR LABELS PERMANENTLY SECURED TO THE LID

17" X 30" UTILITY PULL BOX DETAIL (HH-6)

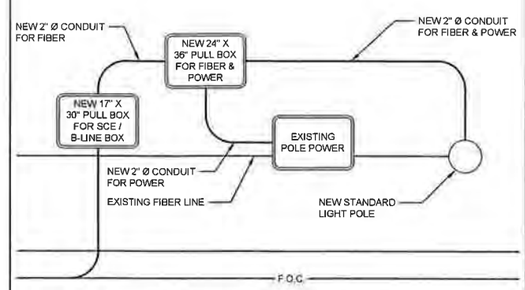
SCALE N.T.S **6**



SCE / B-LINE BOX DETAIL

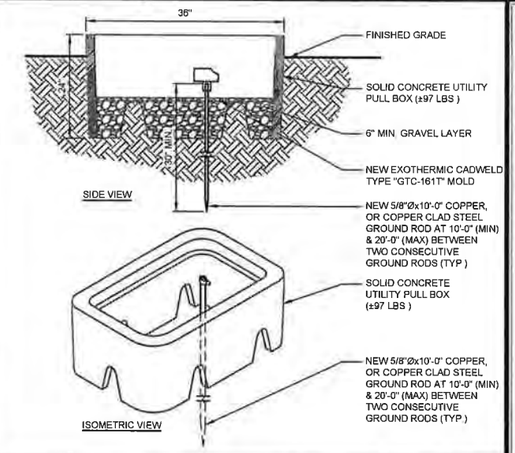
SCALE N.T.S **5**

NOTE:
PULL BOX & LIGHT POLE LOCATION VARIES PER LOCATION



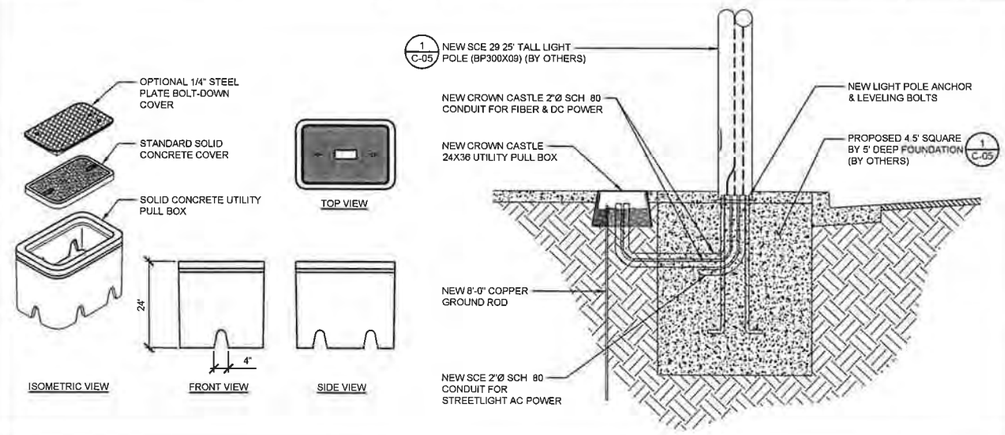
CONDUIT ROUTE

SCALE N.T.S **4**



GROUNDING ROD

SCALE N.T.S **3**



24" X 36" UTILITY PULL BOX DETAIL

SCALE N.T.S **2**

NOT USED

SCALE N.T.S **1**

LATITUDE & LONGITUDE:
33.70005°, -117.91972°

ADDRESS:
3565 HARBOR BLVD
COSTA MESA, CA 92626

ENGINEER:
SAC WIRELESS
SAC AE DESIGN GROUP, INC
5015 SHOREHAM PLACE, SUITE 150
SAN DIEGO, CA 92122
www.sacw.com
619.736.3766

OWNER/DEVELOPER:
CROWN CASTLE
200 SPECTRUM CENTER DRIVE, SUITE 1800
IRVINE, CA 92618

TITLE:
CROWN CASTLE NG WEST
JOB# 365238
ORANGE COUNTY

REVISIONS

REV	DATE	DESCRIPTION	BY
00	05/15/2017	PER CC COMMENTS	FR
01	05/25/2017	PER CC COMMENTS	NB
02	06/21/2017	PER CC COMMENTS	SR
03	03/06/2018	PER CC COMMENTS	SR
04	02/12/2018	PER CC COMMENTS	NB

DRAWN BY:	CHECKED BY:	APPROVED BY:
NB	NB	NB

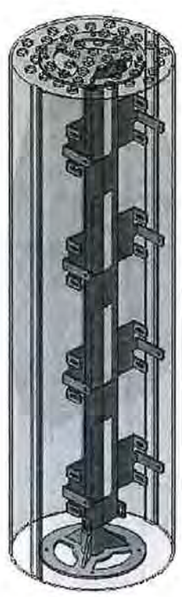
PROJECT NUMBER:	
FILE NAME:	EQUIPMENT DETAILS
DATE DRAWN:	02/12/2018
SCALE:	AS SHOWN

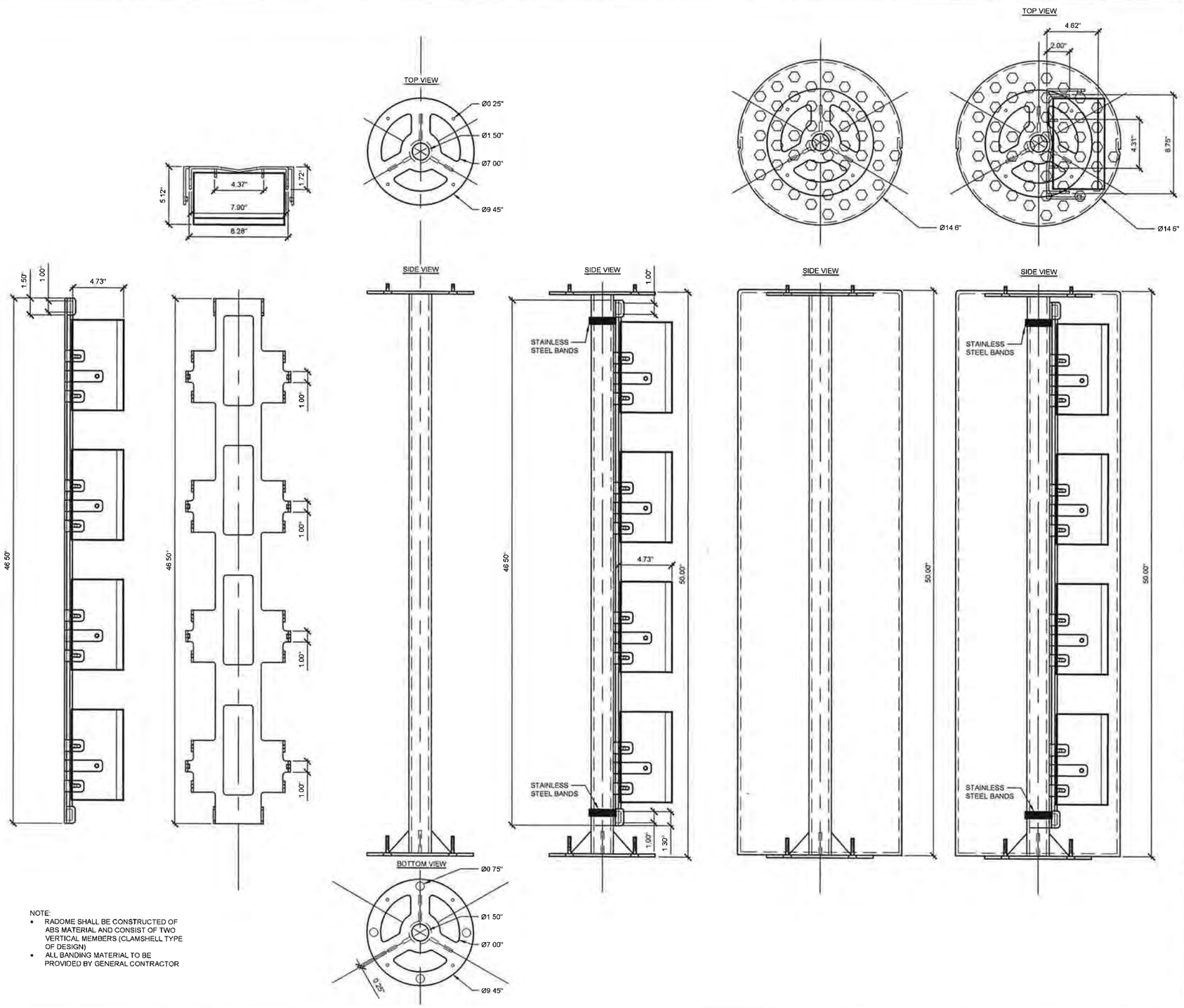
SHEET: C-03

ORANGE COUNTY

HUB: LA02063A

CROWN NODE ID SOC269
T-MOBILE SITE ID IE10_001A
SCE POLE ID 2193555E





NOTE:
- RADOME SHALL BE CONSTRUCTED OF ABS MATERIAL AND CONSIST OF TWO VERTICAL MEMBERS (CLAMSHELL TYPE OF DESIGN)
- ALL BANDING MATERIAL TO BE PROVIDED BY GENERAL CONTRACTOR

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04	02/12/2018	PER CC COMMENTS	NB

DRAWN BY:	CHECKED BY:	APPROVED BY:
NB	NB	NB

PROJECT NUMBER:	
FILE NAME:	EQUIPMENT DETAILS
DATE DRAWN:	02/12/2018
SCALE:	AS SHOWN

ANTENNA /RRU SHROUD DETAIL

SCALE: NTS

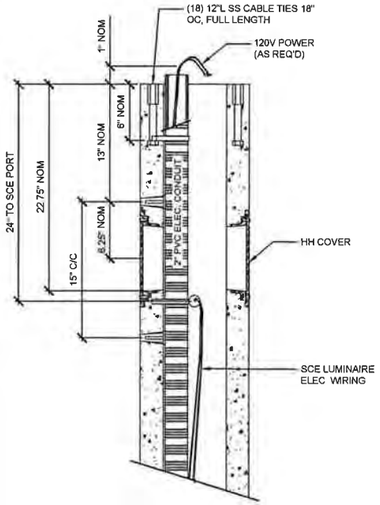
1

SHEET: C-04

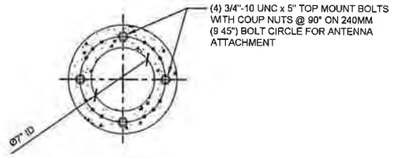
ORANGE COUNTY

HUB: LA02063A

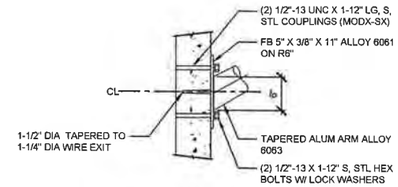
CROWN NODE ID SOC269
T-MOBILE SITE ID IE10_001A
SCE POLE ID 2193555E



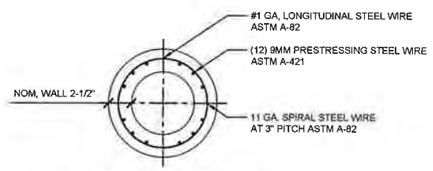
POLE TOP CUT-AWAY DETAIL



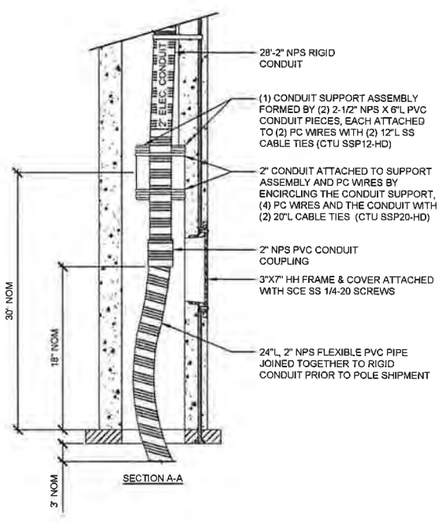
POLE TOP DETAIL



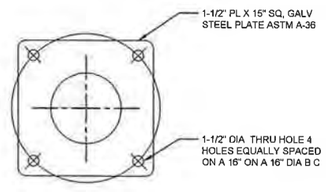
BRACKET ARM TO POLE CONNECTION



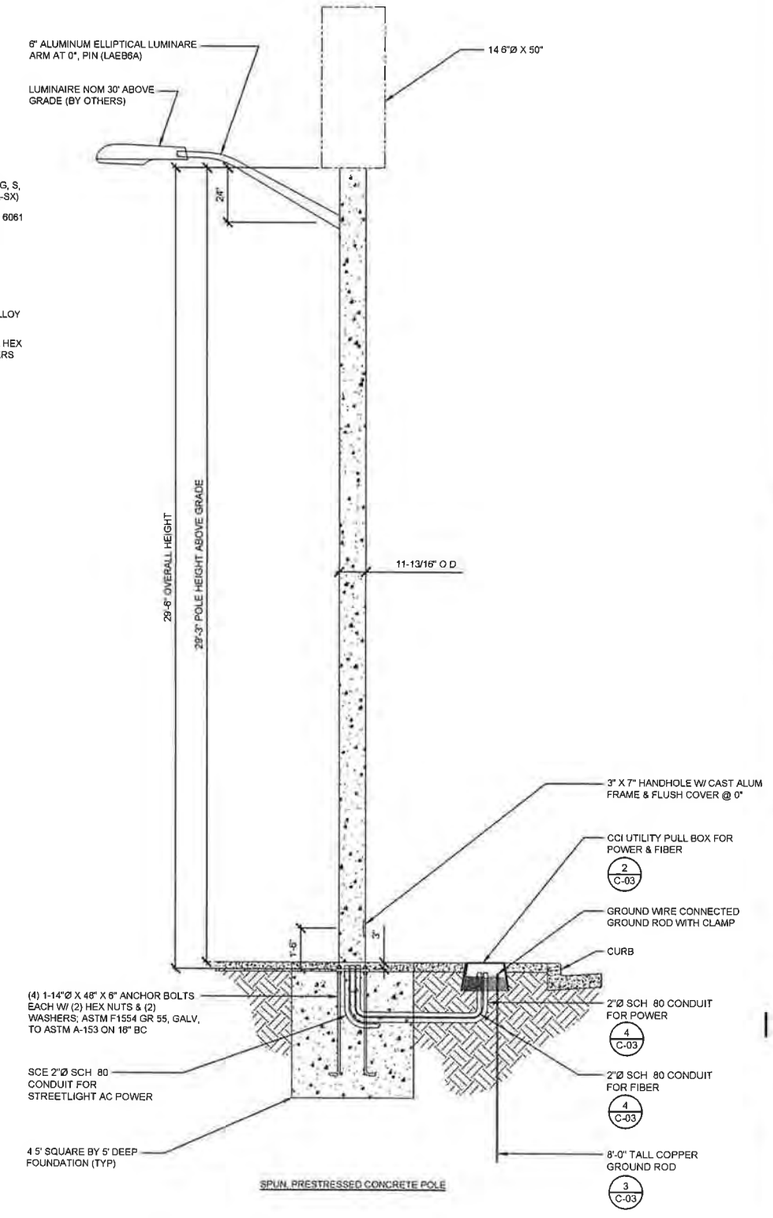
HH SECTION & POLE ORIENTATION



SECTION A-A



BASE PLATE



SPUN, PRESTRESSED CONCRETE POLE

NOTES:
1 FINISHES: (815S), SCE BLACK & WHITE, LIGHTLY EXPOSED AGGREGATE FINISH, WITH FLAT, WATER SEALER COATING
2 ASTM C-150 TYPE III GRAY CEMENT
3 f'c @ 28 DAYS = 7,000 PSI, USING SPUN CYLINDER TEST
4 f'c @ 28 DAYE = 5,000 PSI USING ASTM C-31 CYLINDER TEST
5 POLES MANUFACTURED TO ASTM C-1089-13 SPECIFICATIONS
6 MODX, (2) 1/2"-13 X 1-12" COUPLINGS
7 POLE WT 2900 LBS

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ORANGE COUNTY

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02	06/21/2017	PER CC COMMENTS	SR
03	03/06/2018	PER CC COMMENTS	SR
04	02/12/2018	PER CC COMMENTS	NB

DRAWN BY:	CHECKED BY:	APPROVED BY:
NB	NB	NB

PROJECT NUMBER:	
FILE NAME:	LIGHT STANDARD DETAIL
DATE DRAWN:	02/12/2018
SCALE:	AS SHOWN

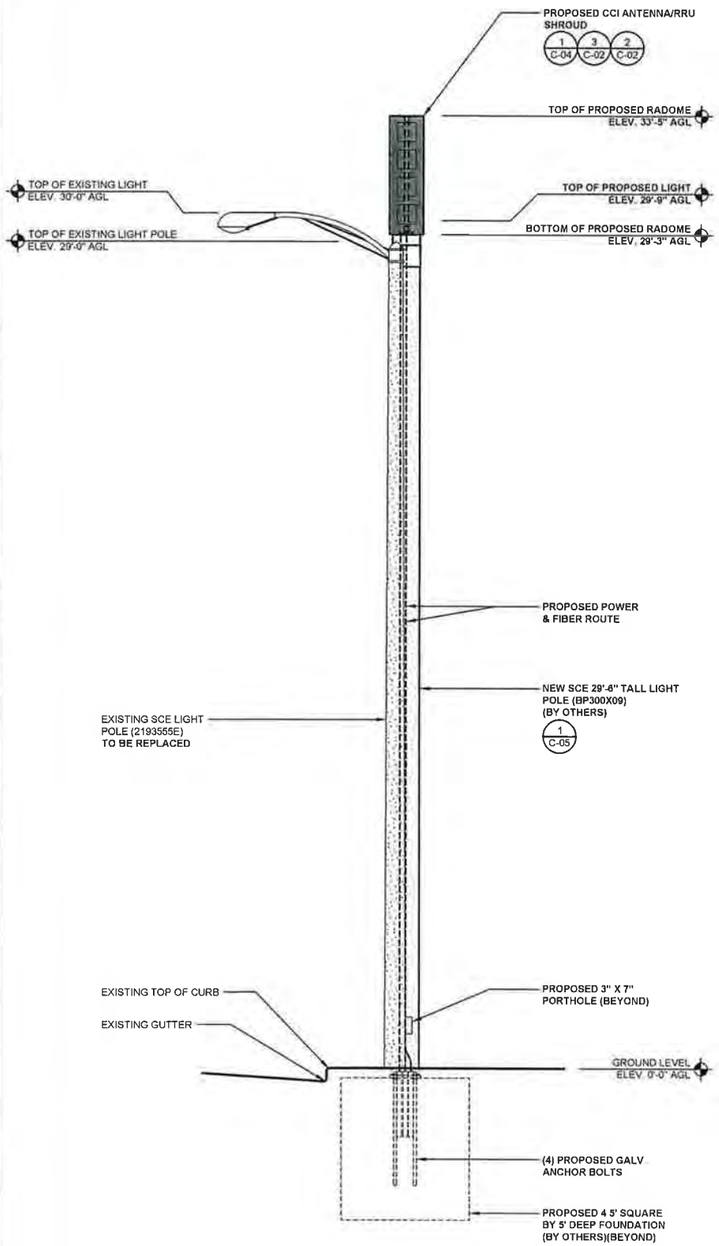
LIGHT STANDARD DETAIL

SCALE N T S

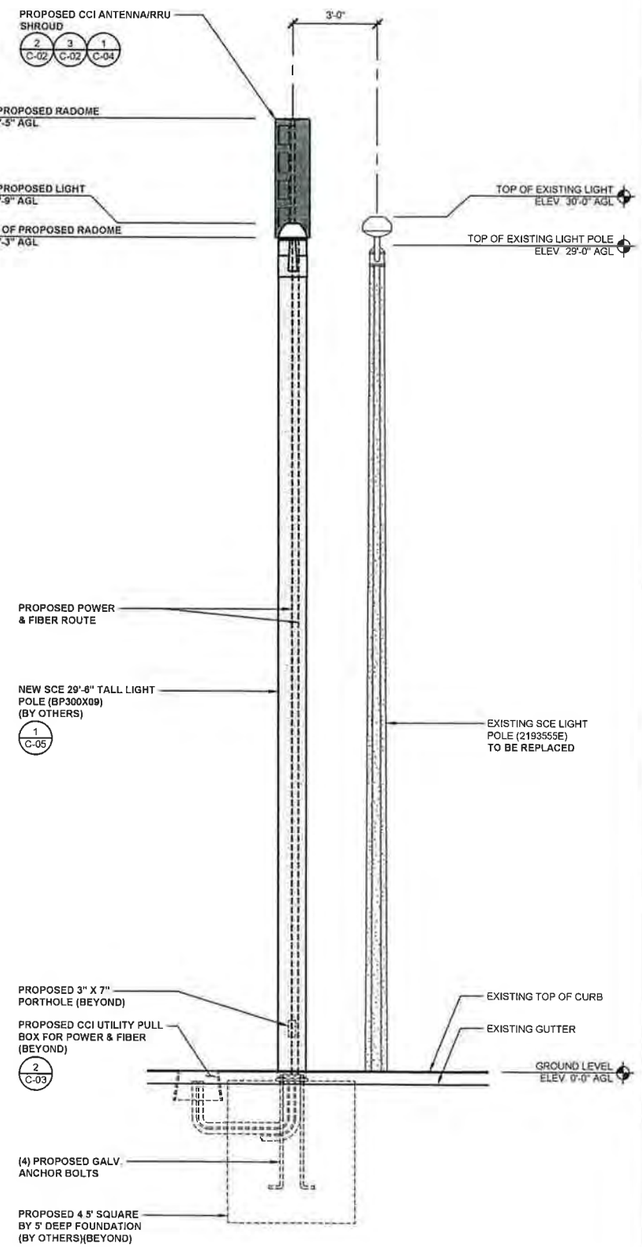
1

SHEET: C-05

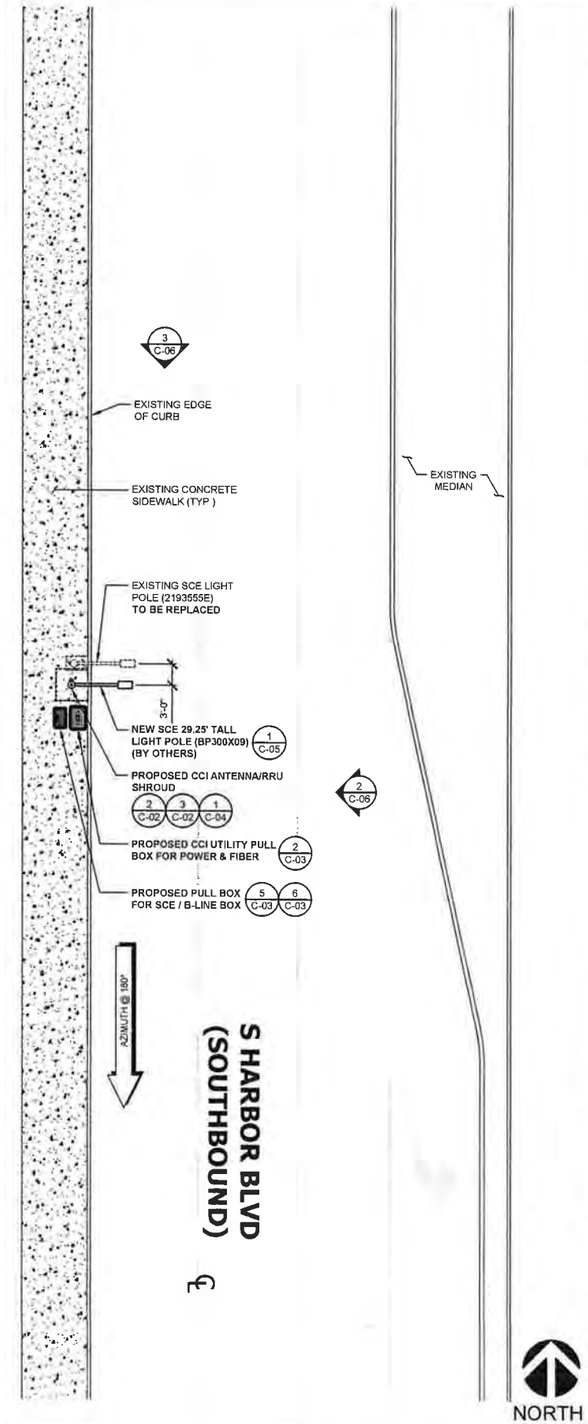
ORANGE COUNTY



PROPOSED NORTH ELEVATION | 0 1' 2' 3' | SCALE: 3/8" = 1'-0" (24x36) (OR) 3/16" = 1'-0" (11x17) | 3



PROPOSED EAST ELEVATION | 0 1' 2' 3' | SCALE: 3/8" = 1'-0" (24x36) (OR) 3/16" = 1'-0" (11x17) | 2



SITE PLAN | 0 3' 6' 12' | SCALE: 3/32" = 1'-0" (24x36) (OR) 3/64" = 1'-0" (11x17) | 1

HUB: LA02063A

CROWN NODE ID SOC269
T-MOBILE SITE ID IE10_001A
SCE POLE ID 2193555E

LATITUDE & LONGITUDE:
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02	06/21/2017	PER CC COMMENTS	SR
03	03/08/2018	PER CC COMMENTS	SR
04	02/12/2018	PER CC COMMENTS	NB

DRAWN BY:	CHECKED BY:	APPROVED BY:
NB	NB	NB

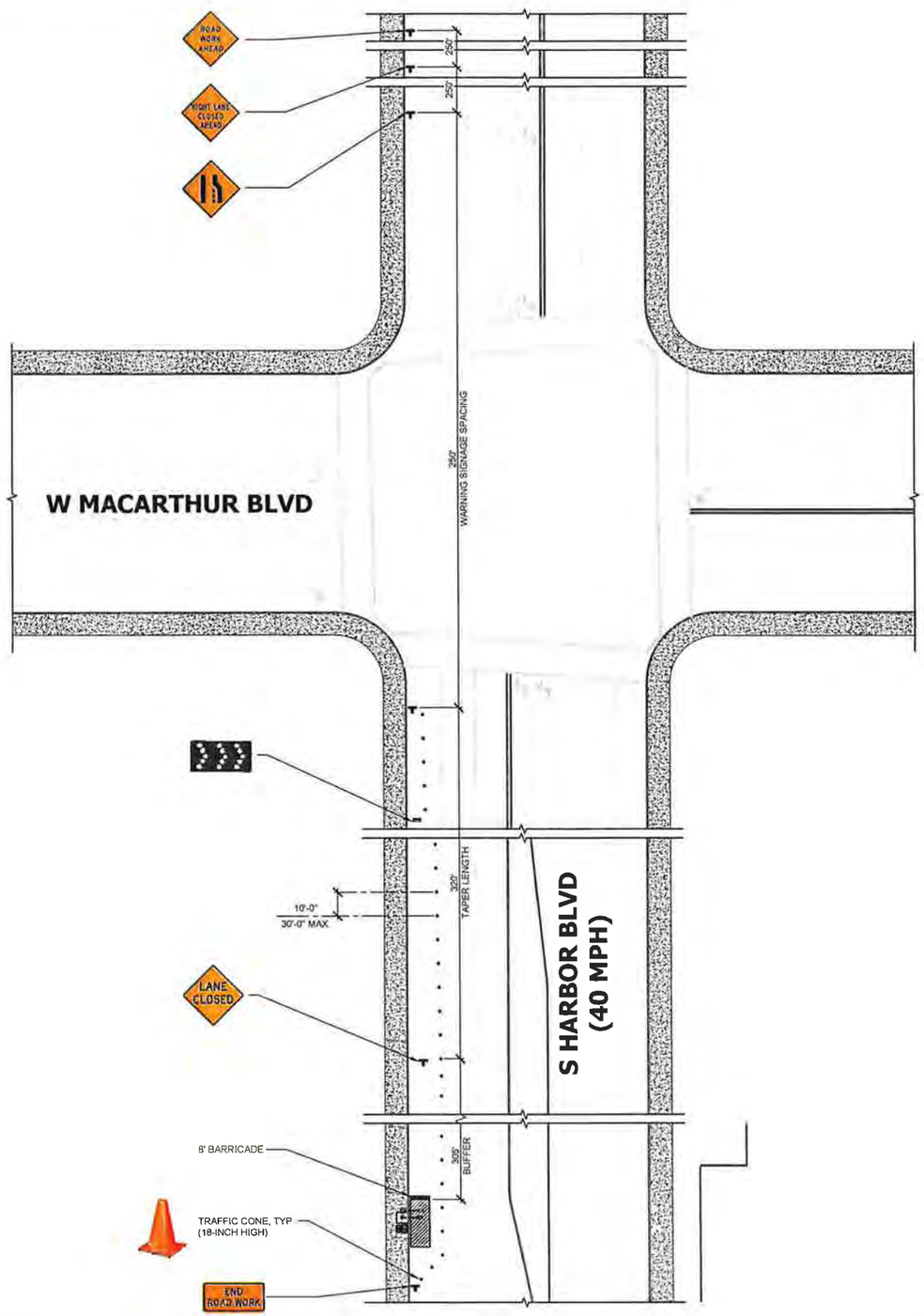
PROJECT NUMBER:	
FILE NAME:	SITE PLAN & ELEVATION
DATE DRAWN:	02/12/2018
SCALE:	AS SHOWN

SHEET: C-06

ORANGE COUNTY

HUB: LA02063A

CROWN NODE ID SOC269
T-MOBILE SITE ID IE10_001A
SCE POLE ID 2193555E



LOW SPEED TTC ZONE NOTES:

1. WHEN THE POSTED OR OBSERVED SPEED IS 40 MPH OR LESS, THE TTC ZONE IS DEFINED AS "LOW SPEED". TTC SAFETY IN LOW SPEED TTC ZONES SHOULD NOT BE COMPROMISED BY USING FEWER DEVICES SIMPLY BECAUSE THE TRAFFIC IS SLOWER AND ACTIVITY OPERATIONS ARE FOR SHORT DURATIONS AND/OR FREQUENTLY CHANGE LOCATIONS. THE FOLLOWING TTC DEVICE GUIDELINES SHALL BE USED IN "LOW SPEED" ZONES:

A. FLASHING WARNING LIGHTS AND/OR FLAGS MAY BE USED TO CALL ATTENTION TO THE ADVANCE WARNING SIGNS.

B. A WORK VEHICLE WITH HIGH INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS SHOULD BE USED. AN ARROW BOARD MAY BE USED FOR EACH LANE CLOSED.

C. THE MINIMUM HEIGHT OF CONES USED SHOULD BE 28 INCHES, 18-INCH HIGH TRAFFIC CONES MAY BE USED DURING DAYLIGHT HOURS.

D. WORKERS SHALL WEAR (MINIMUM) HIGH VISIBILITY CLASS 2 SAFETY APPAREL.

E. THE MINIMUM SIZE FOR ADVANCE WARNING SIGNS SHALL BE 36 INCHES BY 36 INCHES.

F. A MINIMUM OF TWO ADVANCED WARNING SIGNS SHALL BE POSTED FOR LANE CLOSURES.

2. ON LOW SPEED, LOW VOLUME STREETS DURING SHORT DURATION WORK, A REDUCTION IN THE NUMBER OF DEVICES MAY BE OFFSET BY THE USE OF MORE DOMINANT DEVICES SUCH AS "HIGH DENSITY" ROTATING, FLASHING, STROBE LIGHTS, OR ARROW BOARDS ON WORK VEHICLES UP TO ONE-HALF HOUR WORK DURATION.

A. FLAGGERS MAY BE USED FOR SHORT DURATION/MOBILE OPERATIONS WHICH OFTEN INVOLVE FREQUENT SHORT STOPS

B. VEHICLE HAZARD WARNING SIGNALS SHALL NOT BE USED INSTEAD OF THE VEHICLE'S HIGH INTENSITY ROTATING, FLASHING, STROBE LIGHTS OR ARROW BOARDS.

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ORANGE COUNTY

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03	03/06/2018	PER CC COMMENTS	SR
04	02/12/2018	PER CC COMMENTS	NB

DRAWN BY:	CHECKED BY:	APPROVED BY:
NB	NB	NB

PROJECT NUMBER:	
FILE NAME:	TRAFFIC CONTROL PLAN
DATE DRAWN:	02/12/2018
SCALE:	AS SHOWN

NORTH

TRAFFIC CONTROL PLAN (40 MPH)

30' 0 15' 30'

SCALE: 1" = 30'-0" (24x36)
(OR) 1/2" = 30'-0" (11x17)

1

SHEET: C-07

CITY OF COSTA MESA

P.O. BOX 1200 • 77 FAIR DRIVE • CALIFORNIA 92628-1200

DEVELOPMENT SERVICES DEPARTMENT

June 7, 2018

Nancy Sheridan
200 Spectrum Center Drive
Suite 1800
Irvine, CA 92618

RE: ZONING APPLICATION ZA-18-18
MINOR CONDITIONAL USE PERMIT TO INSTALL A SMALL CELL FACILITY ON TOP OF A STREETLIGHT POLE
3545 HARBOR BLVD, COSTA MESA

Dear Ms. Sheridan:

City staff's review of your zoning application for the above-referenced project has been completed. The application, as described in the attached project description, has been approved, based on the findings and subject to the conditions of approval and code requirements (attached). The decision will become final at 5:00 p.m. on June 14, 2018, unless appealed by an affected party, including filing of the necessary application and payment of the appropriate fee, or called up for review by a member of the Planning Commission or City Council.

If you have any questions regarding this letter, please feel free to contact the project planner, Johnwilly Aglupos, at either johnwilly.aglupos@costamesaca.gov or 714.754.5692.

Sincerely,

WILLA BOUWENS-KILLEEN, AICP
Zoning Administrator

Attachments:
- Intent Letter
- SCE Letter of Authorization
- SCE Streetlight Authorization Form
- CPUC
- Plans.
- SCE consent letter
- Disconnect Letter
- FCC
- Rendering

cc:
- Engineering
- Transportation

PROJECT DESCRIPTION

The applicant requests approval of a minor conditional use permit (MCUP) to install a small cell facility on top of a Southern California Edison (SCE) streetlight pole adjacent to 3545 Harbor Boulevard. The facility will include four RRUs and antennas inside a radome that is 50 inches in height and 14.6 inches in diameter. The installation will require the removal and replacement of the existing pole and an underground utility pull box for fiber and power to the new pole. The site abuts an industrial zoned and developed property.

The telecommunication industry is in constant growth and expansion. This includes an introduction of "Small Cell" facilities placed on light poles, traffic signals, or on new poles within the public right-of-way to support increased demand and capacity. "Small Cell" facilities (also referred to as "nodes") are a lower-power facility that will complement and supplement broader macro cell facilities, filling gaps in coverage from the macro facilities.

Pursuant to Municipal Code Title 19, Section 19-15(c)(2), a minor conditional use permit is required to establish and operate a wireless communication facility within the public right-of-way if: (1) the antenna is greater than 26 inches in length, (2) the volume of the radio box exceeds two cubic feet, (3) the facility requires an above ground cabinet/equipment, and (4) the facility is located within a 500-foot radius of a residentially zoned property. A Minor Conditional Use Permit is required because the shroud is 50 inches in height; remaining requirements are proposed to be satisfied.

ANALYSIS

Design and Location

The existing and replacement streetlight poles are owned by SCE. The SCE design criteria dictates the height and material of the replacement pole while the supporting small cell equipment varies in size and location in accordance to the carrier's technology (see Table 1 below). The applicant has provided an SCE letter of authorization regarding the approved Carrier's preliminary plans. Per U.S.C. 332(c)(7)(B)(i)(II), the city may not regulate the placement, construction or modification of wireless service facilities in a manner that prohibits the provision of personal wireless services; however, the law does not prohibit local government from asking the applicant to provide a design that allows for a compatible and harmonious relationship between the proposed facility and the surrounding area.

TABLE 1			
Comparison			
	Existing	Proposed	City Requirement
Top of Pole	29'-0"	29'-3"	N/A
Top of Light	30'-0"	29'-9"	N/A
Overall Height	30'-0"	33'-5"	35'-0"
Antenna Length	N/A	50"	26"
Diameter (Shroud)	Varies	14.6"	N/A
Diameter (Pole)	Varies	11.8"	N/A

Color	Gray, lightly exposed aggregate	Gray, lightly exposed aggregate	N/A

The additional antenna height is proposed to allow the incorporation of the RRUs into the same shroud (radome) as the antenna itself, providing a thinner, more streamlined design for the overall pole and cell facility. Although the actual antenna height exceeds the City's maximum requirement, the overall streetlight pole height will not exceed the City's maximum allowable height of 35 feet. The meter pedestal will be placed underground. In addition, the standard SCE pole will be in the same color and finish as the existing pole. The location, slim diameter of the shroud, height, undergrounding of supporting small cell equipment, and color/finish of the replacement pole will be the least intrusive means of supporting coverage. Therefore, the design balances visual impact and coverage with adequate spacing of the facilities to effectively relay signal with minimum number of node locations, and utilizes existing vertical elements to minimize the net number of vertical intrusions in the public right-of-way.

The selected location maximizes the coverage of the small cell facility and minimizes the overlap with other facilities of the system, which results in a lower overall number of proposed facilities within the public right-of-way. However, if necessary, this proposal allows for collocation by multiple carriers within the shroud to avoid proliferation of other small cell facilities in the immediate area.

To avoid any street light outage during the replacement process and to keep compatible spacing between the existing streetlight poles, the proposed pole will be installed three feet from the existing pole; the existing pole will be removed as soon as the new pole is activated.

Health and Safety

Pursuant to Mobile Services U.S.C 332(c)(7)(B)(iv), no state or local government may regulate the site of wireless telecommunication facilities on the basis of the perceived health effects of radio frequency (RF) emissions to the extent that the proposed facility complies with FCC regulations concerning such emissions. The applicant submitted a detailed report regarding the RF emission. Based on FCC Rules and Regulations, the applicant will be compliant provided recommendations(s) are implemented; conditions of approval requiring compliance are included.

General Plan Consistency

The City's 2015-2035 General Plan ensures that development decisions and improvements to public and private infrastructures are consistent with the goals, objectives, and policies of the City.

- Policy CD-1.5: *Encourage electric and communication lines to be placed underground and electrical substations and telephone facilities to be screened to minimize visual impacts from sidewalks, streets, and adjacent properties. Support*

utility undergrounding through conditions of project approval, preparation of undergrounding plans, and the formation of assessment districts.

- Policy C-1.2: *Allow for flexible use of public rights-of-way to accommodate all users of the street system while maintaining safety standards.*

Approval of the facility will meet the growing demand of the City's telecommunication needs while ensuring that the facility will not hinder the City's aesthetic and circulation of the public right-of-way. The proposal is in keeping with the intent of the City ordinance in that:

- The facility and support equipment are designed, textured, and painted to match existing streetlight poles;
- The facility uses the latest technology to reduce the bulk of the equipment;
- The design screens any supporting electrical and communication lines; and
- Placing all utilities underground allows flexible use of the sidewalk while maintaining safety standards.

FINDINGS

A. The information presented complies with Costa Mesa Municipal Code Section 13-29(e) in that:
   1. As proposed and conditioned, the small cell facility is compatible and harmonious to the surrounding existing facilities by locating the replacement pole as close as possible to the existing pole and using an approved SCE pole that is closely similar to the existing SCE poles.
   2. The proposed streetlight pole is engineered to withstand the weight of the equipment, the small cell will be compliant with FCC's radio frequency emissions, and the location of the replacement pole is close to the existing location which will not impede the pedestrian and automobile's path of travel. Therefore, granting the minor conditional use permit will not be detrimental to the health, safety and general welfare of the public or otherwise injurious to property or improvements within the immediate neighborhood.
   3. The proposed small cell facility complies with the maximum height of a telecommunication facility allowed within the public right-of-way.
   4. The proposed small cell facility meets Policy CD-1.5 and Policy C-1.2 of the City's General Plan.

B. The information presented complies with Costa Mesa Municipal Code Section 13-29(g)(2) in that:
   1. The proposed small cell facility is compatible and harmonious to the surrounding facilities that exist on site and will not be materially detrimental to other facilities within the area. The facility and support equipment will be designed, textured, and painted to match the existing streetlight poles.

2. Granting the minor conditional use permit will not be materially detrimental to the health, safety and general welfare of the public within the immediate neighborhood because it will be compliant with FCC's radio frequency emissions and meets SCE's design and structural standards.
3. Granting the minor conditional use permit will not allow a use, density, or intensity which is not in accordance with the General Plan designation since the facility will be of the smallest size possible while incorporating all equipment within a single shroud/radome.

C. The project has been reviewed for compliance with the California Environmental Quality Act (CEQA), the CEQA Guidelines, and the City environmental procedures, and has been found to be exempt under Section 15303(d), New Construction or Conversion of Small Structures, of the CEQA Guidelines.

CONDITIONS OF APPROVAL

Plng

1. The small cell mounted on SCE's streetlight pole shall be mounted as shown on the attached conceptual plan with appropriate treatments to minimize visual impacts to surrounding properties and uses. Any support cabinet(s) shall be installed underground.
2. Any wireless device colocating on the facility shall fit within the proposed shroud; the shroud shall remain the same size as approved.
3. All electrical and antenna wiring shall be encased within the street light pole itself.
4. Any substantial modifications to the physical dimension of the equipment or antennas shall be done with the prior approval of Planning Staff and may require filing and approval of a minor conditional use permit to ensure compliance with applicable City codes.
5. Applicant shall defend, indemnify and hold harmless the City, its officials and employees, against all legal actions filed challenging City's approval of the applicant's project and/or challenging any related City actions supporting the approval. City shall have the right to select the attorney defending it, if it elects to do so.
6. If any section, division, sentence, clause, phrase or portion of this approval is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining provisions.
7. The replacement pole will be placed as close as possible to the existing pole. The existing pole shall be immediately removed upon the activation of the new pole.
8. The replacement pole shall be of the same materials and as close as possible to the same diameter as the existing street light poles in the vicinity.
9. The Small Cell shall comply with Title 47 - FCC's rules and regulations, including those related to FCC Radio Frequency Safety Guidelines.

CODE REQUIREMENTS

The following list of federal, state, and local laws applicable to the project has been compiled by staff for the applicant's reference. Any reference to "City" pertains to the City of Costa Mesa.

Plng.

1. The approval of the zoning application shall be valid for a ten-year period from the date of approval (June 7, 2028), unless otherwise indicated in a condition imposed at the time of granting the application or unless otherwise exempted under federal or state law. Prior to the expiration of the permit, the applicant may apply for a ten-year extension of time. If notice was required for the original application, and a public hearing on the extension is allowed under federal and state law, notice of the public hearing for a time extension shall be given according to the procedures set forth in this section.
2. The antenna and all support equipment shall comply with all requirements of CMMC 19-15.

Bldg

3. Comply with the requirements of the following adopted codes: 2016 California Building Code, 2016 California Electrical code, 2016 California Mechanical code, 2016 California Plumbing code and 2016 California Energy Code (or the applicable adopted, California Building code California Electrical code, California Mechanical code California Plumbing Code and California Energy Code at the time of plan submittal or permit issuance) and California Code of Regulations also known as the California Building Standards Code, as amended by the City of Costa Mesa. Requirements for accessibility to sites, facilities, buildings and elements by individuals with disability shall comply with chapter 11B of the 2016 California Building Code.

Bus. Lic.

4. All contractors and subcontractors must have valid business licenses to do business in the City of Costa Mesa. Final inspections, final occupancy and utility releases will not be granted until all such licenses have been obtained.

Eng.

5. Obtain an Encroachment Permit from the Engineering Division for work in the City public right-of-way. Pay required permit fee and cash deposit or surety bond to guarantee construction of off-site street improvements at time of permit per section 15-31 & 15-32, C.C.M.M.C. as approved by City Engineer. Cash deposit or surety bond amount to be determined by City Engineer.

Crown Castle
300 Spectrum Center Drive
Suite 1200
Irvine, CA 92618

April 4, 2018

Willa Bouwens-Killeen
Zoning Administrator
City of Costa Mesa Planning Department
77 Fair Drive
Costa Mesa, CA 92626

Re: Minor Conditional Use Permit for Facilities within the Public Right of Way (SOC271)

Dear Ms. Bouwens-Killeen:

Crown Castle NG West LLC ("Crown Castle") is submitting a Minor Conditional Use Permit application to place an antenna node on a streetlight in the Right of Way in accordance with your code, ordinances and regulations. Please be advised the Federal Communications Commission (FCC) has adopted Rules and Regulations that impact how you must process this application. In addition, state law also limits your regulation of Crown Castle's access to the public rights of way.

Crown Castle's Deployment:

Crown Castle provides telecommunications services to its wireless carrier customers. It does so via telecommunications networks installed in the public rights of way that integrate elements including fiber optic cables as well as personal wireless services facilities, such as antennas and related equipment. Crown Castle's networks are sometimes referred to as distributed antenna systems ("DAS") or Small Cell networks. The specific equipment sought to be installed by Crown Castle in this case is set forth in the accompanying permit application.

Pursuant to the California Public Utilities Commission, Crown Castle has been granted a Certificate of Public Convenience and Necessity ("CPCN") to provide such services. As a result, Crown Castle must be granted access to the public rights of way in the same manner and on the same terms applicable to other certificated telecommunications providers and utilities.[1] (copy enclosed)

Federal and State Regulations Applicable To This Application:

[1] See CA Pub. Util. Code, §§ 7901 and 7901.1

Federal law and the FCC's rules implementing the law require that this permit application be processed to a final decision by this jurisdiction without undue delay. Specifically, this application proposes to attach new equipment on a replaced streetlight in the public rights of way, this application must be acted on within ninety (90) days from its submission, today.[2] Further, pursuant to recently passed California AB 57, if the City "fails to approve or disapprove" this application within that timeframe, it "shall be deemed approved."[3]

Moreover, pursuant to FCC regulations, this application is deemed complete 30 days after today unless you provide written notice to Crown Castle.[4] If you contend that the application is incomplete, within the next 30 days you must provide written notice specifying any items you claim are missing to make the application complete.[5] For each item alleged to be missing, you must specify the code provision, ordinance, application instruction, or otherwise publicly-stated procedure that requires the submission of the information.[6]

Please send all written requests for additional information regarding this application to:

Nancy Sheridan
Network Real Estate
Crown Castle
200 Spectrum Center Drive, Suite 1800
Irvine, CA 92618

Sincerely,

CROWN CASTLE NG WEST LLC

Nancy Sheridan

---

[2] *In re Petition for Declaratory Ruling to Clarify Provisions of Section 332(c)(7)(B) to Ensure Timely Siting Review*, Declaratory Ruling, 24 FCC Rcd. 13994 ¶¶ 32, 45-46 (2009) ("*FCC Shot Clock Order*"); *In the matter of Acceleration of Broadband Deployment By Improving Wireless Facilities Siting Policies*, Report and Order, FCC 14-153, WT Docket No. 13-238, ¶272 (FCC Oct. 21, 2014) ("*Wireless Infrastructure Order*") (clarifying that DAS nodes that involve installation of new poles trigger the 150 day shot clock).
[3] See CA Government Code Section 65964.1.
[4] *Wireless Infrastructure Order* at ¶¶ 257, 259.
[5] *Id.* ¶¶ 259-260.
[6] *Id.*

EDISON
CARRIER SOLUTIONS™
A Division of SOUTHERN CALIFORNIA EDISON

Brian P. Ryan
Principle Manager
Telephone: 909-274-1949
Brian.Ryan@sce.com

C

October 19, 2017

To Whom It May Concern:

Since 1994, Southern California Edison (SCE) has assisted wireless service providers in expanding their networks to meet customers' needs for telecommunications service. SCE makes available existing structures that can be used to co-locate the wireless service providers' equipment, while lessening the visual impacts on the community and constituency that is served. This letter requests that you help us in this endeavor.

In an effort to minimize the potential clutter that new vertical structures would produce, many California cities have adopted ordinances and policies encouraging wireless facilities to be mounted on street light poles within the public rights of way.

As you are aware, SCE owns and maintains street light poles in your city pursuant to our LS-1 tariff. In order to accommodate the increasing demand for micro-cell site locations, SCE has agreed to allow wireless service providers to attach their antennas to some of these streetlight poles, and contractually requires the wireless service provider to comply with certain requirements, including a requirement that the facility will not impact SCE's ability to provide street lighting service.

City of Costa Mesa has and retains full control over the entitlement and permitting process for these and future sites. The wireless service providers also pay for electrical usage resulting from their sites. This electrical service is metered and billed separately, and the City is not impacted.

While SCE believes this approach benefits local governments as well as their constituency, we would not engage in this solution if doing so resulted in extra costs to SCE. We would therefore appreciate you confirming that City of Costa Mesa consents to use of its public rights of way for the purpose of licensing space on an SCE Streetlight Pole #2193866E located at: 3545 Harbor Blvd. Crown Castle Site number: SOC0271

Please sign this letter to indicate your consent and return it to me at the below address. If you have any questions, please feel free to call Scott Haney (909) 274-1961.

Regards,

Brian P. Ryan

Signature

Name Mohcine Chirar

Title Assistant Engineer

Date: October 19, 2017

SCE Edison Carrier Solutions
2 Innovation Way 1st Floor
Pomona, CA 91768

EDISON
CARRIER SOLUTIONS

A Division of SOUTHERN CALIFORNIA EDISON

Brian Ryan
Principal Manager Telecom Sales
Edison Carrier Solutions
e-mail: Brian.Ryan@sce.com

October 19, 2017

City of Costa Mesa Public Services Department

To Whom It May Concern:

Re: Letter of Authorization

SCE streetlight identified as – SCE Streetlight Pole # 2193866E located adjacent: 3545 Harbor Blvd. Crown Castle Site Name: SOC0271

Southern California Edison Company (SCE) is the owner of the Light Pole, located in City of Costa Mesa, CA. Crown Castle "Carrier" has requested that SCE replace the existing Light Pole so that it can be used for operating a wireless communications facility, ("Site").

SCE has reviewed Carrier's preliminary plans for this Site and believe these plans are compatible with SCE's use of this Light Pole. Thus, as a representative of SCE, I hereby authorize Carrier, and its representatives, to seek and secure all right(s), including any environmental review associated with granting such rights, that are needed from the Jurisdiction to use the Light Pole and other property for this purpose as long as there are no costs to SCE.

Notwithstanding this authorization, SCE reserves the right to reject Carrier's request for use of its Light Pole for any reason, including imposed conditions or required changes to the light pole by the Jurisdiction, are unacceptable to SCE.

All correspondence and/or notices regarding use of SCE's Light Pole by Carrier, or any later requests by the Carrier for authorizations or approvals needed for construction, operation or maintenance of an approved Site, should include a copy to SCE.

If you have any questions concerning this project, please contact Scott Haney @ 626-688-9344.

Sincerely,

Brian P. Ryan

2 Innovation Way, 1st Floor
Pomona, CA 91768

CITY OF COSTA MESA

P.O. BOX 1200 • 77 FAIR DRIVE • CALIFORNIA 92628-1200

FROM THE DEPARTMENT OF PUBLIC SERVICES/ENGINEERING DIVISION

October 19, 2017

Brian Ryan
Southern California Edison
Carrier Solutions Division
2 Innovation Way 1st Floor
Pomona, Ca 91768

Dear Mr. Ryan:

This letter authorizes Southern California Edison (SCE) to disconnect the SCE streetlight identified as – SCE Streetlight Pole # 2193866E located adjacent: 3545 Harbor Blvd. Crown Castle Site number: SOC0271 so that work can be performed to replace the existing Streetlight.

Crown Castle (Wireless Carrier) has requested that SCE replace the Southern California Edison streetlight with a new streetlight that will be used for operating the wireless communications facility identified as SCE Light Pole # 2193866E located adjacent: 3545 Harbor Blvd. Crown Castle Site number: SOC0271

Please coordinate the disconnecting of the streetlight directly with the City of Costa Mesa, (Mohcine Chirar, 714-754-5140) so that the light will be out only for the above referenced work to be completed.

If you have any questions, please do not hesitate to call me.

Sincerely,

Mohcine Chirar
City of Costa Mesa

PHONE: (714) 754-5335 FAX: (714) 754-5028 TDD: (714) 754-5244
www.costamesaca.gov

SOUTHERN CALIFORNIA EDISON STREETLIGHT AUTHORIZATION

DEVELOPER/APPLICANT MUST PROVIDE THIS FORM
COMPLETED BY THE PUBLIC AUTHORITY
FOR ANY SCE-OWNED STREETLIGHT INSTALLATION, REMOVAL OR CHANGE REQUESTS
Incomplete forms will be returned and not processed

PUBLIC AUTHORITY NAME: City of Costa Mesa

Builder/Developer Name: Crown Castle NG West **Phone #:** _____

Tract/Ref # SCE Pole No. 2193866E **Streetlight Location** 3545 Harbor Blvd., Costa Mesa 33.697980°, -117.919640°

Please Check one: ☐ **Installation** ☐ **Removal** ☑ **Change**

Number of Lamp(s)	Lamp Size	Lamp Type
1	Same as existing	Same as existing

New Installations
Public Authority Responsibility for Streetlight Monthly Billing
Please Check one and fill out applicable dates:

____Upon Energizing
☐ If Public Authority is collecting Builder/Developer Advanced Energy Payment, indicate date collected. (_____)

Monthly Billing: ____Establish new Service Account (SA) Use existing SA #_____

____ Commitment Date-
Date Agreed upon by SCE and Public Authority (_____) or no later than 36 months from first streetlight energized whichever is earlier.

Monthly Billing: ____Establish new Service Account (SA) Use existing SA #_____

X Public Authority is not responsible
☐ HOA Area Name_____ Other Entity (please define) Crown Castle

Public Authority Notes:

Request for "0" day outage (SOC271)

Authorized Public Authority Agent

MOHCINE CHIRAR 10-13-17 [signature]
Print name Date Signature

Phone #_____ ASSISTANT ENGINEER
Title

TO BE COMPLETED BY SCE
ACTION: ENTER TRACT/REF# ON DM PROGRAM NAME FIELD.

District _____ Planning AOR_____ PLANNER NAME (PRINT)

DM SR # _____ Product #_____ (one per SLA)

FORWARD COMPLETED COPIES OF THE SLA FORM, MAP AND CSD272 CONTRACT, IF APPLICABLE TO:
"Street & Outdoor Lighting Organization" Santa Ana Bldg. D

SCE: SOLO-003 Rev 04-20-15

Dtech communications

YOUR RF SAFETY PARTNER

RADIO FREQUENCY ELECTROMAGNETIC FIELDS EXPOSURE REPORT

Prepared for Crown Castle

Site Name: Scenario
Site Type: Min. Height AGL of 18' or Greater - Light Pole
Report By: Christopher Stollar, P.E.
Report Date: 1/24/2017

Based on FCC Rules and Regulations, Crown Castle is compliant.

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1.0 EXECUTIVE SUMMARY

Dtech Communications, LLC ("Dtech") has been retained by Crown Castle to determine whether its wireless communications facility complies with the Federal Communications Commission ("FCC") Radio Frequency ("RF") Safety Guidelines. This report contains a computer-simulated analysis of the Electromagnetic Fields ("EMF") exposure resulting from a typical, minimum antenna height above ground level ("AGL") of 18-feet, light 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 (Optional)
Barrier(s) @ sectors	NA
Max Cumulative EMF level for Crown Castle on Ground	7.2% General Population
Max Cumulative EMF level for Crown Castle @ Antenna Level	80.1% General Population (16.0% Occupational)
General Population Exclusion Zone (At Antenna Elevation)	NA
Occupational Exclusion Zone (At Antenna Elevation)	NA

2.0 SITE DESCRIPTION

The wireless telecommunication facility is located on the ground. The facility consists of 1 wireless carrier(s) or operator(s): Crown Castle – T-Mobile. For this scenario, Crown Castle's antennas are mounted on a light 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	Antenna Mfg	Antenna Model	Type	Frequency (MHz)	Technology	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	T-Mobile	Ericsson	6503	Directional	1900	LTE	330	85	0.7	6.9	21.6	19.3	1.3
A2	T-Mobile	Ericsson	6503	Directional	2100	LTE	330	74	0.7	7.9	27.2	18.0	0.0
										Total	48.8		

3.0 ANALYSIS

3.1 Emission Predictions

Figure 1: Plan (bird's eye) view map of results compared to 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).

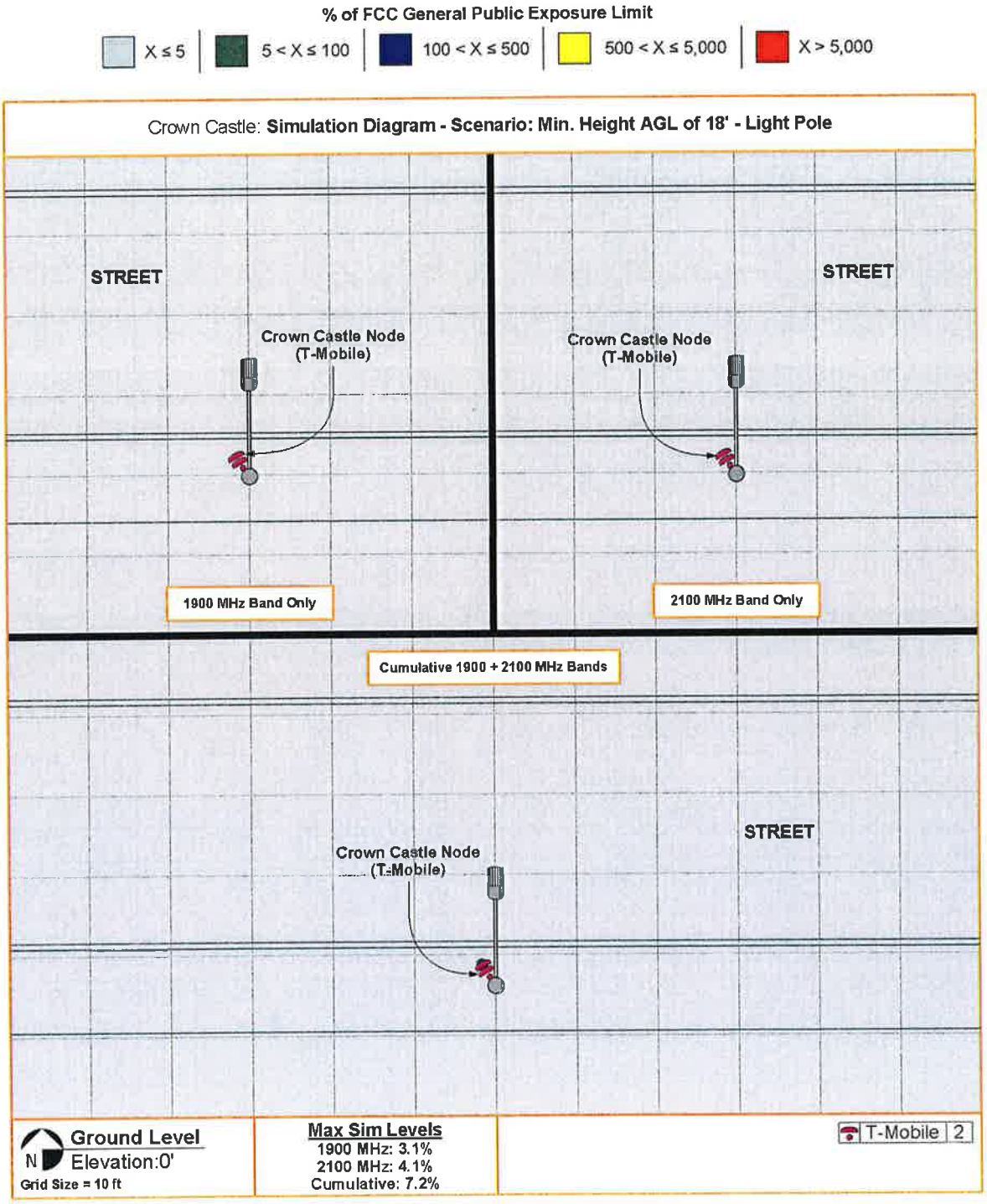
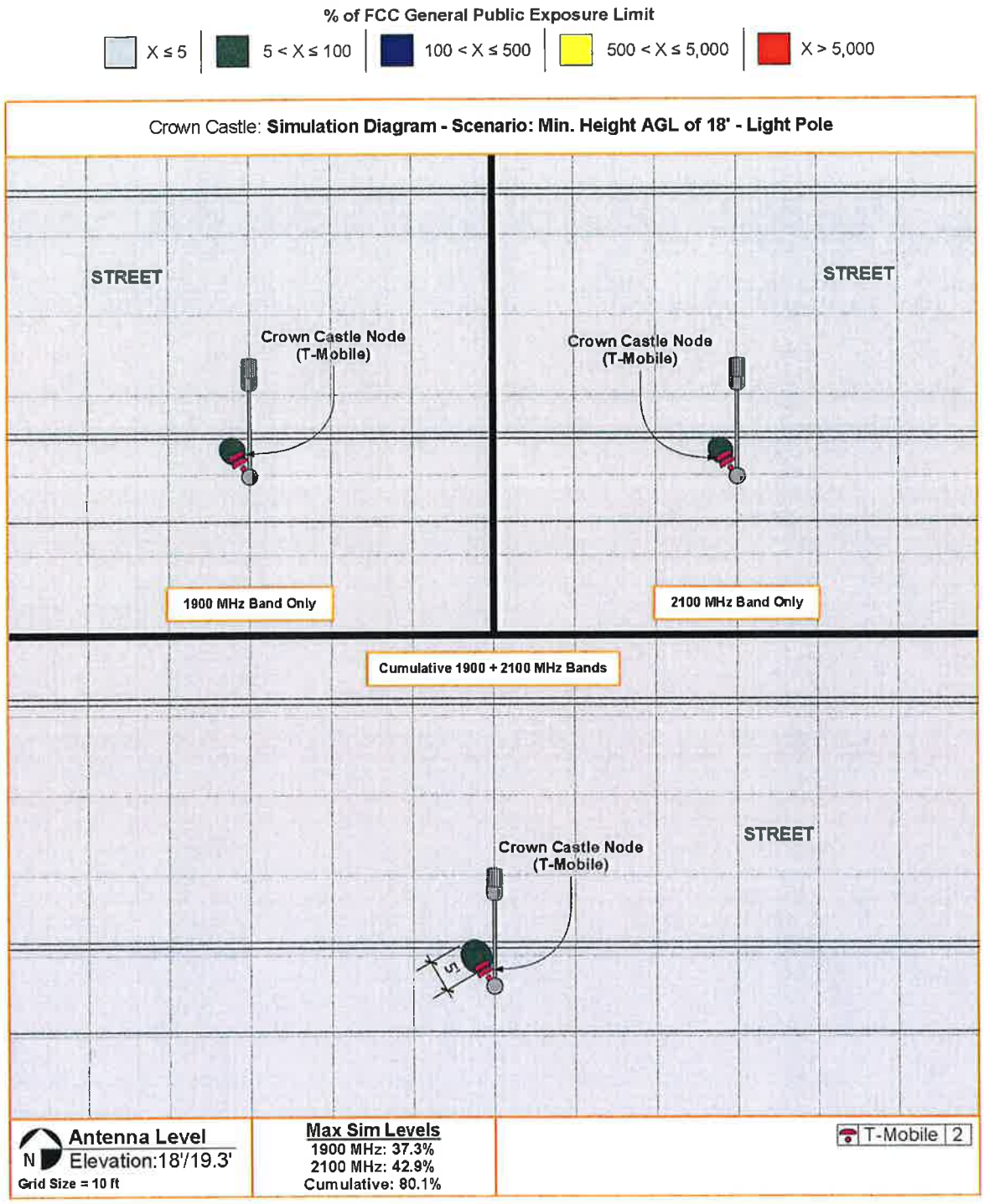


Figure 2: Plan (bird's eye) view map of results compared to FCC's General Population MPE (Maximum Permissible Exposure) Limits. Gray represents areas where exposure levels are calculated to be at or below 5%; Green- between 5% & 100% (below MPE limits); blue, yellow & red – greater than 100% (exceeds MPE limits).



4.0 CONCLUSION

4.1 Results

For a person standing on the ground, calculations for Crown Castle's site (at a minimum height AGL of 18-feet) resulted in exposure levels no higher than 7.2% of the applicable FCC's General Population MPE Limits (see figure 1). If the antennas are located higher than the minimum height AGL 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 antennas (see figure 2). If the antennas are located higher than the minimum height AGL 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 5-feet from the front face of the Crown Castle antenna(s). Beyond 5-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.

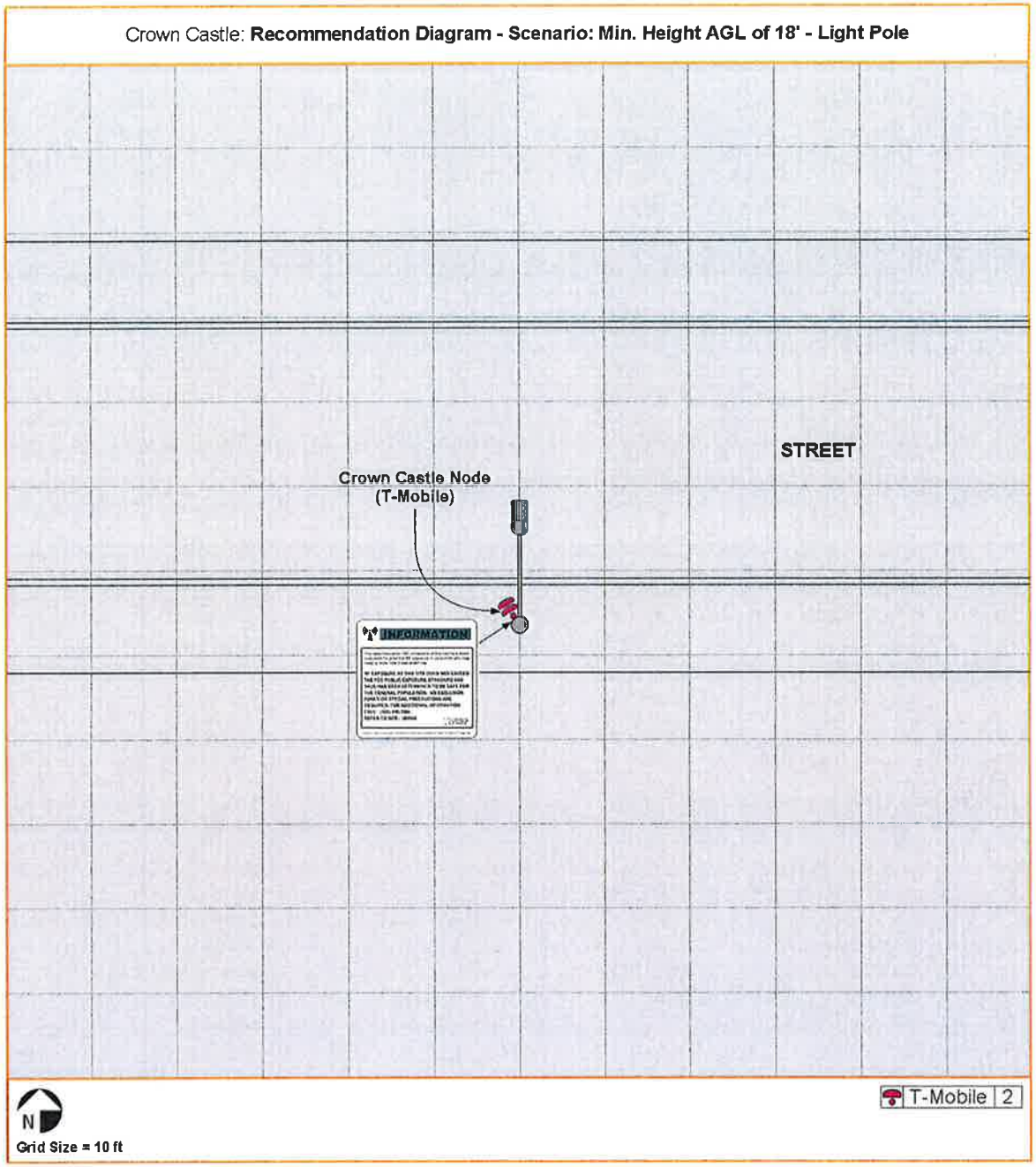
*Note: The actual MPE results of this analysis are only applicable to the specific antenna make/model, minimum heights, line/cable losses, total power output, and frequencies. Compliance is the same even if the antennas are raised above the minimum height AGL of 18-feet.

4.2 Recommendation(s)

The following conservative action(s) are recommended in accordance with the FCC's RF Safety Guidelines (see figure 3):

1) As a courtesy, install INFORMATION Sign(s) on or near the antenna(s). Signage should be placed high on the pole 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 is compliant with the FCC's RF Safety Guidelines.

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.

REGISTERED PROFESSIONAL ENGINEER
DARANG TECH
16000
Exp. 06/30/17
ELECTRICAL
STATE OF CALIFORNIA

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.

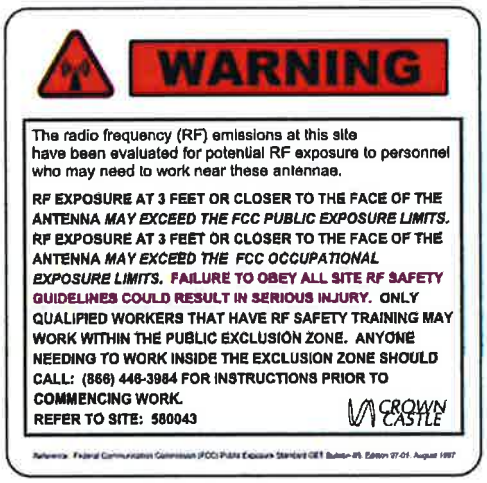
[1] Roofview® Version 4.15, Richard Tell Associates, Inc. © 1996-2000.

Appendix D: Crown Castle RF Advisory Signs

INFORMATION Sign

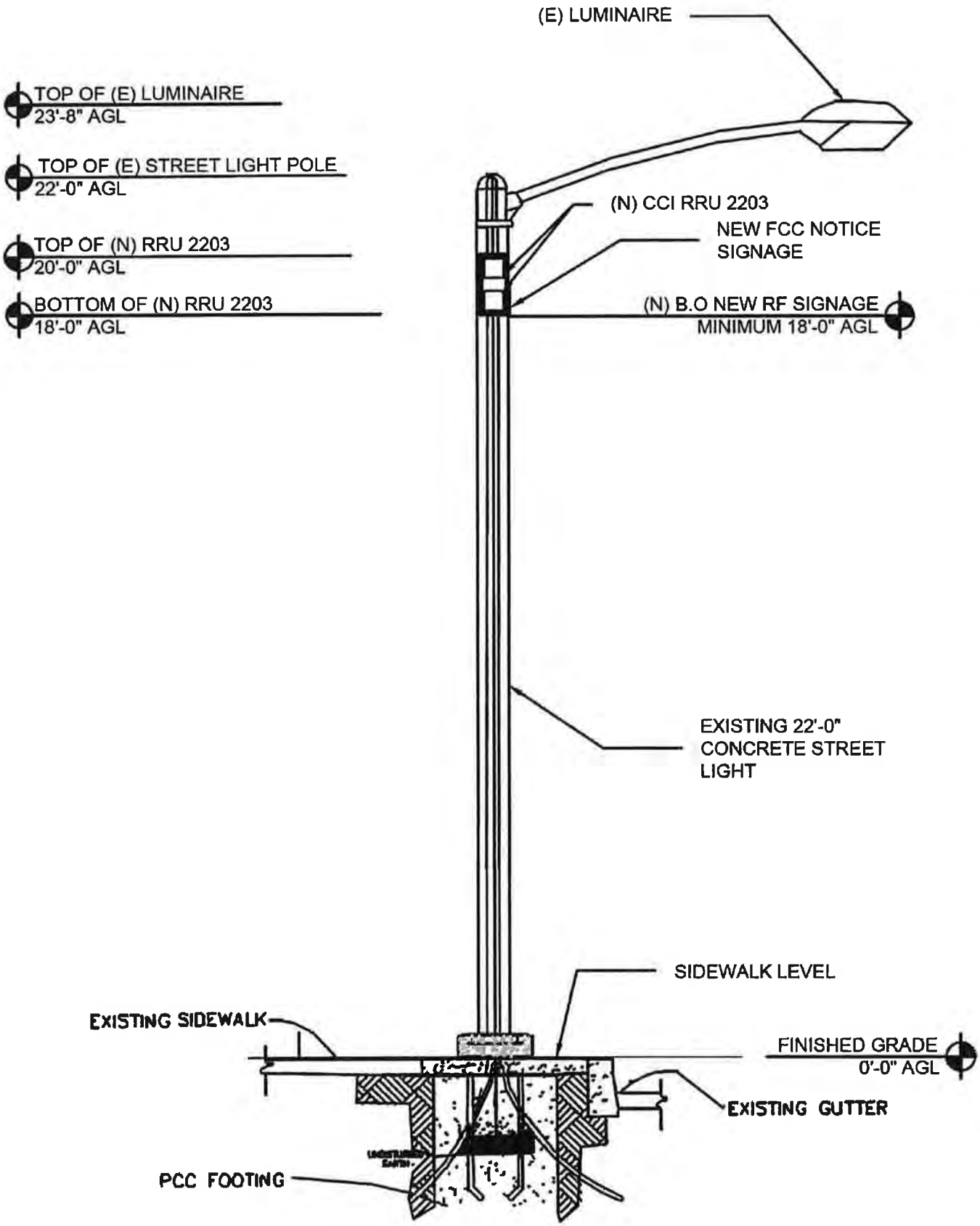
NOTICE Sign

CAUTION Sign



WARNING Sign

Appendix E: Scenario - Min. Height AGL of 18' or Greater - Light Pole



CALIFORNIA PUBLIC UTILITIES COMMISSION

Advice Letter Filing Summary Sheet (PAL)

(Date Filed / Received Stamp by CPUC Industry Division)

DATE - STAMP & RETURN

Date AL served on parties: _____

Company Name: Crown Castle NG West LLC	**CPUC Utility Number U-6745-C**
Address: 1220 Augusta Drive, Suite 500	☐ GRC-LEC ☒ URF-Carrier ☐ Other
City, State, ZIP: Houston, Texas 77075	☐ Commission Resolution Requested ☐ Carrier of Last Resort (See D.96-10-066)
Filing AL #: 63 **Requested Effective Date:** July 15, 2014	**AL Tier** I ☒ II ☐ III ☐

	Name:	Email Address:	Phone No.:	Fax No.:
Filer	Brett P. Ferenchak Jean L. Kiddoo	brett.ferenchak@bingham.com jean.kiddoo@bingham.com	(202) 373-6000	202-373-6001
Certif.	Same as above	Same as above	Same as above	No. Tariff Sheets: N/A

(Name, email address & Phone and FAX numbers *are Required for "Filer"*)

Tariff Schedules: N/A **Keyword:** Carrier Information Changes

(see keyword list on reverse)

For Contract Keyword, Type: Government ☐ Other ☐ Date Executed _____ Contract Total Rev ($)_____

Subject of filing: Conversion and Associated Name Change
(Service(s) included)

Authorization for filing: G.O. 96-B and Telecommunications Industry Rule 7.1(1)
(Resolution #, Decision #, etc.)

Affected services:_____
(Other services affected, pending or replacement AL filings)

Rate Element(s) affected *and* % change: _____
(*Non-recurring* and / or *recurring*)

☐ Customer Notice Required (if so, please attach)

Notes/Comments: _____
(Other information & reference to advice letter, etc.)

File Protest and/or Correspondence to:
Director, Communications Division
505 Van Ness Ave., San Francisco, CA 94102
and if you have email capability, ALSO email to:
TD_PAL@cpuc.ca.gov
Protest also must be served on utility:
(see utility advice letter for more information)

GRC-LEC = Cost of Service LEC Carrier
URF-Carrier = Uniform Regulatory Framework Carrier (see D.06-08-030/D.07-09-019)
OTHER = Wireless (CMRS) Carrier

(FOR CPUC USE ONLY)

☐ Resolution Required
☐ Executive Action Resolution Req'd.
☐ TD Suspension on: ___ / ____ / ____
☐ Comm. Suspension on: ___ / ___ / ___

Resolution No.: T - _____

Rev. 09/24/07

Supv. / Analyst _____ / _____

Due Date to Supv.: _____

Analyst Completion Date: _____

Supervisor Approval Date: _____

AL / Tariff Effective Date: _____

Notes: _____

A/75962448 2

CALIFORNIA PUBLIC UTILITIES COMMISSION

KEYWORD LIST
FOR TELECOMMUNICATIONS UTILITY
ADVICE LETTER FILINGS

(Revised June 30, 2008)

Keywords:	***Description:***
Service Changes	Any ***permanent*** change(s) to *currently tariffed* rates, charges, and/or terms and/or conditions of service
Special / Provisional Offerings	Any ***non-permanent*** change(s) to *currently tariffed* rates, charges, and/or terms and/or conditions of service (i.e. promotions and grandfather requests, etc.)
Decision / Resolution Compliance	Any filing made in compliance with a Commission order *(indicate order number(s))*
Contracts	Any contract or agreement ***other than*** a negotiated interconnection agreement; please indicate type (government or other),date executed, and total revenue ($)
Interconnection Agreement	Any negotiated interconnection agreement per Section 252 of the Telecommunications Act
New Service	Any **new tariffed** service offering
GRC	Any General Rate Case filing
Carrier Information Changes	Name, DBA, contact information, mergers, transfers of control, and other licensing actions ***not requiring*** a formal application
California High Cost Fund-A (CHCF-A)	Any CHCF-A program filing requiring Commission action by Resolution
California High Cost Fund-B (CHCF-B)	Any CHCF-B program filing (including Carrier of Last Resort certification) requiring Commission action by Resolution
California Teleconnect Fund (CTF)	Any CTF program filing requiring Commission action by Resolution
Universal Lifeline Telephone Service (ULTS)	Any ULTS program filing requiring Commission action by Resolution
Deaf and Disabled Telephone Program (DDTP)	Any DDTP program filing requiring Commission action by Resolution
Eligible Telecommunications Carrier (ETC)	Filings made to be designated as an ETC, to continue ETC designation, or to have ETC designation rescinded.
URF Carrier detariff filing	Tier 2 filing requesting to detariff pursuant to D.07-09-018, or file notice of new detariffed offers.

BINGHAM

2014 JUL 15 PM 1:50
DIRECTOR'S OFFICE

Jean L. Kiddoo
Brett P. Ferenchak
jean.kiddoo@bingham.com
brett.ferenchak@bingham.com

July 14, 2014

Via Overnight Courier

Telecommunications Advice Letter Coordinator
Communications Division
California Public Utilities Commission
505 Van Ness Avenue
3rd Floor
San Francisco, CA 94102

Re: Advice Letter No. 63 of Crown Castle NG West LLC (U-6745-C)

Notification of Conversion and Associated Change in Legal Name

Dear Telecommunications Advice Letter Coordinator:

Crown Castle NG West LLC (formerly known as Crown Castle NG West Inc.)[1] (**U-6745-C**) (the "Company"), pursuant to General Order ("G.O.") 96-B, files this Advice Letter to notify the Commission that the Company's current name is "Crown Castle NG Central LLC" as a result of its conversion from a Delaware corporation to a Delaware limited liability company. The conversion of the Company to a limited liability company was merely a change in its corporate form accomplished through the filing of Certificate of Conversion in Delaware and did not entail any merger or other transactions that extinguish the existence of the Company. The Company, therefore, requests that the records of the Commission, including the Company's Certificates,[2] be updated to reflect its current name, "Crown Castle NG West LLC." In support of this request, attached hereto are the Company's conversion documents and authorization to transact business in California.

Although the Company's legal name changed, the conversion did not have any effect on the rates, terms or conditions of service to customers. For these reasons, this Advice Letter qualifies for processing as a Tier 1 Advice Letter pursuant to Telecommunications Industry Rule 7.1(1). The Company therefore requests that the Advice Letter be allowed

Beijing
Boston
Frankfurt
Hartford
Hong Kong
London
Los Angeles
New York
Orange County
San Francisco
Santa Monica
Silicon Valley
Tokyo
Washington

Bingham McCutchen LLP
2020 K Street NW
Washington, DC
20006-1806

+1 202 373 6000
+1 202 373 6001
bingham.com

---

1 The Company was also formerly known as and NextG Networks of California, Inc. d/b/a NextG Networks West and notified the Commission of its name change by Advice Letter No. 60.

2 The Company is authorized to provide facilities-based and resold local exchange and interexchange services as well as RF transport services pursuant to D.03-01-061 and D.07-04-045.

to become effective on July 15, 2014. The Company will separately update its Service Guide and General Terms and Conditions.

Pursuant to GO 96-B, this Advice Letter is a Tier 1 Advice Letter and is effective pending disposition. Anyone may object to this Advice Letter by sending a written protest to:

Telecommunications Advice Letter Coordinator
Communications Division
505 Van Ness Avenue
3rd Floor
San Francisco, California 94102-3298

The protest must set forth the specific grounds on which it is based. The protest must be received by the Telecommunications Advice Letter Coordinator no later twenty (20) days after the date that the advice letter was filed. On or before the day that the protest is sent to the Telecommunications Advice Letter Coordinator, the protestant must send a copy of the protest to:

Jean L. Kiddoo
Brett P. Ferenchak
Bingham McCutchen LLP
2020 K Street, N.W.
Washington, DC 20006
jean.kiddoo@bingham.com
brett.ferenchak@bingham.com

To obtain information about the Commission's procedures for advice letters and protests, go to the Commission's Internet site (www.cpuc.ca.gov) and look for document links to General Order 96-B.

* * * * *

An original copy of this filing is provided, along with an electronic version on CD-ROM. If there are any questions regarding this filing, please contact us. Thank you for your attention to this matter.

Respectfully submitted,

/s/ *Brett P. Ferenchak*

Jean L. Kiddoo
Brett P. Ferenchak

Counsel for the Company

STATE OF CALIFORNIA EDMUND G. BROWN JR., *Governor*

PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco CA 94102-3298

Crown Castle Ng West Inc.
IEC (Corp ID 6745)
Status of Advice Letter 60
As of November 7, 2012

Subject: name change for NextG-CA to enable it to align its legal name with how it is identified and recognized by its customers and the general public-name change to "Crown Castle NG West Inc."

Division Assigned: Telecommunications

Date Filed: 10-31-2012

Date to Calendar: 11-02-2012

Authorizing Documents: None

Disposition:	**Accepted**
Effective Date:	**11-04-2012**

Resolution Required: No

Resolution Number: None

Commission Meeting Date: None

CPUC Contact Information:
415-703-1565
TD_PAL_COORDINATOR@cpuc.ca.gov

AL Certificate Contact Information:
Michelle Salisbury
724-416-2239
michelle.salisbury@crowncastle.com

STATE OF CALIFORNIA **EDMUND G. BROWN JR.,** *Governor*

PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco CA 94102-3298

To: Telecommunications Carrier Filing Advice Letter

From: Telecommunications Division PAL Coordinator

Subject: Your Advice Letter Filing

The Telecommunications Division of the California Public Utilities Commission has processed your recent Advice Letter (AL) filing and is returning an AL status certificate for your records.

The AL status certificate indicates:

Advice Letter Number
Name of Filer
CPUC Corporate ID number of Filer
Subject of Filing
Date Filed
Disposition of Filing (Accepted, Rejected, Withdrawn, etc.)
Effective Date of Filing
Other Miscellaneous Information (e.g., Resolution, if applicable, etc.)

The Telecommunications Division has made no changes to your copy of the Advice Letter Filing; please review your Advice Letter Filing with the information contained in the AL status certificate, and update your Advice Letter and tariff records accordingly.

All inquiries to the California Public Utilities Commission on the status of your Advice Letter Filing will be answered by Telecommunications Division staff based on the information contained in the Telecommunications Division's PAL database from which the AL status certificate is generated. If you have any questions on this matter please contact the:

Telecommunications Division PAL Coordinator at **(415) 703-1565**, or by e-mail to ***td_pal_coordinator@cpuc.ca.gov***

CROWN CASTLE

HUB: LA02063A
CROWN NODE ID: SOC271
T-MOBILE SITE ID: IE10_002A
SCE POLE ID: 2193866E
33.69798°, -117.91964°
3545 HARBOR BLVD
COSTA MESA, CA

SAC WIRELESS
SAC AE DESIGN GROUP, INC.
5015 SHOREHAM PLACE, SUITE 150
SAN DIEGO, CA 92122
www.sacw.com

PHOTOSIMULATION VIEWPOINT

DISCLAIMER: THIS PHOTOSIMULATION IS INTENDED AS A GRAPHICAL REPRESENTATION OF EXISTING AND PROPOSED SITE CONDITIONS BASED ON THE PROJECT / DRAWING PLANS. IT IS NOT INTENDED FOR CONSTRUCTION. ACTUAL, FINAL CONSTRUCTION MAY VARY

ORANGE COUNTY

HUB: LA02063A

CROWN NODE ID SOC271
T-MOBILE SITE ID IE10_002A
SCE POLE ID 2193866E

CROWN CASTLE NG WEST
JURISDICTION: COSTA MESA
CLUSTER: IE10
PROPOSED SMALL CELL NODES
SCE POLE #2193866E

INDEX TO SHEETS:

C-01. TITLE, LOCATION MAP, NODE PLACEMENT
C-02. EQUIPMENT DETAILS
C-03. EQUIPMENT DETAILS
C-04. EQUIPMENT DETAILS
C-05. LIGHT STANDARD DETAIL
C-06. SITE PLAN & ELEVATION
C-07. TRAFFIC CONTROL PLAN

PROJECT TEAM:

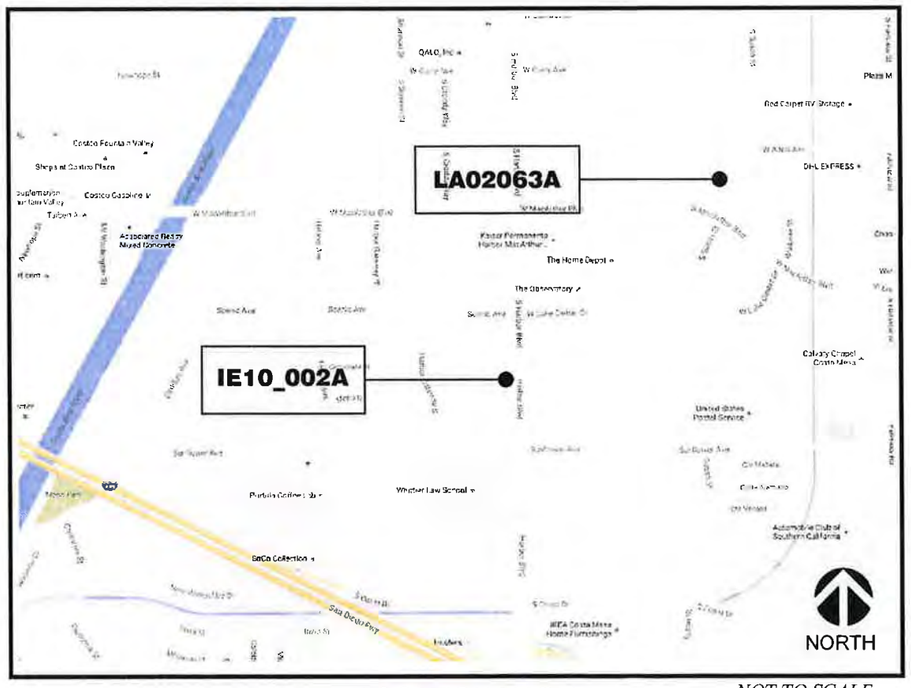
CROWN CASTLE

PROJECT MANAGER:
CONTACT: ALYA AL-DHAHER
PHONE: (949) 344-7850

CONSTRUCTION MANAGER:
CONTACT: MITCH EVERETT
PHONE: (949) 683-1347

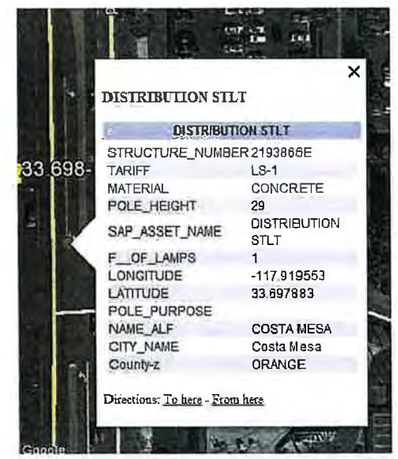
UTILITY CONTACT:
NETWORK OPERATION:
CONTACT: CROWN CASTLE
PHONE: 1-800-788-7011
POWER: SCE

NRE CONTACT:
CONTACT: NANCY SHERIDAN
PHONE: 1-714-362-5152



LOCATION MAP

NOT TO SCALE



SITE: SOC271 / IE10_002A
COORDINATES: 33.69798°, -117.91964°
ADDRESS: 3545 HARBOR BLVD
SANTA ANA, CA 92704

LATITUDE & LONGITUDE:
33.69798°, -117.91964°

ADDRESS:
3545 HARBOR BLVD
COSTA MESA

PROJECT DESCRIPTION:

THIS PROJECT IS FOR THE INSTALLATION AND OPERATION OF A SMALL CELL NETWORK.

SCOPE OF WORK:
- BRING UG FIBER TO LIGHT POLE VIA ENCROACHMENT PERMIT
- INSTALL RRU (REMOTE RADIO UNIT) INSIDE NEW RADOME
- INSTALL FIBER AND POWER INSIDE LIGHT POLE TO RRUs

FACING SOUTH

FACING EAST

FACING NORTH

ENGINEER:
SAC WIRELESS
SAC AE DESIGN GROUP, INC
5015 SHOREHAM PLACE, SUITE 150
SAN DIEGO, CA 92122
www.sacw.com
619.736.3766

OWNER/DEVELOPER:
CROWN CASTLE
200 SPECTRUM CENTER DRIVE, SUITE 1800
IRVINE, CA 92618

TITLE:
CROWN CASTLE NG WEST
JOB# 365238
ORANGE COUNTY

REVISIONS

REV	DATE	DESCRIPTION	BY
00	04/05/2017	PER CC COMMENTS	FR
01	05/15/2017	PER CC COMMENTS	SR
02	05/25/2017	PER CC COMMENTS	NB
03	06/21/2017	PER CC COMMENTS	NB
04	03/06/2018	PER CC COMMENTS	SR

DRAWN BY:	CHECKED BY:	APPROVED BY:
NB	NB	NB

PROJECT NUMBER:	
FILE NAME:	TITLE SHEET
DATE DRAWN:	03/06/2018
SCALE:	AS SHOWN

SHEET: C-01

ORANGE COUNTY

HUB:
LA02063A

CROWN NODE ID SOC271
T-MOBILE SITE ID IE10_002A
SCE POLE ID 2193866E

ERICSSON

Table 1 Radio 2203 Technical Data

Description	Value
Maximum nominal output power	2 x 5 W
Number of carriers	WCDMA: One to four carriers. LTE: One to three carriers Mixed mode: Two to five carriers
Description	**Value**
Frequency[1]	1920–1980 MHz uplink 2110–2170 MHz downlink B1 for WCDMA and LTE
	1710–1785 MHz uplink 1805–1880 MHz downlink B3 for WCDMA and LTE
	1744.9–1784.9 MHz uplink 1839.9–1879.9 MHz downlink B3C for WCDMA and LTE
	880–915 MHz uplink 925–960 MHz downlink B8 for WCDMA and LTE
	1710–1780 MHz uplink 2110–2180 MHz downlink

(7-7/8" in)
(7-7/8" in)
(3-15/16" in)

(7-7/8" in)
(7-7/8" in)
(4-11/16" in)

(5-1/16" in)

(9.9208 lbs.)

(10.8027 lbs.)

RADIO 2203 SPECS | SCALE N.T.S. | 3

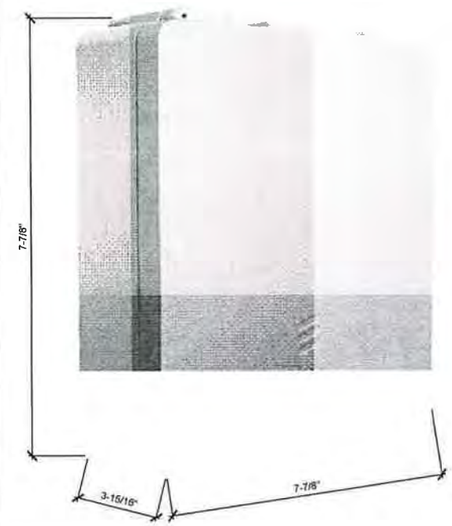
ERICSSON

Product Overview

The radio expands coverage and performance in denser urban areas, where the use of small handheld devices demand high capacity on the operators networks. It is designed to be located in cities and in demanding radio environments.

The radio is part of a modular radio building concept that enables a variety of installation alternatives that is also easy to expand. Flexible mounting solutions are provided using rails and pole clamps. The small size of the radio together with the flexible mounting solutions reduces the site volume. The lower weight also improves the handling of the radio.

The radio can be connected in a star or cascade configuration using optical cable links. An optic cable connects the radio to the main unit, or to an expanded Radio System.



RADIO 2203 DESCRIPTION | SCALE N.T.S. | 2

LATITUDE & LONGITUDE:
33.69798°, -117.91964°

ADDRESS:
3545 HARBOR BLVD
S

ENGINEER:
SAC WIRELESS
SAC AE DESIGN GROUP, INC
5015 SHOREHAM PLACE, SUITE 150
SAN DIEGO, CA 92122
www.sacw.com
619 738 3766

OWNER/DEVELOPER:
CROWN CASTLE
200 SPECTRUM CENTER DRIVE, SUITE 1800
IRVINE, CA 92618

TITLE:
CROWN CASTLE NG WEST
JOB# 365238
ORANGE COUNTY

REVISIONS

REV	DATE	DESCRIPTION	BY
00	04/05/2017	PER CC COMMENTS	FR
01	05/15/2017	PER CC COMMENTS	SR
02	05/25/2017	PER CC COMMENTS	NB
03	08/21/2017	PER CC COMMENTS	NB
04	03/06/2018	PER CC COMMENTS	SR

DRAWN BY:	CHECKED BY:	APPROVED BY:
NB	NB	NB

PROJECT NUMBER:	
FILE NAME:	EQUIPMENT DETAILS
DATE DRAWN:	03/06/2018
SCALE:	AS SHOWN

NOT USED | SCALE N.T.S. | 4

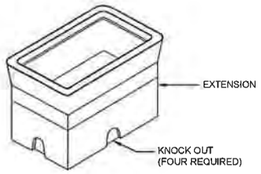
NOT USED | SCALE N.T.S. | 1

SHEET: C-02

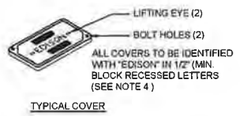
ORANGE COUNTY

HUB: LA02063A

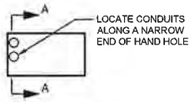
CROWN NODE ID SOC271
T-MOBILE SITE ID IE10_002A
SCE POLE ID 2193866E



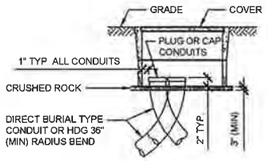
TYPICAL ASSEMBLY
(WITHOUT COVER)



TYPICAL COVER



CONDUIT LOCATION

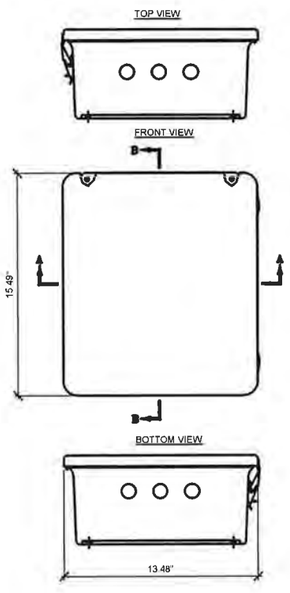


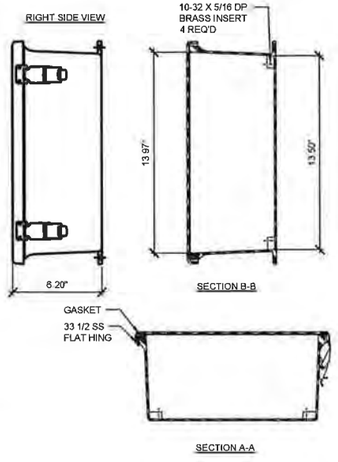
SECTION A-A

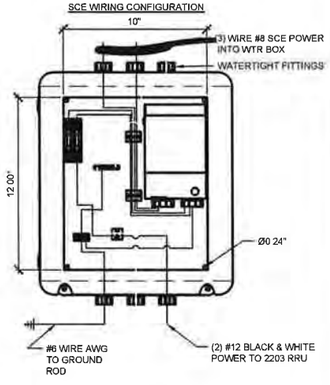
NOTES:
1 GC TO REFER TO SCE DOCUMENT *HP 200* FOR *HAND HOLE REQUIREMENTS (UNDERGROUND STRUCTURES STANDARDS)*
2 RADIUS ANGLES MAY BE REDUCED TO LESS THAN 90° PROVIDING THE PROJECTED CENTER LINE OF THE CONDUIT CLEARS HAND HOLE OPENING
3 TWO HOLD DOWN DEVICES TO BE SUPPLIED WITH EACH HAND HOLE
4 COVER SHALL BE IDENTIFIED WITH "EDISON" IN MINIMUM 2-INCH LETTERS OR LABELS PERMANENTLY SECURED TO THE LID

17" X 30" UTILITY PULL BOX DETAIL (HH-6)

SCALE N.T.S **6**



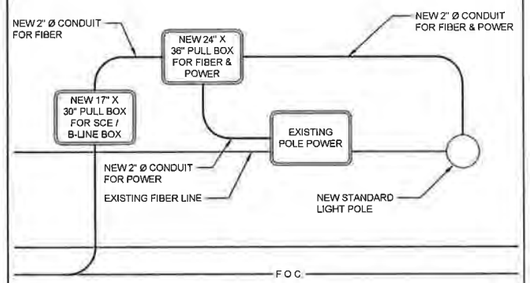




SCE / B-LINE BOX DETAIL

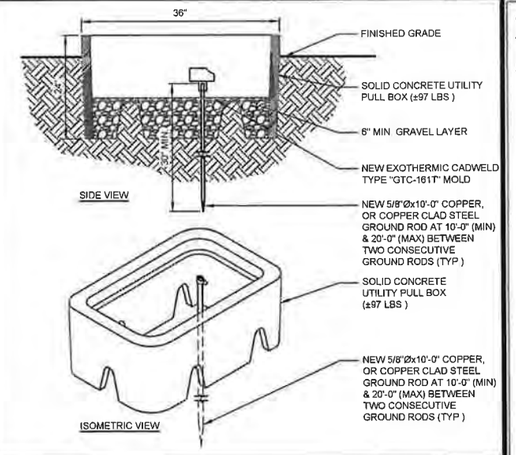
SCALE N.T.S **5**

NOTE:
PULL BOX & LIGHT POLE LOCATION VARIES PER LOCATION



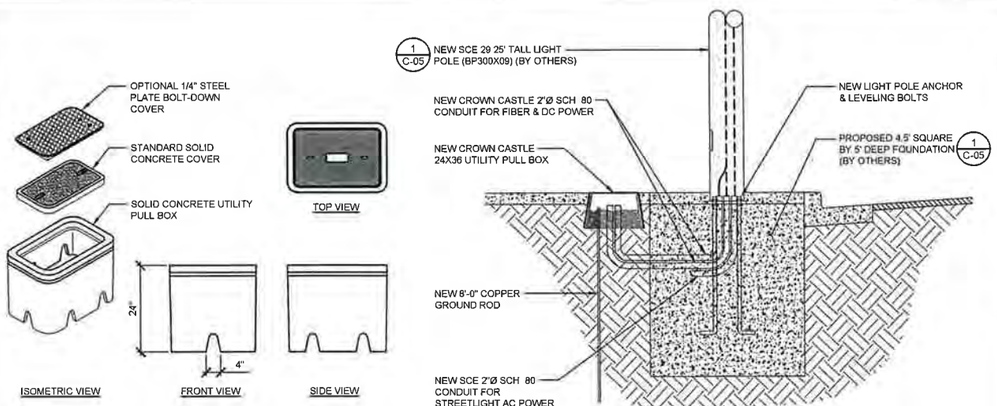
CONDUIT ROUTE

SCALE N.T.S **4**



GROUNDING ROD

SCALE N.T.S **3**



24" X 36" UTILITY PULL BOX DETAIL

SCALE N.T.S **2**

NOT USED

SCALE N.T.S **1**

LATITUDE & LONGITUDE:
33.69798°, -117.91964°

ADDRESS:
3545 HARBOR BLVD

ENGINEER:
SAC WIRELESS
SAC AE DESIGN GROUP, INC
5015 SHOREHAM PLACE, SUITE 150
SAN DIEGO, CA 92122
www.sacw.com
619 736 3766

OWNER/DEVELOPER:
CROWN CASTLE
200 SPECTRUM CENTER DRIVE, SUITE 1800
IRVINE, CA 92618

TITLE:
CROWN CASTLE NG WEST
JOB# 365238
ORANGE COUNTY

REVISIONS

REV	DATE	DESCRIPTION	BY
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01	05/15/2017	PER CC COMMENTS	SR
02	05/25/2017	PER CC COMMENTS	NB
03	06/21/2017	PER CC COMMENTS	NB
04	03/06/2018	PER CC COMMENTS	SR

DRAWN BY:	CHECKED BY:	APPROVED BY:
NB	NB	NB

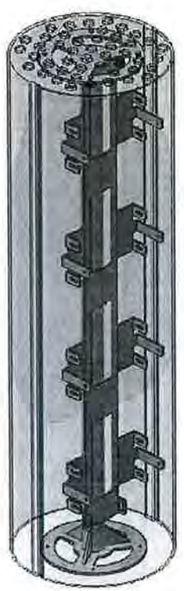
PROJECT NUMBER:	
FILE NAME:	EQUIPMENT DETAILS
DATE DRAWN:	03/06/2018
SCALE:	AS SHOWN

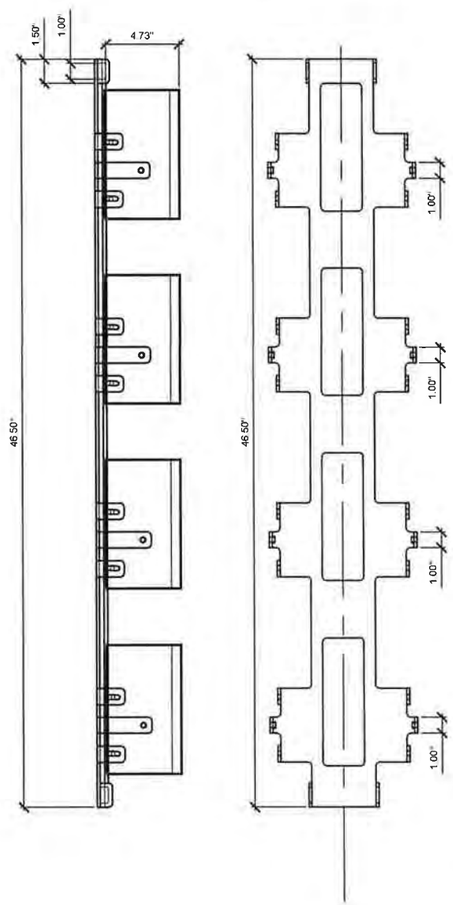
SHEET: C-03

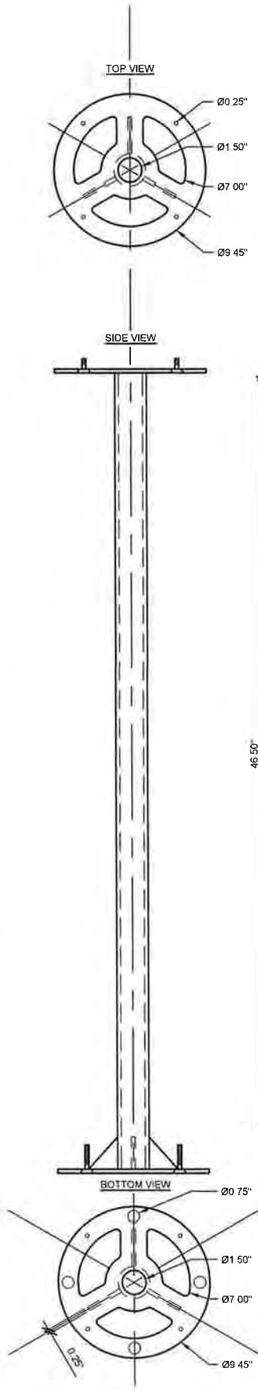
ORANGE COUNTY

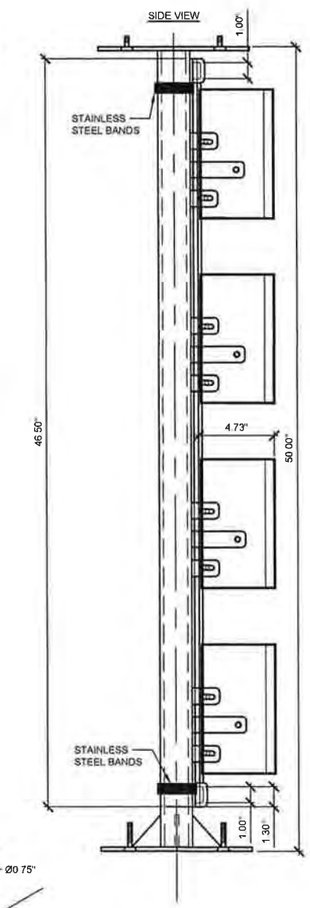
HUB:
LA02063A

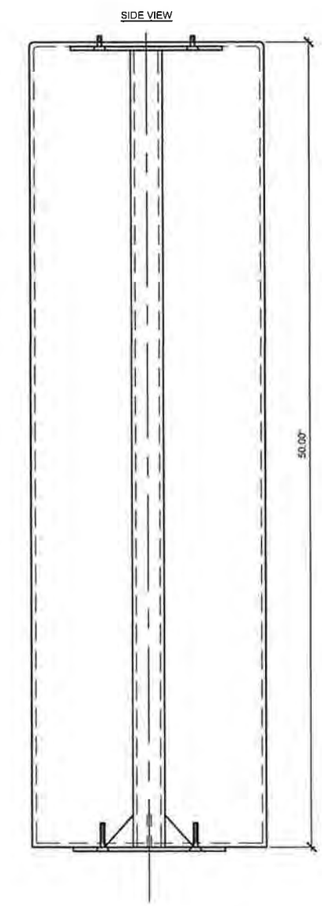
CROWN NODE ID SOC271
T-MOBILE SITE ID IE10_002A
SCE POLE ID 2193866E

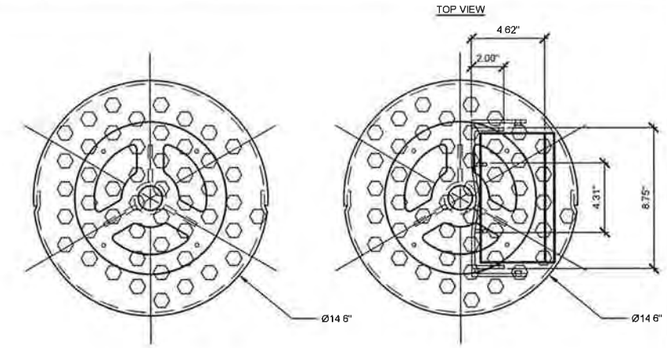


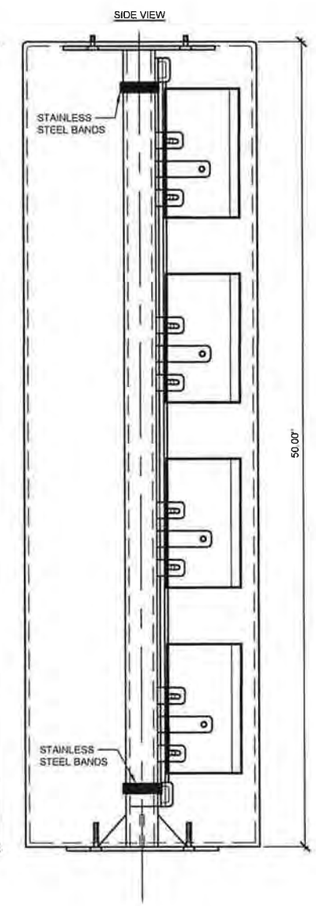












NOTE:
- RADOME SHALL BE CONSTRUCTED OF ABS MATERIAL AND CONSIST OF TWO VERTICAL MEMBERS (CLAMSHELL TYPE OF DESIGN)
- ALL BANDING MATERIAL TO BE PROVIDED BY GENERAL CONTRACTOR

LATITUDE & LONGITUDE:
33.69798°, -117.91964°

ADDRESS:
3545 HARBOR BLVD

ENGINEER:
SAC WIRELESS
SAC AE DESIGN GROUP, INC
5015 SHOREHAM PLACE, SUITE 150
SAN DIEGO, CA 92122
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619 736 3766

OWNER/DEVELOPER:
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200 SPECTRUM CENTER DRIVE, SUITE 1800
IRVINE, CA 92618

TITLE:
CROWN CASTLE NG WEST
JOB# 365238
ORANGE COUNTY

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03	06/21/2017	PER CC COMMENTS	NB
04	03/06/2018	PER CC COMMENTS	SR

DRAWN BY:	CHECKED BY:	APPROVED BY:
NB	NB	NB

PROJECT NUMBER:	
FILE NAME:	EQUIPMENT DETAILS
DATE DRAWN:	03/06/2018
SCALE:	AS SHOWN

ANTENNA /RRU SHROUD DETAIL

SCALE NTS

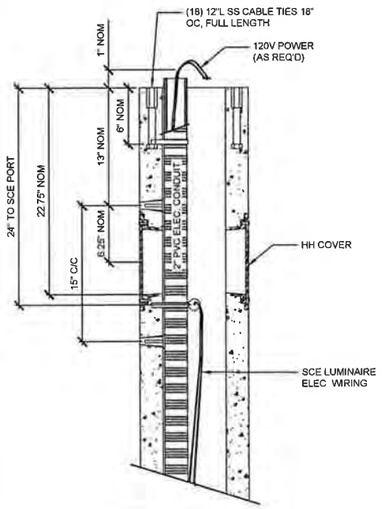
1

SHEET: C-04

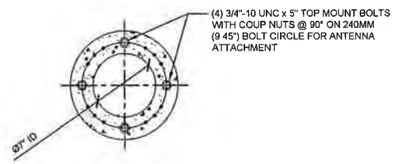
ORANGE COUNTY

HUB:
LA02063A

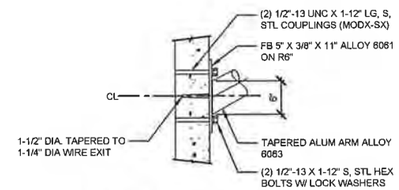
CROWN NODE ID SOC271
T-MOBILE SITE ID IE10_002A
SCE POLE ID 2193866E



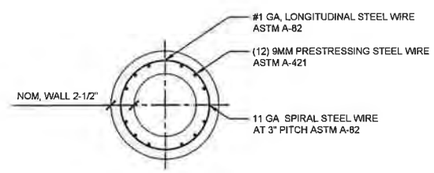
POLE TOP CUT-AWAY DETAIL



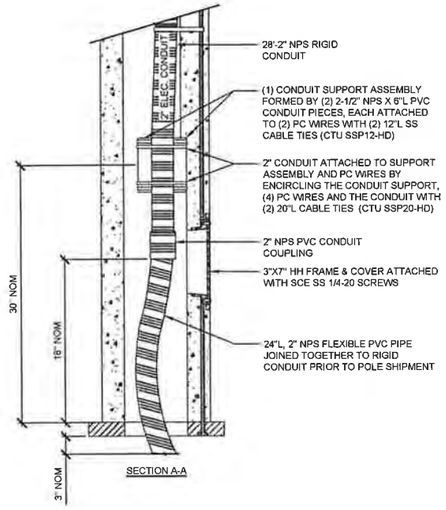
POLE TOP DETAIL



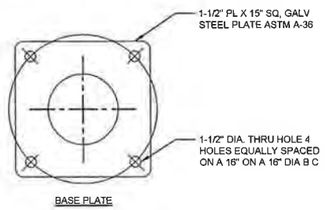
BRACKET ARM TO POLE CONNECTION



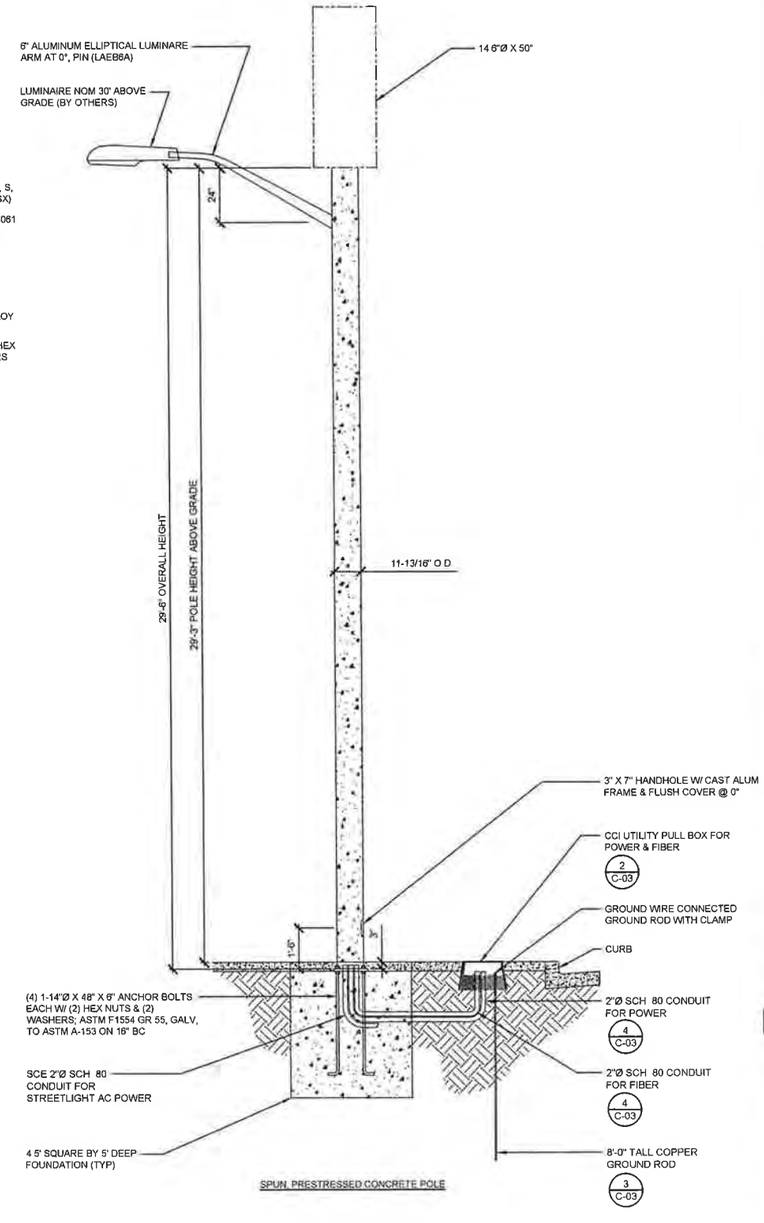
HH SECTION & POLE ORIENTATION



SECTION A-A



BASE PLATE



SPUN. PRESTRESSED CONCRETE POLE

NOTES:
1 FINISHES: (815S), SCE BLACK & WHITE, LIGHTLY EXPOSED AGGREGATE FINISH, WITH FLAT, WATER SEALER COATING
2 ASTM C-150 TYPE III GRAY CEMENT
3 f'c @ 28 DAYS = 7,000 PSI, USING SPUN CYLINDER TEST
4 f'c @ 28 DAYE = 5,000 PSI USING ASTM C-31 CYLINDER TEST
5 POLES MANUFACTURED TO ASTM C-1089-13 SPECIFICATIONS
6 MODX, (2) 1/2"-13 X 1-12" COUPLINGS
7 POLE WT 2900 LBS

LATITUDE & LONGITUDE:
33.69798°, -117.91964°

ADDRESS:
3545 HARBOR BLVD
S

ENGINEER:
SAC WIRELESS
SAC AE DESIGN GROUP, INC
5015 SHOREHAM PLACE, SUITE 150
SAN DIEGO, CA 92122
www.sacw.com
619 736 3766

OWNER/DEVELOPER:
CROWN CASTLE
200 SPECTRUM CENTER DRIVE, SUITE 1800
IRVINE, CA 92618

TITLE:
CROWN CASTLE NG WEST
JOB# 365238
ORANGE COUNTY

REVISIONS

REV	DATE	DESCRIPTION	BY
00	04/05/2017	PER CC COMMENTS	FR
01	05/15/2017	PER CC COMMENTS	SR
02	05/25/2017	PER CC COMMENTS	NB
03	06/21/2017	PER CC COMMENTS	NB
04	03/06/2018	PER CC COMMENTS	SR

DRAWN BY:	CHECKED BY:	APPROVED BY:
NB	NB	NB

PROJECT NUMBER:	
FILE NAME:	LIGHT STANDARD DETAIL
DATE DRAWN:	03/06/2018
SCALE:	AS SHOWN

SHEET: C-05

LIGHT STANDARD DETAIL

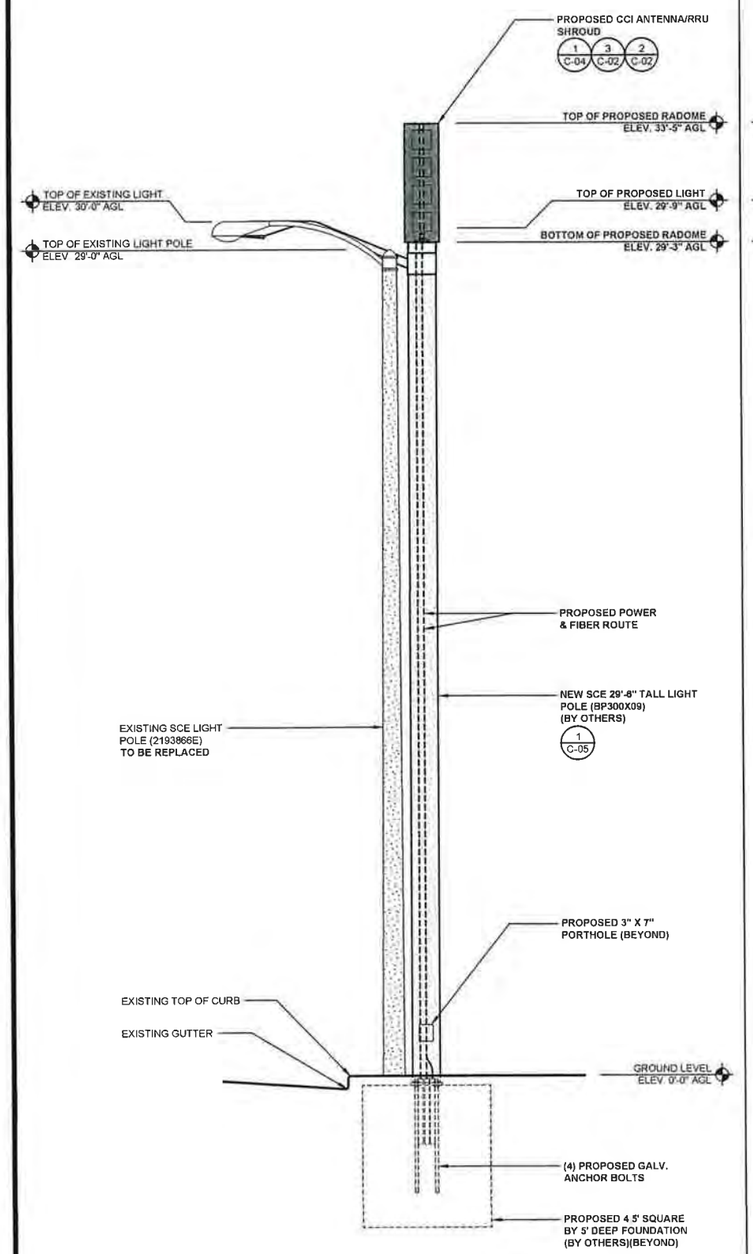
SCALE NTS

1

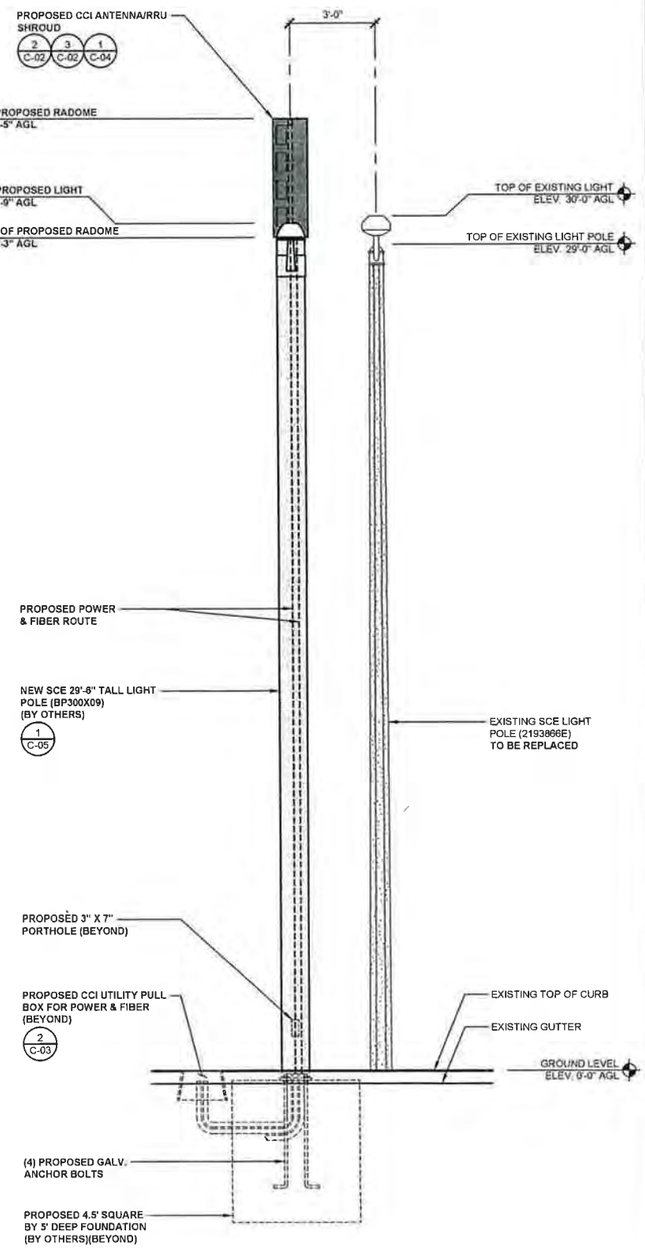
ORANGE COUNTY

HUB: LA02063A

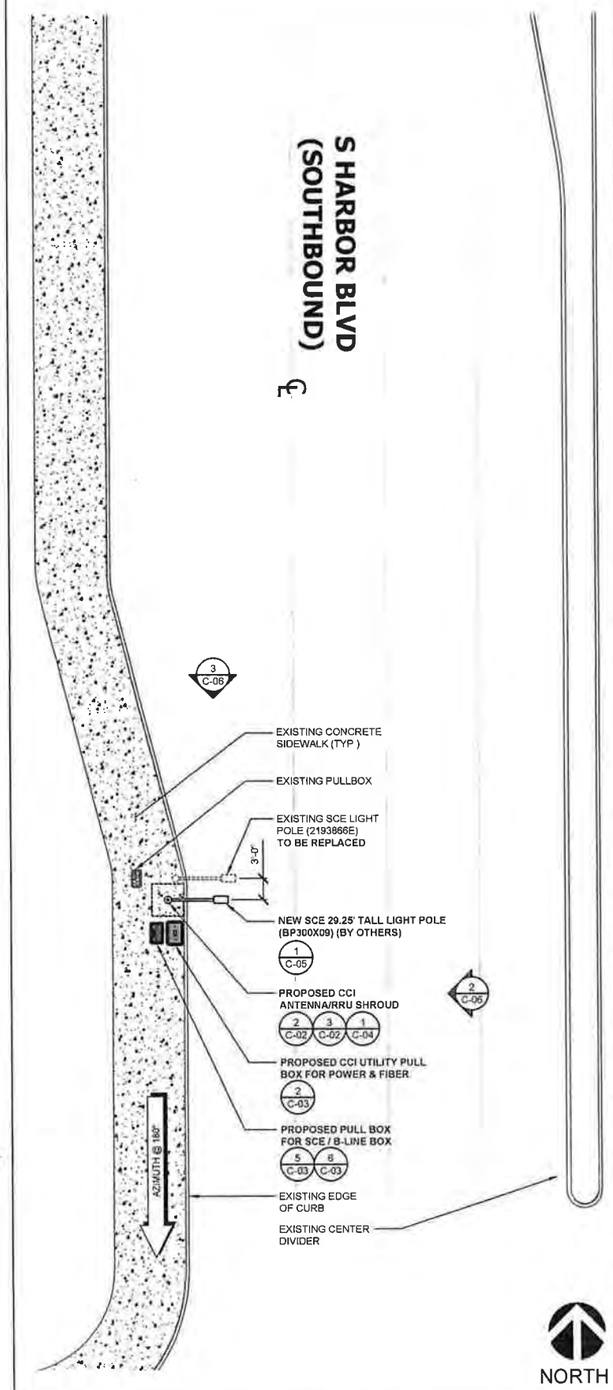
CROWN NODE ID SOC271
T-MOBILE SITE ID IE10_002A
SCE POLE ID 2193866E



PROPOSED NORTH ELEVATION — 0 1' 2' 3' — SCALE: 3/8" = 1'-0" (24x36) (OR) 3/16" = 1'-0" (11x17) — 3



PROPOSED EAST ELEVATION — 0 1' 2' 3' — SCALE: 3/8" = 1'-0" (24x36) (OR) 3/16" = 1'-0" (11x17) — 2



SITE PLAN — 0 3' 6' 12' — SCALE 3/32" = 1'-0" (24x36) (OR) 3/64" = 1'-0" (11x17) — 1

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04	03/06/2018	PER CC COMMENTS	SR

DRAWN BY:	CHECKED BY:	APPROVED BY:
NB	NB	NB

PROJECT NUMBER:	
FILE NAME:	SITE PLAN & ELEVATION
DATE DRAWN:	03/06/2018
SCALE:	AS SHOWN

SHEET: C-06

ORANGE COUNTY

HUB: LA02063A

CROWN NODE ID SOC271
T-MOBILE SITE ID IE10_002A
SCE POLE ID 2193866E

LOW SPEED TTC ZONE NOTES:

1. WHEN THE POSTED OR OBSERVED SPEED IS 40 MPH OR LESS, THE TTC ZONE IS DEFINED AS "LOW SPEED". TTC SAFETY IN LOW SPEED TTC ZONES SHOULD NOT BE COMPROMISED BY USING FEWER DEVICES SIMPLY BECAUSE THE TRAFFIC IS SLOWER AND ACTIVITY OPERATIONS ARE FOR SHORT DURATIONS AND/OR FREQUENTLY CHANGE LOCATIONS. THE FOLLOWING TTC DEVICE GUIDELINES SHALL BE USED IN "LOW SPEED" ZONES:

A. FLASHING WARNING LIGHTS AND/OR FLAGS MAY BE USED TO CALL ATTENTION TO THE ADVANCE WARNING SIGNS.

B. A WORK VEHICLE WITH HIGH INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS SHOULD BE USED. AN ARROW BOARD MAY BE USED FOR EACH LANE CLOSED.

C. THE MINIMUM HEIGHT OF CONES USED SHOULD BE 28 INCHES, 18-INCH HIGH TRAFFIC CONES MAY BE USED DURING DAYLIGHT HOURS.

D. WORKERS SHALL WEAR (MINIMUM) HIGH VISIBILITY CLASS 2 SAFETY APPAREL.

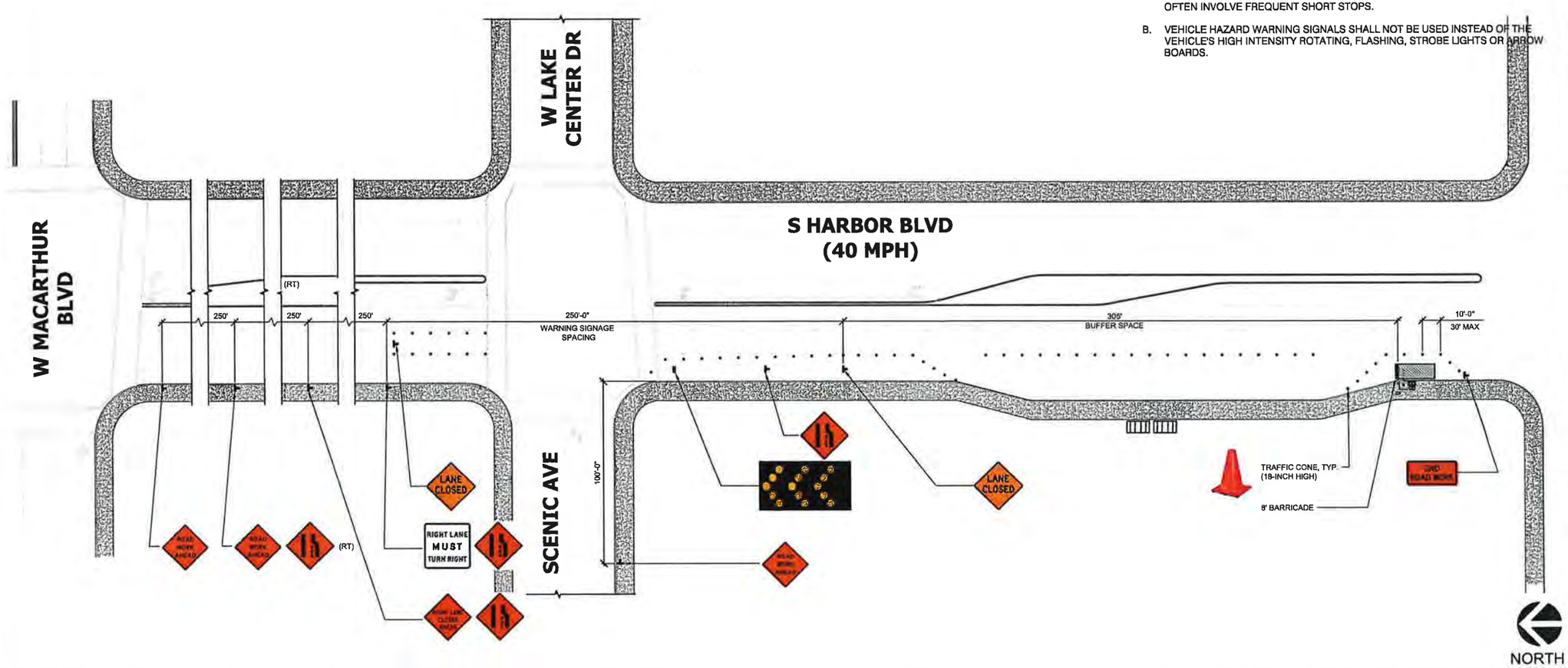
E. THE MINIMUM SIZE FOR ADVANCE WARNING SIGNS SHALL BE 36 INCHES BY 36 INCHES.

F. A MINIMUM OF TWO ADVANCED WARNING SIGNS SHALL BE POSTED FOR LANE CLOSURES.

2. ON LOW SPEED, LOW VOLUME STREETS DURING SHORT DURATION WORK, A REDUCTION IN THE NUMBER OF DEVICES MAY BE OFFSET BY THE USE OF MORE DOMINANT DEVICES SUCH AS "HIGH DENSITY" ROTATING, FLASHING, STROBE LIGHTS, OR ARROW BOARDS ON WORK VEHICLES UP TO ONE-HALF HOUR WORK DURATION.

A. FLAGGERS MAY BE USED FOR SHORT DURATION/MOBILE OPERATIONS WHICH OFTEN INVOLVE FREQUENT SHORT STOPS.

B. VEHICLE HAZARD WARNING SIGNALS SHALL NOT BE USED INSTEAD OF THE VEHICLE'S HIGH INTENSITY ROTATING, FLASHING, STROBE LIGHTS OR ARROW BOARDS.



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DRAWN BY:	CHECKED BY:	APPROVED BY:
NB	NB	NB

PROJECT NUMBER:	
FILE NAME:	TRAFFIC CONTROL PLAN
DATE DRAWN:	03/06/2018
SCALE:	AS SHOWN

TRAFFIC CONTROL PLAN (40 MPH)

0 10' 20' 30'

SCALE: 1/32" = 1'-0" (24x36)
(OR) 1/64" = 1'-0" (11x17)

1

SHEET: C-07