

# Architectural Review Board Staff Report (ID # 8309)

**Report Type:** Study Session **Meeting Date:** 9/21/2017

Summary Title: Crown Castle Downtown North, University South, & Town &

Country: Prelim for Small Cell Nodes

Title: Various Sites (250 Hamilton Avenue in database) [17PLN-

00193]: Request for Preliminary Architectural Review of Location and Siting Criteria, Design Criteria, and Design Options for the Deployment of 16 Small Cell Wireless Communication Nodes on Utility Poles and Street Lights in the Public Right of way. Nodes are Proposed for Downtown North, University South, and Near Town & Country. Environmental Assessment: Not a Project. Formal Application will be Subject to CEQA Review. Zoning District: Varies. For More Information Contact the Project Planner Rebecca Atkinson at

rebecca.atkinson@cityofpaloalto.org.

From: Hillary Gitelman

#### Recommendation

Staff recommends the Architectural Review Board (ARB):

1. Review and provide comments.

# **Report Summary**

The subject application is a request for preliminary review. No formal direction is provided to the applicant and Boardmembers should refrain from forming and expressing opinions either in support or against the project.

As this is a preliminary review application, the Planning and Community Environment department has only performed a cursory review of the project for compliance with the zoning code. A comprehensive review of the project in relation to applicable codes, including context-based design criteria and other standards, would follow the submittal of a formal application. Accordingly, there may be aspects of this preliminary review application that do not comply

City of Palo Alto Planning & Community Environment 250 Hamilton Avenue Palo Alto, CA 94301 (650) 329-2442 with municipal regulations or require additional discretionary applications beyond architectural review.

Similarly, there has been no comprehensive review of the project in relation to the comprehensive plan or other policy documents. Such review will occur upon the filing of a formal application.

The purpose of this meeting is to provide an applicant an opportunity to present a conceptual project to the Board and receive initial comments. Boardmembers may identify aspects of the project that are appropriate given the neighborhood context and consistent with city policies or areas of concern that the applicant may want to reconsider in a formal submittal. Community members are also encouraged to provide early input to the project.

### **Background**

Owner: City of Palo Alto (Owner of Utility Poles in the Right-of-Way)

Applicant Crown Castle on behalf of GTE Mobilnet dba Verizon Wireless

Representative: Rochelle Swanson (Crown Castle) and Sharon James (Verizon)

Legal Counsel: Not Applicable

**Property Information** 

Address: 16 Various Wood Utility Poles and Streetlights in the Right-of-Way

Neighborhood: Generally, Downtown North, University South, and adjacent to Town

& Country

Lot Dimensions & Area: Not Applicable
Housing Inventory Site: Not Applicable
Located w/in a Plume: Not Applicable

Protected/Heritage Trees: No, but some nearby Historic Resource(s): No, but some nearby

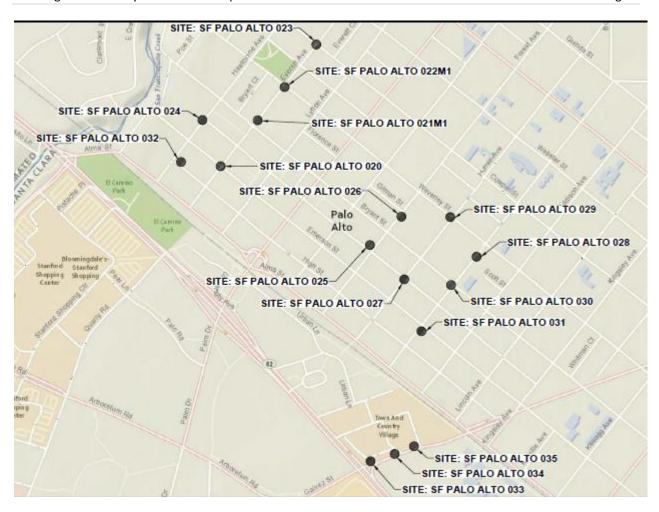
Existing Improvement(s): 18 Various Wood Utility Poles and Streetlights in the Right-of-Way

Existing Land Use(s): Various, including Residential, Commercial, and Mixed Use

Adjacent Land Uses & Various, including Residential, Commercial, and Mixed Use

Zoning:

Location Map:



# Land Use Designation & Applicable Plans

	Various, including Low Density Residential, Multiple Family Residential District, Public Facility (Park), South of Forest Area							
Zoning Designation:	signation: (SOFA), and Community Commercial							
	Various, including Multiple Family Residential, Major							
	Institution/Special Facilities, Regional/Community Commercial,							
Comp. Plan Designation:	Mixed Use/Coordinated Area Plan (CAP)							
Context-Based								
Design Criteria:	Yes							
Downtown Urban								
Design Guide:	Yes							
South of Forest Avenue								
Coordinated Area Plan:	Yes							
Baylands Master Plan:	Not Applicable							
El Camino Real Design								
Guidelines (1976 / 2002):	Yes							
Proximity to Residential								
Uses or Districts (150'):	Not Applicable							

Located w/in Airport

Influence Area: Not Applicable

**Prior City Reviews & Action** 

City Council: NextG Networks executed the Master License Agreement with the

City on August 15, 2011. Subsequently, Crown Castle acquired NextG Networks through a merger with its subsidiary Crown Castle. The

merger took place in 2012.

PTC: None

HRB: None ARB: None

Staff Level Architectural None

Review:

## **Project Description**

The proposed sixteen (16) small cell deployment node locations in this Preliminary Architectural Review application represent three future clusters of small cell wireless communication facility nodes proposed for the Downtown North and University South neighborhoods, as well as adjacent to Town & Country. In total, Crown Castle/Verizon Wireless proposes to install these sixteen (16) small cell deployment nodes in order to expand coverage and capacity in these high demand areas. The applicant has provided a detailed project description in Attachment D that includes example elevations for each of the three configurations. The project plans also provide more information on equipment configurations for preliminary public and Architectural Review Board consideration and comment.

Three proposed configurations are as follows:

- 1. all six wood utility poles would have a 48" top mount antenna, an approximately 7-foot bayonet, two (2) radios, and additional equipment attached to the pole on separate standoff brackets,
- 2. seven streetlights would have a 24" top mount antenna and two (2) radios within a concealed mailbox type cabinet, and
- 3. three streetlights would have 24" top mount antenna and four (4) radios within a pole-mounted concealment shroud.

All sites include one electrical disconnect box, associated conduit, and fiber/power. Fiber and power would be provided from underground utility connection(s) and trenching would be necessary at some sites. Additional background information can be found on the applicant's project website (http://www.crowncastle.com/projects/palo-alto\_ca.aspx).

<sup>&</sup>lt;sup>1</sup> The address for this application 17PLN-00033 is listed in the City's permit tracking system under 250 Hamilton Avenue because the utility poles that are proposed to host the small cell deployment nodes are identified by unique pole numbers and do not have specific property addresses.

The proposed sixteen (16) small cell deployment node locations are identified in the **Table 1.** Please note that Node 026 is proposed as an entirely new pole or street light, rather than utilization of one that already exists.

# <u>Table 1: Preliminary Sixteen (16) Small Cell Deployment Node Locations:</u>

Node	Closest address for identity purposes	Assessor's address based on location in plans	Adjacent APN	Pole Type	Config	Pole #	Adjacent Zone	Overlay Zone
20	251 Emerson St (near 205 Everett St)	205 Everett St	12025024	Wood utility	#1	6474	RM-30	MF
21	301 Bryant ( across from 311 Everett Ave)	301 Bryant St	12014045	Wood utility	#1	6362	RMD (NP)	MF
22	386 Everett Ave (across from 311 Waverley St)	386 Everett Ave	12035001	Wood utility	#1	6356	RM-30	MF
23	482 Everett Ave (across from 305 Cowper St)	482 Everett Ave	12014057	Wood utility	#1	6350	RMD (NP)	MF
24	243 Hawthorne Ave	221 Hawthorne Ave	12024002	Wood utility	#1	6378	RM-30	MF
25	275 Forest Ave (corner of Ramona St & Forest Ave)	250 Hamilton Ave	12027011	Street light	#2	23	PF	MISP
26	332 Forest Ave	332 Forest Ave	12016038	Street light or stand- alone pole*	#2	32	RM-40	SOFA I CAP
27	248 Homer (across from 819 Ramona St)	248 Homer Ave	12028012	Street light	#2	82	RT-35	SOFA II CAP/ HE Corr SOFA II
28	near 370 & 362 Channing Ave	370 Channing Ave	12017042	Street light	#2	34	R-2	SOFA I CAP
29	751 Waverley St (near 760 Waverley)	385 Homer Ave	12016066	Street light	#2	76	DHS	SOFAICAP
30	411 Bryant St (corner of Channing Ave and Bryant St)	845 Ramona St	12028109	Street light	#2	86	AMF	SOFA I CAP
31	190 Channing Ave (across from 913 Emerson St)	190 Channing Ave	12028051	Street light	#2	16	RT-35	SOFA II CAP/ HIS 5
32	201 High St	201 High St	12025049	Wood utility	#1	6492	RM-15	MF
33	65 Embarcadero Rd (and adjacent to 855 El Camino Real)	855 El Camino Real	12034015	Street light	#3	181	СС	ECR DG
34	77 Embarcadero Rd (and adjacent to 855 El Camino Real)	855 El Camino Real	12034015	Street light	#3	143	СС	ECR DG
35	130 Embarcadero Rd (and adjacent to 855 El Camino Real)	855 El Camino Real	12034015	Street light	#3	6	сс	ECR DG

Configuration #1 – 48" antenna with all equipment attached to the pole
Configuration #2 - 24" antenna with all equipment enclosed within mailbox/utility box
Configuration #3 - 24" antenna with all equipment attached to the pole
\*Pole only Option for PA036 Configuration #3 - 34" antenna with all equipment of

<sup>\*</sup>Pole only Option for PA026 Configuration #2 - 24" antenna with all equipment enclosed within mailbox/utility box

#### **Anticipated Entitlements:**

The following discretionary applications are anticipated:

 Tier 3 Wireless Communication Facility Permits, as outlined in Palo Alto Municipal Code (PAMC) Chapter 18.42.110. Any formal application would be processed as a Major Architectural Review with the addition of Conditional Use Permit findings.

The applications will need to comply with the development standards in PAMC Section 18.42.110(i), the conditions of approval in PAMC Section 18.42.110(j), the Architectural Review findings in PAMC Section 18.76.020(d), and the Conditional Use Permit findings in PAMC Section 18.76.010(c).

#### **Discussion**

Preliminary review applications receive a cursory review for compliance with zoning regulations and consistency with the comprehensive plan or other applicable policy documents. This information was previously transmitted to the applicant during Development Review Committee meetings and site walks. Staff has attached the relevant Comprehensive Plan policies (Attachment B) and the Palo Alto Municipal Code Section 18.42.110 pertaining to Wireless Communication Facilities (Attachment C). A more comprehensive review will occur upon formal submittal, which may reveal other code or policy concerns.

#### **Small Cell Deployment in Other Cities**

Other cities have already evaluated and developed guidelines for small cell deployment applications in the right of way. While Palo Alto is unique in that it owns or jointly owns many of the utility structures, these examples are instructive. Following are a few links showing how other cities are approaching the siting and design of small cell projects:

- City of San Francisco "Design Preferences for Personal Wireless Service Facilities for DISTRIBUTED ANTENNA SYSTEMS, "DAS" OR SMALL CELLS ON WOODEN UTILITY POLES & WOODEN STREET LIGHT POLES" - August 2015 (<a href="http://www.sf-planning.org/ftp/files/currentplanning/wireless/wireless\_Design\_Preferences\_for\_Wireless\_Facilities\_August2015.pdf">http://www.sf-planning.org/ftp/files/currentplanning/wireless/wireless\_Design\_Preferences\_for\_Wireless\_Facilities\_August2015.pdf</a>)
- **City of San Diego** "Wireless Communication Facility (WCF) Guidelines" January 4, 2016, Page 16 (<a href="https://www.sandiego.gov/sites/default/files/legacy/development-services/pdf/industry/telecomguide.pdf">https://www.sandiego.gov/sites/default/files/legacy/development-services/pdf/industry/telecomguide.pdf</a>)
- City of Berkeley "Wireless Telecommunications Program Guidelines for Projects Requiring Telecommunications Encroachment/Excavation Permits" – March 15, 2011 (<a href="http://www.cityofberkeley.info/uploadedFiles/Public Works/Level 3 - Sidewalks, Streets - Utility/Aesthetic%20Guidelines%20for%20PROW%20Permits%20Under%20BMC%20Chapter%2016 10.pdf">http://www.cityofberkeley.info/uploadedFiles/Public Works/Level 3 - Sidewalks, Streets - Utility/Aesthetic%20Guidelines%20for%20PROW%20Permits%20Under%20BMC%20Chapter%2016 10.pdf</a>)

<u>Preliminary Location/Siting Criteria, Configuration Design Criteria, and Configuration Design</u> Options

The primary purpose for this Preliminary Architectural Review application is to receive public and Architectural Review Board feedback on the preliminary location/siting criteria, design

criteria, and design options for the proposed small cell deployment nodes. The applicant has presented their key questions within their project description in Attachment D. Members of the public and the ARB are encouraged to provide feedback to the applicant.

At the May 18, 2017 ARB meeting, staff previously debuted the following <u>preliminary</u> location/siting criteria, configuration design criteria, and configuration design options for the deployment of small cell wireless communication equipment in the right-of-way as part of processing Preliminary Architectural Review application 17PLN-00033 for Vinculums/Verizon.

#### **Location and Siting Criteria**

- 1. Locate small cell nodes on poles in the right-of-way only.
- 2. Disfavor poles that are in a proposed undergrounding district area.
- 3. Identify poles with the following items in the descending order of precedence:
  - a. Guy stubs,
  - b. Poles with overhead secondary conductors only,
  - c. Primary dead-end poles,
  - d. Primary poles with no transformers downstream to end of line, and
  - e. Primary poles with no electric utility equipment on either side of the proposed pole.
- 4. Encourage placement away from intersections in order to reduce visibility of the project.
- 5. Encourage poles with significant tree screening in order to reduce visibility of the project.
- 6. Favor poles that do not interfere with bikeway clearances either physically or visually
- 7. Favor poles away from first and second story windows in order to reduce visibility of the project.
- 8. Confirm the project adheres to ADA clearances, as well as conformance with the Pedestrian Shopping Combining District requirements where applicable.
- 9. Confirm the project provides adequate vehicle clearances and site triangles when in proximity of intersections and driveways, addresses proximity to on-street parking spaces, and provides vehicle door clearance if ground mounted equipment is proposed.
- 10. Identify the pros/cons of increasing or decreasing the number of proposed nodes including coverage, different sizes and heights of antennas (ex. deployment of a four foot high antenna versus a two foot high antenna)
- 11. Confirm if there are any additional factors that may prevent above-grade facilities, such as:
  - a. Conflicts with future transportation improvements, and
  - b. Conflicts with transit facilities or other areas which generate pedestrian activity
- 12. For projects with ground mounted equipment and/or trenching:
  - a. Favor poles with little or no surrounding tree roots to reduce tree impacts. Ground mounted cabinet locations shall strive to improve existing tree conditions and avoid or limit taking valuable root area from existing tree sites.
  - b. Favor poles with little to no underground utilities to reduce conflicts.
  - c. identify if the project requires any trenching and disfavor projects where adjacent road surfacing has recently occurred or is planned within the next 1-2 years.
  - d. Encourage them to remain clear of street and driveway sight lines as required by Palo Alto Municipal Code (PAMC) 18.54.050(b).

#### **Configuration Design Criteria**

- 1. Design for the minimization of equipment sizes.
- 2. Design for streamlining of equipment views from the sidewalk and driver view angles.
- 3. Limit the use of ground mounted equipment to the greatest extent possible.
- 4. Place emphasis on ensuring the project design is compatible with the surrounding neighborhood context consider the various neighborhood styles and character (ex. historic, modern, etc.).
- 5. In areas with Design Guidelines, ensure the project responds to these guidelines. For example: <a href="Professorville Historic District Design Guidelines">Professorville Historic District Design Guidelines</a> (§7.0-7.43, Guidelines for Site Improvements: Landscape, Accessory Buildings & the Streetscape).
- 6. In commercial or mixed-use areas, encourage either pole mounting back-up battery equipment or placing it below grade to ensure a clear sidewalk for pedestrians.
- 7. Power shall come from the nearest utility box and equipment must have a protective device (i.e. fuse or circuit breaker) for isolating the circuit to avoid affects on City of Palo Alto equipment or circuits.

#### **Configuration Design Options**

- 1. Utilize passive cooling or other methods to prevent or reduce noise.
- 2. Design the project to visually soften the deployment by providing landscaping or trees next to the pole.
- 3. Design for stealth and concealment of equipment. Examples: use shrouds, blend the bayonets by utilizing similar shapes and widths as the underlying pole, paint all equipment to match the pole, conceal all wires, provide a continuous installation instead of allowing gaps for light to pass through in the installation, and mount equipment as close to the pole surface as possible.
- 4. If soil is lost in response to any ground mounted equipment installation, pursuant to the Urban Forestry Master Plan (Policy 1.A, 1.E.), the project shall provide an equal square footage of pervious soil to street trees in the immediate area.
- 5. Paint or artistically wrap all ground mounted equipment at minimum. Otherwise, pursue stealth strategies through the provision of street furniture that supports pedestrian activity and/or prevents visual clutter.
- 6. Emphasize stealth, concealment, and painting strategies that require low maintenance or otherwise present a maintenance schedule.

#### **Department Comments**

Staff is continuously refining the above location/siting criteria, design criteria, and design option guidance. Departments provided the following preliminary comments on the proposed project for further consideration:

 Urban Forestry – Urban Forestry requires the submittal of a tree protection report for any forthcoming formal applications that covers both pruning of protected trees and any trenching associated with installation. It is anticipated that protected trees would present constraints on the siting of proposed nodes and should not be overlooked as a siting criteria.

- Public Works Public Works is particularly interested in ensuring that all proposed nodes are in the right of way and the presence of relevant easements. In the future, Public Works (not the Building Department) would review plans for any ADA-related obstruction, grading and soil replacement, traffic logistics plans, and locations/constraints associated with trenching for fiber and power. Public Works specifically cited node 025 as potentially creating an obstruction.
- Transportation Transportation indicated the need for high sensitivity to pedestrian and bicycle traffic in all proposed node locations. In particular, Transportation cited that some of the proposed ground mounted cabinets presented possible physical and visual obstructions, as well as pedestrian congestion points on existing sidewalks and inadequate vehicle door clearance. They also indicated that ground mounted cabinets should remain clear of street and driveway sight lines as required by Palo Alto Municipal Code (PAMC) 18.54.050(b). Specifically, Transportation indicated that further ground mounted cabinets in commercial areas, mixed use areas, and the South of Forest Area would present consistency difficulty relative to Comprehensive Plan policies and the Bicycle and Pedestrian plan.
- Utilities-Electrical Utilities-Electrical has a wide variety of siting and attachment requirements that are based upon technical codes, as well as the Master License Agreement requirements. For example, as one design requirement, Utilities- Electrical indicated that only antennas may be attached to street light poles and that attachment of radios and other types of equipment is prohibited on streetlights. This is synergistic with some of the comments provided by Transportation regarding placement of equipment underground. Utilities-Electrical is also responsible for reviewing wood utility pole and streetlight structural stability items in any forthcoming formal applications.
- Historic In anticipation of possible adjustment in the locations of nodes in any forthcoming formal applications, the City's Historic Planner identified historic resources near to the node locations proposed by the applicant. Additionally, the City's Historic Planner identified that the initially proposed node 026 and associated ground mounted cabinet was immediately adjacent to the historic Staller Court at 345 Forest Avenue. Consequently, the applicant proposed the current new location and pole listed in the project plans for node 026. However, this current location is in front of an eligible apartment building (332 Forest Avenue). Although this U-shaped building does not possess a central plaza with sitting area, and therefore would not be considered a significant impact on the potentially eligible building, staff is interested in ARB feedback on the sensitivity of this location with the character of the building in mind, as well as relative to the overarching question of the utilization of a new pole relative to

Comprehensive Plan policies, Downtown Design Guidelines, architectural review findings and other policies.

• Planning – Planning has indicated the need for the applicant to host a community meeting(s) prior and submit a summary of any resultant project changes with any forthcoming formal applications, per the City's wireless code. Among other items, Planning has also indicated concerns with any proposed node relative to locations on corners without screening, the absence of stealth and a cohesive design for the attachments to existing wood utility poles, the absence of any proposed trees or landscaping for screening, the presence of equipment within close view proximity of active living spaces, and the presence of equipment on or above narrow sidewalks. Planning has also emphasized the need for compliance with FCC emissions standards, the City's noise requirements, as well as those requirements outlined by other departments.

Specific to nodes near Town & County, Planning indicated that the corner areas of El Camino Real and Embarcadero Road were sensitive relative to findings for compatibility with the character of shopping center and requested that the applicant explore options for colocation with existing wireless facilities at Town & Country and to also propose less prominent poles. Planning also communicated previous Fire and Police comments regarding the need to avoid creating sidewalk obstructions, given the significant pedestrian flow in the area on special event days on campus.

#### Collocation

Where it makes sense, the City encourages the collocation of wireless facilities to reduce visual clutter. The three (3) nodes proposed near Town & Country are not currently anticipated to be colocation opportunities. However, according to the applicant, the remaining thirteen (13) nodes proposed for Downtown North and University South could accommodate an additional carrier based upon the general colocation oriented business model for Crown Castle and only if a separate and subsequent application were filed for some increases in size of the equipment. Consequently, the project should be considered as designed for a single carrier at the present time.

It is important to note that, once a wireless facility is placed on a given pole, the Federal Spectrum Act allows for a streamlined process should a second carrier apply to collocate. Consequently and in order to promote transparency in the analysis process, the applicant is required by the City's wireless code to provide a study of the maximum build out permissible by the Act when they submit their formal Tier 3 Wireless Communication Facility permit applications. Additionally, except as otherwise permitted by the Spectrum Act, a tower or other stand-alone Tier 3 WCF Project is prohibited to exceed sixty-five (65) feet in height by the City's wireless code.

#### **Next Steps**

The applicant may elect to file formal Tier 3 Wireless Communication Facility permit, which would then be followed by staff analysis and a public hearing(s) before the ARB.

#### **Environmental Review**

The Preliminary Architectural Review discussion involves no discretionary action and is therefore not a project and not subject to review pursuant to the California Environmental Quality Act (CEQA). If a formal application is filed, an analysis of the project under CEQA will be performed.

#### Federal Communication Commission's (FCC) Radio Frequency Emission Standards

As part of a formal application, the applicant will submit a detailed report that discusses the small cell deployment node designs at each location in comparison with the Federal Communication Commission's (FCC) radio frequency emission standards. The City will utilize an independent peer review process during the analysis of the formal application to address questions regarding radio frequency emissions/health and safety.

#### **Public Notification, Outreach & Comments**

The Palo Alto Municipal Code does not require any particular form of notice for a Preliminary Architectural Review application. Nonetheless, as a practice, the City publishes notice of the review in a local paper and mails owners and occupants of property within 600 feet of the subject property at least ten days in advance. Notice of a public hearing for this project was published in the Palo Alto Weekly on September 8, 2017, which is thirteen (13) days in advance of the meeting. Postcard mailing occurred on September 11, 2017.

#### **Public Comments**

Staff received a significant number of comments and inquiries from members of the public over email and by phone. Multiple members of the public preferred to gather more information before commenting. Staff received comments expressing both support and opposition. Supporters generally cited a desire for improved wireless coverage. Opposition generally cited aesthetic concerns, noise, compatibility with historic resources and radio frequency emissions/health and safety concerns. Email correspondence up to September 11, 2017 is included in Attachment E. Copies of any additional correspondence received after this date will be provided to the ARB at the hearing. In addition to these project specific comments, the City has received many emails with general questions about aesthetics, noise and emissions for any small cell node installation.

### **Report Author & Contact Information**

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Jodie Gerhardt, AICP, Planning Manager

(650) 329-2575

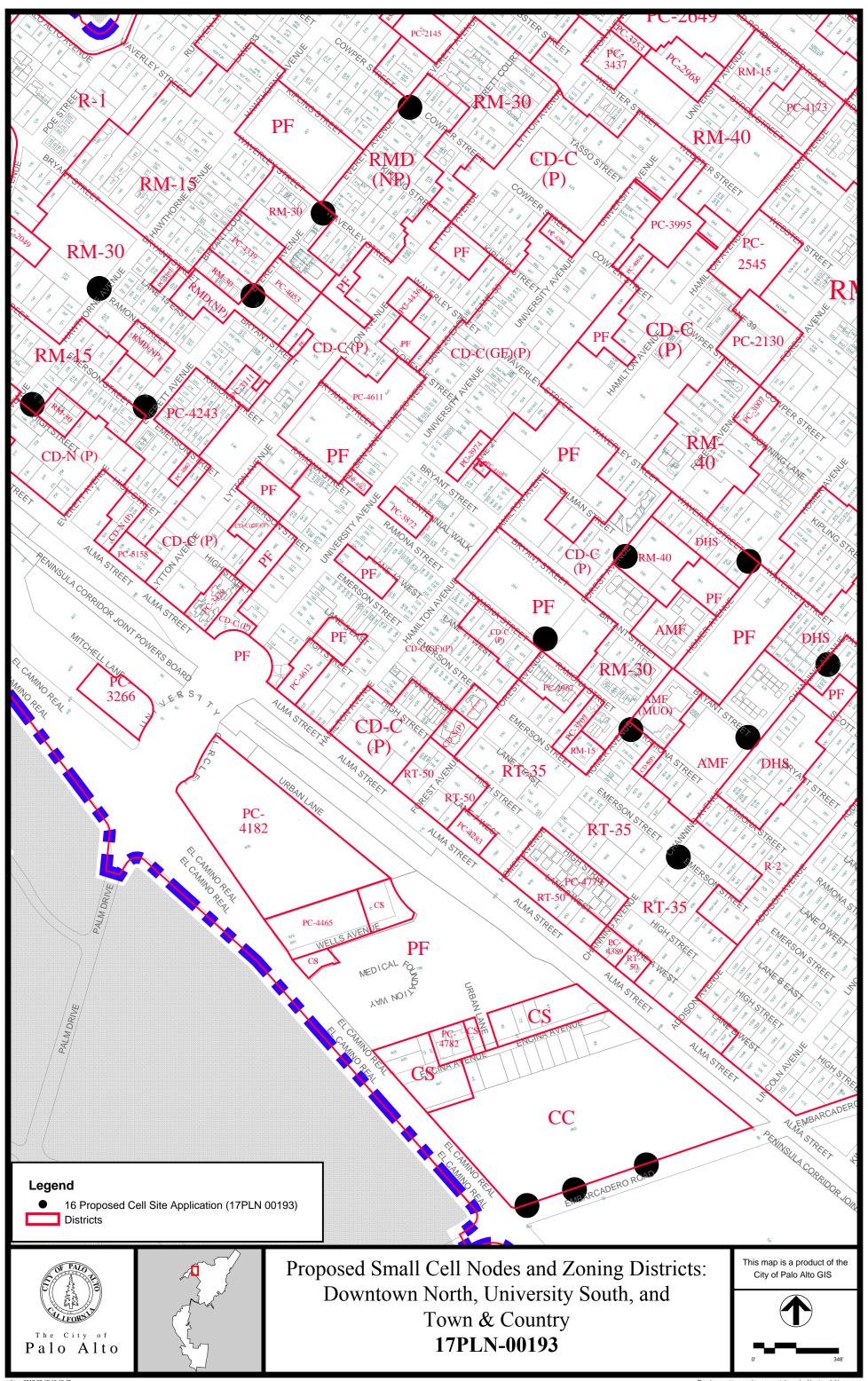
Jodie.Gerhardt@CityofPaloAlto.org

<sup>&</sup>lt;sup>2</sup> Emails may be sent directly to the ARB using the following address: <a href="mailto:arb@cityofpaloalto.org">arb@cityofpaloalto.org</a>

#### **Attachments:**

- Attachment A: Location Map with Zoning Districts (PDF)
- Attachment B: Comprehensive Plan Goals/Policies and Other Relevant Guidelines(DOC)
- Attachment C: Wireless Communication Facilities Code Section (DOC)
- Attachment D: Applicant Project Description and Key Questions (PDF)
- Attachment E: Public Correspondence (Received through September 11, 2017) (DOCX)
- Attachment F: Project Plans (DOCX)

# **Attachment A**



# ATTACHMENT B COMPREHENSIVE PLAN GOALS AND POLICIES

File No. 17PLN-00193

#### Land Use and Community Design Element

GOAL L-1: A Well-designed, Compact City, Providing Residents and Visitors with Attractive Neighborhoods, Work Places, Shopping Districts, Public Facilities, and Open Spaces.

Policy L-5: Maintain the scale and character of the City. Avoid land uses that are overwhelming and unacceptable due their size and scale.

GOAL L-3: Safe, Attractive Residential Neighborhoods, Each With Its Own Distinct Character and Within Walking Distance of Shopping, Services, Schools, and/or other Public Gathering Places.

POLICY L-12: Preserve the character of residential neighborhoods by encouraging new or remodeled structures to be compatible with the neighborhood and adjacent structures.

POLICY L-17: Treat residential streets as both public ways and neighborhood amenities. Provide continuous sidewalks, healthy street trees, benches, and other amenities that favor pedestrians.

GOAL L-4: Inviting, Pedestrian-scale Centers That Offer a Variety of Retail and Commercial Services and Provide Focal Points and Community Gathering Places for the City's Residential Neighborhoods and Employment Districts.

POLICY L-23: Maintain and enhance the University Avenue/Downtown area as the central business district of the City, with a mix of commercial, civic, cultural, recreational and residential uses. Promote quality design that recognizes the regional and historical importance of the area and reinforces its pedestrian character.

PROGRAM L-19: Support implementation of the Downtown Urban Design Guide.

POLICY L-24: Ensure that University Avenue/Downtown is pedestrian-friendly and supports bicycle use. Use public art and other amenities to create an environment that is inviting to pedestrians.

POLICY L-25: Enhance the character of the South of Forest Area (SOFA) as a mixed use area.

POLICY L-32: Maintain Town and Country Village as an attractive community-serving retail center. Future development at this site should preserve its existing amenities, pedestrian scale, and architectural character.

POLICY L-34: Encourage improvement of pedestrian and auto circulation and landscaping improvements, including maintenance of existing oak trees and planting additional oak trees.

POLICY L-48: Promote high quality, creative design and site planning that is compatible with surrounding development and public spaces.

- PROGRAM L-48: Use the Zoning Ordinance, design review process, design guidelines, and Coordinated Area Plans to ensure high quality residential and commercial design.
- PROGRAM L-49: In areas of the City having a historic or consistent design character, design new development to maintain and support the existing character.

POLICY L-49: Design buildings to revitalize streets and public spaces and to enhance a sense of community and personal safety. Provide an ordered variety of entries, porches, windows, bays and

balconies along public ways where it is consistent with neighborhood character; avoid blank or solid walls at street level; and include human-scale details and massing.

POLICY L-56: To reinforce the scale and character of University Avenue/Downtown, promote the preservation of significant historic buildings.

# GOAL L-9: Attractive, Inviting Public Spaces and Streets that Enhance the Image and Character of the City.

POLICY L-66: Maintain an aesthetically pleasing street network that helps frame and define the community while meeting the needs of pedestrians, bicyclists, and motorists.

POLICY L-67: Balance traffic circulation needs with the goal of creating walkable neighborhoods that are designed and oriented towards pedestrians.

POLICY L-69: Preserve the scenic qualities of Palo Alto roads and trails for motorists, cyclists, pedestrians, and equestrians.

POLICY L-70: Enhance the appearance of streets and other public spaces by expanding and maintaining Palo Alto's street tree system.

POLICY L-71: Strengthen the identity of important community gateways, including the entrances to the City at Highway 101, El Camino Real and Middlefield Road; the Caltrain stations; entries to commercial districts; and Embarcadero Road at El Camino Real.

 PROGRAM L-72: Develop a strategy to enhance gateway sites with special landscaping, art, public spaces, and/or public buildings. Emphasize the creek bridges and riparian settings at the entrances to the City over Adobe Creek and San Francisquito Creek.

POLICY L-74: Use the work of artists, craftspeople, architects, and landscape architects in the design and improvement of public spaces.

POLICY L-79: Design public infrastructure, including paving, signs, utility structures, parking garages and parking lots to meet high quality urban design standards. Look for opportunities to use art and artists in the design of public infrastructure. Remove or mitigate elements of existing infrastructure that are unsightly or visually disruptive. Capital improvement projects represent substantial public investments. Areas of high pedestrian traffic, especially Centers, should have priority for infrastructure repair. While the purpose of infrastructure is usually utilitarian or functional, attention to design details can add beauty to the City or even remedy an urban design defect. For example, replacing a sidewalk can provide an opportunity to create larger tree wells and provide new street trees.

- PROGRAM L-79: Undertake a coordinated effort by the Public Works, Utilities, and Planning Departments to establish design standards for public infrastructure and examine the effectiveness of City street, sidewalk and street tree maintenance programs.
- PROGRAM L-80: Continue the citywide undergrounding of utility wires. Minimize the impacts of undergrounding on street tree root systems and planting areas.
- PROGRAM L-81: Encourage the use of compact and well-designed utility elements, such as transformers, switching devices, and backflow preventers. Place these elements in locations that will minimize their visual intrusion.

#### **Transportation Element**

Goal T-3: Facilities, services and programs that encourage and promote walking and bicycling.

Policy T-14: Improve pedestrian and bicycle access to and between local destinations, including public facilities, schools, parks, open space, employment districts, shopping centers, and multi-modal transit stations.

- PROGRAM T-18: Develop and periodically update a comprehensive bicycle plan.
- PROGRAM T-19: Develop, periodically update, and implement a, bicycle facilities improvement
  program and a pedestrian facilities improvement program that identify and prioritize critical
  pedestrian and bicycle links to parks, schools, retail centers, and civic facilities.
- PROGRAM T-20: Periodically produce a local area bicycle route map jointly with adjacent jurisdictions.

POLICY T-22: Improve amenities such as seating, lighting, bicycle parking, street trees, and interpretive stations along bicycle and pedestrian paths and in City parks to encourage walking and cycling and enhance the feeling of safety.

POLICY T-23: Encourage pedestrian-friendly design features such as sidewalks, street trees, on-street parking, public spaces, gardens, outdoor furniture, art, and interesting architectural details.

#### GOAL T-5: A Transportation System with Minimal Impacts on Residential Neighborhoods.

POLICY T-37: Where sidewalks are directly adjacent to curbs and no planting strip exists, explore ways to add planting pockets with street trees to increase shade and reduce the apparent width of wide streets.

#### Natural Environment Element

**Goal N-3:** A Thriving "Urban Forest" That Provides Ecological, Economic, and Aesthetic Benefits for Palo Alto.

POLICY N-14: Protect, revitalize, and expand Palo Alto's urban forest through public education, sensitive regulation, and a long-term financial commitment that is adequate to protect this resource.

#### GOAL N-8: An Environment That Minimizes the Adverse Impacts of Noise.

POLICY N-39: Encourage the location of land uses in areas with compatible noise environments. Use the guidelines in the table "Land Use Compatibility for Community Noise Environment" to determine compatibility. • The guideline for maximum outdoor noise levels in residential areas is an Ldn of 60 dB. This level is a guideline for the design and location of future development and a goal for the reduction of noise in existing development. However, 60 Ldn is a guideline which cannot necessarily be reached in all residential areas within the constraints of economic or aesthetic feasibility. This guideline will be primarily applied where outdoor use is a major consideration (e.g., backyards in single family housing developments, and recreational areas in multiple family housing projects). Where the City determines that providing an Ldn of 60 dB or lower outdoors is not feasible, the noise level in outdoor areas intended for recreational use should be reduced to as close to the standard as feasible through project design. • The indoor noise level as required by the State of California Noise Insulation Standards must not exceed an Ldn of 45 dB in multiple family dwellings. This indoor criteria shall also apply to new single family homes in Palo Alto. • Interior noise levels in new single family and multiple family residential units exposed to an exterior Ldn of 60 dB or greater should be limited to a maximum instantaneous noise level of 50 dB in the bedrooms. Maximum instantaneous noise levels in other rooms should not exceed 55 dB. Noise exposure can be determined based on the noise contour map

included in this plan, or more detailed noise measurements, if appropriate.

POLICY N-40: Evaluate the potential for noise pollution and ways to reduce noise impacts when reviewing development and activities in Palo Alto and surrounding communities.

POLICY N-41: When a proposed project is subject to CEQA, the noise impact of the project on existing residential land uses should be evaluated in terms of the increase in existing noise levels and potential for adverse community impact, regardless of existing background noise levels. If an area is below the applicable maximum noise guideline, an increase in noise up to the maximum should not necessarily be allowed. A project should be considered to cause a significant degradation of the noise environment if it meets any of the following criteria: • The project would cause the average 24-hour noise level (Ldn) to increase by 5.0 dB or more in an existing residential area, even if the Ldn would remain below 60 dB; • The project would cause the Ldn to increase by 3.0 dB or more in an existing residential area, thereby causing the Ldn in the area to exceed 60 dB; • The project would cause an increase of 3.0 dB or more in an existing residential area where the Ldn currently exceeds 60 dB.

POLICY N-42: The City may require proposals to reduce noise impacts of development on adjacent properties through appropriate means including, but not limited to, the following: • Construct noise walls when compatible with aesthetic concerns. • Screen and control noise sources such as parking, outdoor activities and mechanical equipment. • Increase setbacks for noise sources from adjacent dwellings. • Whenever possible, retain fences, walls or landscaping that serve as noise buffers although design, safety and other impacts must be addressed. • Use soundproofing materials and double-glazed windows. • Control hours of operation, including deliveries and trash pickup, to minimize noise impacts.

**Goal N-10:** Protection of Life and Property From Natural Hazards, Including Earthquake, Landslide, Flooding, and Fire.

POLICY N-50: Implement public safety improvements, such as access roads and other infrastructure, in a manner that is sensitive to the environment.

#### **Business Element**

# GOAL B-1: A Thriving Business Environment that is Compatible with Palo Alto's Residential Character and Natural Environment.

POLICY B-1: Use a variety of planning and regulatory tools, including growth limits, to ensure that business change is compatible with the needs of Palo Alto neighborhoods. In addition to growth limits, the City will use zoning, development review, environmental review, coordinated area plans, and other planning tools, to maintain compatibility between residential and nonresidential areas.

POLICY B-2: Support a strong interdependence between existing commercial centers and the surrounding neighborhoods as a way of encouraging economic vitality.

POLICY B-3: Recognize that Palo Alto's street tree system is an economic asset to the City.

# GOAL B-3: New Businesses that Provide Needed Local Services and Municipal Revenues, Contribute to Economic Vitality, and Enhance the City's Physical Environment.

POLICY B-10: Promote Palo Alto's image as a business-friendly community. Assume an active role in fostering new business, particularly small, start-up businesses in emerging industries.

POLICY B-11: Encourage the use of public/private partnerships as a means of redeveloping and revitalizing selected areas.

POLICY B-13: Support the development of technologically-advanced communications infrastructure and other improvements that will facilitate the growth of emerging telecommunications industries.

POLICY B-14: Work with electronic information network providers to maximize potential benefits for Palo Alto businesses, schools, residences, and other potential users.

POLICY B-15: Allow the creative use of City utilities and rights-of-way to ensure competition among networks in providing information systems infrastructure.

GOAL B-4: City Regulations and Operating Procedures that Provide Certainty and Predictability and Help Businesses Adapt to Changing Market Conditions.

POLICY B-16: Encourage streamlining of City administrative and regulatory processes wherever possible. Reduce inefficiencies, overlap, and time delays associated with these processes.

• PROGRAM B-7: Improve design guidelines to reduce ambiguity and more clearly articulate design principles to the business community.

Policies in the following Plans and Guidelines may also be applicable:

- Bicycle + Pedestrian Transportation Plan (http://www.cityofpaloalto.org/civicax/filebank/documents/31928)
- South of Forest Area Coordinated Area Plan Phase 1 and Phase 2 (http://www.cityofpaloalto.org/gov/depts/pln/advance/area/sofa.asp)
- **Urban Forest Master Plan** (http://www.cityofpaloalto.org/civicax/filebank/documents/36187)
- Downtown Urban Design Guidelines
   (http://www.cityofpaloalto.org/civicax/filebank/documents/6514)
- El Camino Real Design Guidelines (http://www.cityofpaloalto.org/civicax/filebank/documents/19040)

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#### ATTACHMENT C

#### PALO ALTO MUNICIPAL CODE SECTION 18.42.110 WIRELESS COMMUNICATION FACILITIES

File No. 17PLN-00193

# 18.42.110 Wireless Communication Facilities

#### (a) Purpose and Interpretation

The purpose of this section is two-fold: (A) to implement within the jurisdictional boundaries of the city the applicable zoning, land use and other laws, rules, regulations and policies and procedures applicable to siting applications filed with the city by wireless communications facilities infrastructure owners and operators and wireless communications service providers, which seek to install or attach their facilities at locations in Palo Alto; and (B) to accommodate new wireless technologies and continued improvements to existing wireless communications facilities while minimizing their adverse visual and structural health and safety impacts. Consistent with that purpose, the provisions of this section are to be construed in a manner that is consistent with (1) the interest of consumers in receiving the benefits of the deployment of ultra-high-speed and -capacity broadband wireless communication facilities technology and innovations and the delivery of ultra-high-speed and -capacity broadband wireless communications facilities services, (2) the interest in safeguarding the environment, preserving historic properties, and addressing aesthetics and other local values, and (3) the interest in promoting the public health, safety and welfare in Palo Alto.

A wireless communications facility is permitted to be sited in Palo Alto subject to applicable requirements imposed by this chapter, which may include an architectural review process, a conditional use permit application process, or both. These processes are intended to permit wireless communications facilities that blend with their existing surroundings and do not negatively impact the environment, historic properties, or public safety. The procedures prescribed by this chapter are tailored to the type of wireless communication facility that is sought. Building-mounted wireless communications facilities and collocation of facilities are preferred and encouraged, subject to all other provisions of this section.

#### (b) Definitions

The following abbreviations, phrases, terms and words shall have the meanings assigned in this section or, as appropriate, in Section <u>18.04.030</u> and Section <u>1.04.050</u> of the Palo Alto Municipal Code, as may be amended from time to time, unless the context indicates otherwise. Words that are not defined in this section or other chapters or sections of the Palo Alto Municipal Code shall have the meanings as set forth in Chapter 6 of Title 47 of the United States Code, Part 1 of Title 47 of the Code of Federal Regulations, and, if not defined therein, their common and ordinary meaning.

- (1) "Antenna" means a wireless antenna and its associated equipment. The term includes a macrocell antenna and a microcell antenna.
- (2) "Associated equipment" means any and all on-site equipment, including, without limitation, back-up generators and power supply units, cabinets, coaxial and fiber optic cables, connections, shelters, radio transceivers, regular power supply units, and wiring, to which a wireless antenna is attached in order to facilitate mobile broadband service and personal wireless service delivered on mobile broadband devices.

- (3) "Base Station" means a structure or equipment at a fixed location that enables FCC-licensed or authorized wireless communications between user equipment and a communications network. The term does not encompass a tower as defined herein or any equipment associated with a tower. Base Station includes, without limitation:
- (i) Equipment associated with wireless communications services such as private, broadcast, and public safety services, as well as unlicensed wireless services and fixed wireless services such as microwave backhaul.
- (ii) Radio transceivers, antennas, coaxial or fiber-optic cable, regular and backup power supplies, and comparable equipment, regardless of technological configuration (including Distributed Antenna Systems ("DAS") and small-cell networks).
- (iii) Any structure other than a tower that, at the time the relevant application is filed with the city under this section, supports or houses equipment described in paragraphs (i)-(ii) above and has been previously reviewed and approved by the city.
- (4) **"Collocation"** means the mounting or installation of transmission equipment on an eligible support structure for the purpose of transmitting and/or receiving radio frequency signals for communications purposes.
- (5) "Eligible Facilities Request" means any request for modification of an existing tower or base station that, within the meaning of the Spectrum Act, does not substantially change the physical dimensions of that tower or base station, and involves (a) the collocation of new transmission equipment, (b) the removal of transmission equipment, or (c) the replacement of transmission equipment.
- (6) **"Eligible Support Structure"** means any existing tower or base station that exists at the time the application is filed with the city.
- (7) **"Existing"** for a constructed tower or base station, means that the tower or base station has been previously reviewed and approved under the applicable city zoning or siting process, or under another applicable state or local regulatory review process, provided that a tower that has not been reviewed and approved because it was not in a zoned area when it was built, but was lawfully constructed, is "Existing" for purposes of this definition.
  - (8) **"FCC"** means the Federal Communications Commission or successor agency.
  - (9) "Project" means a WCF to be located in Palo Alto for which a permit is required by the city.
  - (10) "RF" means radio frequency on the radio spectrum.
- (11) "Spectrum Act" means Section 6409(a) of the Middle Class Tax Relief Act and Job Creation Act of 2012, 47 U.S.C. § 1455(a) (providing, in part, "... a State or local government may not deny, and shall approve, any Eligible Facilities Request for a modification of any existing wireless Tower or Base Station that does not substantially change the physical dimensions of such Tower or Base Station.").
- (12) "Substantially Changes" means, in the context of an eligible support structure, a modification of an existing tower or base station where any of the following criteria is met:
  - (i) For a tower not located in the public rights-of-way:
- (a) The height of the tower is increased by (I) more than ten (10) percent, or (II) by the height of one additional antenna array with separation from the nearest existing antenna not to exceed twenty (20) feet, whichever is greater; or
- (b) There is added an appurtenance to the body of the tower that would protrude from the edge of the tower by (I) more than twenty (20) feet, or (II) more than the width of the tower at the level of the appurtenance, whichever is greater.
  - (ii) For a tower located in the public rights-of-way and for all base stations:
- (a) The height of the tower or base station is increased by more than ten (10) percent or ten (10) feet, whichever is greater; or

- (b) There is added an appurtenance to the body of that structure that would protrude from the edge of that structure by more than six (6) feet; or
- (c) It involves the installation of ground cabinets that are more than ten (10) percent larger in height or overall volume than any other ground cabinets associated with the structure; or
- (d) It involves the installation of any new equipment cabinets on the ground if there is no preexisting ground cabinet associated with that structure.
  - (iii) For any eligible support structure:
- (a) It involves the installation of more than the standard number of new equipment cabinets for the technology involved, but not to exceed four (4) cabinets; or
- (b) There is entailed in the proposed modification any excavation or deployment outside of the current site of the tower or base station; or
- (c) The proposed modification would cause the concealment/camouflage elements of the tower or base station to be defeated; or
- (d) The proposed modification would not comply with the conditions associated with the prior siting approval of construction or modification of the tower or base station, unless the non-compliance is due to an increase in height, increase in width, addition of cabinets, or new excavation that does not exceed the corresponding thresholds in this section.
  - (iv) To measure changes in height for the purposes of this section, the baseline is:
- (a) For deployments that are or will be separated horizontally, measured from the original support structure;
- (b) For all others, measured from the dimensions of the tower or base station, inclusive of originally approved appurtenances and any modifications that were approved by the city prior to February 22, 2012.
- (v) To measure changes for the purposes of this section, the baseline is the dimensions that were approved by the city prior to February 22, 2012.
- (13) **"Tower"** means any structure built for the sole or primary purpose of supporting any FCC-licensed or -authorized antenna, including any structure that is constructed for wireless communications service. This term does not include a base station.
- (14) "Transmission Equipment" means equipment that facilitates transmission of any FCC-licensed or authorized wireless communication service.
- (15) "Wireless Communications Facility" or "WCF" means any antenna, associated equipment, base station, small cell system, tower, and/or transmission equipment located in Palo Alto.
- (16) "Wireless Communications Service" means, without limitation, all FCC-licensed back-haul and other fixed wireless services, broadcast, private, and public safety communication services, and unlicensed wireless services.

#### (c) Types of WCF Permits Required

- (1) A Tier 1 WCF Permit shall be required for an eligible facilities request, as defined in this section.
- (2) A Tier 2 WCF Permit shall be required for:
- (i) Any modification of an eligible support structure, including the collocation of new equipment, that substantially changes the physical dimensions of the eligible support structure on which it is mounted; or
  - (ii) Any collocation not eligible for a Tier 1 WCF Permit.
- (3) A Tier 3 WCF Permit shall be required for the siting of any WCF that is not a collocation subject to a Tier 1 or 2 WCF Permit.

#### (d) WCF Application Requirements

All applications for a WCF Permit shall include the following items:

- (1) Any applicant for a WCF Permit shall participate in an intake meeting with the Planning and Community Environment Department to file an application;
- (2) The applicant must specify in writing whether the applicant believes the application is for an eligible facilities request subject to the Spectrum Act, and if so, provide a detailed written explanation as to why the applicant believes that the application qualifies as an eligible facilities request;
- (3) The applicant shall complete the city's standard application form, as may be amended from time to time;
- (4) The applicant shall include a completed and signed application checklist available from the city, including all information required by the application checklist;
  - (5) Payment of the fee prescribed by the Municipal Fee Schedule;
- (6) The application must be accompanied by all permit applications with all required application materials for each separate permit required by the city for the proposed WCF, including a building permit, an encroachment permit (if applicable) and an electrical permit (if applicable);
- (7) For Tier 2 and 3 WCF Permits, the applicant must host a community meeting at a time and location designed to maximize attendance by persons receiving notice under this subparagraph to provide outreach to the neighborhood around the project site. The applicant shall give notice of the community meeting to all residents and property owners within 600 feet of the project site at least 14 days in advance of the community meeting. The applicant shall provide a proof of notice affidavit to the city that contains:
  - (i) Proof that the applicant noticed and hosted the community meeting before filing the application;
- (ii) A summary of comments received at the community meeting and what, if any, changes were made to the application as a result of the meeting;
- (8) For Tier 3 WCF Permits, the plans shall include a scaled depiction of the maximum permitted increase in the physical dimensions of the proposed project that would be permitted by the Spectrum Act, using the proposed project as a baseline; and
- (9) Satisfy other such requirements as may be, from time to time, required by the Planning and Community Environment Department Director ("Director"), as publically stated in the application checklist.

#### (e) Permit Review ("Shot Clock") Time Periods

- (1) City review of application materials. The timeframe for review of an application shall begin to run when the application is submitted, but shall be tolled if the city finds the application incomplete and provides notice of incompleteness that delineates the missing information in writing. Such requests shall be made within 30 days of submission of the application. After submission of additional information, the city will notify the applicant within 10 days of this submission if the additional information failed to complete the application. If the city makes a determination pursuant to Section 18.42.110(e)(2)(i) that an application submitted as a Tier 1 eligible facilities request should be processed as a Tier 2 or Tier 3, then the Tier 2 or Tier 3 processing time, as applicable, shall begin to run when the city issues this decision.
- (2) Tier 1 processing time. For Tier 1 WCF Permit applications, the city will act on the WCF application, together with any other city permits required for a proposed WCF modification, within 60 days, adjusted for any tolling due to requests for additional information or mutually agreed upon extensions of time.
- (i) If the city determines that the application does not qualify as a Tier 1 eligible facilities request, the city will notify the applicant of that determination in writing and will process the application as a Tier 2 or Tier 3 WCF Permit application, as applicable.
- (ii) To the extent federal law provides a "deemed granted" remedy for Tier 1 WCF Permit applications not timely acted upon by the city, no such application shall be deemed granted until the applicant provides notice to the city, in writing, that the application has been deemed granted after the

time period provided in Section (e)(2) above has expired.

- (iii) Any Tier 1 WCF Permit application that the city grants or that is deemed granted by operation of federal law shall be subject to all requirements of Section  $\underline{18.42.110}(i)(3)$ , (5), (6) and (7) and  $\underline{18.42.110}(i)(1)$ , (2), (3), (4), (5) and (6).
- (3) Tier 2 processing time. For Tier 2 WCF Permit applications, the city will act on the application within 90 days, adjusted for any tolling due to requests for additional information or mutually agreed upon extensions of time.
- (4) Tier 3 processing time. For Tier 3 WCF Permit applications, the city will act on the application within 150 days, adjusted for any tolling due to requests for additional information or mutually agreed upon extensions of time.
- (5) Denial of application. If the city denies a WCF application, the city will notify the applicant of the denial in writing of the reasons for the denial.

#### (f) Tier 1 WCF Permit Process and Findings

- (1) A Tier 1 WCF Permit shall be reviewed by the Director. The Director's decision shall be final and shall not be appealable pursuant to the procedures set forth in <a href="Chapters 18.77"><u>Chapters 18.77</u></a> or <a href="18.78">18.78</a>;
- (2) The Director shall grant a Tier 1 WCF Permit provided that the Director finds that the applicant proposes an eligible facilities request;
  - (3) The Director shall impose the following conditions on the grant of a Tier 1 WCF Permit:
- (i) The proposed collocation or modification shall not defeat any existing concealment elements of the support structure; and
- (ii) The proposed WCF shall comply with the development standards in Section <u>18.42.110(i)(3)</u>, (5), (6) and (7), and the conditions of approval in Section <u>18.42.110(j)</u>.

#### (g) Tier 2 WCF Permit Process and Findings

- (1) A Tier 2 WCF Permit shall be reviewed by the Director. The Director's decision shall be appealable pursuant to the process for architectural review set forth in Section 18.77.070.
- (2) The Director, or Council on appeal, shall grant a Tier 2 WCF Permit provided the proposed WCF complies with the development standards in Section <u>18.42.110(i)</u> and the conditions of approval in Section <u>18.42.110(j)</u>, and all of the architectural review findings in Section <u>18.76.020(d)</u> can be made.
- (3) The Director, or Council on appeal, shall deny a Tier 2 WCF Permit if the above findings cannot be made.

#### (h) Tier 3 WCF Permit Process and Findings

- (1) A Tier 3 WCF Permit shall be reviewed by the Director. The Director's decision shall be appealable pursuant to the process for architectural review set forth in Section <u>18.77.070</u> and the process for conditional use permits set forth in Section <u>18.77.060</u>.
- (2) The Director or Council on appeal shall grant a Tier 3 WCF Permit provided the proposed WCF complies with the development standards in Section  $\underline{18.42.110}$ (i) and the conditions of approval in Section  $\underline{18.42.110}$ (j), and all of the architectural review findings in Section  $\underline{18.76.020}$ (d) and the conditional use permit findings in Section  $\underline{18.76.010}$ (c) can be made.
- (3) The Director, or Council on appeal, shall deny a Tier 3 WCF Permit if the above findings cannot be made.

#### (i) Development Standards

Except as otherwise provided in this section, a proposed WCF Project shall comply with the following standards:

- Shall utilize the smallest footprint possible;
- (2) Shall be designed to minimize the overall height, mass, and size of the cabinet and enclosure structure;
  - (3) Shall be screened from public view;
  - (4) Shall be architecturally compatible with the existing site;
- (5) Shall be placed at a location that would not require the removal of any required landscaping or would reduce the quantity of landscaping to a level of noncompliance with the Zoning Code;
- (6) An antenna, base station, or tower shall be designed to minimize its visibility from off-site locations and shall be of a "camouflaged" or "stealth" design, including concealment, screening, and other techniques to hide or blend the antenna, base station, or tower into the surrounding area;
- (7) A building-mounted antenna, base station, or tower shall be architecturally compatible with the existing building on which the antenna, base station, or tower is attached;
- (8) For any Tier 2 or Tier 3 WCF proposed to be attached on an historic structure/site, as designated by Chapter 16.49, historic review shall also be required;
- (9) Except as otherwise permitted by the Spectrum Act, a building-mounted WCF may extend fifteen (15) feet beyond the permitted height of the building in the zone district;
- (10) Except as otherwise permitted by the Spectrum Act, a tower or other stand-alone Tier 3 WCF Project shall not exceed sixty-five (65) feet in height; and
- (11) A tower or other stand-alone Tier 3 WCF may encroach into the interior/street side and rear setback.

#### (j) Conditions of Approval

In addition to any other conditions of approval permitted under federal and state law and this Code that the Director deems appropriate or required under this Code, all WCF Projects approved under this chapter, whether approved by the Director or deemed granted by operation of law, shall be subject to the following conditions of approval:

- (1) Permit conditions. The grant or approval of a WCF Tier 1 Permit shall be subject to the conditions of approval of the underlying permit, except as may be preempted by the Spectrum Act.
- (2) As-built plans. The applicant shall submit to the Director an as-built set of plans and photographs depicting the entire WCF as modified, including all transmission equipment and all utilities, within ninety (90) days after the completion of construction.
- (3) Applicant shall hire a radio engineer licensed by the State of California to measure the actual radio frequency emission of the WCF and determine if it meets FCC's standards. A report, certified by the engineer, of all calculations, required measurements, and the engineer's findings with respect to compliance with the FCC's radio frequency emission standards shall be submitted to the Planning Division within one year of commencement of operation.
- (4) Indemnification. To the extent permitted by law, the applicant shall indemnify and hold harmless the city, its City Council, its officers, employees and agents (the "indemnified parties") from and against any claim, action, or proceeding brought by a third party against the indemnified parties and the applicant to attack, set aside or void, any permit or approval authorized hereby for the Project, including (without limitation) reimbursing the city for its actual attorneys' fees and costs incurred in defense of the litigation. The city may, in its sole discretion and at Applicant's expense, elect to defend any such action with attorneys of its own choice.

- (5) Compliance with applicable laws. The applicant shall comply with all applicable provisions of the Code, any permit issued under this Code, and all other applicable federal, state and local laws (including without limitation all building code, electrical code and other public safety requirements). Any failure by the City to enforce compliance with any applicable laws shall not relieve any applicant of its obligations under this code, any permit issued under this code, or all other applicable laws and regulations.
- (6) Compliance with approved plans. The proposed Project shall be built in compliance with the approved plans on file with the Planning Division.

#### (k) Removal of Abandoned Equipment

A WCF (Tier 1, Tier 2, or Tier 3) or a component of that WCF that ceases to be in use for more than ninety (90) days shall be removed by the applicant, wireless communications service provider, or property owner within ninety (90) days of the cessation of use of that WCF. A new conditional use permit shall not be issued to an owner or operator of a WCF or a wireless communications service provider until the abandoned WCF or its component is removed.

#### (I) Revocation

The Director may revoke any WCF Permit if the permit holder fails to comply with any condition of the permit. The Director's decision to revoke a Permit shall be appealable pursuant to the process for architectural review set forth in Section  $\underline{18.77.070}$  and the process for conditional use permits set forth in Section  $\underline{18.77.060}$ .

(Ord. 5340 § 1 (part), 2015)



# PROJECT DESCRIPTION & REQUEST FOR FEEDBACK PRELIMINARY ARB HEARING

RE: Crown Castle – 16-node expansion project within the downtown and core area

#### <u>Introduction</u>

Crown Castle (formerly NextG Networks) is seeking approval of a Crown Castle node expansion project in the core area of Palo Alto. This project will utilize the similar designs as approved in the previous project 15PLN-00140. Crown Castle has a Master License Agreement with the City of Palo Alto that allows for use of city-controlled space on utility poles and streetlight poles and in conduits owned by CPAU. This Crown Castle project small cell project is designed to be installed in the public right of way on existing utility poles and street light poles. The small cell wireless sites provide capacity coverage to the larger cell site or cell tower in the area. Verizon Wireless is the carrier to be installed in these expansion nodes.

Based on the need to provide network coverage and capacity, Verizon Wireless and Crown Castle Radio Frequency (RF) engineers have identified locations throughout the city that require service. Sixteen (16) installations are currently planned to be co-located on wood utility poles and metal streetlights. Ten (10) of these small cells are proposed to be co-located on existing city street light poles, and the remaining six (6) small cells are proposed to be installed on existing wood utility poles. These small cells will provide the City of Palo Alto much needed improvements in network capacity and coverage. Small cells are currently proposed in three (3) configurations that are dependent on the design opportunities and constraints of specific pole locations within the City of Palo Alto.

#### **Coverage Needs**

The unprecedented current and future demand for wireless service requires the densification of existing cellular networks. More people are using a wireless connection for personal and professional needs, both in home and in transit. As a result, wireless communication facilities are diminishing in height and being located closer to the user to meet both daily needs as well as provide essential coverage for emergency personnel. The coverage map below demonstrates the current need. Blue indicates poor coverage, green indicates good coverage. Diagram 1 shows the area identified for the 16 nodes is predominately blue. On the following page, Diagram 2 shows the improvement in coverage achieved where green replaces blue.

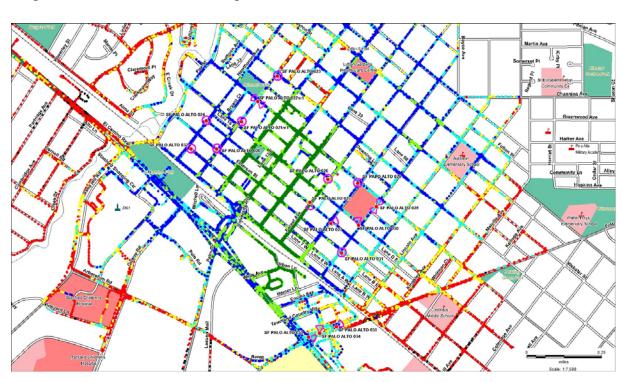
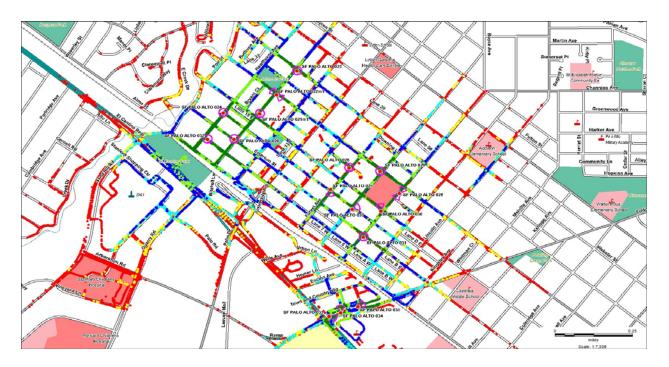


Diagram 1: Current level of coverage:

Diagram 2: Proposed Improvement in coverage:



#### **Site Selection & Site Locations**

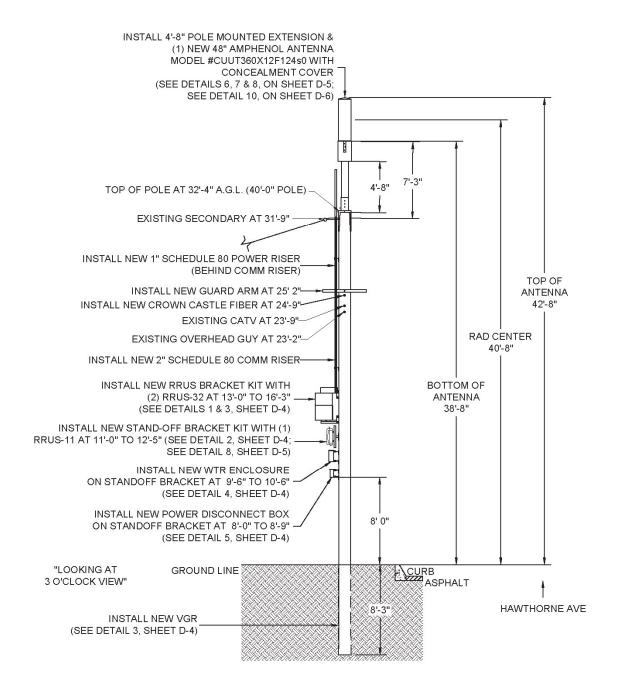
The process for site selection by Crown Castle aim to meet the need for service coverage, while at the same time locating poles that will have the least impact. With high demand of wireless services, the small facilities need to be located within a relatively narrow area as compared to a 'macro' or traditional larger wireless facility. The 16 sites were initially chosen based upon the greatest needs in coverage in the area identified. Each site was walked by a team that included RF (radio frequency) engineers, a construction manager, A&E (architectural and engineering) professionals and government relations consultants in order to make on the spot decisions of the best pole in the neighborhood that could accommodate the wireless equipment within the City's criteria and with sensitivity to the neighborhood. Pole location proximity to a residence and sidewalk, orientation of the placement of the equipment on the pole and general visibility were taken into account as to which pole in any given area was finally chosen. There are typically only one or two poles that are viable candidates due to the small size design of the sites and limited range of the signal. Pole selection in determined in the field ensuring the RF need for the facility and constructability are met while meeting zoning and other requirements by the City, including sensitivity to the community needs.

Node	Closest address for identity purposes	Assessor's address based on location in plans	Adjacent APN	Pole Type	Config	Pole #	Adjacent Zone	Overlay Zone
20	251 Emerson St (near 205 Everett St)	205 Everett St	12025024	Wood utility	#1	6474	RM-30	MF
21	301 Bryant ( across from 311 Everett Ave)	301 Bryant St	12014045	Wood utility	#1	6362	RMD (NP)	MF
22	386 Everett Ave (across from 311 Waverley St)	386 Everett Ave	12035001	Wood utility	#1	6356	RM-30	MF
23	482 Everett Ave (across from 305 Cowper St)	482 Everett Ave	12014057	Wood utility	#1	6350	RMD (NP)	MF
24	243 Hawthorne Ave	221 Hawthorne Ave	12024002	Wood utility	#1	6378	RM-30	MF
25	275 Forest Ave (corner of Ramona St & Forest Ave)	250 Hamilton Ave	12027011	Street light	#2	23	PF	MISP
26	332 Forest Ave	332 Forest Ave	12016038	Street light or stand- alone pole*	#2	32	RM-40	SOFA I CAP
27	248 Homer (across from 819 Ramona St)	248 Homer Ave	12028012	Street light	#2	82	RT-35	SOFA II CAP/ HE Corr SOFA II
28	near 370 & 362 Channing Ave	370 Channing Ave	12017042	Street light	#2	34	R-2	SOFA I CAP
29	751 Waverley St (near 760 Waverley)	385 Homer Ave	12016066	Street light	#2	76	DHS	SOFA I CAP
30	411 Bryant St (corner of Channing Ave and Bryant St)	845 Ramona St	12028109	Street light	#2	86	AMF	SOFA I CAP
31	190 Channing Ave (across from 913 Emerson St)	190 Channing Ave	12028051	Street light	#2	16	RT-35	SOFA II CAP/ HIS 5
32	201 High St	201 High St	12025049	Wood utility	#1	6492	RM-15	MF
33	65 Embarcadero Rd (and adjacent to 855 El Camino Real)	855 El Camino Real	12034015	Street light	#3	181	СС	ECR DG
34	77 Embarcadero Rd (and adjacent to 855 El Camino Real)	855 El Camino Real	12034015	Street light	#3	143	СС	ECR DG
35	130 Embarcadero Rd (and adjacent to 855 El Camino Real)	855 El Camino Real	12034015	Street light	#3	6	СС	ECR DG

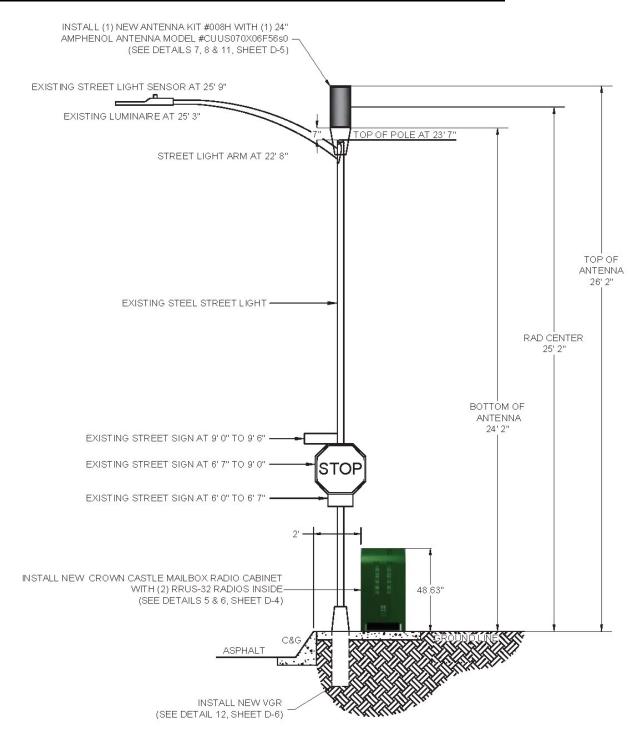
Configuration #1 – 48" antenna with all equipment attached to pole
Configuration #2 – 24" antenna with all equipment enclosed within mailbox/utility box

## Configuration #1 - 48" antenna with all equipment attached to pole

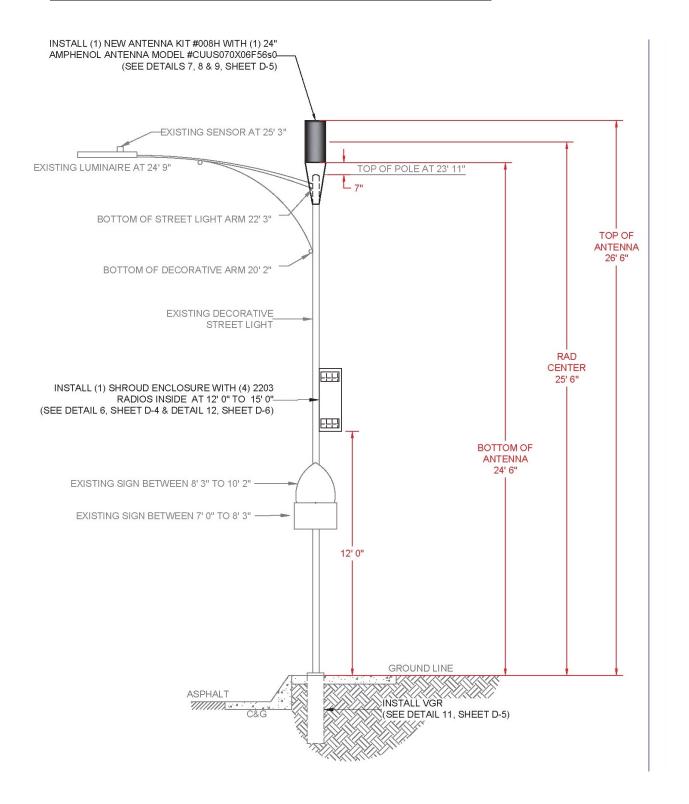
#### CONCEALMENT COVER TO MATCH POLE.



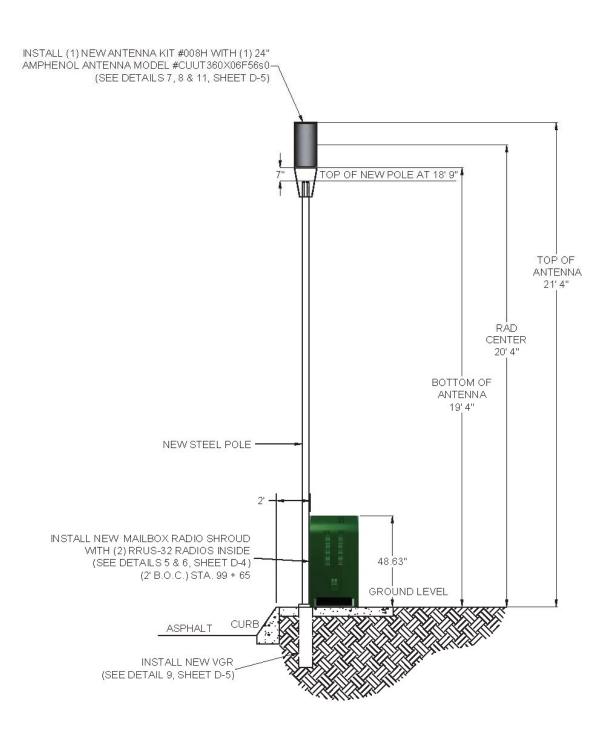
#### Configuration #2 – 24" antenna with all equipment enclosed within mailbox/utility box



## Configuration #3 – 24" antenna with all equipment attached to pole



\*Pole only Option for PA026 Configuration #2 – 24" antenna with all equipment enclosed within mailbox/utility box



### Woodpoles

After the team decided upon the 16, the list was discussed with staff from City of Palo Alto Public Works and Utilities and then a site walk of all the sites was held on March 29, 2017 with engineering and compliance staff members. During that walk a request from staff was made to locate all of the equipment proposed on wood utility poles be placed on the top of the poles, rather than the original proposal to locate within the Communication space between the existing wires. The proposed wood pole design uses a canister that will be encompass the antennas and will be painted to match the woodgrain of the pole. The additional skirt below the canister will also match and provides the most visual coverage allowed by California Public Utility Commission's General Order 95 (GO 95).



### **Streetlights & Stealth Radio Cabinets**

For the streetlights chosen, the same criteria to choose the best pole taking into consideration the distance to power, the least impact on the sidewalk for pedestrian flow and visual impact are utilized. In response to staff concerns about ground equipment location, the original placement design was revised to ensure all boxes are 2" away for the curb. As evidenced in the photo simulations within the drawings and the application packet, ground equipment is proposed that blends within the immediate vicinity. The mailbox design proposed for the sites in keeping with the other 19 Crown Castle nodes that were approved by the City. We are looking for direction as to preference for the ground equipment. Below are some options for consideration. Due to the concerns raised at the May 18, 2017 ARB Preliminary hearing, benches and trash cans as concerns were raised about space in the sidewalk and confusion as to a trash receptacle. More options can be explored at the direction of the Board. Each site is unique, therefore art wraps in front of shops may be preferred. We recognize that each neighborhood is different and therefore a blended green mailbox or a specific art wrap may be the best option. A beige color as depicted in the photosimulation demonstrates a more muted color.



Artistic wrap suggestion near foliage

Current dark green installation



Artistic wrap suggestion for boxes for shopping district



**Proposed Site** 

Proposed site PA030 with lighter color option

# **Built Crown Site for Viewing**

635 Bryant Street across from City Hall is an example of an existing Crown Castle site.



#### Request for feedback from the Architectural Review Board

Crown Castle requests feedback on the following matters.

- 1) We have included two options for Node 26. This node was originally located at the corner of Gilman and Forest. In our Design Review Committee staff shared that the node at 675 Gilman was not appropriate, as it would create a visual impact the nearby historic resource and its front landscape view. The new location across the street does not create the same impact on the Historical aspects of 675 Gilman. Crown Castle needs to be able to keep the integrity of the RF design for the network while at the same time being sensitive to the requirements and preferences of the ARB and the Palo Alto community. The goal to have a Node that covers this important segment of the design with the least intrusive impact. Please advise as whether a new light pole is the preference, a simple slim line pole without a light or a modification to the original Node location. We will order the pole at the direction of staff and required specifications.
- 2) Do members of the ARB prefer the mailbox and utility box equipment painted to match the existing equipment boxes in the immediate vicinity of each site or is there a preference to incorporate art wrapped boxes?
  - a. Mailboxes is there a preference to have colors reflective of the surrounding area or one standard color?
  - b. Art Wraps is there a preference for Crown to work directly with Public Art during the application and hearing process to identify specific art in context with the specific location or simply identify art boxes with specific art to be determined by staff and the community later?
- 3) In particular, Crown requests feedback as to the Town & Country sites along the Embarcadero. The proposed design reflects the build out of these three sites with the single carrier, thereby eliminating the need for any equipment to be placed on the ground. However, as Crown Castle small cells are typically designed for collocation of more than one carrier, there will be a need for future ground equipment when a second carrier is added. The three sites identified are critical for coverage in this busy area. May we design these sites using mailboxes and/or utility boxes, a decorative bench, or must these remain pole only equipment?
- 4) Does have the ARB have additional feedback regarding our materials and orientation of facilities to guide our project to be more compliant with the City's requirements? Crown Castle designed and cited the proposed telecommunications facilities to be consistent with the Palo Alto Comprehensive Plan as it addresses most of the major themes, including but not limited to:

- a. Building community and neighborhoods through providing infrastructure that allows residential housing and commercial enterprise along the expressway to have dependable wireless signal to support telecommuting, workplace connectivity and reliable access to emergency services,
- b. Maintaining and enhancing community character, while protecting natural features by carefully locating the facilities on existing utility poles chosen for least impacts,
- c. Meeting Residential and Commercial needs by providing needed communications infrastructure,
- d. Moreover, generally providing a modern buildout that accommodates the on-the-go lifestyle that defines the region.

Project information can be found at <a href="http://www.crowncastle.com/projects/palo-alto-ca.aspx">http://www.crowncastle.com/projects/palo-alto-ca.aspx</a>

Respectfully submitted,

Rochelle Swanson Government Relations Consultant for Crown Castle r.swanson@sure-site.com 916-801-3178

# **Attachment E**

# **Public Correspondence**

Please review correspondence received on 17PLN-00193 through September 11, 2017 online at the project webpage:

http://www.cityofpaloalto.org/news/displaynews.asp?NewsID=4001&TargetID=319

#### Attachment F

#### **Project Plans**

Hardcopies of project plans are provided to ARB Members. These plans are available to the public online and by visiting the Planning and Community Environmental Department on the 5<sup>th</sup> floor of City Hall at 250 Hamilton Avenue.

#### **Directions to review Project plans online:**

- 1. Go to: <a href="https://paloalto.buildingeye.com/planning">https://paloalto.buildingeye.com/planning</a>
- 2. Search for "250 Hamilton Avenue" and open the record for 17PLN-00193 by clicking on the green dot
- 3. Review the record details and open the "more details" option
- 4. Use the "Records Info" drop down menu and select "Attachments"
- 5. Open the attachments named:
  - "17PLN-00193 Resubmittal Project Plans 081617 1of4"
  - "17PLN-00193 Resubmittal Project Plans 081617 2of4"
  - "17PLN-00193 Resubmittal Project Plans 081617 3of4"
  - "17PLN-00193 Resubmittal Project Plans 081617 4of4"

#### More information can also be found on the City's project webpage:

http://www.cityofpaloalto.org/news/displaynews.asp?NewsID=4001&TargetID=319

#### Note:

The address for this application 17PLN-00193 is listed in the City's permit tracking system under 250 Hamilton Avenue because the utility poles and streetlights that are proposed to host the small cell deployment nodes are identified by unique pole numbers and do not have specific property addresses.