

CITY

**WIRELESS 101**  
Joint Study Session  
City Council, PTC and ARB

**NOVEMBER 15, 2021**

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# PRESENTATION OVERVIEW

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## **Palo Alto Today**

Recent wireless application activity in Palo Alto  
Summary of recent City regulatory updates  
Overview of current wireless regulations in Palo Alto

## **State and Federal Wireless Laws**

Overview of laws affecting local regulation of wireless facilities,  
including update on recent developments

## **Work Plan**

Overview of work plan for future update to wireless  
regulations

# PALO ALTO TODAY

NOVEMBER 15, 2021

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# **PALO ALTO TODAY**

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## Recent Wireless Applications

# RECENT WIRELESS APPLICATIONS – PROCESSING VOLUME

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## Between 2017 and 2021

- 70 applications received
- Most were requests for modifications to existing facilities
  - Replacement of older equipment with newer equipment
- Others were requests for locations within public right-of-way
  - Wooden utility poles
  - Streetlights

# EXISTING WIRELESS FACILITIES - EXAMPLES



Florence Street – Downtown

Source: Google, 2021



4005 Miranda

Source: Google, 2021



Source: OSC Engineering, 2018



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Summary of City's Recent Regulatory Updates

November 2021

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# SUMMARY OF CITY'S RECENT REGULATORY UPDATES

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## **2015 Wireless Ordinance (PAMC Section 18.42.110)**

- Council Adoption of Ordinance No. 5340 to repeal and replace prior wireless regulations to address various changes in federal law (shot clocks, EFRs)

## **2018 Updates to Wireless Ordinance**

- City Council Adoption of Ordinance No. 5432 to add referrals to ARB/PTC for Tier 2 and Tier 3 applications

## **2019 Updates to Wireless Ordinance**

- City Council Adoption of Ordinance No. 5465 to Address FCC Small Cell Order
- December 12, 2018 and March 27, 2019 – PTC
- April 15, 2019 – City Council (First Reading)
- May 13, 2019 – City Council (Second Reading)
  - Ordinance went into effect on June 13, 2019



# SUMMARY OF CITY'S RECENT REGULATORY UPDATES

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## **2019 Adoption of Objective Standards Resolution for Public Right-of-Way WCFs**

- March 21, 2019 – ARB recommendation on objective standards
- April 15, 2019 – City Council adoption of Resolution 9825
- June 17, 2019 – City Council adoption of Resolution 9847
- August 12, 2019 – City Council adoption of Resolution 9855
- December 16, 2019 – City Council adoption of Resolution 9873

## **2020 Updates to Wireless Ordinance Per Council Direction**

- February 12, 2020 – PTC Review of Proposed Ordinance Amendments
  - PTC directed staff to bring back a revised ordinance
- *Further action delayed due to COVID-19*



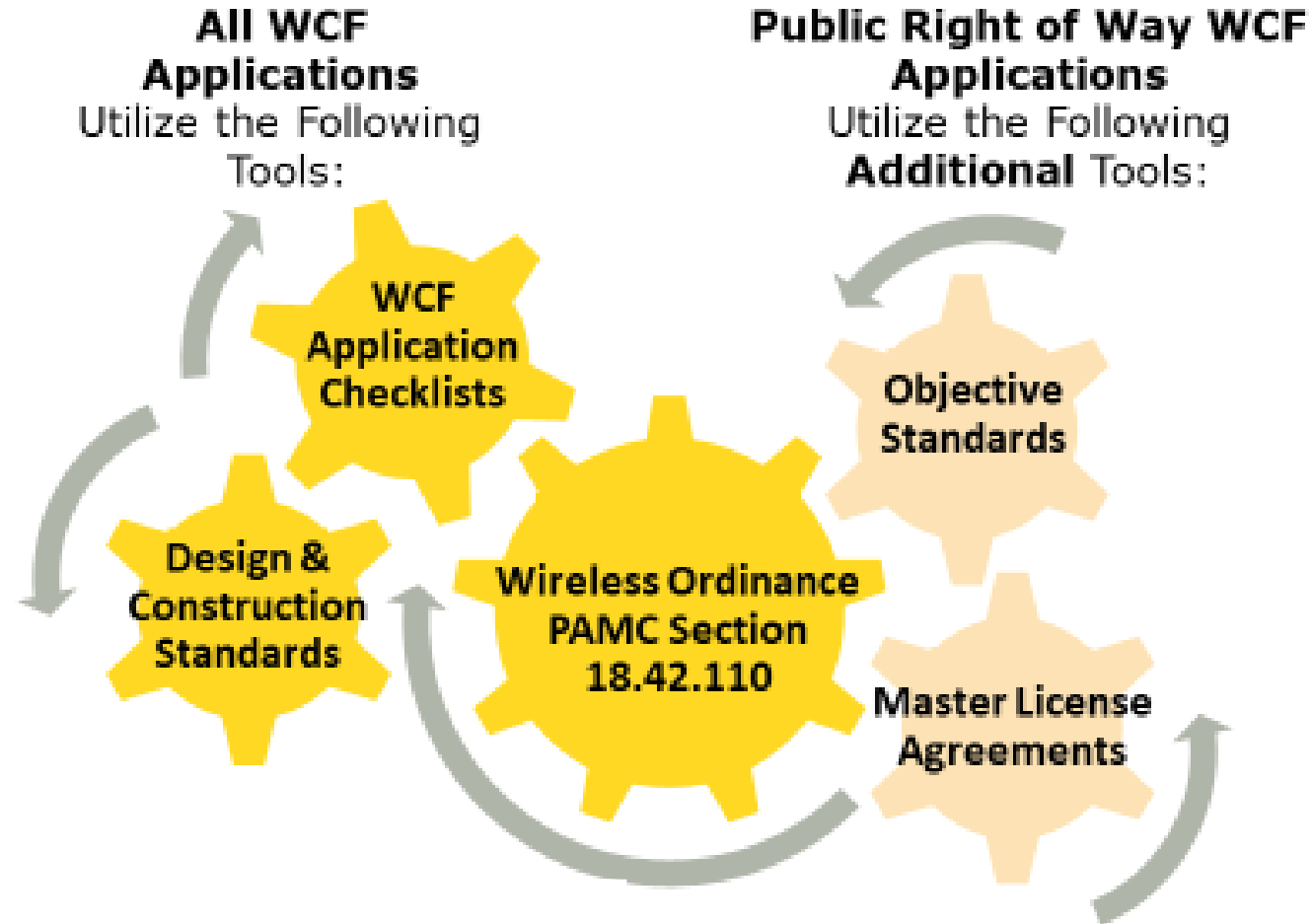
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Overview of Current Wireless Regulations

# OVERVIEW OF CURRENT WIRELESS REGULATIONS



# OVERVIEW OF CITY'S CURRENT REGULATIONS

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## **Wireless Ordinance PAMC Section 18.42.110**

- Exclusions: amateur radio, OTARD, portable radios, mobile news, government or emergency medical
- Applies to all types of WCFs
  - Tier 1 – EFRs
  - Tier 2 – collocations and substantial modifications (non-EFRs)
  - Tier 3 – all others

## **Design and Development Standards**

- Generally applicable standards codified in Section 18.42.110(i)
- Specific Objective Standards for WCFs in Public Rights-of-Way in Resolution 9873

# OVERVIEW OF CITY'S CURRENT REGULATIONS

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## **Wireless Ordinance PAMC Section 18.42.110**

- Tier 1: administrative process, no public noticing, Director decides, no appeals
- Tier 2 and 3:
  - Applicant must host community meeting with 14 days public notice to residents and property owners within 600 ft of project site
    - Proof of meeting and summary of comments is required no later than 15 days after filing the application
  - Application Review Process
    - Director may refer Tier 2 to ARB for recommendation
    - Director may refer Tier 3 to ARB and/or PTC for recommendation
    - Director's decisions may be appealed to City Council

# OVERVIEW OF CITY'S CURRENT REGULATIONS

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## Wireless Ordinance PAMC Section 18.42.110

- Tier 2 and Tier 3 Findings
  - Compliance with codified conditions of approval
  - Compliance with objective standards (if applicable) or codified development standards
  - Tier 3 also must make conditional use permit findings:
    - Not be detrimental or injurious to property or improvements in the vicinity, and will not be detrimental to the public health, safety, general welfare, or convenience;
    - Be located and conducted in a manner in accord with the Palo Alto Comprehensive Plan and the purposes of this title (Zoning).

# OVERVIEW OF CITY'S CURRENT REGULATIONS

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## Generally Applicable Development Standards in PAMC Section 18.42.110

- Examples in Section 18.42.110(i):
  - Utilize smallest facilities technically feasible to achieve network objective
  - Screened from public view
  - Shrouded and screened to match existing structure
  - Location not requiring any removal of landscaping
  - Use camouflaged or stealth design such as monopine
  - Not attached to any historic structure or site
  - Extend no more than 15 feet from building on which it is mounted
  - No more than 65 feet in height for a tower or other standalone Tier 3 WCF

# OVERVIEW OF CITY'S CURRENT REGULATIONS

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## Objective Standards for Wireless in Public Rights-of-Way

- Examples from Resolution 9873 on Siting:
  - Permitted in non-residential zones; in residential zones only by exception
    - Not permitted within central 50% of residential lots (Wood utility poles)
    - Hierarchy of preferences from expressways to roadways (Residential areas)
  - Not within 20 feet from occupied buildings
  - Spacing requirement of 600 feet from another WCF
  - Not located within 600 feet of a public school
  - Located at least 20 feet from intersections
  - Not on scenic routes
  - Not on or near historic district



# OVERVIEW OF CITY'S CURRENT REGULATIONS

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## **Design and Development Standards for Wireless in Public Rights-of-Way**

- Examples from Resolution 9873 on Designs:
  - Underground vault for equipment preferred
  - Top-mounted equipment secondary option
  - Designs requiring exceptions (use of sunshield or existing signage)
  - Detailed requirements for streetlights and for wood poles related to:
    - Antenna and shroud dimensions & volume
    - Design quality for equipment orientation, shroud design & color
    - Allowed equipment adjustments
    - Wiring and cabling & power disconnects
  - Curb clearances, safety signs
  - Pole replacement, landscaping, noise

# OVERVIEW OF CITY'S CURRENT REGULATIONS

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## **Exceptions Process in Wireless Ordinance PAMC Section 18.42.110(k)**

- Exceptions requests apply to Section 18.42.110 and to objective standards
- Findings for exceptions:
  - Complies to greatest extent feasible AND EITHER
  - As applied provision from which exception is sought would deprive applicant of rights guaranteed by federal or state law or both OR
  - Denial would violate federal or state law or both
- Objective standards contain additional limitations on grant of exceptions:
  - No exceptions to locate within 300 feet of school, within 20 feet of habitable residential building, on wood utility poles in the Residential Zone of Exclusion, & any alley within a residential zoning district
- Exceptions to objective design standards may be referred to ARB for recommendation

# STATE AND FEDERAL WIRELESS LAWS



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# STATE AND FEDERAL WIRELESS LAWS

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## National Wireless Policy

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# NATIONAL WIRELESS POLICY

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- National Deployment Policy – no local decision or regulation can create an effective prohibition of personal wireless service
- National RF Emissions Standards – localities can only ensure applicant has shown it will comply with federal guidelines
- Timely Action Required – deadlines and remedies for failure to act on applications
- Denials – Must be in writing and based on substantial evidence
- No unreasonable discrimination among providers of functionally equivalent services
- Expedited appeals
- Some modifications to existing wireless facilities must be approved:
  - Eligible Facilities Requests (Sec. 6409)

# EFFECTIVE PROHIBITION STANDARD

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## FCC on effective prohibition in Small Cell Order:

- “We clarify that an effective prohibition occurs where a state or local legal requirement materially inhibits a provider’s ability to engage in any of a variety of activities related to its provision of a covered service. This test is met not only when filling a coverage gap but also when densifying a wireless network, introducing new services or otherwise improving service capabilities...an effective prohibition includes materially inhibiting additional services or improving existing services.” (Para. 37)
- “[P]rior approaches erred by requiring coverage gaps...” “Significant gap” (9th Cir.) and “least intrusive alternative” (2nd, 3rd, and 9th Cir.) appear abandoned – FN 94
- Ninth Circuit upheld this portion of FCC Order. *City of Portland v. United States*, 969 F.3d 1020 (9th Cir. 2020). SCOTUS cert petition denied, June 2021.



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# STATE AND FEDERAL WIRELESS LAWS

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## Aesthetics

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# AESTHETICS

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## **Under state law, generally, local governments can regulate aesthetics, however:**

- Siting standards must be reasonable
- Cal. Pub. Util. Code Sec. 7901 grants state franchise to telephone companies to use public rights-of-way, subject to limitations (may not “incommode the public use”). Includes wireless
- *T-Mobile West LLC v. City and County of San Francisco* (Cal. Sup. Ct, April 4, 2019) upholds local regulation of wireless facility aesthetics in streets

## **There are also federal limitations on aesthetics regulation:**

- Federal EFR rules may override aesthetics in some instances
- Aesthetic regulations for all personal wireless facilities must not *prohibit or effectively prohibit the provision of personal wireless services*



# AESTHETICS

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- FCC Small Cell Order stated that aesthetic requirements (and undergrounding and spacing) *not* preempted if:
  - (1) reasonable,
  - ~~(2) no more burdensome than those applied to other types of infrastructure deployments, and~~
  - ~~(3) objective~~\* and published in advance
- “...aesthetic requirements that are reasonable in that they are technically feasible and reasonably directed to avoiding or remedying the intangible public harm of unsightly or out-of-character deployments are also permissible.” (Paras. 84-89)

\*Redlines reflect Ninth Circuit ruling in Small Cell Order litigation. *City of Portland v. United States*, 969 F.3d 1020 (9th Cir. 2020). SCOTUS cert petition denied, June 2021.

# AESTHETICS

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## **What is reasonable according to FCC?**

- “technically feasible and reasonably directed to avoiding or remedying the intangible public harm of unsightly or out-of-character deployments”

## **FCC Small Cell Order on Undergrounding:**

- “[You don’t have to]...go so far as requiring that all wireless facilities be deployed underground, [to] ...be considered an effective prohibition of service.”
- Test: “same criteria of aesthetics generally...” (para. 90)

# AESTHETICS

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## **FCC Small Cell Order on spacing:**

- “...a minimum spacing requirement that has the effect of materially inhibiting wireless service would be considered an effective prohibition of service.” (Para. 87)
- “Some parties complain of municipal requirements regarding the spacing of wireless installations... ostensibly to avoid excessive overhead “clutter” that would be visible from public areas. We acknowledge that while some such requirements may violate 253(a), others may be reasonable aesthetic requirements.” (Para. 91)
- “For example, under the principle that any such requirements be reasonable and publicly available in advance, it is difficult to envision any circumstances in which a municipality could reasonably promulgate a new minimum spacing requirement that, in effect, prevents a provider from replacing its preexisting facilities or collocating new equipment on a structure already in use.” (Para. 91)



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## Safety

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# SAFETY

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- Generally, local governments can regulate safety to the extent not preempted by state or federal regulations
  - Pub. Util. Code Sec. 7901 grants state franchise to telephone companies to use public rights-of-way, subject to limitations (may not “incommode the public use”).
  - Pub. Util. Code Sec. 7901.1 reasonable control as to the time, place, and manner in which roads...are accessed by telephone co.
  - Pub. Util. Code Sec. 2902 preserves local regulation of use and repair of public streets, location of the poles, wires, mains, or conduits of any public utility, on, under, or above any public streets where not preempted by CPUC

# SAFETY

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## California Public Utilities Commission

- “regulates services and utilities, protects consumers, safeguards the environment, and assures Californians’ access to safe and reliable utility infrastructure and services.” legislative and judicial powers.
- “also includes hundreds of individuals who inspect track, municipal rail systems, electric and communications wire and poles, and gas pipelines.”
- General Orders establish safety standards for infrastructure deployments, e.g. General Order 95
- CPUC generally defers to local government on land use regulation of macro cell sites (General Order 159A)

# SAFETY

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## California Public Utilities Commission

- CPUC Wireless Resiliency Order (Rulemaking 18-03-011)
  - Requires California facilities-based wireless providers to develop resiliency strategies to prepare for disasters and power outages, including:
  - A new 72-hour backup power requirement for cell sites in CPUC's Tier 2 and Tier 3 High Fire-Threat Districts (<https://ia.cpuc.ca.gov/FireMap/>)
  - Currently, diesel generators are primary backup power source, but wireless providers must explore transitioning to renewable generation
  - The implementation of these strategies is subject to local regulations
  - CPUC recently denied wireless industry request for rehearing challenging the legality of the Order and arguing federal preemption

# SAFETY

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## Federal RF Emissions Guidelines

- FCC is sole authority allowed to set safety standards for exposure to RF emissions
- Local regulations and decisions on placement of wireless facilities may not consider environmental/health effects of RF emissions if applicant meets FCC standards
- Current FCC guidelines adopted in 1996
- FCC (2019) terminated an inquiry into possible updates
- U.S. Court of Appeals (2021) held (in 2-1 vote) the FCC's decision to end the inquiry was arbitrary and capricious
  - Court did not overturn the existing FCC guidelines or comment on their merits
  - Court did not order the FCC to change the guidelines but said the FCC must provide a “reasoned explanation” for deciding no changes were warranted
  - The existing FCC guidelines remain in effect



# SAFETY

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## Federal RF Emissions Guidelines

- U.S. Court of Appeals (2021) majority stated:

“To be clear, we take no position in the scientific debate regarding the health and environmental effects of RF radiation – we merely conclude that the Commission’s cursory analysis of material record evidence was insufficient as a matter of law. As the dissenting opinion indicates, there may be good reasons why the various studies in the record, only some of which we have cited here, do not warrant changes to the Commission’s guidelines.”



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## Shot Clocks and Remedies

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# SHOT CLOCKS AND REMEDIES

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- Local governments may not impose a moratorium on accepting or processing applications
- In addition, there are federal and state shot clocks for wireless applications
  - “Shot clocks” are specific time periods in which a city must take final action on an application to install or modify a wireless facility, including appeals
- Applicable shot clock depends on the type of request
- The shot clock may be reset or tolled only by issuing a timely notice of incompleteness (NOI), or by agreement with the applicant

# SHOT CLOCKS AND REMEDIES

FCC Category		Applicable Shot Clock	Deemed Granted Remedy
<b>Eligible Facilities Requests (EFR)</b> Must involve modifications to existing wireless facility (tower or base station) and meet size and other requirements to qualify as EFR		60 days	Federal
<b>Small Cells (Small Wireless Facility (SWF))</b> Must be personal wireless service facility that meets size and other requirements to qualify as SWF.	<b>Placement on existing structure (need not be existing wireless facility)</b>	60 days	California (effective 1/1/22)
	<b>New</b>	90 days	California (effective 1/1/22)
<b>Collocations</b> Must involve placement of personal wireless services facility (that does not qualify as EFR or SWF) on existing structure which need not have wireless facility already on it		90 days	California
<b>Other</b> Personal wireless services facility that does not fall in any other category		150 days	California
California Category		Applicable Shot Clock	Deemed Granted Remedy
<b>Gov. Code 65850.75 State Generator Law (AB 2421—in effect only until 1/1/2024)</b> Must involve qualifying emergency standby generator for macro cell tower site		60 days	California

# SHOT CLOCKS AND INCOMPLETENESS DEADLINES

Category	NOI Deadlines
<u>Eligible Facilities Requests (EFR)</u>	Initial Submission: 30 days Resubmissions: 10 days
<u>Small Cells (Small Wireless Facility (SWF))</u>	Initial Submission: 10 days* Resubmissions: 10 days *First NOI resets shot clock
<u>Collocations</u>	Initial Submission: 30 days Resubmissions: 10 days
<u>Other</u>	Initial Submission: 30 days Resubmissions: 10 days





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## Other Requirements and Limitations

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# OTHER REQUIREMENTS AND LIMITATIONS

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Cal. Gov. Code 65964 prohibits:

- Escrow deposit for removal of a wireless facility (bonds ok)
- Wireless permit of less than 10 years (unless “public safety” or “land use” reasons)
- Requiring all wireless facilities to be located on sites owned by particular parties

# OVERVIEW OF WORK PLAN

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# OVERVIEW OF WORK PLAN

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Goals & Next Steps

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# GOALS

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- The proposed work program includes:
  - (1) Preparation of an ordinance for adoption that updates PAMC 18.42.110 (Wireless Communication Facilities).
  - (2) Preparation of a resolution for adoption that updates the aesthetic standards for wireless communication facilities.

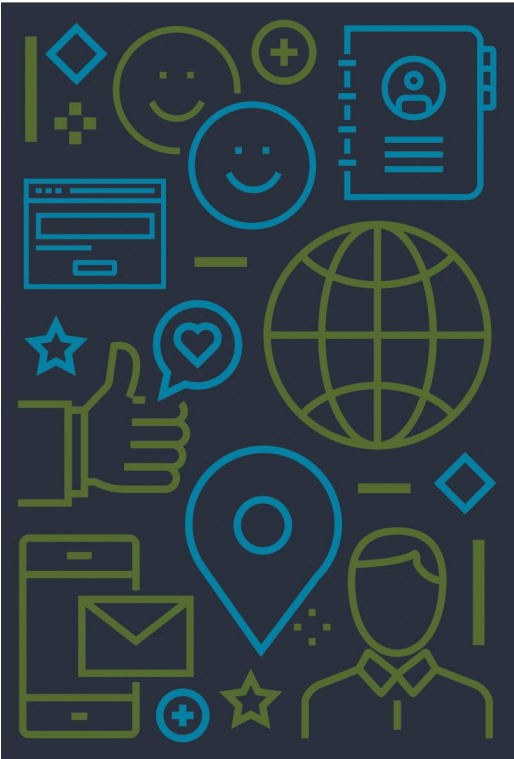
# NEXT STEPS

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- **Planning and Transportation Commission -- December 15**
  - Review the draft ordinance, staff recommendations, and follow-up items from previous meeting. No formal recommendation on full draft ordinance.
- **ARB -- February through April 2022**
  - Wireless aesthetic standards discussion and recommendation.
- **PTC -- May 2022**
  - Review and recommendation on draft ordinance and aesthetic standards.
- **City Council -- June 2022**
  - Action on ordinance and resolution for aesthetic standards.



# CONTACT US



**SHELDON S. AH SING, AICP**

*Principal Planner*

Sheldon.ahsing@cityofpaloalto.org

(650) 838-2821

<https://www.cityofpaloalto.org/City-Hall/Hot-Topics/Wireless-Communication-Facilities>



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## Eligible Facilities Requests

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# ELIGIBLE FACILITIES REQUESTS

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## **Section 6409(a) of the 2012 Spectrum Act**

- “a State or local government may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station.”

## **FCC Implementing Orders**

- 2014 Order set detailed parameters for EFRs (codified in 47 CFR § 1.6100) and establishing deemed granted remedy
- Clarifications Order (FCC 20-75), adopted on 6/9/2020, interpreting rules
  - In effect but appeal pending: League of Cal. Cities et al. v. FCC, No.20-71765 (9th Cir. 2021)
  - Proceedings stayed until 11/16/2021
- Expansions Order (FCC 20-153), adopted on 10/27/2020, modifying rules
  - In effect

# ELIGIBLE FACILITIES REQUESTS

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## Clarifications Order (FCC 20-75)

- **Concealment Elements** – protections only apply to stealth facilities –stealth looks like something other than WCF
- **Aesthetic Conditions** – placement of a facility behind or beneath surrounding structures is aesthetic condition that cannot prevent a increase in height
- **Equipment Cabinets** – limit of 4 ground-mounted cabinets is not cumulative
- **Height Increases** – for towers outside of ROW, height can increase 20 feet plus the height of new antenna, and there is no limit on new antenna’s height
- **Shot Clock Rules** – shot clock triggered if applicant: (1) takes first procedural step; and (2) submits documentation addressing EFR criteria

# ELIGIBLE FACILITIES REQUESTS

Criteria	Towers Outside of ROW	Other Support Structures & ROW
Height	20 feet or ten percent	10 feet or 10 percent
Width	20 feet or tower width	6 feet
Equipment Cabinets	4 maximum per application	None if no ground cabinets; otherwise same, plus volumetric limits
Excavation	within 30 feet of the existing site*[new rule – see October 2020 order]	Not outside the current site and further restricted to proximity to other ground equipment
Concealment	cannot “defeat” the concealment elements of stealth facility (but see June 2020 order for what that means)	
Compliance with Prior Permit Conditions	changes must comply with all prior conditions except where only non-compliance meets FCC thresholds on height, width, cabinets or excavation	





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## Fees and Rents

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# FEES AND RENTS

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## **State Law on Permit Fees**

Cal. Gov. Code 50030 provides that permit fees “for the placement, installation, repair, or upgrading of telecommunications facilities such as lines, poles, or antennas by a telephone corporation...shall not exceed the reasonable costs of providing the service for which the fee is charged and shall not be levied for general revenue purposes.”

## **State Law on Fees for Use of Municipal Infrastructure in Streets**

- Utility Poles: AB 1027 (2011) requires access and cost-based rates for communications attachments to utility poles of local publicly owned electric utilities
- Streetlights and Traffic Lights: Two state small cell bills have been vetoed (SB 649 by Gov. Brown in 2017; SB 556 by Gov. Newsom in 2021)

# FEES AND RENTS

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## FCC Small Cell Order

- FCC established “safe harbor” fees for permits and poles that do not violate federal law:
  - \$500 for non-recurring fees, including a single up-front application that includes up to five Small Wireless Facilities, with an additional \$100 for each Small Wireless Facility beyond five, or \$1,000 for non-recurring fees for a new pole (i.e., not a collocation) intended to support one or more Small Wireless Facilities;
  - \$270 per Small Wireless Facility per year for all recurring fees, including any possible ROW access fee or fee for attachment to municipally-owned structures in the ROW. (Para. 79)

# FEES AND RENTS

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## FCC Small Cell Order

- FCC acknowledged that there are limited circumstances in which a local government can charge fees in excess of the FCC’s “safe harbor” amounts and still comply with federal law:
  - “...a locality could prevail in charging fees that are above this level by showing that such fees nonetheless comply with the limits imposed by Section 253—that is, that they are (1) a reasonable approximation of costs, (2) those costs themselves are reasonable, and (3) are non-discriminatory.” (Para. 80)
- Ninth Circuit upheld this portion of the FCC Small Cell Order.