

# Kitsap County Code Update

17.530 'Wireless Communication Facilities'

Board of County Commissioners Work Study

March 27, 2019

# Planning Commission Public Process:

- ◆ Public Comment Period (January 8 – February 26, 2019)

- ◆ Work Study Sessions

  -  12/18/2018 - Workplan, small cell introduction, federal standards

  -  1/8/2019 - Preliminary draft code

  -  1/22/2019 - Staff report with updated draft code, preliminary feedback

- ◆ Public Hearing

  -  2/19/2019

- ◆ Deliberations and recommendation

  -  3/19/2019

- ◆ Findings of Fact

  -  4/2/2019

# Board of County Commissioners Public Process:

- ◆ Roundtable discussion open to stakeholders and the public
  - 📞 Before public comment period opens
- ◆ Public Comment Period (April 3 – April 22, 2019)
- ◆ Work Study Sessions
  - 📞 3/27/2019 - process update, wireless facilities introduction, federal standards
  - 📞 4/15/2019 - staff report, recommended final draft ordinance
- ◆ Public Hearing
  - 📞 4/22/2019 scheduled, 5/13/2019 option
- ◆ Deliberations and adoption

# Wireless Communication Facilities Code Update:

## ◆ Small Wireless Facilities presentation by Lelah Vaga (Verizon)

 12/18/2018 meeting recorded  
via BKAT

 Link to presentation available on  
the code updates website at:  
[https://www.kitsapgov.com/dcd  
/Pages/Code-Updates.aspx](https://www.kitsapgov.com/dcd/ Pages/Code-Updates.aspx)

 Explains consumer demand and  
5 G technologies

# Federal Communications Commission (FCC)

1996 – 2009 – 2012 – 2014 - 2018

- ◆ Telecommunications regulated by the Federal Communications Commission (FCC)
- ◆ 1996 Telecommunications Act (1996 Act).
- ◆ 2009 Shot Clock Order (2009 Order).
- ◆ 2012 Middle Class Tax Relief and Job Creation Act of 2012 (2012 Spectrum Act).
- ◆ 2014 Clarifications Order for the 2012 Act (2014 Order).
- ◆ 2018 Small Wireless Facilities Order (2018 Order).
- ◆ Result: local governments have less authority to regulate

# Federal Communications Commission (FCC)

1996 – 2009 – 2012 – 2014 - 2018

- ◆ Telecommunications heavily regulated by the Federal Communications Commission (FCC)
- ◆ 1996 Telecommunication Act
  -  Citation: 47 USC 151 et seq.
  -  Sweeping regulations aimed to open up the industry
  -  47 USC 332 (c)(7) “preservation of local authority”
    -  regulations cannot “unreasonably discriminate” and decisions for permit requests must occur “within a reasonable amount of time”
  -  47 USC 253 “removal of barriers to entry”
    -  47 USC 253 (a) regulations cannot effectively prohibit a business from providing telecom services
    -  47 USC 253 (c) managing right-of-way, non-discriminatory fees published in advance
- ◆ Result: local governments have less authority to regulate

# Federal Communications Commission (FCC)

1996 – 2009 – 2012 – 2014 - 2018

2009 “Shot Clock Order”  
(permit review time):

- ◆ Citation: FCC 09-99
- ◆ Wireless facility applications must be decided
  - 📞 within 150 days of application being filed for new facilities
  - 📞 within 90 days of application being filed for “collocated” facilities
- ◆ Permit review presumptively reasonable and can be rebutted



# Federal Communications Commission (FCC)

1998 – 2009 – 2012 – 2014 - 2018

2012 “Middle Class Tax Relief and Job Creation Act”

- ◆ Citation: 47 USC 1455 (a)
- ◆ County must approve a request to install eligible facilities on an existing tower/base station that doesn't substantially change the dimensions



# Federal Communications Commission (FCC)

1998 – 2009 – 2012 – 2014 - 2018

2014: adopted clarifications for 2012

◆ Citation: FCC 14-153

◆ Definitions

 Existing tower/base station

 Substantial change

 Collocation

◆ New permit review timeframes for non-substantial changes

 60 day permit review presumed reasonable

 Day 1 is date of application, not date of completed application

 Limited tolling (Stopping the clock)

 Clock does not restart

◆ No decision in the required timeframe = approved

# Federal Communications Commission (FCC)

1998 – 2009 – 2012 – 2014 - 2018

2018 “small wireless facilities”  
(roll out for 5G technology)

- ◆ Citation: FCC 18-133
- ◆ Defines a “small wireless facility”
- ◆ New shot clock
  -  New small wireless facility, 90 days
  -  Collocated small wireless facility, 60 days
  -  Day 1 is date of application, not date of completed application
  -  Limited tolling (Stopping the clock)
  -  Clock restarts (once)
  -  Batching allowed (multiple applications in one permit)
- ◆ No decision in the required timeframe = 30 days to appeal

# Federal Communications Commission (FCC)

1998 – 2009 – 2012 – 2014 - 2018

2018 “small wireless facilities”  
(roll out for 5G technology):

## ◆ Fees

-  Published in advance
-  non-discriminatory
-  objectively reasonable approximation of actual cost
-  Restricts one time fees  
(e.g. permit, street closure)
-  Restricts recurring fees  
(e.g. rental fees for facilities)



# Federal Communications Commission (FCC)

1998 – 2009 – 2012 – 2014 - 2018

2018 “small wireless facilities” (roll out for 5G technology):

## ◆ Aesthetics and other regulations

(e.g. stealth technology, undergrounding, spacing)

- 📱 published in advance
- 📱 non-discriminatory
- 📱 objectively reasonable
- 📱 no more burdensome than other wireless infrastructure



# Proposed Code Structure

## 17.530 Wireless Communication Facilities

- ◆ Exempt and Prohibited

- ◆ Permits required and design criteria:





  - Tower-Based facilities





  - Non-tower facilities





  - Small Wireless Facilities





  - Collocation

- ◆ General Development Standards

- ◆ Maintenance and repair

- ◆ Abandonment and Removal

# Kitsap County Code Update

## 17.530 'Wireless Communication Facilities'

Next Meeting:

Board of County Commissioners Work Study on April 15, 2019

Website: <https://www.kitsapgov.com/dcd/Pages/Code-Updates.aspx>

Contact: Darren Gurnee, Planner and Project Lead  
Kitsap County Department of Community Development  
dgurnee@co.kitsap.wa.us  
(360) 337-5777

# Wireless communication facility examples:

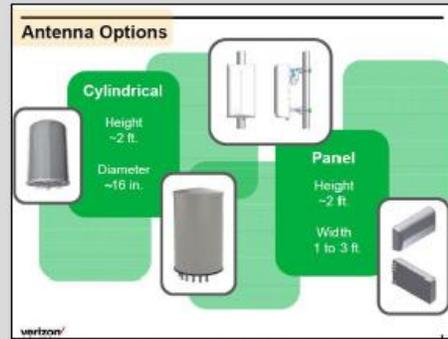


# Wireless Communication Facility:

“Wireless communication facility” means the antennas, nodes, control boxes, towers, poles, conduits, ducts, pedestals, electronics and other related equipment used for the purpose of transmitting, receiving, distributing, providing, or accommodating wireless communications services.



Image Source: Kitsap County Planning Commission work study presentation December 18, 2018



## Antenna

### Macro Cell

- ~ 6-8 feet in height
- 6 – 12 per pole
- Install height of 80 to 200 feet

### Small Cell

- ~ 2 feet in height
- 1 – 3 per pole
- Install height of 20 to 40 feet



Image Source: <https://www.slideshare.net/omarmasry/example-wireless-facilities>



Image Source: <https://www.slideshare.net/omarmasry/example-wireless-facilities>



Image Source: <https://www.srcity.org/>

## Related Equipment

### Macro Cell

- 2 – 4 large cabinets on ground, roof, or in an equipment room

### Small Cell

- No ground cabinets

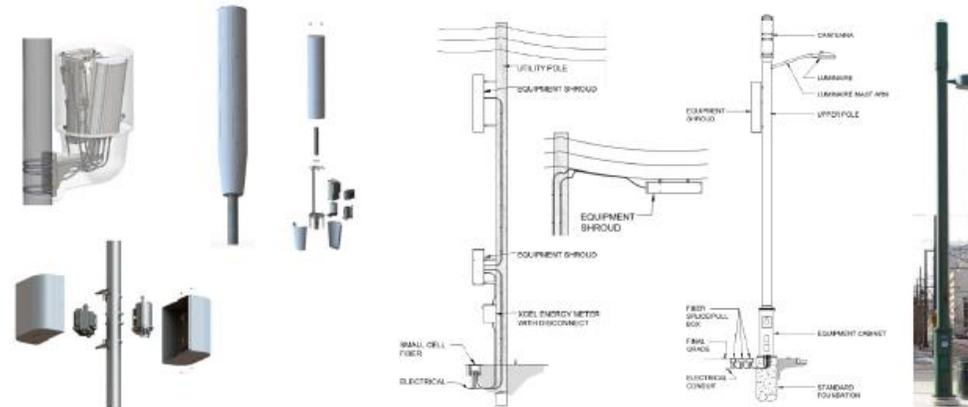


Image Source: <http://concealfab.com/products/radio-shrouds-cabinets/>

Image Source: <https://www.slideshare.net/omarmasry/example-wireless-facilities>

## Shrouding

# Tower-Based Facility:

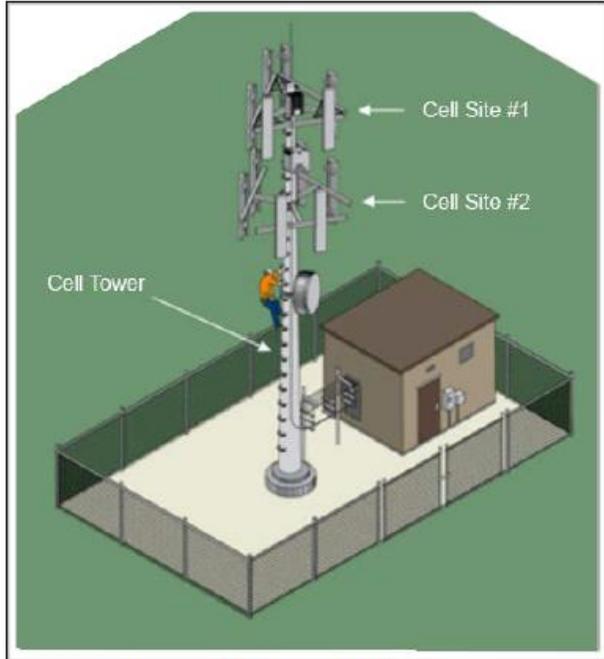


Image Source: <https://www.steelintheair.com/cell-site-types/>

Monopole



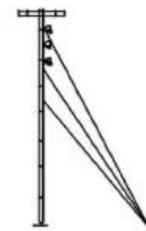
100-200 feet tall

Lattice Tower



100-400 feet tall

Guy-Wired



100-2,150 feet tall

Image Source: <https://www.sheridanmedia.com/news/commissioners-approve-cell-tower-board-appointments11278>



Guy-wire Tower

Image Source: <https://en.wikipedia.org>



Lattice Tower

Image Source: <https://ehtrust.org/take-action/educate-yourself/top-10-facts-about-cell-phones-and-wi-fi-2/>



Guy-wire Towers and Lattice Towers

Image Source: <https://www.steelintheair.com/Blog/wp-content/uploads/2015/12/towers.jpg>



Monopole

Image Source: Kitsap County



Monopole

Image Source: Kitsap County

# Non-Tower Facilities:

“Non-tower wireless facility” means a facility that is not a small wireless facility and does not involve, as part of the initial installation or construction, a wireless support structure. The term includes antennas, data collections units, and related equipment, but shall not include any wireless support structure. Except as allowed for small wireless facilities, the need to construct a wireless support structure will transform the non-tower facility into a tower-based facility.



Image Source: <https://www.capegazette.com/article/five-att-cellphone-towers-installed-rehoboth/171309>



Image Source: <https://pxhere.com/en/photo/799328>



Image Source: Kitsap County



Image Source: <https://pxhere.com/en/photo/867110>

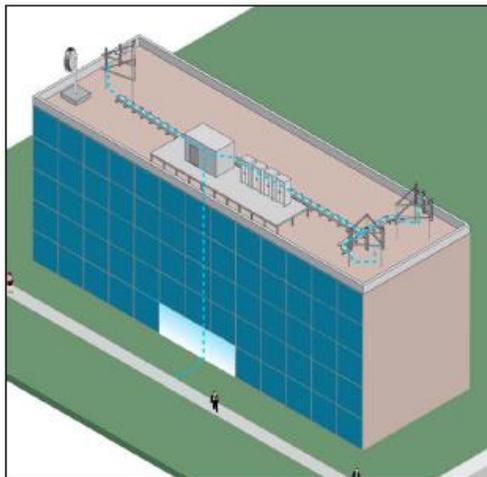


Image Source: <https://www.steelinthair.com/cell-site-types/>



Image Source: Kitsap County



Image Source: [http://fcarchitectsinc.com/services/traditional-facilities/#lightbox/gallery\\_image\\_21/0](http://fcarchitectsinc.com/services/traditional-facilities/#lightbox/gallery_image_21/0)

# Small Wireless Facilities:

“Small wireless facility” means a facility that meets each of the following conditions:

1. The facility:
  - a. Is mounted on a structure 50 feet or less in height, with the height including any antennas; or
  - b. Is mounted on a structure no more than 10 percent taller than other adjacent structures; or
  - c. Does not extend an existing structure on which is to be located to a height of more than 50 feet or by more than 10 percent, whichever is greater.
2. Each antenna associated with the facility, excluding associated antenna equipment is no more than three cubic feet in volume; and
3. All other wireless equipment associated with the structure, including the wireless equipment associated with the antenna and any pre-existing associated equipment on the structure, is no more than 28 cubic feet in volume; and
4. The facility is not required to be registered with the FCC under 47 CFR Part 17; and
5. The facility does not result in human exposure to radiofrequency radiation in excess of the applicable FCC safety standards in 47 CFR 1.1307(b).



Image Source: <https://www.nytimes.com/2018/03/02/technology/5g-cellular-service.html>



Image Source: <https://sf-planning.org/node/147>

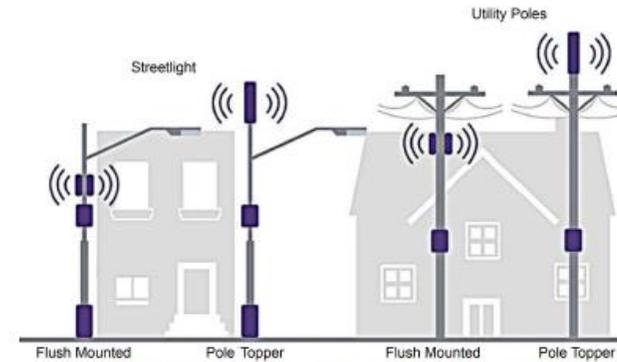


Image Source: <http://www.rentonreporter.com/news/renton-moves-forward-with-updating-small-cell-ordinance/>

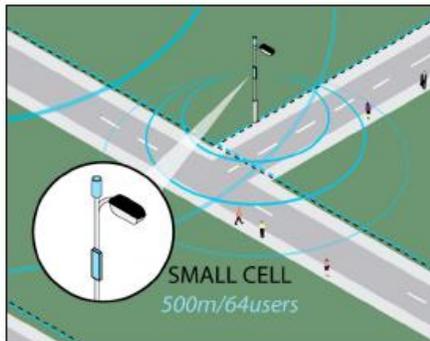


Image Source: <https://www.steelintheair.com/cell-site-types/>



Image Source: <https://newsroom.sprint.com/tiny-mighty-small-cells.htm>



Image Source: <https://www.capegazette.com/article/five-att-cellphone-towers-installed-rehoboth/171309#&gid=1&pid=4>

# Stealth Technology Examples:



Image Source: <https://www.thegreenhead.com/2004/09/can-you-spot-hidden-cell-towers.php>

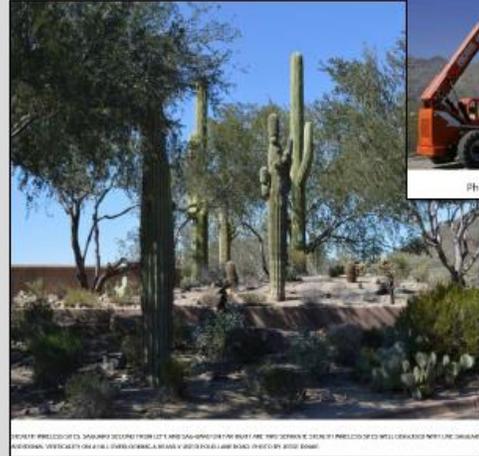


Image Source: <https://www.westernplanner.org>



Photograph via jaycrew on reddit

Image Source: <https://twistedifter.com/2012/08/examples-of-cell-phone-tower-disguises/>



Photograph by Robert Voit (via AmusingPlanet)

Image Source: <https://twistedifter.com/2012/08/examples-of-cell-phone-tower-disguises/>



Photograph by Robert Voit (via AmusingPlanet)

Trees or other natural feature



Image Source: Kitsap County



Photograph by AggiePhil04 @ Waymarking.com

Image Source: <https://twistedifter.com/2012/08/examples-of-cell-phone-tower-disguises/>



Image Source: <http://rhizome.org/>



Image Source: <https://weburbanist.com/2010/03/26/faux-ny-towers-cleverly-concealed-cellular-sites/>



Image Source: <http://www.proterra-design.com/telecommunications/>

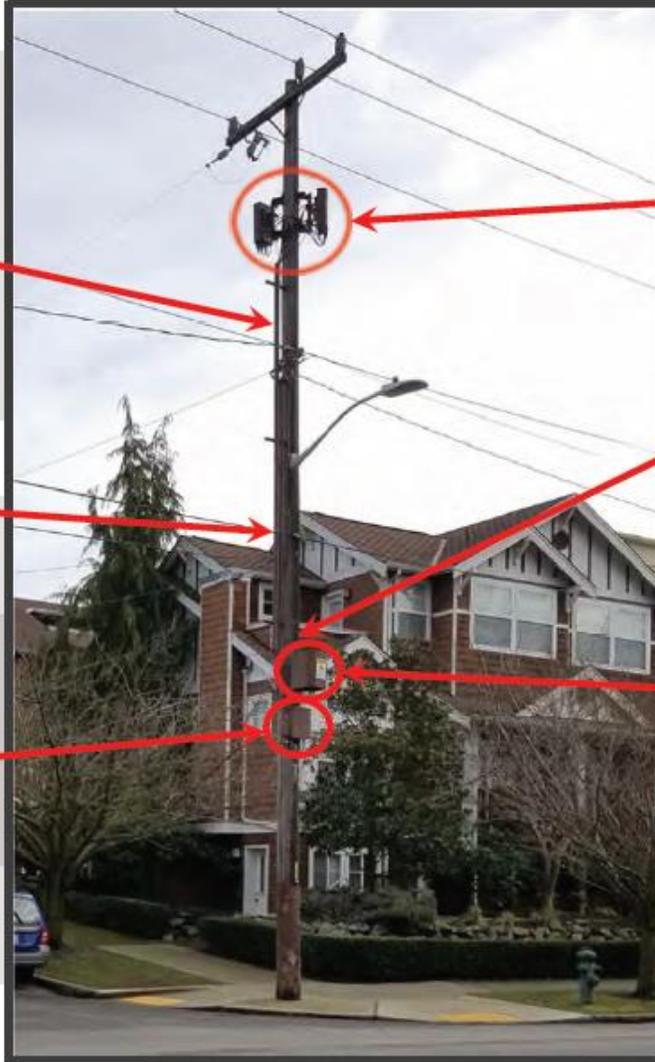
Architectural or structural

# Small Cell Components

Fiber & Coax  
Conduit

Power  
Conduit

Power  
Disconnect



Antennas

Dark Fiber  
(leased from 3<sup>rd</sup> party)

Radios & Fiber  
Termination Box