

City of
Bellevue



Memorandum

Date: September 26, 2016

To: Mayor Stokes, Members of the City Council

From: Catherine Drews, Assistant City Attorney *CD*
Monica Buck, Assistant City Attorney *MB*

RE: Verizon Small Cell Wireless Project, File No. 16-129655-LA

Verizon Wireless recently applied to install 41 small cell wireless communication facilities throughout south Bellevue. The project is called "Newtoria," and since it was publicly noticed in the City's Weekly Permit Bulletin on August 25, 2016, Development Services has received numerous comments from residents opposing the proposed small cell installations. A sample of comments are included with this memorandum as attachment A. All comments receive a response, including a copy of the Frequently Asked Questions, prepared by Senior Land Use Planner Sally Nichols, which is included with this memorandum as Attachment B.

The 41 sites, are situated mainly in the public right-of-way on existing Puget Sound Energy (PSE) utility and light poles, although some poles are proposed to be replaced with a new, higher pole to improve reception and transmission. These new poles are required to be wood laminate consistent with other utility poles. The attached FAQ provides simulations provided by the applicant of what the project will look on completion. This memorandum is intended to provide the Council with an overview of the regulatory framework governing the deployment of personal wireless facilities.

Regarding the Newtoria project, small cells are proposed on PSE owned poles in the right-of-way. As discussed below, PSE is required to allow such use of its poles and the City has limited authority under federal and state law to deny use of the right-of-way for personal wireless facilities. The City's land use code does allow the imposition of conditions to mitigate for unintended impacts related to the project.

A. Federal Law.

Personal wireless facilities are regulated under the Federal Telecommunications Act, which is administered by the Federal Communications Commission. The FCC adopted rules to facilitate the deployment of wireless infrastructure, finding a surging increase in consumer demand for wireless services, including data, driving innovation and expanding access to public safety.¹ Two provisions of the Act affect the City:

¹ Federal Communications Commission, Report and Order at 2, FCC4-153 (Oct. 21, 2014).

Section 332(c)(7) of the Communications Act, and Section 6409(a) of the Spectrum Act,² which is not at issue currently. Section 332(c)(7) authorizes the City to review applications for new wireless facilities. Once a facility is permitted, Section 6490(a) significantly limits the City's ability to regulate subsequent modifications to a facility, when the modifications do not constitute a substantial change from the original application. Both provisions contain "shot clocks" or deadlines under which the City must act. A summary of the two provisions is provided below.

Section 332 (c)(7) – Personal Wireless Service Facilities. Section 332(c)(7) applies to personal wireless service facilities, which includes commercial mobile services, such as Verizon, T-Mobile, and Sprint. Section 332(c)(7) generally preserves local zoning authority but imposes five limitations on a local jurisdiction's regulatory authority:

1. Shall not unreasonably discriminate among providers of functionally equivalent services;
2. Shall not prohibit or effectively prohibit provision of personal wireless service;
3. Jurisdiction must act within a reasonable time (establishes "shot clocks" for decisions);
4. Decision to deny a facility must be written and supported by substantial evidence; and
5. No regulation of radio frequency – except may require an applicant to satisfy FCC rules.

(Note: These limitations do not apply to the City's proprietary property³). Also, any denials must be supported by substantial evidence in the record demonstrating the applications are inconsistent with the Bellevue Land Use Code. What these limits mean to Verizon's small cell projects is that the City must process the applications within a reasonable time, which typically is 150 days for new applications and 90 days for collocations, but here the timeline was negotiated as allowed to address the scope of the project.

Section 6409(a) of the Spectrum Act. The second relevant provision is Section 6409(a). Generally, this provision requires the City to approve and not deny applications to modify, within certain parameters related to height, width, excavation, concealment elements, and number of cabinets, established wireless facilities and wireless towers. The City has 60 days to approve these applications or otherwise the applications are deemed granted. The City would have to seek relief from this determination in court.

² Congress adopted Section 6409(a) as a provision of Title VI of the Middle Class Tax Relief and Job Creation Act of 2012, which is more commonly known as the Spectrum Act.

³ Verizon has been in communication with the City to install small cells on city-owned streetlights in the Downtown. The City as landlord can regulate the installation of such small cells on its proprietary property and further ensure the facilities do not fall within §6409(a). In exchange for a Council approved design Verizon would receive streamlined permitting. City staff will bring forward this proposal in the coming months, which will require a code amendment and Council approval.

B. State Law

In addition to federal law, state law requires cities and towns provide reasonable access to the right-of-way for personal wireless facilities. Chapter 35.99 RCW. Such requests for use of the right-of-way must be acted on within 120 days of receipt of a complete application. RCW 35.99.030. Although the city is authorized to regulate the placement of such facilities through its local zoning and police powers, such regulations may not result in an outright prohibition of all wireless facilities. RCW 35.99.040(2).

The Washington Utilities and Transportation Commission (WUTC) recently adopted rules which require PSE and other electrical and telecommunications companies to allow attachments to existing poles. This legislation (Chapter 480-54 WAC and Chapter 80.54 RCW) provides that an owner may only deny access where there is insufficient capacity or for reasons of safety, reliability, and generally applicable engineering principles; provided that the owner may not deny access for capacity if the requestor agrees to replace the pole to accommodate increased capacity. WAC 480-54-030.

C. Bellevue City Code

This project is regulated under the Bellevue Land Use Code and requires an administrative conditional use permit. An ACU is required because the project is not exempt from land use review under the Land Use Code. For example, one reason being that in residential land use districts a Wireless Communications Facility (WCF) cannot add height to an existing pole. Nonexempt wireless facilities requiring land use review will need either a conditional use permit or an administrative conditional use permit. Conditional use permits are required for any WCF located in residential land use districts and:

1. The WCF is proposed in the public right-of-way and is proposed to be located within 520 feet of any other WCF located either in the public right-of-way or City-owned property;
2. The WCF is proposed on City-owned property, and the proposed WCF is within 520 feet of a WCF located in the public right-of-way; and
3. Any WCF involving a new (but not replacement) support structure.

If none of these three scenarios apply, then the review defaults to an administrative conditional use, as is the case with this project.

Review Process. An ACU is a process II land use decision, which an administrative decision is made by the Director of the Development Services Department. Process II applications go through a period of public notice and an opportunity for public comment, which is accepted until the Director's decision is issued. A public meeting may be held, and a public meeting on this project is scheduled for September 27 at 6:00 p.m. at City Hall. The Director then makes a decision after consideration of public comments and

the decision criteria in the LUC. The Director's decision is publicly noticed and the project applicant or any person who submitted written comments before the decision was issued may appeal the decision to the City's Hearing Examiner.

General Siting Provisions for Residential Land Use Districts. Under the Land Use Code, WCFs are prohibited on residential structures, undeveloped sites in residential land use districts, or sites developed with a residential use. WCFs may be located on multi-family sites (R-20 – R-30) or on any nonresidential structure (schools, churches, public facilities, utility poles, etc.), or any public right of way in any residential land use district. Chart, 20.10.440, Uses in Land Use Districts, Transportation and Utilities, note 14. Also, for non-exempt WCFs the LUC provides a hierarchy for siting the facilities: (1) attached to public facility structures; (2) building mounted or integrated with utility support structures; and (3) co-located on utility poles, light standards, signal supports, existing WCF support structures or existing communication, broadcast, and relay towers, and freestanding WCF support structures. LUC20.20.195.D.2.c.

Attachment A: Sample comments from community
Attachment B: Frequently Asked Questions

Attachment A

Representative Comments from Parties of Record:

Dear Mayor Stokes, Deputy Mayor Chelminiak, City Manager Miyake, City Council members, and Sally Nichols the project manager,

Reference Project 16-129655-LA for Verizon to install 41 "small cell" wireless antennas and radio units in our Bellevue neighborhood.

We request this project not be allowed to move forward as proposed.

1. We oppose the designation of street light poles or any other cell towers/poles that could allow Verizon and additional carriers to add their antennas/cell units to these poles. These do not belong in single-family or any residential zone.
2. There are public areas where cell carriers can station their equipment to provide the needed coverage instead of in our single family residential neighborhoods. Common areas high up on the summit or Cougar Mountain could be options. Main boulevards is another option. Radio towers have been around for years to provide coverage to rural, dense, and challenging topographical areas without being placed in residential areas.
3. We are block watch captains, and we have not heard of anyone complaining about not getting good cell phone coverage, which raises the question, are these cell units really needed, as proposed. We get good radio and Verizon cell phone coverage.
4. While Verizon states that they are only putting 2 cell antenna's on the pole (or canister antennas on the fatter poles), the pole may be shared by other carriers. That will add to the unsightliness of our neighborhood.
5. In the early 2000's, Seattle was concerned enough to ban cell antennas in single-family residential zones. It still is part of their city code. Seattle City Code Title 23 - Section 23.57.005
6. Mercer Island has strict city ordinances banning cell towers in single-family residential zones. Mercer Island City Code MICC 19.06.040 MICC 19.06.040(B)(1) states: Wireless communication facilities, including antenna support structures and equipment cabinets, are permitted (within the Public Institution Zone). Facilities must meet all of the following criteria:
 - a. Antennas shall not project more than two feet in height over the nearest I-90 retaining wall, unless they are located on an existing structure, and must be screened as much as possible from public views;
 - b. Equipment cabinet dimensions shall not exceed 480 cubic feet, should be placed underground if feasible and shall be completely screened from pedestrian and park activities with landscaping;
 - c. Facilities shall be within 15 feet of the pedestrian side of the I-90 retaining wall, unless they are located on an existing structure. Facilities may be located between the retaining walls in the traffic corridor;
 - d. Facilities shall be at least 300 feet from any single-family dwelling, unless located between and below the top of the retaining walls in the traffic corridor;
 - e. Applicants shall demonstrate that they have attempted to collocate on existing structures such as other wireless support structures, rooftops, light poles, utility poles, walls, etc.
7. We believe this may just be the beginning. The next public company may put an equally or more intrusive device next to any of our houses.
8. It is the city's responsibility to protect the character and integrity of our neighborhoods. Please do not let these cell units be a blight on our neighborhoods.

Questions the city council should ask:

1. What are all the other solutions/options?

2. Why can't cell towers be located somewhere else?
3. Why can't the cell antennas be put on the towers in the PSE public utility zone, or public areas?
4. What independent studies, funded by non-cell carriers, shows there is a gap in coverage?
5. What independent studies, funded by non-cell carriers, shows the level and effects of RF/EMF emissions from these units – on the houses 35' away, yards below the poles, or along the sidewalks
6. Why were the current locations chosen?
7. Do they really need to be so close together? We understand that some streets have 4 in a row less than 100 yards apart. Why?

Having spent 20 years in the Air Force, we are in our tenth city, having lived here 28 years. We have always spoken very highly of the city of Bellevue for its active involvement in improving the esthetic value of our houses and neighborhoods, more than any other city we have lived in. We chose to live in Bellevue because of its parks, schools, and natural beauty of the neighborhoods. In either renting or buying a house, we have never considered a house if it was near RF/EMF emission lines or facilities. Even though the small cell tower designs appear less obtrusive, I would not buy a house with a cell tower in my line of sight or front yard, which lowers the desirability and value of our houses.

Request this Verizon/cell unit request not be approved for deployment in our single family residential areas.

Thank-you,
Larry and Donna Brickman
16303 SE 48th St.
Bellevue, WA 98006

TO:
Sally Nichols
Development Service Department
PO Box 90012
Bellevue, Wa 98009-9012

Dear Ms Nichols,

I am writing on behalf of myself and many concerned neighbors with regards to Project 16-129655-LA to install 41 "small cell" wireless antennas and radio units in our Bellevue neighborhood. We vehemently contest the addition of more cell antennas and radio units. Coverage in our area is fine and it is not necessary to add more in our neighborhood.

It is a known fact that exposure to the electromagnetic fields of cell antennas causes a myriad of health problems, including cancer. Saying the towers are "small" and multiplying the number of them does not mitigate the exposure.

I just returned from vacation and saw the signs all week long. I understand the last date to comment was Sept 8, but am hoping this letter of appeal will be strongly considered: We do not need more cell antennas in our neighborhood.

Sincerely,
Jana Yuen

4703 150th Place SE
Bellevue, WA 98006

Dear Madam/Sir,

I have serious concerns about 'small cell' wireless antenna and radio unit (equipment) installation on a light pole next to our house. It's well known that exposure to electro-magnetic fields **is extremely harmful for human health and can be causing irreversible changes and significant damage.** Installing radio equipment intended for public use that supposed to emit radio signal covering significant areas are going to be dangerous to our family and our immediate neighbors. Having such an equipment installed in the immediate proximity to a living dwelling makes a **significant impact to a resale value of the property.**

Based on the provided information **I'm strongly opposite to this equipment installation** and will take **any possible measure to prevent it from the installation.**

I have checked with my neighbors and they share our concerns.

I have tried to reach Mrs. Sally Nichols responsible for this project many times, and was leaving voice messages, but I have never succeeded in getting any response. This is surprising for a city organization that supposed to care about their city residents and property owners.

Thank you for considering our opinions.

Best regards,

Denis Khanykov and Anastasia Khanykova

Barbara J. Unger
16118 SE 46th Way
Bellevue, WA 98006
Barbu13@msn.com

August 29, 2016

Development Services Department
P.O. Box 90012
Bellevue, WA 98009-9012

File Number: 16-129655-LA

I live at 16118 SE 46th Way in Bellevue and I am writing this letter in response to notice that a cell relay will be installed on a new light pole in front of my house. I am stating my objections to this action.

Three years ago the City of Bellevue replaced the vault and the Pressure Release Valve in the front of my house. This entailed removing a manhole cover in the sidewalk and replacing it with a long and wide vault that extended into my front yard. In addition, an overflow pipe and concrete splashguard were installed next to the vault. Since the utilities ran along the edge of the sidewalk (Comcast, Century Link, and Puget Power), all the utility lines had to be rerouted from the sidewalk out into the street and then back to the sidewalk to avoid the vault. The utility lines are located where the current light pole is situated.

Therefore, I currently have a 7.6 foot by 4.7 foot vault door in the sidewalk in front of my house, with 17 inches of the vault door extending into my yard. Also, there are 2 Comcast vaults (23" by 34") in the sidewalk. One is next to the light pole and the other is by my driveway.

Replacing the current light pole with a larger pole would potentially jeopardize the functionality of my current utilities. I do not need one more utility in my front yard.

The current light pole is directly in front and 40 feet away of my bedroom window. This would place the cell relay too close to where I spend more than 8 hours a day. For health reasons I do not want a cell relay so close to my bedroom window. I do not want to see this cell relay equipment every time I look out my bedroom window.

I am also concerned that the presence of so many unsightly utilities in the front of my house will reduce the value of my house.

I would rather this light pole be removed than used as a cell relay. The LED light in the light pole is too bright as it shines in my bedroom window.

If this cell relay is established for Verizon, I have no doubt that the 41 cell relay light posts would become hosts for additional hazardous and unsightly equipment.

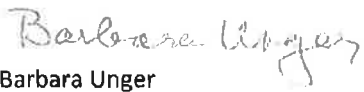
It is also my understanding that Verizon will be monitoring their own cell relays to make sure the RF stays within range. I don't believe that Verizon should be the only ones monitoring the RF and I know Verizon isn't concerned about my health or my property.

I propose that my house not be the target for this cell relay project. City of Bellevue has already authorized enough projects in the front of my house. I propose that they use a different light pole instead of mine (220812, 168145). There is a light pole (220815, 168097) at the corner of SE 46th Way and 160th Ave SE that could be used instead. It is less than 500 feet from my house on a street corner with no adjacent houses. It is west of my house, past the Collingwood Park. I measured the distance along the sidewalk between the two poles to be 507 feet. The distance would be less if measured in a straight line of sight.

In addition, the macro cell tower (less than a block from my house) at SE 46th Way and 164th Ave. has increased in power in the last two weeks. It looks 3 times the size it used to be. That macro tower is a health hazard that continues to increase in size without asking for input from the neighborhood.

In summation, I am against the proliferation of cell relays on Cougar Mountain and especially against having a cell relay 40 feet from my house. I am extremely concerned about the health hazard to my family. My current utilities are next to the light pole which will be replaced with a bigger light pole and could be impacted by this change. I have proposed a solution that would move the cell relay to a light pole a short distance away and therefore would be less of a health hazard to my family or my neighbors.

Sincerely,


Barbara Unger

Michael A. Mraz
15526 SE 50th Street
Bellevue, WA 98006
(425) 643-0086
m6mz@arrl.net

RECEIVED

September 1, 2016

SEP -6 REC'D

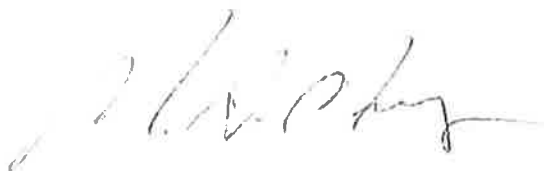
Development Services

Development Services Department
Attn: Sally Nichols
P.O. Box 90012
Bellevue, WA 98009-9012

Dear Ms Nichols:

In reference to file number 16-129655-LA, I encourage the city to approve the permits associated with the Verizon small-cell wireless project in my neighborhood as soon as possible. As a Verizon Wireless subscriber who has struggled for ten years with weak signals at our home, I can only imagine the fantastic improvement in service quality that this project should enable. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "M. A. Mraz", written in a cursive style.

JUDITH P MATTHEW
16110 SE 46th Way
Bellevue, WA 98006-3279

RECEIVED

AUG 30 2016

Development Services

August 29, 2016

Development Services Department
PO Box 90012
Bellevue, WA 98009-9012

File Number: 16-129655-LA

I am writing to tell you of my concerns about the above project.

The description in a notice I received in the mail states:

Application for Administrative Conditional Use Permit approval to install "small cell" wireless antennas and radio units on 41 existing PSE-owned utility poles and light poles in the public right of way.

The Proposal signs around our area further state:

Existing PSE light poles will be replaced with new light poles in the same locations.

1. Why does the mailed notice from COB not contain the language about the replacement of existing light poles?
2. How tall will the new poles be?
3. Will there be new wires attached to these poles?
4. Will PSE please change the LED lights to something not as glaring and obtrusive?
5. Please take into consideration the impact on the residents of these neighborhoods. The "environment" also contains people who are affected by technological "improvements."
6. Will the residents whose property values decline because of unsightly PSE poles be compensated?

Bellevue prides itself on being a livable city. The current state of SE 46th Way does not live up to that claim. There are large cracks in the street in addition to the extreme mess created by the "bandaid" repaving done recently. Tracks are seen up and down the street from cars and trucks driving through the new paving. The street now looks to be further degraded by the introduction of the proposed "small cell" wireless antennas on "new light poles."

Thank you,



Judith Matthew

Attachment B

This handout is intended to provide answers to Frequently Asked Questions regarding the proposed deployment of Small Cell Personal Wireless Services Facilities (WCF's) in Bellevue's residential neighborhoods.

- Wireless carriers propose to either 1) place two small cell antennas and one remote radio unit (RRU) on existing PSE utilities poles or 2) replace existing light poles with new light poles that will have one canister antenna on top and one RRU. There will be no ground equipment with either scenario.
- These systems are referred to as "Small Cells" and are used to provide faster data coverage and capacity for mobile phone and device users with each Node (PSE pole and attached WCF), targeting a small coverage area.

1. Who owns the poles?

The proposed systems in the residential neighborhoods are on PSE-owned utility poles and PSE-owned light poles. Most of these poles are wooden and most utility poles will be replaced with wooden poles. In some cases they may be replaced with steel poles. The existing wooden light poles will generally be replaced with 6 inch square alloy poles with a faux wood finish and color consistent with existing light poles within the neighborhoods.

2. Who are the wireless carriers 'targeting' with this deployment?

With the neighborhood installations, the carriers are providing service to residential customers in neighborhoods that were identified as needing additional coverage and/or capacity. Coverage is hindered currently by topography and mature trees in these neighborhoods. With Small Cell installations, the actual coverage area for each facility (pole) is relatively small as compared to the more common macrocells, the installations must be placed close to the customers – meaning more antennas spaced closer together within a larger neighborhood.

3. What is the range of these systems?

Small cells are designed to serve a localized area and the specific range is dependent on the specific design (antennas, placement, etc.). The range will also vary from node to node. Small cells are typically targeted to serve a block or two whereas macrocell sites often serve one mile or more.

4. What about safety from radio-frequency (RF) emission?

The FCC establishes RF emission standards for these small cell systems and the carrier must submit evidence that these systems operate within these limits.

Due to their low power output, the wireless industry suggests that the general public should remain between 4 to 8 feet away from the face of the small cell antenna at the top of the pole. This distance does not apply when underneath (or above) the antenna, because of the directional nature of these systems. For comparison, a typical macrocell installation may have a public stay-away distance of 30 to 65 feet from the face of the antennas. Additionally, antennas are directional in nature (they have a specific beam pattern) with the signal primarily focused up and down the streets and not directly into the residence behind the pole.

RF exposure is highly dependent on factors like distance and orientation of antennas. Generally, any person within their home or at ground level could be subject to as much as a 1000 times more

RF energy from a cell phone in their hand than the RF exposure typically seen from small cell antennas.

It is also important to note that cell phones are programmed to use the minimum amount of power needed to make a good connection. Stronger cell service signals will dramatically reduce the phone's necessary operating power level and thus the RF emissions generated by the phone itself.

Due to required front yard setbacks in residential neighborhoods (typically 20 feet from the property line) and the fact that these poles are in the right of way, there should not be any homes within the small cell stay-away zone.

5. What is the size of the antennas and RRU's?

Existing *Utility Poles*: The two antennas are each approximately 24 inches by 12 inches with a 7 inch depth. The Remote Radio Unit (RRU) is approximately 22 inches wide, 28 inches tall, and 12 inches in depth.

Existing *Light Poles*: One canister antenna is placed at the top of the replacement pole and it will be approximately 24 inches tall and 14.5 inches in diameter.

The RRU unit is approximately 10 inches wide, 15 inches tall, and 7 inches in depth.

6. Are new cabinets proposed in the right of way or on private property?

No new above ground cabinets (surface mounted facilities), and no major trenching is proposed. If there are existing electrical wires, one additional aerial wire will connect the wireless facilities between poles and then connect the poles into a centralized, existing macro-cell location. If the existing electrical system is underground, then the facilities will be connected via underground fiber.

7. Do these facilities generate noise or light?

No. The antennas themselves do not generate noise or vibration. Noise is typically created by cooling fans but there are no cooling fans proposed with these installations. There are also no lights used by the equipment of antennas.

8. Are these systems safe for birds?

These systems have not been shown to affect birds or other wildlife.

9. Does the City receive revenue from these small cell installations?

The City of Bellevue does not receive compensation from the carriers for WCF's on PSE-owned utility and/or light poles in the right of way.

10. Do other cities have these small cell systems?

Yes. Although Small Cells are new to Bellevue, wireless carriers have proposed and deployed these systems in large cities such as New York City, San Diego, San Francisco, and Seattle, and in smaller communities throughout the United States.

11. Can another carrier co-locate on these PSE poles in the future?

Per recently codified Washington State law (WAC 480-54), the City does not have the authority to prevent other carriers from co-locating on PSE poles. Therefore, other carriers would have the ability to locate on the same poles as Verizon.

12. Will these Small cells interfere with my home electronics?

The Federal Communications Commission (FCC) rules governing WCF's require the carrier to ensure that they do not interfere with other City communications and radio systems, including those for public Wi-Fi and emergency services.

13. Can this installation be placed underground?

No. The technology employed by the proposed system requires the antennas to be located aerially. However, per LUC 20.20.195.D.9, "a WCF must be removed at no expense to the City if co-located on an electrical system facility or utility support structure that is subsequently undergrounded."

14. How long will construction take?

Generally, the installation can be accomplished in a few days.

15. "I have no issue with my cell service. Why are these facilities needed?"

Texting and phone calls are not the only services provided by mobile carriers. The demand for faster data speeds, video streaming, social media, and gaming have risen exponentially. Small cells will help add additional bandwidth to the carrier's network. Some estimates report that wireless data traffic will increase fivefold in the next five years. The small cell networks are looking to this future demand.

16. What is the review process for these sites?

The current proposal is required to undergo Administrative Conditional Use review. This is a Process II, administrative process and the decision is made by the Department Director.

The proposal is reviewed by Land Use, Fire, Transportation/Right of Way, Utilities and Clearing and Grading for compliance with the Wireless Communications Facility requirements in the Land Use Code (Section 20.20.195) and any other applicable City codes and standards.

Once an application is deemed complete, it is noticed in the Weekly Permit Bulletin, which is sent to all residents within 500 feet of each facility (pole). A sign is also placed in front each pole location. There is a *minimum* comment period of 14 days. However, comment is accepted by the City until the staff report is written. Anyone who submits a written comments will also be an official Party of Record. The City will hold at least one public meeting, which is also noticed in the Weekly Permit Bulletin. Public comments must be sent to the Land Use planner in writing and the comments will be addressed during project review and in the decision staff report. The Director's decision is documented in writing to indicate whether the application has been approved, approved with conditions, or denied. The decision will be publically noticed with a mandatory 14-day appeal period. Any Party of Record may then appeal the Decision during this appeal period. Appeals are heard at a public hearing before the City Hearing Examiner.

17. Can the City deny small cells WCF's?

Under federal law (Telecommunications Act of 1996), the City's wireless siting decisions cannot have the effect of prohibiting the provision of personal wireless services or unreasonably discriminating among wireless service providers. If a proposed facility is necessary to eliminate a significant service gap in wireless coverage, and the applicant can demonstrate that the proposed facility is the least intrusive feasible means of reducing the coverage gap, denial of the facility would be considered an effective prohibition.

Request for installation may be denied for safety or similar reasons where the installation presents a physical hazard that the City has a right to address. However, also under federal law, the City may not regulate the placement, construction, or modification of WCF's on the basis of the environmental effects of RF emissions, so long as the facilities comply with the FCC relations concerning such emissions.

In addition, the Policies UT 50-52 - Utilities Section of the City's Comprehensive Plan addresses the importance of wireless communications in order to "maintain Bellevue's competitive advantage and attraction as a highly connected community."

18. What happens if the small cell antennas are no longer needed or activated?

Per the Land Use Code 20.20.195.D.8, all WCFs and the associated equipment shall be removed by the facility owner within 90 days of the date it ceases to be operational, or if the facility falls into disrepair and is not maintained. Disrepair includes structural features, paint, or general lack of maintenance, which could result in safety or visual impacts.

Definitions/Frequently Used Terms:

Aerial Fiber: Wire strung between utility poles.

Backhaul: Equipment needed to connect the small cells to the core networks, internet and other services. This can include wireless and wired technologies.

Carrier: Verizon, Sprint, T-Mobile, etc.

Macrocell: A wireless facility providing the largest area of coverage within a mobile networks. Generally, macrocell antennas are mounted on ground-based towers (utility poles and towers), rooftops and other existing structures, at a height that provides a clear view over the surrounding buildings and terrain. Macrocell facilities typically cover large geographic areas with relatively high capacity and are capable of hosting multiple wireless service providers.

Public Right of Way: All public streets and property dedicated to public use for streets together with public property reserved for public utilities, transmission lines and extensions, walkways, sidewalks, bikeways, or equestrian trails. The right of way is where the light and utility poles for these small cell installations generally are placed.

Radio Relay Unit (RRU): Equipment which functions like a computer. The RRU's route power and signal through wires to the transmitting antenna. Current proposals with the City show one RRU per pole.

Small Cell: A network of low-powered small antennas and equipment enclosures usually attached to wooden or steel poles in the public right of way. Small cells increase service coverage and capacity by placing antennas physically closer to increasingly powerful mobile devices (phones, tablets, etc.), which enables increased capacity to end-users. Since the antennas cover a much smaller area, they need much less power and can physically be much smaller and less visually obtrusive.

Additional Information

The Federal Communications Commission's Wireless Telecommunications Bureau and the National Association of Telecommunications Officers and Advisors held this informational workshop on the deployment of distributed antenna systems and small cells. The workshop can be viewed at: <https://www.fcc.gov/news-events/events/2016/05/distributed-antenna-systems-and-small-cell-workshop>

Information regarding RF emissions, measurements and standards are available at: <https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety>

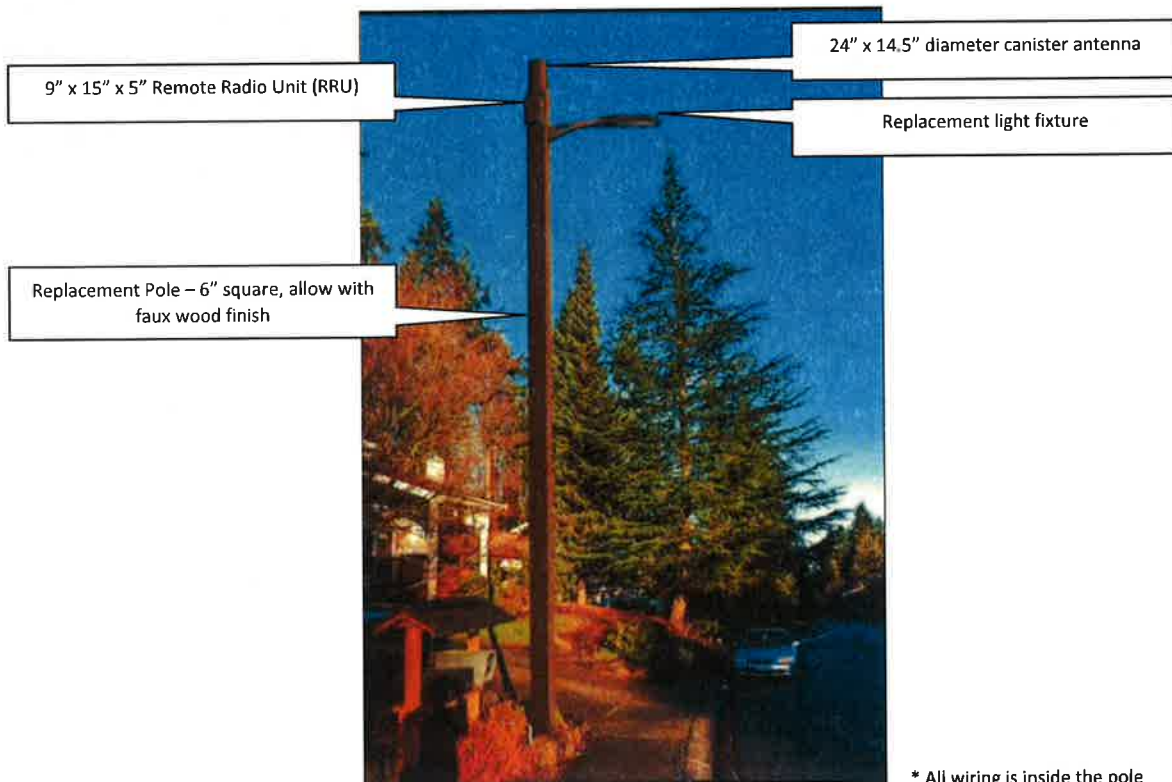
YouTube Videos explaining small cell systems: <https://www.youtube.com/watch?v=AAbVca0aKiQ> and <https://www.youtube.com/watch?v=pSCdmmdkCXM>

SMALL CELL WIRELESS COMMUNICATIONS FACILITIES IN BELLEVUE

Typical Existing Light Poles (height approximately 20'):



Proposed Replacement Light Pole (height to top of canister approximately 25'-6"):



* All wiring is inside the pole

SMALL CELL WIRELESS COMMUNICATIONS FACILITIES IN BELLEVUE

Typical Utility Pole Installation:



CURRENT

- (A) Antennas (x2)
AMTEL M12CWW0312P00
24 1" H x 18" W x 1" D
11.7 lbs (x2)
- (B) MicroLab Low PIM Spacers
18" L (x4)
- (C) ER-CSS0 mRRU
15" H x 8" W x 4.75" D
Weight 22 lbs
- (D) Proposed PSE power drop
- (E) Proposed Wave Conduit
- (F) Proposed Wave Fiber



PROPOSED