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PLANNING DEPARTMENT
BY

DESCIPTION OF CODE COMPLIANCE

Permit Review Process

According to the Kirkland Zoning Code (KZC) Chapter 117 Section 117.105 Complete Compliance Required:

2. Exception – Subsequent or Minor Modification – The Planning Official may approve a modification to the permit approved for the PWSF if:
   a. The modification is minor and will not substantially change the proposed facility; and

Clearwire's proposed antenna replacement will not substantially change the existing facility. The largest change is the documenting that the tower extension is not going to be installed. The site will operate the same with the only change that it will be provide upgraded service to customers in this area. No increase in height or number of antennas or in visual impact is proposed therefore there is no substantial change.

   b. The proposed modification will comply with the provisions of this chapter in effect at the time of the modification request; and

As demonstrated later in this document, this proposed modification complies with the current wireless facility code criteria.

   c. There will not be any substantial changes in the impacts on the neighborhood or the City as a result of the change.

Any potential impacts were reviewed in the original permit approval and no changes to impacts on the neighborhood or City were found. The visual impact will be the same or even lessened without the tower extension. The replacement of antennas will not change the site other than to provide better service.

Clearwire's proposal complies with all three exception requirements and therefore can be reviewed and approved as a minor modification.

Personal Wireless Facility Standards

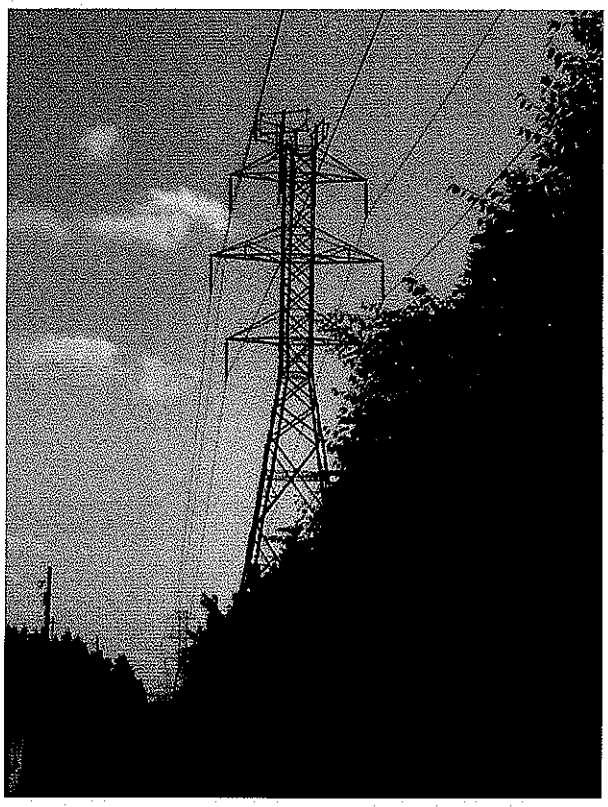
According to KZC 117.65 PWSF Standards:

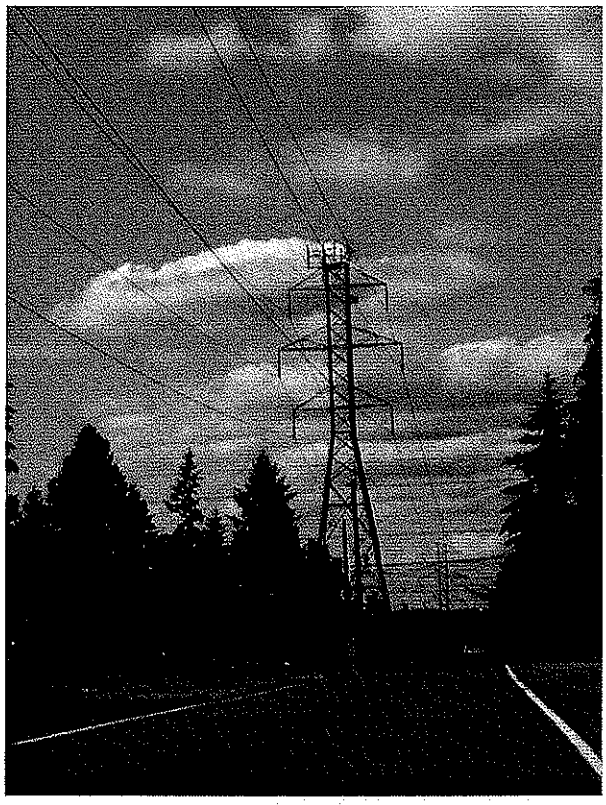
1. Context – The location and design of a cell site shall consider its visual and physical impact on the surrounding neighborhood and shall, to the extent feasible, reflect the context within which it is located.
2. Design Compatibility – PWSF shall be architecturally compatible with the surrounding buildings and land uses or otherwise integrated, through location, design, and/or concealment technology, to blend in with the existing characteristics of the site and streetscape to the maximum extent practical.

The antennas will be attached as close to the tower structure as possible in order to be integrated with the existing tower structure. In order to achieve an unobstructed view, the microwave dish does have to extend above the tower, but the panel antennas will be flush-mounted to the tower.

3. Concealment Technology – One or more of the following concealment measures must be employed unless the City determines through the applicable review process that alternative measures would be more appropriate given the contextual setting of the PWSF:
   a. For personal wireless service towers.....
   b. For rooftop antennas or antenna mounted on other (non-tower) structures.....
   c. Antennas mounted on one or more building facades.....
   d. Where feasible, cable and/or conduit shall be routed through the inside of any new tower, utility pole, or other structure. Where this is not feasible, or where such routing would result in a structure of a substantially different design or substantially greater diameter than that of other similar structures in the vicinity or would otherwise appear out of context with its surroundings, the City may allow or require that the cable or conduit be placed on the outside of the structure. The outside cable or conduit shall be the color of the tower, utility pole, or other support structure, and the City may require that the cable be placed in conduit.

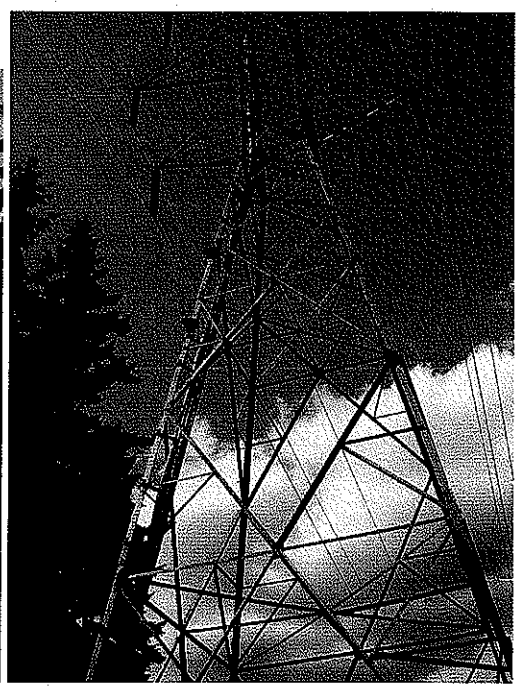
The support structure is a Seattle City Light transmission tower. The cables are routed through the inside of the tower but are still visible as the tower is not enclosed. The tower is not painted and the coax cable is not currently painted. Seattle City Light does not paint the cable as the paint does not adhere well and they are not able to adequately maintain the paint. During a site visit it was noted that is the bulk not the color of the cable that is most noticeable. See below two pictures of towers in the vicinity of Clearwire's subject site that demonstrate it is the bulk not the color of the cable that is noticeable.





The facility on the left has unpainted cable; the facility on the right has painted cable. The painting of the cable is not distinguishable. Due to the nature of Clearwire's site being located on an unpainted transmission tower and the inability to disguise the bulk of cable on this type of tower, Clearwire requests that the currently appearance of cable be approved as it is with the cable routed along a tower leg in order to appear a part of the structure. See photo below of Clearwire's site. Since painting would not be more effective in concealing the PWSF the subsequent regulation under Subsection 3 Concealment Technology could be applied:

e. Alternative measures for concealment may be proposed by the application and approved by the City, if the City determines through the applicable review process that the optional measures will be at least as effective in concealing the PWSF as the measures required above.



4. Setbacks – The following regulations apply, except for structures located in public right-of-way:
   a. New towers in any zone shall be set back a minimum of 20 feet from any property line, plus an additional one-half foot for each foot of tower height above 40 feet (e.g., if the tower is 40 feet in height, the setback will be 20 feet from any property line; if the tower is 50 feet in height, the setback shall be 25 feet from any property line).
   b. Replacement structures intended to accommodate a PWSF shall be set back a distance equal to or greater than the setback of the original structure from any property line adjacent to or across the street from a residential use or residential zone; and the lesser of 10 feet or the distance of the original structure from any property line adjacent to or across the street from all other uses or zones.

No new structures are proposed.

5. Tower and Antenna Height – The applicant shall demonstrate, to the satisfaction of the City, that the tower and antenna are the minimum height required to function satisfactorily. Personal wireless service towers shall not exceed 40 feet in residential zones, as measured from the average building elevation at the tower base to the highest point of the tower, antenna, or other physical feature attached to or supported by the tower. Examples of information that can be used to demonstrate that the tower and antennas are the minimum height necessary include, but are not limited to, propagation maps showing the necessity of the height to provide the required coverage, and a letter from a radio frequency engineer stating and explaining the necessity of the proposed height.

The antennas are at the lowest height possible due to required separation from the nearest conductor and the necessity of being able to project signal over adjacent trees that would otherwise block the signal.

6. Antennas on a Utility Pole – Antennas mounted to an existing or replacement utility pole shall be subject to the following height limits:
   a. In any zone, 15 feet above the top of a pole not used to convey electrical service;
   b. In a residential zone, 15 feet above the electrical distribution or transmission conductor (as opposed to the tower of pole) if the pole is used to convey electrical service; and
   c. In a nonresidential zone, 15 feet above an electrical distribution conductor or 21 feet above an electrical transmission conductor (as opposed to top of pole) if the pole is used to convey electrical service.
   d. On Seattle City Light transmission towers, regardless of zone, 15 feet above the top of the tower, before any tower extensions, subject to the concealment measures identified in subsection (3) of this section.

Clearwire's site meets the applicable regulation for attachments to Seattle City light transmission towers by mounting antennas less than 15 feet above the top of tower. The highest antenna will be less than 5 feet above the top of the tower and no tower extension is proposed.

7. Antennas on a Building, Mechanical Equipment Enclosure, or Water Reservoir

Not applicable.

8. Historic or Landmark Locations – No antennas shall be permitted on property designated as a historic resource or community landmark as identified in the Comprehensive Plan, unless such antennas have been approved in accordance with design requirements pertaining to historic structures.
9. Signal Interference – No antennas shall cause localized interference with the transmission or reception of any other communications signals including, but not limited to, public safety signals, and television and radio broadcast signals.
10. Support Wires – No guy or other support wires shall be used in connection with antennas, antenna arrays or support structures except when required by construction codes adopted by the City.

The subject building is not a historic or landmark location. No interference will be caused by the replacement of antennas. No support wires are proposed.

11. Views – PWSF, including towers, must be located and oriented in such a way as to minimize view blockage.

By attaching to an existing structure, no views will be blocked by the antennas.

12. Lights, Signals and Signs – No signals, lights or signs shall be permitted on towers unless required by the FCC or the FAA.

No light, signals, or signs are proposed on towers as part of this minor modification.

13. Noise – The installation and operation of PWSF shall comply with the noise standards set forth in KZC 115.95.

All noise standards will be complied with during installation and operation.

14. Federal Requirements – All PWSF must meet current standards and regulations of the FAA, the FCC and any other agency of the federal government with the authority to regulate towers and antennas. If such standards and regulations are changed, the owners of the PWSF shall bring such PWSF into compliance with such changes in accordance with the compliance deadlines and requirements of such changes. Failure to bring towers and antennas into compliance shall constitute grounds for the removal of the tower or antenna at the owner's expense. If, upon inspection, the City concludes that a PWSF fails to comply with such regulations and standards and constitutes a danger to persons or property, then, upon notice being provided to the owner of the PWSF, the owner shall have 30 days to bring such PWSF into compliance with such standards and regulations. If the owner fails to bring such PWSF into compliance within said 30 days, the City may remove such PWSF at the owner's expense.

Clearwire's existing PWSF complies with the FAA, FCC, and other agencies regulating antennas.

Equipment Structure Standards

No changes are proposed to the existing equipment cabinets.

Screening

Section 117.75 Screening concerns landscaping and fencing. The existing wood fence will remain. Landscaping was added to the site recently in compliance with landscape requirements.