



City of Seattle

Edward B. Murray, Mayor

Department of Construction and Inspections

Nathan Torgelson, Director

RECOMMENDATIONS REGARDING INSTALLATION OF COMMUNICATION UTILITIES ON SEATTLE CITY LIGHT UTILITY POLES

Application Numbers: 3023359
3023360
3023361
3023362
3023363
3023364

Applicant Name: Tanya Friese

Address of Proposal: 4410 "P" West Dravus Street
4410 "P" West Armour Street
4111 "P" West Parkmont Place
2230 "P" Montavista Place West
3601 "P" West Howe Street
4406 "P" West Montfort Place

SUMMARY OF PROPOSED ACTIONS

3023359 -4410 P W Dravus Street -Application to locate a minor communication utility (Crown Castle) on replaced SCL Street Light Pole #1409178 within the right-of-way. The project includes attaching two antennas to the top, enclosed in a concealment shroud. Equipment cabinet to be located at ground level. Final decision on placement of antennas will be made by Seattle City Light.

3023360-4410 P W Armour Street - Application to locate a minor communication utility (Crown Castle) on replaced SCL Street Light Pole #1398885 within the right-of-way. The project includes attaching two antennas to the top, enclosed in a concealment shroud. Equipment cabinet to be located at ground level. Final decision on placement of antennas will be made by Seattle City Light.

3023361-4111 P W Parkmont Place - Application to locate a minor communication utility (Crown Castle) on a replaced Seattle City Light utility pole #1384433 within the right-of-way. The project includes attaching four antennas on the top, enclosed concealment shroud. Equipment cabinet to be located at ground level. Final decision on placement of antennas will be made by Seattle City Light.

3023362- 2230 P Montavista Pl W - Application to locate a minor communication utility (Crown Castle) on replaced SCL Street Light Pole #1384433 within the right-of-way. The project includes attaching two antennas to the top, enclosed in a concealment shroud. Equipment cabinet to be located at ground level. Final decision on placement of antennas will be made by Seattle City Light.

3023363 - 3601 P W Howe Street - Application to locate a minor communication utility (Crown Castle) on replaced SCL Street Light Pole #1398918 within the right-of-way. The project includes attaching two antennas to the top, enclosed in a concealment shroud. Equipment cabinet to be located at ground level. Final decision on placement of antennas will be made by Seattle City Light.

3023364 - 4406 P W Montfort Pl - Application to locate a minor communication utility (Crown Castle) on a replaced Seattle City Light utility pole #1398958 within the right-of-way. The project includes attaching four antennas to the top, enclosed in a concealment shroud. Equipment cabinet to be located at ground level. Final decision on placement of antennas will be made by Seattle City Light.

The following recommendations from Seattle DCI are required:

Administrative Conditional Use – Class II Attachment Siting, Review and Recommendation to General Manager of Seattle City Light – SMC 15.32.300C4b

Public Comment:

The comment periods for these applications ended on or before February 24, 2016. Numerous comments were received from many neighbors, generally objecting to the proposed facilities. Many comments included concerns about adverse health effects, adverse effects on property values, and the visual intrusion of both the poles with antennas and the proposed separate equipment cabinets proposed to be installed above grade.

Regulatory Overview

In general, Seattle Dept. of Construction and Inspections (Seattle DCI) under the authority of Title 23 (the Land Use and Zoning Code) and other titles of the Seattle Municipal Code regulates land uses and development, including minor telecommunications facilities, on properties and lands which are not part of public street right of way. Work proposed in City street right of way is generally under the control of other City departments, with much of the oversight being the responsibility of Seattle Dept. of Transportation (SDOT) under the authority of Title 15 (Street Use Ordinance). Specific provisions in Title 15 give oversight of what is attached to City-owned poles to Seattle City Light (SCL). Furthermore, Seattle Municipal Code (SMC) 15.32.300C4b requires certain Class II attachment requests on City-owned poles to apply to Seattle DCI for an attachment siting review and recommendation consistent with the application, fee, notice, timeline and criteria for an Administrative Conditional Use (ACU) permit. SMC 23.57.010C2 provides that certain minor communication utility proposals in Single Family Zones must meet ACU criteria.

The ACU criteria refers to a facility of a minor communication utility in addition to referring to specific components of the facility, such as antennas, screening and equipment. This is straight-forward to apply to minor communication utilities proposed for private property. It is similarly straight forward if the facility is entirely proposed to be on City-owned poles in the right of way, where SCL makes the final decision but needs a recommendation from Seattle DCI consistent with ACU criteria.

The proposed facilities, in this case, consist of two parts: shrouded antennas to be installed with replacement City-owned poles, all of which is regulated by SCL, in addition to separate ground-mounted equipment cabinets which would require approval from SDOT, not SCL. The Seattle DCI siting recommendation is made to SCL about the poles and what is proposed to be placed on them. SDOT has separate authority to regulate placement of equipment cabinets which does require a siting recommendation from Seattle DCI and has authority to decide what can be installed above or below grade, including in most underground utility areas.

Administrative Conditional Use Criteria

SMC 23.57.010C2a: The project shall not be substantially detrimental to the residential character of surrounding residentially zoned area, and the facility and the location proposed shall be the least intrusive facility at the least intrusive location consistent with effectively providing service. In considering detrimental impacts and the degree of intrusiveness, the impacts considered shall include but not be limited to visual, noise, compatibility with uses allowed in the zone, traffic, and the displacement of residential dwelling units.

Substantially Detrimental to the Residential Character

Public comment was received, expressing concern that radio frequency radiation from the proposed facility could be a detrimental impact. The applicant has submitted a Personal Wireless Service Facility Applicant's Statement of FCC Compliance and Non-ionizing Electromagnetic Exposure Analysis with engineering certification for these proposed facilities. The report was prepared by a Washington State licensed professional engineer. In 2013, pursuant to Senate Bill 1183, the Washington State legislature exempted most new and expanded minor telecommunication facilities of this scale from review under Washington's State Environmental Policy Act (SEPA). Furthermore, the Federal Communications Commission (FCC) has pre-empted state and local governments from regulating personal wireless service facilities on the basis of environmental effects of radio frequency emissions. Therefore, radio frequency radiation is not part of the analysis for detrimental impact or intrusiveness under this criterion. No mitigation measures for the effects of radio frequency radiation are warranted.

Attachments to city-owned poles to accommodate minor communication utilities are not unique to the subject locations. Numerous similar-sized facilities have been approved and installed on utility poles throughout Seattle, often in residential areas including Single Family zones. Even in Single Family zones, no special approval or recommendation from Seattle DCI is needed when these are located on poles below existing power lines as a Class I Attachment. Furthermore, there are some installations of minor communication utilities on apartment buildings and other non-conforming structures in Single Family zones, many of which are far larger facilities than the subject proposals.

While certain minor communication facilities may have some detrimental effect, the mere existence of minor communication utilities in Single Family zones in general is not substantially detrimental to residential character. Appropriately-sized utility infrastructure which has been installed in the right of way, such as street lamps, traffic signal controller boxes, water meters, minor communication infrastructure, or electrical utility poles appear to be the utilities needed to support the immediate residential area and do not change the character of the area to be less residential in nature. The proposed facilities, if installed as proposed, will not be substantially detrimental to the residential character of surrounding residentially zoned area.

Least Intrusive

In most residential zones, new telecommunication facilities are typically located on rooftops of buildings and in order to be the least intrusive facility are typically enclosed with screening material designed to mimic a portion of the building such as a mechanical system penthouse or elevator overrun. City Light has approved numerous minor communication facilities to be located on large wood or metal utility poles throughout the City. These antennas are intermixed with numerous elements of utility and other infrastructure such as multiple lengths of electrical distribution wires, transformers, street lamp arms, and traffic signage on above-ground utility poles. Although typically not effectively screened to be enclosed within an otherwise larger structure, the intrusiveness of attachments to utility poles is generally heavily mitigated by the bulk of the poles themselves as well as by the other existing infrastructure elements that surround these attachments on the poles.

The subject proposals are in one of several areas in the City where significant effort was previously made by SCL to remove or underground virtually all utilities that are otherwise often located on large utility poles. Even the large utility poles were removed. Furthermore, property owners in the area were required to pay an assessment to cover a portion of the cost to underground these utilities. The primary visual element that remained after the undergrounding process is a set of mostly slender lamp posts that provide street lighting. Unlike other areas of the City where similar antennas are frequently added to a visual jumble of utility infrastructure onto large utility poles, the proposed antennas will be more intrusive. Further analysis of least intrusive location and facility is warranted.

Least Intrusive Location:

The application includes site location analysis consistent with Seattle DCI (SDCI) Director's Rule 19-2013. No sites are zoned more intensively than Single Family in or near the search area. Therefore, from the perspective of intensity of land use zones, the proposed locations appear to be the least intrusive locations.

Least Intrusive Facility:

Telecommunication facilities may be considered as intrusive based on numerous factors. In addition to being visually or aesthetically intrusive, they may be intrusive based on "use" category, and operational impacts such as the frequency, duration and intensity of activity during maintenance periods, noise and traffic, and reduction of available public right of way area used for other purposes.

Compatibility with uses allowed in the zone:

The antennas are proposed to be installed on replacement lamp posts and would only minimally reduce the available right of way for other purposes due to such design aspects as larger footprints of the replacement lampposts. Each replacement lamppost is proposed to have a detached metal box for support equipment sitting on a concrete pad in the planting strip near the lamppost. Other than street right of way, the sites that could accommodate minor communication facilities appear limited to public park properties, individual lots developed with single family residences, and one large full-block lot developed with a tall water tower operated by Seattle Public Utilities (SPU).

The water tower currently has several minor communication facilities located on it. Due to the extreme large size of the water tank, as well as the utilitarian and non-residential nature of the water tank, the water tower site would likely be the least intrusive facility for additional minor communication utilities that are not installed internal to existing structures if they can effectively provide service. At least one recent application from another minor communication utility provider has proposed coverage for some of the same service area as in the subject applications by mounting antennas on the legs of the water tower. While there may be limitations caused by topography or other factors that might warrant minor communication facilities to be proposed in street right of way in the area of the proposed facilities, it does appear that some additional antenna installations on the water tower may be able to allow for a reduction in the number of sites proposed on street lampposts. Due to the large size of the water tower site, installation and maintenance activities would also be less intrusive to the neighborhood than maintenance on antennas proposed on light poles in street right of way.

Noise:

Seattle DCI has noted that some minor communication facilities installed in the City have been designed with electronic equipment that includes cooling fans which can be audible to persons within close proximity. While some telecommunication equipment has been observed to exceed the noise ordinance during evening hours in residential zones, even equipment that satisfies the noise ordinance may be considered to be intrusive if it can be audible by passersby on the sidewalk or by neighboring properties, especially on quiet evenings. These applications are not specific about noise emissions from the proposed antennas and their necessary supporting equipment. If any cooling equipment is to be included as part of the equipment supporting the operation of the proposed facilities, an acoustic consultant would best be able to predict noise levels and the distance from which the sound could still be audible. From the perspective of noise, the least intrusive facility would be the quietest facility that can practicably be provided.

Traffic:

Minor telecommunication facilities typically are very low traffic generators. Several vehicles per day tend to be utilized during the construction process which may last a few weeks. Ongoing maintenance and repair tends to only generate a very few vehicle trips per month. If any of the proposed sites could be deleted from the proposal by installing more antennas on the water tower, even the few trips that would otherwise be generated would likely be further reduced.

Displacement of residential dwelling units:

No displacement of residential dwelling units is proposed.

Visual:

Due to the extreme effort to underground or remove virtually all of the utility infrastructure that was previously located on utility poles above ground, any addition of above ground utilities that cannot fit inside the existing lamp posts will be somewhat intrusive. If it is possible to do so, a greater number lampposts with smaller facilities that fit totally within the lampposts (or a radio-frequency transparent replica of the lamppost) appears to be the least intrusive approach to providing minor telecommunications services to this area or any other area in the City with underground utilities. This should include incorporating the supporting equipment into the lamppost as well or providing supporting equipment in an underground vault, consistent with other utilities in the area.

There may be physical or other limitations to such an approach. A somewhat more intrusive approach that would still be less intrusive than the existing proposals would be to replace the existing lampposts with somewhat larger (wider and taller) lampposts that are able to accommodate antennas and equipment inside of them yet still appear to simply be lampposts. Another design that would be arguably less intrusive than the proposals would be to design lampposts with all of the facility inside with the exception of a singular slender antenna designed to protrude above the center of the lamp housing.

Two of the proposed facilities intend to replace or expand existing custom lampposts which were previously designed to house antennas inside of them. Although SCL reports that these lampposts were never made operational, they are at least designed to conceal the antennas. Additional design effort should be considered to integrate the new antennas inside the envelope of these lampposts or similar replacements. A greater number of the lampposts may reduce the need for additional height of the antennas. Furthermore, multiple antennas are proposed inside the antenna shrouds. The shroud could be more slender, and therefore more easily incorporated into a redesigned lamppost, if a greater number of lampposts were utilized each with fewer antennas or if antennas can be stacked inside their shroud.

In summary, while the proposed minor telecommunication utilities might possibly be the least intrusive facilities in the least intrusive location that does not appear to be likely. Due to the unique characteristics of the underground utility area and SCL technical and other requirements for lamppost design, SCL should consider whether it is appropriate to further study possibilities for less intrusive designs of the proposed facilities.

SMC 23.57.010C2 *b*: *The visual impacts that are addressed in [Section 23.57.016](#) shall be mitigated to the greatest extent practicable.*

The impacts that are addressed in the various provisions of Section 23.57.016 are focused on minimizing the visual impacts of minor communication facilities. Where possible, the criteria directs proposals to visually be incorporated into the host structure on which they are mounted, if possible. Where that is not possible, the design standards direct that the utilities that cannot be screened should be otherwise mounted flat against their host structure or in other ways be designed to not visually protrude.

- A. *Telecommunication facilities shall be integrated with the design of the building to provide an appearance as compatible as possible with the structure.*

Telecommunication facilities, or methods to screen or conceal facilities, shall result in a cohesive relationship with the key architectural elements of the building.

While the proposed lampposts are not buildings as the term is typically applied, the impact addressed in this criterion is to visually integrate the minor telecommunication facility into the host structure, which in the subject proposals are lampposts. The antennas for these facilities are proposed to be shrouded with a cover so as to screen the antennas from view. Redesigned lampposts to better integrate antennas with or without supporting equipment, even if larger than the existing lampposts, could result in a more integrated and cohesive relationship between the minor communication facilities and the lampposts than the subject proposals.

- B. If mounted on a pitched roof, facilities shall be screened by materials that maintain the pitch of the roof, matching color and texture as closely as possible, or integrated with and enclosed within structures such as dormers or gables compatible with the roof design. See exhibit [23.57.016 B](#).*

While the facilities are not proposed to be mounted on a pitched roof, the impact addressed in this criterion is to visually integrate the minor telecommunication facility into the host structure, which in the subject proposals are lampposts. Redesigned lampposts that accommodate the utility inside the lamppost, even if larger than the existing lampposts, could result in a more integrated and cohesive relationship between the minor communication facilities and lampposts than the subject proposals.

- C. If mounted on a flat roof, screening shall extend to the top of communication facilities except that whip antennas may extend above the screen as long as mounting structures are screened. Screening for satellite dishes is addressed in subsection E, below. Said screening shall be integrated with architectural design, material, shape and color. Facilities in a separate screened enclosure shall be located near the center of the roof, if technically feasible. Facilities not in a separate screened enclosure shall be mounted flat against existing stair and elevator penthouses or mechanical equipment enclosures and shall be no taller than such structures.*

While the facilities are not proposed to be mounted on a flat roof, the impact addressed in this criterion is to visually integrate the minor telecommunication facility into the host structure, which in the subject proposals are lampposts. Redesigned lampposts that accommodate the utility inside the lamppost, even if larger than the existing lampposts, could result in a more integrated and cohesive relationship between the minor communication facilities and the lampposts than the subject proposals.

- D. Facilities that are side-mounted on buildings shall be integrated with architectural elements such as window design or building decorative features, or screened by siding or other materials matching the building exterior, or otherwise be integrated with design, material, shape, and color so as to not be visibly distinctive. In general, antennas shall be as unobtrusive as practicable, including the use of non-reflective materials. Installations on the primary building facade*

shall be allowed only if roof, ground-mounted, or secondary facade mounted installation is technically unfeasible.

While the facilities are not proposed to be side-mounted on a building, the impact addressed in this criterion is to visually integrate the minor telecommunication facility into the host structure, which in the subject proposals are lampposts. Further efforts should be made to integrate the design, material, shape and color of the minor communication facilities into that of the redesigned lampposts.

- E. Satellite dishes that are not located on freestanding transmission towers shall be screened to the top of the dish on at least three (3) sides and shall be enclosed in the direction of the signal to the elevation allowed by the azimuth of the antenna. If screening on the remaining side is not to the top of the antenna, the antenna and the inside and outside of the screen shall be painted the same color to minimize visibility and mask the contrasting shape of the dish with building or landscape elements.*

The proposal is not for satellite dishes.

- F. New antennas shall be consolidated with existing antennas and mechanical equipment unless the new antennas can be better obscured or integrated with the design of other parts of the building.*

Two of the facilities, one on W Montfort Pl (3023364) and one on W Parkmont Pl (3023361) are proposed to replace lampposts previously designed to house internal antennas, although they never became operational. All of the antennas in these two replacement poles are proposed to be clustered together. The intent of this criterion appears to have been met.

- G. Antennas mounted on a permitted accessory structure, such as a free standing sign, shall be integrated with design, material, shape and color and shall not be visibly distinctive from the structure.*

Although the lampposts, being in street right of way, are not considered to be accessory structures as contemplated by SMC Title 23, the visual impact this criterion addresses should result in minor telecommunication facilities integrated with the design, material, shape and color of their host support structure, in these proposals lampposts, and should not be visibly distinctive from the lampposts. While the proposals for the lampposts and antenna shrouds may appear to be of similar material and color, the shape and design of the shrouded antennas appear to be visibly distinctive from that of the replacement lampposts. Redesigned lampposts, even if larger than the existing lampposts, could result in a more integrated and cohesive relationship between the minor communication facilities and the lampposts than the subject proposals.

- H. A screen for a ground-mounted dish antenna shall be a minimum six (6) feet tall and shall extend to the top of the dish. The screen may be in the form of a view-obscuring fence, wall or hedge that shall be maintained in good condition. Chain link, plastic or vinyl fencing/screening is prohibited.*

The proposals are not for ground-mounted dish antennas.

- I. *Antennas attached to a public facility, such as a water tank, shall be integrated with the design, material, shape and color of, and shall not be visibly distinctive from, the public facility. Antennas attached to City-owned poles shall follow the terms and conditions contained in [Section 15.32.300](#).*

The proposals are for antennas attached to City-owned poles and are being reviewed by Section 15.32.300.

- J. *Freestanding transmission towers shall minimize external projections from the support structure to reduce visual impacts and to the extent feasible shall integrate antennas in a screening structure with the same dimensions as external dimensions of the support structure, or shall mount antennas with as little projection from the structure as feasible. External conduits, climbing structures, fittings, and other projections from the external face of the support structure shall be minimized to the extent feasible.*

The proposals are not for freestanding transmission towers.

- K. *The standards set forth in this [Section 23.57.016](#) may be varied as follows:*
 1. *For new buildings these standards may be varied through the design review process provided for in [Section 23.41.014](#).*
 2. *For existing buildings that have previously gone through the design review process these standards may be varied by the Director if the Director determines that the new minor communication facilities would be consistent with the Director's design review decision on the original building; otherwise, these standards may be varied through the administrative design review process provided for in [Section 23.41.016](#).*
 3. *For existing buildings that have not previously gone through the design review process these standards may be varied through the administrative design review process provided for in [Section 23.41.016](#).*

This criterion, while allowing some flexibility in the specific design standards that mitigate for visual impact, relies on the Design Review process, including adopted City-wide Design Guidelines, to determine specific design standards for certain minor telecommunication facilities located on buildings. While the Design Review process is not available for City-owned poles in the right of way, similar flexibility is available since the specific standards of Section 23.57.016 do not apply yet the visual impacts addressed by that section must be mitigated to the greatest extent practicable under the broader criterion of SMC 23.57.010C2b.

SMC 23.57.010C2c: Major Institution Overlay District, a Major Institution may locate a minor communication utility or an accessory communication device, either of which may be larger than permitted by the underlying zone, when:

- 1) *The antenna is at least 100 feet from a Major Institution Overlay District boundary, and*

2) The antenna is substantially screened from the surrounding neighborhood's view.

The proposals are not in a Major Institution Overlay District. This criterion does not apply.

SMC 23.57.010C2d: If the proposed minor communication utility is proposed to exceed the permitted height of the zone, the applicant shall demonstrate the following:

- 1) The requested height is the minimum necessary for the effective functioning of the minor communication utility, and*
- 2) Construction of a network of minor communication utilities that consists of a greater number of smaller less obtrusive utilities is not technically feasible.*

This criterion does not apply.

SMC 23.57.010C2e: If the proposed minor communication utility is proposed to be a new freestanding transmission tower, the applicant shall demonstrate that it is not technically feasible for the proposed facility to be on another existing transmission tower or on an existing building in a manner that meets the applicable development standards. The location of a facility on a building on an alternative site or sites, including construction of a network that consists of a greater number of smaller less obtrusive utilities, shall be considered.

The proposals do not include a new freestanding transmission tower. This criterion does not apply.

SMC 23.57.010C2f: If the proposed minor communication utility is for a personal wireless facility and it would be the third separate utility, or any subsequent separate utility after the third utility, on the same lot, the applicant shall demonstrate that it meets the criteria contained in subsection 23.57.009.A, except for minor communication utilities located on a freestanding water tower or similar facility.

The proposal is not for a third separate utility on a lot. This criterion does not apply.

SUMMARY

Class II attachments to typical City Light poles are not substantially detrimental to residential character in Single Family Zones. Attachments to existing or replaced utility poles are not much more intrusive than the existing poles and equipment that are in place. In areas of underground utilities, additional utilities installed above grade are somewhat intrusive. If some or all of the proposed attachments can be moved to the existing water tower, that scenario would be less intrusive than the existing proposals. If the facilities can be included inside existing or replacement lampposts such that to the casual observer there are no above ground utilities other than the lampposts, that would also be less intrusive than the proposed facilities.

Seattle City Light may wish to consider having another design of street lamppost that might be able to incorporate small cell antenna technology that could be utilized as an alternative to the subject proposals and that could be used elsewhere in the future, especially in other areas of the City with underground utilities. If that is not possible, Seattle City Light may ask the applicant

to better integrate the antennas into the lampposts such that the bulk of the antenna shrouds are reduced and redesigning the replacement lampposts to look more like lampposts even if antenna shrouds are visible.

RECOMMENDATION:

The Director of Seattle DCI recommends that Seattle City Light determine if it is possible or appropriate to design less intrusive facilities by maximizing antenna location on the nearby SPU water tower or if it is possible or appropriate to minimize the addition of utility infrastructure above grade that do not appear to be simply street lampposts. If relocation to the water tower or minimizing the visual appearance of new utilities above grade can be made, the DIRECTOR RECOMMENDS DENIAL of the proposed facilities if they are not relocated or redesigned. If no relocation of any of the facilities to the water tower can be accommodated and/or if no further minimization of the visual aspect of adding antennas above grade and outside of new or replaced lampposts, the DIRECTOR RECOMMENDS APPROVAL.

Onum Esonu, Land Use Planning Supervisor
Seattle Department of Construction and Inspections

Date: May 16, 2016

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