CITY OF OAKLAND

DESIGN STANDARDS FOR SMALL WIRELESS FACILITIES LOCATED IN THE PUBLIC RIGHT-OF-WAY

Title, purpose, and applicability.

The purpose and intent of these design standards are to provide a uniform set of standards for the development, location, siting and installation of Small Wireless Facilities located in the public right-of-way. These design standards are intended to balance the needs of wireless communications providers, the regulatory functions of the City of Oakland, the mandates of State and Federal law, and the potential impacts on the community and neighboring property owners in the design and siting of Small Wireless Facilities located in the public right-of-way. The design standards are designed to promote and protect the public health, safety, welfare, and the visual quality of the City of Oakland while encouraging the appropriate development of Small Wireless Facilities, and may be amended from time to time as reasonably necessary to achieve these goals. These design standards shall only apply to Small Wireless Facilities located in the public right-of-way, and shall be in addition to any other design criteria or regulations specified in the Oakland Municipal Code.

Definitions.

The following specific definitions shall apply in reviewing applications according these design standards:

"Antenna" means an apparatus designed for the purpose of emitting radiofrequency radiation, to be operated or operating from a fixed location for the transmission of signals, data, images, and sounds of all kinds.

"Antenna equipment" includes the transmitting device and on-site equipment, switches, wiring, cabling, power sources, shelters, or cabinets.

"Collocation" exists when a wireless communications provider mounts equipment on a pre-existing pole.

"Ornamental pole" refers to poles of the Claremont, Forrest Park, Merriweather, or Washington style, as depicted in Exhibit A to these guidelines.

"Equipment cabinet" means a cabinet or other enclosure used to house equipment used by telecommunications providers at a facility.

"Related equipment" means all equipment ancillary to the transmissions and reception of voice and data via radio frequencies. Such equipment may include, but is not limited to, cable, conduit and connectors, and also includes the antenna equipment and any pre-existing associated equipment on the structure.

"Small Wireless Facilities" means telecommunications facilities that meet each of the following conditions:

(1) The facilities— (i) are mounted on structures fifty (50) feet or less in height including their antennas, or (ii) are mounted on structures no more than ten percent (10%) taller than other

adjacent structures, or (iii) do not extend existing structures on which they are located to a height of more than fifty (50) feet or by more than ten percent (10%), whichever is greater;

(2) Each antenna associated with the deployment, excluding associated antenna equipment is no more than three (3) cubic feet in volume;

(3) All other related equipment, including the antenna equipment, is no more than twenty-eight (28) cubic feet in volume;

(4) The facilities do not result in human exposure to radio frequency radiation in excess of the applicable Federal safety standards.

General Development Standards for Small Wireless Facilities Located in the Public Right-of-Way – Department of Transportation.

A. Installation and development.

1. Each request should identify the proposed site using nearest address, nearest assessor parcel number, street light pole number, and mapped coordinates (by GIS or other method approved by City), describing in reasonable detail the type of existing light pole, proposed Small Wireless Facility and method of installation, attachment and connection with utilities and the Network, and a photo simulation from at least three reasonable line-of-site locations near the proposed project site.
2. Small Wireless Facilities shall not be closer than two hundred (200) feet from any other Small Wireless Facility unless the applicant is asked to move a proposed antenna location (See Section H) and by so doing would have to move to within 200-feet of an existing or approved but not yet constructed facility. The applicant will be responsible for submitting evidence at the time of application to the satisfaction of City Planning that they are not within 200-feet of any existing or approved but not yet constructed facility.
3. Small Wireless Facilities in the public right-of-way shall be located on existing non-ornamental light poles, utility poles or other support structures, except as otherwise permitted herein.
4. Existing on-site vegetation shall be preserved or improved, and disturbance of the existing topography shall be minimized, unless such disturbance would result in less visual impact of the site to the surrounding area.
5. Use of traffic signal poles will not be allowed.
6. New poles will be allowed where there is a demonstrated lack of a suitable pole in existence and where there is a demonstrated need to fill a coverage gap. For the purposes of this section a new pole is defined as a brand new facility, where no pole currently exists, not a replacement pole that has been engineered to carry the weight of an antenna.

B. Permits

1. Permit applications must be approved by the City Planning and/or Building Department and the Real Estate Department. When the installation involves a City pole, the Department of Transportation Streetlighting Administration must also approve the application.

2. The City of Oakland Utility Company Excavation Permit Application is available on the internet. The permit process, timeline and documentation required for review and approve of the work are listed in the application package. First-time applicants are encouraged to contact the senior engineering technician at DOTpermits@oaklandca.gov for a preapplication meeting.

C. Facility, Equipment, Wiring and Cabling

1. Light poles and other city-owned utility poles or other support structures showing signs of damage or corrosion shall be replaced prior to installation. New foundations and pull boxes with bolted covers may be required when replacement of the streetlight pole is necessary.
   a. Replacement poles must match adjacent poles in style and form (round, octagonal, fluted, tapered, etc.)
   b. Existing High Pressure Sodium (HPS) or other non-LED street light fixtures shall be upgraded to LED fixtures as approved by the City.
   c. Over-head wiring connecting the street light fixtures shall be undergrounded as part of the antenna installation work.
   d. Splicing of Telecommunication fibers, conduits, and conductors shall be performed in a Telecommunication pull box.
   e. A 40A fuse shall be installed in the fusible link to be located within the Telecommunication pullbox.
2. Small Wireless Facilities may not be mounted on ornamental poles. The City may approve Small Wireless Facilities located inside of a matching replacement pole capable of containing the facilities entirely within the pole.
3. Small Wireless Facilities may not be mounted on street light poles which has a contactor located on the pole. The contactor has a blue photo-cell mounted on the main street light pole. See example provided in Exhibit C – Street Light pole with contactor.
4. Luminaires to be replaced on existing poles must be re-installed with a LED luminaire approved by the City.
5. Pole number labels, if incorrect or missing, shall be corrected and installed.
6. Poles with previously permitted Telecommunications Facilities require a new permit application for additional antennas.
7. Except for wiring and cabling, Small Wireless Facilities shall be located entirely on the subject pole, including any utility meter, unless the City determines based on evidence provided by the applicant that such installation is infeasible. The maximum dimensions of a ground-mounted equipment cabinets are thirty (30) inches wide by thirty (30) inches deep by four (4) feet high. Ground-mounted equipment cabinets must be square in shape, installed flush to the ground and shall be painted to match features around the existing structure. Ground mounted equipment on sidewalks must not interfere with the flow of pedestrian traffic and must conform to the Americans with Disabilities Act (ADA) in regards to appropriate sidewalk spacing.

8. Telecommunications Facilities shall not interfere with City operations, e.g. sign and signal visibility.

9. Telecommunications Facilities shall be designed in accordance with the requirements for streetlight facilities and appurtenances including: hardware, corrosion protection, signs, labels and matching finish.

D. Construction Period Requirements

1. The applicant must submit fully-dimensioned site plans, elevation drawings and structural calculations prepared, sealed, stamped and signed by a Professional Engineer. Drawings must depict any existing wireless facilities, with all existing transmission equipment identified; other improvements; the proposed facility, with all proposed transmission equipment and other improvements; and the boundaries of the area surrounding the proposed facility and any associated access or utility easements or setbacks.

2. All installation work shall be performed lien-free, in a skillful and workmanlike manner, only by qualified and properly trained persons and appropriately licensed contractors. Contractors should have bonds to guarantee performance of the work all in form and content acceptable to the City.

3. A schedule for the proposed work, as well as the list of all contractors authorized to enter the sites, should be delivered thirty (30) days prior to the installation of the small wireless facility. To the extent reasonably feasible, work shall be coordinated with any parties to perform work jointly in the City's ROW, provided that such parties has obtained any required permits or other approvals from the City applicable thereto.

4. The applicant shall coordinate work to avoid any interference with existing utilities, substructures, facilities and/or operations at the site.

5. When projects require excavation, the City will determine whether surplus conduit is available in the project area and whether joint trenching or boring is feasible.

E. Appearance

1. Antennas shall be covered by appropriate casings that are manufactured, textured and painted to match features found on the existing structure.

2. Equipment cabinets shall be of the same type and design of the surrounding utility structures, and screened from public view by using materials and colors consistent with surrounding backdrop. The equipment cabinet must be maintained per industry standards.

3. All reasonable means of reducing public access to the antennas and equipment must be made, including, but not limited to, placement on structures.

4. Except when Small Wireless Facilities are attached to a wooden pole, exposed wires are not permitted.

5. Small Wireless Facilities must meet the size and height limitations within the definition of Small Wireless Facilities, above.

F. Site Location Preferences

New Small Wireless Facilities in the public right-of-way shall be located in the following areas in order of preference:

a. Areas that are not located adjacent to a public park (city, regional or state); or within a designated Historic Area of Primary Importance (API). or Secondary Importance (ASI).

b. Areas that are located adjacent to a public park (city, regional or state); or within a designated Historic Area of Secondary Importance (ASI).

c. Areas that are located within a designated Historic Area of Primary Importance (API).

Facilities locating in an a-ranked preference area do not require a site alternatives analysis. Facilities proposing to locate in a b- or c-ranked preference area, inclusive, must submit a site alternatives analysis as part of the required application materials. A site alternatives analysis shall, at a minimum, consist of:

1. The identification of all A-ranked preference sites within two-hundred (200) feet of the proposed location. If more than three (3) A-ranked preference sites exist, the three such closest to the proposed location shall be required.
2. Written evidence indicating why each such identified alternative cannot be used. Such evidence shall be in sufficient detail that independent verification, at the applicant's expense, could be obtained if required by the City of Oakland Zoning Manager. Evidence should indicate if the reason an alternative was rejected was technical (e.g. incorrect height, interference from existing Radio Frequency (RF) sources, inability to cover required area) or for other concerns (e.g. refusal to lease, inability to provide utilities).

If the City determines based on the required site alternatives analysis that the preferred-location alternatives are not feasible, then the Small Wireless Facility may be installed in a non-preferred location.

G. Radio Frequency Emissions Standards.

The applicant shall submit written documentation demonstrating that the emissions from the proposed project, combined with the baseline Radio Frequency (RF) emissions condition at the proposed location, are within the limits set by the Federal Communications Commission or any such agency who may be subsequently authorized to establish such standards.

The applicant for all Small Wireless Facilities, including requests for modifications to existing facilities, shall submit the following verification:

1. With the initial application to the Planning Bureau, a RF emissions report, prepared by a licensed professional engineer or other expert, indicating that the emissions from the proposed project, combined with the baseline RF emissions condition at the proposed location and other approved by not yet constructed telecommunications facilities, will be within the current acceptable thresholds as established by the Federal government or any such agency who may be subsequently authorized to establish such standards; and
2. Prior to final DOT Permit sign off, a second RF emissions report indicating that the actual, measured emissions from the project upon operation, combined with the baseline RF emissions condition at the project location and other approved by not yet constructed telecommunications facilities, is within the acceptable thresholds as established by the Federal government or any such agency who may be subsequently authorized to establish such standards shall be submitted to the Planning Bureau for review.

If the RF emissions report show required mitigations to bring the Small Wireless Facility into compliance with the applicable standards, such mitigation measures shall be shown on all plans and constructed as designed. Should any modifications to the exterior appearance be required, DOT will consult with Planning to see if additional Design Review is necessary.

H. Public Outreach

As a requirement of submittal to the Planning Bureau, the applicant shall show proof that they held a community meeting for each site under consideration. The information shall include location, date and time of the meeting, number of attendees and whether any modifications requested by the public were accommodated and what those accommodations are.

Small Wireless Facilities
Review Process

CITY OF OAKLAND

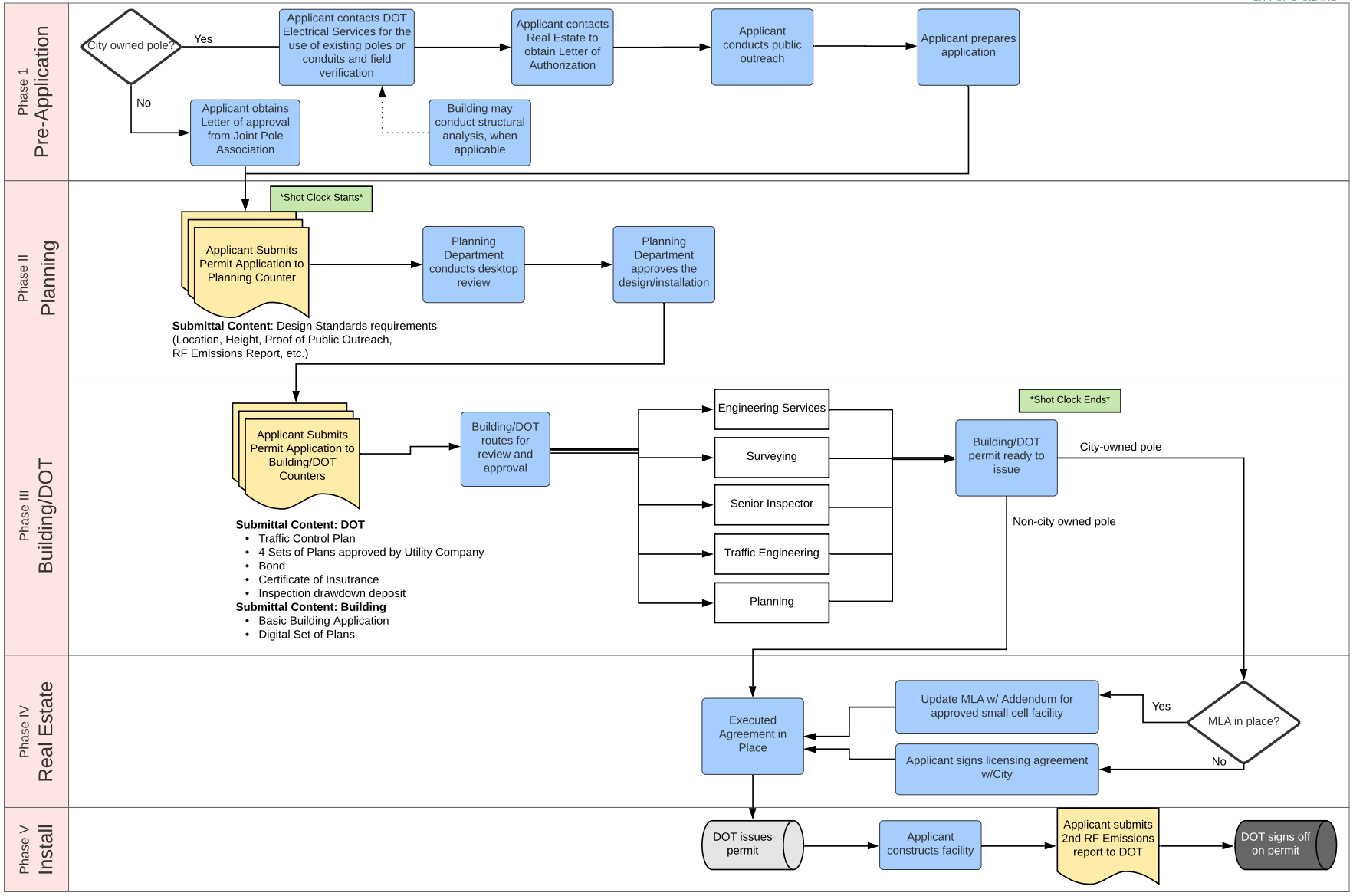


EXHIBIT A - TYPES OF POLE STYLES

Claremont

Cobra (L)

Cobra (S)

Contemporary

Domus

Forrest Park

Gull Wing

Icon Slide

Merriweather

Tear Drop

Universe

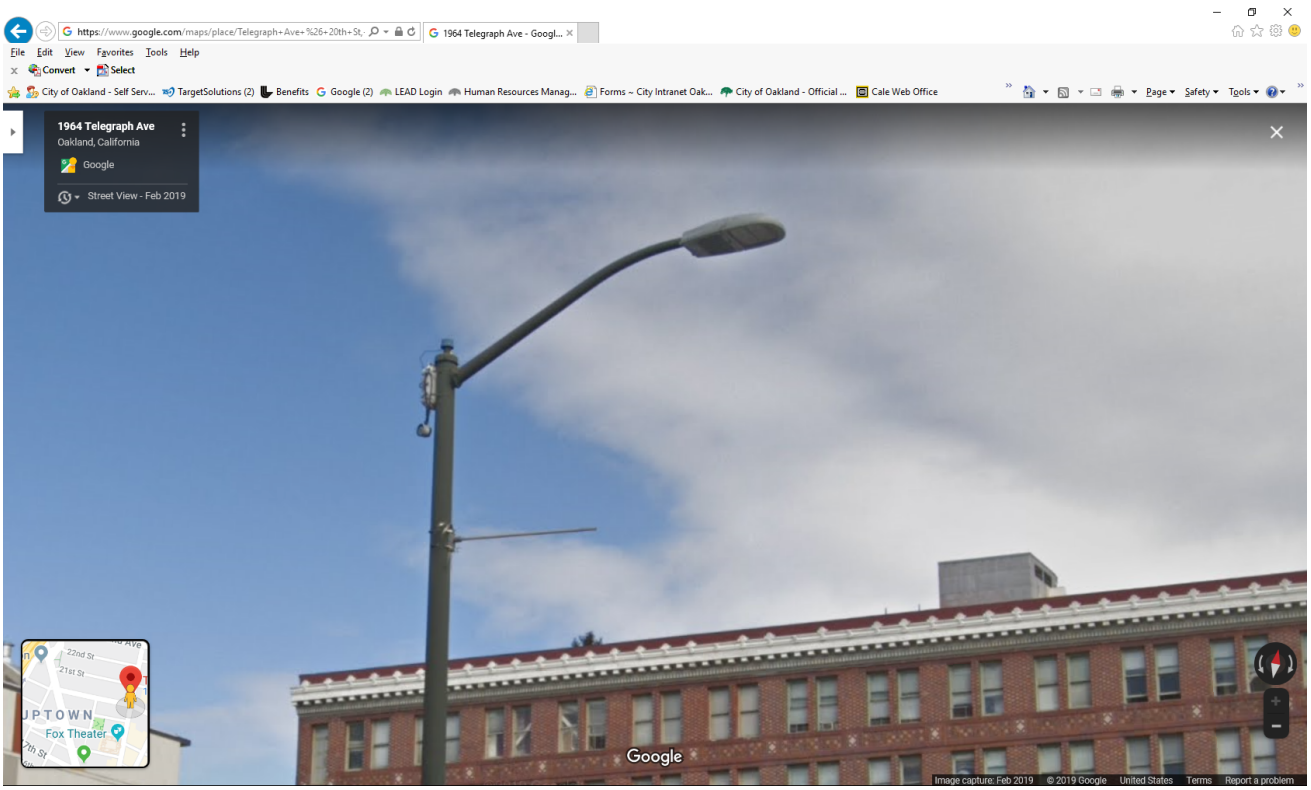
Washington

EXHIBIT B – POLE STANDARDS

See Street Light Design Manual here:
http://www2.oaklandnet.com/oakca1/groups/pwa/documents/policy/oak044193.pdf

EXHIBIT C – EXAMPLE STREET LIGHT POLE WITH CONTACTOR

Telegraph Ave. and 20th Street



August 16, 2019