

Case File Number: PLN17-482

March 7, 2017

Location: The public right of way adjacent to 4701 Martin Luther King Jr. Way on a JPA Utility Telephone Pole (See map on reverse)

Assessor Parcel Numbers: 013-1163-007-03 (nearest lot adjacent to the project site)

Proposal: Installation of a wireless "small cell site" telecommunication facility for Verizon Wireless on an existing 43' wooden utility PG&E pole located in the public right-of-way. The project involves installation of 1) two (4') tall panel antennas within a ray-dome canister mounted on the top of the existing pole; 2) two radio units mounted at a height of 11' and 17'; and 3) one cabinet and related equipment mounted 11' above ground.

Applicant: Sequoia Development Services for Verizon Wireless

Contact Person/ Phone Number: Ben Hackstedde (949) 259-3344

Owner: Pacific Gas & Electric (PG&E)

Case File Number: PLN17-482

Planning Permits Required: Major Design Review to install a wireless Macro Telecommunications Facility on an existing PG&E pole located in the public right -of- way in a residential zone.

General Plan: Urban Residential

Zoning: RU-4

Environmental Determination: Exempt, Section 15301 of the State CEQA Guidelines: minor additions and alterations to an existing PG&E utility pole; Section 15303: new construction or conversion of small structures, and Section 15183: projects consistent with a community plan, general plan or zoning.

Historic Status: No Historic Record – Utility Pole

City Council District: 1

Date Filed: November 30, 2017

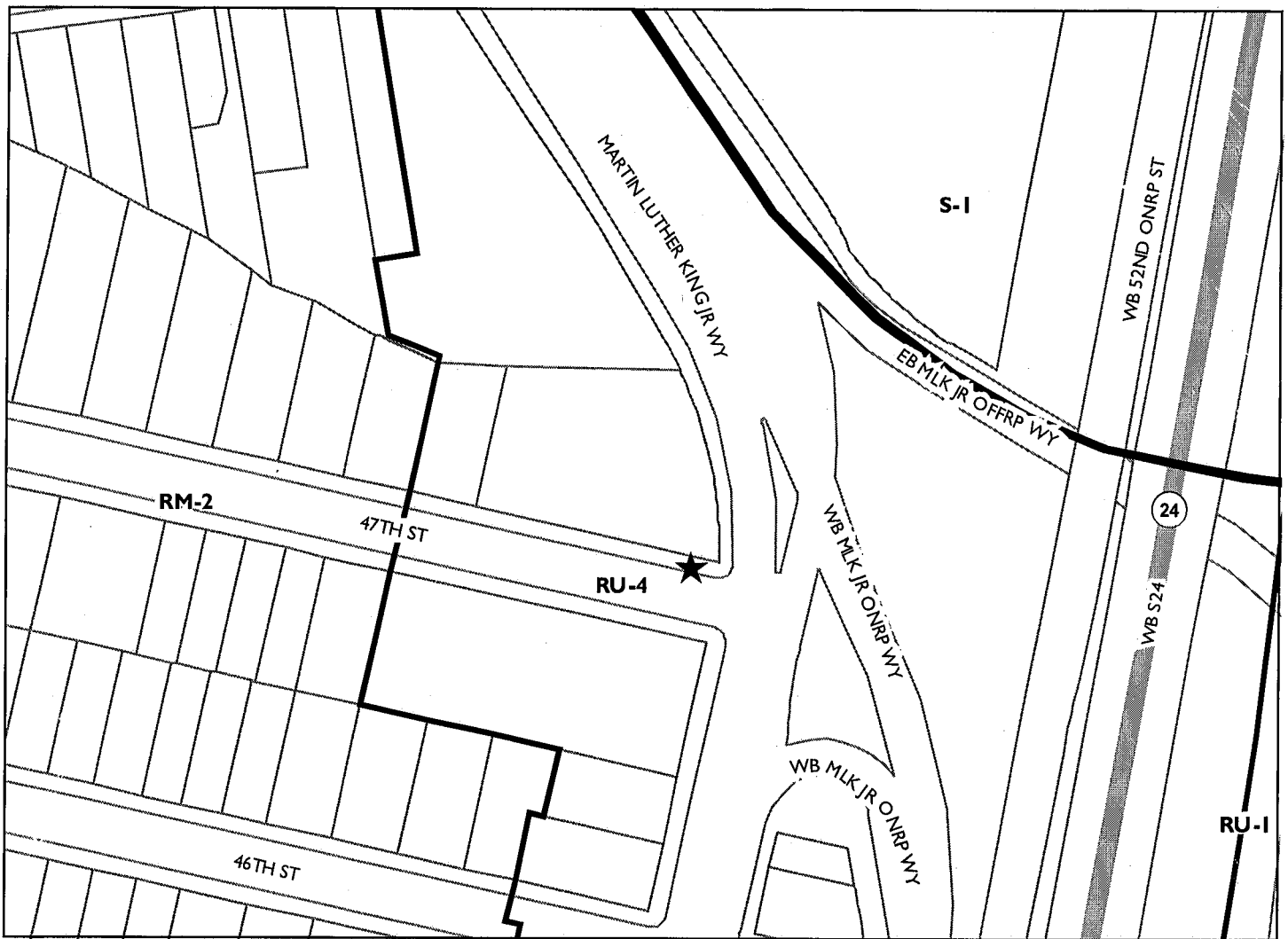
Finality of Decision: Appealable to City Council within 10 Days

For Further Information: Contact case planner Jason Madani at (510) 238-4790 or jmadani@oaklandnet.com

SUMMARY

The project applicant (Sequoia Development Services for Verizon Wireless) is proposing to install a wireless telecommunication facility on an existing 43' tall wooden utility PG&E pole located in the public right-of-way located at the corner of 4701 Martin Luther King Jr. Way and 47th Street. The project involves installation of 1) two, 4' tall panel antennas within a ray-dome canister mounted on the top of the existing pole; 2) two radio units mounted at a height of 11'-0" and 17'-0"; 3) one cabinet and related equipment mounted 11'-0" above ground. Major Design Review is required for the installation of a new Macro Telecommunications Facility in a residential zone. The proposed pole is located adjacent to open parking lot and is across street from commercial office/warehouse facilities. The antenna shroud and associated equipment will be painted grey or brown to match the pole and/or other utilities located on the pole. As result, the proposed telecommunication facility is an appropriate location and would not significantly increase negative visual impacts to adjacent neighboring commercial and residential properties. The project meets all the required findings for approval of the project.

CITY OF OAKLAND PLANNING COMMISSION



0 75 150 300 450 600 Feet



Case File: PLN17482

Applicant: Sequoia Development Services for Verizon Wireless

Address: The public right of way adjacent to 4701 MLK Jr Way
on a JPA Utility Telephone Pole

Zone: RU-4

TELECOMMUNICATIONS BACKGROUND**Limitations on Local Government Zoning Authority under the Telecommunications Act of 1996**

Section 704 of the Telecommunications Act of 1996 (TCA) provides federal standards for the siting of "Personal Wireless Services Facilities." "Personal Wireless Services" include all commercial mobile services (including personal communications services (PCS), cellular radio mobile services, and paging); unlicensed wireless services; and common carrier wireless exchange access services. Under Section 704, local zoning authority over personal wireless services is preserved such that the FCC is prevented from preempting local land use decisions; however, local government zoning decisions are still restricted by several provisions of federal law. Specifically:

- Under Section 253 of the TCA, no state or local regulation or other legal requirement can prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service.
- Further, Section 704 of the TCA imposes limitations on what local and state governments can do. Section 704 prohibits any state and local government action which unreasonably discriminates among personal wireless providers. Local governments must ensure that its wireless ordinance does not contain requirements in the form of regulatory terms or fees which may have the "effect" of prohibiting the placement, construction, or modification of personal wireless services.
- Section 704 also preempts any local zoning regulation purporting to regulate the placement, construction and modification of personal wireless service facilities on the basis, either directly or indirectly, on the environmental effects of radio frequency emissions (RF) of such facilities, which otherwise comply with Federal Communications Commission (FCC) standards in this regard. (See 47 U.S.C. Section 332(c)(7)(B)(iv) (1996)). This means that local authorities may not regulate the siting or construction of personal wireless facilities based on RF standards that are more stringent than those promulgated by the FCC.
- Section 704 mandates that local governments act upon personal wireless service facility siting applications to place, construct, or modify a facility within a reasonable time (See 47 U.S.C.332(c)(7)(B)(ii) and FCC Shot Clock ruling setting forth "reasonable time" standards for applications deemed complete).
- Section 704 also mandates that the FCC provide technical support to local governments to encourage them to make property, rights-of-way, and easements under their jurisdiction available for the placement of new spectrum-based telecommunications services. This proceeding is currently at the comment stage.

For more information on the FCC's jurisdiction in this area, consult the following:

Competition & Infrastructure Policy Division (CIPD) of the Wireless Telecommunications Bureau, main division number: (202) 418-1310. <https://www.fcc.gov/general/competition-infrastructure-policy-division-wireless-telecommunications-bureau>

PROPERTY DESCRIPTION

The existing 43' tall wooden PG&E utility pole is located in the City of Oakland public right-of-way adjacent to an open parking lot and across the street from one to two story office/warehouse structures.

PROJECT DESCRIPTION

As shown in Attachment C and D, the project applicant proposes to:

- Install two, 4'tall panel antennas within a ray-dome canister at a height of 43',
- Install two radio units mounted at a height of 11' and 17' above ground,
- Install meter 6'-6" above ground,
- Install one cabinet and related equipment mounted 11' above ground, and
- Paint the proposed antennas and associated equipment grey or brown to match the pole and/or other utilities located on the pole.

No portion of the telecommunication facilities will be located on the ground within City of Oakland public right-of-way. The proposed antenna and associated equipment will not be accessible to the public.

GENERAL PLAN ANALYSIS

The site is classified Urban Residential per the Oakland General Plan's Land Use and Transportation Element (LUTE). This classification is intended to create, maintain, and enhance areas of the City that are appropriate for multi-unit, mid-rise or high-rise residential structures in locations with good access to transportation and other services.

The proposed unmanned wireless telecommunication facility will not adversely affect and detract from the characteristics of the neighborhood.

ZONING ANALYSIS

The site is located in the RU-4 zone. The intent of the RU-4 Zone is to create, maintain, and enhance areas of the City that are appropriate for multi-unit, low-rise or mid-rise residential structures on the City's major corridors. "Future development within this classification should be primarily residential in character."

Section 17.136.040 and 17.128.070 of the City of Oakland Planning Code requires a Major Design Review permit for Macro Telecommunication facilities that are attached to utility poles in the RU-4 Zone or that are located within one hundred (100) feet of the boundary of any residential zone. Special findings are also required for Design Review approval to ensure that the facility is concealed to the greatest extent possible. The project design is discussed later in the Key Issues section of this report, and the required findings for Major Design Review are listed and included in staff's evaluation later in this report.

ENVIRONMENTAL DETERMINATION

The California Environmental Quality Act (CEQA) Guidelines list the projects that qualify as categorical exemptions from environmental review. The proposed project is categorically exempt from the environmental review requirements pursuant to Section 15301, minor additions and alterations to an existing PG&E utility pole; Section 15303, new construction or conversion of small structures, and Section 15183, projects consistent with the General Plan or Zoning.

KEY ISSUES AND IMPACTS**Project Site**

Section 17.128.110 of the City of Oakland Telecommunication Regulations requires that new wireless facilities shall generally be located on designated properties or facilities in the following ranked order of preference:

- A. Co-located on an existing structure or facility with existing wireless antennas.
- B. City owned properties or other public or quasi-public facilities.
- C. Existing commercial or industrial structures in non-residential zones (excluding all HBX Zones and the D-CE3 and D-C-4 Zones).
- D. Existing commercial or industrial structures in residential zones, HBX Zones, or the D-CE-3 or D-CE-4 Zones.
- E. Other non-residential uses in residential zones, HBX Zones, or the D-CE-3 or D-CE-4 Zones.
- F. Residential uses in non-residential zones (excluding all HBX Zones and the D-CE-3 and D-CE-4 Zones).
- G. Residential uses in residential zones, HBX Zones, or the D-CE-3 or D-CE-4 Zones.

Facilities sited on an A, B or C ranked preference do not require a site alternatives analysis. Since the proposed project involves the installation of new antennas and radio units within RU-4 Zone, the proposed project meets preference B, and a site alternatives analysis is not required. However, applicant has provided a site alternative analysis (Attachment E).

Alternative Site Analysis:

The project is located in an area with existing one and two-story warehouse/office structures and a parking lot. The project applicant considered alternative sites on other utility poles in this area but none of these sites are as desirable from a service coverage perspective or from an aesthetics perspective to minimize visual impacts. The proposed project is in an underserved area. The proposed location is approximately equidistant from other Distributed Antenna Systems (DAS) nodes proposed in the surrounding area so that service coverage can be evenly distributed.

Staff has reviewed the applicant's alternative sites analysis and determined that the site selected conforms to the telecommunication regulation requirements. In addition, staff agrees that no other sites are more suitable.

Project Design

Section 17.128.120 of the City of Oakland Telecommunications Regulations requires that new wireless facilities shall generally be designed in the following order of preference:

- A. Building or structure mounted antennas completely concealed from view.
- B. Building or structure mounted antennas set back from roof edge, not visible from public right-of way.
- C. Building or structure mounted antennas below roof line (facade mount, pole mount) visible from public right-of-way, painted to match existing structure.
- D. Building or structure mounted antennas above roof line visible from public right of-way.
- E. Monopoles.
- F. Towers.

Facilities designed to meet an A and B ranked preference do not require an alternative design analysis. Facilities designed to meet a C through F ranked preference, inclusive, must submit an alternative design analysis as part of the required application materials. The design alternatives analysis shall, at a minimum, consist of:

Written evidence indicating why each higher preference design alternative cannot be used. Such evidence shall be in sufficient detail that independent verification 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 RF sources, inability to cover required area) or for other concerns (e.g. inability to provide utilities, construction or structural impediments).

Since the proposed project does not meet preference A and B, an alternative design analysis is required.

Alternative Design Analysis:

The project applicant submitted an alternative design analysis (Attachment E). The analysis evaluated whether the equipment could be undergrounded and concealed from view. Unfortunately, this is not possible because there is insufficient right-of-way space for the necessary equipment access and the equipment could be compromised by rainwater saturation. The proposed design is a good option because the facility is located where a signal can be adequately propagated without obstruction, which could not have been the case if the antenna was located on a building and concealed.

Planning staff has reviewed the applicant's alternative design analysis and determined that the site selected conforms to the telecommunication regulation requirements. Specifically, given the flat topography, streamlined equipment design, the facility will blend in with the existing utility apparatus on the existing pole. In addition, the proposed new antenna is located within a shroud screening. The proposed antennas will be within a ray-dome canister mounted on the top of pole and the radio units will be attached to the utility pole 11' above the ground. The shroud and radio units will be painted grey to match the other utilities or brown to match the pole. Finally, the facility will be located on an existing pole at the corner of Martin Luther King Jr Way and 47th Street near a surface parking lot, highway on-ramp, and the BART tracks.

Project Radio Frequency Emissions Standards

Section 17.128.130 of the City of Oakland Telecommunication Regulations requires that the applicant submit the following verifications including requests for modifications to existing facilities:

- a. The telecommunications regulations require that the applicant submit written documentation demonstrating that the emission from the proposed project are within the limits set by the Federal Communications Commission.
- b. Prior to final building permit sign off, an RF emissions report indicating that the site is actually operating within the acceptable thresholds as established by the Federal government or any such agency who may be subsequently authorized to establish such standards.

In the analysis prepared by Hammett & Edison, Inc. (Attachment F), the proposed project was evaluated for compliance with appropriate guidelines limiting human exposure to radio frequency electromagnetic fields. According to the report, the project will comply with the prevailing standards for limiting public exposure to radio frequency energy, and therefore, the proposed site will operate within the current acceptable thresholds as established by the Federal government or any such agency that may be subsequently authorized to establish such standards. The RF emissions report, states that the proposed

project will not cause a significant impact on the environment. Additionally, staff recommends that, prior to the final building permit sign off, the applicant submit a certified RF emissions report stating that the facility is operating within acceptable thresholds established by the regulatory federal agency.

CONCLUSION

The proposed project meets all the required findings for approval. The proposal will provide an essential telecommunication service to the community and the City of Oakland at large. It will also be available to emergency services such as police, fire department and emergency response teams. Staff believes that the proposal is designed to meet the established zoning and telecommunication regulations and recommends supporting the Major Design Review application.

RECOMMENDATIONS:


1. Affirm staff's environmental determination, and
2. Approve Design Review application, subject to the attached findings and conditions of approval.

Prepared by:




Jason Madani
Planner II

Reviewed by:


Robert Merkamp
Acting Zoning Manager

Approved for forwarding to the
City Planning Commission


Darin Ranelletti, Deputy Director
Planning and Building Bureau**ATTACHMENTS:**

- A. Findings
- B. Conditions of Approval
- C. Project Plans
- D. Photo-simulations
- E. Site/Site Design Alternatives Analysis
- F. RF Emissions Report
- G. CPUC Compliance Letter
- H. Proof of public notification posting
- I. Public comments received by date of packet preparation

ATTACHMENT A: FINDINGS FOR APPROVAL**FINDINGS FOR APPROVAL:**

This proposal meets all the required findings under Section 17.136.050(B), of the Non-Residential Design Review criteria and all the required findings under Section 17.128.070(B), of the telecommunication facilities (Macro) Design Review criteria and as set forth below: Required findings are shown in **bold** type; reasons your proposal satisfies them are shown in normal type.

17.136.050(B) – NONRESIDENTIAL DESIGN REVIEW CRITERIA:

1. That the proposal will help achieve or maintain a group of facilities which are well related to one another and which, when taken together, will result in a well-composed design, with consideration given to site, landscape, bulk, height, arrangement, texture, materials, colors, and appurtenances; the relation of these factors to other facilities in the vicinity; and the relation of the proposal to the total setting as seen from key points in the surrounding area. Only elements of design which have some significant relationship to outside appearance shall be considered, except as otherwise provided in Section 17.136.060;

The attachment of small screened antennas and equipment to a non-historic utility pole, painted and texturized to match the pole in appearance for camouflaging, will be the least intrusive design. The subject utility pole is adjacent to a parking lot and across street from commercial/warehouse buildings, away from the residential structures. Therefore, the facility will not adversely affect and detract from the residential characteristics of the neighborhood.

2. That the proposed design will be of a quality and character which harmonizes with, and serves to protect the value of, private and public investments in the area;

The proposal improves wireless telecommunication service in the residential area. The facility will be camouflaged by the antenna canister, located on top of utility pole and painted grey or brown to blend in with the existing surrounding area. These measures will result in the proposal having minimal visual impacts on public views and protecting the value of private and public investments in the area. Service will also be available to emergency services such as police, fire department and emergency response teams.

3. That the proposed design conforms in all significant respects with the Oakland General Plan and with any applicable design review guidelines or criteria, district plan, or development control map which have been adopted by the Planning Commission or City Council.

The site is classified as Urban Residential per the Oakland General Plan's Land Use and Transportation Element (LUTE). This classification is intended to create, maintain, and enhance areas of the City that are appropriate for multi-unit, mid-rise or high-rise residential structures in locations with good access to transportation and other services.

Section 17.128.120 of the City of Oakland Telecommunications Regulations describes the design criteria for wireless facilities. In general, these facilities should either be concealed from view or not visible from the public right of way. Since the project did not meet either of the top ranked criteria, but did meet criteria C as described above, an alternative site design study needed to be undertaken. The proposed antenna and associated related equipment are compatible with and typical of utility equipment on these poles. The proposed antenna will be placed on top of the utility pole within public right-of-way, adjacent to a parking lot and commercial/warehouse buildings across the street and painted to match either the pole or utilities. As result, the proposal is consistent telecommunication regulation requirements, is in an

appropriate location, and of an appropriate design that would not significantly increase negative visual impacts to adjacent neighboring residential properties

17.128.070(B) DESIGN REVIEW CRITERIA FOR MACRO FACILITIES

1. Antennas should be painted and/or textured to match the existing structure:

The antennas and equipment will be painted grey to match the existing utility equipment or brown to match the proposed wooden utility pole in order to minimize the potential visual impact.

2. Antennas mounted on architecturally significant structures or significant architectural details of the building should be covered by appropriate casings which are manufactured to match existing architectural features found on the building:

The proposed antennas and equipment will not be mounted onto an architecturally significant structure but onto an existing wooden utility pole similar to other poles in the City and on the block.

3. Where feasible, antennas can be placed directly above, below or incorporated with vertical design elements of a building to help in camouflaging:

The proposed antennas will be placed above head height, and vertically in line with the proposed utility pole. The equipment will be painted to match the pole or utility equipment and blend with the surroundings.

4. Equipment shelters or cabinets shall be screened from the public view by using landscaping, or materials and colors consistent with surrounding backdrop:

The associated antenna will be located within a shroud attached to an existing utility pole and painted to match the proposed wooden pole or the other utilities in order to minimize visual impacts on the neighboring properties.

5. Equipment shelters or cabinets shall be consistent with the general character of the area.

See above finding # 4

6. For antennas attached to the roof, maintain a 1:1 ratio for equipment setback; screen the antennas to match existing air conditioning units, stairs, or elevator towers; avoid placing roof mounted antennas in direct line with significant view corridors.

This finding is not applicable as the project is proposing to attach to an existing PG&E pole.

7. That all reasonable means of reducing public access to the antennas and equipment has been made, including, but not limited to, placement in or on buildings or structures, fencing, anti-climbing measures and anti-tampering devices.

The proposed screened antenna will be mounted at a height of 43'-0" on an existing PG&E utility pole and will not be accessible to the public due to its location. The radio units and other equipment will be attached to the pole more than 17' above the ground.

ATTACHMENT B: STANDARD CONDITIONS:**1. Approved Use**

The project shall be constructed and operated in accordance with the authorized use as described in the approved application materials, and the approved plans dated **October 20, 2017** and submitted on **November 30, 2017** as amended by the following conditions of approval and mitigation measures, if applicable ("Conditions of Approval" or "Conditions").

2. Effective Date, Expiration, Extensions and Extinguishment

This Approval shall become effective immediately, unless the Approval is appealable, in which case the Approval shall become effective in ten calendar days unless an appeal is filed. Unless a different termination date is prescribed, this Approval shall expire **two years** from the Approval date, or from the date of the final decision in the event of an appeal, unless within such period all necessary permits for construction or alteration have been issued, or the authorized activities have commenced in the case of a permit not involving construction or alteration. Upon written request and payment of appropriate fees submitted no later than the expiration date of this Approval, the Director of City Planning or designee may grant a one-year extension of this date, with additional extensions subject to approval by the approving body. Expiration of any necessary building permit or other construction-related permit for this project may invalidate this Approval if said Approval has also expired. If litigation is filed challenging this Approval, or its implementation, then the time period stated above for obtaining necessary permits for construction or alteration and/or commencement of authorized activities is automatically extended for the duration of the litigation.

3. Compliance with Other Requirements

The project applicant shall comply with all other applicable federal, state, regional, and local laws/codes, requirements, regulations, and guidelines, including but not limited to those imposed by the City's Bureau of Building, Fire Marshal, and Public Works Department. Compliance with other applicable requirements may require changes to the approved use and/or plans. These changes shall be processed in accordance with the procedures contained in Condition #4.

4. Minor and Major Changes

- a. Minor changes to the approved project, plans, Conditions, facilities, or use may be approved administratively by the Director of City Planning
- b. Major changes to the approved project, plans, Conditions, facilities, or use shall be reviewed by the Director of City Planning to determine whether such changes require submittal and approval of a revision to the Approval by the original approving body or a new independent permit/approval. Major revisions shall be reviewed in accordance with the procedures required for the original permit/approval. A new independent permit/approval shall be reviewed in accordance with the procedures required for the new permit/approval.

5. Compliance with Conditions of Approval

- a. The project applicant and property owner, including successors, (collectively referred to hereafter as the "project applicant" or "applicant") shall be responsible for compliance with all the Conditions of Approval and any recommendations contained in any submitted and approved technical report at his/her sole cost and expense, subject to review and approval by the City of Oakland.
- b. The City of Oakland reserves the right at any time during construction to require certification by a licensed professional at the project applicant's expense that the as-built project conforms to all applicable requirements, including but not limited to, approved maximum heights and minimum setbacks. Failure to construct the project in accordance with the Approval may result in remedial reconstruction, permit revocation, permit modification, stop work, permit suspension, or other

corrective action.

- c. Violation of any term, Condition, or project description relating to the Approval is unlawful, prohibited, and a violation of the Oakland Municipal Code. The City of Oakland reserves the right to initiate civil and/or criminal enforcement and/or abatement proceedings, or after notice and public hearing, to revoke the Approval or alter these Conditions if it is found that there is violation of any of the Conditions or the provisions of the Planning Code or Municipal Code, or the project operates as or causes a public nuisance. This provision is not intended to, nor does it, limit in any manner whatsoever the ability of the City to take appropriate enforcement actions. The project applicant shall be responsible for paying fees in accordance with the City's Master Fee Schedule for inspections conducted by the City or a City-designated third-party to investigate alleged violations of the Approval or Conditions.

6. Signed Copy of the Approval/Conditions

A copy of the Approval letter and Conditions shall be signed by the project applicant, attached to each set of permit plans submitted to the appropriate City agency for the project, and made available for review at the project job site at all times.

7. Blight/Nuisances

The project site shall be kept in a blight/nuisance-free condition. Any existing blight or nuisance shall be abated within 60 days of approval, unless an earlier date is specified elsewhere.

8. Indemnification

- a. To the maximum extent permitted by law, the project applicant shall defend (with counsel acceptable to the City), indemnify, and hold harmless the City of Oakland, the Oakland City Council, the Oakland Redevelopment Successor Agency, the Oakland City Planning Commission, and their respective agents, officers, employees, and volunteers (hereafter collectively called "City") from any liability, damages, claim, judgment, loss (direct or indirect), action, causes of action, or proceeding (including legal costs, attorneys' fees, expert witness or consultant fees, City Attorney or staff time, expenses or costs) (collectively called "Action") against the City to attack, set aside, void or annul this Approval or implementation of this Approval. The City may elect, in its sole discretion, to participate in the defense of said Action and the project applicant shall reimburse the City for its reasonable legal costs and attorneys' fees.
- b. Within ten (10) calendar days of the filing of any Action as specified in subsection (a) above, the project applicant shall execute a Joint Defense Letter of Agreement with the City, acceptable to the Office of the City Attorney, which memorializes the above obligations. These obligations and the Joint Defense Letter of Agreement shall survive termination, extinguishment, or invalidation of the Approval. Failure to timely execute the Letter of Agreement does not relieve the project applicant of any of the obligations contained in this Condition or other requirements or Conditions of Approval that may be imposed by the City.

9. Severability

The Approval would not have been granted but for the applicability and validity of each and every one of the specified Conditions, and if one or more of such Conditions is found to be invalid by a court of competent jurisdiction this Approval would not have been granted without requiring other valid Conditions consistent with achieving the same purpose and intent of such Approval.

10. Job Site Plans

Ongoing throughout demolition, grading, and/or construction

At least one (1) copy of the stamped approved plans, along with the Approval Letter and Conditions of Approval, shall be available for review at the job site at all times.

11. Special Inspector/Inspections, Independent Technical Review, Project Coordination and Management***Prior to issuance of a demolition, grading, and/or construction permit***

The project applicant may be required to pay for on-call special inspector(s)/inspections as needed during the times of extensive or specialized plan check review, or construction. The project applicant may also be required to cover the full costs of independent technical and other types of peer review, monitoring and inspection, including without limitation, third party plan check fees, including inspections of violations of Conditions of Approval. The project applicant shall establish a deposit with the Building Services Division, as directed by the Building Official, Director of City Planning or designee.

12. Public Improvements

The project applicant shall obtain all necessary permits/approvals, such as encroachment permits, obstruction permits, curb/gutter/sidewalk permits, and public improvement ("p-job") permits from the City for work in the public right-of-way, including but not limited to, streets, curbs, gutters, sidewalks, utilities, and fire hydrants. Prior to any work in the public right-of-way, the applicant shall submit plans for review and approval by the Bureau of Planning, the Bureau of Building, and other City departments as required. Public improvements shall be designed and installed to the satisfaction of the City.

13. Days/Hours of Construction Operation***Ongoing throughout demolition, grading, and/or construction***

The project applicant shall require construction contractors to limit standard construction activities as follows:

- a) Construction activities are limited to between 7:00 AM and 7:00 PM Monday through Friday, except that pile driving and/or other extreme noise generating activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday.
- b) Any construction activity proposed to occur outside of the standard hours of 7:00 am to 7:00 pm Monday through Friday for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened and such construction activities shall only be allowed with the prior written authorization of the Building Services Division.
- c) Construction activity shall not occur on Saturdays, with the following possible exceptions:
 - i. Prior to the building being enclosed, requests for Saturday construction for special activities (such as concrete pouring which may require more continuous amounts of time), shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened. Such construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division.
 - ii. After the building is enclosed, requests for Saturday construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division, and only then within the interior of the building with the doors and windows closed.
- d) No extreme noise generating activities (greater than 90 dBA) shall be allowed on Saturdays, with no exceptions.
- e) No construction activity shall take place on Sundays or Federal holidays.

- f) Construction activities include but are not limited to: truck idling, moving equipment (including trucks, elevators, etc) or materials, deliveries, and construction meetings held on-site in a non-enclosed area.

14. Radio Frequency Emissions***Prior to the final building permit sign off.***

The applicant shall submit a certified RF emissions report stating the facility is operating within the acceptable standards established by the regulatory Federal Communications Commission.

15. Camouflage

Requirement: The antenna shall be painted, texturized, and maintained matte silver, and the equipment and any other accessory items including cables matte brown, to better camouflage the facility to the utility pole and attached power line posts.

When Required: Prior to a final inspection

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

16. Operational**Ongoing.**

Noise levels from the activity, property, or any mechanical equipment on site shall comply with the performance standards of Section 17.120 of the Oakland Planning Code and Section 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance verified by the Planning and Zoning Division and Building Services.

17. Possible District Undergrounding PG&E Pole**Ongoing**

Should the PG &E utility pole be voluntarily removed for purposes of district undergrounding or otherwise, the telecommunications facility can only be re-established by applying for and receiving approval of a new application to the Oakland Planning Department as required by the regulations.

18. Graffiti Control**Requirement:**

- a. During construction and operation of the project, the project applicant shall incorporate best management practices reasonably related to the control of graffiti and/or the mitigation of the impacts of graffiti. Such best management practices may include, without limitation:
 - a. The project applicant shall remove graffiti by appropriate means within seventy-two (72) hours. Appropriate means include the following:
 - i. Removal through scrubbing, washing, sanding, and/or scraping (or similar method) without damaging the surface and without discharging wash water or cleaning detergents into the City storm drain system.
 - ii. For galvanized poles, covering with new paint to match the color of the surrounding surface.
 - iii. Replace pole numbers.

When Required: Ongoing

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

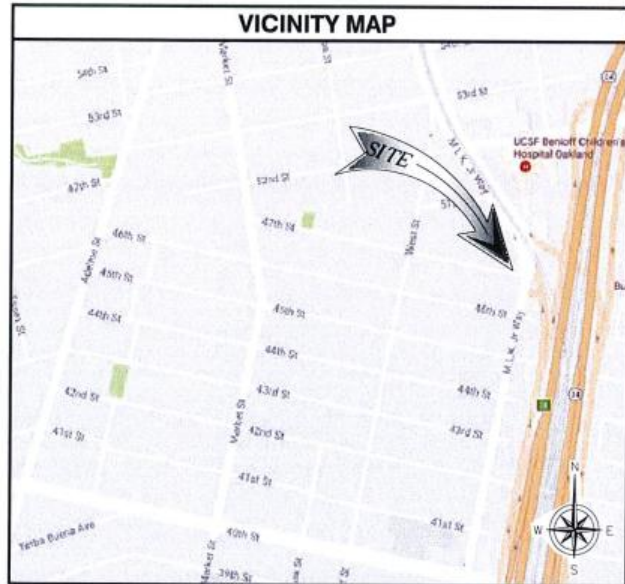
Applicant Statement

I have read and accept responsibility for the Conditions of Approval. I agree to abide by and conform to the Conditions of Approval, as well as to all provisions of the Oakland Planning Code and Oakland Municipal Code pertaining to the project.

Name of Project Applicant

Signature of Project Applicant

Date



Attachment C

verizon

PROJECT TYPE: SMALL CELL

MLK BYPASS SC1

NORTH SIDE OF 47TH STREET, WEST OF MLK
OAKLAND, CA 94609

LOCATION CODE: 427162

SITE INFORMATION

PROPERTY OWNER: PACIFIC GAS & ELECTRIC
ADDRESS: 245 MARKET ST., MAIL CODE N100
SAN FRANCISCO, CA 94105
CONTACT: DAVID ZEMMER
PH: (415) 847-0283

APPLICANT: VERIZON WIRELESS
ADDRESS: 2785 MITCHELL DRIVE, BLDG. 9
WALNUT CREEK, CA 94598

LATITUDE (NAD 83): 37°50'6.30" N
LONGITUDE (NAD 83): 122°16'2.36" W
GROUND ELEVATION: 98.21' AMSL
ZONING JURISDICTION: CITY OF OAKLAND
PROPOSED USE: UNMANNED TELECOMMUNICATIONS FACILITY

PROJECT TEAM

APPLICANT:
VERIZON WIRELESS
2785 MITCHELL DRIVE, BLDG. 9
WALNUT CREEK, CA 94598
CONTACT: AUSTIN CHING
PHONE: (808) 282-3006
EMAIL: austin.ching@verizonwireless.com

RF ENGINEER:
VERIZON WIRELESS
2785 MITCHELL DRIVE, BLDG. 9
WALNUT CREEK, CA 94598
CONTACT: KATY QIAN
PHONE: (916) 508-9382
EMAIL: junfang.qian@verizonwireless.com

SITE ACQUISITION:
SEQUOIA DEPLOYMENT SERVICES, INC.
22471 ASPEN, SUITE #290
LAKE FOREST, CA 92630
CONTACT: CHELSEA MANUTO
PHONE: (760) 445-1985
EMAIL: chelsea.manuto@sequoia-ds.com

ZONING:
SEQUOIA DEPLOYMENT SERVICES, INC.
22471 ASPEN, SUITE #290
LAKE FOREST, CA 92630
CONTACT: BEN HACKSTEDDE
PHONE: (949) 259-3344
EMAIL: ben.hackstedde@sequoia-ds.com

ENGINEERING:
CELLSIUS ENGINEERING GROUP
10005 MUIRLANDS BLVD., SUITES E & F
IRVINE, CA 92618
CONTACT: REGGIE GABRIEL
PHONE: (619) 200-7190
EMAIL: reggie.gabriel@cellsius.net

LAND SURVEYOR:
CELLSIUS ENGINEERING GROUP
10005 MUIRLANDS BLVD., SUITES E & F
IRVINE, CA 92618
CONTACT: ANDREW J. KOLTAVARY
PHONE: (714) 624-9027
EMAIL: andrew.koltavary@cellsius.net

CONSTRUCTION:
SEQUOIA DEPLOYMENT SERVICES, INC.
22471 ASPEN, SUITE #290
LAKE FOREST, CA 92630
CONTACT: ED MARQUEZ
PHONE: (949) 330-9712
EMAIL: ed.marquez@sequoia-ds.com

APPROVALS

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS & AUTHORIZE THE SUBCONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT & MAY IMPOSE CHANGES OR MODIFICATIONS.

VZW PROJECT MANAGER: _____
VZW RF ENGINEER: _____
VZW EQUIPMENT ENGINEER: _____
VZW CONSTRUCTION MANAGER: _____
PLANNING MANAGER: _____
SITE ACQUISITION MANAGER: _____
A/E MANAGER: _____

DRAWING INDEX

SHEET NO:	SHEET TITLE
T-1	TITLE SHEET
LS-1	TOPOGRAPHIC SURVEY
A-1	SITE PLAN
A-2	ENLARGED SITE PLAN AND EQUIPMENT / POLE LAYOUT
A-3	ARCHITECTURAL ELEVATIONS

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF INSTALLATIONS OF TELECOMMUNICATIONS EQUIPMENT FOR VERIZON WIRELESS TO COLLOCATE ON EXISTING JPA POLE. THE INSTALLATIONS INCLUDE:

- INSTALL (2) PROPOSED VERIZON WIRELESS 4'-0" HIGH PANEL ANTENNA CONCEALED WITHIN RADOME
- INSTALL (1) PROPOSED VERIZON WIRELESS ANTENNA SHROUD
- INSTALL (1) PROPOSED VERIZON WIRELESS EQUIPMENT STANDOFF MOUNT ASSEMBLY
- INSTALL (2) PROPOSED VERIZON WIRELESS REMOTE RADIO UNITS (RRUS) INSIDE CABINET
- INSTALL (1) PROPOSED VERIZON WIRELESS POLE-MOUNTED CABINET (CUBE-SC30432NExx)
- INSTALL (1) PROPOSED VERIZON WIRELESS METER
- INSTALL (1) PROPOSED VERIZON WIRELESS DISCONNECT SWITCH

APPLICABLE CODES

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES.

- CALIFORNIA ADMINISTRATIVE CODE (INCL. TITLE 24 & 25)
- 2016 CALIFORNIA BUILDING CODE
- LOCAL BUILDING CODE
- CITY/COUNTY ORDINANCES
- ANSI/EIA-222-C LIFE SAFETY CODE NFPA-101
- 2016 CALIFORNIA ELECTRICAL CODE
- CA PUBLIC UTILITIES COMMISSION GENERAL ORDER 95 (GO 95)

DO NOT SCALE DRAWINGS

SUBCONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME. IF USING 11"x17" PLOT, DRAWINGS WILL BE HALF SCALE.



GENERAL NOTES

- LOCATIONS OF UNDERGROUND UTILITIES SHOWN ON THE DRAWINGS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY FOR UTILITIES OR STRUCTURES NOT SHOWN OR NOT IN THE LOCATION SHOWN ON THE DRAWINGS.
- THE CONTRACTORS SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE, OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- APPROVAL OF THESE PLANS BY THE CITY ENGINEER DOES NOT AUTHORIZE ANY WORK TO BE PERFORMED UNTIL A PERMIT HAS BEEN ISSUED.
- UPON ISSUANCE OF A PERMIT, NO WORK WILL BE PERMITTED ON WEEKENDS OR HOLIDAYS WITHOUT PERMISSION FROM THE ENGINEERING DEPARTMENT.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT FROM DAMAGING EXISTING IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE. CONTRACTOR SHALL, AT HIS OWN EXPENSE, REPAIR, REPLACE OR RECONSTRUCT ALL SUCH IMPROVEMENTS OR OTHER STRUCTURES DAMAGED BY HIS WORK, TO THE ENGINEER'S SATISFACTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION. A LAND SURVEYOR MUST FILE LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK. IF DESTROYED, SUCH MONUMENTS SHALL BE REPLACED WITH APPROPRIATE MONUMENTS BY A LAND SURVEYOR. A CORNER RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FIELD AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS ACT. IF ANY VERTICAL CONTROL IS TO BE DISTURBED OR DESTROYED, THE JURISDICTION'S FIELD SURVEY DIVISION MUST BE NOTIFIED, IN WRITING, AT LEAST 3 DAYS FROM OCCURRENCE. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPLACING ANY VERTICAL CONTROL BENCHMARKS DESTROYED BY THE CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE POT HOLE AND LOCATING OF ALL EXISTING UTILITIES THAT CROSS THE PROPOSED TRENCH LINE AND MUST MAINTAIN 1 FOOT MINIMUM VERTICAL CLEARANCE.
- DO NOT EXCAVATE OR DISTURB BEYOND THE PROPERTY LINES OR LEASE LINES, UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL REPLACE OR REPAIR ALL TRAFFIC SIGNAL LOOPS, CONDUIT, AND LANE STRIPPING DAMAGED DURING CONSTRUCTION.
- CONTRACTOR SHALL NOTIFY THE JURISDICTION A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK WITHIN 10 FEET OF ALL SEWER, WATER, AND STORM DRAIN MAIN INCLUDING ALL CROSSINGS.
- "PUBLIC IMPROVEMENT SUBJECT TO DESUETUDE OR DAMAGE." IF REPAIR OR REPLACEMENT OF SUCH PUBLIC IMPROVEMENTS IS REQUIRED, THE OWNER SHALL OBTAIN THE REQUIRED PERMITS FOR WORK IN PUBLIC RIGHT-OF-WAY, SATISFACTORY TO THE PERMIT-ISSUING AUTHORITY.
- THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR A PRE-CONSTRUCTION MEETING WITH THE CITY FIELD ENGINEERING DIVISION PRIOR TO ANY DISTURBANCE TO THE SITE, EXCLUDING UTILITY MARK-OUTS AND SURVEYING.
- MANHOLES OR COVERS SHALL BE LABELLED "NAME OF COMPANY".
- CONTRACTOR SHALL IMPLEMENT AN EROSION AND SEDIMENT CONTROL PROGRAM DURING THE PROJECT CONSTRUCTION ACTIVITIES. THE PROGRAM SHALL MEET THE APPLICABLE REQUIREMENTS OF THE STATE WATER RESOURCE CONTROL BOARD.
- THE CONTRACTOR SHALL HAVE EMERGENCY MATERIALS AND EQUIPMENT ON HAND FOR UNFORESEEN SITUATIONS, SUCH AS DAMAGE TO UNDERGROUND WATER, SEWER, AND STORM DRAIN FACILITIES WHEREBY FLOWS MAY GENERATE EROSION AND SEDIMENT POLLUTION.
- THE CONTRACTOR SHALL VERIFY LOCATION ALL EXISTING UNDERGROUND UTILITIES INCLUDING SEWER LATERALS & WATER SERVICES TO INDIVIDUAL LOTS OF BOTH VERTICAL AND HORIZONTAL PRIOR TO COMMENCING IMPROVEMENTS OPERATIONS.
- LOCATION AND ELEVATIONS OF IMPROVEMENTS, TO BE MET BY WORK, SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK.
- GRADES SHOWN ARE FINISH GRADES. CONTRACTOR SHALL DETERMINE NECESSARY SUB GRADE ELEVATIONS AND SHALL CONSTRUCT SMOOTH TRANSITION BETWEEN FINISH GRADES SHOWN.
- THE CONTRACTOR SHALL SUBMIT WORK PLANS FOR ALL BORE OPERATIONS TWO WEEKS PRIOR TO COMMENCING WORK.
- THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR COMPLIANCE WITH THE PROVISIONS OF THE STATE OF CALIFORNIA SAFETY ORDERS.
- CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITION DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS EQUIPMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
- THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE FROM EXISTING RECORDS AND CORROBORATED, WHERE POSSIBLE WITH FIELD TIES. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE LOCATIONS SHOWN, BOTH HORIZONTALLY AND VERTICALLY PRIOR TO CONSTRUCTION. IF EXISTING LOCATIONS VARY SUBSTANTIALLY FROM THE PLANS, THE ENGINEER SHOULD BE NOTIFIED TO MAKE ANY CONSTRUCTION CHANGES REQUIRED.
- THE CONTRACTOR SHALL REPLACE OR REPAIR ALL TRAFFIC SIGNAL LOOPS, CONDUITS, AND LANE STRIPPING DAMAGED DURING CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE POT HOLE AND LOCATING OF ALL EXISTING UTILITIES THAT CROSS THE PROPOSED TRENCH LINE AND MUST MAINTAIN ONE FOOT MINIMUM VERTICAL CLEARANCE.
- AS-BUILT DRAWINGS MUST BE SUBMITTED TO THE CITY ENGINEER PRIOR TO ACCEPTANCE OF THIS PROJECT.
- ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISH ELEVATIONS PRIOR TO FINAL INSPECTION OF WORK.
- ANY DRAIN AND/OR FIELD TILE ENCOUNTERED/DISTURBED DURING CONSTRUCTION SHALL BE RETURNED TO ITS ORIGINAL CONDITION PRIOR TO COMPLETION OF WORK, SIZE, LOCATION AND TYPE OF ANY UNDERGROUND UTILITIES OR IMPROVEMENTS SHALL BE ACCURATELY NOTED AND PLACED ON "AS-BUILT" DRAWINGS BY GENERAL CONTRACTOR, AND ISSUED TO THE ARCHITECT OR ENGINEER AT COMPLETION OF PROJECT.
- ALL TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS, UTILITIES, ETC., SHALL BE PROPERLY LAID BACK OR BRACED IN ACCORDANCE WITH THE CORRECT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.

ACCESSIBILITY NOTE

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH THE 2016 CALIFORNIA BUILDING CODE. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS NEW.

THE TELECOMMUNICATIONS EQUIPMENT SPACE SHOWN ON THESE PLANS IS NOT CURRENTLY OCCUPIED. WORK TO BE PERFORMED IN THIS FACILITY CANNOT REASONABLY BE PERFORMED BY PERSONS WITH A SEVERE IMPAIRMENT: MOBILITY, SIGHT, AND/OR HEARING. THEREFORE, PER 2016 CALIFORNIA BUILDING CODE SECTION 1105B.3.4, AND/OR 11B-203.5 OF 2016 CALIFORNIA BUILDING CODE, EXCEPTION 1, THIS FACILITY SHALL BE EXEMPTED FROM ALL TITLE 24 ACCESS REQUIREMENTS.

TRAFFIC CONTROL NOTE

THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN (11"x17") FOR APPROVAL PRIOR TO STARTING WORK. THE PLAN SHOULD BE SUBMITTED TO THE TRAFFIC CONTROL PERMIT COUNTER. CONTRACTOR SHALL OBTAIN A TRAFFIC CONTROL PERMIT A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO STARTING WORK, AND A MINIMUM OF FIVE (5) DAYS IF WORK WILL AFFECT A BUS STOP OR AN EXISTING TRAFFIC SIGNAL, OR IF WORK WILL REQUIRE A ROAD OR ALLEY CLOSURE.

verizon
2785 MITCHELL DRIVE, BLDG. 9
WALNUT CREEK, CA 94598

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REV	DATE	DESCRIPTION
4	10/20/2017	RF REVISION
3	10/04/2017	100% ZONING DRAWINGS
2	09/06/2017	90% ZONING DRAWINGS
1	08/19/2017	80% ZONING DRAWINGS

ISSUED DATE: **OCTOBER 20, 2017**

ISSUED FOR: **100% ZD SET**

LICENSURE: _____

PROJECT INFORMATION:
MLK BYPASS SC1
LOCATION CODE: 427162
NORTH SIDE OF 47TH
STREET, WEST OF MLK
OAKLAND, CA 94609

DRAWN BY: _____ RD

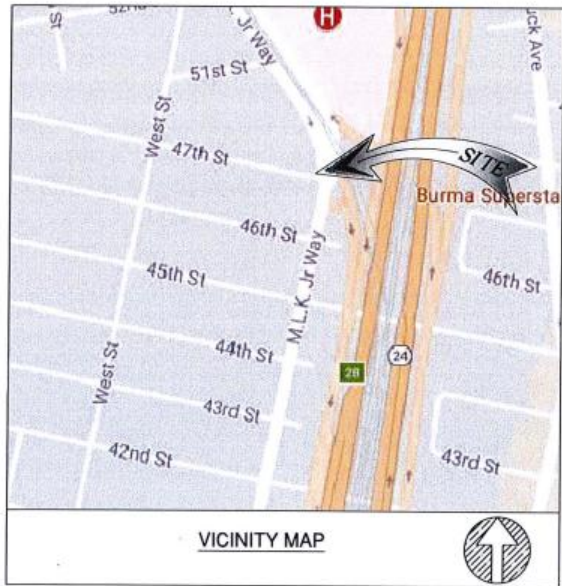
CHECKED BY: _____ FO

SHEET TITLE: _____

TITLE SHEET

SHEET NUMBER: _____

T-1



LEGEND

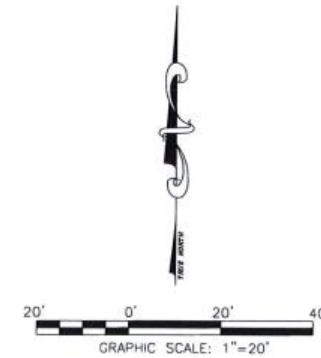
---	CENTER LINE
---	PROPERTY LINE
-x-x-x-	CHAIN-LINK FENCE
-o-o-o-	WROUGHT-IRON-FENCE
- - -	EASEMENT LINE
- - -	RETAINING WALL
FS	BACK WALK
CB	CATCH BASIN
CF	CURB FACE
CV	CATV VAULT
EG	EXISTING GRADE
FD	FOUND
EP	EDGE OF PAVEMENT
EV	EDISON VAULT
FL	FLOW LINE
FS	FINISH SURFACE
GP	GAS PIPE
IS	ISLAND
JB	JUNCTION BOX
MC	METAL CABINET
MH	MANHOLE
PL	PROPERTY LINE

PP	POWER POLE
PB	PULL BOX
SSCO	SANITARY SEWAGE CLEANOUT
SS	STREET SIGN/STOP SIGN
SDMH	STORM DRAIN MAN HOLE
SGN	SIGN
TC	TOP OF CURB
TD	TRUNCATED DOME
TL	TOP OF LUMINAIRE
TP	TELCO PEDESTAL
TR	EXISTING TRANSFORMER
TSP	TOP OF STREET LIGHT POLE
TW	TOP OF WALL
TA	TOP OF ANTENNA
UC	UTILITY CABINET
WV	WATER VALVE
	EXISTING TELE. MANHOLE
	EXISTING STREET LIGHT
	EXISTING TRAFFIC SIGNAL
	EXISTING ELECTRICAL MH
	EXISTING SIGN
	CATCH BASIN
	FIRE HYDRANT

MONUMENTS

COORDINATES

TREE
PINE TREE
BUSH
PALM TREE
EXISTING CONCRETE
EXISTING GRASS/TURF
MONUMENT FD. (AS NOTED)
LATITUDE: 37°50'6.30"N
LONGITUDE: 122°16'2.36"W



NOTES:

- THIS IS NOT A BOUNDARY SURVEY. THIS IS A SPECIALIZED TOPOGRAPHIC MAP. THE PROPERTY LINES AND EASEMENTS SHOWN HEREON ARE FROM RECORD INFORMATION AS NOTED HEREON. CELSIUS ENGINEERING GROUP TRANSLATED THE TOPOGRAPHIC SURVEY TO RECORD INFORMATION USING FOUND MONUMENTS SHOWN HEREON.
- THE HEIGHTS AND ELEVATIONS FOR THE TREES, BUSHES AND OTHER LIVING PLANTS SHOWN HEREON, SHOULD BE CONSIDERED APPROXIMATE (+/-) AND ONLY FOR THE DATE OF THIS SURVEY. THEY ARE PROVIDED AS A GENERAL REFERENCE AND SHOULD NOT BE USED FOR DESIGN PURPOSES.
- FIELD SURVEY COMPLETED ON JULY 28, 2017

BASIS OF BEARING

THE CENTERLINE OF 47TH STREET BEARING N78°40'00"W WAS USED AS BASIS OF BEARING FOR THIS SURVEY.

BENCH MARK

SITE ELEVATIONS ARE ESTABLISHED FROM THE GPS DERIVED ORTHOMETRIC HEIGHTS BY APPLICATION OF NGS "GEOID 12A" MODELED SEPARATIONS TO ELLIPSOID HEIGHTS DETERMINED BY OBSERVATIONS OF THE "LEICA SMARTNET" REAL TIME NETWORK. ALL ELEVATIONS SHOWN HEREON ARE REFERENCED TO NAVD83.

FLOOD ZONE

SITE IS LOCATED IN FLOOD ZONE "X" AS PER F.I.R.M. MAP NO. 06001C0059G EFFECTIVE DATE 08/03/2009.

TOP OF POLE (43'-0" AGL)
ELEV. = 141.21' AMSL

EXISTING SECONDARY DROP (35'-11" AGL)
ELEV. = 134.12' AMSL

EXISTING MESSENGER WIRE (30'-3" AGL)
ELEV. = 128.46' AMSL

EXISTING GUY WIRE (30'-0" AGL)
ELEV. = 128.21' AMSL

EXISTING FIBER WIRE (28'-6" AGL)
ELEV. = 126.71' AMSL

EXISTING GUY WIRE (28'-0" AGL)
ELEV. = 126.21' AMSL

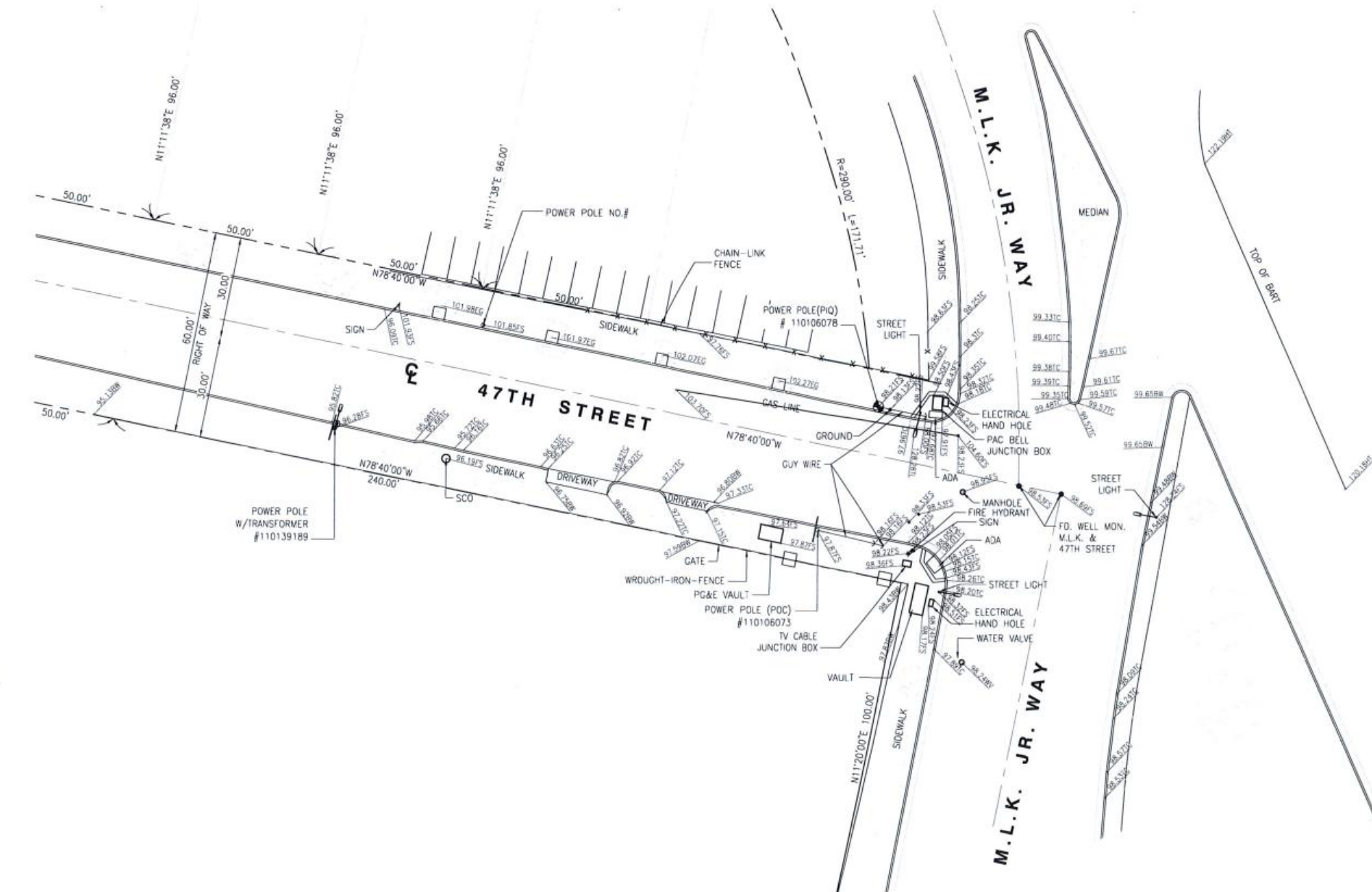
TOP OF EXISTING BOX (26'-0" AGL)
ELEV. = 124.21' AMSL

BOTTOM OF EXISTING BOX (24'-9" AGL)
ELEV. = 122.93' AMSL

EXISTING UTILITY POLE

POLE BASE (0'-0" AGL)
ELEV. = 98.21' AMSL

UTILITY POLE PROFILE



PROPERTY LINES ARE BASED FROM
TRACT NO. 1879 - AUG. 20, 1953
TRACT NO. 1464 - FEB. 24, 1953

verizon
15505 SAND CANYON AVENUE
IRVINE, CALIFORNIA 92618

SEQUOIA
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tel. (949) 202-2311 | fax. (888) 505-2977

REV	DATE	DESCRIPTION
1	08/01/2017	FINAL SURVEY

ISSUED DATE:
AUGUST 01, 2017

ISSUED FOR:
FINAL SURVEY

LICENSURE:

PROJECT INFORMATION:
**SCL MLK BYPASS SC1
NORTH SIDE OF 47TH
STREET, WEST OF MLK
OAKLAND, CA 94609**

DRAWN BY: ABR
CHECKED BY: AJK

SHEET TITLE:
**TOPOGRAPHIC
SURVEY**

SHEET NUMBER:
LS-1

1. REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE PLOT OF SURVEY DRAWINGS SHALL NOT BE USED TO IDENTIFY OR ESTABLISH BEARING OF TRUE NORTH AT THE SITE. THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF SURVEY DRAWING AND ANY SURVEYOR'S MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH, AND SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH THE WORK IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND THE TRUE NORTH ORIENTATION AS DEPICTED ON THE CIVIL SURVEY. THE CONTRACTOR SHALL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ARCHITECT/ENGINEER.
2. CONTRACTOR TO VERIFY LOCAL UTILITY REQUIREMENTS FOR DEPTH, SIZES, AND SEPARATION OF CONDUITS PRIOR TO INSTALLATION. NOTIFY CONSTRUCTION MANAGER IMMEDIATELY OF ANY DISCREPANCIES.
3. PROPOSED UTILITY SERVICES SHOWN NEED TO BE VERIFIED AND APPROVED BY UTILITY COMPANIES BEFORE START OF CONSTRUCTION. CONTRACTOR TO VERIFY WITH CLIENT PROJECT MANAGER TO OBTAIN FINAL APPROVAL.
4. VERIFY, LOCATE, AND PROTECT ALL EXISTING SUBSTRUCTURES AS REQUIRED. CALL DIG ALERT @ (800) 227-2600 48 HOURS BEFORE ANY EXCAVATION. CONTRACTOR IS RESPONSIBLE TO HAVE ALL NON-PUBLIC UTILITIES LOCATED AT THEIR OWN EXPENSE.
5. LINES SHOWN DOES NOT REPRESENT THE EXACT LOCATION OF THE CONDUIT ROUTES. CONTRACTOR TO VERIFY SERVICE LOCATIONS W/ ACTUAL FIELD CONDITIONS.
6. CONTRACTOR SHALL IMMEDIATELY INFORM CLIENT OF ANY ACCIDENTAL DAMAGE TO EXISTING UTILITIES VIA PHONE OR EMAIL REGARDLESS OF ABILITY TO REPAIR OR MITIGATE. A FOLLOW-UP EMAIL REPORT WITH DIGITAL PHOTOS WILL BE REQUIRED DAILY UNTIL RESOLUTION HAS BEEN ACCEPTED BY CLIENT, AFFECTED SERVICE PROVIDERS, AND RECIPIENTS. AT THEIR OWN EXPENSE, CONTRACTOR WILL EXERCISE ALL EFFORTS TO HAVE REPAIRS MADE BY QUALIFIED TECHNICIANS AS APPROVED BY SERVICE PROVIDER.
7. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, BOTH HORIZONTAL AND VERTICALLY, PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHOULD BE IMMEDIATELY REPORTED TO THE ARCHITECT/ENGINEER FOR RESOLUTION AND INSTRUCTION, AND NO FURTHER WORK SHALL BE REFORMED UNTIL THE DISCREPANCY IS CHECKED AND CORRECTED BY THE ARCHITECT/ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS/HER OWN RISK AND EXPENSE.
8. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISH ELEVATIONS PRIOR TO FINAL INSPECTION OF WORK.
9. ANY DRAIN AND /OR FIELD TILE ENCOUNTERED/DISTURBED DURING CONSTRUCTION SHALL BE RETURNED TO ITS ORIGINAL CONDITION PRIOR TO COMPLETION OF WORK. SIZE, LOCATION AND TYPE OF ANY UNDERGROUND UTILITIES OR IMPROVEMENTS SHALL BE ACCURATELY NOTED AND PLACED ON "AS-BUILT" DRAWINGS BY GENERAL CONTRACTOR, AND ISSUED TO THE ARCHITECT OR ENGINEER AT COMPLETION OF PROJECT.
10. ALL TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS, UTILITIES, ETC., SHALL BE PROPERLY LAID BACK OR BRACED IN ACCORDANCE WITH THE CORRECT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.
11. NEW CONDUITS SHALL BE INSTALLED IN TRENCH SUCH THAT THE TOP OF CONDUIT SHALL HAVE A MINIMUM COVER OF 24-INCHES BELOW ADJACENT EDGE OF PAVEMENT OR ORIGINAL GROUND, WHICHEVER IS LOWER IN ELEVATION.
12. ALL PULL BOXES SHALL BE PRECAST REINFORCED CONCRETE AND HAVE NON CONDUCTIVE LIDS. EXISTING PULL BOX COVERS THAT ARE MARKED INCORRECTLY SHALL BE REPLACED.
13. REGRADE LANDSCAPING AS NEEDED AND REPLACE DAMAGED IRRIGATION LINES WITHIN 24 HOURS.



24"x36" SCALE: 1" = 20'-0"
11"x17" SCALE: 1" = 40'-0"

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celsius
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4	10/20/2017	RF REVISION
3	10/04/2017	100% ZONING DRAWINGS
2	08/06/2017	90% ZONING DRAWINGS
1	06/19/2017	80% ZONING DRAWINGS
REV	DATE	DESCRIPTION

ISSUED DATE: OCTOBER 20, 2017

ISSUED FOR: _____

100% ZD SET

LICENSURE: _____

PROJECT INFORMATION: _____

MLK BYPASS SC1

LOCATION CODE: 427162

NORTH SIDE OF 47TH
STREET, WEST OF MLK
OAKLAND, CA 94609

DRAWN BY: RD

CHECKED BY: FO

SHEET TITLE: _____

SITE PLAN

SHEET NUMBER: _____

A-1

1. METER SHALL NOT FACE THE STREET, ALLEY, OR PROPERTY SIDE OF THE POLE.
2. METER BASE AND DISCONNECT SHALL BE BONDED TO A SEPARATE GROUND FROM THE POLE GROUND WITH CONDUCTOR HAVING A CURRENT CAPACITY THAN NO LESS THAN #6 SOLID COPPER CONDUCTOR.
3. CONDUIT MAY BE MOUNTED DIRECTLY TO THE POLE OR U-GUARD MAY BE USED IF THE POLE IS WITHIN 15' OF A BUCKET TRUCK ACCESSIBLE PAVED ROAD. IF NOT ACCESSIBLE AND THE CONDUIT IS GREATER THAN 1-1/2", THE CONDUIT IS TO BE MOUNTED WITH A STANDOFF BRACKET THAT PROVIDES 7" CLEARANCE FROM THE POLE TO THE CONDUIT.
4. VERIFY AND RECORD ALL TIES AND FOOTAGES IN FIELD PER FINAL AS-BUILT CONDITIONS.
5. PROVIDE ADEQUATE WORKMAN PROTECTION ON WINDING NARROW ROADS OR HEAVY TRAFFIC.
6. GROUNDS ARE TO BE TESTED-REQUIRES 5 OHMS OR LESS RESISTANCE.
7. ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION.
8. NOTIFY PROPERTY OWNER BEFORE WORKING ON OR AROUND PRIVATE PROPERTY.
9. OBTAIN SPECIAL PERMITS AND PAY FEES AS REQUIRED WORKING ON COUNTY HIGHWAY.

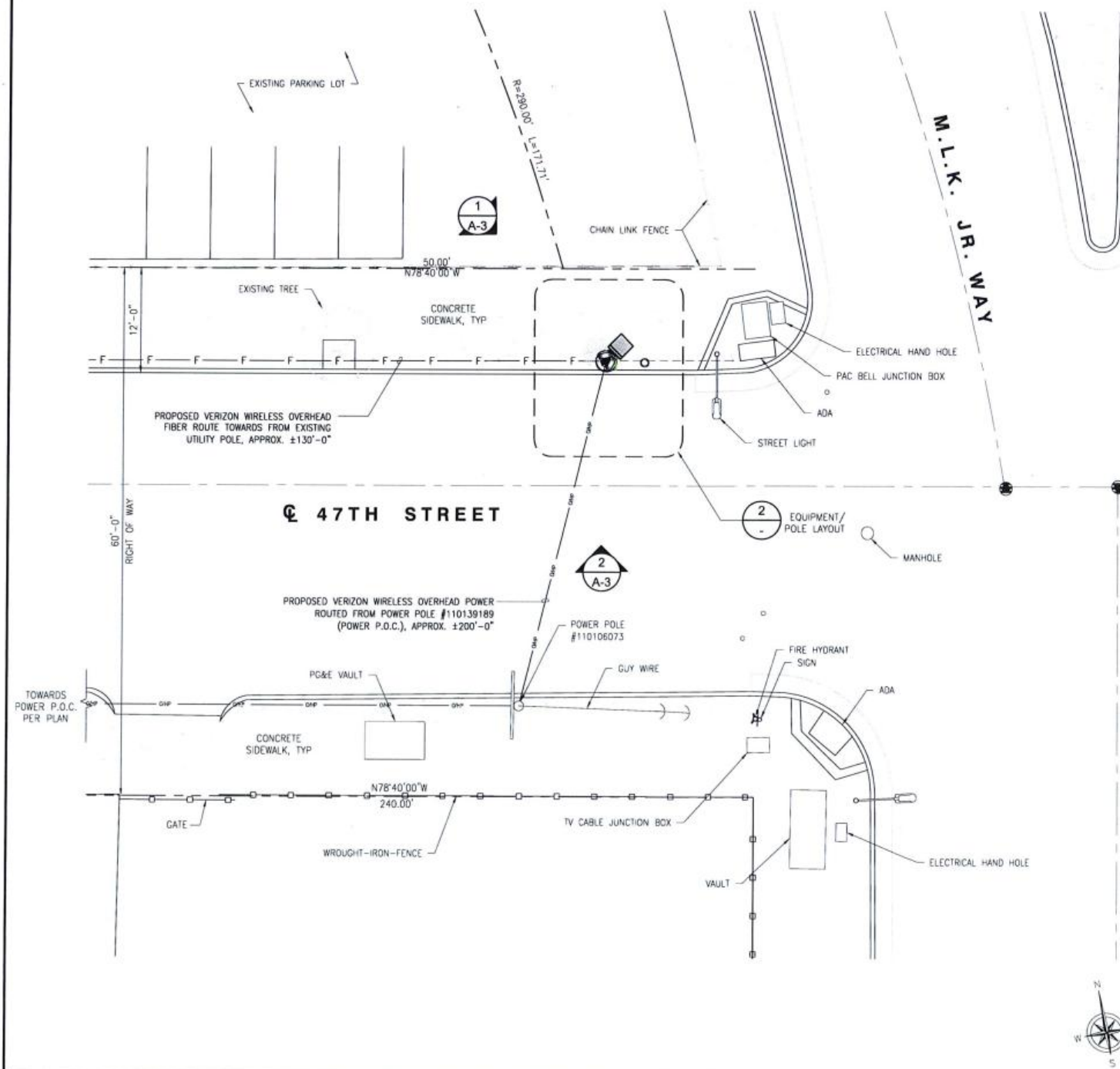
9. MAINTAIN 36" MINIMUM COVER IN PARKWAY
10. MAINTAIN 30" MINIMUM COVER BELOW GUTTER GRADE ON SURFACE STREETS.
11. CONDUIT REQUIREMENTS:
- UNDERGROUND - SCHEDULE 40 PVC OR BETTER
 - RISERS - SCHEDULE 80 PVC
 - ALL CONDUITS WILL BE MANHOLED AND EQUIPPED WITH 3/8" PULL ROPE
 - 2" GALVANIZED STEEL CONDUIT FOR ANY CONDUIT UNDER 3", STUB UP 10' THEN CONVERT TO SCHEDULE 80.
 - CONTRACTOR TO STUB UP POLE 10' W/ 3" POWER CONDUIT. POWER COMPANY TO CONVERT FROM 3" STUB SCHEDULE 80 TO 2" SCHEDULE 80 FROM TOP OF STUB UP.
- NOTE: WHERE MINIMUM COVER OF 36" CANNOT BE OBTAINED, REPLACED PVC WITH GALVANIZED STEEL CONDUIT, GALVANIZED STEEL CONDUIT MUST BE MINIMUM OF 10'-0" IN LENGTH BEFORE CONVERTING BACK TO PVC.
13. GROUND REQUIREMENTS:
- 5/8" ROD-10' LENGTH
 - GROUND TESTED AT 5 OHMS OR LESS
 - #2 GROUND WIRE
 - WOOD MOLDING, STAPLED TO POLE EVERY 2'-0" AT EACH END
 - GROUND RODS MUST BE 24" FROM POLE AND THE TOP OF ROD MUST BE BELOW GRADE LEVEL.

ALL EXISTING SUBSURFACE UTILITIES, FACILITIES, CONDITIONS, AND THEIR DIMENSIONS SHOWN ON THE PLAN HAVE BEEN PLOTTED FROM FIELD SURVEY, AND/OR AVAILABLE RECORDS, THE ARCHITECT/ENGINEER AND THE OWNER ASSUME NO RESPONSIBILITY WHATSOEVER AS TO THE SUFFICIENCY OR THE ACCURACY OF THE INFORMATION SHOWN ON THE PLANS, OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTORS SHALL BE RESPONSIBLE FOR THE DETERMINING EXACT LOCATION OF ALL EXISTING UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTORS SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING EXISTING UTILITIES. THERE ARE NO EXISTING UTILITIES OR FACILITIES SHOWN ON THIS PLAN. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PROTECT AND PRESERVE AND PROTECT THE UTILITY LINE SHOWN AND ANY OTHER LINES NOT SHOWN ON THIS PLAN.



POLE HEIGHT:	40 FT
MATERIAL:	UNK
POLE TYPE:	JOINT UTILITY POLE
POLE CLASS:	3
YEAR SET:	UNK

1. VERIZON TO INSTALL (1) LOW PROFILE CABINET W/
QUAD 4, AT STANDOFF MOUNT AT 2:00 POSITION,
QUAD 4, AT $\pm 11^{\circ}$ -0" AGL.
2. VERIZON TO INSTALL (1) DISCONNECT ON STANDOFF
MOUNT AT 2:00 POSITION, QUAD 4, AT $\pm 9^{\circ}$ -0" AGL.
3. VERIZON TO INSTALL (1) METER ON STANDOFF MOUNT
AT 2:00 POSITION, QUAD 4, AT $\pm 6^{\circ}$ -5" AGL.
4. VERIZON TO INSTALL (2) AFT ANTENNAS AND (2)
DIPLEXERS CONCEALED WITHIN THE PROPOSED 7'-0"
HIGH CONCEALFAB ANTENNA RADOME, POLE TOP.
5. VERIZON TO INSTALL 2" SCHEDULE 80 PVC POWER
RISER MOUNTED ON POLE AT 4:00 POSITION, QUAD 3
FROM SERVICE DROP TO METER.
6. VERIZON TO INSTALL 4" SCHEDULE 80 PVC RISER
MOUNTED ON POLE AT 1:00 POSITION, QUAD 4 FROM
EQUIPMENT CABINET TO ANTENNA.
7. INSTALL 2" SCHEDULE 80 PVC FIBER RISER MOUNTED
ON POLE AT 3:30 POSITION, QUAD 3 FROM SERVICE
DROP TO EQUIPMENT CABINET.
8. VERIZON TO STEP POLE @ 9:00 AND 12:00



24"x36" SCALE: 1/8" = 1'-0"
11"x17" SCALE: 1/16" = 1'-0"

24"x36" SCALE: NTS
11"x17" SCALE: NTS



- NOTES:
1. THE NEW LAYOUT IS PRELIMINARY AND SUBJECT TO CHANGE PENDING FIELD DATA AND STRUCTURAL DESIGN.
 2. NEW ANTENNAS, EQUIPMENT, CONDUITS & ALL HARDWARE SHOULD BE PAINTED MESA BROWN OR EQUIVALENT TO MATCH POLE FOR CONCEALMENT AS NECESSARY.
 3. MAINTAIN 6'-0" CLEARANCE FROM BOTTOM OF ANTENNA BRACKET AGAINST SERVICE DROP AND/OR SECONDARY LINE.

TOP OF PROPOSED ANTENNA RADOME
ELEV. = $\pm 47'-11"$ A.G.L.

RAD CENTER OF PROPOSED ANTENNA
ELEV. = $\pm 45'-0"$ A.G.L.
TOP OF PROPOSED POLE EXTENSION
ELEV. = $\pm 44'-0"$ A.G.L.
TOP OF EXISTING POLE
ELEV. = $\pm 43'-0"$ A.G.L.
TOP OF PROPOSED TRIMMED POLE TOP
ELEV. = $\pm 42'-0"$ A.G.L.

BOTTOM OF PROPOSED ANTENNA SHROUD
ELEV. = $\pm 40'-0"$ A.G.L.

EXISTING SERVICE DROP
ELEV. = $\pm 35'-11"$ A.G.L.

EXISTING MESSENGER WIRE
ELEV. $\pm 30'-3"$ A.G.L.

EXISTING GUY WIRE
ELEV. $\pm 30'-0"$ A.G.L.

EXISTING OVERHEAD FIBER
ELEV. $\pm 28'-6"$ A.G.L.

EXISTING GUY WIRE
ELEV. $\pm 28'-0"$ A.G.L.

TOP OF EXISTING BOX
ELEV. $\pm 26'-0"$ A.G.L.

BOTTOM OF EXISTING BOX
ELEV. $\pm 24'-9"$ A.G.L.

TOP OF PROPOSED VZW LOW PROFILE CABINET
ELEV. $\pm 17'-0"$ A.G.L.

BOTTOM OF PROPOSED VZW LOW PROFILE CABINET
ELEV. $\pm 11'-0"$ A.G.L.

BOTTOM OF PROPOSED VZW DISCONNECT SWITCH
ELEV. $\pm 9'-0"$ A.G.L.

BOTTOM OF METER
ELEV. = $\pm 6'-6"$ A.G.L.

EXISTING GRADE LEVEL/PEDESTRIAN WALK
ELEV. = $0'-0"$ A.G.L.

PROPOSED VERIZON WIRELESS 4'-0" HIGH PANEL ANTENNAS CONCEALED WITHIN PROPOSED ANTENNA RADOME. (1) PER SECTOR; (2) SECTORS. (2) TOTAL

PROPOSED VERIZON WIRELESS CONCEALFAB ANTENNA RADOME. PAINTED MESA BROWN OR EQUIVALENT TO MATCH POLE FOR CONCEALMENT.

PROPOSED VERIZON WIRELESS COMBINERS, (3 TOTAL)

PROPOSED VERIZON WIRELESS CONCEALFAB SHROUD (AS REQUIRED). PAINTED MESA BROWN OR EQUIVALENT TO MATCH POLE FOR CONCEALMENT.

PROPOSED OVERHEAD SERVICE DROP ALONG EXISTING SERVICE DROP ROUTE.

PROPOSED VERIZON WIRELESS UTILITY CONDUIT RISER FROM SERVICE DROP. APPROX. 20'-0" IN LENGTH

PROPOSED VERIZON WIRELESS 4" PVC RISER (COAX CABLES) @ 1:00 POSITION, QUAD 4; (1 TOTAL). PAINTED MESA BROWN OR EQUIVALENT TO MATCH POLE FOR CONCEALMENT.

EXISTING UTILITY POLE #110106078

EXISTING CLIMBING LEGS, TYP

PROPOSED VERIZON WIRELESS UTILITY CONDUIT RISERS FROM SERVICE DROP. APPROX. 20'-0" IN LENGTH

EXISTING POLE-MOUNTED CABINET, (BY OTHERS)

GUY WIRES

PROPOSED VERIZON WIRELESS POLE-MOUNTED LOW PROFILE CABINET ON STANDOFF (CUBE-SC30432NExx) WITH (2) RRUS. PAINTED MESA BROWN OR EQUIVALENT TO MATCH POLE FOR CONCEALMENT.

PROPOSED PG&E POLE-MOUNTED SHUT OFF/DISCONNECT SWITCH. PAINTED MESA BROWN OR EQUIVALENT TO MATCH POLE FOR CONCEALMENT.

PROPOSED VERIZON WIRELESS POLE-MOUNTED METER. PAINTED MESA BROWN OR EQUIVALENT TO MATCH POLE FOR CONCEALMENT.

EXISTING CURB AND GUTTER, TYP

PROPOSED NORTHEAST ELEVATION

24"x36" SCALE: 3/8" = 1'-0"
11"x17" SCALE: 3/16" = 1'-0"

1

- NOTES:
1. THE NEW LAYOUT IS PRELIMINARY AND SUBJECT TO CHANGE PENDING FIELD DATA AND STRUCTURAL DESIGN.
 2. NEW ANTENNAS, EQUIPMENT, CONDUITS & ALL HARDWARE SHOULD BE PAINTED MESA BROWN OR EQUIVALENT TO MATCH POLE FOR CONCEALMENT AS NECESSARY.
 3. MAINTAIN 6'-0" CLEARANCE FROM BOTTOM OF ANTENNA BRACKET AGAINST SERVICE DROP AND/OR SECONDARY LINE.

TOP OF PROPOSED ANTENNA RADOME
ELEV. = $\pm 47'-11"$ A.G.L.

RAD CENTER OF PROPOSED ANTENNA
ELEV. = $\pm 45'-0"$ A.G.L.
TOP OF PROPOSED POLE EXTENSION
ELEV. = $\pm 44'-0"$ A.G.L.
TOP OF EXISTING POLE
ELEV. = $\pm 43'-0"$ A.G.L.
TOP OF PROPOSED TRIMMED POLE TOP
ELEV. = $\pm 42'-0"$ A.G.L.

BOTTOM OF PROPOSED ANTENNA SHROUD
ELEV. = $\pm 40'-0"$ A.G.L.

EXISTING SERVICE DROP
ELEV. = $\pm 35'-11"$ A.G.L.

EXISTING MESSENGER WIRE
ELEV. $\pm 30'-3"$ A.G.L.

EXISTING GUY WIRE
ELEV. $\pm 30'-0"$ A.G.L.

EXISTING OVERHEAD FIBER
ELEV. $\pm 28'-6"$ A.G.L.

EXISTING GUY WIRE
ELEV. $\pm 28'-0"$ A.G.L.

TOP OF EXISTING BOX
ELEV. $\pm 26'-0"$ A.G.L.

BOTTOM OF EXISTING BOX
ELEV. $\pm 24'-9"$ A.G.L.

TOP OF PROPOSED VZW LOW PROFILE CABINET
ELEV. $\pm 17'-0"$ A.G.L.

BOTTOM OF PROPOSED VZW LOW PROFILE CABINET
ELEV. $\pm 11'-0"$ A.G.L.

BOTTOM OF PROPOSED VZW DISCONNECT SWITCH
ELEV. $\pm 9'-0"$ A.G.L.

BOTTOM OF METER
ELEV. = $\pm 6'-6"$ A.G.L.

EXISTING GRADE LEVEL
ELEV. = $0'-0"$ A.G.L.

PROPOSED VERIZON WIRELESS CONCEALFAB ANTENNA RADOME. PAINTED MESA BROWN OR EQUIVALENT TO MATCH POLE FOR CONCEALMENT.

PROPOSED VERIZON WIRELESS 4'-0" HIGH PANEL ANTENNA CONCEALED WITHIN PROPOSED ANTENNA RADOME. (1) PER SECTOR; (2) SECTORS. (2) TOTAL

PROPOSED VERIZON WIRELESS COMBINERS, (3 TOTAL)

PROPOSED VERIZON WIRELESS CONCEALFAB SHROUD (AS REQUIRED). PAINTED MESA BROWN OR EQUIVALENT TO MATCH POLE FOR CONCEALMENT.

PROPOSED OVERHEAD SERVICE DROP ALONG EXISTING SERVICE DROP ROUTE.

PROPOSED VERIZON WIRELESS UTILITY CONDUIT RISER FROM SERVICE DROP. APPROX. 20'-0" IN LENGTH

PROPOSED VERIZON WIRELESS 4" PVC RISER (COAX CABLES) @ 1:00 POSITION, QUAD 4; (1 TOTAL). PAINTED MESA BROWN OR EQUIVALENT TO MATCH POLE FOR CONCEALMENT.

EXISTING UTILITY POLE #110106078

EXISTING POLE-MOUNTED CABINET, (BY OTHERS)

PROPOSED VERIZON WIRELESS POLE-MOUNTED LOW PROFILE CABINET ON STANDOFF (CUBE-SC30432NExx) WITH (2) RRUS. PAINTED MESA BROWN OR EQUIVALENT TO MATCH POLE FOR CONCEALMENT.

PROPOSED VERIZON WIRELESS EQUIPMENT STANDOFF MOUNT ASSEMBLY

PROPOSED VERIZON WIRELESS RF SIGNAGE ON POLE

PROPOSED PG&E POLE-MOUNTED SHUT OFF/DISCONNECT SWITCH. PAINTED MESA BROWN OR EQUIVALENT TO MATCH POLE FOR CONCEALMENT.

PROPOSED VERIZON WIRELESS POLE-MOUNTED METER. PAINTED MESA BROWN OR EQUIVALENT TO MATCH POLE FOR CONCEALMENT.

EXISTING CURB AND GUTTER, TYP

PROPOSED SOUTHEAST ELEVATION

24"x36" SCALE: 3/8" = 1'-0"
11"x17" SCALE: 3/16" = 1'-0"

2

verizon
2785 MITCHELL DRIVE, BLDG. 9
WALNUT CREEK, CA 94598

SEQUOIA
DEPLOYMENT SERVICES, INC.
22471 ASPEN STREET, STE 290
LAKE FOREST, CA 92630

celesius
ENGINEERING GROUP
10005 MUIRLANDS BLVD., SUITES E & F
IRVINE, CA 92618
tel. (949) 202-2311 | fax. (888) 505-2977

REV	DATE	DESCRIPTION
4	10/20/2017	RF REVISION
3	10/04/2017	100% ZONING DRAWINGS
2	09/06/2017	90% ZONING DRAWINGS
1	08/19/2017	80% ZONING DRAWINGS

ISSUED DATE:
OCTOBER 20, 2017

ISSUED FOR:
100% ZD SET

LICENSURE:

PROJECT INFORMATION:
MLK BYPASS SC1
LOCATION CODE: 427162
NORTH SIDE OF 47TH
STREET, WEST OF MLK
OAKLAND, CA 94609

DRAWN BY: RD
CHECKED BY: FO

SHEET TITLE:
ARCHITECTURAL
ELEVATIONS

SHEET NUMBER:
A-3



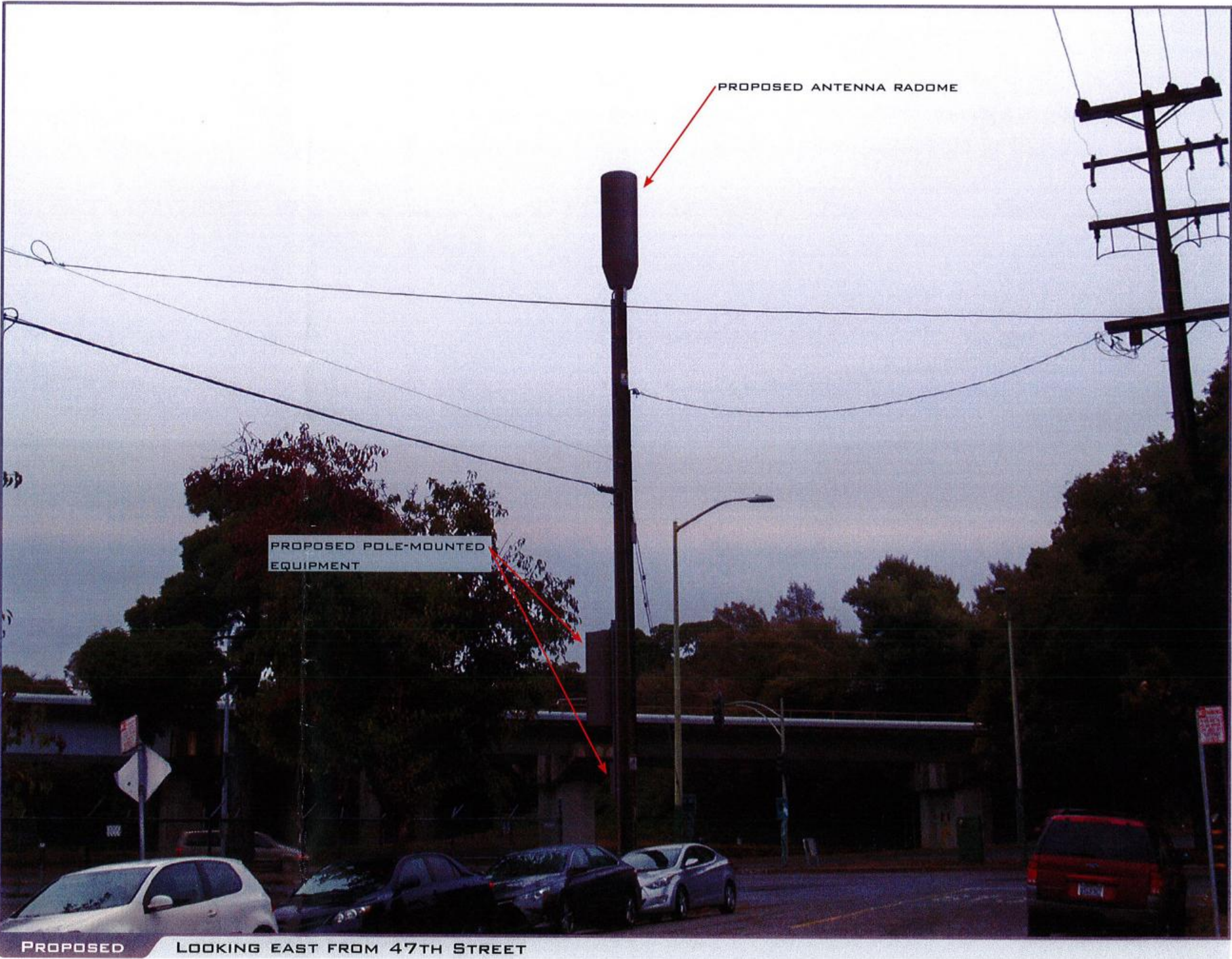
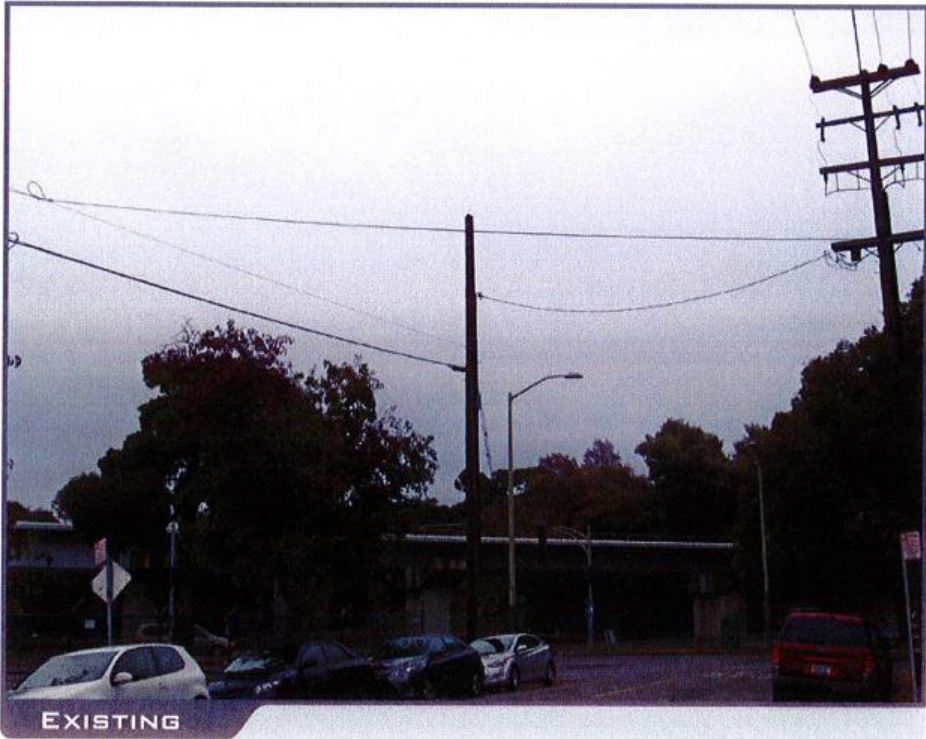
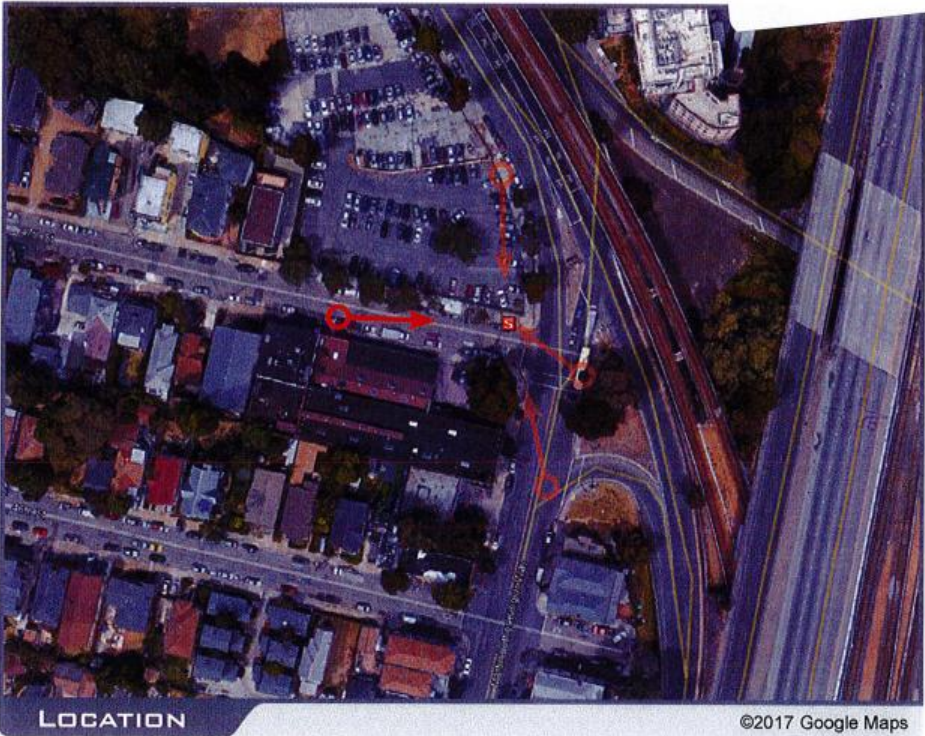
MLK BYPASS SC 1

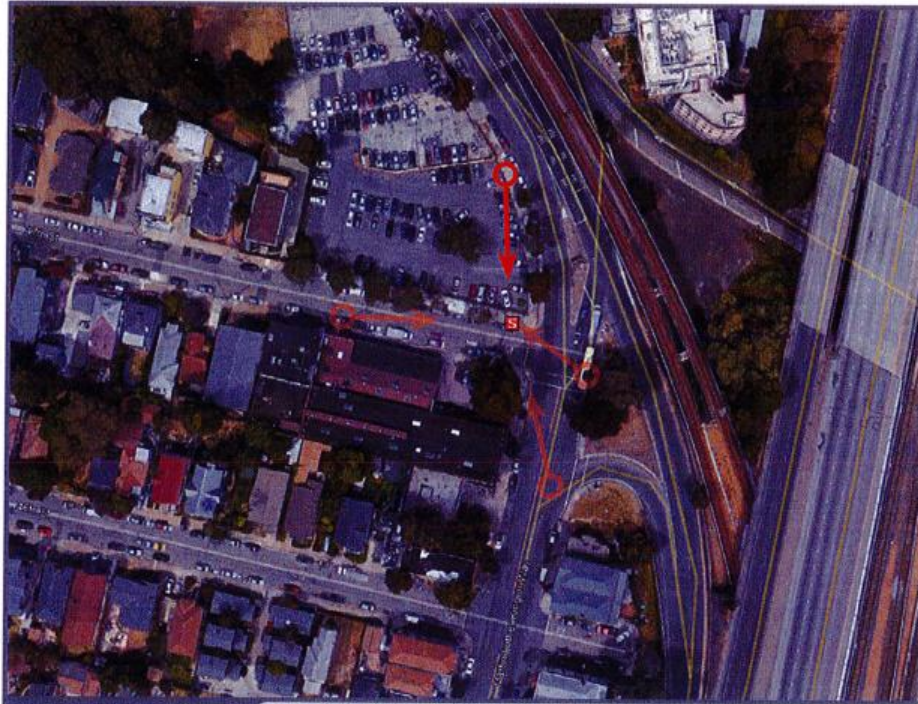
47TH ST & MARTIN LUTHER KING JR WAY OAKLAND CA 94609



Attachment D

VIEW 1





LOCATION

©2017 Google Maps



EXISTING



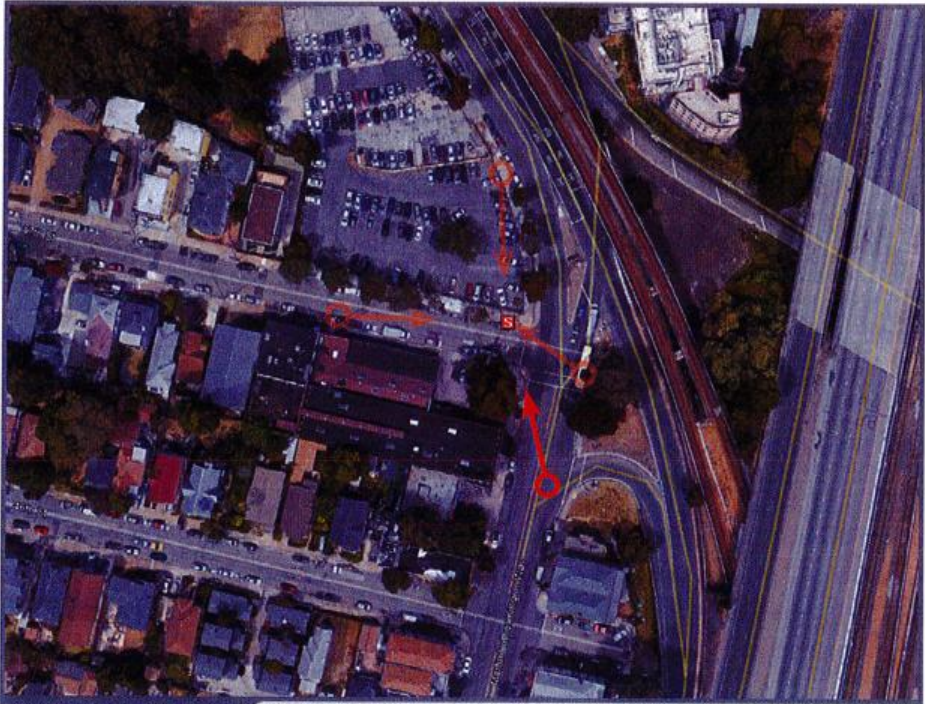
PROPOSED

LOOKING SOUTH FROM MARTIN LUTHER KING JR WAY



MLK BYPASS SC 1

47TH ST & MARTIN LUTHER KING JR WAY OAKLAND CA 94609

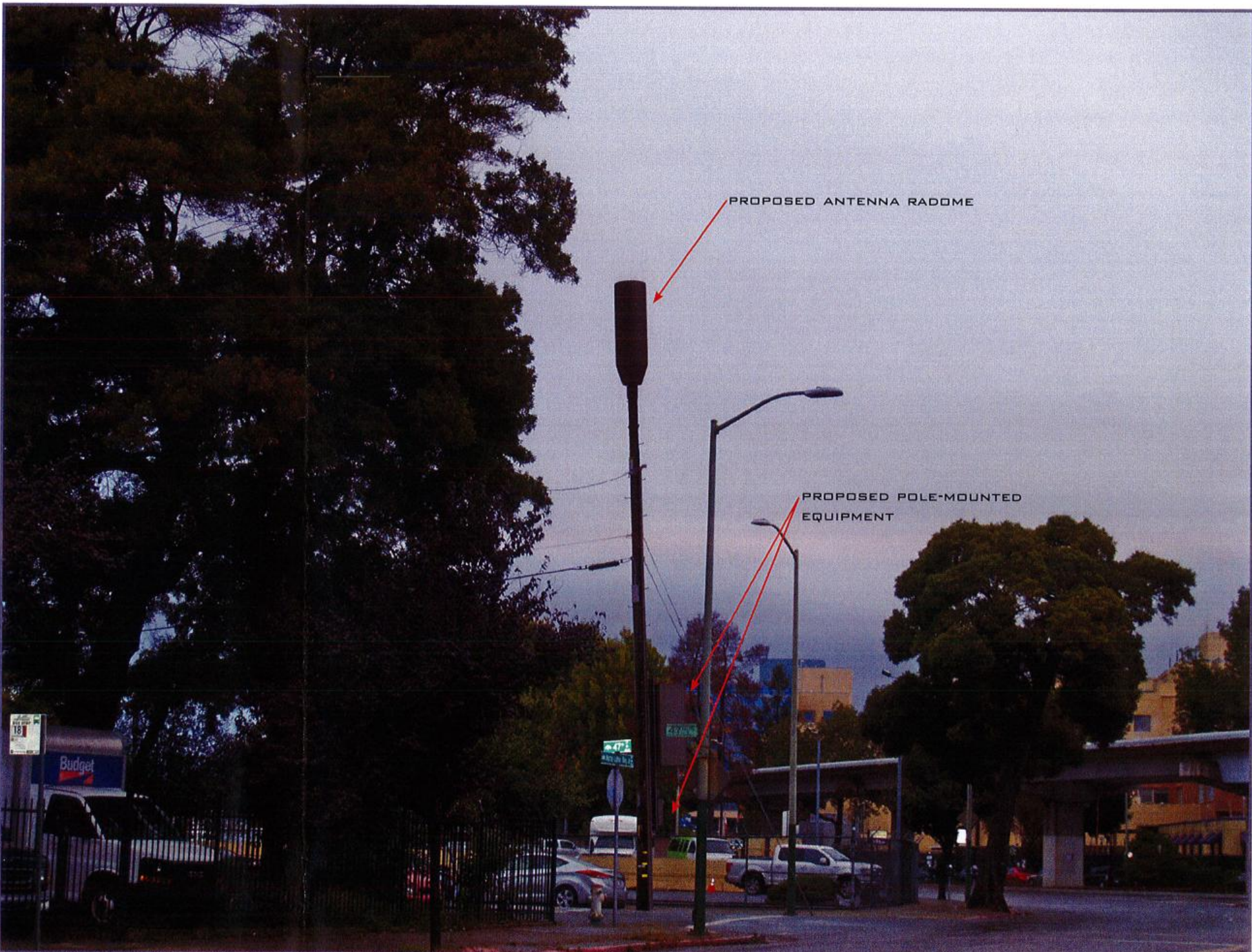


LOCATION

©2017 Google Maps



EXISTING



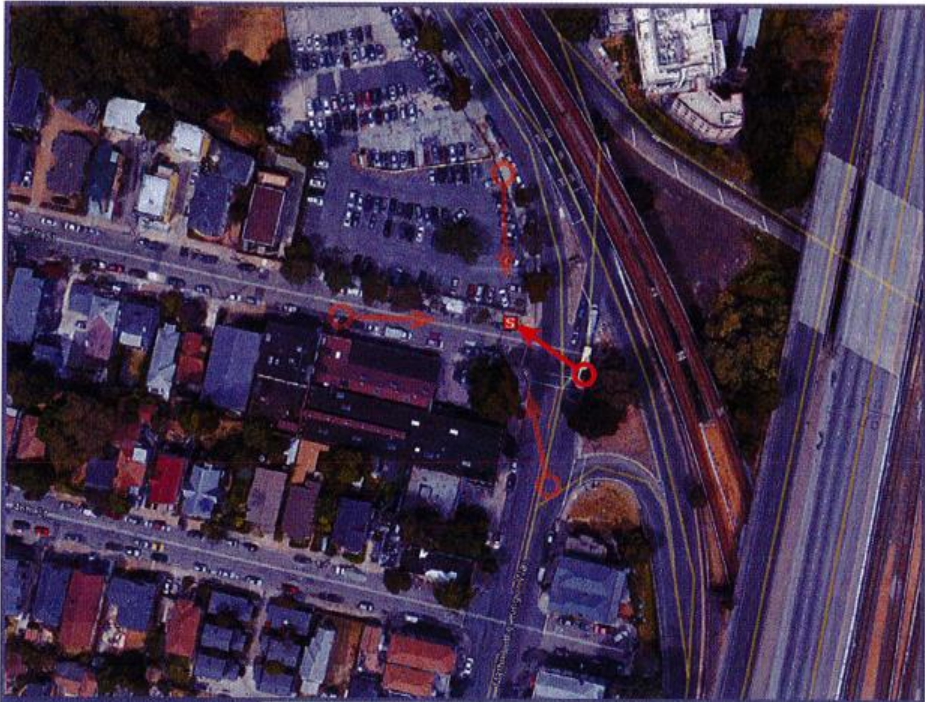
PROPOSED

LOOKING NORTH FROM MARTIN LUTHER KING JR WAY



MLK BYPASS SC 1

47TH ST & MARTIN LUTHER KING JR WAY OAKLAND CA 94609



LOCATION

©2017 Google Maps



EXISTING



PROPOSED

LOOKING NORTHWEST FROM MARTIN LUTHER KING JR WAY



Verizon Wireless Proposed Wireless Telecommunications Facility//Small Cells
Public ROW 2 Corner. 47th St & MLK Jr Way, Oakland, CA 94609

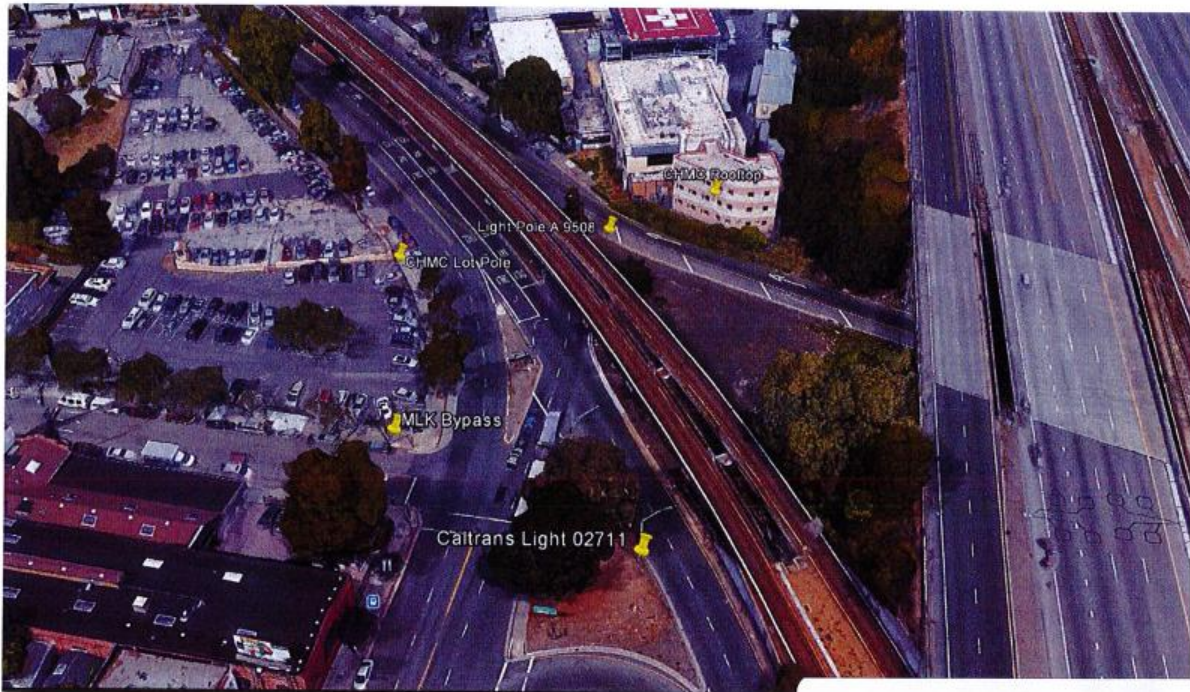
Alternative Site Analysis

Verizon Wireless conducted a thorough search in efforts to contact and investigate all alternative feasible site locations that would eliminate or substantially reduce significant gaps in the coverage or network capacity when a new site is proposed. In this instance, the "MLK Bypass" search area is in the City of Oakland, along the MLK Bypass roadway; the terrain is flat and existing uses in the area consist of predominantly residential uses with very limited commercial properties being available.

Verizon examined the search for co-location opportunities and did not locate any existing free standing co-locatable wireless towers. It is Verizon's preference to pursue a collocation whenever it is possible. However, in this instance, the only related opportunity within the search area resulted on a pole mounted antenna and equipment.

A variety of different properties were investigated by Verizon Wireless, but all were deemed unsuitable for the proposed facility. The main reason for these sites being unsuitable are either lack of landlord interest or safe access to the site.

Sites in relation to the proposed MLK Bypass Site



Attachment E

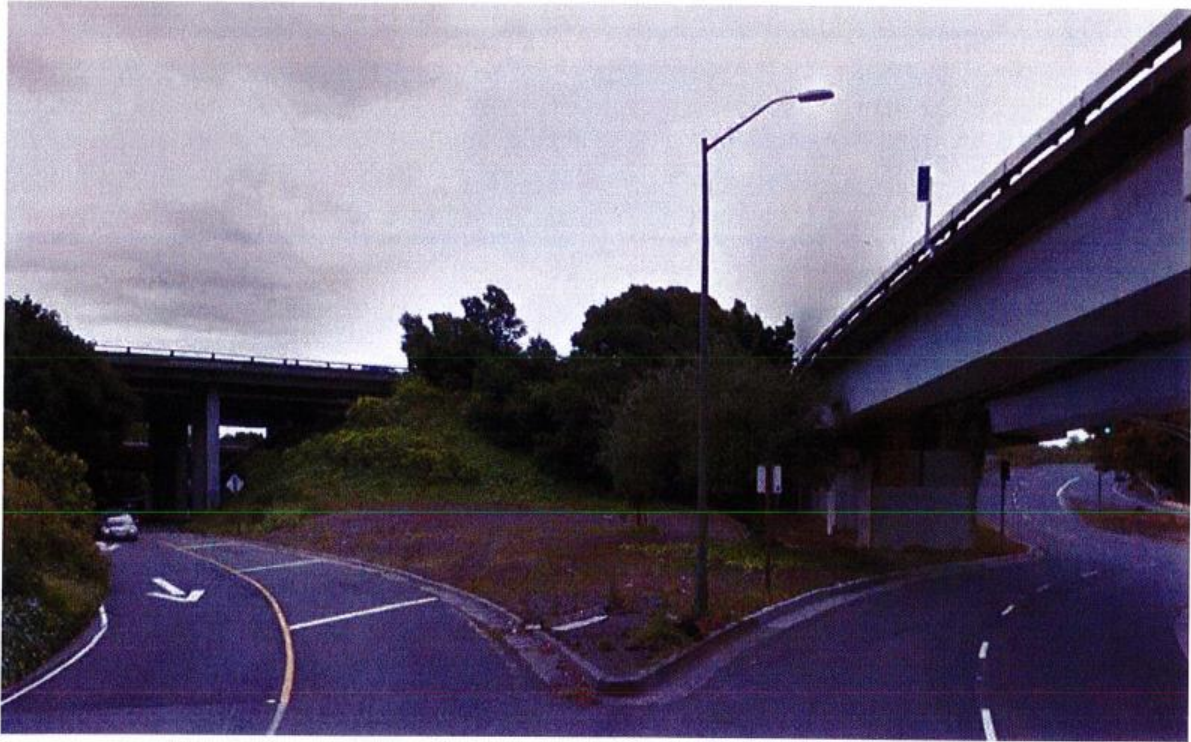
- **CHMC (rooftop)** – 747 52nd Street, Lats/Long: 37.8356384984, -122. Owned by Children's Hospital Med Ctr. of Northern California. A Letter of Intent was presented, and owner was not interested. NOT A VIABLE CANDIDATE.



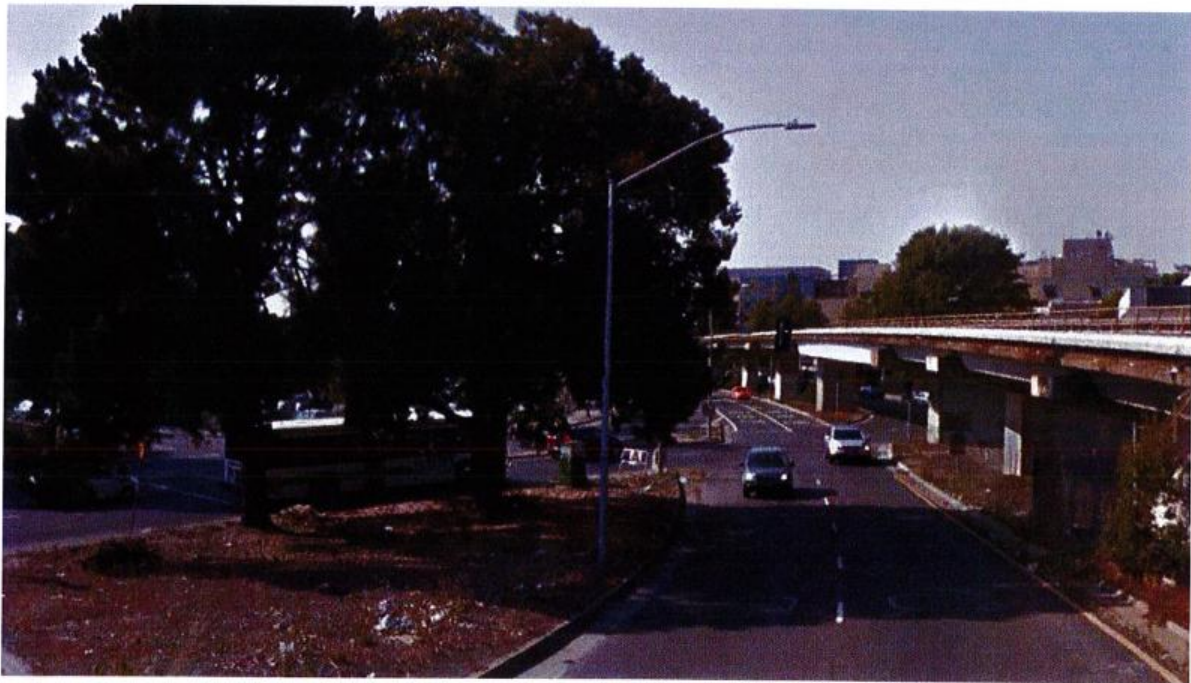
- **CHMC Lot Pole-** 37.8354821165, -122.267379764 at 4701 MLK Jr Way and owned by Children's Hospital Med Ctr. of Northern California. A Letter of Intent was presented, and owner was not interested. NOT A VIABLE CANDIDATE.



Light Pole A 9508- 37.8355501525, -122.266940363 in the P-ROW adjacent to the EB SR 24 Off-Ramp. Owned by the City of Oakland. VZW equipment cabinet would need to be on Caltrans property. No independent SAFE access. Caltrans rejected site. NOT A VIABLE CANDIDATE.



Caltrans Light 02711- 37.8348608301, -122.266891614 MLK on ramp to WB SR24 in the Caltrans ROW. No independent SAFE access. Caltrans rejected site. NOT A VIABLE CANDIDATE.



**Verizon Wireless • Proposed Base Station (Site No. 427162 “MLK Bypass SC1”)
47th Street and Martin Luther King Jr. Way • Oakland, California**

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate the base station (Site No. 427162 “MLK Bypass SC1”) proposed to be located at 47th Street and Martin Luther King Jr. Way in Oakland, California, for compliance with appropriate guidelines limiting human exposure to radio frequency (“RF”) electromagnetic fields.

Executive Summary

Verizon proposes to install directional panel antennas on top of the tall utility pole sited in the public right of way at the corner of 47th Street and Martin Luther King Jr. Way in Oakland. The proposed operation will comply with the FCC guidelines limiting public exposure to RF energy.

Prevailing Exposure Standards

The U.S. Congress requires that the Federal Communications Commission (“FCC”) evaluate its actions for possible significant impact on the environment. A summary of the FCC’s exposure limits is shown in Figure 1. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. The most restrictive FCC limit for exposures of unlimited duration to radio frequency energy for several personal wireless services are as follows:

Wireless Service	Frequency Band	Occupational Limit	Public Limit
Microwave (Point-to-Point)	5–80 GHz	5.00 mW/cm ²	1.00 mW/cm ²
WiFi (and unlicensed uses)	2–6	5.00	1.00
BRS (Broadband Radio)	2,600 MHz	5.00	1.00
WCS (Wireless Communication)	2,300	5.00	1.00
AWS (Advanced Wireless)	2,100	5.00	1.00
PCS (Personal Communication)	1,950	5.00	1.00
Cellular	870	2.90	0.58
SMR (Specialized Mobile Radio)	855	2.85	0.57
700 MHz	700	2.40	0.48
[most restrictive frequency range]	30–300	1.00	0.20

General Facility Requirements

Base stations typically consist of two distinct parts: the electronic transceivers (also called “radios” or “channels”) that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The transceivers are often located at ground level and are connected to the antennas by coaxial cables. A



HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

W9D8
Page 1 of 4

**Verizon Wireless • Proposed Base Station (Site No. 427162 “MLK Bypass SC1”)
47th Street and Martin Luther King Jr. Way • Oakland, California**

small antenna for reception of GPS signals is also required, mounted with a clear view of the sky. Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward the horizon, with very little energy wasted toward the sky or the ground. This means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically very near the antennas.

Computer Modeling Method

The FCC provides direction for determining compliance in its Office of Engineering and Technology Bulletin No. 65, “Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation,” dated August 1997. Figure 2 describes the calculation methodologies, reflecting the facts that a directional antenna’s radiation pattern is not fully formed at locations very close by (the “near-field” effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the “inverse square law”). The conservative nature of this method for evaluating exposure conditions has been verified by numerous field tests.

Site and Facility Description

Based upon information provided by Verizon, including zoning drawings by Cellsius Engineering Group, dated October 20, 2017, it is proposed to install two CommScope Model SBNHH-1D65A directional panel antennas within a cylindrical shroud on top of the existing 42-foot utility pole in the public right of way on the north side of 47th Street in Oakland, just west of the intersection with Martin Luther King Jr. Way. The antennas would employ no downtilt, would be mounted at an effective height of about 45 feet above ground, and would be oriented toward 0°T and 130°T. The maximum effective radiated power in any direction would be 4,910 watts, representing simultaneous operation at 4,100 watts for AWS and 810 watts for 700 MHz service. There are reported no other wireless telecommunications base stations at the site or nearby.

Study Results

For a person anywhere at ground, the maximum RF exposure level due to the proposed Verizon operation is calculated to be 0.019 mW/cm², which is 2.1% of the applicable public exposure limit. The maximum calculated level at any nearby building* is 1.3% of the public exposure limit. The maximum calculated level at the second-floor elevation of any nearby residence† is 0.78% of the

* Located at least 65 feet away, based on photographs from Google Maps.

† Located at least 230 feet away, based on photographs from Google Maps.



**Verizon Wireless • Proposed Base Station (Site No. 427162 “MLK Bypass SC1”)
47th Street and Martin Luther King Jr. Way • Oakland, California**

public exposure limit. It should be noted that these results include several “worst-case” assumptions and therefore are expected to overstate actual power density levels from the proposed operation.

Recommended Mitigation Measures

Due to their mounting location and height, the Verizon antennas would not be accessible to unauthorized persons, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, it is recommended that appropriate RF safety training, to include review of personal monitor use and lockout/tagout procedures, be provided to all authorized personnel who have access to the structure, including employees and contractors of Verizon and of the property owner. No access within 12 feet directly in front of the Verizon antennas themselves, such as might occur during certain maintenance activities, should be allowed while the base station is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. It is recommended that explanatory signs[‡] be posted at the antennas and/or on the pole below the antennas, readily visible from any angle of approach to persons who might need to work within that distance.

Conclusion

Based on the information and analysis above, it is the undersigned’s professional opinion that operation of the base station proposed by Verizon Wireless at 47th Street and Martin Luther King Jr. Way in Oakland, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating base stations. Training authorized personnel and posting explanatory signs are recommended to establish compliance with occupational exposure limits.

[‡] Signs should comply with OET-65 color, symbol, and content recommendations. Contact information should be provided (e.g., a telephone number) to arrange for access to restricted areas. The selection of language(s) is not an engineering matter, and guidance from the landlord, local zoning or health authority, or appropriate professionals may be required. Signage may also need to comply with the requirements of California Public Utilities Commission General Order No. 95.



**Verizon Wireless • Proposed Base Station (Site No. 427162 "MLK Bypass SC1")
47th Street and Martin Luther King Jr. Way • Oakland, California**

Authorship

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30, 2019. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.



William F. Hammett
William F. Hammett, P.E.
707/996-5200

November 13, 2017



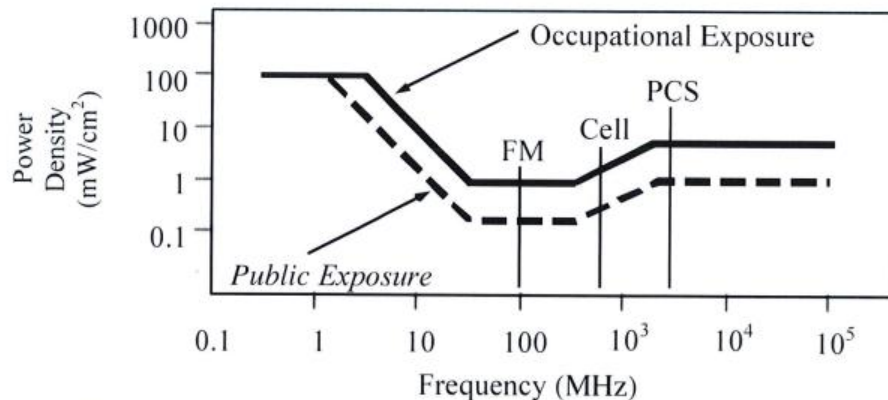
HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency Applicable Range (MHz)	Electromagnetic Fields (f is frequency of emission in MHz)					
	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm ²)	
0.3 – 1.34	614	<i>614</i>	1.63	<i>1.63</i>	100	<i>100</i>
1.34 – 3.0	614	<i>823.8/f</i>	1.63	<i>2.19/f</i>	100	<i>180/f²</i>
3.0 – 30	1842/f	<i>823.8/f</i>	4.89/f	<i>2.19/f</i>	900/f ²	<i>180/f²</i>
30 – 300	61.4	<i>27.5</i>	0.163	<i>0.0729</i>	1.0	<i>0.2</i>
300 – 1,500	3.54√f	<i>1.59√f</i>	√f/106	<i>√f/238</i>	f/300	<i>f/1500</i>
1,500 – 100,000	137	<i>61.4</i>	0.364	<i>0.163</i>	5.0	<i>1.0</i>



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has built those formulas into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radio sources. The program allows for the description of buildings and uneven terrain, if required to obtain more accurate projections.

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.

Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm²,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm²,

where θ_{BW} = half-power beamwidth of the antenna, in degrees, and

P_{net} = net power input to the antenna, in watts,

D = distance from antenna, in meters,

h = aperture height of the antenna, in meters, and

η = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

Far Field.

OET-65 gives this formula for calculating power density in the far field of an individual RF source:

power density $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$, in mW/cm²,

where ERP = total ERP (all polarizations), in kilowatts,

RFF = relative field factor at the direction to the actual point of calculation, and

D = distance from the center of radiation to the point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 ($1.6 \times 1.6 = 2.56$). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radiation sources. The program also allows for the description of uneven terrain in the vicinity, to obtain more accurate projections.



January 16, 2018

City Planner
Planning Department
City of Oakland
250 Frank H. Ogawa Plaza, 2nd Floor
Oakland, CA 94612

RE: GO 95 Required Six Foot Vertical Clearance Between Antenna Unit and Conductor
Applicant: Verizon Wireless
Nearest Site Address: Public Right of Way North of 47th Street
Site ID: Utility Pole #110106078
Latitude/Longitude: 37°50'6.30"N/122°16'2.36"
Planning Application : PLN17482

Dear Oakland Planning Department,

This letter is in response to discussions with the City of Oakland Planning Department seeking clarification on the proposed antennas placement on the existing utility pole.

Wireless facility attachments to utility poles must comply with CPUC General Order 95 safety, design and clearance standards. Specifically Rule 94.4(C) states: *Antennas, associated equipment (e.g. terminations, enclosures) and support elements installed above supply lines and/or communication lines of different ownership attached to the same structure shall maintain the vertical clearances specified in Rule 38, Table 2, Case 21, Columns A-H.* This rule restricts Verizon Wireless from placing the antennas flush to the top of the utility pole when the antenna is attached to a pole above the conductor and supply line. Verizon Wireless strives to minimize this height as much as possible by placing the antenna unit at six feet above the supply line, as this is the minimum vertical clearance per Rule 94.4(C).

Please let me know if you have any questions.

Thank you,

Kyle DeNardo
Authorized Agent for **verizon**✓

Attachment G

ATTACHMENT H





NOTICE
OAKLAND

1. The City of Oakland is currently conducting a study to determine the feasibility of establishing a new public utility district within the city limits. The study is being conducted by the Oakland Public Utility Commission (O.P.U.C.) and the Oakland Public Works Department (O.P.W.D.).

2. The study is being conducted in order to determine the feasibility of establishing a new public utility district within the city limits. The study is being conducted by the Oakland Public Utility Commission (O.P.U.C.) and the Oakland Public Works Department (O.P.W.D.).

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