

Case File Number: PLN15358

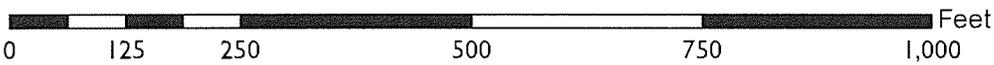
April 20, 2016

Location:	The Public Right-of-Way at Miles Ave. (Adjacent to 5687 Miles Ave.) (See map on reverse)
Assessors Parcel Numbers:	014 -1266-006-00 (nearest lot adjacent to the project site.)
Proposal:	The installation of a micro antenna system wireless telecommunication facility on a replacement Joint Pole Authority (JPA) public utility pole in the right-of-way on Miles Ave.; facility includes two panel antennas mounted at approximately 39' pole height; and associated equipment including one battery backup, and one meter box attached to the new pole, at a height of between 7' above ground in public right of way.
Applicant:	Core Development Services For Verizon
Contact Person/ Phone Number:	Ashley Woods (714) 293-5075
Owner:	City of Oakland
Case File Number:	PLN15358
Planning Permits Required:	Regular Design Review (non-residential) to install a wireless Macro Telecommunications Facility (17.136.050 (B)(2); Additional Findings for a Macro Facility (OMC Sec. 17.128.070(B)(C).
General Plan:	Neighborhood Center Mixed Use
Zoning:	CN-1 Neighborhood Center Mixed Use 1 Zone
Environmental Determination:	Exempt, Section 15303 of the State CEQA Guidelines (small facilities or structures; installation of small new equipment and facilities in small structures), and none of the exceptions to the exemption in CEQA Guidelines Section 15300.2 apply to the proposal. Exempt, Section 15183 of the State CEQA Guidelines; projects consistent with a community plan, general plan or zoning.
Historic Status:	Not a Potential Designated Historic Property; Survey rating: N/A
Service Delivery District:	2
City Council District:	4
Date Filed:	November 5 th , 2015
Finality of Decision:	Appealable to City Council within 10 Days
For Further Information:	Contact case planner Jose M. Herrera-Preza at (510) 238-3808 or jherrera@oaklandnet.com

SUMMARY

The proposal is to install a micro antenna system wireless Telecommunications Macro Facility onto a replacement Joint Pole Authority (JPA) utility pole located in the public right-of-way along Miles Avenue between College Avenue and Forest Street. Core Development Services for Verizon is proposing to install two panel antennas mounted onto a replacement JPA pole, resulting in a new height of 39' (to top of antennas); an associated equipment including one battery backup and meter 7' above the right-of-way on Miles Avenue.

CITY OF OAKLAND PLANNING COMMISSION



Case File: PLN15180

Applicant: Core Development Services for Verizon Wireless

Address: Public Right-of-Way adjacent to 5687 Miles Avenue

Zone: CN-1

A Major Design Review permit is required to install a new Telecommunications Facility located within 100' of a residential zone. As detailed below, the project meets all of the required findings for approval. Therefore, staff recommends approval of the project subject to the attached conditions of approval.

PROJECT DESCRIPTION

The applicant (Core Development Services for Verizon) is proposing to install a Telecommunications Macro Facility onto a pole top extension on an existing JPA utility pole located in the public right-of-way along Miles Ave. near 5687 Miles Ave. in a commercial area surrounded by multi-story apartment buildings and commercial storefronts. The project consists of replacing an existing 25'-5" foot JPA pole with a 40' replacement pole in the same location, with two panel antennas (each is two-feet long and 10-inches wide) mounted onto the JPA pole resulting in a 39' tall pole; all associated equipment including, one battery backup and meter box approximately 7' above the public right-of-way. The proposed antennas and associated equipment will be secured from the public. (See Attachment A).

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.

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 FCC standards in this regard. See, 47 U.S.C. 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. 47 U.S.C.332(c)(7)(B)(ii). See 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 in order 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, contact Steve Markendorff, Chief of the Broadband Branch, Commercial Wireless Division, Wireless Telecommunications Bureau, at (202) 418-0640 or e-mail "smarkend@fcc.gov".

PROPERTY DESCRIPTION

The existing 25'-5" tall JPA utility pole is located in the City of Oakland public right-of-way adjacent to 5687 Miles Avenue to the south, which contains a three-story multi-unit residential building, and Rockridge BART Station to the north, along the College Avenue commercial corridor.

GENERAL PLAN ANALYSIS

The subject property is located within the Neighborhood Center Mixed Use Area of the General Plan Land Use & Transportation Element (LUTE). The Neighborhood Center Mixed Use Classification is intended *"to create, preserve, and enhance mixed use neighborhood commercial centers. The centers are typically characterized by smaller scale pedestrian oriented, continuous and active store fronts with opportunities for comparison shopping"*. The proposed small cell telecommunication facilities will be mounted onto a new wood pole tope extension to an existing JPA pole intended to resemble existing PG&E utility poles within the City of Oakland public right-of-way. Visual impacts will be mitigated since the antennas are mounted 35'+ plus feet above the right-of-way. The equipment cabinets will be housed within a single box and painted to match the existing utility pole. Therefore, the proposed unmanned wireless telecommunication facility will not adversely affect or detract from the neighborhood commercial characteristics of the neighborhood.

Civic and Institutional uses
Objective N2

Encourage adequate civic, institutional and educational facilities located within Oakland, appropriately designed and sited to serve the community.

Staff finds the proposal to be in conformance with the objectives of the General Plan by servicing the community with enhanced telecommunications capability.

ZONING ANALYSIS

The proposed project is located in CN-1 Neighborhood Center Mixed Use 1 Zone. The intent of the CN-1 Zone is: *"to maintain and enhance vibrant commercial districts with a wide range of retail establishments serving both short and long term needs in attractive settings oriented to pedestrian comparison shopping"*. The proposed small cell telecommunication facility is located adjacent to 5687 Miles Ave. in a commercial area of the North Oakland. The project requires Regular Design Review per 17.136.050, which states that Macro Telecommunications Facilities proposed in within 100' of residential areas with special findings, to allow the installation of new telecommunication facilities on an existing JPA pole located in the public right-of-way within 100' of a Residential Zone. Special findings are required for Design Review approval to ensure that the facility is concealed to the extent possible.

ENVIRONMENTAL DETERMINATION

The California Environmental Quality Act (CEQA) Guidelines lists the projects that qualify as categorical exemptions from environmental review. Staff finds that the proposed project is categorically exempt from the environmental review requirements pursuant to Section 15301, (additions and alterations to existing facilities), and Section 15303 (small facilities or structures; installation of small new equipment and facilities in small structures), and that none of the exceptions to the exemption in CEQA Guidelines Section 15300.2 are not triggered by the proposal, and 15183 (projects consistent with a General Plan or Zoning) further applies.

KEY ISSUES AND IMPACTS

1. Regular Design Review

Section, 17.136.050 and 17.128.070 of the City of Oakland Planning Code requires Regular Design Review for Macro Telecommunication Facilities in the Hillside Residential zone or that are located within one hundred (100) feet of the boundary of any residential zone. The required findings for Regular Design Review, and the reasons this project meets them, are listed and included in staff's evaluation as part of this report.

2. Project Site

Section 17.128.110 of the City of Oakland Telecommunication Regulations indicate that new wireless facilities shall generally be located on designated properties or facilities in the following 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-CE-3 and D-CE-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 located on an A, B or C ranked preferences do not require a site alternatives analysis.

Since the proposed project involves locating the installation of new antennas and associated equipment cabinets on an existing utility pole, the proposed project meets: (B) quasi-public facilities on for a new wood JPA pole in the public right-of-way. The applicant has also provided a statement on site alternative analysis to indicate a public necessity for telecommunication services in the area and to show a number of alternative sites that were considered.

3. Project Design

Section 17.128.120 of the City of Oakland Telecommunications Regulations indicates 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 & B ranked preference does not require a site design alternatives analysis. Facilities designed to meet a C through F ranked preference, inclusive, must submit a site design alternatives analysis as part of the required application materials. (a) site design alternatives analysis shall, at a minimum, consist of:

- a. 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).

The Applicant completed an on-site site design analysis and determined that the site selected conforms to all other telecommunication regulation requirements. The project meets design criteria (C) since the antennas will be mounted onto a replacement JPA pole resembling existing PG&E wood poles in the area, in addition to locating the new pole in an area where the new facility is surrounded by utility poles and the equipment cabinet box and battery backup box will be housed within a single equipment box ground-mounted and painted to match the color of an existing PG&E utility pole to minimize potential visual impacts from public view. In addition, the applicant conducted an extensive site design alternative analysis of 2 alternative sites (See attachment C) where significant gaps in coverage exist and was visually the least obtrusive.

4. Project Radio Frequency Emissions Standards

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

- a. With the initial application, a RF emissions report, prepared by a licensed professional engineer or other expert, indicating that the proposed site will operate within the current acceptable thresholds as established by the Federal government or any such agency who may be subsequently authorized to establish such standards.
- b. Prior to commencement of construction, a RF emissions report indicating the baseline RF emissions condition at the proposed site.
- c. 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.

The RF-EME Electromagnetic Energy Compliance Report, prepared by Michael A. McGuire, P.E. for Waterford Consultants, LLC. Consulting Engineers, indicates that the proposed project meets the radio frequency (RF) emissions standards as required by the regulatory agency. The report states that the proposed project will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not cause a significant impact on the environment. Additionally, staff recommends as a condition of approval that, prior to the issuance of a final building permit, the applicant submits a certified RF emissions report stating that the facility is operating within acceptable thresholds established by the regulatory federal agency.

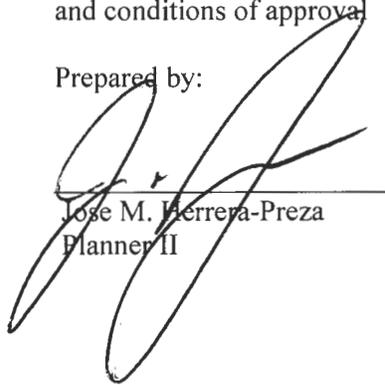
CONCLUSION

The proposed project meets all of the required findings for approval. Therefore, staff recommends approval of the project subject to the attached conditions.

RECOMMENDATIONS:

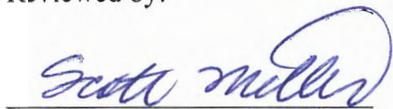
1. Affirm staff's environmental determination
2. Approve Design Review application PLN15358 subject to the attached findings and conditions of approval

Prepared by:



Jose M. Herrera-Preza
Planner II

Reviewed by:



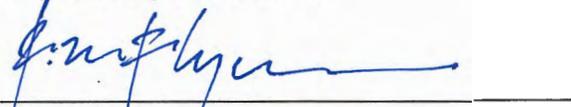
Scott Miller
Zoning Manager

Reviewed by:



Darin Ranelletti, Deputy Director
Bureau of Planning

Approved for forwarding to the
City Planning Commission:



RACHEL FLYNN, Director
Department of Planning and Building

ATTACHMENTS:

- A. Project Plans & Photo simulations & Alternative Site Analysis
- B. Hammett & Edison, Inc., Consulting Engineering RF Emissions Report
- C. Site Alternative Analysis

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 project consists of replacing an existing 25'-5" Joint Pole Authority (JPA) utility pole with a new 40' in the same location and adding two telecommunications panel antennas (two feet long and 10-inches wide), affixed on top of the utility pole; with all associated equipment including one battery backup and meter boxes 7' above the public right-of-way along Miles Ave. between College Avenue and Forest Street. The proposed antennas will be located 34' above the right-of-way near other utility poles which will help the facility to blend in with the existing surrounding commercial area. The equipment, serving the utility pole, will be sited on the pole to reduce visual clutter from the neighboring properties. Therefore, the proposal will have minimal visual impacts from public view.

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 an urban residential area near public transportation. The installation will be sited near other utility poles of similar height in the surrounding area to have minimal visual impacts on public views, thereby protecting the value of private and public investments in the area.

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 subject property is located within the Neighborhood Center Mixed Use Area of the General Plan's Land Use & Transportation Element (LUTE). The Neighborhood Center Mixed Use Classification is intended "to create, preserve, and enhance mixed use neighborhood commercial centers. The centers are typically characterized by smaller scale pedestrian oriented, continuous and active store fronts with opportunities for comparison shopping". The proposed telecommunication facilities will be mounted onto a new wood replacement pole, and intended to resemble existing utility poles within the City of Oakland public right-of-way. The proposed unmanned wireless telecommunication facility will be located on a replacement utility pole, in the exact same location, and will not detract from the commercial and residential value of the College Avenue commercial corridor. Visual impacts will be minimized since the site across the street from Rockridge BART Station. Furthermore the equipment serving the facility will be mounted on the pole 7' above ground level to reduce visual clutter on the pole. Therefore, the Project conforms to the applicable General Plan and Design Review criteria.

17.128.070(B) DESIGN REVIEW CRITERIA FOR MACRO FACILITIES

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

The proposed antennas will be painted to match the utility pole and blend with the surroundings.

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 will not be mounted on any building or architecturally significant structure, but rather on a replacement utility pole.

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 mounted on a new replacement JPA utility pole (to replace an existing JPA pole in the same location) and painted to match the pole.

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 equipment will be attached to the utility pole and painted to match the pole and blend with the surroundings.

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

The proposed equipment cabinets will be compatible with the existing utility related equipment.

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.

N/A.

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 antennas will be mounted onto a new 40' replacement JPA utility pole approximately 34' above the right-of-way. They will not be accessible to the public due to their location. The equipment accommodation and battery backup boxes be on the new pole and will be secured to the greatest extent possible from the public and vehicles.

CONDITIONS OF APPROVAL
PLN15358

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, **PLN15358** and the approved plans **dated February 10th, 2016**, 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.

PROJECT SPECIFIC CONDITIONS:

10. 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.

11. 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.

12. Equipment cabinets

Prior to building permit Issuances.

The applicant shall submit revised elevations showing associated equipment cabinets are concealed within a single equipment box that is painted to match the utility pole, to the Oakland Planning Department for review and approval.

13. 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.

14. 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.

15. 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.

GENERAL NOTES

- INDIFICATION CLAUSE THE CONTRACTOR AGREES AND SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY OF THE JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTIES THAT THE REQUIREMENTS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONTAINS THE CONTRACTOR FURTHER AGREES TO DEFEND INDEMNIFY AND HOLD VERIZON WIRELESS, REPRESENTATIVES, AND ENGINEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT.
- PRIOR TO THE BEGINNING OF ANY CONSTRUCTION AND THROUGHOUT THE COURSE OF CONSTRUCTION WORK, THE CONTRACTOR SHALL FULLY COMPLY WITH CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ACT OF 1973 INCLUDING ALL REVISIONS AND AMENDMENTS THEREIN.
- ALL WORK SHALL CONFORM TO THE LATEST EDITION OF CO 95, 128, AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, AS ADOPTED BY THE CITY, COUNTY OR STATE AS MODIFIED BY STANDARD PLANS AND AMENDMENTS.
- THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCIES FACILITIES AS SHOWN HEREON ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST. THE CONTRACTOR SHALL VERIFY PRIOR TO THE START OF CONSTRUCTION AND SHALL USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITY OR AGENCY FACILITIES WITHIN THE LIMITS OF WORK, WHETHER THEY ARE SHOWN ON THIS PLAN OR NOT.
- THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (800) 227-2600, AT LEAST TWO WORKING DAYS PRIOR TO THE START OF ANY EXCAVATION.
- THE CONTRACTOR SHALL NOTIFY THE CITY, COUNTY OR STATE ENGINEER INSPECTION DEPARTMENT, (213) 487-7030, AT LEAST TWO DAYS BEFORE START OF ANY WORK REQUIRING THEIR INSPECTION.
- ALL WORK AREA AND STREET TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS FROM THE CITY, COUNTY OR STATE.
- THE CITY, COUNTY OR STATE SHALL SPECIFY THE EXPIRATION PERIOD OF THE PERMIT FOR THIS CONSTRUCTION PROJECT.
- THE MINIMUM COVER FOR ALL CONDUITS PLACED UNDERGROUND SHALL BE 36 INCHES TO THE FINISHED GRADE AT ALL TIMES.
- THE CONTRACTOR SHALL TUNNEL ALL CURB AND CUTTERS AND BORE ALL CONCRETE DRIVEWAYS AND MALDRAYS AT THE DIRECTION OF THE CITY, COUNTY OR STATE INSPECTOR.
- ALL AC AND/OR CONCRETE PAVEMENT SHALL BE REPLACED AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEER.
- ALL SHRUBS, PLANTS OR TREES THAT HAVE BEEN DAMAGED OR DISTURBED DURING THE COURSE OF THE WORK SHALL BE REPLANTED AND/OR REPLACED SO AS TO RESTORE THE WORK SITE TO ITS ORIGINAL CONDITION.
- IF DAMAGE OCCURS TO THE CITY OR COUNTY FACILITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY TRAFFIC CONTROL LIGHTING; (213) 485-4184 STREET LIGHTING (213) 485-2121 EXT 311.
- AT LEAST TWO DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK, NOTIFY THE POLICE TRAFFIC BUREAU (213) 972-2445 AND THE FIRE DEPARTMENT, (213) 485-5162.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROCESSING OF ALL PERMITS PERMIT FORMS ALONG WITH THE REQUIRED LIABILITY INSURANCE FORMS, CLEARLY DEMONSTRATING THAT VERIZON WIRELESS, THE CITY, COUNTY OR STATE IS ALSO INSURED WITH THE REQUIRED LIABILITY INSURANCE IN THE AMOUNT OF \$1,000,000.00 FOR THIS CONSTRUCTION PROJECT.
- VAULTS, PEDESTALS, CONDUITS AND OTHER TYPES OF SUBSTRUCTURE ARE EITHER SPECIFIED ON THIS PLAN OR WILL BE SPECIFIED BY THE CONSTRUCTION ENGINEER. ANY AND ALL DEVIATIONS FROM THE SPECIFIED TYPES OF MATERIAL MUST BE APPROVED BY THE SYSTEM ENGINEER, IN WRITING BEFORE INSTALLATION THEREOF.
- ALL U.G. CONDUIT MUST BE SCHEDULE 40 OR BETTER.
- CONDUIT REQUIREMENTS:
UG-SCHEDULE 40 EXCEPT ALL RADIOUS CONDUITS TO BE SCH 40 RISERS-SCHEDULE BU.
- GROUND REQUIREMENTS:
5/8" ROD-10' LENGTH
#2 GROUND WIRE
WOOD BOLDING, STAPLED EVERY 3' AND AT EACH END GROUNDS 2' FROM POLE.
- THE METERS ELECTRICAL, METER PEDESTAL, NEEDS SILICONE SEALANT AT BASE AROUND THE PEG TO PREVENT RAIN INTRUSION (LEAVE 1/2" INCH OPENING) AND ADD DESICCANT BAG "MOON" TYPE 1, SIZE 16 TO PEDESTAL AS REQUIRED.
- POWER REQUIREMENT FOR 3 WIRE SERVICE 120/240V.
- CONTRACTOR SHALL NOTIFY POWER COMPANY THREE DAYS PRIOR TO START OF CONSTRUCTION FOR CONDUIT INSPECTION.
- ANY AND ALL PROPOSED SITE MODIFICATIONS, EXPANSION, OR REARRANGEMENT OF THIS CELLULAR SITE MUST BE COMPLIANT WITH 44, CO 95, AND CO 128 REGULATIONS AS PRESCRIBED BY STATE LAW. FUTURE EXPANSION OF THIS CELLULAR SITE MUST BE APPROVED BY THE DESIGNING ENGINEERING FIRM OR AN EQUALLY QUALIFIED ENGINEERING COMPANY.

INTENT

- THESE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE DONE & THE MATERIALS TO BE FURNISHED FOR CONSTRUCTION.
- THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS SPECIFIED IN THE CONTRACT.
- THE PURPOSE OF THE SPECIFICATIONS IS TO INTERPRET THE INTENT OF THE DRAWINGS AND TO DESIGNATE THE METHOD OF THE PROCEDURE, TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.
- MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK IF THEY DO NOT ALTER THE CHARACTER OF THE WORK WILL BE MADE OR PERMITTED BY THE OWNER WITHOUT ISSUING A CHANGE ORDER.

CONFLICTS

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED IN THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSIONS WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE OWNER FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.
- THE BIDDER, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING CONCERNING WHICH SUCH BIDDER MIGHT HAVE FULLY INFORMED THEMSELVES PRIOR TO THE BIDDING.
- NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF DIFFICULTIES OR CONDITIONS THAT MAY BE ENCOUNTERED OR OF ANY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED IN THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF ALL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS GOVERNING THE WORK.

WARRANTIES & BONDS

- CONTRACTOR IS RESPONSIBLE FOR APPLICATION AND PAYMENT OF CONTRACTOR LICENSES AND BONDS.
- SEE MASTER CONTRACT SERVICES AGREEMENT FOR ADDITIONAL DETAILS.

RELATED DOCUMENTS & COORDINATION

- GENERAL CONSTRUCTION, ELECTRICAL AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, THE CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.



DEVELOPMENT SERVICES A&E SERVICES

SYMBOLS AND ABBREVIATIONS

R.O.W.	RIGHT OF WAY	---X---X---X---X---	FENCE
E.O.P.	EDGE OF PAVEMENT	=====	DRIVEWAY
C/L	CENTER LINE	●	BUSHES
C/F	CURBFACE	⊙	TREE
P/L	PROPERTY LINE	▲	FIRE HYDRANT
⊗	UTILITY POLE	•	UTILITY VALVE
☀	PROPOSED SITE POLE	○	SEWER MANHOLE
☀	STREET LIGHT	•	ROUND VENT
λ	DOWN CUT	←	DIG-ALERTS

STORAGE

- ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY FASHION AND IN A MANNER THAT DOES NOT NECESSARILY OBSTRUCT THE FLOW OF OTHER WORK.
- BITS CABINETS MUST BE STORED INSIDE UNTIL THERE IS POWER ON SITE.
- STORAGE METHOD MUST MEET ALL RECOMMENDATIONS OF THE ASSOCIATED MANUFACTURER.

CHANGE ORDER PROCEDURE

- CHANGE ORDERS MAY BE INITIATED BY THE OWNER AND/OR THE CONTRACTOR INVOLVED. THE CONTRACTOR, UPON VERBAL REQUEST FROM THE OWNER SHALL PREPARE A WRITTEN PROPOSAL DESCRIBING THE CHANGE IN WORK OR MATERIALS AND ANY CHANGES IN THE CONTRACT AMOUNT AND PRESENT TO THE OWNER WITHIN 22 HRS FOR APPROVAL. SUBMIT REQUESTS FOR SUBSTITUTIONS IN THE FORM AND IN ACCORDANCE WITH PROCEDURES REQUIRED FOR CHANGE ORDER PROPOSALS. ANY CHANGES IN THE SCOPE OF WORK OR MATERIALS WHICH ARE PERFORMED BY THE CONTRACTOR WITHOUT A WRITTEN CHANGE ORDER AS DESCRIBED & APPROVED BY THE OWNER SHALL PLACE FULL RESPONSIBILITY OF THESE ACTIONS ON THE CONTRACTOR.

CLEAN UP

- THE CONTRACTOR SHALL AT ALL TIMES KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR EMPLOYEES AT WORK AT THE COMPLETION OF THE WORK. THEY SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE BUILDING AREA, INCLUDING ALL THEIR TOOLS, SCAFFOLDING AND SURPLUS MATERIALS AND SHALL LEAVE THEIR WORK CLEAN AND READY FOR USE.
- VISUALLY INSPECT EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES A OTHER FOREIGN MATTER.
- REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
- IF NECESSARY TO ACHIEVE A UNIFORM DEGREE OF CLEANLINESS, HOSE DOWN THE EXTERIOR OF THE STRUCTURE.

PRODUCTS & SUBSTITUTIONS

- SUBMIT 3 COPIES OF EACH REQUEST FOR SUBSTITUTION IN EACH REQUEST IDENTIFY THE PRODUCT OR FABRICATION OR INSTALLATION METHOD TO BE REPLACED BY THE SUBSTITUTION INCLUDE RELATED SPECIFICATION SECTION AND COMPLETE DOCUMENTATION SHOWING COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.
- SUBMIT ALL NECESSARY PRODUCT DATA AND CUT SHEETS WHICH PROPERLY INDICATE AND DESCRIBE THE ITEMS, PRODUCTS & MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL, IF DEEMED NECESSARY BY THE OWNER SUBMIT ACTUAL SAMPLES TO THE OWNER FOR APPROVAL IN LIEU OF CUT SHEETS.

CODE COMPLIANCE

- ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. THESE SHALL INCLUDE BUT NOT BE LIMITED TO THE LATEST VERSION OF THE FOLLOWING:

2010 CALIFORNIA BUILDING CODE
2008 CALIFORNIA ELECTRICAL CODE
2008 CALIFORNIA PLUMBING CODE
2010 CALIFORNIA MECHANICAL CODE
2010 CALIFORNIA CODE OF REGULATIONS
FOR ENERGY CONSERVATION
C099/CD128

INSURANCE & BONDS

- CONTRACTOR SHALL AT THEIR OWN EXPENSE OBTAIN AND MAINTAIN FOR THE DURATION OF THE PROJECT ALL INSURANCE AS REQUIRED AND LISTED.
- CONTRACTOR SHALL NOT COMMENCE WITH THEIR WORK UNTIL THEY HAVE PRESENTED AN ORIGINAL CERTIFICATE OF INSURANCE STATING ALL COVERAGE'S TO THE OWNER.
- THE OWNER SHALL BE NAMED AS AN ADDITIONAL INSURED ON ALL POLICIES.
- REFER TO THE MASTER AGREEMENT FOR REQUIRED INSURANCE LIMITS.

ADMINISTRATION

- BEFORE THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR WILL ASSIGN A PROJECT MANAGER WHO WILL ACT AS A SINGLE POINT OF CONTACT FOR ALL PERSONNEL INVOLVED IN THIS PROJECT. THIS PROJECT MANAGER WILL BE DEVELOPING A MASTER SCHEDULE FOR THE PROJECT WHICH WILL SUBMIT TO THE OWNER PRIOR TO THE COMMENCEMENT OF ANY WORK.
- SUBMIT A BAR TIME PROCESS CHART NOT MORE THAN THREE (3) DAYS AFTER THE DATE ESTABLISHED FOR COMMENCEMENT OF THE WORK ON THE SCHEDULE, INDICATING A TIME BAR FOR EACH MAJOR CATEGORY OF WORK TO BE PERFORMED AT THE SITE, PROPERLY SEQUENCED AND COORDINATED WITH OTHER ELEMENTS OF WORK & SHOWING COMPLETION OF THE WORK SUFFICIENTLY IN ADVANCE OF THE DATE ESTABLISHED FOR SUBSTANTIAL COMPLETION OF THE SITE.
- PRIOR TO COMMENCING CONSTRUCTION, THE OWNER SHALL SCHEDULE AN ON-SITE MEETING WITH ALL MAJOR PARTIES. THIS MEETING INCLUDE (THOUGH NOT LIMITED TO) THE OWNER, PROJECT MANAGER, CONTRACTOR, LAND OWNER REPRESENTATIVE, LOCAL TELEPHONE COMPANY, TOWER CRECTION FOREMAN (IF SUBCONTRACTED).
- CONTRACTOR SHALL BE EQUIPPED WITH SOME MEANS OF CONSTANT COMMUNICATIONS, SUCH AS A MOBILE PHONE OR A BEEPER. THIS EQUIPMENT WILL NOT BE SUPPLIED BY THE BY THE OWNER, WORK WILL BE ARRANGED.
- DURING CONSTRUCTION, CONTRACTOR MUST ENSURE THAT EMPLOYEES AND SUBCONTRACTORS WEAR HARD HATS AT ALL TIMES. CONTRACTOR WILL COMPLY WITH ALL VERIZON WIRELESS SAFETY REQUIREMENTS IN THEIR AGREEMENT.
- PROVIDE WRITTEN DAILY UPDATES AND PHOTOGRAPHS OF ON SITE PROGRESS TO THE PROJECT MANAGER VIA E-MAIL.
- A COMPLETE INVENTORY OF CONSTRUCTION MATERIALS AND EQUIPMENT IS REQUIRED PRIOR TO START OF CONSTRUCTION.
- NOTIFY THE OWNER / PROJECT MANAGER IN WRITING NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, TOWER ERECTIONS, AND EQUIPMENT CHASSEL PLACEMENTS.
- CLOSEOUT PACKAGE IS DUE COMPLETE WITH DETAILED TOP PHOTOS UPON SITE PUNCHWALK WITH PROJECT MANAGER (SEE PROJECT MANAGER FOR SAMPLE CLOSEOUT PACKAGE).

SHOP DRAWINGS

- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE DRAWINGS TO THE OWNER FOR APPROVAL.
- ALL SHOP DRAWINGS SHALL BE REVIEWED, CHECKED AND CORRECTED BY CONTRACTOR PRIOR TO SUBMITAL TO THE OWNER.

A&E DEVELOPMENT



DEVELOPMENT SERVICES
A&E SERVICES
2749 Saturn Street
Brea, California 92621
(714)229-8404 (714)333-4444 fax
www.core-usa.com

PROPRIETARY INFORMATION

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO VERIZON WIRELESS IS STRICTLY PROHIBITED.

SITE BUILDER



15505 SAND CANYON AVENUE
BURE, D. FRED BLD.
IRVINE, CALIFORNIA 92618
949.286.7000

SITE INFORMATION

SITE NAME:
ROCKRIDGE BART SC1
R.O.W.

SITE ADDRESS

F/O 5687 MILES AVE.,
OAKLAND, CA 94618

100% ZD'S

DATE: 10/23/15

ENGINEERED BY:
CORE DEVELOPMENT SERVICES

DRAFTED BY:
CORE DEVELOPMENT SERVICES

REVISIONS

REV	DESCRIPTION	DATE/BY
1	90% ZD'S	10/23/15 LR
2	100% ZD'S	01/20/15 LR
3	PG&E COMMENTS	02/10/16 LR

STAMP

SHEET TITLE

GENERAL NOTES
& SPECIFICATIONS

SHEET NUMBER

T-2

GENERAL NOTES AND SPECIFICATIONS

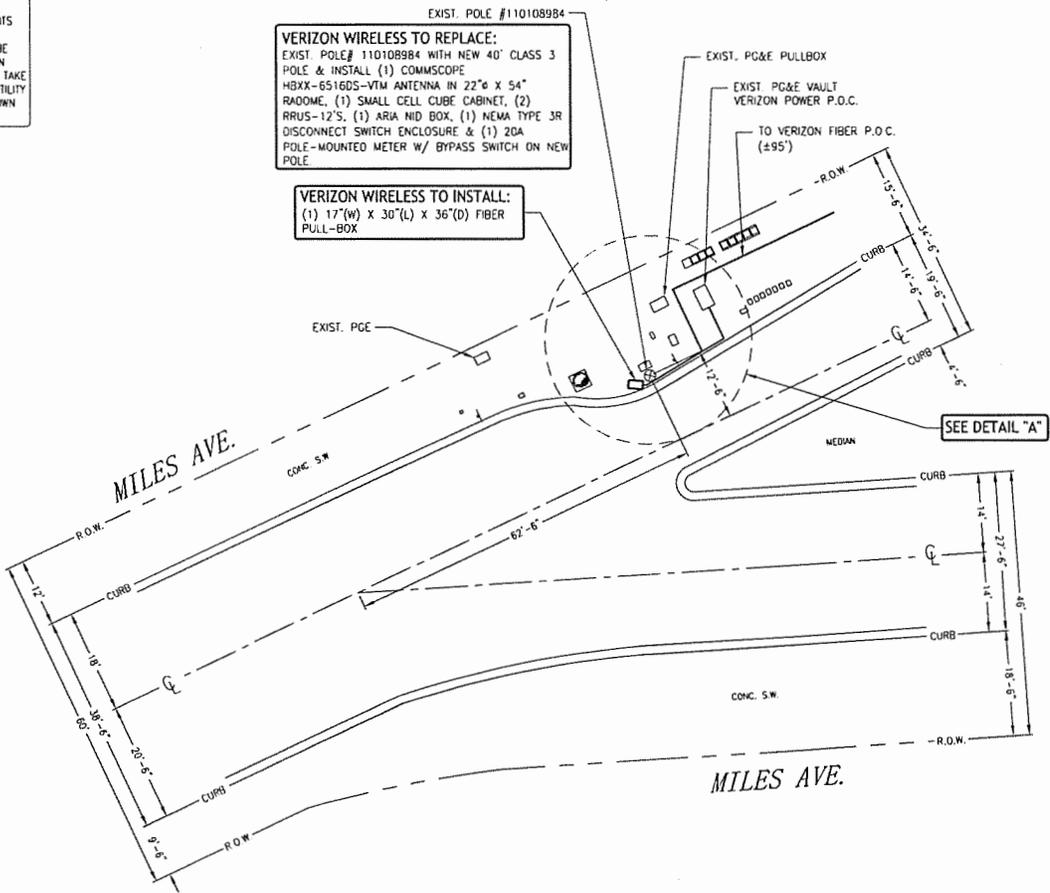
1

UNDERGROUND UTILITIES NOTE:
 THE LOCATIONS AND EXISTENCE OF ANY UNDERGROUND PIPES, STRUCTURES OR CONDUITS SHOWN ON THIS PLAN WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THERE MAY BE EXIST. UTILITIES OTHER THAN THOSE SHOWN ON THIS PLAN. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT SHOWN ON THIS PLAN.

VERIZON WIRELESS TO REPLACE:
 EXIST. POLE #110108984 WITH NEW 40' CLASS 3 POLE & INSTALL (1) COMMSCOPE
 #BX-6516DS-VTM ANTENNA IN 22"Ø X 54" RADOME, (1) SMALL CELL CUBE CABINET, (2) BRUS-12'S, (1) ARIA NID BOX, (1) NEMA TYPE 3R DISCONNECT SWITCH ENCLOSURE & (1) 20A POLE-MOUNTED METER W/ BYPASS SWITCH ON NEW POLE

VERIZON WIRELESS TO INSTALL:
 (1) 17"(W) X 30"(L) X 36"(D) FIBER PULL-BOX

- NOTES:**
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROPERTY OWNER & NECESSARY UTILITY COMPANIES FOR THE LOCATION OF ALL EXISTING BELOW GRADE UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE COSTS ASSOCIATED WITH EXISTING BELOW GRADE UTILITIES.
 - CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS TO BE PAID BY CONTRACTOR.
 - CONTRACTOR TO VERIFY LOCAL UTILITY REQUIREMENTS FOR DEPTH, SIZE & SEPARATION OF CONDUITS PRIOR TO INSTALLATION. NOTIFY CONSTRUCTION MANAGER IMMEDIATELY OF ANY DISCREPANCIES.
 - CONTRACTOR TO CALL DIG ALERT (800)-227-2600 A MINIMUM OF 48 HRS PRIOR TO EXCAVATING FOR UNDERGROUND UTILITY LOCATIONS. CONTRACTOR IS RESPONSIBLE TO MAKE ALL NON-DETECT UTILITIES LOCATED AT THEIR OWN EXPENSE.
 - PROPOSED UTILITY SERVICES SHOWN NEED TO BE VERIFIED & APPROVED BY UTILITY COMPANIES BEFORE START OF CONSTRUCTION. CONTRACTOR TO VERIFY WITH CLIENT PROJECT MANAGER TO OBTAIN FINAL APPROVAL.
 - LINES SHOWN DO NOT REPRESENT THE EXACT LOCATION OF THE CONDUIT RUNS. CONTRACTOR TO VERIFY SERVICE LOCATIONS w/ ACTUAL FIELD CONDITIONS.
 - CONTRACTOR SHALL IMMEDIATELY INFORM CLIENT OF ANY ACCIDENTAL DAMAGE TO EXISTING UTILITIES BY TELEPHONE AND E-MAIL REGARDLESS OF ABILITY TO REPAIR OR MITIGATE. A FOLLOW-UP E-MAIL REPORT WITH DIGITAL PHOTOS WILL BE REQUIRED ONLY UNTIL RESOLUTION HAS BEEN ACCEPTED BY CLIENT AND 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.



SEE DETAIL "A"



CUBIC FOOTAGE FOR TRENCH & EXCAVATION	
CONDUIT TRENCH CUBIC FOOTAGE =	138' (ASPHALT)
CONDUIT TRENCH CUBIC FOOTAGE =	72' (DIRT PARKWAY)
TOTAL TRENCH & EXCAV. CUBIC FOOTAGE =	210' (BOTH)

CITY OF SARATOGA PERMIT INFORMATION CONDUIT LINEAR (SQ FT) FOOTAGE	
ASPHALT FOOTAGE:	48' (ASPHALT)
DIRT/GRASS PARKWAY FOOTAGE:	24' (DIRT PARKWAY)
TOTAL PROJECT FOOTAGE:	70' (BOTH)



SITE PLAN

A&E DEVELOPMENT



DEVELOPMENT SERVICES
 A&E SERVICES
 2749 Saratoga Street
 Bldg. California 92621
 (714) 729-8404 (714) 333-4441 fax
 www.core.ae.com

PROPRIETARY INFORMATION

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO VERIZON WIRELESS IS STRICTLY PROHIBITED.

SITE BUILDER



15500 SAND CANYON AVENUE
 SUITE D, FIRST FLOOR
 IRVINE, CALIFORNIA 92618
 949.266.7000

SITE INFORMATION

SITE NAME:
ROCKRIDGE BART SC1
 R.O.W.

SITE ADDRESS

F/O 5687 MILES AVE.,
 OAKLAND, CA 94618

100% ZD'S

DATE: 10/22/15
 ENGINEERED BY: CORE DEVELOPMENT SERVICES
 DRAFTED BY: CORE DEVELOPMENT SERVICES

REVISIONS

REV	DESCRIPTION	DATE/BY
1	90% ZD'S	10/22/15 LR
2	100% ZD'S	01/20/16 LR
3	PG&E COMMENTS	02/10/16 LR

STAMP

SHEET TITLE

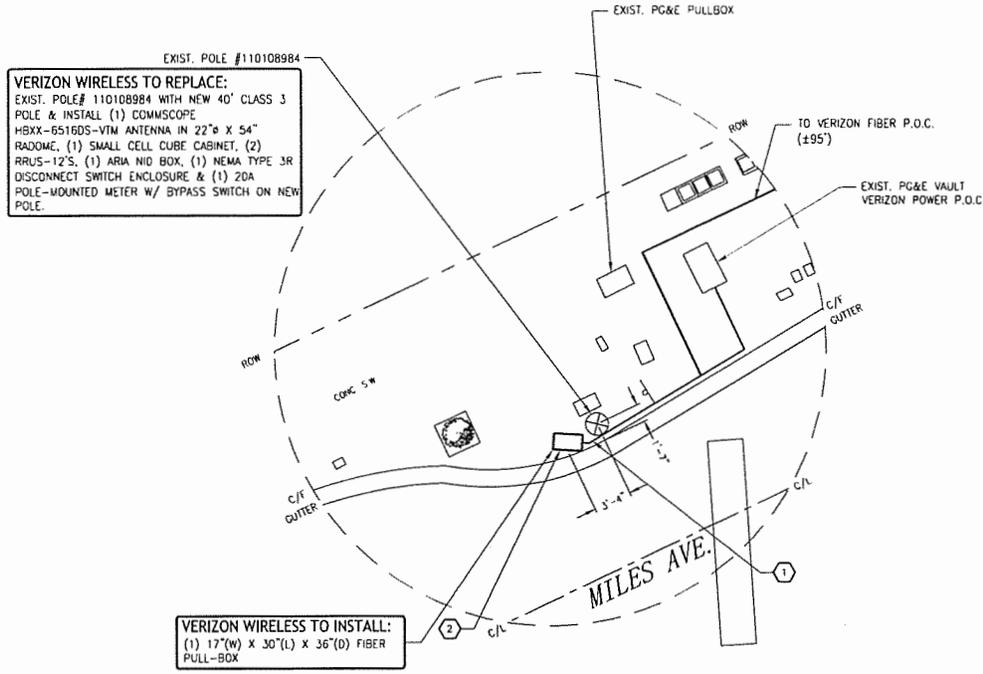
SITE PLAN

SHEET NUMBER

A-1

CONSTRUCTION DATA

- ① PL 2' 1-2" CONDUIT FOR FIBER (OPEN TRENCH)
- ② PL 17"(W) X 30"(L) X 18"(H) POWER PULL-BOX



DETAIL "A"
SCALE: 1"=5'

CUBIC FOOTAGE FOR TRENCH & EXCAVATION	
CONDUIT TRENCH CUBIC FOOTAGE =	138' (ASPHALT)
CONDUIT TRENCH CUBIC FOOTAGE =	72' (DIRT PARKWAY)
TOTAL TRENCH & EXCAV. CUBIC FOOTAGE =	210' (BOTH)

CITY OF SARATOGA PERMIT INFORMATION CONDUIT LINEAR (SQ FT) FOOTAGE	
ASPHALT FOOTAGE:	46' (ASPHALT)
DIRT/GRASS PARKWAY FOOTAGE:	24' (DIRT PARKWAY)
TOTAL PROJECT FOOTAGE:	70' (BOTH)



A&E DEVELOPMENT

core

DEVELOPMENT SERVICES
A&E SERVICES
2749 Saturn Street
Brea, California 92821
(714)729-8434 (714)223-4441 fax
www.core-us.com

PROPRIETARY INFORMATION

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO VERIZON WIRELESS IS STRICTLY PROHIBITED.

SITE BUILDER

verizon

15005 SAND CANYON AVENUE
SUITE B, FIRST FLOOR
IRVINE, CALIFORNIA 92618
949.266.7300

SITE INFORMATION

SITE NAME:
**ROCKRIDGE BART SC1
R.O.W.**

SITE ADDRESS

F/O 5687 MILES AVE.,
OAKLAND, CA 94618

100% ZD'S

DATE: 10/22/15

ENGINEERED BY:
CORE DEVELOPMENT SERVICES

DRAFTED BY:
CORE DEVELOPMENT SERVICES

REVISIONS		
REV	DESCRIPTION	DATE/BY
1	90% ZD'S	10/22/15 LR
2	100% ZD'S	01/26/16 LR
3	PG&E COMMENTS	02/10/16 LR

STAMP

SHEET TITLE

**ENLARGED
SITE PLAN**

SHEET NUMBER

A-2

TOP OF PROPOSED RADOME
ELEV. 39'-0" (A.G.L.)

VERIZON WIRELESS (RAD CENTER)
ELEV. 36'-9" (A.G.L.)

BOTTOM OF PROPOSED RADOME
ELEV. 34'-6" (A.G.L.)
TOP OF NEW POLE
ELEV. 34'-0" (A.G.L.)

VERIZON WIRELESS TO INSTALL:
(1) COMMSCOPE HBXX-6516DS-ATM
ANTENNA IN 22"Ø X 54" RADOME

VERIZON WIRELESS TO REPLACE:
EXIST. POLE# 110108984 WITH NEW 40' CLASS 3
POLE.

EXIST. POWER LINE
ELEV. 24'-6" (A.G.L.)

EXIST. TELCO LINE
ELEV. 19'-10" (A.G.L.)

VERIZON WIRELESS (2) RRUS-12'S (EQUIP TOP)
ELEV. 17'-10" (A.G.L.)

VERIZON WIRELESS TO PLACE:
(1) 48" X 11" X 19" SMALL CELL CUBE CABINET
(CUBE-SC1042NNN3) ON STANDOFF BRACKET.

VERIZON WIRELESS (1) CABINET
ELEV. 11'-3" (A.G.L.)

VERIZON NID BOX (EQUIP BOT)
ELEV. 10'-0" (A.G.L.)

VERIZON WIRELESS SHUT-OFF (EQUIP BOT)
ELEV. 10'-0" (A.G.L.)

VERIZON WIRELESS METER (EQUIP BOT)
ELEV. 7'-0" (A.G.L.)

VERIZON WIRELESS TO PLACE:
(1) NEMA TYPE 3R DISCONNECT SWITCH
ENCLOSURE ON STANDOFF BRACKET.

VERIZON WIRELESS TO PLACE:
(1) 20A POLE-MOUNTED METER W/
BYPASS SWITCH ON STANDOFF
BRACKET

VERIZON WIRELESS TO INSTALL:
(1) 17"(W) X 30"(L) X 36"(D) FIBER
PULL-BOX

MILES AVE.

VIEW LOOKING SOUTHWEST

SCALE
N.T.S. 1

TOP OF PROPOSED RADOME
ELEV. 39'-0" (A.G.L.)

VERIZON WIRELESS (RAD CENTER)
ELEV. 36'-9" (A.G.L.)

BOTTOM OF PROPOSED RADOME
ELEV. 34'-6" (A.G.L.)
TOP OF NEW POLE
ELEV. 34'-0" (A.G.L.)

VERIZON WIRELESS TO INSTALL:
(1) COMMSCOPE HBXX-6516DS-ATM
ANTENNA IN 22"Ø X 54" RADOME

VERIZON WIRELESS TO REPLACE:
EXIST. POLE# 110108984 WITH NEW 40' CLASS 3
POLE.

EXIST. POWER LINE
ELEV. 24'-6" (A.G.L.)

EXIST. TELCO LINE
ELEV. 19'-10" (A.G.L.)

VERIZON WIRELESS (2) RRUS-12'S (EQUIP TOP)
ELEV. 17'-10" (A.G.L.)

VERIZON WIRELESS TO PLACE:
(1) 48" X 11" X 19" SMALL CELL CUBE CABINET
(CUBE-SC1042NNN3) ON STANDOFF BRACKET.

VERIZON WIRELESS (1) CABINET
ELEV. 11'-3" (A.G.L.)

VERIZON NID BOX (EQUIP BOT)
ELEV. 10'-0" (A.G.L.)

VERIZON WIRELESS SHUT-OFF (EQUIP BOT)
ELEV. 10'-0" (A.G.L.)

VERIZON WIRELESS METER (EQUIP BOT)
ELEV. 7'-0" (A.G.L.)

VERIZON WIRELESS TO PLACE:
(1) 8.5" X 10" X 2.8" ARIA NID BOX

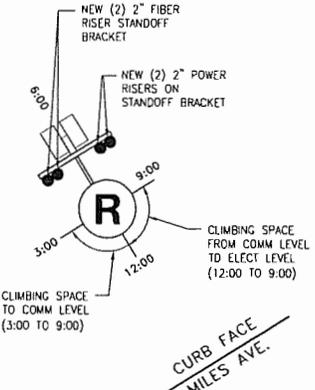
VERIZON WIRELESS TO PLACE:
(1) NEMA TYPE 3R DISCONNECT SWITCH
ENCLOSURE ON STANDOFF BRACKET.

VERIZON WIRELESS TO PLACE:
(1) 20A POLE-MOUNTED METER W/
BYPASS SWITCH ON STANDOFF
BRACKET

VERIZON WIRELESS TO INSTALL:
(1) 17"(W) X 30"(L) X 36"(D) FIBER
PULL-BOX

VIEW LOOKING NORTHWEST

SCALE
N.T.S. 2



RISER DETAIL

SCALE
N.T.S. 3

- VZW TO REPLACE EXIST. POLE# 110108984 WITH NEW 40' CLASS 3 POLE.
- VZW TO PL. (1) COMMSCOPE BXX-6516DS-VTM ANTENNA IN 22"Ø X 54" RADOME
- VZW TO PL. (2) 40W RRUS-12'S ON STANDOFF BRACKET.
- VZW TO PL. (2) 2" POWER RISERS ON STANDOFF BRACKET.
- VZW TO PL. (2) 2" FIBER RISER ON STANDOFF BRACKET.
- VZW TO PL. (1) NEMA TYPE 3R DISCONNECT SWITCH ENCLOSURE ON STANDOFF BRACKET Ø 6:00 Ø MIN. 6" CLEARANCE FROM METER.
- VZW TO PL. (1) 48" X 11" X 19" SMALL CELL CUBE CABINET (CUBE-SC1042NNN3) ON STANDOFF BRACKET.
- VZW TO STEP POLE Ø 3:00 AND 9:00 TO COMM LEVEL & 12:00 TO 9:00 FROM COMM LEVEL TO ELECTRICAL LEVEL.
- VZW TO PL. (1) 8.5" X 10" X 2.8" ARIA NID ON STANDOFF BRACKET.

NOTE:
VZW TO PLACE NETWORK OPERATION CONTROL CENTER CONTACT NUMBER, 1-800-264-6620 ON WEATHERPROOF PLACARD ON METER DISCONNECT SWITCH.

SCALE
N.T.S. 4

MAKE READY NOTES

A&E DEVELOPMENT

core

DEVELOPMENT SERVICES
A&E SERVICES
2748 Saturn Street
Brea, California 92801
(714)725-8484 (714)333-4441 fax
www.core-ltd.com

PROPRIETARY INFORMATION

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO VERIZON WIRELESS IS STRICTLY PROHIBITED.

SITE BUILDER

verizon

15500 SAND CANYON AVENUE
BLDG. D, FIRST FLR.
IRVINE, CALIFORNIA 92618
949.268.7000

SITE INFORMATION

SITE NAME:
ROCKRIDGE BART SC1
R.O.W.

SITE ADDRESS

F/O 5687 MILES AVE.,
OAKLAND, CA 94618

100% ZD'S

DATE: 10/22/15

ENGINEERED BY: CORE DEVELOPMENT SERVICES

DRAFTED BY: CORE DEVELOPMENT SERVICES

REVISIONS

REV	DESCRIPTION	DATE/BY
1	90% ZD'S	10/22/15 LD
2	100% ZD'S	01/28/16 LR
3	PC&E COMMENTS	02/18/16 LR

STAMP

SHEET TITLE

ELEVATIONS

SHEET NUMBER

A-3

CAUTION

Transmitting Antenna(s)

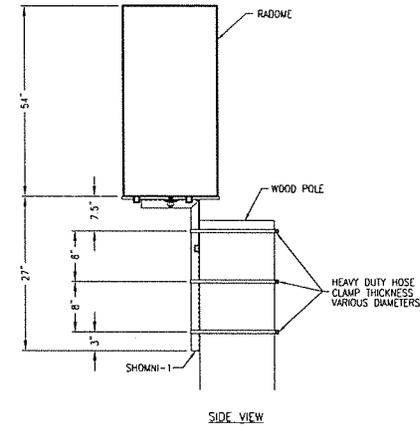
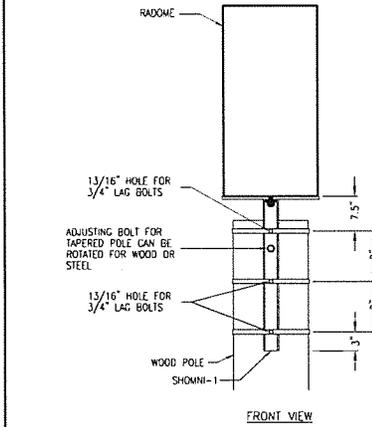
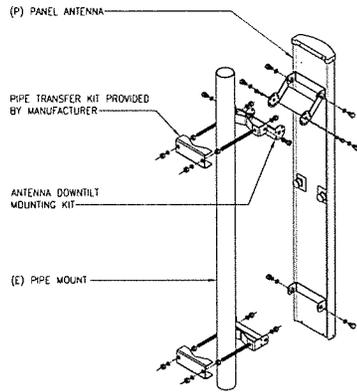


Beyond This Point
Radio Frequency Emissions
May Exceed
FCC Occupational Limits.

Call 1-800-264-6620 prior to working
within _____ feet of antenna.

Site ID: _____

1. INSTALL ONE SIGN 3'-4" BELOW THE ANTENNA (FROM TOP OF SIGN)
2. INSTALL SECOND SIGN 8'-10" ABOVE THE GROUND (FROM BOTTOM OF SIGN)



G095 RF SIGNAGE

SCALE N.T.S.

1 ANTENNA MOUNTING DETAIL

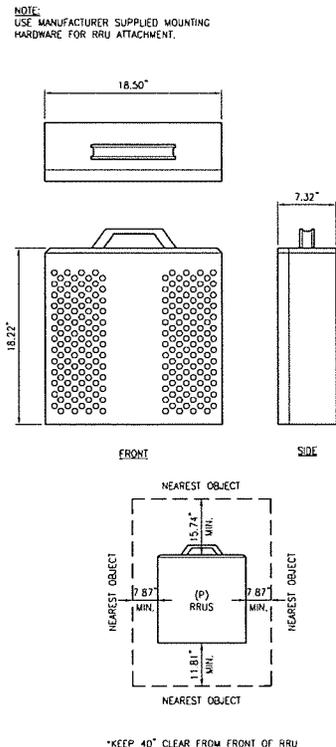
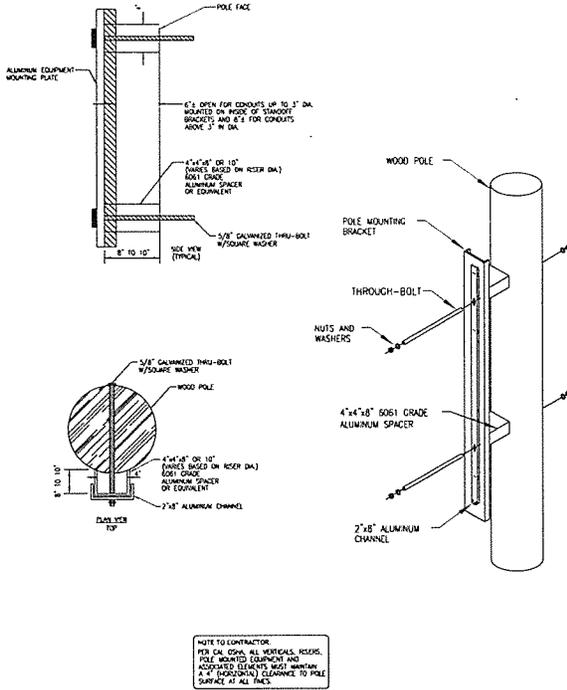
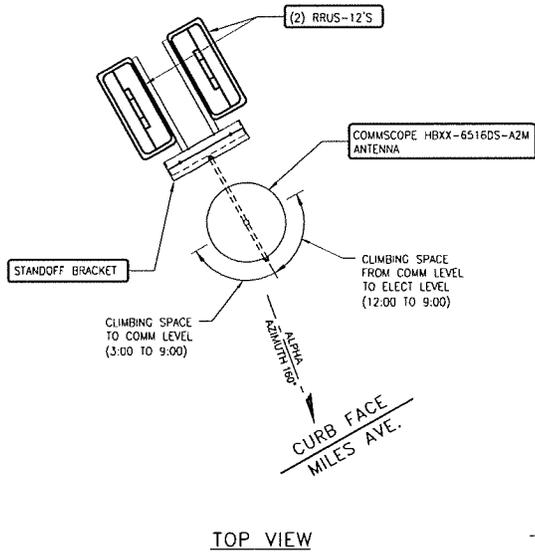
SCALE N.T.S.

2 ANTENNA SUPPORT FRONT & SIDE ELEVATION VIEW

SCALE N.T.S.

3

VERIZON WIRELESS TO INSTALL:
(1) COMMSCOPE HBXX-6516DS-VIM ANTENNA IN 22" x 54" RADOME, (2) RRUS-12'S, (1) ARIA NID BOX, (1) SMALL CELL CUBE CABINET, (1) NEMA TYPE 3R DISCONNECT SWITCH ENCLOSURE & (1) 2DA POLE-MOUNTED METER W/ BYPASS SWITCH ON NEW POLE.



A&E DEVELOPMENT

core

DEVELOPMENT SERVICES
A&E SERVICES
2749 Satlin Street
Irvine, California 92612
(714)720-8404 (714)333-4441 fax
www.core.us.com

PROPRIETARY INFORMATION

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO VERIZON WIRELESS IS STRICTLY PROHIBITED.

SITE BUILDER

verizon

15500 SAND CANYON AVENUE
BLVD. D, FIRST FLOOR
IRVINE, CALIFORNIA 92618
949.288.7000

SITE INFORMATION

SITE NAME:
ROCKRIDGE BART SC1
R.O.W.

SITE ADDRESS

F/O 5687 MILES AVE.,
OAKLAND, CA 94618

100% ZD'S

DATE: 10/22/15
ENGINEERED BY: CORE DEVELOPMENT SERVICES
DRAFTED BY: CORE DEVELOPMENT SERVICES

REVISIONS

REV	DESCRIPTION	DATE/BY
1	90% ZD'S	10/22/15 LR
2	100% ZD'S	01/22/15 LR
3	PG&E COMMENTS	02/10/16 LR

STAMP

SHEET TITLE
POLE & EQUIP. DETAILS
SHEET NUMBER

ANTENNA CONFIGURATION

SCALE N.T.S.

4 BRACKET, RISER AND STANDOFF

SCALE N.T.S.

5 RRUS-12 SPECIFICATIONS

SCALE N.T.S.

6

A-5

Product Specifications

COMMSCOPE

Physical Features
 Antenna Size: 18" x 18" x 18" (L x W x H)
 • All dimensions are subject to change without notice.
 • All dimensions are in inches unless otherwise specified.
 • All dimensions are in inches unless otherwise specified.
 • All dimensions are in inches unless otherwise specified.

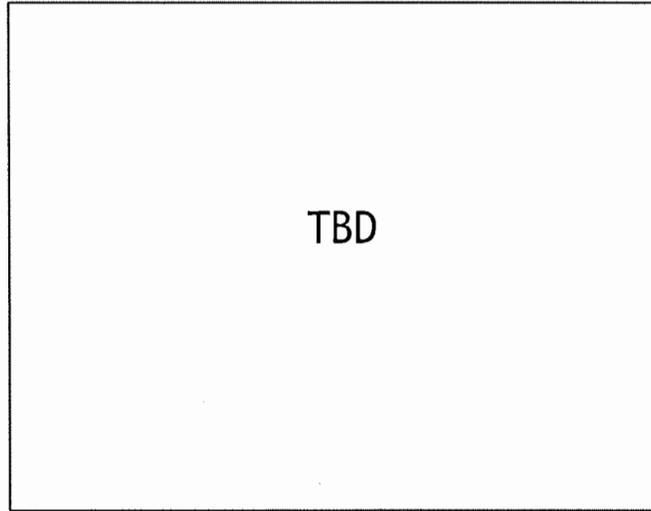
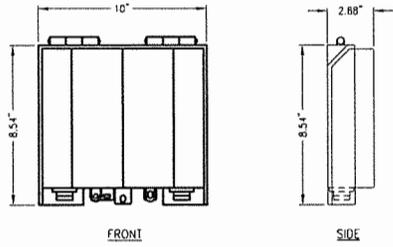
Electrical Specifications

Parameter	1700-1800	1800-1900	1900-2100
Power (dBm)	17	18	19
Gain (dBi)	10	10	10
Efficiency (%)	10	10	10
Beamwidth (°)	10	10	10
Frequency Range (MHz)	1700-1800	1800-1900	1900-2100
Bandwidth (MHz)	100	100	100
Power Spectral Density (dBm/MHz)	17	18	19
Carrier Frequency (MHz)	1700	1800	1900
Modulation	QPSK	QPSK	QPSK

Mechanical Specifications, BASE*

Parameter	1700-1800	1800-1900	1900-2100
Power (dBm)	17	18	19
Gain (dBi)	10	10	10
Efficiency (%)	10	10	10
Beamwidth (°)	10	10	10
Frequency Range (MHz)	1700-1800	1800-1900	1900-2100
Bandwidth (MHz)	100	100	100
Power Spectral Density (dBm/MHz)	17	18	19
Carrier Frequency (MHz)	1700	1800	1900
Modulation	QPSK	QPSK	QPSK

General Specifications
 Antenna Type: Small Cell
 Mounting: Pole Mount
 Material: Aluminum
 Finish: Powder Coat
 Weight: 10 lbs
 Dimensions: 18" x 18" x 18" (L x W x H)



A&E DEVELOPMENT

core

DEVELOPMENT SERVICES
 A&E SERVICES
 2749 Saturn Street
 Irvine, California 92618
 (714)726-8600 (714)333-4444 fax
 www.core-usa.com

PROPRIETARY INFORMATION

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO THE WORK HEREON IS STRICTLY PROHIBITED.

SITE BUILDER

verizon

15505 SAND CANYON AVENUE
 IRVINE, CA 92618
 949.258.7000

SITE INFORMATION

SITE NAME:
ROCKRIDGE BART SC1
 R.O.W.

SITE ADDRESS

F/O 5687 MILES AVE.,
 OAKLAND, CA 94618

ANTENNA SPECIFICATION SCALE N.T.S. 1

ARIA NID BOX SCALE N.T.S. 2

WIRING SCHEMATIC SCALE N.T.S. 3

100% ZD'S

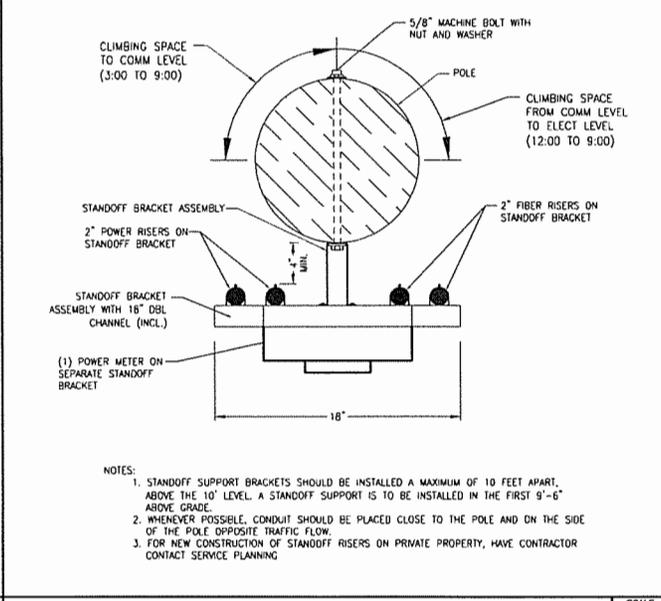
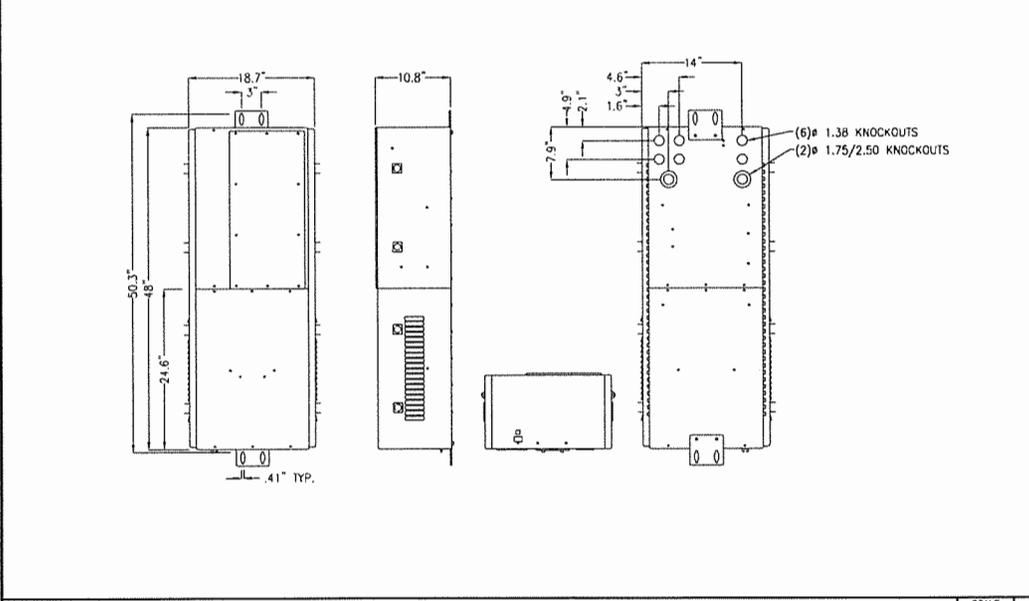
DATE: 10/22/15

ENGINEERED BY: CORE DEVELOPMENT SERVICES

DRAFTED BY: CORE DEVELOPMENT SERVICES

REVISIONS

REV	DESCRIPTION	DATE/BY
1	90% ZD'S	10/22/15 LR
2	100% ZD'S	01/29/15 LR
3	PG&E COMMENTS	02/19/16 LR



CUBE CABINETS FOR SMALL CELL SCALE N.T.S. 4

BRACKET, RISER, STANDOFF CONDUIT SUPPORT SCALE N.T.S. 5

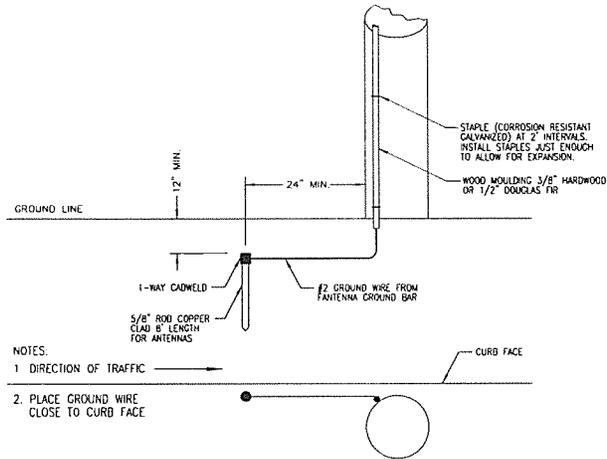
STAMP

SHEET TITLE

EQUIP. DETAILS

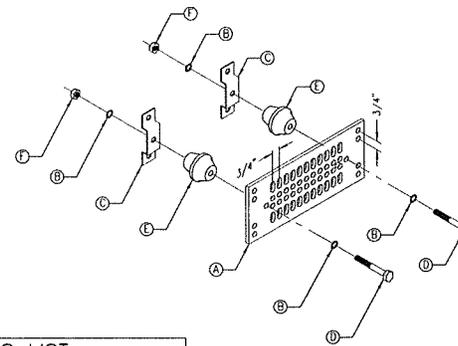
SHEET NUMBER

A-6



- NOTES:
1. DIRECTION OF TRAFFIC →
 2. PLACE GROUND WIRE CLOSE TO CURB FACE

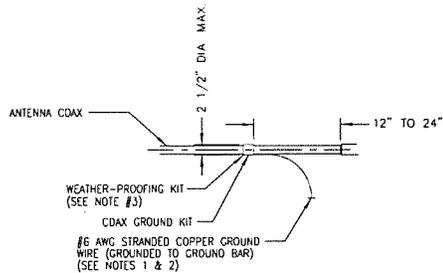
- NOTES:
1. ALL STRANDED GROUND WIRE TO BE GREEN JACKETED. GROUND SCHEME MAY VARY DUE TO SITE SPECIFIC CONDITIONS.



PARTS LIST	
A	COPPER GROUND BAR, USE STYLE "T" GFI TELECOM, INC. (ACTUAL GROUND BAR SIZE WILL VARY BASED ON NUMBER OF GROUND CONNECTIONS)
B	5/8" LOCK WASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3D15-8 OR EQUAL
C	WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT. NO. A-6D56 OR EQUAL
D	5/8-11 X 1" HHC BOLTS, NEWTON INSTRUMENT CO. CAT. NO. 3D12-1 OR EQUAL
E	INSULATORS SHALL BE INSTALLED
F	5/8-11 NUT

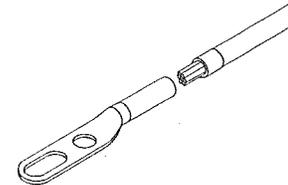
TYPICAL WOOD POLE GROUNDING DETAIL

TYPICAL GROUND BAR



1. DO NOT INSTALL COAX GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BEND.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY COAX MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

CONNECTION OF COAX GROUND KIT TO ANTENNA COAX



- NOTES:
1. CRIMP (COMPRESSION) TYPE TWO-HOLE BOLTED TONGUE CONNECTORS SHALL BE USED TO TERMINATE STRANDED GROUNDING CONDUCTORS. THE CONNECTORS SHALL BE TIN PLATED COPPER, LONG BARREL LUG, AND SHALL BE LISTED FOR THEIR INTENDED USE BY AN NRTL. NOTE: TIN PLATED ALUMINUM CONNECTORS INSTALLED PRIOR TO THE DATE OF THIS STANDARD OR CONNECTORS THAT ARE PART OF AN APPROVED PRODUCT ARE ACCEPTABLE.
 2. CRIMP TYPE CONNECTORS USED ON SOLID CONDUCTORS MUST BE LISTED BY AN NRTL FOR USE ON SOLID CONDUCTORS, AND MUST BE CRIMPED WITH THE DIES SPECIFIED BY THE MANUFACTURER OF THE CONNECTOR. USE A HYDROLIC CRIMPING TOOL.
 3. TWO-HOLE BOLTED TONGUE CONNECTORS SHALL BE USED. WIRES SHALL BE INSERTED THE ENTIRE LENGTH OF THE LUG. ENSURE COAX OUTER INSULATION IS SNUG TO LUG BARREL. PROVIDE AN ANTI-OXIDE COMPOUND ON THE CONDUCTOR BEFORE CRIMPING (NO OX). INSTALL A TRANSPARENT HEAT SHRINK INSULATING TUBE ALONG THE ENTIRE LENGTH OF THE CRIMP.
 4. USE #6 AWG STRANDED-THOMAS & BETTS 455578 OR EQUIVALENT.
 5. USE #2 AWG STRANDED-THOMAS & BETTS 435306 OR EQUIVALENT.

(2) HOLD LB GROUNDING LUG

A&E DEVELOPMENT

core

DEVELOPMENT SERVICES
A&E SERVICES
2748 Saturn Street
Brea, California 92821
(714)729-8404 (714)333-4441 fax
www.core.us.com

PROPRIETARY INFORMATION

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO VERIZON WIRELESS IS STRICTLY PROHIBITED.

SITE BUILDER

verizon

15505 SAND CANYON AVENUE
SUITE D, FIRST FLOOR
FOLSOM, CALIFORNIA 95618
916.285.7000

SITE INFORMATION

SITE NAME:
**ROCKRIDGE BART SC1
R.O.W.**

SITE ADDRESS

F/O 5687 MILES AVE.,
OAKLAND, CA 94618

100% ZD'S

DATE: 10/22/15
ENGINEERED BY: CORE DEVELOPMENT SERVICES
DRAFTED BY: CORE DEVELOPMENT SERVICES

REVISIONS

REV	DESCRIPTION	DATE/BY
1	90% ZD'S	10/22/15 LO
2	100% ZD'S	01/29/16 UR
3	PC&E COMMENTS	03/10/16 UR

STAMP

SHEET TITLE

**GROUNDING
DETAILS**

SHEET NUMBER

A-7

November 5, 2015

To: Jose Herrera
City of Oakland - Community and Economic Development Agency
250 Frank H. Ogawa Plaza, Suite 2114
Oakland, CA 94612

From: Ashley Woods
10 Rollins Road, Suite 202
Millbrae, CA 94030

RE: Rockridge BART SC1 – Alternatives Analysis for Resubmittal

Background

The objective of for the small cell wireless facility proposal is to offload from an existing wireless facility (called UC Berkeley Sector) and to provide improved LTE data around Rockridge BART and associated bus platforms in Oakland. The recommended candidate is the utility pole located in the right of way adjacent to 5687 Miles Avenue, Oakland, CA due to its proximity to Rockridge BART SC1 and location in a Commercial Neighborhood Zone. As requested, please see below for alternatives analysis in regards to other candidates considered.

Alternatives Analysis

Site selection was confined to any feasible candidate located within a radius as directed by Verizon's Radio Frequency engineer as shown in Figure 1 below.



Figure 1

Furthermore, site selection was limited to the candidates discussed below as the adjacent uses were residential (please refer to Figure 2).



Figure 2

1. Rockridge Market Hall
 - There was initial interest from Ownership; however Ownership became unresponsive when a Letter of Interest was provided for review of the lease terms and rent.
2. Rockridge BART
 - A design with antennas and equipment located on BART property was explored; however, this candidate proved infeasible due to an inability to come to an agreement on rent.
3. 5661 Keith Ave, Oakland, CA
 - Building aesthetics and height does not allow for an installation that would be cost efficient and to meet coverage needs.
4. PG&E Pole A on Keith Ave, Oakland CA
 - Explored but proved to not be feasible because the heights of the surrounding trees would not provide a clear line-of-sight to the coverage objective.
5. PG&E Pole B on Keith Ave, Oakland CA
 - Explored but proved to not be feasible because the heights of the surrounding trees would not provide a clear line-of-sight to the coverage objective.
6. PG&E Pole C on Keith Ave, Oakland CA
 - Explored but proved to not be feasible due to the heights of the surrounding trees would not provide a clear line-of-sight to the coverage objective.



Please feel free to contact me by phone at (714) 293-5075 or by email at awoods@core.us.com, if additional information is needed.

Sincerely,

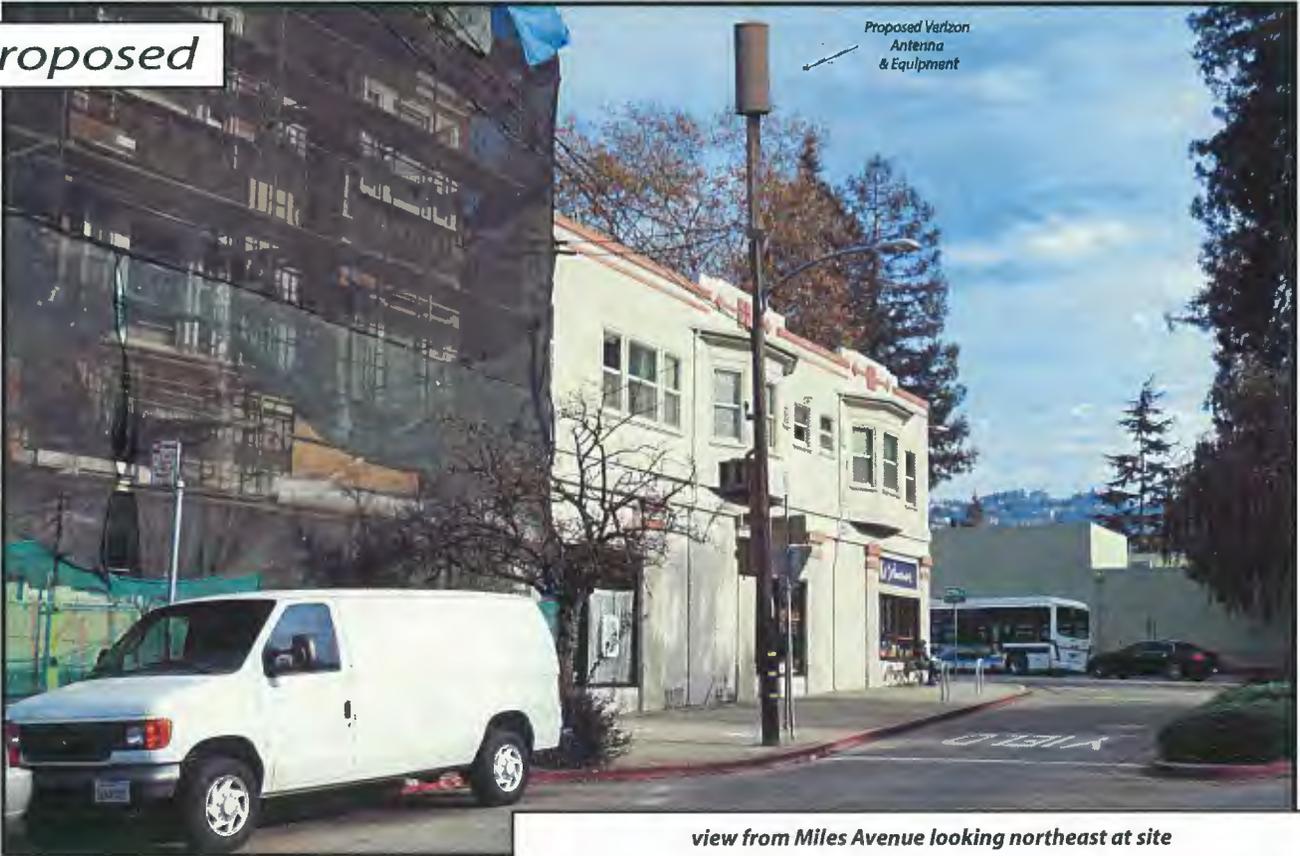
A handwritten signature in black ink, appearing to read 'Ashley Woods', is written over the word 'Sincerely,'. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Ashley Woods,
Zoning Manager on behalf of Verizon Wireless

Existing



Proposed



view from Miles Avenue looking northeast at site

Rockridge Bart SC1
5687 Miles Avenue, Oakland, CA
Photosims Produced on 4-7-2015

Existing



Proposed



view from College Avenue looking west at site

*Rockridge Bart SC1
5687 Miles Avenue, Oakland, CA
Photosims Produced on 4-7-2015*



Radio Frequency Emissions Compliance Report For Verizon Wireless

Site Name: Rockridge BART
Address: 5687 Miles Avenue
Oakland, CA 94618
Report Date: March 26, 2015

Site Structure Type: Utility Pole
Latitude: 37.84517
Longitude: -122.2522
Project: New Site Build

General Summary

Verizon Wireless has contracted Waterford Consultants, LLC to conduct a Radio Frequency Electromagnetic Compliance assessment of the proposed Rockridge BART site located at 5687 Miles Avenue, Oakland, California. This report contains information about the radio telecommunications equipment to be installed at this site and the surrounding environment with regard to RF Hazard compliance. This assessment is based on installation designs, observational data collected on site and operational parameters provided by Verizon Wireless.

The compliance framework is derived from the Federal Communications Commission (FCC) Rules and Regulations for preventing human exposure in excess of the applicable Maximum Permissible Exposure ("MPE") limits. At any location at this site, the power density resulting from each transmitter may be expressed as a percentage of the frequency-specific limits and added to determine if 100% of the exposure limit has been exceeded. The FCC Rules define two tiers of permissible exposure differentiated by the situation in which the exposure takes place and/or the status of the individuals who are subject to exposure. General Population / Uncontrolled exposure limits apply to those situations in which persons may not be aware of the presence of electromagnetic energy, where exposure is not employment-related, or where persons cannot exercise control over their exposure. Occupational / Controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment, have been made fully aware of the potential for exposure, and can exercise control over their exposure.

Frequency (MHz)	Limits for General Population/ Uncontrolled Exposure		Limits for Occupational/ Controlled Exposure	
	Power Density (mW/cm ²)	Averaging Time (minutes)	Power Density (mW/cm ²)	Averaging Time (minutes)
30-300	0.2	30	1	6
300-1500	f/1500	30	f/300	6
1500-100,000	1	30	5	6

In situations where the predicted MPE exceeds the General Population threshold in an accessible area as a result of emissions from multiple transmitters, FCC licensees that contribute greater than 5% of the aggregate MPE share responsibility for mitigation.

Based on the computational guidelines set forth in FCC OET Bulletin 65, Waterford Consultants, LLC has developed software to predict the overall Maximum Permissible Exposure possible at any particular location given the spatial orientation and operating parameters of multiple RF sources. These theoretical results represent worst-case predictions as emitters are assumed to be operating at 100% duty cycle.

For any area in excess of 100% General Population MPE, access controls with appropriate RF alerting signage must be put in place and maintained to restrict access to authorized personnel. Signage must be posted to be visible upon approach from any direction to provide notification of potential conditions within these areas. Subject to other site security requirements, occupational personnel should be trained in RF safety and equipped with personal protective equipment (e.g. RF personal monitor) designed for safe work in the vicinity of RF emitters. Controls such as physical barriers to entry imposed by locked doors, hatches and ladders or other access control mechanisms may be supplemented by alarms that alert the individual and notify site management of a breach in access control. Waterford Consultants, LLC recommends that any work activity in these designated areas or in front of any transmitting antennas be coordinated with all wireless tenants.

Analysis

Waterford Consultants, LLC field personnel visited the site on March 10, 2015, during business hours and collected data with regard to the RF environment. All accessible areas of the site were inspected. Measurement collection was performed using Narda Radiation meter NBM 550 and broadband probe EA-5091 (300 kHz to 50 GHz) and was consistent with FCC and Narda procedures, regarding the location of the probe to the RF source and making slow sweeping motions over the area that a person would occupy. Power density values were recorded as a percentage of the FCC Occupational limits. The maximum power density reading at ground level was 0.01% % of the FCC Occupational limits (0.05% of the General Population limits).

Verizon Wireless proposes to install one (1) panel-type antenna oriented toward 160 degrees with centerline at 34 feet above ground level. This antenna will be mounted on an existing 26-foot utility pole fitted with an extension. From this site, Verizon Wireless will enhance data services to the surrounding community in licensed 1900 and 2100 MHz bands. The Effective Radiated Power (ERP) in any direction will not exceed 11,092 Watts. No other antennas are known to be co-located in the vicinity of this site but the contributions of any RF sources are reflected in the survey results listed above.

Power density decreases significantly with distance from any antenna. The panel-type antennas to be employed at this site are highly directional by design and the orientation in azimuth and mounting elevation, as documented, serve to reduce the potential to exceed MPE limits at any location other than directly in front of the antennas. For accessible areas at the ground level, the maximum predicted power density level resulting from all Verizon Wireless operations is 2.9320% of the FCC General Population limits. The nearest residence, depicted in Figure 1, is

located approximately 20 feet west of the existing utility pole. On the third story of this location, the maximum predicted power density level resulting from all operations is 0.0034% of the FCC General Population limits. On the roof, the maximum predicted power density level resulting from all operations is 0.10% of the FCC General Population limits. Based on predictive modeling of all operations, Verizon Wireless will not contribute more than 5% MPE to existing power density levels at ground or at existing residences at this location.

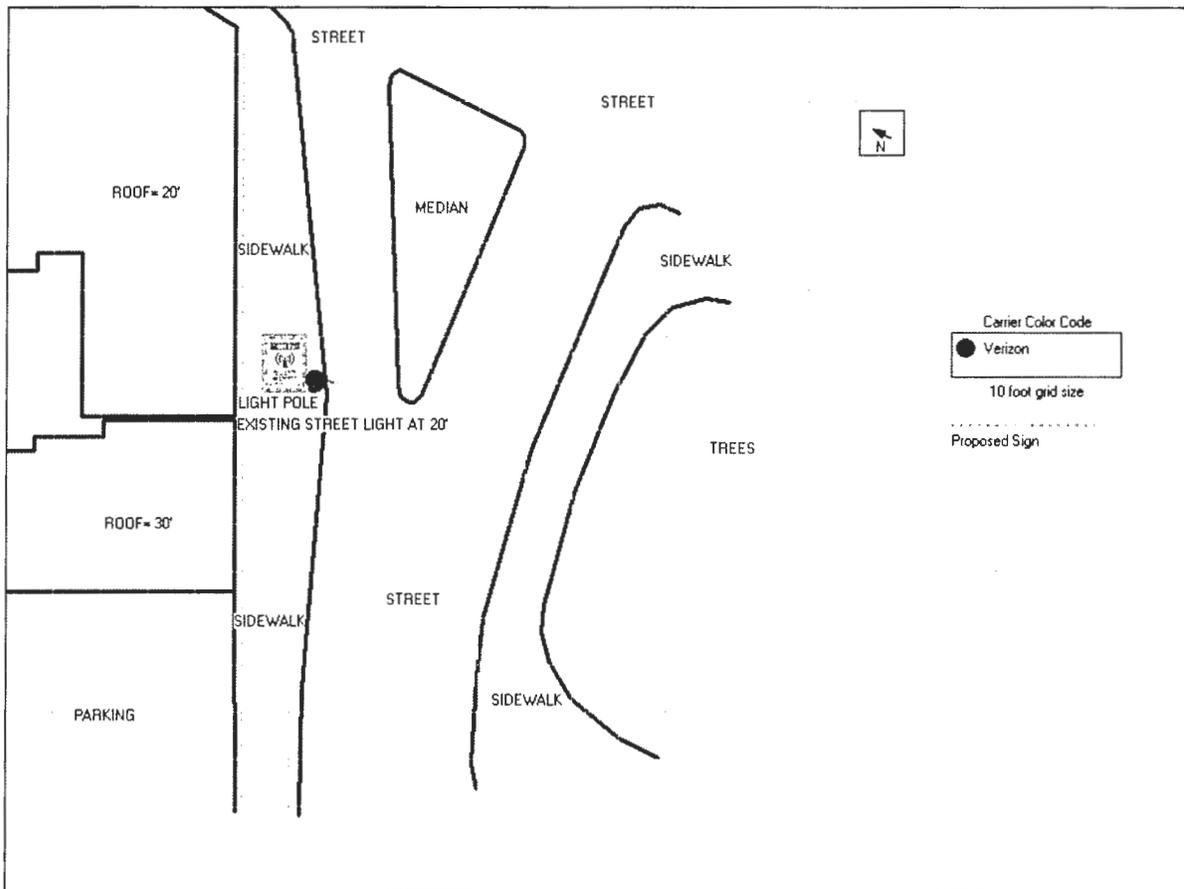


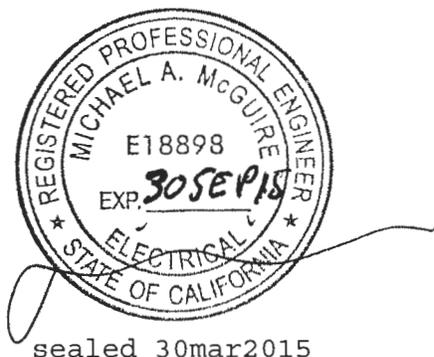
Figure 1: Antenna Locations and Mitigation Recommendations

Compliance Statement

Based on information provided by Verizon Wireless, data collected during the site visit and predictive modeling, documented herein, the installation proposed by Verizon Wireless at 5687 Miles Avenue, Oakland, California will be compliant with Radiofrequency Radiation Exposure Limits of 47 C.F.R. § 1.1307(b)(3) and 1.1310.

Certification

I, the undersigned, am the reviewer and approver of this report and am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation, specifically in accordance with FCC's OET Bulletin 65. I have reviewed this Radio Frequency Exposure Assessment report and believe it to be both true and accurate to the best of my knowledge.



2015.03.31 08:48:30 -04'00'