SAN FRANCISCO
PLANNING DEPARTMENT

Executive Summary
Conditional Use Authorization
HEARING DATE: SEPTEMBER 24, 2015

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

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Planning
Information:
415.558.6377

Date:	September 17, 2015
Case No.:	**2014.0678C**
Project Address:	**470 West Portal Avenue**
Current Zoning:	RH-1 (D) (Residential House, One Family – Detached) 40-X Height and Bulk District
Block/Lot:	2484/001, 008, 009
Project Sponsor:	Sprint, represented by Michelle Yonemoto, Modus 149 Natoma Street, 3rd Floor San Francisco, CA 95030
Staff Contact:	Omar Masry – (415) 575-9116 Omar.Masry@sfgov.org

PROJECT DESCRIPTION

The proposal is to allow the modification of an existing Sprint macro Wireless Telecommunication Services ("WTS") facility. The proposed modification would result in the addition of three (3) screened panel antennas, at a Sprint WTS facility which currently features three (3) screened panel antennas within a single rooftop-mounted radome.

All three (3) existing panel antennas within a single 36-inch diameter rooftop-mounted radome would be replaced with a similar radome and feature two (2) panel antennas. An existing mid-roof equipment area would be modified to raise the existing screen walls by approximately nine (9) feet, in order to screen four (4) new panel antennas, which would be affixed behind the outside edges of the primary equipment area.

According to the WTS Facilities Siting Guidelines, based on the zoning and land use, the existing WTS facility is at a Location Preference 1 Site (Preferred Location) as the Project Site is a Publicly-Used Structure (Waldorf School).

SITE DESCRIPTION AND PRESENT USE

The Project Site is located on Assessor's Block 2484, Lots 001, 008, and 009. The Project Site is located on the western side of West Portal Avenue, north of Sloat Boulevard. The Project Site originally served as a Pacific Bell Directory Assistance Operating Center; but was converted, circa 2006 (Case No. 2006.0100C), to the Waldorf High School (private) campus, which features a 35-foot tall building surrounded by playgrounds, and a surface parking lot along the West Portal Avenue frontage. A Sprint macro WTS facility was approved in 1996 (Case No. 1996.015C), at a time when the site served as a switch center. The existing Sprint WTS facility features three (3) screened panel antenna within a rooftop-mounted radome and an equipment area on a lower roof area.

SURROUNDING PROPERTIES AND NEIGHBORHOOD

The Project Site is situated within the Lakeshore neighborhood, and along the southern edge of the West Portal neighborhood. The Project Site is just northwest of the confluence of West Portal Avenue, Portola Drive, and Sloat Boulevard. The Project Site is surrounded by single-family homes to the north, west (Ardenwood Way), and east across West Portal Avenue. The Arden Wood retirement home is located to northwest of the Project Site and features an expansive grove of mature trees situated between the retirement home and the Waldorf School. The M-Ocean View and K-Ingleside MUNI light rail line stops are located in front of the school along West Portal Avenue.

ENVIRONMENTAL REVIEW

The Project is exempt from the California Environmental Quality Act ("CEQA") as a Class 3 categorical exemption. The categorical exemption and all pertinent documents may be found in the files of the Planning Department, as the custodian of records, at 1650 Mission Street, San Francisco.

HEARING NOTIFICATION

TYPE	REQUIRED PERIOD	REQUIRED NOTICE DATE	ACTUAL NOTICE DATE	ACTUAL PERIOD
Classified News Ad	20 days	September 4, 2015	September 4, 2015	20 days
Posted Notice	20 days	September 4, 2015	September 4, 2015	20 days
Mailed Notice	10 days	September 14, 2015	September 4, 2015	20 days

PUBLIC COMMENT

In addition, the Project Sponsor held a community meeting at the Inglewood Branch of the San Francisco Public Library, at 1298 Ocean Avenue, to discuss the Project at 5:00 p.m. on June 23, 2015. Two (2) community members attended the meeting and asked questions about the proposed Project, including questions regarding leasing, radio-frequency exposure, and whether the WTS facility would interfere with personal Wi-Fi devices within residential dwellings.

The City has not seen a pattern of interference from macro WTS facilities, with respect to personal Wi-Fi devices in adjacent residential dwellings or businesses.

As of September 17, 2015, the Department has received (1) comment regarding concerns over the early evening timing of the community meeting (potentially limiting attendance), and three (3) comments regarding health concerns related to radio-frequency (RF) emissions, from the proposed Project.

ISSUES AND OTHER CONSIDERATIONS

- Health and safety aspects (e.g. engineering review for structural loads, and backup battery storage) of all wireless Projects are reviewed by the Department of Public Health, San Francisco Fire Department, and the Department of Building Inspection. The RF emissions associated with

this Project have been determined to comply with limits established by the Federal Communications Commission (FCC).

- An updated Five Year Plan with approximate longitudinal and latitudinal coordinates of proposed locations, including the Project Site, is on file with the Planning Department.
- All required public notifications were conducted in compliance with the Planning Code and adopted WTS policies.

REQUIRED COMMISSION ACTION

Pursuant to Sections 209.1 and 303 of the Planning Code, a Conditional Use Authorization is required for a macro WTS facility modification within an RH-1(D) Zoning District.

BASIS FOR RECOMMENDATION

This Project is necessary and/or desirable under Section 303 of the Planning Code for the following reasons:

- The proposed modifications would not detract from views of the Subject Building or surrounding areas.
- The Project complies with the applicable requirements of the Planning Code.
- The Project is consistent with the Objectives and Policies of the General Plan.
- The Project is consistent with the 1996 WTS Facilities Siting Guidelines, Planning Commission Resolution No. 14182, 16539, and 18523 supplementing the 1996 WTS Guidelines.
- Health and safety aspects of all wireless projects are reviewed under the Department of Public Health and the Department of Building Inspections.
- The expected RF emissions fall well within the limits established by the Federal Communications Commission (FCC).
- According to the Wireless Telecommunications Services (WTS) Facilities Siting Guidelines, the Project Site is Location Preference 1 (Preferred Location, Publicly-Used Structure) site.
- Based on propagation maps provided by Sprint, the Project would provide enhanced 800 – 2,500 Megahertz 4G/LTE (4th Generation, Long-Term-Evolution, voice and data) coverage in an area that currently experiences gaps in coverage and capacity.
- Based on the analysis provided by Sprint, the Project will provide additional capacity in an area that currently experiences insufficient service during periods of high data usage.
- Based on independent third-party evaluation, the maps, data, and conclusions about service coverage and capacity provided by Sprint are accurate.
- The Project has been reviewed by staff and found to be categorically exempt from further environmental review, as a Class 3 exemption of the California Environmental Quality Act.

RECOMMENDATION:	**Approval with Conditions**

☒	Executive Summary	☒	Project sponsor submittal
☒	Draft Motion		Drawings: Proposed Project
☒	Zoning District Map	☒	Check for legibility
☐	Height & Bulk Map	☒	Photo Simulations
☒	Parcel Map	☒	Coverage Maps
☒	Sanborn Map	☒	RF Report
☒	Aerial Photo	☒	DPH Approval
☒	Context Photos	☒	Community Outreach Report
☒	Site Photos	☒	Independent Evaluation

Exhibits above marked with an "X" are included in this packet om Planner's Initials

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Planning Commission Motion No. XXXXX

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Staff Contact:	Omar Masry – (415) 575-9116 Omar.Masry@sfgov.org

ADOPTING FINDINGS RELATING TO THE APPROVAL OF A CONDITIONAL USE AUTHORIZATION UNDER PLANNING CODE SECTIONS 209.1 AND 303(c) TO MODIFY AN EXISTING SPRINT MACRO WIRELESS TELECOMMUNICATIONS SERVICES FACILITY IN ORDER TO ALLOW A TOTAL OF UP TO SIX (6) SCREENED ROOFTOP-MOUNTED PANEL ANTENNAS AND AN ASSOCIATED EQUIPMENT AREA AS PART THE SPRINT TELECOMMUNICATIONS NETWORK WITHIN AN RH-1(D) (RESIDENTIAL HOUSE, ONE-FAMILY, DETACHED) ZONING DISTRICT, AND A 40-X HEIGHT AND BULK DISTRICT.

PREAMBLE

On April 16, 2014, Sprint (hereinafter "Project Sponsor"), submitted an application (hereinafter "Application"), for a Conditional Use Authorization on the property at 470 West Portal Avenue, Lots 001, 008, and 009 in Assessor's Block 2484, (hereinafter "Project Site") to modify an existing Sprint macro Wireless Telecommunications Services (hereinafter "WTS") facility, in order to allow a total of up to six (6) screened rooftop-mounted panel antennas along with equipment on a lower roof area, as part of the Sprint telecommunications network, within the Residential House, One-Family, Detached Zoning District, and a 40-X Height and Bulk District.

The Project is exempt from the California Environmental Quality Act ("CEQA") as a Class 3 Categorical Exemption (Section 15303 of the California Environmental Quality Act). The Planning Commission has reviewed and concurs with said determination. The categorical exemption and all pertinent documents may be found in the files of the Planning Department

(hereinafter "Department"), as the custodian of records, at 1650 Mission Street, Suite 400, San Francisco.

On September 24, 2015, the San Francisco Planning Commission (hereinafter "Commission") conducted a duly noticed public hearing at a regularly scheduled meeting on the Application for a Conditional Use Authorization.

The Commission has heard and considered the testimony presented to it at the public hearing and has further considered written materials and oral testimony presented on behalf of the Applicant, Department Staff, and other interested parties.

MOVED, that the Commission hereby authorizes the Conditional Use in Application No. 2014.0678C, subject to the conditions contained in "EXHIBIT A" of this motion, based on the following findings:

FINDINGS

Having reviewed the materials identified in the preamble above, and having heard all testimony and arguments, this Commission finds, concludes, and determines as follows:

1. The above recitals are accurate and constitute findings of this Commission.

2. **Site Description and Present Use**. The Project Site is located on Assessor's Block 2484, Lots 001, 008, and 009. The Project Site is located on the western side of West Portal Avenue, north of Sloat Boulevard. The Project Site originally served as a Pacific Bell Directory Assistance Operating Center; but was converted, circa 2006 (Case No. 2006.0100C), to the Waldorf High School (private) campus, which features a 35-foot tall building surrounded by playgrounds, and a surface parking lot along the West Portal Avenue frontage. A Sprint macro WTS facility was approved in 1996 (Case No. 1996.015C), at a time when the site served as a switch center. The existing Sprint WTS facility features three (3) screened panel antenna within a rooftop-mounted radome and an equipment area on a lower roof area.

3. **Surrounding Properties and Neighborhood**. The Project Site is situated within the Lakeshore neighborhood, and along the southern edge of the West Portal neighborhood. The Project Site is just northwest of the confluence of West Portal Avenue, Portola Drive, and Sloat Boulevard. The Project Site is surrounded by single-family homes to the north, west (Ardenwood Way), and east across West Portal Avenue. The Arden Wood retirement home is located to northwest of the Project Site and features an expansive grove of mature trees situated between the retirement home and the Waldorf School. The M-Ocean View and K-Ingleside MUNI light rail line stops are located in front of the school along West Portal Avenue.

4. **Project Description.** The proposal is to allow the modification of an existing Sprint macro Wireless Telecommunication Services ("WTS") facility. The proposed modification

would result in the addition of three (3) screened panel antennas, at a Sprint WTS facility which currently features three (3) screened panel antennas within a single rooftop-mounted radome.

All three (3) existing panel antennas within a single 36-inch diameter rooftop-mounted radome, would be replaced with a similar radome and feature two (2) panel antennas. An existing mid-roof equipment area would be modified to raise the existing screen walls by approximately nine (9) feet, in order to screen four (4) new panel antennas, which would be affixed behind the outside edges of the primary equipment area.

5. **Past History and Actions.** The Planning Commission adopted the *Wireless Telecommunications Services (WTS) Facilities Siting Guidelines* ("Guidelines") for the installation of wireless telecommunications facilities in 1996. These Guidelines set forth the land use policies and practices that guide the installation and approval of wireless facilities throughout San Francisco. A large portion of the Guidelines was dedicated to establishing location preferences for these installations. The Board of Supervisors, in Resolution No. 635-96, provided input as to where wireless facilities should be located within San Francisco. The Guidelines were updated by the Commission in 2002B and again in 2012, requiring community outreach, notification, and detailed information about the facilities to be installed.

   Section 8.1 of the Guidelines outlines Location Preferences for wireless facilities. There are five primary areas were the installation of wireless facilities should be located:

   1. Publicly-used Structures: such facilities as fire stations, utility structures, community facilities, and other public structures;
   2. Co-Location Site: encourages installation of facilities on buildings that already have wireless installations;
   3. Industrial or Commercial Structures: buildings such as warehouses, factories, garages, service stations;
   4. Industrial or Commercial Structures: buildings such as supermarkets, retail stores, banks; and
   5. Mixed-Use Buildings in High Density Districts: buildings such as housing above commercial or other non-residential space.

   Section 8.1 of the WTS Siting Guidelines further stipulates that the Planning Commission will not approve WTS applications for Preference 5 or below Location Sites unless the application describes (a) what publicly-used building, co-location site or other Preferred Location Sites are located within the geographic service area; (b) what good faith efforts and measures were taken to secure these more Preferred Locations, (c) explains why such efforts were unsuccessful; and (d) demonstrates that the location for the site is essential to meet demands in the geographic service area and the Applicant's citywide networks.

   Before the Planning Commission can review an application to install a wireless facility, the Project Sponsor must submit a five-year facilities plan, which must be updated

biannually, an emissions report and approval by the Department of Public Health, Section 106 Declaration of Intent, an independent evaluation verifying coverage and capacity, a submittal checklist and details about the facilities to be installed.

Under Section 704(B)(iv) of the 1996 Federal Telecommunications Act, local jurisdictions cannot deny wireless facilities based on Radio Frequency (RF) radiation emissions so long as such facilities comply with the FCC's regulations concerning such emissions.

6. **Location Preference.** The *WTS Facilities Siting Guidelines* identify different types of zoning districts and building uses for the siting of wireless telecommunications facilities. Under the *Guidelines*, and based on the zoning and land use, the proposed macro WTS facility is on a Location Preference 1 Site (Preferred Location, Publicly-Used Structure) according to the WTS Facilities Siting Guidelines. No alternative site analysis is required, for a Preference 1 location.

7. **Radio Waves Range.** The Project Sponsor has stated that the proposed wireless network is designed to address coverage and capacity needs in the area. The network will operate in the 800 – 2,500 Megahertz (MHZ) bands, which are regulated by the Federal Communications Commission (FCC) and must comply with the FCC-adopted health and safety standards for electromagnetic radiation and radio frequency radiation.

8. **Radiofrequency (RF) Emissions:** The Project Sponsor retained EBI Consulting, a radio engineering consulting firm, to prepare a report describing the expected RF emissions from the proposed facility. Pursuant to the *Guidelines*, the Department of Public Health reviewed the report and determined that the proposed facility complies with the standards set forth in the Guidelines.

9. **Department of Public Health Review and Approval.** The proposed Project was referred to the Department of Public Health (DPH) for emissions exposure analysis. Existing radio-frequency (RF) levels at ground level were around 3% of the FCC public exposure limit.

   The Project Site features three (3) directional panel antennas, used by Sprint, within a rooftop-mounted radome. Sprint proposed to replace the three (3) panel antennas and add three (3) panel antennas disbured between a rooftop-mounted radome and surrounding an existing rooftop-mounted equipment area. The antennas will be mounted at a height of approximately 44 feet above the ground. The estimated ambient RF field from the proposed Sprint transmitters at ground level is calculated to be 0.024 mW/sq. cm., which is 4.5% of the FCC public exposure limit. The three dimensional perimeter of RF levels equal to the public exposure limit extends 15 feet (straight out from the antennas and to much lesser distances above, below, and to the sides), and does not reach any publicly accessible areas. Warning signs must be posted at the antennas and roof access points in English, Spanish, and Chinese. Workers should not have access to the area (5 feet) directly in front of the antenna while it is in operation.

10. **Coverage and Capacity Verification.** The maps, data, and conclusion provided by Sprint to demonstrate need for outdoor and indoor coverage and capacity have been determined by EBI Consulting, and engineering consultant and independent third party to accurately represent the carrier's present and post-installation conclusions.

11. **Maintenance Schedule**. The proposed facility would operate without on-site staff but with a two-person maintenance crew visiting the property approximately four times a year, and on an as-needed basis to service and monitor the facility.

12. **Community Outreach.** Per the *Guidelines*, the Project Sponsor held a community meeting at the Inglewood Branch of the San Francisco Public Library, at 1298 Ocean Avenue, to discuss the Project at 5:00 p.m. on June 23, 2015. Two (2) community members attended the meeting and asked questions about the proposed Project, including questions regarding leasing, radio-frequency exposure, and whether the WTS facility would interfere with personal Wi-Fi devices within residential dwellings.

    The City has not seen a pattern of interference from macro WTS facilities, with respect to personal Wi-Fi devices in adjacent residential dwellings or businesses.

13. **Five-year plan:** Per the Guidelines, the Project Sponsor submitted an updated five-year plan, as required, in April 2015.

14. **Public Comment.** As of September 3, 2015, the Department has received one (1) comment regarding concerns over the early evening timing of the community meeting (potentially limiting attendance), as well as three (3) comments regarding health concerns related to radio-frequency (RF) emissions, from the proposed Project.

15. **Planning Code Compliance.** The Commission finds that the Project is consistent with the relevant provisions of the Planning Code in the following manner:

    A. **Use.** Pursuant to Sections 209.1 and 303 of the Planning Code, a Conditional Use Authorization is required for a major modification (antenna and screening addition) to a macro WTS facility.

16. **Planning Code Section 303** establishes criteria for the Planning Commission to consider when reviewing applications for Conditional Use approval. On balance, the Project complies with said criteria in that:

    A. The proposed new uses and building, at the size and intensity contemplated and at the proposed location, will provide a development that is necessary or desirable, and compatible with, the neighborhood or the community.

        i. *Desirable: San Francisco is a leader of the technological economy; it is important and desirable to the vitality of the City to have and maintain adequate telecommunications coverage and data capacity. This includes the installation and upgrading of systems to*

keep up with changing technology and increases in usage. It is desirable for the City to allow wireless facilities to be installed.

The proposed Project at 470 West Portal Avenue is generally desirable and compatible with the surrounding neighborhood because the Project will not conflict with the existing uses of the property and will be designed to be compatible with the surrounding neighborhood. The use of screening elements such as a rooftop-mounted radome and screen wall system is designed so as to avoid intrusion into public vistas, and to insure harmony with the existing neighborhood character and promote public safety.

ii. *Necessary: In the case of wireless installations, there are two criteria that the Commission reviews: coverage and capacity.*

Coverage: San Francisco does have sufficient overall wireless coverage (note that this is separate from carrier capacity). San Francisco's unique coverage issues are due to topography and building heights. The hills and buildings disrupt lines of site between WTS base stations. Thus, telecommunication carriers continue to install additional installations to make sure coverage is sufficient.

Capacity: While a carrier may have adequate coverage in a certain area, the capacity may not be sufficient. With the continuous innovations in wireless data technology and demand placed on existing infrastructure, individual telecommunications carriers must upgrade and in some instances expand their facilities network to provide proper data and voice capacity. It is necessary for San Francisco, as a leader in technology, to have adequate capacity.

The proposed Project at 470 West Portal Avenue is necessary in order to achieve sufficient street and in-building mobile phone coverage and data capacity. Recent drive tests in the subject area conducted by the Sprint Radio Frequency Engineering Team provide that the Project Site is a preferable location, based on factors including quality of coverage and aesthetics.

B. The proposed project will not be detrimental to the health, safety, convenience or general welfare of persons residing or working in the vicinity. There are no features of the project that could be detrimental to the health, safety or convenience of those residing or working the area, in that:

i. Nature of proposed site, including its size and shape, and the proposed size, shape and arrangement of structures;

The Project must comply with all applicable Federal and State regulations to safeguard the health, safety and to ensure that persons residing or working in the vicinity will not be affected, and prevent harm to other personal property.

The Department of Public Health conducted an evaluation of potential health effects from Radio Frequency radiation, and has concluded that the proposed wireless transmission facilities will have no adverse health effects if operated in compliance with the FCC-adopted health and safety standards.

ii. The accessibility and traffic patterns for persons and vehicles, the type and volume of such traffic, and the adequacy of proposed off-street parking and loading;

No increase in traffic volume is anticipated with the facilities operating unmanned, with a maintenance crew visiting the Site once a month or on an as-needed basis.

iii. The safeguards afforded to prevent noxious or offensive emissions such as noise, glare, dust and odor;

While some noise and dust may result from the installation of the antennas and transceiver equipment, noise or noxious emissions from continued use are not likely to be significantly greater than ambient conditions due to the operation of the wireless communication network. The proposed generator would be limited to use during power outages and during short weekly or monthly test periods.

iv. Treatment given, as appropriate, to such aspects as landscaping, screening, open spaces, parking and loading areas, service areas, lighting and signs;

The proposed facility will not affect landscaping, open space, required parking, lighting or signage at the Project Site or surrounding area.

C. That the use as proposed will comply with the applicable provisions of the Planning Code and will not adversely affect the General Plan.

The Project complies with all relevant requirements and standards of the Planning Code and is consistent with Objectives and Policies of the General Plan, as detailed below.

D. That the use as proposed would provide development that is in conformity with the purpose of the applicable Neighborhood Commercial District.

The Project site is not located within a Neighborhood Commercial District.

17. **General Plan Compliance.** The Project is, on balance, consistent with the following Objectives and Policies of the General Plan:

HOUSING ELEMENT
Objectives and Policies

BALANCE HOUSING CONSTRUCTION AND COMMUNITY INFRASTRUCTURE

OBJECTIVE 12:
BALANCE HOUSING GROWTH WITH ADEQUATE INFRASTRUCTURE THAT SERVES THE CITY'S GROWING POPULATION.

Policy 12.3:
Ensure new housing is sustainable supported by the City's public infrastructure systems.

The Project will improve Sprint's coverage and capacity within the West Portal neighborhood.

URBAN DESIGN ELEMENT
Objectives and Policies

HUMAN NEEDS

OBJECTIVE 4:
IMPROVEMENT OF THE NEIGHBORHOOD ENVIRONMENT TO INCREASE PERSONAL SAFETY, COMFORT, PRIDE AND OPPORTUNITY.

Policy 4.14:
Remove and obscure distracting and cluttering elements.

The use of scale and context appropriate screening will avoid introducing distracting or cluttering elements.

COMMERCE AND INDUSTRY ELEMENT
Objectives and Policies

OBJECTIVE 1:
MANAGE ECONOMIC GROWTH AND CHANGE TO ENSURE ENHANCEMENT OF THE TOTAL CITY LIVING AND WORKING ENVIRONMENT.

Policy 1.1:
Encourage development, which provides substantial net benefits and minimizes undesirable consequences. Discourage development, which has substantial undesirable consequences that cannot be mitigated.

Policy 1.2:
Assure that all commercial and industrial uses meet minimum, reasonable performance standards.

The Project would enhance the total city living and working environment by providing communication services for residents and workers within the City. Additionally, the Project would comply with Federal, State and Local performance standards.

OBJECTIVE 2:
MAINTAIN AND ENHANCE A SOUND AND DIVERSE ECONOMIC BASE AND FISCAL STRUCTURE FOR THE CITY.

Policy 2.1:
Seek to retain existing commercial and industrial activity and to attract new such activity to the city.

Policy 2.3:
Maintain a favorable social and cultural climate in the city in order to enhance its attractiveness as a firm location.

The Site would be an integral part of a new wireless communications network that would enhance the City's diverse economic base.

OBJECTIVE 4:
IMPROVE THE VIABILITY OF EXISTING INDUSTRY IN THE CITY AND THE ATTRACTIVENESS OF THE CITY AS A LOCATION FOR NEW INDUSTRY.

Policy 4.1:
Maintain and enhance a favorable business climate in the City.

Policy 4.2:
Promote and attract those economic activities with potential benefit to the City.

The Project would benefit the City by enhancing the business climate through improved communication services for residents and workers.

VISITOR TRADE

OBJECTIVE 8:
ENHANCE SAN FRANCISCO'S POSITION AS A NATIONAL CENTER FOR CONVENTIONS AND VISITOR TRADE.

Policy 8.3:
Assure that areas of particular visitor attraction are provided with adequate public services for both residents and visitors.

The Project would ensure that residents and visitors have adequate public service in the form of Sprint telecommunications.

COMMUNITY SAFETY ELEMENT
Objectives and Policies

OBJECTIVE 3:
ESTABLISH STRATEGIES TO ADDRESS THE IMMEDIATE EFFECTS OF A DISASTER.

Policy 1.20
Increase communication capabilities in preparation for all phases of a disaster and ensure communication abilities extend to hard-to-reach areas and special populations.

Policy 2.4
Bolster the Department of Emergency Management's role as the City's provider of emergency planning and communication, and prioritize its actions to meet the needs of San Francisco.

Policy 2.15
Utilize advancing technology to enhance communication capabilities in preparation for all phases of a disaster, particularly in the high-contact period immediately following a disaster.

Policy 3.7:
Develop a system to convey personalized information during and immediately after a disaster.

The Project would enhance the ability of the City to protect both life and property from the effects of a fire or natural disaster by providing communication services.

18. **Planning Code Section 101.1(b)** establishes eight priority-planning policies and requires review of permits for consistency with said policies. On balance, the Project does comply with said policies in that:

    A. That existing neighborhood-serving retail uses be preserved and enhanced and future opportunities for resident employment in and ownership of such businesses be enhanced.

    The wireless communications network would enhance personal communication services for businesses and customers in the surrounding area.

    B. That existing housing and neighborhood character be conserved and protected in order to preserve the cultural and economic diversity of our neighborhoods.

    No residential uses would be displaced or altered in any way by the granting of this Authorization. The Project Site does not feature residential dwellings.

C. That the City's supply of affordable housing be preserved and enhanced.

The Project would have no adverse effect on housing in the vicinity.

D. That commuter traffic not impede MUNI transit service or overburden our streets or neighborhood parking.

Due to the nature of the Project and minimal maintenance or repair, municipal transit service would not be significantly impeded and neighborhood parking would not be overburdened.

E. That a diverse economic base be maintained by protecting our industrial and service sectors from displacement due to commercial office development, and that future opportunities for resident employment and ownership in these sectors be enhanced.

The Project would cause no displacement of industrial and service sector activity.

F. That the City achieve the greatest possible preparedness to protect against injury and loss of life in an earthquake.

Compliance with applicable structural safety and seismic safety requirements would be considered during the building permit application review process.

G. That landmarks and historic buildings be preserved.

The proposed facility would not impair character-defining elements, such as the primary facades, of the existing building, which is considered a potential historic resource. The overall massing of the facility would not impair views of adjacent properties, including those determined to be known historic resources (e.g. Arden Wood retirement home to the northwest of the Project Site at 445 Wawona Street).

H. That our parks and open space and their access to sunlight and vistas be protected from development.

The Project would have no adverse effect on parks or open space, or their access to sunlight or public vistas.

19. The Project is consistent with and would promote the general and specific purposes of the Code provided under Section 101.1(b) in that, as designed, the Project would contribute to the character and stability of the neighborhood and would constitute a beneficial development.

20. The Commission hereby finds that approval of the Conditional Use Authorization would promote the health, safety and welfare of the City.

DECISION

The Commission, after carefully balancing the competing public and private interests, and based upon the Recitals and Findings set forth above, in accordance with the standards specified in the Code, hereby approves the Conditional Use Authorization under Planning Code Sections 209.1 and 303 to modify an existing Sprint macro WTS facility (superseding Case No. 2000.710C) in order to allow a total of up to six (6) screened panel antennas and an associated rooftop-mounted equipment area at the Project Site and as part of a wireless transmission network initially operated by Sprint on a Location Preference 1 (Preferred Location, Publicly-Used Structure) area, according to the Wireless Telecommunications Services (WTS) Facilities Siting Guidelines, within an RH-1(D) (Residential House, One Family, Detached) Zoning District, and a 40-X Height and Bulk District, and subject to the conditions of approval attached hereto as **Exhibit A;** in general conformance with the plans, dated May 20, 2015, and stamped "Exhibit B."

APPEAL AND EFFECTIVE DATE OF MOTION: Any aggrieved person may appeal this Conditional Use Authorization to the Board of Supervisors within thirty (30) days after the date of this Motion No. XXXXX. The effective date of this Motion shall be the date of this Motion if not appealed (after the 30-day period has expired) OR the date of the decision of the Board of Supervisors if appealed to the Board of Supervisors. For further information, please contact the Board of Supervisors at (415) 554-5184, City Hall, Room 244, 1 Dr. Carlton B. Goodlett Place, San Francisco, CA 94102.

Protest of Fee or Exaction: You may protest any fee or exaction subject to Government Code Section 66000 that is imposed as a condition of approval by following the procedures set forth in Government Code Section 66020. The protest must satisfy the requirements of Government Code Section 66020(a) and must be filed within 90 days of the date of the first approval or conditional approval of the development referencing the challenged fee or exaction. For purposes of Government Code Section 66020, the date of imposition of the fee shall be the date of the earliest discretionary approval by the City of the subject development.

If the City has not previously given Notice of an earlier discretionary approval of the project, the Planning Commission's adoption of this Motion, Resolution, Discretionary Review Action or the Zoning Administrator's Variance Decision Letter constitutes the approval or conditional approval of the development and the City hereby gives **NOTICE** that the 90-day protest period under Government Code Section 66020 has begun. If the City has already given Notice that the 90-day approval period has begun for the subject development, then this document does not re-commence the 90-day approval period.

I hereby certify that the foregoing Motion was adopted by the Planning Commission on **September 24, 2015**.

Jonas P. Ionin
Commission Secretary

AYES:

NAYS:

ABSENT:

ADOPTED: September 24, 2015

EXHIBIT A

AUTHORIZATION

This authorization is for a Conditional Use Authorization under Planning Code Sections 209.1 and 303 to modify an existing Sprint macro WTS facility (superseding Case No. 2000.710C) in order to allow a total of up to six (6) screened panel antennas and an associated rooftop-mounted equipment area at the Project Site and as part of a wireless transmission network initially operated by Sprint on a Location Preference 1 (Preferred Location, Publicly-Used Structure) area, according to the Wireless Telecommunications Services (WTS) Facilities Siting Guidelines, within an RH-1(D) (Residential House, One Family, Detached) Zoning District, and a 40-X Height and Bulk District, and subject to the conditions of approval attached hereto as **Exhibit A;** in general conformance with the plans, dated May 20, 2015, and stamped "Exhibit B."

RECORDATION OF CONDITIONS OF APPROVAL

Prior to the issuance of the building permit or commencement of use for the Project the Zoning Administrator shall approve and order the recordation of a Notice in the Official Records of the Recorder of the City and County of San Francisco for the subject property. This Notice shall state that the Project is subject to the conditions of approval contained herein and reviewed and approved by the Planning Commission on **September 24, 2015** under Motion No. XXXXX.

PRINTING OF CONDITIONS OF APPROVAL ON PLANS

The conditions of approval under the 'Exhibit A' of this Planning Commission Motion No. XXXXX shall be reproduced on the Index Sheet of construction plans submitted with the Site or Building permit application for the Project. The Index Sheet of the construction plans shall reference to the Conditional Use Authorization and any subsequent amendments or modifications.

SEVERABILITY

The Project shall comply with all applicable City codes and requirements. If any clause, sentence, section or any part of these conditions of approval is for any reason held to be invalid, such invalidity shall not affect or impair other remaining clauses, sentences, or sections of these conditions. This decision conveys no right to construct, or to receive a building permit. "Project Sponsor" shall include any subsequent responsible party.

CHANGES AND MODIFICATIONS

Changes to the approved plans may be approved administratively by the Zoning Administrator. Significant changes and modifications of conditions shall require Planning Commission approval of a new Conditional Use Authorization.

Conditions of Approval, Compliance, Monitoring, and Reporting

PERFORMANCE

1. **Validity and Expiration.** The authorization and right vested by virtue of this action is valid for thirty-six (36) months from the effective date of the Motion. A building permit from the Department of Building Inspection to construct the project and/or commence the approved use must be issued as this Conditional Use Authorization is only an approval of the proposed project and conveys no independent right to construct the Project or to commence the approved use. The Planning Commission may, in a public hearing, consider the revocation of the approvals granted if a site or building permit has not been obtained within thirty-six (36) months of the date of the Motion approving the Project. Once a site or building permit has been issued, construction must commence within the timeframe required by the Department of Building Inspection and be continued diligently to completion. The Commission may also consider revoking the approvals if a permit for the Project has been issued but is allowed to expire and more than thirty-six (36) months have passed since the Motion was approved.
   For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, www.sf-planning.org.

2. **Extension.** This authorization may be extended at the discretion of the Zoning Administrator only where failure to issue a permit by the Department of Building Inspection to perform said tenant improvements is caused by a delay by a local, State or Federal agency or by any appeal of the issuance of such permit(s).
   For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, www.sf-planning.org .

DESIGN – COMPLIANCE AT PLAN STAGE

3. **Plan Drawings - WTS**. Prior to the issuance of any building or electrical permits for the installation of the facilities, the Project Sponsor shall submit final scaled drawings for review and approval by the Planning Department ("Plan Drawings"). The Plan Drawings shall describe:
   a. Structure and Siting. Identify all facility related support and protection measures to be installed. This includes, but is not limited to, the location(s) and method(s) of placement, support, protection, screening, paint and/or other treatments of the antennas and other appurtenances to insure public safety, insure compatibility with urban design, architectural and historic preservation principles, and harmony with neighborhood character.
   b. For the Project Site, regardless of the ownership of the existing facilities. Identify the location of all existing antennas and facilities; and identify the location of all approved (but not installed) antennas and facilities.
   c. Emissions. Provide a report, subject to approval of the Zoning Administrator, that operation of the facilities in addition to ambient RF emission levels will not exceed adopted FCC standards with regard to human exposure in uncontrolled areas.

For information about compliance, contact the Case Planner, Planning Department at 415-575-9078, www.sf-planning.org.

4. **Screening - WTS.** To the extent necessary to ensure compliance with adopted FCC regulations regarding human exposure to RF emissions, and upon the recommendation of the Zoning Administrator, the Project Sponsor shall:
   a. Modify the placement of the facilities;
   b. Install fencing, barriers or other appropriate structures or devices to restrict access to the facilities;
   c. Install multi-lingual signage, including the RF radiation hazard warning symbol identified in ANSI C95.2 1982, to notify persons that the facility could cause exposure to RF emissions;
   d. Implement any other practice reasonably necessary to ensure that the facility is operated in compliance with adopted FCC RF emission standards.
   e. To the extent necessary to minimize visual obtrusion and clutter, installations shall conform to the following standards:
      a. Antennas and back up equipment shall be painted, fenced, landscaped or otherwise treated architecturally so as to minimize visual effects;
      b. Rooftop installations shall be setback such that back up facilities are not viewed from the street;
      c. Antennas attached to building facades shall be so placed, screened or otherwise treated to minimize any negative visual impact; and
      d. Although co location of various companies' facilities may be desirable, a maximum number of antennas and back up facilities on the Project Site shall be established, on a case by case basis, such that "antennae farms" or similar visual intrusions for the site and area is not created.

   For information about compliance, contact the Case Planner, Planning Department at 415-575-9078, www.sf-planning.org .

MONITORING - AFTER ENTITLEMENT

5. **Enforcement.** Violation of any of the Planning Department conditions of approval contained in this Motion or of any other provisions of Planning Code applicable to this Project shall be subject to the enforcement procedures and administrative penalties set forth under Planning Code Section 176 or Section 176.1. The Planning Department may also refer the violation complaints to other city departments and agencies for appropriate enforcement action under their jurisdiction.
   For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, www.sf-planning.org

6. **Monitoring.** The Project requires monitoring of the conditions of approval in this Motion. The Project Sponsor or the subsequent responsible parties for the Project shall pay fees as established under Planning Code Section 351(e) (1) and work with the Planning Department for information about compliance.

For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, www.sf-planning.org

7. **Revocation due to Violation of Conditions.** Should implementation of this Project result in complaints from interested property owners, residents, or commercial lessees which are not resolved by the Project Sponsor and found to be in violation of the Planning Code and/or the specific Conditions of Approval for the Project as set forth in Exhibit A of this Motion, the Zoning Administrator shall refer such complaints to the Commission, after which it may hold a public hearing on the matter to consider revocation of this authorization.
   For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, www.sf-planning.org.

8. **Implementation Costs - WTS**.
   a. The Project Sponsor, on an equitable basis with other WTS providers, shall pay the cost of preparing and adopting appropriate General Plan policies related to the placement of WTS facilities. Should future legislation be enacted to provide for cost recovery for planning, the Project Sponsor shall be bound by such legislation.
   b. The Project Sponsor or its successors shall be responsible for the payment of all reasonable costs associated with implementation of the conditions of approval contained in this authorization, including costs incurred by this Department, the Department of Public Health, the Department of Technology, Office of the City Attorney, or any other appropriate City Department or agency. The Planning Department shall collect such costs on behalf of the City.
   c. The Project Sponsor shall be responsible for the payment of all fees associated with the installation of the subject facility, which are assessed by the City pursuant to all applicable law.
      For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, www.sf-planning.org

9. **Implementation and Monitoring - WTS**. In the event that the Project implementation report includes a finding that RF emissions for the site exceed FCC Standards in any uncontrolled location, the Zoning Administrator may require the Applicant to immediately cease and desist operation of the facility until such time that the violation is corrected to the satisfaction of the Zoning Administrator.
   For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, www.sf-planning.org

10. **Project Implementation Report - WTS**. The Project Sponsor shall prepare and submit to the Zoning Administrator a Project Implementation Report. The Project Implementation Report shall:
    a. Identify the three dimensional perimeter closest to the facility at which adopted FCC standards for human exposure to RF emissions in uncontrolled areas are satisfied;
    b. Document testing that demonstrates that the facility will not cause any potential exposure to RF emissions that exceed adopted FCC emission standards for human exposure in uncontrolled areas.

c. The Project Implementation Report shall compare test results for each test point with applicable FCC standards. Testing shall be conducted in compliance with FCC regulations governing the measurement of RF emissions and shall be conducted during normal business hours on a non-holiday weekday with the subject equipment measured while operating at maximum power.

d. Testing, Monitoring, and Preparation. The Project Implementation Report shall be prepared by a certified professional engineer or other technical expert approved by the Department. At the sole option of the Department, the Department (or its agents) may monitor the performance of testing required for preparation of the Project Implementation Report. The cost of such monitoring shall be borne by the Project Sponsor pursuant to the condition related to the payment of the City's reasonable costs.

   i. Notification and Testing. The Project Implementation Report shall set forth the testing and measurements undertaken pursuant to Conditions 2 and 4.

   ii. Approval. The Zoning Administrator shall request that the Certification of Final Completion for operation of the facility not be issued by the Department of Building Inspection until such time that the Project Implementation Report is approved by the Department for compliance with these conditions.

For information about compliance, contact the Environmental Health Section, Department of Public Health at (415) 252-3800, www.sfdph.org.

11. **Notification prior to Project Implementation Report - WTS.** The Project Sponsor shall undertake to inform and perform appropriate tests for residents of any dwelling units located within 25 feet of the transmitting antenna at the time of testing for the Project Implementation Report.

    a. At least twenty calendar days prior to conducting the testing required for preparation of the Project Implementation Report, the Project Sponsor shall mail notice to the Department, as well as to the resident of any legal dwelling unit within 25 feet of a transmitting antenna of the date on which testing will be conducted. The Applicant will submit a written affidavit attesting to this mail notice along with the mailing list.

    b. When requested in advance by a resident notified of testing pursuant to subsection (a), the Project Sponsor shall conduct testing of total power density of RF emissions within the residence of that resident on the date on which the testing is conducted for the Project Implementation Report.

    For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, www.sf-planning.org

12. **Installation - WTS.** Within 10 days of the installation and operation of the facilities, the Project Sponsor shall confirm in writing to the Zoning Administrator that the facilities are being maintained and operated in compliance with applicable Building, Electrical and other Code requirements, as well as applicable FCC emissions standards.
    For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, www.sf-planning.org

13. **Periodic Safety Monitoring - WTS.** The Project Sponsor shall submit to the Zoning Administrator 10 days after installation of the facilities, and every two years thereafter, a

certification attested to by a licensed engineer expert in the field of EMR/RF emissions, that the facilities are and have been operated within the then current applicable FCC standards for RF/EMF emissions.
For information about compliance, contact the Environmental Health Section, Department of Public Health at (415) 252-3800, www.sfdph.org.

OPERATION

14. **Community Liaison.** Prior to issuance of a building permit application to construct the project and implement the approved use, the Project Sponsor shall appoint a community liaison officer to deal with the issues of concern to owners and occupants of nearby properties. The Project Sponsor shall provide the Zoning Administrator written notice of the name, business address, and telephone number of the community liaison. Should the contact information change, the Zoning Administrator shall be made aware of such change. The community liaison shall report to the Zoning Administrator what issues, if any, are of concern to the community and what issues have not been resolved by the Project Sponsor.
For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, www.sf-planning.org

15. **Out of Service – WTS**. The Project Sponsor or Property Owner shall remove antennas and equipment that has been out of service or otherwise abandoned for a continuous period of six months.
For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, www.sf-planning.org

16. **Emissions Conditions – WTS**. It is a continuing condition of this authorization that the facilities be operated in such a manner so as not to contribute to ambient RF/EMF emissions in excess of then current FCC adopted RF/EMF emission standards; violation of this condition shall be grounds for revocation.
For information about compliance, contact the Environmental Health Section, Department of Public Health at (415) 252-3800, www.sfdph.org.

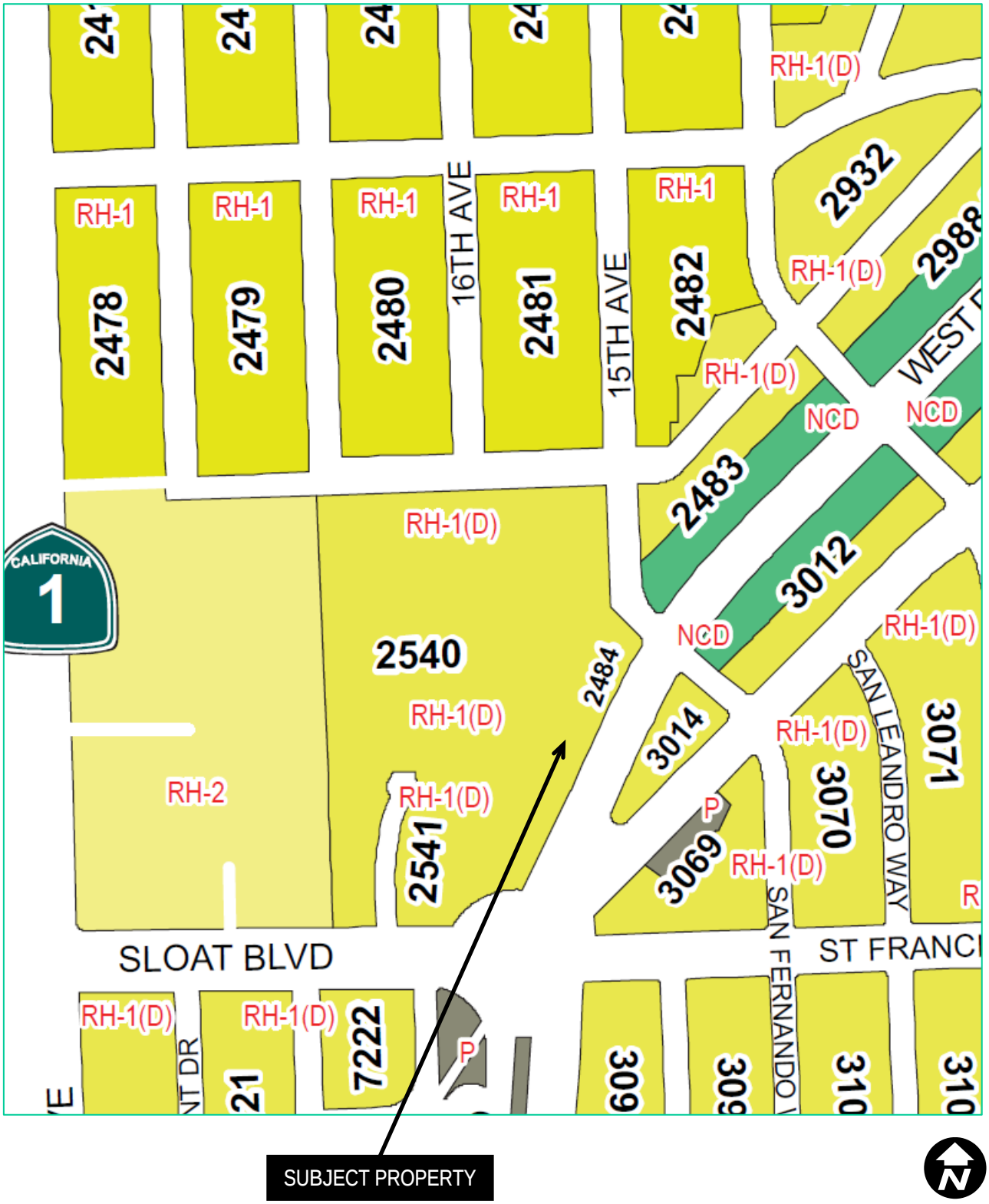
17. **Noise and Heat – WTS**. The WTS facility, including power source and cooling facility, shall be operated at all times within the limits of the San Francisco Noise Control Ordinance. The WTS facility, including power source and any heating/cooling facility, shall not be operated so as to cause the generation of heat that adversely affects a building occupant.
For information about compliance, contact the Environmental Health Section, Department of Public Health at (415) 252-3800, www.sfdph.org.

18. **Transfer of Operation – WTS**. Any carrier/provider authorized by the Zoning Administrator or by the Planning Commission to operate a specific WTS installation may assign the operation of the facility to another carrier licensed by the FCC for that radio frequency provided that such transfer is made known to the Zoning Administrator in advance of such operation, and all conditions of approval for the subject installation are carried out by the new carrier/provider.

For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, www.sf-planning.org

19. **Compatibility with City Emergency Services – WTS**. The facility shall not be operated or caused to transmit on or adjacent to any radio frequencies licensed to the City for emergency telecommunication services such that the City's emergency telecommunications system experiences interference, unless prior approval for such has been granted in writing by the City.
For information about compliance, contact the Department of Technology, 415-581-4000, http://sfgov3.org/index.aspx?page=1421

Zoning Map

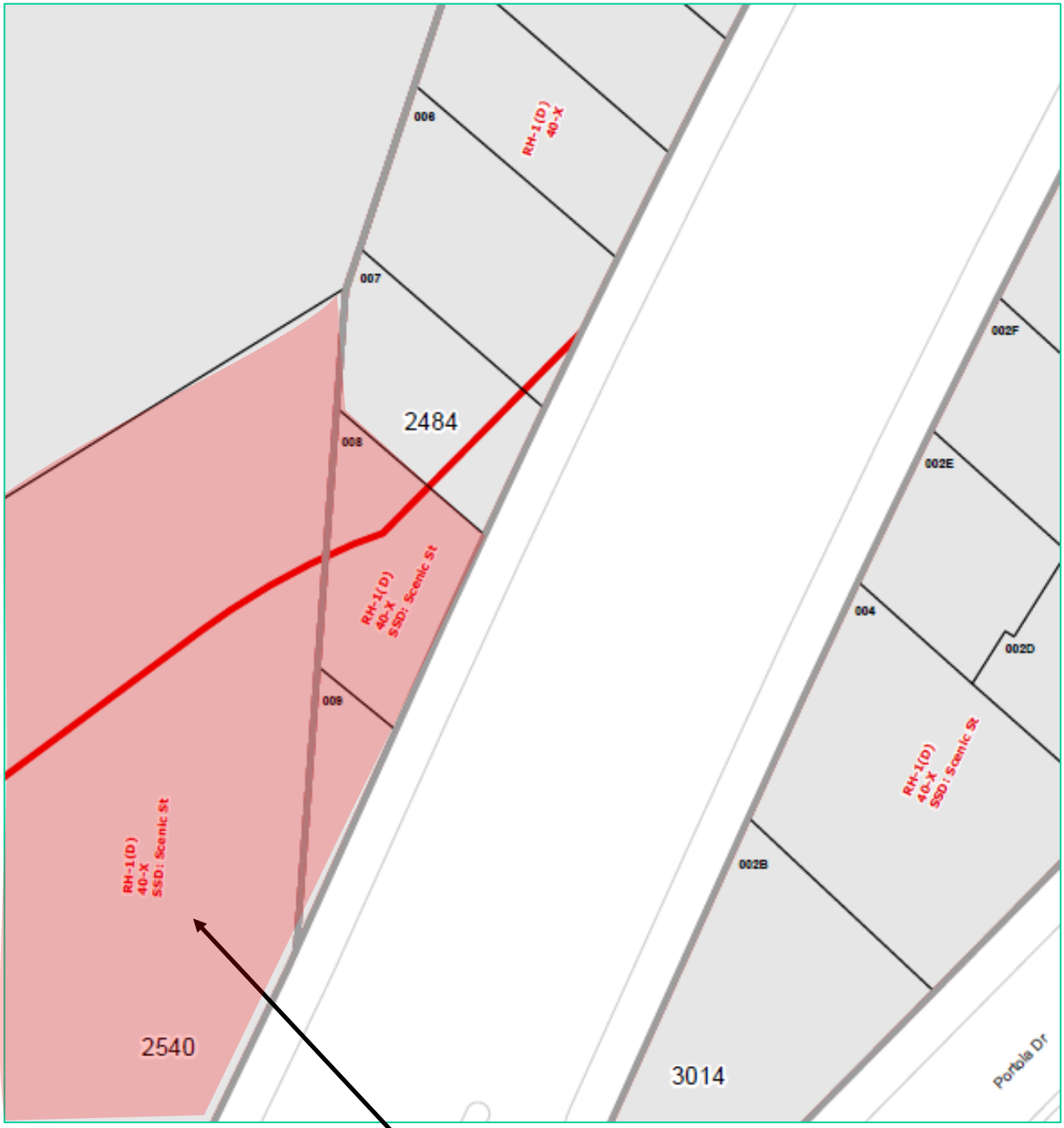


Case Number 2014.0678C
Sprint Macro WTS Facility
470 West Portal Avenue

Aerial Photo

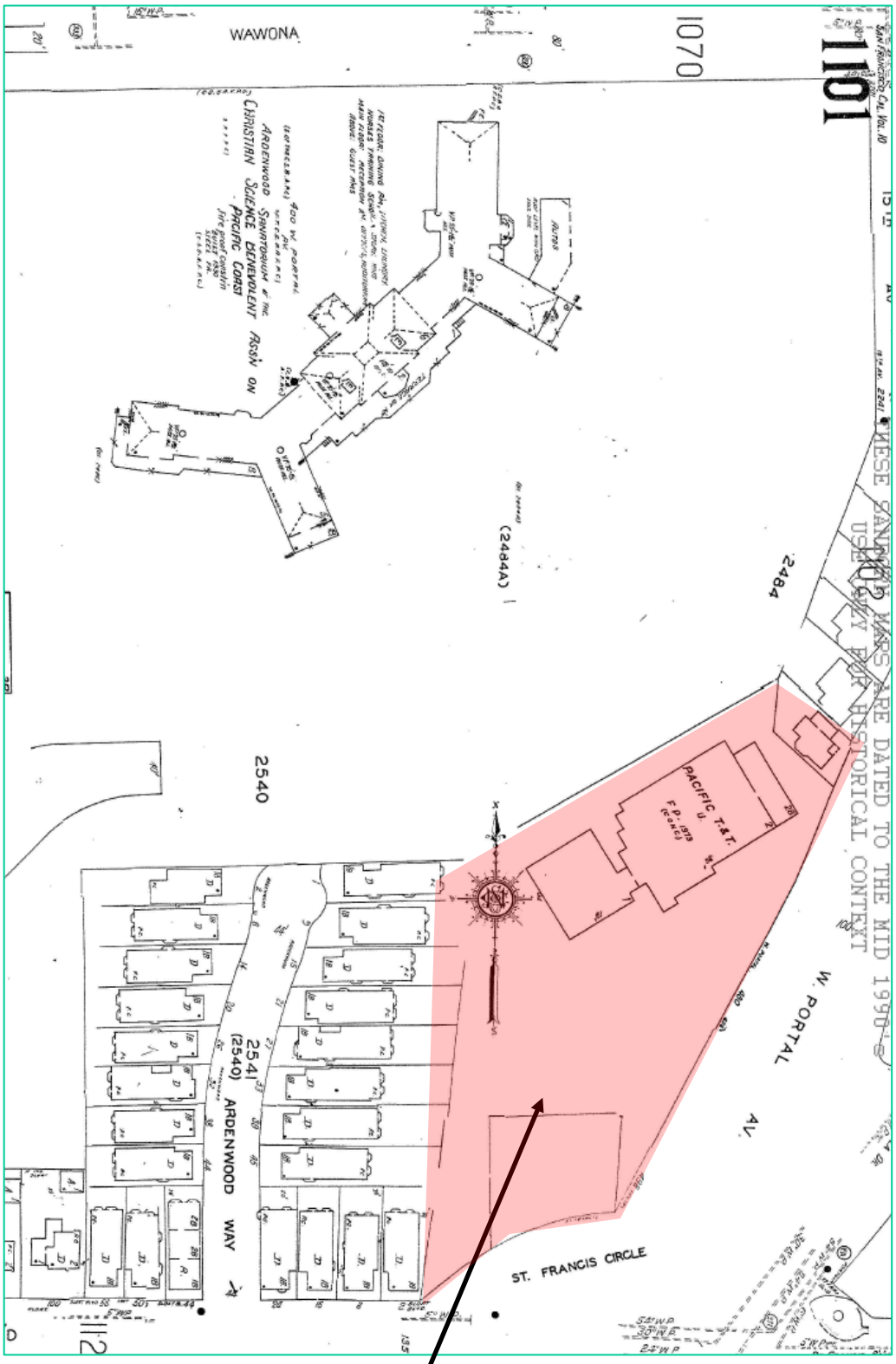
Case Number 2014.0678C
Sprint Macro WTS Facility
470 West Portal Avenue

Parcel Map



Case Number 2014.0678C
Sprint Macro WTS Facility
470 West Portal Avenue

Sanborn Map*



SUBJECT PROPERTY

Case Number 2014.0678C
Sprint Macro WTS Facility
470 West Portal Avenue

SAN FRANCISCO
PLANNING DEPARTMENT

**The Sanborn Maps in San Francisco have not been updated since 1998, and this map may not accurately reflect existing conditions.*

Contextual Photographs

Pacific Bell Business Building
470 West Portal
San Francisco, CA. 94127

View of Site looking South on West Portal Avenue

View of Site looking North on Junipero Serra Boulevard

View of site looking East on Sloat Boulevard

View of Site looking West on St. Francis Boulevard

Existing

Proposed

view from West Portal Avenue looking north at site

Sprint

FS04XC040 West Portal
470 West Portal Avenue, San Francisco, CA
Photosims Produced 5-18-2015

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

Existing

Proposed

view from West Portal Avenue looking west at site

Sprint

FS04XC040 West Portal
470 West Portal Avenue, San Francisco, CA
Photosims Produced 5-18-2015

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

Radio Frequency – Electromagnetic Energy (RF-EME) Compliance Report

Site No. FS04XC040
Pacific Bell Business Building
470 West Portal Avenue
San Francisco, California 94127
San Francisco County
37.735822; -122.471570 NAD83
Rooftop

EBI Project No. 6215003242
June 3, 2015

Prepared for:

Sprint Nextel
6391 Sprint Parkway
Mailstop: KSOPHT0101-Z2650
Overland Park, KS 66251-2650

Prepared by:

EBI Consulting
environmental | engineering | due diligence

EXECUTIVE SUMMARY

Purpose of Report

EnviroBusiness Inc. (dba EBI Consulting) has been contracted by Sprint Nextel to conduct radio frequency electromagnetic (RF-EME) monitoring and modeling for Sprint Site FS04XC040 located at 470 West Portal Avenue in San Francisco, California to determine RF-EME exposure levels from existing and proposed Sprint wireless communications equipment at this site. As described in greater detail in Section 11.0 of this report, the Federal Communications Commission (FCC) has developed Maximum Permissible Exposure (MPE) Limits for general public exposures and occupational exposures. This report summarizes the results of RF-EME monitoring and modeling in relation to relevant FCC RF-EME compliance standards for limiting human exposure to RF-EME fields.

EBI field personnel visited this site on June 29, 2011. This report contains a detailed summary of the RF EME analysis for the site.

This document addresses the compliance of Sprint's proposed transmitting facilities independently at the site.

MPE Summary

At the nearest walking/working surfaces to the existing and proposed Sprint antennas, the maximum power density is 8.52587 mW/cm2, which is 1598.6 percent of the FCC's general public limit (319.72 percent of the FCC's occupational limit).

At ground level, the maximum power density generated by the existing and proposed Sprint antennas on-site is 0.024 mW/cm2, which is 4.5 percent of the FCC's general public limit (0.9 percent of the FCC's occupational limit).

Statement of Compliance

Based on worst-case predictive modeling, the worst-case emitted power density may exceed the FCC's general public limit within approximately 14 feet of Sprint's existing and proposed antennas at the penthouse roof level. Modeling also indicates that the worst-case emitted power density may exceed the FCC's occupational limit within approximately 4 feet of Sprint's existing and proposed antennas at the penthouse roof level.

Signage is recommended at the site as presented in Section 9.0. Posting of the signage and installation of the recommended barriers brings the site into compliance with FCC rules and regulations.

1.0 Location of all Existing Antennas and Facilities and Existing RF Levels

This project involves the installation of three (3) proposed Sprint wireless telecommunication antennas on a rooftop located at 470 West Portal Avenue in San Francisco, California. There are three sectors (A, B, and C) proposed to be modified at the site. Additionally, there are three (3) existing Sprint antennas that are proposed to be relocated.

EBI conducted a site visit on June 29, 2011. At the time of the site visit, there were no other wireless antennas collocated with the Sprint antennas on the rooftop located at 470 West Portal Avenue in San Francisco, California. Measurements were taken at the rooftop and ground to record RF-EME levels resulting from the existing Sprint antennas prior to the installation of Sprint's proposed equipment.

Based on the FCC criteria, there are areas on the rooftop and ground that exceed the FCC's general population exposure limit, but does not exceed the FCC's occupational exposure limit. There are no measured areas on any accessible ground-level walking/working surface related to the existing site conditions that exceed the FCC's general population and occupational exposure limits at this site.

2.0 Location or all Approved (but not installed) Antennas and Facilities and Expected RF Levels from the Approved Facilities

There are no antennas or facilities that are approved and not installed based on information provided to EBI and Sprint at the time of this report.

3.0 Number and Types of Wireless Telecommunication Sites (WTS) within 100 Feet of the Existing and Proposed Site

With the exception of the antennas mentioned in Section 1.0, there are no other Wireless Telecommunication Service (WTS) sites observed within 100 feet of the proposed site.

4.0 Location and Number of the Sprint Antennas and Back-up Facilities per Structure and Number and Location of Other Telecommunication Facilities on the Property

Sprint proposes the installation of three (3) Sprint wireless telecommunication antennas on a rooftop located at 470 West Portal Avenue in San Francisco, California. Additionally, there are three (3) existing Sprint antennas that are proposed to be relocated. There are three sectors (A, B, and C) proposed to be modified at the site, with two (2) antennas per sector. In each sector, there is proposed to be one antenna transmitting in the 800 MHz and 1900 MHz frequencies, and one antenna transmitting in the 2500 MHz frequency range. The Sector A antennas will be oriented 20° from true north. The Sector B antennas will be oriented 140° from true north. The Sector C antennas will be oriented 260° from true north. The bottoms of the Sector antennas will be 1 (800 MHz and 1900 MHz) and 1.5 (2500 MHz) feet above the rooftop.

EBI conducted a site visit on June 29, 2011. At the time of the site visit, there were no other wireless antennas collocated with the Sprint antennas on the rooftop located at 470 West Portal Avenue in San Francisco, California.

5.0 Power Rating for all Existing and Proposed Backup Equipment Subject to the Application

The operating power, for modeling purposes, was assumed to be 20 Watts per sector for the 2500 MHz antennas and there will be two (2) transmitters operating at this frequency per sector. For the existing Sprint NV antennas, it was assumed to be 20 Watts per transmitter and eight (8) transmitters per sector.

6.0 Total Number of Watts per Installation and the Total Number of Watts for All Installations on the Structure

The effective radiated power (ERP) for the 2500 MHz transmitters combined on-site is 3,935 Watts. The assumed ERP for the existing Sprint transmitters combined on-site is 9,548 Watts.

7.0 Preferred Method of Attachment of Proposed Antenna with Plot or Roof Plan including: Directionality of Antennas, Height of Antennas above Nearest Walking Surface, Discuss Nearby Inhabited Buildings

Based on the information provided to EBI, the information indicates that the proposed antennas are to be pipe mounted to the rooftop and concealed, operating in the directions, frequencies, and heights mentioned in section 4.0 above. To the north of the site there is open wooded space. To the east of the site there is a building approximately 20 feet away from the eastern edge of the site building. To the south there is open space and a road. To the west there are buildings approximately 75 feet away from the site building.

8.0 Estimated Ambient Radio Frequency Fields for the Existing and Proposed Site

Based on worst-case predictive modeling, the worst-case emitted power density may exceed the FCC's general public limit within approximately 14 feet of Sprint's existing and proposed antennas at the penthouse roof level. Modeling also indicates that the worst-case emitted power density may exceed the FCC's occupational limit within approximately 4 feet of Sprint's existing and proposed antennas at the penthouse roof level.

At the nearest walking/working surfaces to the existing and proposed Sprint antennas, the maximum power density is 8.52587 mW/cm2, which is 1598.6 percent of the FCC's general public limit (319.72 percent of the FCC's occupational limit).

At ground level, the maximum power density generated by the existing and proposed Sprint antennas on-site is 0.024 mW/cm2, which is 4.5 percent of the FCC's general public limit (0.9 percent of the FCC's occupational limit).

The inputs used in the modeling are summarized in the RoofView® export file presented in Appendix B.

Additionally, based on worst-case modeling at antenna face level there are modeled exceedances of the general public and occupational limits. It is predicted that there will be an occupational exceedance in front of the proposed Sprint antennas within 5 feet and a general public exceedance within 15 feet of the antenna face. These exceedances are into free space, however there are walking working/surfaces on this site that are predicted to be impacted.

9.0 SIGNAGE AT THE FACILITY IDENTIFYING ALL WTS EQUIPMENT AND SAFETY PRECAUTIONS FOR PEOPLE NEARING THE EQUIPMENT AS MAY BE REQUIRED BY THE APPLICABLE FCC ADOPTED STANDARDS (DISCUSS SIGNAGE FOR THOSE WHO SPEAK LANGUAGES OTHER THAN ENGLISH)

Signs are the primary means for control of access to areas where RF exposure levels may potentially exceed the MPE. It is recommended that Notice signs be installed for the new antennas making people aware of the antennas locations. There are exposures above the FCC limits in front of the existing and proposed antennas and therefore barriers are recommended.

Workers that are elevated above the rooftop and ground may be exposed to power densities greater than the occupational limit. Workers should be informed about the presence of antennas and their associated fields and practice RF Safety Procedures.

At the time of the site survey, it was noted that there was a white "Notice" sign located on the roof access door indicating the presence of RF emitting equipment at the site.

Access to this site is accomplished via a roof access door located on the main roof. Access to the facility is monitored and as such, the general public is not able to access the rooftop.

10.0 STATEMENT ON WHO PRODUCED THIS REPORT AND QUALIFICATIONS

Please see the certifications attached in Appendix A below.

11.0 FEDERAL COMMUNICATIONS COMMISSION (FCC) REQUIREMENTS

The FCC has established Maximum Permissible Exposure (MPE) limits for human exposure to Radiofrequency Electromagnetic (RF-EME) energy fields, based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP) and, over a wide range of frequencies, the exposure limits developed by the Institute of Electrical and Electronics Engineers, Inc. (IEEE) and adopted by the American National Standards Institute (ANSI) to replace the 1982 ANSI guidelines. Limits for localized absorption are based on recommendations of both ANSI/IEEE and NCRP.

The FCC guidelines incorporate two separate tiers of exposure limits that are based upon occupational/controlled exposure limits (for workers) and general public/uncontrolled exposure limits for members of the general public.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/ controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general public/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

General public/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment-related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Table 1 and Figure 1 (below), which are included within the FCC's OET Bulletin 65, summarize the MPE limits for RF emissions. These limits are designed to provide a substantial margin of safety. They vary by frequency to take into account the different types of equipment that may be in operation at a particular facility and are "time-averaged" limits to reflect different durations resulting from controlled and uncontrolled exposures.

The FCC's MPEs are measured in terms of power (mW) over a unit surface area (cm^2). Known as the power density, the FCC has established an occupational MPE of 5 milliwatts per square centimeter (mW/cm^2) and an uncontrolled MPE of 1 mW/cm2 for equipment operating in the 1900 MHz and 2500 MHz frequency ranges. For the Sprint equipment operating at 800 MHz, the FCC's occupational MPE is 2.66 mW/cm^2 and an uncontrolled MPE of 0.53 mW/cm^2. These limits are considered protective of these populations.

Table 1: Limits for Maximum Permissible Exposure (MPE)

(A) Limits for Occupational/Controlled Exposure

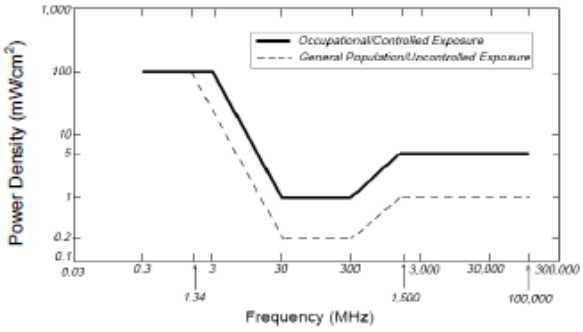
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $[E]^2$, $[H]^2$, or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1,500	--	--	f/300	6
1,500-100,000	--	--	5	6

(B) Limits for General Public/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $[E]^2$, $[H]^2$, or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1,500	--	--	f/1,500	30
1,500-100,000	--	--	1.0	30

f = Frequency in (MHz)
* Plane-wave equivalent power density

Figure 1. FCC Limits for Maximum Permissible Exposure (MPE)
Plane-wave Equivalent Power Density



Based on the above, the most restrictive thresholds for exposures of unlimited duration to RF energy for several personal wireless services are summarized below:

Personal Wireless Service	Approximate Frequency	Occupational MPE	Public MPE
Personal Communication (PCS)	1,950 MHz	5.00 mW/cm²	1.00 mW/cm²
Cellular Telephone	870 MHz	2.90 mW/cm²	0.58 mW/cm²
Specialized Mobile Radio	855 MHz	2.85 mW/cm²	0.57 mW/cm²
Most Restrictive Freq. Range	30-300 MHz	1.00 mW/cm²	0.20 mW/cm²

MPE limits are designed to provide a substantial margin of safety. 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.

Personal Communication (PCS) facilities used by Sprint in this area operate within a frequency range of 800-1900 MHz. Facilities typically consist of: 1) electronic transceivers (the radios or cabinets) connected to wired telephone lines; and 2) antennas that send the wireless signals created by the transceivers to be received by individual subscriber units (PCS telephones). Transceivers are typically connected to antennas by coaxial cables.

Advanced Wireless Services (AWS) facilities used by Sprint in this area operate within a frequency range of 2496 - 2690 MHz. Facilities typically consist of: 1) electronic transceivers (the radios or cabinets); and 2) antennas that send the wireless signals created by the transceivers to be received by individual subscriber units. Transceivers are typically connected to antennas by coaxial cables.

Because of the short wavelength of PCS/AWS services, the antennas require line-of-site paths for good propagation, and are typically installed above ground level. Antennas are constructed to concentrate energy towards the horizon, with as little energy as possible scattered towards the ground or the sky. This design, combined with the low power of PCS facilities, generally results in no possibility for exposure to approach Maximum Permissible Exposure (MPE) levels, with the exception of areas directly in front of the antennas.

FCC Compliance Requirement

A site is considered out of compliance with FCC regulations if there are areas that exceed the FCC exposure limits and there are no RF hazard mitigation measures in place. Any carrier which has an installation that contributes more than 5% of the applicable MPE must participate in mitigating these RF hazards.

12.0 LIMITATIONS

This report was prepared for the use of Sprint Nextel. It was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same locale under like circumstances. The conclusions provided by EBI are based solely on the information collected during the site survey and provided by the client. The observations in this report are valid on the date of the investigation. Any additional information that becomes available concerning the site should be provided to EBI so that our conclusions may be revised and modified, if necessary. This report has been prepared in accordance with Standard Conditions for Engagement and authorized proposal, both of which are integral parts of this report. No other warranty, expressed or implied, is made.

13.0 SUMMARY AND CONCLUSIONS

EBI has prepared this Radiofrequency Emissions Compliance Report for the existing and proposed Sprint telecommunications equipment at the site located at 470 West Portal Avenue in San Francisco, California.

EBI has conducted theoretical modeling combined with on-site monitoring to estimate the worst-case power density from existing and proposed Sprint antennas to document potential MPE levels at this location and ensure that site control measures are adequate to meet FCC and OSHA requirements. As presented in the preceding sections, based on worst-case predictive modeling, the worst-case emitted power density may exceed the FCC's general public limit within approximately 14 feet of Sprint's existing and proposed antennas at the penthouse roof level. Modeling also indicates that the worst-case emitted power density may exceed the FCC's occupational limit within approximately 4 feet of Sprint's existing and proposed antennas at the penthouse roof level.

Based on the FCC criteria, there are areas on the rooftop and ground that exceed the FCC's general population exposure limit, but does not exceed the FCC's occupational exposure limit. There are no measured areas on any accessible ground-level walking/working surface related to the existing site conditions that exceed the FCC's general population and occupational exposure limits at this site.

Signage is recommended at the site as presented in Section 9.0. Posting of the signage and installation of the recommended barriers brings the site into compliance with FCC rules and regulations.

Appendix A

Certifications

RF-EME Compliance Report
EBI Project No. 6215003242

Site No. FS04XC040
470 West Portal Avenue, San Francisco, California

Reviewed and Approved by:

Herbert J. Stockinger, PE
Senior Engineer

Note that EBI's scope of work is limited to an evaluation of the Radio Frequency – Electromagnetic Energy (RF-EME) field generated by the antennas and broadcast equipment noted in this report. The engineering and design of the building and related structures, as well as the impact of the antennas and broadcast equipment on the structural integrity of the building, are specifically excluded from EBI's scope of work.

RF-EME Compliance Report
EBI Project No. 6215003242

Site No. FS04XC040
470 West Portal Avenue, San Francisco, California

Field Personnel Certification

I, Russell Bentson, state that:

- I am an employee of EnviroBusiness Inc. (d/b/a EBI Consulting), which provides RF-EME safety and compliance services to the wireless communications industry.
- I have successfully completed RF-EME safety training, and I am aware of the potential hazards from RF-EME and would be classified "occupational" under the FCC regulations.
- I am familiar with the FCC rules and regulations as well as OSHA regulations both in general and as they apply to RF-EME exposure.
- I have been trained in the proper use of the RF-EME measurement equipment, and have successfully completed EBI training in the policies and procedures for site survey protocols.
- All information collected during the site survey and contained in this report is true and accurate to the best of my knowledge and based on the data gathered.

Russell Bentson

Preparer Certification

I, Drew Duncklee, state that:

- I am an employee of EnviroBusiness Inc. (d/b/a EBI Consulting), which provides RF-EME safety and compliance services to the wireless communications industry.
- I have successfully completed RF-EME safety training, and I am aware of the potential hazards from RF-EME and would be classified "occupational" under the FCC regulations.
- I am familiar with the FCC rules and regulations as well as OSHA regulations both in general and as they apply to RF-EME exposure.
- I have reviewed the data collected during the site survey and provided by the client and incorporated it into this Site Compliance Report such that the information contained in this report is true and accurate to the best of my knowledge.

Appendix B

Roofview® Export File

StartMapDefinition

Roof Max X	Roof Max Y	Map Max X	Map Max Y	Offset	X Offset	Number of envelope	List Of Area
120	100	150	120	20	20	1 $AE$81:$D $AE$81:$DZ$200	$AE$81:$D

StartSettingsData

Standard	Method	Uptime	Scale Factc	Low Thr	Low Color	Mid Thr	Mid Color	Hi Thr	Hi Color	Over Color	Ap Ht Mult	Ap Ht Method
4	2	1	1	100	1	500	4	5000	2	3	1.5	1

StartAntennaData — It is advisable to provide an ID (ant 1) for all antennas

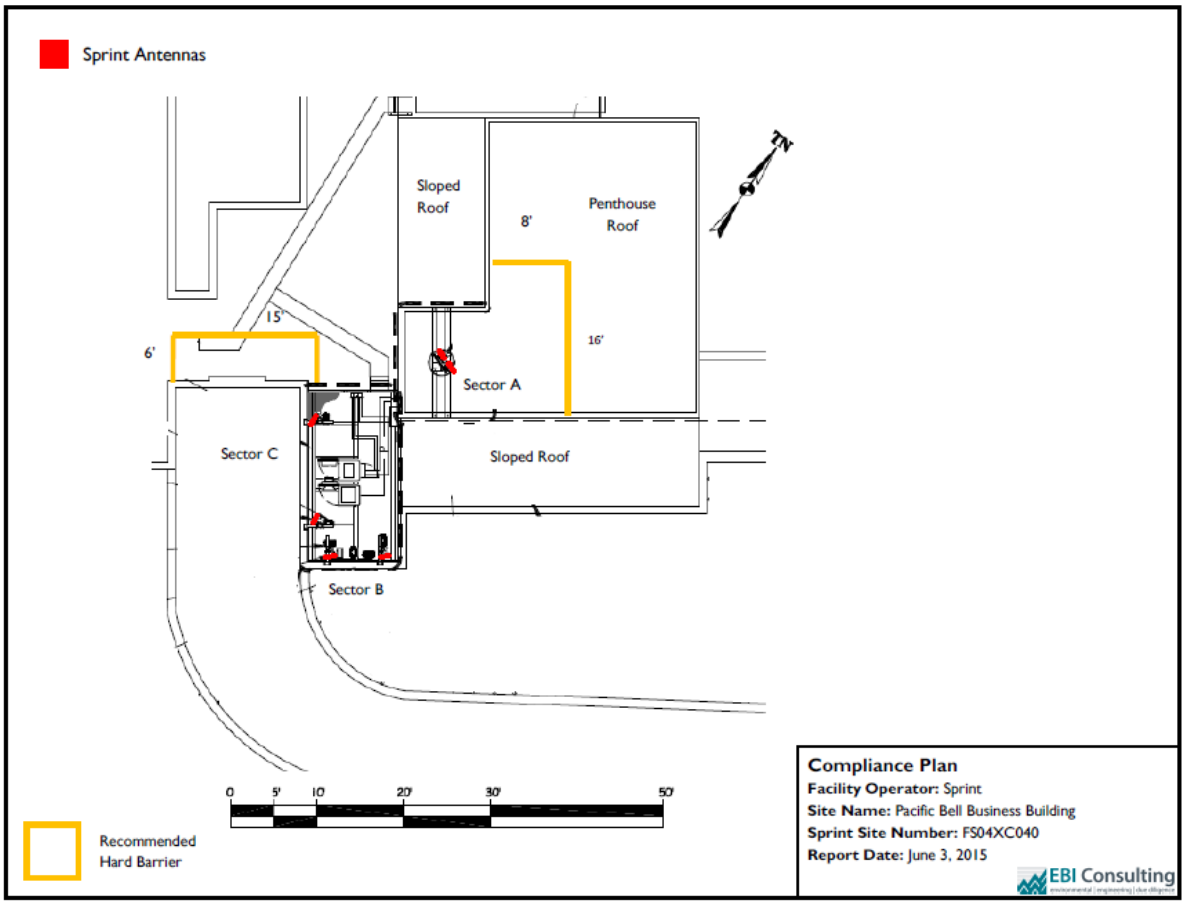
ID	Name	(MHz) Freq	Trans Power	Trans Count	Coax Len	Coax Type	Other Loss	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	Type	(ft) Aper	dBd Gain	BWdth Pt Dir	Uptime Profile	ON flag
SPT A1	Sprint	800	20	1	8	1/2 LDF	0.5		17.05415	Powerwav	P90-15-XLF	38	52	1		6	11.7	86;65		ON•
SPT A1	Sprint	1900	20	2	8	1/2 LDF	0.5		34.10829	Powerwav	P90-15-XLF	38	52	1		6	13.9	80;65		ON•
SPT A1	Sprint	1900	20	5	8	1/2 LDF	0.5		85.27073	Powerwav	P90-15-XLF	38	52	1		6	13.9	80;65		ON•
SPT A2	Sprint	2500	20	2	8	1/2 LDF	0.5		34.10829	KMW	ET-X-WM-:	40	51	1.5		5	15.85	70;65		ON•
SPT B1	Sprint	800	20	1	8	1/2 LDF	0.5		17.05415	Powerwav	P90-15-XLF	32	29	39		6	11.7	80;185		ON•
SPT B1	Sprint	1900	20	5	8	1/2 LDF	0.5		85.27073	Powerwav	P90-15-XLF	32	29	39		6	13.9	80;185		ON•
SPT B1	Sprint	1900	20	2	8	1/2 LDF	0.5		34.10829	Powerwav	P90-15-XLF	32	29	39		6	13.9	86;185		ON•
SPT B2	Sprint	2500	20	2	8	1/2 LDF	0.5		34.10829	KMW	ET-X-WM-:	25	29	39.5		5	15.85	70;185		ON•
SPT C1	Sprint	800	20	1	8	1/2 LDF	0.5		17.05415	Powerwav	P90-15-XLF	24	34	39		6	11.7	80;305		ON•
SPT C1	Sprint	1900	20	2	8	1/2 LDF	0.5		34.10829	Powerwav	P90-15-XLF	24	34	39		6	13.9	86;305		ON•
SPT C1	Sprint	1900	20	5	8	1/2 LDF	0.5		85.27073	Powerwav	P90-15-XLF	24	34	39		6	13.9	80;305		ON•
SPT C2	Sprint	2500	20	2	8	1/2 LDF	0.5		34.10829	KMW	ET-X-WM-:	23	45	39.5		5	15.85	70;305		ON•

StartSymbolData

Sym	Map Mark	Roof X	Roof Y	Map Label	Description (notes for this table only)
Sym		5	35	AC Unit	Sample symbols
Sym		14	5	Roof Access	
Sym		45	5	AC Unit	
Sym		45	20	Ladder	

Appendix C

Site Plan and Barrier Recommendations


Sprint Antennas
Sloped Roof
8'
Penthouse Roof
N
15'
6'
16'
Sector A
Sector C
Sloped Roof
Sector B
0
5'
10'
20'
30'
50'
Recommended Hard Barrier
Compliance Plan
Facility Operator: Sprint
Site Name: Pacific Bell Business Building
Sprint Site Number: FS04XC040
Report Date: June 3, 2015
EBI Consulting

City and County of San Francisco
DEPARTMENT OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION

Edwin M. Lee, Mayor
Barbara A. Garcia, MPA, Director of Health
Rajiv Bhatia, MD, MPH, Director of EH

Review of Cellular Antenna Site Proposals

Project Sponsor : *Sprint* **Planner:** *Omar Masry*

RF Engineer Consultant: *EBI Consulting* **Phone Number:** *(717) 650-7715*

Project Address/Location: *470 West Portal Av*

Site ID: *1470* **SiteNo.:** *FS04XC040*

The following information is required to be provided before approval of this project can be made. These information requirements are established in the San Francisco Planning Department Wireless Telecommunications Services Facility Siting Guidelines dated August 1996.
In order to facilitate quicker approval of this project, it is recommended that the project sponsor review this document before submitting the proposal to ensure that all requirements are included.

X 1. The location of all existing antennas and facilities. Existing RF levels. (WTS-FSG, Section 11, 2b)

☑ Existing Antennas No Existing Antennas: 3

X 2. The location of all approved (but not installed) antennas and facilities. Expected RF levels from the approved antennas. (WTS-FSG Section 11, 2b)

◉ Yes ○ No

X 3. The number and types of WTS within 100 feet of the proposed site and provide estimates of cumulative EMR emissions at the proposed site. (WTS-FSG, Section 10.5.2)

◉ Yes ○ No

X 4. Location (and number) of the Applicant's antennas and back-up facilities per building and number and location of other telecommunication facilities on the property (WTS-FSG, Section 10.4.1a)

X 5. Power rating (maximum and expected operating power) for all existing and proposed backup equipment subject to the application (WTS-FSG, Section 10.4.1c)

Maximum Power Rating: 4494 watts.

X 6. The total number of watts per installation and the total number of watts for all installations on the building (roof or side) (WTS-FSG, Section 10.5.1).

Maximum Effective Radiant: 4494 watts.

X 7. Preferred method of attachment of proposed antenna (roof, wall mounted, monopole) with plot or roof plan. Show directionality of antennas. Indicate height above roof level. Discuss nearby inhabited buildings (particularly in direction of antennas) (WTS-FSG, Section 10.41d)

X 8. Report estimated ambient radio frequency fields for the proposed site (identify the three-dimensional perimeter where the FCC standards are exceeded.) (WTS-FSG, Section 10.5) State FCC standard utilized and power density exposure level (i.e. 1986 NCRP, 200 $\mu w/cm^2$)

Maximum RF Exposure: 0.024 mW/cm^2 Maximum RF Exposure Percent: 4.5

X 9. Signage at the facility identifying all WTS equipment and safety precautions for people nearing the equipment as may be required by any applicable FCC-adopted standards. (WTS-FSG, Section 10.9.2). Discuss signage for those who speak languages other than English.

☑ Public_Exclusion_Area Public Exclusion In Feet: 15
☑ Occupational_Exclusion_Area Occupational Exclusion In Feet: 5

X 10. Statement on who produced this report and qualifications.

X **Approved**. Based on the information provided the following staff believes that the project proposal will comply with the current Federal Communication Commission safety standards for radiofrequency radiation exposure. FCC standard 1986-NCRP **Approval of the subsequent Project Implementation Report is based on project sponsor completing recommendations by project consultant and DPH.**

Comments:

There are 3 antennas operated by Sprint installed on the roof top of the building at 470 West Portal Avenue. Existing RF levels at ground level were around 3% of the FCC public exposure limit. There were observed no other antennas within 100 feet of this site. Sprint proposes to install 3 new antennas. The antennas will be mounted at a height of about 44 feet above the ground. The estimated ambient RF field from the proposed Sprint transmitters at ground level is calculated to be 0.024 mW/sq cm., which is 4.5% of the FCC public exposure limit. The three dimensional perimeter of RF levels equal to the public exposure limit extends 15 feet and includes portions of the rooftop in front of sectors A and C. Barricades should be installed to prevent access to these areas. Warning signs must be posted at the antennas and roof access points in English, Spanish and Chinese. Workers should not have access to within 5 feet of the front of the antennas while they are in operation.

___ **Not Approved**, additional information required.

___ **Not Approved**, does not comply with Federal Communication Commission safety standards for radiofrequency radiation exposure. FCC Standard

1 Hours spent reviewing

Charges to Project Sponsor (in addition to previous charges, to be received at time of receipt by S

Signed: Patrick Fosdahl Dated: 6/9/2015

Patrick Fosdahl
Environmental Health Management Section
San Francisco Dept. of Public Health
1390 Market St., Suite 210,
San Francisco, CA. 94102
(415) 252-3904

COVERAGE DISCUSSION

Subject: **470 West Portal Avenue – Sprint Wireless Facility Modification (Sprint Site ID FS04XC040)**
Project Information for WTS Checklist

Service Area Definition

Necessity of Proposed Site for Network Operations

The proposed facility is a necessary component of Sprint wireless network. Sprint has recently enhanced its network by acquiring additional 2500 MHz spectrum. This larger amount of spectrum supports faster and more reliable data streaming. Without upgrading this site with 2500 MHz equipment, there will be a coverage gap in Sprint's network.

Description of Service Area

The proposed facility is a necessary component of Sprint Wireless Network. The modernization of antennas at this site will provide improved voice and data service to the area surrounding the site roughly bounded by Mission Street, Avalon Avenue, London Street, and Excelsior Avenue.

Distance between Sites

SF33XC680	2525 16th Avenue	- 0.4 mi
SF73XC301	890 Taraval Avenue	- 0.8 mi
SF33XC684	1639 Taraval Avenue	-1.2 mi
FS04XC315	667 Portola Avenue	- 1.5 mi

Potential Site Consolidation Opportunities

No consolidation opportunities exist at this time that would be made possible due to this site upgrade.

Location Preference

Location Preference 1 -- RH-1 (D)

Cumulative Effects

a) Location of Sprint antennas and back-up facilities and Dimensions:

There are currently three (3) existing NV panel antennas located within a 32" radome and six (6) NV RRH –remote radio head units, mounted on an H-frame below the antennas. The proposed upgrade to Sprint's cell site include the installation of three (3) 2.5 panel antennas and three (3) RRHs - remote radio head units mounted within a new FRP penthouse on the roof. Sector A antenna will be installed in the proposed penthouse and will be pointing 20º north. Sector B antenna will be installed in the

proposed penthouse and will be pointing 140 º east. Sector C antenna will be installed within the new penthouse and will be pointing 260º southwest.

Each sector will consist of two (2) panel antenna. Each NV antenna (type of 3) has two (2) associated remote radio head units (RRHs). Each 2.5 antenna (type of 3) have one (1) remote radio head unit (RRHs). Remote radio head units (RRH) are part of the fiber-optic system and convert light signals from fiber optic cable to RF, amplify, and filter before being radiated by antennas. Antenna dimensions in sectors A, B, and C are 61" L x 12" D x 4" W.

The BTS cabinets contain electronic and battery equipment and will be located within the existing equipment shelter within the 3rd floor. Each cabinet measures 71" H x 28" W x 40" D.

b) Location of other WTS on the property:

There are no other carriers co-located at this facility.

c) Height of Proposed Facility

Top of proposed Sector A – 53'-4" (new faux penthouse screen)

Top of proposed Sector B – 53'-4" (new faux penthouse screen)

Top of proposed Sector C – 53'-4" (new faux penthouse screen)
Top of existing lower roof – 37'-0"

d) Power Rating For All Existing And Proposed Backup Equipment Subject To The Application

The proposed antennas are 2.5. The operating power for the 2500 MHz antenna frequency is 30 Watts per transmitter, and there will be one (1) transmitter operating at this frequency.

The existing antennas are dual-band. The operating power for the 800 MHz antenna frequency is 20 Watts per transmitter, and there will be one (1) transmitter operating at this frequency. The operating power the 1900MHz frequency is 20 Watts per transmitter, and six (6) transmitters operating at the 1900 MHz frequency.

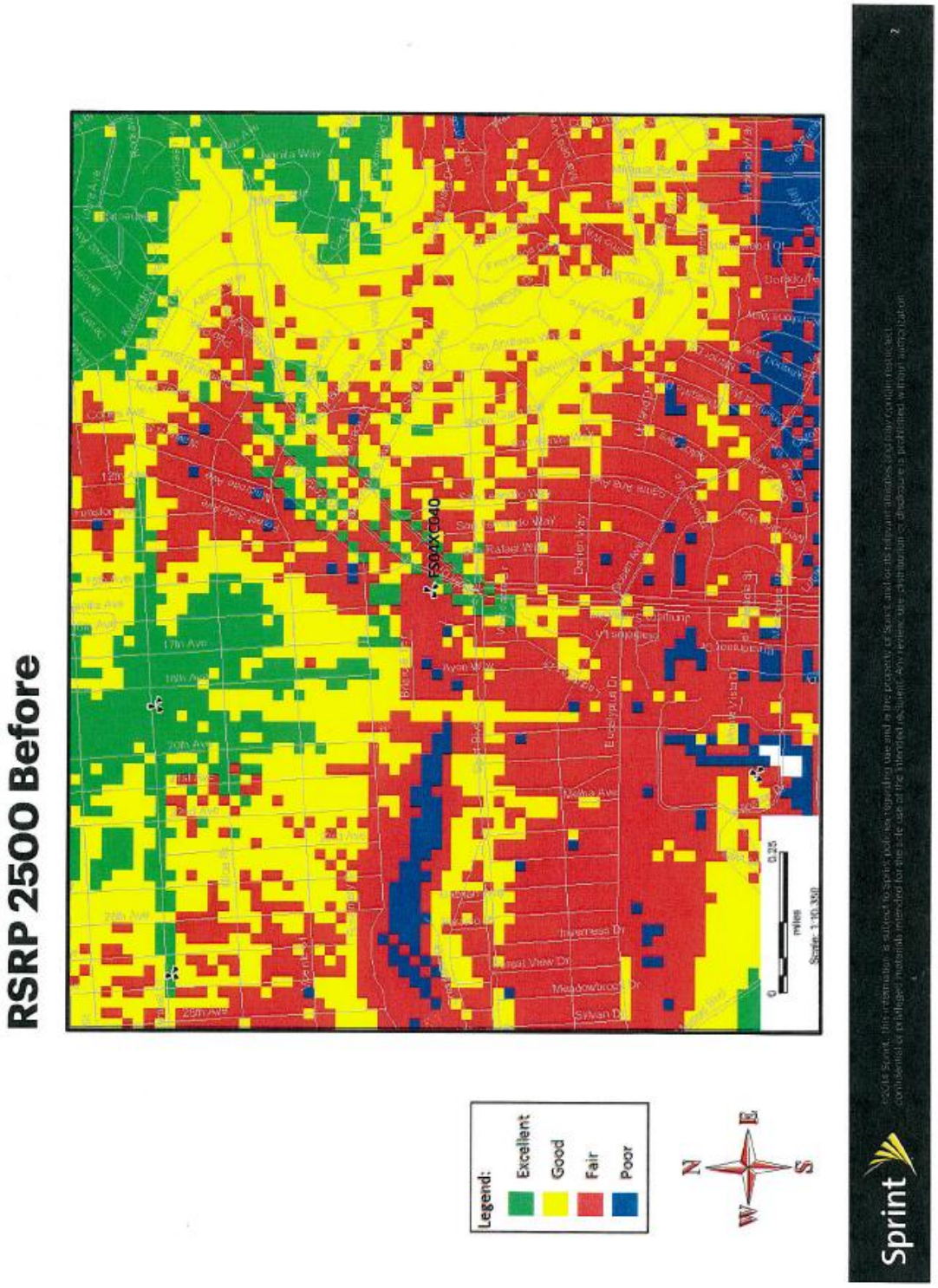
e) Method of Attachment/Screening

Antennas will be stealthed within the proposed penthouse enclosure, attached to the roof floor and will be painted to blend in with the building's existing architecture.

FS04XC040
Pacific Bell Business Building
2500MHz Deployment

June 26, 2015

Sprint


RSRP 2500 Before
FS04XC040
Legend:
Excellent
Good
Fair
Poor
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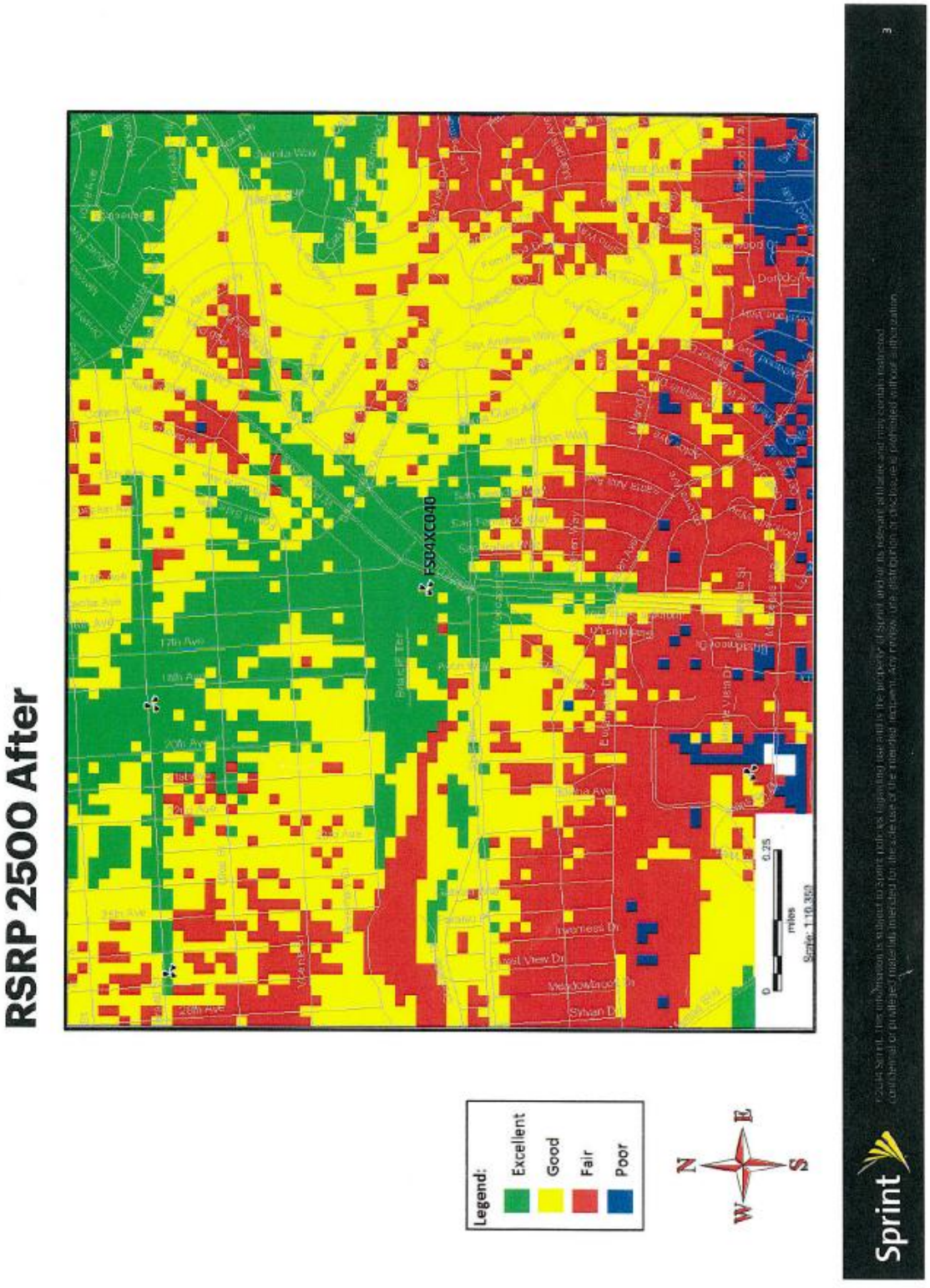
Sprint


RSRP 2500 After
FSD0XC040
Legend:
Excellent
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0.25
miles
Scale: 1:10,000
Sprint

September 10, 2015

Honored Planning Commissioners;

I am writing about the planned expansion of the Sprint cell phone tower on top of the San Francisco Waldorf High School located at 470 West Portal Ave. (Case # 2014.06786C). I have been a teacher at this school for 18 years and have worked at this location since the school moved there in 2007. I write as an individual and in no way represent the Board of the school or its administration in what I am about to present.

I understand that health concerns about cell phone towers are not to be taken into consideration as stated in the FCC guidelines, written in 1996, when deciding on placement or expansion of existing devices. However, I want to make you aware of a substantial and growing body of peer reviewed scientific research that has been conducted since 1996. In light of this research, I feel strongly that the City of San Francisco and its Planning Commission must include a concern for the health and safety of its citizens when considering cell phone tower emissions.

Here is a summary of some of the main studies conducted to investigate the biological effects of cell phone tower emissions:

- Eger et al. (2004) The influence of being physically near to a cell phone transmission mast on the incidence of cancer. Published in 'Einfluss der raumlichen Nahe von Mobilfunksendeanlagen auf die Krebsinzidenz' English translation available at http://www.tetrawatch.net/papers/naila.pdf

  A ten year study conducted from 1994-2004, revealed that living within 400 meters of a cell tower increased the risk of developing cancer by 300%

- Wolf, R and Wolf, D (2004) Increased incidence of cancer near a cell-phone transmission station. International Journal of Cancer Prevention vol. 1 : pages 123-128.

  Found the incidence of cancer to be 4.15 times more likely (statistical significance level of $p < 0.0001$) for people living near cell phone towers.

- Abdel-Rassoul, et al. (2007) Neurobehavioral effects among inhabitants around mobile phone base stations. Neurotoxicology vol. 28: pages 434-440.

  Found that neuropsychiatric complaints such as headaches, memory changes, dizziness, tremor, depressive symptoms, attention, short-term auditory memory, and sleep disturbances were statistically significantly

higher among individuals working and living in close proximity to cell phone towers.

- Hutter et al. (2006) Subjective symptoms, sleeping problems, and cognitive performance in subjects living near mobile phone base stations. Occupational and Environmental Medicine. Vol. 63: pages 307 – 313.

- Navarro et al. (2003) The microwave syndrome: a preliminary case study in Spain. Electromagn. Biol. Med. Vol 22: pages 161-169.

  Both the above studies found a significant relationship between symptoms of headaches, fatigue, sleep disorders, and concentration difficulties in proximity to cell phone towers.

- Santini et al. (2002) Enquete sur la sante de riverains de stations relais de telephonie mobile.Pathology and Biology vol 50: pages 369 – 373.

  Found statistically significantly higher levels of symptoms and complaints for headaches, irritability, sleep disruption, concentration difficulties, memory loss, and dizziness among people who lived within 200 meters of a cell phone tower.

In direct response to these studies and other research, many municipalities in the United States and many nations around the world have taken actions to protect their citizens from the now proven harmful effects of cell phone tower emissions. Here is a sampling of some of these actions:

- Many countries have banned the installation of cell phone towers within 1500 feet of schools.

- Los Angeles Board of Education formally condemns and bans the placement of cell phone towers on any of its school district's (the largest school district in the US) buildings.

- European Parliament in 2009 adopted a resolution the keep cell phone towers a safe distance from schools

- Oregon School board voted to ban cell tower installation on or near schools.

- Cell phone towers are banned on schools in the state of Maryland.

- Alameda School district bans the construction of cell towers on its school's buildings.

Here is a comparison of the exposure limits of RF emissions instituted by several countries:

Country	Microwatts per centimeter squared
Austria	0.1
Switzerland	4.2
China	6.6
Italy	10
Russia	10
New Zealand	50
United States	580

Our high school is a small one of 150 students and we are located in the middle of a residential neighborhood. Single-family homes are directly adjacent to us on 2 sides and are across Sloat and West Portal Avenues on the other 2 sides of our property. I believe the land we are on is actually zoned as residential, although I am not certain of this. This situation, given the evidence of the adverse effects of proximity to cell phone towers shown above, makes our location an inappropriate one for a cell phone tower to begin with, and certainly not one where the output of emissions will be at least doubled after the expansion.

San Francisco is a leader of the country and the world in many areas such as recycling, water conservation, and care for the well-being of its citizens. It is time the City aligned its cell tower policies with these other exemplary policies.

In your consideration of Sprint's request to double the size and therefore the emissions of their tower, please look beyond an archaic set of rules written 20 years ago. For the sake of the students who attend this school, the people who work there, and for our neighbors, please deny Sprints request.

Thank you,

John Z, Burket Ph.D

Community Outreach Meeting Summary
470 West Portal Avenue (Sprint Site ID#: FS04XC040)
June 23, 2015
5:00 pm
San Francisco Public Library - Ingleside Branch

Present at the Meeting:
Representing Sprint:
Skip Edmunds, Site Acquisition Associate, Modus, Inc.
David Oliver, Independent RF Engineer, EBI Consulting

Meeting Attendees:
Mary Burns, Resident
Stuart Gardiner, Resident

Summary of Discussion:
Residents asked about possible interference with "wi-fi" in house after new antennas are on-air. They also asked if there were any other carriers on the roof presently and / or in the future. Conversation covered leasing, school's consent of the project, and the RF exposure limits calculated by EBI. They did not seem to have many other concerns except for the possible interference with their 2.4ghz wi-fi modem. They would like to be notified when the planning hearing is as well as when antennas are on air.

Community Outreach Meeting

COMMUNITY OUTREACH MEETING SIGN-IN SHEET

RE: Sprint Wireless Facility Modification at 470 West Portal. (Sprint Site ID# FS04XC040)

	NAME	ADDRESS	PHONE
1	Mary Burns	21 Ardenwood Way SF 94132	[redacted]
2	Stuart Gardiner	21 Ardenwood Way	stu.gardiner@att.net
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			

470 West Portal Ave
2484.008, 2484.009
2014.0678C

COMMUNITY OUTREACH MEETING ON A WIRELESS COMMUNICATION FACILITY PROPOSED IN YOUR NEIGHBORHOOD

To: Neighbors within 500 feet of 470 West Portal Ave., San Francisco, CA

Meeting Information
Date: Tuesday, June 23, 2015
Time: 5:00 p.m.
Where: Inglewood Library Branch
1298 Ocean Avenue
San Francisco, CA 94112

Applicant
Sprint
c/o Modus Inc.
149 Natoma St., 3rd floor
San Francisco, CA 94105

Sprint Site Information
Address: 470 West Portal Ave.
San Francisco, CA 94123
APN: 2484/008, 2484/009
Zoning: RH-1(D)

Contact Information
Skip Edmunds
149 Natoma St., 3rd floor
San Francisco, CA 94105
415-975-1492
sedmunds@modus-corp.com

**This is not a Library Sponsored Program*

Sprint has applied for zoning approval to upgrade an existing cell site on the roof top of 470 West Portal Ave. in San Francisco. Sprint has recently enhanced its network by acquiring additional 2500 MHz spectrum. This larger amount of spectrum supports faster and more reliable data streaming. Three additional antennas will be installed at an already existing Sprint site to connect the site to the 2500 MHz spectrum.

You are invited to attend an informational community meeting on Tuesday, June 23, 2015 at 5:00 p.m. at the Inglewood Branch of San Francisco Public Library. This project will be scheduled for a Planning Commission public hearing after the neighborhood meeting. Architectural plans and photo simulations will be available for your review at the meeting.

If you are unable to attend the meeting and would like to request information, please contact Skip Edmunds at 415-975-1492 or at sedmunds@modus-corp.com.

If you have any questions about the zoning process, you may contact Omar Masry, the project planner with the San Francisco Planning Department at (415) 575-9116 or omar.masry@sfgov.org.

NOTE: If you require an interpreter to be present at the meeting, please contact our office at 415-975-1492 or sedmunds@modus-corp.com no later than June 19, 2014 and we will make every effort to provide you with an interpreter.

NOTIFICACIÓN DE REUNIÓN DE ALCANCE COMUNITARIO SOBRE UNA INSTALACIÓN DE COMUNICACIONES INALÁMBRICAS PROPUESTA PARA SU VECINDARIO

A: Vecinos A Menos De 500 Pies De 5226 Mission St, San Francisco, CA

Información de la reunión

Fecha: martes, 23 de junio 2015
Tiempo: 17:00
Dónde : Inglewood Biblioteca
1298 Ocean Avenue
San Francisco , CA 94112

Solicitante
Sprint
Modus Inc.
149 Natoma St., 3rd floor
San Francisco, CA 94105

Sprint Información del lugar
Dirección: 470 West Portal Ave.
San Francisco, CA 94123
APN: 2484/008, 2484/009
Zonificación: RH-1(D)

Información de contacto
Skip Edmunds
149 Natoma St., 3rd floor
San Francisco, CA 94105
415-975-1492
sedmunds@modus-corp.com

**Este programa no es patrocinado por la Biblioteca*

Sprint ha solicitado la aprobación de la zonificación para actualizar un sitio de celda existente en la azotea de 5226 Mission St. en San Francisco. Sprint ha mejorado recientemente su red mediante la adquisición de espectro adicional 2500 MHz. Esta mayor cantidad de espectro soporta streaming de datos más rápida y más confiable. Tres antenas adicionales se instalarán en un sitio de Sprint ya existentes para conectar el sitio con el espectro de 2500 MHz.

Usted está invitado a asistir a una reunión de la comunidad informativa martes, 23 de junio 2015a las 17:00 en Inglewood Biblioteca. Este proyecto será programado para una audiencia pública de la Comisión de Planificación después de la reunión de vecinos. Planos arquitectónicos y simulaciones fotográficas estarán disponibles para su revisión en la reunión.

Si usted no puede asistir a la reunión y desea solicitar información, por favor póngase en contacto con Skip Edmunds al 415-975-1492 o al sedmunds@modus-corp.com.

Si usted tiene alguna pregunta sobre el proceso de zonificación, puede comunicarse con Omar Masry, el planificador de proyecto con el Departamento de Planificación de San Francisco al (415) 575-9116 o omar.masry@sfgov.org.

NOTA: Si necesita un intérprete para estar presente en la reunión, por favor comuníquese con nuestra oficina al 415-975-1492 o sedmunds@modus-corp.com a más tardar el 19 de junio 2014 y vamos a hacer todo lo posible para ofrecerle una intérprete.

社区外展会议上的无线通信设备的建议在你家附近

為了：在500英尺5226 Mission St 的鄰居，三藩市

会议信息
日期：**周二**， 2015年6月23日
时间：下午5:00
其中：Inglewood**文**库
1298 Ocean Avenue
San Francisco, CA 94112

申请人
Sprint c/o Modus Inc.
149 Natoma St., 3rd floor
San Francisco, CA 94105

Sprint的网站信息
地址: 470 West Portal Ave.
San Francisco, CA 94123
评估员的包裹数量: 2484/008, 2484/009
分区: RH-1(D)

联系方式
Skip Edmunds
149 Natoma St., 3rd floor
San Francisco, CA 94105
415-975-1492
sedmunds@modus-corp.com

*这不是图书馆赞助计划

Sprint**公司已申**请批准分区升级现有的蜂窝站点上的5226团街旧金山的屋顶上。 Sprint**公司最近**获得额外的2500 MHz频谱增强其网络。这个较**大的**频谱量支持更快和更可靠的数据流。三个附加的天线将被安装在一个已经存在的Sprint**站点到站点**连接到2500 MHz**的**频谱。

你被邀请参加在英格伍德图书馆的社区信息在周二会议上，2015**年**6**月**23**日**。该项目将安排在本次会议后，委员会Plannign**听**证。建筑图纸和照片模拟，将在本次会议为您的评论。

如果您无法出席会议，并想请求信息，请联系跳过兹在415-975-1492**或**sedmunds@modus-corp.com 。

如果您对分区过程中有任何疑问，您可以联系奥马尔·马斯利，项目**策划者与**
旧金山企划部（415） 575-9116或omar.masry@sfgov.org 。
。

注：如果您需要口译员出席了会议，请联系我们415-975-1492办公室或sedmunds@modus-corp.com
不迟于2014年6月19日，我们将竭尽全力为您提供一个翻译。

Modus, Inc. Representing

Sprint

COMMUNITY OUTREACH MEETING AFFIDAVIT

I, Skip Edmunds, do hereby declare as follows:

1. I have conducted a Community Outreach Meeting for the proposed new construction or alteration of a wireless telecommunications facility at 470 West Portal Ave (project address).
2. The meeting was conducted at Ingleside Library [1298 Ocean Avenue] (location/address) on 6/23/15 (date) from 5pm to 5:45 pm (time).
3. I have included the mailing list, meeting notice, sign-in sheet, and issues/responses summary.

Executed this day 6/24/15, 2015 in San Francisco.

Signature

6/24/15
Date

Site Acquisition Associate
Title

EBI Consulting
environmental | engineering | due diligence

Wireless Application Review

Sprint FS04XC040
Pacific Bell Business Building
470 West Portal Avenue
San Francisco, CA 94127

July 15, 2015

Prepared By:
EBI Consulting
21 B Street
Burlington, MA 01803
(781) 418-2322
Engineer: Scott Heffernan

EBI Consulting
environmental | engineering | due diligence

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Sprint FS04XC040 – Pacific Bell Business Building

1.0 Executive Summary

EBI Consulting has been hired to review an application by Sprint for a modification to an existing site located on a rooftop at **470 West Portal Avenue** in **San Francisco, California**. The scope of this analysis is to review material submitted to the San Francisco Planning Department. This material includes site plans produced by Precision Design dated May 20, 2015, predicted coverage maps and an emissions report prepared by EBI Consulting dated June 3, 2015. An alternate site analysis was not a part of this analysis as this is an upgrade to an existing site.

2.0 Site Description

Site Name:	**FS04XC040 – Pacific Bell Business Building**
Owner:	San Francisco Waldorf School Association
Site Description:	Rooftop Wireless Facility
Address:	470 West Portal Avenue, San Francisco, CA 94127
Ground Elevation:	293 feet AMSL
Latitude:	37.73582 N
Longitude:	-122.47157 W

3.0 Project Overview

Sprint is applying to modify an existing rooftop wireless facility located at 470 West Portal Avenue in San Francisco, California. The site modifications include the relocation of two existing antennas as well as the addition of 3 new 2500 MHz antennas and associated radio equipment. The proposed modifications will allow for Sprint to upgrade their technology offerings to include a LTE rollout for higher data rates for their customers. The upgrades will also allow for Sprint to install equipment that will improve the performance of their existing wireless facility and provide better efficiencies for capacity as well.

Sprint currently has 3 Powerwave P90-15-XLPP-RR antennas located inside a 36 inch diameter RF transparent stealth cylinder. These antennas are 61 inches in height by 12 inches in width and are installed at a centerline height of 50 feet 4 inches above ground level. The antennas are pointed in the directions of 20, 140 and 260 degrees from True North and are identified as Sectors A, B and C respectively. The existing Sprint radio equipment is housed on a steel equipment platform surrounded by a screen wall which conceals the equipment from view.

Sprint is applying to relocate the Sector B and C antennas from the existing cylinder enclosure to inside the screen wall surrounding the existing Sprint equipment platform. Sprint is also proposing

to add one KMW ET-X-WM-18-65-8P antenna per sector. This would increase the antenna count to 2 per sector for a total of 6. These new antennas will allow Sprint to deploy its 2500 MHz spectrum at this existing site. The new design will have the 2 Sector A antennas inside a 36 inch stealth cylinder enclosure pointing at 20 degrees. These antennas will remain at a centerline height of 50 feet 4 inches. The 4 additional Sector B and C antennas (2 per sector) will be located inside the screen wall surrounding the existing Sprint equipment platform at 140 and 260 degrees. These 4 antennas will have a mounting height of approximately 43 feet above ground level and will be concealed by the existing screen wall. Sprint will also install additional Remote Radio Heads (RRH) to transmit in the 2500 MHz frequency band. The RRH is a small remote radio device typically located at or near the antenna location at a given site. This reduces cable loss incurred in bring the transmitted signal from radios located many feet from an antenna location and improves overall performance due to a typically reduced noise environment with the transmitters and receivers located immediately adjacent to the antennas. The RRH is typically fed by fiber optics for the transfer of data traffic from a control cabinet usually located with the remainder of a carrier's equipment.

4.0 Coverage

Coverage plots were submitted as part of the application from Sprint to the San Francisco Planning Board. The plots show existing coverage of their 2500 MHz footprint surrounding this facility in varying shades representing signal quality ranging from "Poor Coverage" (blue) to Excellent Coverage (green) in exhibit 1. In the next plot, Exhibit 2, they are showing the resulting composite coverage at 2500 MHz utilizing the same coverage level threshold shading with the proposed upgrades implemented.

RSRP 2500 Before

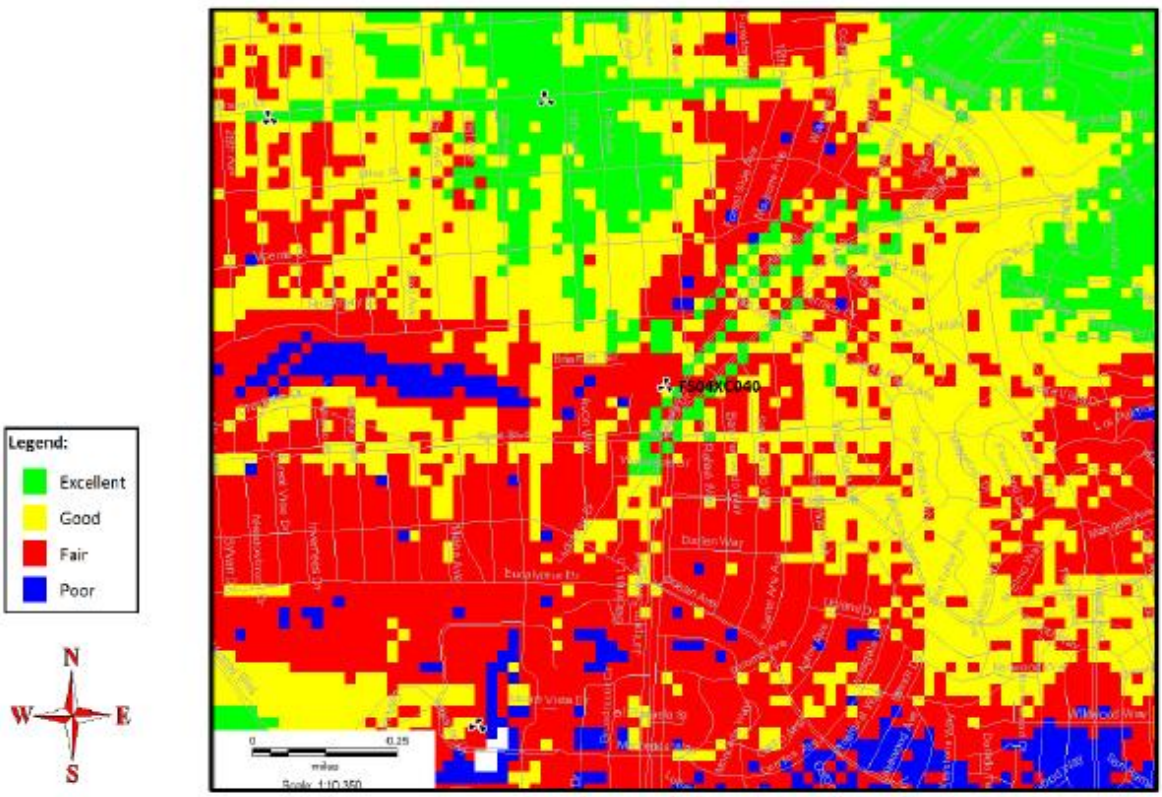


Exhibit 1: Existing Sprint 2500 MHz LTE coverage

Sprint FS04XC040 – Pacific Bell Business Building

RSRP 2500 After

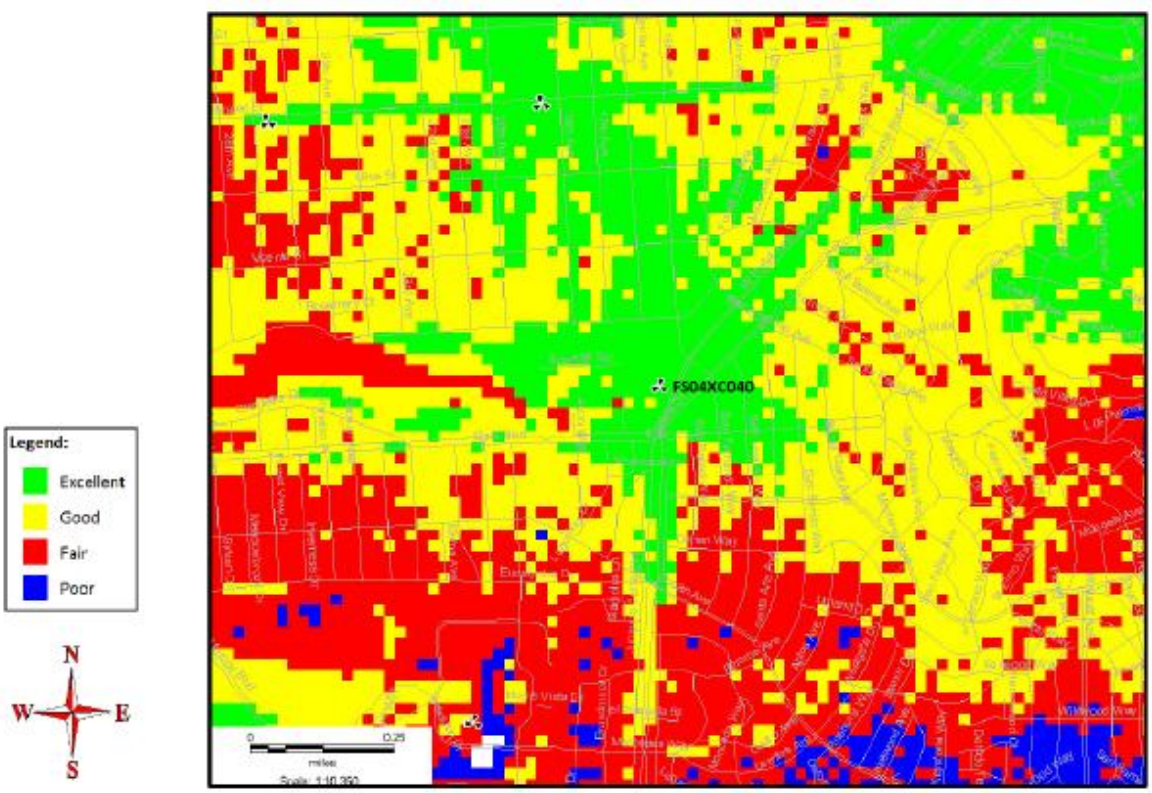


Exhibit 2: Proposed Sprint 2500 MHz LTE coverage

Anticipated coverage from the proposed upgraded installation is what would be expected from a rooftop facility of this configuration and height in this geographic area. The plots show enhanced coverage along West Portal Avenue, Sloat Boulevard, Junipero Serra Boulevard, St. Francis Boulevard, 19th Avenue and surrounding residential and travel areas. Coverage from this facility increases service quality to a radius of approximately 0.4 miles in all directions.

The area surrounding the site is comprised of very densely spaced residential and light business dwellings and heavily traveled throughways. In a design scenario such as this, a low antenna height facility is a great solution. It allows the carrier to handle a fairly large volume of traffic in a small area. The low antenna height also allows the carrier to contain the footprint very effectively for spectrum reuse considerations on surrounding sites and to reduce interference upon adjacent cells. Additionally, by utilizing existing structures such as rooftops the carrier is able to provide the desired service without the introduction of a new structure.

5.0 Emissions Compliance

An emissions study was completed on the existing Sprint site located at 470 West Portal Avenue in San Francisco, California by EBI Consulting on June 3, 2015. The study analyzed emissions compliance for this site based upon FCC standards set forth in Bulletin OET65.

The report states that the emissions produced by the existing and proposed Sprint radio equipment will be 1,598.6% of the FCC's general public limit for exposure to radio frequency emissions (319.72% of the occupational limit) on the rooftop level. This produces an area that extends 14 feet from the antenna face that exceeds the FCC's general public limit for exposure to radio frequency emissions on the rooftop walking surface and an area that extends 4 feet from the antenna face that exceeds the FCC's occupational limit for exposure to radio frequency emissions on the rooftop walking surface.

At the ground level there are no areas that exceed either the FCC's general public or occupational limits for exposure to radio frequency emissions.

The EBI Consulting Emissions report does recommend physical barriers that surround the areas exceeding the FCC's general public and occupational limits for exposure to radio frequency emissions on the rooftop levels in front of the sector A and C antennas. The sector B antennas face out off the rooftop with no walking surface located directly in front of them. The report also recommends signage that will notify personnel of the existence of these areas that exceed the FCC's general public and occupational limits for exposure to radio frequency emissions to be installed at all access points to the rooftop (roof access door) and at the antenna install locations. Additionally, this access door is monitored and the general public does not have access to this rooftop.

With these recommendations the site appears to be in full compliance with all FCC and OSHA standards with regards to emissions and notification.

6.0 Conclusion

EBI Consulting was tasked with reviewing the Sprint application for proposed site upgrades to their existing facility at 470 West Portal Avenue in San Francisco, California. The project includes the relocation of 2 of 3 existing antennas on site to the existing Sprint equipment platform area and the addition of 3 antennas (1 per sector) to allow Sprint to broadcast and provide wireless service in the 2500 MHz frequency band. Sprint is also proposing to install additional Remote Radio Heads at the antenna locations to broadcast in the 2500 MHz frequency band. These upgrades will ultimately allow Sprint to provide greater service levels and capacity to its customers without having to introduce a new facility. All upgrades proposed to be made to this site are fairly minor in nature and since the antennas will be contained in the existing concealment cylinder and equipment screen wall there will be no net change in the appearance to the facility.

Sprint has provided coverage plots showing existing and proposed coverage from this facility. Both scenarios depicted coverage footprints that would be expected from a facility of this height and configuration. It appears that the coverage data provided is accurate and appropriate for this site.

Sprint has supplied an emissions study for this existing facility prepared by EBI Consulting dated June 3, 2015. The report demonstrates that the facility is in full compliance with all applicable federal requirements regarding emissions with the recommended barrier and signage layouts.

Based upon our analysis of the Sprint proposed upgrades to their facility at 470 West Portal Avenue in San Francisco, California, we feel this is a very acceptable proposal. Sprint is proposing to upgrade a site that currently exists and will utilize the existing or similar concealment structures to hide the current and proposed equipment resulting in no noticeable net change in the outward appearance of the facility. The upgrades will benefit existing and future customers in this coverage area. Sprint has proposed a design solution that allows for their upgrades to be fulfilled and keep the aesthetics concerns of the community in mind.

Scott Heffernan
RF Engineering Director

EBI Consulting
21 B Street
Burlington, MA 01803

Sprint®

TM

PROJECT NAME: 2.5 EQUIPMENT DEPLOYMENT

SITE NAME: PACIFIC BELL BUSINESS BUILDING

CASCADE #: FS04XC040-L

SITE ADDRESS: 470 WEST PORTAL AVE
SAN FRANCISCO, CA 94127

SITE TYPE: ROOFTOP

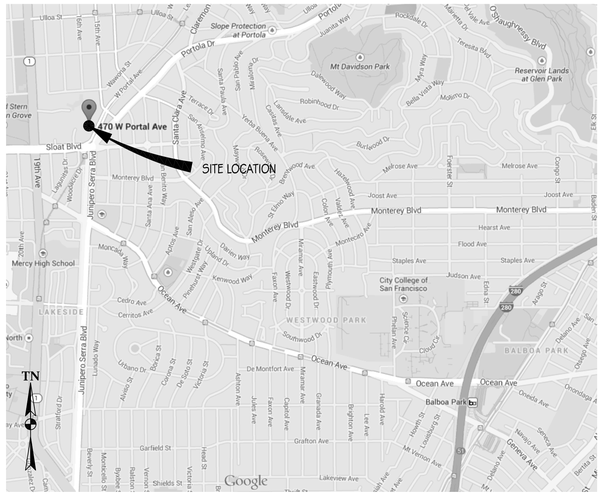
SITE INFORMATION

COUNTY:	SAN FRANCISCO
APN:	2484-008 2484-009
ZONING JURISDICTION:	CITY & COUNTY OF SAN FRANCISCO
CURRENT ZONING:	RH-1 (D)
POWER:	PG&E
TELEPHONE:	AT&T
CONSTRUCTION TYPE:	IIA, IIB
OCCUPANCY TYPE:	U, (UNMANNED COMMUNICATIONS FACILITY)
LATITUDE:	N 37° 44' 8.14" (37.735822) NAD 83
LONGITUDE:	W 122° 28' 16.86" (-122.47157) NAD 83
AMSL:	±293'
PROPERTY OWNER:	SAN FRANCISCO WALDORF SCHOOL ASSOCIATION 2938 WASHINGTON ST SAN FRANCISCO, CA 94115
APPLICANT:	SPRINT 12675 ALCOSTA BLVD, SUITE 300 SAN RAMON, CA 94583 ATTN:LINH NGUYEN (714) 425-0333, LINH.NGUYEN@SPRINT.COM
SITE ACQUISITION:	MODUS, INC 149 NATOMA ST, 3RD FLOOR SAN FRANCISCO, CA 94105 ATTN: MARIA MILLER (415) 450-5533, MMILLER@MODUS-CORP.COM
RF ENGINEER:	SPRINT 12657 ALCOSTA BLVD SUITE 300 SAN RAMON, CA 94583 ATTN: PREET SINGH (415) 760-4921, PREET.SINGH@SPRINT.COM
CONSTRUCTION MANAGER:	SPRINT 12657 ALCOSTA BLVD SUITE 300 SAN RAMON, CA 94583 ATTN: TONY PINO (415) 760-4921, NELSON.PINO@SPRINT.COM

SPECIAL INSPECTIONS

NO SPECIAL INSPECTIONS REQUIRED

VICINITY MAP



LOCATION MAP

APPLICABLE CODES

ALL WORK & MATERIALS SHALL BE PERFORMED & INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

1. 2013 CALIFORNIA ADMINISTRATIVE CODE (INCL. TITLES 24 & 25)
2. 2013 CALIFORNIA BUILDING CODE
3. 2013 CALIFORNIA ELECTRICAL CODE
4. 2013 CALIFORNIA MECHANICAL CODE
5. 2013 CALIFORNIA PLUMBING CODE
6. 2013 CALIFORNIA FIRE CODE
7. LOCAL BUILDING CODES
8. CITY/COUNTY ORDINANCES
9. ANSI/EIA-TIA-222-G

ALONG WITH ANY OTHER APPLICABLE LOCAL & STATE LAWS AND REGULATIONS

HANDICAP REQUIREMENTS

THIS FACILITY IS UNMANNED & NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS & REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH CALIFORNIA STATE ADMINISTRATIVE CODE, TITLE 24 PART 2, SECTION 1105B.3.4.2, EXCEPTION 1

PROJECT DESCRIPTION

MODIFICATION TO AN (E) UNMANNED TELECOMMUNICATION FACILITY CONSISTING OF:

1. ADD (1) (N) 2.5 GHz ANTENNA ON (N) PIPE MOUNT PER SECTOR, (3) (E) SPRINT NV ANTENNAS TO BE RELOCATED TO (N) PIPE MOUNT
2. ADD (1) (N) RRH-V3 PER SECTOR, (6) (E) RRHS TO BE RELOCATED INSIDE (N) FRP ENCLOSURE
3. ADD (N) COAX JUMPER LINES FROM (N) RRHS TO (N) ANTENNAS
4. RE-USE (E) HYBRID CABLES OR INSTALL AS NEEDED
5. INSTALL (N) 2.5 STRING OF BATTERIES INSIDE (E) BBU CABINET
6. INSTALL (N) 2.5 EQUIPMENT INSIDE (E) MMBS CABINET.

DRIVING DIRECTIONS FROM SPRINT, 12657 ALCOSTA BLVD, SAN RAMON, CA

1. HEAD SOUTHEAST ON ALCOSTA BLVD.
2. TURN RIGHT ONTO BOLLINGER CANYON RD.
3. MERGE ONTO I-680 N VIA THE RAMP TO SACRAMENTO
4. MERGE ONTO I-680 N
5. TAKE THE STATE ROUTE 24 EXIT TOWARD OAKLAND/LAFAYETTE
6. MERGE ONTO CA-24 W
7. TAKE THE INTERSTATE 580 W EXIT
8. MERGE ONTO I-580 W
9. KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR I-80 W/SAN FRANCISCO AND MERGE ONTO I-80 W
10. KEEP LEFT T THE FORK, FOLLOW SIGNS FOR SAN JOSE/US 101 S/ AIRPORT AND MERGE ONTO US-101 S
11. TAKE THE INTERSTATE 280 S EXIT TOWARD DALY CITY
12. MERGE ONTO I-280 S
13. TAKE THE OCEAN AVENUE EXIT
14. MERGE ONTO OCEAN AVE
15. TURN RIGHT ONTO JUNIPERO SERRA BLVD
16. CONTINUE ONTO W PORTAL AVE
17. TAKE A U-TURN AT 15TH AVE, DESTINATION WILL BE ON THE RIGHT

DRAWING INDEX

SHEET	DESCRIPTION	REV
T-1	TITLE SHEET	-
A-1	SITE PLAN	-
A-2	EQUIPMENT PLANS	-
A-3	ANTENNA PLANS	-
A-4	ELEVATIONS	-
A-5	ELEVATIONS	-
A-6	DETAILS	-

APPROVALS	DATE
SITE ACQUITION PLANNER	
SITE ACQUITION MANAGER	
SPRINT CONSTRUCTION	
SPRINT SITE ACQUISTION	
RF ENGINEER	
LANDLORD	

Sprint®

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149 NATOMA ST. 3RD FLOOR
SAN FRANCISCO, CA 94105

PRECISION DESIGN & Drafting, INC.
Phone: (530) 823-6546 www.pdnd.com
11768 Atwood Rd. Suite 20 Auburn, CA 95603

REGISTERED PROFESSIONAL ENGINEER
BRET A. McCOMB
C 69891
EXP 09-30-16
CIVIL
STATE OF CALIFORNIA

PACIFIC BELL BUSINESS BUILDING

FS04XC040-L
470 WEST PORTAL AVENUE
SAN FRANCISCO, CA 94127

ISSUE STATUS

△	DATE	DESCRIPTION	
A	05/20/15	ZD 90%	-
	-	-	-
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	-	-	-

DRAWN BY:	S. WALKER/M. WEISS
CHECKED BY:	B. McCOMB
APPROVED BY:	B. McCOMB
DATE:	05/20/15

SHEET TITLE:

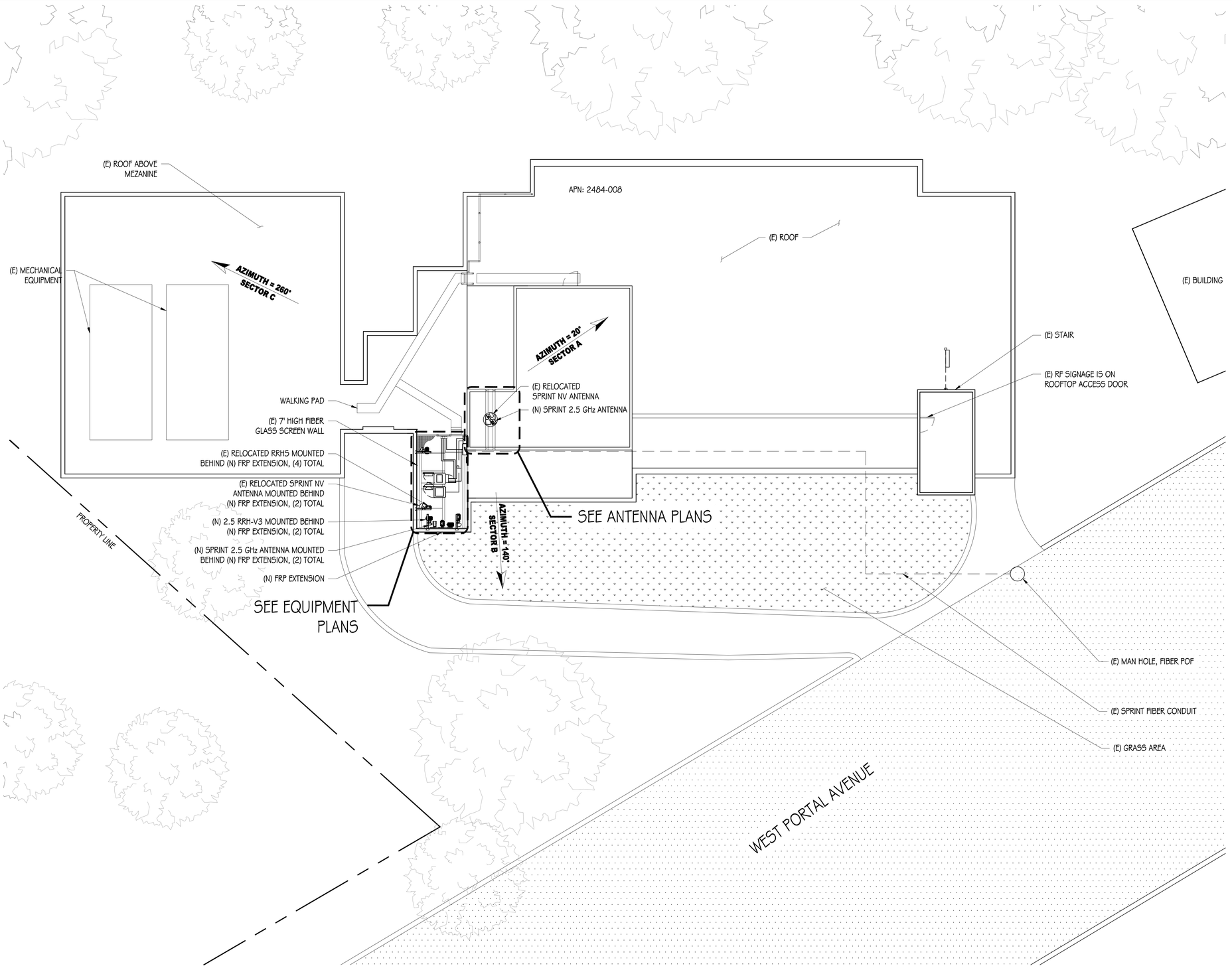
TITLE SHEET

SHEET NUMBER

T-1

PROJECT GENERAL NOTES

1. THIS FACILITY IS AN UNOCCUPIED WIRELESS TELECOMMUNICATION FACILITY.
2. PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS NOTED OTHERWISE.
3. THE SCOPE OF WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
4. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTORS SHALL VISIT THE JOB SITE AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS, AND CONFIRM THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PAY FOR PERMIT FEES AND TO OBTAIN SAID PERMITS AND TO COORDINATE INSPECTIONS.
6. THE CONTRACTOR SHALL RECEIVE, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
7. CALL BEFORE YOU DIG. CONTRACTOR IS REQUIRED TO CALL 811 (NATIONWIDE "CALL BEFORE YOU DIG" HOTLINE) AT LEAST 72 HOURS BEFORE DIGGING.
8. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
9. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. CONTRACTOR SHALL ALSO COORDINATE ALL PORTIONS OF THE WORK UNDER THE CONTRACT; INCLUDING CONTACT AND COORDINATION WITH THE CONSTRUCTION MANAGER AND WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE.
10. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, GALVANIZED SURFACES, ETC., AND UPON COMPLETION OF WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF THE PROJECT MANAGER.
11. KEEP GENERAL AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY, LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
12. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED, OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
13. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND ALL OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK SHALL BE PROTECTED AT ALL TIMES.
14. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
15. CONTRACTOR SHALL PROVIDE A TOILET FACILITY DURING ALL PHASES OF CONSTRUCTION.
16. SUFFICIENT MONUMENTATION WAS NOT RECOVERED TO ESTABLISH THE POSITION OF THE BOUNDARY LINES SHOWN HEREON. THE BOUNDARY REPRESENTED ON THIS MAP IS BASED ON COMPILED RECORD DATA AND BEST FIT ONTO EXISTING IMPROVEMENTS. IT IS POSSIBLE FOR THE LOCATION OF THE SUBJECT PROPERTY TO SHIFT FROM THE PLACEMENT SHOWN HEREON WITH ADDITIONAL FIELD WORK AND RESEARCH. THEREFORE ANY SPATIAL REFERENCE MADE OR SHOWN BETWEEN THE RELATIONSHIP OF THE BOUNDARY LINES SHOWN HEREON AND EXISTING GROUND FEATURES, EASEMENTS OR LEASE AREA IS INTENDED TO BE APPROXIMATE AND IS SUBJECT TO VERIFICATION BY RESOLVING THE POSITION OF THE BOUNDARY LINES.
17. CONTRACTOR TO VERIFY THE LATEST/CURRENT RF DESIGN.



SITE PLAN

1" = 10'

0 5' 10' 20' 30' 50'

Sprint

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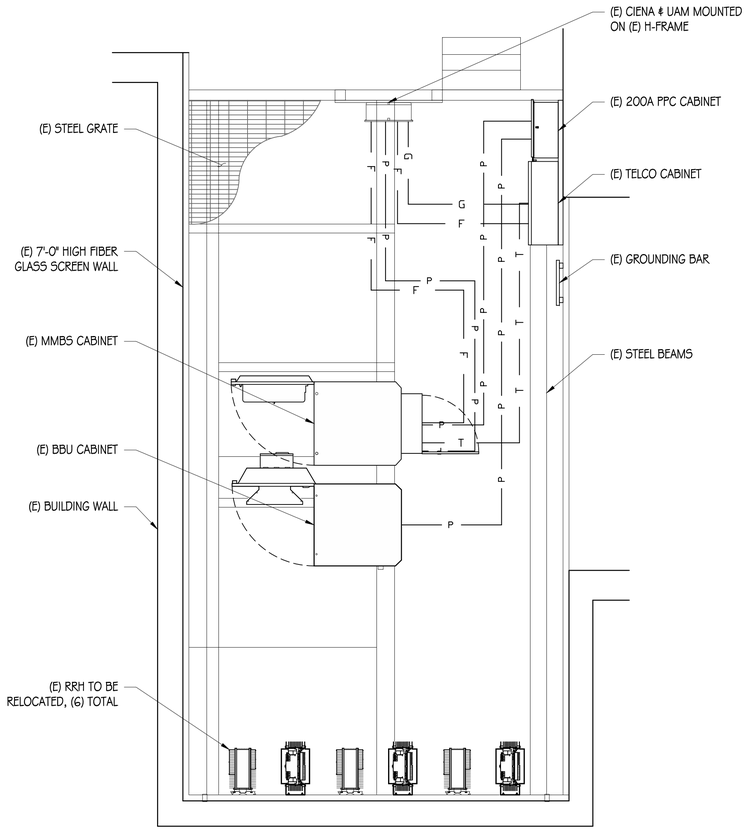
SITE PLAN

SHEET NUMBER

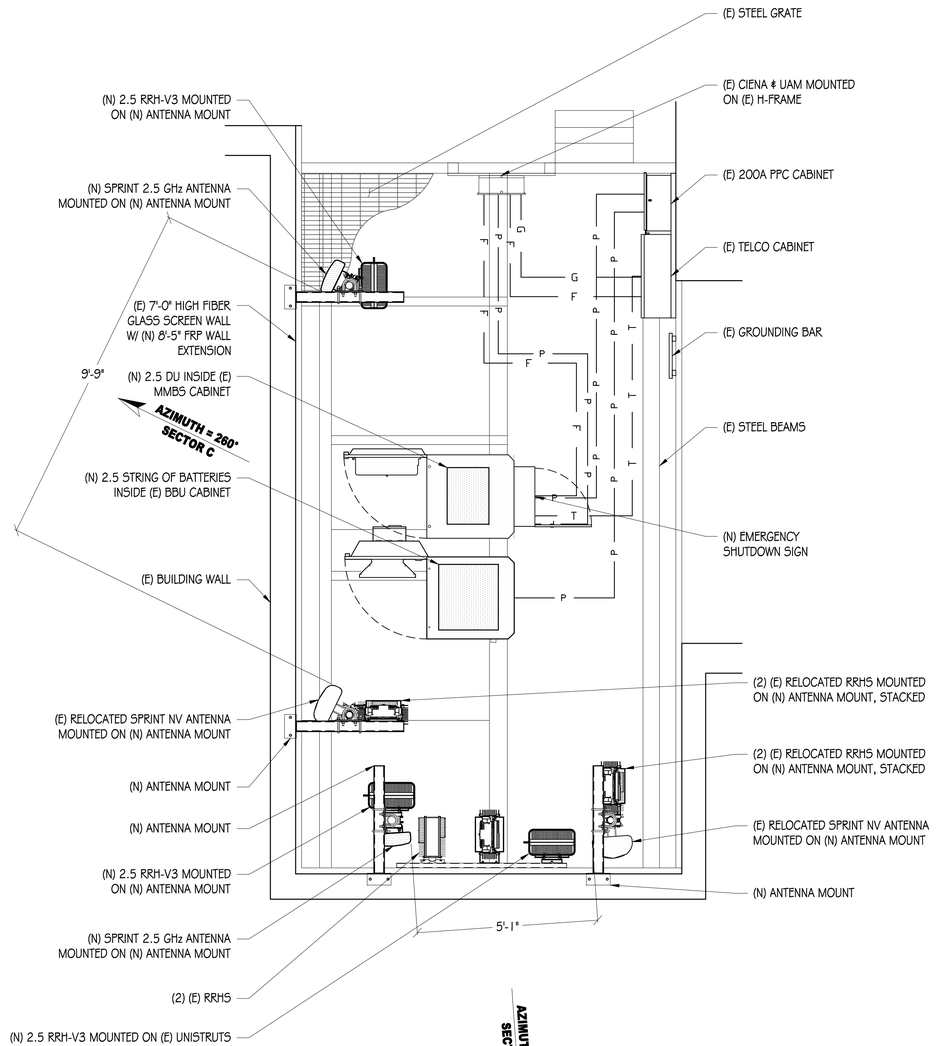
A-1



EXISTING EQUIPMENT PLAN

1/2"= 1'-0"

0 6" 1' 2' 3' 5' 7' 10'



NEW EQUIPMENT PLAN

1/2"= 1'-0"

0 6" 1' 2' 3' 5' 7' 10'

Sprint

mobis
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PACIFIC BELL BUSINESS BUILDING

F504XC040-L
470 WEST PORTAL AVENUE
SAN FRANCISCO, CA 94127

ISSUE STATUS

△	DATE	DESCRIPTION	
1	05/20/15	ZD 90%	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

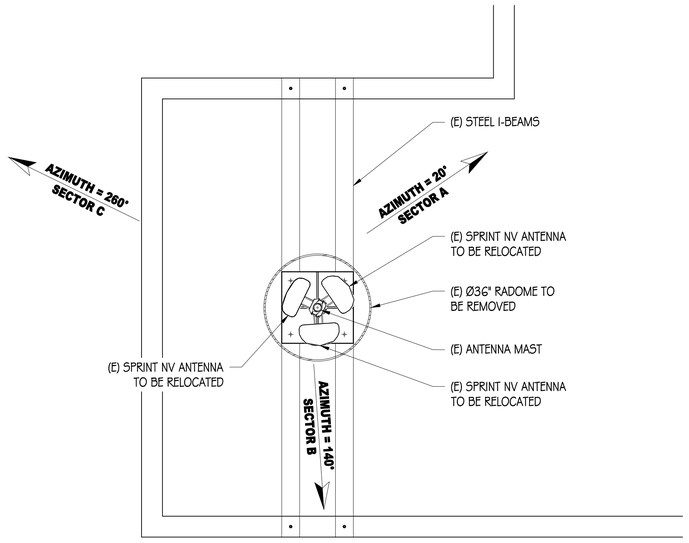
DRAWN BY:	S. WALKER/M. WEISS
CHECKED BY:	B. McCOMB
APPROVED BY:	B. McCOMB
DATE:	05/20/15

SHEET TITLE:

EQUIPMENT PLANS

SHEET NUMBER

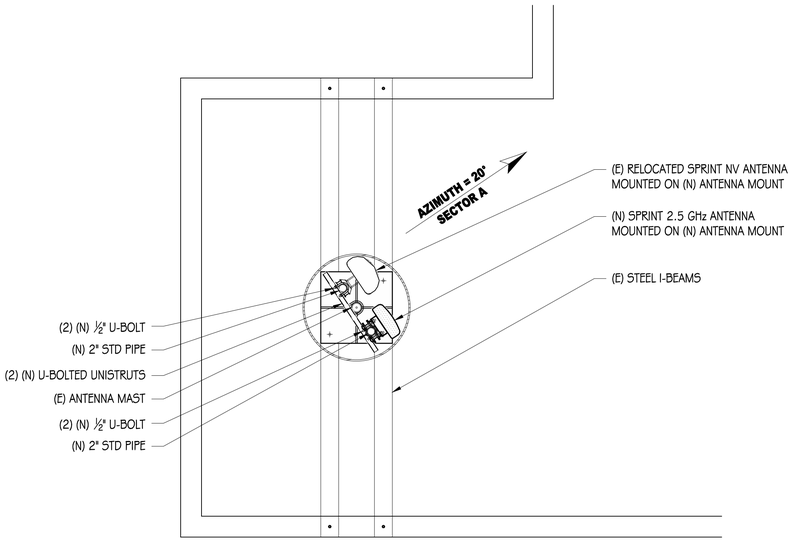
A-2



EXISTING ANTENNA PLAN

1/2"= 1'-0"

0 6" 1' 2' 3' 5' 7' 10'



NEW ANTENNA PLAN

1/2"= 1'-0"

0 6" 1' 2' 3' 5' 7' 10'

Sprint

MOBIUS

149 NATOMA ST. 3RD FLOOR
SAN FRANCISCO, CA 94105

PRECISION DESIGN & Drafting, INC.
Phone: (530) 823-6546 www.pdnd.com
11768 Atwood Rd. Suite 20 Auburn, CA 95603

REGISTERED PROFESSIONAL ENGINEER
BRET A. McCOMB
C 69891
EXP 09-30-16
CIVIL
STATE OF CALIFORNIA

PACIFIC BELL
BUSINESS
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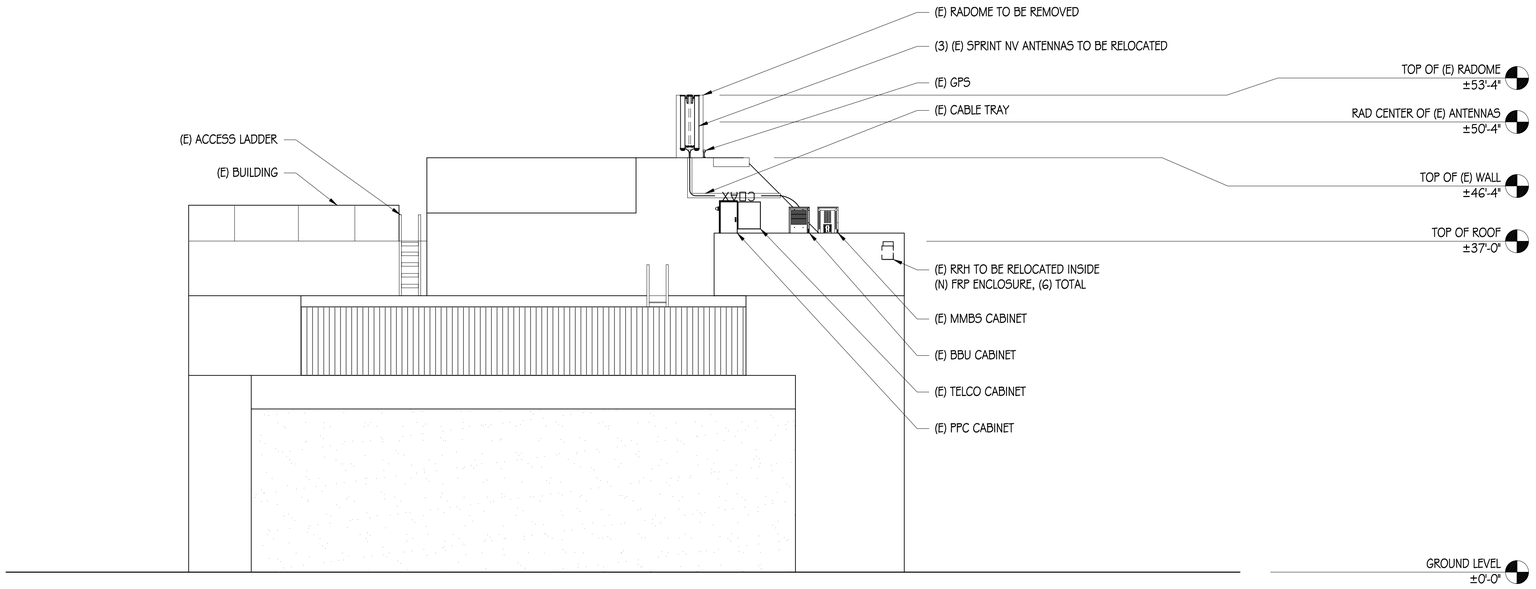
SHEET TITLE:

ANTENNA PLANS

SHEET NUMBER

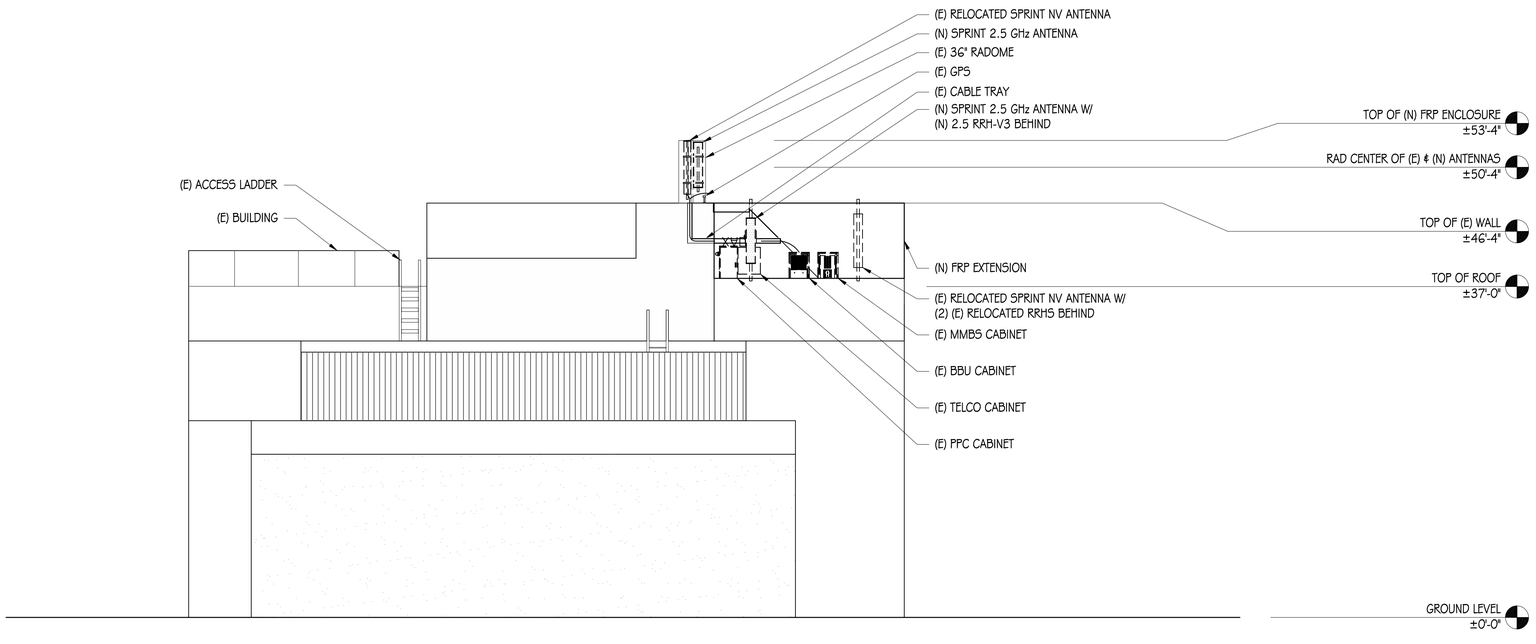
A-3



EXISTING SOUTHWEST ELEVATION

1/8"= 1'-0"

0 2' 4' 8' 12' 20' 28' 50'



NEW SOUTHWEST ELEVATION

1/8"= 1'-0"

0 2' 4' 8' 12' 20' 28' 50'

Sprint

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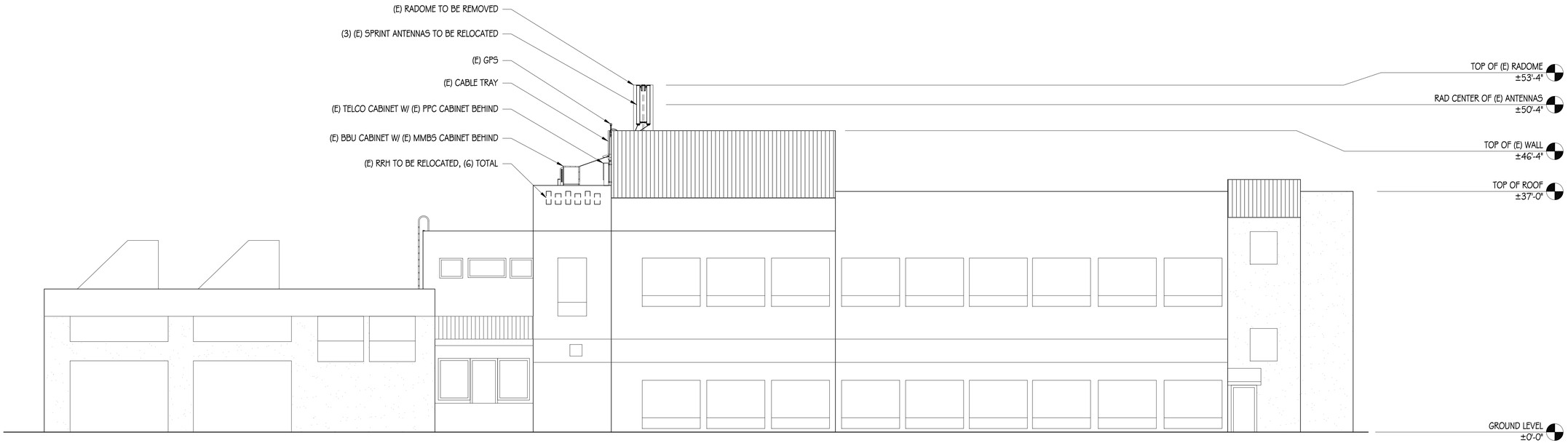
SHEET TITLE:

ELEVATIONS

SHEET NUMBER

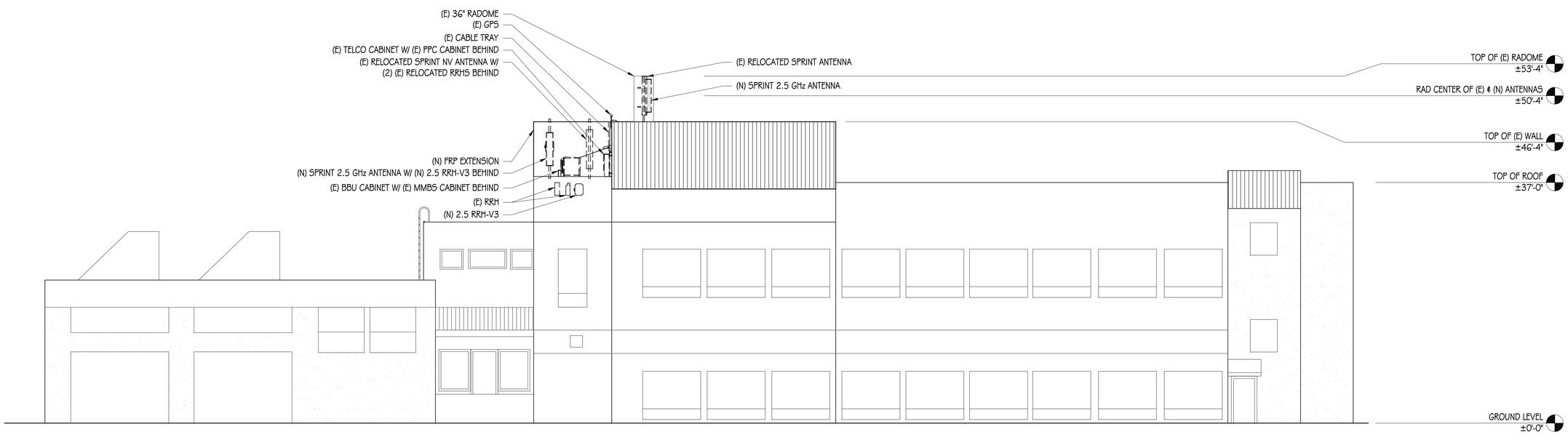
A-4



EXISTING SOUTHEAST ELEVATION

1/8"= 1'-0"

0 2' 4' 8' 12' 20' 28' 50'



NEW SOUTHEAST ELEVATION

1/8"= 1'-0"

0 2' 4' 8' 12' 20' 28' 50'

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SHEET TITLE:

ELEVATIONS

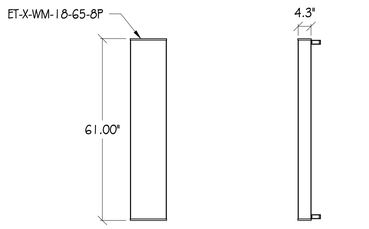
SHEET NUMBER

A-5

KMW ET-X-WM-18-65-8P

WIND AREA:	5.08 SQ FT
WEIGHT:	36.4 LBS
DIMENSIONS:	61.0" TALL X 12.0" WIDE X4.3" DEEP
CONNECTOR:	(8) MINI DIN FEMALE

TOP VIEW PORT LAYOUT

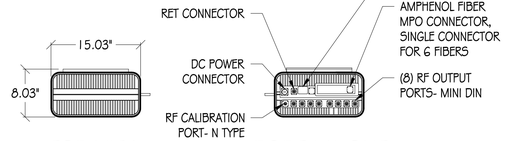


FRONT VIEW SIDE VIEW

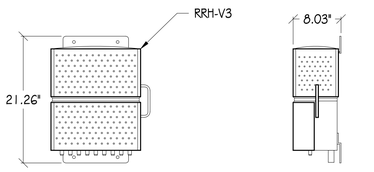
1 ANTENNA DETAIL
1/2"=1'

SAMSUNG RRH-V3

TOTAL WEIGHT:	59.5 LBS (71.82 LBS W/ BRACKET)
DIMENSIONS:	15.03" X 21.26" X 8.03"



TOP VIEW PORT LAYOUT



FRONT VIEW SIDE VIEW

2 RRH-V3 DETAIL
1"=1'

Sprint

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SHEET TITLE:

DETAILS

SHEET NUMBER

A-6