City of Brisbane
Planning Commission Agenda Report

TO: Planning Commission For the Meeting of 2/23/12

FROM: Ken Johnson, Associate Planner, via John A. Swiecki, Community Development Director

SUBJECT: **1 West Hill Drive;** Telecommunications Permit TC-4-11 to replace one 1 existing panel antenna with 2 new antennas, mounted on an existing 48 ft high pole, with no change in height of the antennas, and replace 3 existing equipment cabinets with two 2 new cabinets and related equipment; Kevin Bowyer/Sprint, applicant; Janet Epstein, owner; APN 005-290-010.

Request: The applicant proposes to replace one 1 existing panel antenna with 2 new antennas, which are mounted on an existing 48 ft high pole. There would be no change in height of the antennas. Also, replace 3 existing equipment cabinets with two 2 new cabinets and related equipment with no increase in the equipment yard area.

Background: The existing tower was originally approved administratively as a building permit in 1997, prior to Brisbane's telecommunications ordinance, Brisbane Municipal Code Section 17.32.032.C, which was adopted in 2007. Although the ordinance prohibits construction of new telecommunications facilities within 600 feet of a residential or open space district and this facility is approximately 140 ft. +/- from the nearest boundaries of both residential and open space boundaries, it also allows that a lawfully constructed facility within 600 feet may be allowed to continue and "shall not be classified as nonconforming", per BMC 17.32.032.C.3. The ordinance also allows for administrative approval of telecommunications facilities that meet one of several different criteria, including co-location of equipment on an existing support structure. Since this application is for co-location of equipment to an existing approved support structure it was scheduled for hearing by the Zoning Administrator in November 2011 (see the attached Zoning Administrator memorandum dated November 4th, 2011). However, due to concerns raised by residents of the Northeast Ridge development (see the two attached letters) the Zoning Administrator determined that there were special circumstances that warranted this matter being referred to the Planning Commission, per BMC Section 17.32.032.D.3.

Recommendation: Conditionally approve Telecommunications Permit TC-4-11 per the agenda report via adoption of Resolution TC-4-11, with Exhibit A containing the findings and conditions of approval.

Environmental Determination: Minor alteration of existing facilities is categorically exempt from the provisions of the California Environmental Quality Act per Section 15301 of the State CEQA Guidelines. The exceptions to the use of this categorical exemption referenced in Section 15300.2 do not apply.

Applicable Code Sections: As indicated above, Brisbane Municipal Code Section 17.32.032.C prohibits wireless telecommunication facilities within residential districts, 600 ft. from the nearest boundary of a residential district and open space districts, except that a facility that was lawfully constructed within 600 feet of a residential district boundary, prior to the ordinance (in 2007), are allowed to continue and "shall not be classified as nonconforming", per BMC 17.32.032.C.3. BMC Section 17.32.032.D allows administrative approval of wireless telecommunication facilities that are mounted on other existing or similar replacement structures (water tanks, utility poles, light poles, etc.), or that would require expansion of an existing support structure up to a maximum height of 70 ft., but per BMC Section 17.32.032.D.3 the Zoning Administrator has referred this matter to the Planning Commission.

Per BMC Section 17.32.032.G, telecommunications facilities shall comply with a number of the development and operational standards (see the findings included with the draft Resolution, attached). Also, per BMC Section 17.32.035.G.7, the proposed facilities are required to comply with applicable American National Standards Institute and FCC standards.

Analysis and Findings: Concerns have been raised by residential neighbors regarding the potential increase in electromagnetic waves that might be generated by the facility. As indicated above, per BMC Section 17.32.035.G.7, the proposed facilities are required to comply with applicable American National Standards Institute and FCC standards. The Federal Communications Commission (FCC) has exclusive jurisdiction over radio frequency (RF) emissions under the Telecommunications Act of 1996. In accordance with FCC requirements, a Radio Frequency – Electromagnetic Energy (RF-EME) Compliance Report was prepared by EBI Consulting (see attached), which included analyses results based on a combination of theoretical modeling and onsite monitoring. The report has indicated that the facility would comply with the FCC exposure limits at this site. Federal law does not allow cities to prohibit wireless communications facilities on the basis of potential environmental effects of radio frequency emissions if the facility complies with FCC regulations.

Concerns have also been raised by residential neighbors regarding noise emanating from the building rooftop vents at 1 West Hill Drive. Although the noise issue is not in connection with the telecommunications equipment, the applicant has provided a noise study that was undertaken in January 2012 in an effort to address these concerns. Also, although the proposal is to reduce the number of telecommunications equipment cabinets by one, staff has added a condition of approval that, "Prior to obtaining a building permit, the applicant shall adequately demonstrate to the Planning Director that the modifications will result in no increase in noise above ambient to any off-site receptor."

Finally, the proposal is for modification of an existing telecommunications facility and would not substantially change the appearance of the existing installation. The height will remain unchanged since the proposal is for co-location on the existing structure and work on the ground with equipment cabinet replacement. The facility is partially screened along the perimeter of the site by trees and the equipment will not be readily visible from off-site locations.

Based on the project description, plans, photos and reports, the required findings would be met to grant this permit, as detailed in the draft resolution.

Attachments:

- Draft Resolution TC-4-11 with recommended Findings and Conditions of Approval
- Project Vicinity Aerial Photo
- Applicant's project description, photos, and plans
- Correspondence from Neighbors
- Frequency–Electromagnetic Energy (RF-EME) Compliance Report, Oct. 26, 2011
- Environmental Noise Assessment Report, January 30, 2012 (Note: The text is included in the paper packet. Appendices to the report are available at City Hall or by linking to this agenda report online from the Planning Commission meetings webpage.)

draft
RESOLUTION TC-4-11

A RESOLUTION OF THE PLANNING COMMISSION OF BRISBANE CONDITIONALLY APPROVING TELECOMMUNICATIONS PERMIT TC-4-11 TO PERMIT MODIFICATION OF TELECOMMUNICATIONS FACILITIES AT 1 WEST HILL DRIVE

WHEREAS, Kevin Bowyer, the applicant, applied to the City of Brisbane for Telecommunications Permit approval to modify the existing telecommunications tower by replacement of one 1 existing panel antenna with 2 new antennas, mounted on a 48 ft high pole, with no change in height of the antennas, and replace 3 existing equipment cabinets with two 2 new cabinets and related equipment, such application being identified as TC-4-11; and

WHEREAS, on February 23, 2012, the Planning Commission conducted a hearing of the application, at which time any person interested in the matter was given an opportunity to be heard; and

WHEREAS, the Planning Commission reviewed and considered the staff memorandum relating to said application, the plans, photographs and reports, the written and oral evidence presented to the Planning Commission in support of and in opposition to the application; and

WHEREAS, the Planning Commission finds that the proposed project is categorically exempt from the provisions of the California Environmental Quality Act; and

WHEREAS, the Planning Commission of the City of Brisbane hereby makes the findings attached herein as Exhibit A in connection with the Telecommunications Permit.

NOW THEREFORE, based upon the findings set forth hereinabove, the Planning Commission of the City of Brisbane, at its meeting of February 23, 2012, did resolve as follows:

> Use Permit Application TC-4-11 is approved per the conditions of approval attached herein as Exhibit A.

ADOPTED this twenty-third day of February, 2012, by the following vote:

AYES:
NOES:
ABSENT:

_____
JAMEEL MUNIR
Chairperson

ATTEST:

_____
JOHN A. SWIECKI, Community Development Director

EXHIBIT A

Action Taken: Conditionally approve Telecommunications Permit TC-4-11 per the staff memorandum with attachments, via adoption of Resolution TC-4-11.

Findings:

1. The proposal is to modify an existing facility that was lawfully constructed prior to May 2007, and is therefore not classified as nonconforming, per Brisbane Municipal Code (BMC) Section 17.32.032.C.3.

2. This proposal meets the requirements of BMC Section 17.32.032.D, which allows administrative approval of wireless telecommunication facilities that are mounted on other existing or similar replacement structures (water tanks, utility poles, light poles, etc.), or that would require expansion of an existing support structure up to a maximum height of 70 ft, subject to development and operational standards.

3. Per BMC Section 17.32.032.G, the telecommunications facility complies with the applicable development and operational standards. The BMC Section 17.32.032.G development and operational standards are as follows:
   a. Facilities shall be sited to minimize views from the public right-of-way and screened by buildings and/or trees where possible.
   b. Facilities shall not create an overconcentration of poles or visible equipment so as to avoid excessive visual impacts in localized areas.
   c. The height of antennae and support structures shall be limited to the minimum necessary to provide adequate coverage, while avoiding the proliferation of additional facilities. However, an antenna or its support structure shall not exceed 70 ft in height, unless a variance from this limitation is granted by the Planning Commission pursuant to Chapter 17.46 of this Title.
   d. Where an equipment building accompanies the structure, it shall be designed, colored and textured to match adjacent buildings or screened from view. Landscaping may be required to screen views of the facility from the public right-of-way.
   e. Underground vaults may be required in order to mitigate physical, aesthetic, or safety considerations which cannot otherwise be mitigated.
   f. All facilities shall be designed to prevent unauthorized access.
   g. All new wireless telecommunication facilities shall be designed and operated in conformance with applicable American National Standards Institute (ANSI) standards and in compliance with all applicable Federal Communications Commission (FCC) standards.
   h. Support structures shall be either galvanized steel or painted to blend with their surroundings. Permitted dishes and antennae shall be galvanized steel or painted to match the existing building or support structure.

Conditions of Approval:

A. Application for a Building Permit (via submittal of 4 sets of plans and payment of plan check fees) for the subject facilities shall be made and the project shall be completed to

the satisfaction of the Building Official at final inspection prior to permanent operation of the facilities.

B. When submitting for a building permit, all applicable items from North County Fire Authority Guide/ Requirement shall be addressed, per the list provided in the staff report, plus any other requirements that the Fire Department may impose upon review of the Building Permit application.

C. The color of the antennas shall match the existing.

D. The facilities shall be designed and operated in conformance with applicable American National Standards Institute (ANSI) standards and in compliance with all applicable Federal Communications Commission (FCC) standards.

E. Any worker servicing the antenna facility shall have radio frequency (RF) awareness training and wear a personal RF monitor in compliance with FCC procedures.

F. The modification shall not result in any increase in noise emanating from the property, nor shall it be detectable to any off-site source.

G. The facilities shall be removed, if the facilities are abandoned or if the administrative permit is revoked and becomes void.

Project Vicinity Aerial Photo

October 20, 2011

To: City of Brisbane Planning Department
50 Park Place
Brisbane, CA 94005

From: Kevin Bowyer
115 Sansome St. #1400
San Francisco, CA 94104

RE: Administrative Permit Application for a Modification to an Existing Wireless Telecommunications Facility at 1 West Hill Rd. (APN: 005-290-010)

Modus Corp, on behalf of Black & Veach and Sprint, respectfully submits an administrative permit application for a modification to an existing wireless telecommunications facility at 1 West Hill Rd. (APN: 005-290-010). Please find the following contents detailed below:

- Completed Planning Application
- Administrative Permit for Telecommunication Facilities Checklist
- Project Description
- Letter of Authorization from the Property Owner
- Photo Simulations
- Brief Alternatives Analysis
- Completed Environmental Information Form
- Supporting Statements
- Six full-sized sets of plans
- Check in the amount of $867.00 made out to the City of Brisbane

If you require anything additional for this application, please do not hesitate to contact me at (408) 219-5442 or kbowyer@modus-corp.com.

Sincerely,

Kevin Bowyer, Land Use Planning Agent for Sprint
Modus Corp
115 Sansome St. #1400
San Francisco, CA 94104
(408) 219-5442
kbowyer@modus-corp.com

G-1-8

Modus Corp
115 Sansome St. #1400 B
San Francisco, CA 94104

PROJECT DESCRIPTION: Proposed Sprint Wireless Telecom Facility at 1 West Hill Rd.

Sprint is looking to upgrade their wireless telecommunications facility to provide better service for the residents of the City of Brisbane. This requires both the existing antennas and equipment associated with them to be removed and replaced. The proposed project involves the modification/addition of both antennas and equipment associated with the antennas as follows:

Antennas (Two Phases):

Phase 1:

- The installation of (1) new 800/1900 MHz panel antenna mounted to the existing monopole in the rear of the property.
- The installation of (2) RRU's below the (1) new 800/1900 MHz antenna

Phase 2:

- The removal of (1) existing 800/1900 MHz panel antenna mounted to the existing monopole in the rear of the property.
- The installation of (1) 1.6 GHz panel antenna mounted to the existing monopole in the rear of the property.
- The installation of (1) RRU below the (1) new 1.6 GHz antenna

Equipment (Two Phases)

Phase 1:

- (1) new Radio/Battery combo equipment cabinet to be installed on existing platform on roof

Phase 2:

- (3) existing equipment cabinets to be removed
- (1) new Battery Backup Unit (BBU) cabinet to be installed on existing platform on the roof

Modus Corp
115 Sansome St. #1400 B
San Francisco, CA 94104

Supporting Statements

Section 17.32.032.G of the Brisbane Municipal Code requires that the wireless facility comply with the Development and Operational Standards. Below is the list of standards along with compliance statements for each:

1. **Facilities shall be sited to minimize views from the public right-of-way and screened by buildings and/or trees where possible.**

   The facility is located on the rear of the property. All along the front and side of the property are very large trees that screen the facility from the public's view. Attached to the application package are photo simulations that show how the trees along West Hill Blvd. do a relatively good job of screening the pole.

   Also, the proposed project would not be increasing the height of the pole. Only one additional antenna will be added to the monopole. As you can see from the photo simulations, these modifications do not add much visual clutter to the area.

2. **Facilities shall not create an overconcentration of poles or visible equipment so as to avoid excessive visual impacts in localized areas.**

   Like previously mentioned, Sprint is only adding one additional antenna and is actually decreasing the amount of equipment cabinets. These changes will not create an overconcentration antenna, poles, or visible equipment.

3. **The height of antennae and support structures shall be limited to the minimum necessary to provide adequate coverage while avoiding the proliferation of additional facilities. However, an antenna or its support structure shall not exceed seventy (70) feet in height, unless a variance from this limitation is granted by the planning commission pursuant to Chapter 17.46 of this title.**

   The height of the monopole that the antennas will be mounted to will go unchanged. The height of the existing pole is 48 feet and will not increase any further. This height is below the 70 foot limit, so the monopole complies with the code.

4. **Where an equipment building accompanies the structure, it shall be designed, colored and textured to match adjacent buildings or screened from view. Landscaping may be required to screen views of the facility from the public right-of-way.**

G.1.10

There is no existing equipment building that accompanies the structure. The pole and the equipment cabinets are painted to be similar to that of the existing building on the parcel.

5. **Underground vaults may be required in order to mitigate physical, aesthetic, or safety considerations which cannot be otherwise mitigated.**

   The equipment area is already located behind a fenced in area. The proposed project actually calls for a decrease in the number of equipment cabinets, so the site will be less cluttered.

6. **All facilities shall be designed to prevent unauthorized access.**

   The entire back area of the parcel is actually fenced in with barbed wire to prevent access. Additionally, the area where the pole and equipment are is enclosed within a chain-linked fence.

7. **All new wireless telecommunication facilities shall be designed and operated in conformance with applicable American National Standards Institute (ANSI) standards and in compliance with all applicable Federal Communication Commission (FCC) standards.**

   The facility is designed and will be operated in conformance with both the ANSI and FCC standards. A Radio Frequency (RF) Report can be generated if the Zoning Administrator requests one.

8. **Support structures shall be either galvanized steel or painted to blend with their surroundings. Permitted dishes and antennae shall be galvanized steel or painted to match the existing building or support structure.**

   The antennas and equipment cabinets can be painted to match the pole which is actually painted similar to the existing building.

Modus Corp
115 Sansome St. #1400 B
San Francisco, CA 94104

Alternatives Analysis Statement

Sprint already has an existing wireless telecommunication facility at the subject property. It makes the most sense to make the necessary adjustments to the existing site in order to improve service and increase data capacity rather than constructing a brand new wireless facility. Therefore, Sprint believes that the alternative analysis is not necessary. This was confirmed by the planner at the city when Sprint inquired about this.

G.1.12

Existing

Proposed

view from West Hill Drive looking south at site

Sprint

FS04XC902 1 West Hill Road
1 West Hill Drive, Brisbane, CA

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

G-1-13

Existing

Proposed

view from West Hill Drive looking west at site

Sprint

FS04XC902 1 West Hill Road
1 West Hill Drive, Brisbane, CA

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

G.1.14

Sprint

SITE NAME: 1 WEST HILL ROAD

SITE NUMBER: FS04XC902-C

SITE ADDRESS: 1 WEST HILL ROAD
BRISBANE, CA 94005

MARKET NAME: SF BAY

PROJECT: NETWORK VISION MM LAUNCH

SITE INFORMATION

SITE ADDRESS:
1 WEST HILL ROAD
BRISBANE, CA 94005

COUNTY:
SAN MATEO

A.P.N.:
005-290-010

PROPERTY OWNER:
ERNST & JANET EPSTEIN
405 PRIMROSE #300
BURLINGAME, CA 94010
CONTACT: TERRY HORN
CONTACT NUMBER: (650) 348-1051

EQUIPMENT SUPPLIER:
SAMSUNG TELECOMMUNICATIONS AMERICA (STA)
1301 EAST LOOKOUT DRIVE
RICHARDSON, TX 75082-4124
(972) 761-7000

POWER COMPANY:
PACIFIC GAS AND ELECTRIC
CONTACT NUMBER: (800) 743-5000

TELCO COMPANY:
AT&T
CONTACT NUMBER: T.B.D.

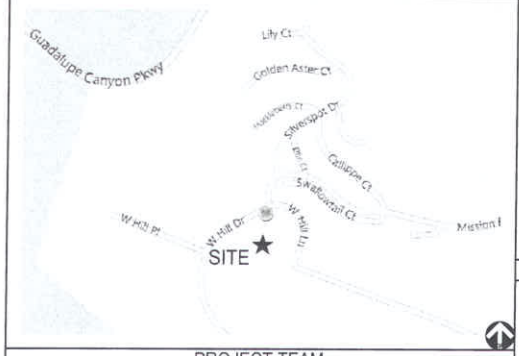
PROJECT DATA:

OCCUPANCY TYPE:	S-2
CONSTRUCTION TYPE:	TYPE V-B
CURRENT ZONING:	OPEN SPACE
HEIGHT & BULK:	TBD
ACCESSIBILITY REQUIREMENTS:	FACILITY IS UN-MANNED AND NOT FOR HUMAN HABITATION. DISABLED ACCESS NOT REQUIRED IN ACCORDANCE WITH CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 2, VOL. 1, CHAPTER 11B, SECTION 1103B, EXCEPTION 1.

LATITUDE (NAD 83):
37° 41' 34.44" N
37.69200°

LONGITUDE (NAD 83):
122° 25' 15.239" W
-122.42004

LOCATION MAP



PROJECT TEAM

APPLICANT
SPRINT
6580 SPRINT PARKWAY
OVERLAND PARK, KS 66251

LEASING MANAGER:
MODUS, INC.
115 SANSOME STREET, SUITE 1400B
SAN FRANCISCO, CA 94104
CONTACT: SHIVANI PATEL
CONTACT NUMBER: (510) 304-1026
FAX NUMBER: (415) 986-2850

ZONING MANAGER:
MODUS, INC.
115 SANSOME STREET, SUITE 1400B
SAN FRANCISCO, CA 94104
CONTACT: KEVIN BOWYER
CONTACT NUMBER: (408) 219-5442
FAX NUMBER: (415) 986-2850

CONSTRUCTION MANAGER:
OVERLAND CONTRACTING
2999 OAK ROAD, SUITE 490
WALNUT CREEK, CA 94597
CONTACT: ART CUNNINGHAM
CONTACT NUMBER: (925) 852-8896
FAX NUMBER: (925) 949-5902

DESIGNER:
MODUS, INC.
115 SANSOME STREET, SUITE 1400B
SAN FRANCISCO, CA 94104
CONTACT NUMBER: (415) 986-1179
FAX NUMBER: (415) 986-2850

APPLICABLE CODES

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

- 2010 CALIFORNIA BUILDING CODE, TITLE 24 PART 2
- 2010 CALIFORNIA ADMINISTRATIVE CODE, TITLE 24 PART 1
- 2010 CALIFORNIA ELECTRICAL CODE, TITLE 24 PART 3
- 2010 CALIFORNIA MECHANICAL CODE, TITLE 24 PART 4
- 2010 CALIFORNIA PLUMBING CODE, TITLE 24 PART 5
- 2010 CALIFORNIA ENERGY CODE, TITLE 24 PART 6
- 2010 CALIFORNIA FIRE CODE, TITLE 24 PART 9
- ANSI/TIA-222-G
- 2009 NFPA 101, LIFE SAFETY CODE
- 2010 NFPA 72, NATIONAL FIRE ALARM CODE
- 2010 NFPA 13, SPRINKLER CODE
- CITY/ COUNTY ORDINANCES

PROJECT DESCRIPTION

THE PROJECT INVOLVES:

- (1) EXISTING PANEL ANTENNA TO BE REMOVED. (2) NEW PANEL ANTENNAS TO MOUNTED TO PROPOSED T-ARM (2 ANTENNAS PER SECTOR).
  - ** PHASE 1-(1) PANEL ANTENNA TO BE INSTALLED & (1) EXISTING ANTENNA TO BE RELOCATED
  - ** PHASE 2-(1) EXISTING PANEL ANTENNA TO BE REMOVED AND (1) PANEL ANTENNAS TO BE INSTALLED
- (3) EXISTING EQUIPMENT CABINETS TO BE REMOVED. (2) NEW EQUIPMENT CABINETS TO BE INSTALLED AT EXISTING COMPOUND
  - ** PHASE 1-(1) EQUIPMENT CABINET TO BE INSTALLED
  - ** PHASE 2-(3) EQUIPMENT CABINETS TO BE REMOVED AND (1) EQUIPMENT CABINET TO BE INSTALLED
- ANTENNA TRANSMISSION LINES FROM EQUIPMENT CABINETS TO ANTENNAS-PAINTED TO MATCH AS APPLICABLE PER PLANS
- EXISTING 100AMP POWER SERVICE TO REMAIN

DRIVING DIRECTIONS FROM NEAREST AIRPORT

- DEPART FROM SAN FRANCISCO INTERNATIONAL AIRPORT, CA
- TAKE RAMP RIGHT FOR US-101 NORTH TOWARD SAN FRANCISCO
- AT EXIT 426A, TAKE RAMP RIGHT FOR BAYSHORE BLVD TOWARD COW PALACE
- BEAR RIGHT ONTO BAYSHORE BLVD
- TURN LEFT ONTO VALLEY DR
- ROAD NAME CHANGES TO W HILL LN
- ROAD NAME CHANGES TO W HILL DR
- ARRIVE AT 1 W HILL DR, BRISBANE, CA 94005-1220 ON THE LEFT

DRAWING INDEX

SHEET	DESCRIPTION
T-1	TITLE SHEET
T-2	SYMBOLS, ABBREVIATIONS
A-1	SITE PLAN/PROPOSED ENLARGED SITE PLAN
A-2	EXISTING/INTERIM/PROPOSED EQUIPMENT & ANTENNA LAYOUTS
A-3	EXISTING/PROPOSED EAST ELEVATION
A-4	EXISTING/PROPOSED NORTH ELEVATION

Sprint
6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251

SAMSUNG

BLACK & VEATCH

MODUS
115 SANSOME STREET, SUITE 1400B
SAN FRANCISCO, CA 94104

PROJECT NO:	FS04XC902-C
DRAWN BY:	RC
CHECKED BY:	-

REV	DATE	DESCRIPTION
1	06/29/2011	ISSUED FOR 100% ZONING
0	05/23/2011	ISSUED FOR 90% ZONING

1 WEST HILL ROAD
FS04XC902-C
1 WEST HILL ROAD
BRISBANE, CA 94005

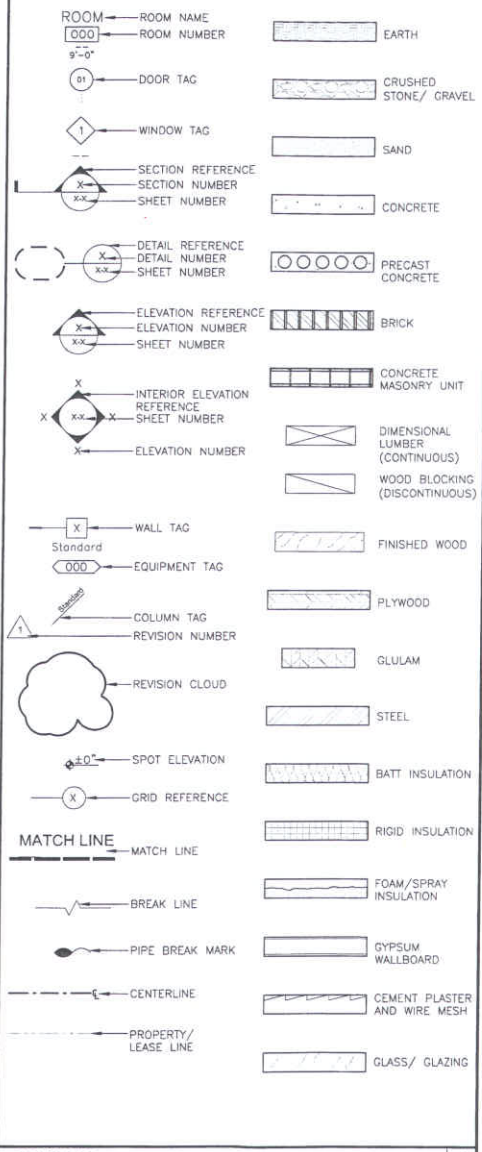
SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

6.1.15

&	AND	CMU	CONCRETE MASONRY UNIT	EZBFO	BATTERY CABINET	L.L.	LIVE LOAD	PERF	PERFORATED	ST	STREET
∠	ANGLE	CNTR	COUNTER	F	FACE	L.L.H.	LONG LEG HORIZONTAL	PERM	PERMANENT	STAG	STAGGERED
@	AT	CO	COMPANY	F. HYD.	FIRE HYDRANT	L.L.V.	LONG LEG VERTICAL	PERP	PERPENDICULAR	STC	SOUND TRANSMISSION CLASS
/	BY	CO2	CARBON DIOXIDE	F. TO F.	FACE TO FACE	L.P.	LOW POINT	PH	PHASE		
℄	CENTERLINE	COL	COLUMN	F.A.	FIRE ALARM	L.RM.	LIVING ROOM	PKWY	PARKWAY	STD	STANDARD
°	DEGREE	COMB	COMBINATION	F.B.	FLAT BAR	L.W.C.	LIGHT WEIGHT CONCRETE	PL	PLATE	STIFF	STIFFENER
ø	DIAMETER	COMP	COMPUTER	F.D.	FLOOR DRAIN	LAB	LABORATORY	PLAS	PLASTER	STIR	STIRRUP
=	EQUAL	COMPR	COMPRESSED	F.D.C.	FIRE DEPARTMENT CONNECTION	LAD	LADDER	PLAT	PLATFORM	STL	STEEL
(E)	EXISTING	COMPR	COMPRESSOR	F.E.	FIRE EXTINGUISHER	LAM	LAMINATE	PLF	PLATFORM	STOR	STORAGE
'	FEET	COMPT.	COMPARTMENT	F.E.C.	FIRE EXTINGUISHER CABINET	LAV	LAVATORY	PLYWD	PLYWOOD	STR	STRUCTURAL
"	INCH(ES)	CON	CONFERENCE			LB	POUND	PNL	PANEL	SUB	SUBSTITUTE
#	NUMBER	CONC	CONCRETE	F.F.	FINISH FLOOR	LOC	LOCATION	PNT	PAINT	SUP	SUPPLY
/	PER	CONC. FL.	CONCRETE FLOOR	F.H.	FIRE HOSE	LT	LIGHT	PORT	PORTABLE	SUP	SUPPORT
%	PERCENT	COND	CONDENSER	F.H.	FLAT HEAD	LVR	LOUVER	PPC	POWER PROTECTION CABINET	SUPP	SUPPLEMENT
℄	PLATE	COND	CONDITION	F.H.C.	FIRE HOSE CABINET	PREFAB	PREFABRICATED			SUR	SURFACE
±	PLUS/ MINUS	CONN	CONNECT	F. JT.	FLUSH JOINT	PREFIN	PREFINISHED	PSF	POUNDS PER SQUARE FOOT	SUSP	SUSPENDED
A.B.	ANCHOR BOLT	CONST	CONSTRUCTION	F.O.	FACE OF	PREP	PREPARATION	PSI	POUNDS PER SQUARE INCH	SUSP.	SUSPENDED CEILING
ACOUST	ACOUSTICAL	CONT	CONTIUOUS	F.O.C.	FACE OF CONCRETE	PROJ	PROJECT			SW	SWITCH
A.E.	ARCHITECT/ ENGINEER	CONTR	CONTRACT	F.O.F.	FACE OF FINISH	PROP	PROPERTY	PT	PART	SWBD	SWITCHBOARD
ALT.	ALTERNATE	CONTR	CONTRACTOR	F.O.M.	FACE OF MASONRY	PSF	POUNDS PER SQUARE FOOT	PT	POINT	SYM	SYMMETRICAL
ASSOC.	ASSOCIATION	COR	CORRIDOR	F.O.S.	FACE OF STUDS	PSI	POUNDS PER SQUARE INCH	PTD	PAINTED	SYS	SYSTEM
ASSY.	ASSEMBLY	CORR	CORRUGATED	FAB	FABRICATE			PVC	POLYVINYL CHLORIDE	T	TREAD
AUTO	AUTOMATIC	CPG	COPING	FBD	FIBERBOARD	M	THOUSAND	PVMT	PAVEMENT	T&B	TOP AND BOTTOM
AVER	AVERAGE	CPR	COPPER	FD	FIRE DAMPER	M.B.	MACHINE BOLT	PWR	POWER	T&G	TONGUE AND GROOVE
AWG	AMERICAN WIRE GAUGE	CPT	CARPET	FDN	FOUNDATION	M.C.	MECHANICAL CONTRACTOR	QTY	QUANTITY	T.Y.	TOWEL BAR
B.A.	BOTH FACES	CR	CRUSHED	FIG	FIGURE	M.C.	STRUCTURAL SHAPE	R	RADIUS	T.G.	TEMPERED GLASS
B.M.	BENCH MARK	CSG	CASING	FIN	FINISH	M.E.	MATCH EXISTING	R.C.	RETURN AIR	T.O.	TOP OF
B.O.	BOTTOM OF	CSK	COUNTERSINK	FIXT	FIXTURE	M.H.	MANHOLE	R.D.	RUBBER BASE	T.O.C.	TOP OF CURB
B.O.	BY OTHERS	CSMT	CASEMENT	FLASH	FLASHING	M.L.	METAL LATH	R.D.	ROOF DRAIN	T.O.M.	TOP OF MASONRY
B.P.	BASE PLATE	CTG	COATING	FLEX	FLEXIBLE	MACH	MACHINE	R.H.	RIGHT HAND	T.O.W.	TOP OF WALL
B.U.	BUILT-UP	CTR	CENTER	FLG	FLOORING	MAS	MASONRY	R.H.R	RIGHT HAND REVERSE	T.P.	TOP OF PAVEMENT
B.U.R.	BUILT-UP ROOFING	CU	CUBIC	FLR	FLOOR	MAT	MATERIAL	R.O.	ROUGH OPENING	TS	TUBE STEEL
B.W.	BOTH WAYS	CY	CUBIC YARD(S)	FLOUR	FLOURESCENT	MAX	MAXIMUM	R.W.C.	RAIN WATER LEADER	TECH	TECHNICAL
BATT	BATTERY	D.C.A.	DRAINAGE CONDUCTOR	FPRF	FIREPROOF(ING)	MECH	MECHANICAL	RAD	RADIUS	TELCO	TELEPHONE COMPANY
BB	BASEBOARD	D.F.	DRINKING FOUNTAIN	FR	FRAME	MED	MEDIUM	RD	ROAD	TEMP	TEMPERATURE
BD	BOARD	DF	DOUGLAS FIR	FRP	FIBER REINFORCED PLASTIC	MEMB	MEBRANE	RE	REFER	TEMP	TEMPORARY
BDRM	BEDROOM	D.H.	DOUBLE HUNG			MEZZ	MEZZANINE	RECOMM	RECOMMENDATION	TERM	TERMINATE
BEL	BELOW	D.L.	DEAD LOAD	FT	FEET	MFR	MANUFACTURER	RECP	RECEPTACLE	TERR	TERRACE
BET	BETWEEN	D.O.	DOOR OPENING	FTG	FOOTING	MGR	MANAGER	RECT	RECTANGLE	THD	THREAD
BEV	BEVELED	D.S.P.	DRY STANDPIPE	FUR	FURRED	MIN	MINIMUM	REF	REFERENCE	THK	THICK
BEY	BEYOND	D.W.	DRYWALL	FURN	FURNACE	MIR	MIRROR	REFG	REFRIGERATOR	THR	THRESHOLD
BITUM	BITUMINOUS	DBL	DOUBLE	FUT	FUTURE	MISC	MISCELLANEOUS	REINF	REINFORCEMENT	THRU	THROUGH
BLDG	BUILDING	DEG	DEGREE	G.B.	GRAB BAR	MK	MARK	REPR	REPAIR	TLT	TOILET
BLK	BLOCK	DEMO	DEMOLITION	G.C.	GENERAL CONTRACTOR	MLDG	MOULDING	REPRO	REPRODUCE	TRANS	TRANSFORMER
BLKG	BLOCKING	DEPT	DEPARTMENT	G.F.	GRANULAR FILL	MOD	MODULAR	REQ	REQUIRE	TYP.	TYPICAL
BLVD	BOULEVARD	DET	DETAIL	G.I.	GALVANIZED IRON	MSB	MAIN SWITCHBOARD	REQD	REQUIRED	U.N.O.	UNLESS NOTED OTHERWISE
BM	BEAM	DIA	DIAMETER	G.R.	GUARDRAIL	MTD	MOUNTED	RESIL	RESILIENT	UC	UNDERCUT
BOT	BOTTOM	DIAG	DIAGONAL	G.S.	GALVANIZED STEEL	MTG	MOUNTING	RET	RETURN	UG	UNDERGROUND
BRG	BEARING	DIM	DIMENSION(S)	G.W.B.	GYPSUM WALL BOARD	MTG. HT.	MOUNTING HEIGHT	REV	REVISION	UL	UNDERWRITERS LABORATORIES INCORPORATED
BRK	BRICK	DISP	DISPENSER	GA	GAGE	MTL	METAL	RFG	ROOFING		
BRKT	BRACKET	DIST	DISTANCE	GA	GAUGE	MUL	MULLION	RGTR	REGISTER	ULT	ULTIMATE
BSMT	BASEMENT	DISTR	DISTRIBUTED	GAL	GALLON	MULT	MULTIPLE	RM	ROOM	UNEX	UNEXCAVATED
BTH	BATHROOM	DIV	DIVIDER	GALV	GALVANIZED	MUT	MUNTIN	RR	RAILROAD	UNF	UNFINISHED
BTN	BATTEN	DN	DOWN	GD	GUARD	N	NORTH	S	SINK	V	VOLT
BVL	BEVEL	DOC	DOCUMENTS	GEN	GENERAL	N.C.	NONCORROSIVE	S	SOUTH	V.B.	VALVE BOX
C	CHANNEL	DP	DAMPPROOFING	HDG	HOT DIPPED GALVANIZED	N.I.C.	NOT IN CONTRACT	S.A.D.	SEE ARCHITECTURAL DRAWINGS	V.I.F.	VERIFY IN FIELD
C	COURSE	DR	DOOR	HEX	HEXAGONAL	N.S.	NONSLIP	S.B.	SPLASH BLOCK	V.T.R.	VENT THROUGH ROOF
C. TO C.	CENTER TO CENTER	DS	DOWNSPOUT	HOSP	HOSPITAL	N.T.S.	NOT TO SCALE	S.C.	SOLID CORE	VAR	VARIABLE
C.B.	CATCH BASIN	DW	DISHWASHER	HT	HEIGHT	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	S.D.	STORM DRAIN	VENT	VENTILATE
C.F.C.I	CONTRACTOR FURNISH/ CONTRACTOR INSTALL	DWG	DRAWING	HTG	HEATING	NO	NUMBER	S.F.	SQUARE FOOT	VERT	VERTICAL
C.G.	CORNER GUARD	E	EAST	HVAC	HEATING, VENTILATION AND AIR CONDITIONING	NOM	NOMINAL	S.F.	STORE FRONT	VEST	VESTIBULE
C.I.	CAST IRON	E. TO E.	END TO END			NORM	NORMAL	S.G.	SEMIGLOSS	VIN	VINYL
C.I.P.	CAST IRON PIPE	E.B.	EXPANSION BOLT			NRC	NOISE REDUCTION COEFFICIENT	S.G.D.	SLIDING GLASS DOOR	VOL	VOLUME
C.J.	CONSTRUCTION JOINT	E.C.	ELECTRICAL CONDUIT	HVY	HEAVY	O. TO O.	OUT TO OUT	S.H.	SHOWER HEAD	W	WEST
C.J.	CONTROL JOINT	E.C.	ELECTRICAL CONTRACTOR	HWY	HIGHWAY	O.C.	ON CENTER(S)	S.Y.	SQUARE YARD	W	WIDE
C.L.	CENTERLINE	E.F.	EACH FACE	I.D.	INSIDE DIAMETER	O.D.	OUTSIDE DIAMETER	SC	SCALE	W. CAB.	WALL CABINET
C.L.F.	CHAINLINK FENCE	EGR	EMERGENCY GENERATOR RECEPTACLE	IMPR	IMPREGNATE	O.F.C.I.	OWNER FURNISH, CONTRACTOR INSTALLED	SCH	SCHEDULE	W. GL.	WIRE GLASS
C.M.P.	CORRUGATED METAL PIPE	E.J.	EXPANSION JOINT	IN	INCHE(S)	O.F.O.I.	OWNER FURNISH, OWNER INSTALL	SEAL	SEALANT	W.C.	WATER CLOSET
C.O.	CLEAN OUT	E.C.	ELECTRICAL PANEL	INCAND	INCANDESCENT	O.F.S.	OUTSIDE FACE OF STUD	SECT	SECTION	WF	WIDE FLANGE
C.R.	COLD ROLLED	E.W.	EACH WAY	INCL	INCLUDE	O/	OVER	SEP	SEPERATION	W.H.	WALL HYDRANT
C.R.S.	COLD ROLLED STEEL	EA	EACH	INFO	INFORMATION	O2	OXYGEN	SERV	SERVICE	W.H.	WATER HEATER
C.T.	CERAMIC TILE	EIFS	EXTERIOR INSULATION AND FINISH SYSTEM	INSL	INSULATION	OA	OVERALL	SF. GL.	SAFETY GLASS	W.L.	WATER LINE
C.W.	COLD WATER	EL	ELEVATION	INST	INSTALL	OBS	OBSOLETE	SH	SHELF	W.R.	WATER-RESISTANT
C.W.	CONCRETE WALK	ELAST	ELASTOMERIC	INT	INTERIOR	OFF	OFFICE	SHT	SHEET	W.S.	WEATHER STRIPPING
C/O	CASED OPENING	ELB	ELBOW	INTERM	INTERMEDIATE	OH	OVERHEAD	SHTHG	SHEATHING	W.T.W.	WALL TO WALL
CAB	CABINET	ELEC	ELECTRICAL	INV	INVERT	OPNG	OPENING	SHWR	SHOWER	WWF	WELDED WIRE FABRIC
CALK	CAULK	ELEV	ELEVATOR	ISOL	ISOLATE	OPP	OPPOSITE	SIM	SIMILAR	WWM	WELDED WIRE MESH
CEM	CEMENT	EMER	EMERGENCY	J.B.	JUNCTION BOX	OPPH	OPPOSITE HAND	SKL	SKYLIGHT	W/	WITH
CEM	CEMENTITIOUS	ENC	ENCLOSURE	JAN	JANITORS CLOSET	ORIG	ORIGINAL	SL	SLAB	W/O	WITHOUT
CEM.		ENGR	ENGINEER	JCT	JUNCTION	ORN	ORNAMENT	SOF	SOFFIT	WD	WOOD
PLAS.	CEMENT PLASTER	ENT	ENTRANCE	JNT	JOINT	OVHG	OVERHANG	SPC	SPACER	WHSE	WAREHOUSE
CER	CERAMIC	EQ	EQUAL	JST	JOIST	OWN.	OWNER FURNISHED	SPCG	SPACING	WNDW	WINDOW
CIR	CIRCLE	EQUIP	EQUIPMENT	K	KIP (1,000 LBS)	FURN.		SPEC	SPECIFICATION	WP	WATERPROOF
CIR	CIRCUMFERENCE	EST	ESTIMATE	K. PL.	KICK PLATE	P	PAGE	SPECS	SPECIFICATIONS	WSCT	WAINSCOT
CL. GL.	CLEAR GLASS	EXC	EXCAVATE	K.D.	KNOCK DOWN	P.B.	PANIC BAR	SPKR	SPEAKER	WT	WEIGHT
CL.		EXH	EXHAUST	K.O.	KNOCK OUT	P.C.P.	PORTLAND CEMENT PLASTER	SQ	SQUARE	X	BY (AS IS 6'X8')
W. GL.	CLEAR WIRE GLASS	EXIST	EXISTING	KIT	KITCHEN	P.L.	PROPERTY LINE	SQ. IN.	SQUARE INCH	Y.P.	YIELD POINT
CLG	CEILING	EXP	EXPANSION	KW	KILOWATT	P. LAM.	PLASTIC LAMINATED	SS	STAINLESS STEEL	Y.S.	YIELD STRENGTH
CLKG	CAULKING	EXPD	EXPOSED	L	LENGTH	PT	PRESSURE TREATED			YD	YARD
CLO	CLOSET	EXT	EXTENSION	L	LONG	PAR	PARALLEL				
CLR	CLEAR	EXT	EXTERIOR	L.B.	LAG BOLT	PART. BD.	PARTICLE BOARD				
CLR	CLEARANCE			L.F.	LINEAR FOOT	PCF	POUND PER CUBIC FOOT				
CLRM	CLASSROOM			L.G.	LEAD GLASS	PED	PEDESTAL				
				L.H.	LEFT HAND						

ABBREVIATIONS 2



SYMBOLS 1

Sprint
6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251

SAMSUNG

BLACK & VEATCH

mobis
115 SANSOME STREET, SUITE 1400B
SAN FRANCISCO, CA 94104

PROJECT NO:	FS04XC902-C
DRAWN BY:	RC
CHECKED BY:	-

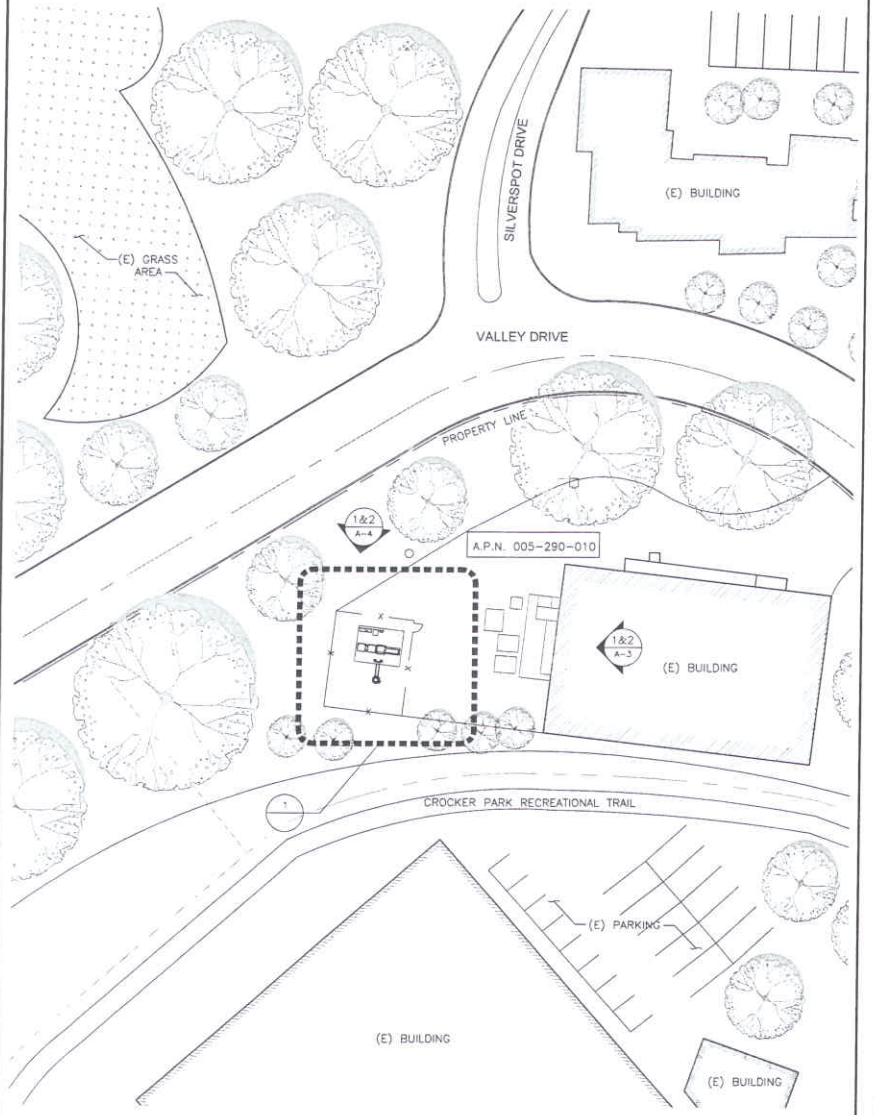
REV	DATE	DESCRIPTION
1	09/29/2011	ISSUED FOR 100% ZONING
0	09/23/2011	ISSUED FOR 90% ZONING

1 WEST HILL ROAD
FS04XC902-C
1 WEST HILL ROAD
BRISBANE, CA 94005

SHEET TITLE
SYMBOLS
ABBREVIATIONS

SHEET NUMBER
T-2

G.1.14

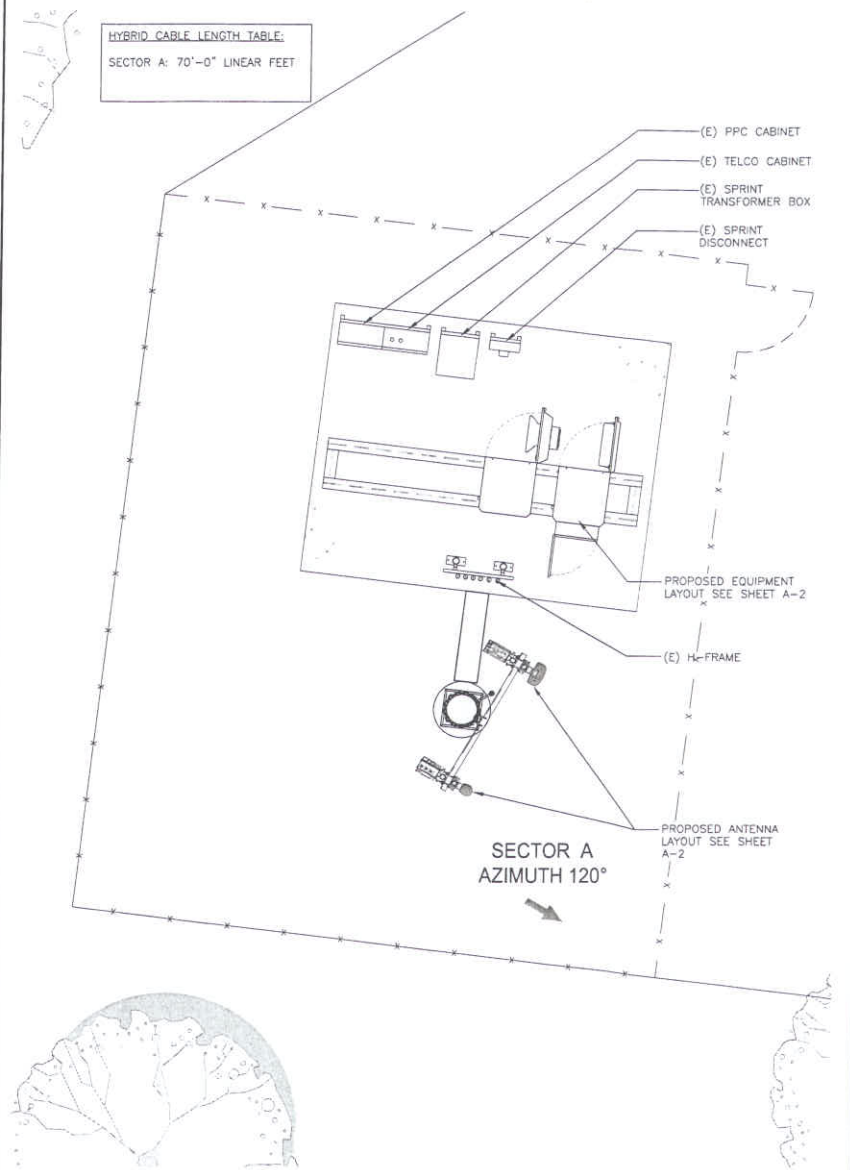


SITE PLAN

SCALE: 1"=20'-0"

10' 20' 40'

1



PROPOSED ENLARGED SITE PLAN

SCALE: 3/8"=1'-0"

2' 4' 6'

2

Sprint

6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251

SAMSUNG

BLACK & VEATCH

115 SANSOME STREET, SUITE 1400
SAN FRANCISCO, CA 94104

PROJECT NO:	FS04XC902-C
DRAWN BY:	RC
CHECKED BY:	-

REV	DATE	DESCRIPTION
1	09/29/2011	ISSUED FOR 100% ZONING
0	09/23/2011	ISSUED FOR 90% ZONING

1 WEST HILL ROAD
FS04XC902-C
1 WEST HILL ROAD
BRISBANE, CA 94005

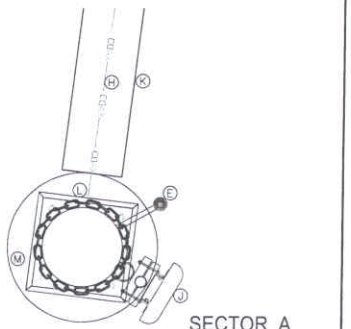
SHEET TITLE

SITE PLAN

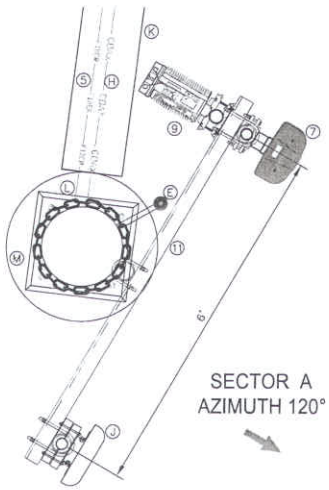
SHEET NUMBER

A-1

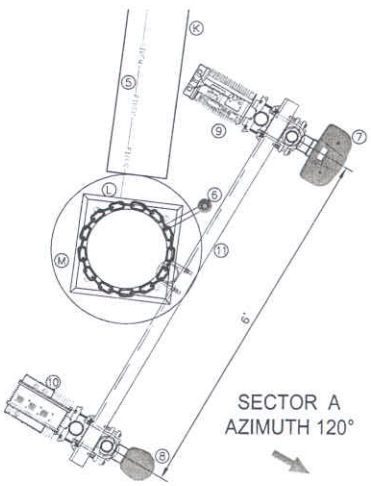
9.1.11



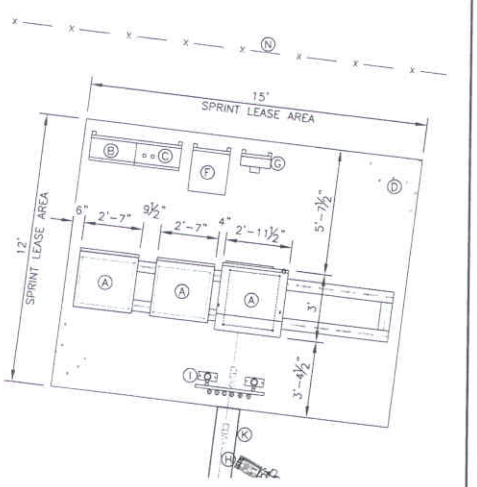
EXISTING ANTENNA LAYOUT | SCALE: 1"=1'-0" | 1



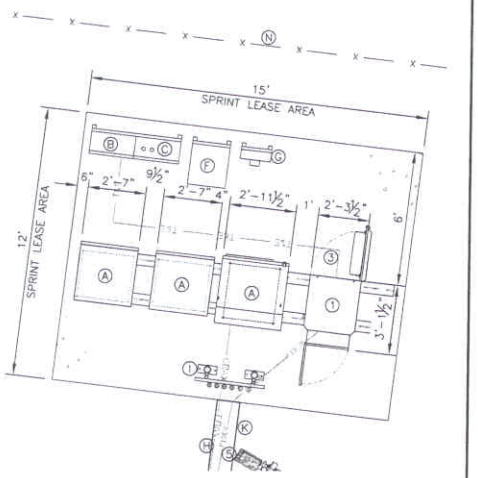
INTERIM ANTENNA LAYOUT | SCALE: 1"=1'-0" | 2



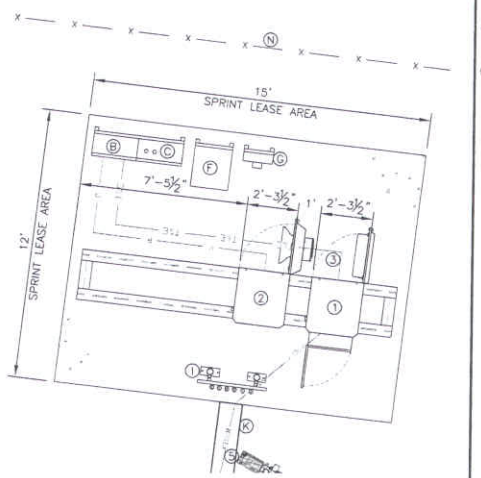
PROPOSED ANTENNA LAYOUT | SCALE: 1"=1'-0" | 3



EXISTING EQUIPMENT LAYOUT | SCALE: 3/8"=1'-0" | 4



INTERIM EQUIPMENT LAYOUT | SCALE: 3/8"=1'-0" | 5



PROPOSED EQUIPMENT LAYOUT | SCALE: 3/8"=1'-0" | 6

LEGEND (EXISTING)

- (A) EXISTING SPRINT EQUIPMENT CABINET
- (B) EXISTING SPRINT 100AMP PPC CABINET
- (C) EXISTING SPRINT TELCO BOARD
- (D) EXISTING CONCRETE
- (E) EXISTING SPRINT GPS ANTENNA
- (F) EXISTING SPRINT TRANSFORMER BOX
- (G) EXISTING SPRINT DISCONNECT
- (H) EXISTING COAX CABLE
- (I) EXISTING SPRINT COAX SUPPORT LADDER
- (J) EXISTING SPRINT PANEL ANTENNA
- (K) EXISTING CABLE TRAY
- (L) EXISTING COAX ENTRY PORT AT POLE BASE
- (M) EXISTING CONCRETE FOOTING
- (N) EXISTING CHAIN LINK FENCE

LEGEND (PROPOSED)

- (1) PROPOSED SPRINT COMBO CABINET
- (2) PROPOSED SPRINT BATTERY CABINET
- (3) PROPOSED POWER AND TELCO CONDUIT FROM NEW COMBO TO (E) PPC CABINET
- (4) NOT USED
- (5) PROPOSED SPRINT FIBER CABLES, FOLLOW (E) ROUTE TO ANTENNAS
- (6) PROPOSED SPRINT GPS ANTENNA
- (7) PROPOSED SPRINT (800/1900MHz) PANEL ANTENNA MOUNTED ON PROPOSED MOUNT
- (8) PROPOSED SPRINT (1.6GHz) PANEL ANTENNA MOUNTED ON PROPOSED MOUNT
- (9) PROPOSED SPRINT (800/1900MHz) RRU MOUNTED BEHIND ANTENNA TYP OF (2) PER ANTENNA
- (10) PROPOSED SPRINT (1.6GHz) RRU MOUNTED BEHIND ANTENNA TYP OF (1) PER ANTENNA
- (11) PROPOSED H-FRAME ANTENNA MOUNT

Sprint

6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251

SAMSUNG

BLACK & VEATCH

115 SANSOME STREET, SUITE 1400B
SAN FRANCISCO, CA 94104

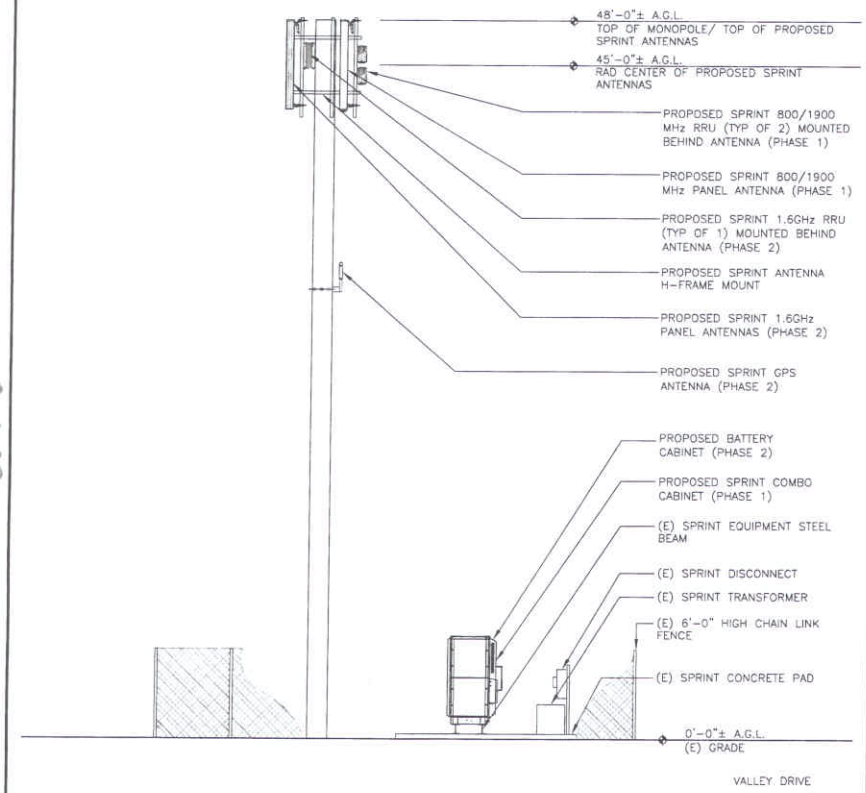
PROJECT NO:	FS04XC902-C
DRAWN BY:	RC
CHECKED BY:	-

REV	DATE	DESCRIPTION
1	05/29/2011	ISSUED FOR 100% ZONING
0	05/23/2011	ISSUED FOR 90% ZONING

1 WEST HILL ROAD
FS04XC902-C
1 WEST HILL ROAD
BRISBANE, CA 94005

SHEET TITLE
INTERIM/PROPOSED EQUIPMENT LAYOUTS

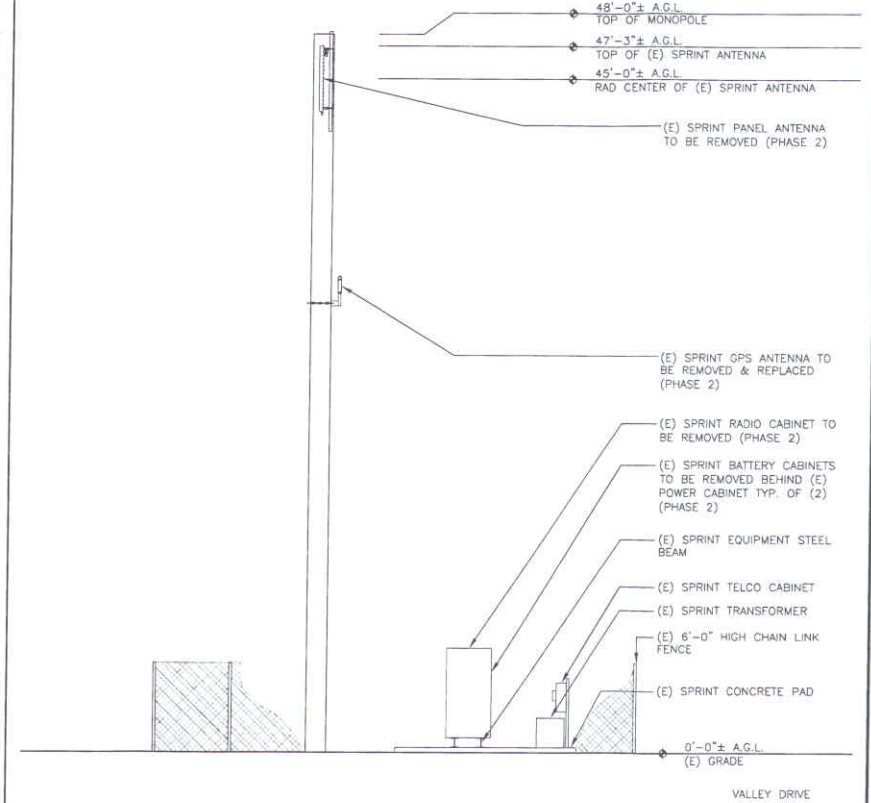
SHEET NUMBER
A-2



PROPOSED EAST ELEVATION

SCALE: 1/4"=1'-0" 2' 4' 8'

2



EXISTING EAST ELEVATION

SCALE: 1/4"=1'-0" 2' 4' 8'

1

Sprint

6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251

SAMSUNG

BLACK & VEATCH

115 SANSOME STREET, SUITE 1400
SAN FRANCISCO, CA 94104

PROJECT NO:	FS04XC902-C
DRAWN BY:	RC
CHECKED BY:	-

REV	DATE	DESCRIPTION
1	09/29/2011	ISSUED FOR 100% ZONING
0	09/23/2011	ISSUED FOR 90% ZONING

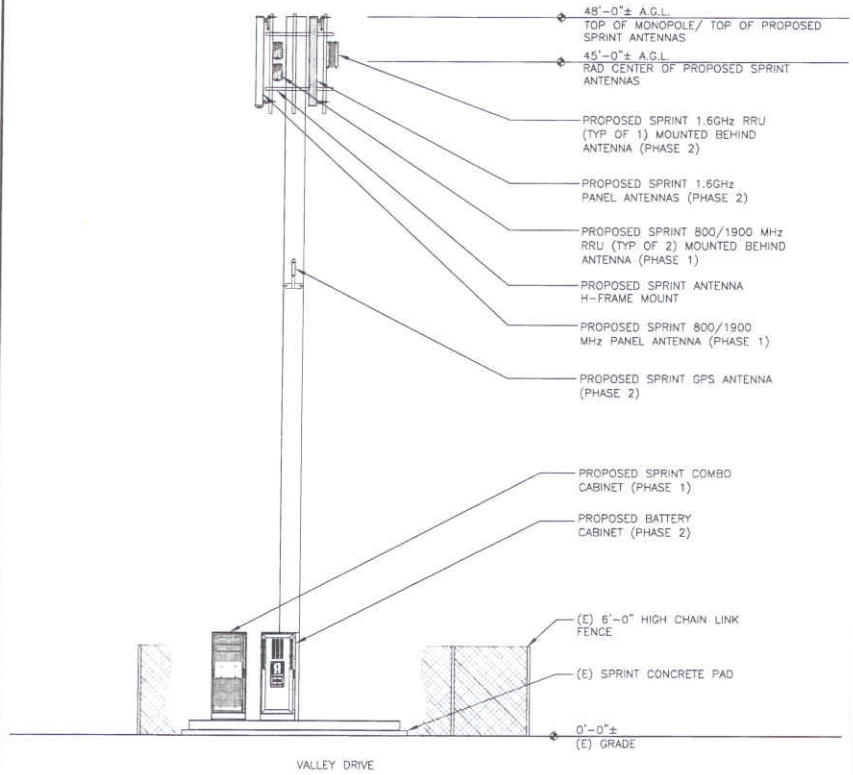
1 WEST HILL ROAD
FS04XC902-C
1 WEST HILL ROAD
BRISBANE, CA 94005

SHEET TITLE
EXISTING/PROPOSED EAST ELEVATION

SHEET NUMBER
A-3

G.1.19

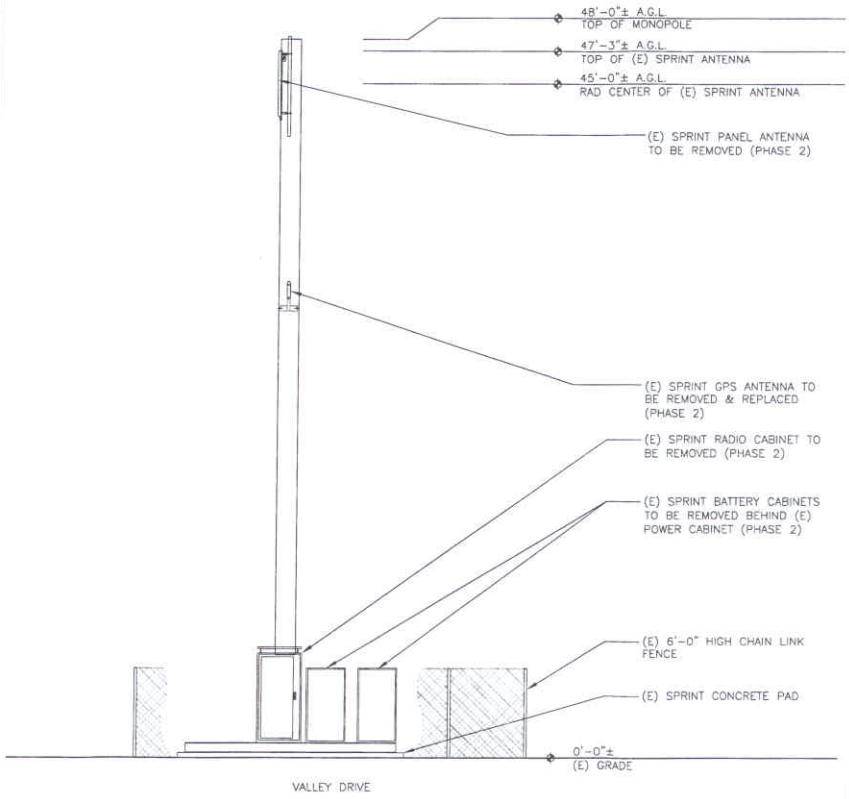
G1.20



PROPOSED NORTH ELEVATION

SCALE: 1/4"=1'-0" (2' 4' 8')

2



EXISTING NORTH ELEVATION

SCALE: 1/4"=1'-0" (2' 4' 8')

1

Sprint

6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251

SAMSUNG

BLACK & VEATCH

115 SANSOME STREET, SUITE 1400
SAN FRANCISCO, CA 94104

PROJECT NO:	FS04XC902-C
DRAWN BY:	RC
CHECKED BY:	-

REV	DATE	DESCRIPTION
1	05/26/2011	ISSUED FOR 100% ZONING
0	05/23/2011	ISSUED FOR 90% ZONING

1 WEST HILL ROAD
FS04XC902-C
1 WEST HILL ROAD
BRISBANE, CA 94005

SHEET TITLE
EXISTING/PROPOSED NORTH ELEVATION

SHEET NUMBER
A-4

From: Mihail (Michael) Mihaylov

825 Swallowtail Ct, Brisbane, CA 94005

mlambrinov@yahoo.om

To: City of Brisbane Planning Commission

50 Park Place, Brisbane, CA 94005

Date: 11/10/2011

The purpose of this letter is to appeal the decision of the Brisbane Zoning Administrator to grant permit to Application Number: Telecommunications Administrative Permit TC-4-11 .

My condo is located across the street from the Sprint facility at 1 West Hill Dr. and is already negatively impacted by the practices of this facility. Their air vents are constantly on and produce non-stop, 24/7 noise pollution. The noise is especially disturbing at night, forcing me and other residents to consider investing in expensive, noise-reducing windows in order to alleviate the issue.

Attempts to contact the Sprint facility management to discuss the issue have been unsuccessful thus far.

The current request of the Sprint facility to double their antennas, if approved, will double the potential harmful effects of air wave radiation exposure on the environment and residents. That's why I am appealing their request.

I discussed the matter with Kevin O'Henry – the president of the condo HOA. He will send a separate letter to you appealing TC-4-11 on behalf of all the 214 condos at the Altamar complex and their residents.

I hope the city of Brisbane will do the right thing and take a principal stance when it comes to protecting the environment and the well-being of residents by rejecting: TC-4-1 and encouraging the Sprint facility management to contact the Altamar HOA to discuss the issues described above. The Altamar HOA can be contacted by reaching out to Kevin O'Henry (altamarpresident@sbcglobal.net).

Best Regards,

Mihail (Michael) Mihaylov 11/11/11

G.1.21

From: Kevin McHenry [kevingmchenry@att.net]
Sent: Saturday, November 12, 2011 7:25 PM
To: Swiecki, John; Johnson, Kenneth
Cc: Dan Kane
Subject: Telecommunications Permit TC-4-11

To: John A. Swiecki, Community Development Director
Planning Commissioners

Dear Director Swiecki and Planning Commissioners:

I am writing to object to the approval of the Telecommunications Administrative Permit TC-4-11, requested by Kevin Bower/Sprint.

Since the notice was only mailed to homeowners in the last week, there has not been sufficient time to study this request. I am concerned not only about the antennas but what the contents are in the cabinets referenced in the permit request. Since I have been traveling on business, I have been unable to review the proposal and staff memorandum at City Hall.

I would like to also make you aware of another significant concern that the Board of Directors of Altamar at the Ridge Owners Association has with respect to the Sprint facility at 1 West Hill Drive.

Numerous homeowners asked the Board of Directors to assist them in seeking some relief from the extreme noise caused by the air conditioners on the roof of the Sprint facility. This equipment runs 24 hours per day, and the nighttime noise intrudes on the sleep of our homeowners who live in the buildings across the street from the Sprint facility.

I have requested that the Brisbane Police Department conduct an evening noise test from our buildings at 600-800 Swallowtail Court since I agree with our homeowners that the noise is excessive and burdensome. The noise may in fact be a violation of Brisbane ordinances.

Since we were unable to locate any phone numbers or contact names at the Sprint facility, I directed a letter to them, requesting that they call me so that we can begin a dialog. So far, I have not heard from anyone at Sprint.

I request that you withhold approval of this permit until we can get a dialog going with Sprint in how they may mitigate the excessive noise coming from their facility at 1 West Hill Drive. We also need more time to study this permit application.

Thank you,
Kevin G. McHenry
President of the Board
Altamar at the Ridge Owners Association
(114 Crescent Court)
(415) 350-9539

cc: Dan Kane, Property Manager, The Manor Association; Altamar Board of Directors

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

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

Site No. FS04XC902C
1 West Hill Road
1 West Hill Road
Brisbane, California 94005
San Mateo County
37.692000; -122.420040 NAD83
Site Type: Monopole

EBI Project No. 62111923
October 26, 2011

EBI CONSULTING
Creating Value for Your Business

G.1.23

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 FS04XC902C located at 1 West Hill Road in Brisbane, 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 October 18, 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.

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

This project involves the removal of one (1) existing Sprint antenna and replacement with two (2) proposed Sprint wireless telecommunication antennas on a monopole located at 1 West Hill Road in Brisbane, California. There is one Sector (A) proposed at the site, with two (2) antennas that may be installed in the sector.

EBI conducted a site visit on October 18, 2011. At the time of the site visit, no additional carriers had antennas on the monopole located at 1 West Hill Road in Brisbane, California. Measurements were taken at the ground level to record existing RF-EME levels resulting from the existing Sprint antennas prior to the installation of Sprint's proposed equipment.

During the survey, no spatially averaged power density readings above 1.1380% of the FCC's occupational MPE (5.6900% of the general public MPE) were encountered on any ground surface.

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 WTS within 100 Feet of the Proposed Site and Estimates of Cumulative EMR Emissions at the 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 Building and Number and Location of Other Telecommunication Facilities on the Property

Sprint proposes the removal of one (1) existing Sprint antenna and replacement with two (2) proposed Sprint wireless telecommunication antennas on a monopole located at 1 West Hill Road in Brisbane, California. There is one Sector (A) proposed at the site, with two (2) antennas that may be installed in the sector. In the sector, there is proposed to be one antenna transmitting in the 800 MHz and the 1900 MHz frequency ranges and one antenna transmitting in the 1600 MHz frequency range. The Sector A antennas will be oriented 120° from true north. The bottoms of the antennas will be approximately 42 feet above ground level.

At the time of the site visit, no additional carriers had antennas on the monopole located at 1 West Hill Road in Brisbane, 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 transmitter for the 800 MHz antenna and there will be one (1) transmitter operating at this frequency. The operating power for the purpose of modeling was assumed to be 20 Watts per transmitter and one (1) transmitter operating in the 1600 MHz frequency range. Additionally, for modeling purposes it was assumed to be 20 Watts per transmitter and six (6) transmitters operating at the 1900 MHz.

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

The effective radiated power (ERP) for the 800 MHz transmitter combined on site is 166 Watts. The ERP for the 1600 MHz transmitters combined on site is 262 Watts. The ERP for the 1900 MHz transmitters combined on site is 1,982 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 mounted to a proposed H-frame antenna mount on the existing monopole and operating in the directions, frequencies, and heights mentioned in section 4.0 above. The surrounding area consists of light industrial and commercial use.

8.0 Estimated Ambient Radio Frequency Fields for the Proposed Site

Based on worst-case predictive modeling, there are no predicted areas on any accessible ground-level walking/working surface related to the proposed Sprint antennas that exceed the FCC's occupational or general public exposure limits at this site. At the nearest walking/working surfaces to the proposed Sprint antennas, the maximum power density is 3.20 percent of the FCC's general public limit (0.64 percent of the FCC's occupational limit). Based on worst-case predictive modeling, there are no areas at ground level related to the proposed Sprint antennas that exceed the FCC's occupational or general public exposure limits at this site. At ground level, the maximum power density generated by the Sprint antennas is 3.20 percent of the FCC's general public limit (0.64 percent of the FCC's occupational limit). The inputs used in the modeling are summarized in the RoofView® export file presented in Appendix B.

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 additional signage be installed for the new antennas making people aware of the antennas locations. Also workers elevated above the roof or ground level should be made aware of the antennas locations. There are no fields in front of the proposed antennas and therefore barriers are not recommended.

Additionally, there are areas where workers elevated above the ground may be exposed to power densities greater than the general population and occupational limits. Workers and the general public should be informed about the presence and locations of antennas and their associated fields.

At the time of the site survey, it was noted that there was a blue "Notice to Workers" sign posted on the tower compound fence, as well as on the base of the monopole.

Additionally, access to this site is accomplished via a gate in the fence surrounding the monopole. Access to the facility is monitored and as such, the general public is not able to access the antennas.

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 1600 MHz and 1900 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.

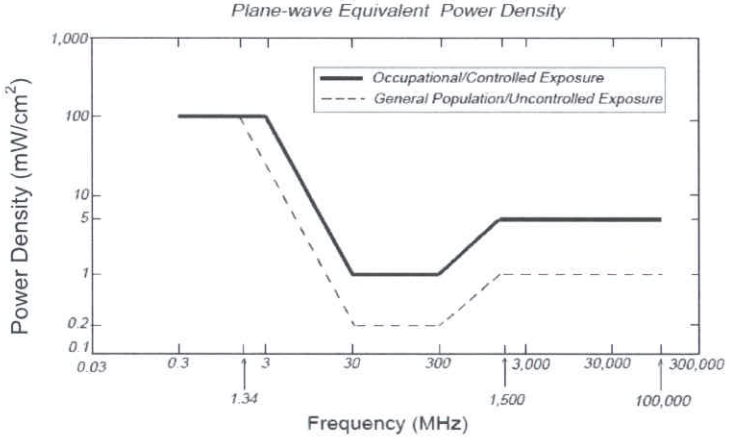
Table 1: Limits for Maximum Permissible Exposure (MPE)

(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

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)**
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)



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/cm^2	1.00 mW/cm^2
Cellular Telephone	870 MHz	2.90 mW/cm^2	0.58 mW/cm^2
Specialized Mobile Radio	855 MHz	2.85 mW/cm^2	0.57 mW/cm^2
Most Restrictive Freq, Range	30-300 MHz	1.00 mW/cm^2	0.20 mW/cm^2

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.

Because of the short wavelength of PCS 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.

Statement of Compliance

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 andprovided 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 proposed Sprint telecommunications equipment at the site located at 1 West Hill Road in Brisbane, California.

EBI has conducted theoretical modeling combined with onsite monitoring to estimate the worst-case power density from 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, there are no modeled exposures on any accessible ground-level walking/working surface related to proposed equipment in the area that exceed the FCC's occupational and general public exposure limits at this site. As such, the proposed Sprint project is in compliance with FCC rules and regulations.

Additionally, based on the FCC criteria, there are no measured areas on any accessible ground-level walking/working surface related to the existing site conditions that exceed the FCC's occupational and general public exposure limits at this site.

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

Appendix A

Certifications

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.

Field Personnel Certification

I, Aniela Travers, 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.

Aniela Travers

Preparer Certification

I, Collin Johnston, 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 \	Roof Max)	Map Max \	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	3	1/2 LDF	0.5		17.37761	KMW	ET-X-TS-90	30	30	42		6	11.9	90;120		ON•
SPT A1	Sprint	1900	20	2	3	1/2 LDF	0.5		34.75522	KMW	ET-X-TS-90	30	30	42		6	14.9	90;120		ON•
SPT A1	Sprint	1900	20	4	3	1/2 LDF	0.5		69.51043	KMW	ET-X-TS-90	30	30	42		6	14.9	90;120		ON•
SPT A2	Sprint	1600	20	1	3	1/2 LDF	0.5		17.37761	KMW	H2-X-LU-9(	28	24	42		6	13.9	90;120		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	

A1-35

Environmental Noise Assessment Report

Prepared for:

Sprint

c/o Modus
115 Samsome St.
14th Floor
San Francisco, CA 94104

Site No. FS04XC902-C

1 West Hill Road
Brisbane, CA 94005

EBI Project No. 2110152

January 30, 2012

EBI CONSULTING
Creating Value for Your Business

G.1.36

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APPENDICES

on file at City Hall or at the Planning Commission meeting webpage: www.brisbaneca.org/city-government

1.0 EXECUTIVE SUMMARY

Sprint, currently operates three (3) equipment cabinets on site FS04XC902-C, and proposes to remove all three (3) and replace them with two (2) equipment cabinets. Therefore, the final number of equipment cabinet at the site will be two (2). This site is located in a commercial area next to a residential area at 1 West Hill Road, Brisbane, CA and is herein referred to as West Hill Road.

A study of the noise effects from the climate controlled equipment enclosure on nearby areas was performed by EBI Consulting. Existing sound levels on the site property line and at nearby residential areas were measured on January 10 - 11, 2012.

Based on the results of this study, EBI concludes that the West Hill Road project will be in compliance with the Brisbane, California Code of Ordinances concerning the sound level limits at all project property lines.

2.0 BACKGROUND

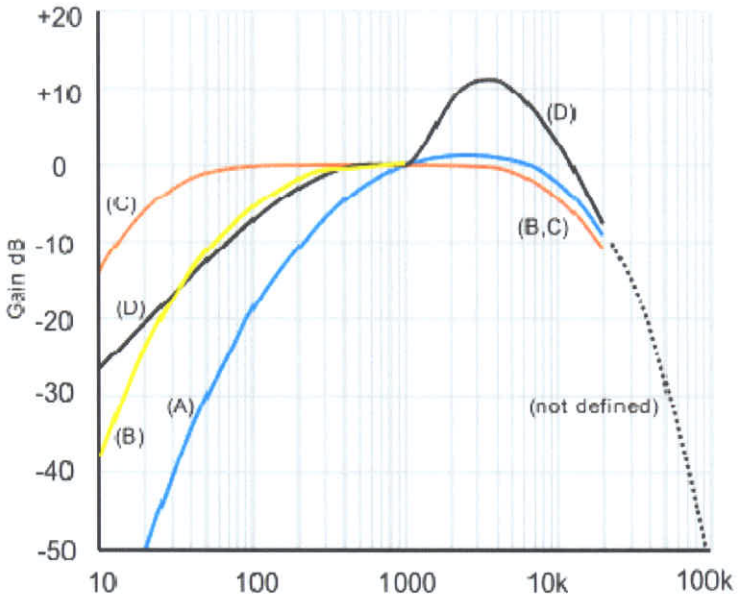
All sounds originate from a source. The sound energy, produced by a source, creates variations in air pressure which travel in all directions much like a wave ripples across the water. The "loudness" or intensity of a sound depends on the sound pressure level, defined as the ratio of two pressures: the measured sound pressure from the source divided by a reference pressure (i.e. threshold of human hearing). The most common approach to sound level measurement is to use the decibel (dB) scale. The decibel scale is logarithmic to accommodate the wide range of sound intensities the human ear is capable of responding to. On this scale, the threshold of human hearing is equal to 0 dB, while levels above 140 dB can cause immediate hearing damage.

One property of the decibel scale is that the combined sound pressure level of separate sound sources is not simply the sum of the contributing sources. For example, if the sound of one source of 70 dB is added to another source of 70 dB, the total is only 73 dB, not a doubling to 140 dB. In terms of human perception of sound, a 3 dB difference is the minimum perceptible change for broadband sounds (i.e. sounds that include all frequencies). A difference of 10 dB represents a perceived halving or doubling of loudness.

Environmental sound is commonly expressed in terms of the A-weighted sound level (dBA). The A-weighting is a standard filter to make measured sound levels more nearly approximate the frequency response of the human ear. Table 1 shows the adjustments made at each octave band frequency to contour un-weighted sound levels (dB) to A-weighted sound levels (dBA).

TABLE 1 - A-WEIGHTED OCTAVE BAND ADJUSTMENT (±dB)

Octave Band Center Frequency (Hz)	32	64	125	250	500	1000	2000	4000	8000	16000
A-weighting Adjustment (±dB)	-39.4	-26.2	-16.1	-8.6	-3.6	0	1.2	1	-1.1	-6.6



A-weighting (blue), B (yellow), C (red), and D-weighting (blk)

Environmental sound varies from moment to moment. Some sounds are sharp impulses lasting a very short time, while others rise and fall over much longer periods of time. There are various measures (metrics) of sound pressure designed for different purposes. The Leq, or equivalent sound level, is the steady-state sound level over a period of time that has the same acoustic energy as the fluctuating sound that actually occurred during that same time. The Leq is commonly referred to as the average sound level and is calculated automatically by the sound level meter using methods defined in ANSI S1.4-1983[1].

[1] American National Standards Institute, ANSI S1-4-1983, American National Standard Specification for Sound Level Meters, 1983

3.0 REGULATORY REQUIREMENTS

Brisbane, California Code of Ordinances, Chapter 8.28- Noise Control

The city of Brisbane addresses sound level limits in the Code of Ordinances, Chapter 8.28, Noise Control and defines "ambient noise" as:

[T]he all-encompassing noise associated with a given environment, usually being a composite of sounds from many sources, near and far. Local ambient is the noise level obtained when the noise level is averaged over a period of fifteen minutes without inclusion of noise from isolated identifiable sources at the location and time of day near that at which a comparison is to be made, and when the noise source at issue is silent. However, for purposes of this chapter, in no case shall the local ambient be considered or determined to be less than:

1. Thirty-five (35) dBA for interior noise in Section 8.28, 030;

2. Forty-five (45) dBA in all other sections of this chapter.

If the local ambient is largely composed of noise produced by other individual identifiable sources which would otherwise be operating continuously during the fifteen minute measurement period and contributing significantly to the ambient sound level, determination of the local ambient shall be accomplished with these separate identifiable noise sources silent.

Noise levels for residential zoning districts are as follows:

No person shall cause, produce, suffer or allow to be produced by any machine, animal or device or any combination of same, in a single-family residential zoning district, a noise level more than ten (10) dB above the local ambient to any receiver for a cumulative period of more than fifteen (15) minutes in any hour, or a noise level more than twenty (20) dB above the local ambient to any receiver for a cumulative period of more than three (3) minutes in any hour.

No person shall cause, produce, suffer or allow to be produced by any machine, animal or device or any combination of same, in a multi-family residential zoning district, a noise level more than ten (10) dB above the local ambient three (3) feet from any wall, floor or ceiling inside any dwelling unit on the same property, except within the dwelling unit in which the noise source or sources may be located to any receiver for a cumulative period of more than fifteen (15) minutes in any hour, or a noise level more than twenty (20) dB above the local ambient to any receiver for a cumulative period of more than three (3) minutes in any hour.

4.0 SITE DESCRIPTION

The site FS04XC902-C is located in a commercial area, boardering a residential property consisting of multi-family condos. The residential area surrounding the site is zoned as, a Multi-Family Residential Zoning District according to the Brisbane, California-Code of Ordinance[2], and will be subjected to the noise level guidelines for the multi- family residential zoning district.

Proposed site modifications include the removal of three (3) existing equipment cabinets, to be replaced with two (2) equipment cabinets. All the proposed work will be done in existing wireless communication facilty. The equipment cabinets are located in the southwestern corner of Unipart, Inc. parking lot. Figure 1 presents the proposed equipment cabinet location, monitoring locations, and property line.

[2] Brisbane, CA, "Brisbane, California- Code of Ordinance" Online:
http://library.municode.com/index.aspx?clientId=16223&stateId=5&stateName=California

FIGURE 1 – AERIAL SITE AND MONITORING LOCATIONS

Noise Compliance Survey
West Hill Road
FS04XC902-C
1 West Hill Road, Brisbane, CA
Site Visit Dates: January 10 - 11, 2012

AMBIENT SOUND LEVEL MEASUREMENTS

Short-term (20 minute) sound monitoring, day and night, was performed in the area surrounding the proposed location. See Figure 1. Two sets of measurements were taken to examine the impact of existing equipment on noise levels at this site. Nighttime measurements were taken at both locations with the Sprint equipment turned on, on January 10, 2012 and January 11, 2012 between 11:33 p.m. and 11:53 p.m. and 11:57 p.m. and 12:17 a.m.. Nighttime measurements were then taken at both locations with the Sprint equipment turned off on January 11, 2012 between 1:01 a.m. and 1:21 a.m. and 1:24 a.m. and 1:44 a.m. The nearest residence measurement (LOC-2) was made on the sidewalk of the nearest residential area on West Hill Road. The measurement (LOC-1) was made on West Hill Road directly across from the equipment. The average nighttime sound level (L_{eq}) measurement varied from 45.8 dBA to 49.7 dBA.

All sound level measurements were taken with a Casella CEL-490 real-time octave-band sound level analyzer, which was equipped with a precision condenser microphone having an operating range of 0 dB to 140 dB, and an overall frequency range of 3.5 to 20,000 Hz. The meter meets or exceeds all requirements set forth in the American National Standards Institute (ANSI) Standards for Type 1 for quality and accuracy. Prior to and immediately following both measurement sessions, the sound analyzer was calibrated (no level adjustment was required) with an ANSI Type 1 calibrator, which has an accuracy traceable to the National Institute of Standards and Technology (NIST). All instrumentation was laboratory calibrated per ANSI recommendations. For all measurement sessions the microphone was fitted with an environmental windscreen to negate the effect of air movement and tri-pod mounted at a height of 1.3 meters above grade, and measurements were made away from any vertical reflecting surfaces in compliance with ANSI Standards S12.9[3]. All data were downloaded to a computer following the measurement session. The sound data are shown in Appendix A and are summarized in Table 3.

TABLE 3 – AMBIENT SOUND LEVEL MONITORING RESULTS
JANUARY 10 - 11, 2012

Location	Description	Time	L_{eq} (dBA)
Loc-1	Property Line w/ equipment on	11:33 p.m.-11:53 p.m. (1/10/12)	49.7
Loc-1	Property Line w/ equipment off	1:01 a.m-1:21 a.m. (1/11/12)	47.7
Loc-2	Nearest Residence w/ equipment on	11:57 a.m-12:17 a.m. (1/10/12-1/11/12)	45.8
Loc-2	Nearest Residence w/ equipment off	1:24 a.m.-1:44 a.m. (1/11/12)	46.0

[3] Acoustical Society of America, ANSI Standard S12.9-1992, "Quantities and Procedures for Description and Measurement of Environmental Sound"

5.0 MODELED POST CONSTRUCTION NOISE LEVELS

Post construction sound level effects from the proposed Sprint equipment at the property line and nearby residences were calculated with the EBI Consulting – Environmental Noise Model (EBI-ENM). EBI-ENM is a sophisticated spreadsheet model for sound propagation and attenuation based on International Standard ISO 9613[4] and other industry accepted calculation standards. Atmospheric absorption, the process by which sound energy is absorbed by the air, was calculated using the Volpe Method[5] which is consistent with ANSI S1.26-1995[6]. The absorption of sound assumed standard dry conditions and is significant at large distances. The EBI-ENM model uses the Modified Kurze-Anderson Formula[7] to predict the insertion loss of any barriers intersecting the line-of-sight between the receiver and the sound source.

Complete modeling output sheets from the EBI-ENM are contained in Appendix B. Table 4 and Table 5 summarize the results of the acoustic modeling. This conservative modeling approach represents a worst case scenario. Actual post-construction noise levels are expected to result in no perceptible noise impact to the nearby residential area.

[4] International Standard, ISO 9613-2, Acoustics – Attenuation of Sound During Propagation Outdoors, -- Part 2 General Calculation Method.
[5] Rickley, E., Fleming, G., & Roof, C. *Simplified Procedure for Computing Absorption of Sound by the Atmosphere*, Noise Control Engineering, US, 2007
[6] American National Standards Institute, ANSI S1-26-1995, American National Standard Method for the Calculation of the Absorption of Sound by the Atmosphere, 1995
[7] Menounou, P. *A Correction to Maekawa's Curve for the Insertion Loss Behind Barriers.* Journal of Acoustical Society of America, Vol. 101, Issue 4, 2001

TABLE 4 – ACOUSTIC MODELING RESULTS

Source Name	Description	Equipment Noise Impact (dBA)
Samsung MMBS	Battery Cabinet	**65 dBA @ 1.5 m**

TABLE 5 – POST CONSTRUCTION SOUND LEVEL RESULTS

Location	Existing Condition (dBA)		Future Condition (dBA) and Increase (±dB) w/ Proposed Equipment	
	Nighttime Equipment On	Nighttime Equipment Off	Nightime Change from Current Equipment On	Nightime Change from Current Equipment Off
Loc-1 Property Line	49.7	47.7	48.8 (-0.9)	48.8 (+1.1)
Loc-2 Resident	45.8	46.0	46.3 (+0.5)	46.3 (+0.3)

6.0 RESULTS AND CONCLUSIONS

The equipment cabinet's installation at West Hill Road will comply with the Brisbane, California- Code of Ordinance guidelines in regards to noise control. The city of Brisbane published Noise Ordinance says that in no case shall the local ambient be considered or determined to be less than thirty-five (35) dBA for interior noise or forty-five (45) dBA which is true. The ordinance that goes on to say that in a multi-family residential zoning district, the noise level may not exceed more than ten (10) dB above the local ambient level which is forty-five (45) dBA in a multi-family zone. At LOC-2 the predicted noise level was modeled using the worst case scenario with the two (2) proposed equipment cabinets installed at the site. The noise level with this scenario during the night for LOC-2 is between 48.8 dBA and 46.3 dBA. Both of these levels are below the additional 10 dB allowed. Therefore, site West Hill Road is currently, and will remain in compliance with the Brisbane, California- Code of Ordinance sound level limits.

7.0 LIMITATIONS

This report was prepared for the use of Sprint and Modus. The conclusions provided by EBI are based solely on the information provided by the client. The observations in this report are valid on the date and time of the investigation. Reported noise levels contained herein are a factor of meteorological and environmental conditions present at the time of the site survey, and represent "typical" site noise levels. Measurement and calculations contained in this report should be considered accurate to within one decibel. 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 and has been designed to address the Brisbane, California- Code of Ordinance. No other warranty, expressed or implied, is made.

8.0 REVIEWER CERTIFICATION

I, Cynara Canntella, state that:

I am an employee of Envirobusiness Inc. (d/b/a EBI Consulting), which provides acoustic survey and compliance services to the wireless communications industry. I have reviewed the data collected during the site survey which is incorporated into this Site Compliance Report such that the information contained in this report is true and accurate to the best of my knowledge.

Sincerely,
By EBI Consulting

Cyanra Cannatella
Senior Project Engineer