verizon

SF HIGHLANDS 005

(NEAR) 1175 PARROTT DRIVE SAN MATEO, CA 94402

SITE ID:

PROJECT ID:

SITE TYPE:

POLE #:

COUNTY:

LOCATION CODE:

483409

20171536395 PG&E POLE TOP

120092292 SAN MATEO RECEIVED

MAR 0 1 2018

San Mateo County Planning Division

APPROVALS THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ANY CHANGES & MODIFICATIONS THEY MAY IMPOSE VERIZON CONSTRUCTION SIGNATURE: DATE: **VERIZON - RF ENGINEER** SIGNATURE: **VERIZON - EQUIPMENT ENGINEER** SIGNATURE: VERIZON REAL ESTATE SIGNATURE: _ MODUS - CONSTRUCTION SIGNATURE: MODUS - LEASING

PROJECT TEAM

PERIZON WIRELESS 2785 MITCHELL DRIVE, SUITE 9 WALNUT CREEK, CA 94598 CONTACT: KAREN MCPHERSON PHONE: (925) 200.6328

karen,mcpherson@verizonwireless.com

SITE ACQUISITION: MODUS, INC. 240 STOCKTON ST., 3RD FLOOR

SAN FRANCISCO, CA 94108 CONTACT: SCOTT REVARD PHONE: (415) 595.0938

PROJECT MANAGER:

240 STOCKTON ST., 3RD FLOOR SAN FRANCISCO, CA 94108 CONTACT: SCOTT REVARD PHONE: (415) 595,0938 EMAIL: srevard@modus-corp.com CONTACT: KEVIN BOWYER phone: (408) 219,5442 EMAIL: kbowyer@modus-corp.com

A&E PROJECT MANAGER:

2930 DOMINGO AVE, SUITE 150 BERKELEY, CA 94705 PHONE: (916) 412,7896 EMAIL: commsense.jim@amail.com

CONSTRUCTION/IMPLEMENTATION MANAGER:

240 STOCKTON ST., 3RD FLOOR SAN FRANCISCO, CA 94108 CONTACT: CAL BORDONARO PHONE: (415) 261.0000 EMAIL: cbordongro@modus-corp.com

LAND USE PLANNER:

240 STOCKTON ST., 3RD FLOOR SAN FRANCISCO, CA 94108 CONTACT: KEVIN BOWYER PHONE: (408) 219.5442 EMAIL: kbowyer@modus-corp.com

PROJECT DESCRIPTION

VERIZON WIRELESS PROPOSES TO INSTALL A NEW WIRELESS COMMUNICATION SITE ON A WOODEN UTILITY POLE IN THE PUBLIC RIGHT-OF-WAY.

INSTALL (1) NEW 4' CANISTER ANTENNA ON TOP OF UTILITY POLE

SF HIGHLANDS BAYWOOD PARK 005

- INSTALL (1) NEW 100A METER ON UTILITY POLE
- INSTALL (1) NEW 7' BAYONET EXTENSION
- INSTALL (1) NEW RRU2212 ON UTILITY POLE INSTALL (1) NEW RRUS32 ON UTILITY POLE
- INSTALL (1) NEW PSU AC 08 & (1) NEW PSU AC 02 ON UTILITY POLE
 INSTALL (1) NEW COAX CONDUIT FROM EQUIPMENT TO NEW CANISTER ANTENNA
- INSTALL (1) NEW POWER CONDUIT FROM P.O.C. TO EQUIPMENT
- INSTALL (1) NEW FIBER CONDUIT FROM P.O.C. TO EQUIPMENT
 INSTALL (1) NEW EQUIPMENT BRACKET ON UTILITY POLE
- INSTALL (6) NEW HYBRID COUPLERS ON UTILITY POLE
- INSTALL (1) NEW AC PANEL ON UTILITY POLE
- INSTALL (1) NEW FIBER DEMARC BOX ON UTILITY POLE
- CABLING TO BE INSTALLED IN A TIGHT NEAT MANNER WITHOUT EXCESS CABLE LOOPS ALL VERIZON ADDED APPURTENANCES SHALL BE PAINTED TO MATCH POLE COLOR
- (NON-GLOSSY "SABLE" BY SHERWIN WILLIAMS, OR EQUIVALENT)

DRIVING DIRECTIONS

DIRECTIONS FROM VERIZON WIRELESS OFFICE AT 2785 MITCHELL DRIVE, WALNUT CREEK, CA:

- 1. HEAD NORTHEAST ON MITCHELL DR TOWARD OAK GROVE RD
- TURN RIGHT ONTO OAK GROVE RD

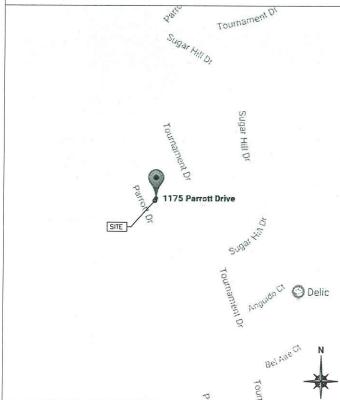
SIGNATURE:

OTHER (IF APPLICABLE)

- TURN RIGHT ONTO YGNACIO VALLEY RD YGNACIO VALLEY RD TURNS RIGHT AND BECOMES HILLSIDE AVE
- 5. USE THE LEFT 2 LANES TO TURN LEFT ONTO INTERSTATE 680 S RAMP TO SAN JOSE
- MERGE ONTO 1-680 S TAKE EXIT 30B TO MERGE ONTO 1-580 W TOWARD DUBLIN/OAKLAND

 8. KEEP LEFT AT THE FORK TO CONTINUE ON I-238 N.
- FOLLOW SIGNS FOR I-880 9. USE THE RIGHT 2 LANES TO TAKE EXIT 16A FOR I-880 S
- TOWARD SAN JOSE/SAN MATEO BRIDGE 10. MERGE ONTO I-880 S
- 11. USE THE RIGHT 2 LANES TO TAKE EXIT 17 TO MERGE ONTO CA-92 W TOWARD SAN MATEO BRIDGE/JACKSON ST
- 12. TAKE EXIT 10 FOR W HILLSDALE BLVD TURN RIGHT ONTO W HILLSDALE
- 14. SLIGHT LEFT ONTO PERIMETER RD
- 16. TURN RIGHT ONTO PARROTT DR
- 17. DESTINATION WILL BE ON THE RIGHT

VICINITY MAP



SITE INFORMATION

SITE ADDRESS: (NEAR) 1175 PARROTT DRIVE

OWNER:

APPLICANT VERIZON WIRELESS 2785 MITCHELL DRIVE, SUITE 9

LATITUDE:

N 37° 32' 17.42" W 122° 20' 44.37'

LONGITUDE:

JURISDICTION:

SAN MATEO CITY OF SAN MATEO

ASSESSORS PARCEL NUMBER:

PUBLIC RIGHT-OF-WAY ADJACENT TO 038-130-120

ELEVATION:

PUBLIC ROW +490.0' AMSI

CALL 811 BEFORE YOU DIG IT'S THE LAW

THE UTILITIES SHOWN HEREIN ARE FOR THE CONTRACTORS CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS, THE ENGINEER/SURVEYOR ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL THE UTILITIES WITHIN THE LIMITS OF THE WORK, ALL DAMAGE MADE TO THE (E) UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

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	ū ,			

CODE COMPLIANCE

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

- 2016 CALIFORNIA BUILDING CODE (CBC). BASED ON THE 2015 IBC.
- 2016 CALIFORNIA BUILDING CODE (CBC), BASED ON THE 2015 IBC
 2016 CALIFORNIA RESIDENTIAL CODE (CFC), BASED ON THE 2015 IBC
 2016 CALIFORNIA RELECTRICAL CODE (CEC), BASED ON THE 2014 NEC
 2016 CALIFORNIA MECHANICAL CODE (CMC), BASED ON THE 2015 UPC
 2016 CALIFORNIA PLUMBING CODE (CPC), BASED ON THE 2015 UPC
 2016 CALIFORNIA GREEN BUILDINGS STANDARDS CODE (CALGREEN)
 2016 CALIFORNIA FIRE CODES WITH ALL LOCAL AMENDMENTS

 ANY LOCAL BUILDING CODE AMENDMENTS TO THE ABOUTS
- ANY LOCAL BUILDING CODE AMENDMENTS TO THE ABOVE
- CITY / COUNTY ORDINANCES

HANDICAP REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION HANDICAPPET

verizon/

2785 MITCHELL DRIVE, SUITE 9 WALNUT CREEK, CA 94598



240 STOCKTON ST., 3RD FLOOR SAN FRANCISCO, CA 94108



2930 DOMINGO AVE, SUITE 150 BERKELEY, CA 94705

DRAWN BY:	LM
CHECKED BY:	JB

REV	DATE	DESCRIPTION
0	10/05/17	90% CD
1	10/25/17	95% CD
2	12/20/17	100% CD
3	02/28/18	100% CD REV



SF HIGHLANDS **BAYWOOD PARK 005**

(NEAR) 1175 PARROTT DRIVE SAN MATEO, CA 94402

TITLE SHEET

T-1

GENERAL NOTES

GENERAL CONSTRUCTION NOTES

- PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY, UNLESS NOTED OTHERWISE. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- 2. THE CONTRACTOR SHALL OBTAIN, IN WRITING, AUTHORIZATION TO PROCEED EFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
- 3. CONTRACTOR SHALL CONTACT USA (UNDERGROUND SERVICE ALERT) AT (800) 227-2600, FOR UTILITY LOCATIONS, 2 WORKING DAYS BEFORE PROCEEDING WITH ANY EXCAVATION, SITE WORK OR CONSTRUCTION.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE, OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- 5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CBC'S REQUIREMENTS REGARDING EARTHQUAKE RESISTANCE, FOR, BUT NOT LIMITED TO PIPING LIGHT FIXTURES CEILING GRID INTERIOR PARTITIONS AND MECHANICAL EQUIPMENT. ALL WORK MUST COMPLY WITH LOCAL EARTHQUAKE
- 6. REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE PLOT OF REPRESENTATIONS OF TRUE MORTH, OTHER THAN THOSE FOUND ON THE PLOT OF SURVEY DRAWMINGS, SHALL NOT BE USED TO IDENTIFY OR ESTABLISH BEARING OF TRUE MORTH AT THE SITE. THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF SURVEY DRAWMING AND ANY SURVEYOR'S MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH, AND SHALL NOTIFY THE ARCHITECT / ENGINEER PRIOR TO PROCEEDING WITH THE WORK IT ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWMINGS AND THE TRUE MORTH AND THE PLAN OF THE WORKING DRAWMINGS AND THE TRUE MORTH AND THE CAN SURVEY THE CONTRACTORS. NORTH ORIENTATION AS DEPICTED ON THE CIVIL SURVEY, THE CONTRACTOR SHALL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ARCHITECT /
- 7. THE BUILDING DEPARTMENT ISSUING THE PERMITS SHALL BE NOTIFIED AT LEAST TWO WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORK, OR AS OTHERWISE STIPULATED BY THE CODE ENFORCEMENT OFFICIAL HAVING
- 8. DO NOT EXCAVATE OR DISTURB BEYOND THE PROPERTY LINES OR LEASE AREA LINES, UNLESS OTHERWISE NOTED.
- ALL EXISTING UTILITIES, FACILITIES, CONDITIONS, AND THEIR DIMENSIONS SHOWN ON THE PLAN HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THE ARCHITECT |
 FEMGINEER AND THE OWNER ASSUME NO RESPONSIBILITY WHATSOEVER AS TO THE SUFFICIENCY OR THE ACCURACY OF THE INFORMATION SHOWN ON THE PLANS, OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT, CONTRACTORS SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL EXISTING
 UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTORS
 SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING EXISTING UTILITIES.
- 10. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, BOTH HORIZONTAL AND VERTICALLY. PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS, AS TO THE INTERPRETATION OF PLANS SHOULD BE IMMEDIATELY REPORTED TO THE ARCHITECT / ENGINEER FOR RESOLUTION AND INSTRUCTION. AND NO FURTHER WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS CHECKED AND CORRECTED BY THE ARCHITECT / ENGINEER, FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS/HER OWN RISK AND EXPENSE
- 11. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISH ELEVATIONS PRIOR TO FINAL INSPECTION OF WORK.
- 12. ANY EXISTING COMPONENTS DISTURBED DURING CONSTRUCTION SHALL BE RETURNED TO IT'S ORIGINAL CONDITION PRIOR TO COMPLETION OF WORK. SIZE, LOCATION AND TYPE OF ANY UNDERCROUND UTILITIES OR IMPROVEMENTS SHALL BE ACCURATELY NOTED AND PLACED ON "AS BUILT'D DAWNINGS BY GENERAL CONTRACTOR, AND ISSUED TO THE ARCHITECT / ENGINEER AT COMPLETION OF PROJECT.
- 13. ALL TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS UTILITIES, ETC., SHALL BE PROPERLY LAID BACK OR BRACED IN ACCORDANCE WITH CORRECT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

GENERAL NOTES FOR EXISTING CELL SITES

- 1. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
- 2. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS CONTACTOR STALL VERIET ALE ADDITING DIMENSIONS AND CONDITIONS PRICE TO CONDITIONS PRICE TO THE ADDITIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ANY DEGREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- 3. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. AN CONSTRUCTION WORK BY CONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS
- 4. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BETAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RE EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
- CONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND TI CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. CONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD (N) TRAYS AS NECESSARY. CONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
- 6. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP Contractor shall legally and property dispose of all scrap materials such as coaxial cables and other tems removed from the existing Facility. Antennas removed shall be returned to the owners designated location.

APPLICABLE CODES: REGULATIONS AND STANDARDS

- 1. CONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL. STATE. AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION.
- THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE TIME OF PERMITTING AWARD SHALL GOVERN THE DESIGN.
- 3. CONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE
- FOLLOWING STANDARDS:
 AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE 3.1.
- *AMERICAN COMERCIE INSTITUTE (ALS) 518, SOUTHOR CODE

 REQUIREMENTS FOR STRUCTURAL CONCRETE
 AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL
 CONSTRUCTION, ASD, NINTH EDITION
 TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-F, STRUCTURAL
- STANDARD FOR STRUCTURAL ANTENNA TOWER AND ANTENNA
- STANDARD FOR STRUCTURAL ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES
 INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESSISTIVITY, GROUND IMPEDANCE, AND EARTH SURFACE POTENTIALS OF A GROUND SYSTEM IEEE 1100 (1999)
 RECOMMENDED PRACTICE FOR POWERING AND GROUNDING OF ELECTRICAL EQUIPMENT.
- ELECTRICAL EQUIPMENT.
 -IEEE C62.41, RECOMMENDED PRACTICES ON SURGE VOLTAGES IN LOW VOLTAGE AC POWER CIRCUITS (FOR LOCATION CATEGORY "C3" AND "HIGH SYSTEM EXPOSURE")
- 4. TIA 607 COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS TIA 607 COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREM FOR TELECOMMUNICATIONS.

 1. TELCORDIA GR-63 NETWORK EQUIPMENT-BUILDING SYSTEM (NEBS): PHYSICAL PROTECTION

 2. TELCORDIA GR-347 CENTRAL OFFICE POWER WIRING

 3. TELCORDIA GR-127 SENERAL INSTALLATION REQUIREMENTS

 4. TELCORDIA GR-1503 COAXIAL CABLE CONNECTIONS

- 5. ANY AND ALL OTHER LOCAL & STATE LAWS AND REGULATIONS
- 6. FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT THE SPECIFIC REQUIREMENT SHALL GOVERN

- MAINTAIN 24" MINIMUM COVER FOR ALL ELECTRICAL CONDUITS, U.O.N.
- MAINTAIN 30" MINIMUM COVER FOR ALL TELECOMMUNICATIONS CONDUITS.
 MINIMUM 1" SAND SHADING BELOW CONDUITS, AND 6" COVERING ON TOP OF 4. REFER TO SHEET E-1 FOR ADDITIONAL REQUIREMENTS

- GROUNDING SHALL BE TESTED AT 5 OHMS OR LESS.
- WOOD MOLDING, STAPLED EVERY 3'-0" AND AT EACH END.

- ALL CONDUITS WILL BE MANDRELED AND EQUIPPED WITH 3/8" PULL ROPE.
- ALL CONDUITS WILL BE MANDRELED AND EQUIPPED WITH 3/8" PULL ROPE, SCHEDULE 40 CONDUIT FOR WINDERGROUND USE.
 SCHEDULE 40 CONDUIT FOR RISER USE AND ELSEWHERE AS NOTES. TRANSITION FROM SCHEDULE 40 PVC OR RISIOI STEEL CONDUIT TO SCHEDULE 80 USING APPROVED FITTINGS DESIGNED TO PROVIDE A SMOOTH INTERIOR WALL TRANSITION TO THE REDUCED INTERIOR DIAMETER OF SCHEDULE 80, ADJUST CONDUIT SEE IF NECESSARY TO MAINTAIN THE INTERIOR AREA REQUIRED FOR THE WINDIGS SEPCIETIES.
- THE WIRING SPECIFIED.

 GALVANIZED STEEL CONDUIT FOR ANY CONDUIT UNDER 3", STUB UP 10" THEN
- CONVERT TO SCHEDULE 80.
 CONTRACTOR TO STUB UP POLE 10" w/ 3" POWER CONDUIT, POWER COMPANY TO CONVERT FROM 3" STUB SCHEDULE 80 TO 2" SCHEDULE 80 FROM TOP OF
- ZRC COLD GALVANIZING COMPOUND OR EQUIVALENT IS REQUIRED ON XPOSED THREADS IN RIGID STEEL CONDUIT AND THE CUT ENDS OF SUPPORT STRUTS, ETC. TO PREVENT RUSTING.

TYPICAL R.O.W. POLE CONSTRUCTION NOTES

- CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.

- CABLE NOT TO IMPEDE 15" CLEAR SPACE OF POLE FACE.

 ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.

 NO BOLT THREADS TO PROTRUDE MORE THAN 1-1/2"

 ALL HOLES IN POLE LEFT FROM REARRANGEMENT OF CLIMB STEPS TO BE FILLED.

 90" SHORT SWEEPS UNDER ANTENNA ARM, ALL CABLES MUST TRANSITION ON THE INSIDE OR BOTTOM OF THE ARM (NO CABLE ON TOP OF ARM).

 USE 90" CONNECTOR AT CABLE CONNECTION FOR OWNI DOWN ANTENNAS.

 USE CABLE CLAMPS TO SECURE CABLE TO ARMS. PLACE 2" VERIZON WIRELESS CABLE LD. TAGS ON BOTH SIDES OF ARMS.

 USE 1/2" DIA. CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.

 PLACE OPS ON ARM OF SOUTHERN SKY EXPOSURE AT MINIMUM 6" FROM TRANSMIT ANTENNAS UNLESS OT PROME THE MERCHING OF POLE.
- TRANSMIT ANTENNA WHICH IS 24" AWAY FROM CENTER OF POLE.

 10. FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO
- PREVENT WATER INTRUSION.

NTRACTOR REQUIREMENTS

OO NOT SCALE OFF DRAWINGS CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON

DISCREPANCIES BEFORE PROCEEDING WITH THE WORK

ABBREVIATIONS

GLUE LAMINATED

ISOLATED COPPER

MECHANICAL MANUFACTURER

MINIMUM MISCELLANEOUS

NOT TO SCALE

PRE CAST CONCRETE

POWER-PROTECTION CARINE POWER-PROTECTION CABINET PRIMARY FLEXING CABINET POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH PRESSURE TREATED POWER (CABINET) QUANTITY

ON CENTER

SERVICES

REINFORCING REQUIRED RIGID GALVANIZED STEEL

RIGHT OF WAY

SPECIFICATION(S)

THICKNESS
TOE NAIL
TOP OF ANTENNA
TOP OF CURB
TOP OF FOUNDATION
TOP OF PLATE (PARAPET)

UNLESS NOTED OTHERWISE VERIFY IN FIELD

GROUT OR PLASTER

(E) BRICK

(E) MASONRY

CONCRETE

EARTH

GRAVEL

SAND

PLYWOOD

CENTERLINE

MATCH LINE

PROPERTY/LEASE

GROUND CONDUCTOR

TELEPHONE CONDUIT

ELECTRICAL CONDUIT

ELECTRICAL &

COAXIAL CABLE

OVERHEAD SERVICE

CHAIN LINK FENCING

OVERHEAD TELEPHONE

OVERHEAD TELEPHONE

OVERHEAD POWER LINE

POWER RUN

STAINLESS STEEL STANDARD

STRUCTURAL

TOP OF STEEL TOP OF WALL

UNDER GROUND UNDERWRITES LABORATORY

WEATHERPROOF

00000000000

8777777777777777

1

- A - A -

-OHT/OHP-

-E-E-

SCHEDULE

SIMILAR

GROUND BUS

GROUND

HEADER

HANGER

INTERIOR

LAG BOLTS

,,,,,,	112 117 11101	
A.B.	ANCHOR BOLT	GLB.
ABV.	ABOVE	(GLU-LA
ACCA	ANTENNA CABLE COVER	GPS
	ASSEMBLY	
ADD'L	ADDITIONAL	GRND.
A.F.F.	ABOVE FINISHED FLOOR	HDR.
A.F.G.	ABOVE FINISHED GRADE	HGR.
AGL	ABOVE GROUND LEVEL	HT.
ALUM	ALUMINUM	ICGB.
ALT.	ALTERNATE	
AMSL	ABOVE SEA LEVEL	IN.(")
ANT.	ANTENNA	INT.
APPRX.	APPROXIMATE(LY)	LB.(#)
ARCH.	ARCHITECT(URAL)	L.B.
AWG.	AMERICAN WIRE GAUGE	L.F.
BLDG.	BUILDING	L
BLK.	BLOCK	MAS.
BLKG	BLOCKING	MAX.
BM.	BEAM	M.B.
B.N.	BOUNDARY NAILING	MECH.
BN	BACK-UP CABINET	MFR.
BTCW.	BARE TINNED COPPER WIRE	
B.O.	вопом	MISC.
B.O.F. CAB.	BOTTOM OF FOOTING	MTL:
	CABINET	NO.(#)
CANT.	CANTILEVER(ED)	N.T.S.
C.I.P.	CAST IN PLACE	(N)
CLG.	CEILING	O.C.
© CLR.	CENTERLINE	OPNG.
	CLEAR	P/C
COL.	COLUMN	PCS
CONC.	CONCRETE CONNECTION(OR)	D
		PLY.
CONST.	CONSTRUCTION	PPC.
CONT.	CONTINUOUS PENNY (NAILS)	PRC.
DBL.	DOUBLE	P.S.F.
DEPT.	DEPARTMENT	P.S.I.
D.F.	DOUGLAS FIR	P.T.
DIA.	DIAMETER	PWR.
DIAG.	DIAGONAL	QTY.
DIM.	DIMENSION	RAD.(R)
DWG.	DRAWING(S)	REF.
DWL.	DOWEL(S)	REINF.
EA.	EACH	REQ'D.
EL.	ELEVATION	RGS.
ELEC.	ELECTRICAL	R.O.W.
ELEV.	ELEVATOR	SCH.
EMT.	ELECTRICAL METALLIC	SHT.
5.17111	TUBING	SIM.
E.N.	EDGE NAIL	SPEC.
ENG.	ENGINEER	SQ.
EQ.	EQUAL	S.S.
EXP.	EXPANSION	STD.
EXST.(E)	EXISTING	STL.
EXT.	EXTERIOR	STRUC.
FAB.	FABRICATION(OR)	TEMP.
F.F.	FINISH FLOOR	THK.
F.G.	FINISH GRADE	T.N.
FIN.	FINISH(ED)	T.O.A.
FLR.	FLOOR	T.O.C.
FDN.	FOUNDATION	T.O.F.
F.O.C.	FACE OF CONCRETE	T.O.P.
F.O.M.	FACE OF MASONRY	T.O.S.
F.O.S.	FACE OF STUD	T.O.W.
F.O.W.	FACE OF WALL	TYP.
F.S.	FINISH SURFACE	U.G.
FT.(")	FOOT(FEET)	U.L.
FTG.	FOOTING	U.N.O.
G.	GROWTH(CABINET)	V.I.F.
GA.	GAUGE	W
GI.	GALVANIZE(D)	W/
G.F.I.	GROUND FAULT CIRCUIT	WD.
	INTERRUPTER	W.P.
		WT.

LEGEND

NEW ANTENNA

GROUND ROD

CADWELD

EXISTING ANTENNA

GROUND BUS BAR

GROUND ACCESS

ELECTRIC BOX

TELEPHONE BOX

FND. MONUMENT

SPOT ELEVATION

GRID REFERENCE

DETAIL REFERENCE

FLEVATION REFERENCE

SECTION REFERENCE

WOOD CONTINUOUS

WOOD BLOCKING

STEEL

LIGHT POLE

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verizon/

2785 MITCHELL DRIVE, SUITE 9 WALNUT CREEK, CA 94598



240 STOCKTON ST., 3RD FLOOR SAN FRANCISCO, CA 94108



2930 DOMINGO AVE, SUITE 150 BERKELEY, CA 94705

DRAWN BY:	LM
CHECKED BY:	JB

REV	DATE	DESCRIPTION
0	10/05/17	90% CD
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2	12/20/17	100% CD
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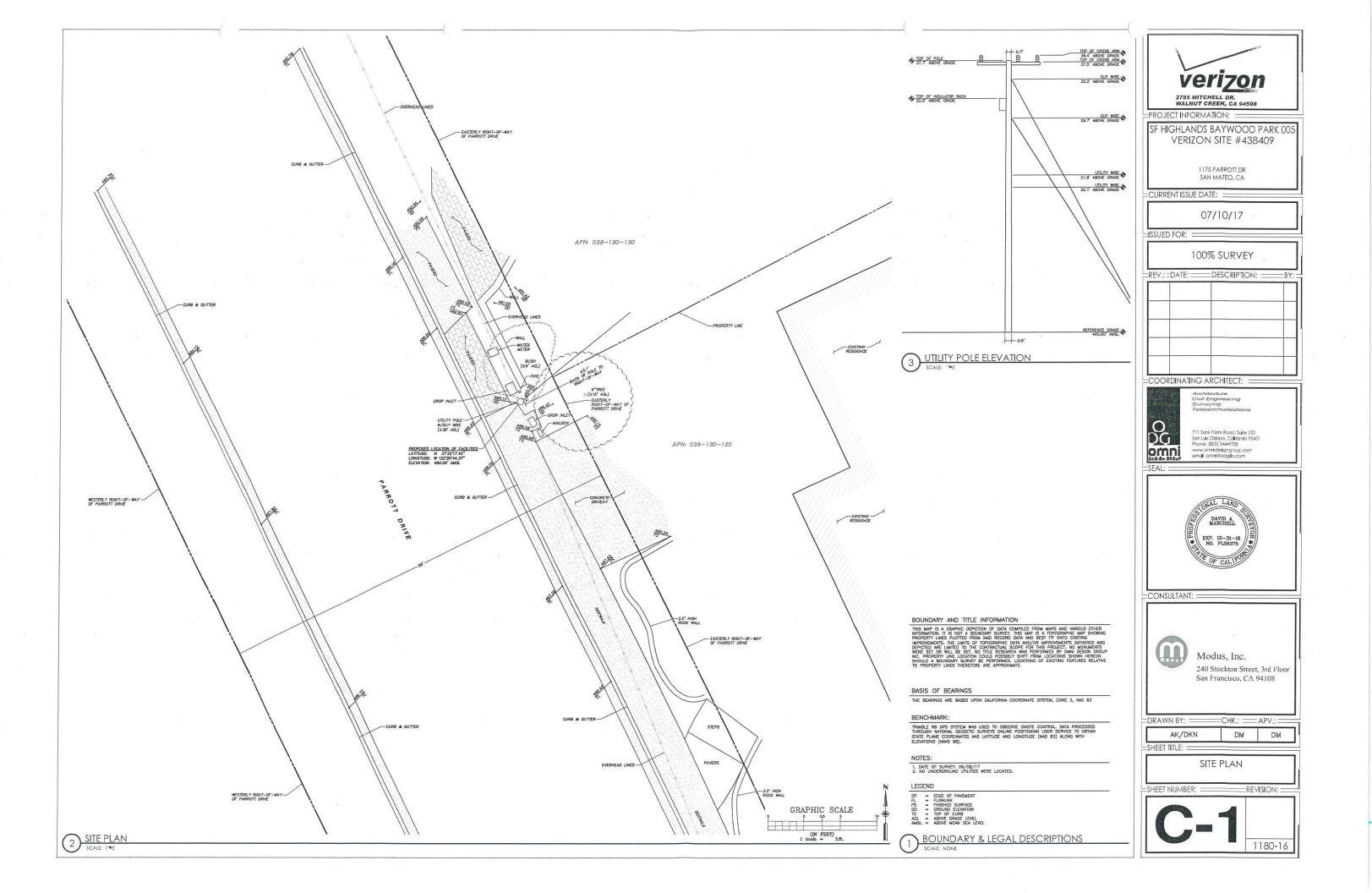
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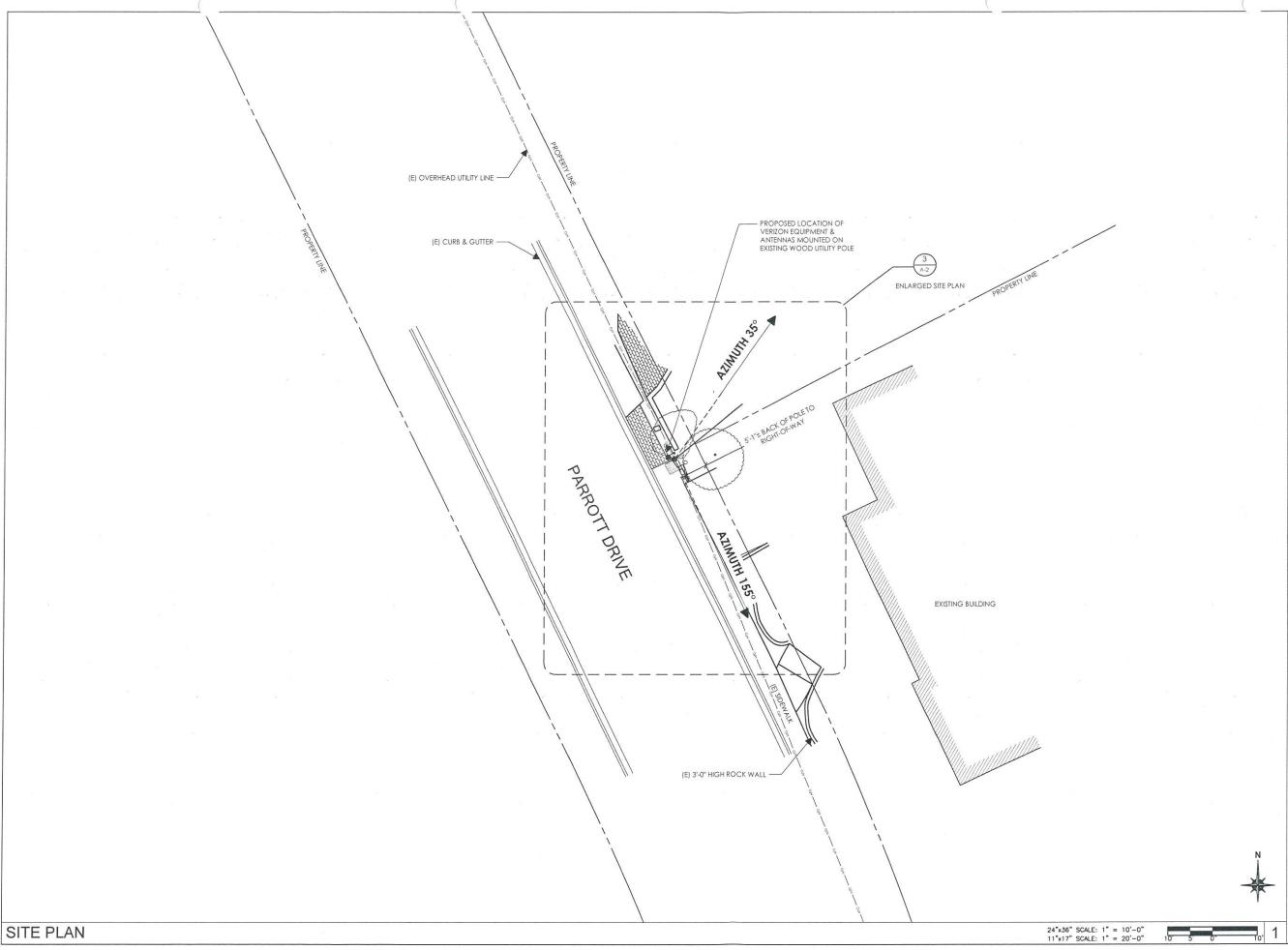
SF HIGHLANDS **BAYWOOD PARK 005**

(NEAR) 1175 PARROTT DRIVE SAN MATEO, CA 94402

GENERAL NOTES

T-2





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2785 MITCHELL DRIVE, SUITE 9 WALNUT CREEK, CA 94598



240 STOCKTON ST., 3RD FLOOR SAN FRANCISCO, CA 94108



2930 DOMINGO AVE, SUITE 150 BERKELEY, CA 94705

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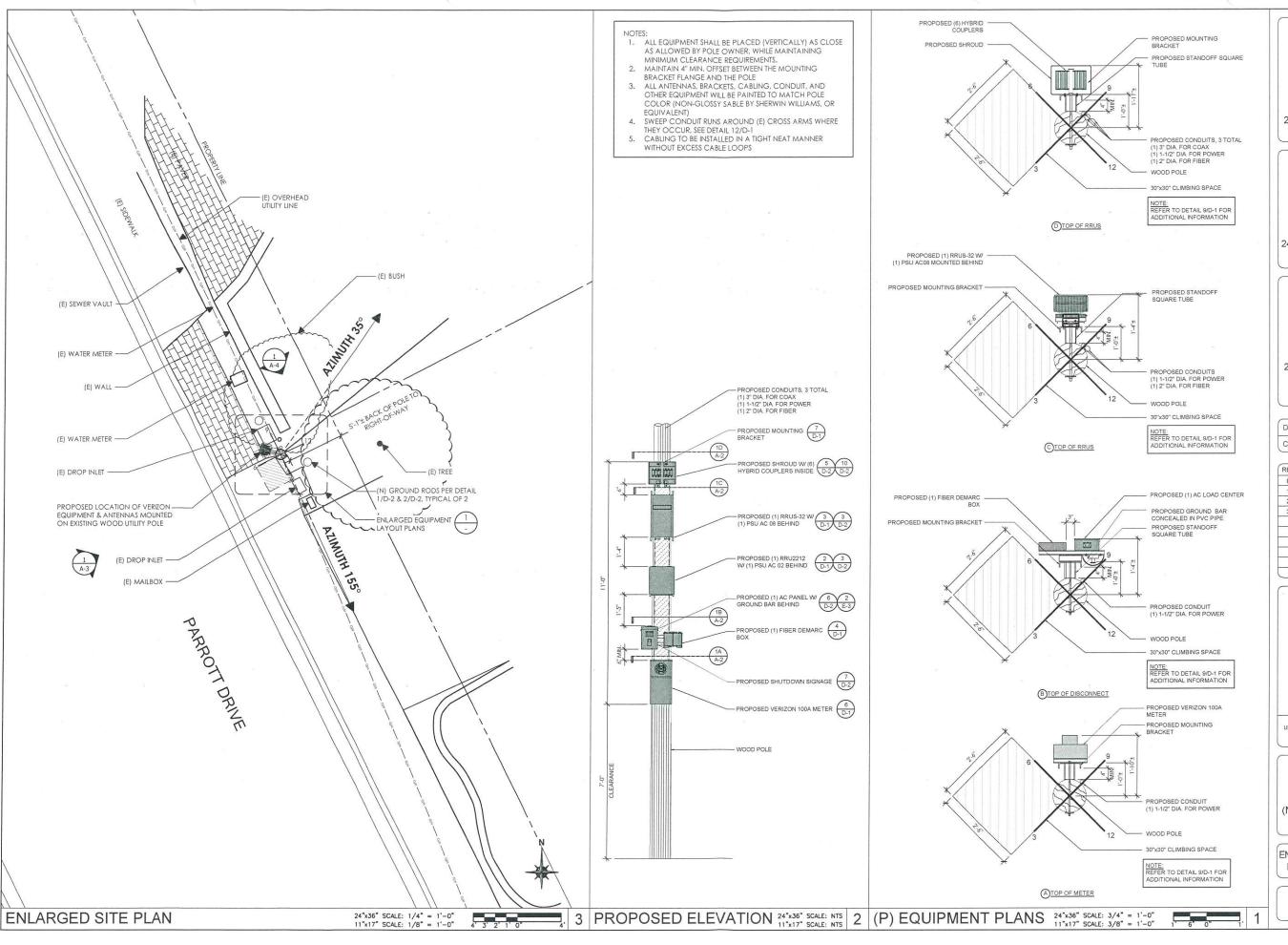
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SITE PLAN

A-1



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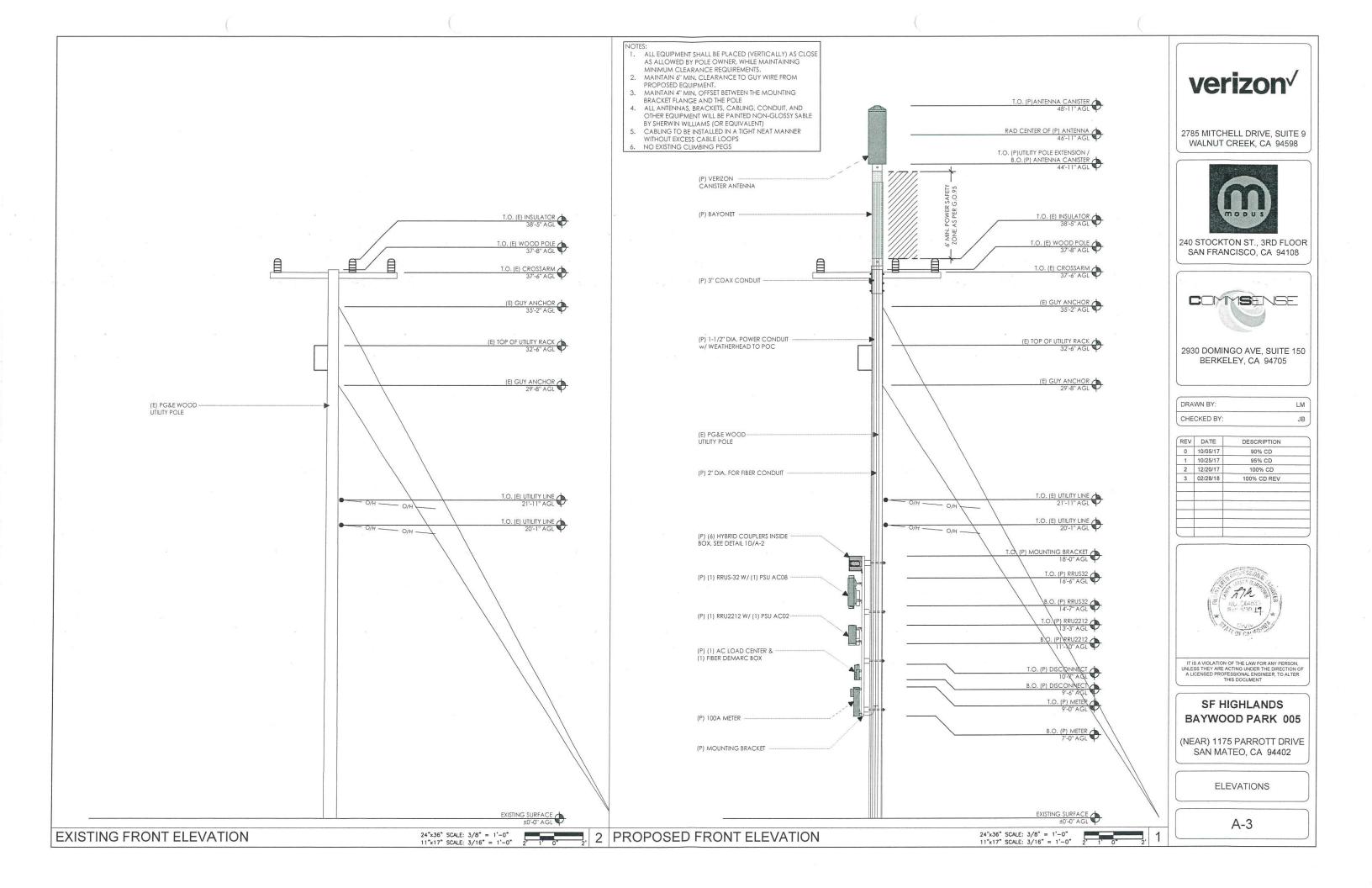
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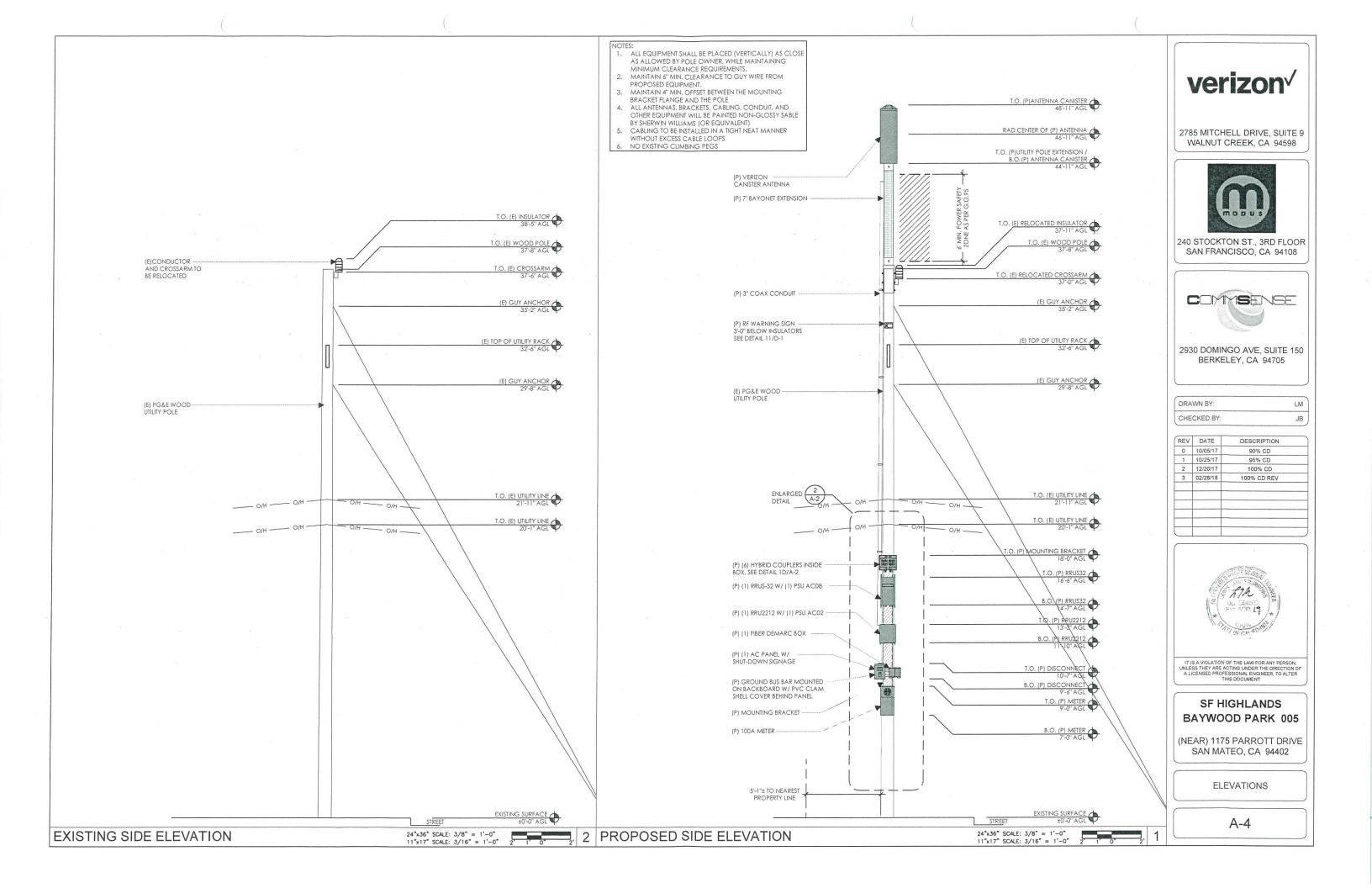
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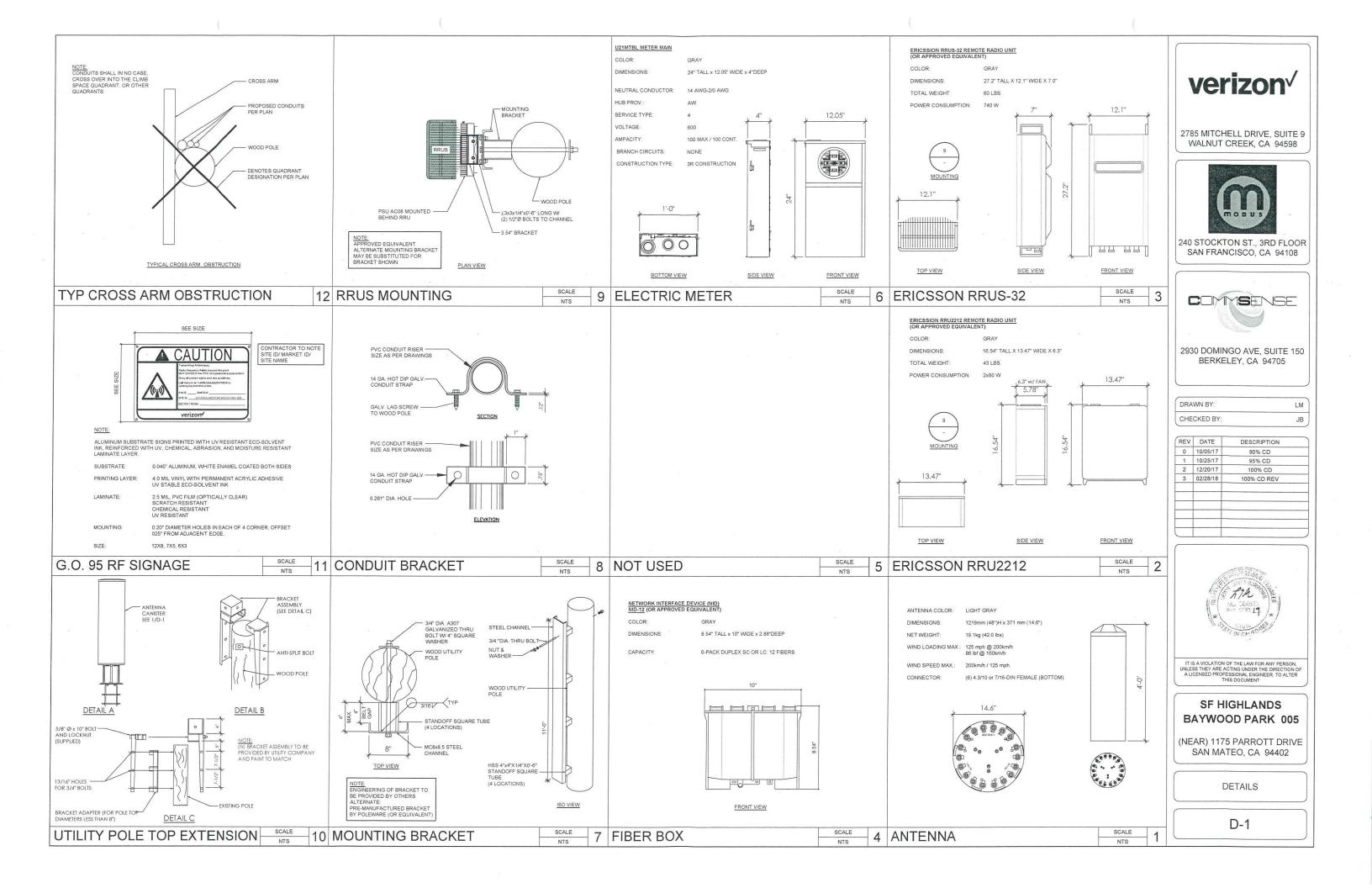
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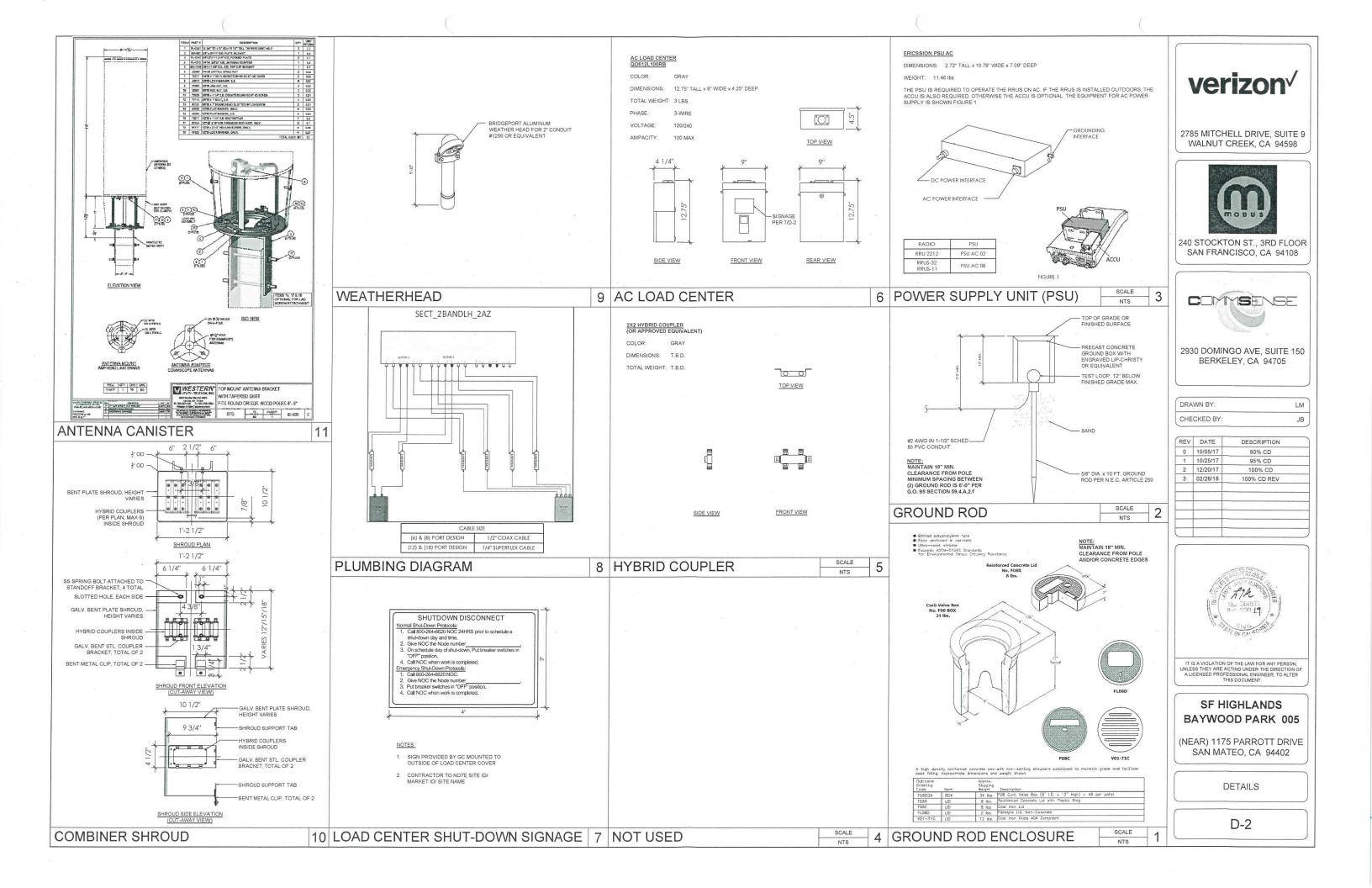
ENLARGED SITE PLAN & PROPOSED ELEVATION / EQUIPMENT PLANS

A-2









A	AMPERE	ELEC	ELECTRICAL	MFR	MANUFACTURER	SAF	SAFETY
ACCA	ANTENNA CABLE COVER ASSEMBLY	EMT	ELECTRICAL METALLIC TUBING	MIN	MINIMUM	SDBC	SOFT DRAWN BARE COPPER
		ENCL	ENCLOSURE	MLO	MAIN LUGS ONLY	SEC	SECONDARY
AIC	AMPERE INTERRUPTING	EXIST	EXISTING	MTD	MOUNTED	5.N.	SOLID NEUTRAL
	CAPACITY	FAC	FACTOR	MIG	MOUNTING	SURF	SURFACE
APPROX	APPROXIMATELY	F/A	FIRE ALARM	MTS	MANUAL TRANSFER SWITCH	SW	SWITCH
AT	AMPERE TRIP	FLUOR	FLUORESCENT	N	NEUTRAL	TEL	TELEPHONE
AWG	AMERICAN WIRE GAGE	FT	FOOT/FEET	(N)	NEW	TYP	TYPICAL
BATT	BATTERY	FU	FUSE	NEMA	NATIONAL ELECTRICAL	U/G	UNDERGROUND
BD	BOARD	G	GROUND		MANUFACTURERS ASSOC.	U.L.	UNDERWRITER'S LABORATORY INC
BR	BRANCH	GEN	GENERATOR	OH	OVERHEAD		
BRKR	BREAKER	GFCI	GROUND FAULT CIRCUIT	P	POLE	U.N.O.	UNLESS NOTED OTHERWISE
BTCW	BARE TINNED COPPER WIRE		INTERRUPTER	PCS	PERSONAL	V	VOLT
BTS	BASE TRANSMISSION SYSTEM	GND	GROUNDING		COMMUNICATION SYSTEM	VAC	VOLT ALTERNATING CURRENT
С	CONDUIT	GPS	GLOBAL POSITIONING SYSTEM	PH	PHASE	W	WATT OR WIRE
CAB	CABINET	GR	GROWTH	PNLBD	PANELBOARD	W/	WITH
СВ	CIRCUIT BREAKER	HDBC	HARD DRAWN COPPER WIRE	PPC	POWER PROTECTION CABINET	W/O	WITHOUT
CKT	CIRCUIT	HPS	HIGH PRESSURE SODIUM	PRC	PRIMARY RADIO CABINET	XFER	TRANSFER
CONT	CONTINUOUS	LG	LENGTH	PRI	PRIMARY	XFMR	TRANSFORMER
DEM	DEMAND	LPS	LOW PRESSURE SODIUM	PWR	POWER	XLPE	CROSS-LINK POLYETHYLENE
(E)	EXISTING	MAX	MAXIMUM	RCPT	RECEPTACLE		
EGR	EMERGENCY GEN. RECEPTACLE	MECH	MECHANICAL	RGS	RIGID GALVANIZED STEEL		

GENERAL ABBREVIATIONS

3

—ОНТ/ОНР—	OVERHEAD TELEPHONE/OVERHEAD POWER	нα	LIGHTING FIXTURE, 1/175W. METAL HALIDE, HUBBELL CAT #MIC-0175H-336
ОНТ	OVERHEAD TELEPHONE LINE	\otimes	5/8" X 10"-0", CU. GND ROD 24" MIN. BELOW GRADE.
— OHP —	OVERHEAD POWER LINE	\boxtimes	5/8" X 10"-0", CU, GND ROD IN TEST WELL 24" MIN, BELOW GRADE.
— Е —	POWER RUN .	0	CHEMICAL GROUND ROD (XIT GROUND ROD)
_ r	TELCO RUN	24	GADWELD CONNECTION
— Е/Т —	POWER/TELCO RUN	•	MECHANICAL CONNECTION
	GROUNDING CONDUCTOR	4	HALO GROUND CONNECTION
	FUSE, SIZE AND TYPE AS INDICATED.		CIRCUIT BREAKER
	SAFETY SWITCH, 2P-240V-60A W/60A FUSES, NEMA 3R ENCLOSURE, SQ D CATALOG NO. H222NRB	0	UTILITY METER BASE
	MANUAL TRANSFER SWITCH, 2P-240V-200A, NO FUSE, NEMA 3R ENGLOSURE	⊖	RECEPTACLE, 2P-3W-125V-15A, DUPLEX, GROUND TYPE, HUBBEL CATALOG #5362
Ю	LIGHTING FIXTURE, INCANDESCENT, 1/100W, WALL MOUNTING TYPE, HUBBELL LIGHTING CATALOG #BRH-100-06-1	S	TOGGLE SWITCH, 1P-125V-15A, HUBBELL CATALOG #HBL 1201CN
		Swp	TOGGLE SWITCH, 1P-120V-15A, "WP"
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1. GENERAL REQUIREMENTS

- A. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST RUES AND REGULATIONS OF THE NATIONAL ELECTRIC CODE AND ALL STATE AND LOCAL CODES. NOTHING IN THESE PLANS OR SPECIFICATIONS SHALL BE CONSTRUED AS TO PERMIT WORK NOT CONFORMING TO THE MOST STRINGENT OF THESE CODES, SHOULD CHANGES BE NECESSARY IN THE DRAWINGS OR SPECIFICATIONS TO MAKE THE WORK COMPLY WITH THESE REQUIREMENTS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING AND CEASE WORK ON PARTS OF THE CONTRACT
- B. THE CONTRACTOR SHALL MAKE A SITE VISIT PRIOR TO BIDDING AND CONSTRUCTION TO VERIFY ALL EXISTING CONDITIONS AND SHALL NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY DISCREPANCIES. THE CONTRACTOR ASSUMES ALL LIABILITY FOR FAILURE TO COMPLY WITH THE PROVISION.
- C. THE EXTENT OF THE WORK IS INDICATED BY THE DRAWINGS, SCHEDULES, AND SPECIFICATIONS AND IS SUBJECT TO THE TERMS AND CONDITIONS OF THE CONTRACT. THE WORK SHALL CONSIST OF FURNISHING ALL LABOR, EQUIPMENT, MATERIALS AND SUPPLIES NECESSARY FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM. THE WORK SHALL ALSO INCLIDE THE COMPLETION OF ALL ELECTRICAL WORK NOT MENTIONED OR SHOWN WHICH ARE NECESSARY FOR SUCCESSFUL OPERATION OF ALL SYSTEMS.
- D. THE CONTRACTOR SHALL PREPARE A BID FOR A COMPLETE AND OPERATIONAL SYSTEM, WHICH INCLUDES THE COST FOR MATERIAL AND LABOR.
- E. WORKMANSHIP AND NEAT APPEARANCE SHALL BE AS IMPORTANT AS THE OPERATION. DEFECTIVE OR DAMAGED MATERIALS SHALL BE REPLACED OR REPAIRED PRIOR TO FINAL ACCEPTANCE IN A MANNER ACCEPTABLE TO OWNER AND ENGINEER.
- f. $\,$ Complete the entire installation as soon as the progress of the work will permit.
- G. ANY ERROR, OMISSION OR DESIGN DISCREPANCY ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION OR CORRECTION BEFORE CONSTRUCTION.
- H. "PROVIDE" INDICATES THAT ALL ITEMS ARE TO BE FURNISHED, INSTALLED AND CONNECTED IN PLACE.
- CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS AND PAY ALL REQUIRED FEES.

2. EQUIPMENT LOCATION

- A. ALL DRAWINGS INDICATE DIAGRAMMATICALLY THE DESIRED LOCATIONS OR ARRANGEMENTS OF CONDUIT RUNS, OUTLETS, EQUIPMENT, ETC., AND ARE TO BE FOLLOWED AS CLOSELY AS POSSIBLE. PROPER JUDGEMENT MUST BE EXPECISED IN EXECUTING THE WORK SO. AS TO SECURE THE BEST POSSIBLE INSTALLATION IN THE AVAILABLE SPACE AND TO OVERCOME LOCAL DIFFICULITIES DUE TO SPACE LIMITATIONS OR INTERFERENCE OF STRUCTURE CONDITIONS ENCOUNTERED.
- B. IN THE EVENT CHANGES IN THE INDICATED LOCATIONS OR ARRANGEMENTS ARE NECESSARY, DUE TO FIELD CONDITIONS IN THE BUILDING CONSTRUCTION OR REARRANGEMENT OF EQUIPMENT, SUCH CHANGES SHALL BE MADE WITHOUT COST, PROVIDING THE CHANGE IS ORDERED BEFORE THE CONDUIR RUNS, ETC., AND WORK DIRECTLY CONNECTED TO THE SAME IS INSTALLED AND NO EXTRA MATERIALS ARE REQUIRED.
- C. COORDINATE THE WORK OF THE SECTION WITH THAT OF ALL OTHER TRADES. WHERE CONFLICTS OCCUR, CONSULT WITH THE PERSPECTIVE CONTRACTOR AND COME TO A GREENANT AS TO CHANGES NECESSARY, OBTAIN WRITTEN ACCEPTANCE FROM ENGINEER FOR THE PROPOSED CHANGES BEFORE PROCEEDING.

3. TESTS

A. BEFORE FINAL ACCEPTANCE OF WORK, THE CONTRACTOR SHALL INSURE THAT ALL EQUIPMENT, SYSTEMS, FIXTURES, ETC., ARE WORKING SATISFACTORILY AND TO THE INTENT OF THE DRAWINGS.

4. PERMITS

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING OUT AND PAYING FOR ALL THE REQUIRED PERMITS, INSPECTION AND EXAMINATION WITHOUT ADDITIONAL EXPENSE TO THE OWNER.

5. GROUNDING

- A. THE CONTRACTOR SHALL PROVIDE A COMPLETE, AND APPROVED GROUNDING SYSTEM INCLUDING ELECTRODES, ELECTRODE CONDUCTOR, BONDING CONDUCTORS, AND EQUIPMENT CONDUCTORS AS REQUIRED BY ARTICLE 250 OF LELECTRICAL CODE.
- B. CONDUITS CONNECTED TO EQUIPMENT AND DEVICES SHALL BE METALLICALLY JOINED TOGETHER TO PROVIDE EFFECTIVE ELECTRICAL CONTINUITY
- C. FEEDERS AND BRANCH CIRCUIT WIRING INSTALLED IN A NONMETALLIC CONDUIT SHALL INCLUDE A CODE SIZED GROUNDING CONDUCTOR HAVING GREEN INSULATION. THE GROUND CONDUCTOR SHALL BE PROPERLY CONNECTED AT BOTH ENDS TO MAINTAIN ELECTRICAL CONTINUITY
- D. REFER TO GROUND BUS DETAILS, PROVIDE NEW GROUND SYSTEM COMPLETE WITH CONDUCTORS, GROUND ROD AND DESCRIBED TERMINATIONS:
- E. ALL GROUNDING CONDUCTORS SHALL BE SOLID TINNED COPPER AND ANNEALED #2 UNLESS NOTED OTHERWISE.
- ALL NON-DIRECT BURIED TELEPHONE EQUIPMENT GROUND CONDUCTORS
 SHALL BE #2 STRANDED, THHN (GREEN) INSULATION.
- G. ALL GROUND CONNECTIONS SHALL BE MADE WITH "HYGROUND" COMPRESSION SYSTEM BURNDY CONNECTORS EXCEPT WHERE NOTED OTHERWISE.
- H. PAINT AT ALL GROUND CONNECTIONS SHALL BE REMOVED.
- L. GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE OWNER FOR FUTURE INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE, SUBMIT TEST REPORTS AND FURNISH TO VERIZON ONE COMPLETE SET OF PRINTS SHOWING "INSTALLED WORK".

6. UTILITY SERVICE

- A. TELEPHONE AND ELECTRICAL METERING FACILITIES SHALL CONFORM TO THE REQUIREMENTS OF THE SERVING UTILITY COMPANIES. CONTRACTOR SHALL VERIFY SERVICE LOCATIONS AND REQUIREMENTS. SERVICE INFORMATION WILL BE FURNISHED BY THE SERVING UTILITIES.
- B. CONFORM TO ALL REQUIREMENTS OF THE SERVING UTILITY COMPANIES.

7. PRODUCTS

 ALL MATERIALS SHALL BE NEW, CONFORMING WITH THE NEC, ANSI, NEMA, AND THEY SHALL BE U.L. LISTED AND LABELED.

B. CONDUIT:

- B.1. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE ARRIV, LINDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR, RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
- B.2. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE COMPRESSION TYPE, EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
- B.3. FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. HITINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE. SEAL TIGHT FLEXIBLE CONDUIT. ALL CONDUIT IN EXCESS OF SIX FEET IN LENGTH SHALL HAVE FULL SIZE GROUND WIRE.
- B.4. ALL UNDERGROUND CONDUITS SHALL BE PVC SCHEDULE 40 (UNLESS NOTED OTHERWISE) AT A MINIMUM DEPTH OF 24" BELOW GRADE.
- B.5. ALL CONDUIT ONLY (C.O.) SHALL HAVE PULL ROPE.
- C. ALL WIRE AND CABLE SHALL BE COPPER, 600 VOLT, #12 AWG MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOULD. CONDUCTORS #8 AWG AND LARGER SHALL BE STRANDED. TYPE THHN INSULATION USED UNLESS CONDUCTORS INSTALLED IN CONDUIT EXPOSED TO WEATHER. IN WHICH CASE TYPE THYN INSULATION SHALL BE USED.
- D. PROVIDE GALVANIZED COATED STEEL BOXES AND ACCESSORIES SIZED PER CODE TO ACCOMMODATE ALL DEVICES AND WIRING.
- E. TOGGLE SWITCHES SHALL BE 20 AMP, 120 VOLT AC, SPECIFICATION GRADE WHITE (UNLESS NOTED OTHERWISE) FINISH. MOUNT SWITCHES AT +48" ABOVE FINISHED FLOOR.
- F. PANELBOARD SHALL BE DEAD FRONT SAFETY TYPE WITH ANTI-BURN SOLDERLESS COMPRESSION APPROVED FOR COPPER CONDUCTORS, COPPER BUS BARS, FULL SIZED NEUTRAL BUS, GROUND BUS AND EQUIPPED WITH QUICK-MAKE QUICK-BREAK BOLT-IN TYPE THERMAL MAGNETIC CIRCUIT BREAKERS, MOUNT TOP OF THE PANELBOARD AT 6-3" ABOVE FINISHED FLOOR, PROVIDE TYPEWRITEN CIRCUIT DIRECTORY.
- G. ALL CIRCUIT BREAKERS, MAGNETIC STARTERS AND OTHER ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED.
- H. GROUND RODS SHALL BE COPPER CLAD STEEL, 5/8" ROUND AND 10" LONG. COPPERWELD OR APPROVED EQUAL.
- SERVICE POWER SHALL BE 100A 1Ø, 3W, 120/208 OR 120/240V.
- J. ALL WIRING SHALL BE COPPER 75° C U.N.O.
- K. CONDUIT REQUIREMENTS (TYP., U.N.O.); UNDERGROUND: PVC (SCHED 40 OR 80), INDOOR: EMT (RGS IN TRAFFIC AREAS, OUTDOOR (ABOVE GRADE): RGS.
- L. PLACE "TRUE TAPE" AND PULL ROPE IN THE CONDUITS AS REQUIRED.

8. INSTALLATION

A. PROVIDE SUPPORTING DEVICES FOR ALL ELECTRICAL EQUIPMENT, FIXTURES, BOXES, PANEL, ETC., EQUIPMENT SHALL BE BRACED TO WHISTAND HORIZONTAL FORCES IN ACCORDANCE WITH STATE AND LOCAL CODE REQUIREMENTS, PROVIDE PRIOR ALIGNMENT AND LEVELING OF ALL DEVICES AND FIXTURES.

9. PROJECT CLOSEOUT

- A. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMITTEST REPORTS TO PROJECT MANAGER, CLEAN PERMISS OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND
- B. PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE "AS INSTALLED" DRAWINGS ATTHE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS AND CIRCUITS.



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(NEAR) 1175 PARROTT DRIVE SAN MATEO, CA 94402

> ELECTRICAL GENERAL NOTES

> > E-1



NOTES:
1. GROUND ROD; UL LISTED COPPER CLAD STEEL. MINIMUM 5/8" DIAMETER x 10'-0" LONG. ALL
GROUND RODS MAY BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN
TO THE DEPTH OF GROUND RING CONDUCTOR.

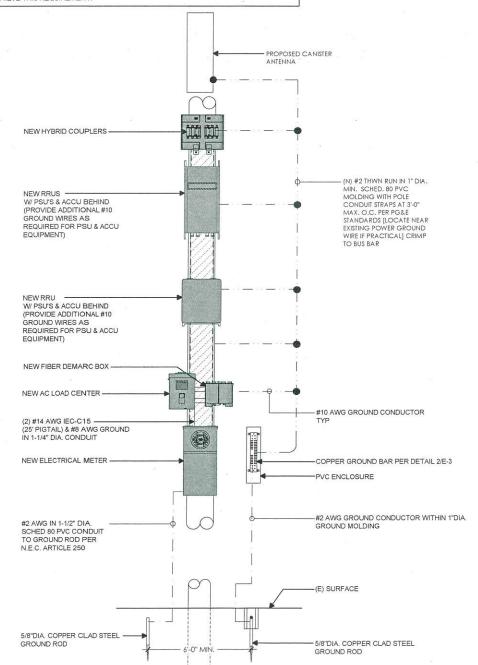
2. <u>CELL REFERENCE GROUND BAR:</u> POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING WITH (2) #2 SOLID TINNED COPPER CONDUCTORS.

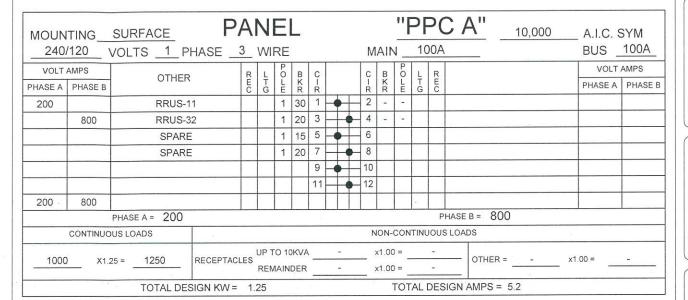
3. EXTERIOR UNIT BONDS: METALLIC OBJECTS SHALL BE BONDED TO THE EXTERIOR GROUND RING

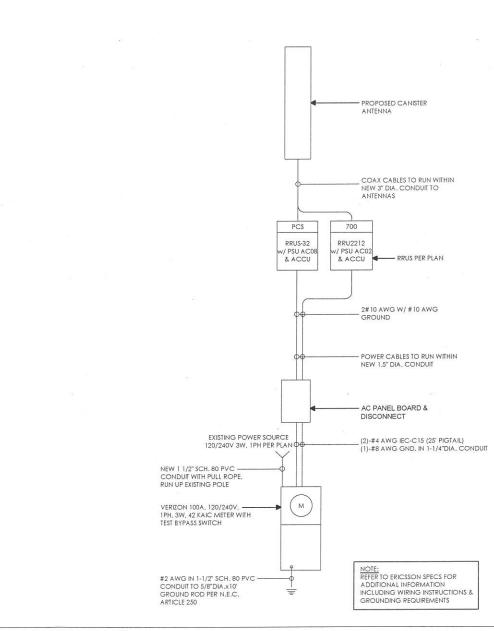
PROVIDE ALL ELECTRICAL WORK & MATERIALS AS SHOWN ON THE DWGS, AS CALLED FOR HEREIN,
 AS IS NECESSARY TO FURNISH A COMPLETE INSTALLATION.

5. UNILESS SHOWN OTHERWISE, FUSED DISCONNECT SWITCHES SHALL BE PROVIDED WITH LOW-PEAK, SUDUAL ELEMENT FUSES SIZED TO EQUIPMENT NAMEPLATE FUSE CURRENT RATING, MOTOR STARTERS SHALL BE PROVIDED WITH SIMILARLY SIZED FUSIBLE ELEMENTS, SWITCHES, AND OTHER OUTDOOR EQUIPMENT SHALL BE RATED NEMA 3R AND/OR UL LISTED FOR WET ENVIRONMENT.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING THE GROUNDING SYSTEM AND ENSURING A, 5 OHM OR LESS GROUNDING PATH, ADDITIONAL GROUND RODS AND/OR CHEMICAL ROD SYSTEM SHALL BE USED TO ACHIEVE THIS REQUIREMENT IF THE GIVEN DESIGN CANNOT BE MADE TO ACHIEVE THIS REQUIREMENT.









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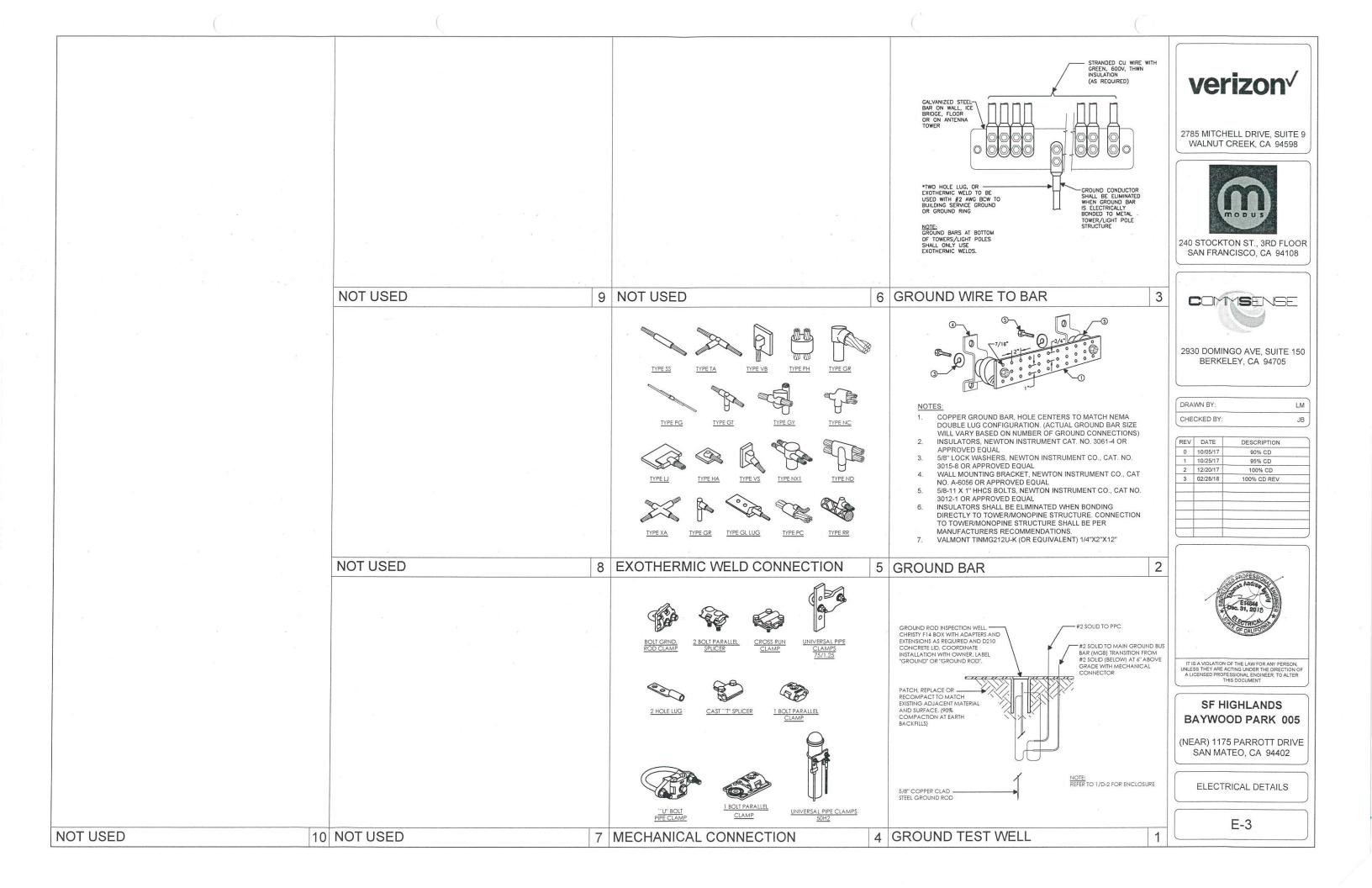
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ONE-LINE DIAGRAM & GROUNDING DETAILS

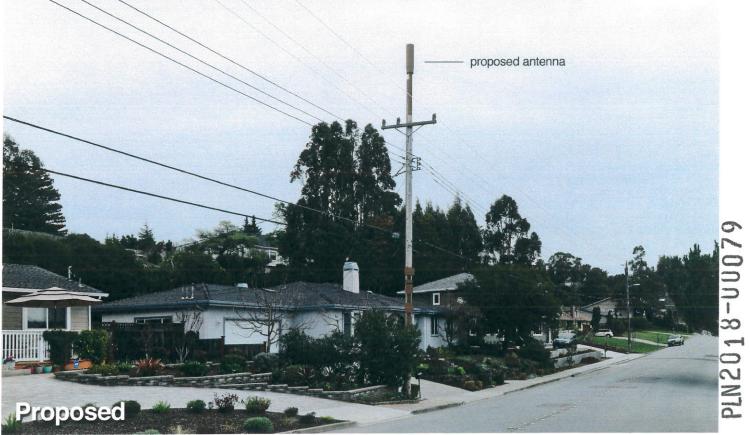
E-2

SCALE

SCALE 2 ONE-LINE DIAGRAM





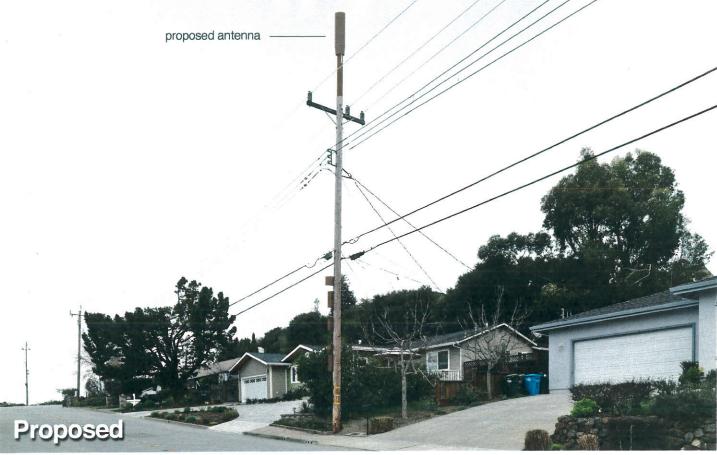


verizon[/]

SF Highlands 005 Site # 483409

Looking Southeast from Parrott Dr.





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SF Highlands 005 Site # 483409

Looking Northwest from Parrott Dr.







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SF Highlands 005 Site # 483409

Aerial Map



PLN2018-UU079

Radio Frequency - Electromagnetic Energy (RF-EME) Jurisdictional Report

Site No. 483409
SF Highlands Baywood Park 005
1175 Parrott Drive
San Mateo, California 94402
San Mateo County
37° 32′ 17.42″ N, -122° 20′ 44.37″ W NAD83

EBI Project No. 6218000845 February 15, 2018



Prepared for:

Verizon Wireless c/o Modus, Inc. 115 Sansome Street, 14th Floor San Francisco, CA 94104

Prepared by:



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MAR 01 2018

San Mateo County Planning Division

TABLE OF CONTENTS

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1.0	INTRODUCTION	2
2.0	SITE DESCRIPTION	2
3.0	FEDERAL COMMUNICATIONS COMMISSION (FCC) REQUIREMENTS	2
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5.0	MITIGATION/SITE CONTROL OPTIONS	6
6.0	SUMMARY AND CONCLUSIONS	6
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APPENDICES

-		-	CERTIFICATIONS
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APPENDIX B RADIO FREQUENCY ELECTROMAGNETIC ENERGY SAFETY / SIGNAGE PLANS

APPENDIX C ROOFVIEW® EXPORT FILES

EXECUTIVE SUMMARY

Purpose of Report

EnviroBusiness Inc. (dba EBI Consulting) has been contracted by Verizon Wireless to conduct radio frequency electromagnetic (RF-EME) modeling for Verizon Site 483409 located at 1175 Parrott Drive in San Mateo, California to determine RF-EME exposure levels from proposed Verizon wireless communications equipment at this site. As described in greater detail in Section 2.0 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 modeling in relation to relevant FCC RF-EME compliance standards for limiting human exposure to RF-EME fields.

Statement of Compliance

A site is considered out of compliance with FCC regulations if there are areas that exceed the FCC exposure limits <u>and</u> 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.

As presented in the sections below, based on worst-case predictive modeling, there are no modeled areas on any accessible ground-level walking/working surface related to the proposed antennas that exceed the FCC's occupational or general public exposure limits at this site. Additionally, there are areas where workers who may be elevated above the ground may be exposed to power densities greater than the occupational limits. Therefore, workers should be informed about the presence and locations of antennas and their associated fields.

At the nearest walking/working surfaces to the Verizon antennas, the maximum power density generated by the Verizon antennas is approximately 10.30 percent of the FCC's general public limit (2.06 percent of the FCC's occupational limit).

Recommended control measures are outlined in Section 5.0 and within a Site Safety Plan (attached); this plan includes instructions to shut down and lockout/tagout this wireless equipment in accordance with Verizon's standard operating protocol.

1.0 INTRODUCTION

Radio frequency waves are electromagnetic waves from the portion of the electromagnetic spectrum at frequencies lower than visible light and microwaves. The wavelengths of radio waves range from thousands of meters to around 30 centimeters. These wavelengths correspond to frequencies as low as 3 cycles per seconds (or hertz [Hz]) to as high as one gigahertz (one billion cycles per second).

Personal Communication (PCS) facilities used by Verizon in this area operate within a frequency range of 700-2100 MHz. Facilities typically consist of: I) 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 a distance 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 in areas in the immediate vicinity of the antennas.

MPE limits do not represent levels where a health risk exists, since they 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.

2.0 SITE DESCRIPTION

This project site includes one (I) wireless telecommunication antenna on a utility pole located at 1175 Parrott Drive in San Mateo, California.

	Verizon Antenna Information (proposed Configuration)								
Antenna # and Model	Frequency (MHz)	# of Transmitters	Transmit Power (Watts)	Azimuth	Gain (dBd)	Feet above Ground (CL)	x	Y	Z (feet)
A I Amphenol CUUT070X I 2Fxyz0	700 2100	2 2	60 60	35° 155°	10.35 14.05	46.92	30	30	44.92

The FCC guidelines incorporate two separate tiers of exposure limits that are based upon occupational/controlled exposure limits (for workers) and general population/uncontrolled exposure limits for members of the general public that may be exposed to antenna fields. While access to this site is considered uncontrolled, the analysis has considered exposures with respect to both controlled and uncontrolled limits as an untrained worker may access adjacent rooftop locations. Additional information regarding controlled/uncontrolled exposure limits is provided in Section 3.0. Appendix B presents a site safety plan that provides a plan view of the utility pole with antenna locations.

3.0 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 I and Figure I (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 (cm²). Known as the power density, the FCC has established an occupational MPE of 5 milliwatts per square centimeter (mW/cm²) and an uncontrolled MPE of 1 mW/cm² for equipment operating in the 1900 MHz frequency range. For the Verizon equipment operating at 700 MHz or 850 MHz, the FCC's occupational MPE is 2.83 mW/cm² and an uncontrolled MPE of 0.57 mW/cm². These limits are considered protective of these populations.

(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/cm²)	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	(44		5	6	

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm²)	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

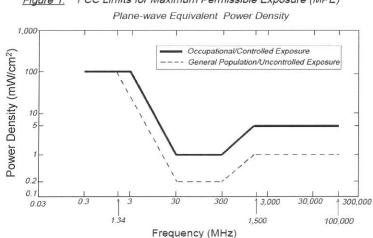


Figure 1. FCC Limits for Maximum Permissible Exposure (MPE)

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 Verizon in this area operate within a frequency range of 700-2100 MHz. Facilities typically consist of: I) 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.

4.0 Worst-Case Predictive Modeling

EBI has performed theoretical modeling using RoofView® software to estimate the worst-case power density at the site ground-level and nearby rooftops resulting from operation of the antennas. RoofView® is a widely-used predictive modeling program that has been developed by Richard Tell Associates to predict both near field and far field RF power density values for roof-top and tower telecommunications sites produced by vertical collinear antennas that are typically used in the cellular, PCS, paging and other communications services. The models utilize several operational specifications for different types of antennas to produce a plot of spatially-averaged power densities that can be expressed as a percentage of the applicable exposure limit.

The modeling is based on worst-case assumptions for the number of antennas and transmitter power. The modeling assumes a maximum 4 radio configuration for Sector A with a power level of 48 dbM (60 watts) per transmitter for 700 and 2100 frequencies, in order to provide a worst-case evaluation of predicted MPE levels. The assumptions used in the modeling are based upon information provided by Verizon, and information gathered from other sources. The parameters used for the modeling are summarized in the RoofView® export files presented in Appendix C.

There are no other wireless carriers with equipment installed at this site.

Based on worst-case predictive modeling, there are no modeled areas on any accessible ground-level walking/working surface related to the proposed Verizon antennas that exceed the FCC's occupational or general public exposure limits at this site. At the nearest walking/working surfaces to the Verizon antennas, the maximum power density generated by the Verizon antennas is approximately 10.30 percent of the FCC's general public limit (2.06 percent of the FCC's occupational limit).

The Site Safety Plan also presents areas where Verizon Wireless antennas contribute greater than 5% of the applicable MPE limit for a site. 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.

The inputs used in the modeling are summarized in the RoofView® export file presented in Appendix C. A graphical representation of the RoofView® modeling results is presented in Appendix B. It should be noted that RoofView is not suitable for modeling microwave dish antennas; however, these units are designed for point-to-point operations at the elevations of the installed equipment rather than ground level coverage.

5.0 MITIGATION/SITE CONTROL OPTIONS

EBI's modeling indicates that there are no areas in front of the Verizon antennas that exceed the FCC standards for occupational or general public exposure. All exposures above the FCC's safe limits require that individuals be elevated above the ground. In order to alert people accessing the pole, a Caution sign is recommended for installation approximately 12 feet below the antenna facing the street.

There are no barriers recommended on this site.

These protocols and recommended control measures have been summarized and included with a graphic representation of the antennas and associated signage and control areas in a RF-EME Site Safety Plan, which is included as Appendix B. Individuals and workers accessing the roof should be provided with a copy of the attached Site Safety Plan, made aware of the posted signage, and signify their understanding of the Site Safety Plan.

Implementation of the signage recommended in the Site Safety Plan and in this report will bring this site into compliance with the FCC's rules and regulations.

6.0 SUMMARY AND CONCLUSIONS

EBI has prepared a Radiofrequency — Electromagnetic Energy (RF-EME) Compliance Report for telecommunications equipment installed by Verizon Site Number 483409 located at 1175 Parrott Drive in San Mateo, California to determine worst-case predicted RF-EME exposure levels from wireless communications equipment installed at this site. This report summarizes the results of RF-EME modeling in relation to relevant Federal Communications Commission (FCC) RF-EME compliance standards for limiting human exposure to RF-EME fields.

As presented in the sections above, based on the FCC criteria, there are no modeled areas on any accessible ground-level walking/working surface related to the proposed antennas that exceed the FCC's occupational or general public exposure limits at this site. Workers should be informed about the presence and locations of antennas and their associated fields. Recommended control measures are outlined in Section 5.0 and within a Site Safety Plan (attached); this plan includes procedures to shut down and lockout/tagout this wireless equipment in accordance with Verizon's standard operating protocol.

7.0 LIMITATIONS

This report was prepared for the use of Verizon Wireless. 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 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.

Appendix A Certifications

Reviewed and Approved by:



sealed 16feb2018

Michael McGuire Electrical Engineer

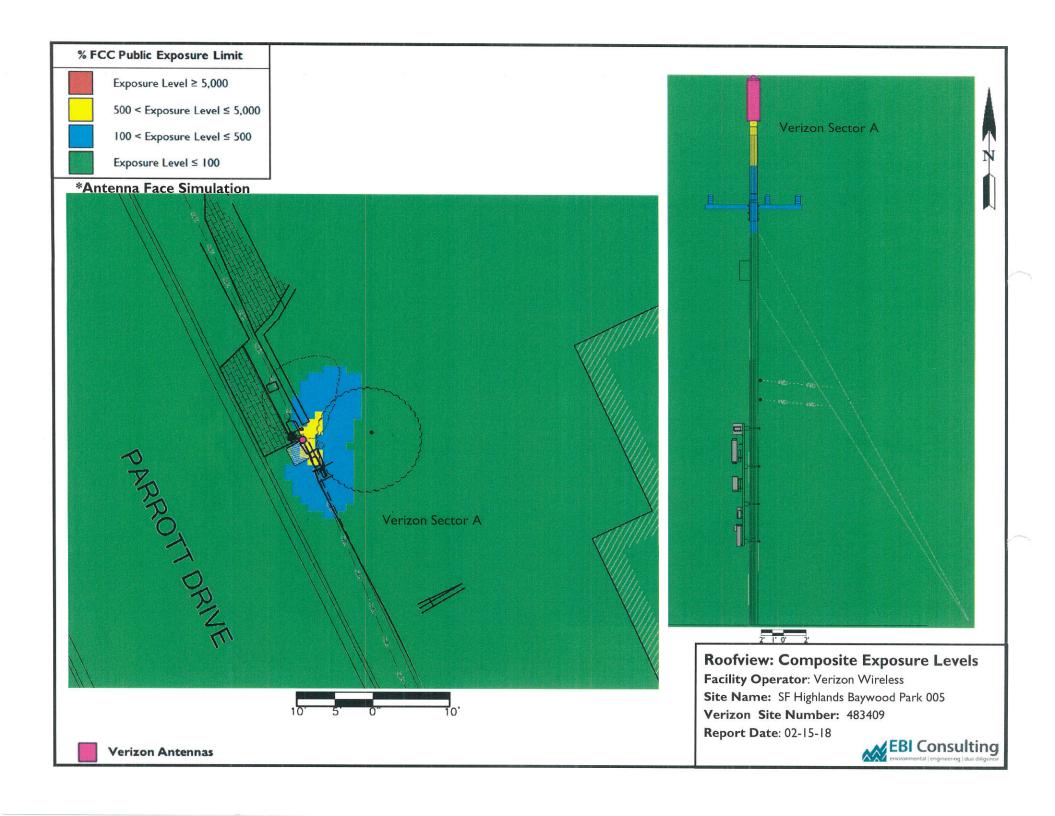
Note that EBI's scope of work is limited to an evaluation of the Radio Frequency – Electromagnetic Energy (RF-EME) field generated by the antennas and broadcast equipment noted in this report. The engineering and design of the structure, as well as the impact of the antennas and broadcast equipment on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

Preparer Certification

- I, Andrew Simpson, 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 fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation.
 - I have reviewed the data 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.

andrew Simpson

Appendix B Radio Frequency Electromagnetic Energy Safety / Signage Plans

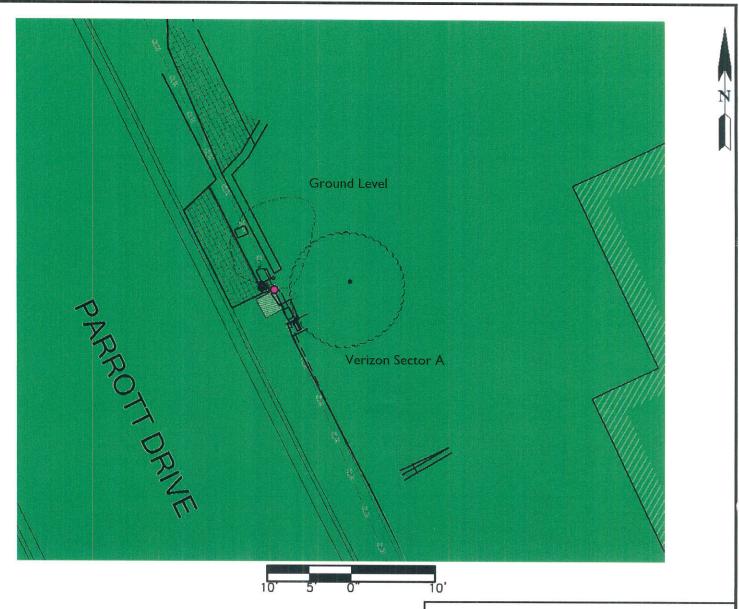


% FCC Public Exposure Limit

Exposure Level > 5

Exposure Level ≤ 5

*Ground Level Simulation



Roofview: Verizon Exposure Levels

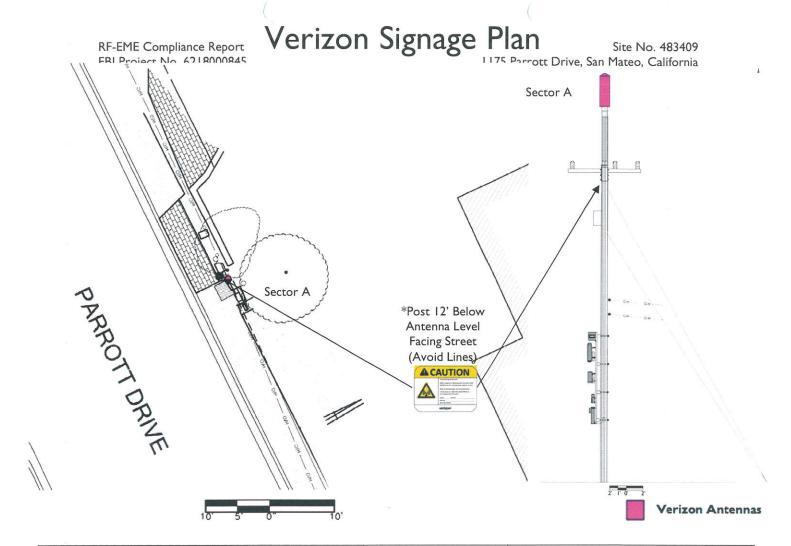
Facility Operator: Verizon Wireless

Site Name: SF Highlands Baywood Park 005

Verizon Site Number: 483409

Report Date: 02-15-18





Sign Image	Description	Posting Instructions	Required Signage
Continues of the contin	Notice To Workers Informational sign, used to notify workers that there are active antennas installed and provide guidelines for working in RF environments.	N/A	Not Required.
INFORMATION This is an ACCISS FORT to one pera with transmitting antennes. In the control of th	NOC Information Sign Informational sign with NOC Phone Number and Base Transceiver Station (BTS) Number	N/A	Not Required.
NOTICE Compared to the comp	Blue Notice Sign Used to alert individuals that they are entering an area where the power density emitted from transmitting antennas exceeds the FCC's maximum permissible exposure limit for the general public but is less than the occupational exposure limit.	N/A	Not Required.
A CAUTION	Yellow Caution Sign Used to alert individuals that they are entering an area where the power density emitted from transmitting antennas may exceed the FCC's maximum permissible exposure limit for the general public and the occupational exposure limit.	Securely post 12' below the antenna in a manner conspicuous to all individuals entering thereon as indicated in the signage plan.	Post 12' Below Antenna Level Facing Street
AWARNING Management of the second of the se	Red Warning Sign Used to alert individuals that they are entering an area where the power density emitted from the transmitting is substantially above the FCC's maximum permissible limit for occupational exposure (greater than ten times the Occupational limit).	N/A	Not Required.

Appendix C Roofview® Export File

Mfg Model X
Amphenol CUUT070X
Amphenol CUUT070X
Amphenol CUUT070X BWdth Pt Dir ID Name VZW A1 LTE Туре 30 44.92 30 44.92 30 44.92 30 30 30 10.35 82;35 14.05 74;35 2100 700 VZW A1 LTE VZW A1 LTE 10.35 82:155 VZW A1 LTE StartSymbolData 2100 60 10 0 Amphenol CUUT070X 30 44.92 14.05 74;155 Map Mark Roof X Roof Y Map Label Description (notes for this table only)

5 35 AC Unit Sample symbols

14 5 Roof Access Sym Sym Sym Sym Sym 45 45 5 AC Unit

20 Ladder

ON flag ON•

ON.