BOARD OF APPEALS, CITY & COUNTY OF SAN FRANCISCO

Appeal of ANKUR LUTHRA,)		Appeal No. 19-087
	Appellant(s))		
5 4 6)		
VS.) **		
SAN FRANCISCO PUBLIC WORKS BUREAU OF STREET USE AND MAPP	ING,)))		
	Respondent			

NOTICE OF APPEAL

NOTICE IS HEREBY GIVEN THAT on August 19, 2019, the above named appellant(s) filed an appeal with the Board of Appeals of the City and County of San Francisco from the decision or order of the above named department(s), commission, or officer.

The substance or effect of the decision or order appealed from is the ISSUANCE on August 05, 2019 to GTE Mobilnet of California, LP, of a Personal Wireless Service Facility Site Permit (construction of a personal wireless service facility in a Zoning Protected Location) at 1650 Baker Street.

PERMIT NO. 16WR-0123

FOR HEARING ON October 16, 2019

Address of Appellant(s):	Address of Other Parties:
Ankur Luthra, Appellant 2901 Pine Street San Francisco, CA 94115	GTE Mobilnet of California, LP, Permit Holder c/o Paul Albritton, Attorney for Permit Holder Mackenzie & Albritton, LLP 155 Sansome Street, Suite 800 San Francisco, CA 94104



Date Filed:

BOARD OF APPEALS

AUG 19 2019

APPEAL # 19-087

CITY & COUNTY OF SAN FRANCISCO BOARD OF APPEALS

PRELIMINARY STATEMENT OF APPEAL

I / We, Ankur Luthra, hereby appeal the following departmental action: ISSUANCE of Personal Wireless Service Facility Site Permit No. 16WR-0123 by the San Francisco Public Works Bureau of Street Use and Mapping which was issued or became effective on: August 05, 2019, to: GTE Mobilnet of California, LP, for the property located at: 1650 Baker Street.

BRIEFING SCHEDULE:

The Appellant may, but is not required to, submit a one page (double-spaced) supplementary statement with this Preliminary Statement of Appeal. No exhibits or other submissions are allowed at this time.

Appellant's Brief is due on or before: **September 26, 2019**, (no later than three Thursdays prior to the hearing date), up to 12 pages in length, double-spaced, with unlimited exhibits, with eleven (11) copies delivered to the Board office by 4:30 p.m., and with additional copies delivered to the other parties the same day. In addition, an electronic copy should be emailed to: boardofappeals@sfgov.org if possible.

Respondent's and Other Parties' Briefs are due on or before: October 10, 2019, (no later than one Thursday prior to hearing date), up to 12 pages in length, doubled-spaced, with unlimited exhibits, with eleven (11) copies delivered to the Board office by 4:30 p.m., and with additional copies delivered to the other parties the same day. In addition, an electronic copy should be emailed to: boardofappeals@sfgov.org if possible.

Only photographs and drawings may be submitted by the parties at the hearing.

Hearing Date: Wednesday, October 16, 2019, 5:00 p.m., City Hall, Room 416, One Dr. Carlton B. Goodlett Place.

All parties to this appeal must adhere to the briefing schedule above, however if the hearing date is changed, the briefing schedule MAY also be changed. Written notice will be provided of any change to the briefing schedule.

In order to have their documents sent to the Board members prior to hearing, **members of the public** should submit eleven (11) copies of all documents of support/opposition no later than one Thursday prior to hearing date by 4:30 p.m. Please note that names and contact information included in submittals from members of the public will become part of the public record. Submittals from members of the public may be made anonymously.

Please note that in addition to the parties' briefs, any materials that the Board receives relevant to this appeal, including letters of support/opposition from members of the public, are distributed to Board members prior to hearing. All such materials are available for inspection at the Board's office. You may also request a copy of the packet of materials that are provided to Board members at a cost of 10 cents per page, per S.F. Admin. Code Ch. 67.28.

If you have any questions please call the Board of Appeals at 415-575-6880

The reasons for this appeal are as follows:

See attached statement

Appellant or Agent (Circle One):

Signature:

Print Name:

Luthon

I, Ankur Luthra, am filing this appeal on behalf of my neighbors and myself against the issuance of

permit #16WR-0123, located at 1650 Baker Street.

The Applicant failed to fully comply with all requirements of Article 25 of the Public Works Code. In

addition, the Planning department incorrectly determined that the application met the applicable Tier

Compatibility Standard.

Thank you for your consideration.

BOARD OF APPEALS

AUG 19 2019

APPEAL # 19-087

BOARD OF APPEALS



City and County of San Francisco

San Francisco Public Works - Bureau of Street Use and Mapping

1155 Market Street, 3rd Floor · San Francisco, CA 94103 sfpublicworks.org · tel 415-554-5810 · fax 415-554-6161 AUG 19 2019 APPEAL # 19-087



16WR-0123

Wireless Box Permit

Address: 1650 BAKER ST

Cost: \$2,094.55

Block:1048 Lot: 028 Zip: 94115

GTE Mobilnet of California, Limited Partnership

Name:

GTE Mobilnet of California, Limited Partnership

MANDATORY COORDINATION WITH CONFLICTING PERMITS IS REQUIRED. PERMIT HOLDER SHALL NOT COMMENCE WORK WITHOUT FIRST PROPERLY COORDINATING WITH EXISTING PERMIT HOLDERS AS NOTED ON THE EXCEPTION PAGE(S) OF THIS PERMIT. IF THIS PERMIT CONFLICTS WITH A CITY PROJECT OR OTHER APPROVED PERMIT, THE PERMIT HOLDER OF THIS PERMIT SHALL BE RESPONSIBLE FOR THE PROPER COORDINATION AND EVALUATION OF THE SITE PRIOR TO COMMENCING WORK.

Conditions	
Contact247	Refer to Agent
Permit Comments	
Service Address	
Wireless Machine Type	
Wireless Tier	TierB
Permit Pole Location	E side of Baker St in between Pine St & Bush St
Permit Wireless Antenna	1
Permit Wireless AntMakeModel	Amphenol CUUT070X12F
Permit Planning Location	
Permit Tier Comments	
Permit Wireless DPH	Applicant is using equipment for the first time. Attached is an original verified statement from a registered engineer that: (i) potential human exposure to radio frequency emissions from the proposed Personal Wireless Service Facility is within the FCC guidelines; and (ii) noise at any time of the day or night from the proposed Personal Wireless Service Facility is not greater than forty-five (45) dBA as measured at a distance three (3) feet from any residential building facade.
Permit Planning Approval	The proposed Personal Wireless Service Facility is in Zoning Protected Location.
Permit Utility Conditions	Applicant has a valid Utility Conditions Permit
Permit Tier3 Std	
Permit Tier3 Std1	
Permit Tier3 Std2	
Permit Wireless Documents	
Permit_Auto_StartDate_Ind	Υ
ne undersigned Permittee hereby agrees to	comply with all requirements and conditions noted on this permit
	Approved Date : 08/05/2019
A	
pplicant/Permitee Date	

Printed: 8/5/2019 12:00:59 PM Plan Checker

Lulu Brien

Special Conditions

16WR-0123

Conditions

San Francisco Public Works Conditions:

1. This recommendation is based on no variation from the depicted drawings and/or photo simulation; if a variation is different a re-submittal is required. Should the installation vary from said conditions, it should be resubmitted to Department(s) for further review and comment

2. New Poles: no new poles shall be erected or placed in underground districts. This condition shall not apply to replacing existing streetlight or transit poles.

- Down Guys: Follow all excavation codes to obtain the necessary permits for placement of down guys. Down guy shall avoid crossing conflicting areas but not limited to driveways, curb ramps.
- 4. Comply with ADA code requirements for Federal, State, local laws. Make sure path of minimum required clear width for accessible path of travel is four feet.
- 5. At the conclusion of the work, provide a set of as built photos of the installation to the Bureau Street Use & Mapping Permit Office.
- 6. Maintain a valid certification of insurance annually and forward a copy to the Bureau Street Use & Mapping Permit Office.

San Francisco Department of Public Health Conditions:

- ? Ensure that any equipment associated with the pole installation of this antenna does not produce a noise in excess of 45 dBA as measured at three (3) feet from the nearest residential building façade.
- ? Ensure that there are no publicly occupied areas within thirty-six (36) feet from the face of the antenna.
- ? This approval is for the antenna directions listed in the report. If an additional direction is activated a new RF report will be required.
- ? Once the antenna is installed, Verizon Wireless must take RF power density measurements with the antenna operating at full power to verify the level reported in the Ebi Consulting report and to ensure that the FCC public exposure level is not exceeded in any publicly accessible area. This measurement must be taken again at the time of the permit renewal.
- ? Verizon Wireless should be aware that the general public may have concerns about the antenna and potential RF source near their dwellings. Verizon Wireless should have in place a procedure for taking RF power density levels in nearby dwellings when requested by the members of the general public.
- ? In accordance with the San Francisco Public Works Code, Art. 25, Sec. 1527 (a)(2)(C) Verizon Wireless is responsible for paying a fee of \$210.00 to the San Francisco Department of Public Health for this review.
- Please note that this approval and any conditions apply only to the equipment and installation as described. If any changes in the equipment or any increase in the effective radiated power described above are made, a new review by the Department of Public Health must be conducted. San Francisco Planning Department Conditions:
- 1. Combiner shroud not to exceed 8" in depth and 14" in width.
- 2. Plant and maintain an appropriate street tree.
- 3. No exposed meter, meter pan or meter pedestal may be used.
- 4. Antenna, and all equipment (external conduit, radio relay units, blinders used to shroud bracket bolts [if needed], and mounting mechanisms); except signage, if used for screening, shall all be painted to match the pole and repainted as needed.
- 5. Cabling below radio relay units shall enter the pole with no more than a five-inch gap between bottom of each radio relay unit and the bottom of the corresponding entry hole on the pole. Conduit connection at pole entry points shall utilize the smallest fitting sizes available. Sealing compounds, if utilized, shall be tidy without excess bubbling and painted to match pole.
- 6. Remove raised equipment signage (including filling in manufacturer logo indentations on radio relay units/cabinets) and equipment decals that may be visible from sidewalk and dwellings, unless required by government regulation.
- 7. Utilize smallest RF warning signage allowed (4 x 6 inches); and place the warning sticker facing out toward street, at a location as close to antenna as is feasible. Sticker shall face away from street, when not facing a nearby window within 15 feet. Background color of sticker shall match the pole-mounting surface; and logo and text shall be white.
- 8. Stack equipment enclosures (not including antenna) as close as allowed by applicable regulation and manufacturer equipment standards.
- 9. Seams and bolts/screws at antenna and shroud assembly area shall be fabricated and installed in a manner so as to reduce their visibility (e.g. flush mounting screws) from sidewalk level.

 10. Not utilize any visible flashing indicator lights or similar.
- 11. Not obstruct the view from, or the light into any adjacent residential window.
- 12. New below ground enclosure excavations (vault), if utilized, shall not damage or remove granite curbs. No significant gaps shall be created between vault enclosure lid and primary sidewalk material due to installation. Any other existing historic architectural elements within the public right-of-way shall be retained and protected during installation. No carrier logo or carrier name may be placed on the vault lid.
- 13. Non-essential radio relay unit elements (handle and legs) shall be removed.
- 14. The installer shall arrange to have Planning Department staff review the initial installation, in order to ensure compliance with the aforementioned conditions (notwithstanding inspections by pole owner and Department of Public Works).
- 15. Ensure Wi-Fi Access Points and associated wiring, utilized by the City's Department of Technology, are not damaged during installation (if present).
- 16. Should the installation vary from said conditions, the application shall be resubmitted to the Planning Department for further review and comment.

Permit Addresses

16WR-0123

*RW = RockWheel, SMC = Surface Mounted Cabinets, S/W = Sidewalk Work, DB = Directional Boring, BP= Reinforced Concrete Bus Pad, UB = Reinforced Concrete for Utility Pull Boxes and Curb Ramps Green background: Staging Only

Number of blocks: 1

Total repair size:0 sqft

Total Streetspace:0

Total Sidewalk: sqft

ID	Street Name	From St	To St	Sides	*Other	Asphalt	Concrete	Street Space Feet	Sidewalk Feet
	1 BAKER ST	BUSH ST	PINE ST	East	RW : False SMC : False S/W Only : False DB: False BP: False UB: False	0	0	0	
	Total	Security Control				3.00000	0	0	

Exceptions - Coordination

It is mandatory that you coordinate your permit with the following jobs listed. You will be required to call each contact listed and create a note including the date contact was made, agreed coordination, name of contact, or date message(s) left if unable to reach a contact.

Street Use Conflicts:

Job#	Activity	Contact	
19EXC-01751	Esquivel Grading & Paving, Inc Conflict with existing excavation permit. It is mandatory that you coordinate all work for joint paving.	415-354-4870 - 415-354 -4870	
Your Notes:			
Streets:	BAKER ST / BUSH ST - PINE ST -	anna da anna anna an anna anna anna ann	ment e Aranda (san Annaise (san Aranda)

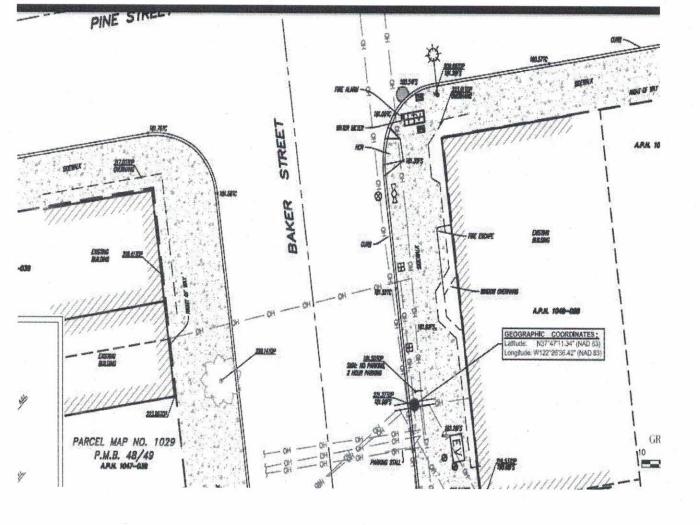
Permit Conflicts:

permit	Dates Agency Contact
Your Notes:	
Streets:	

Exceptions

16WR-0123

Street Name	From St	To St	Message	Job	Contact	Dates
BAKER ST		0.75	The second of the second of			
	BUSH ST	PINE ST -	Please see special paving requirements for Moratorium Streets.	2796J		Feb 12 2019-Feb 12 2024
	BUSH ST	PINE ST -	Proposed Excavation.	SF PUC Water	CDD Engineering -	Nov 20 2020-Nov 20 2021
	BUSH ST	PINE ST -	Sidewalk Paving to be done by SIRP Process	SIRP Work Order	Empire Engineering & Construction Co.	



BRIEF(S) SUBMITTED BY APPELLANT(S)

HD: 11/13/19

City and Country of San Francisco Board of Appeals

1650 Mission Street, Suite 304

San Francisco, CA 94103

BOARD OF APPEALS

OCT 2 4 2019

APPEAL # 19-087

Regarding:

Appeal 19-087

Subject Property:

1650 Baker Street

Subject:

Appeal of Permit 16WR-0123



Dear Board of Appeal Commissioners:

Thank you for taking the time to hear our appeal. We respectfully request the Board to overturn the issued permit above, and we will explain why that is the correct action and why this issued permit both violates necessary requirements for approval and was issued incorrectly.

First, installation clearly detracts from the defining characteristics of the neighborhood and therefore must not be allowed. As a result, it violates the Tier B Compatibility standard.

Second, the rules of Article 25 were not followed properly, and the applicant violated many requirements and potentially committed fraud. DPH's own report should have been invalid, Planning failed in its assessment, and DPW should have never issued the permit.

1) The installation clearly detracts from the defining characteristics of the neighborhood and thus violates the Tier B compatibility Standard.

The proposed Personal Wireless Service Facility would significantly detract from the defining characteristics of this Residential district. Our district is a RH-2 (Residential House, 2 Family) with, as the city says, has homes of "limited scale in terms of building width and height." (Exhibit 1, Planning's own document, Planning case number 2017-015753MIS).

Let me start with some context on what, exactly, we are talking about here.

Our neighborhood:

- 1650 Baker Street is located on Baker between Bush Street & Pine Street, which is a 40-X zone, meaning all buildings are 40 feet or less.
- The homes on the street are beautiful Victorians that are indeed "limited in height" and on average the homes are closer to 38-39 feet (taking an average of the homes on the block). In addition, all the power poles are less than 40 feet.
- This limited height level averaging less than 40 feet is a key (if not THE key) defining characteristic of our neighborhood. Please remember, Planning has no record of visiting our neighborhood for this installation, which also contributed to their incorrect determination here.

The typical Verizon small cell installation, for context:

- Most small cell installations have usually been on lightpoles. For example, see Exhibit 2 for a picture of two lightpoles on Beach street in the Marina, one without the small cell installation and one with it quite a modest height difference.
- Also, for another more concrete example, see Exhibit 3, where the installation is a 110 watt small cell. Without the small cell, the top height of the pole is 30 feet 4 inches, and after installing the small cell, the top height is 32 feet. In other words, a modest 20 INCHES was added to the net height.
- In fact, Verizon itself in its applications with the city says "each pole facility would consist of one antenna placed between 20 to 40 feet above grade, but generally around 30 feet above grade" (Exhibit 4) Verizon effectively said the typical installation would be 30 feet above grade, and its language seemed to indicate also that the antenna would not be placed above 40 feet above grade but at 1650 Baker, the top of the Antenna is OVER 51 FEET above grade (and its bottom is installed at almost 46 feet above grade)

Here at 1650 Baker Street:

• In our case here, the "Existing Pole Height" is 39 feet 3 inches, as shown in Verizon's own Analysis submitted to the DPW (Exhibit 5) and Verizon's own submitted plans/drawings. After Verizon's installation, Verizon itself shows the Proposed total height is an ADDDITIONAL 12 FEET, or 144 inches, in height. The new height would be 51 feet 3 inches!

- Compare this extension to the typical installation (as shown prior, above and in
 Exhibit 3) which is 20 INCHES added height—versus here, again, is OVER 7 TIMES

 THAT 12 FEET added.
- It is worth noting that, in addition, the small cell itself is over 3500 WATTS! More than 30 TIMES that of the prior example. In our view, massive wattage installations like this simply do not belong in neighborhoods. But while that is not the crux of our argument, we would like the board to know that "not all small cells are created equal" even though documentation we reviewed at the city level fails to differentiate between 110 watt installations versus 3500 watt ones and blankets them all as "small cells" as if they are all effectively the same (they aren't!)
- Verizon may claim the small cell antenna itself is a smaller height, but that is irrelevant. What is relevant is how large is the installation <u>as a whole</u> and <u>how much total height</u> does it add?

Due to PG&E rules, to install at this pole, a "bayonet" / extension is first installed and then the small cell is installed on top of that. If anything, this rule should prevent Verizon from picking this pole in the first place since it requires too much height to be added in a neighborhood that is characterized with homes of limited height averaging 38-39 feet (some poles in the city do not need a bayonet, for example).

In sum: the total installation from Verizon would be about 12 FEET IN HEIGHT and take the total height of this pole, from 39'3" (39 feet 3 inches) at present, to OVER 51 FEET TALL.

The result? And this is the key part:

- The installation is like a flying UFO, floating and hovering in the sky above the entire neighborhood. This result is terrible but no surprise –all the homes and poles on the block are shorter than 40 feet, while this installation is enormous (a top over 51 feet tall). We have done some sample renderings to give a sense of that crazy height added and its effect (Exhibit 6).
- "Flying UFO", "sticks out like a sore thumb" are all true characterizations Planning made an erroneous and incorrect judgement here. In addition, this "Flying UFO" incommodes the street and the quiet use/enjoyment of the street as well as a result, something that even at the state level the law says is illegal when installing or building anything in the public right of way.
- We have also included some sample pictures from our neighborhood for reference so one may see what it looks like and its limited scale (Exhibit 7).
- Simply put, it clearly detracts from the defining characteristics of the neighborhood and therefore must not be allowed.

And a further point – the clutter

While this is not the crux of our argument, we do think, for context sake, it is also important for the board to know more about the pole in question. Please see Exhibit 8 (Picture of the pole) for how much clutter is already on this pole itself. It is already at a tipping point, where additional clutter is simply excessive. The Verizon installation adds many boxes and attachments, in addition to an additional 12 foot installation at the top of this pole.

Not only are residents affected by this, but so are the growing number of tourists in our area. This neighborhood is a growing tourist zone, thanks to the highly popular "Full House House" that is 1 block away on Broderick Street. Thanks to Instagram, The Full House House (FHH) is becoming one of the more popular spots that young tourists want to see -young people want to take pictures in front of the FHH and post it on their social media accounts. Tourists often park on our block to see the FHH, and naturally, walk around the area afterwards to see the other Victorians on the nearby quiet block on Baker where we live. This additional clutter hurts both the residents and the tourists in the area.

2) Process violations should deem the permit invalid in the first place, and the mandatory requirements of Article 25 were not met

Hammett and Edison (H&E) report is invalid

 As mandated by city law to receive a permit, the applicant (Verizon / Modus) needed to hire a RF radio frequency engineer to assess the proposed installation. Verizon hired H&E

- The H&E report has a conclusion page which is signed by the engineer that conducted the study and wrote the report. It is the ONLY page that is signed by the H&E Engineer (named Andrea Bright) and the only page that has her official stamp as a registered California Professional Engineer.
- A copy of this signature page and stamp page is included as Exhibit 9.
- To quote, it says: "Based on the information and analysis above, it is the undersigned's professional opinion that operation of the small cell proposed by Verizon Wireless at 1867 39th Avenue in San Francisco, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment."

 (Emphasis mine, underlined)
- This address is THE WRONG ADDRESS (it is not 1650 Baker Street). The engineer seems to have "cut and pasted" from another report and just applied it blindly here to a completely different location, which at worst is fraud and at best is negligence.
- Either way, as a result, there does NOT exist any signed and stamped conclusion about 1650 Baker Street.
- While the top of the page says 1650 Baker as a printed header to the document, the actual signed page (the only signed & stamped page in the document) and the conclusion statement clearly states it's for 1867 39th Avenue which means this is not a valid signed report for our address on Baker St.

The DPH and DPW installation requirements have a history of not being met

- Arthur Duque of DPH is the Senior Environmental Health Inspector at San Francisco

 Dept of Public Health -Radio frequency program. He is the only person in the Radio

 Frequency Program at the DPH (Exhibit 10).
- Arthur writes, in the letter stating DPH's approval conditions in the section titled Approval Conditions, that "Once the antenna is installed, Verizon Wireless must take RF power density measurements with the antenna operating at full power to verify the level reported in the Ebi Consulting report and to ensure that the FCC public exposure level is not exceeded in any publicly accessible area."
- The language here is clear it is a requirement of the permit. And yet:
- Exhibit 11 --- Arthur Duque of DPH himself has admitted in writing, in an email he sent March 21, 2019 (only months ago) to DPW, saying "DPH has not been getting any of the post-test results since I've been in this program." [for reference: he has been with DPH for over 8 years].
- That means Arthur admits in writing that for YEARS, he has not received required post-installation reports as required by the permit. We cannot allow such a blatant violation to continue and cannot trust the wireless companies to adhere by the clauses in the permit.
- DPW itself also admits in writing (Exhibit 11) that (1) there is no document with information concerning post-installation compliance (2) there is no information about the cumulative effect of installed wireless facilities (3) there are no documents that

compare pre-installation with post-installation RF reports.

DPH's own report is invalid and its determination was improper and incorrect

- Arthur Duque of DPH (aforementioned, with his bio in Exhibit 8) also wrote up his own report about the proposed installation at 1650 Baker.
- His report (Exhibit 12) merely cites the invalid H&E report above.
- Therefore, by citing an invalid report as its only evidence, DPH's own assessment has failed and is invalid as well as a result, the permit should have never been issued since a valid DPH report is needed as a mandatory criteria for the permit.
- In addition, as shown in the last section, Arthur's determination from DPH is inherently unreliable because for years he personally has failed to verify the representations in H&E reports, including what emissions these cell towers produce once installed despite for years making that a condition of his and DPH's approval.

Planning failed in their responsibility of properly assessing this neighborhood and location (this is in addition to the incorrect determination from Planning that we explained in the first part of this brief).

- Planning issued a document called "Design Preferences for Personal Wireless
 Facilities"
- In this document, Planning specifically cites: "Top mounted and side mounted antennas offer various advantages and challenges from both an RF and visibility

perspective; requiring a case by case review. For example, a top mounted antenna with a very tall extension arm may look out of character in a low lying residential neighborhood" (Exhibit 13) – which is, in fact, exactly the situation on our block of Baker street with the proposed installation. Planning is right – an installation like the 12 FOOT tall addition at 1650 Baker is indeed "out of character"

- While Planning may not be required to visit ALL proposed sites, their own document mentions the need in a case like ours at 1650 Baker for "requiring a case by case review" (Exhibit 13)
- However, there is no evidence that planning did the required case by case review
 cited in this language and document. There is no evidence that planning even visited
 the site. The language used in planning's letter is boilerplate and matches that of other residential sites.

Verizon failed to meet mandatory requirements, which prohibited the DPW from issuing the permit

- Agatha Kehayas of Modus (representative of Verizon) sent out a notification email to neighbors of the proposed installation site (Exhibit 14)
- Her email was required to include a Proposed Equipment and Antenna plan that could be reviewed. This is a very important thing for the residents nearby to review properly. However, the one she attached was completely unreadable and blurry in our opinion, this indicates a clear intent to deceive. (Exhibit 14)

- She attached the same RF report from H&E as the above cited one where the signature and stamp was for a different address entirely, that of 1867 39th Avenue (Exhibit 9)
- By sending our unreadable documents, and by sending out the invalid RF report based on another different address, Verizon failed its requirements for the permit, and their actions show negligence at best and a fraudulent attempt to deceive at worst.

Structural engineering report deems the installation not safe

- Comm-Sense Consulting, a structural engineering company, was hired by Modus /
 Verizon to conduct analysis "to determine if the wood pole is structurally adequate to support the proposed loadings" of the antenna and the mounting bracket and other equipment (Exhibit 15)
- The report says "RECOMMENDATIONS: The wood pole can safely support the proposed scope of work provided the pole is replaced with a pole of higher capacity."
- In other words, the current pole at 1650 Baker Street as it is cannot support the installation.
- In fact the report says, in their Existing Pole Analysis, that the pole load with this installation on the existing pole would be 120.4% of what the pole can hold (in other words, more than the pole can safely hold) (Exhibit 15)
- Verizon's own plans (Exhibit 16) show no mention of a replacement pole and show use of the existing pole.

Given the above, significant evidence exists of a scheme to defraud by Verizon, and significant evidence exists of negligence by the DPH, DPW, and Planning Department, none of whom should have approved the permit. The permit did not meet many of the requirements to be issued and should have never been issued in the first place. Verizon's agents repeatedly, and potentially fraudulently, misrepresented approval conditions.

Appellants request that, for the many reasons above, the Board should uphold this Appeal and deny the Permit. Thank you.

Exhibit Table of Contents

Exhibit 1:	Planning Department's case number 2017-015753MIS for DPW permit 16WR-0123
Exhibit 2:	For reference - Two small cell installations on the same block on Beach St.
Exhibit 3:	For reference - architectural plans for a small cell installation on Pacific Ave.
Exhibit 4:	Modus-Verizon's submission to Planning giving a Project Description for its small-cell installations in Pacific Heights
Exhibit 5:	Verizon's own analysis with the current and post-installation height at 1650 Baker
Exhibit 6:	Sample renderings to illustrate before and after height change
Exhibit 7:	For reference - Pictures of the neighborhood (Baker Street near 1650 Baker)
Exhibit 8:	Photograph of the pole at 1650 Baker Street
Exhibit 9:	Signature page and stamp page for the Hammett & Edison report submitted for DPW permit 16WR-0123
Exhibit 10:	Background and bio for Arthur Duque of DPH, Radio Frequency Program
Exhibit 11:	Email from Arthur Duque explaining DPH has never received a required post installation report, as well as Leo Palacios at DPW answering questions about post installation assessment as required by DPW
Exhibit 12:	Letter from DPH citing the Hammett & Edison report
Exhibit 13:	Planning Dept. document: Design Preferences for Personal Wireless Service Facilities
Exhibit 14:	Attachment sent by Verizon representative Agatha Kehayas and a printout of the attachment she sent of the Proposed Equipment and Antenna Plan
Exhibit 15:	Structural Engineering report as submitted by Verizon / its representatives
Exhibit 16:	Architect plans for Verizon's proposed installation

Exhibit 1



SAN FRANCISCO ANNING DEPARTMENT

Date:

February 6, 2019

DPW Permit No.:

16WR-0123

Planning Case No: 2017-015753MIS

Project Address:

1650 Baker Street - Verizon ROW WTS Facility

Wood Pole owned by Joint Pole Association

Project Sponsor:

Kevin Bowyer

Modus for Verizon

240 Stockton Street, 3rd Floor

San Ramon, CA 94583

Staff Contact:

Ashley Lindsay - 415-575-9178

Ashley.Lindsay@sfgov.org

Determination:

Approval with Conditions

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

Reception: 415.558.6378

415.558.6409

Planning Information: 415.558.6377

Department of Public Works Code Article 25 and Order No. 183,440 require review by the Planning Department to determine that the Application for a Tier A or Tier B Personal Wireless Service Facility Site Permit satisfies the applicable Tier A or Tier B Compatibility Standard. An Application for a Tier B Personal Wireless Service Facility Site Permit shall satisfy the Tier B Compatibility Standard for a Zoning and/or a Planning Protected Location, and shall not obstruct the view from or the light into any adjacent residential window. A proposed Personal Wireless Service Facility shall be consistent with the public health, safety, convenience and general welfare and will not unreasonably affect, intrude upon or diminish any identified City resource.

DETERMINATION

The Planning Department determines that the proposed Personal Wireless Service Facility WOULD significantly detract from the character of the adjacent residential/commercial/mixed-use Districts, Scenic Vistas; or potential and or known historic Buildings; Districts. The Planning Department recommends APPROVAL WITH CONDITIONS in conformance with architectural plans dated December 18, 2018 and photo simulations dated December 26, 2018, and associated with DPW Wireless Application No. 16WR-0123.

Findings:

The proposed Tier B Personal Wireless Service Facility is to be located in the public right-of-way in a Zoning Protected Location, adjacent to 1650 Baker Street - Verizon ROW WTS Facility, and on a street with Undesignated Street Views.

The proposed Personal Wireless Service Facility is, on balance, consistent with Article 25 of the Public Works Code and the Objectives and Policies of the General Plan, as follows:

Article 25 Compliance:

I. The proposed Personal Wireless Service Facility would not significantly detract from any of the defining characteristics of the Residential or Neighborhood Commercial zoning district. This site is located within the RH-2 zoning district.

The proposed Verizon Wireless personal wireless service facility would be situated within the RH-2 (Residential- House, Two Family) district. The RH-2 District is intended to recognize, protect, conserve and enhance areas characterized by dwellings in the form of houses, usually with one, two or three units with separate entrances, and limited scale in terms of building width and height. Such areas tend to have similarity of building styles and predominantly contain large units suitable for family occupancy, considerable open space, and limited nonresidential uses.

Planning has determined that the proposed Verizon Wireless personal wireless service facility is designed in a streamlined manner, as proposed it will be located on a replacement pole in the exact location of an existing light pole which would not significantly detract from any of the defining characteristics of the RH-2 (Residential-House, Two Family) district.

General Plan Compliance:

I. URBAN DESIGN ELEMENT

The Urban Design Element concerns the physical character and order of the city, and the relationship between people and their environment. The Urban Design Element is concerned both with development and with preservation. It is a concerted effort to recognize the positive attributes of the city, to enhance and conserve those attributes and to improve the living environment where it is less than satisfactory. The Plan is a definition of quality, a definition based upon human needs.

OBJECTIVE 1

Emphasis of the characteristic pattern which gives to the City and its neighborhoods an image, a sense of purpose, and a means of orientation.

Policy 1.1

Recognize and protect major views in the city, with particular attention to those of open space and water.

OBJECTIVE 2

Conservation of resources which provide a sense of nature, continuity with the past, and freedom from overcrowding.

Policy 2.9

Review proposals for the giving up of street areas in terms of all the public values that streets afford.

OBJECTIVE 4

Improvement of the neighborhood environment to increase personal safety, comfort, pride and opportunity.

Policy 4.14

Remove and obscure distracting and cluttering elements.

The project has been designed to reduce, to the best extent possible, the blocking or other impairment of pleasing street views, and preserves an important characteristic of the unique setting and quality of the city.

The project has been designed to maintain, to the best extent possible, views from streets which can provide a means for orientation, and preserves the ability for an observer to perceive the City and its districts clearly.

II. TRANSPORTATION ELEMENT

The Transportation Element concerns pedestrian movement in the city as to ensure the city is safe, convenient, and pleasant as pedestrian travel is an important component of the transportation system. The close-knit fabric of San Francisco, in junction with the dramatic hills and sweeping vistas, makes walking an ideal mode for exploring and moving about the city. The sidewalk is a shared space and provides a strong sense of the overall image of the city.

OBJECTIVE 23

Improve the city's pedestrian circulation system to provide for efficient, pleasant, and safe movement.

Policy 23.5

Establish and enforce a set of sidewalk zones that provides guidance for the location of all pedestrian and streetscape elements, maintains sufficient unobstructed width for passage of people, strollers and wheelchairs, consolidates raised elements in distinct areas to activate the pedestrian environment, and allows sufficient access to buildings, vehicles, and streetscape amenities.

The project has been designed to maintain at least four (4) feet unobstructed width for pedestrian passage as outlined in the Pedestrian Network Streets and Design Guidelines of the Transportation Element.

OBJECTIVE 24

Improve the ambience of the pedestrian environment.

Policy 24.4

Preserve pedestrian-oriented building frontages.

The project has been designed as a minimally-visible facility to be attached to an existing light/utility pole extant in the public sidewalk. The facility components are designed as an

extension to the pole and equipment boxes, with requirements to be painted or shrouded to match the pole further reducing their visibility and any conflicts with the building frontages within the RH-2 District.

Conditions:

- 1. Combiner shroud not to exceed 8" in depth and 14" in width.
- 2. Plant and maintain an appropriate street tree.
- No exposed meter, meter pan or meter pedestal may be used.
- 4. Antenna, and all equipment (external conduit, radio relay units, blinders used to shroud bracket bolts [if needed], and mounting mechanisms); except signage, if used for screening, shall all be painted to match the pole and repainted as needed.
- 5. Cabling below radio relay units shall enter the pole with no more than a five-inch gap between bottom of each radio relay unit and the bottom of the corresponding entry hole on the pole. Conduit connection at pole entry points shall utilize the smallest fitting sizes available. Sealing compounds, if utilized, shall be tidy without excess bubbling and painted to match pole.
- Remove raised equipment signage (including filling in manufacturer logo indentations on radio relay units/cabinets) and equipment decals that may be visible from sidewalk and dwellings, unless required by government regulation.
- 7. Utilize smallest RF warning signage allowed (4 x 6 inches); and place the warning sticker facing out toward street, at a location as close to antenna as is feasible. Sticker shall face away from street, when not facing a nearby window within 15 feet. Background color of sticker shall match the pole-mounting surface; and logo and text shall be white.
- 8. Stack equipment enclosures (not including antenna) as close as allowed by applicable regulation and manufacturer equipment standards.
- Seams and bolts/screws at antenna and shroud assembly area shall be fabricated and installed in a manner so as to reduce their visibility (e.g. flush mounting screws) from sidewalk level.
- 10. Not utilize any visible flashing indicator lights or similar.
- 11. Not obstruct the view from, or the light into any adjacent residential window.
- 12. New below ground enclosure excavations (vault), if utilized, shall not damage or remove granite curbs. No significant gaps shall be created between vault enclosure lid and primary sidewalk material due to installation. Any other existing historic architectural elements within the public right-of-way shall be retained and protected during installation. No carrier logo or carrier name may be placed on the vault lid.
- 13. Non-essential radio relay unit elements (handle and legs) shall be removed.
- 14. The installer shall arrange to have Planning Department staff review the initial installation, in order to ensure compliance with the aforementioned conditions (notwithstanding inspections by pole owner and Department of Public Works).
- Ensure Wi-Fi Access Points and associated wiring, utilized by the City's Department of Technology, are not damaged during installation (if present).
- 16. Should the installation vary from said conditions, the application shall be resubmitted to the Planning Department for further review and comment.

DPW Personal Wireless Service Facility Referral Modus for Verizon

S.F. Planning Department 1650 Baker Street

Sincerely,

Ashley Lindsay Planner

EXHIBIT 2

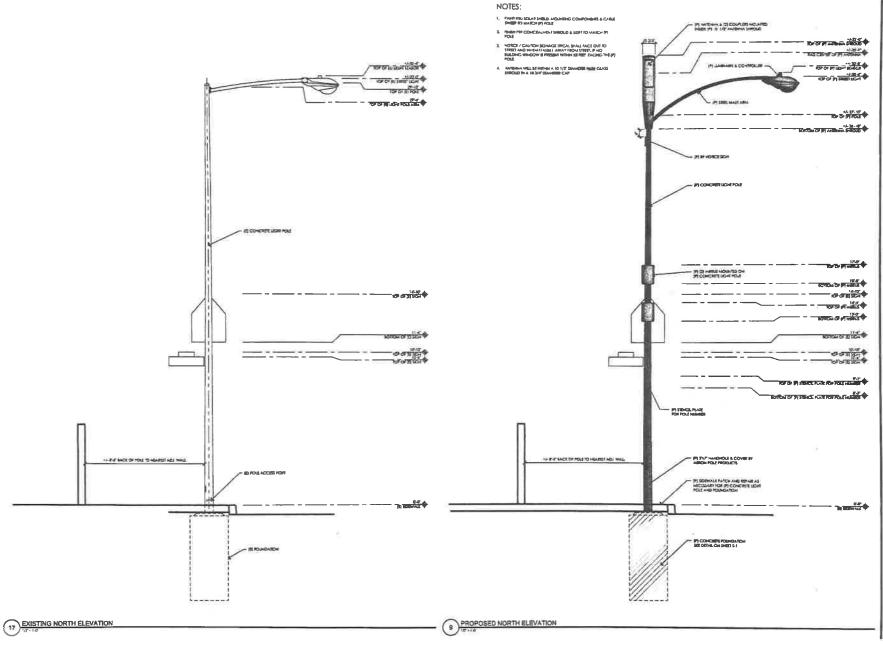
Beach street lightpole WITHOUT Small cell

Same block, Beach street lightpole WITH Small cell





Exhibit 3





MINISTERNAL PRINT BUTS



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SITE NUMBER:

SF_PAC087

SITE ADDRESS: IFO 2206 PACIFIC AVE BAN FRANCISCO, CA 84115



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ELEVATIONS

A-3

Modus-Verizon Cell Sites on Poles in Pacific Heights (2016-005607ENV) Project Description

Each SFPUC/SMFTA pole facility would consist of one approx. 2-foot-tall, 7.5-Inch-dia. antenna placed between 20 to 40 feet above grade, but generally around 30 feet above grade; one approx. 2-foot tall, 14" diameter shroud/skirt mounted just below antenna to conceal the antenna cabling and related equipment; two mRRU equipment boxes (approx. 16.5" H x 10" W x 6"D each) mounted on the side of the pole, generally between the heights of 10' and 15' on the pole; and conduit to be run inside of the existing pole. Each JPA pole facility would consist of one approx. 2-foot-tall, 7.5-inch-dia. antenna placed between 20 to 40 feet above grade, but generally around 30 feet above grade; two mRRU equipment boxes (approx. 16.5" H x 10" W x 6"D each) mounted on the side of the pole, generally between the heights of 10' and 15' on the pole; one PG&E meter box (±12" high by 10" wide by 6" deep) mounted just below the RRU equipment boxes; one disconnect switch (±9.5" high by 7.25" wide x 3.75" deep) mounted in between the PG&E meter and the bottom mRRU; and conduit to connect equipment and antenna on the side of the pole



PLANNING DEPARTMENT

CEQA Categorical Exemption Determination

PROPERTY INFORMATION/PROJECT DESCRIPTION

PROPERTY	INTORMA	THUN/PROJECT DESCRIPTION					
Project Address			Block/Lot(s)				
Modus-Verizon Cell Sites on Poles in Pacific Heights			N/A				
Case No. Permit No.		Permit No.	Plans Dated				
2016-005	2016-005607ENV		2/17/16 (MT/	VPUC); 10.13.15 (JPA)			
Addition	on/	Demolition	New	Project Modification			
Alterati	on	(requires HRER if over 45 years old)	Construction	(GO TO STEP 7)			
Project desc	ription for	Planning Department approval.					
public right-	of-way in t	al wireless șervice facilities on existing SF he Pacific Heights neighborhood. See atta	PUC, SFMTA, and inched project descr	JPA utility poles in the iption and list of locations.			
STEP 1: EX		CLASS BY PROJECT PLANNER					
*Note: If n		applies, an Environmental Evaluation Appl					
	Class 1 – Existing Facilities. Interior and exterior alterations; additions under 10,000 sq. ft.						
	Class 3 – New Construction/ Conversion of Small Structures. Up to three (3) new single-family						
	residences or six (6) dwelling units in one building; commercial/office structures; utility extensions.; .;						
	change of use under 10,000 sq. ft. if principally permitted or with a CU. Change of use under 10,000						
	sq. ft. if principally permitted or with a CU.						
\checkmark	Class 3(d) - construction and location of limited numbers of new, small communications facilities.						
STEP 2: CE	-	TS BY PROJECT PLANNER					
If any box i	s checked b	pelow, an Environmental Evaluation Applica	ation is required.				
	Air Ouali	ty: Would the project add new sensitive rece	ptors (specifically, s	chools, day care facilities			
	hospitals, residential dwellings, and senior-care facilities) within an Air Pollution Exposure Zone?						
	Does the project have the potential to emit substantial pollutant concentrations (e.g., backup diesel						
	generators, heavy industry, diesel trucks)? Exceptions: do not check box if the applicant presents						
	documentation of enrollment in the San Francisco Department of Public Health (DPH) Article 38 program and						
	the project would not have the potential to emit substantial pollutant concentrations. (refer to EP _ArcMap > CEQA Catex Determination Layers > Air Pollutant Exposure Zone)						
				suspected of containing			
	Hazardous Materials: If the project site is located on the Maher map or is suspected of containing hazardous materials (based on a previous use such as gas station, auto repair, dry cleaners, or heavy						
	manufacturing, or a site with underground storage tanks): Would the project involve 50 cubic yards						
	or more of soil disturbance - or a change of use from industrial to residential? If yes, this box must be						
	checked and the project applicant must submit an Environmental Application with a Phase I						
	Environmental Site Assessment, Exceptions: do not check box if the applicant presents documentation of enrollment in the San Francisco Department of Public Health (DPH) Maker program, a DPH value from the						

	Maher program, or other documentation from Environmental Planning staff that hazardous material effects would be less than significant (refer to EP_ArcMap > Maher layer).			
	Transportation: Does the project create six (6) or more net new parking spaces or residential units? Does the project have the potential to adversely affect transit, pedestrian and/or bicycle safety (hazards) or the adequacy of nearby transit, pedestrian and/or bicycle facilities?			
	Archeological Resources: Would the project result in soil disturbance/modification greater than two (2) feet below grade in an archeological sensitive area or eight (8) feet in a non-archeological sensitive area? (refer to EP_ArcMap > CEQA Catex Determination Layers > Archeological Sensitive Area)			
	Subdivision/Lot Line Adjustment: Does the project site involve a subdivision or lot line adjustment on a lot with a slope average of 20% or more? (refer to EP_ArcMap > CEQA Catex Determination Layers > Topography)			
	Slope = or > 20%: Does the project involve any of the following: (1) square footage expansion greater than 1,000 sq. ft. outside of the existing building footprint, (2) excavation of 50 cubic yards or more of soil, (3) new construction? (refer to EP_ArcMap > CEQA Catex Determination Layers > Topography) If box is checked, a geotechnical report is required.			
	Seismic: Landslide Zone: Does the project involve any of the following: (1) square footage expansion greater than 1,000 sq. ft. outside of the existing building footprint, (2) excavation of 50 cubic yards or more of soil, (3) new construction? (refer to EP_ArcMap > CEQA Catex Determination Layers > Seismic Hazard Zones) If box is checked, a geotechnical report is required.			
	Seismic: Liquefaction Zone: Does the project involve any of the following: (1) square footage expansion greater than 1,000 sq. ft. outside of the existing building footprint, (2) excavation of 50 cubic yards or more of soil, (3) new construction? (refer to EP_ArcMap > CEQA Catex Determination Layers > Seismic Hazard Zones) If box is checked, a geotechnical report will likely be required.			
	are checked above, GO TO STEP 3. If one or more boxes are checked above, an Environmental Application is required, unless reviewed by an Environmental Planner.			
V	Project can proceed with categorical exemption review. The project does not trigger any of the CEQA impacts listed above.			
Comments and Planner Signature (optional):				
STEP 3: PROPERTY STATUS – HISTORIC RESOURCE TO BE COMPLETED BY PROJECT PLANNER				
PROPERTY	PROPERTY IS ONE OF THE FOLLOWING: (refer to Parcel Information Map)			
√ Ca	✓ Category A: Known Historical Resource. GO TO STEP 5.			

Category B: Potential Historical Resource (over 45 years of age). GO TO STEP 4.

Category C: Not a Historical Resource or Not Age Eligible (under 45 years of age). GO TO STEP 6.

STEP 4: PROPOSED WORK CHECKLIST TO BE COMPLETED BY PROJECT PLANNER

Che	ck all that apply to the project.					
	1. Change of use and new construction. Tenant improvements not included.					
	2. Regular maintenance or repair to correct or repair deterioration, decay, or damage to building.					
	 Window replacement that meets the Department's Window Replacement Standards. Does not include storefront window alterations. 					
	4. Garage work. A new opening that meets the Guidelines for Adding Garages and Curb Cuts, and/or replacement of a garage door in an existing opening that meets the Residential Design Guidelines.					
Ш	5. Deck, terrace construction, or fences not visible from any immediately adjacent public right-of-way.					
	 Mechanical equipment installation that is not visible from any immediately adjacent public right-of- way. 					
	 Dormer installation that meets the requirements for exemption from public notification under Zoning Administrator Bulletin No. 3: Dormer Windows. 					
	8. Addition(s) that are not visible from any immediately adjacent public right-of-way for 150 feet in each direction; does not extend vertically beyond the floor level of the top story of the structure or is only a single story in height; does not have a footprint that is more than 50% larger than that of the original building; and does not cause the removal of architectural significant roofing features.					
Note	e: Project Planner must check box below before proceeding.					
	Project is not listed. GO TO STEP 5.					
V	Project does not conform to the scopes of work. GO TO STEP 5.					
Ш	Project involves four or more work descriptions. GO TO STEP 5.					
	Project involves less than four work descriptions. GO TO STEP 6.					
	P 5: CEQA IMPACTS ADVANCED HISTORICAL REVIEW BE COMPLETED BY PRESERVATION PLANNER					
Che	ck all that apply to the project.					
	1. Project involves a known historical resource (CEQA Category A) as determined by Step 3 and conforms entirely to proposed work checklist in Step 4.					
	2. Interior alterations to publicly accessible spaces.					
	3. Window replacement of original/historic windows that are not "in-kind" but are consistent with existing historic character.					
4. Façade/storefront alterations that do not remove, alter, or obscure character-defining feature						
	5. Raising the building in a manner that does not remove, alter, or obscure character-defining features.					
	 Restoration based upon documented evidence of a building's historic condition, such as historic photographs, plans, physical evidence, or similar buildings. 					
	7. Addition(s), including mechanical equipment that are minimally visible from a public right-of-way and meet the Secretary of the Interior's Standards for Rehabilitation.					
V	8. Other work consistent with the Secretary of the Interior Standards for the Treatment of Historic Properties (specify or add comments):					

	9. Other work that would not materially impair a historic district (specify or add comments):					
V						
	(Persistence and Line Court Property Pr	in Condition and and				
-	(Requires approval by Senior Preservation Planner/Preservation Coordinator) 10. Reclassification of property status. (Requires approval by Senior Preservation Planner/Preservation					
	Coordinator)					
	Reclassify to Category A Reclassify					
	a. Per HRER dated: (attach HRE) b. Other (specify):	R)				
	D. Cata (openy).	4				
Note	: If ANY box in STEP 5 above is checked, a Preservation	Planner MUST check one box below.				
	Further environmental review required. Based on the Environmental Evaluation Application to be submitted. G					
V	Project can proceed with categorical exemption review. The project has been reviewed by the Preservation Planner and can proceed with categorical exemption review. GO TO STEP 6.					
All proposed streetscay	Comments (optional): All proposed work would be undertaken within the public right-of-way on existing steel or wood poles and would not affect poles that are decorative or historic in nature. The proposed squipment is designed to be allm in profile and to avoid large bundles of visible cabbing, equipment decails, lighting, or mounting systems so that buildings and streetscapes within known or potential historic districts, and/or adjacent historic buildings, would not be materially or visually impaired. Proposed work would not physically alter any historic features or materials that characterize known or potential historic resources where these installations occur.					
Prese	rvation Planner Signature: عمد عمد					
	6: CATEGORICAL EXEMPTION DETERMINATION E COMPLETED BY PROJECT PLANNER					
	Further environmental review required. Proposed project does not meet scopes of work in either (check all that apply):					
	Step 2 – CEQA Impacts					
	Step 5 – Advanced Historical Review					
	STOP! Must file an Environmental Evaluation Application.					
V	No further environmental review is required. The project is categorically exempt under CEQA.					
	Planner Name:	Signature:				
	Project Approval Action:	Digitally signed by Jean Poling DN: dc=org, dc=sfgov,				
	DPW Final Approvals	dc=cityplanning, ou=CityPlanning, ou=Environmental Planning, cn=Jean Poling,				
	If Discretionary Review before the Planning Commission is requested, the Discretionary Review hearing is the Approval Action for the project.	Poling email-jeanle poling@sfgov.org Date: 2016.05.17 13:29:41				
	Once signed or stamped and dated, this document constitutes a categorical exemption pursuant to CEQA Guidelines and Chapter 31 of the Administrative Code. In accordance with Chapter 31 of the San Francisco Administrative Code, an appeal of an exemption determination can only be filed within 30 days of the project receiving the first approval action.					

SAN FRANCISCO PLANNING DEPARTMENT

Modus-Verizon Cell Sites on Poles in Pacific Heights (2016-005607ENV) Project Description

Each SFPUC/SMFTA pole facility would consist of one approx. 2-foot-tall, 7.5-inch-dia. antenna placed between 20 to 40 feet above grade, but generally around 30 feet above grade; one approx. 2-foot tall, 14" diameter shroud/skirt mounted just below antenna to conceal the antenna cabling and related equipment; two mRRU equipment boxes (approx. 16.5" H x 10" W x 6"D each) mounted on the side of the pole, generally between the heights of 10' and 15' on the pole; and conduit to be run inside of the existing pole. Each JPA pole facility would consist of one approx. 2-foot-tall, 7.5-inch-dia. antenna placed between 20 to 40 feet above grade, but generally around 30 feet above grade; two mRRU equipment boxes (approx. 16.5" H x 10" W x 6"D each) mounted on the side of the pole, generally between the heights of 10' and 15' on the pole; one PG&E meter box (±12" high by 10" wide by 6" deep) mounted just below the RRU equipment boxes; one disconnect switch (±9.5" high by 7.25" wide x 3.75" deep) mounted in between the PG&E meter and the bottom mRRU; and conduit to connect equipment and antenna on the side of the pole

Verizon-Modus Sites in Pacific Heights (2016-005607ENV)

VERIZON SITE ID	POLE OWNER	POLE TYPE	ADDRESS THAT POLE IS IN FRONT OF	BLOCK/LOT THAT POLE IS IN FRONT OF	ARTICLE 10/11 DISTRICT?
SF LM PH2 SC 69	SFPUC	STEEL	425 7TH ST	3759/042	NO
SF PAC001	JPA	WOODEN	100 5TH AVE.	1364/036	NO
SF PAC002	SFPUC	STEEL	3991 WASHINGTON ST	0991/045	NO
SF PAC003	MTA	STEEL	3 COMMONWEALTH AVE	1038/001	NO
SF PAC004	JPA	WOODEN	345 ARGUELLO BLVD.	1432/049	NO
SF PAC008	SFPUC	STEEL	290 MAPLE ST	0993/014	NO
SF_PAC009	SFPUC	STEEL	3839 WASHINGTON ST	0992/034	NO
SF_PAC010	MTA	STEEL	3979 SACRAMENTO ST	1015/034	NO
SF_PAC011	SFPUC	STEEL	3695 JACKSON ST	0988/017	NO
SF_PAC012	SFPUC	STEEL	3590 WASHINGTON ST	0986/023	NO
SF_PAC014	SFPUC	STEEL	3400 WASHINGTON ST	0985/004	NO
SF_PAC015	MTA	STEEL	3333 CALIFORNIA ST	1032/003	NO
SF_PAC018	MTA	STEEL	3333 CALIFORNIA ST	1032/003	NO
SF_PAC019	MTA	STEEL	3201 JACKSON ST.	0984/001	NO
SF_PAC020	SFPUC	STEEL	3228 CLAY STREET	0998/050	NO
SF_PAC022	JPA	WOODEN	2127 BRODERICK ST	1000/001	NO
SF_PAC023	MTA	STEEL	3150 CALIFORNIA ST.	1022/013	NO
SF_PAC024	MTA	STEEL	357 PRESIDIO AVE.	1008/005	NO
SF_PAC025	SFPUC	STEEL	3000 SACRAMENTO ST	1005/003	NO
SF_PAC026	JPA	WOODEN	2500 SUTTER ST	1053/005	NO
SF_PAC027	JPA	WOODEN	1650 BAKER ST	1048/028	NO
SF_PAC028	SFPUC	STEEL	2426 BUSH ST	0657/006	NO
SF_PAC032	JPA	WOODEN	2111 BAKER ST	0982/097	NO
SF_PAC035	MTA	STEEL	2460 UNION ST	0536/014	NO
SF_PAC037	SFPUC	STEEL	2930 CLAY ST	1001/009	NO
SF_PAC040	SFPUC	STEEL	2725 CALIFORNIA ST	1027/022	NO
SF_PAC041	JPA	WOODEN	2501 CALIFORNIA ST	0655/001	NO
SF_PAC044	MTA	STEEL	2100 FILLMORE ST.	0636/018A	NO
SF_PAC045	MTA	STEEL	2101 WASHINGTON ST.	0625/003	NO
SF_PAC053	SFPUC	STEEL	1910 LYON ST	1047/024	NO

Verizon-Modus Sites in Pacific Heights (2016-005607ENV)

VERIZON SITE ID	POLE OWNER	POLE TYPE	ADDRESS THAT POLE IS IN FRONT OF	BLOCK/LOT THAT POLE IS IN FRONT OF	ARTICLE 10/11 DISTRICT?
SF_PAC054	MTA	STEEL	2801 JACKSON ST.	0980/056	NO
SF_PAC056	MTA	STEEL	2101 WEBSTER ST	0629/038	NO
SF_PAC057	MTA	STEEL	2919 CALIFORNIA ST.	1029/030	NO
SF_PAC058	MTA	STEEL	3519 CALIFORNIA ST	1035/001	NO
SF_PAC059	SFPUC	STEEL	3501 CLAY ST	1010/001	NO
SF_PAC064	JPA	WOODEN	2501 JACKSON ST	0607/001	NO
SF_PAC067	SFPUC	STEEL	2107 LYON ST	0983/004	NO



ALTERNATIVE DESIGN ANALYSIS

To be referenced in conjunction with DPW online application, construction drawings, and included attachments

SITE ADDRESS 1650 Baker St.

VERIZON SITE NAME Pac Heights 027

DPW SUBMIT DATE 10/8/2018

DPW REFERENCE NUMBER 16WR-0123

VERIZON LOCATION CODE 414918

PLANNING RECEIVED DATE N/A

CURRENT STATUS

DPW approval pending

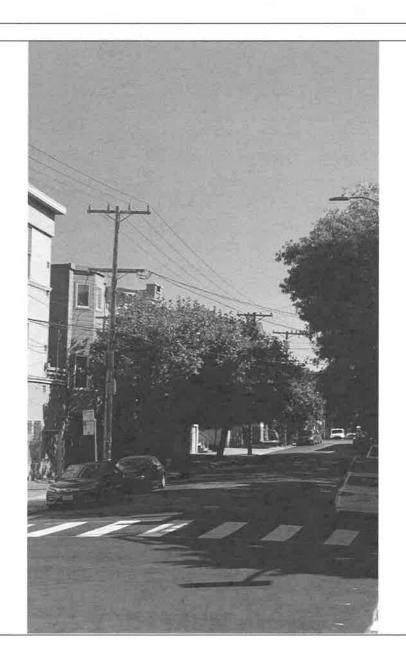
PROPOSED DESIGN	DESCRIPTION REFERENCE
ANTENNA TYPE	48"x14.6" Amphenol canister antenna
ANTENNA LOCATION	Atop 39'-3" existing utility pole
OTHER EQUIPMENT POLE TYPE	(2) RRU's, utility disconnect switch, electrical meter, FCC signage, ground rods, buss bar, conduits for power, telco, and coax. Install handhole at ground level. All equipment to be painted to match the pole. PG&E
EXISTING POLE HEIGHT	39'-3"
PROPOSED TOTAL HEIGHT	51'-3"
OTHER	

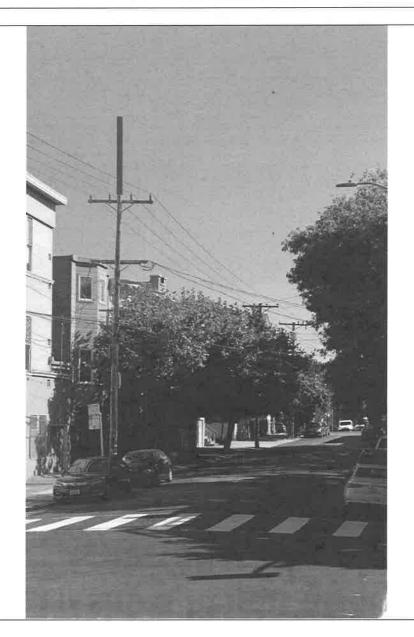
PROPOSED DESIGN NOTES

The smallest and least intrusive available equipment has been selected for use with this installation.

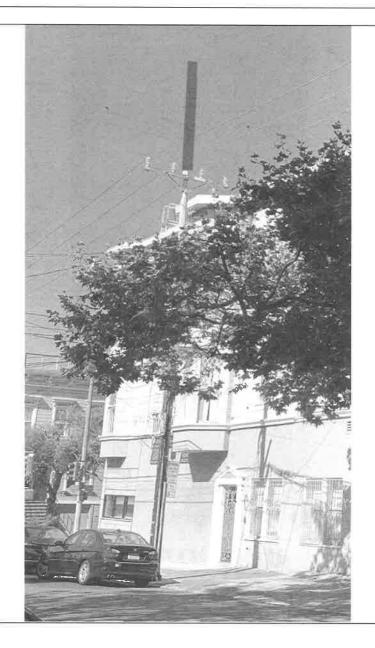








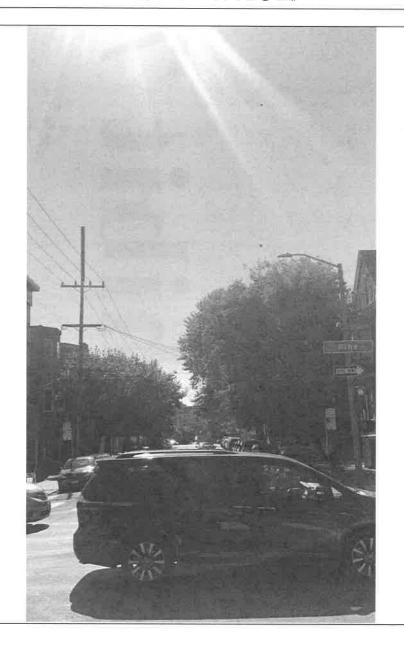


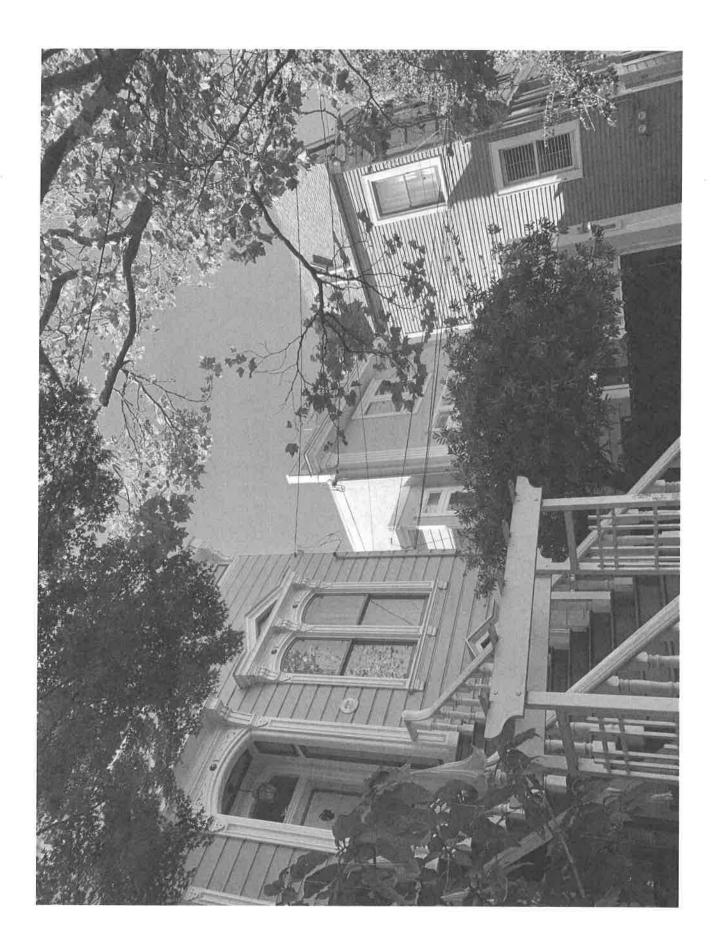




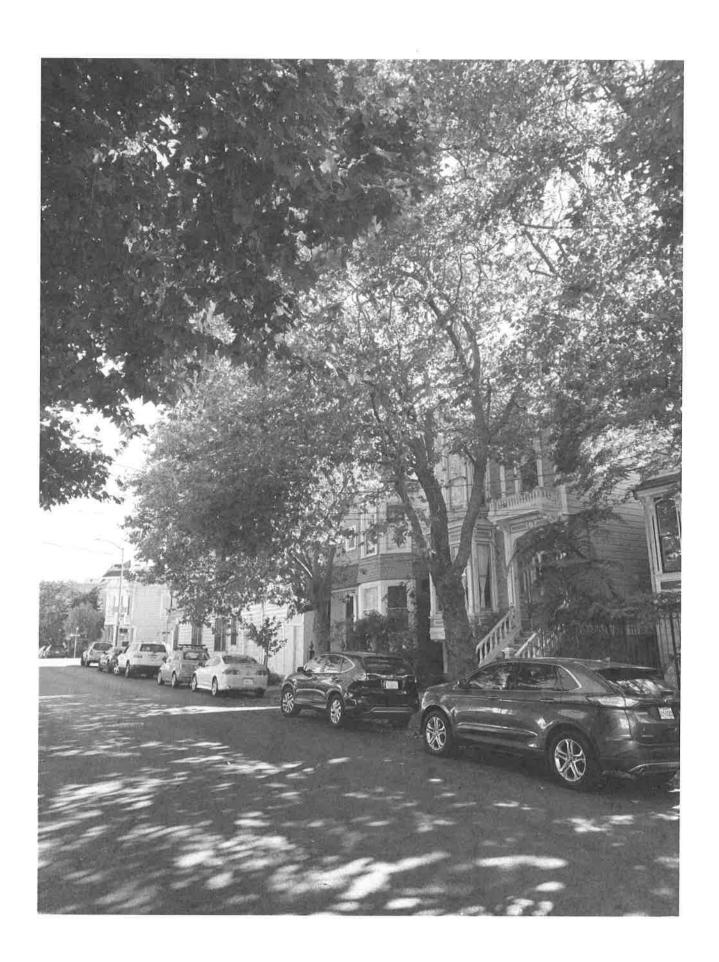


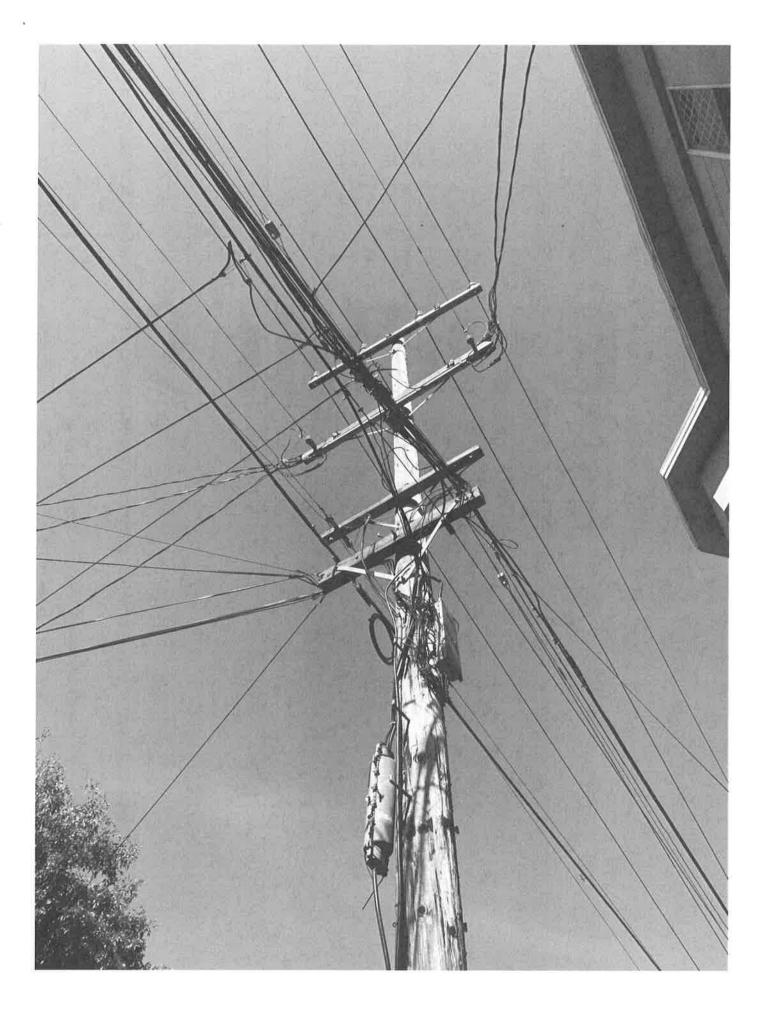












Verizon Wireless • Proposed Small Cell "SF PAC027" 1650 Baker Street • San Francisco, California

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the small cell proposed by Verizon Wireless at 1867 39th Avenue in San Francisco, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating base stations.

November 14, 2017



Andrea L. Bright, P.E. 707/996-5200

From: Agatha Kehayas <akehayas@modus-corp.com>

Sent: Tuesday, August 7, 2018 8:46:13 AM

To: Callewaert, Jennifer (DPH); Duque, Arthur (DPH)
Subject: Re: DPW Permits - DPH Approval Inquiry

Hi Jennifer,

Thank you for informing me.

Best,

Agatha Kehayas, Project Associate | Modus m: 914.573.3016 | Modus | Linkedin

From: Callewaert, Jennifer (DPH) < jennifer.callewaert@sfdph.org>

Sent: Monday, August 6, 2018 8:56:34 PM To: Duque, Arthur (DPH); Agatha Kehayas

Subject: Re: DPW Permits - DPH Approval Inquiry

Hi Agatha,

Arthur is out of the office for the next 2 week, returning on August 20, 2018 and was away all of last week. I will be filling in for him during his absence but want to let you know that there will be a delay. Arthur is the only person in the radio-frequency program and I supervise this program and 4 other programs. Thank you for your patience and let me know if you have any questions.

Sincerely,

Jen Callewaert MS, REHS

Principal Environmental Health Inspector
Radiation, Tobacco, Emergency Response, Article 38, Massage and Body Art and Piercing Programs
Environmental Health Branch
Population Health Division
San Francisco Department of Public Health
1390 Market Street, Suite 210
415-252-3971 (desk)
jennifer.callewaert@sfdph.org
415-252-3842 (fax)
https://www.sfdph.org/dph/fsH/

From: Duque, Arthur (DPH)

Sent: Wednesday, August 1, 2018 10:08:23 PM

To: Callewaert, Jennifer (DPH)

Subject: Fw: DPW Permits - DPH Approval Inquiry

Arthur-Sam Duque, REHS
Environmental Health Protection, Equity and Sustainability

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Arthur Duque · 3rd

Senior Environmental Health Inspector at San Francisco Dept of Public Health -Radio frequency program San Francisco, California · 40 connections · Contact info

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Experience

Senior Environmental Health Inspector San Francisco Dept of Public Health Jan 2011 - Present - 8 yrs 10 mos 1390 Market St. Suite 210 San Francisco, CA 94102

Education

Calfiornia State University Fresno Environmental Occupational Health and Safety, Environmental Health 2002 - 2007

See more courses

Messaging B

From: To: Duque, Arthur (DPH)
Palacios, Leoncio (DPW)
Callewaert, Jennifer (DPH)

Cc: Subject: Date:

DPH and DPW meeting for post report reviews Thursday, March 21, 2019 9:26:42 AM

Hi Leo,

I would like to see if we could meet sometime soon in regards to the post-test reviews by the carriers. DPH has not been getting any of the post-test reports since I've been in this program. After speaking to the carriers and you I've found out that:

- Some carriers upload these post-test reports individually into the DPW portal.
- Some carriers upload multiple documents which include the post-test reports.
- There is no type of notification process to inform DPH that these sites have been uploaded onto the DPW portal. (E.g. DPW e-mail informing DPH that a review is needed)

Is there a way in DPW's system to inform DPH that a post-test review report for an active site has been uploaded and needs review by DPH? I would like to streamline this process so that DPH knows when these sites "go active" and if they are in compliance with the FCC Public Standard. I have availability the next couple of weeks to discuss and meet. Please let me know what works for your schedule. Thank you Leo.

Sincerely,

Arthur-Sam Duque, REHS
Senior Environmental Health Inspector
Radio Frequency Program
Environmental Health Protection, Equity and Sustalnability
Population Health Division
San Francisco Department of Public Health
1390 Market Street, Suite 210
San Francisco, California 94102
Telephone: (415) 252-3966

Fax:

(415) 252-3842

E-Mail:

Arthur. Duque@sfdph.org

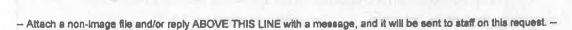
A review of the pre-installation RF/EME reports can take up to 10 working days.

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From: San Francisco Public Records sanfrancisco@public-records-requests.com

Subject: [External Message Added] San Francisco public records request #19-508

Date: March 6, 2019 at 3:18 PM To: barbara@bkbmail.net



San Francisco Public Records

Hi there

A message was sent to you regarding record request #19-506:

Ms. Blumenthal,

Please note: A request that a department create a response to a request for information or answer a series of questions is not a public records request, and neither the Public Records Act nor the Sunshine Ordinance requires a department to reply to a series of written interrogatories.

In the future, if you have questions about the wireless program, you should contact Leo Palacios, with whom you have previously corresponded.

I conferred with Leo, who offered the following explanations in response to your questions:

"To be reviewed for initial review" means the department will at a future time review the document.

- 1. No, you are correct.
- 2. There is no spreadsheet.

- 3. Permits marked approved have been OK'd for installation but they aren't necessarily installed. The wireless section does not track when the actual installation takes place.
- 4. 1,284 referred to the number of permits approved as of the date of my message. See No. 3 for clarification between approved and installed.
 - 5. No, you are correct.
 - 6. No, you are correct.

Regards,

David A. Steinberg
Custodian of Records
San Francisco Public Works

View Request 19-506

http://sanfrancisco.nextrequest.com/requests/19-506



POWERED BY NEXTREQUEST

The All in One Records Requests Platform

Constions about your request? Reply to this email or sign in to contact staff at San Francisco.

Recrinical support. See our help page

From: Barbara Blumenfeld <barbara@bkbmail.net>

Subject: Re: [External Message Added] San Francisco public records

request #19-506

Date: March 6, 2019 at 2:12:45 PM PST To: <sanfrancisco_19-506-requesternotes@

inbound.nextrequest.com>

Dear David.

Thank you for your clarification. Could you please further explain what "to be reviewed for initial review" means?

Also, to clarify, based on your responses to date, I am assuming the following:

- 1. DPW does not keep a separate list of all installed PWSFs or otherwise track in a document what happens after a PWSF is installed (ie the installed PWSF's RF emissions).
- 2. There is no spreadsheet or other document with post-installation data, including a spreadsheet or other document with any information concerning post-installation compliance with the PHCS.
- 3. For anyone at DPW to determine where PWSFs have been installed, they must look at the spreadsheet entitled "all wireless applications" and look for the word "approved." Anything that says "approved" has a PWSF that is currently installed.
- 4. There are 1,284 currently installed and operating PWSFs in SF.
- 5. There is no information kept about the cumulative impact of the currently installed and operating PWSFs.
- 6. There are no documents that compare pre-installation with postinstallation RF reports.

Could you please let me know if any of these assumptions are mistaken?

Thank you.

Barbara Blumenfeld 2298 Pacific Avenue Apt. 3, San Francisco, CA 94115 Home (415) 921-1419 Fax (415) 345-1419

On Feb 28, 2019, at 4:43 PM, San Francisco Public Records <sanfrancisco@public-records-requests.com> wrote:

-- Attach a non-image file and/or reply ABOVE THIS LINE with a message, and it will be sent to staff on this request. --

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Edwin Lee, Mayor Barbara A. Garcia, MPA, Director of Health

ENVIRONMENTAL HEALTH SECTION Stephanie Cushing, MSPH, CHMM, REHS, Director of EH

December 20, 2017

TO:

Gene Chan, Dept. of Public Works, Bureau of Street Use and Mapping

FROM:

Arthur Duque, Dept. Of Public Health, Environmental Health Services AD

RE:

Verizon Wireless Pole Mounted Antenna, Amphenol Model CUUT070X12F

Location:

DPW Application:

Node#

1650 Baker St.

16WR-0123

SFPAC027

As requested, I have reviewed the documentation that you and Verizon Wireless have provided to me regarding the proposed installation of an Amphenol Model CUUT070X12F, on a utility pole or similar structures located at the above listed location in the City and County of San Francisco.

This review includes November 14, 2017 radio frequency energy report prepared by Hammett & Edison for this site. The report states that one Amphenol Model CUUT070X12F, tri-directional antenna will be mounted on a utility pole near the location listed above. The antenna will be about 48.5 feet above the ground level pointing in the 200° and 320° direction which is north and south along Baker St. Due to the mounting location, the antenna would not be accessible to the general public.

The maximum effective radiated power from this antenna is estimated to be 3580 watts.

The maximum calculated exposure level at the ground level will not exceed 0.0033 mW/cm2, which is 0.33% of the FCC public exposure standard. The three dimensional perimeter of the radio frequency (RF) levels equal to the public exposure limit is calculated to extend a maximum of 36 feet from the face of the antenna and does not reach any publicly accessible areas. The maximum calculated exposure level at any nearby building is 0.53% of the FCC public exposure limit for the building adjacent, 55 feet away.

Based on the information provided in the Hammett & Edison report, I would agree that this Verizon Wireless Amphenol antenna, utility pole installation would be in compliance with the FCC standards and would not produce radio frequency energy exceeding the FCC public exposure limits.

In addition, a noise evaluation was done on the combination of equipment assumed to be installed at this location which was prepared by EBI Consulting, and was dated October 11, 2017. This evaluation found that none of the equipment being installed will produce noise. As such, the installation of the equipment would be in compliance with the noise standards as outlined in the DPW Code, Article 25.

Approval Conditions:

- Ensure that any equipment associated with the pole installation of this antenna does not produce a
 noise in excess of 45 dBA as measured at three (3) feet from the nearest residential building
 façade.
- Ensure that there are no publicly occupied areas within thirty-six (36) feet from the face of the antenna.
- This approval is for the antenna directions listed in the report. If an additional direction is activated a new RF report will be required.
- Once the antenna is installed, Verizon Wireless must take RF power density measurements with
 the antenna operating at full power to verify the level reported in the Ebi Consulting report and
 to ensure that the FCC public exposure level is not exceeded in any publicly accessible area.
 This measurement must be taken again at the time of the permit renewal.
- Verizon Wireless should be aware that the general public may have concerns about the antenna
 and potential RF source near their dwellings. Verizon Wireless should have in place a procedure
 for taking RF power density levels in nearby dwellings when requested by the members of the
 general public.
- In accordance with the San Francisco Public Works Code, Art. 25, Sec. 1527 (a)(2)(C) Verizon Wireless is responsible for paying a fee of \$210.00 to the San Francisco Department of Public Health for this review.

Please note that this approval and any conditions apply only to the equipment and installation as described. If any changes in the equipment or any increase in the effective radiated power described above are made, a new review by the Department of Public Health must be conducted.

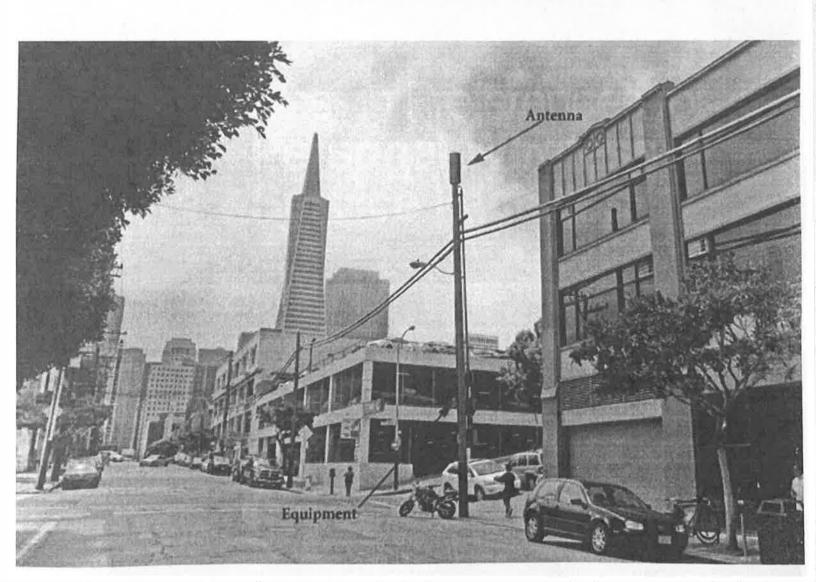
Exhibit 13



Design Preferences for Personal Wireless Service Facilities

FOR DISTRIBUTED ANTENNA SYSTEMS, "DAS" OR SMALL CELLS ON WOODEN UTILITY POLES & WOODEN STREET LIGHT POLES

August 2016



S. ANTENNAS

necessary, Avoid placements that may impair light, air Consider using antenna designs that provide robust coverage without appearing more distracting than or views from adjacent windows.

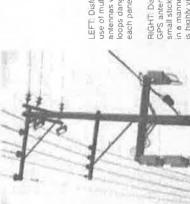
GPS antenna (if needed) integrated into the same Consider using antenna models that include a cylindrical shape on top of the main antenna.

Consider using antennas with electronic filt mechanisms that could reduce the need for bulky mechanical filt brackets.

antenna look slightly longer, it reduces the noticeability of various elements, such as multiple cable loops, that can draw more attention than the antenna itself. Avoid panel antennas are utilized, consider the use of mini shrouds below each panel antenna to reduce the the use of large bracket systems for panel antennas. visibility of the cable loops. While this will make the parallel side-arms. Evaluate opportunities to utilize cylindrical antennas in-lieu of panel antennas. If Utilize single element side-arms instead of dual which create a significant offset from the pole.

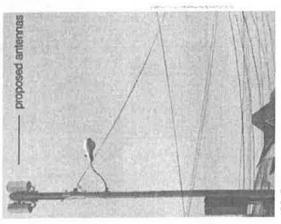
TOP: Disfavored use of multiple panel antennas with wide offset mechanical tilt brackets (evaluate electronic tilt alternatives) and loose cabling

LEFT Disfavored



use of multiple panel antennas with cables loops dangling below LEFT Disfavored each panel

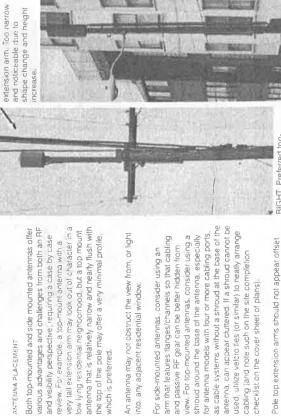
antenna is well placed (preferred) and sized though painted too GPS antenna (atop small stick) mounted above the top of the transmitting antenna. dark and therefore in a manner that The transmitting is highly visible



ABOVE: Non-recommended (triple panel) antenna design that is bulky/obtrusive, and rises well into view.



RIGHT Distavored more noticeable:



into any adjacent residential window.

which is preferred.

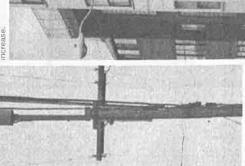
mounted antenna design with shroud cap below the actual antenna (below a significant pole height seam line); and without RIGHT: Preferred top-

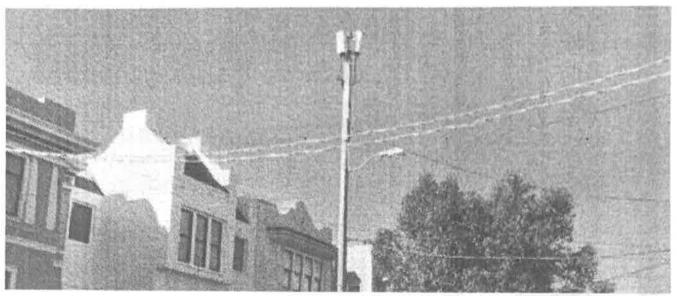
from the pole, making the antenna more noticeable

checklist on the cover sheet of plans).

Utilize an arm that is as wide as the top of the pole

and tapers toward the antenna.





TOP: Disfavored use of multiple panel antennas with wide offset mechanical tilt brackets (evaluate electronic tilt alternatives) and loose cabling

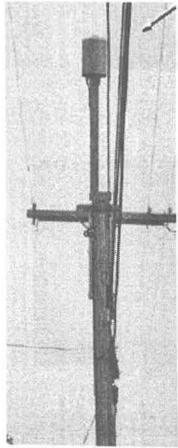
ANTENNA PLACEMENT

Both top-mounted and side mounted antennas offer various advantages and challenges from both an RF and visibility perspective; requiring a case by case review. For example, a top-mount antenna with a very tall extension arm may look out of character in a low lying residential neighborhood, but a top mount antenna that is relatively narrow and nearly flush with the top of the pole may offer a very minimal profile, which is preferred.

An antenna may not obstruct the view from, or light into, any adjacent residential window.

For side-mounted antennas, consider using an arm that features flanges/channels so that cabling and passive RF gear can be better hidden from view. For top-mounted antennas, consider using a shroud around the base of the antenna, especially for antenna models with four or more cabling ports, as cable systems without a shroud at the base of the antenna, can appear cluttered. If a shroud cannot be used, utilize velcro ties (or similar) to neatly arrange cabling (and note such on the site completion checklist on the cover sheet of plans).

Pole top extension arms should not appear offset from the pole, making the antenna more noticeable. Utilize an arm that is as wide as the top of the pole and tapers toward the antenna.



RIGHT: Preferred topmounted antenna design with shroud cap below the actual antenna (below seam line); and without a significant pole height increase.

A TENTONIA CONTA LA LA LA

LEFT: Disfavored extension arm. Too narrow and noticeable due to shape change and height increase.

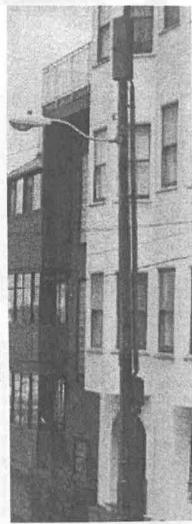
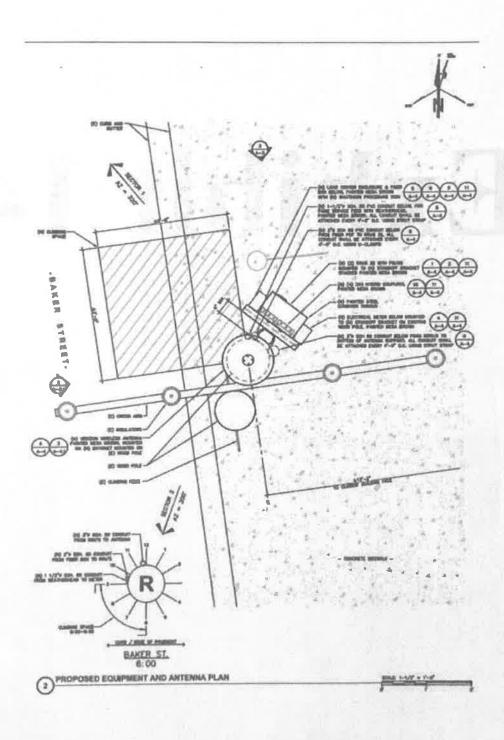


Exhibit 14





Ankur Luthra <ankurluthra@gmail.com>

Proposed Verizon Wireless Installation at 1650 Baker St. (Permit #16WR-0123)

Agatha Kehayas akehayas@modus-corp.com To: "ankurluthra@gmail.com" <ankurluthra@gmail.com> Thu, May 30, 2019 at 4:19 PM

Hello Ankur,

My name is Agatha Kehayas and I am reaching out from Modus LLC, an authorized agent of Verizon Wireless. Thank you for your inquiry and comment to Verizon Wireless's proposed small cell installation on an existing PG&E utility pole in the public right-of-way near 1650Baker St., San Francisco, CA. Modus is the authorized representative of Verizon Wireless on this project.

Verizon Wireless is working to increase the data capacity of its network throughout the City and County of San Francisco to improve overall network performance and meet user demands. Specifically, this site is intended to increase data capacity along the Baker St. corridor.

Enclosed please find a copy of:

- San Francisco Department of Public Works Tentative Approval
- San Francisco Planning Department Approval
- San Francisco Department of Public Health Approval
- (2) Photo Simulations of the proposed Personal Wireless Service Facility
- Statement of Hammett & Edison Engineers
- Enlarged Plan
- Verizon Wireless Education Handout

You raised the issue of purported health risks.

Health Concerns regarding Radio Frequency Emissions

Verizon Wireless is subject to very strict guidelines set by the Federal Communications Commission ("FCC") and Department of Public Health on radio frequency emissions. 47 U.S.C. § 332(c)(7)(B)(iv) establishes that "No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions." As such and with every application, Verizon Wireless is required to provide proof of compliance with FCC guidelines, and to have its verified statement of compliance reviewed by the Department of Public Health to ensure the Personal Wireless Service Facility satisfies the Public Health Compliance Standard.

Attached is the Radio Frequency ("RF") Report prepared by Hammett & Edison, an independent third-party RF engineering firm, who completed an analysis of the proposed installation to verify its compliance will all FCC RF exposure guidelines.

Under Item 7, the report finds the maximum calculated level at any nearby building is 0.53% of the public

exposure limit, occurring at 1655 Baker St., which is approximately 55 feet away. Item 8 in the report indicates that the cumulative RF fields for the proposed site at ground level is 0.33% of the applicable public exposure limit under the FCC. This report also states that the calculation results in this statement include several 'worst-case' assumptions.

Additionally, please refer to the attached DPH Approval finding in the affirmative that the Personal Wireless Service Facility ("PWSF") will comply the FCC public exposure limits.

The report indicates the directionality of the antenna proposed, which will transmit in two directions, oriented with principal directions towards 200°T and 320°T, as measured from true north. As designed, the facility will not be directing any signal in your direction. I have included the enlarged plan from the plan set that demonstrates this.

Please do not hesitate to reach out if you have other questions or concerns.

Here are some links from credible sources on the safety of radio frequency that may be helpful:

Federal Communications Commission ("FCC"): https://www.fcc.gov/engineering-technology/ electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety Food and Drug Administration ("FDA"): https://www.fda.gov/radiation-emittingproducts/ radiationemittingproductsandprocedures/homebusinessandentertainment/ cellphones/ucm116335.htm

National Cancer Institute - https://www.cancer.gov/about-cancer/causes-prevention/risk/radiation/ cell-phones-fact-sheet

I hope this addresses your concerns. Please do not hesitate to reach out if you have other questions.

Warm Regards,

Agatha Kehayas, Project Associate III | Modus m: 914.573.3016 | Modus | LinkedIn

8 attachments

16WR-0123 Enlarged Plan.JPG 77K



- Verizon Educational Handout.PDF 445K
- 16WR-0123 DPH Approval.pdf
- 16WR-0123 Photo Simulation 1.pdf
- 16WR-0123 Photo Simulation 2.pdf 4186K
- 16WR-0123 Planning Approval.pdf 293K
- 16WR-0123 RF Exposure Study.pdf
- 16WR-0123 TA.pdf 251K

Exhibit 15



Striving to obtain the best possible solution through our common-sense approach to design and engineering

November 3, 2017

Modus Inc. 240 Stockton Street San Francisco CA, 94108

Carrier:

Client Site Number: Site Address:

Verizon SF PAC027 In Front Of:

1615 Baker Street

San Francisco, CA 94115



PROJECT DESCRIPTION:

Verizon proposes the following scope of work:

- Add (1) canister antenna to the pole
- Add (1) mounting bracket with equipment and conduits to the pole

ANALYSIS:

The purpose of this analysis is to determine if the wood pole is structurally adequate to support the proposed loadings. The pole has been analyzed in accordance with the Public Utilities Commission of the State of California General Order No. 95 (January 2015) and the Northern California Joint Pole Association Operations / Routine Handbook (2016).

RESULTS:

Based on our review of the pole with the proposed loadings, we have determined the following:

Pole

* See Recommendations Section

OK *



Striving to obtain the best possible solution through our common-sense approach to design and engineering

ASSUMPTIONS:

- Pole is not degraded in any way that would affect at replacement capacity and is installed plumb.
- Comm bundle attached to crossarm at 21.3' field side consists of (2) 1" dia comm lines, (1) 1/2" dia comm line, and (1) 1/4" dia messenger cable maximum each.
- Comm bundle attached to crossarm at 20.55' field side consists of (1) 1" dia comm line and (1) 1/4" dia messenger cable maximum each.
- Comm bundle attached to crossarm at 20.55' street side consists of (1) 1-1/2" dia comm line and (1) 1/4" dia messenger cable maximum each.

REFERENCES:

- Drawings for wireless project prepared by Comm-Sense Consulting dated 8/31/2017.
- Site photos and notes from PG&E pre-flight and site visit.

RECOMMENDATIONS:

The wood pole can safely support the proposed scope of work provided the pole is replaced with a pole of higher capacity. Removing the portion of existing pole may also reduce the loads to allow for the pole to pass.

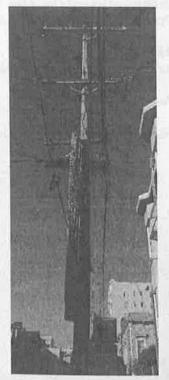
The installation of the proposed Personal Wireless Service facility will not comprise the structural integrity of the utility pole and will be in compliance with any standards imposed by Northern California Joint Pole Association in the Operations/Routine Handbook. Additionally, the installation complies with the California Public Utilities General Order 95.

All assumptions listed above to be verified prior to the installation of the equipment as listed in the project description.

Sincerely,

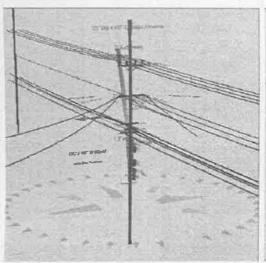
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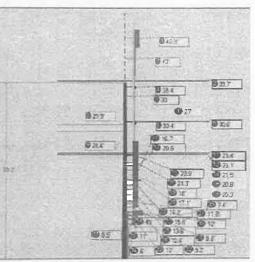
Jim Burrows, P.E.



EXISTING POLE ANALYSIS

Pole Num:	PAC027	Pole Length / Class:	50 / 4	Code:	GO 95	Structure Type:	Guyed Tangent
Aux Data 1	Unset	Species:	DOUGLAS FIR	GO 95 Rule: At Re	eplace (Existing)	Pole Strength Factor:	0.38
Aux Data 2	Unset	Setting Depth (ft):	10.70	Construction Grade:	A	Transverse Wind LF:	1.00
Aux Data 3	Unset	G/L Circumference (in):	34.84	Loading District:	Light	Wire Tension LF:	1.00
Aux Data 4	Unset	G/L Fiber Stress (psi):	8,000	Ice Thickness (in):	0.00	Vertical LF:	1.00
Aux Data 5	Unset	Allowable Stress (psi):	2,906	Wind Speed (mph):	55.90	Bending Factor of Safet	y: 2.11
Aux Data 6	Unset	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	8.00	Vertical Factor of Safety	65.04
Latitude:		0.000000 Deg Lo	ngitude:		0.000000 Deg	Elevation: ·	0 Feet





Pole Capacity Utiliza Crossarm allowance		Height (ft)	Wind Angle (deg)	
Maximum	126.6	0.0	90.0	
Groundline	126.6	0.0	90.0	
Vertical	4.1	23.5	270.0	

Pole Moments (ft-lb) Crossarm allowance	300 lbs	Load Angle (deg)	Wind Angle (deg)
Max Cap Util	40,704	88.2	90.0
Groundline	40,704	88.2	90.0
GL Allowable	32,438		

Guy System Component Summary						Worst Wind on Pole	Individual Maximum Load	
Description		Lead Length (ft)	Lead Angle (deg)	Height (ft)	Nominal Capacity (%)	Wind Angle (deg)	Max Load Capacity (%)	Wind Angle (deg)
Single - 8" - Soil Class 4		115.0	180.0		4.1	90.0	9.5	0.0
EHS 1/4 (Span/Head)				29.9	10.7	90.0	24.8	0.0
Single - 8" - Soil Class 4		118.0	0.0		0.0	90.0	1.2	180.0
EHS 1/4 (Span/Head)				28.4	0.0	90.0	3.1	180.0
		System Capacity Summary:			Adequate		Adequate	

	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	382	24.0	13,544	35.0	41.8	1,213	317	3	1,217	41.9
Comms	413	25.9	8,361	21.6	25.8	749	567	6	755	26.0
GuyBraces	2	0.1	48	0.1	0.2	4	14	0	4	0.2
GenericEquipments	488	30.6	11,285	29.2	34.8	1,011	935	10	1,021	35.1
Pole	233	14.6	4,195	10.9	12.9	376	1,037	11	387	13.3
Crossarms	8	0.5	218	0.6	0.7	20	258	3	22	0.8
Risers	48	3.0	318	8.0	1.0	29	30	. 0	29	1.0
Insulators	19	1.2	714	1.9	2.2	64	80	1	65	2.2
Pole Load	1,592	100.0	38,683	100.0	119.3	3,465	3,238	34	3,499	120.4
Pole Reserve Capacity			-6,245		-19.3	-559			-593	-20.4

Load Summary by O	wner - Reporting An	gle Mode: Lo	ad - Reporting	Angle: 88.2°						
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
<undefined></undefined>	1,359	85.4	34,488	89.2	106.3	3,090	2,201	23	3,112	107.1
Pole	233	14.6	4,195	10.9	12.9	376	1,037	11	387	13.3
Totals:	1,592	100.0	38,683	100.0	119.3	3,465	3,238	34	3,499	120.4

Exhibit 16

SF PAC 027

PUBLIC-RIGHT-OF-WAY IFO 1650 BAKER ST. SAN FRANCISCO, CA 94115 JURISDICTION: SAN FRANCISCO SITE TYPE: PG&E POWER POLE

LOCATION #: 414918

PROJECT ID: 20161393878

Prepared for verizon 2785 WITCHELL DPIVE, SUITE 9 WALNUT CREEK, CA 94598





	VERIZON SITE NO: 57_240007
v	PROJECT NO:
_	DRAWN BY: FG
_	CHECKED BY: RK

CONSTRUCTION

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KEVI	360574	HOUSE SESSION FOR REVIEW	S
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WY.	DATE	DATEPPOON	H

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLES THEY ARE ACTING

SF PAC027

PUBLIC RIGHT OF WAY IFO 1650 BAKER ST. SAN FRANCISCO, 94115

TITLE SHEET

T-1

PROJECT DESCRIPTION PROJECT INFORMATION PROJECT TEAM SHEET INDEX REV PROPERTY INFORMATION: PROPERTY OWNER: APPLICANT/LESSEE: ARCHITECT: THIS IS AN UNMANNED WIRELESS TELECOMMUNICATION FACILITY FOR VERIZON WIRELESS CONSISTING OF THE INSTALLATION AND DEFENDING OF AN ANTENNA AND ASSOCIATED EQUIPMENT ON AN EXISTING WOODEN POLE IN THE PUBLIC RIGHT OF WAY. OCHERAL NOTES A STWEOLS BYERS ENGINEERING COMPANY
4780 CHABOT DRIVE STE 104
PLEADANTON, CA 34588
CONTACT: PON KELLER
PH: (925) 398-6013
EMALL PON Keller Observ.com R.O.W. 2785 INTOHELL DRIVE SUITE 9
WALNUT CREEK, CA 94598
CONTACT, NICKI DEARMON
PHONE: (925) 464-6306
EMALE: INSIGN dearmon/verizonwireless.com THE NUMBER: SE PAC 127 TOPOGRAPHIC SURVEY (BY OTHER OVERALL SITE FLAN SCOPE OF WORK & SITE COMPLETION CHECKLIST PUBLIC RIGHT OF WAY
IFO 1650 BAKER ST.
SAN FRANCISCO, GA 94115 INSTALL A NEW TELECOMMUNICATION ANTENNA. & ASSOCIATED EQUIPMENT BOXES OF AND EQUIPMENT BOXES ON AN EXTENSE WOODEN POLE ON GOIS COMPLANT STANDOOF POLE ON GOIS COMPLANT CONSTRUCT OF CONTROL ANTENNA COMPLANT OF THE CONTROL ANTENNA CONTROL ANTENNA CONTROL AN POWER AGENCY: EQUIPMENT PLANS PG&E 245 MAIN STREET SAN FRANCISCO GA 94105 4-3 SOUTH ELEVATIONS SITE ACQUISITION MANAGER: STRUCTURAL ENGINEER: A.P.A. NUMBER: BIGHT OF WAY ES 1046/008 A-3.1 WEST CLEVATION MODUS
240 STOCKTON STREET, 3PD FLOOR
SAN FRANCISCO. CA 94105
CONTACT: SCOTT REVARD
PH: (415) 595-9938
EMAIL sreverd@modus-corp.com BYERS ENGINEERING COMPANY 4780 CHABOT DRIVE STE 104 PLEASANTON, CA 94588 CONTACTI RON CAMPOS PH: (510) 685-8614 EMAIL RCompos@kiccea.com CUPRENT JOHNS MIGHT OF MICH ASSISTED TO RK-2 - RESIDENTIAL - HOUSE, TWO FAMILY TELEPHONE AGENCY: ELECTRICAL SPECE, MOTES, LEGENOS & ABBRICUATIONS CURRENT USE TELECOMMUNICATIONS FACILITY VERIZON WIRELESS 2785 MITCHELL DRIVE, SUITE 9 WALNUT CREEK, CA 94598 ELECTRICAL DEGUAD DIACRAMS £-2 CABLING — CABLING TO BE INSTALLED IN A TIDY MANNER WITHOUT EXCESS CABLE LOOPS PROPOSED USE TELECOMMUNICATIONS FACILITY ZONING: ELECTRICAL, SMOLE-LINE DIRECTION & DETAILS RF ENGINEER MODUS
240 STOCKTON STREET, 3RD FLOOR
SAN FRANCISCO, CA 94105
CONTACT: KEVIN: BOWER
PHI: (408) 219-5442
EMILL: Newyer@modus-corp.com SPACING OF SUPPORT ELEMENTS - SUPPORT EQUIPMENT (E.G. METER, DISCONNECT SWITCH, AND RPUS) TO BE CLUSTERED (VERTICALLY) AS CLOSE AS IS TECHNICALLY FEASIBLE ON POLE VERIZON WIRELESS
2785 MITCHELL DRIVE SUITE 9
WALNUT CPEEK, CA 94598
CONTACT:
EMAIL
Ph: JURISDICTION SAN FRANCISCO LATITUDE: 37" 47" 11.34"N CASHEL ON PULL.

LOCO REWAYL.— ALL EQUIPMENT LOCOS, OTHER THAN THOSE REQUIRED BY REQUIRTOR (E.G. NODE (DEMIFICATION OF SHUTDOWN SIGNACE) OR POLE REQUIRTOR SHALL BE PARTED OVER OR REWAYD. PARESD/PORTSESSED LOCOS/TECT ON PRIS. OR OTHER EQUIPMENT, IF PRESENT, TO BE SANGED OFF OR SMALLEY FEMONOS/PILLED. LONGITUDE: 122" 26" 36 42"W GROUND ELEVATION ±1820 AMSL CONSTRUCTION; MODUS
240 STOCKTON STREET, 3RD FLOOP
240 STOCKTON STREET, 3RD FLOOP
2AN FRANCISCO, (A 94105
CONTACT, KRESSTON HAYNES
PH: (510) 637-8628
EMAIL: khaynes@moduscorp.com SIGNAGE — FCC MANDATED RF WARNING SIGNAGE SHALL FACE OUT TO STREET WHEN PLACED IN FRONT OF, OR NEAP A WINDOW SIGNAGE SHALL FACE TOWARD BUILDING IF THERE IS NO WINDOW. □ UTILITY LINES - PROPOSED UTILITY LINES BETWEEN EXISTING POINT OF CONNECTION TO BE OVERHEAD.

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WIT CURRENT EDITIONS OF THE POLLOWING CODES AS ADDITED BY THE LOCAL COMPRISION AUTHORITIES NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PEPHIT WORK NOT CONFORMING TO THESE CODES.

CODE COMPLIANCE

1) 2016 CALIFORNIA BUILDING CODE - CCF TITLE 24 PART 2

2) 2016 CALIFORNIA PESIDENTIAL CODE - CCR TITLE 24 PART 2.5

2) 2016 CALFORNIA ELECTRICAL CODE - COR TITLE 2+ FART 3

4) 2016 CALIFORNIA MECHANICAL CODE - CCP TITLE 24 PART 4

5) 2016 CALIFORNIA PILIMBING CODE - COR TITLE 24 PART 5

TO 2018 CALFERNA HISTORICAL CODE - CCR TRLC-24 FWY 6

III JUH CALPORNA EMITING MALENAS COOF - CCR TITLE 24 PART 10

SI 2016 DALFORNA DREIN BULDINGS STANDARD COSE - TILE 24 HART 11

101 2015 WITCHAFTONIA, EXCESSO BUILDING CODE, APPENDIX CHAPTERS AS AND AS

11) 2013 CALIFORNIA ENERGY CODE (CEC)

12) ANSI / FIA-TIA-222-C

141 2012 NEPA 72 NATIONAL FIRE ALARM CODE

15) 2012 NFPA 13, FIRE SPRINKLER CODE

VICINITY MAP

OCCUPANCY AND CONSTRUCTION TYPE

CONSTRUCTION TYPE: HIS

HANDICAP REQUIREMENTS CAMBULAY INCOMEMBERYS

ACCESS AND REQUIREMENTS ARE NOT REQUIRED, IN ACCORDANCE WITH CALIFORNIA STATE ADMINISTRATIVE CODE, PART 2, TITLE 24, SECTION 11038.1. EXCEPTION 1. & SECTION 11348.2. EXCEPTION 4. 2785 MICHEL DRIVE WARNET CHEEK, CA SHOW

I. HEAD INDRIFIENCE ON MITCHELL OR TOWARD OAK CROWE PD
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6. SEE THE LET 2. JAMES TO THEM LET ONTO PINE STREET

DRIVING DIRECTIONS

MODUS CONSTRUCTION MANAGER MITCHS LEADING MANAGER MODUS 27MIND MANCEN MODUS PROJECT MANAGER OTHER (IF APPLICABLE)

APPRIDUED BY

RFDS REVISION LEVE N/A

APPROVALS

GENERAL CONTRACTOR NOTES

DO NOT SCALE DRAWNESS

THESE DRAWINGS ARE FORMATTED TO BE FULL SIZE AT 24" x 36", CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOBSTIE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT/FEMDIRES IN WRITING OF ANY DISCRETANCIES BEFORE PROCESDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME.



- THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND NETWORK CARREIT OF ANY ERRORS, OMISSIONS, OR INCONSISTENCES AS THEY MAY BE DESCOVERS IN PLANS, DOCUMENTS, NOTES, OR SPECIFICATIONS, PRIOR TO STAINING CONSTRUCTION MELLURING, BUT NOT LIMITED IN CONSTRUCTION MENT OF THE CONSTRUCTION WHICH HAS NOT BEEN BROUGHT TO THE ATTENTION OF ARCHITECT AND NETWORK CARRIER CONSTRUCTION PROJECT MANGER AND SHALL INCIDE ANY EXPENSES TO RECTOR THE SITUATION, THE MEANS OF CORRECTIONS ANY ERROR SHALL PROT BE APPROVED BY THE RECHITED AND THE RETRORM CARRIER CONSTRUCTION PROJECT MANGER CONSTRUCTION PROJECT MANGER
- PRIOR TO THE SUBMISSION OF BIDS, CONTRACTORS INVOLVED SHALL VISIT THE VIGB SITE TO FAMILIARIZE THRUSELYES WITH ALL CONDITIONS
 AFFECTIVE THE PROPERSY PROJECT, CONTRACTORS PROOF TO THE COMMUNICATION OF CONSTRUCTION, AND THE CONTRACTOR MANNE BEDS
 ARROUDD THE PROJECT, SHALL SET THE CONSTRUCTION SITE WITH THE CONSTRUCTION OF CONSTRUCTION, CONTRICT DISCUSSION, OF SHAPE PER DISCUSSIONS
 AND CONTRIBUTION TO PROJECT WILL SE ACCORPLISED AS SHOWN, PROR TO PROCEEDING WITH CONSTRUCTION, ANY EMPIRIS, OWISSIONS
 OR DISCHARMANDES SHALL SE BOOKED TO THE TRATEGORY OF THE ARROUND OF THE ARROUND PROJECT PROHECES PROJECT AND A TO BE WRITE.
- J. THE ARCHITECTS/ENCNEEDS HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCORE OF WORK, CONTRACTED BODHING THE CUB ARE ENVERTHELESS CAUTIONED THAT MADE DIAGNOSS OF EDRICES IN THE DIAMNOSS ARE AND EXCEPTION OF THE CONTRACT OF THE CONTRACT
- 4 11X17 COPIES OF DRAWINGS ARE NOT TO BE SCALED DUE TO DISTORTIONS RESULTING FROM MULTIPLE REPROGRAPHIC COPIES. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALES SHOWN ON PLANS.
- 5 OWNER, CONTRACTOR, AND NETWORK CARRIER REPRESENTATIVE SHALL REVIEW AND CONFIRM THAT PROJECT SCOPE, DESIGN INTENT AND UTILITY COORDINATION ITEMS ARE INCLUDED IN THE DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION...
- 6. THE GENERAL CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION FROM NETWORK CARRIER REPRESENTATIVE TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
- 7, THE CONTINCTOR SHALL PERFORM WORK DURING OWNERS PREFERRED HOURS TO MICE DISTURBING HORMAL BUSINESS ON TENANTS.
- 8 THE CONTRACTOR SHALL PROMDE NETWORK CARRIER PROPER INSURANCE CERTIFICATES NAMING NETWORK CARRIER AS ADDITIONAL INSURED, AND PROVIDE NETWORK CARRIER PROOF OF LICENSE(S) INCLUDING PE & PO INSURANCE.
- THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT SESCRIBED IN THE CONTRACT DOCUMENT. THE CONTRACTOR SHALL BE SOLEY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROJECTURES FOR COORDINATIVE ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- 10), THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO MANUFACTURER'S/VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
- 13 MLL 190K PERSONED ON THE PROJECT ALONE WITH ALL MITERIALS INSTALLED, SHALL COLLECT IN STREET ACCORDANCE WITH ALL MEPHODELES COORDON, PERSONALIONES, AND ORDINANCES, CONTRACTION SHALL LIGHERS TOSSY HOTTORE TO ALL SHALL CONTRACTIONS THAT THEY SHALL COMENT WITH ALL LIMIS, ORDINANCES, RALES, RECLAIMONS AND LIWITUL REGISTS OF ANY PUBLIC AUTHORITY, MUNICIPALITY, UTILITY COMPIANT AND LOCAL/STREET, DIRECTIONAL COST OF THE PORRY.
- 12. A COPY OF THE GOVERNING ACTIVITY ISSUED AND APPROVED PLANS SHALL BE REFT IN A PLANT SECRED OF THE GOVERNING ACTION, AND THE WINNINGS, ALL CONSTRUCTION SETS SHALL REPLICE THE SHALL INFORMATION AS DOVERNING ACTION, AND THE WINNINGS ALL CONSTRUCTION SETS SHALL REPLICE THE SHALL INFORMATION ACTION APPROVED PLANS, THE CONTINUED SHALL ASSOCIATION, ADDITION, AND CHANGE DESIGN FOR CONTINUED SHALL REPLICE THE SHALL INFORMATION ACTIONS ADDITION, AND CHANGE DESIGNS AND ADDITION, AND CHANGE DISTRICT SHALL REPLICE THE SHALL REPLICE AND ADDITION, AND CHANGE DISTRICT SHALL REPLICE AND ADDITION AND CHANGE DISTRICT SHALL REPLICE AND CHANGE REPLICE AND CHANGE DISTRICT SHALL REPLICE AND CHANGE REPLICE AND CHA
- 1.3. THE STRUCTURAL COMPONENTS OF ADJACENT CONSTRUCTION OR FACILITIES ARE NOT TO BE ALTERED BY THIS CONSTRUCTION PROJECT UNLESS NOTED OTHERWISE.
- 14. THE CONTRACTOR SHALL STUDY THE STRUCTURAL, ELECTRICAL, MECHANICAL, AND PLUMBING PLANS AND CROSS CHECK THEIR DETAILS, NOTES, DIMENSIONS, AND ALL REQUIREMENTS PRIOR TO THE START OF ANY WORK, NOTIFY THE ARCHITECT OF ANY DISCREPANCIES
- 15, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE JOB SITE WHILE WORK IS IN PROGRESS UNTIL THE JOB IS COMPLETE.
- PROTECTING THEM FROM DAMAGE, THE CONTRACTOR AND SUBCONTRACTOR SHALL BEAR THE EXPENSES OF REPAIR AND/OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGE RESULTING FROM OPERATIONS IN CONJUNCTION WITH THE EXECUTION OF THE WORK
- 17, ALL EXISTING CONSTRUCTION, EQUIPMENT, AND FINISHES NOTED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND WILL BE REMOVED FROM THE SITE WITH THE FOLLOWING EXCEPTIONS:

 PROPERTY OFFICE TO BE REMOVED BY THE OWNER,

 B PROPERTY NOTED TO BE REMOVED BY THE OWNER,
- 18. THE GOVERNING AGENCIES, CODE AUTHORITIES, AND BUILDING INSPECTORS SHALL PROVIDE MINIMUM STANDARDS FOR CONSTRUCTION TECHNIQUES, MATERIALS, AND PRINSHES USED THROUGHOUT THE PROJECT. TRADE STANDARDS AND/OR PUBLISHED MANUFACTURERS SPECIFICATIONS MEETING OR EXCEDING DESCRIPT SHALL BE USED FOR INSTALLATION.
- 19, WHEN ROOF TOP OR TOP FLOOR DECK TEMPORARY STACING OF IS REQUIRED, MATERIALS SHALL BE EVENLY DISTRIBUTED OVER ROUGH FRAMED FLOORS OR ROOFS SO AS NOT TO EXCEED THE DESIGNED LIKE LAWS FOR THE STRUCTURE TEMPORARY SHORING AND/OR BRACING IS TO BE PROVIDED WHERE THE STRUCTURE DOESN'T HAVE THE DESIGN STRENGTH FOR ADDITIONAL LOADING,
- 20 SEAL ALL PENETRATIONS WITHIN FIRE-RATED AREAS WITH U.L. USTED OR FIRE MARSHALL APPROVED MATERIALS IF APPLICABLE TO THE SUBJECT FACILITY AND OR PROJECT SITE.
- Z1_BUILDING INSPECTORS AND/OR OTHER BUILDING OFFICIALS ARE TO BE NOTIFIED PRIOR TO ANY GROUND DISTURBANCE, CONSTRUCTION, AND ANY OTHER PROJECT EFFORT AS MANDATED BY THE COVERNING ACENCY.
- 22 CONTRACTOR TO PROMDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OR 2-A108C WITHIN 75 FEET TRAVEL DISTANCE TO ALL PORTIONS OF PROJECT AREA DURING CONSTRUCTION.

- 25 NEW CONSTRUCTION INSTALLED ADJACENT EXISTING BUILDINGS OR CONSTRUCTION SHALL ARCHITECTURALLY MATCH THE EXISTING IN TERMS OF COLOR TEXTURE, FINISH MATERIALS, ETC., EXCEPT AS NOTED IN THE PLANS AND SPECIFICATIONS
- 26 THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BACKING, BLOCKING, AND/OR OTHER ANCHORAGE DEVICES REQUIRED FOR THE INSTALLATION OF FIXTURES, MECHANICAL EQUIPMENT, PLUMBING, HARDWARE, AND FINISH ITEMS TO INSURE A PROPER AND CODE COMPLIANT INSTALLATION.
- 27 THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING INSTALLATIONS THAT ARE CONSTRUCTED LEVEL, ERECT, EVENLY ALIGNED, PLUMB AND TRUE BASED ON THE CONSTRUCTION DRAWINGS THE CONTRACTOR SHALL COMPARE EXISTING CONDITIONS WITH THE PROPOSED DESIGN PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCES OR INCONSTRUCTOR TO THE NETWORK CARRIED'S REPRESENTATIVE AND FURTHER TO THE A&E SUCH THAT THE NEW INSTALLATION WILL LIKEWISE BE LEVEL DRECT, EVENLY ALIGNED, PLUMB AND TRUE. NETWORK CARRIER SHALL BE NOTIFIED OF ANY ERRORS, OWNERSTON, OR INCONSTRUCTOR FOR TO ANY CONSTRUCTOR.
- 28 THE CONTRACTOR IS TO PROVIDE PROTECTION FOR ADJOINING PROPERTIES FROM PHYSICAL HARM, NOISE DUST, DIRT, AND FIRE AS REQUIRED BY THE CONSTRUING ACENCIES.
- 29. WHERE SPECIFIED, MATERIALS TESTING SHALL BE TO THE LATEST STANDARDS AND/OR REVISIONS AVAILABLE AS REQUIRED BY THE GOVERNING ACENCY RESPONSIBLE FOR RECORDING THE RESULTS
- 30 THE CONTRACTOR IS RESPONSIBLE FOR THE STORAGE OF ALL MATERIALS AND SHALL NOT STORE OR STAGE MATERIALS ON PUBLIC PROPERTY WITHOUT A PERMIT TO DO SO FROM THE COVERNING AGENCIES FOR THIS PURPOSE.
- 31, CENERAL NOTES AND STANDARD DETAILS ARE THE MINIMUM REQUIREMENTS TO BE USED IN ALL CONDITIONS UNLESS ILLUSTRATED AND NOTED OTHERWISE.
- 32. TRADES INVOLVED IN THE PROJECT SHALL BE RESPONSIBLE FOR THEIR OWN CUTTING, FITTING, PATCHING, ETC., SO AS TO BE PREPARED PROPERLY BY THE WORK OF OTHER TRADES.
- 33 ALL DEBRIS AND REFUSE SHALL BE REMOVED FROM THE PROJECT PREMISES AND LEFT IN A CLEAN SMEET CONDITION AT ALL TIMES BY EACH TRADE AS THEY PERFORM THER OWN PORTION OF THE WORK.
- 34 NETWORK CAPTRET DOES NOT CHARACTER ANY PRODUCTS, FIRTURES, AND/OR ANY EQUIPMENT NAMED BY A TRADE OF MARKETISEES.

- GUARANTEE OR WARRANTY THAT MAY BE IN EFFECT IS DONE THROUGH THE COMPANY OR MANUFACTURER PROVIDING THE PRODUCT, FIXTURE, AND/OR EQUIPMENT UNLESS SPECIFIC RESPONSIBILITY IS ALSO PROVIDED BY THE CONTRACTOR/SUBCONTRACTOR IN WRITTEN FORM,
- 35 CAUTIONI CALL BEFORE YOU DIG! BURIED UTILITIES EXIST IN THE AREA AND UTILITY INFORMATION SHOWN MAY NOT BE COMPLETE CONTACT THE ONE-CALL UTILITY LOCATE SERVICE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION
- 36 WHEN APPLICABLE, CONTRACTOR IS RESPONSIBLE TO CALL. COORDINATE AND MAKE ARRANGEMENTS FOR R.O.W. AND/OR PRINATE PROPERTY LOCATES BASED ON SPECIFIC SITE REDUIREMENTS.
- 27, SEE CHIS. DRAWINGS FOR ADDITIONAL SITE AFTERNATION.
- 38 CONTRACTORS TO DOCUMENT ALL WORK PERFORMED WITH PHOTOGRAPHS AND SUBMIT TO NETWORK CARRIER'S REPRESENTATIVE ALONG WITH REDUNED CONSTRUCTION SET.
- 39 CONTRACTOR SHALL DOCUMENT ALL CHANGES MADE IN THE FIELD BY MARKING UP (REDLINING) THE APPROVED CONSTRUCTION SET AND SUBMITTING THE REDLINED ALONG WITH PHOTOGRAPHS PER NETWORK CAPRIER REDLIREMENTS.
- 40, GENERAL CONTRACTOR SIMIL COORDINATE AND SEEK APPROVAL OF ALL POWER DRAW, INSTALLATION AND/OR MODIFICATIONS WITH POWER COMPANY, OWNER AND JURESCHTON AS REQUIRED. CONTRACTOR SHALL REPORT POWER INSTALLATION SOLUTION(S) TO NETWORK CARRIER REPRESENTANCE, PROJECT CONSTRUCTION MANAGER AND ARCHITECT.
- 41 ANY SUBSTITUTIONS OF MATERIALS AND/OR EQUIPMENT, MUST BE APPROVED BY NETWORK CARRIER CONSTITUTION MANAGER.
- 42. THE OBMERAL CONTINCTOR SHALL BE RESPONSIBLE FOR AND SHALL REMEDY ALL FAULTY, INFERIOR, AND/OR IMPROPER MATERIAS, DAMACED COODS, AND/OR FAULTY GROMANDER FOR DUE (1) YEAR ATTER THE PROPERT IS CONFLICE ACCOPTING UNDER THE CONTINCT ENTERDING OF THE CONTINCT OF THE CONTINUE OF THE CONTI
- 43 THE CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION FOR THE SAFETY OF THE DWNER'S EMPLOYEES, AND WORKMEN, AT ALL TIMES DURING THE CONSTRUCTION OF THE PROJECT.
- 44. THE CONTRACTOR SHALL BE REQUIRED TO PAY FOR ALL NECESSARY PERMITS AND/OR FEES WITH RESPECT TO THE WORK TO COMPLETE THE PROJECT. BUILDING PERMIT APPLICATIONS SHALL BE FILED BY THE OWNERS OR HIS REPRESENTANCE. COMPRISED SHALL DISTAIN PERMIT (KINLESS OTHER MISRIANCEMENT NAME BEEN MOST, AND MACHINERY SHALL DOWNERS).
- 45, NETWORK CARRIER'S REPRESENTATIVE SHALL REVIEW AND APPROVE SHOP DRAWINGS AND SAMPLES FOR CONFORMANCE WITH DESON CONCEPT, NETWORK CARRIER'S REPRESENTATIVE PROJECT APPROVAL OF A SEPARATE TIEM SHALL NOT INCLUDE APPROVAL OF AN ASSEMBLY IN WHICH THE TIEM FUNCTIONS.
- ME. ALL AMENING MOUNTED ON POOR SUPPORT PRIMES TO BE PROVOED BY NEWON. CARRIER.
- 47 CONTRACTOR SHALL PROMDE HEAVY STEEL PLATES AT OPEN TRENCHES FOR SAFETY AND TO PROTECT EXISTING GROUND SURFACES FROM HEAVY EQUIPMENT UTILIZED DURING CONSTRUCTION
- 48 CONTRACTOR SHALL PATCH AND REPAIR ALL GROUND SURFACES WITHIN THE CONSTRUCTION AREA AS NECESSARY TO PROVIDE A UNIFORM SURFACE AND MAINTAIN EXISTING SURFACE DRAINEDE SLOPES.
- 49 CONTRACTOR SHALL REPLACE EXISTING LANDSCAPE VEGETATION DAMAGED DUE TO CONSTRUCTION ACTIVITIES, AND REPAIR, RESTORE AND MODIFY EXISTING IRRIGATION LINES IF NECESSARY, TO OPERATING CONDITION, PROVIDING FULL COVERAGE TO IMPACTED AREAS.
- SO IN THE CASE OF PROCEDO POLITIONE FOR EQUIPMENT AND/OR AUTOMA TRANSC MERCE PRICEINATION OF DISTING ROOME ANTENNES.
 COURSE, CRIMINAL CONTRACTOR SHALL CORROWANT WITH BUILDING OWNEY TO GREAT ANTENNEST ANTENNESTING AND FUTURE THE DISTING ROOME CONTINUED OF RECORD FOR INSTALLATION, PAICH, REVARA OR ANY AUGUSTATION TO THE ROOF, AND HAVE THE WORK CHARACTER UNDER THE ROOMERON CONTRACTOR'S DISTING AWARDAYS ELEMENTO FOR MOST PROTECTION.
- 51. IN THE CASE OF ROOFIDE SOLUTIONS WITH THE INSTALLATION OF ANTENIAS WITHIN CONCOLLED (SHROUDED) SUPPORT FRAMES OR TRIPLOS, CENERAL CONTRACTOR SHALL COORDINATE WITH THE FIRE DESCRIED/FABRICATION TO DESIDE THAT THE FIRM FIRE SHROUD IS SHALLATING (IN LINES OF CONTRACTOR SHALL DESCRIPTION OF THE PROPERTY OF THE CHEENIAL CONTRACTOR OF THE CHEENIAL CONTRACTOR CO
- 52. IN THE CASE OF ROOFIDP SOLUTIONS FOR EQUIPMENT AND/OR ANTENNA FRAMES WHERE ANCHORING TO AN EXISTING CONCRETE ROOF SLAS IS REQUIRED, CONTRIGUEDES SHALL CONFIDEN (PRICE TO SUBJECTIVE BID) WITH CONSULTING CONSTRUCTION COORDINATION AND ARCHITECT THE BILLION OF A PEARLY TORMING SET, WHINGE ROOKCARD AN ORIGINAL DESIGNATION OF REPORTED CONCRETE BY PRIBEIDED STEEL REBAR. IN THE EYER FOST TENSION SLAS SOLUTION IS PRESENT, CONTINCTOR SHALL INCLIDE PROVISIONS FOR X-RAY PROCEDURES (INCLUDED IN BD) FOR ALL PRESENTANT ARCHITECTURES ANCHORING COURSE.
- SI, CENERAL & SUB-CORRECTORS, SMALL USE STAILESS, STEEL METAL LOCKING TIES FOR ALL DEQUACE TO COMPORE AND ALL OTHER CHIEFLAND.
 THE COMES (HEREL REPLOKALL), ALEXT CE PIES SOUL AND IS EPISHED FOR USE ON TOWER RETIRES ANOWER PROJECTS.
 RECOMMENDED MANUFACTURE SMALL BE: PAROUT CORP. METAL LOCKING TIES MODEL NO. MLT4S-CP UNDER SERIES-304 (OR ECUAL).
 PANOUT PRODUCT DETIRIBUTE ST THANC.
- 54, GENERAL CONTRACTOR SHALL OBTAIN, REVIEW AND EXECUTE ALL NETWORK CARRIER CONSTRUCTION STANDARDS (MOST RECENT REVISION) AS A PART OF THIS BID AND CONSTRUCTION PROJECT.
- 55 GENERAL CONTRACTOR SHALL OBTAIN, REVIEW AND EXECUTE ALL NETWORK CARRIER CONSTRUCTION STANDARDS (MOST RECENT REVISION) AS A PART OF THIS BID AND CONSTRUCTION PROJECT.
- 56 CONTRACTOR SHALL BE RESPONSIBLE TO SET ELECTRONIC TILTS FOR NEWLY INSTALLED ANTENNAS UNDER THE CONDITION THAT THE GC
 OBTAIN THE MOST RECENT COPY OF THE RF TILT INFORMATION SUCH THAT THE ACCURATE CONTROLLER CAN BE ORDERED AND INSTALLED
- 57, A STRUCTURAL, ANALYSIS SHALL BE COMPLETED AND SUBMITTED TO THE NETWORK CARRIER REPRESENTATIVE AND GC DEMONSTRATING CAPACITY AT THE EXACT LOCATION OF EXISTING CONDITIONS TO SUSTAIN ADDITIONAL HEAVY BATTERY CABINETS OR OTHER OUT OF SCOPE EQUIPMENT.
- 58 THE GC SHALL PROVIDE MATERIALS LIST (BOM) TO THE NETWORK CARRIER REPRESENTATIVE PRIOR TO CONSTRUCTION.



CALIFORNIA SPECIFIC CODE COMPLIANCE NOTES:

(2)

SYMBOLS

1. WHEN COMPLETED, THE SUBJECT PROJECT SHALL COMPLY WITH LOCAL SECURITY CODES

2. WHEN COMPLETED, THE SUBJECT PROJECT SHALL COMPLY WITH THE CALIFORNIA ENERGY CODE TITLE-24 ENERGY CONSERVATION REQUIREMENTS.

3. WHEN CLASS OR CLAZING REPLACEMENT IS A PART OF THE SCOPE OF THE PROJECT, CLASS AND CLAZING SHALL COMPLY WITH CHATTER 54 OF THE U.S. CONSUMER SAFTY COMMISSION STANDARDS FOR ARCHITECTURAL CLAZING MATERIALS (FER 42 FR 1428, CFR PART 1201 & LOCAL SECURITY REQUIREMENTS).



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MALE COMMENTS

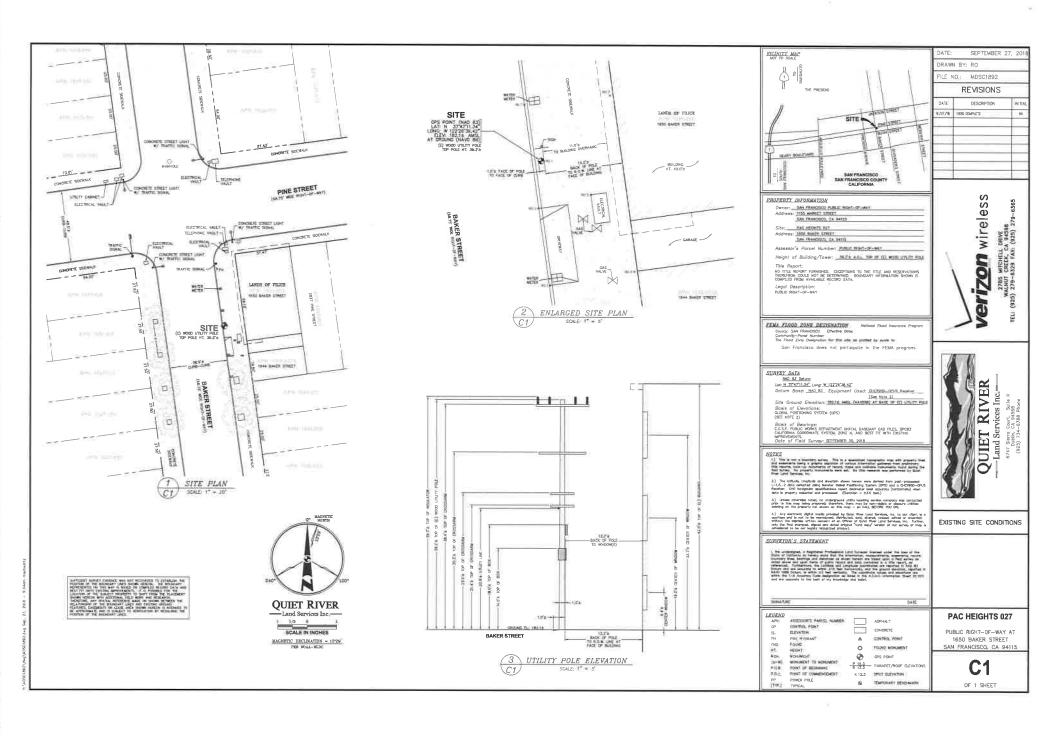
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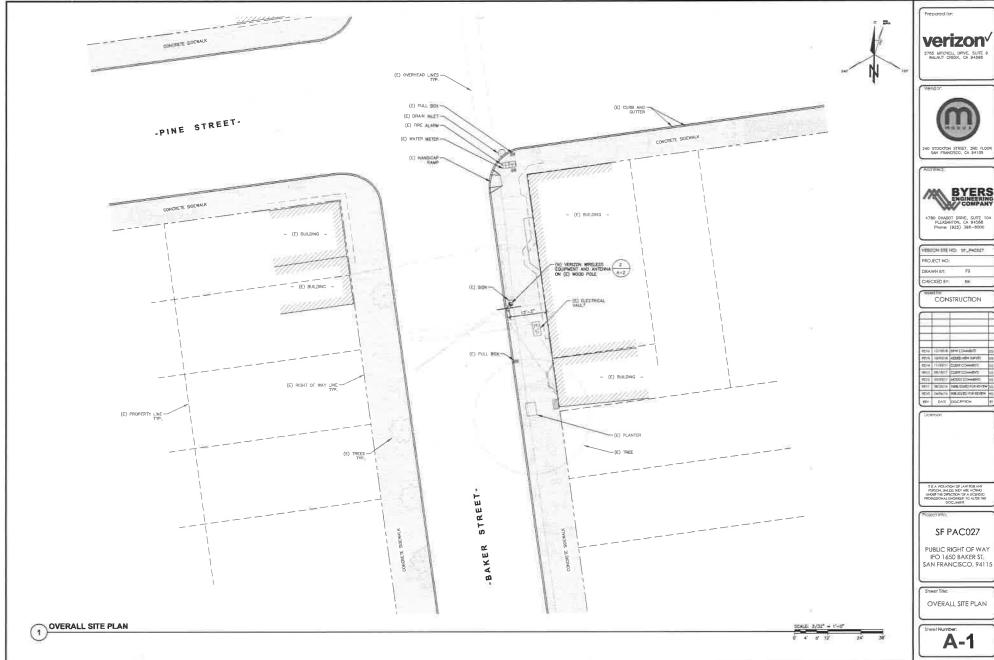
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GENERAL NOTES AND SYMBOLS

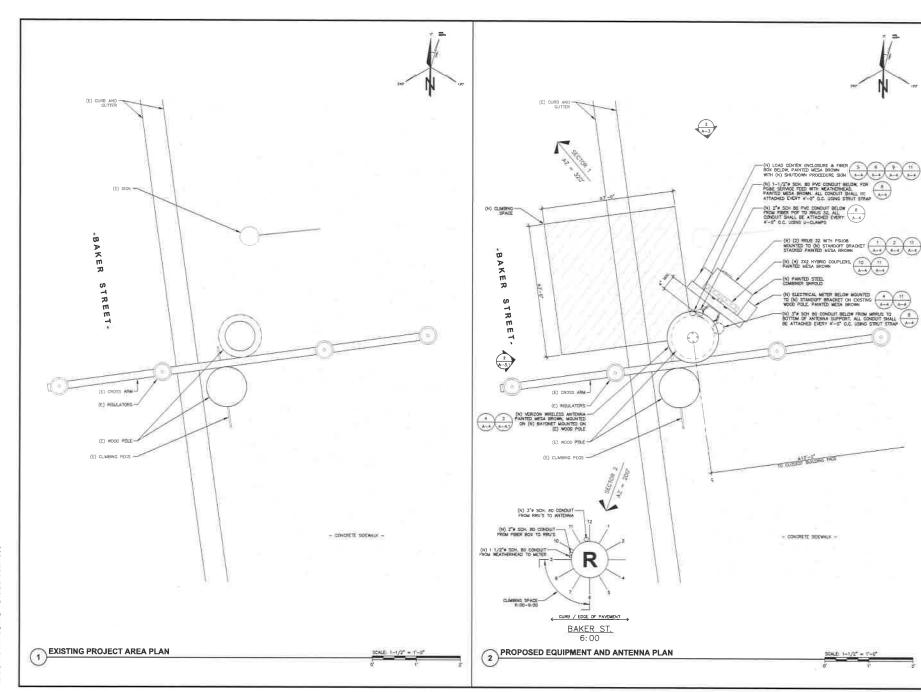
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REYY.	HERENT!	HODU DOMENT
MEN.	INCOME.	THE BUILDING RIVER
NC10	Definition in	AN INTERNATION
Her	DATE	DESCRIPTION



Prepared for:

Verizon

2785 MITCHELL DRIVE, SUITE 9
WM MITCHESTE TO ANAME





VERIZON SITE NO: SF_PAC027
PROJECT NO:
DRAWN BY: FG
CHECKED BY: RK

CONSTRUCTION

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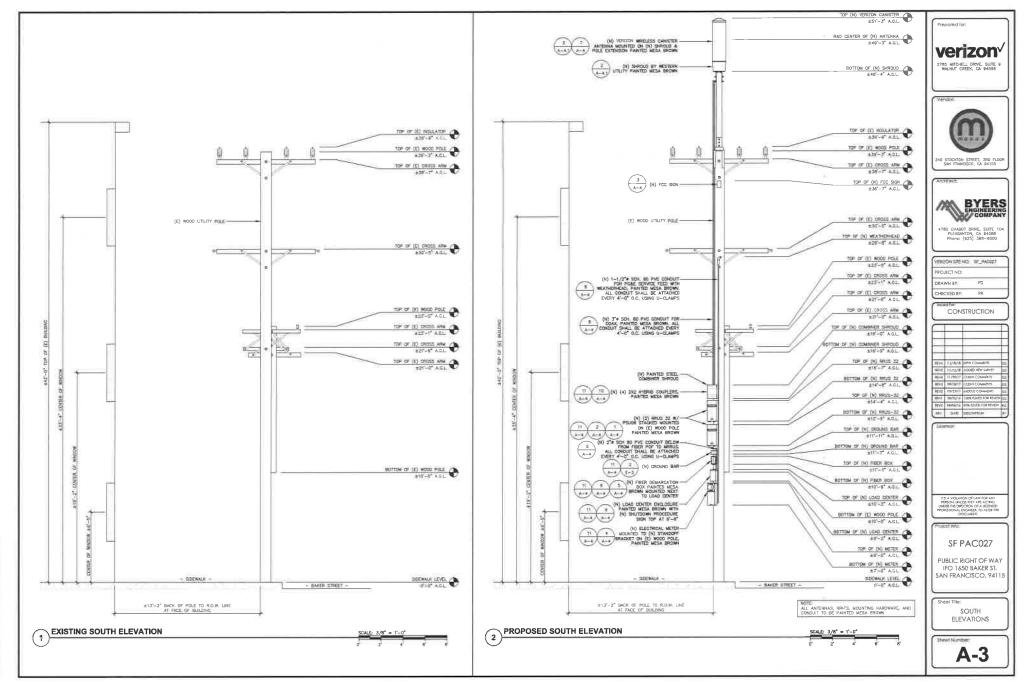
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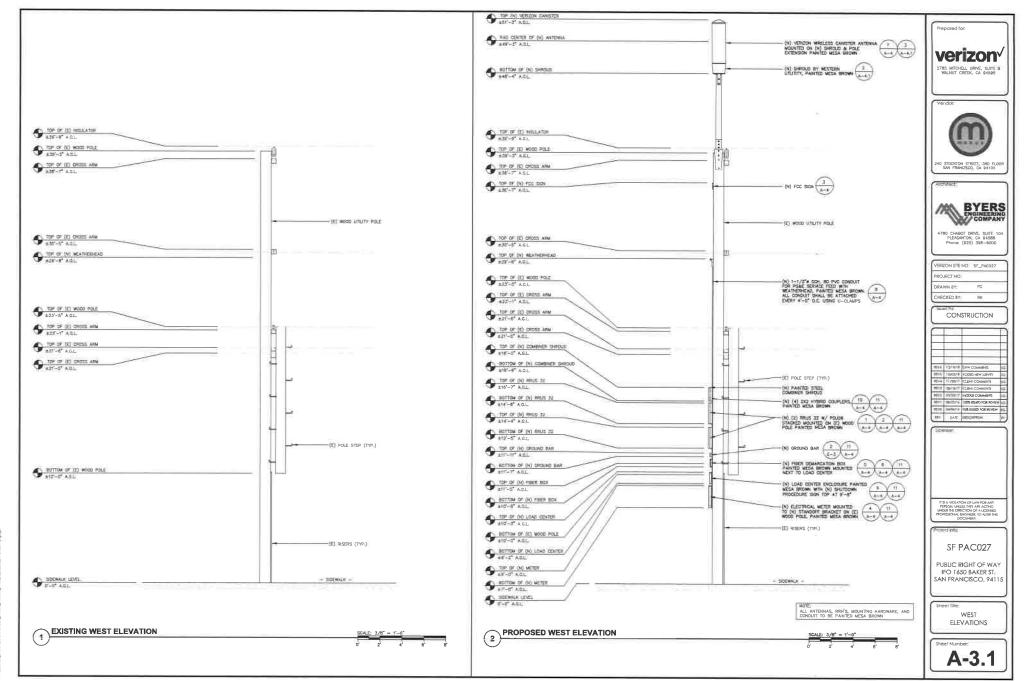
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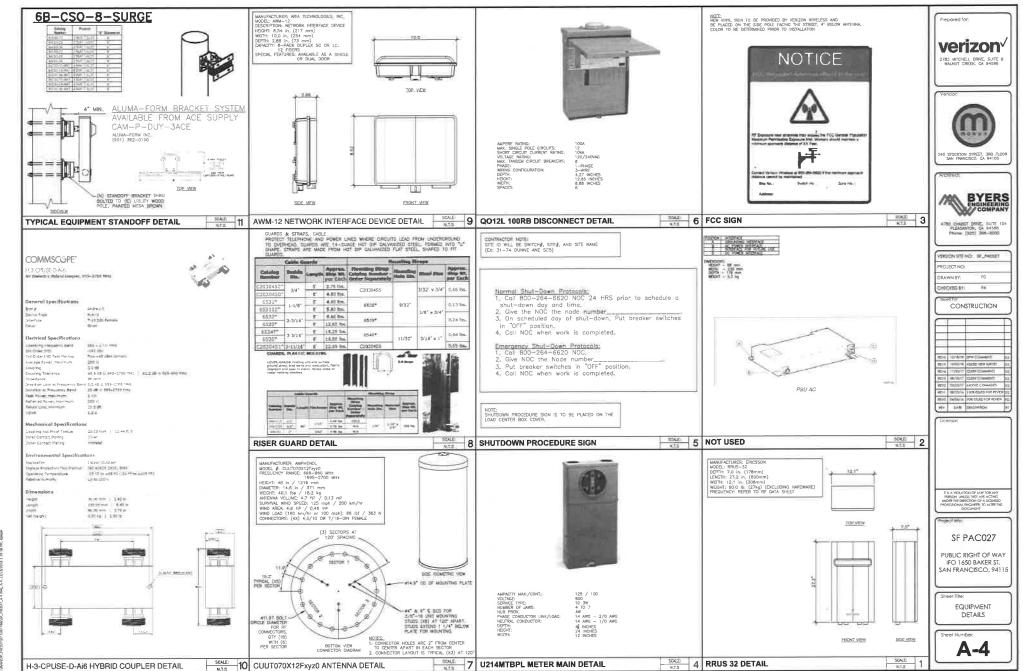
EXISTING AND PROPOSED EQUIPMENT PLAN

A-2

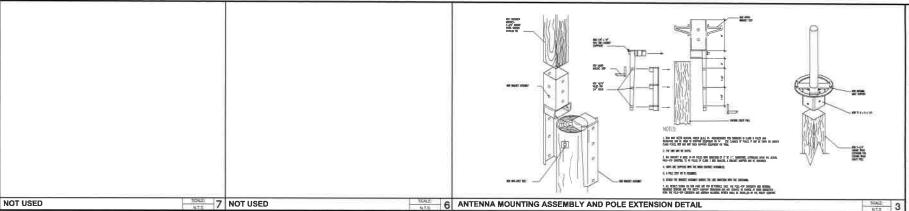


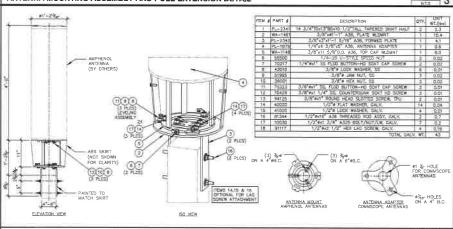
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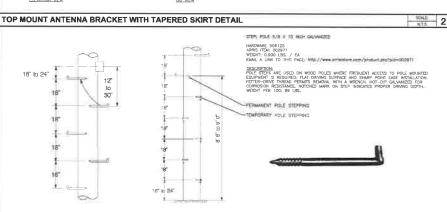


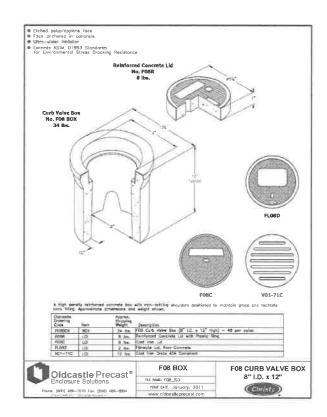


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EQUIPMENT DETAILS

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5 POLE STEPPING DETAIL

F08 BOX GROUND INSPECTION WELL DETAIL

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GENERAL REQUIREMENTS:

- 4. ALL WORK AND MATERIALS SHALL BE IN ACCOMPANCE WITH THE LATEST RULES AND RESIL ATTOMS OF THE MATIONAL ELECTRICAL CODE AND ALL STATE AND LOCAL CODES IN DEPOSIT WHITE STATE AND THE PROPERTY OF THE WORLD STATE OF THE WORLD STATE OF THE WORLD STATE OF THE WORLD STATE OF THE PROPERTY OF THE CONTRACTOR OF THE WORLD STATE OF THE PROPERTY OF THE CONTRACTOR SHALL AMERCATE YEAR DITTY THE MICHIESET IN WRITING AND CRASE WORK OF A PARTY OF THE CONTRACTOR WHICH ARE PREPERTY OF THE PROPERTY OF THE PRO
- CONTRACTOR ASSUMES ALL LIABILITY FOR FALURE TO COMPLY WITH PRIVATE OR ASSUMES ALL LIABILITY FOR FALURE TO COMPLY WITH PRIVATE OR
- THE EXTENT OF THE MORK IS INCIDATED BY THE DRAWNER, SCHEDLES, AND SPECIFICATIONS AND IS SILEGED TO THE TERRISH AND CONTINUOUS OF THE CONTRACT THE WORDPRISH THE SCHEDUL CONNEST OF FURNISHMS ALL LADOR, EQUIPMENT, MATERIALS, AND EDUIPMENT EXPENSION FOR A COMPLET RAY OF REPORT AND CONTINUOUS, ALL ELECTRICAL WORK NOT WESTFORD OR REVOWN WHICH IS NECESSARY FOR SUCCESSFUL OPERATION OF ALL STATES.
- CONTROL HE AND HEAT APPEARMED BASE OF A HIPOTRAT AS THE OPERATION DEPICTIVE OR DAMAGED MATERIALS SHALL BE REPLACED OR REPARRED PRIOR TO FINAL ACCEPTANCE IN A MANNER ACCEPTABLE TO OWNER AND ENGINEER.

- 8 ANY ERROR OMISSION OR DESIGN DISCREPANCY ON THE DRAWINGS SH BROUGHT TO THE ATTENTION OF THE BNGINEER FOR CLARIFICATION OR CORRECTION BEFORE CONSTRUCTION
- 9 "PROVIDE" INDICATES THAT ALL ITEMS ARE TO BE FURNISHED INSTALLED AND CONNECTED IN PLACE
- 10 CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS AND PAY ALL REQUIRED FEES

- THE DESCRIPTION REDICATE DISCRIPTION OF THE DESCRIPTION OF ARRANGEMENTS OF COMMUNITY OF OUTLIETS (COLIPMENT) ETC. AND ARE TO BE FOLLOWED AS CLOSELY AS POSSIBLE PROPER JULICIEMENT MUST BE EXERCISED IN EXECUTION THE WORK SO AS TO SECURE THE BEST POSSIBLE INSTALLATION IN THE AVAILABLE SPACE LIMIT FORMS ON INTERFERENCE OF STRUCTURE
- AT THE EXPERT THANKES IN THE ARE ACTES LOCATIVES OR AREANGEMENT ARE MEDSSARY, DUST OF PIELD CONTROL OF MIT THE SURVING CONSTRUCTION OF REARRANGEMENT OF FIRMISHINGS OR EQUITMENT, SUCH CHANGES SHALL BE MADE WITHOUT COST, PROVIDING THE CHANGE OF DOBERED REFORE FROM THE COMDUTT RUIS, ETC., AND WORK DIRECTLY CONNECTED TO THE SAME IS INSTALLED AND NO EXTRE MATERIALS ARE REQUIRED.
- COORDINATE THE WORK OF THIS RECTION WITH THAT OF ALL OTHER TRADES.
 WHERE COMPLICTS COOLIN COMMULT WITH THE RESPECTIVE CONTROL TOWN AND COURT TO ADMINISTRATION AND CONTROL TRADES INTO THE PROPOSED CHANGES RETURN ACCEPTANCE FROM ENGINEER FOR THE PROPOSED CHANGES RETURN PROCESSION.

SHOP DRAWINGS:

1. NA UNLESS NOTED OTHERWISE

II NO SUBSTITUTIONS ARE ALLOWED

BEFORE FINAL ACCEPTANCE OF WORK, THE CONTRACTOR SHALL INSURE THAT ALL EQUIPMENT, SYSTEMS, FIXTURES, ETC. ARE WORKING SATISFACTORILLY AND TO THE INTEXT OF THE DAWNING.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING OUT AND PAYING FOR ALL REQUIRED PERMITS, INSPECTION AND EXAMINATION WITHOUT ADDITIONAL EXPENSE TO THE OWNER.
- IN 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 THE NATIONAL ELECTRICAL CODE
- 2 CONDUITS CONNECTED TO EQUIPMENT AND DEVICES SHALL BE METALLICALLY JOINED TOGETHER TO PROVIDE EFFECTIVE ELECTRICAL CONTINUITY
- 3 FEEDERS AND BRANCH CIRCUIT WIRING INSTALLED IN A NONMETALLIC CONDUIT SHALL INCLUDE A CODE SIZED GROUNDING CONDUCTOR HAVING GREEN INSULATION THE GROUNG CONDUCTOR SHALL BE PROPERLY CONNECTED AT BOTH ENDS TO MAINTAIN ELECTRICAL CONTRUCTS.
- 4 REFER TO GROUND BUS DETAILS PROVIDE NEW GROUND SYSTEM COMPLETE WITH CONDUCTORS, GROUND ROD AND DESCRIBED TERMINATIONS.
- 5 ALL GROUNDING CONDUCTORS SHALL BE SOLID TINNED COPPER AND ANNEALED #Z UNLESS NOTED OTHERWISE
- 6. ALL NON-DIRECT BURIED TELEPHONE EQUIPMENT GROUND CONDUCTORS SHALL BE #2 STRANDED THIN (GREEN) INSULATION
- 7 ALL GROUND CONNECTIONS SHALL BE MADE WITH "HYGROUND" COMPRESSION SYSTEM BURNDY CONNECTORS EXCEPT WHERE NOTED OTHERWISE
- PAINT AT ALL OPCURE CONNECTIONS SHALL BE REMOVED.
 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
 TURBURS TO SOMETIME SHOT OF THIS TO SHOW THIS TASTALLER.
- THE SERVICE:

 1. TELEPHONE AND SECTRICAL METERING FACILITIES SHALL CONFORM TO THE
 REQUIREMENTS OF THE SERVING UTILITY COMPANIES CONTRACTOR SHALL VERIEY
 SERVICE (LOCATIONS AND REGUIREMENTS SERVICE INFORMATION WILL BE
 FURNISHED BY THE SERVING LITILITIES
- 2. CONFORM TO ALL REQUIREMENTS OF THE SERVING UTILITY CONFINISH

- ALL MATERIALS SHALL BE NEW, CONFORMING WITH NEC, ANSI, NEMA, AND THEY SHALL BE U.L. LISTED AND LABELED.
- 9 CONDUIT:

 - C) REBBLE METALLIC CONDUIT SHALL HAVE U.L. LIS SHALL BE "AMD MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "AME" OR "SQUEEZE" TYPE SAL TICHT FLABBLE CONDUIT, ALL CONDUIT EXCESS OF SIX FEET IN LENGTH SHALL HAVE FULL SIZE CROUND WITH
 - CEILING OR WALLS UNLESS INDICATED OTHERWISE, CONDUIT IN INDICATED SHALLS UNLESS INDICATED OTHERWISE, CONDUIT INDICATED SHALL RUM PARALLEL OR AT RIGHT MINUSES TO CEILING, FLOOR OR BEAMS, VERIFY EDACT ROUTING OF ALL EMPOSED CONDUIT WITH ARCHITECT PRIOR TO INSTALLING.
 - E) ALL UNDERGROUND CONDUITS SHALL BE PVC SCHEDULE 40 (UNLESS NOTED OTHERWISE) AT A MINIMUM DEPTH OF 24 BELOW GRADE
 - F) ALL CONDUIT ONLY (C.O.) SHALL HAVE PULL ROPE.
 - G) CONDUITS RUN ON ROOFS SHALL BE INSTALLED ON 4x4 REDWOOD SLEEPERS, 6"-0" ON CENTER, SET IN NON-HARDENING MASTIC.
- ALL WIRE AND CABLE SHALL BE COPPER, 800 VOLT, \$12 AWG MINIJUL UNLESS SPECIFICALLY NOTION OFFERINSE, ON THE DOWNINGS, CONDUCTORS AND ARCHER SHALL BE STRANGED, FIVE THAN INSULATION SHED UNLESS CONDUCTORS INSTALLED IN CONDUIT EMPOSED TO WEATHER, IN WHICH CASE TYPE THAN INSULATION SHALL BE USED.
- PROVIDE GALVANIZED COATED STEEL BOVES AND ACCESSORIES SIZES PEN CODE TO ACCOMMISSATE ALL DEVICES AND WIRMS.
- 5. DUFILED RECEPTALES SHALL BE SPECIFOURN FOADS WITH WHITE THREE (MALESS FOED BY DEFINER). ZO AME TO SEVER THREE MET AND A SEVER THR
- GRADE WHITE (UNLESS NOTED (
- PANEL BOARDS SHALL BE DEAD FRONT SAFETY TYPE WITH ANTI-BURN SOLDBLESS COMPRESSION APPROVED FOR COPPER COMDUCTORS, COPPER COURCHANGE QUICK-BREAK BOAT-IN TIPE THE TIPE AND ADMINISTRATION OF THE BEDARERS, MOUNT TOP OF THE PANEL BOARDS AT 6"-3" ABOVE FINISHED FLOOR, PROVIDE TYPE WRITTEN CIRCLIF DIRECTION.
- 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.
- 9 GROUND RODS SHALL BE COPPER CLAD STEEL, 5/8" ROUND AND 10" LONG, COPPERWELD OR APPROVED EQUAL.

INSTALLATION:

- PROVIDE SUPPORTING DEVICES FOR ALL ELECTRICAL EQUIPMENT. FIXTURES. BOXES. PANEL ETC., SUPPORT LUMINARIES FROM IMPORTANCE FOR HAND IMPORTANCE WITH STREET AND LOCAL CODE REQUIREMENTS. PROVIDE PRIOR AUGMENT AND LEVELING OF ALL DEVICES AND FIXTURES.
- CUTTING, PATCHING, CHASES, OPENINGS: PROVIDE LAYOUT IN ADVANCE TO ELMINARE UNINECESSARY CUTTING OR DRILLING OF WALLS, FLOORS CELINOS, AND ROOTS, ANY DAMAGE TO BULLING STRUCTURE OR EQUIPMENT SHALL BE REPAIRED BY THE CONTRACTOR OBTAIN PERMISSION FROM THE CHONGER BEFORE CORNG.
- IN ORILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR FANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, EIG. IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND/OR REMTORCING STEEL WILL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER THE CIRCUMSTANCES.
- LOCATION OF TENDONS AND/OR REPRESENTS STEEL ARE NOT SERVICELY KNOWN AND INTERCRUE, WAST BE SAND-CHE FOR ST AFFEORMANE METHOD AND SALVAMENT VA FARA OR OTHER SOURCE. THAT CAN ACCURATELY LOCATE THE REPRESENTS WID/OR STEEL TOROGNE.

- UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS FOR APPROVAL SUBJUT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALLS DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
- PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS AND CIRCUITS,
- 3 ALL BROCHURES, OPERATING MANUALS, CATALOG, SHOP DRAWINGS, ETC., SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.

GROUNDING NOTES:

- ALL DETAILS ARE SHOWN IN GENERAL TERMS, ACTUAL GROUNDING INSTALLATION REQUIREMENTS AND CONSTRUCTION ACCORDING TO SITE CONDITIONS.
- 2 ALL GROUNDING CONDUCTORS: #2 AWG SOLID BARE TINNED COPPER WIRE LINLESS OTHERWISE NOTED.
- 3 GROUND BAR LOCATED IN BASE OF EQUIPMENT WILL BE PROVIDED. FURNISHED AND INSTALLED BY THE VENDOR
- ALL BELOW GRADE CONNECTIONS: EXOTHERMIC WELD TYPE, ABOVE GRADE CONNECTIONS: EXOTHERMIC WELD TYPE
- S_ GROUND RING SHALL BE LOCATED A MINIMUM OF 24" BELOW GRADE OR 6" MINIMUM BELOW THE FROST LINE;
- INSTALL GROUND CONDUCTORS AND GROUND ROD MINIMUM OF 1^{\prime} -0° FROM EQUIPMENT CONCRETE SLAB_SPREAD FOOTING, OR FENCE EXOTHERMIC WELD GROUND CONNECTION TO FENCE POST: TREAT WITH A COLD GALVANIZED SPRAY.
- DITION OF ARTEMA POLE/MAST FOR MANIC GROUNDS LUSTED AT THE BOTTON OF ARTEMA POLE/MAST FOR MANIC GROUNDS LUGGES CONFECTIONS TO COME TESSES CAUGES SHALL BE INVESTIGATED AND CONFEST) SHALL BE INSTALLED AND CONNECTED BY ELECTRICAL CONTRACTOR.
- ALL CROUNDING INSTALLATIONS AND CONNECTIONS SHALL BE MADE BY ELECTRICAL CONTRACTOR.
- 10. OBSERVE N.E.C. AND LOCAL UTILITY REQUIREMENTS FOR ELECTRICAL SERVICE GROUNDING.
- GROUNDING ATTACHMENT TO TOWER SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS OR AT GROUNDING POINTS PROVIDED (2 MINIMUM)
- 12. IF EQUIPMENT IS IN A C.L. FENCE ENCLOSURE, GROUND ONLY CORNER POSTS AND SUPPORT POSTS OF GATE IF CHAIN UNK LID IS USED, THEN GROUND LID ALSO.
- 13. GROUNDING AT PPC CABINET SHALL BE VERTICALLY INSTALLED.
- 14. ALL CROUNDING FOR ANTENNAS SHALL BE CONNECTED SO THAT IT WILL BY-PASS MAIN BUSS BAR.
- 15. ALL EMT RUNS SHALL BE GROUNDED AND HAVE A BUSHING, NO PVC ABOVE GROUND.
- 16 USE SEPARATE HOLES FOR GROUNDING AT BUSS BAR NO "DOUBLE-UP" OF LUCS.
- 17. POWER AND TELCO CABINETS SHALL BE GROUNDED (BONDED) TOGETHER.
- 18. NO LETS ALLOWED DV ORDEROND
- PROVIDE STAINLESS STEEL CLAMP AND BRASS TAGS ON COAX AT ANTENNAS AND DOGHOUSE.

ELECTRICAL SYMBOLS

LIGHTING

- PLEASURED THE MINE LOCAL PER PLACE
- CO HOMAL If It of records count-winded comments
- ★ MICHIED WILL-WOMED UNIT FRENCE.
- O MIZZED IDUNG-WIGHTS FINDING
- SELD 'JRUK' ON ANY FIXTURE INDICATES & FIXTURE WITH AN INTEGRAL DIFFICIENT POWER SUPPLY, FOR THE SPECIFICATIONS.
- DUAL HEAD EMPROPHEY LEAST FORTURE WITH BATTERY PACK, SEE LIGHT FORTURE SOMEDULE FOR SPECIFICATION.
- OF SHEETS CHICAGE THE ALL CHICAGE ARROWS ASSOCIATE FACES WIT NOWLES CHCHESCA CILL SICK
- POLE-MOUNTED UTAIT FINTURE.

- SMILE POLE TOOKLE SWITCH ST PROGRAMME THESWICH
- PC PHOTOCELL | MOUNTED ON HOOF UNLESS NOTED OTHERWISE.
- DATES COMERCIA RECORDED.
- SALCE LOSS STARM, ON WAL MEGELLINGE MORCHEZ MIEGRAT CHOTHE
- THE DESIGNATION CONTRACTOR RECEIPTION

- DUPLEX CONVENIENCE RECEPTAGLE MOUNTED ABOVE COUNTER TOP OR AS ARCHTECT'S INTERED LEWITION FOR EXACT MOUNTING HEIGHT. DOUBLE DUPLES (TOURPLES) COMPRIENCE RESEPTACLE MOUNTED RECORD BY MILITIDISK.
- Ö DUTEX CONTRINCE INCOMESTS WAY WE COUNTY COUNTY CONNECTION
- SPICIAL PURPOSE RECEPTACLE AS NOTED ON DRAWINGS (250 VOLT),
 HEAR CONFIDERATION AS INDICATED ON THE PLANS OR AS REQUIRED BY
 THE COMPANIED.
- SPECIAL PURPOSE RECEPTAGLE AS NOTED ON DRAWNES (800 VOLT).
 NEIAL COMPACTION AS INDICATED ON THE PLANS OR AS REQUIRED BY
 THE FORMATORY.
- JUNCTION BUTK. "C" INDICATES CELLING MOUNTED. "F" INDICATES FLOOR MOUNTED (SUBSCRIPTS ARE TYPICAL FOR ALL DEVICES)
- POWER / VOICE-DATA SERVICE POLE.
- VOICE OUTLET
- COMMINTON TELEPHONE AND SATA DUTLET IN THE SAME. SELL
- MIL/ROOM, SEE DAMNISS FOR SPECIFICATION CHIME. SEE DRAWNUS FOR SPECIFICATION
- Ĉ OCCUPANCY MOTION SENSOR
- 6A SWITCH PAK
- 8 REMOTE BATTERY
- INTERNIE SWITCH
- CONTROL DEVICE /SWITCH

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SERVICE THE SHAPPEN THE CHILD A RESET

TURNOS MOUNTO PARE STATE

PLUS HONTO PHE SONE CARNET.

TELEPHONE MOUNTING BOARD. WIRE/CONDUIT

SAFONDAY SEN, IN ACCREMISE WIN ARREST SHIP THE

CHARLES OF ABOVE COUNC W/ 2 \$12 \$12 OND, CONDUIT MOUTED UNDER FLOOR ON BELOW GRADE W/ 2 \$12, \$12 GPD.

MEIGHTS & WORE-MAN TO THE PAREL STATES

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MELENNE SOURCE PANEL BOARDS, WAN LUG ONLY

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G-A GONERNTON WITH INTEGRAL PROTUCTION PRINT ALABAY MANUAL PLACE STREETS

FIRE ALARM HORN/STRUBE

D- DUCT MOUNTED SMOKE DETECTOR SHOKE/FIRE DAMPER FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR, WIRED BY ELECTRICAL CONTRACTOR. (F) THE STREETS THAT SHOW

FIRE SPRINKLES MONOCOMIC PANEL.

6 MARS BOAR FORE. HOW THYSLAN MOT DICK! THE TRUE-LOSS STREET NOW WENT CONSTITUTE OF STREET NOV. 10H 31 MOD WINNETNIK CINDU DALDE WIND UNDWICE OF GUITNESS HIS VENAUE TIME WEATHERFROOF. ph Oncore mon ON DESIGNATION OF SECURITY AS ASSESSED.

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ABBREVIATIONS

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VERIZON SITE NO: SF_PAC027 PROJECT NO: DRAWN BY:

CHECKED BY:

Phone: (925) 398-8000

CONSTRUCTION

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ADIA MATERIA HOOD HEN TURNET HO ## # 11/20/17 CLENT COMMENTS MEY BUILDIT COMMENTS BENT DB/23/16 TONE SSUED FOR P REAL PROPERTY AND REVIEW IN NOTIFICIAL BAS DECOMPON

IT IS A YICKATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A UCENSED PROFESSIONAL ENGAGER, TO ALTER THIS DOCUMENT

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GENERAL ELECTRICA NOTES & SYMBOLS

E-1

(N) VERIZION WRIELESS CANUTER ANTENNA
 MOUNTED ON (N) IMPOUD A POLE
 EXTENSION PAINTED WESA MOON!
 (A-5)
 (A-5)

TOP ON VERSON CANSTER

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ELECTRICAL GROUND DIAGRAMS

Sheet Number

E-2

- POWER AND TELCO POINTS OF CONNECTION AND ANY EASEMENTS
 ARE PREFIDENCE AND STREET CETA CONTAINES.
- 2 CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY LOR FRAIL AND EXACT WORK/MATERIAS REQUESTMENTS AND CONSTRUCT TO UTILITY ENGINEERS OF PLANS AND SPECIFICATIONS ONLY WHETE ATTUCKNIE PER PROJECT SCOPE OF WORK.
- CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT PLLL WIRES CABLE PULL BOXES CONCRETE ENCASEMENT OF CONDUIT TRANSFORMER PAD BARRIERS POLE REFE TRENCHING BACK FILL. AND LIST LIFE ELECT A RECEIVED LIGHT RESOURCE DIRECTORS.

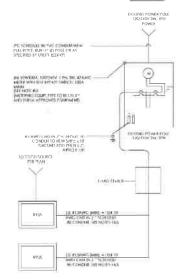
NOTES:

- MECCHINAL BY INVALID TO THE ARMS WELLOW, TWEEL AND BULKETE FOR THIS BY HE STURET AND THE BYJACK OF CARRY I.
- ALL NURVIC LECTURATENT AND INSTALLATIONS SHALL COMP WITH THE N.E.C. AND UTILITY COMPANY AND LOCAL CODE REQUIREMENT
- ENTRANCE EQUIPMENT WITH FAULT SURRENT RATING S GREATER
 THAN THE AVAILABLE FAULT CLIRARYT FROM THE POWER UTILITY
- 4. DE O ROUTE CONDUCTOR CARRIER ALATOURING.
- 5. MAXIMUM ONE WAY CIRCUIT RUN NOT TO EXCEED AS FEET.

GENERAL ELECTRICAL NOTES

- PROVIDE ALL ELECTRICAL WORK & MATERIALS AS SHOWN ON THE DWGS, AS CALLED FOR HEREIN, & AS IS NECESSARY TO FURNISH A COMPLETE METALL A DOM:
- THE STATALATION AFFAL CONFIDENCE IN MEXICAL MONEY OF LECURISMS ADOPTED CARE DRIVEN ELECTRAL CIDES SAFE DE CALFORNA-RICE A ULT OFFE AFFA CALE CORO. AD CRIMINANCE A THE PROSERVANCE FOR BEEFE AND AND LALL CEREMANTE AWARD SHALL BEEFE BE APPROVAL STAMP OF INDESPREIES LADORATORY [LEL OR AN APPROVED TISTING LANDALORY PAYMENT FOR ALL INNECTION ITSTAND FRIEND. AND PROVIDENCE OF HIS CONFIDENCE.
- BE COMEACION SHALL IN EXPONENTE FOR THE SAFET AND GOOD CONDITION OF ALL MATERIALS A COURTENING THE ENTIRE
 REVIALATIONAL MICHOGRAPHERS OF WORK REGET, MANAGEMA APPROVED A SURPLE ARREST PROTOCOTOR PROFES OF MANAGEMOS CORNA
 ET LIAT VERY DISTRIBUTE FOR ANY LOS OR PRIENT TO FERONS OR PEOPETY RESILENCE FROM MICHIGANCE AND/OR THIS GROWN THE ANGENT.
- 4. COORDINATE THE ELECTRICAL INSTALLATION WITH ALL OTHER TRADES...
- E. AN SAME STATE, SHALLING SACREMENT & PARTIES SHALL SHAPF OF SHE COMPACE.
- A PRINCE ALL DECEMBER AND EXPENSE AND ASSESSMENT AND ASSESSMENT AS ASSES
- ALL WIRING SHALL BE COPPER. INSULATION FOR BRANCH CIRCUIT CONDUCTORS SHALL BE TYPE "HIMM" CONDUCTORS LARGER AND #6 AWG. MAY RETYPE "HIMM" OR "TWN".
- E. PYONDE COMMITTION FOR ALL CONDUST FOREIGNESS OF HEARING ONE OF HEARING OF SECTIONS ENVELOPS, AND TO SEA, ALL CONDUST OFFICIAL ADMITTANCE CONSTITUTIONS.
- 6. TALLES SKYWN DEGENNE FAKD DEC CHRICT SMECHT SMALLE PROVIDED WIRLLOWPEN, SUDUK BLORNT MALERE DE DERMEN ANAMY AL REC CIRCHA YA DEC ANDRES SERVES SMALLE PROVIDED HIRLING ANY LIFE (MALE FARMY), VARIONA, AND DERMEN CUSC COST COMPARISH HALL BY A RETURN AND A PROVIDED A TRIBE OF MAY TO MATCHING THE PROVIDED AND A PROVIDE
- 10. THE CONTRACTOR SHALL SERESPONSBLE FOR TESTING THE GROUNDING SYSTEM AND ENSWAYING A 5-01MLOR LESS GROUNDING PATH, ADDITIONAL GROUND RODS AND/OR OFENICAL NOD SYSTEM SHALL BE USED TO ACHIEVE THE REQUIREMENT ETHE GIVEN DESIGN CANNOT BE MADE TO ACHIEVE THE REQUIREMENT.

ELECTRICAL



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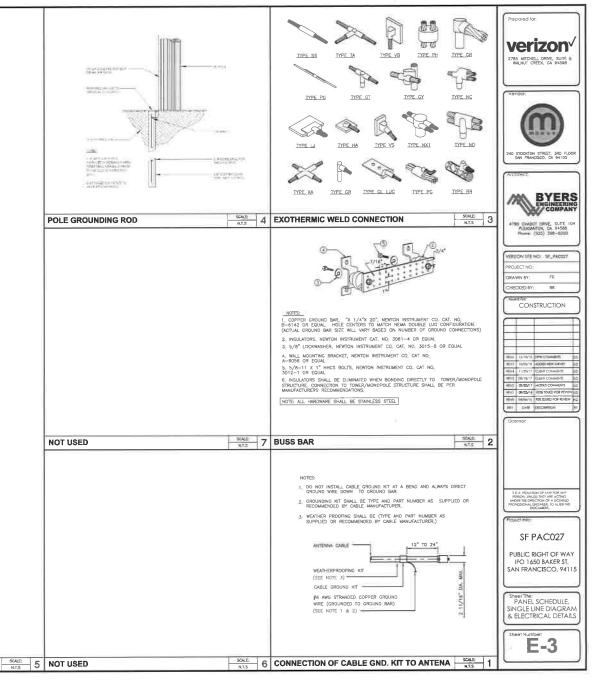
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SINGLE LINE DIAGRAM



SINGLE LINE DIAGRAM

GENERAL REQUIREMENTS:

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- CONTROL HE AND HEAT APPEARMED BASE OF A HIPOTRAT AS THE OPERATION DEPICTIVE OR DAMAGED MATERIALS SHALL BE REPLACED OR REPARRED PRIOR TO FINAL ACCEPTANCE IN A MANNER ACCEPTABLE TO OWNER AND ENGINEER.

- 8 ANY ERROR OMISSION OR DESIGN DISCREPANCY ON THE DRAWINGS SH BROUGHT TO THE ATTENTION OF THE BNGINEER FOR CLARIFICATION OR CORRECTION BEFORE CONSTRUCTION
- 9 "PROVIDE" INDICATES THAT ALL ITEMS ARE TO BE FURNISHED INSTALLED AND CONNECTED IN PLACE
- 10 CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS AND PAY ALL REQUIRED FEES

- THE DESCRIPTION REDICATE DISCRIPTION OF THE DESCRIPTION OF ARRANGEMENTS OF COMMUNITY OF OUTLIETS (COLIPMENT) ETC. AND ARE TO BE FOLLOWED AS CLOSELY AS POSSIBLE PROPER JULICIEMENT MUST BE EXERCISED IN EXECUTION THE WORK SO AS TO SECURE THE BEST POSSIBLE INSTALLATION IN THE AVAILABLE SPACE LIMIT FORMS ON INTERFERENCE OF STRUCTURE
- AT THE EXPERT THANKES IN THE ARE ACTES LOCATIVES OR AREANGEMENT ARE MEDSSARY, DUST OF PIELD CONTROL OF MIT THE SURVING CONSTRUCTION OF REARRANGEMENT OF FIRMISHINGS OR EQUITMENT, SUCH CHANGES SHALL BE MADE WITHOUT COST, PROVIDING THE CHANGE OF DOBERED REFORE FROM THE COMDUTT RUIS, ETC., AND WORK DIRECTLY CONNECTED TO THE SAME IS INSTALLED AND NO EXTRE MATERIALS ARE REQUIRED.
- COGREDITATE THE WORK OF THIS RECTION WITH THAT OF ALL OTHER TRADES.
 WHERE COMPLICTS COCCUR. EXMALLY WITH THE RESPECTIVE COMPRIST OF AND COURT TO ADMINISTRATE OF CHAMBES INCEDIBATELY DETAY. WHITTEN ACCEPTANCE FROM ENGINEER FOR THE PROPOSED CHAMBES RETURN PROCEEDING.

SHOP DRAWINGS:

1. NA UNLESS NOTED OTHERWISE

II NO SUBSTITUTIONS ARE ALLOWED

BEFORE FINAL ACCEPTANCE OF WORK, THE CONTRACTOR SHALL INSURE THAT ALL EQUIPMENT, SYSTEMS, FIXTURES, ETC. ARE WORKING SATISFACTORILLY AND TO THE INTEXT OF THE DAWNING.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING OUT AND PAYING FOR ALL REQUIRED PERMITS, INSPECTION AND EXAMINATION WITHOUT ADDITIONAL EXPENSE TO THE OWNER.
- IN 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 THE NATIONAL ELECTRICAL CODE
- 2 CONDUITS CONNECTED TO EQUIPMENT AND DEVICES SHALL BE METALLICALLY JOINED TOGETHER TO PROVIDE EFFECTIVE ELECTRICAL CONTINUITY
- 3 FEEDERS AND BRANCH CIRCUIT WIRING INSTALLED IN A NONMETALLIC CONDUIT SHALL INCLUDE A CODE SIZED GROUNDING CONDUCTOR HAVING GREEN INSULATION THE GROUNG CONDUCTOR SHALL BE PROPERLY CONNECTED AT BOTH ENDS TO MAINTAIN ELECTRICAL CONTRUCTS.
- 4 REFER TO GROUND BUS DETAILS PROVIDE NEW GROUND SYSTEM COMPLETE WITH CONDUCTORS, GROUND ROD AND DESCRIBED TERMINATIONS.
- 5 ALL GROUNDING CONDUCTORS SHALL BE SOLID TINNED COPPER AND ANNEALED #Z UNLESS NOTED OTHERWISE
- 6. ALL NON-DIRECT BURIED TELEPHONE EQUIPMENT GROUND CONDUCTORS SHALL BE #2 STRANDED THIN (GREEN) INSULATION
- 7 ALL GROUND CONNECTIONS SHALL BE MADE WITH "HYGROUND" COMPRESSION SYSTEM BURNDY CONNECTORS EXCEPT WHERE NOTED OTHERWISE
- PAINT AT ALL OPCURE CONNECTIONS SHALL BE REMOVED.
 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
 TURBURS TO SOMETIME SHOT OF THIS TO SHOW THIS TASTALLER.
- THE SERVICE:

 1. TELEPHONE AND SECTRICAL METERING FACILITIES SHALL CONFORM TO THE
 REQUIREMENTS OF THE SERVING UTILITY COMPANIES CONTRACTOR SHALL VERIEY
 SERVICE (LOCATIONS AND REGUIREMENTS SERVICE INFORMATION WILL BE
 FURNISHED BY THE SERVING LITILITIES
- 2. CONFORM TO ALL REQUIREMENTS OF THE SERVING UTILITY CONFINISH

- ALL MATERIALS SHALL BE NEW, CONFORMING WITH NEC, ANSI, NEMA, AND THEY SHALL BE U.L. LISTED AND LABELED.
- 9 CONDUIT:

 - C) REBBLE METALLIC CONDUIT SHALL HAVE U.L. LIS SHALL BE "AMD MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "AME" OR "SQUEEZE" TYPE SAL TICHT FLABBLE CONDUIT, ALL CONDUIT EXCESS OF SIX FEET IN LENGTH SHALL HAVE FULL SIZE CROUND WITH
 - CEILING OR WALLS UNLESS INDICATED OTHERWISE, CONDUIT IN INDICATED SHALLS UNLESS INDICATED OTHERWISE, CONDUIT INDICATED SHALL RUM PARALLEL OR AT RIGHT MINUSES TO CEILING, FLOOR OR BEAMS, VERIFY EDACT ROUTING OF ALL EMPOSED CONDUIT WITH ARCHITECT PRIOR TO INSTALLING.
 - E) ALL UNDERGROUND CONDUITS SHALL BE PVC SCHEDULE 40 (UNLESS NOTED OTHERWISE) AT A MINIMUM DEPTH OF 24 BELOW GRADE
 - F) ALL CONDUIT ONLY (C.O.) SHALL HAVE PULL ROPE.
 - G) CONDUITS RUN ON ROOFS SHALL BE INSTALLED ON 4x4 REDWOOD SLEEPERS, 6"-0" ON CENTER, SET IN NON-HARDENING MASTIC.
- ALL WIRE AND CABLE SHALL BE COPPER, 800 VOLT, \$12 AWG MINIJUL UNLESS SPECIFICALLY NOTION OFFERINSE, ON THE DOWNINGS, CONDUCTORS AND ARCHER SHALL BE STRANGED, FIVE THAN INSULATION SHED UNLESS CONDUCTORS INSTALLED IN CONDUIT EMPOSED TO WEATHER, IN WHICH CASE TYPE THAN INSULATION SHALL BE USED.
- PROVIDE GALVANIZED COATED STEEL BOVES AND ACCESSORIES SIZES PEN CODE TO ACCOMMISSATE ALL DEVICES AND WIRMS.
- 5. DUFILED RECEPTALES SHALL BE SPECIFOURN FOADS WITH WHITE THREE (MANASSE SIDE) BY DEFINERING JOANNESS TO SENDER JOHN STATEMENT OF THE SENDER JOANNESS STATEMENT OF THE SENDER JOANNESS STATEMENT OF THE SENDER JOANNESS STATEMENT OF THE WITH SERRON AND FAULT METRICIPATION FROSTPACES SHALL BE GROUND FAULT METRICIPATION FROSTPACES SHALL BE GROUND FAULT METRICIPATION FOR WITH SERRON AND FAULT COURS PARTS.
- GRADE WHITE (UNLESS NOTED (
- PANEL BOARDS SHALL BE DEAD FRONT SAFETY TYPE WITH ANTI-BURN SOLDBLESS COMPRESSION APPROVED FOR COPPER COMDUCTORS, COPPER COURCHANGE QUICK-BREAK BOAT-IN TIPE THE TIPE AND ADMINISTRATION OF THE BEDARERS, MOUNT TOP OF THE PANEL BOARDS AT 6"-3" ABOVE FINISHED FLOOR, PROVIDE TYPE WRITTEN CIRCLIF DIRECTION.
- 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.
- 9 GROUND RODS SHALL BE COPPER CLAD STEEL, 5/8" ROUND AND 10" LONG, COPPERWELD OR APPROVED EQUAL.

INSTALLATION:

- PROVIDE SUPPORTING DEVICES FOR ALL ELECTRICAL EQUIPMENT. FIXTURES. BOXES. PANEL ETC., SUPPORT LUMINARIES FROM IMPORTANCE FOR HAND IMPORTANCE WITH STREET AND LOCAL CODE REQUIREMENTS. PROVIDE PRIOR AUGMENT AND LEVELING OF ALL DEVICES AND FIXTURES.
- CUTTING, PATCHING, CHASES, OPENINGS: PROVIDE LAYOUT IN ADVANCE TO ELMINARE UNINECESSARY CUTTING OR DRILLING OF WALLS, FLOORS CELINOS, AND ROOTS, ANY DAMAGE TO BULLING STRUCTURE OR EQUIPMENT SHALL BE REPAIRED BY THE CONTRACTOR OBTAIN PERMISSION FROM THE CHONGER BEFORE CORNG.
- IN ORILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR FANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, EIG. IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND/OR REMTORCING STEEL WILL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER THE CIRCUMSTANCES.
- LOCATION OF TENDONS AND/OR REPRESENTS STEEL ARE NOT SERVICELY KNOWN AND INTERCRUE, WAST BE SAND-CHE FOR ST AFFEORMANE METHOD AND SALVAMENT VA FARA OR OTHER SOURCE. THAT CAN ACCURATELY LOCATE THE REPRESENTS WID/OR STEEL TOROGNE.

- UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS FOR APPROVAL SUBJUT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALLS DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
- PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS AND CIRCUITS,
- 3 ALL BROCHURES, OPERATING MANUALS, CATALOG, SHOP DRAWINGS, ETC., SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.

GROUNDING NOTES:

- ALL DETAILS ARE SHOWN IN GENERAL TERMS, ACTUAL GROUNDING INSTALLATION REQUIREMENTS AND CONSTRUCTION ACCORDING TO SITE CONDITIONS.
- 2 ALL GROUNDING CONDUCTORS: #2 AWG SOLID BARE TINNED COPPER WIRE LINLESS OTHERWISE NOTED.
- 3 GROUND BAR LOCATED IN BASE OF EQUIPMENT WILL BE PROVIDED. FURNISHED AND INSTALLED BY THE VENDOR
- ALL BELOW GRADE CONNECTIONS: EXOTHERMIC WELD TYPE, ABOVE GRADE CONNECTIONS: EXOTHERMIC WELD TYPE
- S_ GROUND RING SHALL BE LOCATED A MINIMUM OF 24" BELOW GRADE OR 6" MINIMUM BELOW THE FROST LINE;
- INSTALL GROUND CONDUCTORS AND GROUND ROD MINIMUM OF 1^{\prime} -0° FROM EQUIPMENT CONCRETE SLAB_SPREAD FOOTING, OR FENCE EXOTHERMIC WELD GROUND CONNECTION TO FENCE POST: TREAT WITH A COLD GALVANIZED SPRAY.
- DITION OF ARTEMA POLE/MAST FOR MANIC GROUNDS LUSTED AT THE BOTTON OF ARTEMA POLE/MAST FOR MANIC GROUNDS LUGGES CONFECTIONS TO COME TESSES CAUGES SHALL BE INVESTIGATED AND CONFEST) SHALL BE INSTALLED AND CONNECTED BY ELECTRICAL CONTRACTOR.
- ALL CROUNDING INSTALLATIONS AND CONNECTIONS SHALL BE MADE BY ELECTRICAL CONTRACTOR.
- 10. OBSERVE N.E.C. AND LOCAL UTILITY REQUIREMENTS FOR ELECTRICAL SERVICE GROUNDING.
- GROUNDING ATTACHMENT TO TOWER SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS OR AT GROUNDING POINTS PROVIDED (2 MINIMUM)
- 12. IF EQUIPMENT IS IN A C.L. FENCE ENCLOSURE, GROUND ONLY CORNER POSTS AND SUPPORT POSTS OF GATE IF CHAIN UNK LID IS USED, THEN GROUND LID ALSO.
- 13. GROUNDING AT PPC CABINET SHALL BE VERTICALLY INSTALLED.
- 14. ALL CROUNDING FOR ANTENNAS SHALL BE CONNECTED SO THAT IT WILL BY-PASS MAIN BUSS BAR.
- 15. ALL EMT RUNS SHALL BE GROUNDED AND HAVE A BUSHING, NO PVC ABOVE GROUND.
- 16 USE SEPARATE HOLES FOR GROUNDING AT BUSS BAR NO "DOUBLE-UP" OF LUCS.
- 17. POWER AND TELCO CABINETS SHALL BE GROUNDED (BONDED) TOGETHER.
- 18. NO LETS ALLOWED DV ORDEROND
- PROVIDE STAINLESS STEEL CLAMP AND BRASS TAGS ON COAX AT ANTENNAS AND DOGHOUSE.

LIGHTING

- PLEASURED THE MINE LOCAL PER PLACE CO HOMAL If It of records count-winded comments
- ★ MICHIED WILL-WOMED UNIT FRENCE.
- O MIZZED IDUNG-WIGHTS FINDING
- SELD 'JRUK' ON ANY FIXTURE INDICATES & FIXTURE WITH AN INTEGRAL DIFFICIENT POWER SUPPLY, FOR THE SPECIFICATIONS.
- DUAL HEAD EMPROPHEY LEAST FORTURE WITH BATTERY PACK, SEE LIGHT FORTURE SOMEDULE FOR SPECIFICATION.
- OF SHEETS CHICAGE THE ALL CHICAGE ARROWS ASSOCIATE FACES
- WIT NOWLES CHCHESCA CILL SICK POLE-MOUNTED UTAIT FINTURE.

- SMILE POLE TOOKLE SWITCH
- ST PROGRAMME THESWICH
- PC PHOTOCELL | MOUNTED ON HOOF UNLESS NOTED OTHERWISE.
- DATES COMERCIA RECORDED.
- SALCE LOSS STARM, ON WAL MEGELLINGE MORCHEZ MIEGRAT CHOTHE
- THE DESIGNATION CONTRACTOR RECEIPTION
- DUPLEX CONVENIENCE RECEPTAGLE MOUNTED ABOVE COUNTER TOP OR AS ARCHTECT'S INTERED LEWITION FOR EXACT MOUNTING HEIGHT. DOUBLE DUPLES (TOURPLES) COMPRIENCE RESEPTACLE MOUNTED RECORD BY MILITIDISK.
- Ö DUTEX CONTRINCE INCOMESTS WAY WE COUNTY COUNTY CONNECTION
- SPICIAL PURPOSE RECEPTACLE AS NOTED ON DRAWINGS (250 VOLT),
 HEAR CONFIDERATION AS INDICATED ON THE PLANS OR AS REQUIRED BY
 THE COMPANIED.
- SPECIAL PURPOSE RECEPTAGLE AS NOTED ON DRAWNES (800 VOLT).
 NEIAL COMPACTION AS INDICATED ON THE PLANS OR AS REQUIRED BY
 THE FORMATORY.
- JUNCTION BUTK. "C" INDICATES CELLING MOUNTED. "F" INDICATES FLOOR MOUNTED (SUBSCRIPTS ARE TYPICAL FOR ALL DEVICES)
- POWER / VOICE-DATA SERVICE POLE.
- VOICE OUTLET
- COMMINTON TELEPHONE AND SATA DUTLET IN THE SAME. SELL
- MIL/ROOM, SEE DAMNISS FOR SPECIFICATION
- CHIME. SEE DRAWNUS FOR SPECIFICATION Ĉ
- OCCUPANCY MOTION SENSOR
- 6A SWITCH PAK
- 8 REMOTE BATTERY INTERNIE SWITCH
- CONTROL DEVICE /SWITCH

- PLUS HONTO PHE SONE
- TELEPHONE MOUNTING BOARD.

WIRE/CONDUIT

- CONDUIT MOUTED UNDER FLOOR ON BELOW GRADE W/ 2 \$12, \$12 GPD.
- MEIGHTS & WORE-MAN TO THE PAREL STATES RESOUTE A GROUNDES DISCUSSION DAMAGES AND STATE AS TELEVANDAL CHORUSTON DAMAGES AND TRANSPORT OFFICE AS TELEVANDAL CHORUSTON DAMAGES AND TRANSPORT OFFICE AS TELEVANDAL CHORUSTON DAMAGES AND TRANSPORT OFFICE AS TELEVANDAL CHORUSTON DAMAGES AND TRANSPORT OF TRANSPORT OFFICE AS TELEVANDAL CHORUSTON DAMAGES AND TRANSPORT OF TRANSPOR
- The State Pair Dear Sec States or Point III, parties which a confinction factors for Landon States on Point States on States o

- ORGET BEOMEN, THEN MODIFIE
- ORGET BEGGE, DAWKET WESTERS
- E parketinos hestrosen
- Charles and the court makes
- G-A GONERNTON WITH INTEGRAL PROTUCTION
- PRINT ALABAY MANUAL PLACE STREETS
- D- DUCT MOUNTED SMOKE DETECTOR SHOKE/FIRE DAMPER FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR, WIRED BY ELECTRICAL CONTRACTOR.
- (F) THE STREETS THAT SHOW

6 MARS BOAR FORE. HOW THYSLAN MOT DICK! HOME FRANKED PLANK THE TRUE-LOSS STREET NOW WENT CONSTITUTE OF STREET IFE MENT PINCOUNT. NOV. ME MINH WE SHIT. E IDIOUT

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DAY DESCRIPTION NOTICE THERE OF GUITNESS HIS VENAUE TIME WEATHERFROOF.

GC HOMENG DETROE CHOICEN & DE 162 OF MANUAL PALL STREET, MANUAL MANUAL PARK.

ELECTRICAL SYMBOLS

S. HORSEYINGS THEEL MINING MITTIN SHOOL

\$4 OL HOSSPONER RATED MARLIN MOTER STARTER WITH THERMAL OVERCOM(S).

O BECTRON WITH THE SPANNER FOR SIZE.

SERVICE THE SHAPPEN THE CHILD A RESET

TURNOS MOUNTO PARE STATE

CARNET.

SAFONDAY SEN, IN ACCREMISE WIN ARREST SHIP THE

CHARLES OF ABOVE COUNC W/ 2 \$12 \$12 OND,

SINGLE-LINE DIAGRAM

- -V- PLESBLE SMITCH, SIZE AS INDICATED ON DRAWNCS.
- MELENNE SOURCE PANEL BOARDS, WAN LUG ONLY
- FIRE ALARM HORN/STRUBE

FIRE SPRINKLES MONOCOMIC PANEL.

ABBREVIATIONS

10H 31

ph Oncore mon ON DESIGNATION OF SECURITY AS ASSESSED. DESTRUCTO NO REMORDS

THE FLORES HERE CONDUCT

E-1

verizon





Phone: (925) 398-8000

VERIZON SITE NO: SF_PAC027 PROJECT NO: DRAWN BY: CHECKED BY: RK

CONSTRUCTION

ADIA MATERIA HOOD HEN TURNET HO ## # 11/20/17 CLENT COMMENTS MEY BUILDIT COMMENTS

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REAL PROPERTY AND REVIEW IN NOTIFICIAL BAS DECOMPON

IT IS A YICKATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A UCENSED PROFESSIONAL ENGAGER, TO ALTER THIS DOCUMENT

SF PAC027

PUBLIC RIGHT OF WAY

IFO 1650 BAKER ST. SAN FRANCISCO, 94115

GENERAL ELECTRICA NOTES & SYMBOLS

(N) VERIZION WRIELESS CANUTER ANTENNA
 MOUNTED ON (N) IMPOUD & POLE
 EXTENSION PAINTED WESA MOON!
 (A-5)
 (A-5)

TOP ON VERSON CANSTER

RAC CENTER OF DI) ANTONIA

SOTTOM OF (N) SHEDUD







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ELECTRICAL GROUND DIAGRAMS

Sheet Number

E-2

- POWER AND TELCO POINTS OF CONNECTION AND ANY EASEMENTS
 ARE PREFIDENCE AND STREET CETA CONTAINES.
- 2 CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY LOR FRAIL AND EXACT WORK/MATERIAS REQUESTMENTS AND CONSTRUCT TO UTILITY ENGINEERS OF PLANS AND SPECIFICATIONS ONLY WHETE ATTUCKNIE PER PROJECT SCOPE OF WORK.
- CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT PLLL WIRES CABLE PULL BOXES CONCRETE ENCASEMENT OF CONDUIT TRANSFORMER PAD BARRIERS POLE REFE TRENCHING BACK FILL. AND LIST LIFE ELECT A RECEIVED LIGHT RESOURCE DIRECTORS.

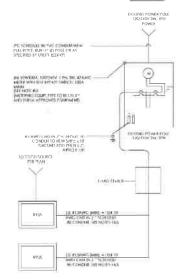
NOTES:

- MECCHINAL BY INVALID TO THE ARMS WELLOW, TWEEL AND BULKETE FOR THIS BY HE STURET AND THE BYJACK OF CARRY I.
- ALL NURVIC LECTURATENT AND INSTALLATIONS SHALL COMP WITH THE N.E.C. AND UTILITY COMPANY AND LOCAL CODE REQUIREMENT
- ENTRANCE EQUIPMENT WITH FAULT SURRENT RATING S GREATER
 THAN THE AVAILABLE FAULT CLIRARYT FROM THE POWER UTILITY
- 4. DE O ROUTE CONDUCTOR CARRIER ALATOURING.
- 5. MAXIMUM ONE WAY CIRCUIT RUN NOT TO EXCEED AS FEET.

GENERAL ELECTRICAL NOTES

- PROVIDE ALL ELECTRICAL WORK & MATERIALS AS SHOWN ON THE DWGS, AS CALLED FOR HEREIN, & AS IS NECESSARY TO FURNISH A COMPLETE METALL A DOM:
- THE STATALATION AFFAL CONFIDENCE IN MEXICAL MONEY OF LECURISMS ADOPTED CARE DRIVEN ELECTRAL CIDES SAFE DE CALFORNA-RICE A ULT OFFE AFFA CALE CORO. AD CRIMINANCE A THE PROSERVANCE FOR BEEFE AND AND LALL CEREMANTE AWARD SHALL BEEFE BE APPROVAL STAMP OF INDESPREIES LADORATORY [LEL OR AN APPROVED TISTING LANDALORY PAYMENT FOR ALL INNECTION ITSTAND FRIEND. AND PROVIDENCE OF HIS CONFIDENCE.
- BE COMEACION SHALL IN EXPONENTE FOR THE SAFET AND GOOD CONDITION OF ALL MATERIALS A COURTENING THE ENTIRE
 REVIALATIONAL MICHOGRAPHERS OF WORK REGET, MANAGEMA APPROVED A SURPLE ARREST PROTOCTOR PROFES OF MANAGEMOUS AND
 ILLY REPORTING FOR ANY LOSS OF RIGHT TO PERSONS OF PEOPETY RESILENCE FROM MICHIGAING, AND/OR THIS OFFICIAL PROFESSOR.
- 4. COORDINATE THE ELECTRICAL INSTALLATION WITH ALL OTHER TRADES...
- E. AN SAME STATE, SHALLING SACREMENT & PARTIES SHALL SHAPF OF SHE COMPACE.
- A PRINCE ALL DECEMBER AND EXPENSE AND ASSESSMENT AND ASSESSMENT AS ASSES
- ALL WIRING SHALL BE COPPER. INSULATION FOR BRANCH CIRCUIT CONDUCTORS SHALL BE TYPE "HIMM" CONDUCTORS LARGER AND #6 AWG. MAY RETYPE "HIMM" OR "TWN".
- E. PYONDE COMMITTION FOR ALL CONDUST FOREIGNESS OF HEARING ONE OF HEARING OF SECTIONS ENVELOPS, AND TO SEA, ALL CONDUST OFFICIAL ADMITTANCE CONSTITUTIONS.
- 6. TALLES SKYWN DEGENNE FAKD DEC CHRICT SMECHT SMALLE PROVIDED WIRLLOWPEN, SUDUK BLORNT MALERE DE DERMEN ANAMY AL REC CIRCHA YA DEC ANDRES SERVES SMALLE PROVIDED HIRLING ANY LIFE (MALE FARMY), VARIONA, AND DERMEN CUSC COST COMPARISH HALL BY A RETURN AND A PROVIDED A TRIBE OF MAY TO MATCHING THE PROVIDED AND A PROVIDE
- 10. THE CONTRACTOR SHALL SERESPONSBLE FOR TESTING THE GROUNDING SYSTEM AND ENSWAYING A 5-01MLOR LESS GROUNDING PATH, ADDITIONAL GROUND RODS AND/OR OFENICAL NOD SYSTEM SHALL BE USED TO ACHIEVE THE REQUIREMENT ETHE GIVEN DESIGN CANNOT BE MADE TO ACHIEVE THE REQUIREMENT.

ELECTRICAL



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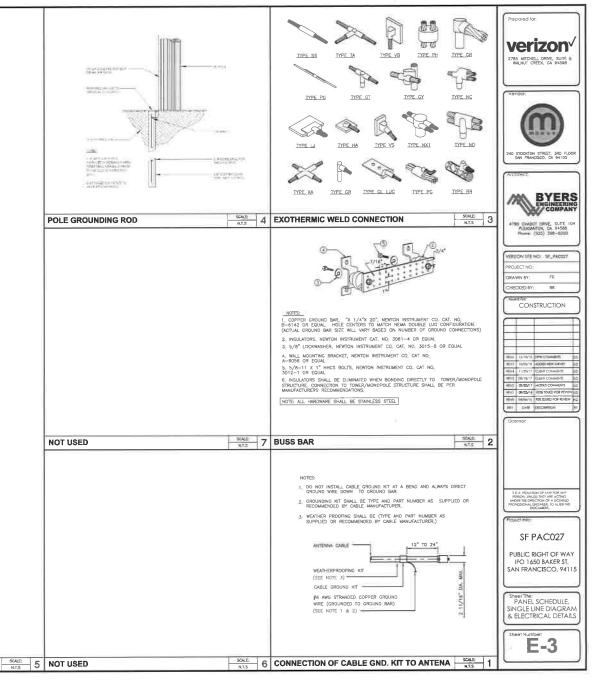
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CONTRACTOR SHALL CATAIN CURRENT LITERLY CUONDRINATOR IS AND PROPE TO STAFF OF CONSTRUCTION.

AVAILABLE FAULT CURRENT PER UTICITY.

FINER HEC. METER'S SKACED FOR ACTUAL FAUT CUMPENT.

SINGLE LINE DIAGRAM



SINGLE LINE DIAGRAM