

T-Mobile's network. Specifically, the proposed facility is intended to provide in-building service coverage to the agricultural operations, Arrowhead Marina, and rural residential properties within the general vicinity. The facility will also improve in-vehicle/outdoor coverage along State Highway 84 and the surrounding vicinity, including for maritime and recreational users of the Sacramento River Deep Water Ship Channel and the surrounding sloughs, including Miner Slough, Prospect Slough, and Duck Slough. This coverage objective was determined through a combine analysis of customer complaints, service requests, and radio frequency engineering design. This facility will allow T-Mobile to provide more reliable wireless service with fewer dropped calls, improved call quality, and improved access to additional wireless services that the public now demands, which includes emergency 911 calls throughout the area.

III. LOCATION:

The project is located within the easternmost portion of Solano County, just north of Ryer Island, and near the intersection of Holland Road and State Route SR-84. As identified by the General Plan, the property is situated within the Ryer Island agricultural region characterized by fertile soils and sparse development.

The subject property is zoned Exclusive Agriculture "A-80" and is predominantly utilized for field crop agricultural production. The property is undeveloped with the exception of a dilapidated residence along the southern property line. Access to the site is provided via private driveway off Holland Road. The existing 10-foot wide gravel access will be widened to 20-feet for emergency vehicle access.

IV. PROJECT DESCRIPTION:

The proposal includes a 95-foot tall co-locatable monopole wireless communication facility painted "hunter green" to blend with surrounding vegetation. Associated equipment includes (10) 8' antennas, (12) remote radio units "RRUs", (1) 3' microwave dish, (1) GPS antenna, along with cabling, utility cabinets, and meters within the 40' x 40' fenced lease area.

The proposed construction is located in a Special Flood Hazard Zone AE (EL. 13 feet) as determined by the FEMA Flood Insurance Rate Map. The equipment is subject to elevation restrictions defined by zone AE. Therefore, the top of slab must be elevated at least 1' above the base flood elevation of 13 feet ($13' + 1' = 14'$). All equipment will be atop a raised platform due to flood zone elevation requirements. Chain link fencing with brown wood slats will enclose the equipment area.

Existing access to Holland Road will be widened and enhanced via grading and encroachment permit processes to ensure adequate vehicular access to the site. The proposed 10' wide vertical bridge non-exclusive utility easement will facilitate electrical service from an existing utility pole to the facility. The unmanned facility does not require additional utilities or infrastructure. The site is typically serviced once per month by a maintenance technician.

V. ANALYSIS:

A. General Plan Consistency:

The project is proposed on land designated Agriculture by the Solano County General Plan (Figure LU-1 Land Use Diagram). The project as designed and conditioned is consistent with General Plan goals and policies including, but not limited to, those related to public safety and emergency response, protection of scenic resources, and land use development.

B. Zoning Consistency:

The subject property is located within the Exclusive Agriculture "A-80" zoning district. This district requires issuance of a use permit to authorize new wireless communications facilities subject to conditional approval by the Planning Commission.

Wireless facilities are required to be of the minimum functional height, with additional provisions for co-location. Facilities sited outside of ¼ miles of designated scenic corridor are limited to 65 feet in height. A bonus of 20 additional feet up to a maximum height of 105 feet is permissible, for operators collocating on a single tower.

The project is not located within ¼ miles of a scenic corridor and has been designed to be of the minimum functional height for T-Mobile to meet its technical service object. The proposal is designed to accommodate two future co-locators in addition to T-Mobile, promoting efficient use of the infrastructure and minimizing the need for additional future towers in the vicinity.

As designed, the proposal is consistent with zoning regulations pertaining to new wireless communication facilities sited outside of a designated scenic corridor and is consistent with the 105-foot maximum height limitation for new, co-locatable facilities.

Alternatives Analysis

Per Section 28.81(F) of the Zoning Regulations, an Alternatives Analysis has been provided as required for any facility requiring a use permit before the Planning Commission. The Alternatives Analysis considers alternative locations and designs for the proposed facility, including those alternative sites which would not require a use permit. At a minimum, alternatives included in the analysis include:

1. Co-location at all existing wireless communications facilities whether in the unincorporated County, a city, or an adjacent county.
2. Lower, more closely spaced wireless communications facilities, and
3. Mounting on any existing non-residential structure within 2-mile of the proposed facility in unincorporated Solano County.

The project proponent has provided an Alternatives Analysis (Attachment F) which identifies four alternative sites within a two-mile search radius representing the area in which a deficit in coverage was detected. All four of the alternative sites considered were ultimately rendered not feasible due to a lack of response by the property owners, whereas the proposed project site provided:

- Property owner permission
- Sufficient area for the facility
- Sufficient height and setbacks for the facility

Design Consistency with the Surrounding Environment

The environment surrounding the proposed facility is a rural agrarian landscape characterized by flat, open agricultural land, waterways, rural residences, and single-story accessory structures such as outbuildings, barns, and Arrowhead Marina just west of the subject site.

The "hunter green" monopole has been sited and designed to blend with the existing environment to the maximum extent feasible. The facility would be located behind a stand of existing trees, the most predominant feature in the immediate area. These trees serve as a natural screening element to help partially screen the proposed facility from view, particularly when viewed from Holland Road.

A painted monopole design is recommended due to the flat, rural agricultural nature of the vicinity and the lack of dense, tall vegetation or other vertical structures to act as a substantial backdrop for a stealth facility. Due to a lack of any predominant vertical structures in the vicinity, the painted monopole contains less mass than the two additional options proposed below and helps preserve the existing agrarian aesthetic.

Section 28.21 of the Zoning Regulations encourages the use of stealth designs. To that end, the applicant has proposed two additional stealth design options for consideration by the Commission. In addition to the preferred “hunter green” painted monopole, the applicant has submitted stealth design options, including:

- 1) A faux eucalyptus tree; and
- 2) A faux windmill tower

These additional options are proposed to blend with the surrounding rural agricultural character of the vicinity. The faux eucalyptus tree is 95-feet tall, and the faux windmill tower is 102-feet tall to accommodate the windmill fan. Photo simulations for the three design options are provided in Attachment G.

Radio-Frequency Exposure Review

Per Section 28.81(H) of the Zoning Regulations, a Radio Frequency “RF” Environmental Evaluation Report was provided which demonstrates that RF emissions from the facility in combination with existing RF emissions from nearby facilities will meet the current FCC adopted exposure standard.

The project proponent has provided a radio frequency - electromagnetic energy (RF-EME) compliance report (Attachment G) prepared by EnviroBusiness, Inc. (EBI) Consulting to determine RF-EME exposure levels from proposed T-Mobile wireless communications equipment at this site. As described in the RF report, the Federal Communications Commission (FCC) has developed Maximum Permissible Exposure (MPE) Limits for general public exposures and occupational exposures.

In summary, based on worst-case predictive modeling, there are no modeled exposures on any accessible ground level-walking/working surface related to T-Mobile’s equipment in the area that exceed the FCC’s occupational and/or general public exposure limits at this site. The predicted exposures are identified at the ground level in the horizontal transmission path of the antennas. Only those accessing this ground level or those elevated to this plane will encounter the exposures identified above.

In conclusion, signage is not required, and the site is compliant with FCC rules and regulations.

C. Airport Land Use Compatibility

As seen in the Travis AFB Land Use Compatibility Plan, the project is located within Compatibility Zone “E” which prohibits hazards to flight warranting ALUC review for objects taller than 200 feet above ground level (AGL). At 95 feet AGL this project is consistent with the ALUC and does warrant further review.

D. Environmental Determination:

The Department of Resource Management is recommending that the project is exempt from the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines Section 15303, New Construction or Conversion of Small Structures. This exemption consists of construction and location of limited numbers of new, small facilities or structures, and installation of small new equipment and facilities in small structures. The guidelines state examples including, but not limited to, utility extensions and appurtenant structures.

The project consists of a new cellular tower and associated equipment, contained within a 1,600 square foot lease area. There is no evidence in the record that the project would result in substantial, or potentially substantial, adverse environmental changes to any of the physical conditions within the area, including land, air, water, minerals, flora, fauna, ambient noise, or objects of historic or aesthetic significance. It has been determined that the project is not in an environmentally sensitive location, is not on a hazardous waste site, will not cause substantial change in the significance of a historical resource, and will not result in damage to scenic resources within a scenic highway. Staff therefore recommends that the project be found categorically exempt from CEQA under CEQA Guidelines Section 15303.

E. Good Neighbor Outreach Policy

On April 9, 2024, the Board of Supervisors, adopted a Good Neighbor Policy that encourages project proponents engage with the community to increase transparency and public dialogue prior to the formal public hearing process.

The use permit for the proposed facility was initially filed in 2023 and deemed complete prior to the adoption of this policy. Given the timing of policy implementation and the remote, agricultural setting (3-4 residences within one-mile of the project site), outreach was not pursued by the applicant prior to the mandatory public hearing noticing for the project.

F. Tolling Agreement

Pursuant to Federal Communications Commission review timeline established in 47 CFR § 1.6003(c)(iv) "Shot Clock", the applicant and the County have entered into a tolling agreement agreeing to an extension of reasonable time for review and processing this use permit application. This agreement was made in part due to the fact that the applicant had previously requested additional time to revise its initial submittal and provide updated application materials. The current tolling agreement is in place through November 26, 2024 (Attachment I).

G. Public Notice

Consistent with Sections 28.106 and 28.04 of the Solano County Code, a public hearing notice was published in the Daily Republic at least 15 days prior to the public hearing (Attachment J). In addition, all property owner's within ½ mile of the project site received written public notice.

H. Agency Review

As part of the Department of Resource Management development review process, the application materials have been reviewed by various County Departments, as well as Local and Regional agencies. The following entities may have jurisdiction over the project and comment received have been incorporated as conditions of approval.

Local Agencies

Montezuma Fire Protection District

Regional, State, and Private Agencies

Delta Protection Commission
Pacific Gas and Electric

RECOMMENDATION:

After conduct of the public hearing, staff recommends that the Planning Commission approve Use Permit application U-23-04 by Vertical Bridge to establish a wireless communications facility at 4448 Holland Road.

ALTERNATIVES:

The Planning Commission, upon completion of a public hearing on this matter, may choose to:

1. Continue the public hearing to allow for the collection of additional information required to render a decision. If continued, the Commission would establish the date to continue the hearing; or
2. Deny the Rezoning and Use Permit. This is not recommended because the mandatory findings have been made for the Rezoning and Use Permit and the project is consistent with the applicable General Plan land use designation, Suisun Valley Strategic Plan and land use regulations as conditioned.

ATTACHMENTS:

- A - Draft Resolution & Conditions of Approval
- B - APN Map
- C - Vicinity Map
- D - Coverage Objective and Maps
- E - Development Plans
- F - Alternatives Analysis
- G - Photo Simulations
- H - Radio-frequency Evaluation Report
- I - Tolling Agreement
- J - Public Notice

SOLANO COUNTY PLANNING COMMISSION RESOLUTION NO. XX

WHEREAS, the Solano County Planning Commission has considered Use Permit Application No. U-23-04 by **Vertical Bridge** for a new wireless communications facility consisting of a 95-foot-tall monopole and associated equipment within a 1,600 square-foot fenced lease area located at 4448 Holland Road, seven miles northeast of the City of Rio Vista, within the Exclusive Agriculture “A-80” zoning district, APN 0042-200-330; and

WHEREAS, the Commission has reviewed the report of the Department of Resource Management and heard testimony relative to the subject application at the duly noticed public hearing held on October 17, 2024; and

WHEREAS, after due consideration, the Planning Commission has made the following findings in regard to said proposal:

- 1. The establishment, maintenance, or operation of the proposed use is in conformity with the County General Plan with regard to traffic circulations, population densities and distribution, and other aspects of the General Plan.**

The operation and maintenance of a wireless communication facility is consistent with the goals, objectives, and policies of the Solano County General Plan, including but not limited to the Land Use, Resources, and Public Facilities and Service Chapters.

- 2. Adequate utilities, access roads, drainage and other necessary facilities have been or are being provided.**

The proposed 10’ wide vertical bridge non-exclusive utility easement will facilitate electrical service from an existing utility pole to the facility. Existing access to Holland Road will be widened and enhanced via grading and encroachment permit processes to ensure adequate vehicular access to the site. The unmanned facility does not require additional utilities or infrastructure.

- 3. The subject use will not, under the circumstances of the particular case, constitute a nuisance or be detrimental to the health, safety, peace, morals, comfort or general welfare of persons residing or working in or passing through the neighborhood of such proposed use, or be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.**

As conditioned, the proposed wireless communications facility will not constitute a nuisance to surrounding properties, nor will it be detrimental to the health, safety, or welfare of County residents. The Radio Frequency emissions report prepared for the project indicates that the facility will be in compliance with applicable Federal Communications Commission Rules and Regulations for RF emission.

- 4. The proposed facility complies with all applicable sub-sections of Wireless Communications Facilities, Section 28.81 of the Solano County Zoning Regulations.**

- 5. No alternative site or design is available that would allow for issuance of a Use Permit before the Zoning Administrator for the facility. The applicant has submitted an Alternatives Analysis which describes other locations in the vicinity that were considered. Its conclusion is that this site provides the best location for optimal**

antenna performance that will provide full communication services to the community, integration with the local T-Mobile network to handle higher call volume, maximize call quality, optimize data speed and capacity, and increase network dependability for commercial and emergency services.

6. **The Radio Frequency (RF) Environmental Evaluation Report for the facility shows that the cumulative radio-frequency energy emitted by the facility and any near-by facilities will be consistent with FCC regulations.**
7. **The facility blends in with its existing environment and will not have significant visual impacts.**

The facility is located outside of the ¼ mile scenic corridor; however, conditions of approval ensure the facility blends in with the existing environment to the greatest extent possible. The monopole will be painted green and wooden-slat fencing will be installed around the proposed lease area to blend with the existing environment.

8. **The project is exempt from the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines Section 15303 (Class 3), New Construction of Small Structures. A Notice of Exemption shall be filed with the State Clearinghouse and Clerk of the Board.**

Class 3 consists of construction and location of limited numbers of new small facilities, equipment, and structures. The guidelines state examples including, but not limited to, utility extensions and appurtenant structures.

The project consists of a new wireless telecommunications facility and associated equipment contained within a 1,600 square foot lease area. There is no evidence in the record that the project would result in substantial, or potentially substantial, adverse environmental changes to any of the physical conditions within the area, including land, air, water, minerals, flora, fauna, ambient noise, or objects of historic or aesthetic significance. The project is not in an environmentally sensitive location, is not on a hazardous waste site, will not cause substantial change in the significance of a historical resource, and will not result in damage to scenic resources within a scenic highway.

BE IT THEREFORE RESOLVED, that the Planning Commission does hereby approve Use Permit application U-23-04 subject to the following recommended conditions of approval:

ADMINISTRATIVE

1. **Land Use.** Approval is hereby granted to Vertical Bridge to construct and operate a wireless communications facility consisting of an 95-foot-tall monopole, (10) 8' antennas, (12) remote radio units "RRUs", (1) 3' microwave dish, (1) GPS antenna, along with cabling, utility cabinets, and meters within the 40' x 40' fenced lease area. The proposed use shall be established in accord with use permit application U-23-04 and development plans (as revised and dated June 6, 2024) by Assurance Development, and as approved by the Solano County Planning Commission.
2. **Permit Term.** Pursuant to Section 28.81(J) of the Wireless Ordinance, the subject use permit shall be valid for a 10-year period until October 17, 2034.
3. **Renewal.** The permit term may be renewed administratively by the Zoning Administrator upon verification of the permit holder's continued compliance with the findings and conditions of

approval. A Land Use Renewal application shall be submitted to the Planning Services Division prior to the expiration of the permit term.

4. **Revisions or Modifications in Land Use.** No additional land uses, activities for new or expanded buildings shall be established beyond those identified on the approved development plan dated June 6, 2024 and detailed within the project description without prior approval of a revision, amendment, or a new use permit and subsequent environmental review.
5. **Removal Upon Discontinuation of Use.** All equipment associated with the wireless communications facility shall be removed within 90 days of discontinuation of the uses and the site shall be restored to its original pre-construction condition. The operators agree to such removal and allow the County access across private property to effect such removal. Written verification of the removal of the wireless communications facility shall be provided to the Planning Services Division within 90 days of discontinuation of use.
6. **Security to Provide for Removal of Equipment.** Within 30 days of the effective date of this permit, the applicant or permittee shall provide a bond, cash, or other surety, to the satisfaction of the Department of Resource Management, for the removal of the facility in the event that the use is abandoned, or the use expires, or is revoked, or is otherwise terminated. The amount of security shall be based on a cost estimate provided by a contractor or other qualified professional to the satisfaction of the Director of Resource Management. If the permittee does not remove any obsolete or unused facilities as described above, the financial guarantee shall be used by the County to remove any obsolete or unused facilities and to return the site to its pre-development condition. A financial assurance must be irrevocable and not cancellable, except by the County. Each form of financial assurance must remain valid for the duration of the permit and for six months following termination, cancellation, or revocation. Any unused financial guarantee shall be returned to the applicant upon termination of the use and removal of the facility, or transfer of the lease accompanied by the financial guarantee by the new lessee or owner.
7. **Indemnification.** By acceptance of this permit, the permittee and its successors in interest agree that the County of Solano, its officers and employees shall not be responsible for injuries to the property or persons arising from the issuance or exercise of this permit. The permittee shall defend, indemnify and hold harmless the County of Solano, its officers and employees from all claims, liabilities, losses or legal actions arising from any such injuries. The permittee shall reimburse the County for all legal costs and attorney's fees related to litigation based on the issuance and/or interpretation of this permit. This agreement is a covenant that runs with the land and shall be binding on all successors in interest of the permittee.
8. **Failure to Comply.** Failure to comply with any of the conditions of approval or limitations set forth in this permit shall be cause for the revocation of the Use Permit and cessation of the permitted uses at the Permittee's expense.

GENERAL WIRELESS COMMUNICATIONS FACILITY STANDARDS

9. **Design Consistency with the Surrounding Environment.** To the maximum extent feasible, the facility shall blend in with the predominant features of the existing natural and/or built environment. To this end, the facility shall be painted green to match existing, nearby vegetation.
10. **Screening.** The facility shall be screened to the maximum extent possible. To this end, the facility shall utilize a minimum 6-foot tall fencing with privacy slats around the 1,600 square foot lease area.

11. **Radio-frequency exposure.** Prior to operation of the facility, the permittee shall comply with all requirements of the Federal Communications Commission including RF signage. Signage shall be consistent with the recommended signage/compliance plan contained in the provided RF report.
12. **Cabling.** All visible cabling between equipment and antennas shall be routed within the building wherever feasible. Cabling on the exterior of a building or monopole shall be located within cable trays painted to match. All cabling shall be performed in accordance with the NEC.
13. **Painting and Lighting.** The facility shall be generally unlit except when authorized personnel are present at night. All facilities shall be painted or constructed of materials to minimize visual impact.
14. **Noise.** The facility shall be designed to minimize noise and adhere to a maximum exterior noise level of 65 dB at the property lines.
15. **Accessory Structures.** Enclosures and cabinets housing equipment shall meet setback and height restrictions. Such structures shall appear architecturally compatible with their surroundings and be designed to minimize their visual impact. To meet this requirement, underground vaults may be required.
16. **Roads and Parking.** The facility shall be served by the minimum roads and parking areas necessary and shall use existing roads and parking areas whenever possible.
17. **Provisions for Future Co-location.** The facility shall be encouraged to promote future facility and site sharing.
18. **Underground utilities.** All on-site utility lines leading to and connecting the leased areas and equipment shelters shall be located underground.
19. **Facility Maintenance.** All facility components including, but not limited to, tower, antennas, microwave dishes, remote radio units, equipment cabinets, and fencing shall be maintained in good condition, including ensuring the facilities are reasonably free of:
 - Rust and corrosion;
 - Chipped, faded, peeling and cracked paint;
 - Graffiti, bill, stickers, advertisements, litter and debris; and
 - Broken or misshapen structural parts

The permittee shall take such measures as may be necessary or as may be required by the County to prevent offensive noise, lighting, dust or other impacts which constitute a hazard or nuisance to surrounding properties.

The premises shall be maintained in a neat and orderly manner and kept free of accumulated debris and junk

BUILDING & SAFETY DIVISION

20. **Building Permit.** Prior to any construction or improvements taking place, a building permit application shall first be submitted as per Section 105 of the California Building Code or the latest edition of the codes enforced at the time of building permit application. "Any owner or

authorized agent who intends to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the building official and obtain the required permit.”

Action Required	When	Verified by	Date
File building permit as necessary	Prior to construction		

21. **Flood Zone.** The proposed construction is located in a Special Flood Hazard Zone AE (EL. 13 feet) as determined by the FEMA Flood Insurance Rate Map. The equipment is subject to elevation restrictions defined by zone AE. Therefore, the top of slab must be elevated at least 1' above the base flood elevation of 13 feet (13' + 1' = 14'). (Ref Solano County Code, Article V, Section 12.2-50).

ENVIRONMENTAL HEALTH DIVISION

22. The storage, handling, and/or use of hazardous materials, including diesel, onsite in reportable quantities greater than 55 gallons of liquid, 200 cubic feet of compressed gas, and/or 500 pounds of solid material, requires the creation of a facility profile in the California Environmental Reporting System (CERS) and completion of a Hazardous Materials Business Plan (HMBP) within 30 days of bringing the reportable quantities of hazardous materials onsite.

Action Required	When	Verified by	Date
File HMBP as necessary	Once reportable quantities are exceeded		

PUBLIC WORKS - ENGINEERING

23. **Grading Permit.** Applicant shall apply for, secure, and abide by the conditions of a grading permit for the construction of any improvements required by this Use Permit. The permittee shall apply for, secure and abide by the conditions of a grading permit for any grading on the property including, but not limited to, building site preparation, access improvements, parking areas and walkways, as well as any onsite grading exceeding a total of 5,000 square feet. In addition, Grading Permits shall be secured for any future grading or drainage improvements on the property. Public Works Engineering will require the submittal of a drainage plan showing all offsite and onsite improvements necessary to manage storm water issues related to this development. Agricultural soil cultivation does not require a grading Permit.

Action Required	When	Verified by	Date
File grading permit	Prior to construction		

24. **Encroachment Permit.** Applicant shall apply for, secure, and abide by the conditions of an encroachment permit for any work within the public right-of-way. Driveways must be maintained in such a manner as to prevent soil, rocks, and debris from tracking onto public roads.

Action Required	When	Verified by	Date
File encroachment permit	Prior to construction		

25. Easements. The permittee shall submit legal descriptions and plats of the proposed access and utility easements to Public Works – Engineering for review and approval prior to recordation of the easements. Proposed Easements shall be signed and sealed by a Licensed Land Surveyor or a Registered Civil Engineer authorized to practice surveying.

Action Required	When	Verified by	Date
Submit legal descriptions & plats	Filing grading and/ encroachment permits		

26. Travel Route. The permittee shall provide a travel route of vehicles and equipment that travel to and from the site during construction, operation, and maintenance, including the size and weight of said vehicles and equipment.

Action Required	When	Verified by	Date
Submit travel route	Filing grading and/or encroachment permits		

27. Sight Distance. The permittee shall provide a sight distance study at the access road connected to Holland Road.

Action Required	When	Verified by	Date
Submit sight distance study	Filing grading and/or encroachment permits		

I hereby certify that the foregoing resolution was adopted at the regular meeting of the Solano County Planning Commission on October 17, 2024 by the following vote:

AYES: Commissioners _____

 NOES: Commissioners _____

 ABSTAIN: Commissioners _____

 ABSENT: Commissioners _____

Paula Bauer, Chairperson
Solano County Planning Commission

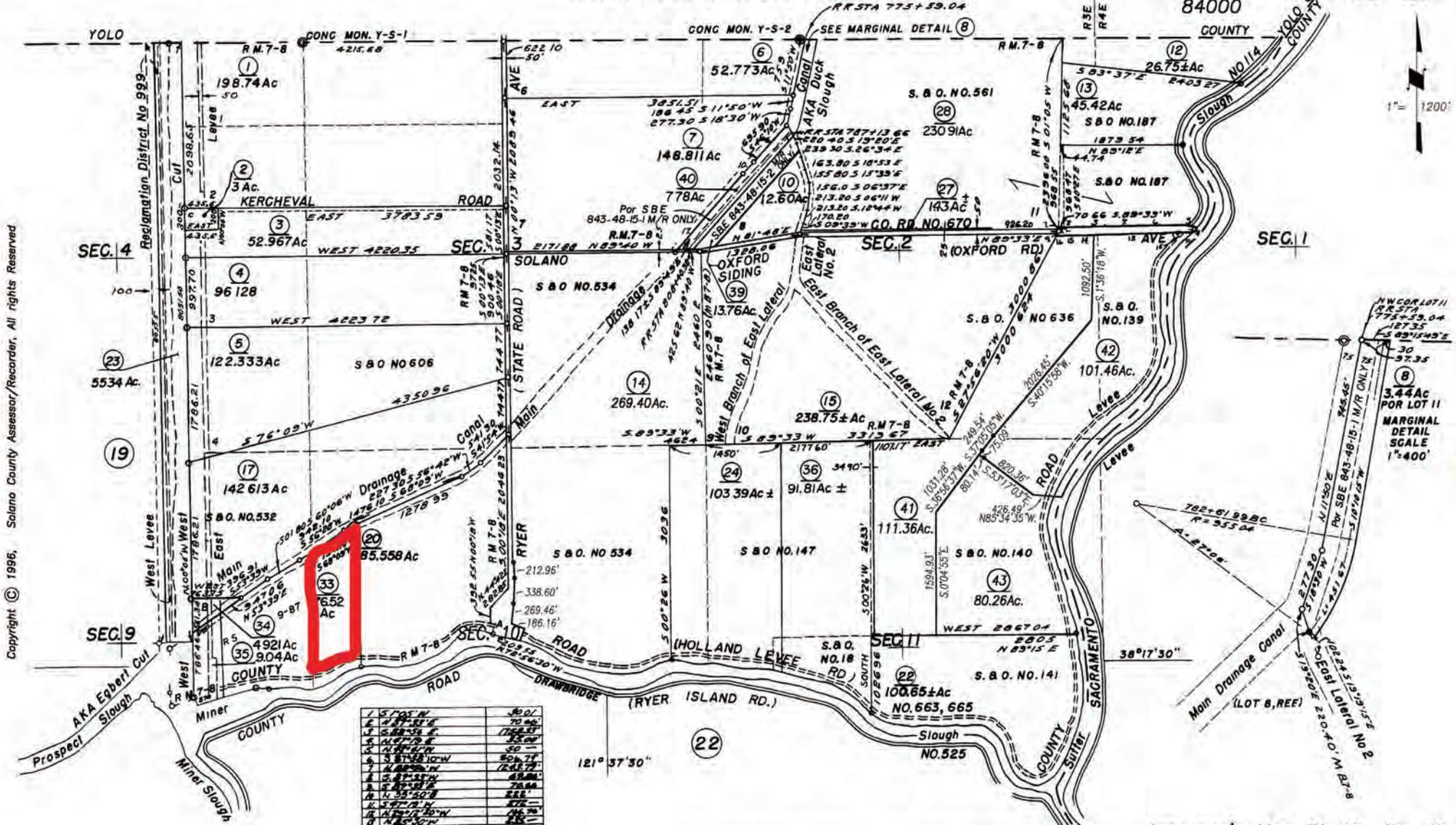
Attest:

By: _____
James Bezek, Secretary

T.5N., R.3E., M.D.B. & M.

Tax Area Code
84000

42-20



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1	S 1° 01' N	50.01
2	E 48° 12' E	70.96
3	S 88° 12' E	118.17
4	N 88° 12' W	150.00
5	N 88° 12' W	50.00
6	S 81° 52' 10" W	50.71
7	N 88° 12' W	124.72
8	S 88° 12' E	48.00
9	N 88° 12' E	78.64
10	N 58° 20' E	88.8
11	S 88° 12' W	87.2
12	N 88° 12' W	116.0
13	N 88° 12' W	128.0
14	S 88° 12' E	88.0
15	N 88° 12' W	128.0
16	N 88° 12' W	128.0
17	N 48° 34' E	1350.58

Holland Land Co. Sub'd. No.1, R.M.Bk. 7, Pg. 8

Assessor's Block Numbers Shown in Ellipses, Assessor's Parcel Numbers Shown in Circles

200-14 Chg.(Dd)	5-19-20	Cr
200-411thru42 Dd	5-18-98	FG
SBE PU	6-7-91	FG
SBE PU	6-27-86	Pd
REVISION	DATE	BY

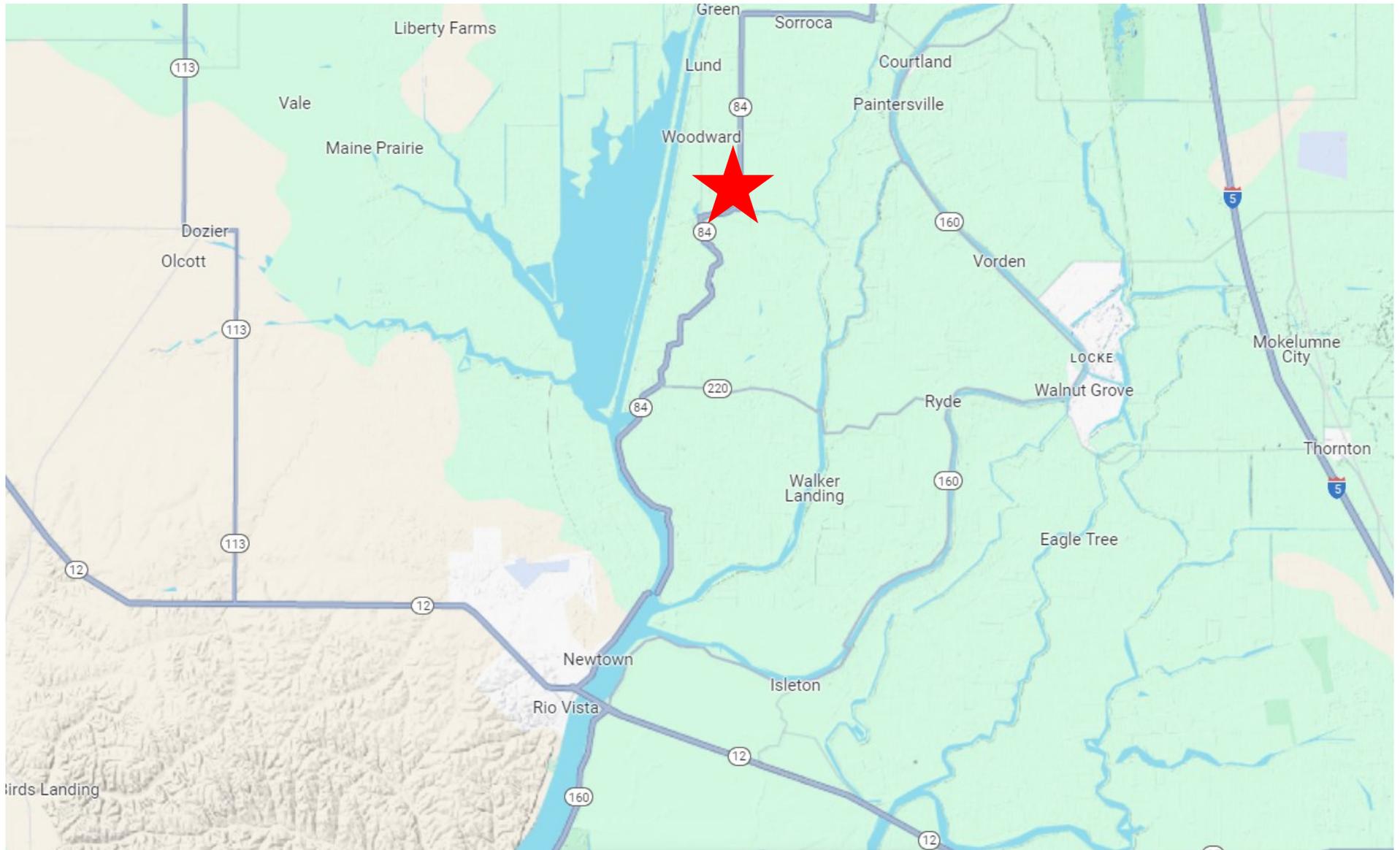
NOTE: This map is for assessment purposes only. It is not intended to define legal boundary rights or imply compliance with land division laws.

Assessor's Map Bk. 42 Pg. 20
County of Solano, Calif.

21-22

Vicinity Map—Use Permit U-23-04

Vertical Bridge Development LLC





COVERAGE OBJECTIVE & ENGINEERING JUSTIFICATION

BA50110B – Prospect Slough

Prepared by: Chris Cubanske – 6/3/24



COVERAGE JUSTIFICATION

OVERVIEW

Vertical Bridge is proposing to build a new structure for the future collocation of multiple carriers at 4448 Holland Road, in unincorporated Solano County. T-Mobile is proposing to collocate its equipment at the 94 ft. elevation (antenna tip height) on the new structure.

This proposed facility meets T-Mobile's coverage objectives within a geographic area not adequately served by T-Mobile's network. Specifically, this proposed new wireless facility is intended to provide in-building service coverage to the agricultural operations, Arrowhead Marina, and rural residential properties within the general vicinity of Woodward, Green & Sorroca. The facility will also improve in-vehicle/outdoor coverage along Hwy 84 and the surrounding vicinity, including for maritime and recreational users of the Sacramento River Deep Water Ship Channel and the surrounding sloughs, including Miner Slough, Prospect Slough and Duck Slough. This coverage objective was determined through a combined analysis of customer complaints, service requests, radio frequency engineering design. This facility will allow T-Mobile to provide more reliable wireless service with fewer dropped calls, improved call quality, and improved access to additional wireless services that the public now demands. This includes emergency 911 calls throughout the area.

COVERAGE JUSTIFICATION (CONT.)

FEDERAL LAW [REMOVE FOR BTS SITES, UNLESS T-MOBILE IS THE CO-APPLICANT]

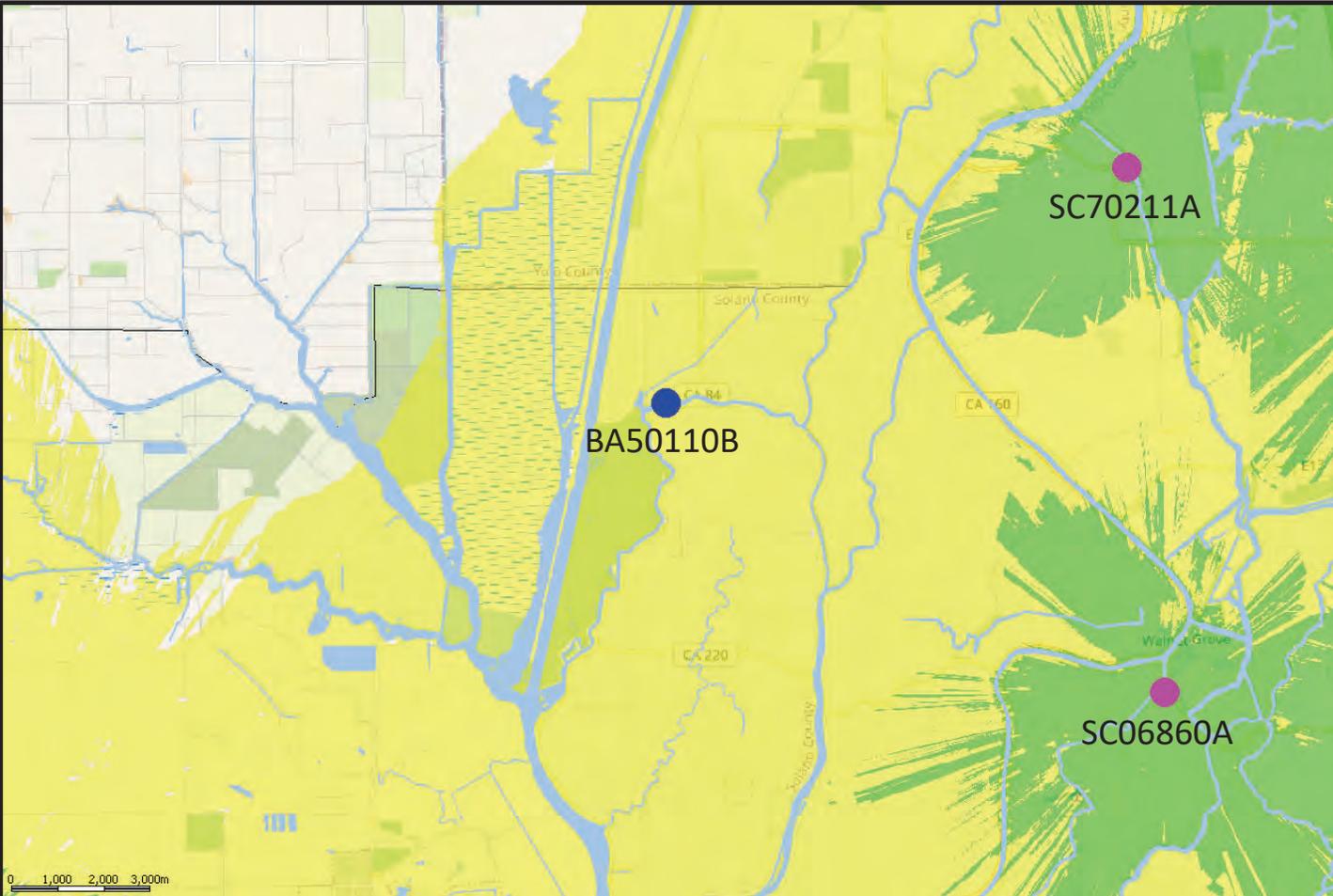
- The Telecommunications Act of 1996 prohibits a local jurisdiction from taking any action on a wireless siting permit that “prohibit[s] or [has] the effect of prohibiting the provision of personal wireless services.” 47 U.S.C. § 332(c)(7)(B)(i)(II).
- According to the Federal Communications Commission (“FCC”) Order adopted in September 2018, a local jurisdiction’s action has the effect of prohibiting the provision of wireless services when it “materially limits or inhibits the ability of any competitor or potential competitor to compete in a fair and balanced legal and regulatory environment.” Under the FCC Order, an applicant need not prove it has a significant gap in coverage; it may demonstrate the need for a new wireless facility in terms of adding capacity, updating new technologies, and/or maintaining high quality service.
 - *Accelerating Wireless and Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, Declaratory Ruling and Third Report and Order, WT Docket No. 17-79, WC Docket No. 17-84, FCC 18-133 (rel. Sept. 27, 2018); 83 Fed. Reg. 51867 (Oct. 15, 2018), *affirmed in part and vacated in part*, *City of Portland v. United States*, 969 F.3d 1020 (9th Cir. 2020), *cert. denied*, 594 U.S. ___, 141 S.Ct. 2855 (June 28, 2021)(No. 20-1354) (“FCC Order”).
- A local government’s denial of an application to install a personal wireless service facility has the effect of prohibiting the provision of personal wireless service if materially inhibits or limits T-Mobile’s ability to deploy the facilities, technologies, or services that conform to T-Mobile’s network standards and objectives.

COVERAGE JUSTIFICATION (CONT.)

COVERAGE OBJECTIVE

- **Figure A —Existing T-Mobile Coverage** shows existing T-Mobile wireless services in the general area of the proposed new site, which demonstrates the current deficiency in coverage in the targeted service area. The Blue Dot indicates the location of the proposed new WCF. The Magenta Dot indicates the location of existing T-Mobile WCF sites; coverage from T-Mobile existing WCF sites is shaded in green. As can be seen, there is a coverage deficiency in all areas not shaded in green. Currently, the target coverage area has minimal to no 4G/5G in-building voice service and does not have adequate 4G LTE/5G service.
- **Figure B—Projected New T-Mobile Coverage** identifies the projected coverage from the proposed new WCF with the requested antenna tip height of 94 ft. The proposed antenna tip height is the minimum necessary to help fill the coverage objective relative to nearby complementary wireless facilities. This is also the height where a T-Mobile wireless device can be reliably used to make and receive telephone calls and use data service in the presence of varying signals.
- **Figure C—Comparison of coverage** from proposed site and existing (without site).

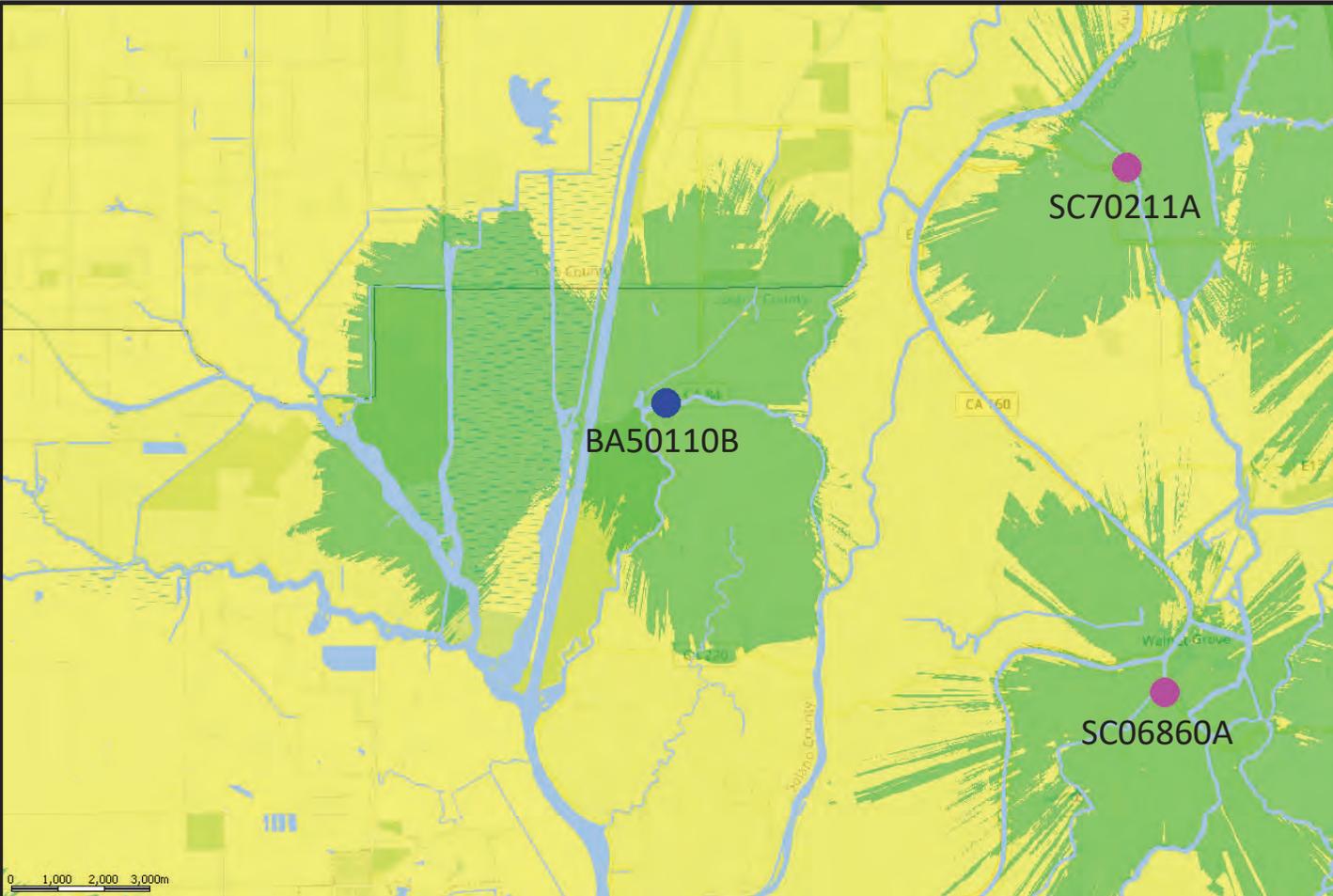
FIGURE A – EXISTING SERVICE WITHOUT THE PROPOSED SITE
[MID BAND (AWS-2100 MHZ) SERVICE MAP (RSRP)]



	Reliable Coverage: $-100\text{dBm} < \text{RSRP}$
	Marginal Coverage : $-114\text{dBm} < \text{RSRP} < -100\text{dBm}$
	Existing T-Mobile Facilities
	Proposed Facility

Legend	Population	Surface area (sq km)
Reliable Coverage: $-100\text{dBm} < \text{RSRP}$	5,453	91.2

FIGURE B – EXISTING SERVICE WITH THE PROPOSED SITE @ 94' TIP HEIGHT AGL
MID BAND (AWS-2100 MHZ) SERVICE MAP (RSRP)



	Reliable Coverage: $-100\text{dBm} < \text{RSRP}$
	Marginal Coverage : $-114\text{dBm} < \text{RSRP} < -100\text{dBm}$
●	Existing T-Mobile Facilities
●	Proposed Facility

Legend	Population	Surface area (sq km)
Reliable Coverage: $-100\text{dBm} < \text{RSRP}$	6,093	135.4

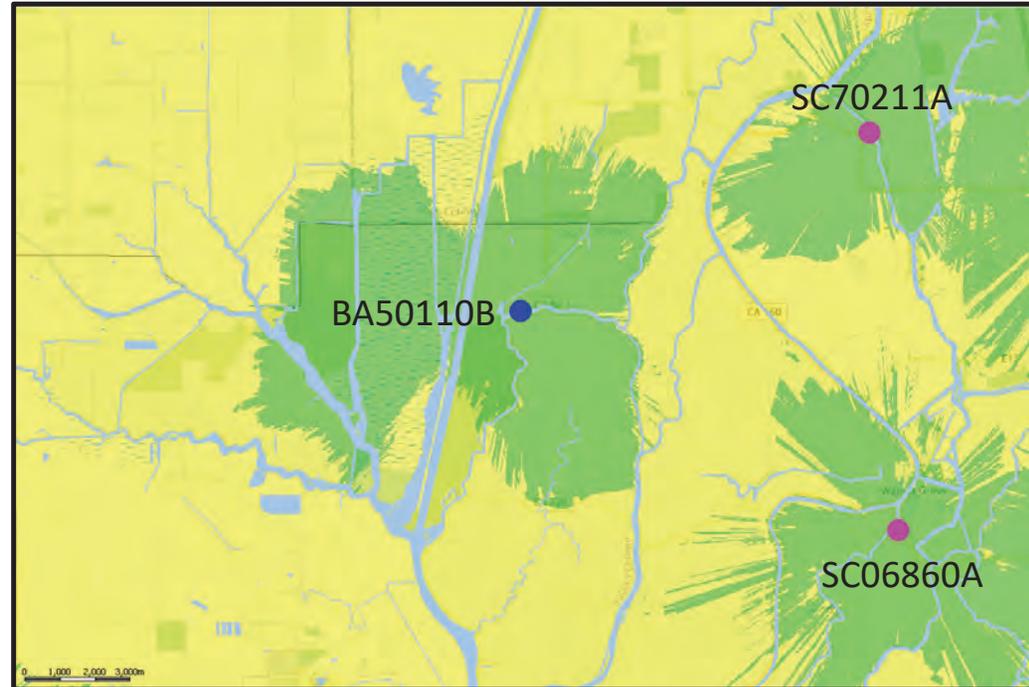
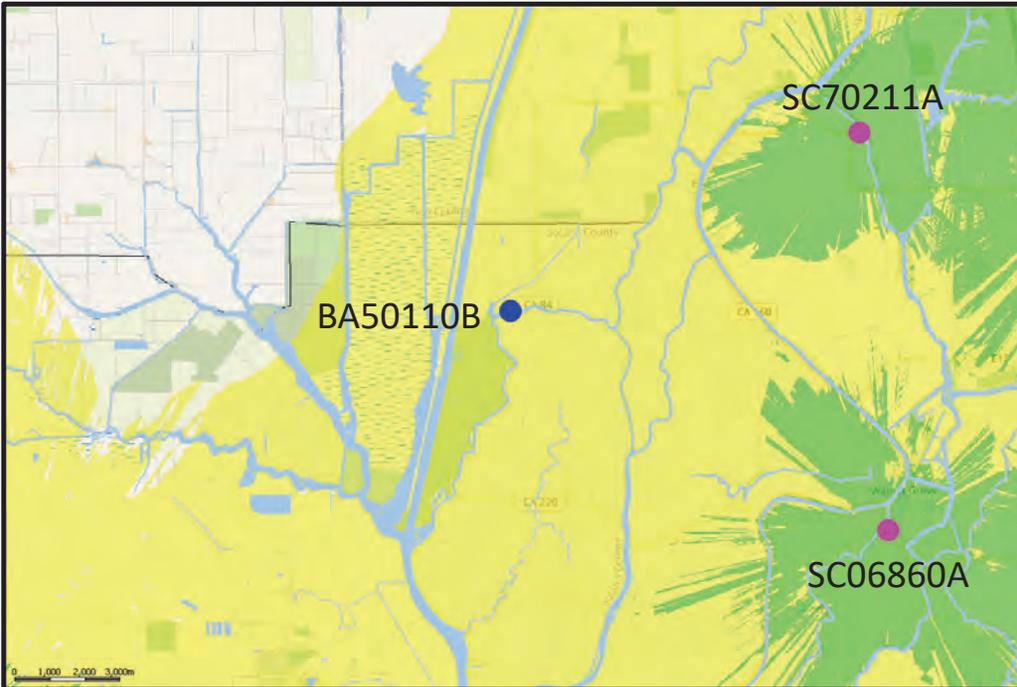
- 640 Additional Indoor Pops covered with the addition of BA50110B
- 44.2 additional Sq km of Indoor coverage with the addition of BA50110B

FIGURE C – COMPARISON OF EXISTING COVERAGE AND COMPOSITE COVERAGE FROM PROPOSED SITE

Existing Coverage

MID BAND (AWS-2100 MHZ) LTE SERVICE MAP (RSRP)

Composite Coverage



	Reliable Coverage: $-100\text{dBm} < \text{RSRP}$
	Marginal Coverage : $-114\text{dBm} < \text{RSRP} < -100\text{dBm}$
	Existing T-Mobile Facilities
	Proposed Facility

Legend	Population			Surface area (sq.km)		
	EXISTING	PROPOSED	DELTA	EXISTING	PROPOSED	DELTA
Reliable Coverage	5,453	6,093	640	91.2	135.4	44.2

T-Mobile Confidential

ALTERNATIVE SITE ANALYSIS

SEARCH RING

- T-Mobile’s radio frequency (“RF”) engineers performed an RF engineering study, considering multiple objectives, to determine the approximate site location and antenna height required to fulfill the noted network objectives for the targeted service area. From this study, T-Mobile’s RF engineers identified a “search ring” area where a WCF may be located to provide effective service in the target coverage area.
- **Figure D —Targeted Search Ring** indicates the search ring T-Mobile’s RF engineers established for this proposed site. A discussion of the methodology T-Mobile’s RF engineers used to identify the search ring is included at the end of this RF Justification document.

ALTERNATIVE SITES EVALUATED

- Whenever possible, T-Mobile seeks to construct new sites on existing infrastructure before proceeding with the construction of a new free-standing facility. Before allocating a search ring to an infrastructure provider like Vertical Bridge, T-Mobile conducts thorough research, ensuring all collocation opportunities are explored and exhausted. T-Mobile analyzed the area within the targeted search ring and found that there are no existing towers within or just outside the search radius to collocate on. As a result, it was determined that construction of a new free-standing facility would be required. Please see further discussion in Figure D.

FIGURE D – TARGETED SEARCH RING



T-Mobile's standard search ring radius in agricultural / rural residential communities is 1-mile.

There are no existing towers located within, or just outside the search radius.

In fact, there are no registered towers within a 3-mile radius of the proposed facility. As a result, it was determined collocation on an existing facility was not a feasible alternative.

COVERAGE METHODOLOGY

T-Mobile's RF engineers use the following signal strength standards to demonstrate the quality of coverage depicted on the maps herein.

- **Reliable Coverage.** **Green** represents minimum signal strength of -100dBm, T-Mobile's design criteria for reliable in-building residential voice coverage at 2100 MHz. This signal strength is required for customers to take advantage of T-Mobile's Home Internet services.
- **Marginal Coverage.** **Yellow** represents minimum signal strength of -114dBm, but less than -100dBm, T-Mobile's design criteria for in-vehicle to on street coverage at 2100 MHz.
- **No Coverage.** Signal strength less than -114dBm is not shown, as it does not meet T-Mobile's design standards for reliable in-building, in-vehicle or on street coverage.

SEARCH RING METHODOLOGY

T-Mobile's RF engineers used coverage propagation software systems to predict the coverage provided by the proposed new WCF. The software and T-Mobile's RF engineers considered the general factors outlined below, as well as more project-specific factors such as the type of antenna, antenna tilt, etc. Within coverage areas, network changes, traffic volume, outages, technical limitations, signal strength, customer equipment, obstructions, weather and other conditions may interfere with service quality and availability.

- **Coverage.** The antenna site must be located in an area where the radio frequency broadcasts will provide adequate coverage within the targeted service area. The RF engineer must take into consideration the coverage objectives for the site as well as the terrain in and around the area to be covered. Because radio frequency broadcasts travel in a straight line and diminish as they travel further away from the antennas, it is generally best to place an antenna site near the center of the desired coverage area. However, in certain cases, the search ring may be located away from the center of the desired coverage area due to the existing coverage, the surrounding terrain, or other features that might affect the radio frequency broadcasts, *e.g.*, buildings or sources of electrical interference.
- **Clutter.** T-Mobile's WCFs must "clear the clutter"—the WCF site must be installed above or close to RF obstructions (the "clutter") to enable the RF signals to extend beyond and clear the clutter. T-Mobile radio frequencies do not penetrate mountains, hills, rocks, or metal, and are diminished by trees, brick and wood walls, and other structures. Accordingly, T-Mobile's antennas must be installed above or close to the "clutter" to provide high quality communications services in the desired coverage areas. Additionally, if the local code requires us to accommodate additional carriers on the support structure, the structure must be even taller to also allow the other carriers' antennas to clear the clutter.
- **Call Handoff.** The WCF site must be in an area where the radio broadcasts from the site will allow seamless "call handoff" with adjacent WCF sites. Call handoff is a feature of a wireless communications system that allows an ongoing telephone conversation to continue uninterrupted as the user travels from the coverage area of one antenna site into the coverage area of an adjacent antenna site. This requires coverage overlap for a sufficient distance and/or period of time to support the mechanism of the call handoff.
- **Quality of Service.** Users of wireless communications services want to use their services where they live, work, commute and play, including when they are indoors. T-Mobile's coverage objectives include the ability to provide indoor coverage in areas where there are residences, businesses and indoor recreational facilities.

SEARCH RING METHODOLOGY (CONT.)

- **Radio Frequencies Used by System.** The designs of wireless communications systems vary greatly based upon the radio frequencies that are used by the carrier. If the carrier uses radio frequencies in the 600 MHz to 850 MHz range, the radio signals will travel farther and will penetrate buildings better than the radio frequencies in the 2100 MHz band. As a result, wireless communications systems that use lower radio frequencies will need fewer sites than wireless communications systems that use higher radio frequencies.
- **Land Use Classifications.** T-Mobile's ability to construct a WCF site on any particular property is affected by state and local regulations, including zoning and comprehensive plan classifications, goals, and policies. T-Mobile's search rings take these laws and regulations into consideration.

CONFIDENTIALITY NOTICE

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PROJECT DESCRIPTION:

CONSTRUCTION OF TELECOMMUNICATIONS AND PUBLIC UTILITY FACILITY, CONSISTING OF A 95' MONOPOLE WITH (10) 8' ANTENNAS, (12) RRU'S, (1) 3' MICROWAVE, (1) GPS ANTENNA, REQUIRED ANTENNA CABLING, HCS JUMPERS, (2) RADIO CABINETS, (1) 14' HIGH STEEL PLATFORM, CABLE ICE BRIDGE, UTILITY BACKBOARD AND MULTIMETER UTILITY SERVICE MOUNTED ON H-FRAME WITHIN A 40'x40' MUTED BROWN VINYL PRIVACY SLAT FENCED LEASE AREA. NO WATER OR SEWER SERVICE IS REQUIRED, THIS WILL BE AN UNMANNED FACILITY.

CODE COMPLIANCE:

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

- 2022 CALIFORNIA BUILDING CODE
- 2022 CALIFORNIA TITLE 24
- 2022 CALIFORNIA FIRE CODE
- 2022 CALIFORNIA ELECTRIC CODE
- 2022 CALIFORNIA ENERGY CODE
- 2022 CALIFORNIA MECHANICAL CODE
- TIA/EIA-222-H OR LATEST EDITION
- ANY LOCAL BUILDING CODE AMENDMENTS TO THE ABOVE
- CITY/COUNTY ORDINANCES



US-CA-5535 PROSPECT SLOUGH

4448 HOLLAND RD.
CLARKSBURG, CA 95612

95' MONOPOLE

TENANT SITE ID: BA50110B

		APPROVED	APPROVED AS NOTED	DISAPPROVED REVISE
VERTICAL BRIDGE	DATE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SITE ACQUISITION	DATE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONSTRUCTION MANAGER	DATE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PERMITTING	DATE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RF ENGINEERING	DATE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



VICINITY MAP
N.T.S.

DRAWING INDEX	
DRWG. #	TITLE
T1	TITLE SHEET
LS-1	TITLE SHEET
LS-2	TOPOGRAPHIC SURVEY
A1	SITE PLAN
A2	ENLARGED COMPOUND PLAN
A3	EQUIPMENT AND ANTENNA PLAN
A4	ELEVATIONS



LOCATION MAP
N.T.S.

PROJECT INFORMATION	
SITE NAME:	PROSPECT SLOUGH
SITE NUMBER:	US-CA-5535
TENANT SITE ID:	BA50110B
SITE ADDRESS:	4448 HOLLAND RD. CLARKSBURG, CA 95612
PARCEL #:	0042-200-330
DEED REFERENCE:	N/A
ZONING CLASSIFICATION:	A-80 (EXCLUSIVE AGRICULTURE)
ZONING JURISDICTION:	SOLANO COUNTY
CONSTRUCTION TYPE:	V-B
OCCUPANCY:	U (UNMANNED TELECOM FACILITY)
NO. OF STORIES:	1 (ENCLOSURE ONLY)
SPRINKLER:	NONE
STRUCTURE TYPE:	MONOPOLE
STRUCTURE HEIGHT:	95'
CONSTRUCTION AREA:	1,10' (MAY/D88)
GROUND ELEVATION:	1,10' (MAY/D88)
LATITUDE (NAD 83):	38.291139° (38° 17' 28.10" N)
LONGITUDE (NAD 83):	-121.640120° (121° 38' 24.43" W)

EMERGENCY:
CALL 911



PROJECT DIRECTORY	
PROPERTY OWNER:	CRAIGS NAKAHARA 7685 RIVER RANCH WAY SACRAMENTO, CA 95631
APPLICANT:	VERTICAL BRIDGE 750 PARK OF COMMERCE DR. #200 BOCA RATON, FL 33487
CONTACT:	ASSURANCE DEVELOPMENT 1499 HUNTINGTON DR. #305 SOUTH PASADENA, CA 91030 CONTACT: BILL LEWIS PHONE: 626.765.5079
POWER COMPANY:	PG&E
TELCO COMPANY:	COMCAST

CLIENT

750 PARK OF COMMERCE DR.
SUITE 200 | BOCA RATON, FL | 33487
561.948.6367

SITE ACQUISITION

1499 HUNTINGTON DR. | SUITE 305
SOUTH PASADENA, CA | 91030
626.765.5079

NO.	REVISION/REVISION	BY	DATE
2	WFO COMMENTS	JR	06/06/24
1	RELOCATED LEASE AREA	JR	03/06/24
0	ISSUED ZONING	CV	12/11/23
D	REVISED SURVEY	CV	12/06/23
C	LEASE AREA REDESIGN	JR	10/17/23
B	RELOCATED LEASE AREA	APP	08/25/23
A	ISSUED FOR REVIEW	JR	05/08/23

DRAWN: JR
DESIGNED: JR
CHECKED: APP

PROJECT NUMBER: US-CA-5535

PROJECT TITLE:
**US-CA-5535
BA50110B
PROSPECT SLOUGH**
4448 HOLLAND RD.
CLARKSBURG, CA 95612

ENGINEER STAMP:

DRAWING TITLE:
TITLE SHEET

DRAWING SCALE:
AS NOTED

DATE:
05/08/23

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS

DRAWING NUMBER:
T1



APN
0042-200-330, SOLANO COUNTY, CALIFORNIA
RECORD OWNER
CRAG Y. NAKAHARA, A SINGLE MAN

TITLE REPORT
PRELIMINARY TITLE REPORT WAS PREPARED BY IRONCREST NATIONAL TITLE COMPANY WITH FILE NO. VTB-149276-C DATED MARCH 2, 2023.

BASIS OF ELEVATIONS: (NAVD 1988)
SITE ELEVATIONS ARE ESTABLISHED FROM THE GPS DERIVED ORTHOMETRIC HEIGHTS BY APPLICATION OF NGS "GEOID 12B" MODELED SEPARATIONS TO ELLIPSOID HEIGHTS DETERMINED BY OBSERVATIONS OF THE "LEICA SHARPTNET" REAL TIME NETWORK. ALL ELEVATIONS SHOWN HEREON ARE REFERENCED TO NAVD88, CALIFORNIA ZONE 2.

FLOOD ZONE
SITE IS LOCATED IN FLOOD ZONE "AE" AS PER F.I.R.M. MAP NO. 06095C0345E EFFECTIVE DATE 05/04/2009

LEGAL DESCRIPTION
THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF SOLANO, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

THE FOLLOWING DESCRIBED REAL PROPERTY IN THE COUNTY OF SOLANO, STATE OF CALIFORNIA: BEGINNING AT THE NORTHWESTERLY CORNER OF LOT NO. 5, AS SAID LOT IS DELINEATED AND SO DESIGNATED ON THE CERTAIN MAP ENTITLED: "HOLLAND LAND CO. SUBDIVISION NO. 1, SOLANO COUNTY, CALIFORNIA," WHICH MAP WAS FILED FOR RECORD IN THE OFFICE OF THE COUNTY RECORDER OF SOLANO COUNTY, CALIFORNIA, ON JANUARY 19, 1921, IN MAP BOOK NO. 7, AT PAGE 8; THENCE ALONG THE NORTHERLY BOUNDARY OF SAID LOT NO. 5, NORTH 52°30' EAST 1343.97 FEET; THENCE NORTH 68°09' EAST 501.80 FEET; THENCE NORTH 56°28' EAST 942.10 FEET; THENCE NORTH 08°09' EAST 197.11 FEET; THENCE LEAVING THE NORTHERLY BOUNDARY OF SAID LOT, SOUTH 2031.07 FEET TO A POINT IN THE SOUTHERLY LINE OF SAID LOT ON THE NORTH BANK OF MINER SLOUGH; THENCE ALONG SAID NORTH BANK OF MINER SLOUGH NORTH 76°54' WEST 95.04 FEET; THENCE SOUTH 83°24' WEST 243.60 FEET; THENCE SOUTH 68°21' WEST 140.90 FEET; THENCE SOUTH 58°58' WEST 412.70 FEET; THENCE WEST 210.00 FEET; THENCE NORTH 74°22' WEST 245.10 FEET; THENCE WEST 139.00 FEET; THENCE SOUTH 76°25' WEST 776.85 FEET; THENCE 72°10'50" WEST 328.65 FEET; THENCE LEAVING THE NORTH BANK OF MINER SLOUGH, NORTH 12°09' WEST 113.0 FEET; THENCE NORTH 00°06' WEST 786.46 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM:
THE WESTERLY 400 FEET THEREOF.
ALSO EXCEPTING THEREFROM:
ONE-HALF OF ALL MINERAL RIGHTS AS RESERVED IN THE DEED RECORDED DECEMBER 5, 1975, IN BOOK 1975 AT PAGE 54626, OFFICIAL RECORDS.

THIS BEING THE SAME PROPERTY CONVEYED TO CRAG Y. NAKAHARA, A SINGLE MAN FROM SAKATA BROS., INC., A CALIFORNIA CORPORATION AND ESTHER T. SAKATA, AS TRUSTEE OF THE THEODORE A. SAKATA FAMILY TRUST DATED 1-20-94 AND ESTHER T. SAKATA, AS TRUSTEE OF THE ESTHER T. SAKATA FAMILY TRUST DATED 1-20-94 IN A DEED DATED MAY 5, 1997 AND RECORDED MAY 29, 1997 AS INSTRUMENT NO. 1997-00032748.

SCHEDULE B
1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHED, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART 1-REQUIREMENTS ARE MET.
(THE EXCEPTION IS A STANDARD EXCEPTION AND NOT THE TYPE TO BE DEPICTED HEREON)

2. ANY RIGHTS, INTERESTS OR CLAIMS, WHICH ARE NOT SHOWN BY THE PUBLIC RECORDS BUT WHICH COULD BE ASCERTAINED BY AN INSPECTION OF LAND OR WHICH MAY BE ASSERTED BY PERSONS IN POSSESSION THEREOF.
(THE EXCEPTION IS A STANDARD EXCEPTION AND NOT THE TYPE TO BE DEPICTED HEREON)

3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGE IN AREA, ENCROACHMENTS, OR ANY OTHER MATTERS WHICH A CORRECT SURVEY WOULD DISCLOSE AND WHICH ARE NOT SHOWN BY THE PUBLIC RECORDS. (A) UNPATENTED MINING CLAIMS; (B) RESERVATIONS OR EXCEPTIONS IN PATENTS OR IN ACTS AUTHORIZING THE ISSUANCE THEREOF; (C) WATER RIGHTS, CLAIMS OR TITLE TO WATER, WHETHER OR NOT THE MATTERS EXCEPTED UNDER (A), (B) OR (C) ARE SHOWN IN THE PUBLIC RECORDS.
(THE EXCEPTION IS A STANDARD EXCEPTION AND NOT THE TYPE TO BE DEPICTED HEREON)

4. TAXES AND ASSESSMENTS FOR THE YEAR AND ALL SUBSEQUENT YEARS ARE A LIEN BUT NOT YET DUE AND PAYABLE.
(THE EXCEPTION IS A STANDARD EXCEPTION AND NOT THE TYPE TO BE DEPICTED HEREON)

5. ANY AND ALL MATTERS DISCLOSED ON THE MAP ENTITLED "HOLLAND LAND CO. SUBDIVISION NO. 1" DATED DECEMBER 15, 1920 AND RECORDED JANUARY 19, 1921 IN (BOOK) 7 (PAGE) 8, IN SOLANO COUNTY, CALIFORNIA.
(THE EXCEPTION IS LOCATED WITHIN THE PARENT PARCEL, BUT IS NOT LOCATED WITHIN THE LEASE AREA OR ANY VB EASEMENT)

6. RIGHTS OF FEE SIMPLE OWNERS IN AND TO THE SUBJECT PROPERTY.
(THE EXCEPTION IS A STANDARD EXCEPTION AND NOT THE TYPE TO BE DEPICTED HEREON)

7. ANY AND ALL MATTERS DISCLOSED ON THE MAP ENTITLED "SURVEY FOR BERT CORREA" DATED DECEMBER 23, 1965 AND RECORDED DECEMBER 23, 1965 IN (BOOK) 9 (PAGE) 807, IN SOLANO COUNTY, CALIFORNIA.
(THE EXCEPTION IS A STANDARD EXCEPTION AND NOT THE TYPE TO BE DEPICTED HEREON)

8. REVIEW OF AS-BUILT SURVEY CONFIRMING THAT THE ERRECTED TOWER DOES NOT ENCRACH UPON THE DEED BETWEEN HOLLAND LAND COMPANY AND J.H. GAVE DATED APRIL 16, 1925 AND RECORDED APRIL 16, 1925 IN (BOOK) 0273-424 (INSTRUMENT) 1925-0100.
(THE EXCEPTION IS A STANDARD EXCEPTION AND NOT THE TYPE TO BE DEPICTED HEREON)

9. GRANT OF RIGHT OF WAY BETWEEN RECLAMATION DISTRICT NO. 999; AND GREAT WESTERN POWER COMPANY OF CALIFORNIA, A CALIFORNIA CORPORATION, DATED OCTOBER 28, 1927 AND RECORDED NOVEMBER 27, 1927 IN (BOOK) 005 (PAGE) 362 (INSTRUMENT) 1927-03913, IN SOLANO COUNTY, CALIFORNIA.
(THE EXCEPTION DOES NOT HAVE SUFFICIENT DATA TO DETERMINE ITS LOCATION)

10. EASEMENT BETWEEN RECLAMATION DISTRICT NO. 999; AND SACRAMENTO AND SAN JOAQUIN DRAINAGE DISTRICT, A PUBLIC AGENCY, DATED AUGUST 15, 1933 AND RECORDED NOVEMBER 4, 1933 IN (BOOK) 111 (PAGE) 371 (INSTRUMENT) 1933-03784, IN SOLANO COUNTY, CALIFORNIA.
(THE EXCEPTION DOES NOT HAVE SUFFICIENT DATA TO DETERMINE ITS LOCATION)

11. DEED OF RIGHTOF WAY BETWEEN JH GAVE AND GRACE L. GRAVE, HIS WIFE; AND COUNTY OF SOLANO, DATED SEPTEMBER 26, 1941 AND RECORDED OCTOBER 7, 1941 IN (BOOK) 247 (PAGE) 102 (INSTRUMENT) 1941-9554, IN SOLANO COUNTY, CALIFORNIA.
(THE EXCEPTION DOES NOT HAVE SUFFICIENT DATA TO DETERMINE ITS LOCATION)

12. GRANT OF EASEMENT BETWEEN HOWARD CORREA; AND GENERAL TELEPHONE COMPANY OF CALIFORNIA, A CORPORATION, DATED JULY 12, 1972 AND RECORDED SEPTEMBER 13, 1972 IN (BOOK) 1775 (PAGE) 643 (INSTRUMENT) 1972-21099, IN SOLANO COUNTY, CALIFORNIA.
(THE EXCEPTION DOES NOT HAVE SUFFICIENT DATA TO DETERMINE ITS LOCATION)

SURVEYOR CERTIFICATION
I HEREBY CERTIFY TO: VERTICAL BRIDGE REG. LLC, A DELAWARE LIMITED LIABILITY COMPANY, ITS SUBSIDIARIES, AND THEIR RESPECTIVE SUCCESSORS AND/OR ASSIGNS; AND (I) TORONTO DOMINION (TEXAS) LLC, AS ADMINISTRATIVE AGENT, FOR ITSELF AND ON BEHALF OF THE LENDERS PARTIES FROM TIME TO TIME TO THAT CERTAIN SECOND AMENDED AND RESTATED LOAN AGREEMENT DATED JUNE 17, 2016 WITH VERTICAL BRIDGE HOLDCO, LLC, AS BORROWER, AND VERTICAL BRIDGE HOLDCO PARENT, LLC, AS PARENT, AS MAY BE AMENDED, RESTATED, MODIFIED OR RENEWED, THEIR SUCCESSORS AND ASSIGNS AS THEIR INTERESTS MAY APPEAR; AND IRONCREST NATIONAL TITLE COMPANY.

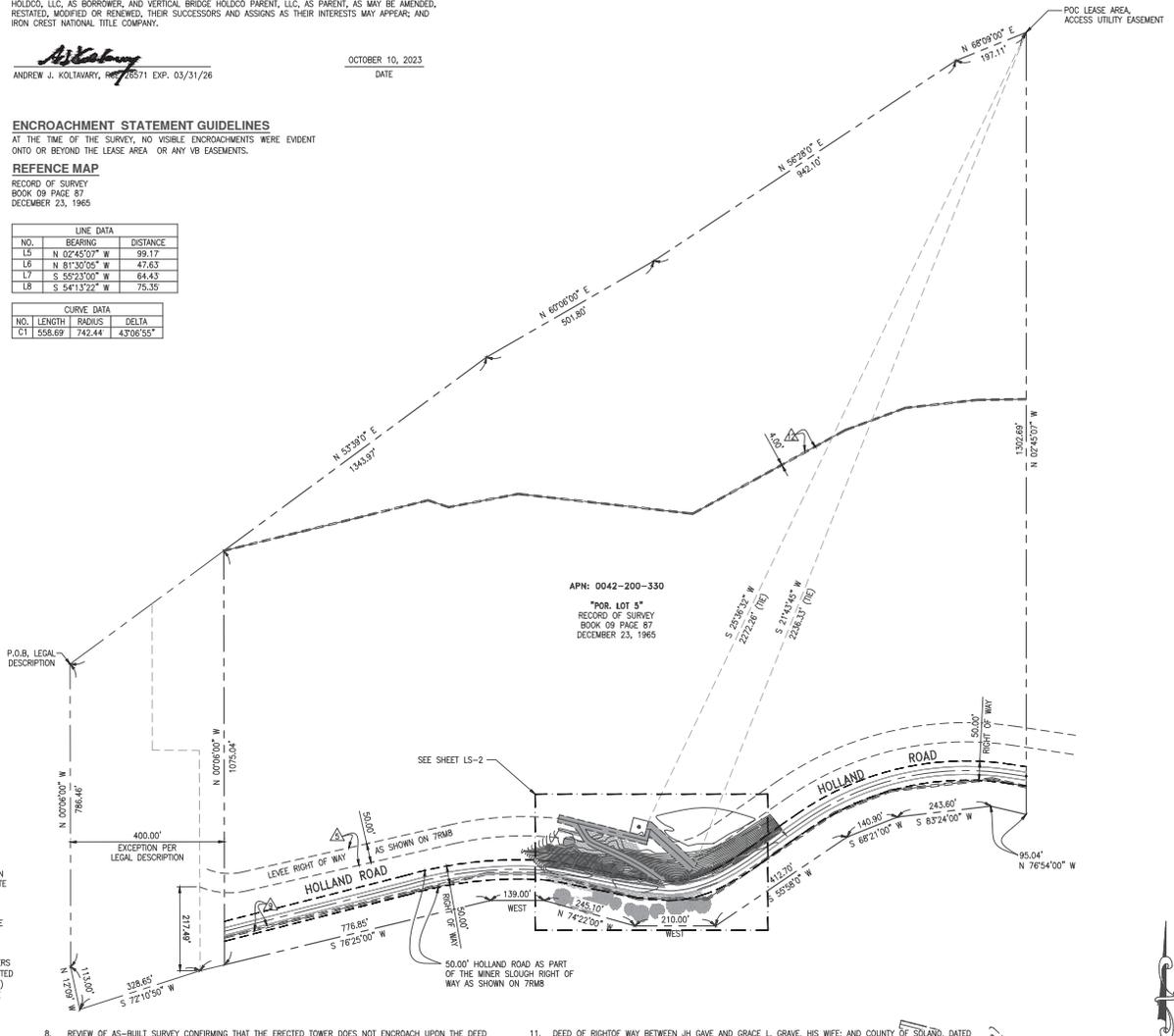
Andrew J. Koltvany
ANDREW J. KOLTIVANY, REG. 28571 EXP. 03/31/26
OCTOBER 10, 2023
DATE

ENCROACHMENT STATEMENT GUIDELINES
AT THE TIME OF THE SURVEY, NO VISIBLE ENCROACHMENTS WERE EVIDENT ONTO OR BEYOND THE LEASE AREA OR ANY VB EASEMENTS.

REFERENCE MAP
RECORD OF SURVEY
BOOK 09 PAGE 87
DECEMBER 23, 1965

LINE DATA		
NO.	BEARING	DISTANCE
L5	N 02°45'07" W	99.17
L8	N 81°30'05" W	47.63
L7	S 55°23'00" W	64.43
L8	S 54°13'22" W	75.35

CURVE DATA			
NO.	LENGTH	RADIUS	DELTA
C1	558.69	742.44	43°06'55"



- ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHED, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART 1-REQUIREMENTS ARE MET.
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- GRANT OF EASEMENT BETWEEN HOWARD CORREA; AND GENERAL TELEPHONE COMPANY OF CALIFORNIA, A CORPORATION, DATED JULY 12, 1972 AND RECORDED SEPTEMBER 13, 1972 IN (BOOK) 1775 (PAGE) 643 (INSTRUMENT) 1972-21099, IN SOLANO COUNTY, CALIFORNIA.
(THE EXCEPTION DOES NOT HAVE SUFFICIENT DATA TO DETERMINE ITS LOCATION)
- MINERAL RIGHTS RESERVED IN THE INDIVIDUAL GRANT DEED DATED DECEMBER 1, 1975 AND RECORDED DECEMBER 5, 1975 IN (INSTRUMENT) 1975-34458 IN SOLANO COUNTY, CALIFORNIA.
(THE EXCEPTION DOES NOT HAVE SUFFICIENT DATA TO DETERMINE ITS LOCATION)



SURVEY PREPARED FOR:



VB BTS II, LLC
750 PARK OF COMMERCE DR.
SUITE 200 | BOCA RATON, FL | 33487
561.948.6367

SITE ACQUISITION



1499 HUNTINGTON DR. | SUITE 305
SOUTH PASADENA, CA | 91030
626.216.2024

ENGINEER



23972 LAKE CENTER DR., SUITE 211
LAKE FOREST, CA 92650
714.684.9607

NO.	SUBMITTAL / REVISION	BY	DATE
4	LEASE AIR CHANGED	LJ	04/10/24
3	LEASE AIR REVISION	LJ	10/11/23
2	ADDITIONAL NOTE FOR HOLLAND ROAD	LJ	11/29/23
1	FINAL SURVEY	LJ	11/08/23
0	PRELIMINARY SURVEY	LJ	10/10/23

DRAWN: LJ
DESIGNED: LJ
CHECKED: AJK

PROJECT NUMBER: US-CA-5535

PROJECT TITLE:

US-CA-5535
BA50110
PROSPECT SLOUGH

4448 HOLLAND RD
CLARKSBURG, CA 95612
SOLANO COUNTY

ENGINEER STAMP:



DRAWING TITLE:
TITLE SHEET

DRAWING SCALE:
AS NOTED

DATE:
04/10/2024

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS

DRAWING NUMBER:

LS-1

LEGEND

CENTER LINE
 PROPERTY LINE
 CHAIN-LINK FENCE
 WOOD FENCE
 WROUGHT IRON FENCE
 EASEMENT LINE
 CMU WALL
 ACCESS AND UTILITY EASEMENT
 TOP OF WALL
 TOP OF CURB
 BACK-OF-WALK
 FINISHED SURFACE
 EXISTING GRADE
 PEDESTAL
 JUNCTION BOX
 HANDHOLE
 VAULT
 TRANSFORMER
 WATER VALVE
 GAS VALVE
 VALVE
 SANITARY SEWER MANHOLE
 STORM DRAIN MANHOLE

EXISTING STREET LIGHT
 EXISTING SIGN
 GUY WIRE
 CATCH BASIN
 FIRE HYDRANT
 TREE
 POWER POLE

MONUMENTS
 MONUMENT FD.
 (AS NOTED)

COORDINATES
 LATITUDE: 38°17'28.10"N (38.291139°)
 LONGITUDE: 121°38'24.43"W (-121.640120°)

- NOTES:
- THIS IS NOT A BOUNDARY SURVEY. THIS IS A SPECIALIZED TOPOGRAPHIC MAP. THE PROPERTY LINES AND EASEMENTS SHOWN HEREON ARE FROM RECORD INFORMATION AS NOTED HEREON. A/JK ENGINEERING AND SURVEY TRANSLATED THE TOPOGRAPHIC SURVEY TO RECORD INFORMATION USING FOUND MONUMENTS SHOWN HEREON.
 - THE HEIGHTS AND ELEVATIONS FOR THE TREES, BUSHES AND OTHER LIVING PLANTS SHOWN HEREON SHOULD BE CONSIDERED APPROXIMATE (+/-) AND ONLY FOR THE DATE OF THIS SURVEY. THEY ARE PROVIDED AS A GENERAL REFERENCE AND SHOULD NOT BE USED FOR DESIGN PURPOSES.
 - FIELD SURVEY COMPLETED ON OCTOBER 4, 2023.
 - ACCESS AND UTILITY EASEMENTS TERMINATE AT A CONFIRMED PUBLIC RIGHT OF WAY.
 - NO VISIBLE ENCROACHMENTS WERE VISIBLE ON THE LEASE OR EASEMENT AREAS AT THE TIME OF THE SURVEY.
 - THE LEASE AND EASEMENT AREA LIE ENTIRELY WITHIN THE PARENT OR ACCESS PARCEL.

LINE DATA			CURVE DATA			
NO.	BEARING	DISTANCE	NO.	LENGTH	RADIUS	DELTA
L1	N 14°06'50" W	40.00'	C1	29.90'	50.00'	33°07'18"
L2	N 79°53'10" E	40.00'	C2	144.51'	617.93'	132°23'58"
L3	N 14°06'50" E	40.00'				
L4	S 79°53'10" E	40.00'				
L5	N 47°50'10" W	159.76'				
L6	S 14°06'50" W	1.85'				
L7	N 79°53'10" W	10.17'				
L8	S 14°06'50" W	31.85'				
L9	N 79°53'10" W	188.43'				
L10	N 79°53'10" W	50.44'				
L11	S 31°25'02" E	38.67'				
L12	S 66°05'59" E	57.52'				

LEASE AREA

A PARCEL OF LAND LYING WITHIN THAT PORTION OF LOT NO. 5, AS SAID LOT IS DELINEATED AND SO DESIGNATED ON THE CERTAIN MAP ENTITLED: 'HOLLAND LAND CO. SUBDIVISION NO. 1, SOLANO COUNTY, CALIFORNIA', WHICH MAP WAS FILED FOR RECORD IN THE OFFICE OF THE COUNTY RECORDER OF SOLANO COUNTY, CALIFORNIA, ON JANUARY 19, 1921, IN MAP BOOK NO. 7, AT PAGE 8, SAID PARCEL IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEASTERLY CORNER OF SAID LOT 5, THENCE SOUTH 29°36'32" WEST 272.26 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 14°06'50" WEST 40.00 FEET; THENCE NORTH 79°53'10" WEST 40.00 FEET; THENCE NORTH 14°06'50" EAST 40.00 FEET; THENCE SOUTH 79°53'10" EAST 40.00 FEET TO THE TRUE POINT OF BEGINNING.

ACCESS AND UTILITY EASEMENT

THOSE STRIPS OF LAND LYING WITHIN THAT PORTION OF LOT NO. 5, AS SAID LOT IS DELINEATED AND SO DESIGNATED ON THE CERTAIN MAP ENTITLED: 'HOLLAND LAND CO. SUBDIVISION NO. 1, SOLANO COUNTY, CALIFORNIA', WHICH MAP WAS FILED FOR RECORD IN THE OFFICE OF THE COUNTY RECORDER OF SOLANO COUNTY, CALIFORNIA, ON JANUARY 19, 1921, IN MAP BOOK NO. 7, AT PAGE 8, SAID STRIPS ARE MORE PARTICULARLY DESCRIBED AS FOLLOWS:

PARCEL 1

A STRIP OF LAND THIRTY (30) FEET WIDE, LYING 15.00 FEET ON EACH SIDE, CENTERLINE IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEASTERLY CORNER OF SAID LOT 5, THENCE SOUTH 21°43'45" WEST 2336.33 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 47°50'10" WEST 150.76 FEET TO A POINT HEREINAFTER REFERRED TO AS POINT "A".

PARCEL 2

A STRIP OF LAND FORTY (40) FEET WIDE, LYING 20.00 FEET ON EACH SIDE, CENTERLINE IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

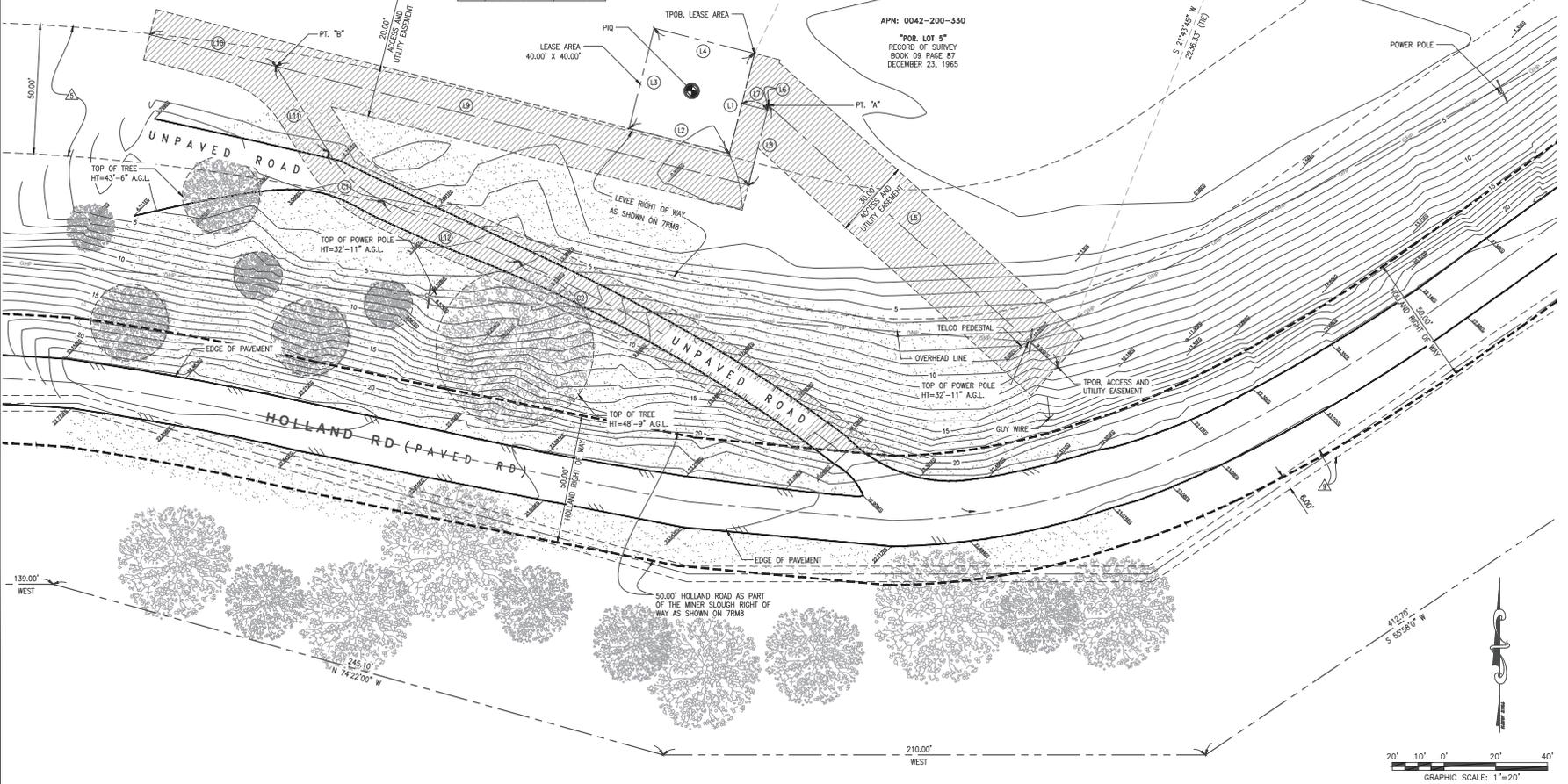
COMMENCING AT THE AFOREMENTIONED POINT "A"; THENCE SOUTH 14°06'50" WEST 1.85 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 79°53'10" WEST 10.17 FEET.

PARCEL 3

A STRIP OF LAND TWENTY (20) FEET WIDE, LYING 10.00 FEET ON EACH SIDE, CENTERLINE IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE AFOREMENTIONED POINT "A"; THENCE SOUTH 14°06'50" WEST 31.85 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 79°53'10" WEST 188.43 FEET TO A POINT HEREINAFTER REFERRED TO AS POINT "B"; THENCE NORTH 79°53'10" WEST 50.44 FEET.

ALSO, BEGINNING AT THE AFOREMENTIONED POINT "B"; THENCE SOUTH 31°25'02" EAST 38.67 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE NORTHEAST, HAVING A RADIUS OF 50.00 FEET; THENCE SOUTHEASTERLY 29.90 FEET ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 33°07'18"; THENCE SOUTH 66°05'59" EAST 57.52 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE SOUTHWEST, HAVING A RADIUS OF 617.93 FEET; THENCE SOUTHEASTERLY 144.51 FEET ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 132°23'58"



SURVEY PREPARED FOR:

verticalbridge
 VB BTS II, LLC
 750 PARK OF COMMERCE DR.
 SUITE 200 | BOCA RATON, FL | 33487
 561.948.6367

SITE ACQUISITION

AD
 ASSURANCE DEVELOPMENT
 1499 HUNTINGTON DR. | SUITE 305
 SOUTH PASADENA, CA | 91030
 626.216.2024

ENGINEER

AJK
 23972 LAKE CENTER DR., SUITE 211
 LAKE FOREST, CA 92650
 714.684.8677

NO.	REVISION	DATE
4	LEASE AIR CHANGED	LJ 04/10/24
3	LEASE AIR REBID	LJ 10/11/23
2	ADDITIONAL NOTE FOR HOLLAND ROAD	LJ 11/29/23
1	FINAL SURVEY	LJ 11/08/23
0	PRELIMINARY SURVEY	LJ 10/10/23
	SUBMITTAL / REVISION	BY DATE

DRAWN: LJ
 DESIGNED: LJ
 CHECKED: AJK

PROJECT NUMBER: US-CA-5535

PROJECT TITLE:
**US-CA-5535
 BA50110
 PROSPECT SLOUGH**
 4448 HOLLAND RD
 CLARKSBURG, CA 95612
 SOLANO COUNTY

ENGINEER STAMP:
 REGISTERED PROFESSIONAL ENGINEER
 ANDREW J. KOLFF, ENGINEER
 No. 55577
 EXP. 03/31/26
 CIVIL
 STATE OF CALIFORNIA

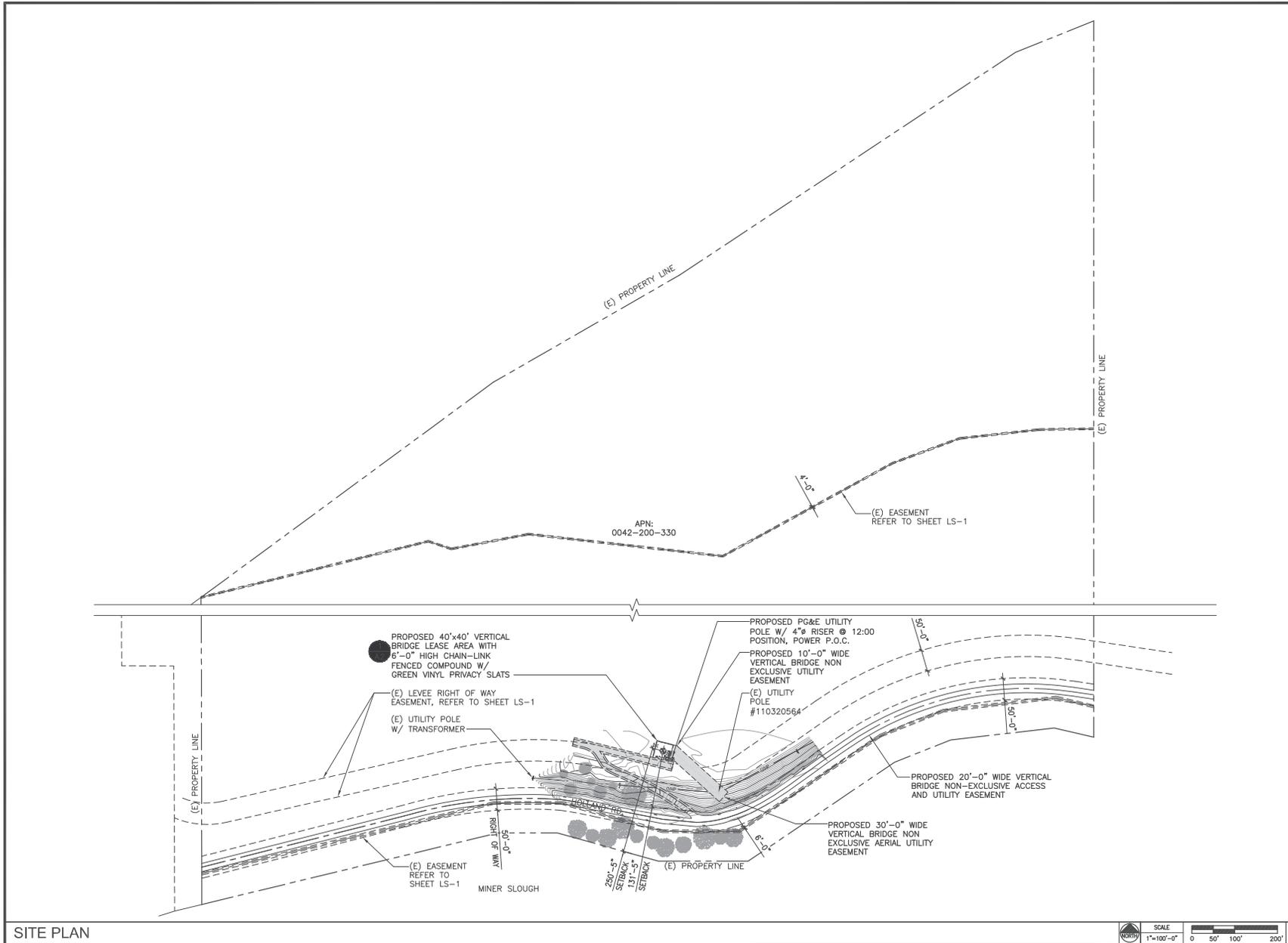
DRAWING TITLE:
TOPOGRAPHIC SURVEY

DRAWING SCALE:
 AS NOTED

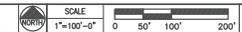
DATE:
 04/10/2024

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DRAWING NUMBER:
LS-2



SITE PLAN



CLIENT

verticalbridge

750 PARK OF COMMERCE DR.
SUITE 200 | BOCA RATON, FL | 33487
561.948.6367

SITE ACQUISITION

AD
ASSURANCE
DEVELOPMENT

1499 HUNTINGTON DR. | SUITE 305
SOUTH PASADENA, CA | 91030
626.765.5079

NO.	DESCRIPTION	DATE
3	WFO COMMENTS	JR 05/06/24
1	RELOCATED LEASE AREA	JR 03/06/24
0	ISSUED ZONING	CV 12/11/23
D	REVISED SURVEY	CV 12/06/23
C	LEASE AREA REDESIGN	JR 10/17/23
B	RELOCATED LEASE AREA	APP 08/25/23
A	ISSUED FOR REVIEW	JR 05/08/23
NO.	SUBMITTAL / REVISION	BY DATE

DRAWN: JR
DESIGNED: JR
CHECKED: APP

PROJECT NUMBER: US-CA-5535

PROJECT TITLE:
**US-CA-5535
BA50110B
PROSPECT SLOUGH**
4448 HOLLAND RD.
CLARKSBURG, CA 95612

ENGINEER STAMP:

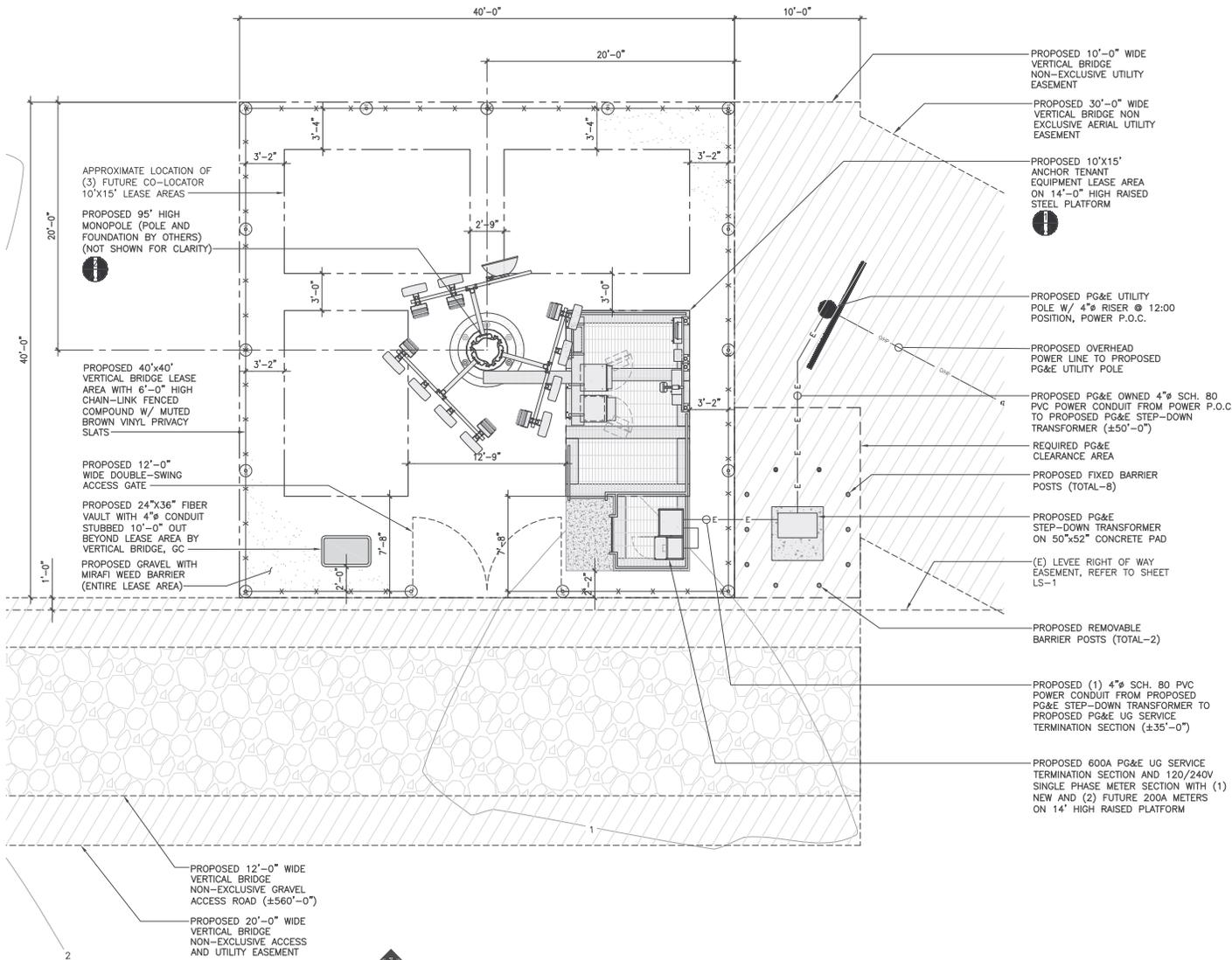
DRAWING TITLE:
SITE PLAN

DRAWING SCALE:
AS NOTED
ZD

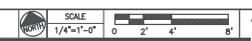
DATE:
05-09-23

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DRAWING NUMBER:
A1



APN:
0042-200-330



CLIENT

750 PARK OF COMMERCE DR.
SUITE 200 | BOCA RATON, FL | 33487
561.948.6367

SITE ACQUISITION

1499 HUNTINGTON DR. | SUITE 305
SOUTH PASADENA, CA | 91000
626.765.5079

NO.	DESCRIPTION	DATE	BY
2	WFO COMMENTS	JR	05/06/24
1	RELOCATED LEASE AREA	JR	03/06/24
0	ISSUED ZONING	CV	12/11/23
D	REVISED SURVEY	CV	12/06/23
C	LEASE AREA REDESIGN	JR	10/17/23
B	RELOCATED LEASE AREA	APP	08/25/23
A	ISSUED FOR REVIEW	JR	05/08/23
NO.	SUBMITTAL / REVISION	BY	DATE

DRAWN: JR
DESIGNED: JR
CHECKED: APP

PROJECT NUMBER: US-CA-5535

PROJECT TITLE:
**US-CA-5535
BA50110B
PROSPECT SLOUGH**
4448 HOLLAND RD.
CLARKSBURG, CA 95612

ENGINEER STAMP:

DRAWING TITLE:
**ENLARGED
COMPOUND PLAN**

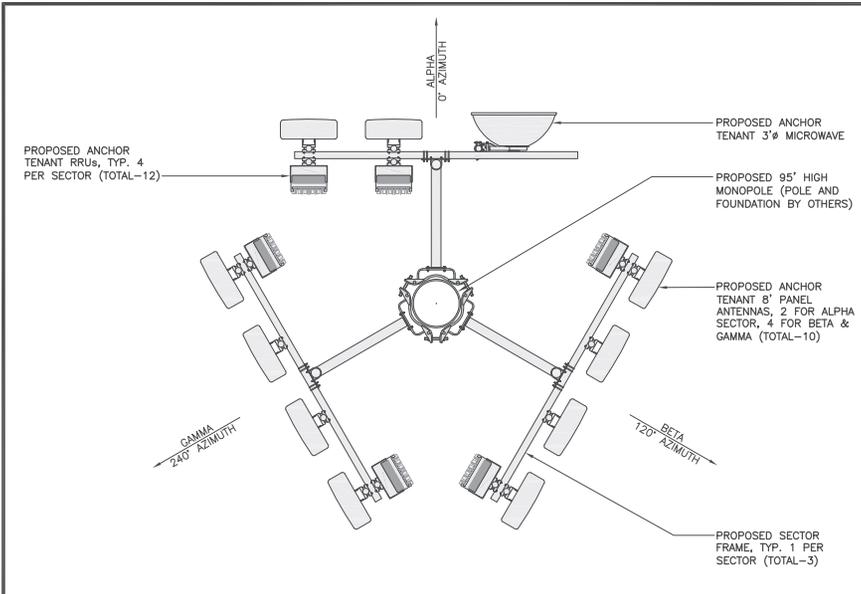
DRAWING SCALE:
AS NOTED

DATE: **ZD**
05/08/23

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THIS DOCUMENT IS A VIOLATION OF
APPLICABLE STATE AND/OR LOCAL LAWS

DRAWING NUMBER:
A2

ENLARGED COMPOUND PLAN



ANTENNA PLAN SCALE 1/2"=1'-0" 0 1' 2' 4' 2



NOT USED SCALE 3/4"=1'-0" 0 6' 1' 2' 3 EQUIPMENT PLAN SCALE 3/4"=1'-0" 0 6' 1' 2' 1

CLIENT

750 PARK OF COMMERCE DR.
SUITE 200 | BOCA RATON, FL | 33487
561.948.6367

SITE ACQUISITION

1499 HUNTINGTON DR. | SUITE 305
SOUTH PASADENA, CA | 91100
626.765.5079

NO.	SUBMITTAL / REVISION	BY	DATE
2	WFO COMMENTS	JR	05/06/24
1	RELOCATED LEASE AREA	JR	03/06/24
0	ISSUED ZONING	CV	12/11/23
D	REVISED SURVEY	CV	12/06/23
C	LEASE AREA REDESIGN	JR	10/17/23
B	RELOCATED LEASE AREA	APP	08/25/23
A	ISSUED FOR REVIEW	JR	05/08/23

DRAWING: JR
DESIGNED: JR
CHECKED: APP

PROJECT NUMBER: US-CA-5535

PROJECT TITLE:
**US-CA-5535
BA50110B
PROSPECT SLOUGH**
4448 HOLLAND RD.
CLARKSBURG, CA 95612

ENGINEER STAMP:

DRAWING TITLE:
**EQUIPMENT AND
ANTENNA PLAN**

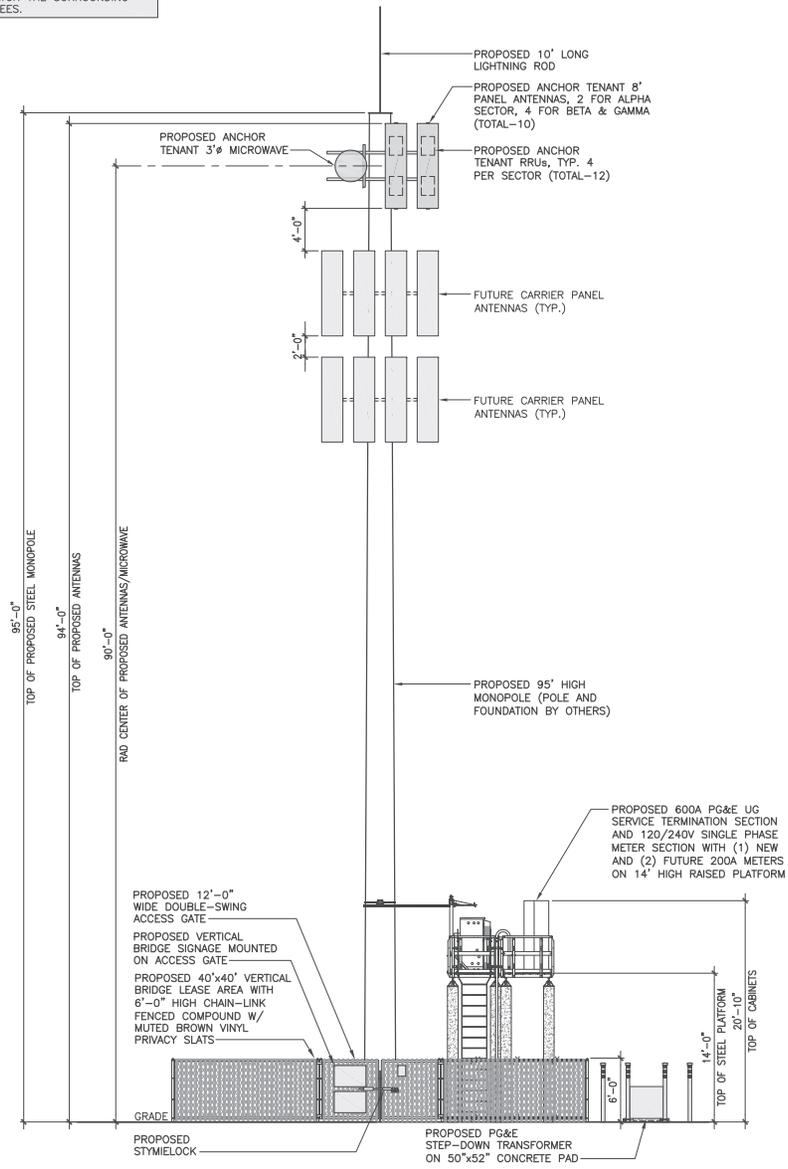
DRAWING SCALE:
AS NOTED

DATE:
05-09-23

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND / OR LOCAL LAWS

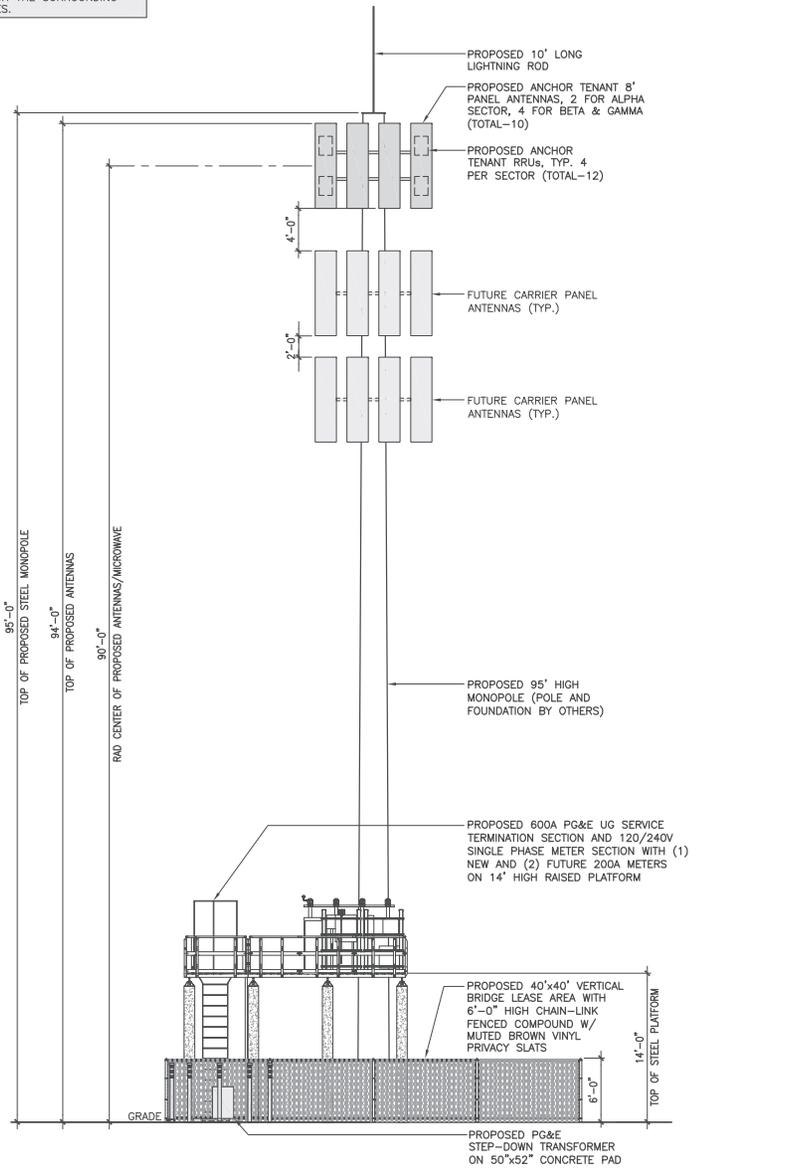
DRAWING NUMBER:
A3

NOTES:
1. MONOPOLE TO BE PAINTED TO MATCH THE SURROUNDING TREES.



SOUTH ELEVATION

NOTES:
1. MONOPOLE TO BE PAINTED TO MATCH THE SURROUNDING TREES.



EAST ELEVATION

CLIENT

750 PARK OF COMMERCE DR.
SUITE 200 | BOCA RATON, FL | 33487
561.948.6367

SITE ACQUISITION

1499 HUNTINGTON DR. | SUITE 305
SOUTH PASADENA, CA | 91000
626.765.5079

2	TRF COMMENTS	JR	06/06/24
1	RELOCATED LEASE AREA	JR	03/06/24
0	ISSUED ZONING	CV	12/11/23
D	REVISED SURVEY	CV	12/06/23
C	LEASE AREA REDESIGN	JR	10/17/23
B	RELOCATED LEASE AREA	APP	08/25/23
A	ISSUED FOR REVIEW	JR	05/08/23
NO.	SUBMITTAL/REVISION	BY	DATE

DRAWN: JR
DESIGNED: JR
CHECKED: APP

PROJECT NUMBER: US-CA-5535

PROJECT TITLE:
**US-CA-5535
BA50110B
PROJECT SLOUGH**
4448 HOLLAND RD.
CLARKSBURG, CA 95612

ENGINEER STAMP:

DRAWING TITLE:
ELEVATIONS

DRAWING SCALE:
AS NOTED

DATE:
05/08/23

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS

DRAWING NUMBER:
A4

Kyle Benalcázar
Assurance Development obo Vertical Bridge
kbenalcazar@assurance-group.com

323-376-2921

1499 Huntington Dr. Suite 305
South Pasadena, CA 91030

Solano County

**Application for a Conditional Use Permit – Wireless Telecommunications Facility
Project Narrative**

Vertical Bridge is requesting approval of a Conditional Use Permit for the operation and construction of an unmanned wireless telecommunications facility and presents the following project information for your consideration.

Project Specific Location

Address: 4448 Holland Rd, Clarksburg, CA 95612

APN: 0042-200-330

Zoning: A-80

Project Representative

Kyle Benalcazar, Project Representative

1499 Huntington Dr. Suite 305, South Pasadena, CA 91030

323-376-2921 kbenalcazar@assurance-group.com

PROJECT DESCRIPTION:

CONSTRUCTION OF TELECOMMUNICATIONS AND PUBLIC UTILITY FACILITY, CONSISTING OF A 95' MONOPOLE WITH (12) 8' ANTENNAS, (6) RRU'S, (1) 2' MICROWAVE, (1) GPS ANTENNA, REQUIRED ANTENNA CABLING, HCS JUMPERS, (2) GROUND MOUNTED RADIO CABINETS, (1) RAISED CONCRETE PAD, CABLE ICE BRIDGE, UTILITY BACKBOARD AND MULTI-METER UTILITY SERVICE MOUNTED ON H-FRAME WITHIN A 40'x40' FENCED LEASE AREA. NO WATER OR SEWER SERVICE IS REQUIRED. THIS WILL BE AN UNMANNED FACILITY.

Kyle Benalcázar
Assurance Development obo Vertical Bridge
kbenalcazar@assurance-group.com

323-376-2921

1499 Huntington Dr. Suite 305
South Pasadena, CA 91030

Project Objectives

To provide coverage in this area of the city, any combination or one of the following reasons may apply:

- Coverage: No Service in the area (Indoor, Outdoor or Vehicular) and can apply specifically to the type of service provided (Voice or Data – 3G, 4G, 5G). Specifically, this proposed location addresses the following needs –
 - In-building Commercial – Subscriber anticipated to have accessibility to improved service while indoors within the city's commercially used spaces.
 - In-building – Subscriber anticipated to have accessibility to service while even indoors (ie: residential homes) at lower performance levels.
 - In-vehicle- Subscriber anticipated to have accessibility to service while inside of vehicle.
 - Outdoor – Subscriber anticipated to have accessibility to improved service while outdoors.

- Capacity: Proposed service in surrounding areas would be insufficient to meet anticipated demand by customers in and traversing through the area. Furthermore, proposed facilities servicing the surrounding area would be overloaded preventing service, dropped calls or complete denial of service during peak usage hours in this particular ring. Below are coverage maps reflecting before and after coverage once the site is installed. BA50110 refers to the subject site.

Kyle Benalcázar
Assurance Development obo Vertical Bridge
kbenalcazar@assurance-group.com

323-376-2921

1499 Huntington Dr. Suite 305
South Pasadena, CA 91030

Alternative Site Analysis

The following map shows the vicinity surrounding the proposed facility, and the red circle marks the site's "search ring" which indicates the area in which a deficit in coverage was detected. We looked at four alternative sites within the search ring. We contacted all landlords but did not hear back. The lot in which we are proposing to locate was one of the only spaces available that would meet the footprint requirements of our project. Additionally, we received the Landlord's permission to pursue this project on their property. The county's setbacks and height max requirements are also adequately met on this parcel. It is for these reasons that we are locating on the subject property and not on any other parcels within the search ring.



Kyle Benalcázar
Assurance Development obo Vertical Bridge
kbenalcazar@assurance-group.com

323-376-2921

1499 Huntington Dr. Suite 305
South Pasadena, CA 91030

Alternative Candidates Considered

APN: 004-220-024 - This parcel was considered as a possible option that would meet the project's coverage needs and the property owner was contacted to inquire about potential interest in the project. Ultimately, we could not move forward with this candidate because the Landlord did not respond to our inquiries about installing a wireless facility on their property.

APN: 004-222-002 - This parcel was considered as a possible option that would meet the project's coverage needs and the property owner was contacted to inquire about potential interest in the project. Ultimately, we could not move forward with this candidate because the Landlord did not respond to our inquiries about installing a wireless facility on their property.

APN: 004-220-034 - This parcel was considered as a possible option that would meet the project's coverage needs and the property owner was contacted to inquire about potential interest in the project. Ultimately, we could not move forward with this candidate because the Landlord did not respond to our inquiries about installing a wireless facility on their property.

APN: 004-222-021 - This parcel was considered as a possible option that would meet the project's coverage needs and the property owner was contacted to inquire about potential interest in the project. Ultimately, we could not move forward with this candidate because the Landlord did not respond to our inquiries about installing a wireless facility on their property.

Kyle Benalcázar
Assurance Development obo Vertical Bridge
kbenalcazar@assurance-group.com

323-376-2921

1499 Huntington Dr. Suite 305
South Pasadena, CA 91030

Additional Supporting Statements

- 1. The proposed use and development is consistent with the General Plan and any applicable specific plans.*

A robust wireless network will contribute to the county's ability to respond to natural or man-made disasters and other public safety concerns in a potentially life-saving manner.

- 2. The site is adequate in size, shape, topography, location, utilities and other factors to accommodate the use and development.*

The site is of adequate size, shape, topography, location and access to utilities to accommodate the proposed wireless facility. The site is generally flat and has access to power and telephone connections that can be used for the project. The site is disguised as a tree in an effort to blend the tower with its preexisting surroundings.

- 3. Adequate street access and traffic capacity are or will be available to serve the proposed development as well as existing and anticipated development in the surrounding area.*

The facility is unmanned and will not contribute to any traffic.

- 4. Adequate utilities and public services are or will be available to serve the proposed development as well as existing and anticipated development in the surrounding area.*

The facility only requires power and telephone connections which are present in this area of the city.

- 5. The use and development will be compatible with the intended character of the area.*

The facility is designed to blend as much as possible with the surrounding environment that already exists within the vicinity.

Kyle Benalcázar
Assurance Development obo Vertical Bridge
kbenalcazar@assurance-group.com

323-376-2921

1499 Huntington Dr. Suite 305
South Pasadena, CA 91030

Safe – RF is Radio

The FCC regulates RF emissions to ensure public safety. Standards have been set based on peer-reviewed scientific studies and recommendations from a variety of oversight organizations, including the National Council on Radiation Protection and Measurements (NCRP), American National Standards Institute (ANSI), Institute of Electrical and Electronics Engineers (IEEE), Environmental Protection Agency (EPA), Federal Drug Administration (FDA), Occupational Safety and Health Administration (OSHA), and National Institute for Occupational Safety and Health (NIOSH).

Although the purview of the public safety of RF emissions by the FCC was established by the Telecommunications Act of 1996, these standards remain under constant scrutiny. The typical urban cell site operates hundreds or even thousands of times below the FCC's limits for safe exposure. All Vertical Bridge cell towers will operate well below these standards as well.

Thank you for your time and assistance throughout the application intake and review process. Please do not hesitate to contact me should you have any questions associated with this project.

Sincerely,

Kyle Benalcázar

Kyle Benalcázar
Project Representative



CELL 323 376 2921
FAX 626 322 0880
WEB assurance-development.com

AERIAL MAP



COPYRIGHT: GOOGLE MAPS, 2024

PROPOSED



EXISTING



DISCLAIMER: THIS IS A RENDERING REPRESENTATION OF THE PROPOSED PROJECT ONLY

PHOTO PROVIDED BY: ASSURANCE DEVELOPMENT

CONTACT : JOYCE YU
EMAIL : SIMS@DRAFTLINK.COM
PHONE : 949-232-0945
WWW.DRAFTLINK.COM

NO.	DATE	REVISIONS	BY
3	9/29/23	NEW LEASE AREA	JFY
4	10/04/23	CHANGE POLE COLOR	JFY
5	02/28/24	CHANGE LOCATION	JFY
6	04/22/24	POLE & FENCE TO GREEN	JFY
7	04/28/24	CHANGE TO WOOD FENCE	JFY

US-CA-5535
PROSPECT SLOUGH
4448 HOLLAND ROAD
CLARKSBURG, CA 95612

VIEW	SHEET
A	1 / 4

AERIAL MAP

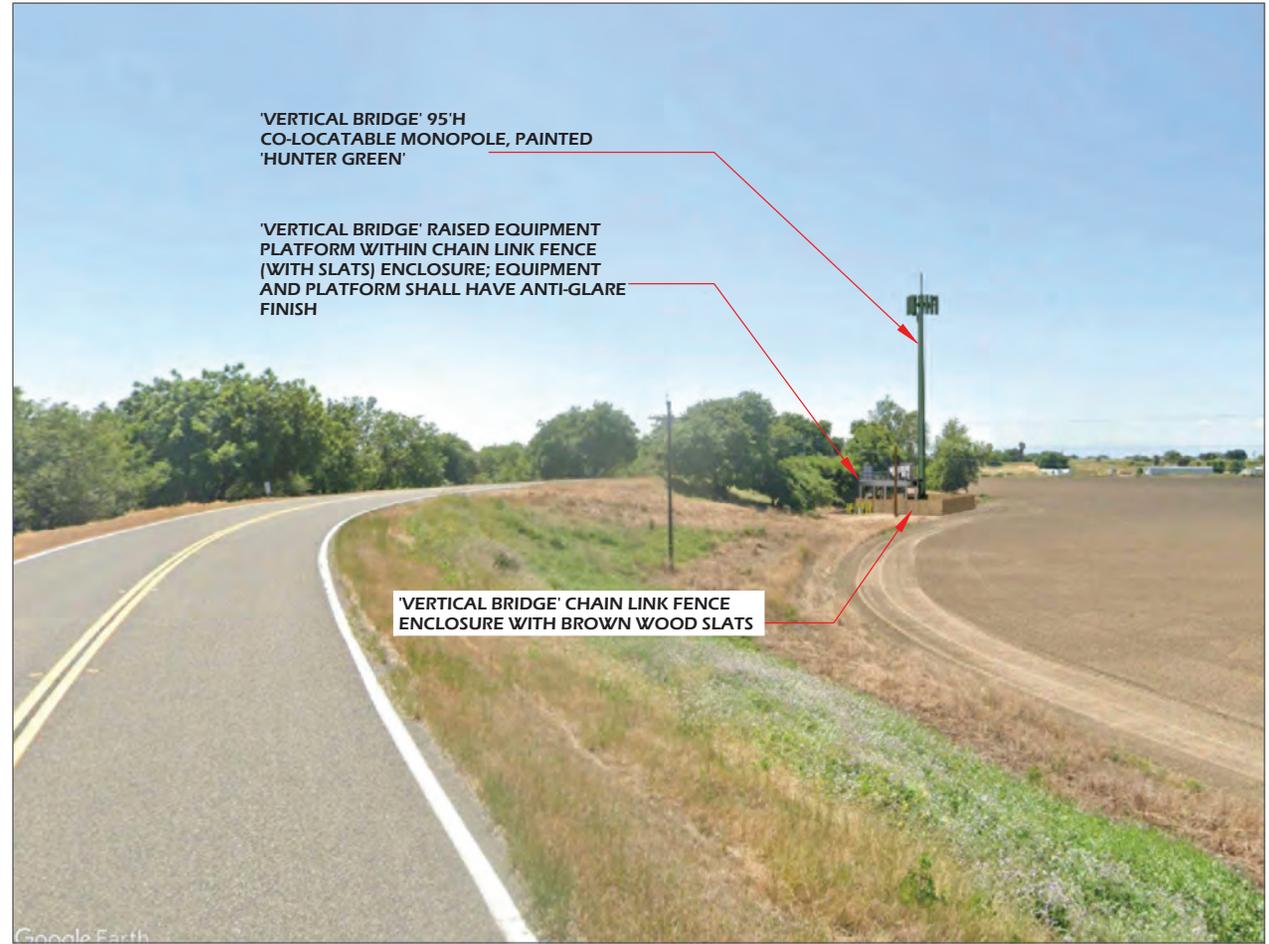


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EXISTING



PROPOSED



'VERTICAL BRIDGE' 95'H
CO-LOCATABLE MONOPOLE, PAINTED
'HUNTER GREEN'

'VERTICAL BRIDGE' RAISED EQUIPMENT
PLATFORM WITHIN CHAIN LINK FENCE
(WITH SLATS) ENCLOSURE; EQUIPMENT
AND PLATFORM SHALL HAVE ANTI-GLARE
FINISH

'VERTICAL BRIDGE' CHAIN LINK FENCE
ENCLOSURE WITH BROWN WOOD SLATS

DISCLAIMER: THIS IS A RENDERING REPRESENTATION OF THE PROPOSED PROJECT ONLY

PHOTO FROM GOOGLE EARTH

DRAFTLINK
CONTACT : JOYCE YU
EMAIL : SIMS@DRAFTLINK.COM
PHONE : 949-232-5045
WWW.DRAFTLINK.COM

AD
ASSURANCE
DEVELOPMENT

NO.	DATE	REVISIONS	BY
3	9/29/23	NEW LEASE AREA	JFY
4	10/04/23	CHANGE POLE COLOR	JFY
5	02/28/24	CHANGE LOCATION	JFY
6	04/22/24	POLE & FENCE TO GREEN	JFY
7	04/28/24	CHANGE TO WOOD FENCE	JFY

verticalbridge

US-CA-5535
PROSPECT SLOUGH
4448 HOLLAND ROAD
CLARKSBURG, CA 95612

VIEW	SHEET
B	2 / 4

AERIAL MAP



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EXISTING



DRAFTLINK
CONTACT : JOYCE YU
EMAIL : SIMS@DRAFTLINK.COM
PHONE : 949-232-0945
WWW.DRAFTLINK.COM

AD
ASSURANCE
DEVELOPMENT

NO.	DATE	REVISIONS	BY
3	9/29/23	NEW LEASE AREA	JFY
4	10/04/23	CHANGE POLE COLOR	JFY
5	02/28/24	CHANGE LOCATION	JFY
6	04/22/24	POLE & FENCE TO GREEN	JFY
7	04/28/24	CHANGE TO WOOD FENCE	JFY



US-CA-5535
PROSPECT SLOUGH
4448 HOLLAND ROAD
CLARKSBURG, CA 95612

VIEW	SHEET
A	1 / 4

AERIAL MAP

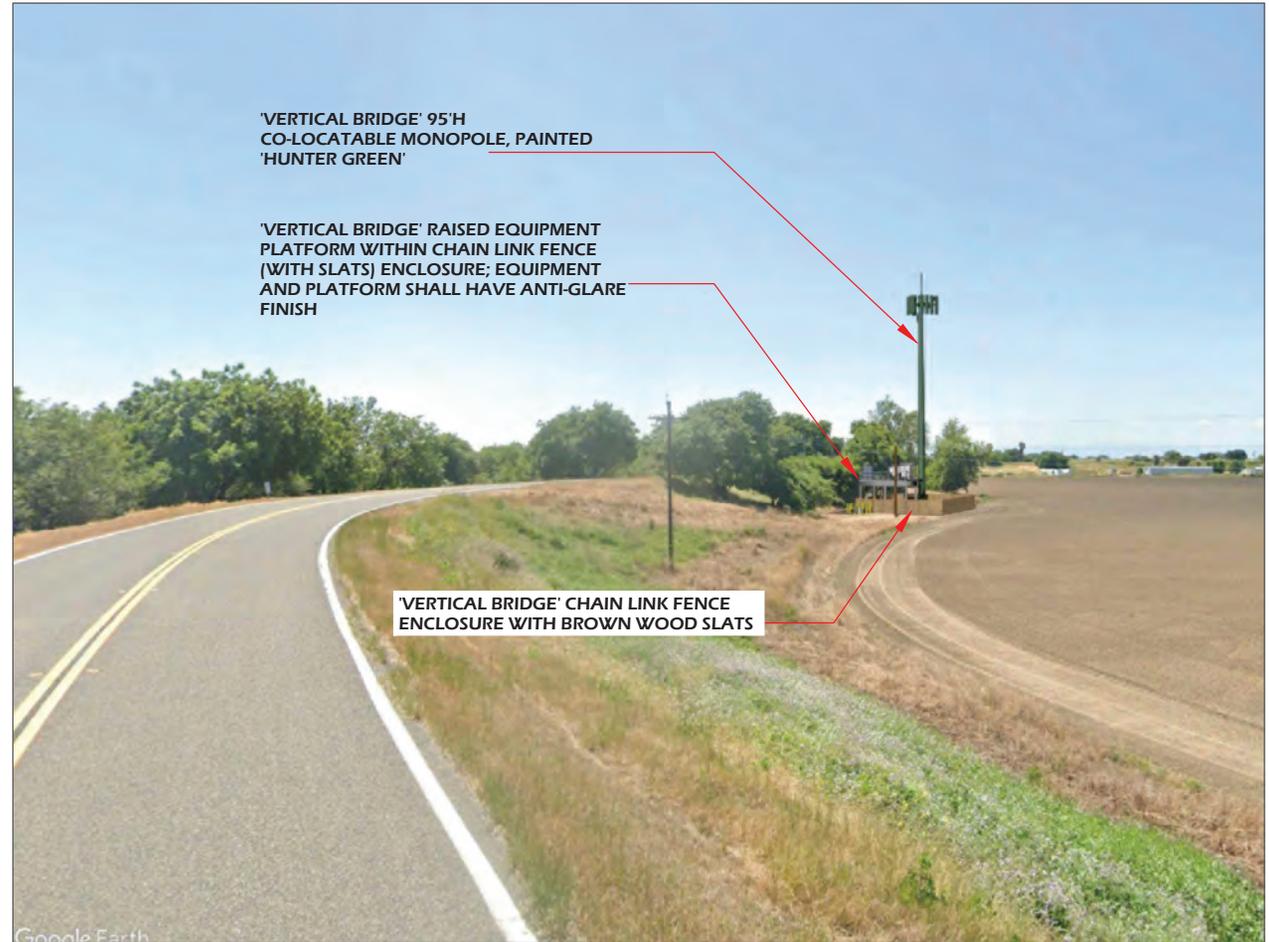


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EMAIL : SIMS@DRAFTLINK.COM
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ASSURANCE DEVELOPMENT

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US-CA-5535
PROSPECT SLOUGH
4448 HOLLAND ROAD
CLARKSBURG, CA 95612

VIEW	SHEET
B	2 / 4

AERIAL MAP



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5	02/28/24	CHANGE LOCATION	JFY
6	04/22/24	POLE & FENCE TO GREEN	JFY
7	04/28/24	CHANGE TO WOOD FENCE	JFY



US-CA-5535
PROSPECT SLOUGH
4448 HOLLAND ROAD
CLARKSBURG, CA 95612

VIEW	SHEET
C	3 / 4

AERIAL MAP



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3	9/29/23	NEW LEASE AREA	JFY
4	10/04/23	CHANGE POLE COLOR	JFY
5	02/28/24	CHANGE LOCATION	JFY
6	04/22/24	POLE & FENCE TO GREEN	JFY
7	04/28/24	CHANGE TO WOOD FENCE	JFY



US-CA-5535
PROSPECT SLOUGH
4448 HOLLAND ROAD
CLARKSBURG, CA 95612

VIEW	SHEET
D	4 / 4

AERIAL MAP



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NO.	DATE	REVISIONS	BY
1	4/30/24	MONO-EUC OPTION	JFY



US-CA-5535
PROSPECT SLOUGH
4448 HOLLAND ROAD
CLARKSBURG, CA 95612

VIEW	SHEET
A	1 / 2

AERIAL MAP

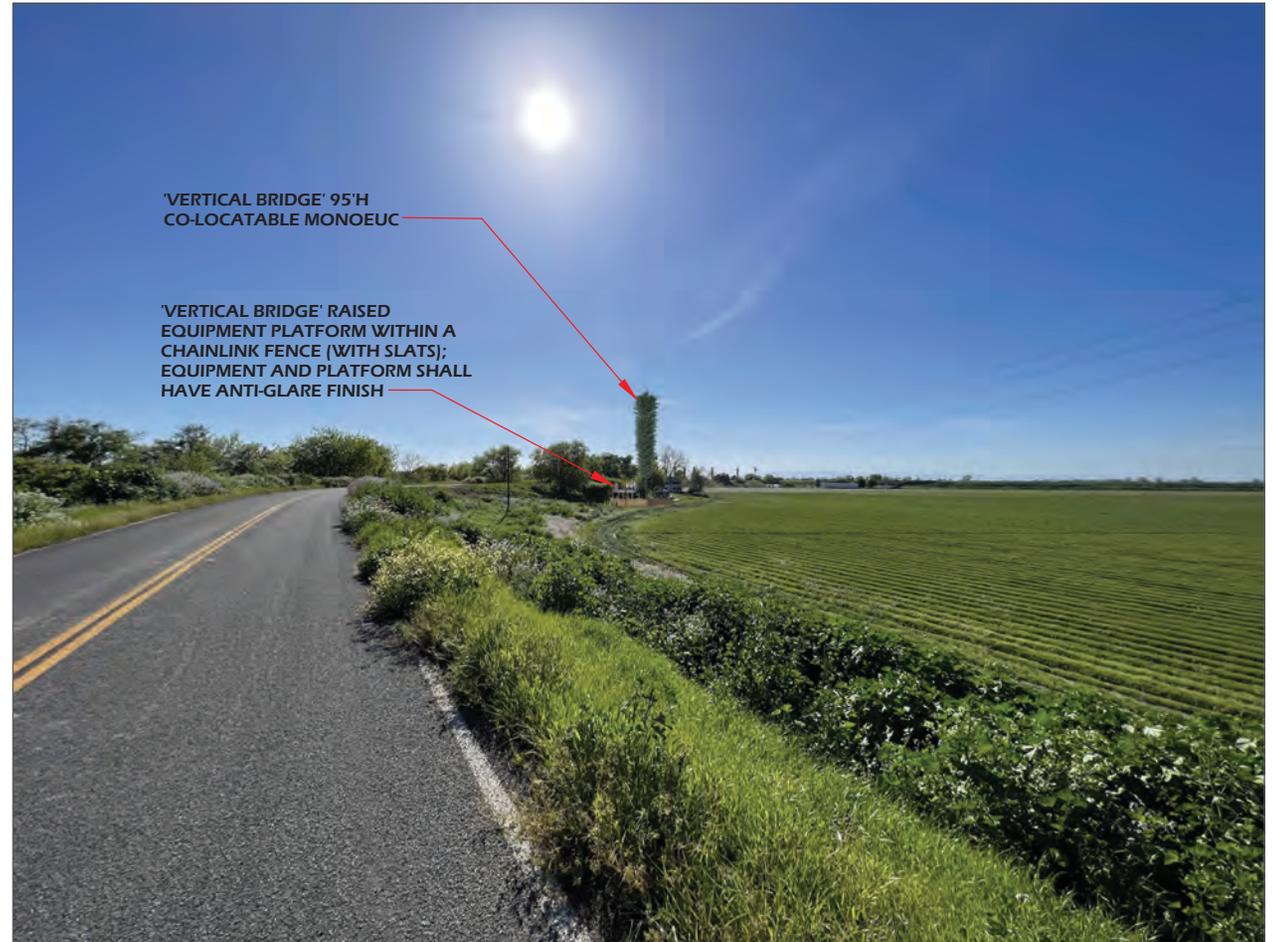


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PROPOSED



'VERTICAL BRIDGE' 95'H
CO-LOCATABLE MONOEUC

'VERTICAL BRIDGE' RAISED
EQUIPMENT PLATFORM WITH A
CHAINLINK FENCE (WITH SLATS);
EQUIPMENT AND PLATFORM SHALL
HAVE ANTI-GLARE FINISH

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NO.	DATE	REVISIONS	BY
1	4/30/24	MONO-EUC OPTION	JFY



US-CA-5535
PROSPECT SLOUGH
4448 HOLLAND ROAD
CLARKSBURG, CA 95612

VIEW	SHEET
B	2 / 2

AERIAL MAP



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NO.	DATE	REVISIONS	BY
1	5/06/24	WINDMILL OPTION	JFY



US-CA-5535
PROSPECT SLOUGH
4448 HOLLAND ROAD
CLARKSBURG, CA 95612

VIEW	SHEET
A	1 / 2

AERIAL MAP

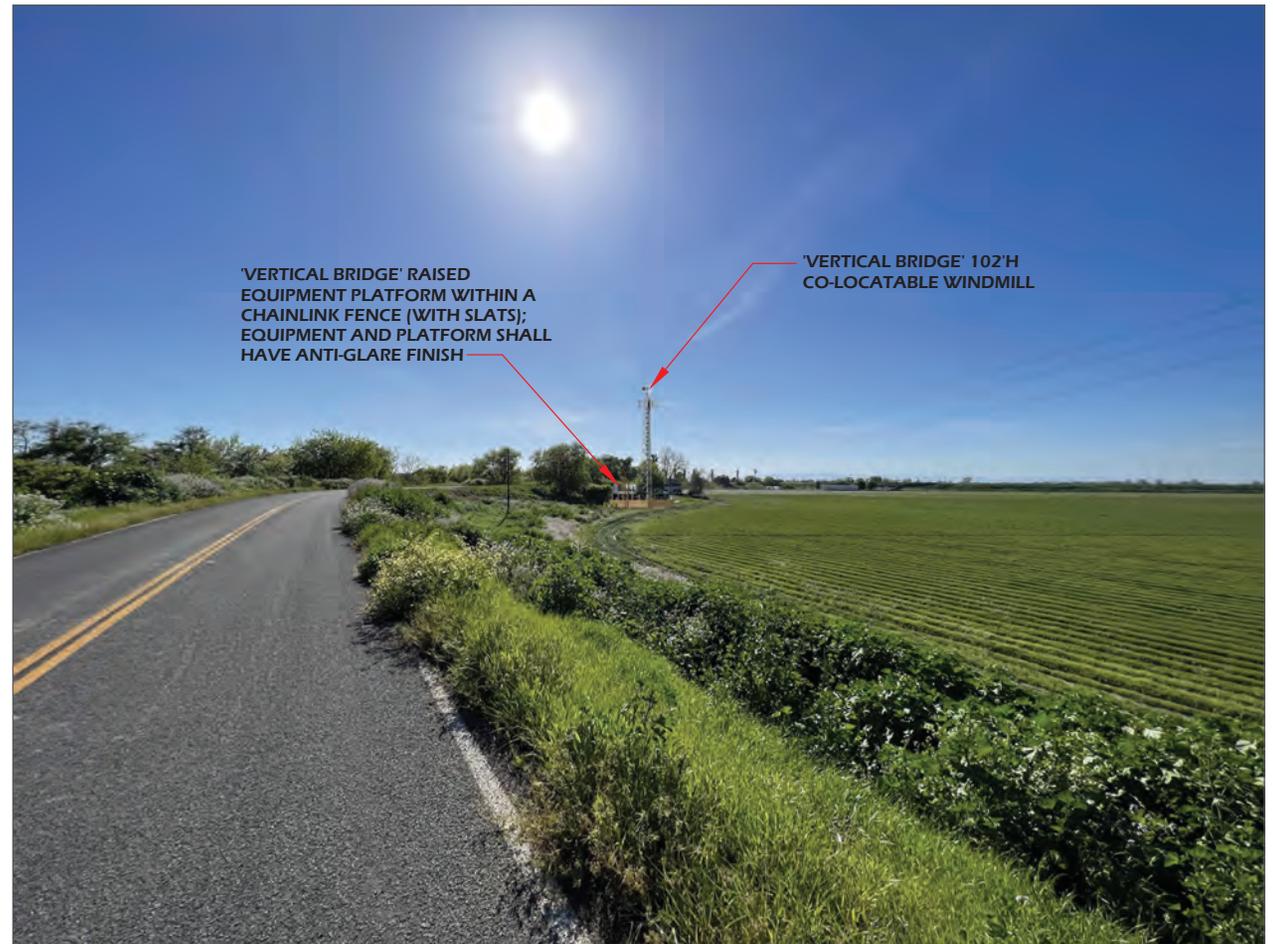


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PHOTO PROVIDED BY: ASSURANCE DEVELOPMENT



NO.	DATE	REVISIONS	BY
1	5/06/24	WINDMILL OPTION	JFY



US-CA-5535
PROSPECT SLOUGH
4448 HOLLAND ROAD
CLARKSBURG, CA 95612

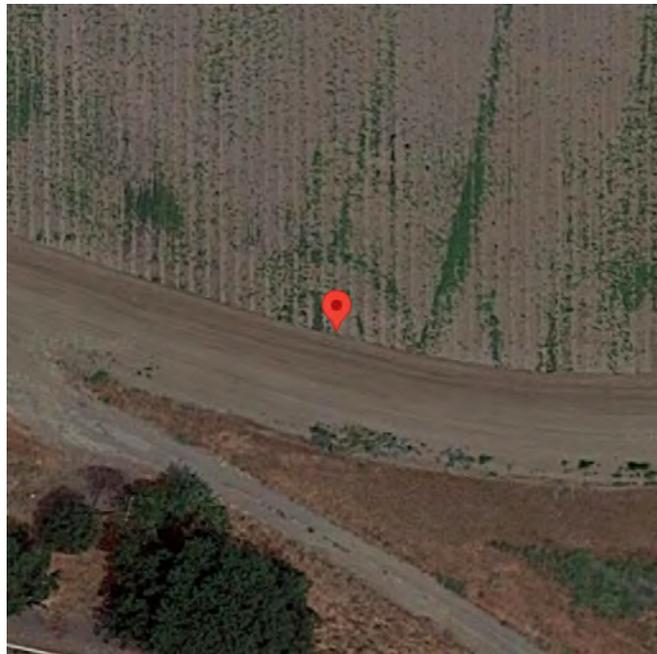
VIEW	SHEET
B	2 / 2

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

Vertical Bridge Development, LLC Proposed Facility
Site ID: BA50110A
US-CA-5535 Prospect Slough
4448 Holland Road, Clarksburg, California 95612

May 18, 2023

EBI Project Number: 6223001820



Report Findings: Compliant

Prepared by:



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I.0 Executive Summary

EnviroBusiness Inc. (dba EBI Consulting) has been contracted by Vertical Bridge Development, LLC to conduct radio frequency electromagnetic (RF-EME) modeling for T-Mobile Site BA50110A located at 4448 Holland Road in Clarksburg, California to determine RF-EME exposure levels from proposed T-Mobile wireless communications equipment at this site. As described in detail in Appendix B of this report, the Federal Communications Commission (FCC) has developed Maximum Permissible Exposure (MPE) Limits for general public exposures and occupational exposures. This report summarizes the results of RF-EME modeling in relation to relevant FCC RF-EME compliance standards for limiting human exposure to RF-EME fields. This report contains a detailed summary of the RF EME analysis for the site.

This document addresses the compliance of T-Mobile's proposed transmitting facilities independently at the site.

While access to this site is considered controlled, the MPE analysis considers exposures with respect to both controlled (Occupational) and uncontrolled (General Public) limits.

The FCC's General Public or Occupational Limit is expressed as a percentage and each limit is reached at values meeting or exceeding 100% of the representative limit.

The Maximum Emissions Value is 8.3600% of the FCC's general public limit (1.6720% of the FCC's occupational limit) at the ground level. The proposed site is in compliance with Federal regulations regarding (radio frequency) RF Emissions.

At the nearest walking/working surfaces to the T-Mobile antennas on the ground level, the maximum power density generated by the T-Mobile antennas is approximately 8.3600% of the FCC's general public limit (1.6720% of the FCC's occupational limit).

Based on worst-case predictive modeling, there are no modeled exposures on any accessible ground level-walking/working surface related to T-Mobile's equipment in the area that exceed the FCC's occupational and/or general public exposure limits at this site. These predicted exposures are identified at the ground level in the horizontal transmission path of the antennas. Only those accessing this ground level or those elevated to this plane will encounter the exposures identified above.

Signage is not required at the site as presented in Attachment I. The site is compliant with FCC rules and regulations.

2.0 MPE Calculations

Calculations were completed for the proposed Vertical Bridge Development, LLC wireless antenna monopole facility located at 4448 Holland Road in Clarksburg, California using the equipment information listed below. All calculations were performed per the specifications under FCC Office of Engineering & Technology (OET) Bulletin 65, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields" (OET-65). Because of the short wavelength of PCS services, the antennas require line-of-site paths for good propagation and are typically installed a distance above ground level. Antennas are constructed to concentrate energy towards the horizon, with as little energy as possible scattered towards the ground or the sky. This design, combined with the low power of PCS facilities, generally results in no possibility for exposure to approach Maximum Permissible Exposure (MPE) levels, with the exception of areas in the immediate vicinity of the antennas.

In accordance with T-Mobile's RF Exposure policy, EBI performed theoretical modeling using RoofMaster™ software to estimate the worst-case power density at the site ground-level resulting from operation of the antennas. Using the computational methods set forth in OET-65, RoofMaster™ calculates power density in a scalable grid based on the contributions of all RF sources characterized in the study scenario. At each grid location, the cumulative power density is expressed as a percentage of the FCC limits. Manufacturer antenna pattern data is utilized in these calculations. RoofMaster™ models consist of the Far Field model as specified in OET-65 and an implementation of the OET-65 Cylindrical Model (Sula9). The models utilize several operational specifications for different types of antennas to produce a plot of spatially-averaged power densities that can be expressed as a percentage of the applicable exposure limit.

For this report, EBI utilized antenna and power data provided by Vertical Bridge Development, LLC and compared the resultant worst-case MPE levels to the FCC's general public/uncontrolled exposure limits outlined in OET Bulletin 65. EBI has performed theoretical worst-case modeling using RoofMaster™ to estimate the maximum potential power density from each proposed antenna based on worst-case assumptions for the number of antennas and power. All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmission paths per carrier prescribed configuration. Modeling for Ericsson AIR 6449 and similar SON antennas is based on worst-case assumptions that include all beams transmitting simultaneously. This is to ensure that all areas of potential concern are taken into consideration. As such, the results are conservative in nature and reflect potentially higher levels of RF emissions compared to actual on-air conditions. It is recommended that areas of concern be confirmed with onsite measurements once the facility is active.

The assumptions used in the modeling are based upon information provided by Vertical Bridge Development, LLC in the supplied drawings.

There are no collocated carriers on the monopole.

The data for all T-Mobile antennas used in this analysis is shown in Section 3.0. Actual antenna gains for each antenna were used per manufacturer's specifications. All calculations were done with respect to the FCC's general public/uncontrolled threshold limits.

Based on information provided by Vertical Bridge Development, LLC, access to this site is considered controlled.

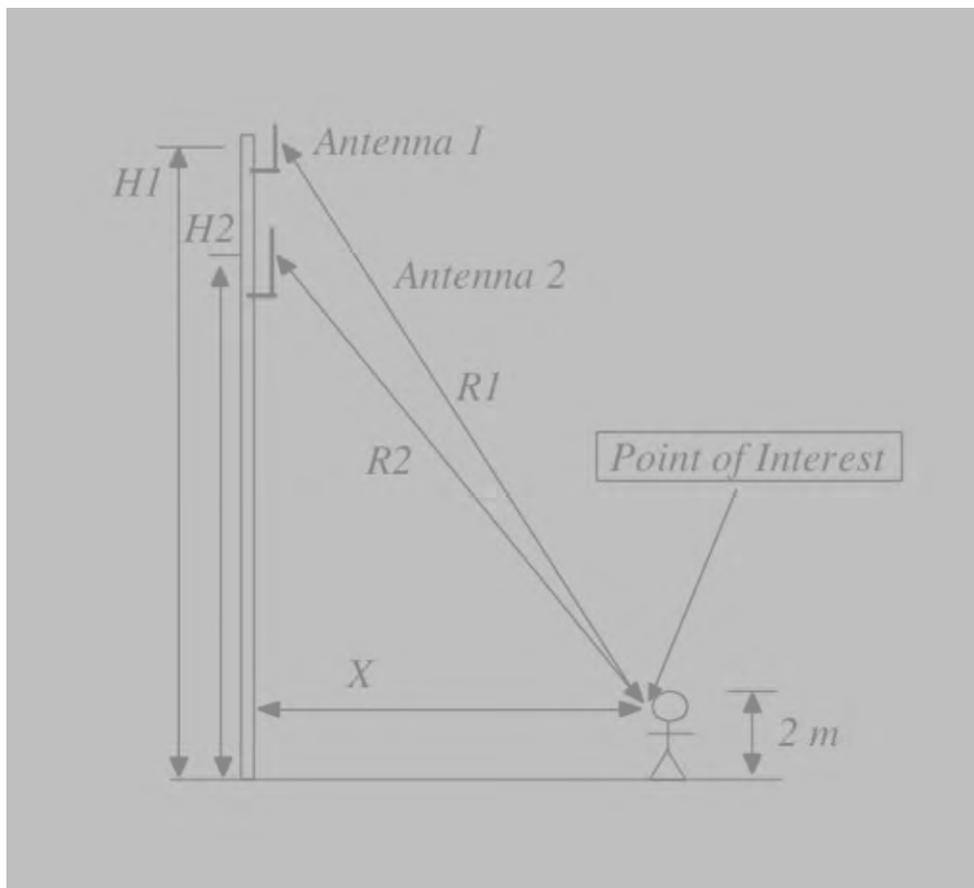
3.0 Antenna Inventory

Carrier	Sector	Antenna Number	Technology	Antenna Make	Antenna Model	Azimuth (°)	Centerline Height (feet) Above Nearest Walking Surface	Centerline Height (feet) Above Ground Level
T-Mobile	A	1	NR	ERICSSON	SON_AIR6419 B4I LTE TB 02.09.21 2500 TMO	30	89	89.00
T-Mobile	A	1	NR	ERICSSON	SON_AIR6419 B4I NR BrM 2500 TMO	30	89	89.00
T-Mobile	A	2	NR	RFS	APXVAALL24_43-U-NA20 02DT 600	30	89	89.00
T-Mobile	A	2	LTE	RFS	APXVAALL24_43-U-NA20 02DT 700	30	89	89.00
T-Mobile	A	2	NR	RFS	APXVAALL24_43-U-NA20 02DT 1900	30	89	89.00
T-Mobile	A	2	LTE	RFS	APXVAALL24_43-U-NA20 02DT 1900	30	89	89.00
T-Mobile	A	2	LTE	RFS	APXVAALL24_43-U-NA20 02DT 2100	30	89	89.00
T-Mobile	A	3	NR	RFS	APXVAALL24_43-U-NA20 02DT 600	30	89	89.00
T-Mobile	A	3	NR	RFS	APXVAALL24_43-U-NA20 02DT 700	30	89	89.00
T-Mobile	A	3	NR	RFS	APXVAALL24_43-U-NA20 02DT 1900	30	89	89.00
T-Mobile	A	3	LTE	RFS	APXVAALL24_43-U-NA20 02DT 1900	30	89	89.00
T-Mobile	A	3	LTE	RFS	APXVAALL24_43-U-NA20 02DT 2100	30	89	89.00
T-Mobile	A	4	NR	ERICSSON	SON_AIR6419 B4I LTE TB 02.09.21 2500 TMO	30	89	89.00
T-Mobile	A	4	NR	ERICSSON	SON_AIR6419 B4I NR BrM 2500 TMO	30	89	89.00
T-Mobile	B	5	NR	ERICSSON	SON_AIR6419 B4I LTE TB 02.09.21 2500 TMO	150	89	89.00
T-Mobile	B	5	NR	ERICSSON	SON_AIR6419 B4I NR BrM 2500 TMO	150	89	89.00
T-Mobile	B	6	NR	RFS	APXVAALL24_43-U-NA20 02DT 600	150	89	89.00
T-Mobile	B	6	LTE	RFS	APXVAALL24_43-U-NA20 02DT 700	150	89	89.00
T-Mobile	B	6	NR	RFS	APXVAALL24_43-U-NA20 02DT 1900	150	89	89.00
T-Mobile	B	6	LTE	RFS	APXVAALL24_43-U-NA20 02DT 1900	150	89	89.00
T-Mobile	B	6	LTE	RFS	APXVAALL24_43-U-NA20 02DT 2100	150	89	89.00
T-Mobile	B	7	NR	RFS	APXVAALL24_43-U-NA20 02DT 600	150	89	89.00
T-Mobile	B	7	NR	RFS	APXVAALL24_43-U-NA20 02DT 700	150	89	89.00
T-Mobile	B	7	NR	RFS	APXVAALL24_43-U-NA20 02DT 1900	150	89	89.00
T-Mobile	B	7	LTE	RFS	APXVAALL24_43-U-NA20 02DT 1900	150	89	89.00
T-Mobile	B	7	LTE	RFS	APXVAALL24_43-U-NA20 02DT 2100	150	89	89.00
T-Mobile	B	8	NR	ERICSSON	SON_AIR6419 B4I LTE TB 02.09.21 2500 TMO	150	89	89.00
T-Mobile	B	8	NR	ERICSSON	SON_AIR6419 B4I NR BrM 2500 TMO	150	89	89.00
T-Mobile	C	9	NR	ERICSSON	SON_AIR6419 B4I LTE TB 02.09.21 2500 TMO	270	89	89.00
T-Mobile	C	9	NR	ERICSSON	SON_AIR6419 B4I NR BrM 2500 TMO	270	89	89.00
T-Mobile	C	10	NR	RFS	APXVAALL24_43-U-NA20 02DT 600	270	89	89.00
T-Mobile	C	10	LTE	RFS	APXVAALL24_43-U-NA20 02DT 700	270	89	89.00
T-Mobile	C	10	NR	RFS	APXVAALL24_43-U-NA20 02DT 1900	270	89	89.00
T-Mobile	C	10	LTE	RFS	APXVAALL24_43-U-NA20 02DT 1900	270	89	89.00
T-Mobile	C	10	LTE	RFS	APXVAALL24_43-U-NA20 02DT 2100	270	89	89.00
T-Mobile	C	11	NR	RFS	APXVAALL24_43-U-NA20 02DT 600	270	89	89.00
T-Mobile	C	11	NR	RFS	APXVAALL24_43-U-NA20 02DT 700	270	89	89.00
T-Mobile	C	11	NR	RFS	APXVAALL24_43-U-NA20 02DT 1900	270	89	89.00
T-Mobile	C	11	LTE	RFS	APXVAALL24_43-U-NA20 02DT 1900	270	89	89.00
T-Mobile	C	11	LTE	RFS	APXVAALL24_43-U-NA20 02DT 2100	270	89	89.00
T-Mobile	C	12	NR	ERICSSON	SON_AIR6419 B4I LTE TB 02.09.21 2500 TMO	270	89	89.00
T-Mobile	C	12	NR	ERICSSON	SON_AIR6419 B4I NR BrM 2500 TMO	270	89	89.00

4.0 FCC Rules and Regulations and Guidelines from OET 65

When considering the contributions to field strength or power density from other RF sources, care should be taken to ensure that such variables as reflection and re-radiation are considered. In cases involving very complex sites, predictions of RF fields may not be possible, and a measurement survey may be necessary. The process for determining compliance for other situations can be similarly accomplished using the techniques described in this section and in Supplement A to this bulletin that deals with radio and television broadcast operations. However, as mentioned above, measurements may be necessary at very complex sites.

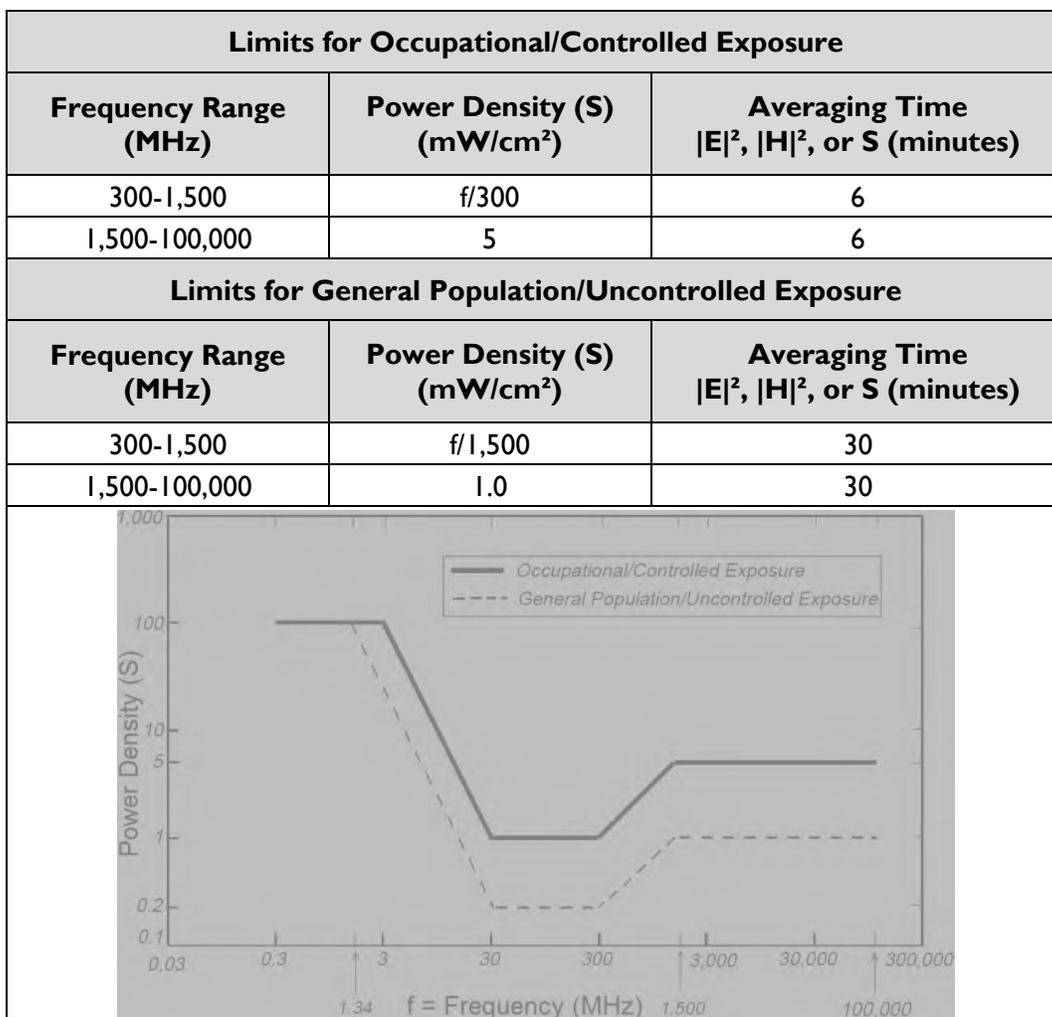
In the simple example shown in the below diagram, it is desired to determine the power density at a given location X meters from the base of a tower on which are mounted two antennas. One antenna is a CMRS antenna with several channels, and the other is an FM broadcast antenna. The system parameters that must be known are the total ERP for each antenna and the operating frequencies (to determine which MPE limits apply). The heights above ground level for each antenna, $H1$ and $H2$, must be known in order to calculate the distances, $R1$ and $R2$, from the antennas to the point of interest.



This summarizes the policies, guidelines, and requirements that were adopted by the FCC on August 1, 1996, amending Part 1 of Title 47 of the Code of Federal Regulations, and further amended by action of the Commission on August 25, 1997 (see 47 CFR Sections 1.1307(b), 1.1310, 2.1091 and 2.1093, as amended from FCC "OET Bulletin 65"). Commission actions granting construction permits, licenses to transmit or renewals thereof, equipment authorizations or modifications in existing facilities, require the preparation of an Environmental Assessment (EA), as described in 47 CFR Section 1.1311, if the particular facility, operation or transmitter would cause human exposure to levels of radiofrequency (RF) electromagnetic fields in excess of these limits. For exact language, see the relevant FCC rule sections.

The FCC-adopted limits for Maximum Permissible Exposure (MPE) are generally based on recommended exposure guidelines published by the National Council on Radiation Protection and Measurements (NCRP) in "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," NCRP Report No. 86, Sections 17.4.1, 17.4.1.1, 17.4.2 and 17.4.3. Copyright NCRP, 1986, Bethesda, Maryland 20814. In the frequency range from 100 MHz to 1500 MHz, exposure limits for field strength and power density are also generally based on the MPE limits found in Section 4.1 of, "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," ANSI/IEEE C95.1-1992, Copyright 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017, and approved for use as an American National Standard by the American National Standards Institute (ANSI). The exposure guidelines are based on thresholds for known adverse effects and they incorporate a significant margin of safety. The federal health and safety agencies such as: the Environmental Protection Agency ("EPA"), the Food and Drug Administration ("FDA"), the National Institute on Occupational Safety and Health ("NIOSH") and the Occupational Safety and Health Administration ("OSHA") have also been actively involved in monitoring and investigating issues related to RF exposure.

The formulas used in RoofMaster™ for calculating Power density are based on FCC "OET Bulletin 65", Section 2: PREDICTION METHODS, August 1997, Edition 97-01. Power density is converted to Maximum Permissible Exposure Limits (MPE Limits) based on Limits of General Population/Uncontrolled Exposure and Limits of Occupational/Controlled Exposure presented in the following table generated from Appendix A of "OET Bulletin 65."



5.0 Safety Recommendations

5.1 OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS

OSHA requires that those in the Occupational classification must complete training in RF Safety, RF Awareness, and Utilization of Personal Protective Equipment. OSHA also provides the following options for Hazard Prevention and Control:

Hazard Prevention	Control
<ul style="list-style-type: none"> Utilization of good equipment Enact control of hazard areas Limit exposures Employ medical surveillance and accident response 	<ul style="list-style-type: none"> Employ Lockout/Tag out Utilize personal alarms & protective clothing Prevent access to hazardous locations Develop or operate an administrative control program

5.2 RF SIGNAGE AND BARRIERS

All RF signs should be obeyed at all times.

<p>Guidelines</p>		<p>Blue Notice Sign</p>		
<p>Yellow Caution Sign</p>		<p>Orange Warning Sign</p>		<p>Red Danger Sign</p> 

If there are workers in an area with a sign that they do not understand, they can call the NOC Number at 877-611-5868 for guidance.

6.0 FCC Limits

6.1 CONTRIBUTION TO CO-LOCATED AREAS

Any wireless operator that contributes 5% or greater of the MPE limit in an area that is identified to be greater than 100% of the MPE limit is responsible for taking corrective actions to bring the site into compliance. All co-located sites should have a separate 5% modeling that shows only T-Mobile antennas transmitting. This separate modeling indicates T-Mobile's contribution in all areas that is recognized to be greater than 100% of MPE limits.

6.2 OCCUPATIONAL LIMITS

Apply in situations in which persons are exposed as a consequence of their employment, provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

6.3 GENERAL POPULATION LIMITS

Apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure. (those without significant and documented RF Safety & Awareness training)

6.4 CONTROLLED ENVIRONMENT

Applies to environments that are restricted or "controlled" in order to prevent access from members of the General Population classification.

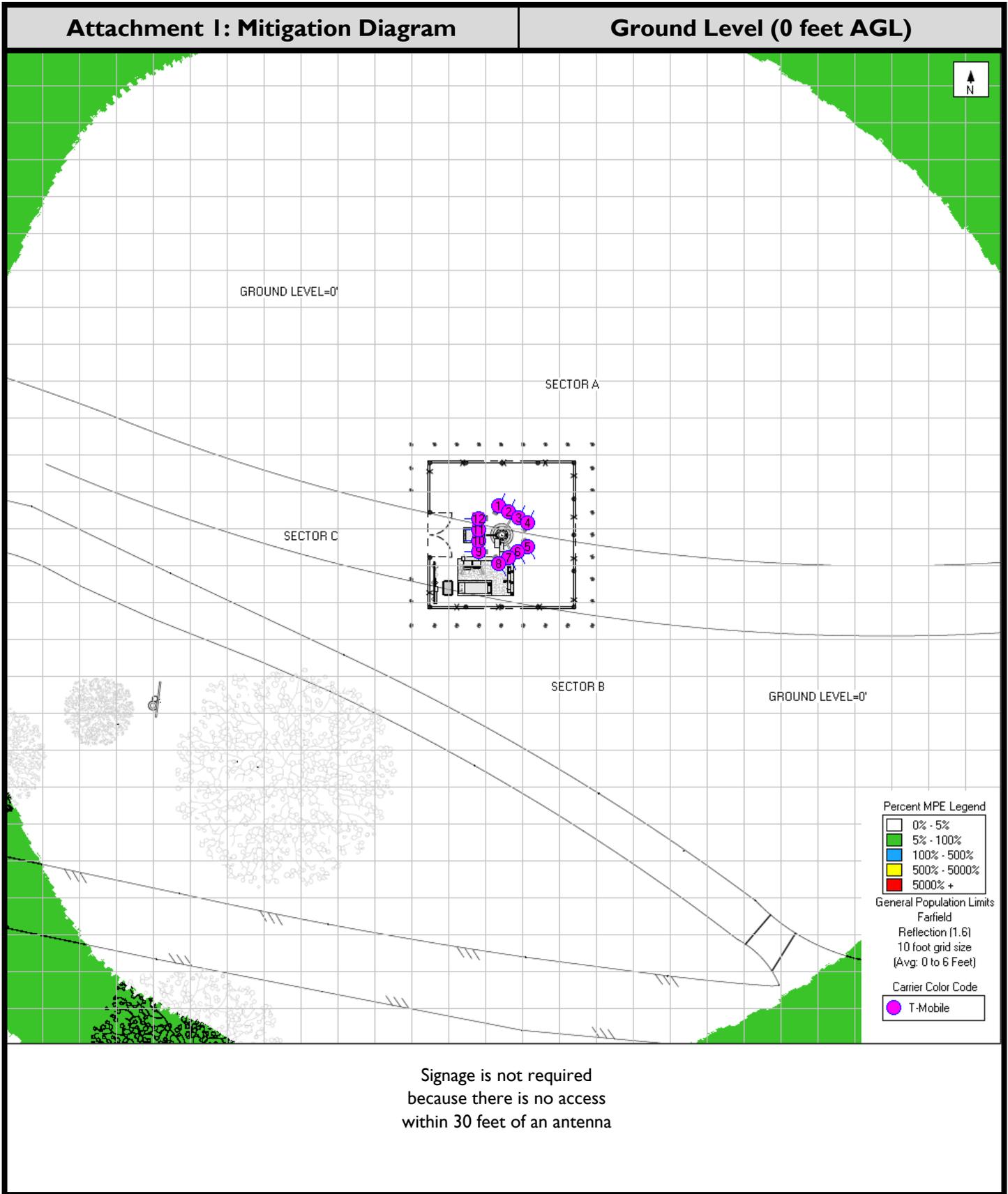
6.5 UNCONTROLLED ENVIRONMENT

Applies to environments that are unrestricted or "uncontrolled" that allow access from members of the General Population classification.

6.6 GENERIC VALUES

The use of "Unknown" for an operator means the information regarding the carrier, their FCC license and / or antenna information was not available. Generic values are used as an estimation for Effective Radiated Power (ERP) and antenna characteristics for unknown antennas.

7.0 Mitigation Diagram



Signage is not required
because there is no access
within 30 feet of an antenna

8.0 Summary

All calculations performed for this analysis yielded results that were within the allowable limits for exposure to RF Emissions. Based on predictive modeling, there are no modeled exposures on any accessible ground level-walking/working surface related to T-Mobile's equipment in the area that exceed the FCC's occupational and/or general public exposure limits at this site. These predicted exposures are identified at the ground level in the horizontal transmission path of the antennas.

There are no collocated carriers on the monopole.

The anticipated maximum contribution from each sector of the proposed Vertical Bridge Development, LLC facility is 8.3600% of the allowable FCC established general public limit (1.6720% of the FCC occupational limit). This was determined through calculations along a radial from each sector taking full power values into account as well as actual vertical plane antenna gain values per the manufacturer-supplied specifications for gain.

A site is considered out of compliance with FCC regulations if there are areas that exceed the FCC exposure limits and there are no RF hazard mitigation measures in place. Any carrier which has an installation that contributes more than 5% of the applicable MPE must participate in mitigating these RF hazards. For this facility, the calculated values were within the allowable 100% threshold standard per the federal government.

Exposures are found when individuals are accessing or are elevated to the relevant walking/working surface on the horizontal plane. Antennas are constructed to concentrate energy toward the horizon, with as little energy as possible scattered toward the ground or the sky.

Signage is not required because there is no access within 30 feet of an antenna. Barriers are not recommended for installation because there are no exceedances on any walking/working surface. To reduce the risk of exposure and/or injury, EBI recommends that access to the monopole or areas associated with the active antenna installation be restricted and secured where possible. All workers and individuals, including arborists and landscapers, accessing the monopole along with nearby elevated structures or trees within areas exceeding the general public MPE must be made aware of the presence and locations of antennas and their associated fields, where applicable.

9.0 Certification

Preparer Certification

I, Jos Schorr, state that:

- I am an employee of EnviroBusiness Inc. (d/b/a EBI Consulting), which provides RF-EME safety and compliance services to the wireless communications industry.
- I have successfully completed RF-EME safety training, and I am aware of the potential hazards from RF-EME and would be classified “occupational” under the FCC regulations.
- I am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation.
- I have been trained on RF-EME modeling using RoofMaster™ modeling software.
- I have reviewed the data provided by the client and incorporated it into this Site Compliance Report such that the information contained in this report is true and accurate to the best of my knowledge.

A rectangular box containing a handwritten signature in black ink. The signature appears to be 'Jos Schorr' with a stylized flourish at the end.

RF-EME Compliance Report
BA50110A/US-CA-5535 Prospect Slough

6223001820
4448 Holland Road, Clarksburg California

Reviewed and Approved by:



sealed 19may2023

Michael McGuire
Electrical Engineer
mike@h2dc.com

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

TOLLING AGREEMENT

This Tolling Agreement (hereinafter, the “**Agreement**”) is by and between VB BTS II, LLC (“**Applicant**”), and Solano County, California (“**County**”) (collectively the “**Parties**”).

WHEREAS, Applicant filed a Conditional Use Permit application (U-23-04) for the construction of a wireless communications tower within the County, located at 4448 Holland Road, Clarksburg, California;

WHEREAS, the County is still in the process of reviewing the application;

WHEREAS, the Applicant previously requested additional time to revise the application materials prior to proceeding to the next available Planning Commission hearing, thus agreeing to an extension of the reasonable time for the County to complete its review of the application under 47 USC § 332(c)(7)(B)(ii);

WHEREAS the Applicant submitted the revised application materials to the County on July 31, 2024;

WHEREAS, the Parties believe that completion of the County’s review will extend beyond the Federal Communications Commission review timeline established in 47 CFR § 1.6003(c)(iv); and

WHEREAS, Applicant and County have previously agreed to extend the deadline to act upon the Applicant’s application until 11:59 P.M. on August 16, 2024.

WHEREAS, Applicant and County have agreed to further extend the deadline to act upon the Applicant’s application until 11:59 P.M. on November 26, 2024.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. The Parties are entering into this Agreement to toll the time period for the County’s action.
2. The County shall have until 11:59 P.M. on November 26, 2024, to issue either a final approval or denial of the Applicant’s application for a new wireless tower (U-23-04).
3. This date may be further extended by mutual written agreement of the Parties.
4. This Agreement may be signed in counterparts.

IN WITNESS WHEREOF, this Agreement has been executed by the duly authorized representatives of the parties as set forth below and is effective as of the Applicant’s date of signature.

VB BTS II, LLC, Applicant

Solano County

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By: DocuSigned by:
Patrick Bardone
B3CEFD4E8B4492... _____
Patrick Bardone
Vice President of Development
Vertical Bridge REIT, LLC

Date 8/15/2024

By: 

Name: Holly Tokar

Title: Deputy County Counsel

Date: 8/15/2024

DEPARTMENT OF RESOURCE MANAGEMENT



SOLANO
COUNTY

Planning Services Division

NOTICE OF PUBLIC HEARING

(Planning Commission)

NOTICE IS HEREBY GIVEN that the Solano County Planning Commission will hold a PUBLIC HEARING to consider Use Permit application No. U-23-04 by Vertical Bridge for a new wireless communications facility consisting of a 95-foot tall monopole and associated equipment within a 1,600 sq. ft. lease area located at 4448 Holland Road, seven miles northeast of the City of Rio Vista, within the Exclusive Agriculture "A-80" zoning district, APN 0042-200-330. The project has been determined not to have a significant effect on the environment and is categorically exempt from the California Environmental Quality Act. (Project Planner: Eric Wilberg, 707-784-6765)

The hearing will be held on **Thursday, October 17, 2024 at 7:00 p.m.** in the Board of Supervisors Chambers, County Administration Center, 1st Floor, 675 Texas Street, Fairfield, California. Staff reports and associated materials will be available to the public approximately one week prior to the meeting at www.solanocounty.com under Departments; Resource Management; Boards, Commissions & Special Districts; Solano County Planning Commission.

The County of Solano does not discriminate against persons with disabilities. If you wish to participate in this meeting and you will require assistance in order to do so, please contact the Department of Resource Management at (707) 784-6765 at least 24 hours in advance of the event to make reasonable arrangements to ensure accessibility to this meeting.

PUBLIC COMMENTS:

In-Person: You may attend the public hearing at the time and location listed above and provide comments during the public speaking period. Email/Mail: Written comments can be emailed to PlanningCommission@SolanoCounty.com or mailed to Resource Management, Planning Commission, 675 Texas Street, Suite 5500, Fairfield, CA 94533 and must be received by 10:00 a.m. the day of the meeting. Copies of written comments received will be provided to the Planning Commission and will become a part of the official record but will not be read aloud at the meeting.

If you challenge the proposed consideration in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the Planning Commission at, or prior to, the public hearing.

Daily Republic - legal ad/one time – Wednesday, October 2, 2024

Rio Vista Beacon - legal ad/one time – Wednesday, October 2, 2024