County of Santa Clara

Department of Planning and Development "People Centered Services" County Government Center, East Wing, 7th Floor 70 West Hedding Street San José, CA 95110 Phone: (408) 299-5700 Website: plandev.santaclaracounty.gov



STAFF REPORT Zoning Administration March 6, 2025 Item #2

Staff Contact: David Horwitz (408) 299-5795, <u>david.horwitz@pln.sccgov.org</u>

## File: PLN24-112 Architecture and Site Approval (ASA) for a New Antenna

**Summary**: Consider a request of a land use application for Architecture and Site Approval (ASA) to establish a 45-feet-tall monopole antenna with associated improvements at an existing San Jose Water Company facility, for the purpose of remotely reading water meters. Additional improvements include lighting and landscaping. No grading or tree removal is proposed for this project.

Owner: San Jose Water Company Applicant: Scott Hoffman Address: 0 Bayview Drive, Los Gatos Present Land Use: Water Reservoir Supervisorial District: 5 **GP Designation**: Hillsides **Zoning**: HS **APN**: 544-45-004 **Lot Size**: 24,600 square feet (0.56 acres) **HCP**: Not in permit area

### **RECOMMENDED ACTIONS**

- A. Accept a Categorical Exemption, under Section 15301(b) of the CEQA Guidelines, Attachment A; and,
- B. Grant the Architecture and Site Approval (ASA), pursuant to the Conditions of Approval in Attachment B.

### ATTACHMENTS INCLUDED

- Attachment A Proposed CEQA Determination
- Attachment B Proposed Conditions of Approval
- Attachment C Location & Vicinity Map
- Attachment D Proposed Plans
- Attachment E Photo Simulations
- Attachment F Radiofrequency Letter and Grant of Certification
- Attachment G Xylem Antenna Design Letter

### PROJECT DESCRIPTION

The proposed project is for Architecture and Site Approval (ASA) for a new 45-feet-tall monopole antenna used to remotely read water meters at an existing San Jose Water Company facility containing a water reservoir. Associated ground improvements include a base station with one cabinet, enclosed by a fence. The project also includes landscaping and irrigation around the perimeter of the base station, and the installation of two LED wall packs for lighting. The project does not include any grading or tree removal.

#### **Setting/Location Information**

The subject property is 24,600 square feet (sq. ft.) and fronts both Bayview Drive and McLuckie Lane in the unincorporated Los Gatos community of Redwood Estates in the Santa Cruz Mountains, about one-third mile west of the Santa Cruz Highway (Highway 17) and one-third mile east of Summit Road. The property is surrounded by single-family residential development on small lots of one-half acre or less, which were originally developed as early as the 1920s. The property and its surroundings are heavily wooded with evergreen trees, consistent with the overall Redwood Estates community and the Santa Cruz Mountains. The site has been used as a water reservoir since this portion of Redwood Estates was originally developed in 1927. The site is not located within the Santa Clara Valley Habitat Plan permit area, and the California Natural Diversity Database does not identify any recorded sightings of special-status species on-site. The project site is located within the Hillsides (HS) zoning district and has a General Plan land use designation of Hillsides.

### **REASONS FOR RECOMMENDATIONS**

### A. <u>Environmental Review and Determination (CEQA)</u>

This project has been reviewed in accordance with the California Environmental Quality Act (CEQA). Staff determined that a Class 1 (CEQA Guidelines 15301 – "Existing Facilities") exemption is applicable to the project. The project is exempt pursuant to a Class 1 exemption ("investor and publicly-owned utilities") because the proposed antenna is appurtenant to an existing facility used to distribute water, a public utility.

### B. Architecture and Site Approval (ASA)

The Zoning Ordinance definition for Antennas – Commercial is distinct from the definition for Utilities and Public Facilities (refer to §2.10.040) and Wireless Telecommunications Facilities (refer to §2.10.040). Per §2.10.040, all Antennas – Commercial uses are defined as minor (structures 55 feet or less in height) or major (structures over 55 feet in height). The maximum height of the proposed antenna is 45 feet, which further classifies the project as an Antennas – Commercial, minor use. Pursuant to Table 2.20-2 of the Zoning Ordinance, an Antennas – Commercial, minor use requires ASA.

The Zoning Administrator may approve an ASA application if able to make all of the following, required findings listed in §5.40.040 of the County Zoning Ordinance. Listed below are the individual findings in bold, together with a discussion relating to how the proposed project conforms to each respective finding in regular text:

**1.** Adequate traffic safety, on-site circulation, parking and loading areas, and insignificant effect of the development on traffic movement in the area;

The proposed project does not impact traffic safety or on-site circulation as there is no change in access or parking design of the site, nor will the project significantly increase trips to the site since the facility will remain unmanned. The proposed plans include one designated off-street parking spot, as required for unmanned antennas by the Zoning Ordinance (Table 4.30-2). Adequate traffic safety and on-site circulation will remain, and the project will have an insignificant effect on traffic movement in the area.

As such, this finding can be made.

## 2. Appearance of proposed site development and structures, including signs, will not be detrimental to the character of the surrounding neighborhood or zoning district;

The subject property is in the Hillsides (HS) zoning district and is surrounded by single-family residential development in a redwood forest. Photo simulations of the proposed monopole antenna show that it will be visible from adjacent residential properties that abut the site (refer to Attachment E). The monopole antenna is sited adjacent to the existing evergreen trees to mitigate the visual impacts. Furthermore, the project utilizes a monopole design versus a lattice tower design to reduce the girth and visual bulk of the structure. Lastly, the monopole antenna will be painted a dark forest green color, which will blend into the existing vegetation.

The existing site is surrounded by evergreen trees and is not landscaped. The proposed landscaping is designed solely to screen the proposed ground equipment to effectively minimize visual impact on the surrounding property and neighborhood. The proposed landscaping includes nine, five-gallon sagebrush shrubs. The sagebrush shrubs are native to California and redwood forest habitats and are drought tolerant. Sagebrush reaches eight-feet-tall at maturity and will effectively screen the base station.

There are no signs proposed at this time.

The proposal has been sited and designed to minimize visual impacts to the surrounding residential community and blend into the property's evergreen trees. Additionally, the proposed landscaping is native to the redwood forest habitat on the site and will effectively screen the proposed base station. No signs are proposed that would impact the character of the surrounding community. As designed, the proposed site development will not be detrimental to the character of the surrounding neighborhood nor the HS zoning district.

As such, this finding can be made.

## **3.** Appearance and continued maintenance of proposed landscaping will not be detrimental to the character of the surrounding neighborhood or zoning district;

The existing site contains multiple evergreen trees but is not landscaped. This is consistent with vegetation in the surrounding neighborhood and the HS zoning district, and the Redwood Estates community. To better relate to the natural state of the

property, its surroundings, and the community, proposed landscaping will only relate to the proposed development versus the entire property. The proposed landscaping includes nine, five-gallon sagebrush shrubs which will be planted at the perimeter of the proposed base station. The sagebrush shrubs and native to California and redwood forest habitat and are drought tolerant and will require minimal maintenance. The sagebrush shrubs will grow to eight-feet-tall at maturity, effectively screening the base station from the surrounding residential development. Therefore, the appearance of the proposed landscaping will not be detrimental to the character of the surrounding neighborhood or the HS zoning district.

The proposed project also includes a drip irrigation system for all proposed landscaping. The irrigation system will ensure that the plants receive adequate water for growth and continued maintenance when they are first established so that the plants grow to full maturity to effectively screen the base station.

As such, this finding can be made.

## 4. No significant, unmitigated adverse public health, safety and environmental effects of the proposed development;

The proposed project will not result in any significant environmental impacts because there are no known biological or environmental issues identified on site. Two service lights are proposed to be located near the site's designated parking space, and the project is conditioned to minimize light spillage and glare outside of the subject property.

Additionally, the Federal Communications Commission (FCC) regulates radiofrequency effects on the human environment. The applicant submitted a radiofrequency letter and grant of certification (refer to Attachment ) that asserts that the proposed antenna does not exceed the radiofrequency thresholds established by the FCC. Therefore, the proposed project has no significant, unmitigated adverse public health, safety, or environmental effects.

As such, this finding can be made.

## 5. No adverse effect of the development on flood control, storm drainage, and surface water drainage;

The proposed project has been conditioned to require improvement plans that include an erosion and sediment control plan that outlines seasonally appropriate erosion and sediment controls during the construction period, and must incorporate best management practices. Therefore, the project has no adverse effect on flood control, storm drainage, or surface water drainage.

As conditioned, this finding can be made.

## 6. Adequate existing and proposed fire protection improvements to serve the development;

The proposed project was reviewed and approved by the Fire Marshal's Office. The Fire Marshal's Office will also review the subsequent building permit submittal for the proposed project to ensure that it complies with all applicable fire protection improvement requirements to serve the development.

As such, this finding can be made.

#### 7. No significant increase in noise levels;

No generators or similar equipment are proposed that would result in significant increases in noise levels.

As such, this finding can be made.

## 8. Conformance with zoning standards, unless standards are expressly eligible for modification by the Zoning Administrator as specified in the Zoning Ordinance;

The proposed project complies with all setback requirements for HS-zoned properties outlined in Table 2.20-3 of the Zoning Ordinance. Additionally, the proposed project is classified as an Antennas – Commercial, minor use because the structure is less than 55 feet in height (§2.10.040). Antennas – Commercial, minor uses are subject to the ASA process (Table 2.20-2). The project also complies with the other required ASA findings per §5.40.040, as described within this report. Because the proposed project is classified as an Antennas – Commercial, minor use and eligible for approval through ASA, and the other ASA findings can be met, staff asserts that the project confirms with the applicable zoning standards.

As such, this finding can be made.

## 9. Conformance with the general plan and any applicable area or specific plan, or where applicable, city general plan conformance for property located within a city's urban service area; and

The proposed project is low intensity in nature and avoids any potential significant adverse environmental impacts, provides adequate access to safely accommodate minimal traffic, does not significantly increase natural hazard risks, mitigates visual impacts from the Valley Floor and public recreational areas, and does not increase demand for public services or infrastructure. Therefore, the project complies with applicable general plan policies for areas with a Hillsides land use designation.

As such, this finding can be made.

## 10. Substantial conformance with the adopted "Guidelines for Architecture and Site Approval" and any other applicable guidelines adopted by the County.

The intent of the "Guidelines for Architecture and Site Approval" is to maintain the character and integrity of the zoning district by promoting quality development in

harmony with the surrounding area, through consideration of all aspects of site configuration and design, and to generally promote public health, safety, and welfare. The project is designed to be the minimum height necessary to establish the use (refer to Attachment G), will be painted a forest green color to conform with the surrounding vegetation, and is sited near both existing on-site development and mature trees to reduce the project's visual impacts. The site design also avoids impacts to natural land features and does not require any grading or tree removal. The proposed landscaping relates to the development site and its surrounding environment, and will adequately screen the proposed base station. Irrigation will ensure that the plants are maintained and reach maturity. Additionally, two service lights are proposed near the site's designated parking space, and the project is conditioned to minimize light spillage and glare outside of the subject property. For the reasons stated above, the project is in substantial conformance with the adopted "Guidelines for Architectural and Site Approval

The "Wireless Telecommunication Facilities Design Guidelines" are applicable to this project because the proposed antenna is similar to the physical appearance of a wireless telecommunication facility. The proposed project minimizes visual impacts to the extent possible through design, screening, and siting; the proposal includes appropriate landscaping; the color of the structure blends with the surrounding environment; ground equipment has been screened through landscaping; no guy wires are proposed; and the structure is not proposed on a ridgeline or hilltop. For the reasons stated above, the project is in substantial conformance with the "Wireless Telecommunication Facilities Design Guidelines".

As such, this finding can be made.

## BACKGROUND

On July 1, 2024, the applicant, Scott Hoffman, applied for a Building Permit for a 45-foot-tall lattice tower antenna for a private network for remote reading of water meters on San Jose Water Company property. Staff clarified to the applicant that the proposed project is not eligible for exemption from the ASA process because the proposed project does not facilitate the production, generation, storage, treatment, or transmission of water, per CA Gov Code § 53091.

The application was accepted on July 3, 2024, and converted to a Planning Approval application for ASA. The project was deemed incomplete on August 2, 2024. The applicant resubmitted the project on September 24, 2024. The resubmittal was deemed incomplete on October 23, 2024. the application was resubmitted again on December 23, 2024, and was deemed complete on January 22, 2025.

A public notice was mailed to all property owners within a 300-foot radius of the project on February 21, 2025, and published in the San Jose Post Record on February 24, 2025.<sup>1</sup> No public comments have been received regarding this application as of writing this report.

<sup>&</sup>lt;sup>1</sup> San Jose Post Record; <u>https://www.postrecord.news/home.cfm?ref=legalnotices&disp=1</u>

<sup>-</sup> Legal Notices February 24, 2025; https://www.postrecord.news/LegalNotices/SJR-2025-02-24.pdf

#### **STAFF REPORT REVIEW**

Prepared by:	David Horwitz, Associate Planner	Dremino Horwitz
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Reviewed and	Approved by: Samuel Gutierrez, Pri	ncipal Planner

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## Attachment A

Statement of Exemption from the California Environmental Quality Act (CEQA)

## Attachment A

## **STATEMENT OF EXEMPTION**

## from the California Environmental Quality Act (CEQA)

FILE NUMBER	APN(S)				
PLN24-112	544-45-004 3/6/2025				
PROJECT NAME	APPLICATION TYPE				
45-feet-tall monopole antenna	Architecture and Site Approval				
OWNER	APPLICANT				
San Jose Water Company	Scott Hoffman				
PROJECT LOCATION	·				
0 Bayview Drive, Los Gatos, CA 95033					
PROJECT DESCRIPTION					
Architecture and Site Approval (ASA) for a new 45-feet-ta meters at an existing San Jose Water Company facility con improvements include a base station with one cabinet, encl and irrigation around the perimeter of the base station, and The project does not include any grading or tree removal.	Architecture and Site Approval (ASA) for a new 45-feet-tall monopole antenna used to remotely read water meters at an existing San Jose Water Company facility containing a water reservoir. Associated ground improvements include a base station with one cabinet, enclosed by a fence. The project also includes landscaping and irrigation around the perimeter of the base station, and the installation of two LED wall packs for lighting. The project does not include any grading or tree removal.				
All discretionary development permits processed by the County Planning Office must be evaluated for compliance with the California Environmental Quality Act (CEQA) of 1970 (as amended). Projects that meet criteria listed under CEQA may be deemed exempt from environmental review. The project described above has been evaluated by Planning Staff under the provisions of CEQA and has been deemed to be exempt from further environmental review per the provision(s) listed below.					
CEQA (GUIDELINES) EXEMPTION SECTION					
Section 15301(b) - Class 1(b): Existing facilities of both investor and publicly-owned utilities used to provide electric power, natural gas, sewerage, or other public utility services. The proposed project's environmental impacts were analyzed, resulting in a Categorical Exemption. The project will not create any significant environmental impacts as the project proposes no grading or impacts to the natural terrain. No tree removal is proposed. The project does not impact any biologic or aquatic resources, and mitigates potential visual impacts. The project is associated with minor alterations of an existing utility facility. As such, the project qualifies for a Class 1, Section 15301 (b) Existing Facility Exemption from CEQA.					
COMMENTS					
The subject property is in an area zoned to allow Antenna – Commercial, minor development through the Architecture and Site Approval process.					
APPROVED BY:					
David Horwitz, Associate Planner <i>David Horwitz</i>	2/27	2/27/25			
Signature Date					

## Attachment B

Preliminary Architecture and Site Approval (ASA)

Conditions of Approval

## ATTACHMENT B Final Conditions of Approval ARCHITECTURE AND SITE APPROVAL (ASA)

Date:	March 6, 2025
Owner/Applicant:	San Jose Water Company/Scott Hoffman
Location:	0 Bayview Drive, Los Gatos (APN: 544-45-004)
File Number:	PLN24-112
CEQA:	Exempt under Section 15301(b)
Project Description:	Architecture and Site Approval (ASA) for a new 45-feet-tall monopole antenna with associated improvements at an existing San Jose Water Company facility, for the purpose of remotely reading water meters. Additional improvements include lighting and landscaping. No grading or tree removal is proposed for this project.

If you have any questions regarding the following preliminary conditions of approval, call the person whose name is listed as the contact for that agency. They represent a particular specialty or office and can provide details about the conditions of approval.

Agency	Name	Phone	E-mail			
Planning	David Horwitz	(408) 299-5795	david.horwitz@pln.sccgov.org			
Environmental Health	Darrin Lee	(408) 918-3435	darrin.lee@deh.sccgov.org			
Land Development	Darrell Wong	(408) 299-5735	darrell.wong@pln.sccgov.org			
Engineering						
Fire Marshal's Office	Alex Goff	(408) 341-4420	alex.goff@sccfd.org			

## STANDARD CONDITIONS OF APPROVAL

1. For detailed information about the requirements for a Building Permit, obtain a Building Permit Application Instruction handout from the Building Inspection Office or visit the website at <u>www.sccbuilding.org</u>.

### Planning

2. Development and maintenance of the site shall take place in accordance with the approved plans, submitted December 23, 2024. Proposed improvements include a 35-foot-tall monopole tower with a 10-feet-tall antenna (resulting in a maximum height of 45 feet)/ The facility will include the following ground-based improvements: one outdoor cabinet. The ground-based equipment will be located within a 100-square-foot (sq. ft.) base station enclosed by a six-foot-tall chain link fence enclosure. Two 76-watt LED pack lights will be mounted to the existing water reservoir. The proposal also includes planting nine five-gallon sagebrush shrubs at the perimeter of the base station and an associated irrigation system. The plans submitted into Plan Check shall be in substantial conformance with the approved plans may result in a Modification to

the approved ASA permit and may be subject to additional review under the California Environmental Quality Act (CEQA), and additional public hearings. Any changes to the project must be submitted to the Planning Division for review.

- 3. Pursuant to §5.40 and §5.20.200, modifications, expansion of, or additions to the facility are subject to modification of this approval through Architecture and Site Approval (ASA), ASA Administrative Review, or Use Permit and shall incorporate a similar design and finish and comply with this approval.
- 4. Permit Expiration: This approval by the Zoning Administrator for ASA for a new monopole antenna is valid for 48 months (four years) from the date of this approval. During that time, the establishment of the use and approved structure (i.e. construction and building final inspection of the project) must occur within four years of the effective date of the original permit approval. Failure to do so will result in this approval becoming invalid and void, unless an "Extension of Time Application" is submitted to and granted by the Zoning Administrator in advance of the expiration of this approval. Upon application for renewal, the expiration of the permit shall be stayed until a formal action has been taken on the extension request, but in no event for more than two years. If permit renewal is granted, the new approval term shall be established by the Zoning Administrator, at their discretion, and shall begin immediately after the original expiration date.
- 5. If archaeological resources or human skeletal remains are discovered during construction, work shall immediately stop, and the County Coroner's Office notified. Upon determination that the remains are Native American, no further disturbance of the site may be made except as authorized by the County Coordinator of Indian Affairs, in accordance with state law and Chapter B6-18 of the County Ordinance Code.
- 6. All construction vehicles, equipment, and delivery trucks shall have a maximum idling time of five minutes. Engines shall be shut off if construction requires longer idling time unless necessary for proper operation of the vehicle.
- 7. All painted or otherwise treated surfaces of the tower-based and ground-based improvements shall be maintained during the term of this approval.
- 8. All antenna facility equipment installed on site shall comply with the standards of the Federal Communications Commission (FCC) for health, safety, and other pertinent requirements.
- 9. No signs are approved at this time except for informational signs that provide phone numbers to be used in case of an emergency. Any signs required by the FCC will also be allowed as necessary. Such signs shall be limited to an area of one square foot or the minimum required by law.
- 10. All antenna facility-related equipment shall be removed from the site within six months of

cessation of use. This removal will require obtaining a demolition permit from the Department of Planning and Development Building Inspection Office.

- 11. During the term of this permit, the permittee shall keep the property free of graffiti. "Graffiti" means any unauthorized inscription, writing, lettering, word, figure, mark, design, or other material that is written, marked, etched, scratched, drawn, painted or otherwise placed on any structures, fences. Or other permanent or temporary surfaces.
- 12. The removal of any on this property is subject to the Tree Preservation and Removal Ordinance (Division C16 of the County Code of Ordinances). Pursuant Section C16-3(a), any tree on this property outside of the right-of-way having a main trunk or stem measuring 37.7 inches or greater in circumference (12 inches or more in diameter) at a height of 4 feet, 6 inches above ground level (or in the case of multi-trunk trees, a total of 75.5 inches in circumference or 24 inches or more in diameter) shall submit a Tree Removal Permit application for approval to the Department of Planning and Development Planning Division prior to removal of a tree. Trees that pose significant risk and hazard to life or property are subject to removal by the provisions of Section C16-4(a) and C16-4(b) of the County Code of Ordinances. If so, the applicant shall contact the County in advance of the removal to document the hazard.
- 13. All developed areas shall be continuously maintained in compliance with these conditions and all applicable County ordinances.

## Environmental Health

14. All construction activities shall be in conformance with the Santa Clara County Noise Ordinance Section B11-154, and prohibited between the hours of 7:00 pm and 7:00 am on weekdays and Saturdays, or at any time on Sundays, for the duration of construction.

## Fire Marshal's Office

15. Fire Marshal's Office (FMO) approval is based on no back-up power being proposed. Further FMO review shall be required if any generators, fuel (such as diesel), or batteries are proposed.

## Land Development Engineering

16. The property owner shall be responsible for the adequacy of any drainage facilities and for the continued maintenance thereof in a manner that will preclude any hazard to life, health, or damage to adjoining property.

## **CONDITIONS OF APPROVAL TO BE COMPLETED PRIOR TO PERMIT ISSUANCE**

### <u>Planning</u>

- 17. **Prior to the issuance of any permits,** the applicant shall pay all reasonable costs associated with the work by the Department of Planning and Development.
- 18. Prior to the issuance of a building permit, and pursuant to Section 5.20.125 of the

County Zoning Ordinance, record a "Notice of Permit and Conditions" with the County Office of Clerk-Recorder, to ensure that successor property owners are made aware that certain conditions of approval shall have enduring obligation. Evidence of such recordation shall be provided **prior to building permit application**.

- 19. **Prior to issuance of a building permit**, submit paint samples for the monopole antenna, base station facilities, and fence enclosure which shall be painted with paints that have a light reflectivity value (LRV) of 30 or less. The colors must blend with the adjacent landscape. The monopole and antenna shall be painted to adequately blend with the existing trees on-site. The manufacturers specifications containing the paint color and LRV shall be clearly shown on the building permit plan title page and elevations.
- 20. **Prior to issuance of a building permit**, submit a detailed lighting plan which includes all new exterior lighting. The Lighting Plan shall provide light fixture details (cut sheets) with lighting profiles and product-specific information that includes the following information:

Depict the extent of illumination from all new outdoor lighting (photometric plan, beam patterns, lighting cut sheets). The Lighting Plan shall note the light fixtures and their locations relative to their photometrics on the plan. Lighting shall include light fixtures that are shielded. All lighting shall only illuminate the area intended. Use "state-of-the-art" luminaries including those with high beam efficiency.

- 21. The building permit submittal shall include a landscaping and irrigation plan consistent with the approved plans.
- 22. The latitude and longitude for this facility are as follows (NAD 83):

Latitude:	N 37.15246
Longitude:	W -121.99178

Show the above coordinates on the building permit plans.

23. Pursuant to Table 4.30-2 of the County Zoning Ordinance, an unmanned Antennas-Commercial facility requires one off-street parking spot. One off-street parking spot that complies with all applicable requirements of Chapter 4.30 of the County Zoning Ordinance shall be incorporated in the building permit plans.

#### Land Development Engineering

24. Survey monuments shall be shown on the improvement plan to provide sufficient information to locate the proposed improvements and the property lines. Existing monuments must be exposed, verified, and noted on the grading plans. Where existing monuments are below grade, they shall be field verified by the surveyor and the grade shall be restored and a temporary stake shall be placed identifying the location of the found monument. If existing survey monuments are not found, temporary staking delineating the

property line may be placed prior to construction and new monuments shall be set prior to final acceptance of the improvements. The permanent survey monuments shall be set pursuant to the State Land Surveyor's Act. The Land Surveyor/ Engineer in charge of the boundary survey shall file appropriate records pursuant to Business and Professions Code Section 8762 or 8771 of the Land Surveyors Act with the County Surveyor.

- 25. The improvement plans shall include an Erosion and Sediment Control Plan that outlines seasonally appropriate erosion and sediment controls during the construction period. Include the County Standard Best Management Practice Plan Sheets BMP-1 and BMP-2 with the plan set.
- 26. All applicable easements affecting the parcel with benefactors and recording information shall be shown on the improvement plans.

## Utilities

27. All new on-site utilities, mains, and services shall be placed underground and extended to serve the proposed development. All extensions shall be included in the improvement plans. Off-site work should be coordinated with any other undergrounding to serve other properties in the immediate area.

## **CONDITIONS OF APPROVAL TO BE COMPLETED PRIOR TO FINAL INSPECTION**

### Planning

- 28. Install the landscaping and irrigation system as shown on sheets L1 and L2 of the approved plans.
- 29. **Prior to final inspection**, call David Horwitz at (408) 299-5795 to schedule an inspection to ensure compliance with all conditions of approval. The inspection will ensure that the correct paint color and light reflectivity value, landscaping, and irrigation have been installed. Call at least one week prior to the requested final inspection date to schedule.

## Land Development Engineering

- 30. Existing and set permanent survey monuments shall be verified by inspectors prior to final acceptance of the improvements by the County. Any permanent survey monuments damaged or missing shall be reset by a licensed land surveyor or registered civil engineer authorized to practice land surveying and they shall file appropriate records pursuant to Business and Professions Code Section 8762 or 8771 of the Land Surveyors Act with the County Surveyor.
- 31. Construct the improvements. Construction staking is required and shall be the responsibility of the developer.

## Attachment C

Location and Vicinity Map



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Ñ	Feet		
IN	Feet		



## Attachment D

Proposed Plans





FILE NO.: PLN24-112	Let's Solve Water Solve Station Sonal USE PERMIT	APPLICANT:         COMPANY       SENSUS / XYLEM         ADDRESS       18 CAPRINGTON ROAD         HENDERSON, NV 89052         CONTACT       RANDY ARNTSON, SENIOR P         PHONE       805–886–4788         PROPERTY CONTACT:         COMPANY       SAN JOSE WATER COMPANY         ADDRESS       1265 SOUTH BASCOM AVEN         SAN JOSE, CA 95128       CONTACT         PHONE       -
ARCHITECTURAL AND TALL SLIMLINE F 0 BA LOS G (UNINCORPORAT AP	O SITE APPROVAL FOR 45 FOOT POLE WITH OMNI ANTENNA ADDRESS: AYVIEW DRIVE GATOS, CA 95030 ED SANTA CLARA COUNTY) N: 544-45-004	Site         LATITUDE       :       37.152545         LONGITUDE       :       -121.991710         JURISDICTION       :       COUNTY OF SANTA CL         ZONING DIST       :       -         LAND USE       :       PUBLIC UTILITY         PARCEL NO.       :       544-45-004         LOT AREA       :       0.56 SF         NET LOT AREA       :       0.51 SF
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 CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.         1. 2022 CALIFORNIA ADMINISTRATIVE CODE (CAC)         2. 2022 CALIFORNIA BUILDING CODE (CBC)         3. 2022 CALIFORNIA ELECTRICAL CODE (CEC)         4. 2022 CALIFORNIA HERGY CODE         6. 2022 CALIFORNIA FIRE CODE (CFC)         7. 2022 CALIFORNIA REFERENCES STANDARDS CODE         8. 2022 CALIFORNIA REFERENCES STANDARDS CODE         9. APPLICABLE LOCAL CODES AND ORDINANCES         10. ASCE / SEI – 7–16	INSTALLATION OF: 1. (1) SLIMLINE MONOPOLE 2. (1) DB589-Y ANTENNA 3. (1) M400 BASE STATION CABINET 4. MOUNTING HARDWARES AND CABLES * POWER SUPPLY IS EXISTING AND IS PERFORMED BY OTHERS (NOT PART OF THIS PROJECT)	FROM SAN JOSE INTERNATIONAL AIRPORT MERGE ONTO I-880 S CONTINUE ONTO CA-17 S TAKE SUMMIT RD EXIT RIGHT ONTO CA-35 RIGHT ONTO WOOLAROC DR CONTINUE STRAIGHT ONTO VIRDELLE DR RIGHT ONTO BAYVIEW DR LEFT ONTO FERN AVE RIGHT ONTO MCLUCKIE ARRIVE AT SITE
I-1.2PHOTO SIMULATIONST-2NOTEST-3NOTESA-1SITE PLANA-2PARTIAL ENLARGED SITE PLANA-3ELEVATIONSA-4ELEVATIONSD-1DETAILSD-2DETAILSD-3DETAILS	NO TREES ARE PROPOSED FOR REMOVAL         NO GRADING IS PROPOSED         DISTURBED AREA TO BE HYDROSEEDED         VINDERGROUND SERVICE ALERT         (800) 642-2444         WWW.CALIFORNIA811.ORG         CALL 2 TO 14 WORKING DAYS UTHER NOTIFICATION	18293 TELLA CT MCLUCKIE RD
E-1       ELECTRICAL NOTES         E-2       ELECTRICAL GROUNDING AND DETAILS         L-1       LANDSCAPE PLANTING PLAN         L-2       LANDSCAPE IRRIGATION PLAN         I       Image: Comparison of the second se	PRIOR TO CONSTRUCTION PRIOR TO CONSTRUCTION IMPORTANT THIS FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A SERVICE TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THIS PORJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE. NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS NEW INTENDED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK	

## JECT DIRECTORY

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## E INFORMATION

١	CLARA	

OCCUPANCY CONST. TYPE NO. OF STORY SPRINKLER	: : :
POWER CO. : TELCO CO. :	UTLIZ N/A

:	U
:	V-B
:	_
:	NO
UTL	IZE ON-SITE POWER
NI / A	

## DIRECTIONS

















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DRAWING NUMBER</li> <li>GROUND ROD WITH ACCESS</li> <li>CHEMICAL GROUND ROD</li> <li>GONUND ROD</li> <li>CONDUIT HOME RUN TO PANELBOARD, LETTER AND NUMERALS</li> <li>INDICATE LECTRICAL PANEL AND CIRCUIT NUMBER.</li> <li>CONNECTION TO GROUND, MINIMUM TWO (2) OF THE FOLLOWING:</li> <li>EARTH, BUILDING, COLD WATER PIPING, VERTY CONTINUITY FOR</li> <li>ALL GROUND SOURCES WITH A TOTAL RESISTANCE OF &lt; 5 OHMS.</li> <li>GROUT OR PLASTER</li> <li>(E) BRICK</li> <li>(E) MASONRY</li> <li>CONCRETE</li> <li>EARTH</li> <li>GRAVEL</li> <li>PLYWOOD</li> <li>SAND</li> <li>WOOD CONT.</li> <li>WOOD BLICKKING</li> </ul>	<ul> <li>JCALL DRAWIN</li> <li>2. CONTRA TRADE TO SUI</li> <li>3. EXISTIN CONSTF</li> <li>4. ALL SY ARCHITI</li> <li>5. THE CO BE SOL</li> <li>6. WORKM</li> <li>7. ALL EQ</li> <li>8. THE CO</li> <li>9. THE CO</li> <li>9. THE CO</li> <li>9. THE CO</li> <li>10. THE CO</li> <li>11. THE CO</li> <li>12. IT SHAL PROTEC</li> <li>13. THE CO</li> <li>14. THE CO</li> <li>15. THE GE</li> <li>INSPEC</li> <li>16. THE LA</li> <li>INFORM THE CA</li> <li>17. THE CO</li> <li>CONTRO CLEAN</li> <li>18. THE GE</li> <li>19. ALL EX</li> <li>20. PROVID</li> <li>21. ELECTR</li> <li>22. UPON C</li> <li>23. THE CO</li> <li>24. FIELD N</li> </ul>	DIAMINOSI CONTRACTION OF ALL CITED AGA G DIMENSIONS HAVE BEEN VERFIELD AGA GCTOR SHALL NOTIFY THE CONSTRUCTION PRACTICE. IF WORK IS PERFORMED, IT T JOB CONDITIONS, AND SHALL BE INCL G ELEVATIONS AND LOCATIONS TO BE J PUCTION MANAGER AND THE ARCHITECT MBOLS AND ABBREVIATIONS USED ON TH ECT SHALL BE NOTIFIED FOR CLARIFICAT DISTRACTOR SHALL PROVIDE CONTINUOUS ELY RESPONSIBLE FOR ALL CONSTRUCT ANSHIP THROUGHOUT BE OF THE BEST UIPMENT AND MATERIALS PER THE LATE DISTRACTOR SHALL VERIFY, COORDINATE, DISTRACTOR SHALL VERIFY, COORDINATE, DISTRACTOR SHALL PROTECT THE PROPEI APING, CURBS, STAIRS, OR EQUIPMENT, E OF THE CONTRACTOR. DISTRACTOR SHALL BE RESPONSIBLE FOR CTION AND DIVISION OF INDUSTRIAL SAF DISTRACTOR SHALL BE RESPONSIBLE FOR CTION AND ACCEPTANCE OF THE WORK L BE THE RESPONSIBILITY OF THE GEN T. THEM FROM DAMAGE. THE CONTRACTOR DISTRACTOR SHALL BE RESPONSIBLE FOR DISTRACTOR SHALL PROVIDE TEMPORARY INERAL CONTRACTOR IS RESPONSIBLE FOR DISTRACTOR SHALL PROVIDE TEMPORARY INERAL CONTRACTOR MUST PERFORM WO POSED METAL SHALL BE RESPONSIBLE FOR DISTRACTOR SHALL REMOVE ALL RUBBISH DU OVER JOB CLEANING THROUGHOUT C CONDITION, FREE FROM PAINT, SPOTS, INERAL CONTRACTOR MUST PERFORM WO POSED METAL SHALL BE HOT-DIPPED DI CANABLE FIRE EXTINGUISHER WITH ICAL AND POWER SYSTEM SHALL BE GR COMPLETION OF CONSTRUCTION, THE CC DISTRACTOR SHALL BE RESPONSIBLE FOR YERIFY EXISTING CONDITION PRIOR TO FA	AND WASTE ONSTRUCTION AND WASTE ON BEFORE SUPERVISION ION BEFORE SUPERVISION ION MEANS, M QUALITY OF T ST EDITION OF AND PROVIDE SHALL GIVE A ETY (OSHA) F RTY OWNERS, ETC. SHALL BY THE OWNE ERAL CONTRAC OR SHALL BEA STHE COMPLE WATER, POWE OR REDLINING ENCY. ONE S PPROVED PLA IAINTAIN IN GO AND WASTE ONSTRUCTION, DUST OR SMU ORK DURING F CALVANIZED. A RATING OF OUNDED PER INSTRUCTION IN ABRICATION AN	FIELD DIMENSIONS. HE PROPERTY OWNER AND THE ARCHITE IMED THAT THERE IS NO OBJECTION TO ARE CONSIDERED CONSTRUCTION STAND THE CONTRACTOR PROCEEDS WITH THE WHILE ANY SUBCONTRACTORS OR WOR METHODS, TECHNIQUES, PROCEDURES AN THE TRADE INVOLVED, AND SHALL MEET F THE MANUFACTURER'S INSTALLATION S ALL NECESSARY BLOCKING, BACKING, F LL NOTICES AND SHALL COMPLY WITH A REQUIREMENTS. AND LESSEE PROPERTY FROM DAMAGE BE IMMEDIATELY REPAIRED OR REPLACEI REPLACE OR REMEDY, ANY FAULTY, IMF R UNDER THIS CONTRACT. CTOR TO LOCATE ALL EXISTING UTILITIES R ALL EXPENSES FOR REPAIR OR REPL THE CONSTRUCTION DOCUMENTS TO ILL THE CONSTRUCTION DOCUMENTS TO ILL THE CONSTRUCTION DOCUMENTS TO ILL ET OF REDLINED DRAWINGS SHALL BE F NS PERTAINING TO THIS PROJECT SHALL DOD CONDITION, ONE COMPLETE SET OF MATERIALS ON A DAILY BASIS, EXCEPT INCLUDING FINAL CLEAN-UP UPON CO DDGES OF ANY NATURE TO COMPLETION PROPERTY OWNER'S PREFERRED HOURS TOT LESS THAN 2–A OR 2–A10BC WI THE CALIFORNIA ELECTRICAL CODE. WANAGER SHALL CONDUCT A WALK-THRI ALL SYSTEM EQUIPMENT IN A CLEAN W ID INSTALLATION	CT IF ANY DET ANY DETAIL. D ORE CONSTRUCT CEDING WITH T DARDS. IF THE WORK. KMEN ARE ON D SEQUENCES OR EXCEED TH PECIFICATIONS RAMING, HANGI ILL APPLICABLE WHICH MAY OC D TO THE SATIS PROPER, OR IN , OR CONTACT ACEMENT OF L HILE THE JOB I BY THE PROPE JUSTRATE THE PROVIDED TO TH BY THE PROPE JUSTRATE THE PROVIDED TO TH BY THE PROPE USTRATE THE PROVIDED TO TH FOR THAT SPEC MPLETION OF W OF WORK. TO AVOID DISF THIN 75 FEET J WITH PROPEF ORKING ORDER	ANDIED, DO NOT FADRICALE ANT MATCHI AILS ARE CONSIDERED IMPRACTICAL, UNS ETAILS ARE INTENDED TO SHOW THE ENE TION. IF THEY DIFFER FROM THOSE SHOW HE WORK. CONTRACTOR HAS QUESTIONS REGARDING THE SITE AND SHALL SUPERVISE AND DI AND FOR COORDINATING ALL PORTIONS OF UNLESS SPECIFICALLY OTHERWISE INDICAT ERS OR OTHER SUPPORTS FOR ALL ITEM LOCAL CODES, REGULATIONS, LAWS AND CUR DURING CONSTRUCTION. ANY DAMAG SFACTION OF THE LESSEE, AND THE PROF FERIOR MATERIALS OR WORKMANSHIP OR AN OUTSIDE AGENCY TO LOCATE ALL EXI UTILITIES OR OTHER PROPERTY DAMAGE IN S IN PROGRESS AND UNTIL THE JOB IS RTY OWNER, CARRIER AND THE CITY OR AS-BUILT CONDITION OF THE SITE. THIS HE CONSTRUCTION MANAGER. A PLAN BOX AND NOT BE USED BY WOR ALL REVISIONS, ADDENDA AND CHANGE OF CIFIED AS REMAINING THE PROPERTY OF YORK. ALL AREAS ARE TO BE LEFT IN A PUPTION OF NORMAL ACTIVITY. TRAVEL DISTANCE TO ALL PORTIONS OF TRY OWNER OR REPRESENTATIVE OF PROF UNTIL ACCEPTANCE OF THE PROJECT BY
	STEEL						
	TOP OF ANTENNA		RAL NUTES				
	PROPERTY/LEASE LINE	A APPROX	AMPERE APPROXIMATE	(E) EGB	EXISTING EQUIPMENT GROUND BAR	P PVC	POLE POLYVINYL CONDUIT
	MAICH LINE	ABV AIC	ABOVE AMPERES INTERRUPTING CAPACITY	EA ELEC/ELE	EACH CT ELECTRICAL	PL RGS	PROPERTY LINE RIGID GALVANIZED STEEL
	WORK POINT	ASCC ASPH	AVAILABLE SHOR CIRCUIT CURRENT ASPHALT	EL EMT	ELEVATION ELECTRICAL METALLIC TUBING	REV STRUCT	KEVISION STRUCTURAL SOLVARE FOOT
	GROUND CONDUCTOR	AGB	ANTENNA GROUND BAR ABOVE GROUND LEVEL	EQ EQUIP	EQUAL / EQUIVALENT EQUIPMENT	sf SH SIM	SHEET SIMILAR
— · — A — · —	COAXIAL CABLE	AFL AWG	ABOVE FLOOR LINE AMERICAN WIRE GAUGE	FRP FFL CA	FIBER REINFORCED POLYMER FINISH FLOOR LINE GAUGE	SS TYP	STAINLESS STEEL TYPICAL
— · — OH— · —	OVERHEAD SERVICE CONDUCTORS	BCW BTS	BARE COPPER WIRE BASE TRANSMISSION STATION	GALV GENSET	GALVANIZED GENERATOR SET	T.P. UNO	TOP OF UNLESS NOTED OTHERWISE
ОНТ /ОНРОНТ /ОНР	OVERHEAD TELEPHONE / OVERHEAD POWER	B.O. C	BOTTOM OF CONDUIT	GRND	GROUND INTERMEDIATE METALLIC CONDUIT	VIF WWF	VERIFY IN FIELD WELDED WIRE FABRIC
	OVERHEAD TELEPHONE LINE	CAB CBC	CABINET CALIFORNIA BUILDING CODE	ICC MAX	INTERNATIONAL CODE COUNCIL MAXIMUM		
	OVERHEAD POWER LINE	CEC CMC	CALIFORNIA ELECTRICAL CODE CALIFORNIA MECHANICAL CODE	MGB MOD	MASTER GROUND BAR MODIFICATION		
—— E ——	POWER RUN	CMU CONC	CONCRETE MASONRY UNIT	MIN MECH	MINIMUM MECHANICAL MANUFACTURER		
——F/P ——	FIBER/POWER RUN	CONT CALC(S)	CONTINUOUS CALCULATION(S)	MFR MGB (N)	MANUFACIUKEK MASTER GROUND BAR NEW		
		CL DIA DWG	TOP OF ANTENNA DIAMETER DRAWING	NTS OC	NOT TO SCALE ON CENTER		
LEGENDS	, SYMBOLS AND ABBREVIATIONS 9	ABBF	REVIATIONS				

SCALE AND DETAIL DRAWINGS HAVE PRECEDENCE OVER SMALL RIALS, OR BEGIN ANY CONSTRUCTION UNTIL THE ACCURACY OF SUITABLE, UNSAFE, NOT WATERPROOF, OR NOT WITHIN CUSTOMARY RESULT OF THE DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED WN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE APPROVAL STAMP G THEIR EXACT MEANING, THE CONSTRUCTION MANAGER AND THE NRECT ALL WORK, USING HIS BEST SKILL AND ATTENTION. HE SHALL OF THE WORK UNDER THE CONTRACT. R QUALITY AND PROFESSIONAL CONSTRUCTION PRACTICE lem ATED, OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE. S REQUIRING THE SAME. ORDINANCES AS WELL AS STATE DEPARTMENT OF INDUSTRIAL Let's Solve Water E TO NEW AND EXISTING FINISHES, CONSTRUCTION, STRUCTURE, XYLEM INC. OPERTY OWNER, OR THE OWNER'S REPRESENTATIVE, AT THE 301 WATER STREET, SUITE 200 WASHINGTON, DC 20003 R ANY DAMAGE WHICH SHALL APPEAR WITHIN ONE YEAR AFTER THE KISTING UTILITIES. WHETHER SHOWN HERE IN OR NOT, AND TO CONJUNCTION WITH THE EXECUTION OF WORK. COMPLETED AND ACCEPTED GOVERNING AGENCY. SHALL BE DONE AFTER THE SITE HAS BEEN AWARDED FINAL RKERS. ALL CONSTRUCTION SETS SHALL REFLECT THE SAME ORDERS ON THE PREMISES AT ALL TIMES. THESE ARE TO BE UNDER DCS THE BUILDING OR PROPERTY OWNER AND SHALL EXERCISE STRICT DIVERSIFIED COMMUNICATIONS BROOM CLEAN CONDITION AT THE END OF EACH DAY AND VACUUM SERVICES, INC. THE PROJECT AREA CONSTRUCTION. PERTY OWNER. THE CARRIER. JOHNOAH D. 'BOK' C-33097 DRAFTLINK IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ARCHITECT TO ALTER THIS DOCUMENT DRAWN BY : DY CHECKED BY : JY APPROVED BY : JY CONSTRUCTION DRAWINGS 2 SUBMITTALS REV DATE DESCRIPTION 2 09-03-24 PLANNING COMMENTS 3 09-10-24 SJW INPUTS 4 09-11-24 ADD PHOTOSIMS 5 09-19-24 PLANNING COMMENTS 6 11-18-24 CHANGE TO SLIMLINE POLE 7 12-16-24 SJW INPUTS PLANNING FILE NUMBER PLN24-112 PROJECT INFORMATION **BAYVIEW STATION** 0 BAYVIEW DRIVE LOS GATOS, CA 95030 SHEET TITLE NOTES SHEET NUMBER **T-2** 3

JU ADDREVIATIONS

1. TH TW	E ARCHITECT/ENGINEER AND REPRESENTATIVES OF THE LESSEE AND OWNER, MUST BE NOTIFIED AT LEAST O FULL DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.	1. CONTRACTOR SHALL COMPLY WITH CFC CHAPTER 33 FOR MINIMUM SAFETY SAFEGUARDS FOR CONSTRUCTION, ALTERNATION AND DEMOLITION OPERATIONS TO PROVIDE REASONABLE SAFETY TO LIFE AND PROPERTY FROM FIRE DURING CONSTRUCTION OPERATIONS
2. DO INS	NOT EXCAVATE OR DISTURB SOILS BEYOND THE PROPERTY LINES OR LEASE LINES, UNLESS SPECIFICALLY STRUCTED, IN WRITING, BY THE ARCHITECT / ENGINEER	<ol> <li>TEMPORARY HEATING DEVICES SHALL BE LISTED AND LABELED IN ACCORDANCE WITH THE CALIFORNIA MECHANICAL CODE. INSTALLATION, MAINTENANCE AND USE OF TEMPORARY HEATING DEVICES SHALL BE IN</li> </ol>
3. DO	NOT SCALE BUILDING DIMENSIONS FROM DRAWINGS.	ACCORDANCE WITH THE TERMS OF THE LISTING.
4. AN CO IMF	IY DRAIN AND/OR FIELD TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE RETURNED TO ITS ORIGINAL ONDITION PRIOR TO COMPLETION OF WORK. SIZE, LOCATION AND TYPE OF ANY UNDERGROUND UTILITIES OR PROVEMENTS SHALL BE ACCURATELY NOTED AND PLACED ON AS-CONSTRUCTED DRAWINGS BY GENERAL	<ol> <li>GIE FIRED HEATERS SHALL COMPLET WITH SECTION COST.</li> <li>FUEL SUPPLIES FOR LIQUEFIED—PETROLEUM GAS—FIRED HEATERS SHALL COMPLY WITH CHAPTER 61 AND THE CALIFORNIA MECHANICAL CODE.</li> <li>REFLIELING OPERATIONS FOR LIQUED FUELED FOUR MENT OF APPLIANCES SHALL RE CONDUCTED IN</li> </ol>
5. ALI PLO WH MA LO ALI	L EXISTING UTILITIES, FACILITIES, CONDITIONS, AND THEIR DIMENSIONS SHOWN ON PLANS HAVE BEEN OTTED FROM AVAILABLE RECORDS. THE ARCHITECT/ENGINEER, AND OWNER ASSUME NO RESPONSIBILITY HATSOEVER AS TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS OR THE INNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT CATION OF ALL EXISTING UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL SO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND THODS OF REMOVING OR ADJUSTING EXISTING UTILITIES.	<ol> <li>KET BELING OF EXAMONS FOR ELIQUET BELED EQUIPMENT OR APPLIANCES SHALL BE CONDUCTED IN ACCORDANCE WITH SECTION 5705. THE EQUIPMENT OR APPLIANCE SHALL BE ALLOWED TO COOL PRIOR TO REFUELING.</li> <li>CLEARANCE TO COMBUSTIBLES FROM TEMPORARY HEATING DEVICES SHALL BE MAINTAINED IN ACCORDANCE WITH THE LABELED EQUIPMENT. WHEN IN OPERATION, TEMPORARY HEATING DEVICES SHALL BE FIXED IN PLACE AND PROTECTED FROM DAMAGE, DISLODGEMENT OR OVERTURNING IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.</li> <li>THE USE OF TEMPORARY HEATING DEVICES SHALL BE SUPERVISED AND MAINTAINED ONLY BY COMPETENT</li> </ol>
6. CO CO IMM WC AR HIS LO	INTRACTOR SHALL VERIFY ALL EXISTING UTILITIES BOTH HORIZONTALLY AND VERTICALLY PRIOR TO START OF INSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHOULD BE MEDIATELY REPORTED TO THE ARCHITECT/ENGINEER FOR RESOLUTION AND INSTRUCTION, AND NO FURTHER ORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS CHECKED AND CORRECTED BY THE ICCHITECT/ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT S/HER OWN RISK AND EXPENSE. CONTRACTOR SHALL CALL LOCAL DIGGER HOT LINE FOR UTILITY CATIONS 48 HOURS PRIOR TO START OF CONSTRUCTION.	<ol> <li>SMOKING SHALL BE PROHIBITED EXCEPT IN APPROVED AREAS. SIGNS SHALL BE POSTED IN ACCORDANCE WITH SECTION 310. IN APPROVED AREAS WHERE SMOKING IS PERMITTED, APPROVED ASHTRAY SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 310.</li> <li>COMBUSTIBLE DEBRIS, RUBBISH AND WASTE MATERIAL SHALL COMPLY WITH THE REQUIREMENTS OF SECTIONS 3304.2.1 THROUGH 3304.2.4.</li> <li>COMBUSTIBLE DEBRIS, RUBBISH AND WASTE MATERIAL SHALL NOT BE ACCUMULATED WITHIN BUILDINGS.</li> </ol>
7. AL SH	L NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED BY CONSTRUCTION IALL BE ADJUSTED TO FINISH ELEVATIONS PRIOR TO FINAL INSPECTION OF WORK.	11. COMBUSTIBLE DEBRIS, RUBBISH AND WASTE MATERIAL SHALL BE REMOVED FROM BUILDINGS AT THE END OF EACH SHIFT OF WORK.
8. TH PR JU	E BUILDING DEPARTMENT ISSUING THE BUILDING PERMIT SHALL BE NOTIFIED AT LEAST TWO WORKING DAYS NOR TO THE COMMENCEMENT OF WORK OR AS STIPULATED BY THE CODE ENFORCEMENT OFFICIAL HAVING RISDICTION.	12. WHERE RUBBISH CONTAINERS WITH A CAPACITY EXCEEDING 5.33 CUBIC FEET (40 GALLONS) (0.15 M3) ARE USED FOR TEMPORARY STORAGE OF COMBUSTIBLE DEBRIS, RUBBISH AND WASTE MATERIAL, THEY SHALL HAVE TIGHT-FITTING OR SELF-CLOSING LIDS. SUCH RUBBISH CONTAINERS SHALL BE CONSTRUCTED ENTIRELY OF MATERIALS THAT COMPLY WITH EITHER OF THE FOLLOWING:
9. GR EX	ADING OF THE SITE WORK AREA IS TO BE SMOOTH AND CONTINUOUS IN SLOPE AND IS TO FEATHER INTO IS INTO IS TO FEATHER INTO I	12.1. NONCOMBUSTIBLE MATERIALS
10. AL LAI (05	L TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS, UTILITIES, ETC., SHALL BE PROPERLY ID BACK OR BRACED IN ACCORDANCE WITH CORRECT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION SHA) REQUIREMENTS.	12.2. MATERIALS THAT MEET A PEAK RATE OF HEAT RELEASE NOT EXCEEDING 300 KW/M2 WHEN TESTED IN ACCORDANCE WITH ASTM E1354 AT AN INCIDENT HEAT FLUX OF 50 KW/M2 IN THE HORIZONTAL ORIENTATION.
11. STI PR	RUCTURAL FILLS SUPPORTING PAVEMENTS SHALL BE COMPACTED TO 100% OF MAXIMUM STANDARD	<ol> <li>COMBUSTIBLE DEBRIS, RUBBISH AND WASTE MATERIAL SHALL NOT BE ACCUMULATED WITHIN BUILDINGS.</li> <li>MATERIALS SUSCEPTIBLE SPONTANEOUS IGNITION, SUCH AS OILY RAGS, SHALL BE STORED IN A LISTED DISPOSAL CONTAINER.</li> </ol>
12. NE AP	W GRADES NOT IN BUILDING AND DRIVEWAY IMPROVEMENT AREA TO BE ACHIEVED BY FILLING WITH PROVED CLEAN FILL AND COMPACTED TO 95% OF STANDARD PROCTOR DENSITY.	15. COMBUSTIBLE DEBRIS, RUBBISH AND WASTE MATERIAL SHALL NOT BE DISPOSED OF BY BURNING ON THE SIT UNLESS APPROVED.
13. AL CA	L FILL SHALL BE PLACED IN UNIFORM LIFTS. EACH LIFT'S THICKNESS SHOULD NOT EXCEED THAT WHICH N BE PROPERLY COMPACTED THROUGHOUT ITS ENTIRE DEPTH WITH THE EQUIPMENT AVAILABLE.	16. OPERATIONS INVOLVING THE USE OF CUTTING AND WELDING SHALL BE DONE IN ACCORDANCE WITH CHAPTER 35.
14. AN PR	IY FILLS PLACED ON EXISTING SLOPES THAT ARE STEEPER THAN 10 HORIZONTAL TO 1 VERTICAL SHALL BE OPERLY BENCHED INTO THE EXISTING SLOPE.	17. TEMPORARY WIRING FOR ELECTRICAL POWER AND LIGHTING INSTALLATIONS USED IN CONNECTION WITH THE CONSTRUCTION, ALTERATION OR DEMOLITION OF BUILDINGS, STRUCTURES, EQUIPMENT OR SIMILAR ACTIVITIES SHALL COMPLY WITH THE CALIFORNIA ELECTRICAL CODE.
15. CO BR SH	NTRACTOR SHALL CLEAN ENTIRE SITE AFTER CONSTRUCTION SUCH THAT NO PAPERS, TRASH, WEEDS, SUSH OR ANY OTHER DEPOSITS WILL REMAIN. ALL MATERIALS COLLECTED DURING CLEANING OPERATIONS IALL BE DISPOSED OF OFF-SITE BY THE GENERAL CONTRACTOR.	18. APPROVED VEHICLE ACCESS FOR FIRE FIGHTING SHALL BE PROVIDED TO ALL CONSTRUCTION OR DEMOLITION SITES. VEHICLE ACCESS SHALL BE PROVIDED TO WITHIN 100 FEET (30,480 MM) OF TEMPORARY OR PERMANENT FIRE DEPARTMENT CONNECTIONS. VEHICLE ACCESS SHALL BE MAINTAINED UNTIL PERMANENT FIRE APPARATUS ACCESS ROADS ARE AVAILABLE.
16. AL AS	L TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH THE IMPROVEMENTS SHALL BE TRIMMED REQUIRED AND PROTECTED IN PLACE BY THE GENERAL CONTRACTOR.	19. INTERNAL-COMBUSTION-POWERED CONSTRUCTION EQUIPMENT SHALL BE USED IN ACCORDANCE WITH ALL OF THE FOLLOWING CONDITIONS:
17. DR TR AL	IVEWAY CONSTRUCTION, GRADING AND DRAINAGE WORK SHALL CONFORM TO CALIFORNIA DEPARTMENT OF ANSPORTATION ''STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION'', LATEST EDITIONS, AND L APPLICABLE PROVISIONS OF LOCAL COUNTY ORDINANCES.	19.1. EQUIPMENT SHALL BE LOCATED SO THAT EXHAUSTS DO NOT DISCHARGE AGAINST COMBUSTIBLE MATERIAL. 19.2. EXHAUSTS SHALL BE PIPED TO THE OUTSIDE OF THE BUILDING.
18. IT Sic IMF	SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROVIDE AND INSTALL ALL REQUIRED GNS FOR THIS PROJECT. THE CONTRACTOR SHALL OBTAIN WRITTEN INSTRUCTIONS FROM THE PLEMENTATION ENGINEER AS TO THE EXACT MATERIAL, SIZE, WORDING, AND LOCATION FOR ALL SIGNS.	19.3. EQUIPMENT SHALL NOT BE REFUELED WHILE IN OPERATION. 19.4. FUEL FOR EQUIPMENT SHALL BE STORED IN AN APPROVED AREA OUTSIDE OF THE BUILDING.
19. SIC a. 7 b. S c. A d. N e. A	GNS THAT MAY BE REQUIRED INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING: x24 ACCESS SIGN. ITE ENTRY SIGN. NTENNA STRUCTURE COMPLIANCE SIGN. IEPA RF EXPOSURE SIGN(S). NY ADDITIONAL SIGNS AS REQUIRED BY OWNER AND/OR GOVERNMENTAL AGENCIES.	
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SITE DEVELOPMENT NOTES

9 FIRE SA

FETY DURING CONSTRUCTION	6	CONCRETE AND REBA
		REVIEWED BY THE ARCHITECT/STRUCTURAL CONTINUOUS BETWEEN SPLICE LOCATIONS
		8. REINFORCING STEEL SHALL BE SPLICED AS
		7. ALL REINFORCING SHALL BE SECURED IN GROUTING MASONRY.
		6. BARS SHALL BE CLEAN OF MUD, OIL, OR
		5. REINFORCING STEEL SHALL CONFORM TO
		4. SPECIAL INSPECTION IS NOT REQUIRED FO CONCRETE HAS BEEN DESIGNED FOR 250
		3. ALL REINFORCING STEEL SHALL BE SECUR PRIOR TO PLACING CONCRETE.
		C. CONCRETE SLUMP SHALL NOT EXCE D. WATER CEMENT RATIO SHALL NOT E
		A. CEMENT SHALL BE TYPE II. B. COMPRESSIVE STRENGTH = 3250 P
		FOR BUILDINGS", EXCEPT AS SPECIFIED H
Y EQUILWENT STRUE DE STUNED IN AN ALLINUYED ANEA OUTSIDE OF THE DUIEDHNG.		1. ALL CONCRETE MATERIALS AND WORKMANS ALL REQUIREMENTS OF THE CURRENT EDI
NT SHALL NOT BE REFUELED WHILE IN OPERATION. R FQUIPMENT SHALL BE STORED IN AN APPROVED AREA OUTSIDE OF THE RUILDING		STRUCTURAL STEEL N
S SHALL BE PIPED TO THE OUTSIDE OF THE BUILDING.		STRUCTURAL STEEL N
VING CONDITIONS:		
ACCESS ROADS ARE AVAILABLE.	F	
VEHICLE ACCESS FOR FIRE FIGHTING SHALL BE PROVIDED TO ALL CONSTRUCTION OR DEMOLITION CLE ACCESS SHALL BE PROVIDED TO WITHIN 100 FEET (30,480 MM) OF TEMPORARY OR FIRE DEPARTMENT CONNECTIONS. VEHICLE ACCESS SHALL BE MAINTAINED UNTIL PERMANENT FIF	in RE	
UN, ALTERATION OR DEMOLITION OF BUILDINGS, STRUCTURES, EQUIPMENT OR SIMILAR ACTIVITIES PLY WITH THE CALIFORNIA ELECTRICAL CODE.	) NI	
WIRING FOR ELECTRICAL POWER AND LIGHTING INSTALLATIONS USED IN CONNECTION WITH THE	,	
INVOLVING THE USE OF CUTTING AND WELDING SHALL BE DONE IN ACCORDANCE WITH CHAPTE	IR	
E DEBRIS, RUBBISH AND WASTE MATERIAL SHALL NOT BE DISPOSED OF BY BURNING ON THE S PROVED.	SITE	13. ALL EXPOSED STEEL SHALL BE HOT-DIPP
E DEDRIS, RUDDISH AND WASTE MATERIAL SHALL NUT BE ACCUMULATED WITHIN BUILDINGS. SUSCEPTIBLE SPONTANEOUS IGNITION, SUCH AS OILY RAGS, SHALL BE STORED IN A LISTED ONTAINER.		UNLESS OTHERWISE NOTED. NO CUTTING ( WITHOUT PRIOR CONSENT OF THE A/E.
INCE WITH ASTM E1354 AT AN INCIDENT HEAT FLUX OF 50 KW/M2 IN THE HORIZONTAL ION. E DEBRIS, RUBRISH AND WASTE MATERIAL SHALL NOT DE ACCUMULATED WITHIN DUILDINGS		12. NO HOLES OTHER THAN THOSE SPECIFICAL
S THAT MEET A PEAK RATE OF HEAT RELEASE NOT EXCEEDING 300 KW/M2 WHEN TESTED IN		11. ALL SHOP AND FIELD BOLTED CONNECTION UNFINISHED AMERICAN STANDARD REGULAR
IG OK SELF-CLOSING LIDS. SUCH RUBBISH CONTAINERS SHALL BE CONSTRUCTED ENTIRELY OF THAT COMPLY WITH EITHER OF THE FOLLOWING:		WITH THE PUBLIC.
BISH CONTAINERS WITH A CAPACITY EXCEEDING 5.33 CUBIC FEET (40 GALLONS) (0.15 M3) ARE TEMPORARY STORAGE OF COMBUSTIBLE DEBRIS, RUBBISH AND WASTE MATERIAL, THEY SHALL HA	E NVE	10 ALL EXPOSED WELDS SHALL BE FILLED AN
E DEBRIS, RUBBISH AND WASTE MATERIAL SHALL BE REMOVED FROM BUILDINGS AT THE END O OF WORK.	)F	9. WELDING SHALL BE PERFORMED BY AWS O
E DEBRIS, RUBBISH AND WASTE MATERIAL SHALL NOT BE ACCUMULATED WITHIN BUILDINGS.		8. SPECIAL INSPECTION OF THE FABRICATION, PERFORMED IN ACCORDANCE WITH AISC A
E DEBRIS, RUBBISH AND WASTE MATERIAL SHALL COMPLY WITH THE REQUIREMENTS OF SECTION	٧S	PIPE COLUMNS: ASTN
HALL BE PROHIBITED EXCEPT IN APPROVED AREAS. SIGNS SHALL BE POSTED IN ACCORDANCE W 0. IN APPROVED AREAS WHERE SMOKING IS PERMITTED, APPROVED ASHTRAY SHALL BE PROVIDE NCE WITH SECTION 310	VITH ED	C, M, ANGLE, BARS, AND PLATES: ASTM TUBE STEEL:
F TEMPORARY HEATING DEVICES SHALL BE SUPERVISED AND MAINTAINED ONLY BY COMPETENT		7. MATERIAL SPECIFICATIONS: W SHAPES:
PROTECTED FROM DAMAGE, DISLODGEMENT OR OVERTURNING IN ACCORDANCE WITH THE RER'S INSTRUCTIONS.		6. STRUCTURAL STEEL SHOP DRAWINGS SHAL
TO COMBUSTIBLES FROM TEMPORARY HEATING DEVICES SHALL BE MAINTAINED IN ACCORDANCE ABELED EQUIPMENT. WHEN IN OPERATION, TEMPORARY HEATING DEVICES SHALL BE FIXED IN		AISC MANUAL OF STEEL CONSTRUCTION, W BUILDINGS, THE CODE OF STANDARD PRAC
UPERATIONS FOR LIQUID-FUELED EQUIPMENT OR APPLIANCES SHALL BE CONDUCTED IN E WITH SECTION 5705. THE EQUIPMENT OR APPLIANCE SHALL BE ALLOWED TO COOL PRIOR TO		NOTED OTHERWISE. 5. ALL MATERIALS AND WORKMANSHIP SHALL
LIES FOR LIQUEFIED-PETROLEUM GAS-FIRED HEATERS SHALL COMPLY WITH CHAPTER 61 AND TH MECHANICAL CODE.	ΗE	4. NON-STRUCTURAL CONNECTIONS FOR STEI
HEATERS SHALL COMPLY WITH SECTION 603.		3. BOLTED CONNECTIONS SHALL BE ASTM A3 MINIMUM OF TWO BOLTS LINESS NOTED (
HEATING DEVICES SHALL BE LISTED AND LABELED IN ACCORDANCE WITH THE CALIFORNIA CODE. INSTALLATION, MAINTENANCE AND USE OF TEMPORARY HEATING DEVICES SHALL BE IN E WITH THE TERMS OF THE LISTING.		2. ALL WELDING SHALL BE PERFORMED USIN WHERE FILLET WELD SIZES ARE NOT SHO MANUAL OF STEEL CONSTRUCTION". PAINT
		2 ALL WEIDING CHALL DE DEDEADMEN LIGIN

1. ALL STEEL WORK SHALL BE PAINTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND IN ACCORDANCE WITH ASTM A36 UNLESS OTHERWISE NOTED.

> NG E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC. OWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC ITED SURFACES SHALL BE TOUCHED UP.

A307 BEARING TYPE (3/4") CONNECTIONS AND SHALL HAVE OTHERWISE.

TEEL GRATING MAY USE 5/8" DIA. ASTM A 307 BOLTS UNLESS

BE IN ACCORDANCE WITH THE LATEST REVISED EDITION OF THE WHICH INCLUDES THE SPECIFICATION FOR STRUCTURAL STEEL ACTICE AND THE AWS STRUCTURAL WELDING CODE.

ALL BE REVIEWED BY THE A/E PRIOR TO FABRICATION

ASTM A992 GRADE 50 STM A36 ASTM A500, GRADE B STM A53, GRADE B

, WELDING, AND IMPLEMENTATION PROCEDURES SHALL BE AND CBC

CERTIFIED WELDERS. WELDERS SHALL HAVE LIGHT GAUGE STEEL UGE STEEL.

AND GROUND SMOOTH WHERE METAL COULD COME IN CONTACT

ONS SHALL BE IN ACCORDANCE WITH ASTM A-307 USING AR BOLTS, UNLESS OTHERWISE NOTED.

ALLY DETAILED SHALL BE ALLOWED THRU STRUCTURAL STEEL 1 TO AISC SPECIFICATION, AND SHALL BE STANDARD HOLES OR BURNING OF STRUCTURAL STEEL WILL BE PERMITTED

PED GALVANIZED.

## IOTES

NSHIP SHALL CONFORM TO CHAPTER 19 OF THE CBC AND TO DITION OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE HEREIN.

PSI CEED 5".

EXCEED 0.45.

URED IN POSITION AND INSPECTED BY THE BUILDING OFFICIAL

FOR CONCRETE FOUNDATIONS OR REBAR PLACEMENT. ALL 500 PSI.

ASTM A-615 GRADE 60 UNLESS OTHERWISE NOTED.

OTHER COATINGS LIKELY TO IMPAIR BONDING.

PLACE PRIOR TO INSPECTIONS, PLACING CONCRETE, OR

AS SHOWN OR NOTED. SPLICES AT OTHER LOCATIONS SHALL BE L ENGINEER. ALL VERTICAL WALL REINFORCEMENT SHALL BE SHOWN IN THE DETAILS.

AR NOTES



3

2





POINT USED FOR PHOTO



EX. BOLLARD (GUARD POLE)

PHOTO POINT NUMBER





RESIDENTIAL PARCEL

544-45-081 PARCEL A

PARCEL A



EARTHWORK	QUANTITIES	
	QTY (CUYD)	DESCRIPTION
CUT	0.0	N/A
FILL	0.0	N/A
IMPORT	0.0	N/A
EXPORT	15.0	MAXIMUM DISPLACED DIRT DUE TO CAISSON

SITE PLAN

D FOR REMOVAL	
<u>D</u>	
IYDROSEEDED	
	APPROVAL STAMP
	x/lem
	301 WATER STREET, SUITE 200
	WASHINGTON, DC 20003
	DCS
	DIVERSIFIED COMMUNICATIONS
	SERVICES, INC.
	NSED ARCAL
	JOHNOAH D. YU
	(* ( <sup>'BOK'</sup> ) *
	C-33097 EXP. 03/25
	FOF CALIFOR
	DRAFTLINK
	IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS UNDER THE DIRECTION
	OF A LICENSED PROFESSIONAL ARCHITECT TO ALTER THIS DOCUMENT
	CHECKED BY : JY APPROVED BY : JY
	CONSTRUCTION
	DRAWINGS
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	REV DATE DESCRIPTION
	2 09-03-24 PLANNING COMMENTS
	3         09-10-24         SJW         INPUTS           4         09-11-24         ADD         PHOTOSIMS
	5 09-19-24 PLANNING COMMENTS
	6 11-18-24 CHANGE TO SLIMLINE POLE 7 12-16-24 SJW INPUTS
	PLANNING FILE NUMBER
	PLN24-112
	BAYVIEW STATION
	LOS GATOS, CA 95030
	SHEET TITLE
	SITE PLAN
INTH INTERNAL	SHEET NILIMBED
SCALE:	A-1





			APPROVAL STAMP
			DIVERSIFIED COMMUNICATIONS SERVICES, INC.
SCALE: 1/8"=1'	0 4' 8'	1	JOHNOAH D. YU BOK' C-33097 EXP. 03/25 FF. OF CALIFOR DRAFTLINK
			IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ARCHITECT TO ALTER THIS DOCUMENT DRAWN BY : DY CHECKED BY : JY
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			PROJECT INFORMATION BAYVIEW STATION 0 BAYVIEW DRIVE LOS GATOS, CA 95030
			ELEVATIONS
SCALE: 1/8"=1'	0 4' 8'	2	A-3



## EAST ELEVATION





WEST ELEVATION

	APPROVAL STAMP
	XYLEM INC.         301 WATER STREET, SUITE 200         WASHINGTON, DC 20003
	DIVERSIFIED COMMUNICATIONS SERVICES, INC.
TS)	JOHNOAH D. YU BOK' C-33097 EXP. 03/25 FF OF CALIFOR
1/8"=1' 0 4' 8'	DRAFTLINK
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SCALE:	SHEET NUMBER
1/8"=1' $0$ $4'$ $8'$ <b>∠</b>	

	Maximum EPA with 1.3 Gust Factor (ft <sup>2</sup> )				
90 mph	100 mph	120 mph	130 mph	(lbs)	
23.0	18.2	13.8	11.4	226	

MADE	IN



## PRE-FABRICATED POLE SPECS



	REV. 20	2NE	REVISIONS	87	DATE	$\exists$	1.75
E	A		INITIAL RELEASE	âTL	04/06/01		3.34
		-2				-	22.00
		9	10 11				0
		6 OR 7 C	R 9				10.02
		-4					
		−existing to Ø4" to Ø9	)wer leg " o.d. pipe				
Alter and constitutions are the proprietry of NULLEY CONSTITUTION and may be used to specific purpose autoclast to writing by Antone Constitution. ARE IN INCHES U.O.S. LISSE OTHERWISE SPECIFIED .05 ANGLES ±2° .03 FRACTIONS ±1/32 .03 FRACTIONS ±1/32 .010 .5 AND BREAK EDGES .009 	ACG ACG IP ant. 10/17/05 Regione: A	I of 1 NTS Vetta: A36 GALV A123 east 30.05 LBS	MS-100-SSH TAPERED PIPE ADAPTER CLAMP SE ERECTOR ASSEMBLY DRAMANG	et Orland par V © <sup>U.S.A.</sup>	к, <b>I</b> L. 60462		CABINET PHYSICAL PROPERTIES           WIDTH         22.0 IN.           DEPTH         9.7 IN.           HEIGHT         22.0 IN.
					SCALE	5	WEIGHT 100.0 LB. (MAX) M400 BASE STATION C
<u>x: Bulk Pipe</u>							General Specifications Operating Frequency Band Antenna Type Band Includes Performance Note
Features: • Factory cut end, Construction: • ASTM A53 Grade • Schedule 40	hot-dip ga e B	lvanized pipe					DimensionsLength27Outer Diameter38Net Weight, without mounting kit5.2
Design Criteria: • ASTM A53 Grade • Hot dip galvaniz	E B (Yield Fy ed in accor	/ = 35 ksi [240 MPa] dance with ASTM A	/Tensile Fu = 60 ksi [415 \123 requirements	5 MPa])			DB589-Y <b>1-port omni antenna, 890–960 MHz, 3</b> <b>(1-1/2 to 2 in) OD pipe</b> • Light weight, low profile omnidired
Part #         Let           P263         5'-:	ngth	<b>OD x Length (in)</b> 2-3/8″x 63″	<b>Weight</b> 20 lb				<ul><li>applications</li><li>Integral dual purpose mount allow</li></ul>
IPE SPEC	S				SCALE –	6	OMNI ANTENNA DB589





1. ZINC COATING - THE WEIGHT OF THE COATING SHALL NOT BE LESS THAN 1.2 OUNCES PER SQUARE FOOT OF ACTUAL SURFACE COVERED. ALL FERROUS METALS USED AS PART OF THE FENCE INSTALLATION SHALL BE HOT DIP GALVANIZED OR STAINLESS STEEL. ALL SCREWS, BOLTS, LOCK WASHERS, NUTS, ETC. SHALL BE HOT DIP GALVANIZED OR MADE OF STAINLESS STEEL.

2. FABRIC – STANDARD INDUSTRIAL GRADE #9 GAUGE WITH 1-3/4" INCH MESH ZINC COATED CHAIN LINK WITH A BREAKING STRENGTH OF NOT LESS THAN 1290 POUNDS SHALL BE USED. THE FABRIC SHALL BE ZINC COATED BY THE HOT DIP PROCESS AFTER

3. METAL POSTS – METAL POSTS (LINE, CORNER, TERMINAL, GATE POSTS, MIDDLE RAILS, BRACES AND TOP RAIL) SHALL BE HOT DIP GALVANIZED SCHEDULE 40 TUBULAR STEEL WITH AN OUTSIDE DIAMETER AS INDICATED ON THIS DRAWING. A POST TOP FITTING OF GALVANIZED STEEL WILL BE INSTALLED TO EXCLUDE MOISTURE.

4. POST CAPS - ALL POST CAPS TO USE THE BARBED WIRE OUTRIGGER BRACKET AND SHALL BE ATTACHED TO THE POST WITH TAMPER RESISTANT SCREWS, BRADS, OR BOLTS.

5. TOP RAIL - A MINIMUM OF ONE COUPLING IN EACH STRAIGHT RUN OF TOP RAIL, SHALL HAVE A HEAVY SPRING INSERTED WITHIN THE COUPLING TO TAKE UP EXPANSION AND CONTRACTION OF THE TOP RAIL. THE TOP RAIL SHALL BE FASTENED TO TERMINAL POSTS WITH PRESSED STEEL CONNECTIONS.

6. MIDDLE RAIL - THE MIDDLE RAIL SHALL BE OF THE SAME MATERIAL AS THE TOP RAIL AND INSTALLED WITH HOT DIP GALVANIZED FITTINGS ATTACHED TO THE POSTS.

7. BRACE RAIL – BRACE RAIL MATERIAL SHALL BE OF THE MATERIAL AS THE TOP RAIL AND LOCATED 2/3 OF THE DISTANCE UP FROM THE BOTTOM OF THE FABRIC. BRACE RAILS SHALL BE SECURELY FASTENED TO POSTS BY SUITABLE PRESSED STEEL

8. TRUSS RODS – SHALL BE 3/8" ROUND GALVANIZED STEEL RODS WITH GALVANIZED TURNBUCKLES. THE ZINC COATING SHALL BE NOT LESS THAN 1.2 OUNCES PER SQUARE FOOT OF SURFACE.

9. TENSION WIRE - THE TENSION WIRE SHALL BE OF #7 GAUGE HOT DIP GALVANIZED SPRING TENSION WIRE WITH A BREAKING STRENGTH OF NOT LESS THAN 1900 POUNDS. THIS WIRE SHALL BE KEPT TAUT WITH GALVANIZED TURNBUCKLES AND ATTACHED TO POSTS WITH GALVANIZED HARDWARE OR CABLE CLAMPS.

10. FABRIC TIES - THE FABRIC TIES SHALL BE ALUMINUM WIRE. NOT LESS THAN #9 GAGE.

11. STRETCHER BARS – THE STRETCHER BARS SHALL BE FLAT GALVANIZED STEEL BARS NOT LESS THAN 5/16" X 3/4" AND NOT LESS THAN 2" SHORTER THAN THE FABRIC. STRETCHER BAR BANDS SHALL BE FLAT GALVANIZED STEEL BARS NOT LESS THAN 5/16" X 1 1/2" WITH 5/16" DIAMETER GALVANIZED CARRIAGE BOLT.

12. BARBED WIRE – BARBED WIRE OF GALVANIZED STEEL (OR ALUMINUM) CONSISTING OF 12 1/2 GAUGE WIRE WITH 4-POINT BARBS OF 14 GAUGE WIRE SPACED 5 INCHES APART.

13. GATE FRAMES SHALL BE CONSTRUCTED OF 2 1/2 INCH OUTSIDE DIAMETER HEAVY DUTY GALVANIZED STEEL PIPE. THE GATES SHALL BE ASSEMBLED USING CORNER FITTINGS OF HEAVY PRESSED STEEL OR MALLEABLE CASTINGS OR MAY BE WELDED IF THE ENTIRE GATE FRAME IS HOT DIP GALVANIZED AFTER THE WELDING. ALL GATES SHALL BE EQUIPPED WITH HEAVY DUTY GALVANIZED STEEL TYPE HINGES WITH LARGE BEARING SURFACES OF ADEQUATE STRENGTH TO SUPPORT THE GATE. THE HINGES SHALL NOT TWIST OR TURN UNDER THE ACTION OF THE GATE. GATES WILL PROVIDE A FULL RANGE OF MOTION AND BE EASILY OPENED AND CLOSED BY ONE PERSON. GATE LATCH SHALL BE CARGO PROTECTORS, INC. MODEL FL-100. LATCH SHALL BE EQUIPPED TO RECEIVE A PADLOCK.

## CHAIN LINK FENCE NOTES



![](_page_29_Figure_18.jpeg)

## **GROUNDING NOTES**

## 1. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION REQUIREMENTS AND CONSTRUCTION SHALL BE PERFORMED ACCORDING TO SITE CONDITIONS.

- 2. ALL GROUNDING CONDUCTORS: #2 AWG, SOLID, BARE, TINNED, COPPER WIRE UNLESS OTHERWISE NOTED.
- 3. GROUND BAR LOCATED ON EXTERIOR AND INTERIOR OF SHELTER SHALL BE PROVIDED, FURNISHED, AND INSTALLED BY THE SHELTER MANUFACTURER.
- 4. ALL BELOW GRADE CONNECTIONS SHALL BE EXOTHERMIC/CADWELD TYPE; ABOVE GRADE CONNECTIONS SHALL BE EXOTHERMIC/CADWELD, OR MECHANICAL (USE PROPER/BEST TYPE FOR EACH CONDITION).
- 5. GROUND RING (WHERE OCCURS) SHALL BE LOCATED A MINIMUM OF 24" BELOW GRADE, OR 6"(MINIMUM) BELOW THE FROST LINE.
- 6. INSTALL GROUND CONDUCTORS, AND GROUND RODS, MINIMUM OF 2'-0" FROM SHELTER CONCRETE SLAB, SPREAD FOOTING, OR FENCE.
- 7. ALL EXTERIOR AND/OR BELOW GRADE EXOTHERMIC/CADWELD GROUND CONNECTION SHALL BE TREATED WITH GALVANIZING COLD SPRAY.
- 8. ALL GROUNDING CONNECTIONS REQUIRED TO COMPLETE THIS PROJECT, WHETHER SHOWN HEREON OR NOT, SHALL BE MADE BY ELECTRICAL CONTRACTOR ACCORDING TO BEST FIELD PRACTICE AND COMPLY WITH ALL NEC REQUIREMENTS AND RECOMMENDATIONS FOR LIFE SAFETY.
- 9. OBSERVE N.E.C. AND LOCAL UTILITY REQUIREMENTS FOR ELECTRICAL SERVICE GROUNDING.
- 10. GROUNDING ATTACHMENT TO TOWER SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS, OR AT GROUNDING POINTS PROVIDED (2 MINIMUM)
- 11. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS.
- 12. ALL EXTERIOR GROUNDING AND TOP OF GROUNDING RODS SHALL BE BURIED TO A MINIMUM DEPTH OF 1'-6" BELOW FINISH GRADE, ELECTRIC METER GROUND EXCEPTED
- 13. ALL GROUNDING CONDUCTORS SHALL BE #2 SOLID BARE TINNED COPPER.
- 14. GROUND SYSTEM MUST BE INDEPENDENTLY TESTED AND SHALL HAVE A RESISTANCE OF 5 OHMS OR LESS SUBMIT AN INDEPENDENT FALL OF POTENTIAL TESTING REPORT.
- 15. NOTIFY PROJECT MANAGER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.
- 16. CHEMICAL GROUNDS SHALL BE XIT. CHEM-ROD OR APPROVED EQUAL, WHEN REQUIRED. USE MUST BE APPROVED BY PROJECT MANAGER.
- 17. ALL UNDERGROUND GROUNDING CONNECTORS ARE TO BE CADWELDED ABOVE GRADE GROUNDING SHALL BE FITHER CADWELD OR MECHANICAL. AS SPECIFIED ON DRAWINGS.
- 18. ALL GROUNDING INSTALLATION IS TO BE IN ACCORDANCE WITH THE NEXTEL STANDARD SPECIFICATIONS AND SUPPLEMENTS PROVIDED BY THE PROJECT MANAGER.
- 19. GROUNDS AREA TO BE INSTALLED A MINIMUM OF 2'-0" FROM SHELTER OR TOWER.
- 20. GATE GROUNDING FLEX CONNECTOR: REF. "CADWELD" CATALOG #AQ402 FOR GATE/POST FLEX CONNECTOR (EXAMPLE: PART NO. A239FC25-Y-XL FOR 3" POST).
- 21. GROUNDING ATTACHMENT TO TOWER SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS, OR AT GROUNDING POINTS PROVIDED (2 MINIMUM).
- 22. CONTRACTOR TO PROVIDE CERTIFICATION THAT GROUNDING SYSTEM HAS BEEN INSTALLED TO ACHIEVE < 5 OHMS RESISTANCE.

## **ELECTRICAL NOTES**

- INSTALLED.

## ELECTRICAL NOTES

1. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BE LISTED BY UNDERWRITER'S LABORATORIES (UL) AND BEAR THEIR LABEL, OR LISTED AND CERTIFIED BY A NATIONALLY RECOGNIZED TESTING AUTHORITY WHERE UL DOES NOT HAVE A LISTING. CUSTOM MADE EQUIPMENT SHALL HAVE COMPLETE TEST DATA SUBMITTED BY THE MANUFACTURER ATTESTING TO ITS SAFETY. IN ADDITION, THE MATERIALS, EQUIPMENT, AND INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING: AMERICAN SOCIETY OF TESTING MATERIALS (ASTM) INSULATED POWER CABLE ENGINEERS ASSOCIATION (IPCEA) NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA) AMERICAN STANDARD ASSOCIATION (ASA) FIRE PROTECTION AGENCY (NFPA) AMERICAN NATIONAL STANDARD INSTITUTE (ANSI) NATIONAL ELECTRICAL CODE (CEC)

2. ALL INTERRUPTION OF ELECTRICAL POWER SHALL BE KEPT TO A MINIMUM. HOWEVER, WHEN AN INTERRUPTION IS NECESSARY, THE SHUTDOWN MUST BE COORDINATED WITH THE OWNER 14 DAYS PRIOR TO THE OUTAGE. ANY OVERTIME PAY SHALL BE INCLUDED IN THE CONTRACTOR'S BID. WORK IN EXISTING SWITCHBOARDS OR PANELBOARDS SHALL BE COORDINATED WITH THE OWNER PRIOR TO REMOVING ACCESS PANELS OR DOORS

3. SHOP DRAWINGS SHALL BE SUBMITTED FOR ITEMS INDICATED ON PLANS. SHOP DRAWINGS SHALL INCLUDE ALL DATA WITH CAPACITIES. SIZES. DIMENSIONS. CATALOG NUMBERS AND MANUFACTURER'S BROCHURES.

4. COORDINATE WITH OTHER TRADES AS TO THE EXACT LOCATION OF THEIR RESPECTIVE EQUIPMENT. SUPPLY POWER AND MAKE CONNECTION TO EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS. REVIEW THE DRAWINGS OF OTHER TRADES AND LOCATION OF EQUIPMENT.

5. EXACT METHOD AND LOCATION OF CONDUIT PENETRATION AND OPENINGS IN CONCRETE WALLS OR FLOORS OR STRUCTURAL STEEL MEMBERS SHALL BE AS DIRECTED BY THE STRUCTURAL ENGINEER. PERFORM CORING, SAWCUTTING, PATCHING, AND REFINISHING OF EXISTING WALLS AND SURFACES WHEREVER IT IS NECESSARY TO PENETRATE. OPENINGS SHALL BE SEALED IN AN APPROVED METHOD TO MEET THE FIRE RATING OF THE PARTICULAR WALL, FLOOR OR CEILING. EXACT METHOD AND LOCATIONS OF CONDUIT PENETRATIONS AND OPENINGS IN CONCRETE WALLS OR FLOORS SHALL BE U.L. APPROVED. DO NOT CUT OR BREAK ANY EXISTING REINFORCING BARS IN EXISTING CONCRETE OR MASONRY. IF IN DOUBT REGARDING LOCATION OF REINFORCING, THEN CONTRACTOR, AT CONTRACTOR'S EXPENSE, SHALL UTILIZE X-RAY, ULTRA-SOUND, OR OTHER AVAILABLE TECHNOLOGY TO LOCATE EXISTING REINFORCEMENTS PRIOR TO DRILLING OR CORING OPERATIONS.

6. CONNECTIONS TO VIBRATING EQUIPMENT AND SEISMIC SEPARATIONS: LIQUID-TIGHT FLEXIBLE STEEL CONDUIT IN DRY INTERIOR LOCATIONS. LIQUID-TIGHT FLEXIBLE STEEL CONDUIT IN AREAS EXPOSED TO WEATHER, DAMP LOCATIONS, CONNECTIONS TO TRANSFORMER ENCLOSURES, AND FINAL CONNECTIONS TO MOTORS. PROVIDE A SEPARATE INSULATED EQUIPMENT GROUNDING CONDUCTOR IN FLEXIBLE CONDUIT RUNS. MAXIMUM LENGTH SHALL BE SIX FEET UNLESS OTHERWISE NOTED.

7. ROUTE EXPOSED CONDUIT AND CONDUIT ABOVE ACCESSIBLE CEILING SPACES PARALLEL AND PERPENDICULAR TO WALLS AND ADJACENT PIPING. ARRANGE CONDUIT TO MAINTAIN HEADROOM AND TO PRESENT A NEAT APPEARANCE.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAWCUTTING, TRENCHING, BACKFILLING, COMPACTION AND PATCHING OF CONCRETE AND ASPHALT AS REQUIRED TO PERFORM HIS WORK. ATTENTION IS CALLED TO THE FACT THAT THERE ARE EXISTING UNDERGROUND UTILITY LINES. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN TRENCHING FOR HIS WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER AND APPROVED REPAIR OF ANY AND ALL DAMAGES CAUSED BY HIM OR HIS WORK.

9. WHENEVER A DISCREPANCY IN QUANTITY OR SIZE OF CONDUIT, WIRE, EQUIPMENT DEVICES, CIRCUIT BREAKERS, GROUND FAULT PROTECTION SYSTEMS, ETC. (ALL MATERIALS), ARISES ON THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIAL AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS TO ENSURE COMPLETE AND OPERABLE SYSTEMS AS REQUIRED BY THE OWNER AND ARCHITECT/ENGINEER.

10. UTILITY PENETRATIONS. OF ANY KIND. IN FIRE AND SMOKE PARTITIONS. NON-RATED CEILINGS. AND/OR NON-RATED WALLS, SHALL BE FIRESTOPPED AND SEALED WITH AN APPROVED MATERIAL SECURELY

11. STRAIGHT FEEDER, BRANCH CIRCUIT, AND CONDUIT RUNS SHALL BE PROVIDED WITH SUFFICIENT PULL BOXES OR JUNCTION BOXES TO LIMIT THE MAXIMUM LENGTH OF ANY SINGLE CABLE PULL TO 100 FEET. PULL BOXES SHALL BE SIZED PER CODE OR AS INDICATED ON DRAWINGS. LOCATIONS SHALL BE DETERMINED IN THE FIELD OR AS INDICATED ON THE DRAWINGS.

12. IDENTIFICATION NAMEPLATES SHALL BE MICARTA 1/8 INCH THICK AND OF APPROVED SIZE WITH BEVELED EDGES AND ENGRAVED WHITE LETTERS A MINIMUM OF 1/4 INCH HIGH ON BLACK BACKGROUND. NAMEPLATES SHALL BE PROVIDED FOR ALL CIRCUITS IN THE SERVICE DISTRIBUTION AND POWER DISTRIBUTION SWITCHBOARDS OR PANELBOARDS, DISCONNECTING SWITCHES, TRANSFORMERS, TERMINAL CABINETS, TELEPHONE CABINETS, ETC. ALL NAMEPLATES SHALL BE ATTACHED WITH SCREWS. PULL BOXES, JUNCTION BOXES, AND DEVICE BOXES SHALL BE MARKED WITH A PERMANENT MARKER.

13. THE EXACT LOCATION OF ALL ELECTRICAL DEVICES AND EQUIPMENT SHALL BE COORDINATED WITH THE DETAILS. OR SECTIONS PRIOR TO INSTALLATION.

14. DRAWINGS ARE DIAGRAMMATIC ONLY. ROUTING OF CONDUITS, RACEWAYS, CABLE TRAYS, AND/OR LADDER RACKS SHALL BE AT THE DISCRETION OF THE CONTRACTOR UNLESS OTHERWISE NOTED AND SHALL BE COORDINATED WITH OTHER SECTIONS. DO NOT SCALE THE ELECTRICAL DRAWINGS FOR LOCATIONS OF ANY ELECTRICAL. ARCHITECTURAL. STRUCTURAL. CIVIL. OR MECHANICAL ITEMS OR FEATURES.

15. RIGID GALVANIZED STEEL CONDUIT SHALL BE FULL WEIGHT THREADED TYPE. ELECTRICAL METALLIC TUBING (EMT) MAY BE USED IN WALLS OR CEILING SPACES WHERE NOT SUBJECT TO MECHANICAL DAMAGE. PVC SCHEDULE 40 MAY BE INSTALLED BENEATH SLAB OR BELOW GRADE. FLEXIBLE STEEL CONDUIT MAY BE USED AT OUTLET CONNECTIONS WITH NO RUNS LONGER THAN SIX FEET. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE PROVIDED IN ALL CONDUITS.

16. RIGID GALVANIZED STEEL CONDUIT FITTINGS SHALL BE THREADED AND THOROUGHLY GALVANIZED. ELECTRICAL METALLIC TUBING (EMT) CONDUIT FITTINGS SHALL BE STEEL, RAINTIGHT THREADLESS COMPRESSION TYPE. DIE CAST, SET SCREW, OR INDENTER TYPES ARE NOT ACCEPTABLE. FLEXIBLE STEEL CONDUIT FITTINGS SHALL BE MALLEABLE IRON CLAMP, SQUEEZE TYPE OR STEEL TWIST-IN TYPE WITH INSULATED THROAT. SET SCREW TYPE IS NOT ACCEPTABLE.

- SHALL BE STRANDED.
- CIRCUIT NUMBER, OR TYPE OF SIGNAL OR COMMUNICATIONS SYSTEM.
- 19. ALL OUTDOOR ELECTRICAL DEVICES OR EQUIPMENT SHALL BE OF WEATHERPROOF TYPE.
- HOLE LUGS). BUSS SHALL BE DRILLED TO ACCOMMODATE ALL CONNECTORS.

17. ALL CONDUCTORS SHALL BE COPPER #10 AWG MINIMUM SIZE, TYPE THHN/THWN THERMOPLASTIC, 600 VOLT, 75 DEGREES CELSIUS WET AND 90 DEGREES CELSIUS DRY AND U.L. LISTED UNLESS NOTED OTHERWISE. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID. CONDUCTORS #8 AWG AND LARGER

18. JUNCTION AND PULL BOXES: FOR INTERIOR DRY LOCATIONS, BOXES SHALL BE GALVANIZED ONE-PIECE, DRAWN STEEL, KNOCKOUT TYPE WITH REMOVABLE MACHINE SCREW SECURED COVERS. FOR OUTSIDE, DAMP, OR SURFACE LOCATIONS, BOXES SHALL BE HEAVY CAST ALUMINUM OR CAST IRON WITH REMOVABLE, GASKETED, NON-FERROUS MACHINE SCREW SECURED COVERS. BOXES SHALL BE SIZED FOR THE NUMBER AND SIZES OF CONDUCTORS AND CONDUIT ENTERING THE BOX AND EQUIPPED WITH PLASTER EXTENSION RINGS WHERE REQUIRED. BOXES SHALL BE LABELED TO INDICATE PANEL AND

20. ALL CONNECTIONS TO GROUND BUSSES SHALL BE MADE W/CRIMP TYPE COMPRESSION CONNECTORS (2)

![](_page_30_Picture_65.jpeg)

SCALE	2
1"=1'-0"	S
-	

![](_page_31_Figure_0.jpeg)

SYM.	ABBREV.	<b>BOTANICAL NAME</b>	COMMON NAME	SIZE	SPAC
TREES		N/A			
(+)					
SHRUBS	ARTCAL	ARTEMISIA CALIFORNICA	CAALIFORNIA SAGEBRUSH	5 GAL	AS SHO
NSTALL 3" LAYER OF	MULCH IN ALL PL	ANTING AREAS			
ANDSCAPE NC	TFS				

ALL WORK ON THE IRRIGATION SYSTEM, INCLUDING HYDROSTATIC, COVERAGE, AND OPERATIONAL TESTS AND THE BACKFILLING AND COMPACTION OF TRENCHES SHALL BE PERFORMED PRIOR TO PLANTING OPERATIONS.

PLANT LIST ON THE DRAWINGS SHALL BE USED AS A GUIDE ONLY. CONTRACTOR SHALL TAKEOFF & VERIFY SIZES & QUANTITIES BY PLAN CHECK.

SAMPLES OF FERTILIZERS, ORGANIC AMENDMENT, SOIL CONDITIONERS, AND SEED SHALL BE SUBMITTED PRIOR TO INCORPORATION. CONTRACTOR SHALL FURNISH TO THE CITY/OWNER'S AUTHORIZED REPRESENTATIVE A CERTIFICATE OF COMPLIANCE FOR SUCH FURNISHED MATERIALS.

LOCATIONS OF PLANT MATERIAL SHALL BE REVIEWED ON SITE BY THE CITY/OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION.

AMENDMENTS, AS INDICATED IN THE SOILS REPORT SHOWN ON THE DRAWINGS, ARE BASED ON AGRICULTURAL SUITABILITY SOILS TESTS PERFORMED PRIOR TO GRADING AND WERE PRESENTED FOR BIDDING PURPOSES. IF NO SOILS REPORT EXISTS, CONTRACTOR SHALL PROPOSE ON AMENDMENTS AS STATED IN THE SPECIFICATIONS. CONTRACTOR SHALL OBTAIN AGRICULTURAL SOILS TESTING AND RECOMMENDATIONS AFTER GRADING OPERATIONS AND PRIOR TO PLANT INSTALLATION.

TREES SHALL BE PLANTED NO CLOSER THAN TEN FEET (10') FROM UTILITIES. TREES PLANTED WITHIN FIVE FEET (5') OF HARDSCAPE OR STRUCTURES SHALL BE INSTALLED WITH A ROOT BARRIER AS APPROVED BY THE CITY/OWNER'S AUTHORIZED REPRESENTATIVE.

IF, DURING PLANTING OPERATIONS THERE SEEMS TO BE MINIMAL OR NO PERCOLATION IN PLANTING PITS, CONTRACTOR SHALL CEASE PLANTING OPERATIONS AND IMMEDIATELY NOTIFY THE CITY/OWNER'S AUTHORIZED REPRESENTATIVE TO DISCUSS ALTERNATIVE TO MAINTAINING POSITIVE ROOTBALL DRAINAGE MEASURES.

CONTRACTOR SHALL INSPECT AND VERIFY IRRIGATION SYSTEM IS WORKING PROPERLY. CONTRACTOR SHALL REPLACE AND/OR REPAIR DAMAGED IRRIGATION COMPONENTS.

SOIL TEST:

AFTER SOIL HAS BEEN SET IN PLACE & PRIOR TO ANY SOIL PREPARATION, THE CONTRACTOR SHALL FURNISH SOIL TESTS OF THE SITE FOR AGRICULTURAL FERTILITY AND TO DETERMINE PROPER SOIL AMENDMENTS. TEST ARE TO BE PERFORMED BY A MEMBER OF THE CALIFORNIA ASSOCIATION OF AGRICULTURAL LABORATORIES WITH COPIES SENT TO THE OWNER & LANDSCAPE ARCHITECT, PRIOR TO INSTALLATION.

SOIL PREPARATION:

THE FOLLOWING IS PROVIDED FOR BID PURPOSES ONLY AND SHALL BE MODIFIED AS NECESSARY GIVEN THE RESULTS OF THE SOILS TEST. THE CONTRACTOR SHALL BE PREPARED TO PROVIDE DELIVERY SLIPS AND EMPTY FERTILIZER BAGS ON SITE FOR VERIFICATION OF MATERIAL.

- 1. BACKFILL MIX FOR USE OF PLANTING ALL SHRUBS. 6 PARTS BY VOLUME ON SITE SOIL 4 PARTS BY VOLUME ORGANIC AMENDMENT.
- 1 LB. 12-12-12 COMMERCIAL FERTILIZER PER CUBIC YARD. 1 LB. IRON SULFATE PER CU. YD. OF MIX.
- 2. PLANT TABLETS FOR ALL SHRUBS: 3-21 GRAM AGRIFORM FERTILIZER TABLET PER 5 GAL SHRUB ADJACENT TO THE ROOTBALL.
- 3. TOP DRESSING: ALL SHRUB AREAS ARE TO BE TOP DRESSED WITH 3" THICK LAYER OF SHREDDED TREE BARK. DECORATIVE BARK MAY BE USED IN WINDY AREAS.

## LANDSCAPE MAINTENANCE

LANDSCAPE WILL BE MAINTAINED BY SAN JOSE WATER DISTRICT

CING	QTY	WUCOLS	HEIGHT AT INSTALL	<b>10 YEAR HEIGHT</b>	MATURE SIZE
IOWN	9	VERY LOW	NA	NA	8' HEIGHT X 4' WIDTH

![](_page_32_Figure_20.jpeg)

IRRIGATION SLEEVE SIZES							
PIPE SIZE	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"
SLEEVE SIZE	3"	3"	3"	4"	4"	4"	6"

- 1. PIPE SLEEVES AND CONTROL WIRE CONDUITS ARE REQUIRED FOR ALL IRRIGATION PIPING AND CONTROL WIRES INSTALLED UNDER PAVING. REFER TO IRRIGATION SLEEVE SIZING CHART FOR IRRIGATION SLEEVE SIZE AND TO CONTROL WIRE SIZING CHART FOR CONTROL WIRE CONDUIT SIZE. (TYPICAL)
- 2. FOR DRAWING CLARITY ALL IRRIGATION SLEEVES ARE NOT SIZED, BUT SHALL BE INSTALLED AND INCLUDED AS A PART OF THE CONTRACTOR'S BID. ALSO DUE TO THE SCALE OF THE DRAWINGS AND FOR DRAWING CLARITY ALL SLEEVES AND CONDUITS ARE NOT SHOWN. THEREFORE, IN ADDITION TO THE PIPE SLEEVES AND CONTROL WIRE CONDUITS SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF PIPE SLEEVES CONTROL WIRE CONDUITS OF SUFFICIENT SIZE UNDER ALL PAVED AREAS.
- 3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FAMILIARIZE ITSELF WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, FOOTINGS, ETC AND COORDINATE ITS WORK WITH OTHER TRADES FOR THE LOCATION AND THE INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER FOOTINGS, UNDER ROADWAYS, UNDER PAVING, STRUCTURES, ETC.

## **EQUIPMENT LOCATION NOTES**

- INSTALL ALL IRRIGATION EQUIPMENT, PRESSURE MAIN LINE PIPING, CONTROL VALVES, ETC. WITHIN PLANTING AREA ANY IRRIGATION EQUIPMENT SHOWN OUTSIDE OF PLANTING AREA IS FOR DRAWING CLARITY (TYPICAL).
- 2. AUTOMATIC CONTROLLER AND ALL OTHER ABOVE GROUND IRRIGATION EQUIPMENT LOCATIONS SHOWN ON THIS DRAWING ARE APPROXIMATE. STAKE OUT ABOVE GRADE IRRIGATION EQUIPMENT LOCATIONS FOR REVIEW AND APPROVAL BY OWNER PRIOR TO INSTALLATION. FINAL LOCATION AND EXACT POSITIONING ABOVE GRADE IRRIGATION EQUIPMENT SHALL BE DETERMINED BY THE OWNER. MINOR MODIFICATIONS OF ABOVE GRADE IRRIGATION EQUIPMENT LOCATIONS AS REQUESTED BY THE OWNER SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. FAILURE TO OBTAIN OWNER'S APPROVAL PRIOR TO INSTALLATION SHALL CAUSE CONTRACTOR TO MAKE OWNER DIRECTED REVISIONS AT NO ADDITIONAL COST TO OWNER.
- ELECTRIC CONTROL VALVE AND BALL VALVE, ETC. LOCATIONS SHOWN ON THIS DRAWING ARE APPROXIMATE. THE CONTRACTOR SHALL STAKE OUT EACH ELECTRIC CONTROL VALVE AND BALL VALVE, ETC. LOCATION FOR REVIEW AND APPROVAL BY OWNER PRIOR TO INSTALLATION OF VALVES. SEE DETAILS FOR ADDITIONAL VALVE INSTALLATION INFORMATION. FINAL LOCATION AND EXACT POSITIONING OF IRRIGATION EQUIPMENT SHALL BE APPROVED BY THE OWNER. MINOR MODIFICATIONS OF IRRIGATION EQUIPMENT LOCATIONS AS REQUESTED BY THE OWNER SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. FAILURE TO OBTAIN OWNER'S APPROVAL PRIOR TO INSTALLATION SHALL CAUSE CONTRACTOR TO MAKE OWNER DIRECTED REVISIONS AT NO ADDITIONAL COST TO OWNER.
  - \* MINIMUM BACKFILL DEPTHS FROM FINISH GRADE TO TOP OF PIPE 12" FOR LATERAL LINE PIPE INSTALLED IN PLANTERS 18" FOR LATERAL LINE PIPE INSTALLED UNDER PAVING.

![](_page_33_Figure_9.jpeg)

LEGEND

- 1. NON-PRESSURE LATERAL LINE PIPING.
- 2. PRESSURE MAIN LINE PIPING
- 3. CONTROL WIRES TAPE AND BUNDLE EVERY 10 FEET. INSTALL ADJACENT TO PRESSURE MAIN LINE.
- 4. PROVIDE 2" DEPTH OF CLEAN BACKFILL.
- 5. SEE IRRIGATION SPECIFICATIONS FOR BACKFILL AND COMPACTION REQUIREMENTS.
- 6. FINISH GRADE.

![](_page_33_Figure_17.jpeg)

- 5. 12" LONG SCHEDULE 80 TOE NIPPLE.
- 6. PVC PIPE TO SPRINKLERS ANGLE PIPE TO SPECIFIED DEPTH 14. MAIN LINE FITTING W/ SOLVENT WELD OUTLET. WITH 45 DEG. ELLS.

ELECTRIC REMOTE CONTROL VALVE

SCALE: NTS **3" AND SMALLER MAINLINE** 

- 7. COMMON BRICK (4 REQUIRED).
- 8. COMMON WIRE TO OTHER VALVES ON SAME
- 10. CONTROL/COMMON WIRES FROM CONTROLLER.
- 12. PVC SxS 90 DEG. ELL.
- 13. WIRE CONNECTOR.
- 15. COIL WIRES PER SPECIFICATIONS.
- 16. CHRISTY'S RECYCLED WATER WARNING TAG.

# 0

![](_page_33_Picture_29.jpeg)

SYMBOL

![](_page_33_Picture_30.jpeg)

![](_page_33_Figure_31.jpeg)

![](_page_33_Figure_32.jpeg)

![](_page_33_Figure_33.jpeg)

![](_page_33_Picture_35.jpeg)

## **IRRIGATION EQUIPMENT LEGEND**

MANUFACTURER	MODEL NO.	DESCRIPTION						
LASCO	SLO-CLOSE	SERIES FULL BLOCK TRUE UNION SCHEDULE 80 PVC BALL VALVES W/EPDM O-RINGS, THERMOPLASTIC GEAR DRIVEN OPERATING NUT AND SOCKET END CONNECTORS. LINE SIZE						
SUPERIOR	NA	REMOTE CONTROL VALVE. LINE	SIZE					
RAIN BIRD	NA	33NP $\frac{3}{4}$ " QUICK COUPLING VAL	/E					
			RAD.	GPM	NOZZLE	PSI		
RAIN BIRD	1401	FLOOD BUBBLER ON RISER	NA	0.25	1401	30		
HUNTER		I CORE CONTROLLER (WALL MO CONTROLLER (METAL CABINET) POWER SOURCE AND LOCATION	OUNTED) 6- ) & WEATH	STATION	ET-BASED IRRIG SOR. CONTRACT WER SOURCE -	GATION OR TO VERIF CONTRACTO		

EXISTING MAINLINE

IRRIGATION PIPE SLEEVE INSTALLED UNDER PAVED AREAS SHALL BE INSTALLED BY IRRIGATION CONTRACTOR. COORDINATE INSTALLATION OF IRRIGATION SLEEVES UNDER ROADWAY WITH GENERAL CONTRACTOR - USE PVC SCHEDULE 40 PIPE FOR IRRIGATION PIPING INSTALLED UNDER PAVING

LEGEND

1. 10" ROUND VALVE BOX WITH

2. FINISH GRADE.

REQUIRED).

5. BRASS 90 DEGREE ELL

6. MAINLINE PIPING.

7. MAINLINE FITTING.

11. WALK OR CURB.

1" IN TURF AREAS.

2" IN SHRUB AREAS.

DEPTH.

BLACK BOLT- DOWN COVER -

HEAT BRAND "QCV" ON VALVE

BOX COVER IN 2" HIGH LETTERS.

3. 3/4" CRUSHED ROCK. 6" MINIMUM

4. BRASS NIPPLE. (LENGTH AS

8. BRASS 90 DEGREE STREET ELL

9. BRASS NIPPLE - 6" LONG.

10. QUICK COUPLING VAVLE.

12. PVC SxT SCHEDULE 40 90° ELBOW.

TO VERIFY & COORDINATE POWER SOURCE

## PVC SCHEDULE 40 LATERAL LINE

-INDICATES FLOW IN G.P.M. FOR ELECTRIC CONTROL VALVES. 

![](_page_33_Figure_42.jpeg)

- LEGEND 1. AUTOMATIC IRRIGATION CONTROLLER. SECURED TO WALL WITH APPROPRIATE FASTENTERS
- 2. 120 VOLT ELECTRICAL POWER WIRES WITH GROUND WITHIN CONDUIT FOR AUTOMATIC CONTROLLER. SIZE AND INSTALL PER CODE.
- 3. P.V.C. CONDUIT FOR CONTROL WIRING- SIZE AS REQUIRED.
- 4. CONTROL WIRING TO ELECTRIC CONTROL VALVES.
- 5. PVC ELECTRICAL SWEEP ELL SAME SIZE AS CONTROL

3 FRONT VIEW

NOTE INSTALL ALL WIRING PER LOCAL CODE.

WIRE CONDUIT.

- 6. FINISH GRADE.
- 7. WALL.
- 8. SECURE CONDUIT TO WALL WITH "C" OR "U" CLAMP. SIZE AS REQUIRED.
- 9. 3/4" CONDUIT WITH #6 BARE COPPER WIRE TO GROUND ROD OR GROUND PLATE.

4

AUTOMATIC CONTROLLER OUTDOOR WALL MOUNT

![](_page_33_Figure_56.jpeg)

SCALE: NTS

![](_page_33_Figure_62.jpeg)

SCALE: N.T.S.

![](_page_33_Picture_65.jpeg)

## Attachment E

Photo Simulations

![](_page_35_Picture_0.jpeg)

0	09/11/24	ISSUED FOR SUBMITTAL	JFY
1	11/18/24	CHANGE TO SLIMLINE POLE	JFY
	0 1	0 09/11/24 1 11/18/24 	0         09/11/24         ISSUED FOR SUBMITTAL           1         11/18/24         CHANGE TO SLIMLINE POLE

![](_page_36_Picture_0.jpeg)

![](_page_37_Picture_0.jpeg)

![](_page_38_Picture_0.jpeg)

![](_page_38_Picture_1.jpeg)

![](_page_39_Picture_0.jpeg)

![](_page_40_Picture_0.jpeg)

![](_page_40_Picture_1.jpeg)

## Attachment F

Radiofrequency Letter and Grant of Certification

SensusRF Radio S	Safety
------------------	--------

003

Electromagnetic radiation is a natural phenomenon that is vital to human existence. It is everywhere around us, be it the visible light illuminating all we see, and natural or man-made radio waves.

However, while it is an inherent part of the universe, some are concerned about potential detrimental effects, which has led to confusion and unsubstantiated claims, with little repeatable evidence or scientific rigour to support them.

It is beholden on any organisation to be guided by the best evidence available and to conform to the most rigorous limits set by scientists who have carried out extensive research subject to a rigorous peer review process. It is understandable that some people are apprehensive over what cannot be tangibly experienced or felt. The aim of this document is to show that as a responsible organisation Sensus takes these concerns seriously, and always ensures its products conform well below the permitted limits set throughout the world.

## What is Radio?

Radio is the wireless transmission of information by means of electromagnetic waves, often referred to as 'signals.' It is the same natural phenomena as light, and can be thought of as a stream of mass-less particles, called photons, each traveling in a wave-like pattern at the speed of light.

The frequency at which the signal oscillates can be used to partition the radio waves into various spectrum bands covering low, medium and high frequencies.

Band name	Abbreviation	ITU band number	Frequency / Wavelength
High Frequency	HF	7	3 - 30MHz / 100 - 10m
Very High Frequency	VHF	8	30 - 300MHz / 10 - 1m
Ultra High Frequency	UHF	9	300 - 3000MHz / 1 - 0,1m
Super High Frequency	SHF	10	3 - 30GHz / 100 - 10mm
Extremely High Frequency	EHF	11	30 - 300GHz / 10 - 1mm

![](_page_42_Picture_10.jpeg)

In the scheme of the electromagnetic spectrum, these photons are of relatively low frequency and low energy. To put this in perspective, even the lowest energy visible light (wavelength ~700nm) still carries roughly 1430 times the energy of the most energetic microwave photon (wavelength 0.1cm). Both radio and light are at energy levels are non-ionizing, meaning that they cannot break apart the chemical bonds such as those found in DNA.

![](_page_43_Figure_2.jpeg)

*Conversion between wavelength, frequency and energy for the electromagnetic spectrum. (Source : Nasa : Imagine the universe!)* 

## Why SensusRF?

An efficient and economical reading of household water meters is not possible without radio transmission. Deploying meter readers to record a reading manually has become too costly and is extremely prone to error.

Reading meters using SensusRF technology, enables fast and effective processing of the meter information which can be used not only for billing purposes, but also to help detect leaking pipes and alleviate customer complaints due to misread readings.

#### **Radio Emissions**

A number of medical studies have stated that at extremely large power levels, high-frequency electromagnetic waves have a damaging effect on living things. However, this does not reflect the absorption levels and associated heat-energy, in modern wireless communications systems, such as those found in smart water meter automated meter reading or infrastructure networks.

The heat energy absorbed by tissue exposed to an electromagnetic field is quantified by the specific absorption rate (SAR). In the European Union, the maximum exposure to such fields

is set to a maximum of 2W per kilogram, averaged over the 10g volume receiving the most direct heating to circumvent thermal effects. Importantly, dielectric heating only increases tissue temperature and will not by itself cause any damage to DNA bonds, so SAR should not be considered a catalyst for increasing cancer risk. To date, there is no reputable evidence that wireless communications increases cancer risk.

SAR is quite a difficult to measure under field conditions, so in practical terms the primary variables that are directly proportional to the SAR figure – the surface power density (W/m2) or electric field potential (V/m) – are used as an alternative, to calculate a total dose level that can be directly related to the SAR.

Transmission power alone is not the sole determining factor on the amount of energy in an area away from the transmission source, the distance to the radio source and the duration of the transmission are also decisive factors. Consequently, high frequency radio should not automatically be considered dangerous – it depends on the dose received – where the dose is defined as the signal power where measured multiplied by the signals duration.

As the distance from a transmission source increases, the electromagnetic field strength decreases rapidly with the square of the distance. This means at a distance of just one metre from the transmitter, a SensusRF signal is approximately just one-twelfth the level of its original transmitted power.

A GSM mobile can have a peak output power of 2W, however, because GSM systems transmits for 1/8th of the time and every 26th pulse is omitted, the actual max. transmission output power is 240mW. For 3G phones where the transmission is continuous, the max. transmission output power from the mobile device is 250mW (24dBm), and for 4G systems it is 200mW (23dBm). Although adaptive power control in modern cellular systems are used to help increase battery life and can further reduce the actual transmission power by 50% or more, these techniques could not be utilised if the mobile is at the cell edge if a connection is to be maintained. Similarly using a mobile indoors or in built-up areas often requires the phone to maintain its maximum transmission power. In 3G and 4G cellular technologies, data streaming from the mobile to the network can actually increase output power by up to four times in comparison with a typical voice call.

#### **Comparative Example:**

Assuming a 1-minute call on a 3G cell phone with someone speaking on a voice call using a phone held to their ear (zero distance), made inside a building such that there is no active power control, would require a max. transmission power 250milliwatts (24dBm), leading to a total dose of radio energy in proximity to the head of 15W over the duration of the call.

By comparison, a water meter utilising SensusRF uses a radio band where the max. transmit power permitted is 25milliwatts. SensusRF transmits signals of just 0.0016-second duration every 15 seconds, i.e. 4 times per min). At 1m, using a free-space path loss model, the radio power would be ~12.57x less as it spreads away from the transmission antenna, equating to ~1.99mW and a total dose of just 0.0000127W.

#### **Dose = transmission power x transmission duration.**

In this comparison the total dose of radio power received over a minute from a cell phone

held to the ear is over 1.1 million times greater than that received 1metre away from a water meter using SensusRF radio technology, graphically illustrating just how small the electromagnetic radiation emitted by the SensusRF radio is in comparison.

In virtually all installations, a water meter is located much further than 1m away from people - typically behind walls, in outside pits or below reinforced concrete ceilings etc. All these physical barriers attenuate an electromagnetic field much more than free-space or air.

In other words, to achieve the same dose as just a single 1-minute cell phone voice call, SensusRF radio would need to transmit continuously for over 2 years with someone standing 1 meter away for the entire time (24 hours a day, 365 days per year).

The actual biological exposure dose for people in a real-world environment, where they move around and the water meters are sited in typical locations thus becomes miniscule, to a point where a dose equivalent to a 1-minute call on a cell phone held to the ear, cannot be achieved over the iPERL meters entire operational lifetime.

![](_page_45_Picture_5.jpeg)

![](_page_45_Figure_6.jpeg)

Applications	Frequency	Transmission power limits
SensusRF	868 MHz	25 mW
Bluetooth 🗱	2400 MHz	100 mW
Wi-Fi 奈	2400 MHz	100 mW
DECT (cordless phone)   &	1900 MHz	250 mW
GSM (E-network)	1800 MHz	1000 mW
GSM (D-network)	900 MHz	2000 mW
DVB-TV station 📋	470-790 MHz	5,000,000,000 mW
Radar station 🕅	1-3 GHz	100,000,000,000 mW directed

## **Typical Radio Applications**

### SensusRF does not transmit 99.99 per cent of the day.

SensusRF does not operate continuously, but rather it transmits very sparingly. Each transmission lasts approximately 0.0016 seconds, at a low power of a maximum of 25 milliwatts and a frequency of 868 MHz in Europe. Even if set to send a message every 15 seconds during the day, the Sensus RF radio would only transmit for a total of just 9.2 seconds over 24 hours - meaning each meter does not transmit for 99.99% of the day.

The low energy consumption required is illustrated by the fact that only a single 3.6 volt, 19 ampere-hour battery cell is required to meet all the metering and radio requirements of an iPERL meter over its complete operational lifetime, with no maintenance visits required to change the battery.

![](_page_46_Figure_3.jpeg)

#### iPERL: the intelligent solution

#### **Regulation and Legislation Limits**

Concern regarding EMF exposure has led to legislation and specific regulations to ensure protection of the public. The International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998 Guidelines provide reference levels for public and occupational worker exposure that are used by regulators as the basis of their own limits. Some countries (and even regions) set different exposure levels e.g. at 1000MHz the allowed PD levels (W/m 2) are 6.7 in USA and Japan, 5 in ICNIRP 1998, Europe and the Republic of Korea, 2.94 in Canada and 0.4 in China.

The map below highlights the primary regulations that set the effective radio frequency exposure limits applicable radio device endpoints around the world. The map shows that 150 countries apply the ICNIRP limit and 19 use the FCC 1996 limits.

![](_page_47_Figure_1.jpeg)

Note: information from public sources except where indicated.

EU Directive 2014/53/EU applies within the European Union. This refers to limit values set by the recommendation of the Council of the European Union (1999/519/ EC) on "Limiting the exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)." These values are themselves based ICNIRP, which sets the field strength limit for frequencies between 400MHz – 2GHz at  $1.375 \times f^{1/2}$  and power densities (PD) equivalent to f/200 W/m2 (where f= freq. in MHz).

![](_page_47_Figure_4.jpeg)

Figure 1: ICNIRP power-density reference levels for public and occupational workers

Most Europe countries follow these guidelines for example, the specification **"Verordnung über elektromagnetische Felder (26. BImSchV) des deutschen Bundesamtes für Strahlenschutz (BfS)"**, which defines radio emission levels across Germany, is based on ICNIRP values. Some member states have defined their own lower limits for EMF exposure, with the lowest set at 6V/m. Even this limit is still 6 times greater than the absolute maximum transmit power possible from a SensusRF gateway or endpoint.

The radiated power of SensusRF is not only very low compared with other high frequency radio systems, but its maximum transmit power levels are substantially below the legal limits (see diagrams)

![](_page_48_Figure_2.jpeg)

#### **Summary**

SensusRF transmit power levels fall far below the limits set for all forms of radio communications.

The German Federal Office for Radiation Protection asserts that for wireless meters:

"It is therefore reasonable to assume that typical exposures are well below the maximum levels recommended for health protection."

Source: BfF Stand 22.03.2018

![](_page_48_Picture_8.jpeg)

## TCB

#### **GRANT OF EQUIPMENT** AUTHORIZATION

Certification Issued Under the Authority of the **Federal Communications Commission** By:

> **TUV SUD America Inc. 10 Centennial Drive** Peabody, MA 01960

Sensus Metering Systems Inc. 639 Davis Drive Morrisville, NC 27560

Attention: Milton Britt, Sr. Director, Global System Test

#### NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

FCC IDENTIFIER: SDBWFL2 Name of Grantee: Sensus Metering Systems Inc. Equipment Class: PCS Licensed Transmitter **Remote Telemetry Module** Notes: Modular Type: **Single Modular** 

		Frequency	Output	Frequency	Emission
Grant Notes	FCC Rule Parts	Range (MHZ)	Watts	Tolerance	<b>Designator</b>
	24D	901.0 - 902.0	0.84	1.0 PM	1K10F2D
	24D	901.0 - 902.0	0.84	1.0 PM	4K80F2D
	24D	901.0 - 902.0	0.84	1.0 PM	9K60F2D
	24D	930.0 - 931.0	0.84	1.0 PM	5K90F1D
	24D	930.0 - 931.0	0.84	1.0 PM	11K8F1D
	24D	940.0 - 941.0	0.84	1.0 PM	5K90F1D
	24D	940.0 - 941.0	0.84	1.0 PM	11K8F1D
	101C	928.85 - 929.0	0.84	1.5 PM	1K10F2D
	101C	928.85 - 929.0	0.84	1.5 PM	4K80F2D
	101C	928.85 - 929.0	0.84	1.5 PM	9K60F2D
	101C	932.0 - 932.5	0.84	1.5 PM	1K10F2D
	101C	932.0 - 932.5	0.84	1.5 PM	4K80F2D
	101C	932.0 - 932.5	0.84	1.5 PM	9K60F2D
	101C	941.0 - 941.5	0.84	1.5 PM	5K90F1D
	101C	941.0 - 941.5	0.84	1.5 PM	11K8F1D
	101C	959.85 - 960.0	0.84	1.5 PM	5K90F1D
	101C	959.85 - 960.0	0.84	1.5 PM	11K8F1D

Modular Approval. Power listed is conducted. This Modular Approval is limited to installation for mobile and fixed applications only. This grant is valid only when the device is installed by the grantee or contractors employed by the grantee who are instructed to ensure that the enduser has no manual instructions to remove or install the device. The transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. Installers and end-users must be provided with transmitter operation conditions for satisfying RF exposure compliance.

![](_page_49_Picture_14.jpeg)

тсв

004

Date of Grant: 02/29/2012 Application Dated: 02/29/2012

TCB

#### GRANT OF EQUIPMENT AUTHORIZATION

Certification Issued Under the Authority of the Federal Communications Commission By:

> TUV SUD America Inc. 10 Centennial Drive Peabody, MA 01960

Sensus Metering Systems Inc. 639 Davis Drive Morrisville, NC 27560

Attention: Milton Britt , Sr. Director, Global System Test

#### NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

FCC IDENTIFIER: SDBM400G2900 Name of Grantee: Sensus Metering Systems Inc. Equipment Class: PCS Licensed Transmitter Notes: Basestation

Grant Notes	FCC Rule Parts	Frequency <u>Range (MHZ)</u>	Output <u>Watts</u>	Frequency <u>Tolerance</u>	Emission Designator
	24D	930.0 - 931.0	40.36	1.0 PM	5K90F1D
	24D	930.0 - 931.0	40.36	1.0 PM	11K8F1D
	24D	930.0 - 931.0	40.36	1.0 PM	8K75F1D
	24D	930.0 - 931.0	40.36	1.0 PM	17K5F1D
	24D	940.0 - 941.0	40.36	1.0 PM	5K90F1D
	24D	940.0 - 941.0	40.36	1.0 PM	11K8F1D
	24D 🖉 🧲	940.0 - 941.0	40.36	5 1.0 PM	8K75F1D
	24D 🦉 ն	940.0 - 941.0	40.36	1.0 PM	17K5F1D
	101C	941.0 - 941.5	40.36	1.0 PM	5K90F1D
	101C	941.0 - 941.5	40.36	1.0 PM	11K8F1D
	101C	941.0 - 941.5	40.36	1.0 PM	8K75F1D
	101C	941.0 - 941.5	40.36	1.0 PM	17K5F1D
	101C	952.0 - 953.0	40.36	1.0 PM	5K90F1D
	101C	952.0 - 953.0	40.36	🥖 1.0 PM	11K8F1D
	101C	952.0 - 953.0	40.36	1.0 PM	8K75F1D
	101C	952.0 - 953.0	40.36	1.0 PM	17K5F1D
	101C	959.85 - 960.0	40.36	1.0 PM	5K90F1D
	101C	959.85 - 960.0	40.36	1.0 PM	11K8F1D
	101C	959.85 - 960.0	40.36	1.0 PM	8K75F1D
	101C	959.85 - 960.0	40.36	1.0 PM	17K5F1D

Power listed is conducted. Device is limited to fixed applications only and must be professionally installed. Installers and end-users must be provided with transmitter operation conditions for satisfying RF exposure compliance.

Class II Change to add higher gain antenna. The transmitter must be installed to provide a separation distance of at least 750 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

![](_page_50_Picture_12.jpeg)

005

Date of Grant: 03/02/2021

Application Dated: 03/02/2021

**Randolph Wheatley** VP Marketing

8601 Six Forks Road Suite 700

T: 919-424-8947 M: 919-368-1536 Raleigh, NC 27615 USA randolph.wheatley@xyleminc.com www.sensus.com

![](_page_51_Picture_3.jpeg)

006

June 11, 2018

Reference: FlexNet System - Human Exposure to RF Electromagnetic Fields

The National Environmental Policy Act of 1969 (NEPA) requires agencies of the Federal Government to evaluate the effects of their actions on the quality of the human environment. To meet its responsibilities under NEPA, the Commission has, among other things, adopted guidelines for human exposure to RF energy emitted by FCC-regulated transmitters and facilities, such as those used in the Sensus FlexNet system.

The FCC Office of Engineering and Technology (OET) defined the guidelines related to the exposure of humans to radiofrequency electromagnetic fields based on exposure limits recommended by, among others, the National Council on Radiation Protection and Measurements (NCRP) and after careful consideration of comments submitted by the U.S. Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), and federal health and safety agencies.

OET Bulletin 65 documents the means by which one can evaluate compliance with these guidelines. The FCC does not impose mandatory procedures or methods, but accepts procedures based on sound engineering practices. Information in Section 4 of Bulletin 65 provides calculations, tables and figures enabling one to make a reasonably quick determination as to whether a proposed or existing facility is in compliance with the limits. Please note that in cases such as multiple-emitter locations, measurements or a more detailed analysis may be required. Basic information and references on measurement procedures and instrumentation is provided in Section 3 of the Bulletin.

The OET guidelines for human maximum permissible exposure (MPE) incorporate two limits:

- 1. Occupational or "controlled" situations
- 2. General public exposure or "uncontrolled" situations

FlexNet System typical installations do not cause ground level exposures in excess of the MPE limits. However, construction of these towers has been a topic of ongoing public controversy on environmental grounds. Therefore, the FCC believes it is necessary to ensure that there is no likelihood of excessive exposures from these antennas. Although it is believed there is no need to require routine evaluation of towers where antennas are mounted high above the ground, out of an abundance of caution, the FCC requires that tower-mounted installations be evaluated if antennas are mounted on a rooftop or are lower than 10 meters above ground and the total power of all channels being used is over 1000 watts effective radiated power (ERP).

Attachment A provides information on the antenna mounting height required to adhere with FCC permissible limits for general population / uncontrolled RF exposure for Sensus FlexNet base station installations with the specific base station models and specified antenna gains.

Page | 1

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![](_page_52_Picture_3.jpeg)

Additional information on this topic is available from the FCC through either phone, email or the web as provided below:

FCC's RF Safety Program: 1-888-225-5322 (1-888-CALL-FCC) E-mail: rfsafety@fcc.gov FCC Web Site: <u>www.fcc.gov/oet/rfsafety</u>.

Randolph Wheatley **VP** Marketing Sensus USA

**Randolph Wheatley** VP Marketing

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T: 919-424-8947 M: 919-368-1536 Raleigh, NC 27615 USA randolph.wheatley@xyleminc.com www.sensus.com

![](_page_53_Picture_3.jpeg)

#### Attachment A

In the FlexNet Base Station manuals we have text similar to the following advising how to install FlexNet base station equipment to maintain compliance with the FCC RF exposure requirements:

RF Exposure / Radiation Hazard

In order to satisfy the FCC RF exposure limit of 0.601 mW/cm<sup>2</sup> for transmitting devices, a separation distance of 118 cm (46.5 inches) or more should be maintained while operating the Sensus Transceiver. To ensure compliance, operations at closer than this distance is not recommended. This minimum safe distance is required between personnel and the antenna of this device.

This example is applicable to the M400B base station with 12.15dBi gain antenna.

The table below lists the minimum safe distances for the M400B and M400B2 with both 12.15 dBi gain and 18.65 gain dBi antennas.

MPE Calculator for Mobile Equipment									
Limits for General Population / Uncontrolled Exposure									
Base	Transmit Radio Power Radio Antenna Antenna Po								
Station	Frequency	Power	Density Limit	Power	Gain	Gain	Distance	Density	
Model	(MHz)	(dBm)	(mW/cm <sup>2</sup> )	(mW)	(dBi)	(mW eq.)	(cm)	(mW/cm <sup>2</sup> )	
M400B	901.0	38.00	0.601	6,309.57	12.15	16.41	118	0.592	
M400B	901.0	38.00	0.601	6,309.57	18.65	73.3	248	0.598	
M400B2	901.0	46.06	0.601	40,364.54	12.15	16.41	297	0.597	
M400B2	901.0	46.06	0.601	40,364.54	18.65	73.3	627	0.599	

TCB

#### **GRANT OF EQUIPMENT AUTHORIZATION**

Certification Issued Under the Authority of the Federal Communications Commission By:

> **TUV SUD America Inc. 10 Centennial Drive** Peabody, MA 01960

Sensus Metering Systems Inc. 639 Davis Drive Morrisville, NC 27560

Attention: Milton Britt , Sr. Director, Global System Test

#### NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

FCC IDENTIFIER: SDBM400G2900 Name of Grantee: Sensus Metering Systems Inc. Equipment Class: PCS Licensed Transmitter Notes: **Basestation** 

Grant Notes	FCC Rule Parts	Frequency <u>Range (MHZ)</u>	Output <u>Watts</u>	Frequency <u>Tolerance</u>	Emission Designator
	24D	930.0 - 931.0	40.36	1.0 PM	5K90F1D
	24D	930.0 - 931.0	40.36	1.0 PM	11K8F1D
	24D	930.0 - 931.0	40.36	1.0 PM	8K75F1D
	24D	930.0 - 931.0	40.36	1.0 PM	17K5F1D
	24D	940.0 - 941.0	40.36	1.0 PM	5K90F1D
	24D	940.0 - 941.0	40.36	1.0 PM	11K8F1D
	24D 🖉 🧲	940.0 - 941.0	40.36	1.0 PM	8K75F1D
	24D 🦉 🙋	940.0 - 941.0	40.36	1.0 PM	17K5F1D
	101C	941.0 - 941.5	40.36	1.0 PM	5K90F1D
	101C	941.0 - 941.5	40.36	1.0 PM	11K8F1D
	101C	941.0 - 941.5	40.36	1.0 PM	8K75F1D
	101C	941.0 - 941.5	40.36	1.0 PM	17K5F1D
	101C	952.0 - 953.0	40.36	1.0 PM	5K90F1D
	101C	952.0 - 953.0	40.36	🥖 1.0 PM	11K8F1D
	101C	952.0 - 953.0	40.36	1.0 PM	8K75F1D
	101C	952.0 - 953.0	40.36	1.0 PM	17K5F1D
	101C	959.85 - 960.0	40.36	1.0 PM	5K90F1D
	101C	959.85 - 960.0	40.36	1.0 PM	11K8F1D
	101C	959.85 - 960.0	40.36	1.0 PM	8K75F1D
	101C	959.85 - 960.0	40.36	1.0 PM	17K5F1D

Power listed is conducted. Device is limited to fixed applications only and must be

professionally installed. Installers and end-users must be provided with transmitter operation conditions for satisfying RF exposure compliance.

Class II Change to add higher gain antenna. The transmitter must be installed to provide a separation distance of at least 750 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

TCB

007

Date of Grant: 03/02/2021

Application Dated: 03/02/2021

## Attachment G

Xylem Antenna Design Letter

![](_page_56_Picture_0.jpeg)

Shaun Paul 114 NorthPark Blvd Suite 10 Covington , LA 70433 t +1 717 982 2918 shaun.paul@xylem.com, www.xylem.com

August 23, 2024

San Jose Water Company 1265 South Bascom Ave. San Jose, CA 95128

To Whom it May Concern:

Sensus, a Xylem brand, provides remotely managed products and solutions that deliver the right data at the right time for investor-owned utilities, cooperatives and municipalities. As part of Xylem's digital portfolio, our smart devices and advanced applications connect with a variety of communication technologies to help utility customers make timely decisions that optimize electric, gas and water systems. Sensus delivers these "Smart Grid" products and services using their proprietary FlexNet technology.

The FlexNet communication network provides the customers with a secure and reliable two-way wireless network using licensed spectrum which is protected by federal law. This private point-tomultipoint wireless network provides the utilities with a remote solution for monitoring consumption, turning services on/off, identifying water loss through leak detection and performing on-demand meter reads. These FlexNet services require a reliable wireless communication path between the collector (base station) and endpoint (utility meter) throughout the utility's territory. A reliable wireless network is a network that provides adequate capacity, redundancy, and full coverage.

FlexNet wireless networks are designed by a Radio Frequency Engineer using propagation modeling software, which utilizes real-world geographic variables such as the topography and clutter. These variables are often unique to the area being designed and tend to have the greatest impact when determining the number of site locations needed for reliable two-way coverage. The endpoint location (indoor, outdoor, pit set above lid) also plays a critical role when determining the number of base stations required, optimal locations, antenna heights, and base station equipment types to be used. In most cases, the assumption is that the higher the antenna the more coverage area, thus reducing the number of sites required. Although this assumption is typically true, ensuring the antenna line of sight is not obstructed by trees, buildings, or other obstacles, is of greater importance when determining the site location and antenna height required.

The Sensus RF Design engineer is also responsible for ensuring the FlexNet communications network can support the customers' capacity requirements. The optimal network capacity is achieved by designing a proportionality dimensioned network by strategically locating multiple sites throughout the area, thus distributing the traffic generated by the endpoints across multiple sites.

The example in *figure 1* illustrate the importance of site placement and antenna height when designing a wireless network. In both instances, the radio signal between the endpoint (meter) and the site (collector) is obstructed which would significantly reduce if not eliminating the coverage between the two points.

002

![](_page_57_Picture_0.jpeg)

#### figure 1: examples of obstructions

![](_page_57_Figure_2.jpeg)

Site / Base Station / Collector

Applying that same example, let us explore the common solutions (*figure 2*) employed by the RF Design Engineer during the design stages of a wireless network to avoid these issues.

- Solution 1 Increase the Tower and/or Antenna Height.
- Solution 2 Move the proposed site location to a higher elevation.
- Solution 3 Adding additional sites.

![](_page_57_Figure_8.jpeg)

![](_page_57_Figure_9.jpeg)

![](_page_58_Picture_0.jpeg)

Sensus designed the San Jose Water Company FlexNet network with all the necessary variables and objectives taken into consideration. Based on our analysis, we determined that the number of sites proposed, including antenna height, are necessary for providing San Jose Water Company with a reliable wireless network. The proposed design can support the capacity requirements, while also providing redundant coverage. Any significant changes to the proposed design could jeopardize the integrity of the network, which could lead to the need for additional sites or higher antenna placement.

Sincerely,

Shool

Shaun M Paul Radio Frequency Network Design Team Lead