



**VARIANCE REQUEST #851-25-000096-PLNG
VERIZON COMMUNICATIONS FACILITY**

*NOTICE TO MORTGAGEE, LIENHOLDER, VENDOR OR SELLER:
ORS 215 REQUIRES THAT IF YOU RECEIVE THIS NOTICE,
IT MUST BE PROMPTLY FORWARDED TO THE PURCHASER*

April 25, 2025

Dear Property Owner:

This is to confirm that the Tillamook County Department of Community Development **APPROVED WITH CONDITIONS** the above-cited request on April 25, 2025. A copy of the application, along with a map of the request area and the applicable criteria for review are available for inspection on the Tillamook County Department of Community Development website: <https://www.tillamookcounty.gov/commdev/landuseapps> and is also available for inspection at the Department of Community Development office located at 1510-B Third Street, Tillamook, Oregon 97141.

Appeal of this decision. This decision may be appealed to the Tillamook County Planning Commission, who will hold a public hearing. Forms and fees must be filed in the office of this Department before **4:00pm on May 7, 2025**. This decision will become final on May 7, 2025, after 4:00pm unless an appeal is filed in accordance with Tillamook County Land Use Ordinance Article X.

Request: Variance request to reduce the required 30-foot property line setback to 4-feet 7-inches for the siting of a new wireless communications facility.

Location: Subject property is located northeast of the Unincorporated Community of Siskeyville, at 300 Muesial Creek Road and is designated as Tax Lot 400 of Section 25, Township 1 North, Range 8 West of the Willamette Meridian, Tillamook County, Oregon.

Zone: Forest (F)

Applicant: Tessie Murakami & Sarah Blanchard, 5200 SW Meadows Road, STE 150, Lake Oswego OR 97035

Property Owner: Oregon Department of Forestry, 5005 3rd Street, Tillamook, OR 97141

CONDITIONS OF APPROVAL

Section 8.060: COMPLIANCE WITH CONDITIONS and Section 8.070: TIME LIMIT requires compliance with approved plans and conditions of this decision, and all other ordinance provisions, and allows 24 months for compliance with Conditions and start of construction. Failure to comply with the Conditions of Approval and ordinance provisions could result in nullification of this approval.

1. The applicant and property owner shall obtain all Federal, State, and Local permits, as applicable.
2. Variance approval is to reduce the required 30-foot property line setback to 4-feet 7-inches as depicted on the site plan included in "Exhibit B" of the applicant's submittal for the placement of the monopole and communications facility.
3. Development shall adhere to the applicable Conditions of Approval for Conditional Use #851-24-000394-PLNG.
4. This approval shall be void on April 25, 2027, unless construction of approved plans has begun, or an extension is requested from, and approved by this Department.

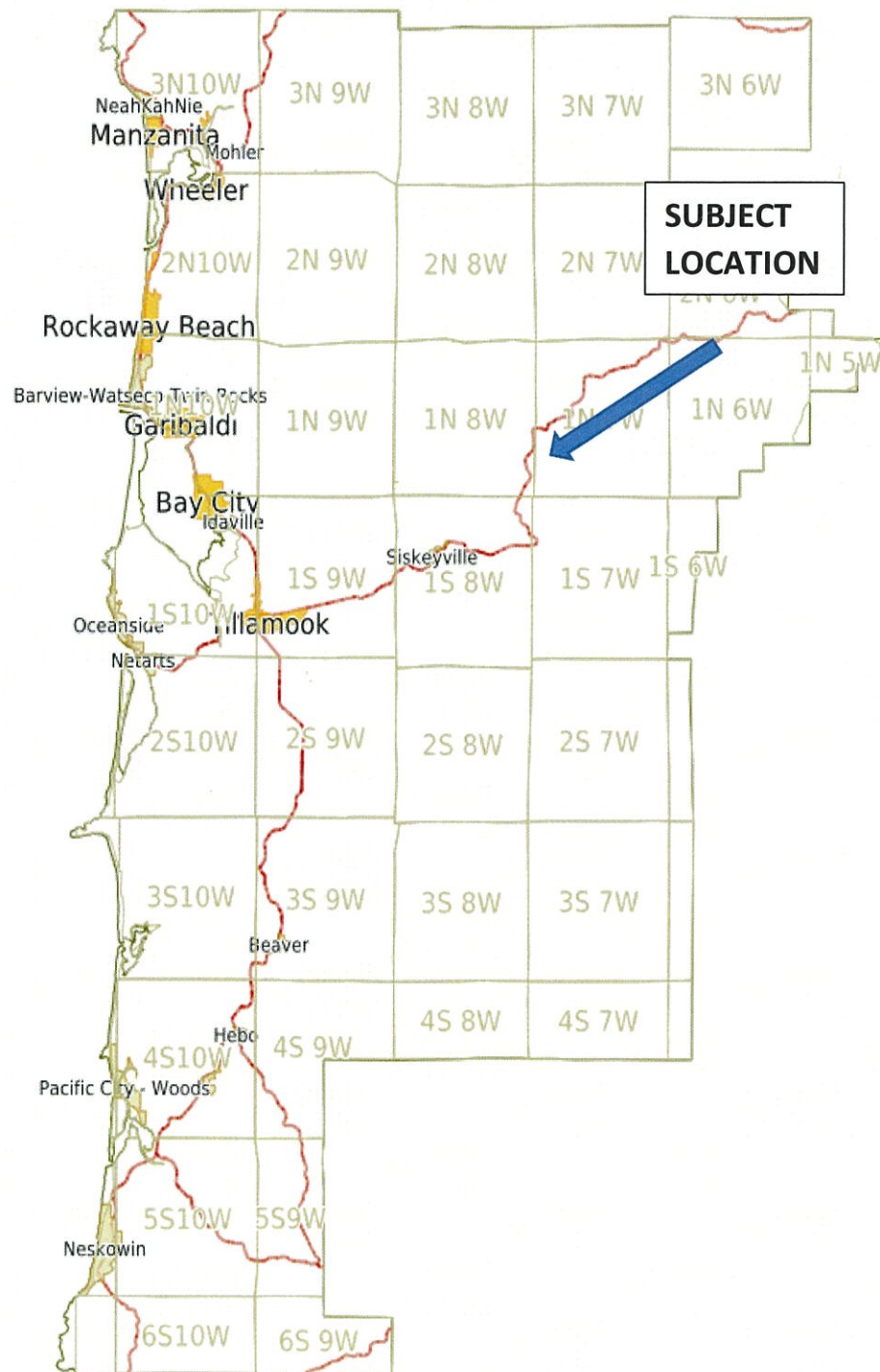
Sincerely,
Tillamook County Department of Community Development



Sarah Absher, CFM, Director

Enc.: Vicinity, Assessor's and Zoning maps

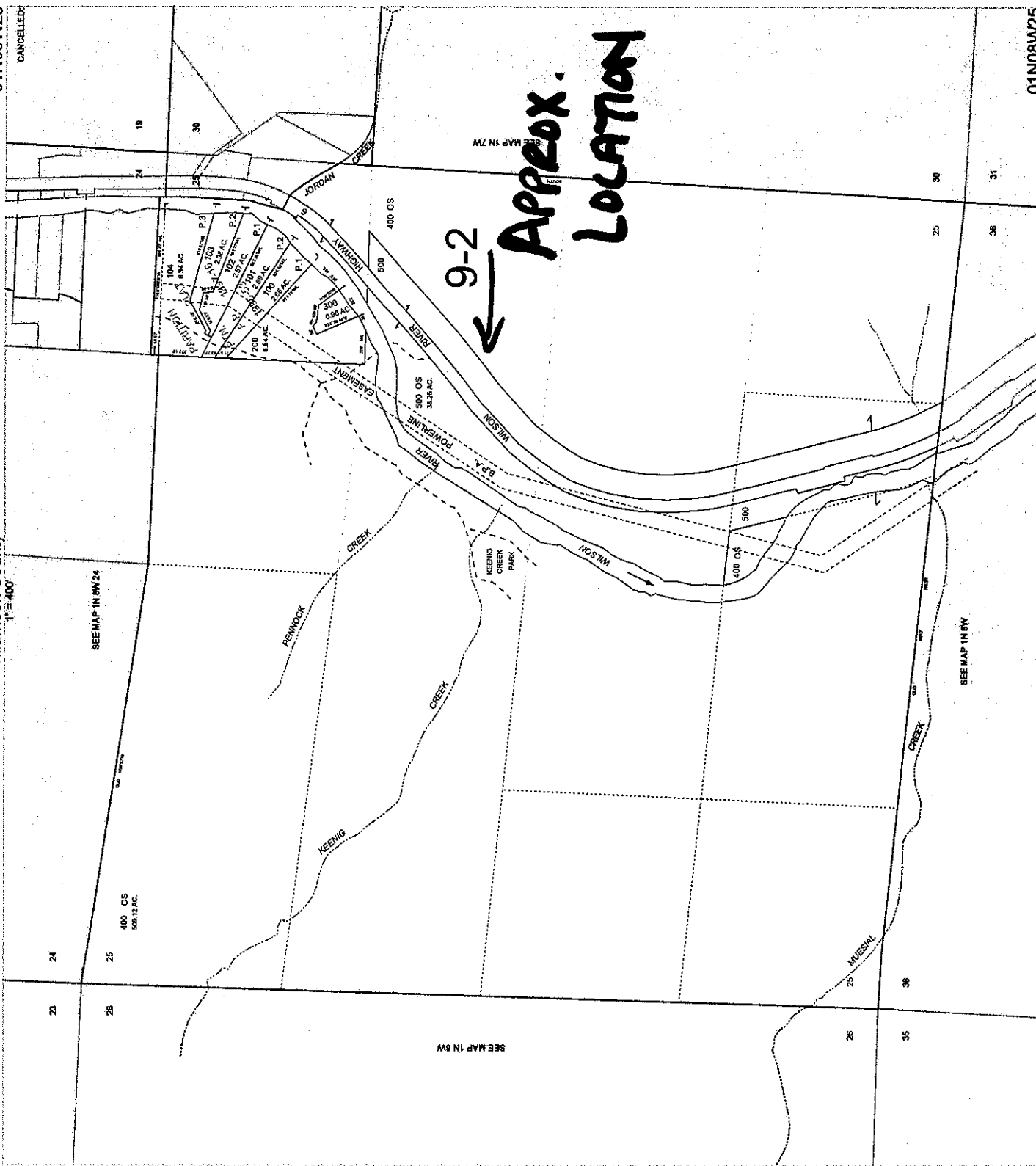
VICINITY MAP



#851-25-000096-PLNG: Communications Facility
Variance Request

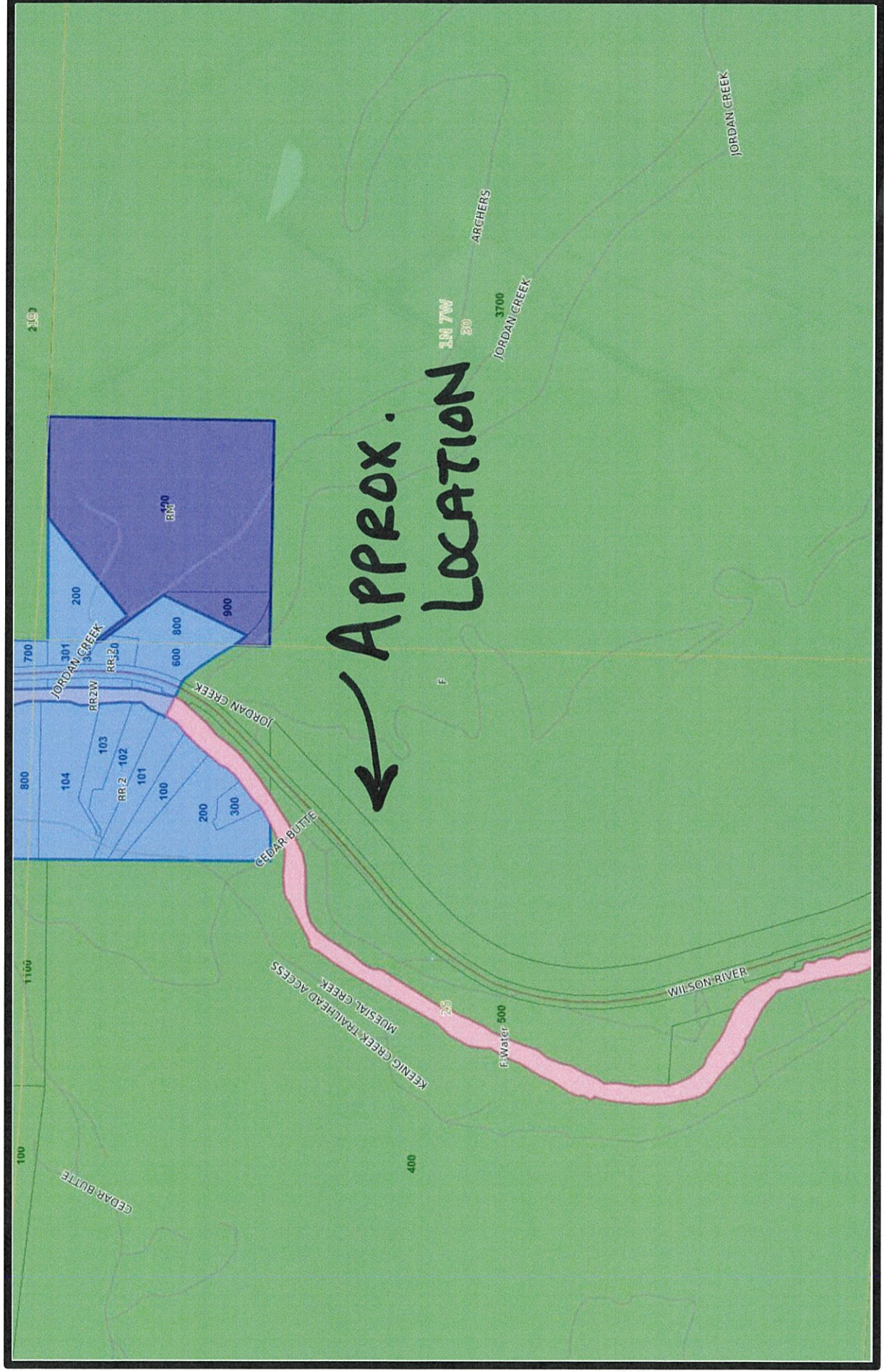
FOR ASSESSMENT AND TAXATION ONLY, NOT SUITABLE FOR
LEGAL, ENGINEERING, OR SURVEY PURPOSES

SECTION 25 T.1N. R.8W. W.M.
Tillamook County



01N08W25
REVISED 2/18/16, WS

Map





Land of Cheese, Trees and Ocean Breeze

**VARIANCE REQUEST #851-25-000096-PLNG
OREGON DEPARTMENT OF FORESTRY
VERIZON COMMUNICATIONS FACILITY**

Decision: APPROVED WITH CONDITIONS

Staff Report Date: April 25, 2025

Report Prepared By: Sarah Absher, CFM, Director

I. GENERAL INFORMATION:

Request: Variance request to reduce the required 30-foot property line setback to 4-feet 7-inches for the siting of a new wireless communications facility (Exhibit B).

Location: Subject property is located northeast of the Unincorporated Community of Siskeyville, at 300 Muesial Creek Road and is designated as Tax Lot 400 of Section 25, Township 1 North, Range 8 West of the Willamette Meridian, Tillamook County, Oregon (Exhibit A).

Zone: Forest (F)

Applicant: Tessie Murakami & Sarah Blanchard, 5200 SW Meadows Road, STE 150, Lake Oswego, OR 97035

Property Owner: Oregon Department of Forestry, 5005 3rd Street, Tillamook, OR 97141

Property & Vicinity Description: The subject property encompasses approximately 509.12-acres of forested landscape and rugged terrain (Exhibit A). County records indicate the subject property is developed with the Keenig Creek Campground and associated facilities with the remainder as classified forest lands (Exhibit A).

Zoning in the area consists of Forest (F), Recreation Management (RM) and Rural Residential (RR-2) zoned properties (Exhibit A). Aerial imagery confirms the forested areas within the vicinity are vacant of improvements and similar to the subject property, these forested areas consist of forested landscape and rugged terrain. Residentially zoned properties in the vicinity, north of the subject property, are improved with residential structures.

There are mapped wetlands features located in the vicinity and on the subject property, including the Wilson River and mapped creeks as depicted on the Oregon Statewide Wetlands Inventory Map (Exhibits A). These features are not located within close proximity to the proposed areas for development of a new wireless communications facility (Exhibits A & B). The subject property is located within Flood Zone D as depicted on FEMA FIRM 41057C0475F dated September 28, 2018, and is not within an Area of Special Flood Hazard (Exhibit A). The subject property is within a mapped area of known geologic hazard (Exhibit A). Identified hazards include shallow landslide susceptibility (Exhibit A).

II. APPLICABLE ORDINANCE AND COMPREHENSIVE PLAN PROVISIONS:

The desired use is governed through the following Sections of the Tillamook County Land Use Ordinance (TCLUO). The suitability of the proposed use, in light of these criteria, is discussed in Section III of this report:

- A. Section 3.004: Forest (F) Zone
- B. Article VIII: Variance Procedure and Criteria

III. ANALYSIS:

A. Section 3.004: Forest (F) Zone

PURPOSE: The purpose of the Forest (F) Zone is to protect and maintain forest lands for grazing, and rangeland use and forest use, consistent with existing and future needs for agricultural and forest products. The F zone is also intended to allow other uses that are compatible with agricultural and forest activities, to protect scenic resources and fish and wildlife habitat, and to maintain and improve the quality of air, water and land resources of the county.

...

1. Section 3.004(9) Siting Standards For Dwellings And Structures In Forest Zones

The following siting criteria or their equivalent shall apply to all new dwellings and structures in forest zones. These criteria are designed to make such uses compatible with forest operations, to minimize wildfire hazards and risks and to conserve values found on forest lands. The County shall consider the criteria in this section together with the requirements of Section (10) to identify the building site:

...

b) The minimum front, rear, and side yards shall all be 30 feet

...

Findings: Applicant is requesting to reduce the required 30-foot property line setback to 4-feet 7-inches for the siting of an 80-foot monopole as shown on the site plan in "Exhibit B" of this report. Variance approval is required to site the monopole at the requested location with the reduced setback.

(d) Dwellings and structures shall be sited on the parcel so that:

- 1. They have the least impact on nearby or adjoining forest or agricultural lands;*
- 2. The siting ensures that adverse impacts on forest operations and accepted farming practices on the tract will be minimized;*
- 3. The amount of forest lands used to site access roads, service corridors, the dwelling and structures is minimized; and*

4. *The risks associated with wildfire are minimized.*

(e) Siting criteria satisfying Subsection (d) may include setbacks from adjoining properties, clustering near or among existing structures, siting close to existing roads and siting on that portion of the parcel least suited for growing trees.

Findings: Staff finds that these requirements have been met through approved Conditional Use #851-24-000394-PLNG.

(f) The applicant shall provide evidence to the governing body that the domestic water supply is from a source authorized in accordance with the Water Resources Department's administrative rules for the appropriation of ground water or surface water and not from a Class II stream as defined in the Forest Practices rules (OAR chapter 629).

Findings: Domestic water is not required for the proposed development (Exhibit B).

(g) As a condition of approval, if road access to the dwelling is by a road owned and maintained by a private party or by the Oregon Department of Forestry, the U.S. Bureau of Land Management, or the U.S. Forest Service, then the applicant shall provide proof of a long-term road access use permit or agreement. The road use permit may require the applicant to agree to accept responsibility for road maintenance.

Findings: The proposal is not for the siting of a dwelling (Exhibits A & B).

2. Section 3.004(10): Fire Siting Standards for Dwelling and Structures:

(c) The owners of the dwellings and structures shall maintain a primary fuel-free break area surrounding all structures and clear and maintain a secondary fuel-free break area on land surrounding the dwelling that is owned or controlled by the owner in accordance with the provisions in "Recommended Fire Siting Standards for Dwellings and Structures and Fire Safety Design Standards for Roads" dated March 1, 1991, and published by the Oregon Department of Forestry and shall demonstrate compliance with Table (10)(c)1...

Findings: The subject property is located within the fire protection service area of the Oregon Department of Forestry.

TCLUO Article 11 defines a Structure as "Anything constructed or installed or portable, the use of which requires a location on a parcel of land". As a Condition of Approval, the Applicant shall maintain the required fuel-free fire break areas around structures located on the subject property in accordance with TCLUO Section 3.004(10)(c). Staff finds that this requirement has been addressed and will be met through compliance with the Conditions of Approval of Conditional Use #851-24-000394-PLNG.

A. Article VIII: Variance Procedure and Criteria; including Section 4.005 Residential and Commercial Zone Standards

The purpose of a VARIANCE is to provide relief when a strict application of the dimensional requirements for lots or structures would cause an undue or unnecessary hardship by rendering the parcel incapable of reasonable economic use. No VARIANCE shall be granted to allow a use of property not authorized by this Ordinance.

Article VIII of the Tillamook County Land Use Ordinance governs the applications of Variances within the County. Section 4.005 lists the purposes of the land use standards in each of the residential and commercial zones.

1. **Section 8.020** requires public notice in accordance with TCLUO Section 10.070 which requires notification of the request to be published in a newspaper of local distribution and mailed to landowners within 250 feet of the subject property.

Findings: Notice of this Variance request was mailed to property owners within 750-feet and affected agencies on March 31, 2025. Comments were received from the Oregon Department of Transportation (ODOT) and Oregon Department of Fish and Wildlife. Comments are included in “Exhibit C” of this report.

2. **Section 8.030** states that a Variance may be authorized if the applicants/property owners adequately demonstrate that the proposed use satisfies all relevant requirements, including all four review criteria in Section 8.030. These criteria, including Section 4.005 Residential and Commercial Zone Standards, along with Staff’s findings and conclusions are indicated below:

(1) Circumstances attributable either to the dimensional, topographical, or hazardous characteristics of legally existing lot, or to the placement of structures thereupon, would effectively preclude the enjoyment of a substantial property right enjoyed by the majority of landowners in the vicinity, if all applicable standards were to be met. Such circumstances may not be self-created.

Findings: Applicant states that the proposed site for the 80-foot monopole was selected after careful consideration of the topographic features of the land (topographic constraints), ensuring the structure will effectively meet coverage requirements with strong and reliable service along the highway (Exhibit B). Applicant adds that the tower must be positioned at this exact distance from the highway to take advantage of the natural line of site coverage (Exhibit B).

Staff finds that the circumstances and constraints identified by the Applicant are not a self-created issue, and that relief to the required 30-foot setback ensures the ability to site the monopole on the subject property.

Staff concludes this criterion is met.

(2) A variance is necessary to accommodate a use or accessory use on the lot which can be reasonably expected to occur within the zone or vicinity.

Findings: Applicant states the requested variance is necessary to site the proposed 80-foot monopole tower along Highway 6 to accommodate the wireless infrastructure needed to address the substantial coverage gap in the area, and that the variance will allow the placement of the monopole in a way that provides effective service coverage while complying with the unique topographic, dimensional and zoning requirements of the property (Exhibit B).

For the reasons stated by the Applicant, staff finds the Variance is necessary to accommodate a use on the property which can be reasonably expected to occur within the zone given approval of the project through approved Conditional Use #851-24-000394-PLNG. Staff concludes that this criterion has been met.

(3) The proposed variance will comply with the purposes of relevant development standards as enumerated in Section 4.005 and will preserve the right of adjoining property owners to use and enjoy their land for legal purposes.

Section 4.005: Residential and Commercial Zone Standards of the Tillamook County Land Use Ordinance lists the purposes of the land use standards in each of the residential and commercial zones as follows:

- (1) *To ensure the availability of private open spaces;*
- (2) *To ensure that adequate light and air are available to residential and commercial structures;*
- (3) *To adequately separate structures for emergency access;*
- (4) *To enhance privacy for occupants or residences;*
- (5) *To ensure that all private land uses that can be reasonably expected to occur on private land can be entirely accommodated on private land, including but not limited to dwellings, shops, garages, driveway, parking, areas for maneuvering vehicles for safe access to common roads, alternative energy facilities, and private open spaces;*
- (6) *To ensure that driver visibility on adjacent roads will not be obstructed;*
- (7) *To ensure safe access to and from common roads;*
- (8) *To ensure that pleasing view are neither unreasonably obstructed nor obtained;*
- (9) *To separate potentially incompatible land uses;*
- (10) *To ensure access to solar radiation for the purpose of alternative energy production.*

Findings: Findings: The proposed use, siting of an 80-foot monopole as part of a larger project to provide cellular coverage along the Highway 6 corridor, is a use that is not residential in nature. Applicant states the placement and height of the monopole have been carefully considered to avoid any disruption to adjacent properties. Surrounding properties are primarily forest zoned, and the proposed development of the monopole is not near residential properties. Applicant adds that the location and height of the tower ensure light, air and views are not blocked in a manner that would impact neighboring landowners' enjoyment of their property (Exhibit B).

The County regulates views through compliance with building height requirements. Staff finds the height of monopole complies with the maximum height requirement for structures in the Forest (F) zone outlined in TCLUO Section 3.004 (Exhibit B).

For the reasons outlined above and stated in the Applicant's submittal included as "Exhibit B" of this report, staff concludes the proposed variance complies with the purposes of relevant development standards as enumerated in Section 4.005 and preserves the right of adjoining property owners to use and enjoy their land for legal purposes. This criterion is met.

(4) There are no reasonable alternatives requiring either a lesser or no variance.

Findings: Applicant states the unique topography of the property plays a significant role in determining the location of the 80-foot monopole, and that due to natural features such as elevation changes, slopes and the layout of surrounding roads and properties, the placement of the tower in any other location would fail to meet service coverage requirements or would cause excessive interference with the surrounding environment (Exhibit B). For the reasons outlined in Applicant's submittal in "Exhibit B", Applicant states there are no reasonable alternatives requiring either a less or no variance.

Staff concurs with the Applicant's justification and concludes this criterion has been met.

IV. DECISION: APPROVED WITH CONDITIONS

Staff concludes, based on the findings of fact and other relevant information in the record, that the Applicant has satisfied/or is able to satisfy the applicable ordinance requirements through the Conditions of Approval, and therefore, approves the request subject to the provisions in Section V below.

By accepting this approval the applicants/property owners agree to indemnify, defend, save and hold harmless Tillamook County, and its officers, agents, and employees from any claim, suit, action or activity undertaken under this approval, including construction under a Building Permit approved subject to this approval. The applicants/property owners shall obtain all of the necessary local, state, and federal permits and comply with all applicable regulations for the proposed building site.

This decision may be appealed to the Tillamook County Planning Commission, who will hold a public hearing. Forms and fees must be filed in the office of this Department before **4:00 PM** on **May 7, 2025**.

V. CONDITIONS OF APPROVAL:

Section 8.060: COMPLIANCE WITH CONDITIONS and Section 8.070: TIME LIMIT requires compliance with approved plans and conditions of this decision, and all other ordinance provisions, and allows 24 months for compliance with Conditions and start of construction. Failure to comply with the Conditions of Approval and ordinance provisions could result in nullification of this approval.

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3. Development shall adhere to the applicable Conditions of Approval for Conditional Use #851-24-000394-PLNG.
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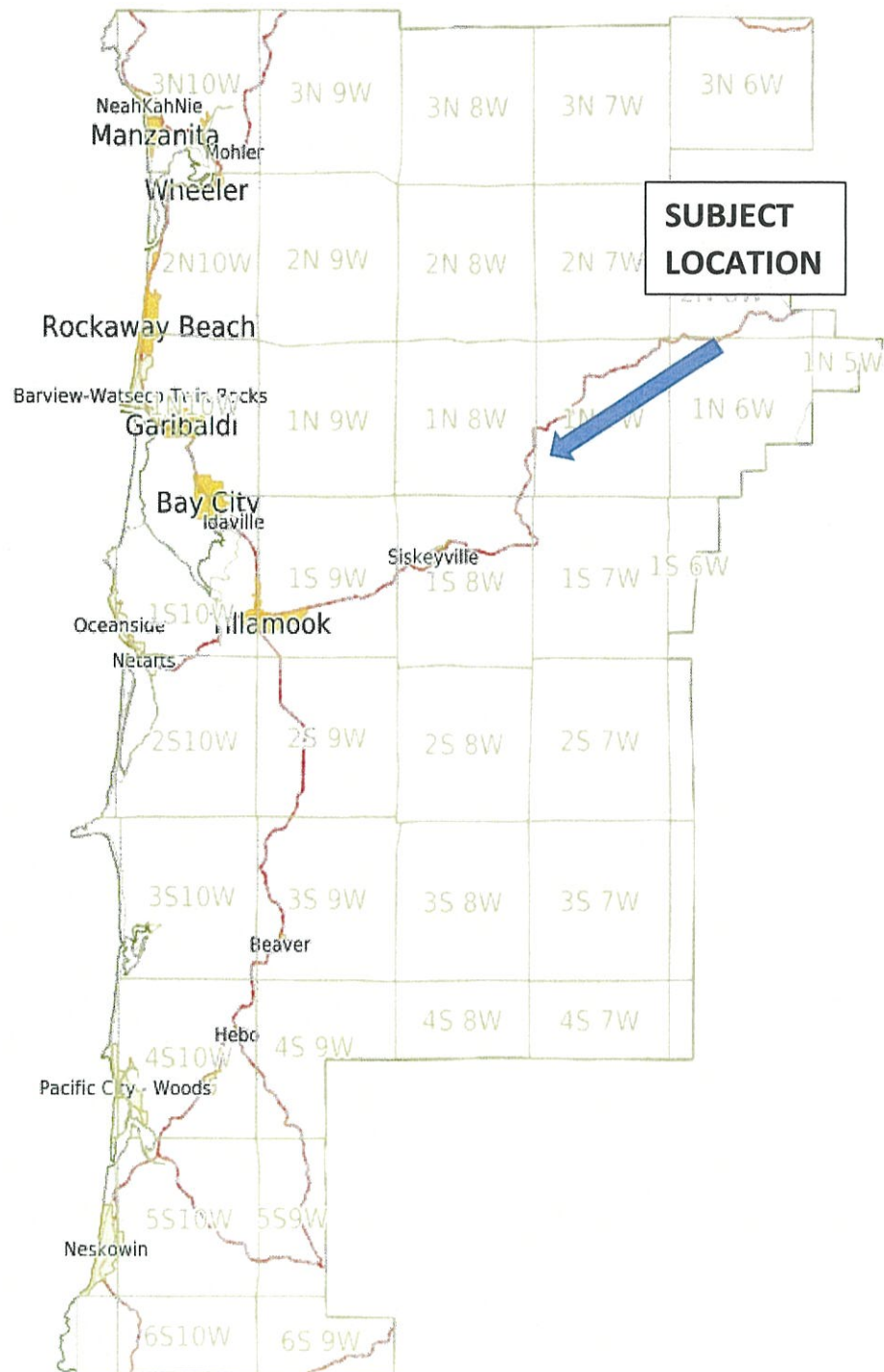
VI. EXHIBITS

All Exhibits referred to herein are, by this reference, made a part hereof:

- A. Location Map, Assessor map, Zoning map, DOGAMI Hazard Map, FEMA FIRM, Wetland Inventory Map, Assessment Summary
- B. Applicant's submittal
- C. Public/Agency Comments

EXHIBIT A

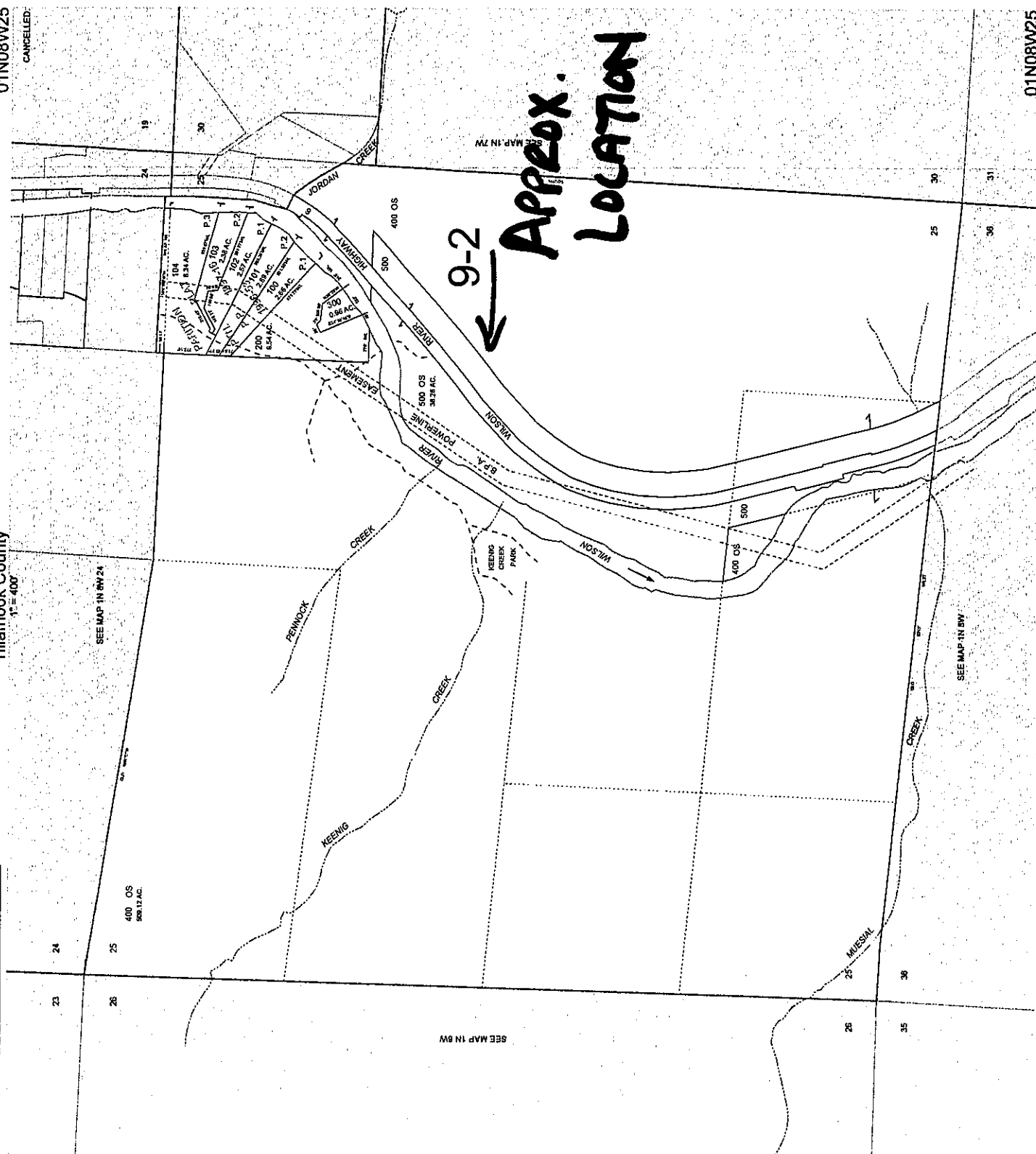
VICINITY MAP



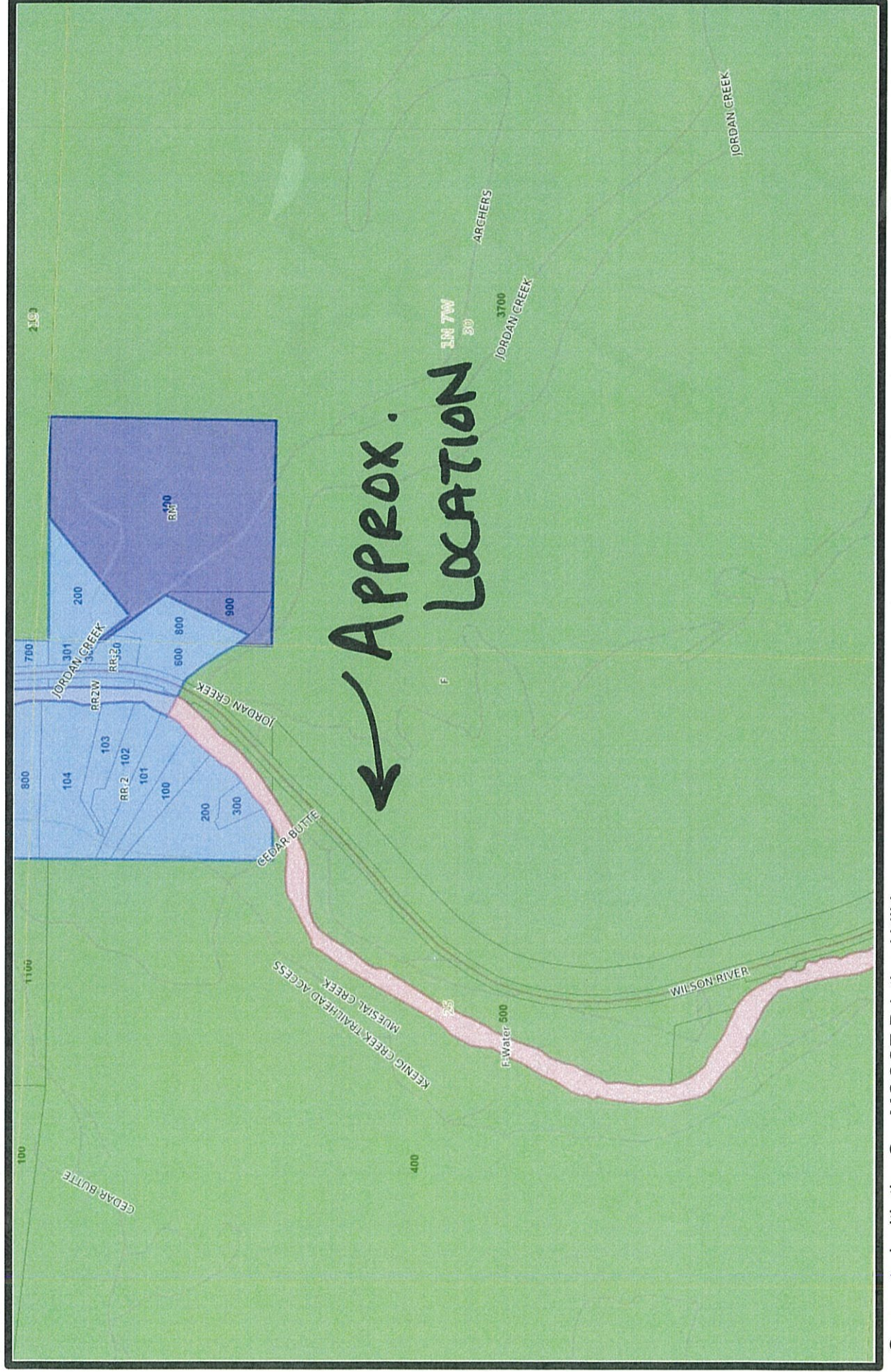
#851-25-000096-PLNG: Communications Facility
Variance Request

SECTION 25 T.1N. R.8W. W.M.
Tillamook County

CANCELLED:-

01N08W25
REVISED 2/15/16, WS

Map



National Flood Hazard Layer FIRMette

123°36'29"W 45°33'1"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

Without Base Flood Elevation (BFE)
Zone A, V, A99

With BFE or Depth
Zone AE, AO, AH, VE, AR

Regulatory Floodway

0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with draining areas of less than one square mile
Zone X

Future Conditions 1% Annual Chance Flood Hazard
Zone X

Area with Reduced Flood Risk due to Levee. See Notes.
Zone X

Area with Flood Risk due to Levee
Zone D

NO SCREEN

Area of Minimal Flood Hazard
Zone X

Effective LOMRs

Area of Undetermined Flood Hazard
Zone X

Channel, Culvert, or Storm Sewer

Levee, Dike, or Floodwall

Cross Sections with 1% Annual Chance Water Surface Elevation

Coastal Transect

Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

Digital Data Available

No Digital Data Available

Unmapped

MAP PANELS

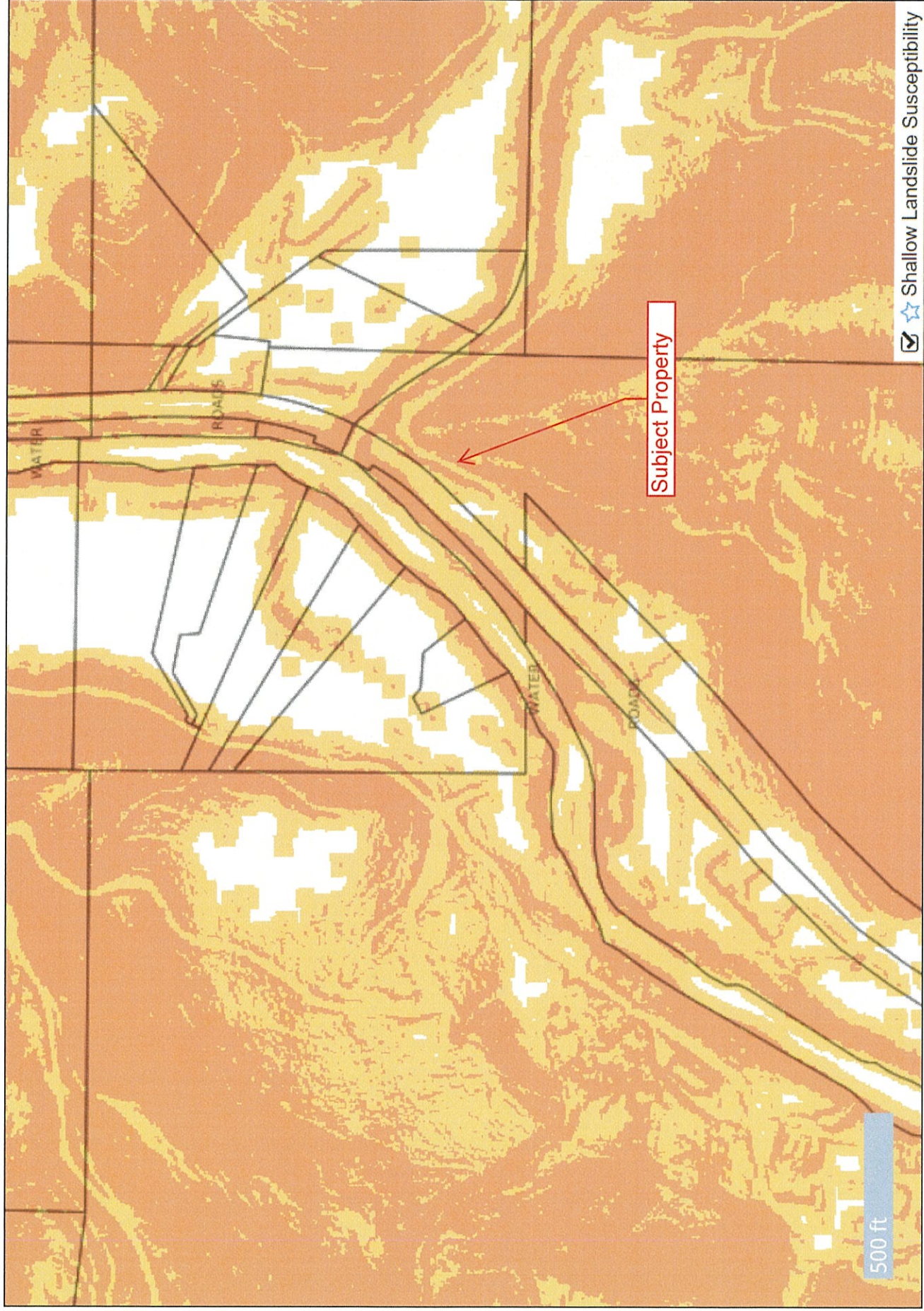
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/12/2024 at 11:10 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

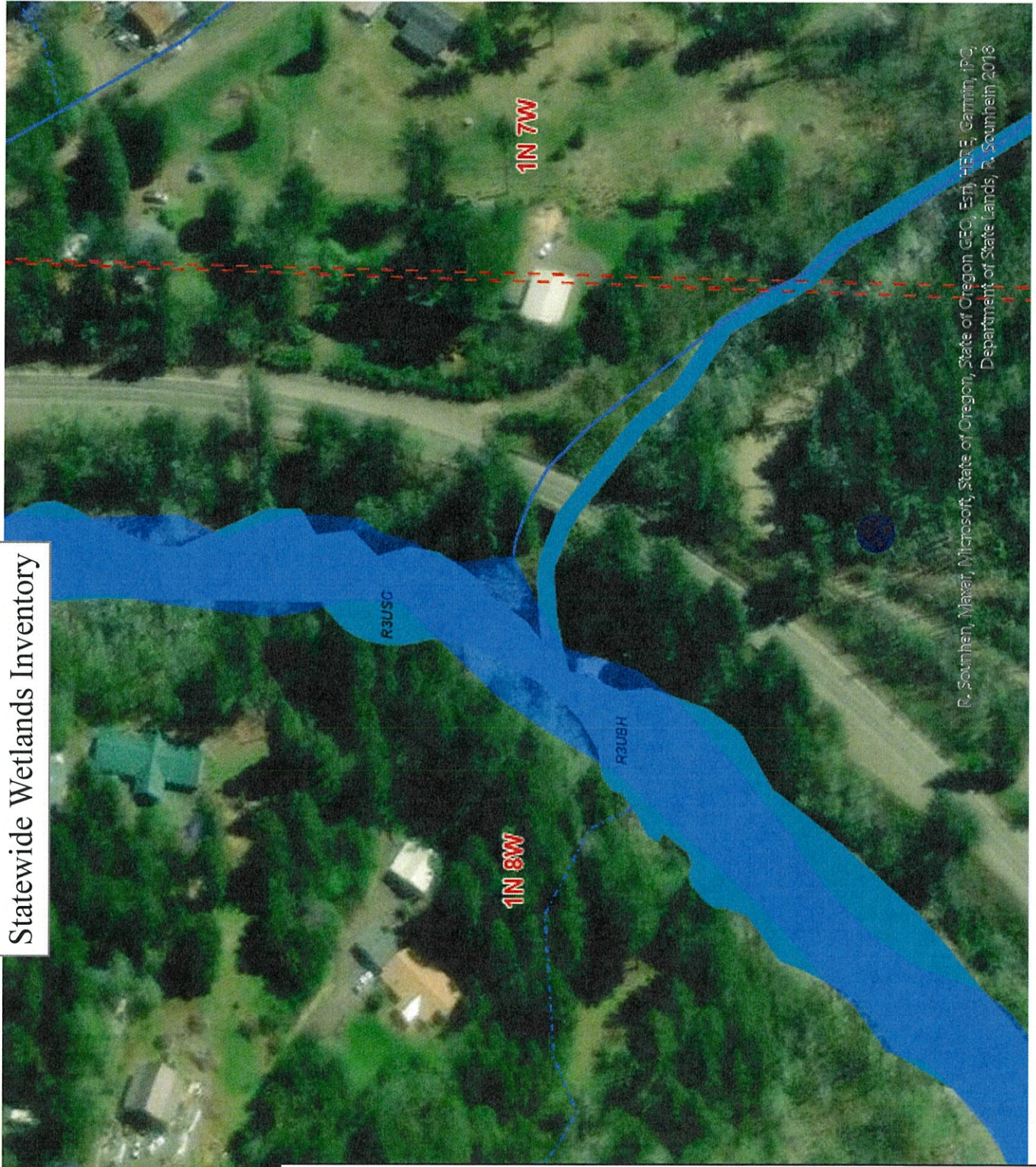
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Hazard Map



Disclaimer: The spatial information hosted at this website was derived from a variety of sources. Care was taken in the creation of these themes, but they are provided "as is." The state of Oregon, or any of the data providers cannot accept any responsibility for errors, omissions, or positional accuracy in the digital data or underlying records. There are no warranties, expressed or implied, including the warranty of merchantability or fitness for a particular purpose, accompanying any of these products. However, notification of any errors would be appreciated. The data are clearly not intended to indicate the authoritative location of property boundaries, the precise shape or contour of the earth or the precise location of fixed works of humans.

Statewide Wetlands Inventory



- Townships
- LWI Study Area
- BASEDAT.DBO.NHDWaterbody
- BASEDAT.DBO.NHDArea

BASEDAT.DBO.NHDFlowline

- Perennial
- Intermittent
- Ephemeral
- Unknown
- Canal/Ditch
- Canal/Ditch
- Canal/Ditch
- BASEDAT.DBO.NHDPont

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- SWT Agate-Wino Soils
- SWT Predominantly Hydric Soil Map Units

R. Sounhein, Makar, Microsoft, State of Oregon GEO, Est. HERE, Garmin, JPC, Department of State Lands, R. Sounhein 2013



1:2,257

N

Date: 10/12/2024



Tillamook County
2024 Real Property Assessment Report
 Account 309927

Map 1N08250000400
Code - Tax ID 0902 - 309927

Tax Status Non-Assessable
Account Status Active
Subtype NORMAL

Legal Descr See Record

Mailing OREGON, STATE OF
 (FORESTRY)
 300 MUESIAL CREEK RD
 TILLAMOOK OR 97141

Deed Reference # See Record
Sales Date/Price See Record
Appraiser KARI FLEISHER

Property Class 961 **MA SA NH**
RMV Class 601 01 01 600

Site	Situs Address	City
	300 MUESIAL CREEK RD	COUNTY

		Value Summary			
Code Area		RMV	MAV	AV	RMV Exception CPR %
0902	Land	797,390		Land	0
	Impr	102,020		Impr	0
Code Area Total		899,410	0	0	0
Grand Total		899,410	0	0	0

Land Breakdown								
Code Area	ID #	RFPD	Ex	Plan Zone	Value Source	Trend %	Size	Land Class Trended RMV
0902	0	<input checked="" type="checkbox"/>		F	Classified Forest Land	100	509.12 AC	OA 797,390
Code Area Total							509.12 AC	797,390

Improvement Breakdown								
Code Area	ID #	Year Built	Stat Class	Description	Trend %	Total Sqft	Ex% MS Acct	Trended RMV
0902	1		511	RV Park/Campground	102	10		102,020
Code Area Total							10	102,020

Exemptions / Special Assessments / Notations	
Code Area 0902	
Exemptions (AV)	Amount
■ STATE GOVERNMENT 307.090	0

Comments 9/30/02 SET TO 1N8 25 500. ADDING RMV MKT VAL. NO MAV PER GS. JV 01-0231L. LR 4/7/10 Apportioned values after LLA with TL 500. RMV at market. Remains exempt under ORS 307.090. KF
 12/14/16 Size change per GIS.LM
 7/24/19 Added new vault restroom to Keenig Creek Campground. KF 7/15/20 Added new bridge at Keenig Creek Campground. KF

EXHIBIT B



PLANNING APPLICATION

Applicant ☐ (Check Box if Same as Property Owner)

Name: **Sarah Blanchard** Phone: **503.310.0544**

Address: 5200 SW Meadows Rd., Suite 150

City: Lake Oswego

State: OR

Zip: 97035

Email: sarah.blanchard@acomconsultinginc.com

Property Owner

Name: Oregon Dept. of Forestry (ODF) Phone: Zach Rabe - 503-842-2545

Address: 5005 3rd Street

City: Tillamook

State: OR

Zip: 97141

Email: Zach.D.RABE@odf.oregon.gov

OFFICE USE ONLY	
Date Stamp	
RECEIVED	
FEB 21 2025	
BY: <i>[Signature]</i>	
<input type="checkbox"/> Approved <input type="checkbox"/> Denied	
Received by:	
Receipt #:	
Fees:	
Permit No:	
851- <i>25</i> - <i>000916</i> -PLNG	

Request: *Variance* Type II Conditional Use Review for a new wireless communications facility (with Verizon Wireless as tenant carrier) on forest parcel.

HWY 6 node 7

HWY 6 node 7

Type II

- ☐ Farm/Forest Review
- ☐ Conditional Use Review
- ☒ Variance
- ☐ Exception to Resource or Riparian Setback
- ☐ Nonconforming Review (Major or Minor)
- ☐ Development Permit Review for Estuary Development
- ☐ Non-farm dwelling in Farm Zone
- ☐ Foredune Grading Permit Review
- ☐ Neskowin Coastal Hazards Area

Type III

- ☐ Detailed Hazard Report
- ☐ Conditional Use (As deemed by Director)
- ☐ Ordinance Amendment
- ☐ Map Amendment
- ☐ Goal Exception
- ☐ Nonconforming Review (As deemed by Director)
- ☐ Variance (As deemed by Director)

Type IV

- ☐ Ordinance Amendment
- ☐ Large-Scale Zoning Map Amendment
- ☐ Plan and/or Code Text Amendment

Location:

Site Address: 35300 Wilson River Hwy, Tillamook, OR 97141 (309927/1N08250000400)

Map Number: 1N

8W

25

0400

Township

Range

Section

Tax Lot(s)

Clerk's Instrument #: _____

Authorization

This permit application does not assure permit approval. The applicant and/or property owner shall be responsible for obtaining any other necessary federal, state, and local permits. The applicant verifies that the information submitted is complete, accurate, and consistent with other information submitted with this application.

Property Owner Signature (Required)

Zachariah Rabe

Digitally signed by Zachariah Rabe

Date: 2025.02.14 11:43:56 -08'00'

Date

Applicant Signature

[Signature]

Applicant

Date

2/14/25

**LAND USE APPLICATION -
VARIANCE**

**VERIZON WIRELESS
TELECOMMUNICATIONS
FACILITY AT**

No Situs
Tillamook, OR 97141
(Acct 309927/Map Tax
Lot 1N08250000400)

Prepared By



Date
February 17, 2025

Project Name
POR HWY 6 - 07



I. GENERAL INFORMATION

Applicant: Verizon Wireless
5430 NE 122nd Avenue
Portland, OR 97230

Representative: Acom Consulting, Inc.
Tessie Murakami
5200 SW Meadows Rd., Suite 150
Lake Oswego, OR 97035

Property Owner: Oregon Dept. of Forestry
Zach Rabe
5005 3rd Street
Tillamook, OR 97141

Project Information:

Site Address: No Situs, Tillamook, OR 97141
Parcel: 1N08250000400
Account Number: 309927
Parcel Area: 509.12 acres
Zone Designation: F (Forest)
Existing Use: Forest
Project Area: 100 Square Feet (10' x 10') accessed by a short 10' wide access and utility easement.

II. PROJECT OVERVIEW

Acom Consulting is applying on behalf of Verizon Wireless, who will own and operate the tower and ground space; Celco Partnership dba Verizon Wireless, who will be located on this facility and the property owner, Tillamook County. The site proposed herein is designed to improve the voice and data capacity for its customers in Tillamook County and along Highway 6. This is part of the initiative to provide better coverage of 911 calls on the highway since it is known as the deadly stretches in Oregon. The state is mandating all carriers to address the coverage gap at HWY OR-6.

The applicant proposes to construct a new wireless communications facility ("WCF") within a 10' x 10' ground lease area. This proposal includes a 80-foot monopole tower with up to 3 antennas at an antenna tip-height of 80' and associated RRU's, equipment cabinets, backup generator, and high security fence with 3 strands barbed wire. The site will be accessed via an existing driveway off HWY OR-6.

The monopole tower would be a metal pole and can be painted a non-reflective color to blend with the adjacent mature trees and sky. The proposed monopole (small cell) is only 80' and is a part of Verizon's small cells



project in Tillamook County which is requiring additional poles to be installed along HWY OR-6 for the proposal to provide adequate service coverage in the area.

This site was chosen because HWY OR-6 is currently significantly underserved by wireless coverage, even though there is a substantial amount of traffic every day. The lack of existing wireless facilities in the area contributes to lack of coverage. The newly proposed small cells will provide much needed coverage in areas that would be difficult to serve using conventional tower-based transmitters. These sites will not only help improve customer experience but also help public safety and emergency services by allowing communication in an otherwise cut-off area.

This site can meet the Tillamook County criteria for siting of new wireless telecommunication facilities, including height, setbacks and design as demonstrated herein. As shown throughout this application, Verizon's proposal is the least intrusive means of meeting coverage objectives. The applicants respectfully request that Tillamook County approve the variance and facility as proposed.

III. PROPOSED PLAN

This is a variance request to reduce the required 30-foot property line setback to 4 ft. 7 inches to support the approved construction of the 80 ft. monopole tower to provide cellular service and coverage along the highway. The subject property is surrounded by Forest and highway traffic.

IV. APPLICABLE ORDINANCE AND COMPREHENSIVE PLAN PROVISIONS

- A. TCLUO Section 3.004 – Forest (F) Zone
- B. TCLUO Article VIII – Variance Procedures and Criteria - Section 8.030 Review Criteria

V. ANALYSIS

- A. TCLUO Section 3.004 – Forest (F) Zone

(1) PURPOSE

(a) The purpose of the Forest (F) Zone is to protect and maintain forest lands for grazing, and rangeland use and forest use, consistent with existing and future needs for agricultural and forest products. The F zone is also intended to allow other uses that are compatible with agricultural and forest activities, to protect scenic resources and fish and wildlife habitat, and to maintain and improve the quality of air, water and land resources of the county.

(b) The F zone has been applied to lands designated as Forest in the Comprehensive Plan. The provisions of the F zone reflect the forest land policies of the Comprehensive Plan



as well as the requirements of ORS Chapter 215 and OAR 660-006. The minimum parcel size and other standards established by this zone are intended to promote commercial forest operations.

Applicant's response: The proposed WCF is located in the Forest (F) zone.

(2) DEFINITIONS

Words used in the present tense include the future; the singular number includes the plural; and the word "shall" is mandatory and not directory. Whenever the term "this ordinance" is used herewith, it shall be deemed to include all amendments thereto as may hereafter from time to time be adopted.

For the purpose of this zone, the following definitions apply:

(dd) **UTILITY FACILITIES NECESSARY FOR PUBLIC SERVICE:** Unless otherwise specified in this Article, any facility owned or operated by a public, private or cooperative company for the transmission, distribution or processing of its products or for the disposal of cooling water, waste or by-products, and including, major trunk, pipelines, dams & and other hydroelectric facilities, water towers, sewage lagoons, cell towers, electrical transmission facilities (except transmission towers over 200' in height) including substations not associated with a commercial power generating facilities and other similar facilities.

Applicant's response: The proposed WCF qualifies as a utility facility necessary for public service.

B. TCLUO Article VIII – Variance Procedures and Criteria - Section 8.030 Review Criteria

SECTION 8.030: REVIEW CRITERIA

A VARIANCE shall be granted, according to the procedures set forth in Section 8.020, if the applicant adequately demonstrates that the proposed VARIANCE satisfies all of the following criteria:

- (1) Circumstances attributable either to the dimensional, topographic, or hazardous characteristics of a legally existing lot, or to the placement of structures thereupon, would effectively preclude the enjoyment of a substantial property right enjoyed by the majority of landowners in the vicinity, if all applicable standards were to be met. Such circumstances may not be self-created.

Applicant's response:

The proposed site for the 80-foot monopole was selected after careful consideration of the topographic features of the land. The terrain along Highway 6 presents challenges, such as uneven land or areas with limited elevation, which restrict the ability to place a taller tower that would otherwise meet coverage objectives. The 80-foot monopole represents an optimal height for ensuring coverage without imposing significant visual impact on the landscape or surrounding properties. The site's dimensions and natural features make this tower the most feasible solution for expanding service in this area.

The placement of the tower 4 feet and 7 inches from the highway is a critical factor in ensuring that the structure will effectively meet the coverage requirements. The unique topography and layout of the land make this location optimal for extending the network's range, ensuring strong and reliable service along



the highway. The tower must be positioned at this exact distance from the highway to take advantage of natural line-of-sight coverage, minimizing potential interference and maximizing signal strength. Further, no hazardous areas or conditions, such as flood zones or unstable terrain, would affect the tower installation. The precise distance of 4 feet and 7 inches ensures that the tower is positioned in a safe location relative to the highway, ensuring the safety of both the infrastructure and the surrounding community.

- (2) A VARIANCE is necessary to accommodate a use or accessory use on the parcel which can be reasonably expected to occur within the zone or vicinity.

Applicant's response:

A variance is necessary for the proposed 80-foot monopole tower to be positioned along Highway 6 to accommodate the wireless infrastructure needed to address the substantial coverage gap in the area. The variance will allow Verizon to place the monopole in a way that provides effective service coverage while complying with the unique topographic, dimensional, and zoning requirements of the parcel. Although the use of a telecommunications tower is generally reasonable and expected use within this zone or vicinity, the specific placement and dimensions required for the tower to function effectively call for a variance.

The installation of wireless telecommunications infrastructure, including monopole towers, is a reasonable and common use within this zone and vicinity, especially along major highways like Highway 6. The need for reliable mobile service—both for general users and for public safety communications—makes this infrastructure essential. However, due to the topography of the site and the need for the monopole to be positioned 4 feet and 7 inches from the highway to maximize signal effectiveness, the structure cannot conform to the standard 30 ft. setback requirements.

- (3) The proposed VARIANCE will comply with the purposes of relevant development standards as enumerated in Section 4.005 and will preserve the right of adjoining property owners to use and enjoy their land for legal purposes.

Applicant's response:

The proposed variance for the 80-foot monopole tower along Highway 6 will comply with the purposes of the relevant development standards as outlined in Section 4.005 of the zoning code. These standards are designed to ensure that new development is compatible with surrounding land uses, protects the health, safety, and welfare of the community, and minimizes negative impacts on neighboring properties.

The monopole's placement and height have been carefully considered to avoid any disruption to adjacent properties. The surrounding land is primarily in a forest zone, where telecommunications infrastructure is expected and compatible with the area's broader land-use goals. The monopole is not near residential properties and the height and location of the tower ensure it does not block light, air, or views in a way that would impact neighboring landowners' enjoyment of their property.

By ensuring the monopole is placed in a location that does not infringe on neighboring landowners' rights to use their property (such as by taking up excessive space or obstructing existing structures), the variance will not preclude the adjacent properties from being used for their intended legal purposes. The



monopole's small footprint and limited visibility ensure that it will not interfere with the enjoyment of adjoining landowners' properties.

- (4) There are no reasonable alternatives requiring either a lesser or no VARIANCE.

Applicant's response:

The unique topography of the parcel plays a significant role in determining the location of the monopole. Due to natural land features such as elevation changes, slopes, and the layout of surrounding roads and properties, the placement of the tower in any other location would fail to meet the service coverage requirements or would cause excessive interference with the surrounding environment.

The terrain along Highway 6 restricts where the monopole can be placed for optimal coverage. Moving the tower away from the highway would result in a substantial reduction in coverage, as the signal strength would decrease significantly without the proper line of sight. This precise location, 4 feet and 7 inches from the highway, ensures that the tower can provide the necessary coverage for both travelers and residents while minimizing interference from nearby structures or topographic obstacles.

Further, the monopole must be placed as close as possible to the highway to ensure adequate coverage along this vital transportation corridor. Moving the tower further away from the highway would result in signal degradation and failure to meet Verizon's coverage objectives. Without the variance, the monopole could not achieve the necessary height, coverage, or line of sight required to serve the area effectively.

The requested variance for the 80-foot monopole tower is necessary because there are no reasonable alternatives that would meet the service needs of the area without requiring either a lesser or no variance. The unique topography, zoning restrictions, and engineering requirements dictate that the tower must be positioned 4 feet and 7 inches from the highway to provide the optimal coverage along Highway 6. Relocating the tower or attempting to reduce the variance would result in inadequate service coverage, failure to meet Verizon's technical requirements, and potential disruption to surrounding properties. Therefore, the proposed variance is the only feasible option to ensure the tower serves its intended purpose while minimizing impacts to the surrounding community.

Verizon respectfully request the County approve the Variance to the 30-ft setback.

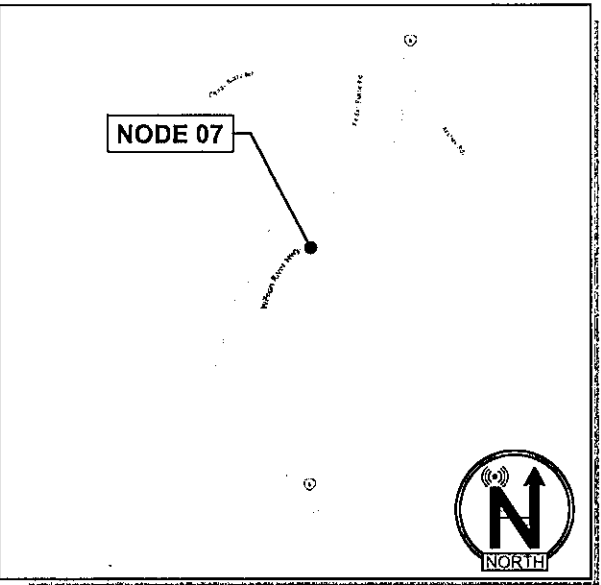
verizon
HWY 6

MDG LC: 5000908253

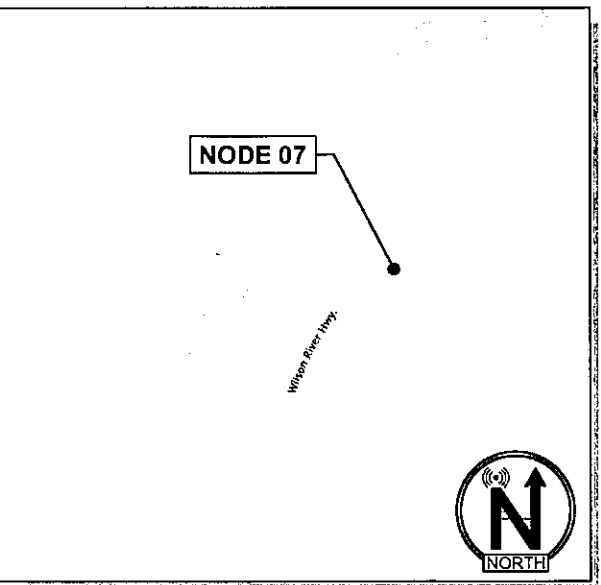
SITE NAME: POR HWY 6 - 07
ADDRESS: 35300 WILSON RIVER HWY
TILLAMOOK, OR 97141
COUNTY: TILLAMOOK
JURISDICTION: TILLAMOOK COUNTY
POLE TYPE: NEW METAL POLE
POLE #: NA
ANTENNA LOCATION: POLE MOUNTED

Professional Engineer Seal for Wells Lind Holmes, Oregon, No. 93806PE, expires 6/30/2025.

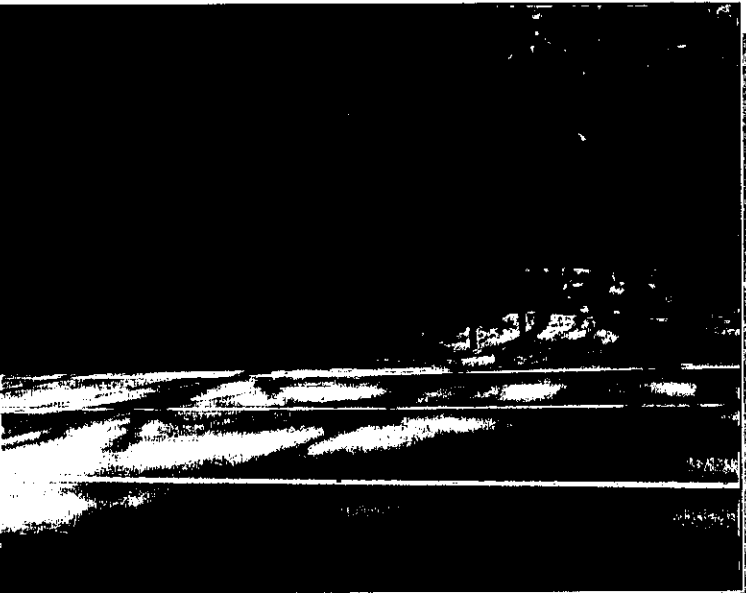
VICINITY MAP



LOCATION MAP



TOWER PHOTO



DRIVING DIRECTIONS

FROM VERIZON WIRELESS OFFICE - PORTLAND, OR:
HEAD SOUTHWEST ON NE 122ND AVE TOWARD NE WHITAKER WAY. TURN RIGHT ONTO NE FREMONT ST. USE THE RIGHT LANE TO TURN LEFT ONTO NE 102ND AVE. TURN RIGHT TO MERGE ONTO I-84 W/US-30 W TOWARD PORTLAND. MERGE ONTO I-84 W/US-30 W. USE THE LEFT 2 LANES TO MERGE ONTO I-5 S TOWARD SALEM. USE THE LEFT LANE TO TAKE THE I-405 EXIT TOWARD US-26/BEAVERTON. CONTINUE ONTO I-405 N. USE THE RIGHT 2 LANES TO TAKE EXIT 1D FOR U.S. 26 W TOWARD BEAVERTON. CONTINUE ONTO US-26 W. SLIGHT LEFT ONTO OR-6 W (SIGNS FOR BANKS/TILLAMOOK). FOLLOW FOR 33.6 MILES. DESTINATION WILL BE ON THE LEFT ROUGHLY 300 FEET AFTER MILE MARKER 18.

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT CONDITIONS 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:
OREGON STATE AND LOCAL BUILDING CODES WITH THE FOLLOWING REFERENCE CODE:
2021 IBC, STANDARDS AND AMENDMENTS - 2022 OSSC
2022 OREGON MECHANICAL SPECIALTY CODE (OMSC)
2021 IFC, STANDARDS AND AMENDMENTS - 2022 OFC
2021 UPC, STANDARDS AND AMENDMENTS - 2021 OPSC
2020 NEC, STANDARDS AND AMENDMENTS - 2021 OESC

PROJECT CONTACT LIST

PROPERTY OWNER: OREGON DEPARTMENT OF FORESTRY
UTILITY TOWER OWNER: N/A
IMPLEMENTATION CONTACT: CHRISTOPHER LEWIS, VERIZON WIRELESS (VAW) LLC
A&E CONSULTANT: RICK MATTESON, ACOM CONSULTING, INC
REAL ESTATE: SARAH BLANCHARD, ACOM CONSULTING, INC
ZONING / PERMITTING: TESSIE MURAKAMI, ACOM CONSULTING, INC
ENGINEER OF RECORD: WELLS L. HOLMES, S.E., VECTOR STRUCTURAL ENGINEERING
ELECTRICAL ENGINEER: DEAN P. LEVORSEN, P.E., VECTOR STRUCTURAL ENGINEERING

DRAWING INDEX

- T-1 COVER SHEET
T-2 GENERAL NOTES AND SYMBOLS
C-00 GROUND & EROSION CONTROL PLAN
C-01 SECTIONS, PROFILES & NOTES
A-1.0 AERIAL IMAGE / SITE LOCATION
A-2.0 ANTENNA & EQUIPMENT PLANS
A-3.0 EXISTING AND PROPOSED ELEVATIONS
A-4.0 CONSTRUCTION DETAILS
A-5.0 CONSTRUCTION DETAILS
A-6.0 ANTENNA DETAILS
E-1.0 TYPICAL ONE-LINE DIAGRAM AND PANEL SCHEDULE
RF-1 ANTENNA CONFIGURATION
T-1 TOWER TITLE SHEET
S-1 TOWER ELEVATION, DETAILS & NOTES
S-2 TOWER DETAILS

PROJECT INFORMATION

JURISDICTION: TILLAMOOK COUNTY
ZONING CLASSIFICATION: F - FOREST
ADJACENT ZONE: R-6
CONSTRUCTION TYPE: UTILITY
PROPOSED BUILDING USE: TELECOM
PROPOSED STRUCTURE HEIGHT: 80.0' (TOP OF NEW POLE)
LATITUDE: 45.546270° N
LONGITUDE: -123.603734° W
GROUND ELEVATION: ±371.6 AMSL

SCOPE OF WORK

- VERIZON WIRELESS PROPOSES TO:
• PROPOSES TO INSTALL WIRELESS EQUIPMENT IN FENCED COMPOUND LOCATED OUTSIDE R-O-W
• PROPOSES TO INSTALL (4) NEW ANTENNAS & (1) NEW MOUNT ON NEW POLE
• PROPOSES TO INSTALL (1) NEW SMALL CELL CABINET ON CONCRETE PAD
• PROPOSES TO INSTALL (1) NEW HYBRID AND APPROVED CABLE STRAP MOUNTED ON NEW POLE

DO NOT SCALE DRAWINGS. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND ADVISE CONSULTANTS OF ANY ERRORS OR OMISSIONS. NO VARIATIONS OR MODIFICATIONS TO WORK SHOWN SHALL BE IMPLEMENTED WITHOUT PRIOR WRITTEN APPROVAL. ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED BY THE LATEST REVISION. ALL DRAWINGS AND SPECIFICATIONS REMAIN THE PROPERTY OF ACOM CONSULTING.



HWY 6
SMALL CELL NODE 07
35300 WILSON RIVER HWY
TILLAMOOK, OR 97141

COVER SHEET

T-1

GENERAL NOTES

1. WORK SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, AND REGULATIONS. ALL NECESSARY LICENSES, CERTIFICATES, ETC., REQUIRED BY AUTHORITY HAVING JURISDICTION SHALL BE PROCURED AND PAID FOR BY THE CONTRACTOR.
2. ACOM HAS NOT CONDUCTED, NOR DOES IT INTEND TO CONDUCT ANY INVESTIGATION AS TO THE PRESENCE OF HAZARDOUS MATERIAL, INCLUDING, BUT NOT LIMITED TO, ASBESTOS WITHIN THE CONFINES OF THIS PROJECT. ACOM DOES NOT ACCEPT RESPONSIBILITY FOR THE INDEMNIFICATION, THE REMOVAL, OR ANY EFFECTS FROM THE PRESENCE OF THESE MATERIALS. IF EVIDENCE OF HAZARDOUS MATERIALS IS FOUND, WORK IS TO BE SUSPENDED AND THE OWNER NOTIFIED. THE CONTRACTOR IS NOT TO PROCEED WITH FURTHER WORK UNTIL INSTRUCTED BY THE OWNER IN WRITING.
3. ALL MATERIAL FURNISHED UNDER THIS CONTRACT SHALL BE PROPOSED, UNLESS OTHERWISE NOTED. ALL WORK SHALL BE GUARANTEED AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP. THE CONTRACTOR SHALL REPAIR OR REPLACE AT HIS EXPENSE ALL WORK THAT MAY DEVELOP DEFECTS IN MATERIALS OR WORKMANSHIP WITHIN SAID PERIOD OF TIME OR FOR ONE YEAR AFTER THE FINAL ACCEPTANCE OF THE ENTIRE PROJECT, WHICHEVER IS GREATER.
4. THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS AND UTILITIES AT THE JOB SITE BEFORE WORK IS STARTED. NO CLAIMS FOR EXTRA COMPENSATION FOR WORK WHICH COULD HAVE BEEN FORESEEN BY AN INSPECTION, WHETHER SHOWN ON THE CONTRACT DOCUMENTS OR NOT, WILL BE ACCEPTED OR PAID.
5. THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING DIMENSIONS AND CONDITIONS AT THE JOB SITE WHICH COULD AFFECT THE WORK UNDER THIS CONTRACT. ALL MANUFACTURERS RECOMMENDED SPECIFICATIONS, EXCEPT THOSE SPECIFICATIONS HEREIN, WHERE MOST STRINGENT SHALL BE COMPLIED WITH.
6. THE CONTRACTOR SHALL VERIFY AND COORDINATE SIZE AND LOCATION OF ALL OPENINGS FOR STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, CIVIL, OR ARCHITECTURAL WORK.
7. THE CONTRACTOR SHALL VERIFY THAT NO CONFLICTS EXIST BETWEEN THE LOCATIONS OF ANY AND ALL MECHANICAL, ELECTRICAL, PLUMBING, OR STRUCTURAL ELEMENTS, AND THAT ALL REQUIRED CLEARANCES FOR INSTALLATION AND MAINTENANCE ARE MET. NOTIFY THE CONSULTANT OF ANY CONFLICTS. THE CONSULTANT HAS THE RIGHT TO MAKE MINOR MODIFICATIONS IN THE DESIGN OF THE CONTRACT WITHOUT THE CONTRACTOR GETTING ADDITIONAL COMPENSATION.
8. DO NOT SCALE THE DRAWINGS. DIMENSIONS ARE EITHER TO THE FACE OF FINISHED ELEMENTS OR TO THE CENTER LINE OF ELEMENTS, UNLESS NOTED OTHERWISE. CRITICAL DIMENSIONS SHALL BE VERIFIED AND NOTIFY THE CONSULTANT OF ANY DISCREPANCIES.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY CLEAN UP OF ALL TRADES AND REMOVE ALL DEBRIS FROM THE CONSTRUCTION SITE. AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL THOROUGHLY CLEAN THE BUILDING, SITE, AND ANY OTHER SURROUNDING AREAS TO A BETTER THAN EXISTING CONDITION.
10. THE CONTRACTOR IS RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING ALL WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE, COLLAPSE, ETC. ACCORDING TO APPLICABLE CODES, STANDARDS, AND GOOD CONSTRUCTION PRACTICES.
11. THE CONTRACTOR SHALL MEET ALL OSHA REQUIREMENTS FOR ALL INSTALLATIONS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO THE EXISTING CONSTRUCTION AND REPAIR ALL DAMAGES TO BETTER THAN PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY AVISTA OF ANY DAMAGE TO THE SITE OR ANY ADJACENT STRUCTURES AROUND THE PROJECT. THE CONSULTANT SHALL BE SOLE AND FINAL JUDGE AS TO THE QUALITY OF THE REPAIRED CONSTRUCTION. ANY ADDITIONAL MODIFICATIONS WHICH MUST BE MADE SHALL BE MADE AT THE CONTRACTOR'S EXPENSE.
13. WHERE ONE DETAIL IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL LIKE OR SIMILAR CONDITIONS, EVEN THOUGH NOT SPECIFICALLY MARKED ON THE DRAWINGS OR REFERRED TO IN THE SPECIFICATIONS, UNLESS NOTED OTHERWISE.
14. WHERE PROPOSED PAVING, CONCRETE SIDEWALKS OR PATHS MEET EXISTING CONSTRUCTION, THE CONTRACTOR SHALL MATCH THE EXISTING PITCH, GRADE, AND ELEVATION SO THE ENTIRE STRUCTURE SHALL HAVE A SMOOTH TRANSITION.
15. THE CONTRACTOR SHALL MODIFY THE EXISTING STRUCTURE AS REQUIRED. WHERE THE EXISTING STRUCTURE MUST BE MODIFIED, GENERAL CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION. ALL WORK SHALL BE COVERED UNDER THE GENERAL CONTRACT.

16. VERIFY ALL EXISTING DIMENSIONS PRIOR TO PERFORMING WORK.
17. VERIFY LOCATION OF ALL BURIED UTILITIES PRIOR TO ANY EXCAVATION.
18. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR APPLYING FOR COMMERCIAL POWER IMMEDIATELY UPON AWARD OF CONTRACT. THE GENERAL CONTRACTOR IS REQUIRED TO KEEP ALL DOCUMENTATION RECEIVED FROM THE POWER COMPANY, ACKNOWLEDGING APPLICATION FOR POWER, WRITTEN AND VERBAL DISCUSSIONS WITH THE POWER COMPANY, ETC.
19. THE GENERAL CONTRACTOR SHALL OBTAIN WRITTEN CONFIRMATION OF THE EXPECTED DATE OF COMPLETION OF THE POWER CONNECTION FROM THE POWER COMPANY.
20. IF THE POWER COMPANY IS UNABLE TO PROVIDE THE POWER CONNECTION BY OWNER'S REQUIRED DATE, THE GENERAL CONTRACTOR SHALL PROVIDE AND MAINTAIN A TEMPORARY GENERATOR UNTIL THE POWER COMPANY CONNECTION IS COMPLETED. COSTS ASSOCIATED WITH THE TEMPORARY GENERATOR TO BE APPROVED BY THE OWNER.
21. IF THE GENERAL CONTRACTOR FAILS TO TAKE NECESSARY MEASURES AS DESCRIBED IN NOTES 19, 20 AND 21 ABOVE, THE GENERAL CONTRACTOR SHALL PROVIDE A TEMPORARY GENERATOR AT NO COST TO THE OWNER.
22. PLANS PART OF THIS SET ARE COMPLEMENTARY. INFORMATION IS NOT LIMITED TO ONE PLAN. DRAWINGS AND SPECIFICATIONS ARE INSTRUMENTS OF SERVICE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT, WHETHER THE PROJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. THEY ARE NOT TO BE USED BY THE OWNER ON OTHER PROJECTS OR EXTENSION TO THIS PROJECT EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO THE ARCHITECT. THESE PLANS WERE PREPARED TO BE SUBMITTED TO GOVERNMENTAL BUILDING AUTHORITIES FOR REVIEW FOR COMPLIANCE WITH APPLICABLE CODES AND IT IS THE SOLE RESPONSIBILITY OF THE OWNER AND/OR CONTRACTOR TO BUILD ACCORDING TO APPLICABLE BUILDING CODES.
23. IF CONTRACTOR OR SUB-CONTRACTOR FIND IT NECESSARY TO DEViate FROM ORIGINAL APPROVED PLANS, THEN IT IS THE CONTRACTOR'S AND THE SUB-CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE ARCHITECT WITH 4 COPIES OF THE PROPOSED CHANGES FOR HIS APPROVAL BEFORE PROCEEDING WITH THE WORK. IN ADDITION THE CONTRACTOR AND SUB-CONTRACTORS SHALL BE RESPONSIBLE FOR PROCURING ALL NECESSARY APPROVALS FROM THE BUILDING AUTHORITIES FOR THE PROPOSED CHANGES BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR AND SUB-CONTRACTORS SHALL BE RESPONSIBLE FOR PROCURING ALL NECESSARY INSPECTIONS AND APPROVALS FROM BUILDING AUTHORITIES DURING THE EXECUTION OF THE WORK.
24. IN EVERY EVENT, THESE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS SHALL BE INTERPRETED TO BE A MINIMUM ACCEPTABLE MEANS OF CONSTRUCTION BUT THIS SHALL NOT RELIEVE THE CONTRACTOR, SUB-CONTRACTOR, AND/OR SUPPLIER/MANUFACTURER FROM PROVIDING A COMPLETE AND CORRECT JOB WHEN ADDITIONAL ITEMS ARE REQUIRED TO THE MINIMUM SPECIFICATION. IF ANY ITEMS NEED TO EXCEED THESE MINIMUM SPECIFICATIONS TO PROVIDE A COMPLETE, ADEQUATE AND SAFE WORKING CONDITION, THEN IT SHALL BE THE DEEMED AND UNDERSTOOD TO BE INCLUDED IN THE DRAWINGS. FOR EXAMPLE, IF AN ITEM AND/OR PIECE OF EQUIPMENT REQUIRES A LARGER WIRE SIZE (I.E. ELECTRICAL WIRE), STRONGER OR LARGER PIPING, INCREASED QUANTITY (I.E. STRUCTURAL ELEMENTS), REDUCED SPACING, AND/OR INCREASED LENGTH (I.E. BOLT LENGTHS, BAR LENGTHS) THEN IT SHALL BE DEEMED AND UNDERSTOOD TO BE INCLUDED IN THE BID/PROPOSAL. THESE DOCUMENTS ARE MEANT AS A GUIDE AND ALL ITEMS REASONABLY INFERRED SHALL BE DEEMED TO BE INCLUDED.
25. THESE CONTRACT DOCUMENTS AND SPECIFICATIONS SHALL NOT BE CONSTRUED TO CREATE A CONTRACTUAL RELATIONSHIP OF ANY KIND BETWEEN THE ARCHITECT AND THE CONTRACTOR.

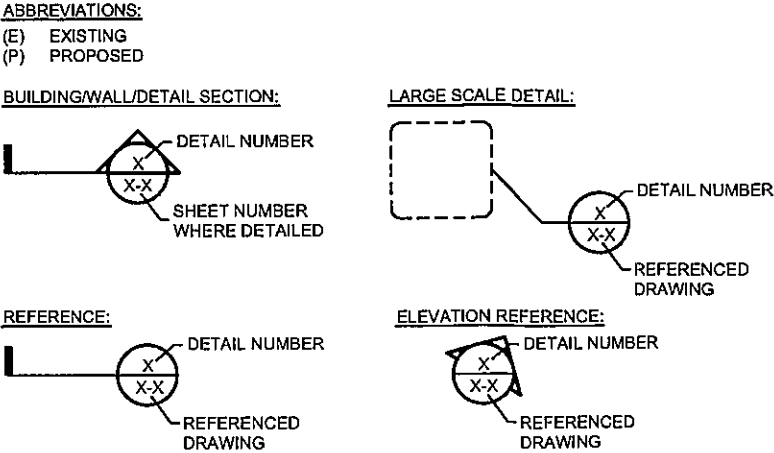
LINE/ANTENNA NOTES

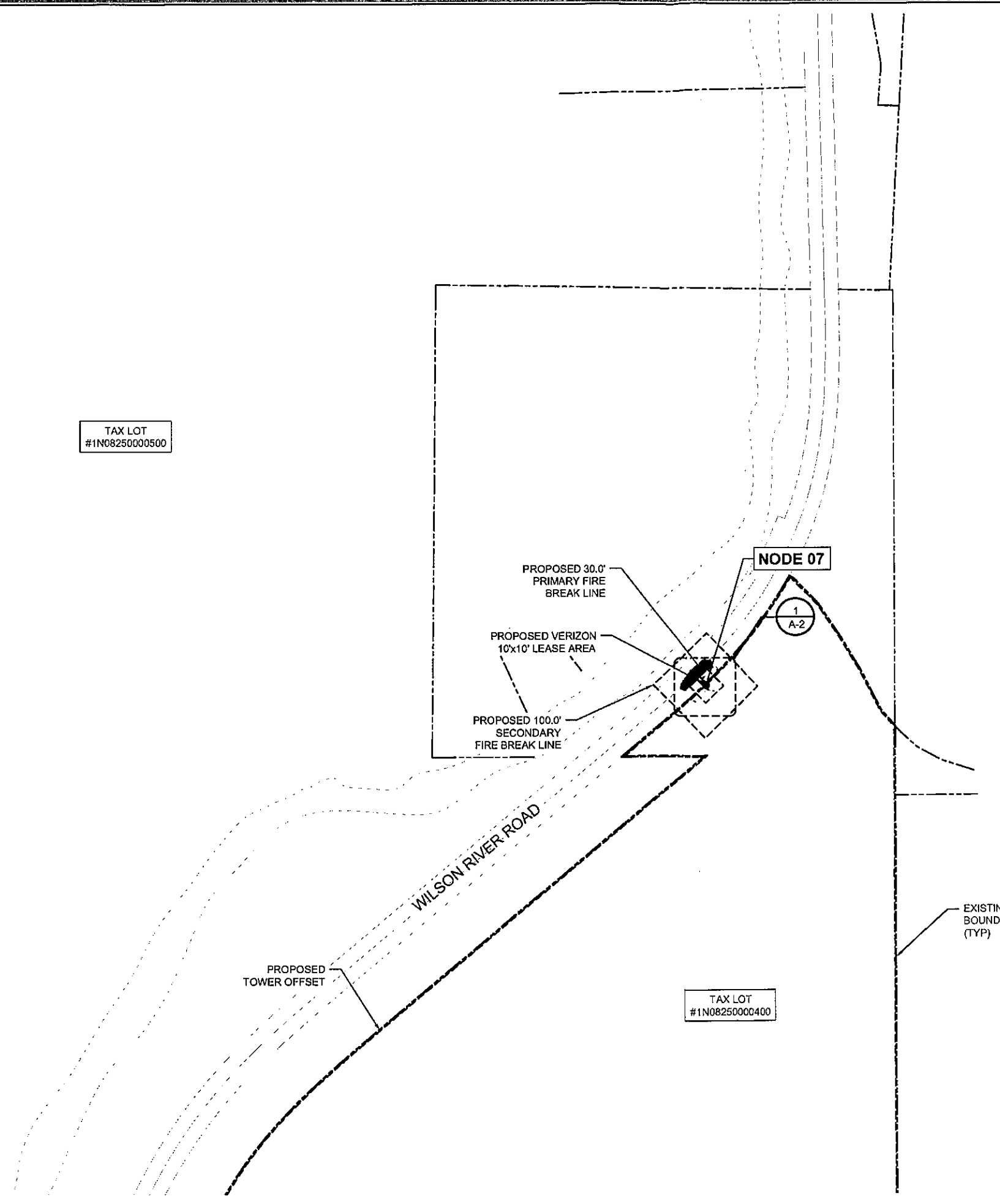
1. ALL THREADED STRUCTURAL FASTENERS FOR ANTENNA SUPPORT ASSEMBLES SHALL CONFORM TO ASTM A307 OR ASTM A36. ALL STRUCTURAL FASTENERS FOR STRUCTURAL STEEL FRAMING SHALL CONFORM TO ASTM A325. FASTENERS SHALL BE 5/8" MIN. DIA. BEARING TYPE CONNECTIONS WITH THREADS EXCLUDED FROM THE PLANE. ALL EXPOSED FASTENERS, NUTS, AND WASHERS SHALL BE GALVANIZED OTHERWISE NOTED. CONCRETE EXPANSION ANCHORS SHALL BE HILTI KWIK BOLTS UNLESS OTHERWISE NOTED. ALL ANCHORS INTO CONCRETE SHALL BE STAINLESS STEEL.
2. NORTH ARROW SHOWN ON PLANS REFERS TO TRUE NORTH. CONTRACTOR SHALL VERIFY MAGNETIC NORTH AND NOTIFY CONSULTANT OF ANY DISCREPANCY BEFORE STARTING CONSTRUCTION.
3. PROVIDE LOCK WASHERS FOR ALL MECHANICAL CONNECTIONS FOR GROUND CONDUCTORS. USE STAINLESS STEEL HARDWARE THROUGHOUT.
4. THOROUGHLY REMOVE ALL PAINT AND CLEAN ALL DIRT FROM SURFACES REQUIRING GROUND CONNECTIONS.
5. MAKE ALL GROUND CONNECTIONS AS SHORT AND DIRECT AS POSSIBLE. AVOID SHARP BENDS. ALL BENDS TO BE A MIN. OF 8" RADIUS.
6. FOR GROUNDING TO GROUND BARS USE A TWO-BOLT HOLE NEMA DRILLED CONNECTOR SUCH AS T&B 32007 OR APPROVED EQUAL.
7. FOR ALL EXTERNAL GROUND CONNECTIONS, CLAMPS AND CADWELDS, APPLY A LIBERAL PROTECTIVE COATING OR AN ANTI-OXIDE COMPOUND.
8. REPAIR ALL GALVANIZED SURFACES THAT HAVE BEEN DAMAGED BY THERMO-WELDING. USE ERICO T-319 GALVANIZING BAR/COLD GALVANIZING PAINT.

PROJECT INFORMATION

1. THIS IS AN UNMANNED FACILITY AND RESTRICTED ACCESS EQUIPMENT AND WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNALS FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE.
2. VERIZON WIRELESS CERTIFIES THAT THIS TELEPHONE EQUIPMENT FACILITY WILL BE SERVICED ONLY BY VERIZON WIRELESS EMPLOYEE SERVICE PERSONNEL FOR REPAIR PURPOSES ONLY. THIS FACILITY IS UNOCCUPIED AND NOT DESIGNED FOR HUMAN OCCUPANCY THUS IT IS NOT OPEN TO THE PUBLIC.
3. THIS FACILITY WILL CONSUME NO UNRECOVERABLE ENERGY.
4. NO POTABLE WATER SUPPLY IS TO BE PROVIDED AT THIS LOCATION.
5. NO WASTE WATER WILL BE GENERATED AT THIS LOCATION.
6. NO SOLID WASTE WILL BE GENERATED AT THIS LOCATION.
7. VERIZON WIRELESS MAINTENANCE CREW (TYPICALLY ONE PERSON) WILL MAKE AN AVERAGE OF ONE TRIP PER MONTH AT ONE HOUR PER VISIT.

LEGEND





STRUCTURAL
REGISTERED PROFESSIONAL
ENGINEER
93806PE
OREGON
JULY 10, 2018
WELLS LIND HOLMES

EXPIRES: 6/30/2025
02/11/2025
VSE Project Number: U2350-1241-241

NO.	DATE	DRAWN	REVISION
A	05/22/23	KM	90% PCD REVIEW
B	08/03/23	KM	SURVEY UPDATE
C	06/04/24	KM	RFDS UPDATE
0	12/11/24	DO	100% FINAL CD
1	01/27/25	KM	CLIENT COMMENTS
2	02/11/25	KM	CLIENT COMMENTS

CLIENT:

verizon

A&E CONSULTANT, SITE ACQUISITION AND PERMITTING:

Acom
CONSULTING, INC

VECTOR
ENGINEERS

HWY 6
SMALL CELL NODE 07
35300 WILSON RIVER HWY
TILLAMOOK, OR 97141

OVERALL SITE
PLAN

A-1.0

POLE MOUNTED EQUIPMENT SCHEDULE									
CATEGORY	MANUFACTURER	MODEL NUMBER	UNIT HEIGHT / LENGTH	UNIT WIDTH	UNIT DEPTH	UNIT WEIGHT	MOUNT HEIGHT (CENTER)	PROPOSED	
								QUANTITY	WEIGHT
MOUNT	SITEPRO1	CWT01	--	--	--	116.50 LBS	33'-0"	3	349.5 LBS
MOUNT	SITEPRO1	UGLM	--	--	--	87.58 LBS	33'-0"	1	87.58 LBS
ANTENNA	COMMSCOPE	NHF-45A-R2B	48.0"	18.0"	7.0"	63.1 LBS	33'-0"	2	66.0 LBS
RRU	ERICSSON	4890	21.8"	15.7"	7.5"	84.0 LBS	33'-0"	1	75.0 LBS
RRU	ERICSSON	4490	15.0"	13.0"	9.0"	70.0 LBS	33'-0"	1	71.0 LBS

PROPOSED ANTENNA CONFIGURATION AND CABLE SCHEDULE										
SECTOR	QTY	AZIMUTH	TECH.	TIP HEIGHT	MFR	MODEL #	ANTENNA SIZE	MECH. TILT	FEEDER CABLE	CABLE LGTH.
D1	1	0°	5G	79'-2" (79.2')	ERICSSON	AIR6419	34.5"	0° (2° ELEC)	FIBER	TBD
D2	1	0°	4G	80'-6" (80.5')	JMA	MX12FRO445-01	56.9"	0° (2° ELEC)	FIBER	TBD
D2	1	225°		79'-2" (79.2')	ERICSSON	AIR6419	34.5"	0° (2° ELEC)	FIBER	TBD
D2	1	225°		80'-6" (80.5')	JMA	MX12FRO445-01	56.9"	0° (2° ELEC)	FIBER	TBD

STRUCTURAL
REGISTERED PROFESSIONAL
ENGINEER
93806PE
OREGON
JULY 10, 2018
WELLS LIND HOLMES

EXPIRES: 6/30/2025
02/11/2025
VSE Project Number: U2350-1241-241

NO.	DATE	DRAWN	REVISION
A	05/22/23	KM	90% PCD REVIEW
B	08/03/23	KM	SURVEY UPDATE
C	06/04/24	KM	RFDS UPDATE
D	12/11/24	DO	100% FINAL CD
1	01/27/25	KM	CLIENT COMMENTS
2	02/11/25	KM	CLIENT COMMENTS

CLIENT:

verizon

A&E CONSULTANT, SITE ACQUISITION AND PERMITTING.

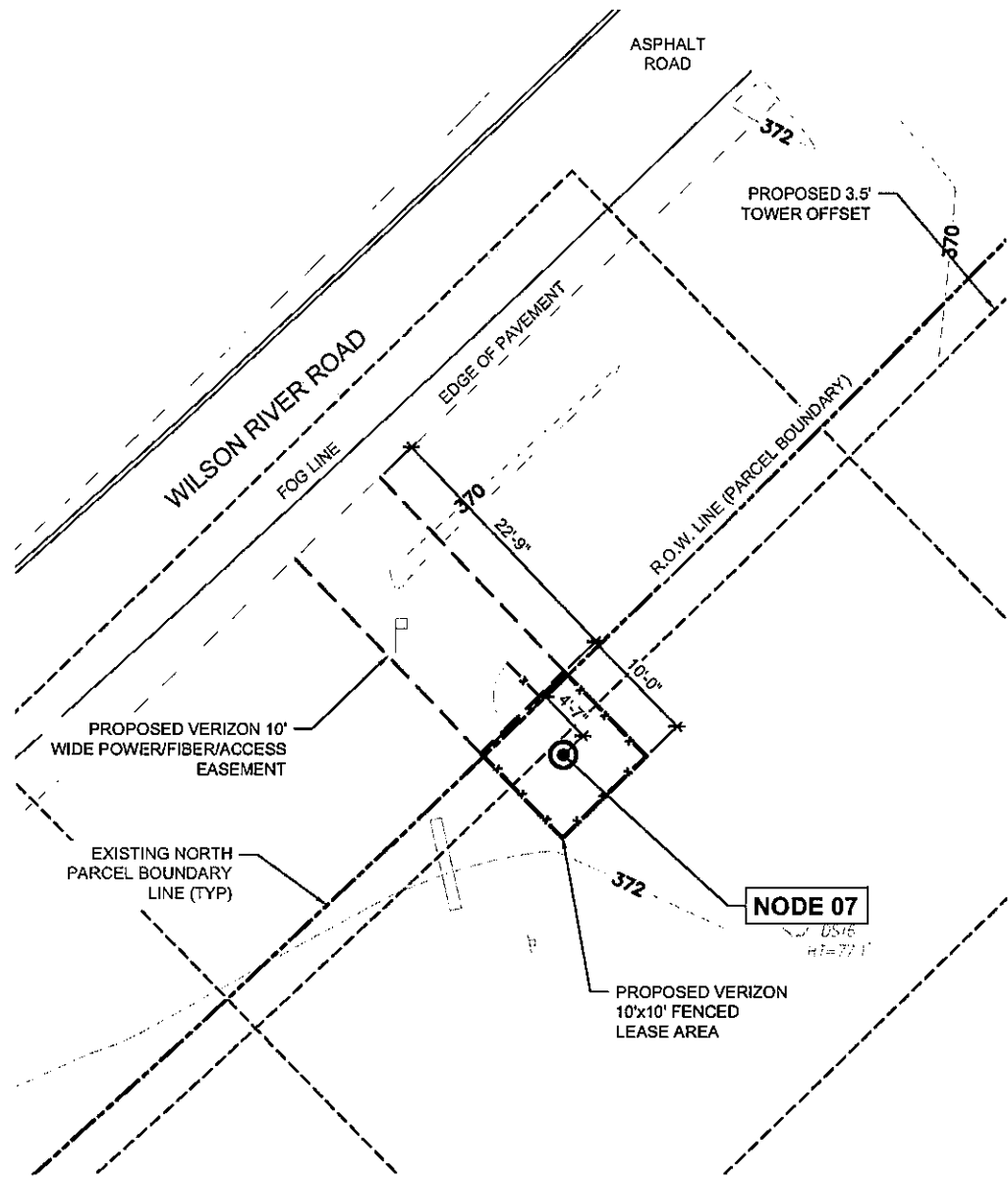
Acom
CONSULTING, INC

VECTOR
ENGINEERS

HWY 6
SMALL CELL NODE 07
35300 WILSON RIVER HWY
TILLAMOOK, OR 97141

ANTENNA &
EQUIPMENT PLANS

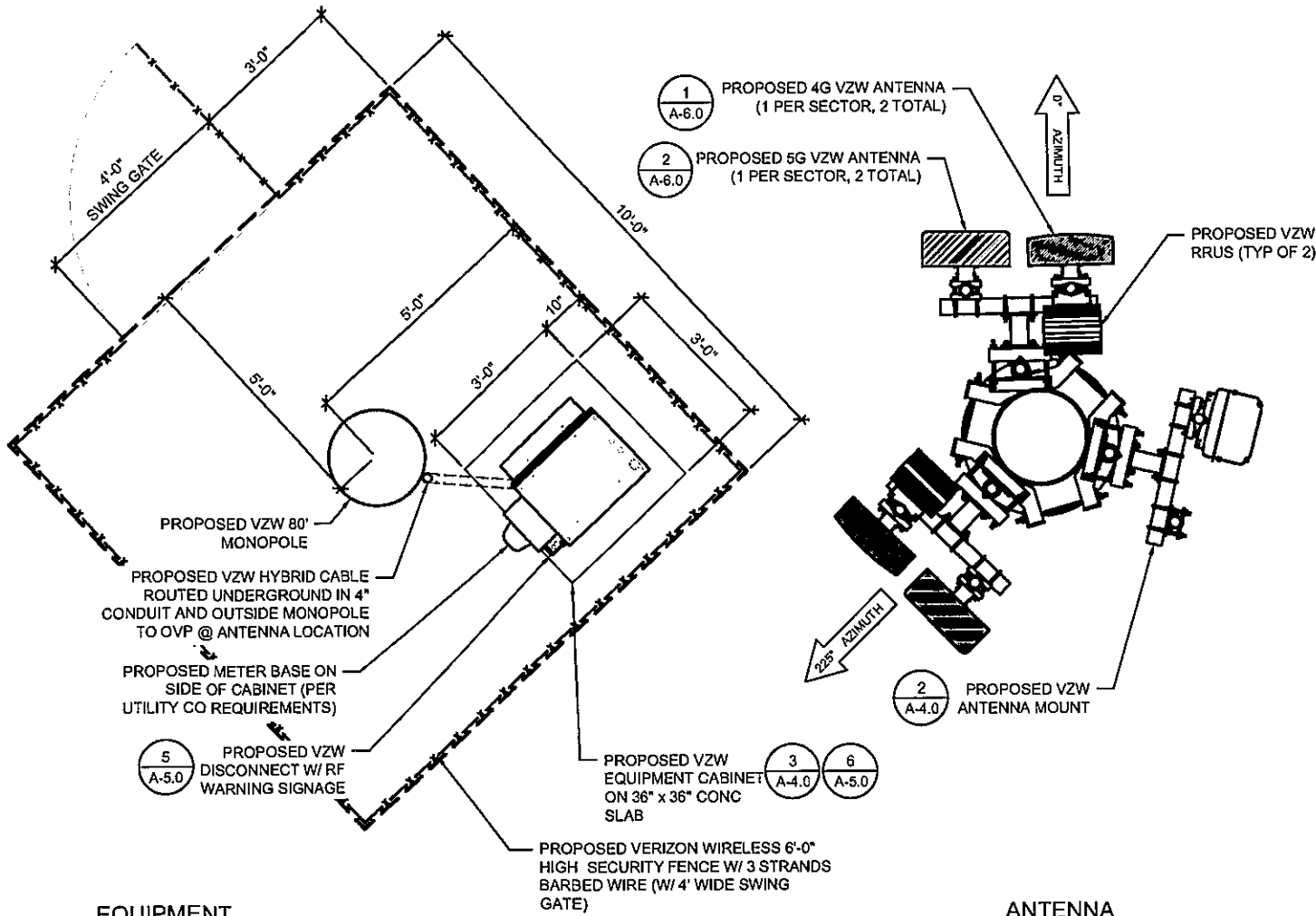
A-2.0



22'x34" SCALE: 1/8" = 1'-0"
11'x17" SCALE: 1/16" = 1'-0"

ENLARGED PLAN 3

NOTE:
ANTENNA/ANCILLARY EQUIPMENT MOUNT
DESIGN/ANALYSIS TO BE PERFORMED BY OTHERS



22'x34" SCALE: NOT TO SCALE
11'x17" SCALE: NOT TO SCALE

PROPOSED ANTENNA / EQUIPMENT PLAN 1

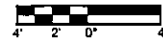


22"x34" SCALE: 3/8" = 1'-0"
11"x17" SCALE: 3/16" = 1'-0"

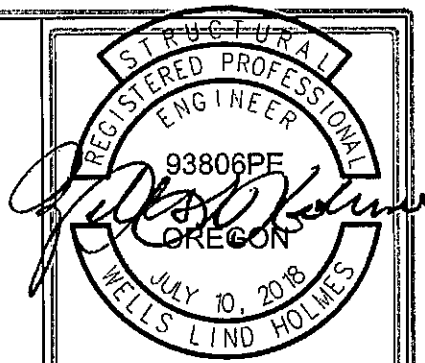
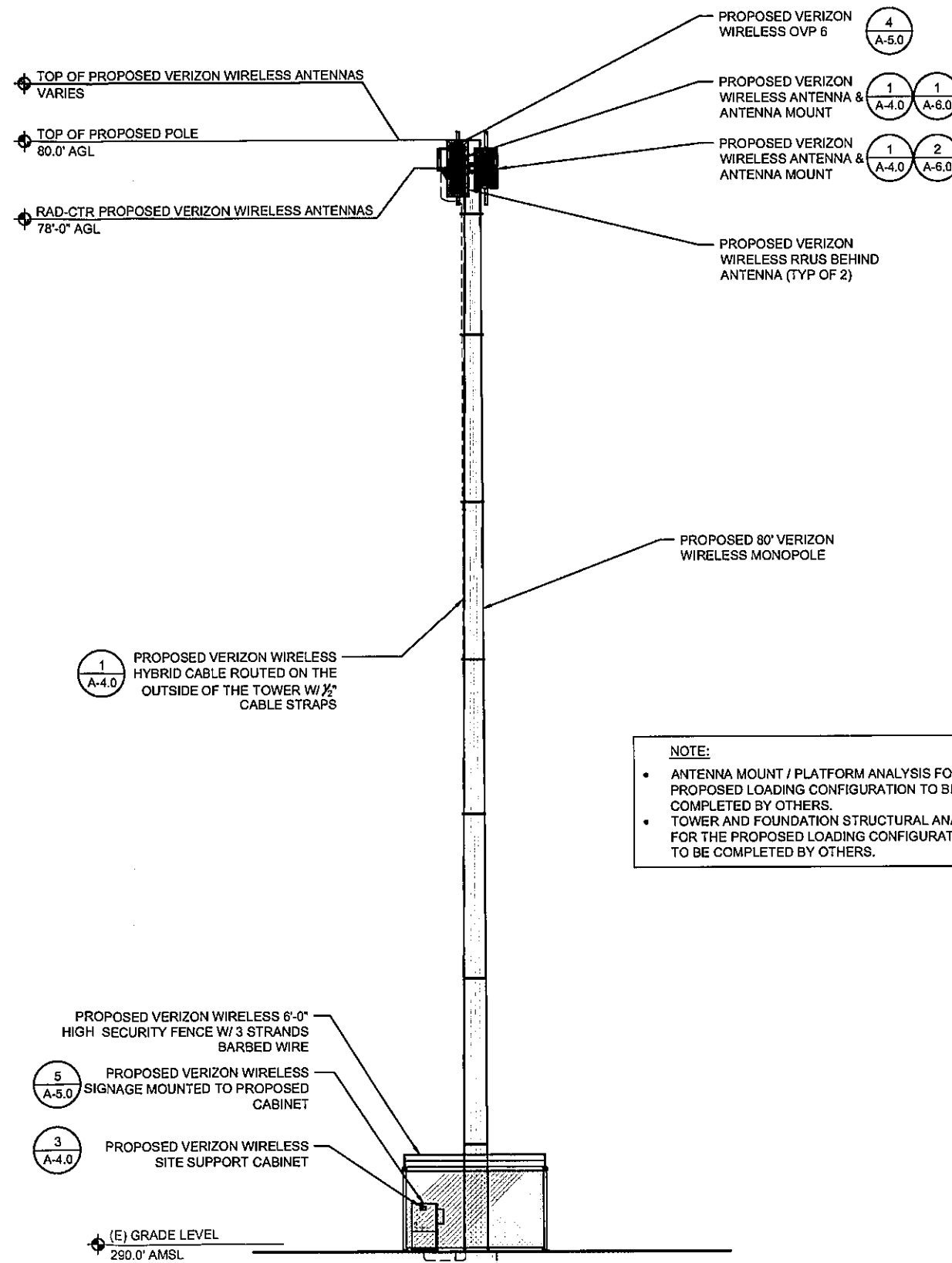


EXISTING ELEVATION 1

22"x34" SCALE: 3/16" = 1'-0"
11"x17" SCALE: 3/32" = 1'-0"



PROPOSED ELEVATION 2



EXPIRES: 6/30/2025

02/11/2025

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1	01/27/25	KM	CLIENT COMMENTS
2	02/11/25	KM	CLIENT COMMENTS

CLIENT:



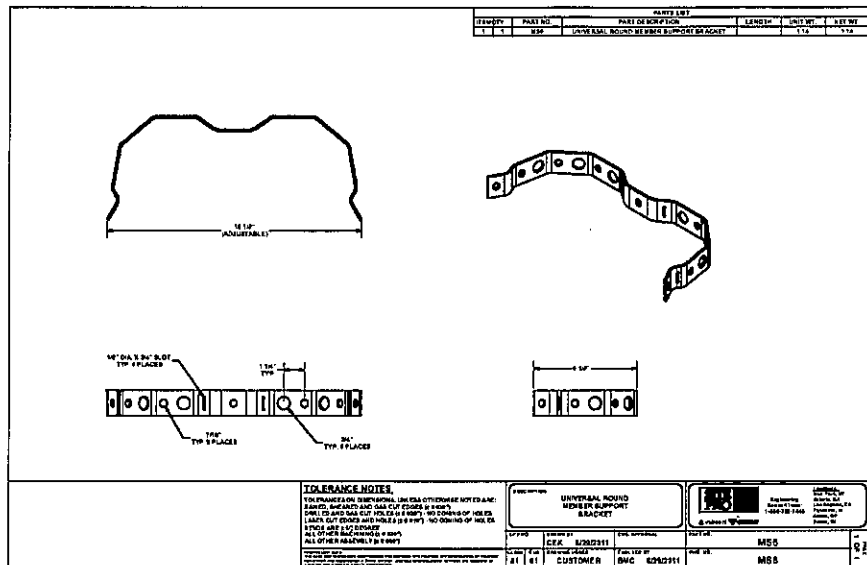
A&E CONSULTANT, SITE ACQUISITION AND PERMITTING



**HWY 6
SMALL CELL NODE 07**
35300 WILSON RIVER HWY
TILLAMOOK, OR 97141

EXISTING & PROPOSED
ELEVATIONS

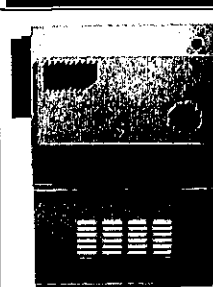
A-3.0



- NOTE:
1. ATTACH TO MONOPOLE WITH $\frac{1}{2}$ " BANDING PER MANUFACTURER'S RECOMMENDATIONS
 2. PROVIDE SNAP-IN HANGERS TO SUPPORT THE HYBRID CABLE(S)

TOWER - HYBRID SUPPORT BRACKET 1

Charles Universal Broadband Enclosures (CUBE) RL212 Series Remote Radio Head / Power Support Cabinets



The CUBE-RL212 Series cabinet provides environmental protection for a wide variety of telecom applications, including wireless, fiber transport for cell site backhaul, and other remote outdoor applications where 48 VDC is required. The most common applications for these cabinets are to house power and battery backup for remote radio heads. Commercial AC power is converted to 48 VDC using a third-party rectifier (supports most major manufacturers). The separate battery chamber is designed for up to 100Ah Ni-Cd or VRLA batteries.

Specifications

Overall Dimensions	39"H x 26"W x 20"D
Equipment Chamber	24"H x 26"W x 20"D
Rack Space / Width	12RU / 19" EIA Standard
Door Lock	Padlockable, 216-Style Lock
AC Equipment	8 Position Load Center
Battery Chamber	15"H x 26"W x 20"D
Capacity	Supports 1 String 48V (or two 24V) 100Ah Ni-Cd or VRLA
Bonding & Grounding	8 Position, 2-Hole Ground Bar
Cable Entrance	(3) 1.75"/2.5" Knockouts on Right-Hand Side, (1) 1.75"/2.5" and (2) 1.375" Knockouts on Bottom
Thermal Management	24VDC/48VDC 580 or 750 Watt Heat Exchangers
Construction	1/8" Welded Aluminum, Off-White Finish
Mounting	Wall or H-Frame, Pole Mount Kit optional (97-CASPMTKIT), 10" Flange optional (97-002176-A)



Charles Part #	Standard Mounting	Overall Dimensions (in.)	RU	Equipment Chamber Dimensions (in.)	Battery Chamber Dimensions (in.)	Load Center	Thermal	Integrated Power	Weight Empty (lbs.)	Weight w/ Ni-Cd Battery
CUBE-RL2121AB1	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Position	580W 48VDC HX	GE SPS 48V (3) 20A Rectifiers	170	372
CUBE-RL2121AE2	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Pos & Gen	580W 48VDC HX	GE SPS 48V (2) 20A Rectifiers	170	372
CUBE-RL2121AH1	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Position	580W 48VDC HX	Eltek 48V (2) 40A Rectifiers	165	367
CUBE-RL2121AH3	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Position	580W 24VDC HX	Eltek 24V (2) 80A Rectifiers	165	367
CUBE-RL2121AH4	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Position	580W 48VDC HX	Eltek 48V (1) 40A Rectifier	165	367
CUBE-RL2121AH5	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Position	580W 48VDC HX	None	150	352
CUBE-RL2121AH7	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Position	580W 24VDC HX	Eltek 24V (2) 40A Rectifiers	165	367
CUBE-RL2121AH8	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Position	580W 48VDC HX	GE Infinity D 48V, No Rectifiers	160	365
CUBE-RL2121DB1	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Position	750W 48VDC HX	None	150	352
CUBE-RL2121DB2	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Position	750W 48VDC HX	GE Infinity D 48V, (2) 50A Rectifiers	165	367
CUBE-RL2121DL1	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Pos & Gen	750W 48VDC HX	None	150	365
CUBE-RL2121DL2	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Pos & Gen	750W 48VDC HX	GE Infinity D 48V	180	385

For additional product information, please visit www.charlesindustries.com

INNOVATIVE ENCLOSED SOLUTIONS

EQUIPMENT CABINET SPECIFICATIONS 3

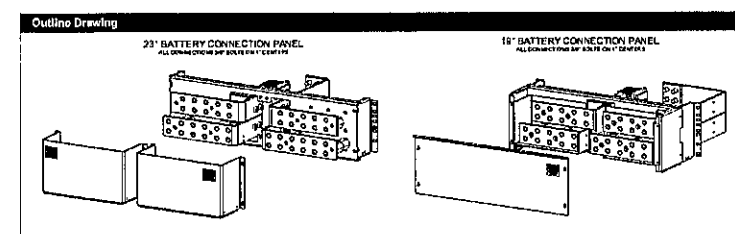
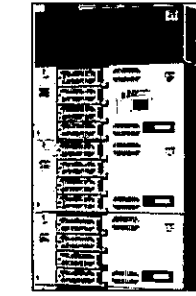
Ordering Information – Infinity D Power System

Dual Voltage, Modular Power System

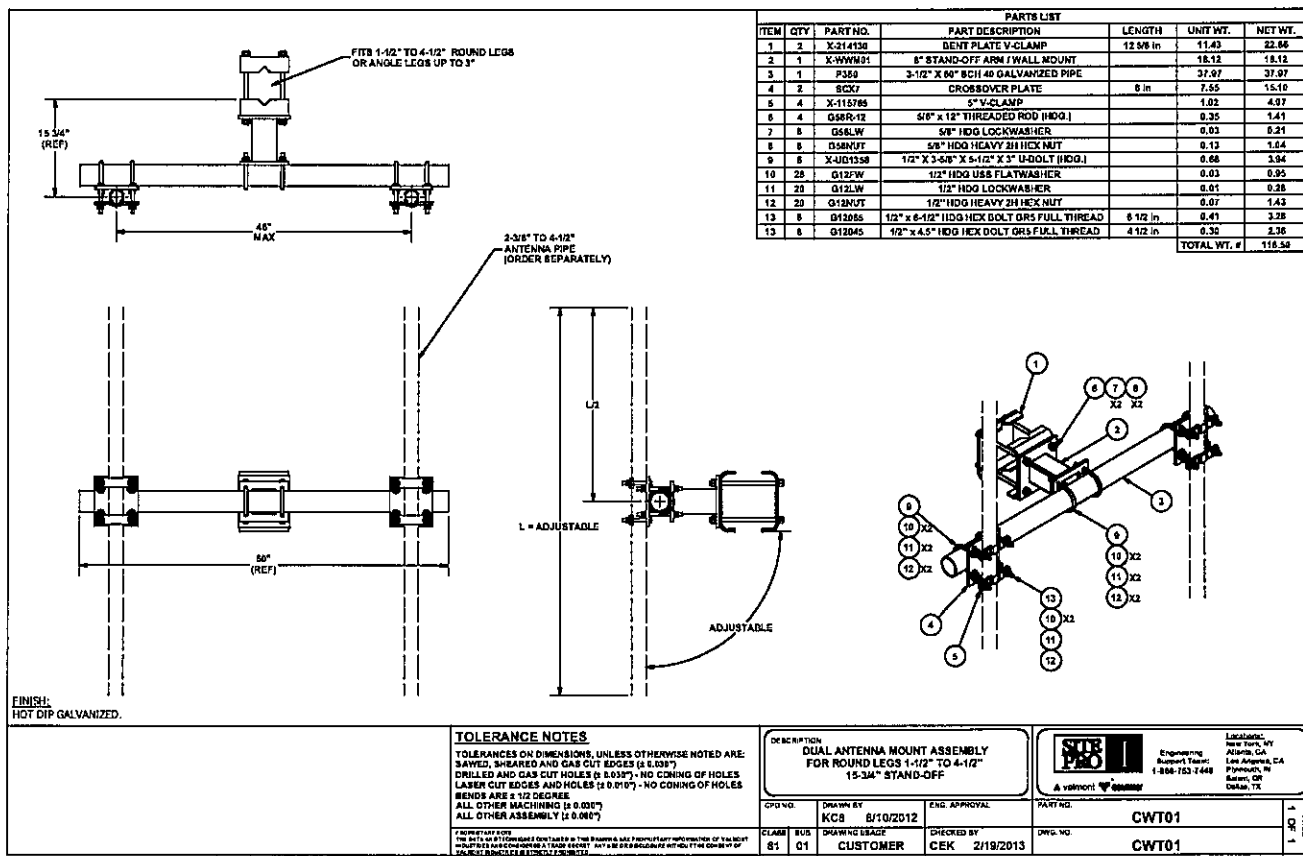
Infinity-D may be configured as a +24V or -48V single voltage power system or as a "dual voltage" power system that supports rectifiers and converters. The primary voltage is supported by +24V or -48V rectifiers and battery reserve, while secondary voltage is supported by DC/DC converters. The primary voltage capacity is 1,600A at both 24V and 48V. Secondary voltage capacity is up to 300A per system expansion module.

Features

- Infinity Rectifiers for +24V and -48V applications.
- Modular architecture for easy growth and low cost
- DC/DC converter support for dual voltage systems
- DC distribution in each system module for efficient scalability
- Temperature hardened harsh environments (-40°C to +75°C)
- Compact size: 6" (203mm) high, 16.9" (429mm) deep.
- Adjustable frame mounting for 19", 23" and 26" applications
- Battery panel for battery connection and LVBD option.
- Plug-N-Play Pulsar Plus controller with Web based interface for local and remote (CO-LAN) access.
- Distribution options include 3A-400A bullet style circuit breakers and GMT fuses



Output	Ordering Code	Model	Frame	Picture
200A	CE100151107	H207001 G003, G0210, G223	No Frame	System width 23"
	CE100150100	H207001 G003, G021F, G223		System width 19"



TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES (± 0.03")
 DRILLED AND GAS CUT HOLES (± 0.035") NO CONING OF HOLES
 LASER CUT EDGES AND HOLES (± 0.010") NO CONING OF HOLES
 BENDS ARE ± 1/2 DEGREE
 ALL OTHER MACHINING (± 0.005")
 ALL OTHER ASSEMBLY (± 0.005")

DESCRIPTION
 DUAL ANTENNA MOUNT ASSEMBLY
 FOR ROUND LEGS 1-1/2" TO 4-1/2"
 15-34" STAND-OFF



DATE	8/10/2012	ENG. APPROVAL	CWT01
CLASS	81	CHECKED BY	CWT01
REV	01	CHECKED BY	CEK 2/19/2013

ANTENNA MOUNT DETAIL 2

GE INFINITY D 49V PDU SPECIFICATIONS 4



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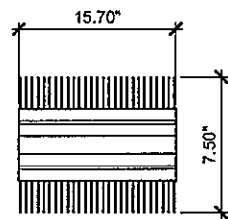


HWY 6
 SMALL CELL NODE 07
 35300 WILSON RIVER HWY
 TILLAMOOK, OR 97141

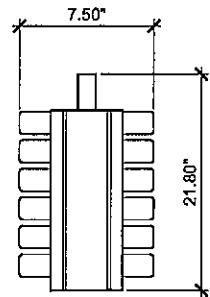
CONSTRUCTION
 DETAILS

A-4.0

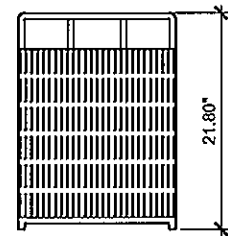
MANUFACTURER: ERICSSON
MODEL: RADIO 4890
HEIGHT: 21.80"
WIDTH: 15.70"
DEPTH: 7.50"
WEIGHT: 84 LBS
COLOR: OFF-WHITE



PLAN VIEW

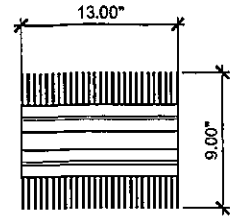


SIDE VIEW

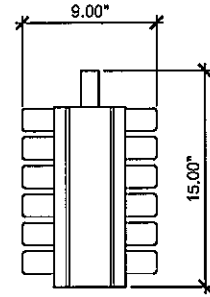


FRONT VIEW

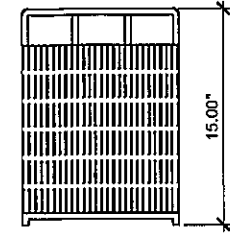
MANUFACTURER: ERICSSON
MODEL: RADIO 4490
HEIGHT: 15.00"
WIDTH: 13.00"
DEPTH: 9.00"
WEIGHT: 70 LBS
COLOR: OFF-WHITE



PLAN VIEW



SIDE VIEW



FRONT VIEW

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

4890 RADIO 1

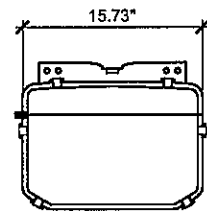
22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

4490 RADIO 2

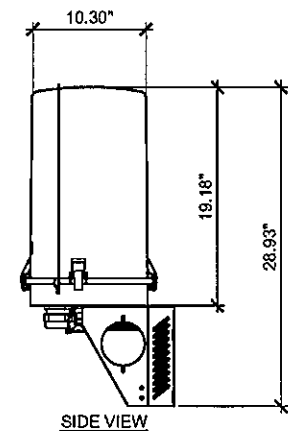
22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

NOT USED 3

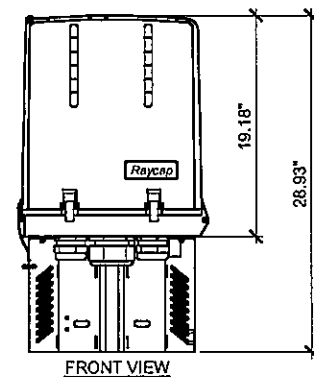
MANUFACTURER: RAYCAP
MODEL: RCMDC-3315-PF-48
HEIGHT: 29.93"
WIDTH: 15.73"
DEPTH: 10.30"
WEIGHT: 32.00 LBS (W/ MOUNT)
COLOR: LIGHT GRAY



PLAN VIEW



SIDE VIEW

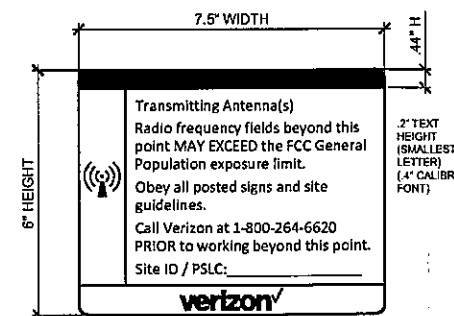


FRONT VIEW

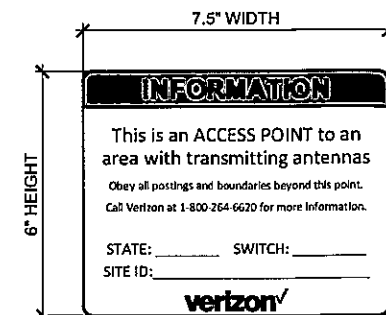
22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

RAYCAP OVP 6 4

THE CONTRACTOR WILL ENSURE ALL SIGNAGE AT SITE
LOCATION TO MEET WITH FCC STANDARDS AND REQUIREMENTS.



RF NOTICE SIGN
NOT TO SCALE

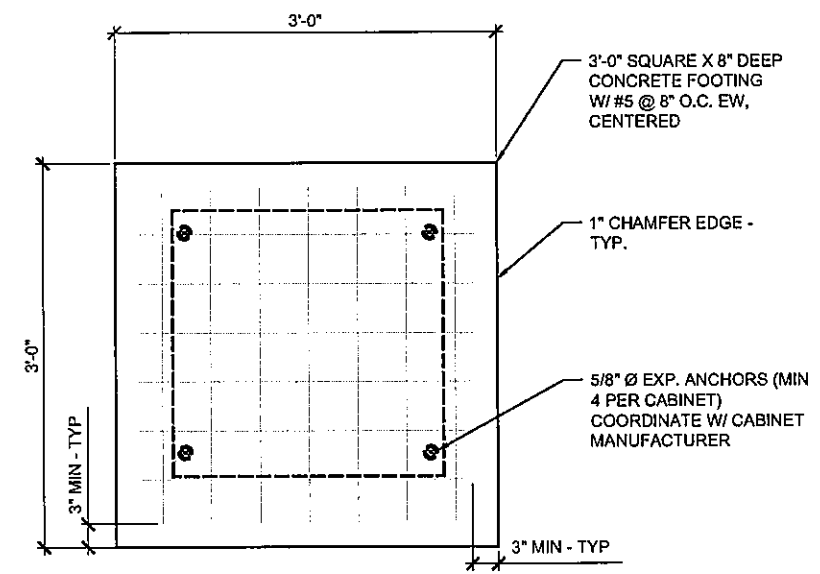


RF INFORMATION SIGN
NOT TO SCALE

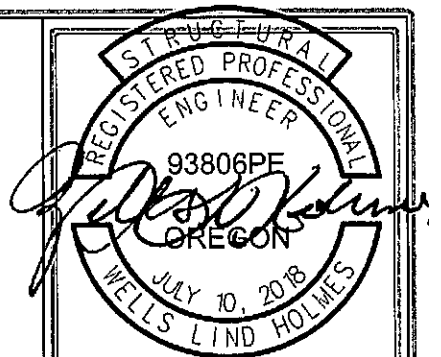
22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

RF SIGNAGE DETAILS 5

FINAL DESIGN AND ANALYSIS OF
CONCRETE FOOTING AND ANCHORAGE
TO BE COMPLETED BY OTHERS



CONCRETE PAD DETAIL 6



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CLIENT:

verizon

A&E CONSULTANT, SITE ACQUISITION AND PERMITTING:

Acom
CONSULTING, INC

VECTOR
ENGINEERS

HWY 6
SMALL CELL NODE 07
35300 WILSON RIVER HWY
TILLAMOOK, OR 97141

CONSTRUCTION
DETAILS

A-5.0

TECHNICAL SPECIFICATIONS AIR 6419 B41

PRODUCT NUMBER:		KRD 901 212/11
ADVANCED ANTENNA SYSTEM		
Operating frequency band:	3GPP Band 41, 2496 – 2690 MHz (full band)	
Instantaneous bandwidth:	194 MHz	
Output Power	320 W	
EIRP max.	79 dBm	
Antenna configuration	(3x1) x (4x8)	
Architecture:	64T64R connected to an array of dual polarized antenna elements.	
Modulation:	Downlink	Up to 256 QAM.
	Uplink	Up to 64 QAM.
Multi-antenna beamforming functionality*:	Downlink SU-MIMO	
	Downlink MU-MIMO	Up to 16 layers per carrier.
	Uplink SU-MIMO	
	Uplink MU-MIMO	Up to 16 layers per carrier.
	Cell shaping	Pre-defined cell or broadcast beam shapes*; Macro, Hotspot and High-rise.
	Digital down-tilt	Continuously adjustable for macro scenario, fixed for Hotspot and High-rise scenario.
Mechanical specifications*		
Weight:	31 kg (68.5 lbs) excluding installation kit	
Size (H x W x D):	876 x 506 x 203 mm (34.5" x 20.0" x 8.0") (including protrusions)	
	852 x 506 x 160 mm (33.6" x 20.0" x 6.3") (excluding protrusions)	
Operational specifications*		
Wind Load Maximum:	653 N (front), 110 N (side) @ 42 m/s wind speed (pole installed)	
Operating Temperature Range:	- 40° to + 55° C	
Solar radiation:	≤ 1,120 W/m²	
Relative humidity:	2% to 100%	
Absolute humidity:	0.26 to 40 g/m³	
IP Classification:	IP65	
Main Interfaces		
Baseband:	Two eCPRI interfaces using 25G SFP+ ports with link capacity 25 Gb/s each. One 25 Gb/s eCPRI interface is sufficient for up to 100 MHz carrier bandwidth and 16 layers.	
Power Supply:	-48 V DC (3-wire or 2-wire) via a connector. Maximum fuse rating is 50 A.	
Mounting:	Optional mechanical tilt and swivel installation kit for wall and pole mounting.	
Handling:	Handle for lifting and hoisting.	

*Additional scenarios, cells or broadcast beam shapes possible with future software releases. Refer detailed description for more details on NR and EIRP for specific scenarios.

Fund
Telefonaktiebolaget L.M. Ericsson
SE-164 80 Stockholm, Sweden
www.ericsson.com

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MX12FRO445-01

NWAV™ X-Pol 12-Port Antenna

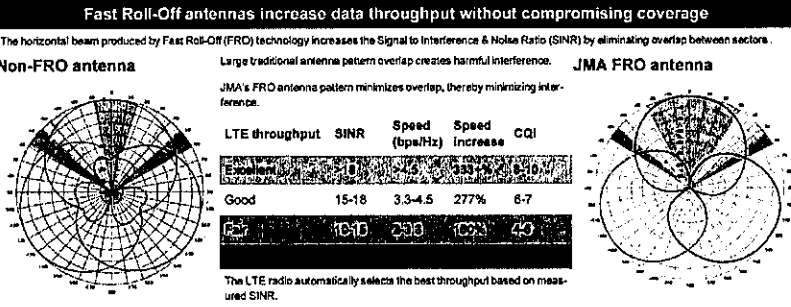
X-Pol 12-Port 4 ft, 45° Fast Roll Off, with Smart Bias Ts, 698-2690 MHz:

4 ports 698-894 MHz, 8 ports 1695-2690 MHz

- 12-Port antenna offering the same functionality as 2 Hex Port antennas in a single unit
- Fast Roll Off (FRO™) Azimuth beam patterns improves intra-inter-cell SINR
- Optimized form factor for reduced wind loading
- Fully integrated (iRETs) with independent RET control for low band and mid band
- Excellent passive intermodulation (PIM) performance reduces harmful interference.
- Suitable for 3G, 4G, and 5G interface technologies
- Integrated Smart Bias-Ts reduce leasing costs



NWAV

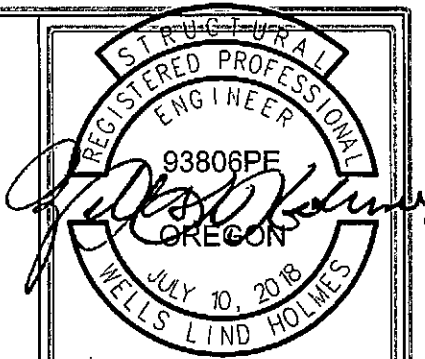


Electrical specification (minimum/maximum)	Ports 1, 2, 3, 4			Ports 5, 6, 7, 8, 9, 10, 11, 12			
Frequency bands, MHz	698-806	806-894	1695-1880	1850-1990	1920-2180	2300-2360	2496-2690
Polarization	± 45°			± 45°			
Average gain over all tilts, dBi	12.7	13.0	15.9	16.2	16.8	16.8	16.6
Horizontal beamwidth (HBW), degrees ¹	46	43	40	40	36	31	29
Front-to-back ratio, co-polar power @180°± 30°, dB	>25.0	>25.0	>25.0	>25.0	>25.0	>25.0	>25.0
X-Pol discrimination (CPR) at boresight, dB	>20.0	>18.0	>19	>18	>18	>18	>18
Vertical beamwidth (VBW), degrees ¹	31.0	27.0	12.0	11.4	11.0	10.0	9.0
Electrical downtilt (EDT) range, degrees	2-16			0-9			
First upper side lobe (USLS) suppression, dB ¹	≤-18.0	≤-18.0	≤-18.0	≤-18.0	≤-18.0	≤-18.0	≤-18.0
Cross-polar isolation, port-to-port, dB ¹	25	25	25	25	25	25	25
Max VSWR / return loss, dB	1.5:1 / -14.0			1.5:1 / -14.0			
Max passive intermodulation (PIM), 2x20W carrier, dBc	-153			-153			
Max input power per any port, watts	300			250			
Total composite power all ports, watts				1500			

¹ Typical value over frequency and tilt
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01/02/24 V2.0

Page1



EXPIRES: 6/30/2025
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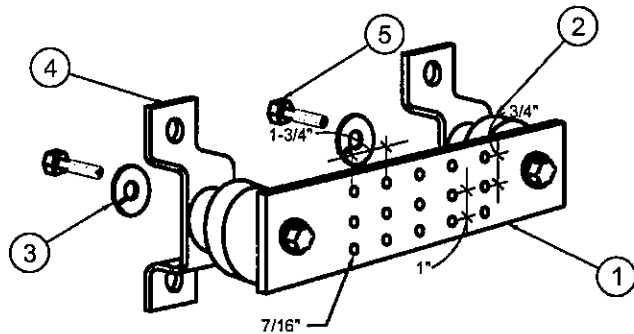
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SMALL CELL NODE 07
35300 WILSON RIVER HWY
TILLAMOOK, OR 97141

ANTENNA DETAILS

A-6.0



1. GALVANIZED STEEL GROUND BUSBAR, 1/4" X 4" X 6".
2. INSULATORS, MEET REQUIREMENTS OF UL 94 VO FOR SELF-EXTINGUISHING MATERIALS.
3. 3/8" LOCKWASHERS.
4. MOUNTING BRACKET.
5. 3/8-11 X 1" HHCS BOLTS.

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

GROUND BAR DETAIL 1

1. GROUNDING SHALL COMPLY WITH THE APPLICABLE EDITION OF THE NATIONAL ELECTRICAL CODE AS RECOGNIZED BY THE JURISDICTION.
2. ALL GROUNDING METHODS SHALL CONFORM TO THE CURRENT VERIZON STANDARDS.
3. MASTER GROUND BARS (MGB) SHALL BE GALVANIZED STEEL, 4" X 6" MAX.
4. MINIMUM BENDING RADIUS FOR GROUND CONDUCTOR IS 8", WHEN BENDING IS NECESSARY. GROUND CONDUCTORS ARE TO BE AS STRAIGHT AS POSSIBLE.
5. NO SPLICES PERMITTED IN GROUND CONDUCTORS.
6. ALL GROUNDING CONNECTORS TO BE CLEAN AND FREE OF PAINT AT THEIR MATING SURFACES AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. USE PENETROX OR EQUIVALENT ANTIOXIDANT GREASE.
7. ALL GROUND BAR CONNECTIONS ARE TO BE 2 HOLE LUG COMPRESSION TYPE. STACKED CONNECTIONS ARE NOT ACCEPTABLE. BACK TO BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BAR WILL BE PERMITTED.
8. ENSURE ALL MECHANICAL CONNECTORS ARE TORQUED TO THE MANUFACTURER'S SPECIFIED VALUES.
9. IF EXISTING GROUND ROD IS NOT PRESENT, NEW GROUND ROD SHALL MEET AVISTA STANDARDS.
10. MULTIPLE BONDS ON GROUND RODS TO BE SEPARATED BY AT LEAST 6".
11. MAXIMUM RESISTANCE OF THE COMPLETED GROUND SYSTEM SHALL NOT EXCEED A RESISTANCE OF 5 OHMS TO EARTH.
12. GROUND WIRES SHALL NOT BE INSTALLED THROUGH HOLES IN ANY METAL OBJECTS OR SUPPORTS TO PRECLUDE ESTABLISHING A "CHOKE" POINT.
13. FERROUS METAL CLIPS WHICH COMPLETELY SURROUND THE GROUND WIRE SHALL NOT BE USED. METAL CLIPS THAT DO NOT COMPLETELY SURROUND THE GROUND WIRE OR PLASTIC ARE ACCEPTABLE.

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

GROUNDING NOTES 2

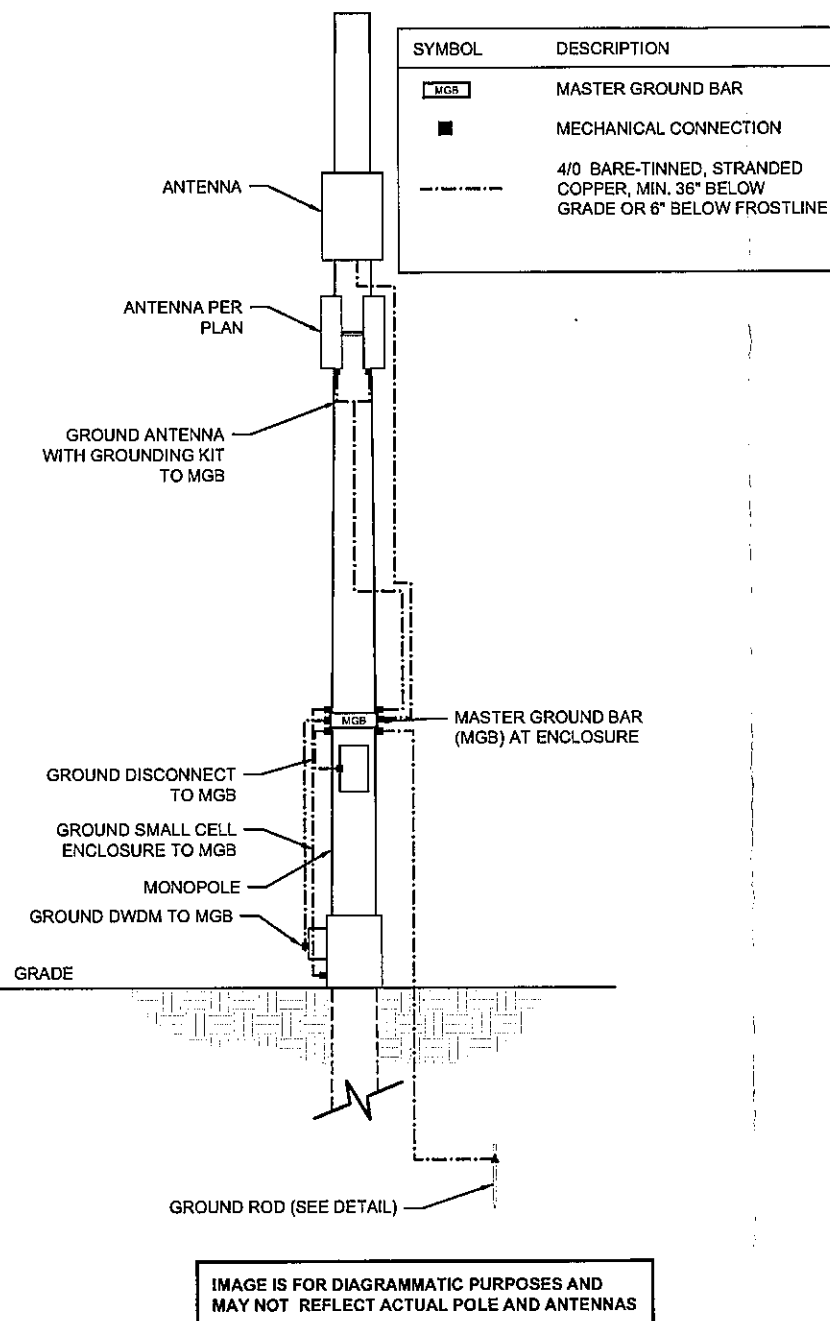


IMAGE IS FOR DIAGRAMMATIC PURPOSES AND
MAY NOT REFLECT ACTUAL POLE AND ANTENNAS

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

GROUNDING DIAGRAM 3

PANEL NAME		VERIZON		MANUFACTURER		SQ-D	
VOLTS		120/240		MODEL NUMBER		QO816L100RB	
PHASE	1	WIRE	3	ENCLOSURE RATING		NEMA 4X	
BUS RATING		60 AMPS (MAX)		MATERIAL		ALUMINUM	
MAIN BREAKER		60 AMPS		POSITIONS		8 CIRCUITS	

LOAD	POS	BRK	A
4449	1	15	120
8843	2	15	120
RECEPT	3	15	120
HVAC	4	20	120
RACK EQUIP	5	20	120
SPACE	6	--	120
SPACE	7	--	120
SPACE	8	--	120

NOTES:

PANEL IS LOCATED ON EQUIPMENT CABINET

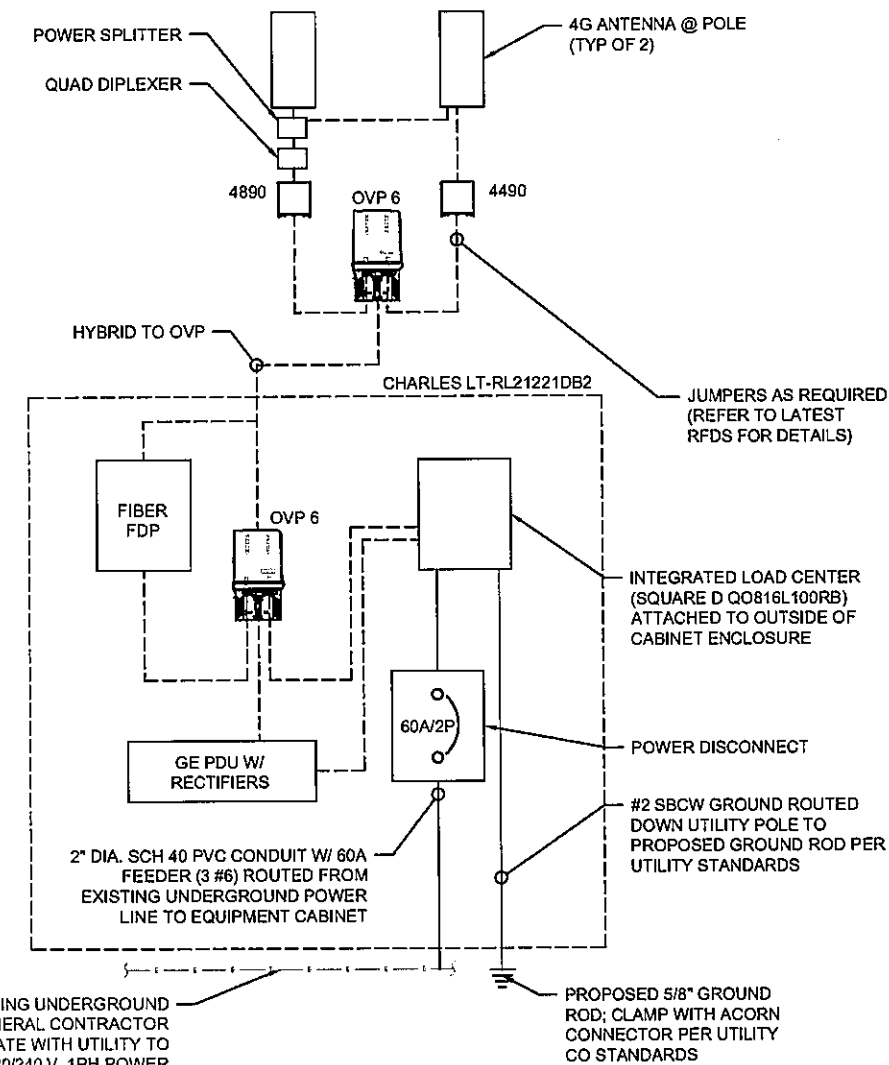
LOAD:

TELCO EQUIP:

RECEPT	180	8843	320 W
LIGHTING	-0-	4449	120 W
HVAC EQUIP	1500		TOTAL 440 W
TELCO EQUIP	440		
RACK EQUIP	650	TOTAL	2770W
TOTAL LOAD: 2770VA/240V = 11.54A			

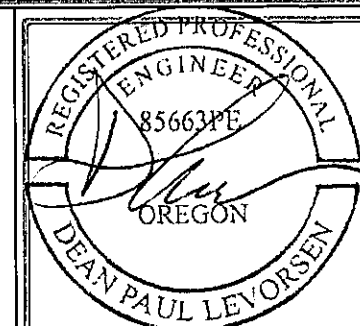
22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

PANEL SCHEDULE 3



22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

TYPICAL ONE-LINE DIAGRAM 4



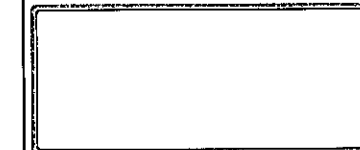
EXPIRES: 12/31/2026

02/11/2025

VSE Project Number: U2350-1241-241

NO.	DATE	DRAWN	REVISION
A	05/22/23	KM	90% PCD REVIEW
B	08/03/23	KM	SURVEY UPDATE
C	08/04/24	KM	RFDS UPDATE
D	12/11/24	DO	100% FINAL CD
1	01/27/25	KM	CLIENT COMMENTS
2	02/11/25	KM	CLIENT COMMENTS

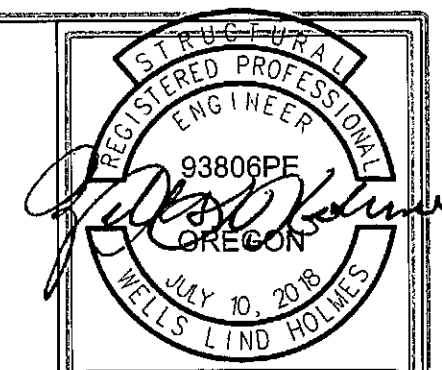
CLIENT:



**HWY 6
SMALL CELL NODE 07**
35300 WILSON RIVER HWY
TILLAMOOK, OR 97141

GROUNDING DETAILS

E-1.0



EXPIRES: 6/30/2025
02/11/2025
VSE Project Number: U2350-1241-241

NO.	DATE	DRAWN	REVISION
A	05/22/23	KM	90% PCD REVIEW
B	08/03/23	KM	SURVEY UPDATE
C	06/04/24	KM	RFDS UPDATE
D	12/11/24	DO	100% FINAL CD
1	01/27/25	KM	CLIENT COMMENTS
2	02/11/25	KM	CLIENT COMMENTS



**HWY 6
SMALL CELL NODE 07**
35300 WILSON RIVER HWY
TILLAMOOK, OR 97141

**ANTENNA
CONFIGURATION**

RF-1

**Alpha
(Proposed)**

**Beta
(Proposed)**

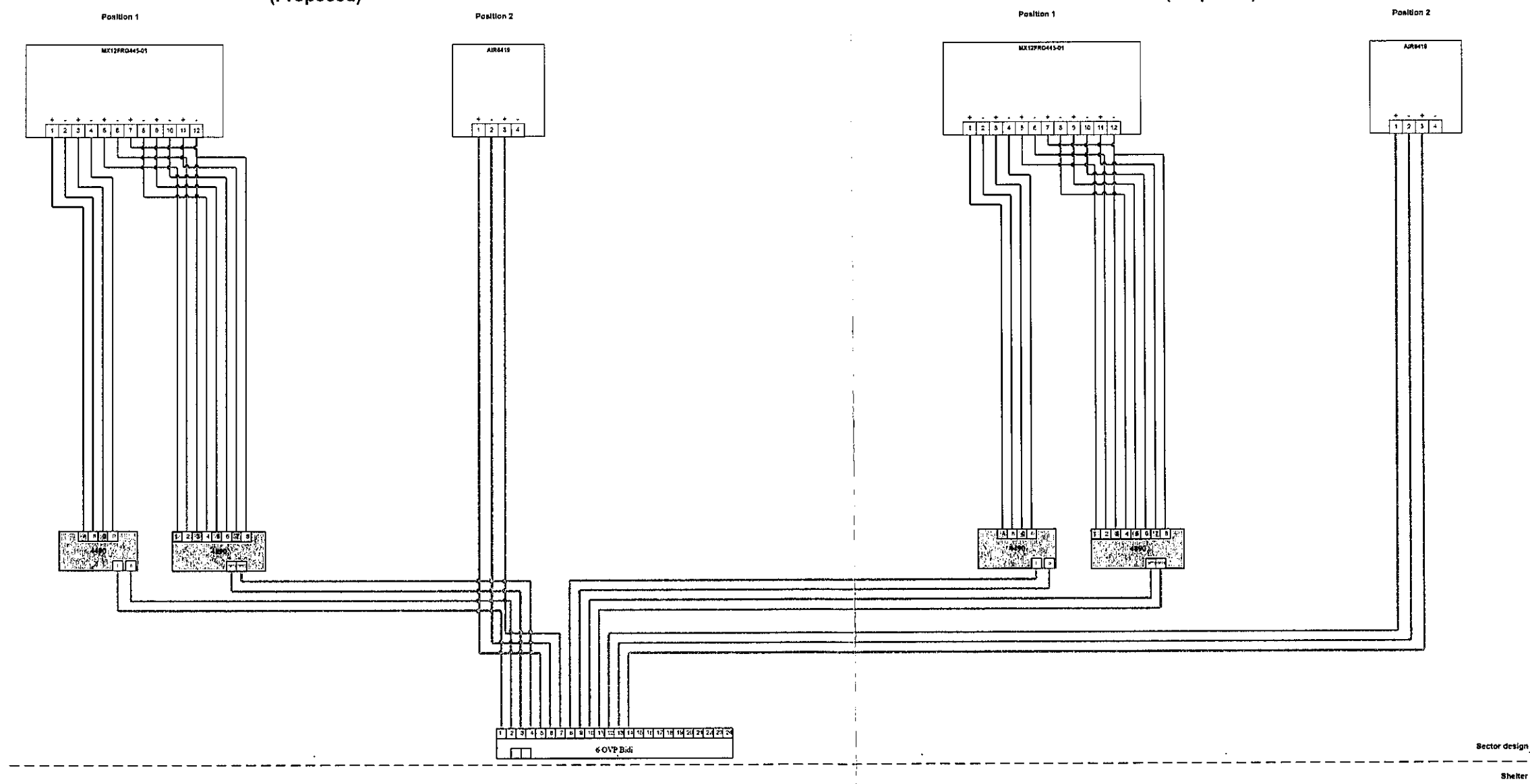


EXHIBIT C

Sarah Absher

From: Sarah Thompson
Sent: Wednesday, April 23, 2025 11:27 AM
To: Sarah Absher
Subject: FW: EXTERNAL: RE: #851-25-000096-PLNG

#851-25-000096-PLNG

From: BRADLEY Robert * ODFW <Robert.BRADLEY@odfw.oregon.gov>
Sent: Monday, March 31, 2025 11:32 AM
To: Sarah Thompson <sarah.thompson@tillamookcounty.gov>; Sarah Absher <Sarah.Absher@tillamookcounty.gov>
Cc: Melissa Jenck <Melissa.Jenck@tillamookcounty.gov>
Subject: EXTERNAL: RE: #851-25-000096-PLNG

[**NOTICE:** This message originated outside of Tillamook County -- **DO NOT CLICK** on links or open **attachments** unless you are sure the content is safe.]

This application is a little confusing as to the location of the project. At the arrows noting the approximate location on the attachments (and within 5 feet of the highway), the project would actually be located on tax lot 500 (or maybe just within the highway right of way). Using the coordinates and written description from the attached plan set, the location would be further east and adjacent to Jordan Creek and Jordan Creek Road (and on tax lot 400). The location closer to Jordan Creek appears to be the correct site.

ODFW recommends the project not encroach into the riparian setback of Jordan Creek, the Wilson River, or any other stream that may be present on the project site.

ODOT should be consulted as this is most likely within their right of way on Hwy 6.

If the location closer to Jordan Creek is correct, there are overhead power lines located near the highway that might be a consideration for construction.

Robert

Robert W. Bradley
District Fish Biologist
Oregon Department of Fish and Wildlife
North Coast Watershed District
4907 Third St
Tillamook, OR 97141
503-842-2741 x18613 (w)
503-842-8385 (fax)

From: Sarah Thompson <sarah.thompson@tillamookcounty.gov>
Sent: Monday, March 31, 2025 10:34 AM
To: Sarah Absher <Sarah.Absher@tillamookcounty.gov>
Cc: Melissa Jenck <Melissa.Jenck@tillamookcounty.gov>
Subject: #851-25-000096-PLNG

Good morning,

Please see the link below for the Notice of Application for #851-25-000096-PLNG for a Variance Request.

<https://www.tillamookcounty.gov/commdev/project/851-25-000096-plng>

Thanks,



Sarah Thompson (she/her) | Office Specialist 2

TILLAMOOK COUNTY | Surveyor Department

1510-B Third Street

Tillamook, OR 97141

Phone (503) 842-3408 x3423

Sarah.thompson@tillamookcounty.gov

Sarah Absher

From: Sarah Thompson
Sent: Wednesday, April 23, 2025 11:27 AM
To: Sarah Absher
Subject: FW: EXTERNAL: RE: 13624_Murakami

#851-25-000096-PLNG

From: BAUMGARTNER Douglas G <Douglas.G.BAUMGARTNER@odot.oregon.gov>
Sent: Thursday, April 17, 2025 1:28 PM
To: Sarah Thompson <sarah.thompson@tillamookcounty.gov>
Subject: EXTERNAL: RE: 13624_Murakami

[**NOTICE:** This message originated outside of Tillamook County -- **DO NOT CLICK** on links or open **attachments** unless you are sure the content is safe.]

Good afternoon Sarah,

The proposed cell tower installations along OR6 do not include new highway approaches or modifications to existing highway approaches and therefor my only comment is that any work proposed in the ODOT right of way will need a MISC permit through the ODOT District 1 Maintenance Office.

Have a great day!

Doug

From: Sarah Thompson <sarah.thompson@tillamookcounty.gov>
Sent: Monday, March 31, 2025 10:34 AM
To: Sarah Absher <Sarah.Absher@tillamookcounty.gov>
Cc: Melissa Jenck <Melissa.Jenck@tillamookcounty.gov>
Subject: 13624_Murakami

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Good morning,

Please see the link below for the Notice of Application for #851-25-000096-PLNG for a Variance Request.

<https://www.tillamookcounty.gov/commdev/project/851-25-000096-plng>

Thanks,



Sarah Thompson (she/her) | Office Specialist 2

TILLAMOOK COUNTY | Surveyor Department

1510-B Third Street

Tillamook, OR 97141

Phone (503) 842-3408 x3423

Sarah.thompson@tillamookcounty.gov