COUNTY OF MENDOCINO
DEPARTMENT OF PLANNING AND BUILDING SERVICES
860 NORTH BUSH STREET · UKIAH · CALIFORNIA · 95482
752 SOUTH FRANKLIN STREET · FT. BRAGG · CALIFORNIA · 95437

JULIA KROG, DIRECTOR
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www.mendocinocounty.org/pbs

October 22, 2025

Department of Transportation	Air Quality Management	Cloverdale Rancheria
Environmental Health - Ukiah	Department of Forestry/ CalFire	Redwood Valley Rancheria
Building Inspection – Ukiah	-Land Use	Sherwood Valley Band of Pomo Indians
Mendocino County farm Bureau	Department of Fish and Wildlife	Little Lake Fire District

CASE#: UR_2025-0002
DATE FILED: 9/23/2025
OWNER: Richard and Kathleen Varian
APPLICANT: Verizon Wireless
AGENT: Eric Lentz
REQUEST: Renewal of Use Permit U_2014-0012 to allow the continued use of a wireless telecommunication facility. The expiration date would be extended for an additional ten (10) year period.
ENVIRONMENTAL DETERMINATION: Categorically Exempt
LOCATION: 3.25± miles northeast of Willits, on the north side of Reynolds Highway (CR 310) 1.5± miles southeast of its intersection with US 101, located at 24815 Reynolds Highway, Willits (APN 037-221-74).
SUPERVISORIAL DISTRICT: 3
STAFF PLANNER: Liam Crowley
RESPONSE DUE DATE: November 5, 2025

PROJECT INFORMATION CAN BE FOUND AT:
www.mendocinocounty.org
Select "Government" from the drop-down; then locate Planning and Building Services/Public Agency Referrals.

Mendocino County Planning & Building Services is soliciting your input, which will be used in staff analysis and forwarded to the appropriate public hearing. You are invited to comment on any aspect of the proposed project(s). Please convey any requirements or conditions your agency requires for project compliance to the project coordinator at the above address, or submit your comments by email to pbs@mendocinocounty.org. Please note the case number and name of the project coordinator with all correspondence to this department.

We have reviewed the above application and recommend the following (please check one):

☐ No comment at this time.

☐ Recommend conditional approval (attached).

☐ Applicant to submit additional information (attach items needed, or contact the applicant directly, copying Planning and Building Services in any correspondence you may have with the applicant)

☐ Recommend denial (Attach reasons for recommending denial).

☐ Recommend preparation of an Environmental Impact Report (attach reasons why an EIR should be required).

☐ Other comments (attach as necessary).

REVIEWED BY:

Signature _____ Department _____ Date _____

CASE: UR_2025-0002

OWNER: Richard and Kathleen Varian

APPLICANT: Verizon Wireless

AGENT: Eric Lentz, on behalf of Verizon

REQUEST: Renewal of Use Permit U_2014-0012 to allow the continued use of a wireless telecommunication facility. The expiration date would be extended for an additional ten (10) year period.

LOCATION: 3.25± miles northeast of Willits, on the north side of Reynolds Highway (CR 310) 1.5± miles southeast of its intersection with US 101, located at 24815 Reynolds Highway, Willits (APN 037-221-74).

APN/S: 037-221-74

PARCEL SIZE: 40± Acres

GENERAL PLAN: Agricultural (AG-40)

ZONING: Agricultural (AG-40)

EXISTING USES: Wireless communication facility

DISTRICT: 3 (Haschak)

RELATED CASES: See below.

REFERRAL AGENCIES

LOCAL
- ☒ Air Quality Management District
- ☒ Building Division (Ukiah)
- ☒ Department of Transportation (DOT)
- ☒ Environmental Health (EH)
- ☒ Little Lake Fire Protection District
- ☒ Mendocino County Farm Bureau

STATE
- ☒ CALFIRE (Land Use)
- ☒ California Dept. of Fish & Wildlife

TRIBAL
- ☒ Cloverdale Rancheria
- ☒ Redwood Valley Rancheria
- ☒ Sherwood Valley Band of Pomo Indians

ADDITIONAL INFORMATION: Related projects and permits include:

A 25-76: Agricultural Preserve application which established an agricultural preserve over the property. Approved 12/22/1976. The property remains subject to a Williamson Act contract.

U 12-2014: Use Permit to authorize construction and operation of a wireless communication facility consisting of an 85-foot tall "monopine" (monopole designed to resemble a pine tree), 9 panel antennas, auxiliary equipment, and ground-based equipment including a 30-kilowatt diesel generator with a 132-gallon fuel storage tank and a 195 square foot equipment shelter. Approved 07/16/2015.

AP_2016-0021: Administrative Permit to add one (1) two-foot six-inch microwave dish antenna at the 70-foot level of an approved, but not yet constructed, 85-foot monopine. Approved 10/12/2016.

BU_2016-0768: Building Permit for a new cell tower. Finalized 05/19/2017.

CC 2017-22: Certificates of Compliance that recognized two (2) legal lots consisting of (1) APNs 037-260-07 and 037-221-35 and (2) 037-221-34 and 037-221-36. APN 037-221-35 is now known as APNs 037-221-73 and 037-221-74. APN 037-221-73 was transferred to the State of California in 2020.

TU_2017-0015: Encroachment Permit for a commercial driveway approach. Finalized 07/10/2017.

AP_2024-0034: Administrative Permit for modifications to an existing wireless communication facility that included the installation of a new microwave dish, ODU, and hybrid cable. Approved 02/13/2025.

BP_2024-0404: Building Permit for a new microwave dish, mount, and hybrid cabling on an existing cell tower. Issued 02/28/2025. Not yet finalized.

BP_2025-0234: Building Permit to install a new EW90 cable to an existing dish on an existing cell tower. Approved 06/11/2025. Not yet issued.

BP_2025-0257: Building Permit to remove and replace three (3) antennas, six (6) RRUs, two (2) surge supressors, and install two (2) new hybrid cables on an existing cell tower. Finalized 10/02/2025.

STAFF PLANNER: LIAM CROWLEY **DATE:** 10/22/2025

ENVIRONMENTAL DATA

1. MAC:
GIS
None

2. FIRE HAZARD SEVERITY ZONE:
CALFIRE FRAP maps/GIS
Moderate

3. FIRE RESPONSIBILITY AREA:
CALFIRE FRAP maps/GIS
State Responsibility Area (SRA)

4. FARMLAND CLASSIFICATION:
GIS
Grazing Land (G)

5. FLOOD ZONE CLASSIFICATION:
FEMA Flood Insurance Rate Maps (FIRM)
None

6. COASTAL GROUNDWATER RESOURCE AREA:
Coastal Groundwater Study/GIS
N/A

7. SOIL CLASSIFICATION:
Mendocino County Soils Study Eastern/Western Part
Eastern Soil Map Unit No. 178

8. PYGMY VEGETATION OR PYGMY CAPABLE SOIL:
LCP maps, Pygmy Soils Maps; GIS
N/A

9. WILLIAMSON ACT CONTRACT:
GIS/Mendocino County Assessor's Office
Yes

10. TIMBER PRODUCTION ZONE:
GIS
No

11. WETLANDS CLASSIFICATION:
GIS
Fluvial Natural Drainage Feature 107± feet west of site

12. EARTHQUAKE FAULT ZONE:
Earthquake Fault Zone Maps; GIS
No

13. AIRPORT LAND USE PLANNING AREA:
Airport Land Use Plan; GIS
No

14. SUPERFUND/BROWNFIELD/HAZMAT SITE:
GIS; General Plan 3-11
No

15. NATURAL DIVERSITY DATABASE:
CA Dept. of Fish & Wildlife Rarefind Database/GIS
Yes

16. STATE FOREST/PARK/RECREATION AREA ADJACENT:
GIS; General Plan 3-10
No

17. LANDSLIDE HAZARD:
Hazards and Landslides Map; GIS; Policy RM-61; General Plan 4-44
No

18. WATER EFFICIENT LANDSCAPE REQUIRED:
Policy RM-7; General Plan 4-34
No

19. WILD AND SCENIC RIVER:
www.rivers.gov (Eel Only); GIS
No

20. SPECIFIC PLAN/SPECIAL PLAN AREA:
Various Adopted Specific Plan Areas; GIS
No

21. STATE CLEARINGHOUSE REQUIRED:
Policy
No

22. OAK WOODLAND AREA:
USDA
N/A

23. HARBOR DISTRICT:
Sec. 20.512
No

PLANNING & BUILDING SERVICES

CASE NO:	
DATE FILED:	
FEE:	
RECEIPT NO:	
RECEIVED BY:	

Office Use Only

APPLICATION FORM

APPLICANT:

Name: Verizon Wireless Phone:

Mailing Address: 2770 Shadelands Drive

City: Walnut Creek State/Zip: CA 94598 Email:

PROPERTY OWNER:

Name: Richard Varian & Kathleen Jacobs Varian Phone:

Mailing Address: 24710 Reynolds Hwy

City: Willits State/Zip: CA 95490 Email:

AGENT:

Name: Eric Lentz, on behalf of Verizon Phone: 805-895-4394

Mailing Address: 354 Marble Arch Avenue

City: San Jose State/Zip: CA 95136 Email: lentzplanning@gmail.com

ASSESSOR'S PARCEL NUMBER/S: 037-221-035

PROPERTY ADDRESS: 24710 Reynolds Highway, Willits, CA 95490

TYPE OF APPLICATION:

- ☐ Administrative Permit
- ☐ Agricultural Preserve: New Contract
- ☐ Agricultural Preserve: Cancellation
- ☐ Agricultural Preserve: Rescind & ReEnter
- ☐ Airport Land Use
- ☐ Development Review
- ☐ Exception
- ☐ Flood Hazard Development Permit
- ☐ General Plan Amendment
- ☐ Land Division – Minor
- ☐ Land Division – Major
- ☐ Land Division – Parcel
- ☐ Land Division – Re-Subdivision
- ☐ Modification of Conditions
- ☐ Reversion to Acreage
- ☐ Rezoning
- ☐ Use Permit – Cottage
- ☒ Use Permit – Minor
- ☐ Use Permit – Major
- ☐ Use Permit – Modification
- ☐ Variance
- ☒ Other

I certify that the information submitted with this application is true and accurate.

Eric Lentz Digitally signed by Eric Lentz Date: 2025.06.12 11:54:53 -07'00' 6/12/2025

Signature of Applicant/Agent *Date*

7/24-

Signature of Owner *Date*

Richard E. Varian

SITE AND PROJECT DESCRIPTION QUESTIONNAIRE

The purpose of this questionnaire is to relate information concerning your application to the Department of Planning and Building Services and other agencies who will be reviewing your project proposal. Please remember that the clearer picture that you give us of your project and the site, the easier it will be to promptly process your application. Please answer all questions. Those questions which do not pertain to your project please indicate "Not applicable" or "N/A".

THE PROJECT

1. Describe your project. Include secondary improvements such as wells, septic systems, grading, vegetation removal, roads, etc. If the proposal is for cancellation of a Williamson Act contract, please specify a proposed alternative use for the land.

Renew Use Permit # U_2014-0012 to continue operation of an existing Verizon wireless facility.

2. Structures/Lot Coverage	NO. OF UNITS		SQUARE FOOTAGE		
	EXISTING	PROPOSED	EXISTING	PROPOSED	TOTAL
☐ Single Family ☐ Mobile Home ☐ Duplex ☐ Multifamily ■ Other: ☐ Other:	0	0	0	0	0
GRAND TOTAL (Equal to gross area of Parcel): 0					

3. Is the project commercial, industrial, or institutional? If yes, complete item 3. If no, skip to item 4.

Estimated No. of Employees per shift: 0

Estimated No. of shifts per day: 0

Type of loading facilities proposed: N/A

4. **Will the project be phased? (Work being done over separate periods of time)**

☒ **NO** ☐ **YES** If yes, explain your plans for phasing:

5. **Will vegetation be removed on areas other than the building sites and roads?**

☒ **NO** ☐ **YES** If yes, explain:

6. **Will the project involve the use or disposal of potentially hazardous materials such as toxic substances, flammables, or explosives?**

☒ **NO** ☐ **YES** If yes, explain:

7. **How much off-street parking will be provided?**

	Number	Size
No. of covered spaces:	0	
No. of uncovered spaces:	0	
No. of standard spaces:	0	
No. of accessible spaces:	0	
Existing no. of spaces:	0	
Proposed additional spaces:	0	
Total:	0	

8. **Is any road construction or grading planned? If yes, grading and drainage plans may be required.**

☒ **NO** ☐ **YES** Also, please describe the terrain to be traversed. (e.g., steep, moderate slope, flat, etc.)

9. **For grading or road construction, complete the following:**

Amount of cut: 0 cubic yards

Amount of fill: 0 cubic yards

Max. height of fill slope: 0 feet

Max. height of cut slope: 0 feet

Amount of import/export: 0 cubic yards

Location of borrow or disposal site: N/A

10. Does the project involve sand removal, mining or gravel extraction? If yes, detailed extraction, reclamation and monitoring plans may be required.

☒ NO ☐ YES

11. Will the proposed development convert land currently or previously used for agriculture to another use?

☒ NO ☐ YES

12. Will the development provide public or private recreation opportunities?

☒ NO ☐ YES If yes, explain how:

_____

_____

_____

_____

13. Is the proposed development visible from State Route 1 or other scenic route?

☐ NO ☐ YES

14. Is the proposed development visible from a park, beach or other recreational area?

☐ NO ☐ YES

15. Does the development involve diking, filling, dredging or placing structures in open coastal water, wetlands, estuaries or lakes?

Diking: ☒ NO ☐ YES
Filling: ☐ NO ☐ YES
Dredging: ☐ NO ☐ YES
Structures: ☐ Open Coastal Waters ☐ Wetlands ☐ Estuaries ☐ Lakes

If so, what is the amount of material to be dredged/filled?: N/A cubic yards

Location of dredged material disposal site?: _____

Has a U.S. Army Corps of Engineers permit been applied for? ☐ NO ☐ YES

16. Will there be any exterior lighting?

☒ NO ☐ YES If yes, describe below and identify the location of all exterior lighting on the plot and building plans.

_____

_____

_____

_____

17. Utilities will be supplied to the site as follows:

Electricity: ☒ Utility Company (service exists to parcel)
☐ Utility Company (requires extension of service to site): _____ feet _____ miles
☐ On Site Generation – Specify:

Gas: ☐ Utility Company/Tank
☐ On Site Generation – Specify:
☒ None

Telephone: ☒ NO ☐ YES

18. What will be the method of sewage disposal?

☐ Community Sewage System (specify supplier): _____

☐ Septic Tank

☒ Other (specify): N/A

19. What will be the domestic water source:

☐ Community Water System (specify supplier): _____

☐ Well

☐ Spring

☒ Other (specify): N/A

20. Are there any associated projects and/or adjacent properties under your ownership?

☒ **NO** ☐ **YES** If yes, list below (Assessor's Parcel Number, address, etc.)

21. List and describe any other related permits and other public approval required for this project, including those required by other County departments, city, regional, State and Federal agencies:

Building permit

22. Describe the location of the site in terms of readily identifiable landmarks: (e.g., mailboxes, mile posts, street intersections, etc.)

N/A

23. Are there existing structures on the property? If yes and the proposal is for a subdivision, describe below and identify the use of each structure on the plot plan or tentative map.

☐ **NO** ☒ **YES**

Existing wireless facility.

24. Will any existing structure be demolished or removed? If yes, describe the type of development to be demolished or removed, including the relocation site, if applicable.

☒ **NO** ☐ **YES**

25. What is the maximum height of all structures?

Existing: 85 feet
Proposed: 85 feet

26. What is the gross floor areas of all structures, including covered parking and accessory buildings?

Existing: 0 square feet
Proposed: 0 square feet

27. What is the total lot area within property lines?

Total Lot Area: _____ ☐ acres ☐ square feet

28. Briefly describe the project site as it exists before the project, including information on existing structures and their uses, slopes, soil stability, plants and animals, and any cultural, historical or scenic aspects. Attach any photographs of the site that you feel would be helpful:

The project site consists of an existing wireless facility

29. Briefly describe the surrounding properties, including information on plants, animals and any cultural, historic or scenic aspects. Indicate the type of land use (use chart below) and its general intensity. Attach any photographs of the vicinity that you feel would be helpful.

30. Indicate the surrounding land uses:

	Vacant	Residential	Agriculture	Commercial	Industrial	Public Facility	Timberland	Other
North:	☐	☐	☐	☐	☐	☐	☐	☐
East:	☐	☐	☐	☐	☐	☐	☐	☐
South:	☐	☐	☐	☐	☐	☐	☐	☐
West:	☐	☐	☐	☐	☐	☐	☐	☐

VERIZON WIRELESS EQUIPMENT ENGINEER:	PROPERTY OWNER:
SIGNATURE DATE	SIGNATURE DATE
VERIZON WIRELESS CONSTRUCTION:	EPIC WIRELESS GROUP INC – LEASING
SIGNATURE DATE	SIGNATURE DATE
VERIZON WIRELESS REAL ESTATE:	EPIC WIRELESS GROUP INC – ZONING
SIGNATURE DATE	SIGNATURE DATE
VERIZON WIRELESS RF ENGINEER:	EPIC WIRELESS GROUP INC – CONSTRUCTION
SIGNATURE DATE	SIGNATURE DATE

verizon

NORTH WILLITS (MW ADD)

24710 REYNOLDS HWY, WILLITS, CA 95490
MDG LOCATION ID: 5000022867
PROJECT ID#: 16608395

PROJECT DESCRIPTION

A MODIFICATION OF AN (E) VERIZON WIRELESS UNMANNED TELECOMMUNICATION FACILITY CONSISTING OF:

- INSTALLING (1) (N) EW90 MW CABLE TO (E) MW DISH @ 70'-0"

PROJECT INFORMATION

SITE NAME:	NORTH WILLITS
MDG LOCATION ID:	5000022867
COUNTY:	MENDOCINO
JURISDICTION:	MENDOCINO COUNTY
APN:	037-221-74
SITE ADDRESS:	24710 REYNOLDS HWY WILLITS, CA 95490
CURRENT ZONING:	AG
CONSTRUCTION TYPE:	II-B
OCCUPANCY TYPE:	U, (UNMANNED COMMUNICATIONS FACILITY)
POWER:	PG&E
LATITUDE:	N 39° 27' 06.26" NAD 83 N (39.45174°) NAD 83
LONGITUDE:	W 123° 19' 37.61" NAD 83 W (-123.32711°) NAD 83
GROUND ELEVATION:	1,396'

PROPERTY OWNER:	RICHARD VARIAN & KATHLEEN JACOBS VARIAN 24710 REYNOLDS HWY WILLITS, CA 95490
APPLICANT:	VERIZON WIRELESS 2770 SHADELANDS DR, BLDG 11 WALNUT CREEK, CA 94598
SITE ACQUISITION COMPANY:	EPIC WIRELESS GROUP 605 COOLIDGE DRIVE, SUITE 100 FOLSOM, CA 95630
LEASING CONTACT:	ATTN: MICHAEL TAYLOR (714) 989-3561 MICHAEL.TAYLOR@EPICWIRELESS.NET
ZONING CONTACT:	ATTN: JOSH JORDAN (916) 704-0897 JOSH.JORDAN@EPICWIRELESS.NET
CONSTRUCTION CONTACT:	ATTN: JOSH JORDAN (916) 704-0897 JOSH.JORDAN@EPICWIRELESS.NET

VICINITY MAP



DRIVING DIRECTIONS

FROM: 2770 SHADELANDS DR, BLDG 11, WALNUT CREEK, CA 94598
TO: 24710 REYNOLDS HWY, WILLITS, CA 95490

1.	HEAD NORTHWEST TOWARD MITCHELL DR	302 FT
2.	TURN RIGHT ONTO MITCHELL DR	0.2 MI
3.	USE THE LEFT 2 LANES TO TURN LEFT ONTO OAK GROVE RD	0.5 MI
4.	USE THE LEFT 2 LANES TO TURN LEFT ONTO TREAT BLVD	2.2 MI
5.	TURN RIGHT ONTO BUSKIRK AVE	0.2 MI
6.	TAKE THE RAMP ON THE LEFT ONTO I-680 N	420 FT
7.	MERGE ONTO I-680 N (TOLL ROAD)	7.7 MI
8.	KEEP LEFT AT THE FORK TO CONTINUE ON I-680 (TOLL ROAD)	2.0 MI
9.	USE THE LEFT 2 LANES TO TAKE EXIT 58A FOR I-780 (TOLL ROAD)	0.6 MI
10.	CONTINUE ONTO I-780 W	6.0 MI
11.	TAKE EXIT 1B TOWARD SACRAMENTO	0.3 MI
12.	MERGE ONTO I-80 E	2.8 MI
13.	TAKE EXIT 33 FOR CA-37 TOWARD NAPA	0.7 MI
14.	CONTINUE ONTO CA-37 W	15.5 MI
15.	TURN RIGHT ONTO LAKEVILLE HWY	11.1 MI
16.	TURN RIGHT TO MERGE ONTO US-101 N TOWARD EUREKA	0.4 MI
17.	MERGE ONTO US-101 N	103 MI
18.	TURN RIGHT ONTO REYNOLDS HWY DESTINATION WILL BE ON THE LEFT	2.0 MI

END AT: 24710 REYNOLDS HWY, WILLITS, CA 95490

ESTIMATED TIME: 2 HOUR 44 MINUTES ESTIMATED DISTANCE: 155 MILES

CODE COMPLIANCE

ALL WORK & MATERIALS SHALL BE PERFORMED & 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:

2022 CALIFORNIA ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.
2022 CALIFORNIA BUILDING CODE (CBC), PART 2, VOLUME 1&2, TITLE 24 C.C.R.
(2021 INTERNATIONAL BUILDING CODE AND 2022 CALIFORNIA AMENDMENTS)
2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R.
(2020 NATIONAL ELECTRICAL CODE AND 2022 CALIFORNIA AMENDMENTS)
2022 CALIFORNIA MECHANICAL CODE (CMC) PART 4, TITLE 24 C.C.R.
(2021 UNIFORM MECHANICAL CODE AND 2022 CALIFORNIA AMENDMENTS)
2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R.
(2021 UNIFORM PLUMBING CODE AND 2022 CALIFORNIA AMENDMENTS)
2022 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 C.C.R.
2022 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R.
(2021 INTERNATIONAL FIRE CODE AND 2022 CALIFORNIA AMENDMENTS)
2022 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11, TITLE 24 C.C.R.
2022 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R.
ANSI/EIA-TIA-222-H

ALONG WITH ANY OTHER APPLICABLE LOCAL & STATE LAWS AND REGULATIONS

DISABLED ACCESS REQUIREMENTS

THIS FACILITY IS UNMANNED & NOT FOR HUMAN HABITATION. DISABLED ACCESS & REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH CALIFORNIA STATE BUILDING CODE, TITLE 24 PART 2, SECTION 11B-203.5

SHEET INDEX

SHEET	DESCRIPTION	REV
T-1.1	TITLE SHEET	–
T-1.2	GENERAL NOTES	–
A-1.1	OVERALL SITE PLAN	–
A-1.2	SITE PLAN	–
A-2.1	ANTENNA PLAN	–
A-3.1	ELEVATIONS	–

Issued For:

NORTH WILLITS

24710 REYNOLDS HWY
WILLITS, CA 95490

PREPARED FOR

verizon
2770 SHADELANDS DR, BLDG 11
WALNUT CREEK, CA 94598

Vendor:

EPIC WIRELESS GROUP LLC
Connecting a Wireless World

MDG LOCATION ID:	5000022867
PROJECT NO:	16608395
DRAWN BY:	J. ZHAR
CHECKED BY:	S. SAVIG
APPROVED BY:	K. SORENSEN

ISSUE STATUS

REV	DATE	DESCRIPTION	CAD
1	02/24/25	CD 100%	J.Z.
0	02/18/25	CD 90%	S.D.

Licensee:

REGISTERED PROFESSIONAL ENGINEER
KEVIN R. SORENSEN
No. 4469
STRUCTURAL
STATE OF CALIFORNIA

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

ENGINEER:

Streamline Engineering and Design, Inc.
8445 Sierra College Blvd. Suite E Granite Bay, CA 95746
Contact: Kevin Sorensen Phone: 916-660-1930
E-Mail: kevin@streamlineeng.com Fax: 916-660-1941

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SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1.1

PROJECT GENERAL NOTES

1. THIS FACILITY IS AN UNOCCUPIED WIRELESS TELECOMMUNICATION FACILITY.
2. PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY, UNLESS NOTED OTHERWISE.
3. THE SCOPE OF WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
4. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTORS SHALL VISIT THE JOB SITE AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS, AND CONFIRM THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PAY FOR PERMIT FEES, AND TO OBTAIN SAID PERMITS AND TO COORDINATE INSPECTIONS.
6. THE CONTRACTOR SHALL RECEIVE, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
7. CALL BEFORE YOU DIG. CONTRACTOR IS REQUIRED TO CALL 811 (NATIONWIDE "CALL BEFORE YOU DIG" HOTLINE) AT LEAST 72 HOURS BEFORE DIGGING.
8. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
9. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. CONTRACTOR SHALL ALSO COORDINATE ALL PORTIONS OF THE WORK UNDER THE CONTRACT; INCLUDING CONTACT AND COORDINATION WITH THE CONSTRUCTION MANAGER AND WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE.
10. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, GALVANIZED SURFACES, ETC., AND UPON COMPLETION OF WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF THE PROJECT MANAGER.
11. KEEP GENERAL AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS AND RUBBISH. REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
12. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED, OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
13. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND ALL OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK SHALL BE PROTECTED AT ALL TIMES.
14. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
15. THE CONTRACTOR SHALL PROVIDE A TOILET FACILITY DURING ALL PHASES OF CONSTRUCTION.
16. SUFFICIENT MONUMENTATION WAS NOT RECOVERED TO ESTABLISH THE POSITION OF THE BOUNDARY LINES SHOWN HEREON. THE BOUNDARY REPRESENTED ON THIS MAP IS BASED ON COMPILED RECORD DATA AND BEST FIT ONTO EXISTING IMPROVEMENTS. IT IS POSSIBLE FOR THE LOCATION OF THE SUBJECT PROPERTY TO SHIFT FROM THE PLACEMENT SHOWN HEREON WITH ADDITIONAL FIELD WORK AND RESEARCH. THEREFORE ANY SPATIAL REFERENCE MADE OR SHOWN BETWEEN THE RELATIONSHIP OF THE BOUNDARY LINES SHOWN HEREON AND EXISTING GROUND FEATURES, EASEMENTS OR LEASE AREA IS INTENDED TO BE APPROXIMATE AND IS SUBJECT TO VERIFICATION BY RESOLVING THE POSITION OF THE BOUNDARY LINES.
17. THE CONTRACTOR TO VERIFY THE LATEST/CURRENT RF DESIGN.
18. WHERE APPLICABLE, CONTRACTOR SHALL PROVIDE SEPARATE PLANS, SPECIFICATIONS, FEES AND PERMITS FOR ANY REVISION TO ANY FIRE SPRINKLER AND/OR ALARM SYSTEM ON THE PREMISES AS MAY BE NEEDED TO COMPLETE THE WORK DEPICTED HEREIN, USING A LICENSED SUBCONTRACTOR FOR ALL SUCH WORK.

CONSTRUCTION NOTES

1. EXISTING BUILDING CONSTRUCTION CONDITIONS INDICATED ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO PROCEEDING WITH CONSTRUCTION OR ORDERING OF MATERIALS. IF EXISTING CONDITIONS DO NOT ALLOW FOR DETAILS OF CONSTRUCTION AS SHOWN ON THESE DRAWINGS, NOTIFY ENGINEER OF RECORD FOR RESOLUTION PRIOR TO PROCEEDING. CONTRACTOR SHALL EXPOSE AND REVIEW EXISTING CONDITIONS IN A TIMELY MANNER SUCH THAT ALTERNATE DESIGNS OR DETAILS, IF REQUIRED, MAY BE GENERATED WITHOUT DELAY TO THE PROJECT.
2. DURING CONSTRUCTION, THE CONTRACTOR SHALL NOT ALTER, DAMAGE OR REMOVE ANY PART OF THE EXISTING STRUCTURE UNLESS SPECIFICALLY DETAILED ON THESE DRAWINGS.
3. THE INTENT OF THESE DRAWINGS IS THAT THE WORK OF THE ADDITION, ALTERATION, REHABILITATION, OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH THE 2022 CBC. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NONCOMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH THE 2022 CBC, A CHANGE ORDER, OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE PREPARED AND SUBMITTED TO AND APPROVED BY THE BUILDING DEPARTMENT PRIOR TO PROCEEDING WITH THE WORK.
4. ALL WORK AND MATERIALS SHOWN ARE NEW UNLESS INDICATED AS EXISTING (E).
5. IT MAY BE NECESSARY TO REMOVE ARCHITECTURAL FINISHES, PLUMBING PIPES AND FIXTURES, ELECTRICAL CONDUIT, FIXTURES, PANELS, BOXES, TELEPHONE OR FIRE ALARM WIRING AND FIXTURES OR OTHER NON-STRUCTURAL ITEMS TO INSTALL STRUCTURAL WORK AND MATERIALS SHOWN ON THESE DRAWINGS. SUCH ITEMS SHALL BE REMOVED, REPAIRED AND/OR REPLACED TO MATCH PRE-CONSTRUCTION CONDITIONS AT THE CONTRACTORS EXPENSE.
6. ALL WEATHER PROOFING, INCLUDING BUT NOT LIMITED TO TORCH DOWN, CAULKING, Z-FLASHING OR ANY OTHER MATERIAL THAT MAY BE ALTERED DURING INSTALLATION SHALL BE REPAIRED REPLACED AND/OR MODIFIED TO ENSURE THE BUILDING AT THE INSTALLATION SITE IS WEATHER PROOF.
7. ANY PROPOSED SUBSTITUTIONS FOR STRUCTURAL MEMBERS, HARDWARE, ANCHOR TYPES, OR DETAILING INDICATED IN THESE DRAWINGS SHALL BE SUBMITTED TO AND REVIEWED BY THE ENGINEER OF RECORD PRIOR TO ORDERING MATERIALS. SUCH REVIEW SHALL BE BILLED ON A TIME AND MATERIALS BASIS TO THE CONTRACTOR WITH NO GUARANTEE THAT THE SUBSTITUTION WILL BE ALLOWED.
8. CONTRACTOR SHALL ENSURE ALL ROOF AREAS HAVE POSITIVE SLOPE TO ALL EXISTING ROOF DRAINS. PROVIDE ADDITIONAL CRICKETS OR BUILD UP ROOFING AS REQUIRED TO PROVIDE POSITIVE DRAINAGE AROUND ALL NEW CONSTRUCTION INCLUDING ANY CURBS, SLEEPERS, SUPPORT BASES, ETC.

STRUCTURAL STEEL NOTES

1. ALL STEEL CONSTRUCTION INCLUDING FABRICATION, ERECTION AND MATERIALS SHALL COMPLY WITH ALL REQUIREMENTS OF THE 2016 AISC SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS AND THE 2022 CBC.
2. ALL STRUCTURAL STEEL SHALL BE ASTM A36 UNLESS OTHERWISE NOTED. ALL WF (WIDE FLANGE) & WT (TEE) SHAPES TO BE ASTM A992 (F_Y=50,000 PSI) UNLESS NOTED OTHERWISE. ALL STRUCTURAL TUBING (TS OR HSS) SHALL BE ASTM A500 GRADE C (F_Y=50,000 PSI FOR RECT HSS & F_Y=46,000 PSI FOR ROUND HSS PER AISC MANUAL TABLE 2-4) ALL STEEL PIPE SHALL BE ASTM A53 (TYPE E OR S, GRADE B (F_Y=35,000 PSI)) SCHEDULE 40 WITH OUTSIDE DIAMETERS GIVEN UNLESS OTHERWISE NOTED.
3. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES UNLESS OTHERWISE NOTED AND SHALL CONFORM TO AISC & AWS D1.4. WHERE FILLET WELD SIZES ARE NOT SHOWN PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC SPECIFICATION. PAINTED SURFACES SHALL BE TOUCHED UP.
4. ALL WELDING SHALL BE PERFORMED BY QUALIFIED, CERTIFIED WELDERS.
5. HIGH STRENGTH BOLTS SHALL BE GALVANIZED ASTM F3125/F3125M GRADE A325 MINIMUM. BOLTED CONNECTIONS SHALL BE BEARING TYPE. SEE PLANS FOR LOCATION, NUMBER, & SIZE OF BOLTS.
6. HIGH STRENGTH BOLT NUTS SHALL BE ASTM A563/A563M AND WASHERS SHALL BE ASTM F436/ F436M.
7. THREADED RODS SHALL BE ASTM F1554, GR 36 U.O.N. BOLTED CONNECTIONS SHALL BE BEARING TYPE.
8. ALL HOLES FOR BOLTED CONNECTIONS SHALL BE 1/16" LARGER THAN THE NOMINAL BOLT DIAMETER. USE STANDARD AISC GAGE AND PITCH FOR BOLTS EXCEPT AS NOTED OTHERWISE. HOLES FOR ANCHOR BOLTS IN BASE PLATES MAY BE AISC "OVERSIZE" HOLES WHERE ACCOMPANIED BY OVERSIZED HARDENED HOT DIPPED GALVANIZED WASHERS.
9. ALL SHOP FABRICATED STEEL STRUCTURAL MEMBERS FOR EXTERIOR USE SHALL BE HOT DIP GALVANIZED PER ASTM A123 AFTER FABRICATION & PAINTED PER CUSTOMER SPECIFICATIONS AS REQUIRED. STEEL FOR INTERIOR USE SHALL BE SHOP COAT OR GALVANIZED & PAINTED.
10. ALL FIELD FABRICATED GALVANIZED STEEL THAT IS CUT, GROUND, DRILLED, WELDED OR DAMAGED SHALL BE TREATED WITH "ZINC RICH" COLD GALVANIZING SPRAY OR COATING. NO RAW STEEL SHALL BE EXPOSED.
11. AT ALL WEB STIFFENER PLATES LEAVE ¾"ø (OR K, WHICHEVER IS LARGER) HOLE @ WEB/FLANGE INTERSECTION UNLESS NOTED OTHERWISE.
12. U-BOLTS AT ANTENNA & RRU MOUNT TO BE GALVANIZED SAE J429, GRADE 2 WITH J995 NUTS U.O.N.
13. ALL STRUT MEMBERS USED IN EXTERIOR APPLICATIONS SHALL BE HOT DIPPED GALVANIZED PER ASTM A123 OR ASTM A153.
14. ALL STAINLESS STEEL BOLTED CONNECTIONS SHALL BE ASTM F593-17 ALLOY GROUP 1 OR 2 AND STAINLESS STEEL NUTS SHALL BE ASTM F594-09 (2015).

Issued For:

NORTH WILLITS

24710 REYNOLDS HWY
WILLITS, CA 95490

PREPARED FOR

verizon

2770 SHADELANDS DR, BLDG 11
WALNUT CREEK, CA 94598

Vendor:

EPIC WIRELESS GROUP LLC
Connecting a Wireless World

MDG LOCATION ID:	5000022867
PROJECT NO:	16608395
DRAWN BY:	J. ZHAR
CHECKED BY:	S. SAVIG
APPROVED BY:	K. SORENSEN

ISSUE STATUS

REV	DATE	DESCRIPTION	CAD
1	02/24/25	CD 100%	J.Z.
0	02/18/25	CD 90%	S.D.

Licensee:

REGISTERED PROFESSIONAL ENGINEER
KEVIN R. SORENSEN
No. 4469
STRUCTURAL
STATE OF CALIFORNIA

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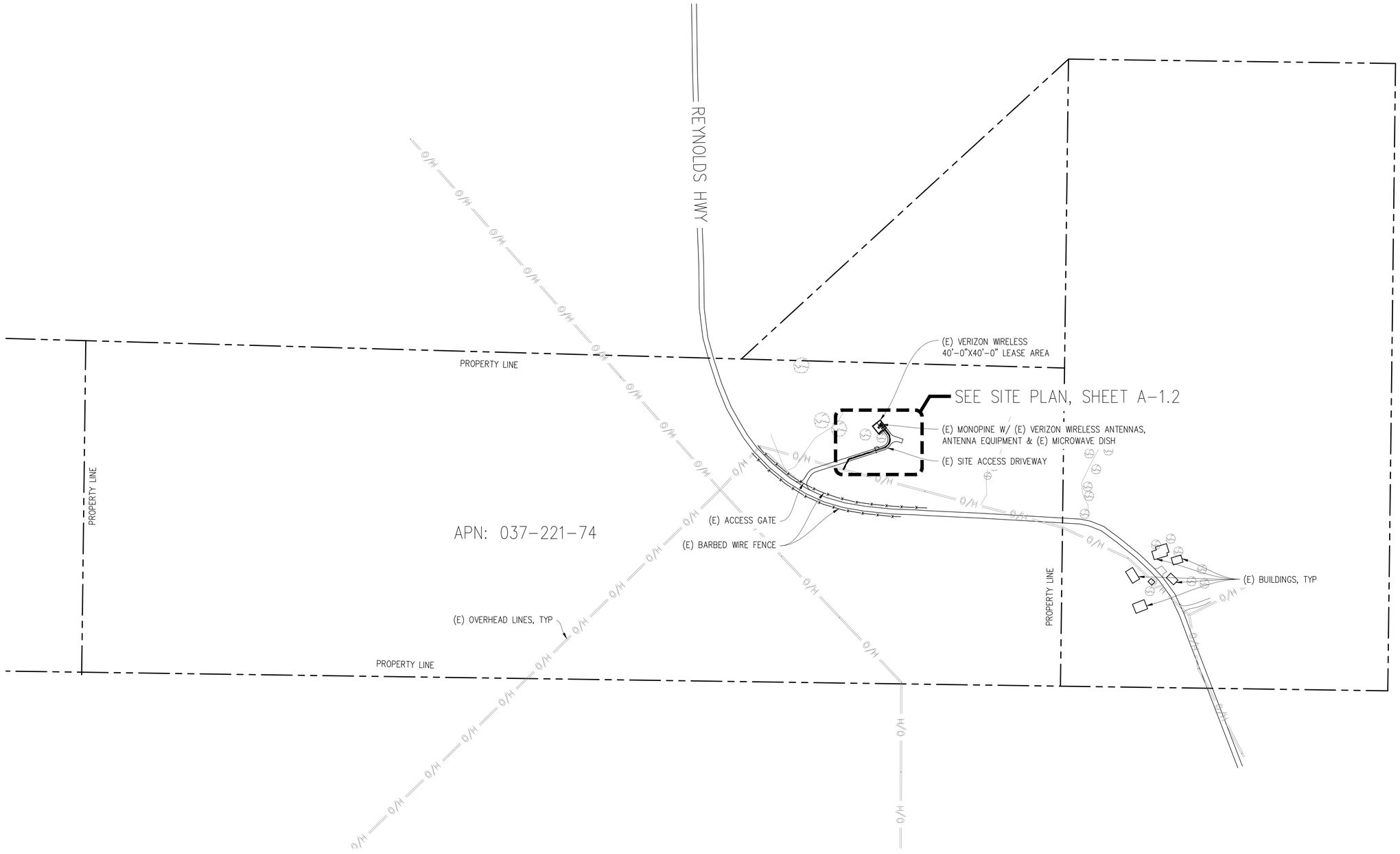
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SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

T-1.2



TN

OVERALL SITE PLAN

1"=200'-0"

0 100' 200' 400' 600' 1,000'

NOTES:

1. ALL (N) ANTENNAS, ANTENNA MOUNTS, ANTENNA EQUIPMENT, & EXPOSED CABLES TO BE PAINTED TO MATCH (N) MONOPINE & BE FULLY WITHIN MONOPINE BRANCH RADIUS.
2. ALL (N) ANTENNAS TO BE PAINTED TO MATCH (E) MONOPINE.

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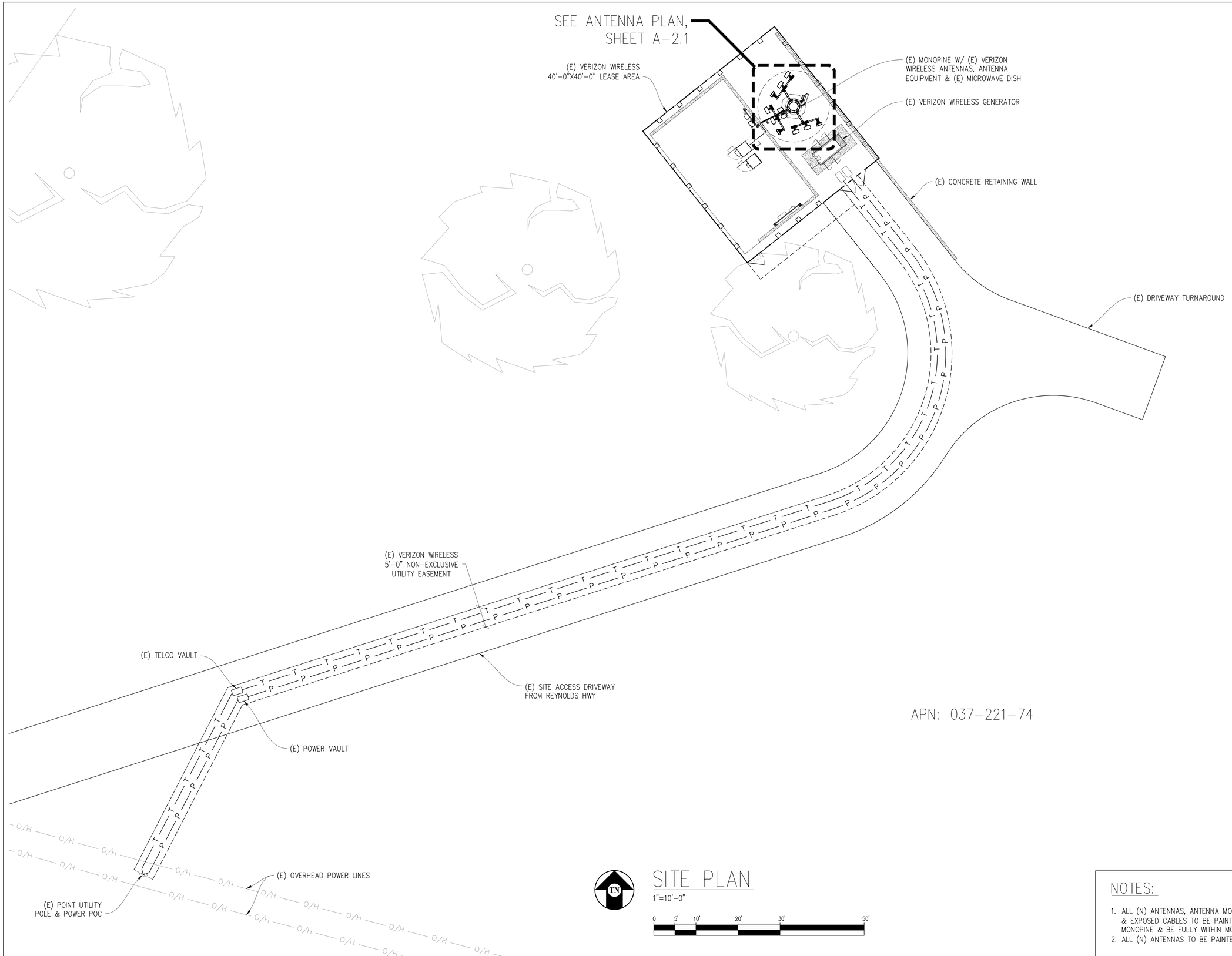
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SHEET TITLE:

OVERALL SITE PLAN

SHEET NUMBER:

A-1.1



SITE PLAN

1"=10'-0"

NOTES:

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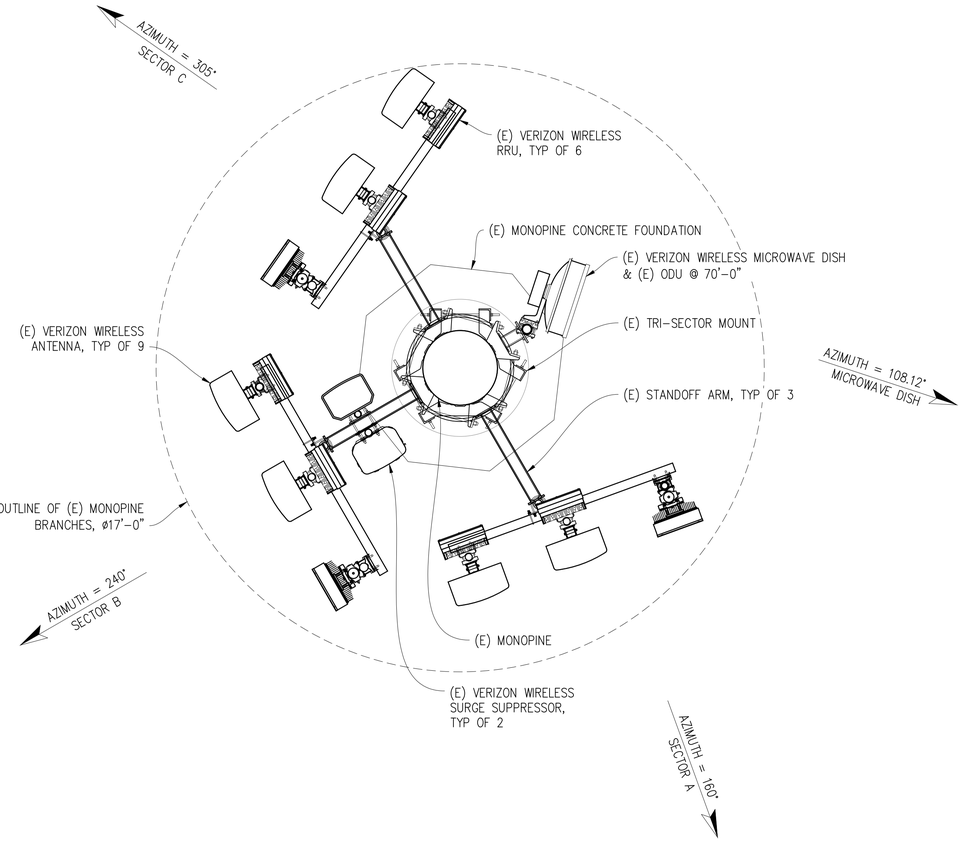
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SHEET TITLE:

SHEET TITLE: SITE PLAN

SHEET NUMBER:

A-1.2



ANTENNA PLAN

½"=1'-0"

0 6" 1' 2' 3' 5' 7' 10'

NOTES:

1. ALL (N) ANTENNAS, ANTENNA MOUNTS, ANTENNA EQUIPMENT, & EXPOSED CABLES TO BE PAINTED TO MATCH (N) MONOPINE & BE FULLY WITHIN MONOPINE BRANCH RADIUS.
2. ALL (N) ANTENNAS TO BE PAINTED TO MATCH (E) MONOPINE.

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PREPARED FOR

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Vendor:

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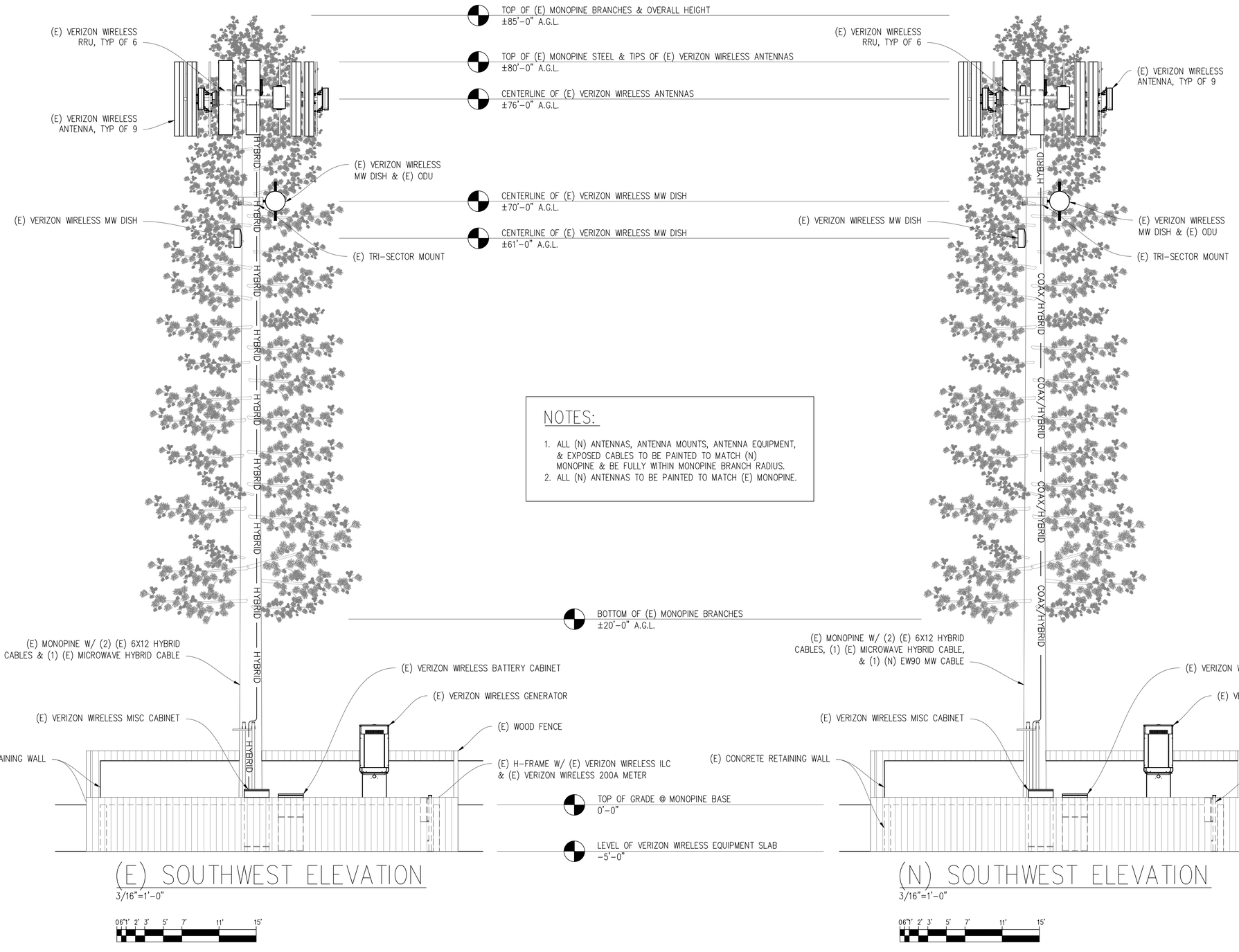
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SHEET TITLE:

ANTENNA PLAN

SHEET NUMBER:

A-2.1



NOTES:

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SHEET TITLE:

ELEVATIONS

SHEET NUMBER:

A-3.1

Resolution # PC 2015-0002

Planning Commission
County of Mendocino
Ukiah, California
July 16, 2015

U_2014-0012 - Richard Varian and Kathleen Jacobs-Varian

Resolution of the Planning Commission, County of Mendocino, State of California, certifying a Mitigated Negative Declaration and granting a Use Permit to authorize construction and operation of a wireless communication facility situated 3.25± miles northeast of Willits, lying on the north side of Reynolds Highway (CR 310), 2± miles southeast of its intersection with Highway 101, located at 24710 Reynolds Highway; APN 037-221-35.

WHEREAS, the applicant, Cellco Partnership, dba Verizon Wireless, filed an application for a Use Permit #U 2014-0012 with the Mendocino County Department of Planning and Building Services to authorize construction and operation of a wireless communication facility consisting of an 85 foot tall "monopine", monopole designed to resemble a pine tree, 9 panel antennas, auxiliary equipment as well as ground based equipment including a 30 kilowatt diesel generator with 132 gallon fuel storage tank and a 195 square foot equipment shelter and a new 200 foot long and 16 foot driveway (the "Project"), situated 3.25± miles northeast of Willits, lying on the north side of Reynolds Highway (CR 310), 2± miles southeast of its intersection with State Highway 101, located at 24710 Reynolds Highway; APN 037-221-35; General Plan Agricultural Lands (AG); Zoning Agriculture (AG 40) and Flood Plain Combining District (FP) and Agricultural Preserve (A); Supervisorial District 3; and

WHEREAS, a Mitigated Negative Declaration was prepared for the Project and noticed and made available on June 17, 2015 for agency and public review for the proposed project in accordance with the California Environmental Quality Act (CEQA) and the State and County CEQA Guidelines; and

WHEREAS, in accordance with applicable provisions of law, the Planning Commission held a public hearing on July 16, 2015, at which time the Planning Commission heard and received all relevant testimony and evidence presented orally or in writing regarding the Mitigated Negative Declaration and the Project. All interested persons were given an opportunity to hear and be heard regarding the Mitigated Negative Declaration and the Project; and

WHEREAS, the Planning Commission has had an opportunity to review this Resolution and finds that it accurately sets for the intentions of the Planning Commission regarding the Mitigated Negative Declaration and the Project.

NOW, THEREFORE, BE IT RESOLVED, that the Planning Commission makes the following findings;

Environmental Finding:

1. The environmental impacts identified in the initial study for the project can be adequately addressed through the conditions of approval or features of the project design so that no significant adverse environmental impacts will result from this project; therefore, a Mitigated Negative Declaration is certified.

General Plan Finding:

1. The proposed project is consistent with the property General Plan designation of Agricultural Lands (AG) and with applicable goals and policies of the General Plan as subject to the Conditions of Approval found in Exhibit A of the resolution.

Use Permit Findings:

1. That adequate utility, access roads, drainage and other necessary facilities have been or are being provided.

   Access to the project site will be provided by new 200 foot long and 16 foot driveway that extends from Reynolds Highway (CR 310). Power is available to support the project. Condition Number 15 will ensure that adequate drainage facilities will be provided. Condition Number 19 requires the private driveway approach onto the county road be improved and maintained to commercial standards as determined by the County Department of Transportation.

2. That the proposed use will not constitute a nuisance or be detrimental to the health, safety, peace, morals, comfort or general welfare of persons residing or working in or passing through the neighborhood of such proposed use, or be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the county.

   The nearest off-site residence is located approximately 1,500 feet southeast of the project site. The facility will not be accesses by anyone other than company personnel. Upon completing the Initial Study, staff did not find any impacts from the project that would constitute a nuisance or be detrimental to the health, safety, peace, morals, comfort or general welfare of persons residing or working in or passing through the neighborhood of such proposed use, or be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the county

3. That such use preserves the integrity of the zoning district.

   The A-G zoning district allows for the construction and operation of a wireless communication facility subject to obtaining a major use permit. Based on the small footprint of the project relative, 1,600 square foot lease area and 200 foot long and 16 foot wide new driveway, to the size of the subject property 120± acres, the project is consistent with the intent of and preserves the integrity of the A-G zoning district.

BE IT FURTHER RESOLVED that the Planning Commission hereby certifies the Mitigated Negative Declaration and the Mitigation Monitoring Program set forth in the Conditions of Approval. The Planning Commission certifies that the Mitigated Negative Declaration has been completed, reviewed, and considered, together with the comments received during the public review process, in compliance with CEQA and State and County CEQA Guidelines, and finds that the Mitigated Negative Declaration reflects the independent judgment and analysis of the Planning Commission.

BE IT FURTHER RESOLVED that the Planning Commission hereby grants the requested Use Permit #U 2014-0012, subject to the Conditions of Approval in Exhibit "A", attached hereto.

BE IT FURTHER RESOLVED that the Planning Commission designates the Secretary as the custodian of the document and other material which constitutes the record of proceedings upon which the decision herein is based. These documents may be found at the office of the County of Mendocino Planning and Building Services, 860 North Bush Street, Ukiah, CA 95482.

BE IT FURTHER RESOLVED that the Planning Commission action shall be final on the 11th day after the date of the Resolution unless an appeal is taken.

Molly E. Warner

MOLLY WARNER, Chair
Mendocino County Planning Commission

ATTEST: ADRIENNE M. THOMPSON
Secretary to the Planning Commission

By Adrienne M. Thompson

I hereby certify that according to the Provisions of Government Code Section 25103 delivery of this document has been made

APPROVED AS TO FORM
DOUGLAS L. LOSAK, Interim County Counsel

Deputy

BY: STEVEN D. DUNNICLIFF
Director

EXHIBIT A

CONDITIONS OF APPROVAL
USE PERMIT - U_2014-0012
JULY 16, 2015

Construction and operation of a wireless communication facility situated 3.25± miles northeast of Willits, lying on the north side of Reynolds Highway (CR 310), 2± miles southeast of its intersection with Highway 101, located at 24710 Reynolds Highway; APN 037-221-35.

APPROVED PROJECT DESCRIPTION: The construction and operation of a wireless communication facility consisting of an 85 foot tall "monopine", monopole designed to resemble a pine tree, 9 panel antennas, auxiliary equipment as well as ground based equipment including a 30 kilowatt diesel generator with 132 gallon fuel storage tank and a 195 square foot equipment shelter.

CONDITIONS OF APPROVAL:

Aesthetics

**1. Exterior surfaces of structures and equipment shall have subdued colors and non-reflective materials selected to blend with their surroundings. Color(s) shall be reviewed by the Department of Planning and Building Services for approval prior to issuance of a building permit.

Prior to issuance of a building permit, the applicant shall provide samples of colors to be used to the Department of Planning and Building Services for approval along with a statement that exterior surface of structure and equipment will be made of non-reflective materials. Department of Planning and Building Services planning staff will verify compliance with this condition prior to final of building permit.

**2. The total height of the facility including antennas will not exceed 85 feet in height above ground level. Upon completion of the installation of the facility and prior to final of the building permit, the applicant shall confirm that the height is no greater than approved, and shall submit a written certification to the County of the actual height. This condition is a concealment element of the project and exceeding this height limitation shall require a modification of this Use Permit.

Upon completion of the installation of the facility and prior to final of the building permit, the applicant shall confirm that the height is no greater than approved, and shall submit a written certification to the County of the actual height.

**3. Existing trees and other vegetation, which will provide screening for the proposed facility and associated access roads, shall be protected from damage. No trees or other vegetation that provide visual screening of the communications facility shall be removed after project completion except to comply with fire safety regulations or to eliminate safety hazards. Tree trimming shall be limited to the minimum necessary for operation of the facility. Activities such as removal of poison oak and mowing field are not included in this limitation.

No trees are proposed to be or need to be removed to support the project. The applicant shall provide a written request to the Department of Planning and Building Services prior to removing or trimming any trees within 300 feet of the facility. Request shall include photos of subject trees and a written description including number, size and type of trees/vegetation to be removed or trimmed along with justification for removal/trimming. No trees/vegetation shall be removed unless approved in writing be the Department.

**4. Prior to issuance of a building permit, the applicant shall provide an irrevocable letter of credit, bond, certificate of deposit, or other reasonable form of security satisfactory to County Counsel, sufficient to fund the removal of the facility and restoration of the site in the event that the applicant abandons operations or fails to comply with requirements for removal of facilities and restoration of the site.

Prior to issuance of a building permit, the applicant shall provide the Department of Planning and Building Services an irrevocable letter of credit, bond, certificate of deposit, or other reasonable form of security satisfactory to County Counsel

**5. If use of any portion of the proposed facility is discontinued for more than one year, all parts of the facility not in use, above grade, shall be completely removed from the site, and the site shall be restored to a natural-appearing condition.

The applicant shall provide written notification to the Department of Planning and Building Services if they discontinue use of any portion of the facility along with a plan to remove subject equipment and restore the site if applicable.

**6. Branches of the "monopine" shall extend beyond the antennas and fully conceal the supporting structure and antennas. The branches must:

(i) Be constructed to a density of 3.5 branches for each one vertical foot of pole, and

(ii) Start attachment at no greater than twenty (20) feet above finished grade and continue to the top of the pole.

The applicant shall contact the Department of Planning and Building Services upon completing the "monopine". Prior to finalizing the building permit, Department of Planning and Building Services planning staff shall verify that the "monopine" construction is consistent with this condition. Also see Condition Number 8.

**7. The antenna array shall not extend more than thirty (30) inches from the structure to which it is attached.

The applicant shall demonstrate compliance with this condition on building plans submitted with building permit. The building inspector shall verify compliance with this condition during final inspection and prior to finalizing building permit.

**8 An evaluation of the facility's stealth capability shall be submitted for review and approval by the Department of Planning and Building Services after the initial construction, one year following construction and every five years thereafter. The report shall assess surrounding vegetation growth, including height and density in the vicinity, and a color assessment to assess fading of material. Replacement or remediation of the wireless facility shall be performed by the applicant if required by the Department of Planning and Building Services.

The applicant shall submit an evaluation of the facility as described above. Department of Planning and Building Services planning staff shall notify the applicant if any replacement or remediation of the wireless facility is necessary. The applicant should anticipate the Department's expectation to complete identified work within 90 days of being notified by the Department. Failure to complete work may be grounds for revocation of this permit. See Condition Number 29.

**9. Exterior light fixtures shall be designed or located so that only reflected, non-glaring light is visible from beyond the immediate vicinity of the site, and shall be turned off except when in use by facility personnel. No aircraft warning lighting shall be installed.

The applicant shall demonstrate compliance with this condition by identifying the location and types of all light fixtures on building plans submitted with building permit.

Air Quality

10. Prior to the development phase of the project, the applicant shall contact the Mendocino County Air Quality Management District for a determination as to the need for a permit from the District for the proposed generator.

11. All grading activities must comply with District Regulation 1 Rule 430 regarding fugitive dust emissions.

Cultural Resources

**12. A professional archaeologist shall monitor all ground disturbing activities related to the project.

The applicant shall notify the Department of Planning and Building Services prior to any ground disturbing activities related to the project. The applicant shall provide in writing the name and qualifications of the professional archaeologist to be approved by the Department. Should archaeological resources be discovered, all work shall be halted and the applicant shall contact the Department of Planning and Building Services immediately. Work will not commence until such time that all requirements of Chapter 22.12 of the Mendocino County Code relating to archaeological discoveries have been satisfied as verified by the Department.

13. In the event that archaeological resources are encountered on the site, further disturbance in the immediate vicinity of the find shall be halted until all requirements of Chapter 22.12 of the Mendocino County Code relating to archaeological discoveries have been satisfied.

Geology and Soils/Hydrology and Water Quality

14. As soon as practical following completion of any earth disturbance, vegetative ground cover or driveway surfacing equal to or better than existing shall be reestablished on all disturbed portions of the site. Project construction activities are limited to the project footprint. Trenches will need to be filled and resurfaced to match the original surface.

15. All grading and site preparation, at a minimum, shall adhere to the following "Best Management Practices": The applicant shall submit to the Department of Planning and Building Services an acknowledgement of these grading and site preparation standards.

    a. That adequate drainage controls be constructed and maintained in such a manner as to prevent contamination of surface and/or ground water, and to prevent erosion.

    b. The applicant shall endeavor to protect and maintain as much vegetation on the site as possible, removing only as much as required to conduct the operation.

    c. All concentrated water flows, shall be discharged into a functioning storm drain system or into a natural drainage area well away from the top of banks.

    d. Temporary erosion control measures shall be in place at the end of each day's work, and shall be maintained until permanent protection is established.

    e. Erosion control measures shall include but are not limited to: seeding and mulching exposed soil on hill slopes, strategic placement of hay bales below areas subject to sheet and rill erosion, and installation of bioengineering materials where necessary. Erosion control measures shall be in place prior to October 1st.

    f. All earth-moving activities shall be conducted between May 15th and October 15th of any given calendar year unless an Erosion and Sedimentation Prevention Plan, prepared by a registered civil engineer, has been submitted and approved by the Department of Planning

and Building Services which outlines wet weather earthmoving and drainage control protocols. Such plan shall include all appropriate Best Management Practices that shall be installed in accordance with the approved Erosion and Sediment Prevention Plan prior to the start of construction during the rainy season.

g. Pursuant to the California Building Code and Mendocino County Building Regulations a grading permit will be required unless exempted by the Building Official or exempt by one of the following:

   1. An excavation that (1) is less than 2 feet (610 mm) in depth or (2) does not create a cut slope greater than 5 feet (1,524 mm) in height and steeper than 1 unit vertical in 1.5 units horizontal (66.7% slope).

   2. A fill less than 1 foot (305 mm) in depth and placed on natural terrain with a slope flatter than 1 unit vertical in 5 units horizontal (20% slope), or less than 3 feet (914 mm) in depth, not intended to support structures, that does not exceed 50 cubic yards (38.3 m^3) on any one lot and does not obstruct a drainage.

Noise

16. The generator used to support the facility shall be equipped with mufflers and spark arresters, and shall not produce noise levels exceeding 50 dBa at the nearest off-site residence. Routine testing and maintenance shall be limited to weekdays between 8:30 a.m. and 4:30 p.m. Repairs and emergency use are not included in this limitation. If necessary, the generator shall be enclosed by a noise barrier shelter designed by an acoustical engineer and remain oriented and screened to limit excessive noise to surrounding residences.

Public Services

17. The applicant shall complete California Department of Forestry and Fire Protection (CalFire) standard fire safe requirements pursuant to CalFire File #194-14. The applicant shall obtain written verification from CalFire stating that this condition has been met to the satisfaction of CalFire and submit it to the Department of Planning and Building Services.

18. The facility shall provide if requested, space for any public emergency service provider to locate communication equipment on the tower, provided no interference to function will result at a minimum or no fee.

Transportation/Traffic

19. In conformance with encroachment permit procedures administered by the Mendocino County Department of Transportation, the applicant shall construct and maintain a commercial driveway approach onto Reynolds Highway (CR 310), to a minimum width of eighteen (18) feet, and improved length of twenty (20) feet from the edge of the County road, to be surfaced with asphalt concrete.

20. Prior to any work within County rights of way, the applicant shall obtain an encroachment permit from the Mendocino County Department of Transportation.

Wireless Guidelines

21. Prior to the final inspection by the Building Division of the Department of Planning and Building Services, an identification sign for each company responsible for operation and maintenance of facilities at the site, no larger than one square foot, shall be mounted on the fence exterior in a location visible when approached from the road, and shall provide the name, address, and emergency telephone number of the responsible companies. The address assigned to the site by the Planning and Building Services Department shall be posted.

22. The antennas and supporting structure shall be inspected every ten years, and following significant storm or seismic events, by a structural engineer licensed in the State of California to assess their structural integrity, and a report of the engineer's findings shall be submitted to the Planning and Building Services Department.

23. Prior to commencement of operations, all surplus construction materials and debris, including cleared vegetation, shall be removed from the site to a proper disposal facility. Thereafter the site shall be kept free of refuse.

24. By commencing work allowed by this permit, the applicant agrees to negotiate in good faith with third parties requesting shared use of the site and to require no more than a reasonable charge for collocation.

25. One or more warning signs consistent with FCC and ANSI regulations shall be displayed in close proximity to the antenna tower.

Standard Conditions

26. The use and occupancy of the premises shall be established and maintained in conformance with the provisions of Title 20 of the Mendocino County Code unless modified by conditions of the use permit.

27. The application along with supplemental exhibits and related material shall be considered elements of this entitlement and compliance therewith shall be mandatory, unless the Planning Commission has approved a modification.

28. This permit is subject to the securing of all necessary permits for the proposed development and eventual use from County, State and Federal agencies having jurisdiction. Any requirements imposed by an agency having jurisdiction shall be considered a condition of this permit.

29. This permit shall be subject to revocation or modification by the Planning Commission upon a finding of any one or more of the following grounds:

    a. That the permit was obtained or extended by fraud.

    b. That one or more of the conditions upon which the permit was granted have been violated.

    c. That the use for which the permit was granted is conducted in a manner detrimental to the public health, welfare or safety, or is a nuisance.

    Any revocation shall proceed as specified in Title 20 of the Mendocino County Code.

30. This permit is issued without a legal determination having been made upon the number, size or shape of parcels encompassed within the permit boundaries. Should, at any time, a legal determination be made that the number, size or shape of parcels within the permit boundaries are different than that which is legally required by this permit, this permit shall become null and void.

31. This permit is issued for a period of ten years, and shall expire on **July 16, 2025.** The applicant has the sole responsibility for renewing this permit before the expiration date. The county will not provide a notice prior to the expiration date.

32. This permit shall become effective after all applicable appeal periods have expired or appeal processes have been exhausted. Failure of the applicant to make use of this permit within two years shall result in the automatic expiration of this permit.

33. Future modifications shall be considered cumulatively to determine if request constitutes a "substantial change" to the facility under applicable federal law.

Fish and Wildlife Filing Fee

34. This entitlement does not become effective or operative, and no work shall be commenced under this entitlement, until the California Department of Fish and Wildlife filing fees required or authorized by Section 711.4 of the Fish and Game Code are submitted to the Mendocino County Department of Planning and Building Services, Said fee of $2,260.00 shall be made payable to the Mendocino County Clerk and submitted to the Department of Planning and Building Services prior to August 3, 2015 (within 5 days of the end of any appeal periods). Any waiver of the fee shall be on a form issued by the Department of Fish and Wildlife upon their finding that the project has "*no effect*" on the environment. If the project is appealed, the payment will be held by the Department of Planning and Building Services until the appeal is decided. Depending on the outcome of the appeal, the payment will either be filed with the County Clerk (if the project is approved) or returned to the payer (if the project is denied). Failure to pay this fee by the specified deadline shall result in the entitlement becoming null and void. **The applicant has the sole responsibility to insure timely compliance with this condition.**

** Indicates Mitigation Monitoring and Reporting Program conditions associated with the Environmental document.

Date: **May 09, 2025**

Mr. Aaron Gooden
Vertical Bridge
750 Park of Commerce Drive, Suite 200
Boca Raton, FL 33487

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

Subject:	**Structural Analysis Report**	
Carrier Designation:	***Verizon Wireless* Co-Locate**	
	Site Number:	5000022867
	Site Name:	North Willits
Vertical Bridge Designation:	**Site Number:**	US-CA-7394
	Site Name:	North Willits
Engineering Firm Designation:	**B+T Group Project Number:**	25-002952
Site Data:	**24710 Reynolds Highway - Willits, Mendocino County, CA 95490** **Latitude *39° 27' 6.26"*, Longitude *-123° 19' 37.60"*** **80 Foot – Monopine Tower**	

Dear Mr. Aaron,

B+T Group is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above-mentioned tower.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

Proposed Equipment Configuration **Sufficient Capacity**

This analysis has been performed in accordance with the 2022 California Building Code based upon an ultimate 3-second gust wind speed of 92 mph. Applicable standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Sheharyar Malik

Respectfully submitted by: B+T Engineering, Inc.



Dinesh Bhat, P.E.

tnxTower Report - version 8.3.1.2

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1) INTRODUCTION

This tower is an 80 ft. Monopine Tower.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	92 mph
Exposure Category:	C
Topographic Factor:	1
Seismic Ss:	2.616
Seismic S1:	0.968
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
76.0	76.0	1	Raycap	3315	1	1.625
		1	Raycap	6627		
		3	Ericsson	RRUS- 4490		
		3	Ericsson	RRUS- 4890		
		3	Ericsson	AIR 6419		
		6	Jma Wireless	X7CQAP-FRO-845-V		
		3	--	T-Arm Mount		
70.0	70.0	1	Aviat Networks	4818 A2C	2	EW90
		1	Mti Wireless Edge	MT-518M49VH/NK		
		1	SitePro1	LWRM+MM01+P360		

Note: Remaining Rights up to 40,000 sq. inches has been considered in the analysis.

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
61.0	61.0	1	Mti Wireless Edge	MTI-MT518M49/VH-NK	--	--
		1	--	ODU		
		1	--	Standoff-8"		
		1	--	Tri / Quad Sector Collar Mount		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
Tower Data	Structural Analysis by Streamline Engineering and Design	Date: 03/17/2025	Vertical Bridge
Foundation Data	Structural Analysis by Streamline Engineering and Design	Date: 03/17/2025	Vertical Bridge
Soil Properties	*Information Not Available*		
Existing Loading	Structural Analysis by Streamline Engineering and Design	Date: 03/17/2025	Vertical Bridge
Proposed Loading	VZW Collocation Application - P-071783 (Version 2)	Date: 03/31/2025	Vertical Bridge

3.1) Analysis Method

tnxTower (version 8.3.1.2), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

1) The tower and structures were maintained in accordance with the - TIA-222 standard.
2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

This analysis may be affected if any assumptions are not valid or have been made in error. B+T Group should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L1	80 - 28	Pole	TP36.775x21.5x0.25	1	-15.218	1627.300	46.5	Pass
L2	28 - 0	Pole	TP44.5x34.806x0.313	2	-24.137	2563.970	51.8	Pass
							Summary	
						Pole (L2)	51.8	Pass
						Rating =	51.8	Pass

Table 5 - Tower Component Stresses vs. Capacity

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	Base	49.8	Pass
1	Base Plate	Base	38.5	Pass
1	Base Foundation (Structure)	Base	48.0	Pass
1	Base Foundation (Soil Interaction)	Base	47.9	Pass

Structure Rating (max from all components) =	51.8%

Notes:
1) See additional documentation in “Appendix C - Additional Calculations” for calculations supporting the % capacity consumed.

4.1) Recommendations

The tower and its foundations have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

The results of the tilt and twist values for a 60 mph 3-second gust service wind speed per the TIA-222-H Standard are given below:

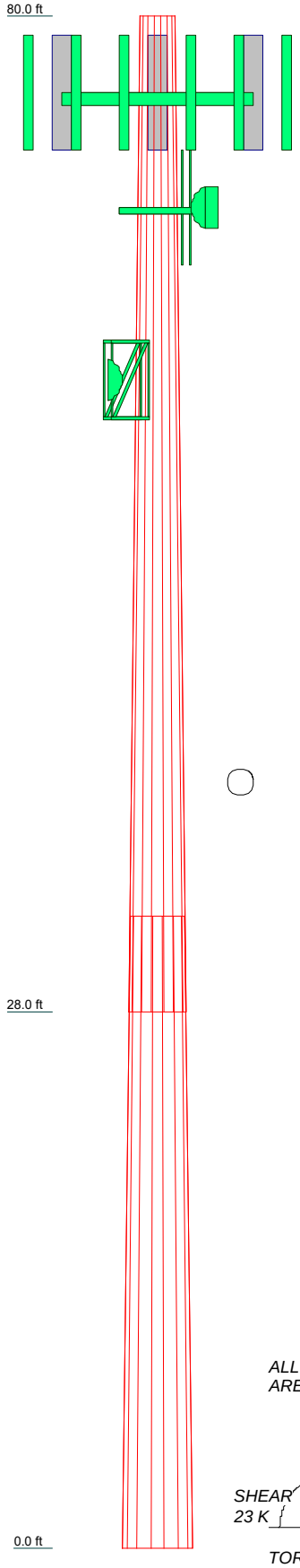
Table 6 – Proposed Equipment Tilt-Sway Results for 60 mph Service Wind

Elevation (ft)	*Dish Model*	*Diameter (ft)*	*Tilt (°)*	*Twist (°)*
70.0	MT-518M49VH/NK	2.1492	0.785	0.004

APPENDIX A

TNXTOWER OUTPUT

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	52.000	18	0.250	5.000	21.500	36.775	A572-65	4.1
2	33.000	18	0.312		34.806	44.500		4.4
								8.4



ALL REACTIONS ARE FACTORED

AXIAL 24 K

SHEAR 23 K

MOMENT 1330 kip-ft

TORQUE 1 kip-ft

REACTIONS - 92 mph WIND

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower is located in Dallas County, Texas.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 92 mph basic wind in accordance with the TIA-222-H Standard.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category II.
6. Topographic Category 1 with Crest Height of 0.000 ft
7. TOWER RATING: 51.8%

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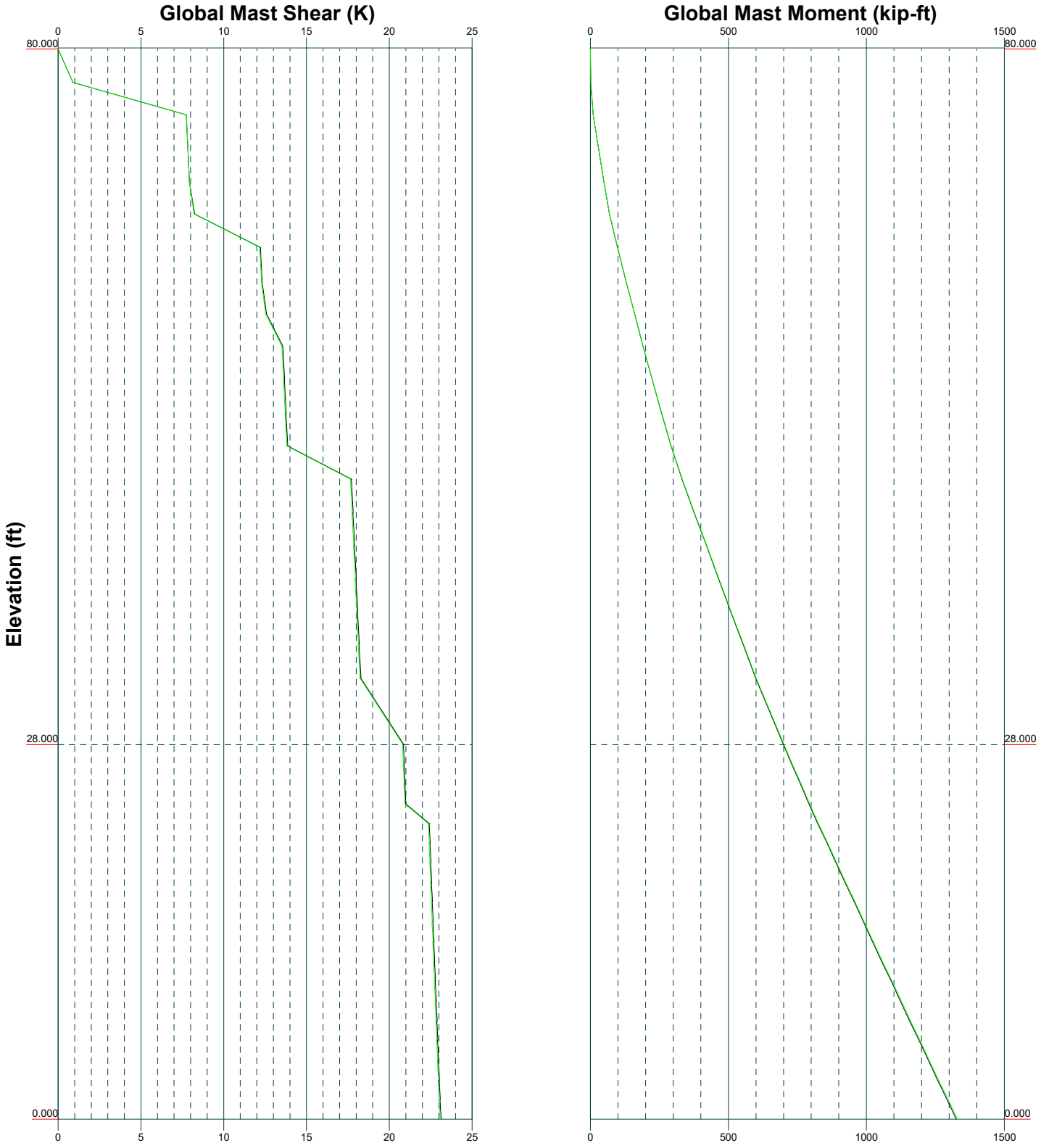
Job:	***25-002952 - North Willits, CA (Site# US-CA-7394***		
Project:			
Client: Vertical Bridge	Drawn by: ANANDRAY SHET	App'd:	
Code: TIA-222-H	Date: 05/05/25	Scale: NTS	
Path: E:\SA JOBS\2025\5 May\May 3\25-002952_North Willits US-CA-7394----Anand---Adarsh---QCD\tnxTower\25-002952_North Willits_CA.eri		Dwg No. E-1	

TIA-222-H - 92 mph Exposure C

Vx Vz

Maximum Values

Mx Mz



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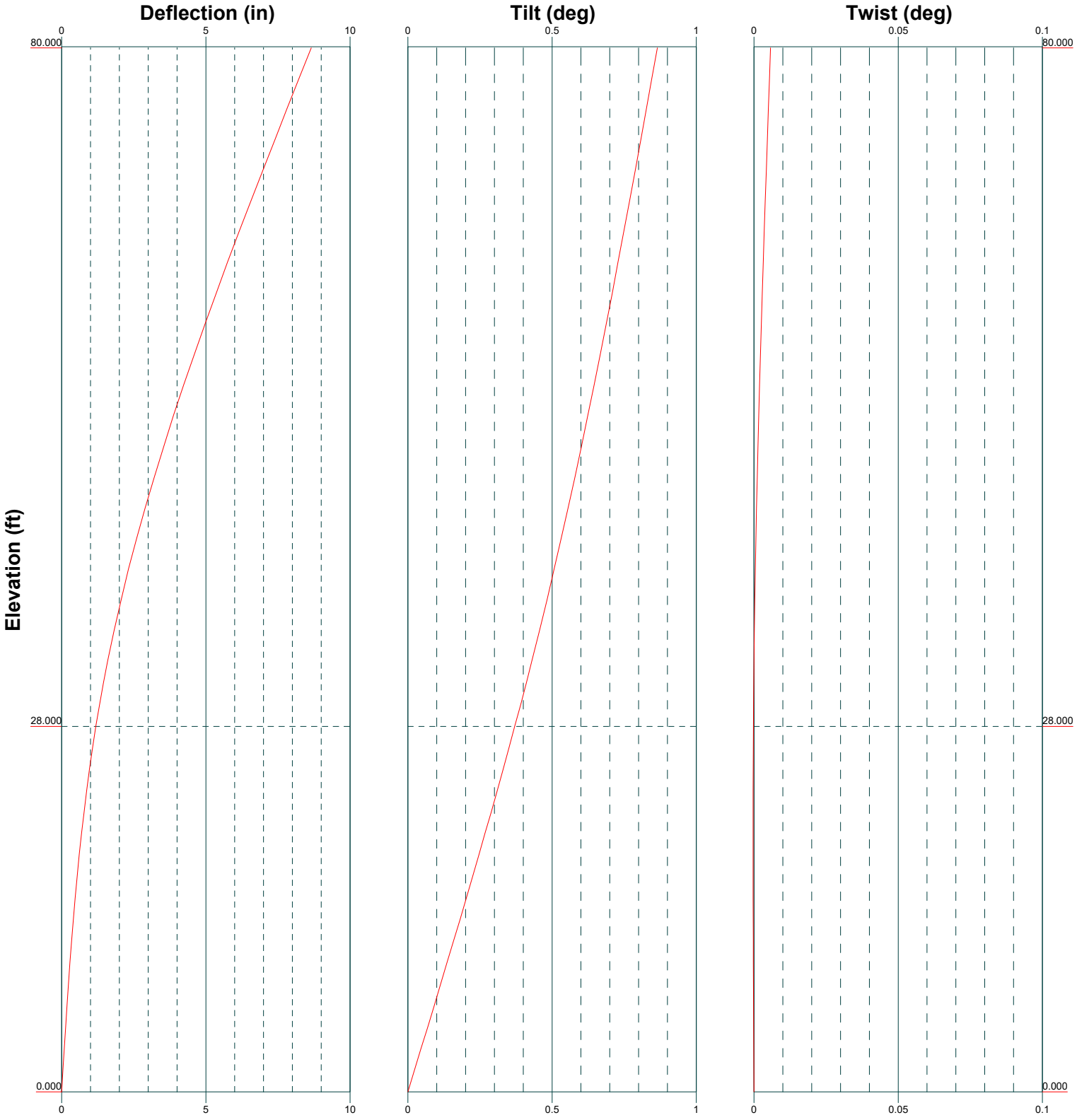
Phone: (918) 587-4630

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Job:	***25-002952 - North Willits, CA (Site# US-CA-7394***		
Project:			
Client: Vertical Bridge		Drawn by: ANANDRAY SHET	App'd:
Code: TIA-222-H		Date: 05/05/25	Scale: NTS
Path: E:\SA JOBS\2025\5 May\May 3\25-002952_North Willits US-CA-7394----Anand---Adarsh---QCD\tnxTower\25-002952_North Willits_CA.eri			Dwg No. E-4

TIA-222-H - Service - 60 mph

Maximum Values

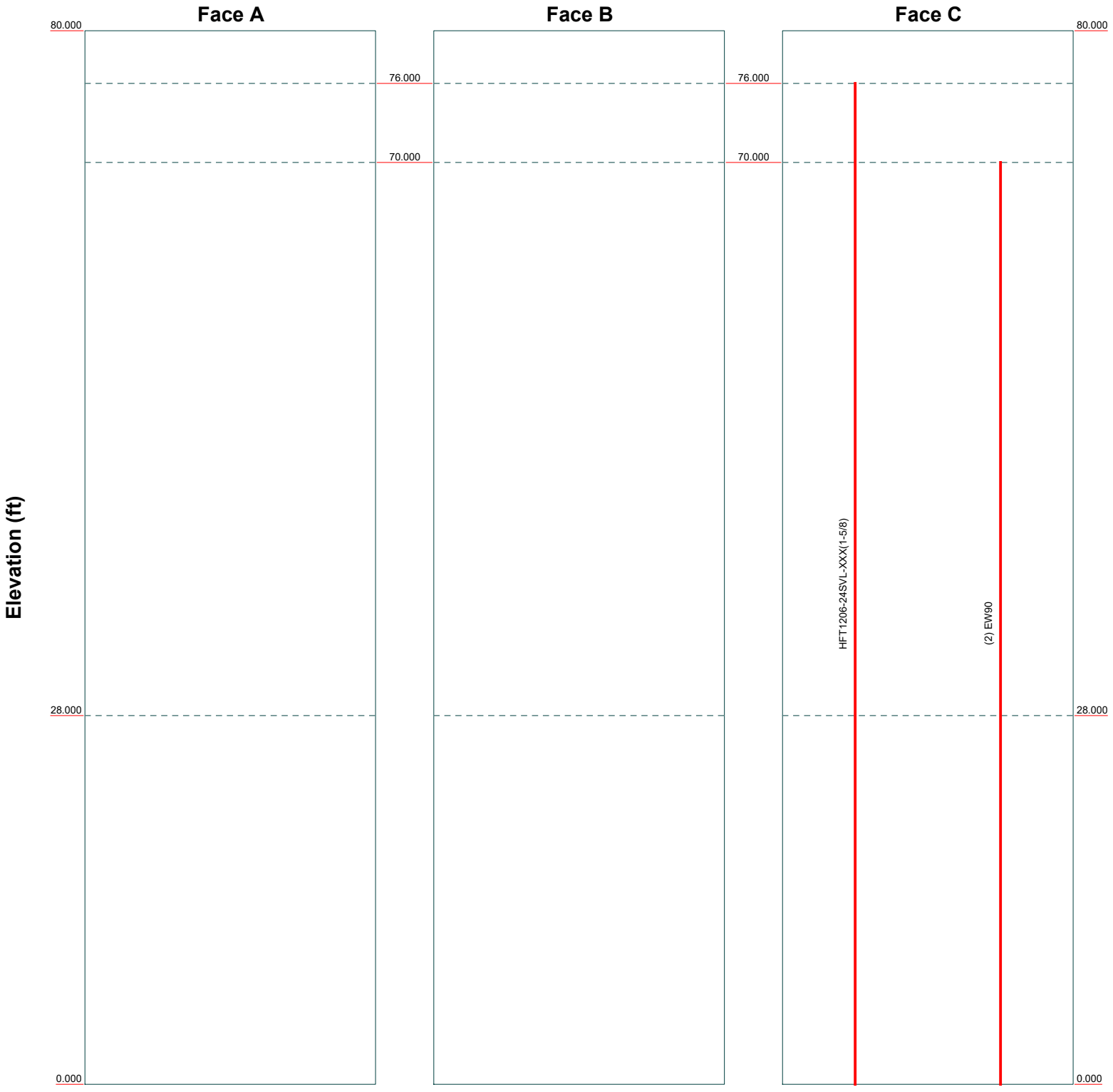


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Job: 25-002952 - North Willits, CA (Site# US-CA-7394			
Project:			
Client: Vertical Bridge	Drawn by: ANANDRAY SHET	App'd:	
Code: TIA-222-H	Date: 05/05/25	Scale: NTS	
Path: E:\SA JOBS\2025\5 May\May 3\25-002952_North Willits US-CA-7394----Anand---Adarsh---QCD\tnxTower\25-002952_North Willits_CA.eri		Dwg No. E-5	

Feed Line Distribution Chart
0' - 80'

Round | Flat | App In Face | App Out Face | Truss Leg



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Job:	***25-002952 - North Willits, CA (Site# US-CA-7394***		
Project:			
Client: Vertical Bridge	Drawn by: ANANDRAY SHET	App'd:	
Code: TIA-222-H	Date: 05/05/25	Scale: NTS	
Path: E:\SA JOBS\2025\5 May\May 3\25-002952_North Willits US-CA-7394----Anand---Adarsh---QCD\tnxTower\25-002952_North Willits_CA.eri		Dwg No. E-7	

Tower Input Data

The tower is a monopole.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

Tower is located in Dallas County, Texas.
Tower base elevation above sea level: 1393.000 ft.
Basic wind speed of 92 mph.
Risk Category II.
Exposure Category C.
Simplified Topographic Factor Procedure for wind speed-up calculations is used.
Topographic Category: 1.
Crest Height: 0.000 ft.
Deflections calculated using a wind speed of 60 mph.
Non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.
Tower analysis based on target reliabilities in accordance with Annex S.
Load Modification Factors used: $K_{es}(F_w) = 0.95$.
Maximum demand-capacity ratio is: 1.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

	Consider Moments - Legs		Assume Legs Pinned		Calculate Redundant Bracing Forces
	Consider Moments - Horizontals	√	Assume Rigid Index Plate		Ignore Redundant Members in FEA
	Consider Moments - Diagonals	√	Use Clear Spans For Wind Area		SR Leg Bolts Resist Compression
	Use Moment Magnification		Use Clear Spans For KL/r		All Leg Panels Have Same Allowable
√	Use Code Stress Ratios		Retension Guys To Initial Tension		Offset Girt At Foundation
√	Use Code Safety Factors - Guys	√	Bypass Mast Stability Checks	√	Consider Feed Line Torque
	Escalate Ice	√	Use Azimuth Dish Coefficients		Include Angle Block Shear Check
	Always Use Max Kz	√	Project Wind Area of Appurtenances		Use TIA-222-H Bracing Resist. Exemption
	Kz In Exposure D Hurricane Region		Alternative Appurt. EPA Calculation		Use TIA-222-H Tension Splice Exemption
	Include Bolts In Member Capacity		Autocalc Torque Arm Areas		Poles
	Leg Bolts Are At Top Of Section		Add IBC .6D+W Combination	√	Include Shear-Torsion Interaction
	Secondary Horizontal Braces Leg		Sort Capacity Reports By Component		Always Use Sub-Critical Flow
	Use Diamond Inner Bracing (4 Sided)		Triangulate Diamond Inner Bracing		Use Top Mounted Sockets
	SR Members Have Cut Ends		Treat Feed Line Bundles As Cylinder		Pole Without Linear Attachments
	SR Members Are Concentric		Ignore KL/ry For 60 Deg. Angle Legs		Pole With Shroud Or No Appurtenances
	Distribute Leg Loads As Uniform		Use ASCE 10 X-Brace Ly Rules		Outside and Inside Corner Radii Are Known
	Use Special Wind Profile				

Tapered Pole Section Geometry

Section	*Elevation* *ft*	*Section Length* *ft*	*Splice Length* *ft*	*Number of Sides*	*Top Diameter* *in*	*Bottom Diameter* *in*	*Wall Thickness* *in*	*Bend Radius* *in*	*Pole Grade*
L1	80.000-28.000	52.000	5.000	18	21.500	36.775	0.250	1.000	A572-65 (65 ksi)
L2	28.000-0.000	33.000		18	34.806	44.500	0.312	1.250	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
L1	21.793	16.862	961.969	7.544	10.922	88.076	1925.204	8.433	3.344	13.376
	37.304	28.983	4884.893	12.966	18.682	261.480	9776.214	14.494	6.032	24.13
L2	36.786	34.213	5142.989	12.245	17.682	290.867	10292.746	17.110	5.576	17.843
	45.138	43.828	10811.668	15.687	22.606	478.265	21637.562	21.918	7.282	23.302

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 80.000-28.000				1	1	1			
L2 28.000-0.000				1	1	1			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight klf
HFT1206-24SVL-XXX(1-5/8) *	C	No	Surface Ar (CaAa)	76.000 - 0.000	1	1	0.000 0.050	1.710		0.002
EW90 *	C	No	Surface Ar (CaAa)	70.000 - 0.000	2	2	0.060 0.130	0.987		0.000

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	C_AA_A ft^2/ft	Weight klf
*								

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	80.000-28.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	16.498	0.000	0.119

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L2	28.000-0.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	10.315	0.000	0.072

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	80.000-28.000	-0.297	2.339	-0.192	1.512
L2	28.000-0.000	-0.348	2.656	-0.223	1.702

Note: For pole sections, center of pressure calculations do not consider feed line shielding.

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L1	1	HFT1206-24SVL-XXX(1-5/8)	28.00 - 76.00	1.0000	1.0000
L1	3	EW90	28.00 - 70.00	1.0000	1.0000
L2	1	HFT1206-24SVL-XXX(1-5/8)	0.00 - 28.00	1.0000	1.0000
L2	3	EW90	0.00 - 28.00	1.0000	1.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
3ft Branches	C	None		0.000	81.000	No Ice	7.430	7.430	0.090
4ft Branches	C	None		0.000	78.250	No Ice	24.750	24.750	0.300
Antenna Branch Loading	C	None		0.000	76.000	No Ice	38.870	38.870	0.298
6ft Branches	C	None		0.000	67.500	No Ice	159.300	159.300	2.100
8ft Branches	C	None		0.000	49.440	No Ice	165.600	165.600	2.016
8ft Branches	C	None		0.000	32.180	No Ice	113.850	113.850	1.386
10ft Banches	C	None		0.000	23.080	No Ice	71.690	71.690	0.810
Future Antenna Branch Loading *	C	None		0.000	58.000	No Ice	38.870	38.870	0.298

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
(2) X7CQAP-FRO-845-V_TIA w/ Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	76.000	No Ice	16.729	11.815	0.119
(2) X7CQAP-FRO-845-V_TIA w/ Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	76.000	No Ice	16.729	11.815	0.119
(2) X7CQAP-FRO-845-V_TIA w/ Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	76.000	No Ice	16.729	11.815	0.119
AIR 6419_TIA w/ Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	76.000	No Ice	4.380	2.760	0.069
AIR 6419_TIA w/ Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	76.000	No Ice	4.380	2.760	0.069
AIR 6419_TIA w/ Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	76.000	No Ice	4.380	2.760	0.069
RRUS- 4490	A	From Leg	4.000 0.000 0.000	0.000	76.000	No Ice	2.695	1.221	0.068
RRUS- 4490	B	From Leg	4.000 0.000 0.000	0.000	76.000	No Ice	2.695	1.221	0.068
RRUS- 4490	C	From Leg	4.000 0.000 0.000	0.000	76.000	No Ice	2.695	1.221	0.068
RRUS- 4890	A	From Leg	4.000 0.000 0.000	0.000	76.000	No Ice	2.695	1.253	0.070
RRUS- 4890	B	From Leg	4.000 0.000 0.000	0.000	76.000	No Ice	2.695	1.253	0.070
RRUS- 4890	C	From Leg	4.000 0.000 0.000	0.000	76.000	No Ice	2.695	1.253	0.070
6627	A	From Leg	4.000 0.000 0.000	0.000	76.000	No Ice	4.056	3.098	0.032
3315	B	From Leg	4.000 0.000 0.000	0.000	76.000	No Ice	3.708	2.192	0.032
T-Arm Mount [TA 601-3]	C	None		0.000	76.000	No Ice	12.560	12.560	0.726
* 1/3rd of 40,000 Square Inches Remaining Reserved Loading	A	From Leg	4.000 0.000 0.000	0.000	76.000	No Ice	48.960	48.960	0.522
1/3rd of 40,000 Square Inches Remaining Reserved Loading	B	From Leg	4.000 0.000 0.000	0.000	76.000	No Ice	48.960	48.960	0.522
1/3rd of 40,000 Square Inches Remaining Reserved Loading	C	From Leg	4.000 0.000 0.000	0.000	76.000	No Ice	48.960	48.960	0.522
* 4818 A2C	B	From Leg	1.000 0.000 0.000	0.000	70.000	No Ice	1.015	0.352	0.012

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Pipe Mount [PM 601-1]	B	From Leg	0.500 0.000 0.000	0.000	70.000	No Ice	1.320	1.320	0.065
Side Arm Mount [SO 102-3] *	B	None		0.000	70.000	No Ice	3.600	3.600	0.075
ODU	C	From Leg	1.000 0.000 0.000	0.000	61.000	No Ice	1.020	0.370	0.012
Standoff-8"	C	From Leg	1.000 0.000 0.000	0.000	61.000	No Ice	0.270	0.270	0.027
Tri / Quad Sector Collar Mount *	C	From Leg	0.500 0.000 0.000	0.000	61.000	No Ice	1.350	1.350	0.285

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral ft Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight K
MT-518M49VH/NK *	B	Paraboloid w/Shroud (HP)	From Leg	1.000 0.000 0.000	-11.880		70.000	2.149	No Ice	2.560	0.003
MTI-MT518M49/VH-NK *	C	Paraboloid w/o Radome	From Leg	1.000 0.000 0.000	0.000		61.000	2.140	No Ice	3.600	0.026

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice

Comb. No.	Description
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	Dead+Wind 0 deg - Service
27	Dead+Wind 30 deg - Service
28	Dead+Wind 60 deg - Service
29	Dead+Wind 90 deg - Service
30	Dead+Wind 120 deg - Service
31	Dead+Wind 150 deg - Service
32	Dead+Wind 180 deg - Service
33	Dead+Wind 210 deg - Service
34	Dead+Wind 240 deg - Service
35	Dead+Wind 270 deg - Service
36	Dead+Wind 300 deg - Service
37	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	80 - 28	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	14	-15.221	0.022	-598.022
			Max. Mx	20	-15.218	600.071	-0.087
			Max. My	14	-15.221	0.022	-598.022
			Max. Vy	8	18.289	-599.896	1.013
			Max. Vx	2	-18.232	-1.843	597.918
			Max. Torque	13			1.535
L2	28 - 0	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	14	-24.137	-0.141	-1325.022
			Max. Mx	8	-24.137	-1329.696	2.735
			Max. My	2	-24.137	-4.649	1325.686
			Max. Vy	8	23.129	-1329.696	2.735
			Max. Vx	2	-23.073	-4.649	1325.686
			Max. Torque	12			1.374

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	8	24.148	-23.118	0.057
	Max. H_x	20	24.148	23.095	0.010
	Max. H_z	2	24.148	-0.084	23.062
	Max. M_x	2	1325.686	-0.084	23.062

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
	Max. M_z	8	1329.696	-23.118	0.057
	Max. Torsion	12	1.373	-11.537	-19.932
	Min. Vert	13	18.111	-11.537	-19.932
	Min. H_x	8	24.148	-23.118	0.057
	Min. H_z	14	24.148	-0.005	-23.029
	Min. M_x	14	-1325.022	-0.005	-23.029
	Min. M_z	20	-1329.124	23.095	0.010
	Min. Torsion	24	-1.356	11.551	19.938

Tower Mast Reaction Summary

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Dead Only	20.123	0.000	0.000	0.568	0.274	0.000
1.2 Dead+1.0 Wind 0 deg - No Ice	24.148	0.084	-23.062	-1325.686	-4.649	0.230
0.9 Dead+1.0 Wind 0 deg - No Ice	18.111	0.084	-23.062	-1320.678	-4.717	0.228
1.2 Dead+1.0 Wind 30 deg - No Ice	24.148	11.611	-19.945	-1146.017	-667.820	-0.973
0.9 Dead+1.0 Wind 30 deg - No Ice	18.111	11.611	-19.945	-1141.712	-665.294	-0.975
1.2 Dead+1.0 Wind 60 deg - No Ice	24.148	20.029	-11.532	-662.254	-1151.884	0.073
0.9 Dead+1.0 Wind 60 deg - No Ice	18.111	20.029	-11.532	-659.841	-1147.465	0.072
1.2 Dead+1.0 Wind 90 deg - No Ice	24.148	23.118	-0.057	-2.735	-1329.696	1.121
0.9 Dead+1.0 Wind 90 deg - No Ice	18.111	23.118	-0.057	-2.899	-1324.582	1.121
1.2 Dead+1.0 Wind 120 deg - No Ice	24.148	20.066	11.451	659.103	-1154.510	-0.169
0.9 Dead+1.0 Wind 120 deg - No Ice	18.111	20.066	11.451	656.350	-1150.080	-0.168
1.2 Dead+1.0 Wind 150 deg - No Ice	24.148	11.537	19.932	1147.052	-663.615	-1.373
0.9 Dead+1.0 Wind 150 deg - No Ice	18.111	11.537	19.932	1142.391	-661.104	-1.372
1.2 Dead+1.0 Wind 180 deg - No Ice	24.148	0.005	23.029	1325.022	-0.141	-0.168
0.9 Dead+1.0 Wind 180 deg - No Ice	18.111	0.005	23.029	1319.667	-0.224	-0.166
1.2 Dead+1.0 Wind 210 deg - No Ice	24.148	-11.534	19.942	1147.217	663.707	1.087
0.9 Dead+1.0 Wind 210 deg - No Ice	18.111	-11.534	19.942	1142.558	661.028	1.088
1.2 Dead+1.0 Wind 240 deg - No Ice	24.148	-20.006	11.507	662.065	1151.268	-0.063
0.9 Dead+1.0 Wind 240 deg - No Ice	18.111	-20.006	11.507	659.303	1146.682	-0.062
1.2 Dead+1.0 Wind 270 deg - No Ice	24.148	-23.095	-0.010	-0.087	1329.124	-1.223
0.9 Dead+1.0 Wind 270 deg - No Ice	18.111	-23.095	-0.010	-0.260	1323.842	-1.223
1.2 Dead+1.0 Wind 300 deg - No Ice	24.148	-20.003	-11.522	-662.159	1151.485	0.074

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
0.9 Dead+1.0 Wind 300 deg - No Ice	18.111	-20.003	-11.522	-659.744	1146.897	0.073
1.2 Dead+1.0 Wind 330 deg - No Ice	24.148	-11.551	-19.938	-1146.063	665.273	1.356
0.9 Dead+1.0 Wind 330 deg - No Ice	18.111	-11.551	-19.938	-1141.756	662.586	1.354
Dead+Wind 0 deg - Service	20.123	0.034	-9.238	-529.472	-1.713	0.091
Dead+Wind 30 deg - Service	20.123	4.651	-7.990	-457.673	-266.730	-0.391
Dead+Wind 60 deg - Service	20.123	8.024	-4.620	-264.351	-460.173	0.029
Dead+Wind 90 deg - Service	20.123	9.261	-0.023	-0.792	-531.231	0.450
Dead+Wind 120 deg - Service	20.123	8.038	4.587	263.692	-461.222	-0.067
Dead+Wind 150 deg - Service	20.123	4.622	7.985	458.687	-265.050	-0.551
Dead+Wind 180 deg - Service	20.123	0.002	9.225	529.808	0.089	-0.067
Dead+Wind 210 deg - Service	20.123	-4.620	7.988	458.753	265.377	0.436
Dead+Wind 240 deg - Service	20.123	-8.014	4.610	264.877	460.217	-0.025
Dead+Wind 270 deg - Service	20.123	-9.252	-0.004	0.266	531.292	-0.491
Dead+Wind 300 deg - Service	20.123	-8.013	-4.616	-264.313	460.304	0.030
Dead+Wind 330 deg - Service	20.123	-4.627	-7.987	-457.691	266.002	0.544

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX	PY	PZ	PX	PY	PZ	% Error
	K	K	K	K	K	K	
1	0.000	-20.123	0.000	0.000	20.123	0.000	0.000%
2	0.084	-24.148	-23.062	-0.084	24.148	23.062	0.000%
3	0.084	-18.111	-23.062	-0.084	18.111	23.062	0.000%
4	11.611	-24.148	-19.945	-11.611	24.148	19.945	0.000%
5	11.611	-18.111	-19.945	-11.611	18.111	19.945	0.000%
6	20.029	-24.148	-11.532	-20.029	24.148	11.532	0.000%
7	20.029	-18.111	-11.532	-20.029	18.111	11.532	0.000%
8	23.118	-24.148	-0.057	-23.118	24.148	0.057	0.000%
9	23.118	-18.111	-0.057	-23.118	18.111	0.057	0.000%
10	20.066	-24.148	11.451	-20.066	24.148	-11.451	0.000%
11	20.066	-18.111	11.451	-20.066	18.111	-11.451	0.000%
12	11.537	-24.148	19.932	-11.537	24.148	-19.932	0.000%
13	11.537	-18.111	19.932	-11.537	18.111	-19.932	0.000%
14	0.005	-24.148	23.029	-0.005	24.148	-23.029	0.000%
15	0.005	-18.111	23.029	-0.005	18.111	-23.029	0.000%
16	-11.534	-24.148	19.942	11.534	24.148	-19.942	0.000%
17	-11.534	-18.111	19.942	11.534	18.111	-19.942	0.000%
18	-20.006	-24.148	11.507	20.006	24.148	-11.507	0.000%
19	-20.006	-18.111	11.507	20.006	18.111	-11.507	0.000%
20	-23.095	-24.148	-0.010	23.095	24.148	0.010	0.000%
21	-23.095	-18.111	-0.010	23.095	18.111	0.010	0.000%
22	-20.003	-24.148	-11.522	20.003	24.148	11.522	0.000%
23	-20.003	-18.111	-11.522	20.003	18.111	11.522	0.000%
24	-11.551	-24.148	-19.938	11.551	24.148	19.938	0.000%
25	-11.551	-18.111	-19.938	11.551	18.111	19.938	0.000%
26	0.034	-20.123	-9.238	-0.034	20.123	9.238	0.000%
27	4.651	-20.123	-7.990	-4.651	20.123	7.990	0.000%
28	8.024	-20.123	-4.620	-8.024	20.123	4.620	0.000%
29	9.261	-20.123	-0.023	-9.261	20.123	0.023	0.000%
30	8.038	-20.123	4.587	-8.038	20.123	-4.587	0.000%
31	4.622	-20.123	7.985	-4.622	20.123	-7.985	0.000%
32	0.002	-20.123	9.225	-0.002	20.123	-9.225	0.000%
33	-4.620	-20.123	7.988	4.620	20.123	-7.988	0.000%
34	-8.014	-20.123	4.610	8.014	20.123	-4.610	0.000%

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
35	-9.252	-20.123	-0.004	9.252	20.123	0.004	0.000%
36	-8.013	-20.123	-4.616	8.013	20.123	4.616	0.000%
37	-4.627	-20.123	-7.987	4.627	20.123	7.987	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	4	0.00000001	0.00001437
3	Yes	4	0.00000001	0.00000769
4	Yes	4	0.00000001	0.00013783
5	Yes	4	0.00000001	0.00008374
6	Yes	4	0.00000001	0.00014719
7	Yes	4	0.00000001	0.00008966
8	Yes	4	0.00000001	0.00003232
9	Yes	4	0.00000001	0.00001963
10	Yes	4	0.00000001	0.00014587
11	Yes	4	0.00000001	0.00008873
12	Yes	4	0.00000001	0.00017044
13	Yes	4	0.00000001	0.00010441
14	Yes	4	0.00000001	0.00001325
15	Yes	4	0.00000001	0.00000687
16	Yes	4	0.00000001	0.00016470
17	Yes	4	0.00000001	0.00010074
18	Yes	4	0.00000001	0.00014920
19	Yes	4	0.00000001	0.00009080
20	Yes	4	0.00000001	0.00003517
21	Yes	4	0.00000001	0.00002145
22	Yes	4	0.00000001	0.00014984
23	Yes	4	0.00000001	0.00009128
24	Yes	4	0.00000001	0.00013470
25	Yes	4	0.00000001	0.00008178
26	Yes	4	0.00000001	0.00000001
27	Yes	4	0.00000001	0.00001179
28	Yes	4	0.00000001	0.00001268
29	Yes	4	0.00000001	0.00000708
30	Yes	4	0.00000001	0.00001253
31	Yes	4	0.00000001	0.00001690
32	Yes	4	0.00000001	0.00000001
33	Yes	4	0.00000001	0.00001581
34	Yes	4	0.00000001	0.00001302
35	Yes	4	0.00000001	0.00000747
36	Yes	4	0.00000001	0.00001307
37	Yes	4	0.00000001	0.00001194

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	80 - 28	8.655	35	0.867	0.005
L2	33 - 0	1.593	35	0.431	0.001

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
81.000	3ft Branches	35	8.655	0.867	0.005	29499
78.250	4ft Branches	35	8.340	0.853	0.005	29499
76.000	Antenna Branch Loading	35	7.935	0.834	0.005	29499
70.000	MT-518M49VH/NK	35	6.867	0.785	0.004	14749
67.500	6ft Branches	35	6.429	0.764	0.004	11799
61.000	MTI-MT518M49/VH-NK	35	5.324	0.708	0.003	7763
58.000	Future Antenna Branch Loading	35	4.835	0.682	0.003	6704
49.440	8ft Branches	35	3.535	0.603	0.002	4826
32.180	8ft Branches	35	1.520	0.421	0.001	3302
23.080	10ft Banches	35	0.866	0.311	0.000	4486

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	80 - 28	21.664	20	2.171	0.013
L2	33 - 0	3.987	8	1.079	0.002

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
81.000	3ft Branches	20	21.664	2.171	0.013	11805
78.250	4ft Branches	20	20.875	2.135	0.012	11805
76.000	Antenna Branch Loading	20	19.862	2.089	0.012	11805
70.000	MT-518M49VH/NK	20	17.187	1.965	0.010	5902
67.500	6ft Branches	20	16.091	1.913	0.009	4721
61.000	MTI-MT518M49/VH-NK	20	13.325	1.774	0.008	3106
58.000	Future Antenna Branch Loading	10	12.101	1.707	0.007	2682
49.440	8ft Branches	8	8.847	1.510	0.005	1930
32.180	8ft Branches	8	3.805	1.055	0.002	1320
23.080	10ft Banches	8	2.168	0.777	0.001	1792

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L1	80 - 28 (1)	TP36.775x21.5x0.25	52.000	0.000	0.0	27.817	-15.218	1627.300	0.009
L2	28 - 0 (2)	TP44.5x34.806x0.313	33.000	0.000	0.0	43.828	-24.137	2563.970	0.009

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	80 - 28 (1)	TP36.775x21.5x0.25	600.071	1322.042	0.454	0.000	1322.042	0.000
L2	28 - 0 (2)	TP44.5x34.806x0.313	1329.700	2616.992	0.508	0.000	2616.992	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	80 - 28 (1)	TP36.775x21.5x0.25	18.266	488.191	0.037	1.223	1498.767	0.001
L2	28 - 0 (2)	TP44.5x34.806x0.313	23.129	769.190	0.030	1.121	2976.550	0.000

Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	80 - 28 (1)	0.009	0.454	0.000	0.037	0.001	0.465	1.000	
L2	28 - 0 (2)	0.009	0.508	0.000	0.030	0.000	0.518	1.000	

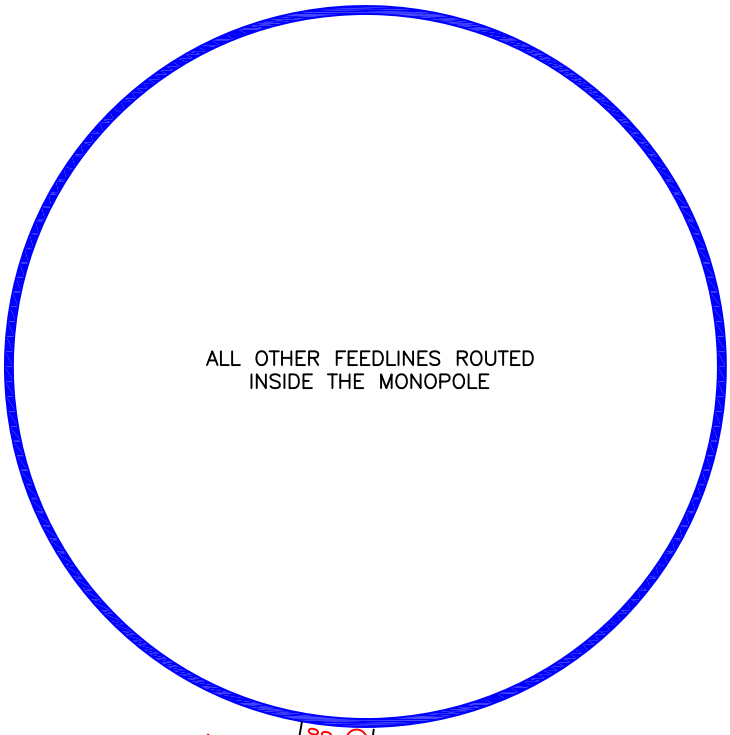
Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	80 - 28	Pole	TP36.775x21.5x0.25	1	-15.218	1627.300	46.5	Pass
L2	28 - 0	Pole	TP44.5x34.806x0.313	2	-24.137	2563.970	51.8	Pass
							Summary	
						Pole (L2)	51.8	Pass
						RATING =	**51.8**	**Pass**

Program Version 8.3.1.2

APPENDIX B

BASE LEVEL DRAWING



PROPOSED EQUIPMENT CONFIGURATION)
(1) 1.625" TO 76 FT LEVEL
(2) EW90 TO 70 FT LEVEL

PROJECT NUMBER: 25-002952

APPENDIX C

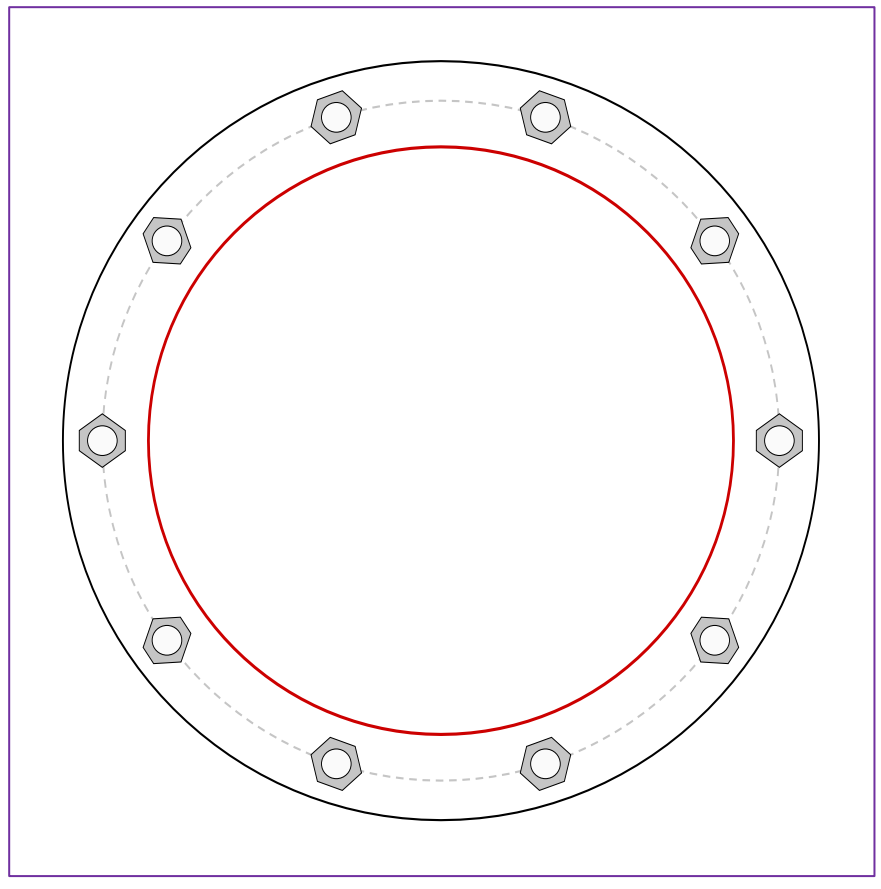
ADDITIONAL CALCULATIONS

Monopole Base Plate Connection

Site Info	
Site #	US-CA-7394
Site Name	North Willits, CA
Project #	25-002952

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	1.5

Applied Loads	
Moment (kip-ft)	1329.70
Axial Force (kips)	24.14
Shear Force (kips)	23.13



Connection Properties

Anchor Rod Data

(10) 2-1/4" ø bolts (A615-75 X; Fy=75 ksi, Fu=100 ksi) on 51.5" BC

Base Plate Data

57.5" OD x 2" Plate (A572-60; Fy=60 ksi, Fu=75 ksi)

Stiffener Data

N/A

Pole Data

44.5" x 0.3125" 18-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

Anchor Rod Summary *(units of kips, kip-in)*

Pu_t = 121.42	ϕPn_t = 243.75	**Stress Rating**
Vu = 2.31	ϕVn = 149.1	**49.8%**
Mu = n/a	ϕMn = n/a	**Pass**

Base Plate Summary

Max Stress (ksi):	20.77	(Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	**38.5%**	**Pass**

Pier and Pad Foundation

Site # :	US-CA-7394
Site Name:	North Willits, CA
App. Number:	P-071783

TIA-222 Revision:	H
Tower Type:	Monopole

Top & Bot. Pad Rein. Different?:	☐
Block Foundation?:	☐
Rectangular Pad?:	☐

Superstructure Analysis Reactions		
Compression, P_{comp}:	24.15	kips
Base Shear, Vu_comp:	23.12	kips
Moment, M_u:	1329.7	ft-kips
Tower Height, **H**:	80	ft
BP Dist. Above Fdn, bp_{dist}:		in

Pier Properties		
Pier Shape:	Square	
Pier Diameter, **dpier**:	6	ft
Ext. Above Grade, **E**:	1	ft
Pier Rebar Size, **Sc**:	8	
Pier Rebar Quantity, **mc**:	28	
Pier Tie/Spiral Size, **St**:	4	
Pier Tie/Spiral Quantity, **mt**:	3	
Pier Reinforcement Type:	Spiral	
Pier Clear Cover, cc_{pier}:	3	in

Pad Properties		
Depth, **D**:	6	ft
Pad Width, W_1:	21	ft
Pad Thickness, **T**:	2	ft
Pad Rebar Size (Bottom dir. 2), Sp_2:	10	
Pad Rebar Quantity (Bottom dir. 2), mp_2:	22	
Pad Clear Cover, cc_{pad}:	3	

Material Properties		
Pier Rebar Grade, **Fy**:	60	ksi
Concrete Compressive Strength, **F'c**:	3	ksi
Dry Concrete Density, δ**c**:	150	pcf

Soil Properties		
Total Soil Unit Weight, γ:	100	pcf
Ultimate Net Bearing, Qnet:	6.670	ksf
Cohesion, **Cu**:	0.000	ksf
Friction Angle, φ:	30	degrees
SPT Blow Count, N_{blows}:		
Base Friction, μ:		
Neglected Depth, **N**:	3.00	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, **gw**:	N/A	ft

<--Toggle between Gross and Net

Foundation Analysis Checks	Capacity	Demand	Rating	Check
Lateral (Sliding) (kips)	135.86	23.12	**17.0%**	**Pass**
Bearing Pressure (ksf)	5.45	1.60	**29.4%**	**Pass**
*Overturning (kip*ft)*	3111.23	1491.54	**47.9%**	**Pass**
*Pier Flexure (Comp.) (kip*ft)*	3012.31	1445.30	**48.0%**	**Pass**
Pier Compression (kip)	17184.96	56.55	**0.3%**	**Pass**
*Pad Flexure (kip*ft)*	2236.81	497.75	**22.3%**	**Pass**
Pad Shear - 1-way (kips)	395.34	98.82	**25.0%**	**Pass**
Pad Shear - 2-way (Comp) (ksi)	0.164	0.039	**23.6%**	**Pass**
*Flexural 2-way (Comp) (kip*ft)*	2515.80	867.18	**34.5%**	**Pass**
Pad Shear - 2-way (Uplift) (ksi)	0.164	0.000	**0.0%**	**Pass**

Structural Rating:	**48.0%**
Soil Rating:	**47.9%**

Site#:	US-CA-7394
Site Name:	North Willits, CA
Project #:	25-002952

Location

	Decimal Degrees		Deg	Min	Sec
Lat:	39.451739	+	39	27	6.26
Long:	-123.327111	-	123	19	37.60

Code and Site Parameters

Seismic Design Code:	TIA-222-H-1	
Site Soil:	D (Default)	Default
Risk Category:	II	

USGS Seismic Reference

S_S:	2.6160	g
S_1:	0.9680	g
T_L:	8	s

Seismic Design Category Determination

Importance Factor, I_e:	1	
Acceleration-based site coefficient, F_a:	1.2000	
Velocity-based site coefficient, F_v:	1.7000	
Design spectral response acceleration short period, S_{DS}:	2.0928	g
Design spectral response acceleration 1 s period, S_{D1}:	1.0971	g
T_s:	0.5242	s
Seismic Design Category Based on S_{DS}:	D	
Seismic Design Category Based on S_{D1}:	D	
Seismic Design Category Based on S_1:	E	
Controlling Seismic Design Category:	E	

Site #:	US-CA-7394
Site Name:	North Willits, CA
Project #:	25-002952

Tower Details

Tower Type:	Tapered Monopole		
Height, h:	80	ft	
Effective Seismic Weight, W:	20.12	kips	
Amplification Factor, A_s:	1.0		2.7.8.1

Seismic Base Shear

Response Modification Factor, R:	1.5		
Discrete Appurtenance Weight in Top 1/3 of Structure, W_u:	7.2825	kips	
W_L:	12.84010865	kips	
E:	29000.0	ksi	
g:	386.088	in/s^2	
Average Moment of Inertia, I_{avg}:	4602.55	in^4	
F_a:	0.655130386	hz	
Approximate Fundamental Period Monopole, T_a:	1.5264	s	2.7.7.1.3.3
Seismic Response Coefficient, C_s	0.7187		Table 2-12 Note 3
Seismic Response Coefficient Max 1, C_{smax}	N/A		
Seismic Response Coefficient Max 2, C_{smax}	N/A		
Seismic Response Coefficient Min 1, C_{smin}	0.0921		2.7.7.1.1
Seismic Response Coefficient Min 2, C_{smin}	0.5163		2.7.7.1.1
Controlling Seismic Response Coefficient, C_{sc}	0.7187		
Seismic Base Shear, V	14.463	kips	2.7.7.1.1

Vertical Distribution Factors

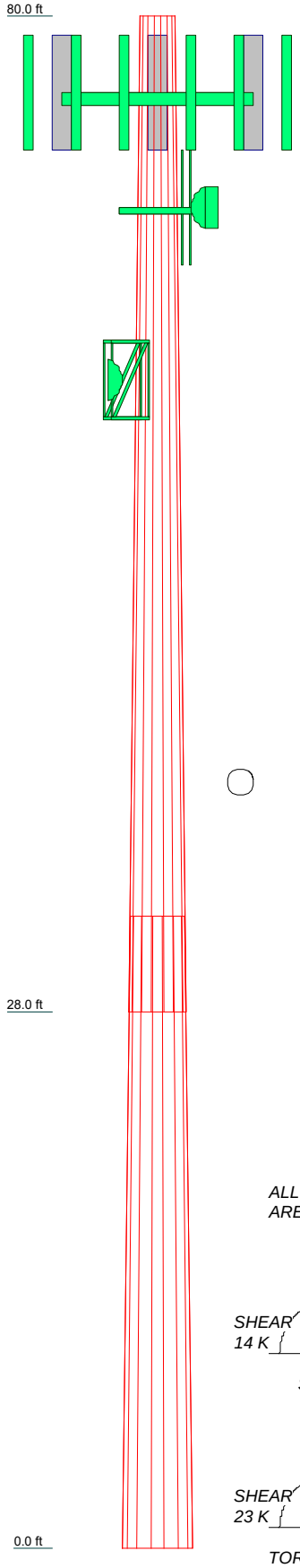
Period Related Exponent, k:	1.513
Sum of $w_i h_i^k$	7844.78

Tower Section Loads								
Section Number	**Length**	**Top Height**	**Mid Height, h_x**	**Section Weight, w_x**	**$w_x h_x^k$**	**C_{vx}**	**F_{xh}**	**F_{xv}**
1 - 1	2.00	80.00	79.00	0.1163	86.54	0.0110	0.1595	0.0487
1 - 2	10.00	78.00	73.00	0.6293	415.37	0.0529	0.7658	0.2634
1 - 3	10.00	68.00	63.00	0.7086	374.25	0.0477	0.6900	0.2966
1 - 4	10.00	58.00	53.00	0.7879	320.37	0.0408	0.5906	0.3298
1 - 5	10.00	48.00	43.00	0.8672	256.98	0.0328	0.4738	0.3630
1 - 6	10.00	38.00	33.00	0.9465	187.91	0.0240	0.3464	0.3962
2 - 1	3.00	33.00	31.50	0.3537	65.45	0.0083	0.1207	0.1480
2 - 2	10.00	30.00	25.00	1.2435	162.19	0.0207	0.2990	0.5205
2 - 3	10.00	20.00	15.00	1.3426	80.84	0.0103	0.1490	0.5620
2 - 4	10.00	10.00	5.00	1.4418	16.47	0.0021	0.0304	0.6035
			Sum	8.4374	1966.36			

Discrete Loads						
Name	h_x	w_x	$w_x h_x^k$	C_{vx}	F_{xh}	F_{xv}
3ft Branches	81.00	0.0900	69.53	0.0089	0.1282	0.0377
4ft Branches	78.25	0.3000	219.97	0.0280	0.4055	0.1256
Antenna Branch Loading	76.00	0.2980	209.06	0.0266	0.3854	0.1247
6ft Branches	67.50	2.1000	1231.22	0.1569	2.2699	0.8790
8ft Branches	49.44	2.0160	737.87	0.0941	1.3603	0.8438
8ft Branches	32.18	1.3860	264.88	0.0338	0.4883	0.5801
10ft Banches	23.08	0.8100	93.61	0.0119	0.1726	0.3390
Future Antenna Branch Loading	58.00	0.2980	138.88	0.0177	0.2560	0.1247
(2) jma wireless X7CQAP-FRO-845-V_TIA w/ Mount Pipe	76.00	0.2380	166.97	0.0213	0.3078	0.0996
(2) jma wireless X7CQAP-FRO-845-V_TIA w/ Mount Pipe	76.00	0.2380	166.97	0.0213	0.3078	0.0996
(2) jma wireless X7CQAP-FRO-845-V_TIA w/ Mount Pipe	76.00	0.2380	166.97	0.0213	0.3078	0.0996
ericsson AIR 6419_TIA w/ Mount Pipe	76.00	0.0690	48.41	0.0062	0.0892	0.0289
ericsson AIR 6419_TIA w/ Mount Pipe	76.00	0.0690	48.41	0.0062	0.0892	0.0289
ericsson AIR 6419_TIA w/ Mount Pipe	76.00	0.0690	48.41	0.0062	0.0892	0.0289
RRUS- 4490	76.00	0.0680	47.71	0.0061	0.0879	0.0285
RRUS- 4490	76.00	0.0680	47.71	0.0061	0.0879	0.0285
RRUS- 4490	76.00	0.0680	47.71	0.0061	0.0879	0.0285
RRUS- 4890	76.00	0.0700	49.11	0.0063	0.0905	0.0293
RRUS- 4890	76.00	0.0700	49.11	0.0063	0.0905	0.0293
RRUS- 4890	76.00	0.0700	49.11	0.0063	0.0905	0.0293
6627	76.00	0.0320	22.45	0.0029	0.0414	0.0134
3315	76.00	0.0320	22.45	0.0029	0.0414	0.0134
tower mounts T-Arm Mount [TA 601-3]	76.00	0.7260	509.33	0.0649	0.9390	0.3039
1/3rd of 40,000 Square Inches Remaining Reserved Loading	76.00	0.5220	366.21	0.0467	0.6751	0.2185
1/3rd of 40,000 Square Inches Remaining Reserved Loading	76.00	0.5220	366.21	0.0467	0.6751	0.2185
1/3rd of 40,000 Square Inches Remaining Reserved Loading	76.00	0.5220	366.21	0.0467	0.6751	0.2185
aviat networks 4818 A2C	70.00	0.0120	7.43	0.0009	0.0137	0.0050
tower mounts Pipe Mount [PM 601-1]	70.00	0.0650	40.27	0.0051	0.0742	0.0272
tower mounts Side Arm Mount [SO 102-3]	70.00	0.0750	46.46	0.0059	0.0857	0.0314
ODU	61.00	0.0120	6.04	0.0008	0.0111	0.0050
Standoff-8''	61.00	0.0270	13.58	0.0017	0.0250	0.0113
Tri / Quad Sector Collar Mount	61.00	0.2850	143.36	0.0183	0.2643	0.1193
mti wireless edge MT-518M49VH/NK	70.00	0.0030	1.86	0.0002	0.0034	0.0013
MTI-MT518M49/VH-NK	61.00	0.0265	13.33	0.0017	0.0246	0.0111
	Sum	11.4945	5826.78			

Linear Loads								
Name	Start Height	End Height	h_x	w_x	$w_x h_x^k$	C_{vx}	F_{xh}	F_{xv}
commscope HFT1206-24SVL-XXX(1-5/8) From 0 to 76	70.00	76.00	73.00	0.0115	7.60	0.0010	0.0140	0.0048
commscope HFT1206-24SVL-XXX(1-5/8) From 0 to 76	60.00	70.00	65.00	0.0192	10.63	0.0014	0.0196	0.0080
commscope HFT1206-24SVL-XXX(1-5/8) From 0 to 76	50.00	60.00	55.00	0.0192	8.26	0.0011	0.0152	0.0080
commscope HFT1206-24SVL-XXX(1-5/8) From 0 to 76	40.00	50.00	45.00	0.0192	6.09	0.0008	0.0112	0.0080
commscope HFT1206-24SVL-XXX(1-5/8) From 0 to 76	30.00	40.00	35.00	0.0192	4.17	0.0005	0.0077	0.0080
commscope HFT1206-24SVL-XXX(1-5/8) From 0 to 76	20.00	30.00	25.00	0.0192	2.50	0.0003	0.0046	0.0080
commscope HFT1206-24SVL-XXX(1-5/8) From 0 to 76	10.00	20.00	15.00	0.0192	1.16	0.0001	0.0021	0.0080
commscope HFT1206-24SVL-XXX(1-5/8) From 0 to 76	0.00	10.00	5.00	0.0192	0.22	0.0000	0.0004	0.0080
(2) heliax-hj EW90 From 0 to 70	60.00	70.00	65.00	0.0064	3.54	0.0005	0.0065	0.0027
(2) heliax-hj EW90 From 0 to 70	50.00	60.00	55.00	0.0064	2.75	0.0004	0.0051	0.0027
(2) heliax-hj EW90 From 0 to 70	40.00	50.00	45.00	0.0064	2.03	0.0003	0.0037	0.0027
(2) heliax-hj EW90 From 0 to 70	30.00	40.00	35.00	0.0064	1.39	0.0002	0.0026	0.0027
(2) heliax-hj EW90 From 0 to 70	20.00	30.00	25.00	0.0064	0.83	0.0001	0.0015	0.0027
(2) heliax-hj EW90 From 0 to 70	10.00	20.00	15.00	0.0064	0.39	0.0000	0.0007	0.0027
(2) heliax-hj EW90 From 0 to 70	0.00	10.00	5.00	0.0064	0.07	0.0000	0.0001	0.0027
			Sum	0.1907	51.64			

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	52.000	18	0.250	5.000	21.500	36.775	A572-65	4.1
2	33.000	18	0.312		34.806	44.500		4.4
								8.4



MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower is located in Dallas County, Texas.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 92 mph basic wind in accordance with the TIA-222-H Standard.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category II.
6. Topographic Category 1 with Crest Height of 0.000 ft
7. Seismic Note: Seismic loads generated by Seismic 5.0.0
8. Seismic Note: Seismic calculations are in accordance with TIA-222-H-1
9. TOWER RATING: 51.8%

ALL REACTIONS ARE FACTORED

AXIAL 33 K

SHEAR 14 K *MOMENT 936 kip-ft*

SEISMIC

AXIAL 24 K

SHEAR 23 K *MOMENT 1330 kip-ft*

TORQUE 1 kip-ft

REACTIONS - 92 mph WIND

B+T GRP

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
Phone: (918) 587-4630
FAX: (918) 295-0265

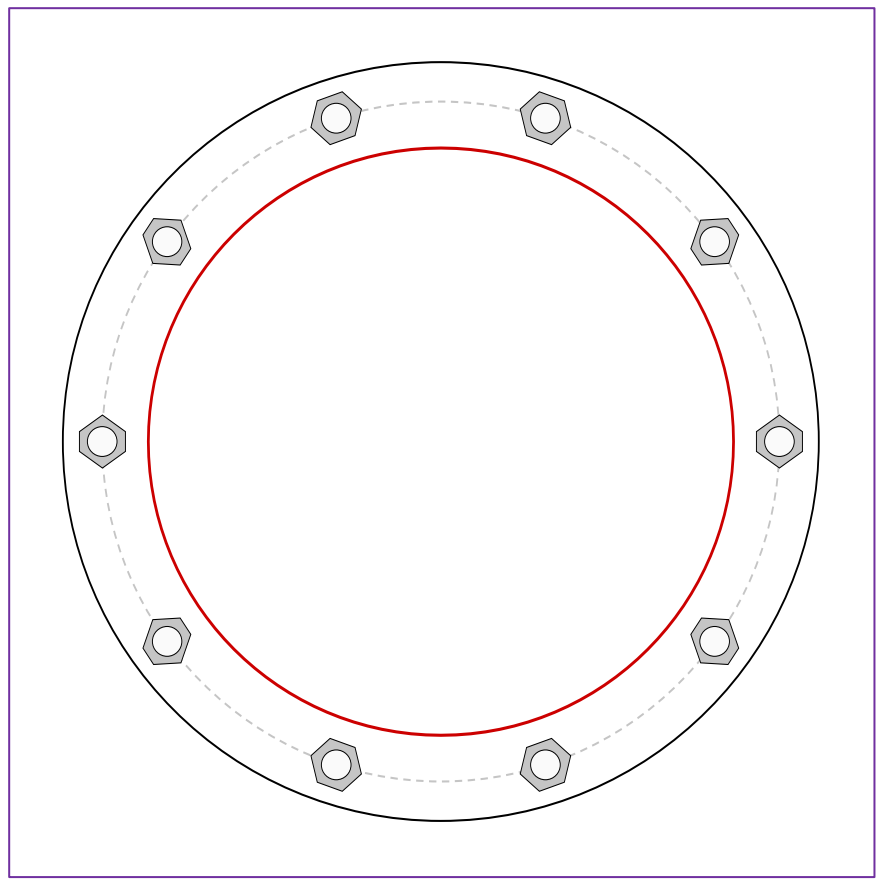
Job:	***25-002952 - North Willits, CA (Site# US-CA-7394***		
Project:			
Client: Vertical Bridge	Drawn by: ANANDRAY SHET	App'd:	
Code: TIA-222-H	Date: 05/05/25	Scale: NTS	
Path:		Dwg No. E-1	

Monopole Base Plate Connection

Site Info	
Site #	US-CA-7394
Site Name	North Willits, CA
Project #	25-002952

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	1.5

Applied Loads	
Moment (kip-ft)	936.00
Axial Force (kips)	33.00
Shear Force (kips)	14.00



Connection Properties

Anchor Rod Data

(10) 2-1/4" ø bolts (A615-75 X; Fy=75 ksi, Fu=100 ksi) on 51.5" BC

Base Plate Data

57.5" OD x 2" Plate (A572-60; Fy=60 ksi, Fu=75 ksi)

Stiffener Data

N/A

Pole Data

44.5" x 0.3125" 18-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

Anchor Rod Summary *(units of kips, kip-in)*

Pu_t = 83.87	ϕPn_t = 243.75	**Stress Rating**
Vu = 1.4	ϕVn = 149.1	**34.4%**
Mu = n/a	ϕMn = n/a	**Pass**

Base Plate Summary

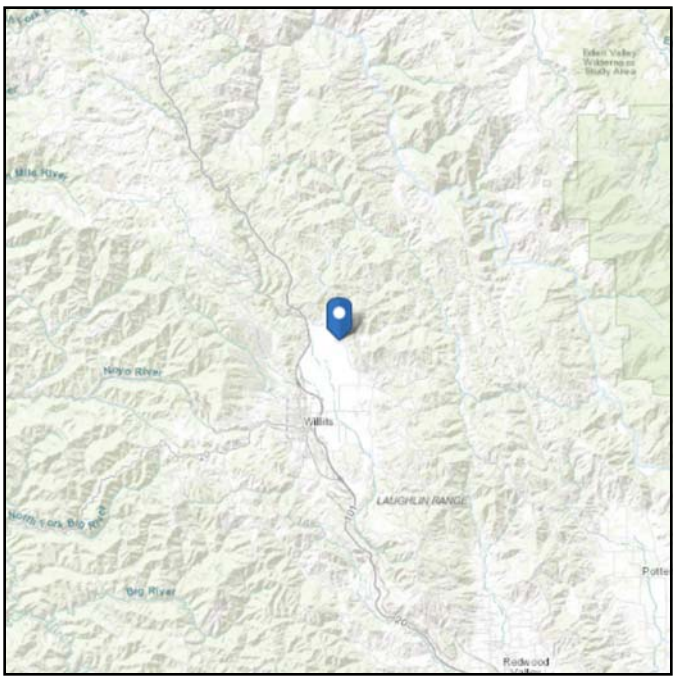
Max Stress (ksi):	14.9	(Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	**27.6%**	**Pass**

ASCE Hazards Report

Address:
No Address at This Location

Standard:	ASCE/SEI 7-16	**Latitude:**	39.451739
Risk Category:	II	**Longitude:**	-123.327114
Soil Class:	D - Default (see Section 11.4.3)	**Elevation:**	1392.6239659550415 ft (NAVD 88)





Wind

Results:

Wind Speed	92 Vmph
10-year MRI	64 Vmph
25-year MRI	70 Vmph
50-year MRI	74 Vmph
100-year MRI	79 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2

Date Accessed: Sat May 03 2025

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is not in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2.

Seismic

Site Soil Class: D - Default (see Section 11.4.3)

Results:

S_S :	2.616	S_{D1} :	N/A
S_1 :	0.968	T_L :	8
F_a :	1.2	PGA :	1.082
F_v :	N/A	PGA_M :	1.299
S_{MS} :	3.139	F_{PGA} :	1.2
S_{M1} :	N/A	I_e :	1
S_{DS} :	2.093	C_v :	1.5

Ground motion hazard analysis may be required. See ASCE/SEI 7-16 Section 11.4.8.

Data Accessed: Sat May 03 2025

Date Source: USGS Seismic Design Maps

Ice

Results:

Ice Thickness:	0 in.
Concurrent Temperature:	25 F
Gust Speed	30 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Sat May 03 2025

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

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ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE standard.

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COLOCATION APPLICATION - P-071783
US-CA-7394
Version 2
Cellco Partnership d/b/a Verizon Wireless

Vertical Bridge REIT, LLC.
750 Park of Commerce Dr, ste 200
Boca Raton, FL 33487

SUMMARY

PRIMARY INFO

Application #:	P-071783
Application Version:	2 (Submitted: 3/31/2025 9:50:00 PM)
Application Type:	Broadband
Application Name:	North Willits
Lease Type:	Amendment
ASR Number:	
Description:	Installing (1) (N) EW90 MW Cable to (E) MW Dish @ 70'-0"

VERTICAL BRIDGE SITE INFO

VB Site #:	US-CA-7394
VB Site Name:	North Willits
Latitude:	39.45173888
Longitude:	-123.32711390
Structure Type:	Stealth
Structure Height:	80.0000
Site Address:	24710 Reynolds Highway - Willits, CA 95490

VERTICAL BRIDGE DEAL TEAM

RLM:	Scott Shandle Scott.Shandle@verticalbridge.com (619) 316-5191	**LPM:**	Sophia Brown sophia.brown@verticalbridge.com (561) 328-1138	**ROM:**	Joshua Erickson joshua.erickson@verticalbridge.com (754) 223-1714

TENANT LEGAL INFO

Tenant Legal Name:	Cellco Partnership d/b/a Verizon Wireless
State of Registration:	California
Type of Entity:	LLC
Carrier NOC #:	8002646620
Tenant Site #:	5000022867
Tenant Site Name:	North Willits

APPLICANT

Name:	Michael Taylor
Address:	605 Coolidge Drive, Ste 100 Folsom, CA 95630
Phone Number:	(714) 989-3561
Email Address:	michael.taylor@epicwireless.net

FINAL LEASED RIGHTS CONFIGURATION TOTALS

This is a summary of your remaining existing equipment plus the new equipment.

FINAL EQUIPMENT

QTY	Equipment Type
1	Microwave Dish
1	ODU
2	Surge Arrestor/Raycap/Squid
6	RRU
9	Panel

FINAL LINES

QTY	Line Type
1	Hybrid
2	Heliax

FREQUENCY & TECHNOLOGY INFO

Type of Tehnology:	Broadband Wireless
Is TX Frequency Licensed:	Yes
TX Frequency:	746-757,835-845,846.5-849,1900-1905,1905-1910,1770-1780,1710-1715,1715-1720,3700-3720,3720-3740,3740-3760,3760-3780,3780-3800,1720-1730,3800-3820,3820-3840
Is RX Frequency Licensed:	Yes
RX Frequency:	776-787,880-890,891.5-894,1980-1985,1985-1990,2170-2180,2110-2115,2115-2120,2120-2130

MOUNT & STRUCTURAL ANALYSIS

MOUNT ANALYSIS

Provided by Tenant:	No
To Be Run by VB:	No
Include Mount Mapping:	No

STRUCTURAL HARD COPIES

Required:	Yes
Number of Hard Copies:	1

CONTACTS

INVOICE CONTACT

Attention To	Name	Address	Phone Number 1	Phone Number 2	Email 1	Email 2
	Michael Taylor	605 Coolidge Drive, Ste 100 Folsom, CA 95630	(714) 989-3561		michael.taylor @epicwireless.net	

PO CONTACT

Name	Phone	Email
Michael Taylor	(714) 989-3561	michael.taylor@epicwireless.net

LEASING CONTACT

Name	Phone	Email
Sarah Mitchell	(916) 749-6001	sarah.mitchell@verizon.com

STRUCTURAL HARD COPIES CONTACT

Name	Address
Michael Taylor	605 Coolidge Drive, Ste 100 Folsom , CA 95630

NOTICE CONTACT

Notice To	Attention To	Name	Address
	Network Real Estate	Cellco Partnership d/b/a Verizon Wireless	180 Washington Valley Road Bedminster, NJ 07921

RF CONTACT		
Name	**Phone**	**Email**
Pablo Sanchez	(925) 407-7480	pablo.sanchez@verizonwireless.com

LINE & EQUIPMENT

EXISTING LINE(S)

Qty	Line Type	Line Diameter(In.)	Line Location	Comments	Remain
1	Hybrid	1.625	Exterior		Yes

NEW LINE(S)

Qty	Line Type	Line Diameter(In.)	Line Location	Comments
2	Heliax	1.32	Exterior	

EXISTING EQUIPMENT

Qty	Equipment Type	Mount RAD Height	Equipment RAD Height (H')	Mount Type	Manfacturer	Model Number	Dimensions (H"xW"xD")	Weight (Lbs.)	Azimuth	Comments	Remain
1	Microwave Dish	70.00	70.00	Collar	MTI	MT518M49/VH-NK	25.70 x 25.70 x 11.80	26.50	108.12		Yes
1	ODU	70.00	70.00	Collar	Aviat	4818 A2C	10.50 x 11.60 x 4.00	12.00	108.12		Yes
3	RRU	76.00	76.00	Pipe Mount	Ericsson	RRUS- 4490	17.50 x 15.20 x 6.80	68.40	160, 240, 305		Yes
3	RRU	76.00	76.00	Pipe Mount	Ericsson	RRUS- 4890	17.50 x 15.20 x 7.00	69.50	160, 240, 305		Yes
1	Surge Arrestor/ Raycap/ Squid	76.00	76.00	Pipe Mount	Raycap	6627	29.50 x 16.50 x 12.60	32.00	240		Yes
3	Panel	76.00	76.00	Pipe Mount	Ericsson	Air 6419	28.30 x 16.10 x 8.00	71.00	160, 240, 305		Yes
1	Surge Arrestor/ Raycap/ Squid	76.00	76.00	Pipe Mount	Raycap	3315	19.18 x 15.73 x 10.25	21.50	160		Yes
6	Panel	76.00	76.00	Pipe Mount	JMA	X7CQAP-FRO- 845- V	96.00 x 18.80 x 10.20	67.00	160, 240, 305		Yes

ADDITIONAL SITE REQUIREMENTS

GROUND & INTERIOR SPACE REQUIREMENTS

Requirement Type	Total Lease Area (L x W)	Cabinet Required	Cabinet Area (L x W)	Shelter Required	Shelter Pad (L x W)	Comments
No Changes						

GENERATOR REQUIREMENTS

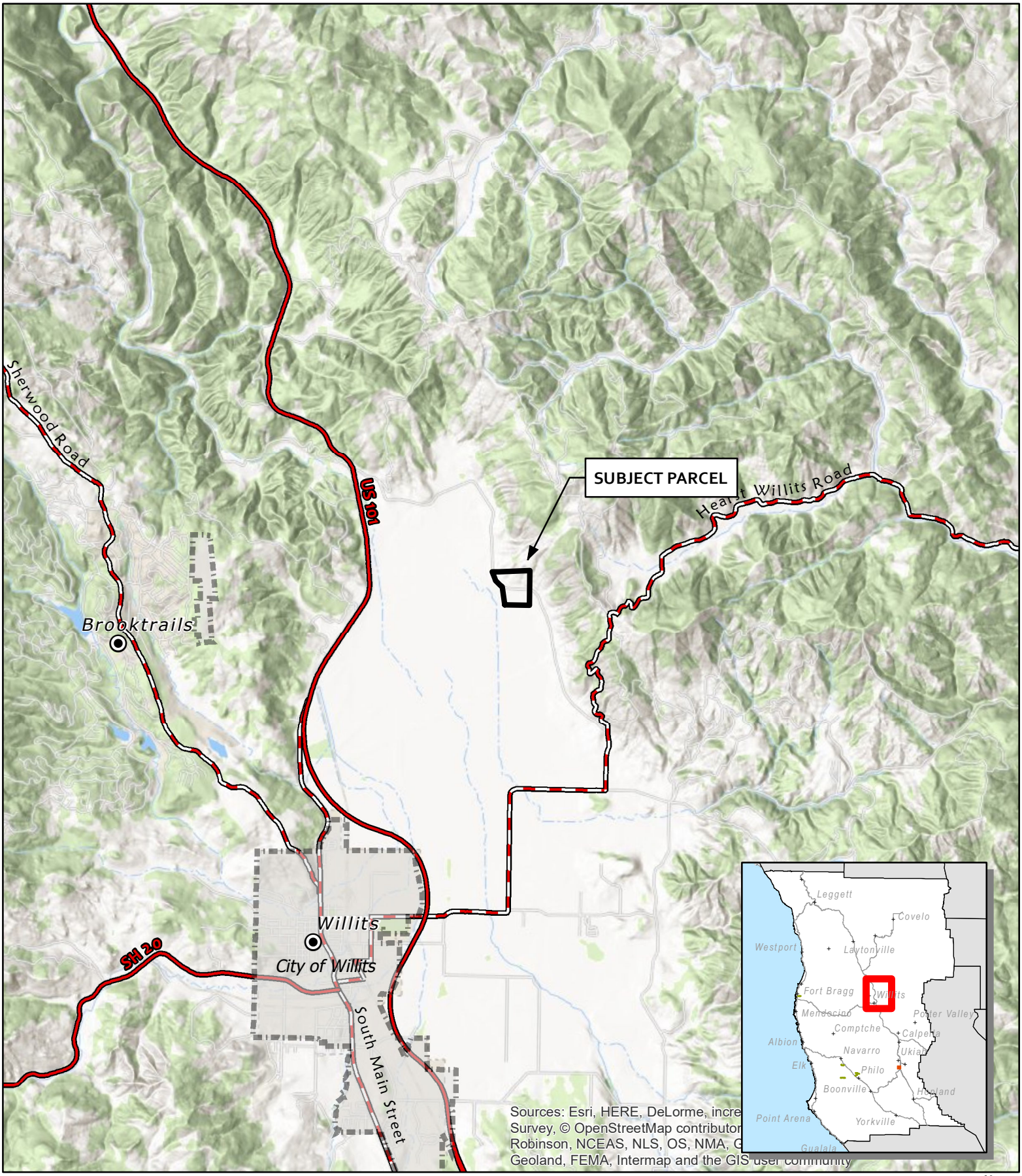
Requirement Type	Fuel Type	Kilowatt Size	Pad Dimensions (L x D)	Generator Manufacturer	Fuel Tank Manufacturer	Comments
Not Required						

AC POWER REQUIREMENTS

Meter Type	Additional Details	Comments
Existing Tenant Meter		

BACKHAUL REQUIREMENTS

Requirement Type	Cable Type	Number of Points of Entry	Riser Size (Inches)	Comments
Not Required				



CASE: UR 2025-0002
OWNER: VARIAN, Richard & Kathleen Jacobs
APN: 037-221-74
APLCT: Verizon Wireless
AGENT: Eric Lentz, Verizon
ADDRESS: 24815 Reynolds Hwy, Willits

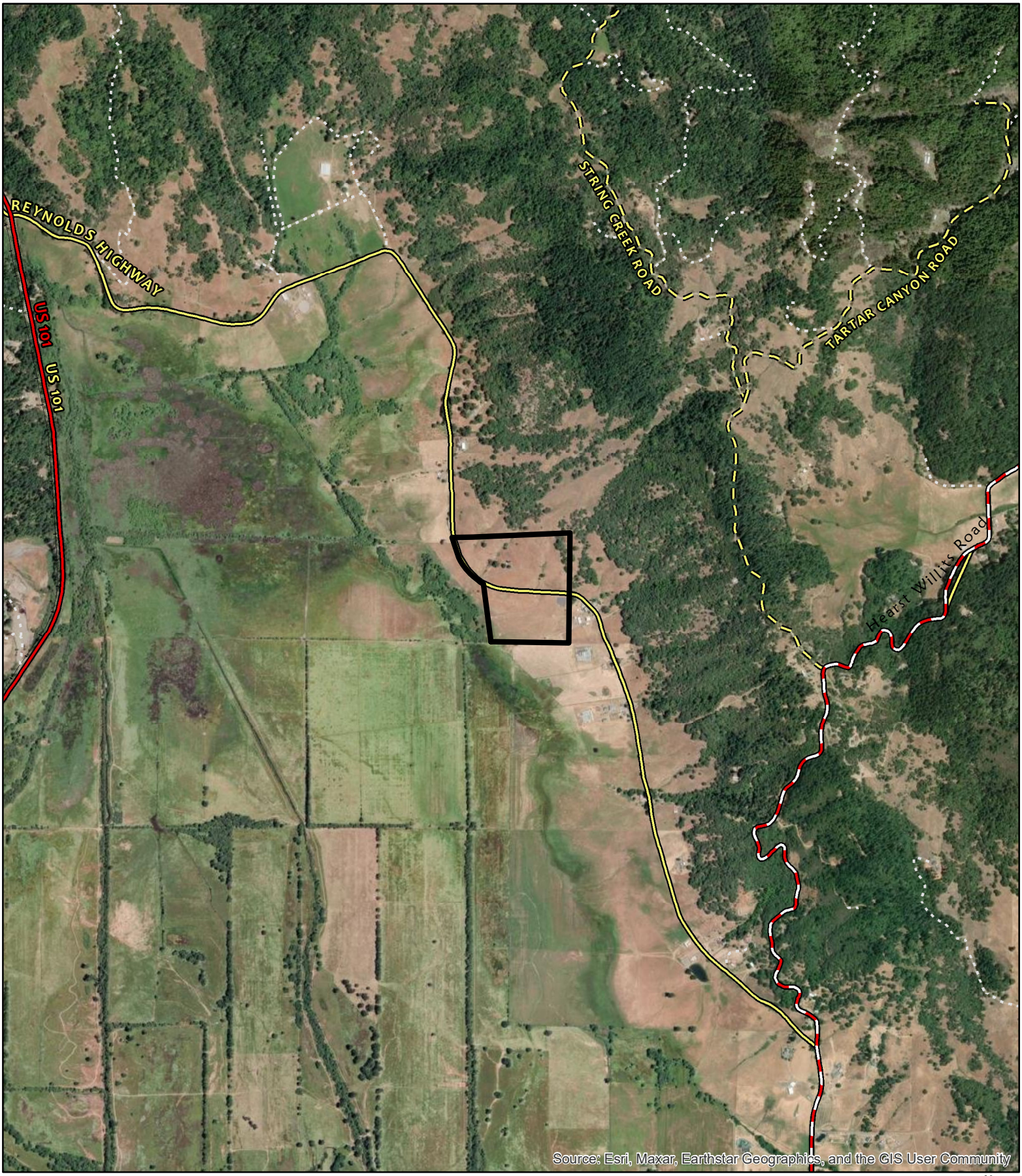
Major Towns & Places
Major Roads
City Limits
Highways

0 2,800 5,600 Feet
0 0.5 1 Miles

1:63,360

LOCATION

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Highways
Major Roads
Highways (2017)
Public Roads
Private Roads
Driveways/Unnamed Roads
Railroads

0 875 1,750 Feet
0 0.15 0.3 Miles

N W E S

1:20,000

AERIAL IMAGERY

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Public Roads

Assessors Parcels

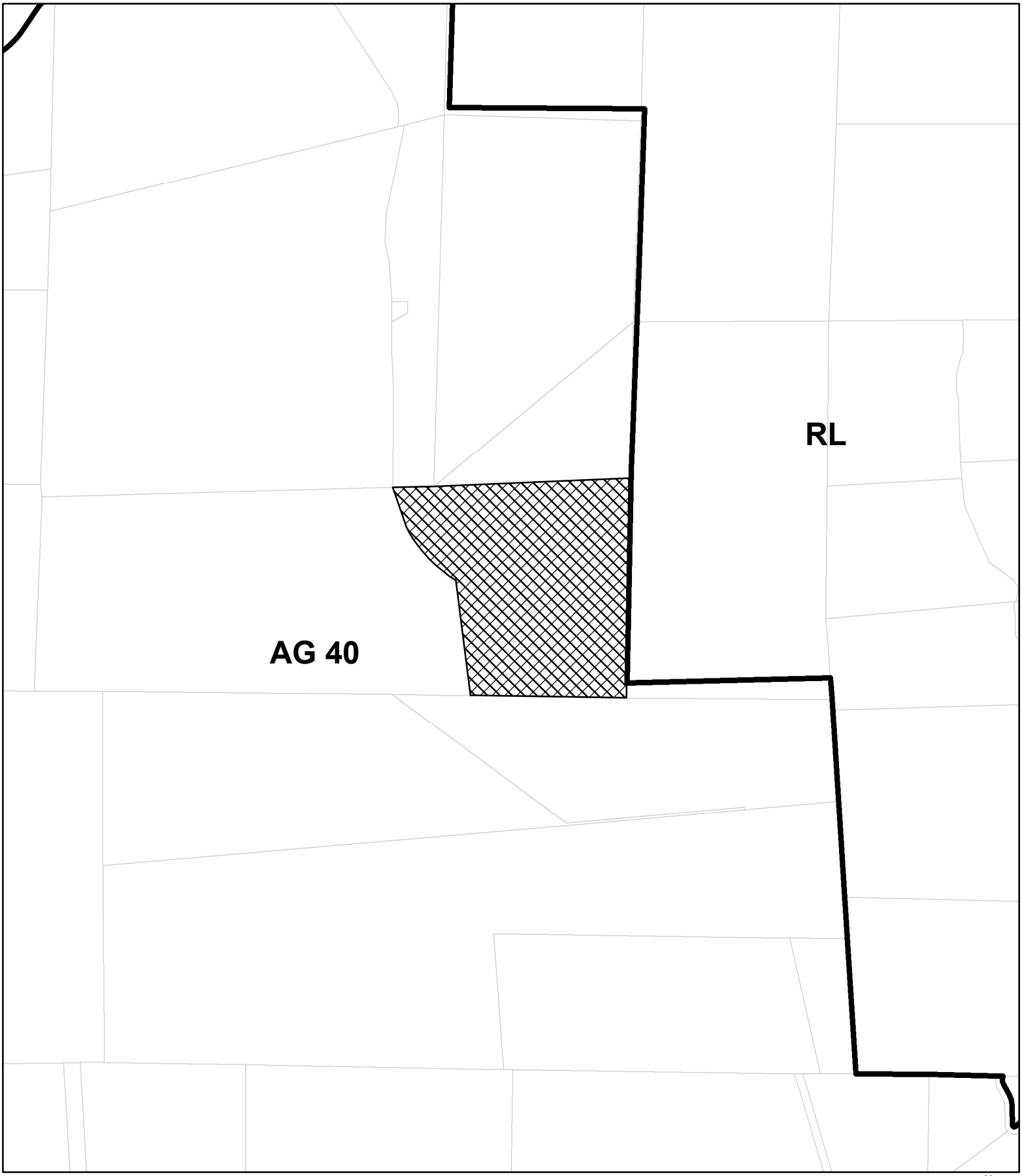
0 135 270 Feet
0 0.0225 0.045 Miles

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1:3,000

AERIAL IMAGERY

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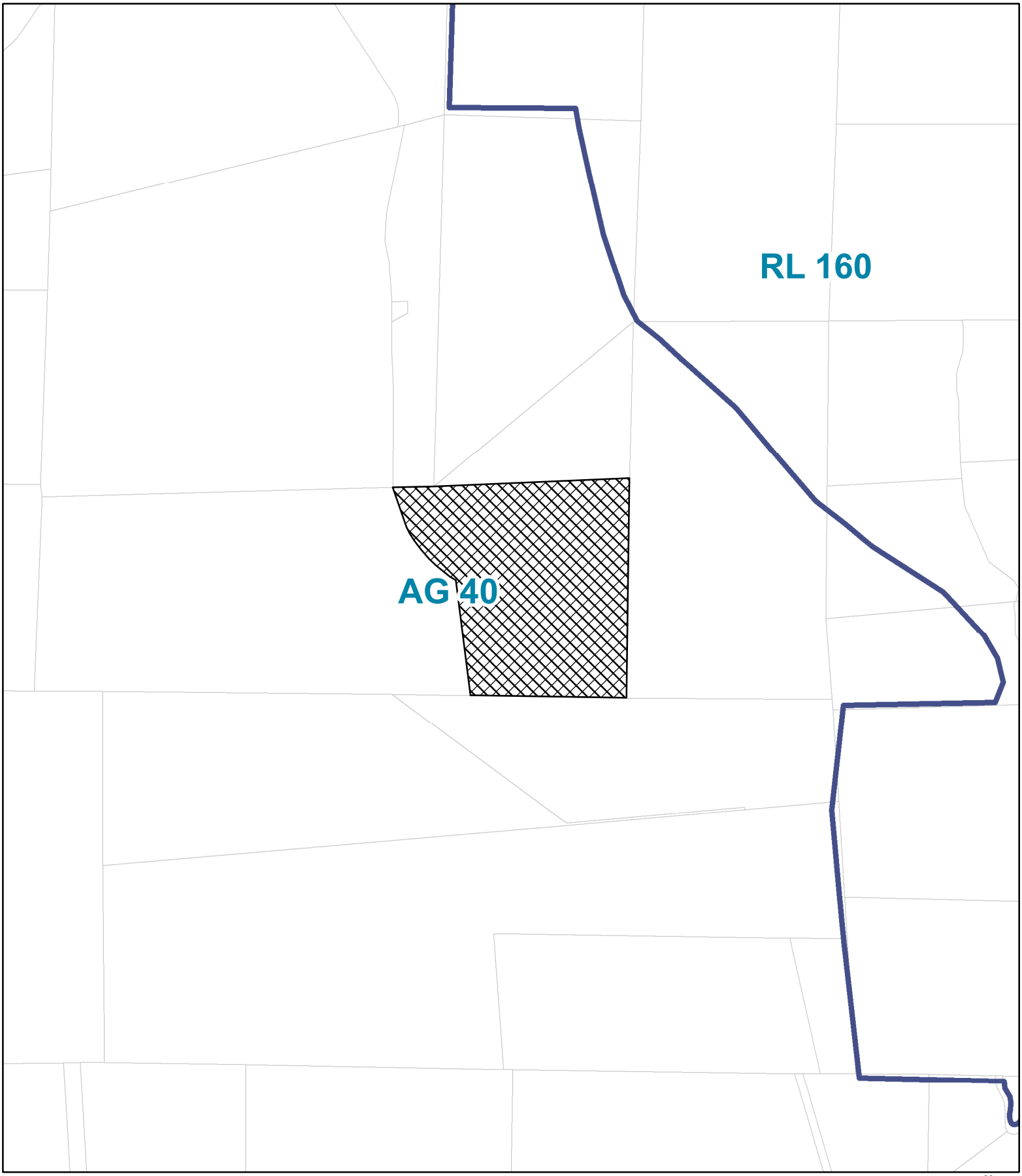
Zoning Districts
Assessors Parcels

0 455 910 Feet
0 0.075 0.15 Miles
1:10,000

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ZONING

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Assessors Parcels

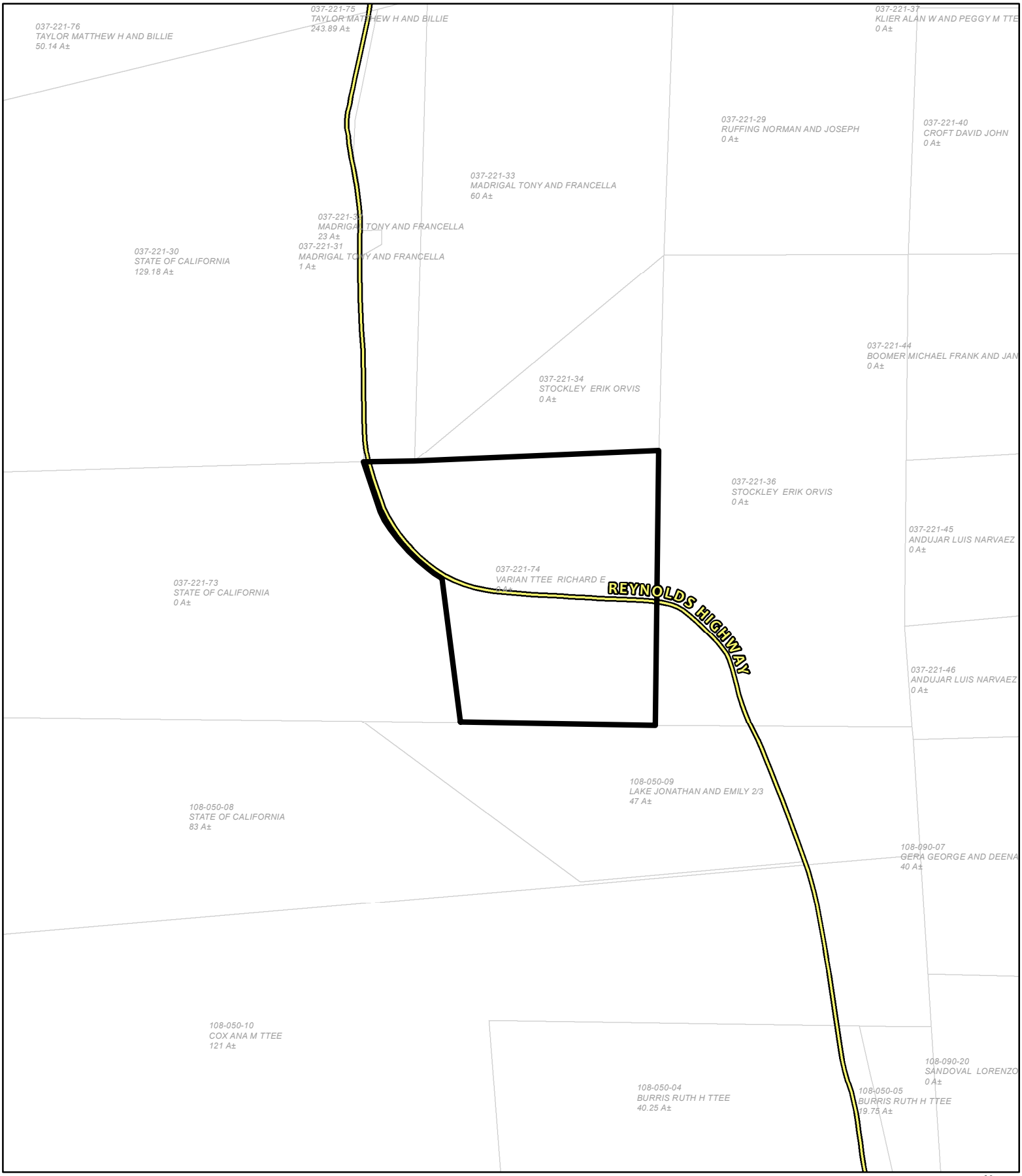
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0 0.075 0.15 Miles

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GENERAL PLAN

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AGENT: Eric Lentz, Verizon
ADDRESS: 24815 Reynolds Hwy, Willits

Public Roads

Assessors Parcels

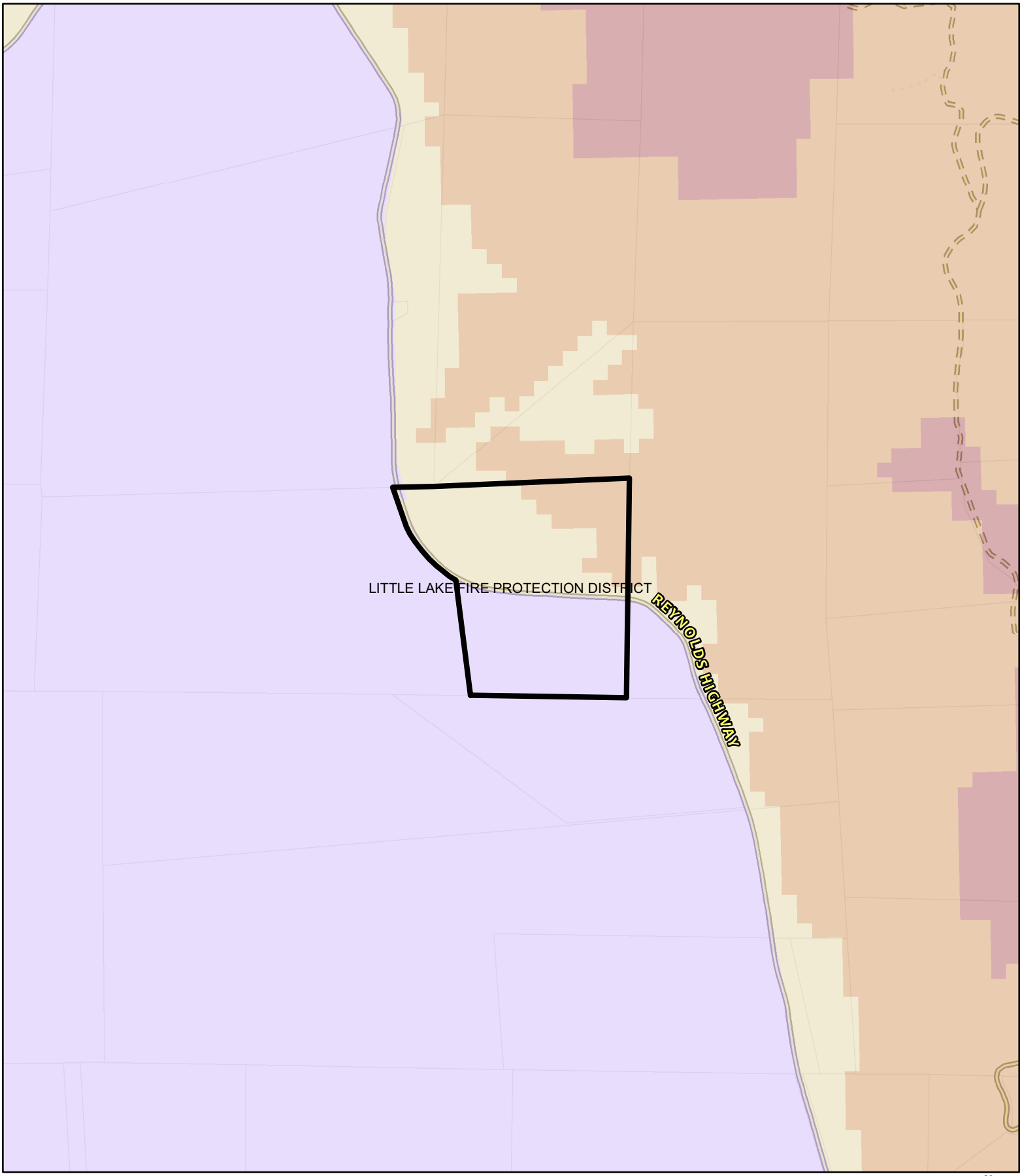
0 362.5 725 Feet
0 0.05 0.1 Miles

N W E S

1:8,000

ADJACENT PARCELS

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Very High Fire Hazard
High Fire Hazard
Moderate Fire Hazard
County Fire Districts
Public Roads
Private Roads
Driveways/Unnamed Roads
Assessors Parcels

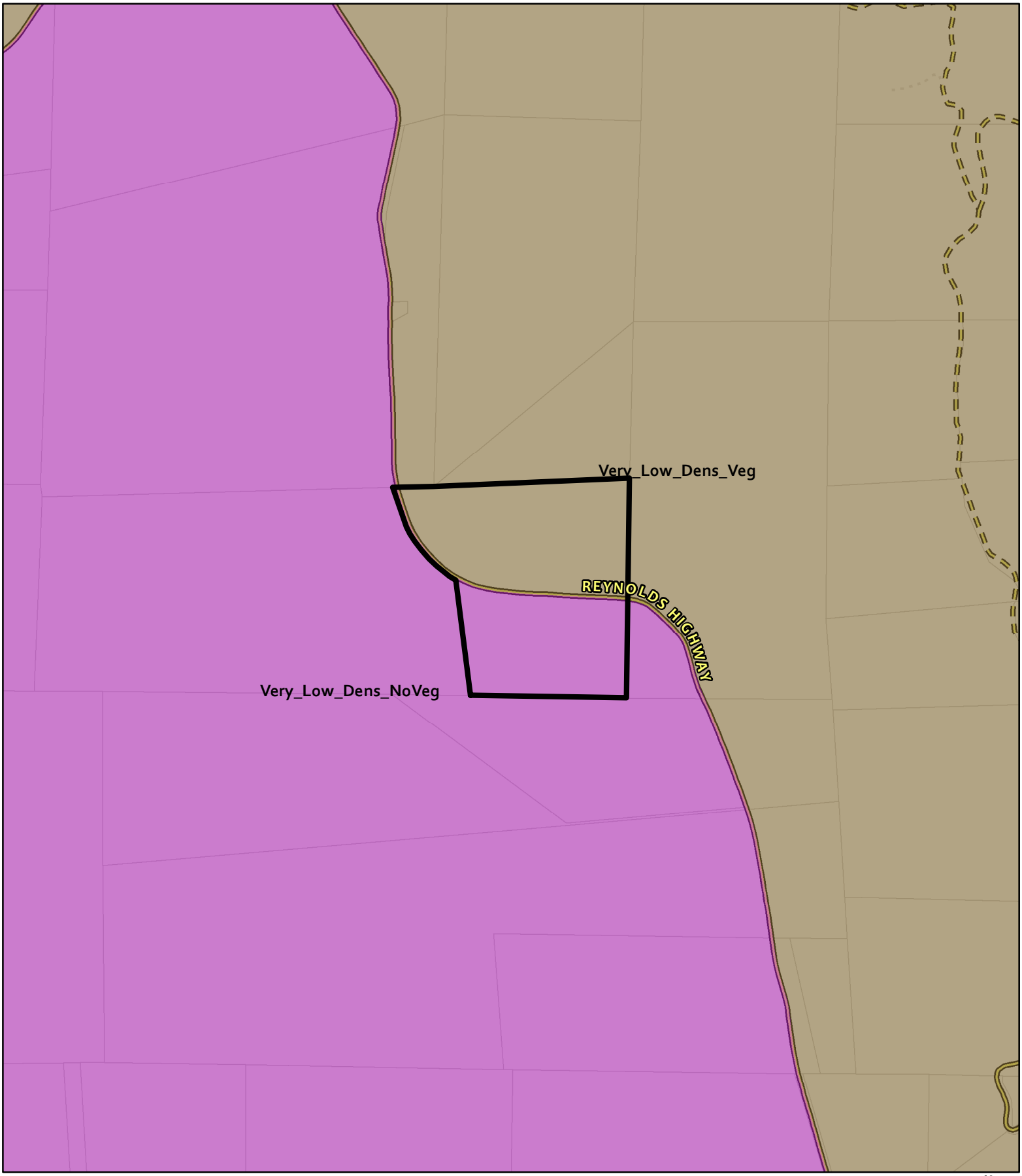
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N W E S

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FIRE HAZARD ZONES & RESPONSIBILITY AREAS
STATE RESPONSIBILITY AREA

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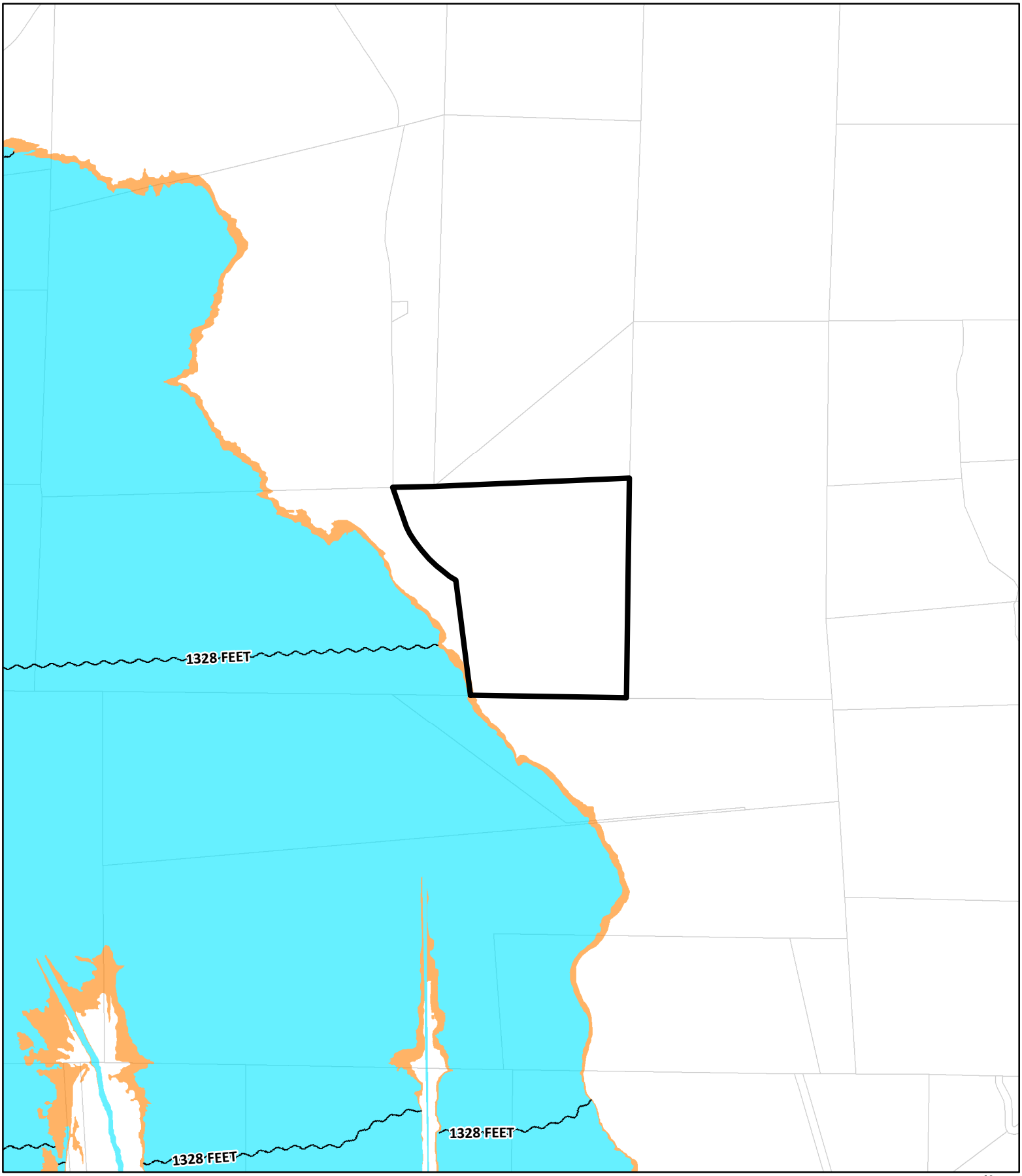
Public Roads
Private Roads
Driveways/Unnamed Roads
Assessors Parcels

0 455 910 Feet
0 0.075 0.15 Miles
1:10,000

N W E S

WILDLAND-URBAN INTERFACE

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ADDRESS: 24815 Reynolds Hwy, Willits

Base Flood Elevations
1% Annual Chance Flood Hazard
0.2 PCT ANNUAL CHANCE FLOOD HAZARD
Assessors Parcels

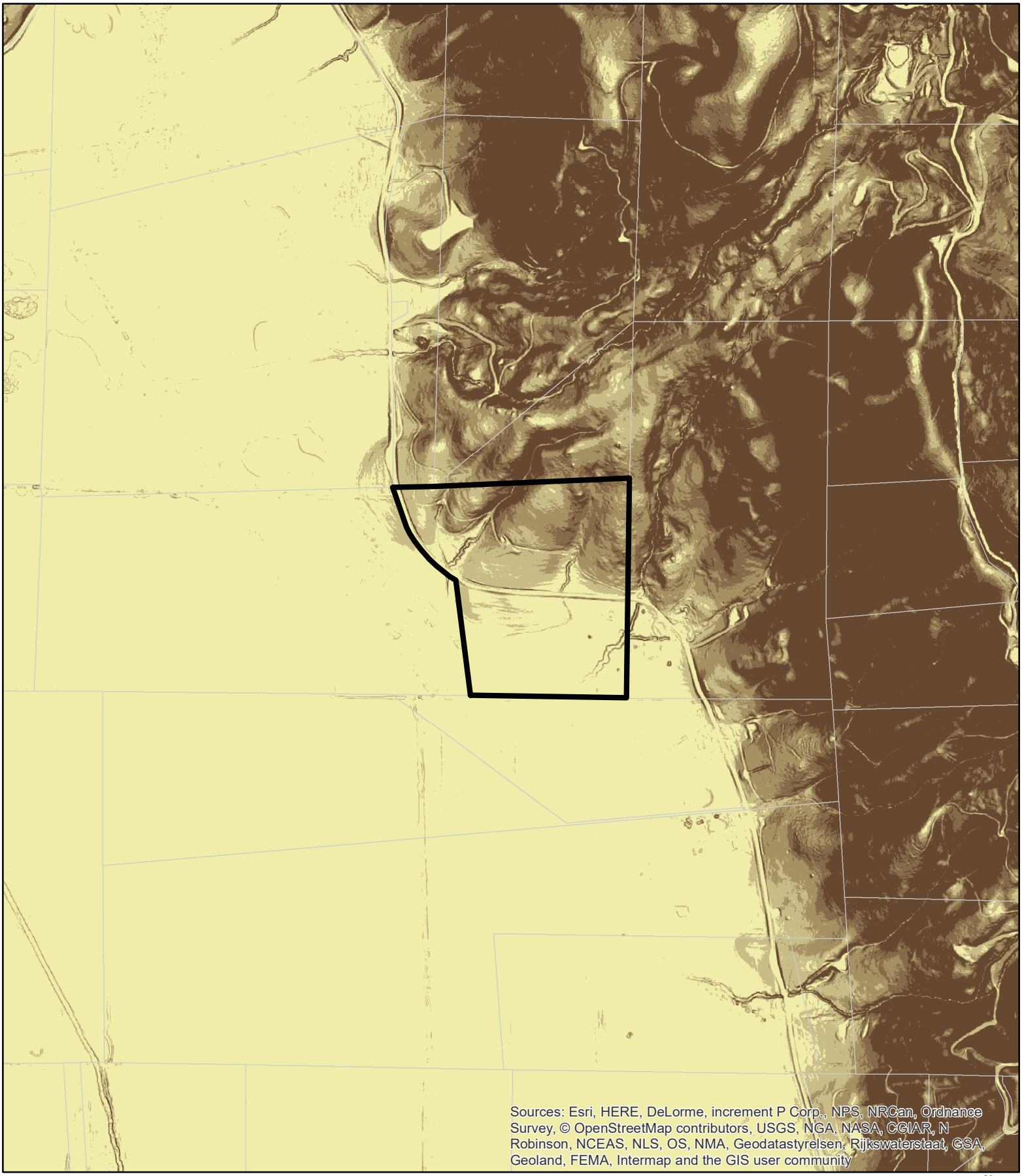
0 455 910 Feet
0 0.075 0.15 Miles

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FLOOD ZONES

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Assessors Parcels
0 - 10%
10% - 20%
20% - 30%
30% - 40%
40% - 50%

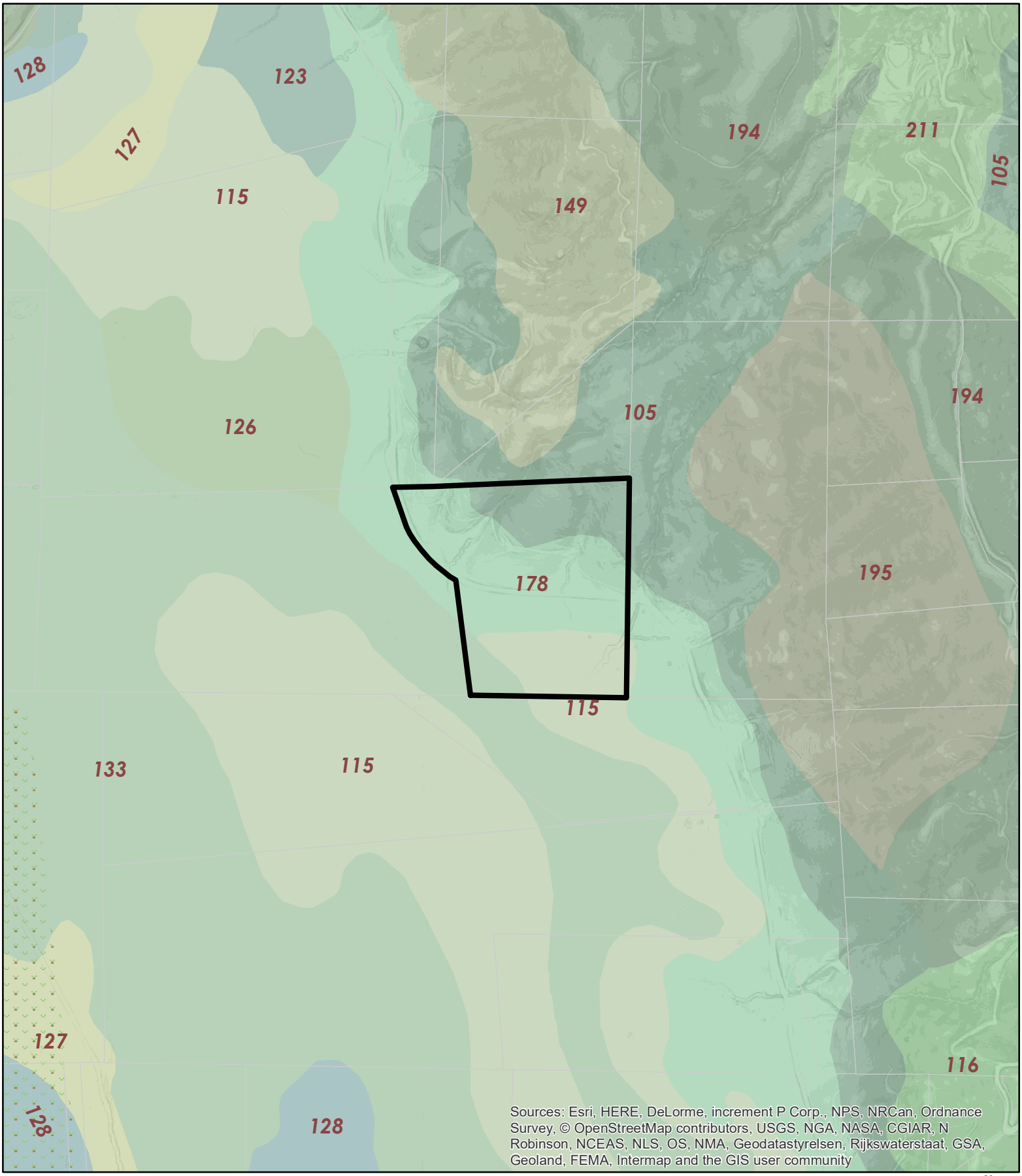
0 455 910 Feet
0 0.075 0.15 Miles

1:10,000

N W E S

ESTIMATED SLOPE

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Assessors Parcels

Naturally Occurring Asbestos

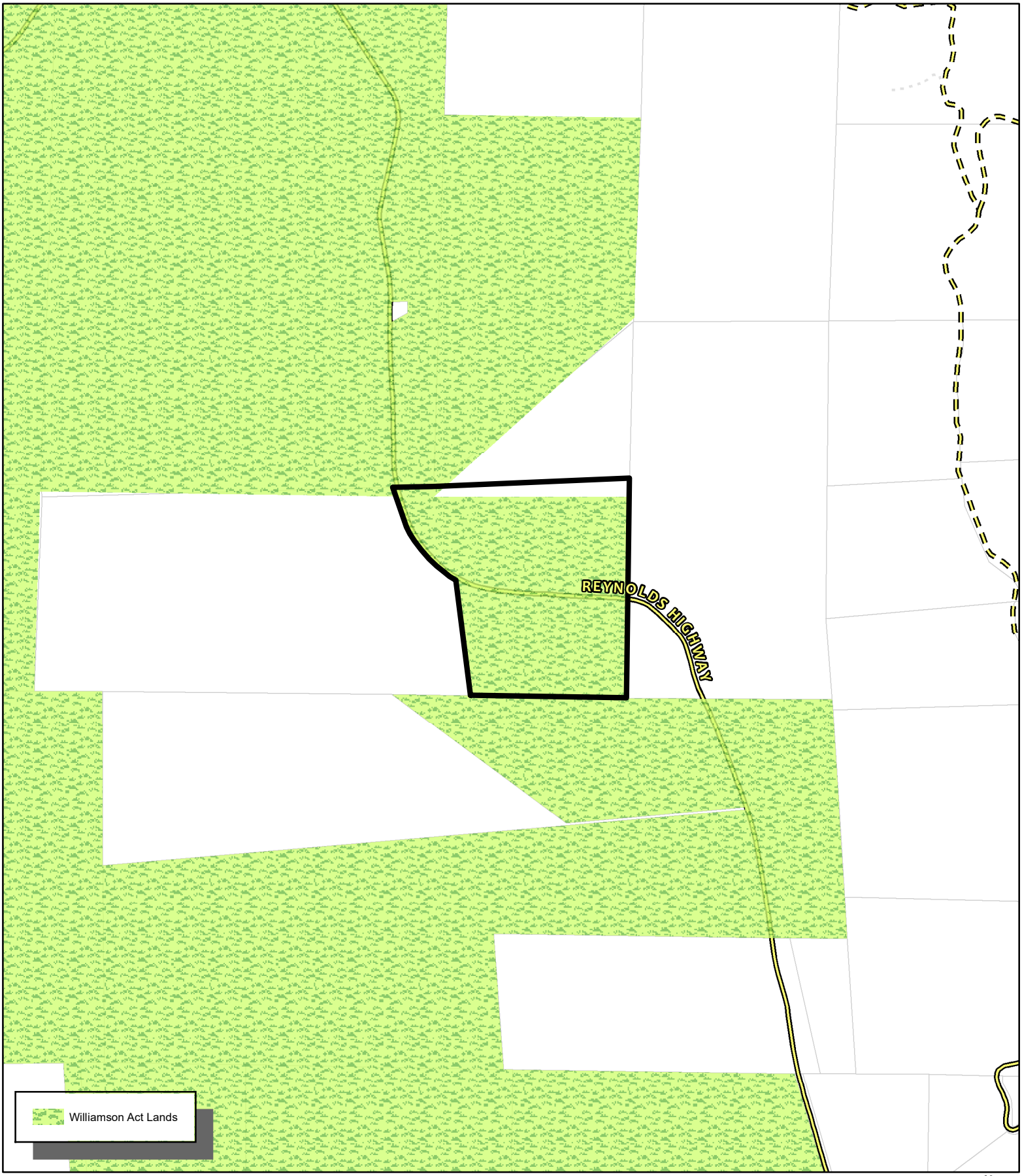
0 455 910 Feet
0 0.075 0.15 Miles

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N W E S

EASTERN SOIL CLASSIFICATIONS

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Public Roads
Private Roads
Driveways/Unnamed Roads
Assessors Parcels

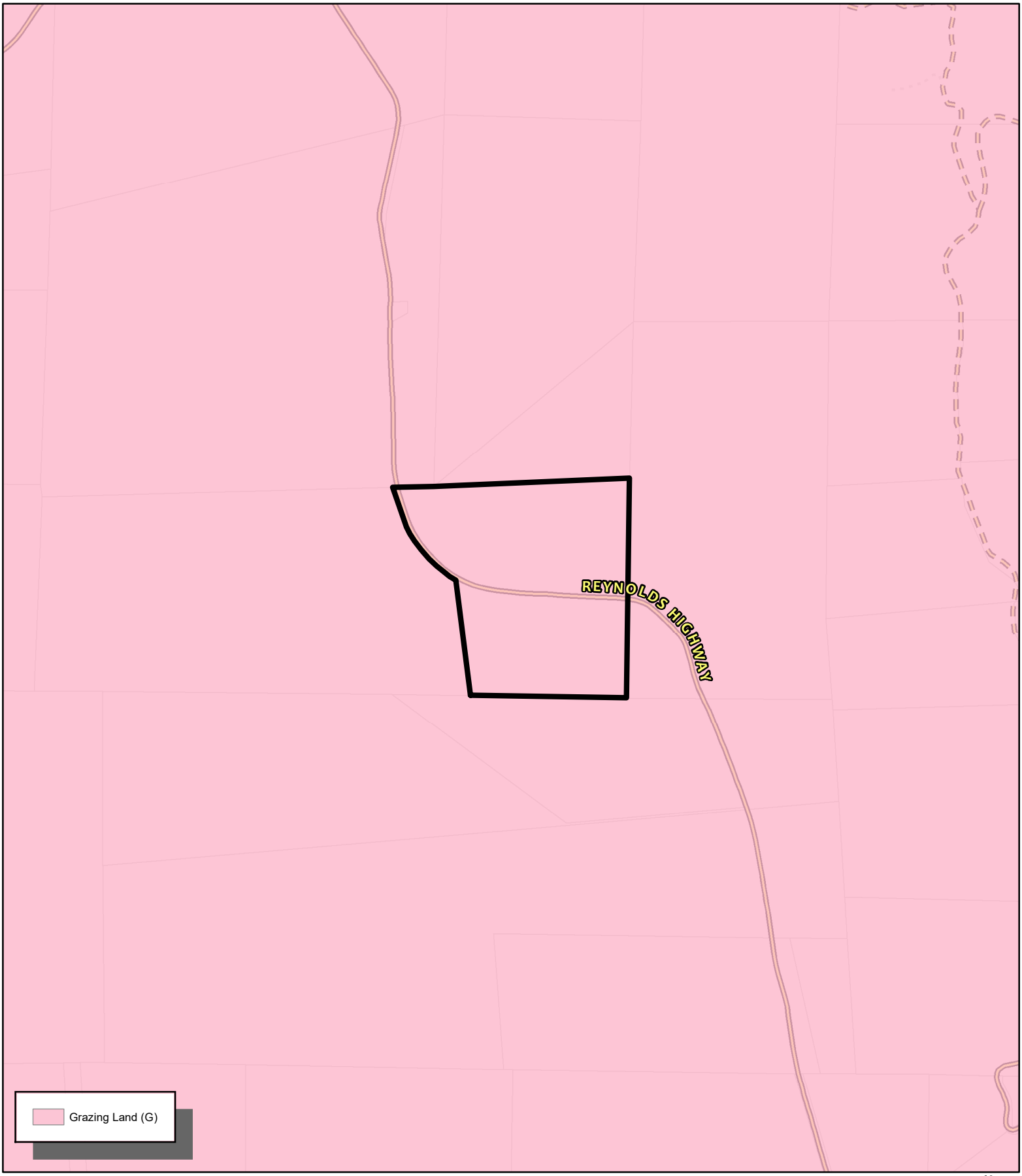
0 455 910 Feet
0 0.075 0.15 Miles

N W E S

1:10,000

WILLIAMSON ACT

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Public Roads
Private Roads
Driveways/Unnamed Roads
Assessors Parcels

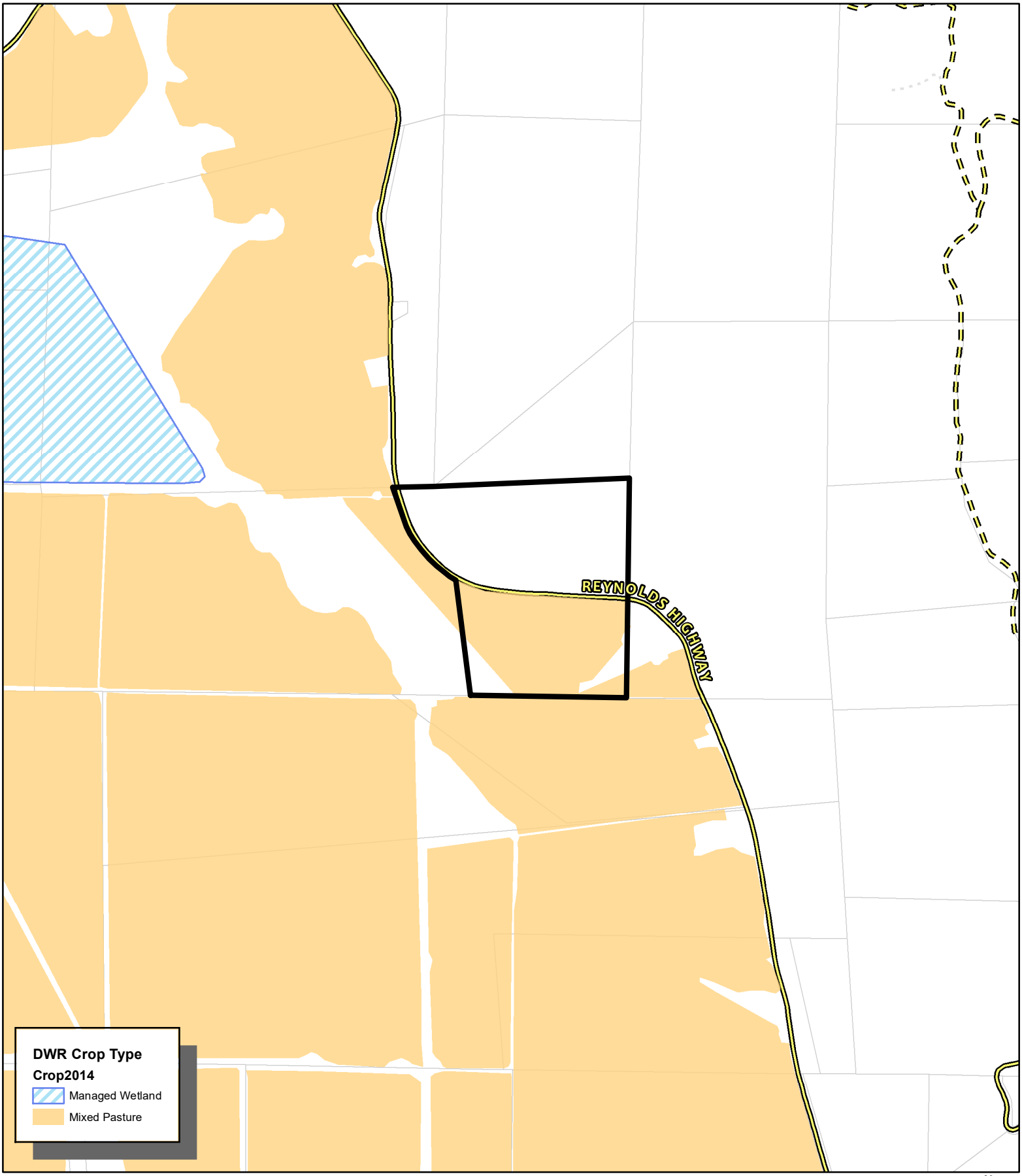
0 455 910 Feet
0 0.075 0.15 Miles

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1:10,000

IMPORTANT FARMLANDS

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Public Roads
Private Roads
Driveways/Unnamed Roads
Assessors Parcels

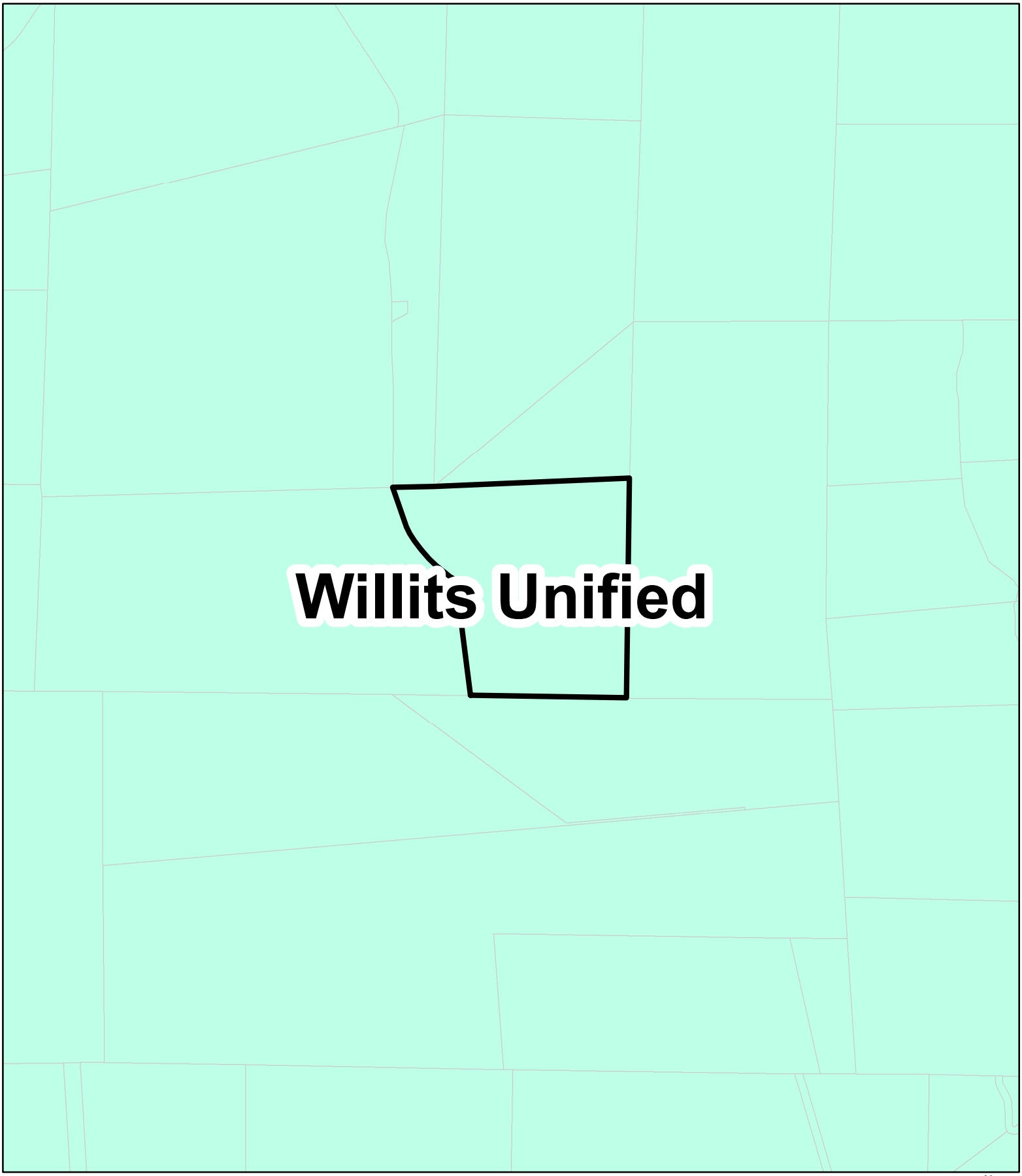
0 455 910 Feet
0 0.075 0.15 Miles

N
W E
S

1:10,000

CROP TYPES

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OWNER: VARIAN, Richard & Kathleen Jacobs
APN: 037-221-74
APLCT: Verizon Wireless
AGENT: Eric Lentz, Verizon
ADDRESS: 24815 Reynolds Hwy, Willits

Assessors Parcels

0 455 910 Feet
0 0.075 0.15 Miles

N
W E
S

1:10,000

SCHOOL DISTRICT

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