



Coos County Planning Department
Land Use Application

Official Use Only
FEE: 1479.00
Receipt No. 212845
Check No./Cash 29844
Date 6/28/19
Received By C. D. M.
File No. ACW-19-025

Please place a check mark on the appropriate type of review that has been requested.

- Administrative Review (checked)
Hearings Body Review
Final Development Plan (BDR)
Variance

An incomplete application will not be processed. Applicant is responsible for completing the form and addressing all criteria. Attach additional sheets to answer questions if needed. Please indicated not applicable on any portion of the application that does not apply to your request.

A. Applicant:

Name: Amanda Nations, Crown Castle on behalf of T-Mobile Telephone: 206-336-2889
Address: 1505 Westlake Ave N, Suite 800
City: Seattle State: WA Zip Code: 98109

B. Owner:

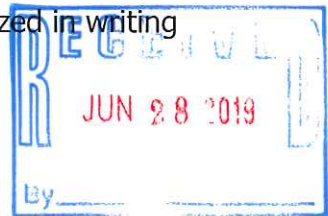
Name: Lone Rock Timber Investments I, LLC Telephone:
Address: PO Box 1127
City: Roseburg State: OR Zip Code: 97470

C. As applicant, I am (check one): Please provide documentation.

- The owner of the property (shown on deed of record);
The purchaser of the property under a duly executed written contract who has the written consent of the vendor to make such application (consent form attached).
A lessee in possession of the property who has written consent of the owner to make such application (consent form attached).
The agent of any of the foregoing who states on the application that he/she is the duly authorized agent and who submits evidence of being duly authorized in writing by his principal (consent form attached). (checked)

D. Description of Property:

Township 27S Range 13W Section 10 Tax Lot 2500
Tax Account 703301 Lot Size 14.56 Acres Zoning District F



**E. Information (please check off as you complete)**

- 1. Project Proposal. Attach description if needed. \_\_\_\_\_
- 2. A detailed parcel map of the subject property illustrating the size and location of existing and proposed uses, structures and roads on an 8½" x 11" paper to scale. Applicable distances must be noted on the parcel map along with slopes. (See example plot map)Covenants or deed restrictions on the property, if unknown contact title company.
- 3. Existing Use wireless communications facility
- 4. Site Address T27S R13W S10 SE1/4, COOS BAY, OR, 97420
- 5. Access Road Road off Beaver Creek Ln
- 6. Is the Property on Farm/Forest Tax Deferral no
- 7. Current Land Use (timber, farming, residential, etc.) timber, WCF
- 8. Major Topography Features (streams, ditches, slopes, etc.) no
- 9. List all lots or parcels that the current owner owns, co-owns or is purchasing which have a common boundary with the subject property on an assessment map.
- 10. Identify any homes or development that exists on properties identified in #9.
- 11. A copy of the current deed of record.

**F. Proposed use and Justification**

Please attach an explanation of the requested proposed use and **findings (or reasons)** regarding how your application and proposed use comply with the following the Coos County Zoning and Land Development Ordinance (LDO). Pursuant to the LDO, this application may be approved only if it is found to comply with the applicable criteria for the proposed use. Staff will provide you with the criteria; however, staff cannot provide you with any legal information concerning the adequacy of the submitted findings, there is no guarantee of approval and the burden rests on the applicant. (You may request examples of a finding)

**List of Applicable Criteria and Justification:**

please see attached eligible facility request narrative and statement of code compliance

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**G. Authorization:**

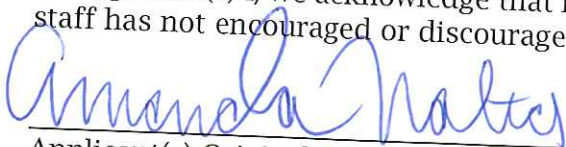
All areas must be initialed by all applicant(s) prior to the Planning Department accepting any application unless the statement is not applicable. If one of the statements, below is not applicable to your request indicated by writing N/A.

I hereby attest that I am authorized to make the application for a conditional use and the statements within this application are true and correct to the best of my knowledge and belief. I affirm that this is a legally created tract, lot or parcel of land. I understand that I have the right to an attorney for verification as to the creation of the subject property. I understand that any action authorized by Coos County may be revoked if it is determined that the action was issued based upon false statements or misrepresentation.

**ORS 215.416 Permit application; fees; consolidated procedures; hearings; notice; approval criteria; decision without hearing.** (1) When required or authorized by the ordinances, rules and regulations of a county, an owner of land may apply in writing to such persons as the governing body designates, for a permit, in the manner prescribed by the governing body. The governing body shall establish fees charged for processing permits at an amount no more than the actual or average cost of providing that service. The Coos County Board of Commissioners adopt a schedule of fees which reflect the average review cost of processing and set-forth that the Planning Department shall charge the actual cost of processing an application. Therefore, upon completion of review of your submitted application/permit a cost evaluation will be done and any balance owed will be billed to the applicant(s) and is due at that time. By signing this form you acknowledge that you are responsible to pay any debt caused by the processing of this application. Furthermore, the Coos County Planning Department reserves the right to determine the appropriate amount of time required to thoroughly complete any type of request and, by signing this page as the applicant and/or owner of the subject property, you agree to pay the amount owed as a result of this review. If the amount is not paid within 30 days of the invoice, or other arrangements have not been made, the Planning Department may choose to revoke this permit or send this debt to a collection agency at your expense.

I understand it is the function of the planning office to impartially review my application and to address all issues affecting it regardless of whether the issues promote or hinder the approval of my application. In the event a public hearing is required to consider my application, I agree I bear the burden of proof. I understand that approval is not guaranteed and the applicant(s) bear the burden of proof to demonstrate compliance with the applicable review criteria.

As applicant(s) I/we acknowledge that is in my/our desire to submit this application and staff has not encouraged or discouraged the submittal of this application.



Applicant(s) Original Signature

\_\_\_\_\_ Applicant(s) Original Signature

AMANDA NATIONS

Print Name

\_\_\_\_\_ Print Name



1505 Westlake Ave N  
Seattle, WA 98109

Phone: (206) 336-2889  
Fax:  
www.crowncastle.com

June 26, 2019

COUNTY OF COOS, OR  
225 N. Adams Street  
Coquille, Oregon 97423

RE: Eligible Facilities Request to modify equipment on a communications tower located at:  
T27S R13W S10 SE1/4, COOS BAY, OR, 97420  
Crown Site Number: 857698 / Crown Site Name: GREENACRES  
Customer Site Number: PO01039A / Application Number: 449133

Crown Castle USA Inc. ("Crown Castle") on behalf of T-Mobile West LLC ("T-Mobile") is submitting the attached Eligible Facilities Request application to add transmission equipment on a telecommunications tower located at T27S R13W S10 SE1/4, COOS BAY, OR 97420 in COUNTY OF COOS, OR (the "GREENACRES Tower").

The proposed modifications are non-substantial in nature and include the installation of (3) panel antenna, (6) RRUs, (2) microwave dishes, (2) ODUs, and (1) platform mount on a 20' extension of the "GREENACRES Tower". (2) Equipment cabinets, (1) H-frame with utility equipment, (1) ice bridge, and (1) 25 Kw diesel generator are proposed on a new 8' x 15' concrete pad within the existing ground lease area (the Existing Site).

Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012, commonly known as the "Spectrum Act" (Pub. Law No. 112-96, 126 Stat 156), mandates that state and local governments "may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station."

With respect to height, this law allows for an extension of the most recently approved height prior to the passing of section 6409 (a) by 10%, or by the height of one additional antenna array with separation from the nearest existing antenna not to exceed 20-feet, whichever is greater. The proposal to increase the existing tower height by 20'-0" does not constitute a substantial change to the approved tower height under this ruling.

Notwithstanding the preceding, the following materials for a conditional use permit application are being provided at the request of Coos County:

- Cover letter and certification of non-substantial changes (this letter)
- Conditional Use Application Form
- Redacted second amendment authorizing scope of work
- Deed
- Statement of Code Compliance
- Construction drawings including site plan and elevations



In processing the application as a conditional use under FCC rules for 6409 modifications, "If reviewing State or local government determines that the application is incomplete" [they] "must provide written notice to the applicant within 30 days of receipt of the application, clearly and specifically delineating all missing documents or information." Under federal law, an Eligible Facilities Request is deemed granted with written notification in sixty (60) days after an application is filed with a local jurisdiction, excluding tolling.

T-Mobile is committed to working cooperatively with all jurisdictions around the country to secure expeditious approval of requests to modify existing personal wireless service facilities. If you should require more information regarding the Spectrum Act, please do not hesitate to contact me with your questions.

Sincerely,



Amanda Nations

[Amanda.Nations.Contractor@crowncastle.com](mailto:Amanda.Nations.Contractor@crowncastle.com)

(206) 336-2889

**ELIGIBLE FACILITIES REQUEST CERTIFICATION FOR NON-SUBSTANTIAL  
CHANGES  
TO A WIRELESS TOWER NOT LOCATED WITHIN A PUBLIC RIGHT OF WAY**

- 1) Address of the Wireless Tower: T27S R13W S10 SE1/4, COOS BAY, OR, 97420
- 2) The height (measured in feet above ground level) of the existing Tower as originally approved, including any modifications approved prior to February 22, 2012: 89'-0"
- 3) What is the height (measured in feet above ground level) at which the modifications to the Transmission Equipment will occur on the Tower? 105'-0"
4. What will be the height (measured in feet above ground level) of the existing Tower after the modifications to the Transmission Equipment are installed? 109'-0"
- 5) Effect of modifications of Transmission Equipment on Tower height:
- (A) Will the modifications in Transmission Equipment (addition, removal or replacement of Transmission Equipment) result in increasing the height above ground level of the existing Tower?  
 Yes  No
- (B) Will the modifications in Transmission Equipment result in increasing the height above ground level of the existing Tower by more than: (i) 10% of the height of the existing Tower, as originally approved, including any modifications approved prior to February 22, 2012; or (ii) twenty feet above the height of the existing Tower, as originally approved, including any modifications approved prior to February 22, 2012, whichever height increase is greater?  
 Yes  No
- 6) Will the modifications in Transmission Equipment (measured at the height above ground level where the Transmission Equipment will be attached to the tower) result in any Transmission Equipment protruding horizontally from the edge of tower by more than twenty (20) feet or by more than the existing width of the tower at that height, whichever of these dimensions is greater?  
 Yes  No
- 7) Will the proposed changes in Transmission Equipment involve excavation or placement of new equipment outside the existing Tower site or outside any access or utility easements currently related to the site?  
 Yes  No
- 8) Will the proposed modification in Transmission Equipment involve installation of more than the standard number of new equipment cabinets for the technology involved, but not to exceed four?  
 Yes  No



9) Will the proposed modification in Transmission Equipment defeat the existing concealment elements of the Tower?

Yes  No

(10) Prior Conditions of Approval

(A) Will the proposed modification in Transmission Equipment comply with conditions of approval imposed on the Tower prior to February 22, 2012?

Yes  No

(B) If the answer to 10(A) is "No," is the non-compliance due solely to any of the conditions addressed in questions 5-9 above?

Yes  No

**If the answer to either question 5A or 5B is "No", and the answers to questions 6-9 are "No", and the answer to either 10A or B is "Yes" then the proposed modifications do not substantially change the physical dimensions of the existing Tower. Please provide a brief explanation, if necessary, to clarify any answer.**

Explanatory Comments (If Needed):

Question No. \_\_\_\_\_

Comment:

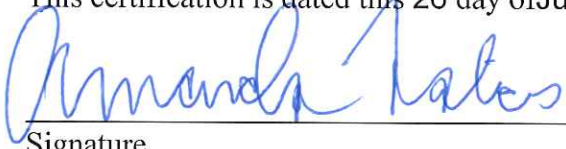
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This certification is dated this 26 day of June, 2019.



Signature

Amanda Nations, Real Estate Specialist

Name & Title

## SECOND AMENDMENT TO OPTION TO LEASE AND GROUND LEASE

THIS SECOND AMENDMENT TO OPTION TO LEASE AND GROUND LEASE (the "**Second Amendment**") is made and entered into as of the latter signature date hereof (the "**Effective Date**"), by and between Lone Rock Timber Investments I, LLC, a Delaware limited liability company ("**Landlord**") and NCWPCS MPL 30 - Year Sites Tower Holdings LLC, a Delaware limited liability company ("**Tenant**"), successor in interest to New Cingular Wireless PCS LLC, a Delaware limited liability company, by CCATT LLC, a Delaware limited liability company, Tenant's Attorney In Fact. Landlord and Tenant are sometimes hereinafter referred to collectively as the "**Parties**" and each individually as a "**Party**".

### RECITALS

A. WHEREAS, Landlord's and Tenant's predecessors in interest entered into an Option to Lease and Ground Lease, dated September 15, 2000 ("**Original Lease**"), amended by that certain First Amendment to Option to Lease and Ground Lease, dated June 12, 2015 (the "**First Amendment**") (collectively, the "**Lease**"), whereby Landlord leases to Tenant a portion of the property (said leased portion being referred to as "**Leasehold Parcel**" or "**Premises**"), which property is located at the SE 1/4 of the SE 1/4 of Section 10, Township 27 South, Range 13 West, W.M., in Coos County, State of Oregon (the "**Property**"); as described in more detail in the Lease;

B. WHEREAS, on August 22, 2001, a memorandum of the Original Lease, dated March 14, 2001, Document No. 20019937, in the official records of Coos County, Oregon;

C. WHEREAS, on August 25, 2015 a memorandum of the First Amendment, dated June 12, 2015, was recorded as Document No. 2015-007759, in the official records of Coos County, Oregon; and

D. WHEREAS, Landlord and Tenant desire to expand the Premises and otherwise amend the Lease as set forth herein.

### AGREEMENT

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are acknowledged, Landlord and Tenant agree as follows:

1. Defined Terms. Any capitalized terms not defined herein shall have the meanings ascribed to them in the Lease.

2. Leasehold Parcel/Premises. Section 1 of the Original Lease is hereby deleted and replaced with the following:

Option to Lease. (a) Landlord hereby grants to Tenant an option ("the Option") to lease from Landlord the following described Leasehold Parcel:

Approximate square footage: 1,260 square feet



3. Expansion of the Premises. The existing Premises is hereby expanded in size to include an additional three hundred sixty square foot (360 SF) area of real property near the existing Premises at a location more particularly shown on Exhibit B-1 attached hereto (the "**Additional Lease Area**"). Landlord and Tenant agree that the Premises, as modified herein, is depicted and/or described in Exhibit B-1 attached hereto. Exhibit B-1 which is incorporated herein by this reference, shall replace Exhibits A, B, & C to the Original Lease in their entirety. Any reference to Exhibits A, B, and/or C in the Lease shall be deemed to refer to Exhibit B-1. Notwithstanding anything to the contrary in this Second Amendment, including Exhibit B-1, Tenant is not relinquishing any rights to any lease area, access easements, and/or utility easements that it possesses prior to the Effective Date. In the event the location(s) of any of Tenant's or its subtenants' existing improvements, utilities, and/or access routes are not depicted or described in Exhibit B-1, site plans and/or legal descriptions, Tenant's leasehold rights and access and utility easement rights over such area(s) shall remain in full force and effect and the Premises shall be deemed to include such areas. Any reference in Exhibit B-1 to the "Lease Area" shall mean the "Premises", not including utility and access easements.

13. Remainder of Lease Unaffected. In all other respects, the remainder of the Lease shall remain in full force and effect. Any portion of the Lease that is inconsistent with this Second Amendment is hereby amended to be consistent.

**SIGNATURES AND ACKNOWLEDGEMENTS ON FOLLOWING PAGES**

**REST OF PAGE LEFT INTENTIONALLY BLANK**



IN WITNESS WHEREOF, Landlord and Tenant, having read the foregoing and intending to be legally bound hereby, have caused this Second Amendment to be duly executed by their duly authorized representatives as of the date(s) written below.

**LANDLORD:**

**Lone Rock Timber Investments I, LLC,**  
a Delaware limited liability company

By: 

Printed Name: GREG BERNE

Title: GM

Date: 6/13/19

**TENANT:**

**NCWPCS MPL 30 - Year Sites Tower Holdings LLC,**  
a Delaware limited liability company

By: **CCATT LLC,** a Delaware limited liability company, Its Attorney in Fact

By: 

Printed Name: Kirk Fraser

Title: District Manager

Date: 6/13/2019

-

**ACKNOWLEDGEMENTS ON FOLLOWING PAGE**

ACKNOWLEDGEMENT

STATE OF Oregon )  
 ) ss.  
COUNTY OF Douglas )

On June 3, 2019 before me, Debra Ann Lee  
(printed name of notary), the undersigned, a Notary Public in and for said State, personally  
appeared Greg Byrne, personally known to me (or proved to me on  
the basis of satisfactory evidence) to be the person whose name is subscribed to the within  
instrument and acknowledged to me that s/he executed the same in his/her authorized capacity as  
General Manager (title) of Lone Rock Timber Investments I, LLC, and that by his/her  
signature on the instrument the entity upon behalf of which the person acted, executed the  
instrument. I certify under PENALTY OF PERJURY under the laws of the State of  
Oregon that the foregoing paragraph is true and correct.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Stamp (if required):

Date: June 3, 2019

Signature: Debra Ann Lee

Title of office: -

My commission expires: 2-28-22



ACKNOWLEDGEMENT

STATE OF WASHINGTON )  
 ) ss.  
COUNTY OF KING )

I certify that I know or have satisfactory evidence that Kirk Ferrar is  
the person who appeared before me, and said person acknowledged that s/he signed this  
instrument, on oath stated that s/he was authorized to execute the instrument and acknowledged it  
as the District Manager (type of authority, e.g., officer, trustee, etc.) of CCATT  
LLC to be the free and voluntary act of such party for the uses and purposes mentioned in the  
instrument.

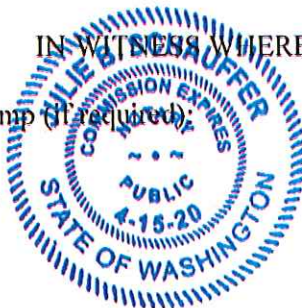
IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Stamp (if required):

Date: June 13, 2020

Signature: Jill B. Selander

My appointment expires: 4/15/20





**EXHIBIT B-1**

**DESCRIPTION OF PREMISES**

**See Attached Drawings**



PROPRIETARY INFORMATION  
 THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS IS THE PROPERTY OF CROWN CASTLE. ANY USE OR REPRODUCTION OF THIS INFORMATION WITHOUT THE WRITTEN PERMISSION OF CROWN CASTLE IS STRICTLY PROHIBITED.

**SITE NAME**  
 GREEN ACRES

**B.U.N.**  
 657698

**SITE ADDRESS**  
 T27S R13W S10 SE1/4  
 COOS BAY, OR 97420

**COOS COUNTY**

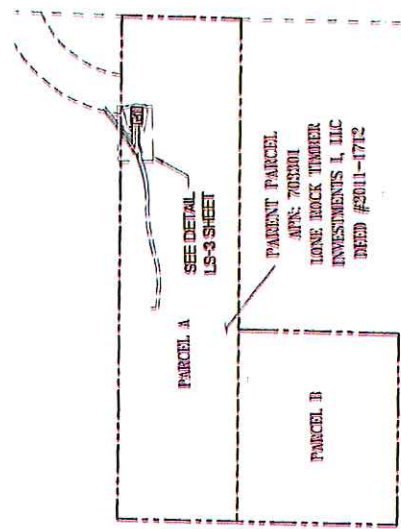
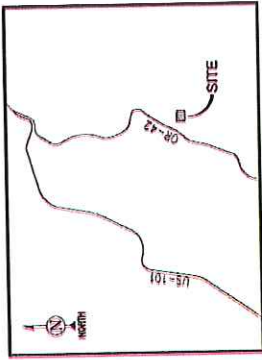


**ambit consulting**  
 345 SAINT MARIAS AVE. SUITE 304  
 TACOMA, WASHINGTON 98407  
 PH: (253) 570-9488

NO.	DATE	DESCRIPTION	BY
1		SUBMITTAL	CC
2		REVISIONS	NS
3		REVISIONS	NS
4		REVISIONS	NS
5		REVISIONS	NS
6		REVISIONS	NS
7		REVISIONS	NS
8		REVISIONS	NS
9		REVISIONS	NS
10		REVISIONS	NS

**SHEET TITLE**  
 TITLE

**SHEET NO.**  
 LS-1



**OVERALL DETAIL**  
 SCALE: 1" = 75' (1" X 1.17')  
 1" = 150' (1" X 3.34')

**LEGEND**

P.O.I.	POINT OF TERMINUS
P.O.C.	POINT OF COMMENCEMENT
P.O.B.	POINT OF BEGINNING
CLF	CHAIN LINK FENCE
EP	EDGE OF PAVEMENT
CMU	CONCRETE MASONRY UNIT
UTIL	UTILITY
CMB	CABINET
☉	LIGHT POLE
⊙	UTILITY POLE
⊙	POSITION OF GEODETIC COORDINATES
—	CHAIN LINK FENCE
---	LIMITS OF LESSOR'S PROPERTY
---	LEASE AREA
---	EASEMENT

**POSITION OF GEODETIC COORDINATES**  
 LATITUDE 45° 14' 20.37" NORTH (NAD83)  
 LONGITUDE 124° 13' 08.28" WEST (NAD83)  
 CHASSID ELEVATION @ 447.5' (NAVD83)

**SURVEY DATE**  
 03/11/2009

**CERTIFICATION**  
 ALL UNRECORDED RELATED IMPROVEMENTS ARE CONTAINED WITHIN THE OVERALL LEASE AREA.

CERTIFIED TO:  
 CROWN CASTLE  
 CHICAGO TITLE INSURANCE COMPANY

**PRELIMINARY**  
 REGISTRANT: ILS #XXXXX DATE

- SURVEYOR'S NOTES**
1. SURVEYOR DOES NOT GUARANTEE THAT ALL UTILITIES ARE SHOWN OR THEIR LOCATIONS ARE ACCURATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR OR OWNER TO CONTACT ANY INVOLVED AGENCIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. REMOVAL, RELOCATION AND/OR REPLACEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR.
  2. BUILDING SETBACK LINES, ZONING, FLOOD AREA ZONES, AND ADDRESSES THAT MAY BE SHOWN ARE SUPPLIED BY THE GOVERNING AGENCY OR TAKEN FROM THE BEST AVAILABLE RECORDS. SURVEYOR WILL NOT ACCEPT RESPONSIBILITY FOR THE ACCURACY OF ANY INFORMATION SUPPLIED BY OTHERS.
  3. THE DESCRIPTION OF PROPERTY BOUNDARIES AND EASEMENTS SHOWN HEREON REPRESENT THAT INFORMATION PROVIDED IN A TITLE REPORT, ORDER NO. OHC-WC-1434492-C, ISSUED BY CHICAGO TITLE INSURANCE COMPANY, DATED MARCH 4, 2019. ANY INFORMATION SHOWN WHICH MAY VARY FROM THE CONTENTS OF THE REPORT(S) NOTED ABOVE, REPRESENTS INFORMATION AND MEASUREMENTS FOUND DURING THE COURSE OF THE SURVEY.
  4. BEARINGS SHOWN HEREON ARE BASED UPON U.S. STATE PLANE NAD83 (2011) COORDINATE SYSTEM, OREGON STATE PLANE COORDINATE ZONE SOUTH, DELIVERED BY GPS OBSERVATIONS.
  5. THIS PROJECT APPEARS TO BE LOCATED WITHIN FLOOD ZONE "X" ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP(S), MAP ID #1401010266L, DATED 03/17/2004.
  6. PROJECT ELEVATIONS ESTABLISHED FROM GPS DERIVED ORTHOMETRIC HEIGHTS BY APPLICATION OF NGS "GEOID 12B" MODELED SEPARATIONS TO ELLIPSOID HEIGHTS DETERMINED BY RAW STATIC GPS DATA. ALL ELEVATIONS SHOWN HEREON ARE REFERENCED TO NAVD83.
  7. THE PURPOSE OF THIS SURVEY IS TO ESTABLISH OR DETERMINE A CROWN CASTLE LEASE PARCEL AND ASSOCIATED EASEMENTS. THE BEARINGS AND DISTANCES SHOWN HEREON IS PLOTTED FROM RECORD INFORMATION OF THE PROPERTY, LEASE CORNERS WERE NOT FOUND OR SET AT THE TIME OF THE FIELD SURVEY. PER CROWN CASTLE REQUIREMENTS CORNERS WILL BE SET AT THE CLIENT'S DISCRETION UPON FINAL APPROVAL OF THE SURVEY.



PROPRIETARY INFORMATION  
 THE INFORMATION CONTAINED IN THIS SET  
 OF DRAWINGS IS THE PROPERTY OF CROWN CASTLE  
 AND IS TO BE USED ONLY FOR THE PROJECT AND  
 LOCATIONS IDENTIFIED HEREIN. IT IS TO BE KEPT  
 STRICTLY CONFIDENTIAL.

SITE NAME  
**GREEN ACRES**

B.U.N.  
 857686

SITE ADDRESS  
 1275 F13W S10 SE14  
 COOS BAY, OR 97420  
 COOS COUNTY



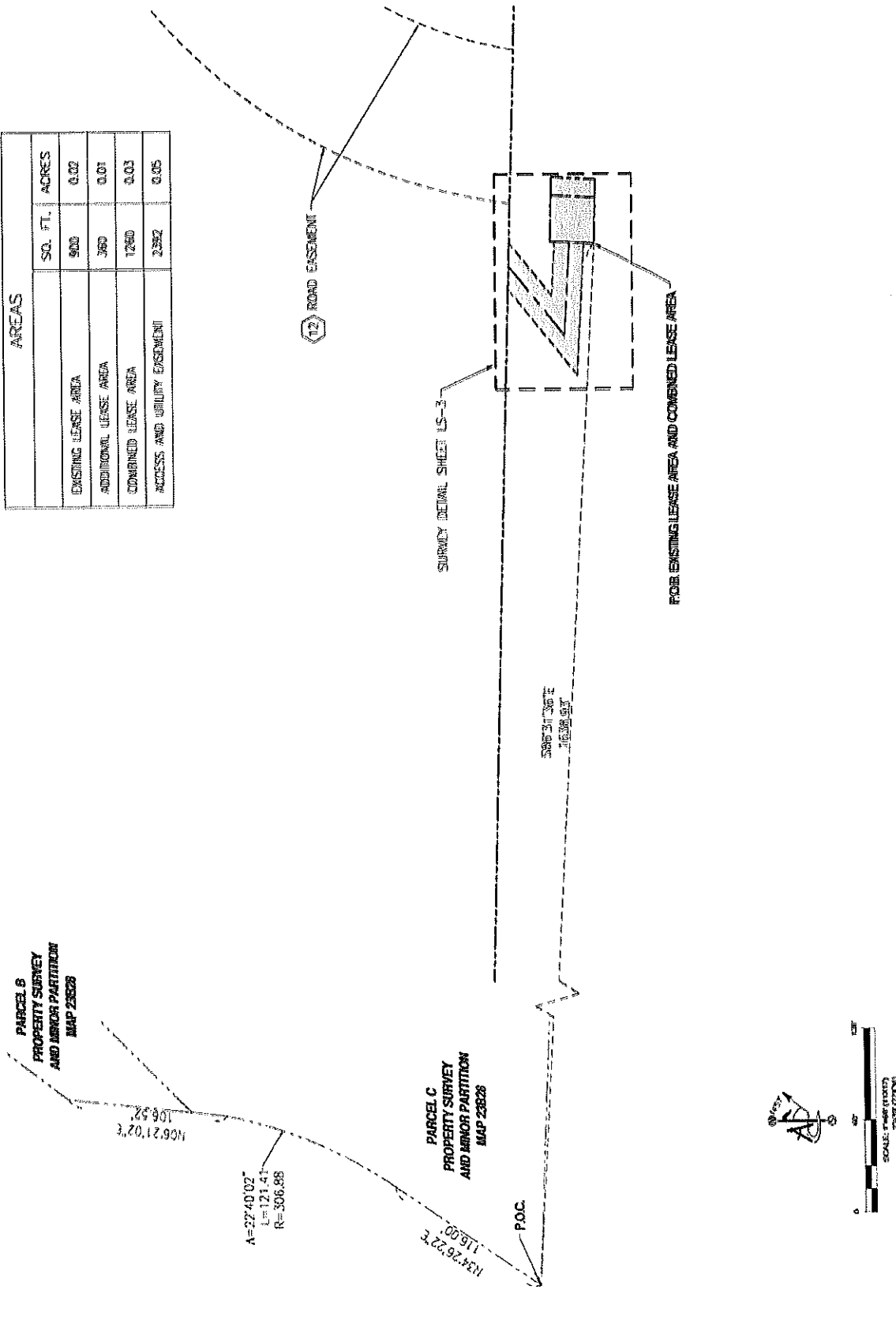
ambit consulting  
 245 SHAW REEDS AVE. SUITE 3A  
 TIGARD, OREGON 97146  
 PH: (503) 771-7818

NO.	DATE	DESCRIPTION	BY
1		ISSUED FOR PERMITS	CA
2		REVISED	CA
3		REVISED	CA
4		REVISED	CA
5		REVISED	CA
6		REVISED	CA
7		REVISED	CA
8		REVISED	CA
9		REVISED	CA
10		REVISED	CA

SHEET TITLE  
**OVERALL  
 DETAIL**

SHEET NO.  
**LS-2**

AREAS	SQ. FT.	ACRES
EXISTING LEASE AREA	500	0.02
ADDITIONAL LEASE AREA	360	0.01
COMBINED LEASE AREA	1260	0.03
ACCESS AND UTILITY EASEMENT	2362	0.05









**PROPRIETARY INFORMATION**  
 THE INFORMATION CONTAINED IN THIS SET OF RECORDS IS THE PROPERTY OF CROWN CASTLE AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF CROWN CASTLE.

**SITE NAME**  
**GREEN ACRES**

**BLN.**  
**857698**

**SITE ADDRESS**  
 1735 RYAN SW 5E14  
 COOS BAY, OR 97420

**COOS COUNTY**



**ambit consulting**  
 245 SAINT HELENE AVE. SUITE 204  
 ASTORIA, OREGON 97103  
 TEL: (503) 325-7600

NO.	DATE	DESCRIPTION	BY
1	1/20/2010	PRELIMINARY	AMC
2	1/20/2010	COMPLETION SET	AMC

**SHEET TITLE**  
**NOTES**

**SHEET NO.**  
**LS-4**

**ADDITIONAL LEASE AREA LEGAL DESCRIPTION (AS SURVEIED)**

ALL THAT PORTION OF THE NORTH 35.2 FEET OF THE SE 1/4 OF SECTION 10, TOWNSHIP 27 SOUTH, RANGE 13 WEST OF THE WILLAMETTE MERIDIAN, COOS COUNTY, OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF PARCEL "C" AS SHOWN ON PROPERTY SURVEY AND MINOR PARTITION, RECORDED AS MAP 23878, OFFICIAL RECORDS OF SAID COUNTY, FROM WHICH THE WEST MOST NORTHERN WEST CORNER OF PARCEL "C" OF SAID MAP BEARS THE FOLLOWING THREE COURSES:

- 1) NORTH 34°25'27" EAST, 10.00 FEET TO A POINT OF TANGENT CURVE TO THE LEFT WITH A RADIUS OF 308.88 FEET, THENCE
- 2) NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 27°40'37", AN ARC DISTANCE OF 121.41 FEET, THENCE
- 3) NORTH 06°27'07" EAST, 108.52 FEET,

THENCE FROM SAID POINT OF COMMENCEMENT SOUTH 82°37'37" EAST, 1628.93 FEET; THENCE SOUTH 82°37'37" EAST, 1628.93 FEET TO THE POINT OF BEGINNING.

THENCE NORTH 06°27'07" WEST, 61.55 FEET; THENCE NORTH 87°15'03" WEST, 30.00 FEET; THENCE SOUTH 87°15'03" WEST, 30.00 FEET; THENCE SOUTH 02°21'37" WEST, 30.00 FEET; THENCE NORTH 85°37'07" WEST, 30.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 320 SQUARE FEET, OR 0.05 ACRES, MORE OR LESS.

**ADDITIONAL LEASE AREA LEGAL DESCRIPTION (AS SURVEIED)**

ALL THAT PORTION OF THE NORTH 35.2 FEET OF THE SE 1/4 OF SECTION 10, TOWNSHIP 27 SOUTH, RANGE 13 WEST OF THE WILLAMETTE MERIDIAN, COOS COUNTY, OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF PARCEL "C" AS SHOWN ON PROPERTY SURVEY AND MINOR PARTITION, RECORDED AS MAP 23878, OFFICIAL RECORDS OF SAID COUNTY, FROM WHICH THE WEST MOST NORTHERN WEST CORNER OF PARCEL "C" OF SAID MAP BEARS THE FOLLOWING THREE COURSES:

- 1) NORTH 34°25'27" EAST, 10.00 FEET TO A POINT OF TANGENT CURVE TO THE LEFT WITH A RADIUS OF 308.88 FEET, THENCE
- 2) NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 27°40'37", AN ARC DISTANCE OF 121.41 FEET, THENCE
- 3) NORTH 06°27'07" EAST, 108.52 FEET,

THENCE FROM SAID POINT OF COMMENCEMENT SOUTH 82°37'37" EAST, 1628.93 FEET; THENCE SOUTH 82°37'37" EAST, 1628.93 FEET TO THE POINT OF BEGINNING.

THENCE NORTH 06°27'07" WEST, 61.55 FEET; THENCE NORTH 87°15'03" WEST, 30.00 FEET; THENCE SOUTH 87°15'03" WEST, 30.00 FEET; THENCE SOUTH 02°21'37" WEST, 30.00 FEET; THENCE NORTH 85°37'07" WEST, 30.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 320 SQUARE FEET, OR 0.05 ACRES, MORE OR LESS.

**COMBINED LEASE AREA LEGAL DESCRIPTION (AS SURVEIED)**

ALL THAT PORTION OF THE NORTH 35.2 FEET OF THE SE 1/4 OF SECTION 10, TOWNSHIP 27 SOUTH, RANGE 13 WEST OF THE WILLAMETTE MERIDIAN, COOS COUNTY, OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF PARCEL "C" AS SHOWN ON PROPERTY SURVEY AND MINOR PARTITION, RECORDED AS MAP 23878, OFFICIAL RECORDS OF SAID COUNTY, FROM WHICH THE WEST MOST NORTHERN WEST CORNER OF PARCEL "C" OF SAID MAP BEARS THE FOLLOWING THREE COURSES:

- 1) NORTH 34°25'27" EAST, 10.00 FEET TO A POINT OF TANGENT CURVE TO THE LEFT WITH A RADIUS OF 308.88 FEET, THENCE
- 2) NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 27°40'37", AN ARC DISTANCE OF 121.41 FEET, THENCE
- 3) NORTH 06°27'07" EAST, 108.52 FEET,

THENCE FROM SAID POINT OF COMMENCEMENT SOUTH 82°37'37" EAST, 1628.93 FEET TO THE POINT OF BEGINNING.

THENCE NORTH 06°27'07" WEST, 61.55 FEET; THENCE NORTH 87°15'03" WEST, 30.00 FEET; THENCE SOUTH 87°15'03" WEST, 30.00 FEET; THENCE SOUTH 02°21'37" WEST, 30.00 FEET; THENCE NORTH 85°37'07" WEST, 30.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 320 SQUARE FEET, OR 0.05 ACRES, MORE OR LESS.

**PARENT PARCEL LEGAL DESCRIPTION**

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF COOS, CITY OF COOS BAY, STATE OF OREGON, AND IS DESCRIBED AS FOLLOWS:

PARCEL A: THE NORTH 35.2 FEET OF THE SE 1/4 OF SECTION 10, TOWNSHIP 27 SOUTH, RANGE 13 WEST OF THE WILLAMETTE MERIDIAN, COOS COUNTY, OREGON.

PARCEL B: THE NORTH 470 FEET OF THE SOUTH 1000 FEET OF THE SE 1/4 OF SECTION 10, TOWNSHIP 27 SOUTH, RANGE 13 WEST OF THE WILLAMETTE MERIDIAN, COOS COUNTY, OREGON.

SAV, AND EXCEPT THE EAST 800 FEET THEREOF TOGETHER WITH RECIPROCAL EASEMENTS ACHIEVED, FOR SAID PARCELS A AND B ABOVE, IN ACCORDANCE WITH THE TERMS AND PROVISIONS THEREOF, RECORDED JANUARY 10, 1989 BEARING RECORD NO. 89-01-0424, RECORDS COOS COUNTY, OREGON.

TOGETHER WITH EASEMENT AGREEMENT, INCLUDING THE TERMS AND PROVISIONS THEREOF, AS SET FORTH IN INSTRUMENT RECORDED JANUARY 10, 1989 BEARING RECORD NO. 89-01-0424 AND CORRECTED INSTRUMENT RECORDED MARCH 2, 2004 BEARING RECORD NO. 04-03-0098, RECORDS OF COOS COUNTY, OREGON.

PARCEL ID #177-13-10-2500

THIS BEING THE SAME PROPERTY CONVEYED TO LONE ROCK TIMBER INVESTMENTS I, LLC, A DELAWARE LIMITED LIABILITY COMPANY FROM LONE ROCK INVESTMENTS I, LLC, A DELAWARE LIMITED LIABILITY COMPANY AND JIMMY PROPERTIES LLC, AN ILLINOIS LIMITED LIABILITY COMPANY, IN A DEED DATED MARCH 03, 2011 AND RECORDED MARCH 04, 2011 AS INSTRUMENT NO. 2011-1712.

**EXISTING LEASE AREA LEGAL DESCRIPTION (AS SURVEIED)**

ALL THAT PORTION OF THE NORTH 35.2 FEET OF THE SE 1/4 OF SECTION 10, TOWNSHIP 27 SOUTH, RANGE 13 WEST OF THE WILLAMETTE MERIDIAN, COOS COUNTY, OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF PARCEL "C" AS SHOWN ON PROPERTY SURVEY AND MINOR PARTITION, RECORDED AS MAP 23878, OFFICIAL RECORDS OF SAID COUNTY, FROM WHICH THE WEST MOST NORTHERN WEST CORNER OF PARCEL "C" OF SAID MAP BEARS THE FOLLOWING THREE COURSES:

- 1) NORTH 34°25'27" EAST, 10.00 FEET TO A POINT OF TANGENT CURVE TO THE LEFT WITH A RADIUS OF 308.88 FEET, THENCE
- 2) NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 27°40'37", AN ARC DISTANCE OF 121.41 FEET, THENCE
- 3) NORTH 06°27'07" EAST, 108.52 FEET,

THENCE FROM SAID POINT OF COMMENCEMENT SOUTH 82°37'37" EAST, 1628.93 FEET TO THE POINT OF BEGINNING.

THENCE NORTH 06°27'07" WEST, 61.55 FEET; THENCE NORTH 87°15'03" WEST, 30.00 FEET; THENCE SOUTH 87°15'03" WEST, 30.00 FEET; THENCE SOUTH 02°21'37" WEST, 30.00 FEET; THENCE NORTH 85°37'07" WEST, 30.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 320 SQUARE FEET, OR 0.05 ACRES, MORE OR LESS.

**SCHEDULE 'B' NOTES**

- REFERENCE IS MADE TO A RILE REPORT, ORDER NO. ORC-9C-163446Z-4, ISSUED BY CHECKED FULL INSURANCE COMPANY, DATED MARCH 4, 2008. ALL EASEMENTS CONTAINED WITHIN SAID RILE REPORT AFFECTING THE IMMEDIATE AREA SURROUNDING THE LEASE HAVE BEEN PLOTTED. SCHEDULE 'B' EXCEPTIONS 1-10 AND 15 ARE NOT SURVEY MATTERS AND CANNOT BE PLOTTED.
- 1) RIGHT OF WAY EASEMENT BETWEEN HARRY H. HUNT AND COMERAL TELEPHONE COMPANY OF THE NORTHWEST, INC., A CORPORATION, DATED JANUARY 10, 1972, IN BOOK 72-2 PAGE 68199, IN COOS COUNTY, OREGON, AFFECTS PARENT PARCEL - NOT DEFINED
- 2) EXCLUSIVE ROAD EASEMENT BETWEEN GEORGE CEDERHART PART AND THE UNITED STATES OF AMERICA, DATED MAY 14, 1960 RECORDED JUNE 28, 1960, IN BOOK 60-2 PAGE 7785, IN COOS COUNTY, OREGON, AFFECTS PARENT PARCEL - PLOTTED
- 3) RECIPROCAL EASEMENT EXCHANGE BETWEEN WAKASHA CORPORATION, A WISCONSIN CORPORATION AND LONE ROCK NUMBER COMPANY, AN OREGON CORPORATION, DATED DECEMBER 29, 1986 RECORDED JANUARY 10, 1989, IN BOOK 89-01 PAGE 0429, IN COOS COUNTY, OREGON, AFFECTS PARENT PARCEL - NOT DEFINED
- 4) EASEMENT AGREEMENT BETWEEN LONE ROCK NUMBER COMPANY, AN OREGON CORPORATION AND WAKASHA CORPORATION, A WISCONSIN CORPORATION, DATED NOVEMBER 10, 1982 RECORDED JANUARY 10, 1983, IN BOOK 93-01 PAGE 0619, IN COOS COUNTY, OREGON, CORRECTED IN BOOK 93-03 PAGE 036 BEARING PARENT PARCEL - NOT DEFINED

**EXHIBIT 1**

**MEMORANDUM OF SECOND AMENDMENT TO OPTION TO LEASE AND  
GROUND LEASE**

BU# 857698  
Site Name: Greenacres

## MEMORANDUM OF SECOND AMENDMENT TO OPTION TO LEASE AND GROUND LEASE

This Memorandum of Second Amendment to Option to Lease and Ground Lease is entered into as of the latter signature date hereof, by and between Lone Rock Timber Investments I, LLC, a Delaware limited liability company, with a mailing address of PO Box 1127 Roseburg, OR 97470 (“**Landlord**”) and NCWPCS MPL 30 - Year Sites Tower Holdings LLC, a Delaware limited liability company (“**Tenant**”), by CCATT LLC, a Delaware limited liability company, its Attorney In Fact, with an address of 2000 Corporate Drive Canonsburg, PA 15317.

1. Landlord’s and Tenant’s predecessors in interest entered into an Option to Lease and Ground Lease, dated September 15, 2000 (“**Original Lease**”), amended by that certain First Amendment to Option to Lease and Ground Lease, dated June 12, 2015 (the “**First Amendment**”) (collectively, the “**Lease**”), whereby Landlord leases to Tenant a portion of the property (said leased portion being referred to as “**Leasehold Parcel**” or “**Premises**”), which property is located at the SE 1/4 of the SE 1/4 of Section 10, Township 27 South, Range 13 West, W.M., in Coos County, State of Oregon; as described in more detail in the Lease.
2. On August 22, 2001, a memorandum of the Original Lease, dated March 14, 2001, Document No. 20019937, in the official records of Coos County, Oregon. On August 25, 2015 a memorandum of the First Amendment, dated June 12, 2015, was recorded as Document No. 2015-007759, in the official records of Coos County, Oregon.
3. Landlord and Tenant have entered into a Second Amendment to Option to Lease and Ground Lease (the “**Second Amendment**”), of which this is a Memorandum, wherein the Premises was expanded. A description of the Premises, as expanded, is attached hereto as Exhibit A.
4. The terms, covenants and provisions of the Second Amendment shall extend to and be binding upon the respective executors, administrators, heirs, successors and assigns of Landlord and Tenant.
5. This Memorandum of Second Amendment is not intended to amend or modify, and shall not be deemed or construed as amending or modifying, any of the terms, conditions or provisions of the Second Amendment and Lease, all of which are hereby ratified and affirmed.
6. The original copy of the Lease and the Second Amendment is held at the Landlord’s and Tenant’s addresses set forth above.

**SIGNATURES AND ACKNOWLEDGEMENTS ARE ON FOLLOWING PAGES**

IN WITNESS WHEREOF, the Parties have executed this Memorandum of Second Amendment to Option to Lease and Ground Lease as of the date(s) written below.

**LANDLORD:**

**Lone Rock Timber Investments I, LLC,**  
a Delaware limited liability company

By: GRB

Printed Name: GREG BRULE

Title: GM

Date: 6/13/19

**TENANT:**

**NCWPCS MPL 30 - Year Sites Tower Holdings LLC,**  
a Delaware limited liability company

By: **CCATT LLC,** a Delaware limited liability company, Its Attorney In Fact

By: Kirk Fraser

Printed Name: Kirk Fraser

Title: District Manager

Date: 6/13/2019

**ACKNOWLEDGEMENTS ON FOLLOWING PAGE**



ACKNOWLEDGEMENT

STATE OF Oregon )  
 ) ss.  
COUNTY OF Douglas )

On June 3, 2019 before me, Debra Ann Lee  
(printed name of notary), the undersigned, a Notary Public in and for said State, personally  
appeared Greg Byrne, personally known to me (or proved to me on  
the basis of satisfactory evidence) to be the person whose name is subscribed to the within  
instrument and acknowledged to me that s/he executed the same in his/her authorized capacity as  
General Manager (title) of Lone Rock Timber Investments I, LLC, and that by his/her  
signature on the instrument the entity upon behalf of which the person acted, executed the  
instrument. I certify under PENALTY OF PERJURY under the laws of the State of  
Oregon that the foregoing paragraph is true and correct.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

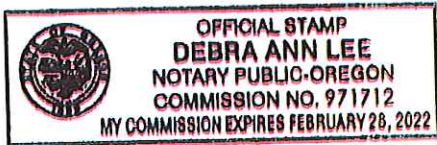
Stamp (if required):

Date: June 3, 2019

Signature: Debra Ann Lee

Title of office: -

My commission expires: 2-28-22



ACKNOWLEDGEMENT

STATE OF WASHINGTON )  
 ) ss.  
COUNTY OF KING )

I certify that I know or have satisfactory evidence that Kirk Frazer is  
the person who appeared before me, and said person acknowledged that s/he signed this  
instrument, on oath stated that s/he was authorized to execute the instrument and acknowledged it  
as the District Manager (type of authority, e.g., officer, trustee, etc.) of CCATT  
LLC to be the free and voluntary act of such party for the uses and purposes mentioned in the  
instrument.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Stamp (if required):

Date: June 13, 2019

Signature: [Signature]

My appointment expires: 4/19/20



## EXHIBIT A

### DESCRIPTION OF PREMISES

#### PREMISES LEGAL DESCRIPTION (as surveyed), excluding access and utility easements

ALL THAT PORTION OF THE NORTH 315.2 FEET OF THE SE 1/4 OF THE SE 1/4 OF SECTION 10, TOWNSHIP 27 SOUTH, RANGE 13 WEST OF THE WILLAMETTE MERIDIAN, COOS COUNTY, OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF PARCEL "C" AS SHOWN ON PROPERTY SURVEY AND MINOR PARTITION, RECORDED AS MAP 23B28, OFFICIAL RECORDS OF SAID COUNTY, FROM WHICH THE WEST MOST NORTH WEST CORNER OF PARCEL "B" OF SAID MAP BEARS THE FOLLOWING THREE COURSES:

- 1) NORTH 34°26'22" EAST, 116.00 FEET TO A POINT OF TANGENT CURVE TO THE LEFT WITH A RADIUS OF 306.88 FEET; THENCE
- 2) NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 22°40'02", AN ARC DISTANCE OF 121.41 FEET; THENCE
- 3) NORTH 06°21'02" EAST, 106.52 FEET;

THENCE FROM SAID POINT OF COMMENCEMENT SOUTH 86°31'36" EAST, 1638.93 FEET TO THE POINT OF BEGINNING;

THENCE NORTH 03°21'32" EAST, 30.00 FEET;  
THENCE SOUTH 88°13'03" EAST, 42.00 FEET;  
THENCE SOUTH 03°21'32" WEST, 30.00 FEET;  
THENCE NORTH 88°13'03" WEST, 42.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 1260 SQUARE FEET, OR 0.03 ACRES, MORE OR LESS.

Access and Utility Easement legal description on next page

**ACCESS AND UTILITY EASEMENT LEGAL DESCRIPTION (as surveyed)**

ALL THAT PORTION OF THE NORTH 315.2 FEET OF THE SE 1/4 OF THE SE 1/4 OF SECTION 10, TOWNSHIP 27 SOUTH, RANGE 13 WEST OF THE WILLAMETTE MERIDIAN, COOS COUNTY, OREGON, BEING A STRIP OF LAND 20.00 FEET WIDE, 10.00 FEET ON BOTH SIDES OF THE FOLLOWING DESCRIBED CENTERLINE:

COMMENCING AT THE SOUTHWEST CORNER OF PARCEL "C" AS SHOWN ON PROPERTY SURVEY AND MINOR PARTITION, RECORDED AS MAP 23B28, OFFICIAL RECORDS OF SAID COUNTY, FROM WHICH THE WEST MOST NORTH WEST CORNER OF PARCEL "B" OF SAID MAP BEARS THE FOLLOWING THREE COURSES:

- 1) NORTH 34°26'22" EAST, 116.00 FEET TO A POINT OF TANGENT CURVE TO THE LEFT WITH A RADIUS OF 306.88 FEET; THENCE
- 2) NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 22°40'02", AN ARC DISTANCE OF 121.41 FEET; THENCE
- 3) NORTH 06°21'02" EAST, 106.52 FEET;

THENCE FROM SAID POINT OF COMMENCEMENT SOUTH 86°31'36" EAST, 1638.93 FEET;

THENCE NORTH 03°21'32" EAST, 16.91 FEET TO THE POINT OF BEGINNING;

THENCE NORTH 86°38'28" WEST, 61.15 FEET;

THENCE NORTH 51°06'03" EAST, 58.43 FEET MORE OR LESS TO A POINT ON THE NORTH LINE OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION 10 AND THE POINT OF TERMINUS.

CONTAINING 2392 SQUARE FEET, OR 0.05 ACRES, MORE OR LESS.

Until a change is requested, all tax statements shall be sent to the following address:

Lone Rock Timber Investments I, LLC  
P.O. Box 1127  
Roseburg, Oregon 97470  
Attn: Kurt Muller

After recording, return to:

Lone Rock Timber Investments I, LLC  
P.O. Box 1127  
Roseburg, Oregon 97470  
Attn: Kurt Muller

003239  
AFTER RECORDING  
RETURN TO  
Ticor Title Insurance  
300 West Anderson Ave - Box 1075  
Coos Bay, OR 97420-0233

### WARRANTY DEED—STATUTORY FORM

Lone Rock Timberland Co., a Washington corporation and Juniper Properties LLC, an Oregon limited liability company, each hereby conveys and jointly and severally warrants to Lone Rock Timber Investments I, LLC, a Delaware limited liability company, as grantee, the real property in Coos County, Oregon, described in Exhibit A attached hereto and by this reference made a part hereof, free of all encumbrances except as described in Exhibit B attached hereto and by this reference made a part hereof.

The true consideration for this conveyance is Twenty Million Eight Hundred Twenty-Four Thousand One Hundred Sixty-Seven and No/100 Dollars (\$20,824,167.00).

**BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, AND SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009. THIS INSTRUMENT DOES NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY THAT THE UNIT OF LAND BEING TRANSFERRED IS A LAWFULLY ESTABLISHED LOT OR PARCEL, AS DEFINED IN ORS 92.010 OR 215.010, TO VERIFY THE APPROVED USES OF THE LOT OR PARCEL, TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES, AS DEFINED IN ORS 30.930, AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, AND SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009.**

Page 1 - WARRANTY DEED—STATUTORY FORM  
K:\23598\222\Deeds\Statutory Warranty Deed (Coos v2).doc

COOS COUNTY CLERK, OREGON  
TERRI L. TURI, CCG, COUNTY CLERK  
TOTAL \$491.00

03/04/2011 10:01:00AM  
PAGE 1 OF 79

2011 1712

DATED this 3<sup>rd</sup> day of March, 2011.

GRANTOR:

<p><b>LONE ROCK TIMBERLAND CO.,</b> a Washington corporation</p> <p>By: <u>[Signature]</u> Toby A. Luther, President</p>	<p><b>JUNIPER PROPERTIES LLC,</b> an Oregon limited liability company</p> <p>By: Lone Rock Timberland Co., a Washington corporation, its Manager</p> <p>By: <u>[Signature]</u> Toby A. Luther, President</p>
--	--

STATE OF OREGON )  
County of Douglas ) ss.

The foregoing instrument was acknowledged before me this 2<sup>nd</sup> day of March, 2011, by Toby A. Luther, President of Lone Rock Timberland Co., a Washington corporation, Manager of Juniper Properties LLC, an Oregon limited liability company.



[Signature]  
Notary Public  
My commission expires: 12-19-2014

STATE OF OREGON )  
County of Douglas ) ss.

The foregoing instrument was acknowledged before me this 2<sup>nd</sup> day of March, 2011, by Toby A. Luther, President of Lone Rock Timberland Co., a Washington corporation



[Signature]  
Notary Public  
My commission expires: 12-19-2014





## STATEMENT OF CODE COMPLIANCE

Eligible Facilities Request to modify equipment on a communications tower located at T27S R13W S10 SE1/4, COOS BAY, OR, 97420

Crown Site Number: 857698 / Crown Site Name: Greenacres

Customer Site Number: PO01039A / Application Number: 449133

SECTION 4.6.110 ADMINISTRATIVE CONDITIONAL DEVELOPMENT AND USE: The uses and their accessory uses listed in this section may be permitted as an administrative conditional use subject to applicable development standards for Forest and Forest Mixed Use zone and the following criteria

1. Non Residential Uses
- b. Television, microwave and radio communication facilities and transmission towers.

Response: T-Mobile proposes to collocate on an existing transmission tower located in the F (Forest) Zone of Coos County. The proposed collocation includes the installation of (3) antennas, (6) RRUs, (2) microwave dishes, (2) ODUs, and (1) platform mount on a 20' extension of the Existing Tower. (3) equipment cabinets, (1) H-frame with utility equipment, (1) ice bridge, and (1) 25Kw diesel generator are proposed on a new 8' x 15' concrete pad within an existing ground lease area (the Existing Site).

The proposed collocation meets criteria for an "eligible facility request" to modify an existing telecommunications site under Section 6409 (a) and its implementing rules found in the Federal Communications Commission's Final Rule, 47 CFR Parts 1 and 17. The proposed project does not "substantially change the physical dimensions" of the communications site, as defined in the Final Rule of p. 1269, Subpart CC (b)(7).

SECTION 4.6.130 ADDITIONAL CRITERIA FOR ALL ADMINISTRATIVE AND HEARINGS BODY APPLICATION REVIEW: All Conditional Use Applications (Administrative and Hearings Body) are subject to requirements that are designed to make the use compatible with forest operations and agriculture and to conserve values found on forest lands as follows:

1. The proposed use will not force a significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands.

Response: The subject wireless communication facility has been previously approved by Coos County. No change in use or intensity of use will result from the proposed collocation. As such, the proposed collocation will not force a significant change in, or significantly increase the cost of, accepted farming or practices on agriculture or forest lands.

2. The proposed use will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel.

Response: The subject wireless communication facility has been previously approved by Coos County. No change in use or intensity of use will result from the proposed collocation. No increase in fire hazard or increase in fire suppression cost or risk to fire suppression personnel shall result from the proposed collocation.

All uses must comply with applicable development standards and fires siting and safety standards.

SECTION 4.6.140 DEVELOPMENT AND SITING CRITERIA: This section contain all of the development standards for uses (unless otherwise accepted out by a use review) and all of the siting standards for development.

1. Setbacks: All buildings or structures with the exception of fences shall be set back a minimum of thirty-five (35) feet from any road right-of-way centerline, or five (5) feet from any right-of-way line, whichever is greater.

Response: The proposed modifications shall occur within the Existing Site. As such, the proposed collocation by T-Mobile will not result in any encroachment into required setbacks.

2. Riparian Vegetation Protection. Riparian vegetation within 50 feet of a wetland, stream, lake or river, as identified on the Coastal Shoreland and Fish and Wildlife habitat inventory maps shall be maintained except that:

Response: N/A. The proposed collocation by T-Mobile does impact any Riparian vegetation within 50 feet of a wetland, stream, lake or river, as identified on the Coastal Shoreland and Fish and Wildlife habitat inventory maps

3. Firebreak:

- a. A firebreak shall be established and maintained around all structures, including decks, for a distance of at least 30 feet in all directions.

Response: The subject wireless communication facility has been previously approved by Coos County. The proposed T-Mobile collocation will not result in non-compliance with any established firebreaks.

- b. This firebreak will be a primary safety zone around all structures. Vegetation within this primary safety zone may include mowed grasses, low shrubs (less than ground floor window height), and trees that are spaced with more than 15 feet between the crowns and pruned to remove dead and low (less than 8 feet from the ground) branches. Accumulated needles, limbs and other dead vegetation should be removed from beneath trees.

The subject wireless communication facility has been previously approved by Coos County. The proposed T-Mobile collocation will not result in non-compliance with any established firebreaks.

- c. Sufficient garden hose to reach the perimeter of the primary safety zone shall be available at all times.

Response: N/A. The facility is unmanned.

- d. The owners of the dwelling shall maintain a primary fuel-free break area surrounding all structures and clear and maintain a secondary fuel-free break on land surrounding all structures and clear and



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

Response: the facility operates in compliance and will continue to operate in accordance with the provisions in "Recommended Fire Siting Standards for Dwellings and Structures and Fire Safety Design Standards for Roads" dated March 1, 1991, and published by Oregon Department of Forestry and shall demonstrate compliance with Table 1.

Table 2 – Minimum Primary Safety Zone

Slope	Feet of Primary Safety Zone	Feet of Additional Primary Safety Zone Down Slope
0%	30	0
10%	30	50
20%	30	75
25%	30	100
40%	30	150

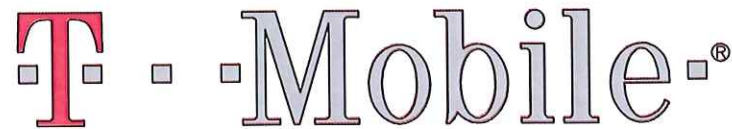
4. All new and replacement structures shall use non-combustible or fire resistant roofing materials, as may be approved by the certified official responsible for the building permit.

Response: All new and replacement equipment proposed as part of this collocation are designed to be compliant with this section.

5. If a water supply exceeding 4,000 gallons is suitable and available (within 100 feet of the driveway or road) for fire suppression, then road access and turning space shall be provided for fire protection pumping units to the source during fire season. This includes water supplies such as a swimming pool, tank or natural water supply (e.g. pond).

Response: The existing facility is compliant with this section and the proposed modification will not result in any non-compliance.





T-MOBILE SITE NUMBER: PO01039A  
 T-MOBILE SITE NAME: GREENACRES  
 SITE TYPE: MONOPOLE  
 TOWER HEIGHT: 109'-0"  
 TOPOLOGY: PO01039A TO PO01037C AND PO01044A TO PO01039A  
 PO01039A\_Green Acres\_NSD\_FCD\_TAEC\_02.19.19

CROWN CASTLE SITE: 857698  
 SITE ADDRESS: T27S R13W S10 SE1/4  
 COOS BAY, OR 97420  
 COUNTY: COOS  
 JURISDICTION: COOS COUNTY  
 LAT: 43° 14' 30.57" N  
 LONG: 124° 13' 16.28" W

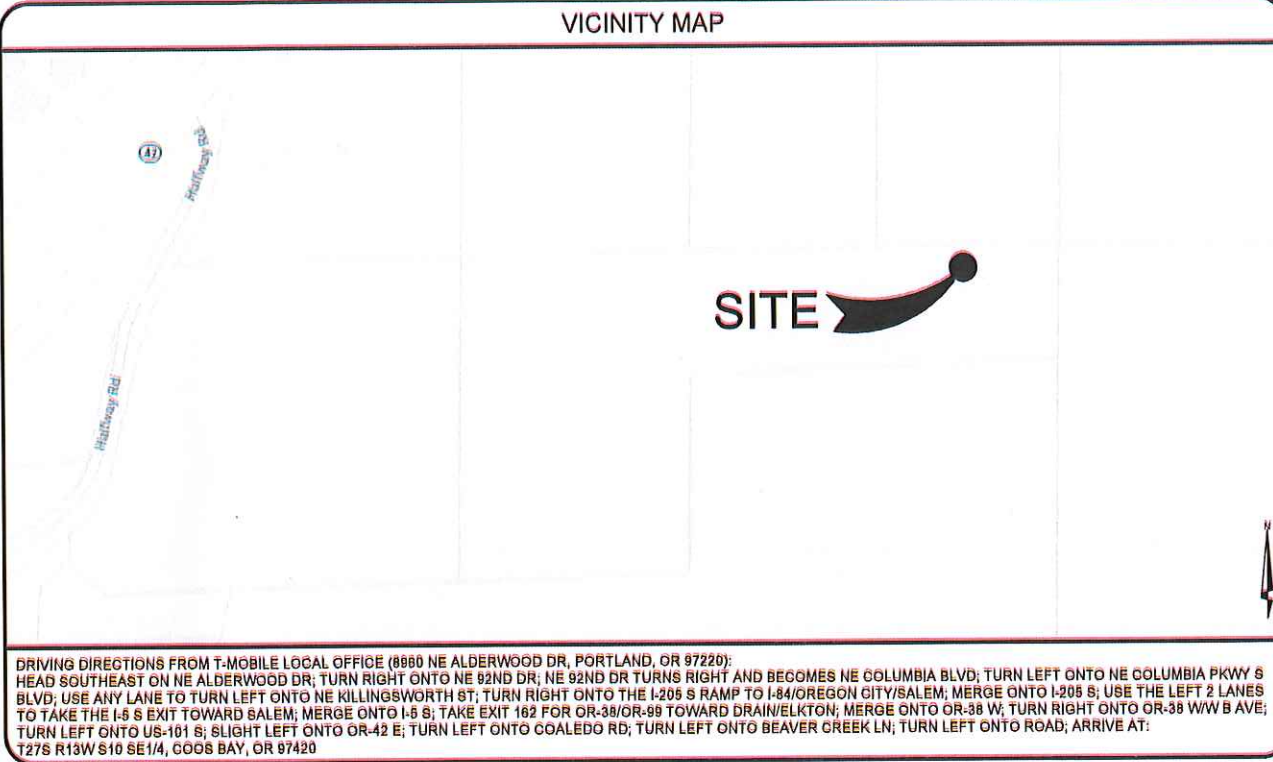


T-MOBILE SITE:  
 PO01039A  
 GREENACRES  
 CROWN CASTLE SITE:  
 857698  
 GREENACRES  
 T27S R13W S10 SE1/4  
 COOS BAY, OR 97420  
 COOS COUNTY  
 109'-0" MONOPOLE

SITE INFORMATION	
<b>PROPERTY INFORMATION:</b>	
SITE ADDRESS:	T27S R13W S10 SE1/4 COOS BAY, OR 97420
COUNTY:	COOS
LATITUDE (NAD83):	43° 14' 30.57" N (43.241825°)
LONGITUDE (NAD83):	124° 13' 16.28" W (-124.221189°)
GROUND ELEVATION (NAVD88):	±447.0' AMSL
JURISDICTION:	COOS COUNTY
APN:	27S1W10TL0250000
ZONING:	F
OCCUPANCY CLASSIFICATION:	U
LEGAL DESCRIPTION:	BEE SHEET A-1
<b>CONSTRUCTION INFORMATION:</b>	
AREA OF CONSTRUCTION:	EXISTING
TYPE OF CONSTRUCTION:	V-B
PROPOSED USE:	UNMANNED TELECOMMUNICATIONS FACILITY
HANDICAP REQUIREMENTS:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED.
<b>PROPERTY OWNER:</b>	
COMPANY:	-
ADDRESS:	-
CITY, STATE, ZIP:	-
<b>TOWER OWNER:</b>	
COMPANY:	CROWN CASTLE
ADDRESS:	1505 WESTLAKE AVE N, SUITE 800
CITY, STATE, ZIP:	SEATTLE, WA 98109
<b>APPLICANT:</b>	
COMPANY:	T-MOBILE
ADDRESS:	8960 NE ALDERWOOD RD
CITY, STATE, ZIP:	PORTLAND, OR 97220
CONTACT:	KATE ETZEL
PHONE:	(971) 235-7832
EMAIL:	katherine.etzel@t-mobile.com

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CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



DRAWINGS ISSUED FOR:				
REV.	DATE	DRAWN	DESCRIPTION	QA/QC
A	09/24/18	RCD	PRELIMINARY REVIEW	PD
0	11/16/18	GP	100% CONSTRUCTION	PD
1	02/05/19	GP	100% CONSTRUCTION	PD
2	02/19/19	TJB	100% CONSTRUCTION	PD

PROJECT TEAM	
<b>ARCHITECTURAL &amp; ENGINEERING:</b>	
COMPANY:	INFINIGY ENGINEERING
ADDRESS:	50 116TH AVE SE, SUITE 210
CITY, STATE, ZIP:	BELLEVUE, WA 98004
CONTACT:	PAUL DANNEBERG
PHONE:	(425) 201-4215 x1603
E-MAIL:	pdanneberg@infinigy.com
<b>SITE ACQUISITION:</b>	
COMPANY:	CROWN CASTLE
ADDRESS:	1505 WESTLAKE AVE N, SUITE 800
CITY, STATE, ZIP:	SEATTLE, WA 98109
CONTACT:	ZACH PHILLIPS
PHONE:	(503) 708-9200
E-MAIL:	zach.phillips.contractor@crowncastle.com
<b>CONSTRUCTION MANAGEMENT:</b>	
COMPANY:	CROWN CASTLE
ADDRESS:	1505 WESTLAKE AVE N, SUITE 800
CITY, STATE, ZIP:	SEATTLE, WA 98109
CONTACT:	DAVID WATKINS
PHONE:	(511)-794-5730
E-MAIL:	david.watkins@crowncastle.com

APPROVALS		
THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS & AUTHORIZE THE SUBCONTRACTOR TO PROCEED WITH CONSTRUCTION AS DESCRIBED HEREIN. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT & ANY CHANGES OR MODIFICATIONS THEY MAY IMPOSE.		
APPROVAL:	SIGNATURE:	DATE:
PROJECT MANAGER		
T-MOBILE RF ENGINEER		
SITE ACQUISITION		
CONSTRUCTION MANAGER		
SITE OWNER		
T-MOBILE DEVELOPMENT MANAGER		
T-MOBILE CONSTRUCTION MANAGER		
T-MOBILE OPS MANAGER		
T-MOBILE REGULATORY REVIEW		
T-MOBILE PROJECT MANAGER		

CODE COMPLIANCE
ALL WORK SHALL BE PERFORMED AND MATERIALS 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 THE LATEST EDITIONS OF THESE CODES.
<ol style="list-style-type: none"> <li>2014 OREGON STRUCTURAL SPECIALTY CODE (OSSC)</li> <li>2014 OREGON MECHANICAL SPECIALTY CODE (OMSC)</li> <li>2014 OREGON FIRE CODE (OFC)</li> <li>2017 OREGON PLUMBING SPECIALTY CODE (OPSC)</li> <li>2017 OREGON ELECTRICAL SPECIALTY CODE (OESC)</li> <li>2014 OREGON ENERGY EFFICIENCY SPECIALTY CODE (OEESC)</li> <li>TIA-EIA-222-G OR LATEST EDITION</li> <li>NFPA 780 - LIGHTNING PROTECTION CODE</li> <li>LOCAL AMENDMENTS TO THE ABOVE, WHERE APPLICABLE</li> <li>CITY/COUNTY ORDINANCES</li> <li>LIFE SAFETY CODE NFPA-101</li> </ol>
<p>Know what's below.        Call before you dig.  <a href="http://www.call811.com">www.call811.com</a></p>

PROJECT DESCRIPTION
T-MOBILE PROPOSES TO COLLOCATE ON AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY AS FOLLOWS: <b>TOWER SCOPE OF WORK:</b> <ul style="list-style-type: none"> <li>INSTALL A 20'-0" MONOPOLE EXTENSION</li> <li>INSTALL (3) FFHH-65C-R3 PANEL ANTENNAS</li> <li>INSTALL (1) VHL P3-18A &amp; (1) VHL P2-18 MICROWAVE ANTENNAS</li> <li>INSTALL (2) ODU600 ODU'S</li> <li>INSTALL (3) AHLOA &amp; (3) AHFIB RRU'S</li> <li>INSTALL (1) FD21208-48S55-XXX HYBRID CABLE &amp; (2) MW COAX CABLES</li> </ul> <b>GROUND SCOPE OF WORK:</b> <ul style="list-style-type: none"> <li>INSTALL AN 8'-0"x15'-0" CONCRETE PAD &amp; 4'-0"x12'-0" ICE CANOPY</li> <li>INSTALL (1) FCOA CABINET AND (1) POWER CABINET</li> <li>INSTALL (2) AMIA, (2) ASIA, (1) ASIA, (1) ABIL, (1) ASIK, &amp; (1) FSMF INSIDE CABINETS</li> <li>INSTALL (1) 25 KW DIESEL GENERATOR</li> <li>INSTALL AN H-FRAME WITH UTILITY EQUIPMENT</li> <li>INSTALL AN ICE BRIDGE, (1) COVP, &amp; (1) GPS ANTENNA</li> <li>INSTALL (1) LED WORK LIGHT WITH TIMER</li> </ul>
DESIGN IS BASED ON: CROWN CASTLE APPLICATION ID 449133, REVISION #5 RFDS VERSION 0.3, DATED 02/15/2019 (CONFIGURATION 6090R_SR, 6090R_SR) THESE PLANS HAVE BEEN DEVELOPED FOR THE CONSTRUCTION OF AN UNMANNED TELECOMMUNICATIONS FACILITY OWNED OR LEASED BY T-MOBILE IN ACCORDANCE WITH THE SCOPE OF WORK PROVIDED BY T-MOBILE. INFINIGY HAS INCORPORATED THIS SCOPE OF WORK IN THE PLANS. THESE PLANS ARE NOT FOR CONSTRUCTION UNLESS ACCOMPANIED BY A PASSING STRUCTURAL STABILITY ANALYSIS PREPARED BY A LICENSED PROFESSIONAL ENGINEER. STRUCTURAL ANALYSIS MUST INCLUDE BOTH TOWER AND MOUNT.



SHEET TITLE:	
TITLE SHEET	
SHEET NUMBER:	REVISION:
T-1	2



A. GENERAL

- ALL PAINT PRODUCT LINES SHALL BE SHERWIN WILLIAMS UNLESS SPECIFICALLY NOTED OTHERWISE BY T-MOBILE.
- CONTRACTOR SHALL PREPARE ALL SURFACES AND APPLY ALL FINISHES PER LATEST EDITION OF MANUFACTURER'S SPECIFICATIONS.
- COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS REGARDING SUFFICIENT DRYING TIME BETWEEN COATS WITH PROVISIONS AS RECOMMENDED BY MANUFACTURER FOR EXISTING WEATHER CONDITIONS.
- FINISH COLOR AND TEXTURE OF ALL PAINTED SURFACES SHALL MATCH EXISTING ADJACENT SURFACES UNLESS OTHERWISE NOTED BY T-MOBILE.
- ALL PAINT MATERIAL DATA SHEETS SHALL BE PROVIDED TO THE T-MOBILE CONSTRUCTION MANAGER.
- PREPARE PREVIOUSLY PAINTED SURFACE BY LIGHT SANDING WITH 400 GRIT SANDPAPER AND NON-HYDROCARBON WASH. PREPARE GALVANIZED SURFACES BY ACID ETCH OR SOLVENT CLEANING IN ACCORDANCE WITH SSPC-SP1.
- FURNISH DROP CLOTHS, SHIELDS, MASKING AND OTHER PROTECTIVE METHODS TO PREVENT SPRAY OR DROPPINGS FROM DAMAGING ADJACENT SURFACES AND FACILITIES.
- APPLY PAINT BY AIRLESS SPRAY, SANDING LIGHTLY BETWEEN EACH SUCCEEDING ENAMEL COAT ON FLAT SURFACES. APPLY MATERIAL TO ACHIEVE A COATING NO THINNER THAN THE DRY FILM THICKNESS INDICATED.
- APPLY BLOCK FILTER TO CONCRETE BLOCK CONSTRUCTION AND ENSURE COMPLETE COVERAGE WITH PORES COMPLETELY FILLED.
- CONTRACTOR SHALL CORRECT RUNS, SAGS, MISSES AND OTHER DEFECTS INCLUDING INADEQUATE COVERAGE AS DIRECTED BY THE T-MOBILE CONSTRUCTION MANAGER. REPAINT AS NECESSARY TO ACHIEVE SURFACES THAT ARE SMOOTH, EVENLY COATED WITH UNIFORM SHEEN AND FREE FROM BLEMISHES.

B. PAINTING SCOPE

- PAINT THE FOLLOWING MATERIALS AND SYSTEMS CHECKED BELOW WITH THE COATING SYSTEM INDICATED.

PAINTING SCOPE				
SURFACE TO BE PAINTED	COATING SYSTEM	PAINT	DO NOT PAINT	N/A
BTS UNIT				X
ALL EQUIPMENT & CABINETS OTHER THAN THE BTS UNIT				X
ANTENNA COVERS, TILT BRACKETS, MOUNTING BRACKETS AND ASSOCIATED HARDWARE, CABLE AND CABLE COVERS EXPOSED TO VIEW, EXPOSED CONDUIT AND HANGERS, ETC.	SEE PLANS	SEE PLANS		
FLASHING UNITS, METAL TRIM AND OTHER METAL SURFACES				X
STUCCO, CONCRETE, CONCRETE BLOCK AND CEMENTIOUS TYPE FINISH SYSTEMS.				X
PLYWOOD, LUMBER AND WOOD TRIM INCLUDING THE BACK SIDE OF ALL SCREEN WALLS				X
DRYWALL				X
CONCRETE POLES				X
METAL POLES AND METAL POLE STAND-OFF				X

C. COATING SYSTEM SPECIFICATIONS

- DTM ACRYLIC COATING (SERIES B66) BY SHERWIN WILLIAMS CO. 1MIL DFT PER COAT APPLIED IN TWO COATS OVER DTM BONDING PRIMER (B66A50).
  - 100% ACRYLIC, LATEX COATING EQUIVALENT TO A-100 (SERIES A-82) BY SHERWIN WILLIAMS CO. 1 MIL DFT PER COAT APPLIED IN TWO COATS OVER SPECIFIED PRIMER.
- D. PAINT & PRIMER
- ANTENNAS  
PRIMER - KEM AQUA E61-W525  
TOPCOAT - COROTHANE II B65W200/B60V22
- BTS CABINET  
PRIMER - KEM AQUA E61-W525  
TOPCOAT - COROTHANE II B65W200/B60V22
- COAXIAL JUMPER CABLES  
PRIMER - AS REQUIRED FOR ADHESION. APPLY ONE COAT OF KEM  
AQUA WATER REDUCIBLE PRIMER E61W25  
REDUCED 26%  
TOPCOAT - 2 COATS COROTHANE II POLYURETHANE B65W200/B60V2
- RAW STEEL  
PRIMER - KEM BOND HS B60WZ4, DMT ACRYLIC PRIMER  
TOPCOAT - 2 COATS COROTHANE II POLYURETHANE B65W200/B60V2
- GALVANIZED METAL  
ACID ETCH WITH COMMERCIAL ETCH OR VINEGAR  
PRIMER COAT AND  
FINISH COAT (GALVITE HIGH SOLIDS OR DTM PRIMER/FINISH)
- STAINLESS STEEL  
PRIMER - OTM WASH PRIMER, B71Y1  
TOPCOAT - 2 COATS COROTHANE II POLYURETHANE B65W200/B60V2
- PRE-PRIMED STEEL  
TOUCH UP ANY RUST OR UN-PRIMED STEEL WITH KEM BOND HS, 880WZ4
- ALUMINUM & COPPER  
PRIMER - DTM WASH PRIMER, B71Y1  
TOPCOAT - 2 COATS COROTHANE II POLYURETHANE B65W200/B60V2
- CONCRETE MASONRY  
PRIMER - PRO MAR EXTERIOR BLOCK FILLER  
TOPCOAT - 2 COATS A-100 LATEX HOUSE & TRIM, SHEEN TO MATCH
- CONCRETE STUCCO(EXISTING)  
2 COATS A-100 LATEX HOUSE & TRIM, SHEEN TO MATCH
- STUCCO  
PRIMER - PRO MAR MASONRY CONDITONER B-46-W21000  
TOPCOAT - SUPERPAINT A-80 SERIES A-80 SATIN A-84 GLOSS
- WOOD  
PRIMER - A-100 EXTERIOR ALKYD W009D PRIMER Y-24W20  
TOPCOAT - 2 COATS A-100 LATEX HOUSE & TRIM SHEEN TO MATCH ADJACENT SURFACES

2 PAINT SPECIFICATIONS

1. THE LATEST EDITION OF THE AMERICAN INSTITUTE OF ARCHITECTS DOCUMENT A201 "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION" ARE INCLUDED IN THESE SPECIFICATIONS AS IF COMPLETELY REPRODUCED HEREIN.

- THIS FACILITY IS AN UNOCCUPIED PCS TELECOMMUNICATIONS SITE AND IS EXEMPT FROM ADA ACCESS REQUIREMENTS.
- PRIOR TO SUBMISSION OF BIDS, THE CONTRACTORS PARTICIPATING SHALL VISIT THE JOB SITE WITH THE CONSTRUCTION AND CONTRACT DOCUMENTS TO CONFIRM THAT THE PROJECT CAN BE ACCOMPLISHED AS DESIGNED HEREIN, AS WELL AS TO FAMILIARIZE THEMSELVES WITH ALL FIELD CONDITIONS AFFECTING THE PROPOSED PROJECT INCLUDING DEMOLITION, ELECTRICAL, MECHANICAL AND STRUCTURAL INSTALLATIONS PRIOR TO PROCEEDING WITH CONSTRUCTION. SHOULD ANY ERRORS, OMISSION, OR DISCREPANCIES BE FOUND, THE GENERAL CONTRACTOR SHALL IMMEDIATELY NOTIFY IN WRITING, THE T-MOBILE CONSTRUCTION MANAGER AND THE ARCHITECT.
- IN THE EVENT OF DISCREPANCIES WITH THESE DRAWINGS, THE CONTRACTOR SHALL INCLUDE THE MORE COSTLY OR EXTENSIVE WORK IN THE BID, UNLESS SPECIFICALLY DIRECTED OTHERWISE BY T-MOBILE. IF A DISCREPANCY EXISTS AND THE PROJECT MANAGER AND ARCHITECT ARE NOT NOTIFIED, THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL COSTS INCURRED TO REPAIR OR CORRECT ALL PROBLEMS THAT RESULT.
- THESE DRAWINGS SHALL NOT BE SCALED AS THESE DRAWINGS ARE INTENDED TO BE FOR DIAGRAMMATIC PURPOSES ONLY. FIGURED DIMENSIONS HAVE PRECEDENCE OVER DRAWING SCALE AND DETAIL DRAWINGS HAVE PRECEDENCE OVER SMALL SCALE DRAWINGS. CONTRACTOR SHALL CHECK THE ACCURACY OF ALL DIMENSIONS IN THE FIELD. UNLESS SPECIFICALLY NOTED, DO NOT FABRICATE ANY MATERIALS, OR BEGIN ANY CONSTRUCTION UNTIL THE ACCURACY OF DRAWING DIMENSIONS HAS BEEN VERIFIED AGAINST ACTUAL FIELD DIMENSIONS.
- THE CONTRACTOR SHALL INCLUDE IN HIS OR HER BID ALL MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE THE WORK AS INDICATED OR IMPLIED BY THESE DRAWINGS.
- CONTRACTOR SHALL NOTIFY THE T-MOBILE CONSTRUCTION MANAGER, THE PROPERTY OWNER AND THE ARCHITECT IF ANY DETAILS ARE CONSIDERED IMPRACTICAL, UNSUITABLE, UNSAFE, NOT WATERPROOF, OR NOT WITHIN CUSTOMARY TRADE PRACTICE. IF WORK IS PERFORMED, IT WILL BE ASSUMED THAT THERE IS NO OBJECTION TO ANY DETAIL. DETAILS ARE INTENDED TO SHOW THE END RESULT OF THE DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB CONDITIONS, AND SHALL BE INCLUDED AS PART OF THE WORK.
- EXISTING ELEVATIONS AND LOCATIONS SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION. IF THEY DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE T-MOBILE CONSTRUCTION MANAGER AND THE ARCHITECT SO THAT MODIFICATIONS CAN BE MADE BEFORE PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL VERIFY ALL TELEPHONE & RADIO EQUIPMENT LAYOUTS, SPECIFICATIONS, PERFORMANCE, INSTALLATION AND FINAL LOCATIONS WITH T-MOBILE CONSTRUCTION MANAGER PRIOR TO BEGINNING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK WITH ERICSSON RADIO SYSTEMS.
- ALL SYMBOLS & ABBREVIATIONS USED ON THESE DRAWINGS ARE CONSIDERED CONSTRUCTION STANDARDS. IF THE CONTRACTOR HAS QUESTIONS REGARDING THEIR EXACT MEANING, THE T-MOBILE CONSTRUCTION MANAGER AND THE ARCHITECT SHALL BE NOTIFIED FOR CLARIFICATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK.
- THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, LICENSES AND INSPECTIONS NECESSARY FOR PERFORMANCE OF THE WORK AND INCLUDE THOSE IN THE COST OF THE WORK TO T-MOBILE.

1 GENERAL SPECIFICATIONS

- THE CONTRACTOR SHALL PROVIDE CONTINUOUS SUPERVISION AND DIRECT ALL WORK WHILE ANY SUBCONTRACTORS OR WORKERS ARE ONSITE, USING HIS OR HER BEST SKILL AND ATTENTION. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES, SEQUENCES, AND COORDINATION OF ALL PORTIONS OF THE CONTRACTED WORK.
- WORKMANSHIP THROUGHOUT SHALL BE OF THE BEST QUALITY OF THE TRADE INVOLVED, AND SHALL MEET OR EXCEED THE FOLLOWING MINIMUM REFERENCE STANDARDS FOR QUALITY AND PROFESSIONAL CONSTRUCTION PRACTICE:  
  
NRCA NATIONAL ROOFING CONTRACTORS ASSOCIATION  
O'HARE INTERNATIONAL CENTER  
10255 W. HIGGINS ROAD, SUITE 600  
ROSEMONT, IL 60018-5607  
  
SMACNA SHEET METAL AND AIR CONDITIONING CONTRACTORS  
NATIONAL ASSOCIATION  
4201 LAFAYETTE CENTER DRIVE  
CHANTILLY, VA 20151-1219  
  
IILP INTERNATIONAL INSTITUTE FOR LATH AND PLASTER  
820 TRANSFER ROAD  
ST. PAUL, MN 55114-1406
- INSTALL ALL EQUIPMENT AND MATERIALS PER THE LATEST EDITION OF THE MANUFACTURER'S INSTALLATION SPECIFICATIONS UNLESS OTHERWISE INDICATED BY T-MOBILE, OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- THE CONTRACTOR SHALL VERIFY, COORDINATE, AND PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, HANGERS OR OTHER SUPPORTS FOR ALL ITEMS.
- THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL GIVE ALL REQUIRED CONSTRUCTION NOTICES AND SHALL COMPLY WITH ALL APPLICABLE LOCAL CODES, REGULATIONS, LAWS AND ORDINANCES, AS WELL AS THE STATE DEPARTMENT OF INDUSTRIAL RELATIONS REGULATIONS, INCLUDING BUT NOT LIMITED TO THE DIVISION OF OCCUPATIONAL SAFETY AND HEALTH (OSHA).
- THE CONTRACTOR SHALL PROTECT ALL PROPERTY FROM DAMAGE THAT MAY OCCUR DURING CONSTRUCTION. ANY DAMAGE TO NEW AND EXISTING FINISHES, CONSTRUCTION, STRUCTURE, LANDSCAPING, CURBS, STAIRS, OR EQUIPMENT, ETC. SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF T-MOBILE AND THE PROPERTY OWNER'S REPRESENTATIVE, AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR, AND SHALL REPLACE OR REMEDY, ANY FAULTY, IMPROPER, OR INFERIOR MATERIALS OR WORKMANSHIP OR ANY DAMAGE WHICH SHALL APPEAR WITHIN ONE YEAR AFTER THE COMPLETION AND ACCEPTANCE OF THE WORK BY T-MOBILE UNDER THIS CONTRACT.
- IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROTECT AND LOCATE, OR CONTACT AN OUTSIDE AGENCY TO LOCATE, ALL EXISTING UTILITIES REGARDLESS OF WHETHER OR NOT SHOWN HEREIN. THE CONTRACTOR SHALL BEAR ALL EXPENSES FOR THE REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED IN CONJUNCTION WITH THE EXECUTION OF WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE PROJECT SITE WHILE THE JOB IS IN PROGRESS AND UNTIL THE JOB IS COMPLETED AND ACCEPTED BY T-MOBILE.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY WATER, POWER AND TOILET FACILITIES AS REQUIRED BY THE PROPERTY OWNER, T-MOBILE, AND THE CITY OR GOVERNING AGENCY.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REDLINING THE CONSTRUCTION DOCUMENTS TO ILLUSTRATE THE AS-BUILT CONDITION OF THE SITE. THIS SHALL BE DONE AFTER THE SITE HAS BEEN AWARDED FINAL INSPECTION BY THE RESPONSIBLE BUILDING AGENCY. ONE SET OF REDLINED DRAWINGS SHALL BE PROVIDED TO THE T-MOBILE CONSTRUCTION MANAGER.

- THE LATEST EDITION OF ALL PERMITTED AND APPROVED PLANS PERTAINING TO THIS PROJECT SHALL BE KEPT IN A PLAN BOX AND SHALL NOT BE USED BY WORKERS. ALL CONSTRUCTION SETS SHALL REFLECT THE SAME INFORMATION. THE CONTRACTOR SHALL ALSO MAINTAIN IN GOOD CONDITION, ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES. THESE ARE TO BE UNDER THE CARE OF THE CONSTRUCTION SUPERINTENDENT.
- THE CONTRACTOR SHALL REMOVE ALL RUBBISH AND WASTE MATERIALS ON A DAILY BASIS, EXCEPT FOR THAT SPECIFIED AS THE PROPERTY OF THE BUILDING OR PROPERTY OWNER AND SHALL EXERCISE STRICT CONTROL OVER SITE CLEANING THROUGHOUT CONSTRUCTION AND FINAL CLEAN-UP UPON COMPLETION OF WORK. ALL AREAS ARE TO BE LEFT IN A BROOM CLEAN CONDITION AT THE END OF EACH DAY THEN AT A VACUUM CLEAN CONDITION, FREE FROM PAINT SPOTS, DUST OR SMUDGES OF ANY NATURE AT COMPLETION OF WORK.
- THE GENERAL CONTRACTOR MUST PERFORM WORK DURING PROPERTY OWNER'S PREFERRED HOURS TO AVOID DISRUPTION OF NORMAL ACTIVITY.
- ALL EXPOSED METAL SHALL BE HOT-DIPPED GALVANIZED.
- SEAL ALL PENETRATIONS THROUGH FIRE-RATED AREAS WITH U.L. LISTED OR FIRE MARSHALL APPROVED MATERIALS IF AND WHERE APPLICABLE TO THIS FACILITY AND PROJECT SITE.
- PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OR 2-A10BC WITHIN 75 FEET TRAVEL DISTANCE TO ALL PORTIONS OF THE PROJECT AREA UNDER CONSTRUCTION.
- ELECTRICAL POWER SYSTEM SHALL BE GROUNDED PER NEC ARTICLES 250 AND 810.
- ALL NEW OPENINGS IN THE EXTERIOR ENVELOPE OF CONDITIONED SPACES SUCH AS AT WALL AND ROOF PENETRATIONS SHALL BE CAULKED OR SEALED TO LIMIT INFILTRATION OF AIR AND MOISTURE.
- UPON COMPLETION OF CONSTRUCTION, T-MOBILE CONSTRUCTION MANAGER SHALL CONDUCT A WALK-THRU WITH PROPERTY OWNER OR REPRESENTATIVE OF PROPERTY OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL SYSTEM EQUIPMENT IN A CLEAN WORKING ORDER UNTIL ACCEPTANCE OF THE PROJECT BY T-MOBILE.
- INSTALL ALL EQUIPMENT AND MATERIALS PER THE LATEST EDITION OF THE MANUFACTURER'S INSTALLATION SPECIFICATIONS UNLESS SPECIFICALLY OTHERWISE INDICATED, OR WHERE LOCAL CODES OR REGULATION TAKE PRECEDENCE.



T-MOBILE SITE:  
PO01039A  
GREENACRES

CROWN CASTLE SITE:  
857698  
GREENACRES

T27S R13W S10 SE1/4  
COOS BAY, OR 97420  
COOS COUNTY

109'-0" MONOPOLE

DRAWINGS ISSUED FOR:

REV.	DATE	DRAWN	DESCRIPTION	DATE
A	09/24/18	RCD	PRELIMINARY REVIEW	PD
0	11/16/18	GP	100% CONSTRUCTION	PD
1	02/05/19	GP	100% CONSTRUCTION	PD
2	02/19/19	TJB	100% CONSTRUCTION	PD



SHEET TITLE:  
**SPECIFICATIONS & NOTES**

SHEET NUMBER:  
**T-2**

REVISION:  
**2**





PART NO. TM0142851



PART NO. TM0145771



PART NO. TM0142862



PART NO. TM0130956



PART NO. TM0299382-MXL

A. GENERAL

- PRECEDENCE: UNLESS OTHERWISE SHOWN OR SPECIFIED, THE FOLLOWING GENERAL NOTES SHALL APPLY. INFORMATION ON THESE DRAWINGS SHALL HAVE THE FOLLOWING PRECEDENCE.
  - ALL DIMENSIONS TO TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS, SECTIONS AND DETAILS.
  - NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
  - MATERIAL NOTES AND SPECIFICATIONS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER THE SPECIFICATIONS.
- OTHER TRADES: SEE THE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS NOT SHOWN.
- GENERAL DETAILS AND NOTES ON THESE SHEETS SHALL APPLY UNLESS SPECIFICALLY SHOWN OR NOTED OTHERWISE. CONSTRUCTION DETAILS NOT FULLY SHOWN OR NOTED SHALL BE SIMILAR TO DETAILS SHOWN FOR SIMILAR CONDITIONS.
- SHORING: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL ALL TEMPORARY BRACING AND SHORING TO INSURE THE SAFETY OF THE WORK UNTIL IT IS COMPLETED. THIS INCLUDES UNDERPINNING EXISTING FOOTINGS WHERE APPLICABLE.
- SAFETY: THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE INDICATED, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION.
- WATERPROOFING: WATERPROOFING AND DRAINAGE DETAILS OR SPECIFICATIONS SHOWN IN THESE DRAWINGS ARE FOR GENERAL INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO NOTIFY THE T-MOBILE CONSTRUCTION MANAGER AND THE ARCHITECT IF ANY INADEQUATE OR IMPROPER CONDITIONS.

B. STEEL

- ALL STRUCTURAL STEEL SECTIONS AND WELDED PLATE MEMBERS SHALL CONFORM TO ASTM A-36 AND BE FABRICATED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE AISC.
- ALL BOLTS SHALL CONFORM TO ASTM A-307 UNLESS OTHERWISE NOTED ON PLANS, HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM A-325
- STEEL PIPE COLUMNS SHALL BE GRADE "B" CONFORMING TO ASTM A53.
- STEEL TUBING SHALL BE GRADE "B" CONFORMING TO ASTM A500.
- ALL WELDING SHALL BE DONE BY THE SHIELDED ARC METHOD. ALL WELDERS SHALL BE PROPERLY QUALIFIED AND BE PRE-APPROVED. SURPLUS METAL SHALL BE DRESSED OFF TO SMOOTH, EVEN SURFACES WHERE WELDS ARE NOT EXPOSED TO VIEW. ALL WELDING SHALL COMPLY WITH THE LATEST A.W.S. SPECIFICATIONS.
- THE FOLLOWING WELDING EQUIPMENT MUST BE USED:
  - 250 AMP WELDERS.
  - ROD OVENS.
  - GRINDERS.
- NO BUZZ BOXES SHALL BE USED.
- ALL STRUCTURAL STEEL SHALL HAVE MILL CERTIFICATION. MILL CERTIFICATION SHALL BE KEPT ON THE JOB SITE FOR EXAMINATION BY THE DESIGN ENGINEER AND THE CITY INSPECTOR.
- ALL HIGH STRENGTH BOLTS SHALL HAVE MILL CERTIFICATION. MILL CERTIFICATION SHALL BE KEPT ON THE JOB SITE FOR EXAMINATION BY THE INSPECTOR.
- STEEL THAT HAD BEEN WELDED, CUT OR SCRATCHED IN THE FIELD SHALL BE TOUCHED UP WITH COLD GALVANIZING PAINT.
- WELDING INDICATED IN THESE DRAWINGS IS DESIGNED FOR ONE HALF OF ALLOWABLE CODE STRESSES UNLESS NOTED "FULL STRESS" AT END OF WELD SYMBOL.

C. CONCRETE

- STRENGTH: CONCRETE FOR THE PROJECT SHALL HAVE THE FOLLOWING ULTIMATE COMPRESSIVE STRENGTH AT AGE OF 28 DAYS:
 

LOCATION	STRENGTH	WT.	SLUMP
	ADMIXTURE		
SLAB&FOOTING	3000psi	150pcf	4"
	NONE		
- INSPECTION: CONCRETE WITH SPECIFIED STRENGTH GREATER THAN 2500psi SHALL BE CONTINUOUSLY INSPECTED DURING PLACEMENT BY A DEPUTY INSPECTOR EMPLOYED BY A TESTING LABORATORY APPROVED BY THE BUILDING DEPT.
- REBAR GRADES: REINFORCING STEEL SHALL BE CLEAN PREFORMED BARS CONFORMING TO ASTM A615 AS FOLLOWS:
  - #4 & SMALLER BARS.....GRADE 40
  - #5 & LARGER BARS.....GRADE 60
  - ALL BARS AT CAISSON FOOTING...GRADE 60
- FOUNDATIONS & SLABS: TYPE V, LOW ALKALI, CONFORMING TO ASTM C-150. PIER/CAISSON FOOTINGS: TYPE V, LOW ALKALI, CONFORMING TO ASTM C-150.
- AGGREGATE: USED IN THE CONCRETE SHALL CONFORM TO ASTM C-33. USE ONLY AGGREGATES KNOWN NOT TO CAUSE EXCESSIVE SHRINKAGE. THE MAXIMUM SIZE AGGREGATE IN CONCRETE WORK SHALL BE THE FOLLOWING:
  - FOUNDATIONS & SLABS 9" OR LESS: 3/4" GRAVEL
  - PIER/CAISSON FOOTING: 1" GRAVEL.
- SHALL BE CLEAN AND FREE FROM DELETERIOUS AMOUNT OF ACIDS, ALKALIS, ORGANIC MATERIALS AND SHALL BE SUITABLE FOR HUMAN CONSUMPTION.
- MIXING: PREPARATION OF CONCRETE SHALL CONFORM TO ASTM C-94. NO MORE THAN 90 MINUTES SHALL ELAPSE BETWEEN CONCRETE BATCHING AND CONCRETE PLACEMENT UNLESS APPROVED BY A TESTING AGENCY.
- SEGREGATION OF AGGREGATES: CONCRETE SHALL NOT BE FLOPPED THROUGH REINFORCING STEEL (AS IN WALLS, COLUMNS, CAISSON, AND DROP CAPITALS) SO AS TO CAUSE SEGREGATION OF AGGREGATES. USE HOPPERS, CHUTES, TRUNKS OR PUMP HOSE SO THAT THE FREE UNCONFINED FALL OF CONCRETE SHALL NOT EXCEED 5 FT.
- SPLICES OF REINFORCING STEEL SHALL BE LAPPED A MINIMUM OF 30 DIAMETERS AND SECURELY WIRED TOGETHER. SPLICES OF ADJACENT REINFORCING BARS SHALL BE STAGGERED WHEREVER POSSIBLE.
- REAR CLEARANCE: MINIMUM COVERAGE FOR JOISTS, BEAMS, GIRDERS AND COLUMNS SHALL BE TO FACE OF STIRRUPS OR TIES. UNLESS OTHERWISE NOTED, CONCRETE COVERAGE FOR REINFORCING BARS TO FACE OF BAR SHALL BE AS FOLLOWS:
  - CONCRETE IN CONTACT WITH EARTH, UNFORMED 3"
  - CONCRETE IN CONTACT WITH EARTH, FORMED 2"
  - WALL, EXTERIOR FACE 1-1/2"
  - WALL, INTERIOR FACE 1"
  - STRUCTURAL SLABS 3/4"
  - JOISTS 3/4"
  - BEAMS, GIRDERS & COLUMNS 1-1/2"
- PENETRATIONS: NO SLEEVES OR CHASES SHALL BE PLACED IN BEAMS, SLABS, WALLS AND COLUMNS, EXCEPT THOSE SHOWN ON THE PLANS. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FOR INSTALLATIONS OF ANY ADDITIONAL SLEEVES OR CHASES. ALL PLUMBING, ELECTRICAL AND MECHANICAL OPENINGS SHALL BE SLEEVES. CORING IS NOT ALLOWED UNLESS PRIOR APPROVAL IS OBTAINED FROM THE STRUCTURAL ENGINEER.
- EMBEDDED ITEMS: CONDUIT PLACED IN A CONCRETE SLAB SHALL NOT HAVE AN OUTSIDE DIAMETER GREATER THAN 1/4 THE THICKNESS OF THE SLAB. CONDUIT SHALL NOT BE EMBEDDED IN A SLAB THAT IS LESS THAN 3-1/2" THICK, UNLESS SLAB IS LOCALLY THICKENED. MINIMUM CLEAR DISTANCE BETWEEN CONDUITS SHALL BE SIX INCHES.

- ANCHORING: ALL ANCHOR BOLTS, REINFORCING STEEL, DOWELS, INSERTS, ETC., SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE. NO REPOSITIONING DURING CONCRETE POUR IS ALLOWED.
- SLABS SHALL BE SPRAYED WITH A CURING COMPOUND IMMEDIATELY AFTER FINISHING. CURING COMPOUNDS USED ON CONCRETE WHERE TILE OR FLOOR COVERING IS TO BE BONDED TO THE CONCRETE SURFACE SHALL BE APPROVED BY THE TILE OR FLOOR COVERING MANUFACTURER. KEEP SLAB WET FOR 7 DAY MINIMUM PERIOD.
- CONSOLIDATION: ALL CONCRETE SHALL BE VIBRATED AS IT IS BEING PLACED WITH ELECTRICALLY OPERATED VIBRATING EQUIPMENT.
- TIMBER
  - ALL FRAMING LUMBER FOR 4X AND LARGER BEAMS SHALL BE NO. 1 GRADE DOUGLAS FIR., S4S, UNLESS NOTED OTHERWISE.
  - ALL FRAMING LUMBER FOR 2X RAFTERS AND JOISTS SHALL BE NO. 2 GRADE DOUGLAS FIR, S4S, UNLESS NOTED OTHERWISE.
  - STRIPPING, BLOCKING, BACKING AND OTHER NON-STRUCTURAL LUMBER SHALL BE NO. 2 OR STD & BTR GRADE DOUGLAS FIR, S4S. 2X4 STUD WALLS SHALL BE D.F. STANDARD & BTR.
  - ALL BEAMS, JOISTS AND RAFTERS SHALL BE INSTALLED WITH CROWN SIDE UP.
  - ROOF PLYWOOD SHALL MATCH EXISTING PLYWOOD SHEATHING WITH A SPAN INDEX RATIO 32/16. EDGE NAIL WITH 8d AT 6" O.C. UNLESS NOTED OTHERWISE ON PLANS. FIELD NAIL WITH 8d AT 12" O.C.
  - PLYWOOD SHEETS SHALL BE LAID WITH THE FACE GRAIN PERPENDICULAR TO SUPPORTS AND WITH THE EDGES STAGGERED, UNLESS NOTED OTHERWISE ON THE PLANS.
  - PLYWOOD SHALL BE GRADE MARKED BY DFPA, TECO, OR PTL AND SHALL CONFORM TO PS 1-83.
  - THE MAXIMUM MOISTURE CONTENT OF ALL LUMBER SHALL NOT EXCEED 24% AT THE TIME OF INSTALLATION.
  - MINIMUM NAILING SHALL COMPLY WITH TABLE 23-1-q OF BUILDING CODE. ALL NAILS SHALL BE COMMON WIRE NAILS.
  - ALL BOLTS SHALL HAVE STANDARD CUT WASHERS UNDER HEADS AND/OR NUTS WHERE IN CONTACT WITH WOOD.
  - LAG BOLTS SHALL BE SCREWED INTO PLACE, NOT DRIVEN. LAG BOLTS SHALL BE INSTALLED IN PRE-DRILLED HOLES WITH A DIAMETER EQUAL TO 75% DIAMETER OF BOLT.
  - CONNECTORS: ALL SHEET METAL FRAMING CONNECTORS SHOWN IN THE PLANS SHALL BE STRONG CONNECTORS AS MANUFACTURED BY THE SAMSON COMPANY. SUBSTITUTIONS MAY BE MADE WHEN APPROVED BY THE STRUCTURAL ENGINEER.
  - ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH MASONRY OR CONCRETE SHALL BE WOLMANIZED PRESSURE TREATED LUMBER OR A NATURALLY DECAY RESISTANT LUMBER SUCH AS REDWOOD OR CEDAR.
  - ALASKAN YELLOW CEDAR GLUE-LAMINATED BEAMS
    - LUMBER SPECIES: ALASKAN YELLOW CEDAR (A.C.) CONFORMING TO 20F-V12
    - STRENGTH PROPERTIES:
      - F<sub>b</sub> BOTTOM FIBER BENDING STRESS 2000psi MIN.
      - F<sub>b</sub> TOP FIBER BENDING STRESS 1000psi MIN.
      - F<sub>v</sub> SHEAR STRESS 190psi MIN.
      - F<sub>c</sub> COMPRESSION STRESS PERPENDICULAR TO GRAIN 560psi MIN.
      - MODULUS ELASTICITY 1400ksi MIN.
      - CAMBER TO RADIUS OF 1800" U.O.N.
      - ALL GLB'S SHALL BE FABRICATED WITH EXTERIOR GLUE.
      - MANUFACTURE OF GLB'S SHALL CONFORM TO THE UBC.
      - GLU-LAM MATERIAL SHALL BE IN ACCORDANCE WITH ANSI/AITC A190.1 AND ASTM D3737.

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T-MOBILE SITE:  
PO01039A  
GREENACRES

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T27S R13W S10 SE1/4  
COOS BAY, OR 97420  
COOS COUNTY

109'-0" MONOPOLE

DRAWINGS ISSUED FOR:

REV.	DATE	DRAWN	DESCRIPTION	QA/QC
A	09/24/18	RCD	PRELIMINARY REVIEW	PD
0	11/16/18	CP	100% CONSTRUCTION	PD
1	02/05/19	CP	100% CONSTRUCTION	PD
2	02/19/19	TJB	100% CONSTRUCTION	PD

REGISTERED PROFESSIONAL ENGINEER  
74093PE  
2/20/19  
NO. OREGON  
EMBER 13, 2008  
CHRISTOPHER J. WARREN  
EXPIRATION DATE: 6-30-20

SHEET TITLE:  
SPECIFICATIONS AND NOTES

SHEET NUMBER:  
T-3

REVISION:  
2



LEGAL DESCRIPTION:  
NOT PROVIDED

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2	02/10/19	TJB	100% CONSTRUCTION	PD



SHEET TITLE:  
**OVERALL  
SITE PLAN**

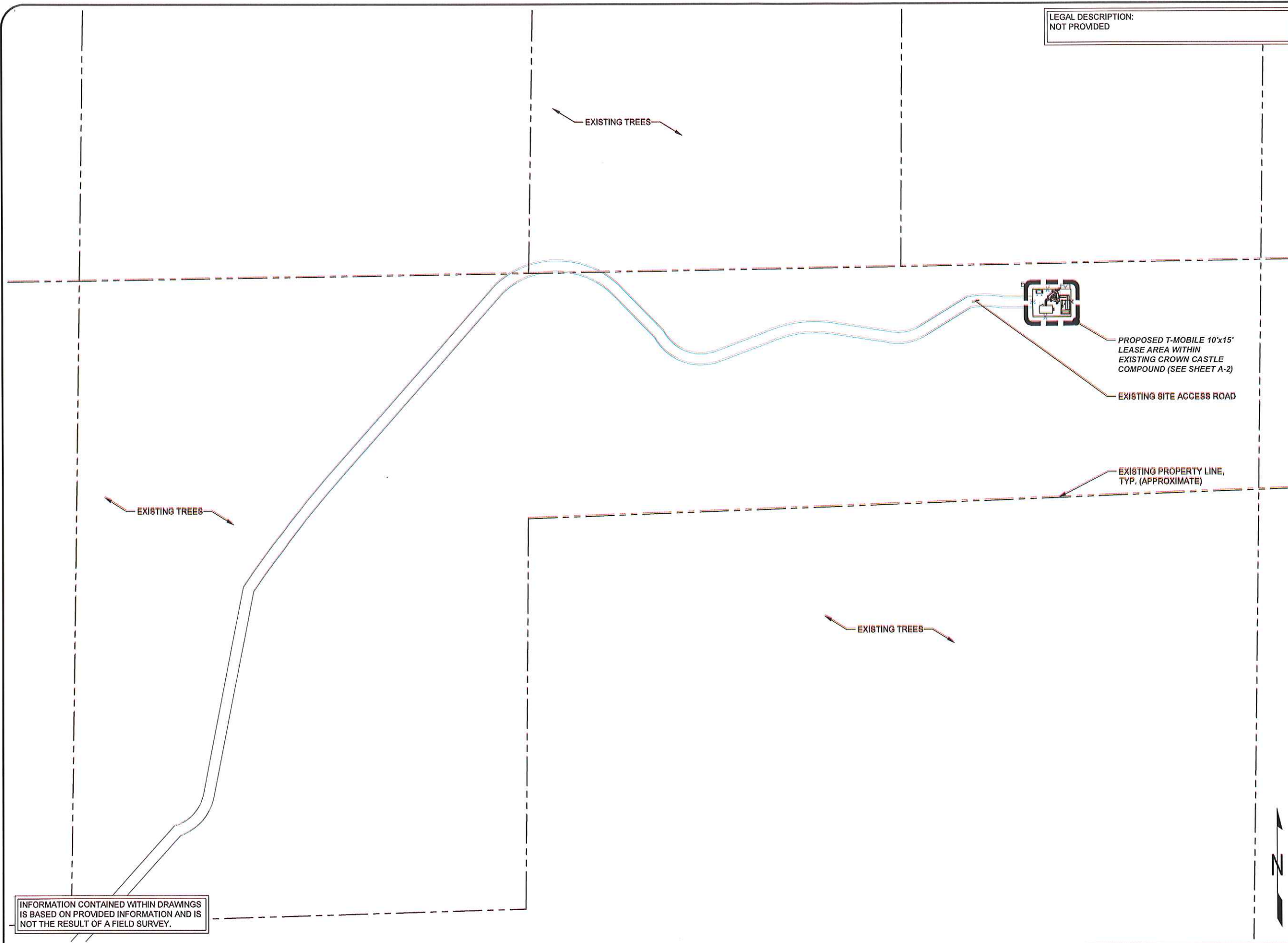
SHEET NUMBER:  
**A-1**

REVISION:  
**2**

INFORMATION CONTAINED WITHIN DRAWINGS  
IS BASED ON PROVIDED INFORMATION AND IS  
NOT THE RESULT OF A FIELD SURVEY.

**1 OVERALL SITE PLAN**

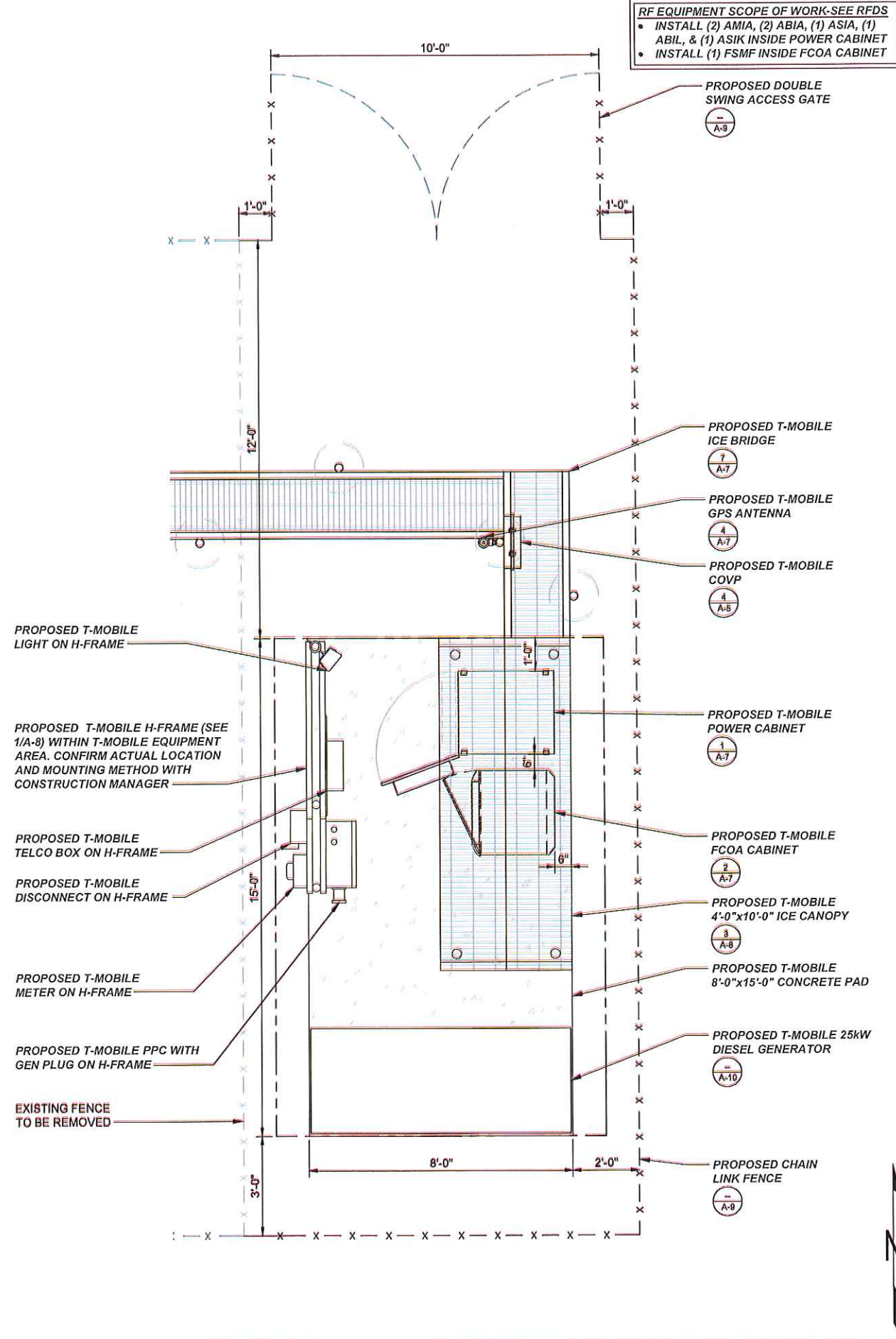
22"x34" SCALE: 1" = 50'-0"  
11"x17" SCALE: 1" = 100'-0"



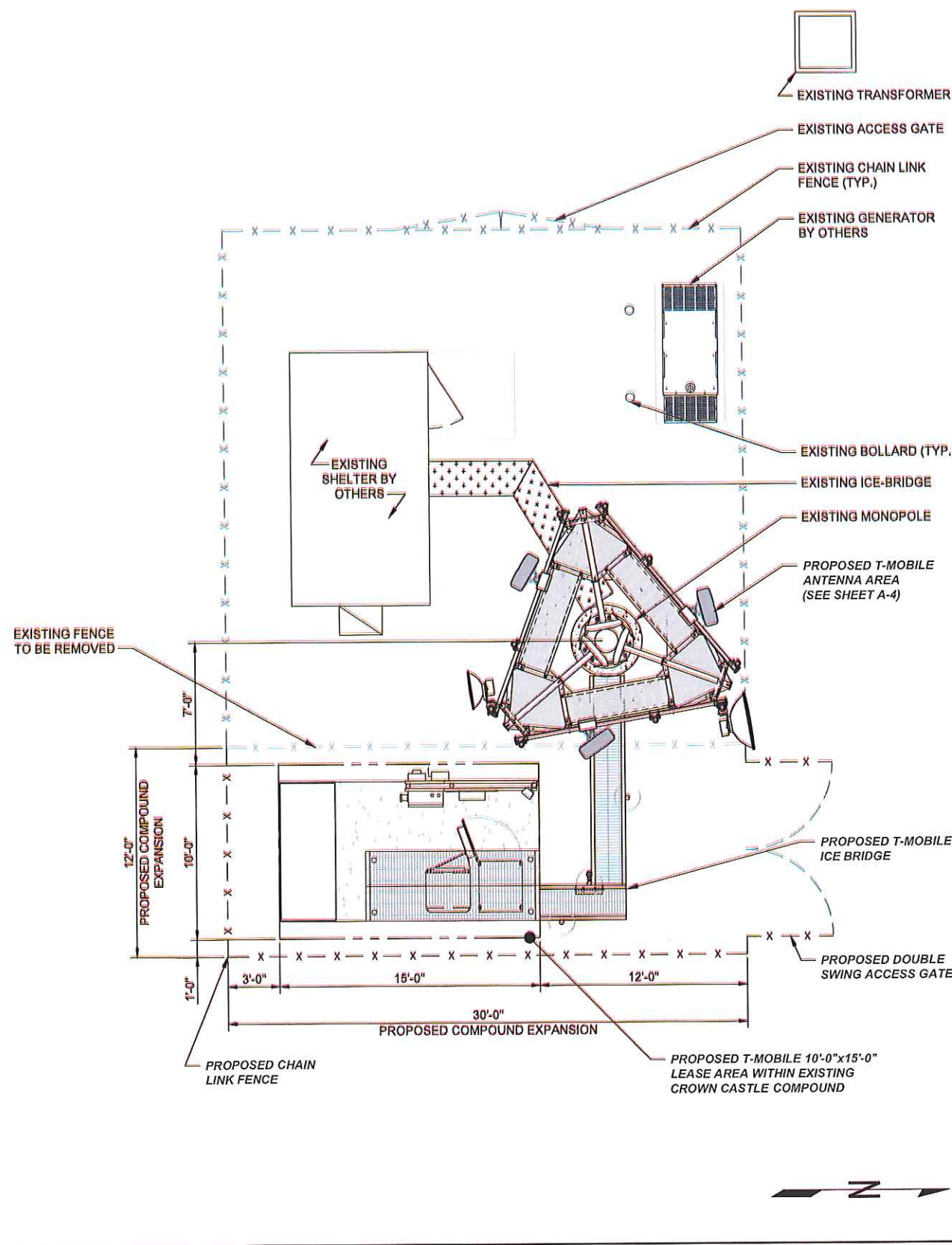


**RF EQUIPMENT SCOPE OF WORK-SEE RFDS**

- INSTALL (2) AMIA, (2) ABIA, (1) ASIA, (1) ABIL, & (1) ASIK INSIDE POWER CABINET
- INSTALL (1) FSMF INSIDE FCOA CABINET



INFORMATION CONTAINED WITHIN DRAWINGS IS BASED ON PROVIDED INFORMATION AND IS NOT THE RESULT OF A FIELD SURVEY.



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REGISTERED PROFESSIONAL ENGINEER  
74093PE  
2/20/19  
NOVEMBER 13, 2008  
CHRISTOPHER J. WARREN  
EXPIRATION DATE: 6-30-20

SHEET TITLE:  
**ENLARGED PLANS**

SHEET NUMBER:  
**A-2**

REVISION:  
**2**

2 ENLARGED EQUIPMENT PLAN

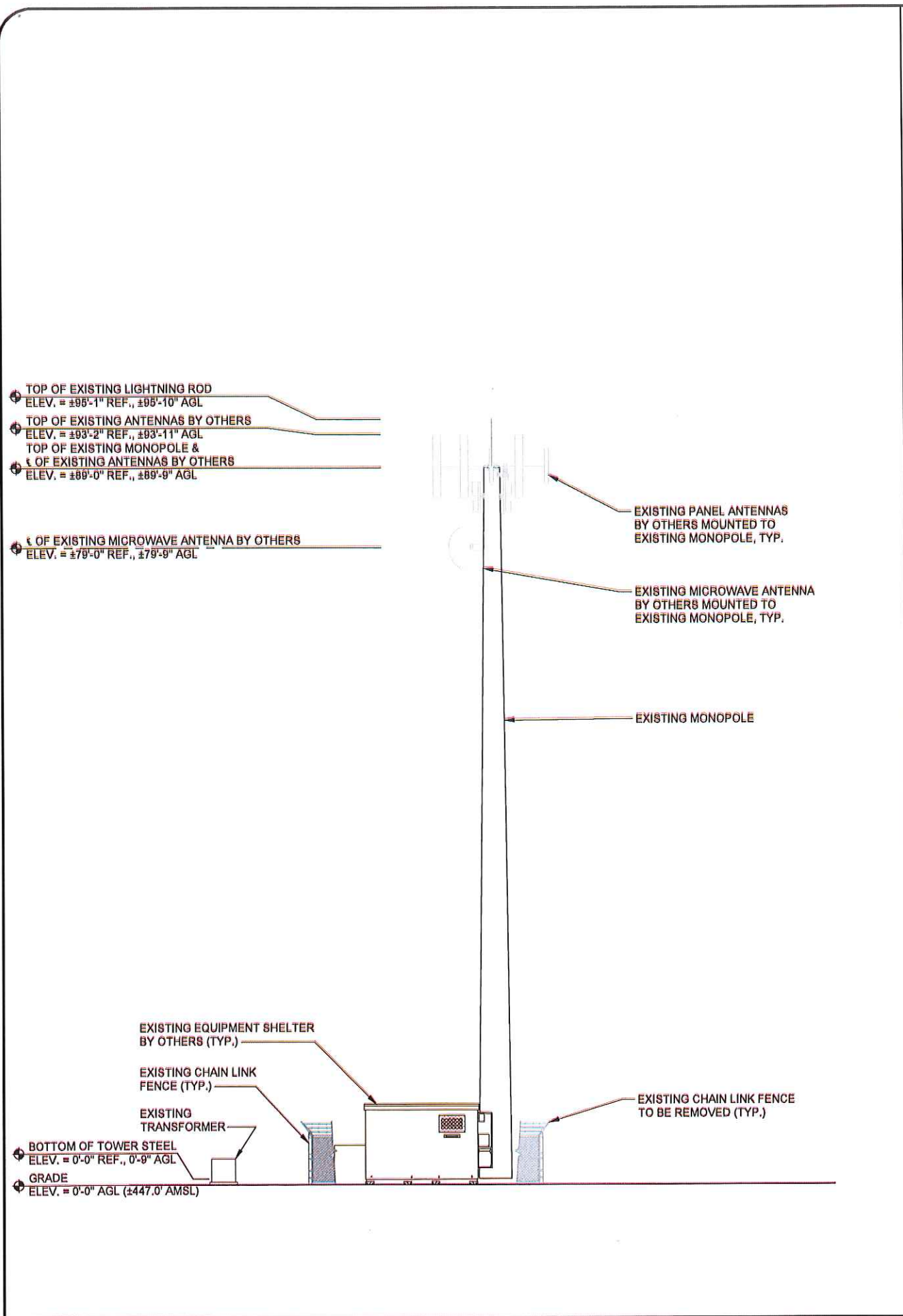
22"x34" SCALE: 1/2" = 1'-0"  
11"x17" SCALE: 1/4" = 1'-0"

1 ENLARGED SITE PLAN

22"x34" SCALE: 1/4" = 1'-0"  
11"x17" SCALE: 1/8" = 1'-0"

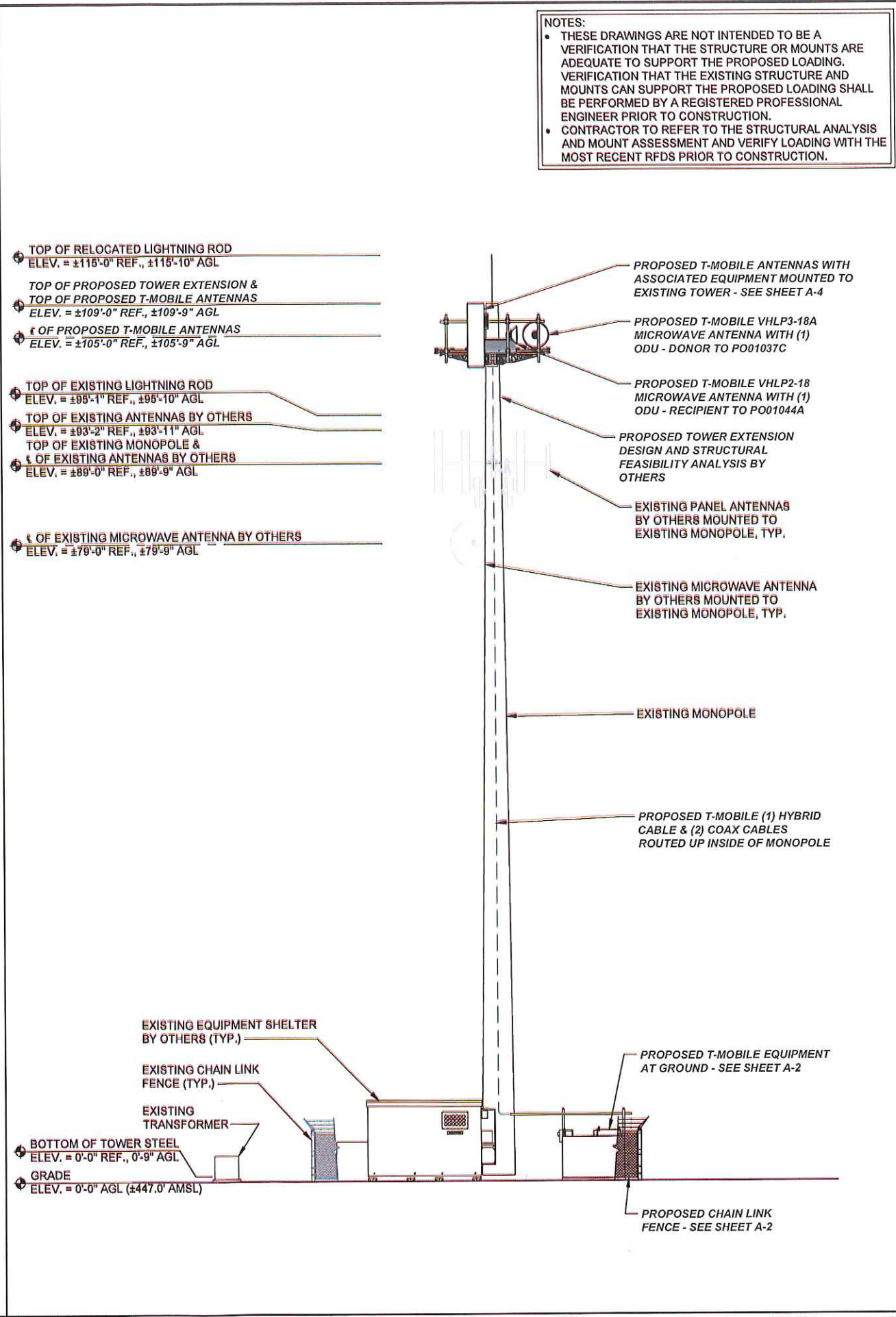
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2 EXISTING SOUTH ELEVATION

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



1 PROPOSED SOUTH ELEVATION

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

NOTES:  
 • THESE DRAWINGS ARE NOT INTENDED TO BE A VERIFICATION THAT THE STRUCTURE OR MOUNTS ARE ADEQUATE TO SUPPORT THE PROPOSED LOADING. VERIFICATION THAT THE EXISTING STRUCTURE AND MOUNTS CAN SUPPORT THE PROPOSED LOADING SHALL BE PERFORMED BY A REGISTERED PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION.  
 • CONTRACTOR TO REFER TO THE STRUCTURAL ANALYSIS AND MOUNT ASSESSMENT AND VERIFY LOADING WITH THE MOST RECENT RFDS PRIOR TO CONSTRUCTION.

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A	09/24/18	RCD	PRELIMINARY REVIEW	PD
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REGISTERED PROFESSIONAL ENGINEER  
 74093PE  
 2/20/19  
 OREGON  
 CHRISTOPHER J. WARREN  
 EXPIRATION DATE: 6-30-20

SHEET TITLE:  
 SOUTH ELEVATIONS  
 SHEET NUMBER:  
**A-3**  
 REVISION:  
**2**



NOTES

1. CONTRACTOR IS TO REFER TO T-MOBILE'S MOST CURRENT RADIO FREQUENCY DATA SHEET (RFDS) PRIOR TO CONSTRUCTION.
2. CABLE LENGTH IS APPROXIMATE. CONTRACTOR TO FIELD VERIFY CABLE LENGTHS PRIOR TO ORDERING, FABRICATION, OR INSTALLATION OF CABLES.
3. PROPOSED EQUIPMENT IS INDICATED BY **BOLD** TEXT.



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MOUNT SECTOR	MOUNT POSITION	RFDS POSITION	ANTENNA				RRH	TMA/COMBINER/GOVP	HYBRID CABLE (HCS)			COAX CABLE			
			MODEL	SIZE	AZIMUTH	RAD CENTER			QTY.	MODEL	QTY.	TYPE	LENGTH	QTY.	TYPE
ALPHA	A1	--	--	--	--	--	--	--	--	--	--	--	--	--	
	A2	--	--	--	--	--	--	--	--	--	--	--	--	--	
	A3	A1	<b>FFHH-65C-R3</b>	95.9"	345°	105'-0"	1,1	<b>AHLOA, AHFIB</b>	--	--	--	--	--	--	
	A4	--	--	--	--	--	--	--	--	--	--	--	--	--	
BETA	B1	--	--	--	--	--	--	--	--	--	--	--	--	--	
	B2	--	--	--	--	--	--	--	--	--	--	--	--	--	
	B3	B1	<b>FFHH-65C-R3</b>	95.9"	55°	105'-0"	1,1	<b>AHLOA, AHFIB</b>	--	--	1	<b>FD21206-48S55-XXX</b>	±175'-0"	--	--
	B4	--	--	--	--	--	--	--	--	--	--	--	--	--	
GAMMA	C1	--	--	--	--	--	--	--	--	--	--	--	--	--	
	C2	--	--	--	--	--	--	--	--	--	--	--	--	--	
	C3	C1	<b>FFHH-65C-R3</b>	95.9"	210°	105'-0"	1,1	<b>AHLOA, AHFIB</b>	--	--	--	--	--	--	
	C4	--	--	--	--	--	--	--	--	--	--	--	--	--	

NOTE: SECTOR POSITIONS ARE CLOCKWISE (LEFT TO RIGHT AS VIEWED FROM THE BACK OF THE ANTENNAS)

MW	MW1	MW2	MODEL	SIZE	AZIMUTH	RAD CENTER	QTY.	RRH	TMA/COMBINER/GOVP	HYBRID CABLE (HCS)	COAX CABLE
	MW1	--	<b>VHLP3-18A</b>	39.3"	350.26°	105'-0"	1	<b>ODU600</b>	--	--	1 LMR-400 ±155'-0"
	MW2	--	<b>VHLP2-18</b>	26.0"	171.88°	105'-0"	1	<b>ODU600</b>	--	--	1 LMR-400 ±155'-0"

3 RF SCHEDULE

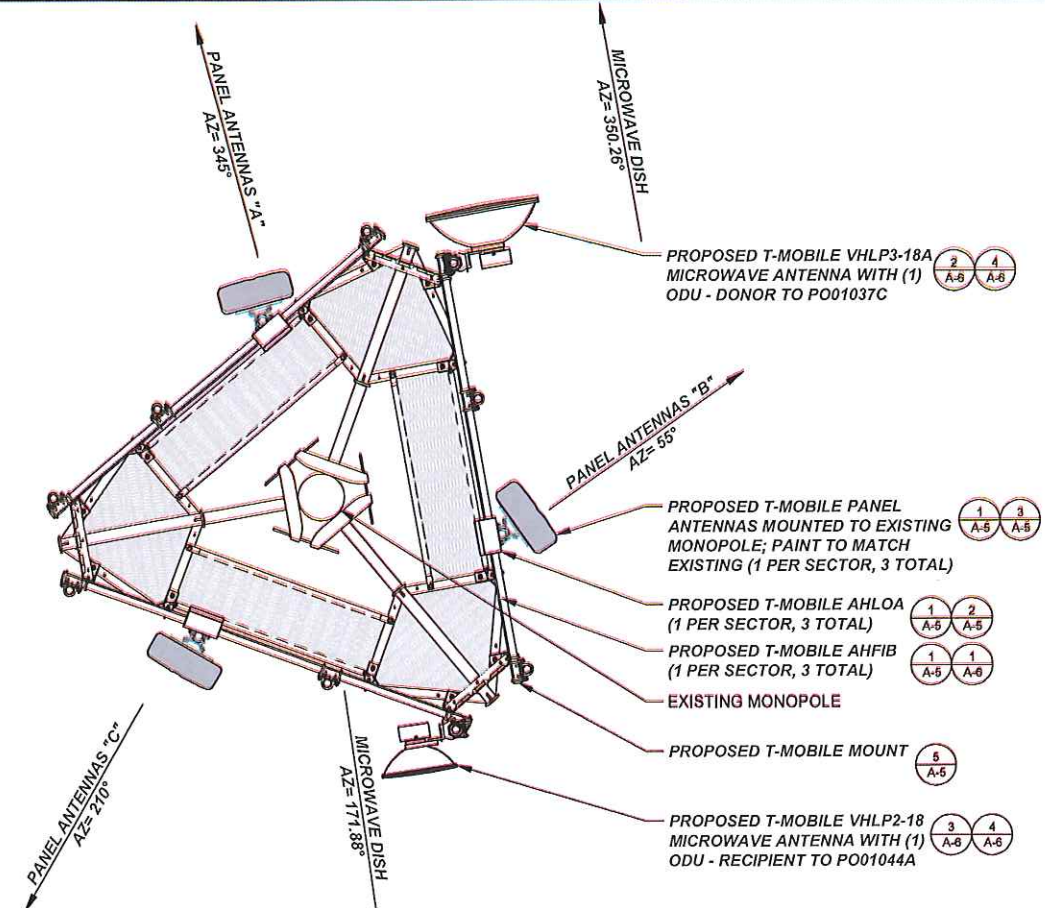
NOT TO SCALE

2 NOT USED

NOT TO SCALE

1 PROPOSED ANTENNA PLAN

NOT TO SCALE



DRAWINGS ISSUED FOR:

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A	09/24/18	RCD	PRELIMINARY REVIEW	PD
0	11/18/18	CP	100% CONSTRUCTION	PD
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2	02/19/19	TJB	100% CONSTRUCTION	PD



SHEET TITLE:  
**ANTENNA PLAN & RF SCHEDULE**

SHEET NUMBER: **A-4** REVISION: **2**





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1	02/05/19	GP	100% CONSTRUCTION	PD
2	02/19/19	TJB	100% CONSTRUCTION	PD

\*\*\*FOR REFERENCE ONLY\*\*\*

SHEET TITLE:

RF PLUMBING  
DIAGRAM

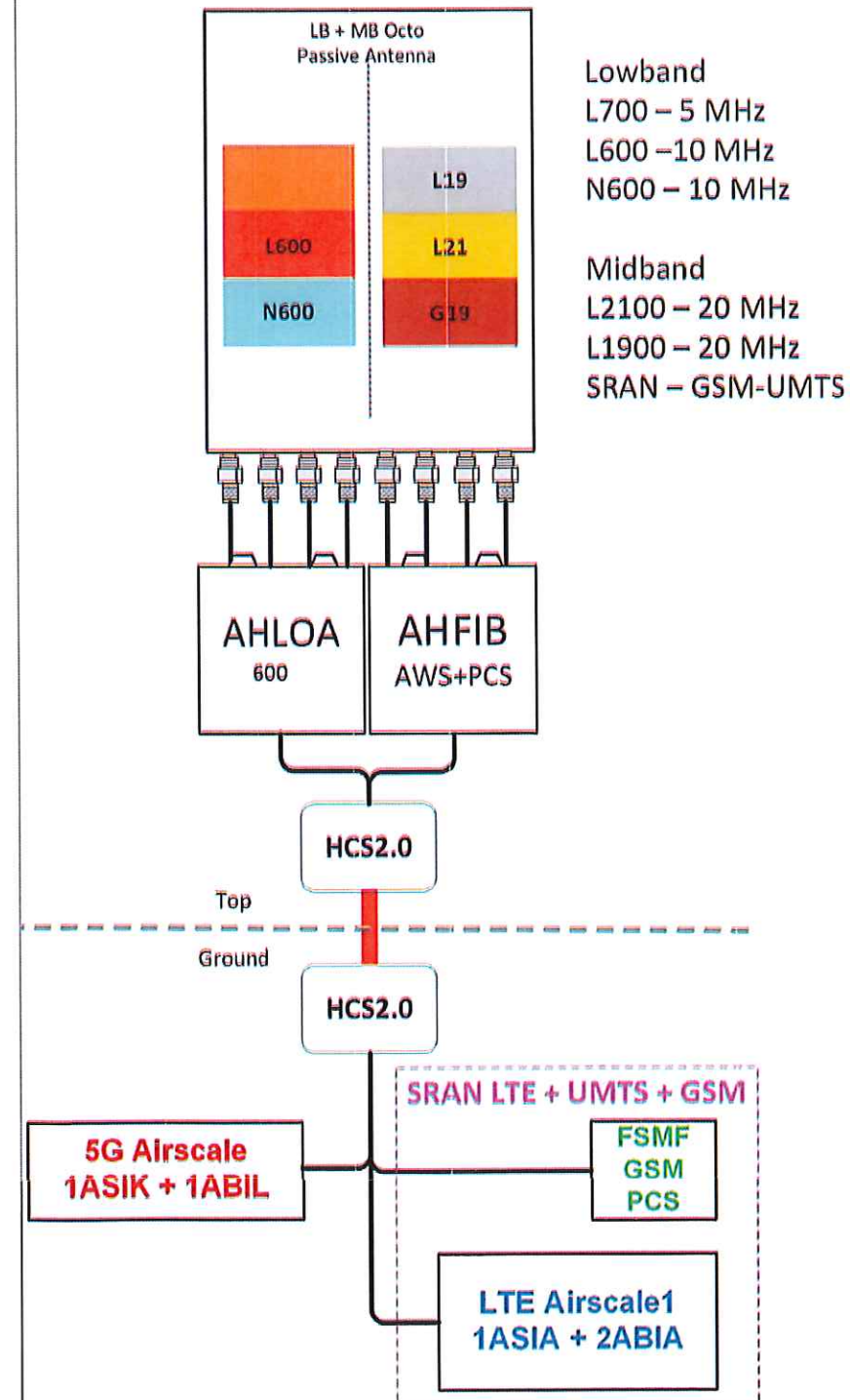
SHEET NUMBER:

A-4.1

REVISION:

2

### Configuration 6090R\_SR (Alpha, Beta & Gamma)



Lowband  
L700 – 5 MHz  
L600 – 10 MHz  
N600 – 10 MHz

Midband  
L2100 – 20 MHz  
L1900 – 20 MHz  
SRAN – GSM-UMTS





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**CROWN CASTLE SITE:**  
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DRAWINGS ISSUED FOR:

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\*\*\*FOR REFERENCE ONLY\*\*\*

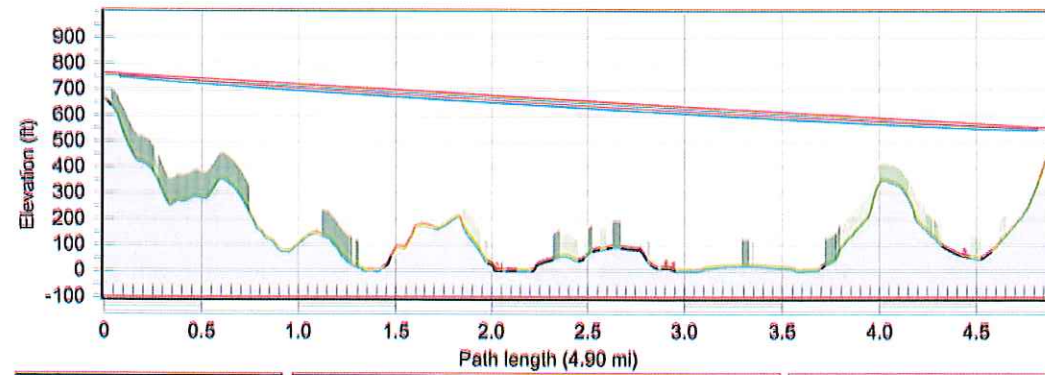
SHEET TITLE:  
**MICROWAVE LINK PATH**

SHEET NUMBER:  
**A-4.2**

REVISION:  
**2**

Transmission details (PO01037C-PO01039A\_PrelimDesign\_NewACL\_D\_12142018\_v2.pl5)

	PO01037C	PO01039A
Latitude	43 18 42.30 N	43 14 30.57 N
Longitude	124 14 15.40 W	124 13 16.24 W
True azimuth (°)	170.25	350.26
Vertical angle (°)	-0.50	0.44
Elevation (ft)	662.90	441.20
Tower height (ft)	120.00	110.00
Tower type	monopole	monopole
Antenna model	VHLP3-18A (TR)	VHLP3-18A (TR)
Antenna file name	vhlp3-18a	vhlp3-18a
Antenna gain (dBi)	43.50	43.50
Antenna diameter (ft)	3.00	3.00
Antenna height (ft)	95.00	105.00
Frequency (MHz)	18000.00	
Polarization	Vertical	
Path length (mi)	4.90	
Free space loss (dB)	135.51	
Atmospheric absorption loss (dB)	0.43	
Field margin (dB)	1.00	
Net path loss (dB)	49.93	49.93
Radio model	CTRE6sp18_50M_ACM	CTRE6sp18_50M_ACM
Radio file name	cte6s1850m_acm	cte6s1850m_acm
Emission designator	50M0D7W	50M0D7W
Climatic factor	1.00	
Terrain roughness (ft)	140.00	
G factor	0.26	
Average annual temperature (°F)	52.02	
Fade occurrence factor (Po)	1.387E-003	
Polarization	Vertical	
Rain region	Roseburg, Oregon	



PO01037C	Frequency (MHz) = 18000.0	PO01039A
Latitude 43 18 42.30 N	K = 1.33	Latitude 43 14 30.57 N
Longitude 124 14 15.40 W	%F1 = 100.00	Longitude 124 13 16.24 W
Azimuth 170.25°		Azimuth 350.26°
Elevation 663 ft ASL		Elevation 441 ft ASL
Antenna CL 95.0 ft AGL		Antenna CL 105.0 ft AGL

	TX power (dBm)		RX threshold level (dBm)		EIRP (dBm)		Receive signal (dBm)		Thermal fade margin (dB)		Flat fade margin - multipath (dB)	
512QAM 355 Mbps	15.50	15.50	-57.00	-57.00	59.00	59.00	-34.43	-34.43	22.57	22.57	22.57	22.57
256QAM 300 Mbps	17.00	17.00	-61.75	-61.75	60.50	60.50	-32.93	-32.93	28.82	28.82	28.82	28.82
128QAM 258 Mbps	17.00	17.00	-65.25	-65.25	60.50	60.50	-32.93	-32.93	32.32	32.32	32.32	32.32
64QAM 213 Mbps	18.00	18.00	-68.50	-68.50	61.50	61.50	-31.93	-31.93	36.57	36.57	36.57	36.57
32QAM 172 Mbps	18.00	18.00	-71.00	-71.00	61.50	61.50	-31.93	-31.93	39.07	39.07	39.07	39.07
16QAM 150 Mbps	19.00	19.00	-73.75	-73.75	62.50	62.50	-30.93	-30.93	42.82	42.82	42.82	42.82
QPSK 63 Mbps	20.00	20.00	-84.75	-84.75	63.50	63.50	-29.93	-29.93	54.82	54.82	54.82	54.82

	Worst month multipath		Annual multipath		Annual rain		Total annual (2 way)	Time in mode (2 way)
512QAM 355 Mbps	99.9992	99.9992	99.9998	99.9998	99.9995	99.9995	99.9991	99.9991
256QAM 300 Mbps	99.9998	99.9998	99.9999	99.9999	99.9997	99.9997	99.9996	0.0006
128QAM 258 Mbps	99.9999	99.9999	99.9999	99.9999	99.9998	99.9998	99.9998	0.0001
64QAM 213 Mbps	99.9999	99.9999	99.9999	99.9999	99.9999	99.9999	99.9999	0.0001
32QAM 172 Mbps	99.9999	99.9999	99.9999	99.9999	99.9999	99.9999	99.9999	0.0000
16QAM 150 Mbps	99.9999	99.9999	99.9999	99.9999	99.9999	99.9999	99.9999	0.0000
QPSK 63 Mbps	99.9999	99.9999	99.9999	99.9999	99.9999	99.9999	99.9999	0.0000

Multipath fading method - Vigants - Barnett  
Rain fading method - Crane





**T-MOBILE SITE:**  
 PO01039A  
 GREENACRES

**CROWN CASTLE SITE:**  
 857698  
 GREENACRES

**T27S R13W S10 SE1/4**  
 COOS BAY, OR 97420  
 COOS COUNTY

**109'-0" MONOPOLE**

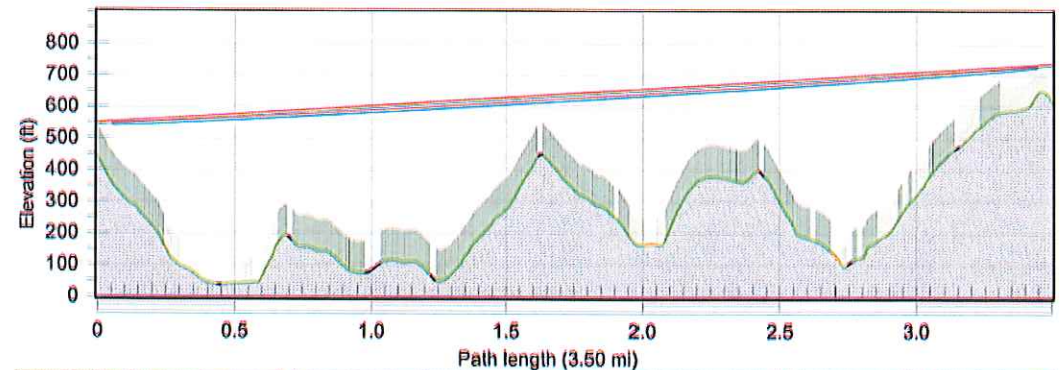
DRAWINGS ISSUED FOR:				
REV.	DATE	DRAWN	DESCRIPTION	QA/QC
A	09/24/18	RGD	PRELIMINARY REVIEW	PD
0	11/16/18	GP	100% CONSTRUCTION	PD
1	02/05/19	GP	100% CONSTRUCTION	PD
2	02/19/19	TJB	100% CONSTRUCTION	PD

\*\*\*FOR REFERENCE ONLY\*\*\*

SHEET TITLE:  
**MICROWAVE LINK PATH**

SHEET NUMBER:  
**A-4.3**

REVISION:  
**2**



<b>PO01039A</b> Latitude 43 14 30.48 N Longitude 124 13 16.46 W Azimuth 171.88° Elevation 438 ft ASL Antenna CL 105.0 ft AGL	Frequency (MHz) = 18000.0 K = 1.33 %F1 = 100.00	<b>PO01044A</b> Latitude 43 11 29.87 N Longitude 124 12 41.26 W Azimuth 351.89° Elevation 613 ft ASL Antenna CL 119.0 ft AGL
---	---	---

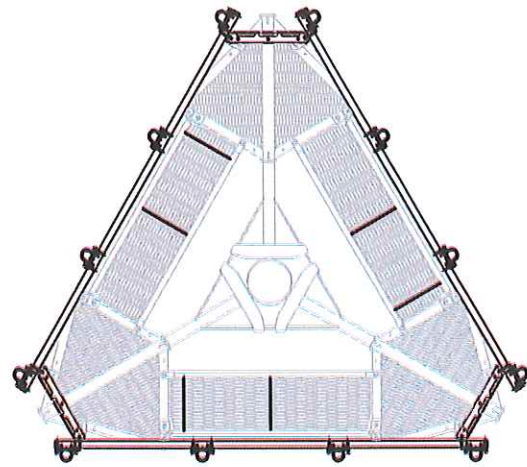
Transmission details (PO01039A-PO01044A\_PrelimDesign\_02062019\_v2.pl5)

	PO01039A	PO01044A
Station code	Recipient	Donor
Latitude	43 14 30.48 N	43 11 29.87 N
Longitude	124 13 16.46 W	124 12 41.26 W
True azimuth (°)	171.88	351.89
Vertical angle (°)	0.57	-0.61
Elevation (ft)	437.86	612.86
ASR		1216213
Tower height (ft)	90.00	151.00
Tower type	monopole	monopole
Antenna model	VHLP2-18 (TR)	VHLP2-18 (TR)
Antenna file name	7012	7012
Antenna gain (dBi)	38.90	38.90
Antenna diameter (ft)	2.00	2.00
Antenna height (ft)	105.00	119.00
Frequency (MHz)	18000.00	
Polarization	Vertical	
Path length (mi)	3.50	
Free space loss (dB)	132.58	
Atmospheric absorption loss (dB)	0.30	
Field margin (dB)	1.00	
Net path loss (dB)	56.09	56.09
Configuration	1+0	1+0
Radio model	CTRE6sp18_50M_ACM	CTRE6sp18_50M_ACM
Radio file name	cte6s1850m_acm	cte6s1850m_acm
Emission designator	50M0D7W	50M0D7W
Climatic factor	1.00	
Terrain roughness (ft)	129.36	
C factor	0.29	
Average annual temperature (°F)	51.99	
Fade occurrence factor (Po)	5.601E-004	
Polarization	Vertical	
Rain region	Roseburg, Oregon	

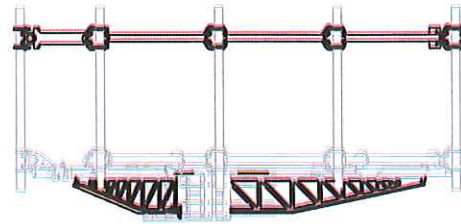
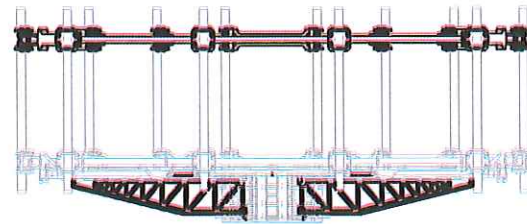
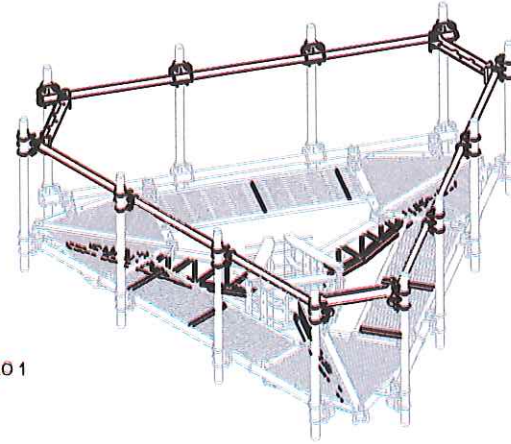
	TX power (dBm)		RX threshold level (dBm)		EIRP (dBm)		Receive signal (dBm)		Thermal fade margin (dB)		Flat fade margin - multipath (dB)	
1024QAM 371 Mbps	15.00	15.00	-54.25	-54.25	53.90	53.90	-41.09	-41.09	13.16	13.16	13.16	13.16
512QAM 355 Mbps	15.50	15.50	-57.00	-57.00	54.40	54.40	-40.59	-40.59	16.41	16.41	16.41	16.41
256QAM 300 Mbps	17.00	17.00	-61.75	-61.75	55.90	55.90	-39.09	-39.09	22.66	22.66	22.66	22.66
128QAM 258 Mbps	17.00	17.00	-65.25	-65.25	55.90	55.90	-39.09	-39.09	26.16	26.16	26.16	26.16
64QAM 213 Mbps	18.00	18.00	-68.50	-68.50	56.90	56.90	-38.09	-38.09	30.41	30.41	30.41	30.41
32QAM 172 Mbps	18.00	18.00	-71.00	-71.00	56.90	56.90	-38.09	-38.09	32.91	32.91	32.91	32.91
16QAM 150 Mbps	19.00	19.00	-73.75	-73.75	57.90	57.90	-37.09	-37.09	36.66	36.66	36.66	36.66
QPSK 63 Mbps	20.00	20.00	-84.75	-84.75	58.90	58.90	-36.09	-36.09	48.66	48.66	48.66	48.66

	Worst month multipath		Annual multipath		Annual rain		Total annual (2 way)	Time in mode (2 way)
1024QAM 371 Mbps	99.9973	99.9973	99.9993	99.9993	99.9989	99.9989	99.9974	99.9974
512QAM 355 Mbps	99.9987	99.9987	99.9997	99.9997	99.9994	99.9994	99.9987	0.0012
256QAM 300 Mbps	99.9997	99.9997	99.9999	99.9999	99.9997	99.9997	99.9996	0.0009
128QAM 258 Mbps	99.9999	99.9999	99.9999	99.9999	99.9998	99.9998	99.9998	0.0002
64QAM 213 Mbps	99.9999	99.9999	99.9999	99.9999	99.9999	99.9999	99.9999	0.0001
32QAM 172 Mbps	99.9999	99.9999	99.9999	99.9999	99.9999	99.9999	99.9999	0.0000
16QAM 150 Mbps	99.9999	99.9999	99.9999	99.9999	99.9999	99.9999	99.9999	0.0000
QPSK 63 Mbps	99.9999	99.9999	99.9999	99.9999	99.9999	99.9999	99.9999	0.0000



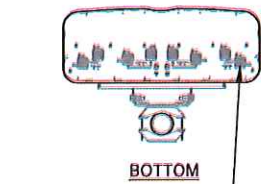
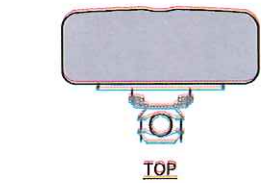


MANUFACTURER: SITE PRO 1  
MOUNT MODEL: F3P-12W  
HANDRAIL: F3P-HRK12

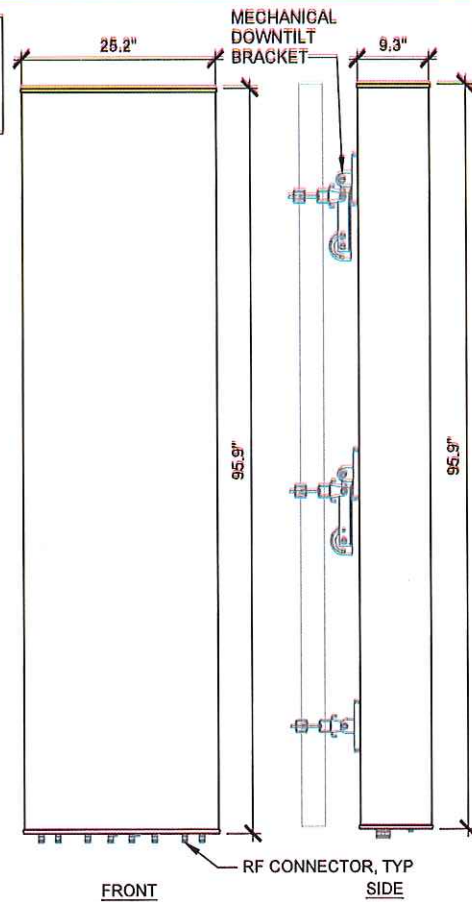


5 ANTENNA MOUNT DETAIL

MANUFACTURER: COMMSCOPE  
MODEL: FFH-65C-R3  
WEIGHT: 127.6 LBS; BRACKETS: 14.6 LBS  
DIMENSIONS: 95.9" X 25.2" X 9.3"  
FREQUENCY: REFER TO RF DATA SHEET



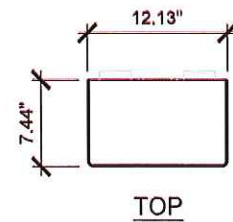
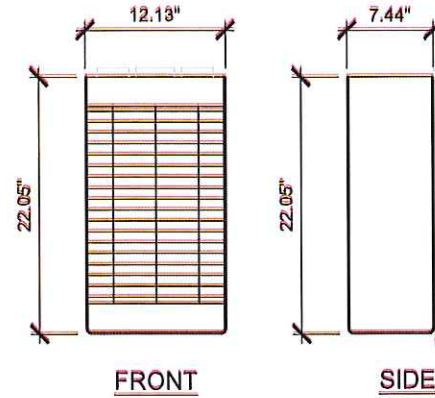
RF CONNECTOR, TYP



3 ANTENNA DETAIL

NOT TO SCALE

AHLOA RADIO MODULE  
HEIGHT: 22.05"  
WIDTH: 12.13"  
DEPTH: 7.44"  
WEIGHT: 83.8 LBS



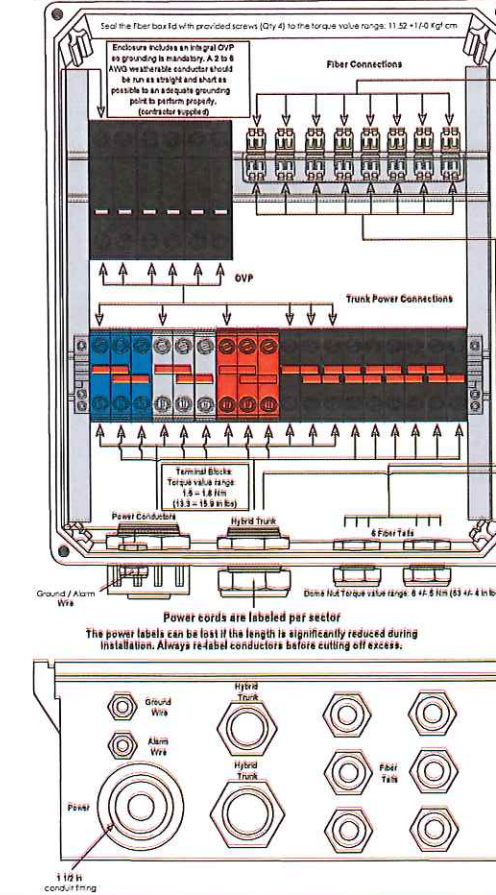
2 AHLOA DETAIL

NOT TO SCALE

4 COVP DETAIL

MANUFACTURER: COMMSCOPE  
MODEL: FE-16148-OVP-B12  
DIMENSIONS: 14.0"X8.0"X16.0"  
WEIGHT: 15.2 LBS

Section 9: FE-16148-OVP-B12 Junction Box Wiring Diagram

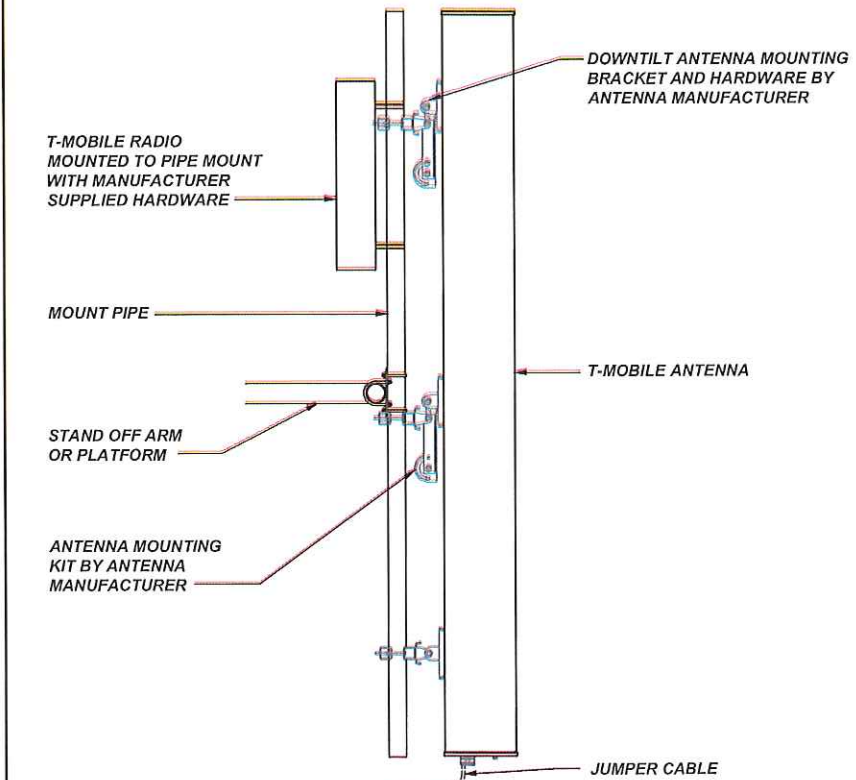


NOT TO SCALE

NOT TO SCALE

1 MOUNTING DETAIL

NOT TO SCALE



NOTE: ROTATE FRAME OF MOUNT TO MATCH DEGREE LINE WHERE APPLICABLE.

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T-MOBILE SITE:  
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GREENACRES  
  
CROWN CASTLE SITE:  
857698  
GREENACRES  
  
T27S R13W S10 SE1/4  
COOS BAY, OR 97420  
COOS COUNTY  
  
109'-0" MONOPOLE

DRAWINGS ISSUED FOR:

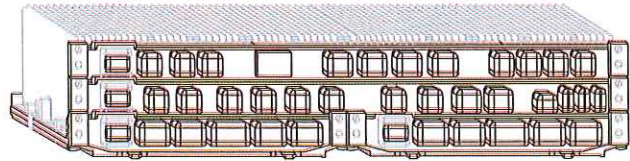
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A	09/24/18	RGD	PRELIMINARY REVIEW	PD
0	11/16/18	GP	100% CONSTRUCTION	PD
1	02/05/19	GP	100% CONSTRUCTION	PD
2	02/10/19	TJB	100% CONSTRUCTION	PD



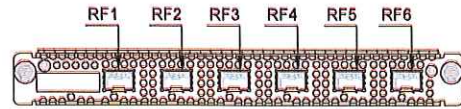
SHEET TITLE:  
**EQUIPMENT DETAILS**  
SHEET NUMBER:  
**A-5**  
REVISION:  
**2**



MANUFACTURER: NOKIA  
 MODEL: FSMF (MODULE)  
 WEIGHT: TBD  
 DIMENSIONS: TBD



MANUFACTURER: NOKIA  
 MODEL: ABIA UNIT  
 DIMENSIONS: 8.6"x14.2"x1.1" (UNIT ONLY)  
 WEIGHT: 4.4 LBS (UNIT ONLY)



MANUFACTURER: NOKIA  
 MODEL: ABIL UNIT  
 DIMENSIONS: TBD (UNIT ONLY)  
 WEIGHT: TBD (UNIT ONLY)

NO SPEC SHEET FOUND OR PROVIDED;  
 APPROXIMATELY EQUIVALENT TO ABIA

10 FSMF DETAIL

NOT TO SCALE

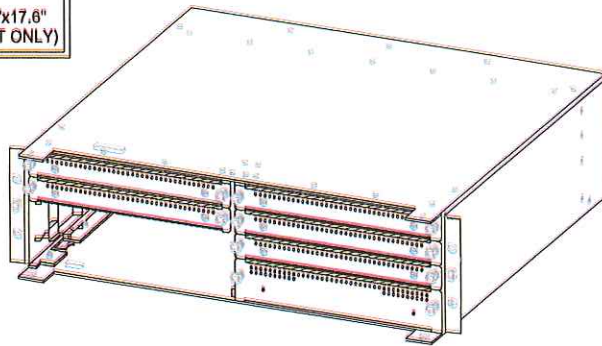
9 ABIA DETAIL

NOT TO SCALE

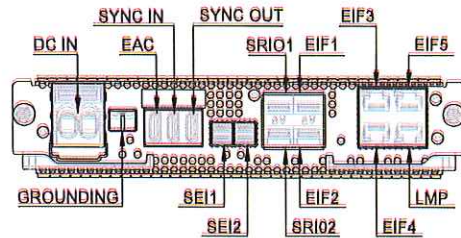
8 ABIL DETAIL

NOT TO SCALE

MANUFACTURER: NOKIA  
 MODEL: AMIA UNIT  
 DIMENSIONS: 5.1"x15.7"x17.6"  
 WEIGHT: 11.2 LBS (UNIT ONLY)



MANUFACTURER: NOKIA  
 MODEL: ASIA UNIT  
 DIMENSIONS: 8.6"x14.2"x1.7" (UNIT ONLY)  
 WEIGHT: 6.6 LBS (UNIT ONLY)



MANUFACTURER: NOKIA  
 MODEL: ASIK UNIT  
 DIMENSIONS: TBD (UNIT ONLY)  
 WEIGHT: TBD (UNIT ONLY)

NO SPEC SHEET FOUND OR PROVIDED;  
 APPROXIMATELY EQUIVALENT TO ASIA

7 AMIA DETAIL

NOT TO SCALE

6 ASIA DETAIL

NOT TO SCALE

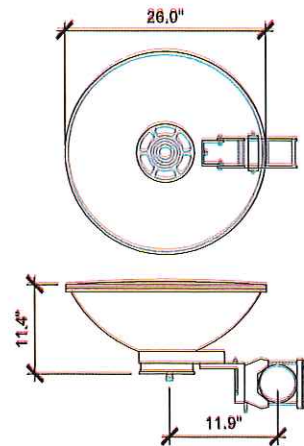
5 ASIK DETAIL

NOT TO SCALE

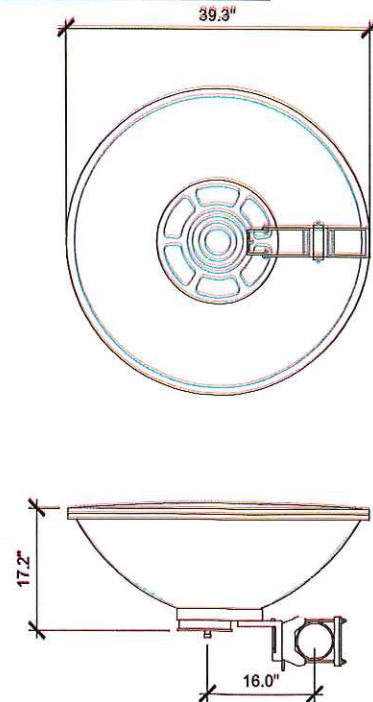
MANUFACTURER: AVIAT NETWORKS  
 MODEL: ODU600  
 HEIGHT: 10.43" (265 mm)  
 WIDTH: 10.43" (265 mm)  
 DEPTH: 4.92" (125 mm)  
 WEIGHT: 11.0 LBS (5 kg)



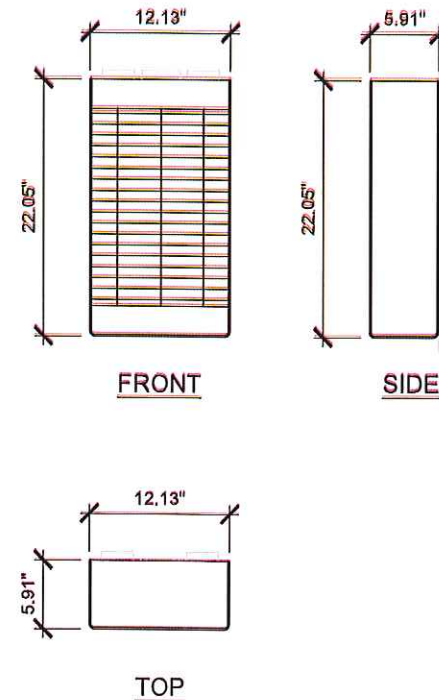
MANUFACTURER: COMMSCOPE  
 PART # VHLP2-18  
 DIAMETER: 26.0"  
 DEPTH: 11.4"  
 OFFSET: 11.9"  
 WEIGHT: 17.0 LBS



MANUFACTURER: COMMSCOPE  
 PART # VHLP3-18A  
 DIAMETER: 39.3"  
 DEPTH: 17.2"  
 OFFSET: 16.0"  
 WEIGHT: 37.0 LBS



AHFIB RADIO MODULE  
 HEIGHT: 22.05"  
 WIDTH: 12.13"  
 DEPTH: 5.91"  
 WEIGHT: 66.1 LBS



4 ODU DETAIL

NOT TO SCALE

3 VHLP2-18 DETAIL

NOT TO SCALE

2 VHLP3-18A DETAIL

NOT TO SCALE

1 AHFIB DETAIL

NOT TO SCALE

**T-Mobile**  
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**CROWN CASTLE**  
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**INFINIGY**  
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T-MOBILE SITE:  
 PO01039A  
 GREENACRES  
 CROWN CASTLE SITE:  
 857698  
 GREENACRES  
 T27S R13W S10 SE1/4  
 COOS BAY, OR 97420  
 COOS COUNTY  
 109'-0" MONOPOLE

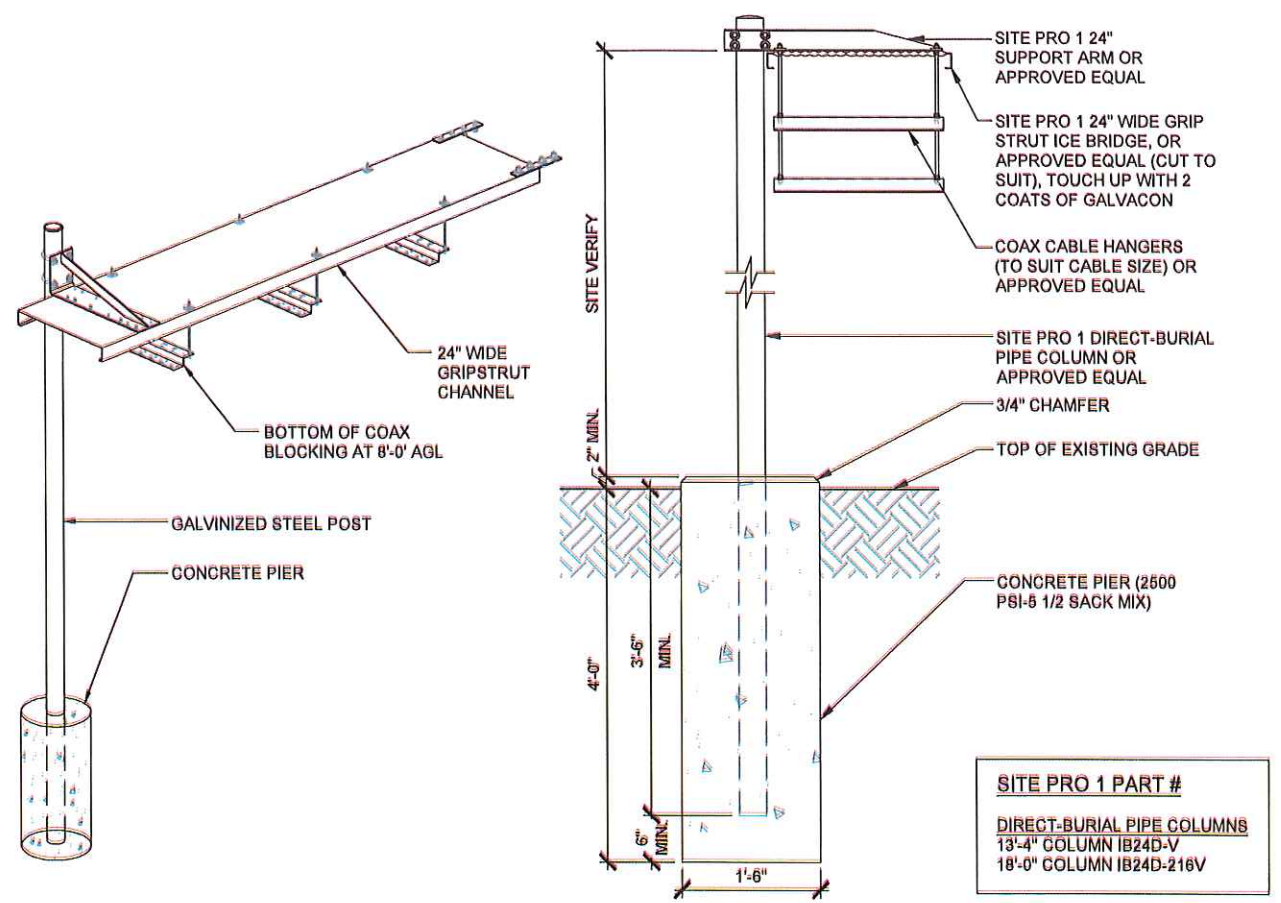
DRAWINGS ISSUED FOR:

REV.	DATE	DRAWN	DESCRIPTION	Q/AGG
A	09/24/18	RGD	PRELIMINARY REVIEW	PD
0	11/16/18	GP	100% CONSTRUCTION	PD
1	02/05/19	GP	100% CONSTRUCTION	PD
2	02/19/19	TJB	100% CONSTRUCTION	PD

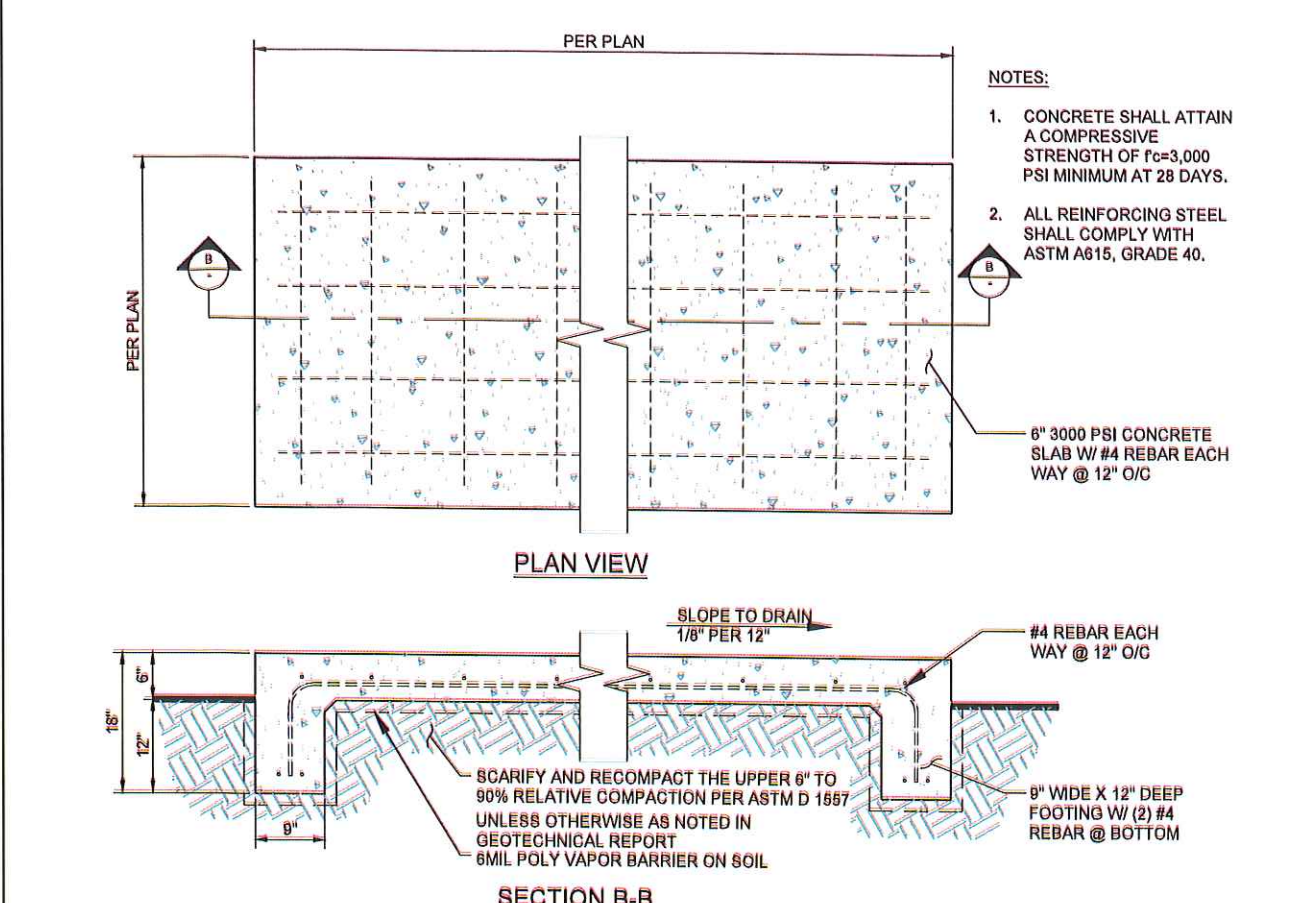


SHEET TITLE:  
**EQUIPMENT DETAILS**  
 SHEET NUMBER:  
**A-6**  
 REVISION:  
**2**





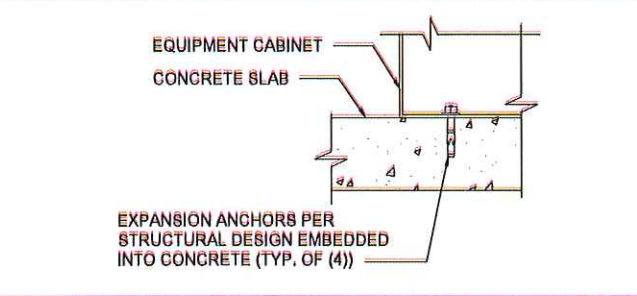
**SITE PRO 1 PART #**  
**DIRECT-BURIAL PIPE COLUMNS**  
 13'-4" COLUMN IB24D-V  
 18'-0" COLUMN IB24D-216V



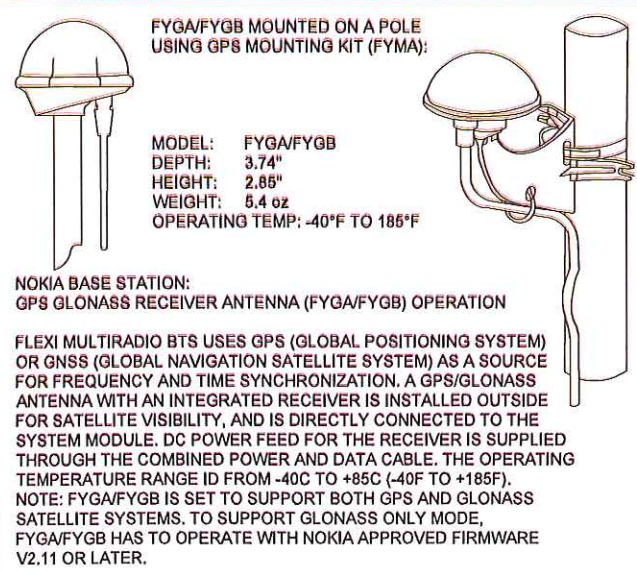
- NOTES:**
1. CONCRETE SHALL ATTAIN A COMPRESSIVE STRENGTH OF  $f_c=3,000$  PSI MINIMUM AT 28 DAYS.
  2. ALL REINFORCING STEEL SHALL COMPLY WITH ASTM A615, GRADE 40.

**7 ICE BRIDGE DETAIL**

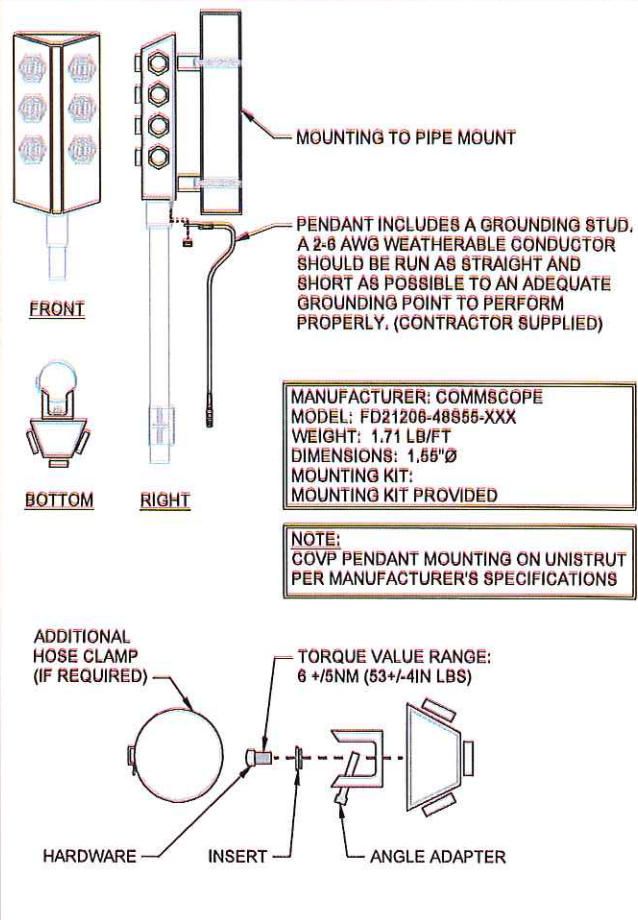
**6 CONCRETE PAD DETAIL**



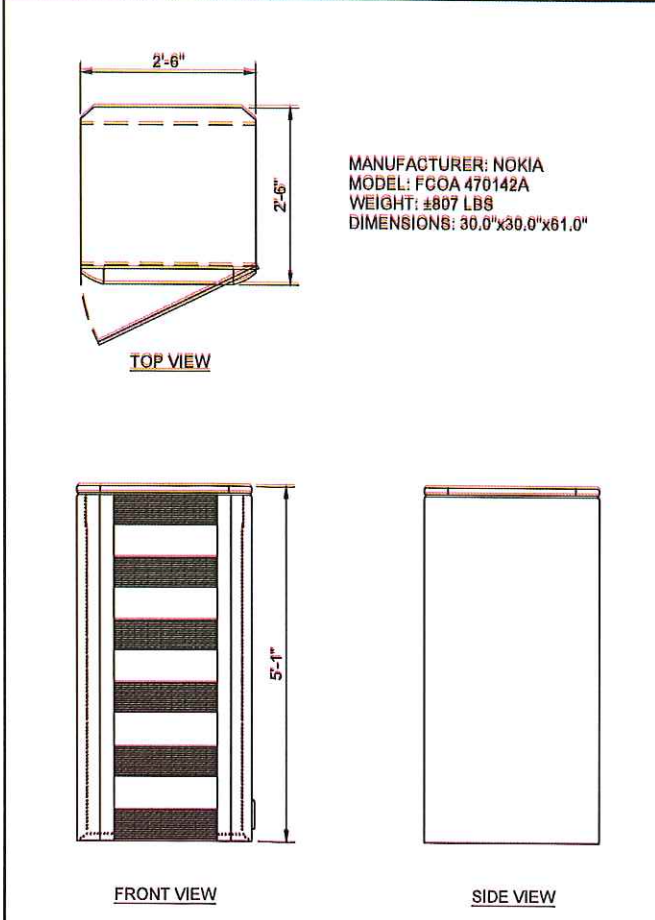
**5 CABINET ATTACHMENT**



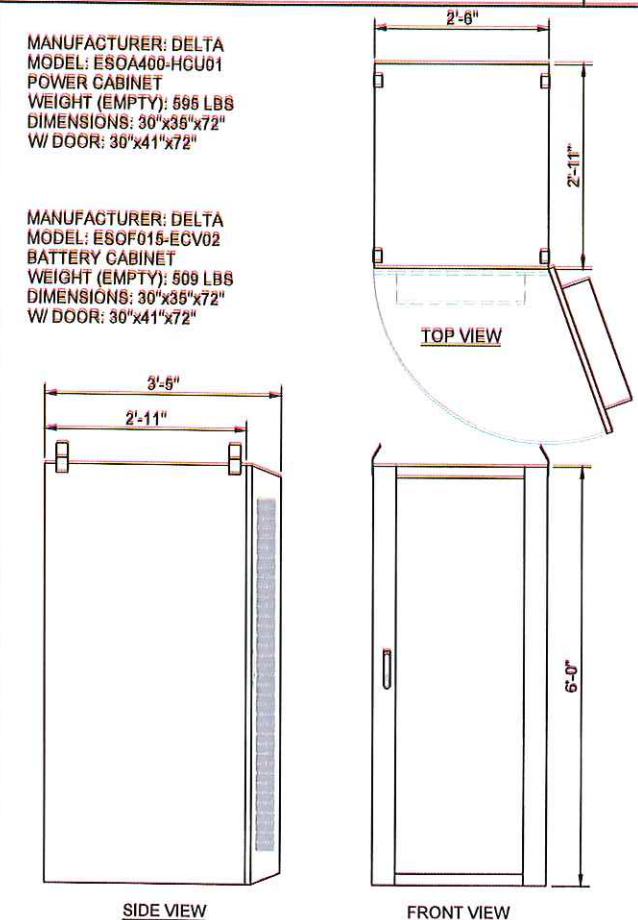
**4 GPS ANTENNA DETAIL**



**3 HYBRID W/ PENDANT DETAIL**



**2 FCOA CABINET DETAIL**



**1 POWER CABINET DETAIL**

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 857698  
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 COOS BAY, OR 97420  
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109'-0" MONOPOLE

**DRAWINGS ISSUED FOR:**

REV.	DATE	DRAWN	DESCRIPTION	QA/QC
A	09/24/18	RGD	PRELIMINARY REVIEW	PD
0	11/16/18	GP	100% CONSTRUCTION	PD
1	02/05/19	GP	100% CONSTRUCTION	PD
2	02/19/19	TJB	100% CONSTRUCTION	PD

**REGISTERED PROFESSIONAL ENGINEER**  
 74093PE  
 2/20/19  
 NO. OREGON  
 NOVEMBER 13, 2009  
 CHRISTOPHER J. WARRREN  
 EXPIRATION DATE: 6-30-20

SHEET TITLE:  
**EQUIPMENT DETAILS**

SHEET NUMBER:  
**A-7**

REVISION:  
**2**



**T-Mobile**

8960 NE ALDERWOOD RD  
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GREENACRES

CROWN CASTLE SITE:  
857698  
GREENACRES

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COOS BAY, OR 97420  
COOS COUNTY

109'-0" MONOPOLE

DRAWINGS ISSUED FOR:

REV.	DATE	DRAWN	DESCRIPTION	QA/QC
A	09/24/18	RGD	PRELIMINARY REVIEW	PD
0	11/16/18	CP	100% CONSTRUCTION	PD
1	02/05/19	CP	100% CONSTRUCTION	PD
2	02/16/19	TJB	100% CONSTRUCTION	PD

FOR REFERENCE ONLY

SHEET TITLE:

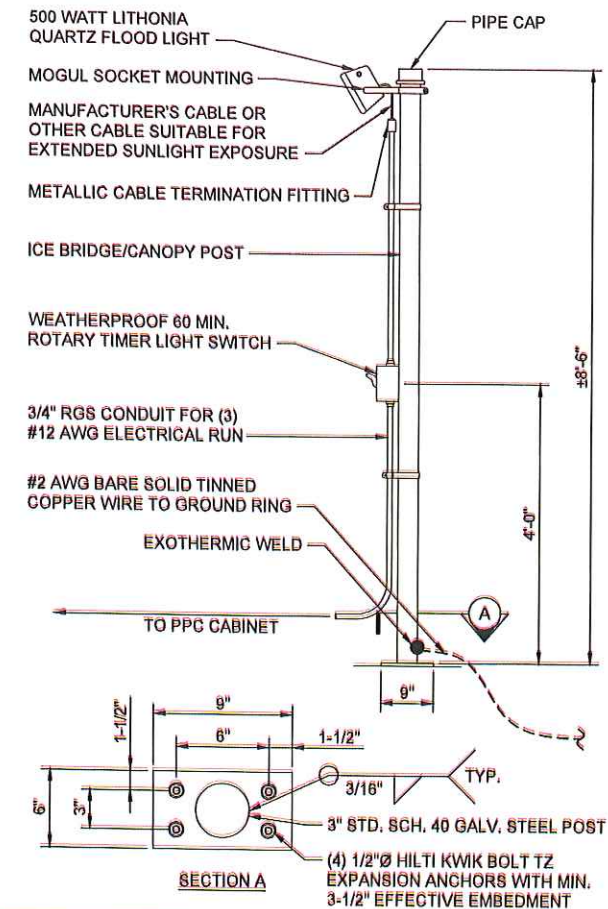
CONSTRUCTION  
DETAILS

SHEET NUMBER:

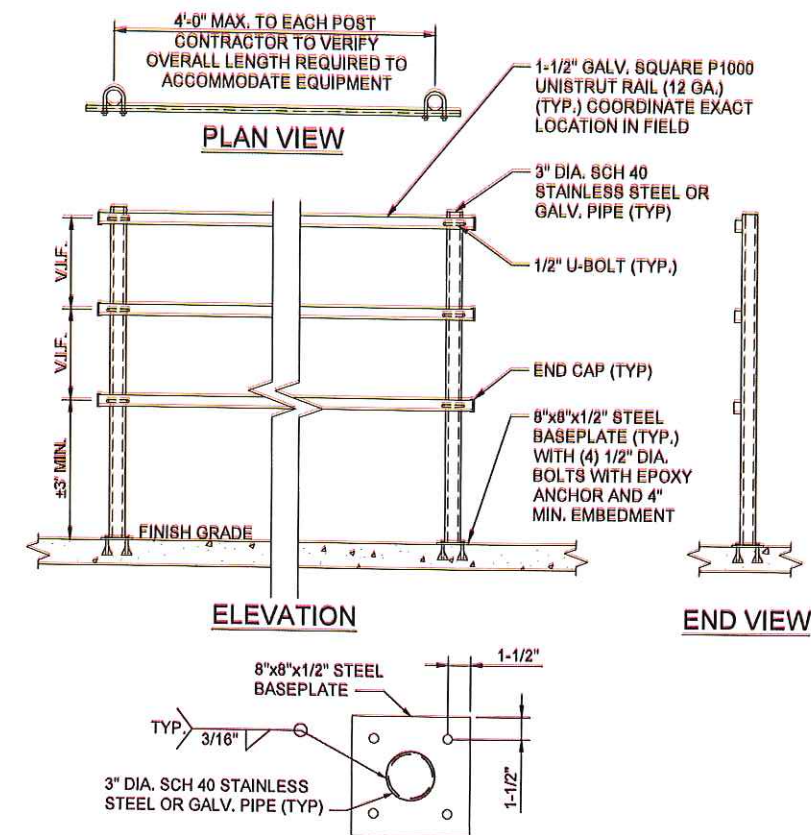
A-8

REVISION:

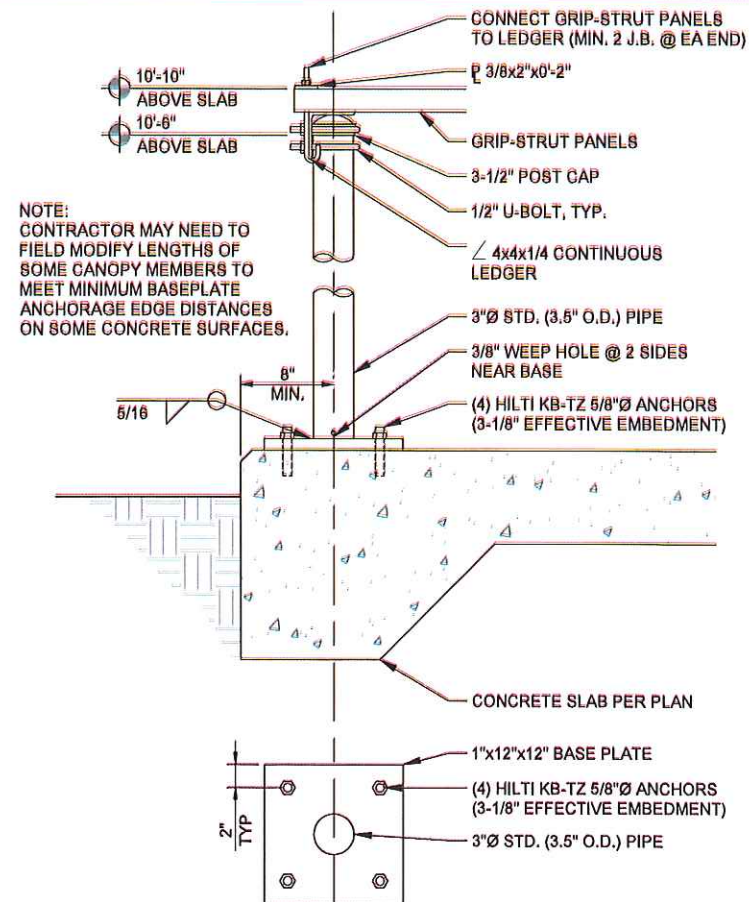
2



4 WORK LIGHT WITH TIMER DETAIL



1 H-FRAME DETAIL



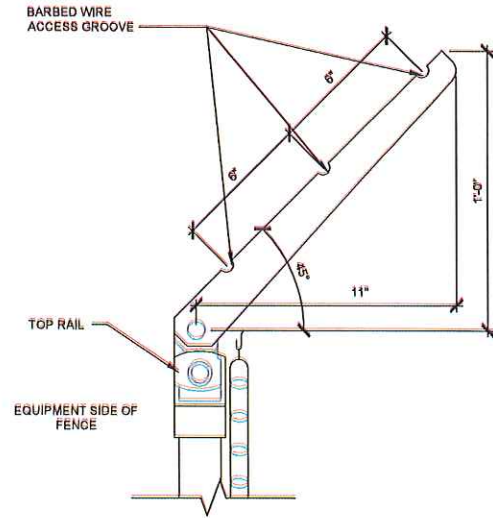
3 ICE CANOPY DETAIL

5 NOT USED

2 NOT USED

6 NOT USED





**4 EXTENSION ARM**

NOT TO SCALE

**3 DOUBLE SWING GATE**

NOT TO SCALE

**FENCING NOTES**

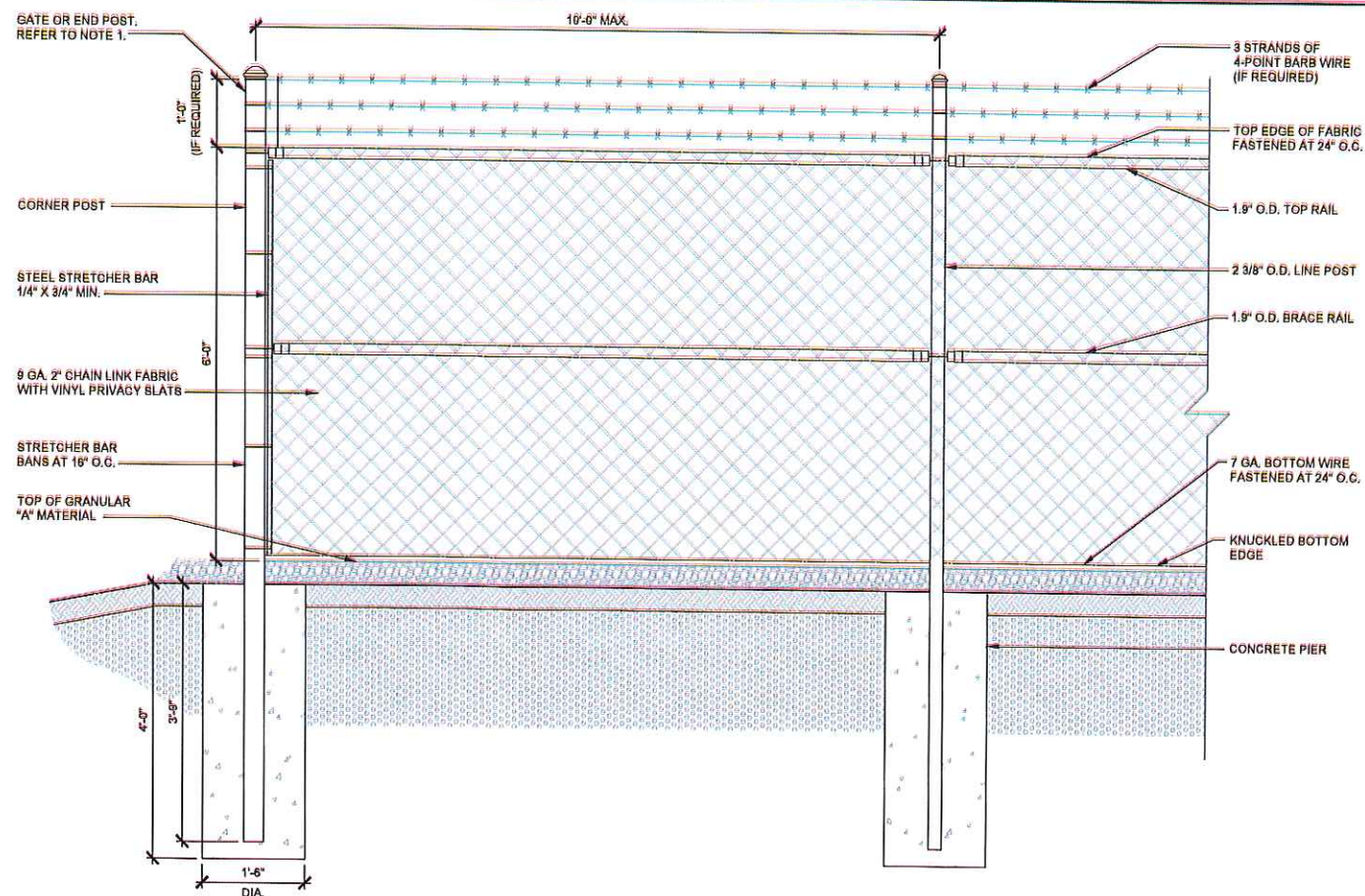
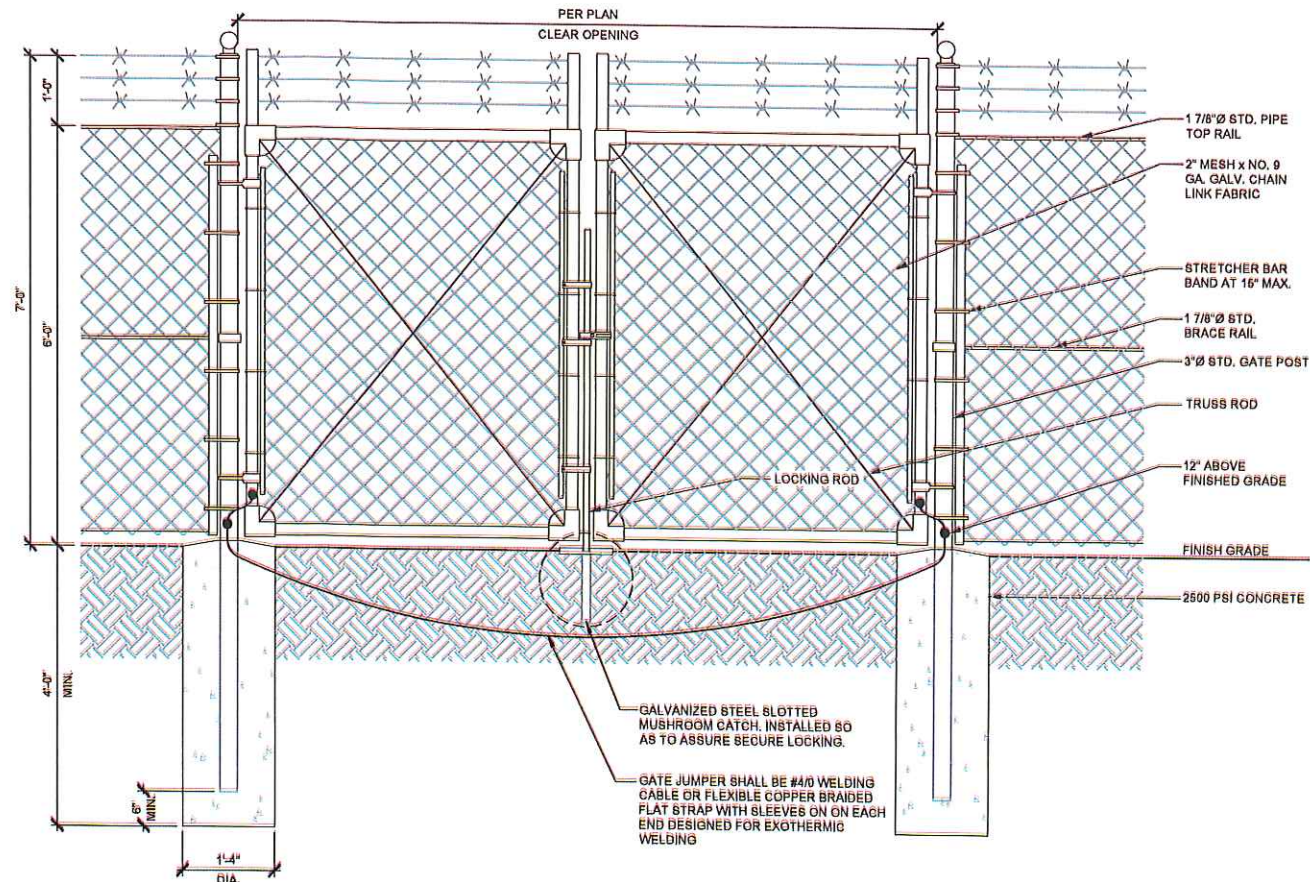
- GATE POST, CORNER, END, OR PULL POST 3" STD. (3.5" O.D.) SCHEDULE 40 XS PIPE, FOR GATE WIDTHS UP TO 6' OR 12' FOR DOUBLE SWING GATE PER ASTM-F1083.
- LINE POST: 2" (2-3/8" O.D.) 3.66LBS/LIN. FT. ASTM-F1083.
- TOP RAIL AND BRACE RAIL: 1 1/2" (1.9" O.D.) PIPE, 2.72 LBS/LIN. FT. ASTM-F1083. INSTALL BRACE AT ALL CORNER LOCATIONS AND ADJACENT TO GATES.
- GATE FRAME: 1 1/2" STD. (1.9" O.D.) PIPE, 2.72 LBS/LIN. FT. ASTM-F1083.
- FABRIC SHALL BE TWO-INCH CHAIN LINK MESH NO. 9 GAUGE (0.148") WIRE. THE FABRIC SHALL HAVE A KNUCKLED FINISH FOR THE TOP SELVAGES. FABRIC SHALL CONFORM TO ASTM A-392 CLASS 1.
- TIE WIRE: MINIMUM 11 GAUGE GALVANIZED STEEL. PROVIDE A SINGLE WRAP OF FABRIC TIE AT POSTS, RAILS, AND AT TENSION WIRE BY HOG RINGS. MAXIMUM SPACING OF 24" O.C.
- TENSION WIRE: MINIMUM 7 GAUGE GALVANIZED STEEL.
- BARB WIRE: DOUBLE STRAND 12 GAUGE 1/2" O.D. TWISTED WIRE TO MATCH WITH FABRIC, 14 GAUGE 4PT. BARBS SPACED ON APPROXIMATE 5" CENTERS.
- BARB WIRE GATE GUARDS SHALL BE FITTED WITH DOME CAPS.
- BARB WIRE SUPPORT ARMS SHALL BE PRESSED STEEL COMPLETE WITH SET BOLT AND LOCK WIRE IN THE ARM.
- PROVIDE (2) 6" WIDE SWING OUT GATES (UNLESS NOTED OTHERWISE) NO PERSONNEL GATES ARE REQUIRED (UNLESS AS DIRECTED BY THE CONSTRUCTION MANAGER). GATES SHALL BE ABLE TO LOCK.
- GATE POSTS SHALL BE EXTENDED 12", INCLUDING DOME CAP, TO PROVIDE FOR ATTACHMENT OF BARB WIRE.
- GATE FRAMES SHALL HAVE A FULL HEIGHT VERTICAL BRACE AND A FULL WIDTH HORIZONTAL BRACE, SECURED IN PLACE BY USE OF GATE BRACE CLAMPS.
- GATE HINGES SHALL BE MERCHANTS METAL MODEL 64386 HINGE ADAPTER WITH MODEL 6409, 180° ATTACHMENT OR APPROVED EQUAL.
- GATE LATCH: 1 3/8" O.D. PLUNGER ROD WITH MUSHROOM TYPE CATCH.
- A 6" BY 1/2" DIAMETER EYEBOLT, TO HOLD TENSION WIRE, SHALL BE PLACED AT LINE POSTS.
- STRETCHER BARS SHALL BE 3/16" OR HAVE EQUIVALENT CROSS-SECTIONAL AREA.
- ALL POSTS EXCEPT GATE POSTS SHALL HAVE A COMBINATION CAP AND BARB WIRE SUPPORTING ARM.
- ALL CAPS SHALL BE MALLEABLE IRON, DOME OR ACORN SHAPED AS REQUIRED BY PIPE SIZE.
- OTHER HARDWARE MAY INCLUDE BUT NOT BE LIMITED TO TIE CLIPS, BAND CLIPS, AND TENSION BAND CLIPS.
- WHERE THE USE OF CONCERTINA HAS BEEN SPECIFIED, 24" DIAMETERS COIL, BARBED TAPE, STAINLESS STEEL, CYCLONE FENCE MODEL G8P TO TYPE III SHALL BE FURNISHED. IT SHALL BE SUPPORTED ABOVE THE TOP RAIL BY USE OF (8) BARB WIRE ARMS POSITIONED ATOP EACH LINE/CORNER POST.
- UNLESS NOTED OTHERWISE, ALL CHAIN LINK FENCING COMPONENTS MUST BE HOT DIPPED GALVANIZED.

**2 FENCING NOTES**

NOT TO SCALE

**1 CHAIN LINK FENCE**

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COOS COUNTY

109'-0" MONOPOLE

**DRAWINGS ISSUED FOR:**

REV.	DATE	DRAWN	DESCRIPTION	QA/QC
A	09/24/18	RCD	PRELIMINARY REVIEW	PD
0	11/16/18	CP	100% CONSTRUCTION	PD
1	02/05/19	CP	100% CONSTRUCTION	PD
2	02/19/19	TJB	100% CONSTRUCTION	PD



SHEET TITLE: <b>FENCE DETAILS</b>	
SHEET NUMBER: <b>A-9</b>	REVISION: <b>2</b>



**SD025 | 2.4L | 25 kW**  
**INDUSTRIAL DIESEL GENERATOR SET**  
 EPA Certified Stationary Emergency



**APPLICATION AND ENGINEERING DATA**

**ENGINE SPECIFICATIONS**

**General**

Make	Generac
EPA Emissions Compliance	Stationary Emergency
EPA Emissions Reference	See Emissions Data Sheet
Cylinder #	4
Type	In-Line
Displacement - L (cu in)	2.4 (146.46)
Bore - mm (in)	90 (3.54)
Stroke - mm (in)	94 (3.70)
Compression Ratio	21.3:1
Intake Air Method	Turbocharged
Cylinder Head Type	Cast Iron
Piston Type	Aluminium

**Engine Governing**

Governor	Electronic Isochronous
Frequency Regulation (Steady State)	+/- 0.25%

**Lubrication System**

Oil Pump Type	Gear
Oil Filter Type	Full Flow
Crankcase Capacity - L (qts)	6.2 (6.52)

**Cooling System**

Cooling System Type	Closed Recovery
Water Pump	Pre-Lubed, Self Sealing
Fan Type	Pusher
Fan Speed (rpm)	2698
Fan Diameter mm (in)	560 (22)
Coolant Heater Wattage	1500
Coolant Heater Standard Voltage	120 VAC

**Fuel System**

Fuel Type	Ultra Low Sulfur Diesel Fuel
Fuel Specifications	ASTM
Fuel Filtering (microns)	5
Fuel Injection	Distribution Injection Pump
Fuel Pump Type	Engine Driven Gear
Injector Type	Mechanical
Fuel Supply Line mm (in)	7.94 (0.31)
Fuel Return Line mm (in)	7.94 (0.31)

**Engine Electrical System**

System Voltage	12 VDC
Battery Charging Alternator	Std
Battery Size	See Battery Index 01619705BY
Battery Voltage	12 VDC
Ground Polarity	Negative

**ALTERNATOR SPECIFICATIONS**

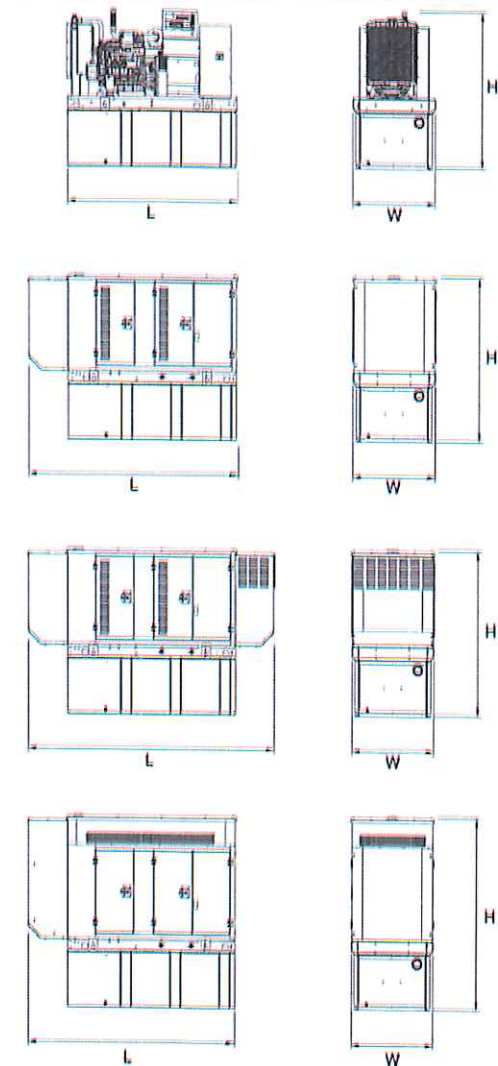
Standard Model	390
Poles	4
Field Type	Revolving
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	<5%
Telephone Interference Factor (TIF)	<50

Standard Excitation	Synchronous
Bearings	Single Sealed Cartridge
Coupling	Direct, Flexible Disc
Load Capacity - Standby	100%
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Digital
Number of Sensed Phases	All
Regulation Accuracy (Steady State)	±0.25%

**SD025 | 2.4L | 25 kW**  
**INDUSTRIAL DIESEL GENERATOR SET**  
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**DIMENSIONS AND WEIGHTS\***



**OPEN SET**

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Tank & Open Set
NO TANK	-	76 (1930.4) x 37.4 (949.9) x 42.2 (1072.1)	2060 (934)
21	54 (204.4)	76 (1930.4) x 37.4 (949.9) x 55.2 (1402.1)	2540 (1152)
52	132 (499.7)	76 (1930.4) x 37.4 (949.9) x 67.2 (1706.9)	2770 (1257)
84	211 (798.7)	76 (1930.4) x 37.4 (949.9) x 79.2 (2011.7)	2979 (1351)
120	309 (1135.6)	92.9 (2360) x 37.4 (949.9) x 82.7 (2100.6)	3042 (1380)

**STANDARD ENCLOSURE**

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Enclosure Only	
			Steel	Aluminum
NO TANK	-	94.8 (2408.9) x 38 (965.2) x 49.5 (1258.1)		
21	54 (204.4)	94.8 (2408.9) x 38 (965.2) x 62.5 (1587.5)		
52	132 (499.7)	94.8 (2408.9) x 38 (965.2) x 74.5 (1892.3)	302 (137)	191 (87)
84	211 (798.7)	94.8 (2408.9) x 38 (965.2) x 86.5 (2197.1)		
120	309 (1135.6)	94.8 (2408.9) x 38 (965.2) x 90 (2286)		

**LEVEL 1 ACOUSTIC ENCLOSURE**

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Enclosure Only	
			Steel	Aluminum
NO TANK	-	112.5 (2857.1) x 38 (965.2) x 49.5 (1258.1)		
21	54 (204.4)	112.5 (2857.1) x 38 (965.2) x 62.5 (1587.5)		
52	132 (499.7)	112.5 (2857.1) x 38 (965.2) x 74.5 (1892.3)	455 (206)	288 (131)
84	211 (798.7)	112.5 (2857.1) x 38 (965.2) x 86.5 (2197.1)		
120	309 (1135.6)	112.5 (2857.1) x 38 (965.2) x 90 (2286)		

**LEVEL 2 ACOUSTIC ENCLOSURE**

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Enclosure Only	
			Steel	Aluminum
NO TANK	-	94.8 (2408.9) x 38 (965.2) x 62 (1573.9)		
21	54 (204.4)	94.8 (2408.9) x 38 (965.2) x 75 (1905)		
52	132 (499.7)	94.8 (2408.9) x 38 (965.2) x 87 (2209.8)	460 (209)	291 (132)
84	211 (798.7)	94.8 (2408.9) x 38 (965.2) x 99 (2514.6)		
120	309 (1135.6)	94.8 (2408.9) x 38 (965.2) x 102.5 (2603.5)		

\*All measurements are approximate and for estimation purposes only. Sound dBA can be found on the sound data sheet. Enclosure Only weight is added to Tank & Open Set weight to determine total weight.

YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

SPEC SHEET

4 OF 6

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult a Generac Power Systems Industrial Dealer for detailed installation drawings.

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Part No. 0K5084  
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SPEC SHEET

6 OF 6



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109'-0" MONOPOLE

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A	09/24/18	RCD	PRELIMINARY REVIEW	PD
0	11/16/18	GP	100% CONSTRUCTION	PD
1	02/05/19	GP	100% CONSTRUCTION	PD
2	02/19/19	TJB	100% CONSTRUCTION	PD

FOR REFERENCE ONLY

**SHEET TITLE:**

GENERATOR  
 DETAIL

**SHEET NUMBER:**

A-10

**REVISION:**

2



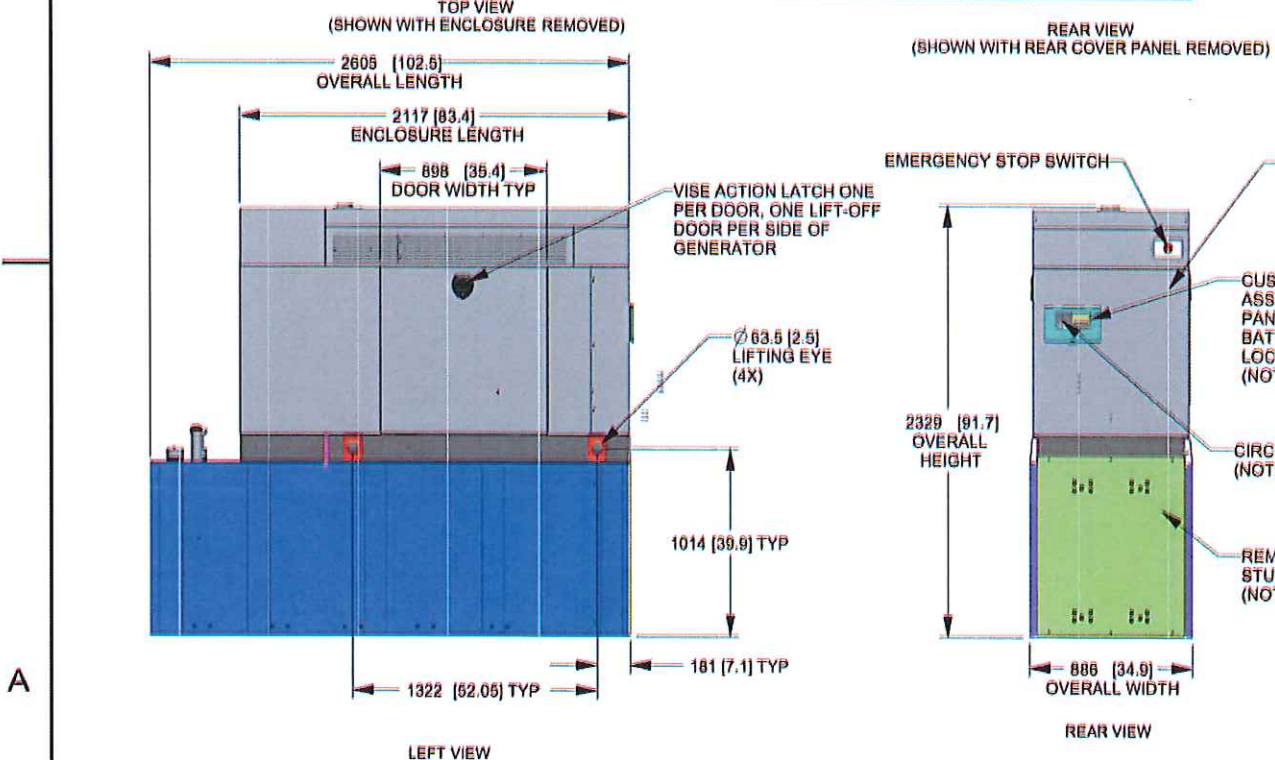
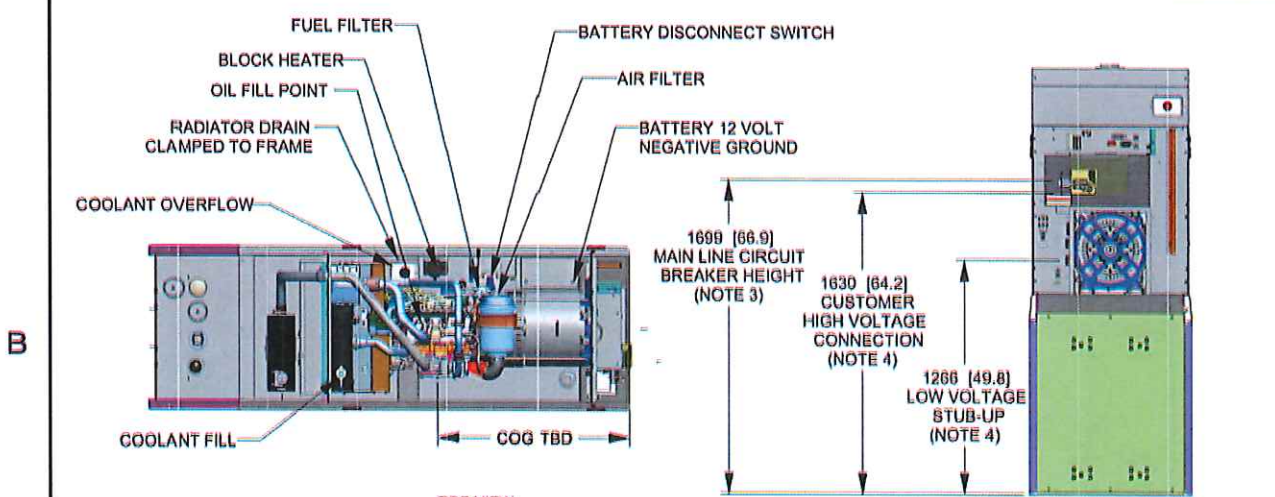
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FOR REFERENCE ONLY

SHEET TITLE:  
**GENERATOR  
DETAIL**  
SHEET NUMBER:  
**\_A-10**  
REVISION:  
**2**

SH	1/2	REV	1	WINDCHILL VERSION	1.11
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- NOTES:
- THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT APPLICABLE NFPA 37 AND NFPA 70 STANDARDS AS WELL AS ANY OTHER FEDERAL, STATE, AND LOCAL CODES.
  - BATTERY (12 VOLT NEGATIVE GROUND SYSTEM).
  - CONTROL PANEL / CIRCUIT BREAKER INFORMATION:
    - SEE SPECIFICATION SHEET OR OWNERS MANUAL
    - ACCESSIBLE THROUGH CUSTOMER ACCESS ASSEMBLY DOOR ON REAR OF GENERATOR.
    - CONTROL PANEL INCLUDES INTEGRATED BATTERY CHARGER
  - REMOVE THE REAR STUB-UP AND REAR ENCLOSURE COVER PANEL TO ACCESS THE STUB-UP AREAS AS FOLLOWS:
    - HIGH VOLTAGE CONNECTION INCLUDING AC LOAD LEAD CONDUIT CONNECTION, NEUTRAL CONNECTION, AND BATTERY CHARGER 120 VOLT AC (0.5 AMP MAX) CONNECTION.
    - LOW VOLTAGE CONNECTION INCLUDING TRANSFER SWITCH CONTROL WIRES
  - CENTER OF GRAVITY AND WEIGHT MAY CHANGE DUE TO UNIT OPTIONS.
  - BOTTOM OF GENERATOR SET MUST BE ENCLOSED TO PREVENT PEST INTRUSION AND RECIRCULATION OF DISCHARGE AIR AND/OR IMPROPER COOLING AIR FLOW.
  - REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
  - MOUNTING BOLTS OR STUDS TO MOUNTING SURFACE SHALL BE 5/8-11 GRADE 5 (USE STANDARD SAE TORQUE SPECS)
  - MUST ALLOW FREE FLOW OF INTAKE AIR, DISCHARGE AIR AND EXHAUST. SEE SPEC SHEET FOR MINIMUM AIR FLOW AND MAXIMUM RESTRICTION REQUIREMENTS.
  - GENERATOR MUST BE INSTALLED SUCH THAT FRESH COOLING AIR IS AVAILABLE AND THAT DISCHARGE AIR FROM RADIATOR IS NOT RECIRCULATED.
  - GENERATOR MUST BE GROUNDED.

WEIGHT DATA: (INCLUDES FUEL TANK)  
GENERATOR: TBD  
GENERATOR WITH SHIPPING SKID: TBD  
WEIGHT: KG (LBS)  
DIMENSIONS: MM (INCHES)

**GENERAC**

TITLE  
INSTALLATION D2.2L  
25KW Y06 PD

ISSUE DATE: 6/10/18

SIZE	CAGE NO	DWG NO	REV
B	N/A	10000036728	1

SCALE 0.031 WT-KG SEE ABOVE SHEET 1 of 2

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ELECTRONICALLY APPROVED  
INSIDE WINDCHILL

DRAWING CREATED FROM PRO/ENGINEER 3D FILE. ECO MODIFICATION TO BE APPLIED TO SOLID MODEL ONLY.

# INSTALLATION DRAWING



**RD025 | 2.2L | 25kW**  
**INDUSTRIAL DIESEL GENERATOR SET**

EPA Certified Stationary Emergency



**APPLICATION AND ENGINEERING DATA**

**ENGINE SPECIFICATIONS**

General		Cooling System	
Make	Perkins	Cooling System Type	Pre-Lubed, Self-Sealing
EPA Emission Compliance	Stationary Emergency	Fan Type	Pusher
Cylinder #	4	Fan Speed (rpm)	1,980
Type	In-Line	Fan Diameter - mm (in)	18.0 (457.2)
Displacement - in <sup>3</sup> (L)	135.2 (2,216)	Fuel System	
Bore - in (mm)	3.30 (84.0)	Fuel Type	Ultra Low Sulfur Diesel Fuel
Stroke - in (mm)	3.94 (100.0)	Fuel Specification	ASTM
Compression Ratio	21.3:1	Fuel Pump Type	Mechanical Engine Driven Gear
Intake Air Method	Turbocharged/Aftercooled	Injector Type	Mechanical
Piston Type	Aluminum Alloy	Fuel Supply Line (mm/in)	7.94/0.31 (ID)
Crankshaft Type	Cast Iron OHV	Fuel Return Line (mm/in)	4.76/0.19 (ID)
Engine Block Type	Aluminum	Fuel Filtering (microns)	25
Engine Governing		Engine Electrical System	
Governor	Electronic	System Voltage	12 VDC
Frequency Regulation (Steady State)	±0.25%	Battery Charger Alternator	Standard
Lubrication System		Battery Size	Group 27F
Oil Pump Type	Gear	Battery Voltage	12 VDC
Oil Filter Type	Full Flow Spin-On Canister	Ground Polarity	Negative
Crankcase Capacity - L (qts)	10.6 (11.2)		

**ALTERNATOR SPECIFICATIONS**

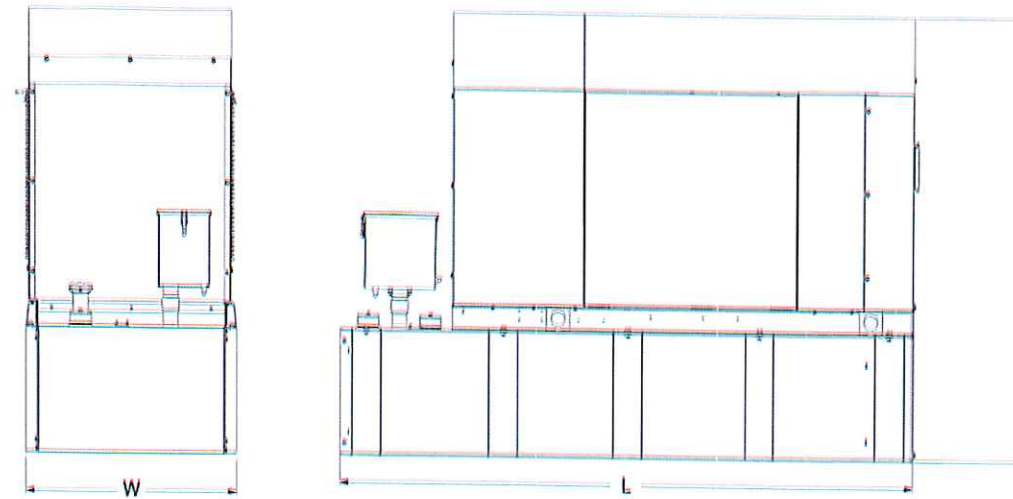
Standard Model	Generac	Standard Excitation	Direct
Poles	4	Bearings	Sealed Ball
Field Type	Rotating	Coupling	Flexible Disc
Insulation Class - Rotor	F	Prototype Short Circuit Test	Yes
Insulation Class - Stator	H	Voltage Regulator Type	Full Digital
Total Harmonic Distortion	<5%	Regulation Accuracy (Steady State)	±1.0%
Telephone Interference Factor (TIF)	<50		

**RD025 | 2.2L | 25kW**  
**INDUSTRIAL DIESEL GENERATOR SET**

EPA Certified Stationary Emergency



**DIMENSIONS AND WEIGHTS\***



Enclosed Unit with Extended Run Tank (211 Usable Gal)	L x W x H in (mm)	102.6 (2,607) x 35.0 (888) x 90.8 (2,307)
	Sound output in dB(A) at 23ft with generator operating at normal Load	65

\* All measurements are approximate and for estimation purposes only. Drawing is for illustration purposes only, not to scale.

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Part No. 10000035933  
 Rev. A 04/30/18



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SHEET TITLE:

**GENERATOR  
 DETAIL**

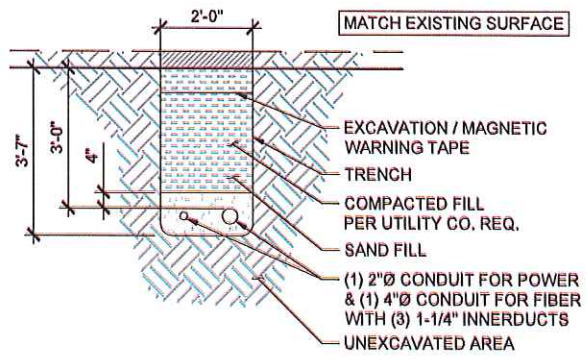
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**A-10 (2)**

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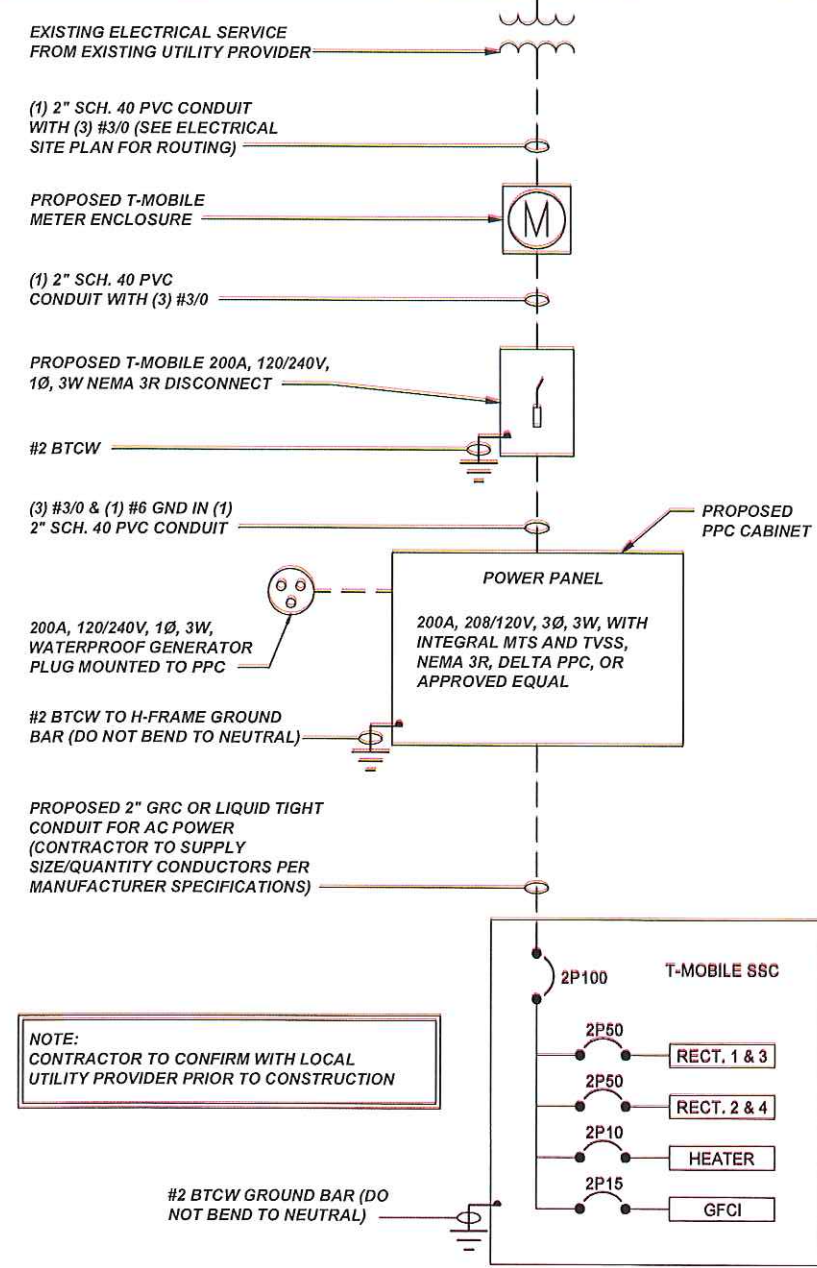
**2**





**3 TRENCH DETAIL**

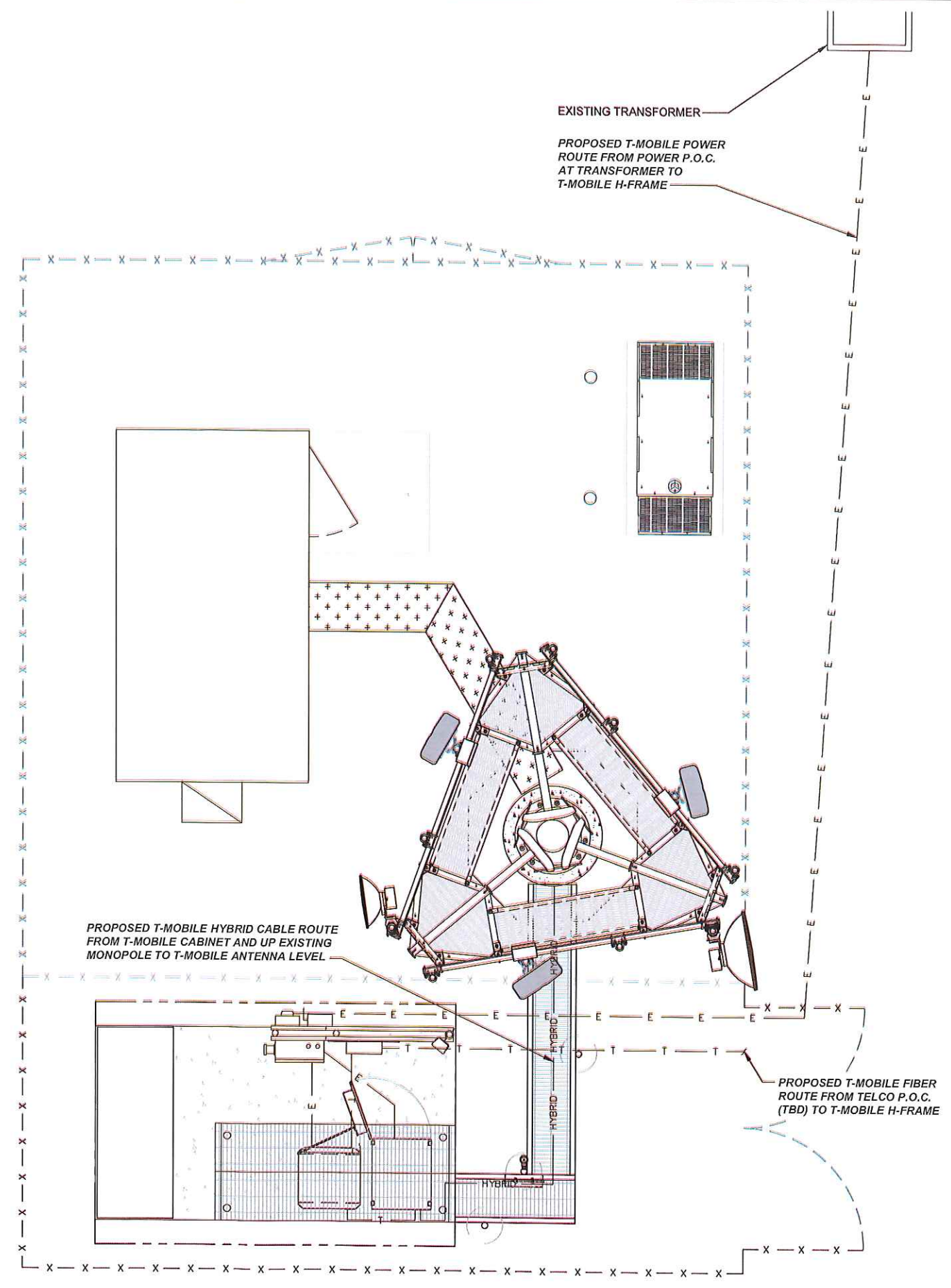
NOT TO SCALE



**2 ELECTRICAL ONE-LINE DIAGRAM**

NOT TO SCALE

**1 UTILITY ROUTING PLAN**



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

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REGISTERED PROFESSIONAL ENGINEER  
74093PE  
2/20/19  
NOVEMBER 13, 2009  
CHRISTOPHER J. WARREN  
EXPIRATION DATE: 6-30-20

SHEET TITLE:  
**UTILITY ROUTING PLAN & DETAILS**

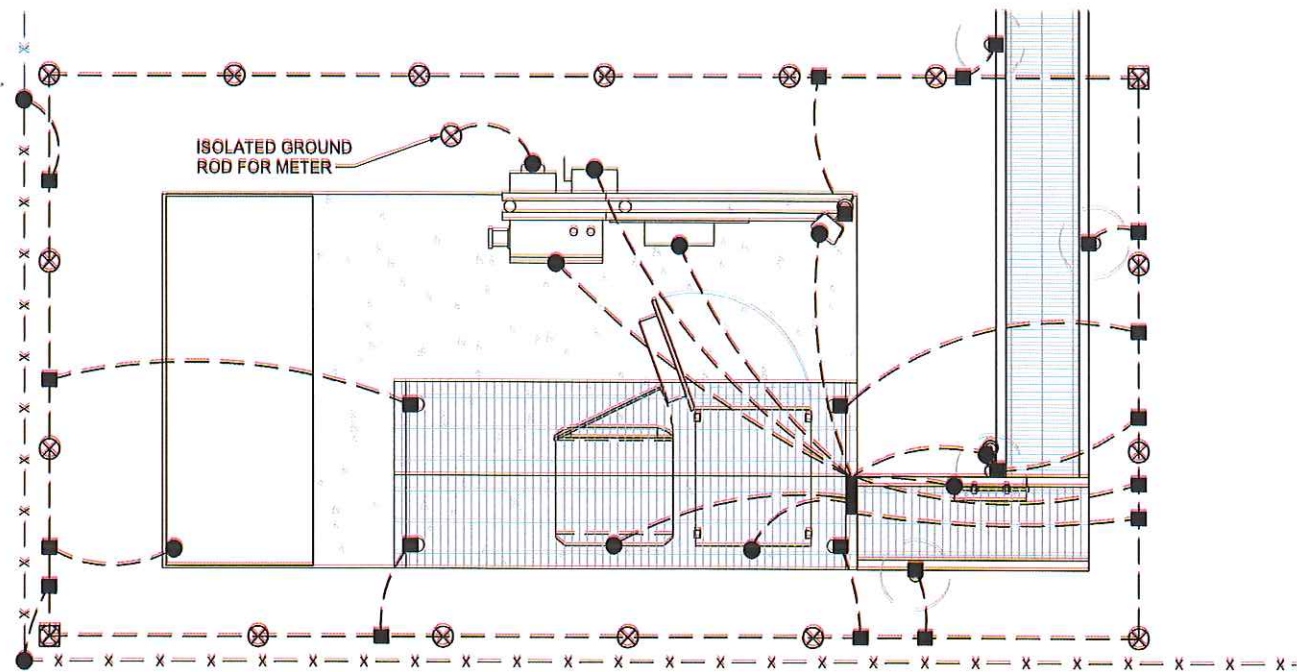
SHEET NUMBER: **E-1** REVISION: **2**



**GROUNDING SYMBOLS**

-  GROUND BAR
-  GROUND ROD WITH ACCESS
-  CHEMICAL GROUND ROD
-  GROUND ROD
-  CADWELD TYPE CONNECTION
-  COMPRESSION TYPE CONNECTION
-  GROUNDING WIRE

TYPICAL: #6 AWG FROM EQUIPMENT TO GROUND BAR; #2 FROM GROUND BAR TO GROUND RING, FROM METER TO GROUND RING, AND FOR GROUND RING.



**2 EQUIPMENT SCHEMATIC GROUNDING PLAN**

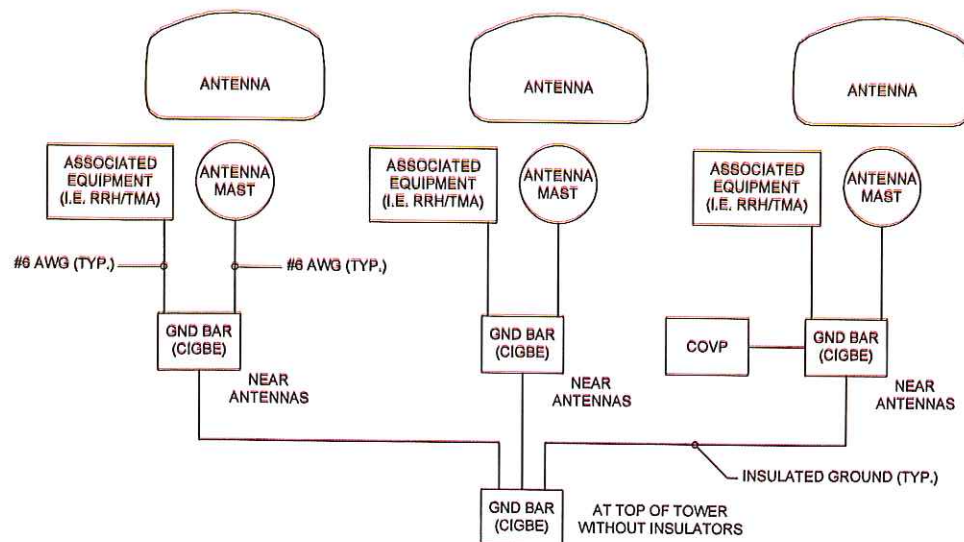
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**3 NOT USED**

NOT TO SCALE

**GENERAL GROUNDING NOTES:**

1. TO ENSURE PROPER BONDING, ALL CONNECTIONS SHALL BE AS FOLLOWS:  
 - #2/0 BARE TINNED SOLID COPPER CONDUCTOR: CADWELD TO RODS OR GROUND RING  
 - LUGS AND BUS BAR (UNLESS NOTED OTHERWISE): SANDED CLEAN, COATED WITH OXIDE INHIBITOR AND BOLTED FOR MAXIMUM SURFACE CONTACT. ALL LUGS SHALL BE COPPER (NO ALUMINUM SHALL BE PERMITTED). PROVIDE LOCK WASHERS FOR ALL MECHANICAL CONNECTIONS FOR GROUND CONDUCTORS. USE STAINLESS STEEL HARDWARE THROUGHOUT.
2. ALL GROUNDING CABLE IN CONCRETE OR THROUGH WALLS SHALL BE IN 3/4" PVC CONDUIT. SEAL AROUND CONDUIT THROUGH WALLS. NO METALLIC CONDUIT SHALL BE USED FOR GROUNDING CONDUCTORS.
3. OWNER'S REPRESENTATIVE WILL INSPECT CADWELDS AND CONDUCT MEGGER TEST PRIOR TO BURIAL. MAXIMUM 5 OHMS RESISTANCE IS REQUIRED.
4. MAKE ALL GROUND CONNECTIONS AS SHORT AND DIRECT AS POSSIBLE. AVOID SHARP BENDS. ALL BENDS SHALL BE A MINIMUM 8" RADIUS AND NO GREATER THAN 90 DEGREES.
5. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHEN THE GROUNDING SYSTEM IS COMPLETE. THE CONSTRUCTION MANAGER SHALL INSPECT THE GROUNDING SYSTEM.
6. THE PREFERRED LOCATION FOR COAX GROUNDING IS AT THE BASE OF THE TOWER PRIOR TO THE COAX BEND. BONDING IS SHOWN ON THE ICE BRIDGE DUE TO DIFFICULTY WITH WELDING OR ATTACHING TO TOWER LEGS. CONTRACTOR SHALL ADVISE CONSTRUCTION MANAGER PRIOR TO PLACING CIGBE ON ICE BRIDGE IF MOUNTING TO TOWER LEG IS POSSIBLE.
7. BONDING OF THE GROUNDED CONDUCTOR (NEUTRAL) AND THE GROUNDING CONDUCTOR SHALL BE AT THE SERVICE DISCONNECTING MEANS. BONDING JUMPER SHALL BE INSTALLED PER N.E.C. ARTICLE 250-30.



**1 ANTENNA SCHEMATIC GROUNDING SYSTEM & NOTES**

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**INFINIGY**  
 FROM ZERO TO INFINIGY  
 the solutions are endless  
 50 116TH AVE SE, SUITE 210  
 BELLEVUE, WA 98004

**T-MOBILE SITE:**  
 PO01039A  
 GREENACRES

**CROWN CASTLE SITE:**  
 857698  
 GREENACRES

**T27S R13W S10 SE1/4**  
 COOS BAY, OR 97420  
 COOS COUNTY

**109'-0" MONOPOLE**

**DRAWINGS ISSUED FOR:**

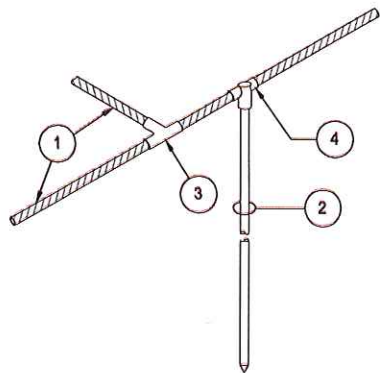
REV.	DATE	DRAWN	DESCRIPTION	QA/QC
A	09/24/18	RCD	PRELIMINARY REVIEW	PD
0	11/16/18	GP	100% CONSTRUCTION	PD
1	02/05/19	GP	100% CONSTRUCTION	PD
2	02/16/19	TJB	100% CONSTRUCTION	PD

**REGISTERED PROFESSIONAL ENGINEER**  
 74093PE  
 2/20/19  
 NO. OREGON  
 NOVEMBER 13, 2009  
 CHRISTOPHER J. WARREN  
 EXPIRATION DATE: 6-30-20

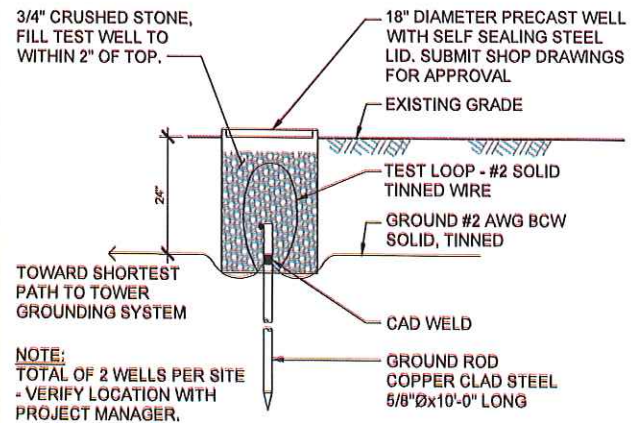
SHEET TITLE:  
**SCHEMATIC GROUNDING PLANS & NOTES**

SHEET NUMBER: **G-1**      REVISION: **2**





- ① MAIN CONDUCTOR, COPPER CABLE
- ② 5/8"x10" COPPER CLAD STEEL GROUND ROD
- ③ CADWELD TYPE "TA"
- ④ CADWELD TYPE "GT"



3/4" CRUSHED STONE, FILL TEST WELL TO WITHIN 2" OF TOP.

18" DIAMETER PRECAST WELL WITH SELF SEALING STEEL LID. SUBMIT SHOP DRAWINGS FOR APPROVAL

EXISTING GRADE

TEST LOOP - #2 SOLID TINNED WIRE

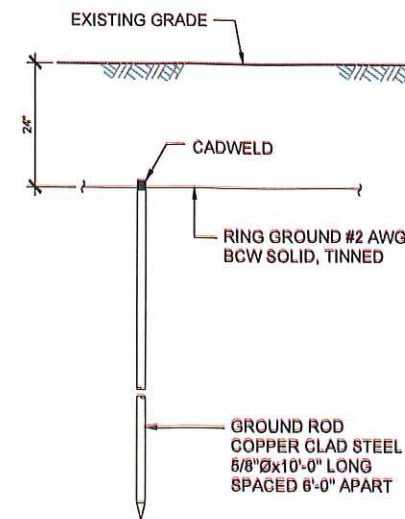
GROUND #2 AWG BCW SOLID, TINNED

CAD WELD

GROUND ROD COPPER CLAD STEEL 5/8"Øx10'-0" LONG

TOWARD SHORTEST PATH TO TOWER GROUNDING SYSTEM

NOTE:  
TOTAL OF 2 WELLS PER SITE - VERIFY LOCATION WITH PROJECT MANAGER.



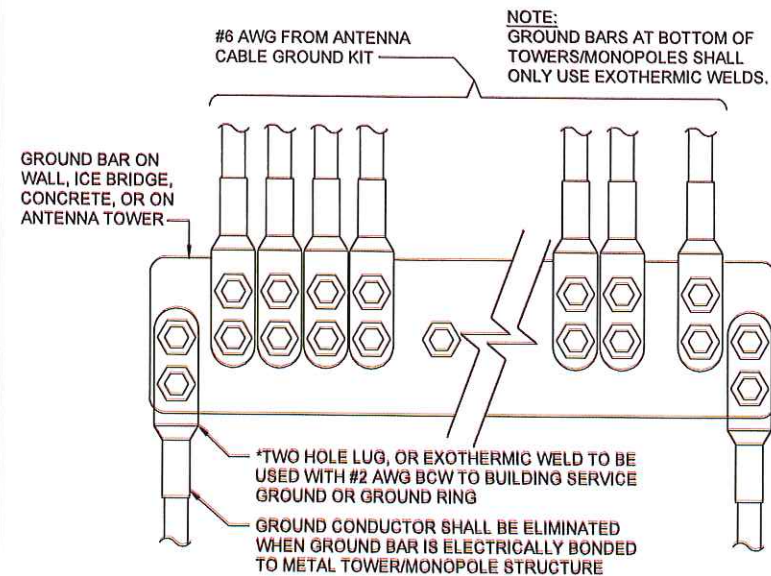
EXISTING GRADE

2'±

CADWELD

RING GROUND #2 AWG BCW SOLID, TINNED

GROUND ROD COPPER CLAD STEEL 5/8"Øx10'-0" LONG SPACED 6'-0" APART



#6 AWG FROM ANTENNA CABLE GROUND KIT

NOTE:  
GROUND BARS AT BOTTOM OF TOWERS/MONOPOLES SHALL ONLY USE EXOTHERMIC WELDS.

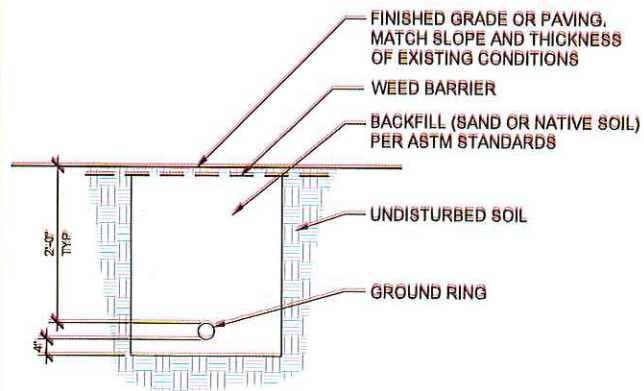
GROUND BAR ON WALL, ICE BRIDGE, CONCRETE, OR ON ANTENNA TOWER

\*TWO HOLE LUG, OR EXOTHERMIC WELD TO BE USED WITH #2 AWG BCW TO BUILDING SERVICE GROUND OR GROUND RING

GROUND CONDUCTOR SHALL BE ELIMINATED WHEN GROUND BAR IS ELECTRICALLY BONDED TO METAL TOWER/MONOPOLE STRUCTURE

12 GROUND RING BONDING

NOT TO SCALE



FINISHED GRADE OR PAVING, MATCH SLOPE AND THICKNESS OF EXISTING CONDITIONS

WEED BARRIER

BACKFILL (SAND OR NATIVE SOIL) PER ASTM STANDARDS

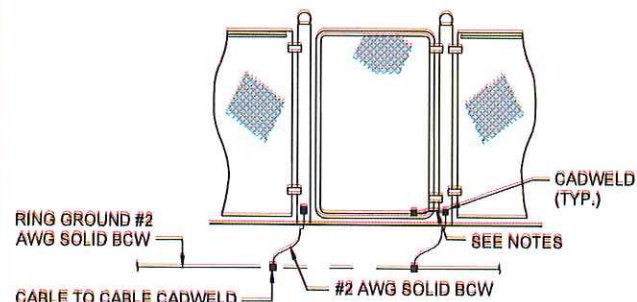
UNDISTURBED SOIL

GROUND RING

2'-0" TYP.

11 TEST WELL

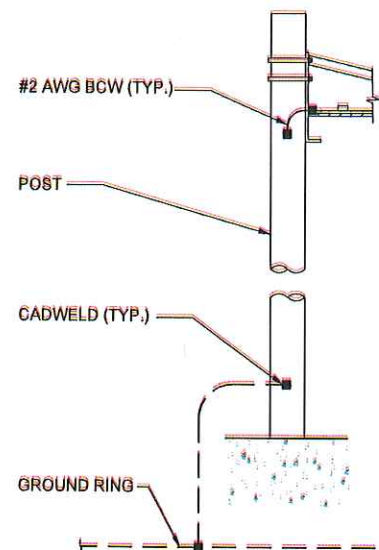
NOT TO SCALE



NOTES:  
VERTICAL POSTS SHALL BE BONDED TO THE RING AT EACH CORNER OF THE FENCE. AT A MINIMUM, ONE VERTICAL POST SHALL BE BONDED TO THE GROUND RING IN EVERY 100 FOOT STRAIGHT RUN OF FENCE. EACH VERTICAL POST ADJACENT TO A GATE SHALL BE BONDED TO THE RING. GATE JUMPER SHALL BE #4/0 AWG WELDING CABLE OR FLEXIBLE COPPER BRAID BURNDY TYPE B WITH SLEEVES ON EACH END DESIGNED FOR EXOTHERMIC WELDING. GATE JUMPER SHALL BE INSTALLED 12" ABOVE FINISHED GRADE AND SO THAT IT WILL NOT BE SUBJECTED TO DAMAGING STRAIN WHEN GATE IS FULLY OPEN IN EITHER DIRECTION.

10 GROUND ROD

NOT TO SCALE



#2 AWG BCW (TYP.)

POST

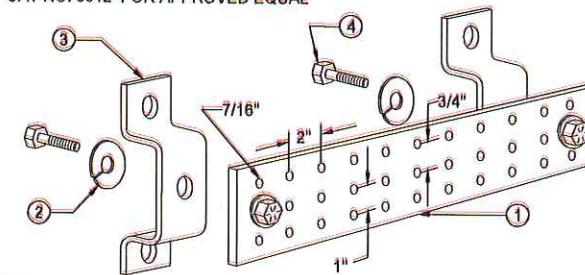
CADWELD (TYP.)

GROUND RING

9 GROUND WIRE INSTALLATION

NOT TO SCALE

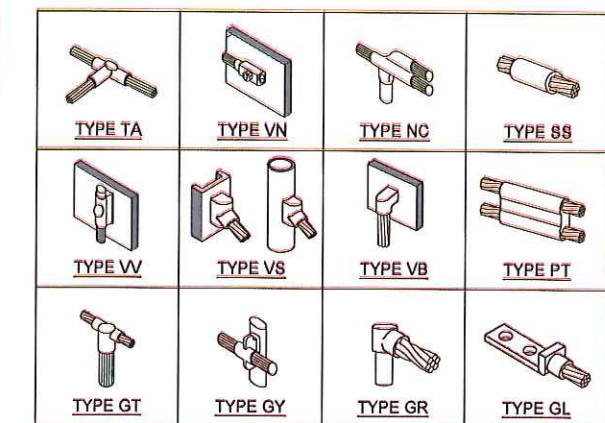
- 1.) COPPER GROUND BAR, 1/4"x 4"x 20", NEWTON INSTRUMENT CO. CAT. NO. B-6142 OR APPROVED EQUAL. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION. (ACTUAL GROUND BAR SIZE WILL VARY BASED ON NUMBER OF GROUND CONNECTIONS)
- 2.) 5/8" LOCK WASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8 OR APPROVED EQUAL
- 3.) WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT. NO. A-6056 OR APPROVED EQUAL
- 4.) 5/8-11 X 1" HHCS BOLTS, NEWTON INSTRUMENT CO. CAT. NO. 3012-1 OR APPROVED EQUAL



NOTES:  
GROUND BAR AT ANTENNA LEVEL TO BE BONDED DIRECTLY TO TOWER STRUCTURE; NO INSULATORS USED. GROUND BAR AT BASE OF TOWER STRUCTURE TO BE ATTACHED WITH INSULATORS. CONNECTION TO TOWER STRUCTURE SHALL BE PER MANUFACTURERS RECOMMENDATIONS.

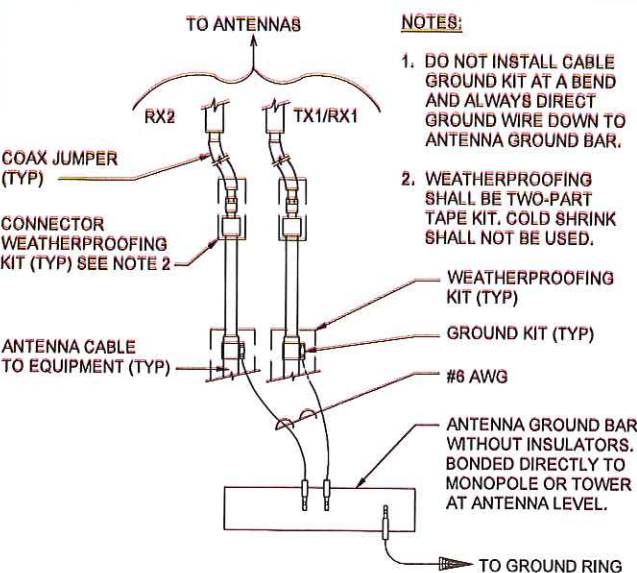
8 GROUND RING TRENCH

NOT TO SCALE



7 FENCE & GATE GROUNDING

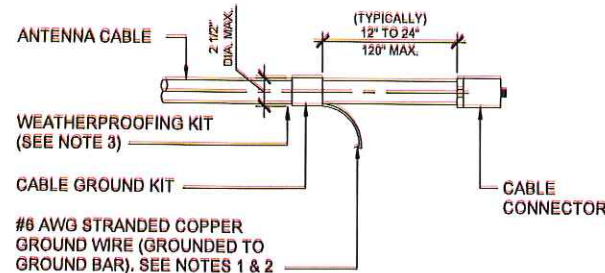
NOT TO SCALE



NOTES:  
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.  
2. WEATHERPROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

6 SUPPORT POST GROUNDING

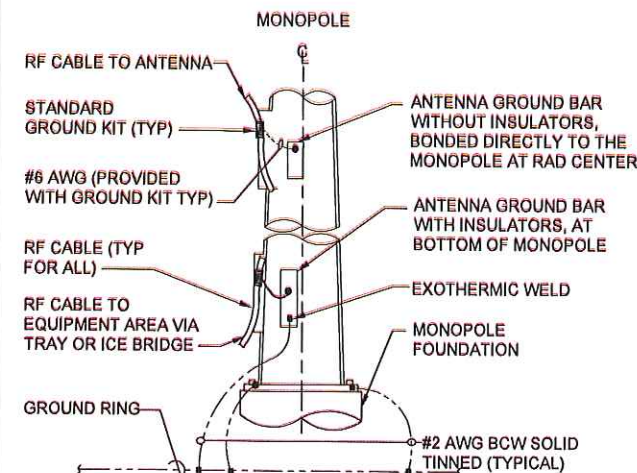
NOT TO SCALE



NOTES:  
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.  
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.  
3. WEATHERPROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

5 TYPICAL GROUND BAR

NOT TO SCALE



4 EXOTHERMIC CONNECTIONS

NOT TO SCALE

3 CABLE GROUND CONNECTIONS

NOT TO SCALE

2 CABLE GROUND KIT

NOT TO SCALE

1 RF CABLE GROUND

NOT TO SCALE

**T-Mobile**  
8960 NE ALDERWOOD RD  
PORTLAND, OR 97220

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REGISTERED PROFESSIONAL ENGINEER  
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2/20/19  
NOVEMBER 13, 2018  
CHRISTOPHER J. WARREN  
EXPIRATION DATE: 6-30-20

SHEET TITLE:  
**GROUNDING DETAILS**

SHEET NUMBER:  
**G-2**

REVISION:  
**2**