

NOTICE OF DECISION AND FINDINGS

VAR22-0004 and MIMD122-0001: DISH Wireless Cell Tower Extension and Modification
Associated File No's: CUP-06-002/DR2-06-019/VAR-07-002,
DR1-12-016, DR-16-0003, MIMD121-0002, MIMD122-0005

December 22, 2022

Crown Castle for DISH Wireless
c/o Gary Abrahams
590 1st Ave South #705
Seattle, WA 98104

Sent via email: gary@gmanetworkservices.com

Re: Variance height request and minor modification to a previously approved cell tower at 2400 E Douglas Avenue

Dear Applicant,

The Newberg Community Development Director has approved the variance and minor modification request for the cell tower located at 2400 E Douglas Ave, VAR22-0004 / MIMD122-0001. The decision will become effective on January 5, 2023, unless an appeal is filed.

You may appeal this decision to the Newberg Planning Commission within 14 calendar days of this decision in accordance with Newberg Development Code 15.100.170. All appeals must be in writing on a form provided by the Planning Division. If you wish to appeal, you must submit the written appeal form together with the required fee of \$547 (plus a 5% technology fee) to the Planning Division within 14 days of the date of this decision.

The deadline for filing an appeal is 4:30 pm on January 4, 2023.

If you have any questions regarding this Notice of Decision and Findings, please contact me at (503) 554-7768 or ashley.smith@newbergoregon.gov.

Sincerely,

A handwritten signature in blue ink that reads "Ashley Smith".

Ashley Smith
Assistant Planner
City of Newberg

STAFF REPORT

VAR22-0004 and MIMD122-0001: DISH Wireless Cell Tower Extension and Modification
 Associated File No's: CUP-06-002/DR2-06-019/VAR-07-002,
 DR1-12-016, DR-16-0003, MIMD121-0002, MIMD122-0005

FILE NO: VAR22-0004 / MIMD122-0001

REQUEST: Height variance and minor modification to existing cell tower

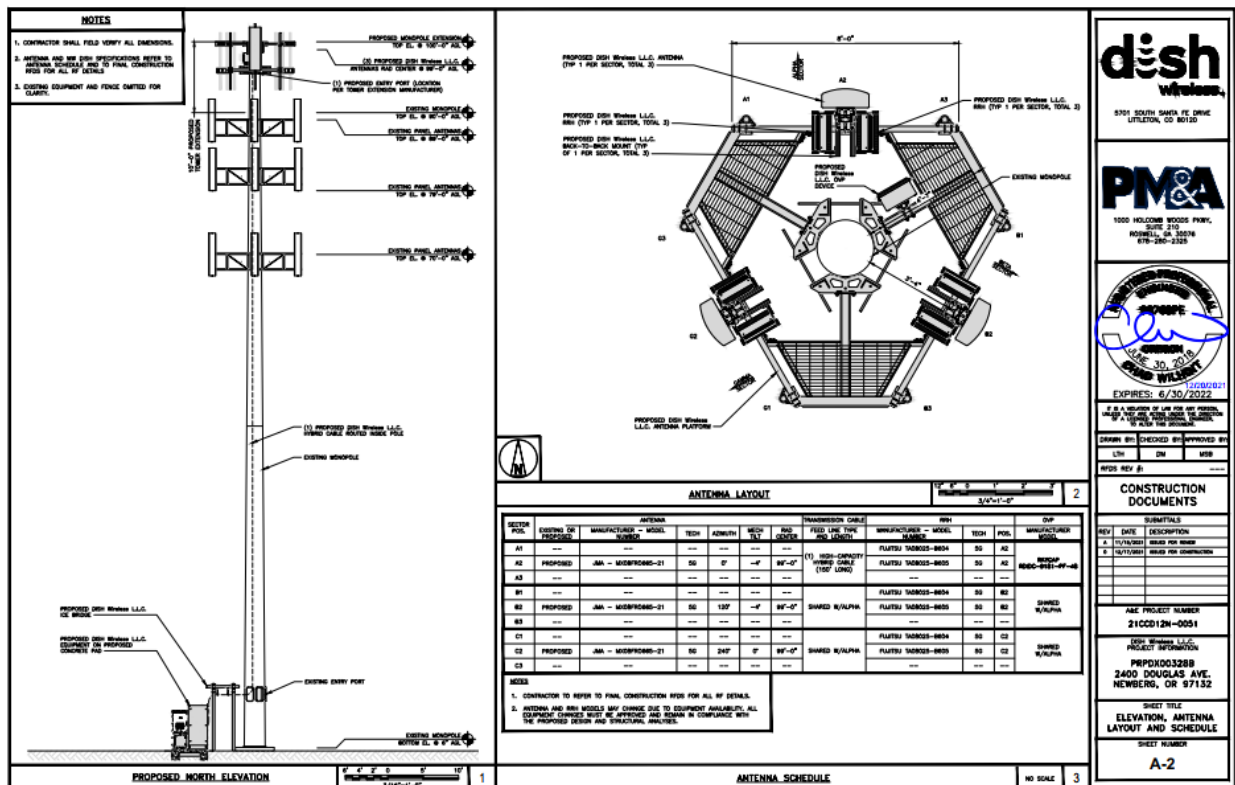
LOCATION: 2400 E Douglas Avenue


TAX LOT: R3217 02500

ZONE: R-1 (Low Density Residential)


APPLICANT: Crown Castle for DISH Wireless c/o Gary Abrahams

PROPOSAL: Tower extension of 12 feet and addition of carrier antennas platform





5701 SOUTH SAMHOFF DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PARK
SUITE 210
ROSELAND, GA 30074
878-285-2325



DATE: 06/01/22
 DRAWN BY: CHECKED BY: APPROVED BY: [Signature]
 LSA DN MSB
 PDS# REV #: ---

CONSTRUCTION DOCUMENTS

ARE PROJECT NUMBER
21CCD12N-0051

PROJECT INFORMATION
 PRPD003288
 2400 DOUGLAS AVE.
 NEWBERG, OR 97132

SHEET TITLE
ELEVATIONAL ANTENNA LAYOUT AND SCHEDULE

SHEET NUMBER
A-2

A. Staff/Agency Comments:

1. Building Division – Reviewed, no conflict.
2. City Manager – Reviewed, no conflict.
3. Community Development Director – Reviewed, no conflict.
4. Finance – Reviewed, no conflict.
5. Police – Reviewed, no conflict
6. Public Works Waste Water Superintendent – Reviewed, no conflict.
7. Public Works Waste Water Treatment Plant – Reviewed, no conflict.
8. Engineering Division, Senior Engineer – Reviewed, no conflict.
9. Zipl Fiber: Reviewed, no conflict.

B. Public Comments:

No public comments were received on the application.

C. Criteria:

Newberg Development Code

15.215.040 Type II Variance criteria.

The Type II procedure shall be used to process a variance request. The hearing body shall grant the variance if the following criteria are satisfied:

- A. That strict or literal interpretation and enforcement of the specified regulation would result in practical difficulty or unnecessary physical hardship inconsistent with the objectives of this code.***

Finding: The existing 90-foot co-location (multiple carrier) tower was approved in 2007 (CUP-06-002/DR2-06-019/VAR-07-002). The approved 2007 variance permitted the tower to be built to 90 feet. This was a 42-foot variance to the 48-foot height maximum for utility poles in the R-1 zone. This current application is requesting to increase the existing 90-foot tower by 12 feet for a maximum height of 102 feet. The enforcement of the R-1 zone height regulation would result in practical difficulty and unnecessary physical hardship by not allowing the cell tower to fully function at its desired level of service. Not allowing the height variance would impact DISH Wireless' ability to serve the Newberg community.

B. That there are exceptional or extraordinary circumstances or conditions applicable to the property involved or to the intended use of the property which do not apply generally to other properties classified in the same zoning district.

Finding: The original variance (VAR-07-002) did find that the cell tower placed on the school site was an exceptional circumstance as the surrounding area is primarily R-1 (low density residential) zoning containing single family homes. The intention of placing co-location (multiple carrier) cell tower on an institutional site would not apply to other properties in that same zoning district.

C. That strict or literal interpretation and enforcement of the specified regulation would deprive the applicant of privileges enjoyed by the owners of other properties classified in the same zoning district.

Finding: Again, not allowing the DISH Wireless height extension would deprive the applicant the opportunity to co-locate on this tower as other carriers have on this same tower. Allowing this extension to provide this additional carrier reduces the need for additional individual towers to be built.

D. That the granting of the variance will not constitute a grant of special privilege inconsistent with the limitations on other properties classified in the same zoning district.

Finding: As found in the original 2007 variance granting the variance would not be a special privilege inconsistent with the zoning code as it would be allowing the cellular company to provide improved service through a joint use cellular tower.

E. That the granting of the variance will not be detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the vicinity. [Ord. 2451, 12-2-96. Code 2001 § 151.163.]

Finding: The added 12 feet would not be detrimental to the public health, safety or welfare. With the proposed addition the tower would stand at 102 feet. The cell tower is setback approximately 268 feet from the nearest property line. Improved cellular service is also a benefit to the public welfare by improving communication platforms and options. Furthermore, under Section 6409 of the Federal Communication Commission, this height addition is not classified as a substantial change to the existing tower.

Conclusion: The request for a variance to the maximum height limit in the R-1 zone meets the criteria and should be approved.

15.220.020 Site design review applicability.

E. Modification to an Approved Design Review. Following design review approval, an applicant may make modifications to the plan consistent with the following procedures.

The director will determine whether the proposed modification is a minor or a major modification.

1. Minor modifications are those which are in substantial compliance with the layout, uses and conditions of the original design review. Generally, the characteristics of the project, such as the layout or size of buildings, number of units, number of parking spaces, landscaping areas, and similar changes, are within five percent of those in the original proposal. The director may approve a minor modification under a Type I procedure upon finding that the modification is substantially consistent with the approved design review, is consistent with the provisions of this code and the conditions of approval, and does not have substantially greater impacts on surrounding properties than the original plan. Changes shall meet all development code requirements.

Findings: CUP-06-002/DR2-06-019/VAR-07-002, DR1-12-016, DR-16-0003, MIMD121-0002, and MIMD122-0005 granted the original approval and subsequent modifications and co-location as a permitted use. The applicant is requesting to extend the existing tower by 12 feet, add a carrier antenna platform, an equipment ice bridge, and a 35 square foot concrete equipment pad with equipment cabinet. The proposed equipment pad is located approximately 5 feet from the tower and is located within the cell tower's existing utility fence.

- **Parking:** No additional parking facilities are proposed or required.
- **Height and Setbacks:** The existing monopole is 90 feet in height. The included variance application is requesting a 12-foot height extension, all setbacks will remain the same.
- **Landscaping:** Existing landscaping will not be affected by this proposal nor is any new landscaping required.
- **Signs:** There are no new signs proposed nor are required.
- **Zoning District compliance:** Cell phone towers and accessory facilities are a Conditional Use. City land use file No's CUP-06-002/DR2-06-019/VAR-07-002 granted this original approval. It has continually been used a cell tower, therefore the conditional use permit allowing the cell tower is still applicable.

The proposed variance and modification to the previously referenced files can be approved because the proposal is substantially consistent with the originally approved Conditional Use Permit and Design Review, is consistent with the provisions of the Development Code 15.215.040 and 15.220.020 E.1 and does not have substantially greater impacts on surrounding properties than the original approval.

The previously referenced files are therefore modified as shown on the attached plan sheets submitted by the applicant.

Attachments:

1. Application Material
2. Agency Comments

Attachment 1: Application Material



TYPE II APPLICATION – LAND USE

File #: VAR22-0004

TYPES – PLEASE CHECK ONE:

- Design review
- Tentative Plan for Partition
- Tentative Plan for Subdivision
- Type II Major Modification
- Variance EFR application to extend monopole height by 10'
- Other: (Explain) _____

APPLICANT INFORMATION:

APPLICANT: Crown Castle for Dish Wireless, C/O Gary Abrahams
ADDRESS: 590 - 1st Ave. South, #705 **CITY:** Seattle **STATE:** WA **ZIP:** 98104
EMAIL ADDRESS: Gary@gmanetworkservices.com **PHONE:** 206-349-4279 **MOBILE:** 206-349-4279

OWNER (if different from above): Crown Castle as Tower and Facility Owner **PHONE:** 309-269-7254
ADDRESS: 1505 Westlake Ave. North, #800 **CITY:** Seattle **STATE:** WA **ZIP:** 98109

ENGINEER/SURVEYOR: PM&A **CONTACT:** Chad Wilhoit
EMAIL ADDRESS: _____ **PHONE:** (678) 280-2325 **MOBILE:** _____

GENERAL INFORMATION:

PROJECT LOCATION: 2400 Douglas Ave. (a/k/a 1421 Deborah Road), Newberg, OR **PROJECT VALUATION:** \$ 25,000.00
PROJECT DESCRIPTION/USE: Dish proposes to extend the existing tower by 10' (W/antenna tip height @ 102'), and collocate on tower
MAP/TAX LOT NO. (i.e. 3200AB-400): R3217-02500 **SITE SIZE:** 72 **SQ. FT.** **ACRE**
COMP PLAN DESIGNATION: PQ **CURRENT ZONING:** R-1
CURRENT USE: Newberg High School with an existing Crown Castle tower and wireless communication facility

SURROUNDING USES:
NORTH: Newberg High School/Sports field **SOUTH:** Newberg High School sports field
EAST: Newberg High School **WEST:** Newberg High School

ATTACHED PROJECT CRITERIA AND REQUIREMENTS (check all that apply)


- General Checklist:** Fees Public Notice Information Current Title Report Written Criteria Response Owner Signature
 2 Copies of full Application Packet

For detailed checklists, applicable criteria for the written response, and other requirements per application type, turn to:

Design Review	p. 13
Partition Tentative Plat	p. 15
Subdivision Tentative Plat	p. 17
Variance Checklist	p. 20
Short-term Rental	p. 22

The Application Packet can be submitted to Planning@newbergoregon.gov or at 414 E First St., Newberg OR. 97132
If the Application is emailed 2 physical copies must be mailed or brought into the Community Development Department

The above statements and information herein contained are in all respects true, complete, and correct to the best of my knowledge and belief. Tentative plans must substantially conform to all standards, regulations, and procedures officially adopted by the City of Newberg. All owners must sign the application or submit letters of consent. Incomplete or missing information may delay the approval process.

 10/15/22
 Applicant Signature Date

SEE Attached
 Owner Signature Date

Gary Abrahams
 Print Name

See Crown Castle signature attached
 Print Name



Crown Castle
1505 Westlake Avenue North
Suite 800
Seattle, WA 98109

September 17, 2020

Re: Crown Castle – PNW

Subject: Gary Abrahams – Authorized Consultant for Crown Castle

Dear Reviewing Parties:

This letter serves to notify you that Crown Castle has retained the services of Gary Abrahams, as approved agent to submit application for and obtain local jurisdiction approvals including but not limited to zoning and building permits. This includes applicable permitting for any and all customers seeking to install or modify their equipment on Crown Castle towers.

Please feel free to contact me directly with any questions. Thank you for your expeditious processing of applications filed by Mr. Abrahams.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Chris Listfeld', with a long horizontal flourish extending to the right.

Chris Listfeld
Site Acquisition Project Manager – Seattle
Chris.Listfeld@crowncastle.com
(206) 336-7403



Yamhill County, Oregon

In the heart of the Willamette Valley

535 NE 5th Street
McMinnville, OR 97128
503-434-7521

[Home](#)

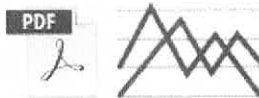
[Help](#)

[Login](#) [Logoff](#)

[Property Search](#) > [Search Results](#) > [Property Summary](#)

Property Account Summary

10/26/2022



Click image above for more information

Account Number	33895	Property Address	1421 DEBORAH RD , , OR
----------------	-------	------------------	------------------------

General Information

Alternate Property #	R3217 02500
Property Description	See Metes & Bounds
Property Category	Land &/or Buildings
Status	Active, Host Other Property, Locally Assessed
Tax Code Area	29.0
Remarks	

Tax Rate

Description	Rate
Total Rate	

Property Characteristics

Neighborhood	Misc Exempt
Land Class Category	921 Exempt School Improved
Account Acres	72.0000
Change Property Ratio	Exempt

Parties

Role	Name
Owner	SCHOOL DISTRICT NO 29

Related Properties

521257 is Located On this property

Property Values

Value Type	Tax Year 2022	Tax Year 2021	Tax Year 2020	Tax Year 2019	Tax Year 2018
Assessed Value AVR	\$15,094,776	\$14,655,122	\$14,228,274	\$13,813,858	\$13,411,513
Exempt Value EAR	\$15,094,776	\$14,655,122	\$14,228,274	\$13,813,858	\$13,411,513
Taxable Value TVR					
Real Market Land MKLTL	\$22,631,600	\$22,631,600	\$22,631,600	\$20,167,044	\$17,253,600
Real Market Buildings MKITL	\$2,320,184	\$2,320,184	\$2,320,184	\$2,320,184	\$2,320,184
Real Market Total MKTTL	\$24,951,784	\$24,951,784	\$24,951,784	\$22,487,228	\$19,573,784
M5 Market Land MKLND	\$22,631,600	\$22,631,600	\$22,631,600	\$20,167,044	\$17,253,600
M5 Limit SAV M5SAV					
M5 Market Buildings MKIMP	\$2,320,184	\$2,320,184	\$2,320,184	\$2,320,184	\$2,320,184
M50 MAV MAVMK	\$15,094,776	\$14,655,122	\$14,228,274	\$13,813,858	\$13,411,513
Assessed Value Exception					
Market Value Exception					
SA Land (MAVUUse Portion) SAVL					

Active Exemptions

307.090-School Districts

Tax Balance

No Available Tax Charges Information for this Property at the Moment.

Installments Payable/Paid for Tax Year(Enter 4-digit Year, then Click-Here): 2022

Receipts

Date	Receipt No.	Amount Applied	Amount Due	Tendered	Change
No Receipts Found					

Sales History

Property Details

Living Area Sq Ft	Manf Struct Size	Year Built	Improvement Grade	Stories	Bedrooms	Full Baths	Half Baths

Printable Version

Developed by Aumentum Technologies.
 @2005-2020 All rights reserved.
 Version 4.0.3.0



1505 Westlake Ave N N
Seattle, WA 98109

Phone:
www.crowncastle.com

VIA EMAIL

(2) FULL COPIES OF APPLICATION PACKET - VIA FEDEX

CITY OF NEWBERG, OR

October 31, 2022

CITY OF NEWBERG, OR
Attention: Ashley Smith
Community Development
414 E. FIRST ST.
NEWBERG, OR 97132

*****NOTICE OF ELIGIBLE FACILITIES REQUEST*****

RE: Request for Minor Modification to Existing Wireless Facility – Section 6409

Site Address: 2400 DOUGLAS AVENUE, NEWBERG, OR 97132

a/k/a 1421 Deborah Road per Yamhill County, OR records

TYPE II APPLICATION – LAND USE: VARIANCE (for height extension)

ASSOCIATED WITH MIMD122-0001 (previously submitted)

Crown Site Number: 856521 / Crown Site Name: NEWBERG EAST

Customer Site Number: PRPDX00328B / Application Number: 576279

Dear Ms. Smith:

On behalf of DISH Wireless L.L.C. (“Dish Wireless” or “Applicant”), Crown Castle USA Inc. (“Crown Castle”) is pleased to submit this request to modify the existing wireless facility noted above through the collocation, replacement and/or removal of the Applicant’s equipment as an eligible facilities request for a minor modification under Section 6409¹ and the rules of the Federal Communications Commission (“FCC”).²

Section 6409 mandates that state and local governments must approve any eligible facilities request for the modification of an existing wireless tower or base station that does not substantially change the

¹ Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, § 6409 (2012) (codified at 47 U.S.C. § 1455).

² *Acceleration of Broadband Deployment by Improving Wireless Facility Siting Policies*, 29 FCC Rcd. 12865 (2014) (codified at 47 CFR § 1.6100); and *Implementation of State & Local Governments’ Obligation to Approve Certain Wireless Facility Modification Requests Under Section 6409(a) of the Spectrum Act of 2012*, WT Docket No. 19-250 (June 10, 2020).

³ See 47 CFR § 1.6100 (c)(3). ⁴ See 2020 Upgrade Order at paragraph 16.

The Foundation for a Wireless World

CrownCastle.com



1505 Westlake Ave N N
Seattle, WA 98109

Phone:
www.crowncastle.com

physical dimensions of such tower or base station. Under Section 6409, to toll the review period, if the reviewing authority determines that the application is incomplete, it must provide written notice to the applicant within 30 days, which clearly and specifically delineates all missing documents or information reasonably related to whether the request meets the federal requirements.³ Additionally, if a state or local government, fails to issue any approvals required for this request within 60 days, these approvals are deemed granted. The FCC has clarified that the 30-day and 60-day deadlines begins when an applicant: (1) takes the first step required under state or local law; and (2) submits information sufficient to inform the jurisdiction that this modification qualifies under the federal law⁴. Please note that with the submission of this letter and enclosed items, the thirty and sixty-day review periods have started. Based on this filing, the deadline for written notice of incomplete application is **November 30, 2022**, and the deadline for issuance of approval is **December 30, 2022**.

The proposed scope of work for this project includes:

Add or replace antennas, ancillary equipment and ground equipment as per plans for an existing carrier on an existing wireless communication facility.

At the end of this letter is a checklist of the applicable substantial change criteria under Section 6409. Additionally, please find enclosed the following information in support of this request:

- (1) Eligible Facilities Request cover letter and narrative (see this document) with **Attachment “A,”** Section 6409 Substantial Change Checklist, and **Attachment “B,”** Proposed Scope of Work; **Attachment “C,”** Section 6409 and FCC Upgrade Order (as defined below); **Attachment “D,”** Completeness Letter from City of Newberg, OR review of MIMD122-0001 requiring a variance for the proposed height extension; **Attachment “E,”** ***Variance Written Criteria Response***;
- (2) Copy of Section 6409 and a copy of Declaratory Ruling & Notice of Proposed Rule Making, dated 6/10/20 (a/k/a the “FCC Upgrade Order”) – which stipulates that the shot clock commences when an applicant takes the first procedural step to file an application, and the jurisdiction has thirty (30) days to determine if an application is complete and a total of sixty (60) days to approve the application, which cannot be conditioned or denied, otherwise the application will be deemed granted ;
- (3) City of Newberg Type II Application – Land Use, for a variance application;
- (4) Fees: to be paid via credit card;
- (5) Construction Drawings – prepared by PM&A dated 12/17/2021;
- (6) Public Notice Information:**
- (7) Draft Type II Notice of information to be mailed to properties within a 500’ radius;
- (8) Address Labels, Radius search of 500’ around subject property;
- (9) Draft of sign for posting on site;
- (10) Written Statement and Criteria Response (see **Attachment “E,”**), this document; and
- (11) Crown Castle Authorization to submit for permit applications.



1505 Westlake Ave N N
Seattle, WA 98109

Phone:
www.crowncastle.com

RE: CURRENT TITLE REPORT REQUIREMENT FOR SUBMITTAL (WITHIN 60 DAYS OLD):

A request for a title report is not “reasonably related” to determining whether the subject application is an Eligible Facilities Request (“EFR”) and therefore the omission of this submittal item does not toll the 60-day period for review and approval of this EFR application. Per Section 6409, a local government, such as the City of Newberg, OR, “may *not* require [Dish Wireless] to submit any documentation” other than that which is “reasonably related” to determining whether the application is an EFR. A title report in no way bears on whether the application qualifies as an EFR. As the subject application is an EFR, it is therefore entitled to streamlined processing and mandatory approval under federal law. Notwithstanding the foregoing, Crown Castle explains that there has been a wireless facility located at the Site since 2006 pursuant to that certain Oregon Lease Agreement dated July 21, 2006 by and between the tower operator and the Newberg School District. See Yamhill Cty. Rec. No. 2006-18092. Based upon federal law under Section 6409, Crown Castle will not be providing a title report as part of this application.

As these documents indicate, (i) the modification involves the collocation, removal or replacement of transmission equipment; and (ii) such modification will not substantially change the physical dimensions of such tower or base station. As such, it is an “eligible facilities request” as defined in the FCC’s rules to which the 60-day deadline for approval applies. Accordingly, Applicant requests all authorization necessary for this proposed minor modification under Section 6409.

Our goal is to work with you to obtain approvals earlier than the deadline. We will respond promptly to any request for related information you may have in connection with this request. Please let us know how we can work with you to expedite the approval process. We look forward to working with you on this important project, which will improve wireless telecommunication services in your community using collocation on existing infrastructure. If you have any questions, please do not hesitate to contact me.

Regards,

Gary Abrahams

Gary Abrahams

Gary@GMAnetworkservices.com

Agent for Crown Castle

Attachment “A”

Section 6409 Substantial Change Checklist Towers Outside of the Public Right of Way

The Federal Communications Commission has determined that a modification substantially changes the physical dimension of a wireless tower or base station under 47 U.S.C. § 1455(a) if it meets one of six enumerated criteria under 47 C.F.R. § 1.6100.

Criteria for Towers Outside the Public Rights of Way

YES/NO NO	Does the modification increase the height of the tower by more than the greater of: (a) 10% (b) or, the height of an additional antenna array plus separation of up to 20 feet from the top of the nearest existing antenna? EXISTING TOWER IS 90' AS APPROVED UNDER VAR07-002 (CUP-06-002, DR2-06-019). CROWN CASTLE, ON BEHALF OF DISH WIRELESS, PROPOSES TO EXTEND THE TOWER BY 10' TO 100' (W/ANTENNA TIP HEIGHT PROPOSED TO BE @ 102'). UNDER SECTION 6409, A TOWER CAN BE EXTENDED BY A MAXIMUM OF THE HEIGHT OF AN ADDITIONAL ANTENNA ARRAY PLUS UP TO 20' OF SEPARATION BETWEEN THE TIP OF THE EXISTING ANTENNA AND THE BOTTOM OF THE PROPOSED ANTENNA. CROWN'S PROPOSED TOWER EXTENSION FALLS WITHIN THE ALLOWABLE HEIGHT INCREASE PER SECTION 6409.
YES/NO NO	Does the modification add an appurtenance to the body of the tower that would protrude from the edge of the tower more than 20 feet or more than the width of the tower structure at the level of the appurtenance, whichever is greater?
YES/NO NO	Does the modification involve the installation of more than the standard number of new equipment cabinets for the technology involved or add more than four new equipment cabinets?
YES/NO NO	Does the modification entail any excavation or deployment outside the current site by more than 30 feet in any direction, not including any access or utility easements?
YES/NO NO	Does the modification defeat the concealment elements of the eligible support structure?
YES/NO NO	Does the modification violate conditions associated with the siting approval with the prior approval the tower or base station other than as specified in 47 C.F.R. § 1.6100(c)(7)(i) – (iv)?

If all questions in the above section are answered “NO,” then the modification does not constitute a substantial change to the existing tower under 47 C.F.R. § 1.6100.

Attachment “B”

Proposed Scope of Work

SCOPE OF WORK

THIS IS NOT AN ALL INCLUSIVE LIST. CONTRACTOR SHALL UTILIZE SPECIFIED EQUIPMENT PART OR ENGINEER APPROVED EQUIVALENT. CONTRACTOR SHALL VERIFY ALL NEEDED EQUIPMENT TO PROVIDE A FUNCTIONAL SITE. THE PROJECT GENERALLY CONSISTS OF THE FOLLOWING:

TOWER SCOPE OF WORK:

- **INSTALL (3) PROPOSED PANEL ANTENNAS (1 PER SECTOR)**
- **INSTALL (1) PROPOSED PLATFORM ANTENNA MOUNT**
- **INSTALL PROPOSED JUMPERS**
- **INSTALL (6) PROPOSED RRUs (2 PER SECTOR)**
- **INSTALL (1) PROPOSED OVER VOLTAGE PROTECTION DEVICE (OVP)**
- **INSTALL (1) PROPOSED HYBRID CABLE**
- **INSTALL (1) PROPOSED 10' TOWER EXTENSION**

GROUND SCOPE OF WORK:

- **INSTALL (1) PROPOSED CONCRETE PAD**
- **INSTALL (1) PROPOSED ICE BRIDGE**
- **INSTALL (1) PROPOSED PPC CABINET**
- **INSTALL (1) PROPOSED EQUIPMENT CABINET**
- **INSTALL (1) PROPOSED POWER CONDUIT**
- **INSTALL (1) PROPOSED TELCO CONDUIT**
- **INSTALL (1) PROPOSED TELCO-FIBER BOX**
- **INSTALL (1) PROPOSED GPS UNIT**
- **INSTALL (1) PROPOSED SAFETY SWITCH (IF REQUIRED)**
- **INSTALL (1) PROPOSED FIBER MID (IF REQUIRED)**
- **INSTALL (1) PROPOSED METER SOCKET**

DISH WIRELESS PROPOSES TO EXTEND THE EXISTING TOWER BY 10', WITH THE ANTENNAS PROPOSED TO EXTEND TO A TIP HEIGHT OF 102'.

Attachment “C”

SECTION 6409 AND SHOT CLOCK RULES

Section IV, B.1, page 1259 of Section 6409, the shot clock “begins to run when an application is first submitted, not when it is deemed complete...”

B. Discussion

1. Completeness of Applications

131. The Commission finds that it should clarify under what conditions the presumptively reasonable timeframes may be tolled on grounds that an application is incomplete. As an initial matter, the Commission notes that under the *2009 Declaratory Ruling*, the presumptively reasonable timeframe begins to run when an application is first submitted, not when it is deemed complete. Accordingly, to the extent municipalities have interpreted the clock to begin running only after a determination of completeness, that interpretation is incorrect.

132. Further, consistent with proposals submitted by Crown Castle and PCIA, the Commission clarifies that, following a submission in response to a determination of incompleteness, any subsequent determination that an application remains incomplete must be based solely on the applicant’s failure to supply information that was requested within the first 30 days. The shot clock will begin running again after the applicant makes a supplemental submission. The State or local government will have 10 days to notify the applicant that the supplemental submission did not provide the information identified in the original notice delineating missing information. In other words, a subsequent

determination of incompleteness can result in further tolling of the shot clock only if the local authority provides it to the applicant in writing within 10 days of the supplemental submission, specifically identifying the information the applicant failed to supply in response to the initial request. Once the 10-day period passes, the period for review of the application may not thereafter be tolled for incompleteness.

133. The Commission further provides that, in order to toll the timeframe for review on grounds of incompleteness, a municipality's request for additional information must

plai
Rul
for
mo
the
mo
cha
sho
gov
wit
cou
mo
app
an
eve
mo

See page 9, Section A.14, Commencement of Shot Clock, in the FCC Upgrade Order, which stipulates that a jurisdiction has 60 days to review and approve an Eligible Facilities Request, and such approval cannot be conditioned or denied.

ambiguities leading to disputes that could undermine the goals of the Spectrum Act, i.e., to advance wireless broadband service.³⁸

A. Commencement of Shot Clock

14. Section 1.6100(c)(2) provides that the 60-day review period for eligible facilities requests begins “on the date on which an applicant submits a request seeking approval.”³⁹ If the local jurisdiction “fails to approve or deny a request seeking approval under this section within the timeframe for review (accounting for any tolling), the request shall be deemed granted.”⁴⁰ The *2014 Infrastructure Order* discusses the procedures that local governments need to implement in order to carry out their obligations to approve eligible facilities requests within 60 days;⁴¹ it does not, however, define the date on which an applicant is deemed to have submitted an eligible facilities request for purposes of triggering the 60-day shot clock.

15. There is evidence in the record that some local jurisdictions effectively postpone the date on which they consider eligible facilities requests to be duly filed (thereby delaying the commencement of the shot clock) by treating applications as incomplete unless applicants have complied with time-



1505 Westlake Ave N N
Seattle, WA 98109

Phone:
www.crowncastle.com

ATTACHMENT “D”

COMPLETENESS LETTER FROM APPLICATION MIMD122-0001 REQUIRING A VARIANCE FOR THE PROPOSED HEIGHT EXTENSION



Community Development

February 1, 2022

Emilie Deschamps - Crown Castle for Dish Wireless
PO Box 2006
Bellevue, WA 98009

Re: MIMD122-0001 – 2400 E Douglas (cell tower modification) – Completeness Notice

Dear Ms. Deschamps,

We have performed the completeness review of MIMD122-0001 – 2400 E Douglas (cell tower modification). During the review it was noted that the conditional use permit referenced in the narrative is associated with a variance; VAR07-002. This variance allowed for the original cell tower placement to be a maximum height of 90 feet compared to the 48-foot limit for the R-1 zone. The current application for modifications to increase the height to 102 feet surpasses the allowed height set in the variance and could not be approved.

To move forward, you will need to submit application for a second variance requesting a height allowance of at least 102 feet. Once we have received the variance application, we will perform a completeness review. Once the variance application is deemed complete you will be notified about the number of plans sets needed for the referral process. We will concurrently review both applications and issue one inclusive decision.

If an application for a variance, or written refusal to submit a variance application, is not received within 180 days from today (July 31, 2022), our findings determination for MIMD122-0001 will be based on the current information we have.

I have included the original conditional use permit and variance decision associated with this cell tower for your reference.

Please free to contact me at ashley.smith@newbergoregon.gov or at 503-540-7768, if you have any further questions.

Sincerely,

Ashley Smith
Assistant Planner
Community Development
City of Newberg
she/her/hers

The Foundation for a Wireless World

CrownCastle.com



1505 Westlake Ave N N
Seattle, WA 98109

Phone:
www.crowncastle.com

ATTACHMENT “E”

Variance Criteria Response

WRITTEN STATEMENT

The existing Base Station (monopole) is currently 90 feet in height as approved under VAR07-002. A variance was required for the initial installation due to the height limit in the R-1 zone.

Dish Wireless proposes to extend the existing Base Station by 10 feet, to 100 feet in height, with the Dish antennas proposed to extend to a height of 102 feet.

The additional height is necessary for Dish to obtain coverage objectives at this location, and the extension is allowed under Section 6409. The subject application meets all requirements of an EFR as delineated herein, and the City of Newberg is required to review and approve the application within 60 days of the application.

Provide a written response that specifies how your project meets the following criteria:

(A) That strict or literal interpretation and enforcement of the specified regulation would result in practical difficulty or unnecessary physical hardship inconsistent with the objectives of this code.

Applicant Response:

The Base station is an existing monopole and Dish proposes to extend the monopole to provide coverage to this part of Newberg. The proposed extension is allowed under Section 6409, notwithstanding any height limit in the City’s zoning code. The City of Newberg is requiring a variance for the height extension as the existing Base Station is 90 feet and exceeds the zone height limit. Crown Castle on behalf of Dish Wireless is submitting for this variance application as required by the City, however the City is required under Section 6409 to approve this application.

(B) That there are exceptional or extraordinary circumstances or conditions applicable to the property involved or to the intended use of the property which do not apply generally to other properties classified in the same zoning district.

Applicant Response:

The Base station is an existing monopole and Dish proposes to extend the monopole to provide coverage to this part of Newberg. The proposed extension is allowed under Section 6409, notwithstanding any height limit in the City’s zoning code. The City of Newberg is requiring a variance for the height extension as the existing Base Station is 90 feet and exceeds the zone height limit. Crown Castle on behalf of Dish Wireless is submitting for this variance application as required by the City, however the City is required under Section 6409 to approve this application.



1505 Westlake Ave N N
Seattle, WA 98109

Phone:
www.crowncastle.com

(C) That strict or literal interpretation and enforcement of the specified regulation would deprive the applicant of privileges enjoyed by the owners of other properties classified in the same zoning district.

Applicant Response:

The Base station is an existing monopole and Dish proposes to extend the monopole to provide coverage to this part of Newberg. The proposed extension is allowed under Section 6409, notwithstanding any height limit in the City's zoning code. The City of Newberg is requiring a variance for the height extension as the existing Base Station is 90 feet and exceeds the zone height limit. Crown Castle on behalf of Dish Wireless is submitting for this variance application as required by the City, however the City is required under Section 6409 to approve this application.

(D) That the granting of the variance will not constitute a grant of special privilege inconsistent with the limitations on other properties classified in the same zoning district.

Applicant Response:

The Base station is an existing monopole and Dish proposes to extend the monopole to provide coverage to this part of Newberg. The proposed extension is allowed under Section 6409, notwithstanding any height limit in the City's zoning code. The City of Newberg is requiring a variance for the height extension as the existing Base Station is 90 feet and exceeds the zone height limit. Crown Castle on behalf of Dish Wireless is submitting for this variance application as required by the City, however the City is required under Section 6409 to approve this application.

Further, as noted, the Base Station is an existing monopole and approval of an extension to the existing Base Station will not grant a special privilege to the subject property inconsistent with limitations on other properties.

(E) That the granting of the variance will not be detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the vicinity.

Applicant Response:

The subject application for a variance is an EFR, and the proposed tower extension will not be detrimental to the public health, safety or welfare or materially injurious to surrounding properties. The application for a tower extension takes advantage of an existing Base Station to provide additional coverage to the City of Newberg, which is a benefit to the community as an additional Base Station is not required.

Have you met the criteria for a variance? Use these questions to help you determine whether your application meets the above criteria.

1) What code requirement and code section applies to the proposed variance (i.e: setback, lot coverage, height, etc.)?

Applicant Response:

The City of Newberg height limit in the R-1 zone is 48 feet, and a variance was required for the initial installation of the Base Station with a 90-foot height. Under Section 6409, a tower can be extended by the height of an antenna array PLUS separation of 20 feet from the top of the existing antenna on the tower to the bottom of the proposed antenna. The subject application comports with the allowable height extension under Section 6409 and the City of Newberg is required to approve the subject application within the time allocated under the shot clock and without conditions.

2) What is the reason for the variance?

Applicant Response:

The City of Newberg height limit in the R-1 zone is 48 feet, and a variance was required for the initial installation of the Base Station with a 90-foot height. Per the City of Newberg, a variance is required for the tower extension proposed by Dish Wireless, though the subject application must be approved as an EFR under Section 6409.

3) What difficulty or hardship would result from complying with the standard in the code?

Applicant Response:

The existing Base Station is 90 feet in height. The additional height is required for Dish's coverage in Newberg, and, further, the height is allowable under an EFR, which the City must approve under Section 6409.

4) How is your situation unique or exceptional and how is this different from other properties that have the same zoning (i.e: unusual lot shape, steep topography, stream on the property, etc.)?

Applicant Response:

The City of Newberg height limit in the R-1 zone is 48 feet, and a variance was required for the initial installation of the Base Station with a 90-foot height. Per the City of Newberg, a variance is required for the tower extension proposed by Dish Wireless, though the subject application must be approved as an EFR under Section 6409.

5) What type of impacts would granting the variance have on the neighboring properties?

Applicant Response:

The City of Newberg height limit in the R-1 zone is 48 feet, and a variance was required for the initial installation of the Base Station with a 90-foot height. Per the City of Newberg, a variance is required for the tower extension proposed by Dish Wireless, though the subject application must be approved as an EFR under Section 6409.

The additional height would have minimal impact on the neighboring properties; however, this criterion has no impact on the review of the subject application which comports with the requirements of an EFR and must be approved by the City.

6) Are you aware of any concerns previously voiced by the neighbors and if so what are they?

Applicant Response:

We are not aware of any concerns.

7) What can you offer to minimize or mitigate the requested variance (i.e: landscaping, screening, public improvements, etc.)?

Applicant Response:

No mitigation is required for this project. Further, under Section 6409, the City of Newberg cannot condition or deny the subject proposed EFR.

End of analysis



Community Development Department

P.O. Box 970 • 414 E First Street • Newberg, Oregon 97132
503-537-1240. Fax 503-537-1272 www.newbergoregon.gov

WE WANT YOUR COMMENTS ON A PROPOSED NEW DEVELOPMENT IN YOUR NEIGHBORHOOD

A property owner in your neighborhood submitted an application to the City of Newberg requesting a variance to extend an existing monopole by ten (10) feet. You are invited to take part in the City's review of this project by sending in your written comments. You also may request that the Planning Commission hold a hearing on the application. The applicable criteria used to make a decision on this application for a variance is found in Newberg Development Code 15.215.040. For more details about giving comments, please see page 2.

The development would include extending the existing monopole by ten (10) feet to allow Dish Wireless to collocate on the monopole, with Dish's antennas at a tip height of 102 feet. The application is an Eligible Facilities Request as governed by Federal Law under Section 6409.

Applicant: Gary Abrahams for Crown Castle, on behalf of Dish Wireless
Applicant's phone number: 206-349-4279
Tower/Facility owner: Crown Castle
Property Owner: School District No. 29
Location: 2400 Douglas Ave. (a/k/a 1421 Deborah Road), Newberg, OR
Tax Lot Number: R3217-02500



We are mailing you information about this project because you own land within 500 feet of the proposed new project. We invite you to send any written comments for or against the proposal within 14 days from the date this notice is mailed. You also may request that the Newberg Planning Commission hold a hearing on the application by sending a written request during this 14-day period and identifying the issues you would like the Planning Commission to address.

If you mail your comments to the City, please put the following information on the outside of the envelope:

Written Comments: File No. _____
City of Newberg
Community Development
PO Box 970
Newberg, OR 97132

All written comments must be turned in by 4:30 p.m. on _____. Any issue which might be raised in an appeal of this case to the Land Use Board of Appeals (LUBA) must be submitted to the City in writing before this date. You must include enough detail to enable the decision maker an opportunity to respond. The applicable criteria used to make a decision on this application for a variance is found in Newberg Development Code 15.215.040.

You can look over all the information about this project or drop comments off at Newberg City Hall, 414 E. First Street. You can also buy copies of the information for a cost of 25 cents a page. If you have any questions about the project, you can call the Newberg Planning Division at 503-537-1240.

The Community Development Director will make a decision at the end of a 14-day comment period. If you send in written comments about this project, you will be sent information about any decision made by the City relating to this project.

Date Mailed: _____



Community Development Department

P.O. Box 970 ▪ 414 E First Street ▪ Newberg, Oregon 97132
503-537-1240. Fax 503-537-1272 www.newbergoregon.gov

WE WANT YOUR COMMENTS ON A PROPOSED NEW DEVELOPMENT IN YOUR NEIGHBORHOOD

A property owner in your neighborhood submitted an application to the City of Newberg requesting a variance to extend an existing monopole by ten (10) feet. You are invited to take part in the City's review of this project by sending in your written comments. The applicable criteria used to make a decision on this application for a variance is found in Newberg Development Code 15.215.040.

For more details about giving comments, please see page 2.

The development would include extending the existing monopole by ten (10) feet to allow Dish Wireless to collocate on the monopole, with Dish's antennas at a tip height of 102 feet. The application is an Eligible Facilities Request as governed by Federal Law under Section 6409.

Applicant: Gary Abrahams for Crown Castle, on behalf of Dish Wireless
Applicant's phone number: 206-349-4279
Tower/Facility owner: Crown Castle
Property Owner: School District No. 29
Location: 2400 Douglas Ave. (a/k/a 1421 Deborah Road), Newberg, OR
Tax Lot Number: R3217-02500



We are mailing you information about this project because you own land within 500 feet of the proposed new project. We invite you to send any written comments for or against the proposal within 14 days from the date this notice is mailed.

If you mail your comments to the City, please put the following information on the outside of the envelope:

Written Comments: File No: VAR22-0004 / MIMD 122-0001

City of Newberg
Community Development
PO Box 970
Newberg, OR 97132

December 22, 2022

All written comments must be turned in by 4:30 p.m. on ~~December 2, 2022~~. Any issue which might be raised in an appeal of this case to the Land Use Board of Appeals (LUBA) must be submitted to the City in writing before this date. You must include enough detail to enable the decision maker an opportunity to respond. The applicable criteria used to make a decision on this application for a variance is found in Newberg Development Code 15.215.040.

You can look over all the information about this project or drop comments off at Newberg City Hall, 414 E. First Street. You can also buy copies of the information for a cost of 25 cents a page. If you have any questions about the project, you can call the Newberg Planning Division at 503-537-1240.

The Community Development Director will make a decision at the end of a 14-day comment period. If you send in written comments about this project, you will be sent information about any decision made by the City relating to this project.

Date Mailed: December 9, 2022

LAND USE NOTICE

FILE #VAR22-0004/MIMD122-0001

PROPOSAL: Extend an existing monopole by ten (10) feet to 100 feet, with proposed antennas to extend to 102 feet in height.

FOR FURTHER INFORMATION, CONTACT:

CITY OF NEWBERG

COMMUNITY DEVELOPMENT DEPARTMENT

414 E FIRST STREET

NEWBERG, OR 97132

PHONE: 503-537-1240

**CITY OF NEWBERG
AFFIDAVIT OF NOTICING**

REFERENCE ATTACHED LIST(S)/NOTICE(S)

I, GARY ABRAHAMSON, do hereby certify that the attached Notice of Land Use Action was:

- a) mailed to the following list of property owners, by United States mail, postage prepaid on 12/9/2022; (date)
- b) posted on the site according to standards established in Newberg Development Code §15.100.260 on SEE ATTACHED. (date)

I acknowledge that failure to mail the notice in a timely manner constitutes an agreement by the applicant to defer the 120-day process limit and acknowledge that failure to mail will result in the automatic postponement of a decision on the application 15.100.210.(D)(2) 12/31/22. (date)

[Signature] _____
Signature Date

GARY ABRAHAMSON
Print name

CITY OF NEWBERG
AFFIDAVIT OF NOTICING

REFERENCE ATTACHED LIST(S)/NOTICE(S)

I, Adam Lampley, do hereby certify that the attached Notice of Land Use Action was:

- a) mailed to the following list of property owners, by United States mail, postage prepaid on _____; (date)
- b) posted on the site according to standards established in Newberg Development Code §15.100.260 on 12-9-22. (date)

I acknowledge that failure to mail the notice in a timely manner constitutes an agreement by the applicant to defer the 120-day process limit and acknowledge that failure to mail will result in the automatic postponement of a decision on the application 15.100.210.(D)(2) 10/31/22. (date)

Adam Lampley member
 Signature Date
12-9-22
 Chehalem sign company
Adam Lampley
 Print name

ARLEN & ELAINE BENSON
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 11
NEWBERG OR 97132

MARIA URIBE
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 1
NEWBERG OR 97132

KENNETH & RUBY LAWSON
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD 10
NEWBERG OR 97132

JUDITH & CHARLES CARSLY
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 16
NEWBERG OR 97132

LINDA GARRITY
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 26
NEWBERG OR 97132

HERMOSILLO GERMAN
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD 21
NEWBERG OR 97132

ROBERT & SHERRE FERRALL
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 38
NEWBERG OR 97132

IGNACIA CORREA & RUBI
RODRIGUEZ-ALEJANDRO
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 19
NEWBERG OR 97132

JEAN WITTROCK & JOHN GRAHAM
SR
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 35
NEWBERG OR 97132

PATRICIA BERGER
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 33
NEWBERG OR 97132

LAURA JIMENEZ & RAFAEL
GUTIERREZ
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 14
NEWBERG OR 97132

JENIFER LEON-AGUILERA
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 44
NEWBERG OR 97132

JUAN MENDOZA-ARREOLA &
NANCY MORA-PUGA
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 24
NEWBERG OR 97132

MELANIE ONEIL
OR CURRENT RESIDENT
ATTN: VINCENT ONEIL
GUERNEVILLE CA 95446

MICHAL MOORE
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 39
NEWBERG OR 97132

PAMELA STEVAHN
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 25
NEWBERG OR 97132

CARLOS PINTOR & BEATRIZ
ABREGO
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 41
NEWBERG OR 97132

CARMEN BARRON-SOTELO
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 13
NEWBERG OR 97132

JUAN MANUEL & GABRIELA
AGUILERA
OR CURRENT RESIDENT
707 MARIE AVE
NEWBERG OR 97132

VERNOLD STEVAHN SR &
BARBARA STEVAHN
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 47
NEWBERG OR 97132

MARIA URIBE
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 42
NEWBERG OR 97132

KAREN CEDERQUIST
OR CURRENT RESIDENT
280 SW 10TH AVE
CANBY OR 97013

MARTHA MARSHALL
OR CURRENT RESIDENT
ATTN: MEYERS MARTHA
NEWBERG OR 97132

PANFILO GAMBOA
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 45
NEWBERG OR 97132

JOSE & PEDRO ESCOBEDO
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 9
NEWBERG OR 97132

JOAQUIN RAMIREZ-ALDACO
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD 4
NEWBERG OR 97132

CONNIE LINTHICUM
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 40
NEWBERG OR 97132

SHARON GSTETTENBAUER
OR CURRENT RESIDENT
1907 CAROL AVE
NEWBERG OR 97132

JUDY DURKEE
OR CURRENT RESIDENT
1911 CAROL AVE
NEWBERG OR 97132

JOHN PASSAGLIA & DEBORAH
GRIFFIN-PASSAGLIA
OR CURRENT RESIDENT
17354 SW BRANDYSHIRE CT
PORTLAND OR 97224

AYDELOTTE BEVERLY TRUSTEE
FOR
OR CURRENT RESIDENT
1920 CAROL AVE
NEWBERG OR 97132

BRIAN & MICHELLE REIMER
OR CURRENT RESIDENT
3006 DOUGLAS AVE
NEWBERG OR 97132

ERIN FRIES
OR CURRENT RESIDENT
3004 LINDQUIST CT
NEWBERG OR 97132

DON & ELSIE CLEMENTS
OR CURRENT RESIDENT
3005 LINDQUIST CT
NEWBERG OR 97132

HEATHER HETZLER
OR CURRENT RESIDENT
3955 NE WINTERS HILL RD
DAYTON OR 97114

LINDSAY & JEREMY HAYDEN
OR CURRENT RESIDENT
3000 LINDQUIST CT
NEWBERG OR 97132

VALERIE NELSON
OR CURRENT RESIDENT
1618 CEDAR ST
NEWBERG OR 97132

BRANDON CASE
OR CURRENT RESIDENT
1614 CEDAR ST
NEWBERG OR 97132

NICHOLAS PELOQUIN
OR CURRENT RESIDENT
1610 CEDAR ST
NEWBERG OR 97132

CERESS SANDERS & SAMUEL
SANDERS JR
OR CURRENT RESIDENT
1613 CEDAR ST
NEWBERG OR 97132

CLAUDIA GARCIA & REYBEL
HERRERA
OR CURRENT RESIDENT
1617 CEDAR ST
NEWBERG OR 97132

RAMZI SADEK & SARAH
BEHREND
OR CURRENT RESIDENT
1621 CEDAR ST
NEWBERG OR 97132

PLATT FAMILY TRUST
OR CURRENT RESIDENT
1701 CEDAR ST
NEWBERG OR 97132

CRAIG & LISA REDDING
OR CURRENT RESIDENT
1705 CEDAR ST
NEWBERG OR 97132

JUSTIN & MELISSA POSEY
OR CURRENT RESIDENT
1709 CEDAR ST
NEWBERG OR 97132

FENNELL, ROBERT P TRUSTEE
OR CURRENT RESIDENT
1713 CEDAR ST
NEWBERG OR 97132

CYNTHIA REYES & ORANTES
SALAZAR
OR CURRENT RESIDENT
1717 CEDAR ST
NEWBERG OR 97132

JOSHUA DONDINO
OR CURRENT RESIDENT
1721 CEDAR ST
NEWBERG OR 97132

COBY & STEPHANY COBLENTZ
OR CURRENT RESIDENT
1725 CEDAR ST
NEWBERG OR 97132

LINDSEY & ROBERT HANKINS
OR CURRENT RESIDENT
1524 HESS CREEK CT
NEWBERG OR 97132

JAMES & DANIELLE RINGSETH
OR CURRENT RESIDENT
1528 HESS CREEK CT
NEWBERG OR 97132

AZALEA GARDENS MOBILE
MANOR LLC
OR CURRENT RESIDENT
PO BOX 17
GUERNEVILLE CA 95446

AZALEA GARDENS MOBILE
MANOR LLC
OR CURRENT RESIDENT
PO BOX 17
GUERNEVILLE CA 95446

CHURCH OF JESUS CHRIST OF
LATTER DAY SAINTS
OR CURRENT RESIDENT
50 E NOTH TEMPLE ST
SALT LAKE CITY UT 84150

GARY & MARY RUFF
OR CURRENT RESIDENT
2908 CRESTVIEW DR
NEWBERG OR 97132

MARILYN FISHER & DAVID ADERS
OR CURRENT RESIDENT
3002 CRESTVIEW DR
NEWBERG OR 97132

JUDY & DONALD HOCHSTEIN
OR CURRENT RESIDENT
2912 CRESTVIEW DR
NEWBERG OR 97132

KEITH & MOLLY MARSHALL
OR CURRENT RESIDENT
2909 DOUGLAS AVE
NEWBERG OR 97132

SCOTT & DIANE PINE
OR CURRENT RESIDENT
2913 DOUGLAS AVE
NEWBERG OR 97132

NICOLAS GERHARD
OR CURRENT RESIDENT
1801 N CEDAR ST
NEWBERG OR 97132

JORY SMITH & BRANDI
SCHMELING
OR CURRENT RESIDENT
1805 CEDAR ST
NEWBERG OR 97132

CONSTANCE JONES & BENJAMIN
TEXLEY
OR CURRENT RESIDENT
1809 CEDAR ST
NEWBERG OR 97132

CHRISTOPHER & NICHOLE
GIEBER
OR CURRENT RESIDENT
1901 CEDAR ST
NEWBERG OR 97132

DAVID & SHANNA ANDRES
OR CURRENT RESIDENT
1905 CEDAR ST
NEWBERG OR 97132

JOHN & LAURIE LIEGGI
OR CURRENT RESIDENT
1909 CEDAR ST
NEWBERG OR 97132

CHRISTOPHER & JANA FERRIS
OR CURRENT RESIDENT
1913 CEDAR ST
NEWBERG OR 97132

DENNY MCDONALD SR & CYNTHIA
MCDONALD
OR CURRENT RESIDENT
3001 DOGWOOD AVE
NEWBERG OR 97132

K & J REAL ESTATE LLC
OR CURRENT RESIDENT
ATTN: AUSTIN INDUSTRIES
NEWBERG OR 97132

DAVID & MARY STROUP
OR CURRENT RESIDENT
1904 CEDAR ST
NEWBERG OR 97132

ADAM ZABINSKI & SHELIA
JANUARY
OR CURRENT RESIDENT
1900 CEDAR ST
NEWBERG OR 97132

MEGHAN OLOUGHLIN
OR CURRENT RESIDENT
3005 MIDDLEBROOK DR
NEWBERG OR 97132

GERARDO ALFARO
OR CURRENT RESIDENT
3006 MIDDLEBROOK DR
NEWBERG OR 97132

JORDAN HUME & ANGELA AASEN
OR CURRENT RESIDENT
3000 MIDDLEBROOK DR
NEWBERG OR 97132

CHRISTOPHER MANN & KRISTEN
HODGE
OR CURRENT RESIDENT
1800 N CEDAR ST
NEWBERG OR 97132

BARBARA MINOR
OR CURRENT RESIDENT
2910 DOUGLAS AVE
NEWBERG OR 97132

GUY WITCRAFT
OR CURRENT RESIDENT
3094 CAMAS ST
WOODBURN OR 97071

DEBORAH COURT ASSOC OR LTD
OR CURRENT RESIDENT
ATTN: VIRIDIAN MANAGEMENT
ENTERPRISE OR 97828

SPRINGBROOK APTS LLC
OR CURRENT RESIDENT
3811 SW BARBUR BLVD
PORTLAND OR 97239

ANDY TRUMBO
OR CURRENT RESIDENT
17880 NE HILLSBORO HWY
NEWBERG OR 97132

K & J REAL ESTATE LLC
OR CURRENT RESIDENT
ATTN: MARV NELSON
NEWBERG OR 97132

AUSTIN, G KENNETH III TRUSTEE
OR CURRENT RESIDENT
2601 CRESTVIEW DR
NEWBERG OR 97132

HAZELDEN SPRINGBROOK INC
OR CURRENT RESIDENT
ATTN: HAZELDEN
FOUNDATION/CHIEF FIN OFF
CENTER CITY MN 55012

HAZELDEN SPRINGBROOK INC
OR CURRENT RESIDENT
ATTN: HAZELDEN
FOUNDATION/CHIEF FIN OFF
CENTER CITY MN 55012

KENNETH & DANYA OCHSNER
OR CURRENT RESIDENT
1821 ANN CT
NEWBERG OR 97132

MARIA HASS & THOMAS
FUHRMANN
OR CURRENT RESIDENT
1810 N EMERY DR
NEWBERG OR 97132

DANIEL & SARA ALLEGRE
OR CURRENT RESIDENT
1821 WAREHAM LN
NEWBERG OR 97132

STEVE ASHBY & PATRICIA
CONNER
OR CURRENT RESIDENT
2900 CRESTVIEW DR
NEWBERG OR 97132

JASON & LISA BULL
OR CURRENT RESIDENT
1918 N EMERY DR
NEWBERG OR 97132

YORDI ROSARIO & EDITH MARIA
OR CURRENT RESIDENT
2808 CRESTVIEW DR
NEWBERG OR 97132

KEVIN & DENISE BROOKS
OR CURRENT RESIDENT
2008 N EMERY DR
NEWBERG OR 97132

MARILYN WRIGHT & KENNETH
WHITE
OR CURRENT RESIDENT
2812 CRESTVIEW DR
NEWBERG OR 97132

HEAD START OF YAMHILL
COUNTY INC
OR CURRENT RESIDENT
ATTN: MICHAEL EICHMAN
MCMINNVILLE OR 97128

HEAD START OF YAMHILL
COUNTY INC
OR CURRENT RESIDENT
ATTN: MICHAEL EICHMAN
MCMINNVILLE OR 97128

J
OR CURRENT RESIDENT
478 17TH ST
SANTA MONICA CA 90402

J
OR CURRENT RESIDENT
478 17TH ST
SANTA MONICA CA 90402

J
OR CURRENT RESIDENT
478 17TH ST
SANTA MONICA CA 90402

J
OR CURRENT RESIDENT
478 17TH ST
SANTA MONICA CA 90402

J
OR CURRENT RESIDENT
478 17TH ST
SANTA MONICA CA 90402

J
OR CURRENT RESIDENT
478 17TH ST
SANTA MONICA CA 90402

ANTONIO SOLORZANO
OR CURRENT RESIDENT
1210 N ELLIOTT RD
NEWBERG OR 97132

CHURCH OF CHRIST
OR CURRENT RESIDENT
2503 HAWORTH AVE
NEWBERG OR 97132

NORMAN & STEFFANIE WOOLEN
OR CURRENT RESIDENT
1705 GEMINI LN
NEWBERG OR 97132

ROBERT & SHARON SIMPSON
OR CURRENT RESIDENT
1204 N ELLIOTT RD
NEWBERG OR 97132

DEVIN & REGINA BYNON
OR CURRENT RESIDENT
1202 ELLIOTT RD
NEWBERG OR 97132

CHURCH OF CHRIST
OR CURRENT RESIDENT
2503 HAWORTH AVE
NEWBERG OR 97132

FIRST UNITED METHODIST
CHURCH
OR CURRENT RESIDENT
1205 DEBORAH RD
NEWBERG OR 97132

SCHOOL DISTRICT NO 29
OR CURRENT RESIDENT
714 E 6TH ST
NEWBERG OR 97132

THOMAS & TERESA MARSHALL
OR CURRENT RESIDENT
2409 HAWTHORNE DR
NEWBERG OR 97132

WADE & AUDREY LUSBY
OR CURRENT RESIDENT
2405 HAWTHORNE DR
NEWBERG OR 97132

ROBERT & LOUELLA VAN NAME
OR CURRENT RESIDENT
2401 HAWTHORNE DR
NEWBERG OR 97132

LISA BUCKLEY
OR CURRENT RESIDENT
2307 HAWTHORNE DR
NEWBERG OR 97132

VICKI KLEIN
OR CURRENT RESIDENT
2305 HAWTHORNE DR
NEWBERG OR 97132

MATTHEW GRANT
OR CURRENT RESIDENT
1103 NE BURKE PL
CORVALLIS OR 97330

SHANE & VICTORIA DURANDO
OR CURRENT RESIDENT
1300 SITKA AVE
NEWBERG OR 97132

RALPH & ROBERTA OSBURN
OR CURRENT RESIDENT
2300 HAWTHORNE DR
NEWBERG OR 97132

DANIEL & MARY SPERLING
OR CURRENT RESIDENT
31751 NE WILSONVILLE RD
NEWBERG OR 97132

CAITLIN & SAMUEL HOCKETT
OR CURRENT RESIDENT
2304 E HAWTHORNE DR
NEWBERG OR 97132

JEFF & DEBORAH SALO
OR CURRENT RESIDENT
2308 HAWTHORNE DR
NEWBERG OR 97132

JAMES & BRENDA SLAGLE
OR CURRENT RESIDENT
2400 HAWTHORNE DR
NEWBERG OR 97132

JAMES ROBINSON & LINDSAY
ROLLINS
OR CURRENT RESIDENT
2404 HAWTHORNE DR
NEWBERG OR 97132

NATHALIE KWIESELEWICZ
OR CURRENT RESIDENT
1209 N ELLIOTT RD
NEWBERG OR 97132

THOMAS & WANDA SPENCER
OR CURRENT RESIDENT
1207 ELLIOTT RD
NEWBERG OR 97132

JEFFREY & CONTONA VAN
BERGEN
OR CURRENT RESIDENT
1205 N ELLIOTT RD
NEWBERG OR 97132

SHAUN & KARRIE MULCAHY
OR CURRENT RESIDENT
1203 N ELLIOTT RD
NEWBERG OR 97132

GARY & CHERI REDWINE
OR CURRENT RESIDENT
2409 WILLOW DR
NEWBERG OR 97132

RYAN & AMANDA WILMOT
OR CURRENT RESIDENT
1200 ELM LN
NEWBERG OR 97132

BETTY WILSON
OR CURRENT RESIDENT
1202 ELM LN
NEWBERG OR 97132

WILLIAM & TRACEY LONG
OR CURRENT RESIDENT
1204 ELM LN
NEWBERG OR 97132

HENRY & ELIZABETH ENGLISH
OR CURRENT RESIDENT
1206 ELM LN
NEWBERG OR 97132

DEREK GITTS
OR CURRENT RESIDENT
1205 ELM LN
NEWBERG OR 97132

MAX BRUENING & ALEXANDRA
MICHELIN
OR CURRENT RESIDENT
1203 N ELM LN
NEWBERG OR 97132

RICK & CATHERINE WYATT
OR CURRENT RESIDENT
1201 ELM LN
NEWBERG OR 97132

WILLIAM & LAURA ALSTON
OR CURRENT RESIDENT
2301 WILLOW DR
NEWBERG OR 97132

ROBERT & CHRISTIBEL LAUINGER
OR CURRENT RESIDENT
2213 WILLOW DR
NEWBERG OR 97132

BARBARA NOLAND
OR CURRENT RESIDENT
2209 WILLOW DR
NEWBERG OR 97132

CHRISTINA GROSS
OR CURRENT RESIDENT
24337 LOWER PLEASANT RIDGE
RD
WILDER ID 83676

CLAYTON & DARLENE DAWSON
OR CURRENT RESIDENT
1206 SITKA AVE
NEWBERG OR 97132

STACIE ENGLUND & JESSICA
PIERCE
OR CURRENT RESIDENT
1210 SITKA AVE
NEWBERG OR 97132

SANDRA PREWITT
OR CURRENT RESIDENT
2300 E ALDER LN
NEWBERG OR 97132

PATTY BRYANT
OR CURRENT RESIDENT
2302 ALDER LN
NEWBERG OR 97132

REID & BRONTE HORNBERGER
OR CURRENT RESIDENT
2304 E ALDER LN
NEWBERG OR 97132

HILDA HEAD
OR CURRENT RESIDENT
2305 ALDER LN
NEWBERG OR 97132

SHELLY CARSON & SHIRLEY
FODGE
OR CURRENT RESIDENT
2301 ALDER LN
NEWBERG OR 97132

ELMER & BRENDA WOOLDRIDGE
OR CURRENT RESIDENT
2408 WILLOW DR
NEWBERG OR 97132

MILTON CASH III & DEBORA CASH
OR CURRENT RESIDENT
1822 ANN CT
NEWBERG OR 97132

SCOTT & MEGAN DIEFENBAUGH
OR CURRENT RESIDENT
2019 CAROL AVE
NEWBERG OR 97132

DOUGLAS VONDRACHEK
OR CURRENT RESIDENT
1824 ANN CT
NEWBERG OR 97132

STEPHEN & ANNA ASHBY
OR CURRENT RESIDENT
1826 ANN CT
NEWBERG OR 97132

JAMES & LORISSA DAVIES
OR CURRENT RESIDENT
1828 ANN CT
NEWBERG OR 97132

MCKENNA CHRISTIAN & ANDREW
FLEMING
OR CURRENT RESIDENT
2001 CAROL AVE
NEWBERG OR 97132

BOBBY CLARK
OR CURRENT RESIDENT
2007 CAROL AVE
NEWBERG OR 97132

MICHAEL VALLERY
OR CURRENT RESIDENT
2015 N CAROL AVE
NEWBERG OR 97132

THOMAS & SHANNON MEAD
OR CURRENT RESIDENT
2025 CAROL AVE
NEWBERG OR 97132

JAY & TRACY GRIMSTAD
OR CURRENT RESIDENT
2028 CAROL AVE
NEWBERG OR 97132

SEAN & AMANDA FIELD
OR CURRENT RESIDENT
2024 CAROL AVE
NEWBERG OR 97132

JEREMIAH & ARIEL DAVIS
OR CURRENT RESIDENT
2020 CAROL AVE
NEWBERG OR 97132

JOHN & KATHERINE MURPHY
OR CURRENT RESIDENT
12875 NE DUDLEY RD
NEWBERG OR 97132

LEONARDO & LORETTA ROMERO
OR CURRENT RESIDENT
2012 CAROL AVE
NEWBERG OR 97132

SARAH WAIGHT & BRYANT HAYES
OR CURRENT RESIDENT
2008 CAROL AVE
NEWBERG OR 97132

JAMES DAVIS
OR CURRENT RESIDENT
2004 CAROL AVE
NEWBERG OR 97132

RANDAL & JANELLE NORDYKE
OR CURRENT RESIDENT
2000 CAROL AVE
NEWBERG OR 97132

BRADLEY & ANNE BEALS
OR CURRENT RESIDENT
1930 CAROL AVE
NEWBERG OR 97132

DAVID RIGHTMIRE & LYDIA
SCHRAMM
OR CURRENT RESIDENT
1912 CAROL ANN DR
NEWBERG OR 97132

JOHN & AMY NATZKE
OR CURRENT RESIDENT
1900 CAROL ANN DR
NEWBERG OR 97132

CHAD NUTTER
OR CURRENT RESIDENT
1826 E CAROL ANN DR
NEWBERG OR 97132

MEREDITH ROYBAL
OR CURRENT RESIDENT
1813 ANN CT
NEWBERG OR 97132

BRENT & TABATHA WEAVER
OR CURRENT RESIDENT
1815 ANN CT
NEWBERG OR 97132

KIMRA PEFFERS
OR CURRENT RESIDENT
17302 SW GREENGATE DR
SHERWOOD OR 97140

RACHEL BREWSTER
OR CURRENT RESIDENT
1819 ANN CT
NEWBERG OR 97132

ROHR REV TRUST
OR CURRENT RESIDENT
410 N COLLEGE ST
NEWBERG OR 97132

SETH & KRISTIN ANDERSON
OR CURRENT RESIDENT
2008 HAWTHORNE DR
NEWBERG OR 97132

ROBERT & JUDITH RECORDS
OR CURRENT RESIDENT
2009 HAWTHORNE LOOP
NEWBERG OR 97132

BRIAN & LINDA MITCHELL
OR CURRENT RESIDENT
1203 SITKA AVE
NEWBERG OR 97132

CORRINE RICE
OR CURRENT RESIDENT
1205 SITKA AVE
NEWBERG OR 97132

LUCIA DE GARCIA
OR CURRENT RESIDENT
1209 SITKA AVE
NEWBERG OR 97132

DAWN & JOSEPH PETERSON
OR CURRENT RESIDENT
1211 N SITKA AVE
NEWBERG OR 97132

JUAN ABREGO & ELVIRA VARGAS
OR CURRENT RESIDENT
2206 HAWTHORNE LP
NEWBERG OR 97132

WALL FAMILY TRUST
OR CURRENT RESIDENT
2205 HAWTHORNE LOOP
NEWBERG OR 97132

JOURNEY LIVING TRUST
OR CURRENT RESIDENT
4281 TWIN OAKS AVE NE
ST PAUL OR 97137

COUNCIL JEFFREY A
OR CURRENT RESIDENT
2201 HAWTHORNE LP
NEWBERG OR 97132

JEFFRY & JANET BORG
OR CURRENT RESIDENT
22220 NE FRYER HILL RD
DUNDEE OR 97115

BYRON & SANDRA VOSS
OR CURRENT RESIDENT
1205 HAWTHORNE LOOP
NEWBERG OR 97132

FRANCISCO CAMPUZANO-ANGEL
& MARIA CAMPUZANO
OR CURRENT RESIDENT
2001 BIRCH LN
NEWBERG OR 97132

MUTHIAH RICHARD N TRUSTEE
OR CURRENT RESIDENT
1907 BIRCH LN
NEWBERG OR 97132

GTR LLC
OR CURRENT RESIDENT
ATTN: MARV NELSON
NEWBERG OR 97132

DARRYL BROWN
OR CURRENT RESIDENT
1905 BIRCH LN
NEWBERG OR 97132

PAUL & PRISCILLA STURGES
OR CURRENT RESIDENT
1906 BIRCH LN
NEWBERG OR 97132

MATHER RICHARD G & NANCY J
TRUSTEES FOR
OR CURRENT RESIDENT
1203 HAWTHORNE LP
NEWBERG OR 97132

MATHER RICHARD G & NANCY J
TRUSTEES FOR
OR CURRENT RESIDENT
1203 HAWTHORNE LP
NEWBERG OR 97132

KELLY & PEGGY JOHNSON
OR CURRENT RESIDENT
1201 HAWTHORNE LOOP
NEWBERG OR 97132

GRIFFEN KAREN K & PHILIP J CO-
TRUSTEES
OR CURRENT RESIDENT
2004 HAWTHORNE LP
NEWBERG OR 97132

GREGG & SANDI WAALKES
OR CURRENT RESIDENT
2006 HAWTHORNE LOOP
NEWBERG OR 97132

CARLEEN JACKSON
OR CURRENT RESIDENT
1200 HAWTHORNE LP
NEWBERG OR 97132

CHRISTOPHER & KENDALL
EKERSON
OR CURRENT RESIDENT
1202 HAWTHORNE LOOP
NEWBERG OR 97132

STEVEN & JACQUELINE TOPF
OR CURRENT RESIDENT
1204 HAWTHORNE LOOP
NEWBERG OR 97132

BRIAN & COURTNEY JOURNEY
OR CURRENT RESIDENT
2204 HAWTHORNE LP
NEWBERG OR 97132

COSIER GORDON H & APRIL L
TRUSTEES FOR
OR CURRENT RESIDENT
26755 SW MARKHAVEN ST
SHERWOOD OR 97140

RONALD & TAMMI GARDNER
OR CURRENT RESIDENT
2801 HAWORTH AVE
NEWBERG OR 97132

ANGELA BOURNE
OR CURRENT RESIDENT
2781 NW PINOT NOIR DR
MCMINNVILLE OR 97128

JENNA HOLMES
OR CURRENT RESIDENT
2713 HAWORTH AVE
NEWBERG OR 97132

ANDREW CUDDEFORD & DESTINY
JOHNSTON
OR CURRENT RESIDENT
2709 HAWORTH AVE
NEWBERG OR 97132

MERLE & DANA AMES
OR CURRENT RESIDENT
2705 HAWORTH AVE
NEWBERG OR 97132

JOSE ELIAS
OR CURRENT RESIDENT
2701 HAWORTH AVE
NEWBERG OR 97132

HERRON DAVE & JANET LIVING
TRUST
OR CURRENT RESIDENT
2605 HAWORTH AVE
NEWBERG OR 97132

LAVERA MCCORD
OR CURRENT RESIDENT
2601 HAWORTH AVE
NEWBERG OR 97132

SCHOOL DISTRICT NO 29
OR CURRENT RESIDENT
714 E 6TH ST
NEWBERG OR 97132

JORGE JIMENEZ & SILVIA
ESCODEDO
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 8
NEWBERG OR 97132

MICHAEL WATSON
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 43
NEWBERG OR 97132

PAULA SCHROEDER
OR CURRENT RESIDENT
1812 N EMERY DR
NEWBERG OR 97132

STEVENS JOANNE M TRUSTEE
FOR
OR CURRENT RESIDENT
2715 E DOUGLAS AVE
NEWBERG OR 97132

LISA BLACKBURN
OR CURRENT RESIDENT
1808 N EMERY DR
NEWBERG OR 97132

STEVENS, JO ANNE M TRUSTEE
OR CURRENT RESIDENT
2715 E DOUGLAS AVE
NEWBERG OR 97132

JOSE LUNA & PATRICIA VARGAS
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 52
NEWBERG OR 97132

ELLEN FINLEY
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 53
NEWBERG OR 97132

JUAN CRISANTO-RODRIGUEZ
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 51
NEWBERG OR 97132

TRINIDAD & SHANNON BENITO-
MENDEZ
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 3
NEWBERG OR 97132

LEON & TAMARA WOLF
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 12
NEWBERG OR 97132

MORALES MARTINEZ &
FLORENCIA CASTRO
OR CURRENT RESIDENT
704 N ELLIOTT RD NO 3
NEWBERG OR 97132

MIRANDA RADILLA
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 5
NEWBERG OR 97132

JEROMY & ANGELA MILLER
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 46
NEWBERG OR 97132

PIROS FAMILY TRUST
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD 50
NEWBERG OR 97132

HUGO FERNANDEZ-VILLARREAL
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 48
NEWBERG OR 97132

JANINE FERRALL
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 34
NEWBERG OR 97132

DANIEL SEELYE
OR CURRENT RESIDENT
PO BOX 964
NEWBERG OR 97132

ANDREW BONNEVILLE
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 17
NEWBERG OR 97132

CESAR & MICHELLE MARES
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 24
NEWBERG OR 97132

TERRY & CYNTHIA BRUCE
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 7
NEWBERG OR 97132

ANGELA LINDERMAN
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD 37
NEWBERG OR 97132

DANIEL & DANIELLE EMERSON
OR CURRENT RESIDENT
1900 N EMERY DR
NEWBERG OR 97132

LAURA WAGNER
OR CURRENT RESIDENT
1906 EMERY DR
NEWBERG OR 97132

DE ESTRADA & PEDRO REYES-
CAMPUZANO
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 30
NEWBERG OR 97132

JACK & ALLISON KING
OR CURRENT RESIDENT
1912 N EMERY DR
NEWBERG OR 97132

ANTHONY & ANNE
MILDENBERGER
OR CURRENT RESIDENT
1930 N EMERY DR
NEWBERG OR 97132

LINDA POTTER
OR CURRENT RESIDENT
2000 N EMERY DR
NEWBERG OR 97132

JERRY & KAREN NEMEC
OR CURRENT RESIDENT
1920 N EMERY DR
NEWBERG OR 97132

JENNIFER RICKS & CHARLES
RICKS II
OR CURRENT RESIDENT
1924 N EMERY DR
NEWBERG OR 97132

MARY BENSON
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 6
NEWBERG OR 97132

KENNETH & JOHANNA SEPEDA
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 20
NEWBERG OR 97132

WILLIAM SCHMIDT
OR CURRENT RESIDENT
11670 NE JOHNSON RD
CARLTON OR 97111

RESIDENTIAL CARE HOMES LLC
OR CURRENT RESIDENT
210 SE 4TH AVE
HILLSBORO OR 97123

DEANNA RICE
OR CURRENT RESIDENT
1905 WAREHAM LN
NEWBERG OR 97132

ERIC & JUDITH MILLER
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 23
NEWBERG OR 97132

ALEXIS & JAMES BRITTAIN
OR CURRENT RESIDENT
1819 N WAREHAM LN
NEWBERG OR 97132

CATHERINE HILL
OR CURRENT RESIDENT
2901 DOUGLAS AVE
NEWBERG OR 97132

MICHAEL GUTIERREZ
OR CURRENT RESIDENT
3411 HAYES ST APT 724
NEWBERG OR 97132

JADEN SHEFFEY
OR CURRENT RESIDENT
2908 DOUGLAS AVE
NEWBERG OR 97132

MARCIA LEBLANC
OR CURRENT RESIDENT
1610 DEBORAH RD
NEWBERG OR 97132

MARISSA COMELLA
OR CURRENT RESIDENT
1608 DEBORAH RD
NEWBERG OR 97132

JESSICA QUILLEN
OR CURRENT RESIDENT
1606 DEBORAH RD
NEWBERG OR 97132

DANIEL & NANCY GOMEZ
OR CURRENT RESIDENT
1604B DEBORAH RD
NEWBERG OR 97132

BRYAN & TERRI STEWART
OR CURRENT RESIDENT
1604 DEBORAH RD NO A
NEWBERG OR 97132

MARTHA KNAPP
OR CURRENT RESIDENT
1602 DEBORAH RD UNIT E
NEWBERG OR 97132

NICHOLAS OLINGER & LORI
BROUILLETTE
OR CURRENT RESIDENT
1602 DEBORAH RD UNIT D
NEWBERG OR 97132

KATY & ANTHONY HEIL
OR CURRENT RESIDENT
1602 DEBORAH RD APT C
NEWBERG OR 97132

HILL MACKEY W & ROSA T
TRUSTEES FOR
OR CURRENT RESIDENT
1602-B DEBORAH RD
NEWBERG OR 97132

JUDY GILLUM
OR CURRENT RESIDENT
33240 N CAT HILLS AVE
QUEEN CREEK AZ 85142

MYRNA LIEBENOW
OR CURRENT RESIDENT
1510 N DEBORAH RD UNIT 3
NEWBERG OR 97132

JAMES & MAGGIE POLAND
OR CURRENT RESIDENT
1510 DEBORAH RD UNIT 1
NEWBERG OR 97132

ANTONIO ESPERON & FELICITAS
MARTINEZ
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 27
NEWBERG OR 97132

STEPHANIE KEGLEY
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 18
NEWBERG OR 97132

JOHN & ALICE PAYNE
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 29
NEWBERG OR 97132

MICHAEL CILLO
OR CURRENT RESIDENT
1103 N SPRINGBROOK RD NO 15
NEWBERG OR 97132

VALLEY VINEYARD
OR CURRENT RESIDENT
1871 KILKENNY DR
LAKE OSWEGO OR 97034

ALLISON PROPERTIES LLC
OR CURRENT RESIDENT
3113 CRESTVIEW DR
NEWBERG OR 97132

ALLISON PROPERTIES LLC
OR CURRENT RESIDENT
3113 CRESTVIEW DR
NEWBERG OR 97132

LAND USE NOTICE

FILE # _____

PROPOSAL: Extend an existing monopole by ten (10) feet to 100 feet, with proposed antennas to extend to 102 feet in height.

FOR FURTHER INFORMATION, CONTACT:

CITY OF NEWBERG

COMMUNITY DEVELOPMENT DEPARTMENT

414 E FIRST STREET

NEWBERG, OR 97132

PHONE: 503-537-1240



DISH Wireless L.L.C. SITE ID:

PRPDX00328B

DISH Wireless L.L.C. SITE ADDRESS:

**2400 DOUGLAS AVENUE
NEWBERG, OR 97132**

OREGON 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 THESE CODES:

CODE TYPE	CODE
BUILDING	2019 OSSC/2018 IBC
MECHANICAL	2019 OMSC/2018 IMC
ELECTRICAL	2017 OESC/2017 NEC

SHEET INDEX

SHEET NO.	SHEET TITLE
T-1	TITLE SHEET
A-1	PARCEL SITE PLAN
A-1.1	COMPOUND, OVERALL AND ENLARGED SITE PLAN
A-2	ELEVATION, ANTENNA LAYOUT AND SCHEDULE
A-3	CONCRETE PAD AND H-FRAME DETAILS
A-4	EQUIPMENT DETAILS
A-5	EQUIPMENT DETAILS
A-6	EQUIPMENT DETAILS
E-1	ELECTRICAL/FIBER ROUTE PLAN AND NOTES
E-2	ELECTRICAL DETAILS
E-3	ELECTRICAL ONE-LINE, FAULT CALCS & PANEL SCHEDULE
G-1	GROUNDING PLANS AND NOTES
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS
RF-1	RF CABLE COLOR CODE
GN-1	LEGEND AND ABBREVIATIONS
GN-2	GENERAL NOTES
GN-3	GENERAL NOTES
GN-4	GENERAL NOTES

SCOPE OF WORK

THIS IS NOT AN ALL INCLUSIVE LIST. CONTRACTOR SHALL UTILIZE SPECIFIED EQUIPMENT PART OR ENGINEER APPROVED EQUIVALENT. CONTRACTOR SHALL VERIFY ALL NEEDED EQUIPMENT TO PROVIDE A FUNCTIONAL SITE. THE PROJECT GENERALLY CONSISTS OF THE FOLLOWING:

- TOWER SCOPE OF WORK:**
- INSTALL (3) PROPOSED PANEL ANTENNAS (1 PER SECTOR)
 - INSTALL (1) PROPOSED PLATFORM ANTENNA MOUNT
 - INSTALL PROPOSED JUMPERS
 - INSTALL (6) PROPOSED RRU's (2 PER SECTOR)
 - INSTALL (1) PROPOSED OVER VOLTAGE PROTECTION DEVICE (OVP)
 - INSTALL (1) PROPOSED HYBRID CABLE
 - INSTALL (1) PROPOSED 10' TOWER EXTENSION

- GROUND SCOPE OF WORK:**
- INSTALL (1) PROPOSED CONCRETE PAD
 - INSTALL (1) PROPOSED ICE BRIDGE
 - INSTALL (1) PROPOSED PPC CABINET
 - INSTALL (1) PROPOSED EQUIPMENT CABINET
 - INSTALL (1) PROPOSED POWER CONDUIT
 - INSTALL (1) PROPOSED TELCO CONDUIT
 - INSTALL (1) PROPOSED TELCO-FIBER BOX
 - INSTALL (1) PROPOSED GPS UNIT
 - INSTALL (1) PROPOSED SAFETY SWITCH (IF REQUIRED)
 - INSTALL (1) PROPOSED FIBER NID (IF REQUIRED)
 - INSTALL (1) PROPOSED METER SOCKET

SITE PHOTO



UNDERGROUND SERVICE ALERT - OREGON 811
UTILITY NOTIFICATION CENTER OF OREGON
(800) 332-2344
WWW.DIGSAFELYOREGON.COM



CALL 2 WORKING DAYS UTILITY NOTIFICATION PRIOR TO CONSTRUCTION

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE, NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED

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

SITE INFORMATION

PROPERTY OWNER: NEWBERG SCHOOL DIS. 29J 1
ADDRESS: 714 E 6TH ST
ATTN BUSINESS OFFICE
NEWBERG, OR 97132

TOWER TYPE: MONOPOLE

TOWER CO SITE ID: 856521

TOWER APP NUMBER: 576279

COUNTY: YAMHILL

LATITUDE (NAD 83): 45° 18' 39.29" N
49.327581X N

LONGITUDE (NAD 83): 122° 57' 9.79" W
-122.952719

ZONING JURISDICTION: CITY OF NEWBERG, OR

ZONING DISTRICT: TBD

PARCEL NUMBER: 33895

OCCUPANCY GROUP: U

CONSTRUCTION TYPE: V-B

POWER COMPANY: PORTLAND GENERAL ELECTRIC

TELEPHONE COMPANY: VERIZON WIRELESS

PROJECT DIRECTORY

APPLICANT: DISH Wireless L.L.C.
5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

TOWER OWNER: CROWN CASTLE
2000 CORPORATE DRIVE
CANONSBURG, PA 15317
(877) 486-9377

SITE DESIGNER: PM&A
1000 HOLCOMB WOODS PKWY
SUITE 210
ROSWELL, GA 30076
(678) 280-2325

SITE ACQUISITION: ANDREW MAGOON
(602) 845-1793

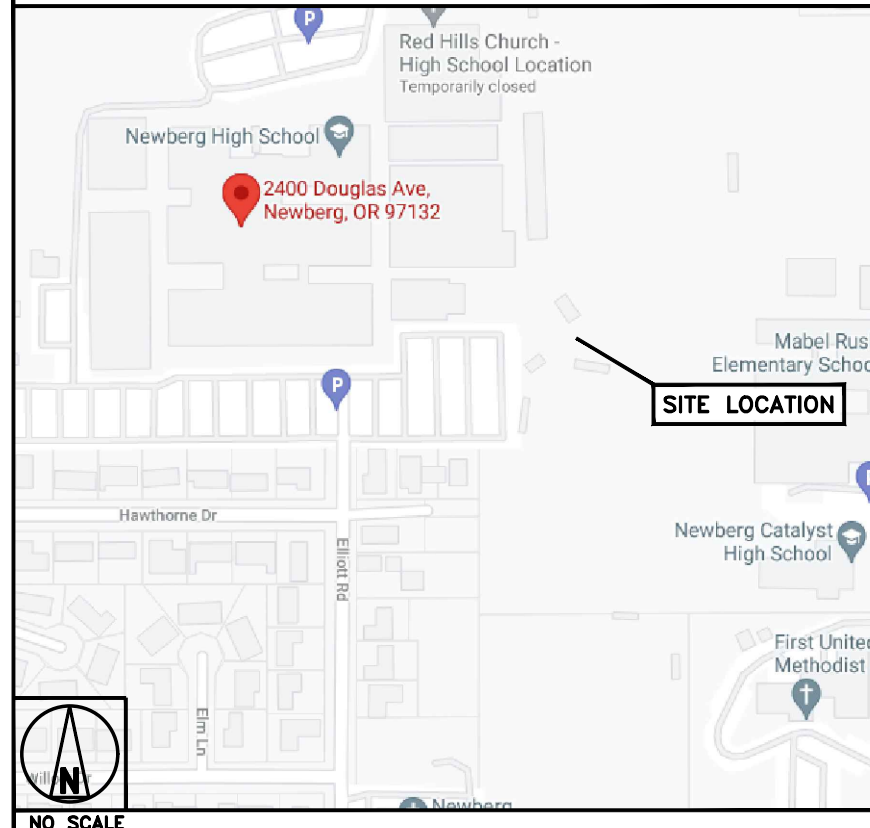
FIELD CONST. MANAGER: TONY FILIPPELLO
(360) 430-4084

RF MANAGER: MIKE ZIEHNERT
(503) 754-9725

DIRECTIONS

DIRECTIONS FROM PORTLAND INTERNATIONAL AIRPORT:
GET ON I-205 S FROM NE AIRPORT WAY 6 MIN (2.7 MI) TAKE I-84 W/US-30 W, I-5 S AND OR-99W S/PACIFIC HWY W TO N SPRINGBROOK RD IN NEWBERG 43 MIN (30.6 MI) TAKE DEBORAH RD TO E DOUGLAS AVE 3 MIN (0.8 MI) 2400 DOUGLAS AVE NEWBERG, OR 97132

VICINITY MAP



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



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

DRAWN BY:	CHECKED BY:	APPROVED BY:
LTH	DM	MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION
PRPDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.
3. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



EXPIRES: 6/30/2022

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

DRAWN BY:	CHECKED BY:	APPROVED BY:
LTH	DM	MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
D	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

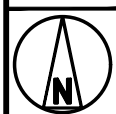
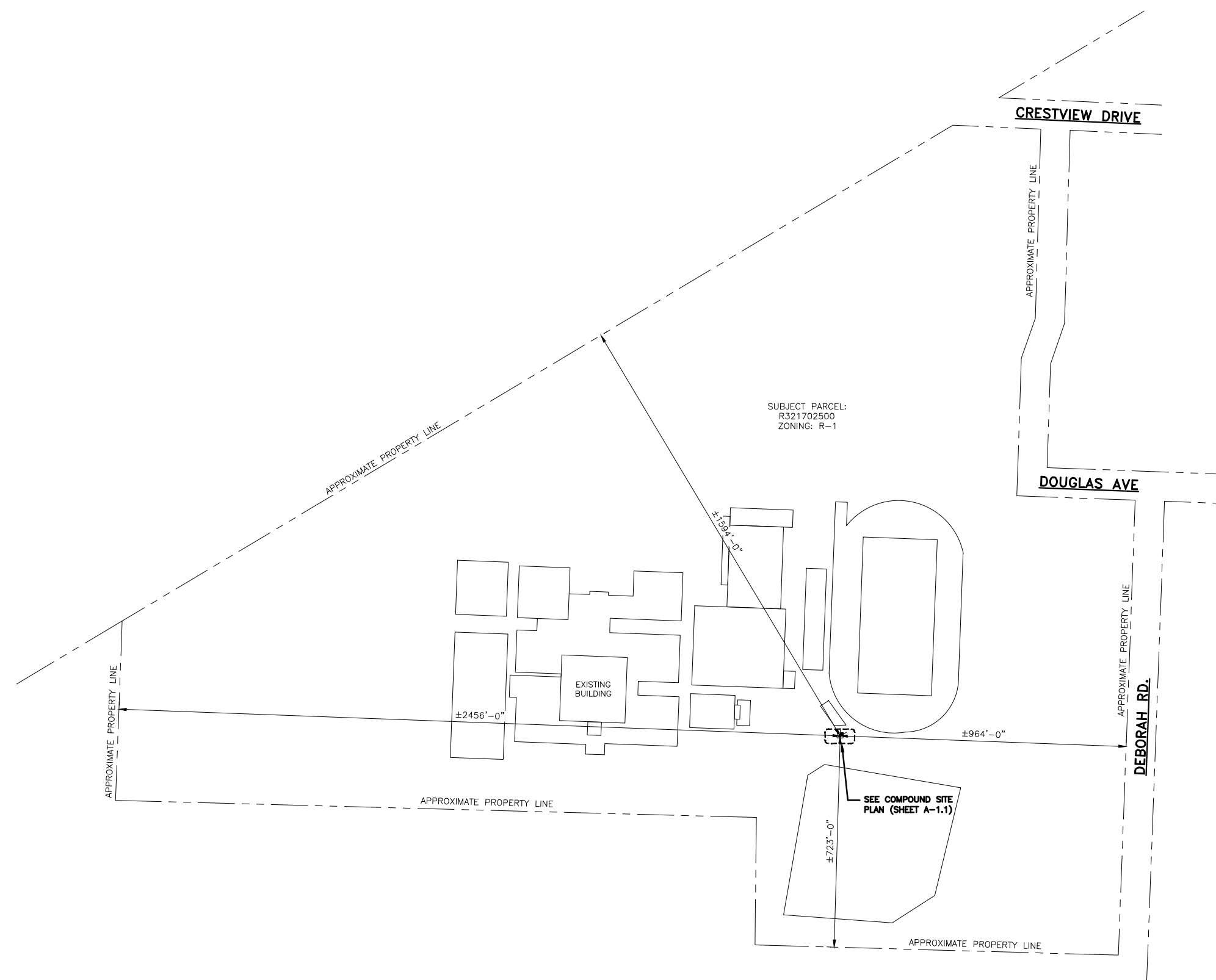
DISH Wireless L.L.C.
PROJECT INFORMATION

PRPD00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

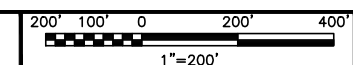
SHEET TITLE
PARCEL
SITE PLAN

SHEET NUMBER

A-1



PARCEL SITE PLAN



NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.
3. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.

dish wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

PM&A

1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



12/20/2021
EXPIRES: 6/30/2022

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

DRAWN BY: LTH CHECKED BY: DM APPROVED BY: MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
D	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

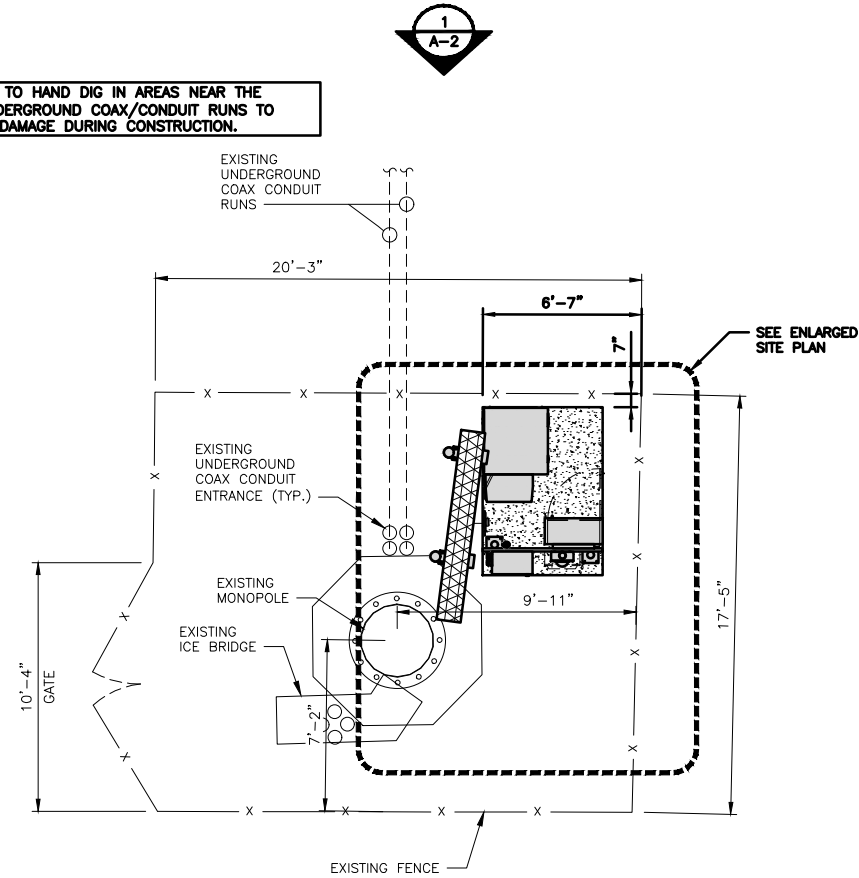
DISH Wireless L.L.C.
PROJECT INFORMATION

PRPD00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

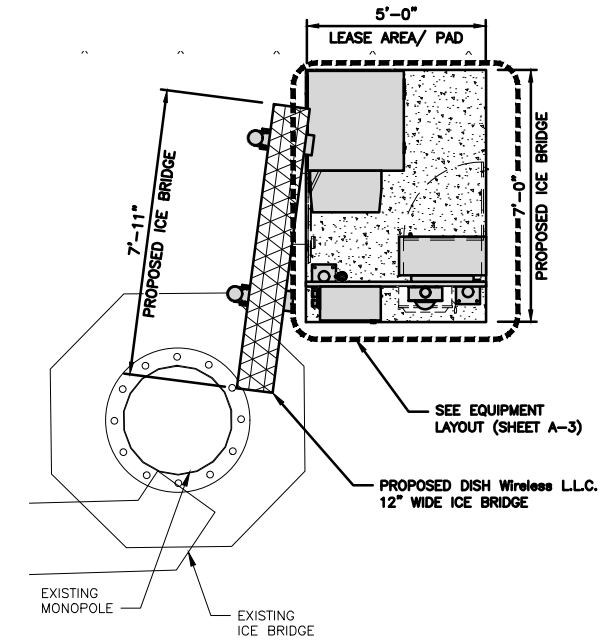
SHEET TITLE
COMPOUND, OVERALL AND ENLARGED SITE PLAN

SHEET NUMBER
A-1.1

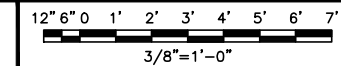
CONTRACTOR TO HAND DIG IN AREAS NEAR THE EXISTING UNDERGROUND COAX/CONDUIT RUNS TO ENSURE NO DAMAGE DURING CONSTRUCTION.



PROPOSED DISH Wireless L.L.C. HANDHOLE (CONTRACTOR TO FIELD DETERMINE LOCATION)



ENLARGED SITE PLAN



2

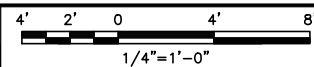


OVERALL SITE PLAN

NO SCALE

3

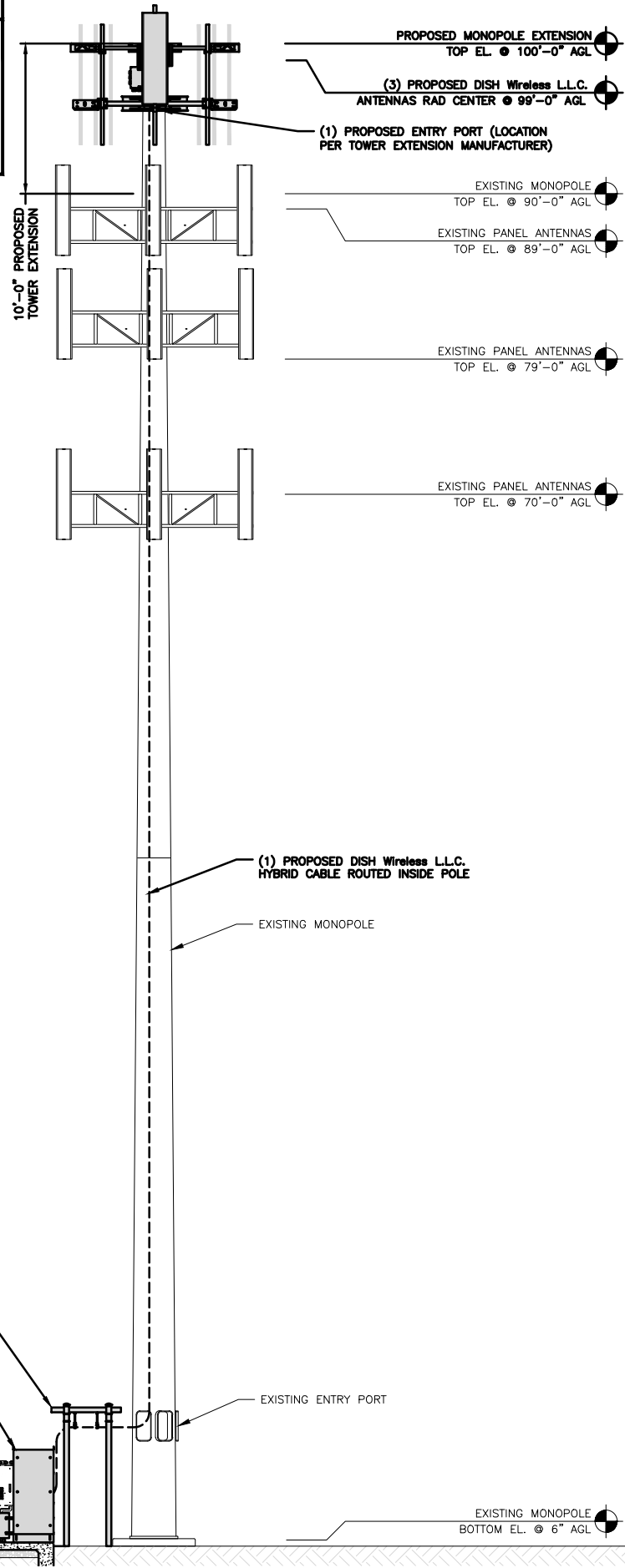
COMPOUND SITE PLAN



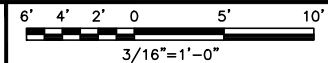
1

NOTES

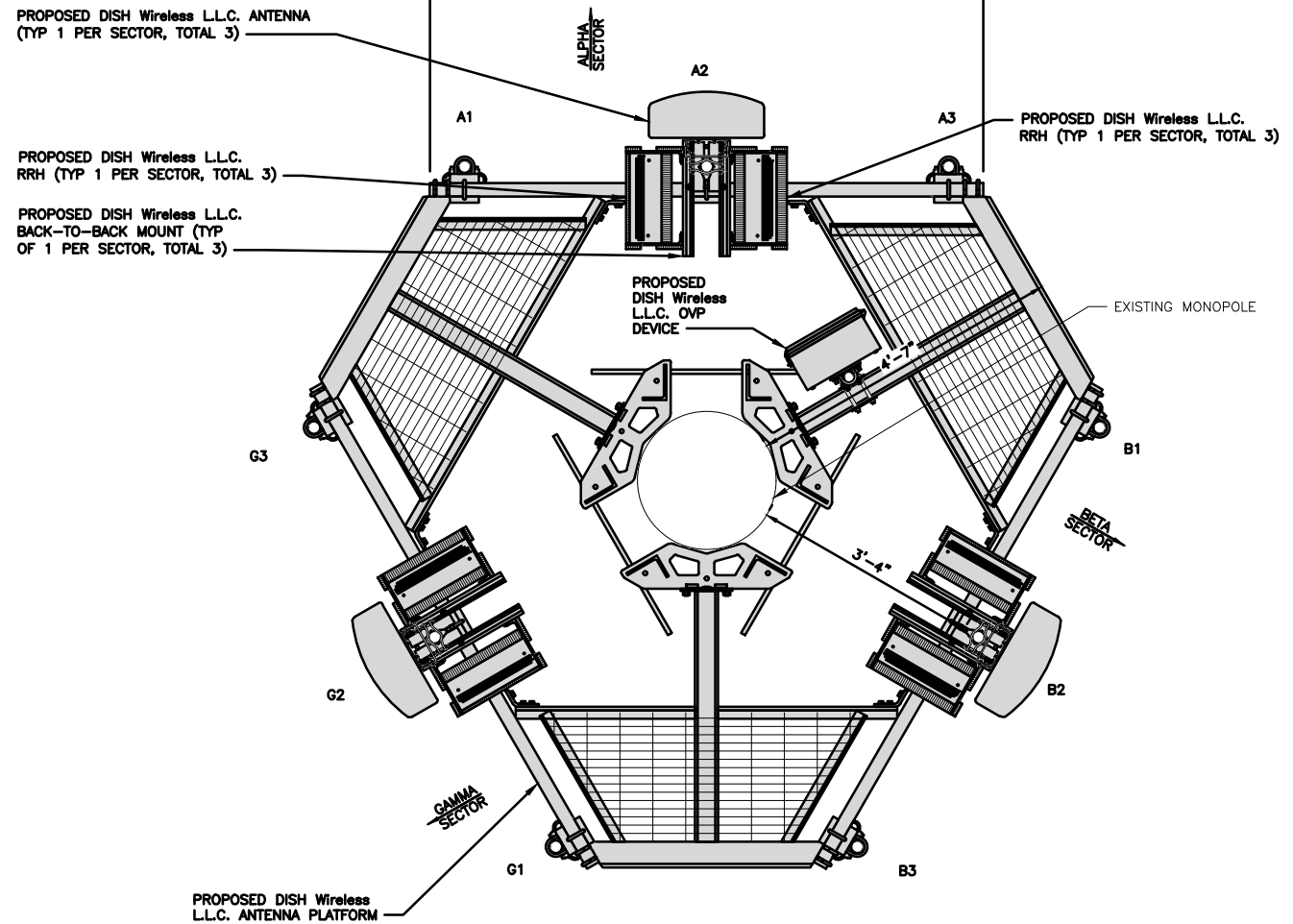
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNA AND MW DISH SPECIFICATIONS REFER TO ANTENNA SCHEDULE AND TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS
3. EXISTING EQUIPMENT AND FENCE OMITTED FOR CLARITY.



PROPOSED NORTH ELEVATION

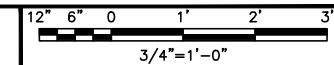


1



PROPOSED DISH Wireless L.L.C. ANTENNA PLATFORM

ANTENNA LAYOUT



2

SECTOR POS.	ANTENNA						TRANSMISSION CABLE	RRH			OVP
	EXISTING OR PROPOSED	MANUFACTURER - MODEL NUMBER	TECH	AZIMUTH	MECH TILT	RAD CENTER		FEED LINE TYPE AND LENGTH	MANUFACTURER - MODEL NUMBER	TECH	
A1	---	---	---	---	---	---	(1) HIGH-CAPACITY HYBRID CABLE (150' LONG)	FUJITSU TA08025-B604	5G	A2	RAYCAP RDIDC-9181-PF-48
A2	PROPOSED	JMA - MX08FRO665-21	5G	0°	-4°	99'-0"		FUJITSU TA08025-B605	5G	A2	
A3	---	---	---	---	---	---		---	---	---	
B1	---	---	---	---	---	---	SHARED W/ALPHA	FUJITSU TA08025-B604	5G	B2	SHARED W/ALPHA
B2	PROPOSED	JMA - MX08FRO665-21	5G	120°	-4°	99'-0"		FUJITSU TA08025-B605	5G	B2	
B3	---	---	---	---	---	---		---	---	---	
C1	---	---	---	---	---	---	SHARED W/ALPHA	FUJITSU TA08025-B604	5G	C2	SHARED W/ALPHA
C2	PROPOSED	JMA - MX08FRO665-21	5G	240°	0°	99'-0"		FUJITSU TA08025-B605	5G	C2	
C3	---	---	---	---	---	---		---	---	---	

NOTES

1. CONTRACTOR TO REFER TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS.
2. ANTENNA AND RRH MODELS MAY CHANGE DUE TO EQUIPMENT AVAILABILITY. ALL EQUIPMENT CHANGES MUST BE APPROVED AND REMAIN IN COMPLIANCE WITH THE PROPOSED DESIGN AND STRUCTURAL ANALYSES.

ANTENNA SCHEDULE

NO SCALE

3



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



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

DRAWN BY: LTH
CHECKED BY: DM
APPROVED BY: MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

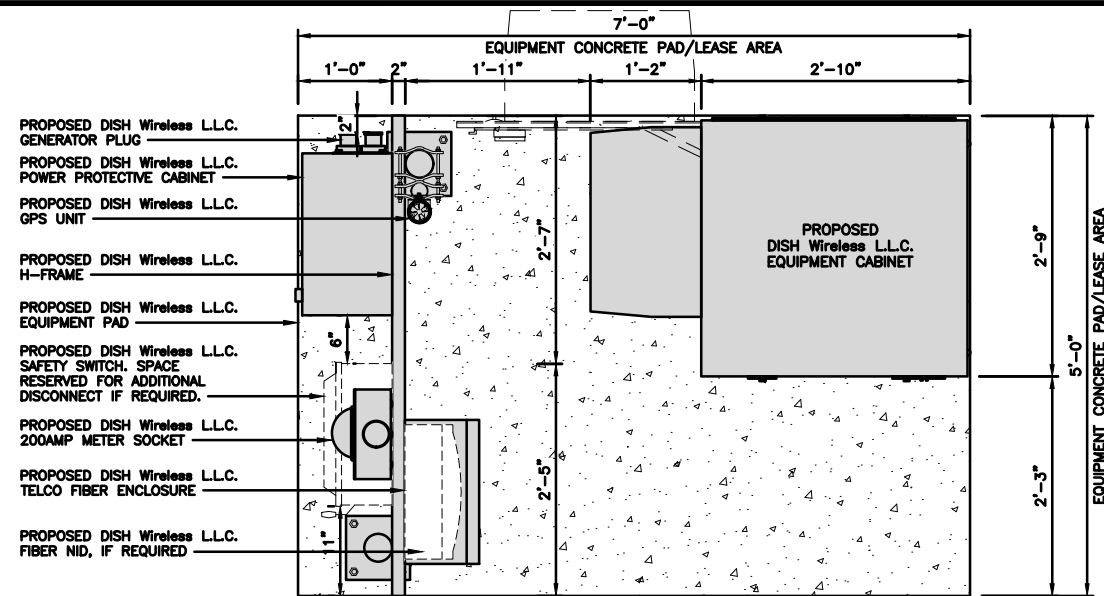
DISH Wireless L.L.C.
PROJECT INFORMATION

PRPD00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

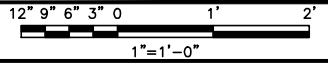
SHEET TITLE
ELEVATION, ANTENNA
LAYOUT AND SCHEDULE

SHEET NUMBER

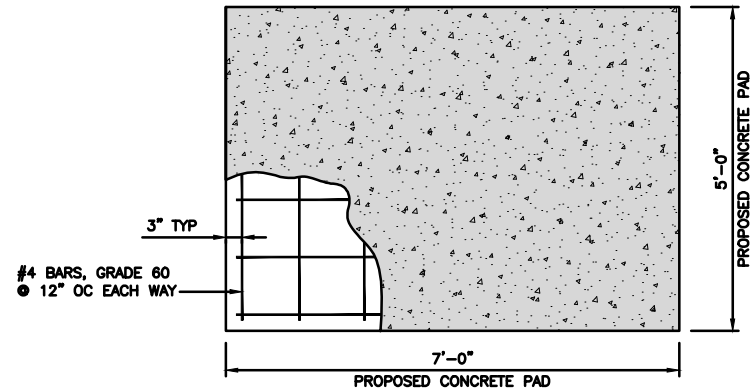
A-2



EQUIPMENT PLAN

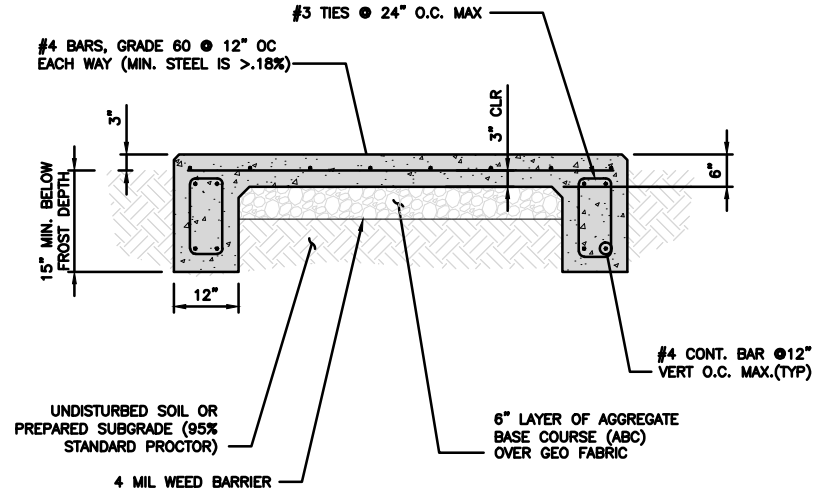


CONTRACTOR TO PROVIDE AND INSTALL BREAKOUT FOR POWER AND FIBER CONDUITS. COORDINATE SIZE AND LOCATION WITH DISH CM.



TYPICAL CONCRETE PAD DETAIL

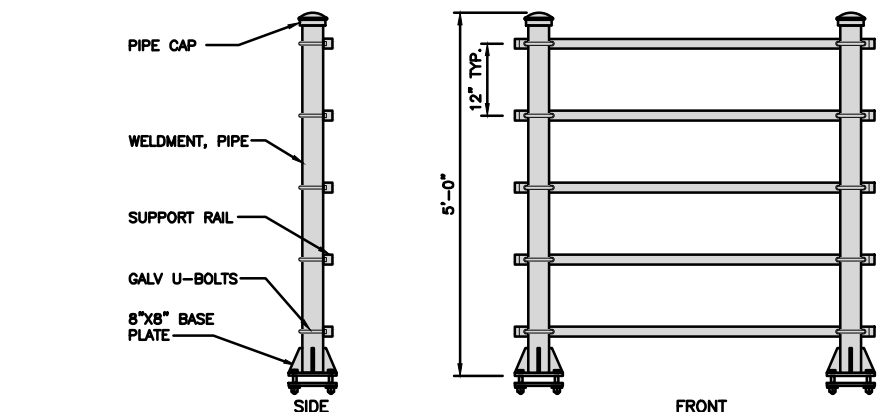
NO SCALE 2



TYPICAL CONCRETE SECTION DETAIL

NO SCALE 3

KENWOOD T1701KT5-5S H-FRAME	
UNISTRUT/SUPPORT RAIL	5
WEIGHT/ VOLUME	173.6 LBS

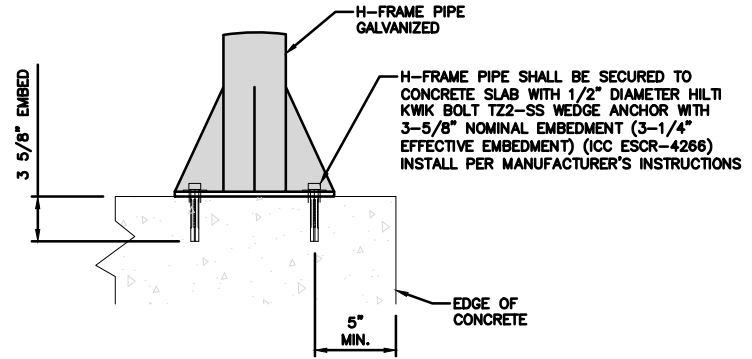


H-FRAME DETAIL

NO SCALE 4

H-FRAME	
UNISTRUT/SUPPORT RAIL	6

SPECIAL INSPECTION REQUIRED:
SPECIAL INSPECTIONS AND STRUCTURAL OBSERVATIONS FOR POST INSTALLED ANCHORS SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE BUILDING CODE AND CITY OF PORTLAND SPECIAL INSPECTION PROGRAM ADMINISTRATIVE RULES

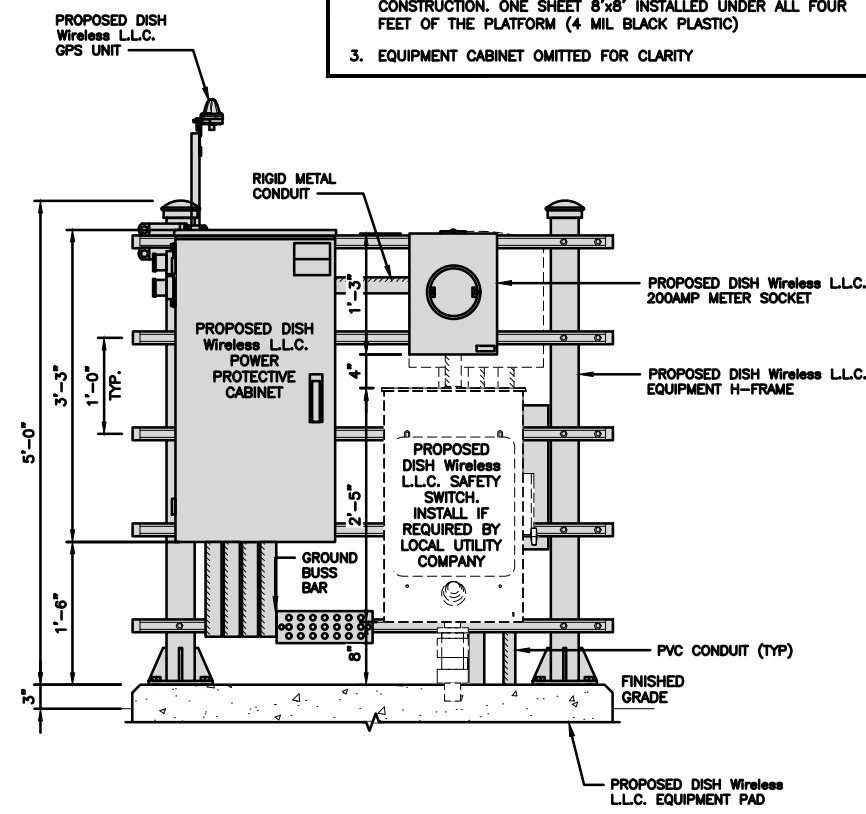


H-FRAME CONCRETE SLAB INSTALLATION DETAIL

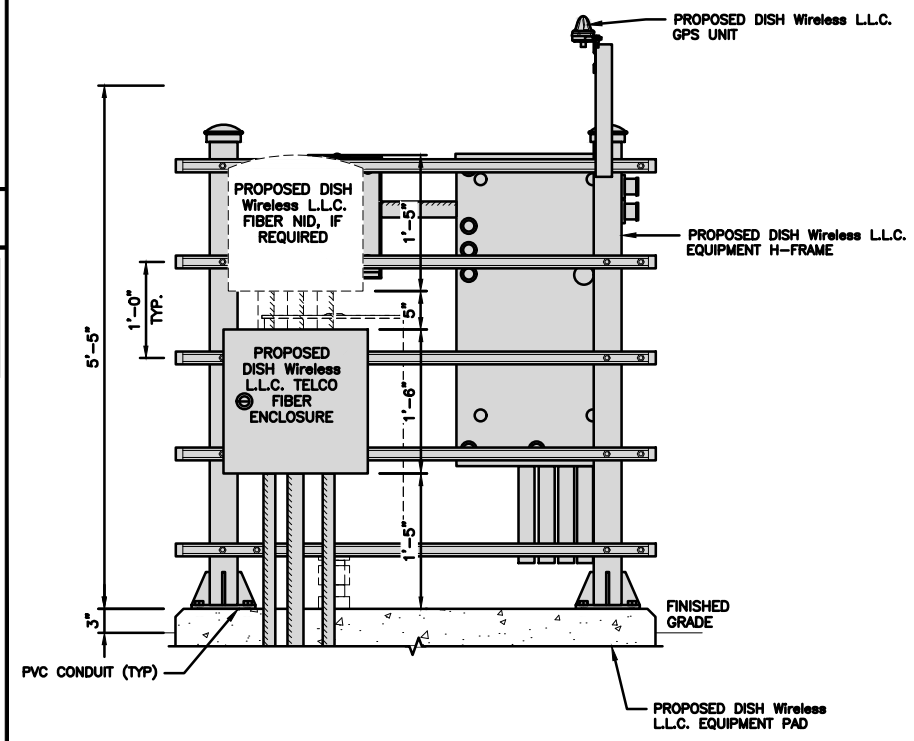
NO SCALE 5

NOTES

- CONTRACTOR TO BURY PLATFORM FEET WITH A MINIMUM OF 2" OF FILL PER EXISTING SITE SURFACE
- WEED BARRIER FABRIC TO BE ADDED AT DISCRETION OF DISH Wireless L.L.C. CONSTRUCTION MANAGER AT TIME OF CONSTRUCTION. ONE SHEET 8'x8' INSTALLED UNDER ALL FOUR FEET OF THE PLATFORM (4 MIL BLACK PLASTIC)
- EQUIPMENT CABINET OMITTED FOR CLARITY



FRONT ELEVATION



BACK ELEVATION



H-FRAME EQUIPMENT ELEVATION

NO SCALE 6



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



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

DRAWN BY:	CHECKED BY:	APPROVED BY:
LTH	DM	MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

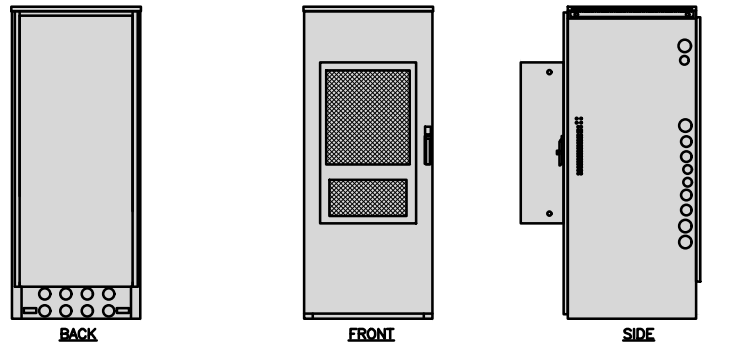
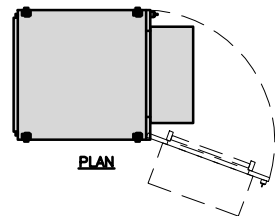
A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION
PRPD00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
CONCRETE PAD AND
H-FRAME DETAILS

SHEET NUMBER
A-3

ENERSYS HEX CABINET 2000005996	
DIMENSIONS (HxWxD):	73"x30"x32"
WEIGHT EMPTY:	376 lbs
HEATER	800W
POWER SYSTEM	-48V ALPHA/600A

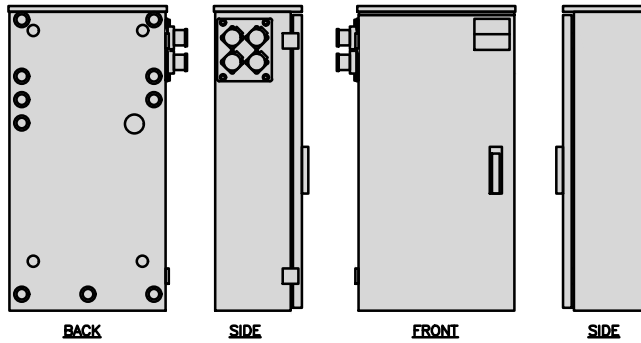
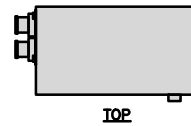


CABINET DETAIL

NO SCALE

1

RAYCAP PPC RDIAC-2465-P-240-MTS	
ENCLOSURE DIMENSIONS (HxWxD):	39"x22.855"x12.593
WEIGHT:	80 lbs
OPERATING AC VOLTAGE	240/120 1 PHASE 3W+G

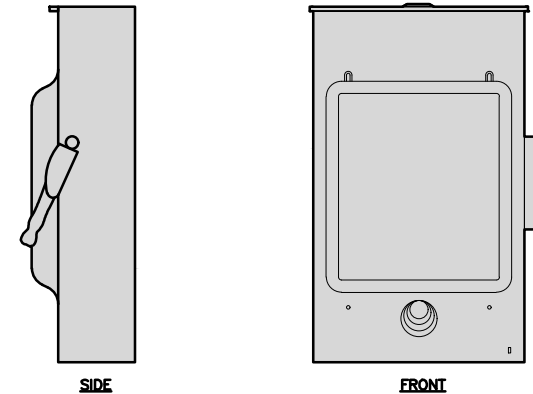
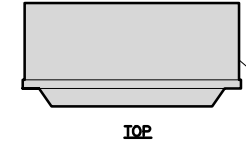


POWER PROTECTION CABINET (PPC) DETAIL

NO SCALE

2

SQUARE D SAFETY SWITCHES D224NRB	
ENCLOSURE DIM (HxWxD)	29.25"x19.00"x8.50"
ENCLOSURE TYPE	NEMA 3R RAINPROOF
UL LISTED	FILE E-2875

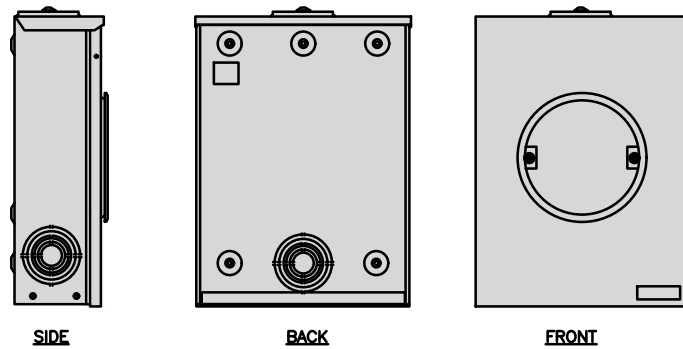
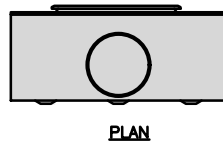


SAFETY SWITCH DETAIL

NO SCALE

3

EATON METER SOCKET UNRRS213BEUSE	
METER SOCKET TYPE	RING
ENCLOSURE DIM (HxWxD)	16"x12"x6"
MAIN AMPERE RATING	200A
WEIGHT	18 LBS

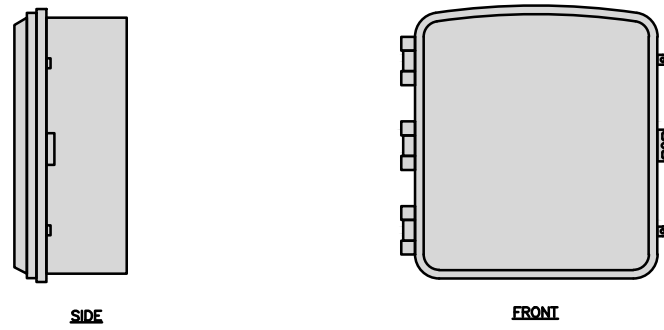
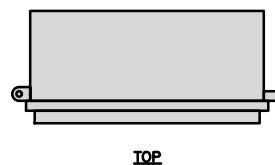


METER SOCKET DETAIL

NO SCALE

4

PROPOSED FIBER NID ENCLOSURE	
DIMENSIONS (HxWxD)	17"x16.8"x7"
WEIGHT	28.6 lbs

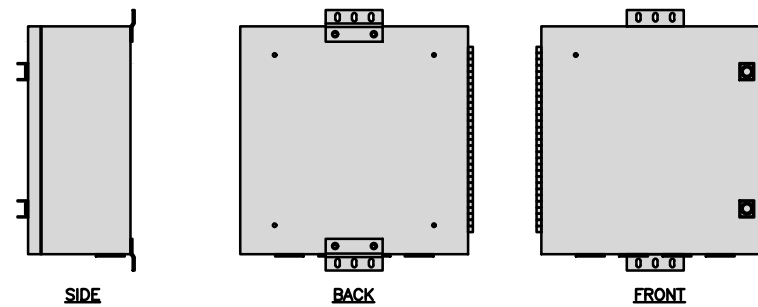
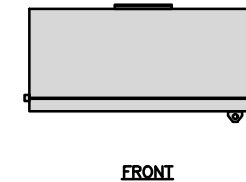


FIBER NID ENCLOSURE DETAIL

NO SCALE

5

CHARLES CFIT-PF2020DSH1 FIBER TELCO ENCLOSURE	
ENCLOSURE DIMS (HxWxD)	20"x20"x9"
ENCLOSURE WEIGHT	20 lbs
MOUNTING	WALL
COMPLIANCE	TYPE 4



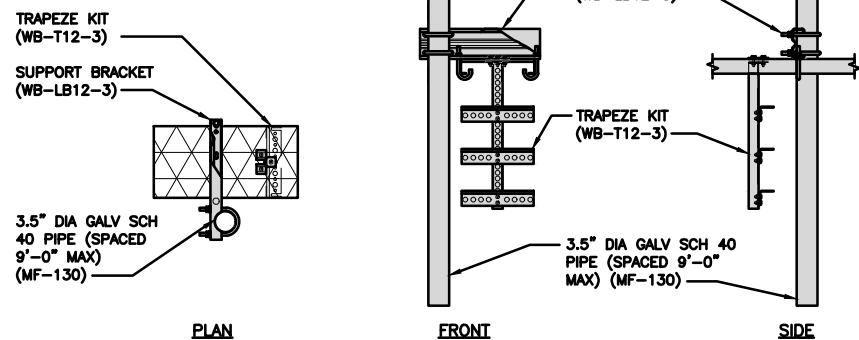
FIBER TELCO ENCLOSURE DETAIL

NO SCALE

6

COMMSCOPE WB-K110-B WAVEGUIDE BRIDGE KIT	
DIMENSIONS (HxL)	160"x10"
WEIGHT/ VOLUME	325.0 LBS
CABLE RUN (QTY)	12

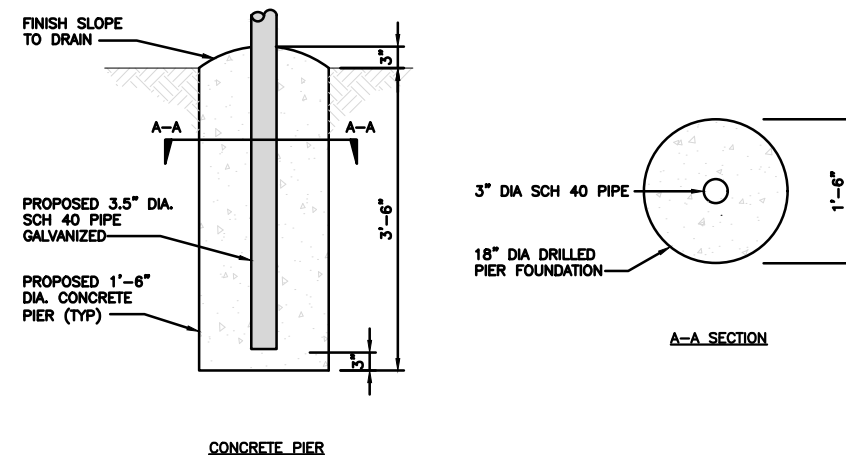
INCLUDED PRODUCTS:
WB-T12-3 TRAPEZE KIT,
3 RUNGS
WB-LB12-3 SUPPORT BRACKET
MF-130 DIRECT BURIAL PIPE
COLUMN, 13'-4"



ICE BRIDGE DETAIL

NO SCALE

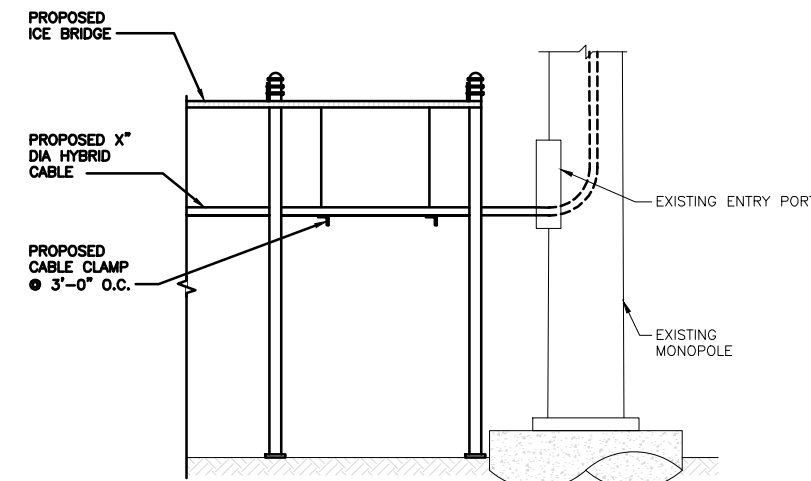
7



TYPICAL ICE BRIDGE CONCRETE PIER DETAIL

NO SCALE

8



HYBRID CABLE RUN

NO SCALE

9

dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

PM&A

1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



EXPIRES: 6/30/2022

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

DRAWN BY: CHECKED BY: APPROVED BY:
LTH DM MSB

RFDS REV #: ---

**CONSTRUCTION
DOCUMENTS**

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION

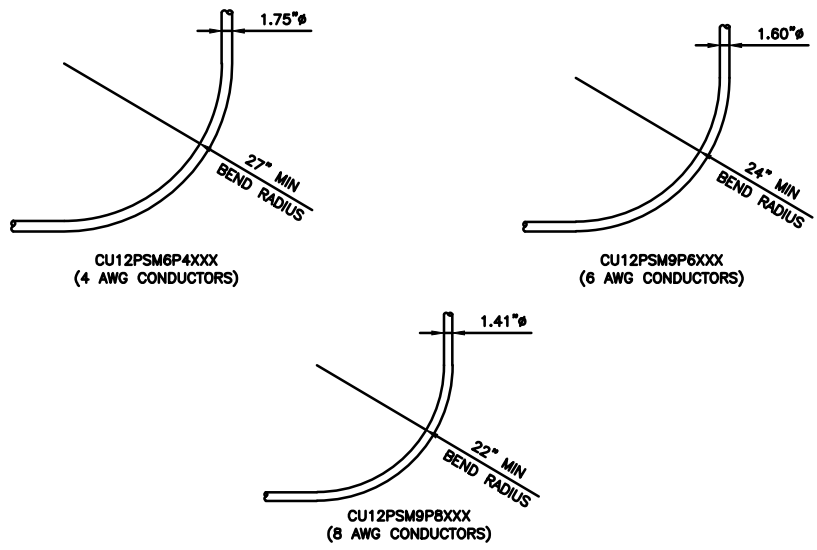
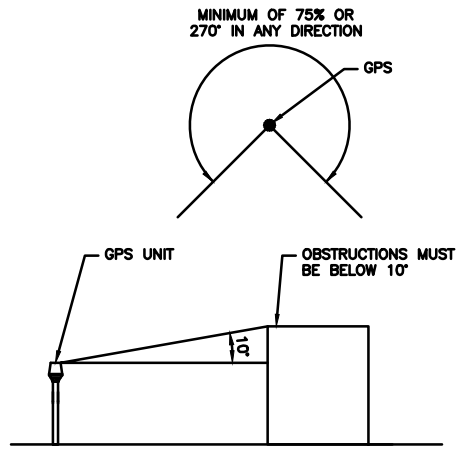
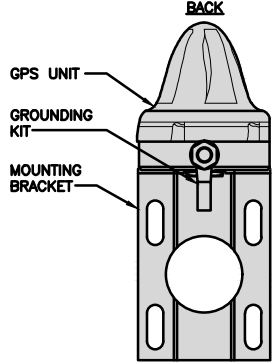
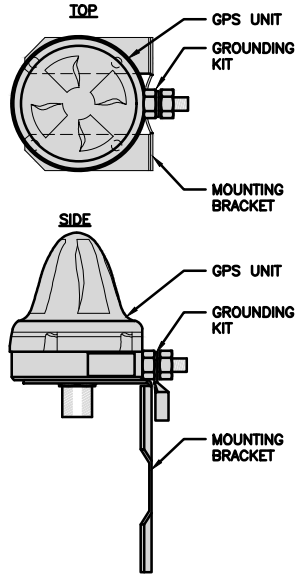
PRPD00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER

A-4

ROSENBERGER GPSGLONASS-36-N-S	
DIMENSION (DIA x H)	69mm x 98.5mm
WEIGHT (WITH ACCESSORIES)	515.74g
CONNECTOR	N-FEMALE
FREQUENCY RANGE	1559 MHz ~ 1610.5MHz



GPS ANTENNA DETAIL

NO SCALE 1

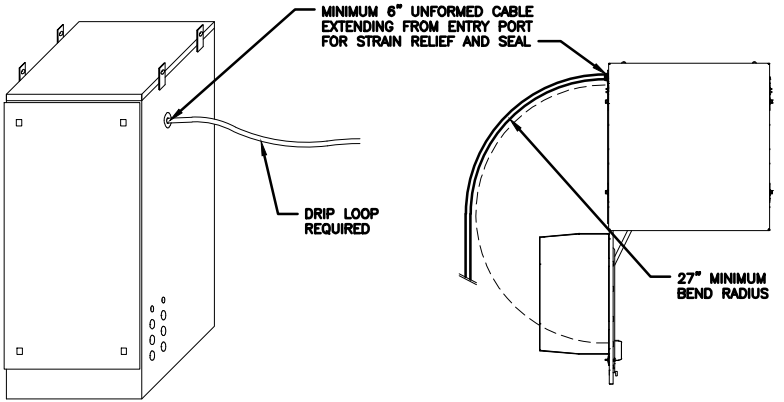
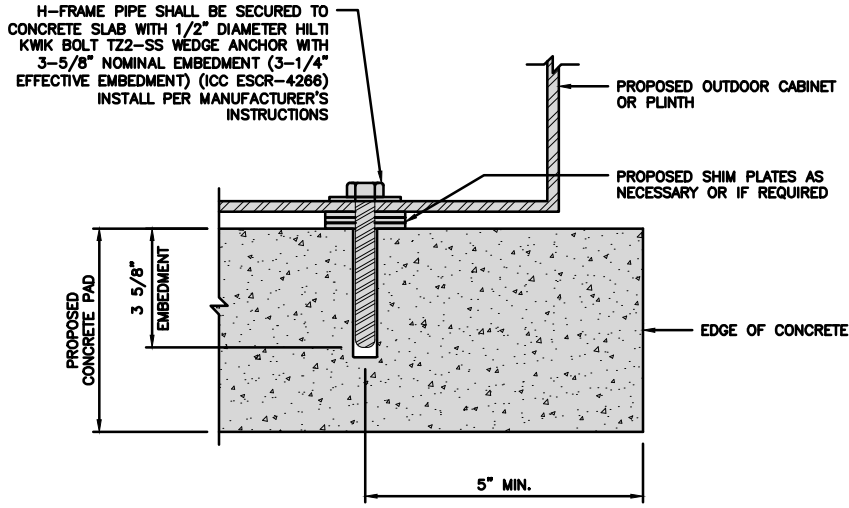
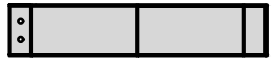
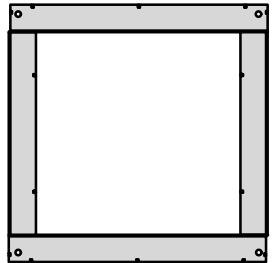
GPS MINIMUM SKY VIEW REQUIREMENTS

NO SCALE 2

CABLES UNLIMITED HYBRID CABLE
MINIMUM BEND RADIUSES

NO SCALE 3

ENERSYS PURCELL 1000034439 - PLINTH 6 INCH	
DIMENSIONS (HxWxD):	6"x 30.188"x 29.982"
NOTE: GASKET AND MOUNTING HARDWARE INCLUDED	



PLINTH DETAIL

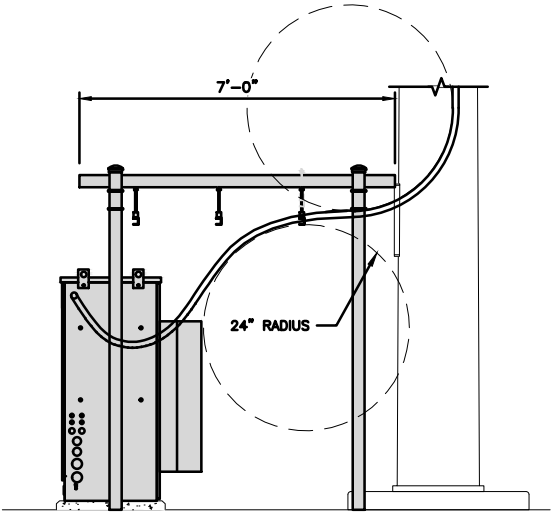
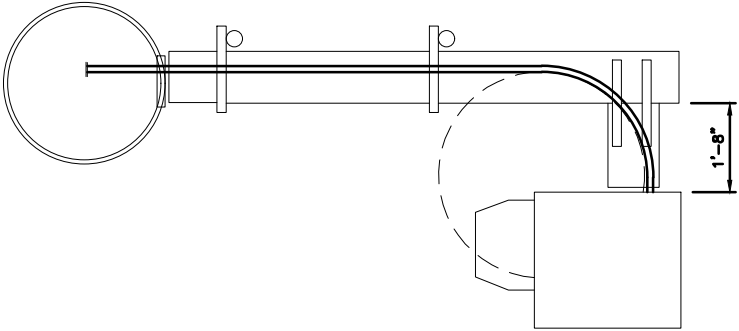
NO SCALE 4

TYPICAL OUTDOOR EQUIPMENT TO
CONCRETE SLAB ANCHORAGE

NO SCALE 5

DRIP LOOP DETAIL

NO SCALE 6



CABLE BEND DETAIL

NO SCALE 7

CABLE BEND DETAIL

NO SCALE 8

NOT USED

NO SCALE 9



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



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

DRAWN BY: LTH CHECKED BY: DM APPROVED BY: MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
D	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

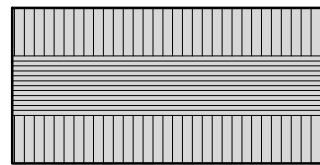
DISH Wireless L.L.C.
PROJECT INFORMATION

PRPDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

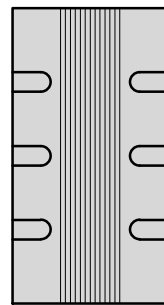
SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-5

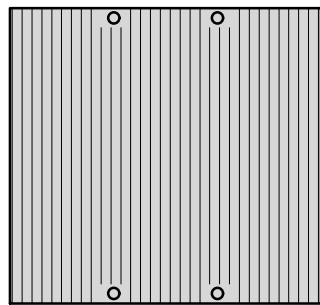
FUJITSU TA08025-B604 RRH	
DIMENSIONS (HxWxD) (KG/IN)	380x400x200/14.9"x15.7"x7.8"
WEIGHT(KG,LB)/ VOLUME	29kg,63.9lb/ 30L
POWER SUPPLY	DC-58~-36V



PLAN

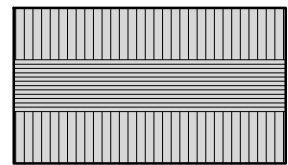


SIDE

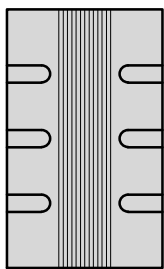


FRONT

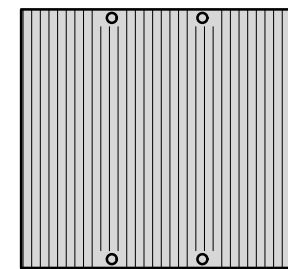
FUJITSU TA08025-B605 RRH	
DIMENSIONS (HxWxD) (KG/IN)	380x400x230/14.9"x15.7"x9.0"
WEIGHT(KG,LB)/ VOLUME	34kg,74.9lb/ 35L
POWER SUPPLY	DC-58~-36V



PLAN



SIDE



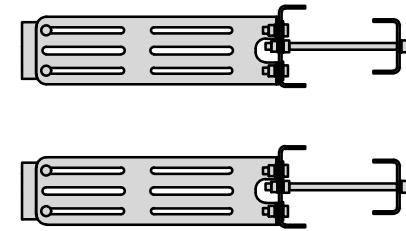
FRONT

COMMSCOPE RR-FA2 LARGE STABILIZER	
DIMENSIONS (HxWxD)	16.4"x8.5"x18"
WEIGHT	39.2 lbs

DESIGN NOTES:
MOUNT WILL FIT LEGS UP TO:
- 5.6" ROUND
- 6.0" 60° ANGLE
- 4.5" 90° ANGLE



PLAN



SIDE

NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT

REMOTE RADIO HEAD DETAIL

NO SCALE

1

REMOTE RADIO HEAD DETAIL

NO SCALE

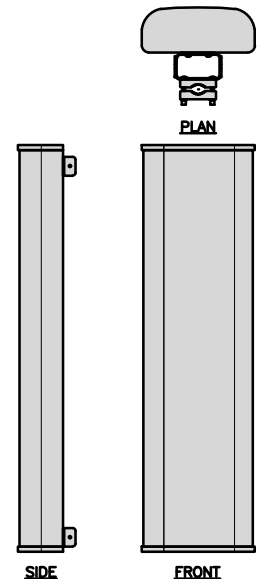
2

RRH MOUNT DETAIL

NO SCALE

3

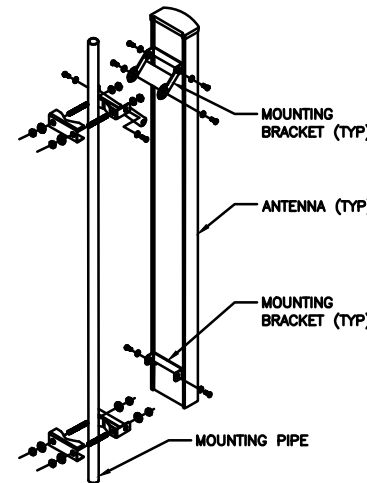
JMA MX08FRO665-21	
DIMENSIONS (HxWxD)	72"x20.0"x8.0"
RF PORTS, CONNECTOR TYPE	8 x 4.3-10 FEMALE
WEIGHT	64.5 lbs
WEIGHT WITH BRACKETS	82.5 lbs



SIDE

FRONT

M04 MOUNTING BRACKET HPA-33R-BUU-H4-K	
WIDTH	5" (135mm)
DEPTH	2" (51mm)
HEIGHT	8" (213mm)
TOTAL WEIGHT (WITH BRACKETS)	1.5 LBS (15.50 Kg)
HOUSING MATERIAL	ASA/ABS/ALUMINUM
RADOME COLOR	LIGHT GRAY
CONNECTOR	1X8-PIN DAISY CHAIN



MOUNTING BRACKET (TYP)

ANTENNA (TYP)

MOUNTING BRACKET (TYP)

MOUNTING PIPE

NOT USED

NO SCALE

4

ANTENNA DETAIL

NO SCALE

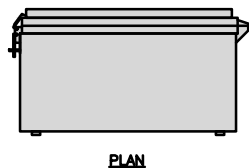
5

ANTENNA MOUNTING DETAIL

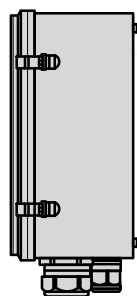
NO SCALE

6

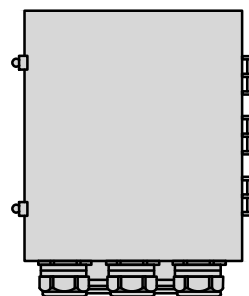
RAYCAP RDIDC-9181-PF-48 DC SURGE PROTECTION (OVP)	
DIMENSIONS (HxWxD)	18.98"x14.39"x8.15"
WEIGHT	21.82 LBS



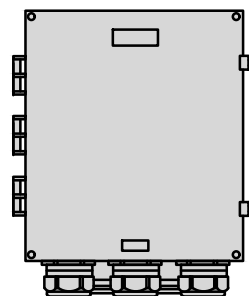
PLAN



SIDE

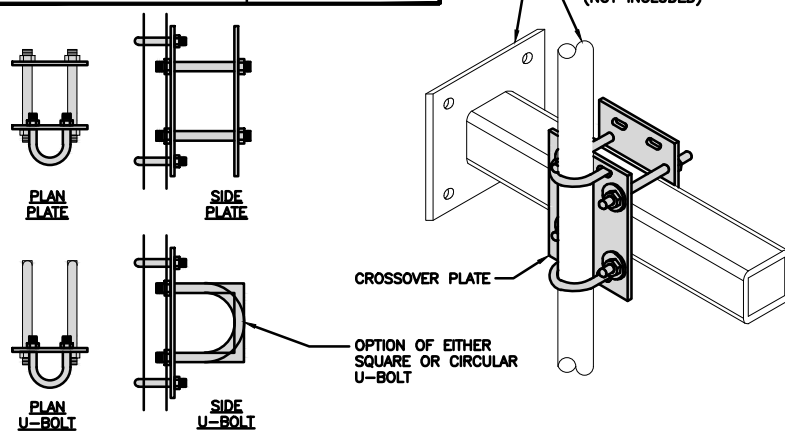


BACK



FRONT

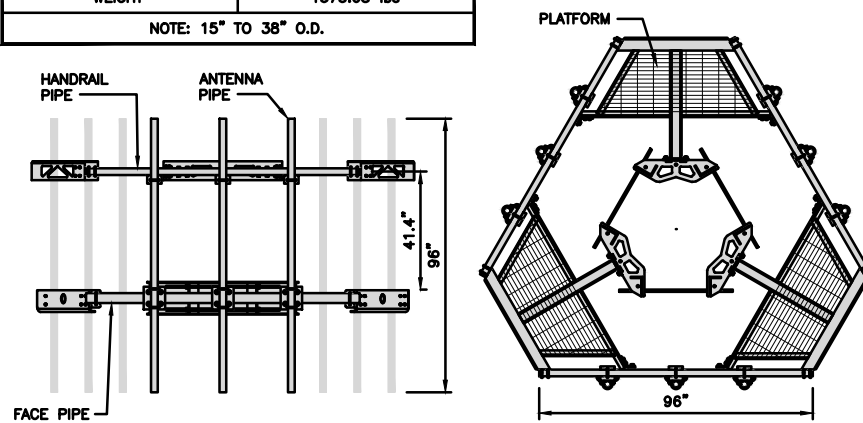
COMMSCOPE XP-2040 CROSSOVER PLATE	
DIMENSIONS (HxW)	10"x12"
WEIGHT	11.023 LBS



CROSSOVER PLATE

OPTION OF EITHER
SQUARE OR CIRCULAR
U-BOLT

COMMSCOPE MC-PK8-DSH	
FACE WIDTH	96"
WEIGHT	1373.08 lbs
NOTE: 15" TO 38" O.D.	



FACE PIPE

HANDRAIL
PIPE

ANTENNA
PIPE

PLATFORM

dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

PM&A

1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



EXPIRES: 6/30/2022

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

DRAWN BY: CHECKED BY: APPROVED BY:
LTH DM MSB

RFDS REV #: ---

CONSTRUCTION
DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION

PRPD00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER

A-6

SURGE SUPPRESSION DETAIL (OVP)

NO SCALE

7

RRH/OVP MOUNT DETAIL

NO SCALE

8

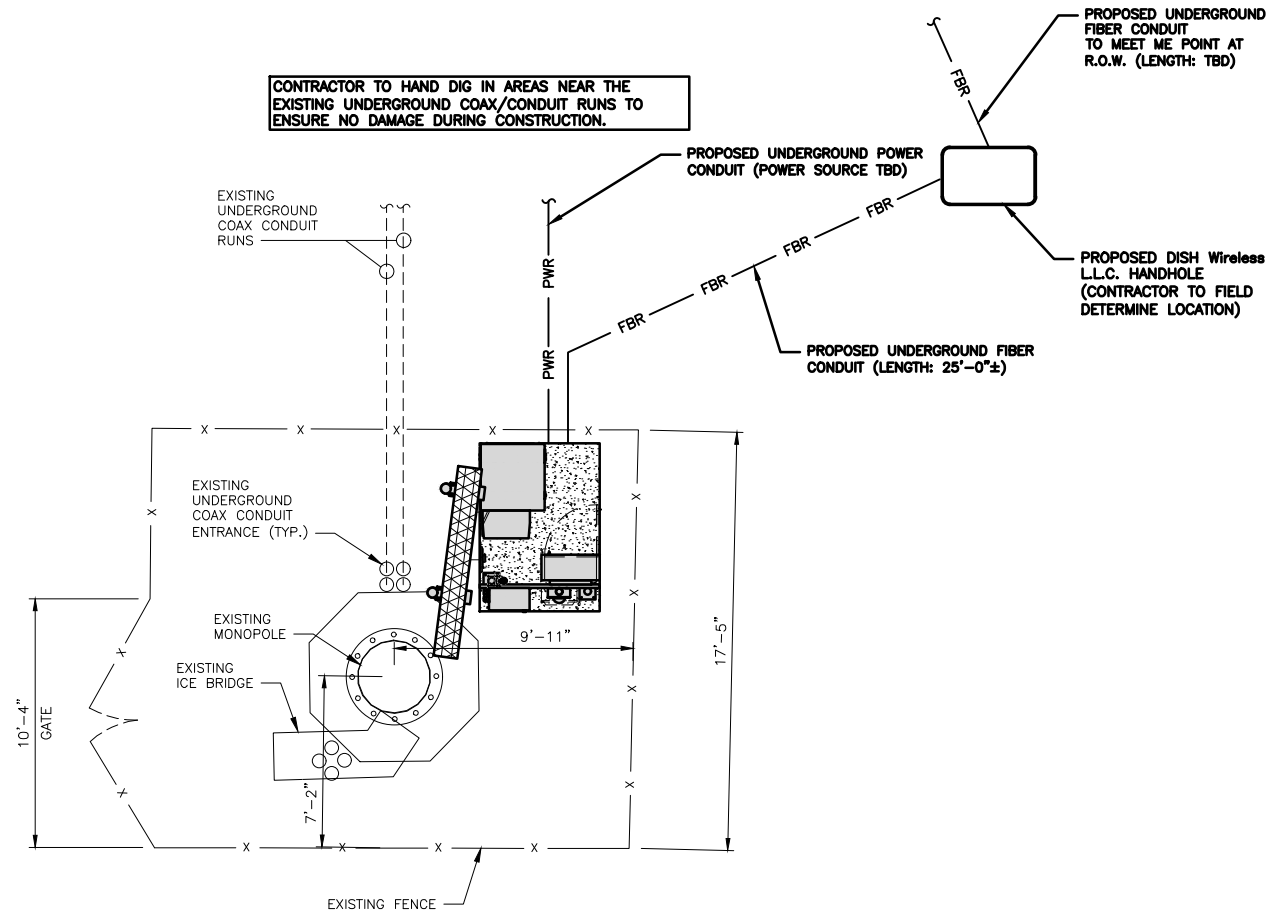
ANTENNA PLATFORM DETAIL

NO SCALE

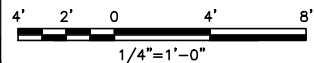
9

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED UNDERGROUND UTILITY CONDUIT ROUTE.
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.
3. DUE TO UTILITY EASEMENT RIGHTS SPECIFIED IN THE GROUND LEASE, CUSTOMER MAY INSTALL EQUIPMENT WITHIN SPECIFIED UTILITY EASEMENT AREA. *PWR AND *FBR PATH DEPICTED ON A-1 AND E-1 REPRESENT PLANNED ROUTING BASED ON BEST AVAILABLE INFORMATION INCLUDING BUT NOT LIMITED TO A SURVEY, EXHIBITS, METES AND BOUNDS OF THE UTILITY EASEMENT, FIELD VERIFICATION, PRIOR PROJECT DOCUMENTATION AND OTHER REAL PROPERTY RIGHTS DOCUMENTS. WHEN INSTALLING THE UTILITIES PLEASE LOCATE AND FOLLOW EXISTING PATH. IF EXISTING PATH IS MATERIALLY INCONSISTENT WITH THE *PWR AND *FBR PATH DEPICTED ON A-1 AND E-1 AND SAID VARIANCE IS NOT NOTED ON CDS, PLEASE NOTIFY CROWN CASTLE REAL ESTATE AS FURTHER COORDINATION MAY BE NEEDED.



UTILITY ROUTE PLAN



DC POWER WIRING SHALL BE COLOR CODED AT EACH END FOR IDENTIFYING +24V AND -48V CONDUCTORS. RED MARKINGS SHALL IDENTIFY +24V AND BLUE MARKINGS SHALL IDENTIFY -48V.

1. CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS PRIOR TO SUBMITTING A BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTOR'S FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
2. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT NATIONAL ELECTRICAL CODES AND ALL STATE AND LOCAL CODES, LAWS, AND ORDINANCES. PROVIDE ALL COMPONENTS AND WIRING SIZES AS REQUIRED TO MEET NEC STANDARDS.
3. LOCATION OF EQUIPMENT, CONDUIT AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH FIELD CONDITIONS PRIOR TO CONSTRUCTION.
4. CONDUIT ROUGH-IN SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO AVOID LOCATION CONFLICTS. VERIFY WITH THE MECHANICAL EQUIPMENT CONTRACTOR AND COMPLY AS REQUIRED.
5. CONTRACTOR SHALL PROVIDE ALL BREAKERS, CONDUITS AND CIRCUITS AS REQUIRED FOR A COMPLETE SYSTEM.
6. CONTRACTOR SHALL PROVIDE PULL BOXES AND JUNCTION BOXES AS REQUIRED BY THE NEC ARTICLE 314.
7. CONTRACTOR SHALL PROVIDE ALL STRAIN RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
8. ALL DISCONNECTS AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED PHENOLIC NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS INSTALLED ON, AND PANEL FIELD LOCATIONS FED FROM.
9. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS PER THE SPECIFICATIONS AND NEC 250. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULL BOXES, AND ALL DISCONNECT SWITCHES, AND EQUIPMENT CABINETS.
10. ALL NEW MATERIAL SHALL HAVE A U.L. LABEL.
11. PANEL SCHEDULE LOADING AND CIRCUIT ARRANGEMENTS REFLECT POST-CONSTRUCTION EQUIPMENT.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR AS-BUILT PANEL SCHEDULE AND SITE DRAWINGS.
13. ALL TRENCHES IN COMPOUND TO BE HAND DUG

ELECTRICAL NOTES

NO SCALE



NOTE:
UTILITY EASEMENT SHOWN PER SURVEY PROVIDED BY OTHERS. CONTRACTOR TO COORDINATE AND ROUTE UTILITIES WITHIN EXISTING UTILITY EASEMENT. DISH WIRELESS L.L.C. SHALL BE RESPONSIBLE FOR OBTAINING EASEMENT RIGHTS AS REQUIRED FOR INSTALLATION OF ALL UTILITIES.

OVERALL UTILITY PLAN

NO SCALE



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



EXPIRES: 6/30/2022

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

DRAWN BY: LTH
CHECKED BY: DM
APPROVED BY: MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
D	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

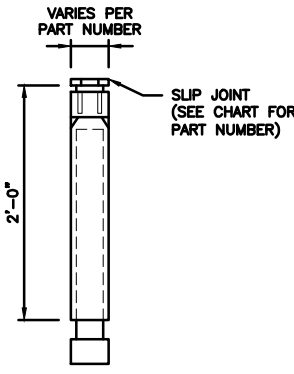
DISH Wireless L.L.C.
PROJECT INFORMATION

PRPDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
ELECTRICAL/FIBER ROUTE
PLAN AND NOTES

SHEET NUMBER

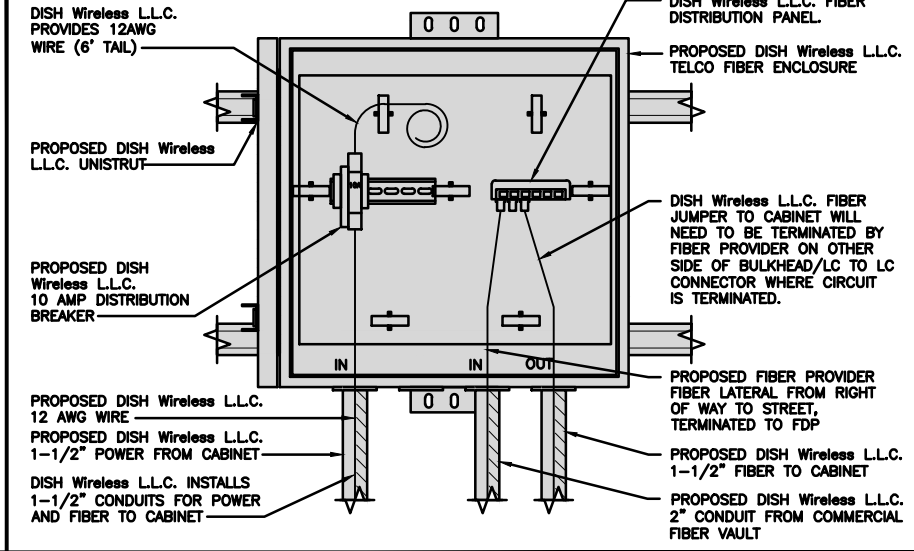
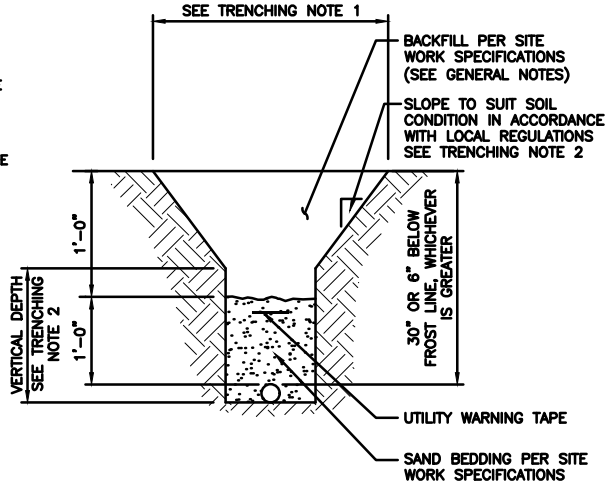
CARLON EXPANSION FITTINGS				
COUPLING END PART#	MALE TERMINAL ADAPTER END PART#	SIZE	STD CTN QTY.	TRAVEL LENGTH
E945D	E945DX	1/2"	20	4"
E945E	E945EX	3/4"	15	4"
E945F	E945FX	1"	10	4"
E945G	E945GX	1 1/4"	5	4"
E945H	E945HX	1 1/2"	5	4"
E945J	E945JX	2"	15	8"
E945K	E945KX	2 1/2"	10	8"
E945L	E945LX	3"	10	8"
E945M	E945MX	3 1/2"	5	8"
E945N	E945NX	4"	5	8"
E945P	E945PX	5"	1	8"
E945R	E945RX	6"	1	8"



NOTE: CONTRACTOR TO INSTALL EXPANSION FITTING SLIP JOINT AT METER CENTER CONDUIT TERMINATION, AS PER LOCAL UTILITY POLICY, ORDINANCE AND/OR SPECIFIED REQUIREMENT.

TRENCHING NOTES

- CONTRACTOR SHALL RESTORE THE TRENCH TO ITS ORIGINAL CONDITIONS BY EITHER SEEDING OR SODDING GRASS AREAS, OR REPLACING ASPHALT OR CONCRETE AREAS TO ITS ORIGINAL CROSS SECTION.
- TRENCHING SAFETY; INCLUDING, BUT NOT LIMITED TO SOIL CLASSIFICATION, SLOPING, AND SHORING, SHALL BE GOVERNED BY THE CURRENT OSHA TRENCHING AND EXCAVATION SAFETY STANDARDS.
- ALL CONDUITS SHALL BE INSTALLED IN COMPLIANCE WITH THE CURRENT NATIONAL ELECTRIC CODE (NEC) OR AS REQUIRED BY THE LOCAL JURISDICTION, WHICHEVER IS THE MOST STRINGENT.



EXPANSION JOINT DETAIL

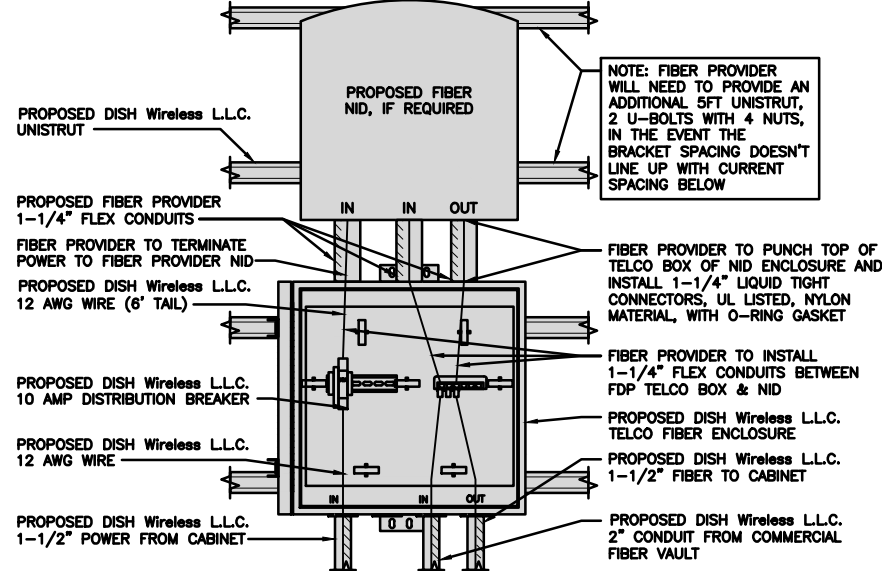
NO SCALE 1

TYPICAL UNDERGROUND TRENCH DETAIL

NO SCALE 2

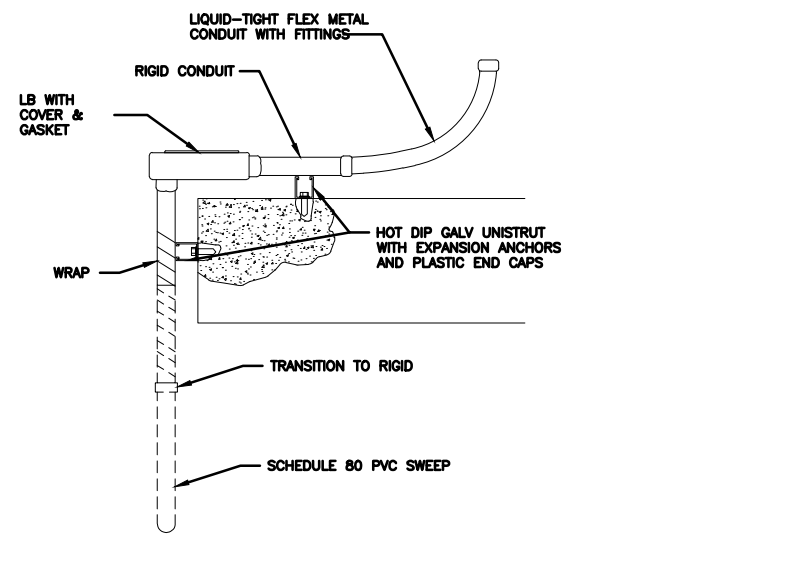
DARK TELCO BOX - INTERIOR WIRING LAYOUT

NO SCALE 3



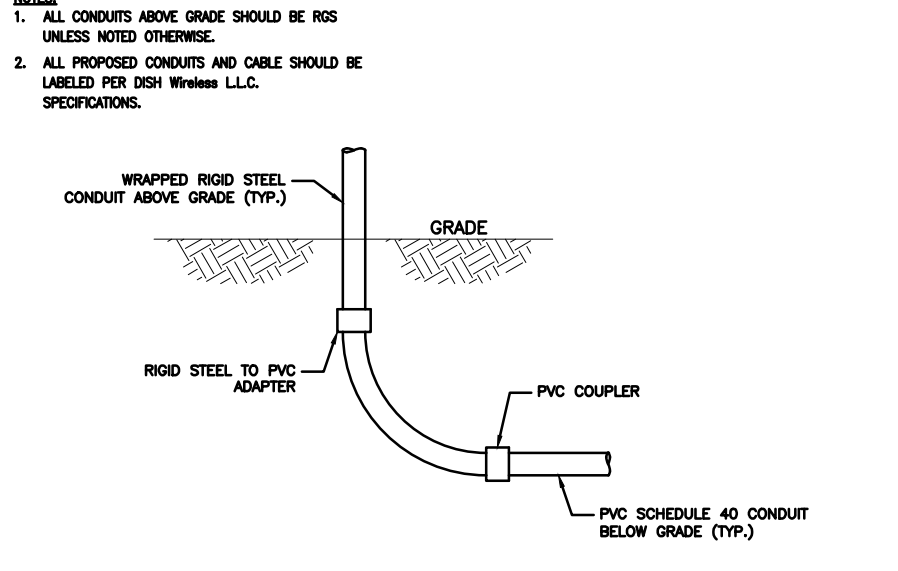
LIT TELCO BOX - INTERIOR WIRING LAYOUT (OPTIONAL)

NO SCALE 4



CABINET CONDUIT DETAIL

NO SCALE 5



TYPICAL UNDERGROUND CONDUIT STUB-UP DETAIL

NO SCALE 6

NOT USED

NO SCALE 7

NOT USED

NO SCALE 8

NOT USED

NO SCALE 9



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



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

DRAWN BY: LTH CHECKED BY: DM APPROVED BY: MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

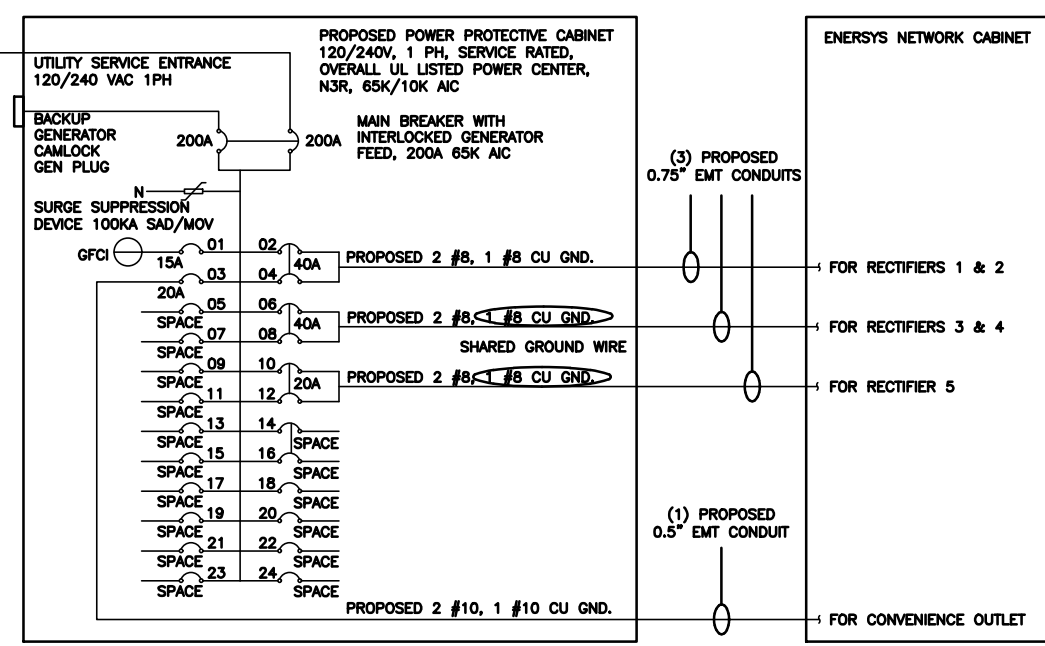
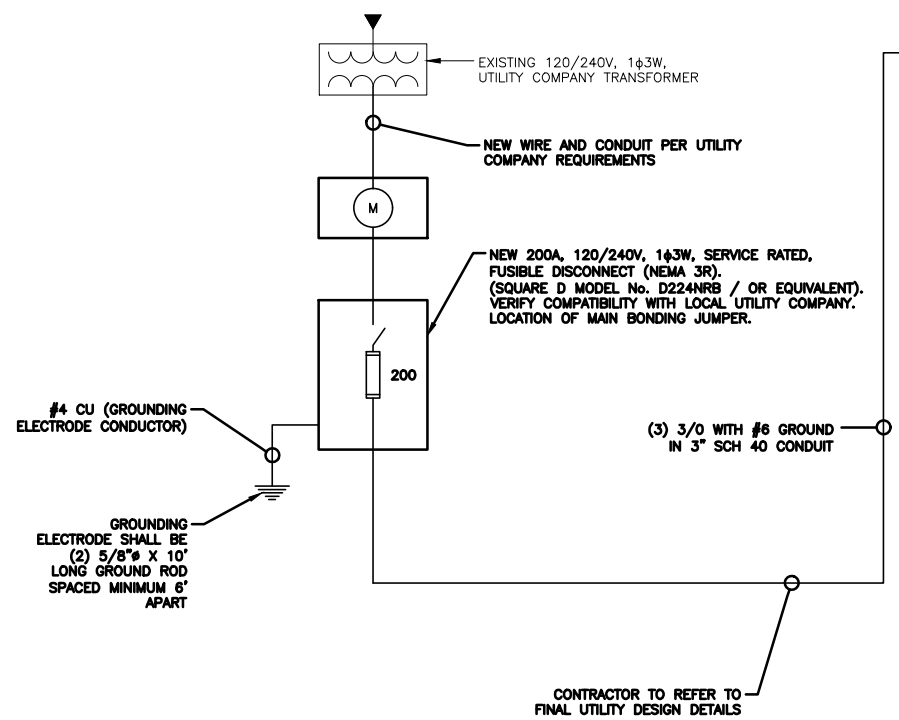
SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION
PRPD00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
ELECTRICAL
DETAILS

SHEET NUMBER
E-2



NOTE: BRANCH CIRCUIT WIRING SUPPLYING RECTIFIERS ARE TO BE RATED UL1015, 105°C, 600V, AND PVC INSULATED, IN THE SIZES SHOWN IN THE ONE-LINE DIAGRAM. CONTRACTOR MAY SUBSTITUTE UL1015 WIRE FOR THWN-2 FOR CONVENIENCE OUTLET BRANCH CIRCUIT.

BREAKERS REQUIRED:

(2) 40A, 2P BREAKER - SQUARE D P/N:Q0240

(1) 20A, 2P BREAKER - SQUARE D P/N:Q0220

(1) 20A, 1P BREAKER - SQUARE D P/N:Q0120

NOTES

CONDUIT SIZING: AT 40% FILL PER NEC CHAPTER 9, TABLE 4, ARTICLE 358.

0.5" CONDUIT - 0.122 SQ. IN AREA

0.75" CONDUIT - 0.213 SQ. IN AREA

2.0" CONDUIT - 1.316 SQ. IN AREA

3.0" CONDUIT - 2.907 SQ. IN AREA

CABINET CONVENIENCE OUTLET CONDUCTORS (1 CONDUIT): USING THWN-2, CU.

#10 - 0.0211 SQ. IN X 2 = 0.0422 SQ. IN

#10 - 0.0211 SQ. IN X 1 = 0.0211 SQ. IN <GROUND

TOTAL = 0.0633 SQ. IN

0.5" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (3) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

RECTIFIER CONDUCTORS (3 CONDUITS): USING UL1015, CU.

#8 - 0.0552 SQ. IN X 2 = 0.1103 SQ. IN

#8 - 0.0131 SQ. IN X 1 = 0.0131 SQ. IN <BARE GROUND

TOTAL = 0.1234 SQ. IN

0.75" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (3) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

PPC FEED CONDUCTORS (1 CONDUIT): USING THWN, CU.

3/0 - 0.2679 SQ. IN X 3 = 0.8037 SQ. IN

#6 - 0.0507 SQ. IN X 1 = 0.0507 SQ. IN <GROUND

TOTAL = 0.8544 SQ. IN

3.0" SCH 40 PVC CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (4) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

PPC ONE-LINE DIAGRAM

NO SCALE 1

PROPOSED ENERSYS PANEL SCHEDULE

LOAD SERVED	VOLT AMPS (WATTS)		TRIP	CKT #	PHASE	CKT #	TRIP	VOLT AMPS (WATTS)		LOAD SERVED
	L1	L2						L1	L2	
PPC GFCI OUTLET	180	180	15A	1	A	2	40A	3840	3840	ENERSYS ALPHA CORDEX RECTIFIERS 1 & 2
ENERSYS GFCI OUTLET			20A	3	B	4	40A	3840	3840	ENERSYS ALPHA CORDEX RECTIFIER 3 & 4
-SPACE-				5	A	6	40A	3840	3840	ENERSYS ALPHA CORDEX RECTIFIER 3 & 4
-SPACE-				7	B	8	20A	1920	1920	ENERSYS ALPHA CORDEX RECTIFIER 5
-SPACE-				9	A	10				-SPACE-
-SPACE-				11	B	12				-SPACE-
-SPACE-				13	A	14				-SPACE-
-SPACE-				15	B	16				-SPACE-
-SPACE-				17	A	18				-SPACE-
-SPACE-				19	B	20				-SPACE-
-SPACE-				21	A	22				-SPACE-
-SPACE-				23	B	24				-SPACE-
VOLTAGE AMPS		180	180					9500	9500	
200A MCB, 1ϕ, 24 SPACE, 120/240V				L1	L2					
MB RATING: 65,000 AIC				9680	9680					
				81	81					
				81						
				102						

PANEL SCHEDULE

NO SCALE 2

NOT USED

NO SCALE 3



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



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

DRAWN BY: LTH CHECKED BY: DM APPROVED BY: MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS

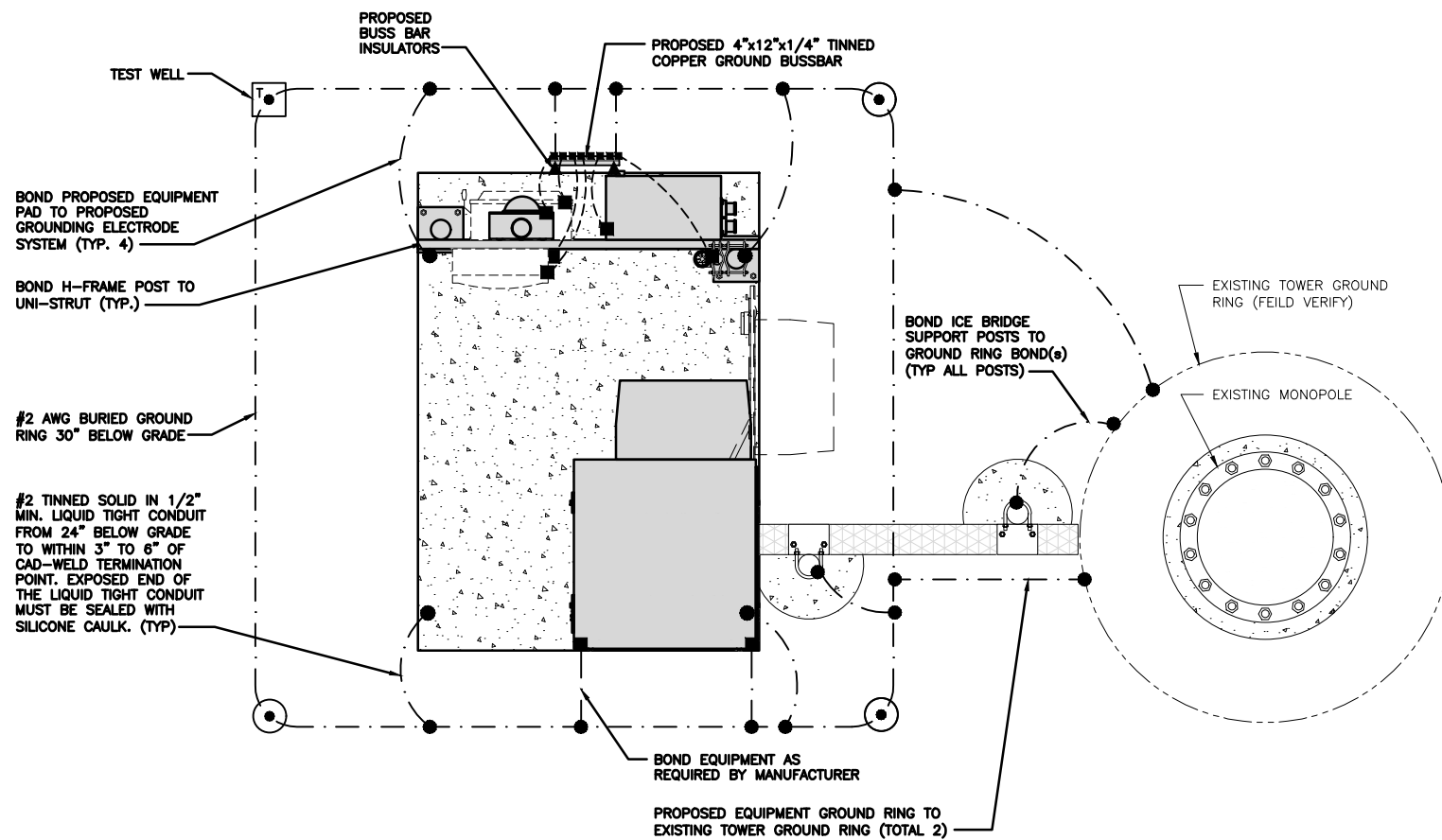
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION
PRPD00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
ELECTRICAL ONE-LINE, FAULT
CALCS & PANEL SCHEDULE

SHEET NUMBER
E-3

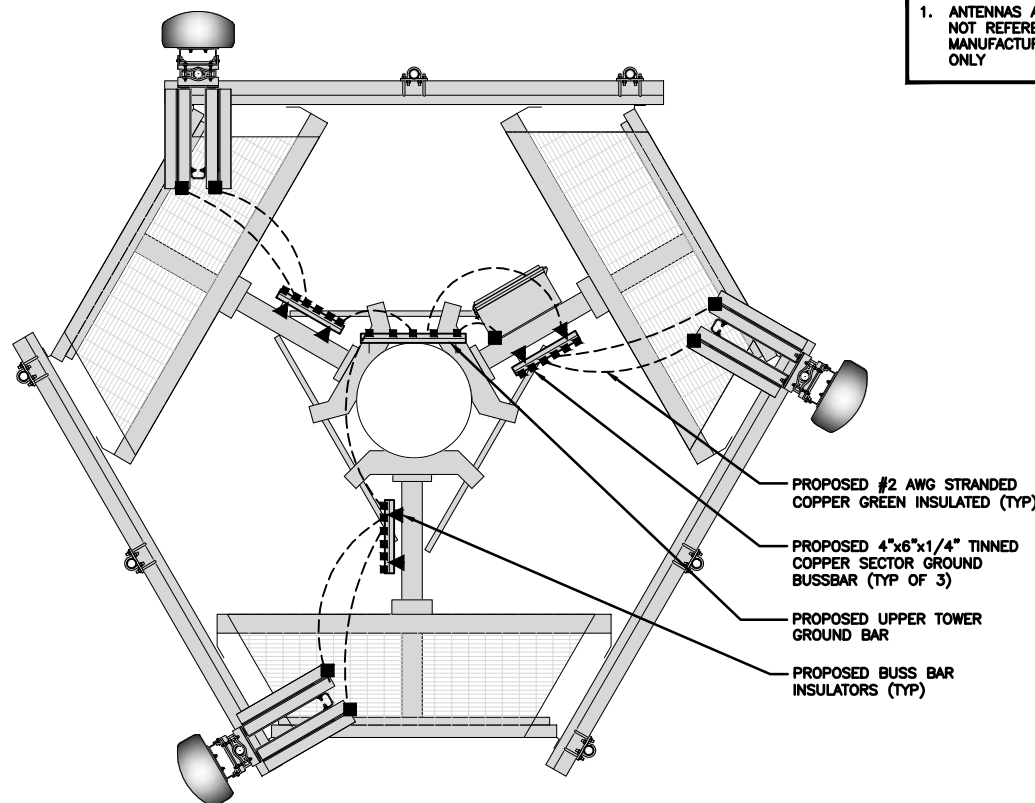


TYPICAL EQUIPMENT GROUNDING PLAN

NO SCALE 1

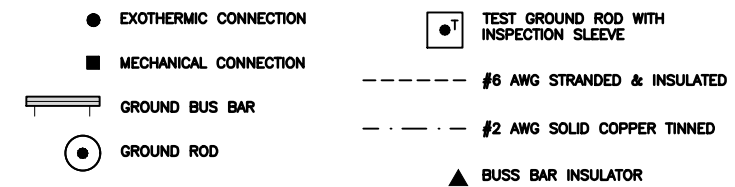
NOTES

1. ANTENNAS AND OVP SHOWN ARE GENERIC AND NOT REFERENCING TO A SPECIFIC MANUFACTURER. THIS LAYOUT IS FOR REFERENCE ONLY



TYPICAL ANTENNA GROUNDING PLAN

NO SCALE 2



GROUNDING LEGEND

1. GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
2. CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND DISH Wireless L.L.C. GROUNDING AND BONDING REQUIREMENTS AND MANUFACTURER'S SPECIFICATIONS.
3. ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED.

GROUNDING KEY NOTES

- (A) **EXTERIOR GROUND RING:** #2 AWG SOLID COPPER, BURIED AT A DEPTH OF AT LEAST 30 INCHES BELOW GRADE, OR 6 INCHES BELOW THE FROST LINE AND APPROXIMATELY 24 INCHES FROM THE EXTERIOR WALL OR FOOTING.
- (B) **TOWER GROUND RING:** THE GROUND RING SYSTEM SHALL BE INSTALLED AROUND AN ANTENNA TOWER'S LEGS, AND/OR GUY ANCHORS. WHERE SEPARATE SYSTEMS HAVE BEEN PROVIDED FOR THE TOWER AND THE BUILDING, AT LEAST TWO BONDS SHALL BE MADE BETWEEN THE TOWER RING GROUND SYSTEM AND THE BUILDING RING GROUND SYSTEM USING MINIMUM #2 AWG SOLID COPPER CONDUCTORS.
- (C) **INTERIOR GROUND RING:** #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTOR EXTENDED AROUND THE PERIMETER OF THE EQUIPMENT AREA. ALL NON-TELECOMMUNICATIONS RELATED METALLIC OBJECTS FOUND WITHIN A SITE SHALL BE GROUNDED TO THE INTERIOR GROUND RING WITH #6 AWG STRANDED GREEN INSULATED CONDUCTOR.
- (D) **BOND TO INTERIOR GROUND RING:** #2 AWG SOLID TINNED COPPER WIRE PRIMARY BONDS SHALL BE PROVIDED AT LEAST AT FOUR POINTS ON THE INTERIOR GROUND RING, LOCATED AT THE CORNERS OF THE BUILDING.
- (E) **GROUND ROD:** UL LISTED COPPER CLAD STEEL MINIMUM 1/2" DIAMETER BY EIGHT FEET LONG. GROUND RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN TO THE DEPTH OF GROUND RING CONDUCTOR.
- (F) **CELL REFERENCE GROUND BAR:** POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 AWG UNLESS NOTED OTHERWISE STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING WITH (2) #2 SOLID TINNED COPPER CONDUCTORS.
- (G) **HATCH PLATE GROUND BAR:** BOND TO THE INTERIOR GROUND RING WITH TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CRGB MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING (2) TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS EACH.
- (H) **EXTERIOR CABLE ENTRY PORT GROUND BARS:** LOCATED AT THE ENTRANCE TO THE CELL SITE BUILDING. BOND TO GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC WELD AND INSPECTION SLEEVE.
- (I) **TELCO GROUND BAR:** BOND TO BOTH CELL REFERENCE GROUND BAR OR EXTERIOR GROUND RING.
- (J) **FRAME BONDING:** THE BONDING POINT FOR TELECOM EQUIPMENT FRAMES SHALL BE THE GROUND BUS THAT IS NOT ISOLATED FROM THE EQUIPMENTS METAL FRAMEWORK.
- (K) **INTERIOR UNIT BONDS:** METAL FRAMES, CABINETS AND INDIVIDUAL METALLIC UNITS LOCATED WITH THE AREA OF THE INTERIOR GROUND RING REQUIRE A #6 AWG STRANDED GREEN INSULATED COPPER BOND TO THE INTERIOR GROUND RING.
- (L) **FENCE AND GATE GROUNDING:** METAL FENCES WITHIN 7 FEET OF THE EXTERIOR GROUND RING OR OBJECTS BONDED TO THE EXTERIOR GROUND RING SHALL BE BONDED TO THE GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTOR AT AN INTERVAL NOT EXCEEDING 25 FEET. BONDS SHALL BE MADE AT EACH GATE POST AND ACROSS GATE OPENINGS.
- (M) **EXTERIOR UNIT BONDS:** METALLIC OBJECTS, EXTERNAL TO OR MOUNTED TO THE BUILDING, SHALL BE BONDED TO THE EXTERIOR GROUND RING. USING #2 TINNED SOLID COPPER WIRE
- (N) **ICE BRIDGE SUPPORTS:** EACH ICE BRIDGE LEG SHALL BE BONDED TO THE GROUND RING WITH #2 AWG BARE TINNED COPPER CONDUCTOR. PROVIDE EXOTHERMIC WELDS AT BOTH THE ICE BRIDGE LEG AND BURIED GROUND RING.
- (O) **DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICE CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH A MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR**
- (P) **TOWER TOP COLLECTOR BUSS BAR IS TO BE MECHANICALLY BONDED TO PROPOSED ANTENNA MOUNT COLLAR. REFER TO DISH Wireless L.L.C. GROUNDING NOTES.**

GROUNDING KEY NOTES

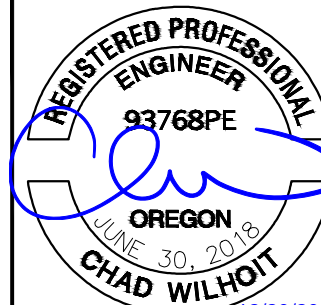
NO SCALE 3



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



12/20/2021
EXPIRES: 6/30/2022

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

DRAWN BY: LTH
CHECKED BY: DM
APPROVED BY: MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
D	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION

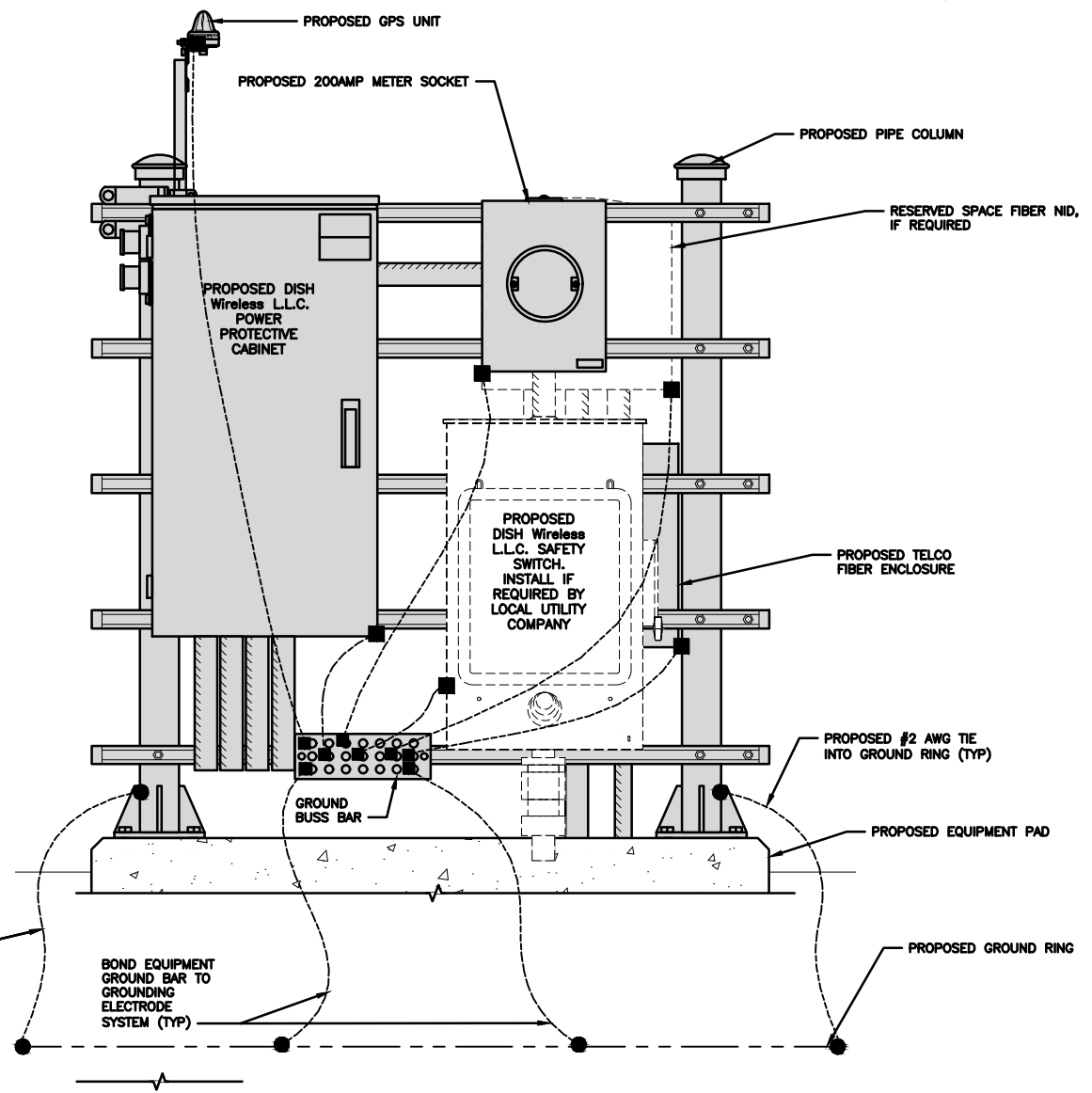
PRPD00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
GROUNDING PLANS
AND NOTES

SHEET NUMBER

G-1

NOTES
EQUIPMENT CABINET OMITTED FOR CLARITY

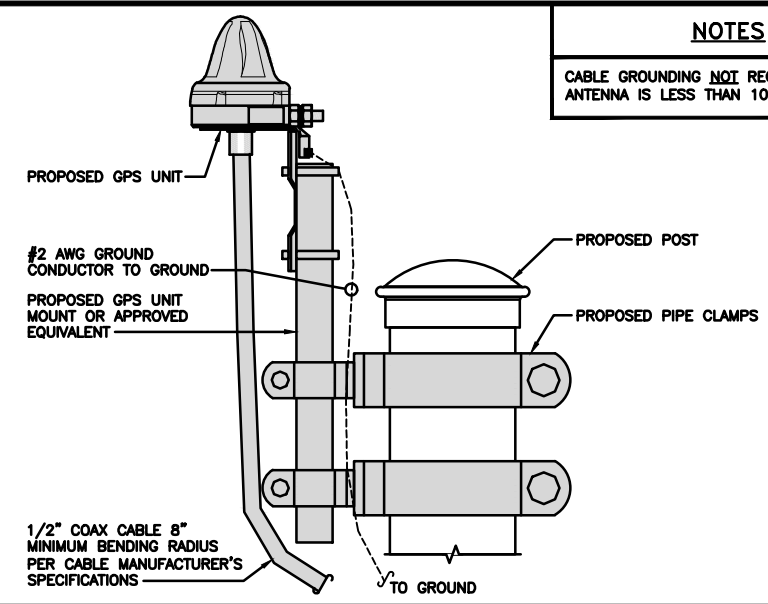


#2 TINNED SOLID IN 1/2" MIN. LIQUID TIGHT CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. EXPOSED END OF THE LIQUID TIGHT CONDUIT MUST BE SEALED WITH SILICONE CAULK. (TYP)

H-FRAME GROUNDING DETAIL

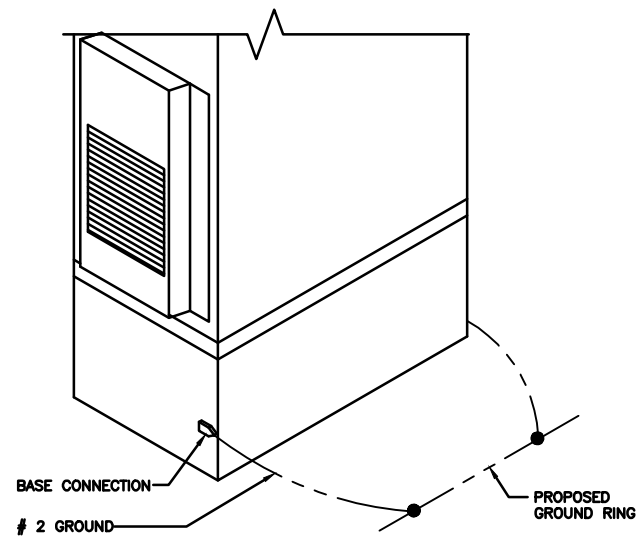
NO SCALE 1

NOTES
CABLE GROUNDING NOT REQUIRED WHEN ANTENNA IS LESS THAN 10' FROM CABINET



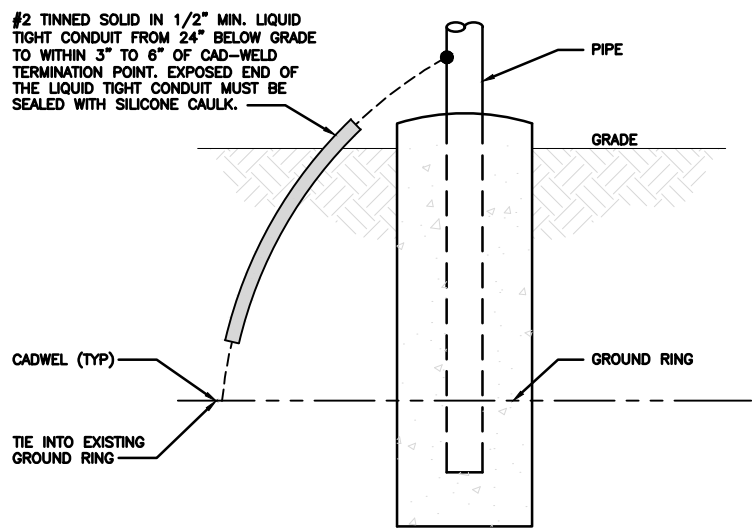
TYPICAL GPS UNIT GROUNDING

NO SCALE 2



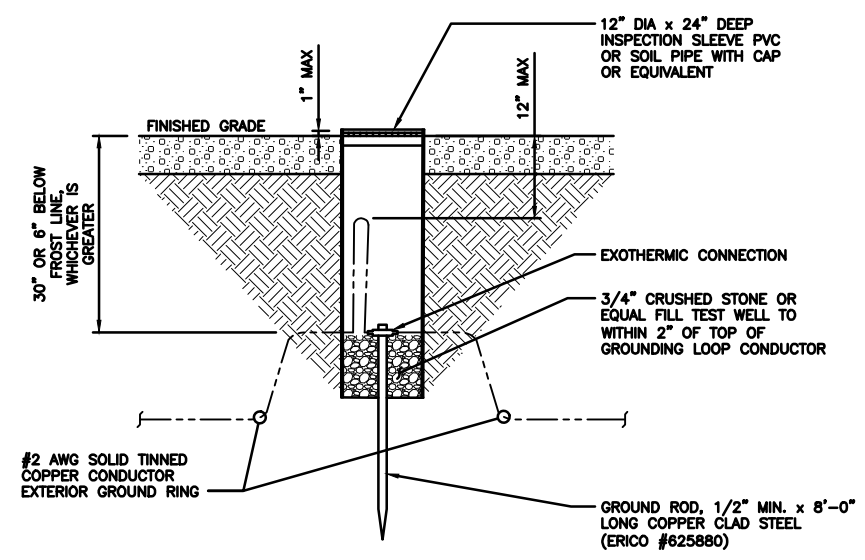
OUTDOOR CABINET GROUNDING

NO SCALE 3



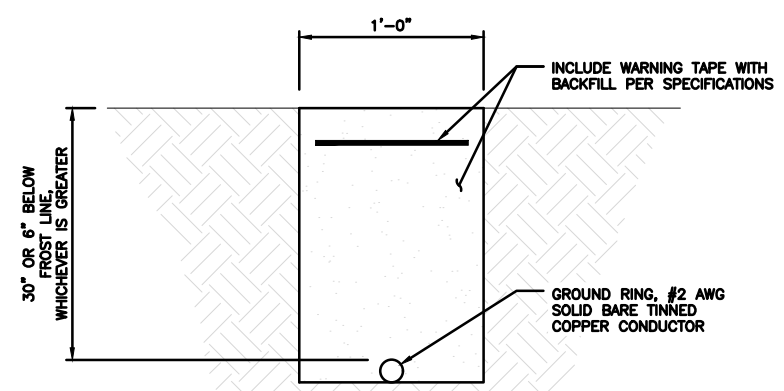
TRANSITIONING GROUND DETAIL

NO SCALE 4



TYPICAL TEST GROUND ROD WITH INSPECTION SLEEVE

NO SCALE 5



TYPICAL GROUND RING TRENCH

NO SCALE 6



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



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

DRAWN BY: LTH
CHECKED BY: DM
APPROVED BY: MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
D	12/17/2021	ISSUED FOR CONSTRUCTION

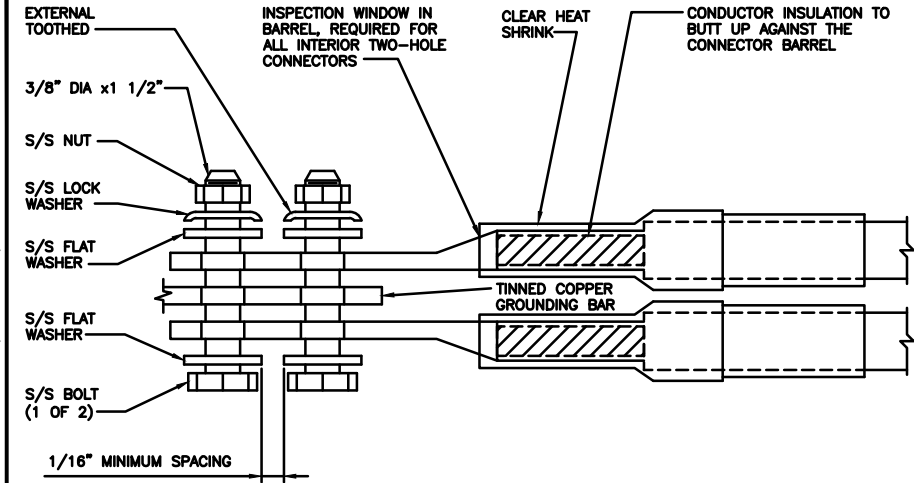
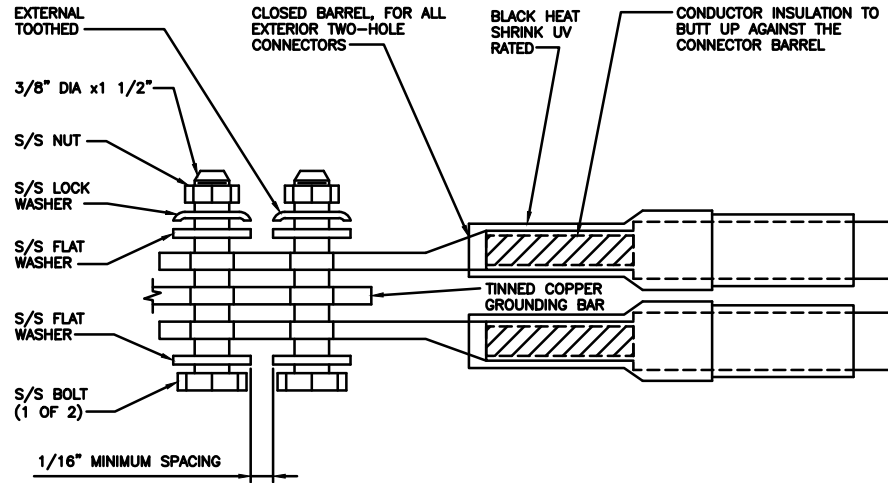
A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION
PRPD00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER
G-2

1. EXOTHERMIC WELD (2) TWO, #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR. ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. ALL EXTERIOR GROUNDING HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
3. FOR GROUND BOND TO STEEL ONLY: COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
4. DO NOT INSTALL CABLE GROUNDING KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUNDING BUS.
5. NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE.
6. ALL GROUNDING PARTS AND EQUIPMENT TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED.
8. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).



TYPICAL GROUNDING NOTES

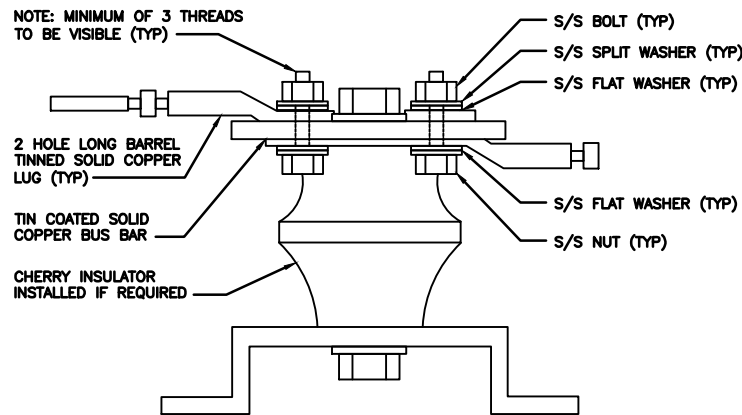
NO SCALE 1

TYPICAL EXTERIOR TWO HOLE LUG

NO SCALE 2

TYPICAL INTERIOR TWO HOLE LUG

NO SCALE 3



LUG DETAIL

NO SCALE 4

NOT USED

NO SCALE 5

NOT USED

NO SCALE 6

NOT USED

NO SCALE 7

NOT USED

NO SCALE 8

NOT USED

NO SCALE 9

dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

PM&A

1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



EXPIRES: 6/30/2022

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

DRAWN BY: LTH
CHECKED BY: DM
APPROVED BY: MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
D	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION

PRPD00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER
G-3

RF JUMPER COLOR CODING

3/4" TAPE WIDTHS WITH 3/4" SPACING

LOW-BAND RRH -
(600MHz N71 BASEBAND) +
(850MHz N26 BAND) +
(700MHz N29 BAND) - OPTIONAL PER MARKET

ADD FREQUENCY COLOR TO SECTOR BAND
(CBRS WILL USE YELLOW BANDS)

ALPHA RRH				BETA RRH				GAMMA RRH			
PORT 1 + SLANT	PORT 2 - SLANT	PORT 3 + SLANT	PORT 4 - SLANT	PORT 1 + SLANT	PORT 2 - SLANT	PORT 3 + SLANT	PORT 4 - SLANT	PORT 1 + SLANT	PORT 2 - SLANT	PORT 3 + SLANT	PORT 4 - SLANT
RED	RED	RED	RED	BLUE	BLUE	BLUE	BLUE	GREEN	GREEN	GREEN	GREEN
ORANGE	ORANGE	RED	RED	ORANGE	ORANGE	BLUE	BLUE	ORANGE	ORANGE	GREEN	GREEN
	WHITE (-) PORT	ORANGE	ORANGE		WHITE (-) PORT	ORANGE	ORANGE		WHITE (-) PORT	ORANGE	ORANGE
			WHITE (-) PORT				WHITE (-) PORT				WHITE (-) PORT

MID-BAND RRH -
(AWS BANDS N66+N70)

ADD FREQUENCY COLOR TO SECTOR BAND
(CBRS WILL USE YELLOW BANDS)

RED	RED	RED	RED	BLUE	BLUE	BLUE	BLUE	GREEN	GREEN	GREEN	GREEN
PURPLE	PURPLE	RED	RED	PURPLE	PURPLE	BLUE	BLUE	PURPLE	PURPLE	GREEN	GREEN
	WHITE (-) PORT	PURPLE	PURPLE		WHITE (-) PORT	PURPLE	PURPLE		WHITE (-) PORT	PURPLE	PURPLE
			WHITE (-) PORT				WHITE (-) PORT				WHITE (-) PORT

HYBRID/DISCREET CABLES

INCLUDE SECTOR BANDS BEING SUPPORTED
ALONG WITH FREQUENCY BANDS

EXAMPLE 1 - HYBRID, OR DISCREET, SUPPORTS
ALL SECTORS, BOTH LOW-BANDS AND MID-BANDS

EXAMPLE 2 - HYBRID, OR DISCREET, SUPPORTS
CBRS ONLY, ALL SECTORS

EXAMPLE 1	EXAMPLE 2	EXAMPLE 3
RED	RED	RED
BLUE	BLUE	
GREEN	GREEN	ORANGE
ORANGE	YELLOW	PURPLE
PURPLE		

FIBER JUMPERS TO RRHs

LOW-BAND RRH FIBER CABLES HAVE SECTOR
STRIPE ONLY

LOW BAND RRH	HIGH BAND RRH	LOW BAND RRH	HIGH BAND RRH	LOW BAND RRH	HIGH BAND RRH
RED	RED	BLUE	BLUE	GREEN	GREEN
	PURPLE		PURPLE		PURPLE

POWER CABLES TO RRHs

LOW-BAND RRH POWER CABLES HAVE SECTOR
STRIPE ONLY

LOW BAND RRH	HIGH BAND RRH	LOW BAND RRH	HIGH BAND RRH	LOW BAND RRH	HIGH BAND RRH
RED	RED	BLUE	BLUE	GREEN	GREEN
	PURPLE		PURPLE		PURPLE

RET MOTORS AT ANTENNAS

ANTENNA 1 LOW BAND/ "IN"	ANTENNA 1 HIGH BAND/ "IN"	ANTENNA 1 LOW BAND/ "IN"	ANTENNA 1 HIGH BAND/ "IN"	ANTENNA 1 LOW BAND/ "IN"	ANTENNA 1 HIGH BAND/ "IN"
RED	RED	BLUE	BLUE	GREEN	GREEN
	PURPLE		PURPLE		PURPLE

MICROWAVE RADIO LINKS

LINKS WILL HAVE A 1.5-2 INCH WHITE WRAP WITH
THE AZIMUTH COLOR OVERLAPPING IN THE MIDDLE.
ADD ADDITIONAL SECTOR COLOR BANDS FOR EACH
ADDITIONAL MW RADIO.

MICROWAVE CABLES WILL REQUIRE P-TOUCH
LABELS INSIDE THE CABINET TO IDENTIFY THE
LOCAL AND REMOTE SITE ID'S

FORWARD AZIMUTH OF 0-120 DEGREES		FORWARD AZIMUTH OF 120-240 DEGREES		FORWARD AZIMUTH OF 240-360 DEGREES	
PRIMARY	SECONDARY	PRIMARY	SECONDARY	PRIMARY	SECONDARY
WHITE	WHITE	WHITE	WHITE	WHITE	WHITE
RED	RED	BLUE	BLUE	GREEN	GREEN
WHITE	WHITE	WHITE	WHITE	WHITE	WHITE
	RED		BLUE		GREEN
	WHITE		WHITE		WHITE
	WHITE		WHITE		WHITE

RF CABLE COLOR CODES

NO SCALE

1

LOW BANDS (N71+N26)
OPTIONAL - (N29)

ORANGE

CBRS TECH
(3 GHz)

YELLOW

AWS
(N66+N70+H-BLOCK)

PURPLE

NEGATIVE SLANT PORT
ON ANT/RRH

WHITE

ALPHA SECTOR

RED

BETA SECTOR

BLUE

GAMMA SECTOR

GREEN

COLOR IDENTIFIER

NO SCALE

2

NOT USED

NO SCALE

3

NOT USED

NO SCALE

4



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



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

DRAWN BY: LTH
CHECKED BY: DM
APPROVED BY: MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
D	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION

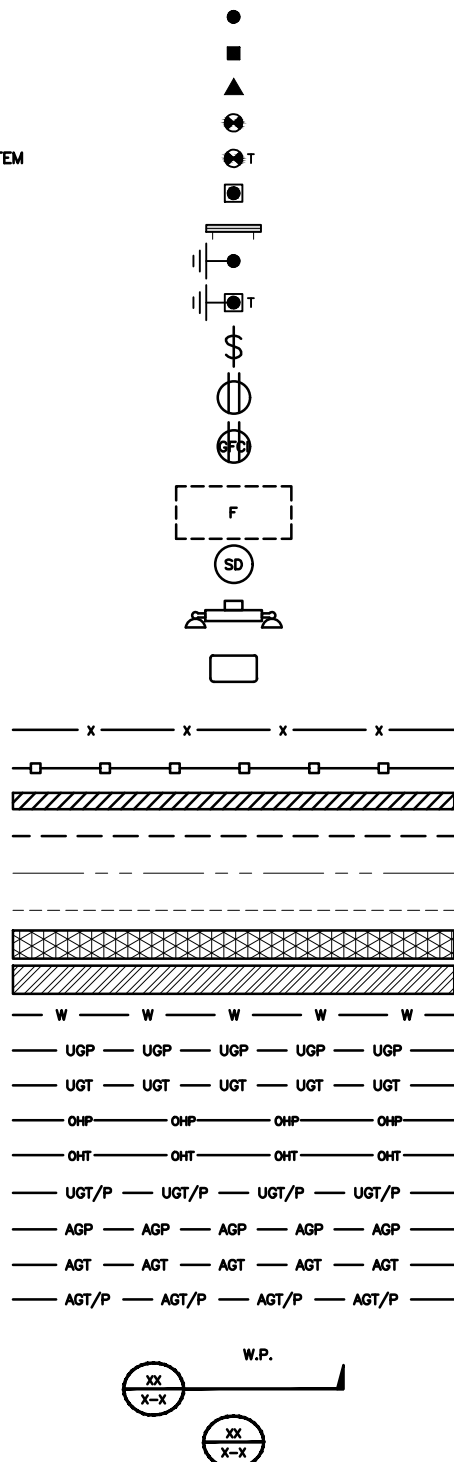
PRPD00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
RF
CABLE COLOR CODES

SHEET NUMBER

RF-1

EXOTHERMIC CONNECTION
 MECHANICAL CONNECTION
 BUSS BAR INSULATOR
 CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
 TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
 EXOTHERMIC WITH INSPECTION SLEEVE
 GROUNDING BAR
 GROUND ROD
 TEST GROUND ROD WITH INSPECTION SLEEVE
 SINGLE POLE SWITCH
 DUPLEX RECEPTACLE
 DUPLEX GFCI RECEPTACLE
 FLUORESCENT LIGHTING FIXTURE
 (2) TWO LAMPS 48-T8
 SMOKE DETECTION (DC)
 EMERGENCY LIGHTING (DC)
 SECURITY LIGHT W/PHOTOCELL LITHONIA ALXW
 LED-1-25A400/51K-SR4-120-PE-DBTDX
 CHAIN LINK FENCE
 WOOD/WROUGHT IRON FENCE
 WALL STRUCTURE
 LEASE AREA
 PROPERTY LINE (PL)
 SETBACKS
 ICE BRIDGE
 CABLE TRAY
 WATER LINE
 UNDERGROUND POWER
 UNDERGROUND TELCO
 OVERHEAD POWER
 OVERHEAD TELCO
 UNDERGROUND TELCO/POWER
 ABOVE GROUND POWER
 ABOVE GROUND TELCO
 ABOVE GROUND TELCO/POWER
 WORKPOINT
 SECTION REFERENCE
 DETAIL REFERENCE



LEGEND

AB ANCHOR BOLT	IN INCH
ABV ABOVE	INT INTERIOR
AC ALTERNATING CURRENT	LB(S) POUND(S)
ADDL ADDITIONAL	LF LINEAR FEET
AFF ABOVE FINISHED FLOOR	LTE LONG TERM EVOLUTION
AFG ABOVE FINISHED GRADE	MAS MASONRY
AGL ABOVE GROUND LEVEL	MAX MAXIMUM
AIC AMPERAGE INTERRUPTION CAPACITY	MB MACHINE BOLT
ALUM ALUMINUM	MECH MECHANICAL
ALT ALTERNATE	MFR MANUFACTURER
ANT ANTENNA	MGB MASTER GROUND BAR
APPROX APPROXIMATE	MIN MINIMUM
ARCH ARCHITECTURAL	MISC MISCELLANEOUS
ATS AUTOMATIC TRANSFER SWITCH	MTL METAL
AWG AMERICAN WIRE GAUGE	MTS MANUAL TRANSFER SWITCH
BATT BATTERY	MW MICROWAVE
BLDG BUILDING	NEC NATIONAL ELECTRIC CODE
BLK BLOCK	NM NEWTON METERS
BLKG BLOCKING	NO. NUMBER
BM BEAM	# NUMBER
BTC BARE TINNED COPPER CONDUCTOR	NTS NOT TO SCALE
BOF BOTTOM OF FOOTING	OC ON-CENTER
CAB CABINET	OSHA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
CANT CANTILEVERED	OPNG OPENING
CHG CHARGING	P/C PRECAST CONCRETE
CLG CEILING	PCS PERSONAL COMMUNICATION SERVICES
CLR CLEAR	PCU PRIMARY CONTROL UNIT
COL COLUMN	PRC PRIMARY RADIO CABINET
COMM COMMON	PP POLARIZING PRESERVING
CONC CONCRETE	PSF POUNDS PER SQUARE FOOT
CONSTR CONSTRUCTION	PSI POUNDS PER SQUARE INCH
DBL DOUBLE	PT PRESSURE TREATED
DC DIRECT CURRENT	PWR POWER CABINET
DEPT DEPARTMENT	QTY QUANTITY
DF DOUGLAS FIR	RAD RADIUS
DIA DIAMETER	RECT RECTIFIER
DIAG DIAGONAL	REF REFERENCE
DIM DIMENSION	REINF REINFORCEMENT
DWG DRAWING	REQ'D REQUIRED
DWL DOWEL	RET REMOTE ELECTRIC TILT
EA EACH	RF RADIO FREQUENCY
EC ELECTRICAL CONDUCTOR	RMC RIGID METALLIC CONDUIT
EL ELEVATION	RRH REMOTE RADIO HEAD
ELEC ELECTRICAL	RRU REMOTE RADIO UNIT
EMT ELECTRICAL METALLIC TUBING	RWY RACEWAY
ENG ENGINEER	SCH SCHEDULE
EQ EQUAL	SHT SHEET
EXP EXPANSION	SIAD SMART INTEGRATED ACCESS DEVICE
EXT EXTERIOR	SIM SIMILAR
EW EACH WAY	SPEC SPECIFICATION
FAB FABRICATION	SQ SQUARE
FF FINISH FLOOR	SS STAINLESS STEEL
FG FINISH GRADE	STD STANDARD
FIF FACILITY INTERFACE FRAME	STL STEEL
FIN FINISH(ED)	TEMP TEMPORARY
FLR FLOOR	THK THICKNESS
FDN FOUNDATION	TMA TOWER MOUNTED AMPLIFIER
FOC FACE OF CONCRETE	TN TOE NAIL
FOM FACE OF MASONRY	TOA TOP OF ANTENNA
FOS FACE OF STUD	TOC TOP OF CURB
FOW FACE OF WALL	TOF TOP OF FOUNDATION
FS FINISH SURFACE	TOP TOP OF PLATE (PARAPET)
FT FOOT	TOS TOP OF STEEL
FTG FOOTING	TOW TOP OF WALL
GA GAUGE	TVSS TRANSIENT VOLTAGE SURGE SUPPRESSION
GEN GENERATOR	TYP TYPICAL
GFCI GROUND FAULT CIRCUIT INTERRUPTER	UG UNDERGROUND
GLB GLUE LAMINATED BEAM	UL UNDERWRITERS LABORATORY
GLV GALVANIZED	UNO UNLESS NOTED OTHERWISE
GPS GLOBAL POSITIONING SYSTEM	UMTS UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
GND GROUND	UPS UNINTERRUPTIBLE POWER SYSTEM (DC POWER PLANT)
GSM GLOBAL SYSTEM FOR MOBILE	VIF VERIFIED IN FIELD
HDG HOT DIPPED GALVANIZED	W WIDE
HDR HEADER	W/ WITH
HGR HANGER	WD WOOD
HVAC HEAT/VENTILATION/AIR CONDITIONING	WP WEATHERPROOF
HT HEIGHT	WT WEIGHT
IGR INTERIOR GROUND RING	

ABBREVIATIONS



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



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

DRAWN BY:	CHECKED BY:	APPROVED BY:
LTH	DM	MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION

PRPD00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
LEGEND AND ABBREVIATIONS

SHEET NUMBER

GN-1

SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED – NO WORK SHALL COMMENCE PRIOR TO CONTRACTOR RECEIVING A WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE DISH Wireless L.L.C. AND TOWER OWNER NOC & THE DISH Wireless L.L.C. AND TOWER OWNER CONSTRUCTION MANAGER.
2. "LOOK UP" – DISH Wireless L.L.C. AND TOWER OWNER SAFETY CLIMB REQUIREMENT:
THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR DISH Wireless L.L.C. AND DISH Wireless L.L.C. AND TOWER OWNER POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
4. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND DISH Wireless L.L.C. AND TOWER OWNER STANDARDS, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA-322 (LATEST EDITION).
5. ALL SITE WORK TO COMPLY WITH DISH Wireless L.L.C. AND TOWER OWNER INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON DISH Wireless L.L.C. AND TOWER OWNER TOWER SITE AND LATEST VERSION OF ANSI/TIA-1019-A-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY DISH Wireless L.L.C. AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES INCLUDING PRIVATE LOCATES SERVICES PRIOR TO THE START OF CONSTRUCTION.
10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND DISH PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF DISH Wireless L.L.C. AND TOWER OWNER, AND/OR LOCAL UTILITIES.
14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
17. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
19. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS AND RADIOS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GENERAL NOTES:

- 1.FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR:GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION
CARRIER:DISH Wireless L.L.C.
TOWER OWNER:TOWER OWNER
2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
6. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CARRIER POC AND TOWER OWNER.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION, BEFORE SUBMITTING BIDS, TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF DISH Wireless L.L.C. AND TOWER OWNER
13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



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

DRAWN BY:	CHECKED BY:	APPROVED BY:
LTH	DM	MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION
PRPD00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-2

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
- UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°f AT TIME OF PLACEMENT.
- CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
- ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
 #4 BARS AND SMALLER 40 ksi
 #5 BARS AND LARGER 60 ksi
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
 - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
 - CONCRETE EXPOSED TO EARTH OR WEATHER:
 - #6 BARS AND LARGER 2"
 - #5 BARS AND SMALLER 1-1/2"
 - CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
 - SLAB AND WALLS 3/4"
 - BEAMS AND COLUMNS 1-1/2"
- A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
- CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
- WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
- ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
- ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
- EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
- PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
- TIE WRAPS ARE NOT ALLOWED.
- ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
- ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

- ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
- WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).
- SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
- CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3 (OR BETTER) FOR EXTERIOR LOCATIONS.
- METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR DISH Wireless L.L.C. AND TOWER OWNER BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
- INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "DISH Wireless L.L.C."
- ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



EXPIRES: 6/30/2022

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

DRAWN BY:	CHECKED BY:	APPROVED BY:
LTH	DM	MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION
PRPDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-3

GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). DO NOT ATTACH GROUNDING TO FIRE SPRINKLER SYSTEM PIPES.



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



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

DRAWN BY:	CHECKED BY:	APPROVED BY:
LTH	DM	MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION

PRPDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-4

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of)
Implementation of State and Local Governments')
Obligation to Approve Certain Wireless Facility) WT Docket No. 19-250
Modification Requests Under Section 6409(a) of)
the Spectrum Act of 2012) RM-11849

DECLARATORY RULING AND NOTICE OF PROPOSED RULEMAKING

Adopted: June 9, 2020

Released: June 10, 2020

Comment Date: 20 days after publication in the Federal Register
Reply Date: 30 days after publication in the Federal Register

By the Commission: Chairman Pai and Commissioners O’Rielly and Carr issuing separate statements;
Commissioners Rosenworcel and Starks dissenting and issuing separate statements.

TABLE OF CONTENTS

Heading Paragraph #
I. INTRODUCTION..... 1
II. BACKGROUND..... 6
III. DECLARATORY RULING 11
A. Commencement of Shot Clock 14
B. Height Increase for Towers Outside the Public Rights-of-Way 24
C. Equipment Cabinets 29
D. Concealment Elements..... 32
E. Conditions Associated with the Siting Approval..... 41
F. Environmental Assessments After Execution of Memorandum of Agreement..... 45
IV. NOTICE OF PROPOSED RULEMAKING 51
V. PROCEDURAL MATTERS..... 57
VI. ORDERING CLAUSES..... 63
Appendix A—Comments and Reply Comments
Appendix B—Initial Regulatory Flexibility Analysis

I. INTRODUCTION

1. Today, we continue our efforts to facilitate the deployment of 5G networks—and the economic opportunity that they enable—in every community. To reach all corners of our nation, 5G networks must use a range of spectrum bands, from low to high frequencies, and a variety of physical infrastructure, from small cells to macro towers. To meet these needs, the Commission’s spectrum policy

has focused on making available a wide range of low-, mid-, and high-band spectrum.¹ Similarly, the Commission's infrastructure policy has focused on updating our regulations to reflect new technology like small cells. Most notably, the Commission has modernized its approach to federal historic preservation and environmental review governing wireless infrastructure to accommodate small cell technology² and has addressed outlier conduct at the State and local government level that needlessly slowed down and increased the costs of deploying new small cells and modified wireless facilities.³ We have seen a significant acceleration of wireless builds in the wake of those decisions. At the same time, there remain additional barriers to wireless infrastructure deployment that merit our consideration.

2. These barriers affect not just small cell deployment. Indeed, we know that providers of 5G networks will not reach all Americans solely by deploying small cell technology. We therefore also must focus on ensuring that our infrastructure regulations governing macro towers align with the critical need to upgrade existing sites for 5G networks, particularly in rural areas, where small cell deployment may be less concentrated.⁴ As the record in this proceeding shows, ongoing uncertainty regarding the application of existing federal law to aspects of State and local government review of modifications to

¹ *Review of the Commission's Rules Governing the 896-901/935-940 MHz Band*, WT Docket No. 17-200, Report and Order, Order of Proposed Modification, and Orders, FCC 20-67 (May 14, 2020); *Transforming the 2.5 GHz Band*, WT Docket No. 18-120, Report and Order, 34 FCC Rcd 5446 (2019); *Auction of Priority Access Licenses for the 3550-3650 MHz Band, Comment Sought on Competitive Bidding Procedures for Auction 105*, AU Docket No. 19-244, Public Notice, 34 FCC Rcd 9215 (OEA/AU 2019); *Expanding Flexible Use of the 3.7 to 4.2 GHz Band*, GN Docket No. 18-122, Report and Order and Order of Proposed Modification, 35 FCC Rcd 2343 (2020); *Wireless Telecommunications Bureau Announces that Applications for Auction 103 Licenses are Accepted for Filing*, Public Notice, DA 20-461, 2020 WL 2097298 (WTB Apr. 30, 2020).

² *See, e.g., Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, WT Docket No. 17-79, Second Report and Order, 33 FCC Rcd 3102 (2018) (*2018 NEPA/NHPA Order*) (streamlining environmental and historic preservation review procedures and clarifying cases in which fees are required for Tribal review), *aff'd in part, rev'd in part, United Keetoowah Band of Cherokee Indians, v. FCC*, 933 F.3d 728 (D.C. Cir. 2019) (affirming the FCC's changes in the *2018 NEPA/NHPA Order* to tribal involvement in Section 106 review and denying request to vacate the *Order* in its entirety while granting petitioners' request to vacate the portion of the decision that exempted small cells from review under the National Environmental Policy Act and the National Historic Preservation Act).

³ *See, e.g., Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, WT Docket No. 17-79, WC Docket No. 17-84, Declaratory Ruling and Third Report & Order, 33 FCC Rcd 9088, 9096-100, paras. 23-28, 32 (2018) (*2018 Small Cell Order*) (clarifying state and local legal requirements that may have the effect of prohibiting service under 47 U.S.C. §§ 253, 332(c)(7)), *pets. for review pending, Sprint Corp. v. FCC, et al.* (9th Cir.).

⁴ Certain residents and representatives of rural areas have expressed support in the record for our efforts to accelerate deployment of wireless infrastructure. *See, e.g.,* Letter from Denis Pitman, Chairman, Donald W. Jones, Member, and John Ostlund, Member, Board of County Commissioners for Yellowstone County, MT, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849 (filed May 28, 2020); Letter from Travis W. Jones, Chief, Broadview Rural Fire District, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849 (filed June 1, 2020); Letter from John Prinkki to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849 (filed June 2, 2020); Letter from Paul Anderes, Commissioner, Union County, OR, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849 (filed May 27, 2020); Letter from Michelle Erickson-Jones to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849 (filed June 1, 2020); Letter from Clinton Loss, President, Montana Emergency Medical Services Association, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849 (filed June 4, 2020); Letter from Marian J. Orr, Mayor, City of Cheyenne, WY, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM 11849 (filed Apr. 23, 2020); Rocky Mountain Farmers Union (@RMFUnion), Twitter (May 19, 2020, 8:13 PM), <https://twitter.com/RMFUnion/status/1262899253229256705>; Billings, MT Chamber of Commerce (@ChamberBillings), Twitter (May 19, 2020, 7:16 PM), <https://twitter.com/ChamberBillings/status/1262884844129812483>.

existing wireless equipment remains a deterrent to the rapid deployment of 5G wireless infrastructure. We are committed to working with State and local governments to facilitate the deployment of advanced wireless networks in all communities consistent with the decisions already made by Congress, which we expect will usher in a new era of American entrepreneurship, productivity, economic opportunity, and innovation for years to come.

3. Therefore, in this *Declaratory Ruling and Notice of Proposed Rulemaking*, we clarify the meaning of our rules implementing Congress' decisions in section 6409(a) of the Spectrum Act of 2012,⁵ which recognized the efficiency of using existing infrastructure for the expansion of advanced wireless networks. Those rules set forth a streamlined process for State and local government review of applications to deploy wireless telecommunications equipment on existing infrastructure.⁶ Under this framework, a State or local government shall approve within 60 days any request for modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station.⁷

4. Our clarifications are necessary to ensure fidelity to the language of those rules and the decisions Congress made in section 6409(a) that "a State or local government 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."⁸ Specifically, our *Declaratory Ruling* clarifies our rules regarding when the 60-day shot clock for State or local government review of modifications of existing structures commences.⁹ We also clarify what constitutes a "substantial change" in the physical dimensions of wireless infrastructure under our rules, and the extent to which certain elements of a proposed modification to existing infrastructure affect the eligibility of that proposed modification for streamlined State or local government review under section 6409(a).¹⁰ Finally, we further streamline our historic preservation and environmental review process to eliminate a redundant and unnecessary element by clarifying that when the FCC and applicants have entered into a memorandum of agreement to mitigate effects on historic properties a subsequent environmental assessment addressing such effects is not required.¹¹

5. In the *Notice of Proposed Rulemaking*, we seek comment on whether changes to our rules regarding excavation outside the boundaries of an existing tower site, including the definition of the boundaries of a tower "site," would advance the objectives of section 6409(a).¹²

⁵ Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, title VI (Spectrum Act of 2012), § 6409(a), 126 Stat. 156 (Feb. 22, 2012) (codified as 47 U.S.C. § 1455(a)).

⁶ See 47 U.S.C. § 1455(a); 47 CFR § 1.6100; *Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies*, WT Docket No. 13-238 and 13-32, WC Docket No. 11-59, Report and Order, 29 FCC Rcd 12865, 12922-66, paras. 135-241 (2014) (*2014 Infrastructure Order*), *aff'd*, *Montgomery Cty. v. FCC*, 811 F.3d 121 (4th Cir. 2015).

⁷ 47 U.S.C. § 1455(a)(1); see 47 CFR § 1.6100 (b)(7), (c); *2014 Infrastructure Order*, 29 FCC Rcd at 12940-58, paras. 182-204, 205-21.

⁸ 47 U.S.C. § 1455(a)(1).

⁹ 47 CFR § 1.6100(c)(2)-(4); *2014 Infrastructure Order*, 29 FCC Rcd at 12955-58, paras. 211-221.

¹⁰ 47 CFR § 1.6100(b)(7)(i), (iii), (v), (vi); *2014 Infrastructure Order*, 29 FCC Rcd at 12944-47, 12949-51, paras. 188-94, 200, 204.

¹¹ See 47 CFR §§ 1.1307(a), 1.1308, 1.1311; *Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission* (Wireless Facilities Nationwide Programmatic Agreement), 47 CFR pt. 1, Appx. C.

¹² 47 CFR § 1.6100(b)(7)(iv); 47 CFR § 1.6100(b)(6).

II. BACKGROUND

6. Under Section 6409(a) of the Spectrum Act, Congress determined that “a State or local government 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.”¹³ Congress intended this provision of the Spectrum Act to advance wireless service by expediting the deployment of the network facilities needed to provide wireless services.¹⁴

7. In 2014, the Commission adopted the *2014 Infrastructure Order*, which, among other things, codified rules to implement section 6409(a).¹⁵ Commission rules provide that a State or local government must approve an eligible facilities request within 60 days of the date on which an applicant submits the request.¹⁶ The Commission defined the term “eligible facilities request” as “[a]ny request for modification of an existing tower or base station that does not substantially change the physical dimensions of such tower or base station, involving: (i) Collocation of new transmission equipment; (ii) Removal of transmission equipment; or (iii) Replacement of transmission equipment.”¹⁷ The Commission’s rules provide that changes are “substantial” if they: exceed defined limits on increases in the height or girth of the structure or the number of associated equipment cabinets, involve excavation or deployment on ground outside a structure’s current site, defeat the concealment elements of the preexisting structure, or violate conditions previously imposed by the local zoning authority.¹⁸ The Commission also established procedures for when the 60-day shot clock for review may be tolled, as well as a “deemed granted” remedy in the event that states and localities fail to act on an eligible facilities request within the 60-day window.¹⁹ In recent years, the Commission has taken additional actions to streamline review by State and local governments of wireless infrastructure.²⁰

8. In August and September of 2019, WIA and CTIA filed separate Petitions for Declaratory Ruling asking, among other things, for the Commission to make certain clarifications to streamline the section 6409(a) process,²¹ and WIA filed a Petition for Rulemaking seeking changes to

¹³ 47 U.S.C. § 1455(a).

¹⁴ See H.R. Rep. No. 112-399, at 136 (2012). A section-by-section analysis of the JOBS Act, a precursor to the Spectrum Act of 2012, was submitted in the Congressional Record during floor debate of the Middle Class Tax Relief and Job Creation Act of 2012. The analysis explains that the precursor section to section 6409(a) was intended to “streamline[] the process for siting of wireless facilities by preempting the ability of State and local authorities to delay collocation of, removal of, and replacement of wireless transmission equipment.” 157 Cong. Rec. 2055 (2012) (statement of Rep. Fred Upton).

¹⁵ 47 CFR § 1.6100; *2014 Infrastructure Order*, 29 FCC Rcd at 12922-65, paras. 135-241.

¹⁶ 47 CFR § 1.6100(c); *2014 Infrastructure Order*, 29 FCC Rcd at 12952, 12955-57, paras. 206, 211, 212, 215.

¹⁷ 47 CFR § 1.6100(b)(3). The statutory definition of “eligible facilities request” is slightly different. See 47 U.S.C. § 1455(a). Our use of the term eligible facilities request in this order relies on the definition set forth in the rule. See also *2014 Infrastructure Order*, 29 FCC Rcd at 12944-45, 12955, paras. 188, 211.

¹⁸ 47 CFR § 1.6100(b)(7)(i)-(vi).

¹⁹ *Id.* § 1.6100(c)(2)-(4).

²⁰ See *2018 Small Cell Order*, 33 FCC Rcd at 9096-100, paras. 23-28, 32; *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, WT Docket No. 17-79, WC Docket No. 17-84, Third Report & Order and Declaratory Ruling, 33 FCC Rcd 7705, 7775, 7777-79, paras. 140, 145-46 (2018) (*2018 Moratorium Order*) pets. for review pending, *American Elec. Power v. FCC*, et al. (9th Cir.).

²¹ Petition of Wireless Infrastructure Association for Declaratory Ruling, WT Docket No. 19-250, at 2-4 (filed Aug. 27, 2019), [https://ecfsapi.fcc.gov/file/109180312204232/19-250%20WIA%20Ex%20Parte%20\(9-18-19\).pdf](https://ecfsapi.fcc.gov/file/109180312204232/19-250%20WIA%20Ex%20Parte%20(9-18-19).pdf) (WIA Petition for Decl. Ruling); Petition of CTIA for Declaratory Ruling, WT Docket No. 19-250, WC Docket No. 17-84 at 2 (filed Sept. 6, 2019), <https://ecfsapi.fcc.gov/file/1091954184161/190906%20CTIA%20Infrastructure%20PDR%20Final.pdf> (CTIA

(continued....)

section 1.6100 of the Commission's rules.²² The petitioners and individual wireless service providers assert that localities are misinterpreting the requirements of section 6409(a) and our implementing rules.²³ They contend that these misinterpretations are delaying 5G deployment and other needed infrastructure upgrades, and they urge us to clarify aspects of the Commission's rules implementing section 6409(a).²⁴

9. Specifically, WIA's Petition for Declaratory Ruling asks the Commission to clarify: (1) when the section 6409(a) shot clock begins to run; and (2) whether the shot clock and "deemed granted remedy" apply to all authorizations necessary to deploy wireless infrastructure.²⁵ It also asks the Commission to clarify: (1) the definitions of "concealment elements," "equipment cabinets," and "current site;" (2) when a change to the size or height of an antenna is a "substantial change;" (3) the interpretation of the separation clause in section 1.6100(b)(7)(i); (4) what are the "conditions associated with the siting approval" under section 1.6100(b)(7)(vi); and (5) that legal, non-conforming structures do not *per se* constitute substantial changes.²⁶ Additionally, WIA asks the Commission to clarify that localities may not issue conditional approvals under section 6409(a), nor may they needlessly impose processes to delay section 6409(a) approval.²⁷ CTIA's Petition requests clarification of the terms "concealment elements," "equipment cabinets," and "base station," under section 1.6100(b)(7), and it asks the Commission to find that applicants may lawfully construct facilities or make modifications if a locality has not issued all permits within the 60-day section 6409(a) shot clock and an application is deemed granted.²⁸

(Continued from previous page) _____
Petition for Decl. Ruling). Although WIA and CTIA filed their Petitions for Declaratory Ruling in WT Docket No. 17-79, that proceeding does not address issues arising under section 6409(a) of the Spectrum Act. Rather, that proceeding focuses on wireless infrastructure deployment issues under sections 253 and 332(c)(7) of the Communications Act, the National Environmental Policy Act, and the National Historic Preservation Act. Thus, the Public Notice opening this proceeding directed parties to use new WT Docket No. 19-250 for filings addressing the section 6409(a) issues raised in WIA's and CTIA's petitions. See *Wireless Telecommunications Bureau and Wireline Competition Bureau Seek Comment on WIA Petition For Rulemaking, WIA Petition For Declaratory Ruling and CTIA Petition For Declaratory Ruling*, WT Docket No. 19-250, Public Notice, 34 FCC Rcd 8099, 8099 & n.4 (WTB/WCB 2019) (*WIA/CTIA Petitions Public Notice*).

²² Petition of Wireless Infrastructure Association for Rulemaking, File No. RM-11849, [https://ecfsapi.fcc.gov/file/108273047516225/WIA%20Petition%20for%20Rulemaking%20\(8-27-19\).pdf](https://ecfsapi.fcc.gov/file/108273047516225/WIA%20Petition%20for%20Rulemaking%20(8-27-19).pdf), (filed Aug. 27, 2019) (WIA Petition for Rulemaking). WIA's Petition for Rulemaking asks the FCC to amend section 1.6100 of the rules to determine that a compound expansion (i.e., excavation outside the current boundaries of leased or owned properties surrounding a tower site) is a "substantial change" under section 6409(a) only if excavation occurs more than 30 feet from a tower site boundary. The Petition for Rulemaking also asks the FCC to adopt rules requiring that (1) any fees charged for processing eligible facilities requests represent no more than a reasonable approximation of actual and direct costs incurred; and (2) an applicant's failure to pay disputed fees is not a valid basis for denial or refusal to process an eligible facilities request. WIA Petition for Rulemaking at 9-13.

²³ See, e.g., WIA Petition for Decl. Ruling at 2; CTIA Petition for Decl. Ruling, at 3-4, 7-9; AT&T Comments at 2, 5; Competitive Carriers Association (CCA) Comments at 2; Crown Castle Comments at 4-6; CTIA Comments at 2-3, 6; CTIA Reply at 5-6; Extenet Comments at 21; Free State Comments at 2; T-Mobile Comments at 3, 6-7; WIA Comments at 3.

²⁴ WIA Petition for Decl. Ruling at 5-7; CTIA Petition for Decl. Ruling at 4-5. See, e.g., CTIA Petition for Decl. Ruling at i-ii ("While the Commission's rules implementing Sections 6409 and 224 have played a vital role in promoting wireless infrastructure deployment, experience with these rules in the years since their adoption has identified areas of uncertainty and inconsistent application that slow down deployment and undermine Congressional and Commission intent.").

²⁵ WIA Petition for Decl. Ruling at 5-8.

²⁶ *Id.* at 9-10, 13, 16-20.

²⁷ *Id.* at 20, 21.

²⁸ CTIA Petition for Decl. Ruling at 9-16. CTIA also asks the Commission to clarify provisions of section 224 of the Communications Act related to accessing light poles, accessing space on poles, and pole attachment agreements.

(continued....)

10. Local governments allege that the current rules and processes are working well and that they are making efforts to comply with section 6409(a) and to process applications expeditiously.²⁹ They maintain that they have no interest in thwarting wireless network upgrades or delaying the deployment of appropriate facilities. They further claim that, to the extent their reviews are delayed at all, most of the delays are caused by applicants' errors³⁰ or their contractors' delays,³¹ rather than by any improper local government review practices. They contend that the industry parties' arguments and proposals are premised on vague, unsubstantiated, and often false allegations that fail to identify specific localities or provide sufficiently concrete descriptions of their alleged violations.³²

III. DECLARATORY RULING

11. In this *Declaratory Ruling*, we clarify several key elements that determine whether a modification request qualifies as an eligible facilities request that a State or local government must approve within 60 days, and we clarify when the 60-day shot clock for review of an eligible facilities request commences. These interpretations provide greater certainty to applicants for State and local government approval of wireless facility modifications, as well as to the reviewing government agencies,³³ and these interpretations should accelerate the deployment of advanced wireless networks.³⁴

(Continued from previous page) _____

CTIA Petition for Decl. Ruling at 20-28. The portion of CTIA's Petition for Declaratory Ruling concerning pole attachments under section 224 of the Communications Act is being considered in WC Docket No. 17-84 and is not a subject of this *Declaratory Ruling*.

²⁹ See, e.g., City of Huntington Beach Comments at 1; NATOA Comments at 7; NATOA Reply at 3; City of Newport News Comments at 2; New York City Comments at 2; National League of Cities (NLC) Comments at 7; NLC Reply at 6-7; San Francisco Reply at 2-3; Seattle Comments at 1.

³⁰ See, e.g., San Diego Comments at 4-5 (summarizing survey finding that more than 70% of eligible facilities requests processed by 8 jurisdictions since 2014 required at least two incomplete notices before the applicant provided all needed information, adding an average of 29 days to the process; about 20% required a third notice, adding an average of 31 days; and 5% required a fourth notice, adding an average of 40 days); *id.* at 10-11 (examples of applicant misconduct include a provider's leaving small cell applications on the counter at town hall and later sending a letter asserting that the shot clock had commenced). The City of San Diego filed comments and reply comments jointly with 33 other municipal and county governments, referring to themselves collectively as the "Western Communities Coalition." For purposes of simplicity and easy identification, we refer to this group of commenters as "San Diego" throughout. See also NLC Comments at 27 (stating that Montgomery County, MD completes section 6409(a) review, on average, within 60 days, but about 24 of those days are spent waiting for applicants to correct errors, and more than half of eligible facilities requests require at least one request for submission of missing information).

³¹ NLC Comments at 4-5 (asserting that from January through October 2019, the City of Portland, Oregon received 82 small wireless facilities permit applications, including 72 subject to section 6409(a), and that 17 of the 50 applications that the city had finished reviewing were not picked up by a contractor for at least a month after the city approved them); San Diego Comments at 5 (reporting that, based on the 650 eligible facilities requests that the City of San Diego reviewed pursuant to section 6409(a), applicants' contractors picked up building permits about 129 days after the city issued them, on average—approximately three times the length of time that the city took to process and approve them). See also Seattle Comments at 4-6 (asking the Commission to examine the problematic practices and processes employed by wireless companies and their contractors).

³² See, e.g., San Diego Comments at 1-3, 9; NLC Comments at 2-3; NLC Reply at 2-3 (industry parties fail to respond to documented information submitted by localities).

³³ We expect that the industry will work cooperatively with localities who wish to further streamline or adjust their policies to comport with our clarifications to the Commission's rules. See, e.g., Letter from Nancy Werner, General Counsel, NATOA et al., to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849, at 2 (filed May 22, 2020) (NATOA May 22, 2020 *Ex Parte* Letter) (asking the Commission to delay consideration of the item to later in the year and stating that the *Declaratory Ruling* would "dramatically impact the way that local governments across the nation manage their eligible facilities request applications"); Letter from Robert C. May, Michael D. Johnston, Dr. Jonathan L. Kramer, Counsel for Beaverton, Oregon et al., Telecom Law Firm PC, and

(continued....)

12. Specifically, we clarify that:

- The 60-day shot clock in section 1.6100(c)(2) begins to run when an applicant takes the first procedural step in a locality's application process and submits written documentation showing that a proposed modification is an eligible facilities request;
- The phrase "with separation from the nearest existing antenna not to exceed twenty feet"

(Continued from previous page) _____

Kenneth Fellman, Gabrielle A. Daley, Counsel for Boulder, CO et al., Kissinger & Fellman, P.C., to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849, at 2 (filed June 2, 2020) (asking the Commission to delay consideration of the current item and explaining that localities would need to adapt local practices, policies, and regulations to implement to adjust to the Commission's actions); Letter from Stephen Isler, Mayor, Town of Berwyn Heights, MD, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849, at 1 (filed June 2, 2020) (stating that a delay in adopting the *Declaratory Ruling* will "prevent the unnecessary diversion of scarce resources to adapt to the Commission's new rule clarifications").

³⁴ See Letter from John A. Howes, Jr., Government Affairs Counsel, WIA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849, at 3 (filed June 1, 2020) (WIA June 2020 *Ex Parte* Letter) (noting importance of Commission action "because, now more than ever, Americans are demanding better coverage and using more bandwidth. Over the past few months, network usage has surged as most Americans have been confined to their homes during the COVID-19 coronavirus pandemic."); Letter from Sarah K. Leggin, Director, Regulatory Affairs, CTIA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849, at 2 (filed June 1, 2020) (CTIA June 2020 *Ex Parte* Letter) (explaining that the Commission's clarifications "will have a meaningful impact on the speed of deployment and the ability of localities, states, and industry to work together in a cooperative manner"); Letter from Steven O. Vondran, Executive Vice President and President, U.S. Tower, American Tower, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849, at 1-2 (filed May 19, 2020) (noting that the Commission's clarifications "will help speed the deployment of advanced wireless communication technologies throughout America at a time when American families are relying on wireless networks more than ever" during "the COVID-19 pandemic."). In light of these significant benefits to wireless infrastructure deployment, we decline to delay these clarifications. See, e.g., NATOA May 22, 2020 *Ex Parte* Letter; Letter from Kit Kuhn, Mayor, City of Gig Harbor, WA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849, at 1 (filed June 1, 2020). WIA's and CTIA's petitions seeking clarifications of the section 6409(a) rules have been pending for more than nine months. The petitions were filed in August and September of 2019; WTB sought comment on the petitions on September 13, 2019. *WIA/CTIA Petitions Public Notice*, 34 FCC Rcd 8099; Federal Communications Commission, Comment Sought on WIA Petitions for Declaratory Ruling and Rulemaking and CTIA Petition for Declaratory Ruling, Advance Notice of Proposed Rulemaking, 84 Fed. Reg. 50810 (Sept. 26, 2019). Over 70 localities, states, or organizations representing their interests have filed more than 650 pages of comments or letters. See WT Docket No. 19-250. The Declaratory Ruling addresses long-standing issues that have frustrated wireless deployments for years, and commenters in this proceeding have previously filed in this and other dockets about the issues addressed in this Declaratory Ruling. See, e.g., San Diego Comments at 41-44 (raising concerns that granting petitioners' request could allow an unlimited number of equipment cabinets to be added to a structure); NLC Comments at 25-30 (arguing that no changes should be made to the 6409(a) shot clock rules and discussing petitioners request that a "good faith effort" should start the 60-day shot clock); NLC Comments at 18 (arguing that concealment elements should not be only those identified as such at the time of approval); San Diego Comments at 37-39 (arguing against "retroactive limitations on concealment" and in favor of "local authority to continue to regulate aesthetics of deployment"); NLC Comments at 16-18 (arguing against a "narrow" definition of "concealment"); San Diego Comments at 30-36 (same); San Diego Comments at 47-48 (arguing that petitioners' requested changes would not solve the ambiguity regarding allowable height increases); NLC Comment at 2 (stating that the petitioners' seek rule changes, not mere clarifications). See also Letter from Stephen Traylor, Executive Director, NATOA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 17-79, Attach. at 13-15 (filed June 15, 2017) (attaching a 2014 filing discussing section 6409(a) that argued for giving localities authority to impose more conditions on wireless infrastructure and arguing against changes to the shot clock rules); Bellevue, Bothell, Burien, Ellensburg, Gig Harbor, Kirkland, Mountlake Terrace, Mukilteo, Normandy Park, Puyallup, Redmond and Walla Walla, WA Comments, WT Docket No. 17-79 (June 14, 2017) (describing ambiguity regarding concealment in the context of small cells and section 6409(a) and asking "that the Commission explicitly acknowledge that a small cell facility by very definition is a concealment element under 6409(a) regulations.").

in section 1.6100(b)(7)(i) allows an increase in the height of the tower of up to twenty (20) feet between antennas, as measured from the top of an existing antenna to the bottom of a proposed new antenna on the top of a tower;

- The term “equipment cabinets” in section 1.6100(b)(7)(iii) does not include relatively small electronic components, such as remote radio units, radio transceivers, amplifiers, or other devices mounted on the structure, and up to four such cabinets may be added to an existing facility per separate eligible facilities request;
- The term “concealment element” in section 1.6100(b)(7)(v) means an element that is part of a stealth-designed facility intended to make a structure look like something other than a wireless facility, and that was part of a prior approval;
- To “defeat” a concealment element under section 1.6100(b)(7)(v), a proposed modification must cause a reasonable person to view a structure’s intended stealth design as no longer effective; and
- The phrase “conditions associated with the siting approval” may include aesthetic conditions to minimize the visual impact of a wireless facility as long as the condition does not prevent modifications explicitly allowed under section 1.6100(b)(7)(i)-(iv) (antenna height, antenna width, equipment cabinets, and excavations or deployments outside the current site) and so long as there is express evidence that at the time of approval the locality required the feature and conditioned approval upon its continuing existence.

13. Certain parties contend that we lack legal authority to adopt the rulings requested in the petitions, which they contend do not just clarify or interpret the rules established in 2014 but also change them, requiring that we issue a Notice of Proposed Rulemaking followed by a Report and Order.³⁵ As an initial matter, we note that we are not adopting all of the rulings requested in WIA’s and CTIA’s petitions for declaratory ruling because we find incremental action to be an appropriate step at this juncture, particularly given, as mentioned above, that the Commission has continued to take steps to ease barriers to deployment of wireless infrastructure since adopting rules to implement section 6409(a).³⁶ Our determinations in this *Declaratory Ruling* are intended solely to interpret and clarify the meaning and scope of the existing rules set forth in the *2014 Infrastructure Order*, in order to remove uncertainty and in light of the differing positions of the parties on these questions.³⁷ In addition, we find it appropriate to initiate a *Notice of Proposed Rulemaking* regarding tower site boundaries and excavation or deployment outside the boundaries of an existing tower site, in order to consider whether modifications of our rules are needed to resolve current disputes. We intend, with these steps, to continue to advance the same goals that led the Commission to adopt regulations implementing section 6409(a) in the first instance—to avoid

³⁵ See, e.g., NLC Comments at ii, 2 (stating that the interpretations requested by WIA and CTIA “are not ‘clarifications’ – these are, in fact, substantial changes to the Section 6409(a) regime, and inconsistent with . . . the Commission’s prior rulings” – and consequently, the Commission “cannot proceed purely on the basis of these petitions [by Declaratory Ruling], and should instead advance a clear proposal of its own, consistent with the APA”) (citing *Perez v. Mortg. Bankers Ass’n*, 575 U.S. 92 (2015)); San Diego Comments at 1, 3 (same).

³⁶ For example, we do not address WIA’s and CTIA’s requests for clarification that the shot clock and deemed granted rules apply to all permits relating to a proposed modification, including authorizations relating to compliance with health and safety rules. WIA Petition for Decl. Ruling at 2; CTIA Petition for Decl. Ruling at 3-4, 7-9. Nor do we address CTIA’s request for clarification of the permissible increases in the height of base stations. CTIA Petition for Decl. Ruling at 15-16. We do, however, clarify some of the limitations raised by WIA that apply to “conditions of approval” under section 1.6100(b)(7)(vi). WIA Petition for Decl. Ruling at 14-16, 19-24. Additionally, as noted herein, we offer other clarifications and seek comment on rule changes.

³⁷ In a few instances, we also provide further guidance on the interpretation of the underlying statute with regard to issues that the rules and the *2014 Infrastructure Order* do not directly address.

ambiguities leading to disputes that could undermine the goals of the Spectrum Act, i.e., to advance wireless broadband service.³⁸

A. Commencement of Shot Clock

14. Section 1.6100(c)(2) provides that the 60-day review period for eligible facilities requests begins “on the date on which an applicant submits a request seeking approval.”³⁹ If the local jurisdiction “fails to approve or deny a request seeking approval under this section within the timeframe for review (accounting for any tolling), the request shall be deemed granted.”⁴⁰ The *2014 Infrastructure Order* discusses the procedures that local governments need to implement in order to carry out their obligations to approve eligible facilities requests within 60 days;⁴¹ it does not, however, define the date on which an applicant is deemed to have submitted an eligible facilities request for purposes of triggering the 60-day shot clock.

15. There is evidence in the record that some local jurisdictions effectively postpone the date on which they consider eligible facilities requests to be duly filed (thereby delaying the commencement of the shot clock) by treating applications as incomplete unless applicants have complied with time-consuming requirements. Such requirements include meeting with city or county staff, consulting with neighborhood councils, obtaining various certifications, or making presentations at public hearings.⁴² While some stakeholders may have assumed that, after the *2014 Infrastructure Order*, local governments would develop procedures designed to review and approve covered requests within a 60-day shot clock period,⁴³ many have not done so and instead continue to require applicants to apply for forms of authorizations that entail more “lengthy and onerous processes” of review.⁴⁴ In such jurisdictions, applicants may need to obtain clearance from numerous, separate municipal departments, which could make it difficult to ascertain whether or when the shot clock has started to run.⁴⁵

³⁸ See *2014 Infrastructure Order*, 29 FCC Rcd at 12922-26, paras. 135-44.

³⁹ 47 CFR § 1.6100(c)(2); see also *id.* § 1.6100(c)(3) (“The 60-day [shot clock] period begins to run when the application is filed. . . .”); *2014 Infrastructure Order*, 29 FCC Rcd at 12957, para. 216 (“[I]f an application covered by Section 6409(a) has not been approved by a State or local government within 60 days from the date of filing, accounting for any tolling, . . . the reviewing authority will have violated Section 6409(a)’s mandate to approve and not deny the request, and the request will be deemed granted”) (emphasis added).

⁴⁰ 47 CFR § 1.6100(c)(4); see also *2014 Infrastructure Order*, 29 FCC Rcd at 12957, para. 216 (noting that the 60-day “timeframe sets an absolute limit that—in the event of a failure to act— results in a deemed grant.”).

⁴¹ *2014 Infrastructure Order*, 29 FCC Rcd at 12955-58, paras. 212-13, 215-21.

⁴² See, e.g., Crown Castle Comments at 21 & n.51; AT&T Comments at 13, n.35 (citing *Douglas Cty. v. Crown Castle USA, Inc.*, 411 F. Supp. 3d 1176, 1182 (D. Colo. 2019) (noting county’s characterization of carrier’s filing as a “Presubmittal Review Request,” not a formal EFR application”), *amended and superseded on other grounds*, No. 18-cv-03171-DDD-NRN, 2020 WL 109208 (D. Colo. Jan. 9, 2020)).

⁴³ *2014 Infrastructure Order*, 29 FCC Rcd at 12956, para. 214.

⁴⁴ See, e.g., WIA Petition for Decl. Ruling at 8-9; T-Mobile Comments at 17 & n.64 (citing T-Mobile Reply Comments, WT Docket No. 13-238 (filed Mar. 5, 2014), Attach. A (Declaration of John L. Zembrusky) (identifying municipalities that lack section 6409(a) procedures and that insist on full-scale zoning review)).

⁴⁵ See, e.g., T-Mobile Reply at 4-5 (describing municipal ordinances or informal processes in Richmond, CA, Torrance, CA, and Chapel Hill, NC, that require applicants to obtain building permits either before or after the eligible facilities request shot clock runs); Crown Castle Comments at 5-6 (describing the processes of a township in New York, a county in California, and town in Massachusetts that each require review by multiple municipal departments before a building permit will be approved); CTIA Petition for Decl. Ruling at 18 & n.41 (discussing several localities that require “sequential” approvals, in which a locality will issue a conditional use permit or other document that approves the eligible facilities request, and then also require an applicant to obtain a building permit or other authorization, which the locality claims is not subject to the section 6409(a) shot clock).

16. To address uncertainty regarding the commencement of the shot clock, we clarify that, for purposes of our shot clock and deemed granted rules, an applicant has effectively submitted a request for approval that triggers the running of the shot clock when it satisfies *both* of the following criteria: (1) the applicant takes the first procedural step that the local jurisdiction requires as part of its applicable regulatory review process under section 6409(a), and, to the extent it has not done so as part of the first required procedural step, (2) the applicant submits written documentation showing that a proposed modification is an eligible facilities request.⁴⁶

17. By requiring that an applicant take the first procedural step required by the locality, our goal is to give localities “considerable flexibility” to structure their procedures for review of eligible facilities requests,⁴⁷ but prevent localities from “impos[ing] lengthy and onerous processes not justified by the limited scope of review contemplated” by section 6409(a).⁴⁸ In taking the first procedural step that the local jurisdiction requires as part of its applicable regulatory review process, applicants demonstrate that they are complying with a local government’s procedures. The second criterion—requiring applicants to submit written documentation showing that the proposed modification is an eligible facilities request—is necessary because localities must have the opportunity to review this documentation to determine whether the proposed modification is an eligible facilities request that must be approved within 60 days.⁴⁹ We anticipate that the documentation sufficient to start the shot clock under our criteria might include elements like a description of the proposed modification and an explanation of how the proposed modification is an eligible facilities request.⁵⁰ We find that these criteria strike a reasonable balance between local government flexibility and the streamlined review envisioned by section 6409(a).⁵¹

⁴⁶ We provide this limited guidance in order to resolve uncertainty about what the Commission intended by its reference to when an applicant “submits a request seeking approval under this section.” Although as noted above interested parties have received notice and extended opportunity to comment on these proposals, this guidance does not constitute a legislative rule, and we disagree with commenters that a further rulemaking would be required. *See, e.g.,* NATOA Reply at 5 (arguing that a “good faith” standard would be “a change to—not a clarification of—the current rule”); Letter from Nancy Werner, General Counsel, NATOA, et. al. to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 et al., at 2 (filed Jun. 2, 2020) (NATOA June 2, 2020 *Ex Parte* Letter) (asserting that that clarification of what certain terms means should be preceded with notice and comment and codified in the Commission’s rules); San Diego Comments at 6-8. The localities’ comments are either directed at relief not granted in this *Declaratory Ruling* and are therefore outside its scope, or critical of interpretations that are exempt from the Administrative Procedures Act’s notice-and-comment requirements as “a declaratory order to terminate a controversy or remove uncertainty.” *See* 5 U.S.C. § 554(e). *See also, e.g., American Mining Congress v. Mine Safety and Health Org.*, 995 F.2d 1106, 1112 (D.C. Cir. 1993) (upholding agency interpretive rules finding that certain X-ray readings qualify as “diagnoses” of lung disease within the meaning of agency’s regulations and observing that “[a] rule does not, in this inquiry, become an amendment [to an existing legislative rule] merely because it supplies crisper and more detailed lines than the authority being interpreted”).

⁴⁷ *2014 Infrastructure Order*, 29 FCC Rcd at 12956, para. 214 & n.595.

⁴⁸ *Id.* at 12955, para. 212.

⁴⁹ *Id.* at 12956-57, paras. 215-16 (60 days is sufficient for eligible facilities request review).

⁵⁰ Commenters have provided examples of the type of documentation that they submit with their applications, including a checklist showing that the proposed modifications do not meet any of the criteria for a substantial change in the physical dimensions of the structure. *See* Letter from Thomas S. Anderson, Senior Attorney, Crown Castle, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849, at 2-3, Attach., Appx B at 9 (filed June 2, 2020) (Crown Castle June 2020 *Ex Parte* Letter); Letter from John A. Howes, Jr., Government Affairs Counsel, WIA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849, at 3 (filed June 1, 2020) (WIA June 2020 *Ex Parte* Letter).

⁵¹ *Cf.* WIA Petition for Decl. Ruling at 8-9 (seeking ruling that “the Section 6409(a) shot clock begins to run once an applicant” makes “a good faith attempt to seek the necessary government approvals” by “submitting an EFR under any reasonable process,” *i.e.*, “upon initial written submission in the case where a state or local government requires any type of pre-application submission or meetings.”). Similarly, a number of providers request a ruling that the

(continued....)

18. In addition, we find that further clarifications are needed to achieve our goal of balancing local government flexibility with the streamlined review envisioned by section 6409(a). First, we clarify that a local government may not delay the triggering of the shot clock by establishing a “first step” that is outside of the applicant’s control or is not objectively verifiable. For example, if the first step required by a local government is that applicants meet with municipal staff before making any filing, the applicant should be able to satisfy that first step by making a written request to schedule the meeting—a step within the applicant’s control. In this example, the 60-day shot clock would start once the applicant has made a written request for the meeting and the applicant also has satisfied the second of our criteria (documentation). While we do not wish to discourage meetings between applicants and the local governments, as we recognize that such consultations may help avoid errors that localities have identified as leading to delays,⁵² such meetings themselves should not be allowed to cause delays or prevent these requests from being timely approved. As an additional example, a local government could not establish as its first step a requirement that an applicant demonstrate that it has addressed all concerns raised by the public, as such a step would not be objectively verifiable.

19. Second, we clarify that a local government may not delay the triggering of the shot clock by defining the “first step” as a combination or sequencing of steps, rather than a single step. For example, if a local government defines the first step of its process as separate consultations with a citizens’ association, a historic preservation review board, and the local government staff, an applicant will trigger the shot clock by taking any one of those actions, along with satisfying the second of our criteria (documentation).⁵³ Once the shot clock has begun, it would not be tolled if the local government were to deny, delay review of, or require refile of the application on the grounds that the local government’s separate consultation requirements were not completed.⁵⁴ While we expect applicants to act in good faith to fulfill reasonable steps set forth by a local government that can be completed within the 60 day period,⁵⁵ the local government would bear responsibility for ensuring that any steps in its process, as well as the substantive review of the proposed facility modification, are all completed within 60 days. If not, the eligible facilities request would be deemed granted under our rules.

(Continued from previous page) _____
shot clock is not tolled by mandatory pre-application meetings or public hearings. *See, e.g.*, CTIA Comments at 12-13; Crown Castle Comments at 21-22; T-Mobile Comments at 4, 17; WISPA Comments at 6. Numerous providers support these proposals. *See, e.g.*, CTIA Comments at 13; AT&T Comments at 12-14; Crown Castle Comments at 22-23; Nokia Comments at 5-6; T-Mobile Comments at 16; Verizon Comments at 8-9; WISPA Comments at 6. By specifying concrete steps that are more specific and verifiable than the “good faith” standard that WIA proposed, we believe we will facilitate compliance by both localities and applicants. *See, e.g.*, NATOA Comments at 6 (criticizing WIA’s proposed “good faith” standard); San Diego Comments at 6-8 (same).

⁵² *See, e.g.*, NLC Comments at 25-26; San Diego Comments at 29-30; Seattle Comments at 2 (asserting that applicants’ errors account for far more delays in the review process for eligible facilities requests than improper review processes and arguing that pre-application meetings help applicants avoid errors and thus expedite review).

⁵³ 47 CFR § 1.6100(c)(1).

⁵⁴ *See 2014 Infrastructure Order*, 29 FCC Rcd at 12957, para. 217 (“[A]n initial determination of incompleteness tolls the running of the [shot clock] period only if the State or local government provides notice to the applicant in writing within 30 days of the application’s submission [and]. . . clearly and specifically delineate[s] the missing information in writing. . . . Further, consistent with the documentation restriction established above, *the State or municipality may only specify as missing [such] information and supporting documents that are reasonably related to determining whether the request meets the requirements of Section 6409(a).*”) (emphasis added). *See also* 47 CFR § 1.6100(c)(1) (setting forth the documentation required to be submitted by the eligible facilities request applicant); 47 CFR § 1.6100(c)(3) (setting forth criteria for tolling of the shot clock).

⁵⁵ *See, e.g.*, NATOA *Ex Parte* Letter at 3 (raising concerns that an applicant could delay a meeting set by the locality to thwart the locality’s process); *see also* Letter from Colin Byrd, Mayor, City of Greenbelt, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849, at 2 (filed June 1, 2020) (Greenbelt *Ex Parte* Letter) (same).

20. Third, we clarify that a local government may not delay the start of the shot clock by declining to accept an applicant's submission of documentation intended to satisfy the second of our criteria for starting the shot clock. In addition, a local government may not delay the start of the shot clock by requiring an applicant to submit documentation that is not reasonably related to determining whether the proposed modification is an eligible facilities request.⁵⁶ We clarify how our documentation rules apply in the context of the shot clock to provide certainty that unnecessary documentation requests do not effectively delay the shot clock as part of the local government's "first step," even if providing that documentation would be within the applicant's control and could be objectively verified. For example, if a locality requires as the first step in its section 6409(a) process that an applicant meet with a local zoning board, that applicant would not need to submit local zoning documentation as well in order to trigger the shot clock.

21. Fourth, we note that a local government may use conditional use permits, variances, or other similar types of authorizations under the local government's standard zoning or siting rules, in connection with the consideration of an eligible facilities request. We clarify, however, that requirements to obtain such authorizations may not be used by the local government to delay the start of or to toll the shot clock under the section 6409(a) process. The shot clock would begin once the applicant takes the first step in whatever process the local government uses in connection with reviewing applications subject to section 6409(a) and satisfies the second of our criteria (documentation).⁵⁷ Subsequently, if the locality rejects the applicant's request to modify wireless facilities as incomplete based on requirements relating to such permits, variances, or similar authorizations, the shot clock would not be tolled and the application would be deemed granted after 60 days if the application constitutes an eligible facilities request under our rules.⁵⁸

22. Fifth, we note that some jurisdictions have not established specific procedures for the review and approval of eligible facilities requests under section 6409(a). In those cases, we clarify that, for purposes of triggering the shot clock under section 6409(a), the applicant can consider the first

⁵⁶ See 47 CFR § 1.6100(c)(1). This rule provides that "[w]hen an applicant asserts in writing that a request for modification is covered by this section, a State or local government may require the applicant to provide documentation or information only to the extent reasonably related to determining whether the request meets the requirements of this section. A State or local government may not require an applicant to submit any other documentation, including but not limited to documentation intended to illustrate the need for such wireless facilities or to justify the business decision to modify such wireless facilities." See also *2014 Infrastructure Order*, 29 FCC Rcd at 12956, para. 214 & n.595 (clarifying documentation requirements).

⁵⁷ We reject localities' suggestions that the shot clock should not commence until an applicant submits documentation required for all necessary permits, as such an approach is inconsistent with federal law. See 47 CFR § 1.6100(c)(1)-(2); see also Letter from Gerard Lederer, Joseph Van Eaton, Gail Karish, Andrew McCardle, Counsel for the City of Wilmington, DE et al., Best & Krieger LLP, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849, at 21-22 (filed Jun. 2, 2020) (*Wilmington Ex Parte Letter*) (suggesting that applicants should be required to submit documentation for all necessary permits before the shot clock starts). To the extent localities point to the *2018 Small Cell Order* as a reason that localities should be able to require documentation for all permits before the shot clock commences, we note that the applicable statutes provide different regimes for eligible facilities requests under section 6409 as compared to siting requests for small cells under section 332. See *Wilmington Ex Parte Letter* at 21-22 (arguing that the *2018 Small Cell Order* "suggests that on submission of an application, shot clocks begin running on all permits required to deploy; it follows that all materials relevant to an application must be submitted with the application").

⁵⁸ Localities may only toll the shot clock "by mutual agreement" or if the locality "determines that the application is incomplete." See 47 CFR § 1.6100(c)(3) (implementing section 6409(a) and setting forth the process for a locality to toll the timeframe for incompleteness); see also *Wilmington Ex Parte Letter* at 22 (filed Jun. 2, 2020) (arguing that the Commission should clarify the continued applicability of the "notice of incompleteness procedure" in section 1.6100(c)(3)(i)).

procedural step to be submission of the type of filing that is typically required to initiate a standard zoning or siting review of a proposed deployment that is not subject to section 6409(a).⁵⁹

23. We find that these clarifications serve to remove uncertainty about the scope and meaning of various provisions of section 1.6100 consistent with the text, history, and purpose of the *2014 Infrastructure Order*.⁶⁰ We also note that the commencement of the shot clock does not excuse the applicant from continuing to follow the locality's procedural and substantive requirements (to the extent those requirements are consistent with the Commission's rules), including obligations "to comply with generally applicable building, structural, electrical, and safety codes or with other laws codifying objective standards reasonably related to health and safety."⁶¹

B. Height Increase for Towers Outside the Public Rights-of-Way

24. Adding new collocated equipment near or at the top of an existing tower can be an efficient means of expanding the capacity or coverage of a wireless network without the disturbances associated with building an entirely new structure. Adding this equipment to an existing tower would change the tower's physical dimensions, but if such a change is not "substantial," then a request to implement it would qualify as an eligible facilities request, and a locality would be required to approve it. Section 1.6100(b)(7)(i) provides that a modification on a tower outside of the public rights-of-way would cause a substantial change if it "increases the height of the tower by more than 10% or by the height of one additional antenna array with separation from the nearest existing antenna not to exceed twenty feet, whichever is greater."⁶²

25. Commenters assert that they have two different interpretations of the meaning of this language in section 1.6100(b)(7)(i). Industry commenters read section 1.6100(b)(7)(i) as allowing a new antenna to be added without being a substantial change if there is no more than twenty feet in

⁵⁹ Comparable modification requests might include applications to install, modify, repair, or replace wireless transmission equipment on a structure that is outside the scope of section 6409(a), or to mount cable television, wireline telephone, or electric distribution cables or equipment on outdoor towers or poles. Where the first step in the process is submission of the type of filing that is typically required for comparable modification requests, we note that applicants are not required to file any documentation that is inconsistent with the Commission's rules for eligible facilities requests under section 6409(a). See 47 CFR § 1.6100(c)(1).

⁶⁰ We note that sections 253 and 332(c)(7) generally prohibit local governments from making regulatory decisions that "prohibit or have the effect of prohibiting" the provision of personal wireless service or other forms of telecommunications service by any provider. See 47 U.S.C. §§ 253(a) and 332(c)(7)(B)(i)(I). Accordingly, localities' regulatory decisions affecting eligible facilities requests are subject to sections 253 and 332(c)(7) as well as section 6409(a). Unless one of the narrow statutory safe harbors applies, localities may not use procedural mechanisms to deny covered requests and may not deny individual eligible facilities requests in a manner that "materially inhibits the provision of such [telecommunications] services," including by materially inhibiting providers' ability to "densify[] a wireless network, introduce[e] new services or otherwise improv[e] service capabilities." *2018 Small Cell Order*, 33 FCC Rcd at 9104-05, para. 37. Nor may localities regulate in a manner that creates *de facto* moratoria in the context of eligible facilities requests, such as "frequent and lengthy delays in . . . issuing permits and processing applications" or imposing "onerous conditions." *2018 Moratorium Order*, 33 FCC Rcd at 7779-80, paras. 149-150. While some delay in deployment does not constitute a *de facto* moratorium, "[s]ituations cross the line into *de facto* moratoria where the delay continues for an unreasonably long or indefinite amount of time such that providers are discouraged from filing applications, or the action or inaction has the effect of preventing carriers from deploying certain types of facilities or technologies." *Id.* at 7781, para. 150.

⁶¹ *2014 Infrastructure Order*, 29 FCC Rcd at 12951, para. 202.

⁶² 47 CFR § 1.6100(b)(7)(i) (emphasis added). Section 1.6100(b)(7)(i) establishes different standards governing whether a "substantial change" would result from an increase in the height of a tower located outside of the public rights-of-way versus an increase in the height of a base station (*i.e.*, a structure other than a tower that supports collocated transmission equipment) or a tower located within the rights-of-way. Our focus here is on the definition of height increases for towers outside of the rights-of-way.

“separation” between the existing and new antennas, and that the size/height of the new antenna itself is irrelevant to the concept of “separation.”⁶³ Localities appear to be of the view, however, that such an interpretation strains what the statute and regulations would permit—creating different standards for antenna height depending on where it is located and leading to indefinite increases in antenna height under a streamlined process not designed for that purpose.⁶⁴ Adding an antenna array to a tower out of the public right-of-way that increases the height of the tower would not be considered a substantial change, by itself, if there is no more than twenty feet of separation between the nearest existing antenna. The phrase “separation from the nearest existing antenna” means the distance from the top of the highest existing antenna on the tower to the *bottom* of the proposed new antenna to be deployed above it. Thus, when determining whether an application satisfies the criteria for an eligible facilities request, localities should not measure this separation from the top of the existing antenna to the *top* of the new antenna, because the height of the new antenna itself should not be included when calculating the allowable height increase. Rather, under our interpretation, the word “separation” refers to the distance from the top of the existing antenna to the bottom of the proposed antenna. Interpreting “separation” otherwise to include the height of the new antenna could limit the number of proposed height increases that would qualify for section 6409(a) treatment, given typical antenna sizes and separation distances between antennas, which would undermine the statute’s objective to facilitate streamlined review of modifications of existing wireless structures.⁶⁵

26. Specifically, and in response to commenters’ arguments regarding the language in section 1.6100(b)(7)(i), we find that our resolution today is consistent with the long-established interpretation of the comparable standard set forth in the 2001 *Collocation Agreement* for determining the maximum size of a proposed collocation that is categorically excluded from historic preservation review.⁶⁶ Commission staff explained, in a fact sheet released in 2002, that under this provision of the *Collocation Agreement*, if a “150-foot tower... already [has] an antenna at the top of the tower, the tower height could increase by up to 20 feet [*i.e.*, the “separation” distance] *plus* the height of a new antenna to be located at the top of the tower” without constituting a substantial increase in size.⁶⁷ That standard was the source of the standard for the allowable height increases for towers outside the rights-of-way that the Commission adopted in the 2014 *Infrastructure Order*.⁶⁸

⁶³ See CTIA Comments at 10-11; Crown Castle Comments at 15-16; CTIA and Crown Castle urge the Commission to clarify that, in the case of a tower, section 1.6100(b)(7)(i) allows a new antenna to be added without constituting a substantial change if there is up to 20 feet in “separation” between the existing and new antennas. They assert that the size/height of the new antenna itself is irrelevant to the concept of “separation.” Both commenters argue that this interpretation is consistent with the Collocation NPA and is needed to counter locality attempts to include the dimensions of the new antenna itself into the 20 feet limit.

⁶⁴ See San Diego Comments at 47-48; see also San Diego Reply at 80-82 (arguing that the requested clarification would eliminate any maximum height limit for towers).

⁶⁵ *Contra* Letter from Jud Ashman, Mayor, City of Gaithersburg, MD, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849, at 2 (stating that Gaithersburg has generally interpreted the 10% or 20 feet height increase to include the new antenna).

⁶⁶ See National Programmatic Agreement for the Collocation of Wireless Antennas, 47 CFR pt. 1, Appx. B (*Collocation Agreement*), § I.E (a collocation on an existing tower causes a “substantial increase in the size of the tower” if it would increase the tower’s existing height by an amount more than “10%, or by the height of one additional antenna array with separation from the nearest existing antenna not to exceed twenty feet, whichever is greater, except that the mounting of the proposed antenna may exceed the size limits set forth in this paragraph if necessary to avoid interference with existing antennas.”).

⁶⁷ *Wireless Telecommunications Bureau and Mass Media Bureau Announce the Release of a Fact Sheet Regarding the March 16, 2001 Antenna Collocation Programmatic Agreement*, Public Notice, 17 FCC Rcd 508 (2002).

⁶⁸ 2014 *Infrastructure Order*, 29 FCC Rcd at 12946, para. 192.

27. Our interpretation also aligns with the clarification sought by WIA and other industry parties.⁶⁹ We reject the argument that this interpretation creates irrational inconsistencies among height increase standards depending on the type of structure and whether a tower is inside or outside the rights-of-way.⁷⁰ As we discussed in the *2014 Infrastructure Order*, limits on height and width increases should depend on the type and location of the underlying structure.⁷¹ We therefore adopted the *Collocation Agreement's* “substantial increase in size” test for towers outside the rights-of-way,⁷² and we adopted a different standard for non-tower structures.⁷³ Localities are rearguing an issue already settled in the *2014 Infrastructure Order* when they urge that the same height increase standard should apply to different types of structures.⁷⁴ We also reject the argument that this interpretation would lead to virtually unconstrained increases in the height of such towers.⁷⁵ These concerns are unwarranted because the *2014 Infrastructure Order* already limits the cumulative increases in height from eligible modifications and nothing in this *Declaratory Ruling* changes those limits.⁷⁶

28. Our clarification is limited to section 1.6100(b)(7)(i) and the maximum increase in the height of a tower outside the rights-of-way allowed pursuant to an eligible facilities request under section 6409(a). We remind applicants that “eligible facility requests covered by section 6409(a) must comply with any relevant Federal requirement, including any applicable Commission, FAA, NEPA, or section 106 [historic review] requirements.”⁷⁷

C. Equipment Cabinets

29. To upgrade to 5G and for other technological and capacity improvements, providers often add equipment cabinets to existing wireless sites. Section 1.6100(b)(7)(iii) provides that a proposed modification to a support structure constitutes a substantial change if “it involves installation of more than the standard number of new equipment cabinets for the technology involved, but not to exceed four cabinets.”⁷⁸ Some localities suggest that telecommunications transmission equipment manufactured with outer protective covers can be “equipment cabinets” under section 1.6100(b)(7)(iii) of the rules.⁷⁹ We

⁶⁹ WIA Petition for Decl. Ruling at 17-18; CTIA Comments at 10-11; Crown Castle Comments at 15-16.

⁷⁰ Cf. San Diego Comments at 47-48 (arguing that WIA’s interpretation would create an inconsistency between the height increase standard for towers outside public rights-of-way and the standard for other structures).

⁷¹ *2014 Infrastructure Order*, 29 FCC Rcd at 12946, para. 192.

⁷² 47 CFR § 1.6100(b)(7)(i); *2014 Infrastructure Order*, 29 FCC Rcd at 12946, para. 192; *Collocation Agreement* § I.C(1).

⁷³ *2014 Infrastructure Order*, 29 FCC Rcd at 12946-47, para. 193; see 47 CFR § 1.6100(b)(7)(i) (stating a substantial change would occur for other eligible support structures when, “it increases the height of the structure by more than 10% or more than ten feet, whichever is greater”).

⁷⁴ 47 CFR § 1.6100(b)(7)(i). See *2014 Infrastructure Order*, 29 FCC Rcd at 12946-48, paras. 193-95 (explaining reasons for different standards).

⁷⁵ San Diego Reply at 80-82 (quoting *2014 Infrastructure Order*, 29 FCC Rcd at 12949, para. 197).

⁷⁶ 47 CFR § 1.6100(b)(7)(i)(A); *2014 Infrastructure Order*, 29 FCC Rcd at 12948-49, paras. 196-97 (stating that “our substantial change criteria for changes in height should be applied as limits on cumulative changes; otherwise, a series of permissible small changes could result in an overall change that significantly exceeds our adopted standards.”).

⁷⁷ *2014 Infrastructure Order*, 29 FCC Rcd at 12951, para. 203.

⁷⁸ See 47 CFR § 1.6100(b)(7)(iii). Section 1.6100(b)(7)(iii) imposes additional restrictions on equipment cabinet installations that constitute a substantial change in the context of towers in the public rights-of-way and base stations either within or outside the public rights-of-way. Petitioners do not raise issues regarding these additional provisions.

⁷⁹ San Diego Comments at 41-42, 44.

conclude that localities are interpreting “equipment cabinet” under section 1.6100(b)(7)(iii) too broadly to the extent they are treating equipment itself as a cabinet simply because transmission equipment may have protective housing. Nor does a small piece of transmission equipment mounted on a structure become an “equipment cabinet” simply because it is more visible when mounted above ground.⁸⁰ Consistent with common usage of the term “equipment cabinet” in the telecommunications industry, small pieces of equipment such as remote radio heads/remote radio units, amplifiers, transceivers mounted behind antennas, and similar devices are not “equipment cabinets” under section 1.6100(b)(7)(iii) if they are not used as physical containers for smaller, distinct devices.⁸¹ Moreover, we note that section 1.6100(b)(3) defines an “eligible facilities request” (i.e., a request entitled to streamlined treatment under section 6409(a)) as any request for modification of an existing tower or base station that does not substantially change the physical dimensions of such tower or base station and that involves the collocation, removal or replacement of “transmission equipment.”⁸² Interpreting “transmission equipment,” an element required in order for a modification to qualify for streamlined treatment, to be “equipment cabinets,” an element that is subject to numerical limits that can cause the modification not to qualify for streamlined treatment, would strain the intended purposes of sections 1.6100(b)(3) and 1.6100(b)(7)(iii). We do not address here other aspects of the definition of equipment cabinets on which industry commenters seek clarification.⁸³

30. In addition, we clarify that the maximum number of additional equipment cabinets that can be added under the rule is measured for each separate eligible facilities request. According to WIA, one unidentified city in Tennessee interprets the term “not to exceed four cabinets” in section 1.6100(b)(7)(iii) as “setting a cumulative limit, rather than a limit on the number of cabinets associated with a particular eligible facilities request.”⁸⁴ We find that such an interpretation runs counter to the text of section 1.6100(b)(7)(iii), which restricts the number of “new” cabinets per eligible facilities request. The city’s interpretation ignores the fact that the word “it” in the rule refers to a “modification” and supports the conclusion that the limit on equipment cabinet installations applies separately to each eligible facilities request.⁸⁵

⁸⁰ *Contra id.* at 44 (stating, “CTIA suggests that the difference is the size and location of the equipment enclosure, not its function. To adopt the industry’s definition is nonsensical given that it is the function that controls, and locational visibility matters. The industry omits the fact that RRUs located near the antennas creates substantial visible bulk, as do RRUs and associated equipment above ground, and that bulk is more visible than ground mounted cabinets or for new cabinets installed existing enclosures.”).

⁸¹ *Accord* CTIA Petition for Decl. Ruling at 13; WIA Petition for Decl. Ruling at 13; Crown Castle Comments at 11. *Cf.* San Diego Comments at 42 & n.114 (citing technical documents referring to equipment cabinets as containers for smaller devices).

⁸² 47 CFR § 1.6100(b)(3).

⁸³ We find this relief to suffice at this stage and thus do not address the industry parties’ contention that, in the portion of section 1.6100(b)(7)(iii) applicable to any eligible support structure, the term “equipment cabinets” applies only to cabinets installed on the ground and not to those mounted above ground level on the side of structures. *See* CTIA Petition for Decl. Ruling at 5, 13-14; WIA Petition for Decl. Ruling at 13-14; AT&T Comments at 8-10; Crown Castle Comments at 10-11; T-Mobile Comments at 4-5, 19-20; Verizon Comments at 9; *contra* San Diego Comments at 41-44; NLC Comments at 20-21.

⁸⁴ WIA Petition for Decl. Ruling at 13.

⁸⁵ This conclusion is also supported by the context of the rule as a whole. The number and size of preexisting cabinets are irrelevant to the limitation on equipment cabinets on eligible support structures, in contrast to the rest of the rule, which takes into account whether there are preexisting ground cabinets at the site and whether proposed new cabinets’ volume exceeds the volume of preexisting cabinets by more than 10%. 47 CFR § 1.6100(b)(7)(iii). Wilmington’s reliance on the cumulative height limit in section 1.6100(b)(7)(i)(A) undercuts its argument for a similar limit on equipment cabinets. Wilmington *Ex Parte* Letter at 15-17. The rule and 2014 *Infrastructure Order*

(continued...)

31. Several localities argue that this clarification would permit an applicant to add an unlimited number of new equipment cabinets to a structure so long as the applicant proposes adding them in increments of four or less.⁸⁶ We disagree that this clarification permits an unlimited number of cabinets on a structure. The text of section 1.6100(b)(7)(iii) limits the number of equipment cabinets per modification to no more than “the standard number of new equipment cabinets for the technology involved.”

D. Concealment Elements

32. Section 1.6100(b)(7)(v) states that a modification “substantially changes” the physical dimensions of an existing structure if “[i]t would defeat the concealment elements of the eligible support structure.”⁸⁷ The *2014 Infrastructure Order* provides that, “in the context of a modification request related to concealed or ‘stealth’-designed facilities —*i.e.*, facilities designed to look like some feature other than a wireless tower or base station—any change that defeats the concealment elements of such facilities would be considered a ‘substantial change’ under Section 6409(a).”⁸⁸ The *2014 Infrastructure Order* notes that both locality and industry commenters generally agreed that “a modification that undermines the concealment elements of a stealth wireless facility, such as painting to match the supporting façade or artificial tree branches, should be considered substantial under Section 6409(a).”⁸⁹

33. Stakeholders subsequently have interpreted the definition of “concealment element” and the types of modifications that would “defeat” concealment in different ways. Petitioners and industry commenters urge the Commission to clarify that the term “concealment element” only refers to “a stealth facility or those aspects of a design that were specifically intended to disguise the appearance of a facility, such as faux tree branches or paint color.”⁹⁰ T-Mobile states that some localities are “proffering ‘creative or inappropriate’ regulatory interpretations of what a concealment element is.”⁹¹ Locality commenters counter that there is more to concealment than “fully stealthed facilities and semi-stealthed monopines.”⁹² They argue that the proposed changes would undermine the ability of local jurisdictions to enforce regulations designed to conceal equipment.⁹³ NLC asserts that many attributes of a site contribute to concealment, such as the “specific location of a rooftop site, or the inclusion of equipment in a particular architectural feature.”⁹⁴ Locality commenters contend that limiting concealment elements to features

(Continued from previous page) _____

explicitly establish a cumulative limit on height increases but notably omits such a limit on equipment cabinets. 47 CFR § 1.6100(b)(7)(i)(A); *2014 Infrastructure Order*, 29 FCC Rcd at 12948-49, paras. 196-97.

⁸⁶ See, e.g., Letter from John Caulfield, City Manager, City of Lakewood, WA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849, at 1 (filed May 29, 2020) (Lakewood Ex Parte Letter); Greenbelt Ex Parte Letter at 2; NATOA June 2, 2020 Ex Parte Letter at 3.

⁸⁷ 47 CFR § 1.6100(b)(7)(v).

⁸⁸ *2014 Infrastructure Order*, 29 FCC Rcd at 12949-50, para. 200.

⁸⁹ *Id.* at 12949-50, para. 200.

⁹⁰ CTIA Petition for Decl. Ruling at 12; *see also* WIA Reply at 24; T-Mobile Comments at 4, 8; AT&T Comments at 7; ATC Comments at 9-10; Crown Castle Comments at 9-10.

⁹¹ T-Mobile Comments at 7-8; *see also* AT&T Comments at 6-7; ATC Comments at 9-10; Crown Castle Comments at 8.

⁹² NLC Comments at 17.

⁹³ Gwen Kennedy Comments at 1 (rec. Nov. 13, 2019) (filed on behalf of Loudoun County, Virginia) (Loudoun County Comments).

⁹⁴ NLC Comments at 17, 19.

identified in the original approval would negate land use requirements that were a factor in the original deployment but not specified as such.⁹⁵

34. *Clarification of “Concealment Element.”* We clarify that concealment elements are elements of a stealth-designed facility intended to make the facility look like something other than a wireless tower or base station.⁹⁶ The *2014 Infrastructure Order* defines “concealed or ‘stealth’”-designed facilities as “facilities designed to look like some feature other than a wireless tower or base station,” and further provides that any change that defeats the concealment elements of *such* facilities would be considered a substantial change under section 6409(a).⁹⁷ Significantly, the *2014 Infrastructure Order* identified parts of a stealth wireless facility such as “painting to match the supporting façade or artificial tree branches” as examples of concealment elements.⁹⁸ We agree with industry commenters that concealment elements are those elements of a wireless facility installed for the purpose of rendering the “appearance of the wireless facility as something fundamentally different than a wireless facility,”⁹⁹ and that concealment elements are “confined to those used in stealth facilities.”¹⁰⁰

35. We disagree with localities who argue that any attribute that minimizes the visual impact of a facility, such as a specific location on a rooftop site or placement behind a tree line or fence, can be a concealment element.¹⁰¹ As localities acknowledged in comments they submitted in response to the *2013*

⁹⁵ NATOA Comments at 9; *see also* Chino Hills Comments at 2; NLC Comments at 18; NLC Reply at 6; Loudoun County Comments at 1. NATOA notes that many towers and collocations were approved “long before the enactment of Section 6409 and the Commission’s Rules [and there] was no way for municipalities to know that the conditions of approval would be ignored if they did not use magic words adopted years later.” NATOA Comments at 9; *see also* NLC Comments at 18; San Diego Comments at 38.

⁹⁶ *Contra* NATOA Comments at 8 (contending that Petitioners’ requests for clarification are a “substantial change to the Rules that would unreasonably narrow the common meaning of ‘concealment elements.’”); San Diego Comments at 31 (“The Petitioners’ arguments attempt to expand the scope of eligible facilities requests by narrowing the definition of concealment elements.”). The rules and *2014 Infrastructure Order* do not provide detailed guidance on when modifications “defeat the concealment elements” under section 1.6100(b)(7)(v), and we disagree that providing clarity on existing language constitutes a rule change. *Contra* Letter from Scott Hugill, City Manager, City of Mountainlake Terrace, to Marlene Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849, at 2 (filed June 1, 2020).

⁹⁷ *2014 Infrastructure Order*, 29 FCC Rcd at 12950, para. 200.

⁹⁸ *Id.* at 12949-50, para. 200; *see also* WIA Petition for Decl. Ruling at 11 (“Faux tree branches serve no other purpose than to create the appearance that a tower is a tree. Painting a rooftop antenna to match the building serves no purpose other than to enhance the appearance of the building.”).

⁹⁹ WIA Petition for Decl. Ruling at 11; *see also* AT&T Reply at 6 (“[T]he Commission should clarify [] that (1) ‘concealment elements’ refer only to the ‘stealth’ elements of a structure that disguise the structure as something other than a wireless site”); CCA Comments at 7-8 (“In the *2014 Order*, the Commission described concealment elements as those tailored to make wireless facilities ‘look like some feature other than a wireless tower or base station,’ and specifically identified ‘painting to match the supporting façade’ and ‘artificial tree branches’ as examples.”); Letter from Cathleen Massey, Vice President of Regulatory Affairs, T-Mobile, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 et. al., at 2 & n.6 (filed May 13, 2020) (“the Commission should clarify that ‘concealment elements’ means ‘a stealth facility or those aspects of a deployment’s design that were specifically intended to disguise the appearance of a facility’”).

¹⁰⁰ CTIA Petition for Decl. Ruling at 10.

¹⁰¹ *See* National League of Cities Comments at 16-17; *see also* NATOA Comments at 8-9. To the extent that municipalities argue that they have interpreted “concealment element” in the past differently from our clarification, this *Declaratory Ruling* should reduce the number of disputes between localities and applicants and help localities bring their procedures in compliance with section 6409(a). *See, e.g.*, Letter from Carol Helland, Director of Planning and Community Development, City of Redmond, CA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849, at 1 (filed June 2, 2020); NATOA *Ex Parte* at 3.

Infrastructure NPRM, “local governments often address visual effects and concerns in historic districts not through specific stealth conditions, but through careful placement” conditions.¹⁰² Our rules separately address conditions to minimize the visual impact of non-stealth facilities under section 1.6100(b)(7)(vi) governing “conditions associated with the siting approval.”¹⁰³ The Commission narrowly defined concealment elements to mean the elements of a stealth facility, and no other conditions fall within the scope of section 1.6100(b)(7)(v).

36. We also clarify that, in order to be a concealment element under section 1.6100(b)(7)(v), the element must have been part of the facility that the locality approved in its prior review.¹⁰⁴ Our clarification that concealment elements must be related to the locality’s prior approval is informed by the *2014 Infrastructure Order* and its underlying record, which assumed that “stealth” designed facilities in most cases would be installed at the request of an approving local government.¹⁰⁵ Further, in the *2014 Infrastructure Order*, the Commission stated that a modification would be considered a substantial increase if “it would defeat the *existing* concealment elements of the tower or base station.”¹⁰⁶ We clarify that the term “existing” means that the concealment element existed on the facility that was subject to a prior approval by the locality. In addition, the record in the *2014 Infrastructure Order*, as relied upon by the Commission, characterized stealth requirements as identifiable, pre-existing elements in place before an eligible facilities request is submitted.¹⁰⁷

37. Regarding the meaning of a prior approval in the context of an “existing” concealment element, we note that section 1.6100(b)(7)(i) provides that permissible increases in the height of a tower (other than a tower in the public rights-of-way) should be measured relative to a locality’s original approval of the tower or the locality’s approval of any modifications that were approved prior to the passage of the Spectrum Act.¹⁰⁸ We find it reasonable to interpret an “existing” concealment element relative to the same temporal reference points, which are intended to allow localities to adopt legitimate requirements for approval of an original tower at any time but not to allow localities to adopt these same requirements for a modification to the original tower (except for a modification prior to the Spectrum Act when localities would not have been on notice of the limitations in section 6409(a)).¹⁰⁹ In other words, the purpose of section 1.6100(b)(7)(v) is to identify and preserve prior local recognition of the need for such concealment, but not to invite new restrictions that the locality did not previously identify as

¹⁰² See City of Alexandria, Virginia; City of Arlington, Texas; City of Bellevue Washington; City of Boston, Massachusetts; City of Davis, California; City of Los Angeles, California; Los Angeles County, California; City of McAllen, Texas; Montgomery County, Maryland; City of Ontario, California; Town of Palm Beach, Florida; City of Portland, Oregon; City of Redwood City, California; City of San Jose, California; Village of Scarsdale, New York; City of Tallahassee, Florida; Texas Coalition of Cities for Utility Issues; Georgia Municipal Association; International Municipal Lawyers Association; and American Planning Association (Alexandria et al.) Reply to *2013 Infrastructure NPRM* at 18-19; see also Alexandria et al. Comments to *2013 Infrastructure NPRM* at 19.

¹⁰³ 47 CFR § 1.6100(b)(7)(vi).

¹⁰⁴ See *2014 Infrastructure Order*, 29 FCC Rcd at 12945, 12949, paras. 188, 200.

¹⁰⁵ *Id.* at 12949-50, para. 200.

¹⁰⁶ See *id.* at 12945, para. 188 (emphasis added).

¹⁰⁷ See *2013 Infrastructure NPRM*, 28 FCC Rcd at 14284, para. 127.

¹⁰⁸ 47 CFR § 1.6100(b)(7)(i)(A).

¹⁰⁹ By permitting localities to rely on concealment elements required when approving modifications of towers prior to the Spectrum Act, we address in part locality concerns about concealment conditions imposed on older structures after an original approval. See, e.g., San Diego Comments at 38 (stating that WIA’s request for clarification that concealment elements must have been named in the initial approval “would unfairly and retroactively punish both communities and providers who had no notice, and therefore no reason to expect that regulation would be premised upon such a requirement”).

necessary. Accordingly, we clarify that under section 1.6100(b)(7)(v), a concealment element must have been part of the facility that was considered by the locality at the original approval of the tower or at the modification to the original tower, if the approval of the modification occurred prior to the Spectrum Act or lawfully outside of the section 6409(a) process (for instance, an approval for a modification that did not qualify for streamlined section 6409(a) treatment).

38. We are not persuaded by localities' arguments that our clarification would negate land use requirements that were a factor in the approval of the original deployment even if those requirements were not specified as a condition.¹¹⁰ Our clarification does not mean that a concealment element must have been explicitly articulated by the locality as a condition or requirement of a prior approval. While specific words or formulations are not needed, there must be express evidence in the record to demonstrate that a locality considered in its approval that a stealth design for a telecommunications facility would look like something else, such as a pine tree, flag pole, or chimney. However, it would be inconsistent with the purpose of section 6409(a)—facilitating wireless infrastructure deployment—to give local governments discretion to require new concealment elements that were not part of the facility that was subject to the locality's prior approval.¹¹¹ We expect that this clarification will also promote the purpose of the rules to provide greater certainty to localities and applicants as to whether a concealment element exists.

39. *Clarification of "Defeat Concealment."* Next, we clarify that, to "defeat concealment," the proposed modification must cause a reasonable person to view the structure's intended stealth design as no longer effective after the modification. In other words, if the stealth design features would continue effectively to make the structure appear not to be a wireless facility, then the modification would not defeat concealment. Our definition is consistent with dictionary definitions and common usage¹¹² of the term "defeat" and is supported by the record.¹¹³ Our clarification is necessary because, as industry commenters point out, some localities construe even small changes to "defeat" concealment, which delays deployment, extends the review processes for modifications to existing facilities, and frustrates the intent behind section 6409(a).¹¹⁴

¹¹⁰ NATOA Comments at 9.

¹¹¹ *Id.*; see also Chino Hills Comments at 2; NLC Comments at 18; NLC Reply at 6; Gwen Kennedy Comments at 1 (rec. Nov. 13, 2019) (filed on behalf of Loudoun County, Virginia) (Loudoun County Comments) (stating that the proposed clarifications would undermine the ability of local jurisdictions to enforce regulations designed to conceal equipment). NATOA insists that many towers and collocations were approved "long before the enactment of Section 6409 and the Commission's Rules [and there] was no way for municipalities to know that the conditions of approval would be ignored if they did not use magic words adopted years later." NATOA Comments at 9; see also NLC Comments at 18; San Diego Comments at 38 (stating that WIA's request for clarification that concealment elements must have been named in the initial approval "would unfairly and retroactively punish both communities and providers who had no notice, and therefore no reason to expect that regulation would be premised upon such a requirement").

¹¹² See *Defeat*, Black's Law Dictionary (11th ed. 2019) (*Defeat* means "2. To annul or render (something) void. 3. To vanquish; to conquer (someone or something). 4. To frustrate (someone or something).").

¹¹³ See Crown Castle Comments at 9-10 (suggesting that, in order to defeat a concealment element, a modification "must entirely render the concealment void or useless"); AT&T Comments at 8 (stating that a modification must "materially change" the appearance of a concealment element for there to be "substantial change").

¹¹⁴ T-Mobile Comments at 7-8; Crown Castle Comments at 9-10; CCA Comments at 5; see also ATC Reply at 6, n.13 (arguing that adoption of Petitioners' clarifications regarding "defeat" will "allow for appropriate, real world, case-by-case analysis of those elements which actually contribute to concealment"); AT&T Comments at 6-7; CTIA Comments at 8 ("localities are broadly treating the *entire structure* as a concealment element, or otherwise improperly invoking the rule to deem a modification to be substantial"); Crown Castle Comments at 8, n.20 (stating that there are "myriads" of ways that localities claim concealment is defeated, "even when not included in siting approval: increasing the height of a monopine; increasing the height of a light pole; failure to add screens to antenna;

(continued....)

40. *Examples of Whether Modifications Defeat Concealment Elements.* We offer the following examples to provide guidance on concealment elements and whether or not they have been defeated to help inform resolution of disputes should they arise:

- In some cases, localities take the position that the placement of coaxial cable on the outside of a stealth facility constitutes a substantial change based on the visual impact of the cable. Coaxial cables typically range from 0.2 inches to slightly over a half-inch in diameter,¹¹⁵ and it is unlikely that such cabling would render the intended stealth design ineffective at the distances where individuals would view a facility.¹¹⁶
- In other cases, localities have interpreted any change to the color of a stealth tower or structure as defeating concealment.¹¹⁷ Such interpretations are overly broad and can frustrate Congress's intent to expedite the section 6409(a) process. A change in color must make a reasonable person believe that the intended stealth is no longer effective.¹¹⁸ Changes to the color of a stealth structure can occur for many reasons, including for example, the discontinuance of the previous color. An otherwise compliant eligible facilities request will not defeat concealment in this case merely because the modification uses a slightly different paint color. Further, if the new equipment is shielded by an existing shroud that is not being modified, then the color of the equipment is irrelevant because it is not visible to the public and would not render an intended concealment ineffective. Therefore, such a change would not defeat concealment.¹¹⁹
- WIA reports that a locality in Colorado claims that a small increase in height on a stealth monopine, which is less than the size thresholds of section 1.6100(b)(7)(i)-(iv), defeats concealment and therefore constitutes a substantial change.¹²⁰ We clarify that such a

(Continued from previous page) _____

any change to branches on a stealth tree; addition of opaque fencing; enclosing of equipment within shelters; increasing the width of a canister on a flagpole or utility pole; and external cabling on a non-camouflaged monopole”).

¹¹⁵ RS Components, Ltd., *Everything You Need to Know About Coaxial Cable*, <https://uk.rs-online.com/web/generalDisplay.html?id=ideas-and-advice/coaxial-cable-guide>.

¹¹⁶ See, e.g. Letter from Jim Ferrell, Mayor, City of Federal Way, WA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-250 and RM-11849, at 2 (filed June 1, 2020) (presenting hypotheticals involving the visibility of coaxial cables).

¹¹⁷ WIA Petition for Decl. Ruling at 3 (“In many cases, these requirements are not mandated by local codes but are imposed on an ad hoc basis by local jurisdictions.”); T-Mobile Reply at 14; AT&T Reply at 6-7; NLC Reply at 17-18; see also Letter from Alexi Maltas, Senior Vice President and General Counsel, Competitive Carriers Association, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 17-79, at 2 (filed July 12, 2019) (CCA 2019 Letter).

¹¹⁸ The 2014 *Infrastructure Order* noted that “a replacement of exactly the same dimensions could still violate concealment elements if it does not have the same camouflaging paint as the replaced facility.” 29 FCC Rcd at 12949, para. 200, n.543. For such a change in paint color to defeat concealment, however, the color of the stealth tower must make a reasonable person believe that the modified facility will no longer resemble the stealth designed facility.

¹¹⁹ In a further example, according to Crown Castle, two cities in California— San Diego and Cerritos—take the position that additions or modifications of antennas on faux trees defeat concealment even if the appearance of the faux tree remains the same. See, e.g., Letter from Kenneth Simon, Senior Vice President and General Counsel, Crown Castle, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 17-79, at 1 (filed Aug. 10, 2018) (Crown Castle August 2018 *Ex Parte* Letter); see also T-Mobile Reply at 13. Additional faux branches would need to render the intended disguise (resembling a tree, in this example) ineffective in order to defeat concealment.

¹²⁰ WIA Petition for Decl. Ruling at 10.

change would not defeat concealment if the change in size does not cause a reasonable person to view the structure’s intended stealth design (i.e., the design of the wireless facility to resemble a pine tree) as no longer effective after the modification.

- If a prior approval included a stealth-designed monopine that must remain hidden behind a tree line, a proposed modification within the thresholds of section 1.6100(b)(7)(i)-(iv) that makes the monopine visible above the tree line would be permitted under section 1.6100(b)(7)(v). First, the concealment element would not be defeated if the monopine retains its stealth design in a manner that a reasonable person would continue to view the intended stealth design as effective. Second, a requirement that the facility remain hidden behind a tree line is not a feature of a stealth-designed facility; rather it is an aesthetic condition that falls under section 1.6100(b)(7)(vi). Under that analysis, as explained in greater detail below, a proposed modification within the thresholds of section 1.6100(b)(7)(i)-(iv) that makes the monopine visible above the tree line likely would be permitted under section 1.6100(b)(7)(vi).

E. Conditions Associated with the Siting Approval

41. Section 1.6100(b)(7)(vi) states that a modification is a substantial increase if “[i]t does not comply with conditions associated with the siting approval of the construction or modification of the eligible support structure or base station equipment, provided however that this limitation does not apply to any modification that is non-compliant only in a manner that would not exceed the thresholds identified in § 1.61001(b)(7)(i) through (iv).” Industry commenters argue that changes specifically allowed under section 1.6100(b)(7)(i)-(iv) should not constitute a substantial change under section 1.6100(b)(7)(vi).¹²¹ For example, the record shows that some localities claim that small increases in the size of a structure, such as increasing its height or increasing the width of its cannister, are a substantial change because they wrongly characterize any increase to a structure’s visual profile or negative aesthetic impact as defeating a concealment element—even if the size changes would be within the allowances under our rules.¹²²

42. Conditions associated with the siting approval under section 1.6100(b)(7)(vi) may relate to improving the aesthetics, or minimizing the visual impact, of non-stealth facilities (facilities not addressed under section 1.6100(b)(7)(v)). However, localities cannot merely assert that a detail or feature of the facility was a condition of the siting approval; there must be express evidence that at the time of approval the locality required the feature and conditioned approval upon its continuing existence in order for non-compliance with the condition to disqualify a modification from being an eligible facilities request.¹²³ Even so, like any other condition under section 1.6100(b)(7)(vi), such an aesthetics-related

¹²¹ T-Mobile Comments at 18-19; *see also* WIA Reply at 24-25.

¹²² T-Mobile Comments at 9-10; *see also* Nokia Comments at 6-7; Crown Castle August 2018 *Ex Parte* Letter at 16 (claiming that a California locality treats the dimensions of “every aspect” of a project as a concealment element); WIA Petition for Decl. Ruling at 11 (stating that a city in California does not allow weatherproof enclosure expansions greater than 36 inches). Additionally, WIA offers examples of localities that take the position that any increase in height on a monopine, even if below the substantial change threshold of section 1.6100(b)(7)(i)-(iv), defeats concealment and therefore constitutes a substantial change. WIA Petition for Decl. Ruling at 10.

¹²³ Several localities argue that this clarification would place a requirement on a locality to show express evidence that a feature was required and that the locality conditioned approval on its continuing existence, in order for non-compliance with the condition to disqualify a modification from being an eligible facilities request. *See, e.g.,* Lakewood *Ex Parte* Letter at 2; Greenbelt *Ex Parte* Letter at 2; NATOA June 2, 2020 *Ex Parte* Letter at 4. Our clarification is a restatement of the basic principle that applicants should have clear notice of what is required by a condition and how long the requirement lasts. We clarify that in order for a locality to disqualify a modification as an eligible facilities request based on an applicant’s noncompliance with a condition of the original approval, the locality must show that the condition existed at the time of the original approval. Such showing would demonstrate that the applicant was on notice that noncompliance with the condition could result in disqualification.

condition still cannot be used to prevent modifications specifically allowed under section 1.6100(b)(7)(i)-(iv) of our rules.¹²⁴ Consistent with “commonplace [] statutory construction that the specific governs the general,” we clarify that where there is a conflict between a locality’s general ability to impose conditions under (vi) and modifications specifically deemed not substantial under (i)-(iv), the conditions under (vi) should be enforced only to the extent that they do not prevent the modification in (i)-(iv).¹²⁵ In other words, when a proposed modification otherwise permissible under section 1.6100(b)(7)(i)-(iv) cannot reasonably comply with conditions under section 1.6100(b)(7)(vi), the conflict should be resolved in favor of permitting the modifications. For example, a local government’s condition of approval that requires a specifically sized shroud around an antenna could limit an increase in antenna size that is otherwise permissible under section 1.6100(b)(7)(i). Under section 1.6100(b)(7)(vi), however, the size limit of the shroud would not be enforceable if it purported to prevent a modification to add a larger antenna, but a local government could enforce its shrouding condition if the provider reasonably could install a larger shroud to cover the larger antenna and thus meet the purpose of the condition.

43. By providing guidance on the relationship between section 1.6100(b)(7)(i)-(iv) and 1.6100(b)(7)(vi), including the limitations on conditions that a locality may impose, we expect there to be fewer cases where conditions, especially aesthetic conditions, are improperly used to prevent modifications otherwise expressly allowed under section 1.6100(b)(7)(i)-(iv).¹²⁶ We reaffirm that beyond the specific conditions that localities may impose through section 1.6100(b)(7)(vi), localities can enforce “generally applicable building, structural, electrical, and safety codes” and “other laws codifying objective standards reasonably related to health and safety.”¹²⁷

44. *Examples of Aesthetics Related Conditions.* Petitioners and both industry and locality commenters have provided numerous examples of disputes involving modifications to wireless facilities. Using examples from the record,¹²⁸ and assuming that the locality has previously imposed an aesthetic-related condition under section 1.6100(b)(7)(vi), we offer examples to provide guidance on the validity of the condition to decrease future disputes and to help inform resolution of disputes should they arise:

- If a city has an aesthetic-related condition that specified a three-foot shroud cover for a three-foot antenna, the city could not prevent the replacement of the original antenna with a four-foot antenna otherwise permissible under section 1.6100(b)(7)(i) because the new antenna cannot fit in the shroud. As described above, if there was express evidence that the shroud was a condition of approval, the city could enforce its shrouding condition if the provider reasonably could install a four-foot shroud to cover the new four-foot antenna. The city also could enforce a shrouding requirement that is not size-specific and that does not limit modifications allowed under section 1.6100(b)(7)(i)-(iv).
- T-Mobile claims that some localities consider existing walls and fences around non-camouflaged towers to be concealment elements that have been defeated if new

¹²⁴ See, e.g., Crown Castle August 2018 *Ex Parte* Letter at 13 (“Imposing size-based ‘concealment elements’ is nothing more than an attempt to evade the specific, objective size criteria that the Commission adopted in the 2014 *Infrastructure Order*.”); see also AT&T Comments at 6-7 (“If such generic features as height, width, or equipment could be construed as concealment elements, the concealment exception would swallow the rule, nullifying the Section 6409(a) protections adopted by Congress.”); T-Mobile Comments at 9; WIA Petition for Decl. Ruling at 10 (“[T]he record in this proceeding reflects that some jurisdictions are interpreting this language so broadly that the exception swallows the rule.”); ATC Comments at 9.

¹²⁵ *Morales v. Trans World Airlines, Inc.*, 504 U.S. 374, 384 (1992).

¹²⁶ See, e.g., *Douglas Cty. v. Crown Castle USA, Inc.*, 2020 WL 109208, Case No. 18-cv-03171 (D. Colo., Jan. 9, 2020).

¹²⁷ 2014 *Infrastructure Order*, 29 FCC Rcd at 12951, para. 202.

¹²⁸ See San Diego Reply at 44-60 (pictures of multiple structures that commenters consider to be concealed).

equipment is visible over those walls or fences.¹²⁹ First, such conditions are not concealment elements; rather, they are considered aesthetic conditions under section 1.6100(b)(7)(vi). Such conditions may not prevent modifications specifically allowed by section 1.6100(b)(7)(i)-(iv). However, if there were express evidence that the wall or fence were conditions of approval to fully obscure the original equipment from view, the locality may require a provider to make reasonable efforts to extend the wall or fence to maintain the covering of the equipment.

- If an original siting approval specified that a tower must remain hidden behind a tree line, a proposed modification within the thresholds of section 1.6100(b)(7)(i)-(iv) that makes the tower visible above the tree line would be permitted under section 1.6100(b)(7)(vi), because the provider cannot reasonably replace a grove of mature trees with a grove of taller mature trees to maintain the absolute hiding of the tower.¹³⁰
- In a similar vein, San Francisco has conditions to reduce the visual impact of a wireless facility, including that it must be set back from the roof at the front building wall.¹³¹ San Francisco states that it will not approve a modification if the new equipment to be installed does not meet the set back requirement. Even if a proposed modification within the thresholds of section 1.6100(b)(7)(i)-(iv) exceeds the required set back, San Francisco could enforce its set back condition if the provider reasonably could take other steps to reduce the visual impact of the facility to meet the purpose of its condition.

F. Environmental Assessments After Execution of Memorandum of Agreement

45. The Commission's environmental rules implementing the National Environmental Policy Act categorically exclude all actions from environmental evaluations, including the preparation of an environmental assessment, except for defined actions associated with the construction of facilities that may significantly affect the environment.¹³² Pursuant to section 1.1307(a) of the Commission's rules, applicants currently submit an environmental assessment for those facilities that fall within specific categories, including facilities that may affect historic properties protected under the National Historic Preservation Act.¹³³ Under our current process, an applicant submits an environmental assessment for

¹²⁹ Letter from Cathleen Massey, Vice-President of Regulatory Affairs, T-Mobile USA, Inc., to Marlene H. Dortch, Secretary, FCC, WT Docket No. 17-79, at 3-4 (filed Aug. 30, 2019) (T-Mobile 2019 Letter).

¹³⁰ We disagree with the argument of local authorities that this interpretation conflicts with how the Commission explained the *2014 Infrastructure Order* in a brief to the Fourth Circuit almost five years ago. *Wilmington Ex Parte* Letter at 2. In that brief, the Commission addressed the general question of whether previous reliance on a tree for concealment could be defeated by later installing an additional facility that rose above the tree line. *See* Brief for Respondents, *Montgomery County v. FCC*, Nos. 15-1240 et al. (4th Cir. filed July 20, 2015). The Commission's argument in that brief cannot be interpreted to make any *de minimis* increase above the tree line a substantial increase under the Commission's rule. Nor did it distinguish between the application of the concealment provisions of the rule to a "stealth" structure and the limitations in the rule applicable to aesthetic conditions. In any event, in light of extensive subsequent experience as documented in the record of this proceeding, we believe that the rule applicable to stealth facilities should be construed in each individual case to depend upon whether the design would be viewed as no longer effective in view of the modified facilities. *See also, e.g., SNR Wireless LicenseCo, LLC v. FCC*, 868 F.3d 1021, 1037 (D.C. Cir. 2017) (staff level actions do not bind the agency as a whole); *Appalachian Power Co. v. Train*, 620 F.2d 1040, 1045-46 (4th Cir. 1980) (similar); *Malkan FM Associates v. FCC*, 935 F.2d 1313, 1319 (D.C. Cir. 1992) (similar).

¹³¹ San Francisco Reply at 3.

¹³² 47 CFR §§ 1.1306, 1.1307; *see also* 42 U.S.C. § 4321 *et seq.*

¹³³ 47 CFR § 1.1307(a).

facilities that may affect historic properties, even if the applicant has executed a memorandum of agreement¹³⁴ with affected parties to address those adverse effects.¹³⁵

46. We clarify on our own motion that an environmental assessment is not needed when the FCC and applicants have entered into a memorandum of agreement to mitigate effects of a proposed undertaking on historic properties, consistent with section VII.D of the Wireless Facilities Nationwide Programmatic Agreement,¹³⁶ if the only basis for the preparation of an environmental assessment was the potential for significant effects on such properties. We expect this clarification should further streamline the environmental review process.

47. Section 1.1307(a)(4) of the Commission's rules requires an environmental assessment if a proposed communications facility may have a significant effect on a historic property.¹³⁷ The Commission adopted a process to identify potential effects on historic properties by codifying the Wireless Facilities Nationwide Programmatic Agreement as the means to comply with section 106 of the National Historic Preservation Act.¹³⁸ If adverse effects on historic properties are identified during this process, the Wireless Facilities Nationwide Programmatic Agreement requires that the applicant consult with the State Historic Preservation Officer and/or Tribal Historic Preservation Officer, and other interested parties to avoid, minimize, or mitigate the adverse effects.¹³⁹

48. When such effects cannot be avoided, under the terms of the Wireless Facilities Nationwide Programmatic Agreement, the applicant, the State Historic Preservation Officer and/or Tribal Historic Preservation Officer, and other interested parties may proceed to negotiate a memorandum of agreement that the signatories agree fully mitigates all adverse effects. The agreement is then sent to Commission staff for review and signature.¹⁴⁰ Under current practice, even after a memorandum of agreement is executed, an applicant is still required to prepare an environmental assessment and file it with the Commission.¹⁴¹ The Commission subsequently places the environmental assessment on public notice, and the public has 30 days to file comments/oppositions.¹⁴² If the environmental assessment is determined to be sufficient and no comments or oppositions are filed, the Commission issues a Finding of No Significant Impact and allows an applicant to proceed with the project.¹⁴³

49. In this *Declaratory Ruling* we clarify that an environmental assessment is unnecessary after an adverse effect on a historic property is mitigated by a memorandum of agreement.¹⁴⁴ Applicants

¹³⁴ A memorandum of agreement is a mechanism to address adverse effects on historic properties or Indian religious sites. See Wireless Facilities Nationwide Programmatic Agreement at § VII.D.

¹³⁵ FCC, Tower and Antenna Siting, National Historic Preservation Act, The Nationwide Programmatic Agreements, <https://www.fcc.gov/wireless/bureau-divisions/competition-infrastructure-policy-division/tower-and-antenna-siting>.

¹³⁶ Wireless Facilities Nationwide Programmatic Agreement, 47 CFR pt. 1, Appx. C. The Wireless Facilities Nationwide Programmatic Agreement was executed by the Advisory Council on Historic Preservation (ACHP), the National Conference on State Historic Preservation Officers, and the FCC.

¹³⁷ 47 CFR § 1.1307(a)(4).

¹³⁸ See Wireless Facilities Nationwide Programmatic Agreement, 47 CFR pt. 1, Appx. C.

¹³⁹ Wireless Facilities Nationwide Programmatic Agreement at § VII.D.1.

¹⁴⁰ *Id.* at § VII.D.4.

¹⁴¹ FCC, Tower and Antenna Siting, National Historic Preservation Act, The Nationwide Programmatic Agreements, <https://www.fcc.gov/wireless/bureau-divisions/competition-infrastructure-policy-division/tower-and-antenna-siting>.

¹⁴² FCC, Tower and Antenna Siting, The National Environmental Policy Act, FCC's NEPA Process, <https://www.fcc.gov/wireless/bureau-divisions/competition-infrastructure-policy-division/tower-and-antenna-siting>.

¹⁴³ *Id.*

¹⁴⁴ See Council on Environmental Quality, Executive Office of the President, and Advisory Council on Historic Preservation, NEPA and NHPA: A Handbook for Integrating NEPA and Section 106 at 11, 21 (2013)

already are required to consider alternatives to avoid adverse effects prior to executing a memorandum of agreement.¹⁴⁵ The executed agreement demonstrates that the applicant: has notified the public of the proposed undertaking; has consulted with the State Historic Preservation Officer and/or Tribal Historic Preservation Officers, and other interested parties to identify potentially affected historic properties; and has worked with such parties to agree on a plan to mitigate adverse effects.¹⁴⁶ This mitigation eliminates any significant adverse effects on a historic property, and each memorandum of agreement must include as a standard provision that the memorandum of agreement “shall constitute full, complete, and adequate mitigation under the NHPA . . . and the FCC’s rules.”¹⁴⁷

50. We note that section 1.1307(a) requires an applicant to submit an environmental assessment if a facility “may significantly affect the environment,” which includes facilities that may affect historic properties, endangered species, or critical habitats.¹⁴⁸ As a result of the mitigation required by a memorandum of agreement, we conclude that any effects on historic properties remaining after the agreement is executed would be below the threshold of “significance” to trigger an environmental assessment.¹⁴⁹ After the memorandum of agreement is executed, a proposed facility should no longer “have adverse effects on identified historic properties” within the meaning of section 1.1307(a)(4)¹⁵⁰ and, therefore, should no longer be within the “types of facilities that may significantly affect the environment.”¹⁵¹ If none of the other criteria for requiring an environmental assessment in section 1.1307(a) exist, then such facilities automatically fall into the broad category of actions that the Commission has already found to “have no significant effect on the quality of the human environment and are categorically excluded from environmental processing.”¹⁵² The Commission’s rules should be read in light of the scope of our obligation under section 106 and the ACHP’s rules, which explicitly state that such a memorandum of agreement “evidences the agency official’s compliance with section 106.”¹⁵³ We

(Continued from previous page) _____

https://ceq.doe.gov/docs/ceq-publications/NEPA_NHPA_Section_106_Handbook_Mar2013.pdf (2013 NHPA/NEPA Handbook).

¹⁴⁵ Standard language in the template of the FCC’s memoranda of agreement provides that the applicant, “consistent with the FCC’s environmental rules has considered and evaluated a number of alternatives for the project and concluded that these options are either unavailable . . . or do not meet the technical requirements necessary to satisfy the coverage needs of the telecommunications system to be supported by the antennas.” FCC, *Tower and Antenna Siting, The Nationwide Programmatic Agreements*, <https://www.fcc.gov/wireless/bureau-divisions/competition-infrastructure-policy-division/tower-and-antenna-siting>.

¹⁴⁶ Wireless Facilities Nationwide Programmatic Agreement at §§ IV, V, VI, VII.

¹⁴⁷ This provision is standard language in the FCC’s memoranda of agreement, and it is included in the template located on the Commission’s website. See FCC, *Tower and Antenna Siting, National Historic Preservation Act, The Nationwide Programmatic Agreements*, <https://www.fcc.gov/wireless/bureau-divisions/competition-infrastructure-policy-division/tower-and-antenna-siting>.

¹⁴⁸ 47 CFR § 1.1307(a).

¹⁴⁹ *Id.*

¹⁵⁰ *Id.* § 1.1307(a)(4).

¹⁵¹ *Id.* § 1.1307(a) (introductory paragraph).

¹⁵² *Id.* § 1.1306(a); 2013 NHPA/NEPA Handbook at 21 (“New facilities and collocations that do not affect historic properties may be categorically excluded from NEPA.”). We note that nothing in this *Declaratory Ruling* changes the scope or application of section 1.1307(c), which allows any person to submit a petition seeking an environmental assessment for any communications facility deployment otherwise categorically excluded, and (d), which allows a Bureau to require an applicant to submit an environmental assessment even if a proposed deployment would be otherwise categorically excluded. 47 CFR § 1.1307(c) and (d).

¹⁵³ 36 CFR § 800.6(b)-(c); see also 54 U.S.C. § 300101 *et seq.*

remind applicants that an environmental assessment is still required if the proposed project may significantly affect the environment in ways unrelated to historic properties.¹⁵⁴

IV. NOTICE OF PROPOSED RULEMAKING

51. Section 1.6100(b)(7)(iv) provides that “[a] modification substantially changes the physical dimensions of an eligible support structure if . . . [i]t entails any excavation or deployment outside the current site[.]”¹⁵⁵ In other words, a proposed modification that entails any excavation or deployment outside the current site of a tower or base station is not eligible for section 6409(a)’s streamlined procedures. Section 1.6100(b)(6) defines “site” for towers outside of the public rights-of-way as “the current boundaries of the leased or owned property surrounding the tower and any access or utility easements currently related to the site, and, for other eligible support structures, further restricted to that area in proximity to the structure and to other transmission equipment already deployed on the ground.”¹⁵⁶

52. In its Petition for Declaratory Ruling, WIA requests that the Commission clarify that “current site,” for purposes of section 1.6100(b)(7)(iv), is the *currently* leased or owned compound area.¹⁵⁷ Industry commenters argue that current “site” means the property leased or owned by the applicant at the time it submits an application to make a qualifying modification under section 6409(a).¹⁵⁸ Industry commenters state that their proposed clarification merely affirms the plain meaning of the rule.¹⁵⁹ They assert that such clarification is needed because many local governments interpret section 1.6100(b)(6) as referring to the original site and wrongly claim that a modification is not entitled to section 6409(a) if it entails any deployment outside of those original boundaries.¹⁶⁰

53. WIA’s Petition for Rulemaking also requests that the Commission amend its rules to establish that a modification would not cause a “substantial change” if it entails excavation or facility deployments at locations of up to 30 feet in any direction outside the boundaries of a macro tower compound.¹⁶¹ Industry commenters contend that it is often difficult to collocate transmission equipment on existing macro towers without expanding the compounds surrounding those towers in order to deploy additional equipment sheds or cabinets on the ground.¹⁶² They argue that such deployments are becoming increasingly necessary to house multiple carriers’ facilities on towers built in the past to support the needs of a single carrier and to facilitate the extensive network densification needed for rapid 5G deployment.¹⁶³ WIA states that this proposal is consistent with the Wireless Facilities Nationwide Programmatic Agreement,¹⁶⁴ which excludes from section 106 historic preservation review “the construction of a

¹⁵⁴ 47 CFR § 1.1307(a)(1)-(3), (6)-(8); *see also* note to section 1.1307(d) (requiring environmental assessment filings for certain proposed facilities that may affect migratory birds); Wilmington *Ex Parte* Letter at 23-24 (stating that if the Commission is going to eliminate the requirement for an environmental assessment addressing effects on historic properties when a memorandum of agreement is executed, it should clarify that it must still fully consider the potential for other environmental effects).

¹⁵⁵ 47 CFR § 1.6100(b)(7)(iv).

¹⁵⁶ *Id.* § 1.6100(b)(6).

¹⁵⁷ WIA Petition for Decl. Ruling at 9-11.

¹⁵⁸ *See, e.g., id.* at 18; CTIA Comments at 11; AT&T Comments at 9; Crown Castle Comments at 18.

¹⁵⁹ AT&T Comments at 19; Crown Castle at 18; CTIA Comments at 11; WIA Comments at 11.

¹⁶⁰ *See* AT&T Comments at 19; American Tower Comments at 19; Crown Castle Comments at 28.

¹⁶¹ WIA Petition for Rulemaking at 3-11.

¹⁶² ATC Comments at 5-8; Crown Castle Comments at 31-32; CTIA Comments at 15-16; WIA Comments at 7.

¹⁶³ WIA Petition for Rulemaking at 7; ATC Comments at 7-8; AT&T Comments at 29; Crown Castle Comments at 31; CTIA Comments at 15-16; WIA Comments at 6-7; WISPA Comments at 8.

¹⁶⁴ WIA Petition for Decl. Ruling at 10.

replacement for any existing communications tower” that, *inter alia*, “does not expand the boundaries of the leased or owned property surrounding the tower by more than 30 feet in any direction or involve excavation outside these expanded boundaries or outside any existing access or utility easement related to the site.”¹⁶⁵

54. Local governments argue that the definition of “site” should not be interpreted to mean the applicant’s leased or owned property on the date it submits its eligible facilities request.¹⁶⁶ They assert that this interpretation would permit providers to expand the boundaries of a site without review and approval by a local government by entering into leases that increase the area of a site after the locality’s initial review.¹⁶⁷ NLC argues that it would lead to “extensive bypassing of local review for property uses not previously reviewed and approved to support wireless equipment.”¹⁶⁸ Localities also generally oppose the compound expansion proposal because they argue that excavation of up to 30 feet beyond a tower’s current site cannot be considered insubstantial.¹⁶⁹ Moreover, several cities argue that the Commission considered and rejected this proposal in the *2014 Infrastructure Order* and that circumstances have not changed that would warrant a policy reversal.¹⁷⁰

55. In light of the different approaches recommended by the industry and localities, we seek comment on whether we should revise our rules to resolve these issues and, if so, in what manner. In particular, we propose to revise the definition of “site” in section 1.6100(b)(6) to make clear that “site” refers to the boundary of the leased or owned property surrounding the tower and any access or utility easements currently related to the site as of the date that the facility was last reviewed and approved by a locality. We further propose to amend section 1.6100(b)(7)(iv) so that modification of an existing facility that entails ground excavation or deployment of up to 30 feet in any direction outside the facility’s site will be eligible for streamlined processing under section 6409(a).

56. Alternatively, we seek comment on whether we should revise the definition of site in section 1.6100(b)(6), as proposed above, without making the proposed change to section 1.6100(b)(7)(iv) for excavation or deployment of up to 30 feet outside the site. As another option, we seek comment on whether to define site in section 1.6100(b)(6) as the boundary of the leased or owned property surrounding the tower and any access or utility easements related to the site *as of the date an applicant submits a modification request*. Commenters should describe the costs and benefits of these approaches, as well as any other alternatives that they discuss in comments, and provide quantitative estimates as appropriate.

V. PROCEDURAL MATTERS

57. *Comment Filing Procedures.* Pursuant to sections 1.415 and 1.419 of the Commission’s rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission’s Electronic Comment Filing System (ECFS). *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://apps.fcc.gov/ecfs/>.

¹⁶⁵ Wireless Facilities Nationwide Programmatic Agreement at § III.B.

¹⁶⁶ NLC Comments at 10-12; NATOA Comments at 11-12.

¹⁶⁷ NLC Comments at 10-12; NATOA Comments at 11-12.

¹⁶⁸ NLC Comments at 10-12; *see also* NATOA Comments at 11.

¹⁶⁹ San Diego Comments at 53; NLC Comments at 4-5, 10-12; NATOA Comments at 14-15.

¹⁷⁰ San Diego Comments at 49-53.

- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing.
- Filings can be sent by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission’s Secretary, Office of the Secretary, Federal Communications Commission.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701. U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington DC 20554.
- Effective March 19, 2020, and until further notice, the Commission no longer accepts any hand or messenger delivered filings. This is a temporary measure taken to help protect the health and safety of individuals, and to mitigate the transmission of COVID-19. See FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy, Public Notice, DA 20-304 (March 19, 2020). <https://www.fcc.gov/document/fcc-closes-headquarters-open-window-and-changes-hand-delivery-policy>.
- During the time the Commission’s building is closed to the general public and until further notice, if more than one docket or rulemaking number appears in the caption of a proceeding, paper filers need not submit two additional copies for each additional docket or rulemaking number; an original and one copy are sufficient.

58. *People with Disabilities.* To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

59. *Ex Parte Rules—Permit-But-Disclose.* This proceeding shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission’s *ex parte* rules.¹⁷¹ Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter’s written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with Rule 1.1206(b). In proceedings governed by Rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (*e.g.*, .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission’s *ex parte* rules.

60. *Initial Regulatory Flexibility Analysis.* As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹⁷² the Commission has prepared an Initial Regulatory Flexibility Analysis

¹⁷¹ 47 CFR § 1.1200 *et seq.*

¹⁷² See 5 U.S.C. § 603.

(IRFA) of the possible significant economic impact on small entities of the policies and actions addressed in the *Notice of Proposed Rulemaking*. The IRFA is set forth in Appendix B. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines for comments on the *Notice of Proposed Rulemaking*, and should have a separate and distinct heading designating them as responses to the IRFA.

61. *Paperwork Reduction Act*. This *Declaratory Ruling and Notice of Proposed Rulemaking* does not contain proposed information collection(s) subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. In addition, therefore, it does not contain any new or modified information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4).

62. *Congressional Review Act*. The Commission has determined, and the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, concurs that this rule is “non-major” under the Congressional Review Act, 5 U.S.C. § 804(2). The Commission will send a copy of this *Declaratory Ruling and Notice of Proposed Rulemaking* to Congress and the Government Accountability Office pursuant to 5 U.S.C. § 801(a)(1)(A).

VI. ORDERING CLAUSES

63. Accordingly, IT IS ORDERED, pursuant to sections 1, 4(i)-(j), 7, 201, 253, 301, 303, 309, 319, and 332 of the Communications Act of 1934, as amended, and section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012, as amended, 47 U.S.C. §§ 151, 154(i)-(j), 157, 201, 253, 301, 303, 309, 319, 332, 1455 that this *Declaratory Ruling* in WT Docket No. 19-250 and *Notice of Proposed Rulemaking* in RM-11849 IS hereby ADOPTED.

64. IT IS FURTHER ORDERED that this *Declaratory Ruling* SHALL BE effective upon release. It is our intention in adopting the foregoing *Declaratory Ruling* that, if any provision of the *Declaratory Ruling*, or the application thereof to any person or circumstance, is held to be unlawful, the remaining portions of such *Declaratory Ruling* not deemed unlawful, and the application of such *Declaratory Ruling* to other person or circumstances, shall remain in effect to the fullest extent permitted by law.

65. IT IS FURTHER ORDERED that, pursuant to 47 CFR § 1.4(b)(1), the period for filing petitions for reconsideration or petitions for judicial review of this *Declaratory Ruling* will commence on the date that this *Declaratory Ruling* is released.

66. IT IS FURTHER ORDERED that the Commission’s Consumer & Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this *Declaratory Ruling and Notice of Proposed Rulemaking*, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

67. IT IS FURTHER ORDERED that this *Declaratory Ruling and Notice of Proposed Rulemaking* SHALL BE sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

Comments and Reply Comments

Comments

ACT—The App Association

Alamo Improvement Association

Ameren Service Company; American Electric Power Service Corporation; Duke Energy Corporation; Entergy Corporation; Oncor Electric Delivery Company LLC; Southern Company; Tampa Electric Company

American Tower Corporation

AT&T

Chevy Chase Village

City of Brea, California

City of Chino Hills

City of Coconut Creek

City of College Park

City of Costa Mesa

City of Frederick

City of Fort Bragg, California

City of Gaithersburg

City of Huntington Beach

City of Newport News, Virginia

City of New York

City of Ojai

City of San Diego, Cal.; City of Beaverton, Or.; City of Boulder, Colo.; Town of Breckenridge, Colo.; City of Carlsbad, Cal.; City Of Cerritos, Cal.; Colorado Communications And Utility Alliance; City Of Coronado, Cal.; Town Of Danville, Cal.; City of Encinitas, Cal.; City of Glendora, Cal.; King County, Wash.; City of Lacey, Wash.; City of La Mesa, Cal.; City of Lawndale, Cal.; League of Oregon Cities; League of California Cities; City of Napa, Cal.; City of Olympia, Wash.; City of Oxnard, Cal.; City of Pleasanton, Cal.; City of Rancho Palos Verdes, Cal.; City of Richmond, Cal.; Town of San Anselmo, Cal.; City of San Marcos, Cal.; City of San Ramon, Cal.; City of Santa Cruz, Cal.; City of Santa Monica, Cal.; City of Solana Beach, Cal.; City of South Lake Tahoe, Cal.; City of Tacoma, Wash.; City of Thousand Oaks, Cal.; Thurston County, Wash.; City of Tumwater, Wash. (San Diego)

City of Seattle

Communications Workers of America

Competitive Carriers Association

Consumer Technology Association

Crown Castle International Corp.

CTIA

East Bay Neighborhoods for Responsible Technology

ExteNet Systems, Inc.

Free State Foundation

Gwen Kennedy (on behalf of Loudon County, Virginia)

Margaret Phillips

Maryland Municipal League

Comments of The National Association of Telecommunications Officers and Advisors; The United States Conference of Mayors; and The National Association of Counties (NATOA)

National League of Cities; Clark County, Nevada; Cobb County, Georgia; Howard County, Maryland; Montgomery County, Maryland; The City of Ann Arbor, Michigan; The City of Arlington, Texas; The City of Bellevue, Washington; The City of Boston, Massachusetts; The City of Burlingame, California; The Town of Fairfax, California; The City of Gaithersburg, Maryland; The City of Greenbelt, Maryland; The Town of Hillsborough, California; The City of Kirkland,

Washington; The City of Lincoln, Nebraska; The City of Los Angeles, California; The City of Monterey, California; The City of Myrtle Beach, South Carolina; The City of New York, New York; The City of Omaha, Nebraska; The City of Portland, Oregon; The City of San Bruno, California; The Michigan Coalition to Protect Public Rights-Of-Way; The Texas Municipal League; and The Texas Coalition of Cities for Utility Issues (NLC)

Nokia

States of California and Nevada Chapter of the National Association of Telecommunications Officers and Advisors (SCAN NATOA, Inc.)

T-Mobile USA, Inc.

Town of Chesapeake Beach

Town of Kensington, Maryland

Verizon

WIA–The Wireless Infrastructure Association

Wireless Internet Service Providers Association

Reply Comments

American Tower Corporation

AT&T

City and County of San Francisco

City of San Diego, CA; City of Beaverton, Or.; City of Boulder, Colo.; Town of Breckenridge, Colo.; City of Carlsbad, Cal.; City of Cerritos, Cal.; Colorado Communications And Utility Alliance; City of Coronado, Cal.; Town of Danville, Cal.; City of Encinitas, Cal.; City of Glendora, Cal.; King County, Wash.; City of Lacey, Wash.; City of La Mesa, Cal.; City of Lawndale, Cal.; League of Oregon Cities; League of California Cities; City of Napa, Cal.; City of Olympia, Wash.; City of Oxnard, Cal.; City of Pleasanton, Cal.; City of Rancho Palos Verdes, Cal.; City of Richmond, Cal.; Town of San Anselmo, Cal.; City of San Marcos, Cal.; City of San Ramon, Cal.; City of Santa Cruz, Cal.; City of Santa Monica, Cal.; City of Solana Beach Cal.; City of South Lake Tahoe, Cal.; City of Tacoma, Wash.; City of Thousand Oaks, Cal.; Thurston County, Wash.; City of Tumwater, Wash. (San Diego)

Competitive Carriers Association

Consumer Technology Association

Crown Castle International Corp.

CTIA

ExteNet Systems, Inc.

National Association of Telecommunications Officers and Advisors; United States Conference of Mayors; National Association of Counties (NATOA *et. al.*)

National League of Cities; Clark County, NV; Cobb County, GA; Howard County, MD; Montgomery County, MD; City of Ann Arbor, MI; City of Arlington, TX; City of Baltimore, MD; City of Bellevue, WA; City of Boston, MA; City of Burien, WA; City of Burlingame, CA; City of Culver City, CA; Town of Fairfax, CA; City of Gaithersburg, MD; City of Greenbelt, MD; Town of Hillsborough, CA; City of Kirkland, WA; City of Lincoln, NE; City of Los Angeles, CA; City of Monterey, CA; City of Myrtle Beach, SC; City of New York, NY; City of Omaha, NE; City of Ontario, CA; City of Piedmont, CA; City of Portland, OR; City of San Bruno, CA; Michigan Coalition To Protect Public Rights-of-Way; Texas Municipal League; The Texas Coalition of Cities For Utility Issues (NLC *et. al.*)

Nina Beety

R Street Institute

The City of Frederick

T-Mobile USA, Inc.

Wireless Infrastructure Association (WIA)

APPENDIX B

Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities of the policies and rules proposed in this Notice of Proposed Rulemaking (*Notice*). Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments provided on the first page of the *Notice*. The Commission will send a copy of the *Notice*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).² In addition, the *Notice* and IRFA (or summaries thereof) will be published in the *Federal Register*.³

A. Need for, and Objectives of, the Proposed Rules

2. The *Notice* proposes to revise the definition of “site” in section 1.6100(b)(6) to make clear that “site” refers to the boundary of the leased or owned property surrounding the tower and any access or utility easements related to the site as of the date the facility was last reviewed and approved by a locality. It also proposes to amend section 1.6100(b)(7)(iv) to allow for streamlined procedures under the section 6409 of the Commission’s rules to cover modifications to an existing facility that entail ground excavation or deployment of up to 30 feet in any direction outside the boundary of the site.

3. The *Notice* seeks comment on whether the Commission should revise the definition of “site” in section 1.6100(b)(6) without making the proposed change for excavation or deployment of up to 30 feet outside the boundary of the site. The *Notice* also seeks comment on an alternative definition—whether to define “site” in section 1.6100(b)(6) as the boundary of the leased or owned property surrounding the tower and any access or utility easements related to the site *as of the date an applicant submits a modification request*. Finally, the *Notice* asks commenters to describe the costs and benefits of each approach, as well as any other alternatives, and quantitative estimates as appropriate.

4. Section 1.6100(b)(7)(iv) of the Commission’s rules provides that “a modification substantially changes the physical dimensions of an eligible support structure if . . . [i]t entails any excavation or deployment outside the current site[.]”⁴ Accordingly, a proposed modification that entails any excavation outside the current site of a tower or base station is not eligible for streamlined approval by State or local governments under section 6409(a). Section 1.6100(b)(6) defines “site” for towers outside of the public rights-of-way as “the current boundaries of the leased or owned property surrounding the tower and any access or utility easements currently related to the site, and, for other eligible support structures, further restricted to that area in proximity to the structure and to other transmission equipment already deployed on the ground.”⁵

5. Industry commenters argue that current “site” means the property leased or owned by the applicant at the time it submits an application to make a qualifying modification under section 6409(a).⁶ Industry commenters state that their proposed clarification merely affirms the plain meaning of the rule.⁷

¹ See 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601 – 612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (“SBREFA”), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

² See 5 U.S.C. § 603(a).

³ See *id.*

⁴ 47 CFR § 1.6100(b)(7)(iv).

⁵ 47 CFR § 1.6100(b)(6).

⁶ See *e.g.*, WIA Petition for Decl. Ruling at 18; CTIA Comments at 11; AT&T Comments at 9; Crown Castle Comments at 18.

⁷ AT&T Comments at 19; Crown Castle at 18; CTIA Comments at 11; WIA Comments at 11.

They state that such clarification is needed, because many local governments interpret section 1.6100(b)(6) as referring to the original site and wrongly claim that a modification is not entitled to section 6409(a) if it entails any deployment outside of those original boundaries.⁸ Local governments oppose WIA's interpretation, saying it would permit providers to expand the boundaries of a site without review and approval by a local government by entering into leases that increase the area of a site after the locality's initial review.⁹

6. Section 1.6100(b)(7)(iv) provides that "a modification substantially changes the physical dimensions of an eligible support structure if . . . [i]t entails any excavation or deployment outside the current site[.]"¹⁰ However "site" is defined, a proposed modification is not eligible for streamlined processing under section 6409(a) if it is on a tower outside a right-of-way and involves excavation outside the site.¹¹ WIA and other industry commenters urge the Commission to amend this rule so that "excavation or facility deployments at locations up to 30 feet in any direction outside the current boundaries of a macro tower compound" would not constitute a substantial change in the physical dimensions.¹²

7. Industry commenters contend that it is often difficult to collocate transmission equipment on existing macro towers without expanding the compounds surrounding those towers in order to deploy additional equipment sheds or cabinets on the ground.¹³ They argue that such deployments are becoming increasingly necessary to house multiple carriers' facilities on towers built in the past to support the needs of a single carrier and to facilitate the extensive network densification needed for rapid 5G deployment.¹⁴ In contrast, local governments generally oppose the compound expansion proposal arguing that excavation of up to a 30-foot beyond a tower's current site cannot be considered insubstantial.¹⁵ Moreover, several cities argue that the Commission considered and rejected this proposal in the *2014 Infrastructure Order* and that circumstances have not changed that would warrant a policy reversal.¹⁶

B. Legal Basis

8. The proposed action is authorized pursuant to sections 1, 4(i)-(j), 7, 201, 253, 301, 303, 309, 319, and 332 of the Communications Act of 1934, as amended, and section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012, as amended, 47 U.S.C. §§ 151, 154(i)-(j), 157, 201, 253, 301, 303, 309, 319, 332, 1455.

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

9. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules and policies, if adopted.¹⁷ The

⁸ See AT&T Comments at 19; American Tower Comments at 19; Crown Castle Comments at 28.

⁹ NLC Comments at 10-12; NATOA Comments at 11-12.

¹⁰ 47 CFR § 1.6100(b)(7)(iv).

¹¹ See 47 CFR § 1.6100(b)(6)

¹² WIA Petition for Rulemaking at 9-11.

¹³ American Tower Comments at 5-8; Crown Castle Comments at 31-32; CTIA Comments at 15-16; WIA Comments at 7.

¹⁴ WIA Petition for Rulemaking at 7; American Tower Comments at 7-8; AT&T Comments at 29; Crown Castle Comments at 31; CTIA Comments at 15-16; WIA Comments at 6-7; WISPA Comments at 8.

¹⁵ San Diego Comments at 53-53; NLC Comments at 4-5, 12-14; NATOA Comments at 14-15.

¹⁶ See e.g., San Diego Comments at 49-53.

¹⁷ 5 U.S.C. § 603(b)(3).

RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”¹⁸ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.¹⁹ A “small business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.²⁰

10. *Small Businesses, Small Organizations, Small Governmental Jurisdictions.* Our actions, over time, may affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three broad groups of small entities that could be directly affected herein.²¹ First, while there are industry specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the Small Business Administration’s (SBA) Office of Advocacy, in general a small business is an independent business having fewer than 500 employees.²² These types of small businesses represent 99.9% of all businesses in the United States, which translates to 30.7 million businesses.²³

11. Next, the type of small entity described as a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”²⁴ The Internal Revenue Service (IRS) uses a revenue benchmark of \$50,000 or less to delineate its annual electronic filing requirements for small exempt organizations.²⁵ Nationwide, for tax year 2018, there were approximately 571,709 small exempt organizations in the U.S. reporting revenues of \$50,000 or less according to the registration and tax data for exempt organizations available from the IRS.²⁶

12. Finally, the small entity described as a “small governmental jurisdiction” is defined generally as “governments of cities, counties, towns, townships, villages, school districts, or special

¹⁸ 5 U.S.C. § 601(6).

¹⁹ 5 U.S.C. § 601(3) (incorporating by reference the definition of “small-business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

²⁰ 15 U.S.C. § 632.

²¹ See 5 U.S.C. § 601(3)-(6).

²² See SBA, Office of Advocacy, “What’s New With Small Business?”, <https://cdn.advocacy.sba.gov/wp-content/uploads/2019/09/23172859/Whats-New-With-Small-Business-2019.pdf> (Sept 2019).

²³ *Id.*

²⁴ 5 U.S.C. § 601(4).

²⁵ The IRS benchmark is similar to the population of less than 50,000 benchmark in 5 U.S.C § 601(5) that is used to define a small governmental jurisdiction. Therefore, the IRS benchmark has been used to estimate the number small organizations in this small entity description. See Annual Electronic Filing Requirement for Small Exempt Organizations — Form 990-N (e-Postcard), “Who must file,” <https://www.irs.gov/charities-non-profits/annual-electronic-filing-requirement-for-small-exempt-organizations-form-990-n-e-postcard>. We note that the IRS data does not provide information on whether a small exempt organization is independently owned and operated or dominant in its field.

²⁶ See Exempt Organizations Business Master File Extract (EO BMF), “CSV Files by Region,” <https://www.irs.gov/charities-non-profits/exempt-organizations-business-master-file-extract-EO-BMF>. The IRS Exempt Organization Business Master File (EO BMF) Extract provides information on all registered tax-exempt/non-profit organizations. The data utilized for purposes of this description was extracted from the IRS EO BMF data for Region 1-Northeast Area (76,886), Region 2-Mid-Atlantic and Great Lakes Areas (221,121), and Region 3-Gulf Coast and Pacific Coast Areas (273,702) which includes the continental U.S., Alaska, and Hawaii. This data does not include information for Puerto Rico.

districts, with a population of less than fifty thousand.”²⁷ U.S. Census Bureau data from the 2017 Census of Governments²⁸ indicate that there were 90,075 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.²⁹ Of this number there were 36,931 general purpose governments (county³⁰, municipal and town or township³¹) with populations of less than 50,000 and 12,040 special purpose governments - independent school districts³² with enrollment populations of less than 50,000.³³ Accordingly, based on the 2017 U.S. Census of Governments data, we estimate that at least 48,971 entities fall into the category of “small governmental jurisdictions.”³⁴

13. *Wireless Telecommunications Carriers (except Satellite)*. This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular services, paging services, wireless internet access, and wireless video services.³⁵ The appropriate size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees.³⁶ For this industry, U.S. Census Bureau data for 2012 show that there

²⁷ 5 U.S.C. § 601(5).

²⁸ See 13 U.S.C. § 161. The Census of Governments survey is conducted every five (5) years compiling data for years ending with “2” and “7”. See also Census of Governments, <https://www.census.gov/programs-surveys/cog/about.html>.

²⁹ See U.S. Census Bureau, 2017 Census of Governments – Organization Table 2. Local Governments by Type and State: 2017 [CG1700ORG02]. <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. Local governmental jurisdictions are made up of general purpose governments (county, municipal and town or township) and special purpose governments (special districts and independent school districts). See also Table 2. CG1700ORG02 Table Notes_Local Governments by Type and State_2017.

³⁰ See U.S. Census Bureau, 2017 Census of Governments - Organization, Table 5. County Governments by Population-Size Group and State: 2017 [CG1700ORG05]. <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 2,105 county governments with populations less than 50,000. This category does not include subcounty (municipal and township) governments.

³¹ See U.S. Census Bureau, 2017 Census of Governments - Organization, Table 6. Subcounty General-Purpose Governments by Population-Size Group and State: 2017 [CG1700ORG06]. <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 18,729 municipal and 16,097 town and township governments with populations less than 50,000.

³² See U.S. Census Bureau, 2017 Census of Governments - Organization, Table 10. Elementary and Secondary School Systems by Enrollment-Size Group and State: 2017 [CG1700ORG10]. <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 12,040 independent school districts with enrollment populations less than 50,000. See also Table 4. Special-Purpose Local Governments by State Census Years 1942 to 2017 [CG1700ORG04], CG1700ORG04 Table Notes_Special Purpose Local Governments by State_Census Years 1942 to 2017.

³³ While the special purpose governments category also includes local special district governments, the 2017 Census of Governments data does not provide data aggregated based on population size for the special purpose governments category. Therefore, only data from independent school districts is included in the special purpose governments category.

³⁴ This total is derived from the sum of the number of general purpose governments (county, municipal and town or township) with populations of less than 50,000 (36,931) and the number of special purpose governments - independent school districts with enrollment populations of less than 50,000 (12,040), from the 2017 Census of Governments - Organizations Tables 5, 6, and 10.

³⁵ See U.S. Census Bureau, 2017 NAICS Definition, “517312 Wireless Telecommunications Carriers (except Satellite)”, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517312&search=2017%20NAICS%20Search>.

³⁶ See 13 CFR § 121.201, NAICS Code 517312 (previously 517210).

were 967 firms that operated for the entire year.³⁷ Of this total, 955 firms employed fewer than 1,000 employees and 12 firms employed 1000 employees or more.³⁸ Thus under this category and the associated size standard, the Commission estimates that the majority of Wireless Telecommunications Carriers (except Satellite) are small entities.

14. The Commission's own data—available in its Universal Licensing System—indicate that, as of August 31, 2018 there are 265 Cellular licensees that will be affected by our actions.³⁹ The Commission does not know how many of these licensees are small, as the Commission does not collect that information for these types of entities. Similarly, according to internally developed Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service (PCS), and Specialized Mobile Radio (SMR) Telephony services.⁴⁰ Of this total, an estimated 261 have 1,500 or fewer employees, and 152 have more than 1,500 employees.⁴¹ Thus, using available data, we estimate that the majority of wireless firms can be considered small.

15. *All Other Telecommunications.* The “All Other Telecommunications” category is comprised of establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation.⁴² This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems.⁴³ Establishments providing Internet services or voice over Internet protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry.⁴⁴ The SBA has developed a small business size standard for “All Other Telecommunications”, which consists of all such firms with annual receipts of \$35 million or less.⁴⁵ For this category, U.S. Census Bureau data for 2012 show that there were 1,442 firms that operated for the entire year.⁴⁶ Of those firms, a total of 1,400 had annual receipts less than \$25 million and 15 firms had

³⁷ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ5, *Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012*, NAICS Code 517210, <https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517210&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&vintage=2012>.

³⁸ *Id.* Available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees. The largest category provided is for firms with “1000 employees or more.”

³⁹ See <http://wireless.fcc.gov/uls>. For the purposes of this IRFA, consistent with Commission practice for wireless services, the Commission estimates the number of licensees based on the number of unique FCC Registration Numbers.

⁴⁰ See Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, Trends in Telephone Service at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*), https://apps.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

⁴¹ See *id.*

⁴² See U.S. Census Bureau, *2017 NAICS Definition*, “517919 All Other Telecommunications”, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517919&search=2017+NAICS+Search&search=2017>.

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ See 13 CFR § 121.201, NAICS Code 517919.

⁴⁶ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ4, *Information: Subject Series - Estab and Firm Size: Receipts Size of Firms for the U.S.: 2012*, NAICS Code 517919, <https://data.census.gov/cedsci/table?text=EC1251SSSZ4&n=517919&tid=ECNSIZE2012.EC1251SSSZ4&hidePreview=false>.

annual receipts of \$25 million to \$49,999,999.⁴⁷ Thus, the Commission estimates that the majority of “All Other Telecommunications” firms potentially affected by our action can be considered small.

16. *Fixed Microwave Services.* Microwave services include common carrier,⁴⁸ private-operational fixed,⁴⁹ and broadcast auxiliary radio services.⁵⁰ They also include the Upper Microwave Flexible Use Service⁵¹, Millimeter Wave Service⁵², Local Multipoint Distribution Service (LMDS),⁵³ the Digital Electronic Message Service (DEMS),⁵⁴ and the 24 GHz Service,⁵⁵ where licensees can choose between common carrier and non-common carrier status.⁵⁶ There are approximately 66,680 common carrier fixed licensees, 69,360 private and public safety operational-fixed licensees, 20,150 broadcast auxiliary radio licensees, 411 LMDS licenses, 33 24 GHz DEMS licenses, 777 39 GHz licenses, and five 24 GHz licenses, and 467 Millimeter Wave licenses in the microwave services.⁵⁷ The Commission has not yet defined a small business with respect to microwave services. The closest applicable SBA category is Wireless Telecommunications Carriers (except Satellite)⁵⁸ and the appropriate size standard for this category under SBA rules is that such a business is small if it has 1,500 or fewer employees.⁵⁹ For this industry, U.S. Census Bureau data for 2012 show that there were 967 firms that operated for the entire year.⁶⁰ Of this total, 955 firms had employment of 999 or fewer employees and 12 had employment of 1000 employees or more.⁶¹ Thus under this SBA category and the associated size standard, the Commission estimates that a majority of fixed microwave service licensees can be considered small.

17. The Commission does not have data specifying the number of these licensees that have more than 1,500 employees, and thus is unable at this time to estimate with greater precision the number of fixed microwave service licensees that would qualify as small business concerns under the SBA’s small business size standard. Consequently, the Commission estimates that there are up to 36,708

⁴⁷ *Id.*

⁴⁸ See 47 CFR Part 101, Subparts C and I.

⁴⁹ See 47 CFR Part 101, Subparts C and H.

⁵⁰ Auxiliary Microwave Service is governed by Part 74 of Title 47 of the Commission’s Rules. See 47 CFR Part 74. Available to licensees of broadcast stations and to broadcast and cable network entities, broadcast auxiliary microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile TV pickups, which relay signals from a remote location back to the studio.

⁵¹ See 47 CFR Part 30.

⁵² See 47 CFR Part 101, Subpart Q.

⁵³ See 47 CFR Part 101, Subpart L.

⁵⁴ See 47 CFR Part 101, Subpart G.

⁵⁵ See *id.*

⁵⁶ See 47 CFR §§ 101.533, 101.1017.

⁵⁷ These statistics are based on a review of the Universal Licensing System on September 22, 2015.

⁵⁸ See U.S. Census Bureau, *2017 NAICS Definition*, “517312 Wireless Telecommunications Carriers (except Satellite)”, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517312&search=2017%20NAICS%20Search>.

⁵⁹ See 13 CFR § 121.201, NAICS Code 517312 (previously 517210).

⁶⁰ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ5, *Information: Subject Series, Estab and Firm Size: Employment Size of Firms for the U.S.: 2012*, NAICS Code 517210, <https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517210&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&vintage=2012>.

⁶¹ *Id.* Available census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees. The largest category provided is for firms with “1000 employees or more.”

common carrier fixed licensees and up to 59,291 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services that may be small and may be affected by the rules and policies discussed herein. We note, however, that the microwave fixed licensee category includes some large entities.

18. *FM Translator Stations and Low Power FM Stations.* FM translators and Low Power FM Stations are classified in the category of Radio Stations and are assigned the same NAICS Code as licensees of radio stations.⁶² This U.S. industry, Radio Stations, comprises establishments primarily engaged in broadcasting aural programs by radio to the public.⁶³ Programming may originate in their own studio, from an affiliated network, or from external sources.⁶⁴ The SBA has established a small business size standard which consists of all radio stations whose annual receipts are \$41.5 million dollars or less.⁶⁵ U.S. Census Bureau data for 2012 indicate that 2,849 radio station firms operated during that year.⁶⁶ Of that number, 2,806 operated with annual receipts of less than \$25 million per year, 17 with annual receipts between \$25 million and \$49,999,999 million and 26 with annual receipts of \$50 million or more.⁶⁷ Therefore, based on the SBA's size standard we conclude that the majority of FM Translator Stations and Low Power FM Stations are small.

19. *Location and Monitoring Service (LMS).* LMS systems use non-voice radio techniques to determine the location and status of mobile radio units. For purposes of auctioning LMS licenses, the Commission has defined a "small business" as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not to exceed \$15 million.⁶⁸ A "very small business" is defined as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not to exceed \$3 million.⁶⁹ These definitions have been approved by the SBA.⁷⁰ An auction for LMS licenses commenced on February 23, 1999 and closed on March 5, 1999. Of the 528 licenses auctioned, 289 licenses were sold to four small businesses.

20. *Multichannel Video Distribution and Data Service (MVDDS).* MVDDS is a terrestrial fixed microwave service operating in the 12.2-12.7 GHz band. The Commission adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits. It defined a very small business as an entity with average annual gross revenues not exceeding \$3 million for the preceding three years; a small business as an entity with average annual gross revenues not exceeding \$15 million for the preceding three years; and an entrepreneur as an entity with average annual gross revenues not exceeding \$40 million for the preceding

⁶² See U.S. Census Bureau, *2017 NAICS Definition, "515112 Radio Stations"*, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=515112&search=2017+NAICS+Search&search=2017>.

⁶³ *Id.*

⁶⁴ *Id.*

⁶⁵ See 13 C.F.R. 121.201, NAICS Code 515112.

⁶⁶ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ4, *Information: Subject Series – Estab and Firm Size: Receipts Size of Firms for the U.S.:2012*, NAICS Code 515112, <https://data.census.gov/cedsci/table?text=EC1251SSSZ4&n=515112&tid=ECNSIZE2012.EC1251SSSZ4&hidePreview=false>.

⁶⁷ *Id.*

⁶⁸ Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, PR Docket No. 93-61, *Second Report and Order*, 13 FCC Rcd 15182, 15192 para. 20 (1998); see also 47 CFR § 90.1103.

⁶⁹ *Id.*

⁷⁰ See Letter from Aida Alvarez, Administrator, Small Business Administration to Thomas J. Sugrue, Chief, Wireless Telecommunications Bureau, FCC (Feb. 22, 1999).

three years.⁷¹ These definitions were approved by the SBA.⁷² On January 27, 2004, the Commission completed an auction of 214 MVDDS licenses (Auction No. 53). In this auction, ten winning bidders won a total of 192 MVDDS licenses.⁷³ Eight of the ten winning bidders claimed small business status and won 144 of the licenses. The Commission also held an auction of MVDDS licenses on December 7, 2005 (Auction 63). Of the three winning bidders who won 22 licenses, two winning bidders, winning 21 of the licenses, claimed small business status.⁷⁴

21. *Multiple Address Systems.* Entities using Multiple Address Systems (MAS) spectrum, in general, fall into two categories: (1) those using the spectrum for profit-based uses, and (2) those using the spectrum for private internal uses. With respect to the first category, Profit-based Spectrum use, the size standards established by the Commission define “small entity” for MAS licensees as an entity that has average annual gross revenues of less than \$15 million over the three previous calendar years.⁷⁵ A “Very small business” is defined as an entity that, together with its affiliates, has average annual gross revenues of not more than \$3 million over the preceding three calendar years.⁷⁶ The SBA has approved these definitions.⁷⁷ The majority of MAS operators are licensed in bands where the Commission has implemented a geographic area licensing approach that requires the use of competitive bidding procedures to resolve mutually exclusive applications.

22. The Commission’s licensing database indicates that, as of April 16, 2010, there were a total of 11,653 site-based MAS station authorizations. Of these, 58 authorizations were associated with common carrier service. In addition, the Commission’s licensing database indicates that, as of April 16, 2010, there were a total of 3,330 Economic Area market area MAS authorizations. The Commission’s licensing database also indicates that, as of April 16, 2010, of the 11,653 total MAS station authorizations, 10,773 authorizations were for private radio service. In 2001, an auction for 5,104 MAS licenses in 176 EAs was conducted.⁷⁸ Seven winning bidders claimed status as small or very small businesses and won 611 licenses. In 2005, the Commission completed an auction (Auction 59) of 4,226 MAS licenses in the Fixed Microwave Services from the 928/959 and 932/941 MHz bands. Twenty-six winning bidders won a total of 2,323 licenses. Of the 26 winning bidders in this auction, five claimed small business status and won 1,891 licenses.

23. With respect to the second category, Internal Private Spectrum use consists of entities that use, or seek to use, MAS spectrum to accommodate their own internal communications needs, MAS

⁷¹ Amendment of Parts 2 and 25 of the Commission’s Rules to Permit Operation of NGSO FSS Systems Co-Frequency with GSO and Terrestrial Systems in the Ku-Band Frequency Range; Amendment of the Commission’s Rules to Authorize Subsidiary Terrestrial Use of the 12.2–12.7 GHz Band by Direct Broadcast Satellite Licensees and their Affiliates; and Applications of Broadwave USA, PDC Broadband Corporation, and Satellite Receivers, Ltd. to Provide A Fixed Service in the 12.2–12.7 GHz Band, *Memorandum Opinion and Order and Second Report and Order*, 17 FCC Rcd 9614, 9711, para. 252 (2002).

⁷² See Letter from Hector V. Barreto, Administrator, U.S. Small Business Administration, to Margaret W. Wiener, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC (Feb. 13, 2002).

⁷³ See “*Multichannel Video Distribution and Data Service Spectrum Auction Closes; Winning Bidders Announced*,” Public Notice, 19 FCC Rcd 1834 (2004).

⁷⁴ See “*Auction of Multichannel Video Distribution and Data Service Licenses Closes; Winning Bidders Announced for Auction No. 63*,” Public Notice, 20 FCC Rcd 19807 (2005).

⁷⁵ See Amendment of the Commission’s Rules Regarding Multiple Address Systems, *Report and Order*, 15 FCC Rcd 11956, 12008, para. 123 (2000).

⁷⁶ *Id.*

⁷⁷ See Letter from Aida Alvarez, Administrator, Small Business Administration, to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, FCC (June 4, 1999).

⁷⁸ See “*Multiple Address Systems Spectrum Auction Closes*,” Public Notice, 16 FCC Rcd 21011 (2001).

serves an essential role in a range of industrial, safety, business, and land transportation activities. MAS radios are used by companies of all sizes, operating in virtually all U.S. business categories, and by all types of public safety entities. For the majority of private internal users, the definition developed by the SBA would be more appropriate than the Commission's definition. The closest applicable definition of a small entity is the "Wireless Telecommunications Carriers (except Satellite)" definition under the SBA size standards.⁷⁹ The appropriate size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees.⁸⁰ For this category, U.S. Census Bureau data for 2012 show that there were 967 firms that operated for the entire year.⁸¹ Of this total, 955 firms had employment of 999 or fewer employees and 12 had employment of 1000 employees or more.⁸² Thus under this category and the associated small business size standard, the Commission estimates that the majority of firms that may be affected by our action can be considered small.

24. *Non-Licensee Owners of Towers and Other Infrastructure.* Although at one time most communications towers were owned by the licensee using the tower to provide communications service, many towers are now owned by third-party businesses that do not provide communications services themselves but lease space on their towers to other companies that provide communications services. The Commission's rules require that any entity, including a non-licensee, proposing to construct a tower over 200 feet in height or within the glide slope of an airport must register the tower with the Commission's Antenna Structure Registration ("ASR") system and comply with applicable rules regarding review for impact on the environment and historic properties.

25. As of March 1, 2017, the ASR database includes approximately 122,157 registration records reflecting a "Constructed" status and 13,987 registration records reflecting a "Granted, Not Constructed" status. These figures include both towers registered to licensees and towers registered to non-licensee tower owners. The Commission does not keep information from which we can easily determine how many of these towers are registered to non-licensees or how many non-licensees have registered towers.⁸³ Regarding towers that do not require ASR registration, we do not collect information as to the number of such towers in use and therefore cannot estimate the number of tower owners that would be subject to the rules on which we seek comment. Moreover, the SBA has not developed a size standard for small businesses in the category "Tower Owners." Therefore, we are unable to determine the number of non-licensee tower owners that are small entities. We believe, however, that when all entities owning 10 or fewer towers and leasing space for collocation are included, non-licensee tower owners number in the thousands. In addition, there may be other non-licensee owners of other wireless infrastructure, including Distributed Antenna Systems (DAS) and small cells that might be affected by the measures on which we seek comment. We do not have any basis for estimating the number of such non-licensee owners that are small entities.

26. The closest applicable SBA category is All Other Telecommunications⁸⁴, and the appropriate size standard consists of all such firms with gross annual receipts of \$38 million or less.⁸⁵ For

⁷⁹ See 13 CFR § 121.201, NAICS Code 517312 (formerly 517210).

⁸⁰ *Id.*

⁸¹ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ5, *Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012*, NAICS Code 517210, <https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517210&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&vintage=2012>.

⁸² Available census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees. The largest category provided is for firms with "1000 employees or more."

⁸³ We note, however, that approximately 13,000 towers are registered to 10 cellular carriers with 1,000 or more employees.

⁸⁴ See U.S. Census Bureau, *2017 NAICS Definition*, "517919 All Other Telecommunications", <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517919&search=2017+NAICS+Search&search=2017>.

this category, U.S. Census Bureau data for 2012 show that there were 1,442 firms that operated for the entire year.⁸⁶ Of these firms, a total of 1,400 had gross annual receipts of less than \$25 million and 15 firms had annual receipts of \$25 million to \$49,999,999.⁸⁷ Thus, under this SBA size standard a majority of the firms potentially affected by our action can be considered small.

27. *Personal Radio Services.* Personal radio services provide short-range, low-power radio for personal communications, radio signaling, and business communications not provided for in other services. Personal radio services include services operating in spectrum licensed under Part 95 of our rules.⁸⁸ These services include Citizen Band Radio Service, General Mobile Radio Service, Radio Control Radio Service, Family Radio Service, Wireless Medical Telemetry Service, Medical Implant Communications Service, Low Power Radio Service, and Multi-Use Radio Service.⁸⁹ There are a variety of methods used to license the spectrum in these rule parts, from licensing by rule, to conditioning operation on successful completion of a required test, to site-based licensing, to geographic area licensing. All such entities in this category are wireless, therefore we apply the definition of Wireless Telecommunications Carriers (except Satellite)⁹⁰, pursuant to which the SBA's small entity size standard is defined as those entities employing 1,500 or fewer persons.⁹¹ For this industry, U.S. Census Bureau data for 2012 show that there were 967 firms that operated for the entire year.⁹² Of this total, 955 firms had employment of 999 or fewer employees and 12 had employment of 1000 employees or more.⁹³ Thus under this category and the associated size standard, the Commission estimates that the majority of firms can be considered small. We note however, that many of the licensees in this category are individuals and not small entities. In addition, due to the mostly unlicensed and shared nature of the spectrum utilized in many of these services, the Commission lacks direct information upon which to base an estimation of the number of small entities that may be affected by our actions in this proceeding.

28. *Private Land Mobile Radio Licensees.* Private land mobile radio (PLMR) systems serve an essential role in a vast range of industrial, business, land transportation, and public safety activities. Companies of all sizes operating in all U.S. business categories use these radios. Because of the vast array of PLMR users, the Commission has not developed a small business size standard specifically

(Continued from previous page) _____

⁸⁵ See 13 CFR § 121.201, NAICS Code 517919.

⁸⁶ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ4, *Information: Subject Series - Estab and Firm Size: Receipts Size of Firms for the U.S.: 2012*, NAICS Code 517919, <https://data.census.gov/cedsci/table?text=EC1251SSSZ4&n=517919&tid=ECNSIZE2012.EC1251SSSZ4&hidePreview=false>.

⁸⁷ *Id.*

⁸⁸ 47 CFR Part 90.

⁸⁹ The Citizens Band Radio Service, General Mobile Radio Service, Radio Control Radio Service, Family Radio Service, Wireless Medical Telemetry Service, Medical Implant Communications Service, Low Power Radio Service, and Multi-Use Radio Service are governed by subpart D, subpart A, subpart C, subpart B, subpart H, subpart I, subpart G, and subpart J, respectively, of Part 95 of the Commission's rules. See generally 47 CFR Part 95.

⁹⁰ See U.S. Census Bureau, *2017 NAICS Definition*, "517312 Wireless Telecommunications Carriers (except Satellite)", <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517312&search=2017%20NAICS%20Search>.

⁹¹ See 13 CFR § 121.201, NAICS Code 517312 (previously 517210).

⁹² See U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ5, *Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012*, NAICS Code 517210, <https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517210&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&vintage=2012>.

⁹³ *Id.* Available census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees. The largest category provided is for firms with "1000 employees or more."

applicable to PLMR users. The closest applicable SBA category is Wireless Telecommunications Carriers (except Satellite) which encompasses business entities engaged in *radiotelephone communications*.⁹⁴ The appropriate size standard for this category under SBA rules is that such a business is small if it has 1,500 or fewer employees.⁹⁵ For this industry, U.S. Census Bureau data for 2012 show that there were 967 firms that operated for the entire year.⁹⁶ Of this total, 955 firms had employment of 999 or fewer employees and 12 had employment of 1000 employees or more.⁹⁷ Thus under this category and the associated size standard, the Commission estimates that the majority of PLMR Licensees are small entities.

29. According to the Commission's records, a total of approximately 400,622 licenses comprise PLMR users.⁹⁸ Of this number there are a total of approximately 3,174 PLMR licenses in the 4.9 GHz band;⁹⁹ 29,187 PLMR licenses in the 800 MHz band;¹⁰⁰ and 3,374 licenses in the frequencies range 173.225 MHz to 173.375 MHz.¹⁰¹ The Commission does not require PLMR licensees to disclose information about number of employees, and does not have information that could be used to determine how many PLMR licensees constitute small entities under this definition. The Commission however believes that a substantial number of PLMR licensees may be small entities despite the lack of specific information.

30. *Public Safety Radio Licensees.* As a general matter, Public Safety Radio Pool licensees include police, fire, local government, forestry conservation, highway maintenance, and emergency medical services.¹⁰² Because of the vast array of public safety licensees, the Commission has not

⁹⁴ See U.S. Census Bureau, *2017 NAICS Definition*, "517312 Wireless Telecommunications Carriers (except Satellite)", <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517312&search=2017%20NAICS%20Search>.

⁹⁵ See 13 CFR § 121.201, NAICS Code 517312 (formerly 517210).

⁹⁶ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ5, *Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012*, NAICS Code 517210, <https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517210&tid=ECNSIZE2012.EC1251SSSZ5&hidePrevicw=false&vintage=2012>.

⁹⁷ *Id.* Available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees. The largest category provided is for firms with "1000 employees or more."

⁹⁸ This figure was derived from Commission licensing records as of September 19, 2016. Licensing numbers change on a daily basis. This does not indicate the number of licensees, as licensees may hold multiple licenses. There is no information currently available about the number of PLMR licensees that have fewer than 1,500 employees.

⁹⁹ Based on an FCC Universal Licensing System search of January 26, 2018. Search parameters: Radio Service = PA – Public Safety 4940-4990 MHz Band; Authorization Type = Regular; Status = Active.

¹⁰⁰ Based on an FCC Universal Licensing System search of May 15, 2017. Search parameters: Radio Service = GB, GE, GF, GJ, GM, GO, GP, YB, YE, YF, YJ, YM, YO, YP, YX; Authorization Type = Regular; Status = Active.

¹⁰¹ This figure was derived from Commission licensing records as of August 16, 2013. Licensing numbers change daily. We do not expect this number to be significantly smaller today. This does not indicate the number of licensees, as licensees may hold multiple licenses. There is no information currently available about the number of licensees that have fewer than 1,500 employees.

¹⁰² See subparts A and B of Part 90 of the Commission's Rules, 47 C.F.R. §§ 90.1-90.22. Police licensees serve state, county, and municipal enforcement through telephony (voice), telegraphy (code), and teletype and facsimile (printed material). Fire licensees are comprised of private volunteer or professional fire companies, as well as units under governmental control. Public Safety Radio Pool licensees also include state, county, or municipal entities that use radio for official purposes. State departments of conservation and private forest organizations comprise forestry service licensees that set up communications networks among fire lookout towers and ground crews. State and local governments are highway maintenance licensees that provide emergency and routine communications to aid other

(continued....)

developed a small business size standard specifically applicable to public safety licensees. The closest applicable SBA category is Wireless Telecommunications Carriers (except Satellite) which encompasses business entities engaged in radiotelephone communications.¹⁰³ The appropriate size standard for this category under SBA rules is that such a business is small if it has 1,500 or fewer employees.¹⁰⁴ For this industry, U.S. Census data for 2012 show that there were 967 firms that operated for the entire year.¹⁰⁵ Of this total, 955 firms had employment of 999 or fewer employees and 12 had employment of 1000 employees or more.¹⁰⁶ Thus under this category and the associated size standard, the Commission estimates that the majority of firms can be considered small. With respect to local governments, in particular, since many governmental entities comprise the licensees for these services, we include under public safety services the number of government entities affected. According to Commission records, there are a total of approximately 133,870 licenses within these services.¹⁰⁷ There are 3.121 licenses in the 4.9 GHz band, based on an FCC Universal Licensing System search of March 29, 2017.¹⁰⁸ We estimate that fewer than 2,442 public safety radio licensees hold these licenses because certain entities may have multiple licenses.

31. *Radio Stations.* This Economic Census category “comprises establishments primarily engaged in broadcasting aural programs by radio to the public. Programming may originate in their own studio, from an affiliated network, or from external sources.”¹⁰⁹ The SBA has established a small business size standard for this category as firms having \$41.5 million or less in annual receipts.¹¹⁰ U.S. Census Bureau data for 2012 show that 2,849 radio station firms operated during that year.¹¹¹ Of that

(Continued from previous page) _____

public safety services to keep main roads safe for vehicular traffic. Emergency medical licensees use these channels for emergency medical service communications related to the delivery of emergency medical treatment. Additional licensees include medical services, rescue organizations, veterinarians, persons with disabilities, disaster relief organizations, school buses, beach patrols, establishments in isolated areas, communications standby facilities, and emergency repair of public communications facilities.

¹⁰³ See U.S. Census Bureau, *2017 NAICS Definition*, “517312 Wireless Telecommunications Carriers (except Satellite)”, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517312&search=2017%20NAICS%20Search>.

¹⁰⁴ See 13 CFR § 121.201, NAICS Code 517312 (formerly 517210).

¹⁰⁵ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ5, *Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012*, NAICS Code 517210, <https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517210&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&vintage=2012>.

¹⁰⁶ *Id.* Available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees. The largest category provided is for firms with “1000 employees or more.”

¹⁰⁷ This figure was derived from Commission licensing records as of June 27, 2008. Licensing numbers change on a daily basis. We do not expect this number to be significantly smaller today. This does not indicate the number of licensees, as licensees may hold multiple licenses. There is no information currently available about the number of public safety licensees that have less than 1,500 employees.

¹⁰⁸ Based on an FCC Universal Licensing System search of March 29, 2017. Search parameters: Radio Service = PA – Public Safety 4940-4990 MHz Band; Authorization Type = Regular; Status = Active.

¹⁰⁹ See U.S. Census Bureau, *2017 NAICS Definition*, “515112 Radio Stations,” <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=515112&search=2017+NAICS+Search&search=2017>.

¹¹⁰ See 13 CFR § 121.201, NAICS Code 515112.

¹¹¹ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ4, *Information: Subject Series – Estab and Firm Size: Receipts Size of Firms for the U.S.: 2012*, NAICS Code 515112, <https://data.census.gov/cedsci/table?text=EC1251SSSZ4&n=515112&tid=ECNSIZE2012.EC1251SSSZ4&hidePreview=false>.

number, 2,806 firms operated with annual receipts of less than \$25 million per year and 17 with annual receipts between \$25 million and \$49,999,999 million.¹¹² Therefore, based on the SBA's size standard the majority of such entities are small entities.

32. According to Commission staff review of the BIA/Kelsey, LLC's Media Access Pro Radio Database as of January 2018, about 11,261 (or about 99.9 percent) of 11,383 commercial radio stations had revenues of \$38.5 million or less and thus qualify as small entities under the SBA definition.¹¹³ The Commission has estimated the number of licensed commercial AM radio stations to be 4,580 stations and the number of commercial FM radio stations to be 6,726, for a total number of 11,306.¹¹⁴ We note the Commission has also estimated the number of licensed noncommercial (NCE) FM radio stations to be 4,172.¹¹⁵ Nevertheless, the Commission does not compile and otherwise does not have access to information on the revenue of NCE stations that would permit it to determine how many such stations would qualify as small entities.

33. We also note, that in assessing whether a business entity qualifies as small under the above definition, business control affiliations must be included.¹¹⁶ The Commission's estimate therefore likely overstates the number of small entities that might be affected by its action, because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies. In addition, to be determined a "small business," an entity may not be dominant in its field of operation.¹¹⁷ We further note, that it is difficult at times to assess these criteria in the context of media entities, and the estimate of small businesses to which these rules may apply does not exclude any radio station from the definition of a small business on these basis, thus our estimate of small businesses may therefore be over-inclusive. Also, as noted above, an additional element of the definition of "small business" is that the entity must be independently owned and operated. The Commission notes that it is difficult at times to assess these criteria in the context of media entities and the estimates of small businesses to which they apply may be over-inclusive to this extent.

34. *Satellite Telecommunications.* This category comprises firms "primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications."¹¹⁸ Satellite telecommunications service providers include satellite and earth station operators. The category has a small business size standard of \$35 million or less in average annual receipts, under SBA rules.¹¹⁹ For this category, U.S. Census Bureau data for 2012 show that there were a total of 333 firms that operated for the entire year.¹²⁰ Of this total, 299 firms had annual

¹¹² *Id.*

¹¹³ BIA/Kelsey, MEDIA Access Pro Database (viewed Jan. 26, 2018).

¹¹⁴ Broadcast Station Totals as of March 31, 2020, Press Release (MB April 6, 2020) (March 31, 2020 Broadcast Station Totals), <https://docs.fcc.gov/public/attachments/DOC-363515A1.pdf>.

¹¹⁵ *Id.*

¹¹⁶ "[Business concerns] are affiliates of each other when one concern controls or has the power to control the other, or a third party or parties controls or has power to control both." 13 C.F.R. § 121.103(a)(1).

¹¹⁷ 13 C.F.R. § 121.102(b).

¹¹⁸ See U.S. Census Bureau, 2017 NAICS Definition, "517410 Satellite Telecommunications", <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517410&search=2017+NAICS+Search&search=2017>.

¹¹⁹ See 13 CFR § 121.201, NAICS Code 517410.

¹²⁰ See U.S. Census Bureau, 2012 Economic Census of the United States, Table ID: EC1251SSSZ4, Information: Subject Series - Estab and Firm Size: Receipts Size of Firms for the U.S.: 2012, NAICS Code 517410, [https://data.census.gov/cedsci/table?text=EC1251SSSZ4&n=517410&tid=ECNSIZE2012.EC1251SSSZ4&hidePrev](https://data.census.gov/cedsci/table?text=EC1251SSSZ4&n=517410&tid=ECNSIZE2012.EC1251SSSZ4&hidePreview=false&vintage=2012)

receipts of less than \$25 million.¹²¹ Consequently, we estimate that the majority of satellite telecommunications providers are small entities.

35. *Television Broadcasting.* This Economic Census category “comprises establishments primarily engaged in broadcasting images together with sound.”¹²² These establishments operate television broadcast studios and facilities for the programming and transmission of programs to the public.¹²³ These establishments also produce or transmit visual programming to affiliated broadcast television stations, which in turn broadcast the programs to the public on a predetermined schedule. Programming may originate in their own studio, from an affiliated network, or from external sources. The SBA has created the following small business size standard for such businesses: those having \$41.5 million or less in annual receipts.¹²⁴ The 2012 Economic Census reports that 751 firms in this category operated in that year.¹²⁵ Of that number, 656 had annual receipts of \$25,000,000 or less, and 25 had annual receipts between \$25,000,000 and \$49,999,999.¹²⁶ Based on this data we therefore estimate that the majority of commercial television broadcasters are small entities under the applicable SBA size standard.

36. The Commission has estimated the number of licensed commercial television stations to be 1,377.¹²⁷ Of this total, 1,258 stations (or about 91 percent) had revenues of \$38.5 million or less, according to Commission staff review of the BIA Kelsey Inc. Media Access Pro Television Database (BIA) on November 16, 2017, and therefore these licensees qualify as small entities under the SBA definition. In addition, the Commission has estimated the number of licensed noncommercial educational television stations to be 384.¹²⁸ Notwithstanding, the Commission does not compile and otherwise does not have access to information on the revenue of NCE stations that would permit it to determine how many such stations would qualify as small entities. There are also 2,300 low power television stations, including Class A stations (LPTV) and 3,681 TV translator stations.¹²⁹ Given the nature of these services, we will presume that all of these entities qualify as small entities under the above SBA small business size standard.

37. We note, however, that in assessing whether a business concern qualifies as “small” under the above definition, business (control) affiliations¹³⁰ must be included. Our estimate, therefore likely overstates the number of small entities that might be affected by our action, because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies. In addition,

¹²¹ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard of annual receipts of \$35 million or less.

¹²² See U.S. Census Bureau, *2017 NAICS Definition, “515120 Television Broadcasting”*, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=515120&search=2017+NAICS+Search&search=2017>.

¹²³ *Id.*

¹²⁴ See 13 CFR § 121.201, NAICS Code 515120.

¹²⁵ See U.S. Census Bureau, *2012 Economic Census of the United States, Table ID: EC1251SSSZ4, Information: Subject Series – Estab and Firm Size: Receipts Size of Firms for the U.S.: 2012*, NAICS Code 515120, <https://data.census.gov/cedsci/table?text=EC1251SSSZ4&n=515120&tid=ECNSIZE2012.EC1251SSSZ4&hidePreview=false>.

¹²⁶ *Id.*

¹²⁷ *Broadcast Station Totals* as of June 30, 2018, Press Release (MB, rel. Jul. 3, 2018) (June 30, 2018 Broadcast Station Totals Press Release), <https://docs.fcc.gov/public/attachments/DOC-352168A1.pdf>.

¹²⁸ *Id.*

¹²⁹ *Id.*

¹³⁰ “[Business concerns] are affiliates of each other when one concern controls or has the power to control the other or a third party or parties controls or has the power to control both.” 13 C.F.R. § 21.103(a)(1).

another element of the definition of “small business” requires that an entity not be dominant in its field of operation. We are unable at this time to define or quantify the criteria that would establish whether a specific television broadcast station is dominant in its field of operation. Accordingly, the estimate of small businesses to which rules may apply does not exclude any television station from the definition of a small business on this basis and is therefore possibly over-inclusive. Also, as noted above, an additional element of the definition of “small business” is that the entity must be independently owned and operated. The Commission notes that it is difficult at times to assess these criteria in the context of media entities and its estimates of small businesses to which they apply may be over-inclusive to this extent.

38. *Broadband Radio Service and Educational Broadband Service.* Broadband Radio Service systems, previously referred to as Multipoint Distribution Service (MDS) and Multichannel Multipoint Distribution Service (MMDS) systems, and “wireless cable,” transmit video programming to subscribers and provide two-way high speed data operations using the microwave frequencies of the Broadband Radio Service (BRS) and Educational Broadband Service (EBS) (previously referred to as the Instructional Television Fixed Service (ITFS)).¹³¹

39. *BRS* - In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than \$40 million in the previous three calendar years.¹³² The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, we estimate that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 86 incumbent BRS licensees that are considered small entities (18 incumbent BRS licensees do not meet the small business size standard).¹³³ After adding the number of small business auction licensees to the number of incumbent licensees not already counted, there are currently approximately 133 BRS licensees that are defined as small businesses under either the SBA or the Commission’s rules.

40. In 2009, the Commission conducted Auction 86, the sale of 78 licenses in the BRS areas.¹³⁴ The Commission offered three levels of bidding credits: (i) a bidder with attributed average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years (small business) received a 15 percent discount on its winning bid; (ii) a bidder with attributed average annual gross revenues that exceed \$3 million and do not exceed \$15 million for the preceding three years (very small business) received a 25 percent discount on its winning bid; and (iii) a bidder with attributed average annual gross revenues that do not exceed \$3 million for the preceding three years (entrepreneur) received a 35 percent discount on its winning bid.¹³⁵ Auction 86 concluded in 2009 with the sale of 61 licenses.¹³⁶ Of the ten winning bidders, two bidders that claimed small business status won

¹³¹ *Amendment of Parts 21 and 74 of the Commission’s Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act—Competitive Bidding*, Report and Order, 10 FCC Rcd 9589, 9593, para. 7 (1995).

¹³² 47 CFR § 21.961(b)(1).

¹³³ 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA’s small business size standard of 1500 or fewer employees.

¹³⁴ *Auction of Broadband Radio Service (BRS) Licenses, Scheduled for October 27, 2009, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 86*, Public Notice, 24 FCC Rcd 8277 (2009).

¹³⁵ *Id.* at 8296 para. 73.

¹³⁶ *Auction of Broadband Radio Service Licenses Closes, Winning Bidders Announced for Auction 86, Down Payments Due November 23, 2009, Final Payments Due December 8, 2009, Ten-Day Petition to Deny Period*, Public Notice, 24 FCC Rcd 13572 (2009).

4 licenses; one bidder that claimed very small business status won three licenses; and two bidders that claimed entrepreneur status won six licenses.

41. *EBS* - Educational Broadband Service has been included within the broad economic census category and SBA size standard for Wired Telecommunications Carriers since 2007. Wired Telecommunications Carriers are comprised of establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies.”¹³⁷ The SBA’s small business size standard for this category is all such firms having 1,500 or fewer employees.¹³⁸ U.S. Census Bureau data for 2012 show that there were 3,117 firms that operated that year.¹³⁹ Of this total, 3,083 operated with fewer than 1,000 employees.¹⁴⁰ Thus, under this size standard, the majority of firms in this industry can be considered small. In addition to U.S. Census Bureau data, the Commission’s Universal Licensing System indicates that as of October 2014, there are 2,206 active EBS licenses. The Commission estimates that of these 2,206 licenses, the majority are held by non-profit educational institutions and school districts, which are by statute defined as small businesses.¹⁴¹

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

42. The excavation or deployment boundaries of an eligible facilities request poses significant policy implications associated with the Commission’s section 6409(a) rules. We anticipate that any rule changes that result from the *Notice* will provide certainty for providers, state and local governments, and other entities interpreting the section 6409(a) rules. In the *Notice*, we seek comment on changes to our rules regarding the definition of a “site” surrounding a tower, as well as streamlined treatment pursuant to the section 6409 rules for an excavation or deployments outside the boundaries of an existing tower site.¹⁴² The Commission does not believe that our resolution of these matters will create any new reporting, recordkeeping, or other compliance requirements for small entities or others that will be impacted by our decision.

43. Specifically, we propose to amend the definition of the term “site” in section 1.6100(b)(6) to make clear that “site” refers to the current boundary of the leased or owned property surrounding the tower and any access or utility easements currently related to the site on the date the facility was last reviewed and approved by a locality. In addition, we propose to change the Commission’s rules to allow streamlined treatment under the section 6409 rules for “compound expansions” (i.e. excavation or facility deployments outside the current boundaries of a macro tower compound) of up to 30 feet in any direction outside the boundary of a site. This change to the existing rule, which was requested by industry commenters, is opposed by state and local government jurisdictions, and was previously considered but not adopted by the Commission in the 2014

¹³⁷ See U.S. Census Bureau, 2017 NAICS Definition, “517311 Wired Telecommunications Carriers” (partial definition), <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517311&search=2017>.

¹³⁸ See 13 CFR § 121.201, NAICS Code 517311 (previously 517110).

¹³⁹ See U.S. Census Bureau, 2012 Economic Census of the United States, Table ID: EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms for the U.S.: 2012*, NAICS Code 517110, <https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517110&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false>.

¹⁴⁰ *Id.*

¹⁴¹ The term “small entity” within SBREFA applies to small organizations (non-profits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6).

¹⁴² 47 CFR § 1.6100(b)(6), (7)(iv).

Infrastructure Order. The *Notice* also seeks comment on whether to revise the definition of “site” without making the proposed change to allow for excavation or deployment of up to 30 feet outside the site. It seeks further comment on whether to define site in section 1.6100(b)(6) as the boundary of the leased or owned property surrounding the tower and any access or utility easements related to the site *as of the date an applicant submits a modification request*.

44. We do not anticipate rule changes resulting from the *Notice* to cause any new recordkeeping, reporting, or compliance requirements for entities preparing eligible facilities requests under section 6409(a) because entities are required to submit construction proposals outlining the work to be done regardless of whether the project qualifies as an eligible facilities request under section 6409(a). Additionally, while we do not anticipate that any action we take on the matters raised in the *Notice* will require small entities to hire attorneys, engineers, consultants, or other professionals to comply, the Commission cannot quantify the cost of compliance with the potential changes discussed in the *Notice*. As part of our invitation for comment however, we request that parties discuss any tangible benefits and any adverse effects as well as alternative approaches and any other steps the Commission should consider taking on these matters. We expect the information we receive in comments to help the Commission identify and evaluate relevant matters for small entities, including compliance costs and other burdens that may result from the matters raised in the *Notice*.

E. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

45. The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in developing its approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for such small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.¹⁴³

46. The Commission believes that clarifying the parameters of excavation or deployment within or around a “site” under section 1.6100 will provide more certainty to relevant parties and enable small entities and others to navigate more effectively state and local application processes. As a result, we anticipate that any clarifying rule changes on which the *Notice* seeks comment may help reduce the economic impact on small entities that may need to deploy wireless infrastructure by reducing the cost and delay associated with the deployment of such infrastructure.

47. To assist the Commission in its evaluation of the economic impact on small entities, and of such a rule change generally, and to better explore options and alternatives, the *Notice* asks commenters to discuss any benefits or drawbacks to small entities associated with making such a rule change. Specifically, we inquire whether there are any specific, tangible benefits or harms from changing the definition of “site” or applying section 6409(a)’s streamlined process to compound expansions, which may include an unequal burden on small entities.

48. The Commission is mindful that there are potential impacts from our decisions for small entity industry participants as well as for small local government jurisdictions. We are hopeful that the comments we receive illuminate the effect and impact of the proposed regulations in the *Notice* on small entities and small local government jurisdictions, the extent to which the regulations would relieve any burdens on small entities, including small local government jurisdictions, and whether there are any alternatives the Commission could implement that would achieve the Commission’s goals while at the same time minimizing or further reducing the economic impact on small entities, including small local government jurisdictions.

¹⁴³ See 5 U.S.C. § 603(c)(1)-(4).

49. The Commission expects to consider more fully the economic impact on small entities following its review of comments filed in response to the *Notice*. The Commission's evaluation of the comments filed in this proceeding will shape the final alternatives we consider, the final conclusions we reach, and any final actions we ultimately take in this proceeding to minimize any significant economic impact that may occur on small entities, including small local government jurisdictions.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

50. None.

**STATEMENT OF
CHAIRMAN AJIT PAI**

Re: *Implementation of State and Local Governments' Obligation to Approve Certain Wireless Facility Modification Requests Under Section 6409(a) of the Spectrum Act of 2012*, WT Docket No. 19-250, RM-11849

Promoting American leadership in 5G wireless technology has been one of my top priorities since becoming Chairman. To that end, the FCC has been executing my 5G FAST plan, which includes three key components: pushing more spectrum into the marketplace, making it easier to deploy wireless infrastructure, and modernizing outdated regulations to expedite the deployment of fiber for wireless backhaul.

With respect to spectrum, the Commission has left no stone unturned in its quest to make a mix of low-, mid-, and high-band spectrum available for 5G services. Over the past 18 months, the Commission has concluded three auctions for high-band spectrum, making nearly 5,000 megahertz of spectrum available for next-generation wireless services. Our most recent auction, Auction 103, offered licenses for 3,400 megahertz of spectrum—the largest offering in the Commission's history. Carriers are acting quickly to put this spectrum to use for 5G service. And the Commission continues to work on making additional low-band spectrum available. We are nearing the end of the post-incentive auction repack, which is making available 600 MHz band spectrum for 5G on a nationwide basis, and we have reformed rules for the 800 MHz and 900 MHz bands.

But perhaps the FCC's most intense work over the course of the last couple of years has involved making additional mid-band spectrum available for 5G. Specifically, we adopted rule changes last July to liberate the 2.5 GHz band and put more of this underused spectrum to work for mobile broadband (including adopting a priority filing window to make this spectrum available for service to rural Tribes). Thanks to Commissioner O'Rielly's efforts, we've improved rules for operations in the 3.5 GHz band and done the necessary coordination and technical work in the band. As a result, 150 megahertz of 3.5 GHz band spectrum is available today for the deployment of innovative services, and we'll begin an auction of 70 megahertz of Priority Access Licenses on July 23, 2020. We've adopted service rules to make available 280 megahertz of spectrum in the C-band for 5G and are on track to auction that spectrum on December 8 of this year. And just recently, we announced that satellite incumbents have agreed to expedite the relocation process, so this 280 megahertz of spectrum will be available for 5G on an accelerated basis. None of this was easy. There were plenty of technical, political, and other challenges along the way. Nevertheless, the FCC majority persisted. And we're getting major results.

Of course, in addition to pushing more spectrum into the marketplace, a key component of the Commission's 5G FAST strategy has been updating our wireless infrastructure policies to encourage private-sector investment in the physical building blocks of 5G networks. And today's Declaratory Ruling and Notice of Proposed Rulemaking does just that. Commissioner Carr has spearheaded the Commission's efforts to update our wireless infrastructure policies. And this item, which was developed under his leadership, will clear up some of the confusion that has surrounded our rules implementing section 6409(a) of the Spectrum Act of 2012. These regulations apply when wireless infrastructure companies want to upgrade the equipment on existing structures, such as replacing antennas on a macro tower or adding antennas to a building.

These clarifications will accelerate the build out of 5G infrastructure by avoiding misunderstandings and reducing the number of disputes between local governments and wireless infrastructure builders—disputes that lead to delays and lawsuits. With today's action, we continue to advance the same goal that underlay the Spectrum Act and inspired the Commission's section 6409(a) regulations in the first place—avoiding unnecessary ambiguities and roadblocks in order to advance wireless broadband service for all Americans.

Now, there are some who argue that we should have slowed down or stopped our work on today's Declaratory Ruling because of the COVID-19 pandemic. I could not disagree more. The COVID-19 pandemic isn't a reason to slow down our efforts to expand wireless connectivity. It's a reason to speed them up. The pandemic has highlighted the need for all Americans to have broadband connectivity as soon as possible. Telehealth, remote learning, telework, precision agriculture—all of these things require broadband. And it is an iron law that you can't have broadband without broadband infrastructure.

And the argument that local governments have not had a sufficient opportunity to weigh in on these issues has no merit. The petitions on which we are acting today were filed in August and September of 2019, well before the COVID-19 pandemic. And the entire period for public comment on those petitions took place last year—also well before the COVID-19 pandemic.

These calls for delay are nothing new. Earlier this year, for example, some insisted that we should do absolutely nothing to make C-band spectrum available unless and until Congress passed a law on the subject. How's that advice looking now? If we had followed that politically-motivated counsel, we would *still* be stuck at square one, half a year later, with no prospect of movement. Instead, we're on track for a major C-band spectrum auction this year. The same old tactic is now applied to wireless infrastructure. Wait until . . . whenever, we are told. But waiting to deploy more wireless infrastructure isn't going to deliver advanced wireless services to American consumers, and it isn't going to make the United States the global leader in 5G.

The bottom line is this: It's easy to *say* that you favor moving forward quickly on 5G, but what actually matters is to *do* it. So I appreciate Commissioners O'Rielly and Carr for not just saying, but doing what's necessary to usher in the next generation of wireless technology for the American people.¹

Thank you to the team that worked hard on this item. From the Wireless Telecommunications Bureau, including Paul D'Ari, Garnet Hanly, Kari Hicks, William Holloway, Susannah Larson, Belinda Nixon, Dana Shaffer, Donald Stockdale, Cecilia Sulhoff, and Joel Taubenblatt, and also Jiaming Shang and David Sieradzki, both formerly of the Wireless Telecommunications Bureau; from the Office of General Counsel, Deborah Broderson, Mike Carlson, David Horowitz, Linda Oliver, Bill Richardson, and Anjali Singh; from the Office of Economics and Analytics, Catherine Matraves and Patrick Sun; from the Wireline Competition Bureau, Adam Copeland, Elizabeth Drogula, and Michael Ray; from the Enforcement Bureau, Daniela Arregui and Jason Koslofsky; and from the Office of Communications Business Opportunities, Chana Wilkerson.

¹ Cf. *Seinfeld*, "The Alternate Side," Season 3, Episode 11 (Dec. 4, 1991) ("See, you know how to take the reservation, you just don't know how to *hold* the reservation. And that's really the most important part of the reservation, the holding. Anybody can just take them."), available at <https://www.youtube.com/watch?v=dSZYsyrP3Co>.

**STATEMENT OF
COMMISSIONER MICHAEL O'RIELLY**

Re: *Implementation of State and Local Governments' Obligation to Approve Certain Wireless Facility Modification Requests Under Section 6409(a) of the Spectrum Act of 2012, WT Docket No. 19-250, RM-11849*

Today, the Commission refocuses its infrastructure efforts on the foundation of wireless networks – the macro tower. The Commission has taken several steps to reduce the regulatory burdens on siting small cells, but similar updates for macros have been lagging. A business plan centered on small cells and millimeter waves may work in our largest cities, but traditional towers and mid bands will be needed throughout much of the United States, especially in rural areas, where small cells do not, generally-speaking, make the most sense, at least at the current time.

I started pushing for a review of the barriers facing macro tower siting around five years ago, as industry started to consider what a 5G suburban and rural network build would look like. While it is unfortunate that we didn't get to this sooner, I am grateful that Commissioner Carr has honored his word to me that we would address hurdles that some localities have placed in the way of large tower siting. With significant progress being made on mid-band frequencies, it is imperative that we facilitate the deployment of macro towers that will be used to deliver the myriad of offerings mid-band spectrum will enable. And, as I have said before, our actions are precipitated by the behavior of a few bad actors, and here we address some of the problems being experienced. I fully recognize that many, if not most, local and state governments see the great benefit that these networks will bring and are actively working to fulfill the needs and demands of their citizens.

While the Commission took steps in 2014, pursuant to Congress's direction under Section 6409 of the Spectrum Act of 2012, to set localities straight on unacceptable activity that when it came to collocating facilities, some entities are still slowing down progress or doing what they can to stop wireless innovation from reaching consumers. Today, we clarify how some of our rules implemented in response to section 6409 should be interpreted, such as when the shot clock begins, how to measure height increases for towers when adding additional antennas, what is an equipment cabinet, and the treatment of concealment elements, among others. I am pleased that, at my request, further details were provided about the documentation needed to start the shot clock and to evidence that concealment elements were envisioned when obtaining a locality's approval. Such guidance is necessary so that all parties understand expectations and to avoid disputes down the road. While I understand some have asked that we delay today's action due to some concerns, many of the clarifications are straightforward and should reduce the burdens on locality staff reviewing applications. And, these clarifications are needed to facilitate the expansion of 5G networks by wireless providers and help entities like FirstNet meet their public safety obligations.

Additionally, the notice portion of today's item seeks comment on a proposal to allow minimal compound expansions under section 6409 streamlined processing. I am pleased that my request was accepted to make this a proposal, as opposed to simply seeking comment. Over the years, tower companies have repeatedly come to me with the challenges they face when compound expansions are needed to accommodate additional equipment for collocation purposes. And, there is a good foundation for such a change, as the construction of replacement towers that do not expand a compound by more than 30 feet are excluded from historic preservation review under a nationwide programmatic agreement. I expect that an order on this proposal will be presented before the Commission as quickly as possible.

Moreover, localities should note that the Commission is taking these matters seriously and will continue to issue such orders if our intent is being contravened or our rules implemented incorrectly. We will be ready to follow up on any issue, including those that we did not cover here, such as the

inappropriate use of other local permitting processes to hold up infrastructure siting or charging excessive fees.

Finally, I thank everyone involved for bringing this item to a vote and the staff for their continued efforts to facilitate infrastructure deployment. Now that we have clarified some areas where there were “misunderstandings” over the rules for streamlined collocations, it is time to conclude the ultimate collocation problem – twilight towers. The Commission needs to resolve this quagmire so that these towers can hold additional antennas, which are needed to provide wireless services to the American people.

I will approve the item.

**STATEMENT OF
COMMISSIONER BRENDAN CARR**

Re: *Implementation of State and Local Governments' Obligation to Approve Certain Wireless Facility Modification Requests Under Section 6409(a) of the Spectrum Act of 2012, WT Docket No. 19-250, RM-11849*

Two years is about how long it takes to build a new macro tower. The process typically includes zoning, construction, and electrical permits; city council presentations and public town halls; environmental and historical preservation reviews; negotiation about aesthetics and design—and that's all *after* a provider has studied demand, engineered the signal, and bought land.

It's a lengthy, involved, expensive process. And in some ways you can understand why. Building a couple hundred foot tall structure doesn't happen every day, and once it's built, a tower can provide service for decades.

Local governments, industry, and Congress have concluded that there's often a better way. Reusing macro towers through collocating multiple providers and updating equipment can provide the public the benefits it deserves—wide coverage and fast connections—while avoiding the cost and delays associated with building new towers from scratch. It's common sense that putting new equipment on old towers is less intrusive and requires less regulatory review than new tower construction.

I had the chance to see how straightforward a collocation can be last week. That's when I drove out to a farm in Maryland and joined a tower crew that was swapping out 2G antennas for 5G ones on a macro tower. Take a look.

<https://twitter.com/BrendanCarrFCC/status/1268263380420354053>

Aaron and Charlie are among the 25,000 tower techs building broadband across the country literally with their hands. While their jobs are far from easy, the project they completed in about an hour last week was among their easiest: taking off an old antenna and attaching a new one.

Congress encouraged collocations like these by making them simpler through Section 6409 of the Spectrum Act. That law says that local governments “may not deny, and shall approve” any tower modification “that does not substantially change [its] physical dimensions.” In 2014, the Commission wrote rules to implement the law, in particular defining what constitutes “substantial change.”

In the last six years, those rules have been used to upgrade thousands of towers. The upgrades enabled 4G LTE service, especially on macro towers in rural America. They're being used now to build America's world-leading 5G networks. And they're benefiting communities by reducing the potential for redundant towers, creating less costly and disruptive infrastructure.

There have been some bumps along the way, and those are partly due to our 2014 rules. In some instances, our definition of “substantial change” wasn't as clear as it could have been, and there have been some disagreements over how to interpret our 60-day shot clock for local government approval. Those disagreements—the lack of clarity in our rules—can themselves slow down Internet builds. We aim to resolve those ambiguities in this declaratory ruling and notice. I'll highlight a few of the key actions we take today.

- We explain that the 60-day shot clock we adopted in 2014 begins when a provider takes the first procedural step that the locality specifies and shows in writing that the project qualifies for expedited consideration. The myriad processes that have grown outside of our shot clock should be brought back within it. Sixty days means 60 days.

- We clarify that when we use the term “concealment element,” we’re referring to those elements that make a stealthed tower look like something else—a clock tower or a tree, for example. A change becomes substantial and so doesn’t qualify for expedited approval if a reasonable person would think that the modified tower no longer looks like that clock tower or tree.
- And we note that localities can place a number of conditions on new construction of a tower that can’t be circumvented through this expedited process. However, there has to be express evidence that a condition really was a condition of approval.

I am proud of the thorough and thoughtful process the Commission took to craft this item, and I especially thank the Wireless Telecommunications Bureau and its infrastructure team for their skill and diligence. The two petitions that prompted this order came to us more than nine months ago. We sought comment on the petitions, and at the request of local governments and utilities, we extended the comment period into November. The record that developed was robust. We heard from infrastructure builders, broadband providers, local governments, and everyday Americans alike.

Localities were especially active. We heard from 70 local governments and their associations, and they provided us nearly 700 pages of detailed comments. They made a substantial contribution to this order, and their positions carried the day on several issues we decide. For example, we require industry to make written submissions before they can claim that the shot clock starts, and we protect a broad swath of localities’ conditions of tower approval.

In the end, by bringing greater clarity to our rules, our decision reduces disagreements between providers and governments. And it separates the wheat from the chaff—the more difficult approval decisions, such as whether and how to construct a new tower, from the easier ones, such as whether to allow an existing tower to be upgraded.

It’s also important that we act now because providing more broadband for more Americans has never been so important. It’s at the forefront of our minds during this COVID-19 pandemic as kids learn from home, parents provide for their families away from the office, patients access critical care outside of hospitals, and we all connect to each other at a distance. Making upgrades easier is at the heart of 6409 and this order—and it comes at a time when we need as much capacity as we can get. So I am glad that we move forward today with clarifications that will help tower crews connect even more communities.

Our decision here is also the latest step in a series that the FCC has taken since 2017 to modernize our approach to 5G. Back then, it cost too much and took too long to build Internet infrastructure in this country. So we updated the environmental and historic preservation rules that were slowing down small cell builds. We built on the commonsense reforms adopted by the states and reined in outlier conduct. And we streamlined the process for swapping out utility poles to add wireless equipment, among other reforms.

I thank Chairman Pai for tapping me to lead this infrastructure work. The Commission has unleashed private sector investment that already is delivering results for the American people. The very first commercial 5G service launched here, in the U.S., in 2018. By the end of that year, 14 communities had 5G service. Halfway through 2019, that figure expanded to more than 30. And one provider alone has now committed to building 5G to 99 percent of the U.S. population.

America’s momentum for 5G is now unmistakable. You can see it not only in big cities like New York or San Francisco, but in places like Sioux Falls, South Dakota where 5G small cells are live and in rural communities like the one I visited last week in Maryland where macro towers are beaming 5G

through farms and forests. Our infrastructure work will continue until every community has a fair shot at next-generation connectivity.

We call our decision today the 5G Upgrade Order because it will accelerate wireless service upgrades for the benefit of so many Americans. It will be an upgrade for rural America, as families who never had a choice in wireless will get new service. It will be an upgrade for first responders, as dedicated networks and expanded capacity are built on existing towers. And it will be an upgrade for all of us, as our networks blow past previous technologies to world-leading 5G.

I'm grateful for the strong support this order has received from dozens of leaders in local governments and in Congress, infrastructure builders, farmers and ranchers, first responders, and technologists. And I especially want to thank the Commission staff without whom this 5G Upgrade Order would not exist:

From the Wireless Telecommunications Bureau: Paul D'Ari, Garnet Hanly, Kari Hicks, William Holloway, Susannah Larson, Belinda Nixon, Dana Shaffer, Donald Stockdale, Cecilia Sulhoff, and Joel Taubenblatt, and also Jiaming Shang and David Sieradzki, both formerly of the Wireless Telecommunications Bureau.

From the Office of General Counsel: Deborah Broderson, Michael Carlson, David Horowitz, Linda Oliver, Bill Richardson, and Anjali Singh.

From the Office of Economics and Analytics: Catherine Matraves and Patrick Sun.

From the Wireline Competition Bureau: Adam Copeland, Elizabeth Drogula, and Michael Ray.

From the Enforcement Bureau: Daniela Arregui and Jason Koslofsky.

And from the Office of Communications Business Opportunities: Chana Wilkerson.

Thank you for your contributions to this order. It has my support.

**STATEMENT OF
COMMISSIONER JESSICA ROSENWORCEL,
DISSENTING**

Re: *Implementation of State and Local Governments' Obligation to Approve Certain Wireless Facility Modification Requests Under Section 6409(a) of the Spectrum Act of 2012, WT Docket No. 19-250, RM-11849*

Let's start with the numbers.

More than 113,000 people have died in the cruel pandemic that is affecting communities across the country. Nearly 43 million Americans have filed for unemployment benefits as the economy reels from this public health catastrophe. The unemployment rate is now at its highest levels since the Great Depression. Protests have erupted in all 50 states as we face a nationwide reckoning over racial injustice.

We can't say with certainty where this overwhelming series of events takes us next. I pray it is toward a more just future. I hope it is one where the truths we hold to be self-evident are apparent not only in word but in deed.

But we can say with certainty that state and local governments are on the front line in all of these crises. That means they are dealing with an epic combination of illness, joblessness, food insecurity, social distancing, and public safety challenges—at the same time.

Moreover, all of this work is being carried out with fewer resources than ever before. That's because social distancing has reduced consumer spending and wages, causing tax revenues to plummet. At the same time, the demand for funding basic social services has gone up. This has created an unprecedented strain on state and local budgets.

So understandably mayors and governors across the country are ringing the alarm. They are wrestling with historic crises and struggling to find a new way forward in a period of profound civil unrest. They want to be heard by Washington. But today's decision demonstrates that at the Federal Communications Commission we're not listening.

Let me explain why. Today's decision seeks to clarify how the agency interprets Section 6409 of the Middle Class Tax Relief and Job Creation Act. That sounds technocratic. But it goes to the heart of what role cities and towns get to play in decisions about the communications infrastructure in their backyard. That's important for communities across the country and for our national wireless ambitions.

Today the FCC adopts a declaratory ruling that requires every state and local government to immediately review and update their current ordinances, policies, and application systems involving wireless towers. They have to rework the way they process new requests, how they measure tower height, what they do with requests to add more equipment, and how they conceal structures to preserve the visual character of their communities. Addressing these things is not unreasonable. But these clarifications can be hard to put into practice and they were shared with state and local governments for the first time only three weeks ago—and my goodness, they've been busy.

So it's no wonder that we have heard from the National League of Cities. We've heard from the United States Conference of Mayors. We've heard from the National Association of Counties. We've heard from the National Association of Telecommunications Officers and Advisors. We've heard from the National Association of Towns and Townships. Together they represent more than 19,000 cities, 3,069 counties, and 10,000 towns across the country.

You know what they want? It's not radical. They want a bit more time to weigh in on our decision, so they can be in a better place to implement it. They want this time because their resources are strained by a deadly virus, economic calamity, and civil unrest. As 24 members of the United States House of Representatives Committee on Energy and Commerce noted last week, "[i]f local governments are forced to respond to this Declaratory Ruling instead of focusing on their public health and safety responses, it very well may put Americans' health and safety at risk."

But the FCC has decided to ignore this modest request for time to review. I don't get it. Why can't we acknowledge what is happening around us?

The sad truth is that this is not the first time we've given short shrift to the pleas of local governments who are strained by these historic days. It was just a few weeks ago when city officials and local firefighters asked the FCC to give them more time to weigh in on the court remand of our misguided decision to roll back net neutrality. But we didn't grant their request.

However, when companies suggested they needed more time to clear the 3.5 GHz band because of the pandemic, we were quick to oblige. We pushed back the start of our next spectrum auction too, again citing business disruptions caused by the coronavirus. The FCC even granted an extension of time to a foreign company it is investigating as a national security threat to the United States.

Why can't we offer the same courtesy to state and local governments? The law demonstrates a clear congressional policy in favor of removing locally imposed and unreasonably discriminatory obstacles to modifying existing facilities in order to foster the rapid deployment of wireless infrastructure. I know. As congressional staff, I helped write it. But some of the decisions we make today seem to be less about speeding up routine approvals under this law and more about lowering the costs of non-routine approvals by retrofitting them into this process too.

If we want to see infrastructure expand broadly and equitably across this country it takes federal and state and local authorities working together to do so. History proves this is true. And in these historic times this agency should not be ramrodding this effort through without listening to cities and towns across the country. They called for a bit more time. But the Federal Communications Commission hung up. I dissent.

**STATEMENT OF COMMISSIONER GEOFFREY STARKS
DISSENTING**

Re: *Implementation of State and Local Governments' Obligation to Approve Certain Wireless Facility Modification Requests Under Section 6409(a) of the Spectrum Act of 2012, WT Docket No. 19-250, RM-11849*

More than 106,000 people have died from COVID-19 so far and unemployment has hit its highest levels since the Great Depression. The school year is ending, and millions of children have missed months of in-classroom instruction. And in the last 2 weeks, the recent protests have brought millions of people into the streets of cities across the country to demonstrate for justice. This is a true moment in American history.

State and local governments form the front line for all of these issues. They run the public hospitals and emergency response units treating the sick, dispense benefits to the unemployed, operate the schools struggling to provide distance learning to our children, and oversee the police departments that are both the focus on the demonstrations and helping to keep us safe. Even in good times, they operate on tight budgets and limited resources.

For State and local governments across the country, tax revenues are declining due to the economic fallout of COVID-19, even as they must increase their expenditures to respond to the pandemic and the demonstrations. Replacing retiring employees is out of the question, and layoffs and furloughs are under consideration, even as these governments prepare their budgets for the next year.

That is the moment in time in which we place today's item. Let me be clear -- I support the deployment of infrastructure to improve service and connect more Americans. Low-income and minority families in particular rely on wireless service, and I hope that any benefits from today's item will result in improved service and more affordable offerings for all neighborhoods, not just those with the wealthiest Americans. Moreover, tower technician jobs offer a path to financial security for many Americans even in these uncertain times. Finally, streamlining the infrastructure approval process has had broad support. Congress intended to provide a quick path for approval of straightforward modifications when it adopted Section 6409, and a unanimous Commission adopted implementing rules back in 2014.

But this isn't the right way to achieve those goals. Instead of reducing burdens, today's Declaratory Ruling imposes new obligations on local governments at a time where they have the least amount of time and resources. Instead of providing clarity, it creates uncertainty. Because of these issues, I'm concerned that today's decision may actually slow the growth of advanced wireless service rather than accelerating it.

Those who support this decision claim that it's necessary because local governments have unreasonably blocked straightforward modifications to existing wireless sites, insisting on burdensome and unnecessary meetings and documentation. According to the petitions, these alleged practices have slowed or prevented upgrades that would provide advanced services and allow more Americans to realize the promise of 5G. Supporters claim that we must act now to encourage the growth of these services.

This is starkly different from what these parties are publicly and commercially saying elsewhere. Just recently, T-Mobile announced that it now offers 5G coverage in all 50 states. AT&T says it remains on track to offer nationwide 5G sometime this summer, and Verizon plans to offer 5G service in 60 cities by the end of 2020. DISH remains committed to building a standalone nationwide 5G network in the next few years, and the major tower companies have asserted that even COVID-19 hasn't slowed down their buildout efforts.

Moreover, despite today's challenges, local governments continue to take timely action on applications from these companies and their partners. Even [industry](#) has recognized the [efforts](#) of local governments to maintain operations while their offices must be closed, including allowing electronic filing via online portals and email, creating drop boxes for hard copies of documents, and waiving and modifying requirements regarding permits, filing fees and public meetings.

Given the unusual circumstances and the extraordinary efforts by local governments to continue the timely processing of applications, I'm deeply disappointed that we rejected the reasonable request for more time to review the draft order submitted on behalf of local governments across the country and supported by 24 Members of Congress. While it's true that the Petitions underlying this decision were filed last Fall, as today's decision repeatedly notes, we do not adopt the recommendations proposed in those filings. It was only with the release of the draft Declaratory Ruling just three weeks ago that commenters learned that the Commission was even considering certain issues, let alone specific outcomes. Indeed, even the Commissioners only saw the current version yesterday, which contains substantive differences from the original draft.

Even under the best of circumstances, three weeks would not be enough notice for such an important decision, which will affect communities around the nation. At a minimum, we should have deferred our consideration of this item to allow interested parties more time to analyze and comment on the draft decision. But I would have gone further and dealt with these issues through a rulemaking proceeding, with notice of our proposed approach and an opportunity for public comment.

I do agree that our rules could use clarification, but the item here consistently misses the mark. For example, we [should](#) clearly define when the Section 6409 shot clock starts. But while the Declaratory Ruling acknowledges the value of preliminary reviews and meetings, it nevertheless starts the shot clock before those events take place and provides no flexibility to adjust once an applicant submits its paperwork and requests that first meeting. Under today's decision, once an applicant has taken these actions, the local government must ensure that every other step in the process is completed before the shot clock expires. This approach not only places an unfair burden on the local governments but could lead to disputes between governments and applicants about the reasonableness of any requirement and whether it can be accomplished within the 60-day shot clock period. We should have done a rulemaking to discuss these issues and how to avoid such outcomes.

There are other issues. In many cases, local governments approved sites years ago, well before passage of the Spectrum Act. Particularly for smaller cities, it's unlikely that their decisions explain the intent behind a particular requirement affecting a site's appearance. Yet today's Declaratory Ruling states that, unless the regulator can provide express evidence in the record demonstrating that a requirement was intended to disguise the nature of the equipment as something other than a wireless facility, the local government must give streamlined treatment to any changes. Moreover, for changes in appearance that don't disguise the nature of the equipment but merely make it harder to notice, the Declaratory Ruling establishes a standard that effectively preempts any requirement that the applicant claims it cannot reasonably meet.

The confusion doesn't stop there. This decision explicitly states that the number of equipment cabinets that can be added to a site is measured for each eligible facilities request and rejects the interpretation that the relevant rule sets a cumulative limit. The local governments are justifiably confused about whether today's decision effectively eliminates any limitation on the number of equipment cabinets that may be added over time. Today's decision disagrees with the suggestion that there's no such limit but fails to explain exactly how a local government would derive it. A rulemaking could have clearly spelled out our expectations.

Taken as a whole, rather than clarifying our policies and expediting approvals, the posture of this Declaratory Ruling is likely to lead to time-consuming and costly disputes about intent and reasonableness between local governments and industry; and furthermore, it is likely to lead to protracted litigation. Moreover, because of the substantial burdens we place on local governments' review of modifications to existing sites, those governments may even give greater scrutiny to initial siting requests, leading to additional frustration and delays.

These problems would be serious in a proposed rulemaking, but the process followed here raises the stakes even higher. Because this is a Declaratory Ruling, it applies retroactively to decisions that may be decades old.¹ This decision will create uncertainty regarding existing sites across the country. Moreover, doing this via a Declaratory Ruling will place an undue burden on local governments that are unfamiliar with the Commission. A clerk in a small city may not realize that a proposed site modification will require her to review not only the Code of Federal Regulations but the language of this decision and our 2014 order.

I wish that we had addressed these issues in a rulemaking proceeding, like the one we initiate today regarding proposed excavations and the meaning of the term "current site." While I have serious reservations about the approach proposed in the NPRM, I agree that we should receive input from the public before we act further in this area, although I would have provided more time for that input. I hope that we reconsider that timetable, given all the other demands currently faced by local governments. I dissent.

¹ See *Connect America Fund Developing a Unified Intercarrier Compensation Regime*, Order on Remand and Declaratory Ruling, WC Docket No. 10-90 *et al.*, FCC 19-131 at para. 26 (rel. Dec. 17, 2019) ("As a general matter, declaratory rulings are adjudicatory and are presumed to have retroactive effect.") (citations omitted).



Type I Application (Administrative Review)

File #: MIMD122-0001

TYPES – PLEASE CHECK ONE:

- Code Adjustment
- Final Plat
- Minor Design Review
- Property Line Adjustment
- Property Line Consolidation
- Type I Extension or Type I Minor/Major Modification
- Type II or Type III Extension or Minor Modification
- Other: (Explain) _____

APPLICANT INFORMATION:

APPLICANT: Crown Castle for Dish Wireless (Emilie Deschamps)
 ADDRESS: PO Box 2006, Bellevue, WA 98009
 EMAIL ADDRESS: Emilie@GMAnetworkservices.com
 PHONE: (802)777-3358 MOBILE: _____ FAX: _____
 OWNER (if different from above): Crown Castle as Tower and Facility Owner PHONE: (309)269-7254
 ADDRESS: 1505 Westlake Ave N, Suite 800, Seattle, WA 98109
 ENGINEER/SURVEYOR: PM&A, Chad Wilhoit PHONE: (678)280-2325
 ADDRESS: 1000 Holcomb Woods PKWY, Suite 210, Roswell, GA 30076

GENERAL INFORMATION:

PROJECT NAME: Crown Castle for Dish Wireless PROJECT LOCATION: 2400 Douglas Ave, Newberg, OR 97132
 PROJECT DESCRIPTION/USE: See attached project description. PROJECT VALUATION: \$25,000.00
 MAP/TAX LOT NO. (i.e. 3200AB-400): R3217-02500 ZONE: R-1 SITE SIZE: 72 SQ. FT. ACRE
 COMP PLAN DESIGNATION: PQ TOPOGRAPHY: _____
 CURRENT USE: Newberg High School, with a Wireless Tower and Facility
 SURROUNDING USES:
 NORTH: Newberg High School/Sports Field SOUTH: Sports Field
 EAST: Newberg High School WEST: Newberg High School

SPECIFIC PROJECT CRITERIA AND REQUIREMENTS ARE ATTACHED

General Checklist: Fees Current Title Report Written Criteria Response Owner Signature

For detailed checklists, applicable criteria for the written criteria response, and number of copies per application type, turn to:

Code Adjustment	p. 4
Final Plat	p. 6
Minor Design Review	p. 10
Property Line Consolidation.....	p. 11
Property Line Adjustment.....	p. 12

The above statements and information herein contained are in all respects true, complete, and correct to the best of my knowledge and belief. Tentative plans must substantially conform to all standards, regulations, and procedures officially adopted by the City of Newberg. All owners must sign the application or submit letters of consent. Incomplete or missing information may delay the approval process.

Emilie Deschamps 12/30/2021
 Applicant Signature Date

See Attached 12/30/2021
 Owner Signature Date

Emilie Deschamps
 Print Name

See Attached Crown Signature
 Print Name

§ 15.220.020 TYPE I DESIGN REVIEW

Definition: A process to provide for review and approval of the design of certain developments and improvements in order to promote functional, safe and innovative site development that is compatible with the surrounding environment. Approval of a Type I design review project cannot be granted unless certain criteria have been satisfied. Design review approval shall be based on written findings. Site design review shall be required prior to issuance of building permits or commencement of work for all improvements noted below.

Type I site design review applies to the following activities:

- (a) Single-family dwellings.
- (b) Duplexes.
- (c) Institutional, commercial, or industrial additions which do not exceed 1,000 square feet in gross floor area.
- (d) Multi-family additions which do not exceed 1,000 square feet in gross floor area and do not add any new units, or new construction incidental to the main use on an existing developed site which do not exceed 1,000 square feet in gross floor area and do not add any new units.
- (e) Institutional, commercial, or industrial interior remodels which do not exceed 25 percent of the assessed valuation of the existing structure.
- (f) Multi-family remodels which do not exceed 25 percent of the assessed valuation of the existing structure and do not add any new units.
- (g) Signs which are not installed in conjunction with a new development or remodel.
- (h) Modifications, paving, landscaping, re-striping, or re-grading of an existing duplex, multi-family, institutional, commercial or industrial parking lot.
- (i) Fences and trash enclosures.

TYPE I DESIGN REVIEW CRITERIA

Type I applications require a written response to applicable criteria to determine whether approval is justified. Please provide a written response to each of the applicable criteria for a Type I design review. **Your written response should address how you meet each of the following criteria.**

- (1) Parking. Parking areas shall meet the requirements of § 15.440.010.
- (2) Setbacks and general requirements – The proposal shall comply with §§ 15.415.010 et seq. dealing with height restrictions and public access; and §§ 15.410.010 et seq. dealing with setbacks, coverage, vision clearance, and yard requirements.
- (3) Landscaping requirements – The proposal shall comply with § 15.420.010 dealing with landscape requirements and landscape screening.
- (4) Signs – Signs shall comply with §§ 15.435.010 et seq. dealing with signs.
- (5) Zoning district compliance – The proposed use shall be listed as a permitted or conditionally permitted use in the zoning district in which it is located as found in §§ 15.304.010 through 15.328.040 of this code.

TYPE I DESIGN REVIEW APPLICATION CHECKLIST

The following items must be submitted with each application. All diagrams, maps and plans must be drawn to scale. Incomplete applications will not be processed and incomplete or missing information may delay the review process. Check with the Planning Division regarding additional requirements for your project.

- FEES**
- APPLICATION FORM**
- CURRENT TITLE REPORT**
- WRITTEN CRITERIA RESPONSE** – Provide a written response that addresses how your project meets the Type I design review criteria.
- SITE PLAN.** Make sure the plans are prepared so that they are at least 8 ½ x 11 inches in size and the scale is standard, being 10, 20, 30, 40, 50, 100 or multiples of 100 to the inch (such as 1":10', 1":20' or other multiples of 10). Include the following information in the plan set (information may be shown on multiple pages):
 - Existing Site Features:** Indicate the location and design of all on-site buildings and other facilities such as mail delivery, trash disposal, above ground utilities, loading areas, and outdoor recreation areas. Include appropriate buffering and screening as required by the code.
 - Drainage & Grading:** Show the direction and location of on and off-site drainage on the plans. This shall include site drainage, parking lot drainage, size and location of storm drain lines, and any retention or detention facilities necessary for the project. Provide an engineered grading plan if necessary.
 - Utilities:** Show the location of and access to all public and private utilities, including sewer, water, storm water and any overhead utilities.
 - Public Improvements:** Indicate any public improvements that will be constructed as part of the project, including sidewalks, roadways, and utilities.
 - Access, Parking, and Circulation:** Show proposed vehicular and pedestrian circulation, parking spaces, parking aisles, and the location and number of access points from adjacent streets. Provide dimensions for parking aisles, back-up areas, and other items as appropriate. Indicate where required bicycle parking will be provided on the site along with the dimensions of the parking spaces.
 - Exterior Lighting Plan:** Show all exterior lighting, including the direction of the lighting, size and type of fixtures, and an indication of the amount of lighting using foot candles for analysis.
 - Landscape Plan:** Include a comprehensive plan that indicates the size, species and locations of all planned landscaping for the site. The landscape plan should have a legend that indicates the common and botanical names of plants, quantity and spacing, size (caliper, height, or container size), planned landscaping materials, and description of the irrigation system. Include a calculation of the percentage of landscaped area.
 - ADA Plan Compliance:** Indicate compliance with any applicable ADA provisions, including the location of accessible parking spaces, accessible routes from the entrance to the public way, and ramps for wheelchairs.
 - Architectural Drawings:** Provide floor plans and elevations for all planned structures.
 - Signs and Graphics:** Show the location, size, colors, materials, and lighting of all exterior signs, graphics or other informational or directional features if applicable.
 - Other:** Show any other site elements which will assist in the evaluation of the site and the project.



Crown Castle
1505 Westlake Avenue North
Suite 800
Seattle, WA 98109

September 17, 2020

Re: Crown Castle – PNW
Subject: Gary Abrahams – Authorized Consultant for Crown Castle

Dear Reviewing Parties:

This letter serves to notify you that Crown Castle has retained the services of Gary Abrahams, as approved agent to submit application for and obtain local jurisdiction approvals including but not limited to zoning and building permits. This includes applicable permitting for any and all customers seeking to install or modify their equipment on Crown Castle towers.

Please feel free to contact me directly with any questions. Thank you for your expeditious processing of applications filed by Mr. Abrahams.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Chris Listfeld'.

Chris Listfeld
Site Acquisition Project Manager – Seattle
Chris.Listfeld@crowncastle.com
(206) 336-7403



1505 Westlake Ave N, N
Seattle, WA 98109

Phone:
www.crowncastle.com

December 31, 2021

Via FedEx

Newberg, OR

City of Newberg
Community Development
Planning Department
414 E. First Street
Newberg, OR 97132
Phone: (503)537-1240

*****NOTICE OF ELIGIBLE FACILITIES REQUEST*****

RE: Eligible Facilities Request to modify equipment on a communications tower located at:

- **2400 Douglas Ave, Newberg, OR 97132**
- **Parcel ID: R3217 02500**
- **Assessors Tax Parcel ID number: 33895**

Jurisdiction: City of Newberg, OR

Application for Type I Permit

Crown Site Number: 856521
Application ID: 576279
Crown Name: Newberg East

Carrier: Dish Wireless LLC
Carrier site ID: PRPDX00328B
Carrier site name: N/A

Dear Reviewing Parties:

On behalf of Dish Wireless LLC ("Dish" or "Applicant"), Crown Castle USA Inc. ("Crown Castle") is pleased to submit this request to modify the existing wireless facility noted above through the collocation, replacement and/or removal of the Applicant's equipment as an eligible facilities request for a minor modification under Section 6409¹ and the rules of the Federal Communications Commission ("FCC").²

¹ Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, § 6409 (2012) (codified at 47 U.S.C. § 1455).
² *Acceleration of Broadband Deployment by Improving Wireless Facility Siting Policies*, 29 FCC Rcd. 12865 (2014) (codified at 47 CFR § 1.6100); and *Implementation of State & Local Governments' Obligation to Approve Certain Wireless Facility Modification Requests Under Section 6409(a) of the Spectrum Act of 2012*, WT Docket No. 19-250 (June 10, 2020).
³ See 47 CFR § 1.6100 (c)(3). ⁴ See 2020 Upgrade Order at paragraph 16.



1505 Westlake Ave N, N
Seattle, WA 98109

Phone:
www.crowncastle.com

Section 6409 mandates that state and local governments must approve any eligible facilities request for the modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station. Under Section 6409, to toll the review period, if the reviewing authority determines that the application is incomplete, it must provide written notice to the applicant within 30 days, which clearly and specifically delineates all missing documents or information reasonably related to whether the request meets the federal requirements.³ Additionally, if a state or local government, fails to issue any approvals required for this request within 60 days, these approvals are deemed granted. The FCC has clarified that the 30-day and 60-day deadlines begins when an applicant: (1) takes the first step required under state or local law; and (2) submits information sufficient to inform the jurisdiction that this modification qualifies under the federal law⁴. Please note that with the submission of this letter and enclosed items, the thirty and sixty-day review periods have started. Based on this filing, the deadline for written notice of incomplete application is February 2, 2022, and the deadline for issuance of approval is March 4, 2022.

The proposed scope of work for this project includes:

Add antennas, ancillary equipment and ground equipment as per plans for a new carrier on an existing wireless communication facility.

At the end of this letter is a checklist of the applicable substantial change criteria under Section 6409. Additionally, please find enclosed the following information in support of this **Type I Permit Application**:

- Fees: to be paid by credit card upon issuance of notification by the city.
- Two (2) copies, City of Newberg Type I Application;
- Two (2) copies, EFR Cover Letter with Section 6409 Substantial Change Checklist (see this document)
- Two (2) copies, Written Response to Type I Design Review Criteria;
- Two (2) copies, Construction Drawings, by PM&A, dated 12/17/21;
- Two (2) copies, Crown Castle Agent Authorization to Submit for Permits.

RE: Title Report (No Older Than 60 Days)

A request for a title report that is no older than 60 days is not “reasonably related” to determining whether the Application is an EFR and therefore does not toll the 60-day period for review of the Application. According to Section 6409, a local government, like the City, “may not require [Dish Wireless] to submit any documentation” other than that which is “reasonably related” to determining whether the Application is an EFR.⁶ A title report that is no older than 60 days in no way bears on whether the Application qualifies as an EFR and is therefore entitled to streamlined processing and mandatory approval under federal law. Notwithstanding the foregoing, Crown Castle explains that there has been a wireless facility located at the Site since 2006 pursuant to that certain Oregon Lease Agreement dated July 21, 2006 by and between the tower operator and the Newberg School District. See Yamhill Cty. Rec. No. 2006-18092. Based on federal law, Crown Castle will not be providing the requested information.

As these documents indicate, (i) the modification involves the collocation, removal or replacement of transmission equipment; and (ii) such modification will not substantially change the physical dimensions of such tower or base station. As such, it is an “eligible facilities request” as defined in the FCC’s rules to which the 60-day deadline for approval applies. Accordingly, Applicant requests all authorization necessary for this proposed minor modification under Section 6409.

Our goal is to work with you to obtain approvals earlier than the deadline. We will respond promptly to any request for related information you may have in connection with this request. Please let us know how we can work with you to expedite the approval

The Foundation for a Wireless World

CrownCastle.com



1505 Westlake Ave N, N
Seattle, WA 98109

Phone:
www.crowncastle.com

process. We look forward to working with you on this important project, which will improve wireless telecommunication services in your community using collocation on existing infrastructure. If you have any questions, please do not hesitate to contact me.

Regards,

Emilie Deschamps

Emilie Deschamps for Crown Castle on behalf of Dish Wireless



1505 Westlake Ave N, N
Seattle, WA 98109

Phone:
www.crowncastle.com

**Section 6409 Substantial Change Checklist
Towers Outside of the Public Right of Way**

The Federal Communications Commission has determined that a modification substantially changes the physical dimension of a wireless tower or base station under 47 U.S.C. § 1455(a) if it meets one of six enumerated criteria under 47 C.F.R. § 1.6100.

Criteria for Towers Outside the Public Rights of Way

YES/NO NO	Does the modification increase the height of the tower by more than the greater of: (a) 10% (b) or, the height of an additional antenna array plus separation of up to 20 feet from the top of the nearest existing antenna?
YES/NO NO	Does the modification add an appurtenance to the body of the tower that would protrude from the edge of the tower more than 20 feet or more than the width of the tower structure at the level of the appurtenance, whichever is greater?
YES/NO NO	Does the modification involve the installation of more than the standard number of new equipment cabinets for the technology involved or add more than four new equipment cabinets?
YES/NO NO	Does the modification entail any excavation or deployment outside the current site by more than 30 feet in any direction, not including any access or utility easements?
YES/NO NO	Does the modification defeat the concealment elements of the eligible support structure?
YES/NO NO	Does the modification violate conditions associated with the siting approval with the prior approval the tower or base station other than as specified in 47 C.F.R. § 1.6100(c)(7)(i) – (iv)?

If all questions in the above section are answered “NO,” then the modification does not constitute a substantial change to the existing tower under 47 C.F.R. § 1.6100.



Phone:
www.crowncastle.com

Written Response to Type I Design Review Criteria

We are pleased to provide the following information explaining why the Application meets all requirements to be a Type I Design Review Request. Each enumerated criteria is on a separate page or pages.

The remainder of this page left intentionally blank



Phone:
www.crowncastle.com

Criteria 1: Parking. Parking areas shall meet the requirements of NMC 15.440.010.

Applicant's Response: This is an unmanned existing Wireless Communications Facility and parking is not required.



1505 Westlake Ave N, N
Seattle, WA 98109

Phone:
www.crowncastle.com

Criteria 2: Setbacks and General Requirements. The proposal shall comply with NMC 15.415.010 through 15.415.060 dealing with height restrictions and public access; and NMC 15.405.010 through 15.405.040 and 15.410.010 through 15.410.070 dealing with setbacks, coverage, vision clearance, and yard requirements.

Applicant's Response: See sections 15.415.010 through 15.415.060; 15.405.010 through 15.405.040; 15.410.010 through 15.410.070.

This is an existing Wireless Communications Facility and no ground expansion is proposed. The tower is proposed to be extended by 10 feet. All analysis below is based upon this scope of work.

Only applicable sections are analyzed.

Analysis of 15.415.010 through 15.415.060

15.415.010 Main buildings and uses as accessory buildings.

A. Hereinafter, any building which is the only building on a lot is a main building.

B. In any residential district except RP, there shall be only one main use per lot or development site; provided, that home occupations shall be allowed where permitted.

C. In any residential district, there shall be no more than two accessory buildings on any lot or development site. [Ord. 2451, 12-2-96. Code 2001 § 151.535.]

15.415.020 Building height limitation.

A. Residential.

1. In the R-1 district, no main building shall exceed 30 feet in height.

2. In the R-2, AR, and RP districts, no main building shall exceed 35 feet in height.

3. In the R-3 district, no main building shall exceed 45 feet in height, except, where an R-3 district abuts upon an R-1 district, the maximum permitted building height shall be limited to 30 feet for a distance of 50 feet from the abutting boundary of the aforementioned district.

4. Accessory buildings in the R-1, R-2, R-3, AR, and RP districts are limited to 16 feet in height, except as follows:

a. Up to 800 square feet of an accessory building may have a height of up to 24 feet.

b. Aircraft hangars in the AR district may be the same height as the main building.

5. Single-family dwellings permitted in commercial or industrial districts shall not exceed 35 feet in height, or the maximum height permitted in the zone, whichever is less.

B. Commercial, Industrial and Mixed Employment.

1. In the C-1 district no main building or accessory building shall exceed 30 feet in height.



1505 Westlake Ave N, N
Seattle, WA 98109

Phone:
www.crowncastle.com

2. In the AI, C-2, C-3, M-E, M-1, M-2, and M-3 districts there is no [building height](#) limitation, except, where said districts [abut](#) upon a residential district, the maximum permitted [building height](#) shall not exceed the maximum [building height](#) permitted in the abutting residential district for a distance of 50 feet from the abutting boundary.

3. In the C-4 district, [building height](#) limitation is described in NMC [15.352.040\(J\)\(1\)](#).

4. In the M-E district within the riverfront overlay subdistrict, [building height](#) limitation is described in NMC [15.352.060](#).

C. The maximum height of [buildings](#) and [uses](#) permitted conditionally shall be stated in the [conditional use permits](#).

D. Institutional. The maximum height of any [building](#) or [structure](#) will be 75 feet except as follows:

1. Within 50 feet of an interior property line abutting a C-1, R-1, R-2 or R-P district, no [main building](#) may exceed 30 feet.

2. Within 50 feet of an interior property line abutting an R-3 district, no [main building](#) may exceed 45 feet.

3. Within 100 feet of a property line abutting a public [street](#) or railroad [right-of-way](#), or within 100 feet of property lines abutting [parcels](#) with an R-1, R-2, R-3, R-P, C-1, C-2, C-3, M-1, M-2, or M-3 zoning designation, no [main building](#) may exceed 50 feet in height.

4. To utilize the maximum permitted height standard, at least 80 percent of the [building](#)'s ground coverage must be beyond the setback area designated in subsection (D)(3) of this section. The maximum encroachment may not exceed 25 feet.

E. Alternative [Building Height](#) Standard. As an alternative to the [building height](#) standards above, any project may elect to [use](#) the following standard (see Figure 24 in Appendix A). To meet this standard:

1. Each point on the [building](#) must be no more than 20 feet higher than the ground level at all points on the property lines, plus one vertical foot for each horizontal foot of distance from that property line; and

2. Each point on the [building](#) must be no more than 20 feet higher than the ground level at a point directly north on a property line, plus one vertical foot for each two horizontal feet of distance between those points. This second limit does not apply if the property directly to the north is a [right-of-way](#), parking [lot](#), protected natural resource, or similar unbuildable property.

F. [Buildings](#) within the [airport](#) overlay subdistrict are subject to the height limits of that subdistrict. [Ord. [2880](#) § 2 (Exh. B § 41), 6-7-21; Ord. [2868](#) § 1 (Exh. A), 11-16-20; Ord. [2730](#) § 1 (Exh. A (4)), 10-18-10; Ord. [2720](#) § 1(10), 11-2-09; Ord. [2647](#), 6-5-06; Ord. [2564](#), 4-[15](#)-02; Ord. [2550](#), 5-21-01; Ord. [2451](#), 12-2-96. Code 2001 § 151.536.]

Penalty: See NMC [15.05.120](#).

Applicant's Response: The existing height of the tower is 90 feet and it was legally permitted under CUP-06-002. This proposal includes a 10 foot extension of the existing tower to a height of 100 feet with the tip height of the proposed antennas at 102 feet. The NMC sited above does not apply to this project. However, section 6409a does apply to the proposal for additional height. Section 6409a states as follows:

"For towers outside of public rights-of-way, it increases the height of the tower by more than 10%, or by the height of one additional antenna array with separation from the nearest existing antenna not to exceed twenty feet, whichever is greater; for those towers in the rights-of-way and for all base stations, it increases the height of the tower or base station by more than 10% or 10 feet, whichever is greater."



1505 Westlake Ave N, N
Seattle, WA 98109

Phone:
www.crowncastle.com

The existing tower height is 90 feet and section 6409a would allow for a 20 foot separation from the nearest antennas plus the height of an additional antenna array. The proposed height extension is less than what is allowed under section 6409a. Therefore, the proposed project complies with section 6409a as an EFR.

15.415.030 Building height exemptions.

Roof [structures](#) and architectural features for the housing of elevators, stairways, tanks, ventilating fans and similar equipment required to operate and maintain the [building](#), fire or parapet walls, skylights, towers, flagpoles, chimneys, smokestacks, wireless masts, TV [antennas](#), steeples and similar [structures](#) may be erected above the height limits prescribed in this [code](#); provided, that no roof [structure](#), feature or any other device above the prescribed height limit shall be allowed or used for the purpose of providing additional floor space. Further, no roof [structure](#) or architectural feature under this exemption shall be erected more than 18 feet above the height of the [main building](#), whether such [structure](#) is attached to it or freestanding, nor shall any such [structure](#) or feature exceed the height limits of the [airport](#) overlay subdistrict. [Ord. [2730](#) § 1 (Exh. A (4)), 10-18-10; Ord. [2451](#), 12-2-96. Code 2001 § 151.537.]

15.415.040 Public access required.

No [building](#) or [structure](#) shall be erected or altered except on a [lot](#) fronting or abutting on a public [street](#) or having [access](#) to a public [street](#) over a [private street](#) or [easement](#) of record approved in accordance with provisions contained in this [code](#). New [private streets](#) may not be created to provide [access](#) except as allowed under NMC [15.332.020](#)(B)(24), [15.336.020](#)(B)(8), and in the M-4 zone. Existing [private streets](#) may not be used for [access](#) for new [dwelling units](#), except as allowed under NMC [15.405.030](#). No [building](#) or [structure](#) shall be erected or altered without provisions for [access](#) roadways as required in the Oregon Fire [Code](#), as adopted by the [city](#). [Ord. [2720](#) § 1(11), 11-2-09; Ord. [2647](#), 6-5-06; Ord. [2507](#), 3-1-99; Ord. [2451](#), 12-2-96. Code 2001 § 151.538.]

Penalty: See NMC [15.05.120](#).

15.415.050 Rules and exceptions governing single-family attached dwellings.

In all residential districts, [single-family attached dwelling](#) units may be permitted, provided:

- A. Each [dwelling unit](#) shall be situated on an individual, legally subdivided or partitioned [lot](#) which includes existing [lots](#) of record.
- B. The [dwelling units](#) shall have a common wall at the [zero lot line](#).
- C. The combined area of [lots](#) shall not be less than the [lot](#) area required in the residential district.
- D. The [lot](#) or [development site](#) area requirement per [dwelling unit](#) listed in this [code](#) shall apply to each individual [lot](#).
- E. The setback requirements will apply to each [dwelling unit](#) independently, except that the setback for the [zero lot line](#) shall be waived.
- F. Each [dwelling unit](#) shall have independent services which include, but are not limited to, wastewater, water and electricity.
- G. Authorization of [single-family attached dwelling](#) units does not waive any requirement specified within the current edition of the Oregon Residential Specialty [Code](#) or other applicable requirements.
- H. Maximum [lot coverage](#) requirements specified in this [code](#) shall apply to each individual [lot](#).
- I. A site plan is approved by the [director](#) prior to issuance of a [building](#) permit. In approving a site plan, the [director](#) may attach any conditions necessary to fulfill the purpose of this [code](#). [Ord. [2451](#), 12-2-96. Code 2001 § 151.539.]



1505 Westlake Ave N, N
Seattle, WA 98109

Phone:
www.crowncastle.com

15.415.060 Home occupation.

Home occupations shall be processed as a Type I procedure. Home occupation uses shall comply with the following standards:

- A. Signs shall comply with the standards of NMC 15.435.010 et seq.
- B. There is no display that will indicate from the exterior that the building is used in whole or in part for any purpose other than a dwelling.
- C. The building retains the characteristics of a residence.
- D. There is no outside storage of materials, parts, tools, supplies, or other items related to the use as a home occupation, other than nursery plants.
- E. No more than one outside paid employee shall be permitted to work at the residence at any given time.
- F. The use does not destroy the residential character of the neighborhood.
- G. All work being performed at the site is done within the confines of a building and no noise, odor, dust, smoke or other evidence of the home occupation permeates beyond the confines of the property.
- H. The home occupation is incidental to the use of the building and site for residential purposes.
- I. The work does not involve the use of hazardous substances or materials which might create a fire hazard or danger to the environment or neighboring properties, including but not limited to gasoline, paint, oxygen/acetylene tanks, or other flammable or hazardous materials. [Ord. 2499, 11-2-98; Ord. 2451, 12-2-96. Code 2001 § 151.540.]

Penalty: See NMC 15.05.120.

Analysis of 15.405.010 through 15.405.040

15.405.010 Lot area – Lot areas per dwelling unit.

- A. In the following districts, each lot or development site shall have an area as shown below except as otherwise permitted by this code:
 - 1. In the R-1 district, each lot or development site shall have a minimum area of 5,000 square feet or as may be established by a subdistrict. The average size of lots in a subdivision intended for single-family or duplex dwelling development shall not exceed 10,000 square feet.
 - 2. In the R-2 and RP districts, each lot or development site shall have a minimum area of 3,000 square feet or as may be established by a subdistrict. The average size of lots in a subdivision intended for single-family or duplex dwelling development shall not exceed 5,000 square feet.
 - 3. In the R-3 district, each lot or development site shall have a minimum area of 2,500 square feet or as may be established by a subdistrict. The average size of lots in a subdivision intended for duplex dwelling development shall not exceed 5,000 square feet.
 - 4. In the AI, AR, C-1, C-2, and C-3 districts, each lot or development site shall have a minimum area of 5,000 square feet or as may be established by a subdistrict.



5. In the M-1, M-2, M-3, and M-E districts, each lot or development site shall have a minimum area of 20,000 square feet.
6. Institutional districts shall have a minimum size of five contiguous acres in order to create a large enough campus to support institutional uses; however, additions to the district may be made in increments of any size.
7. Within the commercial and mixed employment district(s) of the riverfront overlay subdistrict, there is no minimum lot size required, provided the other standards of this code can be met.

B. Lot or Development Site Area per Dwelling Unit.

1. In the R-1 district, there shall be a minimum of 5,000 square feet per dwelling unit, except that there shall be a minimum of 5,000 square feet per duplex dwelling.
2. In the R-2, AR, and R-P districts, there shall be a minimum of 3,000 square feet of lot or development site area per dwelling unit, except that there shall be a minimum of 3,000 square feet per duplex dwelling. In the R-2 and R-P districts, lots or development sites in excess of 15,000 square feet used for multiple single-family, duplex or multifamily dwellings shall be developed at a minimum of one dwelling per 5,000 square feet lot area.
3. In the R-3 district, there shall be a minimum of 1,500 square feet of lot or development site area per dwelling unit for multifamily dwellings. There shall be a minimum of 2,500 square feet per duplex dwelling. Lots or development sites in excess of 15,000 square feet used for multiple single-family, duplex or multifamily dwellings shall be developed at a minimum of one dwelling per 2,500 square feet lot area.

C. In calculating lot area for this section, lot area does not include land within public or private streets. In calculating lot area for maximum lot area/minimum density requirements, lot area does not include land within stream corridors, land reserved for public parks or open spaces, commons buildings, land for preservation of natural, scenic, or historic resources, land on slopes exceeding 15 percent or for avoidance of identified natural hazards, land in shared access easements, public walkways, or entirely used for utilities, land held in reserve in accordance with a future development plan, or land for uses not appurtenant to the residence.

D. Lot size averaging is allowed for any subdivision. Some lots may be under the minimum lot size required in the zone where the subdivision is located, as long as the average size of all lots is at least the minimum lot size. [Ord. 2880 § 2 (Exh. B §§ 36, 37), 6-7-21; Ord. 2868 § 1 (Exh. A), 11-16-20; Ord. 2763 § 1 (Exh. A § 12), 9-16-13; Ord. 2730 § 1 (Exh. A (2)), 10-18-10; Ord. 2720 § 1(14), 11-2-09; Ord. 2647, 6-5-06; Ord. 2564, 4-15-02; Ord. 2507, 3-1-99; Ord. 2451, 12-2-96. Code 2001 § 151.565.]

Penalty: See NMC 15.05.120.

15.405.020 Lot area exceptions.

The following shall be exceptions to the required lot areas:

- A. Lots of record with less than the area required by this code.
- B. Lots or development sites which, as a process of their creation, were approved in accordance with this code.
- C. Planned unit developments, provided they conform to requirements for planned unit development approval. [Ord. 2451, 12-2-96. Code 2001 § 151.566.]



1505 Westlake Ave N, N
Seattle, WA 98109

Phone:
www.crowncastle.com

15.405.030 Lot dimensions and frontage.

A. Width. Widths of lots shall conform to the standards of this code.

B. Depth to Width Ratio. Each lot and parcel shall have an average depth between the front and rear lines of not more than two and one-half times the average width between the side lines. Depths of lots shall conform to the standards of this code. Development of lots under 15,000 square feet are exempt from the lot depth to width ratio requirement.

C. Area. Lot sizes shall conform to standards set forth in this code. Lot area calculations shall not include area contained in public or private streets as defined by this code.

D. Frontage.

1. No lot or development site shall have less than the following lot frontage standards:

a. Each lot or development site shall have either frontage on a public street for a distance of at least 25 feet or have access to a public street through an easement that is at least 25 feet wide. No new private streets, as defined in NMC 15.05.030, shall be created to provide frontage or access except as allowed by NMC 15.240.020(L)(2).

b. Each lot in R-2 zone shall have a minimum width of 25 feet at the front building line and R-3 zone shall have a minimum width of 30 feet at the front building line, except that duplex lots in the R-3 zone shall have a minimum width of 25 feet at the front building line.

c. Each lot in R-1 zone shall have a minimum width of 35 feet at the front building line and AI or RP shall have a minimum width of 50 feet at the front building line.

d. Each lot in an AR zone shall have a minimum width of 45 feet at the front building line.

2. The above standards apply with the following exceptions:

a. Legally created lots of record in existence prior to the effective date of the ordinance codified in this code.

b. Lots or development sites which, as a process of their creation, were approved with sub-standard widths in accordance with provisions of this code.

c. Existing private streets may not be used for new dwelling units, except private streets that were created prior to March 1, 1999, including paving to fire access roads standards and installation of necessary utilities, and private streets allowed in the airport residential and airport industrial districts. However, existing single-family detached dwellings on existing private streets may be converted to duplex dwellings. [Ord. 2880 § 2 (Exh. B § 38), 6-7-21; Ord. 2830 § 1 (Exh. A), 4-2-18; Ord. 2822 § 1 (Exh. A), 2-5-18; Ord. 2730 § 1 (Exh. A (3)), 10-18-10; Ord. 2720 § 1(15), 11-2-09; Ord. 2647, 6-5-06; Ord. 2507, 3-1-99; Ord. 2451, 12-2-96. Code 2001 § 151.567.]

Penalty: See NMC 15.05.120.

15.405.040 Lot coverage and parking coverage requirements.

A. Purpose. The lot coverage and parking coverage requirements below are intended to:

1. Limit the amount of impervious surface and storm drain runoff on residential lots.



1505 Westlake Ave N, N
Seattle, WA 98109

Phone:
www.crowncastle.com

2. Provide [open space](#) and recreational space on the same [lot](#) for occupants of that [lot](#).
3. Limit the bulk of residential development to that appropriate in the applicable zone.

B. Residential [uses](#) in residential zones shall meet the following maximum [lot coverage](#) and [parking coverage](#) standards. See the definitions in NMC [15.05.030](#) and Appendix A, Figure 4.

1. Maximum [Lot Coverage](#).

- a. R-1: 40 percent, or 50 percent if all [structures](#) on the [lot](#) are one [story](#).
- b. R-2 and RP: 60 percent.
- c. AR and R-3: 60 percent.

2. Maximum [Parking Coverage](#). R-1, R-2, R-3, and RP: 30 percent.

3. Combined Maximum [Lot](#) and [Parking Coverage](#).

- a. R-1: 60 percent.
- b. R-2, R-3 and RP: 70 percent.

C. All other districts and [uses](#) not listed in subsection (B) of this section shall not be limited as to [lot coverage](#) and [parking coverage](#) except as otherwise required by this [code](#). [Ord. [2880](#) § 2 (Exh. B § 39), 6-7-21; Ord. [2832](#) § 1 (Exh. A), 7-2-18; Ord. [2746](#) § 1 (Exh. A § 1), 8-~~15~~-11; Ord. [2730](#) § 1 (Exh. A (3)), 10-18-10; Ord. [2647](#), 6-5-06; Ord. [2451](#), 12-2-96. Code 2001 § 151.568.]

Applicant's Response: None of the code sections of 15.405 are applicable to this project since it is an existing facility with no ground expansion.

Analysis of 15.410.010 through 15.410.070

15.410.010 General yard regulations.

A. No [yard](#) or [open space](#) provided around any [building](#) for the purpose of complying with the provisions of this [code](#) shall be considered as providing a [yard](#) or [open space](#) for any other [building](#).

B. No [yard](#) or [open space](#) on adjoining property shall be considered as providing required [yard](#) or [open space](#) for another [lot](#) or [development site](#) under the provisions of this [code](#).

C. No [front yards](#) provided around any [building](#) for the purpose of complying with the regulations of this [code](#) shall be used for public or [private parking areas](#) or garages, or other [accessory buildings](#), except as specifically provided elsewhere in this [code](#).

D. When the common property line separating two or more contiguous [lots](#) is covered by a [building](#) or a permitted group of [buildings](#) with respect to such common property line or lines does not fully conform to the required [yard](#) spaces on each side of such common property line or lines, such [lots](#) shall constitute a single [development site](#) and the [yards](#) as required by this [code](#) shall then not apply to such common property lines.

E. Dwellings Where Permitted above Nonresidential Buildings. The front and interior yard requirements for residential uses shall not be applicable; provided, that all yard requirements for the district in which such building is located are complied with.

F. In the AI airport industrial district, clear areas, safety areas, object-free areas, taxiways, parking aprons, and runways may be counted as required yards for a building, even if located upon an adjacent parcel.

G. In the AR airport residential district, clear areas, safety areas, object-free areas, taxiways, parking aprons, and runways may be counted as required yards for a building, if located upon an adjacent parcel. [Ord. 2647, 6-5-06; Ord. 2451, 12-2-96. Code 2001 § 151.550.]

Penalty: See NMC 15.05.120.

15.410.020 Front yard setback.

A. Residential (see Appendix A, Figure 10).

1. AR, R-1 and R-2 districts shall have a front yard of not less than 15 feet. Said yard shall be landscaped and maintained.
2. R-3 and RP districts shall have a front yard of not less than 12 feet. Said yard shall be landscaped and maintained.
3. The entrance to a garage or carport, whether or not attached to a dwelling, shall be set back at least 20 feet from the nearest property line of the street to which access will be provided. However, the foregoing setback requirement shall not apply where the garage or carport will be provided with access to an alley only.

B. Commercial.

1. All lots or development sites in the C-1 district shall have a front yard of not less than 10 feet. There shall be no minimum front yard setback for C-1 zoned property that has frontage on E. Portland Road or Highway 99 W. The maximum front yard setback for C-1 zoned property that has frontage on E. Portland Road or Highway 99 W. shall be no greater than 10 feet. A greater front yard setback is allowed for C-1 zoned property having frontage on E. Portland Road or Highway 99 W. when a plaza or other pedestrian amenity is provided; however, said front yard setback should be the minimum setback needed to accommodate a pedestrian amenity. Said yard shall be landscaped and maintained.
2. All lots or development sites in the C-2 district shall have a front yard of not less than 10 feet. There shall be no minimum front yard setback for C-2 zoned property that has frontage on E. Portland Road or Highway 99 W. The maximum front yard setback for C-2 zoned property that has frontage on E. Portland Road or Highway 99 W. shall be no greater than 10 feet. A greater front yard setback is allowed for C-2 zoned property having frontage on E. Portland Road or Highway 99 W. when a plaza or other pedestrian amenity is provided; however, said front yard setback should be the minimum setback needed to accommodate a pedestrian amenity. No parking shall be allowed in said yard. Said yard shall be landscaped and maintained.
3. All lots or development sites in the C-3 district shall have no minimum front yard requirements. The maximum allowable front yard shall be 20 feet. In the case of a through lot with two front yards, at least one front yard must meet the maximum setback requirement. In the case of three or more front yards, at least two front yards must meet the maximum setback requirements. No parking shall be allowed in said yard. Said yard shall be landscaped and maintained.
4. All lots or development sites in the C-4 district will comply with the front yard requirements described in NMC 15.352.040(E).

C. Industrial. All lots or development sites in the M-1, M-2 or M-3 districts shall have a front yard of 20 feet. Lots or development sites in the AI district shall have a front yard of 10 feet. Lots or development sites in the M-4 district shall have a front yard of 20 feet where abutting Highway 219, arterials, and collectors, and a front yard of 10 feet along other streets.



1505 Westlake Ave N, N
Seattle, WA 98109

Phone:
www.crowncastle.com

D. Institutional and Community Facility. All [lots](#) or [development sites](#) in the I and CF district shall have a [front yard](#) of 25 feet. Outdoor activity facilities, such as pools, basketball courts, tennis courts, or baseball diamonds, including any accessory [structures](#) and [uses](#), are not permitted within the required setback.

E. Mixed Employment. All [lots](#) or [development sites](#) in the M-E district shall have no minimum [front yard](#) requirements. The maximum allowable [front yard](#) shall be 10 feet. No parking shall be allowed in said [yard](#). Said [yard](#) shall be landscaped and maintained. [Lots](#) or [development sites](#) within the riverfront overlay subdistrict will comply with the [front yard](#) requirements described in NMC [15.352.060\(E\)](#). [Ord. [2868](#) § 1 (Exh. A), 11-16-20; Ord. [2862](#) § 1 (Exh. A § 4), 6-[15](#)-20; Ord. [2720](#) § 1(12), 11-2-09; Ord. [2647](#), 6-5-06; Ord. [2564](#), 4-[15](#)-02; Ord. [2561](#), 4-1-02; Ord. [2550](#), 5-21-01; Ord. [2451](#), 12-2-96. Code 2001 § 151.551.]

Penalty: See NMC [15.05.120](#).

[15.410.030](#) Interior yard setback.

A. Residential.

1. All [lots](#) or [development sites](#) in the AR, R-1, R-2 and R-3 districts shall have [interior yards](#) of not less than five feet, except that where a utility [easement](#) is recorded adjacent to a side [lot](#) line, there shall be a side [yard](#) no less than the width of the [easement](#).
2. All [lots](#) or [development sites](#) in the RP district shall have [interior yards](#) of not less than eight feet.

B. Commercial.

1. All [lots](#) or [development sites](#) in the C-1 and C-2 districts have no [interior yards](#) required where said [lots](#) or [development sites](#) abut property lines of commercially or industrially zoned property. When [interior lot](#) lines of said districts are common with property zoned residentially, [interior yards](#) of not less than 10 feet shall be required opposite the residential districts.
2. All [lots](#) or [development sites](#) in the C-3 district shall have no [interior yard](#) requirements.
3. All [lots](#) or [development sites](#) in the C-4 district will comply with the [interior yard](#) requirements described in NMC [15.352.040\(E\)](#).

C. Industrial and Mixed Employment. All [lots](#) or [development sites](#) in the AI, M-1, M-2, M-3, M-4, and M-E districts shall have no [interior yards](#) where said [lots](#) or [development sites](#) abut property lines of commercially or industrially zoned property. When [interior lot](#) lines of said districts are common with property zoned residentially, [interior yards](#) of not less than 10 feet shall be required opposite the residential districts.

D. Institutional and Community Facility. All [lots](#) or [development sites](#) in the I and CF district shall have [interior yards](#) of not less than 10 feet, except outdoor activity facilities, such as pools, basketball courts, tennis courts, or baseball diamonds, including any accessory [structures](#) and [uses](#), shall have an [interior yard](#) setback of 25 feet when abutting a residential district. [Ord. [2868](#) § 1 (Exh. A), 11-16-20; Ord. [2720](#) § 1(13), 11-2-09; Ord. [2647](#), 6-5-06; Ord. [2564](#), 4-[15](#)-02; Ord. [2550](#), 5-21-01; Ord. [2451](#), 12-2-96. Code 2001 § 151.552.]

Penalty: See NMC [15.05.120](#).

[15.410.040](#) Setback and yard restrictions as to schools, churches, public buildings.

A. **Building** Setback. No [buildings](#) shall be erected, used or maintained for a school, church or public or semi-public [building](#) or [use](#), [institution](#) or similar [use](#) under the regulations of this [code](#) unless such [building](#) is removed at least 25 feet from every boundary line of any property included in any residential district.



1505 Westlake Ave N, N
Seattle, WA 98109

Phone:
www.crowncastle.com

B. Required [Yard](#). No required front or [interior yard](#) of the [lot](#) on which such [building](#) or [use](#) is located shall be used for play or parking purposes. [Ord. [2451](#), 12-2-96. Code 2001 § 151.553.]

Penalty: See NMC [15.05.120](#).

[15.410.050](#) Special setback requirements to planned rights-of-way.

A. [Yard](#) Requirements for Property Abutting Partial or Future [Street](#) Rights-of-Way.

1. Except as provided in subsection (A)(2) of this section, no [building](#) shall be erected on a [lot](#) which [abuts](#) a [street](#) having only a portion of its required width dedicated, unless the [yards](#) provided and maintained in connection with such [building](#) have a width and/or depth needed to complete the [street](#) width plus the width and/or depths of the [yards](#) required on the [lot](#) by this [code](#).

2. Where a [comprehensive plan](#) street design or a future [street](#) plan exists, the placement of [buildings](#) and the establishment of [yards](#) where required by this [code](#) shall relate to the future [street](#) boundaries as determined by said plans.

B. Planned [Street](#) Right-of-Way Widths. Planned [street](#) right-of-way widths are established as indicated in subsection (C) of this section for the various categories of [streets](#) shown in the transportation system plan.

C. A [lot](#) or [parcel](#) of land in any district adjoining a [street](#) for which the planned [right-of-way](#) width and alignment have been determined shall have a [building](#) setback line equal to the [yard](#) required in the district, plus a distance of:

1. Fifty feet from and parallel with the centerline of [expressways](#).

2. Thirty-five feet from and parallel with the centerline of major and [minor arterials](#).

3. Thirty feet from and parallel with the centerline of multifamily, commercial and industrial [streets](#) and single-family [collector](#) streets.

4. Thirty feet from and parallel with the centerline of single-family local [streets](#).

5. Twenty-five feet from and parallel with the centerline of single-family hillside, cul-de-sacs and local streets which will never be extended more than 2,400 feet in length and which will have a relatively even division of traffic to two or more exits.

Exceptions to the above five classifications are shown in the transportation system plan.

D. The centerline of planned [streets](#) shall be either the officially surveyed centerline or a centerline as on a precise plan. In the event of conflict between the two, the latter-described line shall prevail. In all other cases, a line midway between properties abutting the [right-of-way](#) shall be the centerline for the purposes of this [code](#). [Ord. [2763](#) § 1 (Exh. A § 13), 9-16-13; Ord. [2602](#), 9-20-04; Ord. [2451](#), 12-2-96. Code 2001 § 151.554.]

Penalty: See NMC [15.05.120](#).

[15.410.060](#) Vision clearance setback.

The following vision clearance standards shall apply in all zones (see Appendix A, Figure 9).

A. At the intersection of two [streets](#), including [private streets](#), a triangle formed by the intersection of the [curb lines](#), each leg of the vision clearance triangle shall be a minimum of 50 feet in length.

B. At the intersection of a [private drive](#) and a [street](#), a triangle formed by the intersection of the [curb lines](#), each leg of the vision clearance triangle shall be a minimum of 25 feet in length.

C. Vision clearance triangles shall be kept free of all visual obstructions from two and one-half feet to nine feet above the [curb line](#). Where curbs are absent, the edge of the asphalt or future curb location shall be used as a guide, whichever provides the greatest amount of vision clearance.

D. There is no vision clearance requirement within the commercial zoning district(s) located within the riverfront (RF) overlay subdistrict. [Ord. [2564](#), 4-[15](#)-02; Ord. [2507](#), 3-1-99; Ord. [2451](#), 12-2-96. Code 2001 § 151.555.]

Penalty: See NMC [15.05.120](#).

[15.410.070](#) Yard exceptions and permitted intrusions into required yard setbacks.

The following intrusions may project into required [yards](#) to the extent and under the conditions and limitations indicated:

A. Depressed Areas. In any district, open work fences, hedges, guard railings or other landscaping or architectural devices for safety protection around depressed ramps, stairs or retaining walls may be located in required [yards](#); provided, that such devices are not more than three and one-half feet in height.

B. [Accessory Buildings](#). In [front yards](#) on [through lots](#), where a [through lot](#) has a depth of not more than 140 feet, [accessory buildings](#) may be located in one of the required [front yards](#); provided, that every portion of such [accessory building](#) is not less than 10 feet from the nearest [street line](#).

C. Projecting [Building](#) Features. The following [building](#) features may project into the required [front yard](#) no more than five feet and into the required [interior yards](#) no more than two feet; provided, that such projections are no closer than three feet to any [interior lot](#) line:

1. Eaves, cornices, belt courses, sills, [awnings](#), buttresses or other similar features.
2. Chimneys and fireplaces, provided they do not exceed eight feet in width.
3. Porches, platforms or landings which do not extend above the level of the first floor of the [building](#).
4. Mechanical [structures](#) (heat pumps, air conditioners, emergency generators and pumps).

D. Fences and Walls.

1. In the residential district, a fence or wall shall be permitted to be placed at the property line or within a [yard](#) setback as follows:
 - a. Not to exceed six feet in height. Located or maintained within the required [interior yards](#). For purposes of fencing only, [lots](#) that are [corner lots](#) or [through lots](#) may select one of the [street](#) frontages as a [front yard](#) and all other [yards](#) shall be considered as [interior yards](#), allowing the placement of a six-foot fence on the property line. In no case may a fence extend into the clear vision zone as defined in NMC [15.410.060](#).

- b. Not to exceed four feet in height. Located or maintained within all other [front yards](#).

2. In any commercial, industrial, or mixed employment district, a fence or wall shall be permitted to be placed at the property line or within a [yard](#) setback as follows:



1505 Westlake Ave N, N
Seattle, WA 98109

Phone:
www.crowncastle.com

a. Not to exceed eight feet in height. Located or maintained in any [interior yard](#) except where the requirements of vision clearance apply. For purposes of fencing only, [lots](#) that are [corner lots](#) or [through lots](#) may select one of the [street](#) frontages as a [front yard](#) and all other [yards](#) shall be considered as [interior yards](#), allowing the placement of an eight-foot fence on the property line.

b. Not to exceed four feet in height. Located or maintained within all other [front yards](#).

3. If chain link (wire-woven) fences are used, they are manufactured of corrosion-proof materials of at least 11-1/2 gauge.

4. The requirements of vision clearance shall apply to the placement of fences.

E. Parking and [Service Drives](#) (Also Refer to NMC [15.440.010](#) through [15.440.080](#)).

1. In any district, [service drives](#) or [accessways](#) providing ingress and egress shall be permitted, together with any appropriate traffic control devices in any required [yard](#).

2. In any residential district, public or [private parking areas](#) and [parking spaces](#) shall not be permitted in any required [yard](#) except as provided herein:

a. Required [parking spaces](#) shall be permitted on [service drives](#) in the required [front yard](#) in conjunction with any single-family or [duplex dwelling](#) on a single [lot](#).

b. [Recreational vehicles](#), boat [trailers](#), camperettes and all other vehicles not in daily [use](#) are restricted to parking in the [front yard](#) setback for not more than 48 hours; and [recreational vehicles](#), boat [trailers](#), camperettes and all other vehicles not in daily [use](#) are permitted to be located in the required [interior yards](#).

c. Public or [private parking areas](#), [parking spaces](#) or any [building](#) or portion of any [building](#) intended for parking which have been identified as a [use](#) permitted in any residential district shall be permitted in any [interior yard](#) that [abuts](#) an alley, provided said parking areas, [structures](#) or spaces shall comply with NMC [15.440.070](#). Parking tables and diagrams (Diagrams 1 through 3).

d. Public or [private parking areas](#), [service drives](#) or [parking spaces](#) which have been identified as a [use](#) permitted in any residential district shall be permitted in [interior yards](#); provided, that said parking areas, [service drives](#) or [parking spaces](#) shall comply with other requirements of this [code](#).

3. In any commercial or industrial district, except C-1, C-4, M-1, and M-E, public or [private parking areas](#) or [parking spaces](#) shall be permitted in any required [yard](#) (see NMC [15.410.030](#)). Parking requirements in the C-4 district and the M-E district within the riverfront overlay subdistrict are described in NMC [15.352.040](#)(H).

4. In the I district, public or [private parking areas](#) or [parking spaces](#) may be no closer to a front property line than 20 feet, and no closer to an interior property line than five feet.

F. Public Telephone Booths and Public Transit Shelters. Public telephone booths and public transit shelters shall be permitted; provided, that vision clearance is maintained for vehicle requirements for vision clearance.

G. [Hangars](#) within the AR [airport](#) residential district may be constructed with no [yard](#) setbacks to property lines adjacent to other properties within the [airport](#) residential or [airport](#) industrial districts. [Ord. [2880](#) § 2 (Exh. B § 40), 6-7-21; Ord. [2868](#) § 1 (Exh. A), 11-16-20; Ord. [2647](#), 6-5-06; Ord. [2619](#), 5-16-05; Ord. [2564](#), 4-~~15~~-02; Ord. [2561](#), 4-1-02; Ord. [2451](#), 12-2-96. Code 2001 § 151.556.]



1505 Westlake Ave N, N
Seattle, WA 98109

Phone:
www.crowncastle.com

Applicant's Response: None of the code sections of 15.410 are applicable to this project since it is an existing facility with no ground expansion.



1505 Westlake Ave N, N
Seattle, WA 98109

Phone:
www.crowncastle.com

Criteria 3: Landscaping Requirements. The proposal shall comply with NMC 15.420.010 dealing with landscape requirements and landscape screening.

Applicant's Response: Existing Wireless Communications Facility. No change proposed to landscaping.



Phone:
www.crowncastle.com

Criteria 4: Signs. Signs shall comply with NMC 15.435.010 et seq. dealing with signs.

Applicant's Response: Existing Wireless Communications Facility. No change to signs proposed.



1505 Westlake Ave N, N
Seattle, WA 98109

Phone:
www.crowncastle.com

Criteria 5: Zoning District Compliance. The proposed use shall be listed as a permitted or conditionally permitted use in the zoning district in which it is located as found in NMC 15.305.010 through 15.336.020.

Applicant's Response: Existing Wireless Communications Facility. Tower originally permitted under CUP-06-002.



DISH Wireless L.L.C. SITE ID:

PRPDX00328B

DISH Wireless L.L.C. SITE ADDRESS:

**2400 DOUGLAS AVENUE
NEWBERG, OR 97132**

SCOPE OF WORK

THIS IS NOT AN ALL INCLUSIVE LIST. CONTRACTOR SHALL UTILIZE SPECIFIED EQUIPMENT PART OR ENGINEER APPROVED EQUIVALENT. CONTRACTOR SHALL VERIFY ALL NEEDED EQUIPMENT TO PROVIDE A FUNCTIONAL SITE. THE PROJECT GENERALLY CONSISTS OF THE FOLLOWING:

- TOWER SCOPE OF WORK:**
- INSTALL (3) PROPOSED PANEL ANTENNAS (1 PER SECTOR)
 - INSTALL (1) PROPOSED PLATFORM ANTENNA MOUNT
 - INSTALL PROPOSED JUMPERS
 - INSTALL (6) PROPOSED RRU's (2 PER SECTOR)
 - INSTALL (1) PROPOSED OVER VOLTAGE PROTECTION DEVICE (OVP)
 - INSTALL (1) PROPOSED HYBRID CABLE
 - INSTALL (1) PROPOSED 10' TOWER EXTENSION

- GROUND SCOPE OF WORK:**
- INSTALL (1) PROPOSED CONCRETE PAD
 - INSTALL (1) PROPOSED ICE BRIDGE
 - INSTALL (1) PROPOSED PPC CABINET
 - INSTALL (1) PROPOSED EQUIPMENT CABINET
 - INSTALL (1) PROPOSED POWER CONDUIT
 - INSTALL (1) PROPOSED TELCO CONDUIT
 - INSTALL (1) PROPOSED TELCO-FIBER BOX
 - INSTALL (1) PROPOSED GPS UNIT
 - INSTALL (1) PROPOSED SAFETY SWITCH (IF REQUIRED)
 - INSTALL (1) PROPOSED FIBER NID (IF REQUIRED)
 - INSTALL (1) PROPOSED METER SOCKET

SITE INFORMATION

PROPERTY OWNER: NEWBERG SCHOOL DIS. 29J 1
 ADDRESS: 714 E 6TH ST
 ATTN BUSINESS OFFICE
 NEWBERG, OR 97132

TOWER TYPE: MONOPOLE

TOWER CO SITE ID: 856521

TOWER APP NUMBER: 576279

COUNTY: YAMHILL

LATITUDE (NAD 83): 45° 18' 39.29" N
 49.327581X N

LONGITUDE (NAD 83): 122° 57' 9.79" W
 -122.952719

ZONING JURISDICTION: CITY OF NEWBERG, OR

ZONING DISTRICT: TBD

PARCEL NUMBER: 33895

OCCUPANCY GROUP: U

CONSTRUCTION TYPE: V-B

POWER COMPANY: PORTLAND GENERAL ELECTRIC

TELEPHONE COMPANY: VERIZON WIRELESS

PROJECT DIRECTORY

APPLICANT: DISH Wireless L.L.C.
 5701 SOUTH SANTA FE DRIVE
 LITTLETON, CO 80120

TOWER OWNER: CROWN CASTLE
 2000 CORPORATE DRIVE
 CANONSBURG, PA 15317
 (877) 486-9377

SITE DESIGNER: PM&A
 1000 HOLCOMB WOODS PKWY
 SUITE 210
 ROSWELL, GA 30076
 (678) 280-2325

SITE ACQUISITION: ANDREW MAGOON
 (602) 845-1793

FIELD CONST. MANAGER: TONY FILIPPELLO
 (360) 430-4084

RF MANAGER: MIKE ZIEHNERT
 (503) 754-9725

OREGON 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 THESE CODES:

CODE TYPE	CODE
BUILDING	2019 OSSC/2018 IBC
MECHANICAL	2019 OMSC/2018 IMC
ELECTRICAL	2017 OESC/2017 NEC

SITE PHOTO



DIRECTIONS

DIRECTIONS FROM PORTLAND INTERNATIONAL AIRPORT:
 GET ON I-205 S FROM NE AIRPORT WAY 6 MIN (2.7 MI) TAKE I-84 W/US-30 W, I-5 S AND OR-99W
 S/PACIFIC HWY W TO N SPRINGBROOK RD IN NEWBERG 43 MIN (30.6 MI) TAKE DEBORAH RD TO E DOUGLAS
 AVE 3 MIN (0.8 MI) 2400 DOUGLAS AVE NEWBERG, OR 97132

VICINITY MAP



SHEET INDEX

SHEET NO.	SHEET TITLE
T-1	TITLE SHEET
A-1	PARCEL SITE PLAN
A-1.1	COMPOUND, OVERALL AND ENLARGED SITE PLAN
A-2	ELEVATION, ANTENNA LAYOUT AND SCHEDULE
A-3	CONCRETE PAD AND H-FRAME DETAILS
A-4	EQUIPMENT DETAILS
A-5	EQUIPMENT DETAILS
A-6	EQUIPMENT DETAILS
E-1	ELECTRICAL/FIBER ROUTE PLAN AND NOTES
E-2	ELECTRICAL DETAILS
E-3	ELECTRICAL ONE-LINE, FAULT CALCS & PANEL SCHEDULE
G-1	GROUNDING PLANS AND NOTES
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS
RF-1	RF CABLE COLOR CODE
GN-1	LEGEND AND ABBREVIATIONS
GN-2	GENERAL NOTES
GN-3	GENERAL NOTES
GN-4	GENERAL NOTES

UNDERGROUND SERVICE ALERT - OREGON 811
 UTILITY NOTIFICATION CENTER OF OREGON
 (800) 332-2344
 WWW.DIGSAFELYOREGON.COM

CALL 2 WORKING DAYS UTILITY NOTIFICATION PRIOR TO CONSTRUCTION

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE. NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED

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



5701 SOUTH SANTA FE DRIVE
 LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
 SUITE 210
 ROSWELL, GA 30076
 678-280-2325



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

DRAWN BY: LTH	CHECKED BY: DM	APPROVED BY: MSB
RFDS REV #: ---		

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
 21CCD12N-0051

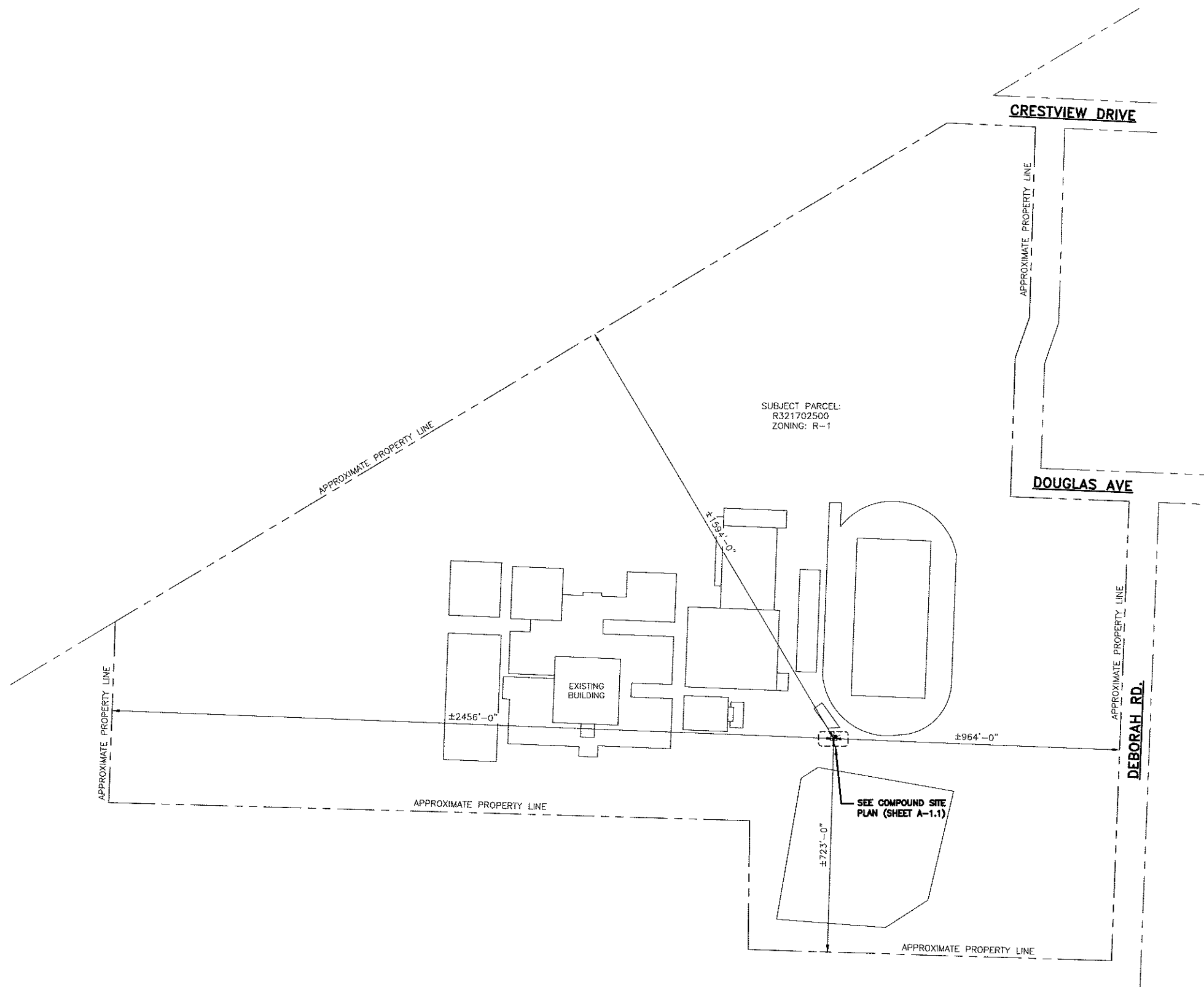
DISH Wireless L.L.C.
 PROJECT INFORMATION
 PRPDX00328B
 2400 DOUGLAS AVE.
 NEWBERG, OR 97132

SHEET TITLE
 TITLE SHEET

SHEET NUMBER
T-1

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.
3. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



EXPIRES: 6/30/2022

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

DRAWN BY: LTH CHECKED BY: DM APPROVED BY: MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/19/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION
PRPDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

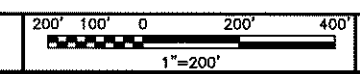
SHEET TITLE
PARCEL
SITE PLAN

SHEET NUMBER

A-1



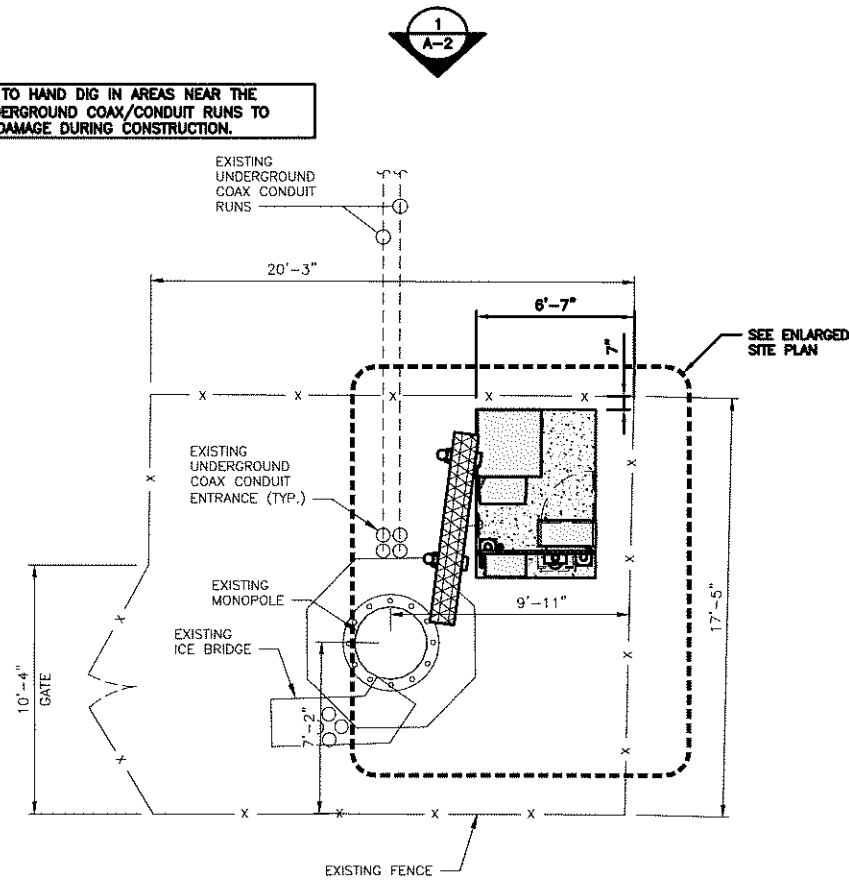
PARCEL SITE PLAN



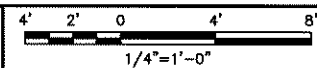
NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.

CONTRACTOR TO HAND DIG IN AREAS NEAR THE EXISTING UNDERGROUND COAX/CONDUIT RUNS TO ENSURE NO DAMAGE DURING CONSTRUCTION.



PROPOSED DISH Wireless L.L.C. HANDHOLE (CONTRACTOR TO FIELD DETERMINE LOCATION)

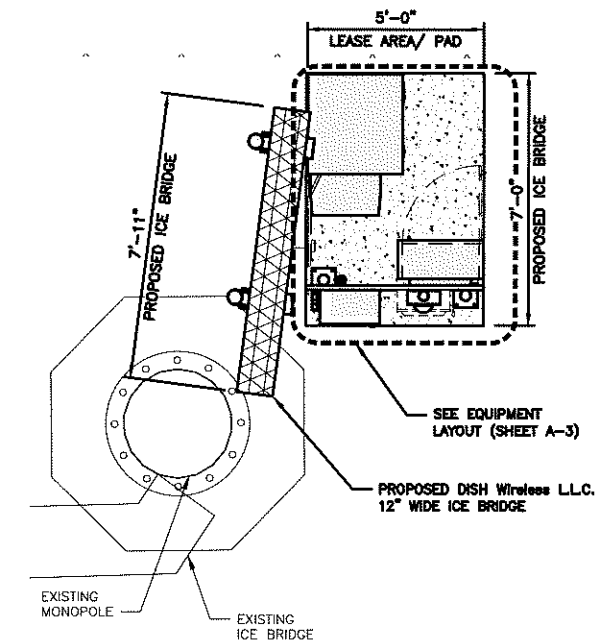


COMPOUND SITE PLAN

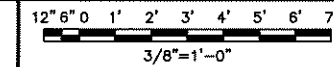
1

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.
3. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.



ENLARGED SITE PLAN



2



OVERALL SITE PLAN

NO SCALE

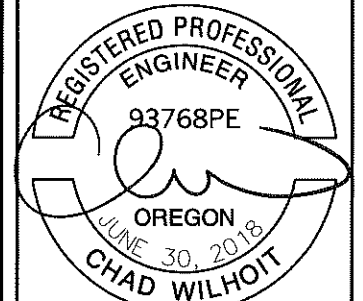
3

dish wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

PM&A

1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



12/20/2021
EXPIRES: 6/30/2022

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

DRAWN BY: CHECKED BY: APPROVED BY:

LTH DM MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/18/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION
PRDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
COMPOUND, OVERALL AND ENLARGED SITE PLAN

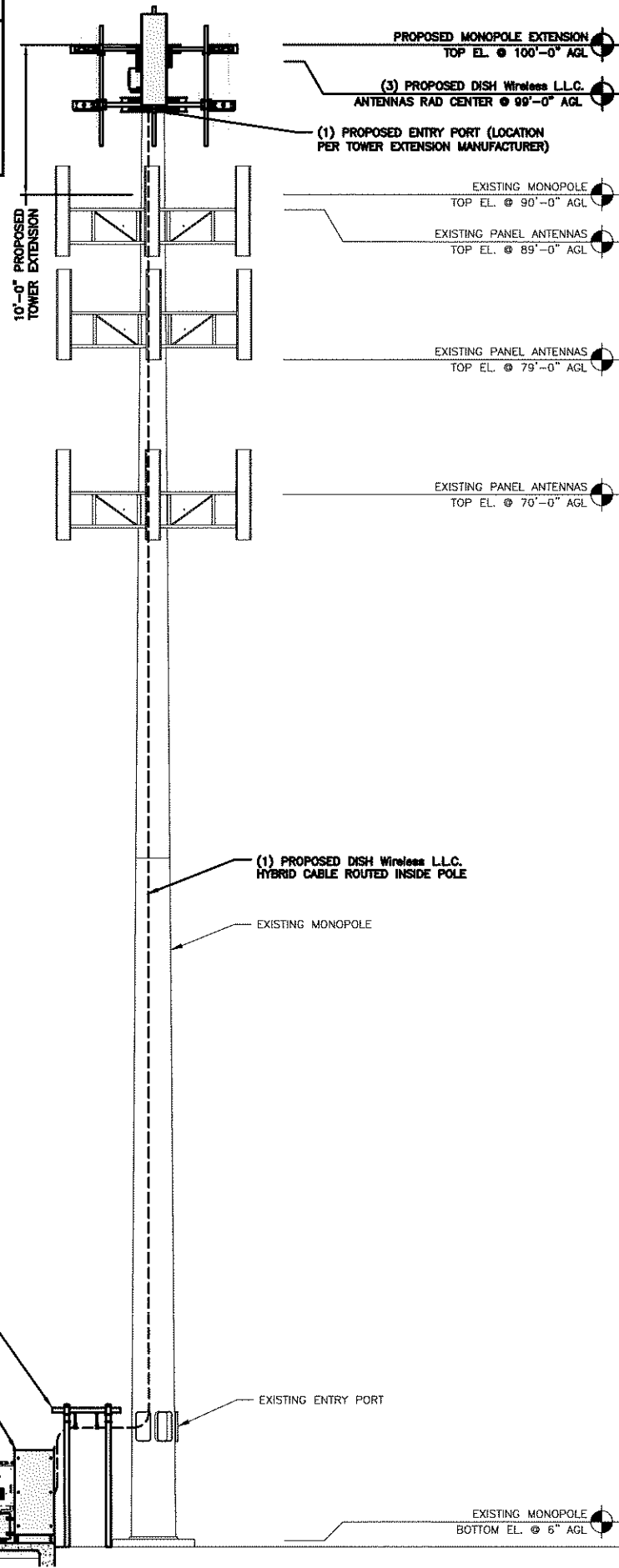
SHEET NUMBER

A-1.1

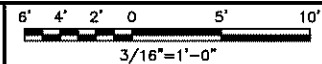


NOTES

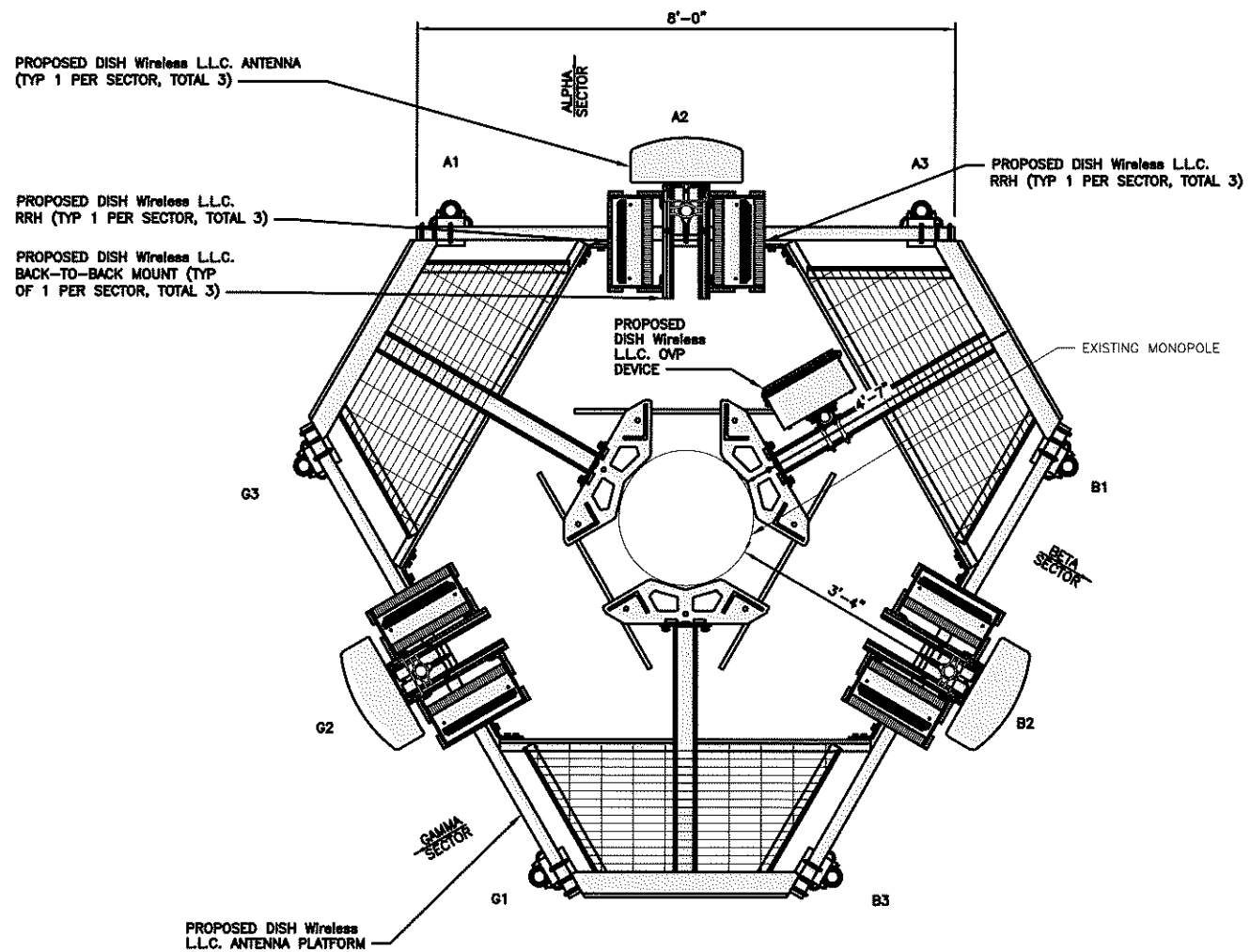
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNA AND MW DISH SPECIFICATIONS REFER TO ANTENNA SCHEDULE AND TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS
3. EXISTING EQUIPMENT AND FENCE OMITTED FOR CLARITY.



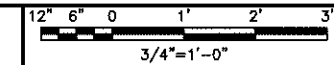
PROPOSED NORTH ELEVATION



1



ANTENNA LAYOUT



2



SECTOR POS.	ANTENNA						TRANSMISSION CABLE FEED LINE TYPE AND LENGTH	RRH			OVP MANUFACTURER MODEL
	EXISTING OR PROPOSED	MANUFACTURER - MODEL NUMBER	TECH	AZIMUTH	MECH TILT	RAD CENTER		MANUFACTURER - MODEL NUMBER	TECH	POS.	
A1	---	---	---	---	---	---	(1) HIGH-CAPACITY HYBRID CABLE (150' LONG)	FUJITSU TA08025-B804	5G	A2	RAYCAP RDIDC-8181-PF-48
A2	PROPOSED	JMA - MX08FRO885-21	5G	0°	-4°	99°-0°		FUJITSU TA08025-B805	5G	A2	
A3	---	---	---	---	---	---		---	---	---	
B1	---	---	---	---	---	---	SHARED W/ALPHA	FUJITSU TA08025-B804	5G	B2	SHARED W/ALPHA
B2	PROPOSED	JMA - MX08FRO885-21	5G	120°	-4°	99°-0°		FUJITSU TA08025-B805	5G	B2	
B3	---	---	---	---	---	---		---	---	---	
C1	---	---	---	---	---	---	SHARED W/ALPHA	FUJITSU TA08025-B804	5G	C2	SHARED W/ALPHA
C2	PROPOSED	JMA - MX08FRO885-21	5G	240°	0°	99°-0°		FUJITSU TA08025-B805	5G	C2	
C3	---	---	---	---	---	---		---	---	---	

NOTES

1. CONTRACTOR TO REFER TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS.
2. ANTENNA AND RRH MODELS MAY CHANGE DUE TO EQUIPMENT AVAILABILITY. ALL EQUIPMENT CHANGES MUST BE APPROVED AND REMAIN IN COMPLIANCE WITH THE PROPOSED DESIGN AND STRUCTURAL ANALYSES.

ANTENNA SCHEDULE

NO SCALE

3



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



EXPIRES: 6/30/2022

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

DRAWN BY: LTH CHECKED BY: DM APPROVED BY: MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

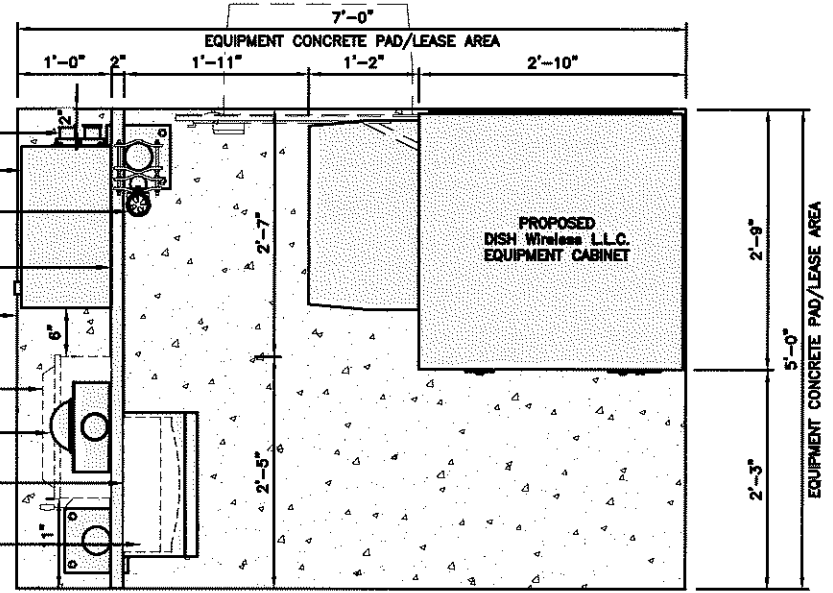
DISH Wireless L.L.C.
PROJECT INFORMATION
PRPDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
ELEVATION, ANTENNA
LAYOUT AND SCHEDULE

SHEET NUMBER

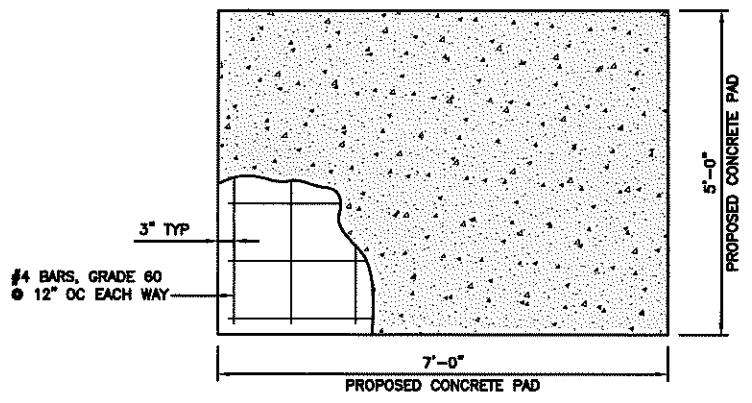
A-2

- PROPOSED DISH Wireless L.L.C. GENERATOR PLUG
- PROPOSED DISH Wireless L.L.C. POWER PROTECTIVE CABINET
- PROPOSED DISH Wireless L.L.C. GPS UNIT
- PROPOSED DISH Wireless L.L.C. H-FRAME
- PROPOSED DISH Wireless L.L.C. EQUIPMENT PAD
- PROPOSED DISH Wireless L.L.C. SAFETY SWITCH. SPACE RESERVED FOR ADDITIONAL DISCONNECT IF REQUIRED.
- PROPOSED DISH Wireless L.L.C. 200AMP METER SOCKET
- PROPOSED DISH Wireless L.L.C. TELCO FIBER ENCLOSURE
- PROPOSED DISH Wireless L.L.C. FIBER NID, IF REQUIRED



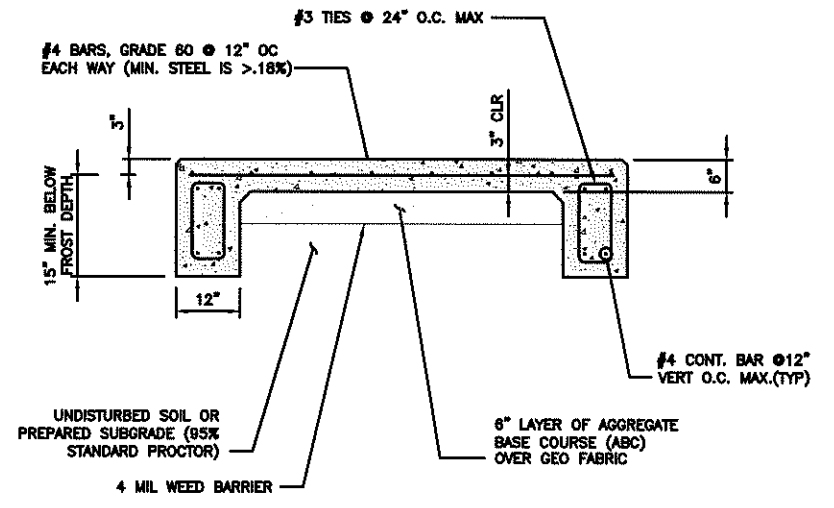
EQUIPMENT PLAN

CONTRACTOR TO PROVIDE AND INSTALL BREAKOUT FOR POWER AND FIBER CONDUITS. COORDINATE SIZE AND LOCATION WITH DISH CM.



TYPICAL CONCRETE PAD DETAIL

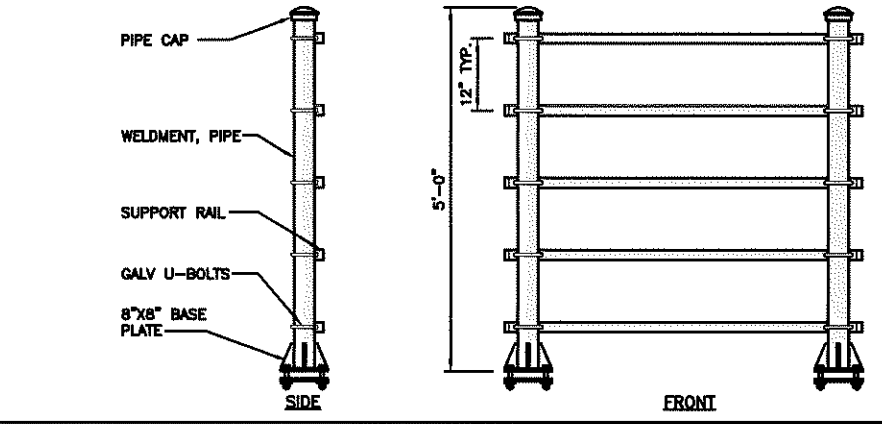
NO SCALE 2



TYPICAL CONCRETE SECTION DETAIL

NO SCALE 3

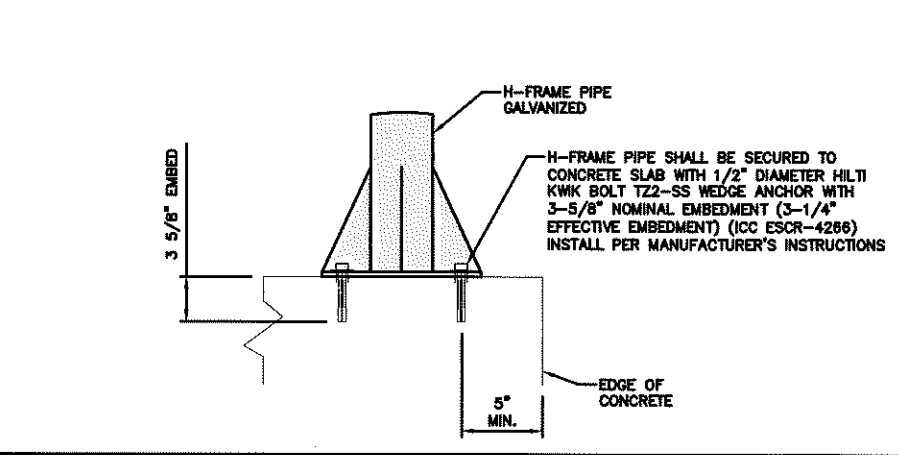
KENWOOD T1701KT5-5S H-FRAME	
UNISTRUT/SUPPORT RAIL	5
WEIGHT/ VOLUME	173.6 LBS



H-FRAME DETAIL

NO SCALE 4

H-FRAME	
UNISTRUT/SUPPORT RAIL	6

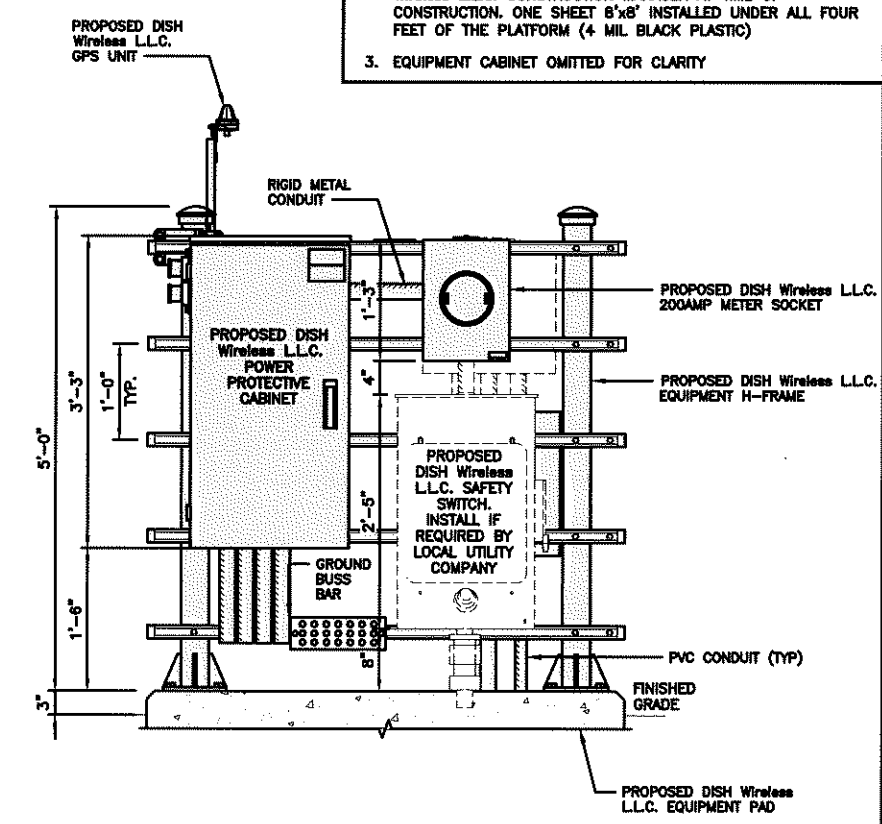


H-FRAME CONCRETE SLAB INSTALLATION DETAIL

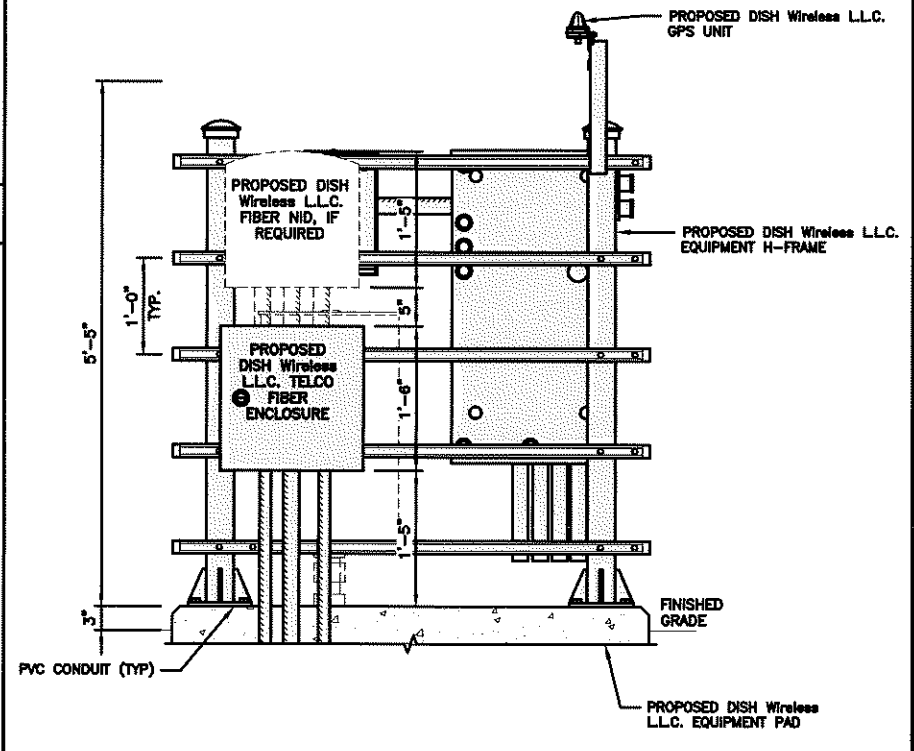
NO SCALE 5

NOTES

- CONTRACTOR TO BURY PLATFORM FEET WITH A MINIMUM OF 2" OF FILL PER EXISTING SITE SURFACE
- WEED BARRIER FABRIC TO BE ADDED AT DISCRETION OF DISH Wireless L.L.C. CONSTRUCTION MANAGER AT TIME OF CONSTRUCTION. ONE SHEET 8'x8' INSTALLED UNDER ALL FOUR FEET OF THE PLATFORM (4 MIL BLACK PLASTIC)
- EQUIPMENT CABINET OMITTED FOR CLARITY



FRONT ELEVATION



BACK ELEVATION

H-FRAME EQUIPMENT ELEVATION

NO SCALE 6



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



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

DRAWN BY:	CHECKED BY:	APPROVED BY:
LTH	DM	MSB
RFDS REV #:		

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

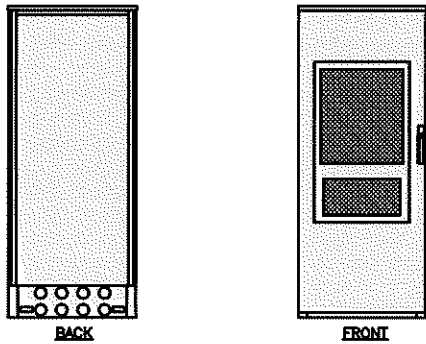
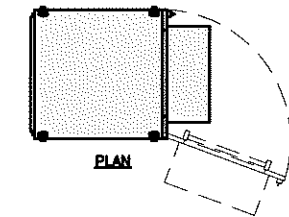
DISH Wireless L.L.C. PROJECT INFORMATION
PRPDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
CONCRETE PAD AND H-FRAME DETAILS

SHEET NUMBER

A-3

ENERSYS HEX CABINET 200005996	
DIMENSIONS (HxWxD):	73"x30"x32"
WEIGHT EMPTY:	376 lbs
HEATER	800W
POWER SYSTEM	-48V ALPHA/800A

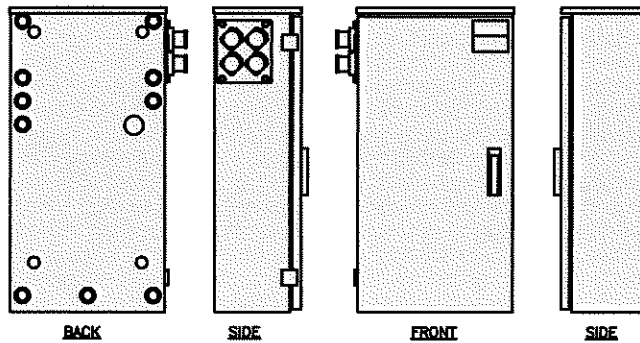
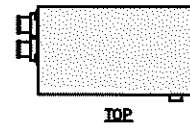


CABINET DETAIL

NO SCALE

1

RAYCAP PPC RDIAC-2465-P-240-MTS	
ENCLOSURE DIMENSIONS (HxWxD):	39"x22.855"x12.593
WEIGHT:	80 lbs
OPERATING AC VOLTAGE	240/120 1 PHASE 3W+G

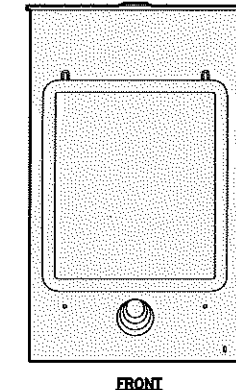
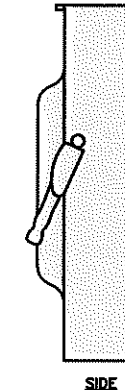
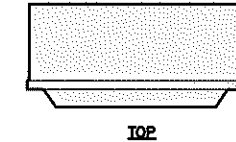


POWER PROTECTION CABINET (PPC) DETAIL

NO SCALE

2

SQUARE D SAFETY SWITCHES D224NRB	
ENCLOSURE DIM (HxWxD)	29.25"x19.00"x8.50"
ENCLOSURE TYPE	NEMA 3R RAINPROOF
UL LISTED	FILE E-2875

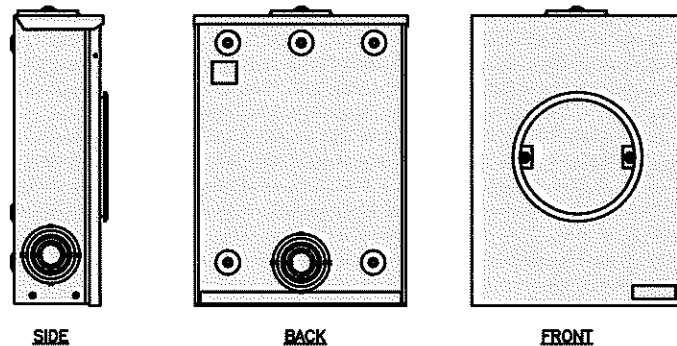
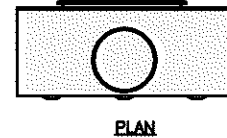


SAFETY SWITCH DETAIL

NO SCALE

3

EATON METER SOCKET UNRRS213BEUSE	
METER SOCKET TYPE	RING
ENCLOSURE DIM (HxWxD)	16"x12"x6"
MAIN AMPERE RATING	200A
WEIGHT	18 LBS

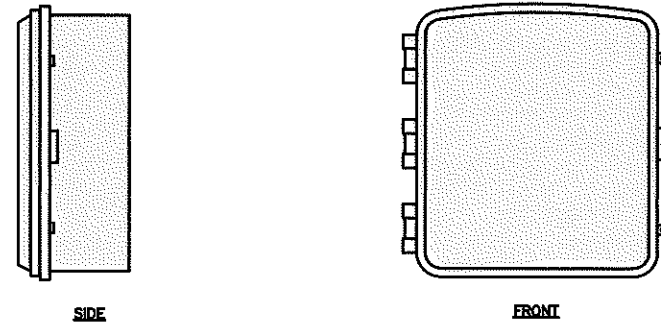
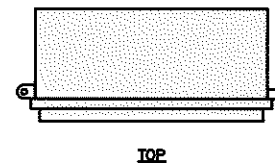


METER SOCKET DETAIL

NO SCALE

4

PROPOSED FIBER NID ENCLOSURE	
DIMENSIONS (HxWxD)	17"x16.8"x7"
WEIGHT	28.6 lbs

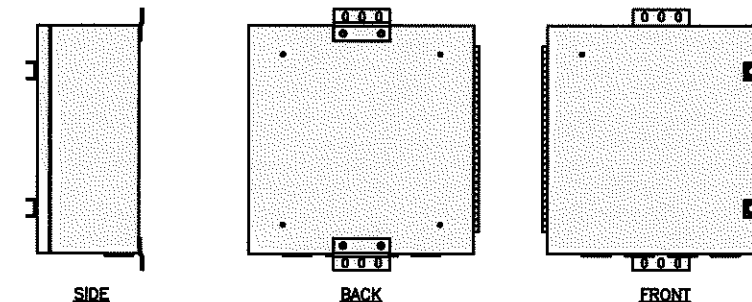
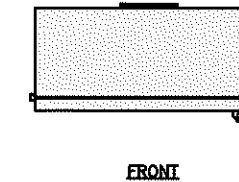


FIBER NID ENCLOSURE DETAIL

NO SCALE

5

CHARLES CFIT-PF2020DSH1 FIBER TELCO ENCLOSURE	
ENCLOSURE DIMS (HxWxD)	20"x20"x9"
ENCLOSURE WEIGHT	20 lbs
MOUNTING	WALL
COMPLIANCE	TYPE 4

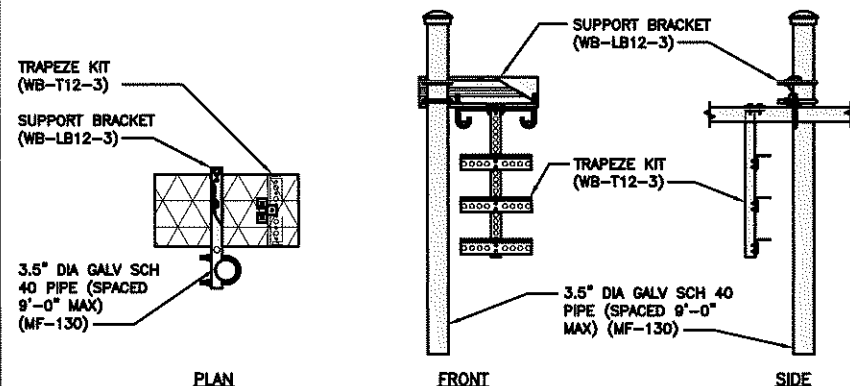


FIBER TELCO ENCLOSURE DETAIL

NO SCALE

6

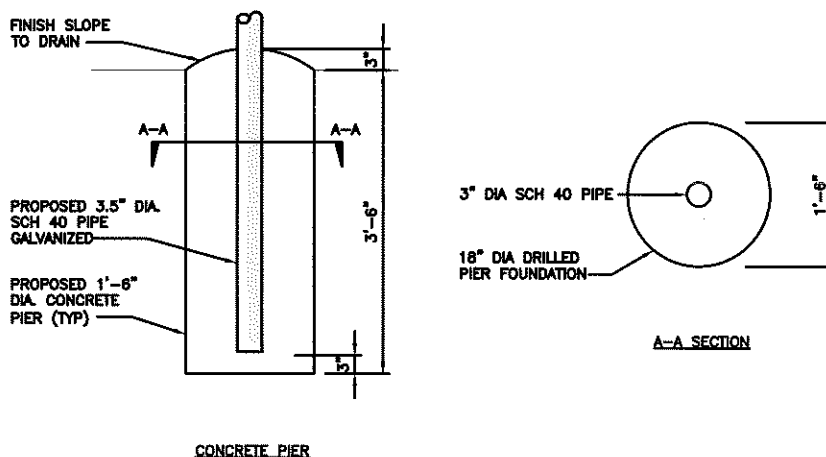
COMMSCOPE WB-K110-B WAVEGUIDE BRIDGE KIT		INCLUDED PRODUCTS: WB-T12-3 TRAPEZE KIT, 3 RUNGS WB-LB12-3 SUPPORT BRACKET MF-130 DIRECT BURIAL PIPE COLUMN, 13'-4"
DIMENSIONS (HxL)	180"x10'	
WEIGHT/ VOLUME	325.0 LBS	
CABLE RUN (QTY)	12	



ICE BRIDGE DETAIL

NO SCALE

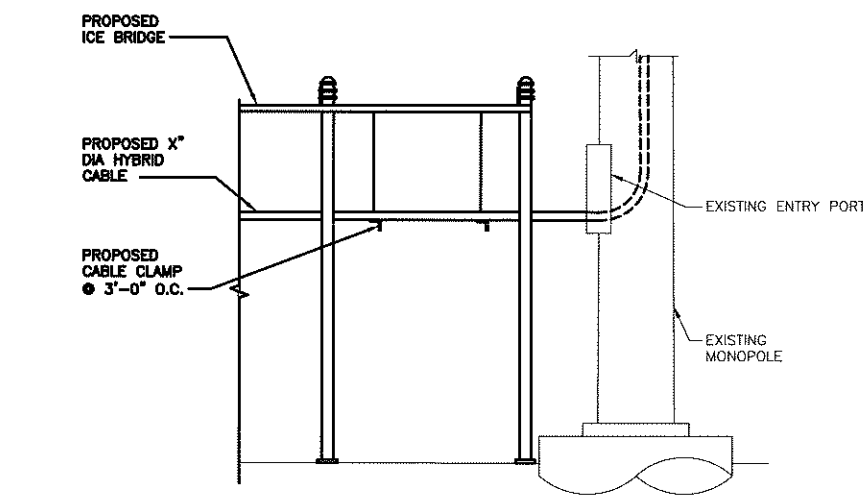
7



TYPICAL ICE BRIDGE CONCRETE PIER DETAIL

NO SCALE

8



HYBRID CABLE RUN

NO SCALE

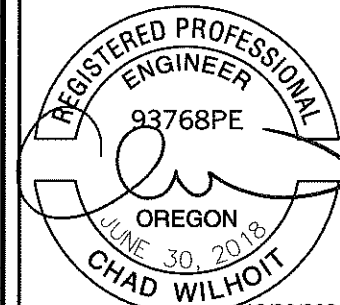
9



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



12/20/2021
EXPIRES: 6/30/2022

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

DRAWN BY:	CHECKED BY:	APPROVED BY:
LTH	DM	MSB

RFDS REV #:

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/18/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

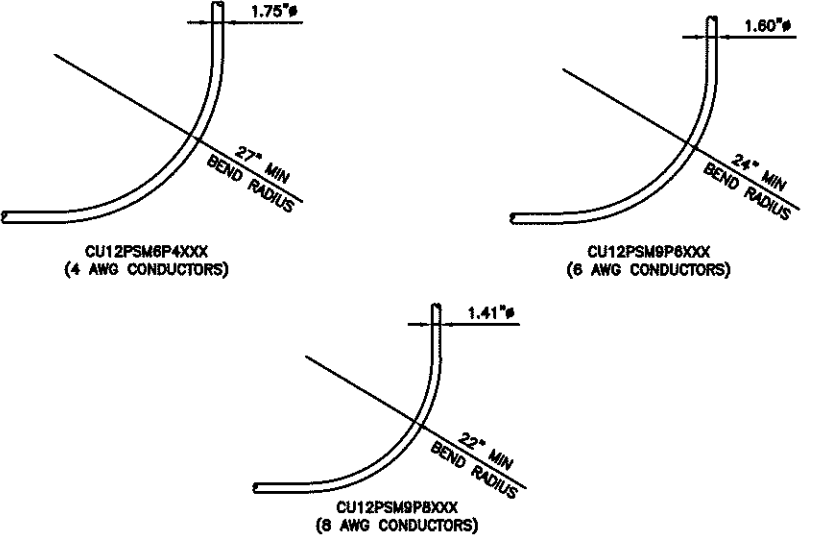
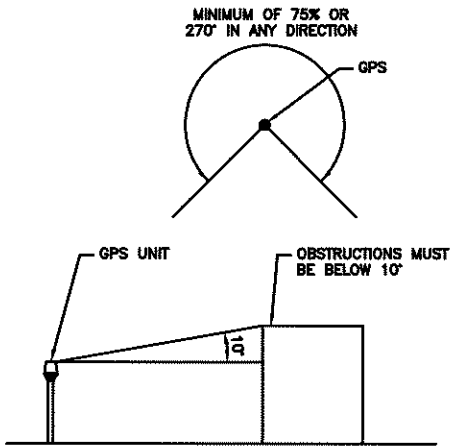
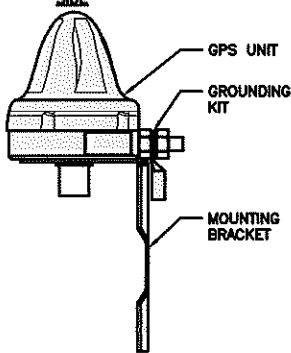
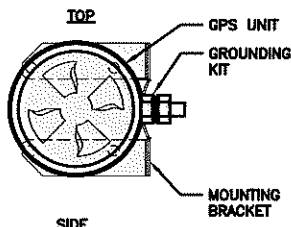
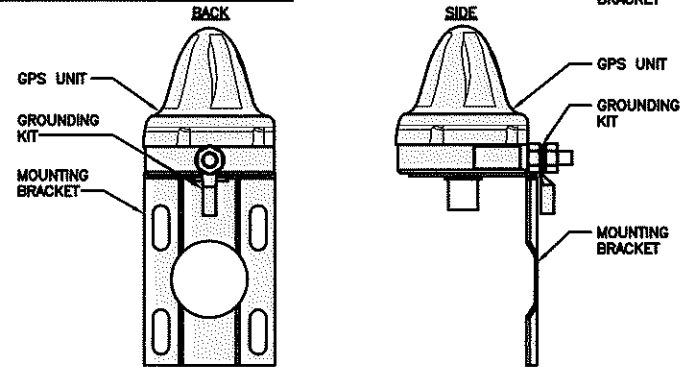
DISH Wireless L.L.C.
PROJECT INFORMATION
PRPDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER

A-4

ROSENBERGER GPSGLONASS-36-N-S	
DIMENSION (DIA x H)	69mm x 98.5mm
WEIGHT (WITH ACCESSORIES)	515.74g
CONNECTOR	N-FEMALE
FREQUENCY RANGE	1559 MHz ~ 1810.5MHz

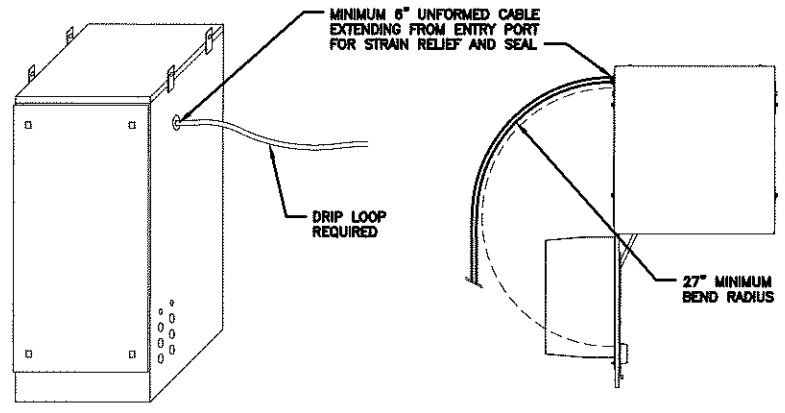
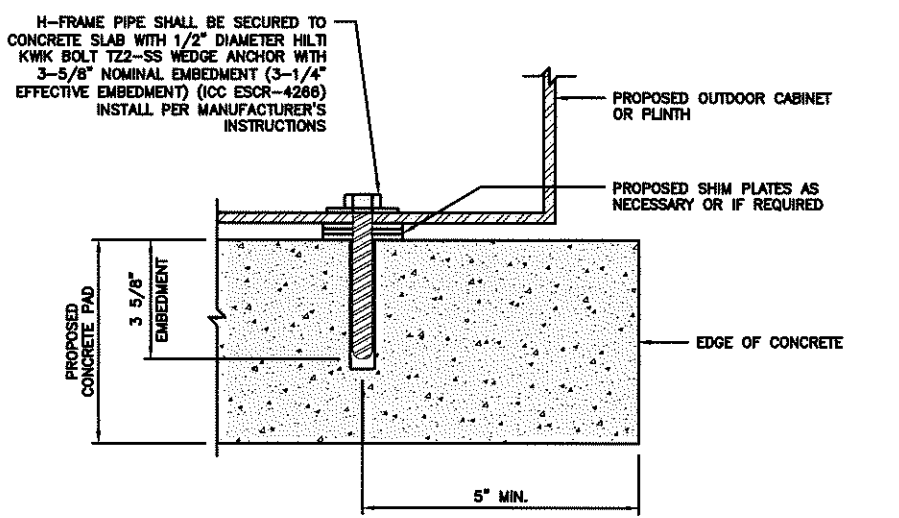
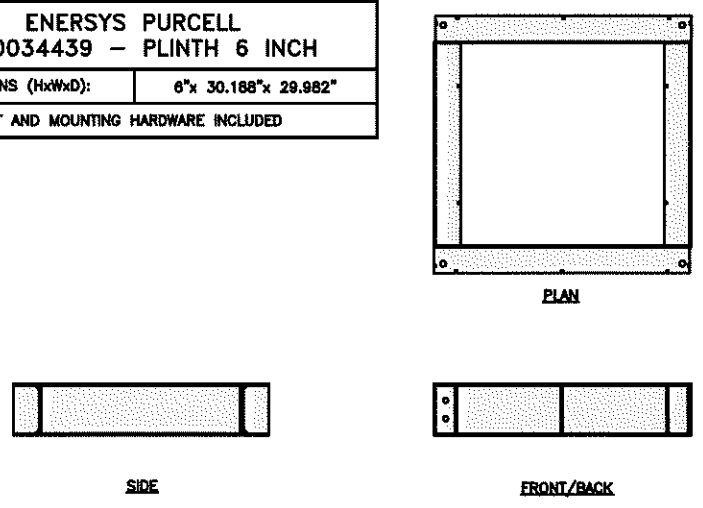


GPS ANTENNA DETAIL NO SCALE 1

GPS MINIMUM SKY VIEW REQUIREMENTS NO SCALE 2

CABLES UNLIMITED HYBRID CABLE MINIMUM BEND RADIUSES NO SCALE 3

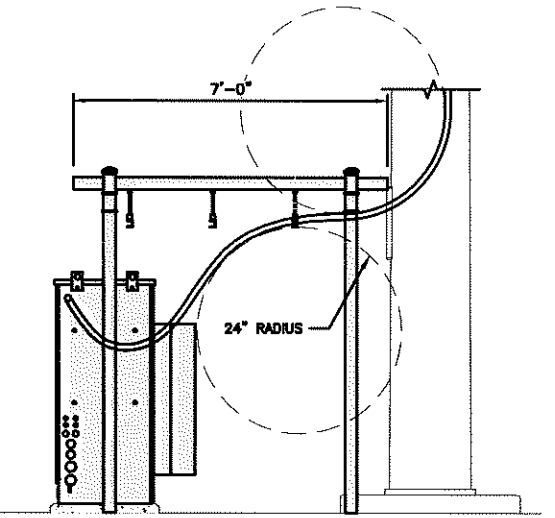
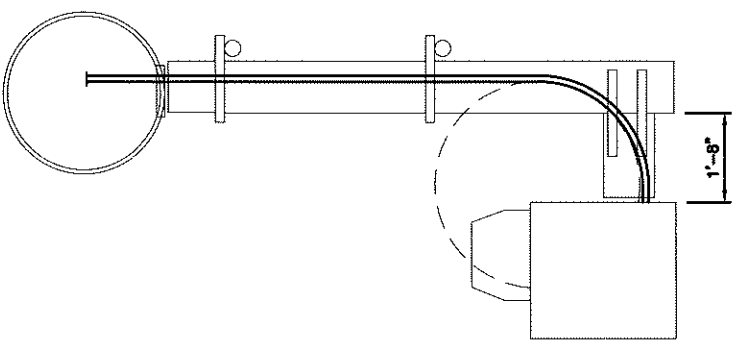
ENERSYS PURCELL 1000034439 - PLINTH 6 INCH	
DIMENSIONS (HxWxD)	6" x 30.188" x 29.982"
NOTE: GASKET AND MOUNTING HARDWARE INCLUDED	



PLINTH DETAIL NO SCALE 4

TYPICAL OUTDOOR EQUIPMENT TO CONCRETE SLAB ANCHORAGE NO SCALE 5

DRIP LOOP DETAIL NO SCALE 6



CABLE BEND DETAIL NO SCALE 7

CABLE BEND DETAIL NO SCALE 8

NOT USED NO SCALE 9

dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

PM&A

1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



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

DRAWN BY:	CHECKED BY:	APPROVED BY:
LTH	DM	MSB
RFDS REV #:	---	

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

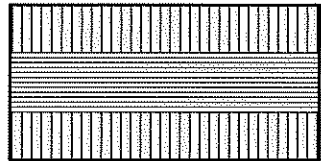
A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION
PRDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

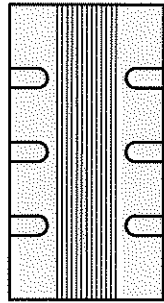
SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-5

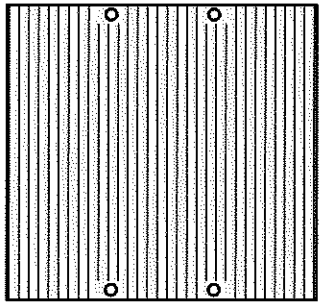
FUJITSU TA08025-B604 RRH	
DIMENSIONS (HxWxD) (KG/IN)	380x400x200/14.9"x15.7"x7.8"
WEIGHT(KG,LB)/ VOLUME	29kg,83.9lb/ 30L
POWER SUPPLY	DC-58V-38V



PLAN

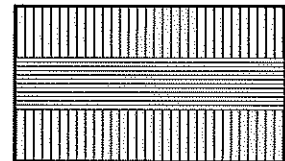


SIDE

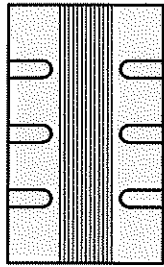


FRONT

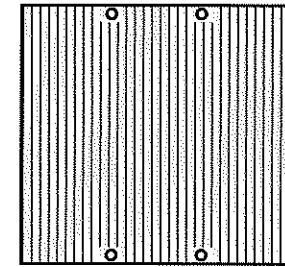
FUJITSU TA08025-B605 RRH	
DIMENSIONS (HxWxD) (KG/IN)	380x400x230/14.9"x15.7"x9.0"
WEIGHT(KG,LB)/ VOLUME	34kg,74.9lb/ 35L
POWER SUPPLY	DC-58V-38V



PLAN



SIDE



FRONT

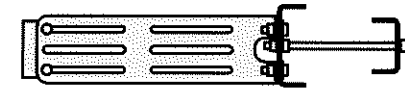
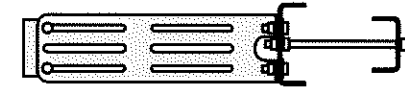
COMMSCOPE RR-FA2 LARGE STABILIZER	
DIMENSIONS (HxWxD)	16.4"x8.5"x18"
WEIGHT	39.2 lbs

DESIGN NOTES:
MOUNT WILL FIT LEGS UP TO:
- 5.6" ROUND
- 6.0" 90° ANGLE
- 4.5" 90° ANGLE



PLAN

NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT



SIDE

REMOTE RADIO HEAD DETAIL

NO SCALE

1

REMOTE RADIO HEAD DETAIL

NO SCALE

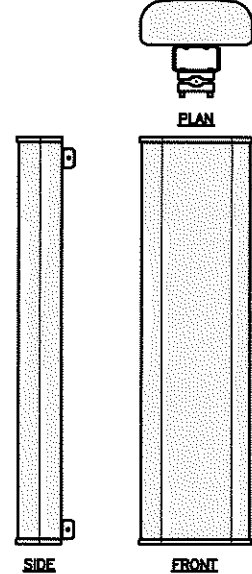
2

RRH MOUNT DETAIL

NO SCALE

3

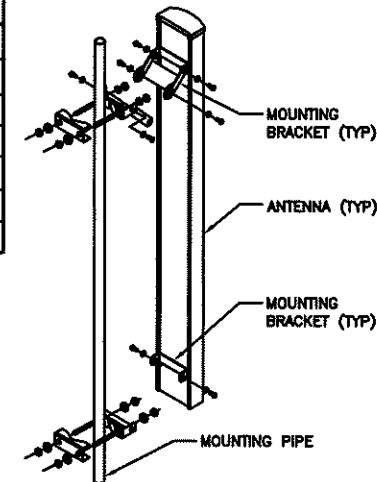
JMA MX08FRO665-21	
DIMENSIONS (HxWxD)	72"x20.0"x8.0"
RF PORTS, CONNECTOR TYPE	8 x 4.3-10 FEMALE
WEIGHT	64.5 lbs
WEIGHT WITH BRACKETS	82.5 lbs



SIDE

FRONT

M04 MOUNTING BRACKET HPA-33R-BUU-H4-K	
WIDTH	5" (135mm)
DEPTH	2" (51mm)
HEIGHT	6" (213mm)
TOTAL WEIGHT (WITH BRACKETS)	1.5 LBS (15.50 Kg)
HOUSING MATERIAL	ASA/ABS/ALUMINUM
RADOME COLOR	LIGHT GRAY
CONNECTOR	1X8-PIN DAISY CHAIN



MOUNTING BRACKET (TYP)

ANTENNA (TYP)

MOUNTING BRACKET (TYP)

MOUNTING PIPE

NOT USED

NO SCALE

4

ANTENNA DETAIL

NO SCALE

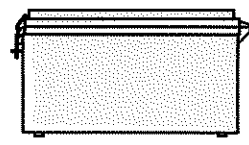
5

ANTENNA MOUNTING DETAIL

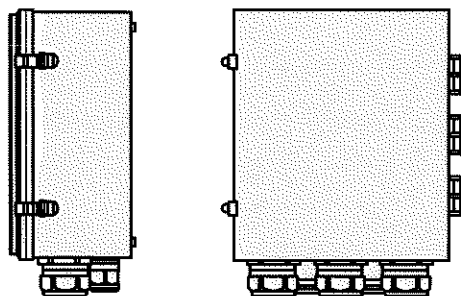
NO SCALE

6

RAYCAP RDIDC-9181-PF-48 DC SURGE PROTECTION (OVP)	
DIMENSIONS (HxWxD)	18.98"x14.39"x8.15"
WEIGHT	21.82 LBS

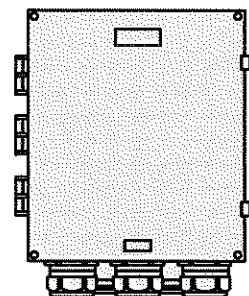


PLAN



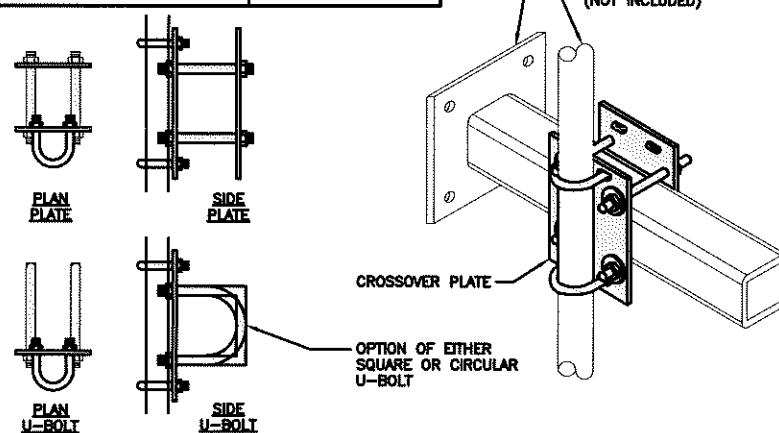
SIDE

BACK



FRONT

COMMSCOPE XP-2040 CROSSOVER PLATE	
DIMENSIONS (HxW)	10"x12"
WEIGHT	11.023 LBS



PLAN PLATE

SIDE PLATE

PLAN U-BOLT

SIDE U-BOLT

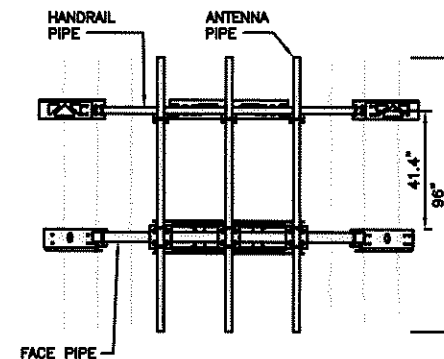
CROSSOVER PLATE

OPTION OF EITHER SQUARE OR CIRCULAR U-BOLT

ANTENNA PLATFORM (NOT INCLUDED)

ANTENNA PIPE MOUNT (NOT INCLUDED)

COMMSCOPE MC-PK8-DSH	
FACE WIDTH	96"
WEIGHT	1373.08 lbs
NOTE: 15" TO 38" O.D.	



FACE PIPE

HANDRAIL PIPE

ANTENNA PIPE

PLATFORM

96"

SURGE SUPPRESSION DETAIL (OVP)

NO SCALE

7

RRH/OVP MOUNT DETAIL

NO SCALE

8

ANTENNA PLATFORM DETAIL

NO SCALE

9



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



EXPIRES: 6/30/2022

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

DRAWN BY: CHECKED BY: APPROVED BY:

LTH DM MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION
PRPDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

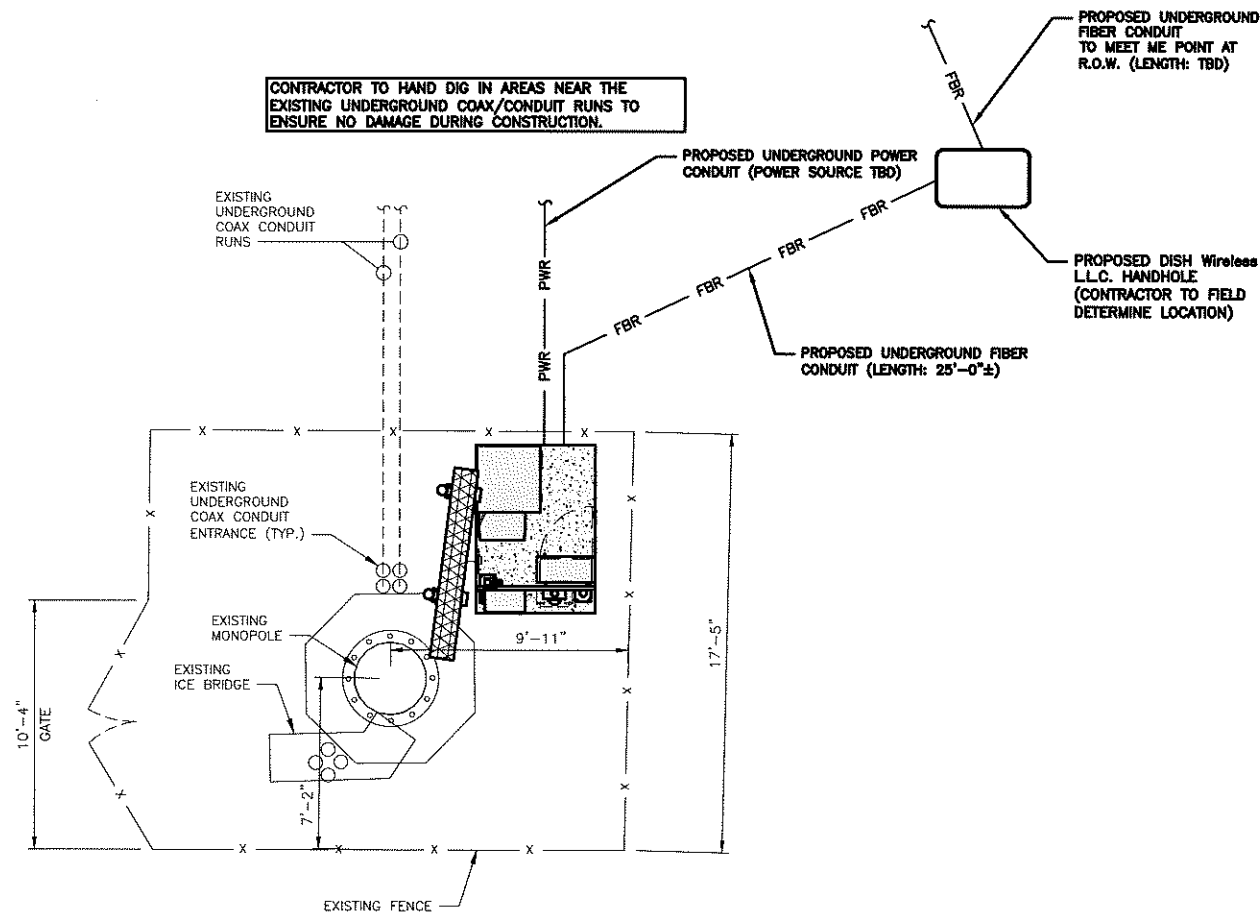
SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER

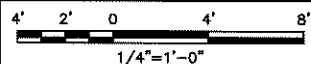
A-6

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED UNDERGROUND UTILITY CONDUIT ROUTE.
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.
3. DUE TO UTILITY EASEMENT RIGHTS SPECIFIED IN THE GROUND LEASE, CUSTOMER MAY INSTALL EQUIPMENT WITHIN SPECIFIED UTILITY EASEMENT AREA. "PWR" AND "FBR" PATH DEPICTED ON A-1 AND E-1 REPRESENT PLANNED ROUTING BASED ON BEST AVAILABLE INFORMATION INCLUDING BUT NOT LIMITED TO A SURVEY, EXHIBITS, METES AND BOUNDS OF THE UTILITY EASEMENT, FIELD VERIFICATION, PRIOR PROJECT DOCUMENTATION AND OTHER REAL PROPERTY RIGHTS DOCUMENTS. WHEN INSTALLING THE UTILITIES PLEASE LOCATE AND FOLLOW EXISTING PATH. IF EXISTING PATH IS MATERIALLY INCONSISTENT WITH THE "PWR" AND "FBR" PATH DEPICTED ON A-1 AND E-1 AND SAID VARIANCE IS NOT NOTED ON CDS, PLEASE NOTIFY CROWN CASTLE REAL ESTATE AS FURTHER COORDINATION MAY BE NEEDED.



UTILITY ROUTE PLAN



DC POWER WIRING SHALL BE COLOR CODED AT EACH END FOR IDENTIFYING +24V AND -48V CONDUCTORS. RED MARKINGS SHALL IDENTIFY +24V AND BLUE MARKINGS SHALL IDENTIFY -48V.

1. CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS PRIOR TO SUBMITTING A BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTOR'S FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
2. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT NATIONAL ELECTRICAL CODES AND ALL STATE AND LOCAL CODES, LAWS, AND ORDINANCES. PROVIDE ALL COMPONENTS AND WIRING SIZES AS REQUIRED TO MEET NEC STANDARDS.
3. LOCATION OF EQUIPMENT, CONDUIT AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH FIELD CONDITIONS PRIOR TO CONSTRUCTION.
4. CONDUIT ROUGH-IN SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO AVOID LOCATION CONFLICTS. VERIFY WITH THE MECHANICAL EQUIPMENT CONTRACTOR AND COMPLY AS REQUIRED.
5. CONTRACTOR SHALL PROVIDE ALL BREAKERS, CONDUITS AND CIRCUITS AS REQUIRED FOR A COMPLETE SYSTEM.
6. CONTRACTOR SHALL PROVIDE PULL BOXES AND JUNCTION BOXES AS REQUIRED BY THE NEC ARTICLE 314.
7. CONTRACTOR SHALL PROVIDE ALL STRAIN RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
8. ALL DISCONNECTS AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED PHENOLIC NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS INSTALLED ON, AND PANEL FIELD LOCATIONS FED FROM.
9. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS PER THE SPECIFICATIONS AND NEC 250. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULL BOXES, AND ALL DISCONNECT SWITCHES, AND EQUIPMENT CABINETS.
10. ALL NEW MATERIAL SHALL HAVE A U.L. LABEL.
11. PANEL SCHEDULE LOADING AND CIRCUIT ARRANGEMENTS REFLECT POST-CONSTRUCTION EQUIPMENT.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR AS-BUILT PANEL SCHEDULE AND SITE DRAWINGS.
13. ALL TRENCHES IN COMPOUND TO BE HAND DUG

ELECTRICAL NOTES

NO SCALE



NOTE:
UTILITY EASEMENT SHOWN PER SURVEY PROVIDED BY OTHERS. CONTRACTOR TO COORDINATE AND ROUTE UTILITIES WITHIN EXISTING UTILITY EASEMENT. DISH WIRELESS L.L.C. SHALL BE RESPONSIBLE FOR OBTAINING EASEMENT RIGHTS AS REQUIRED FOR INSTALLATION OF ALL UTILITIES.

OVERALL UTILITY PLAN

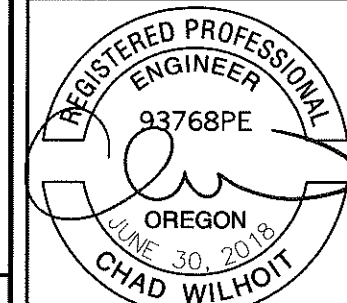
NO SCALE



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



12/20/2021
EXPIRES: 6/30/2022

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

DRAWN BY: LTH
CHECKED BY: DM
APPROVED BY: MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

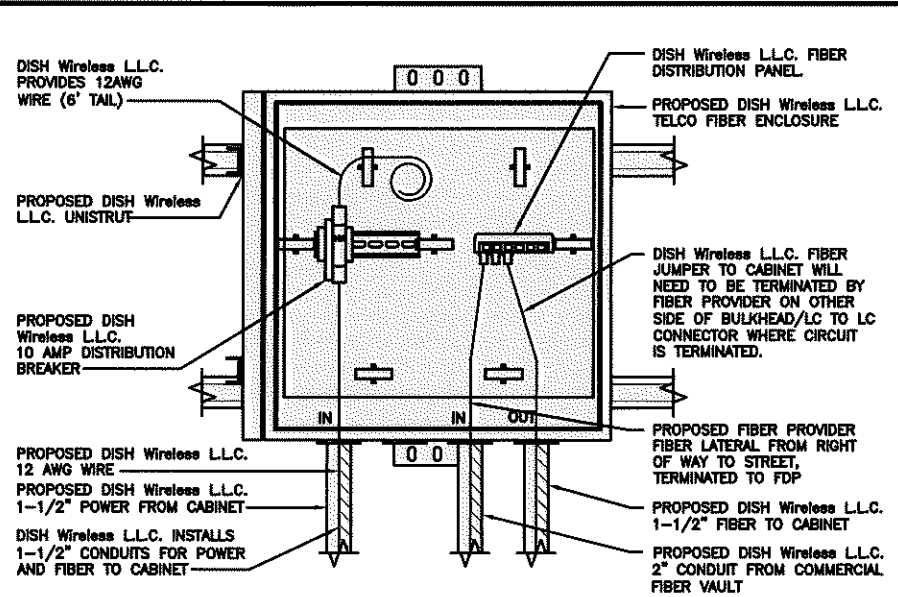
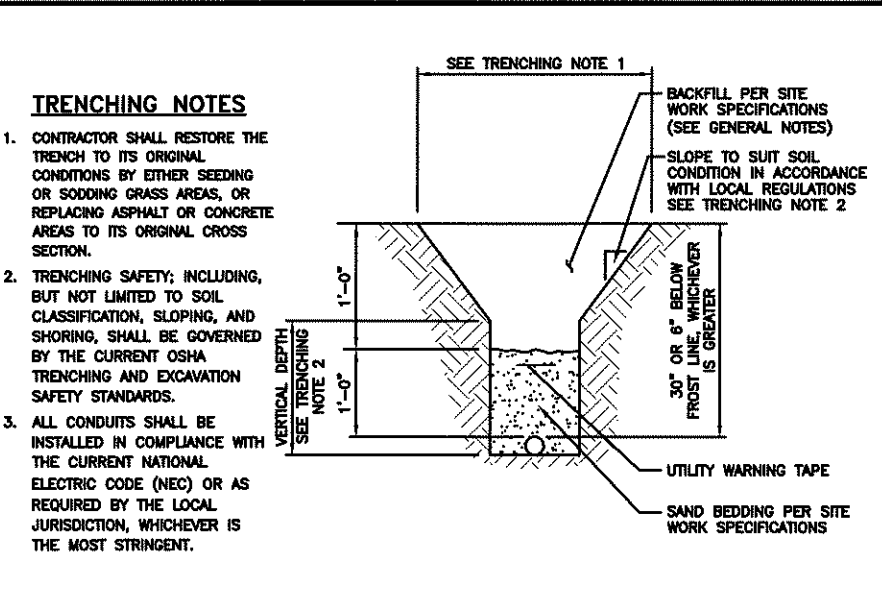
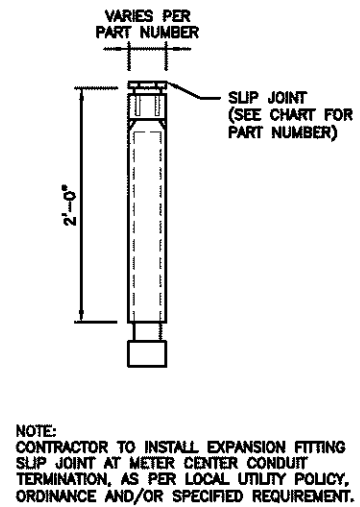
A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION
PRPDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
ELECTRICAL/FIBER ROUTE
PLAN AND NOTES

SHEET NUMBER

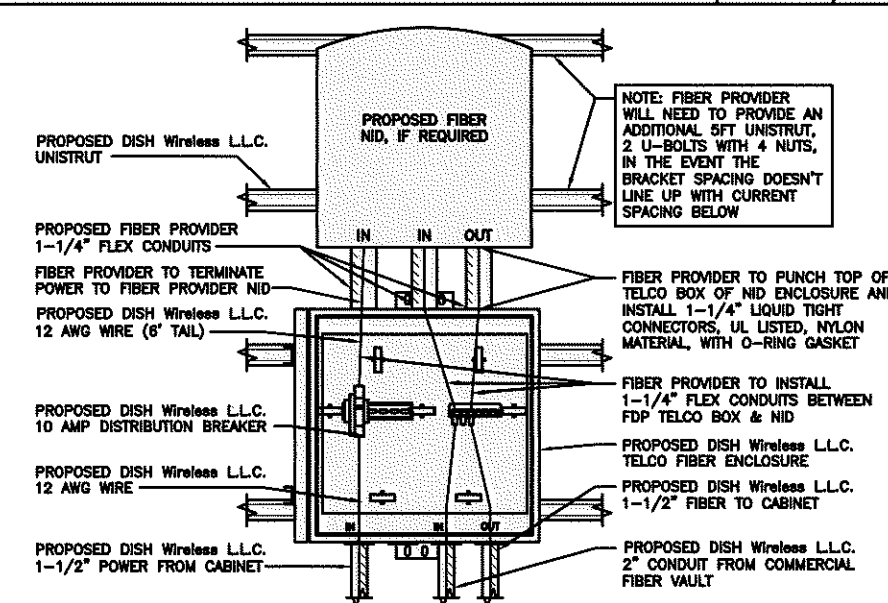
CARLON EXPANSION FITTINGS				
COUPLING END PART#	MALE TERMINAL ADAPTER END PART#	SIZE	STD CTN QTY.	TRAVEL LENGTH
E945D	E945DX	1/2"	20	4"
E945E	E945EX	3/4"	15	4"
E945F	E945FX	1"	10	4"
E945G	E945GX	1 1/4"	5	4"
E945H	E945HX	1 1/2"	5	4"
E945J	E945JX	2"	15	8"
E945K	E945KX	2 1/2"	10	8"
E945L	E945LX	3"	10	8"
E945M	E945MX	3 1/2"	5	8"
E945N	E945NX	4"	5	8"
E945P	E945PX	5"	1	8"
E945R	E945RX	6"	1	8"



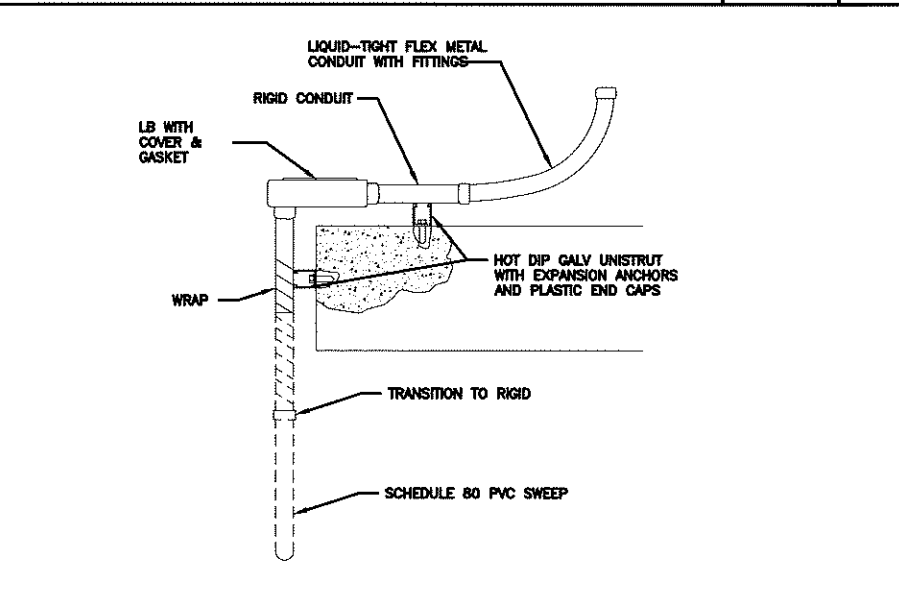
5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

1000 HOLCOMB WOODS PKWY., SUITE 210
ROSWELL, GA 30076
678-280-2325

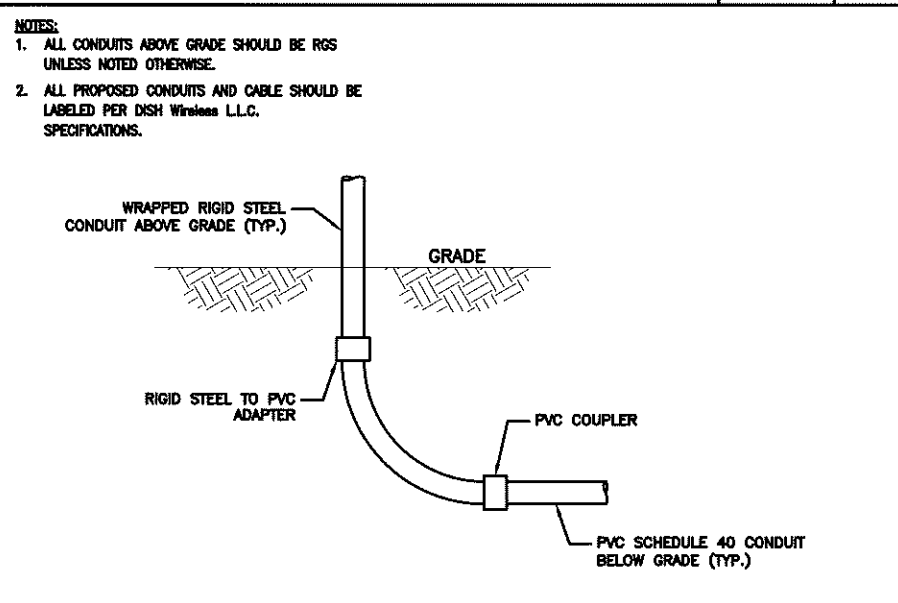
EXPANSION JOINT DETAIL NO SCALE 1



TYPICAL UNDERGROUND TRENCH DETAIL NO SCALE 2



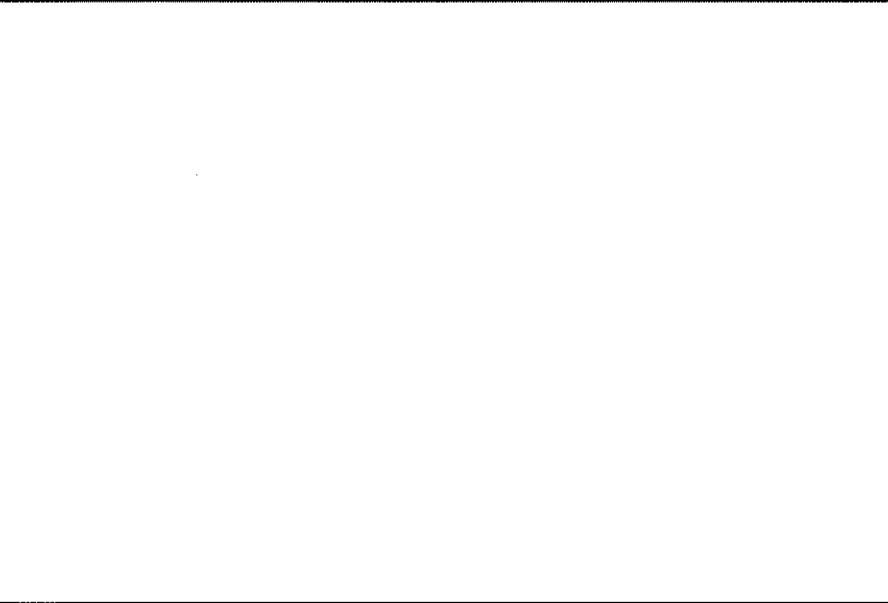
DARK TELCO BOX - INTERIOR WIRING LAYOUT NO SCALE 3



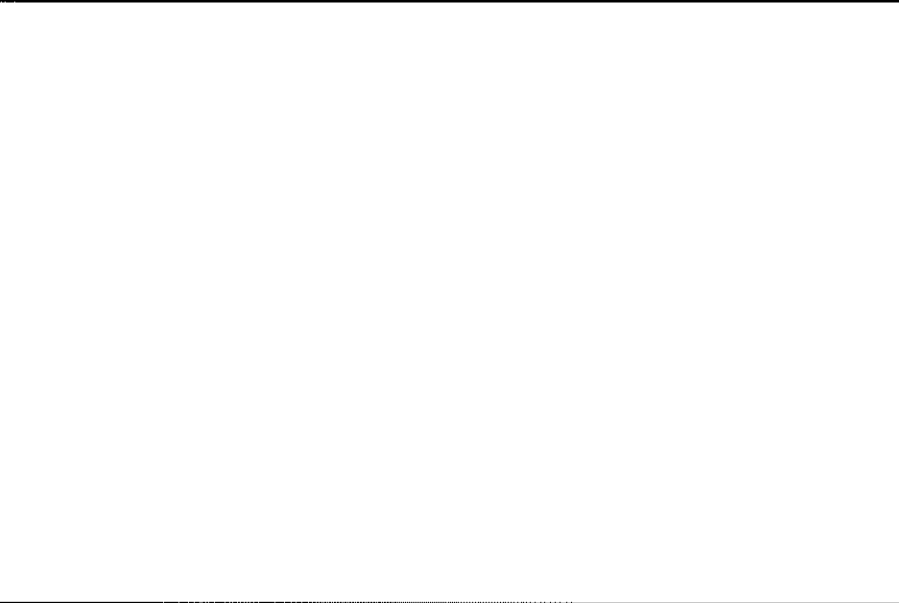
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY: LTH CHECKED BY: DM APPROVED BY: MSB
RFDS REV #:

LIT TELCO BOX - INTERIOR WIRING LAYOUT (OPTIONAL) NO SCALE 4



CABINET CONDUIT DETAIL NO SCALE 5



TYPICAL UNDERGROUND TUB-UP DETAIL NO SCALE 6



CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C. PROJECT INFORMATION
PRPX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

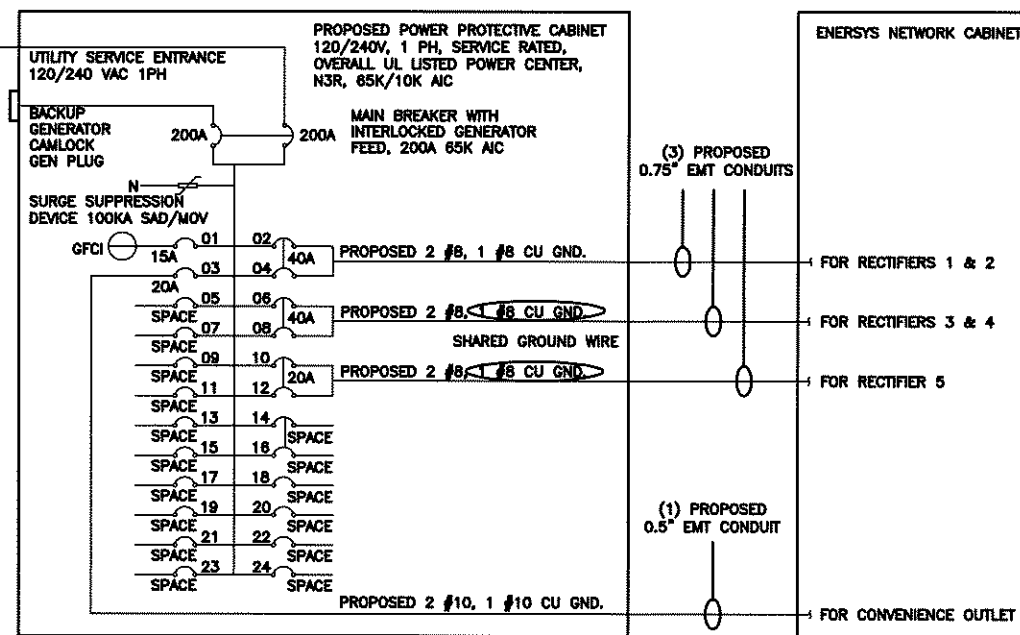
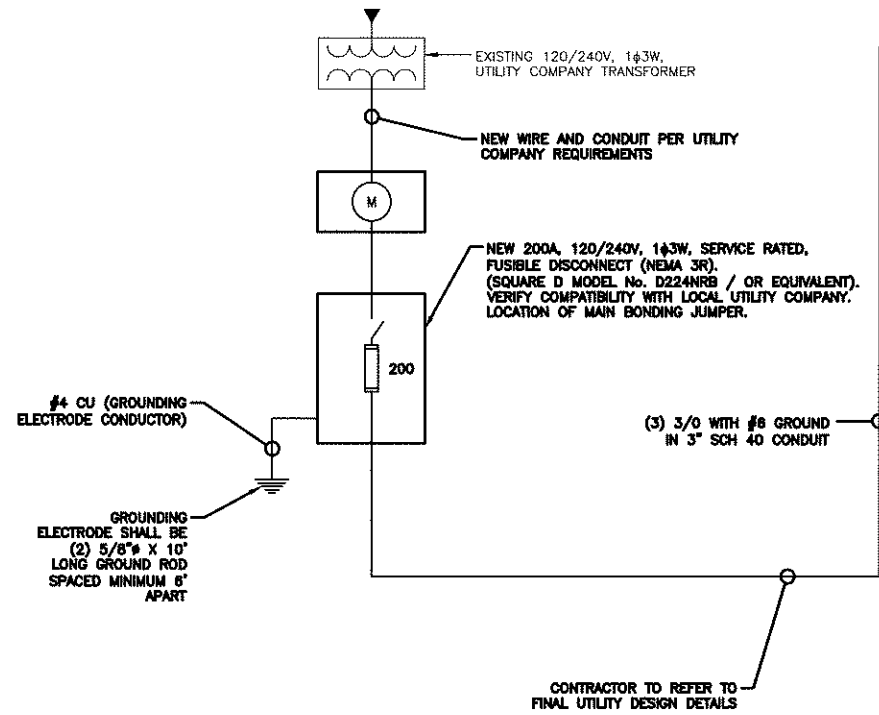
SHEET TITLE
ELECTRICAL DETAILS

SHEET NUMBER
E-2

NOT USED NO SCALE 7

NOT USED NO SCALE 8

NOT USED NO SCALE 9



NOTE: BRANCH CIRCUIT WIRING SUPPLYING RECTIFIERS ARE TO BE RATED UL1015, 105°C, 600V, AND PVC INSULATED, IN THE SIZES SHOWN IN THE ONE-LINE DIAGRAM. CONTRACTOR MAY SUBSTITUTE UL1015 WIRE FOR THWN-2 FOR CONVENIENCE OUTLET BRANCH CIRCUIT.

BREAKERS REQUIRED:

(2) 40A, 2P BREAKER - SQUARE D P/N:Q0240

(1) 20A, 2P BREAKER - SQUARE D P/N:Q0220

(1) 20A, 1P BREAKER - SQUARE D P/N:Q0120

NOTES

CONDUIT SIZING: AT 40% FILL PER NEC CHAPTER 9, TABLE 4, ARTICLE 358.

0.5" CONDUIT - 0.122 SQ. IN AREA

0.75" CONDUIT - 0.213 SQ. IN AREA

2.0" CONDUIT - 1.316 SQ. IN AREA

3.0" CONDUIT - 2.907 SQ. IN AREA

CABINET CONVENIENCE OUTLET CONDUCTORS (1 CONDUIT): USING THWN-2, CU.

#10 - 0.0211 SQ. IN X 2 = 0.0422 SQ. IN

#10 - 0.0211 SQ. IN X 1 = 0.0211 SQ. IN <GROUND

TOTAL = 0.0633 SQ. IN

0.5" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (3) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

RECTIFIER CONDUCTORS (3 CONDUITS): USING UL1015, CU.

#8 - 0.0552 SQ. IN X 2 = 0.1103 SQ. IN

#8 - 0.0131 SQ. IN X 1 = 0.0131 SQ. IN <BARE GROUND

TOTAL = 0.1234 SQ. IN

0.75" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (3) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

PPC FEED CONDUCTORS (1 CONDUIT): USING THWN, CU.

3/0 - 0.2879 SQ. IN X 3 = 0.8037 SQ. IN

#6 - 0.0507 SQ. IN X 1 = 0.0507 SQ. IN <GROUND

TOTAL = 0.8544 SQ. IN

3.0" SCH 40 PVC CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (4) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

PPC ONE-LINE DIAGRAM

NO SCALE 1

PROPOSED ENERSYS PANEL SCHEDULE

LOAD SERVED	VOLT AMPS (WATTS)		TRIP	CKT #	PHASE	CKT #	TRIP	VOLT AMPS (WATTS)		LOAD SERVED
	L1	L2						L1	L2	
PPC GFCI OUTLET	180	180	15A	1	A	2	40A	3840	3840	ENERSYS ALPHA CORDEX RECTIFIERS 1 & 2
ENERSYS GFCI OUTLET			20A	3	B	4	40A	3840	3840	ENERSYS ALPHA CORDEX RECTIFIER 3 & 4
-SPACE-				5	A	6	40A	3840	3840	ENERSYS ALPHA CORDEX RECTIFIER 3 & 4
-SPACE-				7	B	8	20A	1920	1920	ENERSYS ALPHA CORDEX RECTIFIER 5
-SPACE-				9	A	10				-SPACE-
-SPACE-				11	B	12				-SPACE-
-SPACE-				13	A	14				-SPACE-
-SPACE-				15	B	16				-SPACE-
-SPACE-				17	A	18				-SPACE-
-SPACE-				19	B	20				-SPACE-
-SPACE-				21	A	22				-SPACE-
-SPACE-				23	B	24				-SPACE-
VOLTAGE AMPS	180	180						9500	9500	
200A MCB, 1ϕ, 24 SPACE, 120/240V				L1	L2					
MB RATING: 65,000 AIC				9580	9580					VOLTAGE AMPS
				81	81					AMPS
										MAX AMPS
										MAX 125%

PANEL SCHEDULE

NO SCALE 2

NOT USED

NO SCALE 3



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



12/20/2021
EXPIRES: 6/30/2022

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

DRAWN BY: LTH CHECKED BY: DM APPROVED BY: MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

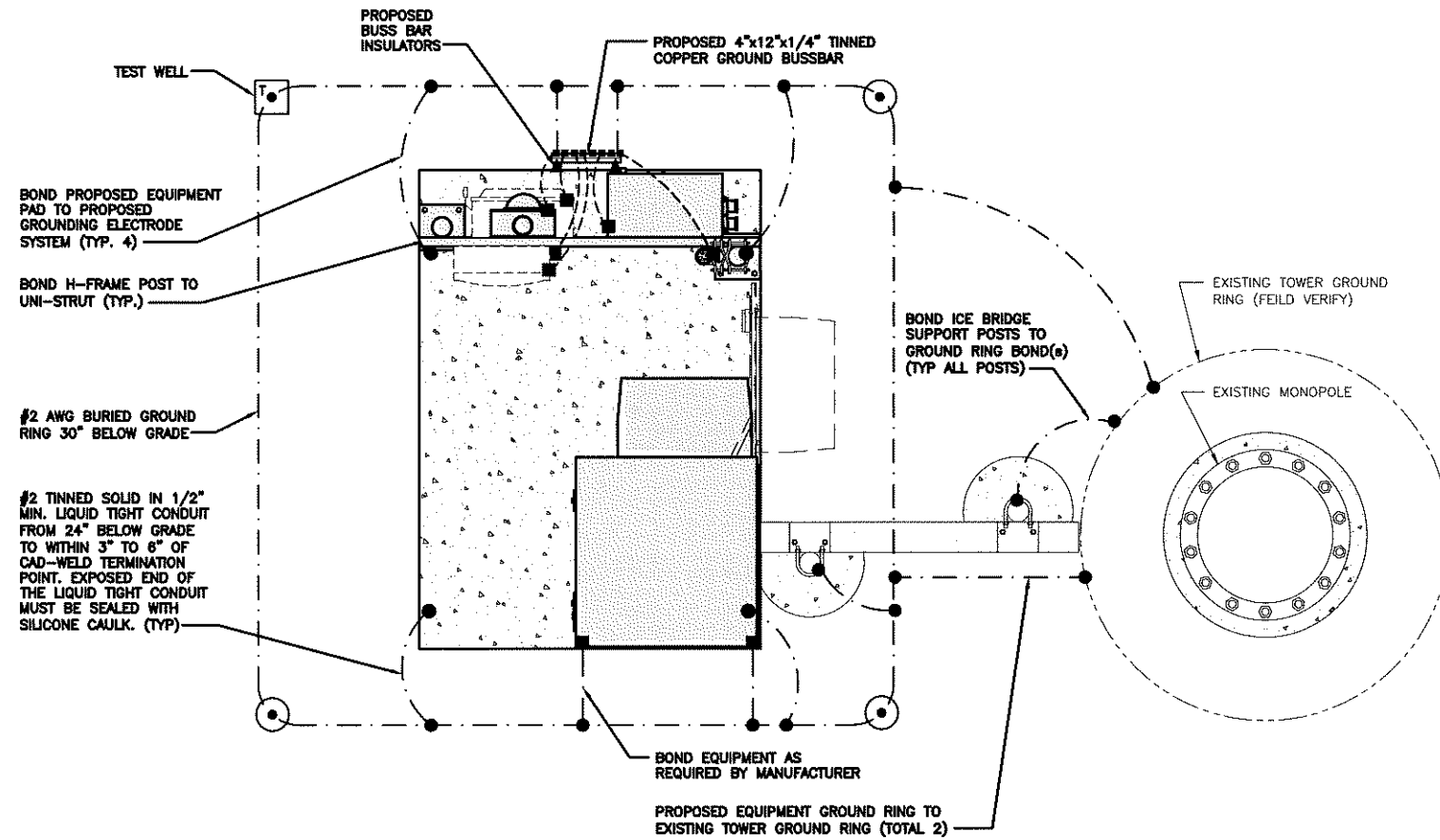
A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION
PRPDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
ELECTRICAL ONE-LINE, FAULT
CALCS & PANEL SCHEDULE

SHEET NUMBER

E-3

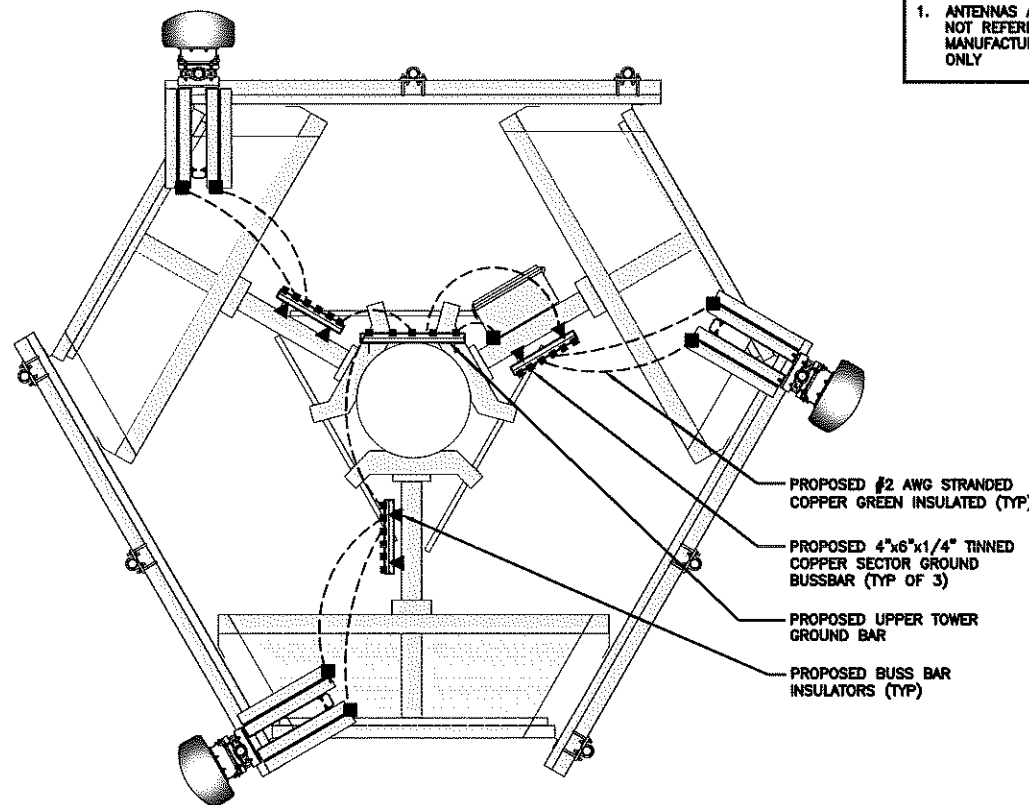


TYPICAL EQUIPMENT GROUNDING PLAN

NO SCALE 1

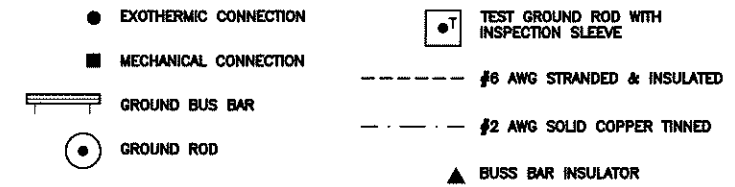
NOTES

1. ANTENNAS AND OVP SHOWN ARE GENERIC AND NOT REFERENCING TO A SPECIFIC MANUFACTURER. THIS LAYOUT IS FOR REFERENCE ONLY



TYPICAL ANTENNA GROUNDING PLAN

NO SCALE 2



GROUNDING LEGEND

- GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
- CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND DISH Wireless L.L.C. GROUNDING AND BONDING REQUIREMENTS AND MANUFACTURER'S SPECIFICATIONS.
- ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED.

GROUNDING KEY NOTES

- (A) EXTERIOR GROUND RING: #2 AWG SOLID COPPER, BURIED AT A DEPTH OF AT LEAST 30 INCHES BELOW GRADE, OR 6 INCHES BELOW THE FROST LINE AND APPROXIMATELY 24 INCHES FROM THE EXTERIOR WALL OR FOOTING.
- (B) TOWER GROUND RING: THE GROUND RING SYSTEM SHALL BE INSTALLED AROUND AN ANTENNA TOWER'S LEGS, AND/OR GUY ANCHORS. WHERE SEPARATE SYSTEMS HAVE BEEN PROVIDED FOR THE TOWER AND THE BUILDING, AT LEAST TWO BONDS SHALL BE MADE BETWEEN THE TOWER RING GROUND SYSTEM AND THE BUILDING RING GROUND SYSTEM USING MINIMUM #2 AWG SOLID COPPER CONDUCTORS.
- (C) INTERIOR GROUND RING: #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTOR EXTENDED AROUND THE PERIMETER OF THE EQUIPMENT AREA. ALL NON-TELECOMMUNICATIONS RELATED METALLIC OBJECTS FOUND WITHIN A SITE SHALL BE GROUNDED TO THE INTERIOR GROUND RING WITH #6 AWG STRANDED GREEN INSULATED CONDUCTOR.
- (D) BOND TO INTERIOR GROUND RING: #2 AWG SOLID TINNED COPPER WIRE PRIMARY BONDS SHALL BE PROVIDED AT LEAST AT FOUR POINTS ON THE INTERIOR GROUND RING, LOCATED AT THE CORNERS OF THE BUILDING.
- (E) GROUND ROD: UL LISTED COPPER CLAD STEEL, MINIMUM 1/2" DIAMETER BY EIGHT FEET LONG. GROUND RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN TO THE DEPTH OF GROUND RING CONDUCTOR.
- (F) CELL REFERENCE GROUND BAR: POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 AWG UNLESS NOTED OTHERWISE STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING WITH (2) #2 SOLID TINNED COPPER CONDUCTORS.
- (G) HATCH PLATE GROUND BAR: BOND TO THE INTERIOR GROUND RING WITH TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CRGB MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING (2) TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS EACH.
- (H) EXTERIOR CABLE ENTRY PORT GROUND BARS: LOCATED AT THE ENTRANCE TO THE CELL SITE BUILDING. BOND TO GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC WELD AND INSPECTION SLEEVE.
- (I) TELCO GROUND BAR: BOND TO BOTH CELL REFERENCE GROUND BAR OR EXTERIOR GROUND RING.
- (J) FRAME BONDING: THE BONDING POINT FOR TELECOM EQUIPMENT FRAMES SHALL BE THE GROUND BUS THAT IS NOT ISOLATED FROM THE EQUIPMENTS METAL FRAMEWORK.
- (K) INTERIOR UNIT BONDS: METAL FRAMES, CABINETS AND INDIVIDUAL METALLIC UNITS LOCATED WITH THE AREA OF THE INTERIOR GROUND RING REQUIRE A #6 AWG STRANDED GREEN INSULATED COPPER BOND TO THE INTERIOR GROUND RING.
- (L) FENCE AND GATE GROUNDING: METAL FENCES WITHIN 7 FEET OF THE EXTERIOR GROUND RING OR OBJECTS BONDED TO THE EXTERIOR GROUND RING SHALL BE BONDED TO THE GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTOR AT AN INTERVAL NOT EXCEEDING 25 FEET. BONDS SHALL BE MADE AT EACH GATE POST AND ACROSS GATE OPENINGS.
- (M) EXTERIOR UNIT BONDS: METALLIC OBJECTS, EXTERNAL TO OR MOUNTED TO THE BUILDING, SHALL BE BONDED TO THE EXTERIOR GROUND RING. USING #2 TINNED SOLID COPPER WIRE
- (N) ICE BRIDGE SUPPORTS: EACH ICE BRIDGE LEG SHALL BE BONDED TO THE GROUND RING WITH #2 AWG BARE TINNED COPPER CONDUCTOR. PROVIDE EXOTHERMIC WELDS AT BOTH THE ICE BRIDGE LEG AND BURIED GROUND RING.
- (O) DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICE CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH A MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR
- (P) TOWER TOP COLLECTOR BUSS BAR IS TO BE MECHANICALLY BONDED TO PROPOSED ANTENNA MOUNT COLLAR. REFER TO DISH Wireless L.L.C. GROUNDING NOTES.

GROUNDING KEY NOTES

NO SCALE 3



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



EXPIRES: 6/30/2022

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

DRAWN BY: LTH CHECKED BY: DM APPROVED BY: MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION

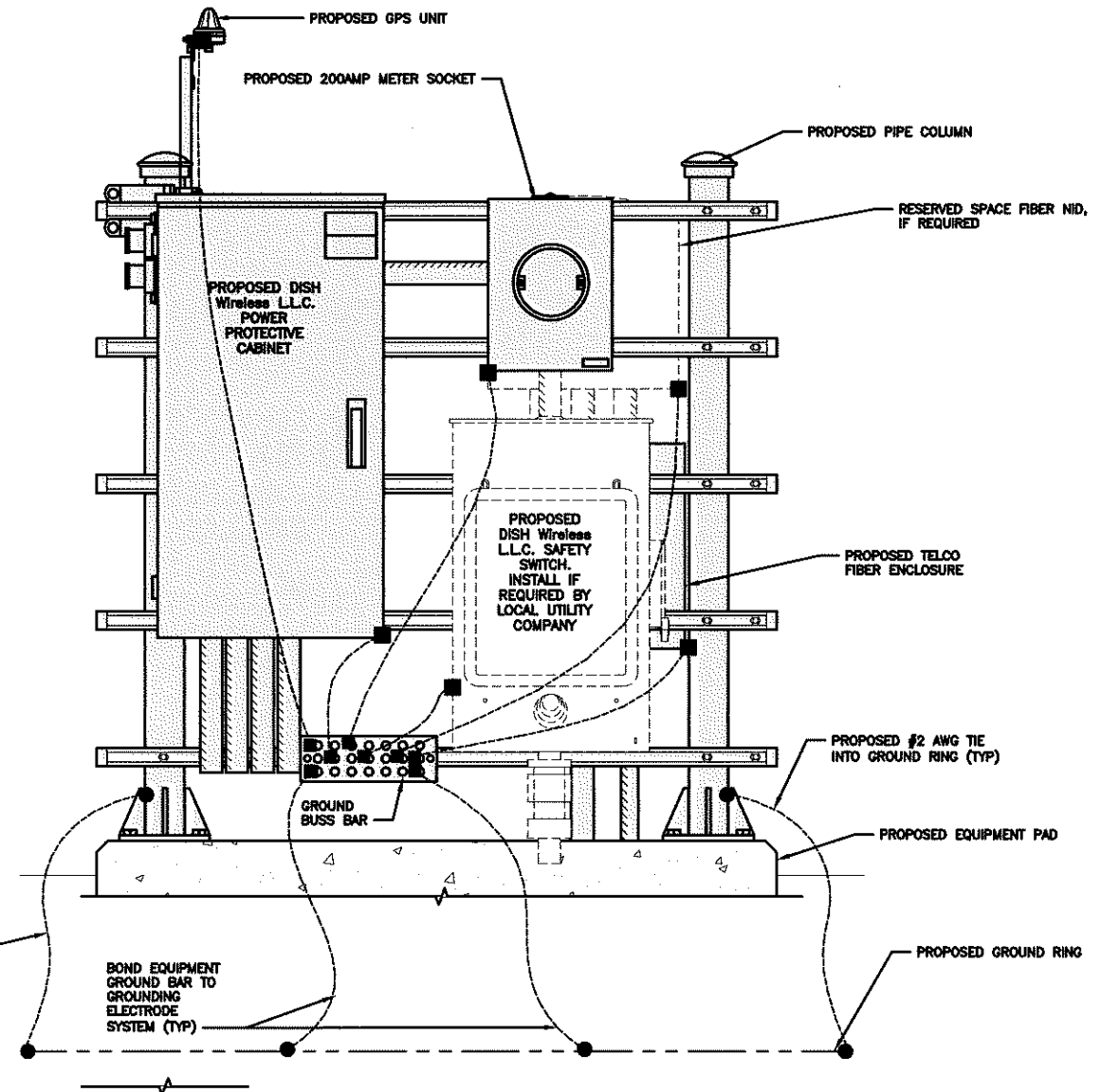
PRPDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
GROUNDING PLANS
AND NOTES

SHEET NUMBER

G-1

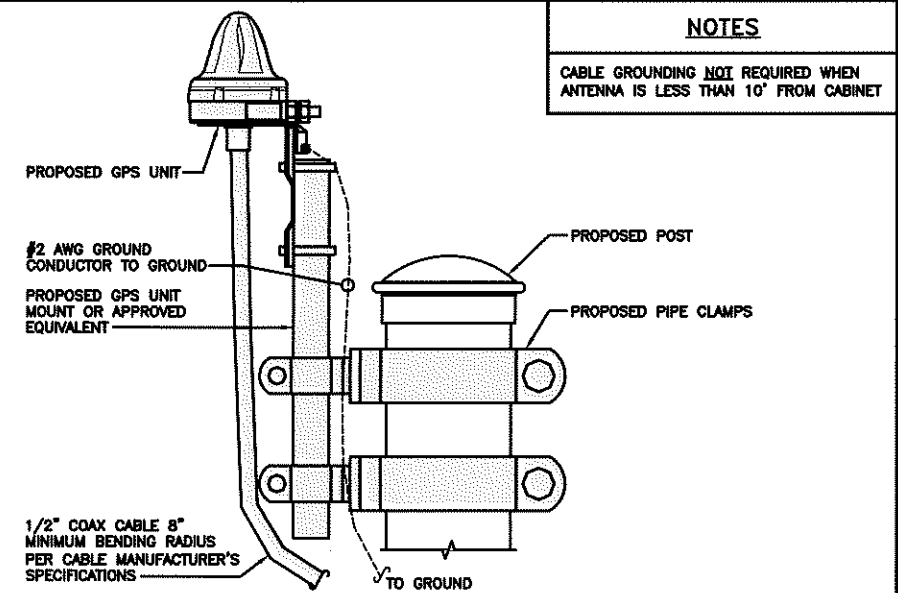
NOTES
EQUIPMENT CABINET OMITTED FOR CLARITY



H-FRAME GROUNDING DETAIL

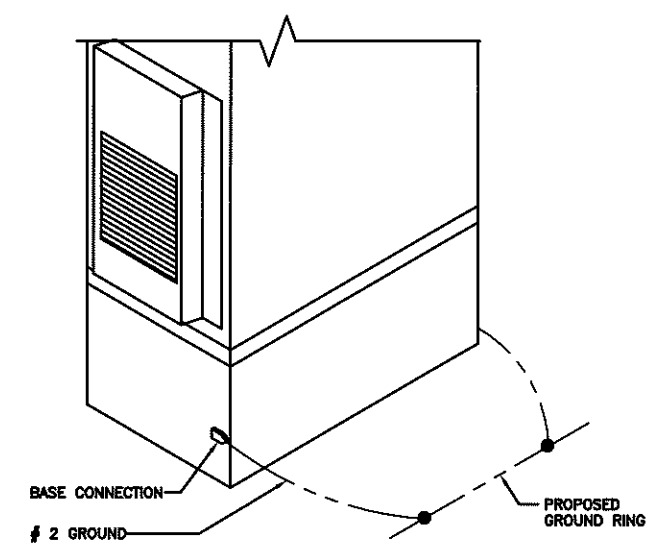
NO SCALE 1

NOTES
CABLE GROUNDING NOT REQUIRED WHEN ANTENNA IS LESS THAN 10' FROM CABINET



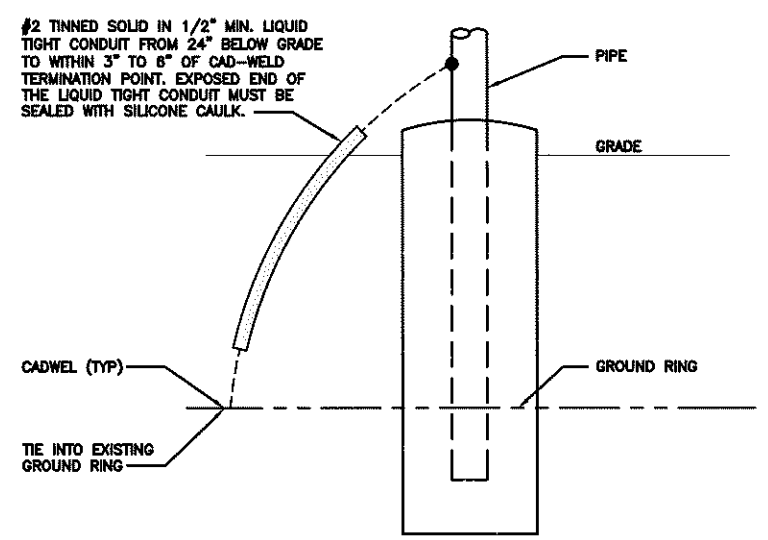
TYPICAL GPS UNIT GROUNDING

NO SCALE 2



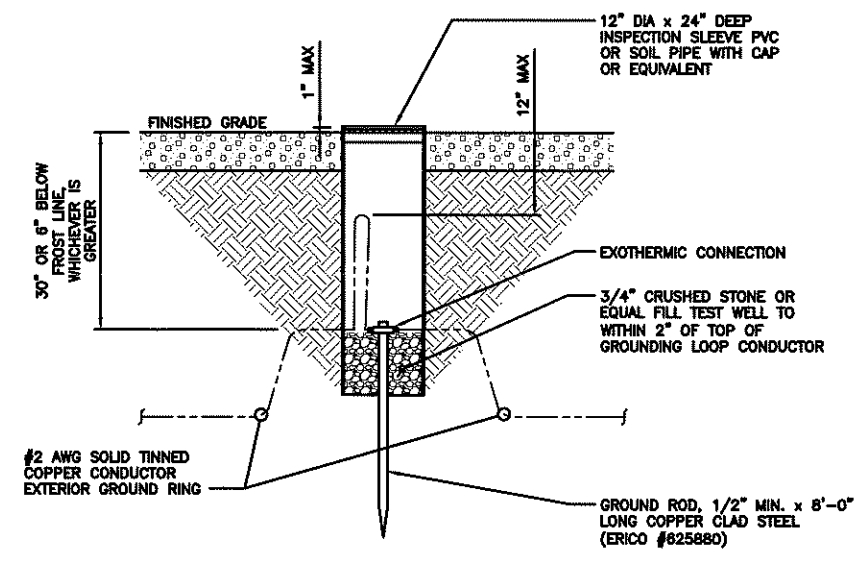
OUTDOOR CABINET GROUNDING

NO SCALE 3



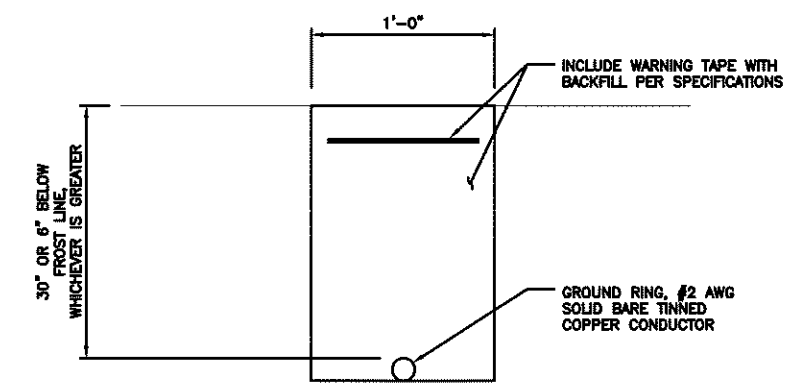
TRANSITIONING GROUND DETAIL

NO SCALE 4



TYPICAL TEST GROUND ROD WITH INSPECTION SLEEVE

NO SCALE 5



TYPICAL GROUND RING TRENCH

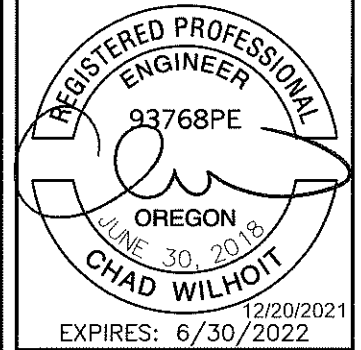
NO SCALE 6



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



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

DRAWN BY: LTH CHECKED BY: DM APPROVED BY: MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

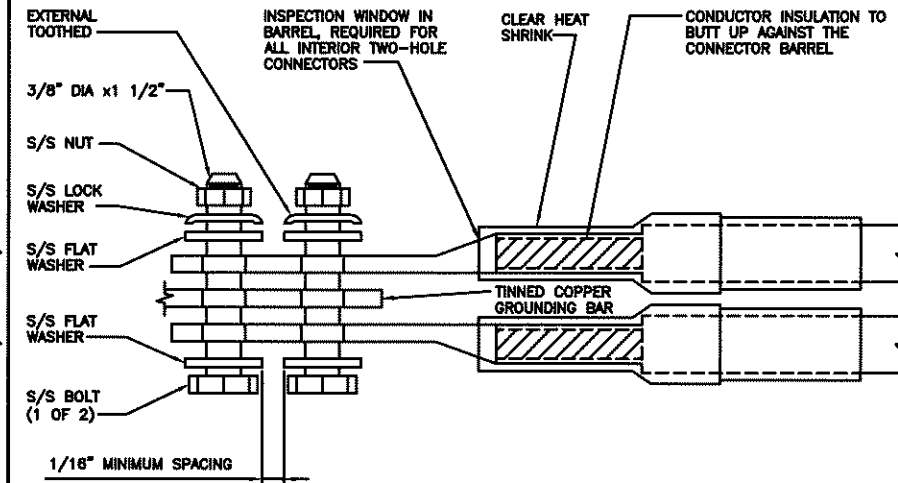
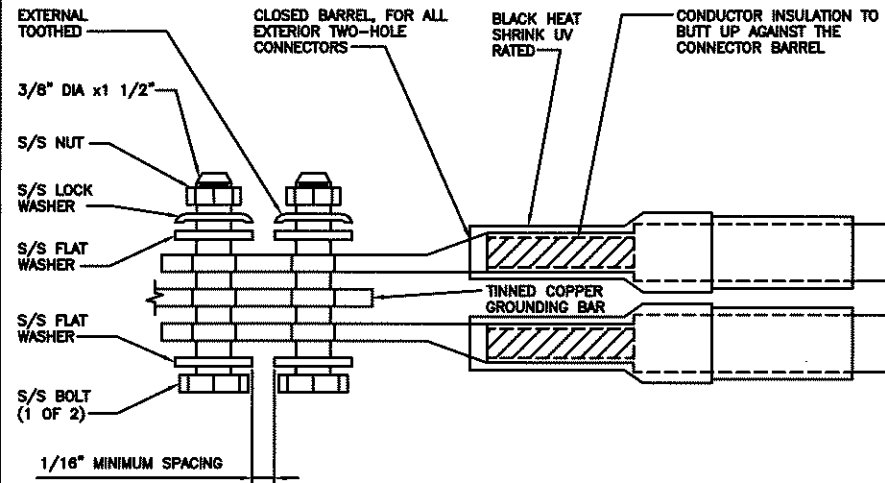
DISH Wireless L.L.C.
PROJECT INFORMATION
PRPDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER

G-2

- EXOTHERMIC WELD (2) TWO, #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR. ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
- ALL EXTERIOR GROUNDING HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
- FOR GROUND BOND TO STEEL ONLY: COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
- DO NOT INSTALL CABLE GROUNDING KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUNDING BUS.
- NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE.
- ALL GROUNDING PARTS AND EQUIPMENT TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED.
- ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).



TYPICAL GROUNDING NOTES

NO SCALE

1

TYPICAL EXTERIOR TWO HOLE LUG

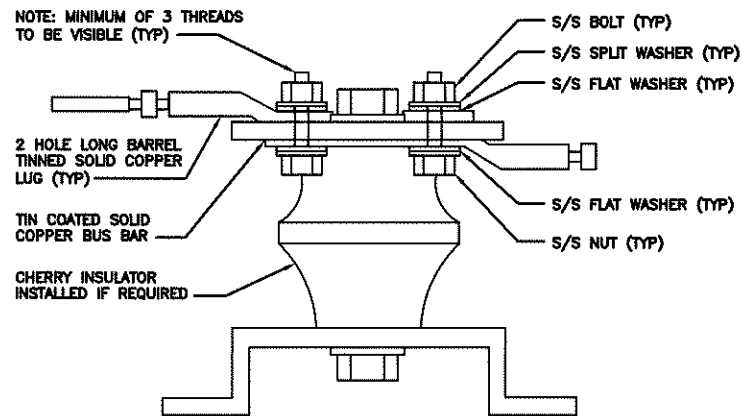
NO SCALE

2

TYPICAL INTERIOR TWO HOLE LUG

NO SCALE

3



LUG DETAIL

NO SCALE

4

NOT USED

NO SCALE

5

NOT USED

NO SCALE

6

NOT USED

NO SCALE

7

NOT USED

NO SCALE

8

NOT USED

NO SCALE

9

dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

PM&A

1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



12/20/2021
EXPIRES: 6/30/2022

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

DRAWN BY: LTH CHECKED BY: DM APPROVED BY: MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION
PRPDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER
G-3

RF JUMPER COLOR CODING		3/4" TAPE WIDTHS WITH 3/4" SPACING											
LOW-BAND RRH - (600MHz N71 BASEBAND) + (850MHz N26 BAND) + (700MHz N29 BAND) - OPTIONAL PER MARKET ADD FREQUENCY COLOR TO SECTOR BAND (CBRS WILL USE YELLOW BANDS)	ALPHA RRH				BETA RRH				GAMMA RRH				
	PORT 1 + SLANT	PORT 2 - SLANT	PORT 3 + SLANT	PORT 4 - SLANT	PORT 1 + SLANT	PORT 2 - SLANT	PORT 3 + SLANT	PORT 4 - SLANT	PORT 1 + SLANT	PORT 2 - SLANT	PORT 3 + SLANT	PORT 4 - SLANT	
	RED	RED	RED	RED	BLUE	BLUE	BLUE	BLUE	GREEN	GREEN	GREEN	GREEN	
	ORANGE	ORANGE	RED	RED	ORANGE	ORANGE	BLUE	BLUE	ORANGE	ORANGE	GREEN	GREEN	
		WHITE (-) PORT	ORANGE	ORANGE		WHITE (-) PORT	ORANGE	ORANGE		WHITE (-) PORT	ORANGE	ORANGE	
			WHITE (-) PORT				WHITE (-) PORT				WHITE (-) PORT	WHITE (-) PORT	
MID-BAND RRH - (AWS BANDS N66+N70)	ALPHA RRH				BETA RRH				GAMMA RRH				
	PORT 1 + SLANT	PORT 2 - SLANT	PORT 3 + SLANT	PORT 4 - SLANT	PORT 1 + SLANT	PORT 2 - SLANT	PORT 3 + SLANT	PORT 4 - SLANT	PORT 1 + SLANT	PORT 2 - SLANT	PORT 3 + SLANT	PORT 4 - SLANT	
	RED	RED	RED	RED	BLUE	BLUE	BLUE	BLUE	GREEN	GREEN	GREEN	GREEN	
	PURPLE	PURPLE	RED	RED	PURPLE	PURPLE	BLUE	BLUE	PURPLE	PURPLE	GREEN	GREEN	
		WHITE (-) PORT	PURPLE	PURPLE		WHITE (-) PORT	PURPLE	PURPLE		WHITE (-) PORT	PURPLE	PURPLE	
			WHITE (-) PORT				WHITE (-) PORT				WHITE (-) PORT	WHITE (-) PORT	
HYBRID/DISCREET CABLES INCLUDE SECTOR BANDS BEING SUPPORTED ALONG WITH FREQUENCY BANDS EXAMPLE 1 - HYBRID, OR DISCREET, SUPPORTS ALL SECTORS, BOTH LOW-BANDS AND MID-BANDS EXAMPLE 2 - HYBRID, OR DISCREET, SUPPORTS CBRS ONLY, ALL SECTORS	EXAMPLE 1	EXAMPLE 2	EXAMPLE 3										
	RED	RED	RED										
	BLUE	BLUE	ORANGE										
	GREEN	GREEN	PURPLE										
	ORANGE												
	PURPLE	YELLOW											
FIBER JUMPERS TO RRHs LOW-BAND RRH FIBER CABLES HAVE SECTOR STRIPE ONLY	LOW BAND RRH	HIGH BAND RRH	LOW BAND RRH	HIGH BAND RRH	LOW BAND RRH	HIGH BAND RRH							
	RED	RED	BLUE	BLUE	GREEN	GREEN							
		PURPLE		PURPLE		PURPLE							
POWER CABLES TO RRHs LOW-BAND RRH POWER CABLES HAVE SECTOR STRIPE ONLY	LOW BAND RRH	HIGH BAND RRH	LOW BAND RRH	HIGH BAND RRH	LOW BAND RRH	HIGH BAND RRH							
	RED	RED	BLUE	BLUE	GREEN	GREEN							
		PURPLE		PURPLE		PURPLE							
RET MOTORS AT ANTENNAS	ANTENNA 1 LOW BAND/ "IN"	ANTENNA 1 HIGH BAND/ "IN"	ANTENNA 1 LOW BAND/ "IN"	ANTENNA 1 HIGH BAND/ "IN"	ANTENNA 1 LOW BAND/ "IN"	ANTENNA 1 HIGH BAND/ "IN"							
	RED	RED	BLUE	BLUE	GREEN	GREEN							
		PURPLE		PURPLE		PURPLE							
MICROWAVE RADIO LINKS LINKS WILL HAVE A 1.5-2 INCH WHITE WRAP WITH THE AZIMUTH COLOR OVERLAPPING IN THE MIDDLE. ADD ADDITIONAL SECTOR COLOR BANDS FOR EACH ADDITIONAL MW RADIO. MICROWAVE CABLES WILL REQUIRE P-TOUCH LABELS INSIDE THE CABINET TO IDENTIFY THE LOCAL AND REMOTE SITE ID'S	FORWARD AZIMUTH OF 0-120 DEGREES		FORWARD AZIMUTH OF 120-240 DEGREES		FORWARD AZIMUTH OF 240-360 DEGREES								
	PRIMARY	SECONDARY	PRIMARY	SECONDARY	PRIMARY	SECONDARY							
	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE							
	RED	RED	BLUE	BLUE	GREEN	GREEN							
	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE							
		RED		BLUE		GREEN							
		WHITE		WHITE		WHITE							

LOW BANDS (N71+N26) OPTIONAL - (N29) ORANGE	AWS (N66+N70+H-BLOCK) PURPLE	
CBRS TECH (3 GHz) YELLOW	NEGATIVE SLANT PORT ON ANT/RRH WHITE	
ALPHA SECTOR	BETA SECTOR	GAMMA SECTOR
RED	BLUE	GREEN
COLOR IDENTIFIER	NO SCALE	2
NOT USED	NO SCALE	3
RF CABLE COLOR CODES	NO SCALE	4



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



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

DRAWN BY: LTH CHECKED BY: DM APPROVED BY: MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

REV	DATE	DESCRIPTION
A	11/18/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

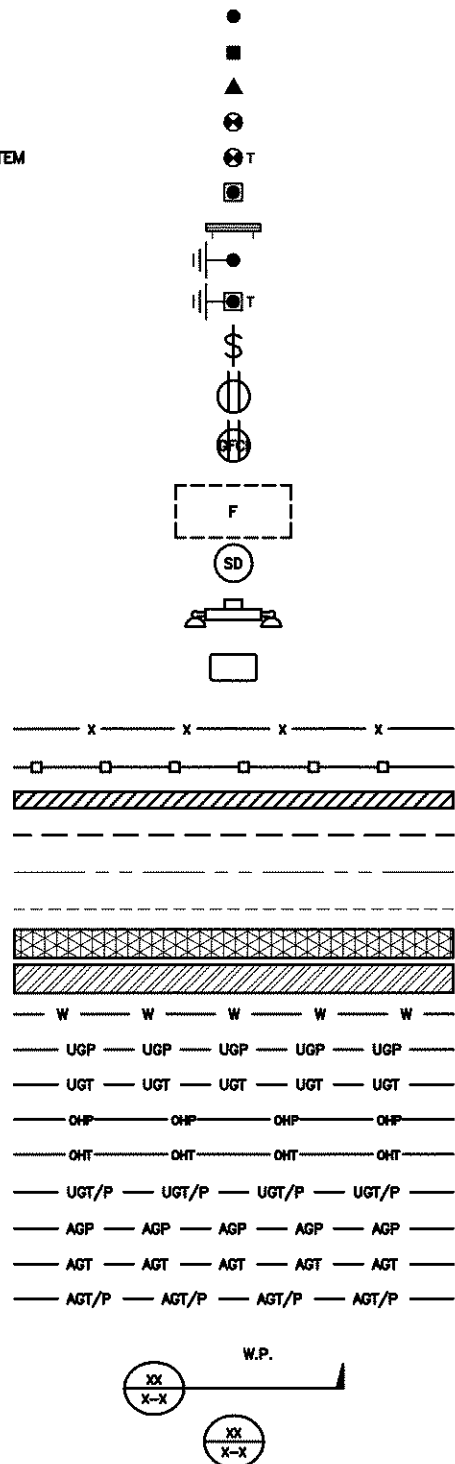
A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION
PRPD00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
RF
CABLE COLOR CODES

SHEET NUMBER
RF-1

EXOTHERMIC CONNECTION
 MECHANICAL CONNECTION
 BUSS BAR INSULATOR
 CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
 TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
 EXOTHERMIC WITH INSPECTION SLEEVE
 GROUNDING BAR
 GROUND ROD
 TEST GROUND ROD WITH INSPECTION SLEEVE
 SINGLE POLE SWITCH
 DUPLEX RECEPTACLE
 DUPLEX GFCI RECEPTACLE
 FLUORESCENT LIGHTING FIXTURE
 (2) TWO LAMPS 48-T8
 SMOKE DETECTION (DC)
 EMERGENCY LIGHTING (DC)
 SECURITY LIGHT W/PHOTOCELL LITHONIA ALXW
 LED-1-25A400/51K-SR4-120-PE-DDBTXD
 CHAIN LINK FENCE
 WOOD/WROUGHT IRON FENCE
 WALL STRUCTURE
 LEASE AREA
 PROPERTY LINE (PL)
 SETBACKS
 ICE BRIDGE
 CABLE TRAY
 WATER LINE
 UNDERGROUND POWER
 UNDERGROUND TELCO
 OVERHEAD POWER
 OVERHEAD TELCO
 UNDERGROUND TELCO/POWER
 ABOVE GROUND POWER
 ABOVE GROUND TELCO
 ABOVE GROUND TELCO/POWER
 WORKPOINT
 SECTION REFERENCE
 DETAIL REFERENCE



LEGEND

AB ANCHOR BOLT	IN INCH
ABV ABOVE	INT INTERIOR
AC ALTERNATING CURRENT	LB(S) POUND(S)
ADDL ADDITIONAL	LF LINEAR FEET
AFF ABOVE FINISHED FLOOR	LTE LONG TERM EVOLUTION
AFG ABOVE FINISHED GRADE	MAS MASONRY
AGL ABOVE GROUND LEVEL	MAX MAXIMUM
AIC AMPERAGE INTERRUPTION CAPACITY	MB MACHINE BOLT
ALJIM ALUMINUM	MECH MECHANICAL
ALT ALTERNATE	MFR MANUFACTURER
ANT ANTENNA	MGB MASTER GROUND BAR
APPROX APPROXIMATE	MIN MINIMUM
ARCH ARCHITECTURAL	MISC MISCELLANEOUS
ATS AUTOMATIC TRANSFER SWITCH	MTL METAL
AWG AMERICAN WIRE GAUGE	MTS MANUAL TRANSFER SWITCH
BATT BATTERY	MW MICROWAVE
BLDG BUILDING	NEC NATIONAL ELECTRIC CODE
BLK BLOCK	NM NEWTON METERS
BLKG BLOCKING	NO. NUMBER
BM BEAM	# NUMBER
BTC BARE TINNED COPPER CONDUCTOR	NTS NOT TO SCALE
BOF BOTTOM OF FOOTING	OC ON-CENTER
CAB CABINET	OSHA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
CANT CANTILEVERED	OPNG OPENING
CHG CHARGING	P/C PRECAST CONCRETE
CLG CEILING	PCS PERSONAL COMMUNICATION SERVICES
CLR CLEAR	PCU PRIMARY CONTROL UNIT
COL COLUMN	PRC PRIMARY RADIO CABINET
COMM COMMON	PP POLARIZING PRESERVING
CONC CONCRETE	PSF POUNDS PER SQUARE FOOT
CONSTR CONSTRUCTION	PSI POUNDS PER SQUARE INCH
DBL DOUBLE	PT PRESSURE TREATED
DC DIRECT CURRENT	PWR POWER CABINET
DEPT DEPARTMENT	QTY QUANTITY
DF DOUGLAS FIR	RAD RADIUS
DIA DIAMETER	RECT RECTIFIER
DIAG DIAGONAL	REF REFERENCE
DIM DIMENSION	REINF REINFORCEMENT
DWG DRAWING	REQ'D REQUIRED
DWL DOWEL	RET REMOTE ELECTRIC TILT
EA EACH	RF RADIO FREQUENCY
EC ELECTRICAL CONDUCTOR	RMC RIGID METALLIC CONDUIT
EL ELEVATION	RRH REMOTE RADIO HEAD
ELEC ELECTRICAL	RRU REMOTE RADIO UNIT
EMT ELECTRICAL METALLIC TUBING	RWY RACEWAY
ENG ENGINEER	SCH SCHEDULE
EQ EQUAL	SHT SHEET
EXP EXPANSION	SIAD SMART INTEGRATED ACCESS DEVICE
EXT EXTERIOR	SIM SIMILAR
EW EACH WAY	SPEC SPECIFICATION
FAB FABRICATION	SQ SQUARE
FF FINISH FLOOR	SS STAINLESS STEEL
FG FINISH GRADE	STD STANDARD
FIF FACILITY INTERFACE FRAME	STL STEEL
FIN FINISH(ED)	TEMP TEMPORARY
FLR FLOOR	THK THICKNESS
FDN FOUNDATION	TMA TOWER MOUNTED AMPLIFIER
FOC FACE OF CONCRETE	TN TOE NAIL
FOM FACE OF MASONRY	TOA TOP OF ANTENNA
FOS FACE OF STUD	TOC TOP OF CURB
FOW FACE OF WALL	TOF TOP OF FOUNDATION
FS FINISH SURFACE	TOP TOP OF PLATE (PARAPET)
FT FOOT	TOS TOP OF STEEL
FTG FOOTING	TOW TOP OF WALL
GA GAUGE	TVSS TRANSIENT VOLTAGE SURGE SUPPRESSION
GEN GENERATOR	TYP TYPICAL
GFCI GROUND FAULT CIRCUIT INTERRUPTER	UG UNDERGROUND
GLB GLUE LAMINATED BEAM	UL UNDERWRITERS LABORATORY
GLV GALVANIZED	UNO UNLESS NOTED OTHERWISE
GPS GLOBAL POSITIONING SYSTEM	UMTS UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
GND GROUND	UPS UNINTERRUPTIBLE POWER SYSTEM (DC POWER PLANT)
GSM GLOBAL SYSTEM FOR MOBILE	VIF VERIFIED IN FIELD
HDG HOT DIPPED GALVANIZED	W WIDE
HDR HEADER	W/ WITH
HGR HANGER	WD WOOD
HVAC HEAT/VENTILATION/AIR CONDITIONING	WP WEATHERPROOF
HT HEIGHT	WT WEIGHT
IGR INTERIOR GROUND RING	

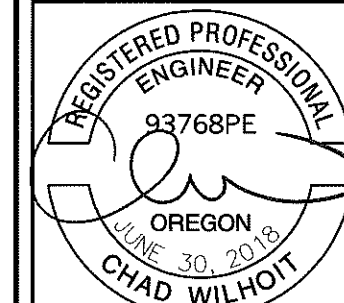
ABBREVIATIONS



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



12/20/2021
EXPIRES: 6/30/2022

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

DRAWN BY: CHECKED BY: APPROVED BY:

LTH DM MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION
PRPDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
LEGEND AND ABBREVIATIONS

SHEET NUMBER

GN-1

SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED – NO WORK SHALL COMMENCE PRIOR TO CONTRACTOR RECEIVING A WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE DISH Wireless L.L.C. AND TOWER OWNER NOC & THE DISH Wireless L.L.C. AND TOWER OWNER CONSTRUCTION MANAGER.
2. "LOOK UP" – DISH Wireless L.L.C. AND TOWER OWNER SAFETY CLIMB REQUIREMENT:
THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR DISH Wireless L.L.C. AND DISH Wireless L.L.C. AND TOWER OWNER POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
4. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND DISH Wireless L.L.C. AND TOWER OWNER STANDARDS, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA-322 (LATEST EDITION).
5. ALL SITE WORK TO COMPLY WITH DISH Wireless L.L.C. AND TOWER OWNER INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON DISH Wireless L.L.C. AND TOWER OWNER TOWER SITE AND LATEST VERSION OF ANSI/TIA-1019-A-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY DISH Wireless L.L.C. AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES INCLUDING PRIVATE LOCATES SERVICES PRIOR TO THE START OF CONSTRUCTION.
10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND DISH PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF DISH Wireless L.L.C. AND TOWER OWNER, AND/OR LOCAL UTILITIES.
14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
17. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
19. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS AND RADIOS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GENERAL NOTES:

- 1.FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR:GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION
CARRIER:DISH Wireless L.L.C.
TOWER OWNER:TOWER OWNER
2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
6. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CARRIER POC AND TOWER OWNER.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION, BEFORE SUBMITTING BIDS, TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF DISH Wireless L.L.C. AND TOWER OWNER
13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



EXPIRES: 6/30/2022

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

DRAWN BY:	CHECKED BY:	APPROVED BY:
LTH	DM	MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/15/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION
PRPD00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-2

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°F AT TIME OF PLACEMENT.
4. CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
 #4 BARS AND SMALLER 40 ksi
 #5 BARS AND LARGER 60 ksi
6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
 - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
 - CONCRETE EXPOSED TO EARTH OR WEATHER:
 - #6 BARS AND LARGER 2"
 - #5 BARS AND SMALLER 1-1/2"
 - CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
 - SLAB AND WALLS 3/4"
 - BEAMS AND COLUMNS 1-1/2"
7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
- 4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
- 4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
5. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
8. TIE WRAPS ARE NOT ALLOWED.
9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

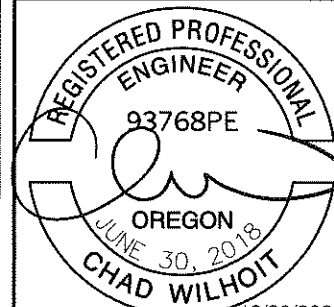
16. ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
18. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).
22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3 (OR BETTER) FOR EXTERIOR LOCATIONS.
25. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR DISH Wireless L.L.C. AND TOWER OWNER BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "DISH Wireless L.L.C.".
30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



EXPIRES: 6/30/2022

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

DRAWN BY:	CHECKED BY:	APPROVED BY:
LTH	DM	MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/18/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION
PRPDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-3

GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). DO NOT ATTACH GROUNDING TO FIRE SPRINKLER SYSTEM PIPES.



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1000 HOLCOMB WOODS PKWY,
SUITE 210
ROSWELL, GA 30076
678-280-2325



EXPIRES: 6/30/2022

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

DRAWN BY:	CHECKED BY:	APPROVED BY:
LTH	DM	MSB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/16/2021	ISSUED FOR REVIEW
0	12/17/2021	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
21CCD12N-0051

DISH Wireless L.L.C.
PROJECT INFORMATION
PRPDX00328B
2400 DOUGLAS AVE.
NEWBERG, OR 97132

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-4

Attachment 2: Agency Comments



COMMUNITY DEVELOPMENT
LAND USE APPLICATION REFERRAL

REFERRAL TO: Building Official: Brooks Bateman

The enclosed material has been referred to you for your information and comment. Any comments you wish to make should be returned to the Community Development Department prior to: Dec 07, 2022. Please refer questions and comments to Ashley Smith.

NOTE: Full size plans are available at the Community Development Department Office.

APPLICANT: Crown Castle for Dish Wireless
REQUEST: Extend existing tower height by 10'
SITE ADDRESS: 1421 Deborah Rd.
LOCATION: N/A
TAX LOT: R3217-02500
FILE NO: VAR22-0004/MIMD22-0001
ZONE: R-1 (Low Density Residential)
HEARING DATE: N/A



Project Information is Attached & can be viewed online at:
<https://www.newbergoregon.gov/planning/page/var22-0004-mimd22-0001-dish-wireless-cell-tower-modification>

- Reviewed, no conflict.
- Reviewed; recommend denial for the following reasons:
- Require additional information to review. (Please list information required)
- Meeting requested.
- Comments. (Attach additional pages as needed)


Reviewed By:

11-23-22
Date:



COMMUNITY DEVELOPMENT LAND USE APPLICATION REFERRAL

REFERRAL TO: Community Development Director: Doug Rux

The enclosed material has been referred to you for your information and comment. Any comments you wish to make should be returned to the Community Development Department prior to: Dec 07, 2022. Please refer questions and comments to Ashley Smith.

NOTE: Full size plans are available at the Community Development Department Office.

APPLICANT: Crown Castle for Dish Wireless
REQUEST: Extend existing tower height by 10'
SITE ADDRESS: 1421 Deborah Rd.
LOCATION: N/A
TAX LOT: R3217-02500
FILE NO: VAR22-0004/MIMD22-0001
ZONE: R-1 (Low Density Residential)
HEARING DATE: N/A



Project Information is Attached & can be viewed online at:
<https://www.newbergoregon.gov/planning/page/var22-0004-mimd122-0001-dish-wireless-cell-tower-modification>

- Reviewed, no conflict.
- Reviewed; recommend denial for the following reasons:
- Require additional information to review. (Please list information required)
- Meeting requested.
- Comments. (Attach additional pages as needed)

Reviewed By:

11/30/22
Date:



COMMUNITY DEVELOPMENT LAND USE APPLICATION REFERRAL

The enclosed material has been referred to you for your information and comment. Any comments you wish to make should be returned to the Community Development Department prior to: Dec 07,2022
Please refer questions and comments to: Ashley Smith.

NOTE: Full size plans are available at the Community Development Department Office.

APPLICANT: Crown Castle for Dish Wireless
REQUEST: Extend existing tower height by 10'
SITE ADDRESS: 1421 Deborah Rd.
LOCATION: N/A
TAX LOT: R3217-02500
FILE NO: VAR22-0004/MIMD22-0001
ZONE: R-1 (Low Density Residential)
HEARING DATE: N/A



11/23/22

Project Information is Attached & can be found at:
<https://www.newbergoregon.gov/planning/page/var22-0004-mimd122-0001-dish-wireless-cell-tower-modification>

- Reviewed, no conflict.
- Reviewed; recommend denial for the following reasons:
- Require additional information to review. (Please list information required)
- Meeting requested.
- Comments. (Attach additional pages as needed)

Digitally signed by Will
DN: c=US, ou=Worthey, o=City of Newberg, cn=Will, e=will.worthey@
newbergoregon.gov
Reason: I am the author of this document
Location:
Date: 2022.11.23 09:15:48-08'00'
Foxit PDF Editor Version: 12.0.0

11/23/22

Reviewed By:

Date:

Will Worthey (CM)

Organization:



COMMUNITY DEVELOPMENT LAND USE APPLICATION REFERRAL

The enclosed material has been referred to you for your information and comment. Any comments you wish to make should be returned to the Community Development Department prior to: Dec 07,2022
Please refer questions and comments to: Ashley Smith.

NOTE: Full size plans are available at the Community Development Department Office.

APPLICANT: Crown Castle for Dish Wireless
REQUEST: Extend existing tower height by 10'
SITE ADDRESS: 1421 Deborah Rd.
LOCATION: N/A
TAX LOT: R3217-02500
FILE NO: VAR22-0004/MIMD22-0001
ZONE: R-1 (Low Density Residential)
HEARING DATE: N/A



Project Information is Attached & can be found at:
<https://www.newbergoregon.gov/planning/page/var22-0004-mimd22-0001-dish-wireless-cell-tower-modification>

- Reviewed, no conflict.
- Reviewed; recommend denial for the following reasons:
- Require additional information to review. (Please list information required)
- Meeting requested.
- Comments. (Attach additional pages as needed)

Barbara Davis
Digitally signed by Barbara Davis
DN: CN=Barbara Davis, E=Accountsreceivable@newbergoregon.gov
Reason: I am the author of this document
Location:
Date: 2022.11.29 07:10:55-08'00'
Foxit PDF Editor Version: 12.0.0

11/29/22

Reviewed By:

Date:

Finance

Organization:



COMMUNITY DEVELOPMENT LAND USE APPLICATION REFERRAL

The enclosed material has been referred to you for your information and comment. Any comments you wish to make should be returned to the Community Development Department prior to: Dec 07,2022
Please refer questions and comments to: Ashley Smith.

NOTE: Full size plans are available at the Community Development Department Office.

APPLICANT: Crown Castle for Dish Wireless
REQUEST: Extend existing tower height by 10'
SITE ADDRESS: 1421 Deborah Rd.
LOCATION: N/A
TAX LOT: R3217-02500
FILE NO: VAR22-0004/MIMD22-0001
ZONE: R-1 (Low Density Residential)
HEARING DATE: N/A



Project Information is Attached & can be found at:
<https://www.newbergoregon.gov/planning/page/var22-0004-mimd122-0001-dish-wireless-cell-tower-modification>

- Reviewed, no conflict.
- Reviewed; recommend denial for the following reasons:
- Require additional information to review. (Please list information required)
- Meeting requested.
- Comments. (Attach additional pages as needed)

April Catan

Digitally signed by April Catan
DN: c=US, ou=Operations, o=City of Newberg, cn=April Catan, e=april.catan@newbergoregon.gov
Reason: I am the author of this document
Location:
Date: 2022.11.23 08:31:24 -08'00'
Foxit PDF Editor Version: 12.0.0

11/23/22

Reviewed By:

Date:

City of Newberg

Organization:



COMMUNITY DEVELOPMENT LAND USE APPLICATION REFERRAL

The enclosed material has been referred to you for your information and comment. Any comments you wish to make should be returned to the Community Development Department prior to: Dec 07,2022
Please refer questions and comments to: Ashley Smith.

NOTE: Full size plans are available at the Community Development Department Office.

APPLICANT: Crown Castle for Dish Wireless
REQUEST: Extend existing tower height by 10'
SITE ADDRESS: 1421 Deborah Rd.
LOCATION: N/A
TAX LOT: R3217-02500
FILE NO: VAR22-0004/MIMD22-0001
ZONE: R-1 (Low Density Residential)
HEARING DATE: N/A



11/23/22

Project Information is Attached & can be found at:

<https://www.newbergoregon.gov/planning/page/var22-0004-mimd22-0001-dish-wireless-cell-tower-modification>

Reviewed, no conflict.

Reviewed; recommend denial for the following reasons:

Require additional information to review. (Please list information required)

Meeting requested.

Comments. (Attach additional pages as needed)



Reviewed By:

11/23/22

Date:

City of Newberg

Organization:



COMMUNITY DEVELOPMENT LAND USE APPLICATION REFERRAL

The enclosed material has been referred to you for your information and comment. Any comments you wish to make should be returned to the Community Development Department prior to: Dec 07,2022
Please refer questions and comments to: Ashley Smith.

NOTE: Full size plans are available at the Community Development Department Office.

APPLICANT: Crown Castle for Dish Wireless
REQUEST: Extend existing tower height by 10'
SITE ADDRESS: 1421 Deborah Rd.
LOCATION: N/A
TAX LOT: R3217-02500
FILE NO: VAR22-0004/MIMD22-0001
ZONE: R-1 (Low Density Residential)
HEARING DATE: N/A



11/23/22

Project Information is Attached & can be found at:

<https://www.newbergoregon.gov/planning/page/var22-0004-mimd122-0001-dish-wireless-cell-tower-modification>

Reviewed, no conflict.

Reviewed; recommend denial for the following reasons:

Require additional information to review. (Please list information required)

Meeting requested.

Comments. (Attach additional pages as needed)

Reviewed By:

Ziplay Fiber - Scott Albert Network Engineer

Organization:

11/23/22

Date:



COMMUNITY DEVELOPMENT
LAND USE APPLICATION REFERRAL

The enclosed material has been referred to you for your information and comment. Any comments you wish to make should be returned to the Community Development Department prior to: Dec 07,2022
Please refer questions and comments to: Ashley Smith.

NOTE: Full size plans are available at the Community Development Department Office.

APPLICANT: Crown Castle for Dish Wireless
REQUEST: Extend existing tower height by 10'
SITE ADDRESS: 1421 Deborah Rd.
LOCATION: N/A
TAX LOT: R3217-02500
FILE NO: VAR22-0004/MIMD22-0001
ZONE: R-1 (Low Density Residential)
HEARING DATE: N/A



Project Information is Attached & can be found at:
<https://www.newbergoregon.gov/planning/page/var22-0004-mimd22-0001-dish-wireless-cell-tower-modification>

- Reviewed, no conflict.
- Reviewed; recommend denial for the following reasons:
- Require additional information to review. (Please list information required)
- Meeting requested.
- Comments. (Attach additional pages as needed)

Jeff Kosmicki
Digitally signed by Jeff Kosmicki
DN: O=Chief of Police, CN=Jeff Kosmicki, E=jeff.kosmicki@newbergoregon.gov
Reason: I am the author of this document
Location:
Date: 2022.12.02 13:06:14-08'00'
Foxit PDF Editor Version: 12.0.0

12/2/22

Reviewed By:

Date:

Newberg-Dundee Police Dept.

Organization:



COMMUNITY DEVELOPMENT LAND USE APPLICATION REFERRAL

The enclosed material has been referred to you for your information and comment. Any comments you wish to make should be returned to the Community Development Department prior to: Dec 07,2022
Please refer questions and comments to: Ashley Smith.

NOTE: Full size plans are available at the Community Development Department Office.

APPLICANT: Crown Castle for Dish Wireless
REQUEST: Extend existing tower height by 10'
SITE ADDRESS: 1421 Deborah Rd.
LOCATION: N/A
TAX LOT: R3217-02500
FILE NO: VAR22-0004/MIMD22-0001
ZONE: R-1 (Low Density Residential)
HEARING DATE: N/A



Project Information is Attached & can be found at:

<https://www.newbergoregon.gov/planning/page/var22-0004-mimd122-0001-dish-wireless-cell-tower-modification>

- Reviewed, no conflict.
- Reviewed; recommend denial for the following reasons:
- Require additional information to review. (Please list information required)
- Meeting requested.
- Comments. (Attach additional pages as needed)

Brett Musick

Reviewed By:

11/30/22

Date:

CON PW-Engineering

Organization: