



THE CITY OF SAN DIEGO

Report to the Hearing Officer

DATE ISSUED: May 10, 2023 REPORT NO. HO-23-022

HEARING DATE: May 24, 2023

SUBJECT: ATC 54th Street Frontage, Process Three Decision

PROJECT NUMBER: [694603](#)

OWNER/APPLICANT: Calvary Evangelical Lutheran Church, Owner/American Tower Corporation & Dish Wireless, Permittee

SUMMARY

Issue (s): Should the Hearing Officer approve a Wireless Communication Facility (WCF) located at 3060 54th Street, in the Mid-City Eastern Area Community Plan Area?

Staff Recommendation: Approve Conditional Use Permit (CUP) No. 2604426.

Community Planning Group Recommendation: On March 22, 2023, the Mid-City Eastern Area Community Planning Group voted 12-0-0 to recommend approval of the proposed project without conditions. (Attachment 7).

Environmental Review:

This project was determined to be categorically exempt from the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines section (15301) (Existing Facilities). This project is not pending an appeal of the environmental determination. The environmental exemption determination for this project was made on April 5, 2023 and the opportunity to appeal that determination ended on April 19, 2023.

BACKGROUND

An existing 30-foot faux mono-elm tree (faux tree) has housed antennas and Remote Radio Units (RRUs) for a Cricket Wireless WCF in the same location for over ten-years. Cricket Wireless no longer utilizes the existing facility; however, Dish Wireless, which is starting a new network in the San Diego Market, proposes to use the existing facility for their WCF antennas and equipment.

The project consists of a 30-foot-tall faux tree that conceals six (6) antennas and six (6) RRUs with associated ancillary equipment located on the ground near the faux tree, inside a 100-square-foot

enclosure. The site is located at 3060 54th Street, within the RS-1-7 zone of Mid-City: Eastern Area Community Plan area.

The site is developed with multiple church buildings and three other WCFs for Verizon, T-Mobile, and AT&T. The site is surrounded by single family residential to the north, south and west and 54th Street Frontage Road to the east. (Attachments 1, 2, and 3).

Pursuant to San Diego Municipal Code (SDMC) Section [141.0420\(c\)\(1\)\(A\)\(i\)](#), the project requires a Conditional Use Permit (CUP), Process 3, Hearing Officer approval as the project is located in a residential zone on a premises that does not contain residential development but is located less than 100 feet from a residential property.

WCFs are separately regulated uses, which have limitations or require compliance with conditions in order to minimize potential impacts. The intent of the regulations is to camouflage facilities from public view. [Council Policy 600-43](#) (Wireless Communication Facilities) assign preference levels to WCFs proposed on different land uses, with Preference 1 being the highest preference and Preference 4 the lowest. The subject WCF is considered a Preference 3 as it is a non-residential facility in a residential zone requiring a CUP Process Three approval. This project is in an existing faux tree that has not been used since 2016. The original faux tree supported Cricket Wireless antennas approved by Development Services on October 16, 2006. The site has been vacant since 2016.

DISCUSSION

Dish Wireless proposes to use the existing 30-foot-tall faux tree to conceal six (6) antennas and six (6) RRUs with the associated ancillary equipment cabinets located inside an enclosure at ground level near the tree. (Attachment 6, Figure 1 and 2)



Figure 1 and 2: Existing and Proposed views

The faux tree is designed to conceal antennas within the branches and the WCF integrates with the existing landscape on site. The existing landscape on site helps blend the proposed antennas with the surroundings. In addition, the faux tree will be rebranched and new branches added to conceal the new Dish antennas. A branch spacing chart is included as part of the site justification to show the project meets the WCF regulations for the branch count (Attachment 12). The proposed

antennas are integrated with the existing faux tree with addition of new branches, similar in color, and rebranching of the tree. This method of integration conceals the antennas and reduces visual impact to the surrounding area as required per the design requirements of San Diego Municipal Code (SDMC) Section [141.0420\(d\)](#) and the [WCF Design Guidelines](#).

This wireless facility is located in the center of a large church property that spans from 54th Street to 53rd Street with two street frontages. The faux tree is located on the northwesterly portion of the property between two buildings, adjacent to one of the church's parking lots, in a landscaped area with the Verizon faux tree to the south. The faux tree is not visible from 54th Street (east) and only minimally visible from 53rd Street (west).

A site justification analysis was prepared by Dish Wireless demonstrating the need to provide service to this area (Attachment 11). There is no existing coverage map for this area since Dish has not established a WCF in this area. The service provided by this site will include the surrounding residential areas and 54th Street corridor. This is the only non-residential property in this immediate area and it houses three other carriers' WCFs (AT&T, T-Mobile, and Verizon).

The Telecommunication Act of 1996 preempts local governments from regulating the "placement, construction and modification of wireless communication facilities on the basis of the environmental effects of Radio Frequency (RF) emissions to the extent that such facilities comply with the Federal Communication Commission's (FCC) standards for such emissions. A Radio Frequency – Electromagnetic Energy (RF-EME) Compliance Report, by Waterford Consultants, was submitted on October 11, 2021 to the City verifying that the proposed project meets or exceeds the requirements of the FCC. Staff has reviewed and accepted this report. The report will be stamped as Exhibit "A" and provided within the project file.

Community Plan:

The Mid-City Eastern Community Plan does not contemplate or address WCFs. However, the City of San Diego's General Plan Section UD-15 requires that the visual impacts from wireless facilities be minimized by concealing WCFs inside existing structures or using screening techniques to hide or blend them into the surrounding area. The proposed upgrade of this WCF maintains the existing faux tree, which will have minimal visual impact to the surrounding area and remains in compliance with the City's General Plan Requirements. The design of the WCF is respectful of the neighborhood context and does not adversely affect the applicable land use plans. The City of San Diego's WCF regulations require that applicants use all reasonable means to conceal or minimize visual WCF impacts through integration among other existing uses through the use of architecture, landscape, and siting solutions.

Conclusion:

The project as designed complies with the WCF Regulations [SDMC141.0420](#), Wireless Design Guidelines, [Council Policy 600-43](#) and Community Plan regulations. Staff has prepared draft findings in the affirmative to approve the project and recommends approval of Conditional Use Permit No. 2604460. (Attachments 4 and 5).

ALTERNATIVES

1. Approve Conditional Use Permit No. 2604460 with modifications.
2. Deny Conditional Use Permit No. 2604460 if the findings required to approve the project cannot be affirmed.

Respectfully submitted,

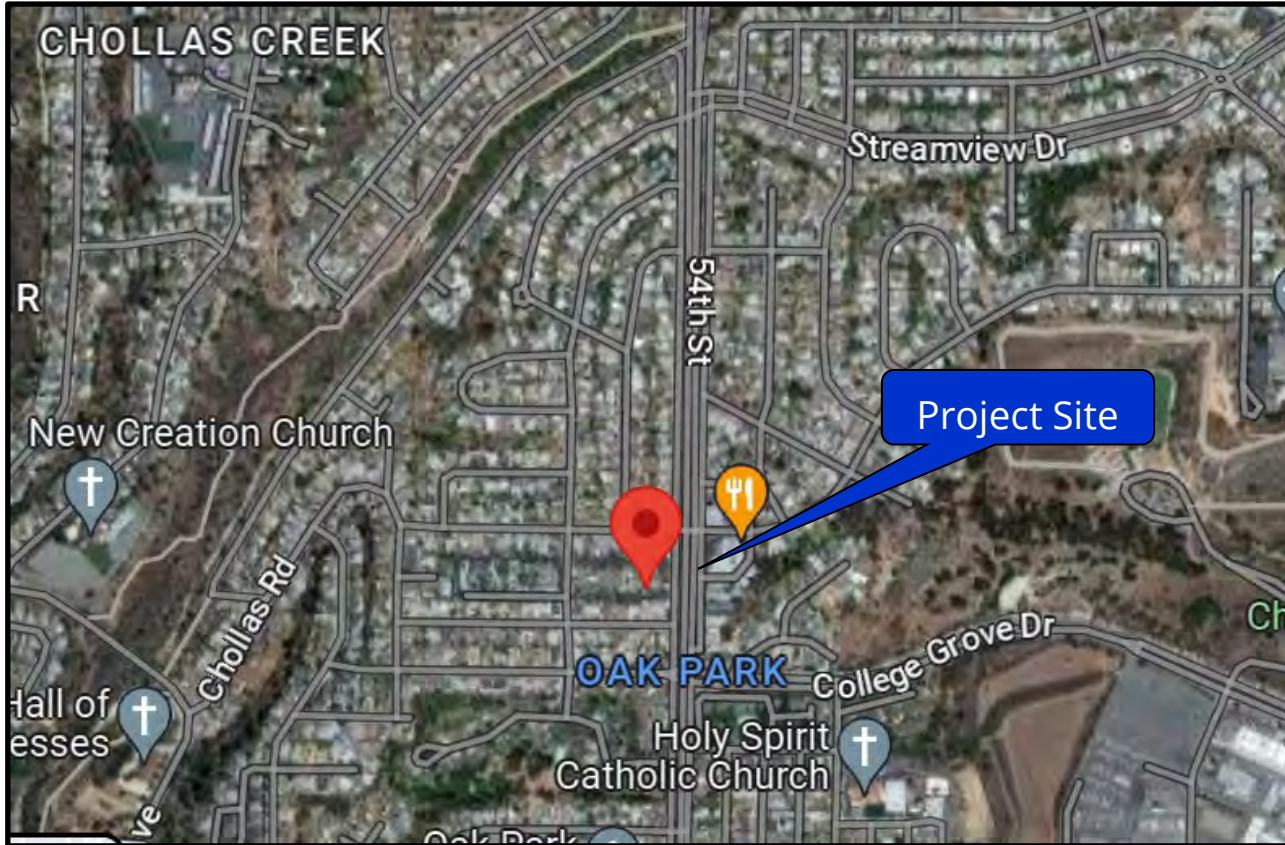


Nilia Safi, Development Project Manager

Attachments:

1. Aerial Map
2. Community Plan Land Use Map
3. Project Location Map
4. Draft Permit Resolution with Findings
5. Draft Permit with Conditions
6. Photo simulation
7. Community Planning Group Recommendation
8. Notice of Environmental Exemption
9. Project Plans
10. Ownership Disclosure Form
11. Coverage Map
12. Branch Spacing Chart
13. Photo Survey

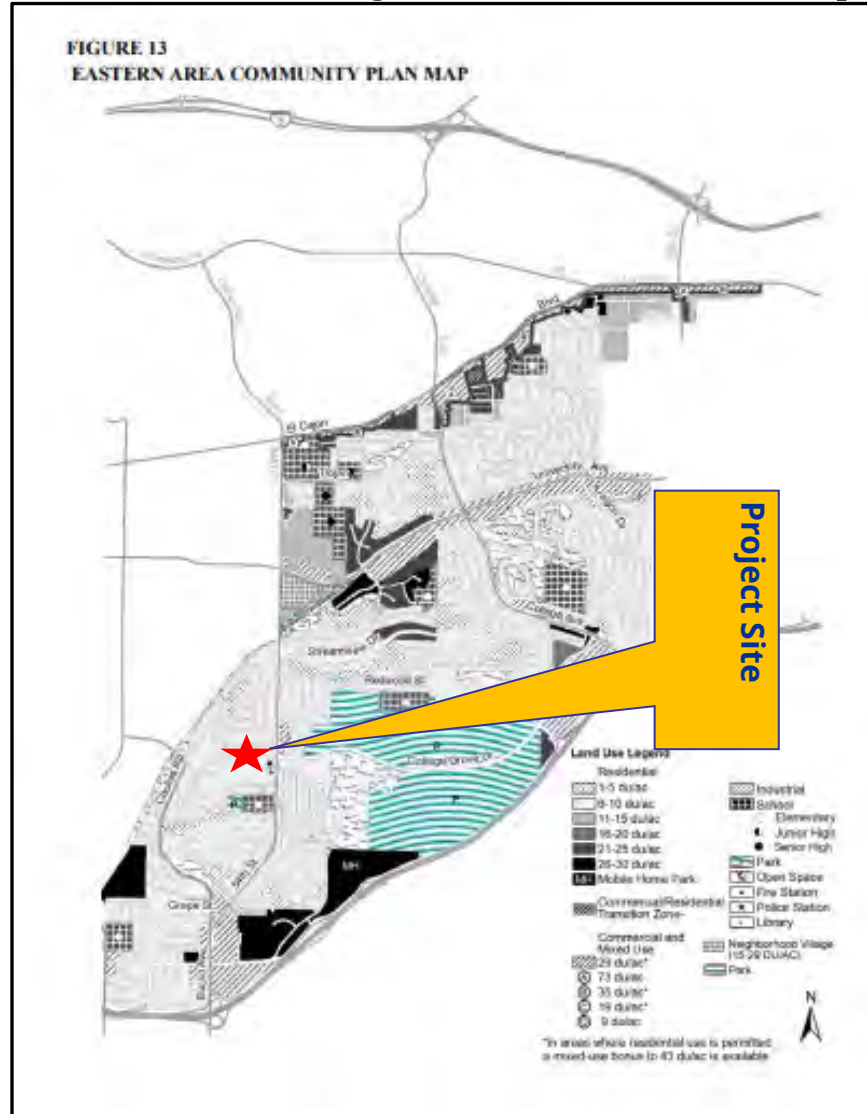
Aerial Photograph



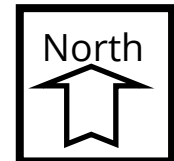
ATC- 54th Street Frontage Project No. 694603
3060 54th Street



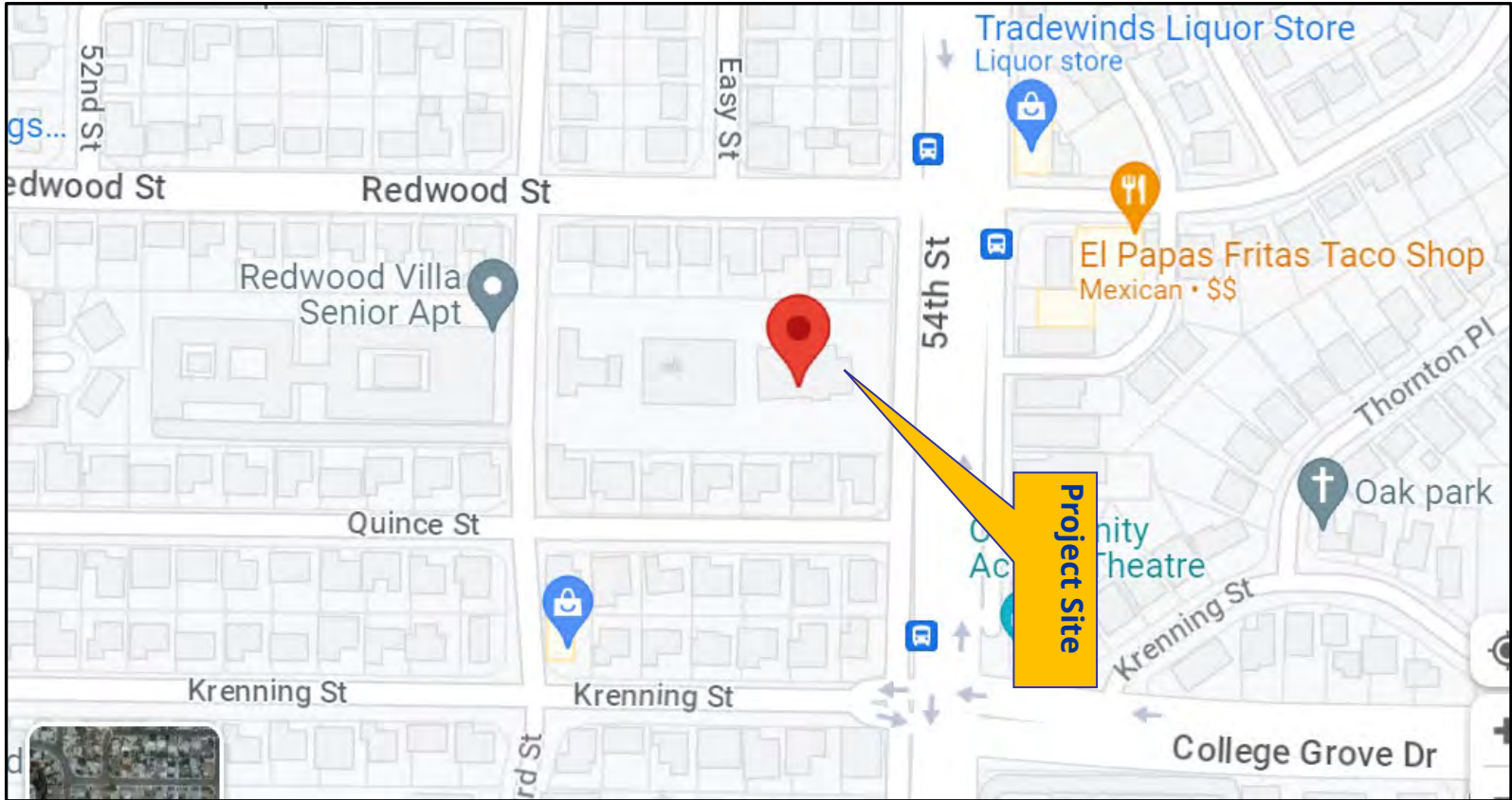
Eastern Area Community Land Use Map



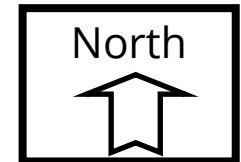
ATC- 54th Street Frontage Project No. 694603
3060 54th Street



Project Location Map



ATC- 54th Street Frontage Project No. 694603
3060 54th Street



**HEARING OFFICER
RESOLUTION NO. HO- XXXX
CONDITIONAL USE PERMIT NO. 2604426
Dish Wireless ATC 54th Street**

WHEREAS, Calvary Evangelical Lutheran Church, Owner, and American Tower Corporation and Dish Wireless, Permittees, filed an application with the City of San Diego for a permit for a Wireless Communication Facility (WCF) (as described in and by reference to the approved Exhibit "A" and corresponding conditions of approval for the associated Conditional Use Permit No. 2604426);

WHEREAS, the project site is located at 3060 54th Street, San Diego, in the RS-1-7 Zone of the Mid-City: Eastern Area Community Plan area;

WHEREAS, the project site is legally described as that portion of the southerly 200.00' to the northwest quarter of Section 34, Township 16, South; Range 2 West, San Bernardino meridian, Rancho Mission of San Diego, County of San Diego, State of California, said portion lying westerly of 54th Street as established by deed to the City of San Diego, recorded May 11, 1927 in Book 1309, Page 460 of deeds lying easterly of the southerly prolongation of the westerly line of 53rd Street, Map of Furlow Heights Unit No. 1, according to the Map No. 2504, filed in the Office of the County Recorder of San Diego, August 31, 1948, said southerly 200 feet being measured normal to the southerly line of said northwest quarter;

WHEREAS, on April 5, 2023, the City of San Diego, as Lead Agency, through the Development Services Department, made and issued an Environmental Determination that the project is exempt from the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) under CEQA Guidelines Section 15301 (Existing Facilities) and there was no appeal of the Environmental Determination filed within the time period provided by San Diego Municipal Code Section 112.0520;

WHEREAS, on May 24, 2023, the Hearing Officer of the City of San Diego considered Conditional Use Permit No. 2604426 pursuant to the Land Development Code of the City of San Diego; NOW THEREFORE,

BE IT RESOLVED by the Hearing Officer of the City of San Diego, that it adopts the following findings with respect to Conditional Use Permit No. 2604426:

A. CONDITIONAL USE PERMIT [SDMC Section 126.0305]

1. Findings for all Conditional Use Permits

a. The proposed development will not adversely affect the applicable land use plan.

Dish Wireless is proposing to modify and continue the use of an existing Wireless Communication Facility (WCF) consisting of a 30-foot-tall faux mono-elm tree (faux tree) that conceals six (6) antennas and six (6) Remote Radio Units (RRUs) with associated ancillary equipment located on grade. The site is located at 3060 54th Street, within the RS-1-7 zone of Mid-City: Eastern Area Community Plan area.

The Mid-City: Eastern Community Plan does not contemplate or address WCFs. However, the City of San Diego's General Plan Section UD-15 requires that the visual impacts from wireless facilities be minimized by concealing wireless facilities inside existing structures or using screening techniques to hide or blend them into the surrounding area. The proposed upgrade of this WCF by Dish Wireless to include rebranching and new branches will maintain the existing faux tree in place, which will have minimal visual impacts to the surrounding area and remain in compliance with the City's General Plan Requirements. Therefore, the proposed development would not adversely affect the Community Plan or the City of San Diego General Plan and Progress Guide.

b. The proposed development will not be detrimental to the public health, safety, and welfare.

The project was determined to be exempt from CEQA pursuant to CEQA Guidelines Section 15301 (Existing Facilities). The conditions of approval for the project will require compliance with several operational constraints and development controls intended to assure the continued public health, safety and welfare which include but are not limited to: height limitation, concealment requirements, and electromagnetic fields controls. All proposed improvement plans associated with the project will be reviewed prior to issuance of construction permits and inspected during construction to assure the project will meet or exceed all relevant and applicable building, electrical, mechanical, plumbing and fire codes.

The Telecommunication Act of 1996 preempts local governments from regulating the "placement, construction and modification of wireless communication facilities on the basis of the environmental effects of Radio Frequency (RF) emissions to the extent that such facilities comply with the Federal Communication Commission's (FCC) standards for such emissions."

A Radio Frequency – Electromagnetic Energy (RF-EME) Compliance Report dated October 11, 2021, from Waterford Consultants, was submitted to the City, and reviewed and accepted by staff verifying that the proposed project meets or exceeds the requirements of the FCC. Therefore, the proposed development will not be detrimental to the public health, safety, and welfare.

c. The proposed development will comply with the regulations of the Land Development Code including any allowable deviations pursuant to the Land Development Code.

The project meets all applicable requirements and constraints of the zone. The WCF Regulations (LDC Section 141.0420) contain design requirements for WCFs, which include the requirement to utilize the smallest, least visually intrusive antennas, components and other necessary equipment. Additionally, the code requires the applicant to use all reasonable means to conceal or minimize the visual impacts of the wireless communication facilities through integration. Integration with existing structures or among other existing uses shall be accomplished through the use of architecture, landscape and siting solutions. The proposed project upgrades will include rebranching of and the addition of new branches to the existing faux tree and will improve the current WCF concealment at this site.

The project is an existing WCF facility with the antennas concealed within the branches of the faux tree. The existing location was the preferred location in the Mid-City Eastern Area Community Plan area as the site provides service to the surrounding residential development. The WCF design has used reasonable means to minimize any visual impact from the project. The faux tree is designed to conceal antennas within the branches and overall it blends with the existing landscape on site. This method of integration conceals the antennas and reduces visual impacts to the surrounding area as required by the design requirements of San Diego Municipal Code (SDMC) Section 141.0420(d) and the WCF Design Guidelines.

Based on these considerations, this project complies with the permit regulations and design requirements for WCF's as identified in the Land Development Code. Therefore, the proposed development will comply with the regulations of the Land Development Code and this project does not include any deviations.

d. The proposed use is appropriate at the proposed location.

WCF's are permitted in residential zones with non-residential use with the processing of a Conditional Use Permit, Process 3. According to Council Policy 600-43, the preferred location for WCF's is in the Public Right-of-Way or within an industrial or commercial zone. If those locations are not available, a mixed-use area or area with non-residential use is preferred. Residentially zoned property with residential use is the least preferred location for WCF's. In this case, the WCF is located on premises in a residential zone with non-residential use which is Preference 3.

A site justification analysis was prepared by Dish Wireless demonstrating the need to provide service to this area (Attachment 11). There is no existing coverage map for this area since Dish has not established a WCF in this area yet. The service provided by this site will include the surrounding residential areas and 54th Street corridor. This is the only non-residential property in this area and is currently utilized by three other carriers' WCFs (AT&T, T-Mobile, and Verizon). Therefore, the proposed use is appropriate at the proposed location.

The above findings are supported by the minutes, maps and exhibits, all of which are incorporated herein by this reference.

BE IT FURTHER RESOLVED that, based on these findings adopted by the Hearing Officer, Conditional Use Permit No. 2604426 is hereby GRANTED by the Hearing Officer to the referenced Owner/Permittee, in the form, exhibits, terms and conditions as set forth in CUP No. 2604426 a copy of which is attached hereto and made a part hereof.

Nilia Safi
Development Project Manager
Development Services

Adopted on: May 24, 2023

IO#: 11004545

RECORDING REQUESTED BY
 CITY OF SAN DIEGO
 DEVELOPMENT SERVICES
 PERMIT INTAKE, MAIL STATION
 501

WHEN RECORDED MAIL TO
PROJECT MANAGEMENT
PERMIT CLERK
MAIL STATION 501

INTERNAL ORDER NUMBER: 11003679

SPACE ABOVE THIS LINE FOR RECORDER'S USE

CONDITIONAL USE PERMIT NO. 2604426
ATC 54th Street Frontage PROJECT NO. 694603
 HEARING OFFICER

This Conditional Use Permit No. 2604426 is granted by the Hearing Officer of the City of San Diego to Calvary Evangelical Lutheran Church, Owner, and American Tower Corporation and Dish Wireless, Permittees, pursuant to San Diego Municipal Code [SDMC] section [126.0303\(b\)](#) and [141.0420](#). The site is located at 3060 54th Street in the RS-1-7 zone of the Mid-City: Eastern Area Community Plan. The project site is legally described as that portion of the southerly 200.00' to the northwest quarter of Section 34, Township 16, South; Range 2 West, San Bernardino meridian, Rancho Mission of San Diego, County of San Diego, State of California, said portion lying westerly of 54th Street as established by deed to the City of San Diego, recorded May 11, 1927 in Book 1309, Page 460 of deeds lying easterly of the southerly prolongation of the westerly line of 53rd Street, Map of Furlow Heights Unit No. 1, according to the Map No. 2504, filed in the Office of the County Recorder of San Diego, August 31, 1948, said southerly 200 feet being measured normal to the southerly line of said northwest quarter.

Subject to the terms and conditions set forth in this Permit, permission is granted to Owner and Permittee for a Wireless Communication Facility (WCF) described and identified by size, dimension, quantity, type, and location on the approved exhibits [Exhibit "A"] dated May 24, 2023, on file in the Development Services Department.

The project shall include:

- a. The continued operation of an existing WCF consisting of six (6) antennas and six (6) Remote Radio Units (RRU) concealed inside an existing 30-foot-tall mono-elm faux tree with the associated ancillary equipment inside a 100-square-foot enclosure adjacent to the tree on the ground.
- b. Public and private accessory improvements determined by the Development Services Department to be consistent with the land use and development standards for this site in accordance with the adopted community plan, the California Environmental Quality Act [CEQA] and the CEQA Guidelines, the City Engineer's requirements, zoning regulations, conditions of this Permit, and any other applicable regulations of the SDMC.

STANDARD REQUIREMENTS:

1. This permit must be utilized within thirty-six (36) months after the date on which all rights of appeal have expired. If this permit is not utilized in accordance with Chapter 12, Article 6, Division 1 of the SDMC within the 36-month period, this permit shall be void unless an Extension of Time has been granted. Any such Extension of Time must meet all SDMC requirements and applicable guidelines in effect at the time the extension is considered by the appropriate decision maker. This permit must be utilized by June 7, 2026.

2. This Conditional Use Permit (CUP) and corresponding use of this site **shall expire on May 24, 2033**. Upon expiration of this Permit, the facilities and improvements described herein shall be removed from this site and the property shall be restored to its original condition preceding the construction and installation of the WCF and approval of this Permit.

3. No permit for the construction, occupancy, or operation of any facility or improvement described herein shall be granted, nor shall any activity authorized by this Permit be conducted on the premises until:

- a. The Owner/Permittee signs and returns the Permit to the Development Services Department; and
- b. The Permit is recorded in the Office of the San Diego County Recorder.

2. While this Permit is in effect, the subject property shall be used only for the purposes and under the terms and conditions set forth in this Permit unless otherwise authorized by the appropriate City decision maker.

3. This Permit is a covenant running with the subject property and all of the requirements and conditions of this Permit and related documents shall be binding upon the Owner/Permittee and any successor(s) in interest.

4. The continued use of this Permit shall be subject to the regulations of this and any other applicable governmental agency.

5. Issuance of this Permit by the City of San Diego does not authorize the Owner/Permittee for this Permit to violate any Federal, State or City laws, ordinances, regulations or policies including, but not limited to, the Endangered Species Act of 1973 [ESA] and any amendments thereto (16 U.S.C. § 1531 et seq.).

6. The Owner/Permittee shall secure all necessary building permits. The Owner/Permittee is informed that to secure these permits, substantial building modifications and site improvements may be required to comply with applicable building, fire, mechanical, and plumbing codes, and State and Federal disability access laws.

7. Construction plans shall be in substantial conformity to Exhibit "A." Changes, modifications, or alterations to the construction plans are prohibited unless appropriate application(s) or amendment(s) to this Permit have been granted.

8. All of the conditions contained in this Permit have been considered and were determined necessary to make the findings required for approval of this Permit. The Permit holder is required to comply with each and every condition in order to maintain the entitlements that are granted by this Permit.

If any condition of this Permit, on a legal challenge by the Owner/Permittee of this Permit, is found or held by a court of competent jurisdiction to be invalid, unenforceable, or unreasonable, this Permit shall be void. However, in such an event, the Owner/Permittee shall have the right, by paying applicable processing fees, to bring a request for a new permit without the "invalid" condition(s) back to the discretionary body which approved the Permit for a determination by that body as to whether all of the findings necessary for the issuance of the proposed permit can still be made in the absence of the "invalid" condition(s). Such hearing shall be a hearing de novo, and the discretionary body shall have the absolute right to approve, disapprove, or modify the proposed permit and the condition(s) contained therein.

9. The Owner/Permittee shall defend, indemnify, and hold harmless the City, its agents, officers, and employees from any and all claims, actions, proceedings, damages, judgments, or costs, including attorney's fees, against the City or its agents, officers, or employees, relating to the issuance of this permit including, but not limited to, any action to attack, set aside, void, challenge, or annul this development approval and any environmental document or decision. The City will promptly notify Owner/Permittee of any claim, action, or proceeding and, if the City should fail to cooperate fully in the defense, the Owner/Permittee shall not thereafter be responsible to defend, indemnify, and hold harmless the City or its agents, officers, and employees. The City may elect to conduct its own defense, participate in its own defense, or obtain independent legal counsel in defense of any claim related to this indemnification. In the event of such election, Owner/Permittee shall pay all of the costs related thereto, including without limitation reasonable attorney's fees and costs. In the event of a disagreement between the City and Owner/Permittee regarding litigation issues, the City shall have the authority to control the litigation and make litigation related decisions, including, but not limited to, settlement or other disposition of the matter. However, the Owner/Permittee shall not be required to pay or perform any settlement unless such settlement is approved by Owner/Permittee.

LANDSCAPE REQUIREMENTS:

10. The Owner/Permittee shall be responsible for the maintenance of all landscape improvements shown on the approved plans, including in the right-of-way, unless long-term maintenance of said landscaping will be the responsibility of another entity approved by the Development Services Department. All required landscape shall be maintained consistent with the Landscape Standards in a disease, weed, and litter free condition at all times. Severe pruning or "topping" of trees is not permitted.

11. If any required landscape (including existing or new plantings, hardscape, landscape features, etc.) indicated on the approved construction documents is damaged or removed, the Owner/Permittee shall repair and/or replace in kind and equivalent size per the approved documents to the satisfaction of the Development Services Department within 30 days of damage or Certificate of Occupancy.

ENGINEERING REQUIREMENTS:

12. Prior to the issuance of any construction permit the Owner/Permittee shall submit a Water Pollution Control Plan (WPCP). The WPCP shall be prepared in accordance with the guidelines in Part 2 Construction BMP Standards Chapter 4 of the City's Storm Water Standards.

WCF-TELECOM REQUIREMENTS:

13. Every aspect of this project is considered an element of concealment including but not limited to the dimensions, bulk and scale, color, materials and texture. Any future modifications to this permit must not defeat concealment.

14. No overhead cabling is permitted.

15. The WCF shall conform to the approved construction plans.

16. Photo simulations shall be printed in color on the construction plans.

17. The City may require the Owner/Permittee to provide a topographical survey conforming to the provisions of the SDMC if the City determines during construction that there may be a conflict between the building(s) under construction and a condition of this Permit or a regulation of the underlying zone. The cost of any such survey shall be borne by the Owner/Permittee.

18. The Owner/Permittee shall install and maintain appropriate warning signage on the WCF as required by State and Federal regulations. The Owner/Permittee shall be responsible for complying with all State and Federal regulations.

19. The accuracy and validity of the Radio Frequency (RF) Compliance Report, submitted by the Permittee, shall be assured while the WCF is in operation. If requested by the City, Owner/Permittee shall provide an updated RF Compliance Report to address any issues associated with the emitting components of the WCF.

20. All equipment, including transformers, emergency generators and air conditioners belonging to the Owner/Permittee shall be designed and operated consistent with the City noise ordinance. Ventilation openings shall be baffled and directed away from residential areas. Vibration resonance of operating equipment in the equipment enclosures shall be eliminated.

21. All facilities and related equipment shall be maintained in good working order. Any damaged equipment shall be repaired or replaced within thirty (30) calendar days of notification by the City of San Diego.

22. The Owner/Permittee shall notify the City within 30 days of the sale or transfer of this site to any other provider or if the site is no longer operational, in which case, the removal and the restoration of this site to its original condition prior to installation of the WCF is required.
23. All proposed hand-holes shall be covered with bark material to match the mono-elm faux tree trunk to the satisfaction of the Development Services Department.
24. All coaxial conduits shall be routed up through the caisson and into the faux tree to the satisfaction of the Development Services Department. "Doghouse" cable housings are not permitted.
25. All branches at the antenna level shall extend a minimum of 24-inches beyond the entire vertical face of the proposed antennas to the satisfaction of the Development Services Department.
26. Starting faux tree branch height shall be no higher than 10-feet, as illustrated on the stamped, approved Exhibit "A."
27. All exposed cables, brackets and supports shall be painted to match the faux tree foliage to the satisfaction of the Development Services Department.
28. RF socks fully covering the front and back of the antennas (and any other components) shall be used.

INFORMATION ONLY:

- Please note that a Telecom Planning Inspection Issue will be placed on the project prior to Final Clearance from the City's Building Inspector to ensure compliance with the approved plans and associated conditions. Prior to calling for your Final Inspection from your building inspection official, please contact the Development Services Department Wireless Communication Facilities staff listed on City webpage, <https://www.sandiego.gov/development-services/codes-regulations/wireless-communication-facilities>, to schedule an inspection of the completed facility. Please schedule this administrative inspection at least five working days ahead of the requested Final Inspection date.
- The issuance of this discretionary permit alone does not allow the immediate commencement or continued operation of the proposed use on site. Any operation allowed by this discretionary permit may only begin or recommence after all conditions listed on this permit are fully completed and all required ministerial permits have been issued and received final inspection.
- Any party on whom fees, dedications, reservations, or other exactions have been imposed as conditions of approval of this Permit, may protest the imposition within ninety days of the

approval of this development permit by filing a written protest with the City Clerk pursuant to California Government Code-section 66020.

- This development may be subject to impact fees at the time of construction permit issuance.

APPROVED by the Hearing Officer of the City of San Diego on May 24, 2023.

DRAFT

Conditional Use Permit No. 2604426

Date of Approval: May 24, 2023

AUTHENTICATED BY THE CITY OF SAN DIEGO DEVELOPMENT SERVICES DEPARTMENT

Nilia Safi
Development Project Manager

NOTE: Notary acknowledgment must be attached per Civil Code section 1189 et seq.

The undersigned Owner/Permittee, by execution hereof, agrees to each and every condition of this Permit and promises to perform each and every obligation of Owner/Permittee hereunder.

Calvary Evangelical Lutheran Church
Owner

By _____
NAME
TITLE

Dish Wireless
Permittee

By _____
NAME
TITLE

American Tower Corporation
Permittee

By _____
NAME
TITLE

NOTE: Notary acknowledgments must be attached per Civil Code section 1189 et seq.

EXISTING



Proposed antennas mounted to existing monotree

Proposed equipment mounted within existing equipment enclosure



PROPOSED

EXISTING



Proposed antennas mounted to existing monotree

Proposed equipment mounted within existing equipment enclosure

PROPOSED

	City of San Diego Development Services 1222 First Ave., MS-302 San Diego, CA 92101	<h1>Community Planning Committee Distribution Form</h1>	
Project Name: 3060 54th Street		Project Number: PTS 694603	
Community: Mid-City:Eastern Area			
<p>For project scope and contact information (project manager and applicant), log into OpenDSD at https://aca.accela.com/SANDIEGO.</p> <p>Select "Search for Project Status" and input the Project Number to access project information.</p>			
<input checked="" type="radio"/> Vote to Approve <input type="checkbox"/> Vote to Approve with Conditions Listed Below <input type="checkbox"/> Vote to Approve with Non-Binding Recommendations Listed Below <input type="checkbox"/> Vote to Deny			Date of Vote: November 08,
# of Members Yes 12	# of Members No 0	# of Members Abstain 0	
Conditions or Recommendations: Motion was made to provide the needed document and minutes only after the landscaping was completed.			
<input type="checkbox"/> No Action (Please specify, e.g., Need further information, Split vote, Lack of quorum, etc.)			
NAME: Lynn Edwards			
TITLE: Chair		DATE: March 22, 2023	
<i>Attach additional pages if necessary (maximum 3 attachments).</i>			

Visit our web site at www.sandiego.gov/development-services.

Upon request, this information is available in alternative formats for persons with disabilities.

DS-5620 (08-18) ONLINE FORM

NOTICE OF EXEMPTION

(Check one or both)

TO: Recorder/County Clerk
P.O. Box 1750, MS A-33
1600 Pacific Hwy, Room 260
San Diego, CA 92101-2400

From: City of San Diego
Development Services Department
1222 First Avenue, MS 501
San Diego, CA 92101

Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, CA 95814

Project Name/Number: 54th Street WCF/694603

SCH No.: Not Applicable

Project Location-Specific: 3060 54th Street, San Diego, CA 92105

Project Location-City/County: San Diego/San Diego

Description of nature and purpose of the Project: **Conditional Use Permit (CUP)** to modify and continue the operation of an existing wireless communication facility (WCF). The project would install (3) panel antennas, (6) remote radio units, (1) voltage protection device, (1) hybrid cable, (1) slab on grade, (1) proposed PPC cabinet, (1) equipment cabinet, (1) power conduit, (1) telco conduit, (1) telco-fiber box, (1) GPS unit, (1) safety switch (if required), (1) fiber box (if required), and (1) meter socket. The property is located at 3060 54th Street in the Residential (RS-1-7) zone of the Mid City Eastern Community Planning area, and Council District 4. The WCF is unmanned and is not for human habitation.

Name of Public Agency Approving Project: City of San Diego

Name of Person or Agency Carrying Out Project: PlanCom, Inc., 302 State Place, Escondido, CA 92029
(619) 208-4685

Exempt Status: (CHECK ONE)

- Ministerial (Sec. 21080(b)(1); 15268)
- Declared Emergency (Sec. 21080(b)(3); 15269(a))
- Emergency Project (Sec. 21080(b)(4); 15269 (b)(c))
- Categorical Exemption: Categorically exempt from CEQA pursuant to CEQA State Guidelines, Section 15302 (Replacement or reconstruction of existing facilities.)
- Statutory Exemptions:
- Other:

Reasons why project is exempt: The City of San Diego conducted an environmental review that determined the project would not have the potential for causing a significance effect on the environment. The project meets the criteria set forth in CEQA Section 15302 which allows for the replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site and will have substantially the same purpose and capacity as the structure being replaced. The proposed project is modifying an existing wireless communication facility (WCF) and would replace old equipment with new without expanding the use of the WCF. In addition, the exceptions listed in CEQA Section 15300.2 would not apply.

Lead Agency Contact Person: Jeff Szymanski

Telephone: (619) 446-5234

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a notice of exemption been filed by the public agency approving the project? Yes No

It is hereby certified that the City of San Diego has determined the above activity to be exempt from CEQA.

 _____
Signature Title Senior Planner

April 25, 2023 _____
Date

Check One:

- Signed By Lead Agency
 Signed by Applicant

Date Received for Filing with County Clerk or OPR:



DISH WIRELESS, LLC. SITE ID:

SDSAN00276A

DISH WIRELESS, LLC. SITE ADDRESS:

**3060 54TH ST
SAN DIEGO, CA 92105**

CALIFORNIA - 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 CALIFORNIA BUILDING CODE (CBC)/2018 IBC
MECHANICAL	2019 CALIFORNIA MECHANICAL CODE (CMC)/2018 UMC
ELECTRICAL	2019 CALIFORNIA ELECTRICAL CODE (CEC)/2017 NEC

SHEET INDEX

SHEET NO.	SHEET TITLE
T-1	TITLE SHEET
A-0	PARCEL PLAN
A-1	OVERALL AND ENLARGED SITE PLAN
L-1	LANDSCAPE PLAN
A-2	ELEVATIONS
A-3	ELEVATIONS
A-3.1	TOWER MANUFACTURER DRAWINGS
A-4	ANTENNA LAYOUT AND SCHEDULE
A-5	EQUIPMENT PLATFORM AND H-FRAME DETAILS
A-6	EQUIPMENT DETAILS
A-7	EQUIPMENT DETAILS
A-8	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

THE PROJECT PROPOSES TO CONTINUE OPERATION OF AN EXISTING WIRELESS COMMUNICATION FACILITY AND TO INCLUDE THE FOLLOWING MODIFICATIONS TO A 30 FOOT MONOPINE.

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 (3) PROPOSED ANTENNA MOUNTS (1 PER SECTOR)
 - INSTALL PROPOSED JUMPERS
 - INSTALL (6) PROPOSED RRU's (2 PER SECTOR)
 - INSTALL (1) PROPOSED OVER VOLTAGE PROTECTION DEVICE (OVP)
 - INSTALL (1) PROPOSED HYBRID CABLE

- GROUND SCOPE OF WORK:**
- INSTALL (1) PROPOSED SLAB ON GRADE
 - 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 BOX (IF REQUIRED)
 - INSTALL (1) PROPOSED METER SOCKET

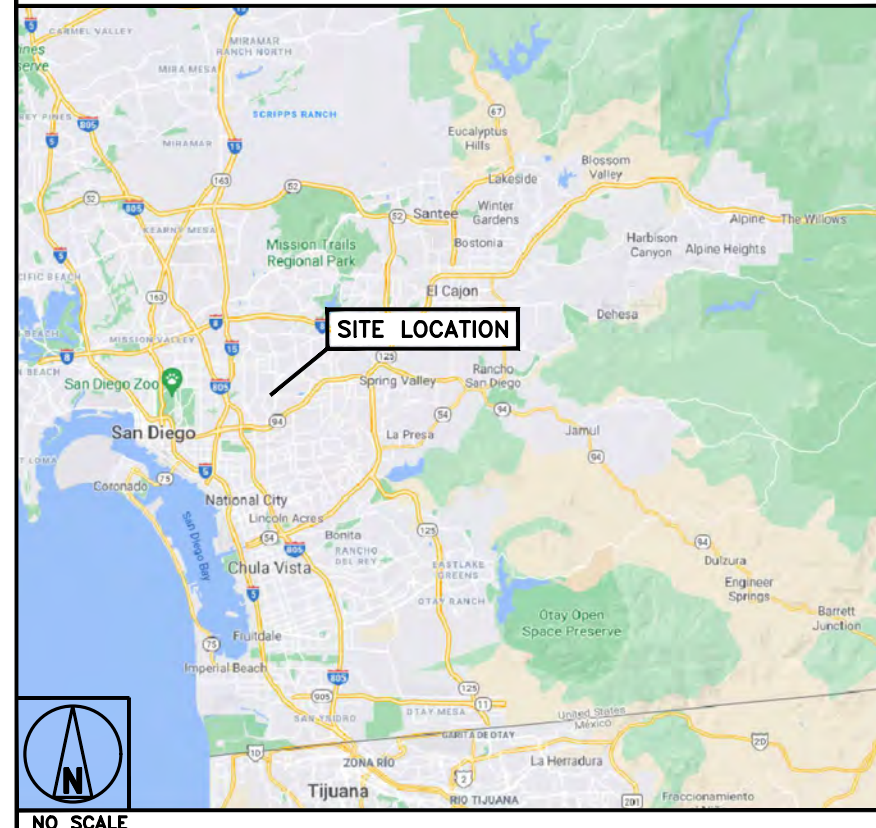
SITE PHOTO



DIRECTIONS

FROM SAN DIEGO INTERNATIONAL AIRPORT:
GET ON I-5 S. AFTER 2.9 MILES, TAKE CA-94 E TO EUCLID AVE. TAKE EXIT 4A FROM CA-94 E. AFTER 5.5 MILES, CONTINUE ON EUCLID AVE. TAKE 54TH ST TO 53RD ST. YOU WILL ARRIVE AT YOUR DESTINATION AFTER 1.6 MILES.

VICINITY MAP



UNDERGROUND SERVICE ALERT
UTILITY NOTIFICATION CENTER OF CALIFORNIA
(800) 422-4133
WWW.CALIFORNIA811.ORG
CALL 2-14 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: CALVARY EVANGELICAL LUTHERAN CHURCH OF SAN DIEGO
ADDRESS: 3060 54TH ST
SAN DIEGO, CA 92105

TOWER TYPE: STEALTH - MONOPINE

TOWER CO SITE ID: 370403

TOWER APP NUMBER: 13682564

COUNTY: SAN DIEGO

LATITUDE (NAD 83): 32° 44' 13.900" N
32.73719444

LONGITUDE (NAD 83): 117° 4' 51.500" W
-117.0809722

ZONING JURISDICTION: CITY OF SAN DIEGO

ZONING DISTRICT: RESIDENTIAL

PARCEL NUMBER: 477-313-09-00

OCCUPANCY GROUP: U

CONSTRUCTION TYPE: V-B

POWER COMPANY: SDG&E

TELEPHONE COMPANY: AT&T

PROJECT DIRECTORY

APPLICANT: DISH WIRELESS, LLC.
5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

TOWER OWNER: AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEER: ATC TOWER SERVICES, LLC
3500 REGENCY PARKWAY SUITE 100
CARY, NC 27518

SITE ACQUISITION: CATHERINE LIM
TBD

CONSTRUCTION MANAGER: PAUL HOKENESS
PAUL.HOKENESS@DISH.COM
(858) 231-8889
LALAINA BERBA

RF ENGINEER: TBD



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



DRAWN BY: CHECKED BY: APPROVED BY:

TJC SRF SRF

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/28/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



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.

A&E PROJECT NUMBER
370403-13682564

DISH WIRELESS, LLC.
PROJECT INFORMATION
SDSAN00276A
3060 54TH ST
SAN DIEGO, CA 92105

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112

DRAWN BY: TJC
CHECKED BY: SRF
APPROVED BY: SRF

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/28/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



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.

A&E PROJECT NUMBER
370403-13682564

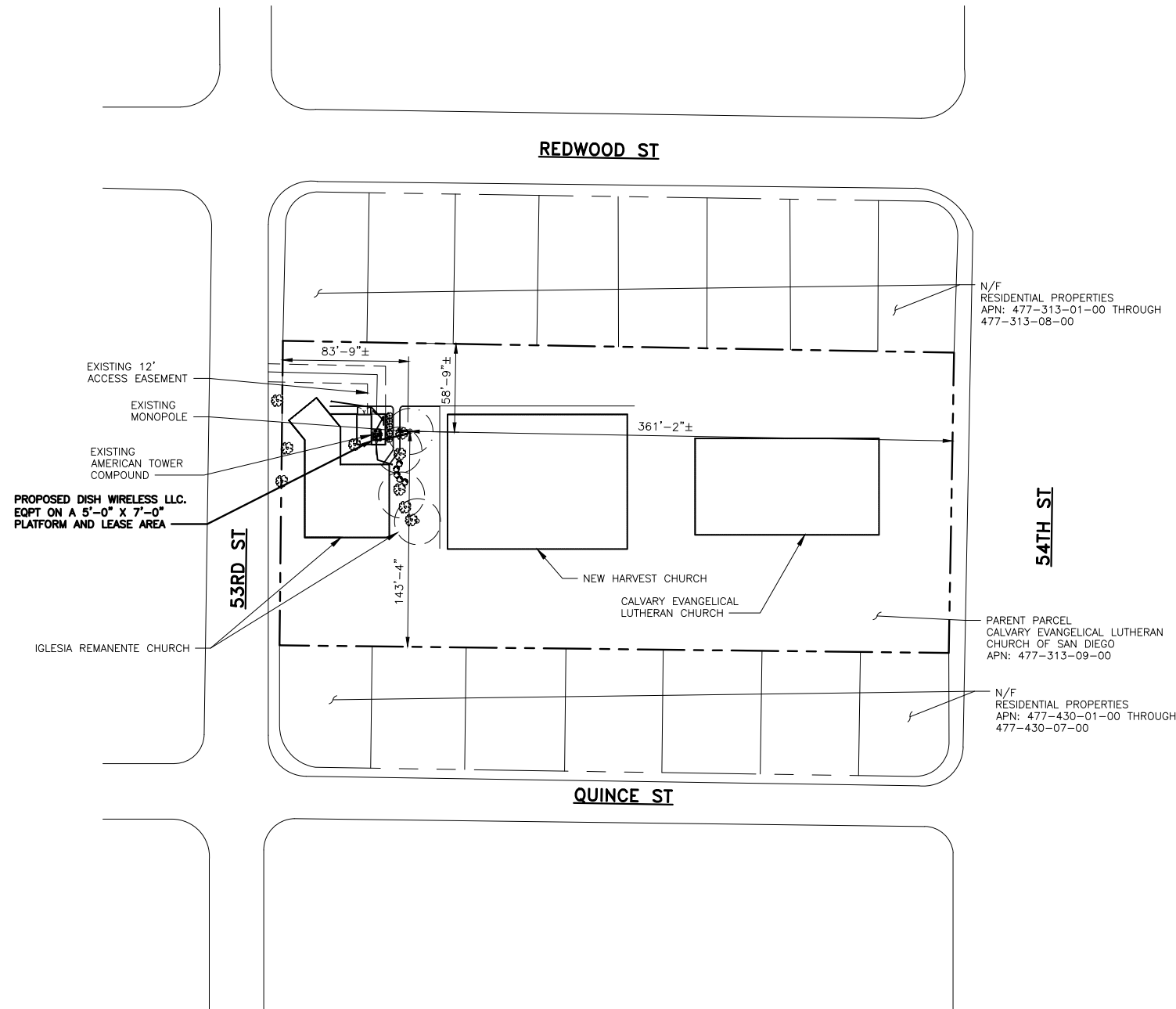
DISH WIRELESS, LLC.
PROJECT INFORMATION
SDSAN00276A
3060 54TH ST
SAN DIEGO, CA 92105

SHEET TITLE

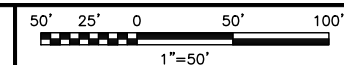
PARCEL PLAN

SHEET NUMBER

A-0



PARCEL 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.



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112

DRAWN BY:	CHECKED BY:	APPROVED BY:
TJC	SRF	SRF

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/28/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



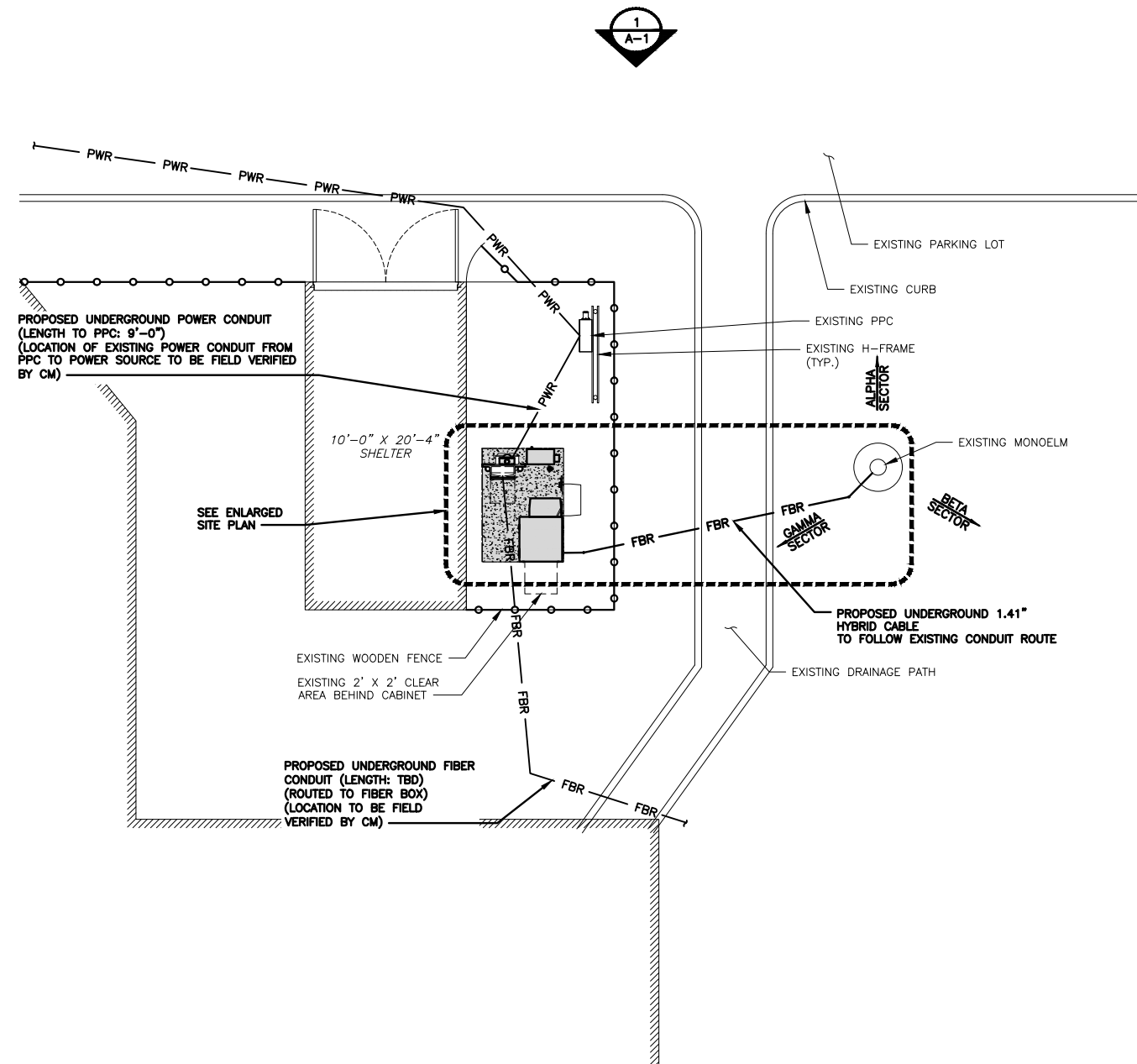
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

A&E PROJECT NUMBER
370403-13682564

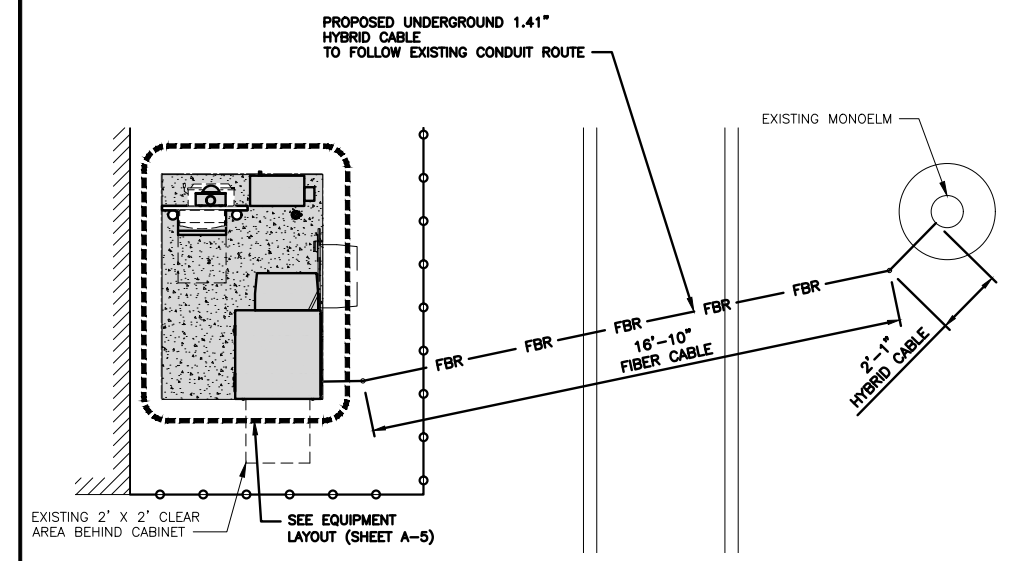
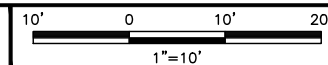
DISH WIRELESS, LLC.
PROJECT INFORMATION
SDSAN00276A
3060 54TH ST
SAN DIEGO, CA 92105

SHEET TITLE
**SITE PLAN
OVERALL AND ENLARGED**

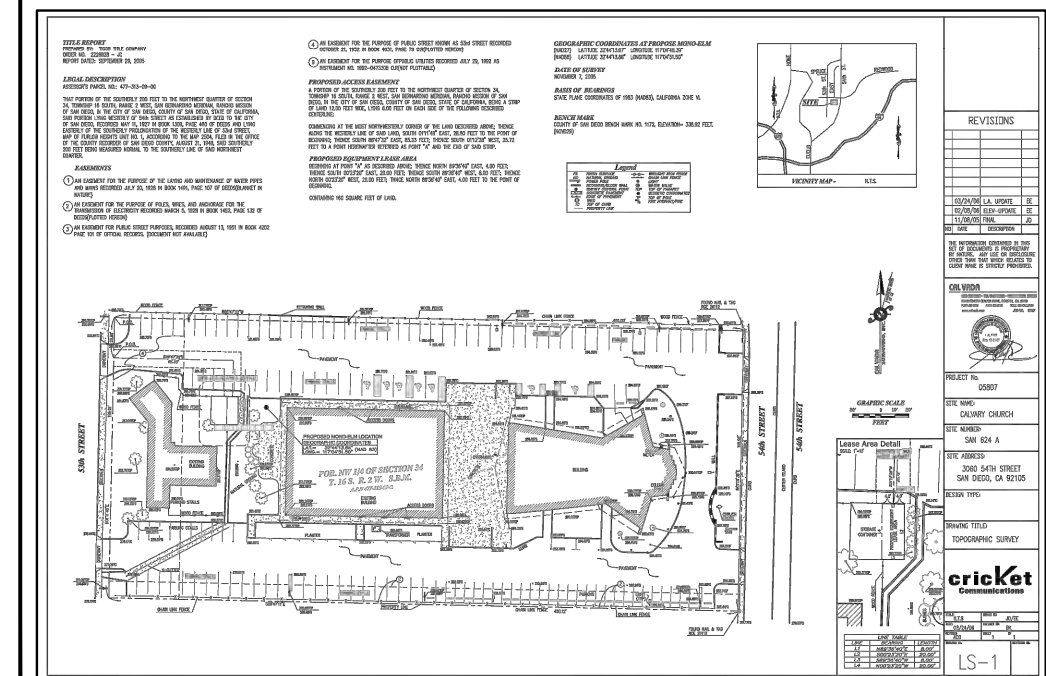
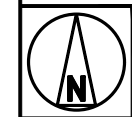
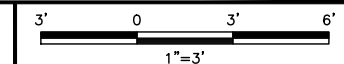
SHEET NUMBER
A-1



OVERALL SITE PLAN



ENLARGED SITE PLAN

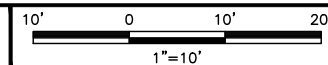


EXISTING SURVEY (BY OTHERS)

NO SCALE



OVERALL SITE PLAN



EXISTING SURVEY (BY OTHERS)

NO SCALE

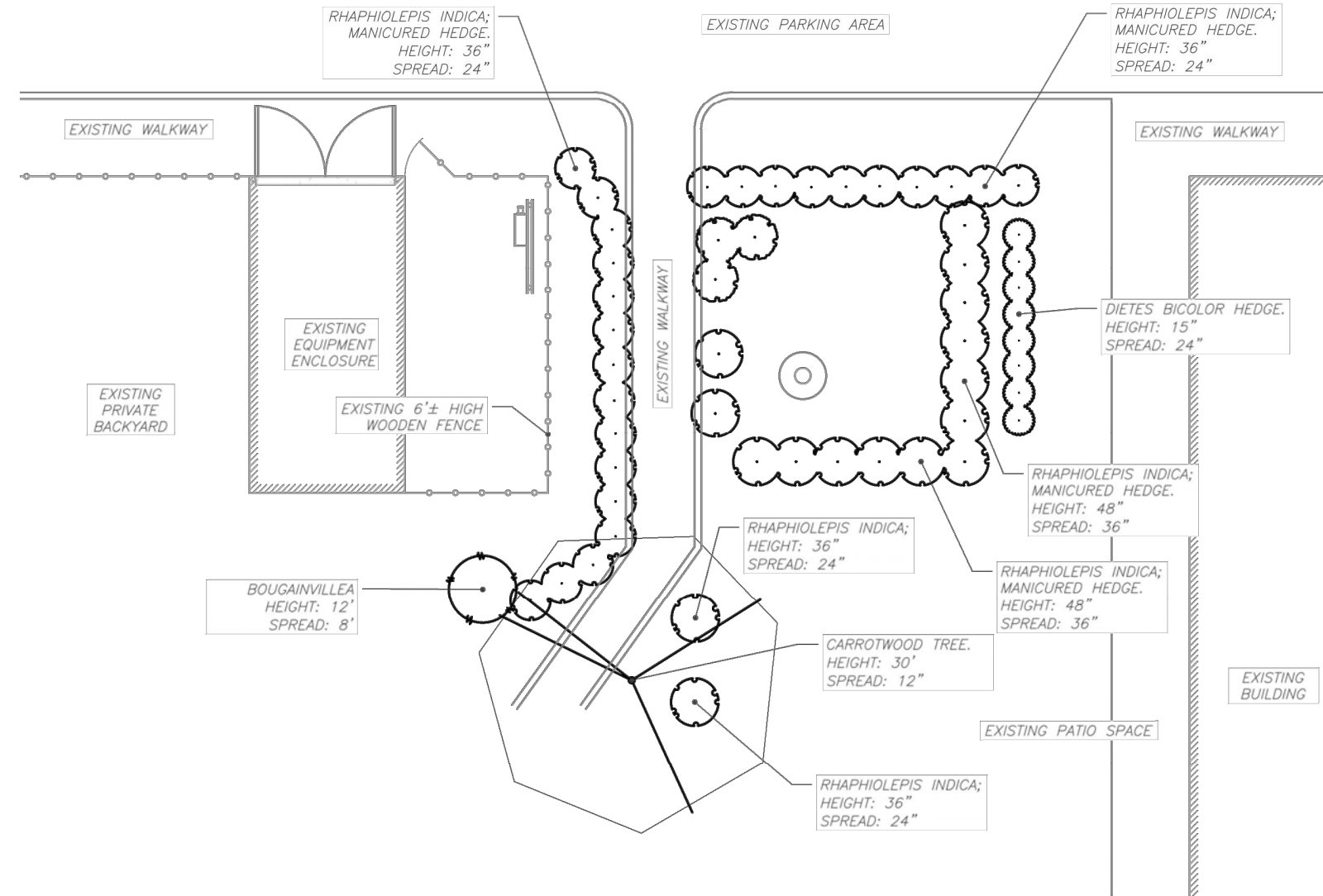
PLANT LEGEND – EXISTING CONDITIONS

IN COMPLIANCE WITH APPROVED PERMIT #PTS225749 DATED 9/29/11

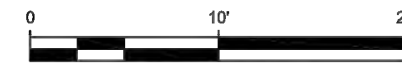
SYMBOL	BOTANICAL NAME	COMMON NAME	REMOVE/ REMAIN	QUANTITY
EXISTING TREES				
	<i>Cupaniopsis anacardioides</i> (Refer to plan for height and caliper sizes)	Carrotwood Tree	REMAIN	1
EXISTING SHRUBS				
	<i>Rhapiolepis indica</i> (Refer to plan for height and spread sizes)	Indian Hawthorn	REMAIN	41
	<i>Dietes bicolor</i> (Refer to plan for height and spread sizes)	Fortnight Lily	REMAIN	8
	<i>Photinia fraseri</i> (Refer to plan for height and spread sizes)	Redtip Photinia	REMAIN	3
	<i>Bougainvillea</i> (Refer to plan for height and spread sizes)	Bougainvillea	REMAIN	1

NOTE:

- CONTRACTOR TO RELOCATE OR REPLACE ALL AFFECTED VEGETATION. FIELD VERIFY EXISTING CONDITIONS. LANDSCAPING SHOWN IS APPROXIMATE.
- CONTRACTOR SHALL MAINTAIN MINIMUM COUNT OF LANDSCAPING & VERIFY IN-FIELD. ADD ANY MISSING VEGETATION TO MEET REQUIRED COUNT.
- ALL REQUIRED LANDSCAPE AREAS SHALL BE MAINTAINED BY AMERICAN TOWER CORP. LANDSCAPE AND IRRIGATION AREAS IN THE PUBLIC RIGHT-OF-WAY SHALL BE MAINTAINED BY AMERICAN TOWER CORP. THE LANDSCAPE AREAS SHALL BE MAINTAINED FREE OF DEBRIS AND LITER, AND ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION. DISEASED OR DEAD PLANT MATERIAL SHALL BE SATISFACTORILY TREATED OR REPLACED PER THE CONDITIONS OF THE PERMIT. EXISTING TREES TO REMAIN ON SITE WITHIN THE AREA OF WORK WILL BE PROTECTED IN PLACE. THE FOLLOWING PROTECTION MEASURES WILL BE PROVIDED:
 - A BRIGHT YELLOW OR ORANGE TEMPORARY FENCE WILL BE PLACED AROUND EXISTING TREES AT THE DRIP LINE.
 - STOCKPILING, TOPSOIL DISTURBANCE, VEHICLE USE, AND MATERIAL STORAGE OF ANY KIND IS PROHIBITED WITHIN THE DRIP LINE.
 - A TREE WATERING SCHEDULE WILL BE MAINTAINED AND DOCUMENTED DURING CONSTRUCTION.
 - ALL DAMAGED TREES WILL BE REPLACED WITH ONE OF EQUAL OR GREATER SIZE.
- IF ANY REQUIRED LANDSCAPE INDICATED ON THE APPROVED CONSTRUCTION DOCUMENT PLANS IS DAMAGED OR REMOVED DURING DEMOLITION OR CONSTRUCTION, IT SHALL BE REPAIRED AND/OR REPLACED IN KIND AND EQUIVALENT SIZE PER THE APPROVED DOCUMENTS TO THE SATISFACTION OF THE DEVELOPMENT SERVICES DEPARTMENT WITHIN 30 DAYS OF DAMAGE.
- WATER POLLUTION CONSTRUCTION PLAN (WPCP) IS REQUIRED FOR THIS PROJECT. TO BE CREATED AND ISSUED TO PLAN REVIEWERS PER CM'S DIRECTION.



EXISTING LANDSCAPE PLAN



SCALE: 1"=10' (11X17)
1"=5' (22X34)



EXISTING LANDSCAPE PLAN

SHEET NUMBER:

L-1

REVISION:

2

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.
4. BRANCHES WILL EXTEND A MINIMUM OF 24" FROM THE ANTENNA FACE
5. ANTENNAS TO BE SOCKED TO MATCH EXISTING CONDITION
6. ANY DAMAGED OR MISSING BRANCHES TO BE REPLACED TO MATCH EXISTING



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112

DRAWN BY:	CHECKED BY:	APPROVED BY:
TJC	SRF	SRF

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/28/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



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.

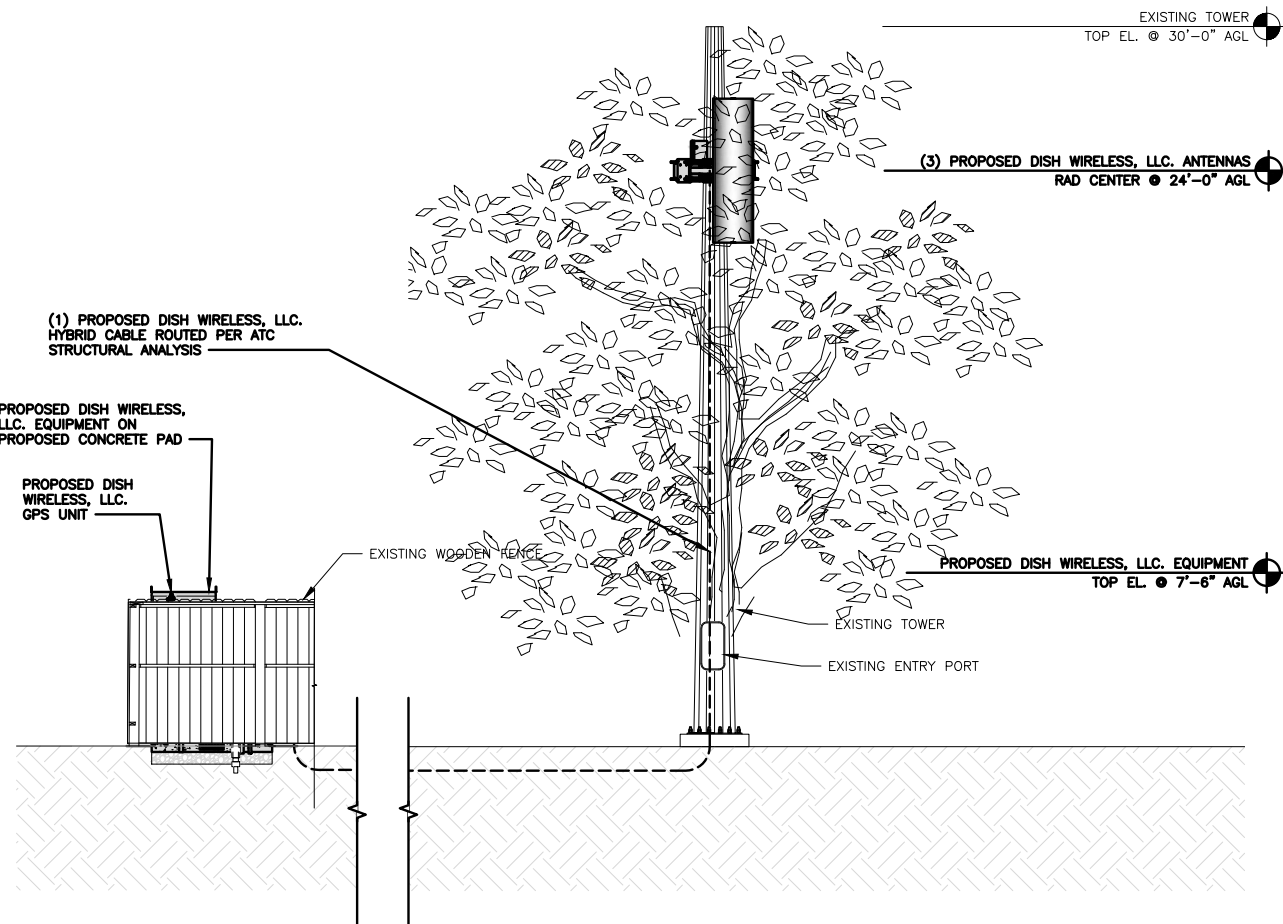
A&E PROJECT NUMBER
370403-13682564

DISH WIRELESS, LLC.
PROJECT INFORMATION
SDSAN00276A
3060 54TH ST
SAN DIEGO, CA 92105

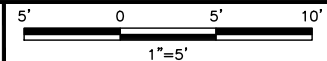
SHEET TITLE
LAYOUT AND SCHEDULE
ELEVATION, ANTENNA

SHEET NUMBER

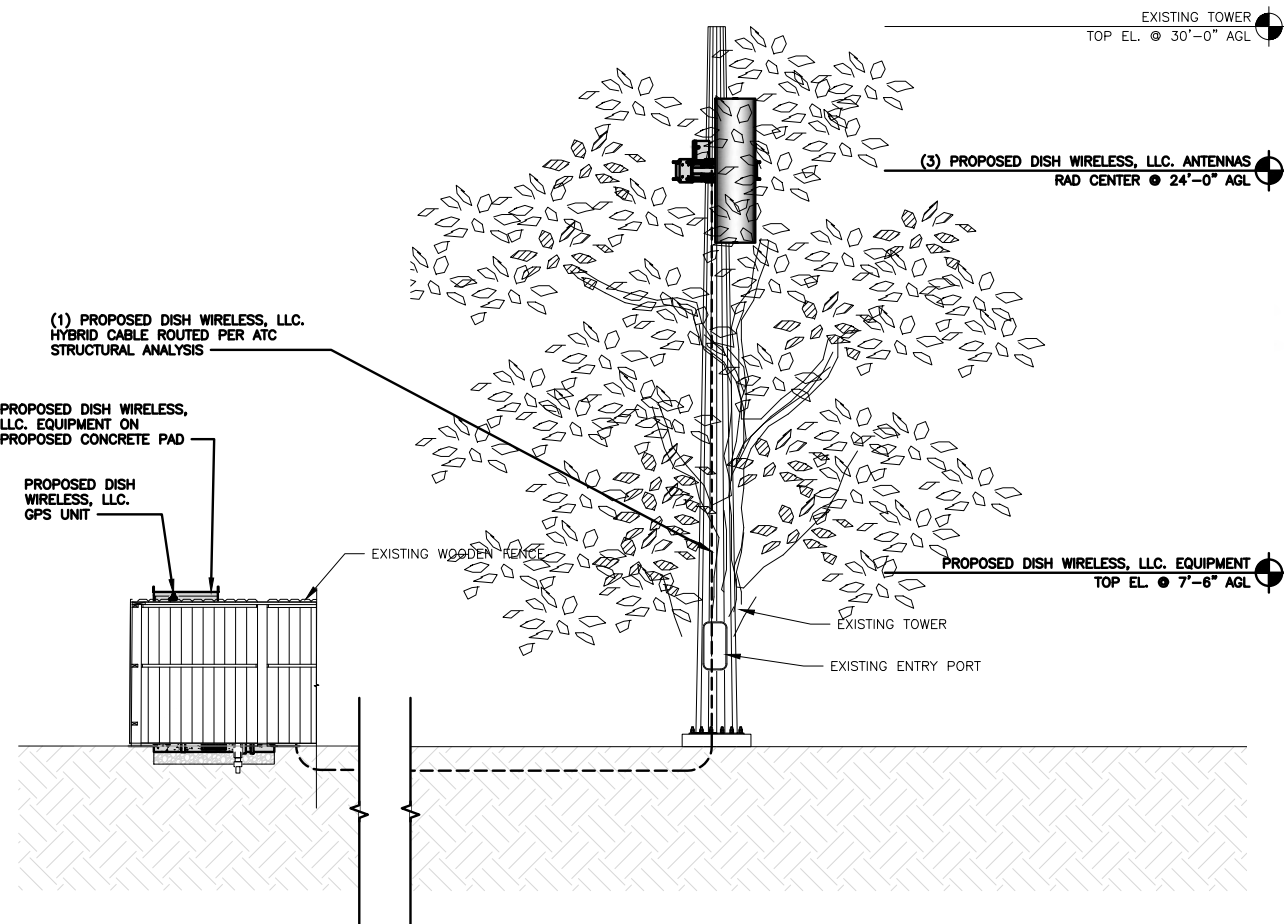
A-2



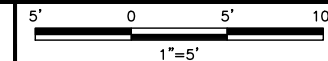
PROPOSED NORTH ELEVATION



1



PROPOSED WEST ELEVATION



2

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.
4. BRANCHES WILL EXTEND A MINIMUM OF 24" FROM THE ANTENNA FACE
5. ANTENNAS TO BE SOCKED TO MATCH EXISTING CONDITION
6. ANY DAMAGED OR MISSING BRANCHES TO BE REPLACED TO MATCH EXISTING



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



DRAWN BY:	CHECKED BY:	APPROVED BY:
TJC	SRF	SRF

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/28/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



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.

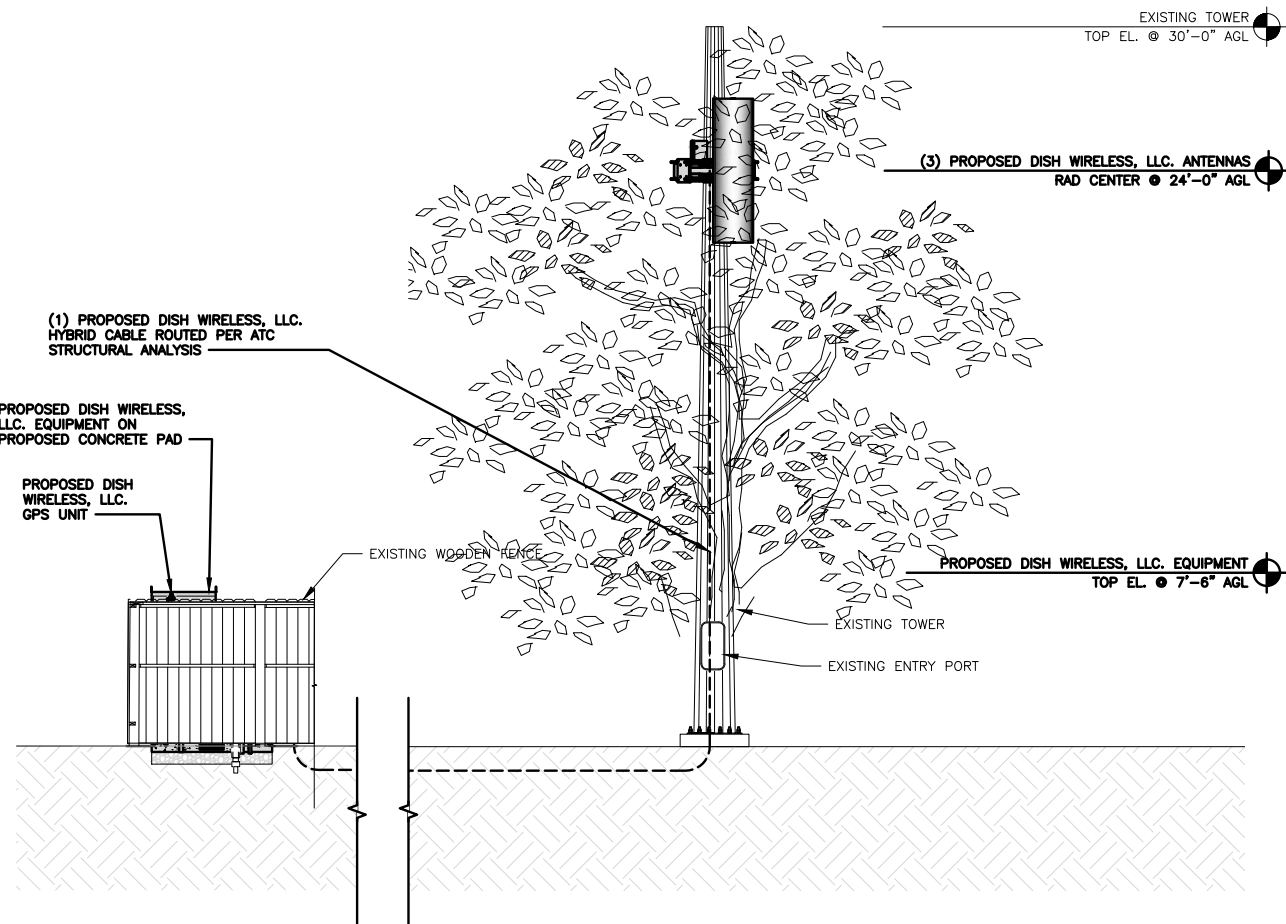
A&E PROJECT NUMBER
370403-13682564

DISH WIRELESS, LLC.
PROJECT INFORMATION
SDSAN00276A
3060 54TH ST
SAN DIEGO, CA 92105

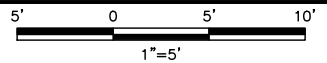
SHEET TITLE
LAYOUT AND SCHEDULE
ELEVATION, ANTENNA

SHEET NUMBER

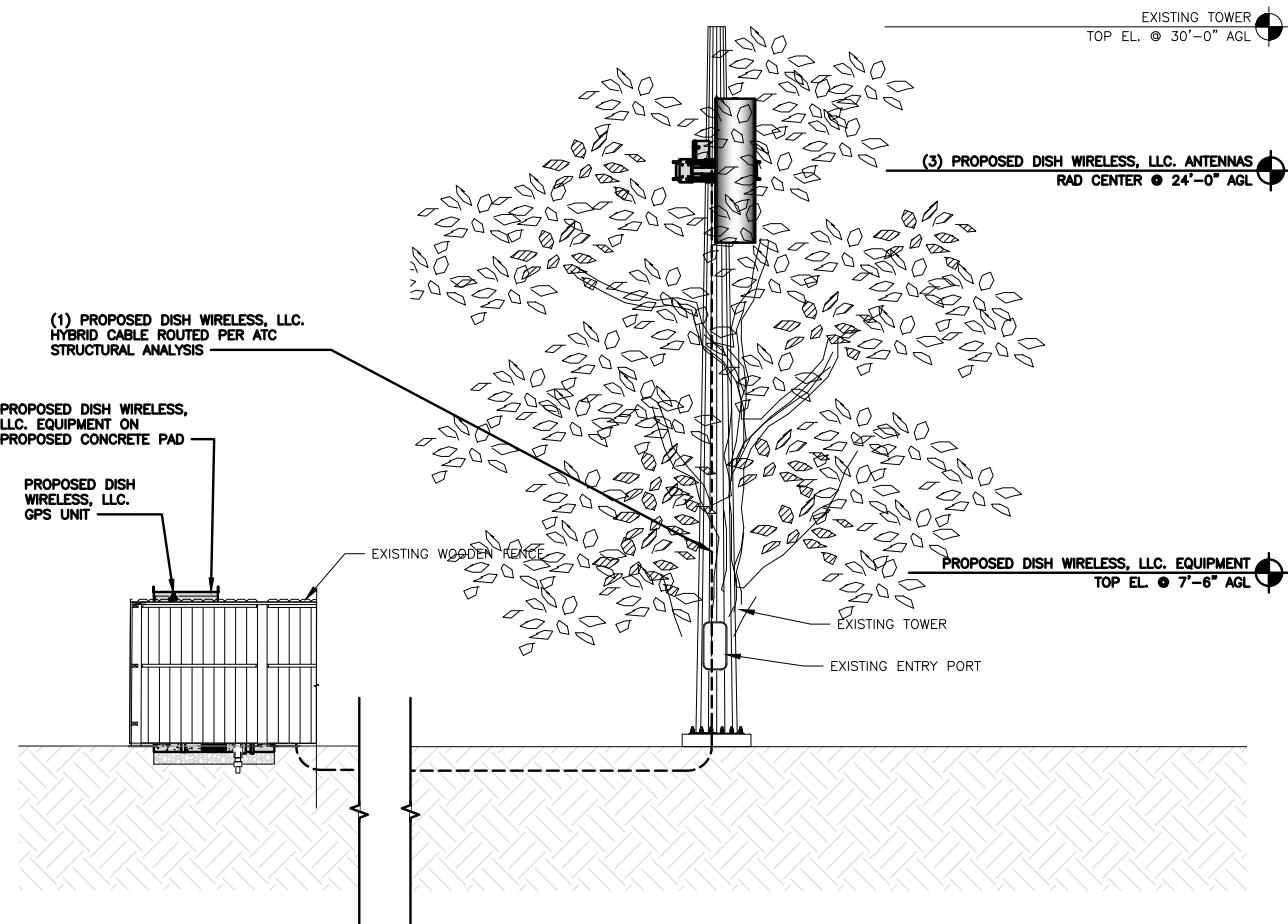
A-3



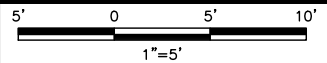
PROPOSED SOUTH ELEVATION



1



PROPOSED EAST ELEVATION



2

DRAWN BY:	CHECKED BY:	APPROVED BY:
TJC	SRF	SRF

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/28/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



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.

A&E PROJECT NUMBER
370403-13682564

DISH WIRELESS, LLC.
PROJECT INFORMATION
SDSAN00276A
3060 54TH ST
SAN DIEGO, CA 92105

SHEET TITLE
DRAWINGS
TOWER MANUFACTURER

SHEET NUMBER

A-3.1

0A-5099 TD

NOTICE: ALL PARTS ARE TO BE INVENTORIED AND ANY SHORTAGES REPORTED WITHIN 48 HOURS OF DELIVERY. SHORTAGES REPORTED AFTER THIS TIME PERIOD WILL BE CHARGED TO THE CONTRACTOR. CALL 800/369-6690 ASK FOR THE CONTRACTS DEPARTMENT

DRAWING LIST

MONOPOLE FOUNDATION	07-0815-MM
MONOPOLE FOUNDATION(S)	07-0815-F1
MONOPOLE FABRICATION	07-0815-01
MOUNTER: TRI-COLLAR 18"-54"	C10512
W Standoff Arm	C10514
SEA-CIRCUMFERING-RIV-MONOPOLE	C206000D
BILL OF MATERIALS	208-1

SOLE INSTALLATION DETAILS

- INSTALLATION OF BOLT NUTS FOR TOWERS AND ANTENNAS SHALL BE INSTALLED WITH THE NUTS FACING TO THE OUTSIDE AND/ON TO THE TOP OF THE TOWER, UNLESS PROVIDED BY LACK OF CLARANCE.
- TIGHTENING OF BOLTS BASED ON SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. ALL SHEAR-LOADING CONNECTIONS: BOLTS IN CONNECTIONS NOT SUBJECT TO TENSION LOADS (SUCH AS BRACING BOLTS AND MOST ANTENNA MOUNT BOLTS) SHALL BE INSTALLED IN PROPERLY ALIGNED HOLES BUT NEED ONLY BE TIGHTENED TO THE "SNUG TIGHT" CONDITION. THE "SNUG TIGHT" CONDITION IS DEFINED AS THE TIGHTNESS THAT EXISTS WHEN ALL PILES IN A SNUG TIGHT CONNECTION ARE PROPERLY ALIGNED AND TIGHTENED BY THE TURN-OF-NUT TIGHTENING METHOD. TURN-OF-NUT TIGHTENING METHOD SHALL BE INSTALLED IN PROPERLY ALIGNED HOLES AND TIGHTENED BY THE TURN-OF-NUT TIGHTENING METHOD. TURN-OF-NUT TIGHTENING METHOD: BOLTS SHALL BE INSTALLED IN ALL HOLES OF THE CONNECTION AND BOUND TO A "SNUG-TIGHT" CONDITION (DEFINED ABOVE) FOLLOWING THIS INITIAL OPERATION. ALL BOLTS IN THE CONNECTION SHALL BE TIGHTENED FURTHER BY THE FOLLOWING AMOUNT OF ROTATION: FOR BOLT LENGTH OVER 4 DIAMETERS BUT LESS THAN 8 DIAMETERS: 1/2 TURN FOR BOLT LENGTH OVER 8 DIAMETERS BUT NOT EXCEEDING 12 DIAMETERS: 2/3 TURN
- ALL LOCKING DEVICES: ALL NUTS SHALL BE EQUIPPED WITH SOME TYPE OF NUT LOCKING DEVICE. SEE THE INDIVIDUAL DRAWINGS FOR THE TYPE OF NUT LOCKING DEVICE TO BE USED FOR EACH INDIVIDUAL APPLICATION.

CRICKET COMMUNICATIONS
Calvary Church, CA
30.00 MONOPOLE

Sabre
COMMUNICATIONS CORPORATION
10000 Sabre Communications Corporation
07-0815-01

FIELD NOTE:
ONE ANCHOR BOLT TO BE INSTALLED AS SHOWN

REINFORCING STEEL SCHEDULE

LOCATION	NO. REQ'D	BAR SPEC.	SIZE	CUT LENGTH	TOTAL LENGTH	TOTAL WT.	SHAPE
PIER VERTICAL REINFORCING	10	NOTED ON DWG.	#7	13'-0"	135'-0"	276 LBS.	STRAIGHT
PIER TIES	15	NOTED ON DWG.	#1	8'-0"	131'-3"	88 LBS.	NOTED
						TOTAL REBAR WT.	364 LBS.

TOP & BOTTOM TEMPLATES
PART NO.: 07-0815-9001

GENERAL NOTES:

- ALL ANCHOR BOLTS AND VERTICAL REINFORCING BARS ARE TO BE SECURELY TIED BEFORE CONCRETE IS PLACED SO THEY WILL REMAIN PARALLEL TO THE CENTERLINE OF THE PIER.
- THE GROUND ELEVATION SHALL BE A MAXIMUM OF 1'-0" BELOW THE TOP OF THE PIER.
- ALL EXPOSED CONCRETE CORNERS ARE TO BE CHAMFERED 3/4 INCH.
- ALL REINFORCING STEEL SHALL CONFORM TO ASTM A618 GRADE 60 DEFORMED BARS.
- CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.
- REINFORCING STEEL TO HAVE A 3" MINIMUM CONCRETE COVER.
- FOUNDATION DESIGN IS BASED ON THE GEOLOGICAL REPORT BY TERRACON, PROJECT NO. 000304P-E, DATED JULY 25, 2008.
- ANCHOR BOLTS 7/8" X 3'-0" A449 ON A 17.00' B.C. (10 REQ'D).
- CONCRETE REQUIRED 1.67 CUBIC YARDS.
- SEE THE GEOLOGICAL REPORT FOR DRILLED PIER INSTALLATION REQUIREMENTS, IF SPECIFIED.

CRICKET COMMUNICATIONS
CALVARY CHURCH, CA #SAN-624-B
30.00 MONOPOLE

Sabre
COMMUNICATIONS CORPORATION
10000 Sabre Communications Corporation
07-0815-01

FLAT LABELING DETAIL

GROUND LAG ANGLE WELD

BASE PLATE DETAIL

CRICKET COMMUNICATIONS
Calvary Church, CA
SAN-624-B
30.00 MONOPOLE

Sabre
COMMUNICATIONS CORPORATION
10000 Sabre Communications Corporation
07-0815-01

BRANCH RECEPTOR CHART

FLAT #	FLAT #	FLAT #	FLAT #	FLAT #	FLAT #
ELEV. DEGREE RISE	ELEV. DEGREE RISE	ELEV. DEGREE RISE	ELEV. DEGREE RISE	ELEV. DEGREE RISE	ELEV. DEGREE RISE
28'-3" 45°	25'-0" 5°	28'-3" 20°	27'-6" 30°	26'-0" 20°	25'-0" 5°
26'-9" 20°	14'-0" 5°	23'-0" 5°	23'-0" 5°	24'-0" 5°	18'-0" 5°
19'-0" 5°		23'-0" 5°	17'-0" 5°	15'-0" 5°	

SECTION ELEVATION
SECTION NO. 07-0815-0110

ANGLE INDICATOR

ELM BRANCH RECEPTOR BRACKET DETAIL
(STEEL PIPE, 1 1/4" X SCH 40)

COVER PLATE DETAIL

CRICKET COMMUNICATIONS
CALVARY CHURCH, CA #SAN-624-B
30.00 MONOPOLE

Sabre
COMMUNICATIONS CORPORATION
10000 Sabre Communications Corporation
07-0815-01

DRAWN BY:	CHECKED BY:	APPROVED BY:
TJC	SRF	SRF

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/26/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



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.

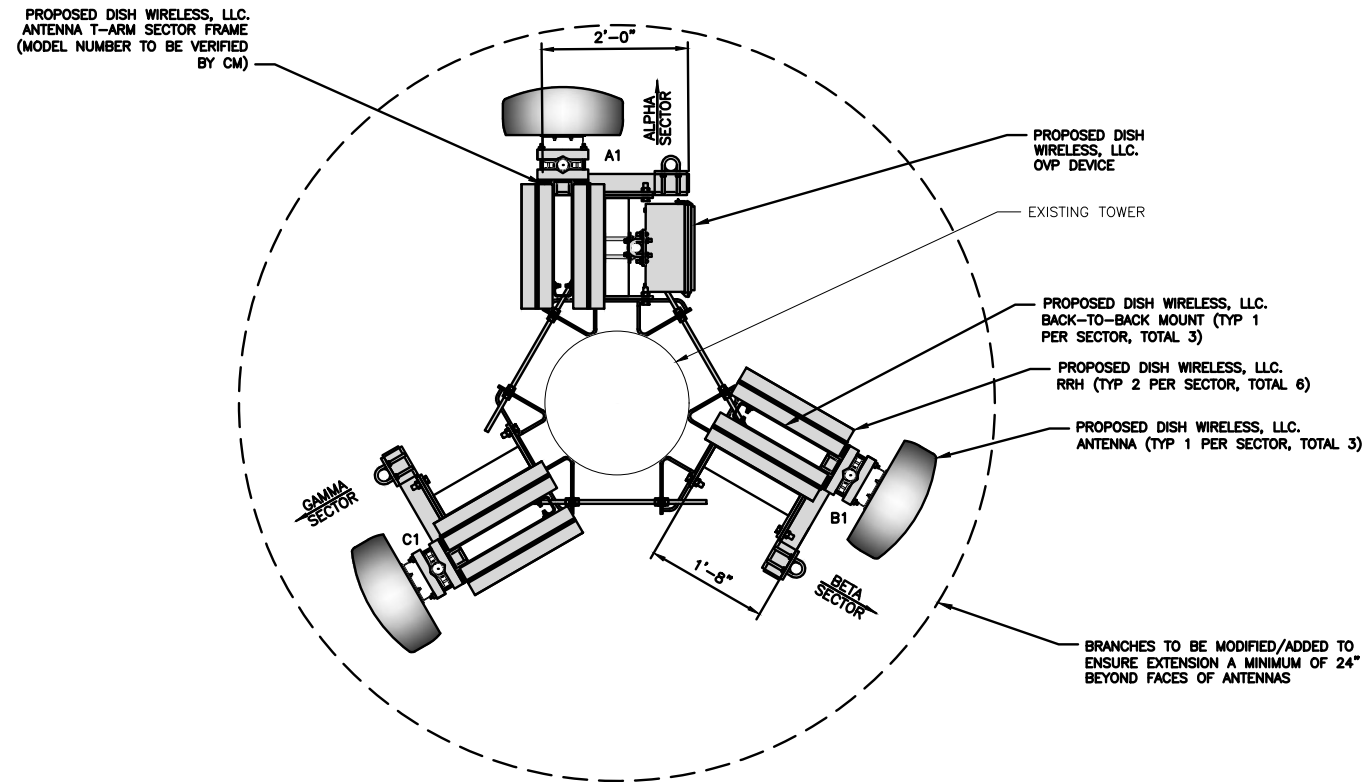
A&E PROJECT NUMBER
370403-13682564

DISH WIRELESS, LLC.
PROJECT INFORMATION
SDSAN00276A
3060 54TH ST
SAN DIEGO, CA 92105

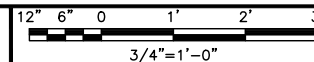
SHEET TITLE
LAYOUT AND SCHEDULE
ELEVATION, ANTENNA

SHEET NUMBER

A-4



ANTENNA LAYOUT



1

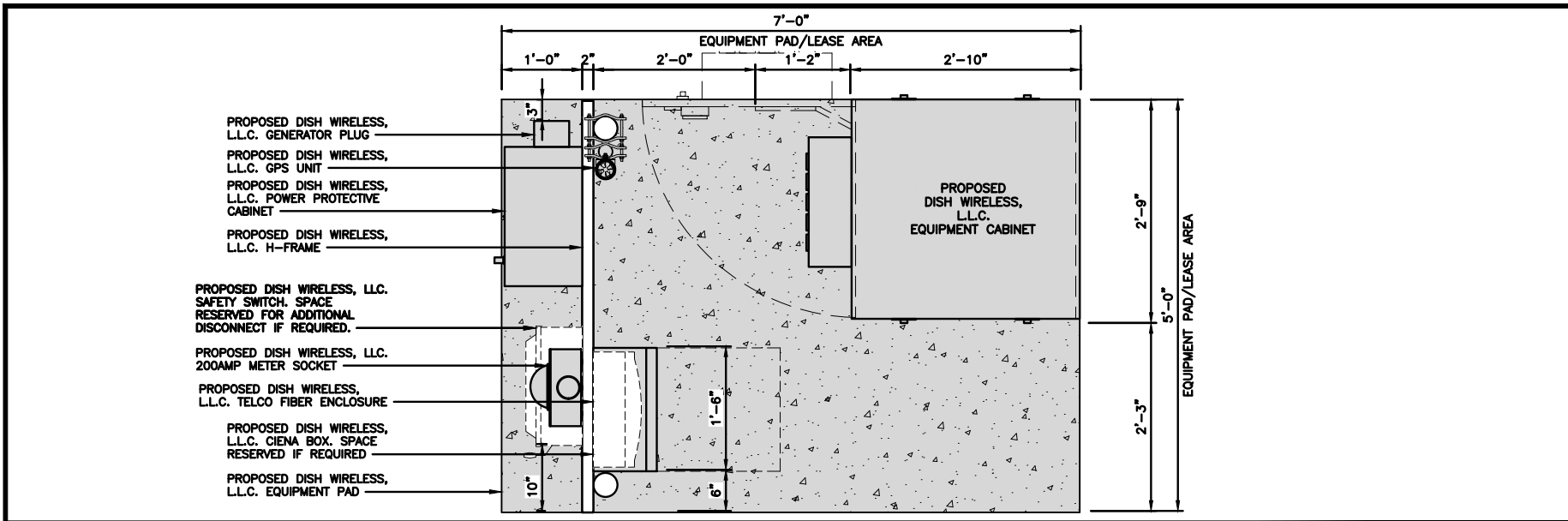
SECTOR	POSITION	ANTENNA						TRANSMISSION CABLE
		EXISTING OR PROPOSED	MANUFACTURER - MODEL NUMBER	TECHNOLOGY	SIZE (HxW)	AZIMUTH	RAD CENTER	
ALPHA	A1	PROPOSED	MX08FR0665-21	5G	72.0" x 20.0"	0°	24'-0"	(1) HIGH-CAPACITY HYBRID CABLE (57' LONG)
BETA	B1	PROPOSED	MX08FR0665-21	5G	72.0" x 20.0"	120°	24'-0"	
GAMMA	C1	PROPOSED	MX08FR0665-21	5G	72.0" x 20.0"	240°	24'-0"	

SECTOR	POSITION	RRH		NOTES
		MANUFACTURER - MODEL NUMBER	TECHNOLOGY	
ALPHA	A1	TA08025-B604	LTE	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.
	A1	TA08025-B605	LTE	
BETA	B1	TA08025-B604	LTE	
	B1	TA08025-B605	LTE	
GAMMA	C1	TA08025-B604	LTE	
	C1	TA08025-B605	LTE	

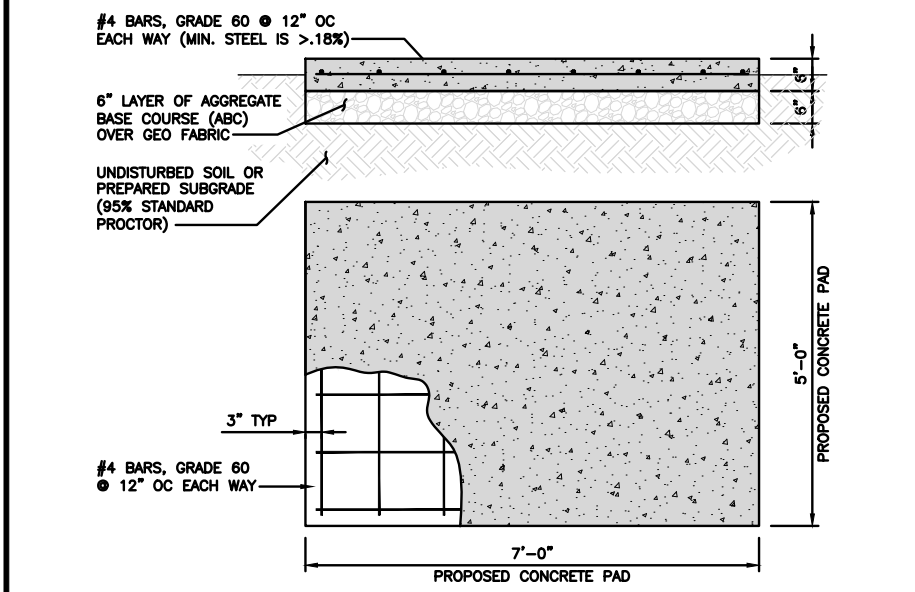
ANTENNA SCHEDULE

NO SCALE

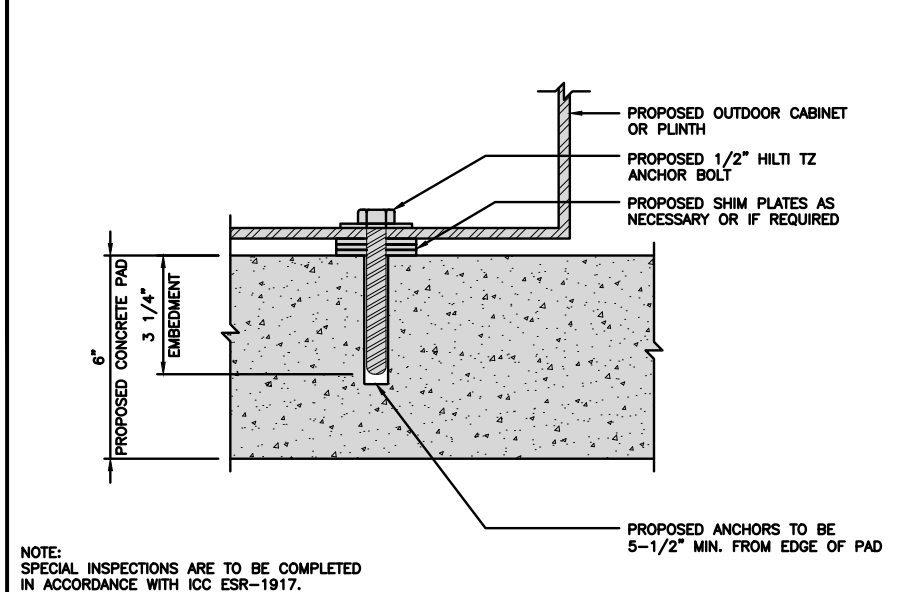
2



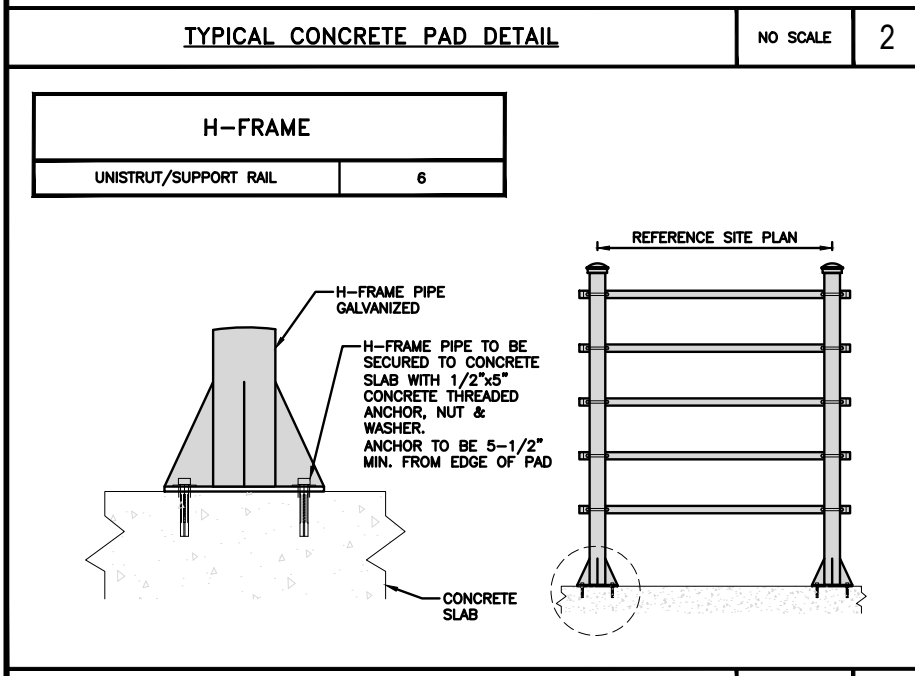
PAD EQUIPMENT PLAN 1
 12" 9" 6" 3" 0 1' 2'
 1"=1'-0"



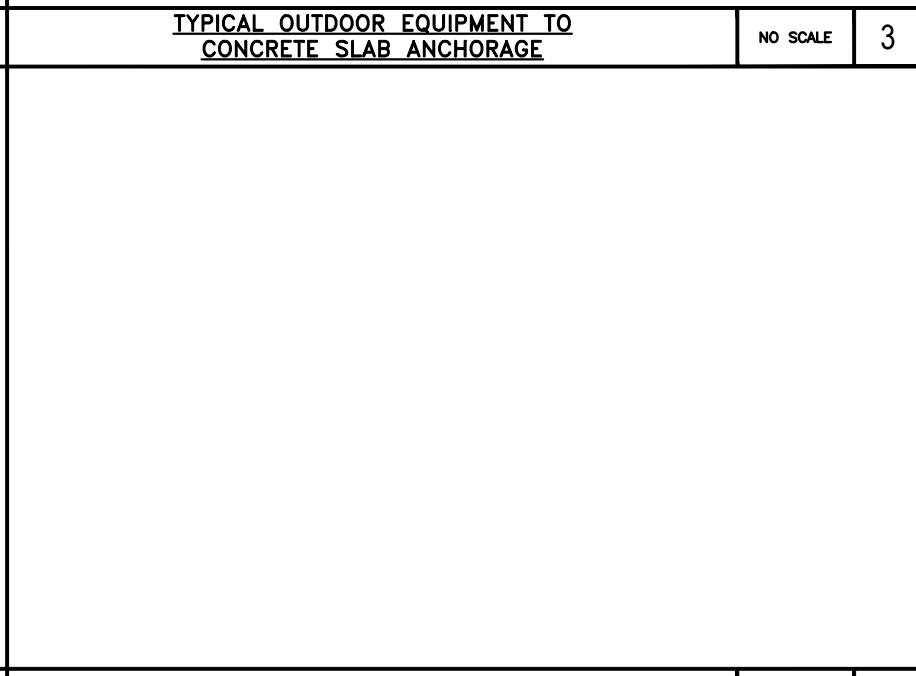
TYPICAL CONCRETE PAD DETAIL NO SCALE 2



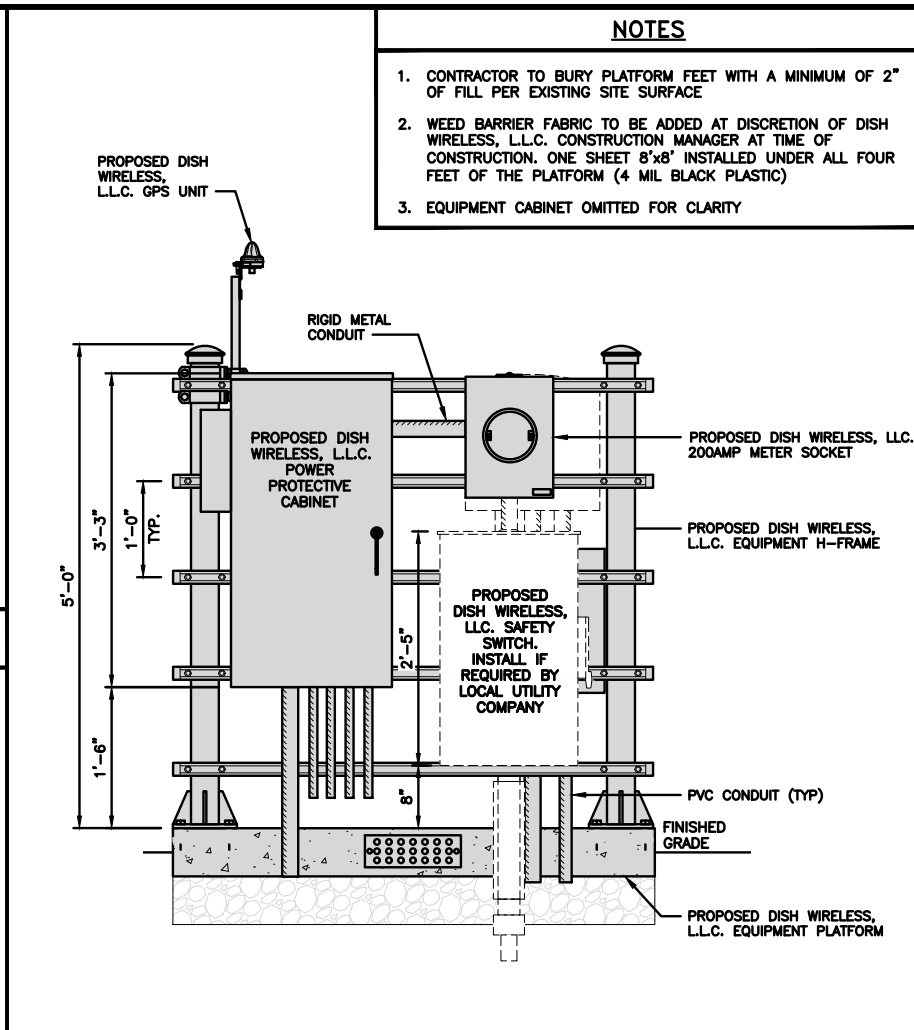
TYPICAL OUTDOOR EQUIPMENT TO CONCRETE SLAB ANCHORAGE NO SCALE 3
 NOTE: SPECIAL INSPECTIONS ARE TO BE COMPLETED IN ACCORDANCE WITH ICC ESR-1917.



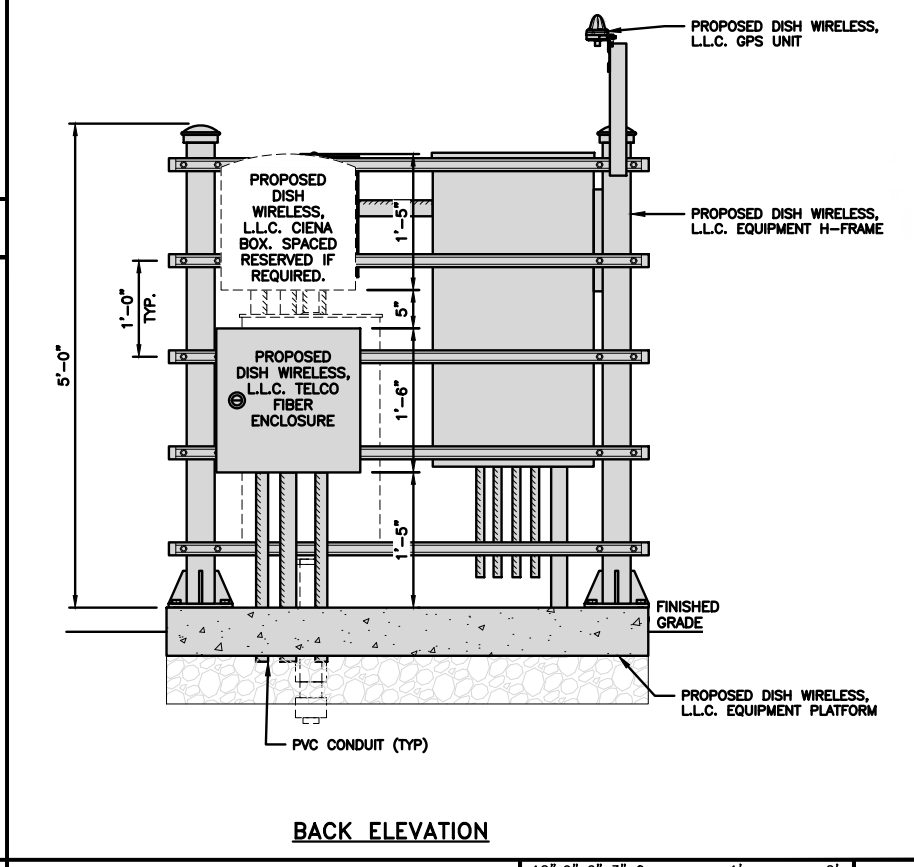
H-FRAME CONCRETE SLAB INSTALLATION DETAIL NO SCALE 4



NOT USED NO SCALE 5



FRONT ELEVATION



BACK ELEVATION

H-FRAME EQUIPMENT ELEVATION 12" 9" 6" 3" 0 1' 2' 1"=1'-0" 6

- NOTES**
1. CONTRACTOR TO BURY PLATFORM FEET WITH A MINIMUM OF 2" OF FILL PER EXISTING SITE SURFACE
 2. 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)
 3. EQUIPMENT CABINET OMITTED FOR CLARITY

dish wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

AMERICAN TOWER
 A.T. ENGINEERING SERVICE, PLLC
 3500 REGENCY PARKWAY
 SUITE 100
 CARY, NC 27518
 PHONE: (919) 468-0112

DRAWN BY:	CHECKED BY:	APPROVED BY:
TJC	SRF	SRF
RFDS REV #:		0

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE PAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/28/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR

LICENSED PROFESSIONAL ENGINEER
 SCOTT ROBERT FLETCHER
 C 90765
 EXP. 12/31/23
 CIVIL
 STATE OF CALIFORNIA

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

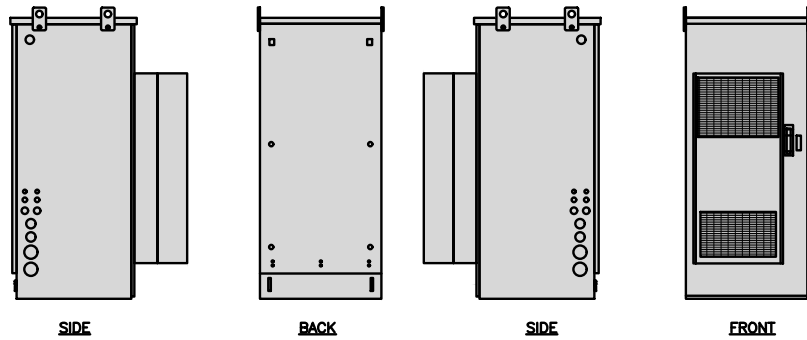
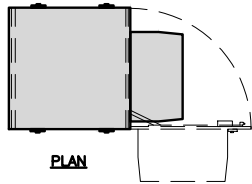
A&E PROJECT NUMBER
 370403-13682564

DISH WIRELESS, L.L.C.
 PROJECT INFORMATION
 SDSAN00276A
 3060 54TH ST
 SAN DIEGO, CA 92105

SHEET TITLE
 H-FRAME DETAILS
 EQUIPMENT PLATFORM AND

SHEET NUMBER
A-5

CHARLES INDUSTRY HEX CUBE-PM639155N4	
DIMENSIONS (HxWxD):	74"x32"x32"
POWER PLANT:	-48VDC ABB/600W
TOTAL WEIGHT (EMPTY)	408 LBS



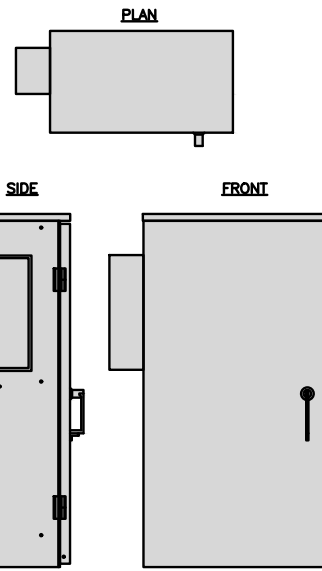
CABINET DETAIL

NO SCALE

1

RAYCAP RDIAC-6512-P-240-MTS POWER & TELCO PROTECTION CABINET

DIMENSIONS (HxWxD)	40"x20"x10"
WEIGHT/ VOLUME	124 LBS
MANUAL TRANSFER SWITCH	200A
LOAD CENTER	30 POSITION
MAIN BREAKER	200A, 65KA AIC
GENERATOR RECEPTACLE	CAMLOCK
NEMA RATING	3R POWDER COATED ALUMINUM
SURGE PROTECTION DEVICE	UL 1449 4TH EDITION LISTED



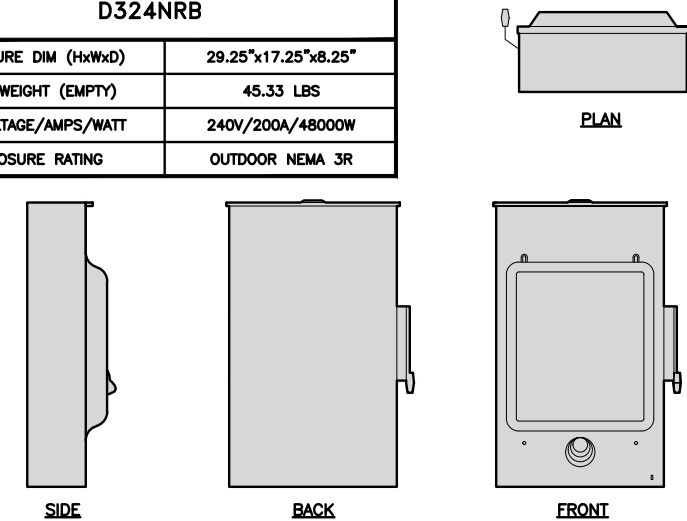
POWER PROTECTION CABINET (PPC) DETAIL

NO SCALE

2

SQUARE D SAFETY SWITCH D324NRB

ENCLOSURE DIM (HxWxD)	29.25"x17.25"x8.25"
TOTAL WEIGHT (EMPTY)	45.33 LBS
MAX VOLTAGE/AMPS/WATT	240V/200A/48000W
ENCLOSURE RATING	OUTDOOR NEMA 3R

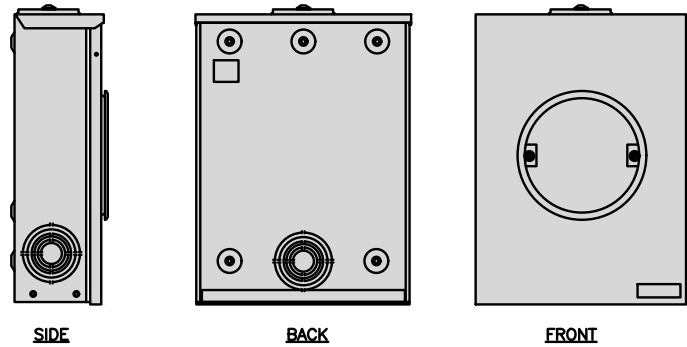
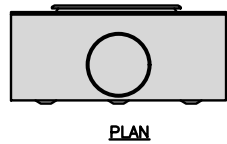


SAFETY SWITCH

NO SCALE

3

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



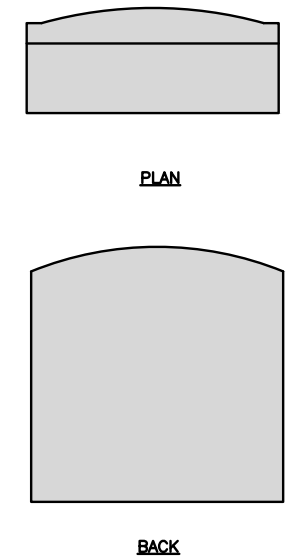
METER SOCKET DETAIL

NO SCALE

4

CIENA 3931 SERVICE DELIVERY SWITCH

DIMENSIONS (HxWxD)	17.0"x16.8"x7.0" 431x427x178mm
WEIGHT	28.6 LBS/13.0 KG
POWER INPUT	60W MAX



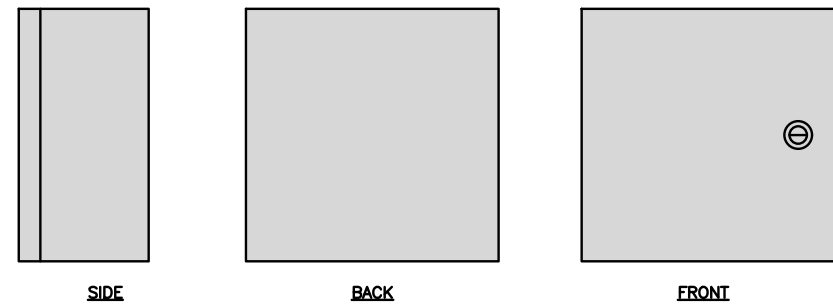
CIENA DETAIL

NO SCALE

5

CHARLES FIBER TELCO ENCLOSURE CUBE-MP1818WB-A

ENCLOSURE DIM (HxWxD)	18.0"x18.0"x9.25"
NEMA RATING	4X
THERMAL	SEALED
MOUNTING BACKBOARD	WOOD



FIBER TELCO ENCLOSURE 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



DRAWN BY:	CHECKED BY:	APPROVED BY:
TJC	SRF	SRF
RFDS REV #:	0	

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/26/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



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.

A&E PROJECT NUMBER
370403-13682564

DISH WIRELESS, LLC.
PROJECT INFORMATION
SDSAN00276A
3060 54TH ST
SAN DIEGO, CA 92105

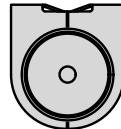
SHEET TITLE

EQUIPMENT DETAILS

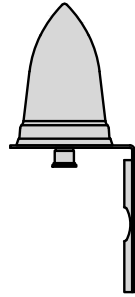
SHEET NUMBER

A-6

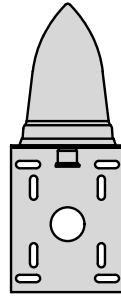
PCTEL GPSGL-TMG-SPI-40NCB	
DIMENSIONS (DIAxH) MM/INCH	81x184mm 3.2"x7.25"
WEIGHT W/ACCESSORIES	075 lbs
CONNECTOR	N-FEMALE
FREQUENCY RANGE	1590 ± 30MHz



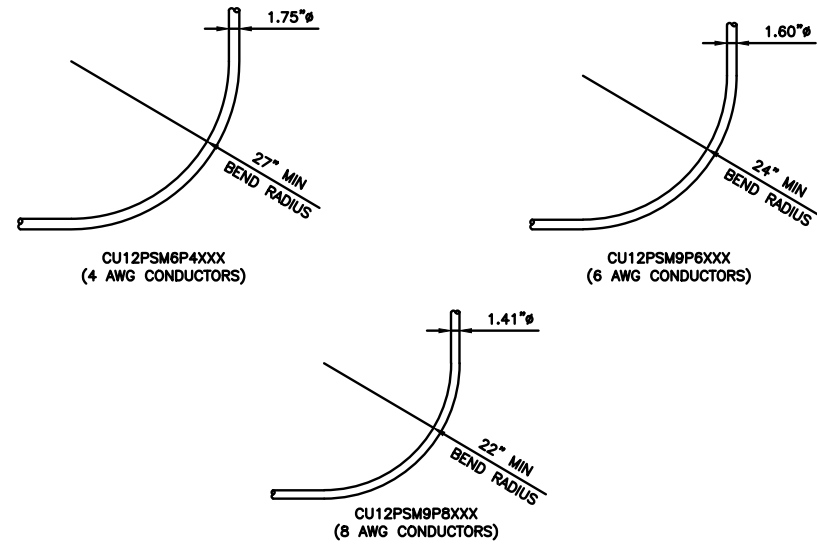
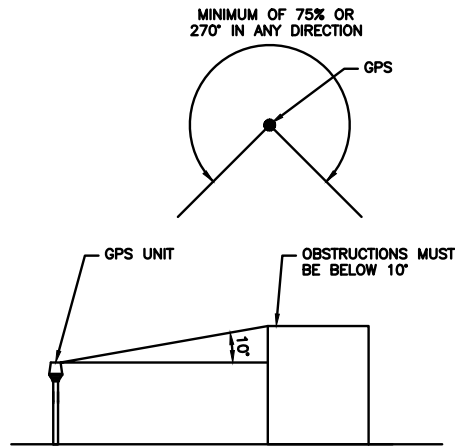
TOP



BACK



SIDE



GPS DETAIL

NO SCALE

1

GPS MINIMUM SKY VIEW REQUIREMENTS

NO SCALE

2

CABLES UNLIMITED HYBRID CABLE
MINIMUM BEND RADIUSES

NO SCALE

3

NOT USED

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



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

AMERICAN TOWER
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112

DRAWN BY:	CHECKED BY:	APPROVED BY:
TJC	SRF	SRF
RFDS REV #:	0	

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/28/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



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.

A&E PROJECT NUMBER
370403-13682564

DISH WIRELESS, LLC.
PROJECT INFORMATION
SDSAN00276A
3060 54TH ST
SAN DIEGO, CA 92105

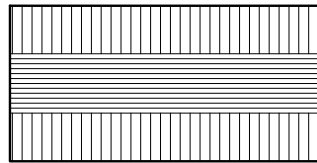
SHEET TITLE

EQUIPMENT DETAILS

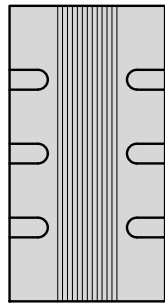
SHEET NUMBER

A-7

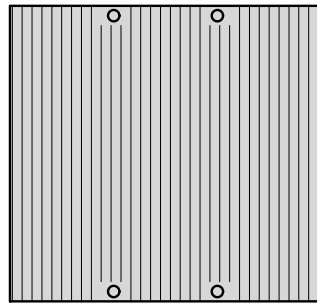
FUJITSU TA08025-B604 RRH	
DIMENSIONS (HxWxD) (KG/IN)	380x400x200/14.9"x15.7"x7.8"
WEIGHT(KG,LB)/ VOLUME	29kg,63.9lb/ 30L
POWER SUPPLY	DC-58~-36V



PLAN

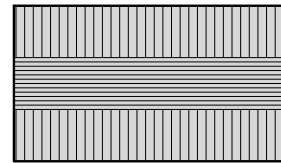


SIDE

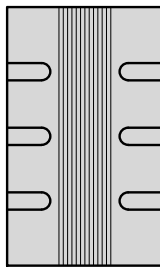


FRONT

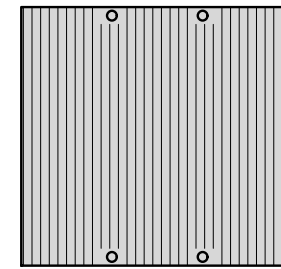
FUJITSU TA08025-B605 RRH	
DIMENSIONS (HxWxD) (KG/IN)	380x400x230/14.9"x15.7"x9.0"
WEIGHT(KG,LB)/ VOLUME	34kg,74.9lb/ 35L
POWER SUPPLY	DC-58~-36V



PLAN



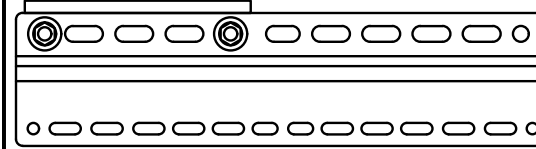
SIDE



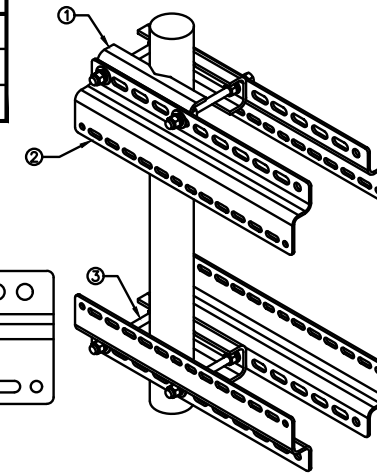
FRONT

SABRE DOUBLE Z-BRACKET C10123155	
DIMENSIONS (HxWxD) (1 BRACKET)	5"x20"x1-13/16"
WEIGHT (FULL ASSEMBLY)	35.79 lbs
PACKAGE QUANTITY	4

#	DESCRIPTION
1	PLATE, CHANNEL BRACKET
2	RRH Z BRACKET, 3/16"
3	THREADED ROD ASSEMBLY 1/2"x12"



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

KMW COMMUNICATIONS KE654L4H6-D ANTENNA	
DIMENSIONS (HxWxD)(MM/IN)	72"x18.1"x7.1"
TOTAL WEIGHT WITHOUT CLAMP	52.9 lbs
RF PORTS, CONNECTOR TYPE	8 x 4.3-10 FEMALE



PLAN



SIDE



FRONT

ANTENNA DETAIL

NO SCALE

4

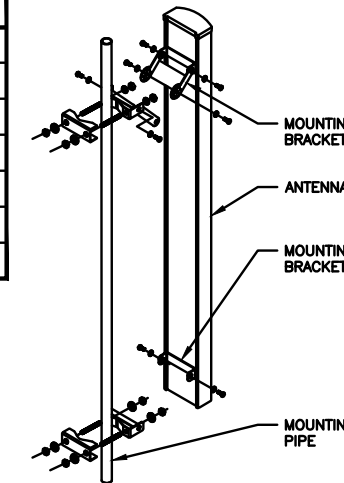
NOT USED

NO SCALE

5

M04 MOUNTING BRACKET KE654L4H6-D	
WIDTH	5"
DEPTH	2"
HEIGHT	8"
TOTAL WEIGHT	1.5 lbs
HOUSING MATERIAL	ASA/ABS/ALUMINUM
RADOME COLOR	LIGHT GRAY
CONNECTOR	1x8-PIN DAISY CHAIN

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



ANTENNA MOUNTING DETAIL

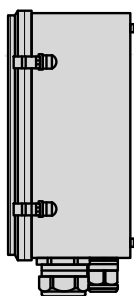
NO SCALE

6

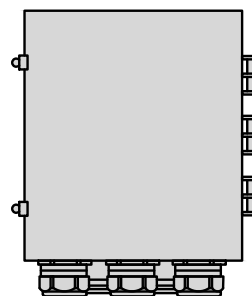
RAYCAP RDIC-9181-PF-48 DC SURGE PROTECTION (OVP)	
DIMENSIONS (HxWxD)	18.98"x14.39"x8.15"
WEIGHT	21.82 LBS



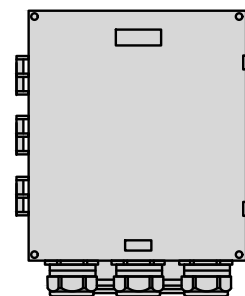
PLAN



SIDE



BACK



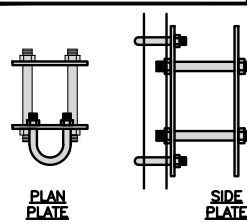
FRONT

SURGE SUPPRESSION DETAIL (OVP)

NO SCALE

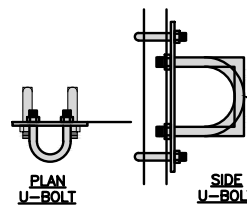
7

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



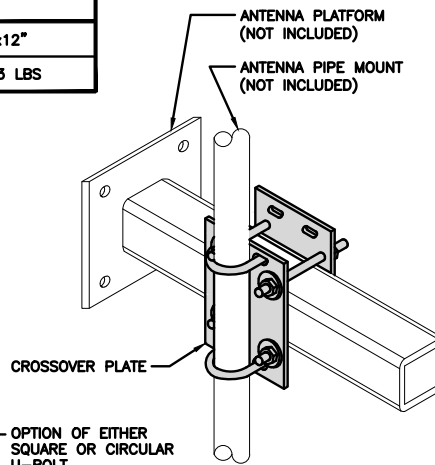
PLAN PLATE

SIDE PLATE



PLAN U-BOLT

SIDE U-BOLT



CROSSOVER PLATE

OPTION OF EITHER
SQUARE OR CIRCULAR
U-BOLT

RRH/OVP MOUNT DETAIL

NO SCALE

8

NOT USED

NO SCALE

9

dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

AMERICAN TOWER
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112

DRAWN BY: TJC
CHECKED BY: SRF
APPROVED BY: SRF

RFDS REV #: 0

**CONSTRUCTION
DOCUMENTS**

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/28/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



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.

A&E PROJECT NUMBER
370403-13682564

DISH WIRELESS, LLC.
PROJECT INFORMATION
SDSAN00276A
3060 54TH ST
SAN DIEGO, CA 92105

SHEET TITLE

EQUIPMENT DETAILS

SHEET NUMBER

A-8

NOTES

1. THE EASEMENT RIGHTS FOR THIS SITE DO NOT INCLUDE A SPECIFIED AREA FOR THE LOCATION OF UTILITIES. CONSTRUCTION CONTRACTOR MUST FIELD VERIFY THE APPROPRIATENESS OF ALL PROPOSED UTILITY ROUTES
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.
3. GC TO REFER TO FINAL UTILITY COORDINATION DOCUMENT FOR ALL MEET ME POINTS AND ROUTING DETAILS.

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



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

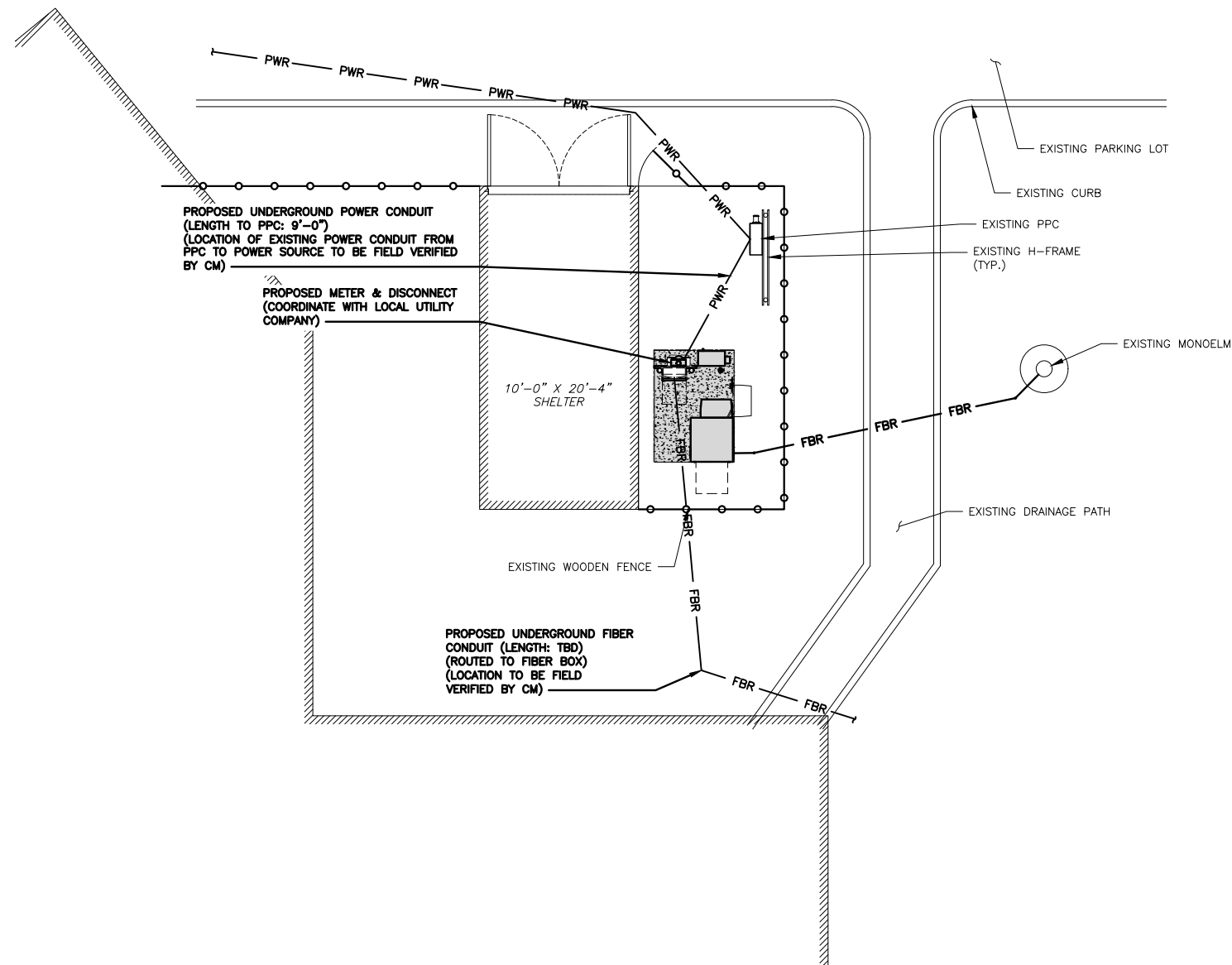


DRAWN BY:	CHECKED BY:	APPROVED BY:
TJC	SRF	SRF

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

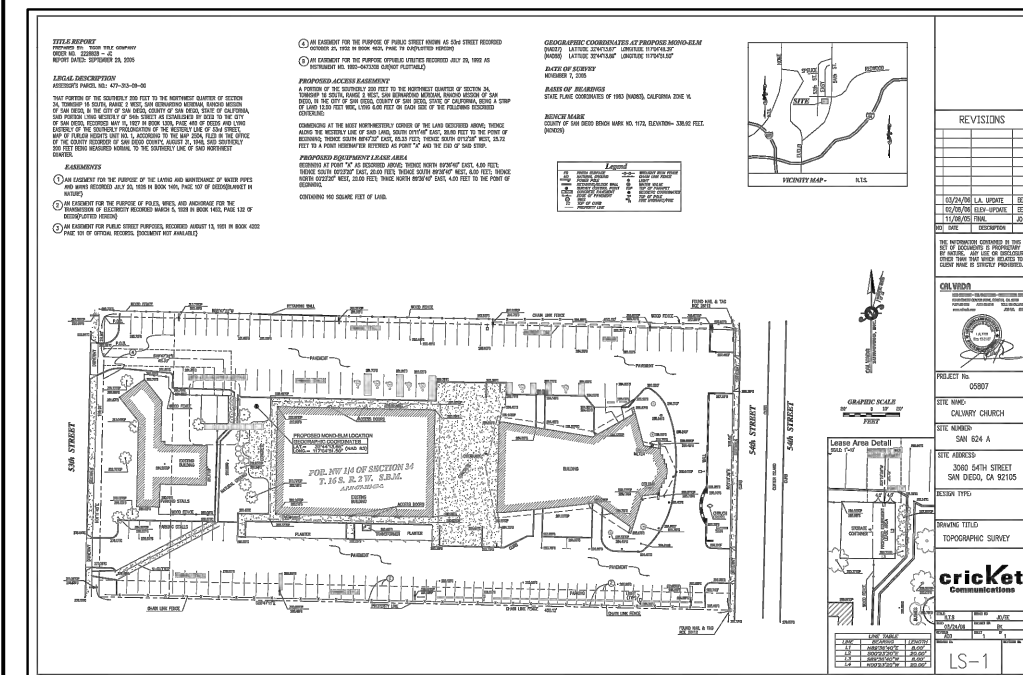
SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/28/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



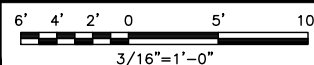
ELECTRICAL NOTES

NO SCALE

2



UTILITY ROUTE PLAN



1

EXISTING SURVEY (BY OTHERS)

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.

A&E PROJECT NUMBER
370403-13682564

DISH WIRELESS, LLC.
PROJECT INFORMATION
SDSAN00276A
3060 54TH ST
SAN DIEGO, CA 92105

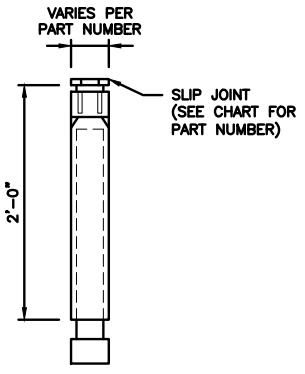
SHEET TITLE
PLAN AND NOTES
ELECTRICAL/FIBER ROUTE

SHEET NUMBER

E-1

CARLON EXPANSION FITTINGS

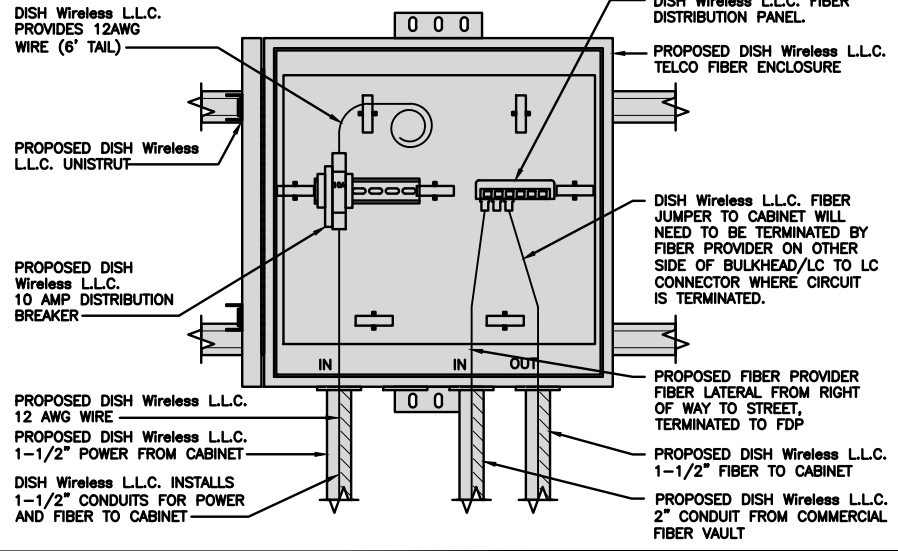
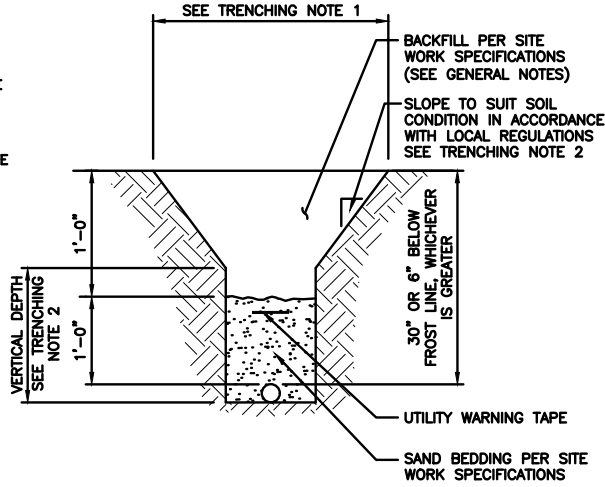
COUPLING END PART#	MALE TERMINAL ADAPTER END PART#	SIZE	STD CTN QTY.	TRAVEL LENGTH
E945D	E945DX	1/2"	20	4"
E945E	E945EX	3/4"	15	4"
E945F	E945FX	1"	10	4"
E945G	E945GX	1 1/4"	5	4"
E945H	E945HX	1 1/2"	5	4"
E945J	E945JX	2"	15	8"
E945K	E945KX	2 1/2"	10	8"
E945L	E945LX	3"	10	8"
E945M	E945MX	3 1/2"	5	8"
E945N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

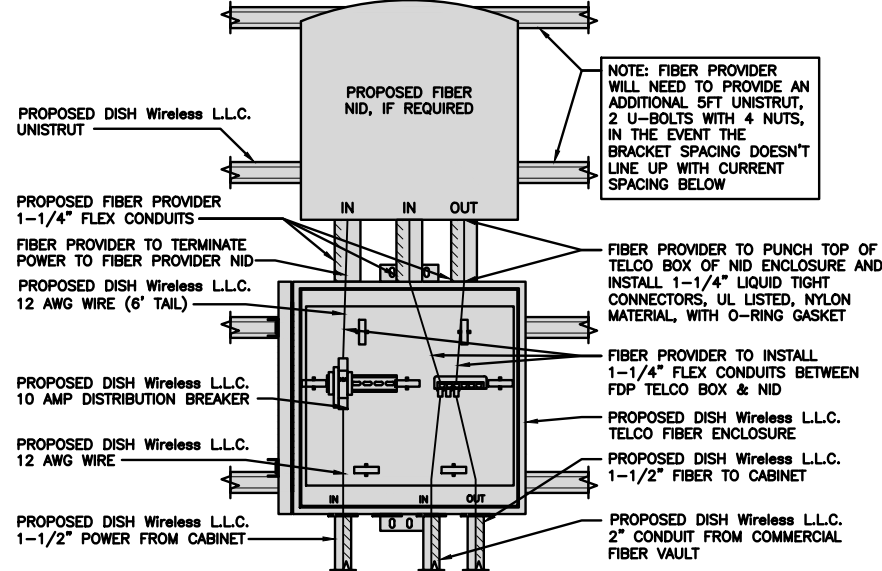
NO SCALE 1

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

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



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



DRAWN BY:	CHECKED BY:	APPROVED BY:
TJC	SRF	SRF
RFDS REV #:		0

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/28/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



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.

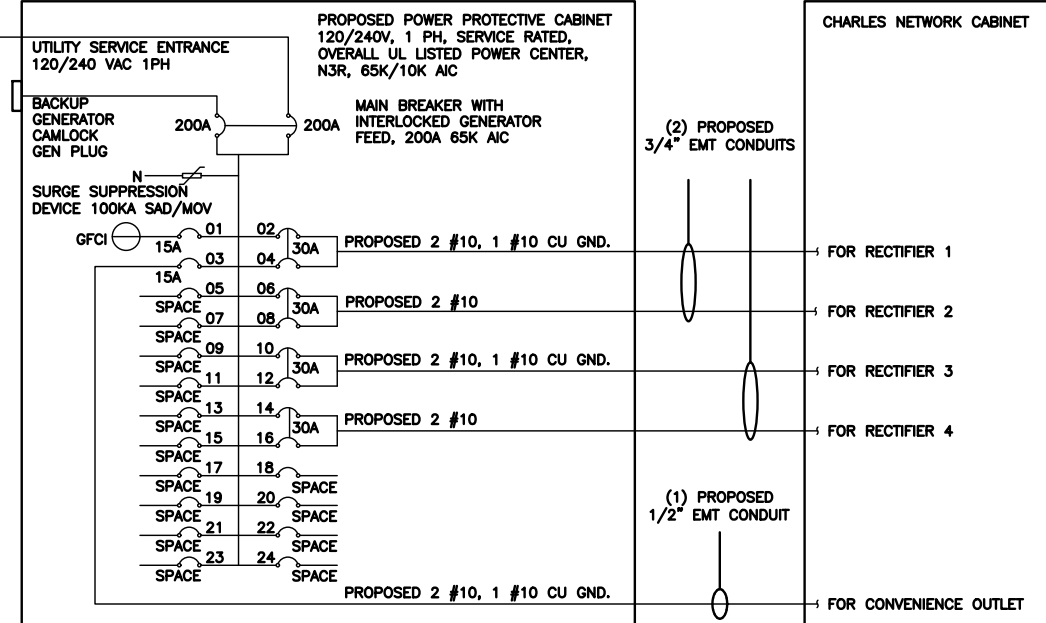
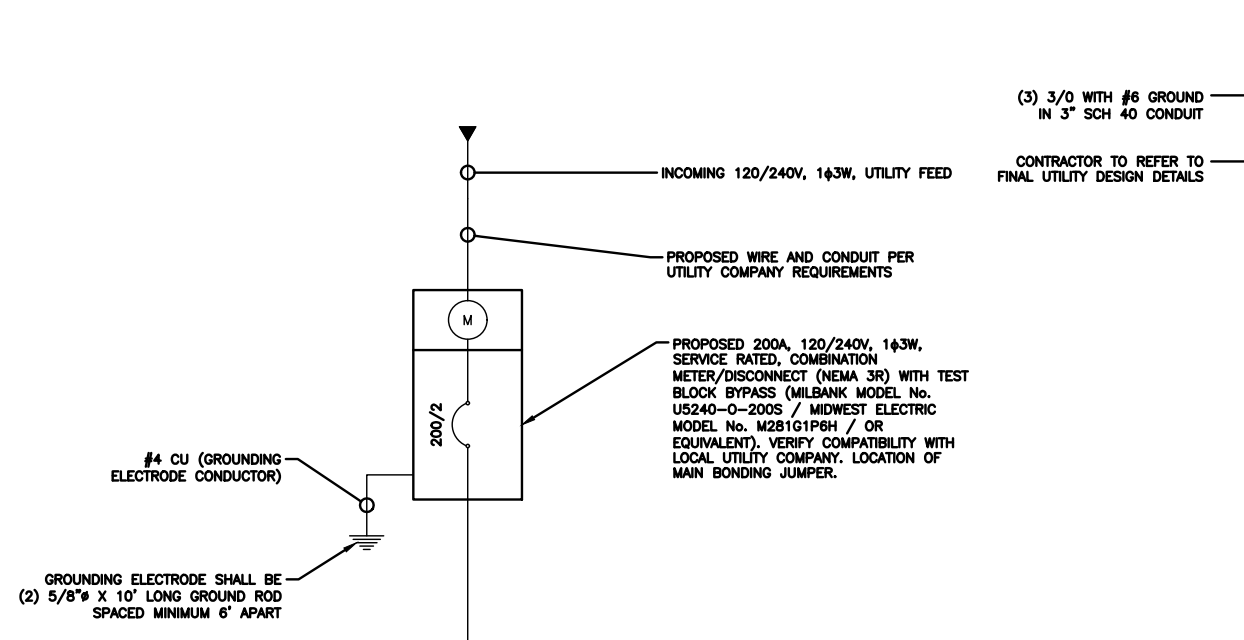
A&E PROJECT NUMBER
370403-13682564

DISH WIRELESS, LLC.
PROJECT INFORMATION
SDSAN00276A
3060 54TH ST
SAN DIEGO, CA 92105

SHEET TITLE
DETAILS
ELECTRICAL

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:
(4) 30A, 2P BREAKER - SQUARE D P/N:Q0230
(2) 15A, 1P BREAKER - SQUARE D P/N:Q0115

PPC ONE-LINE DIAGRAM

NO SCALE 1

PROPOSED CHARLES 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	30A	2880	2880	ABB/GE INFINITY RECTIFIER 1	
CHARLES GFCI OUTLET		180	15A	3	B	4	30A	2880	2880	ABB/GE INFINITY RECTIFIER 1	
-SPACE-				5	A	6	30A	2880	2880	ABB/GE INFINITY RECTIFIER 2	
-SPACE-				7	B	8	30A	2880	2880	ABB/GE INFINITY RECTIFIER 2	
-SPACE-				9	A	10	30A	2880	2880	ABB/GE INFINITY RECTIFIER 3	
-SPACE-				11	B	12	30A	2880	2880	ABB/GE INFINITY RECTIFIER 3	
-SPACE-				13	A	14	30A	2880	2880	ABB/GE INFINITY RECTIFIER 4	
-SPACE-				15	B	16	30A	2880	2880	ABB/GE INFINITY RECTIFIER 4	
-SPACE-				17	A	18				-SPACE-	
-SPACE-				19	B	20				-SPACE-	
-SPACE-				21	A	22				-SPACE-	
-SPACE-				23	B	24				-SPACE-	
VOLTAGE AMPS	180	180						11520	11520		
200A MCB, 1 ϕ , 24 SPACE, 120/240V				L1	L2						
MB RATING: 65,000 AIC				11700	11700			VOLTAGE AMPS			
				98	98			AMPS			
								MAX AMPS			
								MAX 125%			

PANEL SCHEDULE

NO SCALE 2

NOT USED

NO SCALE 3



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



DRAWN BY: TJC
CHECKED BY: SRF
APPROVED BY: SRF

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/28/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



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.

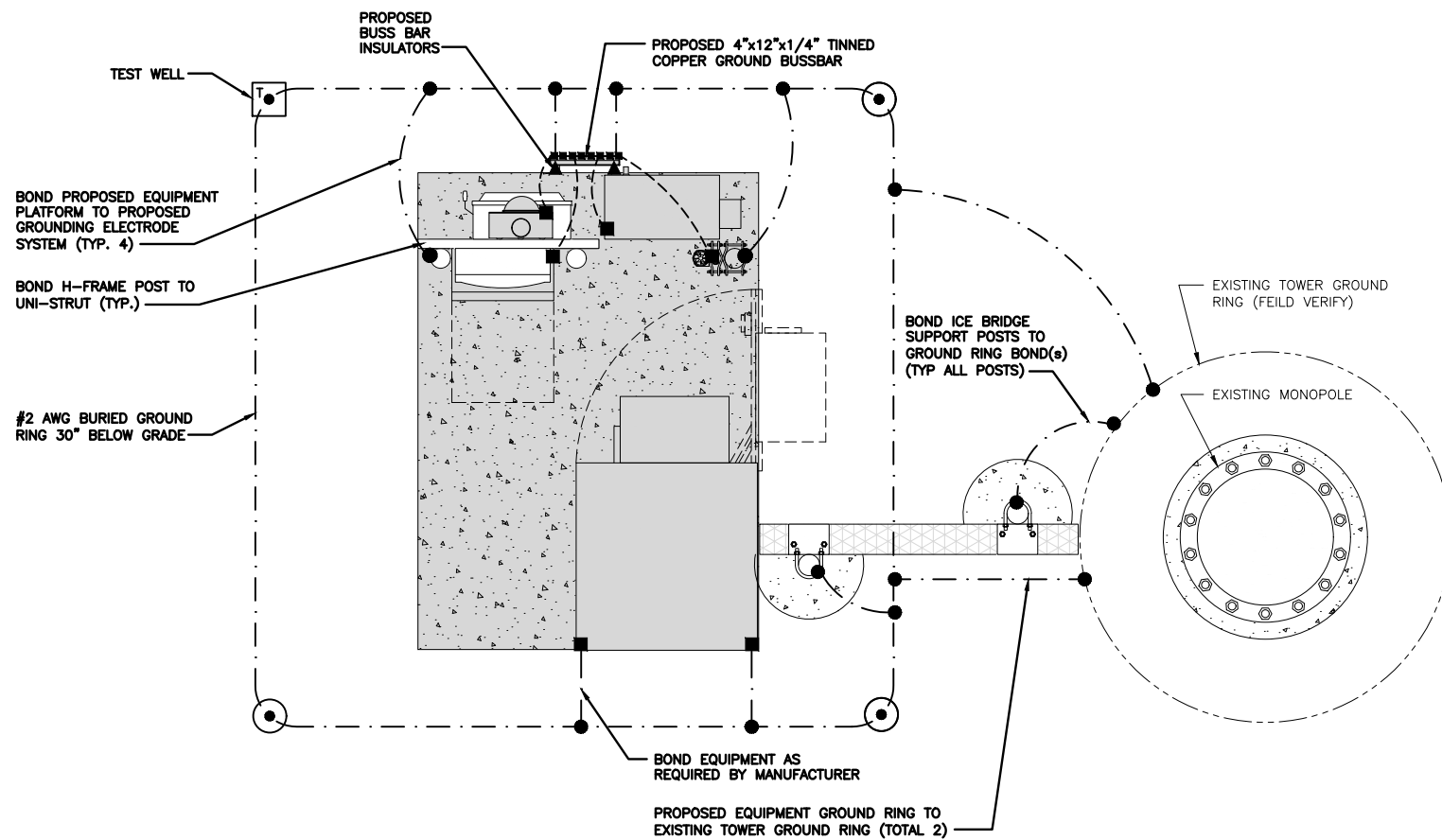
A&E PROJECT NUMBER
370403-13682564

DISH WIRELESS, LLC.
PROJECT INFORMATION
SDSAN00276A
3060 54TH ST
SAN DIEGO, CA 92105

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

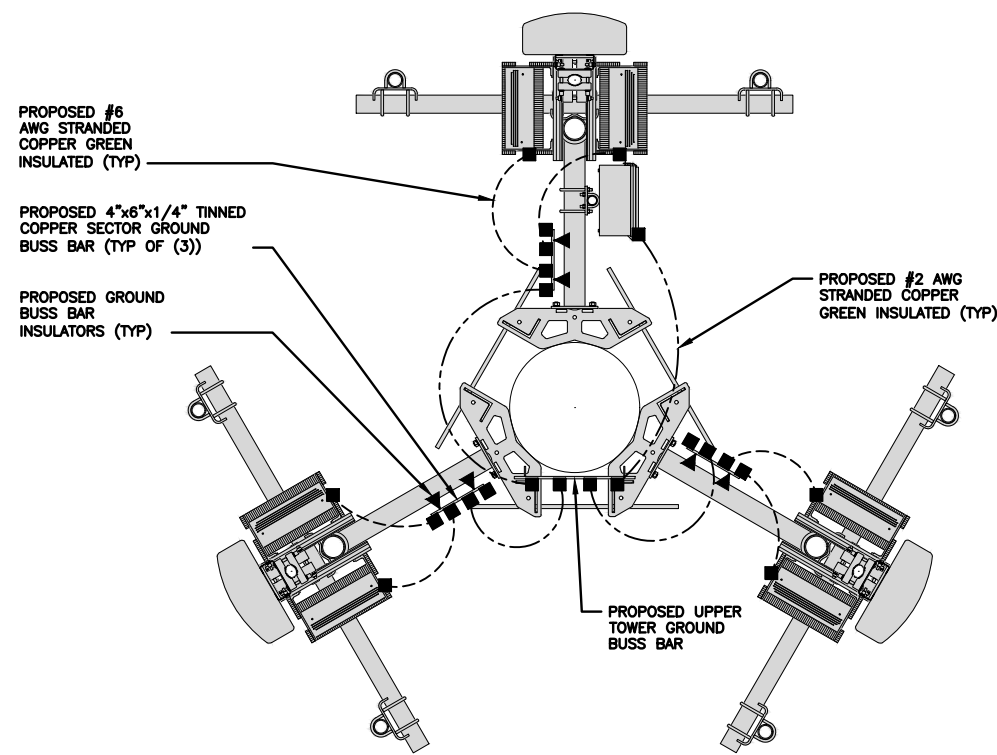
SHEET NUMBER

E-3



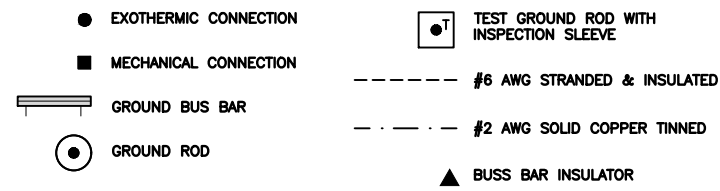
TYPICAL EQUIPMENT GROUNDING PLAN

NO SCALE 1



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, LLC. 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 5/8" 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.
- (J) TELCO GROUND BAR: BOND TO BOTH CELL REFERENCE GROUND BAR OR EXTERIOR GROUND RING.
- (K) FRAME BONDING: THE BONDING POINT FOR TELECOM EQUIPMENT FRAMES SHALL BE THE GROUND BUS THAT IS NOT ISOLATED FROM THE EQUIPMENTS METAL FRAMEWORK.
- (L) 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.
- (M) 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.
- (N) 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
- (P) 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.
- (Q) 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
- (R) TOWER TOP COLLECTOR BUSS BAR IS TO BE MECHANICALLY BONDED TO PROPOSED ANTENNA MOUNT COLLAR. REFER TO DISH WIRELESS, LLC. GROUNDING NOTES.

GROUNDING KEY NOTES

NO SCALE 3



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



DRAWN BY:	CHECKED BY:	APPROVED BY:
TJC	SRF	SRF
RFDS REV #:		0

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/28/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



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.

A&E PROJECT NUMBER
370403-13682564

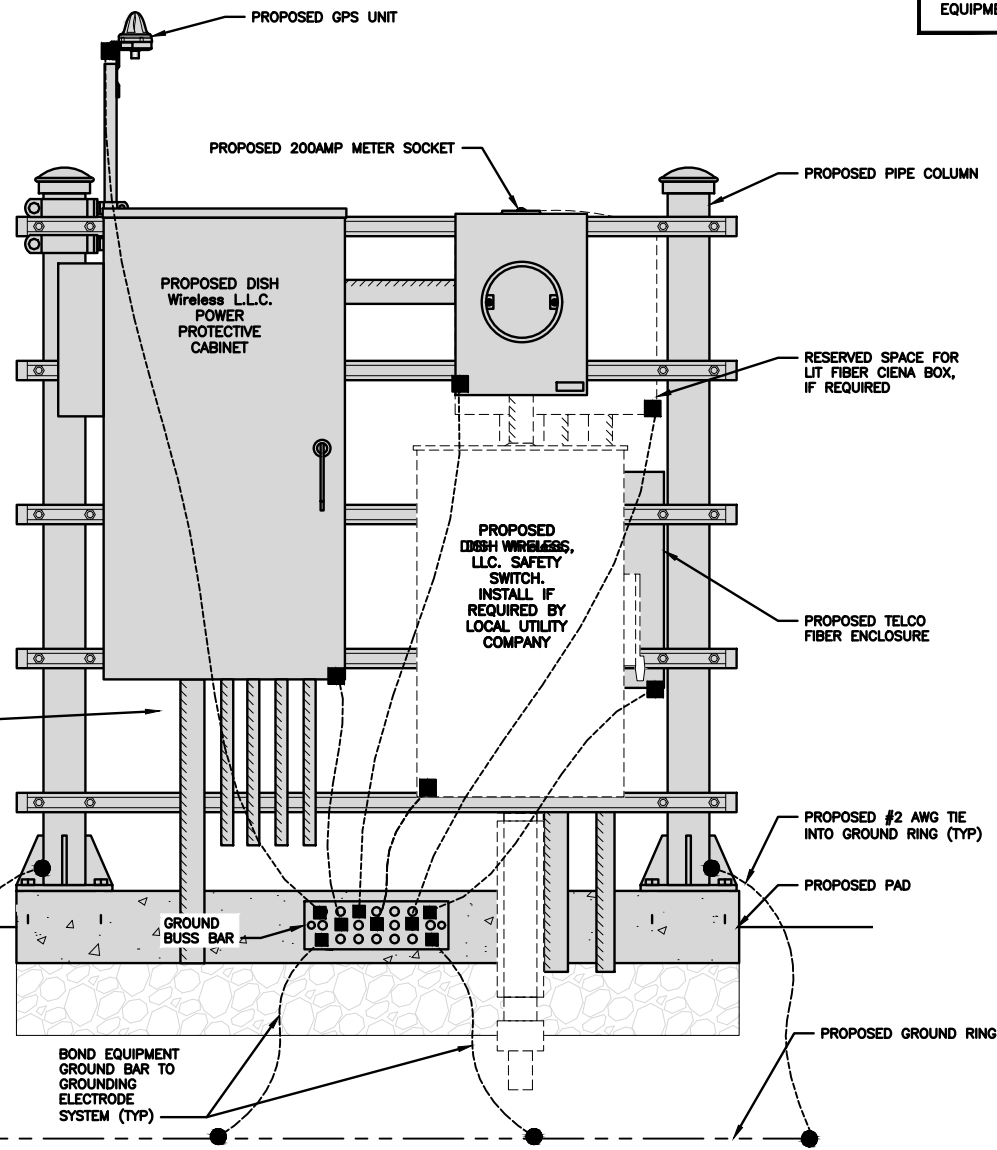
DISH WIRELESS, LLC.
PROJECT INFORMATION
SDSAN00276A
3060 54TH ST
SAN DIEGO, CA 92105

SHEET TITLE
AND NOTES
GROUNDING PLANS

SHEET NUMBER
G-1

NOTES

EQUIPMENT CABINET OMITTED FOR CLARITY



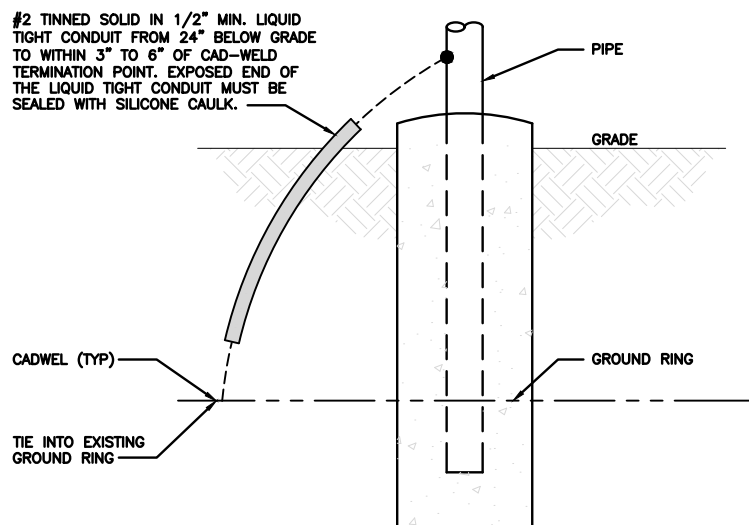
PVC CONDUIT (TYP)
(SEE SHEET E-3 FOR DETAILS)

#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)

BOND EQUIPMENT GROUND BAR TO GROUNDING ELECTRODE SYSTEM (TYP)

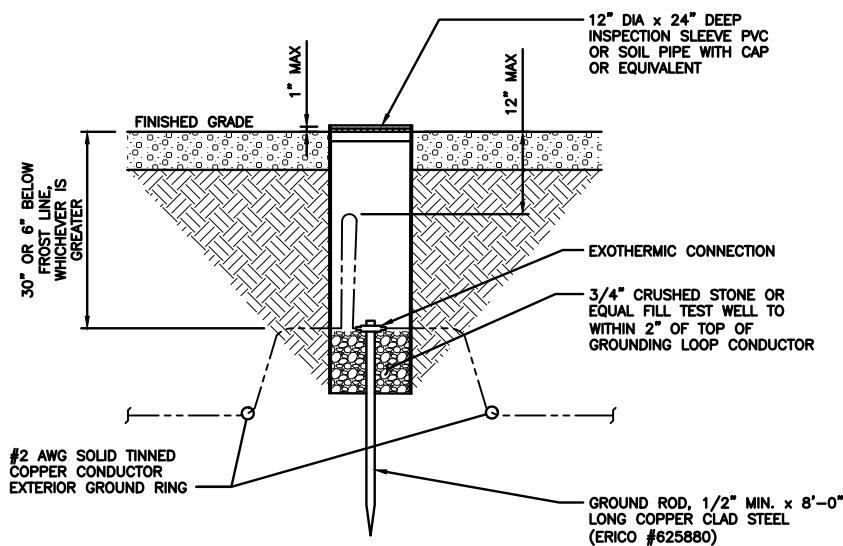
H-FRAME GROUNDING DETAIL

NO SCALE 1



TRANSITIONING GROUND DETAIL

NO SCALE 4

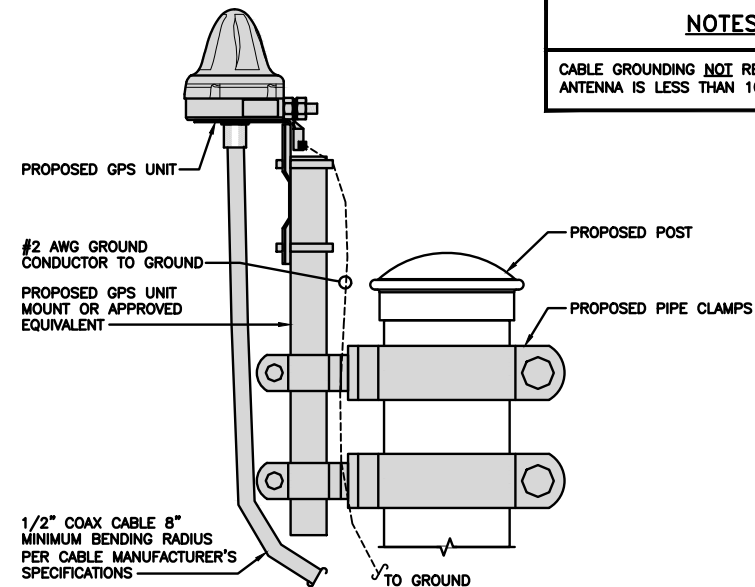


TYPICAL TEST GROUND ROD WITH INSPECTION SLEEVE

NO SCALE 5

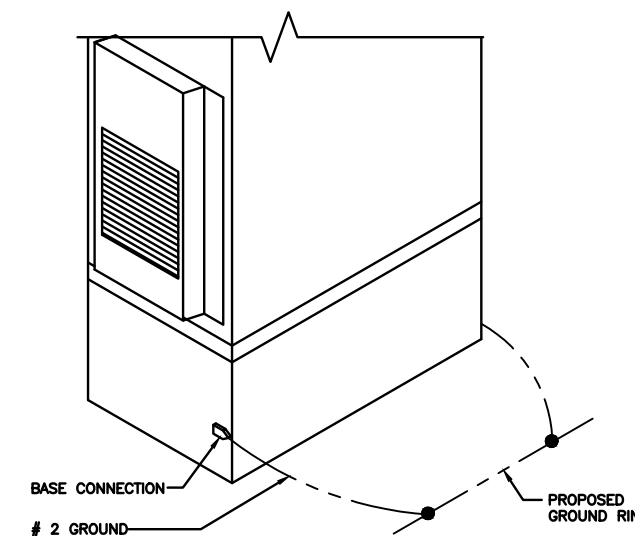
NOTES

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



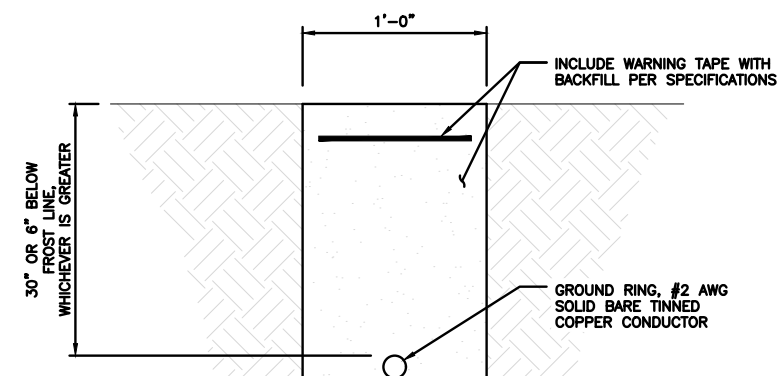
TYPICAL GPS UNIT GROUNDING

NO SCALE 2



OUTDOOR CABINET GROUNDING

NO SCALE 3



TYPICAL GROUND RING TRENCH

NO SCALE 6

dish wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

AMERICAN TOWER
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112

DRAWN BY: TJC
CHECKED BY: SRF
APPROVED BY: SRF

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/28/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



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.

A&E PROJECT NUMBER
370403-13682564

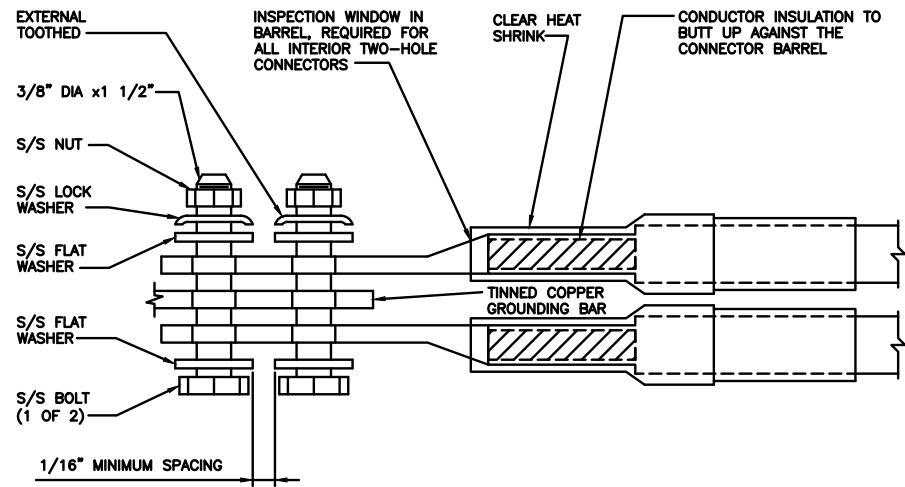
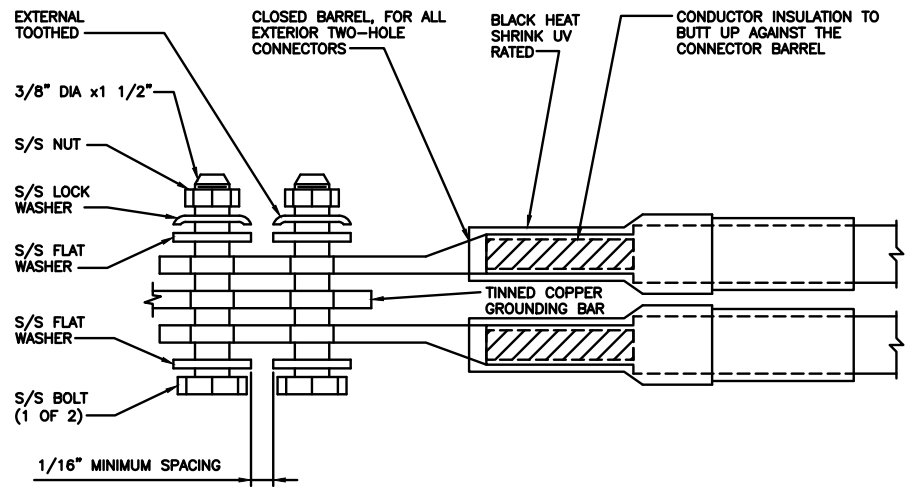
DISH WIRELESS, LLC.
PROJECT INFORMATION
SDSAN00276A
3060 54TH ST
SAN DIEGO, CA 92105

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.
9. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).



TYPICAL GROUNDING NOTES

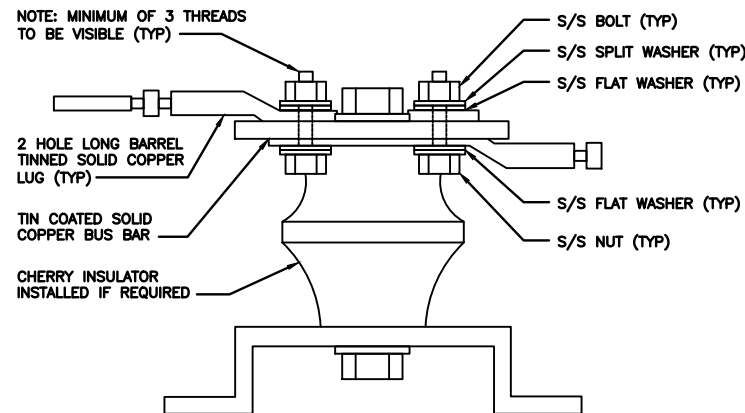
NO SCALE 1

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



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



DRAWN BY:	CHECKED BY:	APPROVED BY:
TJC	SRF	SRF
RFDS REV #:	0	

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/28/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



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.

A&E PROJECT NUMBER
370403-13682564

DISH WIRELESS, LLC.
PROJECT INFORMATION
SDSAN00276A
3060 54TH ST
SAN DIEGO, CA 92105

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)



AWS
(N66+N70+H-BLOCK)



CBRS TECH
(3 GHz)



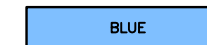
NEGATIVE SLANT PORT
ON ANT/RRH



ALPHA SECTOR



BETA SECTOR



GAMMA SECTOR



COLOR IDENTIFIER

NO SCALE

2

NOT USED

NO SCALE

3

NOT USED

NO SCALE

4



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112

DRAWN BY: TJC
CHECKED BY: SRF
APPROVED BY: SRF

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/28/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



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.

A&E PROJECT NUMBER
370403-13682564

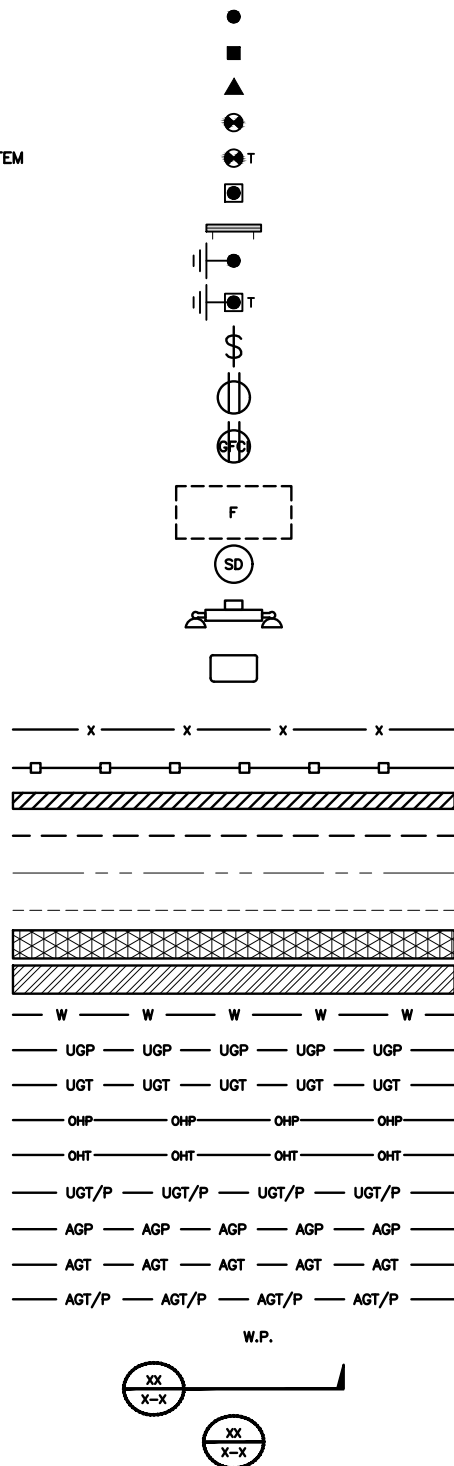
DISH WIRELESS, LLC.
PROJECT INFORMATION
SDSAN00276A
3060 54TH ST
SAN DIEGO, CA 92105

SHEET TITLE
CABLE COLOR CODES
RF

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



SECTION REFERENCE
 DETAIL REFERENCE

LEGEND

AB ANCHOR BOLT
 ABV ABOVE
 AC ALTERNATING CURRENT
 ADDL ADDITIONAL
 AFF ABOVE FINISHED FLOOR
 AFG ABOVE FINISHED GRADE
 AGL ABOVE GROUND LEVEL
 AIC AMPERAGE INTERRUPTION CAPACITY
 ALUM ALUMINUM
 ALT ALTERNATE
 ANT ANTENNA
 APPROX APPROXIMATE
 ARCH ARCHITECTURAL
 ATS AUTOMATIC TRANSFER SWITCH
 AWG AMERICAN WIRE GAUGE
 BATT BATTERY
 BLDG BUILDING
 BLK BLOCK
 BLKG BLOCKING
 BM BEAM
 BTC BARE TINNED COPPER CONDUCTOR
 BOF BOTTOM OF FOOTING
 CAB CABINET
 CANT CANTILEVERED
 CHG CHARGING
 CLG CEILING
 CLR CLEAR
 COL COLUMN
 COMM COMMON
 CONC CONCRETE
 CONSTR CONSTRUCTION
 DBL DOUBLE
 DC DIRECT CURRENT
 DEPT DEPARTMENT
 DF DOUGLAS FIR
 DIA DIAMETER
 DIAG DIAGONAL
 DIM DIMENSION
 DWG DRAWING
 DWL DOWEL
 EA EACH
 EC ELECTRICAL CONDUCTOR
 EL ELEVATION
 ELEC ELECTRICAL
 EMT ELECTRICAL METALLIC TUBING
 ENG ENGINEER
 EQ EQUAL
 EXP EXPANSION
 EXT EXTERIOR
 EW EACH WAY
 FAB FABRICATION
 FF FINISH FLOOR
 FG FINISH GRADE
 FIF FACILITY INTERFACE FRAME
 FIN FINISH(ED)
 FLR FLOOR
 FDN FOUNDATION
 FOC FACE OF CONCRETE
 FOM FACE OF MASONRY
 FOS FACE OF STUD
 FOW FACE OF WALL
 FS FINISH SURFACE
 FT FOOT
 FTG FOOTING
 GA GAUGE
 GEN GENERATOR
 GFCI GROUND FAULT CIRCUIT INTERRUPTER
 GLB GLUE LAMINATED BEAM
 GLV GALVANIZED
 GPS GLOBAL POSITIONING SYSTEM
 GND GROUND
 GSM GLOBAL SYSTEM FOR MOBILE
 HDG HOT DIPPED GALVANIZED
 HDR HEADER
 HGR HANGER
 HVAC HEAT/VENTILATION/AIR CONDITIONING
 HT HEIGHT
 IGR INTERIOR GROUND RING

IN INCH
 INT INTERIOR
 LB(S) POUND(S)
 LF LINEAR FEET
 LTE LONG TERM EVOLUTION
 MAS MASONRY
 MAX MAXIMUM
 MB MACHINE BOLT
 MECH MECHANICAL
 MFR MANUFACTURER
 MGB MASTER GROUND BAR
 MIN MINIMUM
 MISC MISCELLANEOUS
 MTL METAL
 MTS MANUAL TRANSFER SWITCH
 MW MICROWAVE
 NEC NATIONAL ELECTRIC CODE
 NM NEWTON METERS
 NO. NUMBER
 # NUMBER
 NTS NOT TO SCALE
 OC ON-CENTER
 OSHA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
 OPNG OPENING
 P/C PRECAST CONCRETE
 PCS PERSONAL COMMUNICATION SERVICES
 PCU PRIMARY CONTROL UNIT
 PRC PRIMARY RADIO CABINET
 PP POLARIZING PRESERVING
 PSF POUNDS PER SQUARE FOOT
 PSI POUNDS PER SQUARE INCH
 PT PRESSURE TREATED
 PWR POWER CABINET
 QTY QUANTITY
 RAD RADIUS
 RECT RECTIFIER
 REF REFERENCE
 REINF REINFORCEMENT
 REQ'D REQUIRED
 RET REMOTE ELECTRIC TILT
 RF RADIO FREQUENCY
 RMC RIGID METALLIC CONDUIT
 RRH REMOTE RADIO HEAD
 RRU REMOTE RADIO UNIT
 RWY RACEWAY
 SCH SCHEDULE
 SHT SHEET
 SIAD SMART INTEGRATED ACCESS DEVICE
 SIM SIMILAR
 SPEC SPECIFICATION
 SQ SQUARE
 SS STAINLESS STEEL
 STD STANDARD
 STL STEEL
 TEMP TEMPORARY
 THK THICKNESS
 TMA TOWER MOUNTED AMPLIFIER
 TN TOE NAIL
 TOA TOP OF ANTENNA
 TOC TOP OF CURB
 TOF TOP OF FOUNDATION
 TOP TOP OF PLATE (PARAPET)
 TOS TOP OF STEEL
 TOW TOP OF WALL
 TVSS TRANSIENT VOLTAGE SURGE SUPPRESSION
 TYP TYPICAL
 UG UNDERGROUND
 UL UNDERWRITERS LABORATORY
 UNO UNLESS NOTED OTHERWISE
 UMTS UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
 UPS UNINTERRUPTIBLE POWER SYSTEM (DC POWER PLANT)
 VIF VERIFIED IN FIELD
 W WIDE
 W/ WITH
 WD WOOD
 WP WEATHERPROOF
 WT WEIGHT

ABBREVIATIONS



5701 SOUTH SANTA FE DRIVE
 LITTLETON, CO 80120



DRAWN BY:	CHECKED BY:	APPROVED BY:
TJC	SRF	SRF
RFDS REV #:		0

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/28/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



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.

A&E PROJECT NUMBER
 370403-13682564

DISH WIRELESS, LLC.
 PROJECT INFORMATION
 SDSAN00276A
 3060 54TH ST
 SAN DIEGO, CA 92105

SHEET TITLE
 ABBREVIATIONS
 LEGEND AND

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, LLC. AND TOWER OWNER NOC & THE DISH WIRELESS, LLC. AND TOWER OWNER CONSTRUCTION MANAGER.
2. "LOOK UP" – DISH WIRELESS, LLC. 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, LLC. AND DISH WIRELESS, LLC. 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, LLC. 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, LLC. AND TOWER OWNER INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON DISH WIRELESS, LLC. 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, LLC. 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, LLC. 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, LLC.
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, LLC. 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



AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112

DRAWN BY:	CHECKED BY:	APPROVED BY:
TJC	SRF	SRF
RFDS REV #:		0

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/28/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



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.

A&E PROJECT NUMBER 370403-13682564
DISH WIRELESS, LLC. PROJECT INFORMATION SDSAN00276A 3060 54TH ST SAN DIEGO, CA 92105
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, LLC. 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, LLC."
- 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



DRAWN BY:	CHECKED BY:	APPROVED BY:
TJC	SRF	SRF

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/28/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



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.

A&E PROJECT NUMBER
370403-13682564

DISH WIRELESS, LLC.
PROJECT INFORMATION
SDSAN00276A
3060 54TH ST
SAN DIEGO, CA 92105

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 GROUND 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.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
2. STRUCTURAL STEEL ROLLED SHAPES, PLATES AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:
 - A. ASTM A-572, GRADE 50 - ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE
 - B. ASTM A-36 - ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.
 - C. ASTM A-500, GRADE B - HSS SECTION (SQUARE, RECTANGULAR, AND ROUND)
 - D. ASTM A-325, TYPE SC OR N - ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS
 - E. ASTM F-1554 07 - ALL ANCHOR BOLTS, UNLESS NOTED OTHERWISE
3. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
4. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.
5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
6. CONNECTIONS:
 - A. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
 - B. ALL WELDS SHALL BE INSPECTED VISUALLY. 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
 - C. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
 - D. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE BURNING/WELDING PERMITS AS REQUIRED BY LOCAL GOVERNING AUTHORITY AND IF REQUIRED SHALL HAVE FIRE DEPARTMENT DETAIL FOR ANY WELDING ACTIVITY.
 - E. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
 - F. MINIMUM WELD SIZE TO BE 0.1875 INCH FILLET WELDS, UNLESS NOTED OTHERWISE.
 - G. PRIOR TO FIELD WELDING GALVANIZING MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING 1/2" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.
 - H. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE REQUIRED DURING CONSTRUCTION UNTIL ALL CONNECTIONS ARE COMPLETE.
 - I. ANY FIELD CHANGES OR SUBSTITUTIONS SHALL HAVE PRIOR APPROVAL FROM THE ENGINEER, AND DISH WIRELESS PROJECT MANAGER IN WRITING



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112

DRAWN BY: CHECKED BY: APPROVED BY:

TJC SRF SRF

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	07/20/2021	ISSUED FOR CONSTRUCTION
1	08/26/2021	ISSUED FOR CONSTRUCTION
2	03/08/2022	UPDATE RAD CENTER
3	03/11/2022	REV CLOUDS REMOVED
4	03/21/2022	ADDED NOTE/UPDATED ELEV.
5	01/26/2023	LANDSCAPING PLAN
6	02/14/2023	EDIT NOTE COLOR



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.

A&E PROJECT NUMBER
370403-13682564

DISH WIRELESS, LLC.
PROJECT INFORMATION
SDSAN00276A
3060 54TH ST
SAN DIEGO, CA 92105

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-4



**City of San Diego
Development Services**
1222 First Ave., MS 302
San Diego, CA 92101
(619) 446-5000

Ownership Disclosure Statement

MW
ATC 370403
13682564

**FORM
DS-318**

October 2017

Approval Type: Check appropriate box for type of approval(s) requested: Neighborhood Use Permit Coastal Development Permit
 Neighborhood Development Permit Site Development Permit Planned Development Permit Conditional Use Permit Variance
 Tentative Map Vesting Tentative Map Map Waiver Land Use Plan Amendment • Other _____

Project Title: ATC 54th Street Frontage **Project No. For City Use Only:** _____

Project Address: 3060 54th Street, San Diego, CA 92105-4924

Specify Form of Ownership/Legal Status (please check):

Corporation Limited Liability -or- General - What State? CA Corporate Identification No. _____
 Partnership Individual

By signing the Ownership Disclosure Statement, the owner(s) acknowledge that an application for a permit, map or other matter will be filed with the City of San Diego on the subject property with the intent to record an encumbrance against the property. Please list below the owner(s), applicant(s), and other financially interested persons of the above referenced property. A financially interested party includes any individual, firm, co-partnership, joint venture, association, social club, fraternal organization, corporation, estate, trust, receiver or syndicate with a financial interest in the application. If the applicant includes a corporation or partnership, include the names, titles, addresses of all individuals owning more than 10% of the shares. If a publicly-owned corporation, include the names, titles, and addresses of the corporate officers. (A separate page may be attached if necessary.) If any person is a nonprofit organization or a trust, list the names and addresses of ANY person serving as an officer or director of the nonprofit organization or as trustee or beneficiary of the nonprofit organization. A signature is required of at least one of the property owners. Attach additional pages if needed. Note: The applicant is responsible for notifying the Project Manager of any changes in ownership during the time the application is being processed or considered. Changes in ownership are to be given to the Project Manager at least thirty days prior to any public hearing on the subject property. Failure to provide accurate and current ownership information could result in a delay in the hearing process.

Property Owner

Name of Individual: Calvary Evangelical Lutheran Church of San Diego Owner Tenant/Lessee Successor Agency

Street Address: 3060 54th Street

City: San Diego State: CA Zip: 92105-4924

Phone No.: 619-582-5581 Fax No.: _____ Email: revlev@cox.net

Signature: [Signature] Date: 11 June 2021

Additional pages Attached: Yes No

Applicant

Name of Individual: GTP Infrastructure I, LLC Owner Tenant/Lessee Successor Agency

Street Address: 10 Presidential Way

City: Woburn State: MA Zip: 01801-1053

Phone No.: 781-926-4570 Fax No.: _____ Email: _____

Signature: [Signature] Date: 6-24-21

Additional pages Attached: Yes No

Other Financially Interested Persons

Name of Individual: _____ Owner Tenant/Lessee Successor Agency

Street Address: _____

City: _____ State: _____ Zip: _____

Phone No.: _____ Fax No.: _____ Email: _____

Signature: _____ Date: _____

Additional pages Attached: Yes No



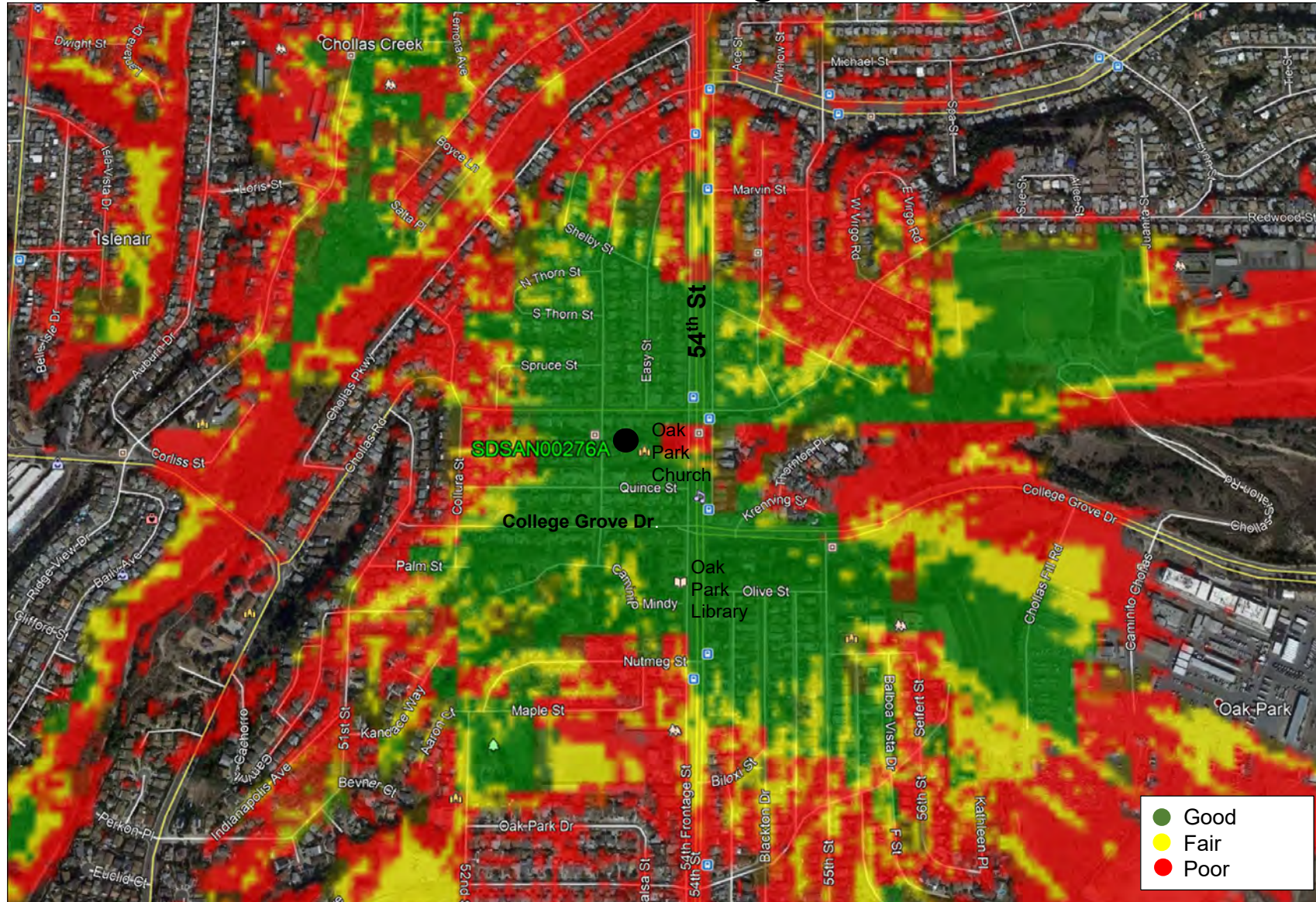
DISH Wireless

SDSAN00276A Band n66 coverage

June 2021



SDSAN00276A Band n66 Coverage



The site covers the northwest part of the Oak Park Neighborhood of San Diego.



DISH Wireless



Branch Layout for Job: Calvary Church Branch Upgrade to 4.0 Density

Elev	Deg	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
30.00	90									5									
30.00	30					3						3							3
29.50	30		4						4						4				
28.75	15				6						6						6		
28.00	0						6						6						6
27.25	0			6						6						6			
26.50	0	6						6						6					
25.75	0					6						6							6
25.00	0		6						6						6				
24.50	0				8						8						8		
24.00			BB			BB			BB			BB			BB			BB	
23.25	0						6						6						6
22.50	0			8						8						8			
21.75	0	8						8						8					
21.00	0					8					8							8	
20.25	0		8						8						8				
19.50	0				9						9						9		
18.75	0						8						8						8
18.00	0			9						9						9			
17.25	0	8						8						8					
16.50	0					9					9							9	
15.75	0		8						8						8				
15.00	0				9						9						9		
14.25	0						9						9						9
13.50	0			9						9						9			
12.75	0	9						9						9					
12.00	0					8					8							8	
11.25	0		8						8						8				
10.50	0				6						6						6		
10.00	0						6						6						6

	Brnchs per Row	Space Betw Rows
White	1	
Pink	3	
Blue	3	0.5
Tan	3	0.8
Tan	3	0.8
Tan	3	0.8
Tan	3	0.8
Tan	3	0.8
Tan	3	0.8
Tan	3	0.8
Green	3	0.5
Rad Center #1	6	0.5
Tan	3	0.8
Green	3	0.8
Green	3	0.8
Green	3	0.8
Green	3	0.8
Yellow	3	0.8
Green	3	0.8
Yellow	3	0.8
Yellow	3	0.8
Green	3	0.8
Yellow	3	0.8
Green	3	0.8
Green	3	0.8
Green	3	0.8
Green	3	0.8
Tan	3	0.8
Tan	3	0.5

Size	CR	SC	BB	4	6	7	8	9	10	
Count	1	3	6	3	27	0	30	21	0	
		Branch Total= 91								

Branch Total	91
Total with Tips	12
	103

PHOTO STUDY & KEY MAP

American Tower
“54th Frontage”
3060 54th Street
San Diego, CA 92105

Prepared for:
City of San Diego
Development Services Department
1222 First Avenue
San Diego, CA 92101

Prepared by:
PlanCom, Inc.
Contractor Representatives for
American Tower

302 State Place
Escondido, CA 92029
Contact: Shelly Kilbourn
619-208-4685

April 24, 2023



East Elevation (Photo 1)



North Elevation (Photo 2)



South Elevation (Photo 3)



West Elevation (Photo 4)



Existing Equipment Enclosure



Inside of the Existing Equipment Enclosure



View to the East from the Site



View to the North from the Site



View to the South from the Site



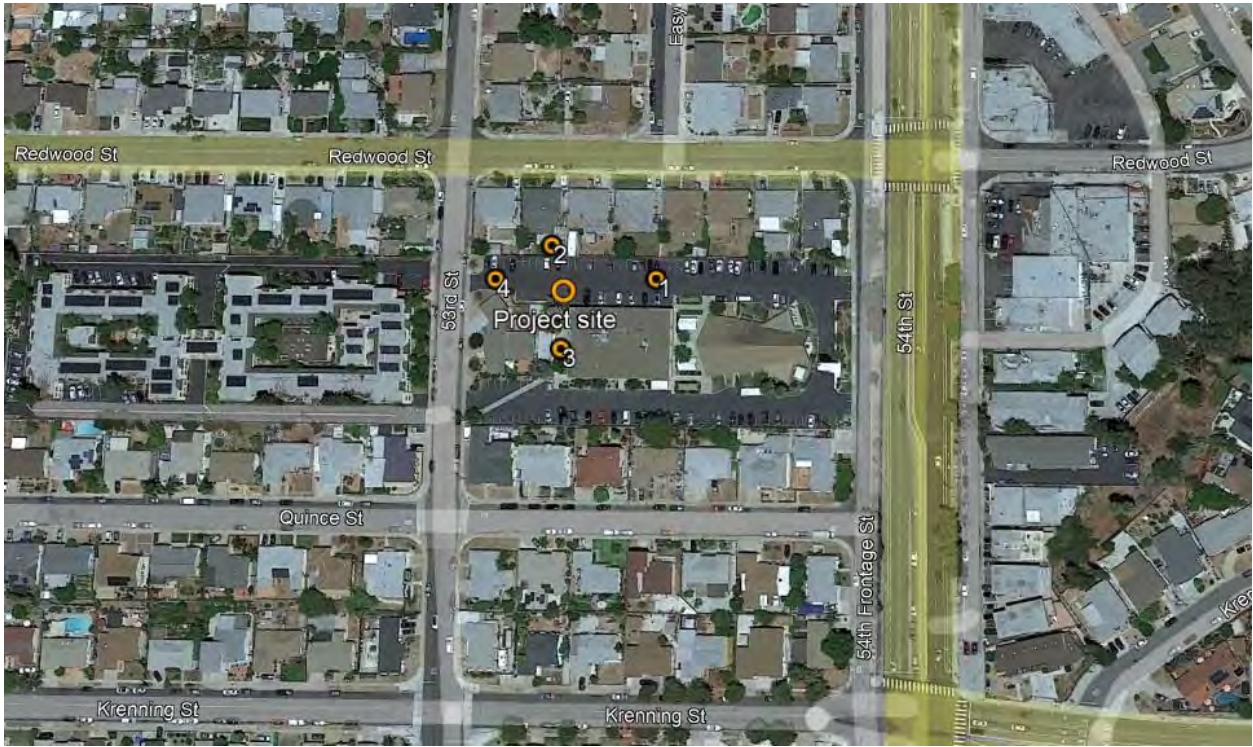
View to the West from the Site



View to the West from 54th Street



View to the East from 53rd Street



Aerial View