



## **AGENDA**

Special Meeting of the Board of Directors  
3021 Fullerton Road  
Rowland Heights, CA 91748  
June 27, 2023 -- 6:00 PM

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*Agenda materials are available for public review at <https://www.rwd.org/agendas-minutes/>. Materials related to an item on this Agenda submitted after distribution of the Agenda packet are available for public review at the District office located at 3021 Fullerton Road, Rowland Heights, CA 91748.*

### **CALL TO ORDER**

### **PLEDGE OF ALLEGIANCE**

### **ROLL CALL OF DIRECTORS**

Szu Pei Lu-Yang, President  
John Bellah, Vice President  
Vanessa Hsu  
Robert W. Lewis  
Anthony J. Lima

### **ADDITION(S) TO THE AGENDA**

### **PUBLIC COMMENT ON NON-AGENDA ITEMS**

*Any member of the public wishing to address the Board of Directors regarding items not on the Agenda within the subject matter jurisdiction of the Board should do so at this time. With respect to items on the agenda, the Board will receive public comments at the time the item is opened for discussion, prior to any vote or other Board action. A three-minute time limit on remarks is requested.*

*Any person may make a request for a disability-related modification or accommodation needed for that person to be able to participate in the public meeting by telephoning Gabriela Sanchez, Executive Assistant at (562) 383-2323, or writing to Rowland Water District, at 3021 Fullerton Road, Rowland Heights, CA 91748. Requests must specify the nature of the disability and the type of accommodation requested. A telephone number or other contact information should be included so that District staff may discuss appropriate arrangements. Anyone requesting a disability-related accommodation should make the request with adequate time prior to the meeting in order for the District to provide the requested accommodation.*

*Any member of the public wishing to participate in the meeting, who requires a translator to understand or communicate in English, should arrange to bring a translator with them to the meeting.*

## 1. ACTION ITEMS

*This portion of the Agenda is for items where staff presentations and Board discussions are needed prior to formal Board action.*

### 1.1 Consider Approval of Third Amendment to Wireless Communications Facility Site Lease Agreement with T-Mobile West Tower LLC at Buckskin Reservoir Site

*Recommendation: The Board of Directors review and approve the third amendment to the communications site lease agreement with T-Mobile West Tower LLC, a Delaware limited liability company, by and through its Attorney In Fact, CCTMO LLC, a Delaware limited liability company.*

## 2. CLOSED SESSION

### a. CONFERENCE WITH REAL PROPERTY NEGOTIATOR – [§54956.8]

Property: Portion of Property Located at 839 S. Azusa Avenue  
City of Industry, CA  
District Negotiator: Tom Coleman, General Manager  
Negotiating Parties: City of Industry  
Under Negotiation: Price and Terms

### b. CONFERENCE WITH REAL PROPERTY NEGOTIATOR – [§54956.8]

Property: Assessor Parcel Numbers 8266-002-900, 8266-002-901 and  
8269-003-903  
District Negotiator: Tom Coleman, General Manager  
Negotiating Parties: Puente Hills Habitat Authority  
Under Negotiation: Price and Terms of Payment

## 3. RECONVENVE/REPORT ON CLOSED SESSION

### General Manager's and Directors' Comments

### Future Agenda Items

### Late Business

*No action shall be taken on any items not appearing on the posted agenda, except upon a determination by a majority of the Board that an emergency situation exists, or that the need to take action arose after the posting of the agenda.*

## ADJOURNMENT

President SZU PEI LU-YANG, Presiding

*Next Regular Board Meeting:* July 11, 2023

### **THIRD AMENDMENT TO LEASE AGREEMENT**

THIS THIRD AMENDMENT TO LEASE AGREEMENT (the “Third Amendment”) is made effective this \_\_\_\_ day of \_\_\_\_\_, 2023 (“Effective Date”), by and between ROWLAND WATER DISTRICT, a political subdivision, who acquired title as Rowland Area County Water District, a political subdivision (hereinafter referred to as “Landlord”) and T-MOBILE WEST TOWER LLC, a Delaware limited liability company, by and through its Attorney In Fact, CCTMO LLC, a Delaware limited liability company (hereinafter referred to as “Tenant”).

#### **RECITALS**

WHEREAS, Landlord and Omnipoint Communications Inc., a subsidiary of T-Mobile USA, Inc. (“Original Tenant”) entered into a Lease Agreement dated October 20, 2005 (the “Original Agreement”) whereby Original Tenant leased certain real property, together with access and utility easements, located in Los Angeles County, California from Landlord (the “Premises”), all located within certain real property owned by Landlord (“Landlord’s Property”); and

WHEREAS, the Original Agreement was amended by that certain First Amendment to Lease Agreement dated June 18, 2019, a memorandum of which was recorded in the official records of Los Angeles County, California (“Official Records”) on July 8, 2019 at Instrument No. 20190656382 (“First Amendment”), and by that certain Second Amendment to Lease Agreement dated June 10, 2021, a memorandum of which was recorded in the Official Records on July 2, 2021 at Instrument No. 20211039479 (“Second Amendment”) (hereinafter the Original Agreement and all subsequent amendments are collectively referred to as the “Agreement”); and

WHEREAS, T-Mobile West Tower LLC is currently the Tenant under the Agreement as successor in interest to the Original Tenant; and

WHEREAS, the Premises may be used for the purpose of constructing, maintaining and operating a communications facility, including tower structures, equipment shelters, cabinets, meter boards, utilities, antennas, equipment, any related improvements and structures and uses incidental thereto; and

WHEREAS, the Agreement had an initial term that commenced on June 1, 2006 and expired on May 31, 2011. The Agreement, as amended, provides for six (6) extensions of five (5) years each, three (3) of which were exercised by Tenant. According to the Agreement, the final extension expires on May 31, 2041; and

WHEREAS, Landlord and Tenant desire to amend the Agreement on the terms and conditions contained herein.

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

1. Recitals; Defined Terms. The parties acknowledge the accuracy of the foregoing recitals. Any capitalized terms not defined herein shall have the meanings ascribed to them in the Agreement.

2. Consent to Sublease. In accordance with Section 16 of the Original Agreement, Landlord hereby acknowledges and agrees to the sublease of a portion of the Premises, as expanded, to Dish Network Corporation or an affiliate or subsidiary (the "Dish Subtenant") for purposes of installation, maintenance and replacement of equipment, antennas, cables, fiber, and related accessories on the Premises for the operation of a wireless communications facility thereon, as depicted in the drawings attached hereto as Exhibit C.

3. Second Additional Premises. The existing Premises is hereby expanded in size to include additional space, which consists a fifty-six (56) square foot parcel of real property, made up of two parcels of twenty-three (23) square feet and a thirty three (33) square feet respectively, adjacent to the existing Premises at a location more particularly described on Exhibit A-1 attached hereto and shown on the Site Plan attached hereto as Exhibit B (the "Second Additional Premises"). The Premises, as expanded, is more specifically described on Exhibit A-2 attached hereto. Notwithstanding anything to the contrary in this Third Amendment, Tenant is not relinquishing any rights to any lease area, access easements, and/or utility easements that it possesses prior to the date of this Third Amendment.

4. Second Additional Rent. In consideration of the lease of the Second Additional Premises, Tenant shall pay to Landlord the amount of Three Hundred Eighty-Eight and 69/100 Dollars (\$388.69) per month ("Second Additional Rent"), beginning upon the first day of the first month following the commencement of installation of improvements within the Second Additional Premises and continuing thereafter until the earlier of (i) the expiration of the Lease Term; or (ii) the "Return of the Second Additional Premises" as set forth below. The Second Additional Rent shall be due and payable concurrently with and shall escalate upon the same terms and at the same time as the monthly Rent set forth in the Agreement, as amended, for so long as such Second Additional Rent is payable to Landlord as set forth herein.

5. Right to Return the Second Additional Premises. Tenant shall have the option, upon thirty (30) days prior written notice to Landlord, in its sole and absolute discretion, to return the Second Additional Premises to the Landlord and to terminate the lease of the same by removing all improvements from the Second Additional Premises and returning same to its condition as of the Effective Date, ordinary wear and tear excepted (the "Return of the Second Additional Premises"). Effective upon removal of all improvements from the Second Additional Premises, the Second Additional Rent shall cease and will no longer be due or payable.

6. Conditional Signing Bonus. Tenant will pay to Landlord a one-time amount of Five Thousand and 00/100 Dollars (\$5,000.00) for the full execution of this Third Amendment, payable within sixty (60) days of the full execution of this Third Amendment ("Conditional Signing Bonus"). In the event that this Third Amendment (and any applicable memorandum of Lease and/or amendment) is not fully executed by both Landlord and Tenant for any reason, Tenant shall have no obligation to pay the Conditional Signing Bonus to Landlord.

7. Representations, Warranties and Covenants of Landlord. Each party represents, warrants and covenants to the other party as follows:

a) Both parties are duly authorized to and have the full power and authority to enter into this Third Amendment and to perform all of their respective obligations under the Agreement as amended hereby.

b) Tenant is not currently in default under the Agreement, and to Landlord's knowledge, no event or condition has occurred or presently exists which, with notice or the passage of time or both, would constitute a default by Tenant under the Agreement.

c) Landlord is not currently in default under the agreement, and to the Tenants knowledge, no event or condition has occurred or presently exists which, with notice or the passage of time or both, would constitute a default by Landlord under the agreement.

d) Both parties agree to provide such further assurances as may be requested to carry out and evidence the full intent of the parties under the Agreement as amended hereby.

8. Counterparts. This Third Amendment may be executed in separate and multiple counterparts, each of which shall be deemed an original but all of which taken together shall be deemed to constitute one and the same instrument.

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

10. Recordation. Tenant, at its cost and expense, shall have the right to record a memorandum of this Third Amendment in the Official Records at any time following the execution of this Third Amendment by all parties hereto.

[Signature pages follow]

Landlord and Tenant have caused this Third Amendment to be duly executed on the day and year first written above.

**LANDLORD:**

ROWLAND WATER DISTRICT, a political  
subdivision

By: \_\_\_\_\_

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

Title: \_\_\_\_\_

Landlord affirms that this Third Amendment  
was approved at a duly noticed public  
meeting held on \_\_\_\_\_ 2023

[Tenant Execution Page Follows]

This Third Amendment is executed by Tenant as of the date first written above.

**TENANT:**

T-MOBILE WEST TOWER LLC, a  
Delaware limited liability company

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

By: \_\_\_\_\_

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

Title: \_\_\_\_\_

**Exhibit A-1**  
**(Legal Description of Second Additional Premises)**

SECOND ADDITIONAL PREMISES (comprised of Additional Lease Area 2 and Additional Lease Area 3)

ADDITIONAL LEASE AREA 2

THAT PORTION OF LOT 5 OF C.M. WRIGHT TRACT IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 5, PAGE 75 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF LOT 20 AS SHOWN ON TRACT NO. 41684, RECORDED IN BOOK 1063, PAGE 6 OF MAPS, IN OFFICE OF THE COUNTY RECORDER OF SAID COUNTY;

THENCE SOUTH 16° 24' 52" EAST, ALONG THE EASTERLY LINE OF SAID LOT 20, 531.80 FEET;

THENCE NORTH 81° 10' 00" EAST, DEPARTING SAID EASTERLY LINE, 70.54 FEET TO THE TRUE POINT OF BEGINNING;

THENCE NORTH 21° 08' 30" EAST, 4.00 FEET;

THENCE SOUTH 68° 51' 30" EAST, 5.67 FEET;

THENCE SOUTH 21° 08' 30" WEST, 4.00 FEET;

THENCE NORTH 68° 51' 30" WEST, 5.67 FEET TO THE TRUE POINT OF BEGINNING AND CONTAINING 0.001 ACRES (23 SQUARE FEET) OF LAND MORE OR LESS.

TOGETHER WITH AND RESERVING A NON-EXCLUSIVE RIGHT OF USE ACROSS LESSOR'S PROPERTY FOR INGRESS, EGRESS, PARKING, VEHICULAR MANEUVERING, EQUIPMENT AND UTILITIES IN ORDER TO CONSTRUCT, INSTALL, OPERATE, MAINTAIN OR REMOVE ANY RADIO COMMUNICATION FACILITY AND EQUIPMENT.

ADDITIONAL LEASE AREA 3

THAT PORTION OF LOT 5 OF C.M. WRIGHT TRACT IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 5, PAGE 75 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF LOT 20 AS SHOWN ON TRACT NO. 41684, RECORDED IN BOOK 1063, PAGE 6 OF MAPS, IN OFFICE OF THE COUNTY RECORDER OF SAID COUNTY;

THENCE SOUTH 16° 24' 52" EAST, ALONG THE EASTERLY LINE OF SAID LOT 20, 531.80 FEET;



THENCE NORTH 81° 10' 00" EAST, DEPARTING SAID EASTERLY LINE, 58.21 FEET;  
THENCE NORTH 08° 50' 00" WEST, 14.27 FEET TO THE TRUE POINT OF BEGINNING;

THENCE NORTH 43° 30' 00" WEST, 7.00 FEET;  
THENCE NORTH 46° 30' 00" EAST, 4.75 FEET;  
THENCE SOUTH 43° 30' 00" EAST, 7.00 FEET;  
THENCE SOUTH 46° 30' 00" WEST, 4.75 FEET TO THE TRUE POINT OF BEGINNING AND  
CONTAINING 0.001 ACRES (33 SQUARE FEET) OF LAND MORE OR LESS.

TOGETHER WITH AND RESERVING A NON-EXCLUSIVE RIGHT OF USE ACROSS  
LESSOR'S PROPERTY FOR INGRESS, EGRESS, PARKING, VEHICULAR  
MANEUVERING, EQUIPMENT AND UTILITIES IN ORDER TO CONSTRUCT, INSTALL,  
OPERATE, MAINTAIN OR REMOVE ANY RADIO COMMUNICATION FACILITY AND  
EQUIPMENT.

**Exhibit A-2**  
**(Legal Description of Premises, as expanded)**

PREMISES, AS EXPANDED (comprised of Equipment Lease Area, Tower Lease Area, Additional Lease Area 1, Additional Lease Area 2 and Additional Lease Area 3)

EQUIPMENT LEASE AREA

THAT PORTION OF LOT 5 OF C.M. WRIGHT TRACT IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 5, PAGE 75 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF LOT 20 AS SHOWN ON TRACT NO. 41684, RECORDED IN BOOK 1063, PAGE 6 OF MAPS, IN OFFICE OF THE COUNTY RECORDER OF SAID COUNTY;

THENCE SOUTH 16° 24' 52" EAST, ALONG THE EASTERLY LINE OF SAID LOT 20, 435.35 FEET;

THENCE NORTH 81° 10' 00" EAST, DEPARTING SAID EASTERLY LINE, 57.83 FEET TO THE TRUE POINT OF BEGINNING;

THENCE NORTH 79° 13' 02" EAST, 10.00 FEET;

THENCE SOUTH 10° 46' 58" EAST, 29.00 FEET;

THENCE SOUTH 79° 13' 02" WEST, 10.00 FEET;

THENCE NORTH 10° 46' 58" WEST, 29.00 FEET TO THE TRUE POINT OF BEGINNING AND CONTAINING 0.007 ACRES (290 SQUARE FEET) OF LAND MORE OR LESS.

TOGETHER WITH AND RESERVING A NON-EXCLUSIVE RIGHT OF USE ACROSS LESSOR'S PROPERTY FOR INGRESS, EGRESS, PARKING, VEHICULAR MANEUVERING, EQUIPMENT AND UTILITIES IN ORDER TO CONSTRUCT, INSTALL, OPERATE, MAINTAIN OR REMOVE ANY RADIO COMMUNICATION FACILITY AND EQUIPMENT.

TOWER LEASE AREA

THAT PORTION OF LOT 5 OF C.M. WRIGHT TRACT IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 5, PAGE 75 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF LOT 20 AS SHOWN ON TRACT NO. 41684, RECORDED IN BOOK 1063, PAGE 6 OF MAPS, IN OFFICE OF THE COUNTY RECORDER OF SAID COUNTY;

THENCE SOUTH 16° 24' 52" EAST, ALONG THE EASTERLY LINE OF SAID LOT 20, 469.00 FEET;

THENCE NORTH 81° 10' 00" EAST, DEPARTING SAID EASTERLY LINE, 128.50 FEET TO

THE TRUE POINT OF BEGINNING;

THENCE CONTINUING NORTH 81° 10' 00" EAST, 10.00 FEET;  
THENCE SOUTH 08° 50' 00" EAST, 11.00 FEET;  
THENCE SOUTH 81° 10' 00" WEST, 10.00 FEET;  
THENCE NORTH 08° 50' 00" WEST, 11.00 FEET TO THE TRUE POINT OF BEGINNING  
AND CONTAINING 0.003 ACRES (110 SQUARE FEET) OF LAND MORE OR LESS.

TOGETHER WITH AND RESERVING A NON-EXCLUSIVE RIGHT OF USE ACROSS LESSOR'S PROPERTY FOR INGRESS, EGRESS, PARKING, VEHICULAR MANEUVERING, EQUIPMENT AND UTILITIES IN ORDER TO CONSTRUCT, INSTALL, OPERATE, MAINTAIN OR REMOVE ANY RADIO COMMUNICATION FACILITY AND EQUIPMENT.

#### ADDITIONAL LEASE AREA 1

THAT PORTION OF LOT 5 OF C.M. WRIGHT TRACT IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 5, PAGE 75 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF LOT 20 AS SHOWN ON TRACT NO. 41684, RECORDED IN BOOK 1063, PAGE 6 OF MAPS, IN OFFICE OF THE COUNTY RECORDER OF SAID COUNTY;  
THENCE SOUTH 16° 24' 52" EAST, ALONG THE EASTERLY LINE OF SAID LOT 20, 424.84 FEET;  
THENCE NORTH 81° 10' 00" EAST, DEPARTING SAID EASTERLY LINE, 64.36 FEET TO THE TRUE POINT OF BEGINNING;

THENCE NORTH 43° 23' 37" EAST, 22.00 FEET;  
THENCE SOUTH 46° 36' 23" EAST, 9.00 FEET;  
THENCE SOUTH 43° 23' 37" WEST, 22.00 FEET;  
THENCE NORTH 46° 36' 23" WEST, 9.00 FEET TO THE TRUE POINT OF BEGINNING AND CONTAINING 0.005 ACRES (198 SQUARE FEET) OF LAND MORE OR LESS.

#### ADDITIONAL LEASE AREA 2

THAT PORTION OF LOT 5 OF C.M. WRIGHT TRACT IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 5, PAGE 75 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF LOT 20 AS SHOWN ON TRACT NO. 41684, RECORDED IN BOOK 1063, PAGE 6 OF MAPS, IN OFFICE OF THE COUNTY RECORDER OF SAID COUNTY;  
THENCE SOUTH 16° 24' 52" EAST, ALONG THE EASTERLY LINE OF SAID LOT 20, 531.80 FEET;

THENCE NORTH 81° 10' 00" EAST, DEPARTING SAID EASTERLY LINE, 70.54 FEET TO THE TRUE POINT OF BEGINNING;

THENCE NORTH 21° 08' 30" EAST, 4.00 FEET;  
THENCE SOUTH 68° 51' 30" EAST, 5.67 FEET;  
THENCE SOUTH 21° 08' 30" WEST, 4.00 FEET;  
THENCE NORTH 68° 51' 30" WEST, 5.67 FEET TO THE TRUE POINT OF BEGINNING AND CONTAINING 0.001 ACRES (23 SQUARE FEET) OF LAND MORE OR LESS.

TOGETHER WITH AND RESERVING A NON-EXCLUSIVE RIGHT OF USE ACROSS LESSOR'S PROPERTY FOR INGRESS, EGRESS, PARKING, VEHICULAR MANEUVERING, EQUIPMENT AND UTILITIES IN ORDER TO CONSTRUCT, INSTALL, OPERATE, MAINTAIN OR REMOVE ANY RADIO COMMUNICATION FACILITY AND EQUIPMENT.

### ADDITIONAL LEASE AREA 3

THAT PORTION OF LOT 5 OF C.M. WRIGHT TRACT IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 5, PAGE 75 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF LOT 20 AS SHOWN ON TRACT NO. 41684, RECORDED IN BOOK 1063, PAGE 6 OF MAPS, IN OFFICE OF THE COUNTY RECORDER OF SAID COUNTY;

THENCE SOUTH 16° 24' 52" EAST, ALONG THE EASTERLY LINE OF SAID LOT 20, 531.80 FEET;

THENCE NORTH 81° 10' 00" EAST, DEPARTING SAID EASTERLY LINE, 58.21 FEET;

THENCE NORTH 08° 50' 00" WEST, 14.27 FEET TO THE TRUE POINT OF BEGINNING;

THENCE NORTH 43° 30' 00" WEST, 7.00 FEET;

THENCE NORTH 46° 30' 00" EAST, 4.75 FEET;

THENCE SOUTH 43° 30' 00" EAST, 7.00 FEET;

THENCE SOUTH 46° 30' 00" WEST, 4.75 FEET TO THE TRUE POINT OF BEGINNING AND CONTAINING 0.001 ACRES (33 SQUARE FEET) OF LAND MORE OR LESS.

TOGETHER WITH AND RESERVING A NON-EXCLUSIVE RIGHT OF USE ACROSS LESSOR'S PROPERTY FOR INGRESS, EGRESS, PARKING, VEHICULAR MANEUVERING, EQUIPMENT AND UTILITIES IN ORDER TO CONSTRUCT, INSTALL, OPERATE, MAINTAIN OR REMOVE ANY RADIO COMMUNICATION FACILITY AND EQUIPMENT.

MAINTENANCE/REPAIR BUFFER

THAT PORTION OF LOT 5 OF C.M. WRIGHT TRACT IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 5, PAGE 75 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF LOT 20 AS SHOWN ON TRACT NO. 41684, RECORDED IN BOOK 1063, PAGE 6 OF MAPS, IN OFFICE OF THE COUNTY RECORDER OF SAID COUNTY;

THENCE SOUTH  $16^{\circ} 24' 52''$  EAST, ALONG THE EASTERLY LINE OF SAID LOT 20, 435.35 FEET;

THENCE NORTH  $81^{\circ} 10' 00''$  EAST, DEPARTING SAID EASTERLY LINE, 57.83 FEET TO THE TRUE POINT OF BEGINNING;

THENCE SOUTH  $10^{\circ} 46' 58''$  EAST, 29.00 FEET;

THENCE SOUTH  $79^{\circ} 13' 02''$  WEST, 20.00 FEET;

THENCE NORTH  $10^{\circ} 46' 58''$  WEST, 49.00 FEET;

THENCE NORTH  $79^{\circ} 13' 02''$  EAST, 30.00 FEET;

THENCE SOUTH  $10^{\circ} 46' 58''$  EAST, 20.00 FEET;

THENCE SOUTH  $79^{\circ} 13' 02''$  WEST, 10.00 FEET TO THE TRUE POINT OF BEGINNING AND CONTAINING 0.027 ACRES (1,180 SQUARE FEET) OF LAND MORE OR LESS.

NON-EXCLUSIVE ACCESS & UTILITY EASEMENT

A 12.00 FOOT WIDE STRIP OF LAND OVER THAT PORTION OF LOT 5 OF C.M. WRIGHT TRACT IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 5, PAGE 75 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, LYING 6.00 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:

COMMENCING AT THE NORTHEAST CORNER OF LOT 20 AS SHOWN ON TRACT NO. 41684, RECORDED IN BOOK 1063, PAGE 6 OF MAPS, IN OFFICE OF THE COUNTY RECORDER OF SAID COUNTY;

THENCE SOUTH  $16^{\circ} 24' 52''$  EAST, ALONG THE EASTERLY LINE OF SAID LOT 20, 424.84 FEET;

THENCE NORTH  $81^{\circ} 10' 00''$  EAST, DEPARTING SAID EASTERLY LINE, 64.36 FEET;

THENCE NORTH  $43^{\circ} 23' 37''$  EAST, 15.73 FEET TO THE TRUE POINT OF BEGINNING;

THENCE NORTH  $63^{\circ} 29' 50''$  WEST, 68.47 FEET TO THE BEGINNING OF A TANGENT CURVE TO THE LEFT HAVING A RADIUS OF 27.00 FEET;

THENCE ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF  $107^{\circ} 54' 04''$ , AN ARC LENGTH OF 50.85 FEET (CHORD: SOUTH  $62^{\circ} 33' 08''$  WEST, 43.66 FEET) TO A POINT OF TANGENCY;

THENCE SOUTH 08° 36' 06" WEST, 71.34 FEET TO THE BEGINNING OF A TANGENT CURVE TO THE RIGHT HAVING A RADIUS OF 45.00 FEET;  
THENCE ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 41° 30' 40", AN ARC LENGTH OF 32.60 FEET (CHORD: SOUTH 29° 21' 26" WEST, 31.89 FEET) TO A POINT OF TANGENCY;  
THENCE SOUTH 50° 06' 46" WEST, 27.16 FEET TO THE POINT OF TERMINUS ON THE EASTERLY RIGHT-OF-WAY LINE OF BUCKSKIN DRIVE AND CONTAINING 0.069 ACRES (3,007 SQUARE FEET) OF LAND MORE OR LESS.

THE SIDELINES OF SAID STRIP OF LAND SHALL BE LENGTHENED OR SHORTENED AS NECESSARY TO ELIMINATE ANY GAPS AND OVERLAPS OVER THE ADDITIONAL LEASE AREA AND THE EASTERLY RIGHT-OF-WAY LINE OF BUCKSKIN DRIVE.

#### UTILITY EASEMENT 1

A 5.00 FOOT WIDE STRIP OF LAND OVER THAT PORTION OF LOT 5 OF C.M. WRIGHT TRACT IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 5, PAGE 75 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, LYING 2.50 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:

COMMENCING AT THE NORTHEAST CORNER OF LOT 20 AS SHOWN ON TRACT NO. 41684, RECORDED IN BOOK 1063, PAGE 6 OF MAPS, IN OFFICE OF THE COUNTY RECORDER OF SAID COUNTY;

THENCE SOUTH 16° 24' 52" EAST, ALONG THE EASTERLY LINE OF SAID LOT 20, 424.84 FEET;

THENCE NORTH 81° 10' 00" EAST, DEPARTING SAID EASTERLY LINE, 64.36 FEET;

THENCE SOUTH 46° 36' 23" EAST, 5.54 FEET TO THE TRUE POINT OF BEGINNING;

THENCE SOUTH 62° 39' 37" WEST, 14.17 FEET;

THENCE SOUTH 05° 18' 02" EAST, 22.00 FEET;

THENCE SOUTH 77° 38' 59" WEST, 31.60 FEET;

THENCE SOUTH 11° 16' 47" EAST, 26.50 FEET;

THENCE SOUTH 72° 15' 23" WEST, 81.00 FEET TO THE POINT OF TERMINUS AND CONTAINING 0.020 ACRES (876 SQUARE FEET) OF LAND MORE OR LESS.

THE SIDELINES OF SAID STRIP OF LAND SHALL BE LENGTHENED OR SHORTENED AS NECESSARY TO ELIMINATE ANY GAPS AND OVERLAPS OVER THE ADDITIONAL LEASE AREA.

#### UTILITY EASEMENT 2

A 5.00 FOOT WIDE STRIP OF LAND OVER THAT PORTION OF LOT 5 OF C.M. WRIGHT TRACT IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP

RECORDED IN BOOK 5, PAGE 75 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, LYING 2.50 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:

COMMENCING AT THE NORTHEAST CORNER OF LOT 20 AS SHOWN ON TRACT NO. 41684, RECORDED IN BOOK 1063, PAGE 6 OF MAPS, IN OFFICE OF THE COUNTY RECORDER OF SAID COUNTY;

THENCE SOUTH 16° 24' 52" EAST, ALONG THE EASTERLY LINE OF SAID LOT 20, 424.84 FEET;

THENCE NORTH 81° 10' 00" EAST, DEPARTING SAID EASTERLY LINE, 64.36 FEET;

THENCE SOUTH 46° 36' 23" EAST, 9.00 FEET;

THENCE NORTH 43° 23' 37" EAST, 3.51 FEET TO THE TRUE POINT OF BEGINNING;

THENCE SOUTH 09° 17' 29" EAST, 36.09 FEET TO A POINT HEREINAFTER REFEREED TO AS POINT "A";

THENCE SOUTH 06° 55' 32" EAST, 38.00 FEET TO A POINT HEREINAFTER REFEREED TO AS POINT "B";

THENCE CONTINUING SOUTH 06° 55' 32" EAST, 4.50 FEET THE POINT OF TERMINUS; AND

THENCE BEGINNING AT THE AFOREMENTIONED POINT "A";

THENCE NORTH 86° 55' 08" EAST, 61.70 FEET TO THE POINT OF TERMINUS; AND

THENCE BEGINNING AT THE AFOREMENTIONED POINT "B";

THENCE SOUTH 83° 04' 28" WEST, 10.00 FEET TO THE POINT OF TERMINUS AND CONTAINING 0.017 ACRES (727 SQUARE FEET) OF LAND MORE OR LESS.

























































THE SIDELINES OF SAID STRIP OF LAND SHALL BE LENGTHENED OR SHORTENED AS NECESSARY TO ELIMINATE ANY GAPS AND OVERLAPS OVER THE ADDITIONAL LEASE AREA AND TOWER LEASE AREA.

## **EXHIBIT B**

**(Site Plan)**



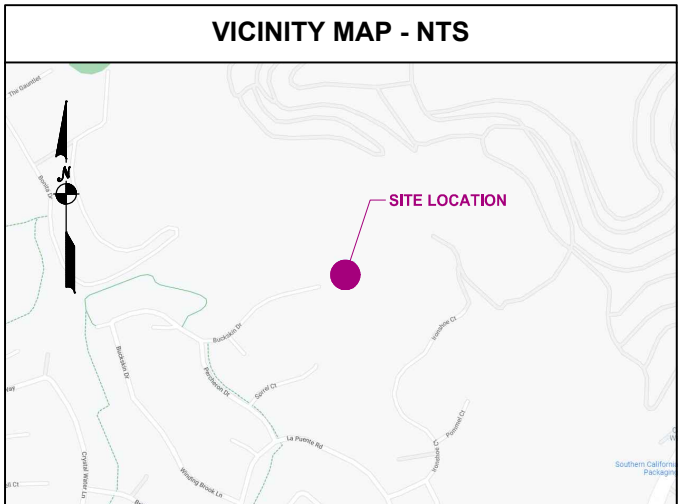
DWG NAME: 5202209656\_TOWER.dwg

LEGEND					
ADDITIONAL LAND	-----	IP / REBAR MONU	○	TRANSFORMER	
BUILDING		FOUND SPIKE & WASHER	●	TRANSFORMER PAD	
ASPHALT PAVEMENT		CASED MONU	⊕	CATCH BASIN	
CONTOUR - MAJOR	-----	CASED MONU - FOUND	⊕	INLET	
CONTOUR - MINOR	-----	TRAVERSE POINT	△	CULVERT	
EASEMENT	-----	SURVEY POINT	×	UTILITY VAULT	
GUIDERAIL		GRAVEL		MANHOLE	
JURISDICTION LINE	=====	DIRT		HANDHOLE	
PROPERTY LINE	— P —	CONCRETE		PULL BOX	
PROPERTY TIE	— Z —	RETAINING WALL		PEDESTAL	
PARENT PROPERTY	— P —	STAIRS		RISER	
TOWER EASEMENT	-----	DOOR / GATE		METER	
RIGHT OF WAY	-----	DOUBLE DOOR / GATE		VALVE	
SETBACK	- . - . - . -	GATE - SLIDING		CLEANOUT	
TREELINE		SIGNS		JUNCTION BOX	
WETLAND		MAILBOX		PUMP STATION	
RAILROAD TRACKS		COLUMN		UTILITY BOX	
CENTERLINE	— C.L. —	UTILITY POLE		CONTROLLER	
ROAD CENTERLINE	-----	GUYED POLE		HVAC	
STREAM	— . . . —	POLE		GENERATOR	
STREAM (DIRECTIONAL)	— > . . . —	LIGHTPOLE			
DITCH	-----	BOLLARD	●		
CHANNEL	— . . . —	FIRE HYDRANT			
FENCE		FLAG POLE			
CABLE TV	— CTV —	SHRUB			
CABLE U.G.	— CU —	TREE - PALM			
COMBINED SEWER	— CS —	TREE - CONIFEROUS			
CABLE TV & ELEC	— CTV-E —	TREE - DECIDUOUS			
CABLE TV & ELEC U.G.	— CTV-EU —	METAL PLATFORM			
CABLE, ELEC & TELE	— CTV-E-T —	FUEL TANKS			
CABLE, ELEC & TELE U.G.	— CTV-E-TU —	TRAFFIC SIGNAL CONTR.			
ELECTRIC	— E —	TOPO - HIGH POINT			
ELECTRIC U.G.	— EU —	TOPO - LOW POINT			
FIBER	— FO —	PROPERTY TIE			
FIBER U.G.	— FOU —				
GAS	— G —				
SEWER	— S —				
STORM	— STM —				
TELEPHONE	— T —				
TELEPHONE U.G.	— TU —				
UNKNOWN UTILITY	— UNK —				
WATER	— W —				
BREAKLINE					
MATCH LINE					

# TOWER SURVEY

824727

IE505 BUCKSKIN  
21889 BUCKSKIN DR  
WALNUT, CA 91789  
LOS ANGELES COUNTY



## AREA SUMMARY

AREA	SQ. FT.	ACRES
PARENT PARCEL	309,941	7.115
EQUIPMENT LEASE	290	0.007
TOWER LEASE	110	0.003
ADDITIONAL LEASE AREA 1	198	0.005
ADDITIONAL LEASE AREA 2	23	0.001
ADDITIONAL LEASE AREA 3	33	0.001
MAINTENANCE/REPAIR BUFFER	1,180	0.027
NON-EXCLUSIVE ACCESS & UTILITY EASEMENT	3,007	0.069
UTILITY EASEMENT 1	876	0.020
UTILITY EASEMENT 2	727	0.017

## SURVEY PROCEDURES & EQUIPMENT

THE ACCURACY OF THIS SURVEY MEETS OR EXCEEDS THE MINIMUM STANDARDS AS REQUIRED BY [STATE REQUIREMENTS FOR BOUNDARY SURVEYS].

INSTRUMENTS USED:  
- TRIMBLE R12i GNSS RECEIVER USING THE SMARTNET VRS NETWORK  
- TRIMBLE TSC7 SERIES ROBOTIC TOTAL STATION

## CONTENTS

COVER SHEET
PROPERTY OVERVIEW
ACCESS OVERVIEW
SITE BOUNDARY
LEGAL DESCRIPTIONS

## ABBREVIATIONS

P.O.C.	POINT OF COMMENCEMENT
P.O.B.	POINT OF BEGINNING
T.P.O.B.	TRUE POINT OF BEGINNING
R.O.W.	RIGHT-OF-WAY
C.L.	CENTERLINE
S.M.	SHEET METAL

SURVEY PERFORMED FOR:



1500 Corporate Drive  
Canonsburg, PA 15317

SURVEY COORDINATED BY:

GEOLINE SURVEYING, INC.  
13430 NW 10th Terrace, Suite A, Alachua, FL 32615  
Tele: (386) 418-0500 | Fax: (386) 462-9986

SURVEY PERFORMED BY:

NV5  
3550 W. MARKET ST., SUITE 200, AKRON, OH 44333  
Tele: (800) 787-8397 | www.NV5.com

DRAWN BY: CDG | CHK BY: JLV | JOB NO.: 5202209656

**SURVEYOR'S CERTIFICATION:**

I hereby certify to Global Signal Acquisitions III LLC, Crown Castle USA Inc., including its parents, subsidiaries and affiliated entities, and Tower Title and Closing.

SURVEYOR NAME: JOSHUA L. VUKODER  
CALIFORNIA CERTIFICATE NO. 8281

PRELIMINARY

SIGNATURE

MONTH DAY, YEAR

DATE

**LEASE AREA ZONING:**

"RPD" - RESIDENTIAL PLANNED DEVELOPMENT ZONE

**LEASE AREA FLOOD NOTE:**

ZONE "D" OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 06037C 1725 F, EFFECTIVE SEPTEMBER 26, 2008, AND IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA.

**BASIS OF NORTH:**

THE NORTHWESTERLY LINE OF LOT 5 KNOWN AS BEING NORTH 68° 29' 43" EAST PER TRACT NO. 41684 OF THE LOS ANGELES COUNTY RECORDS.

SITE LOCATED IN CA ZONE 5 (EPSG: 2229 - NAD83).

**NOTES:**

- SURVEY PERFORMED ON 11/10/2022.
- DATA NOT PROJECTED IN STATE PLANE COORDINATE SYSTEM (CA ZONE 5 - EPSG: 2229 - NAD83), WITH (NAV88) VERTICAL DATUM.
- BURIED UTILITIES DEPICTED HEREON WERE DETECTED AND MARKED BY OTHERS USING INDIRECT METHODS. NO SUBSURFACE EXCAVATION WAS PERFORMED TO VERIFY THE TYPE AND LOCATION OF THE BURIED UTILITIES DEPICTED HEREON. IT IS POSSIBLE THAT OTHER UTILITIES SERVING THE SUBJECT TOWER SITE EXIST THAT WENT UNDETECTED AS A PART OF THIS SURVEY.
- ALL VISIBLE TOWER EQUIPMENT AND IMPROVEMENTS ARE CONTAINED WITHIN THE DESCRIBED AREA.
- NOT ALL SYMBOLS ARE DEPICTED TO SCALE.
- THIS SURVEY DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARENT PARCEL.

REV	DATE	DESCRIPTION	DRWN
1	12/29/22	COMMENTS	CDG
2	05/16/23	COMMENTS	CDG

**SITE INFORMATION:**

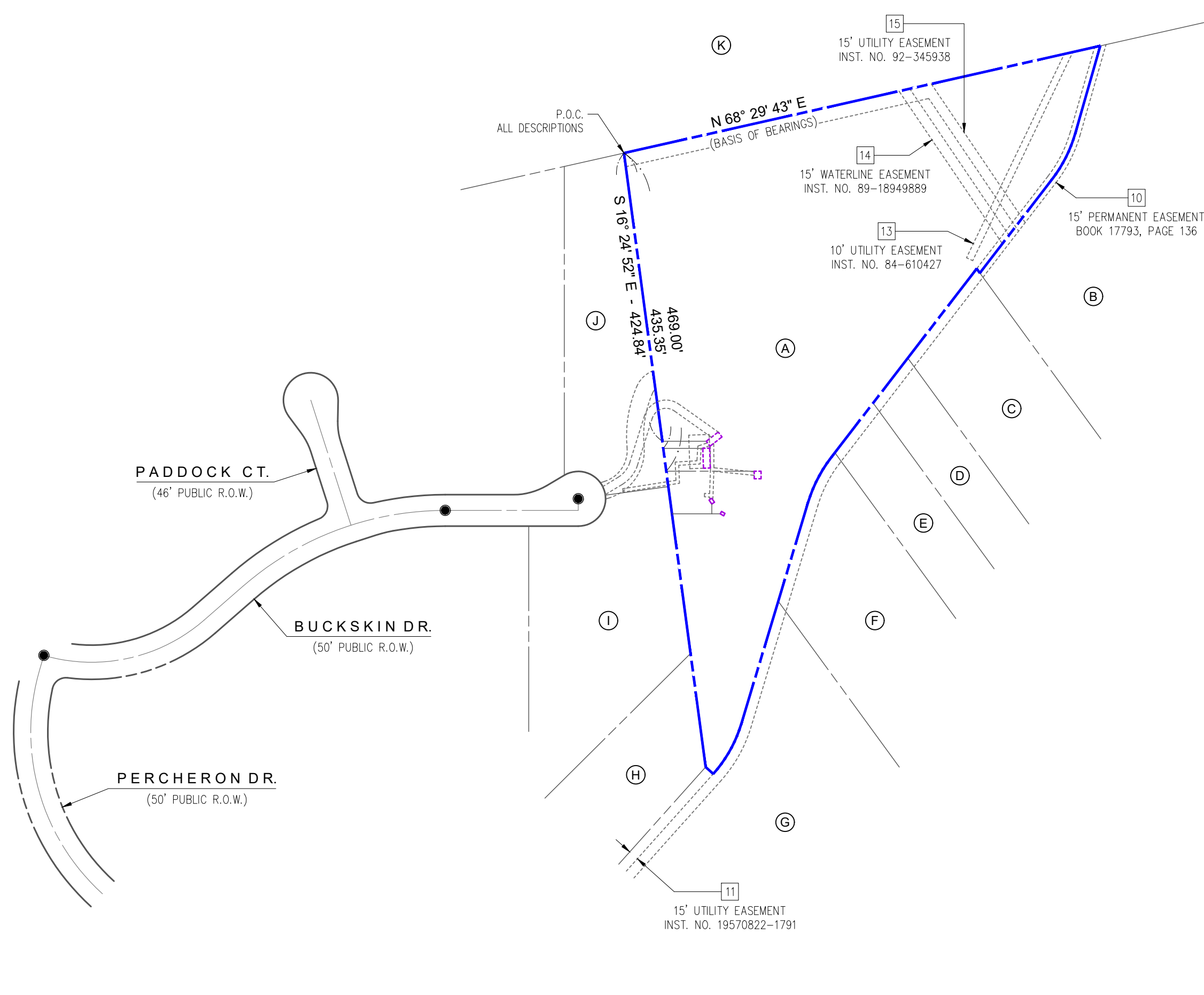
Name	IE505 BUCKSKIN
BUN	824727
Address	21889 BUCKSKIN DR WALNUT, CA 91789
County	LOS ANGELES COUNTY

**SITE LOCATED IN:**

Lot 5 of Book 5, Page 75 of Maps

**TOWER SURVEY**

SHEET TITLE: COVER SHEET



AREA SUMMARY

AREA	SQ. FT.	ACRES
PARENT PARCEL	309,941	7.115
EQUIPMENT LEASE	290	0.007
TOWER LEASE	110	0.003
ADDITIONAL LEASE AREA 1	198	0.005
ADDITIONAL LEASE AREA 2	23	0.001
ADDITIONAL LEASE AREA 3	33	0.001
MAINTENANCE/REPAIR BUFFER	1,180	0.027
NON-EXCLUSIVE ACCESS & UTILITY EASEMENT	3,007	0.069
UTILITY EASEMENT 1	876	0.020
UTILITY EASEMENT 2	727	0.017

PROPERTY INFORMATION

PARENT PARCEL

(A) ROWLAND WATER DISTRICT  
APN 8709-023-904  
Deed: 19570822-1790

Address:  
21889 Buckskin Dr  
Walnut, CA 91789

ADJACENT PARCELS

(B) WALNUT VALLEY WATER DISTRICT  
APN 8709-023-903

(C) LEE LOUIS (TE) / LEE MELISSA (TE)  
APN 8709-076-052

(D) KIM KELVIN Y / KIM JENNIFER  
APN 8709-076-051

(E) WANG JUNG H / HUANG LI LAN W  
APN 8709-076-050

(F) LIN WUNCHEN (TE) / LIN & SUN  
APN 8709-076-049

(G) LI HUA / YUAN HUILI  
APN 8709-076-048

(H) JO JONG S (TE) & SOO O (TE)  
APN 8709-076-034

(I) HAU HENRY Y / HAU KENDREW  
APN 8709-076-021

(J) ZHANG & ASSOCIATES  
APN 8709-076-077

(K) STATE OF CALIFORNIA  
APN 8709-023-906

SURVEY PERFORMED FOR:



REV	DATE	DESCRIPTION	DRWN
1	12/29/22	COMMENTS	CDG
2	05/16/23	COMMENTS	CDG

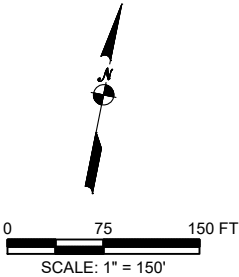
SITE INFORMATION:

Name	IE505 BUCKSKIN
BUN	824727
Address	21889 BUCKSKIN DR WALNUT, CA 91789
County	LOS ANGELES COUNTY

SITE LOCATED IN:  
Lot 5 of Book 5, Page 75 of Maps

TOWER SURVEY

SHEET: PROPERTY OVERVIEW



UTILITY EASEMENT 1

LINE	DIRECTION	LENGTH
L11	N81° 10' 00"E	64.36'
L24	S46° 36' 23"E	5.54'
L25	S62° 39' 37"W	14.17'
L26	S05° 18' 02"E	22.00'
L27	S77° 38' 59"W	31.60'
L28	S11° 16' 47"E	26.50'
L29	S72° 15' 23"W	81.00'

ADDITIONAL LEASE 2

LINE	DIRECTION	LENGTH
L37	N81° 10' 00"E	70.54'
L38	N21° 08' 30"E	4.00'
L39	S68° 51' 30"E	5.67'
L40	S21° 08' 30"W	4.00'
L41	N68° 51' 30"W	5.67'

ADDITIONAL LEASE 3

LINE	DIRECTION	LENGTH
L42	N81° 10' 00"E	58.21'
L43	N08° 50' 00"W	14.27'
L44	N43° 30' 00"W	7.00'
L45	N46° 30' 00"E	4.75'
L46	S43° 30' 00"E	7.00'
L47	S46° 30' 00"W	4.75'

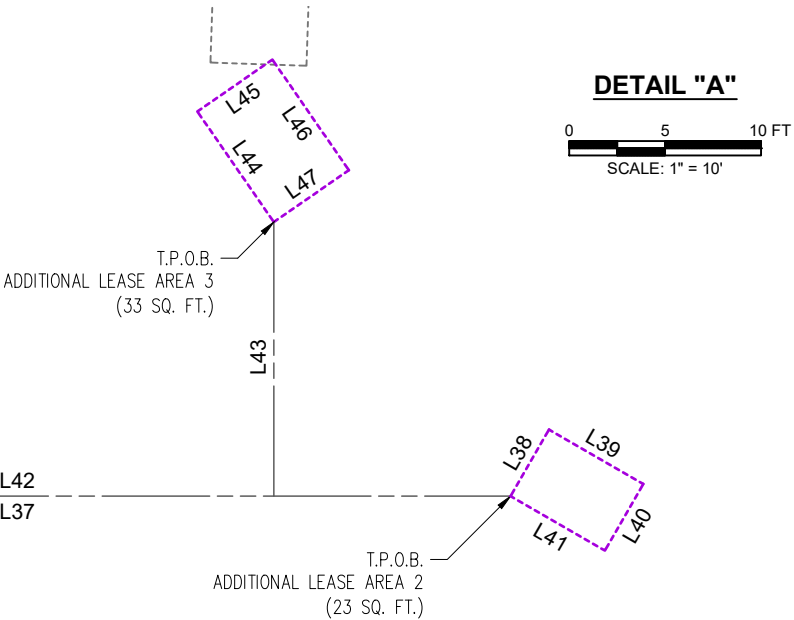
CURVE TABLE

LINE	DELTA	RADIUS	LENGTH	CHORD
C1	107° 54' 04"	27.00'	50.85'	S62° 33' 08"W - 43.66'
C2	041° 30' 40"	45.00'	32.60'	S29° 21' 26"W - 31.89'

ACCESS & UTILITY EASEMENT

LINE	DIRECTION	LENGTH
L11	N81° 10' 00"E	64.36'
L20	N43° 23' 37"E	15.73'
L21	N63° 29' 50"W	68.47'
L22	S08° 36' 06"W	71.34'
L23	S50° 06' 46"W	27.16'

DETAIL "A"



UTILITY EASEMENT 2

LINE	DIRECTION	LENGTH
L11	N81° 10' 00"E	64.36'
L30	S46° 36' 23"E	9.00'
L31	N43° 23' 37"E	3.51'
L32	S09° 17' 29"E	36.09'
L33	S06° 55' 32"E	38.00'
L34	S06° 55' 32"E	4.50'
L35	N86° 55' 08"E	61.70'
L36	S83° 04' 28"W	10.00'

SURVEY PERFORMED FOR:



REV	DATE	DESCRIPTION	DRWN
1	12/29/22	COMMENTS	CDG
2	05/16/23	COMMENTS	CDG

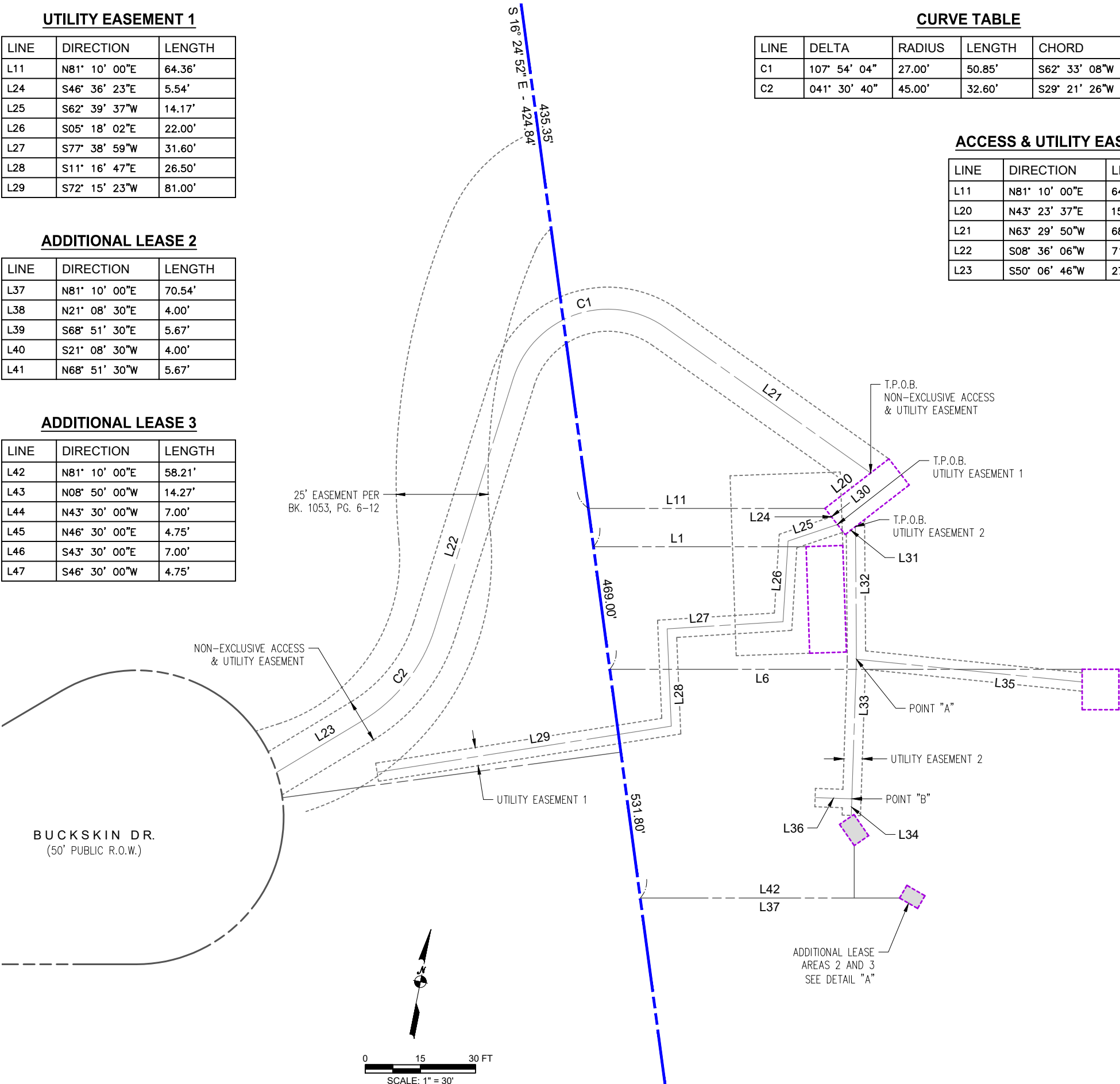
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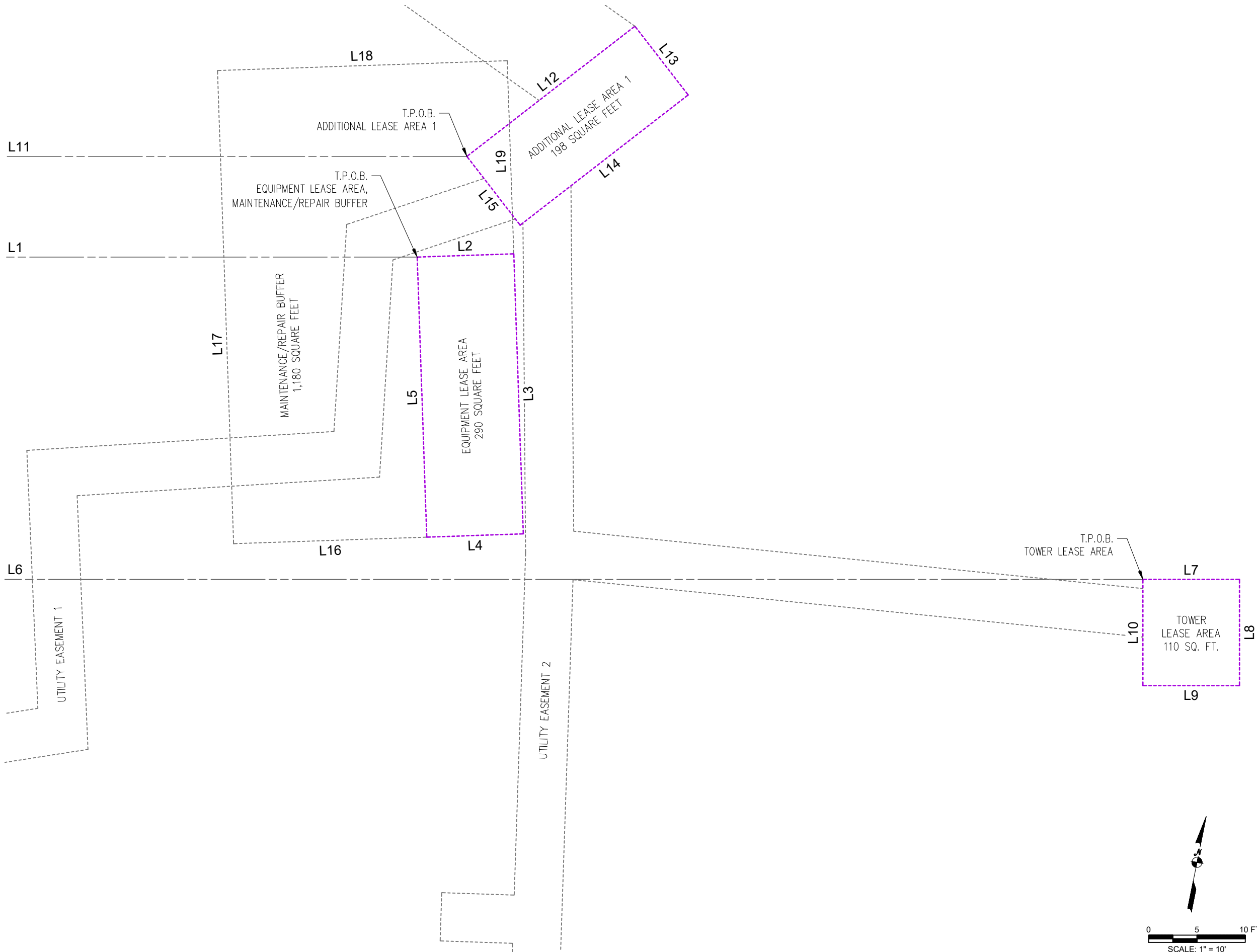
Name	IE505 BUCKSKIN
BUN	824727
Address	21889 BUCKSKIN DR WALNUT, CA 91789
County	LOS ANGELES COUNTY

SITE LOCATED IN:  
Lot 5 of Book 5, Page 75 of Maps

TOWER SURVEY

SHEET: ACCESS OVERVIEW





EQUIPMENT LEASE AREA

LINE	DIRECTION	LENGTH
L1	N81° 10' 00"E	57.83'
L2	N79° 13' 02"E	10.00'
L3	S10° 46' 58"E	29.00'
L4	S79° 13' 02"W	10.00'
L5	N10° 46' 58"W	29.00'

TOWER LEASE AREA

LINE	DIRECTION	LENGTH
L6	N81° 10' 00"E	128.50'
L7	N81° 10' 00"E	10.00'
L8	S08° 50' 00"E	11.00'
L9	S81° 10' 00"W	10.00'
L10	N08° 50' 00"W	11.00'

ADDITIONAL LEASE AREA 1

LINE	DIRECTION	LENGTH
L11	N81° 10' 00"E	64.36'
L12	N43° 23' 37"E	22.00'
L13	S46° 36' 23"E	9.00'
L14	S43° 23' 37"W	22.00'
L15	N46° 36' 23"W	9.00'

MAINTENANCE / REPAIR BUFFER

LINE	DIRECTION	LENGTH
L1	N81° 10' 00"E	57.83'
L5	S10° 46' 58"E	29.00'
L16	S79° 13' 02"W	20.00'
L17	N10° 46' 58"W	49.00'
L18	N79° 13' 02"E	30.00'
L19	S10° 46' 58"E	20.00'
L2	S79° 13' 02"W	10.00'

SURVEY PERFORMED FOR:



1500 Corporate Drive  
Canonsburg, PA 15317

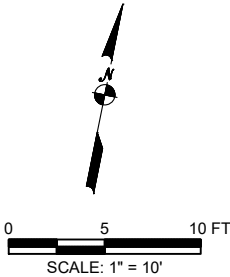
REV	DATE	DESCRIPTION	DRWN
1	12/29/22	COMMENTS	CDG
2	05/16/23	COMMENTS	CDG

SITE INFORMATION:	
Name	IE505 BUCKSKIN
BUN	824727
Address	21889 BUCKSKIN DR WALNUT, CA 91789
County	LOS ANGELES COUNTY

SITE LOCATED IN:  
Lot 5 of Book 5, Page 75 of Maps

TOWER SURVEY

SHEET: SITE BOUNDARY



**EXHIBIT C**  
**(Construction Drawings)**





DISH Wireless L.L.C. SITE ID:

**LSSNA00001C**

DISH Wireless L.L.C. SITE NAME:

**BUCKSKIN WATER TANKS**

DISH Wireless L.L.C. SITE ADDRESS:

**21889 BUCKSKIN DR  
WALNUT, CA 91789**

### CALIFORNIA CODE OF 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	2022 CALIFORNIA BUILDING CODE (CBC)/2021 IBC
MECHANICAL	2022 CALIFORNIA MECHANICAL CODE (CMC)/2020 UMC
ELECTRICAL	2022 CALIFORNIA ELECTRICAL CODE (CEC)/2019 NEC

### SHEET INDEX

SHEET NO.	SHEET TITLE
T-1	TITLE SHEET
A-1	OVERALL AND ENLARGED SITE PLAN
A-2	ANTENNA LAYOUT AND SCHEDULE
A-2.1	ELEVATIONS
A-3	EQUIPMENT PAD AND H-FRAME DETAILS
A-4	EQUIPMENT DETAILS
A-5	EQUIPMENT DETAILS
A-6	EQUIPMENT DETAILS
E-1	ELECTRICAL/FIBER ROUTE PLAN AND NOTES
E-2	ELECTRICAL DETAILS
E-3	ELECTRICAL ONE-LINE, FAULT CALCS & PANEL SCHEDULE
G-1	GROUNDING PLANS AND NOTES
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS
RF-1	RF CABLE COLOR CODE
RF-2	RF PLUMBING DIAGRAM
GN-1	LEGEND AND ABBREVIATIONS
GN-2	RF SIGNAGE
GN-3	GENERAL NOTES
GN-4	GENERAL NOTES
GN-5	GENERAL NOTES

### SCOPE OF WORK

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

**TOWER SCOPE OF WORK:**

- INSTALL (3) PROPOSED 6FT PANEL ANTENNAS (1 PER SECTOR)
- INSTALL (3) PROPOSED T-ARM SECTOR FRAMES (1 PER SECTOR) COMMSCOPE MC-K6MHDx-6-96
- 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:**

- REMOVE EXISTING CABINET AND CONCRETE PAD
- INSTALL (2) PROPOSED CONCRETE PADS
- INSTALL (1) PROPOSED PPC CABINET
- INSTALL (1) PROPOSED EQUIPMENT CABINET
- INSTALL (1) PROPOSED POWER CONDUIT
- INSTALL (1) PROPOSED TELCO CONDUIT
- INSTALL (1) PROPOSED TELCO-FIBER BOX
- INSTALL (1) PROPOSED GPS UNIT
- INSTALL (1) PROPOSED SAFETY SWITCH (IF REQUIRED)
- INSTALL (1) PROPOSED FIBER NID (IF REQUIRED)
- INSTALL (1) PROPOSED METER SOCKET
- INSTALL (1) PROPOSED H-FRAME
- INSTALL (1) PROPOSED CABLE SHROUD
- INSTALL (3) CMU RETAINING WALLS

### SITE PHOTO



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: ROWLAND WATER DISTRICT  
ADDRESS: 3021 FULLERTON RD.  
ROWLAND HEIGHTS, CA 92748

TOWER TYPE: MONOPINE

TOWER CO SITE ID: 824727

TOWER APP NUMBER: 612568

COUNTY: LOS ANGELES

LATITUDE (NAD 83): 34° 2' 28.59" N  
34.04127500

LONGITUDE (NAD 83): -117° 49' 50.71" W  
-117.83075280

ZONING JURISDICTION: CITY OF WALNUT

ZONING DISTRICT: R.P.D-16, 800-2.2 DU

PARCEL NUMBER: 8709-023-904

OCCUPANCY GROUP: U

CONSTRUCTION TYPE: II-B

POWER COMPANY: SCE

TELEPHONE COMPANY: VERIZON

### PROJECT DIRECTORY

APPLICANT: DISH Wireless L.L.C.  
16812 ARMSTRONG AVE  
IRVINE, CA 92603

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

SITE DESIGNER: RELIANT LAND SERVICES  
550 N PARKCENTER DR., SUITE 200  
SANTA ANA, CA 92705  
PHONE (714) 685-0123

SITE ACQUISITION: GEORGE SIPEK  
GEORGE.SIPEK@CROWNCastle.COM

CONSTRUCTION MANAGER: ROBERT LUCKER  
(936) 524-9323

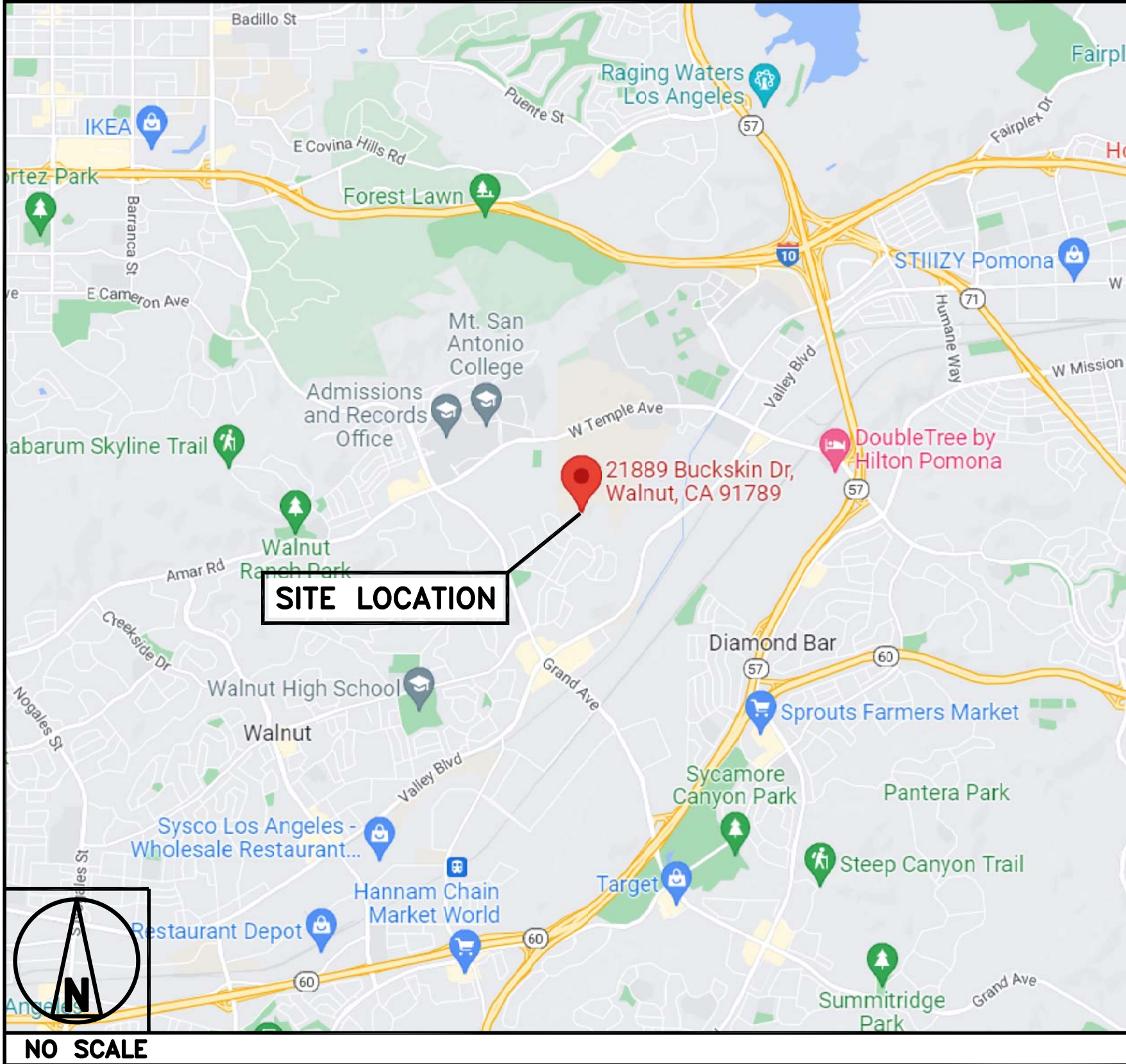
RF ENGINEER: JAVIER MACIAS  
JAVIER.MACIAS@DISH.COM

### DIRECTIONS

DIRECTIONS FROM DISH Wireless L.L.C. OFFICE/AIRPORT/DOWNTOWN:

TURN RIGHT ONTO ARMSTRONG AVE, TURN LEFT ONTO BARRANCA PKWY, TURN RIGHT ONTO RED HILL AVE, TURN LEFT ONTO VALENCIA AVE, TURN RIGHT ONTO NEWPORT AVE, TURN LEFT TO MERGE ONTO CA-55 N/STATE RTE 55 N, MERGE ONTO CA-55 N/STATE RTE 55 N, TAKE EXIT 13 FOR CALIFORNIA 22 W/GARDEN GROVE FWY TOWARD LONG BEACH, CONTINUE ONTO CA-22 W/GARDEN GROVE FWY, TAKE EXIT 14B FOR CA-57 N TOWARD POMONA, CONTINUE ONTO CA-57 N, TAKE EXIT 15 TOWARD PATHFINDER RD, TURN LEFT ONTO PATHFINDER RD, TURN RIGHT ONTO S BREA CANYON RD, TURN RIGHT ONTO VALLEY BLVD, TURN LEFT ONTO N GRAND AVE, TURN RIGHT ONTO LA PUENTE RD, TURN LEFT ONTO PERCHERON DR, TURN RIGHT ONTO BUCKSKIN DR

### VICINITY MAP



16812 ARMSTRONG AVE  
IRVINE, CA 92603



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

DRAWN BY: NN  
CHECKED BY: DJL  
APPROVED BY: DJL

RFDS REV #: 1

### CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	06/24/2022	ISSUED FOR REVIEW
1	07/28/2022	ISSUED FOR FINAL
2	08/08/2022	RELOCATION
3	01/08/2023	SPLIT CONFIGURATION
4	03/13/2023	RETAINING WALLS/FINAL POWER

A&E PROJECT NUMBER  
824727

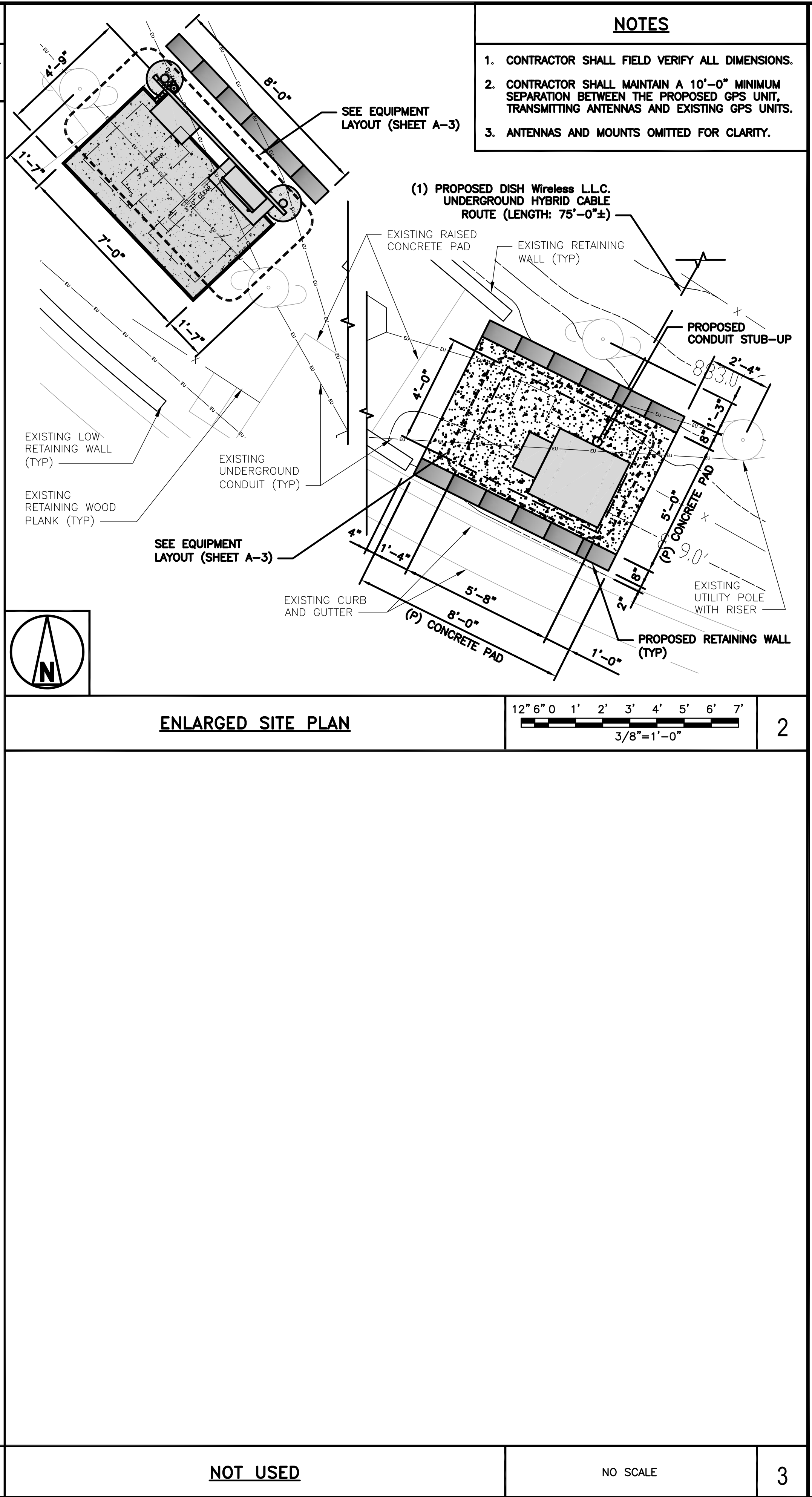
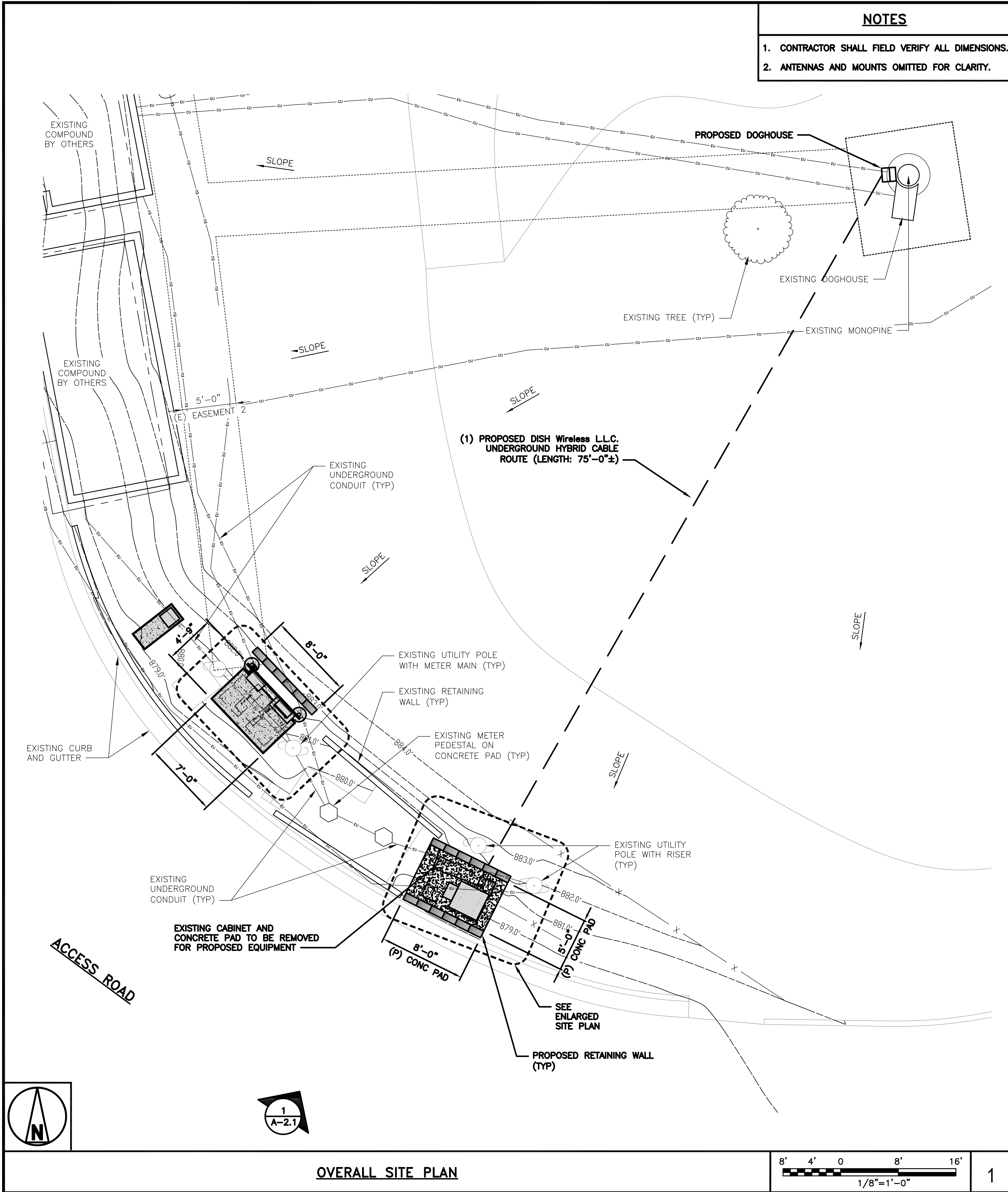
DISH Wireless L.L.C.  
PROJECT INFORMATION

LSSNA00001C  
21889 BUCKSKIN DR  
WALNUT, CA 91789

SHEET TITLE  
TITLE SHEET

SHEET NUMBER  
**T-1**





**dish wireless.**

16812 ARMSTRONG AVE  
IRVINE, CA 92603

**RLS**  
RELIANT LAND SERVICES  
550 N PARKCENTER DR, STE 200, SANTA ANA, CA 92705  
WWW.RLSUSA.COM PH. (714) 685-0123 FAX (714) 453-9892

**REGISTERED PROFESSIONAL ENGINEER**  
CHRIS S. LEE  
No. 61054  
Exp. 12/31/24  
CIVIL  
STATE OF CALIFORNIA

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RFDS REV #: 1

**CONSTRUCTION DOCUMENTS**

REV	DATE	DESCRIPTION
A	06/24/2022	ISSUED FOR REVIEW
1	07/28/2022	ISSUED FOR FINAL
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3	01/08/2023	SPLIT CONFIGURATION
4	03/13/2023	RETAINING WALLS/FINAL POWER

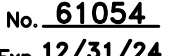
A&E PROJECT NUMBER  
824727

DISH Wireless L.L.C.  
PROJECT INFORMATION  
LSSNA00001C  
21889 BUCKSKIN DR  
WALNUT, CA 91789

SHEET TITLE  
OVERALL AND ENLARGED  
SITE PLAN

SHEET NUMBER  
**A-1**





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NN	DJL	DJL
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Wireless L.L.C.  
 CONTACT INFORMATION

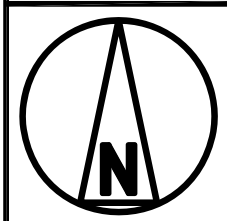
21889 BUCKSKIN DR  
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SHEET TITLE

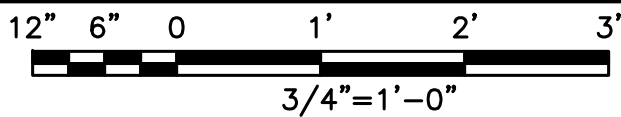
## ANTENNA LAYOUT AND SCHEDULE

SHEET NUMBER

# A-2



## ANTENNA LAYOUT



2

SECTOR POS.	EXISTING OR PROPOSED	MANUFACTURER – MODEL NUMBER	TECH	AZIMUTH	RAD CENTER	FEED LINE TYPE AND LENGTH	MANUFACTURER – MODEL NUMBER	TECH	POS.	MANUFACTURER MODEL
A1	--	--	--	--	--	(1) HIGH-CAPACITY HYBRID CABLE (115' LONG)	FUJITSU – TA08025–B604	MULTIBAND	A2	RAYCAP RDIC-9181–PF-48
A2	PROPOSED	JMA – MX08FRO645–20	NR	320°	25°–0°		FUJITSU – TA08025–B605	MULTIBAND	A2	
A3	--	--	--	--	--		--	--	--	
B1	--	--	--	--	--	SHARED W/ALPHA	FUJITSU – TA08025–B604	MULTIBAND	B2	SHARED W/ALPHA
B2	PROPOSED	JMA – MX08FRO645–20	NR	140°	25°–0°		FUJITSU – TA08025–B605	MULTIBAND	B2	
B3	--	--	--	--	--		--	--	--	
C1	--	--	--	--	--	SHARED W/ALPHA	FUJITSU – TA08025–B604	MULTIBAND	C2	SHARED W/ALPHA
C2	PROPOSED	JMA – MX08FRO665–21	NR	230°	25°–0°		FUJITSU – TA08025–B605	MULTIBAND	C2	
C3	--	--	--	--	--		--	--	--	

## NOTES

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

**NOT USED**

**NO SCALE**

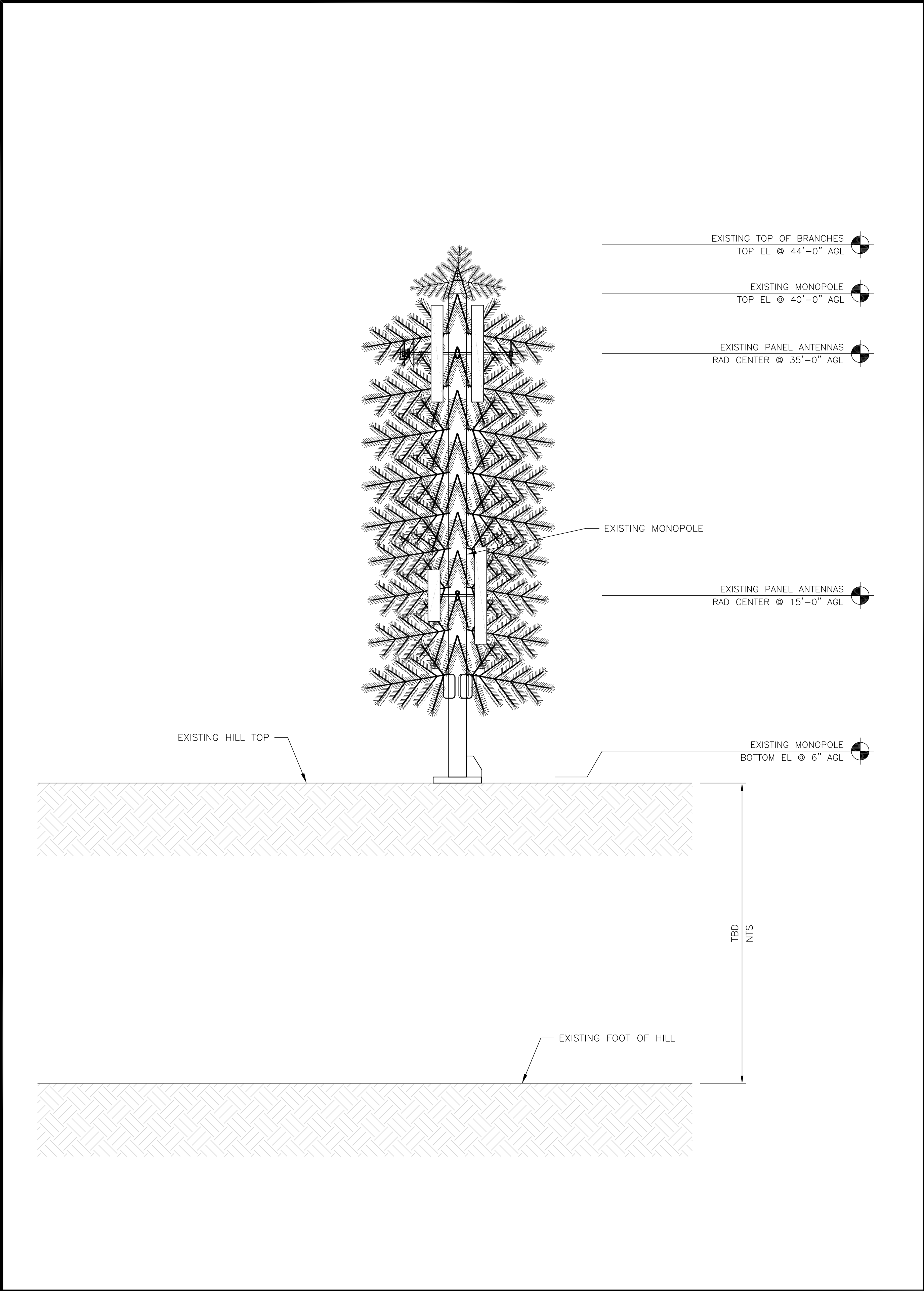
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## ANTENNA SCHEDULE

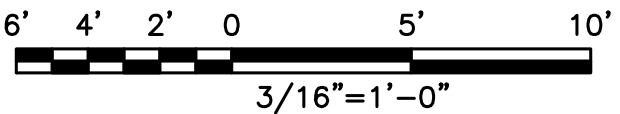
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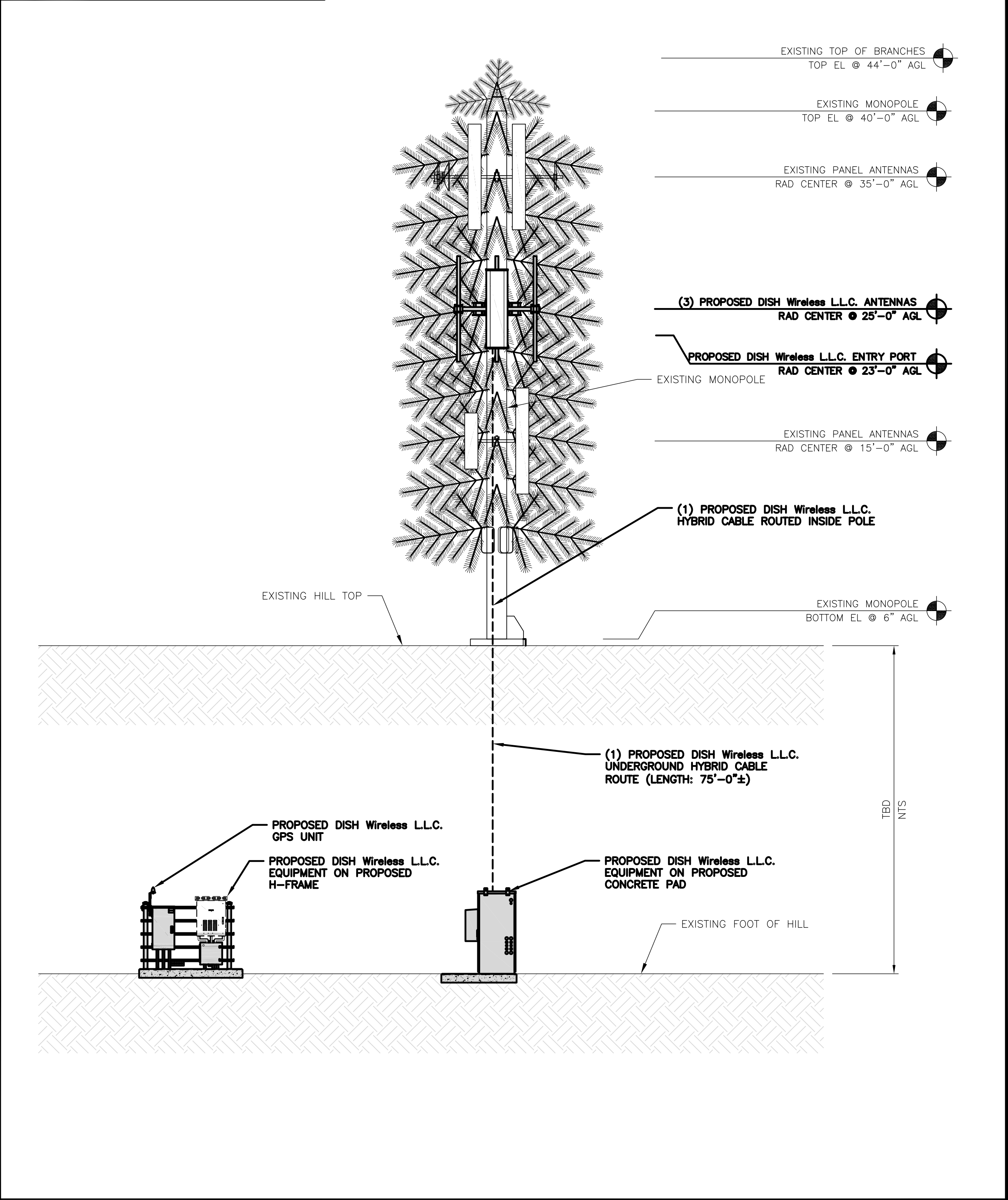


EXISTING SOUTHWEST ELEVATION

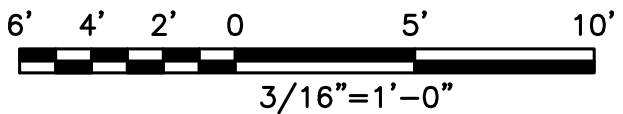


1

- NOTES**
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
  2. ANTENNA AND MW DISH SPECIFICATIONS REFER TO ANTENNA SCHEDULE AND TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS
  3. EXISTING EQUIPMENT AND FENCE OMITTED FOR CLARITY.
  4. NEW ANTENNAS AND MOUNTS TO MATCH COLOR OF EXISTING ANTENNAS AND MOUNTS AS REQUIRED



PROPOSED SOUTHWEST ELEVATION



2



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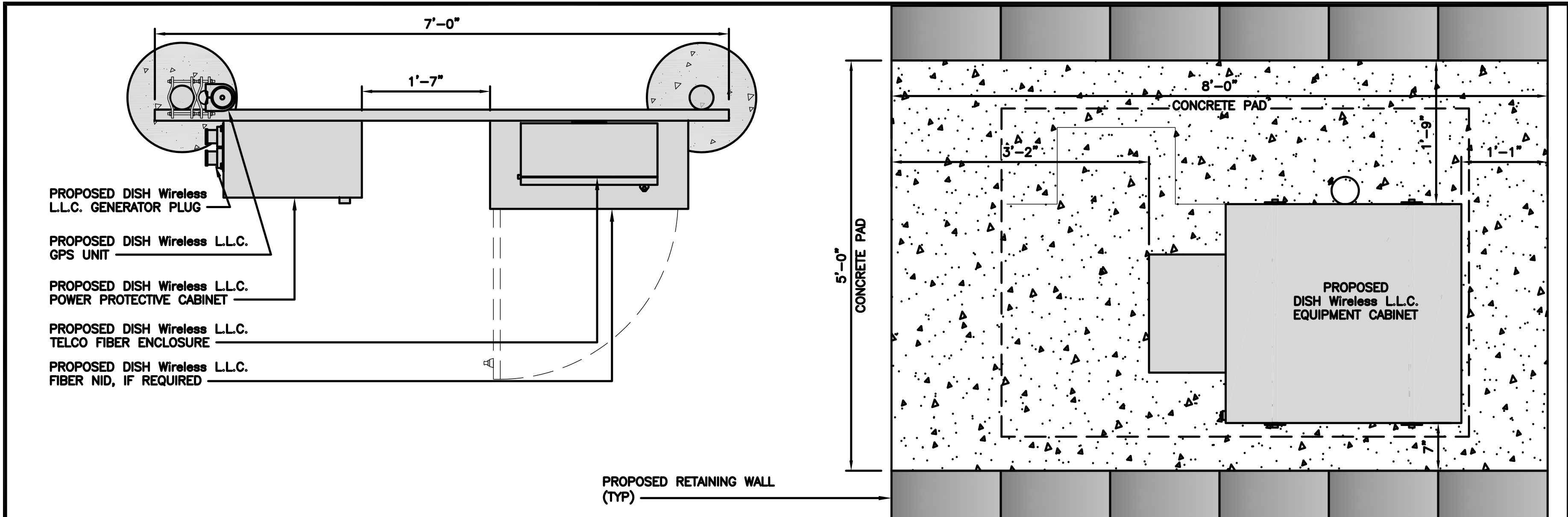
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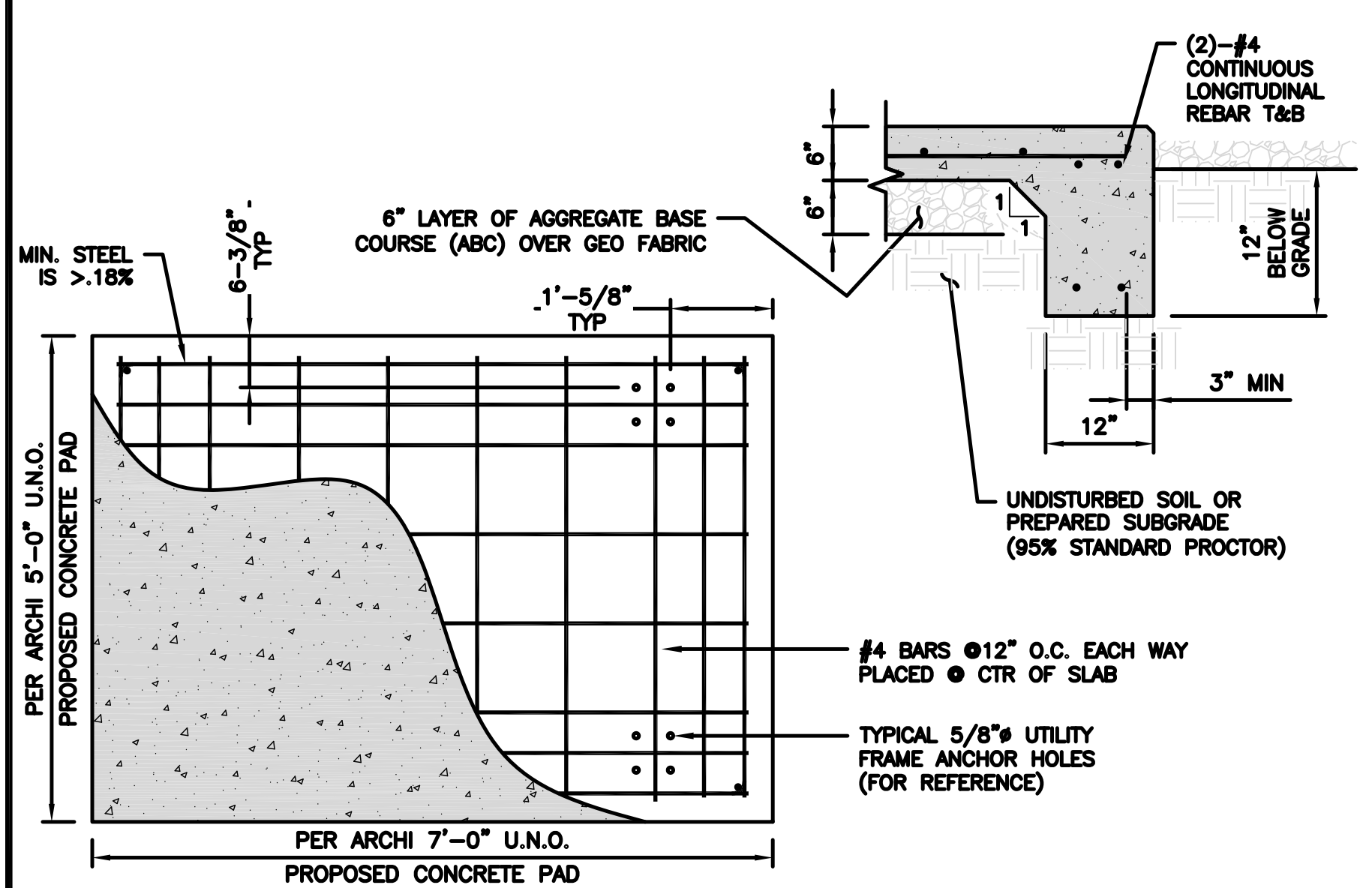
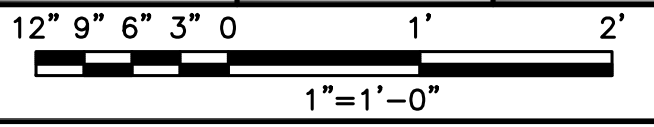
SHEET TITLE  
ELEVATION

SHEET NUMBER  
**A-2.1**



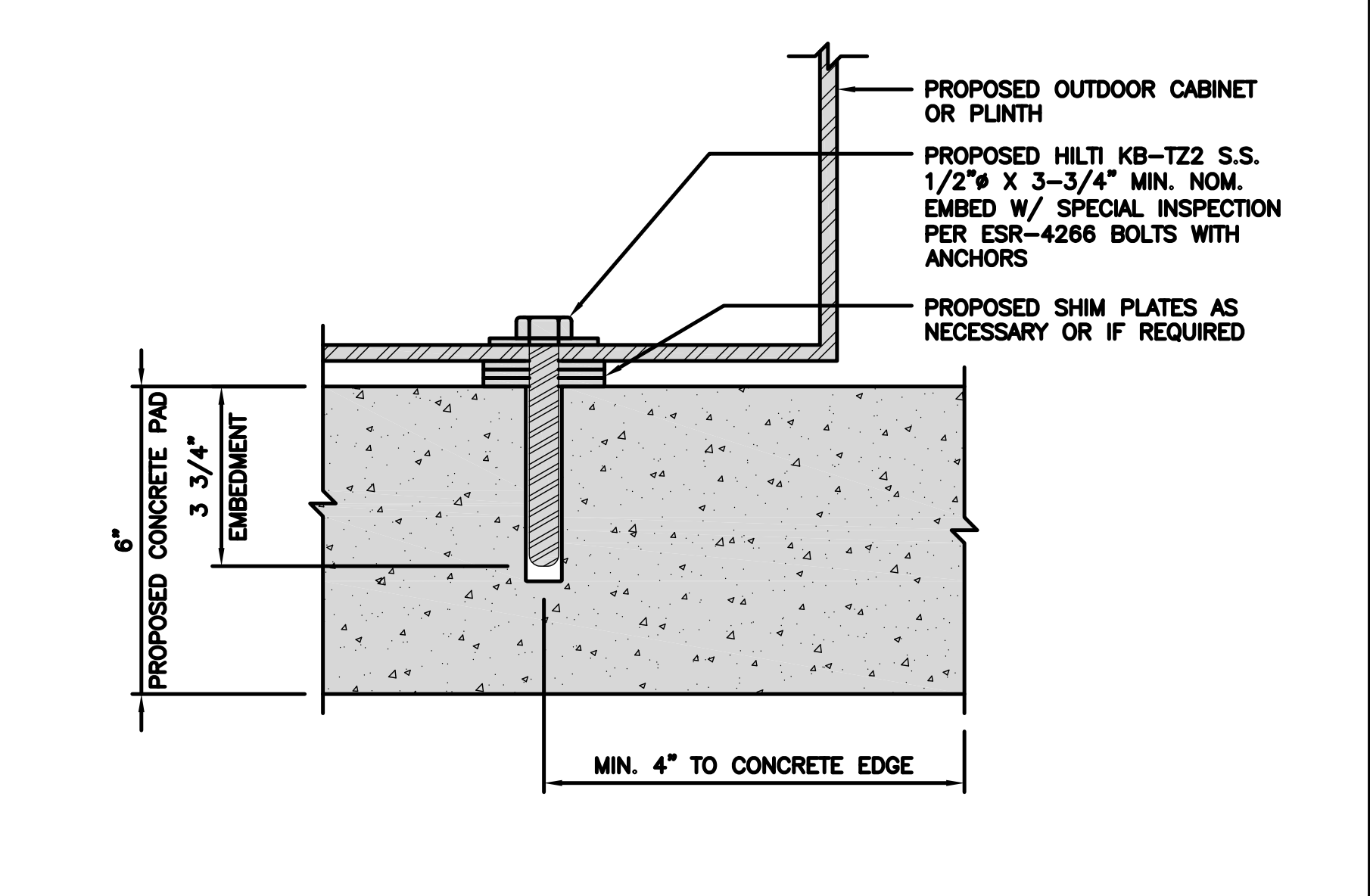


PAD EQUIPMENT PLAN



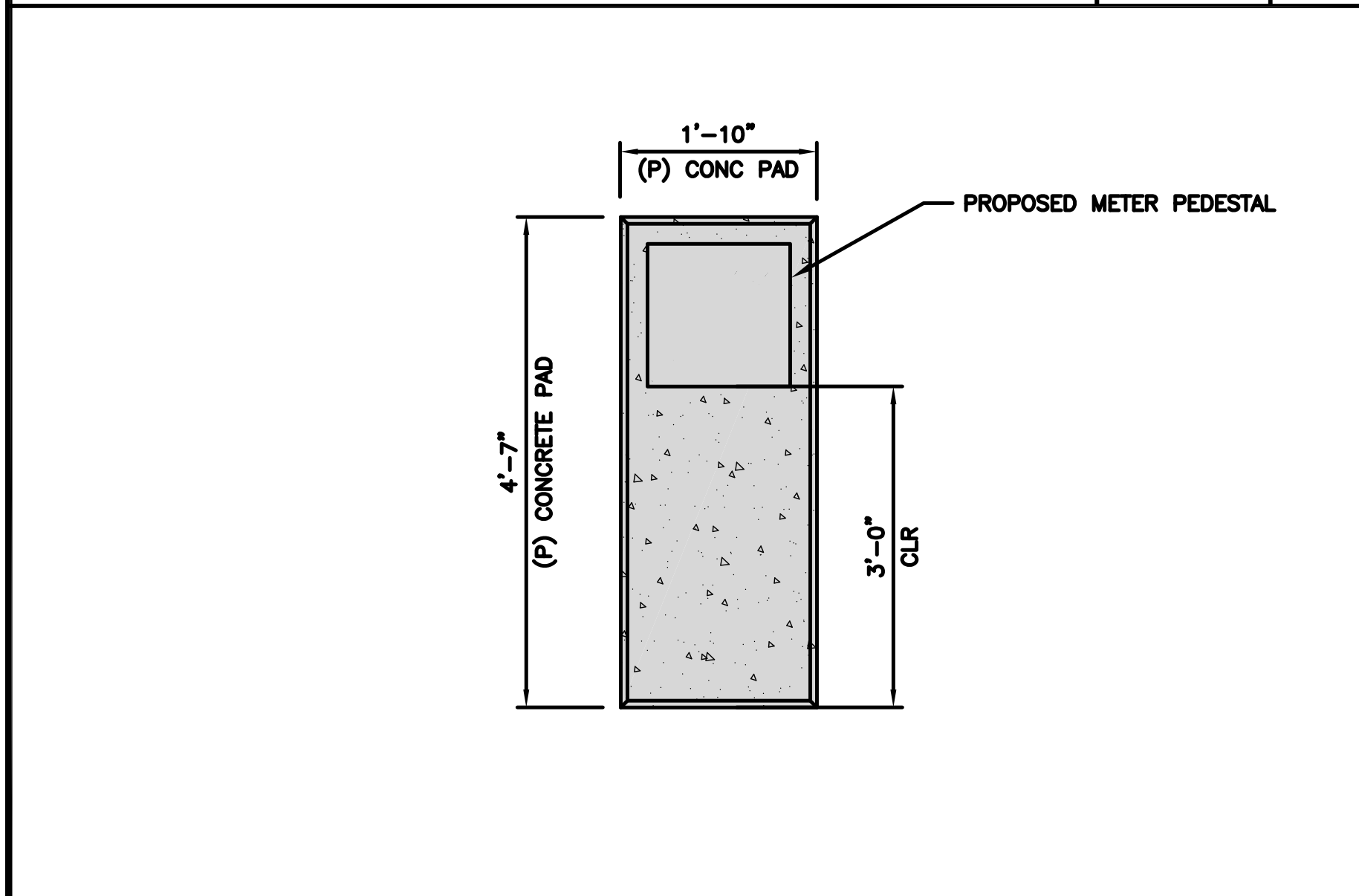
EQUIPMENT CONCRETE PAD WITH FOOTERS DETAIL

NO SCALE 2

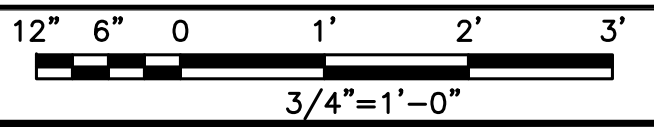


TYPICAL OUTDOOR EQUIPMENT TO CONCRETE SLAB ANCHORAGE

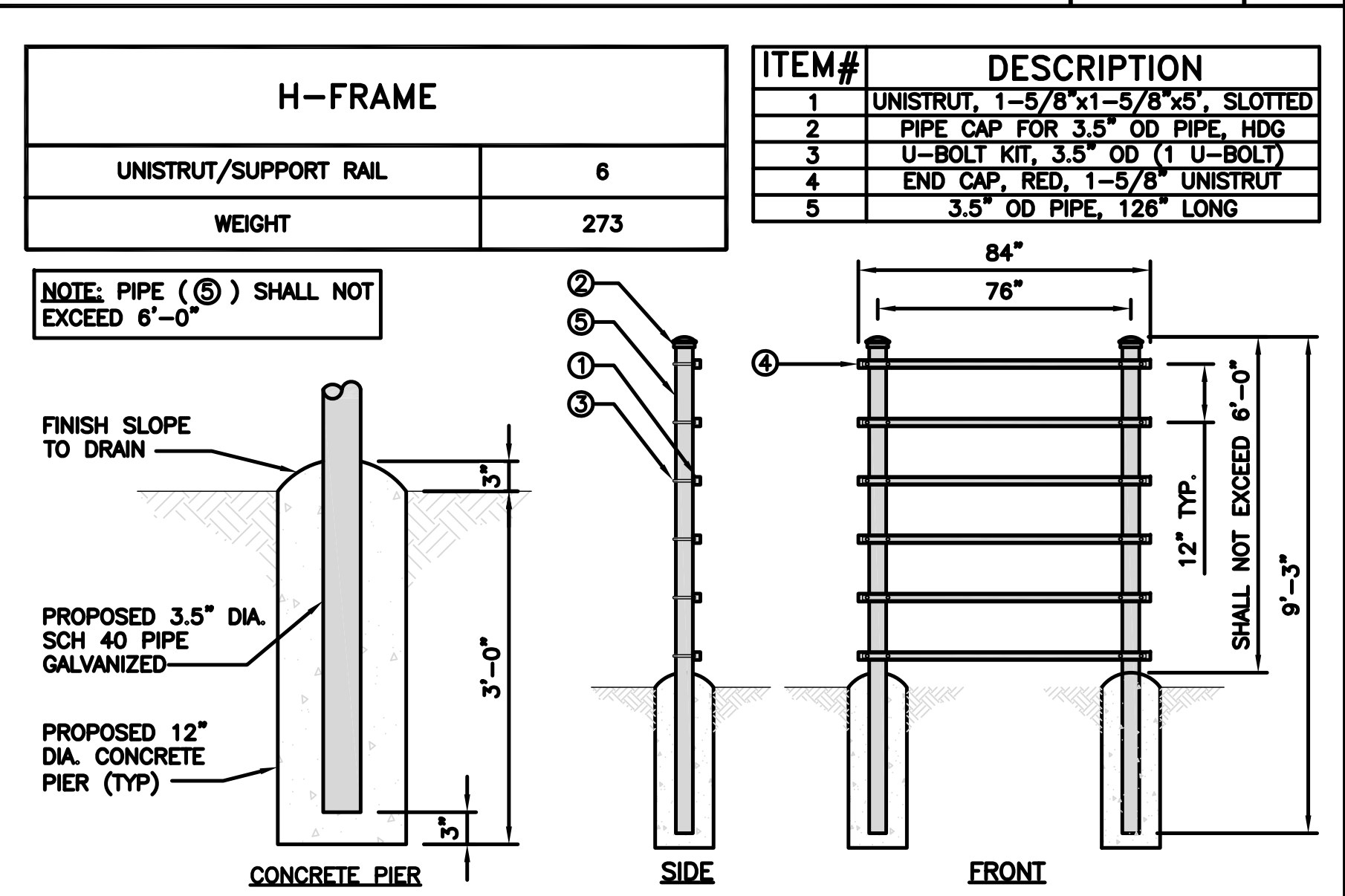
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METER PAD DETAIL

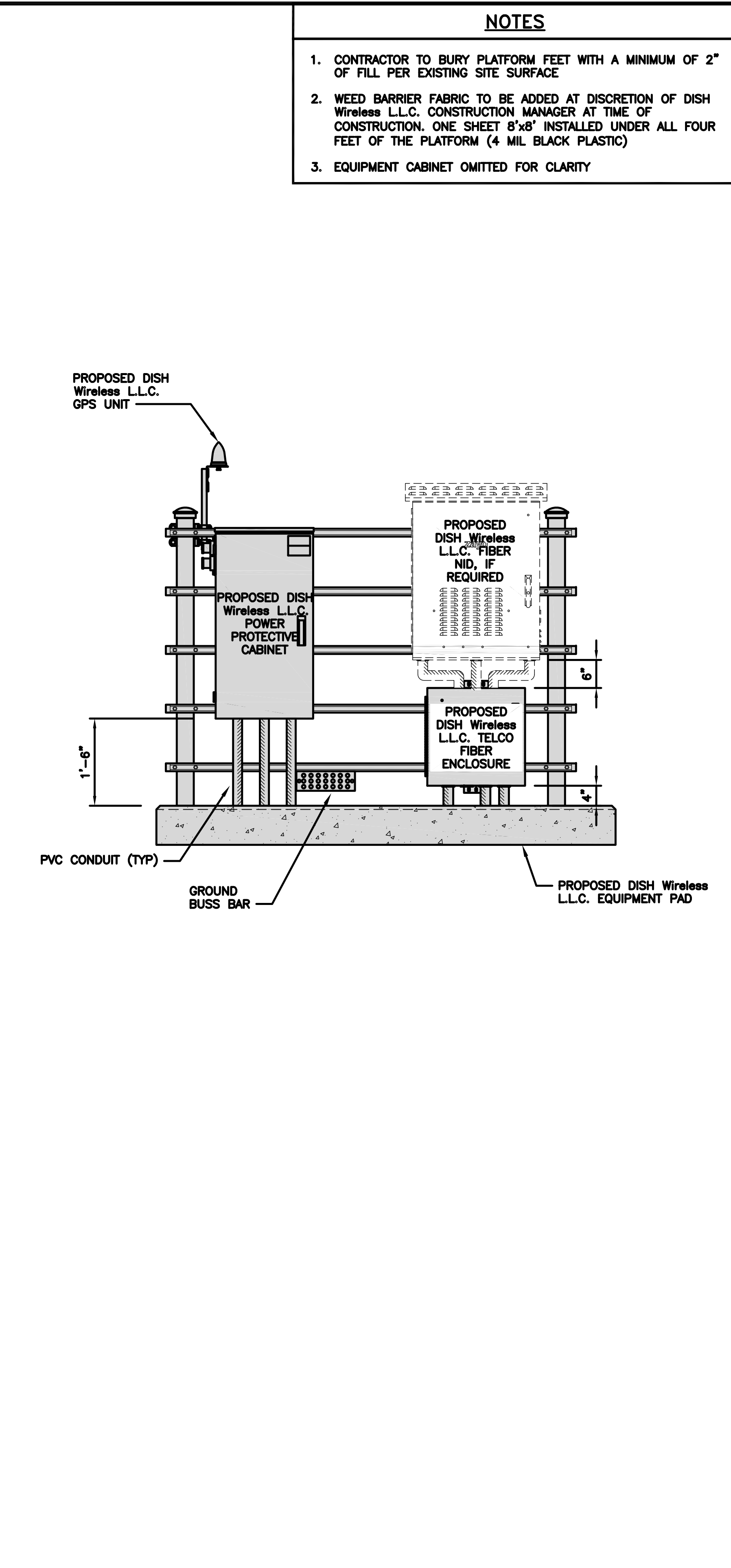


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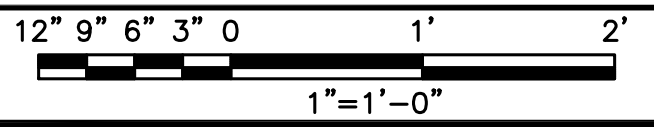


H-FRAME CONCRETE PIER INSTALLATION DETAIL

NO SCALE 5



H-FRAME EQUIPMENT ELEVATION



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



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21889 BUCKSKIN DR  
WALNUT, CA 91789

SHEET TITLE  
EQUIPMENT PAD AND  
H-FRAME DETAILS

SHEET NUMBER

A-3









FUJITSU TRIPLE BAND  
TA08025-B605

DIMENSIONS (HxWxD)	14.9"x15.7"x9"
WEIGHT	74.95 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V

PLAN

BACK

SIDE

FRONT

FUJITSU DUAL BAND  
TA08025-B604

DIMENSIONS (HxWxD)	14.9"x15.7"x7.8"
WEIGHT	63.9 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V

PLAN

BACK

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

RRH MOUNT DETAIL

NO SCALE

3

JMA  
MX08FRO665-21

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

PLAN

ANTENNA DETAIL

NO SCALE

4

JMA  
MX08FRO645-20

DIMENSIONS (HxWxD)	48"x20.0"x8.0"
RF PORTS, CONNECTOR TYPE	8 x 4.3-10 FEMALE
WEIGHT	51.3 lbs
WEIGHT WITH BRACKETS	69.3 lbs

PLAN

ANTENNA DETAIL

NO SCALE

5

JMA ANTENNA MOUNT BRACKET  
#91900318

TOTAL WEIGHT (WITH BRACKETS)	18 lbs (8.18 Kg)
POLE DIAMETER RANGE	2.5" TO 4.5"

NOTE:  
KIT #91900318: TOP AND BOTTOM BRACKETS  
FOR 4-, 6-, AND 8-FOOT ANTENNAS  
ANTENNA BRACKET NOT PART OF KIT

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

ANTENNA BRACKET DETAIL

NO SCALE

6

RAYCAP RDIDC-9181-PF-48  
DC SURGE PROTECTION (OVP)

DIMENSIONS (HxWxD)	18.98"x14.39"x8.15"
WEIGHT	21.82 LBS

PLAN

SURGE SUPPRESSION DETAIL (OVP)

NO SCALE

7

COMMSCOPE XP-2040  
CROSSOVER PLATE

DIMENSIONS (HxW)	10"x12"
WEIGHT	11 lbs

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

RRH/OVP MOUNT DETAIL

NO SCALE

8

COMMSCOPE  
MC-K6MHDx-9-96

FACE WIDTH	7'-0"
WEIGHT	1203.31 lbs

NOTE: 15" TO 50" O.D.

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

I-ARM MOUNT DETAIL

NO SCALE

9

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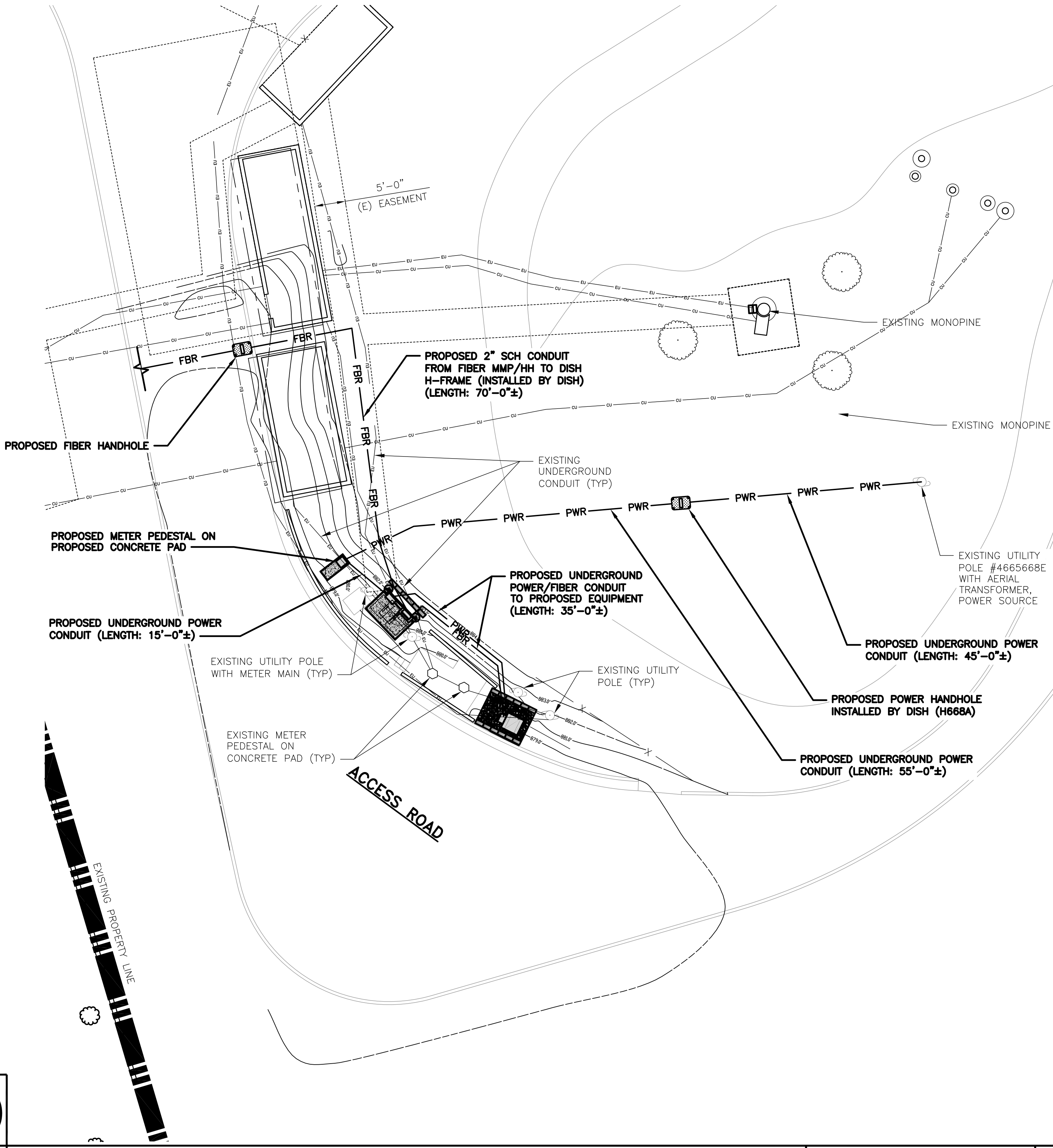
SHEET NUMBER  
A-6

DISH Wireless L.L.C. TEMPLATE VERSION 49 - 5/05/2022

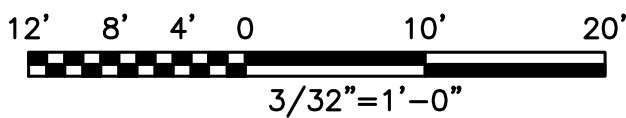


NOTES

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



UTILITY ROUTE PLAN



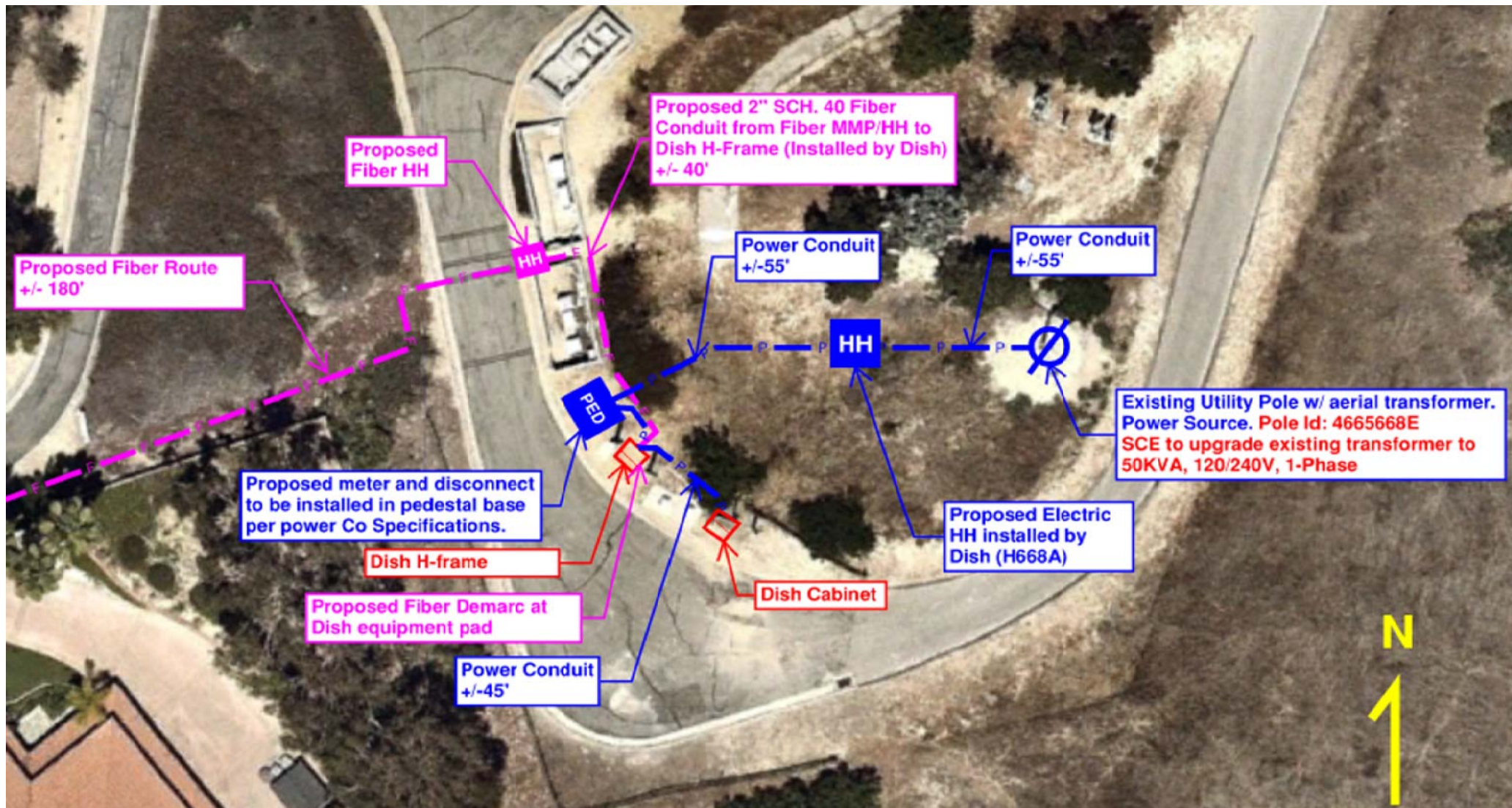
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DC POWER WIRING SHALL BE COLOR CODED AT EACH END FOR IDENTIFYING +24V AND -48V CONDUCTORS. RED MARKINGS SHALL IDENTIFY +24V AND BLUE MARKINGS SHALL IDENTIFY -48V.

1. 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.
2. LOCATION OF EQUIPMENT, CONDUIT AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH FIELD CONDITIONS PRIOR TO CONSTRUCTION.
3. CONDUIT ROUGH-IN SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO AVOID LOCATION CONFLICTS. VERIFY WITH THE MECHANICAL EQUIPMENT CONTRACTOR AND COMPLY AS REQUIRED.
4. CONTRACTOR SHALL PROVIDE ALL BREAKERS, CONDUITS AND CIRCUITS AS REQUIRED FOR A COMPLETE SYSTEM.
5. CONTRACTOR SHALL PROVIDE PULL BOXES AND JUNCTION BOXES AS REQUIRED BY THE NEC ARTICLE 314.
6. CONTRACTOR SHALL PROVIDE ALL STRAIN RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
7. 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.
8. 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.
9. ALL NEW MATERIAL SHALL HAVE A U.L. LABEL.
10. PANEL SCHEDULE LOADING AND CIRCUIT ARRANGEMENTS REFLECT POST-CONSTRUCTION EQUIPMENT.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR AS-BUILT PANEL SCHEDULE AND SITE DRAWINGS.
12. ALL TRENCHES IN COMPOUND TO BE HAND DUG

ELECTRICAL NOTES

2



NOT USED

3

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ELECTRICAL/FIBER ROUTE  
PLAN AND NOTES

SHEET NUMBER

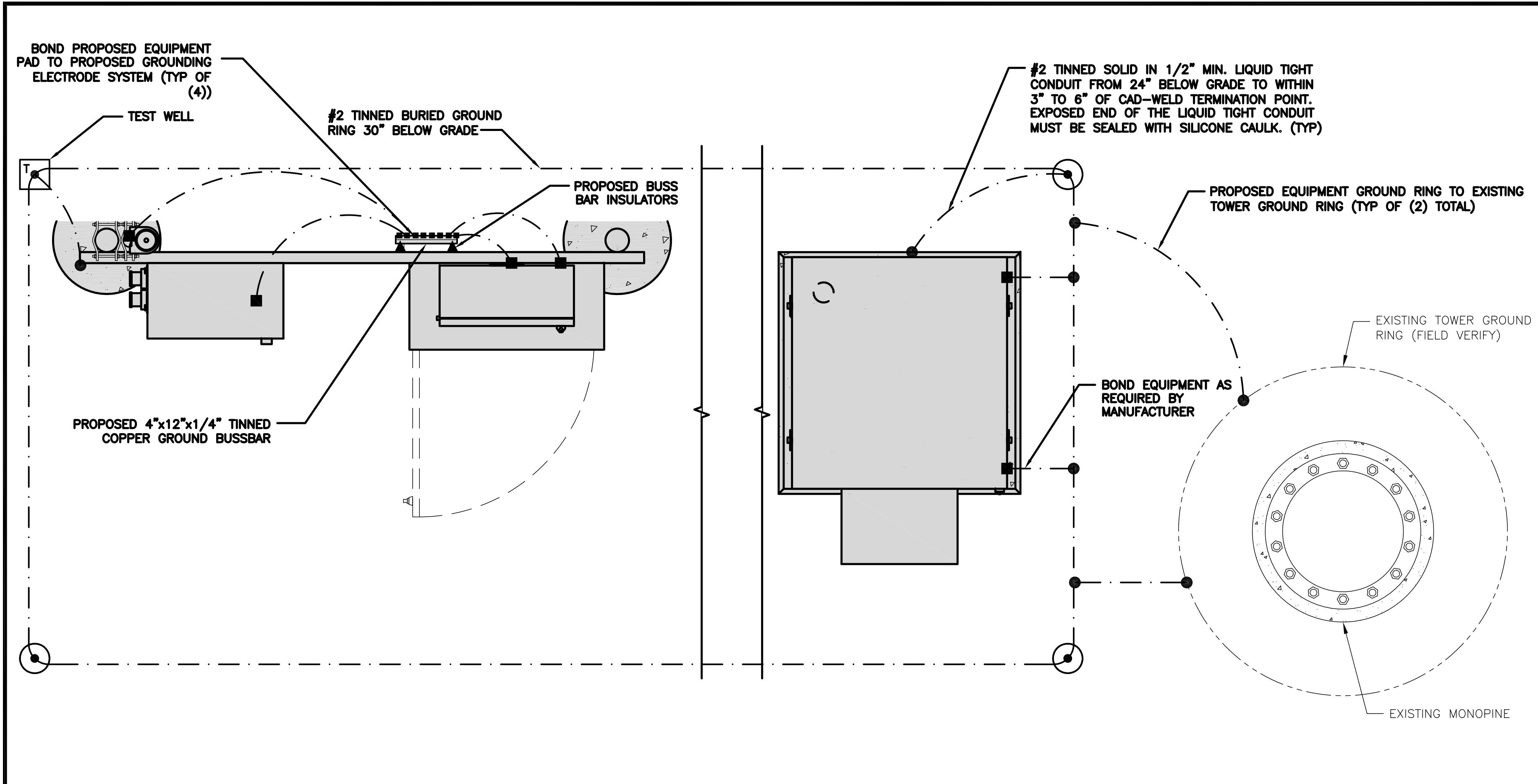
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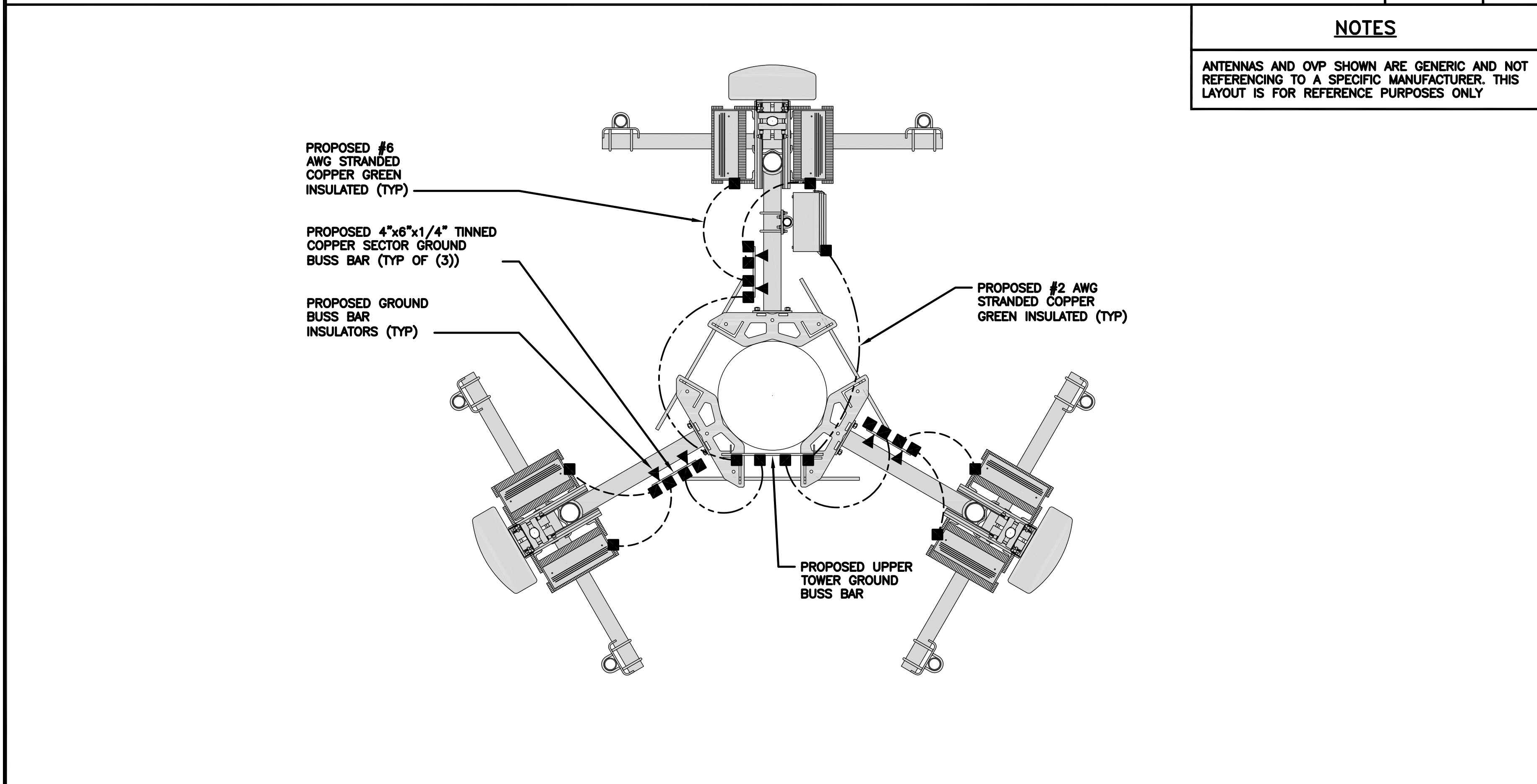




TYPICAL EQUIPMENT GROUNDING PLAN

NO SCALE

1



TYPICAL ANTENNA GROUNDING PLAN

NO SCALE

2

- EXOTHERMIC CONNECTION
- MECHANICAL CONNECTION
- #6 AWG STRANDED & INSULATED
- #2 AWG SOLID COPPER TINNED
- #2 AWG STRANDED & INSULATED
- ▲ BUSS BAR INSULATOR
- ⬢ TEST GROUND ROD WITH INSPECTION SLEEVE
- GROUND BUS BAR
- GROUND ROD

GROUNDING LEGEND

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

GROUNDING KEY NOTES

- EXTERIOR GROUND RING:** #2 TINNED, 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.
- 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.
- 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 #2 AWG STRANDED GREEN INSULATED CONDUCTOR.
- 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.
- GROUND ROD:** UL LISTED COPPER CLAD STEEL. MINIMUM 5/8" DIAMETER BY TEN FEET LONG. GROUND RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN TO THE DEPTH OF GROUND RING CONDUCTOR.
- 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.
- 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.
- 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.
- TELCO GROUND BAR:** BOND TO BOTH CELL REFERENCE GROUND BAR OR EXTERIOR GROUND RING.
- FRAME BONDING:** THE BONDING POINT FOR TELECOM EQUIPMENT FRAMES SHALL BE THE GROUND BUS THAT IS NOT ISOLATED FROM THE EQUIPMENTS METAL FRAMEWORK.
- INTERIOR UNIT BONDS:** METAL FRAMES, CABINETS AND INDIVIDUAL METALLIC UNITS LOCATED WITH THE AREA OF THE INTERIOR GROUND RING REQUIRE A #2 AWG STRANDED GREEN INSULATED COPPER BOND TO THE INTERIOR GROUND RING.
- 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.
- 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
- 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.
- TOWER TOP COLLECTOR BUSS BAR** IS TO BE MECHANICALLY BONDED TO PROPOSED ANTENNA MOUNT COLLAR. REFER TO DISH Wireless L.L.C. GROUNDING NOTES.

GROUNDING KEY NOTES

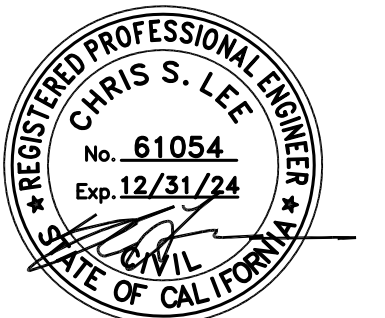
NO SCALE

3

**dish**  
wireless.

16812 ARMSTRONG AVE  
IRVINE, CA 92603

**RLS**  
RELIANT LAND SERVICES  
550 N PARKCENTER DR. STE 200, SANTA ANA, CA 92705  
WWW.RLSUSA.COM PH. (714) 685-0123 FAX (714) 453-9892



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DRAWN BY: CHECKED BY: APPROVED BY:

NN DJL DJL

RFDS REV #: 1

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
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1	07/28/2022	ISSUED FOR FINAL
2	08/08/2022	RELOCATION
3	01/08/2023	SPLIT CONFIGURATION
4	03/13/2023	RETAINING WALLS/FINAL POWER

A&E PROJECT NUMBER  
824727

DISH Wireless L.L.C.  
PROJECT INFORMATION

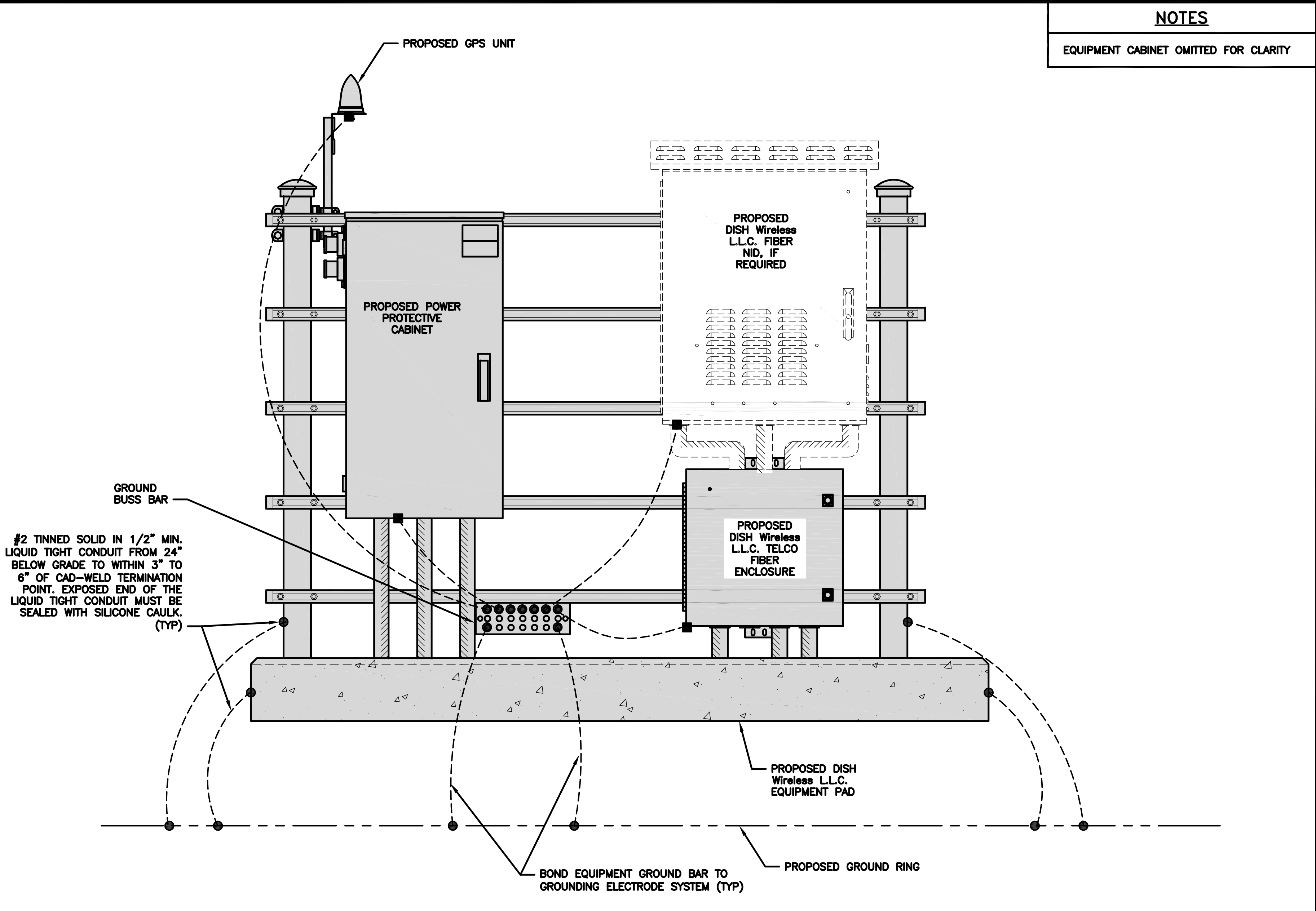
LSSNA00001C  
21889 BUCKSKIN DR  
WALNUT, CA 91789

SHEET TITLE  
GROUNDING PLANS  
AND NOTES

SHEET NUMBER

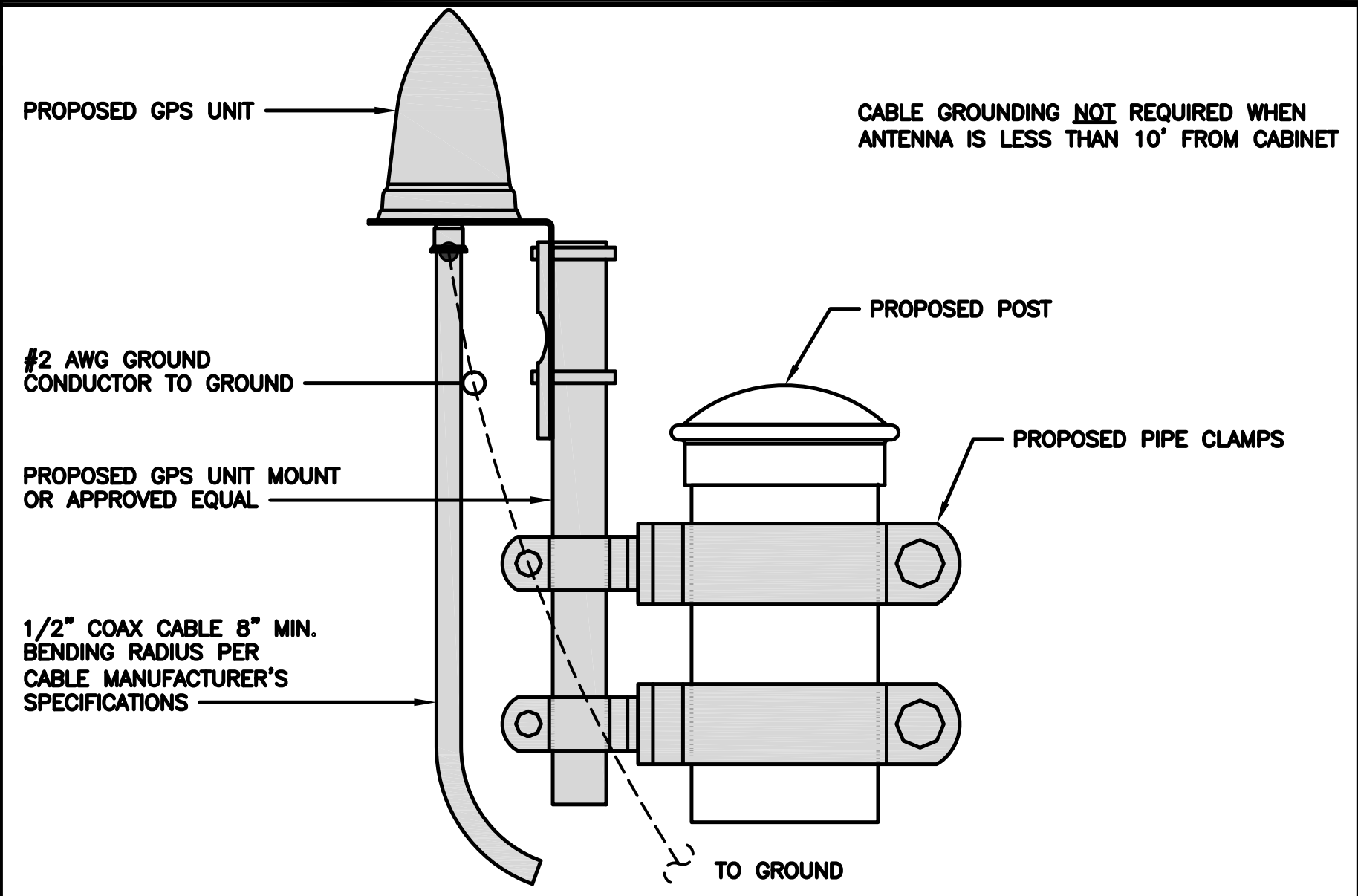
**G-1**





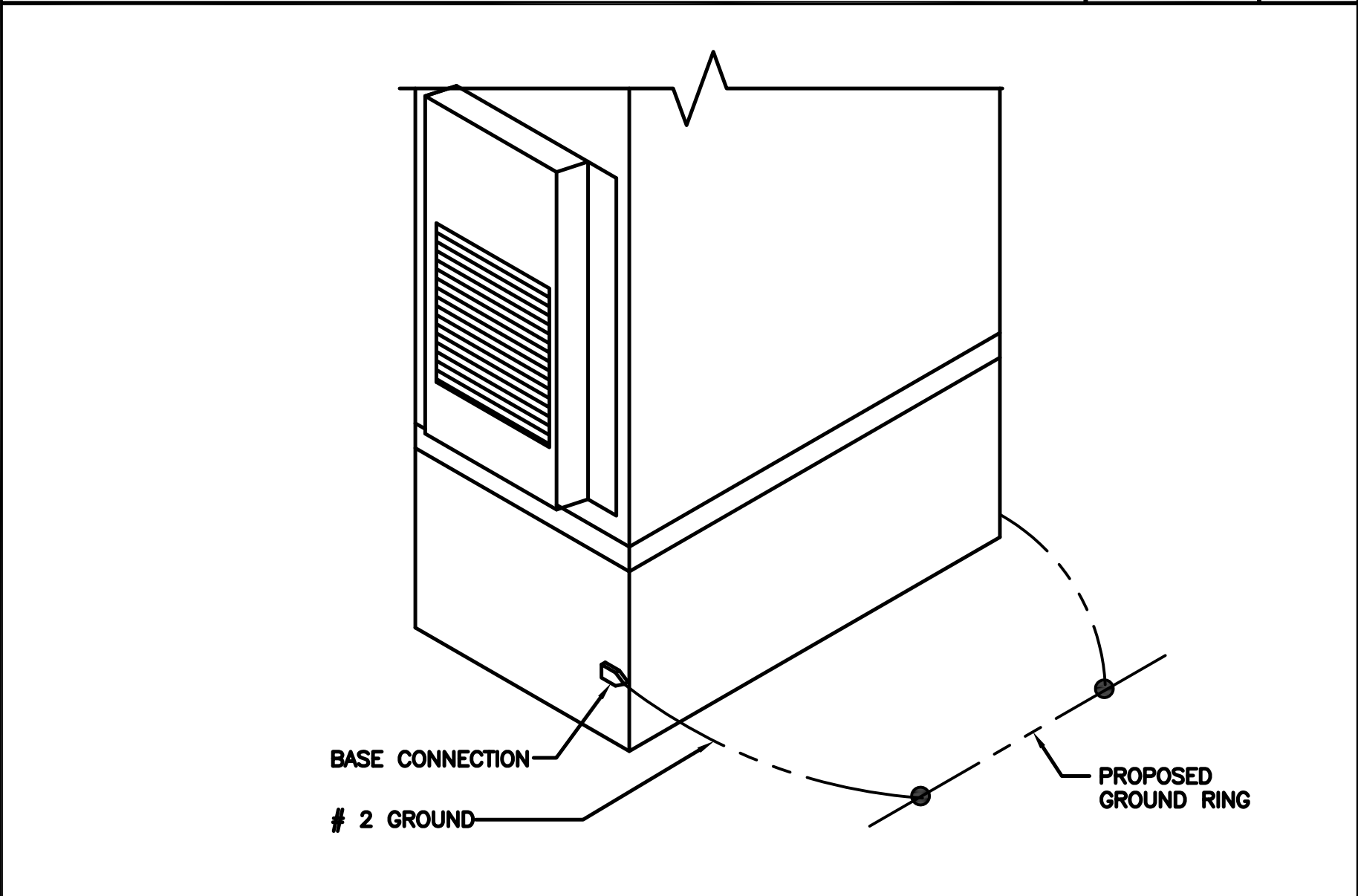
**NOTES**

EQUIPMENT CABINET OMITTED FOR CLARITY



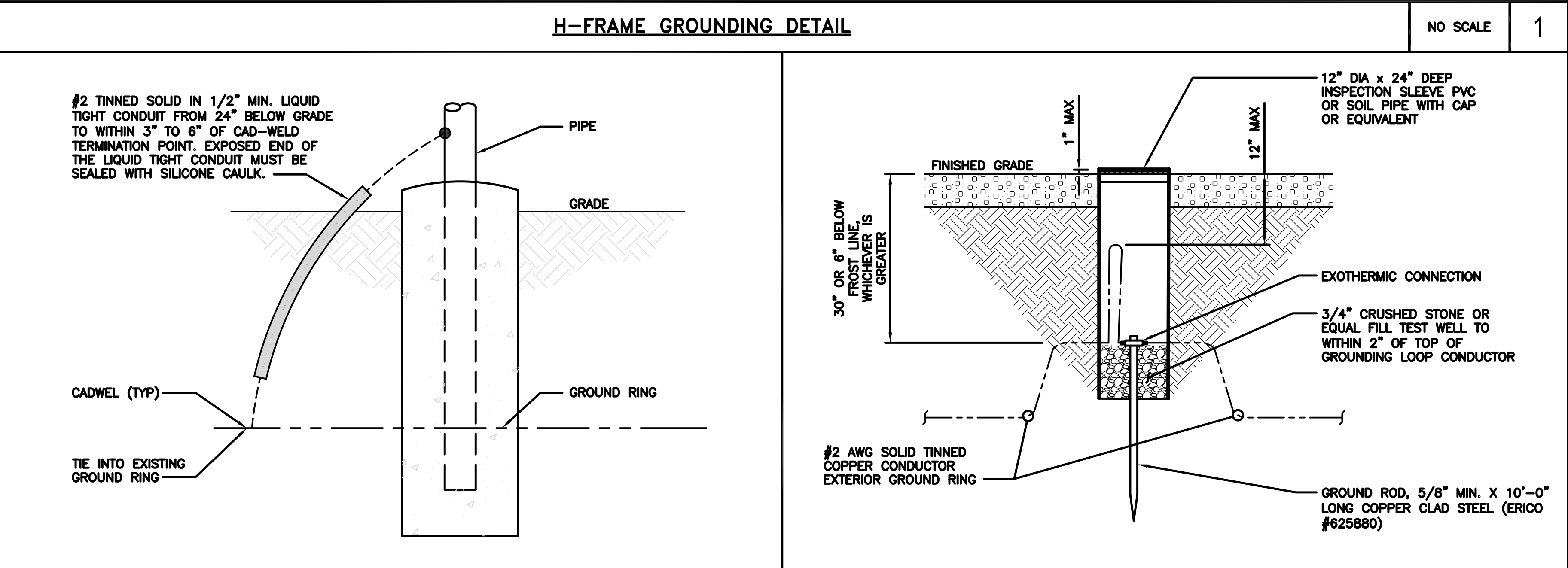
TYPICAL GPS UNIT GROUNDING

NO SCALE 2



OUTDOOR CABINET GROUNDING

NO SCALE 3

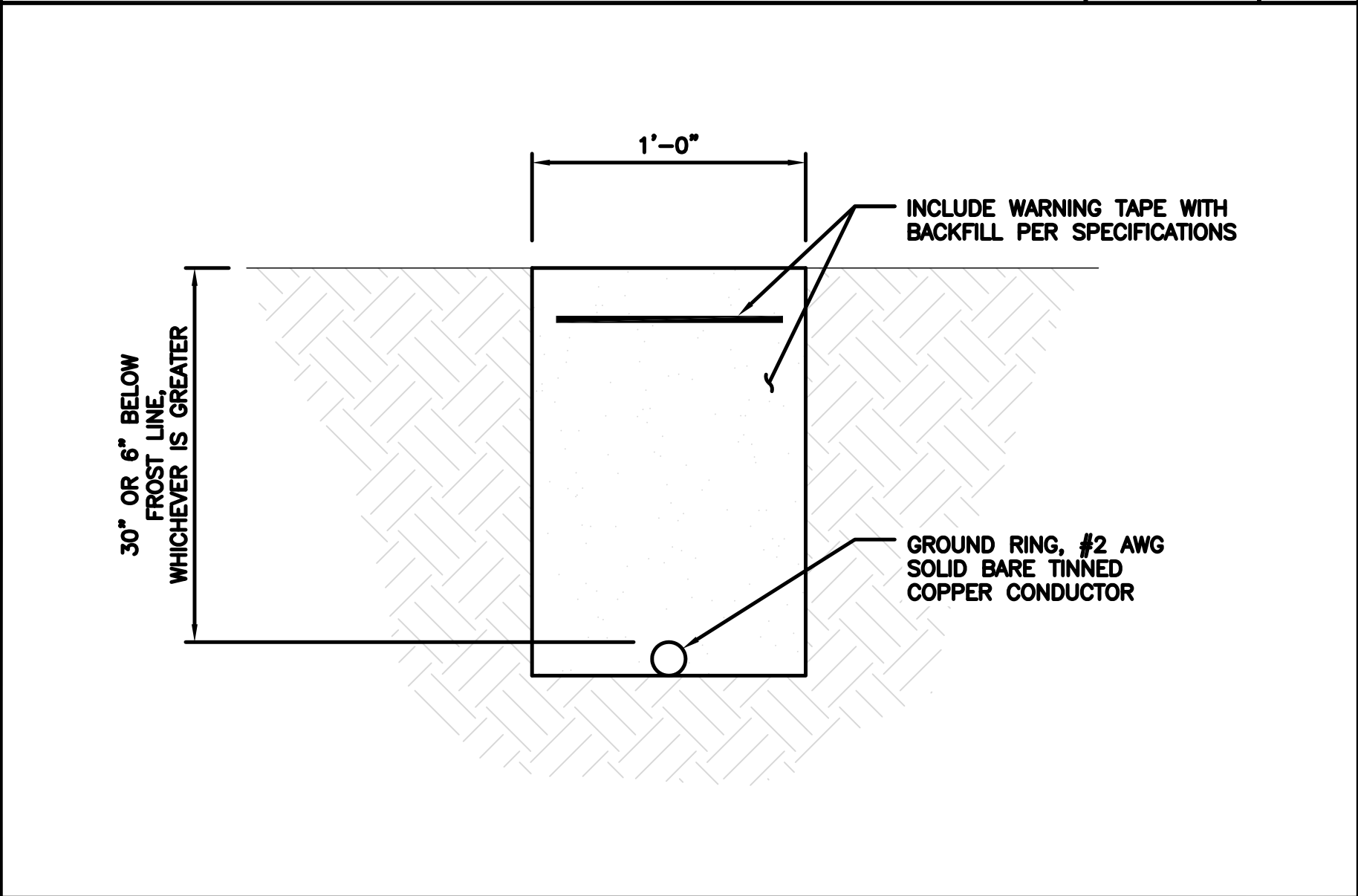


TRANSITIONING GROUND DETAIL

NO SCALE 4

TYPICAL TEST GROUND ROD WITH INSPECTION SLEEVE

NO SCALE 5



TYPICAL GROUND RING TRENCH

NO SCALE 6



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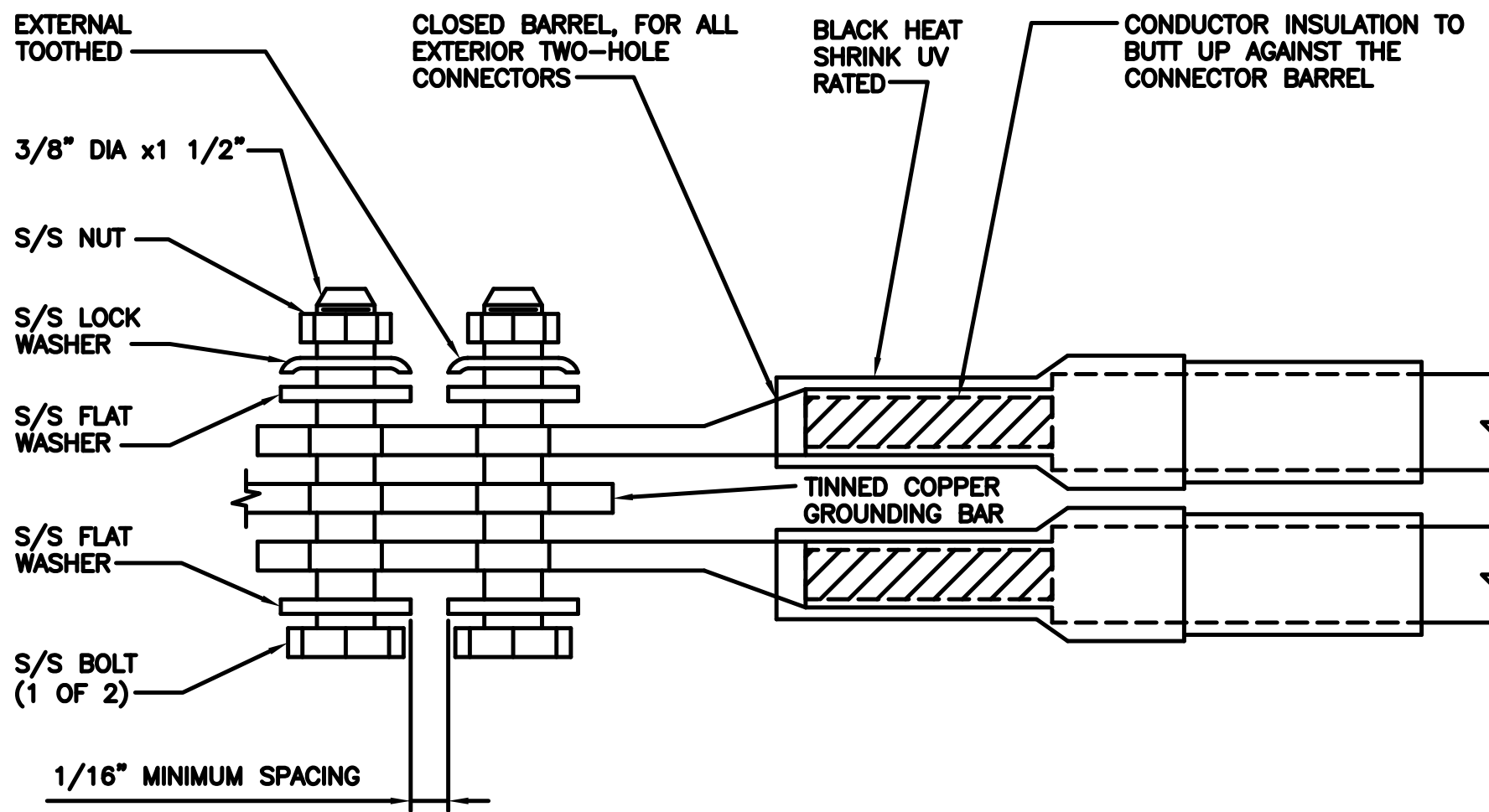
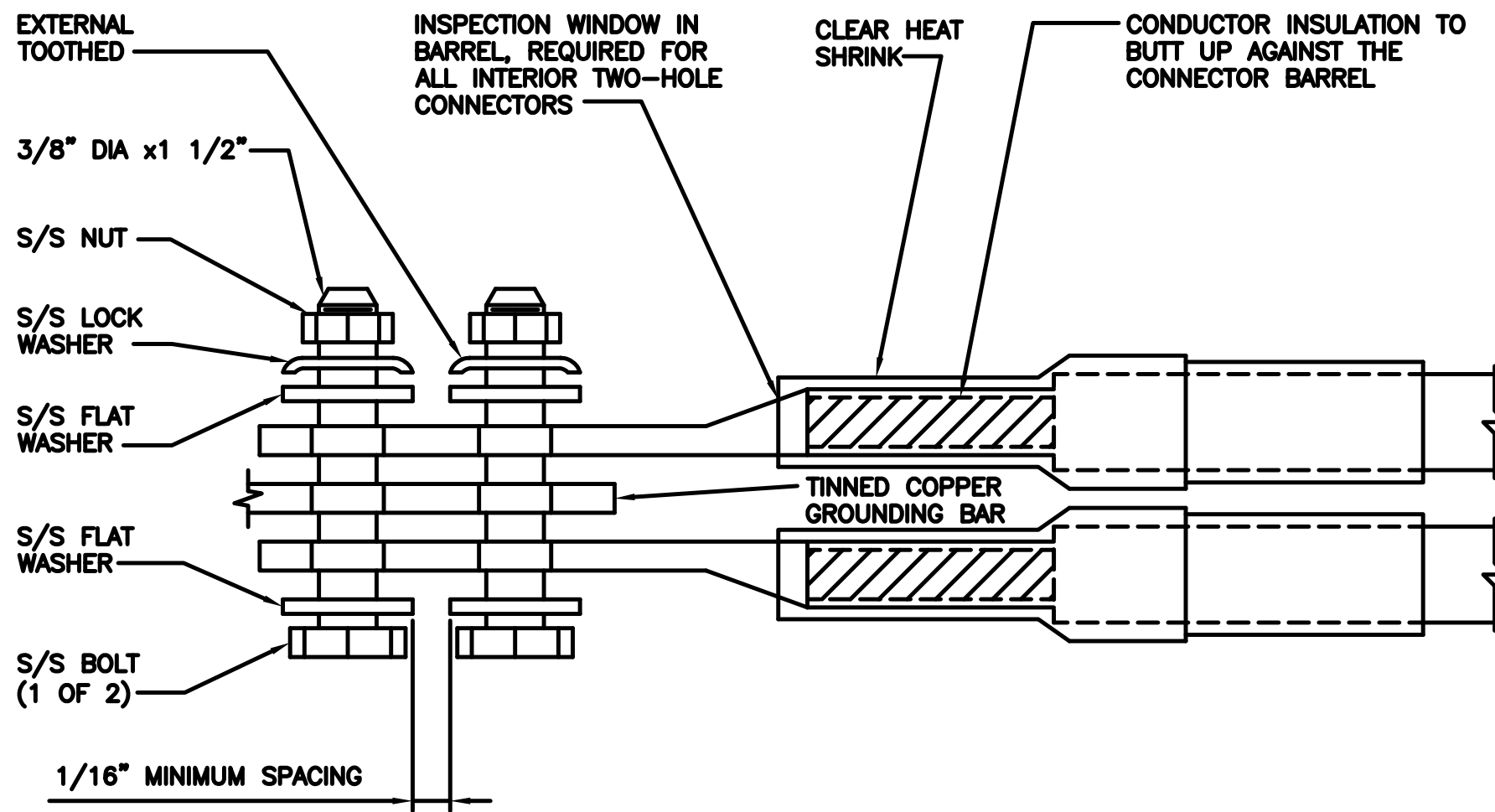
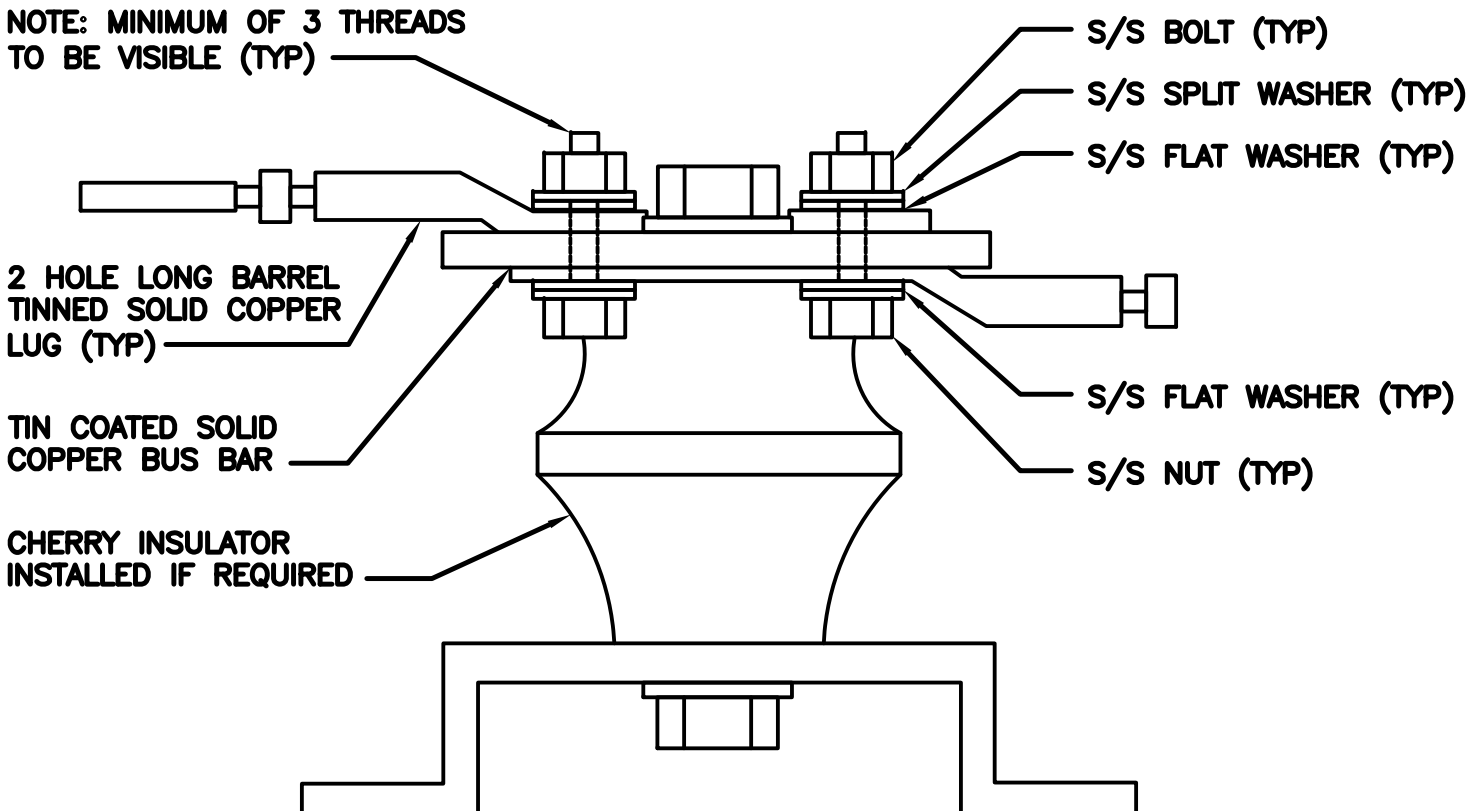
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LSSNA00001C  
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SHEET TITLE  
GROUNDING DETAILS

SHEET NUMBER

G-2

<div>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.</div> <div>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.</div> <div>3. FOR GROUND BOND TO STEEL ONLY: COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.</div> <div>4. DO NOT INSTALL CABLE GROUNDING KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUNDING BUS.</div> <div>5. NUT &amp; WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE.</div> <div>6. ALL GROUNDING PARTS AND EQUIPMENT TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.</div> <div>7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED.</div> <div>8. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).</div>														
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



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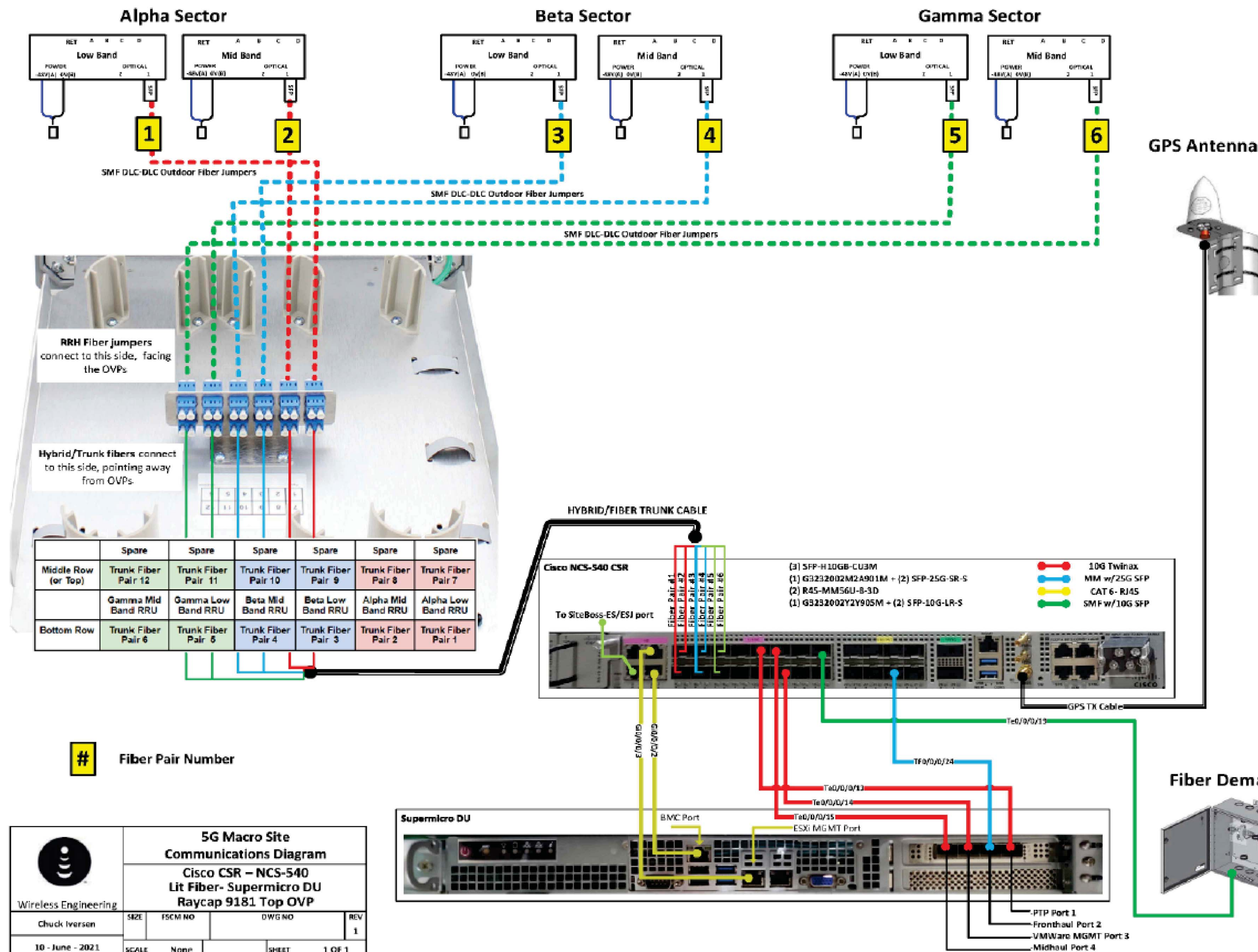
SHEET NUMBER  
**G-3**



HYBRID/DISCREET CABLES					3/4" TAPE WIDTHS WITH 3/4" SPACING											
<p>LOW-BAND RRH (600 MHz N71 BASEBAND) + (850 MHz N26 BAND) + (700 MHz N29 BAND) – OPTIONAL PER MARKET</p> <p>ADD FREQUENCY COLOR TO SECTOR BAND (CBRS WILL USE YELLOW BAND)</p>					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
<p>MID-BAND RRH (AWS BANDS N66+N70)</p> <p>ADD FREQUENCY COLOR TO SECTOR BAND (CBRS WILL USE YELLOW BANDS)</p>					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					EXAMPLE 1	EXAMPLE 2		EXAMPLE 3		CANISTER COAX #2 (ALPHA)						
INCLUDE SECTOR BANDS BEING SUPPORTED ALONG WITH FREQUENCY BANDS.																
EXAMPLE 1 – HYBRID, OR DISCREET, SUPPORTS ALL SECTORS, BOTH LOW-BANDS AND MID-BANDS.					RED		RED		RED		RED					
					BLUE		BLUE									
EXAMPLE 2 – HYBRID, OR DISCREET, SUPPORTS CBRS ONLY, ALL SECTORS.					GREEN		GREEN									
					ORANGE		YELLOW									
					PURPLE											
FIBER JUMPERS TO RRHs					LOW BAND RRH	MID BAND RRH		LOW BAND RRH	MID BAND RRH		LOW BAND RRH	MID BAND RRH				
LOW-BAND HHR FIBER CABLES HAVE SECTOR STRIPE ONLY.					RED		RED		BLUE		BLUE		GREEN		GREEN	
					ORANGE		PURPLE		ORANGE		PURPLE		ORANGE		PURPLE	
POWER CABLES TO RRHs					LOW BAND RRH	MID BAND RRH		LOW BAND RRH	MID BAND RRH		LOW BAND RRH	MID BAND RRH				
LOW-BAND RRH POWER CABLES HAVE SECTOR STRIPE ONLY					RED		RED		BLUE		BLUE		GREEN		GREEN	
					ORANGE		PURPLE		ORANGE		PURPLE		ORANGE		PURPLE	
RET MOTORS AT ANTENNAS					ANTENNA 1 MID BAND	ANTENNA 1 LOW BAND		ANTENNA 1 MID BAND	ANTENNA 1 LOW BAND		ANTENNA 1 MID BAND	ANTENNA 1 LOW BAND				
RET CONTROL IS HANDLED BY THE MID-BAND RRH WHEN ONE SET OF RET PORTS EXIST ON ANTENNA.					IN		IN		IN		IN		IN		IN	
					RED		RED		BLUE		BLUE		GREEN		GREEN	
SEPARATE RET CABLES ARE USED WHEN ANTENNA PORTS PROVIDE INPUTS FOR BOTH LOW AND MID BANDS.					PURPLE		ORANGE		PURPLE		ORANGE		PURPLE		ORANGE	
MICROWAVE RADIO LINKS					FORWARD AZIMUTH OF 0–120 DEGREES				FORWARD AZIMUTH OF 120–240 DEGREES				FORWARD AZIMUTH OF 240–359 DEGREES			
					PRIMARY	SECONDARY			PRIMARY	SECONDARY			PRIMARY	SECONDARY		
<p>LINKS WILL HAVE A 1.5–2 INCH WHITE WRAP WITH THE AZIMUTH COLOR OVERLAPPING IN THE MIDDLE.</p> <p>ADD ADDITIONAL SECTOR COLOR BANDS FOR EACH ADDITIONAL MW RADIO.</p> <p>MICROWAVE CABLES WILL REQUIRE P-TOUCH LABELS INSIDE THE CABINET TO IDENTIFY THE LOCAL AND REMOTE SITE ID's.</p>					WHITE	WHITE			WHITE	WHITE			WHITE	WHITE		
					RED	RED			BLUE	BLUE			GREEN	GREEN		
					WHITE	WHITE			WHITE	WHITE			WHITE	WHITE		
						RED				BLUE				GREEN		
						WHITE				WHITE				WHITE		



# PLUMBING DIAGRAM NETWORK



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PROJECT INFORMATION

LSSNA00001C  
21889 BUCKSKIN DR  
WALNUT, CA 91789

SHEET TITLE  
PLUMBING  
DIAGRAM

SHEET NUMBER

**RF-2**

PLUMBING DIAGRAM

NO SCALE

1







SIGN TYPES		
TYPE	COLOR	COLOR CODE PURPOSE
INFORMATION	GREEN	"INFORMATIONAL SIGN" TO NOTIFY OTHERS OF SITE OWNERSHIP & CONTACT NUMBER AND POTENTIAL RF EXPOSURE.
NOTICE	BLUE	"NOTICE BEYOND THIS POINT" RF FIELDS BEYOND THIS POINT MAY EXCEED THE FCC GENERAL PUBLIC EXPOSURE LIMIT. OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN RF ENVIRONMENTS. IN ACCORDANCE WITH FEDERAL COMMUNICATIONS COMMISSION RULES ON RADIO FREQUENCY EMISSIONS 47 CFR-1.1307(b)
CAUTION	YELLOW	"CAUTION BEYOND THIS POINT" RF FIELDS BEYOND THIS POINT MAY EXCEED THE FCC GENERAL PUBLIC EXPOSURE LIMIT. OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN RF ENVIRONMENTS. IN ACCORDANCE WITH FEDERAL COMMUNICATIONS COMMISSION RULES ON RADIO FREQUENCY EMISSIONS 47 CFR-1.1307(b)
WARNING	ORANGE/RED	"WARNING BEYOND THIS POINT" RF FIELDS AT THIS SITE EXCEED FCC RULES FOR HUMAN EXPOSURE. FAILURE TO OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN RF ENVIRONMENTS COULD RESULT IN SERIOUS INJURY. IN ACCORDANCE WITH FEDERAL COMMUNICATIONS COMMISSION RULES ON RADIO FREQUENCY EMISSIONS 47 CFR-1.1307(b)

SIGN PLACEMENT:

- RF SIGNAGE PLACEMENT SHALL FOLLOW THE RECOMMENDATIONS OF AN EXISTING EME REPORT, CREATED BY A THIRD PARTY PREVIOUSLY AUTHORIZED BY DISH Wireless L.L.C.
- INFORMATION SIGN (GREEN) SHALL BE LOCATED ON EXISTING DISH Wireless L.L.C EQUIPMENT.  
A) IF THE INFORMATION SIGN IS A STICKER, IT SHALL BE PLACED ON EXISTING DISH Wireless L.L.C EQUIPMENT CABINET.  
B) IF THE INFORMATION SIGH IS A METAL SIGN IT SHALL BE PLACED ON EXISTING DISH Wireless L.L.C H-FRAME WITH A SECURE ATTACH METHOD.
- IF EME REPORT IS NOT AVAILABLE AT THE TIME OF CREATION OF CONSTRUCTION DOCUMENTS; PLEASE CONTACT DISH Wireless L.L.C. CONSTRUCTION MANAGER FOR FURTHER INSTRUCTION ON HOW TO PROCEED.

NOTES:

- FOR DISH Wireless L.L.C. LOGO, SEE DISH Wireless L.L.C. DESIGN SPECIFICATIONS (PROVIDED BY DISH Wireless L.L.C.)
- SITE ID SHALL BE APPLIED TO SIGNS USING "LASER ENGRAVING" OR ANY OTHER WEATHER RESISTANT METHOD (DISH Wireless L.L.C. APPROVAL REQUIRED)
- TEXT FOR SIGNAGE SHALL INDICATE CORRECT SITE NAME AND NUMBER AS PER DISH Wireless L.L.C. CONSTRUCTION MANAGER RECOMMENDATIONS.
- CABINET/SHELTER MOUNTING APPLICATION REQUIRES ANOTHER PLATE APPLIED TO THE FACE OF THE CABINET WITH WATER PROOF POLYURETHANE ADHESIVE
- ALL SIGNS WILL BE SECURED WITH EITHER STAINLESS STEEL ZIP TIES OR STAINLESS STEEL TECH SCREWS
- ALL SIGNS TO BE 8.5"x11" AND MADE WITH 0.04" OF ALUMINUM MATERIAL

# INFORMATION

This is an access point to an area with transmitting antennas.

Obey all signs and barriers beyond this point.  
Call the DISH Wireless L.L.C. NOC at 1-866-624-6874

Site ID: **LSSNA00001C**



THIS SIGN IS FOR REFERENCE PURPOSES ONLY

# NOTICE



Transmitting Antenna(s)

Radio frequency fields beyond this point **MAY EXCEED** the FCC Occupational exposure limit.

Obey all posted signs and site guidelines for working in radio frequency environments.

Call the DISH Wireless L.L.C. NOC at 1-866-624-6874 prior to working beyond this point.

Site ID: **LSSNA00001C**



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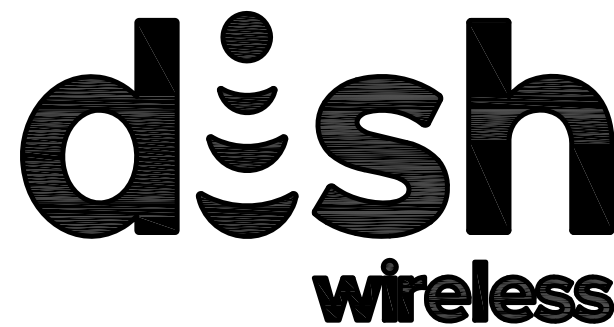
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SHEET TITLE

RF  
SIGNAGE

SHEET NUMBER

**GN-2**



SITE ACTIVITY REQUIREMENTS:

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

GENERAL NOTES:

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



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A&E PROJECT NUMBER  
  
824727

DISH Wireless L.L.C.  
PROJECT INFORMATION  
  
LSSNA00001C  
21889 BUCKSKIN DR  
WALNUT, CA 91789

SHEET TITLE  
  
GENERAL NOTES

SHEET NUMBER  
  
GN-3



CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

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

ELECTRICAL INSTALLATION NOTES:

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

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



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A&E PROJECT NUMBER  
824727

DISH Wireless L.L.C.  
PROJECT INFORMATION

LSSNA00001C  
21889 BUCKSKIN DR  
WALNUT, CA 91789

SHEET TITLE  
GENERAL NOTES

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GN-4



GROUNDING NOTES:

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



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