

Market: North Texas  
Cell Site Number: DDL00400  
Cell Site Name: DDL00400  
Search Ring Name: DDL00400  
Fixed Asset Number: 15682089

## TOWER SITE LEASE AGREEMENT

**THIS TOWER SITE LEASE AGREEMENT** (this "Lease") is entered into this \_\_\_\_ day of \_\_\_\_\_, 2026 ("Execution Date") by and between the Town of Prosper, Texas, a Texas municipal corporation ("Landlord"), and New Cingular Wireless PCS, LLC, a Delaware limited liability company, having a mailing address of 1025 Lenox Park Blvd NE, 3rd Floor, Atlanta, GA 30319 ("Tenant").

**1. Premises.** Subject to the following terms and conditions, Landlord leases to Tenant a portion of the real property (the "Property") described in Exhibit A, attached hereto and incorporated by reference. Tenant's use of the Property shall be limited to that portion of the Property, together with temporary easements for access and utilities, described and depicted in the site plan attached hereto as Exhibit B and incorporated by reference (collectively referred to hereinafter as the "Premises"). The Premises, located at 1880 Newpark Way in the Town of Prosper, Collin County, Texas, are comprised of approximately 400 square feet.

**2. Term.** The initial term of this Lease shall be five (5) years, commencing on the first day of the month following the date that Tenant commences construction (the "Commencement Date") and terminating at midnight on the last day of the sixtieth (60th) full month following the Commencement Date. This Lease will automatically renew for five (5) additional five (5) year Term(s) (the "Extension Term"), upon the same terms and conditions (except Rent, which shall be subject to Paragraph 6 of this Lease) unless the Tenant notifies the Landlord in writing of Tenant's intention not to renew this Lease at least ninety (90) days prior to the expiration of the existing Term.

**3. Permitted Use.** The Premises may be used by Tenant only for permitted uses, which are (i) the transmission and reception of communications signals; (ii) the construction, alteration, maintenance, repair, replacement and relocation of related facilities, antennas and equipment as defined in Paragraph 7; and (iii) activities related to any of the foregoing. Tenant shall obtain (prior to or after the Commencement Date), at Tenant's expense, all licenses and permits or authorizations required for Tenant's use of the Premises from all applicable government and/or regulatory entities (the "Governmental Approvals").

**4. Rent.** Upon the Commencement Date, Tenant shall pay Landlord, as rent, the sum of Two Thousand Seven Hundred Fifty Dollars and No Cents (\$2,750.00) per month ("Rent"). Rent shall be payable on the first day of each month, in advance, to the Town of Prosper, at Landlord's address specified in Paragraph 14, below. If the Commencement Date should be other than the first day of a calendar month, Rent shall be prorated to the end of that calendar month. If this Lease is terminated at a time other than on the last day of a month, Rent shall be prorated as of the date of termination for any reason other than a default by Tenant.

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**5. Holdover Rent.** If Tenant shall remain in possession of the Premises at the expiration of this Lease or any Extension Term without a written agreement, such tenancy shall be deemed a month-to-month tenancy under the same terms and conditions of this Lease, except as to Rent, which shall be fifteen percent (15%) over the most recent Term's monthly Rent.

**6. Extended Term Rent.** Upon the extension of this Lease as provided for in Section 2, Rent shall increase by three percent (3%) over the most recent Term's monthly Rent for each and every Extended Term.

**7. Interference.**

(A) Tenant shall not use the Premises in any way that interferes with the use of the Property by Landlord, or tenants or licensees of Landlord, with rights to the Property prior in time to Tenant's (subject to Tenant's rights under this Lease, including non-interference). Such interference shall be deemed by Landlord a material breach and, upon notice to Tenant, may terminate said interference. In the event any such interference does not cease promptly, the parties acknowledge that continuing interference may cause irreparable injury and, therefore, Landlord shall have the right, in addition to any rights that it may have at law or in equity, to bring action to enjoin such interference or to terminate this Lease immediately. Landlord makes no warranty or representation, express or implied, that the airspace used by Tenant will be free of electronic or other interference.

(B) Landlord shall not use, nor will Landlord permit its employees, tenants, licensees, invitees or agents to use, any portion of the Property in any way that interferes with the operations of Tenant or the rights of Tenant under this Lease, provided none of the users have any right to the Property upon the Commencement Date of this Lease. Landlord shall endeavor to promptly cause any such interference to cease after receipt of notice of interference from Tenant. In the event any such interference to Tenant's operations does not cease within the Cure Period, as defined in Paragraph 9, then the parties acknowledge that Tenant will have the option to terminate this Lease immediately.

**8. Improvements; Utilities; Access.**

(A) Tenant shall have the right, at its expense, to erect and maintain on the Premises the following improvements, personal property and facilities as shown in Exhibit C Construction Drawings, related equipment, cables, accessories, improvements, equipment shelters or cabinets, fencing and any other items necessary to the successful and secure use of the Premises (collectively the "Communication Facilities"). Landlord shall approve the location of such all improvements including the Communication Facilities. Tenant shall submit the construction plans and specifications for the Communication Facilities to Landlord for Landlord's approval, which approval shall not be unreasonably withheld or delayed; however, if Landlord has not responded

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to Tenant within fourteen (14) days of receipt of such plans and specifications, the plans and specifications shall be deemed disapproved by Landlord. With the prior written consent of Landlord, Tenant shall have the right to replace or upgrade the Communication Facilities at any time during the term of this Lease, subject to the prior written approval of Landlord. Tenant shall cause all construction to occur lien-free and in compliance with all applicable laws and ordinances. The Communication Facilities shall remain the exclusive property of Tenant. Tenant shall have the right to remove the Communication Facilities upon the termination of this Lease; provided, however, that Tenant shall return the Premises to Landlord in the same condition as of the date of this Lease, reasonable wear and tear and damage by casualty excepted.

(B) Tenant shall, at Tenant's expense, keep and maintain the Premises and all buildings and improvements now or hereafter located thereon in good condition and repair during the term of this Lease. Further, Tenant shall perform all landscape maintenance and related landscape services on the Premises, including but not limited to the planting of all trees, shrubs, land cover and other related landscape features, all as approved by the Town or its designee, and payment for maintenance and upkeep of same. Upon termination of this Lease, the Premises shall be returned to Landlord in the same condition as of the date of this Lease, reasonable wear and tear and damage by casualty excepted.

(C) Tenant shall pay any utility charges due to Tenant's use of the Premises. Tenant shall not use utilities installed by or for Landlord. Tenant shall have the right to install utilities, at Tenant's expense, and to improve the present utilities on the Premises (including, but not limited to the installation of emergency power generators). Upon termination of this Lease, Tenant shall remove all utilities installed for Tenant.

(D) As partial consideration for rent paid under this Lease, Landlord hereby grants Tenant a temporary easement ("Easement") for ingress, egress, utilities, telecommunications services and access (including access as described in Paragraph 1) to the Premises adequate to service the Premises and the Communication Facilities at all times during the term of this Lease. Upon notice, Landlord shall have the right, at Landlord's sole expense, to relocate the Easement to Tenant, provided such new location shall not materially interfere with Tenant's operations. Any Easement provided hereunder shall terminate upon the termination of this Lease.

(E) Tenant and Landlord shall have 24-hours-a-day, 7-days-a-week access to the Premises at all times during the term of this Lease. Landlord agrees to notify Tenant at AT&T NOC 1-800-638-2822 at least 24 hours in advance prior to entering the Communications Facilities for any reason, except in cases of emergency.

(F) Landlord reserves the right, at any time, to perform any type of maintenance and/or repair on the Property; provided however, except in emergency situations, if any maintenance and/or repair work will substantially affect Tenant's permitted uses of the Premises, Landlord will use its best efforts to provide Tenant with at least ninety (90) days' prior written notice of the intended repair and/or maintenance

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work, along with a schedule showing dates and duration of such repair and/or maintenance work. Landlord shall also provide Tenant with the opportunity, at Tenant's cost and expense, to temporarily relocate and continue to operate its antennas, or otherwise to secure the antennas or the Communication Facilities generally, to protect them from damage. Tenant shall be permitted to install temporary facilities necessary to keep its Communication Facilities operational, subject to Landlord's prior written consent, which consent shall not be unreasonably withheld. Further, any maintenance will be conducted by Landlord as diligently and expeditiously as possible. If any temporary facilities are installed as a result of this paragraph, Tenant shall remove said temporary facilities immediately upon Landlord's completion of any maintenance and/or repair work.

**9. Termination.** If either party breaches any provision of this Agreement, the non-breaching party shall give the other party written notice of the breach. If the breaching party has not cured the breach within thirty (30) days of such notice ("Cure Period"), except as otherwise provided herein, this Lease may be terminated by the non-breaching party, without any penalty or further liability of the non-breaching party, as follows:

- (A) Failing to pay Rent when due.
- (B) Failing to pay taxes, assessments, insurance payments or other charges required to be paid by Tenant under this Lease.
- (C) Failing to use, maintain and operate the Premises as required by this Lease.
- (D) Assigning or subletting the Premises without the prior written consent of Landlord, except as permitted by Paragraph 17.
- (E) Committing waste on the Premises.
- (F) Maintaining, committing or permitting the maintenance or commission of a nuisance on the Premises.
- (G) Denying Landlord access to the Premises.
- (H) Using the Premises for any unlawful purpose, whether the purpose is in addition to or in lieu of, the uses specifically permitted by this Lease.
- (I) Failing to comply with the terms and conditions of this Lease within the Cure Period.
- (J) At the time the Property transfers to a condemning authority, pursuant to a taking of all or a portion of the Property sufficient in Tenant's determination to render the Premises unsuitable for Tenant's use. Landlord and Tenant shall each be entitled to pursue their own separate awards with respect to such taking.
- (K) Failure to commence construction two (2) years after the Execution Date.

**10. Effect of Termination.** No termination of this Lease shall relieve either party from paying any sum or sums then due and payable under this Lease, or from any claims for damages accruing under this Lease. No termination will prevent either party enforcing payment of the sum or sums or claims for damages by any remedy provided by law. The rights and remedies under this Lease are cumulative and non-exclusive, and the parties may pursue any of those rights and remedies or any other remedies

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provided by Texas law.

**11. Waiver.** No waiver by either party of a breach of any provision of this Lease may be deemed or alleged to be a continuing waiver or a waiver of any other breach, whether the same or of any other covenant, condition or restriction of this Lease.

**12. Insurance.** Tenant, at its own expense, shall provide and maintain in force during the term of this Lease a commercial general liability insurance (covering bodily injury, including death, and property damage) in the amount of Two Million Dollars (\$2,000,000.00) per occurrence and in the aggregate and include Landlord as an additional insured by endorsement as respects to this Lease, with one (1) or more insurance companies eligible to transact business in Texas. Tenant shall provide Landlord with a certificate of insurance indicating such coverage prior to beginning any activities under this Lease. Tenant shall provide to Landlord a notice in writing for any cancellation not less than thirty (30) days prior to the effective date unless replaced. All insurance shall be with companies with a "Best's" Insurance Rating of A- VII or Better.

**13. Hold Harmless/Release.**

(A) Tenant shall defend, indemnify and hold harmless Landlord and its Town Council members, officers, agents, representatives and employees from any and all claims, demands, liabilities and expenses (including reasonable attorney's fees and costs of defense) arising from the conduct or management of Tenant's business on the Premises or from its use of the Premises, except for claims, demands, liabilities and expenses arising from the negligence or willful misconduct of Landlord; or from any act or negligence of Tenant, its agents, contractors, employees, subtenants or licensees in or about the Premises. If any action or proceeding is brought against Landlord by reason of any such claim, Tenant, upon written notice from Landlord, will defend the action or proceeding by counsel acceptable to Landlord.

(B) Tenant hereby further releases, waives, discharges, holds harmless, indemnifies and agrees not to sue Landlord, its Town Council members, officers, agents, employees, and representatives (hereinafter referred to as the "Releasees"), for any and all rights and claims arising from the Communication Facilities and related equipment, in connection with the uses described herein and/or the performance of this Agreement, except for claims arising from the negligence or willful misconduct of the Releasees. The release and waiver shall be binding on Tenant, its officers, directors, agents, employees, representatives, servants and assigns.

**14. Notices.** All notices, requests, demands and other communications hereunder shall be in writing and shall be deemed given if personally delivered or mailed, certified mail, return receipt requested, or sent by overnight carrier to the following:

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If to Landlord : Town Manager  
P.O. Box 307  
Prosper, Texas 75078

For Notices of Default to Tenant:

(a) To Tenant's Lease Administration Department by email at [NoticeIntake@att.com](mailto:NoticeIntake@att.com); and

(b) To Tenant's Law Department via first class certified or registered mail, return receipt requested or by a nationally recognized overnight courier, postage prepaid, addressed to:

New Cingular Wireless PCS, LLC  
Attn.: Legal Dept - Network Operations  
Re: Cell Site #: DDL00400; Cell Site Name: DDL00400 (TX)  
Fixed Asset #: 15682089  
208 S. Akard Street  
Dallas, TX 75202-4206

All other notices will be sent to Tenant's Lease Administration Department by email at [NoticeIntake@att.com](mailto:NoticeIntake@att.com) with the FA#, Cell Site #, and Cell Site Name in the email subject line

Notices by email to Tenant's Lease Administration Department will be effective on the first calendar day after it was sent unless the sender receives an automated message that the email has not been delivered. Electronic mail shall be sent with a read receipt, but a read receipt shall not be required to establish that notice was given and received. All other notices shall be effective when properly sent and received or refused, unless returned undelivered.

Either party hereto may change the place for the giving of notice to it by thirty (30) days' prior written notice to the other party hereto as provided herein.

**15. Title and Authority.** Landlord covenants and warrants to Tenant that Landlord has the full right, power and authority to execute this Lease; it has good and unencumbered title to the Premises free and clear of any liens or mortgages, except those disclosed to Tenant. Landlord covenants that Tenant may quietly enjoy the premises.

**16. Environmental Laws.** Landlord and Tenant each represent, warrant and covenant that it will conduct its activities on the Property in compliance with all applicable state and/or federal environmental laws. Landlord and Tenant shall each be responsible for its own environmental liabilities that relate to or arise from its respective activities on the Property to the extent required by law.

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**17. Assignment and Subleasing.** Tenant may assign or sublease this Lease, in whole or in part, without Landlord's consent, to the Tenant's principal, affiliates, subsidiaries, subsidiaries of its principal or to any entity which acquires all or substantially all of the Tenant's assets in the market defined by the Federal Communications Commission (FCC) in which the Property is located by reason of a merger, acquisition, or other business reorganization. Tenant may not assign or sublease this Lease without the prior written approval of Landlord. Additionally, Tenant may, with the prior written consent of Landlord, mortgage or grant a security interest in this Lease and the Communication Facilities. Otherwise, this Lease is not assignable without the prior written consent of Landlord.

**18. Successors and Assigns.** This Lease shall be binding upon and inure to the benefit of the parties, their respective successors, personal representatives and assigns.

**19. Miscellaneous Provisions.**

(A) This Lease constitutes the entire agreement and understanding of the parties, and supersedes all offers, negotiations and other agreements. There are no representations or understandings of any kind that are not set forth herein. Any amendments to this Lease must be in writing and executed by both parties.

(B) If either party is represented by a real estate broker in this transaction, that party shall be fully responsible for any fee due such broker and shall hold the other party harmless from any claims for commission by such broker.

(C) This Lease shall be construed in accordance with the laws of the State of Texas. Exclusive venue shall be in Collin County, Texas.

(D) If any term of this Lease is found to be void or invalid, such invalidity shall not affect the remaining terms of this Lease, which shall continue in full force and effect,

(E) This Lease may be executed in any number of counterparts and all such counterparts shall be deemed to constitute a single lease, and the execution of one (1) counterpart by any Landlord shall have the same force and effect as if he had signed all the other counterparts.

(F) Notwithstanding anything herein to the contrary, neither Landlord nor Tenant shall be liable for the failure to perform its respective duties under this Lease if such failure is caused by a catastrophe, riot, war, governmental order or regulation, fire, accident, act of God, or other similar or different contingency beyond the reasonable control of Landlord or Tenant.

(G) The parties agree that Landlord has not waived its sovereign immunity by

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entering into and performing its obligations under this Lease.

(H) Tenant will maintain its equipment in compliance with FCC guidelines. Landlord agrees, if required by the FCC, to allow Tenant to post warning signs, in a location approved by Landlord and in accordance with the Town of Prosper's Code of Ordinances, as it exists or may be amended, for the purpose of complying with FCC guidelines.

(I) After five (5) years, Tenant may terminate this Lease upon ninety (90) days' written notice to Landlord.

(J) Nothing in this Agreement shall be construed to create any right in any third party not a signatory to this Agreement, and the parties hereto do not intend to create any third party beneficiaries by entering into this Agreement.

(K) The parties hereto agree that irreparable damage would occur if any of the provisions of this Agreement were not performed in accordance with their specified terms or were otherwise breached. Therefore, the parties hereto agree the parties shall be entitled to injunctive relief to prevent breaches of the provisions of this Agreement and to enforce specifically the terms and provisions of the Agreement this being in addition to any other remedy to which the parties are entitled at law or in equity.

(L) Each signatory represents this Agreement has been read by the party for which this Agreement is executed and that such party has had an opportunity to confer with its counsel.

**IN WITNESS WHEREOF**, the parties have caused this Lease to be duly executed as of the date first above written.

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**LANDLORD:**

**TOWN OF PROSPER, TEXAS**

By: \_\_\_\_\_  
Mario Canizares, Town Manager,  
Town of Prosper

**STATE OF TEXAS       §**  
**§**  
**COUNTY OF COLLIN   §**

This instrument was acknowledged before me on the \_\_\_\_ day of \_\_\_\_\_, 20\_\_, by Maro Canizares, Town Manager of the Town of Prosper, Texas, on behalf of the Town of Prosper.

\_\_\_\_\_  
Notary Public, State of Texas

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**TENANT:**

**NEW CINGULAR WIRELESS PCS,  
LLC**

By: AT&T Mobility Corporation  
Its: Manager

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**STATE OF TEXAS       §  
                                  §  
COUNTY OF COLLIN   §**

This instrument was acknowledged before me on the \_\_\_\_ day of \_\_\_\_\_, 20\_\_, by \_\_\_\_\_, \_\_\_\_\_ on behalf of \_\_\_\_\_, in the capacity herein stated.

\_\_\_\_\_  
Notary Public, State of Texas

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## EXHIBIT A

### **Legal Description of the Property**

Being all that certain lot, parcel, or tract of land located in the ELISHA CHAMBERS SURVEY, Abstract No. 179, and the Collin County School Land, Abstract No. 172, Prosper, Collin County, Texas, and being part of a tract of land described in deed to Prosper Falls Development, LLC, recorded in Instrument No. 20150220000185180, Official Public Records, Collin County, Texas, and being more particularly described as follows:

Commencing at a point for corner in the North line of Prosper Trails, a variable width right-of-way, at the Southeast corner of a tract of land described in deed to Deion Sanders, recorded in Volume 4230, Page 140, Deed Records, Collin County, Texas;

Thence North  $89^{\circ}09'12''$  East, along said North line, a distance of 744.69 feet to a 1/2-inch iron rod with yellow plastic cap stamped "RPLS 5310" set for corner;

Thence Northerly, Easterly, and Southwesterly, passing through said Prosper Falls Development, LLC tract, the following seven (7) courses and distances:

Thence North  $85^{\circ}40'16''$  West, a distance of 74.25 feet to a 1/2 inch iron rod with yellow plastic cap stamped "RPLS 5310" set for corner;

Thence North  $01^{\circ}16'07''$  East, a distance of 28.32 feet to a 1/2-inch iron rod with yellow plastic cap stamped "RPLS 5310" set for corner at the PLACE OF BEGINNING of the tract described herein;

Thence North  $01^{\circ}16'07''$  East, a distance of 258.93 feet to a 1/2-inch iron rod with yellow plastic cap stamped "RPLS 5310" set for corner;

Thence South  $88^{\circ}43'53''$  East, a distance of 97.67 feet to a 1/2 inch iron rod with yellow plastic cap stamped "RPLS 5310" set for corner at the beginning of a non-tangent curve to the left, having a central angle of  $119^{\circ}23'27''$ , a radius of 60.00 feet, and a chord bearing and distance of North  $65^{\circ}07'50''$  East, 105.60 feet;

Thence Northeasterly, along said curve to the left, an arc distance of 125.03 feet to a 1/2-inch iron rod with yellow plastic cap stamped "RPLS 5310" set for corner;

Thence South  $70^{\circ}54'30''$  Feet a distance of 126.70 feet to a 1/2-inch iron rod with yellow plastic cap stamped "RPLS 5310" set for corner;

Thence South  $19^{\circ}05'30''$  West, a distance of 270.40 feet to a 1/2-inch iron rod with yellow plastic cap stamped "RPLS 5310" set for corner;

Thence South  $89^{\circ}14'50''$  West, along said North line, a distance of 42.97 feet to a 1/2-inch iron rod with yellow plastic cap stamped "RPLS 5310" set for corner;

Thence South  $89^{\circ}09'12''$  West, continuing along said North line, a distance of 185.72 feet to the PLACE OF BEGINNING and containing 71,402 square feet or 1.639 acres of land.



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**EXHIBIT C**

**Construction Drawings**





6000 LAS COLINAS BLVD,  
IRVING, TX 75039



**BROADUS SERVICES**  
4 COUNTRY PLACE CIRCLE  
DALLAS/HOUSTON GARDENS  
TEXAS 75046

AT&T SITE NUMBER:  
DDL00400

AT&T SITE NAME:  
DDL00400

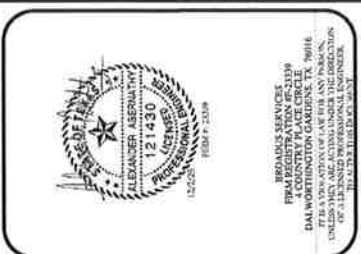
FA CODE:  
15682089

PAGE ID:  
MRNTX075161

1880 NEWPARK WAY  
PROSPER, TX 75078

EXISTING WATER TOWER

NO.	DATE	ISSUES	DESCRIPTION	DATE
1	12/10/93	REV	REVISIONS	12
2	12/10/93	REV	REVISIONS	12
3	12/10/93	REV	REVISIONS	12
4	12/10/93	REV	REVISIONS	12
5	12/10/93	REV	REVISIONS	12
6	12/10/93	REV	REVISIONS	12
7	12/10/93	REV	REVISIONS	12
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25	12/10/93	REV	REVISIONS	12
26	12/10/93	REV	REVISIONS	12
27	12/10/93	REV	REVISIONS	12
28	12/10/93	REV	REVISIONS	12
29	12/10/93	REV	REVISIONS	12
30	12/10/93	REV	REVISIONS	12



PROFESSIONAL SERVICE  
FRM REGISTRATION #7-2319  
DALLAS COUNTY PLACE CIRCLE 19416  
1725 W. 15TH STREET, SUITE 100, DALLAS, TEXAS 75202  
PHONE: 214-343-1000  
FAX: 214-343-1001

ISSUED FOR:  
N-1 FCDO

D. THE SITE AREA WILL BE BROUGHT TO SUB-BASE COURSE ELEVATION AND THE ACCESS ROAD TO BASE COURSE ELEVATION PRIOR TO FORMING FOUNDATIONS.  
E. IF REQUIRED, GRADE, SEED, FERTILIZE AND MULCH DISTURBED AREAS IMMEDIATELY AFTER BRINGING THE SITE AND ACCESS ROAD TO BASE COURSE ELEVATION. WATER TO ENSURE GROWTH.  
F. REMOVE GRAVEL FROM TEMPORARY CONSTRUCTION ZONE.

1.6 SUBMITTALS

- A. BEFORE CONSTRUCTION
  - 1. IF LANDSCAPING IS APPLICABLE TO THE SCOPE OF THE CONTRACT, REFER TO THE LANDSCAPING PLAN INCLUDED HEREIN. IF A LANDSCAPING ALLOWANCE WAS INCLUDED WITH COSTS UNDER SUBSECTORS LETTERHEAD, GENERAL CONTRACTOR SHALL REFER TO SITE PLAN FOR LANDSCAPING REQUIREMENT.
  - 2. SUBMIT FOR APPROVAL THE SPECIFICATIONS OF THE PROPOSED SURFACE COURSE MATERIAL.
- B. AFTER CONSTRUCTION
  - 1. MANUFACTURER'S DESCRIPTION OF PRODUCT ON GRASS SEED AND FERTILIZER, IF REQUIRED.
  - 2. LANDSCAPING WARRANTY STATEMENT, IF REQUIRED.

1.7 WARRANTY

- A. IN ADDITION TO THE WARRANTY ON ALL CONSTRUCTION COVERED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL REPAIR ALL DAMAGE TO SURROUNDING PROPERTY CAUSED BY CONSTRUCTION.
- B. DISTURBED AREAS WILL REFLECT GROWTH OF (N) GRASS COVER PRIOR TO FINAL INSPECTION.
- C. LANDSCAPING, IF INCLUDED WITHIN THE SCOPE OF THE CONTRACT, WILL BE GUARANTEED FOR ONE YEAR FROM DATE OF FINAL INSPECTION.

PART 2 PRODUCTS

2.1 MATERIALS

- A. ROAD AND SITE MATERIALS: FILL MATERIAL - ACCEPTABLE PER THE TEXAS DEPARTMENT OF HIGHWAY AND PUBLIC TRANSPORTATION STANDARD SPECIFICATION.
- B. SOIL STABILIZER FABRIC SHALL BE MIRAFL - 500X.
- C. NON-STRUCTURAL SITE CONCRETE SHALL BE 3000 PSI CONCRETE PER THE GENERAL PROVISIONS OF DIVISION 3 CONCRETE SPECIFICATIONS.

2.2 EQUIPMENT

- A. COMPACTING SHALL BE ACCOMPLISHED BY MECHANICAL MEANS. LARGER AREAS SHALL BE COMPACTED BY SHEEPS FOOT, VIBRATORY OR RUBBER-TIRED ROLLERS WEIGHING 10,000 LBS. OR MORE. ROLLERS SHALL BE OPERATED AS REQUIRED TO OBTAIN COMPACTION SMALLER AREAS SHALL BE COMPACTED BY POWER-DRIVER, HAND HELD TAMPERS.

PART 3 EXCAVATION

3.1 INSPECTIONS: LOCAL BUILDING INSPECTION SHALL BE NOTIFIED NO LESS THAN 48 HRS. IN ADVANCE OF CONCRETE POURS.

3.2 PREPARATION

- A. CLEAR TREES, BRUSH AND DEBRIS FROM SITE AREA AND ACCESS ROAD RIGHT OF WAY AS REQUIRED.
- B. PRIOR TO OTHER EXCAVATION AND CONSTRUCTION EFFORTS GRUB ORGANIC MATERIAL TO A MINIMUM OF SIX INCHES BELOW ORIGINAL GROUND LEVEL.
- C. UNLESS OTHERWISE INSTRUCTED BY THE OWNER, REMOVE TREES, BRUSH AND DEBRIS FROM THE PROPERTY TO AN AUTHORIZED LANDFILL.
- D. PRIOR TO PLACEMENT OF FILL OR BASE MATERIALS, REMOVE SOFT SPOTS AND COMPACT TO BSA STANDARD PROCTOR.
- E. WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, LINE THE GRUBBED AREAS WITH STABILIZER MAY PRIOR TO PLACEMENT OF FILL OR BASE MATERIAL.

C. PRIOR TO COMMENCING CONSTRUCTION, AT&T SHALL SCHEDULE AN ON-SITE MEETING WITH ALL MAJOR PARTIES. THIS MEETING WILL INCLUDE, THROUGH BUT NOT LIMITED TO: AT&T REPRESENTATIVE, LOCAL TELEPHONE COMPANY, TOWER ERECTION FOREMAN (IF SUBCONTRACTED).  
D. CONTRACTOR SHALL BE EQUIPPED WITH SOME MEANS OF CONSTANT COMMUNICATION, SUCH AS A MOBILE PHONE OR A BEEPER. THIS EQUIPMENT WILL NOT BE SUPPLIED BY AT&T. NOR WILL WIRELESS SERVICE BE ARRANGED.

E. DURING CONSTRUCTION, CONTRACTOR MUST ENSURE THAT ALL TIMES CONTRACTOR WILL COMPLY WITH ALL OSHA SAFETY REQUIREMENTS IN THEIR AGREEMENT.

- F. PROVIDE WRITTEN DAILY UPDATES ON SITE PROGRESS TO AT&T.
- G. COMPLETE INVENTORY OF CONSTRUCTION MATERIALS AND EQUIPMENT IS REQUIRED PRIOR TO START OF CONSTRUCTION.
- H. NOTIFY AT&T / PROJECT MANAGER IN WRITING NO MORE THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, TOWER ERECTIONS, AND EQUIPMENT CABINET PLACEMENTS.
- I. GENERAL CONTRACTOR SHALL PROVIDE WITHIN 48 HOURS OF CONSTRUCTION, BEFORE & AFTER PHOTOS OF CONSTRUCTION FROM ALL SIDES IN AND OUT OF COMPOUND.
- J. GENERAL CONTRACTOR TO PROVIDE COPIES OF ALL INSPECTION RELEASES FROM THE GOVERNING MUNICIPALITIES WITHIN 48 HOURS AFTER CONSTRUCTION.

1.12 INSURANCE AND BONDS

- A. CONTRACTOR SHALL AT THEIR OWN EXPENSE CARRY AND MAINTAIN FOR THE DURATION OF THE PROJECT ALL INSURANCE AS REQUIRED AND LISTED AND SHALL NOT PRESENT AN ORIGINAL CERTIFICATE OF INSURANCE STATING ALL COVERAGES TO THE OWNER. REFER TO THE MASTER AGREEMENT FOR REQUIRED INSURANCE LIMITS, ALL POLICIES.
- B. THE OWNER SHALL BE NAMED AS AN ADDITIONAL INSURED ON ALL POLICIES.
- C. CONTRACTOR MUST PROVIDE PROOF OF INSURANCE.

DIVISION 2 - SITE WORK AND DRAINAGE

02000 EARTHWORK, EXCAVATION AND GRADING

PART 1 GENERAL

- 1.1 WORK INCLUDED, REFER TO THE SURVEY AND SITE PLAN FOR WORK INCLUDED.
- 1.2 RELATED WORK
  - A. CONSTRUCTION FOR EQUIPMENT FOUNDATION
  - B. INSTALLATION OF ANTENNA SUPPORT SYSTEM
  - C. ERECTION OF FENCE
- 1.3 DESCRIPTIONS
  - A. ACCESS ROAD, TURNAROUND AREAS AND SITES ARE CONSTRUCTED TO PROVIDE A WELL-DRAINED, EASILY MAINTAINED, EVEN SURFACE FOR MATERIAL AND EQUIPMENT DELIVERIES AND MAINTENANCE PERSONNEL ACCESS.

1.4 QUALITY ASSURANCE

- A. VEGETATION LANDSCAPING, IF INCLUDED WITHIN THE CONTRACT, WILL BE PLACED AND MAINTAINED AS RECOMMENDED BY NURSERY INDUSTRY STANDARDS.

1.5 SEQUENCING

- A. CONFORM SURVEY STAKES AND SET ELEVATION STAKES PRIOR TO ANY CONSTRUCTION.
- B. GRUB THE COMPLETE ROAD AND SITE AREA PRIOR TO FOUNDATION CONSTRUCTION OR PLACEMENT OF BACKFILL OR SUB-BASE MATERIAL.
- C. CONSTRUCT TEMPORARY CONSTRUCTION ZONE ALONG ACCESS DRIVE, IN ACCORDANCE WITH ALL LOCAL, STATE & FEDERAL RULES.

C. INTERIOR: VISUALLY INSPECT INTERIOR SURFACE AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SANDWICHES AND OTHER FOREIGN MATTER FROM WALLS/FLOOR/CEILING.  
2. REMOVE PAINT DROPPINGS, SPOTS, STAINS AND DIRT FROM FINISHED SURFACES.

1.6 CHANGE ORDER PROCEDURE

- A. CHANGE ORDERS MAY BE INITIATED BY AT&T AND/OR THE CONTRACTOR INVOLVED. THE CONTRACTOR, UPON VERBAL REQUEST FROM AT&T, SHALL PREPARE OR WRITE PROPOSALS IN WRITING TO THE CONTRACTOR OR WRITERS. PROPOSALS MUST INCLUDE THE CONTRACT AMOUNT AND PRESENT TO AT&T WITHIN 24 HRS FOR APPROVAL. SUBMIT REQUESTS FOR SUBSTITUTIONS IN WRITING TO THE CONTRACTOR. APPROVAL OF THE WORK AS STIPULATED IN THE CONTRACT.
- D. THE PURPOSE OF THE SPECIFICATIONS IS TO INTERPRET THE INTENT OF THE DRAWINGS AND TO DENOMINATE THE METHOD OF THE PROCEDURE, TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.
- E. MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK. THE WORK WILL BE MADE OR PERMITTED BY AT&T WITHOUT ISSUING A CHANGE ORDER.

1.7 RELATED DOCUMENTS AND COORDINATION

- A. GENERAL CARPENTRY, ELECTRICAL AND ANTENNA WORK, THE CONTRACTOR MUST REFER TO ALL DRAWINGS, SPECIFICATIONS AND TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

1.8 SHOP DRAWINGS

- A. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE SPECIFICATIONS TO AT&T FOR APPROVAL.
- B. ALL SHOP DRAWINGS SHALL BE REVIEWED, CHECKED AND CORRECTED BY CONTRACTOR PRIOR TO SUBMITTAL TO AT&T.

1.9 PRODUCTS AND SUBSTITUTIONS

- A. SUBMIT 3 COPIES OF EACH REQUEST FOR SUBSTITUTION. IN EACH REQUEST IDENTIFY THE PRODUCT OR MATERIAL TO BE REPLACED AND THE SUBSTITUTION. INCLUDE RELATED SPECIFICATION SECTION AND DRAWING NUMBERS AND COMPLETE DOCUMENTATION SHOWING COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.
- B. SUBMIT ALL NECESSARY PRODUCT DATA AND CUT SHEETS FOR ALL PRODUCTS AND MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL, IF DEEMED NECESSARY BY AT&T, SUBMIT A LEVEL OF CUT SHEETS, APPROVAL IN LEVEL OF CUT SHEETS.

DIVISION 1 - GENERAL REQUIREMENTS  
PART 1 GENERAL  
1.1 INTENT  
A. THESE SPECIFICATIONS AND CONSTRUCTION DRAWINGS ACCOMPANYING THEM DESCRIBE THE WORK TO BE DONE AND THE MATERIALS TO BE FURNISHED FOR CONSTRUCTION.

- B. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO DEFINE THE WORK TO BE DONE. THE CONTRACTOR SHOULD ANTICIPATE AND BE RESPONSIBLE FOR ANY CHANGES TO THE WORK. THE WORK WILL BE MADE OR PERMITTED BY AT&T WITHOUT ISSUING A CHANGE ORDER.
- C. THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REQUIREMENTS NECESSARY FOR THE COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.
- D. THE PURPOSE OF THE SPECIFICATIONS IS TO INTERPRET THE INTENT OF THE DRAWINGS AND TO DENOMINATE THE METHOD OF THE PROCEDURE, TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.
- E. MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK. THE WORK WILL BE MADE OR PERMITTED BY AT&T WITHOUT ISSUING A CHANGE ORDER.

1.2 CONFLICTS

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CHANGES TO THE WORK. THE WORK WILL BE MADE OR PERMITTED BY AT&T WITHOUT ISSUING A CHANGE ORDER.

1.3 CONTRACTS AND WARRANTIES

- A. CONTRACTOR IS RESPONSIBLE FOR APPLICATION AND PAYMENT OF CONTRACTOR LICENSES AND BONDS.
- B. SEE MASTER CONTRACT SERVICES AGREEMENT FOR ADDITIONAL DETAILS.

1.4 STORAGE

- A. ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY FASHION AND IN A MANNER THAT DOES NOT NECESSARILY OBSTRUCT THE VIEW OF THE WORK FROM THE ASSOCIATED MANUFACTURER.

1.5 CLEAN UP

- A. THE CONTRACTORS SHALL AT ALL TIMES KEEP THE SITE CLEAR OF DEBRIS AND MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANUP OF THE WORK AND ABOUT THE BUILDING AREA. SURPLUS MATERIALS AND SHALL LEAVE THEIR WORK CLEAN AND READY FOR USE.
- B. EXTERIOR: VISUALLY INSPECT EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SANDWICHES AND OTHER FOREIGN MATTER.
  - 1. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
  - 2. IF NECESSARY TO ACHIEVE A UNIFORM DEGREE OF CLEANLINESS, HOSE DOWN THE EXTERIOR OF THE STRUCTURE.



6009 LAS COLINAS BLVD.  
IRVING, TX 75039



**BROADUS SERVICES**  
4 COUNTRY PLACE CIRCLE  
DALLAS/ORTHINGTON GARDENS  
TEXAS 75016

AT&T SITE NUMBER:  
DDL00400

AT&T SITE NAME:  
DDL00400

FA CODE:  
15682089

PAGE ID:  
MRNTX075161

1880 NEWPARK WAY  
PROSPEK, TX 75078

EXISTING WATER TOWER

REV	DATE	ISSUED FOR:	BY:	REVISION:	DATE:
1	01/15/89	PRELIMINARY	JN		
2	01/15/89	PRELIMINARY	JN		
3	02/02/89	FINAL	JN		



BROADUS SERVICES  
4 COUNTRY PLACE CIRCLE  
DALLAS/ORTHINGTON GARDENS, TX 75016  
UNLESS NOTED OTHERWISE THE DIRECTION  
OF ALL DIMENSIONS SHALL BE AS SHOWN.

SHEET NUMBER  
**N-2**

REVISION:  
**FCD00**

**DIVISION 13 - SPECIAL CONSTRUCTION**  
13100 TOWER & ANTENNA INSTALLATION

**PART 1 GENERAL**

**1.1 WORK INCLUDED**

- A. IF REQUIRED, ERECT FURNISHED TOWER.
- B. GROUND TOWER TEMPORARILY DURING ERECTION. GROUND SHALL INCLUDE BASES) AND ANCHORS.
- C. IF REQUIRED, INSTALL THREE (3) SIDE ARMS, CONSISTING OF THE (3) SIDE ARMS AS SHOWN ON DRAWINGS - CONFIRM WITH OWNER REPRESENTATIVE.
- D. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND OTHER SPECIFICATIONS.
- E. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.
- F. INSTALL FURNISHED GALVANIZED STEEL WAVEGUIDE LADDER.
- G. INSTALL WAVEGUIDE BRIDGE AS INDICATED ON DRAWING.
- H. SUPPLY AND INSTALL ONE INSULATED GROUND BAR AT EQUIPMENT CABINET.
- I. INSTALL GROUNDING STRAP KITS WITH LONG BARREL COMPRESSION LUGS (SM. TO ANHWR-2237/0708) OR APPROVED EQUIV. AT TOWER BASE, BEFORE ENTERING CONDUIT. ALL STRAPS TO BE CONNECTED TO INSULATED GROUND BAR.
- J. ASSESS OWNER TECHNICIANS IN PERFORMING SWEEP TEST OF INSTALLED COAX.
- K. CONCRETE PIER FOR FOUNDATIONS SHALL BE DRILLED AND POURED ON THE SAME DAY.

**2.2 RELATED WORK**

**2.3 REQUIREMENTS OF REGULATOR AGENCIES**

- A. FURNISH U.L. LISTED EQUIPMENT WHERE SUCH LABEL IS WHERE APPLICABLE.
- B. INSTALL ANTENNA, ANTENNA CABLE, GROUNDING SYSTEM IN ACCORDANCE WITH THE SPECIFICATIONS IN THIS SECTION AT PROJECT LOCATION AND RECOMMENDATIONS OF STATE AND LOCAL BUILDING CODES, SPECIAL CODES HAVING JURISDICTION OVER THE PROJECT AND OTHER APPLICABLE CODES, BUT IS NOT LIMITED TO THE FOLLOWING:
  - 1. EA - ELECTRONIC INDUSTRIES ASSOCIATION E02/F AND ANTENNA SUPPORTING STRUCTURES.
  - 2. FA - FEDERAL AVIATION ADMINISTRATION AND ANTENNA SUPPORTING STRUCTURES.
  - 3. FCS - FEDERAL COMMUNICATIONS COMMISSION RULES AND REGULATIONS FORM 71C - CONSTRUCTION MARKING AND LIGHTING SPECIFICATIONS FOR ANTENNA STRUCTURES AND FORM 715A, HIGH INTENSITY LIGHTING SPECIFICATIONS FOR ANTENNA STRUCTURES.
  - 4. ISC - INTERNATIONAL INSTITUTE OF STEEL CONSTRUCTION SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.
  - 5. NEC - NATIONAL ELECTRICAL CODE - ON TOWER LIGHTING KITS.
  - 6. UL - UNDERWRITER'S LABORATORIES APPROVED ELECTRICAL PRODUCTS.
  - 7. IN ALL CASES, PART 77 OF THE FAA RULES AND REGULATIONS APPLY TO THE PROJECT AND IN THE EVENT OF CONFLICT, SUPERSEDE ANY OTHER STANDARDS OR SPECIFICATIONS.
- B. 1990 LIFE SAFETY CODE NFPA - 101.

**DIVISION 13 - SPECIAL CONSTRUCTION**  
13100 TOWER & ANTENNA INSTALLATION

**PART 1 GENERAL**

**1.1 WORK INCLUDED**

- E. GATE FRAMES SHALL HAVE A FULL-HEIGHT VERTICAL BRACE AND A FULL-WIDTH HORIZONTAL BRACE SECURED IN PLACE BY USE OF GATE BRACE CLAMPS.
- F. GATE HINGERS SHALL BE MERCHANTS METAL MODEL 64386 HINGE ADAPTER WITH MODEL 8409, 180 DEGREE ATTACHMENT, OR EQUIV.
- G. THE GUIDE (LATCH ASSEMBLY) SHALL BE MERCHANTS METAL MODEL 2083, OR EQUIV.
- H. LATCHES, STOPS AND KEEPERS SHALL BE PROVIDED FOR ALL GATES.
- I. ALL STOPS SHALL HAVE KEEPERS CAPABLE OF HOLDING THE GATE LEAF IN THE OPEN POSITION.
- J. DOUBLE GATES SHALL HAVE A FULL HEIGHT PLUNGER BAR WITH DOME CAP.
- K. A NO. 9 GAUGE ZINC COATED TENSION WIRE SHALL BE USED AT THE BOTTOM OF THE FABRIC, TERMINATED WITH BAND CLIPS AT CORNER AND GATE POSTS.
- L. PLACE A SIX INCH BY 1/2 INCH DIAMETER EYE-BOLT TO HOLD TENSION WIRE AT LINE POSTS.
- M. STRETCHER BARS SHALL BE 3/16 INCH BY 3/4 INCH OR HAVE EQUIVALENT CROSS SECTIONAL AREA.
- N. ALL CORNER GATE AND END PANELS SHALL HAVE A 3/8" TRUSS ROD WITH TURNBUCKLES.
- O. ALL POSTS EXCEPT GATE POSTS SHALL HAVE A COMBINATION CAP AND BARRED WIRE SUPPORTING ARM. GATE POSTS SHALL HAVE A DOME CAP.
- P. OTHER HARDWARE INCLUDES BUT MAY NOT BE LIMITED TO THE CLIPS, BAND CLIPS AND TENSION BAND CLIPS.
- Q. BARRED WIRE GATE GUARDS SHALL BE FITTED WITH DOME CAPS.
- R. BARRED WIRE SUPPORT ARMS SHALL BE CAST IRON WITH SET BOLT AND LOCK WIRE IN THE ARM.
- S. ALL CAPS SHALL BE CAST STEEL.

**2.2 RELATED WORK**

**2.3 REQUIREMENTS OF REGULATOR AGENCIES**

- A. FURNISH U.L. LISTED EQUIPMENT WHERE SUCH LABEL IS WHERE APPLICABLE.
- B. INSTALL ANTENNA, ANTENNA CABLE, GROUNDING SYSTEM IN ACCORDANCE WITH THE SPECIFICATIONS IN THIS SECTION AT PROJECT LOCATION AND RECOMMENDATIONS OF STATE AND LOCAL BUILDING CODES, SPECIAL CODES HAVING JURISDICTION OVER THE PROJECT AND OTHER APPLICABLE CODES, BUT IS NOT LIMITED TO THE FOLLOWING:
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  - 4. ISC - INTERNATIONAL INSTITUTE OF STEEL CONSTRUCTION SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.
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**DIVISION 13 - SPECIAL CONSTRUCTION**  
13100 TOWER & ANTENNA INSTALLATION

**PART 1 GENERAL**

**1.1 WORK INCLUDED**

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- F. GATE HINGERS SHALL BE MERCHANTS METAL MODEL 64386 HINGE ADAPTER WITH MODEL 8409, 180 DEGREE ATTACHMENT, OR EQUIV.
- G. THE GUIDE (LATCH ASSEMBLY) SHALL BE MERCHANTS METAL MODEL 2083, OR EQUIV.
- H. LATCHES, STOPS AND KEEPERS SHALL BE PROVIDED FOR ALL GATES.
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- K. A NO. 9 GAUGE ZINC COATED TENSION WIRE SHALL BE USED AT THE BOTTOM OF THE FABRIC, TERMINATED WITH BAND CLIPS AT CORNER AND GATE POSTS.
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- M. STRETCHER BARS SHALL BE 3/16 INCH BY 3/4 INCH OR HAVE EQUIVALENT CROSS SECTIONAL AREA.
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- Q. BARRED WIRE GATE GUARDS SHALL BE FITTED WITH DOME CAPS.
- R. BARRED WIRE SUPPORT ARMS SHALL BE CAST IRON WITH SET BOLT AND LOCK WIRE IN THE ARM.
- S. ALL CAPS SHALL BE CAST STEEL.

**2.2 RELATED WORK**

**2.3 REQUIREMENTS OF REGULATOR AGENCIES**

- A. FURNISH U.L. LISTED EQUIPMENT WHERE SUCH LABEL IS WHERE APPLICABLE.
- B. INSTALL ANTENNA, ANTENNA CABLE, GROUNDING SYSTEM IN ACCORDANCE WITH THE SPECIFICATIONS IN THIS SECTION AT PROJECT LOCATION AND RECOMMENDATIONS OF STATE AND LOCAL BUILDING CODES, SPECIAL CODES HAVING JURISDICTION OVER THE PROJECT AND OTHER APPLICABLE CODES, BUT IS NOT LIMITED TO THE FOLLOWING:
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  - 4. ISC - INTERNATIONAL INSTITUTE OF STEEL CONSTRUCTION SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.
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**DIVISION 13 - SPECIAL CONSTRUCTION**  
13100 TOWER & ANTENNA INSTALLATION

**PART 1 GENERAL**

**1.1 WORK INCLUDED**

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- R. BARRED WIRE SUPPORT ARMS SHALL BE CAST IRON WITH SET BOLT AND LOCK WIRE IN THE ARM.
- S. ALL CAPS SHALL BE CAST STEEL.

**2.2 RELATED WORK**

**2.3 REQUIREMENTS OF REGULATOR AGENCIES**

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- B. INSTALL ANTENNA, ANTENNA CABLE, GROUNDING SYSTEM IN ACCORDANCE WITH THE SPECIFICATIONS IN THIS SECTION AT PROJECT LOCATION AND RECOMMENDATIONS OF STATE AND LOCAL BUILDING CODES, SPECIAL CODES HAVING JURISDICTION OVER THE PROJECT AND OTHER APPLICABLE CODES, BUT IS NOT LIMITED TO THE FOLLOWING:
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**DIVISION 13 - SPECIAL CONSTRUCTION**  
13100 TOWER & ANTENNA INSTALLATION

**PART 1 GENERAL**

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- S. ALL CAPS SHALL BE CAST STEEL.

**2.2 RELATED WORK**

**2.3 REQUIREMENTS OF REGULATOR AGENCIES**

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  - 4. ISC - INTERNATIONAL INSTITUTE OF STEEL CONSTRUCTION SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.
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- B. 1990 LIFE SAFETY CODE NFPA - 101.



**GROUNDING STANDARDS (CONTINUED)**

**3.0 PERIMETER FENCE GROUNDING:**

A. CORNER AND END POSTS (MINIMUM OF TWO) SHALL HAVE ONE #2 SIZED THINNED COPPER GROUND WIRE. ALL OTHERS SHALL HAVE ONE #2 SIZED THINNED COPPER GROUND WIRE. INTERMEDIATE GROUND RODS IF THE DISTANCE FROM THE GROUND RING EXCEEDS 6 FEET, IN NO CASE SHALL THE SAME FENCE REMAIN DISCONNECTED FROM THE GROUND RING.

B. GATE POSTS SHALL BE GROUND TO EACH OTHER TO ENSURE THE ENTIRE FENCE HAS ELECTRICAL CONTINUITY. CONNECTIONS SHALL BE DRILL AND TAP WITH BURNDY TYPE KC22 TO THE POST WITH A #2 AWG BARE SOLID THINNED COPPER WIRE.

C. GATES SHALL BE BONDED TO GATE POSTS WITH A 1#7 BRAIDED STEEL WIRE (UL LISTED, #016922). THE CONNECTIONS SHALL BE BURNDY 2 TYPE, 1" CENTER TO CENTER, BOLTED THROUGH EACH POST.

3.9 GENERATOR FUEL TANK GROUNDING:  
 THE GENERATOR FUEL TANK, IF REQUIRED, SHALL BE CONNECTED IN AT LEAST TWO POINTS TO THE MAIN TANKER GROUNDING BARS. SOLID THINNED COPPER WIRE SHALL BE BURNDY CONNECTED TO ONE SUPPORT LEG OF THE FUEL TANK AND CAD WELD TO THE NEAREST EXTERIOR GROUND RING GROUND ROD.

3.10 EQUIPMENT ROOM GROUNDING:  
 THE MASTER GROUND BAR (MGB) SERVES AS THE COLLECTION POINT FOR ALL UNDERGROUND AND DAMP LOCATION CONNECTIONS. METAL MATERIALS, CHAC GRILLS, DOOR FRAMES/DOORS, TELCO BOARD, UNISTRATS, CABLE TRAYS, ALARM JUNCTION BOX, ETC., SHALL BE GROUND WITH #6 AWG STRANDED (GREEN) GROUND WIRE. BURNDY CONNECTED TO THE MAIN TANKER GROUNDING BARS. A SINGLE GROUND WIRE CONNECTION TO THE MGB.)

3.11 WALL PENETRATIONS SLEEVES:  
 INSTALL PER CONSTRUCTION DRAWINGS WITH APPROVED UL LISTED FIRESTOP.

3.12 A/C COMMERCIAL POWER GROUNDING CONNECTIONS:  
 AT THE ON-SITE RISER POLE LOCATION OR UNDERGROUND SERVICE ENTRANCE LOCATION, THE A/C SERVICE SHALL BE MECHANICALLY BONDED TO THE A/C SERVICE ENTRANCE GROUND AS SPECIFIED BY THE NATIONAL ELECTRIC CODE, ARTICLE 250, AND/OR APPROVED BY THE LOCAL ELECTRICAL INSPECTOR. THE GROUNDING RING POINT AND SHALL BE CONNECTED TO THE EXTERIOR GROUNDING RING. A SEPARATE A/C SERVICE GROUND AND NEUTRAL SHALL THEN BE ROUTED TO AND CONNECTED TO THE MAIN DISCONNECT INSIDE THE BUILDING (WHERE APPLICABLE) OR AS REQUIRED BY LOCAL AUTHORITY.

3.13 GENERATOR RECEPTACLE GROUNDING:  
 THE GENERATOR RECEPTACLE (HUBBLE PLUG) SHALL BE GROUND TO THE EQUIPMENT GROUND RING.

3.14 COAX BRIDGE / CABLE TRAY GROUNDING :  
 BOND THE COAX BRIDGE OR CABLE TRAY TO THE AGB WITH #6 STRANDED INSULATED GREEN WIRE. THESE CONNECTIONS SHALL BE STAR LOCK WASHERS AND NOALOX. ALL BRIDGE SPLICES SHALL HAVE JUMPERS OF #6 STRANDED INSULATED GREEN WIRE.

3.15 CAD WELD & BURNDY CONNECTION:  
 CAD WELDS (EXOTHERMIC WELDS) AND BURNDY CONNECTIONS SHALL BOND ALL UNDERGROUND AND DAMP LOCATION CONNECTIONS TO THE MAIN TANKER GROUNDING BARS, (A&B) SURGE ARRESTOR GROUND BAR, AND THE MASTER GROUND BAR (MGB). MECHANICAL CONNECTIONS SHALL BE TYPICALLY USED TO BOND ALL INTERIOR CONNECTIONS TO THE MAIN TANKER GROUNDING BARS. ALL TIGHT MECHANICAL CONNECTIONS TO THE MGB OR AGB SHALL BE NUTS WITH STAINLESS STEEL LOCK WASHERS AND NOALOX ON EITHER SIDE OF THE BUSS BAR.

3.16 CHEMICAL GROUND RODS:  
 CHEMICAL GROUND RODS SHALL NOT BE INSTALLED ON GROUND RING INSTALLATIONS WITH NORMAL SOIL. CHEMICAL GROUND RODS SHALL BE INSTALLED ONLY FOR SPECIAL DESIGN APPLICATIONS THAT REQUIRE

**3.17 TEMANT IMPROVEMENT SITE GROUNDING:**

FOR ROOF TOP ANTENNA INSTALLATIONS ADDITIONAL ANTENNA GROUND BARS MAY HAVE TO BE INSTALLED AT EACH ANTENNA LOCATION. EACH ANTENNA SHALL BE CONNECTED TO THE A&B WITH A #2 AWG CONDUCTOR CONNECTED TO THE A&B. BUILDING STEEL OR THE AGB INSTALLED AT THE MOUNT. ALL BUSS BARS, BOTH MGB AND A&B(S), SHALL BE GROUND TO THE MAIN TANKER GROUNDING SYSTEM. NO GROUND WIRE IS TO CONNECT THE BUSS BARS TOGETHER. A&B(S) MAY BE HOME RUN BACK TO THE MGB WHERE NO BUILDING STEEL IS AVAILABLE.

3.18 LIMITS OF BOND RADIUS:  
 IT IS IMPORTANT THAT THE GROUNDING CONDUCTOR CONNECTING THE INSIDE GROUND RODS TO THE MAIN TANKER GROUNDING BARS BE AT LEAST THREE FEET RADIUS PREFERRED, NO RIGHT ANGLE OR SHARP BENDS SHALL BE ALLOWED.

3.19 BONDING PREPARATION & FINISH:  
 ALL SURFACES REQUIRE PREPARATION PRIOR TO BONDING OF EITHER CAD WELD OR BURNDY FASTENERS. GALVANIZED SURFACES SHALL BE GROUND OR Sanded TO THE POINT OF REMOVING THE STEEL. OTHER SURFACES INCLUDING COPPER BUSS BARS ALL PAINT, RUST TARNISH AND GREASE SHALL BE REMOVED PRIOR TO BONDING THE GROUND CONDUCTOR. CAD WELD JUTE BENDS SHALL BE FINISHED WITH THE APPLICATION WITH AN APPROPRIATE COLOR AS REQUIRED. MECHANICAL TYPE BONDS ON BUSS BARS SHALL BE FINISHED WITH THE APPLICATION OF NOALOX OR OTHER APPROVED CONDUCTIVE MECHANICAL TYPE BONDS ON ALL OTHER SURFACES SHALL BE FINISHED WITH THE APPLICATION OF COLD GALVANIZATION AND OR APPROPRIATE PAINT TO MATCH AS REQUIRED.

3.20 TESTING:  
 THE EXTERIOR GROUND RING SHALL BE TESTED AFTER INSTALLATION BUT PRIOR TO BACKFILLING THE GROUND RING TRENCH. THE GROUND FIELD RESISTANCE SHALL MEASURE 5 OHMS OR LESS TO GROUND. ANY DIFFICULTY IN ACHIEVING THIS LEVEL OF RESISTANCE MUST BE REPORTED TO THE PROJECT MANAGER. TESTING SHALL BE PERFORMED USING THE FALL OF POTENTIAL METHOD. TESTING SHALL BE PERFORMED BY AT&T PROVIDED INDEPENDENT TESTING LABORATORY FROM WHICH A WRITTEN REPORT SHALL BE PRODUCED FOR REVIEW BY THE PROJECT MANAGER.

3.21 SPECIAL CONDITIONS:  
 WHEN SOIL CONDITIONS EXIST (I.E., NON-COMPACTABLE ROCK, GRAVEL, SAND, OR OTHER OBSTACLES) THAT PREVENT THE USE OF STANDARD GROUNDING SYSTEM AND PROCEDURES, THEN VERBAL PROCEDURES SHALL BE REQUESTED BY THE PM.

3.21.1 EXTERNAL GROUND RING  
 THE EXTERNAL GROUND RING SHALL EXTEND TO THE MAXIMUM ALLOWABLE DEPTH IN 8"X COMPACTABLE SOIL

3.21.2 GROUND RODS (REPLACEMENT)  
 WHEN GROUND RODS CANNOT BE DRIVEN INTO THE SOIL VERTICALLY TO A DEPTH DESCRIBED IN PARAGRAPH 3.15, AND REMAIN IN 8"X TOLERATION COMPACTABLE SOIL, THEN SPECIAL PROCEDURES SHALL BE USED. THESE ARE SUGGESTED METHODS ONLY, AND EACH CASE SHOULD BE REVIEWED BY THE AT&T PCS PROJECT MANAGER. THE PURPOSE IS TO ACHIEVE THE LOWEST IMPEDANCE TO GROUND, IN ANY CASE, EQUAL TO OR LESS THAN 5 OHMS.

3.21.2.1 ROCK WITH SOME OR NO SOIL COVER  
 FOR SITES WHICH HAVE SOIL CONDITIONS WHICH CONSIST OF SOLID OR SEMI SOLID ROCK BELOW ABOUT THREE FEET OF COMPACTABLE SOIL, A COMBINATION OF METHODS MAY BE USED:

A. A COMBINATION OF SHORT GROUND RODS MAY BE USED WITH 3" SQUARE 1/4" COPPER PLATES. A MINIMUM OF TWO PLATES SHOULD BE USED AND SHOULD REPLACE GROUND RODS ON AN EQUIVALENCY OF TWO GROUND ROD LENGTHS PER COPPER PLATE. THE PLATES SHOULD BE BURNDY CONNECTED TO THE MAIN TANKER GROUNDING BARS AND COVERED WITH 3" OF BENTONITE FILL PRIOR TO BACKFILL.

B. AN ACTIVE TYPE CHEMICAL ROD SYSTEM MAY BE USED ONLY WHERE NECESSARY, DUE TO EXPENSE. IN ALL CASES, THE STANDARD PRACTICES OUTLINED IN THIS DOCUMENT SHOULD BE MODIFIED AS TO THE QUANTITY OF GROUND RODS AND CONDUCTOR SIZE ONLY AS RECOMMENDED BY THE MANUFACTURER OF THE GROUND ROD SYSTEM.

C. A SYSTEM UTILIZING CORED SHAFTS, STANDARD GROUND RODS ON A TYPICAL LAYOUT, WITH A BENTONITE (CLAY) BACKFILL IN THIS CASE EACH GROUND ROD SHOULD BE TESTED INDIVIDUALLY AND THE SYSTEM SHOULD HAVE AN ACCESS BOX PLUGGED FOR FUTURE TESTING.

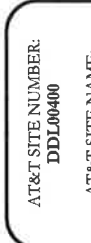
3.22 HIGH RISE BUILDING:  
 HIGH RISE BUILDINGS PRESENT A UNIQUE PROBLEM IN GROUNDING. A FACILITY INVESTIGATION SHOULD BE MADE INTO THE BUILDING TO DETERMINE THE TYPE OF GROUNDING SYSTEM. IF ONE IS IN PLACE AND APPEARS ADEQUATE IN DESIGN, IT WILL BE NECESSARY TO CONNECT THE ANTENNA SYSTEM TO THE EXISTING SYSTEM. IF A NEW SYSTEM IS TO BE INSTALLED TO ENSURE THAT IT HAS NOT CAUSED THE SYSTEM TO EXCEED 5 OHMS.

B. STRUCTURAL STEEL BUILDINGS: IF THE BUILDING IS BUILT OF STRUCTURAL STEEL IT MAY BE POSSIBLE TO GROUND THE ANTENNAS AND THE SITE TO A DIRECT EARTH CONNECTION, IN A SIMILAR FASHION AS IN THE STRUCTURAL STEEL EQUIPMENT ROOM. THE DOWN LEADS SHOULD BE PROTECTED IN CONDUIT AND SHOULD BE INSTALLED AS FAR APART AS IS PRACTICAL FROM EACH OTHER UNTIL CONNECTION WITH THE FIRST GROUND ROD.

C. STRUCTURAL CONCRETE BUILDINGS ARE MORE DIFFICULT TO GROUND PROPERLY. THE ANTENNAS SHOULD BE CONNECTED TO A SEPARATE BUSS BAR AND DOWN LEAD WHERE THE COAX CAN RUN IN A SIMILAR FASHION AS IN THE STRUCTURAL STEEL EQUIPMENT ROOM. THE DOWN LEADS SHOULD BE PROTECTED IN CONDUIT AND SHOULD BE INSTALLED AS FAR APART AS IS PRACTICAL FROM EACH OTHER UNTIL CONNECTION WITH THE FIRST GROUND ROD.



6000 LAS COLINAS BLVD.  
IRVING, TX 75039



4 COUNTRY PLACE CIRCLE  
DALWORTHINGTON GARDENS  
TEXAS 76016

AT&T SITE NUMBER:  
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AT&T SITE NAME:  
DDL00400

FA CODE:  
15662089


PAGE ID:  
MRNTX075161

1880 NEWPARK WAY  
PROSPER, TX 75078

EXISTING WATER TOWER

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	CHK'D
1	06/27/93	RSB	PRELIMINARY	JC
2	08/11/93	RSB	PRELIMINARY	JC
3	12/01/93	RSB	FINAL	JC



LEWIS & CLARK  
121430  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF TEXAS  
12/27/93

BROADUS SERVICES  
4 COUNTRY PLACE CIRCLE  
DALWORTHINGTON GARDENS, TX 76016  
UNLESS OTHERWISE SPECIFIED, THE DESIGNATION OF A LICENSED PROFESSIONAL ENGINEER.

REVISION:  
N-4 FCD0









6000 LAS COLINAS BLVD.  
IRVING, TX 75039



**BROADUS SERVICES**  
4 COUNTRY PLAZA CIRCLE  
DALLAS, TEXAS 75016

AT&T SITE NUMBER:  
DDL04000

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FA CODE:  
15682089

PAGE ID:  
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1880 NEWPARK WAY  
PROSPER, TX 75078

EXISTING WATER TOWER

ISSUED FOR:

REV	DATE	DESCRIPTION	PREPARED BY
1	06/21/2017	ISSUE FOR PERMITS	JK
2	07/20/2017	REVISIONS	JK
3	08/01/2017	REVISIONS	JK
4	08/01/2017	REVISIONS	JK
5	08/01/2017	REVISIONS	JK



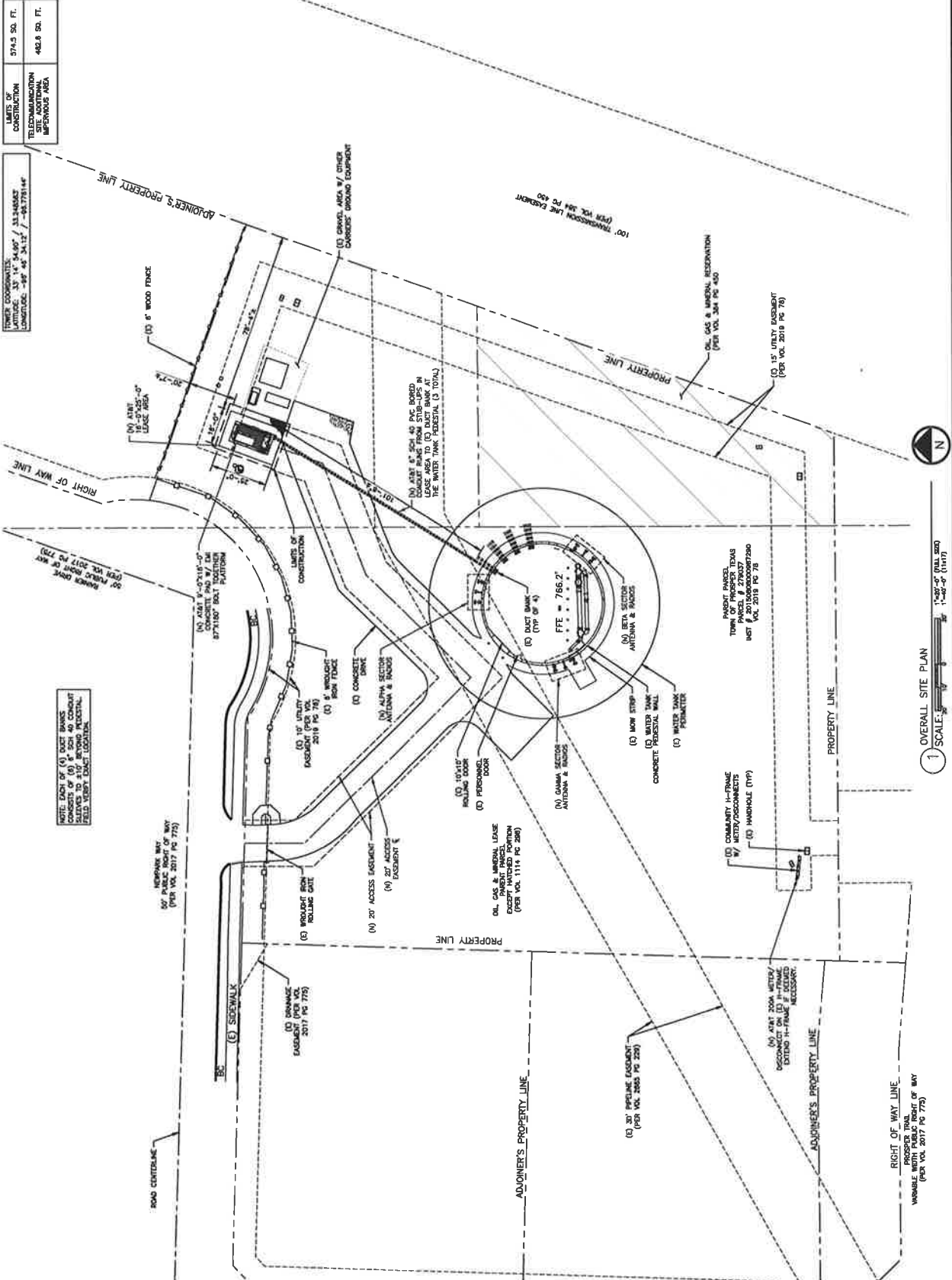
BROADUS SERVICES  
4 COUNTRY PLAZA CIRCLE  
DALLAS, TEXAS 75016  
UNLESS NOTED OTHERWISE, ALL DIMENSIONS  
ARE IN FEET AND INCHES.

SHEET NUMBER:  
**C-1**

REVISION:  
**FCD0**

LIMITS OF CONSTRUCTION	574.5 SQ. FT.
TELECOMMUNICATION SUPERVENOR AREA	482.8 SQ. FT.

TOWER COORDINATES:  
NAD 83: 1497° 33.5636E  
LONGITUDE: 97° 45' 34.12" W  
Easting: 482,781.14'



NOTE: EACH OF (4) DUCT BANKS  
CONSISTS OF (3) 6" SCH 40 CONDUIT  
FIELD W/ 30' 0" SPACING  
FIELD W/ 30' 0" SPACING

NEWPARK WAY  
50' PUBLIC RIGHT OF WAY  
(PER VOL. 2017 PG. 775)

(E) SIDEWALK  
EGRESS: (E) 30' 0" W/ 30' 0" SPACING  
(PER VOL. 2017 PG. 775)

(E) PROTECTIVE EASEMENT  
(PER VOL. 2017 PG. 775)

(E) 20' ACCESS EASEMENT  
(PER VOL. 2017 PG. 775)

(E) 10' UTILITY EASEMENT  
(PER VOL. 2017 PG. 775)

(E) 10' W/ 30' 0" SPACING  
(PER VOL. 2017 PG. 775)

(E) 10' W/ 30' 0" SPACING  
(PER VOL. 2017 PG. 775)

(E) 10' W/ 30' 0" SPACING  
(PER VOL. 2017 PG. 775)

(E) 10' W/ 30' 0" SPACING  
(PER VOL. 2017 PG. 775)

(E) 10' W/ 30' 0" SPACING  
(PER VOL. 2017 PG. 775)

(E) 10' W/ 30' 0" SPACING  
(PER VOL. 2017 PG. 775)

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(PER VOL. 2017 PG. 775)

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(PER VOL. 2017 PG. 775)

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(PER VOL. 2017 PG. 775)

(E) 10' W/ 30' 0" SPACING  
(PER VOL. 2017 PG. 775)

(E) 10' W/ 30' 0" SPACING  
(PER VOL. 2017 PG. 775)



1 OVERALL SITE PLAN  
SCALE: 1" = 50' (PLAT. 200)  
1" = 50' (PLAT. 200)

RIGHT OF WAY LINE  
VARIABLE WIDTH PUBLIC RIGHT OF WAY  
(PER VOL. 2017 PG. 775)

ADJACINER'S PROPERTY LINE

PROPERTY LINE

PROPERTY LINE

PROPERTY LINE

PROPERTY LINE

PROPERTY LINE

PROPERTY LINE

PROPERTY LINE

PROPERTY LINE

PROPERTY LINE

PROPERTY LINE

PROPERTY LINE







6000 LAS COLINAS BLVD.  
IRVING, TX 75039



**B BROADUS SERVICES**  
4 COUNTRY PLACE CIRCLE  
DALLAS WASHINGTON GARDENS  
TEXAS 75016

AT&T SITE NUMBER:  
DDL00400

AT&T SITE NAME:  
DDL00400

FA CODE:  
15682089

PAGE ID:  
MRNTX075161

1880 NEWPARK WAY  
PROSPER, TX 75078

EXISTING WATER TOWER

ISSUED FOR:

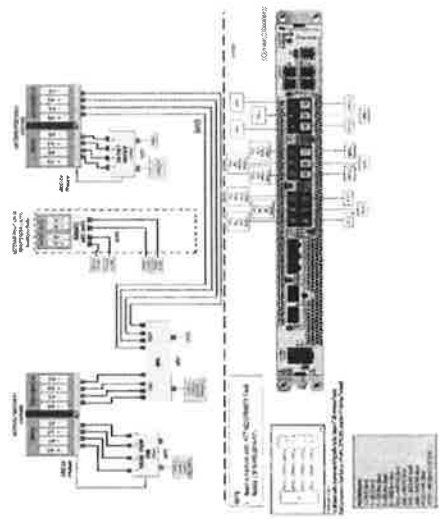
REV.	DATE	ISSUED	DESCRIPTION	ISSUED BY
1	08/20/2011	WBS	PRELIMINARY	JK
2	09/15/2011	WBS	PULLING PERMIT	JK
3	09/20/2011	WBS	FINAL	JK



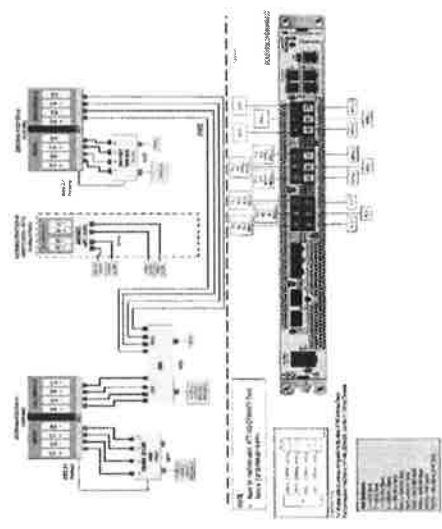
WBS HAS BEEN DESIGNATED AS AN ENGINEER UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.  
THIS DOCUMENT IS NOT VALID FOR ANY OTHER PROJECTS.  
UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

SHEET NUMBER:  
**C-4**  
REVISION:  
**FCD0**

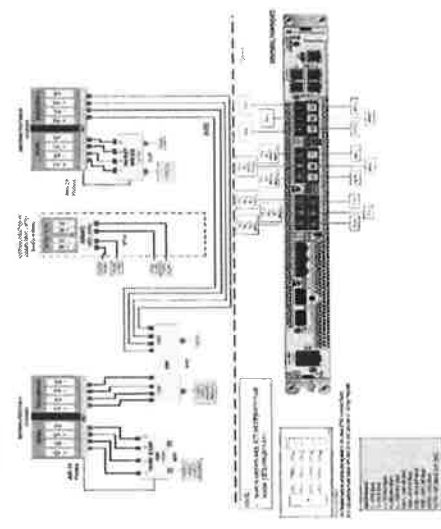
Plumbing Diagram  
Sector B



Plumbing Diagram  
Sector A



Plumbing Diagram  
Sector C



1 REDS PLUMBING DIAGRAMS  
SCALE: NOT TO SCALE

# NNH-65B-R4



5. This legacy antenna is 4680-850 and is 4595-2810 MHz (45-149.95V 44.9875)

- See the antenna specifications available in the 4743 Handbook for 2013 for more information.
- The antenna is designed to be used in a 19" rack with the appropriate mounting hardware.
- The antenna is designed to be used in a 19" rack with the appropriate mounting hardware.

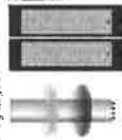
## General Specifications

- Antenna Type: ...
- Band: ...
- Gain: ...
- Frequency Type: ...
- Performance Meter: ...
- Mounting Material: ...
- Material Material: ...
- RF Connector Interface: ...
- RF Connector Location: ...
- RF Connector Quantity, Low Band: ...
- RF Connector Quantity, High Band: ...

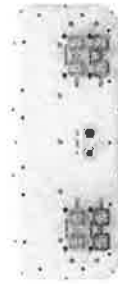
## Remote Electrical Test (RET) Information

- RET Interface: ...
- RET Services, Quality: ...
- Input Voltage: ...
- Input Power: ...
- Power Consumption, Idle State, Maximum: ...
- Power Consumption, Full Power, Maximum: ...
- Dimensions: ...
- Weight: ...
- Depth: ...
- Lead Length, Maximum: ...

## Array Layout



## Port Configuration



## Electrical Specifications

1 NNH-65B-R4 ANTENNA  
SCALE: NOT TO SCALE

# AIR 6472 B77G B77M Product Specification

- Frequency: ...
- Power: ...
- Dimensions: ...
- Weight: ...
- Operating Temperature: ...
- Power Supply: ...
- Mounting: ...

## AIR 6472, Physical Dimension and Weight

Physical Dimension	without mounting flange	with mounting flange
AIR 6472	95.20 x 48.76 x 1.80	95.20 x 48.76 x 2.80
AIR 6474	108.34 x 48.76 x 1.80	108.34 x 48.76 x 2.80

- Site Burden: Same as the one for 6415
- Site Space: Same as the one for 6415

PRN Target: Apr 2024  
Lab Entry: Mar 2024



6000 LAS COLINAS BLVD.  
IRVING, TX 75039

4 COUNTRY PLACE CIRCLE  
DALLWORTHINGTON GARDENS  
TEXAS 75016

AT&T SITE NUMBER:  
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FA CODE:  
15682089

PAGE ID:  
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1880 NEWPARK WAY  
PROSPER, TX 75078

EXISTING WATER TOWER

REV	DATE	ISSUES	DESCRIPTION	INITIALS
1	06/21/2017	WBS	PRELIMINARY	JK
2	07/17/2017	WBS	PRELIMINARY	JK
3	10/02/2017	WBS	FINAL	JK

FRANK R. BRINKLEY  
121430  
12/31/2024

FRANK R. BRINKLEY  
121430  
12/31/2024

FRANK R. BRINKLEY  
121430  
12/31/2024

3 NOT USED  
SCALE: NOT TO SCALE

2 AIR6472 B77G B77M ANTENNA  
SCALE: NOT TO SCALE





# Vertiv™ NetSure™ X701 Walk Up Cabinet (WUC)

## Description

The Vertiv™ NetSure™ X701 provides room for power, batteries, and other sensitive equipment in a single convenient outdoor enclosure. Its aluminum construction provides protection from both vandalism and harsh environmental conditions while still standing up to high winds and seismic events. With up to 15kW of heat dissipation available, the NetSure™ X701 outdoor enclosure is designed to handle ever-increasing heat load requirements at your base station and network edge sites.

- UL 2416 Certified
- Factory-integrated Vertiv™ NetSure™ 512 DC power system supports -48V and -58V DC load requirements
- Battery trays for (3) strings of VRLA batteries up to 210Ah each
- Up to 74RU of available equipment space
- Convenient cable entry and management throughout the enclosure



## Technical Specifications

Enclosure	
Dimensions (H x W x D)	86" x 68" x 54"
Weight	1900 lbs.
Equipment Space	43 RU available
Color	Cool White
Cabinet Access	Front door and rear panels
Security	All handles can accommodate padlock
Dimensions (H x W x D)	74" x 40" x 54"
Weight	1650 lbs.
Equipment Space	76 RU available
Color	Cool White
Cabinet Access	Front door and rear panels
Security	All handles can accommodate padlock
<b>Mounting</b>	
Mounting Options	Flat, Platform
Racks	Adjustable 8" to 23" racks in each equipment chamber
<b>Electrical</b>	
Input/Output Voltage	208/240VAC single-phase input; -48VDC primary/-58VDC secondary output
Maximum Input Current	N/A (Generally used w/ customer-provided service entrance transfer switch, generally 200A)
<b>Environmental</b>	
Operating Temperature	-40°C to 46°C
Relative Humidity	0% to 95% non-condensing
<b>Thermal Solutions</b>	
Heat Exchanger	6000 watts in each equipment chamber, 2800 watts in power chamber
<b>Equipment Chamber</b>	
DC Power	Factory-integrated NetSure 512 system
AC Outlet	GFI
Grounding	Ground bar in each chamber
<b>Standards Compliance</b>	
Safety	UL 2416
Environment	Designed for Telcordia GR-487

1 AT&T EQUIPMENT SPECIFICATIONS  
SCALE: NOT TO SCALE



6000 LAS COLINAS BLVD.  
IRVING, TX 75039



**BROADIUS SERVICES**  
4 COUNTRY PLACE CIRCLE  
DALWORTHINGTON GARDENS  
TEXAS 76016

AT&T SITE NUMBER:  
DDL00400

AT&T SITE NAME:  
DDL00400

FA CODE:  
15682089

PAGE ID:  
MRNTX075161

1880 NEWPARK WAY  
PROSPER, TX 75078

EXISTING WATER TOWER

ISSUED FOR:		DATE	DESCRIPTION	PREP. BY
REV	DATE	BY	DESCRIPTION	DATE
1	10/15/2011	WFB	PRELIMINARY	JK
2	11/15/2011	WFB	PRELIMINARY	JK
3	12/02/2011	WFB	FINAL	JK



BROADIUS SERVICES  
1880 NEWPARK WAY  
4 COUNTRY PLACE CIRCLE  
DALWORTHINGTON GARDENS, TX 76016  
I AM AN ACTIVE MEMBER OF THE NATIONAL  
ASSOCIATION OF PROFESSIONAL ENGINEERS  
STATE OF TEXAS

SHEET NUMBER  
C-8  
PROJECT NUMBER  
FCD00



6000 LAS COLINAS BLVD.  
IRVING, TX 75039



**B BROADUS SERVICES**  
4 COUNTRY PLACE CIRCLE  
DALWORTHINGTON GARDENS  
TEXAS 75018

**AT&T SITE NUMBER:**  
DDL00400

**AT&T SITE NAME:**  
DDL00400

**FA CODE:**  
15682089

**PAGE ID:**  
MRNX075161

**1880 NEWPARK WAY  
PROSPER, TX 75078**

**EXISTING WATER TOWER**

**ISSUED FOR:**

NO.	DATE	ISSUED	DESCRIPTION	PREPARED BY
1	12/14/2001	WTD	PROJ. START	JK
2	12/14/2001	WTD	FINAL	JK



**PROFESSIONAL ENGINEER**  
ALEXANDER ASERNATTY  
No. 121430  
State of Texas  
12/22/01  
FROM 1-3318

**REVISION:**  
C-9 FCD0

**reihiko** Industrial Generator Set - 400 kVA - 480V - 3-Phase 4-Wire

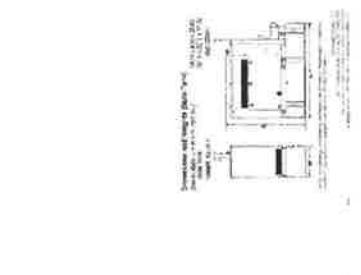
- Standard Features:**
- Prime power generator set for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle

**Application Data**

Item	Description	Value
1	Generator Set	400 kVA
2	Generator Set	400 kVA
3	Generator Set	400 kVA
4	Generator Set	400 kVA
5	Generator Set	400 kVA
6	Generator Set	400 kVA
7	Generator Set	400 kVA
8	Generator Set	400 kVA
9	Generator Set	400 kVA
10	Generator Set	400 kVA

**reihiko** Industrial Generator Set - 400 kVA - 480V - 3-Phase 4-Wire

- Standard Features:**
- Prime power generator set for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle



**reihiko** Industrial Generator Set - 400 kVA - 480V - 3-Phase 4-Wire

- Standard Features:**
- Prime power generator set for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle
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  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle

**Application Data**

Item	Description	Value
1	Generator Set	400 kVA
2	Generator Set	400 kVA
3	Generator Set	400 kVA
4	Generator Set	400 kVA
5	Generator Set	400 kVA
6	Generator Set	400 kVA
7	Generator Set	400 kVA
8	Generator Set	400 kVA
9	Generator Set	400 kVA
10	Generator Set	400 kVA

**reihiko** Industrial Generator Set - 400 kVA - 480V - 3-Phase 4-Wire

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- Prime power generator set for 100% duty cycle
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  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle
  - 100% load capacity for 100% duty cycle



1 REHIKO GENERATOR SPECIFICATIONS  
SCALE: NOT TO SCALE



6000 LAS COLINAS BLVD.  
IRVING, TX 75039



**BROADUS SERVICES**  
4 COUNTRY PLACE CIRCLE  
DALWORTHINGTON GARDENS  
TEXAS 76016

AT&T SITE NUMBER:  
DDL00400

AT&T SITE NAME:  
DDL00400

FA CODE:  
15682089

PACE ID:  
MRNTX075161

1880 NEWPARK WAY  
PROSPER, TX 75078

EXISTING WATER TOWER

ISSUED FOR:

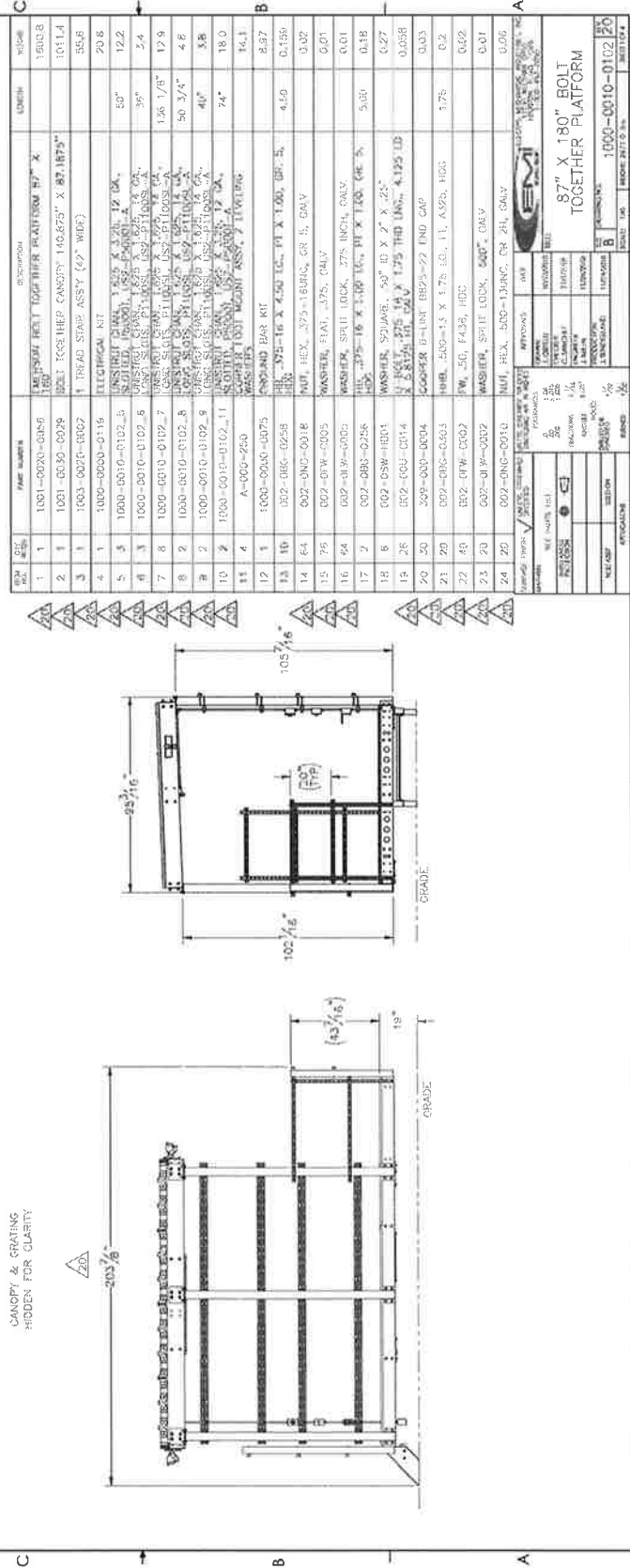
REV	DATE	BY	DESCRIPTION
1	06/27/2017	JK	PRELIMINARY
2	07/15/2017	JK	PRELIMINARY
3	12/03/2017	JK	FINAL



BROADUS SERVICES  
4 COUNTRY PLACE CIRCLE  
DALWORTHINGTON GARDENS, TX 76016  
UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE IN FEET AND INCHES.  
ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.

REVISION:  
C-10 FCD00

REV.	DATE	BY	DESCRIPTION
1	11-09-17	JK	ISSUED FOR CONSTRUCTION



ITEM NO.	QTY	UNIT	DESCRIPTION	REMARKS	PRICE
1	1	EA	1001-0020-0106	1001-0020-0106	1001-0020-0106
2	1	EA	1001-0030-0028	1001-0030-0028	1001-0030-0028
3	1	EA	1003-0020-0022	1003-0020-0022	1003-0020-0022
4	1	EA	1000-0000-0116	1000-0000-0116	1000-0000-0116
5	3	EA	1000-0010-0102.5	1000-0010-0102.5	1000-0010-0102.5
6	3	EA	1000-0010-0102.5	1000-0010-0102.5	1000-0010-0102.5
7	8	EA	1000-0010-0102.7	1000-0010-0102.7	1000-0010-0102.7
8	2	EA	1000-0010-0102.8	1000-0010-0102.8	1000-0010-0102.8
9	2	EA	1000-0010-0102.9	1000-0010-0102.9	1000-0010-0102.9
10	2	EA	1000-0010-0102.11	1000-0010-0102.11	1000-0010-0102.11
11	4	EA	A-000-250	A-000-250	A-000-250
12	1	EA	1000-0040-0075	1000-0040-0075	1000-0040-0075
13	10	EA	002-006-0258	002-006-0258	002-006-0258
14	64	EA	002-002-0018	002-002-0018	002-002-0018
15	75	EA	002-010-0005	002-010-0005	002-010-0005
16	64	EA	002-010-0005	002-010-0005	002-010-0005
17	2	EA	002-005-0258	002-005-0258	002-005-0258
18	6	EA	002-005-0258	002-005-0258	002-005-0258
19	26	EA	002-004-0014	002-004-0014	002-004-0014
20	50	EA	002-002-0034	002-002-0034	002-002-0034
21	20	EA	002-006-0563	002-006-0563	002-006-0563
22	40	EA	002-010-0002	002-010-0002	002-010-0002
23	20	EA	002-010-0002	002-010-0002	002-010-0002
24	20	EA	002-010-0010	002-010-0010	002-010-0010

1 PLATFORM SPECIFICATIONS  
SCALE: NOT TO SCALE



6000 LAS COLINAS BLVD,  
IRVING, TX 75039



**BROADUS SERVICES**  
4303 W. WOODVILLE  
DALLAS WORTHINGTON GARDENS  
TEXAS 75046

AT&T SITE NUMBER:  
DDL00400

AT&T SITE NAME:  
DDL00400

FA CODE:  
15682089

PACE ID:  
MRNTX075161

1880 NEWPARK WAY  
PROSPER, TX 75078  
EXISTING WATER TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	CHK'D BY
1	06/21/2005	WHS	PRELIMINARY	JK
2	11/15/2005	WHS	PRELIMINARY	JK
3	12/02/2005	WHS	FINAL	JK



BROADUS SERVICES  
1880 NEWPARK WAY  
DALLAS WORTHINGTON GARDENS, TX 75046  
I AM A LICENSED PROFESSIONAL ENGINEER  
IN THE STATE OF TEXAS UNDER THE JURISDICTION  
OF A LICENSED PROFESSIONAL ENGINEER.

SHEET NUMBER  
**C-11**  
PROJECT NUMBER  
**FCD00**

**NOTICE**

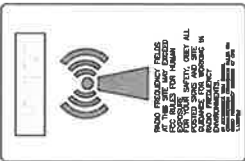
NO TRESPASSING!  
AUTHORIZED  
ENTRY ONLY

DO NOT CLIMB  
TOWER WITHOUT  
OWNERS WRITTEN  
AUTHORIZATION

WARNING  
ANTENNAS  
MAY BE  
ACTIVE

4"X18" 0.040 ALUMINUM

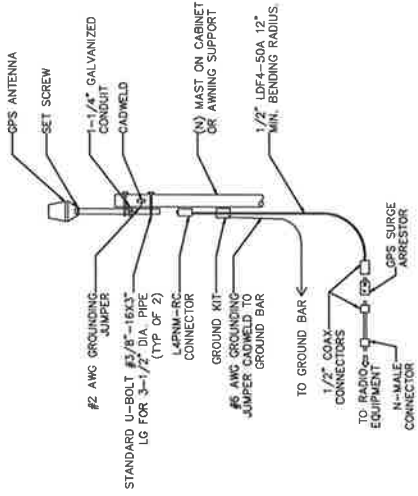
NOTE:  
GENERAL CONTRACTOR TO INSTALL SIGNS  
BEFORE OR WITH PROJECT MANAGER  
FULL PROVIDE SIGNS.



FCC #:  
4"X18" 0.040 ALUMINUM

RF SIGNAGE NOTES  
2 SCALE: NOT TO SCALE

1 NOT USED  
SCALE: NOT TO SCALE



4 OPS ANENNA  
SCALE: NOT TO SCALE

3 NOT USED  
SCALE: NOT TO SCALE



6000 LAS COLINAS BLVD.  
IRVING, TX 75039



**BROADUS SERVICES**  
4 COUNTRY PLACE CIRCLE  
DALWORTHINGTON GARDENS  
TEXAS 76016

AT&T SITE NUMBER:  
DDL00400

AT&T SITE NAME:  
DDL00400

FA CODE:  
15682089

PAGE ID:  
MRNTX075161

1880 NEWPARK WAY  
PROSPER, TX 75078  
EXISTING WATER TOWER

ISSUED FOR:

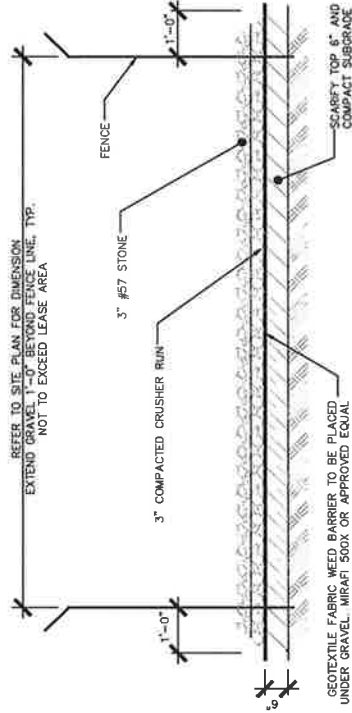
REV	DATE	DESCRIPTION	DESIGN
1	06/27/2023	WBS	PRELIMINARY
2	07/10/2023	WBS	PRELIMINARY
3	12/02/2023	WBS	FINAL



BROADUS SERVICES  
4 COUNTRY PLACE CIRCLE  
DALWORTHINGTON GARDENS, TX 76016  
UNLESS THEY ARE ACTIONS UNDER THE DIRECTION  
OF A LICENSED PROFESSIONAL ENGINEER,  
THIS IS NOT A PROFESSIONAL SEAL.

SHEET NUMBER

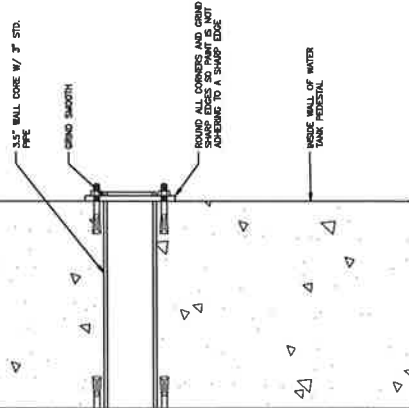
C-12 FCD0



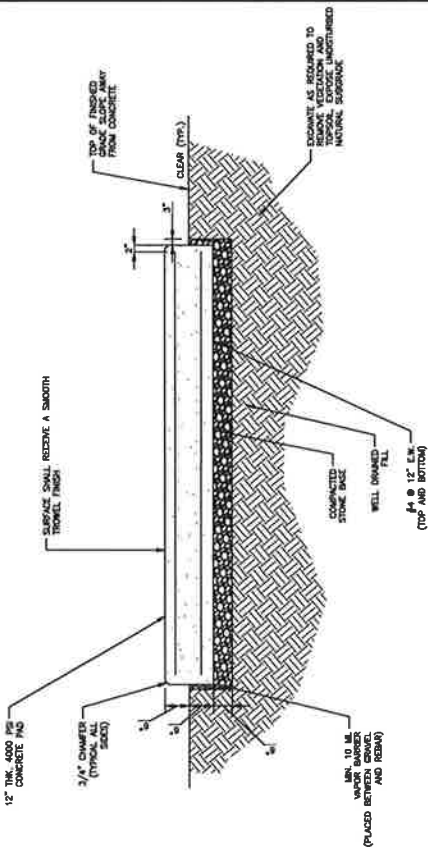
NOTE:  
CLEAR AND GRUB SITE AS  
REQUIRED

1 YARD GRAVEL DETAIL  
SCALE: NOT TO SCALE

NOTE:  
CONTRACTOR TO PERFORM INSIDE  
TANK CONCRETE WALL PRIOR TO THE  
INSTALLATION OF THE WATER TOWER  
STRUCTURE. VERIFY LOCATION AND  
STRUCTURAL INTEGRITY OF THE TOWER.



3 WATER TANK PEDESTAL PENETRATION DETAILS  
SCALE: NOT TO SCALE



1 CONCRETE PAD DETAIL  
SCALE: NOT TO SCALE







6000 LAS COLINAS BLVD.  
IRVING, TX 75039



**BROADUS SERVICES**  
4 COUNTRY PLACE CIRCLE  
DALLAS-WASHINGTON GARDENS  
TEXAS 75016

AT&T SITE NUMBER:  
DDL00400

AT&T SITE NAME:  
DDL00400

FA CODE:  
15682089

PAGE ID:  
MRNTX075161

1880 NEWPARK WAY  
PROSPER, TX 75078

EXISTING WATER TOWER

ISSUED FOR:

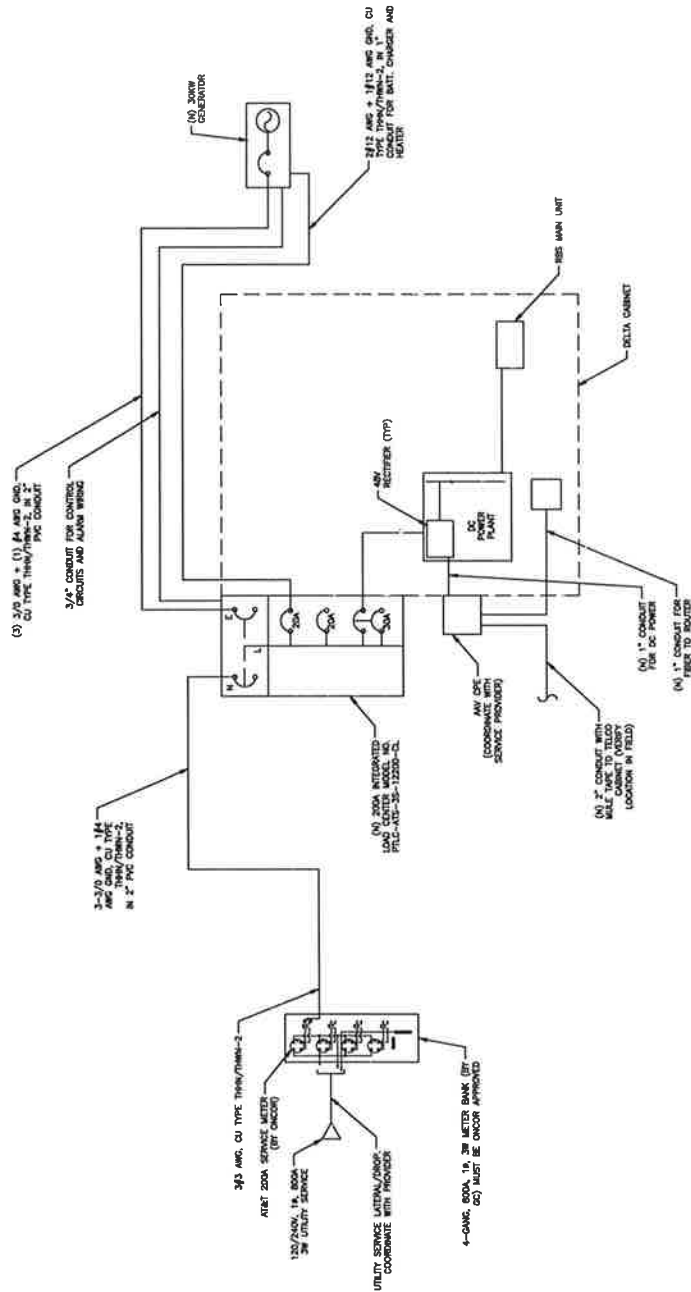
DATE	BY	DESCRIPTION	POSITION
02/14/2004	WBS	PRELIMINARY	JC
03/01/2004	WBS	PRELIMINARY	JC
03/01/2004	WBS	FINAL	JC



BROADUS SERVICES  
4 COUNTRY PLACE CIRCLE  
DALLAS-WASHINGTON GARDENS, TX 75016  
UNLESS SPECIALLY NOTED OTHERWISE,  
ALL DIMENSIONS ARE IN INCHES.

SHEET NUMBER: E-2

REVISION: FCD0



1 ELECTRICAL RISER DIAGRAM  
SCALE: NOT TO SCALE



6000 LAS COLINAS BLVD,  
IRVING, TX 75039



**BROADUS SERVICES**  
4 COUNTRY PLACE CIRCLE  
DALWORTHINGTON GARDENS  
TEXAS 75016

AT&T SITE NUMBER:  
**DDL00400**

AT&T SITE NAME:  
**DDL00400**

FA CODE:  
**15682089**

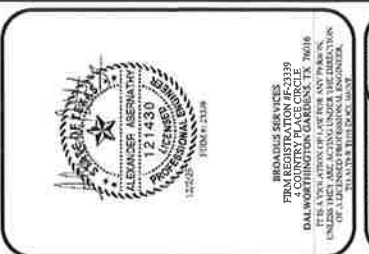
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**MRNTX075161**

1880 NEWPARK WAY  
PROSPER, TX 75078

EXISTING WATER TOWER

ISSUED FOR:

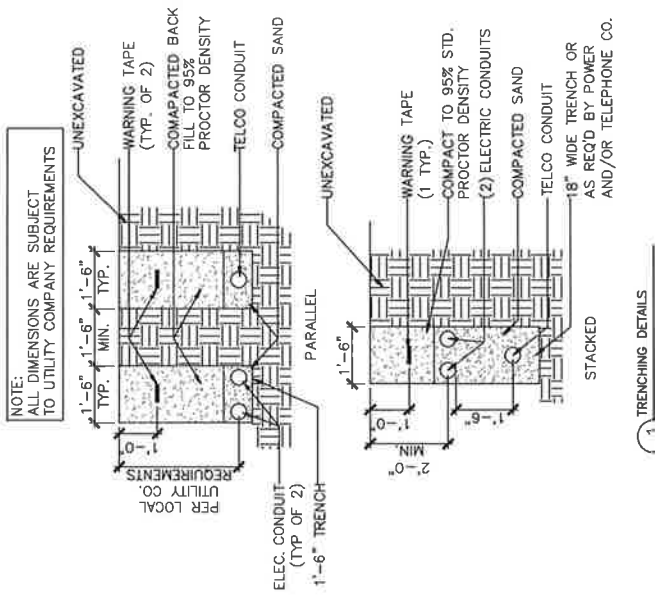
DATE	BY	DESCRIPTION	DATE
10/1/2005	WHS	PRELIMINARY	JK
10/1/2005	WHS	PRELIMINARY	JK
12/1/2005	WHS	FINAL	JK



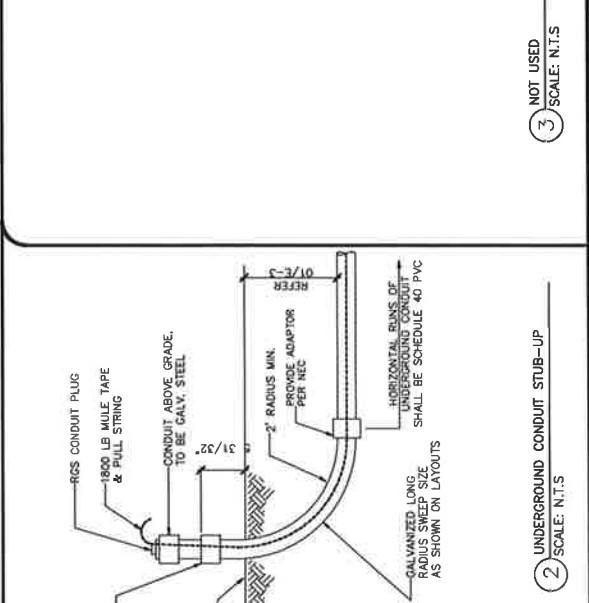
BROADUS SERVICES  
4 COUNTRY PLACE CIRCLE  
DALWORTHINGTON GARDENS, TX 75016  
ALEXANDER ABERNATHY  
REGISTERED PROFESSIONAL ENGINEER  
LICENSE NO. 121430

SHEET NUMBER: **E-3**

KEYMARK: **FCDO**



1 TRENCHING DETAILS  
SCALE: N.T.S.



2 UNDERGROUND CONDUIT STUB-UP  
SCALE: N.T.S.

3 NOT USED  
SCALE: N.T.S.

4 NOT USED  
SCALE: N.T.S.





