

**JEFFERSON COUNTY PUBLIC SCHOOL SYSTEM**  
**COMMUNICATIONS FACILITY SPACE LICENSE AGREEMENT**

THIS COMMUNICATIONS FACILITY SPACE LICENSE AGREEMENT (this "Agreement") is entered into as of as of the latter of the signature dates below (the "Effective Date") between the Board of Education of Jefferson County, Kentucky, operating under the name Jefferson County Public Schools ("JCPS") and New Cingular Wireless PCS, LLC, a Delaware limited liability company ("Licensee").

**RECITALS**

JCPS and BellSouth Mobility ("BellSouth") entered into that certain Agreement for Use of Tower Space dated November 5, 2004, as amended (the "Prior Agreement"), pursuant to which JCPS licensed to BellSouth the right to use certain facility space for the placement of the Communications Facility (as defined below) on the Structure (as defined below), together with all rights and privileges arising in connection therewith, located at the Site (as defined below). Licensee is successor in interest to BellSouth and has been operating at the Site pursuant to the terms of the Prior Agreement. The Prior Agreement has since expired and the parties are continuing to operate under the Prior Agreement in a hold-over arrangement. The parties wish to terminate the Prior Agreement and execute this Agreement to permit Licensee to continue to use a portion of the Site in connection with its federally licensed communications business. Licensee desires to continue, and JCPS desires to grant to Licensee the right to continue, to use a portion of the Site in accordance with this Agreement.

JCPS issued Proposal No. M-965-5656 to establish the terms and conditions for the grant by JCPS to one or more persons or entities of one or more licenses for the use of space on towers or other structures owned or controlled by JCPS for the placement of wireless communications equipment of such persons or entities in or on such towers or structures (the "Proposal").

The Proposal included certain prohibitions, requirements and technical specifications (collectively, the "Specifications") to be applicable to any license granted by JCPS in response to the Proposal. A copy of the Specifications is attached hereto as Exhibit C and made part hereof. In the event of a conflict between the terms of this Agreement and the terms of the Specifications, this Agreement shall govern and control.

Licensee desires to accept the Proposal and to use the space at the site (the "Site") described on the Site Designation Form attached as Exhibit A to this Agreement and made part hereof. Exhibit A also describes the JCPS structure (the "Structure") on the Site; the unmanned radio communications equipment and related telecommunications activities of Licensee (the "Communications Facility") for which a portion of the Site will be used by Licensee; the initial payment to be paid by Licensee (the "Initial Payment") at the commencement of the term of this Agreement and the commencement of a renewal term; and the annual license payment by Licensee (the "Annual Fee"). The space on the Structure and certain ground space on the Site to be used by Licensee shall be collectively referred to herein as the "Premises."

## **AGREEMENT**

1. **SPECIFICATIONS.** The Specifications are incorporated into this Agreement, and shall apply to Licensee as if stated in full herein. To the extent any provision of this Agreement (including exhibits) conflicts with the Specifications, the provision of this Agreement shall control.

2. **REGULATORY COMPLIANCE.** During the term of this Agreement, Licensee will comply with all federal, state and local laws, orders, ordinances and regulations ("Laws") applicable to Licensee's access to and use of the Premises. During the term of this Agreement, JCPS agrees to comply with all Laws applicable to JCPS's ownership, and/or rights of use of the Site, the Structure and any improvements on the Site.

3. **NON-INTERFERENCE.** The Communications Facility will not interfere with the educational operations of JCPS or with any lawfully installed communications equipment of JCPS or any other person or entity located at the Site on the date of BellSouth's original installation, as long as the existing radio frequency user(s) operate and continue to operate in accordance with all applicable laws and regulations. JCPS will not permit the installation on the Site after such installation date of any equipment that: (a) causes technical interference problems with the Communications Facility (as long as Licensee operates and continues to operate in accordance with all applicable laws and regulations) or (b) prevents Licensee from exercising the rights of access to the Site granted to Licensee under Sections 10 and 14 of this Agreement. JCPS will use commercially reasonable efforts to cause such interference to cease within forty-eight (48) hours after receipt of notice of interference from Licensee, and if such interference does not cease within such forty-eight (48) hour period, continue to diligently pursue the ceasing of such interference until such interference has been corrected.

4. **COOPERATION.** JCPS agrees that Licensee's ability to use the Premises is contingent upon the suitability of the Premises for Licensee's permitted use and Licensee's ability to obtain and maintain all governmental licenses, permits, approvals or other relief required of or deemed necessary or appropriate by Licensee (and approved by JCPS if such Government Approval will impact the Site) for its use of the Premises, including without limitation applications for special use permits, and construction permits (collectively, the "Government Approvals"). JCPS will use commercially reasonable efforts to cooperate with Licensee, at Licensee's expense, to assist Licensee to obtain any Government Approvals that are required for Licensee to use the Premises.

5. **TERM.** The initial term of this Agreement is five (5) years commencing on the Effective Date. The term will renew automatically for one (1) additional five (5) year renewal term, unless JCPS or Licensee provides written notice of nonrenewal to the other party at least one hundred eighty (180) days before the end of the initial term. This Agreement may be renewed for one or more additional terms after the end of such renewal term, upon written agreement of the parties.

6. **TERMINATION BY JCPS.** In addition to any other applicable rights or remedies hereunder or otherwise available, JCPS may terminate this Agreement on ten (10) days

prior written notice of termination without further liability if JCPS determines that the Communications Facility unreasonably interferes with any equipment of JCPS or any equipment of any other licensee that was located on the Site on the date of BellSouth's original installation, as long as such equipment operates and continues to operate in accordance with all applicable laws and regulations, and Licensee has failed to resolve such interference to the reasonable satisfaction of JCPS in a reasonable time (which in no event will be more than thirty (30) days) following receipt of written notice of interference. Should JCPS determine the need to remove the Structure due to renovations or expansion of a school or other JCPS-owned building on the Site, this Agreement shall be cancelled one hundred eighty (180) days after notice from JCPS to Licensee, and the prorated Annual Fee for the remainder of the year of the term in which this Agreement is cancelled pursuant to this sentence will be returned by JCPS to Licensee. However, if JCPS determines that there is an option to relocate the Structure to a different location on the Site acceptable to JCPS (the "Relocation Premises"), Licensee may at its option relocate the Structure and all communications equipment in or on the Structure, whether owned by Licensee or JCPS or any other licensee, to the Relocation Premises, in a manner and at such times approved by JCPS and such other licensees (if any). Any equipment owned by Licensee or JCPS shall be transferred to the Relocation Premises at Licensee's sole expense. If the location of the Relocation Premises is agreed upon, this Agreement shall not be cancelled (as set forth above), and shall be amended to reflect that the Premises is replaced by the Relocation Premises. During the relocation of the Structure and Communications Facility to the Relocation Premises, JCPS agrees to permit Licensee to place temporary transmission and reception facilities on the Site at a location and in a manner approved by JCPS, until such time as Licensee is able to activate its equipment at the Relocation Premises. The parties agree that such relocation will not unreasonably result in unreasonable interruption of the communications service of Licensee on the Site, and such relocation will not unreasonably impair the quality of communications service provided by Licensee on and from the Site.

7. **TERMINATION BY LICENSEE.** In addition to any other applicable rights or remedies hereunder or otherwise available, Licensee may terminate this Agreement on sixty (60) days prior written notice without further liability if (1) Licensee cannot obtain or loses through no fault of Licensee any Government Approval required for Licensee's use of the Premises, (2) it is determined by a court of competent jurisdiction that JCPS does not own or control the Site, (3) any portion of the Premises or the Communications Facility is damaged or destroyed through no fault of Licensee, or is condemned or transferred in lieu of condemnation; or (4) Licensee's ability to use the Premises or the Communications Facility for its intended purpose is materially degraded because of technological reasons through no fault of Licensee.

8. **PAYMENT OF INITIAL PAYMENT AND ANNUAL FEE.** The Initial Payment is due on the Effective Date, or the first day of the month following the Effective Date if the Effective Date does not fall on the first day of a month (the "Fee Commencement Date"), and again on the first day of the renewal term. The Annual Fee is due within fifteen (15) days of the Fee Commencement Date and on each anniversary of the Fee Commencement Date. The Annual Fee will be prorated for any fractional year. The Annual Fee is payable to JCPS at the address in Section 32.

9. **INTEREST; LATE ANNUAL FEE.** If the Initial Payment or any Annual Fee is not paid within thirty (30) business days of when due, JCPS shall provide notice to



Licensee of such failure, and Licensee shall pay to JCPS a late fee of One Hundred Fifty and No/100 Dollars (\$150.00), plus interest, after the due date until paid at the current prime interest rate of PNC Bank. JCPS shall invoice Licensee for any such charges incurred.

**10. APPROVED COMMUNICATIONS FACILITY.** Licensee may use the Premises for the purpose of installing, removing, replacing, modifying, maintaining and operating, at its expense, the Communications Facility, including, without limitation, antennas and microwave dishes, air conditioned equipment shelters and/or base station equipment, cable, wiring, power sources, related equipment and structures and, if applicable to the Premises, an antenna support structure only for the Communications Facility specified on Exhibit A. If necessary, Licensee's equipment and facilities may be mounted on the ground near the Structure. In such case, Licensee shall provide detailed plans for the necessary equipment and ground space, including any necessary utility easements. The plans for the use of such ground space shall be attached and incorporated herein as Exhibit B and shall be subject to approval by JCPS, which shall not be unreasonably withheld, conditioned or delayed. Licensee further has the right (subject to the terms and conditions of this Agreement) to make such alterations to the Communications Facility in order to ensure that the Communications Facility complies with all applicable federal, state or local laws, rules or regulations.

Prior to any material alteration of the Communications Facility by Licensee, JCPS shall approve Licensee's plans for alteration ("Plans"), such approval not to be unreasonably withheld, conditioned or delayed. After JCPS's (i) failure to respond in writing to Licensee's proposed Plans within thirty (30) days of their receipt; or (ii) failure to provide a written response within thirty (30) days of receipt of Plans revised by Licensee after initial disapproval by JCPS in accordance with this Section, the Plans will be deemed approved. After approval or deemed approval, the Plans will be considered incorporated in this Agreement as Exhibit B. If JCPS disapproves the Plans then the Licensee will provide JCPS with revised Plans, such revisions to be within Licensee's reasonable discretion. In the event JCPS disapproves the revised Plans, Licensee may either (x) make further revisions to the Plans and submit them to JCPS for review in accordance with the process and the time schedule set forth above or (y) terminate this Agreement by providing written notice to JCPS. JCPS will not knowingly permit or suffer any person to copy or utilize the Plans for any purpose other than as provided in this Agreement and will return the Plans to Licensee promptly upon request. Licensee maintains the right to perform routine maintenance, repairs, replacements and upgrades to the Communications Facility without JCPS approval.

All installation and alteration work shall be designed by a licensed structural engineer, performed at Licensee's expense in a good and workmanlike manner and in accordance with applicable building uses, and shall not adversely affect the structural integrity or maintenance of the Site or the Structure.

JCPS grants Licensee a non-exclusive right of vehicular and pedestrian access to the Site for the purposes stated above, for placement of an underground grounding system, and for access to the appropriate source of electric, telephone and other utilities, in the reasonable discretion of Licensee.

11. **LIENS.** Licensee shall keep the Site and the Structure free from any liens arising from any work performed, material furnished, or obligations incurred by or at the request of Licensee.

12. **POSSESSION.** Subject to JCPS's obligations hereunder, Licensee (1) accepts the Premises and the Structure AS IS, WHERE IS, with all faults, for the purposes for which the same is licensed, and (2) waives any claims against JCPS in respect of defects in the Premises or the Structure, unless expressly provided hereunder, or if resulting from the negligent or willful act or omission of JCPS, its employees, agents or contractors.

13. **UTILITIES.** Licensee may at its expense obtain electric, telephone and any other utility service that is necessary for the operation of the Communications Facility. Licensee will arrange at its expense for the installation of a separate meter, main breaker or other equipment necessary for the delivery of any such utility service, and any utility easements, subject to JCPS's prior written approval of the exact location(s).

14. **ACCESS.** Access to the Site for non-emergency visits for the purposes stated above will be Monday through Saturday, 7 am to 7 pm. In an emergency, Licensee will have immediate access to the Site at any time, after first giving telephone notice to the JCPS Manager of Real Estate or his designee at (502) 485-3462.

15. **TAXES AND OTHER CHARGES.** Licensee will pay all taxes and other charges imposed by any federal, state or local authority attributable to the Communications Facility. Nothing herein shall require Licensee to pay any inheritance, franchise, income, payroll, excise, privilege, rent, capital stock, stamp, documentary, estate or profit tax, or any tax of similar nature, that is or may be imposed upon JCPS. Licensee shall not be responsible for any other taxes or charges attributable to the Site or the Structure. In the event JCPS receives a notice of assessment with respect to taxes or assessments which are attributable to Licensee's Communications Facility, JCPS shall provide Licensee with copies of each such notice promptly upon receipt, but in no event later than thirty (30) days after the date of such notice of assessment. For any tax amount for which Licensee is responsible under this Agreement, Licensee shall have the right to contest, in good faith, the validity or the amount thereof using such administrative, appellate or other proceedings as may be appropriate in the jurisdiction, and may defer payment of such obligations, pay same under protest, or take such other steps as permitted by the applicable jurisdiction. If JCPS is required by applicable law to pay certain taxes and fails to do so, Licensee shall have the right but not the obligation to pay any taxes due by JCPS hereunder in order to prevent a foreclosure sale of the Site, in addition to any other rights or remedies of Licensee. In the event that Licensee exercises its rights under this Section due to such JCPS default, Licensee shall have the right to deduct such tax amounts paid from any monies due to JCPS from Licensee.

Any tax-related notices shall be sent to Licensee in the manner set forth in Section 32 and, in addition, a copy of any such notices shall be sent to the following address:

New Cingular Wireless PCS, LLC  
Attn: Network Real Estate Administration – Taxes  
Re: Cell Site #: LS1148; Cell Site Name: LOU CDL (KY)  
Fixed Asset Number: 10050351  
575 Morosgo Drive NE  
Atlanta, GA 30324

**16. REQUIRED INSURANCE OF LICENSEE.** Licensee shall, during the term of this Agreement and at Licensee's expense, keep in force not less than the following insurance with reputable national insurers:

Site Insurance: coverage for fire, extended coverage, vandalism, and malicious mischief, for not less than 90% of the full replacement cost of the Communications Facility. Licensee may self-insure this coverage.

Commercial General Liability Insurance: operations hazard, independent contractor hazard, contractual liability and products and completed operations liability, for \$5,000,000 combined single limit per occurrence and in the aggregate (bodily injury, personal injury and property damage liability). Licensee shall include JCPS as an additional insured on its Commercial General Liability Insurance. JCPS's additional insured status shall (i) be limited to bodily injury, property damage or personal and advertising injury caused, in whole or in part, by Licensee, its employees, agents or independent contractors; (ii) not extend to claims for punitive or exemplary damages arising out of the gross negligence of JCPS, its employees, agents or independent contractors or where such coverage is prohibited by law or to claims arising out of the gross negligence of JCPS, its employees, agents or independent contractors; and (iii) not exceed Licensee's indemnification obligation under this Agreement, if any.

Workers' Compensation and Employer's Liability Insurance to meet statutory requirements.

The coverage amounts set forth may be met by a combination of underlying and umbrella policies so long as in combination the limits equal or exceed those stated.

Certificates of insurance will be delivered to JCPS no later than the Effective Date. Licensee shall notify JCPS in writing not less than thirty (30) days before any cancellation or non-renewal of any required coverage that is not replaced.

Licensee may, in its sole discretion, self-insure any of the required insurance under the same terms as required by this Agreement.

**17. INDEMNIFICATION.** Licensee will indemnify JCPS and save it harmless from and against any and all claims, actions, damages, liability and expense arising from or out of:

[1] any occurrence in, upon or at the Site or the Structure caused by the act or omission of Licensee or its agents, invitees, contractors, or representatives (collectively, "Agents"), except to the extent caused by or attributable to the negligent or willful act or omission of JCPS or its Agents; or



[2] any occurrence caused by the violation of any law, regulation or ordinance applicable to the use of or presence on the Site or the Structure of Licensee or its Agents.

Except for the foregoing indemnity obligations or as otherwise set forth in this Agreement, Licensee and JCPS each waives any claims that each may have against the other with respect to consequential, incidental or special damages, however caused, based on any theory of liability.

**18. ASSIGNMENT BY LICENSEE.** Licensee may assign or sublicense this Agreement to any affiliate of Licensee; any partnership, venture or new corporation formed by Licensee; or any purchaser of substantially all of the assets of Licensee in the market as defined by the Federal Communications Commission in which the Premises is located. For purposes of the foregoing provision, "affiliate" means any entity that wholly owns Licensee, any entity that is wholly owned by Licensee, or any entity that is wholly owned by either such entity or any person or entity that (directly or indirectly) controls, is controlled by, or under common control with, Licensee. "Control" of a person or entity means the power (directly or indirectly) to direct the management or policies of that person or entity, whether through the ownership of voting securities, by contract, by agency or otherwise. Any other assignment, sublicense or other transfer shall be void unless approved in writing by JCPS, such approval not to be unreasonably withheld, conditioned or delayed. Upon notification to JCPS of such assignment, and receipt by JCPS of a written agreement by the assignee to be bound by the terms of this Agreement in form and substance acceptable to JCPS, Licensee will be relieved of all future performance, liabilities and obligations under this Agreement to the extent of such assignment.

**19. REPAIRS - LICENSEE'S OBLIGATION.** Licensee shall, at all times during the term of this Agreement at Licensee's expense, maintain and make all repairs to the Communications Facility (including without limitation any of Licensee's ground space equipment) as are required to keep the Structure in a structurally safe and sound condition, including periodic inspections and maintenance of the Communications Facility, the Structure and the Premises.

If emergency repairs are needed to protect persons, or property, or to allow the use of the Premises, Licensee shall make such repairs within twenty-four (24) hours after notice to Licensee from the JCPS Manager of Real Estate. If Licensee does not make such repairs within 24 hours after such notice has been given, JCPS may make such repairs at Licensee's expense, and Licensee shall pay JCPS within thirty (30) days after notice of JCPS' actual costs of the repairs.

**20. REPAIRS - JCPS's OBLIGATION.** JCPS shall, during the term of this Agreement, and at JCPS's expense, keep the Premises, the Structure and any other improvements located thereon owned and/or leased by JCPS in a structurally sound and safe condition, other than any maintenance and repairs to the Communications Facility (including without limitation any of Licensee's ground space equipment), the Premises and the Structure that are the responsibility of Licensee under Section 19 of this Agreement.

**21. SURRENDER OF PREMISES.** Upon the termination of this Agreement for any cause, Licensee shall peacefully vacate the Site in good order and condition except for casualty beyond Licensee's control and reasonable wear and tear resulting from Licensee's use of the Premises. Licensee will remove the Communications Facility, within the time frame specified below in Section 34, but the Structure and any improvements made by Licensee to the Structure will remain the property of JCPS. Licensee will repair any damage to the Site or the Structure other than such reasonable wear and tear, or any damage caused by removal of the Communications Facility.

**22. DEFAULT AND REMEDIES.** The occurrence of any one or more of the following events constitutes an "event of default" by Licensee: (1) if Licensee fails to pay any Initial Payment or Annual Fee or any other sum payable by Licensee within thirty (30) days following receipt of written notice from JCPS of the delinquency; (2) if the Site or the Structure is made subject to any lien arising from any work performed, material furnished, or obligations incurred by or at the request of Licensee, and such lien is not removed or appropriately bonded or otherwise reasonably secured within sixty (60) days following receipt of written notice from JCPS of the existence of such lien; (3) if Licensee fails to perform any other term of this Agreement, and such failure continues for more than thirty (30) days after written notice from JCPS; (4) if any petition is filed by or against Licensee, under the federal Bankruptcy Code or any similar law (and is not dismissed within ninety (90) days after the filing thereof), or Licensee is adjudged bankrupt or insolvent in proceedings filed under the federal Bankruptcy Code or any similar law; (5) if a receiver, custodian, or trustee is appointed for Licensee or for any of its assets and is not vacated within sixty (60) days; or (6) if Licensee becomes insolvent or makes a transfer in fraud of creditors. If an event of default occurs, JCPS (without notice or demand except as expressly required above) may terminate this Agreement, in which event Licensee will immediately surrender the Premises to JCPS.

If JCPS fails to provide Licensee with access to the Site as required by Section 14 hereof within twenty-four (24) hours after notification of such failure or JCPS fails to resolve or diligently pursue the resolution of an interference problem as required by Section 3 hereof Licensee shall have any and all rights available to it under law and equity. If JCPS is in breach of any other representation, warranty or agreement in this Agreement, and such failure continues for more than thirty (30) days after written notice from Licensee, and JCPS fails to continuously and diligently pursue completion of a cure after such thirty (30) day cure period, then Licensee (i) shall have the right to cure JCPS' breach, (ii) shall have any and all other rights available to it under law and equity and (iii) may upon written notice terminate this Agreement.

**23. QUIET ENJOYMENT.** JCPS covenants and warrants that Licensee will have the quiet and peaceful use and enjoyment of the Premises for the purposes described in this Agreement, subject to the provisions of this Agreement, during the term of this Agreement, without ejection by any persons claiming rights under JCPS (subject to the provisions of this Agreement).

**24. COVENANTS AND WARRANTIES.** JCPS warrants that (i) JCPS owns fee simple title, or has a leasehold interest, or has a valid license, to the Site and has rights of access thereto and (ii) subject to Section 26, if the Site is or becomes encumbered by a deed to secure a debt, mortgage or other security interest, JCPS will make commercially reasonable



efforts to provide promptly to Licensee a mutually agreeable subordination, non-disturbance and attornment agreement ("SNDA") executed by JCPS and the holder of such security interest substantially in the form of Exhibit D attached hereto.

Each party represents and warrants to the other that it has power and authority to make this Agreement, that the making and performance thereof will not violate any laws or agreements under which such party is bound, that such party is a duly existing legal entity, and the party is qualified to do business in Kentucky.

## **25. ENVIRONMENTAL MATTERS**

JCPS represents and warrants to Licensee that it has no knowledge of any Environmental Hazards on or affecting the Site. Licensee will not bring to, transport across or dispose of any Environmental Hazards on the Site without JCPS's prior written approval, which approval shall not unreasonably be withheld, except Licensee may keep on the Site substances used in back up power units (such as batteries and diesel generators) commonly used in the wireless telecommunications industry. JCPS and Licensee agree that each will be responsible for compliance with any and all applicable governmental laws, rules, statutes, regulations, codes, ordinances, or principles of common law regulating or imposing standards of liability or standards of conduct with regard to protection of the environment or worker health and safety, as may now or at any time hereafter be in effect, to the extent such apply to that party's activity conducted in or on the Site.

"Environmental Hazards" means hazardous substances, hazardous wastes, pollutants, asbestos, polychlorinated biphenyl (PCB), petroleum or other fuels (including crude oil or any fraction or derivative thereof) and underground storage tanks. "Hazardous substances" shall be as defined in the Comprehensive Environmental Response, Compensation, and Liability Act, and regulations promulgated thereunder. "Pollutants" shall be as defined in the Clean Water Act, and regulations.

In the event Licensee becomes aware of any Environmental Hazards on the Premises, or any environmental, health or safety condition or matter relating to the Premises, that, in Licensee's reasonable determination, renders the condition of the Premises unsuitable for Licensee's use, or if Licensee believes that the licensing or continued licensing of the Premises would expose Licensee to undue risks of liability to a government agency or third party, and such condition was not caused or contributed to by Licensee, Licensee will have the right, in addition to any other rights it may have at law or in equity, to terminate this Agreement upon written notice to JCPS.

**26. SUBORDINATION AGREEMENT.** This Agreement is subject and subordinate to the lien of all mortgages and deeds of trust which may now exist or hereafter be placed on or against the Site or the interest therein of JCPS or the Jefferson County School District Finance Corporation, without the necessity of having further instruments executed by Licensee to effect such subordination.

27. **ENTIRE AGREEMENT.** This Agreement is the entire agreement and understanding between the parties, and supersedes all offers, negotiations and other agreements concerning the subject matter.

28. **SEVERABILITY.** If any provision of this Agreement is invalid or unenforceable with respect to any party, the remainder of this Agreement or the application of such provision to persons other than those as to whom it is held invalid or unenforceable, is not to be affected and each provision of this Agreement is valid and enforceable to the fullest extent permitted by law.

29. **BINDING EFFECT.** This Agreement will be binding on and inure to the benefit of the respective parties and their successors and permitted assigns.

30. **CAPTIONS.** The captions of this Agreement are inserted for convenience only and are not to be construed as limiting the scope or intent of its provisions.

31. **NO WAIVER.** No provision of this Agreement will be deemed to have been waived by either party unless the waiver is in writing and signed by the party against whom enforcement is attempted. No custom or practice which may develop between the parties in the administration of this Agreement shall waive or lessen any party's right to insist upon strict performance of the terms of this Agreement. The rights granted in this Agreement are cumulative of every other right or remedy that the enforcing party may otherwise have at law or in equity or by statute, and the exercise of one or more rights or remedies will not prejudice or impair the concurrent or subsequent exercise of other rights or remedies.

32. **NOTICE.** Any notice or demand under this Agreement shall be made by certified or registered mail, return receipt requested or reliable overnight courier (with written confirmation of delivery) to the address of other parties set forth below:

**JCPS:**

Jefferson County Public Schools  
VanHooose Education Center Attn:  
3332 Newburg Road  
Louisville, KY 40218  
Attention: Franklin Jones  
Manager of Real Estate

**Licensee:**

New Cingular Wireless PCS, LLC  
Network Real Estate Administration  
Re: Cell Site # LS1148  
Cell Site Name: LOU CDL  
Fixed Asset No.: 10050351  
575 Morosgo Drive NE  
Atlanta, GA 30324

**with a copy to:**

Wyatt, Tarrant & Combs, LLP  
500 W. Jefferson Street  
Louisville, KY 40202, Suite 2800  
Attention: Frank J. Mellen  
Attention: R. Benjamin Straus

**with a copy to:**

New Cingular Wireless PCS, LLC  
Attn: AT&T Legal Department  
Re: Cell Site # LS1148  
Cell Site Name LOU CDL  
Fixed Asset No.: 10050351  
208 S. Akard Street  
Dallas, TX 75202-4206

Any such notice is deemed received one business day following deposit with a reliable overnight courier or five (5) business days following deposit in the mails as required above. JCPS or Licensee may designate any other address by written notice to the other. The copy sent to each party's legal counsel is an administrative step which alone does not constitute legal notice.

**33. GOVERNING LAW.** This Agreement is governed by the laws of Kentucky. Any action or claim arising from, under or pursuant to this Agreement shall be brought in the courts, state or federal, within Jefferson County, Kentucky, and each party expressly waives the right to bring any legal action or claims in any other courts.

**34. NO LIENS.** The Communications Facility will at all times be and remain the property of Licensee and will not be subject to any lien or encumbrance created or suffered by JCPS. Licensee has the right to make such public filings as it deems necessary or desirable to evidence Licensee's ownership of the Communications Facility. JCPS waives all JCPS's or landlord's lien on any property of Licensee (whether created by statute or otherwise). Notwithstanding the foregoing, in the event of termination or expiration of this Agreement, if the Communications Facility is not removed from the Site within thirty (30) days thereafter, any equipment remaining at the Site shall be deemed abandoned, JCPS's waiver of lien shall be voided, and JCPS shall have title to the remaining equipment.

**35. FORCE MAJEURE.** If a party is delayed or hindered in, or prevented from the performance required under this Agreement (except for payment of monetary obligations) by reason of earthquakes, landslides, strikes, lockouts, labor troubles, failure of power, riots, insurrection, war, acts of God or other reason of like nature not the fault of the party delayed, such party is excused from such performance of the period of delay. The period for the performance of any such act shall then be extended for the period of such delay.

**36. MISCELLANEOUS.** (a) Upon the written request of Licensee, JCPS shall promptly execute and deliver to Licensee a recordable Memorandum of Agreement substantially in the form of Exhibit D attached hereto; (b) Upon the expiration or termination of this Agreement and the written request of JCPS, Licensee shall promptly execute and deliver to JCPS a recordable release of such Memorandum of Agreement and SNDA (defined above) (if such Memorandum of Agreement and/or SNDA has been recorded in the land records) and each in a form and with content acceptable to JCPS; (c) each party will execute, within twenty (20) days after written request, an estoppel certificate or statement certifying that this Agreement is unmodified and in full force and effect or, if modified, describing such modification(s), and that the other party is not in default (beyond applicable cure periods), except as specified in the statement. The estoppel certificate may also certify the current amount of license fees and whether any license fees have been paid in advance.

**37. TERMINATION OF PRIOR AGREEMENT.** The terms of the Prior Agreement have expired and the Prior Agreement has continued in a hold-over status. Upon the full execution of this Agreement the parties acknowledge and agree that the Prior Agreement shall be fully terminated on the Effective Date as if the termination were the date originally fixed in the Prior Agreement for the expiration of the term. Notwithstanding any other provisions of



the Prior Agreement, the terms of this Agreement shall control and the Prior Agreement shall have no further force and effect.

**38. CASUALTY.** JCPS will provide notice to Licensee of any fire or other casualty event affecting the Premises within forty-eight (48) hours of when JCPS becomes aware of such casualty event. If any part of the Communications Facility or Premises is damaged by such casualty event as to render the Premises unsuitable, in JCPS's and Licensee's reasonable determination, then Licensee may terminate this Agreement (referred to in this Section 38 as the "Termination Right") by providing written notice to JCPS within fifteen (15) days after the date of such casualty or other harm, which termination will be effective as of the date of such casualty or other harm. Upon such termination, Licensee will be entitled to collect all insurance proceeds payable to Licensee under Licensee's insurance policy for damage to the Communications Facility on account thereof and, subject to the next sentence in this Section 38, to be reimbursed for any prepaid Annual Fee on a prorata basis. JCPS agrees to permit Licensee to place temporary transmission and reception facilities on the Site, but only if JCPS approves of the location, manner and times of the installation of such facilities and until such time as Licensee is able to activate a replacement transmission facility at another location; notwithstanding the termination of this Agreement, such temporary facilities will be governed by all of the terms and conditions of this Agreement, including the payment by Licensee to JCPS of license fees as set forth in this Agreement. If Licensee does not exercise the Termination Right, and JCPS or Licensee undertakes to rebuild or restore the Structure and/or the Communications Facility, as applicable, then this Agreement shall not be terminated, and JCPS shall permit Licensee to place temporary transmission and reception facilities on the Site (at a location and in a manner reasonably acceptable to JCPS) until the reconstruction of the Structure and/or the Communications Facility is completed, and such temporary facilities will be governed by all of the terms and conditions of this Agreement, including license fees. If Licensee does not exercise the Termination Right, and JCPS determines not to rebuild or restore the Site, JCPS will notify Licensee of such determination within thirty (30) days after the casualty or other harm, and this Agreement shall be terminated effective as of the date of such casualty or harm.

**39. SALE OF SITE.**

(a) JCPS shall not be prohibited from the selling, leasing or use of any of the Site except as provided below.

(b) If JCPS, at any time during the term of this Agreement, decides to rezone or sell, subdivide or otherwise transfer all or any part of the Premises to a purchaser other than Licensee, JCPS shall promptly notify Licensee in writing, and such rezoning, sale, subdivision or transfer shall be subject to this Agreement and Licensee's rights hereunder. In the event of a change in ownership, transfer or sale of the Premises, within ten (10) days of such transfer, JCPS or its successor shall send the documents listed below in this subsection (b) to Licensee. Until Licensee receives all such documents, Licensee shall be entitled to defer payments that become due and payable under this Agreement after the date of such transfer, and shall make all such payments within ten (10) days of receipt of all such documents:

- i. New deed to Site
- ii. Bill of Sale or Transfer, if any
- iii. Copy of current Tax Bill
- iv. New IRS Form W-9
- v. Completed and Signed AT&T Payment Direction Form
- vi. Full contact information for new licensor including phone number(s)

(c) JCPS agrees not to sell any areas of the Site for the installation, operation or maintenance of other wireless communications facilities if such installation, operation or maintenance would interfere with Licensee's permitted use or communications equipment as reasonably determined by radio propagation tests performed by Licensee.

40. **W-9.** As a condition precedent to payment, JCPS agrees to provide Licensee with a completed IRS Form W-9, or its equivalent, upon execution of this Agreement and at such other times as may be reasonably requested by Licensee, including, any change in JCPS's name or address.

41. **RENTAL STREAM OFFER.** If at any time after the date of this Agreement, JCPS receives a bona fide written offer, that JCPS desires to accept, from a third party, other than the Jefferson County School District Finance Corporation, seeking an assignment or transfer of license fee payments associated with this Agreement (a "Rental Stream Offer"), JCPS shall immediately furnish Licensee with a copy of the Rental Stream Offer. Licensee shall have the right within twenty (20) days after it receives such copy to match the Rental Stream Offer and agree in writing to match the terms of the Rental Stream Offer. Such writing shall be in the form of a contract substantially similar to the Rental Stream Offer. If Licensee chooses not to exercise this right or fails to provide written notice to JCPS within the twenty (20) day period, JCPS may assign the right to receive the license fee payments pursuant to the Rental Stream Offer, subject to the terms of this Agreement. If JCPS attempts to assign or transfer license fee payments without complying with this Section, the assignment or transfer shall be void. Licensee shall not be responsible for any failure to make payments under this Agreement and reserves the right to hold payments due under this Agreement until JCPS complies with this Section.

42. **ATTORNEYS FEES.** In the event that any dispute between the parties related to this Agreement should result in litigation, the prevailing party in such litigation shall be entitled to recover from the other party all reasonable fees and expenses of enforcing any right of the prevailing party, including without limitation, reasonable attorneys' fees and expenses. Prevailing party means the party determined by the court to have most nearly prevailed even if such party did not prevail in all matters. This provision will not be construed to entitle any party other than JCPS, Licensee and their respective affiliates to recover their fees and expenses.

[SIGNATURES TO APPEAR ON THE FOLLOWING PAGE]

IN WITNESS WHEREOF, the parties have caused their properly authorized representatives to execute and seal this Agreement.

**BOARD OF EDUCATION OF JEFFERSON  
COUNTY, KENTUCKY**

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

Name: Dr. Martin A. Pollio, Ed.D.

Title: Acting Superintendent

**NEW CINGULAR WIRELESS PCS, LLC,  
A DELAWARE LIMITED LIABILITY  
COMPANY**

By: AT&T Mobility Corporation  
Its: Manager

By: Kathleen Noyes

Print Name: KATHLEEN NOYES

Title: AREA MANAGER

Date: 8/2/17

Attachments:

Exhibit A – Site Designation Form

Exhibit B – Plans for Ground Space

Exhibit C – Specifications

Exhibit D – Form of SNDA

Exhibit E – Form of Memorandum of Agreement



## **EXHIBIT A**

### **SITE DESIGNATION FORM**

LICENSEE: New Cingular Wireless PCS, LLC, a Delaware limited liability company

DESCRIPTION OF THE SITE: 120 West Lee Street, Louisville, KY 40208

The land referred to herein below is situated in the County of Jefferson, State of Kentucky, and is described as follows:

Beginning at the Southeast corner of Second and Lee Streets; running thence Southwardly along the East side of Second Street, 900 feet to Avery Avenue; thence Eastwardly along the North side of Avery Avenue, 420 feet to First Street, thence Northwardly along the West side of First Street, 900 feet to Lee Street; thence Westwardly along South side of Lee Street, 420 feet to the beginning.

Being Parcel No. 26 (DuPont Manual High) conveyed to Jefferson County School District Finance Corporation by deed dated June 30, 2000, and recorded June 30, 2000 in Deed Book 7472 Page 0643, in the Office of the Clerk of Jefferson County, Kentucky.

#### **STRUCTURE LOCATED ON THE SITE TO BE USED BY LICENSEE:**

As of the date of execution of this Agreement, the Structure to be used by Licensee is the existing tower structure used by BellSouth under the Prior Agreement. In addition, the rights granted to Licensee will include the right to use certain ground space reasonably **necessary** for placement and operation of Licensee's equipment and facilities. Licensee shall provide detailed plans for the necessary equipment and ground space, including any necessary utility easements. The plans for the use of ground space shall depict the ground space and shall be attached hereto and incorporated herein as Exhibit B and shall be subject to approval by JCPS, which shall not be unreasonably withheld, conditioned or delayed.

#### **COMMUNICATIONS FACILITY TO BE PLACED IN OR ON THE STRUCTURE:**

As of the date of execution of this Agreement, the Communications Facility consists of the equipment placed on the Structure by BellSouth under the Prior Agreement. If Licensee places any additional equipment in or on the Structure, this Exhibit A shall be updated by the parties. If necessary, Licensee's equipment and facilities may be mounted on the ground near the Structure, subject to the terms of Exhibit B.

INITIAL PAYMENT: Two Thousand Five Hundred and No/100 Dollars (\$2,500.00), payable within fifteen (15) days of the Fee Commencement Date and again on the first day of the renewal term.

ANNUAL FEE: Twenty Thousand and No/100 Dollars (\$20,000.00) per year. The Annual Fee shall escalate by three percent (3%) every year this Agreement is in effect.

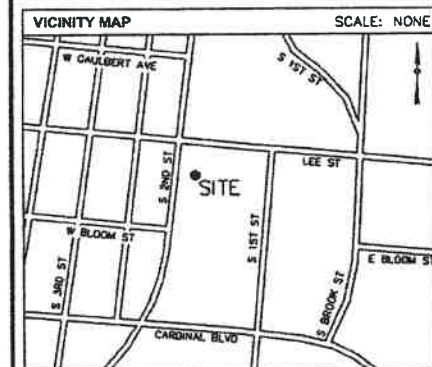
## **EXHIBIT B**

### **PLANS FOR GROUND SPACE**

The plans for ground space near the Structure used by Licensee for placement and operation of Licensee's equipment and facilities is attached hereto as Exhibit B. In the event there is a change needed by Licensee to such equipment and facilities, Licensee shall provide detailed plans for the necessary equipment and ground space, including any necessary utility easements, to be approved by JCPS, which shall not be unreasonably withheld, conditioned or delayed. After approval, said plans for ground space shall be attached hereto as Exhibit B.

#### **Attachment:**

Plans for Ground Space



**DRIVE DIRECTIONS**

DIRECTIONS FROM LOUISVILLE AT&T MTSO: STARTING AT 3505 COLLEGE DR. TURN LEFT ONTO TAYLORSVILLE RD (5.1 MI.). TAKE RAMP TO I-264 W (0.3 MI.). MERGE ONTO I-264 W (3.8 MI.). TAKE EXIT 12 TO MERGE ONTO I-65 N TOWARD INDIANAPOLIS (2.7 MI.). TAKE EXIT 133 TOWARD EASTERN PKWY (1 MI.). TURN LEFT ONTO WARNOCK ST (0.2 MI.). TURN RIGHT ONTO S FLOYD ST (0.3 MI.). TURN LEFT ONTO E BRANDEIS AVE (0.2 MI.). CONTINUE ONTO E CARDINAL BLVD (0.2 MI.). TURN RIGHT ONTO S 2ND ST (0.2 MI.). TURN RIGHT ONTO W LEE ST. SITE WILL BE ON THE RIGHT.

DEPARTMENT	NAME/SIGNATURE	DATE
LAND OWNER/ TOWER OWNER		
SITE ACQUISITION AGENT		
ZONING/PERMITTING AGENT		
A&E MANAGER		
CONSTRUCTION MANAGER		
RF ENGINEER		

SITE NUMBER:  
**LS1148**

FA LOCATION CODE:  
**10050351**

SITE NAME:  
**CARDINAL**

PROJECT:  
**LTE 4C**

PREPARED FOR:



**at&t**

PROJECT MANAGER:

**ANSCO & ASSOCIATES, LLC**  
SPECIALIZED TELECOMMUNICATIONS SERVICES

PREPARED BY:

**BTM Engineering, Inc**  
Consulting Engineers, Landscape Architects, Planners & Surveyors  
"Serving the Bluegrass and Beyond"

3001 TAYLOR SPRINGS DRIVE  
LOUISVILLE, KENTUCKY 40220  
(502) 459-8402 PHONE (502)  
459-8427 FAX

**PROJECT INFORMATION**

**SITE ADDRESS:** 122 WEST LEE ST  
LOUISVILLE, KY 40208

**COORDINATES:** LATITUDE: 38° 13' 20.888" N  
LONGITUDE: 85° 45' 31.658" W

**JURISDICTION:** JEFFERSON COUNTY

**PROPERTY OWNER:** JEFFERSON COUNTY PUBLIC SCHOOLS  
3001 CRITTENDEN DR.  
LOUISVILLE, KY 40209  
CONTACT: -  
PHONE: -

**APPLICANT:** AT&T  
601 W CHESTNUT ST EAST  
LOUISVILLE, KY 40203  
CONTACT: MICHELLE WARD  
PHONE: (502) 779-5950

**PROJECT MANAGER:** ANSCO & ASSOCIATES  
736 PARK NORTH BLVD. SUITE 100  
CLARKSTON, GA 30021

**ENGINEER:** BTM ENGINEERING  
3001 TAYLOR SPRINGS DRIVE  
LOUISVILLE, KY 40220

**ELECTRIC COMPANY:** LG&E  
PHONE: (502) 364-8373  
CONTACT: TRAVIS BLANTON

**TELEPHONE COMPANY:** AT&T  
PHONE: -  
CONTACT: -

**SCOPE OF WORK**

INSTALL 4C EQUIPMENT WITHIN AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY. INSTALL NEW AND/OR REPLACEMENT ANTENNAS AND LINES ON EXISTING SELF SUPPORT TOWER. CONNECT POWER AND TELCO TO EXISTING AT&T UTILITY SERVICE.

**DRAWING INDEX**

T-1	TITLE SHEET
C-1	GENERAL NOTES
C-3	DETAILED SITE PLAN
C-4	TOWER ELEVATIONS
C-5	AMS PLUMBING DIAGRAM
C-6	EQUIPMENT DETAILS
E-2	ONE LINE DIAGRAM
E-3	GROUNDING NOTES
E-4	GROUNDING DETAILS
E-6	ANTENNA CONFIGURATION
E-7	RF INFORMATION
-	AT&T NATIONAL & TN/KY MARKET SPECIFICATIONS

**UNDERGROUND UTILITIES**  
CALL 2 WORKING DAYS  
**BEFORE YOU DIG**  
MEMPHIS 1-800-382-5544  
KENTUCKY 1-800-752-9007  
OR ONE 811  
UTILITIES PROTECTION SERVICE  
NON-MEMBERS MUST CALL DIRECTLY

**ANSCO & ASSOCIATES, LLC**  
SPECIALIZED TELECOMMUNICATIONS SERVICES

**BTM Engineering, Inc.**  
CONSULTING ENGINEERS, LANDSCAPE ARCHITECTS  
3001 TAYLOR SPRINGS DRIVE  
LOUISVILLE, KENTUCKY 40220  
PHONE: (502) 459-8402  
FAX: (502) 459-8427



SITE NAME: CARDINAL

SITE NUMBER: LS1148

SITE ADDRESS: 122 WEST LEE ST  
LOUISVILLE, KY 40208

AREA: -

STRUCTURE TYPE: SELF-SUPPORT

STRUCTURE HEIGHT: 120'

LATITUDE: N 38°13'20.888" LONGITUDE: W 85°45'31.658"

NO.	BY	REVISION	DATE	CHK	DATE	CHK
1	JTL	ISSUE FOR COMMENT	7/7/18	POH		
2	JTL	ISSUE FOR CONSTRUCTION	7/7/18	POH		

TITLE: TITLE SHEET

SHEET: T-1



1. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS AND ELEVATIONS BEFORE STARTING WORK. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER AND SHALL BE RESOLVED BEFORE PROCEEDING WITH THE WORK. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER IN ACCORDANCE WITH ACCEPTED CONSTRUCTION PRACTICES.
2. IT IS THE INTENTION OF THESE DRAWINGS TO SHOW THE COMPLETED INSTALLATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING, TIES, FORM WORK, ETC. IN ACCORDANCE WITH ALL NATIONAL, STATE, AND LOCAL ORDINANCES. TO SAFELY EXECUTE ALL WORK THE WORKER SHALL BE RESPONSIBLE FOR SAME. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES.
3. THE CONTRACTOR SHALL USE ADEQUATE NUMBER OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHOD NEEDED FOR PROPER PERFORMANCE OF THE WORK.
4. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. CONSTRUCTION CONTRACTOR FURTHER AGREES TO INDEMNIFY AND HOLD DESIGN ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT.
5. SITE GROUNDING SHALL COMPLY WITH AT&T MOBILITY ATLANTA GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH AT&T MOBILITY ATLANTA GROUNDING CHECKLIST, LATEST VERSION, WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.
6. ALL WORK SHALL COMPLY WITH OSHA AND STATE SAFETY REQUIREMENTS. PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION AND UTILITIES SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION. IF TEMPORARY LIGHTING AND MARKING IS REQUIRED BY THE FEDERAL AVIATION ADMINISTRATION (FAA), IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE NECESSARY LIGHTS AND NOTIFY THE PROPER AUTHORITIES IN THE EVENT OF A PROBLEM.
7. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL CODES AND ORDINANCES. THE MOST STRINGENT CODE WILL APPLY IN THE CASE OF DISCREPANCIES OR DIFFERENCES IN THE CODE REQUIREMENTS.
8. ANY DAMAGE TO ADJACENT PROPERTIES SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
9. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AMPLE NOTICE TO THE BUILDING INSPECTION DEPARTMENT TO SCHEDULE THE REQUIRED INSPECTIONS. A MINIMUM OF 24 HOURS OF NOTICE SHALL BE GIVEN AND THE BUILDING INSPECTION DEPARTMENTS HAVE REQUESTED THAT GROUPS OF TWO OR THREE SITES BE SCHEDULED AT ONE TIME IF POSSIBLE.
10. CONSTRUCTION MANAGER WILL CONFIRM FAA APPROVAL OF TOWER LOCATION BY ISSUING TOWER RELEASE FORM. NO TOWER SHALL BE CONSTRUCTED UNTIL THE TOWER RELEASE FORM IS ISSUED TO THE CONTRACTOR.
11. THE COMPLETE BID PACKAGE INCLUDES THESE CONSTRUCTION DRAWINGS ALONG WITH THE FINAL RFI DESIGN AND TOWER STRUCTURAL ANALYSIS. CONTRACTOR IS RESPONSIBLE FOR REVIEW OF TOTAL BID PACKAGE PRIOR TO BID SUBMITTAL.
12. CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES WITHIN CONSTRUCTION LIMITS PRIOR TO CONSTRUCTION.
13. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE ON THE SITE AT ALL TIMES. SILT AND EROSION CONTROL SHALL BE MAINTAINED ON THE DOWNSTREAM SIDE OF THE SITE AT ALL TIMES. ANY DAMAGE TO ADJACENT PROPERTIES SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
14. CLEARING OF TREES AND VEGETATION ON THE SITE SHOULD BE HELD TO A MINIMUM UNLESS THE TREES NECESSARY FOR CONSTRUCTION OF THE FACILITIES SHALL BE REMOVED. ANY DAMAGE TO PROPERTY OUTSIDE THE LEASE PROPERTY SHALL BE REPAIRED BY THE CONTRACTOR.
15. ALL SUITABLE BORROW MATERIAL FOR BACK FILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOIL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF SITE AT LOCATIONS APPROVED BY GOVERNING AGENCIES PRIOR TO DISPOSAL.
16. SEEDING AND MULCHING OF THE SITE SHALL BE ACCOMPLISHED AS SOON AS POSSIBLE AFTER COMPLETION OF THE SITE DEVELOPMENT. THE CONTRACTOR IS RESPONSIBLE FOR PROMOVING AND MAINTAINING AN ADEQUATE COVER OF VEGETATION OVER THE SITE FOR A ONE YEAR PERIOD.
17. PERMITS: OBTAIN AND PAY FOR REQUIRED PERMITS, LICENSES, FEES, INSPECTIONS, ETC.
18. RECORD DRAWINGS: MAINTAIN A RECORD OF ALL CHANGES, SUBSTITUTIONS BETWEEN WORK AS SPECIFIED AND INSTALLED. RECORD CHANGES ON A CLEAN SET OF CONTRACT DRAWINGS WHICH SHALL BE TURNED OVER TO THE CONSTRUCTION MANAGER UPON COMPLETION OF THE PROJECT.
19. THE CONTRACTOR SHALL VISIT THE SITE BEFORE BIDDING ON THE WORK CONTAINED IN THIS DESIGN PACKAGE.

1. ALL CUT AND FILL SLOPES SHALL BE 3:1 MAXIMUM.
2. ALL EXCAVATIONS ON WHICH CONCRETE IS TO BE PLACED SHALL BE SUBSTANTIALLY HORIZONTAL ON UNDISTURBED AND UNFROZEN SOIL AND BE FREE FROM LOOSE MATERIAL AND EXCESS GROUND WATER. DETERIORATING FOR EXCESS GROUND WATER SHALL BE PROVIDED IF REQUIRED.
3. CONCRETE FOUNDATIONS SHALL NOT BE PLACED ON ORGANIC MATERIAL. IF SOUND SOIL IS NOT REACHED AT THE DESIGNATED EXCAVATION DEPTH, THE UNSATISFACTORY SOIL SHALL BE EXCAVATED TO ITS FULL DEPTH AND EITHER BE REPLACED WITH MECHANICALLY COMPACTED GRANULAR MATERIAL OR THE EXCAVATION BE FILLED WITH CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATION.
4. ANY EXCAVATION OVER THE REQUIRED DEPTH SHALL BE FILLED WITH EITHER MECHANICALLY COMPACTED GRANULAR MATERIAL OF CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATION. CRUSHED STONE MAY BE USED TO STABILIZE THE BOTTOM OF THE EXCAVATION. STONE, IF USED, SHALL NOT BE USED AS COMPILING CONCRETE THICKNESS.
5. AFTER COMPLETION OF THE FOUNDATION AND OTHER CONSTRUCTION BELOW GRADE, AND BEFORE BACK FILLING, ALL EXCAVATIONS SHALL BE CLEAN OF UNSUITABLE MATERIAL, SUCH AS VEGETATION, TRASH, DEBRIS, AND SO FORTH.
6. BACK FILL SHALL BE:
  - APPROVED MATERIALS CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND, GRAVEL, OR SOFT SHALE;
  - FREE FROM CLODS OR STONES OVER 2-1/2" MAXIMUM DIMENSIONS;
  - IN LAYERS AND COMPACTED.
7. SITE FILL MATERIAL, AND FOUNDATION BACK FILL SHALL BE PLACED IN LAYERS, MAXIMUM 6" DEEP BEFORE COMPACTION. EACH LAYER SHALL BE SPRINKLED IF REQUIRED AND COMPACTED BY HAND OPERATED OR MACHINE TAMPERS TO 95% OF MAXIMUM DENSITY, AT THE OPTIMUM MOISTURE CONTENT  $\pm 2\%$  AS DETERMINED BY ASTM DESIGNATION D-698, UNLESS OTHERWISE APPROVED. SUCH BACK FILL SHALL NOT BE GRADED BEFORE 3 DAYS AFTER PLACEMENT OF CONCRETE.
8. THE FOUNDATION AREA SHALL BE GRADED TO PROVIDE WATER RUNOFF AND PREVENT WATER FROM STANDING. THE FINAL GRADE SHALL SLOPE AWAY IN ALL DIRECTIONS FROM THE FOUNDATION AND SHALL THEN BE COVERED WITH 4" DEEP COMPACTED STONE OR GRAVEL.
9. CONTRACTOR SHALL PROVIDE ALL EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED BY LOCAL CITY, COUNTY AND STATE. EROSION CONTROL MEASURES TO PROTECT EMBANKMENTS FROM SOIL LOSS AND TO PREVENT ACCUMULATION OF SOIL AND SALT IN STREAMS AND DRAINAGE PATHS LEAVING THE CONSTRUCTION AREA. THIS MAY INCLUDE SUCH MEASURES AS SALT FENCES, STRAW BALE SEDIMENT BARRIERS AND CHECK DAMS.
10. FILL PREPARATION:
  - REMOVE ALL VEGETATION, TOPSOIL, DEBRIS, WET AND UNSATISFACTORY SOIL MATERIALS, OBSTRUCTIONS, AND DELETERIOUS MATERIALS FROM GROUND SURFACE PRIOR TO PLACING FILLS. FLOW STOPP OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL WAS HORIZONTAL. SOIL FILL MATERIAL WILL BOND WITH EXISTING SURFACE WHEN SUBGRADE OR EXISTING GROUND SURFACE TO RECEIVE FILL HAS A DENSITY LESS THAN THAT REQUIRED FOR FILL. BREAK UP GROUND SURFACE TO DEPTH REQUIRED, PULVERIZE, MOISTURE-CONDITION OR AERATE SOIL AND RECOMPACT TO REQUIRED DENSITY.
11. REPLACE THE EXISTING WEARING SURFACE ON AREAS WHICH HAVE BEEN DAMAGED OR REMOVED DURING CONSTRUCTION OPERATIONS. SURFACE SHALL BE REPLACED TO MATCH EXISTING ADJACENT SURFACING AND SHALL BE OF THE SAME THICKNESS. NEW SURFACE SHALL BE FREE FROM CORRUPTIONS AND WAVES. EXISTING SURFACING SHALL BE EXCAVATED SEPARATELY AND REUSED IF INSUBSTANTIAL AMOUNTS OF EARTH, ORGANIC MATERIAL, OF OTHER DELETERIOUS MATERIALS ARE REMOVED PRIOR TO REUSE. FURNISH ALL ADDITIONAL RESURFACING MATERIAL AS REQUIRED. BEFORE SURFACING IS REPLACED, SUBGRADE SHALL BE GRADED TO CONFORM TO REQUIRED SUBGRADE ELEVATIONS, AND SOIL OR DEBRIS MATERIAL SHALL BE THOROUGHLY COMPACTED. DEPRESSIONS IN THE SUBGRADE SHALL BE FILLED AND COMPACTED WITH APPROVED SELECTED MATERIAL. SURFACING SHALL NOT BE USED FOR FILLING DEPRESSIONS IN THE SUBGRADE.
12. PROTECT EXISTING SURFACING AND SUBGRADE IN AREAS WHERE EQUIPMENT LOADS WILL OPERATE. USE PLANKING OR OTHER SUITABLE MATERIALS DESIGNED TO SPREAD EQUIPMENT LOADS, REPAIR DAMAGE TO EXISTING GRAVEL SURFACING OR SUBGRADE WHERE SUCH DAMAGE IS DUE TO THE CONTRACTOR'S OPERATIONS. DAMAGED GRAVEL SURFACING SHALL BE REPLACED TO MATCH THE ADJACENT UNDAUNAGED GRAVEL SURFACING AND SHALL BE OF THE SAME THICKNESS.
13. DAMAGE TO EXISTING STRUCTURES AND UTILITIES RESULTING FROM CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED/REPLACED TO OWNER'S SATISFACTION AT CONTRACTOR'S EXPENSE.
14. CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH PROPERTY OWNER SO AS TO AVOID INTERRUPTIONS TO PROPERTY OWNER'S OPERATIONS.
15. ENSURE POSITIVE DRAINAGE DURING AND AFTER COMPLETION OF CONSTRUCTION.
16. RPPAP SHALL BE CLEAN, HARD, SOUND, DURABLE, UNIFORM IN QUALITY, AND FREE OF ANY DETRIMENTAL QUANTITY OF SOIL, FRAGILE, THIN, CRACKED OR LAMINATED PIECES, DISINTEGRATED MATERIAL, ORGANIC MATTER, OIL, ASKAL, OR OTHER DELETERIOUS SUBSTANCE.

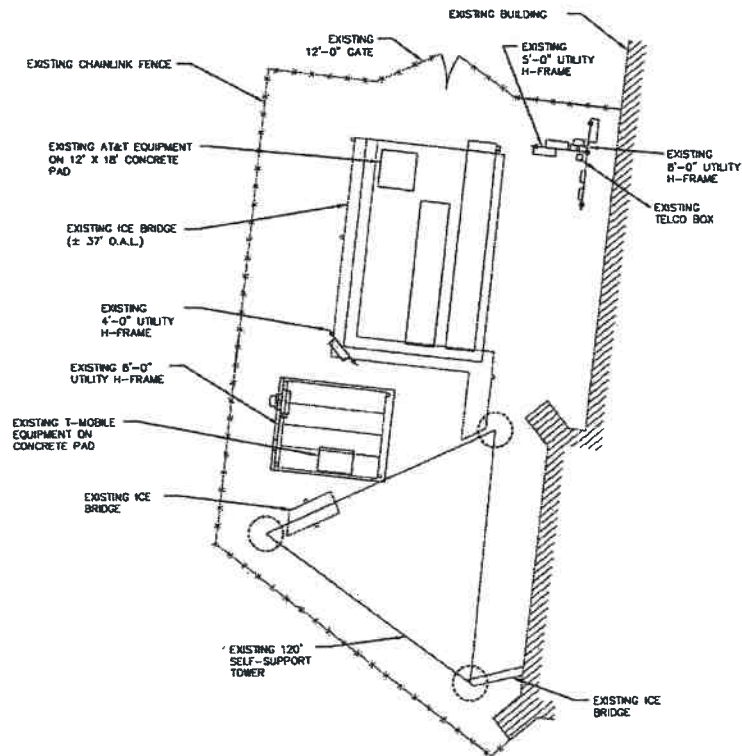
**BTM Engineering, Inc.**



N 381.520.888	W 854531.838
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[illegible]

SHEET: C-1



**A** ANSCO & ASSOCIATES, LLC  
SPECIALIZED TELECOMMUNICATIONS SERVICES

**BTM Engineering, Inc.**  
CONSULTING ENGINEERS, LANDSCAPE ARCHITECTS,  
PLANNERS & DESIGNERS  
2000 VAN ANDERBURY DRIVE  
LOUISVILLE, KENTUCKY 40230  
PH: (502) 455-4422 FAX: (502) 455-4427

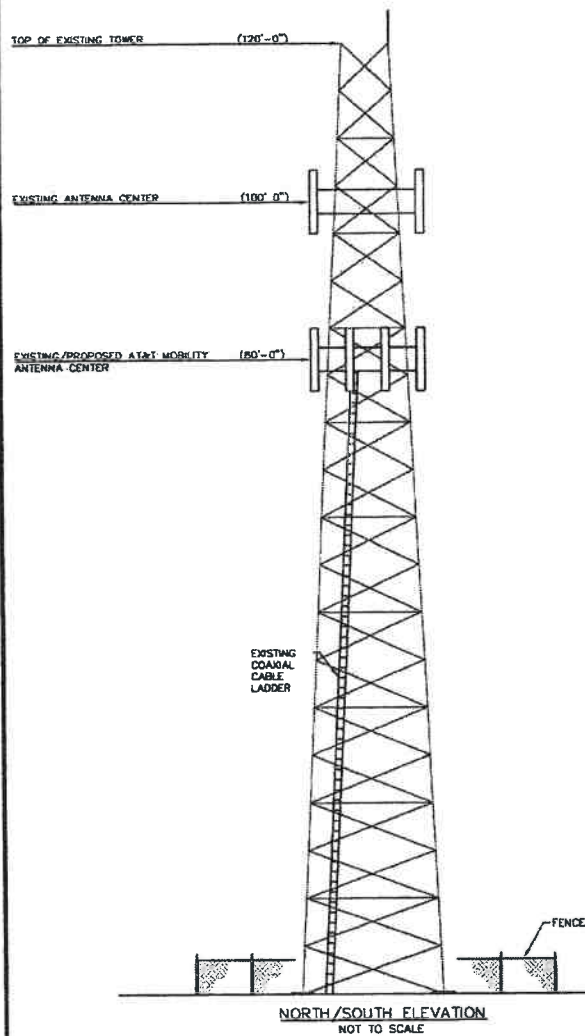


SITE NAME: CARDINAL  
SITE NUMBER: LSI148  
SITE ADDRESS: 122 WEST LEX ST  
LOUISVILLE, KY 40208  
AREA: -  
STRUCTURE TYPE: SELF-SUPPORT  
STRUCTURE HEIGHT: 120'  
LATITUDE: N 38°13'20.888" LONGITUDE: W 85°45'31.668"

NO.	BY	DESCRIPTION	DATE	CHK	PCH	POA
1	JTL	ISSUE FOR COMMENT	2/7/16			
2	JTL	ISSUE FOR CONSTRUCTION	2/27/16			

TITLE: DETAILED SITE PLAN

SHEET: C-3

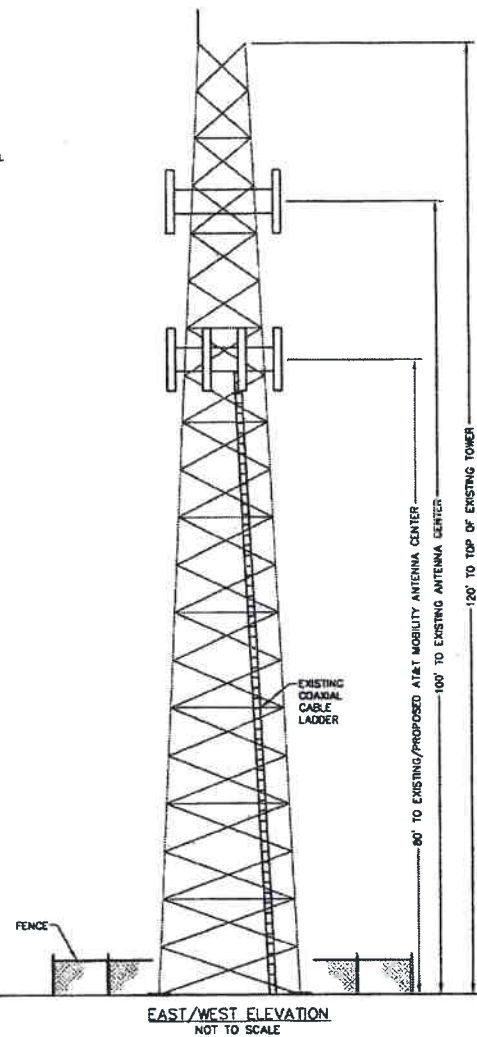


NOTE:  
THE ELEVATIONS SHOWN ON THIS SHEET ARE FOR PICTORIAL PURPOSES ONLY. REFER TO TOWER PLANS FOR TOWER DESIGN. REFER TO LATEST RF ENGINEERING DOCUMENTS FOR EQUIPMENT DETAILS.

COAXIAL CABLE MOUNTING CONFIGURATION PER TOWER MANUFACTURER'S STRUCTURAL DESIGN SPECIFICATIONS. CABLES MAY BE REQUIRED TO BE STACKED 8'-0"-6'. CONSULT ORIGINAL TOWER DESIGN DOCUMENTS FOR CLARIFICATION.

CONTRACTOR TO ENSURE THAT ALL AT&T TOWER MOUNTED EQUIPMENT IS COMPLIANT WITH REGULATORY REQUIREMENTS.

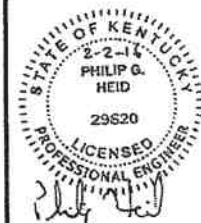
BTM HAS NOT PERFORMED A STRUCTURAL EVALUATION FOR THIS PROJECT. REFER TO THE STRUCTURAL ANALYSIS BY OTHERS.



**A** ANSCO & ASSOCIATES, LLC  
SPECIALIZED TELECOMMUNICATIONS SERVICES

**BTM Engineering, Inc.**

CONSULTING ENGINEERS, LANDSCAPE ARCHITECTS,  
ARCHITECTS, INTERIORS DESIGNERS  
3001 TAYLOR AVENUE, SUITE 200  
LOUISVILLE, KENTUCKY 40206  
PHONE: (502) 436-8400  
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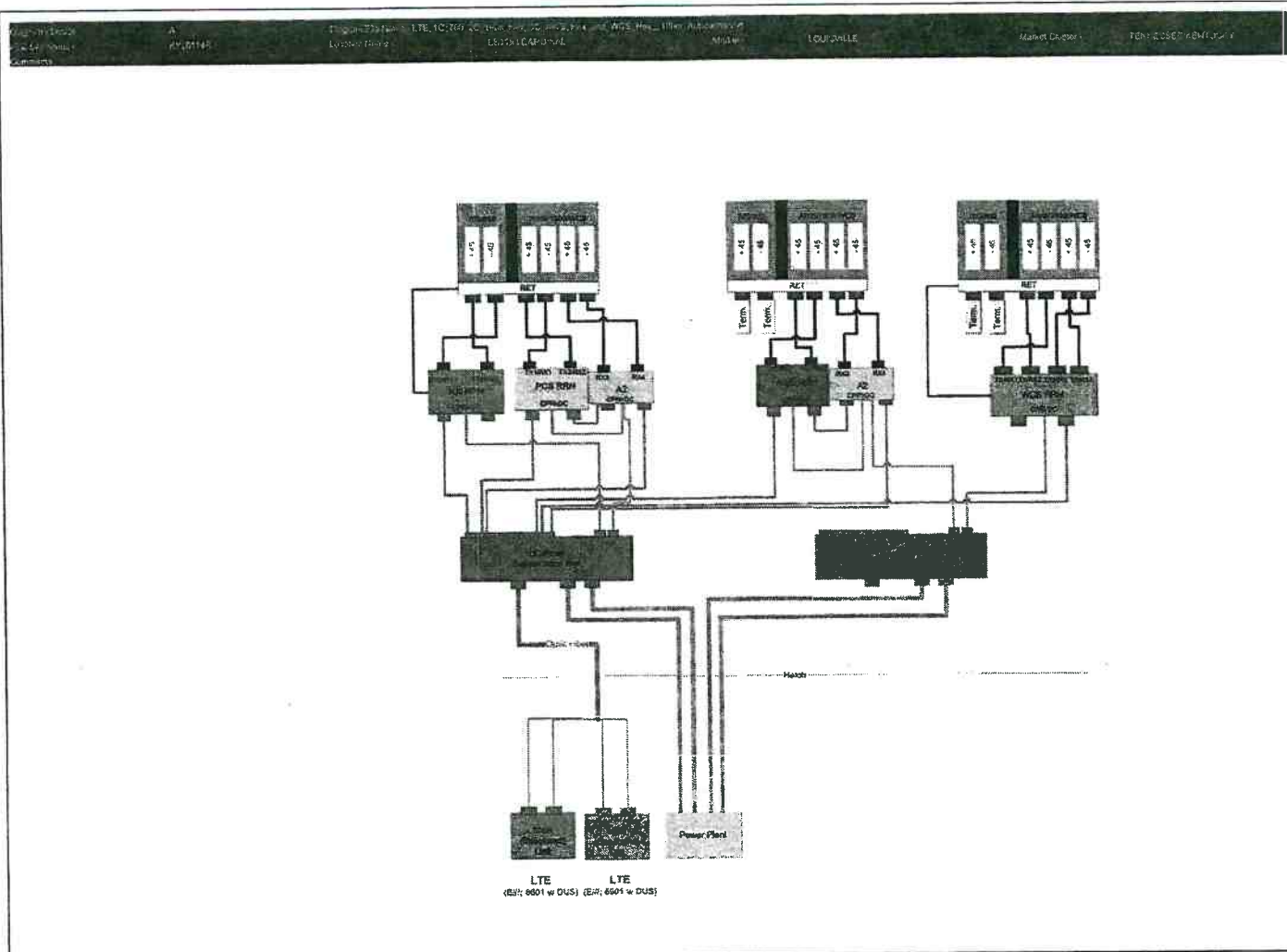
SITE NAME: CARDINAL  
SITE NUMBER: LS1148  
SITE ADDRESS: 122 WEST LEE ST  
LOUISVILLE, KY 40208  
AREA: --  
STRUCTURE TYPE: SELF-SUPPORT  
STRUCTURE HEIGHT: 120'  
LATITUDE: N 38°13'20.806" LONGITUDE: W 85°45'31.658"

NO.	BY	DESCRIPTION	DATE	CHK	DATE	CHK
1	JTL	ISSUE FOR COMMENT	2/7/16	PG1		
2	JTL	ISSUE FOR CONSTRUCTION	2/7/16	PG1		

TITLE: TOWER ELEVATIONS

SHEET: C-4





ANSKO & ASSOCIATES, LLC

PROFESSIONAL TELECOMMUNICATIONS SERVICE

BTM Engineering, Inc.

CONSULTING ENGINEER

3001 LANTANA DRIVE

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STATE OF KENTUCKY

2-2-16

PHILIP G. HEID

29820

LICENSED PROFESSIONAL ENGINEER

Philip Heid

SITE NAME:

CARDINAL

SITE NUMBER:

LS1148

SITE ADDRESS:

122 WEST LEE ST

LOUISVILLE, KY 40208

AREA:

-

STRUCTURE TYPE:

SELF-SUPPORT

STRUCTURE HEIGHT:

120'

LATITUDE:

N 36°13'20.888"

LONGITUDE:

W 85°45'31.658"

REVISIONS

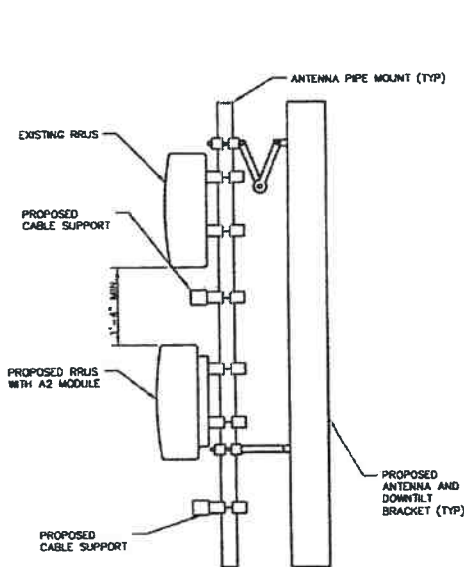
NO.	BY	DESCRIPTION	DATE	CHK
1	JUL	ISSUE FOR CONSTRUCTION	2/7/16	PGH
2	JUL	ISSUE FOR CONSTRUCTION	2/7/16	PGH

TITLE:

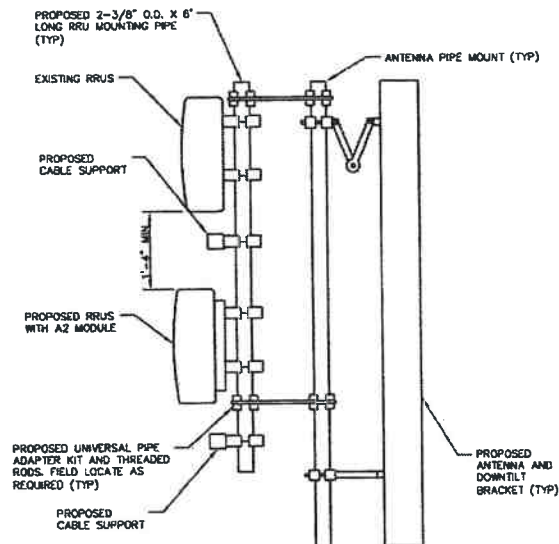
AWS PLUMBING DIAGRAM

SHEET:

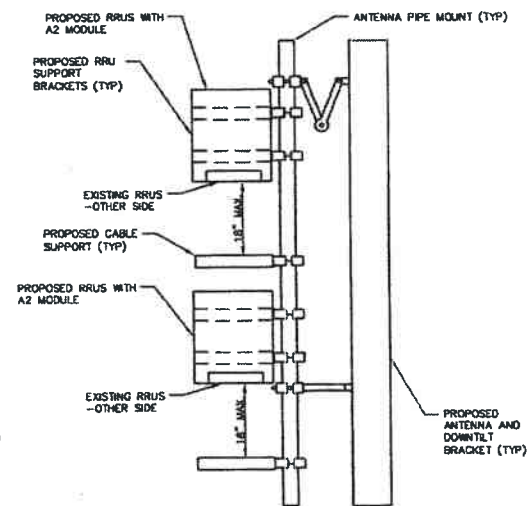
C-5



OPTION A



OPTION B



OPTION C

NOTE:  
THE MOUNTING DETAILS SHOWN ON THIS SHEET ARE TYPICAL INSTALLATION DETAILS THAT MAY NOT WORK ON ALL SITES. BTM WAS NOT PROVIDED WITH ANTENNA MOUNT MAPPING REPORT. BTM HAS NOT PERFORMED A STRUCTURAL EVALUATION OF THE EXISTING ANTENNA MOUNT(S).

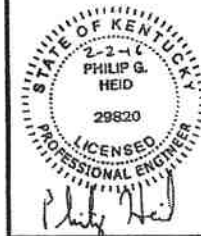
- NOTES:
1. ALL EQUIPMENT SHOULD BE INSTALLED BETWEEN THE BASE OF THE ANTENNA AND THE TOP OF THE ANTENNA.
  2. ALL 16" VERTICAL SPACE BETWEEN RRUS FOR ADEQUATE AIRFLOW.
  3. RRU & ANTENNA TYPES ARE SET BY SECTION 17 OF THE RFDS.
  4. RRU & ANTENNA POSITIONS ARE SET BY SECTION 17 OF THE RFDS.
  5. OPTION A IS THE PREFERRED MOUNTING STYLE. STRUCTURAL FRIENDLY AND LESS EQUIPMENT TO SCOPE.
  6. OPTION B CAN BE USED IF SCOPED FOR SPACE CONSTRAINT ISSUES AND TOWER STRUCTURAL WILL ALLOW.
  7. OPTION C CAN BE USED IF SCOPED FOR SPACE CONSTRAINT ISSUES DUE TO RFDS CALLING FOR MORE THAN 2 RRUS IN SECTION 17 FOR ONE ANTENNA POLE APPLICATION AND TOWER STRUCTURAL WILL ALLOW.

# ANTENNA AND RRU MOUNT DETAILS

NTS

ANSO & ASSOCIATES, LLC  
SPECIALIZED TELECOMMUNICATIONS SERVICES

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REGISTERED PROFESSIONAL ENGINEERS  
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PHONE: (502) 457-8227  
FAX: (502) 457-8227



SITE NAME: CARDINAL  
SITE NUMBER: LS1148  
SITE ADDRESS: 122 WEST LEE ST  
LOUISVILLE, KY 40208  
AREA: -  
STRUCTURE TYPE: SELF-SUPPORT  
STRUCTURE HEIGHT: 120'  
LATITUDE: N 38°13'20.888" LONGITUDE: W 85°45'31.658"

NO.	BY	DESCRIPTION	DATE	CHK	
				DATE	BY
1	JN	ISSUE FOR CONSTRUCTION	2/1/16		
2	JN	ISSUE FOR CONSTRUCTION	2/2/16		

TITLE: EQUIPMENT DETAILS

SHEET: C-6



GENERAL NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GESS) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC AND AT&T STANDARDS (LATEST EDITION).
2. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND B1) FOR GROUND ELECTRODE SYSTEMS. TESTING SHALL BE IN ACCORDANCE WITH SPECIFICATION 24702-000-SPS-E000-00001. USE OF OTHER METHODS MUST BE PRE-APPROVED BY CONTRACTOR IN WRITING.
3. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS. WHEN ADDING ELECTRODES, CONTRACTOR SHALL MAINTAIN A MINIMUM DISTANCE BETWEEN THE ADDED ELECTRODE AND ANY OTHER EXISTING ELECTRODE EQUAL TO THE BURIED LENGTH OF THE ROD. IDEALLY, THE CONTRACTOR SHALL STRIVE TO KEEP THE SEPARATION DISTANCE EQUAL TO TWICE THE BURIED LENGTH OF THE RODS.
4. THE SUBCONTRACTOR 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.
5. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE AND UL APPROVED GROUNDING TYPE CONDUIT CLAMPS PER NEC AND AT&T STANDARDS (LATEST EDITION).
6. 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 ITS EQUIPMENT.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED. BACK-TO-BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BUS ARE PERMITTED.
8. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
9. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED. IN ALL CASES, BENDS SHALL BE MADE WITH A MINIMUM BEND RADIUS OF 6 INCHES.
10. EACH INTERIOR ITS CABINET FRAME/PUNTH SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH #2 AWG STRANDED, GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES. EACH OUTDOOR CABINET FRAME/PUNTH SHALL BE DIRECTLY CONNECTED TO THE BURIED GROUND RING WITH #2 AWG SOLID TIN-PLATED COPPER WIRE.
11. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING, SHALL BE #2 AWG SOLID TIN-PLATED COPPER UNLESS OTHERWISE INDICATED.
12. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE. CONNECTIONS TO ABOVE GRADE EXTERIOR UNITS SHALL BE MADE WITH EXOTHERMIC WELDS WHERE PRACTICAL OR WITH 2 HOLE MECHANICAL TYPE BRASS CONNECTORS WITH STAINLESS STEEL HARDWARE, INCLUDING SET SCREWS. HIGH PRESSURE CRIMP CONNECTORS MAY ONLY BE USED WITH WRITTEN PERMISSION FROM AT&T MARKET REPRESENTATIVE.
13. EXOTHERMIC WELDS SHALL BE PERMITTED ON TOWERS ONLY WITH THE EXPRESS APPROVAL OF THE TOWER MANUFACTURER OR THE CONTRACTORS STRUCTURAL ENGINEER.
14. ALL WIRE TO WIRE GROUND CONNECTIONS TO THE INTERIOR GROUND RING SHALL BE FORMED USING HIGH PRESS CRIMPS OR SPLINT BOLT CONNECTORS WHERE INDICATED IN THE DETAILS.
15. ON ROOFTOP SITES WHERE EXOTHERMIC WELDS ARE A FIRE HAZARD COPPER COMPRESSION CAP CONNECTORS MAY BE USED FOR WIRE TO WIRE CONNECTIONS. 2 HOLE MECHANICAL TYPE BRASS CONNECTION WITH STAINLESS STEEL HARDWARE, INCLUDING SET SCREWS SHALL BE USED FOR CONNECTION TO ALL ROOFTOP ITS EQUIPMENT AND STRUCTURAL STEEL.
16. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR USING TWO HOLED MECHANICAL TYPE BRASS CONNECTORS AND STAINLESS STEEL HARDWARE.
17. APPROVED ANTI-OXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
18. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
19. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING IN ACCORDANCE WITH THE NEC.
20. BOND ALL METALLIC OBJECTS WITHIN 6 FT OF THE BURIED GROUND RING WITH #2 SOLID AWG TIN-PLATED COPPER GROUND CONDUCTOR.
21. GROUND CONDUCTORS USED IN THE FACILITY GROUND 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 WALL OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN THE CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITION, NON-METALLIC MATERIAL, SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., NON-METALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT WITH LISTED BONDING FITTINGS.
22. GROUND ALL RF EQUIPMENT INCLUDING BUT NOT LIMITED TO COAX, DIPLEXERS, SURGE ARRESTORS, TMAS, ANTENNAS AND ANTENNA MASTS PER NEC AND AT&T GROUNDING STANDARDS (LATEST EDITION).

**A** ANSCO & ASSOCIATES, LLC  
SPECIALIZED TELECOMMUNICATIONS SERVICES

**BTM** Engineering, Inc.  
CONSULTING ENGINEER, LANDSCAPE ARCHITECT,  
LANDSCAPE ARCHITECT & PLANNING  
2000 TAYLOR SPRING DRIVE  
LOUISVILLE, KENTUCKY 40208  
PHONE (502) 496-8427  
FAX (502) 496-8427



SITE NAME: CARDINAL

SITE NUMBER: LS1148

SITE ADDRESS: 122 WEST LEE ST  
LOUISVILLE, KY 40208

AREA: --

STRUCTURE TYPE: SELF-SUPPORT

STRUCTURE HEIGHT: 120'

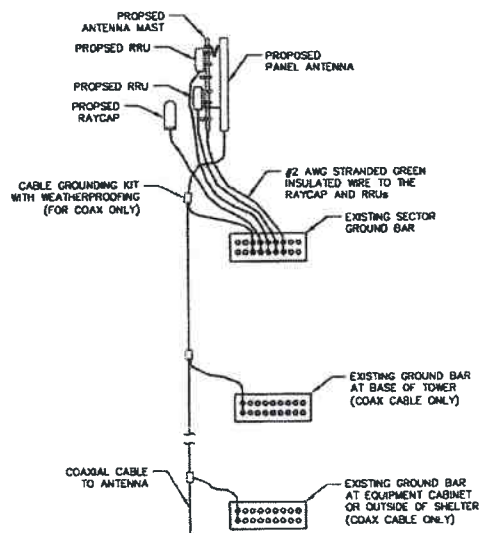
LATITUDE: N 36°13'20.888" LONGITUDE: W 85°43'31.658"

NO.	BY	REVISION	DATE	CHK	PCH
1	JTL	ISSUE FOR COMMENT	2/7/78		
2	JTL	ISSUE FOR CONSTRUCTION	2/7/78		

TITLE: GROUNDING NOTES

SHEET: E-3





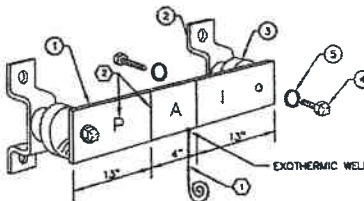
#### NOTES:

1. CABLE GROUND KIT AT PROPOSED ANTENNA TO BE MOUNTED WITHIN 6" OF CONNECTION TO ANTENNA.
2. CABLE GROUND KIT AT BASE OF TOWER TO BE MOUNTED WITHIN 36" ABOVE WHERE THE CABLING BENDS AWAY FROM THE TOWER.

#### GROUNDING SCHEMATIC FOR PANEL ANTENNAS

NTS

NEWTON INSTRUMENT COMPANY, INC. BUTNER, N.C.				
NO.	REQ.	PART NO.	DESCRIPTION	
①	1	1/4"x4"x30"	SOLID GROUND BAR	
②	2	A-8056	WALL MTG. BRACKET	
③	2	3061-4	INSULATORS	
④	4	3012-1	5/8"-11x1" H.H.C.S.	
⑤	4	3015-8	5/8 LOCKWASHER	



EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

#### SECTION "P" - SURGE PRODUCERS

CABLE ENTRY PORTS (HATCH PLATES) (#2)  
TELCO GROUND BAR (#2)  
COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (#2)  
CELL SITE +24V POWER SUPPLY RETURN BAR (#2)  
CELL SITE -48V POWER SUPPLY RETURN BAR (#2)  
GENERATOR FRAMEWORK (IF AVAILABLE) (#2)  
RECTIFIER FRAMES  
ANTENNA SUPPRESSION

#### SECTION "A" - SURGE ABSORBERS

INTERIOR GROUND RING (#2)  
EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2)  
METALLIC COLD WATER PIPE (IF AVAILABLE) (#2)  
BUILDING STEEL (IF AVAILABLE) (#2)

#### SECTION "I" - ISOLATED GROUND ZONE

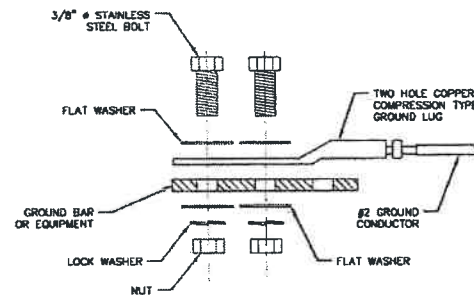
ALL CELL SITE COMMUNICATIONS EQUIPMENT FRAMES

#### DETAIL NOTES:

1. EXOTHERMICALLY WELD #2 AWG BARE TINNED SOLID COPPER CONDUCTOR TO GROUND BAR ROUTE CONDUCTOR TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. THE INSTALLER SHALL USE PERMANENT MARKER TO DRAW THE LINES BETWEEN EACH SECTION ("P", "A", "I") WITH 1" HIGH LETTERS.

#### MASTER GROUND BAR DETAILS

NTS



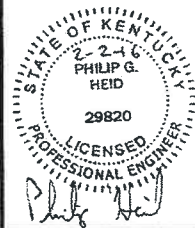
#### MECHANICAL GROUND CONNECTION

NTS

ANSCO & ASSOCIATES, LLC  
SPECIALIZED TELECOMMUNICATIONS SERVICES

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CONSULTING ENGINEER, LANDSCAPE ARCHITECT,  
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LOUISVILLE, KY 40208  
PHONE: (502) 451-1400  
FAX: (502) 451-8437



SITE NAME: CARDINAL

SITE NUMBER: LS114B

SITE ADDRESS: 122 WEST LEE ST  
LOUISVILLE, KY 40208

AREA:

STRUCTURE TYPE: SELF-SUPPORT

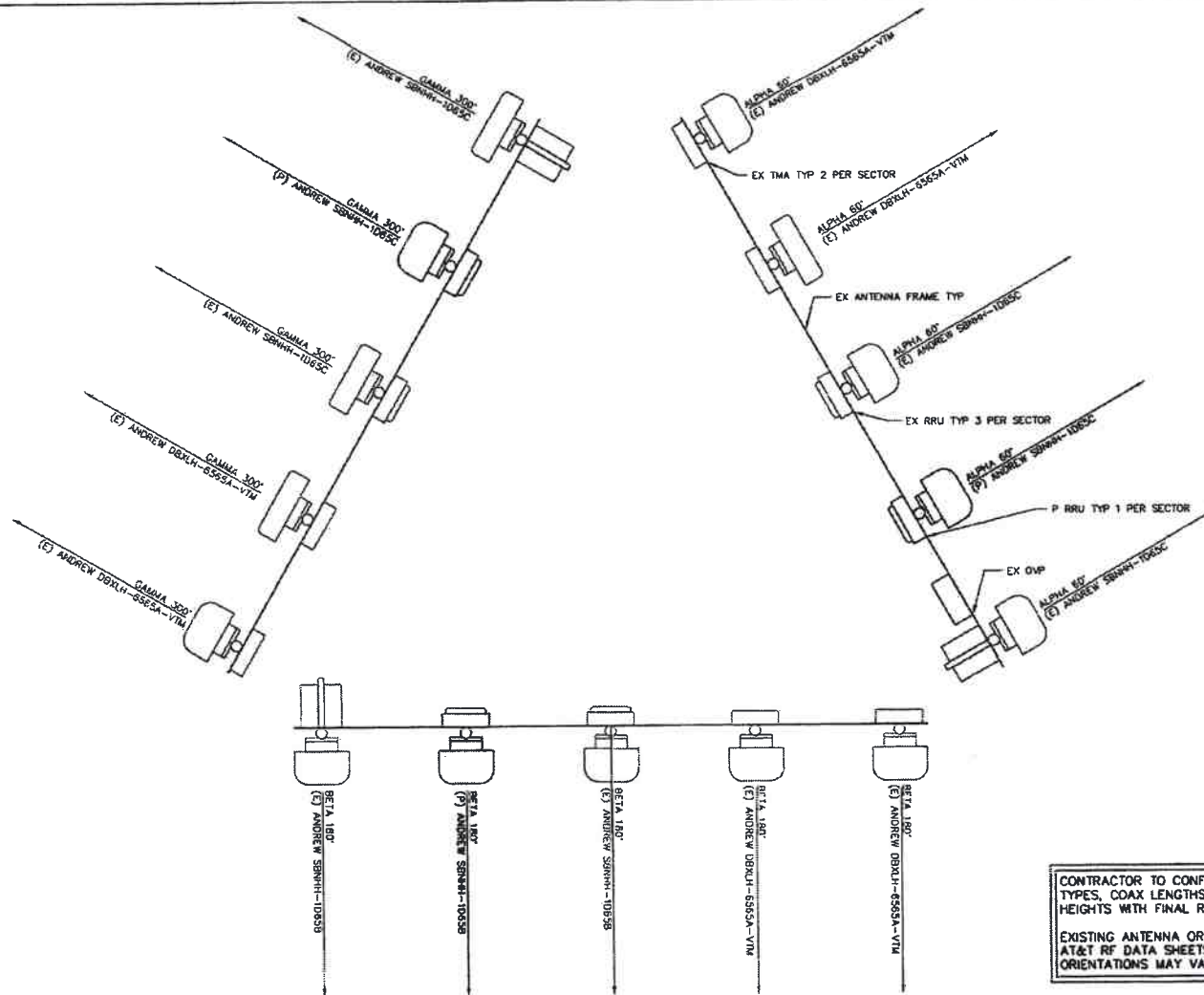
STRUCTURE HEIGHT: 120'

LATITUDE: N 38°13'20.898" LONGITUDE: W 85°45'31.658"

NO.	BY	DESCRIPTION	DATE	CHK	FOR
1	JTL	ISSUE FOR COMMENT	2/1/18	FOR	
2	JTL	ISSUE FOR CONSTRUCTION	1/7/18	FOR	

TITLE: GROUNDING DETAILS

SHEET: E-4



RAD CENTER AT 80'

FINAL ANTENNA ORIENTATION

NTS

CONTRACTOR TO CONFIRM ANTENNA TYPES, COAX LENGTHS, AZIMUTHS AND HEIGHTS WITH FINAL RF INFORMATION.

EXISTING ANTENNA ORIENTATION PER AT&T RF DATA SHEETS. ACTUAL ORIENTATIONS MAY VARY.

**A** ANSCO & ASSOCIATES, LLC  
SPECIALIZED TELECOMMUNICATIONS SERVICES

**BTM Engineering, Inc.**  
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PLANNING & SURVEYING  
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PHONE: (502) 459-8402  
FAX: (502) 459-8427



SITE NAME: CARDINAL  
SITE NUMBER: LS1148  
SITE ADDRESS: 122 WEST LEE ST  
LOUISVILLE, KY 40208  
AREA: -  
STRUCTURE TYPE: SELF-SUPPORT  
STRUCTURE HEIGHT: 120'  
LATITUDE: N 38°13'20.888"  
LONGITUDE: W 85°45'31.658"

NO.	BY	DATE	CHK	REVISIONS
1	JTL	2/7/16	POH	ISSUE FOR CONSTRUCTION
2	JTL	2/7/16	POH	ISSUE FOR CONSTRUCTION

TITLE: ANTENNA CONFIGURATION

SHEET: E-6

# **ANTENNA JUMPER INSTALLATION NOTES:**

1. AVOID UNNECESSARY BENDING OF JUMPER CABLES. CABLES SHALL BE INSTALLED IN SUCH A WAY AS TO KEEP BENDS TO A MINIMUM. IF CABLE EXCEEDS ITS MINIMUM BEND RADIUS, OR IS CRUSHED, IT SHALL BE DISCARDED AND REPLACED AT CONTRACTOR'S EXPENSE.
2. WHEN HANDLING ANTENNA JUMPERS, DO NOT REMOVE DUST CAPS UNTIL CONNECTION IS READY TO BE MADE. USE CARE WHEN CONNECTING CABLES. VISUALLY INSPECT THE CENTER CONTACT.
3. THE ANTENNA CABLE SHIELD SHALL BE GROUNDED AT THE TOP AND BOTTOM OF THE VERTICAL RUN. THE ANTENNA CABLE SHIELD SHALL BE BONDED TO A COPPER BUS BAR AT THE LOWER MOST POINT OF A VERTICAL RUN, JUST BEFORE IT BEGINS TO BEND TOWARDS THE HORIZONTAL PLANE. THE ANTENNA CABLES OVER 150 FEET SHALL ALSO BE EQUIPPED WITH ADDITIONAL GROUNDING AT MID POINT.
4. DOWNTILT, AZIMUTHS, & CENTER LINE OF ANTENNAS TO BE VERIFIED AND DOCUMENTED IN ACCORDANCE WITH AT&T WIRELESS SPECIFICATIONS. RFDS TO BE USED WHEN INSTALLING COAX LINE AND ANTENNA EQUIPMENT

## **NOTES:**

1. ALL MATERIAL TO BE PROVIDED BY TURF VENDOR.
2. COLOR CODE TAPE SHALL BE 3M-3S AND SHALL BE INSTALLED USING A MINIMUM OF (3) WRAPS OF TAPE.
3. ALL COLOR BANDS INSTALLED AT THE TOWER TOP SHALL BE A MINIMUM OF 3/4" WIDE AND SHALL HAVE A MINIMUM OF 3/4" OF SPACING BETWEEN EACH COLOR.
4. ALL COLOR BANDS INSTALLED AT OR NEAR THE GROUND MAY BE ONLY 3/4" WIDE. EACH TOP JUMPER SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS. COVER ALL COLOR CODE TAPE WITH CLEAR COAT.
5. EACH MAINLINE COAX SHALL BE COLOR CODED WITH (1) SET OF 3/4" BANDS NEAR THE TOP-JUMPER CONNECTION AND WITH 3/4" COLOR BANDS JUST PRIOR TO ENTERING THE BTS OR TRANSMITTER BUILDING.
6. ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" BANDS ON EACH END OF THE BOTTOM JUMPER.
7. PLACE COLOR CODE TAPE ON BOTH ENDS OF BIAS "I" POWER CABLES.
8. ANTENNAS SHALL BE INSTALLED WITH DOWNTILT BRACKETS AND CLAMPS SUPPLIED BY ANTENNA MANUFACTURER.
9. ANTENNA JUMPER SHALL NOT BE COILED.
10. NO SITE WILL BE WORKED ON BY THE CONTRACTOR WITHOUT A RF FINAL CONFIGURATION SHEET IN HAND.
11. TOWER CREWS ARE REQUIRED TO PHOTOGRAPH THE MODEL # OF ALL NEW AND EXISTING ANTENNAS, AND RECORD THIS INFORMATION IN THE JOB CHECKLIST. ALL PHOTOGRAPHS MUST CLEARLY IDENTIFY THE SECTOR AND ANTENNA BEING DISPLAYED.
12. RFDS & RET SWEEPS INFORMATION SHOULD BE PLACED IN THE SHELTER UPON LEAVING THE SITE-GENERAL CONTRACTOR IS RESPONSIBLE.
13. RET CABLE TO LAND AT DECK INSIDE OF SHELTER-GENERAL CONTRACTOR RESPONSIBLE. TIE CABLE TO CABLE LADDER (DO NOT USE ZIP TIES INSIDE SHELTER).
14. POWER FAILURE RELAY TO BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.
15. THIS DRAWING SET IS NOT A STRUCTURAL ANALYSIS. CONTRACTOR TO CONFIRM THAT PROPOSED LOADING HAS BEEN ANALYZED BY A LICENSED PROFESSIONAL STRUCTURAL ENGINEER PRIOR TO INSTALLATION OF PROPOSED EQUIPMENT.

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LOUISVILLE, KY 40208  
PHONE: (502) 438-8400  
FAX: (502) 438-8407



SITE NAME: CARDINAL  
SITE NUMBER: LS1148  
SITE ADDRESS: 122 WEST LEE ST  
LOUISVILLE, KY 40208  
AREA: --  
STRUCTURE TYPE: SELF-SUPPORT  
STRUCTURE HEIGHT: 120'  
LATITUDE: N 38°13'20.888"  
LONGITUDE: W 85°45'31.658"

NO.	BY	DESCRIPTION	DATE	CHK	PCH
1	JTL	ISSUE FOR COMMENT	2/2/16		
2	JTL	ISSUE FOR CONSTRUCTION	2/2/16		

TITLE: RF INFORMATION

SHEET: E-7

# TN/KY LTE COLOR CODE

(RRH FREQUENCY & SECTOR DICTATES THE COLOR CODE!!) (B2 = 1900MHZ, B4 = 1700/2100 MHZ, B5 = 850MHZ, B12 = 700MHZ, B30 = 2300MHZ)

LTE COLOR CODE CHART											
Sector A				Sector B				Sector C			
Frequency	RRH Port	Tape Band Color: Red & White	Port Assignment	Frequency	RRH Port	Tape Band Color: Blue & Yellow	Port Assignment	Frequency	RRH Port	Tape Band Color: Green & Brown	Port Assignment
700 MHz	TX1/RX1		(-45)	700 MHz	TX1/RX1		(-45)	700 MHz	TX1/RX1		(-45)
700 MHz	TX2/RX2		(-45)	700 MHz	TX2/RX2		(-45)	700 MHz	TX2/RX2		(-45)
850 MHz	TX1/RX1		(-45)	850 MHz	TX1/RX1		(-45)	850 MHz	TX1/RX1		(-45)
850 MHz	TX2/RX2		(-45)	850 MHz	TX2/RX2		(-45)	850 MHz	TX2/RX2		(-45)
1900 MHz	TX1/RX1		(-45)	1900 MHz	TX1/RX1		(-45)	1900 MHz	TX1/RX1		(-45)
1900 MHz	TX2/RX2		(-45)	1900 MHz	TX2/RX2		(-45)	1900 MHz	TX2/RX2		(-45)
2100 MHz	TX1/RX1		(-45)	2100 MHz	TX1/RX1		(-45)	2100 MHz	TX1/RX1		(-45)
2100 MHz	TX2/RX2		(-45)	2100 MHz	TX2/RX2		(-45)	2100 MHz	TX2/RX2		(-45)
2300 MHz	TX1/RX1		(-45)	2300 MHz	TX1/RX1		(-45)	2300 MHz	TX1/RX1		(-45)
2300 MHz	TX2/RX2		(-45)	2300 MHz	TX2/RX2		(-45)	2300 MHz	TX2/RX2		(-45)
Coax Solution LITE B2			(-45)	Coax Solution LITE B2			(-45)	Coax Solution LITE B2			(-45)
Coax Solution LITE B4			(-45)	Coax Solution LITE B4			(-45)	Coax Solution LITE B4			(-45)
Sector D				Sector E				Sector F			
Frequency	RRH Port	Tape Band Color: Yellow & White	Port Assignment	Frequency	RRH Port	Tape Band Color: White & Brown	Port Assignment	Frequency	RRH Port	Tape Band Color: Orange & Blue	Port Assignment
700 MHz	TX1/RX1		(-45)	700 MHz	TX1/RX1		(-45)	700 MHz	TX1/RX1		(-45)
700 MHz	TX2/RX2		(-45)	700 MHz	TX2/RX2		(-45)	700 MHz	TX2/RX2		(-45)
850 MHz	TX1/RX1		(-45)	850 MHz	TX1/RX1		(-45)	850 MHz	TX1/RX1		(-45)
850 MHz	TX2/RX2		(-45)	850 MHz	TX2/RX2		(-45)	850 MHz	TX2/RX2		(-45)
1900 MHz	TX1/RX1		(-45)	1900 MHz	TX1/RX1		(-45)	1900 MHz	TX1/RX1		(-45)
1900 MHz	TX2/RX2		(-45)	1900 MHz	TX2/RX2		(-45)	1900 MHz	TX2/RX2		(-45)
2100 MHz	TX1/RX1		(-45)	2100 MHz	TX1/RX1		(-45)	2100 MHz	TX1/RX1		(-45)
2100 MHz	TX2/RX2		(-45)	2100 MHz	TX2/RX2		(-45)	2100 MHz	TX2/RX2		(-45)
2300 MHz	TX1/RX1		(-45)	2300 MHz	TX1/RX1		(-45)	2300 MHz	TX1/RX1		(-45)
2300 MHz	TX2/RX2		(-45)	2300 MHz	TX2/RX2		(-45)	2300 MHz	TX2/RX2		(-45)
Coax Solution LITE B2			(-45)	Coax Solution LITE B2			(-45)	Coax Solution LITE B2			(-45)
Coax Solution LITE B4			(-45)	Coax Solution LITE B4			(-45)	Coax Solution LITE B4			(-45)

## TN/KY LTE RRU JUMPER COLOR CODE

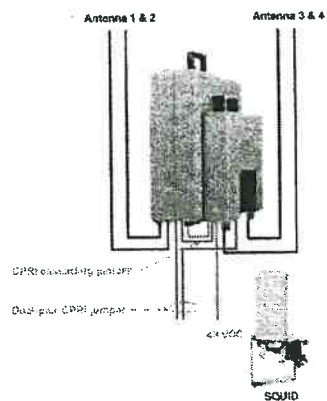
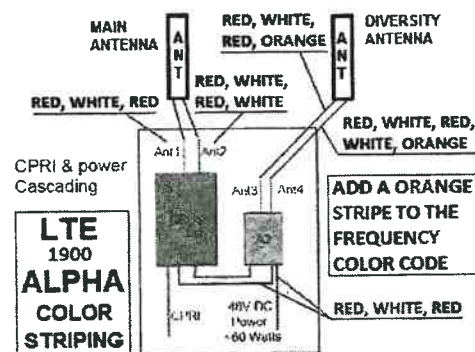
(RRH FREQUENCY & SECTOR DICTATES THE COLOR CODE!!)

Alpha LTE Main Coax		Delta LTE Main Coax (If Needed)	
TX/RX1 (-45)		TX/RX1 (-45)	
TX/RX2 (-45)		TX/RX2 (-45)	
Beta LTE Main Coax		Echo LTE Main Coax (If Needed)	
TX/RX1 (-45)		TX/RX1 (-45)	
TX/RX2 (-45)		TX/RX2 (-45)	
Gamma LTE Main Coax		Foxtrot LTE Main Coax (If Needed)	
TX/RX1 (-45)		TX/RX1 (-45)	
TX/RX2 (-45)		TX/RX2 (-45)	

LTE 700 MHz		LTE 850 MHz		LTE PCS 1900 MHz		LTE AWS 2300 MHz		LTE AWS 2300 MHz		Future	
TX/RX1 (-45)		TX/RX1 (-45)		TX/RX1 (-45)		TX/RX1 (-45)		TX/RX1 (-45)		TX/RX1 (-45)	
TX/RX2 (-45)		TX/RX2 (-45)		TX/RX2 (-45)		TX/RX2 (-45)		TX/RX2 (-45)		TX/RX2 (-45)	
LTE 700 MHz		LTE 850 MHz		LTE PCS 1900 MHz		LTE AWS 2300 MHz		LTE AWS 2300 MHz		Future	
TX/RX1 (-45)		TX/RX1 (-45)		TX/RX1 (-45)		TX/RX1 (-45)		TX/RX1 (-45)		TX/RX1 (-45)	
TX/RX2 (-45)		TX/RX2 (-45)		TX/RX2 (-45)		TX/RX2 (-45)		TX/RX2 (-45)		TX/RX2 (-45)	
LTE 700 MHz		LTE 850 MHz		LTE PCS 1900 MHz		LTE AWS 2300 MHz		LTE AWS 2300 MHz		Future	
TX/RX1 (-45)		TX/RX1 (-45)		TX/RX1 (-45)		TX/RX1 (-45)		TX/RX1 (-45)		TX/RX1 (-45)	
TX/RX2 (-45)		TX/RX2 (-45)		TX/RX2 (-45)		TX/RX2 (-45)		TX/RX2 (-45)		TX/RX2 (-45)	



## A2 MODULE IMPLEMENTATION SPECIFICATIONS



## TN/KY LTE RRU & A2 JUMPER COLOR CODE

(RRH FREQUENCY & SECTOR DICTATES THE COLOR CODE!!)

RRH			A2		
LTE PCS 1900 MHz	LTE AWS 2300 MHz	LTE WCS 2600 MHz	LTE 1900 MHz A2	LTE 2300 MHz A2	LTE 2600 MHz A2
ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA
Ant Port: (45) (45) (45)	Ant Port: (45) (45) (45)	Ant Port: (45) (45) (45)	Ant Port: (45) (45) (45)	Ant Port: (45) (45) (45)	Ant Port: (45) (45) (45)
RRU Port: (45) (45) (45)	RRU Port: (45) (45) (45)	RRU Port: (45) (45) (45)	RRU Port: (45) (45) (45)	RRU Port: (45) (45) (45)	RRU Port: (45) (45) (45)
BETA	BETA	BETA	BETA	BETA	BETA
Ant Port: (45) (45) (45)	Ant Port: (45) (45) (45)	Ant Port: (45) (45) (45)	Ant Port: (45) (45) (45)	Ant Port: (45) (45) (45)	Ant Port: (45) (45) (45)
RRU Port: (45) (45) (45)	RRU Port: (45) (45) (45)	RRU Port: (45) (45) (45)	RRU Port: (45) (45) (45)	RRU Port: (45) (45) (45)	RRU Port: (45) (45) (45)
Gamma	Gamma	Gamma	Gamma	Gamma	Gamma
Ant Port: (45) (45) (45)	Ant Port: (45) (45) (45)	Ant Port: (45) (45) (45)	Ant Port: (45) (45) (45)	Ant Port: (45) (45) (45)	Ant Port: (45) (45) (45)
RRU Port: (45) (45) (45)	RRU Port: (45) (45) (45)	RRU Port: (45) (45) (45)	RRU Port: (45) (45) (45)	RRU Port: (45) (45) (45)	RRU Port: (45) (45) (45)

## FIBER TRUNK ASSIGNMENTS

LTE 1st Fiber Trunk				LTE 2nd Fiber Trunk				UMTS 1st Fiber Trunk				Single Fiber Trunk Assignments (Exception)			
FIBER #	28 Set (Standard)	SQUID	Color Code	FIBER #	28 Set (Standard)	SQUID	Color Code	FIBER #	28 Set (Standard)	SQUID	Color Code	FIBER #	28 Set (Standard)	SQUID	Color Code
1	LTE A 1C			1	LTE A 1C			1	UMTS A 1st Carrier			1	LTE A 1C		
2	LTE A 1C			2	LTE A 1C			2	UMTS A 1st Carrier			2	LTE A 2C		
3	LTE A 1C			3	LTE A 1C			3	UMTS A 1st Carrier			3	UMTS/LTE A 3C		
4	LTE A 1C Extra Fiber			4	LTE A 1C Extra Fiber			4	UMTS A SPARE			4	UMTS/LTE A SPARE		
5	LTE B 1C			5	LTE B 1C			5	UMTS B 1st Carrier			5	LTE B 1C		
6	LTE B 1C			6	LTE B 1C			6	UMTS B 1st Carrier			6	LTE B 2C		
7	LTE B 1C			7	LTE B 1C			7	UMTS B 1st Carrier			7	UMTS/LTE B 3C		
8	LTE B 1C Extra Fiber			8	LTE B 1C Extra Fiber			8	UMTS B SPARE			8	UMTS/LTE B SPARE		
9	LTE C 1C			9	LTE C 1C			9	UMTS C 1st Carrier			9	LTE C 1C		
10	LTE C 1C			10	LTE C 1C			10	UMTS C 1st Carrier			10	LTE C 2C		
11	LTE C 1C			11	LTE C 1C			11	UMTS C 1st Carrier			11	UMTS/LTE C 3C		
12	LTE C 1C Extra Fiber			12	LTE C 1C Extra Fiber			12	UMTS C SPARE			12	UMTS/LTE C SPARE		
13	LTE A 2C Extra Fiber			13	LTE A 2C Extra Fiber			13	UMTS A 2nd Carrier			13	UMTS/LTE A 2nd Carrier		
14	LTE B 2C Extra Fiber			14	LTE B 2C Extra Fiber			14	UMTS B 2nd Carrier			14	UMTS/LTE B 2nd Carrier		
15	LTE B 2C Extra Fiber			15	LTE B 2C Extra Fiber			15	UMTS B 2nd Carrier			15	UMTS/LTE B 2nd Carrier		
16	LTE C 2C Extra Fiber			16	LTE C 2C Extra Fiber			16	UMTS C 2nd Carrier			16	UMTS/LTE C 2nd Carrier		
17	LTE C 2C Extra Fiber			17	LTE C 2C Extra Fiber			17	UMTS C 2nd Carrier			17	UMTS/LTE C 2nd Carrier		
18	LTE C 2C Extra Fiber			18	LTE C 2C Extra Fiber			18	UMTS C 2nd Carrier			18	UMTS/LTE C 2nd Carrier		
No Fiber SQUID (Power Only)				No Fiber SQUID (Power Only)				No Fiber SQUID (Power Only)				No Fiber SQUID (Power Only)			

### NOTES

- All Fibers must be of the same length from the Fiber/DC Surge Protection Box (SQUID) to the RRH. (ATT-002-290-580)
- Any Fiber Trunk Cable excess should be spooled in the Fiber/DC surge Box (SQUID).
- The Color Code for fiber jumpers will match the RX/TX1 or Port A to the RRH.
- Any Fiber Jumper excess should be spooled at the RRH end of the run. Follow all rules for spooling fiber jumpers. (See Page 10)
- Flex conduit and Fiber Management Boxes are no longer required on Tower Tops.

### FIBER OPTIC CABLE INSTALLATION REQUIREMENTS (National)

This item covers all fiber cables on the site except for fiber optic transport cables from the LEC demark to the SIAD/SAR. Verify that the required fiber optic trunks and jumpers are installed.

#### Fiber optic cable bend radius

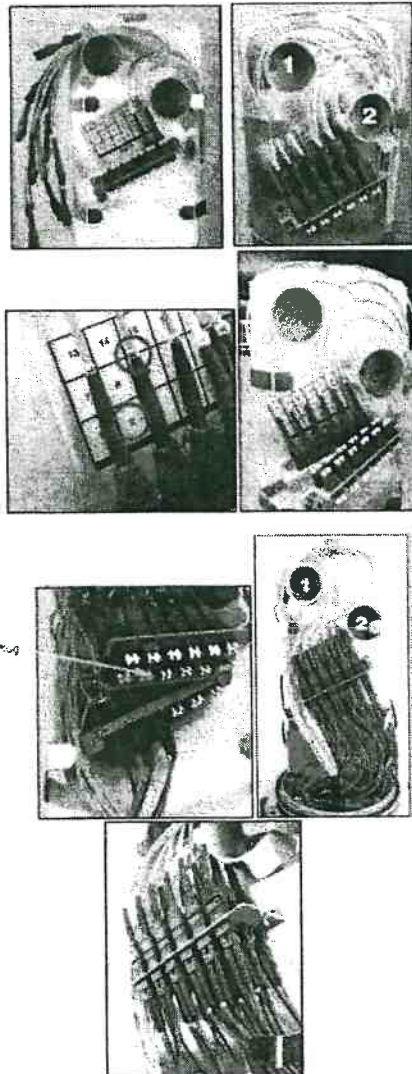
- Cables shall not be sharply bent or twisted during routing
- The minimum inside bending radius of a fiber optic trunk cable is 10 times the trunk diameter unless otherwise specified by the manufacturer
- The minimum inside bending radius of a fiber optic jumper cable is 1 inch unless otherwise specified by the manufacturer
- Rosenberger fiber optic cable bend radius requirements
  - Smallest bending radius of the trunk cable during installation is 7-1/2 inches
    - Exceeding this radius can collapse the inner tube causing un-repairable damage to the trunk
  - Smallest bending radius of a trunk cable after installation is 3-3/4 inches
  - Smallest bending radius of the fan-out of the individual fiber optic cable pairs is 1-3/16 inches
  - Maximum support spacing for fiber optic cable (trunk and jumpers) installed outdoors is 36 inches except inside monopoles

Fiber optic trunk cable must be protected in conduit when:

- Routed inside monopole or on a rooftop
- Routed on a rooftop where it is exposed to being stepped on or otherwise damaged



# FIBER TRUNK CONNECTIONS



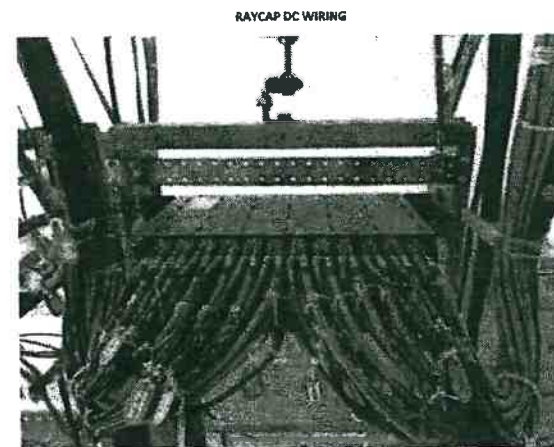
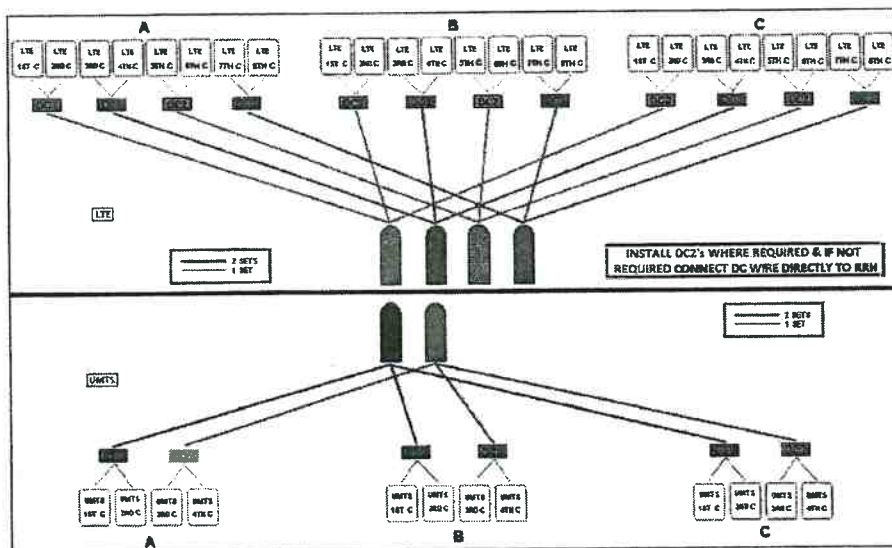
## DC TRUNK ASSIGNMENTS

DC TRUNK CABLES				
On Tower Top	RRU and Carrier	DC Trunk Cable	DC Trunk Wire Pairing	In Shelter
EXT. ORANGE SOLID With Fiber	LTE A 1st Carrier	Single	Red/BK Blue Trace	RayCap/DC12 #1 in Rack (See Rack Design)
	LTE B 1st Carrier	Orange	Red/BK Orange Trace	
	LTE C 1st Carrier	Stripes	Red/BK Green Trace	
	LTE A 2nd Carrier	Double	Red/BK Blue Trace	
	LTE B 2nd Carrier	Orange	Red/BK Orange Trace	
	LTE C 2nd Carrier	Stripes	Red/BK Green Trace	
	LTE A 3rd Carrier	Single	Red/BK Blue Trace	
	LTE B 3rd Carrier	Orange	Red/BK Orange Trace	
UMTS RED SOLID No Fiber	LTE C 3rd Carrier	Stripes	Red/BK Green Trace	RayCap/DC12 #2 in Rack (See Rack Design)
	LTE A 4th Carrier	Double	Red/BK Blue Trace	
	LTE B 4th Carrier	Orange	Red/BK Orange Trace	
	LTE C 4th Carrier	Stripes	Red/BK Green Trace	
	LTE A 5th Carrier	Single	Red/BK Blue Trace	
	LTE B 5th Carrier	Orange	Red/BK Orange Trace	
	LTE C 5th Carrier	Stripes	Red/BK Green Trace	
	LTE A 6th Carrier	Double	Red/BK Blue Trace	
LTE BROWN SOLID No Fiber	LTE B 6th Carrier	Orange	Red/BK Orange Trace	RayCap/DC12 #3 If Needed (See Rack Design)
	LTE C 6th Carrier	Stripes	Red/BK Green Trace	
	LTE A 7th Carrier	Single	Red/BK Blue Trace	
	LTE B 7th Carrier	Violet	Red/BK Orange Trace	
	LTE C 7th Carrier	Stripes	Red/BK Green Trace	
	LTE A 8th Carrier	Double	Red/BK Blue Trace	
	LTE B 8th Carrier	Violet	Red/BK Orange Trace	
	LTE C 8th Carrier	Stripes	Red/BK Green Trace	

## NOTES

1. Follow Standards in the ATT-002-290-701 for DC Wire Connectivity from Power Plant to RAYCAP.
2. All DC Trunk cables are outdoor rated and do not require flex conduit for protection.
3. Use color code of the RRH that it is connected to for labeling.

# TN/KY DC CABLES TO EQUIPMENT CONNECTION STANDARD





## SQUID, RAYCAP, DC2 ALARM CABLE ASSIGNMENTS

### TN/KY STANDARD

SQUID Alarms	Alarm Verbiage
ORANGE SQUID - Alarm cable is connected to the LTE ALPHA 1st Carrier RRU. (Tape color is ORANGE)	RBS LTE RRU SQUID DC SPD
BROWN SQUID - Alarm cable is connected to the LTE ALPHA 1st Carrier RRU. (Tape color is BROWN)	RBS LTE RRU SQUID DC SPD
VIOLET SQUID - Alarm cable connected to the LTE ALPHA 2nd Carrier RRU. (Tape color is VIOLET)	RBS LTE RRU SQUID DC SPD
BLUE SQUID - Alarm cable is connected to the UMTS ALPHA 1st Carrier RRU. (Tape color is BLUE)	RBS RRU SQUID DC SPD
RED SQUID - Alarm cable is connected to the UMTS BETA 1st Carrier RRU. (Tape color is RED)	RBS RRU SQUID DC SPD
Raycap Alarms	Alarm Verbiage
RayCap/DC12 #1 - Alarm cable is connected to Alarm Pair 9 on Block #2 of the Shelter Alarm Block.	RBS LTE RRU AT DC SYS SPD
RayCap/DC12 #2 - Alarm cable is connected in series with the 1st RayCap/DC12 and connected to Alarm Pair 9 on Block #2 of the Shelter Alarm Block.	RBS LTE RRU AT DC SYS SPD
RayCap/DC12 #3 - Alarm cable is connected in series with the 1st & 2nd RayCap/DC12 and connected to Alarm Pair 9 on Block #2 of the Shelter Alarm Block.	RBS LTE RRU AT DC SYS SPD
DC-2 Alarms	Alarm Verbiage
DC-2 Alarm Cables are connected to one of the 2 RRH's that it is connecting Power to. If the DC-2 is Extending Power on the Alpha UMTS 1st & 2nd Carrier RRH's then the alarm is built on the 2nd Carrier RRH because the SQUID is built on the 1st carrier RRH.	RBS LTE RRU DC SPD

ATT-002-290-531

#### 4.8. Alarming [16]

- \* 1st SQUID installed will be alarmed to the lowest band (or first installed) RRH/RRU on the Alpha sector.
- \* 2nd SQUID installed will be alarmed to the lowest band (or first installed) RRH/RRU on the Beta sector.
- \* 3rd SQUID installed will be alarmed to the lowest band (or first installed) RRH/RRU on the Gamma sector.
- \* A RRH/RRU will never have more than one SQUID alarmed on it.
- \* SQUID alarms are NOT to be daisy chained.

OLD STYLE SQUID ALARM WIRE CONNECTION



DC2 ALARM WIRE CONNECTION



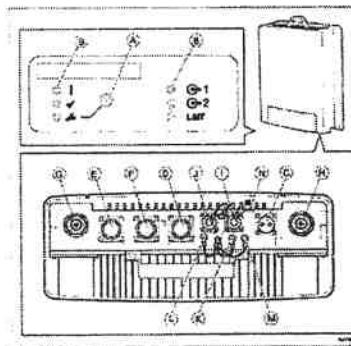
NEW STYLE SQUID ALARM WIRE CONNECTION



RAYCAP ALARM WIRE CONNECTION

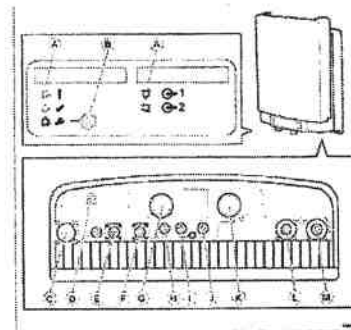


## RRH ALARM PORT



Position	Description	Marking
A	Maintenance button	✓
B	Optical indicators	Q-1, Q-2 LMT
C	-48 V DC power supply	LMT
D		
E	Optical cable 1	Q-1
F	Optical cable 2	Q-2
G	Antenna 1	AI2
H	Antenna 2	BI2
I	ALD (used for a RET unit for example)	ALD
J	External alarm	Q
K <sup>(1)</sup>	Cross connect RXA	RXA IO
L <sup>(1)</sup>	RXA co-ax	RXA Out
M <sup>(2)</sup>	Cross connect RXB	RXB IO
N	Grounding	↓

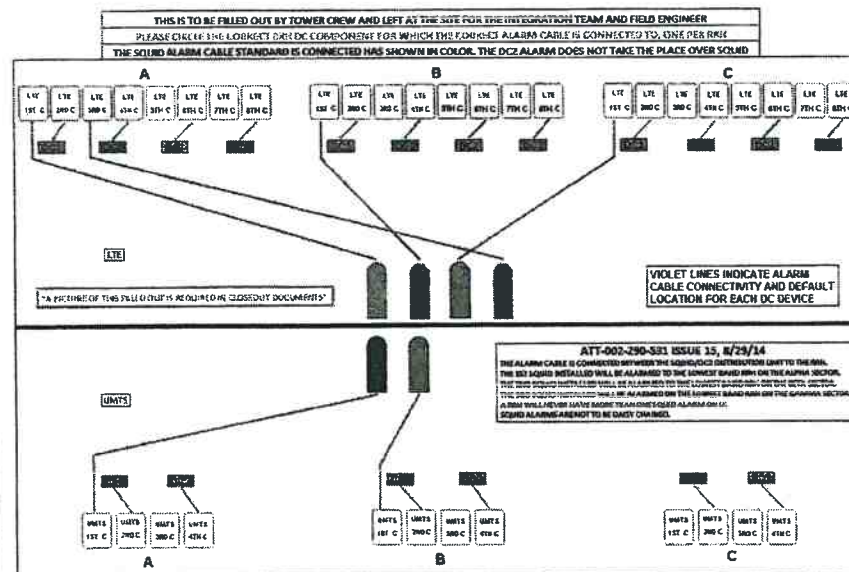
(1) Applicable for RRH-11 only.



Position	Description	Marking
A	Optical indicators	Q-1, Q-2
B	Maintenance button	✓
C	-48 V DC power supply	POWER
D	Grounding	↓
E	ALD (used for a RET unit for example)	ALD
F	External alarm	Q
G	Antenna A	AI2
H	RXA co-ax	RXA Out
I	Cross connect RXA	RXA IO
J	Cross connect RXB	RXB IO
K	Antenna B	BI2 <sup>(1)</sup> or BI2 <sup>(2)</sup>
L	Optical cable 2	Q-2
M	Optical cable 1	Q-1

(1) Applicable for RRH-11 only.  
(2) Applicable for RRH-12 only.

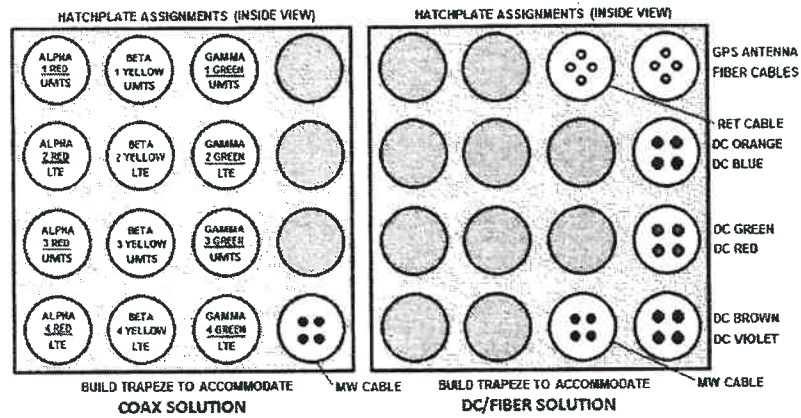
## TN/KY ALARM CABLE TO EQUIPMENT CONNECTION STANDARD



## HATCHPLATE ASSIGNMENTS

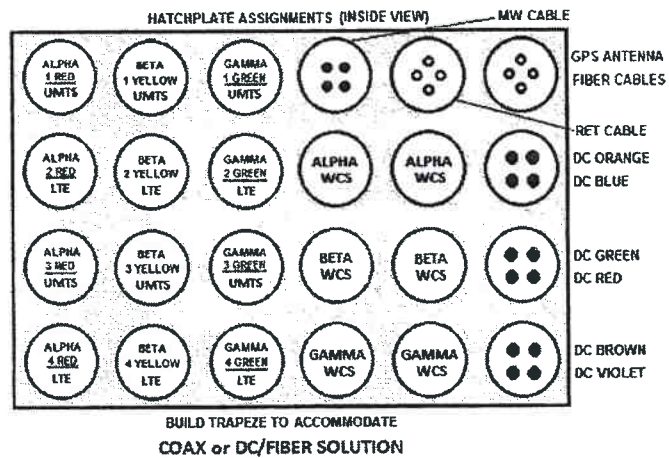
TN/KY STANDARD

OLD STYLE HATCHPLATE



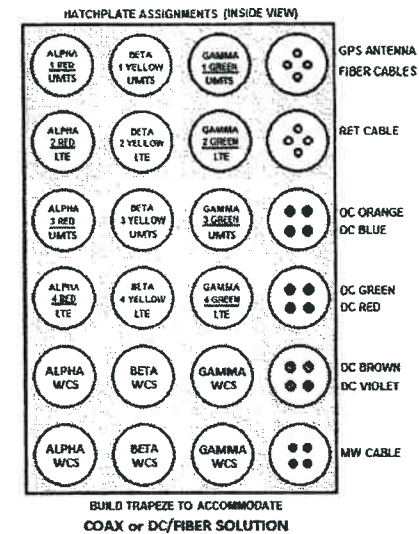
TN/KY STANDARD

NEW STYLE HATCHPLATE



TN/KY STANDARD

NEW STYLE HATCHPLATE



**EXHIBIT C**  
**SPECIFICATIONS**

All towers or structures used by Licensee will remain the property of the Jefferson County Public Schools and/or the Jefferson County School District Finance Corporation.

The Jefferson County Public Schools or the successful bidder(s) will provide the other party written notice of intention not to renew not less than one hundred eighty (180) days prior to the expiration of the initial term or any renewal term.

There are approximately 150 tower or similar sites located on various properties owned or controlled by the Jefferson County Public Schools. Any strengthening of towers or structures to accommodate licensee's equipment is the responsibility of the licensee. The license agreement shall cover two different lease situations; a tower or structure which can be used with no structural modifications and a tower which can be used with modifications including strengthening or adding a center pole.

There shall be no exclusivity of licenses. The Jefferson County Public Schools reserve the right to license and lease space on towers or other structures to other organizations/companies as long as their equipment does not interfere with licensee's or Jefferson County Public Schools equipment. The Jefferson County Public Schools agrees that no FAA transponders or AM radio transmitting equipment will be located on a tower or structure.

The Jefferson County Public Schools will require the successful licensee to file a Site Designation Form stating the location and what modifications will be made to the tower or structure (if any). The Jefferson County Public Schools reserve the right to accept or reject on a per site basis.

Licensee agrees to provide all costs of utilities to their equipment on the tower or structure. Licensee agrees to perform periodic inspection and maintenance of the tower or structure. In the event there is a multiple award on any one site, maintenance costs will be divided among the licensees on a pro rata basis.

Licensee agrees that there will be no interruption of service provided by Jefferson County Public Schools equipment on the tower or structure. Licensee agrees that there will be no interference with Jefferson County Public Schools or other equipment on the tower or structure.

Licensee shall secure all federal, state and local permits including, but not limited to, all special use permits and Kentucky Public Service Commission authorization, etc.

Licensee agrees to release Jefferson County Public Schools from any liability for any injuries suffered by Licensee's maintenance personnel working on the tower or structure sites or for any injuries on Jefferson County Public Schools properties.



Licensee agrees to pay the Jefferson County Public Schools an initial fee and an annual license fee. The annual license fee shall be paid annually in advance.

Licensee will indemnify the Jefferson County Public Schools from any and all legal action taken as a direct result of this Agreement. Licensee will have property insurance, Commercial General liability insurance and Workers' Compensation Insurance. Proof of insurance shall be provided by successful bidder(s).

**EXHIBIT D**

**FORM OF SUBORDINATION, NON-DISTURBANCE  
AND ATTORNMENT AGREEMENT**

**Prepared by and Return to:**

New Cingular Wireless PCS, LLC  
Attn: Network Real Estate Administration  
575 Morosgo Drive NE  
Atlanta, GA 30324

Cell Site No.: LS1148  
Cell Site Name: LOU CDL  
Fixed Asset Number: 10050351  
State: Kentucky  
County: Jefferson

**SUBORDINATION, NON-DISTURBANCE  
AND ATTORNMENT AGREEMENT**

**THIS SUBORDINATION, NON-DISTURBANCE AND ATTORNMENT AGREEMENT ("Agreement")**, dated as of the date below, between Jefferson County School District Finance Corporation, having its principal office at \_\_\_\_\_, (hereinafter called "**Mortgagee**") and Board of Education of Jefferson County, Kentucky, having its principal office/residing at \_\_\_\_\_ (hereinafter called "**Licensor**"), and New Cingular Wireless PCS, LLC, a Delaware limited liability company, having a mailing address of 575 Morosgo Drive NE, Atlanta, GA 30324 (hereinafter called "**Licensee**").

**W I T N E S S E T H :**

**WHEREAS**, Licensee has entered into a certain license agreement dated \_\_\_\_\_, 20\_\_, (the "**License**") with Licensor, licensing the right to use space more fully described in **Exhibit 1** attached hereto and made a part hereof (the "**Premises**"); and

**WHEREAS**, Licensor has given to Mortgagee a mortgage (the "**Mortgage**") upon property having a street address of \_\_\_\_\_, being identified as Lot \_\_\_\_\_ in Block \_\_\_\_\_ in the \_\_\_\_\_ of \_\_\_\_\_, \_\_\_\_\_ County, State of \_\_\_\_\_ ("**Property**"), a part of which Property contains the Premises; and

**WHEREAS**, the Mortgage on the Property is in the original principal sum of \_\_\_\_\_ (\$ \_\_\_\_\_) Dollars, which Mortgage has been recorded in the appropriate public office in and for \_\_\_\_\_ County, \_\_\_\_\_; and

**WHEREAS**, Licensee desires to be assured of continued use of the Premises under the terms of the License and subject to the terms of this Agreement.

**NOW, THEREFORE**, in consideration of the mutual promises, covenants and agreements herein contained, the receipt and sufficiency of which are hereby acknowledged, the parties hereto, intending to be legally bound hereby, agree as follows:

1. So long as this Agreement will remain in full force and effect, the License is and will be subject and subordinate to the lien and effect of the Mortgage insofar as it affects the real property and fixtures of which the Premises forms a part (but not Licensee's trade fixtures and other personal property), and to all renewals, modifications, consolidations, replacements and extensions thereof, to the full extent of the principal sum secured thereby and interest thereon, with the same force and effect as if the Mortgage had been executed, delivered, and duly recorded among the above-mentioned public records, prior to the execution and delivery of the License.

2. In the event Mortgagee takes possession of the Premises as mortgagee-in-possession, including but not limited to, by deed in lieu of foreclosure or foreclosure of the Mortgage, Mortgagee agrees not to affect or disturb Licensee's right to use of the Premises and any of Licensee's other rights under the License in the exercise of Mortgagee's rights so long as Licensee is not then in default, after applicable notice and/or grace periods, under any of the terms, covenants, or conditions of the License.

3. In the event that Mortgagee succeeds to the interest of Licensors or other licensors under the License and/or to title to the Premises, Mortgagee and Licensee hereby agree to be bound to one another under all of the terms, covenants and conditions of the License; accordingly, from and after such event, Mortgagee and Licensee will have the same remedies against one another for the breach of an agreement contained in the License as Licensee and Licensors had before Mortgagee succeeded to the interest of Licensors; provided, however, that Mortgagee will not be:

- (a) personally liable for any act or omission of any prior licensors (including Licensors); or
- (b) bound by any rent or additional rent which Licensee might have paid for more than the payment period as set forth under the License (one month, year etc.) in advance to any prior licensors (including Licensors).

4. In the event that Mortgagee or anyone else acquires title to or the right to possession of the Premises upon the foreclosure of the Mortgage, or upon the sale of the

Premises by Mortgagee or its successors or assigns after foreclosure or acquisition of title in lieu thereof or otherwise, Licensee agrees not to seek to terminate the License by reason thereof, but will remain bound unto the new owner so long as the new owner is bound to Licensee (subject to paragraph 3 above) under all of the terms, covenants and conditions of the License.

5. Mortgagee understands, acknowledges and agrees that notwithstanding anything to the contrary contained in the Mortgage and/or any related financing documents, including, without limitation, any UCC-1 financing statements, Mortgagee will acquire no interest in any furniture, equipment, trade fixtures and/or other property installed by Licensee on the Premises. Mortgagee hereby expressly waives any interest which Mortgagee may have or acquire with respect to such furniture, equipment, trade fixtures and/or other property of Licensee now, or hereafter, located on or affixed to the Premises or any portion thereof and Mortgagee hereby agrees that same do not constitute realty regardless of the manner in which same are attached or affixed to the Premises.

6. This Agreement will be binding upon and will extend to and benefit the successors and assigns of the parties hereto and to any assignees or sublicensees of Licensee which are permitted under the License. The term "**Mortgagee**", when used in this Agreement will be deemed to include any person or entity which acquires title to or the right to possession of the Premises by, through or under Mortgagee and/or the Mortgage, whether directly or indirectly.



**IN WITNESS WHEREOF**, the undersigned has caused this Agreement to be executed as of the last signature date below.

**LICENSOR:** Board of Education of Jefferson County, Kentucky

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

**LICENSEE:** New Cingular Wireless PCS, LLC,  
a Delaware limited liability company

By: AT&T Mobility Corporation  
Its: Manager

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

**MORTGAGEE:** Jefferson County School District Finance  
Corporation

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

**LICENSOR**

STATE OF \_\_\_\_\_)  
COUNTY OF \_\_\_\_\_)

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by \_\_\_\_\_ [name of representative], the \_\_\_\_\_ [title] of Board of Education of Jefferson County, Kentucky, ( ) who is personally known OR ( ) who has produced \_\_\_\_\_ as identification.

\_\_\_\_\_  
Notary Public  
My Commission Expires: \_\_\_\_\_

**LICENSEE**

STATE OF \_\_\_\_\_)  
COUNTY OF \_\_\_\_\_)

On the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me personally appeared \_\_\_\_\_, who acknowledged under oath that he/she is the \_\_\_\_\_ of AT&T Mobility Corporation, the Manager of New Cingular Wireless PCS, LLC, the Licensee named in the attached instrument, and as such was authorized to execute this instrument on behalf of the Licensee.

\_\_\_\_\_  
Notary Public  
My Commission Expires: \_\_\_\_\_

**MORTGAGEE**

STATE OF \_\_\_\_\_)  
COUNTY OF \_\_\_\_\_)

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ by \_\_\_\_\_ [name of representative] the \_\_\_\_\_ [title] of Jefferson County School District Finance Corporation, on behalf of Mortgagee( ) who is personally known OR ( ) who produced \_\_\_\_\_ as identification.

\_\_\_\_\_  
Notary Public  
My Commission Expires: \_\_\_\_\_

## EXHIBIT 1

### DESCRIPTION OF PREMISES

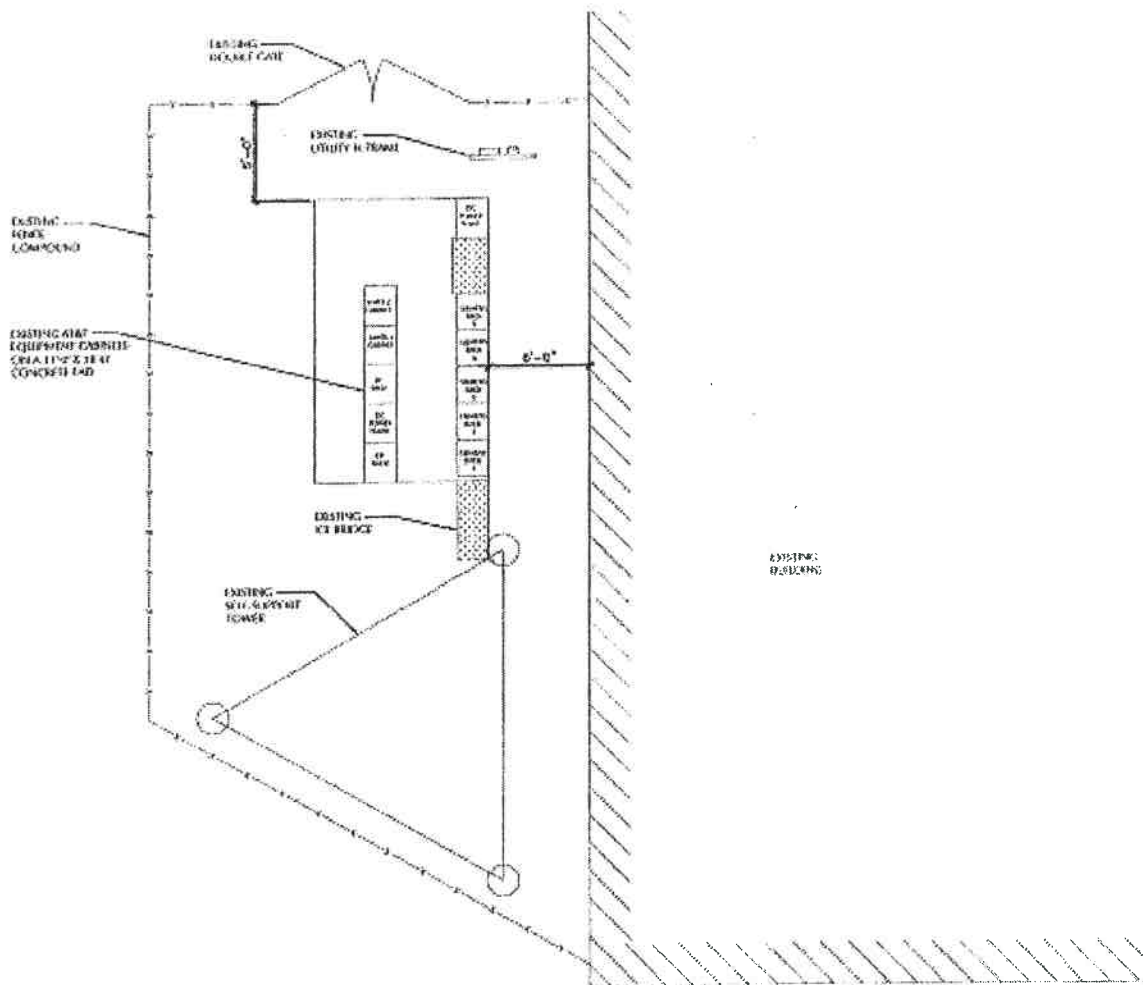
Page 1 of 1

Street Address of Property is: 120 West Lee Street, Louisville, KY 40208

The Premises is described and/or depicted as follows:

Space on the self-support tower structure located at the Property at approximately eighty (80) feet high on such structure, as well as certain ground space depicted on the drawing below, for placement and operation of Licensee's equipment and facilities.

NORTH ↑



**EXHIBIT E**

**FORM OF MEMORANDUM OF AGREEMENT**

**PREPARED BY, and WHEN RECORDED  
RETURN TO:**

\_\_\_\_\_  
Michael Fraunces, President  
Md7, LLC  
10590 West Ocean Air Drive, Suite 300  
San Diego, CA 92130

\_\_\_\_\_  
**Parcel #:** 033E01310000 and 033E0131-TEL1

\_\_\_\_\_  
SPACE ABOVE FOR RECORDER'S USE

Re: Cell Site #: LS1148  
Cell Site Name: LOU CDL (KY)  
Fixed Asset Number: 10050351  
State: KY  
County: Jefferson

**MEMORANDUM  
OF  
AGREEMENT**

This Memorandum of Agreement is entered into on this \_\_\_\_ day of \_\_\_\_\_, 201\_\_, by and between Board of Education of Jefferson County, Kentucky, having a mailing address at 3001 Crittendon Drive, Louisville, KY 40209 (hereinafter referred to as "JCPS") and New Cingular Wireless PCS, LLC, a Delaware limited liability company, having a mailing address of 575 Morosgo Drive NE, Atlanta, GA 30324 (hereinafter referred to as "Licensee").

1. JCPS and Licensee entered into a certain Communications Facility Space License Agreement dated \_\_\_\_\_, 201\_\_ (hereinafter, the "**Agreement**") for the purpose of installing, operating and maintaining a communications facility and other improvements at a portion of JCPS's real property located in the City of Louisville, County of Jefferson, commonly known as 120 West Lee Street (the "**Site**"). All of the foregoing are set forth in the Agreement.
2. The Initial Term will be five (5) years ("**Initial Term**") commencing on the Effective Date, with one (1) successive five (5) year option to renew.



3. The portion of the space being licensed to Licensee at the Site (the “**Licensed Space**”) on the Site is described in **Exhibit 1** attached hereto.
4. This Memorandum of Agreement is not intended to amend or modify, and shall not be deemed or construed as amending or modifying, any of the terms, conditions or provisions of the Agreement, all of which are hereby ratified and affirmed. In the event of a conflict between the provisions of this Memorandum of Agreement and the provisions of the Agreement, the provisions of the Agreement shall control. The Agreement shall be binding upon and inure to the benefit of the parties and their respective heirs, successors, and assigns, subject to the provisions of the Agreement.

[NO MORE TEXT ON THIS PAGE - SIGNATURES TO FOLLOW ON NEXT PAGE]

**IN WITNESS WHEREOF**, the parties have executed this Memorandum of Agreement as of the day and year first above written.

JCPS:  
Board of Education of Jefferson County,  
Kentucky

LICENSEE:  
New Cingular Wireless PCS, LLC,  
a Delaware limited liability company

By: AT&T Mobility Corporation  
Its: Manager

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

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

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

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

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

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

Date: \_\_\_\_\_

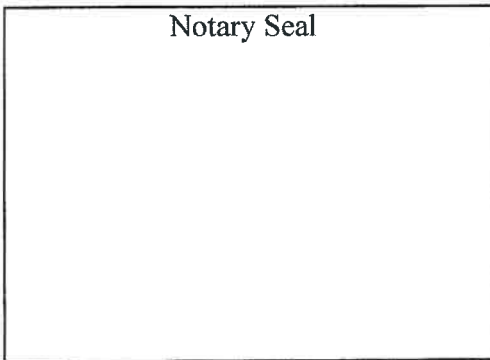
Date: \_\_\_\_\_

**JCPS ACKNOWLEDGEMENT**

STATE OF \_\_\_\_\_ )  
 ) SS.  
COUNTY OF \_\_\_\_\_ )

I certify that I know or have satisfactory evidence that \_\_\_\_\_  
is the person who appeared before me, and said person acknowledged that said person signed this  
instrument, on oath stated that said person was authorized to execute the instrument and  
acknowledged it as the \_\_\_\_\_ of the  
**Board of Education of Jefferson County, Kentucky**, to be the free and voluntary act of such  
party for the uses and purposes mentioned in the instrument.

DATED: \_\_\_\_\_.



\_\_\_\_\_  
(Signature of Notary)

\_\_\_\_\_  
(Legibly Print or Stamp Name of Notary)  
Notary Public in and for the State of

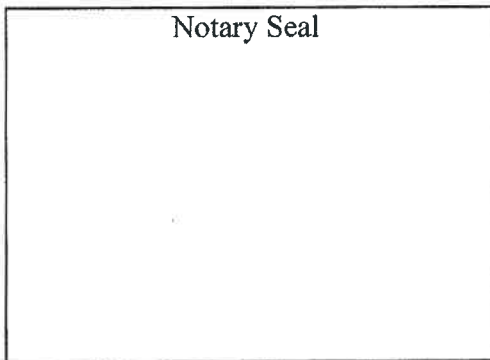
\_\_\_\_\_  
My appointment expires: \_\_\_\_\_

**LICENSEE ACKNOWLEDGEMENT**

STATE OF \_\_\_\_\_ )  
 ) SS.  
COUNTY OF \_\_\_\_\_ )

I certify that I know or have satisfactory evidence that \_\_\_\_\_  
is the person who appeared before me, and said person acknowledged that he/she signed this  
instrument, on oath stated that he/she was authorized to execute the instrument and  
acknowledged it as the \_\_\_\_\_ of AT&T Mobility Corporation, the  
Manager of **New Cingular Wireless PCS, LLC, a Delaware limited liability company**, to be  
the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

DATED: \_\_\_\_\_.



\_\_\_\_\_  
(Signature of Notary)

\_\_\_\_\_  
(Legibly Print or Stamp Name of Notary)  
Notary Public in and for the State of

\_\_\_\_\_  
My appointment expires: \_\_\_\_\_

Attachment:

Exhibit 1 – Description of Licensed Space



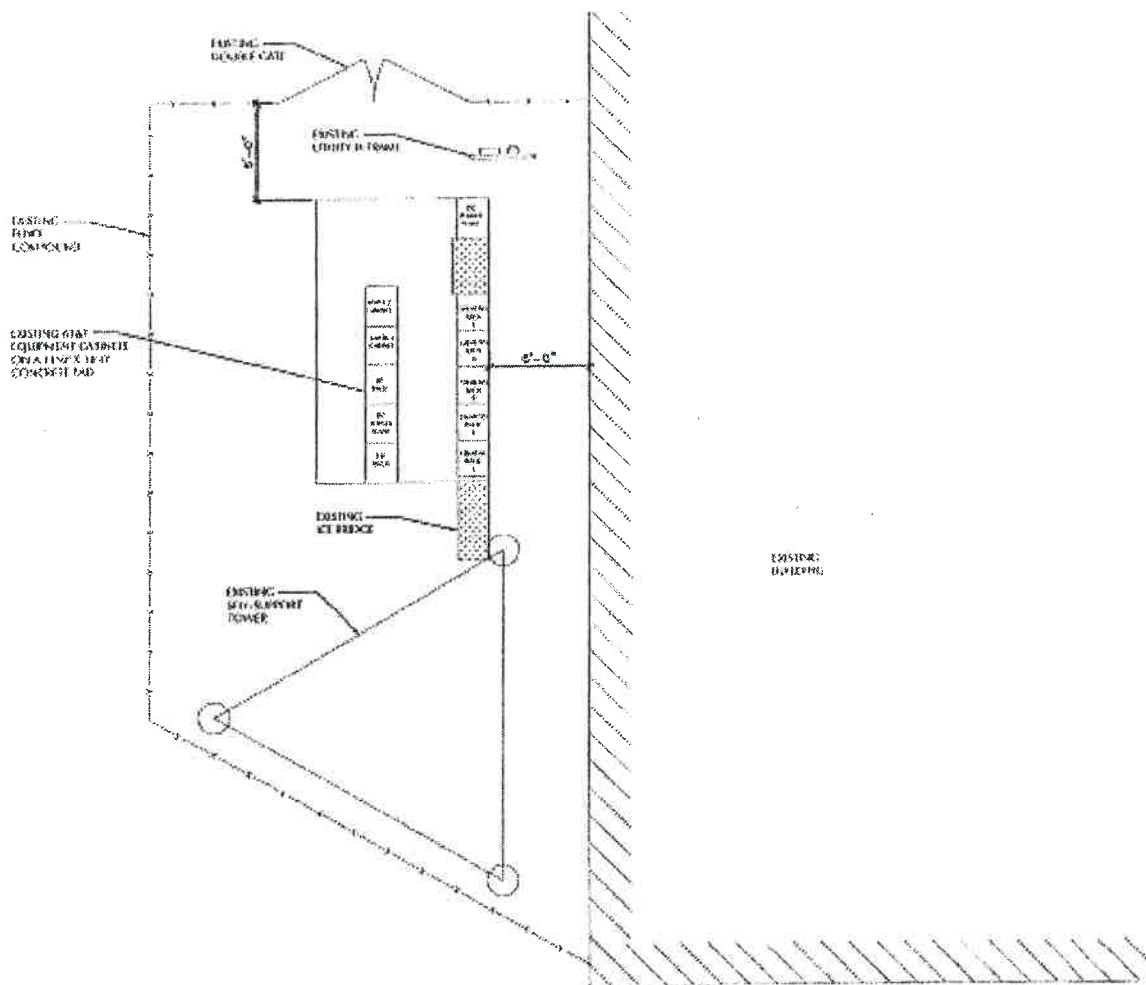
**Exhibit 1 to Memorandum of Agreement**  
**Description of Licensed Space**

Street Address of Site: 120 West Lee Street, Louisville, KY, 40208

The Licensed Space is described and/or depicted as follows:

Space on the self-support tower structure located at the Site at approximately eighty (80) feet high on such structure, as well as certain ground space depicted on the drawing below, for placement and operation of Licensee's equipment and facilities.

NORTH ↑



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