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DARK FIBER LEASE AGREEMENT

This Dark Fiber Lease Agreement (the "**Lease Agreement**") is entered into as of February 23, 2016 ("**Effective Date**") by and between the Huntsville Electric Utility Board, a municipal public utility board created by the City of Huntsville, Alabama, with its principal place of business at 112 Spragins Street, Huntsville, Alabama 35801 ("**Lessor**"), and Google Fiber Inc., a Delaware corporation with its principal place of business at 1600 Amphitheatre Parkway, Mountain View, California 94043 ("**Tenant**").

RECITALS

WHEREAS, Lessor operates the electric distribution system in Huntsville, Madison County, Alabama;

WHEREAS, Lessor uses a fiber-optic network ("**Lessor Network**") to manage and operate its electric distribution system;

WHEREAS, Lessor is expanding its Lessor Network in its electrical service area ("**Lessor Service Area**") in order to improve its ability to manage its electric distribution system;

WHEREAS, Lessor anticipates that it will have optical fibers in excess of its current expected needs, and Lessor will benefit from leasing certain excess Dark Fiber to third parties;

WHEREAS, Lessor has established rates for the lease of its Dark Fiber;

WHEREAS, Lessor will benefit from the lease of Dark Fiber to tenants; and

WHEREAS, Tenant desires to lease certain Dark Fiber from Lessor to use in conjunction with Tenant's equipment ("**Equipment**") and Lessor desires to lease certain Dark Fiber to Tenant.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth in this Lease Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Lessor and Tenant do hereby agree as follows:

1. DEFINITIONS

- 1.1. "**Acceptance**" means the acceptance by Tenant of the Dark Fiber within a Network Section delivered by Lessor in accordance with the procedures set forth in Section 4.
- 1.2. "**Acceptance Date**" has the meaning ascribed thereto in Section 4.4.
- 1.3. "**Acceptance Testing**" has the meaning ascribed thereto in Section 4.2.
- 1.4. "**Colocation Agreement**" means that certain Colocation Agreement between Lessor and Tenant dated the same date as this Lease Agreement.



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- 1.5. “**Colocation Space**” has the meaning ascribed thereto in the definitions section of the Colocation Agreement.
- 1.6. “**Colocation Structure**” has the meaning ascribed thereto in the definitions section of the Colocation Agreement.
- 1.7. “**Confidential Information**” means all strategic, functional, technical, financial, marketing, sales, promotional and other information (including all related know-how, implementation, operational methods and procedures) related to the business of a Party, which is disclosed by one Party to the other Party, to the extent that such information is marked or identified as confidential or proprietary or would normally be considered confidential under the circumstances. Information that (a) is independently developed by the receiving Party, (b) is lawfully received by the receiving Party free of any obligation to keep it confidential, or (c) becomes generally available to the public other than by breach of this Lease Agreement, shall not be considered Confidential Information.
- 1.8. “**Costs**” means all actual, documented, and reasonable on-site costs incurred and computed in accordance with: (i) the established accounting procedures used by Lessor to bill third parties for reimbursable projects; and (ii) generally accepted accounting principles. Such Costs include the following: (a) labor costs, including wages, salaries, and benefits together with overhead allocable to such labor costs (the overhead allocation will not exceed twenty percent (20%) of the labor costs computed without such overhead); and (b) other direct costs and out-of-pocket expenses on a pass-through basis (such as equipment, materials, supplies, contract services, sales, use or similar taxes, etc.).
- 1.9. “**Dark Fiber**” means the optical fiber in the Lessor Network through which no light is transmitted and no signal is carried. Dark Fiber is unactivated deployed fiber that is left dark, i.e., with no necessary equipment, such as opto-electronics or optronics attached to light the fiber to carry a signal to serve customers.
- 1.10. “**Dark Fiber Technical Specifications**” means the Dark Fiber technical specifications attached hereto as Exhibit F.
- 1.11. “**Delivery Date**” means the date on which Lessor completes the installation of the Dark Fiber for a Network Section and notifies Tenant that the Dark Fiber is ready for Acceptance Testing.
- 1.12. “**Demarcation Points**” means the end points of each segment of Leased Dark Fiber as assigned in the applicable Network Delivery Form as connection points to Equipment, including without limitation the end points located in a Colocation Structure or at a multipoint service terminal or a network access point.
- 1.13. “**Effective Date**” has the meaning ascribed thereto in the Recitals.
- 1.14. “**End User**” means an end user or potential end user of Tenant Services provided using the Leased Dark Fiber and Equipment.



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- 1.15. **“Equipment”** means communications and networking electronics, facilities used for service drops, and other equipment owned or leased from third parties by Tenant and used in connection with lighting the Dark Fiber and providing the Tenant Services. Equipment does not include the Dark Fiber or any equipment, facilities, or property owned or leased from third parties by Lessor.
- 1.16. **“Estimated Delivery Date”** has the meaning ascribed thereto in Section 4.1.
- 1.17. **“Evaluation Period”** means the period of twenty-one (21) days after Tenant receives the Fiber Test Results.
- 1.18. **“Extended Lessor Network”** has the meaning ascribed thereto in Section 4.5.1.
- 1.19. **“Fiber Testing”** has the meaning ascribed thereto in Exhibit C.
- 1.20. **“Fiber Test Results”** has the meaning ascribed thereto in Exhibit C.
- 1.21. **“First Section Design”** has the meaning ascribed thereto in the definitions section of the Network Agreement.
- 1.22. **“Force Majeure Event”** means an event or circumstance that prevents one Party from performing its obligations under this Lease Agreement, which event is not within the reasonable control of, or the result of the negligence of, the claiming Party, and which, by the exercise of commercially reasonable diligence, the claiming Party is unable to overcome or avoid or cause to be avoided, including but not limited to acts of God, fire, explosion, flood, storm or other similar catastrophe, war, revolution, civil commotion, acts of public enemies, terrorism or national emergency, or any law, order, or regulation of the government (or any department, agency, commission, court, or bureau of a government) resulting from the above.
- 1.23. **“Franchise”** has the meaning ascribed thereto in the definitions section of the Network Agreement.
- 1.24. **“Initial Network Completion”** has the meaning ascribed thereto in the definitions section of the Network Agreement.
- 1.25. **“Interconnection Location”** has the meaning ascribed thereto in Section 3.1.3.
- 1.26. **“Lease”** has the meaning ascribed thereto in Section 2.1.
- 1.27. **“Lease Agreement”** means this Dark Fiber Lease Agreement.
- 1.28. **“Lease Term”** has the meaning ascribed thereto in Section 10.1.
- 1.29. **“Leased Dark Fiber”** has the meaning ascribed thereto in Section 2.1.
- 1.30. **“Lessor Interference”** has the meaning ascribed thereto in Section 3.3.1.
- 1.31. **“Lessor Network”** has the meaning ascribed thereto in the Recitals.



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- 1.32. “**Lessor Service Area**” has the meaning ascribed thereto in the Recitals.
- 1.33. “**Metro Fiber Ring**” has the meaning ascribed thereto in the definitions section of the Network Agreement.
- 1.34. “**MRC**” means the monthly recurring charges for use of the Leased Dark Fiber as established by Lessor and set forth in Exhibit E.
- 1.35. “**Network Agreement**” means that certain Fiber Network Agreement between Lessor and Tenant dated the same date as this Lease Agreement.
- 1.36. “**Network Delivery Form**” has the meaning ascribed thereto in Section 4.1.
- 1.37. “**Network Section**” has the meaning ascribed thereto in the definitions section of the Network Agreement.
- 1.38. “**Network Section Design**” has the meaning ascribed thereto in the definitions section of the Network Agreement.
- 1.39. “**Outage**” means a condition during which Tenant is unable to carry traffic on the Leased Dark Fiber due to a break or other problem with the Leased Dark Fiber.
- 1.40. “**Party**” means Tenant or Lessor and “**Parties**” means Tenant and Lessor.
- 1.41. “**Person**” means a natural person, corporation, partnership, limited liability company, association, trust, unincorporated organization, or other legal entity or organization, or a governmental authority.
- 1.42. “**Pole Attachment Agreement**” means that certain Pole Attachment Agreement between Lessor and Tenant dated the same date as this Lease Agreement
- 1.43. “**Preliminary HU Network Design**” means the preliminary design for the Lessor Network attached hereto as Exhibit A.
- 1.44. “**Qualifying Address**” has the meaning ascribed thereto in the definitions section of the Network Agreement.
- 1.45. “**Required Relocation**” means any non-emergency relocation of any portion of the Lessor Network that is mandated by a governmental agency (other than Lessor), but does not include any relocation undertaken solely as part of the undergrounding Lessor’s power lines.
- 1.46. “**Required Rights**” means the legal rights that are necessary for Lessor’s installation, operation, and maintenance of the Lessor Network and for uses of the Leased Dark Fiber contemplated by this Lease Agreement, including, where applicable, easements and other rights granted by third parties to Lessor.
- 1.47. “**Route**” means a route for Leased Dark Fiber between points on the Lessor Network.



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- 1.48. “**Service Level Agreement**” means the agreement attached hereto as Exhibit D, which may be amended or modified from time to time by mutual agreement of the Parties, setting forth Lessor’s obligations relating to the requirements for and maintenance of the Leased Dark Fiber.
- 1.49. “**Specifications**” means the specifications as described in Section 4 of Exhibit C and the Dark Fiber Technical Specifications as set forth in Exhibit F.
- 1.50. “**Tenant Interference**” has the meaning ascribed thereto in Section 3.3.2.
- 1.51. “**Tenant Services**” means communications services that Tenant may provide to End Users using the Leased Dark Fiber and Equipment.

2. LEASE

- 2.1. **Grant of Lease.** Lessor hereby grants to Tenant a lease (“**Lease**”) for, and Tenant hereby leases from Lessor, the exclusive access to and use of certain Dark Fiber, as further described in one or more Network Section Designs and one or more Network Delivery Forms, delivered by Lessor and accepted by Tenant in accordance with the terms of this Lease Agreement (the “**Leased Dark Fiber**”). It is the intent of the Parties for each Lease to be a conveyance of a leasehold interest in real property from Lessor to Tenant for the duration of the Lease Term. Tenant may not sublet its Leased Dark Fiber to third-parties, unless otherwise agreed upon by the Parties.
- 2.2. **Limitations.** This Lease Agreement is for the lease and use of the Leased Dark Fiber only, subject to the terms and conditions herein. Lessor is not transferring or granting to Tenant any other interest or estate in the Leased Dark Fiber, Lessor Network, equipment, attachment points, backbone extensions, private property access, building entrances, conduit or any other property interest, including any fee, easement, or any franchise rights, except as expressly set forth herein. This Lease Agreement is not a contract for electric service. Electric service may be provided to Tenant by application to Lessor and pursuant to Lessor’s rules and regulations. This is also not a franchise agreement for providing cable, video, Internet or telecommunication services. Nothing in this Lease Agreement will be construed to require Lessor to engage in any activity that would result in its becoming a telecommunications service provider, cable service provider, Internet service provider, telephone company, communications carrier, or any other kind of common carrier, or any kind of utility other than a municipally owned electric utility.
- 2.3. **No Exclusivity.** Nothing in this Lease Agreement is to limit the Lessor’s right of use of, or right to lease or license to others Lessor’s utility poles, Colocation Structures, attachment points (other than the Demarcation Points), backbone extensions, private property access, building entrances, conduit, or the remaining Dark Fiber not leased in this Lease Agreement.
- 2.4. **Parties’ Respective Ownership.**



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- 2.4.1. **Ownership of Dark Fiber.** As between the Parties, Lessor will remain the legal owner of the Leased Dark Fiber. Nothing in this Lease Agreement will be interpreted to give or convey to Tenant any ownership property right, or any title or interest of ownership in such Leased Dark Fiber, even if it may be or become attached to or embedded in realty. Further, Tenant will not have any interest in, or the right to occupy or otherwise use, any of the Dark Fiber in the Lessor Network other than the Leased Dark Fiber.
- 2.4.2. **Ownership of Equipment.** As between the Parties, Tenant is solely responsible for providing Equipment (if any) to light the Leased Dark Fiber. As between the Parties, all ownership or other property interests, rights, and titles in and to any Equipment remain in Tenant, even if it may be or become attached to or embedded in realty. Tenant is responsible for installing, maintaining, and replacing the Equipment. Lessor will not access, use, copy, transfer, reverse-engineer, modify, or dispose of any Equipment or any portion thereof except as expressly permitted by this Lease Agreement. As between the Parties, all ownership rights and titles in and to any equipment, facilities, or real property owned by Lessor remain in Lessor.
- 2.4.3. **Ownership of Intellectual Property.** All ownership rights, title, and intellectual property rights in and to any Equipment or Tenant Services remain in Tenant or Tenant's licensors. All ownership rights, title, and intellectual property rights in and to the Lessor Network, including without limitation the Dark Fiber, remain in Lessor or Lessor's licensors.
- 2.5. **Suspension and Tolling of Obligations.** Anything else to the contrary herein notwithstanding, each Party's obligations and rights under this Lease Agreement (other than in respect of Sections 12 and 13) will be suspended and tolled during the pendency of any legal action challenging the authority of Lessor to lease the Leased Dark Fiber or to perform its obligations under this Lease Agreement, provided that such action prevents Lessor from leasing the Leased Dark Fiber to Tenant and from performing its obligations under this Lease Agreement. If a governmental authority enters an order or takes any other action prohibiting Lessor's leasing of the Leased Dark Fiber to Tenant in accordance with the terms of this Lease Agreement, then upon exhaustion of all administrative and judicial rights of appeal by Lessor, this Lease Agreement and the Pole Attachment Agreement will immediately terminate and neither Party will have any liability to the other Party. Without limiting the foregoing, Lessor will have no liability to Tenant for any breach of Section 9.1 that results from a suspension or termination of this Lease Agreement pursuant to this Section 2.5.

3. ACCESS AND USE OF LEASED DARK FIBER

- 3.1. **Tenant's Rights.** During the Lease Term and subject to and in accordance with the terms and conditions of this Lease Agreement and the Required Rights:



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- 3.1.1. Tenant may provide any lawful service to End Users over the Leased Dark Fiber, subject to compliance with the requirements set forth in Section 3.5 herein.
- 3.1.2. Tenant will have unrestricted right of access to the Leased Dark Fiber at the Demarcation Points for the purpose of installing, testing, maintaining, replacing, or removing Equipment. If the Demarcation Points are physically situated such that appropriately trained personnel cannot reasonably and safely access the Demarcation Points to perform their tasks, Lessor will, at Tenant's request, make commercially reasonable efforts promptly to relocate, at Lessor's sole expense, such Demarcation Points to enable such access by Tenant or Tenant's contractors. For avoidance of doubt, nothing in this Section 3.1 will be construed to grant any rights to Tenant to attach Equipment to Lessor's utility poles, or to house Equipment in Lessor's Colocation Structures; or be construed to limit or restrict Tenant's rights under the Pole Attachment Agreement and the Colocation Agreement.
- 3.1.3. Tenant may interconnect the Leased Dark Fiber to other communications systems or facilities, including but not limited to interconnecting to the public Internet, at locations to be designated by Tenant in the First Section Design ("**Interconnection Location**"). In the event that Tenant is unable to interconnect the Leased Dark Fiber to the public Internet at one or more existing points on the Lessor Network, Tenant may request Lessor to perform any such interconnection within the Lessor Service Area, and Lessor will make commercially reasonable efforts to deliver Dark Fiber for Tenant to lease for such interconnection to the extent Lessor has Required Rights over the proposed interconnection path to the public Internet. Lessor may invoice Tenant in advance of installation of such Dark Fiber, and Tenant will pay for the Costs of such Dark Fiber, and installation thereof, prior to Lessor taking steps to install such Dark Fiber.
- 3.1.4. Tenant may access the Lessor Network only at Demarcation Points, provided, however, that Tenant may access other points on the Lessor Network pursuant to Section 4 for the purpose of Acceptance Testing.
- 3.2. **Lessor's Use.** Lessor acknowledges that it has no right to use the Leased Dark Fiber during the Lease Term.
- 3.3. **No Interference.**
- 3.3.1. Tenant has the right to use the Leased Dark Fiber free from any interferences, impairment, or disruption caused by Lessor's or any other Person's use of the Lessor Network ("**Lessor Interference**"). Lessor will not use the Lessor Network in a way that causes Lessor Interference with the use of the Leased Dark Fiber by Tenant. If Tenant experiences Lessor Interference, Tenant will notify Lessor and Lessor will promptly abate such Lessor Interference. In the event that Lessor Interference causes an Outage and Lessor fails to abate such



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Lessor Interference within forty-eight (48) hours of receiving notice from Tenant, then notwithstanding the dispute resolution procedures set forth in Section 14.4, Tenant may immediately seek to enforce its rights under this Section 3.3.1 through specific performance, preliminary injunction, or a temporary restraining order. For avoidance of doubt, any Outage resulting from Lessor's performance of maintenance and relocation activities pursuant to Sections 6 and 7 of this Lease Agreement and pursuant to the terms of the Pole Attachment Agreement and the Colocation Agreement will not constitute Lessor Interference for purposes of this Section 3.3.1.

3.3.2. Lessor has the right to use the Lessor Network (other than the Leased Dark Fiber) free from any interferences, impairment, or disruption caused by Tenant's use of the Leased Dark Fiber ("**Tenant Interference**"). Tenant will not use the Leased Dark Fiber in a way that causes Tenant Interference with the use of the Lessor Network (other than the Leased Dark Fiber) by Lessor. If Lessor experiences Tenant Interference, Lessor will notify Tenant and Tenant will promptly abate such Tenant Interference. In the event that Tenant Interference causes the Lessor Network (other than the Leased Dark Fiber) to be unable to carry Lessor's or other tenants' data traffic, and Tenant fails to abate such Tenant Interference within forty-eight (48) hours of receiving notice from Lessor, then notwithstanding the dispute resolution procedures set forth in Section 14.4, Lessor may immediately seek to enforce its rights under this Section 3.3.2 through specific performance, preliminary injunction, or a temporary restraining order.

3.4. **No Liens.** If a Party causes a mechanic's, materialman's, or vendor's lien, or any similar lien to become attached, in the case of Tenant to the Leased Dark Fiber, and in the case of Lessor to the Equipment, then such Party will, upon becoming aware of such lien, promptly notify the other Party in writing, and promptly take all steps needed to cause such lien to be discharged and released of record without cost to the other Party.

3.5. **Lawful Use.** Tenant's use of the Leased Dark Fiber will at all times comply with all applicable governmental codes, ordinances, laws, rules, regulations, and restrictions.

3.6. **Limitation on Inspection of Traffic.** Lessor will not, either directly or indirectly, (a) access or use, for itself or on behalf of any other Person, any content or traffic transmitted over the Leased Dark Fiber by Tenant or by End Users of the Tenant Services, or (b) allow any Person, other than governmental authorities pursuant to a validly issued subpoena or similar order, to access, directly or indirectly, any content or traffic transmitted over Leased Dark Fiber by Tenant or by End Users of the Tenant Services. Tenant will not, either directly or indirectly, (a) access or use, for itself or on behalf of any other Person, any content or traffic transmitted over the Lessor Network (other than over the Leased Dark Fiber) by Lessor or any third party, or (b) allow any Person, other than governmental authorities pursuant to a validly issued subpoena or similar order, to access, directly or indirectly, any content or traffic transmitted over Lessor Network (other than over the Leased Dark Fiber) by Lessor or any third party.



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3.7. Improvements to Dark Fiber. At any point after Acceptance by Tenant of Leased Dark Fiber, Tenant may request that Lessor take additional actions to improve the quality or performance of the Leased Dark Fibers. Lessor will make commercially reasonable efforts to make personnel available to engage in good faith discussions with Tenant to explore ways of accommodating such requests in a timely fashion and without disrupting third-party tenants' use of the Dark Fiber. If Lessor agrees to take such additional actions, Lessor will notify third-party lessees. Tenant will reimburse Lessor for the Costs it incurred to make the improvements to the Dark Fiber, up to an amount mutually agreed to by the Parties prior to Lessor commencing work. For avoidance of doubt, no such additional actions contemplated by this Section 3.7 will change the amounts of rental fees paid under Section 5.1.

4. NOTICE, DELIVERY AND ACCEPTANCE

4.1. Notice of Dark Fiber for Delivery. Lessor will make commercially reasonable efforts to provide written notice to Tenant no later than sixty (60) days prior to the date, on or after the completion of installation of a Network Section, on which Lessor anticipates delivering Dark Fiber in such Network Section for Acceptance Testing (the "**Estimated Delivery Date**"). The written notice will include, at a minimum, the Estimated Delivery Date and the following information to be provided in a medium to be agreed upon by the Parties as part of the Network Section Design for the first Network Section (the "**Network Delivery Form**"):

- 4.1.1. For a delivery of Dark Fiber in the Metro Fiber Ring, the information in the Network Delivery Form will include:
- (a) the addresses of each Colocation Structure and Interconnection Location;
 - (b) the distance measurements for the Dark Fiber connecting each Colocation Structure or Interconnection Location;
 - (c) location information for each Demarcation Point on the Metro Fiber Ring;
 - (d) the number of strands of Dark Fiber;
 - (e) a unique identification number for each strand of the Dark Fiber; and
 - (f) the applicable MRC.
- 4.1.2. For a delivery of Dark Fiber other than the Dark Fiber in the Metro Fiber Ring, the Network Delivery Form will include, with respect to each segment of Dark Fiber that Lessor anticipates delivering on the Estimated Delivery Date:
- (a) each Qualifying Address in the applicable Network Section and the corresponding multipoint service terminal or network access point on the segment of Dark Fiber assigned by Lessor to Tenant;
 - (b) the total number of Qualifying Addresses in such Network Delivery Form;



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- (c) the number of multiport service terminal ports and network access points ports assigned to Tenant;
- (d) information for each Demarcation Point on the segment of Dark Fiber sufficient to enable Tenant to locate such Demarcation Point on the Lessor Network;
- (e) a distance measurement, based on street centerlines along the optimal Dark Fiber route path as determined by the Lessor, between the Demarcation Points for the segment of Dark Fiber;
- (f) a unique identification number; and
- (g) the applicable MRC.

4.2. **Acceptance Testing.** On or after the Delivery Date of the Dark Fiber to be leased with respect to a Network Section, Lessor will conduct testing in accordance with the Fiber Testing procedures specified in Exhibit C to verify that the Dark Fiber for such Network Section was installed in accordance with the Specifications (“**Acceptance Testing**”). Lessor will provide Tenant at least two (2) days’ prior notice of the date and time of Acceptance Testing and Tenant will have the right to have representatives present to observe the Acceptance Testing. At the time when Lessor notifies Tenant that the Dark Fiber with respect to such Network Section has been installed and is performing in all respects in accordance with the Specifications, Lessor will deliver the Fiber Test Results to Tenant.

4.3. **Tenant’s Determination.** If, with respect to any Dark Fiber delivered for Acceptance Testing under Section 4.2, Tenant fails to notify Lessor during the Evaluation Period that the Dark Fiber is not installed in accordance with the Specifications, then the Dark Fiber will be deemed accepted. If Tenant determines that any such Dark Fiber delivered by Lessor is not installed and operational in accordance with the Specifications, then during the Evaluation Period, Tenant will notify Lessor that such results are unacceptable and specify in reasonable detail the portions of such Dark Fiber that are out of compliance with the Specifications. Lessor will, at no additional cost to Tenant, promptly take such action as is reasonably necessary to bring the installation and operating standards of such Dark Fiber within the Specifications. After taking corrective action, Lessor will notify Tenant thereof and provide Tenant with prior notice of a new round of Acceptance Testing. Tenant will have the right to have representatives present to observe such new round of Acceptance Testing. The cycle described above of testing, taking corrective action, and re-testing will take place as necessary to ensure that the delivered Dark Fiber operates according to the Specifications. During the Evaluation Period, Tenant may request by notice to Lessor the opportunity to independently verify the Fiber Test Results, and Lessor will provide Tenant with escorted access to any intermediate points on the Lessor Network for the purpose of such independent verification, where such access is technically feasible and where an interface point can be made available for testing without adversely affecting the condition or operation of the Lessor Network.



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- 4.4. **Acceptance Date.** The “**Acceptance Date**” with respect to Dark Fiber delivered under Section 4.1 is the earlier of the date Tenant confirms its Acceptance or the last day of the Evaluation Period, provided that the Evaluation Period will be suspended for the duration of any corrective action or retesting pursuant to Section 4.3. However, no Acceptance or deemed Acceptance will constitute a waiver by Tenant of Lessor’s obligations of maintenance and repair of the Leased Dark Fibers in accordance with the Specifications and the Service Level Agreement.
- 4.5. **Network Extensions.**
- 4.5.1. At any time during the Lease Term, Tenant may request that Lessor extend the Lessor Network (through installation and construction of additional Dark Fiber, conduit, aerial poles and other facilities as appropriate or necessary, but not including any equipment necessary to light the Dark Fiber) beyond the area contemplated in the Preliminary HU Network Design as set out in Exhibit A. Lessor will evaluate extension requests to the Lessor Network and make the sole determination that such requests will benefit the efficient operation of the electric distribution system. If Lessor agrees to extend the Lessor Network pursuant to this Section 4.5.1, it will provide written notification to Tenant, and will provide to Tenant as soon as reasonably practicable the network design, maps and other documents and information describing the planned extended portion of the Lessor Network (the “**Extended Lessor Network**”). Tenant will notify Lessor in writing within twenty (20) days of receipt of the documents and information described in the preceding sentence, and if the network design meets the Specifications and the requirements of the Service Level Agreement, Tenant will lease agreed upon Dark Fiber in the Extended Lessor Network in accordance with Section 4.5.2 herein, provided, however, that Tenant’s obligation to lease the Dark Fiber in such Extended Lessor Network will be contingent on Tenant having secured a franchise or other municipal authority with respect to the applicable portion of the Extended Lessor Network necessary to provide the Tenant Services containing reasonable and customary terms and conditions from any applicable government authority. If Lessor determines that the requested extension of the Lessor Network necessitates the construction of one or more additional Colocation Structures, then the Parties will negotiate in good faith for Tenant to lease Colocation Space in such additional pursuant to the terms of the Colocation Agreement.
- 4.5.2. If Tenant notifies Lessor that Tenant will lease the agreed upon Dark Fiber in the Extended Lessor Network pursuant to this Section 4.5.2, Lessor will provide to Tenant, as soon as reasonably practicable, the construction schedule of the Extended Lessor Network, which Lessor may update and revise from time-to-time. Lessor will promptly provide to Tenant written notice and details of any such updates or revisions.
- (a) Tenant will, within twenty (20) days of receiving written notification from Lessor providing the expected completion and delivery date of the agreed upon Dark Fiber in the Extended Lessor Network (in units of minimum



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quantities to be mutually agreed upon by the Parties), submit a written request to lease the agreed upon Dark Fiber pursuant to the terms of the Lease Agreement.

- (b) Following delivery by Lessor to Tenant of the agreed upon Dark Fiber in the Extended Lessor Network, and upon the successful completion of the testing and acceptance procedures set forth in Section 4 of this Lease Agreement, the agreed upon Dark Fiber in the Extended Lessor Network will be deemed to be Leased Dark Fiber subject to the terms of this Lease Agreement (including without limitation the duration of the Lease Term), provided, however, that the rental fee for such Leased Dark Fiber in the Extended Lessor Network will be the rate or rates in effect as of the date on which Lessor provides written notice to Tenant of its decision to extend the Lessor Network pursuant to Section 4.5.1.

- 4.5.3. If Lessor extends the Lessor Network other than at Tenant's request, Tenant may at its discretion, but is not required to, lease certain strands of additional Dark Fiber pursuant to Section 4.5.2(b).

- 4.6. **Limitation of Tenant's Obligation.** Anything else to the contrary in this Lease Agreement notwithstanding, Tenant will not be required to accept for delivery, and no such delivery will be deemed accepted by operation of Section 4.3, for any Dark Fiber or any Network Section delivered by Lessor after Lessor has achieved Initial Network Completion under Section 2.2.3 of the Network Agreement.

5. PAYMENTS

- 5.1. **Rate.** Tenant will pay a monthly lease payment for the Leased Dark Fiber beginning on the Acceptance Date of such Leased Dark Fiber, provided, however, that if Lessor fails to provide at least sixty (60) days' prior written notice to Tenant of the Estimated Delivery Date and the Network Delivery Form pursuant to Section 4.1, the monthly lease payment for such Leased Dark Fiber will begin on the later of (a) the Acceptance Date and (b) the date that is sixty (60) days from the date on which Lessor provided the notice and Network Delivery Form pursuant to Section 4.1. The monthly lease payment will consist of the MRCs for the use of the Leased Dark Fiber in accordance with the rates set by Lessor and with this Section 5.

5.2. **Invoicing Process.**

- 5.2.1. Lessor will invoice Tenant for Leased Dark Fiber only upon or after the Acceptance Date. For Leased Dark Fiber, Lessor will invoice Tenant for the rental fees on a monthly basis in arrears. Lessor will deliver invoices to Tenant at an address that Tenant specifies.
- 5.2.2. Tenant will tender payment within forty-five (45) days of the date of Tenant's receipt of each invoice.



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5.2.3. When the Acceptance Date occurs on a day other than the first day of the month, or the Lease terminates on a day other than the last day of the month, Lessor will prorate the rental fees to determine the monthly payment.

5.3. **Late Payments.** If Tenant does not pay the monthly lease payment when due, Lessor may assess a late fee of one percent (1%) per month (not to exceed the maximum rate allowed under applicable law) on all amounts payable pursuant to this Lease Agreement.

5.4. **Audit Rights.** Tenant will have a limited right to access the documents, records, and systems in Lessor's custody or control that Lessor relied upon and are sufficient to calculate the MRCs or other charges stated in an invoice. Tenant may only exercise its audit right once per calendar year. Tenant is responsible for the costs associated with any requested audit.

5.5. **Network Agreement and Colocation Agreement Credits.** Tenant's monthly lease payments will be subject to adjustments for (a) Delivery Delay Credits, if any, calculated in accordance with Section 2.2.5(a) of the Network Agreement; and (b) Service Credits, if any, calculated in accordance with the Service Level Agreement for the Colocation Agreement.

6. OPERATIONS AND MAINTENANCE

6.1. **Lessor's Responsibility for Maintenance.** During the Lease Term, Lessor will monitor and maintain the structural aspects of Leased Dark Fiber in good operating condition, utilizing sound engineering practices and in accordance with Exhibit B. If Lessor fails at any time to meet the Specifications for the Leased Dark Fiber, Lessor will restore the Leased Dark Fiber to meet the Specifications in as timely and expedited a manner as reasonably possible.

6.2. **Network Management System.** The Parties will make commercially reasonable efforts to ensure that the information systems used by Lessor to manage the Lessor Network will have the technical capability to enable Tenant to request installation of additional Dark Fiber and to request interconnections between the Leased Dark Fiber with third-party facilities.

6.3. **Use of Contractors.** Either Party may subcontract for testing, maintenance, repair, restoration, relocation, or other operational and technical services it is obligated to provide hereunder, or it may have the underlying facility owner or its contractor perform such obligations. Both Parties will remain responsible for the obligations under this Lease Agreement delegated to their respective contractors. All maintenance that is required to be provided by a facility owner or its contractor is subject to such facility owner's terms and conditions, which are part of Lessor's Required Rights. Tenant may also use contractors to install its Equipment, including optical network terminals and service drops to End Users' premises, and may also use contractors to perform maintenance under Section 6.4.2.

6.4. **Tenant Maintenance.**



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- 6.4.1. Maintenance of Equipment. Tenant will be responsible for all maintenance and repair of Equipment.
- 6.4.2. Maintenance of Leased Dark Fiber. If Lessor fails to provide the maintenance and repair services as required by this Section 6 such that there is a continuous or recurring Outage, and such failure is not cured within forty-eight (48) hours of Lessor's becoming aware of the Outage, Tenant, in addition to any other remedy available under this Lease Agreement or at law or in equity, may provide such maintenance or repair services directly or through a third-party contractor. Lessor will provide Tenant's contractor with access to the Leased Dark Fiber for the limited purpose of maintaining and restoring the Leased Dark Fiber to the Specifications. For avoidance of doubt, Lessor's failure to cure an Outage within forty-eight (48) hours will be subject to the provisions under Section 14.5 with respect to Force Majeure Events. Prior to commencing maintenance and restoration under this Section 6.4.2, Tenant will notify Lessor and make good faith efforts to notify other lessees on the Lessor Network and coordinate such maintenance and restoration. Tenant may deduct the Costs of such maintenance repair from the following month's monthly lease payment.

7. RELOCATION

- 7.1. Emergency Relocations. In addition to any right to perform maintenance under Exhibit B, Lessor shall have the power at any time to remove or relocate any pole, wire, cable or structure that presents an imminent danger to life or property at Lessor's sole discretion without incurring any liability for such removal or relocation, other than as a result of Lessor's negligence or willful conduct, provided that Lessor shall restore such pole, wire, cable or structure that has been cut or removed as soon as commercially reasonable and be responsible for such removal and/or relocation costs.
- 7.2. Required Relocation. Lessor will give Tenant ninety (90) days' prior written notice of any Required Relocation of any Leased Dark Fiber, provided, however, that if Lessor does not receive notice of a Required Relocation at least ninety (90) day prior to the date of the Required Relocation, then Lessor will notify Tenant no later than three (3) days after Lessor's receipt of such notice. Tenant will cooperate in good faith with Lessor to facilitate any Required Relocation. Lessor may invoice Tenant, and Tenant will pay, for Tenant's pro rata share (based on the number of strands of Leased Dark Fiber by Tenant compared to the total number of optical fibers in the Lessor Network) of the actual, reasonable, and documented Costs of a Required Relocation.
- 7.3. Relocation for Lessor's Convenience. Lessor will be responsible for Lessor's and Tenant's Costs of any relocation made solely for the convenience of Lessor.
- 7.4. Relocation of Equipment. Except as provided by Section 7.1, Lessor may relocate Equipment only with the prior written consent of Tenant, which may be withheld at Tenant's sole discretion. If Tenant does not consent for Lessor to relocate Equipment,



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then Tenant will be responsible for relocating its Equipment during any relocation. For purposes of this Section 7.4, Equipment is limited to Equipment located in any Colocation Structure.

7.5. Minimizing Interruptions. During any planned relocation, including a Required Relocation, Lessor will use commercially reasonable efforts, in cooperation with Tenant, to minimize: (a) any material interruption to Tenant's enjoyment of the Lease; (b) any material impact on the route diversity of the Leased Dark Fiber; and (c) any material impact on Tenant's ability to carry traffic on the Leased Dark Fiber with the Equipment used on the Leased Dark Fiber before the relocation.

7.6. Restoration. Lessor will re-establish Leased Dark Fiber connections in a quantity and quality materially equivalent to those connections Tenant obtained before the relocation. If the re-establishment of such Leased Dark Fiber connections results in a change to the location of any Demarcation Points, then Lessor will also deliver a map to Tenant that describes the changes and the new locations of the Demarcation Points within ten (10) days of Tenant's written request.

8. CHANGE IN CONTROL

8.1. If Lessor at any point during the Lease Terms intends to pursue a transfer of legal ownership or control of the Leased Dark Fiber to a third party, then Lessor promptly will provide written notice to Tenant and will comply with all constitutional, statutory, and regulatory requirements for the sale of such municipally owned property.

9. REPRESENTATIONS AND WARRANTIES

9.1. Mutual Representations. Each Party represents and warrants to the other Party that: (a) it has the full right and authority to enter into, execute, deliver and perform its obligations under this Lease Agreement, (b) it will comply with all applicable laws in connection with the its obligations under this Lease Agreement, and (c) this Lease Agreement constitutes a legal, valid and binding obligation of such Party enforceable against such Party in accordance with its terms, subject to the effect of bankruptcy, insolvency, and similar laws affecting the rights and remedies of creditors, and general equitable principles.

9.2. Required Rights. Lessor represents and warrants that it has secured (or will have secured by the Delivery Date of the applicable Dark Fiber) the Required Rights. Lessor will maintain the Required Rights through the Lease Term. Lessor will provide prompt written notice to Tenant upon Lessor's becoming aware of any occurrence or event that could reasonably lead to Lessor losing the Required Rights for any of the Leased Dark Fiber.

9.3. Dark Fiber Warranty. Lessor represents and warrants that the Leased Dark Fiber is or will be installed and constructed in accordance with: (a) all applicable building, construction, and safety codes; (b) all other applicable laws, codes, ordinances, statutes and regulations; and (c) the fiber manufacturer's specifications. EXCEPT AS SET FORTH ABOVE, LESSOR MAKES NO WARRANTY, EXPRESS OR IMPLIED,



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INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE LEASED DARK FIBER.

9.4. **Lessor Self-Insurance.** Lessor represents and warrants that it is self-insured. Lessor further represents and warrants that its self-insurance is and will be, for the duration of the Lease Term, sufficient to meet the liability thresholds set forth below:

- 9.4.1. For general commercial liability, and for bodily injury, death, "broad form" property damage, and personal injury: not less than one million dollars (\$1,000,000) per occurrence;
- 9.4.2. For automobile liability for all owned, non-owned, and hired vehicles: not less than one million dollars (\$1,000,000) per occurrence for bodily injury and property damage; and
- 9.4.3. For workers' compensation as required by applicable law: not less than one million dollars (\$1,000,000) per accident and employee.

Nothing in this Section 9.4 will be construed to affect or limit in any manner Lessor's contractual liability (for indemnification or otherwise).

10. TERM; DEFAULT

10.1. **Lease Term.** The term of any Lease under this Lease Agreement ("Lease Term") will begin on the Acceptance Date of the applicable Leased Dark Fiber and conclude on the date that is the twentieth anniversary of the Effective Date of this Lease Agreement. This Lease Agreement will expire upon the expiration of the Lease Term. The Lease Term automatically terminates upon a termination of the Lease Agreement pursuant to this Section 10.

10.2. **Extension.** Provided that Tenant is not in default of any material terms of this Lease Agreement, Tenant will have the option to extend the Lease Term for an additional ten (10) years on terms and conditions to be negotiated by the Parties, by providing written notice to Lessor of its intent to extend no later than one hundred and eighty (180) days prior to the expiration of the Lease Term.

10.3. **Franchise.**

10.3.1. **Franchise Cancellation.** Tenant may terminate this Lease Agreement, the Network Agreement, the Colocation Agreement, and the Pole Attachment Agreement without liability to Lessor if the City of Huntsville cancels or revokes the Franchise during the Lease Term (except as a result of Tenant's violation of a Franchise condition) and Tenant is unable, after making best efforts, to obtain a replacement Franchise of substantially equivalent scope as the cancelled or revoked Franchise, provided, however, that Tenant may not terminate under this Section 10.3.1 if Tenant either (a) is no longer required to obtain a Franchise in order to provide video services (or any other services for which a franchise is required) to End Users or (b) determines in its sole



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discretion that it will not provide video services to any End Users. Tenant will provide thirty (30) days' written notice to Lessor prior to exercising its right to terminate pursuant to this Section 10.3.1. Any such termination does not relieve Tenant of its obligations to pay all charges incurred hereunder prior to such termination.

10.3.2. **Franchise Expiration.** In the event that Tenant's Franchise expires during the Lease Term, Tenant will make best efforts to renew its Franchise. If, after making best efforts, Tenant is unable to renew its Franchise, Tenant may terminate this Lease Agreement, the Network Agreement, the Colocation Agreement, and the Pole Attachment Agreement without liability to Lessor upon providing thirty (30) days' prior written notice, provided, however, that Tenant may not terminate under this Section 10.3.2 if Tenant (a) is no longer required to obtain a Franchise in order to provide video services (or any other services for which a franchise is required) to End Users, (b) may continue to provide video services under applicable law pending a new franchise, or (c) determines in its sole discretion that it will not provide video services to any End Users. Tenant will provide thirty (30) days' written notice to Lessor prior to exercising its right to terminate pursuant to this Section 10.3.2. Any such termination does not relieve Tenant of its obligations to pay all charges incurred hereunder prior to such termination.

10.4. **Tenant Default.** Tenant is in default of this Lease Agreement if it fails to cure any material breach of any term of this Lease Agreement within thirty (30) days of receiving written notice of the breach from Lessor; provided that if the breach is not reasonably curable within thirty (30) days then the period for cure will be extended for up to an additional thirty (30) days so long as Tenant is diligently pursuing a cure at the end of the first thirty (30) days. Tenant's failure to pay the monthly lease payment when due is a material breach of this Lease Agreement. In recognition of the fact that the Tenant Services promote the public welfare, health, and safety of the residents in the Lessor Service Area, and that Tenant's ability to provide the Tenant Services requires the use of the Leased Dark Fiber, Lessor agrees that in the event Tenant commits a material breach that remains uncured after the cure period specified in this Section 10.3, Lessor may terminate this Lease Agreement or any Lease only after providing Tenant with a wind-down period of twelve (12) months during which Tenant can wind down its operations, and Lessor expressly disclaims and waives any right, power, or authority to terminate this Lease Agreement or any Lease for any reason prior to the end of such wind-down period; provided that Tenant continues to make the monthly lease payments during such wind-down period.

10.5. **Lessor Default.** Lessor is in default of this Lease Agreement if it fails to cure any material breach of any term of this Lease Agreement within thirty (30) days of receiving written notice of the breach from Tenant; provided that if the breach is not reasonably curable within thirty (30) days then the period for cure shall be extended for up to an additional thirty (30) days so long as Lessor is diligently pursuing a cure at the end of the first thirty (30) days. Lessor acknowledges that any Lessor default under the Service Level Agreement in Exhibit D hereto, will result in lost revenue and



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harm to the reputation of Tenant and that actual damages resulting from any of the foregoing occurrences are difficult to ascertain. Accordingly, Lessor agrees to provide liquidated damages in the form of service credits to Tenant as set forth in the Service Level Agreement in Exhibit D hereto. The availability of service credits under the Service Level Agreement will be Tenant's exclusive remedy for Lessor's default thereunder, provided however that Tenant is not precluded from obtaining actual damages or from obtaining specific performance of Lessor's other contractual obligations under this Lease Agreement.

- 10.6. **Early Termination of Network Agreement.** In the event that the Network Agreement terminates pursuant to Section 5.4 thereof, this Lease Agreement and any Lease hereunder will automatically terminate, and neither Party will have any further liability or obligation to the other Party under this Lease Agreement, provided, however, that any such termination does not relieve Tenant of its obligations to pay all charges incurred hereunder prior to such termination.
- 10.7. **Insolvency.** In the event that either Party becomes subject to bankruptcy or a custodian, receiver, trustee, intervenor, or other officer under the authority of Chapters 7, 9, 11 or 13 of the Bankruptcy Code as defined in the United States Code or any applicable state law within any jurisdiction, whether voluntary or involuntary, or makes an admission or is determined by a court of law to be insolvent, such Party shall be deemed in default of this Lease Agreement and either Party shall have the right to terminate this Lease Agreement within thirty (30) calendar days of its notification of any bankruptcy proceeding or any admission or judicial determination of insolvency.
- 10.8. **Removal at End of Term.** Upon expiration or termination of this Lease Agreement, Tenant will within thirty (30) days disconnect and remove the Equipment from the Leased Dark Fiber in a neat and orderly manner, and repair all damage directly caused by such removal at Tenant's sole expense, excluding normal wear and tear. If not removed within thirty (30) days, Lessor may remove the Equipment or assume title to such Equipment. For purposes of this Section 10.8, Equipment does not include any service drop that is subject to the Pole Attachment Agreement.

11. INSURANCE

- 11.1. **Insurance Types and Limits.** Tenant will maintain, without lapse, at all times during the term of this Lease Agreement, insurance meeting the following minimum requirements:
- 11.1.1. Workers' Compensation Insurance covering all employees, in statutory limits, who perform or may perform any of the activities of the Tenant pursuant to this Lease Agreement, and which protects it from all claims under any such laws applicable thereto.
- 11.1.2. General liability and property damage liability insurance covering all of the Tenant's activities under this Lease Agreement; limits for bodily injury or death not less than five hundred thousand dollars (\$500,000) for one person



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and one million dollars (\$1,000,000) for each incident; for property damage, not less than two hundred fifty thousand dollars (\$250,000) for each incident and one million dollars (\$1,000,000) aggregate for incidents during the policy period.

- 11.1.3. Automobile liability insurance on all self-propelled vehicles used in connection with this Lease Agreement, whether owned, non-owned, hired or otherwise. This policy shall be comprehensive automobile liability policy as approved by the National Bureau of Casualty Underwriters and the Insurance Department of the State of Alabama, with liability limits of not less than three hundred thousand dollars (\$300,000) for one person and one million dollars (\$1,000,000) for each incident; and a property damage limit of not less than two hundred fifty thousand dollars (\$250,000) for each incident.
- 11.1.4. An umbrella liability policy certificate in addition to the certificates listed above with a minimum limit of liability of not less than five million dollars (\$5,000,000) per occurrence, unless otherwise mutually agreed to by the Parties in writing.
- 11.1.5. All risk property insurance. Such insurance shall be full replacement cost coverage. In regards to damage to property typically covered under an all risk property insurance policy, each Party waives the right of subrogation except in cases where the property is damaged by the other Party's negligence or intentional misconduct.
- 11.2. Lessor and its officers, employees, and agents will be named as additional insureds on all insurance policies required under this Lease Agreement.
- 11.3. Tenant will provide Lessor with the names of all companies issuing insurance as required by this Lease Agreement.
- 11.4. Tenant will provide Lessor with a current certificate of insurance evidencing all of the insurance required by this Lease Agreement prior to the installation of its Equipment and at all times thereafter while this Lease Agreement remains in effect. Each insurance certificate will state that the issuer of the insurance certificate will give Lessor written notice of any cancellation, modification, or expiration of any insurance policy referred to in the certificate in accordance with the insurer's notice policies. Any replacement certificates will be filed with Lessor at least thirty (30) days before the expiration of the then current insurance policies.
- 11.5. All insurance policies required by this article to be maintained by the Tenant will be valid and enforceable policies issued by insurers authorized to conduct business in Alabama and in good standing under the laws of Alabama.
- 11.6. Each Party is solely responsible for ensuring that such Party's contractors and subcontractors maintain insurance coverage that is usual, reasonable and customary for the services provided by such contractors and subcontractors to ensure that such Party can meet its obligations under this Lease Agreement.



12. CONFIDENTIALITY

- 12.1. Non-Disclosure of Confidential Information.** Neither Party will disclose the other Party's Confidential Information, except to (a) any entity such Party directly or indirectly controls, is controlled by, or under common control with such Party; and (b) employees, agents or professional advisors of such Party but only to the extent needed to exercise its rights and fulfill its obligations under this Lease Agreement. The Party receiving Confidential Information will ensure that any such additional recipients have agreed in writing (or in the case of professional advisors are otherwise bound) to keep it confidential. Upon termination of the Lease Agreement for any reason or upon request of a Party, each Party will return all Confidential Information, together with any copies of the same, to the other Party, or certify as to its destruction.
- 12.2. Disclosures Required by Law.** The Parties acknowledge that Lessor is a public entity subject to the Alabama Open Records Act and other public records laws. To the extent there is a third-party request for Confidential Information, the Party receiving the request may disclose Confidential Information when required by applicable law after giving the notice set forth in this Section 12.2 to the other Party, if such notice is permitted by applicable law. If any Party is required by applicable law or similar process to disclose any Confidential Information, it will provide the other Party with prompt prior written notice of such request or requirement so that such Party may seek an appropriate protective order and/or waive compliance with this Section 12.2. The Party whose consent to disclose Confidential Information is requested will respond to such request in writing within five (5) days of the request by either authorizing the disclosure or advising of its election to seek a judicial or administrative protective order. If such Party fails to respond within the prescribed period, the disclosure will be deemed approved. If a Party chooses to seek an appropriate protective order, the other Party will (a) refrain from disclosing such Confidential Information (unless legally compelled to do so) until the request for a protective order is resolved; (b) make all reasonable efforts to cooperate with the Party seeking the protective order before the applicable judicial or administrative body; and (c) comply with any validly-issued protective order.

13. LIMITATION OF LIABILITY

- 13.1. IN NO EVENT WILL EITHER PARTY BE LIABLE TO THE OTHER PARTY FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES WHATSOEVER, ARISING OUT OF, OR IN CONNECTION WITH, THIS LEASE AGREEMENT, INCLUDING BUT NOT LIMITED TO, LOST PROFITS, LOST REVENUE, LOSS OF GOODWILL, LOSS OF ANTICIPATED SAVINGS, OR LOSS OF BUSINESS OPPORTUNITY INCURRED OR SUFFERED BY EITHER PARTY, WHETHER IN AN ACTION IN CONTRACT OR TORT, EVEN IF THE OTHER PARTY OR ANY OTHER PERSON HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.**



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- 13.2. EXCEPT IN RESPECT OF ANY CREDITS OR ADJUSTMENTS AGAINST TENANT'S LEASE PAYMENTS THAT ARE PROVIDED FOR PURSUANT TO THE TERMS OF THIS LEASE AGREEMENT, IN NO EVENT WILL LESSOR BE LIABLE FOR DAMAGES FOR INTERRUPTION OF ANY TRANSMISSION THROUGH THE LEASED DARK FIBER, OR FOR FAILURE OR ERRORS IN SIGNAL TRANSMISSION, LOST DATA, FILES OR SOFTWARE DAMAGE UNLESS CAUSED BY LESSOR'S WILLFUL CONDUCT.
- 13.3. CONTENT OF TRANSMITTED DATA OR COMMUNICATIONS. LESSOR DISCLAIMS ALL LIABILITY OR RESPONSIBILITY WHATSOEVER FOR THE CONTENT (INCLUDING THE NATURE OF MATERIALS, OPINIONS AND VIEWS) OF ANY AND ALL DATA OR COMMUNICATIONS TRANSMITTED, OTHER THAN BY LESSOR OR A PERSON ACTING AT LESSOR'S DIRECTION OR ON LESSOR'S BEHALF, IN, ACROSS, ON, THROUGH OR OVER THE LEASED DARK FIBER AFTER THE ACCEPTANCE DATE. TENANT AGREES THAT IT WILL MAKE NO CLAIM WHATSOEVER AGAINST LESSOR RELATING TO THE CONTENT OF ANY DATA OR COMMUNICATIONS TRANSMITTED, OTHER THAN BY LESSOR OR A PERSON ACTING AT LESSOR'S DIRECTION OR ON LESSOR'S BEHALF, IN, ACROSS, ON, THROUGH OR OVER THE LEASED DARK FIBER.
- 13.4. PERSONAL IMMUNITIES. NO PERSONAL RECOURSE SHALL BE HAD FOR THE CREATION OF THIS LEASE AGREEMENT, FOR ANY CLAIM ARISING OUT OF THIS LEASE AGREEMENT, NOR FOR ANY REPRESENTATION, OBLIGATION, COVENANT, OR AGREEMENT SET FORTH IN THIS LEASE AGREEMENT AGAINST ANY PAST, PRESENT, OR FUTURE OFFICER, MEMBER, EMPLOYEE, OR AGENT OF LESSOR, UNDER ANY RULE OF LAW OR EQUITY, ANY STATUTE OR CONSTITUTION, OR BY THE ENFORCEMENT OF ANY ASSESSMENT OR PENALTY, OR OTHERWISE, AND ANY LIABILITY OF ANY SUCH OFFICER, MEMBER, EMPLOYEE, OR AGENT IS HEREBY EXPRESSLY WAIVED AND RELEASED BY TENANT AS A CONDITION OF AND IN CONSIDERATION FOR THE EXECUTION OF THIS LEASE AGREEMENT. FURTHERMORE, TENANT AGREES THAT NO PAST, PRESENT, OR FUTURE OFFICER, MEMBER, OR AGENT OF LESSOR SHALL BE PERSONALLY LIABLE TO TENANT, OR ANY SUCCESSOR IN INTEREST OF TENANT, FOR ANY DEFAULT OR BREACH OF THIS LEASE AGREEMENT BY LESSOR.

14. MISCELLANEOUS

- 14.1. Relationship of the Parties. This Lease Agreement does not make either Party the agent or legal representative of the other Party, and does not create a partnership or joint venture between the Parties. This Lease Agreement is non-exclusive and Lessor



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may enter into similar agreements with third-parties. Lessor is not providing any regulated cable, Internet or telecommunications services under this Lease Agreement.

14.2. Assignment.

14.2.1. Neither Party may transfer or assign, voluntarily or by operation of law, its rights and obligations under this Lease Agreement (and the Leases) without the prior written consent of the other Party (such consent not to be unreasonably withheld, conditioned, or delayed); provided, however, that either Party may assign its obligations and rights under this Lease Agreement (and the Leases) upon notice and without the other Party's consent to: (a) an entity that directly or indirectly controls, is controlled with or by, or is under common control with the assigning Party; (b) an entity resulting from any merger, consolidation or other reorganization involving the assigning Party; or (c) the purchaser of all or substantially all of assigning Party's assets.

14.2.2. Without limiting Tenant's rights under Section 14.2.1, Tenant may also assign its rights and obligations under this Lease Agreement to the purchaser of all or substantially all of Tenant's assets used to provide Tenant Services in and around Huntsville, Alabama, provided that Lessor gives its prior written consent, which consent (a) will not be unreasonably withheld, conditioned, or delayed; and (b) may be denied only if Lessor reasonably determines that the proposed assignee does not have the financial capabilities to perform Tenant's obligations under this Lease Agreement or has previously defaulted on an agreement with Lessor, and provides a written notification to Tenant setting forth the basis for such denial.

14.2.3. Prior to any assignment made pursuant to Section 14.2.2 becoming effective, the proposed assignee will provide to Lessor, at Lessor's request, a surety bond securing the proposed assignee's obligations to pay any amounts which are or may become due under the Lease Agreement, up to an amount equal to the sum of twenty-four (24) months' of monthly recurring payments that would be payable under the Lease Agreement if Lessor had achieved Initial Network Completion prior to the assignment. The surety bond furnished pursuant to this Section 14.2.3 will be issued by an entity (a) having a minimum corporate debt rating of A- by Standard & Poor's Financial Services LLC and A3 by Moody's Investor Services (or a respective successor thereto) at the time of issuance and at all times the bond is outstanding, and (b) who is and remains authorized to transact such business and maintains an agent for service of process in the State of Alabama.

14.3. Governing Law; Venue. Any and all disputes arising out of this Lease Agreement will be governed, construed and enforced according to the laws of the State of Alabama, excluding its conflict-of-law principles. A Party seeking to bring an action relating to the validity, construction, interpretation and enforcement of this Lease Agreement will institute such action in any state or federal court in the State of



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Alabama where venue lies under applicable law as a result of Lessor providing electrical service in such venue.

14.4. Disputes. In the event a Party alleges breach of this Lease Agreement, the Party will not give notice of breach or pursue any other remedy otherwise available to such Party unless and until the following dispute resolution process has been concluded:

14.4.1. On either Party's request, each Party will designate a knowledgeable representative, who will meet at the principal business office of Lessor, or such other location as the Parties may mutually agree, as promptly as reasonably practicable and in any event within fifteen (15) days, to negotiate in good faith to resolve the dispute.

14.4.2. If the Parties have not resolved the dispute fifteen (15) days after the first meeting of the representatives, each Party will designate a senior executive, who will meet at the principal business office of Lessor, or such other location as the Parties may mutually agree, as promptly as reasonably practicable and in any event within fifteen (15) days, to negotiate in good faith to resolve the dispute.

14.4.3. If the Parties have not resolved the dispute fifteen (15) days after the first meeting of the senior executives, the Party alleging breach may provide notice of breach to the other Party pursuant to Sections 10.3 and 10.5, and pursue any other remedy otherwise available to such Party.

14.4.4. For avoidance of doubt, the requirements of this Section 14.4 do not apply to, restrict, or delay either Party's enforcement of its rights under Section 3.3.

14.5. Force Majeure. Neither Party will be liable for delays or any failure to perform under this Lease Agreement due to causes that prevent the Party from performing its obligations under this Lease Agreement by reason of a Force Majeure Event. The other Party will not be required to perform or resume performance of those of its obligations that correspond to the obligations of the Party excused by Force Majeure Event, until the end of such Force Majeure Event.

14.6. Third Party Beneficiaries. The representations, warranties, covenants and agreements of the Parties set forth in this Lease Agreement are not intended for, nor will they be for the benefit of or enforceable by, any third party or Person not a party to this Lease Agreement.

14.7. Use of Names or Trademarks. Neither Party may use any logo or service mark of the other Party without the express written consent of the other Party.

14.8. Taxes. None of the monthly lease payments charged to Tenant pursuant to this Lease Agreement includes any tax or franchise fee charged by any governmental entity. Tenant agrees to pay any and all franchise fees, gross receipts, sales, rental, lease, use, property, excise and other taxes and governmental fees directly applicable to the leasing of the Leased Dark Fiber to Tenant. Tenant shall be solely responsible for



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opposing, protesting, appealing, or challenging any tax or franchise fee imposed or asserted by any entity.

14.9. Non-Waiver. The waiver by any Party hereto of a breach under any of the provisions of this Lease Agreement, or the failure of any Party, on one or more occasions, to enforce any of the provisions of this Lease Agreement or to exercise any right or privilege hereunder will not thereafter be construed as a waiver of any subsequent breach or default of a similar nature, or as a waiver of any such provision, right or privilege hereunder. A waiver of any provision of this Lease Agreement by a Party must be in writing to be effective, and will not be construed as or constitute a waiver of any other provision not expressly stated in the waiver by such Party.

14.10. Notices. Except as otherwise set forth, all notices of termination or breach will be in writing and addressed to Lessor's Chief Executive Officer and Tenant's legal department. All other notices will be in writing and addressed to the other Party's primary contact. Notice will be treated as given on receipt, as verified by written or automated receipt or by electronic log (as applicable).

Lessor (legal representative):

Bradley Arant Boult Cummings LLP
Attn: Warne Heath
200 Clinton Avenue West, Suite 900
Huntsville, AL 35801

fax no.: (256) 517-5200
email: wheath@babco.com

Lessor (primary contact):

Huntsville Utilities
Attn: Jay Stowe
112 Spragins Street
Huntsville, AL 35801

Tenant (legal department):

Google Fiber Inc.
Attn: General Counsel
1600 Amphitheatre Parkway
Mountain View, CA 94043

fax no.: (650) 618-1806
email: legal-notices@google.com

Tenant (primary contact):

Google Fiber Inc.
Attn: Vice President
1600 Amphitheatre Parkway
Mountain View, CA 94043

14.11. Interpretation. This Lease Agreement has been negotiated by the Parties and their respective counsel. This Lease Agreement will be interpreted without any strict construction in favor of or against either Party.

14.12. Attorney Fees and Costs. Both Parties hereto agree that in any action to enforce the terms of this Lease Agreement that each Party shall be responsible for its own attorneys' fees and costs.



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14.13. Severability. If any provision of this Lease Agreement is found unenforceable or invalid, the remainder of this Lease Agreement will remain in full force and effect and it and any related provisions will be interpreted to best accomplish the unenforceable provision's essential purpose.

14.14. Counterparts. This Lease Agreement may be executed in any number of counterparts, each of which would be deemed to be original and all of which taken together will constitute one and the same agreement.

14.15. Electronic Signatures. The Parties agree to use electronic signatures and be subject to the provisions of the applicable laws governing electronic signatures. Notwithstanding the foregoing, however, the Parties will execute and deliver any memorandum of lease or memorandum of assignment in a form acceptable for recording in the Office of the Judge of Probate of Madison County, Alabama.

14.16. Survival. The terms and provisions contained in this Lease Agreement that by their nature and context are intended to survive the performance thereof by the Parties will so survive the completion of performance and termination or early termination this Lease Agreement, including, without limitation, provisions for indemnification and confidentiality.

14.17. Captions/Headings. Captions and section headings contained in this Lease Agreement are for reference purposes only and shall not affect the meaning or interpretation of this Lease Agreement in any way.

14.18. Entire Agreement. This Lease Agreement constitutes the entire understanding between the Parties relating to the rights, duties and obligations granted and assumed herein. Any prior agreements, promises, negotiations or representations regarding the subject matter of this Lease Agreement are of no force or effect. No alteration, modification, amendment, or variation of the terms of any provision will be valid unless made in writing and signed by duly authorized representatives of Tenant and Lessor.


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IN WITNESS WHEREOF, each Party has caused this Lease Agreement to be executed by its duly authorized representative.

Tenant:



**Address: 1600 Amphitheatre Parkway,
Mountain View, California 94043**

Date: 3/11/2016

Lessor:


Jay Stowe

CEO

**Address: 112 Spragins Street, Huntsville,
Alabama 35801**

Date: 2/23/2016



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EXHIBIT A

PRELIMINARY HU NETWORK DESIGN

[See following page]



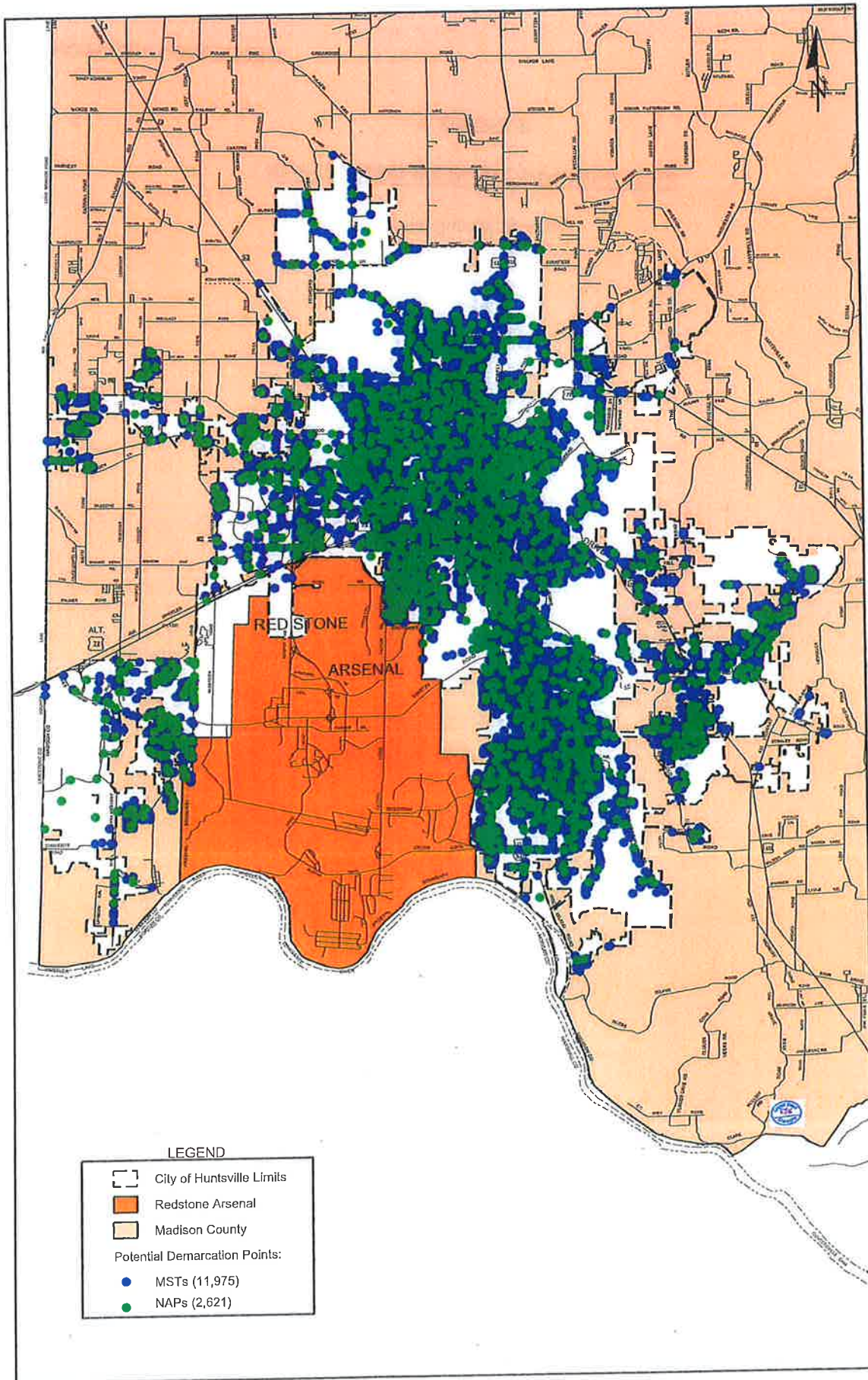


EXHIBIT B

MAINTENANCE AND OPERATIONS SPECIFICATIONS AND PROCEDURES

1. DEFINITIONS

- 1.1. “**Non-Routine Maintenance**” means all efforts and activities in response to an emergency circumstance that requires restoration, including the activities outlined in Section 5.
- 1.2. “**Operations Escalation List**” means a network operations escalation list identifying contact information for the personnel in Lessor’s management chain who are responsible for the monitoring and maintenance of the Lessor Network.
- 1.3. “**Routine Maintenance**” means the preventive maintenance activities, upgrades and repairs outlined in Section 4.
- 1.4. “**Scheduled Maintenance Period**” means a pre-arranged period of time reserved for performing certain work on the Lessor Network that may impact Tenant’s use of the Leased Dark Fibers.

2. GENERAL

- 2.1. Lessor will operate and maintain a network operations center staffed twenty-four (24) hours a day, seven (7) days a week, by trained and qualified personnel. Lessor will maintain a toll-free number to contact personnel at the network operations center and will provide such number to Tenant along with an Operations Escalation List following the occurrence of the Acceptance Date of the first Network Section. Lessor will ensure that the network operations center staff includes at least one English speaker. Lessor may update the Operations Escalation List from time to time and will deliver such updates to Tenant in a timely fashion to ensure that Tenant always has the latest Operations Escalation List. Lessor will monitor, identify and report to Tenant network outages affecting the Leased Dark Fiber and remediation of such outages, and will open a trouble ticket upon Tenant’s report of any network outage. Lessor will dispatch maintenance and repair personnel along the Lessor Network to handle and repair problems detected through the network operations center’s remote surveillance equipment, or reported by Tenant.
- 2.2. Lessor’s maintenance employees or contractors will be available for dispatch twenty-four (24) hours a day, seven (7) days a week. Lessor will use its commercially reasonable efforts to have its first maintenance employee or contractor at the site requiring an emergency maintenance activity within four (4) hours from the time an alarm is identified by Lessor’s network operations center or notification by Tenant, whichever occurs first.



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- 2.3. Tenant will utilize the Operations Escalation List provided by Lessor to report and seek immediate initial redress of exceptions noted in the performance of Lessor in meeting maintenance service objectives.
- 2.4. Lessor will take workmanlike care to prevent impairment to the signal continuity and performance of the Leased Dark Fiber. Lessor will repair the Leased Dark Fibers, as needed, in a workmanlike manner.
- 2.5. Lessor will maintain and update network maps, and make such network maps available for Tenant to inspect and to copy, upon Tenant's reasonable request, for purposes consistent with this Lease Agreement.

3. SCHEDULED MAINTENANCE PERIODS

- 3.1. Lessor will provide prior notice to Tenant of any Scheduled Maintenance Period for any planned non-emergency maintenance activity that could affect Tenant's use of the Leased Dark Fibers. Such Scheduled Maintenance Periods shall not constitute an Outage or Lessor's Interference as defined herein. The prior notice required by this Section 3.1 will be: thirty (30) days for any planned software or hardware upgrade or upgrades; seven (7) days for configuration changes that are reasonably expected to produce any signal discontinuity; twenty-four (24) hours for all other work on the Leased Dark Fiber that is not reasonably likely to produce any signal discontinuity; and immediate notification for emergency work that is reasonably expected to produce any signal discontinuity. If a Lessor-planned activity is canceled or delayed for any reason, Lessor will notify Tenant at Lessor's earliest opportunity and will reschedule any delayed activity in accordance with this Section 3.1.
- 3.2. Lessor will perform non-emergency work that is reasonably expected to produce any signal discontinuity on the Leased Dark Fibers during a Scheduled Maintenance Period and will coordinate with Tenant. Unless Tenant agrees otherwise, a Scheduled Maintenance Period may not begin earlier than 12:00 a.m. or end later than 6:00 a.m. local time. Lessor will perform major Lessor Network work such as fiber rolls and hot cuts only during a Scheduled Maintenance Period.
- 3.3. Lessor will maintain the Leased Dark Fiber in a manner that permits normal operation of the Equipment associated with the Leased Dark Fiber. Such maintenance includes landscaping, weed control, fence repair, smoke detectors, air conditioning, power, and trash removal.
- 3.4. Lessor will send email correspondence to Tenant regarding Routine Maintenance and Non-Routine Maintenance at an email address to be provided by Tenant and updated from time to time.

4. ROUTINE MAINTENANCE

- 4.1. Lessor will maintain the Leased Dark Fiber in good and operable condition.



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- 4.2. Lessor will maintain the Leased Dark Fiber in conformance in all material respects with the Specifications in a manner that permits normal operation of the Leased Dark Fiber. Tenant shall not take any action to cause Leased Dark Fiber to not be in good and operable condition.
- 4.3. Lessor will carry out its maintenance procedures using commercially reasonable efforts.

5. NON-ROUTINE MAINTENANCE

- 5.1. Upon Tenant's notification of interruption of Tenant's use of the Leased Dark Fiber, or otherwise learning of disrepair, impairment or other need for repair or restoration of the Leased Dark Fiber, Lessor will determine the precise location of the problem and mobilize technicians to commence necessary repair or restoration, including to have maintenance personnel at the affected site within four (4) hours after receipt of such notice with the required restoration material and equipment.
- 5.2. The requirement for detection of the fault location is "as exact as possible" utilizing test records, fiber documentation, GPS coordinates and OTDR test results of the affected Leased Dark Fiber.
- 5.3. When restoring a Leased Dark Fiber that has been cut or otherwise impaired, Lessor will work with Tenant to restore all traffic as quickly as possible. Lessor, immediately upon arriving on the site of the cut or other impairment, will determine the best course of action to be taken to restore the Leased Dark Fiber and will begin restoration efforts.
- 5.4. Lessor's maintenance employees will correct or repair fiber discontinuity or damage, including the emergency repair of the Leased Dark Fibers. Lessor will repair the Leased Dark Fiber's traffic-affecting discontinuity as soon as possible after learning of the discontinuity or the service-affecting situation.
- 5.5. Lessor will maintain sufficient capability to teleconference with Tenant during an emergency repair in order to provide continuous communication. With respect to restoration of open fibers on fiber strands not immediately required for service, the repair will be scheduled for the next available Scheduled Maintenance Period.
- 5.6. For purposes of this Exhibit B, "commercially reasonable efforts" means activities and performances consistent with prudent industry best practice, existing contract provisions for Lessor's hourly employees, preserving Lessor Network integrity, and response times that do not jeopardize the health and safety of the employees and agents of Lessor and Tenant.
- 5.7. Upon completion of a Leased Dark Fiber impacting maintenance activity that changes the Route of the Leased Dark Fibers, Lessor will also deliver a map to Tenant within ten (10) days of completion that describes the change to the Leased Dark Fiber Route.



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- 5.8. Lessor will ensure that it has adequate personnel and equipment capacity to respond to at least two (2) simultaneous Outages.
- 5.9. Lessor will maintain a disaster recovery plan, detailing the restoration procedures in response to natural disasters including without limitation: tornado, ice storm, flood, high wind, wildfire, and vandalism. Lessor will keep adequate labor (in-house or through contract) and materials to meet such plans within one (1) day at all times.



EXHIBIT C

FIBER SPLICING AND TESTING STANDARDS, SPECIFICATIONS AND PROCEDURES

1. DEFINITIONS

- 1.1. **“As-Built Information”** has the meaning ascribed thereto in Section 5.2.
- 1.2. **“Deliverables”** has the meaning ascribed thereto in Section 5.1.
- 1.3. **“Fiber Test Results”** has the meaning ascribed thereto in Section 5.1.
- 1.4. **“OOS”** has the meaning ascribed thereto in Section 4.4.6.
- 1.5. **“OTDR”** means an optical time domain reflectometer.

2. GENERAL

Lessor will meet the requirements identified in Section 4 herein and demonstrate it by performing the tests described in Section 3 herein (**“Fiber Testing”**) and provide the test documentation described in Section 5 herein. Lessor will make comparisons to the acceptable values listed in this Exhibit C based on actual test result values (*i.e.*, without rounding).

3. FIBER TESTING

- 3.1. Lessor will test, where applicable, the Leased Dark Fiber both with: (i) a calibrated light source and power meter, and (ii) a recently calibrated OTDR.
- 3.2. To ensure that all splice and connector events are visible in the OTDR traces, Lessor will perform tests at a wavelengths of 1550nm and 1310nm utilizing launch reels of the Leased Dark Fiber that are each a minimum of one (1) kilometer in length. For bi-directional traces, launch reels will be used on both ends and the OTDR settings will be identical on both sides of the Leased Dark Fiber being tested.
- 3.3. Lessor will use skilled test personnel who will determine the appropriate OTDR settings for each Leased Dark Fiber. Suggested OTDR settings are as follows:
 - Pulse width: $\leq 30\text{ns}$
 - Range: $\leq 20\text{km}$ (Select a range that is appropriate so the trace occupies approximately two-thirds (2/3) of the screen length.)
 - Acquisition time: $\geq 30\text{s}$
- 3.4. All equipment in use for testing must be in good working condition and must meet the manufacturer's recommendations for maintenance. Copies of certificates of calibration for all test equipment (OTDRs, fusion splicers, power meters, etc.) must be made available within twenty-four (24) hours' notice. All components including, but not



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limited to, cleaving wheels and electrodes shall be replaced at the appropriate intervals.

- 3.5. Lessor will record OTDR Shots and email to Tenant's designated project manager. Unless the Parties otherwise agree, Lessor will name the OTDR traces using the following naming convention:

First three characters = source point
Next three characters = destination point
Next two characters = DS or SP to denote a dedicated strand (no split) or Split Strand if a planar splitter is in the path
Extension = fiber number
Example: Hut01 to FDH03, Split Strand, fiber 96 = H01F03SP.096
Lessor will complete all header information on OTDR traces.

4. FIBER SPECIFICATIONS

- 4.1. **Fiber Standards.** Fiber optic cable will comply with or exceed the specifications for Corning SMF28e+ or OFS Allwave+. The Leased Dark Fiber will comply with the manufacturer's fiber installation and maintenance specifications, which Lessor will provide to Tenant upon request.
- 4.2. **Connector Standards.** Lessor will use connectors with an APC polish (reflectance < -50dBm). The bidirectional average loss value of any pigtail connector and any associated fiber jumper or pigtail with matching mode field diameters will not exceed 0.5 dB at 1550nm. The bidirectional average loss value of a connector and its associated jumper with mismatched mode field diameters will not exceed 1.0 dB at 1550nm.
- 4.3. **Splitter Standards.** Qualified to GR-1209 and GR-1221. Wideband performance allows operation from 1260nm to 1635nm.
- 4.4. **Field Splice Standards.**
- 4.4.1. All splices will be fusion splices.
- 4.4.2. The requirement for each ribbon splice is an averaged loss value of 0.4 dB or less when measured bi-directionally with an OTDR at 1550nm. The splice event loss value of 0.4 dB relates to a single ribbon fiber maximum as long as the average measured splice loss of all twelve (12) fibers in the ribbon are 0.25 dB or less.
- 4.4.3. The requirement for each single fusion splice is a loss value of 0.2 dB or less when measured bi-directionally with an OTDR at 1550nm.
- 4.4.4. In the event of damage and subsequent restoration of the Leased Dark Fibers, Lessor will restore the Leased Dark Fibers to this standard.



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4.4.5. If after three (3) documented splicing attempts, Lessor is not able to produce a loss value that is in spec, then 0.3 dB or less bi-directionally at 1550 nm will be acceptable.

4.4.6. Lessor will identify Out of Specification (“OOS”) Leased Dark Fibers. Lessor will provide Tenant documentation of the three (3) attempts (reburns) to bring the OOS splices within specification. However, no Leased Dark Fiber span may contain more than two (2) OOS splices. If it does, that Leased Dark Fiber will be out of compliance with the Specifications.

4.5. Span Loss. Lessor will ensure proper continuity of all Leased Dark Fibers at the fiber level, not just the pigtail level. Lessor will remedy any “frogs” or Leased Dark Fibers that cross in the Route. The attenuation on any fiber segment as measured by a light source and power meter at 1550 nm will not exceed the following:

$$\text{Maximum allowable attenuation per Leased Dark Fiber span} = (A * L) + (Bi * Ni) + (Bm * Nm) + (0.5 * C)$$

A = maximum attenuation in dB of loss per kilometer (at 1550nm), as specified in the manufacturer’s fiber specifications

L = Optical length of cable measured in kilometers (from OTDR trace)

Bi = 0.1 dB

Ni = Number of individual mass fusion splices in the span

Bm = 0.1 dB

Nm = Number of splices in the span

C = Number of mated connector pairs in the span. The connector loss will not exceed 0.5 dB per mated pair.

For Leased Dark Fiber strands that are split/aggregated at an intermediate point in the network, pursuant to a passive optical network design, the total link loss will be computed based on total span loss from the patch panel demarcation point to the terminal end of fiber to ensure all fiber strands not to exceed the loss budget of -23dB (including all splitters, connectors, etc. in the path). Also, in this configuration, no final split ratio shall exceed 1:32.

4.6. Reflectance. The maximum reflectance per event, as measured by an OTDR, will not exceed -40 dB in either direction.

4.7. Polarization Mode Dispersion. The Polarization Mode Dispersion will not exceed 0.1 ps/sqrt (km).



5. DELIVERABLES

5.1. **Fiber Test Results.** Lessor will provide to Tenant the results of the tests conducted by Lessor on the Leased Dark Fiber (the “**Fiber Test Results**” and, together with the As-Built Information, the “**Deliverables**”). The Fiber Test Results will be submitted in logically organized electronic format within seven (7) days of testing completion and shall include the following:

5.1.1. OTDRs results must be submitted in Telcordia SR-4731 standard *.sor file format and the Lessor must ensure that the OTDR they use complies with this standard as well. The use of any other OTDR manufacturer or testing standard must be approved in writing prior to testing and the device must be proven beyond a reasonable doubt to deliver equivalent testing ability as well as the specified formats for deliverables.

5.1.2. An Excel or Google Sheets spreadsheet containing the bi-directional power meter and light source data taken at 1310nm and 1550nm (losses in each direction and the average bi-directional loss, all expressed in dB). This spreadsheet will identify the specific locations of Demarcation Points (*i.e.*, address, floor, suite, rack, panel, port, closure, tray, fiber, etc.) for each end from which testing was performed in accordance with good labeling practices and testing should be repeatable and verifiable with the information provided. This deliverable may be provided in the same report as the OTDR results if using a common instrument to perform all tests simultaneously.

5.1.3. Documentation supporting the three (3) rework attempts completed for any OOS splices.

5.2. **As-Built Information.** Lessor will provide the following documentation regarding the as-built condition of the Leased Dark Fibers at the time Lessor furnishes the Fiber Test Results to Tenant (“**As-Built Information**”):

5.2.1. A map depicting the Route of the Leased Dark Fibers with street level details in a mutually acceptable format; file geodatabase or GDB preferred.

5.2.2. The circuit IDs assigned by Lessor.

5.2.3. A design layout record provided in a spreadsheet or other mutually agreeable format that identifies:

- (a) the rack, panel and port assignments at the Demarcation Points and intermediate patch panel locations (including address, floor and suite, terminal ID, port, *etc.*), where applicable;
- (b) the Leased Dark Fiber assignments, including the detailed accounting of all Leased Dark Fiber number transitions, and the locations at which they transition from dedicated fiber to Split fiber such as at a Fiber Distribution



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Hub or Multi-Port Service Terminal as well as port and splitter information as available;

- (c) the optical distance (in km) between panels and/or the manholes where Leased Dark Fiber assignments transition from one set of Leased Dark Fiber numbers to another set of Leased Dark Fiber numbers; and
- (d) the exact Leased Dark Fiber type (e.g., Allwave+ instead of the more generic G.657A2) for each section of Leased Dark Fiber for which an optical distance is specified in the design layout record.



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EXHIBIT D

Service Level Agreement

This Service Level Agreement sets forth Lessor's obligations with respect to the performance and maintenance of the Leased Dark Fiber. Capitalized terms used and not defined herein will have the meanings ascribed to them in the Lease Agreement.



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1. DEFINITIONS.

- 1.1. **“Business Day”** means any day, excluding weekends and holidays approved by the Huntsville Electric Utility Board, that Lessor’s headquarters is open for business.
- 1.2. **“Meet-Me-Point”** means a Demarcation Point, located in a structure on the premises of a Point of Presence (e.g., a patch panel) that is dedicated by Lessor for such demarcation purposes, defined by the property owner in a rack or cage from which the outside plant or riser cable terminates and is separated for discrete fiber strand accessibility.
- 1.3. **“Multiport Service Terminal Port”** or **“MST Port”** means a Demarcation Point that provides an outside plant hardened connector bulkhead termination for the purpose of connecting the Tenant drop cable, which Lessor identified in a Network Delivery Form as a Z-Location.
- 1.4. **“Network Access Point Port”** or **“NAP Port”** means a Demarcation Point that combines specific functions, materials, and procedures at, and in, a network access point to create a NAP Port, which Lessor identifies in a Network Delivery Form as a Z-Location.
- 1.5. **“Network Extension”** has the meaning ascribed thereto in Section 3.4.2.
- 1.6. **“Patch Panel Port”** means a Demarcation Point that will be placed by Lessor in the Colocation Space, which Lessor identifies a Network Delivery Form as an A-Location.
- 1.7. **“Point of Presence”** means a location where Tenant places electrically powered network electronics.
- 1.8. **“Service”** means one or more specific network component(s) of the Leased Dark Fiber.
- 1.9. **“Service Interval”** means a period of time, non-overlapping with any other period, and adjacent to the next period, over which to measure a Service Level.
- 1.10. **“Service Level”** means one or more specific network performance characteristic(s) of a Service such as distance, loss, availability, or other qualifiers that define the network performance as specified in this Service Level Agreement.
- 1.11. **“Service Level Default”** has the meaning ascribed thereto in Section 2.3.1.



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- 1.12. “**Service Level Indicator**” means a discrete attribute of a Service by which to measure, calculate, quantify, and report a Service Level.
- 1.13. “**Service Level Objective**” means the minimally acceptable threshold for a Service Level Indicator.

2. LEASED DARK FIBER MINIMUM PERFORMANCE REQUIREMENTS

2.1. Service Level Objective.

- 2.1.1. The performance objective for the Leased Dark Fiber is availability. Availability will be measured using the Service Level Indicators, and the Service Level Objectives will be calculated over the total number of Service Intervals available over a calendar year. The Parties may agree to stricter Service Level Objective and Service Level Indicator requirements.
- 2.1.2. All Leased Dark Fiber will have a minimum availability level of 99.9% of Service Intervals.
- 2.1.3. The Leased Dark Fiber, in aggregate of all active fibers, will have an average performance of at least 99.99% of Service Intervals.
- 2.1.4. Leased Metro Ring Fiber will have at least 99.999% availability, measured as an average of all Leased Dark Fiber of this type with two (2) segments simultaneously impaired. Rings on this portion of the network must have at least one (1) path available at all times.
- 2.1.5. Lessor will make commercially reasonable efforts to minimize the duration of any Outage, and will restore availability within eight (8) hours of becoming aware of any single Outage.

2.2. Service Level Indicators.

- 2.2.1. Subject to Sections 2.2.3 and 2.2.4 of this Exhibit D with respect to the Leased Dark Fiber connecting a Colocation Structure to a NAP, and the Leased Dark Fiber connecting a Colocation Structure to an MST Port, the Service Level Indicators for all Leased Dark Fiber will be equal to the Acceptance Testing measurement minimums set forth in Exhibit C to the Lease Agreement.
- 2.2.2. The Service Interval for all Leased Dark Fiber is five (5) minutes.



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- 2.2.3. For Leased Dark Fiber connecting a Colocation Structure to a NAP, as illustrated in the HU Dark Fiber Technical Specifications, the Service Level Indicator will be optical performance of less than or equal to 5.5db of absolute optical attenuation measured at 1310 nm at the A-Location (the Meet-Me-Point in the Point of Presence) to the Z-Location (the NAP Port).
- 2.2.4. For Leased Dark Fiber connecting a Colocation Structure to an MST port, as illustrated in the HU Dark Fiber Technical Specifications, the Service Level Indicator will be optical performance of less than or equal to 23db of absolute optical attenuation measured at 1310 nm between the A-Location (the Meet-Me-Point in the Point of Presence) to the Z-Location (the MST Port).
- 2.3. **Service Level Default.**
- 2.3.1. A “**Service Level Default**” occurs when a Service Level Objective is not met. In any month during which there is a Service Level Default, Lessor will provide a credit to Tenant against Tenant’s lease payment under the Lease Agreement. The credit for each month during which there is a Service Level Default will be calculated to equal (i) the number of Service Intervals in that month for which the Service Level Indicators for the Leased Dark Fiber were not satisfied in accordance with Section 2.2, (ii) multiplied by the lease payment for the month, (iii) divided by the total number of Service Intervals in that month.
- 2.3.2. Following any failure to satisfy the Service Level Indicators that would trigger a Service Level Default, Lessor will, within twenty-four (24) hours, provide: (i) an explanation of the cause or causes of the failure of the Leased Dark Fiber to satisfy the Service Level Indicators, (ii) the specific remediation steps taken to restore the Service Level Indicators and (iii) confirmation that the Service Level Indicators have been restored. Tenant will verify that Service Level Indicators have been restored and report the restoration to Lessor within twenty-four (24) hours of receiving Lessor’s confirmation. To the extent it is able to do so, Lessor will provide Tenant with real-time status updates on the restoration of Service Level Indicators.
- 2.4. **Chronic Failure.** A “**Chronic Failure**” occurs if there is a Service Level Default for any three (3) consecutive months or for any four (4) months within a calendar year. In the event of a Chronic Failure, Tenant may, at its election, provide written notice to Lessor requesting a remedial plan (“**Remedial Plan**”) to address



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the underlying cause or causes of the Chronic Failure to the fullest extent practicable and in accordance with industry best practices. Tenant and Lessor will meet within fifteen (15) days of Lessor's receipt of such notice to discuss the Remedial Plan proposed by Lessor and to mutually agree on the Remedial Plan such period. Lessor will have up to sixty (60) days after such agreement to begin implementation of the Remedial Plan and will provide Tenant with regular updates on such implementation.

3. ADDITIONAL SERVICE REQUIREMENTS AND EXCLUSIONS

- 3.1. **Exclusion for Planned Maintenance.** Scheduled Maintenance Periods (as that term is defined in Exhibit B to the Lease Agreement) will be excluded from the calculation of Service Level Defaults, but only to the agreed upon duration of the Scheduled Maintenance Period.
- 3.2. **Exclusion for Emergency Relocation.** The period of time during emergency relocations under Section 7.1 of the Lease Agreement will be excluded from the calculation of Service Level Defaults but only to the extent that such emergency was due to a Force Majeure Event.
- 3.3. **Fiber Network Management.** Lessor will provide network visibility to capacity-related queries and will also provide a mechanism for maintenance requests like ticketing and fault notification. This system should be implemented using industry accepted information technology practices.
- 3.4. **Availability Inquiry Response Times.** Lessor will respond to availability inquiries according to the following response times:
 - 3.4.1. Lessor will acknowledge receipt of an availability inquiry within four (4) hours from when the inquiry is made.
 - 3.4.2. Following Lessor's acknowledgement of the inquiry, Lessor will provide a status update to Tenant by 12:00 pm (Central Time Zone) on the next Business Day. Lessor will address the following items in the status update: a) service availability, b) whether NAP provisioning is required, and c) whether an extension of the Lessor Network pursuant to Section 4.5 of the Lease Agreement is required (a "**Network Extension**").
 - 3.4.3. If further research is required to determine service availability, Lessor will report back to Tenant within five (5) Business Days either a) the steps required to provide service or b) its determination that the requested service will not be made available.



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- 3.5. **MST and NAP Provisioning Response Times.** Lessor will meet the following response times from the request from the Tenant:
- 3.5.1. Lessor will acknowledge receipt of a request for provisioning of a NAP within four (4) hours from when request is made by Tenant through Lessor's network management system.
 - 3.5.2. Existing NAP Ports that are assigned to Tenant will be provisioned within three (3) Business Days from the provisioning request.
 - 3.5.3. Existing MST Ports that are assigned to Tenant will be immediately useable following notification to Tenant. Such ports will normally be delivered to Tenant with the Network Delivery Form according to the Lease Agreement. This provision applies when address clarification is necessary.
 - 3.5.4. Any Tenant request for provisioning of an MST Port or NAP Port on an existing MST or NAP on the Leased Dark Fiber that was not assigned to Tenant pursuant to Section 4.1 of the Lease Agreement will be subject to the Parties' mutual agreement to a Network Extension. NAP Ports previously unassigned to Tenant and deemed available by Lessor will be provisioned within five (5) Business Days from the request for a Network Extension. MST Ports previously unassigned to Tenant and deemed available by Lessor will be made available to Tenant three (3) Business Days from the request for a Network Extension.
- 3.6. **Reporting Service Level Agreement.**
- 3.6.1. **Monitoring Reporting.** Lessor will provide a near-real time information feed of network topology, network conditions, port and circuit capacity, or other network related polling done on a regular interval so that Tenant can manage End User inquiries without individual submissions of requests for maintenance. The response time for monitoring reporting will be near real-time.
 - 3.6.2. **Event Reporting.** Lessor will provide notice of network changes, capacity threshold events, network failures, topology changes, or other changes on the network that causes a variation in any Service Level Indicator. The response time for event reporting will be within fifteen (15) minutes of the discovery by Lessor of any event described in the preceding sentence.



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- 3.6.3. Inquiry Reporting. Lessor will provide a mechanism by which Tenant can re-request events previously reported. The response time for inquiry reporting will be forty-eight (48) hours.
- 3.6.4. Monthly Business Reporting. On a monthly basis, Lessor will provide a report showing the general health of the network and any other metrics that support this Service Level Agreement, as necessary or required to meet the terms of this Service Level Agreement. The response time for monthly business reports will be within seven (7) days after the close of a calendar month.
- 3.6.5. Quarterly Business Reporting. On a quarterly basis, Lessor will provide a report showing the trends on the network and provide network topology and capacity updates as appropriate to meet increasing Tenant's needs. The response time for quarterly business reports will be within seven (7) days after the close of a calendar quarter.
- 3.6.6. Service Disruption Reporting. Any failure to meet the Service Level Objective will result in a service disruption report. This report will describe the events as they happened, the reason for the service disruption, corrective actions taken, and, if any, service credits due; as well as any additional information reasonably requested by Tenant. The response time for a service disruption report will be within five (5) days after the remediation of the service disruption, and within five (5) days of Tenant's reasonable request for additional information.

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EXHIBIT E

Lease Payment Rates

For purposes of the Lease Agreement, applicable MRCs for the duration of the Lease Term are contained in the attached Rate Schedule (Attachment E-1) and specifically as follows, notwithstanding any updates or changes made to the Rate Schedule subsequent to the execution of the Lease Agreement, provided, however, that any rental fees for Leased Dark Fiber in the Extended Lessor Network will be set pursuant to Section 4.5.2(b) of the Lease Agreement.

- \$5.00 per MST Port
- \$100.00 per NAP Port
- \$3,500 per Backbone Fiber Strand





Huntsville Utilities HU Dark Fiber Rate Schedule Overview and Pricing Information February 2016

Character of Service: Dark fiber lease within the Distribution Fiber Network or on the Fiber Backbone Ring. Lit fiber services are available to any department or agency of the City of Huntsville and any public school located within the corporate limits or police jurisdiction in the City of Huntsville. All services require separate lease agreement.

DEFINITION OF LEASE COMMITMENT THRESHOLDS

“High Density/High Volume” means a lease commitment and agreement passing no fewer than 80 Qualifying Addresses per mile of fiber (excluding the backbone fiber) or no fewer than 40,000 Qualifying Addresses in total. Qualifying Addresses defined in individual lease agreements. Each Qualifying Address represents either a Multiport Service Terminal (MST) or Network Access Point (NAP) monthly payment.

“Low Density/Low Volume” means a lease commitment and agreement passing equal to or fewer than 80 Qualifying Addresses per mile of fiber (excluding the backbone fiber) or fewer than 40,000 Qualifying Addresses in total. Qualifying Addresses defined in individual lease agreements. Each Qualifying Address represents either an MST or NAP monthly payment.

“Commercial/Enterprise Business District” means a non-residential building or facility in the Central Business District (CBD) of the City of Huntsville.

“Commercial/Enterprise Metropolitan Area” means a non-residential building or facility in any location outside of the Central Business Districts of the City of Huntsville.

“Education” means any school or related training and education facility within the boundaries of the City of Huntsville.

“City Facility” means any building, facility, or operational site used, managed and operated by the City of Huntsville.



DARK FIBER LEASE RATE CALCULATIONS (as defined herein)

HIGH DENSITY/HIGH VOLUME RESIDENTIAL/COMMERCIAL

<u>Location</u>	<u>Price per Month</u>
Per MST Port available	\$5.00
Per NAP Port available	\$100.00
Backbone Fiber Lease (per strand) Per strand	\$3,500.00

LOW DENSITY/LOW VOLUME RESIDENTIAL/COMMERCIAL

<u>Location</u>	<u>Price per Month</u>
Per MST Port available	\$7.00
Per NAP Port available	\$140.00
Backbone Fiber Lease (per strand) Calculated as the Maximum per strand, less any associated MST or NAP related payment, but in no case less than the Minimum per strand:	
Minimum per strand	\$3,500.00
Maximum per strand	\$16,000.00

COMMERCIAL/ENTERPRISE CBD

One Time Initial Connection Fee (applicable to all) TBD

<u>Specific Lease Commitment</u>	<u>Price per Month</u>
Single strand, point-to-point configuration	TBD
Two strands, point-to-point configuration	TBD
Single Strand, ring configuration	TBD
Two Strands, ring configuration	TBD
Backbone Fiber Lease (per strand)	TBD

COMMERCIAL/ENTERPRISE METROPOLITAN AREA

One Time Initial Connection Fee (applicable to all) TBD

<u>Specific Lease Commitment</u>	<u>Price per Month</u>
=0-15 Route Miles (per fiber/per mile)	TBD
=16-30 Route Miles (per fiber/per mile)	TBD
>31-50 Route Miles (per fiber/per mile)	TBD
>51 Route Miles (per fiber/per mile)	TBD
Two (2) strands, ring configuration	TBD
Public Education (Huntsville City Schools) (Lit Fiber)	

One Time Initial Connection Fee (applicable to all) TBD



Specific Lease Commitment **Price per Month**

Per Connection \$2,500

CITY OF HUNTSVILLE/MUNICIPAL BUILDINGS (LIT FIBER)

Specific Lease Commitment **Price per Month**

Number of Connections as defined in Lease Agreement \$208,000
 (Pending agreement with City)

Facilities including unmanned buildings such as pump stations. Does not include traffic signals.

CITY OF HUNTSVILLE/TRAFFIC SIGNALS (LIT FIBER)

Specific Lease Commitment **Price per Month**

Connection Fee Actual Cost per Connection

Number of Connections as defined in Lease Agreement \$50 per signal
 (Pending agreement with City)

GENERAL TERMS AND CONDITIONS

- All rates are subject to change and modification as modified from time to time, as approved by the Electric Board of the City of Huntsville.
- City of Huntsville and Education rates shown are for lit fiber managed by Huntsville Utilities - if City or Education facility uses dark fiber the Commercial/Enterprise rates apply.
- Specific terms and conditions shall be defined in individual lease agreements between HU and Lessee.
- Rate Schedule can be updated from time to time - actual rates charged will be defined in lease agreements between HU and Lessee.
- Private Schools covered by Commercial/Enterprise Rates



Huntsville Utilities Dark Fiber Technical Specifications

This document provides a description related to Huntsville Utilities' Dark Fiber. Fiber technical parameter and product architectures are included. It is not the intent of this document to provide ordering information, but rather to simply describe the technical features of Huntsville Utilities Dark Fiber.



EXECUTION VERSION

1. DEFINITIONS.

- 1.1. “**Aggregated Fiber**” has the meaning ascribed thereto in Section 2.1.3.
- 1.2. “**Colocation Agreement**” means that certain Colocation Agreement between Lessor and Tenant dated February 23, 2016.
- 1.3. “**Colocation Space**” means the space in a Colocation Structure allocated by the Lessor for Tenant’s exclusive use, including such other space inside and outside of a Colocation Structure necessary for Tenant or Tenant’s contractors and agents to enter and exit, and to bring Equipment into and out of, the Colocation Space, as specified in the Colocation Agreement and the Space Specifications.
- 1.4. “**Colocation Structure**” means a structure located on public rights of way or on land owned or leased by Lessor that contains the Colocation Space and that meets the technical requirements for power availability, environmental controls, and physical security as specified in the Colocation Agreement and the Space Specifications.
- 1.5. “**Dark Fiber**” has the meaning ascribed thereto in the definitions section of the Lease Agreement.
- 1.6. “**Dedicated Fiber**” has the meaning ascribed thereto in Section 2.1.2.
- 1.7. “**Demarcation Points**” means the end points of each segment of Leased Dark Fiber as assigned in the applicable Network Delivery Form as connection points to Equipment, including and without limitation the end points located in a Colocation Structure or at a Multipoint Service Terminal or a Network Access Point.
- 1.8. “**Equipment**” has the meaning ascribed thereto in the definitions section of the Lease Agreement.
- 1.9. “**Interconnection Fiber**” has the meaning ascribed thereto in Section 2.1.2.1.
- 1.10. “**Interconnection Location**” has the meaning ascribed thereto in the definitions section of the Lease Agreement.
- 1.11. “**Lease Agreement**” means that certain Dark Fiber Lease Agreement between Lessor and Tenant dated February 23, 2016.
- 1.12. “**Leased Dark Fiber**” has the meaning ascribed thereto in the definitions section of the Lease Agreement.
- 1.13. “**Lessor Network**” has the meaning ascribed thereto in the definitions section of the Lease Agreement.



EXECUTION VERSION

- 1.14. “**Metro Fiber Ring**” has the meaning ascribed thereto in the definitions section of the Network Agreement.
- 1.15. “**Multiport Service Terminal Port**” or “**MST Port**” means a Demarcation Point that provides an outside plant hardened connector bulkhead termination for the purpose of connecting the Tenant drop cable, which Lessor identifies in a Network Delivery Form as the Z-Location.
- 1.16. “**Network Access Point Port**” or “**NAP Port**” means a Demarcation Point that combines specific functions, materials, and procedures at, and in, a network access point to create a NAP Port, which Lessor identifies in a Network Delivery Form as the Z-Location.
- 1.17. “**Network Delivery Form**” has the meaning ascribed thereto in the definitions section of the Lease Agreement.
- 1.18. “**Patch Panel Port**” means a Demarcation Point that will be placed by Lessor in the Colocation Space, which Lessor identifies a Network Delivery Form as the A-Location.
- 1.19. “**Service**” means one or more specific network component(s) of the Dark Fiber.
- 1.20. “**Service Level**” means one or more specific network performance characteristics of a Service such as distance, loss, availability, or other qualifiers that define the network performance as specified in the HU Dark Fiber Technical Specifications or related Service Level Agreement(s).

2. NETWORK ARCHITECTURE SPECIFICATIONS

- 2.1. **Dark Fiber.** The following is a description of the three Dark Fiber configurations as illustrated in Diagram #1 and Diagram #2.
 - 2.1.1. **Metro Fiber Ring.** The Metro Fiber Ring will meet the following requirements, as illustrated in Diagram #1.
 - 2.1.1.1 **Redundancy.** Each Colocation Structure will have redundant connections to each other Colocation Structure in ring configurations.
 - 2.1.1.2 **Separation.** Each ring segment must be geographically separated by a minimum of two-hundred-and-fifty feet (250’) where possible, except at the entrances to a Colocation Structure where the rings may be separated by no less than fifty feet (50’), and the two-hundred-and-fifty feet (250’) separation will be achieved as soon as practicable outside of the Colocation Structure.



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- 2.1.1.3 The maximum fiber length distance between a Colocation Site and an adjacent Colocation Structure is twenty kilometers (20km).
 - 2.1.1.4 The maximum total fiber length distance of any Backbone fiber ring is one-hundred-and-forty kilometers (140km).
 - 2.1.1.5 Metro Fiber Ring fiber type. The Metro Fiber Ring shall be constructed of G.652 D compliant fiber.
 - 2.1.2. **Dedicated Fiber**, configuration #2, is Leased Dark Fiber that will have no optical split from the demarcation point to the serving Colocation Structure. Dedicated Fiber will be terminated on a Network Access Point (NAP) port. It will be the responsibility of the Lessor to make the entry into the applicable network access point and make the final splice at/into the NAP Port. Dedicated Fiber shall be constructed of either G.652D or G.657.A1 compliant fiber. This is illustrated in Diagram #2.
 - 2.1.2.1 **Interconnection Fiber**, is a pair of Dedicated Fibers that provide a diverse path from two distinct Colocation Structures to an Interconnection Location. It will be the responsibility of the Tenant to coordinate and obtain all Letters of Authority to splice to third party fiber at the meet point. Interconnection Fiber shall be constructed of either G.652D or G.657.A1 compliant fiber.
 - 2.1.3. **Aggregated Fiber**, configuration #3, is Leased Dark Fiber that may be split from the demarcation point to the serving Colocation Structure, using even-split planar waveguides, up to but not exceeding thirty-two (32) times. There will be no more than two (2) levels of split. Acceptable split configurations include 1:2, 1:4, 1:8, 1:16, and 1:32. No combination may result in a split ratio of greater than 1:32. Aggregated Fiber will be terminated on a Multiport Service Terminal (MST) port. Waveguides must perform even power splits across wavelengths between and including 1290nm to 1650nm. Aggregated Dark Fiber shall be constructed of either G.652D or G.657.A1 compliant fiber. This is illustrated in Diagram #2.
- 2.2. **Port Requirements.**
- 2.2.1. NAP Port. A NAP Port will consist of the connection of a Leased Dark Fiber to a Tenant drop fiber via a fiber splice within the network access point. Lessor will perform all fiber splicing, prepare the network access point splice closure, and perform the cable preparation into the closure. Each cable entering a network access point will minimally consume one physical network access point cable entry port, but may consume multiple NAP Ports as defined by the number of splices made to the cable



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entering. The number of NAP Ports consumed will be clearly identified via a cable marker attached to the entering cable. The maximum fiber loss measured from the Colocation Structure to the NAP port as shown in Diagram #3 shall be no greater than -6db measured at 1310nm.

- 2.2.2. MST Port. The MST Ports (as shown on the MST Port detailed in Diagram #3) will consist of either Commscope (or former TE Connectivity) DLX connectors, Corning Opti-tap connectors, or equivalent. The maximum fiber loss measured from the Colocation Structure to the MST port as shown in Diagram #3 shall be no greater than -23db measured at 1310nm. No fewer than 93% of the MST ports will be within three hundred feet (300') of the parcel served, and all of the MST ports shall be within five-hundred-and-fifty feet (550') of the parcel served.
- 2.2.3. Patch Panel Port. Patch Panel Ports will be SC/APC simplex single mode fiber ports and will be labeled by Tenant with a unique Tenant identifier and the Z-Location destinations.
- 2.2.4. Diagram #3 illustrates the A- and Z-Locations for the Leased Dark Fiber in the distribution and access portions of the Lessor Network.



