

**CONDUIT USE AND DARK FIBER
INDEFEASIBLE RIGHT OF USE (“IRU”) AGREEMENT**

Between

**Electric Plant Board of the City of Paducah, Kentucky
d/b/a Paducah Power System**

And

Commonwealth of Kentucky

Dated: September 22, 2020

EXHIBITS

- Exhibit A** **Segments**
- A-1 Revised Backbone Route
 - A-2 Beginning Point of Paducah-Eddyville Segment
 - A-3 Terminal Point of Paducah-Eddyville Segment
 - A-4 Eddyville-Marion Segment
 - A-5 Eddyville-Princeton Segment
 - A-6 Nortonville-Slaughters Segment
 - A-7 Slaughters-Henderson Segment
 - A-8 Henderson-Morganfield Segment
 - A-9 Tennessee River Crossing—Northern Access Point
 - A-10 Exit 31 I-24 Crossing
 - A-11 Exit 40 I-24 Crossing
- Exhibit B** **Fiber Splicing, Testing, and Acceptance Standards and Procedures**
- Exhibit C** **Underground Cable Installation Guidelines**
- Exhibit D** **[Intentionally Omitted]**
- Exhibit E** **Fiber Handoff**
- Exhibit F** **[Intentionally Omitted]**
- Exhibit G** **Project Records**
- Exhibit H** **Maintenance Agreement**
- Exhibit I** **Change Form**

CONDUIT USE AND DARK FIBER IRU AGREEMENT

THIS CONDUIT USE AND DARK FIBER IRU AGREEMENT (the "Agreement") is made as of the 22 day of September, 2020 (the "Effective Date") by and between Electric Plant Board of the City of Paducah, Kentucky, d/b/a Paducah Power System ("PPS"), a Kentucky municipal electric corporation, having its principal office at 1500 Broadway, Paducah, Kentucky; and Commonwealth of Kentucky ("Commonwealth"), having its principal office at 702 Capital Avenue, Frankfort, Kentucky 40601 (PPS and Commonwealth are each referred to herein as a "Party" and collectively as "Parties").

BACKGROUND:

Whereas:

A. Pursuant to RFP 758 1500000003-5 issued July 11, 2014 (as amended from time to time, the "RFP"), the Commonwealth selected Macquarie Infrastructure Developments LLC ("**Macquarie**") to design, build, finance, operate and maintain a statewide fiber optic network, known generally as the NG-KIH System, to provide broadband services to the citizens of the Commonwealth (the "**Project**");

B. On December 22, 2014, the Commonwealth and Macquarie entered into a master agreement (as amended from time to time, the "**Master Agreement**") in respect of the Project;

C. In 2015, Macquarie assigned its rights and obligations under the Master Agreement to KentuckyWired Infrastructure Company, Inc. ("**Project Co.**"). Project Co. then entered into a Project Implementation Agreement with KentuckyWired Operations Company, LLC ("**Operations Co.**");

D. On September 3, 2015, the Commonwealth and Project Co. entered into a project agreement (as amended from time to time, the "**Project Agreement**") in respect of the Project and to facilitate the financing of the Project. As part of this Project Agreement, Operations Co. and its subcontractors have specifically designed and tailored the NG-KIH Network to the geographic area of the Commonwealth in a series of "rings";

E. A component of the NG-KIH Network is located in western Kentucky;

F. PPS, through ownership or other arrangements, has rights to use a fiber optic telecommunications system in western Kentucky, including certain Telecommunications Facilities within certain of the Segments (the "**System**") that are compatible with such design specifications of the NG-KIH Network as may be set forth in this Agreement;

G. Commonwealth desires to acquire from PPS, and PPS desires to provide to Commonwealth, rights to access and use certain Telecommunications Facilities in the System as more particularly described in Section 2.4 upon the terms and conditions set forth below; and

H. PPS desires to acquire from Commonwealth, and Commonwealth desires to provide to PPS, an indefeasible right of use with respect to certain Fibers within Network,

whether presently existing or to be constructed by Commonwealth, as more particularly described in Section 2.1 hereof.

NOW, THEREFORE, in consideration of the mutual promises set forth below, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

ARTICLE I DEFINITIONS

Capitalized terms and phrases used in this Agreement shall have the following meanings:

"Acceptance Date" shall have the definition set forth in Exhibit B.

"Acceptance Standards" means the standards set forth in Exhibit B with respect to the testing and condition of the PPS Fibers.

"Affiliates" means, with respect to any entity, an entity controlling, controlled by, or under common control with such entity by means of direct or indirect majority equity ownership.

"Agreement" means this Conduit Use and Dark Fiber IRU Agreement.

"Available" means that the PPS Fibers meet the standards set forth in Sections 2, 3 and 4 of Exhibit B attached hereto.

"Business Day" means a day other than Saturday, Sunday or a federal or state holiday in the Commonwealth of Kentucky.

"Cable" means the fiber optic cable included in the System, the Network, the PPS Fibers, and their respective associated splicing connections, splice boxes and vaults, and conduit.

"Change" means an alteration, addition, deletion or other modification to the System or the Network, made in accordance with Article VII of this Agreement.

"Change Form" means the Change document referenced in Article VII of this Agreement and attached at Exhibit I.

"Claim" means any claim, action, dispute, or proceeding of any kind between Commonwealth (or any of its Affiliates, successors or assigns) and PPS (or any of its Affiliates, successors, or assigns) and any other claim, transaction, occurrence, loss, liability, expense or other matter arising out of, in connection with, or in any way related to, the PPS IRU, the Cable, the System, the Network, this Agreement or any other instrument, arrangement or understanding related to the PPS IRU.

"Commonwealth Equipment" means optronic (opto-electrical), electronic, or optical equipment or materials, facilities or other equipment owned, possessed or utilized (other than the System), by Commonwealth.

"Connecting Point" means a point where the network or facilities of the Interconnecting Parties will connect to the System or Network, as the case may be.

"Customary Industry Practice" means using standards, practices, methods and procedures to a good commercial standard, conforming to federal, state, county and city law and ordinances and exercising the degree of skill and care, diligence, prudence and foresight which would reasonably and ordinarily be expected from a qualified, skilled and experienced person engaged in a similar type of undertaking under the same or similar circumstances.

"Effective Date" shall have the meaning set forth in the introductory paragraph of this Agreement.

"Facility Owner" means any entity (other than PPS) owning any portion of the System and leasing said portion to PPS, or providing an IRU to PPS in, any facilities comprising a portion of the System.

"Fiber Acceptance Testing" means the fiber acceptance testing described in Exhibit B.

"Fiber(s)" means any optical fibers contained in the System or Network, including the PPS Fibers, and the fibers of any third party in the System or Network, excluding, however, any fibers granted (whether through ownership, IRU, lease, or otherwise) to Government Authorities in exchange for use of streets, rights of way, or other property under the jurisdiction of such entity.

"Force Majeure Event" shall have the definition set forth in Section Article XXI.

"Government Authority" means any federal, state, regional, county, town, municipal, territorial, or tribal government, whether domestic or foreign, or any department, agency, bureau, or other administrative, regulatory or judicial body of any such government, including, without limitation, any multinational body obtaining authority from any of the foregoing.

"Indefeasible Right of Use" or "IRU" is an exclusive, indefeasible right to use the specified property, but does not convey title, ownership, or rights of possession in any real or personal property.

"Indemnitee" shall have the definition set forth in Section 14.1.

"Indemnitor" shall have the definition set forth in Section 14.1.

"Interconnecting Party" or "Interconnecting Parties" means PPS, the Commonwealth or a Permitted User which connects its equipment to the System or Network in accordance with the terms and conditions of this Agreement and, with respect to a Permitted User, in accordance with the terms and conditions of a written agreement with the Parties.

"Lenders" means one or more financial institutions, vendors, suppliers or other financing sources utilized by PPS or Commonwealth, as the case may be.

"Maintenance Agreement" shall mean that certain Maintenance Agreement attached and incorporated herein as Exhibit H, between PPS and Commonwealth whereby the Commonwealth provides maintenance and repair services to PPS in connection with the PPS Fibers.

"Network" and "NG-KIH Network" means the Next Generation Kentucky Information Highway Project (AKA KentuckyWired).

"Network Operation Center" or "NOC" means a telecommunications point of presence.

"Outage" means that the PPS Fibers are not Available.

"Paducah-Eddyville Segment" shall have the meaning set forth in Section 2.1 of this Agreement.

"Permitted Users" means OpenFiber Kentucky Company, LLC, KentuckyWired Operations Company, LLC, NG-KIH Design Build LLC and LTS Kentucky Managed Technical Services LLC.

"PPS Fibers" means those certain Fibers within the Network that are owned, leased, or otherwise controlled by the Commonwealth, whether as of the Effective Date or thereafter, in which PPS is granted or shall be granted an IRU under the terms of this Agreement.

"PPS IRU" means the IRU granted by Commonwealth to PPS in certain Fibers in the Network as described in Section 2.1 of this Agreement.

"Representatives" shall have the definition set forth in Section 19.1.

"Required Rights" shall have the meaning assigned to the term in Section 4.2.

"Released Party" means each of the following:

- (a) Any Affiliates of the other Party, Facility Owners, and any Lenders, except to the extent such Lender has assumed a Party's position under this Agreement by reason of default by such Party or foreclosure by the Lender;
- (b) Any employee, officer, director, stockholder, member, or trustee of the other Party or its Affiliates or Lenders; or
- (c) Assignees of the entities included in the above subparagraphs (a) or (b) and any employee, officer, director, stockholder, partner, member, or trustee of such assignees.

"ROW" means right-of-way, including but not limited to easements.

"Segment(s)" shall mean the Paducah-Eddyville Segment, the Eddyville-Marion Segment, the Eddyville-Princeton Segment, the Nortonville-Slaughters Segment, the Slaughters-Henderson Segment, or the Henderson-Morganfield Segment, as each is defined in Section 2.1 and as the context requires, when referred to individually, or to the Paducah-Eddyville Segment, the Eddyville-Marion Segment, the Eddyville-Princeton Segment, the Nortonville-Slaughters Segment, the Slaughters-Henderson Segment, and the Henderson-Morganfield Segment, when referred to collectively.

"Span" means a discrete portion of the System or Network and may refer to a portion of the System or Network between two Transmission Sites or between a Transmission Site and a point of presence or a System end point or Network end point, or to a portion of the System or Network between two points of presence or a point of presence and a System end point or a

Network end point, or a portion of the System or Network affected by relocation or other circumstance.

“System” shall have the meaning set forth in Paragraph F above.

“Telecommunications Facilities” means conduit, utility poles or other attachments for Fiber.

"Term" means the term of this Agreement as set forth in Section 9.1, and includes any renewal term, as may be agreed to by the Parties in writing.

"Transmission Sites" means the PPS-designated optical amplifier, regenerator, or junction sites along a Segment.

ARTICLE II CONVEYANCE OF IRU AND ACCESS TO TELECOMMUNICATIONS FACILITIES

2.1. Conveyance of PPS IRU. Effective as of the Effective Date, Commonwealth hereby grants to PPS an exclusive IRU during the Term, for the purposes described herein, in twelve (12) Fibers within the backbone Cable of Commonwealth's Network beginning at a point west of the U.S. 60 Bridge across the Tennessee River and running across said U.S. 60 Bridge through Livingston County to the Commonwealth's existing backbone Cable in Lake City, Kentucky, and also in six (6) Fibers running from said beginning point to the Livingston County Judicial Center located on Wilson Avenue in Smithland, Kentucky, along a route generally depicted in green on the diagram attached hereto as Exhibit A-1. The IRU granted in this Section 2.1 in twelve (12) Fibers shall then continue from Lake City within said existing backbone Cable in a northeasterly direction to a terminal point located in Eddyville, Kentucky. The PPS Fibers from Paducah to Eddyville extend for a total distance of approximately 31 miles and are referred to herein as the "Paducah-Eddyville Segment." The beginning point of the Paducah-Eddyville Segment is located at a point adjacent to U.S. 60 northeast of its intersection with U.S. 62 and is depicted on Exhibit A-9 attached hereto. The terminal point of the Paducah-Eddyville Segment is located at a handoff at or near 86 Jent Drive, Eddyville, Kentucky, and is depicted on Exhibit A-3 attached hereto. The Commonwealth further grants to PPS an exclusive IRU in six (6) Fibers within an approximately 26.5-mile route of Network Cable to be constructed by Commonwealth beginning at a point located at 86 Jent Drive, Eddyville, Kentucky, running to a point located at a hand-off point at the intersection of School Street and Highway 60 in Marion, Kentucky, and continuing on to the Crittenden County Courthouse located at 107 South Main Street, Marion, Kentucky (the "Eddyville-Marion Segment"). The location of the Eddyville-Marion Segment is generally depicted in the diagram set forth in Exhibit A-4. The Commonwealth further grants to PPS an exclusive IRU in six (6) Fibers within an approximately 15.5-mile route of Network Cable to be constructed by Commonwealth between a point located at 86 Jent Drive, Eddyville, Kentucky, and a point located at an existing vault of Paducah Power System located at 304 East Legion Drive, Princeton, Kentucky (the "Eddyville-Princeton Segment"). The location of the Eddyville-Princeton Segment is generally depicted in the diagram set forth in Exhibit A-5. The Commonwealth further grants to PPS an exclusive IRU in six (6) Fibers within an approximately 26.5-mile route of Network Cable to be constructed by Commonwealth between a point located at 186 Mockingbird Drive, Nortonville, Kentucky, and a point located at an existing PPS Fiber closure located at the intersection of State Route 138 and Highway 41 in Slaughters, Kentucky (the "Nortonville-Slaughters Segment"). The location of the Nortonville-Slaughters Segment is

generally depicted in the diagram set forth in Exhibit A-6. The Commonwealth further grants to PPS an exclusive IRU in six (6) Fibers within an approximately 30.3-mile route of Network Cable to be constructed by Commonwealth between a point located at the intersection of State Route 138 and Highway 41 in Slaughters, Kentucky, and a point located at the Commonwealth's Henderson Node site in Henderson, Kentucky (the "Slaughters-Henderson Segment"). The location of the Slaughters-Henderson Segment is generally depicted in the diagram set forth in Exhibit A-7. The Commonwealth further grants to PPS an exclusive IRU in six (6) Fibers within an approximately 30.3-mile route of Network Cable to be constructed by Commonwealth between a point located at the Commonwealth's Henderson Node site in Henderson, Kentucky, and a point located at 4464 US Highway 60 in Morganfield, Kentucky (the "Henderson-Morganfield Segment"). The location of the Henderson-Morganfield Segment is generally depicted in the diagram set forth in Exhibit A-8. The IRU granted to PPS in the Paducah-Eddyville Segment, the Eddyville-Marion Segment, the Eddyville-Princeton Segment, the Nortonville-Slaughters Segment, the Slaughters-Henderson Segment, and the Henderson-Morganfield Segment is referred to herein as the "PPS IRU."

2.2. Construction Responsibilities. Commonwealth shall be responsible at its sole expense for all elements of construction of the portions of the Network required to provide the PPS IRU to PPS, including but not limited to, walkouts, staking, engineering, permitting, pole attachments and pole attachment agreements, make ready engineering and construction, conduit access, required ROW (unless PPS provides ROW and that obligation is specifically set forth in a writing signed by the Parties), all required Fiber and equipment installation. Commonwealth will ensure that the PPS Fibers shall be constructed and installed so as to meet the Fiber Splicing, Testing and Acceptance Standards and Procedures set forth in Exhibit B and the Cable Installation Guidelines set forth in Exhibit C of this Agreement.

2.3. Completion of Construction. No later than April 30, 2021, the Commonwealth shall complete construction of the Paducah-Eddyville Segment, the Eddyville-Marion Segment, the Eddyville-Princeton Segment, the Nortonville-Slaughters Segment, the Slaughters-Henderson Segment, and the Henderson-Morganfield Segment and successfully test each Segment such that the Acceptance Date for same occurs by the aforesaid construction completion deadline. PPS shall have access to and use of the PPS Fibers as soon as reasonably possible following completion of the construction of the Network Cable required to provide the PPS IRU.

2.4. Access to Telecommunications Facilities.

A. On the Effective Date of this Agreement, PPS shall provide Commonwealth access during the Term to the 6-inch conduit and associated other Telecommunications Facilities of PPS for purposes of Commonwealth's Network backbone Cable crossing the Tennessee River at the U.S. 60 Bridge. Commonwealth shall place its backbone Cable in one cell of the existing four-cell MaxCell Innerduct in the conduit crossing the Tennessee River. The point on the southwestern side of the Tennessee River at which Commonwealth may access the Telecommunication Facilities is located adjacent to U.S. 60 northeast of its intersection with U.S. 62 and is depicted on Exhibit A-9 attached hereto. The point on the northeastern side of the Tennessee River at which Commonwealth may access the Telecommunication Facilities is located on the northern side of U.S. 60 (Adair St.) in Ledbetter, Kentucky, roughly 500 feet east of its intersection with Lakeview Drive, all as is shown on the diagram attached hereto as Exhibit A-2.

B. On the Effective Date of this Agreement, PPS shall provide Commonwealth access during the Term to the 2-inch HDPE conduit and associated other Telecommunications Facilities of PPS for purposes of Commonwealth's Network backbone Cable crossing under Interstate Highway 24 ("I-24") at a point just east of Exit 31 of I-24. Commonwealth shall place its backbone Cable in one cell of a new MaxCell Innerduct to be purchased and installed in the conduit by Commonwealth, but owned by PPS. The point on the northern side of I-24 at which Commonwealth may access the Telecommunication Facilities is located 37.042615, -88.266181 as is depicted on Exhibit A-10 attached hereto. The point on the southern side of I-24 at which Commonwealth may access the Telecommunication Facilities is located 37.041561, -88.265403 as is depicted on Exhibit A-10 attached hereto.

C. On the Effective Date of this Agreement, PPS shall provide Commonwealth access during the Term to the 2-inch HDPE conduit and associated other Telecommunications Facilities of PPS for purposes of Commonwealth's Network backbone Cable crossing under Interstate Highway 24 ("I-24") at a point just east of Exit 40 of I-24. Commonwealth shall place its backbone Cable in one cell of a new MaxCell Innerduct to be purchased and installed in the conduit by Commonwealth, but owned by PPS. The point on the western side of I-24 at which Commonwealth may access the Telecommunication Facilities is located 37.071474, -88.126318 as is depicted on Exhibit A-11 attached hereto. The point on the eastern side of I-24 at which Commonwealth may access the Telecommunication Facilities is located 37.075581, -88.119836 as is depicted on Exhibit A-11 attached hereto. If determined by PPS to be necessary, PPS can replace the five (5) vaults used in this I-24 crossing with suitable larger vaults at a cost of \$1000 each to be borne by the Commonwealth.

Commonwealth shall be responsible at its sole cost for all construction and installation work and materials necessary or required by PPS for the backbone Cable of its Network to access and use the PPS conduit and other Telecommunications Facilities.

ARTICLE III CONSIDERATION

3.1. Consideration Package. Each Party acknowledges and agrees that the benefits to be received by it under this Agreement constitute good and sufficient consideration for such Party's undertaking of the various obligations assigned to it under this Agreement. The Parties further agree that the respective obligations to be performed by the Parties hereunder, including the costs incurred for new construction, the grants of IRUs, the provision of fiber optic cable and other facilities, the furnishing of conduit space and associated costs during the Term, and the provision of maintenance services and attendant costs during the Term, are estimated to be roughly commensurate in value by them. No funds or monies are being paid by one Party to the other Party under this Agreement.

3.4. Provision of Fiber. At its sole cost, Commonwealth shall contribute the Fiber and any other materials, labor, and facilities needed to make the PPS IRU fully operational. The fiber optic cable shall meet ITU-T standards for single-mode optical fiber and cable (including Recommendation ITU-T G.652).

ARTICLE IV CONSTRUCTION

4.1. Fiber Acceptance Testing. Exhibit B sets forth the Post-Construction Fiber Acceptance Testing procedures and test deliverables that Commonwealth shall provide to PPS, and the procedures for determining the Acceptance Date for each Segment containing PPS Fibers.

4.2. Acceptance Date Obligations. As of the date that the Commonwealth completes construction of each of the Segments in accordance with the requirements of this Agreement, PPS hereby represents and warrants on an ongoing basis throughout the remainder of the Term that:

- (a) PPS shall have obtained all rights, licenses, authorizations, easements, leases, fee interests, or agreements necessary to provide for the occupancy by such conduits and associated other Telecommunications Facilities to which Commonwealth is provided access hereunder of real property or fixtures (such as conduit, bridges, river crossings, or transmission towers).

The rights PPS is required to obtain pursuant to Subsection (a) above are referred to as "Required Rights." Subject to the terms of Section 9.2, PPS shall renew or replace existing Required Rights through the Term.

As of the Acceptance Date of the PPS Fibers in a particular Segment or Span, Commonwealth hereby represents and warrants on an ongoing basis throughout the remainder of the Term with respect to that particular Segment or Span, or as of December 31, 2020, with respect to all PPS Fibers, that:

- (b) Commonwealth shall have obtained all rights, licenses, authorizations, easements, leases, fee interests, or agreements necessary to provide for the occupancy by such PPS Fibers of real property or fixtures (such as conduit, bridges, river crossings, or transmission towers);
- (c) Commonwealth is the legal owner of the PPS Fibers or shall have obtained by IRU agreement, lease, or otherwise the right to use the portion of the Network along the Segments or Spans containing PPS Fibers that it does not own; and
- (d) the PPS Fiber shall be free of defects in materials and workmanship and is installed and constructed, at a minimum, in accordance with the specifications set forth in Exhibits B and C.

The rights Commonwealth is required to obtain pursuant to Subsections (b) and (c) above are also Required Rights. Subject to the terms of Section 9.2, Commonwealth shall renew or replace expiring or terminated Required Rights throughout the Term.

4.3. Provision of As-Built Drawings. Within two (2) months after the Acceptance Date of a Segment or Span, Commonwealth will provide PPS with as-built drawings for the Segment or Span complying with the requirements set forth in Exhibit G. If there is a material change in the as-built drawings as a result of maintenance or relocation, Commonwealth shall

deliver updated as-built drawings to PPS with respect to the relevant Segment or Span within the later of one-hundred eighty (180) calendar days following the completion of such change or thirty (30) calendar days after receipt of the request of PPS.

4.4. Compliance with Exhibit C – Cable Installation Guidelines. The Commonwealth shall complete all construction required of them, respectively, under this Agreement in accordance with Exhibit C – Cable Installation Guidelines.

4.5. Commonwealth Construction Responsibilities. If, by December 31, 2021, the Acceptance Standards applicable to the PPS Fibers are not satisfied and the PPS IRU is not fully operational, then PPS may terminate this Agreement by giving written notice to Commonwealth. In the event of such termination by PPS, the Commonwealth shall forfeit all rights and interests in the Fiber and Telecommunication Facilities of PPS under this Agreement, including conduit, colocation facilities, and easements, and PPS shall have no further obligation to the Commonwealth under this Agreement.

ARTICLE V CONNECTION AND ACCESS TO THE SYSTEM

5.1. Connections. Commonwealth shall pay and arrange for all Fiber Handoff locations for PPS.

5.2. No Unauthorized Access to System. Except as expressly permitted by this Agreement or other duly-authorized and executed agreement between the Parties, Commonwealth shall not use or access any Fibers or NOC belonging to PPS, or other part of the System, or permit any third party, including the Permitted Users, to use or access the same, without the prior written consent of PPS. Except as expressly permitted by this Agreement or other duly-authorized and executed agreement between the Parties, PPS shall not use or access any Commonwealth NOC or any other part of the Network, or permit any third party, to use or access any Commonwealth NOC or any other part of the Network, without the prior written consent of Commonwealth. PPS shall be entitled to access the PPS Fibers from all reasonable and customary access points, including without limitation all associated (a) splicing connections; (b) splice boxes and vaults; (c) with regard to PPS Fibers installed above ground, cabinets and huts; and (d) with regard to PPS Fibers installed below ground, handholes, manholes, and conduits.

ARTICLE VI THIS SECTION INTENTIONALLY LEFT BLANK

ARTICLE VII CHANGES TO SYSTEM OR NETWORK

7.1 Request for a Change. Either the Commonwealth or PPS (“Applicant” or “Respondent” as the case may be) may propose a Change in the form of a modification of a route or Segment, the System, the Network, design specifications, colocation arrangements, or the provision of or interconnection with the PPS Fibers or Fibers belonging to PPS, by giving written

notice to the other Party using the Change Form attached to this Agreement at **Exhibit I**. The Applicant shall provide all information regarding the proposed Change, including but not limited to, a detailed description of the proposed Change, its impact on the System or Network, Applicant's proposed equitable assignment of the costs of the proposed Change or adjustment of a component of the consideration package, and the applicable date by which Commonwealth shall have completed construction of any affected Segment or by which Commonwealth shall provide the PPS IRU, all information required by the Change Form and any other information which may support the Change request.

7.2 Change Meeting. If promptly requested by either Party, a meeting will be held within fifteen (15) Business Days of Respondent's receipt of the Change Form to discuss the proposed Change, its potential impact on the System or Network, its costs or any other matter relating to the Change or to the System or Network. Prior to or during the meeting, the Respondent may request additional information which the Applicant agrees to provide within ten (10) Business Days of the request. The Parties may agree to multiple meetings to discuss the proposed Change. Applicant may amend the Change Form to address concerns raised by Respondent in the course of the Parties' discussions.

7.3 Respondent's Review of Change. The Respondent may reject any request for a Change if the Change Form is incomplete or if, upon review of the Change Form and all supporting information, the Respondent reasonably determines that the Change could have a negative impact on the System or Network, that the proposed assignment of costs for making the Change or any proposed adjustment of a component of the consideration package, and/or construction completion deadlines are insufficient or inequitable, or that any other terms and conditions of the proposed Change are inequitable or impracticable of performance. The Respondent shall complete its review of the Change within twenty (20) Business Days of the later to occur of Respondent's receipt of the Change Form (as same may be amended) and the last meeting held in accordance with Section 7.2 of this Article.

7.4 Approval or Rejection of Change. If the Respondent elects to reject the proposed Change upon completion of its review of the proposed Change in accordance with Section 7.3 of this Article, the Respondent shall provide a written response explaining the basis for its rejection of the Change. Approval of a Change may be demonstrated by the signature of an authorized representative of Respondent on the Change Form or by other written statement approving the Change. Upon execution by the Parties of the Change Form or other written agreement setting forth the terms and conditions of the Change, work may begin to perform the Change.

7.5 Payment. If payment for a Change is due from the Commonwealth, it shall pay the Change costs within thirty (30) days of its written approval of the Change. If payment for a

Change is due from PPS, it shall pay the Change costs within thirty (30) days of its written approval of the Change.

7.6 Dispute. If the Applicant disagrees with the Respondent's rejection of a Change, the Applicant may within five (5) Business Days of receiving the rejection of the Change initiate a Claim under the dispute procedure set forth in Article XXII of this Agreement.

7.7 Records. The Applicant and Respondent shall maintain all documents relating to each Change, including electronic documents, in accordance with **Exhibit H** and the Kentucky Open Records Act.

7.8 Change Costs. Where the Parties have not agreed on a lump sum amount (which may include an allowance for overhead and profit) or unit pricing for determining the value of work to be performed under a proposed Change or of any Claim pertaining to an adjustment of a component of the consideration package, such value of the work (the "Change Costs") will be determined as provided in this subsection. The Change Costs means the sum of all costs necessarily incurred and paid by the Party performing the Change (the "Change Party") in the proper performance of the work. Such costs shall be in amounts no higher than those prevailing in the locality of the System or affected portion of the Network, as the case may be, and shall include the following items:

- a. Costs of all materials and equipment furnished and incorporated in the Change work, including costs of transportation and storage thereof, suppliers' field services required in connection therewith;
- b. Payments made by Change Party to subcontractors for work performed or furnished by subcontractors;
- c. Payments made by Change Party to engineers for professional services provided or furnished by engineers under an agreement with the Change Party;
- d. Costs of special consultants and independent contractors (including, but not limited to, surveyors, attorneys, testing laboratories, and accountants) employed for services specifically related to the Change Work;
- e. Supplemental costs directly related to performance of the Change Work such as utilities, fuel, safety and sanitary facilities at the work site, premiums or costs for any required bonds or permits, and all costs associated with acquisition of needed rights-of-way, permits, and/or easements; and

In addition to the foregoing Change Costs, the Change Party shall also be allowed a fixed fee for overhead and profit of ten (10) percent of the sum of the Change Costs.

7.9 Rights-of-Way, Permits, Easements. The Change Party shall make commercially reasonable efforts to acquire rights-of-way, permits, and/or easements required to perform the Change, but shall have no liability under this Agreement arising by virtue of any inability on its

part to acquire such rights-of-way, permits, or easements at a cost or within a time frame that the other Party deems reasonable and acceptable.

7.10 Period for Requesting Changes. Should the Commonwealth or PPS request a Change affecting a route, a Segment, the System, or the Network after construction work on the Segments has been substantially completed, the Parties will determine if an addendum to this Agreement or a new agreement is required. Should the Commonwealth or PPS request a Change affecting the Network or PPS Fibers after the PPS IRU has become operational, the Parties will determine if an addendum to this Agreement or a new agreement is required. Each Party agrees to negotiate in good faith concerning any Change proposed by the other Party to which this Section applies, but shall not be required to perform or pay for any work requested in such Change request unless the terms for performance of the requested Change are mutually agreed to by both Parties.

ARTICLE VIII USE OF THE SYSTEM

8.1. Notice of Damage. Commonwealth and PPS shall each promptly notify the other Party of any matters pertaining to any damage or impending damage to or loss of continuity of the Telecommunications Facilities or PPS Fibers that are known to it or that could reasonably be expected to adversely affect the Commonwealth's use of the Telecommunications Facilities or PPS' use of the PPS Fibers as provided in this Agreement.

8.2. Preventing Interference with Other Fibers. Neither Commonwealth nor PPS shall use equipment, technologies, or methods of operation that interfere in any way with or adversely affect the System or the use of the System by the other Party or authorized third parties or the respective fibers, equipment, or facilities of the other Party or authorized third party. Each Party shall take all reasonable precautions to prevent damage to the System and to Fibers used or owned by the other Party or third parties. Notwithstanding the above, the provisions of this Section shall not prevent a Party from using commercially reasonable equipment, technologies, or methods of operation if the interference or adverse effect on the other Party or a third party results primarily from such other Party's or third party's use of equipment, technologies, or methods of operation that are not commercially reasonable or that are not standard in the telecommunications industry.

8.3. Liens. Neither Party shall cause or permit any part of the System or the Telecommunications Facilities to become subject to any mechanic's, materialmen's, or vendor's lien, or any similar lien. If a Party breaches its obligations under this Section, it shall immediately notify the other Party in writing, and shall promptly cause such lien to be discharged and released of record without cost to the other Party.

ARTICLE IX TERM

9.1. Term. Subject to the Commonwealth's right to terminate this Agreement earlier in accordance with 200 KAR 5:312, the Term of the Agreement shall begin on the Effective Date and end on October 27, 2047.

9.2. Condition on Renewal; Termination after Term. The Parties may, but are not required to, renew or extend this Agreement upon the expiry of the Term upon such terms and conditions as the Parties may agree upon in writing. Neither Party shall be required, however, to

extend the Term, renew the Agreement or otherwise agree to Commonwealth's or any third party's use of the Fiber or System after the Term. During any extension period, unless the Parties agree otherwise in writing, PPS may terminate the Agreement with respect to a Segment on at least twelve (12) months' notice. PPS may provide such notice terminating the Agreement pursuant to this Section, however, only if PPS or the Facility Owner has made a bona fide determination to decommission the Cable in the Segment within six (6) months of the date for which PPS gives notice of termination of the Agreement.

9.3. Effect of Termination. No termination of this Agreement shall affect the rights or obligations of any Party hereto:

- (a) with respect to any payment hereunder for services rendered prior to the date of termination or with respect to recovery of all amounts permissible under 200 KAR 5:312;
- (b) pursuant to Articles XI (Audit Rights), XIV (Indemnification), XV (Limitation of Liability), XVI (Insurance), XVII (Taxes and Governmental Fees), XIX (Confidentiality), XX (Prohibition on Improper Payments), XXII (Dispute Resolution), or XXIII (Rules of Construction) or Sections 12.2 (Exclusion of Warranties); or
- (c) pursuant to other provisions of this Agreement that, by their sense and context, are intended to survive termination of this Agreement.

ARTICLE X MAINTENANCE AND RELOCATION

10.1. Maintenance. Commonwealth will provide maintenance of the PPS Fibers during the Term pursuant to the Maintenance Agreement attached hereto and incorporated herein as Exhibit H.

10.2. Relocation Procedures. If either Commonwealth or PPS is required by a third party with legal authority to do so, to relocate all or any portion of the System, the PPS Fibers, or the Telecommunications Facilities, the Party owning the facilities to be relocated shall provide the other Party with thirty (30) calendar days' prior notice of any such relocation, if possible, and shall proceed with such relocation. The Party owning the facilities to be relocated shall have the right to direct such relocation, including the right to determine the extent of, the timing of, and methods to be used for such relocation, provided that any such relocation:

- (a) shall be constructed and tested in accordance with the specifications and requirements set forth in this Agreement and applicable Exhibits;
- (b) shall not adversely affect the use, operation or performance of Commonwealth's or PPS's network or business, or change any Connecting Points or end points of the Segments; and
- (c) shall not interrupt service to Commonwealth or PPS except to the extent deemed necessary by Commonwealth or PPS to effect the relocation in accordance with Customary Industry Practice after giving at least fourteen

(14) days' notice to the other Party of the date, time and expected duration of the interruption.

ARTICLE XI AUDIT RIGHTS

11.1. Subject to the Commonwealth's and PPS's obligations under the Kentucky Open Records Act, each Party shall keep such books and records (which shall be maintained on a consistent basis and substantially in accordance with generally accepted accounting principles) and shall readily disclose the basis for any charges (except charges fixed in advance by this Agreement or by separate agreement of the Parties) or credits, ordinary or extraordinary, billed or due to the other Party under this Agreement and shall make them available for examination, audit, and reproduction by the other Party and its duly authorized agents or representatives for a period of one (1) year after such charge or credit is billed or due.

ARTICLE XII WARRANTIES

12.1. Warranties Relating to Agreement Validity. In addition to any other representations and warranties contained in this Agreement, each Party hereto represents and warrants to the other that:

- (a) it has the full right and authority to enter into, execute, deliver, and perform its obligations under this Agreement;
- (b) it has taken all requisite corporate action to approve the execution, delivery, and performance of this Agreement;
- (c) its execution of and performance under this Agreement shall not violate any applicable existing regulations, rules, statutes, or court orders of any local, state, or federal government agency, court, or body; and
- (d) this Agreement constitutes a legal, valid and binding obligation enforceable against such Party in accordance with its terms.

12.2. EXCLUSION OF WARRANTIES. EXCEPT FOR THE LIMITED EXPRESS WARRANTIES SET FORTH IN SECTION 12.1, NEITHER COMMONWEALTH NOR PPS MAKES ANY WARRANTY TO COMMONWEALTH OR ANY OF ITS REPRESENTATIVES, AFFILIATES, USERS OF ITS TELECOMMUNICATIONS FACILITIES, IRU, OR TO ITS LENDERS, WHETHER EXPRESS OR IMPLIED OR STATUTORY, AS TO THE INSTALLATION, DESCRIPTION, QUALITY, MERCHANTABILITY, COMPLETENESS, USEFUL LIFE, FUTURE ECONOMIC VIABILITY, OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY FIBERS, THE SYSTEM, TELECOMMUNICATIONS FACILITIES OR ANY SERVICE PROVIDED HEREUNDER OR DESCRIBED HEREIN, OR AS TO ANY OTHER MATTER, ALL OF WHICH WARRANTIES ARE HEREBY EXPRESSLY EXCLUDED AND DISCLAIMED.

12.3. No Third-Party Warranties. No Facility Owners, Released Parties or Lenders have made any representation or warranty of any kind, express or implied, to PPS or

Commonwealth concerning PPS, the PPS Fibers, the Cable, the System, or the Telecommunications Facilities, or as to any of the matters set forth in Sections 12.1 or 12.2. No Lenders of the Commonwealth have made any representation or warranty of any kind, express or implied, to PPS concerning Commonwealth, the PPS Fibers, the Cable, Telecommunications Facilities, the System, or as to any of the matters set forth in Sections 12.1 or 12.2.

ARTICLE XIII DEFAULT

13.1 Default and Cure. The Commonwealth may terminate this Agreement for either default or convenience in accordance with 200 KAR 5:312. Except as set forth in Section 13.2, a Party shall not be in default under this Agreement until one of the following events occurs: (i) said Party fails to make a payment of any undisputed amount required under this Agreement when due and such failure continues for more than ten (10) days after such Party receives written notice of such failure from the other Party; provided, however, that the notice and supporting statement concerning the amount in dispute were provided in accordance with Section 13.2; or (ii) either Party fails to perform or comply with any other material obligation, agreement, term, or provision of this Agreement applicable to it and such failure continues for more than thirty (30) days after such Party receives written notice of such failure from the other Party; provided, however, that if such failure to perform or comply cannot reasonably be cured within such thirty (30) day period, and if the Party receiving notice of such failure is proceeding promptly and with due diligence in curing the same, the time for curing such failure shall be extended for a period of time as may reasonably be necessary to complete such curing. Any event of default may be waived at the non-defaulting Party's option. Upon the failure of a Party to timely cure any such default after notice thereof from the other Party and expiration of the above cure periods, then the non-defaulting Party may, subject to the terms of Articles XV (Limitation of Liability) and XXII (Dispute Resolution), pursue any legal remedies it may have under applicable law or principles of equity relating to such breach.

ARTICLE XIV INDEMNIFICATION

14.1. Indemnification. To the extent permitted by law, including but not limited to Section 177 of the Kentucky Constitution, the Commonwealth and PPS (each Party known individually as the "Indemnitor") hereby agree to indemnify, defend, protect and hold harmless the other Party and its employees, officers, directors, members, managers, and the employees, officers, and directors of its members (the "Indemnitee"), from and against, and assumes liability for: (i) claims made by a third party for any injury, loss or damage to any person, tangible property or facilities of any person to the extent arising out of or resulting from the grossly negligent acts or omissions or willful misconduct of the Indemnitor or its officers, employees, servants, Affiliates, agents, contractors, licensees, invitees and vendors, or any entity for whom it is in law responsible, arising out of or in connection with the performance by Indemnitor of its obligations under this Agreement; (ii) any claims, liabilities or damages arising out of any violation by Indemnitor of any regulation, rule, statute or court order of any Government Authority in connection with the performance by Indemnitor of its obligations under this Agreement; and (iii) any liability to a third party arising directly or through one or more intermediaries from an action or claim brought by the Indemnitor against such third party, but only to the extent such third party has a right of indemnification, impleader, cross claim, contribution or other right of recovery against the

Indemnitee for any indirect, special or consequential damages awarded against such third party in favor of the Indemnitor.

14.2. Material and Continuing Obligation. Each Party's obligation to indemnify, defend, protect, and save the other Party harmless is a material obligation to the continuing performance of the other Party's obligations hereunder.

ARTICLE XV LIMITATION OF LIABILITY

15.1. EXCLUSION OF INDIRECT DAMAGES. SUBJECT TO 200 KAR 5:312 IN THE CASE OF PPS'S DEFAULT, BUT NOTWITHSTANDING ANY PROVISION OF THIS AGREEMENT TO THE CONTRARY, NEITHER PARTY, NOR ITS MEMBERS OR AFFILIATES, SHALL BE LIABLE TO THE OTHER PARTY OR ITS EMPLOYEES, OFFICERS, DIRECTORS, MEMBERS, MANAGERS, FACILITY OWNERS, LENDERS AND AFFILIATES FOR ANY SPECIAL, INDIRECT, OR PUNITIVE DAMAGES, OR DAMAGES FOR LOST REVENUE OR LOST PROFITS, WHETHER FORESEEABLE OR NOT, ARISING OUT OF OR IN CONNECTION WITH SUCH PARTY'S PERFORMANCE OR FAILURE TO PERFORM ITS RESPECTIVE OBLIGATIONS HEREUNDER, INCLUDING, BUT NOT LIMITED TO LOSS OF PROFITS OR REVENUE (WHETHER ARISING OUT OF (I) TRANSMISSION INTERRUPTIONS OR PROBLEMS, ANY INTERRUPTION OR DEGRADATION OF SERVICE OR OTHERWISE; (II) CLAIMS OF COMMONWEALTH, WHETHER OCCASIONED BY ANY OBLIGATIONS PERFORMED BY, OR FAILED TO BE PERFORMED BY, THE OTHER PARTY; OR (III) ANY OTHER CAUSE WHATSOEVER, INCLUDING BREACH OF CONTRACT, BREACH OF WARRANTY, NEGLIGENCE, OR STRICT LIABILITY, ALL CLAIMS FOR WHICH INDIRECT DAMAGES ARE HEREBY SPECIFICALLY WAIVED. NOTHING CONTAINED IN SECTION 15.1 SHALL BE DEEMED TO LIMIT AN INDEMNITOR'S OBLIGATIONS UNDER SECTION 14.1. FOR PURPOSES OF CLARITY, COMMONWEALTH SHALL ONLY BE ENTITLED TO SEEK DAMAGES THAT WOULD OTHERWISE BE EXCLUDED PURSUANT TO THIS SECTION 15.1 TO THE EXTENT THAT COMMONWEALTH IS PROHIBITED FROM WAIVING THE DAMAGES DESCRIBED IN SECTION 15.1 PURSUANT TO 200 KAR 5:312.

NOTWITHSTANDING THE FOREGOING, THE LIQUIDATED DAMAGES PROVISIONS SET OUT IN EXHIBIT H HERETO ARE EXCEPTED FROM THIS EXCLUSION HEREIN; PROVIDED, HOWEVER, THAT SAID LIQUIDATED DAMAGES SHALL NOT BECOME APPLICABLE TO PPS UNLESS AND UNTIL THE PPS IRU IN ALL SEGMENTS OF THE NETWORK DESCRIBED IN SECTION 2.1 OF THIS AGREEMENT BECOMES FULLY OPERATIONAL.

15.2 No Recourse Against Released Parties. Neither Party shall have any recourse of any kind against any Released Party or any assets of a Released Party in respect of any Claim except in the case of such Released Party's gross negligence or willful misconduct, it being expressly agreed and understood that no liability whatsoever shall attach to, or be incurred by, any Released Party in respect of any other Claims under, or by reason of, this Agreement. Each Party waives all such recourse to the extent set forth in this Section on behalf of its successors, assigns, and any entity claiming by, through, or under such Party.

15.3 Commonwealth Contracts. To the extent Commonwealth is permitted to allow other parties to use the Fibers belonging to PPS for any purpose, Commonwealth, in any contract or offering of service, capacity, or rights of use that involves use of the System, shall include in such contract or offering a written limitation of liability that is binding on Commonwealth's customers and is at least as restrictive in all material respects as the limitations set forth in Sections 15.1 and 15.2.

**ARTICLE XVI
INTENTIONALLY LEFT BLANK**

**ARTICLE XVII
TAXES AND GOVERNMENTAL FEES**

17.1. Taxation of Commonwealth. PPS understands that as of the Effective Date, Commonwealth represents that it is a tax-exempt entity. Accordingly, and notwithstanding the remainder of this Article, PPS shall not, directly or indirectly, seek reimbursement or contribution from Commonwealth for any tax from which Commonwealth is, in fact, exempt.

17.2. Commonwealth Obligations. The Commonwealth represents that it is not subject to taxation.

17.3. PPS Obligations. Subject to Sections 16.2 above, PPS shall timely report and pay any and all sales, use, income, gross receipts, excise, transfer, ad valorem or other taxes, and any and all franchise fees or similar fees properly assessed against it due to its construction, ownership, physical location or use (other than use of its Fibers by the Commonwealth) of the System.

**ARTICLE XVIII
NOTICE**

18.1. Notice Addresses. Unless otherwise provided in this Agreement, all notices and communications concerning this Agreement shall be in writing and addressed to the other Party as follows:

If to Commonwealth:	Commonwealth of Kentucky Attention: Secretary Finance and Administration Cabinet 702 Capital Avenue, Room 383 Frankfort, Kentucky 40601 Facsimile No. (501) 564-6785
With a copy to:	Kentucky Communications Network Authority Attention: Executive Director 201 St. Clair Street, 4 th Floor Frankfort, Kentucky 40601 Facsimile No. (502) 564-0883

If to PPS:

Paducah Power System
Attn: Manager of Telecommunications & Information Systems
P.O. Box 180
1500 Broadway
Paducah, KY 42002-0180
[for courier delivery use 42001 zip code]
Facsimile No. (270) 575-4027

or at such other address as may be designated in written notice delivered to the other Party.

18.2. Notice and Invoice Delivery. Unless otherwise provided herein, notices and invoices shall be hand delivered, sent by registered or certified U.S. Mail, postage prepaid, or by commercial overnight delivery service, or transmitted by facsimile, and shall be deemed served or delivered to the addressee or its office when received at the address for notice specified above when hand delivered, upon confirmation of sending when sent by facsimile, on the day after being sent when sent by overnight delivery service, or three (3) United States Postal Service business days after deposit in the mail when sent by U.S. mail.

ARTICLE XIX CONFIDENTIALITY

19.1. Confidentiality Obligation. To the extent permitted by the Kentucky Open Records Act ("KORA"), if either Party provides confidential business or proprietary or trade secret information ("Confidential Information") to the other or, if in the course of performing under this Agreement or negotiating this Agreement a Party learned Confidential Information regarding the facilities or plans of the other, the receiving Party shall (a) protect the Confidential Information from disclosure to third parties with the same degree of care accorded its own confidential and proprietary information, but in any case with at least reasonable care and (b) refrain from using such Confidential Information except in negotiating or performing under this Agreement. Notwithstanding the above, a Party may provide such Confidential Information to its directors, officers, members, managers, employees, agents, attorneys, contractors, and consultants (collectively, the "Representatives"), and to its Affiliates, Lenders, Facility Owners, potential assignees (who are bound by a written agreement restricting use and disclosure of such Confidential Information on at least as stringent terms as are contained herein), and Representatives of Affiliates, in each case whose access is reasonably necessary. Each such recipient of Confidential Information shall be informed by the Party disclosing Confidential Information of its confidential nature in writing, and shall be directed to treat such information confidentially and shall agree to abide by these provisions. In any event, each Party shall be liable (with respect to the other Party) for any breach of this provision by any person or entity to which that Party discloses Confidential Information. Should Commonwealth receive a request under the KORA to which Confidential Information provided by PPS is responsive, Commonwealth shall promptly give PPS notice of such request before disclosing any information with respect to such request; provided, however, that Commonwealth shall use its best efforts to ensure that any and all such Confidential Information is treated as exempt from disclosure pursuant to the KORA, and that if some portion of the information must be disclosed under the KORA, so much of the Confidential Information as qualifies as exempt from disclosure under the KORA will be redacted and not disclosed. The terms of this Agreement (but not its execution or existence) shall be

considered Confidential Information for purposes of this Article, except as set forth in Section 19.3. The obligations set forth in this Section shall survive expiration or termination of this Agreement for a period of two (2) years, except that, with respect to any Confidential Information designated by the disclosing Party as a trade secret, and entitled to protection as such, the obligations set forth in this Section shall survive such expiration or termination indefinitely.

19.2. Permitted Disclosures. Notwithstanding any other provision herein, neither PPS nor Commonwealth shall be required to hold confidential any Confidential Information that:

- (a) becomes publicly available other than through the recipient's disclosure in violation of the requirements of this Article;
- (b) is required to be disclosed by a Government Authority, regulatory authority, or judicial order, rule, or regulation or proceedings with respect to this Agreement or a Party's obligations as a public entity, provided that a Party subject to such requirement shall promptly notify the other Party of such requirement;
- (c) is independently developed by a person or entity without use of, or reference to the disclosing Party's Confidential Information;
- (d) becomes available to a person or entity without restriction from a third party who is not otherwise restricted from disclosing such Confidential Information;
- (e) is required by its Lender and is given to such Lender on a confidential basis; or
- (f) to the extent disclosure by the receiving Party is required by applicable law or regulation.

19.3. Goodwill and Publicity. Neither Party shall use the name, trade name, service mark, or trademark of the other in any promotional or advertising material without the prior written consent of the other. The Parties shall coordinate and cooperate with each other when making public announcements related to the terms of this Agreement and each Party shall have the right to promptly review, comment upon, and approve any publicity materials, press releases, or other public statements by the other Party that refer to, or that describe any aspect of, this Agreement.

ARTICLE XX PROHIBITION ON IMPROPER PAYMENTS

20.1. Neither Party shall use any funds received under this Agreement for illegal purposes or a purpose not contemplated by the terms of the Agreement or in compliance with ethical operation of the Party's business. Neither Party shall pay any commission, fees or rebates to any employee of the other Party. If either Party has reasonable cause to believe that one of the provisions in this Article has been violated, it, or its representative, upon presentation of evidence supporting such reasonable cause, may audit the books and records of the other Party for the sole purpose of establishing compliance with such provisions. Any such audit must be performed

during the normal business hours of the Party being audited and in a manner that does not unreasonably interfere with the business operations of the Party being audited.

ARTICLE XXI FORCE MAJEURE; EMINENT DOMAIN

Excused Performance. Neither PPS nor Commonwealth shall be in default under this Agreement with respect to any delay in its performance caused by any of the following conditions (each a "Force Majeure Event"): (a) act of God; (b) fire; (c) flood; (d) material shortage or unavailability not resulting from the responsible Party's failure to timely place orders or take other necessary actions therefor; (e) government codes, ordinances, laws, rules, regulations, or restrictions; (f) war, acts of terrorism, vandalism or civil disorder; (g) Cable cuts not due to the gross negligence or willful act of PPS; or (h) any other cause beyond the reasonable control of the Party whose performance is delayed. Notwithstanding the foregoing, the Parties agree that the prevailing COVID-19 pandemic and any foreseeable consequences therefrom or developments related thereto, including governmental orders, regulations, or enactments, shall not constitute a Force Majeure Event. The Party claiming relief under this Article shall promptly notify the other in writing of the existence of the Force Majeure Event relied on, the expected duration of the Force Majeure Event, and the cessation or termination of the Force Majeure Event. The Party claiming relief under this Article shall exercise commercially reasonable efforts to minimize the time for any such delay.

ARTICLE XXII DISPUTE RESOLUTION

22.1. It is the intent of PPS and Commonwealth that any disputes which may arise between them, or between the employees of each of them, be resolved as quickly as possible. Quick resolution may, in certain circumstances, involve immediate decisions made by the Parties' authorized representatives. When such resolution is not readily achieved, the Parties hereto agree to resolve such disputes in accordance with the provisions of this Article. Any election herein to engage in mediation of the dispute shall not be binding upon either Party and is in addition to any other remedies available under the Agreement or law.

22.2. Commonwealth and PPS shall each designate, by separate letter, representatives as points of contact and decision making with respect to the obligations and rights of the Parties, said letters to be furnished by each Party to the other within thirty (30) days from the Effective Date. Any disputed issues arising during the term of this Agreement shall in all instances be initially referred to the Parties' designated representatives. The Parties' designated representatives shall endeavor to render a mutually agreeable resolution of the disputed issue, in writing, within seventy-two (72) hours of such referral. Either Party may replace its designated representative upon written notice to the other Party identifying the new designated representative.

22.3. By mutual agreement, the Parties' designated representatives may continue to seek resolution of any Claims or disputes arising under the terms and provisions of this Agreement which the Parties' representatives have been unable to resolve within the seventy-two (72) hour time period. If the Parties' designated representatives do not resolve the dispute, the claimant may present its Claim in writing to the other Party within thirty (30) days after the circumstances which gave rise to the claim or dispute took place or became known to the claimant, or within thirty (30) days after the date on which the Parties' representatives acknowledge in writing their inability to

achieve resolution, whichever is later. The written claim shall contain a concise statement of the Claim or issue in dispute, together with relevant facts and data to support the Claim.

22.4. Any controversies or disputes arising out of or relating to this Agreement that are not resolved in accordance with the preceding procedure may upon agreement of both PPS and Commonwealth be referred to nonbinding mediation. An aggrieved Party shall be under no obligation to engage in mediation before proceeding with resolution of its Claims in accordance with Section 22.6 herein. When a Claim is referred to mediation, the Parties shall endeavor to select a mutually acceptable mediator knowledgeable about issues relating to the subject matter of this Agreement. In the event the Parties are unable to agree on a mediator, either Party may apply to the Franklin Circuit Court, Frankfort, Franklin County, Kentucky to appoint a mediator. The mediator shall not have the authority, power or right to alter, change, amend, modify, add or subtract from any provision of this Agreement, assess damages or costs to either Party, or to award punitive damages.

22.5. During the continuance of any mediation process, each Party shall continue to perform its respective obligations under this Agreement.

22.6. Should any controversy, Claim or dispute not be resolved through the dispute resolution process set forth in this Article XXII, any Party believing itself to be aggrieved may pursue resolution of its Claims in accordance with the provisions of KRS 45A.225 through 45A.255.

ARTICLE XXIII RULES OF CONSTRUCTION

23.1. Interpretation. The captions or headings in this Agreement are strictly for convenience and shall not be considered in interpreting this Agreement or as amplifying or limiting any of its content. Words in this Agreement that import the singular connotation shall be interpreted as plural, and words that import the plural connotation shall be interpreted as singular, as the identity of the parties or objects referred to may require. References to "person" or "entity" each include natural persons and legal entities, including corporations, limited liability companies, partnerships, sole proprietorships, business divisions, unincorporated associations, governmental entities, and any entities entitled to bring an action in, or that are subject to suit in an action before, any state or federal court of the United States. The word "including" means "including, but not limited to." "Days" refers to calendar days and "Business Days" has the meaning assigned in Article I. Unless expressly defined herein, words having well-known technical or trade meanings shall be so construed.

23.2. Cumulative Remedies. Except as set forth to the contrary herein, any right or remedy of PPS or Commonwealth shall be cumulative and without prejudice to any other right or remedy, whether contained herein or not.

23.3. No Third-Party Rights. Nothing in this Agreement is intended to provide any legal rights to any person or entity not an executing Party to this Agreement except to the extent, if any, as is expressly provided under the indemnification and insurance provisions.

23.4. Agreement Fully Negotiated. This Agreement has been fully negotiated between and jointly drafted by PPS and Commonwealth.

23.5. Industry Standards. Except as otherwise set forth herein, for the purpose of this Agreement, the generally accepted standards, practices, methods and procedures of performance followed by members of the telecommunications industry in the relevant market engaging in an undertaking of similar scope and size shall be the measure of whether a Party's performance hereunder is reasonable in terms of the degree of skill, care, diligence and prudence required.

23.6. Cross References. Except as the context otherwise indicates, all references to Exhibits, Articles, Sections, Subsections, Clauses, and Paragraphs refer to provisions of this Agreement.

23.7. Limited Effect of Waiver. The failure of either PPS or Commonwealth to enforce any of the provisions of this Agreement, or the waiver thereof in any particular instance, shall not be construed as a general waiver or relinquishment on its part of any right provided for in such provision, but the same shall nevertheless be and remain in full force and effect.

23.8. Severability. If any term, covenant or condition in this Agreement shall, to any extent, be invalid or unenforceable in any respect under the laws governing this Agreement, the remainder of this Agreement shall not be affected thereby, and each term, covenant or condition of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

23.9. No Partnership Created. The relationship between PPS and Commonwealth shall not be that of partners, agents, or joint venturers for one another, and nothing contained in this Agreement shall be deemed to constitute a partnership or agency agreement between them for any purposes, including federal income tax purposes. PPS and Commonwealth, in performing each of their obligations hereunder, shall be independent contractors or independent parties and shall discharge their contractual obligations at their own risk.

ARTICLE XXIV ASSIGNMENT

24.1. Conditions to Effective Assignment. Subject to the other terms and conditions set forth in this Article XXIV, an assignment or other transfer of this Agreement or a Party's rights or obligations hereunder, in whole or in part, to any other party shall not be effective without (a) the non-assigning Party's prior written consent, which consent shall not be unreasonably withheld, conditioned, or delayed; (b) the written agreement of the assignee to be bound by all terms and conditions of this Agreement; and (c) such assignee's agreement to promptly cure all prior defaults of the assigning Party under this Agreement. If assignment is permitted under this Article without the non-assigning Party's consent, then the assignor shall give prior written notice of the assignment to the non-assigning Party.

24.2. Consent Not to be Unreasonably Withheld. The non-assigning Party shall not unreasonably withhold, delay, or condition its consent required hereunder to an assignment if neither the assigning Party nor the proposed assignee is in default under this Agreement or any other agreement with the non-assigning Party.

24.3. Assignments to Particular Classes of Entities. The provisions of Section 23.1 notwithstanding:

- (a) PPS may grant a security interest in some or all of its rights and obligations under this Agreement or in the assets of the System or in the PPS IRU to any Lender to PPS. If Commonwealth so requests, PPS shall obtain from any such Lender a written non-disturbance agreement substantially to the effect that such Lender acknowledges Commonwealth's rights and interests under this Agreement and agrees not to disturb such rights and interests so long as Commonwealth is in compliance with the terms and provisions of this Agreement, including, without limitation, the payment in full when due of all amounts payable by Commonwealth hereunder.
- (b) Commonwealth may grant a security interest in some or all of its rights and obligations under this Agreement to a Lender to Commonwealth. If PPS so requests, Commonwealth shall obtain from any such Lender a written agreement substantially to the effect that (i) such Lender is subject to all of the terms and conditions of this Agreement that are binding on Commonwealth, and (ii) to the extent such Lender exercises its rights as a secured party, (A) it does not acquire any greater rights or assume any lesser obligations than were available to or imposed upon Commonwealth prior to such exercise and (B) it would be subject to any rights and remedies available to PPS under this Agreement at such time.
- (c) Either Party may assign its interest in this Agreement without the prior consent of the other Party (i) to any entity that is a successor to such Party by merger, consolidation, sale or transfer of all members' interests, or operation of law; (ii) to a purchaser of all or substantially all of such Party's assets; (iii) to any entity that acquires all of the System, including the Segments; or (iv) to an Affiliate of such Party, so long as, in the case of any assignment to an Affiliate, the assignor remains fully and jointly and severally liable for all its obligations hereunder.

24.4. Agreement Binds Successors. This Agreement and the rights and obligations under this Agreement (including the limitations on liability and recourse set forth in this Agreement benefiting the other Party and the Released Parties) shall be binding upon and shall inure to the benefit of PPS and Commonwealth and their respective permitted successors and assigns.

24.5. Change in Control not an Assignment. Notwithstanding any presumptions under applicable state law that a change in control of a Party constitutes an assignment of an agreement, a change in control of a Party shall not be deemed an assignment for purposes of this Agreement.

24.6. Right to Subcontract. PPS may subcontract for construction, installation, testing, maintenance, repair, restoration, relocation, or other operational and technical services it is obligated to provide hereunder or may have the underlying Facility Owner or its contractor perform such obligations, but PPS in any event shall remain fully and directly responsible to Commonwealth for the performance of such services and obligations.

**ARTICLE XXV
ENTIRE AGREEMENT; AMENDMENT; EXECUTION**

25.1. Integration; Exhibits. This Agreement constitutes the entire and final agreement and understanding between PPS and Commonwealth with respect to the subject matter hereof and supersedes all prior agreements relating to the subject matter hereof, which are of no further force or effect. The Exhibits referred to herein are integral parts hereof and are made a part of this Agreement by reference. Where the terms of the Agreement and an Exhibit conflict, the Exhibit will control.

25.2. No Parol Amendment. This Agreement may only be amended, modified, or supplemented by an instrument in writing executed by duly-authorized representatives of PPS and Commonwealth.

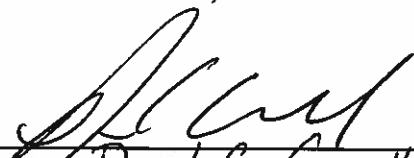
25.3. Counterparts. This Agreement may be executed in one or more counterparts, all of which taken together shall constitute one and the same instrument.

25.4. Electronic and Facsimile Delivery. This Agreement may be duly executed and delivered by a Party by execution and delivery of the signature page of a counterpart to the other Party by electronic mail in "portable document format" (".pdf") form, or by any other electronic means or by Facsimile; *provided that*, if delivery is made by electronic mail in .pdf form, or by any other electronic means, the executing Party shall promptly deliver a complete counterpart that it has executed to the other Party.


25.5. Governing Law. This Agreement shall be governed by and construed and enforced in accordance with the laws of the Commonwealth of Kentucky without regard to the conflict of laws rule of that state.

IN WITNESS WHEREOF and in confirmation of their consent to the terms and conditions contained in this Agreement and intending to be legally bound hereby, PPS and Commonwealth have executed this Agreement as of the dates set forth below.


**ELECTRIC PLANT BOARD OF THE
CITY OF PADUCAH, KENTUCKY**

By: 
Print Name: David C. Carroll
Title: Gen. Mgr.
Date: 9/15/20

ATTEST:

By: 
Print Name: Hardy Roberts
Title: Chairman
Date: 9-15-2020

COMMONWEALTH OF KENTUCKY

By: 
Print Name: Holly M. Johnson
Title: SECRETARY
Date: 9-22-2020

ATTEST:

By: _____
Print Name: _____
Title: _____
Date: _____


APPROVED
FINANCE & ADMINISTRATION

APPROVED AS TO
FORM & LEGAL

EXHIBIT A

Project C IRU

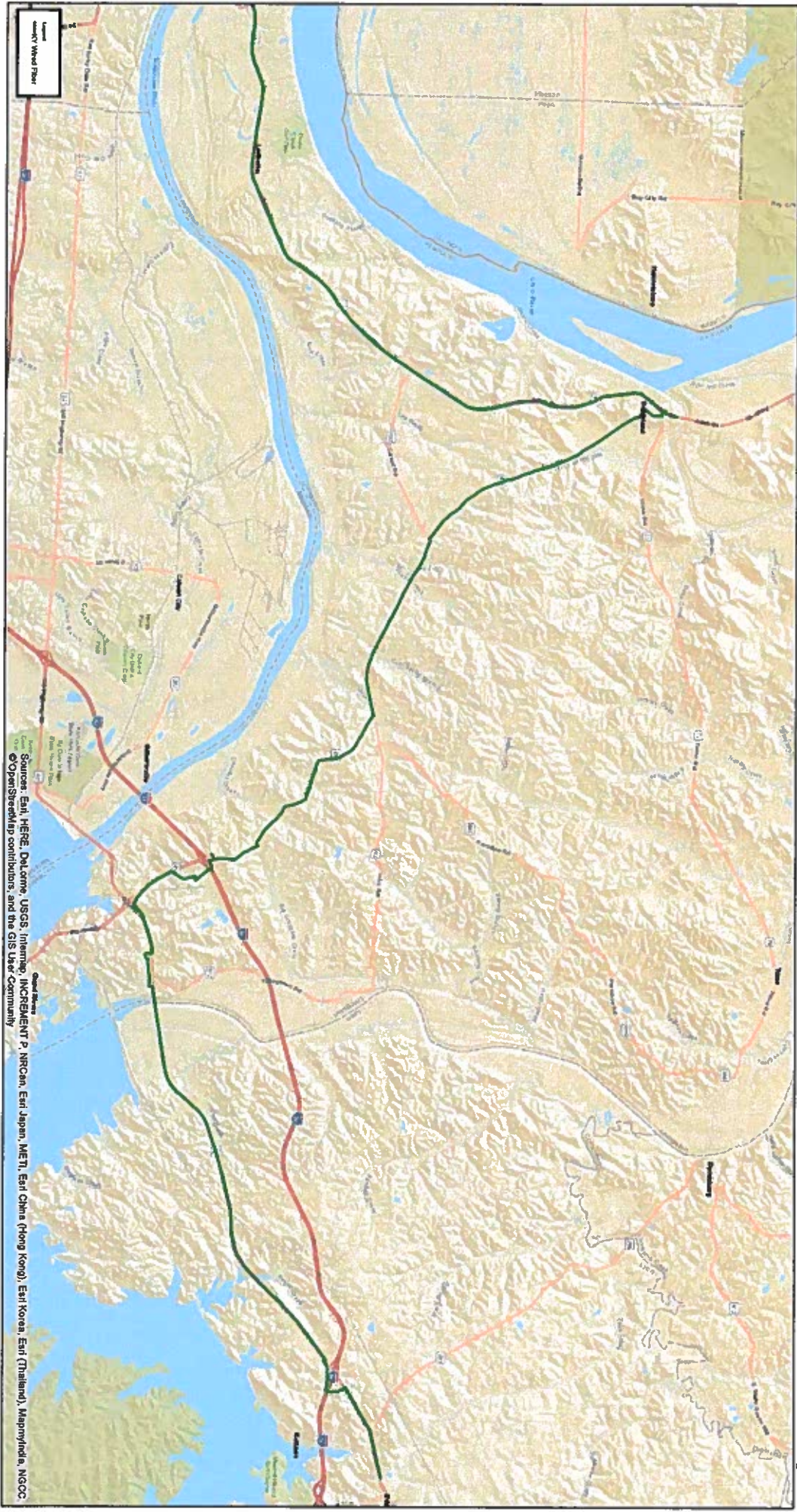


Exhibit A-1

Project C IRU



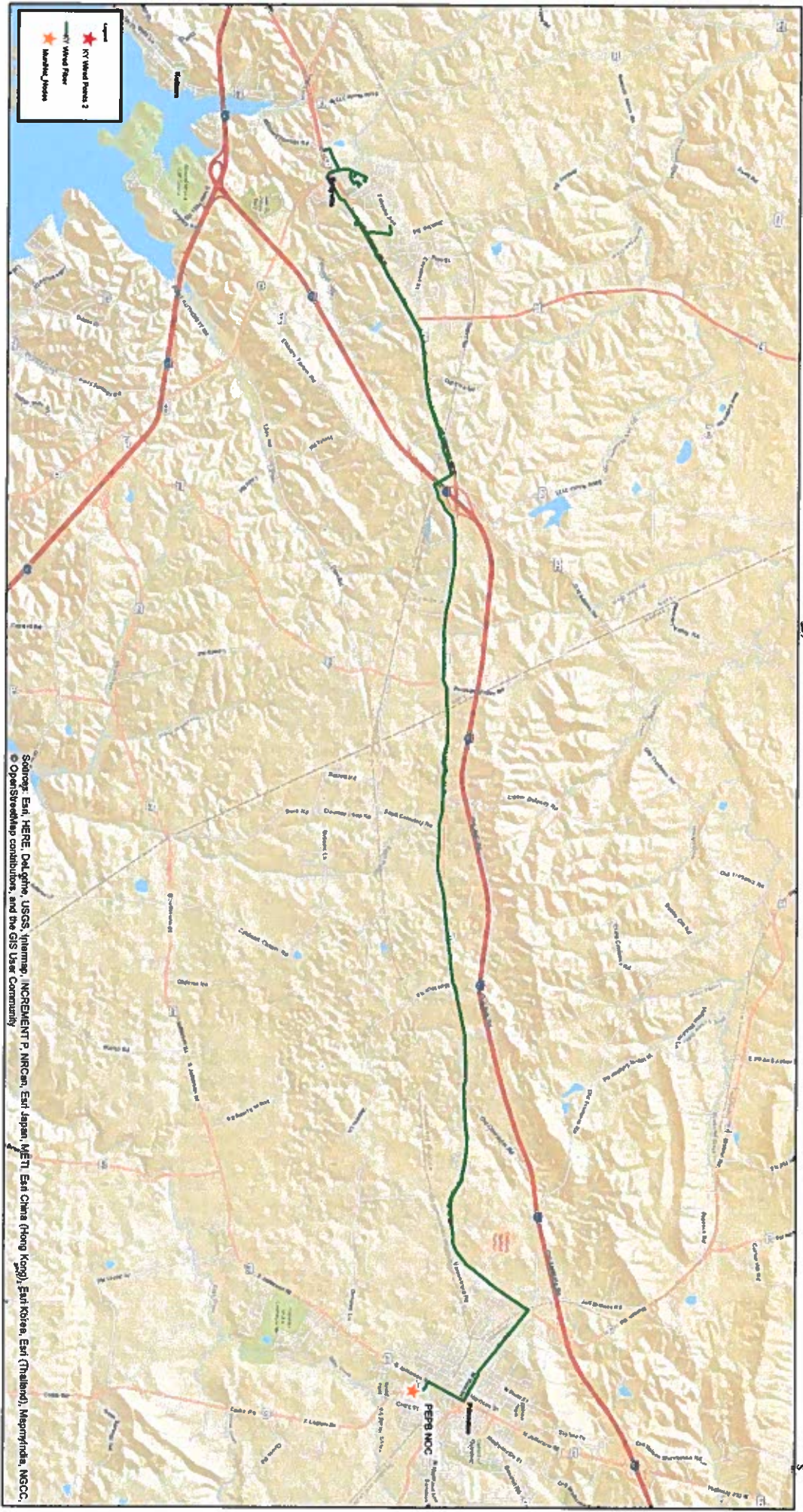
Exhibit A-2

Project C IRU



Exhibit A-3

Project C IRU



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Exhibit A-5

Project C IRU

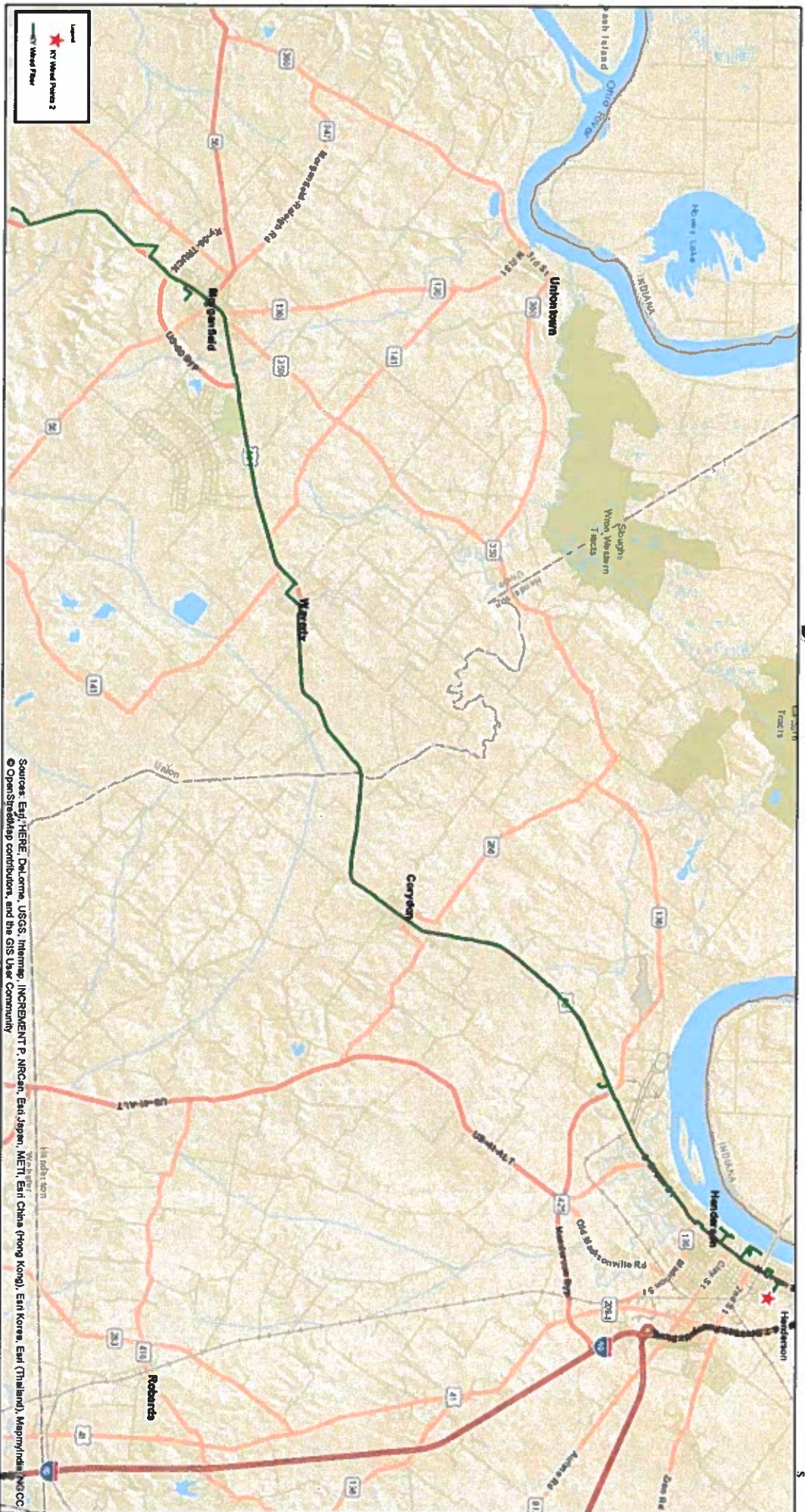


Exhibit A-8

Project C IRU



Exhibit A-10

EXHIBIT B
Fiber Splicing, Testing, and Acceptance Standards and Procedures

Initial Construction Testing

- a. During initial construction, Commonwealth shall use an optical time domain reflectometer ("OTDR") to test splices and an OTDR and a 0.5-km launch reel to test pigtail connectors. Such initial construction tests shall be uni-directional and performed at 1550 nm.
- b. If the combined front-end connectors and pigtail splice loss value exceeds 0.8 dB, the fiber owner shall break the splice and re-splice until the loss value is 0.8 dB or less. If the fiber owner is unable to achieve a loss value of 0.8 dB or less after five total splicing attempts, the splice shall be marked as Out-of-Spec ("OOS"). The 0.8 dB spec does not apply to fibers that are being spliced that have different mode-fields. Splice loss may be higher due to the mode-field mismatch.
- c. If the loss value for a splice, when measured in one direction with an OTDR, exceeds 0.3 dB, the fiber owner shall break the splice and re-splice until the loss value is 0.3 dB or less, provided that, if the fiber owner is not able to achieve a loss value of 0.3 dB after three total splicing attempts, then the fiber owner shall mark the splice as OOS. The 0.3 dB loss spec does not apply to fibers that are being spliced that have different mode-fields. Splice loss may be higher due to the mode-field mismatch.

2. End-to-End Testing

- a. After the fiber owner has established end-to-end connectivity on the fibers during initial construction, it shall:
 - i. perform bi-directional OTDR end-to-end tests to record splice loss measurements,
 - ii. test continuity to confirm that no fibers have been "frogged" or crossed at any splice points, and
 - iii. record loss measurements using a light source and a power meter.
- b. At Fiber termination points, the pigtail splice loss shall be at least .80 dB, and the reflection level at such termination points shall be less than -50dB.
- c. The fiber owner shall perform the bi-directional OTDR end-to-end testing at 1550 nm, and 1310 nm for the Segments. The results of such tests shall not be deemed within specification unless showing loss measurements between fiber distribution panels at each end of the Segment are in accordance with the loss specifications set forth by the ITU-T G.652 standard for dB per kilometer loss. The fiber owner shall measure and verify losses for each splice point in both directions and average the loss values. The fiber owner shall mark any splice points as OOS that have a splice loss greater than 0.3 dB per event. The fiber owner shall also designate as OOS any cumulative splice loss across a Span consisting of the entire Segment if the bi-directionally averaged cumulative splice loss across such Span exceeds 0.15

dB per km at 1310 nm, 0.25 dB per km at 1550 nm. Any such OOS splice points or Segment Spans shall be subject to Section 4, below.

3. Post-Construction Testing

After performing permanent splicing (in conjunction with repair of a cable cut, replacement of a segment of cable, or other work after initial installation and splicing of the cable), the test procedures set forth in Section 2 (End-to-End Testing) of this Exhibit shall apply to the relevant fibers and cable segments. The provisions in Sections 5 (OTDR Equipment and Settings) and 6 (Acceptance Test Deliverables) of this Exhibit, that are relevant to such testing shall also apply. The fiber owner may, after the Acceptance Date, adopt any alternative methods of testing that are generally accepted in the industry and that provide sufficient data to fulfill the objectives of the tests set forth in this Exhibit.

4. Out-of-Spec Splices

Out-of-Spec (OOS) splices or Spans shall be noted, but shall not preclude Acceptance of a fiber if the OOS condition does not affect transmission capability (based on use of then-prevailing telecommunications industry standards applicable to equipment generally used with the relevant type of fiber) or create a significant possibility of an outage. In the event either party is later able to reasonably establish that the OOS splice or Span affects service, the fiber owner shall take necessary action to bring the splice or Span into compliance with the applicable specifications under Section 1 of this Exhibit. If the fiber owner is unable to bring the OOS or Span into compliance with the applicable specifications in Section 1 of this Exhibit, the fiber owner will notify the other Party of the OOS or Span with options to resolve the issue within three (3) Business Days.

5. OTDR Equipment and Settings

The fiber owner shall use OTDR equipment and settings that are, in its reasonable opinion, suitable for performing accurate measurements of the fiber installed. Such equipment and settings shall include, without limitation, equipment models compatible for testing and able to support the following settings:

a. Index of refraction settings:

	1310 nm	1550 nm	1625nm
Lucent Truwave (Classic and RS)	1.4707	1.4701	
Corning SMF-28	1.4675	1.4681	[N/A]
Corning SMF-LS	1.471	1.470	
Corning LEAF	N/A	1.469	
Corning MetroCore	N/A	1.469	
Sumitomo Fiber	1.467	1.467	

- b. Tests of a pigtail connector and its associated splice:

- 4 km Range
 - 50ns Pulse

- 1. m Resolution

6. Acceptance Test Deliverables

The fiber owner shall provide computer media (CD-ROM) and or hard copies containing the following information for the relevant fibers and cable segments:

- a. Verification of end-to-end fiber continuity with power level readings for each fiber taken with a stable light source and power meter.
- b. Verification that the loss at each splice point is either (i) in accordance with 2.C. above or (ii) in accordance with the requirements of Section 4 of this Exhibit.
- c. The final bi-directional OTDR test data, with distances.
- d. Cable manufacturer, cable type (buffer/ribbon), fiber type, number of fibers, number of fibers per tube, and distance of each section of cable between splice points.
- e. Provide document for Chromatic Dispersion & PMD measurements. This is to validate if there is an issue with fiber delivery the fiber owner will repair or replace.

7. General Testing Procedures and Acceptance

- a. As soon as the fiber owner determines that the Party's Fibers in a given Span meet the Acceptance Standards such that there is Fiber connectivity between all fiber distribution panels along such Span or connectivity to the Party's requested spliced off-net location, it shall provide the deliverables set forth in Section 6 of this Exhibit. The Party shall have fourteen (14) calendar days after receipt of test deliverables for any Span to provide the fiber owner written notice of any bona fide determination that the Party's Fibers on such Span do not meet the Acceptance Standards. Such notice shall identify the specific data that indicate a failure to meet the Acceptance Standards.
- b. Upon receiving written notice pursuant to Subsection 7.A of this Exhibit, the fiber owner shall either:
 - i. expeditiously take such action as shall be reasonably necessary to cause such portion of the Party's Fibers to meet the Acceptance Standards and then re-test the Party's Fibers in accordance with the provisions of this Exhibit; or
 - ii. provide the Party written notice that the fiber owner disputes Party's

determination that the Party's Fibers do not meet the Acceptance Standards.

- c. After taking corrective actions and re-testing the Party's Fibers, the fiber owner shall provide the Party with a copy of the new test deliverables and the Party shall again have all rights provided in this Article with respect to such new test deliverables. The cycle described above of testing, taking corrective action and re-testing shall take place until the Party's Fibers meet the Acceptance Standards.
- d. If the fiber owner provides notice to the Party pursuant to Clause B (ii), the Party shall within five (5) calendar days of such notice designate by written notice to the fiber owner the names and addresses of three reputable and independent fiber optic testing companies. The fiber owner shall designate one of such companies to conduct an independent re-test of the Party's Fibers for the relevant Span. If, after such re-testing, the testing company determines that the Party's Fibers
 - i. meet the Acceptance Standards, then Commonwealth shall pay the testing company's charges for performing the testing and the acceptance date for the relevant Span shall be fourteen (14) days after the fiber owner provided its test deliverables.
 - ii. do not meet the Acceptance Standards, then the fiber owner shall pay the testing company's charges for performing the testing and shall perform the corrective action and re-testing set forth in Subsection B(i).
- e. Unless a Party provides a written objection pursuant to Subsection A, the acceptance date of a Span shall occur on the fourteenth (14th) day after the fiber owner provides the test deliverables for that Span, or, if earlier, the date the Party provides written acceptance of such Span. The Party's acceptance (pursuant to this subsection or of Subsection C) of the last Span within a Segment shall constitute "Acceptance" of the Party's Fibers for such Segment. The date of Acceptance for each Segment shall constitute the "Acceptance Date" of such Segment.
- f. Acceptance testing shall progress Span by Span along the System as Cable splicing progresses, so that test deliverables may be reviewed in a timely manner. The Party shall have the right, but not the obligation, to have an individual present to observe such testing and the fiber owner shall provide the Party at least seven (7) days' prior notice of its testing schedule. Within thirty (30) calendar days after the fiber owner conclusion of the Fiber Acceptance Testing in any given Span, the fiber owner shall provide the Party with a copy of the test deliverables.

EXHIBIT C
Underground Cable Installation Guidelines

1. Material

- a. Existing construction may not comply with portions of these Cable Installation Guidelines.
- b. Steel or PVC conduit shall be minimum schedule 40 wall thickness.
- c. Any exposed steel conduit, brackets or hardware (e.g., bridge attachments) shall be hot-dipped galvanized after fabrication.
- d. All split steel shall be flanged.
- e. Handholes shall have a minimum H-15 loading rating.
- f. Manholes shall have a minimum H-20 loading rating.
- g. Warning signs shall display universal do not dig symbol, "Warning-Buried Fiber-Optic Cable," company name and logo, local and emergency One Call toll-free numbers.

2. Minimum Depths

Minimum cover required in the placement of the conduit/cable shall be forty-two inches (42"), except in the following instances:

- a. Existing construction may not comply with portions of these Cable Installation Guidelines as existing fiber is typically buried at a depth of 30 to 36 inches.
- b. The minimum cover across streams, river washes, and other waterways shall be sixty inches (60") below the clean out line or existing grade, whichever is greater.
- c. At locations where the cable crosses other subsurface utilities or other structures, the cable/conduit shall be installed to provide a minimum of twelve inches (12") of vertical clearance from the utility/obstacle. The cable/conduit can be placed above the utility/obstacle, provided the minimum clearance and applicable minimum depth can be maintained; otherwise the cable/conduit shall be installed under the existing utility or other structure.
- d. In rock, the cable/conduit shall be placed to provide a minimum of eighteen inches (18") below the surface of the solid rock, or provide a minimum of forty-two inches (42") of total cover, whichever requires the least rock excavation.
- e. Where existing pipe is used, current depth is sufficient.

3. Buried Cable Warning Tape

- a. All cable/conduit installed by "open cut" method shall be installed with buried cable warning tape. In such case, the warning tape shall be:
 - b. laid a minimum of twelve inches (12") above the cable/conduit
 - c. generally placed at a depth of twenty-four inches (24") below grade and directly above the cable/conduit

- d. a minimum of three inches (3") wide and display "Warning-Buried Fiber-Optic Cable," a company name, logo and emergency one-call toll-free number repeated every twenty-four inches (24").

4. Conduit Construction

- a. Conduits may be placed by means of trenching, plowing, jack and bore, multi-directional bore or directional bore.
- b. Conduits shall generally be placed on a level grade parallel to the surface, with only gradual changes in grade elevation.
- c. Steel conduit shall be joined with threaded collars, Zap-Lok or welding. (Welding is the preferred method.)
- d. All jack and bores shall use HDPE or steel conduit.
- e. All directional or mini-directional bores shall use HDPE or steel conduit.
- f. Any cable placed in swamp or wetland areas shall be placed in HDPE, PVC, or steel conduit.

Where required by the permitting agency:

- a. all crossings of paved city, county, state, federal, and interstate highways, or railroad crossings shall be encased in steel conduit,
- b. all longitudinal cable runs under paved streets shall be placed in steel or concrete encased PVC conduit,
- c. all cable placed in metropolitan areas shall be placed in steel or concrete covered PVC conduit, and
- d. at all foreign utility/underground obstacle crossings, steel conduit shall be placed and shall extend at least five feet (5') beyond the outer limits of the obstacle in both directions.

5. Innerduct Installation

- a. No cable shall be placed directly in any split/solid steel conduit without innerduct. This might not be the case in existing fiber.
- b. Innerduct(s) shall extend beyond the end of all conduits a minimum of eighteen inches (18"). No cable shall be placed directly in any split/solid steel conduit without innerduct. This might not be the case with existing fiber.

6. Cable Installation in Conduit

- a. The cable shall be installed using either a sealed pneumatic cable blowing system or a powered pulling winch and hydraulic powered assist pulling wheels.
- b. The maximum pulling force to be applied to the cable shall be six hundred pounds (600 lbs.).
- c. Sufficient pulling assists shall be available and used to insure the maximum pulling force is not exceeded at any point along the pull.
- d. The cable shall be lubricated at the reel and all pulling assist locations.
- e. A pulling swivel breakaway rated at six hundred pounds (600 lbs.) shall be

- used at all times.
- f. Splices shall be allowed only at planned junctions and reel ends.
- g. All splices shall be contained in a handhole or manhole.
- h. A minimum of twenty meters (20m) of slack cable shall be left in all intermediate handholes and manholes.
- i. A minimum of thirty meters (30m) of slack cable shall be left in all splice locations.
- j. A minimum of fifty meters (50m) of slack cable shall be left in Transmission Sites and points of presence.
- k. PVC conduit/innerduct may be split, with the cable installed inside the split duct and plowed in.

7. Manholes and Handholes

- a. Manholes shall be placed in traveled surface streets and shall have locking lids. This might not be the case with existing fiber.
- b. Handholes shall be placed in all other areas.

8. EMS Markers

EMS Markers shall be placed directly above the lid of all buried handholes or shall be fabricated into the lids of the handholes.

9. Cable Markers (Warning Signs)

- a. Cable markers shall be installed at all changes in cable running line direction, splices, pull boxes, assist-pulling locations, and at both sides of street, highway or railroad crossings.
- b. Markers shall be spaced at intervals of no more than five hundred feet (500') apart in metropolitan areas (areas where there is either extensive development and improvement or rapid growth (new building construction)) and within line of sight (not to exceed one thousand feet (1,000')) in non-metropolitan areas.
- c. Markers shall be positioned so that they can be seen from the location of the cable and generally set facing perpendicular to the cable running line.
- d. Splices and pull boxes shall be marked on the cable marker post.

10. Aerial Cable Installation Guidelines

Cables are supported on a minimum of 6.6M EHS galvanized suspension strand or sizes identified on IFC drawings for specific spans. After the strand has been placed, it should be tensioned so that the final sag with cable in place conforms to the following table of clearances:

Table 2. Maximum String Tension – 6.6M EHS and 6M Steel Strand

Temperature		Stringing Tension in Pounds		
°F	°C	Spans Under 250'	Spans Between 250' and 450'	Spans Over 450'
0	-18	900	850	775

20	-7	800	750	725
40	4	700	675	650
60	15	600	600	600
80	27	500	525	550
100	38	425	475	525

11. Strand Splicing

When splicing strand, subcontractor shall use a DBLLC-approved strand splice. All splices shall be made within 3 feet of the pole and shall be placed on the opposite side when crossing roads, waterways, and railroads. A mid-span splice is not authorized.

12. Methods of Obtaining Stringing Tension

Subcontractor shall determine the temperature of the air by placing a thermometer in a vertical position in approximately the same sun or shade conditions existing along the section of strand being tensioned. Subcontractor shall use appropriate means up to and including a dynamometer to determine the tension of the suspension strand.

For best results, subcontractor shall first pull the strand until it is tighter than the desired tension, then slack off until the desired tension is obtained. This extra tension should not exceed 125% of the designed stringing tension or 500 pounds, whichever is less.

The points at which strand tension should be measured under various conditions are as follows:

- a. Straight sections free from changes in grade:
 - i. Fewer than 10 spans – Measure the tension near the middle of the section of strand.
 - ii. 10 to 20 spans – Measure the tension first at a point about two-thirds of the distance from the pulling end, then at a point about one-third of the distance from the pulling end.
 - iii. More than 20 spans – Measure the tension first at a point about three-fourths of the distance from the pulling end, then at a point about one-half of the distance, then at one-fourth of the distance.
- b. Sections including changes in grade or corners:
 - i. Measure the tension first at the far side of the farthest corner or pole where change in grade occurs, then at each corner or change-in-grade pole, working toward the pulling end.
 - ii. As the desired tension is obtained in each portion of the strand being pulled, subcontractor shall tighten the bolts of the suspension clamps.

13. Tensioning and Sagging of Cable Strand

When tensioning strand for the use of supporting cable(s), the strand shall be tensioned to:

- a. Provide sufficient support for the cable(s) and cable apparatus under the expected outside plant weather conditions (i.e., heat, cold, ice, and wind), and

- b. Meet clearance minimums engineered by DBLLC Engineering.

It is imperative that this tension be calculated using an industry-approved strand tensioning tool to meet the minimum tensioning requirements for the strand size and cable weight for the existing pole line.

There are instances when tensioning strand to its recommended or full capacity could lead to contact with the existing cable plant. This is common when cables are placed between or below existing plants. In these cases, it is recommended to place the strand at a tension that will adequately support the cable, meeting structural requirements, and provide enough sag to comport with the existing aerial cables.

If a conflict occurs between the strand tension requirements and matching the sag of an adjacent plant, the preferred method is to match the existing utility attachers, as long as this does not create any violations. If violations are created, rearrangement of the existing plant, such as moving the plant up or down on the pole, may be required.

At all times, cable clearances must be maintained over roadways and from electric utilities.

14. Suspension Bolts

Suspension bolts are used to secure the suspension clamps to the pole. The bolts are available with one end threaded ("A" bolt) or with both ends threaded ("B" bolt). The double-threaded type bolt is generally used where it is planned to place two strands, one on each side of the pole, at the same level.

The length of the bolt to be used is determined by the diameter of the pole plus the amount required extending the bolt through the suspension clamp and nuts. The bolt must be long enough to extend at least three complete threads beyond the outer nut. The end of the bolt must not extend more than 2" beyond the nut. Any excess must be cut off and the bolt end shall be painted with a cold galvanizing compound.

15. Suspension Clamps

A cable suspension clamp supports all sizes of suspension strand at inline poles and 6.6M or 6M strand at corner poles with less than 10-foot pull. The suspension clamp must be a type recommended for the size of suspension strand used. The corner suspension clamp supports 6.6M or 6M suspension strand at corners where the pull is 10 to 50 feet. At any corner where the pull is greater than 50 feet, the strand must be dead-ended and guyed each way.

16. Guy Hooks/Pig Ears

Guy hooks and pig ears are used to terminate suspension strand or guy strand. The guy hook or pig ear can be attached to the pole with the same bolt that supports the suspension strand for the main cable.

17. Thimble Eye Bolts

Two types of thimble eye bolts shall be used:

- a. Angled (bent) thimble eye bolts are used to terminate guy strand when

- the lead-over-height ratio is less than 1.25".
- b. Straight thimble eye bolts are used when the ratio is greater than 1.25". Thimble eye bolts can be used to terminate all sizes of guy strand and, when equipped with an eye nut, can be used for dead-ending suspension strands of all sizes.

18. Guy Grips ("B" Strand Grips)

Guy grips, sometimes referred to as "B" strand grips, may be used to terminate guy strand and suspension strand on guy hooks pig ears, strain insulators, and eye-type hardware. The grips are made of spirally-formed high-strength steel wires and are available in sizes corresponding to the outside diameters of standard galvanized strand.

19. Strandvises

The strandvise consists of three parts: a cartridge, a yoke, and a bail. The bail and the yoke may be reused, but the cartridge may not. Subcontractor shall use a long bail with strain insulators, and a short bail on eye-type hardware and guy hooks.

20. Guys

Down guys are attached to the pole, applying downward forces at various angles, most typically between 20 and 45 degrees to the pole. The guy hook hardware has spurs or prongs that dig into wood poles and provide supplementary bonding and stability for the guy wire/guy hook attachment.

21. Anchors and Guy Rods

Guy rods of size 5/8 inch by 8 feet (5/8" x 8') used with expanding anchors are to be made of galvanized steel having an integral single, double, or triple thimble. Down guards or guy guards shall be used.

22. Stainless Steel Banding

Stainless steel bands are to be Type 201 and meet ASTM A666 standards including, but not limited to, chemical composition requirements of carbon, manganese, phosphorus, sulfur, silicon, chromium, and nickel and the tensile and break strengths. Use stainless steel banding with fully rounded smooth edges for safety and easy installation with a proper banding tool.

23. Stainless Steel Banding Buckles

Stainless steel banding buckles are to be Type 201 and meet all ASTM A666 standards including, but not limited to, its chemical composition requirements of carbon, manganese, phosphorus, sulfur, silicon, chromium, and nickel, and be made of fully annealed stainless steel material.

24. Aluminum Hardware Mounting Plate

Subcontractor shall use aluminum extruded mounting plates 5/8" thick x 11" tall x 2" wide and plated bolts and nuts.

25. Expanding Anchors

For eight blade-type expanding anchors, a pincer-type nut retainer is welded to the underside of the base to retain the guy rod nut. The wires used to hold the blades to the anchor base plate must not be removed. These wires will shear off during the expanding process.

Where practical, use earth augers to bore the hole for the anchor. Expanding anchors develop most of their holding power by the blades engaging undisturbed earth. Therefore, it is important that the hole is no larger than necessary to admit the unexpanded anchor.

26. Screw Anchors

Screw anchors are available in a variety of helix configurations, rod sizes, and thimble eyes. Proper selection depends on the type of soil and the guying requirements. Correct installation is achieved only when the anchor is installed using the appropriate torque for the particular soil and anchor type, as recommended by the manufacturer. Installation torque is usually measured using a device connected in series with the wrench and digger kelley bar during installation.

27. Bonding and Grounding for Aerial Plant

The connection to a vertical grounding conductor of a power system is made in the communications space on a pole by using an approved connector. Subcontractor shall bond a guy or strand section with an approved grounding clamp using a #6 solid bare copper wire with split-bolt connector. When a new vertical ground is required, a #6 solid bare copper wire will be placed from the communications strand down the pole to a new copper-clad steel ground rod having a minimum diameter of $\frac{5}{8}$ " and a minimum length of 8'. All interconnecting grounding conductors shall be #6 bare copper laid in smooth curves. Subcontractor shall bond at every pole with existing ground, or every 1,320 feet where existing grounds do not exist. Subcontractor shall leave ground rod 6" above ground at the bottom of pole, attaching a universal ground rod clamp to the new #6 solid bare copper wire.

28. Drip Loop

The drip loop will be located below the point of entry on the building to keep moisture from penetrating the building. The loop will be hand-formed; the maximum bending radius will not exceed the manufacturer's specifications and will not be more than a 12" loop. Pass-through pole locations shall have a drip loop of no less than 2" and no more than 4".

29. Aerial Cable

Lashing aerial cable will be accomplished with a cable guide and "C" type of lasher or bigger. Suspension clamps should be tightened at least one span ahead of the cable lashing operation. This is necessary to keep tension from building up in the strand as lashing progresses. Assist rollers may be required to support the cable above streets and other obstacles during the lashing process. All work will be in compliance with authorities having jurisdiction.

30. "D" Lashing Wire Clamp $\frac{1}{4}$ "

The "D" lashing wire clamp ¼" bug nut will be placed 12" from the center of the pole on both the field and node sides of the pole. Subcontractor shall place groove plates over the strand and cross the lashing wire over top of the strand two wraps, following the lay of the strand. Subcontractor shall thread lashing wire between the stud collar and first washer, then wrap it a half turn around the stud. Subcontractor shall not wrap lashing wire 360 degrees around the stud. Subcontractor shall tighten nut and tuck free end of lashing wire into clamp. If over lashing, subcontractor shall place a second wire between the two flat washers and repeat the process.

31. Over-lashed Cable

Over-lashing will be the same practice as lashing aerial cable. When the number of cables being over-lashed or the physical size of the cable being over-lashed exceeds manufacturer specifications for the lasher, a larger lasher will be required.

32. Lashing Wire

The lashing wire (0.045 type 302) to aerial cable will be lashed tightly against the strand. This is accomplished by proper adjustment of the rear cable lifter on the lasher and particularly by not permitting the lashing wire to slack off during any of the lashing, terminating, or splicing operations.

33. Forming Lashed Cable

At poles, splices, or other points where the cable is not held snugly against the strand, the cable should be formed in a long, smooth curve; supported in this position; and kept free from possible contact with hardware or other points of interference that might cause sheath abrasion.

34. Lashing Clamp Placement

Subcontractor shall use lashing wire clamps placed at 12 inches from the center of the pole to terminate lashing wire. Subcontractor shall place cable spacers at 9 and 15 inches from the center of the pole for cable supports at dead-end and dip pole locations. To provide separation between strand and cable at suspension clamps, subcontractor shall place the suspension clamp so that the strand groove and strand are below the suspension bolt.

34. Cable Tension

To keep excessive cable out of the spans during the lashing operation, the subcontractor must observe the following:

- a. A moderate amount of tension should be maintained in the cable ahead of the lasher.
- b. At cable section ends, the splice point ends and their slack loops should be supported to the strand so as not to damage the fiber optic cable.
- c. At dip poles, the cable slack loop should be secured to the strand after the lashing wire has been terminated.

35. Double Lashing Special Crossings

Double lashing is required on special crossings, which include those over interstate highways, waterways, and railways. Subcontractor shall use two sets of wire to lash the cable to the strand. The termination on the lashing wire will use two clamps.

36. Slack Loops

A slack loop is a spare amount of optical fiber, or slack cable, looped for storage at strategic locations. In the event of a break or other required services, slack cable is used to aid in restoration. Unless otherwise stated, a slack loop shall have a length of 150 feet. Attachment methods are as follows:

- a. Where slack loops will be secured temporarily on a pole, subcontractor shall use a new suspension clamp or the appropriate size bolt that would be used in the clamp shall be permanently mounted at the approved attachment height to secure the temporary storage coil.
- b. When securing a temporary storage coil inside a building, subcontractor shall use a newly installed J-hook, snap lock conduit fitting, or similar piece of hardware to secure the slack loop, even if stored above a drop ceiling.
- c. For all other applications, the slack loop shall be secured so that it shall be out of the way of the customer and general public access.
- d. The cable shall not be secured in a manner that will cause damage to the existing structure or the cable itself.
- e. Appropriate size snow shoes are to be used to form all slack loops. A 17" aluminum snow shoe fiber optic storage bracket, B materials part number FOSP-17-TMK, is to be used to form all slack loops.

37. Slack Loop Deployment

Where indicated on the DBLLC IFC drawings, the subcontractor shall install 150' of slack loop cable. Deltec strapping and lashing wire with clamps to terminate wire will be used to store the slack loop. Loops must be secured in a horizontal orientation and must not be allowed to rotate to a vertical orientation.

38. Aerial Cable Identification Tags

An identification tag indicating the owner of the support strand and the fiber optic cable shall be attached on the fiber optic cable at each pole. The tag shall be a UV-rated weatherproof wrap-around type to fit the fiber optic cables. Subcontractor is responsible to adhere to DBLLC naming and tag identification requirements. The approved tag will be PMS 659 blue in color with black lettering.

39. Riser/Dip Pole

39.1. Wood Pole

When cable transitions from aerial to underground, subcontractor shall cover the cable end with a 2- inch plastic U-guard within 6 inches of the cable's bend at height of attachment. At ground level, a 1.25" schedule 40, 36" radius 90-degree sweep will be connected to the

SDR11 1.25" HDPE. The 1.25" sweep will be placed 6" above ground under the U-guard at the base. All open ends of the HDPE shall be neatly trimmed and sealed/plugged with an approved weatherproofing material.

39.2 Metal Pole

When cable transitions from aerial to underground, subcontractor shall cover the cable end with a 2- inch plastic U-guard within 6 inches of the cable's bend at height of attachment. The U-guard shall be mounted using 0.5" stainless steel banding and buckles attached every 12". At ground level, a 1.25" schedule 40, 36" radius 90-degree sweep will be connected to the SDR11 1.25" HDPE. The 1.25" sweep will be placed 6" above ground under the U-guard at the base. All open ends of the HDPE shall be neatly trimmed and sealed/plugged with an approved weatherproofing material.

Updating of Guidelines

Either party may revise these Cable Installation Guidelines to include new procedures, materials, or processes so long as the changes achieve the objectives of the specifications set forth above and are in accordance with, or superior to, then-current telecommunications industry standards.

EXHIBIT D
[Intentionally Omitted]

EXHIBIT E

Interconnection Procedures and Fiber Handoff

Fiber handoff is expected at existing fiber slack loops or splice points. These will be at least ½ mile on either side of a thru splice. The locations of these are indicated in Exhibit A – Segments.

1. Permitted Connecting Points Commonwealth may request that PPS establish Connecting Points with other telecommunications facilities (“**Interconnect Facilities**”) at Commonwealth’s sole expense, which shall be equal to PPS’s cost, at (i) points where the Cable is spliced along the System, (ii) fiber distribution panels at the Cable end points, or (iii) fiber distribution panels at Transmission Sites ((i) (ii) and (iii) collectively, “**Connecting Points**”). Commonwealth shall have no right to establish any connection to the System other than at such locations. Commonwealth may request the right to establish connections to the System at other locations. Subject to any underlying agreements, PPS shall not unreasonably withhold permission for such additional connections. A determination by PPS of the existence of any of the conditions described in Subsection 2.B of this **Exhibit E** shall not be deemed an unreasonable denial of permission for additional connections.

2. Requests for Interconnections

A. Connection Requests. Commonwealth shall provide PPS at least sixty (60) days’ prior written notice (the “**Interconnect Notice**”) of the date it requests that a connection be completed or sixty (60) days’ prior written notice if the connection requires installation of Commonwealth Equipment at a Transmission Site. The Interconnect Notice shall set forth a description of the work required to be performed including:

- (i) the connection location (which shall be at a permitted Connecting Point as set forth in Section 1 of this Exhibit E);
- (ii) a copy of Commonwealth's construction design drawings including a diagram of the desired location of the Interconnect Facilities and Commonwealth Equipment;
- (iii) identification of all Interconnect Facilities and Commonwealth Equipment to be installed;
- (iv) Commonwealth's requested installation schedule;
- (v) any excess cable storage requirements;
- (vi) the space, power, environmental and other requirements for the Interconnect Facilities and Commonwealth Equipment;
- (vii) the estimated in-service and termination dates for the interconnection; and
- (viii) all other information reasonably required by PPS.

B. Response to Requests. Within twenty-one (21) days of receiving the Interconnect Notice, PPS shall respond with its acceptance or objections to the proposed interconnection. PPS

shall use commercially reasonable efforts to accommodate the request, but may restrict such work to the planned System work periods referred to in **Exhibit H**. PPS may decline to make a requested connection if PPS determines, in its reasonable discretion, that there is a significant likelihood that (i) Commonwealth's use of a proposed connection would cause a material and adverse effect on the System or the use thereof; (ii) use of a particular location will cause a significant technical impediment; (iii) the making or existence of the connection presents a risk of creating an interruption of transmission; (iv) PPS has no rights to interconnect to the Cable at such point due to restrictions existing in the underlying rights or an inability to obtain other required permits, authorizations or approvals; or (v) there are unreasonable costs and/or logistics required to make such interconnection.

3. Demarcation and Ownership

A. Demarcation Points. PPS shall designate an installation demarcation point and a maintenance demarcation point (which may be a different point) for each interconnection in order to safeguard and maintain sole control over the System. PPS shall perform all installation work on facilities on its side of the installation demarcation point and shall perform all post-installation work on facilities on its side of the maintenance demarcation point. Commonwealth shall pay the costs of such installation and post-installation work as set forth in this Exhibit. Installation responsibilities of PPS for the Interconnect Facilities shall extend no further than the boundary of PPS's right of way or other property unless otherwise mutually agreed to by the parties.

B. Ownership. Commonwealth shall retain ownership of Interconnect Facilities during the Term. At the end of the Term, title to any portion of an Interconnect Facility located on PPS premises or right of way not removed by Commonwealth within one-hundred and eighty (180) days shall pass to PPS unless the Parties agree otherwise.

4. Installation of New Interconnect Facilities

A. Spur Cable. Commonwealth or its contractors shall, prior to the requested connection date, provide a spur cable adequate to reach the Connecting Point with an additional length (minimum 100 feet) sufficient for PPS to perform splicing.

B. Rights of Way and Equipment. Commonwealth shall provide, at its sole cost and expense, any and all necessary rights of way, permits, access rights and/or any required consents or authorizations, and PPS-approved materials and equipment (including cables and conduit) necessary for the construction, use, operation, maintenance and repair of all Interconnect Facilities. At Commonwealth's request, to the extent permitted under PPS's lease or other agreements relating to a co-location facility, and if space is available, PPS shall at its sole discretion provide to Commonwealth access to building entrances, conduits and risers at the co-location facility or use of PPS's rights to install such building entrances, conduits or risers necessary in connection with constructing Interconnect Facilities. Such access or use of rights shall be at such additional charges to which PPS and Commonwealth may agree. Commonwealth shall be subject to all limitations and restrictions for conduits, risers and building entrances imposed by the applicable underlying owner. Commonwealth shall be solely responsible for placement, construction and installation of all Commonwealth facilities required to interconnect at the Connecting Point designated by PPS.

If necessary, and where applicable, PPS shall assist Commonwealth, at Commonwealth's

sole expense, in obtaining from any third-party building owner or PPS lessor access to existing building entrance facilities, if available, to access and exit Transmission Sites. Otherwise, Commonwealth shall be solely responsible for obtaining all necessary rights for the Interconnect Facility, as described in the first sentence of this Subsection, and PPS does not make and hereby disclaims any warranties or representations that such rights are available at any particular location or regarding the cost or availability of such rights.

5. Maintenance of New Interconnect Facilities

A. Maintenance and Changes. Commonwealth shall provide all maintenance and repair of the Interconnect Facilities on Commonwealth's side of the maintenance demarcation point. Any improvement, modification, addition to, relocation, or removal of, the Interconnect Facilities by Commonwealth at Transmission Sites or other PPS premises shall be subject to PPS's prior review and written approval. Commonwealth shall pay the cost of such improvement, modification, addition to, relocation, or removal of, the Interconnect Facility and of the cost of repairing any damage due to Commonwealth's actions. PPS's maintenance responsibility shall be limited to the Interconnect Facilities on its side of the maintenance demarcation point and the associated cross connect or other connection at that point.

B. Unusual Costs. PPS may submit a request to Commonwealth to pay additional costs incurred in maintaining any connection that requires PPS to obtain additional Required Rights, and Commonwealth shall pay such costs.

C. Standards. Commonwealth shall (except to the extent PPS has installation or maintenance responsibility) ensure that any Interconnect Facilities are installed, operated, and maintained to meet or exceed any reasonable requirements of PPS, any requirements of PPS's building management or insurance underwriters, and any applicable local, state and federal codes and public health and safety laws and regulations (including fire regulations and the National Electric Code).

6. Additional Requirements for Connections at Splice Points

A. At any time there is cable activity (including initial installation of the splice, repair of cable cuts or other cable damage, and relocation of the cable) on the Span where the splice is located (the "**Spliced Span**"), Commonwealth or its contractors shall (a) at PPS's request (written, oral or electronic), promptly provide a trained and qualified technician with an optical time-domain reflectometer ("**OTDR**") at its fiber distribution panel ("**FDP**") to aid in the cable activity, or (b) if Commonwealth cannot provide the technician and an OTDR, then Commonwealth shall provide PPS access to Commonwealth's FDP for the duration of the cable activity.

B. PPS's NOC shall remain the central point of contact and shall control all cable activity. PPS's NOC will maintain an open line to Commonwealth's NOC during cable activity.

C. The restoral times and liquidated damages stated in **Exhibit H** of this Agreement, for the services PPS is providing, do not apply to the mid-span interconnection splice(s).

D. During a cable emergency situation, PPS shall proceed with "blind" fiber splicing of the Commonwealth Fibers along the Spliced Span (i.e. splicing without the ability to test the Spliced Span) in order to make initial temporary repairs. PPS may defer blind splicing until all

other fibers in the damaged cable are spliced. Commonwealth shall make reasonable efforts to coordinate with a PPS technician in the performance of permanent repairs to the Commonwealth Fibers along the Spliced Span.

E. The operation and maintenance specifications set forth in the Maintenance Agreement do not provide for fiber rolls to dark fiber to restore Commonwealth's service. However, if PPS does elect to provide fiber rolls, it may elect not to allow fiber rolls on the Spliced Span.

F. If Commonwealth reports a damaged fiber on the Spliced Span and PPS is not aware of any continuity problems on its System, Commonwealth shall have the burden of demonstrating that the problem is a result of damage to a Commonwealth Fiber. Commonwealth must use an OTDR to demonstrate that the problem is not a result of conditions off the System and beyond the Splice.

G. The provisions of **Paragraphs 7(C), 7(D), 7(E) and 7(F)** of this **Exhibit E** shall apply (a) only to the Commonwealth Fibers having a mid-span interconnection splice and (b) only to the extent such Commonwealth Fibers are on a Spliced Span.

H. Commonwealth may only have PPS perform a mid-span interconnection splice at existing PPS splice points and then only with PPS's prior written consent.

I. PPS is not obligated to perform any maintenance, repair, or restoration on the Commonwealth interconnection beyond the splice point.

EXHIBIT F
[Intentionally Omitted]

EXHIBIT G

Project Records

1. As-Built Drawings and Specifications

A. Commonwealth shall provide updated route (OSP) drawings and specifications in an approved ESRI ArcGIS compatible format.

- (1) The drawings shall include all geospatial details, including but not limited to, length of cable, fiber count, slack coils, vaults, splice closures, butt splices, riser transitions, poles or other details identified in the Data Dictionary.
- (2) The drawings shall be in a known coordinate system, including but not limited to a Kentucky State Plane system, WG884, Web Mercator or UTM (which includes Kentucky).

B. Commonwealth shall provide updated site (ISP) drawings and specifications in AutoCAD or with Customer's approval a different approved electronic format. These drawings shall include, but not be limited to, Fiber routes inside buildings, the location of Fiber Distribution Panels, slack coils, and fiber jumpers.

B. Commonwealth shall submit all information required by this Exhibit through the KentuckyWired Document Management System (Aconex).

2. Reports and Test Results

Commonwealth shall provide and maintain in Aconex official reports and certified test results of all inspections and tests which were undertaken as a part of construction or are otherwise required by this Agreement.

3. Data Dictionary

Fiber

Field Name	Description
CLLI	Standard Kentucky Telco CLLI code Ex. DAVLKY0185
CABLE_NAME	To and From CLLI plus the fiber count Ex. LXTOKY0253-DAVLKY0185-288
PLACEMENTTYPE	Aerial or underground
FROM_STRUCTURE	Start location of structure for Backbone Ex. Paintsville
TO_STRUCTURE	Finish location of structure for Backbone E. Prestonsburg
CABLETYPE	Cable Type- Loose Tube or Ribbon
BUFFERCOUNT	Count of Buffer Tubes
FIBERSPERBUFFER	Number of fibers per buffer
FIBERCOUNT	Count of fiber Ex. 288
INSTALLATIONDATE	Date the fiber is installed. If exact date is not known estimate by decade

MANUFACTURER	Name of the manufacture for the fiber
PARTNUMBER	The Fiber part number
BUILD_PRIORITY	DBLLC Design Priority Ex. 1A, 1B, 2, 3, 4,5
SITE_ID	Segment ID corresponds to the building Site ID
Site_Categ	Is the fiber serving a school, government bldg or other
SLA	Service Level Agreement
ISP_OSP	Inside Plant or Outside Plant
EASEMENT	Location of easement to property such as front, rear, undeveloped land
ThirdParty	Entity other than DBLLC responsible for design feature

Slackloop

Field Name	Description
LENGTH	Length of slackloop Ex. 25ft, 75ft, 150ft
CLLI	Standard Kentucky Telco CLLI code Ex. DAVLKY0185
ISP_OSP	Inside plant or outside plant
OWNER	Who owns the slackloop
BUILD_PRIORITY	BV Design Priority Ex. 1A, 1B, 2, 3, 4,5
SITE_ID	Segment ID corresponds to the building site ID
ThirdParty	Entity other than DBLLC responsible for design feature

Structure

Field Name	Description
STRUCTURE_NAME	To and From CLLI plus the fiber count Ex. LXTOKY0253-DAVLKY0185-288
SUBTYPECODE	Type of structure Ex. handhole, cable marker, small vault, medium-light vault
STRUCTURE_SIZE	Size of the structure Ex. Large, small, extra large, medium light, medium heavy, large light, large heavy
BUILD_PRIORITY	BV Design Priority Ex. 1A, 1B, 2, 3, 4,5
SITE_ID	Segment ID corresponds to the building site ID
ISP_OSP	Inside plant or outside plant
ThirdParty	Entity other than DBLLC responsible for design feature

EXHIBIT H

Maintenance Agreement

Throughout the Term, PPS shall have the obligation to maintain and repair its System, at its costs, and the Commonwealth shall have the obligation to maintain and repair the Network, at its costs, including the PPS Fibers. As used in this Exhibit H, the term "Responsible Party" shall mean PPS when used in reference to an Outage, maintenance or repair affecting the System, and shall mean Commonwealth when used in reference to an Outage, maintenance or repair affecting the Network. Maintenance and repair of the System and Network shall be provided in accordance with the following requirements and procedures:

1. Maintenance.

(a) Scheduled Maintenance. Routine maintenance and repair of the System or Network ("Scheduled Maintenance") shall be performed by or under the direction of the Responsible Party and shall include at a minimum the following activities:

(i) Patrol of the System and Network on a regularly scheduled basis, in accordance with the Responsible Party's then current procedures for maintenance;

(ii) Commonwealth will subscribe to each and all One-Call Agencies that affect the PPS Fibers;

(iii) Assignment of fiber maintenance technicians to serve locations along the Network or Routes of the System.

(b) Unscheduled Maintenance. Non-routine maintenance and repair of the System or Network, which is not included as Scheduled Maintenance ("Unscheduled Maintenance"), shall be performed by or under the direction of the Responsible Party and shall consist of:

(i) "Emergency Unscheduled Maintenance" in response to (i) an identification of a failure, interruption or impairment in the operation of the System by the Responsible Party's Operations Center; (ii) notification of a Responsible Party's NOC by any third party of any failure, interruption or impairment in the operation of the System or PPS Fibers; or (iii) any event imminently likely to cause the failure, interruption or impairment in the operation of the System or PPS Fibers.

(ii) "Non-Emergency Unscheduled Maintenance" in response to any potential service-affecting situation to prevent any failure, interruption or impairment in the operation of the System PPS Fibers of which the Commonwealth's NOC or PPS's NOC had actual knowledge.

Each Party shall report the need for Emergency Unscheduled Maintenance to the other Party within 30 minutes of learning of same and shall report the need for Non-Emergency Unscheduled Maintenance to the other Party within 24 hours of learning of same. Each Party will log the time of the report to the other. The Responsible Party will verify the problem and dispatch personnel to assess and commence corrective action within four hours of notification to the other Party of the service-affecting situation or any potential service-affecting situation.

2. Network Operations Center.

Each Party shall operate and maintain an independent NOC which is staffed twenty-four (24) hours a day, seven (7) days a week by trained and qualified personnel whose responsibility it is to receive notification of and assess and respond to service-affecting or potential service-affecting situations. Each Party's designated maintenance employees, personnel, or contractors ("Maintenance Support") shall be available for dispatch twenty-four (24) hours a day, seven (7) days a week. The Responsible Party shall have its first Maintenance Support at the Site requiring Unscheduled Maintenance activity within four (4) hours after the time it becomes aware of an event requiring Unscheduled Maintenance, unless delayed by circumstances beyond the reasonable control of said Responsible Party. Each Party shall maintain a toll-free telephone number to contact personnel at the Party's NOC. The NOC personnel of a Responsible Party shall dispatch maintenance and repair personnel along the System or Network to handle and repair problems detected in the System or Network (i) through the Responsible Party's remote surveillance equipment or (ii) upon notification by a third party.

3. Cooperation and Coordination.

(a) In performing its services hereunder, the Responsible Party shall take workmanlike care to ensure signal continuity and performance of the System and PPS Fibers, at a minimum, in accordance with prevailing industry standards.

(b) PPS and the Commonwealth shall notify the other at least ten (10) business days prior to the commencement date of any Scheduled Maintenance and, with respect to any Unscheduled Maintenance within 30 minutes after receiving notice of the need for Unscheduled Maintenance. Each Party shall have the right to be present during the performance of any Scheduled Maintenance so long as its presence does not interfere with the Responsible Party's ability to perform its obligations under this Agreement. In the event that Scheduled Maintenance is canceled or delayed for any reason, the Responsible Party shall notify the other Party within 24 hours of the delay or cancellation of such Scheduled Maintenance. The Parties will comply with the provisions of this subsection in rescheduling any delayed or cancelled Scheduled Maintenance.

4. Facilities.

(a) The Responsible Party shall maintain the System or Network in a manner which will permit the other's full use of the System and PPS Fibers, as the case may be, and in accordance with the terms and conditions of the Agreement,

(b) Except to the extent otherwise expressly provided in the Agreement, each Party will be solely responsible for providing and paying for any and all maintenance of all electronic, optronic and other equipment, materials and facilities it owns and uses in connection with the operation of the System and PPS Fibers, as the case may be, none of which is included in the maintenance services to be provided hereunder.

5. Cable/Fibers.

(a) The Responsible Party shall perform appropriate Scheduled Maintenance on its Cable in accordance with such Responsible Party's then current preventative maintenance procedures, which procedures shall meet or exceed standard industry practice.

(b) The Parties shall maintain sufficient capability to teleconference with the other during Emergency and Non-Emergency Unscheduled Maintenance during the repair process. When correcting or repairing discontinuity or damage to the Cable, including but not limited to in the event of Emergency and Non-Emergency Unscheduled Maintenance, the Responsible Party shall repair traffic-affecting discontinuity within twelve (12) hours of notification to said Responsible Party of the service-affecting

situation or the potential service-affecting situation. The repairs so affected may be temporary in nature. In such event, within twenty-four (24) hours after completion of any such Emergency and Non-Emergency Unscheduled Maintenance, the Responsible Party shall commence its permanent repair and shall notify the other Party of such plans. Notwithstanding the foregoing, restoration of open fibers on fiber strands not immediately required for service shall be completed on a mutually agreed-upon schedule.

(c) Each Party's Maintenance Support shall carry on their vehicles the typically appropriate equipment and testing devices that would enable a temporary splice to restore a cut Cable so that operating capability can reasonably be expected to be restored within four hours after arrival of its Maintenance Support at the problem site.

6. Planned Service Work Period.

Scheduled Maintenance which is reasonably expected to produce any signal discontinuity must be coordinated between the Parties. Generally, this work should be scheduled after midnight and before 6:00 a.m. local time. Major system work, such as fiber rolls and hot cuts, will be scheduled for weekends. A calendar showing approved Scheduled Maintenance will be agreed upon by the Parties in the last quarter of every year for the following year and shall be scheduled to avoid work on the first and last weekends of the month and high-traffic holidays.

7. Restoration.

When restoring a cut Cable in the System or Network, the Responsible Party, promptly upon arriving on the site of the cut, shall determine the course of action to be taken to restore the Cable and shall begin restoration efforts. The Responsible Party shall splice Fibers tube by tube or ribbon by ribbon or fiber bundle by fiber bundle, first splicing the Fibers of the other Party and then splicing the Fibers of other interest holders in the System or Network; provided that, lit Fibers in all buffer tubes or ribbons or fiber bundles shall have priority over any dark fibers in order to allow transmission systems to come back on line; and provided further that, the Responsible Party will continue such restoration efforts until all lit Fibers in all buffer tubes or ribbons are spliced and all traffic restored. Commonwealth and PPS shall be given priority among all interest holders affected by a cut.

8. Contracting.

The Parties may subcontract any of the maintenance services hereunder, provided that they shall require the subcontractor(s) to perform in accordance with the requirements, standards and procedures set forth herein.

9. Performance Reporting.

Except as otherwise permitted or excused by the terms and conditions of the Agreement, during the Term, the System and PPS Fibers shall be fully operational and shall continue to meet the prevailing industry standards and the Acceptance Standards as described in Exhibit B. Each Party will, on or before the fifteenth of each month during the Term, provide the other Party with a written report of each PPS Fiber Outage or maintenance request by either Party for the previous calendar month, which report shall include at a minimum (a) the response and restoration times of the Responsible Party, rounded up to the nearest minute; (b) the location of the PPS Fiber Outage by Segment or Network Span; and (c) the response times and mean restoration times for the subject month.

The Parties acknowledge that the Responsible Party's failure to respond and restore Outages will cause the other Party damages and losses of a type and degree which is impossible to compute and ascertain with any certainty as a basis for recovery of actual damages, and that the following liquidated damages ("LDs") represent a fair, reasonable and appropriate estimate thereof:

Time to First Maintenance Responder on Segments or Network Spans

Up to 4 hours:	-\$0-
4 hours to 4 hours 30 minutes	\$500
4 hours 31 minutes to 5 hours:	\$750
Over 5 hours	\$1,000

For the avoidance of doubt, the LDs assessed against a Responsible Party for the Time to First Maintenance Responder on Segments or Network Spans standard will apply to each Outage during a calendar month. For example, if a unique site is impacted by two separate Outages in a given month, and the respective response times to the affected Segment(s) or Network Span(s) for said Outages are 4 hours 20 minutes and 6 hours, the LDs for Time to First Maintenance Responder on Segments or Network Spans for the month would be $\$500 + \$1,000 = \$1,500$.

If the Agreement establishes certain defined Sites to be served by the Fibers of either Party, then the Responsible Party shall also pay as liquidated damages in addition to LDs for Time to First Maintenance Responder (above) LDs for the Mean Time to Restore each Segment or Network Span calculated as set forth below:

Mean Time to Restore each Segment or Network Span (Per Average Number of Sites Impacted)

Up to 12 hours:	-\$0-
12 hours 1 minute to 16 hours:	\$250
16 hours 1 minute to 20 hours	\$600
20 hours 1 minute to 24 hours	\$1,150
24 hours 1 minute to 36 hours	\$1,750
Over 36 hours	\$2,350

The LDs for Mean Time to Restore the Segments or Network Spans will be calculated on an average number of Sites impacted by a particular Outage. For example, if there are 10 Outages in a given month, 5 of which impact 5 Sites and 5 of which impact 3 Sites, and the Mean Time to Restore is 14 hours, the total LDs payable for the month as regards restoration of Segments will be $\$250 \times 4 = \1000 . For purposes of calculating LDs for Mean Time to Restore the Segments or Network Spans pursuant to this Exhibit H only, the term "Sites" shall refer not only to the Sites as may be defined in the Agreement, but also to any PPS customers receiving service by virtue of a radial fiber optic cable extending from a Network Span (as defined below). The Commonwealth's maximum total LDs shall be no more than \$2,181.45 per day.

For purposes of this Exhibit H, the following definitions shall apply:

(i) "Average Number of Sites Impacted" for a given calendar month shall be the product of the number of unique Outages of a Segment or Network Span in the calendar month and the number of Sites impacted by such Outage *divided by* the total number of unique Outages of a Segment or Network Span for the month.

(ii) "Mean Time to Restore" for a given calendar month shall be calculated separately for Outages on the System and Outages on the Network and shall be the sum of the duration of each Outage for the month, calculated in minutes, on the System or the Network, as the case may be, *divided by* the total number of unique Outages in such calendar month on the System or

Network, where the duration of an Outage will be calculated as the number of minutes from the point at which the Responsible Party's NOC is notified of Sites not being Available until all Sites impacted by such Outage are Available; *provided, however*, that in the event that the Responsible Party requires access to a Site that is under the control of the other or a third party in order to correct an outage, the duration of such Outage shall only include the period of time after the Responsible Party actually receives access to such Site and was able to begin corrective measures with respect to such Outage; *provided, further*, that in the event that correction of the Outage requires a joint effort between the Responsible Party and the other Party or between the Responsible Party and any third party, any period of time during which the other Party or a third party delayed such joint effort shall not be included in the duration of such Outage.

(iii) "Network Span" shall refer to each of the distinct Spans of the Network.

The total liquidated damages that a given Responsible Party could be required to pay with respect to any given calendar month will equal the sum of the LDs payable with respect to (1) the Time to First Maintenance Responder on Segments or Network Spans (up to a maximum of \$1,000 per event); and, if applicable, (2) the Mean Time to Restore each Segment or Network Span. Notwithstanding anything to the contrary contained in this Exhibit H or the Agreement: (3) in no event may the total LDs assessed against the Responsible Party during any calendar month exceed \$7000.00.

For purposes of clarity, the maintenance and repair obligations of the Responsible Party set forth in this Maintenance Agreement and the foregoing liquidated damages provisions do not apply to damage to the Fiber, Cable, System, or Building Entrance Cable or to an Outage, interruption of service, or degradation of service caused by or attributable to damage to or interference with the portion of the Building Entrance Cable running from its penetration into the designated structure at a particular Site to said Building Entrance Cable's termination at the fiber termination panel at such Site by a third party (including the owner or occupant of the Site) or the Commonwealth.

10. Erroneous Callout. In the event that more than three (3) Erroneous Callouts occur during any rolling three-month calendar quarter during the Term, the Commonwealth or PPS shall promptly pay to the Party \$250.00 per Erroneous Callout occurring during such quarter. The term "Erroneous Callout" means those instances where Commonwealth or PPS or any other person or entity requests that the Party provide restoration or maintenance services and, upon PPS's or the Commonwealth's inspection with respect to such request, the Party determines in good faith that no Outage exists.

EXHIBIT I – Change Form

From: [Commonwealth of Kentucky] [Paducah Power System]

To: [Paducah Power System] [Commonwealth of Kentucky]

Date of Change Request: _____

CC: _____

Detailed Description of Proposed Change:

(attach additional pages as may be necessary)

Reason for Proposing the Change:

Proposed Change in Contract Price:

Proposed Change in Construction Completion Date(s):

Segment: _____

By: _____
(signature on behalf of requesting party)

(printed name)

Title: _____

Phone: _____

E-mail: _____

Amendment of Proposed Change (after meetings of parties and/or information exchange):

(attach additional pages as may be necessary)

Proposed Amended Change in Contract Price:

Proposed Amended Change in Construction Completion Date(s):

Segment: _____

By: _____
(signature on behalf of requesting party)

(printed name)

Title: _____

Phone: _____

E-mail: _____

Date Amended Change Proposal Submitted: _____

The foregoing Change Request dated _____, as amended by the foregoing Amendment of Proposed Change submitted _____ (if any) is hereby ACCEPTED.

By: _____
(signature on behalf of party accepting change)

(printed name)

Title: _____

Phone: _____

E-mail: _____

Date of Change Acceptance: _____

The foregoing Change Request dated _____, as amended by the foregoing Amendment of Proposed Change submitted _____ (if any) is hereby REJECTED for the reasons set forth below.

Detailed Description of Reasons for Rejection of Proposed Change:

(attach additional pages as may be necessary)

By: _____
(signature on behalf of party rejecting Change)

(printed name)

Title: _____

Phone: _____

E-mail: _____

Date of Change Rejection: _____