

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

Electronic Application Of Kentucky Power)
Company For A Certificate Of Public Convenience)
And Necessity To Construct A 138 kV) Case No. 2018-00209
Transmission Line And Associated Facilities)
In Pike And Floyd Counties (Enterprise Park)
Economic and Area Improvements Project))

APPLICATION

Kentucky Power Company moves the Public Service Commission of Kentucky pursuant to KRS 278.020(2), 807 KAR 5:001, Section 8, 807 KAR 5:001, Section 9, and 807 KAR 5:120 for a Certificate of Public Convenience and Necessity authorizing Kentucky Power to: (1) construct approximately five miles of new double-circuit 138 kV transmission line in Floyd and Pike counties, Kentucky. The line will connect the existing Beaver Creek – Cedar Creek 138 kV circuit of the Sprigg – Beaver Creek 138 kV Transmission Line to the proposed substation to be located adjacent to the Kentucky Enterprise Industrial Park (the “Kewanee 138 kV Transmission Line Extension”); (2) construct portions of the new 138 kV substation adjacent to the Kentucky Enterprise Industrial Park (the “Kewanee 138 kV Substation”); (3) retire the existing Fords Branch 46 kV Substation; and (4) upgrade certain facilities and equipment at Kentucky Power’s existing Cedar Creek 138/69/46 kV Substation in Pike County, Kentucky (collectively, the “Enterprise Park Economic & Area Improvements Transmission Project” or the “Project”). A map illustrating the location of the Project components described above is attached as EXHIBIT 2.

The Project will provide electric transmission service to the Kentucky Enterprise Industrial Park and associated businesses, including Enerblü, Inc., while supplementing

distribution service capacity and reliability in the general area. Kentucky Power is required under KRS 278.030(2) to provide adequate, efficient, and reasonable service to its customers, and the Project is required to enable the Company to meet that obligation.

In support thereof Kentucky Power states:

Applicant

1. Kentucky Power is a corporation organized on July 21, 1919 under the laws of the Commonwealth of Kentucky. The Company is in good standing in Kentucky.¹

2. The post office address of Kentucky Power is 855 Central Avenue, Suite 200, Ashland, Kentucky 41101.² The Company's electronic mail address is kentucky_regulatory_services@aep.com.

3. Kentucky Power is engaged in the generation, purchase, transmission, distribution and sale of electric power. Kentucky Power serves approximately 166,400 customers in the following 20 counties of eastern Kentucky: Boyd, Breathitt, Carter, Clay, Elliott, Floyd, Greenup, Johnson, Knott, Lawrence, Leslie, Letcher, Lewis, Magoffin, Martin, Morgan, Owsley, Perry, Pike and Rowan. Kentucky Power also supplies electric power at wholesale to other utilities and municipalities in Kentucky for resale. Kentucky Power is a utility as that term is defined at KRS 278.010.

4. Kentucky Power is a wholly-owned subsidiary of American Electric Power Company, Inc. ("AEP"). AEP is a multi-state public utility holding company that provides

¹ A certified copy of the Company's Articles of Incorporation and all amendments thereto was attached to the Joint Application in *In the Matter Of: The Joint Application Of Kentucky Power Company, American Electric Power Company, Inc. And Central And South West Corporation Regarding A Proposed Merger*, P.S.C. Case No. 99-149. The Company's July 23, 2018 Certificate of Existence is filed as EXHIBIT 1 of this Application.

² Kentucky Power also currently maintains a Regulatory Services office located at 101A Enterprise Drive, P.O. Box 5190, Frankfort, Kentucky 40602-5190.

electric service to customers in parts of eleven states: Arkansas, Indiana, Kentucky, Louisiana, Michigan, Ohio, Oklahoma, Tennessee, Texas, Virginia, and West Virginia.

The Proposed Project

5. Kentucky Power seeks authority to construct the approximately five mile double-circuit Kewanee 138 kV Transmission Line Extension beginning at a tap point located in Floyd County, Kentucky on the existing Beaver Creek – Cedar Creek 138 kV circuit of the Sprigg – Beaver Creek 138 kV Transmission Line. The line proceeds generally in a southeasterly direction for approximately five miles and terminates at the Company’s proposed Kewanee 138 kV Substation to be located in Pike County, Kentucky. Maps to suitable scale that meet the requirements of 807 KAR 5:120, Section 2(2) and detail the centerline of the Kewanee 138 kV Transmission Line Extension are attached as **EXHIBIT 3**.³ The Kewanee 138 kV Transmission Line Extension will be constructed within a new 100-foot right of way and will provide a 138 kV electric source to serve the Kentucky Enterprise Industrial Park and associated businesses, and will improve distribution service to the general area.

6. The Kentucky Enterprise Industrial Park is located in Pike County, Kentucky, south of the Pikeville city center. It is a more than 300-acre industrial park located on a former surface mine site adjacent to the U.S. 23 industrial corridor. Announced tenants include Silverliner. The industrial park also is the future site of the 154-acre Energy Innovation manufacturing campus to be constructed by Enerblü, Inc.

7. The Project also includes the construction by Kentucky Power of portions of the Kewanee 138 kV Substation to be located south of and adjacent to the southern portion of the

³ The maps show a preferred centerline and are not an actual design. Kentucky Power will supplement its filing with maps certified in accordance with KRS 322.340 once the Project is in service.

Kentucky Enterprise Industrial Park. The Kewanee 138 kV Substation site will be located off of Industry Drive in Pike County, Kentucky. The Kewanee 138 kV Substation will provide 12 kV and 34.5 kV distribution service to the Kentucky Enterprise Industrial Park, including Enerbli, Inc., and distribution service to those customers currently served by the Fords Branch Substation. The Kewanee 138 kV Substation layout and location map are attached as EXHIBIT 5. Further details regarding the Kewanee 138 kV Substation are provided in the testimony of Company Witness Lasslo.

8. The existing Fords Branch 46 kV Substation, located near 46 Old Shelbiana Road in Pike County, Kentucky, will be retired as part of the Project. The Fords Branch Substation will be replaced by the proposed Kewanee 138 kV Substation. The Fords Branch 138 kV Substation layout and location map are attached as EXHIBIT 6. Further details regarding the retirement of the Fords Branch 46 kV Substation are provided in the testimony of Company Witness Lasslo.

9. The Project also includes certain upgrade work to be performed at Kentucky Power's existing Cedar Creek 138/69/46 kV Substation. The Cedar Creek 138/69/46 kV Substation is located at 263 Cedar Creek Road, in Pike County, Kentucky. The Cedar Creek 138/69/46 kV Substation layout and location map are attached as EXHIBIT 7. Further details regarding the proposed upgrades to Cedar Creek 138/69/46 kV Substation are provided in the testimony of Company Witness Lasslo.

10. EXHIBIT 10 details the present system and Project components.

The Facilities To Be Constructed Or Retired

A. The Proposed 138 kV Transmission Line

11. The Kewanee 138 kV Transmission Line Extension will be constructed in a double-circuit configuration beginning at a tap point in Floyd County, Kentucky between Route 3379 and Route 1426 on the existing Beaver Creek – Cedar Creek 138 kV circuit of the Sprigg – Beaver Creek 138 kV Transmission Line. The Kewanee 138 kV Transmission Line Extension will proceed from the tap point southeasterly for approximately 1.3 miles. This 1.3 mile segment of the proposed transmission line will parallel the existing Big Sandy- Broadford 765 kV Transmission Line right-of-way. The proposed transmission line then will diverge from paralleling the existing Big Sandy- Broadford 765 kV Transmission Line right-of-way and proceed in a more easterly direction for approximately 3.7 miles to the proposed Kewanee 138 kV Substation. The route of the proposed transmission line principally is located in previously mined areas and away from residential development. The Kewanee 138 kV Transmission Line Extension will be constructed within a new 100 foot right-of-way (fifty feet on each side of the centerline) except where required to address constructability and operational requirements. No existing transmission line infrastructure will be rebuilt.

12. Further information regarding the route of the Kewanee 138 kV Transmission Line Extension and its siting is included in the testimony of Ms. Larson. **EXHIBITS 3** illustrates the location of the Kewanee 138 kV Transmission Line Extension (the “Proposed Route”).

B. The Structures, Conductors, And Groundwires

13. Structure types will be determined during final engineering, which includes a ground survey and geotechnical studies. Based on preliminary engineering, the Company

anticipates using double circuit galvanized lattice steel towers and a double-circuit monopole structure. Preliminary design indicates approximately 15 transmission line structures are required for the Kewanee 138 kV Transmission Line Extension. Fourteen of the structures currently are anticipated to be double-circuit galvanized lattice steel towers. The fifteenth structure is anticipated to be a double-circuit monopole with davit arms. An additional structure (for a Project total of 16 structures) will be constructed as part of the Sprigg – Beaver Creek 138kV Transmission Line at the tap point. Current design indicates the average above ground height of the proposed double-circuit structures will be approximately 110 feet. Images and sketches of typical double-circuit galvanized lattice steel towers are shown in **EXHIBIT 8**. Images and sketches of a typical double-circuit monopole structure are shown in **EXHIBIT 9**.

14. The proposed double circuit structures will support six conductors and two overhead groundwires. The conductors will consist of 1033.5 kcmil ACSR conductors; the overhead groundwires will consist of one Alumoweld wire and one fiber optic overhead groundwire, which will be used for relaying communications between stations.

C. The Proposed Kewanee 138 kV Substation

15. The proposed Kewanee 138 kV Substation will be constructed south of and adjacent to the Kentucky Enterprise Industrial Park near Industrial Drive. The substation will be located on an approximately 16.4-acre tract to be acquired from a private property owner. **EXHIBIT 5** details the location and layout of the proposed Kewanee 138 kV Substation.

16. The transfer of the load currently served by the Fords Branch 46 kV Substation to the to-be-constructed Kewanee 138 kV Substation will permit Kentucky Power to address the thermal and voltage violations on the Company's Pikeville Area 46 kV subtransmission network. The Kewanee 138kV Substation also will serve as a 12 kV and 34.5 kV distribution service

delivery point to industrial customers located in the Kentucky Enterprise Industrial Park, including Enerblü, Inc. The new substation also is required to step down the voltage and provide protection and controls to serve industrial customers in the Kentucky Enterprise Industrial Park as well as customers currently served by the Fords Branch Substation. Finally, the Kewanee 138 kV Substation, in conjunction with the construction of the new transmission line and the retirement of the Fords Branch 46 kV Substation, also will increase the capacity and reliability of the Company's existing 12 kV distribution service in the area, and the capacity of Kentucky Power's 34.5 kV distribution service in the area.

17. The fenced portion of the proposed Kewanee 138 kV Substation will measure approximately 335 feet by 280 feet and will enclose a graveled yard. Kentucky Power proposes to install and own the following equipment within the fenced portion of the substation:

(a) Two 138/34.5 kV Transformers (30 MVA) and standard 34.5 kV left and right hand rural distribution structures with two 34.5 kV distribution feeder positions in each bay to provide distribution service to customers at the industrial park along with customers currently served out of Fords Branch Substation;

(b) Two 138/12 kV Transformers (30 MVA) and standard 12 kV left and right hand rural distribution structures with three 12 kV distribution feeder positions in each bay to provide distribution service to Enerblü, Inc. and other customers in the industrial park; and

(c) One 16 foot by 36 foot base drop-in control module (DICM) with a 12-foot expansion module to house the associated protection and controls and telecommunications equipment for the station.⁴

⁴ AEP Kentucky Transmission Company, Inc. ("Kentucky Transco") also will install at the Kewanee 138 kV Substation two 138 kV transmission line positions in a ring bus layout utilizing six 138 kV circuit breakers (3000A 40 kA) to sectionalize the transformer and transmission line component. Kentucky Transco is not a utility subject to the jurisdiction of the Commission and thus is not a party to this application. Order, *In The Matter of: Application Of AEP Kentucky Transmission Company, Inc. For A Certificate Of Public Convenience And Necessity Pursuant To KRS 278.020 To Provide Wholesale Transmission Service In The Commonwealth*, Case No. 2011-00042 at 8 (Ky. P.S.C. June 10, 2013) ("[T]he Commission finds that the service that KY Transco proposes to provide in Kentucky cannot be classified as 'utility service,' as that term is used in the CPCN statute, KRS 278.020(1), since KY Transco's service would not be a Commission regulated activity. Consequently, KY Transco does not legally qualify for the issuance of a CPCN to provide only wholesale transmission service which would not be a Commission regulated activity and which would be provided under rates and tariffs that are not filed here as required by KRS 278.160(1) for regulated activities.")

A complete description of the proposed Kewanee 138 kV Substation is provided in the testimony of Company Witness Lasslo.

D. Fords Branch 46 kV Substation (To be Retired).

18. Kentucky Power proposes to retire the existing Fords Branch 46 kV Substation in conjunction with the construction of the proposed Kewanee 138 kV Substation. The Fords Branch 46 kV Substation is located approximately two miles east of the proposed location of the Kewanee 138 kV Substation. The Fords Branch 46 kV Substation is being retired because of aging infrastructure and deteriorating components. The substation also is being retired to address thermal and voltage criteria violations on the 46 kV system that cannot be remedied by replacing or upgrading the existing substation infrastructure. Customers currently served by the Fords Branch 46 kV Substation (and customers in the Kentucky Enterprise Industrial Park) will be served from the Kewanee 138 kV Substation following the retirement of the Fords Branch 46 kV Substation, and the construction of the Kewanee 138 kV Substation.

19. The Fords Branch 46 kV Substation will be retired in place. The only equipment that will remain following the retirement of the substation will be the 46 kV structure that will allow the existing Elwood – Cedar Creek 46 kV subtransmission line to pass through the former Fords Branch Station site.

E. Cedar Creek 138/69/46 kV Substation.

20. The Cedar Creek 138/69/46 kV Substation improvements consist of replacing an existing relay panel pointing toward the Beaver Creek 138 kV Substation with an upgraded version. The Cedar Creek 138/69/46 kV Substation upgrade will provide required protection and

controls associated with the Project. All work at the Cedar Creek 138/69/46 kV Substation will take place within the existing substation footprint.

Financial Aspects Of The Project

21. The total functional estimate of the Company's share of the Project cost is \$33.6 million. That sum comprises: (a) approximately \$19.9 million for transmission line work including right-of-way acquisition; (b) approximately \$12.5 million for improvements to be made by Kentucky Power at the new substation; (c) \$0.7 million for the retirement of the Fords Branch 46 kV Substation; and (d) \$0.5 million for the Cedar Creek 138/69/46 kV Substation upgrade. The Project does not involve sufficient capital outlay to affect the existing financial condition of Kentucky Power.

22. Kentucky Power projects the annual operating cost will be approximately \$16,000 for general maintenance and inspection. The projected annual additional ad valorem taxes resulting from the Project are expected to total approximately \$229,000.

Property Acquisition

23. The Kewanee 138 kV Substation will be constructed on a 16.4-acre tract to be acquired from a private landowner pursuant to an option held by Kentucky Power. The tract is located south of and adjacent to the Kentucky Enterprise Industrial Park near Industry Drive. The 16.4-acre parcel being acquired constitutes the entirety of the tract; the parcel was not available for subdivision. The parcel will enable the Company to locate the new substation so as to provide adequate safety clearances, to provide required ingress and egress, to permit grading and cut-fill work, to accommodate the transmission line entrance, to accommodate the distribution lines to be served by the substation, and lastly, to provide for future expansion of the substation, if necessary.

24. Kentucky Power, in conjunction with its expert consultant, examined five potential sites for the Kewanee 138 kV Substation. The site proposed for the Kewanee 138 kV Substation best meets the requirements of the Project, including serving as the endpoint of the Kewanee 138 kV Transmission Line Extension.

25. The approximately five mile Kewanee 138 kV Transmission Line Extension constitutes new construction. The required transmission service cannot as a practical matter be provided by rebuilding existing transmission lines.

26. Kentucky Power anticipates acquiring right-of-way for the Proposed Route that is 100 feet wide (50 feet on either side of the centerline). A widened right-of-way may be required for certain longer spans and in steep terrain to permit the safe and efficient operation of the transmission line. The widened right-of-way also would facilitate additional tree clearing to prevent the conductors from coming in contact with trees during high wind conditions and tree clearing on the up-hill side to the transmission line to prevent trees from falling down hill and into the conductors and structures. These areas of wider right-of-way will be identified during detailed engineering design and will be included during the right-of-way negotiations with landowners. In those limited instances where required to accommodate unusually steep terrain and very long spans the total width of the right-of-way could be expanded to as much as 200 to 250 feet (100 feet to 125 feet on each side of the centerline).

27. To ensure the ability to address potential issues that may emerge in connection with ground surveys, final engineering, and right-of-way negotiations, Kentucky Power requests authority to move the illustrated centerline and right-of-way, and to expand the right-of-way, within the Filing Corridor illustrated on **EXHIBIT 3**. The Filing Corridor is defined as: (a) 450 feet to the northeast (500-foot corridor) for that portion of the centerline that begins at the tap

point on the existing Beaver Creek – Cedar Creek 138 kV circuit of the Sprigg – Beaver Creek 138 kV Transmission Line and that parallels the route of the Big Sandy – Broadford 765 kV Transmission Line (approximately 1.3 miles); and (b) 500 feet in either direction (1,000-foot corridor) from the end of the route paralleling the Big Sandy – Broadford 765 kV Transmission Line to the proposed Kewanee 138 kV Substation (approximately 3.7 miles). A wider Filing Corridor is required for the portion of the line to the east-southeast of the parallel alignment with the existing the Big Sandy – Broadford 765 kV Transmission Line due to steeper terrain in the area and to address potential constructability and engineering issues.

28. Kentucky Power’s request to move the centerline and right-of-way, or to expand the right-of-way, within the Filing Corridor is made expressly contingent upon Kentucky Power having notified the property owner onto whose property the line would be moved of this proceeding in accordance with 807 KAR 5:120, Section 2(3). After construction is completed, Kentucky Power will file with the Commission a revised plan showing the final location of the transmission line and structures. The authority sought in this proceeding is similar, but not identical, to that granted Kentucky Power by the Commission in its Order dated the January 26, 2012 in Case No. 2011-00295.⁵ Company Witness Wohnhas provides a full description of the proposed Filing Corridor, how it differs from earlier requested authority, and the manner in which Kentucky Power proposes to use it.

29. The Filing Corridor and right-of-way include 45 parcels. Twenty eight of the parcels, owned by 22 landowners, are crossed by the right-of-way. A list of parcels and associated landowners within the right-of-way and the Filing Corridor is provided as **EXHIBIT**

⁵ *In the Matter of: The Application Of Kentucky Power Company For A Certificate Of Public Convenience And Necessity To Construct A 138 KV Transmission Line In and Associated Facilities in Breathitt, Knott and Perry Counties, Kentucky (Bonnyman-Soft Shell Line).*

11. Kentucky Power worked with affected property owners within the right-of-way to make reasonable adjustments to the Proposed Route where requested by the property owners as part of its route development process.

30. Kentucky Power currently is negotiating with the affected owners of property located within the proposed right-of-way for acquisition of the required interest in their property. Kentucky Power has contacted, with two exceptions involving three parcels, all affected owners of property in the right-of-way in connection with obtaining permission to survey their property. The permission form includes a space in which the property owner may register opposition to the Project. No contacted owners of property located in the proposed right-of-way have opposed the Project to date. Kentucky Power plans to begin to acquire the additional rights-of-way in August 2018 and expects to complete acquisition in January 2019. Kentucky Power will provide beginning on or about September 30, 2018 monthly property acquisition status updates.

Notices

31. On June 22, 2018 Kentucky Power filed its Notice of Intent in conformity with 807 KAR 5:120, Section 1. By acknowledgement letter of even date this proceeding was assigned Case No. 2018-00209.

32. Kentucky Power provided the notice required by 807 KAR 5:120, Section 2(3) to all property owners, as indicated by the records of the property valuation administrators of Floyd and Pike counties,⁶ whose land is included within the right-of-way and the Filing Corridor (“Affected Landowners”) of the Proposed Route and the Proposed Kewanee 138 kV Substation.

⁶ Certain of the addresses obtained from the records of the pertinent property valuation administrator were determined through earlier mailings or other landowner contact efforts to be incorrect or otherwise undeliverable. Where the Company was able to determine the correct mailing addresses through landowner communication or other research, Kentucky Power used the updated addresses to ensure the landowners received the required notice.

33. Notice was provided by a mailing on August 7, 2018 to all Affected Landowners within the Filing Corridor. The August 7, 2018 Notice included the following information:

- a. notice of the proposed construction;
- b. the docket number (P.S.C. Case No. 2018-00209) under which the application will be processed;
- c. the address and telephone number of the Commission's Executive Director;
- d. a description of the property owners' rights to request a public hearing and the right to request intervention; and
- e. a description of the Proposed Route and Proposed Kewanee Substation and corresponding maps indicating their locations.

34. A sample copy of the August 7, 2018 Notice, including all enclosures, is attached as part of **EXHIBIT 12**. The list of the Affected Landowners to whom the Notice was mailed, including their addresses as indicated by the records of the property valuation administrators of Pike and Floyd Counties, and the verification by Ryan M. Howell of the mailing of the letters are attached as **EXHIBIT 12**.

35. Kentucky Power was unable to contact the two owners of three parcels identified as parcels 4, 7, and 9 on **EXHIBIT 11**. (The Floyd County Property Valuation Administrator's records indicate that parcels 4 and 7 are owned by the same individual.) The addresses shown in the records of the Floyd County Property Valuation Administrator proved inadequate to contact the two owners of the three parcels despite the Company's efforts to do so in connection with earlier mailings. Kentucky Power in conformity with 807 KAR 5:120, Section 2(3) used the addresses shown on the records of the Floyd County Property Valuation Administrator to mail the landowner notice to the owners of parcels 4, 7, and 9. Kentucky Power will continue its efforts to contact the owners of the three parcels.

36. The notice required by 807 KAR 5:120, Section 2(5) was published on July 31, 2018 in the *Floyd County Times* and August 1, 2018 in the *Appalachian News Express*. The published notices included the following information:

- a. a description of the Proposed Route;
- b. the docket number (P.S.C. Case No. 2018-00209) under which the application will be processed;
- c. the address and telephone number of the Commission's Executive Director;
- d. a description of the property owners' rights to request a public hearing and the right to request intervention; and
- e. a map illustrating the route of the Proposed Route and Kewanee Substation location

The notices published in the *Floyd County Times* and the *Appalachian News Express* and Affidavit of Publication are attached as **EXHIBIT 13**.

Franchises And Permits

37. Kentucky Power is not required to obtain a franchise from any public authority. 807 KAR 5:001, Section 15(2)(b).

38. Kentucky Power will obtain all required environmental compliance permits and complete the required studies prior to beginning Project construction. Preliminary environmental surveys began in August 2018 for the Proposed Route right-of-way, access roads, laydown yard, and the site for the Proposed Kewanee 138 kV Substation. Current plans are for the surveys to conclude mid-September 2018. A summary of the environmental surveys and permitting completed or anticipated to be required is described in Ms. Larson's testimony. Following receipt of the requested authority, and completion of final design and right-of-way acquisition, but prior to the beginning of construction, Kentucky Power will update or supplement the listing in Ms. Larson's testimony of required environmental surveys or permitting.

39. The Company also will timely submit the final line design to the Federal Aviation Administration and the Kentucky Transportation Cabinet to secure a “Determination of No Hazard to Air Navigation.” Other permits that will be obtained include road and railroad crossing permits. These will be submitted to the Commission once final engineering has been completed.

**The Proposed Construction Is Required By
The Public Convenience And Necessity**

40. The Project is required by the public convenience and necessity. The need for the Project is more completely described in detail in the testimony of Company Witness Lasslo.

41. The Project will supplement the reliability and capacity of the Company’s 12 kV distribution system in the area of the Kentucky Enterprise Industrial Park, while enhancing the capacity of the existing 34.5 kV network in the area.

42. The Project also will resolve the thermal and voltage criteria violations resulting from conditions on the Pikeville area 46 kV subtransmission system. The retirement of the Fords Branch 46 kV Substation and the transfer of that load to the proposed Kewanee 138 kV Substation will allow Kentucky Power to address the aging equipment and infrastructure issues at the Fords Branch 46 kV Substation.

43. Kentucky Power has an obligation under KRS 278.030(2) to provide adequate, efficient, and reasonable service to its customers.⁷ Encompassed within this duty is the

⁷See Order, *In the Matter of: Application Of Kentucky Power Company For A Certificate Of Public Convenience And Necessity To Construct A 138 kV Transmission Line In Floyd County, Kentucky*, Case No. 2007-00155 at (Ky. P.S.C. August 3, 2007) (“Kentucky Power is obligated under KRS 278.030(2) to provide ‘adequate, efficient and reasonable service’ to its customers within its service territory. Equitable’s subsidiary, Equitable Gathering, will create an additional 24 MW load on Kentucky Power’s system beginning in March 2008, by the addition of five natural gas compressor motors at its Maytown Compressor Station. The existing 46 kV system in the Langley area is not sufficient to serve this new load, and upgrading the system to 69 kV or tapping onto the nearby 765 kV AEP line are both too expensive and could not be completed in time for Kentucky Power to provide service to its customer.

requirement that a utility make reasonable extensions of its facilities to provide the required service.⁸

44. The Project is required to provide 12 kV and 34.5 kV distribution service to the Kentucky Enterprise Industrial Park, including 12 kV service to Enerblü, Inc.'s 154-acre Energy Innovation manufacturing campus to be located in the park. Enerblü, Inc. announced on December 15, 2017 plans to invest approximately \$350 million to construct a one million-square-foot campus to manufacture lithium-titanate batteries on 154 acres in Kentucky Enterprise Industrial Park. The facility is expected to employ up to 875 employees. The batteries will power transit buses, commercial trucks, military vehicles, and other equipment. Kentucky Power is informed that Enerblü, Inc.'s projected peak load is 40 MW.⁹

45. The Kentucky Enterprise Industrial Park, including the site of the proposed Enerblü, Inc. facility, lies within Kentucky Power's certified territory. KRS 278.018(1) and KRS 278.018(4) prohibit any other retail electric supplier from providing retail electric service to Kentucky Enterprise Industrial Park and the proposed Enerblü, Inc. facility. Absent the construction of the Project, the proposed Enerblü, Inc. facility will lack the required electrical

Other non-transmission options are not viable.”)

⁸ Order, *In the Matter of: The Tariff Filing Of South Anderson Water District Setting Policy For Water Main Extensions To Service Real Estate Developments*, Case No. 2006-00118 at 4 (Ky. P.S.C. August 16, 2007) (citing *City of Bardstown v. Louisville Gas And Electric Co*, 383 S.W.2d 918, 920 (Ky. 1964) (“We conceive that the duty of a public utility under the general public utility statutes is to render adequate, efficient and reasonable service . . . within the scope or area of service provided for in its certificate of convenience and necessity. . . . It can be compelled to make any reasonable extension of its service facilities within its certificated scope or area of service.”) and (Ky. Att’y. Gen. Op. 75-719 (“a water district is ‘under an obligation to serve all inhabitants . . . within its geographical area of service as fixed under KRS 74.010 and defined by the certificate of convenience and necessity.’”))

⁹ See *EnerBlu Relocating And Investing Over \$400 Million In Kentucky, The Historic Energy Capital Of The U.S.*, PR NEWswire (December 15, 2017, 10:50 EST), <https://www.prnewswire.com/news-releases/enerblu-relocating-and-investing-over-400-million-in-kentucky-the-historic-energy-capital-of-us-300572083.html> (last visited August 8, 2018).

service to permit it to operate, thereby jeopardizing the planned investment, the expected jobs, as well as the consequent economic activity.

46. Kentucky Power's existing transmission system in the area cannot support this additional load; there are no other reasonable electrical alternatives to the Project. The Project is the most efficient and cost-effective means of providing the required service.

47. The Project is located entirely within Kentucky Power's certified territory and will not compete with any public utilities, corporations or persons, and will not result in a duplication of facilities.

Alternate Routes Considered

48. Kentucky Power retained the services of POWER Engineers, Inc. ("POWER") to conduct a Siting Study to assist the Company in identifying the most feasible route for the new overhead electric transmission line between the Project endpoints that would also be consistent with the Project's need. POWER also assisted Kentucky Power in identifying a location for the Kewanee 138 kV Substation. POWER, in conjunction with Kentucky Power, identified and reviewed alternative transmission line routes while receiving and considering public input and field review, as well as the need to avoid or minimize impacts on people and environmental resources. A copy of the Siting Study prepared by POWER for the Project is attached to this application as **EXHIBIT 17**. Detailed descriptions of the siting methodologies are included in the Siting Study and Ms. Larson's Testimony.

49. The Study Area is the approximately 25.3-square miles in Floyd and Pike counties in which alternative line routes could be sited to meet the Project's functional requirements and, at the same time, minimize environmental impacts and Project costs. The Study Area was bounded on the northwest by the existing Sprigg – Beaver Creek 138 kV

Transmission Line and to the southeast by the Kentucky Enterprise Industrial Park. The existing Big Sandy – Broadford 765 kV Transmission Line and the community of Galveston bound the Study Area to the south and west; the City of Pikeville bounds the Study Area to the north and east. The Right Fork of Island Creek Road/Route 1426 and the Left Fork of Island Creek Road/Route 3416 bisect the Study Area from east to west. Additional information regarding the Study Area, and mapping showing the Study Area, constraints, and resources is included in the Siting Study (EXHIBIT 17, Attachment B).

50. POWER, in conjunction with Kentucky Power, ultimately identified two alternative routes, which were developed from the remaining 23 study segments presented at the open house. The two alternative routes are illustrated in EXHIBIT 4 and the Siting Study (EXHIBIT 17, Attachment B, Map 6). Based upon siting guidelines developed jointly by Kentucky Power and POWER, Alternative B was selected as the Proposed Route. The Proposed Route provides the opportunity to parallel the existing Big Sandy – Broadford 765 kV Transmission Line for a distance of 1.3 miles, thereby reducing habitat fragmentation, minimizing additional viewshed impacts, and utilizing existing access roads. Paralleling existing transmission lines is a common and accepted transmission line siting practice. The Proposed Route is also efficient and more direct, and takes advantage of the terrain to maximize span lengths and reduce the number of structures and heavy angles. Based on field investigations, approximately 16 miles of existing or partially existing access roads were identified for use in constructing the Proposed Route, which significantly reduces the amount of new access road construction, the associated environmental impacts, as well as the overall Project costs.

51. Members of the Siting Team also undertook field reconnaissance of the Proposed Route and concluded that it would not result in any encroachments. The Proposed Route is

located farther from residential, commercial, and future mining development, and in a largely undeveloped area. The Proposed Route is located on high ridgelines, spanning above the roadways and valleys, thereby limiting visual impacts to the surrounding area. The Proposed Route is consistent with public preferences and general siting guidelines for paralleling or utilizing existing rights-of-way for new or rebuilt transmission facilities where feasible.¹⁰

Reviews And Stakeholder Input

52. Kentucky Power and POWER conducted extensive stakeholder outreach, including publishing news releases to announce the Project and the Proposed Route (**EXHIBIT 14**), as well as establishing a public website to provide information and solicit comments (<http://aeptransmission.com/kentucky/EnterprisePark/index.php>). Kentucky Power also met with public officials concerning the Project prior to filing this application. Kentucky Power and POWER conducted a public open house on May 3, 2018 at Pikeville High School, 120 Championship Drive, Pikeville, Kentucky to solicit comments and answer questions. Forty-one individuals attended the open house.

53. Kentucky Power also contacted all of the owners of the parcels within the right-of-way with the exception of the two owners of three parcels located in Floyd County, Kentucky (parcels 4, 7, and 9 as identified on **EXHIBIT 11**) who cannot be located from the public records. None of the contacted landowners have expressed opposition to the Project to date. Further information concerning stakeholder contacts and outreach efforts is included in the Siting Study (**EXHIBIT 17**, Attachment C).

¹⁰ See e.g. Order, *In the Matter of: Application Of Big Rivers Electric Corporation For A Certificate Of Public Convenience And Necessity To Construct A 161 kV Transmission Line In Ohio County, Kentucky*, Case No. 2007-00177 (Ky. P.S.C. October 30, 2007) (“By following a route that parallels existing transmission lines for a significant portion of its length, Route C minimizes the impact of the proposed facilities on property owners more than the other possible routes.”)

54. Public support for the Project is evidenced by the letters attached as EXHIBIT 15.

Commencement Of Work And Anticipated In-Service Date

55. Kentucky Power anticipates commencing work, subject to the grant of the requested authority, in the first quarter of 2019. The proposed industrial development in the Kentucky Enterprise Industrial Park requires a Project in-service date during the third quarter of 2019.

Exhibits And Testimony

56. The exhibits and testimony listed in the Appendix to this application are attached to and made a part of this application.

Communications

57. The Applicant respectfully requests that communications in this matter be addressed to the e-mail addresses identified on Kentucky Power's June 22, 2018 Notice of Election of Use of Electronic Filing Procedures.

Filing Requirements

58. Kentucky Power's compliance with the requirements of 807 KAR 5:001, Section 14, 807 KAR 5:001, Section 15, and 807 KAR 5:120 is detailed in EXHIBIT 16 to the application.

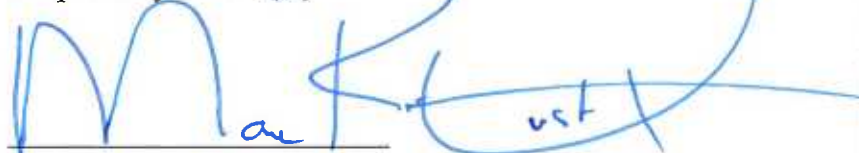
WHEREFORE, Kentucky Power Company requests that the Commission issue an Order:

(a) Granting Kentucky Power a Certificate of Public Convenience and Necessity for the Project authorizing: (i) the construction of the Proposed Kewanee 138 kV Transmission Line Extension; (ii) the construction by Kentucky Power of the identified components of the proposed Kewanee 138 kV Substation; (iii) the retirement of Kentucky

Power's existing Fords Branch substation; and (iv) the upgrade of certain components of the Company's Cedar Creek 138/69/46 kV Substation; and

(b) Granting Kentucky Power such other relief as may be appropriate.

Respectfully submitted,



Mark R. Overstreet
Katie M. Glass
STITES & HARBISON PLLC
421 West Main Street
P.O. Box 634
Frankfort, Kentucky 40602-0634
Telephone: (502) 223-3477
Facsimile: (502) 223-4387
moverstreet@stites.com
kglass@stites.com

COUNSEL FOR KENTUCKY POWER
COMPANY

APPENDIX

TESTIMONY

DIRECT TESTIMONY OF RANIE K. WOHNHAS Regulatory Information
DIRECT TESTIMONY OF MICHAEL G. LASSLO Project Need
DIRECT TESTIMONY OF EMILY S. LARSON Transmission Line Siting

LIST OF EXHIBITS

- EXHIBIT 1: Kentucky Power Company's July 23, 2018 Certificate of Existence
- EXHIBIT 2: Project Location Map
- EXHIBIT 3: Proposed Route (USGS and Aerial Base)
- EXHIBIT 4: Alternative Routes Considered (Aerial Base)
- EXHIBIT 5: Proposed Kewanee 138 kV Substation Layout and Location
- EXHIBIT 6: Fords Branch 46 kV Substation (To Be Retired) Layout and Location
- EXHIBIT 7: Cedar Creek 138/69/46 kV Substation Layout and Location
- EXHIBIT 8: Typical Double-Circuit Steel Lattice Transmission Structure
- EXHIBIT 9: Typical Double-Circuit Steel Monopole Transmission Structure
- EXHIBIT 10: Present System and Project Components
- EXHIBIT 11: Parcel List and List of Landowners Within Right-of-Way and Filing Corridor
- EXHIBIT 12: Notice To Landowners And Verification of Mailing Executed By Ryan M. Howell
- EXHIBIT 13: Published Notice And Affidavit of publication
- EXHIBIT 14: Public News Releases
- EXHIBIT 15: Letters of Support
- EXHIBIT 16: Filing Requirements
- EXHIBIT 17: Siting Study

Commonwealth of Kentucky
Alison Lundergan Grimes, Secretary of State

Alison Lundergan Grimes
Secretary of State
P. O. Box 718
Frankfort, KY 40602-0718
(502) 564-3490
<http://www.sos.ky.gov>

Certificate of Existence

Authentication number: 205029
Visit <https://app.sos.ky.gov/ftshow/certvalidate.aspx> to authenticate this certificate.

I, Alison Lundergan Grimes, Secretary of State of the Commonwealth of Kentucky, do hereby certify that according to the records in the Office of the Secretary of State,

KENTUCKY POWER COMPANY

is a corporation duly incorporated and existing under KRS Chapter 14A and KRS Chapter 271B, whose date of incorporation is July 21, 1919 and whose period of duration is perpetual.

I further certify that all fees and penalties owed to the Secretary of State have been paid; that Articles of Dissolution have not been filed; and that the most recent annual report required by KRS 14A.6-010 has been delivered to the Secretary of State.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal at Frankfort, Kentucky, this 23rd day of July, 2018, in the 227th year of the Commonwealth.



Alison Lundergan Grimes
Alison Lundergan Grimes
Secretary of State
Commonwealth of Kentucky
205029/0028317

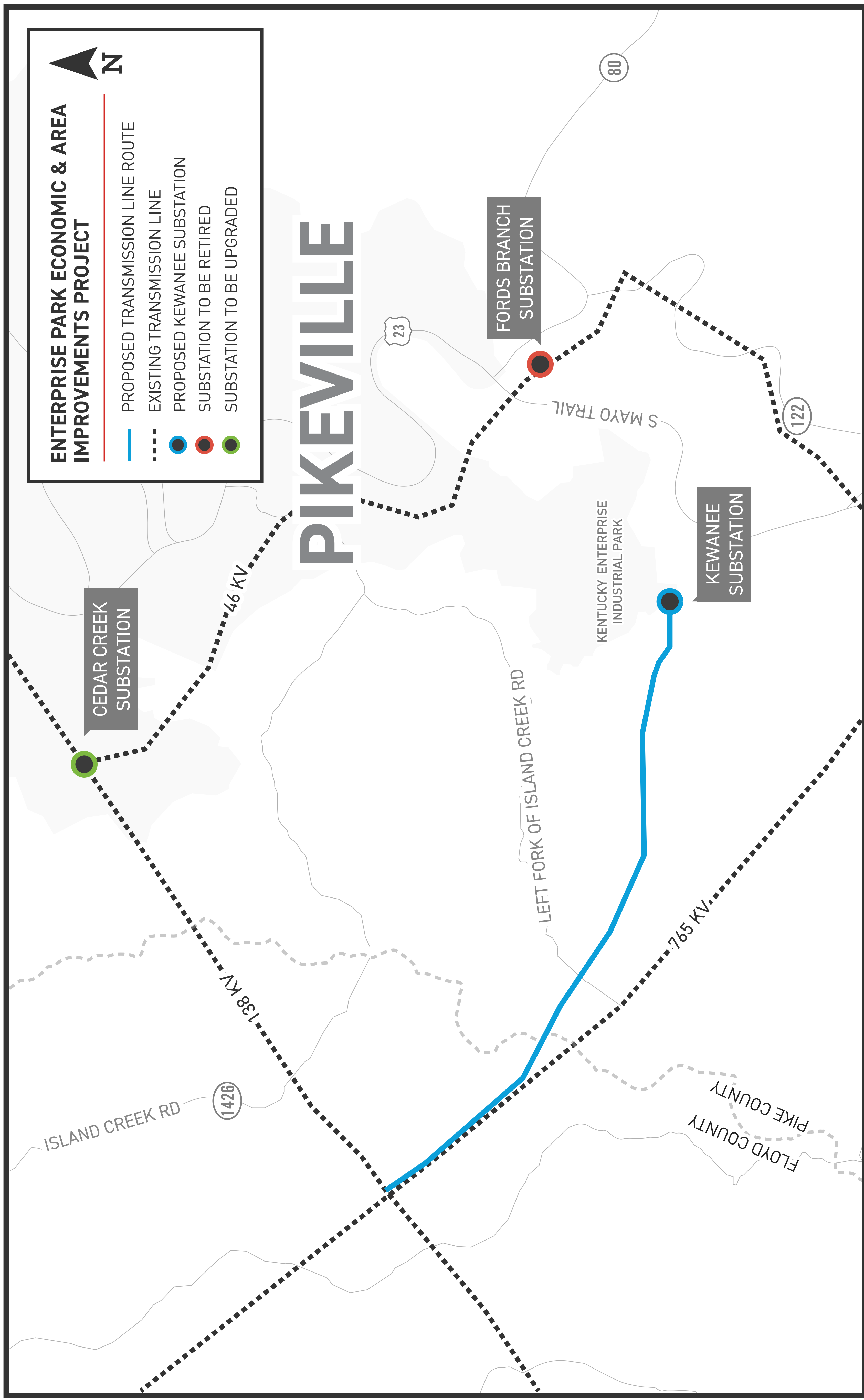
ENTERPRISE PARK

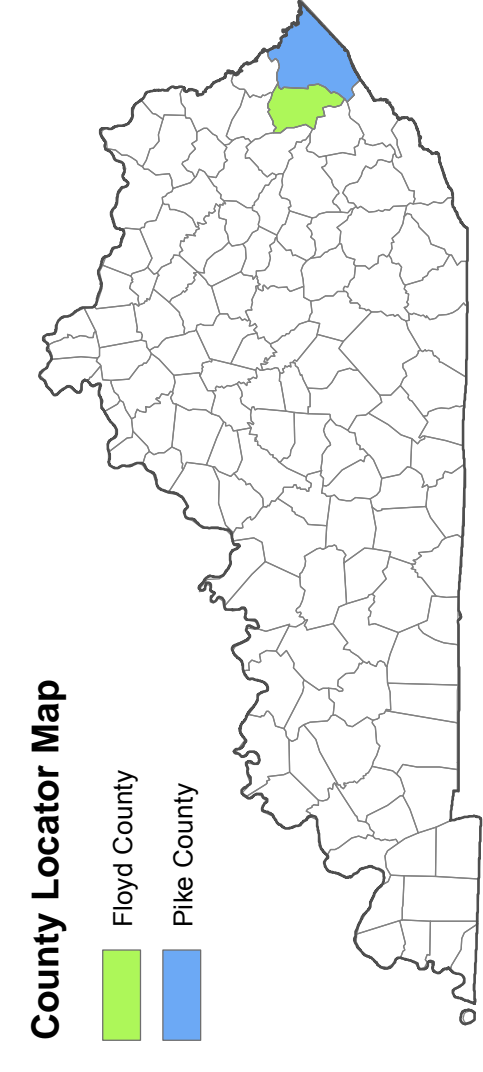
ECONOMIC & AREA IMPROVEMENTS PROJECT



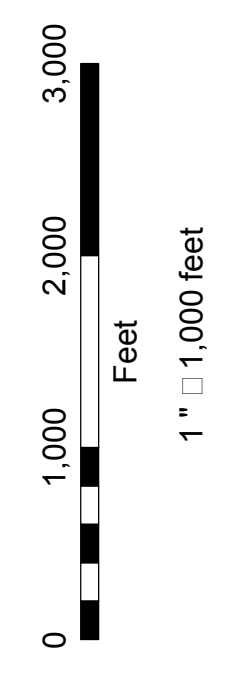
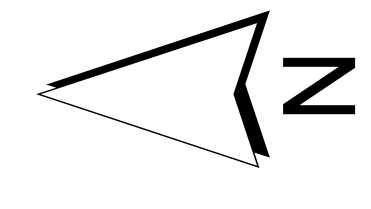
An AEP Company

BOUNDLESS ENERGY™





County Locator Map
Floyd County
Pike County



Base Map Source: Esri, DigitalGlobe, GeoEye, Earthstar

NOTES

1) Shown is a preliminary design. This design is not the final route. Locations will be determined during final engineering, which includes ground survey and geotechnical and environmental studies. The most suitable alignment based upon preliminary analysis.

2) A 100-foot wide right-of-way will be sited within the Filing Corridor. The Company needs the flexibility to shift the centerline within the Filing Corridor as necessary after completion of the final engineering. Ground surveys and interviews with the landowners.

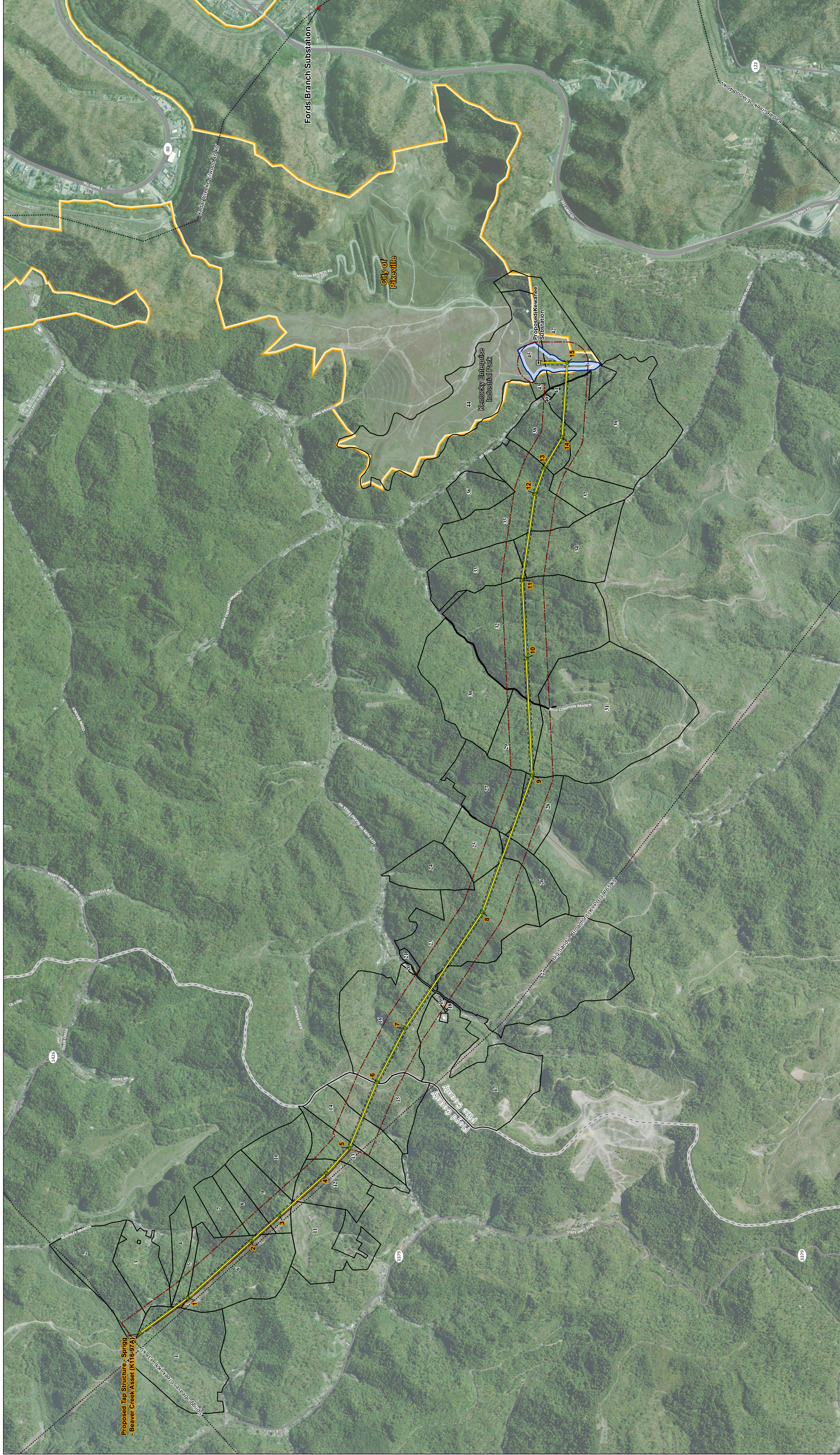
3) The PVA parcels are not based on an accurate ground survey. Boundaries are shown for informational purposes only. See Exhibit 11 for list of landowners in proposed ROW and Filing Corridor.

- Proposed Structure¹
- Proposed Kewanee Substation
- Existing Substation - To be Retired
- Proposed Route¹
- Existing Transmission Line
- Proposed 100-foot ROW²
- Filing Corridor²
- Property Line Boundary w/ AEP-ID³
- Parcel to be Purchased for Substation
- City of Pikeville

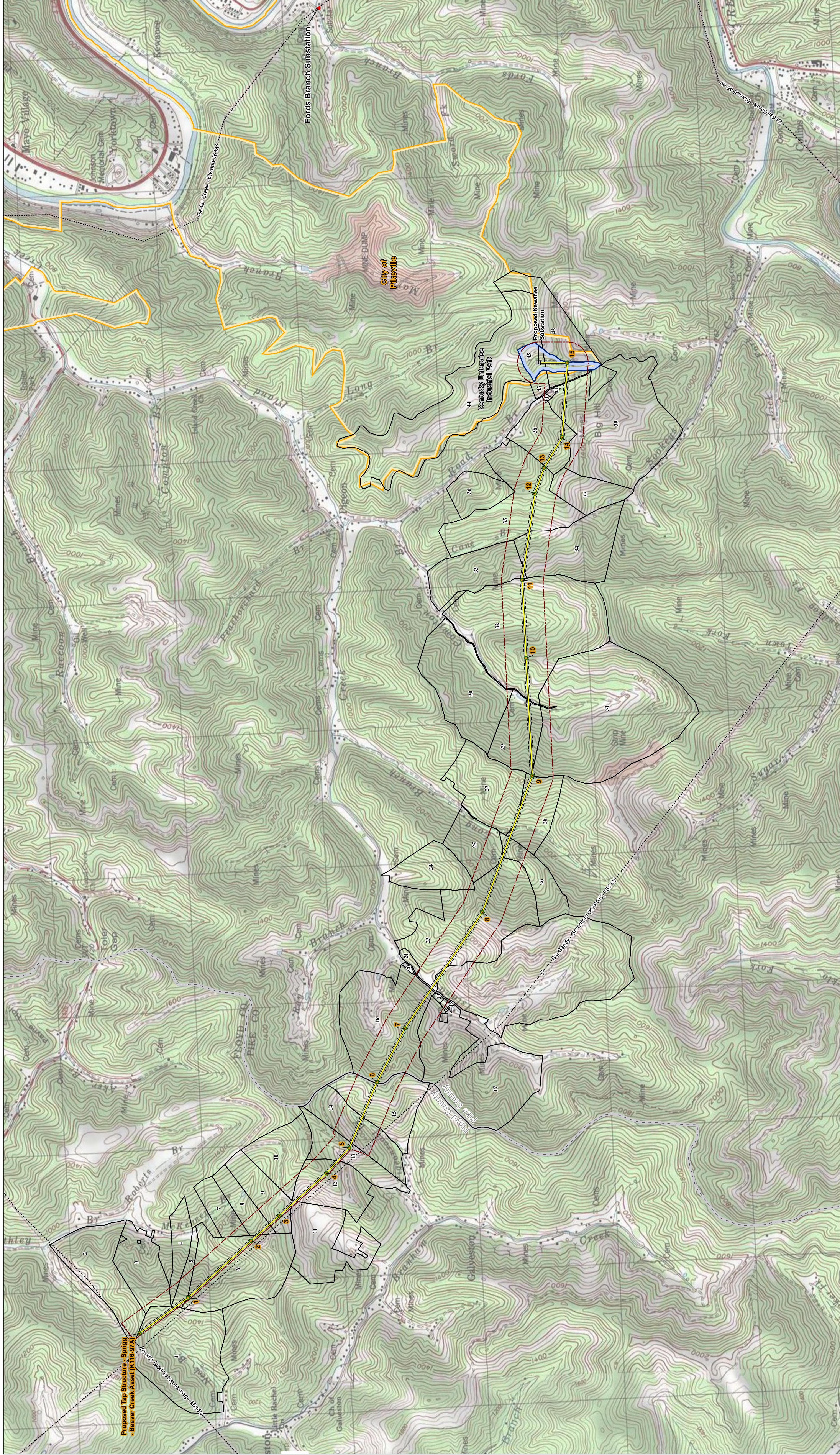
Enterprise Park Economic and Area Improvements Project

Exhibit 3: Proposed Route

Date: 8/5/2018
Sheet 1 of 2



Proposed Tap Structure - Spring
- Beaver Creek Asset (K116-37A)



Enterprise Park Economic and Area Improvements Project

Exhibit 3: Proposed Route

- Proposed Structure¹
- Proposed Kewanee Substation
- ▲ Existing Substation - To be Retired
- Proposed Route¹
- Existing Transmission Line
- Proposed 100-foot ROW²
- Filing Corridor²
- Property Line Boundary w/ AEP-ID³
- Parcel to be Purchased for Substation
- City of Pikeville

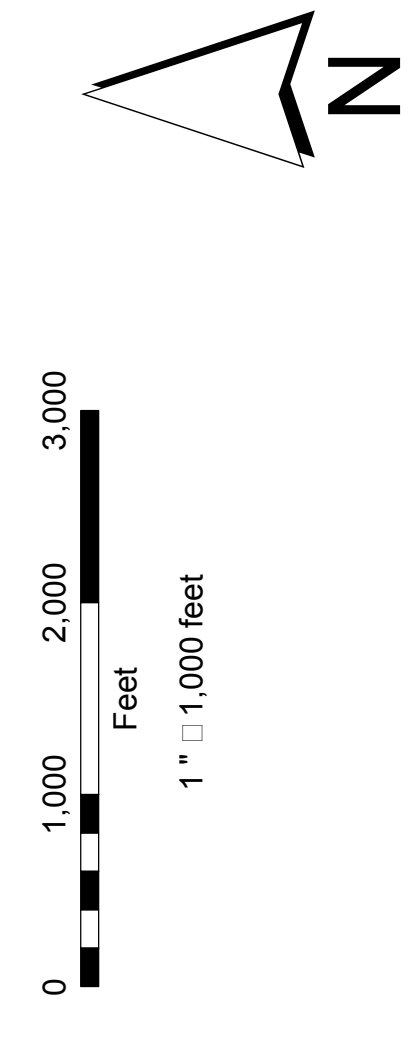
NOTES

1) Shown is a preliminary design. The design is not the final route. Locations will be determined during final engineering, which includes ground survey and geotechnical and environmental studies. The most suitable alignment based upon preliminary analysis.

2) A 100-foot wide right-of-way will be filed within the Filing Corridor. The Company needs the flexibility to shift the centerline within the Filing Corridor indicated as necessary after completion of the final engineering. Ground surveys and interviews with the landowners.

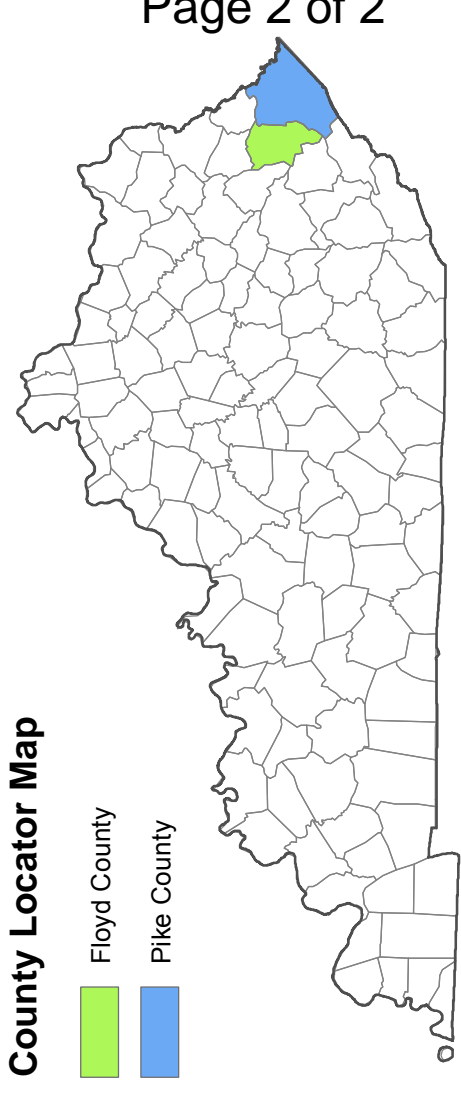
3) The PVA parcels are not based on an accurate ground survey. Boundaries shown are for informational purposes only. See Exhibit 11 for list of landowners in proposed ROW and Filing Corridor.

Base Map Copyright © 2013 National Geographic Society, I-cubed



County Locator Map

■ Floyd County
■ Pike County



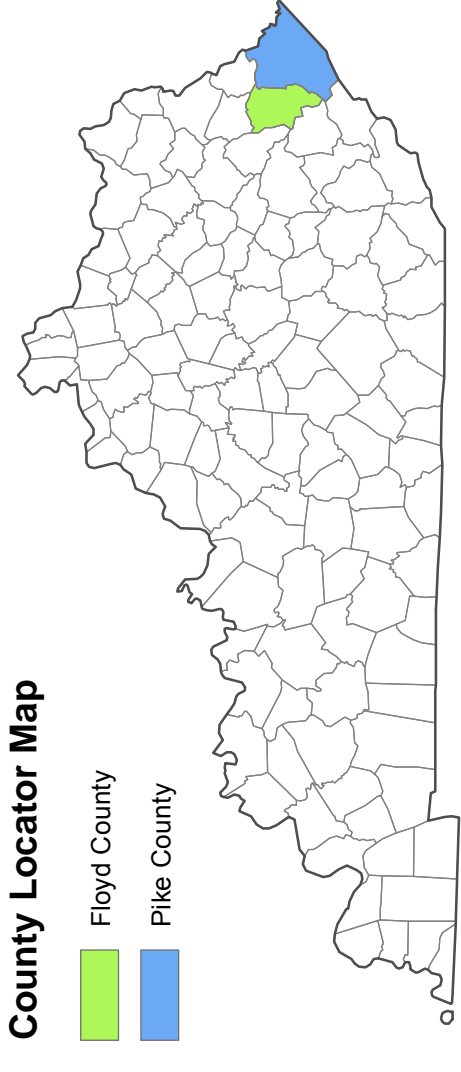
Proposed Tap Structure - Spring
- Beaver Creek Asset (K1716-37A)

Fords Branch Substation

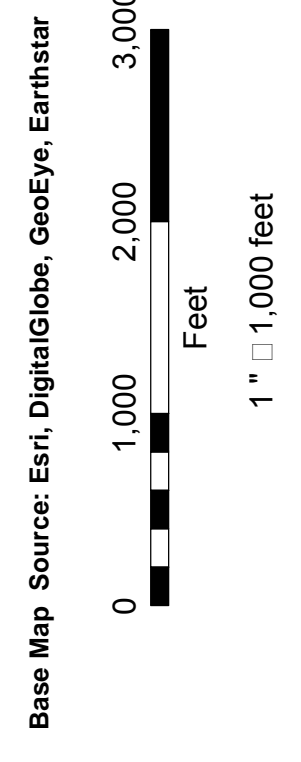
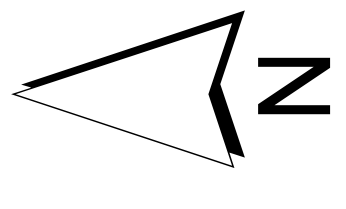
City of Pikeville

Proposed Kewanee Substation

Kentucky Enterprise Industrial Park



County Locator Map



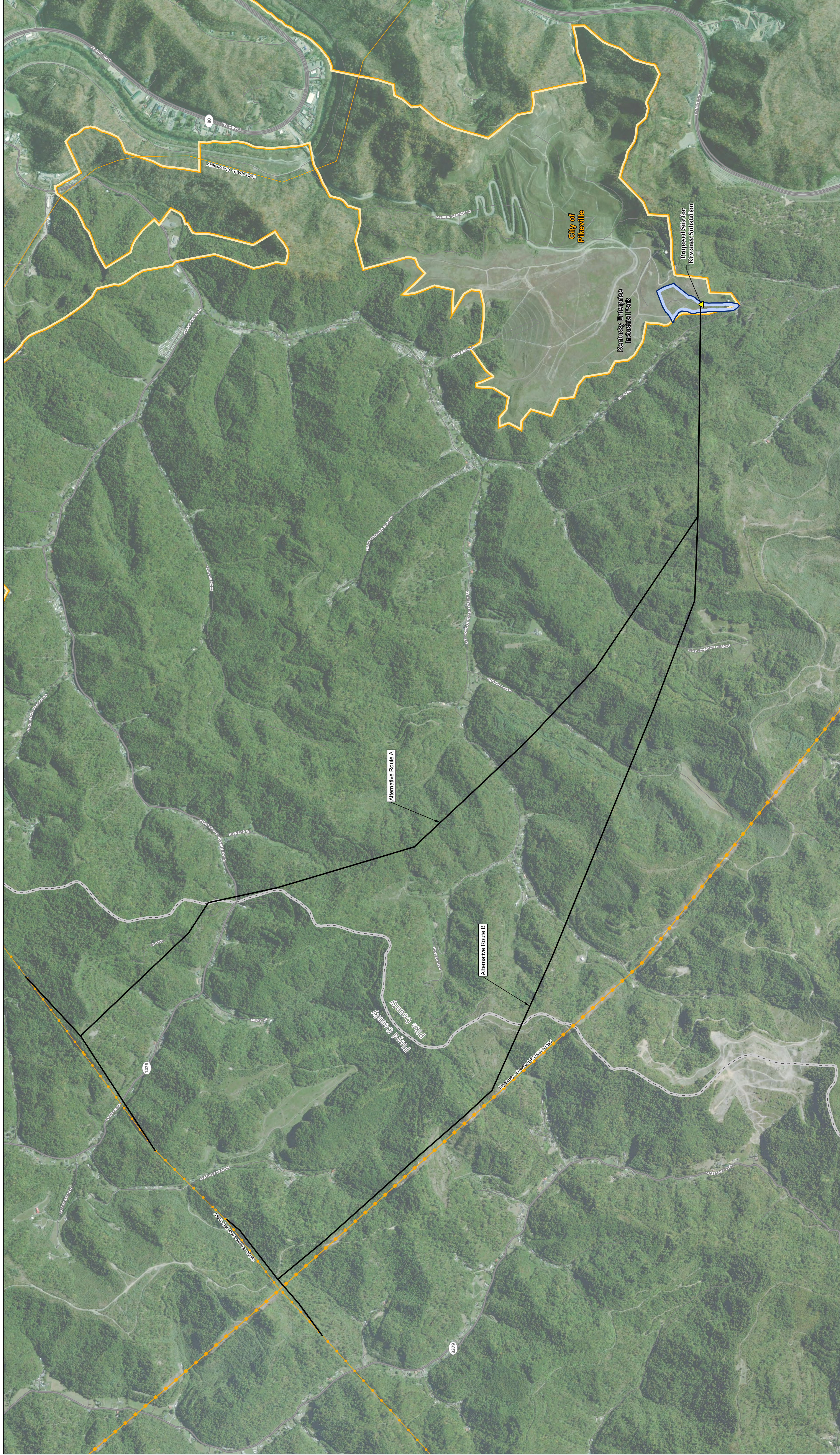
Base Map Source: Esri, DigitalGlobe, GeoEye, Earthstar

- Proposed Substation Site
- Alternative Routes
- Existing AEP Transmission Line (69kV or lower)
- Existing AEP Transmission Line (115-230kV)
- Existing AEP Transmission Line (345kV or higher)
- Parcel to be Purchased for Substation
- City of Pikeville

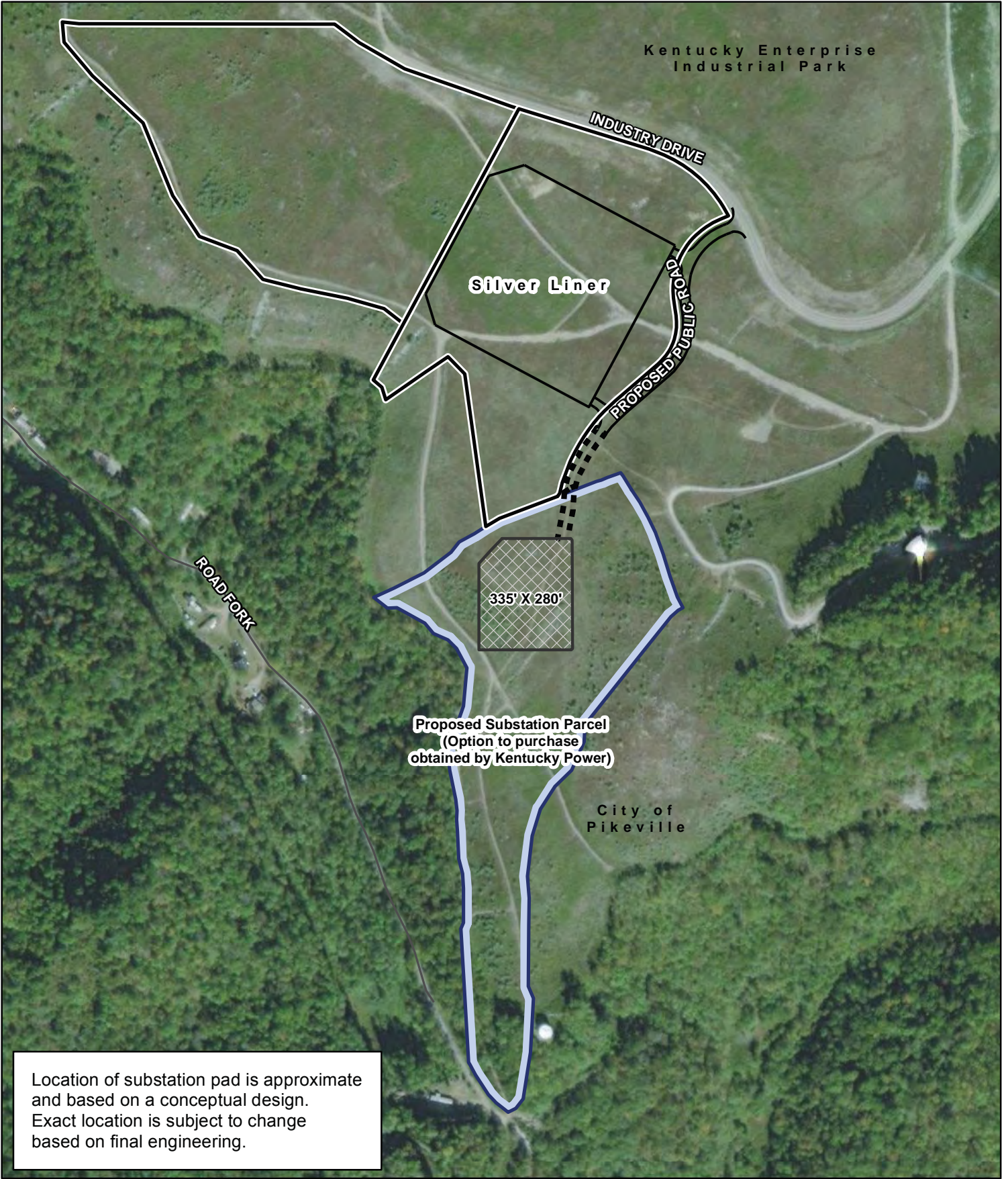
Enterprise Park Economic and Area Improvements Project

Exhibit 4: Alternative Routes

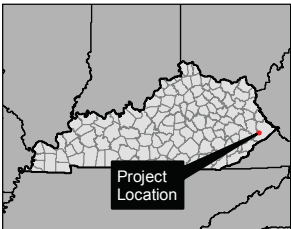
Date: 8/3/2018
Sheet 1 of 1



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Location of substation pad is approximate and based on a conceptual design. Exact location is subject to change based on final engineering.



- Parcel to be Purchased for Substation
- Parcel Boundary
- Proposed Access Road (30' corridor)
- Proposed Kewanee Substation

CONCEPTUAL

N
W —+— E
S

SCALE: 1" = 400'

0 200 400
Feet

Pike County, Kentucky



NAD 1983 State Plane Kentucky South FIPS 1602 Feet
Foot US
Lambert Conformal Conic
North American 1983

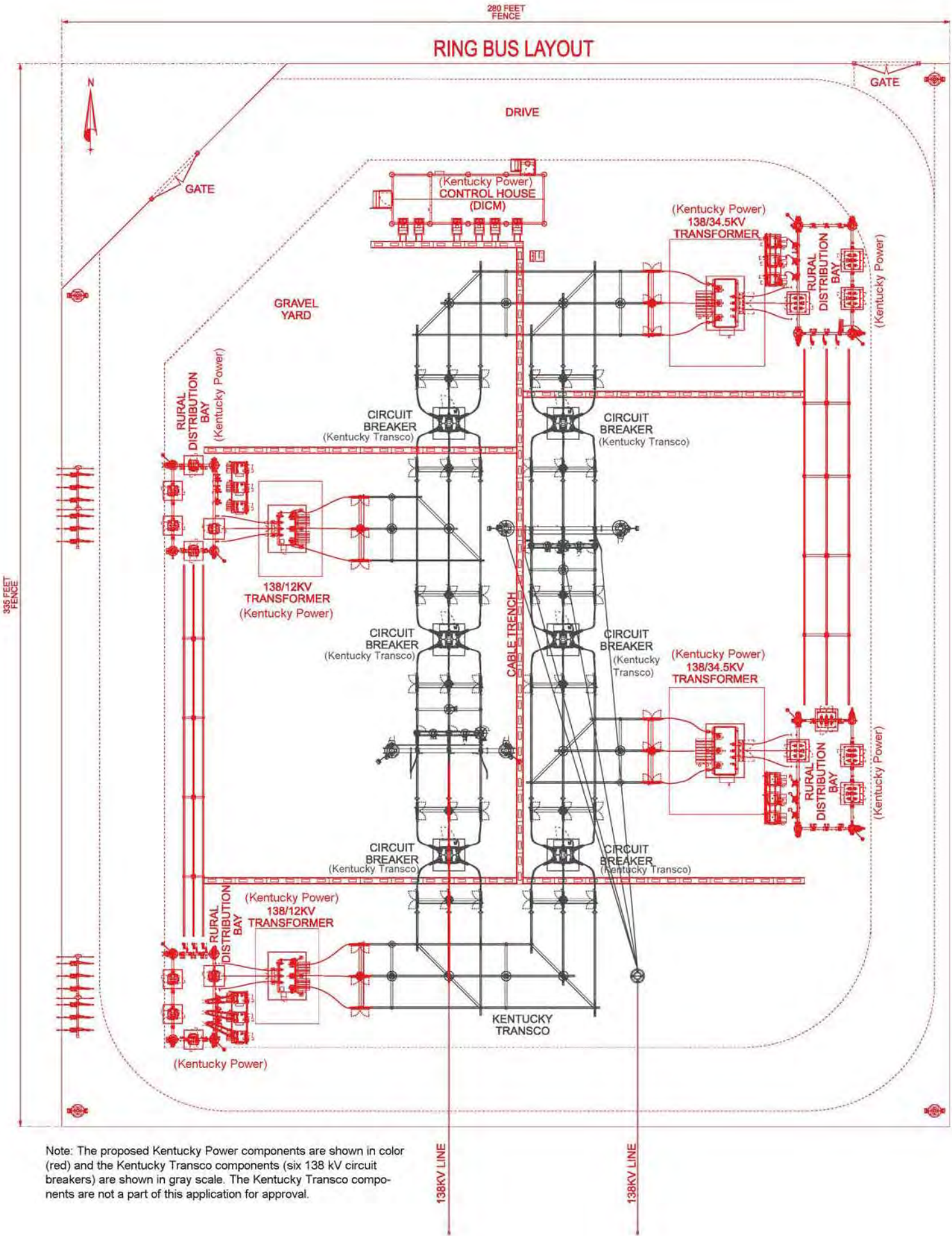
Date: 8/5/2018
By: AMW
POWER: 151565

**Proposed Kewanee Substation
Layout and Location**

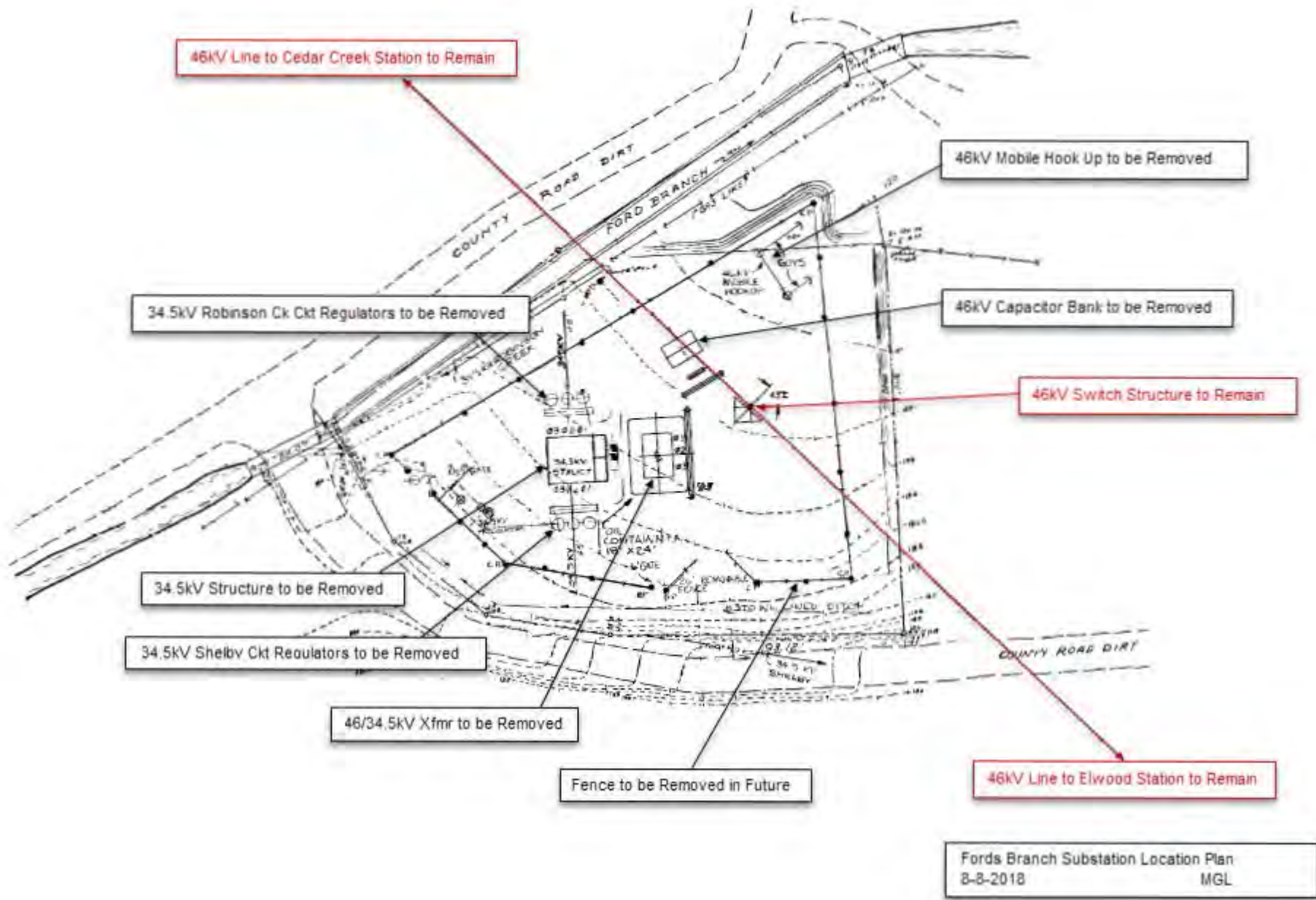
Exhibit 5

BPID: P18025005



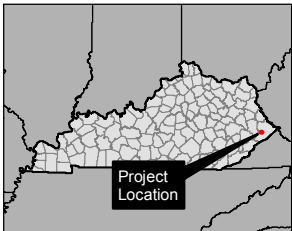
Note: The proposed Kentucky Power components are shown in color (red) and the Kentucky Transco components (six 138 kV circuit breakers) are shown in gray scale. The Kentucky Transco components are not a part of this application for approval.



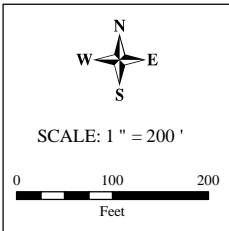
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Fords Branch Substation to be retired and transmission line to remain



- ▲ AEP Substation (To Be Retired)
- Existing AEP Transmission Line (69 kV or Lower)
- +— Railroad
- Road
- Stream (NHD)
- City of Pikeville



Pike County, Kentucky

NAD 1983 State Plane Kentucky South FIPS 1602 Feet
Foot US
Lambert Conformal Conic
North American 1983

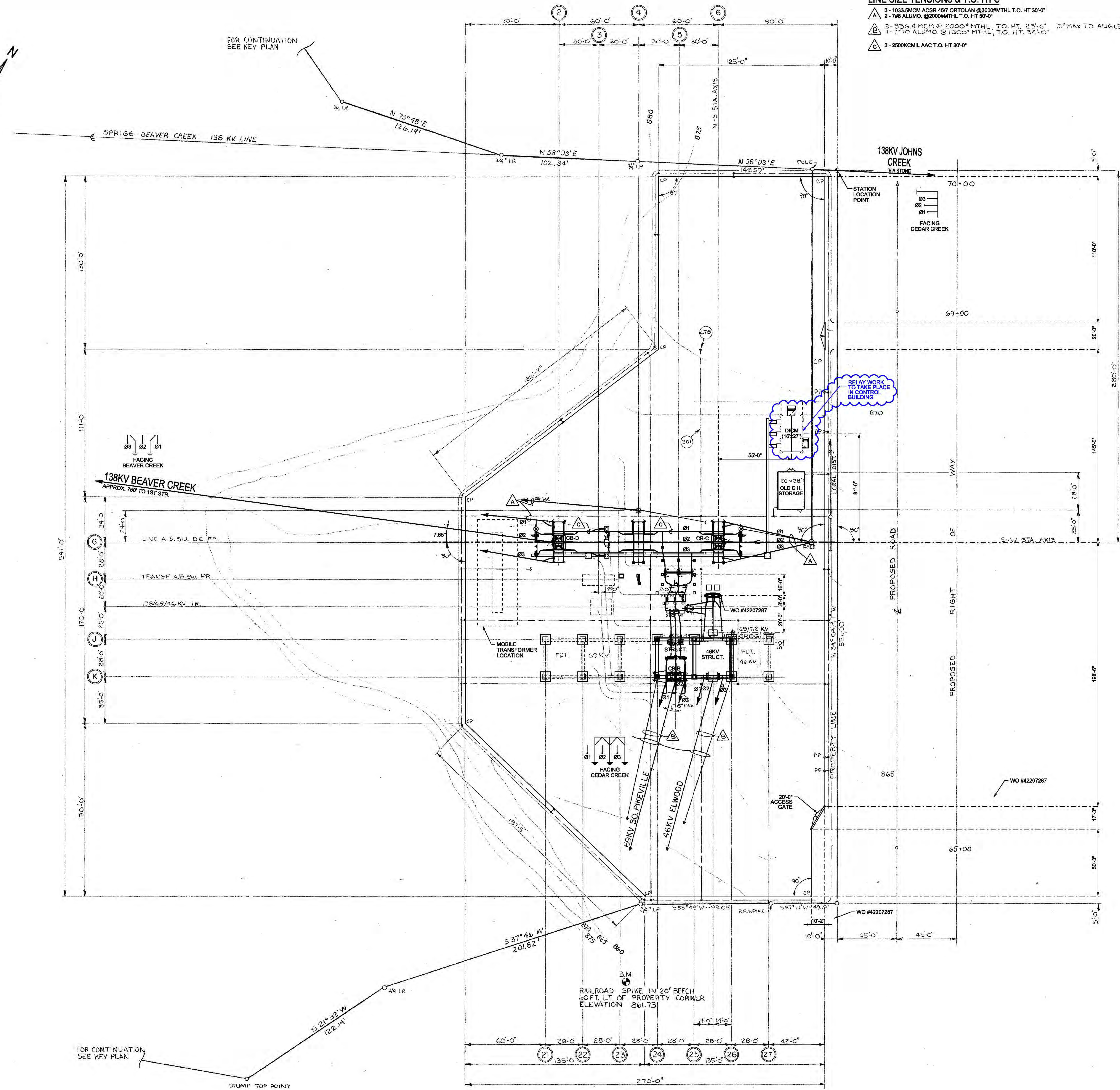
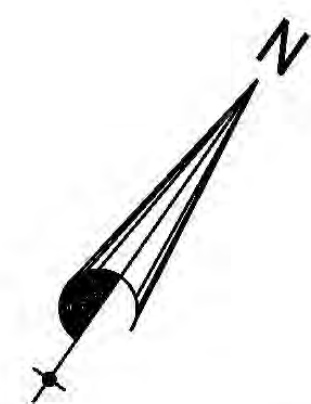
Date: 8/5/2018
By: AMW
POWER: 151565

**Fords Branch Substation
(To Be Retired) Location**

Exhibit 6

BPID: P18025005



LINE SIZE TENSIONS & T.O. HT'S

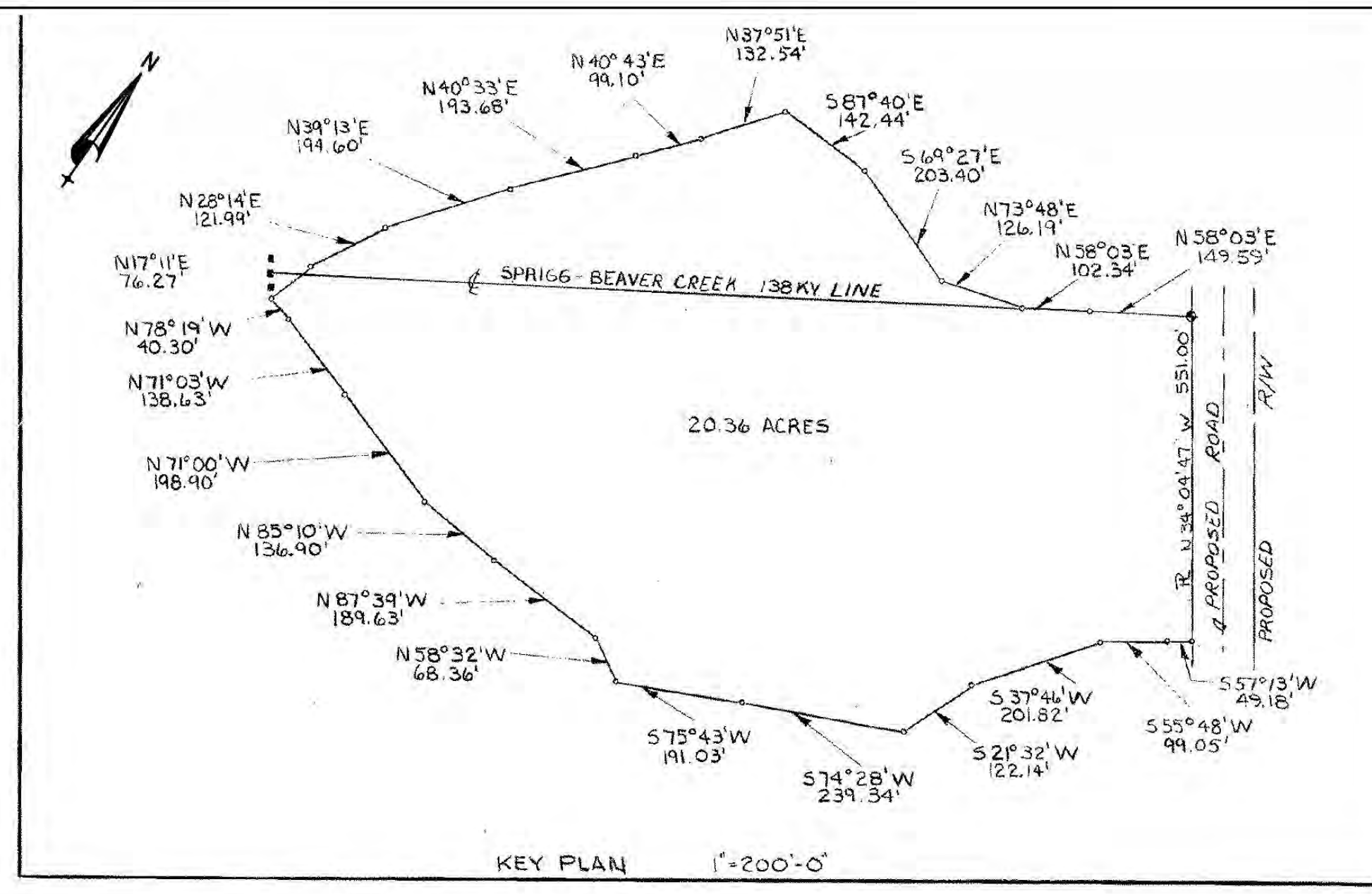
3- 1033.8MCM ACSSA 457 ORTOLAN @33000MTHL, T.O. HT 30'-0"

2- 788 ALUMO. @2000MTHL, T.O. HT 50'-0"

3- 336.4MCM @ 2000 MTHL, T.O. HT. 23'-6" 15° MAX TO ANGLE

1- 7'-10 ALUMO. @1500 MTHL, T.O. HT. 34'-0"

3- 2500CMIL AAC T.O. HT 30'-0"



REFERENCE DRAWINGS

489KV ELECTRICAL ASSEMBLY	E-2102
138KV ELECTRICAL ASSEMBLY	E-2202, E-2203
FOUNDATION PLAN	E-2202
CABLE TRENCH DETAILS	E-3221
CABLE & CONDUIT PLAN	E-3281
GROUNDING PLAN	E-3292
CONTROL BUILDING LAYOUT	E-4277
138KV STEEL DETAILS	E-5202
48KV YARD BUS TOWER DETAILS	E-8134
66KV STEEL DETAILS	EDI-1945 TO EDI-1950 & EDI-1952 TO EDI-1954

NOTES:

ENTIRE STATION AREA FILLED WITH EXCAVATE FROM STATE HIGHWAY 35 FT PER FIELD INFO. IF THIS THE ROCK/STONE DIRT FILL CAN BE TRENCHED FOR GRD. WIRE AND CONTROL CABLES AND CAN BE EXCAVATED FOR STANDARD FOUNDATIONS DESIGNED FOR 3000# PER SQ. FT. SOIL BEARING PRESSURE.

NOTE #1

FIELD TO DETERMINE ACCESS ROAD TURN IN RADIUS.

FIELD TO CHECK WITH LOCAL AUTHORITIES REGARDING INSTALLATION OF CULVERT AT ROAD ENTRANCE.

ELEVATIONS OF SUBGRADE ARE SHOWN. SIDE SLOPES TO BE 2'-0" HORIZONTAL FOR EVERY 1'-0" VERTICAL. STATION GRADE LINE TO BE 3'-0" OUTSIDE FENCE WHERE POSSIBLE. GROUND WIRE TO BE 2'-0" OUTSIDE OF FENCE EXCEPT AS SHOWN. COVER GRADED AREA AS SHOWN WITH 3" OF CRUSHED STONE CARRIED 1'-0" OUTSIDE OF FENCE. FOR CONFACTION AND GRADING SPECIFICATIONS SEE AEP GENERAL ELECTRICAL SPECIFICATIONS PART II

LEGEND

NUMBERS IN ○ REFER TO COLUMN LINE DESIGNATION

NUMBERS IN ○ REFER TO B.M. #50008

GRADING

PER FIELD	TOTAL CUT	2.72	CU. YDS
MARKED	FILL	2.33	CU. YDS
PAINT	115% COMPACTION	.22	CU. YDS
LETTER DATE	TOTAL FILL	7.65	CU. YDS
3-26-88			

FOR REFERENCE

ISSUE	NO.	DATE	REVISION DESCRIPTION
42112254A1	6	09/16/16	CTCR BY POWER ENGINEERS, INC.
42207287C1	5	09/03/15	REPLACED 66KV CB-B & SWITCHES, ADDED 58KV & 48KV BUS COVTS'S, (2) S.S. XFMR'S ON 58KV BUS, (2) 20FT GATES BY POWER ENGINEERS, INC.
42112254C1	5	09/03/15	40368 (KYTC) ADDED; 138KV CB-C, D & SWS, 30 COVTS' W/10 TRAP & SA'S FOR 138KV LINES. NEW LEGACY STR FOR CB-D, SWS FOR FUT CB-E, (2) 50KVA S.S. XFMR'S, 16'X27' DICM 3PH SWITCH & OHT SWR, 30 BUS COVTS, CABLE TRENCH, 38345 (KYCO) REMOVE (2) 48KV S.S. XFMR'S, 10 TRAP MOVERS 11, 22, X1 & 21. BY POWER ENGINEERS, INC.

THIS DRAWING IS THE PROPERTY OF AMERICAN ELECTRIC POWER AND IS LOANED UPON CONDITION THAT IT IS NOT TO BE REPRODUCED OR COPIED, IN WHOLE OR IN PART, OR USED FOR FURNISHING INFORMATION TO ANY PERSON WITHOUT THE WRITTEN CONSENT OF AMERICAN ELECTRIC POWER, OR FOR ANY PURPOSE DESTROYAL TO THEIR INTEREST, AND IS TO BE RETURNED UPON REQUEST.

KENTUCKY POWER COMPANY/KENTUCKY TRANSMISSION COMPANY

CEDAR CREEK STATION

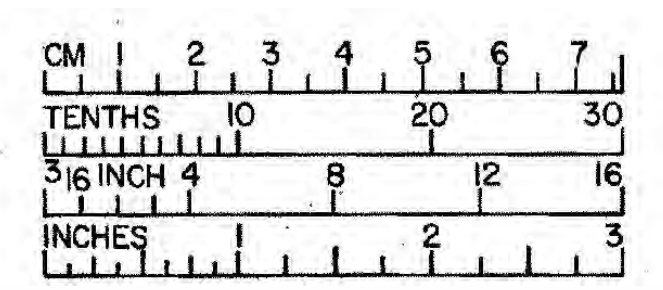
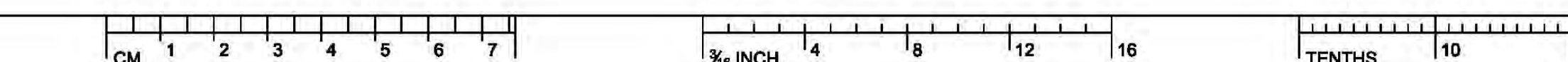
PIKEVILLE KENTUCKY

1388848KV

STATION LAYOUT PLAN

STATION LOCATION & FENCE GROUNDING PLAN

ORIGINAL ISSUE	C.I. # 50189
DWG. NO.	E-1201
WORK	STATION PROJECTS ENGINEERING
SCALE:	1" = 30'
DR:	RES
CH:	RES
ENG:	
DATE:	2/2/79
APPROVED BY:	
DESIGN DIV.	
APPROVED BY:	
DESIGN DIV.	
DATE:	2/2/79
AMERICAN ELECTRIC POWER	1 RIVERSIDE PLAZA COLUMBUS, OH 43215
	6

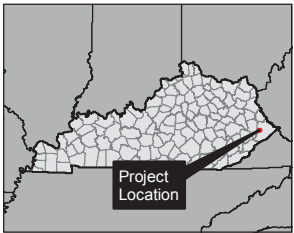


STATION ENGINEERING
PLOTTED BY: ELISEUR ON 9/8/2016 AT 03:33

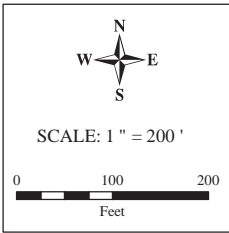
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Upgrade certain facilities and equipment
in the Cedar Creek 138 kV Substation



- ▲ Existing AEP Substation
- Existing AEP Transmission Line (69 kV or Lower)
- Existing AEP Transmission Line (115-230 kV)
- Road
- Stream (NHD)




City of Pikeville, Kentucky

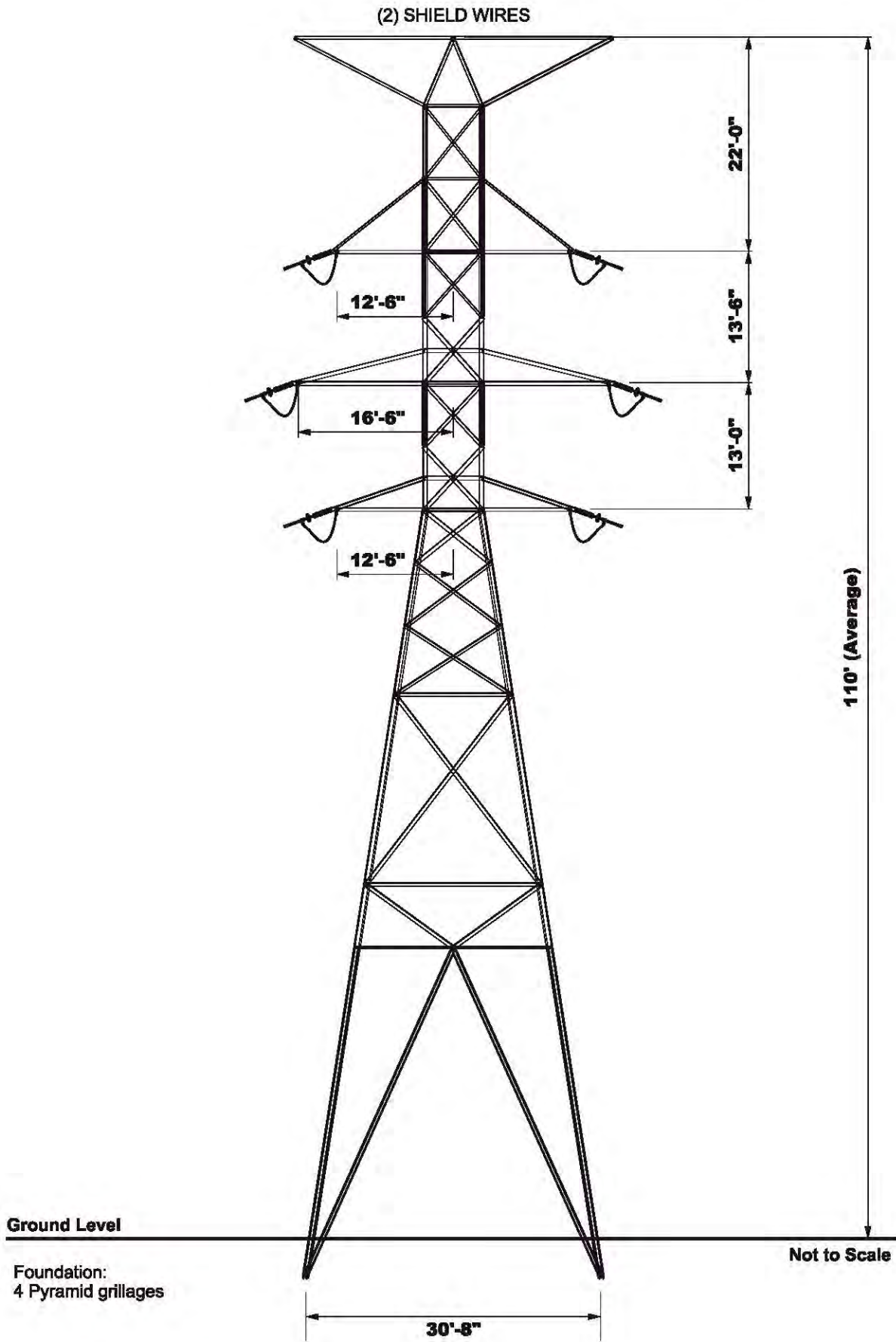
NAD 1983 State Plane Kentucky South FIPS 1602 Feet
Foot US
Lambert Conformal Conic
North American 1983

Date: 8/5/2018
By: AMW
POWER: 151565

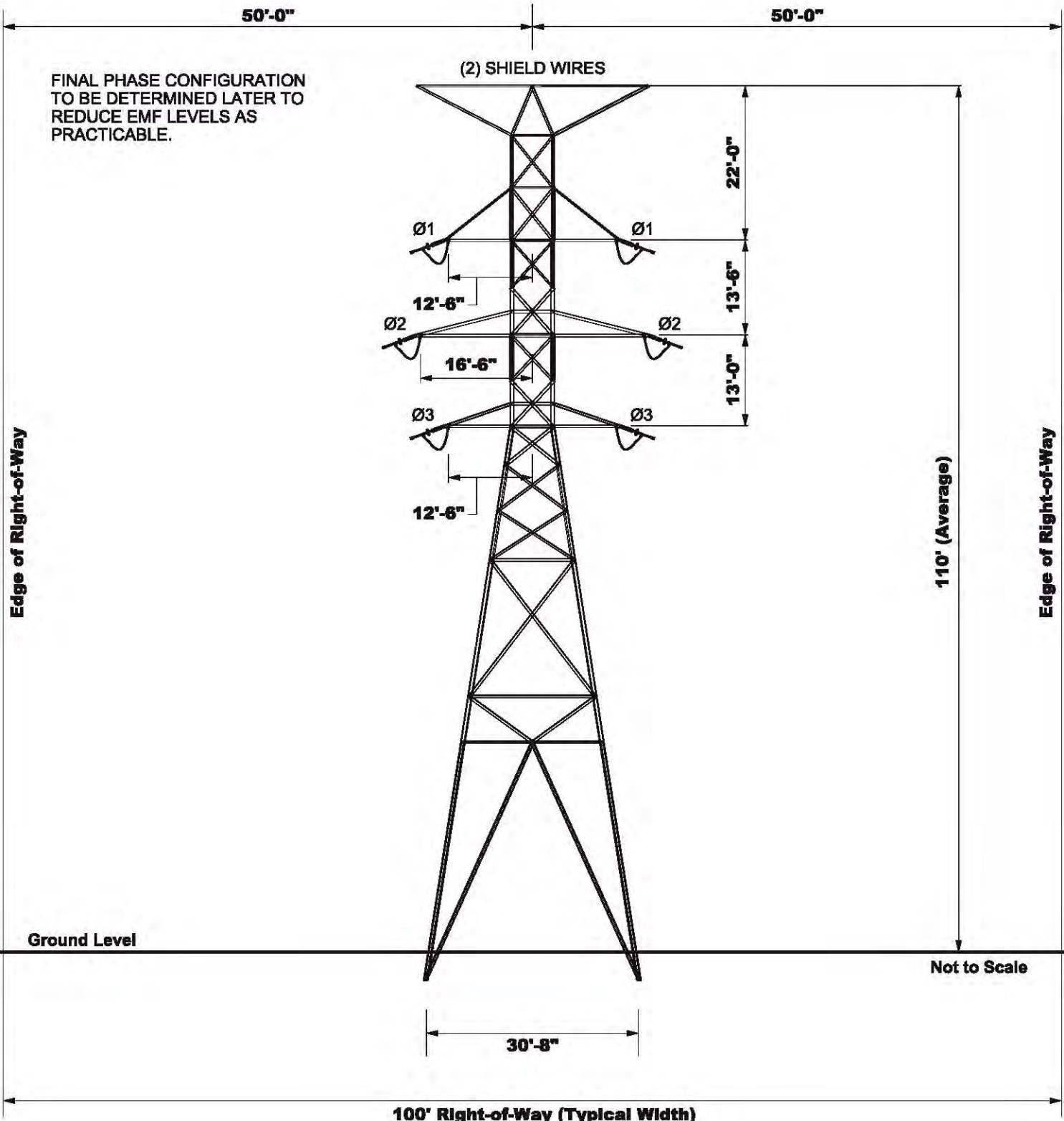
Cedar Creek Substation
Layout and Location

Exhibit 7
BPID: P18025005



TYPICAL SCHEMATIC



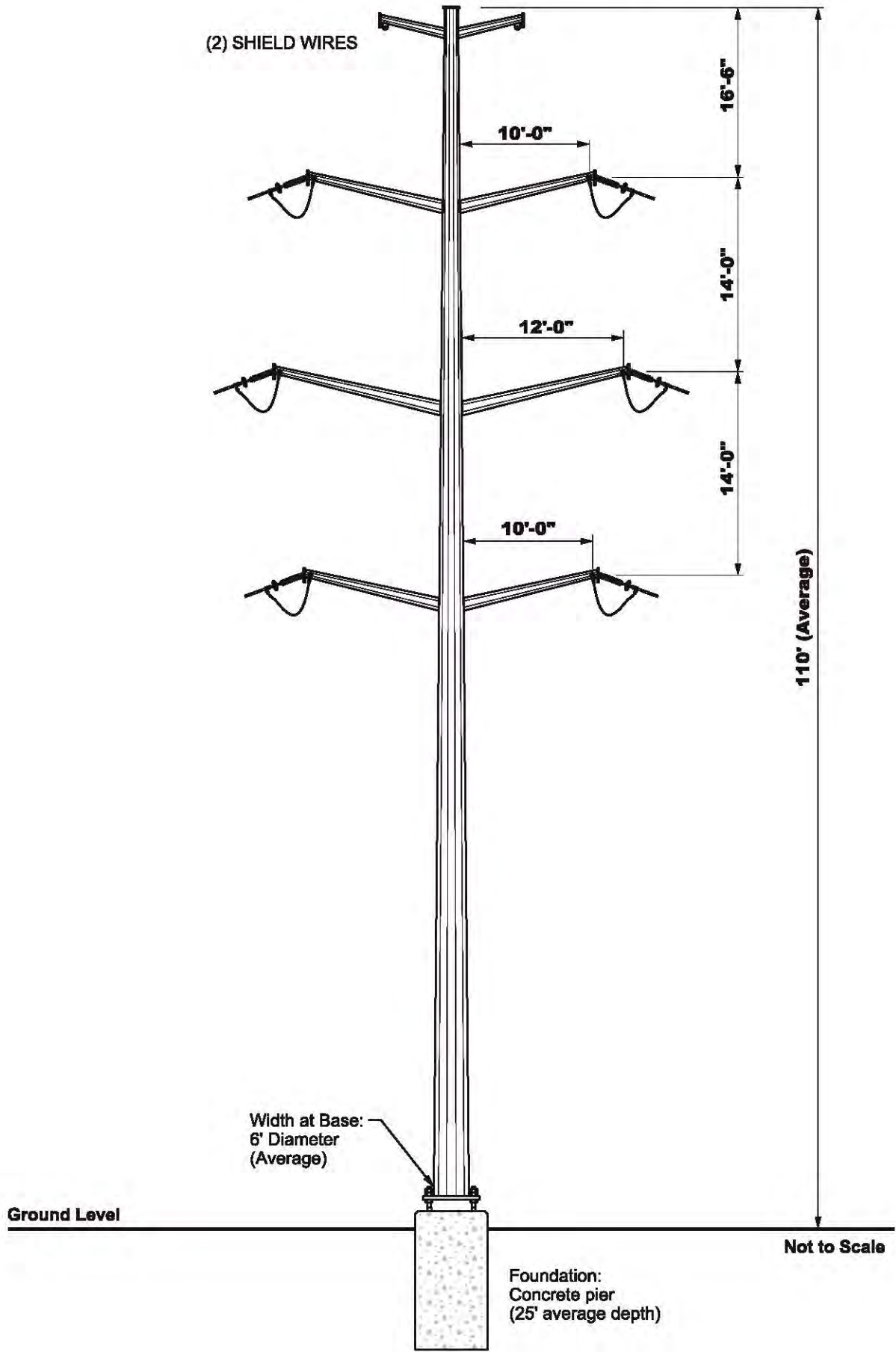
TYPICAL RIGHT-OF-WAY CROSS SECTION



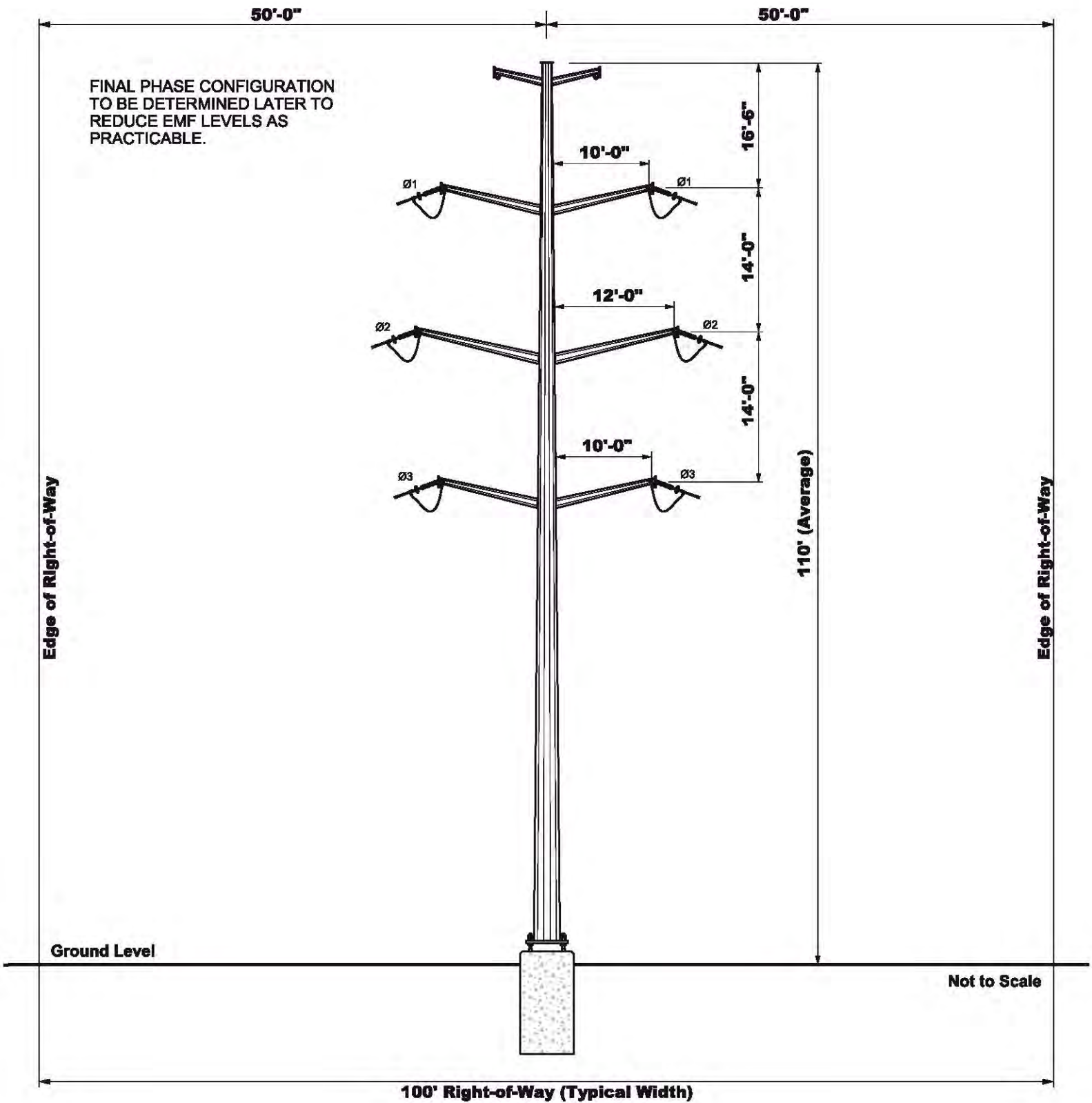
COMPARABLE STRUCTURE PHOTOGRAPH



**TYPICAL LATTICE TOWER PYRAMID GRILLAGE FOUNDATION
4 REQUIRED PER TOWER**



TYPICAL SCHEMATIC

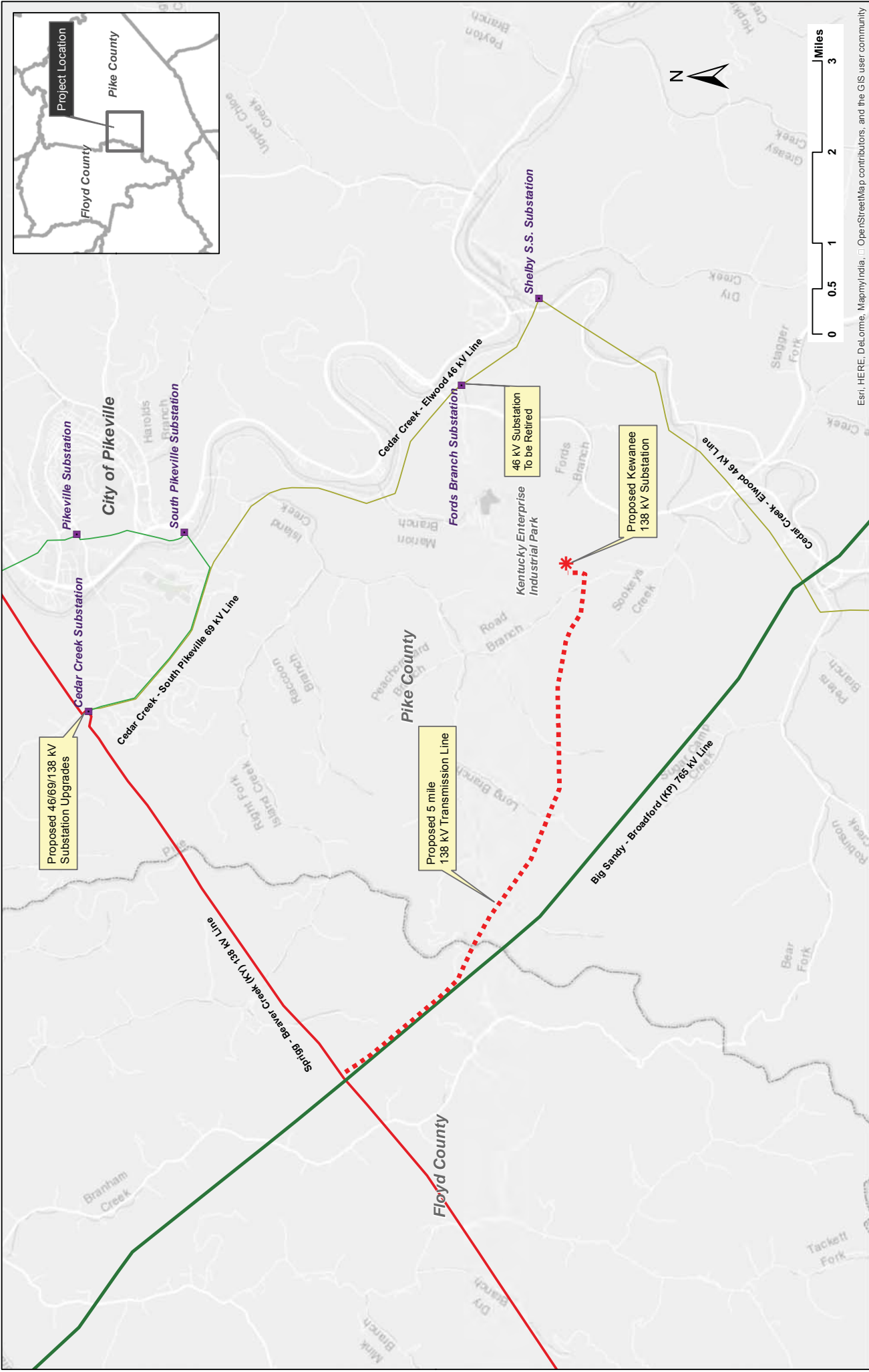


TYPICAL RIGHT-OF-WAY CROSS SECTION



COMPARABLE STRUCTURE PHOTOGRAPH

EXHIBIT 10: PRESENT SYSTEM AND PROJECT COMPONENTS



Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

PSC FILING ID	PARCEL ID	COUNTY	NAME 1	NAME 2	MAILING ADDRESS	CITY	FULL ADDRESS	WITHIN ROW	WITHIN FILING CORRIDOR	ROW EASEMENT OBTAINED	NOTES
1	109-00-00-044.00	FLOYD	KEATHLEY LARRY		1195 BURNING FORK ROAD	PIKEVILLE KY 41501	1195 BURNING FORK ROAD	X	X		
2	109-00-00-022.00	FLOYD	ROBERTS LYDIA M		727 KEATHLEY BR	HAROLD KY 41635	727 KEATHLEY BR	X	X		
2	109-00-00-022.04	FLOYD	ADKINS PATRICIA		PO BOX 376	NETSY LANE, KY 41605	PO BOX 376	X	X		OWN S PART OF THE PROPERTY THAT LYDIA ROBERTS OWNS. PARCELS LINES NOT SUBDIVIDED.
3	109-00-00-012.00	FLOYD	KEATHLEY ISAAC	C/O KELLY KEATHLEY		HAROLD KY 41635	987 KEATHLEY BR	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
4	109-00-00-015.00	FLOYD	ROGERS ZELIA	C/O RONALD ROGERS		WAKEMAN OH 44889	9716 HARRISON RD	X	X		UNABLE TO CONTACT LANDOWNER TO DATE
5	109-00-00-016.01	FLOYD	ROGERS UDELL			HAROLD KY 41635	1277 KEATHLEY BRANCH	X	X		
6	109-00-00-016.00	FLOYD	JOHNSON C C - HEIRS-	ATTN: EVA B FOSTER	46 BOOMDECKER CT	ELKTON MD 21921	46 BOOMDECKER CT	X	X		
7	109-00-00-018.00	FLOYD	ROGERS ZELIA			WAKEMAN OH 44889	9716 HARRISON RD	X	X		UNABLE TO CONTACT LANDOWNER TO DATE
8	109-00-00-019.00	FLOYD	KEATHLEY ISAAC	C/O KELLY KEATHLEY		HAROLD KY 41635	987 KEATHLEY BR	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
9	109-00-00-020.00	FLOYD	YOUNG OPAL			GRETHEL KY 41631	P O BOX 071	X	X		UNABLE TO CONTACT LANDOWNER TO DATE
10	109-00-00-021.00	FLOYD	ATTN: EVA B FOSTER	ATTN: EVA B FOSTER C/O ELEANOR REBER		ELKTON MD 21921	46 BOOMDECKER CT	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
11	110-00-00-019.07	FLOYD	BURKE WANDA & FREDDIE CONN JR		3921 KY RT 40 W, STAFFORDSVILLE, KY 41256	PRINTER KY 41655	P O BOX 43	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
12	110-00-00-023.06	FLOYD	HALL TIMMY DOUGLAS & RHONDA	ATTN: TIM HALL	65 BERT T. HALL BRANCH	GALVESTON, KY 41635	65 BERT T. HALL BR., GALVESTON, KY 41635	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
13	110-00-00-025.00	FLOYD	HALL GENE & GARNETT	C/O WINNIE VANDERPOOL, ETAL.	PO BOX 1032	ALLEN, KY 41601	PO BOX 1032, ALLEN, KY 41601	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
14	110-00-00-026.00	FLOYD	HALL EARL & MICHAEL SLONE	C/O MICHAEL HALL		HAROLD KY 41635	271 PIGEON ROOST	X	X		
15	110-00-00-027.00	FLOYD	SPEARS LOUISE			GALVESTON KY 41635	22 G B SPEARS DR	X	X		
16	034-00-00-041.00	PIKE	CST LLC	C/O WESTERN POCAHONTAS PROPERTIES	5260 IRWIN RD	HUNTINGTON WV 25705	5260 IRWIN RD	X	X		
17	035-00-00-003.00	PIKE	RATLIFF THOMAS B TRUST	C/O CHRIS RATLIFF	P O BOX 460	SHELBIANA, KY 41562	P O BOX 460	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
18	WITHIN 035-00-00-003.00	PIKE	CEMETERY	CEMETERY	CEMETERY			X	X		
19	034-00-00-045.00	PIKE	FIELDS BRUCE		4074 LEFT FORK OF ISLAND CK	PIKEVILLE KY 41501	4074 LEFT FORK OF ISLAND CK	X	X		
20	034-00-00-041.01	PIKE	LEONARD RICKS		3882 LEFT FORK ISLAND CREEK	PIKEVILLE KY 41501	3882 LEFT FORK ISLAND CREEK	X	X		
21	034-00-00-045.01	PIKE	FIELDS BRUCE MICHAEL & JOSEPH M FIELDS		3909 LEFT FORK ISLAND CREEK	PIKEVILLE KY 41501	3909 LEFT FORK ISLAND CREEK	X	X		
22	035-00-00-001.01	PIKE	RATLIFF THOMAS B TRUST	C/O CHRIS RATLIFF	P O BOX 460	SHELBIANA, KY 41562	P O BOX 460	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
23	034-00-00-042.00	PIKE	RATLIFF THOMAS B TRUST	C/O CHRIS RATLIFF	P O BOX 460	SHELBIANA, KY 41562	P O BOX 460	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
24	034-00-00-050.00	PIKE	SENDELBACH FAMILY TRUST	C/O MARY SENDELBACH	8205 ST RT 61 SOUTH	PLYMOUTH OH 44865	8205 ST RT 61 SOUTH	X	X		
25	035-00-00-019.00	PIKE	PINSON ROBERT DOTSON (DECEASED)	C/O ANNA PINSON	PO BOX 948	PIKEVILLE KY 41502	PO BOX 948	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
26	035-00-00-014.08	PIKE	SLONE LAUREN & KENNETH HALL		17040 ASHBURTON DRIVE	LOUISVILLE KY 40245	17040 ASHBURTON DRIVE	X	X		
27	035-00-00-019.00	PIKE	PINSON ROBERT DOTSON (DECEASED)	C/O ANNA PINSON	PO BOX 948	PIKEVILLE KY 41502	PO BOX 948	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
28	035-00-00-014.05	PIKE	RATLIFF THOMAS B TRUST	C/O CHRIS RATLIFF	P O BOX 460	SHELBIANA, KY 41562	P O BOX 460	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
29	052-00-00-036.01	PIKE	RAY RICHARD E & ANNETTE		PO BOX 2593	PIKEVILLE KY 41502	PO BOX 2593	X	X		
30	052-00-00-035.00	PIKE	RILEY HALL COAL	N/A	N/A	PIKEVILLE, KY 41502	PO BOX 2497	X	X		
31	052-00-00-036.00	PIKE	CLINE JOHN S SR ESTATE	C/O JOHN M JOHNSON	PO BOX 489	PIKEVILLE KY 41502-0489	PO BOX 489	X	X		
32	052-00-00-036.01	PIKE	RAY RICHARD E & ANNETTE		PO BOX 2593	PIKEVILLE KY 41502	PO BOX 2593	X	X		
33	052-00-00-032.00	PIKE	RICHARD RAY & ANNETTE		PO BOX 2593	PIKEVILLE KY 41502	PO BOX 2593	X	X		
34	052-00-00-056.01	PIKE	APPALACHIAN LAND COMPANY	C/O JOHN HARRIS	164 MAIN STR., STE 200	PIKEVILLE, KY 41501	164 MAIN STR., STE 200	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
35	052-00-00-023.00	PIKE	FORSYTH DAN DEVELOPMENT CO	C/O DAN H. FORSYTH	2775 OKAWANA COURT	MARIETTA, GA 30068	MARIETTA, GA 30068	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
36	052-00-00-028.01	PIKE	WEST GROVER & DONNY GENE	C/O REBECCA HALL	669 ROAD FORK RD	PIKEVILLE KY 41501	669 ROAD FORK RD	X	X		
37	052-00-00-055.01	PIKE	POTTER JOSH & PHILLIP		91 ELDER LANE	PIKEVILLE KY 41501	91 ELDER LANE	X	X		
38	052-00-00-026.02	PIKE	FORSYTH DAN DEVELOPMENT CO	C/O DAN H. FORSYTH	2775 OKAWANA COURT	MARIETTA, GA 30068	MARIETTA, GA 30068	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
39	052-00-00-054.00	PIKE	APPALACHIAN LAND COMPANY	C/O JOHN HARRIS	164 MAIN STR., STE 200	PIKEVILLE, KY 41501	164 MAIN STR., STE 200	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
40	052-00-00-026.03	PIKE	DAMRON LLOYD HAROLD & WANDA S		1203 ROAD FORK RD	PIKEVILLE KY 41501	1203 ROAD FORK RD	X	X		

PSC FILING ID	PARCEL ID	COUNTY	NAME 1	NAME 2	MAILING ADDRESS	CITY	FULL ADDRESS	WITHIN ROW	WITHIN FILING CORRIDOR	ROW/EASEMENT OBTAINED	NOTES
41	067-00-00-078.13	PIKE	COLEMAN ELLIS & SELENA		836 COLLINS HIGHWAY	PIKEVILLE KY 41501	836 COLLINS HIGHWAY		X		
42	067-00-00-116.00	PIKE	CITY OF PIKEVILLE			PIKEVILLE, KY 41501	118 COLLEGE STREET	X	X		
43	NO MAP #	PIKE	LIES NEAR 067-00-00-116.00 CITY OF PIKEVILLE			PIKEVILLE, KY 41501	118 COLLEGE STREET		X		
44	052-00-00-021.00	PIKE	CITY OF PIKEVILLE	N/A	N/A	PIKEVILLE, KY 41501	118 COLLEGE STREET		X		
45	NO MAP #	PIKE	KENT AND VIVIAN SNODGRASS	SNODGRASS PARCEL		CARLETON, MI 48117	13370 ROSEDALE BLVD, CARLETON, MI 48117	X	X		SNODGRASS PARCEL TO BE PURCHASED FOR SUBSTATION, OWNER INFO FROM AGE ENGINEERING SERVICES, INC. SURVEY PLAT.

Notice Of Proposed Construction Of Electric Transmission Line

This is to notify you that Kentucky Power Company intends to file with the Public Service Commission of Kentucky an application seeking a certificate of public convenience and necessity in connection with its plans to build the Enterprise Park Economic & Area Improvements Project in Floyd and Pike counties, Kentucky. The Enterprise Park Economic & Area Improvements Project will include the construction of an approximately five-mile new 138 kV double circuit transmission line in Floyd and Pike counties, Kentucky (“the Kewanee 138 kV Transmission Line Extension.”)

This notice is being provided to you because the records of the Floyd County Property Valuation Administrator or the Pike County Property Valuation Administrator indicate the Kewanee 138 kV Transmission Line Extension or right-of-way may cross property owned by you.

1. The Enterprise Park Economic & Area Improvements Project is expected to involve the following work:

(a) The construction of the Kewanee 138 kV Transmission Line Extension. The Kewanee 138 kV Transmission Line Extension will connect to the existing Beaver Creek – Cedar Creek 138 kV circuit of the Sprigg – Beaver Creek 138 kV Transmission Line at a tap point located between Route 3379 and Route 1426 in Floyd County, Kentucky and run in a southeast direction to a point south of and adjacent to the Kentucky Enterprise Industrial Park in Pike County, Kentucky where the Company proposes to build the new Kewanee 138 kV Substation. The proposed transmission line will provide service to the Kentucky Enterprise Industrial Park, including the planned Enerblü, Inc. facility and supplement distribution capacity and reliability in the area;

(b) The construction of portions of the proposed Kewanee 138 kV Substation to be located off Industry Drive south of and adjacent to the Kentucky Enterprise Industrial Park in Pike County;

(c) The retirement of Kentucky Power’s existing Fords Branch 138 kV Substation located near 46 Old Shelbiana Road in Pike County, Kentucky;

(d) The upgrade of certain facilities and equipment at Kentucky Power's existing Cedar Creek 46/69/138 kV Substation in Pike County, Kentucky;

(e) The proposed line will require a 100-foot wide right-of-way (50 feet on each side of the centerline). In certain areas a wider right-of-way may be required;

(f) To enable the safe operation of the line, the required right-of-way width, as well as the location of the centerline, will be determined during detailed engineering design and construction phases, and will be included in the negotiations with landowners. Both the centerline and the right-of-way will lie within the filing corridor described immediately below;

(g) Kentucky Power anticipates building the transmission line on the centerline shown on the enclosed map. Kentucky Power is seeking authority to re-locate the line within a filing corridor. The filing corridor will extend 450 feet to the northeast (500-foot corridor) of the illustrated centerline shown on the enclosed map for that portion of the centerline that begins at the tap point on the existing Beaver Creek – Cedar Creek 138 kV circuit of the Sprigg – Beaver Creek 138 kV Transmission Line and that parallels the route of the Big Sandy – Broadford 765 kV Transmission Line (approximately 1.3 miles). It will extend 500 feet in either direction (1,000-foot corridor) of the indicated centerline from the end of that portion of the proposed route paralleling the Big Sandy – Broadford 765 kV Transmission Line and continuing to the proposed Kewanee 138 kV Substation (approximately 3.7 miles); and

(h) The proposed transmission line will be supported by approximately 15 138 kV double-circuit structures. Current plans indicate the height of the structures will average approximately 110 feet above ground level. The Company also will construct an additional structure at the tap point on the Sprigg – Beaver Creek 138kV Transmission Line as part of the Project.

2. Enclosed is a map showing the route of the proposed transmission line.

3. The Public Service Commission of Kentucky will process Kentucky Power's

application in Case No. 2018-00209. The address and telephone number of the Executive

Director of the Public Service Commission of Kentucky are:

Executive Director
Public Service Commission of Kentucky
211 Sower Boulevard
P. O. Box 615
Frankfort, Kentucky 40602-0615
(502) 564-3940

Kentucky Power anticipates filing its application with the Public Service Commission of

Kentucky on or before August 15, 2018. The application when filed may be viewed under Case

No. 2018-00209 on the Commission's website at

http://psc.ky.gov/PSC_WebNet/ViewCaseFolders.aspx.

4. You have the right to submit a timely written request for intervention in Case No. 2018-00209. The motion must be submitted to the Public Service Commission, 211 Sower Boulevard, P. O. Box 615, Frankfort, Kentucky 40602-0615, and must establish the grounds for your request to intervene, including your status and the nature of your interest in the proceeding. Please see 807 KAR 5:001, Section 4(11) for further information regarding the requirements and procedure for requesting intervention. 807 KAR 5:001, Section 4(11) may be accessed here: <http://www.lrc.state.ky.us/kar/807/005/001.htm>. If no request for intervention is received within 30 days of the filing of the application the Commission may take final action on the application. The request for intervention should reference Case No. 2018-00209.

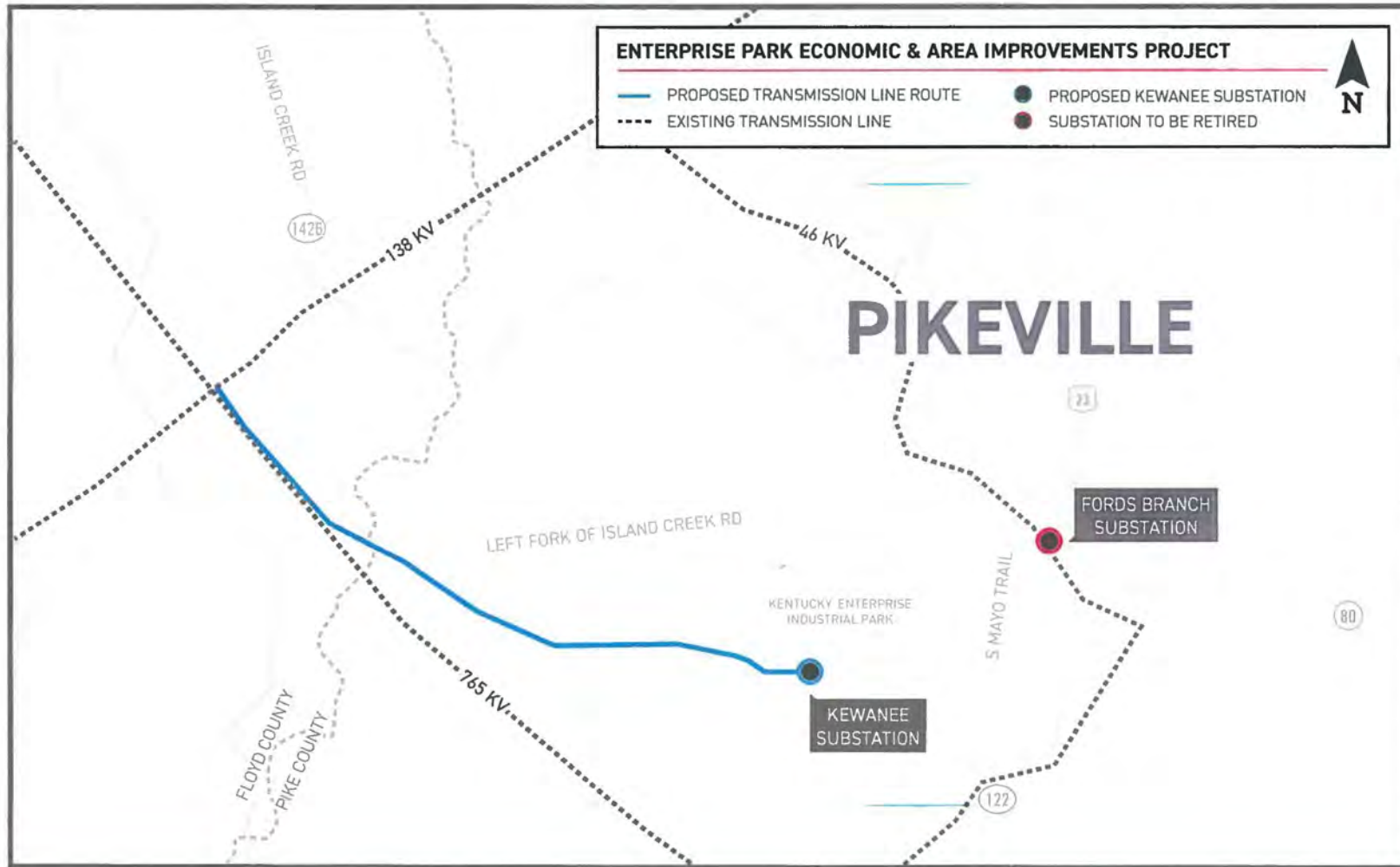
5. You also have the right to request a local public hearing regarding the application and the proposed 138 kV transmission line and related work. The requirements for requesting a local public hearing are set forth in 807 KAR 5:120, Section 3. 807 KAR 5:120, Section 3 may be accessed here: <http://www.lrc.state.ky.us/kar/807/005/120.htm>.

6. Written comments may also be filed at the above address, or by sending an e-mail to the Commission's public information officer at psc.info@ky.gov. The comments should reference Case No. 2018-00209.

7. Project updates and further information may also be found on the Company's website: <http://aeptransmission.com/kentucky/EnterprisePark>.

ENTERPRISE PARK

ECONOMIC & AREA IMPROVEMENTS PROJECT



PK. HIGHLIGHT	PARCEL ID	CATEGORY	NAME I	NAME II	MAILING ADDRESS	CITY	FULL ADDRESS	WITHIN ROW	WITHIN FILING CORRIDOR	ADJ. PARCELS ON FILE	NOTES
	109-00-00-044.00	FLOYD	KEATHLEY LARRY		1195 BURNING FORK ROAD	PIKEVILLE KY 41501	1195 BURNING FORK ROAD	X	X		
	109-00-00-022.00	FLOYD	ROBERTS LYDIA M		727 KEATHLEY DR	HAROLD KY 41635	727 KEATHLEY BR	X	X		
	109-00-00-022.04	FLOYD	ADKINS PATNCIA		PO BOX 376	NETSY LAKE, KY 41605	PO BOX 376	X	X		OWN'S PART OF THE PROPERTY THAT LYDIA ROBERTS OWNS. PARCELS LINES NOT SUBDIVIDED
	109-00-00-012.00	FLOYD	KEATHLEY ISAAC	C/O KELLY KEATHLEY		HAROLD KY 41635	987 KEATHLEY BR		X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
	109-00-00-015.00	FLOYD	ROGERS ZELIA	C/O RONALD ROGERS		WAKEMAN OH 44889	9716 HARRISON RD		X		UNABLE TO CONTACT LANDOWNER TO DATE
	109-00-00-016.01	FLOYD	ROGERS WELLS			HAROLD KY 41635	1277 KEATHLEY BRANCH	X	X		
	109-00-00-016.00	FLOYD	JOHNSON C C -HEIRS-	ATTN: EYA B FOSTER	46 BOOMDECKER CT	ELKTON MD 21921	46 BOOMDECKER CT	X	X		
	109-00-00-018.00	FLOYD	ROGERS ZELIA			WAKEMAN OH 44889	9716 HARRISON RD		X		UNABLE TO CONTACT LANDOWNER TO DATE
	109-00-00-019.00	FLOYD	KEATHLEY ISAAC	C/O KELLY KEATHLEY		HAROLD KY 41635	987 KEATHLEY BR	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
	109-00-00-020.00	FLOYD	YOUNG OPAL			GRETHEL KY 41631	P O BOX 071	X	X		UNABLE TO CONTACT LANDOWNER TO DATE
	109-00-00-021.00	FLOYD	ATTN: EYA B FOSTER	ATTN: EYA B FOSTER C/O ELEANOR NEMER		ELKTON MD 21921	46 BOOMDECKER CT		X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
	110-00-00-019.07	FLOYD	BURKE WANDA & REDDIE COVIN JR		3921 KY RT 40 W, STAFFORDSVILLE, KY 41256	PRINTER KY 41655	P O BOX 43	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
	110-00-00-023.00	FLOYD	HALL TIMMY DOUGLAS & RHONDA	ATTN: TIM HALL	65 BERT T. HALL BRANCH	GALVESTON, KY 41635	65 BERT T. HALL BR., GALVESTON, KY 41635	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
	110-00-00-025.00	FLOYD	HALL GENE & GARNETT	C/O WYNNE VANDERPOOL, ETAL.	PO BOX 1032	ALLEN, KY 41001	PO BOX 1032, ALLEN, KY 41001	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
	110-00-00-026.00	FLOYD	HALL EARL & MICHAEL SLOTE	C/O MICHAEL HALL		HAROLD KY 41635	271 PIGEON ROOST	X	X		
	110-00-00-027.00	FLOYD	SPEARS LOUISE			GALVESTON KY 41635	22 G B SPEARS DR	X	X		
	034-00-00-041.00	PIKE	CSFL LLC	C/O WESTERN POCAHONTAS PROPERTIES	5260 IRWIN RD	HUNTINGTON WV 25705	5260 IRWIN RD	X	X		
	035-00-00-003.00	PIKE	RATLIFF THOMAS B TRUST	C/O CHRIS RATLIFF	P O BOX 460	SHELBYVA, KY 41562	P O BOX 460		X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
	WITHN 035-00-00-003.00	PIKE	CEMETERY	CEMETERY	CEMETERY				X		
	034-00-00-045.00	PIKE	FIELDS BRUCE		4074 LEFT FORK OF ISLAND CR	PIKEVILLE KY 41501	4074 LEFT FORK OF ISLAND CR		X		
	034-00-00-041.01	PIKE	LEONARD INCKS		3862 LEFT FORK ISLAND CREEK	PIKEVILLE KY 41501	3862 LEFT FORK ISLAND CREEK		X		
	034-00-00-045.01	PIKE	FIELDS BRUCE MICHAEL & JOSEPH M FIELDS		3909 LEFT FORK ISLAND CREEK	PIKEVILLE KY 41501	3909 LEFT FORK ISLAND CREEK		X		
	035-00-00-001.01	PIKE	RATLIFF THOMAS B TRUST	C/O CHRIS RATLIFF	P O BOX 460	SHELBYVA, KY 41562	P O BOX 460	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
	034-00-00-041.00	PIKE	RATLIFF THOMAS B TRUST	C/O CHRIS RATLIFF	P O BOX 460	SHELBYVA, KY 41562	P O BOX 460	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
	034-00-00-050.00	PIKE	SENDELBACH FAMILY TRUST	C/O MARY SENDELBACH	8205 ST RT 61 SOUTH	PLYMOUTH OH 44865	8205 ST RT 61 SOUTH	X	X		
	035-00-00-019.00	PIKE	PHINSON ROBERT DOTSON (DECEASED)	C/O ANNA PHINSON	PO BOX 948	PIKEVILLE KY 41502	PO BOX 948	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
	035-00-00-014.08	PIKE	SLOPE LAUREN & KENNETH HALL		17040 ASHBURTON DRIVE	LOUISVILLE KY 40245	17040 ASHBURTON DRIVE	X	X		
	035-00-00-019.00	PIKE	PHINSON ROBERT DOTSON (DECEASED)	C/O ANNA PHINSON	PO BOX 948	PIKEVILLE KY 41502	PO BOX 948	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
	035-00-00-014.05	PIKE	RATLIFF THOMAS B TRUST	C/O CHRIS RATLIFF	P O BOX 460	SHELBYVA, KY 41562	P O BOX 460	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
	052-00-00-036.01	PIKE	RAY RICHARD E & ANNETTE		PO BOX 2593	PIKEVILLE KY 41502	PO BOX 2593	X	X		
	052-00-00-035.00	PIKE	RILEY HALL COAL	N/A	N/A	PIKEVILLE, KY 41502	PO BOX 2497		X		
	052-00-00-036.00	PIKE	CLINE JOHN S SR ESTATE	C/O JOHN M JOHNSON	PO BOX 489	PIKEVILLE KY 41502-0489	PO BOX 489	X	X		
	052-00-00-036.01	PIKE	RAY RICHARD E & ANNETTE		PO BOX 2593	PIKEVILLE KY 41502	PO BOX 2593	X	X		
	052-00-00-032.00	PIKE	RICHARD RAY & ANNETTE		PO BOX 2593	PIKEVILLE KY 41502	PO BOX 2593	X	X		
	052-00-00-056.01	PIKE	APPALACHIAN LAND COMPANY	C/O JOHN HARRIS	164 MAIN STR., STE 200	PIKEVILLE, KY 41501	164 MAIN STR., STE 200	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
	052-00-00-023.00	PIKE	FORSYTH DAN DEVELOPMENT CO	C/O DAN H FORSYTH	2775 OKAWANA COURT	MARIETTA, GA 30068	MARIETTA, GA 30068	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
	052-00-00-028.01	PIKE	WEST GROVER & DORRY GENE	C/O REBECCA HALL	669 ROAD FORK RD	PIKEVILLE KY 41501	669 ROAD FORK RD		X		
	053-00-00-055.01	PIKE	POTTER JOSH & PHILIP		91 ELDER LANE	PIKEVILLE KY 41501	91 ELDER LANE		X		
	052-00-00-026.02	PIKE	FORSYTH DAN DEVELOPMENT CO	C/O DAN H FORSYTH	2775 OKAWANA COURT	MARIETTA, GA 30068	MARIETTA, GA 30068	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
	053-00-00-054.00	PIKE	APPALACHIAN LAND COMPANY	C/O JOHN HARRIS	164 MAIN STR., STE 200	PIKEVILLE, KY 41501	164 MAIN STR., STE 200	X	X		UPDATED FROM PVA DATA BASED ON LANDOWNER CONTACT OR ADDITIONAL RESEARCH
	052-00-00-026.03	PIKE	DAMRON LLOYD HAROLD & WANDA S		1203 ROAD FORK RD	PIKEVILLE KY 41501	1203 ROAD FORK RD		X		
	067-00-00-078.13	PIKE	COLLEMAN ELLIS & SELENA		836 COLLINS HIGHWAY	PIKEVILLE KY 41501	836 COLLINS HIGHWAY		X		
	067-00-00-116.00	PIKE	CITY OF PIKEVILLE			PIKEVILLE, KY 41501	118 COLLEGE STREET	X	X		
	HO MAP #	PIKE	LIES NEAR 067-00-00-116.00 CITY OF PIKEVILLE			PIKEVILLE, KY 41501	118 COLLEGE STREET		X		
	052-00-00-021.00	PIKE	CITY OF PIKEVILLE	N/A	N/A	PIKEVILLE, KY 41501	118 COLLEGE STREET		X		
	HO MAP #	PIKE	KENT AND VIVIAN SHODGRASS	SHODGRASS PARCEL		CARLETON, MI 48117	133 PO ROSEDALE BLVD, CARLETON, MI 48117	X	X		SHODGRASS PARCEL TO BE PURCHASED FOR SUBSTATION. OWNER INFO FROM AGL ENGINEERING SERVICES, INC. SURVEY PLAT.

NOTARIZED PROOF OF PUBLICATION

COMMONWEALTH OF KENTUCKY

COUNTY OF Franklin

Before me, a Notary Public, in and for said county and state, this 3rd day of August, 2018, came Rachel McCarty, personally known to me, who, being duly sworn, states as follows: that she is the Advertising Assistant of the Kentucky Press Service, Inc.; that she has personal knowledge of the contents of this Affidavit; that the newspapers shown on Attachment No. 1 to this Affidavit published the Public Notice, on the dates shown thereon at the request of Kentucky Press Service, Inc. for Kentucky Power Company; that the form and content of the Notice submitted for publication to each paper is shown in Attachment No. 2 to this Affidavit; and that the Kentucky Press Service, Inc. has presented to Kentucky Power Company proof of these publications in the form of "tear sheets" for retention in its files.

Rachel McCarty
Signature

Bonnie J. Howard

Notary Public

My Commission Expires: 9/18/20

(SEAL)

JD. #563384

is@news-expressky.com

Deadlines:

Wednesday Edition - Monday @ 3 p.m.
 Friday Edition - Wednesday @ 5 p.m.
 Weekend Edition - Thursday @ 5 p.m.
*Deadlines are same for placing, changing, or stopping ad.
 No changes or cancellations can be made after deadlines.*

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Appalachian News-Express • Tuesday - Wednesday, July 31 - August 1, 2018 • Page 5B

EXTRA NICE
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Notice Of Proposed Electric Transmission Line Construction Project

Kentucky Power Company proposes to build an approximately five-mile double-circuit 138 kV transmission line in Floyd and Pike counties, Kentucky ("Kewanee 138 kV Transmission Line Extension"). The Kewanee 138 kV Transmission Line Extension will connect to the Beaver Creek - Cedar Creek 138 kV circuit of the Sprigg - Beaver Creek 138 kV Transmission Line in Floyd County, Kentucky at a tap point located between Route 3379 and Route 1426 in Floyd County, Kentucky and proceed in a southeasterly direction for approximately five miles to a proposed 138 kV Substation in Pike County, Kentucky (the "Kewanee 138 kV Substation"). The Company also seeks authority to construct portions of the proposed Kewanee 138 kV Substation to be located off Industry Drive south of and adjacent to the Kentucky Enterprise Industrial Park. The project also will include the retirement of the Company's existing Fords Branch Substation located near 46 Old Shelbiana Road, Pike County, Kentucky. Finally, Kentucky Power will upgrade certain facilities and equipment at Kentucky Power's existing Cedar Creek 138 kV Substation near 263 Cedar Creek Road in Pike County, Kentucky. The Kewanee 138 kV Transmission Line Extension, Kentucky Power's work in connection with the proposed Kewanee 138 kV Substation, the retirement of the Fords Branch Substation, and the upgrade work at the Company's Cedar Creek 138 kV Substation collectively constitute the Enterprise Park Economic & Area Improvements Project.

The proposed transmission line generally will require a 100-foot wide right-of-way (50 feet on each side of the centerline.) In certain areas a wider right-of-way may be required. Kentucky Power may also be required to alter the proposed centerline of the Kewanee 138 kV Transmission Line Extension and adjacent rights-of-way to address landowner preference or conditions discovered during survey and construction that affect constructability and access.

Kentucky Power plans to file an application with the Public Service Commission of Kentucky on or before August 15, 2018 seeking a certificate of public convenience and necessity authorizing the Enterprise Park Economic & Area Improvements Project. The application and the Commission proceeding have been assigned Case No. 2018-00209.

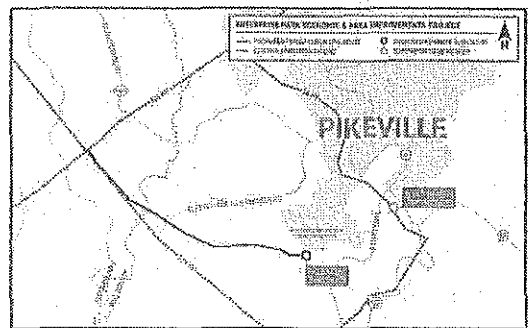
Any interested person under KRS 278.020(9), including any person over whose property the proposed transmission line will cross, may request a local public hearing in the county in which the transmission line is proposed to be constructed. The request must be in writing and should be delivered to the Executive Director, Public Service Commission, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602-0615. The request for local public hearing must be delivered to the Executive Director no later than thirty days after the date the application is filed. The request for local public hearing must comply with the requirements of 807 KAR 5:120, Section 3.

A person may seek to intervene as a party in the Commission proceeding to review Kentucky Power's application by filing a timely written request for intervention in accordance with the requirements of 807 KAR 5:001, Section 4(11) and 807 KAR 5:120, Section 3(3).

The application and other filings in connection with Kentucky Power's application may be accessed at <http://psc.ky.gov> under Case No. 2018-00209 when filed. Project updates and further information may also be found on the Company's website: <http://aeptransmission.com/kentucky/EnterprisePark/>.

A map of the proposed route for the line is shown below.

ENTERPRISE PARK ECONOMIC & AREA IMPROVEMENTS PROJECT



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Floyd County Chronicle • Wednesday, August 1, 2018 • Page 9A

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ankfort, Ken-
cky 40601.
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10.

COMMON-WEALTH FLOYD COUNTY CIVIL DIVISION I CASE NO. 12-CI-01055 NATIONSTAR MORTGAGE LLC, PLAINTIFF vs. DICKIE BRANHAM, UNKNOWN SPOUSE, IF ANY, OF DICKIE BRANHAM COMMON-WEALTH OF KENTUCKY, COUNTY OF FLOYD, AND US BANK, AS CUSTODIAN DR. SASS MUNI V DTR

in West Prestons-
burg, and being
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297, formally a
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particular de-
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coal, oil and gas
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And being those
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Book 347, Page
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C. The purchaser
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Notice Of Proposed Electric Transmission Line Construction Project

Kentucky Power Company proposes to build an approximately five-mile double-circuit 138 kV transmission line in Floyd and Pike counties, Kentucky ("Kewanee 138 kV Transmission Line Extension"). The Kewanee 138 kV Transmission Line Extension will connect to the Beaver Creek - Cedar Creek 138 kV circuit of the Sprigg - Beaver Creek 138 kV Transmission Line in Floyd County, Kentucky at a tap point located between Route 3379 and Route 1426 in Floyd County, Kentucky and proceed in a southeasterly direction for approximately five miles to a proposed 138 kV Substation in Pike County, Kentucky (the "Kewanee 138 kV Substation"). The Company also seeks authority to construct portions of the proposed Kewanee 138 kV Substation to be located off Industry Drive south of and adjacent to the Kentucky Enterprise Industrial Park. The project also will include the retirement of the Company's existing Fords Branch Substation located near 46 Old Sheibiana Road, Pike County, Kentucky. Finally, Kentucky Power will upgrade certain facilities and equipment at Kentucky Power's existing Cedar Creek 138 kV Substation near 263 Cedar Creek Road in Pike County, Kentucky. The Kewanee 138 kV Transmission Line Extension, Kentucky Power's work in connection with the proposed Kewanee 138 kV Substation, the retirement of the Fords Branch Substation, and the upgrade work at the Company's Cedar Creek 138 kV Substation collectively constitute the Enterprise Park Economic & Area Improvements Project.

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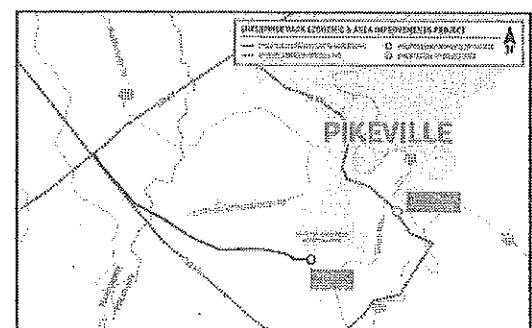
Any interested person under KRS 278.020(9), including any person over whose property the proposed transmission line will cross, may request a local public hearing in the county in which the transmission line is proposed to be constructed. The request must be in writing and should be delivered to the Executive Director, Public Service Commission, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602-0615. The request for local public hearing must be delivered to the Executive Director no later than thirty days after the date the application is filed. The request for local public hearing must comply with the requirements of 807 KAR 5:120, Section 3.

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A map of the proposed route for the line is shown below.

ENTERPRISE PARK ECONOMIC & AREA IMPROVEMENTS PROJECT



APPLICATIONS BEING ACCEPTED for 1-Bedroom Apartments for Persons 62 and older

Located on Mays Branch in Prestonsburg. All utilities included, rent is based on gross monthly income. Several activities such as line dancing, crafts, church services, hair salon. Furnished with stove, refrigerator, emergency alarm system and air conditioner. For more information, please call Highland Terrace at 606-886-1925, TDD: 1-800-648-6056 or 711 or come by the office for an application.

Highland Terrace does not discriminate in admission or employment in subsidized housing on account of race, color, religion, gender, national origin, disability or familial status.

APPLICATIONS BEING ACCEPTED for 1,2,3 & 4 Bedroom Apartments

Located in Prestonsburg is Highland Heights Apartments in Goble Roberts addition and Cliffside Apartments on Cliff Road. Rent is based on gross monthly income. All utilities included at Highland Heights and a utility Allowance at Cliffside.

Learning centers at both sites with computers available. For more information, call Highland Heights at 606-886-0608 and Cliffside at 606-886-1819, TDD: 1-800-648-6056 or 711 or come by the offices for an application.

Highland Heights and Cliffside Apartments do not discriminate in admission or employment in subsidized housing on account of race, color, religion, gender, national origin, disability or familial status.

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News from Kentucky Power

MEDIA CONTACT:

Allison Barker
Corporate Communications
Cell: 502-545-7003; Office: 606-327-2602
adbarker@aep.com; www.kentuckypower.com

FOR IMMEDIATE RELEASE

KY POWER TO START EVALUATING ROUTES FOR POWER GRID UPGRADE PROJECT

ASHLAND, Ky., March 20, 2018 – Kentucky Power is planning to improve electric reliability and increase economic development opportunities in eastern Kentucky by making significant upgrades to the power grid in Pike and Floyd counties.

The Enterprise Park Economic & Area Improvements Project will consist of building a double-circuit 138-kilovolt (kV) transmission line from a proposed substation in the Kentucky Enterprise Industrial Park to an end point on the existing Sprigg – Beaver Creek transmission line. The work will ensure continued reliable service for customers while providing the industrial park with a robust transmission system capable of handling continued customer growth and economic development.

Kentucky Power is currently working to develop preliminary study segments for the new transmission line. Once study segments have been developed, the company will host an open house to introduce the project to the community, answer questions about the project and gather feedback from directly-involved landowners.

After the open house, project team members will use information gathered from landowners and the community to work toward a proposed route. Kentucky Power plans to file for a Certificate of Public Convenience and Necessity with the Kentucky Public Service Commission later this spring.

Additional information about the project can be found at www.kentuckypower.com/EnterprisePark.

Kentucky Power, with headquarters in Ashland, Ky., provides service to about 168,000 customers in all or part of 20 eastern Kentucky counties, including Boyd, Breathitt, Carter, Clay, Elliott, Floyd, Greenup, Johnson, Knott, Lawrence, Leslie, Letcher, Lewis, Magoffin, Martin, Morgan, Owsley, Perry, Pike and Rowan. Kentucky Power is an operating company in the AEP system, one of the largest electric utilities in the United States, delivering electricity and custom energy solutions to nearly 5.4 million regulated customers in 11 states. AEP also owns the nation's largest electricity transmission system. AEP's headquarters are in Columbus, Ohio.

###



MEDIA CONTACT:

Allison Barker
Corporate Communications
Cell: 502-545-7003; Office: 606-327-2602
adbarker@kcp.com; www.kentuckypower.com

FOR IMMEDIATE RELEASE

KY POWER TO HOST OPEN HOUSE TO DISCUSS GRID UPGRADES NEAR PIKEVILLE

ASHLAND, Ky., April 19, 2018 – Kentucky Power is planning to improve electric reliability and increase economic development opportunities in eastern Kentucky by making significant upgrades to the power grid in Floyd and Pike counties.

The Enterprise Park Economic Area Improvements Project consists of building approximately 5 miles of 138-kilovolt (kV) transmission line and a new substation. The work will strengthen the power grid for residential customers while providing the Kentucky Enterprise Industrial Park with a robust transmission system. The upgrade will be capable of handling continued customer growth and provide a vital component for regional economic development.

Currently, there are two study sites for the proposed substation located inside the industrial park. The study segments for the transmission line start at the proposed substation sites and travel northwest through Pike County for about 3 miles before crossing into Floyd County for the final 2 miles. The line will end at the existing Sprigg Beaver Creek 138 kV transmission line. Kentucky Power's Fords Branch Substation on Old Shelbiana Road will be retired.

Kentucky Power will host an open house to provide the community and directly involved landowners with project details. The company is asking landowners to provide feedback on study segments to help determine a proposed route. The open house is scheduled from 5:30 p.m. to 7:30 p.m., Thursday, May 3, at Pikeville High School, 120 Championship Drive, Pikeville.

After the open house, project team members will use information gathered from landowners and the community to work toward a proposed route. Kentucky Power plans to file for a Certificate of Public Convenience and Necessity with the Kentucky Public Service Commission this summer. Upon approval, construction is expected to start this fall and be complete by mid-2019.

Additional information about the project including maps, a project timeline and a virtual open house can be found at www.kentuckypower.com/EnterprisePark.

Kentucky Power, with headquarters in Ashland, provides service to about 168,000 customers in 20 eastern Kentucky counties, including Boyd, Breathitt, Carter, Clay, Elliott, Floyd, Greenup, Johnson, Knott, Lawrence, Leslie, Letcher, Lewis, Magoffin, Martin, Morgan, Owsley, Perry, Pike and Rowan. Kentucky Power is an operating company in the AEP system, one of the largest electric utilities in the United States, delivering electricity and custom energy solutions to nearly 5.4 million regulated customers in 11 states. AEP also owns the nation's largest electricity transmission system. AEP's headquarters are in Columbus, Ohio.

□□□



MEDIA CONTACT:

Allison Barker
Corporate Communications
Cell: 502-545-7003; Office: 606-327-2602; adbarker@kep.com

FOR IMMEDIATE RELEASE

PROPOSED ROUTE FOR TRANSMISSION UPGRADE IN PIKE AND FLOYD COUNTIES

ASHLAND, Ky., June 25, 2018 – Kentucky Power on Monday announced a proposed transmission line route for power grid upgrades that will improve electric reliability and increase economic development opportunities in eastern Kentucky.

The Enterprise Park Economic Area Improvements Project consists of building approximately 5 miles of 138-kilovolt (kV) transmission line in Floyd and Pike counties and a new substation in the Kentucky Enterprise Industrial Park. The park is home to Silver Liner, a truck manufacturer under construction, and EnerBlu, a battery storage manufacturer announced last year. Together, the businesses are projected to add nearly 1,200 jobs to the region.

The route and substation location for the transmission improvements were determined after gathering input from landowners and community members at an open house in May.

"The open house gave us an opportunity to talk with landowners about the project," said Kentucky Power President Matt Satterwhite. "The information and feedback we received helped us develop a solution that we believe minimizes the effects to the community and environment, creates a catalyst for economic development and allows us to better serve our customers."

The new substation will be located in the Kentucky Enterprise Industrial Park in Pike County. The proposed transmission line route travels northwest from the new substation through Pike County and then crosses into Floyd County where it parallels the company's existing 765 kV transmission line. The route ends where it connects to another existing power line west of Keathley Branch Road. Once the project is complete, Kentucky Power will retire the Fords Branch Substation on Old Shalbiana Road.

"This is a complex project with an accelerated schedule," Satterwhite said. "As always, we'll work with landowners every step of the way."

The new transmission line will be located in a 100-foot right-of-way. Kentucky Power right-of-way agents will start reaching out to directly involved property owners to discuss acquiring easements, access roads and construction activities. Kentucky Power plans to file for a Certificate of Public Convenience and Necessity with the Kentucky Public Service Commission later this summer. Once approved, construction is expected to start in the fall and be complete by the middle of 2019. Additional information, including a detailed, searchable map, is available at www.kentuckypower.com/EnterprisePark.

Kentucky Power customers will pay only 4 to 6 percent of the project costs after the upgrade is complete. Transmission project expenses are shared among residents of several states served by grid operator PJM because all benefit from such grid-strengthening projects. Since the Enterprise Park project is still in the planning stages, total cost estimates are incomplete. Kentucky Power, based in Ashland, serves about 168,000 customers in 20 eastern Kentucky counties.



1 Bert T Combs Drive, Suite 205
Prestonsburg, KY 41653
(606) 886-7333

Bob Shurtleff
Kentucky Power Company
3249 North Mayo Trail
Pikeville, Kentucky 41501

May 25, 2018

To whom it may concern:

Kentucky Power is proposing to construct a new substation, along with approximately 5 miles of new transmission lines, to serve the Kentucky Enterprise Industrial Park in Pike County Kentucky. This is a project that will not only benefit the industrial tenants in Pike County, but all Kentucky Power customers, as this infrastructure helps to meet an overall increasing power demand and further improves reliability.

One East Kentucky has been involved with Kentucky Enterprise Industrial Park through the recruitment of industrial tenants. In 2017, One East Kentucky helped secure the announcement of 1175 jobs and \$379 Million in investment for this industrial park. Kentucky Power's proposed project directly relates to these announcements in that it will provide these companies with the electrical load to allow them to be successful.

Kentucky Power has been a strong partner in economic development for East Kentucky. Without their commitment to meet the needs of new industrial tenants, the region would not be seeing this level of success in job announcements. The proposed electrical system improvement project will provide reliable and adequate electricity to support all current and future industry which may locate in this industrial park.

For these reasons, One East Kentucky supports Kentucky Power's Preferred Route and proposed project and asks that a Certificate of Public Convenience and Necessity ("CPCN") be issued as soon as possible.

Sincerely,

A handwritten signature in black ink, appearing to read 'CS', is written over a light gray circular stamp.

Charles Sexton
President & CEO
One East Kentucky



James A. Carter
Mayor

CITY OF PIKEVILLE
243 Main Street
Pikeville, Kentucky 41501
(606) 437-5100
Fax Number (606) 437-5106

Philip R. Elswick, P.E.
City Manager

May 28, 2018

Mr. Bob Shurtleff
Kentucky Power Company
3249 North Mayo Trail
Pikeville, KY 41501

RE: Enterprise Park Economic & Area Improvements

Mr. Shurtleff:

Kentucky Power Company is proposing to construct 5 miles of transmission line and a substation to ensure continued reliable electric service and support economic development initiatives in the area.

During development of the route, Kentucky Power Company worked extensively with the City of Pikeville to minimize impacts to the City's Kentucky Enterprise Industrial Park and its current and proposed tenants. The strengthened and reliable transmission service benefits the park and the City's ability to market the park to prospective businesses.

The City of Pikeville strongly supports the proposed route and urges that a Certificate of Public Convenience and Necessity be issued as soon as possible.

If you have any questions, please contact me at philip.elswick@pikevilleky.gov or 606-437-5100.

Sincerely,

Philip R. Elswick, P.E.
City Manager

Donovan Blackburn
Chief Executive Officer



June 18, 2018

RE: Certificate of Public Convenience and Necessity

To whom it may concern:

Kentucky Power is proposing to construct a new substation, along with approximately five miles of new transmission lines, to serve the Kentucky Enterprise Industrial Park in Pike County Kentucky. This project will not only benefit the industrial tenants in Pike County, but all Kentucky Power customers, as this infrastructure helps to meet an overall increasing power demand and further improves reliability.

In 2017, One East Kentucky announced the anticipated creation of 1,175 jobs and \$379 million in investment capital for this industrial park. Kentucky Power's proposed project directly relates to these announcements in that it will provide these companies with the electrical load to allow them to be successful.

Kentucky Power has been a strong partner with Pikeville Medical Center and in the economic development for East Kentucky. Without their commitment to meet the needs of new industrial tenants, the region would not be seeing this level of success in job announcements. The proposed electrical system improvement project will provide reliable and adequate electricity to support all current and future industry which may locate in this industrial park.

For these reasons, Pikeville Medical Center supports Kentucky Power's Preferred Route and proposed project and asks that a Certificate of Public Convenience and Necessity ("CPCN") be issued as soon as possible. Please do not hesitate to contact me should you need further information.

Sincerely,

A handwritten signature in black ink that reads "Donovan Blackburn".

Donovan Blackburn
Chief Executive Officer

"The Region's Medical Leader"

911 Bypass Road • Pikeville, KY 41501 • 606-218-3500
www.pikevillehospital.org



479 Industry Drive Pikeville, KY 41501
(606) 552-0170

Ms. Vickie Stone
Kentucky Power Company
3249 North Mayo Trail
Pikeville, KY 41501

RE: Enterprise Park Economic & Area Improvements Project

Kentucky Power is proposing a 138KV transmission line in Pike County, to meet the increasing demand for power at the Kentucky Enterprise Industrial Park in Pikeville, KY.

SilverLiner is a manufacturing and assembly plant located in the industrial park that will employ approx. 75 people in the first year of production and increase to approx. 200 over the next 5 years. Production will begin in Q4 2018.

Our business is heavily dependent on stable, reliable power to use in operation of our equipment, including welders, CNC machines and more.

We believe this proposed expansion by Kentucky Power will increase supply and reliability of electricity at the industrial park and our facility and for that reason we are in support of this project and ask that a Certificate of Public Convenience and Necessity (CCPN) be issued as soon as possible.

Sincerely,

A handwritten signature in blue ink, appearing to read "Chris Tomlinson", with a long horizontal flourish extending to the right.

Chris Tomlinson
CEO
SilverLiner

Commonwealth of Kentucky

SENATE DEMOCRATIC FLOOR LEADER

CAPITOL ANNEX
702 CAPITOL AVENUE
FRANKFORT, KY 40601
(502) 564-2470



P.O. DRAWER 3850
PIKEVILLE, KY 41502
(606) 432-5777
Ray.Jones@LRC.KY.GOV

RAY S. JONES, II

June 19, 2018

Mr. Bob Shurtleff
Kentucky Power Company
3249 North Mayo Trail
Pikeville, KY 41501

To Whom It May Concern:

Kentucky Power is developing plans for a new substation and an additional five miles of transmission line to benefit the Kentucky Enterprise Industrial Park in Pike County, Kentucky. This industrial development proposes several benefits for the residents of Pike County and the well-being of the county as a whole. With its implementation, one can hope to see increases in reliability and strength, as well as a greater incentive for further economic development.

As a legislator who represents the interests of my constituents, I am greatly in favor of Kentucky Power's new project. I appreciate what this would do to improve the lives of customers as well as fortify the economic future of Pike County by attracting business ventures. The Kentucky Enterprise Industrial Park is sure to thrive under these new conditions.

This project carries great importance to all parties involved. I support Kentucky Power's preferred route and proposed project. I ask that a Certificate of Public Convenience and Necessity (CPCN) be issued as soon as possible.

Sincerely,

A handwritten signature in blue ink that reads "Ray S. Jones, II".

Ray S. Jones, II
Senate Democratic Floor Leader

Filing Requirements

<u>Citation</u>	<u>Requirement</u>	<u>Location</u>
807 KAR 5:001, Section 14(1)	Applicant And Project Information	Application ¶¶ 1-2; <i>passim</i> .
807 KAR 5:001, Section 14(2)	Corporate Information	Application ¶ 1; Application Exhibit 1.
807 KAR 5:001, Section 14(3)	Limited Liability Company Information	Not Applicable.
807 KAR 5:001, Section 14(4)	Limited Partnership Information	Not Applicable.
807 KAR 5:001, Section 15(1)	Information Required For Certificates Of Public Convenience And Necessity To Bid On Franchises	Not Applicable.
807 KAR 5:001, Section 15(2)	Requirements of 807 KAR 5:001, Section 14	See Above.
807 KAR 5:001, Section 15(2)(a)	Facts Demonstrating The Proposed Construction Is Required By The Public Convenience And Necessity	Testimony of Michael G. Lasslo; and Application ¶¶ 40-47.
807 KAR 5:001, Section 15(2)(b)	Franchises And Permits.	Testimony of Emily S. Larson; and Application ¶¶ 37-39.
807 KAR 5:001, Section 15(2)(c)	Proposed Route	Application Exhibit 3 (maps); Testimony of Ranie K. Wohnhas; Testimony of Emily S. Larson; Application ¶¶ 5, 11; and Application Exhibit 17 (Siting Study).
807 KAR 5:001, Section 15(2)(c)	Description Of Manner of Construction	Testimony of Michael G. Lasslo; Application ¶¶ 10-20; and Application Exhibits 5-9.
807 KAR 5:001, Section 15(2)(c)	Competitors	Application ¶ 47.
807 KAR 5:001, Section 15(2)(d)(1)	Map To Suitable Scale Showing Route And Neighboring Facilities	Application Exhibit 3. ¹
807 KAR 5:001, Section 15(2)(d)(2)	Plans And Specifications	Application Exhibits 5-9. ²

¹ The maps show a preferred centerline and are not an actual design. Kentucky Power will supplement its filing with maps certified in accordance with KRS 322.340 once the project is in service.

² The structure exhibit drawings are conceptual representative sketches and not actual designs. Kentucky Power will supplement its filing with plans certified in accordance with KRS 322.340 once the project is in service.

<u>Citation</u>	<u>Requirement</u>	<u>Location</u>
807 KAR 5:001, Section 15(2)(e)	Manner Of Financing	Testimony of Ranie K. Wohnhas.
807 KAR 5:001, Section 15(2)(f)	Annual Operating Expenses	Application ¶ 22; and Testimony of Ranie K. Wohnhas.
807 KAR 5:001, Section 15(3)	Extensions In Ordinary Course	See Application ¶ 21; Not Applicable To Transmission Line and Substation Work.
807 KAR 5:001, Section 15(4)	Renewal Applications	Not Applicable.
807 KAR 5:120, Section 1	Notice Of Intent Conforming To The Requirements Of 807 KAR 5:120, Section 1(2)	Filed On June 22, 2018.
807 KAR 5:120, Section 2(1)(a)	All Information Required By 807 KAR 5:001, Section 14	See 807 KAR 5:001, Section 14 Above. The Required Number Of Copies Will Be Filed.
807 KAR 5:120, Section 2(1)(b)	All Information Required By 807 KAR 5:001, Section 15(2)(a)-(c) And 807 KAR 5:001, Section 15(2)(e)-(f) .	See 807 KAR 5:001, Section 15(2)(a)-(c) And 807 KAR 5:001, Section 15(2)(e)-(f) Above.
807 KAR 5:120, Section 2(2)(a)	Map Showing Centerline, Right-Of-Way, And Boundaries Of Properties Crossed By Right-Of-Way.	Application Exhibit 3.
807 KAR 5:120, Section 2(2)(b)	Sketches Of Typical Support Structures	Application Exhibits 8-9.
807 KAR 5:120, Section 2(2)(c)	Separate Map Showing Alternate Routes Considered	Application Exhibit 4. See also Testimony of Emily S. Larson; and Exhibit 17 (Siting Study).
807 KAR 5:120, Section (2)(3)	Verified Statement Concerning Mailed Notice To Property Owners	Application Exhibit 12. See Also Application ¶¶ 32-35; and Testimony of Ranie K. Wohnhas
807 KAR 5:120, Section (2)(4)	Sample Copy Of Notices Conforming To 807 KAR 5:001, Section 120, Section (2)(3).	Application Exhibit 12.
807 KAR 5:120, Section	Statement Of Publication Of	Application Exhibit 13;

<u>Citation</u>	<u>Requirement</u>	<u>Location</u>
(2)(5)	Notice Of Proposed Electric Transmission Line Project	Application ¶ 36; and Testimony of Ranie K. Wohnhas.
807 KAR 5:120, Section (2)(6)	Copy Of Published Notice Of Proposed Electric Transmission Line Project	Application Exhibit 13.
807 KAR 5:120, Section (2)(7)	Capital Outlay	Application ¶ 21; Testimony of Ranie K. Wohnhas.

Siting Study

Enterprise Park Economic and Area Improvements Project Kentucky Public Service Commission Case No. 2018- 00209

Prepared for:



Prepared by:

POWER Engineers, Inc.
2920 West Broad Street
Richmond, Virginia 23230



August 2018



Enterprise Park Economic and Area Improvements Project Siting Study



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Map 4. Study Segment Network & Substation Study Sites

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Attachment E: GIS Data Sources

Attachment F: Agency Correspondence

Attachment G: United States Fish and Wildlife IPaC Report

Attachment H: Study Area Context Photographs



Key Terminology

Alternative Routes	Assemblage of Study Segments that form routes for analysis and comparison
Conceptual Routes	Initial routes for the project that adhere to a series of general siting and technical guidelines
Constraints	Specific areas that should be avoided to the extent reasonably practical during the route development and site selection process
Certificate of Public Convenience and Necessity	An application required for transmission line projects that exceed 138 kV and one mile in length are to be submitted to the Kentucky Public Service Commission for approval
Distribution Line	An electric line that delivers power from a substation to households and businesses
Opportunity Feature	Areas where the transmission line may have less disruption to area land uses and the natural and cultural environment
Project Endpoint	The project starting and ending point(s), which may include substations, switch stations, tap points, or other locations defined by the Company’s planners and engineers
Proposed Route	The alignment on which the applicant/Siting Team proposes to construct a transmission line. The Proposed Route (1) reasonably minimizes adverse impacts on area land uses and the natural and cultural environment; (2) minimizes special design requirements and is cost effective; and (3) can be constructed and operated in a timely, safe and reliable manner.
Segment Endpoint	The intersection of two or more Study Segments
Siting Team	A multidisciplinary team of experts in transmission line routing, impact assessment for a wide variety of natural resources and the human environment, impact mitigation, engineering, and construction management
Study Area	The territory in which line route alternatives can be sited to feasibly meet the Project’s functional requirements and minimizes environmental impacts.
Study Segments	Study Segments are partial alignments that when combined form a complete route



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Substation	Substations are facilities that transform electric power from high to low, or the reverse in an enclosed assemblage of equipment, e.g., switches, circuit breakers, buses, and transformers, through which electric energy is passed for the purpose of switching or modifying its characteristics
Substation Site	Potential substation locations
Switching Station	A particular type of substation without transformers and operating only at a single voltage level
Tap Point	The location where power is tapped from an existing transmission line to source a substation or customer
Transmission Line	An electric line that moves bulk electric power from a generating plant to a substation or between substations



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ACRONYMS

AEP	American Electric Power
BMPs	Best Management Practices
CAM Mining	Cam Kentucky Real Estate, LLC
CPCN	Certificate of Public Necessity
DEM	Digital Elevation Models
EHV	Extra High Voltage
ESA	Endangered Species Act
Esri	Environmental Systems Research Institute
FAA	United States Federal Aviation Administration
FEMA	United States Federal Emergency and Management Agency
GIS	Geographic Information System
GNIS	Geographic Names Information System
GPS	Global Positioning System
IPaC	Information for Planning and Consultation
LiDAR	Light Detection and Ranging Data
KDFWR	Kentucky Department of Fish and Wildlife Resources
KHC	Kentucky Historic Council
Kentucky Power	Kentucky Power Company
KOSA	Kentucky Office of State Archaeology
KSNPC	Kentucky State Nature Preserves Commission
kV	Kilovolt
KYTC	Kentucky Transportation Cabinet
MRLC	Multi-resolution land characteristics
NCED	National Conservation Easement Database
NERC	North American Electric Reliability Corporation
NESC	National Electric Safety Code
NHD	National Hydrography Dataset
NLCD	National Land Cover Database
NRCS	National Resources Conservation Service



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NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
POWER	POWER Engineers, Inc.
PSC	Public Service Commission
ROW	Right-of-Way
SHPO	Kentucky State Historic Preservation Office
T&E	Threatened and Endangered (Species)
UMG	Utility Management Group, LLC
U.S.C.	United States Code
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
US Hwy	United States Highway



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1.0 PROJECT OVERVIEW

Kentucky Power Company (Kentucky Power), a unit of American Electric Power (AEP), is proposing to construct a new overhead electric transmission line and a new substation to ensure continued reliable electric service for customers while providing the Kentucky Enterprise Industrial Park (Enterprise Park) with a robust transmission system capable of handling continued customer growth and economic development. The 300-acre Enterprise Park is located west of United States Highway (US Hwy) 23 and in the City of Pikeville (see Figure 1, Project Location Map). Kentucky Power and AEP are planning to improve electric reliability to customers and increase economic development opportunities in eastern Kentucky by making upgrades to the power grid in Floyd and Pike counties.

The proposed project includes constructing approximately five miles of new double circuit 138 kilovolt (kV) transmission line between a tap point on the existing Sprigg – Beaver Creek 138 kV Transmission Line (“Kewanee 138 kV Transmission Line Extension” or “Kewanee Extension”) and the proposed 138 kV substation located immediately south and adjacent to the Enterprise Park (“Kewanee 138 kV Substation”). The proposed Kewanee 138 kV Substation will replace the existing Fords Branch Substation (collectively, the “Project”). Kentucky Power has an option to purchase approximately 16.4 acres for the proposed Kewanee 138 kV Substation. The Project will be constructed within a new 100-foot right-of-way (ROW). The proposed transmission line structures will be constructed of largely steel lattice tower that average approximately 110 feet tall. Other structure types may be used, as necessary and for unique design situations. Tree clearing and pre-construction activities are expected to commence in January 2019 and be completed by December 2019.

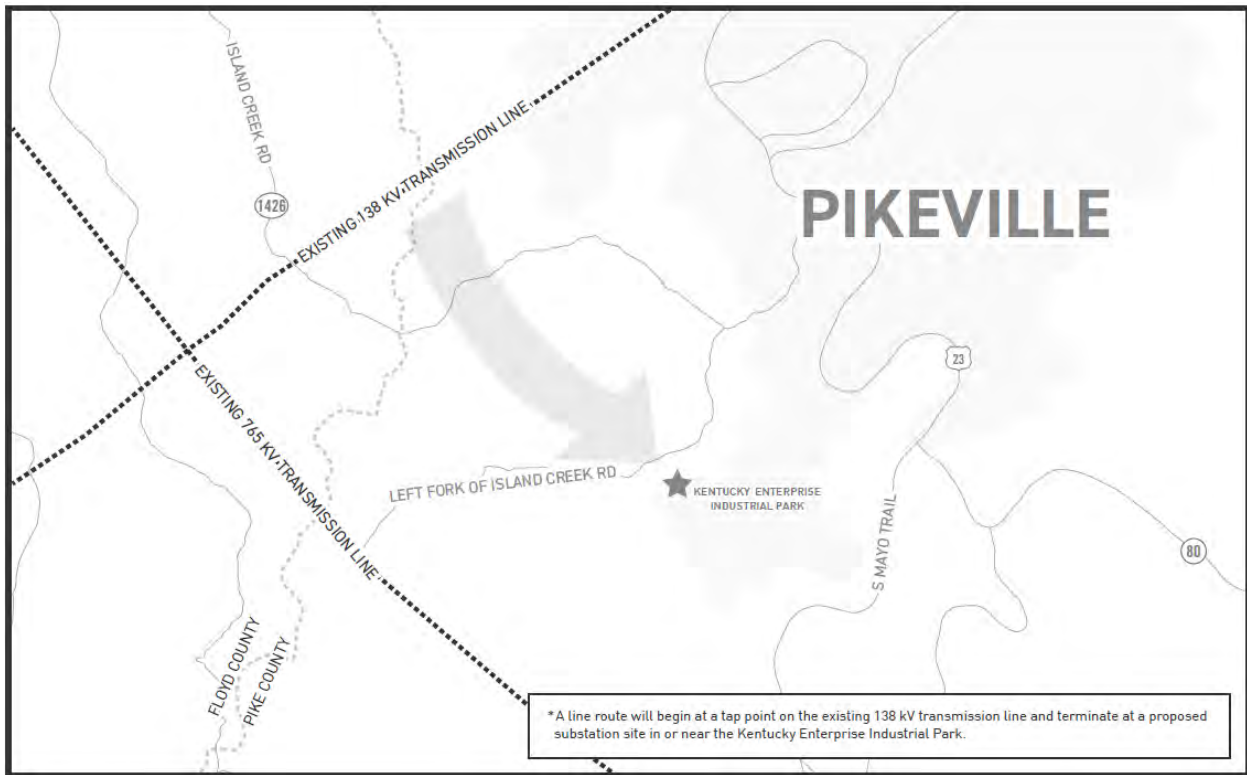


Figure 1. Project Location Map

1.1 Project Purpose and Need Summary

Kentucky Power contracted POWER Engineers, Inc. (POWER) to prepare this Siting Study to support Kentucky Power's application (the Application) for a Certificate of Public Necessity (CPCN) to the Kentucky Public Service Commission (PSC). The Siting Study discusses the environmental and land use constraints identified within the Project study area, documents siting methodologies and guidelines, documents public involvement, provides an evaluation of alternative routes, and aids in the selection of the Proposed Route. The document also provides the basis for Kentucky Power to identify a Proposed Route that best addresses the Kentucky Guidelines filed under Kentucky Regulatory Statute 278.020 (2).

The Project will increase electric reliability to customers and increase economic development opportunities in eastern Kentucky by making upgrades to the power grid in Floyd and Pike counties. Once complete, the transmission and substation upgrades will reduce the likelihood of extended outages while providing the 300-acre Enterprise Park with a reliable and robust power transmission system capable of handling continued customer growth in Eastern



Kentucky. The proposed Kewanee 138 kV Substation will be built on a 16.4 acre parcel located immediately south and adjacent to the Enterprise Park in Pike County, Kentucky.

1.2 Project Characteristics

1.2.1 Project Endpoints and Improvement Description

The Project begins in the eastern portion of Floyd County, Kentucky where the Project taps the existing Sprigg – Beaver Creek 138 kV Transmission Line and crosses into the adjoining western portion of Pike County, where most of the transmission line is located. The 138 kV transmission line terminates at a proposed substation site adjacent to the Enterprise Park.

The proposed Kewanee 138 kV Substation will replace the existing Fords Branch Substation, which is located approximately two miles east of Enterprise Park. The final substation location had to both meet future customer needs in the Enterprise Park and also serve existing customers, previously served by the Fords Branch Substation. A total of five sites (within or near the Enterprise Park) were evaluated for the proposed Kewanee 138 kV Substation and are detailed in **Attachment A – Substation Site Selection Study**.

1.2.2 Transmission Line and Substation Design and ROW Requirements

The Project consists of building approximately five miles of new double circuit 138 kV transmission line (Kewanee 138 kV Transmission Line Extension) and the proposed Kewanee 138 kV Substation. Structure type may vary along the line route depending on the needs of the Project; however, the typical structure used for the Project will consist of steel lattice towers that average approximately 110 feet tall. A short section of the Sprigg – Beaver Creek 138 kV Transmission Line between the new tap structure and the adjacent structures on the 138 kV transmission line will be removed during an outage. The Project will be built within a new 100-foot ROW and is not a rebuild of an existing transmission line.

Kentucky Power will file a 500 to 1,000-foot filing corridor for approval from the PSC. The filing corridor allows for flexibility in the location of the final centerline for the ROW and to accommodate final engineering, ground surveys, minimization of impacts to resources, and property owner input. Once the PSC approves the Project, Kentucky Power will work with property owners to determine the final alignment of the ROW. Easements will be acquired across private lands for the new transmission line ROW. ROW agents within the Siting Team will work with the affected landowners to provide fair compensation for the easements. Based on

the above input, Kentucky Power will finalize the locations for the proposed structures and ROW within the PSC approved corridor.



Figure 2. Proposed Typical Structure (Steel Lattice Tower)

1.2.3 Kewanee 138 kV Substation

Kentucky Power proposes to construct the Kewanee 138 kV Substation on a site located immediately south and adjacent to the Enterprise Park in Pike County. The new Kewanee 138 kV Substation gravel pad is expected to cover 335-foot by 280-foot area (approximately 2.5 acres). An approximate 16.4 acre parcel owned by a private landowner will be purchased by Kentucky Power for construction of an electrical substation that will support the Project. In addition to serving industrial customers at the Enterprise Park, the Kewanee 138 kV Substation will replace the existing Fords Branch Substation and serve the local area.

Upon PSC approval of the Project and any appropriate studies or agency approvals, Kentucky Power will grade the site to accommodate the proposed substation's foundation, equipment, and facilities. The proposed Kewanee 138 kV Substation will include a fenced graveled yard.

1.2.4 Construction and Maintenance Considerations

The Kewanee 138 kV Transmission Line Extension and new substation requires surveying, ROW clearing, foundation installation, structure assembly and erection, conductor and shield wire installation, and restoration upon completion. Construction operations will be conducted with attention to the preservation and enhancement of the natural habitat and the conservation of



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natural resources. The following criteria will be used to attain this goal. These criteria are subject to adjustment according to the rules and judgments of any public agencies whose lands may be crossed by the proposed line. Construction activities should be conducted in accordance with all applicable local, state, and federal permits.

1. Disturbance of construction areas and laydown yards will be minimized. These areas will be graded in a manner that will minimize erosion and conform to the natural topography.
2. Soil excavated during construction and not used for other purposes will be evenly backfilled onto a cleared area. Backfilled soil will be sloped gradually to conform to the terrain and adjacent land.
3. Erosion control devices will be constructed where necessary to reduce soil erosion in the ROW.
4. Storm water Best Management Practices (BMPs) and implementation of appropriate soil design features will be used as necessary to reduce the effects of erosion.
5. If any roads are found to be necessary, they will not be constructed on unstable slopes. Where feasible, service and access roads are constructed jointly but none are expected in this project.
6. Clearing and construction activities near streambeds will be performed in a manner that will minimize damage to the natural condition of the area. Stream banks will be restored as necessary to minimize erosion.
7. Concerted and diligent effort will be made to prevent accidental oil spills and other types of pollution, particularly while performing work near streams, lakes, and reservoirs.
8. Precautions will be taken to prevent the possibility of accidentally starting fires.
9. Tension stringing of conductors will be employed, which may reduce the amount of vegetation clearing necessary.
10. Precautions will be taken to protect natural features and cultural resources (identified by site-specific studies of the Project) along the ROW, if any are found.
11. If federal protected species or habitat is present, guidance from the United States Fish and Wildlife Service (USFWS) will be obtained prior to clearing or construction activities.



12. Soil disturbance during construction will be kept to a minimum, and restorative measures will be taken in a reasonable length of time.

1.3 Project Timeline and Overview of Regulatory Approvals

The Project was initiated in the fall of 2017 to support the upcoming industrial development planned in the Enterprise Park. AEP’s planning engineers determined a 138 kV substation would support the anticipated electrical load for the industrial park and surrounding communities. As such, the Kewanee 138 kV Transmission Line Extension would need to tap the existing Sprigg – Beaver Creek 138 kV Transmission Line between the community of Galveston and the City of Pikeville. A tap point any farther east or west on the Sprigg – Beaver Creek 138 kV Transmission Line would add unnecessary transmission line length and non-standard design requirements (**Attachment B – Map 1**). The Siting Team, as described in Section 2.2, completed the detailed route development and substation site selection process from January to June 2018, as discussed through Section 2.0. During this time, the Siting Team collected environmental resource data, developed routing criteria, conducted an opportunities and constraints analysis, developed preliminary study segments, conducted field visits to verify the data and aid in the development of Alternative Routes (as discussed in Section 3.0).

Throughout the detailed route development process, the Siting Team coordinated with key stakeholders. On March 8, 2018, Kentucky Power representatives met with Pike County and the City of Pikeville officials to introduce the Project and discuss the need. Kentucky Power spoke with Judge Executive Hale from Floyd County to discuss the Project; an in person meeting was not requested nor required by the county, as he did not have any comments on the Project. Another stakeholder meeting was held on March 19, 2018 with CAM Mining to discuss future mining plans within the Study Area and to minimize impacts from preliminary routes. The Siting Team met with Utility Management Group, LLC (UMG) to discuss the water line system throughout the Enterprise Park and general information about the Study Area. Detailed summaries of each meeting conducted are included in **Attachment C – Stakeholder Meeting Notes**.

Kentucky Power published a news release on March 20, 2018 to generally announce the Project and inform landowners that study segments were under development. On April 19, 2018, AEP announced the Project to the public with a news release and public map showing study segment network. A public open house was held May 3, 2018 at Pikeville High School in the City of Pikeville to solicit feedback from the public and landowners affected. No major route



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modifications were made based on the public input as outlined in Section 3.4.3. Kentucky Power continued to speak with landowners along the study segments about the Project to aid in the selection of the Proposed Route.

After evaluating the public feedback from the open house and reviewing engineering considerations, a Proposed Route was chosen in June 2018. The proposed site for the Kewanee 138 kV Substation is located immediately south and adjacent to the Enterprise Park and in the City of Pikeville limits. The section of the proposed site is discussed further in **Attachment A – Substation Site Selection Study** and was also chosen in conjunction with the Proposed Route.

The Project requires PSC approval and a CPCN. Kentucky Power’s anticipated in-service date for the Project is the third quarter of 2019 to support economic growth at the Enterprise Park.

1.4 Goal of the Siting Study

The goal of the Siting Study is to gain an understanding of the opportunities and constraints in the Study Area to facilitate the development of Alternative Routes, evaluate potential impacts associated with the Alternative Routes, and identify a Proposed Route and one or more Alternative Routes. The Proposed Route is the route that (1) reasonably minimizes adverse impacts on residential areas and the natural and cultural environment; (2) minimizes special design requirements and unreasonable costs; and (3) permit the line to be constructed and operated in a timely, safe, and reliable manner.



2.0 ROUTE AND SITE DEVELOPMENT PROCESS

2.1 Route Development Process Summary/Methodology

The route development process is inherently iterative with frequent modifications made throughout the study as a result of the identification of new constraints, input from agencies, landowners, and other stakeholders, periodic re-assessment of routes with respect to the siting criteria, and adjustments to the overall route network. As a result of the evolving nature of the route development process, the Siting Team (see Section 2.2) uses specific vocabulary to describe the routes at different stages of development.

Initial route development efforts start with the identification of large area constraints and opportunity features within the Study Area, which encompasses the endpoints of the Project and areas in between (**Figure 3, Step 1**). These areas are typically identified using a combination of readily available public data sources as described in Section 2.3.

The Siting Team uses this information to first develop an array of Routing Concepts for the Project adhering to a series of general siting and technical guidelines (**Figure 3, Step 2**).

Where two or more of these conceptual routes intersect, Preliminary Study Segments are formed between two common nodes or points of intersection. The Preliminary Study Segments are partial alignments originating from the Routing Concepts based on the siting process and criteria. After conducting field reviews and considering input from stakeholders, the Preliminary Study Segments are refined to a smaller network. Together, the assemblage of Study Segments and their intersecting nodes are referred to as the Study Segment Network (**Figure 3, Step 3**).

As the route development process continues, the Siting Team evaluates new data and modifies, if necessary, the Study Segments included in the network to develop a Refined Study Segment Network (**Figure 3, Step 4**). Eventually, formal Alternative Routes are developed by assembling the Study Segments that best meet the siting guidelines into individual routes for analysis (**Figure 3, Step 5**). Alternative Routes are assessed and compared with land uses, natural and cultural resources, and engineering and construction concerns. Ultimately, through a quantitative and qualitative analysis and comparison of the Alternative Routes, the Siting Team identifies a Proposed Route for submittal to the PSC (**Figure 3, Step 6**).

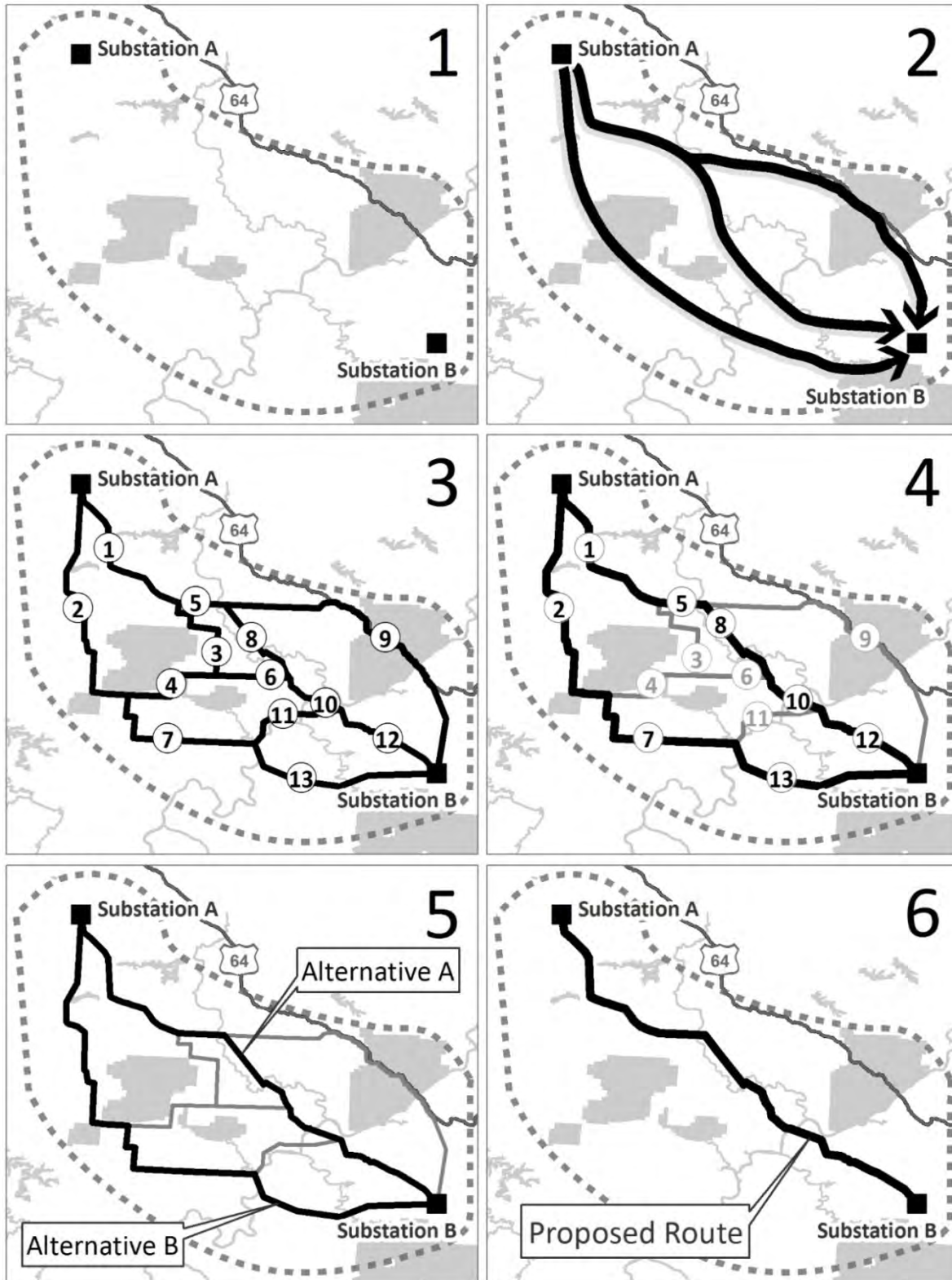


Figure 3. Route Development Process Steps



2.2 Siting Team Members

A multi-disciplinary Siting Team performed the Siting Study. Team members were selected to bring wide experience to the Siting Study to achieve a thorough review of all aspects of developing the route. Members of the Siting Team have experience in transmission line siting, impact assessment for a wide variety of natural resources and the human environment, impact mitigation, engineering, and construction management.

The team worked together during the Siting Study to define the Study Area, develop siting criteria, identify siting constraints and opportunities, collect and analyze environmental and design data, solicit public input and concerns, consult with natural resource and permitting agencies, develop and revise the siting study segments and alternatives, and analyze and report on the selection of a Proposed Route. **Attachment D – Siting Team Members** identifies members and their areas of responsibility involved throughout the duration of the Siting Process.

2.3 Data Collection

The following sources of information were used to develop data for the Siting Study. Data was reviewed and collected for existing land uses, natural resources, cultural resources, transportation facilities, and existing utility and linear features. A detailed table of data sources is provided in **Attachment E – GIS Data Sources**. The Siting Team collected and reviewed the data in the following sections to support the Siting Study.

2.3.1 Geographic Information System (GIS) Data Collection

Aerial photography is an important tool for route selection. The primary sources of aerial imagery used in the route identification, analysis, and selection effort for the Project include:

- Light Detection and Ranging Data (LiDAR) (flown for Project May 9 – 11, 2018)
- Environmental Systems Research Institute (Esri) (2016)
- Google (Imagery dates vary by location)

The following summary of GIS data was collected:

- Land Uses
 - Floyd and Pike counties Property Valuation Administrator (PVA) to obtain parcel data and ownership including heirships (2017)



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- Geographic Names Information System (GNIS) data (2018) to verify institutional uses such as parks and recreational facilities
- Federal Aviation Administration (FAA) database (2018) to verify airfields and heliports
- Roads and railroads from various publicly available data sources
- Mining permit areas such as those centrally located within the Study Area from the Kentucky Mine Mapping Information System (2018)
- S&P Platts database (2018) to verify gas and oil well data
- Transmission lines, communication towers, and natural gas pipelines from various publically available data sources and Kentucky Power
- National Land Cover Database (NLCD) data
- National Conservation Easement Database (NCED) data
- GNIS (2018) data and publicly available data for roads, railroads, and airports.

- Natural Resources
 - National Wetland Inventory (NWI) wetland locations
 - National Hydrographic Data (NHD) stream locations
 - United States Federal Emergency and Management Agency (FEMA) designated floodplains and floodways
 - USFWS federally-listed threatened, endangered, rare or sensitive species information

- Cultural Resources
 - GNIS (2018) data to verify locations of institutional uses such as schools, cemeteries and church sites
 - Sites listed or eligible for listing on the National Register of Historic Places (NRHP)
 - Kentucky Historic Council (KHC) State Historic Preservation Office (SHPO) and the Kentucky Office of State Archaeology (KOSA) for previously surveyed archaeology sites and architectural resources

Updated information, such as the location of new residences and other constraints, was annotated to the photography by either paper maps (at the public meetings) and transferred into the GIS, or digitized directly into the GIS as identified during field inspections.



The study made extensive use of information in existing GIS data sets, obtained from many sources, including federal, state, and local governments. Much of this information was obtained through official agency GIS data access websites, some was provided directly by government agencies, and the Siting Team created some by digitizing information from paper-based maps, aerial photo interpretation, interviews with stakeholders and field inspections.

GIS data sources vary with respect to their accuracy and precision. For this reason, GIS-based calculations and maps presented throughout this study should be considered reasonable approximations of the resource or geographic feature they represent and not absolute measures or counts. The data and calculations presented in this study allow for relative comparisons among project alternatives, with the assumption that any inherent errors or inaccuracies would be generally equal across all alternatives. Field reconnaissance is conducted to verify certain features (e.g., locations of residential, commercial and industrial buildings). **Attachment E** presents a list of the GIS data sources used for this study.

2.3.2 Field Reconnaissance

Field reconnaissance is critical to verify data and gain additional qualitative insight. Siting Team members conducted field inspections within the Study Area throughout the duration of the Siting Process. The team members examined Study Segments by automobile from public roads and other points of public access and correlated observed features to information shown on aerial photography, United States Geological Survey (USGS) 7.5 minute topographic maps, road maps, and the range of GIS sources compiled. Prior to field work, some key features such as residences, outbuildings, places of worship, cemeteries, and commercial and industrial areas were identified and mapped in GIS. These features were then field-verified, and added to the GIS database using laptops/tablets running GIS software supported by real-time Global Positioning System (GPS) during field reconnaissance efforts.

The primary goal of the detailed reconnaissance is to verify existing residential, commercial, or industrial structures located in proximity to Project study segments not visible on aerial photography or available from GIS data. Two field visits were conducted in 2017 (September 20, 2017 and December 11 and 12, 2017) to gain a high level understanding of the Project area and kick off the Project. On April 5, 2018, Siting Team members visited the Study Area to evaluate the substation sites and the preliminary study segments in order to make any necessary modifications, refinements, and/or removals of these components. Following the May 3, 2018 public open house, the Siting Team visited the Study Area to review comments received and areas of concerns for consideration in the development, modification, or removal



of study segments for use in the alternative routes. The Siting Team members also reviewed all 138 kV tap locations in more detail and the 765 kV parallel options for constructability. A detailed route reconnaissance was completed May 29, 2018 to June 1, 2018 to verify structures and buildings within the study segment network (as described in Section 3.4).

2.3.3 Federal, State and Local Government Coordination

Agency coordination is a vital part of the routing and data collection process. The Siting Team obtained information from or contacted various federal, state, and local agencies and/or officials to inform them of the Project and request data for the route planning process. The integration of the regulatory agency coordination and local contact efforts allowed Kentucky Power to consider very specific input and comments for the Project Area, while considering cultural resources, environmental conditions, engineering, and constructability. Cultural resources information for the Project was acquired via a Full Historic Resources Site Check in March 2018 to the Kentucky Historic Council (KHC). The request provided a GIS shapefile specifically created for the Project that shows historic resources (architectural and archaeological) located within the Study Area. The below environmental agencies were contacted to introduce the Project and request information on environmental resources that may occur in the Study Area. Response from the environmental agencies did not reveal any challenges in their jurisdictions; however, continued cooperation throughout the siting process was requested. Copies of agency correspondence are included as **Attachment F – Agency Correspondence**.

Federal Agencies

- United States Fish and Wildlife Services (USFWS)

State Agencies

- Kentucky Department of Fish and Wildlife Resources (KDFWR)
- Kentucky State Nature Preserves Commission (KSNPC)
- Kentucky Heritage Council (KHC)

Local Agencies and/or Officials

Local coordination on the Project was initiated on March 8, 2018, when AEP and Kentucky Power representatives met with local officials from the City of Pikeville and Pike County to introduce the Project. A Siting Team representative contacted Floyd County shortly after to



present and discuss the Project. Other local legislators were contacted on April 30, 2018 for an in-person meeting and were invited to the May 3, 2018 public open house. The purpose of this communication is to notify, educate, and collect input from the local officials regarding the need for and benefits of the Project, as well as to elicit input on possible locations for the proposed facilities.

2.3.4 Other Stakeholders

On March 19, 2018, members of the Siting Team met with CAM Mining to discuss preliminary routes and to receive feedback regarding their mining permit areas in the northern portions of the Study Area (as shown in **Attachment B – Map 1**).

On April 4, 2018, members of the Siting Team met with UMG, a utility organization that maintains water lines throughout the Enterprise Park and owns a water tower in close proximity to a possible site location for the Kewanee 138 kV Substation. The purpose of this meeting was to elicit a response for potential impacts to the water lines throughout the Enterprise Park as a result of the potential substation sites. All stakeholder meeting summaries can be found in Attachment C.

Kentucky Power representatives attempted to contact landowners crossed by the study segments. Feedback from the landowners was brought to the Siting Team in order to address concerns, criticism, and support of the Project. On April 19, 2018, AEP announced the Project to the public with a news release, website, and public map showing study segment network. A public open house was held May 3, 2018 at Pikeville High School in the City of Pikeville to elicit feedback from the public and landowners affected as described in Section 2.5. No major route modifications were made based on the public input as outlined in Section 3.4.3.

2.4 Siting Guidelines

2.4.1 General Guidelines

The primary goal for this siting effort was to identify a route for the Project that (1) reasonably minimizes adverse impacts on residential areas and the natural and cultural environment; (2) minimizes special design requirements and unreasonable costs; and (3) permit the line to be constructed and operated in a timely, safe and reliable manner. Although no Proposed Route can optimally minimize impacts across all area resources, the Siting Team used a series of general siting guidelines to direct the development, evaluation, and selection of routes toward this overall goal.



The following guidelines were considered for this effort:

- Consider parallel alignments along existing ROWs or other infrastructure such as the existing Big Sandy – Broadford 765 kV Transmission Line.
- Maximize the separation distance from and/or minimize impact on dwellings, schools, daycare facilities, hospitals, and other community facilities.
- Consider stakeholder input as practical.
- Avoid or minimize visibility from populated areas, scenic roadways, and designated scenic resources.
- Minimize interference with economic activities, including agricultural, mining, and natural gas activities.
- Avoid or minimize conflict with existing and proposed future development and land uses.
- Avoid crossing or minimize conflict with designated public resource lands such as national and state forests and parks, large camps and other recreation lands, designated battlefields, nature preserves or other designated historic resources and sites, and conservation areas.
- Minimize environmental impact and construction/maintenance cost by selecting shorter, direct routes; route corridors through terrain where economical construction and environmental best management practices can be employed, and where line operational/maintenance is most feasible (e.g., use existing access roads where practicable such as those located along the existing Big Sandy – Broadford 765 kV Transmission Line).
- Avoid or minimize new crossings of large lakes, rivers and large wetland complexes, critical habitat, and other unique or distinct natural resources.
- Minimize habitat fragmentation and impacts on designated areas of biodiversity concern.

2.4.2 Technical Guidelines

Technical guidelines are driven by the physical characteristics and engineering limitations of the structures and lines themselves, and the design criteria necessary to meet AEP design standards, North American Electric Reliability Corporation (NERC) reliability standards, National



Electric Safety Code (NESC), and industry best practices for construction. The technical guidelines were informed by (1) the technical expertise of engineers and other industry professionals responsible for the reliable, safe and economical construction, operation, and maintenance of electric system facilities; (2) NERC reliability standards as implemented by PJM; and (3) industry best practices.

The Siting Team considered the following technical guidelines during the development, evaluation, and comparison of routes.

- Minimize crossings of extra high voltage (EHV) transmission lines.
- Maintain the required centerline to centerline separations when paralleling EHV transmission lines.
- Maintain a minimum of 100-foot centerline to centerline separation when paralleling 138 kV or lower voltage transmission lines.
- Utilize existing access roads when possible.
- Avoid potential terrain slips/slides with access roads and transmission line structure locations.
- Consider long term operation and maintenance of the transmission line facilities.
- Avoid angles greater than 65 degrees and steep slopes (more than 20 degree slopes for angle structures, and more than 30 degrees for tangent structures).
- Avoid triple circuit lines.
- Minimize the number and duration of customer outage requirements during construction.
- Cross roadways, rivers, and railroads at a close to perpendicular angle and avoid placing structures within limited access ROWs.

2.5 Public Involvement Process

2.5.1 Public Open House

A public open house was held May 3, 2018 from 5:30 – 7:30 p.m. at Pikeville High School located at 120 Championship Drive in Pikeville, Kentucky. The Siting Team set up stations at the meeting and provided information related to engineering and design of the structures, Project need, real estate and ROW issues, and the siting process. Landowners within a pre-established corridor around the study segment network were notified about the time and location of the meeting through the following means:



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1. Landowners within 250 feet of the Project study segments received two automated telephone notifications from Kentucky Power on April 24 and May 2, 2018.
2. Mailings for affected landowner letters and project fact sheets were sent on April 18, 2018 to landowners within 250 feet of the Project study segments, as well as several parcels that fell just outside of the 500 foot corridor, but between study segments. A total of 189 letters and fact sheets were mailed to landowner addresses.
3. Mailings for post card invitations indicating the location for the public open house were sent April 23, 2018 to landowners within 250 feet of the Project study segments, as well as several parcels that fell just outside of the 500-foot corridor, but between study segments. A total of 189 post cards were mailed to landowner addresses.
4. Two advertisements ran in the *Appalachian News Express*. The first advertisement introduced the Project to the community on three separate occasions in March 2018. The second advertisement informed the community of the open house on two separate occasions in April 2018.
5. A total of three news releases were distributed for the Project on March 20, April 19, and June 25, 2018.
6. The public open house meeting was announced on the Project website on April 19, 2018 established by Kentucky Power (see Section 2.5.2).

Printed maps at a scale of 1 inch equals 200 feet were provided at the open house for the public to review and were used to record written comments concerning sensitive resources in their local environment. Members of the Siting Team greeted meeting attendees, answered questions about the Project, and aided attendees in locating their property or other features of concern on aerial maps showing the array of existing infrastructure, study segments, and the potential substation locations under consideration. Participants were encouraged to document the location of their houses, places of business, property of concern, or other sensitive resources on the printed maps.

Comment sheets were distributed to all meeting attendees. Attendees were asked to fill out the sheet completely, including contact information. The Siting Team read all comment sheets, and scanned and stored them in the project database as a record of meeting attendance and public comments. Participants were also given the opportunity to mail in their comment sheets at a later date. A total of 41 people attended the open house and 16 comment cards have been received as of June 27, 2018.



2.5.2 Project Website and Virtual Open House

A Project website was created by Kentucky Power to further encourage attendance of the local community for the public open house and provide more information regarding the Project. The Project website (www.kentuckypower.com/enterprisePark) went live on March 20, 2018. The website includes Project updates, news releases, Project map, fact sheet information, and the Project timeline. A virtual open house was also linked on the Project website on April 19, 2018 for interested parties who may have been unable to make the public open house meeting. Information presented at the public open house was made available on the virtual open house including the Project need, siting, ROW, engineering, and construction. Questions and comments were also welcomed on the Project website through the contact page. The Proposed Route was added to the Project website on June 25, 2018. As of July 1, 2018, there have been 879 views of the Project website and no comments have been received through the Project website.

2.5.3 Consideration of Public Input

A total of 16 comment cards were received as a result of the public open house and were digitized and entered into a GIS database for further review by the Siting Team. Within several weeks of the public open house, the Siting Team held a conference call to discuss and review the feedback received at the open house. During this meeting, the public comment database was used to review all comments collected throughout the Study Area and to review features drawn by members of the public. With the majority of the comment cards listing contact information only and no additional comments received via the website, very little route modifications were required as a result of public concerns. The categories of concern noted on the comment cards included health and property values. After the open house Kentucky Power continued to speak with landowners along the study segments about the Project to aid in the selection of the proposed route and continue to gain information and feedback from the public.

3.0 ALTERNATIVE ROUTE IDENTIFICATION

3.1 Study Area Description

The Study Area sets initial boundaries for the data collection described in Section 2.3 and the routing concept development described below in Section 3.3. The Study Area includes feasible geographically diverse areas for the location of the Project between the defined endpoints: the Sprigg – Beaver Creek 138 kV Transmission Line and the proposed Kewanee 138 kV Substation, to be located in or near Enterprise Park. The Project endpoints were identified by the



Company's planners and engineers (e.g., based on load growth, engineering criteria or existing infrastructure) or in combination with the Siting Team.

The Study Area was defined the Sprigg – Beaver Creek 138 kV Transmission Line, the proposed Kewanee 138 kV Substation located in or near Enterprise Park, and other linear infrastructure in the area. The existing Sprigg – Beaver Creek 138 kV Transmission Line bounds the Study Area in the northwest and the Enterprise Park in the southeast. The existing Big Sandy – Broadford 765 kV Transmission Line bound the Study Area to the southwest and the City of Pikeville bounds the Study Area to the northeast. Right Fork of Island Creek Road/Route 1426 and Left Fork of Island Creek Road/Route 3416 bisect the Study Area from east to west (**Attachment B – Map 1**). The Study Area was intended to encompass all reasonable Routing Concepts between these connection points. Given these considerations, the Siting Team identified a Study Area encompassing approximately 16,176 acres (approximately 25.3 square miles).

The Study Area is characterized by mainly forested and mountainous terrain that is dissected by scattered residential and commercial development along the roadways in the valley bottoms. Extensive surface mining has occurred in the Study Area where a number of ridges have previously been mined and are terraced hillsides providing a landscape that is rugged and steep. The Enterprise Park is located at a high elevation and on a large flat-benched area at which a strip mining operation had previously occurred and has since been converted into an industrial park. See **Attachment H – Study Area Context Photographs**.

3.2 Opportunities and Constraints

The Siting Team identified and mapped siting constraints and opportunities within the Study Area after collecting data and developing routing and technical criteria. The siting constraints and opportunities analysis would then assist in developing the Project's preliminary study segments in addition to a proposed substation location.

Siting Constraints

Constraints are generally areas that should be avoided to the extent practical during the route development and selection process. The Siting Team initially identifies larger constraints during the conceptual siting process at a high level view. As the Siting Team develops specific siting alignments, smaller constraints are identified and avoided where feasible. Much of the Project Study Area is mountainous and undeveloped with the exception of areas of development along roadways and in valleys. The following is a list of general large constraints that encompass a large geographic area:



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- Urban areas, including towns, small communities, and other high concentrations of residential, commercial and industrial development areas.
- NRHP Historic Districts and adjacent areas.
- Recreational areas such as parks and large recreational reservoirs.
- Large streams, wetlands, flood zones or unique natural resource features, and critical habitat areas.
- Designated Federal or State Forests, Parks, State Game Lands, and other natural and conservation areas
- Large mining areas such as the CAM Mining permit area in the northeast portion of the Study Area.
- Heirship properties located throughout the Study Area.
- Steep and mountainous terrain, prone to slips and slides.

As the Siting Team develops specific alignments, smaller constraints are identified. These constraints encompass other feature types found within smaller geographic areas, or site-specific locations. Through the iterative process of route development described above, the routes are adjusted to avoid small constraints where feasible, including:

- Individual residences (houses, mobile homes, and multi-family buildings) such as those along Toler Creek Road, Left Fork and Right Fork of Island Creek Road
- Commercial and industrial buildings
- Outbuildings and barns
- Cemeteries
- Places of worship
- Schools
- Hospitals
- Recorded sites of designated historic buildings and sites
- Small wetlands
- Specific recreational sites, facilities, and trails
- Radio and communications towers



- Designated scenic vista points
- Gas wells and pipelines

Siting Opportunities

The Siting Team defined siting opportunities as locations where the proposed transmission line might be located while reasonably minimizing adverse impacts. Siting opportunities typically include other linear infrastructure and utility corridors, such as the existing electric transmission network, rail lines, and roads, but may also include reclaimed mine lands, or unused portions of industrial or commercial areas. These routing opportunities were used to the maximum extent possible to facilitate identification of the most compatible locations for the proposed Kewanee 138 kV Transmission Line Extension.

The Study Area was limited in available opportunities, as there is only one north-south existing linear transmission line (i.e., the existing Big Sandy – Broadford 765 kV Transmission Line) that could potentially provide a parallel opportunity. After the necessary data collection and further analysis in the field, roads and distribution lines were not considered an opportunity feature given the amount of residential development located along roadways such as Left Fork of Island Creek Road/ Route 3416 and Right Fork of Island Creek Road/ Route 1426 within the Study Area and their location in low lying areas or valleys. However, where parcels were larger, paralleling parcel boundaries were considered an opportunity feature within the Study Area. Siting opportunities identified within the Study Area are presented on the Study Area map (**Attachment B – Map 1**).

3.3 Routing Concepts

The Siting Team developed three routing concepts in the Study Area for the proposed Kewanee Extension while considering the opportunities and constraints, the goal of the Project, and general routing and technical guidelines (see **Attachment B – Map 2**). In general, the Siting Team attempted to develop routing concepts that avoided residential areas and that were located in terrain suitable for the new line and with feasible access.

Routing concepts to the southwest of the existing 765 kV transmission line were not considered as steep terrain would limit constructability and a crossing under the 765 kV transmission line would be required to connect into Enterprise Park. Routing concepts northeast of the Cedar Creek Substation and near the City of Pikeville were not considered as there is dense development along Cedar Creek Road and surrounding US Hwy 23. The Siting Team reviewed the existing Sprigg – Beaver Creek 138 kV Transmission Line to determine feasible tap locations



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to minimize the total length of the transmission line, consider constructability constraints, and take advantage of any siting opportunities. A major constraint within the Study Area is the residential development in the valley bottoms along Right Fork and Left Fork of Island Creek Roads. These roads are located in a valley bottoms between steep terrain on either side with dense development along the roadways, particularly on the east side of the Study Area and closer to the City of Pikeville. The Siting Team reviewed these roads and identified possible crossing locations for a new transmission line to minimize impacts on residences. As a result, northern, central and southern routing concepts were developed (see **Attachment B – Map 2**).

Northern routing concepts begin near a tap point on the 138 kV transmission line approximately half a mile southwest of the Cedar Creek Substation provides the most direct route to the Enterprise Park. This northernmost concept travels generally south and spans across Right Fork of Island Creek Road/Route 1426. While this northernmost routing concept was considered the most direct and shortest route to the Enterprise Park, it was dismissed as a result of its proximity to residential development along Right Fork and Left Fork of Island Creek Road, required crossings over future and permitted mining areas (which would typically require relocation agreements with the mining companies), and overall proximity to the City of Pikeville.

Central routing concepts were developed in the central portion of the Study Area and on either side of Toler Creek Road. The central routing concepts take advantage of higher terrain and travel along the ridgeline tops where residences are situated well below in the valleys and along the roadways. Development farther west along Right Fork Island Creek Road is still present, but not as dense as the development to the east closer to the City of Pikeville. Proximity to the residences was minimized to the extent possible. The central routing concepts are slightly longer than the northern concepts, but accommodate better road crossings and minimize impacts to adjacent residential development. As such, the central routing concepts on either side of Toler Creek Road were carried forward and developed into study segments later in the siting process.

Southern routing concepts were developed to parallel the Big Sandy – Broadford 765 kV Transmission Line where it crosses the Sprigg – Beaver Creek 138 kV Transmission Line. The 765 kV transmission line was the only linear infrastructure paralleling opportunity available and considered by the Siting Team for the Project. The southern routing concept is the furthest from residential development (located even farther west of the City of Pikeville) and provides a paralleling opportunity. The paralleling portion of the southern routing concept is located on the east side of the 765 kV transmission line to avoid engineering and constructability issues.



The southern routing concept provides a paralleling opportunity and is located the farthest from residential development. The southern routing concepts were carried forward and developed into in the study segments later in the siting process.

3.4 Study Segments and Substation Selection

The Siting Team developed a series of study segments based on the siting process and criteria developed in Section 2.4 and potential locations for the new substation. Study Segments are partial alignments developed based on the routing concepts in Section 3.3 (see **Figure 2**). As the siting effort evolved after conducting desktop reviews, field visits, and stakeholder input, study segments and substation locations were revised, removed, or added. These eliminations or adjustments were based on the likelihood of impacts on residential, commercial and industrial areas, planned and future development and natural areas. The resulting network of the study segments evaluated the by Siting Team are shown in **Attachment B, Maps 3 and 4**.

3.4.1 Substation Study Sites

In developing the preliminary study segment network, the Siting Team added additional substation sites to avoid or minimize impact to nearby residential development along Road Fork and to optimize line design and terrain. Five substation sites (Sites 1 – 5) were considered to connect the preliminary study segments to a substation location within or near the Enterprise Park (**Attachment B – Map 3**). Each substation site was reviewed by the City of Pikeville to determine feasibility for a substation based on past use of the area and future development plans for the Enterprise Park. Further analysis of the five substation locations are detailed in **Attachment A – Substation Siting Study**.

3.4.2 Preliminary Study Segment Network

Desktop review, field visits, and stakeholder input contributed to the evaluation of the preliminary study segments for review. Preliminary study segments were created for the proposed Kewanee 138 kV Transmission Line Extension from southern and central tap points on the existing Sprigg – Beaver Creek 138 kV Transmission Line to substation study sites located within or near the Enterprise Park. The substation site locations considered were largely developed based on feasible routing options to a location in or near the Enterprise Park. The Siting Team focused on creating segments that would minimize impact to the residential development scattered throughout the Study Area and provide the most direct route into the

evaluated substation study site locations while also considering constructability on steep terrains.

A tap structure for the Project must be offset south from the existing Sprigg – Beaver Creek 138 kV Transmission Line because it is not possible to obtain an outage long enough on the 138 kV transmission line to replace an inline structure with the new tap structure. As such, once the three way tap structure is built in the clear, the conductors would need to reconnect with the existing 138 kV transmission line, and one structure on the existing Sprigg – Beaver Creek 138 kV Transmission Line will be removed (**Figure 4 and Maps 3 and 4**).

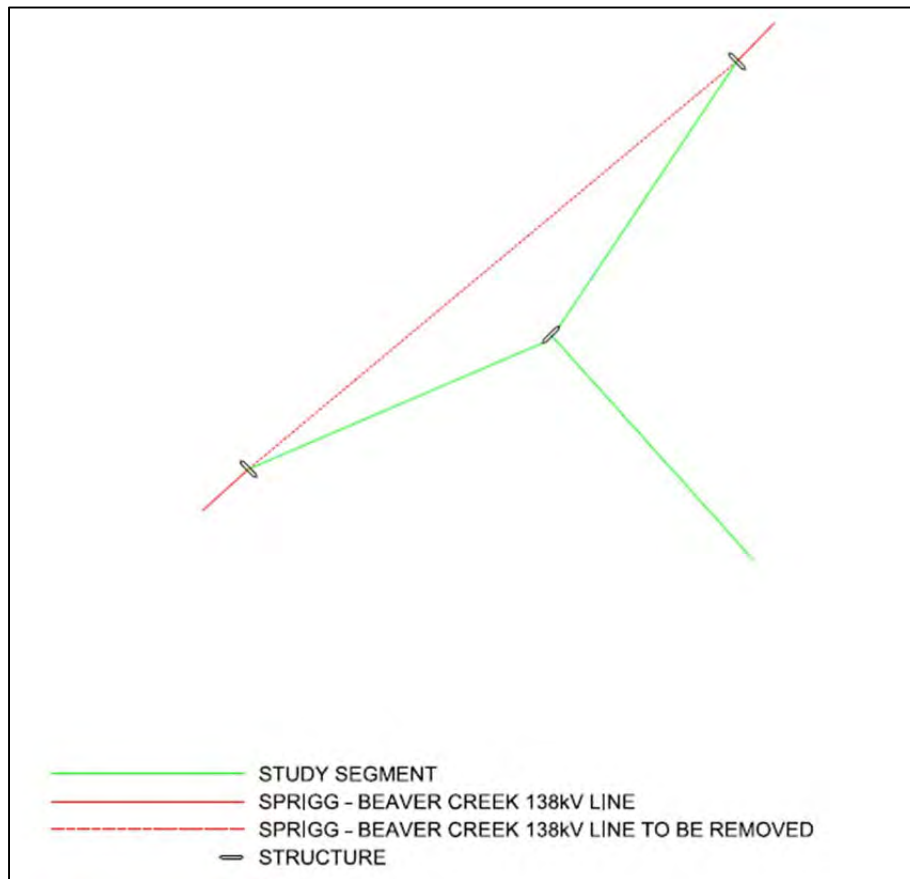


Figure 4: Tap Structure Alignment

With the elimination of the northernmost routing concept, the Siting Team focused the development of preliminary study segments in the central and southern portions of the Study Area (**Attachment B – Map 3**). Preliminary Study Segments are generally described based on the tap location from which they originate.



Northern Tap Preliminary Study Segments

From the northern tap on the existing Sprigg – Beaver Creek 138 kV Transmission Line, the Siting Team considered two preliminary study segments to cross Toler Creek Road and Right Fork of Island Creek Road at the breaks in development. There are few practicable crossings that are feasible and result in few impacts to the nearby residences. Two viable crossing locations were reviewed; however the easternmost crossing over Right Fork of Island Creek Road was carried forward into the study segment network as it would require fewer angles to construct to avoid residences and was a more direct option. The preliminary study segment crossing farther west on Right Fork of Island Creek Road/Route 1426 was dismissed from further review due to the additional angles and circuitous length (**Attachment B – Map 3**).

There is dense residential development along Left Fork of Island Creek Road, particularly north of Substation Site 1, as such the Siting Team reviewed the roadway in either direction for the most feasible crossing locations. As a result, Substation Site 2 was added to the review as there is a fairly large break in development east of Substation Site 1 that could accommodate a transmission line crossing. Preliminary study segments were developed to connect the northern tap location to Substation Site 2, which largely remained north of Left Fork of Island Creek Road but crossed the future mining area. The preliminary study segments connecting into Substation Site 2 were later eliminated due to the mining areas and the likelihood of a required relocation agreement in the future. As a result, Substation Site 2 was also eliminated.

Connectors for the northern tap were added as preliminary study segments and carried forward into the study segment network to provide options into the substation sites 1, 3, and 5.

Middle Tap Preliminary Study Segments

The middle tap location is on an undeveloped ridgeline between Keathley Branch Road and Toler Creek Road. The location was chosen to take advantage of this undeveloped area and remain at a higher elevation. There is also a known mine portal in the vicinity of the tap location, which could provide habitat for threatened and endangered bat species. From the tap structure, a preliminary study segment was created to travel southeast along the ridgeline between Keathley Branch Road and Toler Creek Road. The preliminary study segment diverts into two options on either side of Rays Branch to connect to the southern tap preliminary study segments to the west or the northern tap preliminary study segments to the east.



The preliminary study segment connecting to southern preliminary study segments intersects Rays Branch and travels generally south east with connectors into substation sites 1, 3, and 5. The preliminary study segment connecting to the northern preliminary study segments on the east side of Rays Branch travels generally southeast crossing a future CAM Mining permit area north of Left Fork of Island Creek Road. A preliminary study segment was created on the side of a ridgeline between Left Fork of Island Creek Road and Billy Compton Branch to provide a direct route to Site 1; however, but the location of the side of the ridgeline between these two roads is narrow and could result in slips and slides during construction. Due to the possible constructability issues, an additional angle was added on top of the ridge before spanning to Site 1. In order to avoid the steep ridgeline a study segment was created to continue south over Sleepy Hollow and across Billy Compton Branch, where it turns east to take advantage of north to south ridgelines towards the Enterprise Park. Site 3 was created to facilitate this preliminary study segment and is located on the western side of the Enterprise Park. Conversations with the City of Pikeville indicated that Site 3 was viable, but not a preferred location, as it could have impacts on future development for the industrial park. As such, a preliminary study segment was added to connect Site 3 to Site 1, which added additional hard angles and length, but allowed options when connecting preliminary study segments to substation sites. Due to possible conflicts with the use of Site 3, a preliminary study segment was also added to continue generally south east in a more direct route to the southern extents and immediately adjacent to the Enterprise Park, which became the location for Site 5. A preliminary study segment into Site 5 crosses Road Fork at a location farther from residential development and away from the future industrial areas within the Enterprise Park (**Attachment B – Map 3**).

Southern Tap Preliminary Study Segments

The southernmost tap is located where the 765 kV transmission line crosses the 138 kV transmission line and was created to facilitate a paralleling opportunity. The location for a tap structure is approximately 100 feet south of the Sprigg – Beaver Creek 138 kV Transmission Line. The Siting Team considered a preliminary study segment to parallel the 765 kV transmission line for almost four miles before turning northeast to cross Billy Compton Branch and Road Fork to arrive at Site 4 located on the western side of the Enterprise Park. A direct parallel to the 765 kV transmission line across Left Fork of Island Creek Road was reviewed by transmission line engineers on the Siting Team and determined that the topography south of the road would be unfavorable due to an old strip mine located to the north and the 765 kV transmission line located at a low point to the south. Further, the Siting Team met with City officials, who indicated that Site 4 was unfavorable due to its prime location to serving a



potential client within the Enterprise Park. Due to the feedback from the City and engineering review, a longer 765 kV parallel and Site 4 were dismissed from further consideration.

The Siting Team continued to explore a preliminary study segment that paralleled the 765 kV transmission line. Several shortened parallel study segment were created that diverting east to consider development at the end of Left Fork of Island Creek Road, where the study segment splits between several residences, a cemetery, and an industrial building. Further review of the westernmost crossing of Left Fork of Island Creek Road determined that a crossing here might result in land use impacts, given the limited space to cross the road and the topography south of the road; therefore the parallel alignment was shortened slightly to avoid this development. Preliminary study segments connecting the 765 kV parallel options to Site 5 crosses a reclaimed mining operation and is far away from most residential development. Preliminary study segments connecting the 765 kV parallel option to Sites 1 and 3 were developed to provide more optionality in the study segment network; however, they add additional hard angles and more congested crossings of Road Fork.

The resulting network of the preliminary study segments and substation locations evaluated by the Siting Team as discussed above is shown in **Attachment B – Map 3**. The five proposed substation sites evaluated by the Siting Team were narrowed down to eliminate Sites 2, 3, and 4 due to the elimination of study segments and potentially conflicts with future development within Enterprise Par. Sites 1 and 5 were carried forward for further evaluation in the study segment network.

3.4.3 Study Segment Network

The Siting Team conducted several field and desktop reviews and incorporated the information to review, revise, and compare the above preliminary study segments into the final study segment network. The final study segment network consisting of 23 study segments includes the preliminary study segments that were not dismissed and further refined to be presented at the open house for comment and to continue to gather information, inform the Siting Team of any remaining possible study segments that should be considered as part of the Project, and to modify the existing study segments, if needed (**Attachment B – Map 4**).

Substation Sites 1 and 5 were carried forward and are referred to from this point on as Substation Site A and Substation Site B, respectively and presented at the open house. Connectors were added to the study segment network to ensure each of the three tap locations had options to connect to Substation Site A or B.



3.4.4 Refined Study Segment Network

This section discusses the study segments further refined after the open house as a result of public input, quantitative and qualitative analysis, further constructability and engineering review, the environment, and future land uses. As described in Section 2.5, an open house was held on May 3, 2018 and 41 members of the public attended. No new study segments were added to the network; however, some were dismissed or modified due to landowner input or constructability constraints.

After the open house, the three remaining tap locations were reviewed in the field again by the Siting Team to further evaluate constructability. At the middle tap, there are previously mined areas and clear evidence of slips and slides that could result in future complications for structure placement including frequent maintenance or possible structure replacement, and environmental degradation. There is also a known mine portal, which could also impact the stability of the slope and provide habitat for protected species. The residential development in the low valley areas near Keathley Branch Road and Toler Creek Road resulted in a unique engineering design and additional structures at the tap. Due to the unstable hillside, land use constraints, possible protected species habitat, and unique engineering design, the middle tap was eliminated from consideration. The elimination of the middle tap, resulted in the elimination of Study Segments 4 – 8.

Study Segment 13 was initially developed to facilitate the use of Site 3 and cross Road Fork between residences; however, when Site 3 was removed, a connector (Study Segment 14) was added to connect to Substation Site A (previously Site 1). While Study Segment 13 minimized land use impacts along Road Fork, feedback from the City indicated that the study segment could complicate future development on the western side of the Enterprise Park due to an existing storm water pond or the potential for a future customer building in that area. As such, Study Segment 13 was eliminated.

The Siting Team then further evaluated the two remaining substation sites (Substation Sites A and B) to choose a proposed site and narrow down the study segment network. Discussions with a stakeholder, UMG, provided valuable information regarding the reclamation of the Enterprise Park. The Siting Team was informed that the substation sites are located on various amounts of fill (ranges approximately 80 to 300 feet in depth). Substation Site A is likely to be located on a more significant amount of fill as it is believed that more fill is located further north in the Enterprise Park. Substation Site B is likely located on less fill. The use of Substation



Site A requires Study Segment 12 or 10, both of which cross Road Fork in more congested areas, compared with Study Segment 23. Additionally, Study Segment 12 requires the removal of one residence (which is currently for sale) and Study Segment 10, which is located on a narrow ridge that could have constructability concerns for structures and access roads. Both Substation Sites A and B are located on properties that would require minimal to moderate grading and where the owners are willing to sell. Substation Site A is located closer to the main Enterprise Park development area and would be least cost effective as it could potentially restrict developable land for future customers. Substation Site B and Study Segment 23 are located further away from future development in the Enterprise Park and along Road Fork. As a result, **Substation Site B was chosen as the proposed substation site** (for additional information, reference **Attachment A**). In eliminating Substation Site A, study segments 10, 12, and 14 were eliminated.

Study Segment 20 was slightly modified to avoid a cemetery under the ROW, but was ultimately dismissed due to Substation Site A being dismissed. Additional comparison of Study Segments 17 and 18 were reviewed in the field for constructability, including structure placement and available access roads. It was determined that either Study Segment 17 or 18 is constructible; however, since Study Segment 18 provides a parallel opportunity and has existing access roads, it was preferred over Study Segment 17. Study Segment 17 would require a new ROW not adjacent to existing infrastructure and therefore, require the construction of new access roads.

The refined study segment network as discussed above is shown on **Attachment B – Map 5**.

3.5 Alternative Routes

The Siting Team met frequently throughout the route identification and review process, continually reviewing, modifying, and eliminating the Study Segments based on new field analysis and stakeholder input. At the end of the process, the Siting Team compiled the Refined Study Segments into two Alternative Routes for analysis and comparison with the proposed substation site. The Alternative Routes are described in the following sections and are shown on **Attachment B – Map 6**.

3.5.1 Alternative Route A

Alternative Route A (Northern Route) consists of the remaining study segments 1, 2, 3, 9, 11, 22 and 23. Alternative Route A begins at a northern tap point and travels in a generally southeast direction, turning south and crossing Right Fork of Island Creek Road and into Pike County.



Alternative Route A continues south for approximately one mile, crossing permitting mining areas, before turning back in the southeast direction to cross Left Fork of Island Creek Road. Ridges in this area run perpendicular to Alternative Route A, allowing the alternative route to be located on ridgelines and span peak to peak high above roadways and valleys from Left Fork Island Creek Road to the proposed Kewanee 138 kV Substation site, located south and adjacent to the Enterprise Park.

3.5.2 Alternative Route B

Alternative Route B (Southern Route) consists of the remaining study segments 15, 16, 18, 19, 21 and 23. Alternative Route B begins at the southern tap point and adjacent to the Broadford – Big Sandy 765 kV Transmission Line. Alternative Route B parallels the 765 kV transmission line from the east for approximately 1.3 miles spanning over valleys to take advantage of the mountainous terrain and existing access roads, previously built for the construction of the 765 kV transmission line. Alternative Route B turns easterly and crosses Rays Branch, Long Branch, and Compton Branch taking advantage of the terrain and spanning high above these roadways. Alternative Route B joins the trajectory of Alternative Route A at Study Segment 23 to connect to the proposed Kewanee 138 kV Substation site located south and adjacent to the Enterprise Park.

3.5.3 Alternative Route Comparison

This section further discusses the Alternative Routes and provides a quantitative and qualitative analysis of potential impacts to local communities, the environment and cultural resources. The Alternative Routes were reviewed in detail and compared using a combination of information collected in the field, GIS data sources, public input, supporting documents, and the collective knowledge and experience of the Siting Team. In order to compare the Alternative Routes, the Siting Team developed a list of evaluation criteria tailored to the Study Area and reflecting the siting guidelines in Section 4.0 tables.

4.0 RESOURCE DESCRIPTION OF THE STUDY AREA

4.1 Natural Resources

Natural resource impacts include potential impacts to vegetation and habitat, surface waters, threatened and endangered (T&E) species, and conservation and recreation lands. Potential impacts discussed in this section are based on publicly available maps and data as well as consultation with federal and state agencies. A comparison of the natural environment considerations for the Alternative Routes is presented in **Table 1** below.



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Table 1. Natural Resource Evaluation Criterion	Unit	Alternative Route A	Alternative Route B
General			
Length	miles	4.8	5.0
Water Resources			
Total streams crossed	count	5	5
FEMA-designated floodplain crossed by ROW	acres	0.1	0.2
Geological, Topographical, and Soil Resources			
Karst topography in the ROW	acres	0	0
Known caves or portals in the ROW	count	0	0
Wildlife and Habitat			
Tree clearing required in the ROW (digitized based on aerial photography)	acres	56.6	59.8
Length of clearing parallel to existing linear infrastructure	miles	0	1.3

4.1.1 Soil and Water Resources

Resource Characteristics

The Study Area is mountainous with scattered development along roadways and in valleys. Previously mined areas or forested ridges make up a majority of the resource characteristics in the Study Area. Previously mined areas require attentive detail to constructability and tap feasibility when choosing Alternative Routes. There are no major streams or rivers within the Study Area. Wherever possible and in most cases, streams and wetlands will be spanned by the transmission line and individual structures will be located outside stream banks, riparian zones, and wetland boundaries to avoid potential impacts or permitting.

Alternative Route Comparison

Both Alternative Routes have similar impacts on soil and water resources within the Study Area as they are both new routes requiring a new ROW and clearing for new access roads. Both Alternative Routes cross a total of five river/stream crossings; therefore, they are equal in regards to possible water resource impacts. The stream crossings are not significant streams that would require additional permitting nor are they Section 10 Rivers. No wetlands according to NWI data are crossed by either Alternative Route. Floodplain impacts are minimal by either



Alternative Route, where Alternative Route B crosses approximately 0.1 acre more, located at the floodplain of Island Creek along Left Fork of Island Creek Road. It is expected that both Alternative Routes will span over floodplains and will not have any structures located within a 100-year floodplain. No known caves or portals are crossed by either ROW; however, environmental surveys will be conducted prior to beginning construction activities as it is likely caves or portals exist given the previously mined nature of the Study Area.

4.1.2 Wildlife Habitat and Sensitive Species

Resource Characteristics

The Study Area’s habitat includes a mix of mountainous terrain, grassland, forest, and small urban environments. Aquatic and wetland habitat is provided by small streams such as Island Creek, Long Branch, and Road Branch within the Big Sandy Watershed. The Big Sandy Crayfish is listed as a threatened aquatic species within these areas.

Kentucky’s special status wildlife and plant species that are designated as threatened, endangered, or candidate species are protected at the federal level by the Endangered Species Act (ESA) [16 United States Code (U.S.C.) §1531 et seq. (1973)] and/ or at the state level for the protection of T&E species of fish and wildlife (301 KAR 3:061) through the KDFWR. The KSNPC identifies and monitors state natural preserves and biodiversity while the USFWS implements the ESA. An Information for Planning and Consultation (IPaC) was generated through the USFWS website (see **Attachment G – IPaC Report**). The KDFWR documented occurrences of state-listed sensitive species within the Study Area via a letter dated March 23, 2018. No letter was received from the KSNPC regarding the occurrence of sensitive species or significant biological resources. Federally-listed wildlife and habitat resources are identified in **Table 2**.

Table 2. Threatened and Endangered Species			
Species Name	Federal Status	Habitat Type	Note
Gray Bat (<i>Myotis grisescens</i>)	Endangered	Roosts in caves or cave-like structures year-round and forages in riparian habitats next to lakes, streams, or rivers.	No critical habitat has been designated for this species in the Study Area.



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Table 2. Threatened and Endangered Species			
Species Name	Federal Status	Habitat Type	Note
Indiana Bat (<i>Myotis sodalist</i>)	Endangered	Roost in trees and forage in hardwood and hardwood-pine forested and grassland areas during the summer.	Not within a known-use area, but there are potentially occupied habitats within the Study Area.
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened	Roost in trees and forage in hardwood forested areas during the summer.	Not within a known-use area, but there are potentially occupied habitats within the Study Area.
Big Sandy Crayfish (<i>Cambarus callainus</i>)	Threatened	Freshwater habitat; shelter in shallow excavations under loose rocks on the stream bottom.	No critical habitat has been designated for this species in the Study Area.

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act. Under this act, it is unlawful to take, kill, or possess any bald or golden eagle, except as regulated by authorized programs. Projects affecting these species may require development of an eagle conservation plan. An eagle conservation plan is not anticipated for the Project.

Migratory birds are protected under the Migratory Bird Treaty Act of 1918, which is the legal cornerstone for the conservation and protection of migratory birds in the United States. The act protects the majority of birds that nest in North America. There are currently 1,026 bird species protected under the act, including raptors, waterfowl, shorebirds, seabirds, and songbirds. The act does not protect non-migratory species including upland game birds, or introduced species. The USFWS provides guidance for minimizing impacts to migratory birds and AEP has an avian protection plan in place that will be implemented on the Project.

Alternative Route Comparison

Both Alternative Routes are new and require extensive tree clearing. The ROW of Alternative Route B will likely require approximately three more acres of tree clearing than Alternative Route A due to additional line length. Extensive tree clearing can result in habitat fragmentation; however, Alternative Route B is located in a previously fragmented area by



paralleling the 765 kV transmission line, which minimizes impacts habitat fragmentation. As a general guideline throughout the siting process, the Siting Team avoids impacts to biodiversity and avoids crossings of large waterbodies and wetland complexes that may have distinct critical habits and natural resources. According to the IPaC report (**Attachment G**), no conservation easements or critical habitats have been designated in the Study Area. The species included in the IPaC report will likely require surveys for the Proposed Route and either Alternative Route chosen. There are no special natural areas such as federal/state nature preserves, lands and areas within the Study Area.

4.2 Land Use

Land use impacts include direct and indirect impacts to residential, commercial and industrial development, institutional uses (e.g., schools, places of worship, cemeteries, and hospitals), cultural resources, and land use. Construction of a new transmission line can result in changes in land use and aesthetic impacts to residents, commuters and travelers, employees, and recreational users. A comparison of the land use considerations for the Alternative Routes is presented below in **Table 3**.

The Study Area covers areas in both Floyd and Pike counties and is located largely west of the City of Pikeville, Kentucky. The Study Area features scattered patterns of development mainly along the roadways and in valleys. There are previously mined areas and future mining permit areas within the Study Area. The mountainous landscape is referenced in photos taken during site visits throughout the duration of the siting process in **Attachment H – Study Area Context Photographs**.



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Table 3. Land Use Evaluation Criterion	Unit	Alternative Route A	Alternative Route B
General			
Length	miles	4.8	5.0
Number of parcels ¹ crossed by ROW	count	34	28
Unique Landowners crossed by ROW ²	count	26	23
Municipalities, Counties, and Townships			
Pike County	miles	4.0	3.4
Floyd County	miles	0.8	1.6
Residential			
Barns, outbuildings, sheds, garages and silos in the ROW (excludes abandoned features)	count	0	0
Residences/single-family dwellings within ROW	count	0	0
Residences/single-family dwellings within 250 feet of centerline	count	4	2
Residences/single-family dwellings within 500 feet of centerline	count	11	7
Commercial/Industrial			
Businesses/commercial buildings within 500 feet of the centerline	count	0	0
Total Length of Permitted Mining Areas crossed	miles	1.8	1.9
Cultural Resources			
Listed architectural sites within one mile of the centerline	count	14	3

¹ The number of parcels crossed refers to the number of individual plots of owned land recorded by each county.

² The number of landowners within the ROW represents the number of individual landowners, who each may own one or more parcels.

4.2.1 Agricultural and Forestry Resources

Resource Characteristics

The Study Area is primarily a mix of previously mined areas, forestry uses, and developed land along roadways. Most of the land is mountainous and heavily forested with scattered



developed land uses. The major land use activities situated on the high terrains include mining and forestry uses.

Alternative Route Comparison

Crossing previously surfaced mined areas avoids impacts to lands that have not been previously impacted and can result in reduced tree clearing for both the transmission line and access road use, as well as minimizing impact to habitat fragmentation. Alternative Route A crosses less permitted mining areas by approximately 0.2 mile than Alternative Route B; however, in discussions with CAM Mining, larger mining operations were planned east of Rays Branch and where the ROW of Alternative Route A would cross. A relocation agreement would likely be required. No known agricultural easements, tree farms/orchards, or cropland according to NLCD data are crossed by either Alternative Route.

4.2.2 Recreation and Conservation Lands

Research was conducted to identify areas that include federal/state forests, parks, designated wilderness areas, game lands/public hunting areas, trails and local recreation. None of these protected lands are crossed by either ROW of the two Alternative Routes, nor are they located within the Study Area. As mentioned in Section 4.1.2, coordination was initiated with the KSNPC, the KDFWR, and the USFWS; however, no responses were received concerning the existence of these protected lands.

4.2.3 Developed Land Use

Resource Characteristics

Residential and commercial land uses near any of the alternative route ROWs can result in temporary disturbances and other direct effects. Construction activities can create dust, noise, and traffic by routing construction equipment along existing roads and along temporary access to transport materials between work sites. Construction of a new transmission line can also result in changes in land use and aesthetic impacts to residents, commuters and travelers, employees, and recreational users.

Alternative Route Comparison

Alternative Route A provides a more direct route to the Enterprise Park; however, there is more development concentrated in the middle and eastern portions of the Study Area and tends to be smaller parcels with more landowners. Most of the attendees at the public open house were



landowners concentrated near Alternative Route A. No residences or single-family dwellings exist within the ROW of either Alternative Route or within 100 feet of either Alternative Route's centerline. However, four more residences are within 500 feet of the centerline for Alternative Route A, compared with Alternative Route B. No commercial or industrial buildings exist near either centerline. Where Alternative Route B parallels the existing 765 kV transmission line there are existing impacts to those landowners and their viewshed. By paralleling the ROW, Alternative Route B is able to minimize future viewshed impacts whereas Alternative Route A is situated in an area without any existing transmission line impacts. Overall, Alternative Route B is located farther from residential areas and the City of Pikeville.

4.2.4 Historic and Archaeological Resources

Resource Characteristics

Research was conducted for the Study Area to identify previously recorded cultural resources and potential cultural resources. Research was completed through review of historic documents and other archives (including the KHC database). Historic resources include architectural and archaeological resources, historic and cultural landscapes.

Alternative Route Comparison

No NRHP-listed or -eligible sites were found within one mile of the centerline for either Alternative Route. No Historic Districts exist within one mile of the centerline for either Alternative Route. No listed archaeological sites were found within either ROW or within 250 feet of the centerline for both Alternative Routes. No National Landmarks exist in the Study Area.

Fourteen historic architectural resources within one mile of the centerline for Alternative Route A and three resources were found for Alternative Route B; however, all resources are located north of the 138 kV transmission line and are not impacted by either Alternative Route.

4.2.5 Visual Resources

To gain an understanding of the potential impacts on the landscape by comparing the Alternative Routes, members of the Siting Team conducted a route reconnaissance for the study segments presented at the open house, which includes the Alternative Routes chosen. Route reconnaissance was used determine the possible viewshed from publically accessible areas.



Alternative Route Comparison

The Study Area is generally mountainous and remote and both Alternative Routes generally remain high above valleys and on ridgelines to avoid impacts to development along roadways. The visual impacts for both alternatives would be low. Alternative B, however, would be expected to have less visual impacts since it is further away from residences and the City of Pikeville and parallels an existing linear ROW.

Alternative Route A crosses more roads and parcels, compared with Alternative Route B, as it is concentrated in an area with more scattered development. Alternative Route A also has more residences in close proximity to the ROW than Alternative Route B. Development is typically found around or along roads and can result in viewshed impacts and, as such, minimizing the number of road crossings is a criterion during the siting process. Minimizing the number of parcels crossed also reduces the number of landowners affected; and by crossing larger parcels it is also likely that the crossing may be further from residences and outbuildings. Lastly, either alternative route would span roadways in the valleys where residential development is prevalent, with the intent of situating structures in such a way to minimize visual impacts to the residences. Where the alternatives can span the valleys from peak to peak, mostly between Left Fork Island Creek Road, Long Branch, and Compton Branch, visual impacts would be minimized to residences by the alternative routes.

By conducting route reconnaissance and reviewing the LIDAR aerials, it was found that four more residences or single-family dwellings are located within 500 feet of the centerline for Alternative Route A than Alternative Route B. No residences exist within 100 feet of either centerline. No community or recreation facilities (schools, places of worship, cemeteries, hospitals, parks, etc.) are crossed by either ROW or located near either Alternative Route.

4.3 Constructability

This section discusses the feasibility of a proposed transmission line, as it relates to engineering and construction concerns. Constructability evaluates the use of existing transmission corridors, engineering challenges, and accessibility issues of a Proposed Route. Major factors that affect constructability include, but are not limited to, steep topography, condensed ROWs, heavy angles (greater than 30 degrees), proximity to major highways, accessibility, and safety. A



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comparison of the engineering and construction considerations for the three Alternative Routes is presented below in **Table 4**.



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Table 4. Constructability Evaluation Criterion	Unit	Alternative Route A	Alternative Route B
General			
Length	miles	4.8	5.0
Transportation Resources			
Local roads and streets crossed	count	8	6
Utility Resources			
Oil and gas wells within ROW	count	2	0
Number of gas lines crossed	count	0	0
Communication towers within 1,000 feet of the centerline	count	0	0
Engineering and Construction Considerations			
Steep slopes crossed by ROW (>20%), percent of total length	percent	4.5%	4.9%
Heavy angles, greater than 30%	count	6	1
Total Number of Structures	count	18	16
Rights-of-Way Rebuild/Parallel			
Existing 765 kV transmission line paralleled	miles	0	1.3
Total percentage paralleled	percent	0	26%

4.3.1 Engineering Design Considerations

Transmission Right-of-Way

The Siting Team attempted to minimize total length and ROW acquisition. Where possible and practical, Kentucky Power considers using existing transmission ROW, paralleling existing electric lines, or paralleling other infrastructure (i.e., roadways, railways or gas lines). Roadways were not considered parallel opportunities for this Siting Study as they are typically surrounded by dense residential or commercial development and are located in valleys where construction is not feasible. Transmission line ROWs are designed at a certain width to account for safety considerations. Crossing existing linear infrastructure is also a consideration when designing and siting a transmission line. A crossing of the 765 kV transmission line was not considered due to very steep topography on the western side and outages required on the EHV line. A parallel opportunity for the 765 kV transmission line was considered for engineering and construction. Other utility infrastructure does not exist within the Study Area and neither Alternative Route crosses existing EHV transmission lines or gas pipelines.



Alternative Comparison

Alternative Route B parallels the 765 kV transmission line for approximately 1.3 miles (26% of the total length) whereas Alternative Route A does not parallel any existing infrastructure. Paralleling existing infrastructure provides opportunity to use existing access roads and minimize tree clearing.

Engineering and Construction Considerations

Potential engineering and construction challenges are important to consider when siting a transmission line. Heavy angles, steep topography, nearby towers, antennas, and airfields along with narrow ROW alignments are all elements that could ultimately require extensive or non-standard engineering and lead to increases in impacts.

The proximity to existing roadways, transmission and gas pipeline or gas well infrastructure could also pose potential engineering and construction challenges. As with paralleling existing infrastructure, crossing over transmission lines and gas pipelines may require specialized construction techniques, and transmission crossings may require outages. Kentucky Power attempted to minimize engineering challenges during the conceptual design phase. The best transmission line route from an engineering and constructability perspective is typically the shortest and straightest route; however, given the complexity of the Study Area, a straight and direct route was not possible.

Alternative Comparison

Based on a preliminary desktop design, Alternative Route A requires two more structures than Alternative Route B and five additional heavy angles (greater than 30°) to avoid development along roadways. Additionally, Alternative Route A does not have any gas wells within the 100-foot ROW, while Alternative Route A has two. If Alternative Route A was chosen as the proposed route, final engineering and additional design would need to occur to avoid any gas wells from being located within the ROW; this additional design would likely result in additional angles or structures. No interstate highways, U.S. Hwys, state highways, or scenic byways are crossed as a result of either Alternative Route. There are no railroads crossed by the Alternative Routes; no airports exist within the Study Area that would require extra permitting and design considerations.



4.3.2 Topography and Geology

The Study Area is comprised mostly of steep topography with previously mined areas that can be difficult for structure placement due to the increased potential for slips and slides. Steep slopes are an important consideration when siting a transmission line, as they directly impact the constructability of both access roads and structures. Road washouts or road failure due to steep slopes require extensive erosion and sediment controls during construction and are not cost effective during construction. Span lengths are also considered when siting a transmission line across ridgetops.

Alternative Comparison

The percentage of steep slopes for Alternative Route A and Alternative Route B are comparable and neither is built in particularly rugged terrain where the steep slopes would be a major engineering and constructability constraint. The routes associated with the middle tap were eliminated earlier in the process due to these constraints. Both alternative routes can generally run peak to peak and span high above valleys and roadways.

4.3.3 Access Roads

Both Alternative Route A and Alternative Route B will require new access roads as they would both be constructed within a new ROW. Roads with a particularly high volume of traffic, such as Left Fork and Right Fork of Island Creek Road, are not ideal access roads due to the need for heavy machinery to enter and exit the access roads into a high traffic area. Similarly, Interstate highways generally cannot be used for access roads due to traffic control and safety concerns; no Interstate Highways exist in the Study Area. Sharing access roads with mining areas or previously mined areas and existing access roads previously used for transmission line construction are considered an opportunity as access roads can cause habitat fragmentation due to tree clearing and grading activities.

Alternative Routes Comparison

Alternative Route B has more existing road access due to the 765 kV transmission line parallel in addition to the old mining operation south of the Enterprise Park. Field visits confirmed that there are some existing roads that could likely be used to access the southern tap location; however, additional ROW acquisition from private landowners would be required. There are also a few existing access roads near the tap for Alternative A due to some ongoing gas well locations, but there are significantly fewer existing roads compared with Alternative B.



5.0 IDENTIFICATION OF THE PROPOSED ROUTE

The goal in selecting a suitable route for the Project is to minimize impacts on land use and natural and cultural resources while avoiding circuitous routes, and non-standard design requirements. However, in practice, it is not possible to optimally minimize all potential impacts at all times. There are often inherent tradeoffs in potential impacts to every siting decision. For example, in heavily forested study areas, the route that avoids the most developed areas will likely have the greatest amount of forest clearing, while the route that has the least impact on vegetation and wildlife habitats often impacts more residences or agricultural land. Thus, an underlying goal of a siting study is to reach a reasonable balance between minimizing potential impacts on one resource versus increasing the potential impacts on another.

The following section summarizes the rationale for selection of the Proposed Route, and thus, the route that the Siting Team considered to best minimize the overall impacts of the Project. The rationale presented is derived from the accumulation of the siting decisions made throughout the process, the knowledge and experience of the Siting Team, comments from the public and regulatory agencies, and the comparative analysis of potential impacts presented in Section 4.

5.1 Proposed Route

Based on a qualitative and quantitative review of information obtained from GIS data, existing easements, field reconnaissance, agency consultation and public outreach as well as engineering and financial estimates for the Project, **the Siting Team recommends Alternative Route B as the Proposed Route.**

Conclusion

The Siting Team identified a Proposed Route from an iterative process that moved from concepts to increasingly refined segments and alternative routes. First, a Study Area was defined and constraint data collected (**Map 1**). Next, three routing concepts were developed in the Study Area originating from the existing 138 kV transmission line to the Kentucky Enterprise Industrial Park (**Map 2**). The northern concept corridor was dismissed due to proximity to residences and future land use. From the two remaining routing concepts, numerous preliminary study segments were developed to connect the five substation study sites considered (**Map 3**). Using stakeholder input and analysis, the preliminary study segments were refined and/or eliminated into 23 study segments and two substation sites (**Map 4**), which were presented at the public open house. Next, the study segments were refined again (**Map 5**) and



the remaining segments were assembled into two final alternative routes and the proposed substation site was identified (**Maps 6 and 7**).

The Siting Team identified a Proposed Route from an iterative process, described above, and concluded that the construction of the Alternative B as the Proposed Route is the best route. The Proposed Route provides a paralleling opportunity to the existing Big Sandy – Broadford 765 kV Transmission Line. The paralleling opportunity reduces forest and habitat fragmentation, minimizes additional viewshed impacts, utilizes existing access roads, and is a very common and accepted transmission line siting criterion. The Proposed Route is also more efficient and direct, and takes advantage of the terrain to maximize span lengths and reduce the number of structures and heavy angles. Based on preliminary design, the Proposed Route would require two less transmission line structures and fewer angles exceeding 30 degrees as compared to Alternative Route A. Additionally, based on field investigations, members of the Siting Team concluded approximately 15 miles of existing or partially existing access roads can be used to construct the Proposed Route. Minimizing the construction of new roads reduces the associated environmental impacts including habitat fragmentation. Lastly, the Proposed Route is located in a largely undeveloped area and farther from residential, commercial, and future mining development areas resulting in lesser visual impacts.

Furthermore, given the generally undeveloped landscape associated with the Study Area a primary major factor for identifying a Proposed Route was landowner cooperation. Kentucky Power has contacted the majority of the affected landowners on the Proposed Route. Generally landowners have expressed a willingness to work with Kentucky Power. Although some landowners expressed concerns, Kentucky Power representatives were able to make minor adjustments to the route to satisfy landowners concerns or comments.

Collectively, the Siting Team believes that the Proposed Route (Alternative Route B) meets the goal of avoiding or minimizing impacts on people, land use, and the natural and cultural resources along the route, while avoiding circuitous routes, and non-standard design requirements.

5.1.1 Proposed Route Modifications

In the time between the selection of the Proposed Route and filing the Project with the Kentucky PSC, the Siting Team began detailed engineering and landowner discussions. Minor adjustments were made to take better advantage of topography, provide a more feasible, constructible route, and consider landowner input.



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The alignment between Left Fork of Island Creek Road and Billy Compton Branch was adjusted slightly south to consider landowner recommendations and comment. Due to previous mining activity, the publicly available contour data did not show accurate elevation contours. More accurate data was available once the LiDAR data was processed and a detailed design was conducted. As a result, the section of the Proposed Route between Billy Compton Branch and the Kewanee 138 kV Substation was moved slightly north to allow structures to be placed on higher terrain and thereby avoid side slopes that are prone to slips and slides. Shifts to the Proposed Route did not result in impacts to any new landowners not previously notified as part of the public open house, and did not require additional structures or non-standard design requirements to the line. Kentucky Power ROW representatives have met with or spoken to landowners along the Proposed Route and the majority of which have supported the Project and/or signed permission to survey forms. Modifications to the Proposed Route are also shown in **Attachment B – Map 7**. Lastly, the location of the Kewanee Substation was shifted slightly north to be wholly on the parcel to be purchased by AEP. The shift in the station pad location resulted in an extension of the proposed route to the north to connect to the substation.



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Enterprise Park Economic and Area Improvements Project
Siting Study

Attachment A: Substation Site Selection Study

Substation Site Selection Study

Kewanee 138 kV Substation

Enterprise Park Economic and Area Improvements Project PSC Case No. 2018-00209

Prepared for:



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July 2018

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Kewanee 138 kV Substation
Site Selection Study

ACRONYMS

AEP	American Electric Power
IPaC	Information for Planning and Consultation
Kentucky Power	Kentucky Power Company
kV	Kilovolt
UMG	Utility Management Group, LLC
US Hwy	United States Highway
USFWS	United States Fish and Wildlife Service



1.0 PROJECT OVERVIEW

1.1 Project Need Summary

Kentucky Power Company (Kentucky Power), a unit of American Electric Power (AEP), identified a need to construct a new 138 kilovolt (kV) substation (the Kewanee 138 kV Substation) in Pike County, Kentucky to support the larger Enterprise Park Economic and Area Improvements Project (the Project). Kentucky Power and POWER Engineers, Inc., identified and evaluated five potential substation sites for the Project. The objective in choosing the substation site was to find a suitable location within or adjacent to the Kentucky Enterprise Industrial Park (Enterprise Park) as part of the customer-driven project. The Kewanee 138 kV Substation in addition to the new double circuit 138 kV transmission line (Kewanee 138 kV Transmission Line Extension) will increase electric reliability to customers and increase economic development opportunities in eastern Kentucky by making upgrades to the power grid in Floyd and Pike counties. Once complete, the transmission and substation upgrades will reduce the likelihood of extended outages while providing the 300-acre Enterprise Park with a reliable and robust power transmission system capable of handling continued customer growth in Eastern Kentucky.

1.2 Siting Criteria

Many of the initial siting considerations for a transmission substation are dictated by the system planning requirements. System planning considerations typically dictate the general location of the station and the necessary transmission interconnections needed. Once key system requirements are identified, the Siting Team's engineers and environmental planners identify potential sites and evaluate the potential engineering obstacles, construction logistics, potential operational constraints, and potential environmental and human impacts associated with each site. The following list provides a summary of the siting criteria.

System Planning Requirements

- **Electrical Load Center**: Identified sites must meet the electrical need and requirements identified by the system planners and do so in an economic and reliable manner.
- **Transmission Access**: The new substation will be located within or immediately adjacent to Enterprise Park, and it will provide electric service to the associated businesses.



Engineering/Operations

- **Space Requirements:** The station pad must be at least 335-foot by 280-foot (approximately 2.15 acres). A larger area will be needed to accommodate grading and associated storm water controls.
- **Access Requirements:** Access during construction and during operation and maintenance of the substation must be considered. Due to the heavy equipment needed at the site, consideration of bridge/public roadway weight limits is necessary. Access to the site should be via roads with a reasonable grade, length, turning radius, and line of sight. Railroad crossings and joint access to public roads with other private owners should be avoided. Access to the site must also avoid potential loss in availability for future development within Enterprise Park and hinder future economic growth.
- **Geotechnical Considerations:** Consideration will be given to soil types and soil stability, especially in areas of previous mined lands. Soils with excessive restrictions on engineering and construction factors should be avoided, including areas prone to slips, slides, and large rock outcrops.
- **Cost:** Relative site development and construction costs are considered in the evaluation.

Natural and Human Environment Impacts

- **Terrain/Slope Considerations:** Excessively steep terrain should be avoided where feasible. Low-lying sites prone to flooding should be avoided or the site should be elevated above the 100-year floodplain elevation. Allowance should be provided for excavation cuts and fills, drainage and detention ponds, construction disturbed areas, and lay-down areas.
- **Historic and Archaeological Concerns:** Sites should be reviewed for any impact to historic or archaeological features and these impacts should be minimized.
- **Public Use Facilities:** Where possible, sites in close proximity to schools, churches, community buildings, and parks should be avoided.
- **Recreational Areas:** Recreational areas will be avoided to the maximum extent practical during site selection. Aesthetic impacts should be reviewed and considered to minimize conflicts with these uses.
- **Aesthetics:** Consideration will be given to the aesthetics of the area. Where appropriate and practical, vegetation screening should be considered to minimize views.



- Residential Land Use: Vacant or undeveloped lands are the preferred location for the potential Kewanee 138 kV Substation and high-density residential areas should be avoided during preliminary site selection if possible and practical. Whenever possible, the number of individual property owners involved will be minimized. Future development for residential areas should also be avoided.
- Utility Lines: Consideration will be given to the presence of underground gas or water pipelines, drainage easements, other utilities, and proposed adjacent development plans.
- Water Resources/Wetlands: Sites with substantial amounts of wetlands should be avoided if possible. If present, the design for the proposed substation should maximize avoidance and any impacts should be properly mitigated.
- Hazardous Wastes: Alternative Sites should be reviewed for the current or historic presence or use of hazardous materials, and avoided where possible.

1.3 Study Area

The Study Area for the proposed Kewanee 138 kV Substation was defined within the limits or immediately adjacent to the 300-acre Enterprise Park as this was the ideal location to both meet future customer needs in the Enterprise Park and also serve existing customers, previously served by the Fords Branch Substation. The Enterprise Park is located west of United States Highway (US Hwy) 23/South Mayo Trail and the Town of Fords Branch. The proposed Kewanee 138 kV Substation will replace the existing Fords Branch Substation to be retired, which is located approximately 0.2 mile east of the intersection of US Hwy 23/South Mayo Trail and Fords Branch Road. The Study Area is at a high elevation and located on a reclaimed strip mining operation that is being converted into an industrial park. There is residential development surrounding the Enterprise Park to the north (Left Fork Island Creek Road), to the east (US Hwy 23), and to the west (Road Fork).

1.4 Alternative Sites

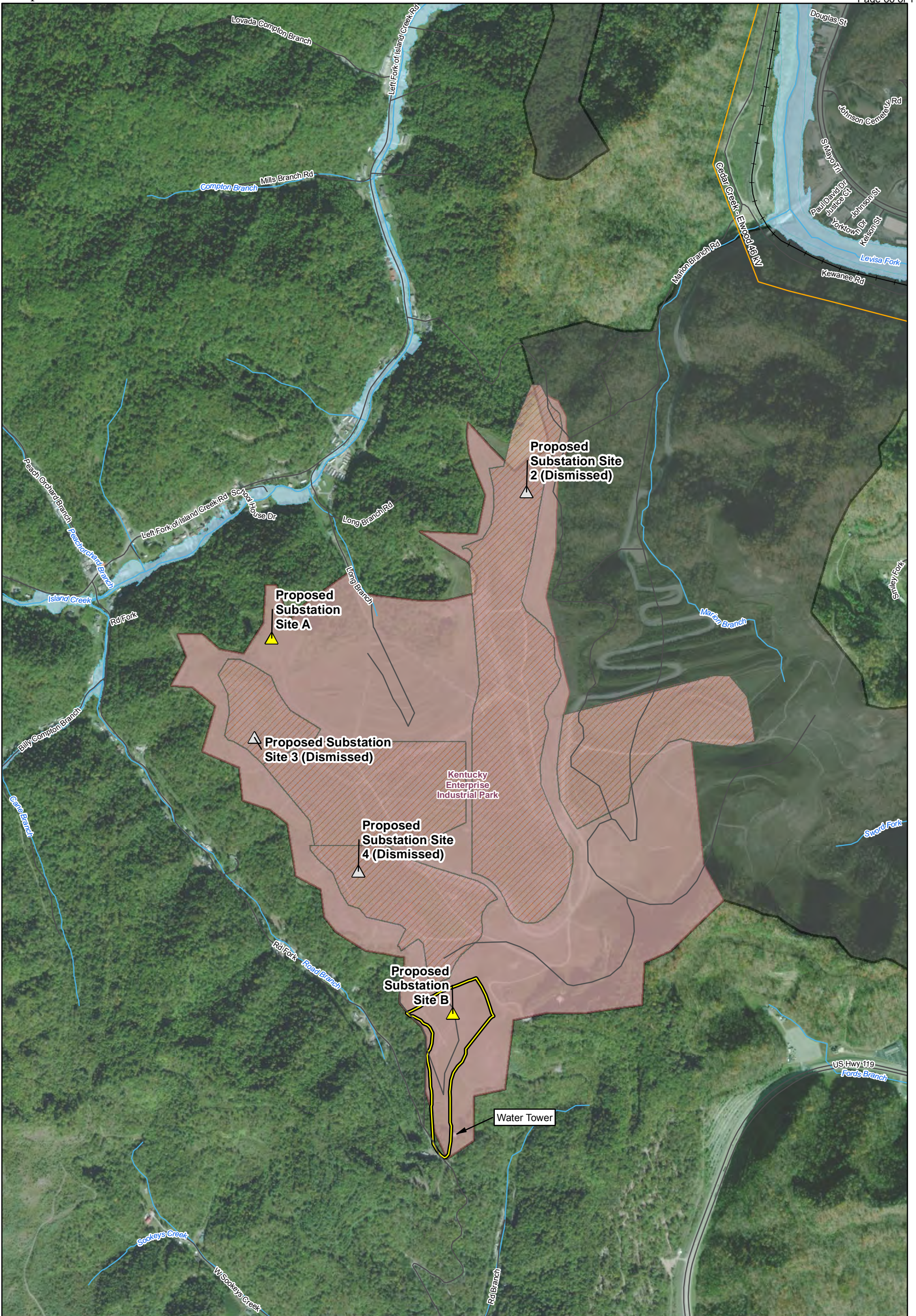
Using established siting guidelines, the Siting Team identified suitable sites within the Study Area that would minimize impacts to the natural and human environment, while remaining on the western side of the Enterprise Park to be in closer proximity of the existing Sprigg – Beaver Creek 138 kV Transmission Line. The Siting Team identified five Alternative Sites for the proposed Kewanee 138 kV Substation, as shown on **Map 1**. All five sites are located adjacent or in the Enterprise Park and located on reclaimed strip mining land. Considerations for choosing a



Kewanee 138 kV Substation
Site Selection Study

site included constructability for the proposed substation and proposed transmission line, feasible access, and purchase availability of the parcel. Other criteria considered when identifying alternative substation sites included utility placement, future development of the Enterprise Park, topography suitable for a foundation, geotechnical considerations, engineering and operational costs, sufficient acreage, ground contamination issues, and potential visual and environmental impacts.

Once the list of Alternative Sites was developed in conjunction with the route development process, key members of the Siting Team conducted field inspections of each of the sites. These inspections involved the visual examination of the Alternative Sites and the surrounding area from road crossings and other points of public access. Of the five sites evaluated, three sites were dismissed from consideration, and two remaining sites were carried forward and presented at the public open house in addition to the routes as part of the larger Enterprise Park Economic and Area Improvements Project. The three sites dismissed were a result of various reasons including potential for development or feasibility with the proposed Kewanee 138 kV Transmission Line Extension.

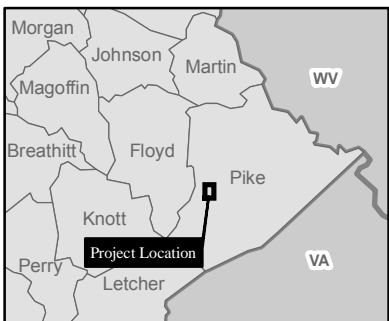


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	Proposed Substation Site		FEMA Floodplain
	Proposed Substation Site (Dismissed)		Future Industrial Development Area
	Existing AEP Transmission Line (69 kV or Lower)		Approximate Extents of the Kentucky Enterprise Industrial Park
	Road		Parcel to be Purchased for Substation
	Railroad		City of Pikeville
	Stream (NHD)		

1" = 1,000'

0 500 1,000
Feet



Proposed Kewanee 138 kV Substation Site Locations
Pike County Kentucky
NAD 1983 StatePlane Kentucky South FIPS 1602 Feet Foot US Lambert Conformal Conic North American 1983
Date: 7/27/2018 Author: AMW POWER: 15368

Enterprise Park Economic and Area Improvements Project P18025005
 <small>An AEP Company BOUNDLESS ENERGY</small>



Alternative Site Descriptions

SITE 1/Site A: Retained

Site 1 is located on the northwest side of the Enterprise Park, with Left Fork of Island Creek Road to the north and Road Fork to the west. Site 1 would require approximately five miles of new double circuit 138 kV transmission line. Site 1 was the original substation site discussed with Kentucky Power and the City of Pikeville representatives. Site 1 is relatively flat, of adequate size, and owned by the City of Pikeville. The site is narrow (approximately 300 to 500 feet wide) with a steep drop off on either side, limiting the possibility of widening the site. Though narrow, the site is large enough to accommodate the proposed Kewanee 138 kV Substation. The construction footprint could be resized or reconfigured; however, Site 1 is in a good location for distribution and for serving both Enterprise Park and the Fords Branch Substation customers. The City of Pikeville is willing to sell the property to Kentucky Power for use of a substation. Site 1 is a viable location for several route options originating from the three tap points on the existing 138 kV transmission line; however, it would require crossing Left Fork of Island Creek Road and Road Fork in areas of moderate residential development. Site 1 was carried forward to the open house as Site A for routing feasibility to the existing 138 kV transmission line and access to the site.



Photo 1. Site A Facing East



Photo 2. Site A Facing Northeast



SITE 2: Eliminated

Site 2 is located the furthest north within the Enterprise Park and would require approximately four miles of new double circuit transmission line. Substation Site 2 was considered in order to accommodate a less congested crossing of Left Fork of Island Creek Road. The site is cleared; therefore, minimal grading would be required for the proposed Kewanee 138 kV Substation. The study segments making up a potential alignment for the Kewanee 138 kV Transmission Line Extension that was considered for Site 2 cross a larger future mining area that may require a relocation agreement between AEP and the mining company. When these study segments were eliminated from consideration, Site 2 was no longer a viable location and was therefore eliminated. Site 2 was eliminated early in the siting process and no photos were taken of the site.

SITE 3: Eliminated

Site 3 is located on the eastern side of the Enterprise Park with a break in residential development on Road Fork to the west. Site 3 would require approximately five miles of new 138 kV transmission line. Similar to Site 2, the site is also primarily cleared, but would still require some grading to accommodate a substation pad. During a meeting with City officials, it was expressed that Site 3 was unfavorable as a substation site because it could hinder future economic growth from prospective clients to Enterprise Park. Preliminary site plans for the Enterprise Park show a possible storm water pond located near Site 3. Feedback from City officials and the possible impacts to future development resulted in the elimination of Site 3.



Photo 3. Site 3 Facing West



Photo 4. Site 3 Facing East



SITE 4: Eliminated

Site 4 is located just south of Site 3 and east of Road Fork. The site is relatively flat and would require minimal grading to accommodate a substation pad. During a meeting with City officials, Site 4 was also unfavorable due to its prime location to serving potential customers to the Enterprise Park. Due to the feedback from the City Commission meeting, Site 4 was dismissed from further consideration. Additionally, possible transmission line routes into Site 4 were dismissed for the larger Project and therefore, Site 4 was no longer a feasible option. Site 4 was eliminated early in the siting process and no photos were taken of the site.

SITE 5/Site B: Retained

Site 5 is located at the farthest southern end of the Enterprise Park and is owned by a private landowner and not the City of Pikeville. The site is away from future development of the park and would minimize viewshed impacts from other areas of the industrial park. There is also a water tank on the southern end of the Enterprise Park, which could result in waterlines running through the site. The Siting Team determined that UMG, LLC (UMG) owns the water tank and maintains water lines to the tank. The Siting Team met with UMG to discuss the Project and confirmed that no water lines from the tank are located on Site 5. UMG has been involved in the development of the Enterprise Park and provided valuable information. UMG also informed the Siting Team that there was a significant amount of fill from previous mining operations throughout the entire Enterprise Park, varying from 80 to 300 feet deep, with deeper amounts to the north and less to the south. Most of the site is flat with minimal to moderate grading required. This is the only site considered that is not owned by the City. Kentucky Power contacted the private landowner and they are willing to sell the parcel. Additionally, the site has good access from the Enterprise Park's primary entrance road. The proposed Kewanee 138 kV Extension would be approximately five miles long and largely located away from residential area. Overall, Site 5 is away from existing and future development in the Enterprise Park and was carried forward to the open house as Site B for further consideration.



Photo 5. Site B Facing Southeast



Photo 6. Site B Facing South (Towards the Water Tank)

**Kewanee 138 kV Substation
Site Selection Study**



Photo 7. Site B Facing Northeast



Photo 8. Site B Facing Southeast

2.0 ALTERNATIVE SITE COMPARISON

The Siting Team moved forward with Alternative Sites 1 and 5 (renamed to Sites A and B for public outreach) to be evaluated for the proposed Kewanee 138 kV Substation. Site A is located on the western side of Enterprise Park and Site B is located the farthest south. Both sites are located within or adjacent to Enterprise Park where several industrial companies intend to build, with residential development along the roadways at a lower elevation from the future industrial park. The site locations were largely driven by topography, available access into the site, transmission line route feasibility, and land use constraints.

Based on field reviews, no streams or wetlands are present on either site. Nonetheless, a wetland delineation will be completed for the selected site. Due to the Enterprise Park sitting atop a previously mined and disturbed area, it is unlikely that any archaeological or historic resources are present on either study site carried forward for further evaluation

Neither Site A or B have any known utility infrastructure constraints or conflicts. Site B presented constraints early in the siting process due to potential water lines underground and a water tank located on the property. However, a meeting with UMG confirmed that the water lines would not be impacted and a substation site could be accommodated far enough from the water tower.

Threatened and endangered species impacts are not likely for either site. Both were evaluated through an Information for Planning and Consultation (IPaC) on the United States Fish and Wildlife Service (USFWS) website and no critical habitats were found in the entire Project Area, including the Enterprise Park. Nevertheless, field surveys for critical species and habitats will be conducted as required.

From a planning and constructability standpoint, both sites A and B have good access from the Enterprise Park's primary entrance road and are good locations to feed an electric source to the Park and to the existing customers served by the Fords Branch Substation, once retired. Substation Site A is likely to be located on a more significant amount of fill as it is believed that more fill is located further north in the Enterprise Park. Substation Site A could lead to additional costs to install foundations and potentially cause undercutting of the substation foundation as a result of more fill. From stakeholder interviews, Site B is likely located in an area with less fill and would likely provide a more constructible location for a substation foundation

The use of Substation Site A requires siting study segments that would cross Road Fork in more congested areas of residential development. Additionally, one study segment would require the removal of a residence and the other study segment is located on a narrow ridge that could potentially have future constructability concerns for structures and access roads. Both

Substation Sites A and B are located on parcels that would require minimal to moderate grading, and where the owners are willing to sell. Site B is located at a lower elevation and is situated in a more secluded area that would likely result in less visual impacts.

3.0 SUMMARY AND RECOMMENDATIONS

The Siting Team considered and reviewed five possible substation sites for the proposed Kewanee 138 kV Substation. Three substation sites considered (Sites 2, 3, and 4) were eliminated due to possible conflicts with future development of the Enterprise Park or the locations were not advantageous for the proposed 138 kV transmission line due to land use, terrain, or future mining permits. Ultimately, the substation location was narrowed down to two alternative sites that best avoided existing and future development (Sites A and B).

Substation Site B is recommended as the “Proposed Kewanee 138 kV Substation” site. Both Sites A and B are feasible for construction of a substation. Additionally, both sites have willing sellers and avoid or minimize impacts on natural resources and land uses. Both alternative sites avoid the need for non-standard engineering design requirements and are cost effective.

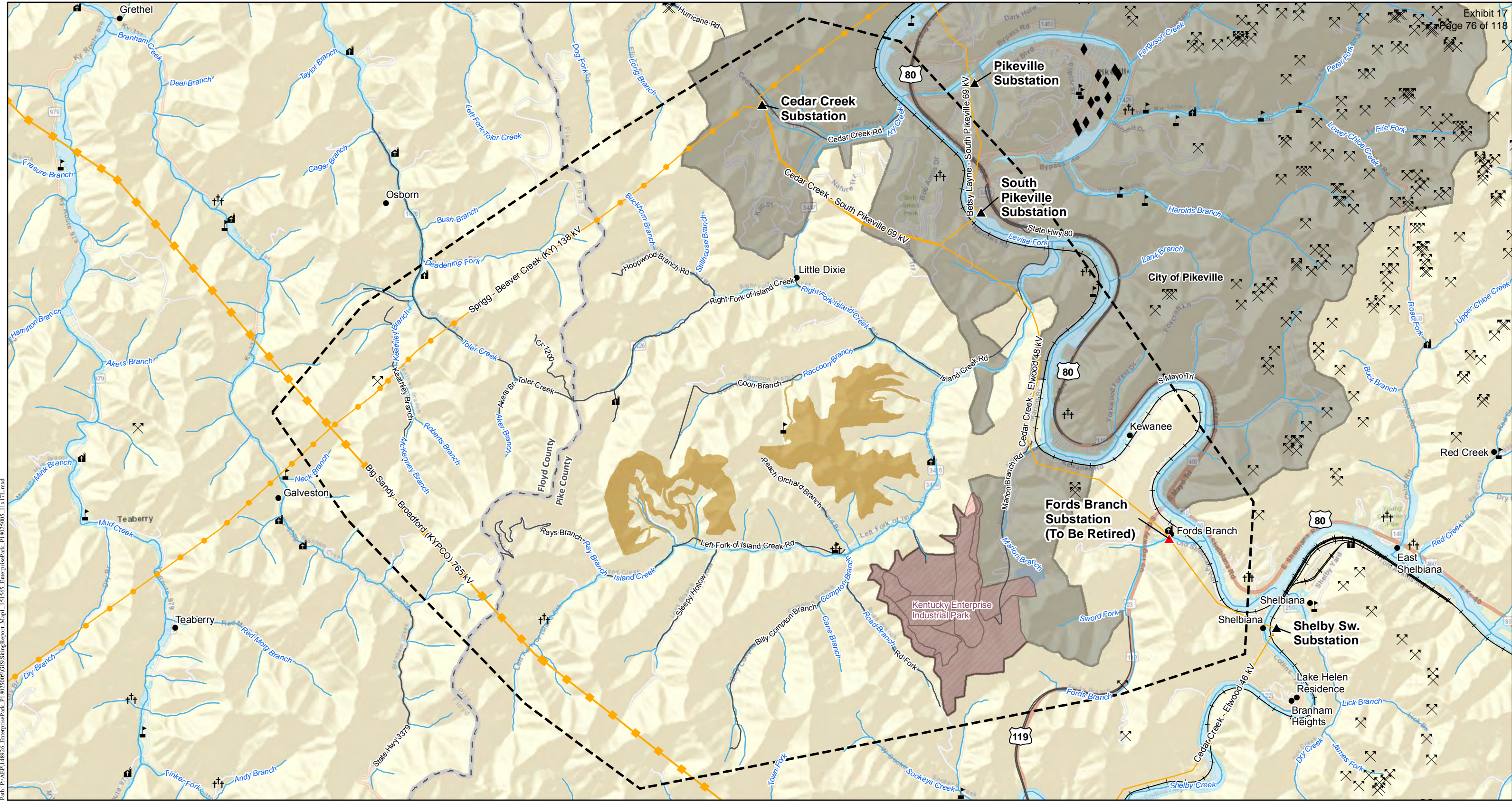
However, the Siting Team believes that Site B is the best site as it is a larger site with construction feasibility that minimizes foundation risks as a result of less fill and provides good access for the associated transmission line entrance. As a result of Site B being situated at a lower elevation and farther from the main development portions of the Enterprise Park, land use and visual impacts are minimized and there are likely to be fewer impacts on residences. The transmission line route into Site A crosses an occupied residential valley (Road Fork) and would likely require the removal of at least one residence. Additionally, The United States Army Corps of Engineers reviewed and confirmed no jurisdictional wetlands to be present on Site B. Therefore, based on a detailed desktop analysis and field reviews, the Siting Team recommends proceeding with the acquisition of Site B. The following was not conducted as part of this evaluation, and should be conducted prior to acquiring any property:

- Phase I Environmental Site Assessment
- Geotechnical borings and groundwater elevation
- Wetland delineation
- Threatened and endangered species surveys
- Access road design and line of sight survey

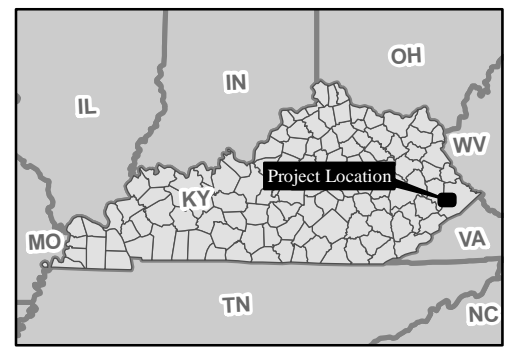


Enterprise Park Economic and Area Improvements Project
Siting Study

Attachment B: Maps



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● Populated Place	◆ NRHP Site	■ Future CAM Mining Permit Area
▲ Existing AEP Substation	†† Cemetery	■ FEMA Floodplain
▲ Existing AEP Substation to be Retired	⛪ Church	■ Future Industrial Development Area
— Existing AEP Transmission Line (69 kV or Lower)	⛪ School	■ Approximate Extents of the Kentucky Enterprise Industrial Park
— Existing AEP Transmission Line (115-230 kV)	⛏ Known Mine Portal Location	■ City of Pikeville
— Existing AEP Transmission Line (345 kV)	— Road	■ County Boundary
+	— Railroad	■ Project Study Area
	— Stream (NHD)	

NAD 1983 StatePlane Kentucky South FIPS 1602 Feet
Foot US
Lambert Conformal Conic
North American 1983

Floyd and Pike Counties
Kentucky

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Feet

1" = 3,500'

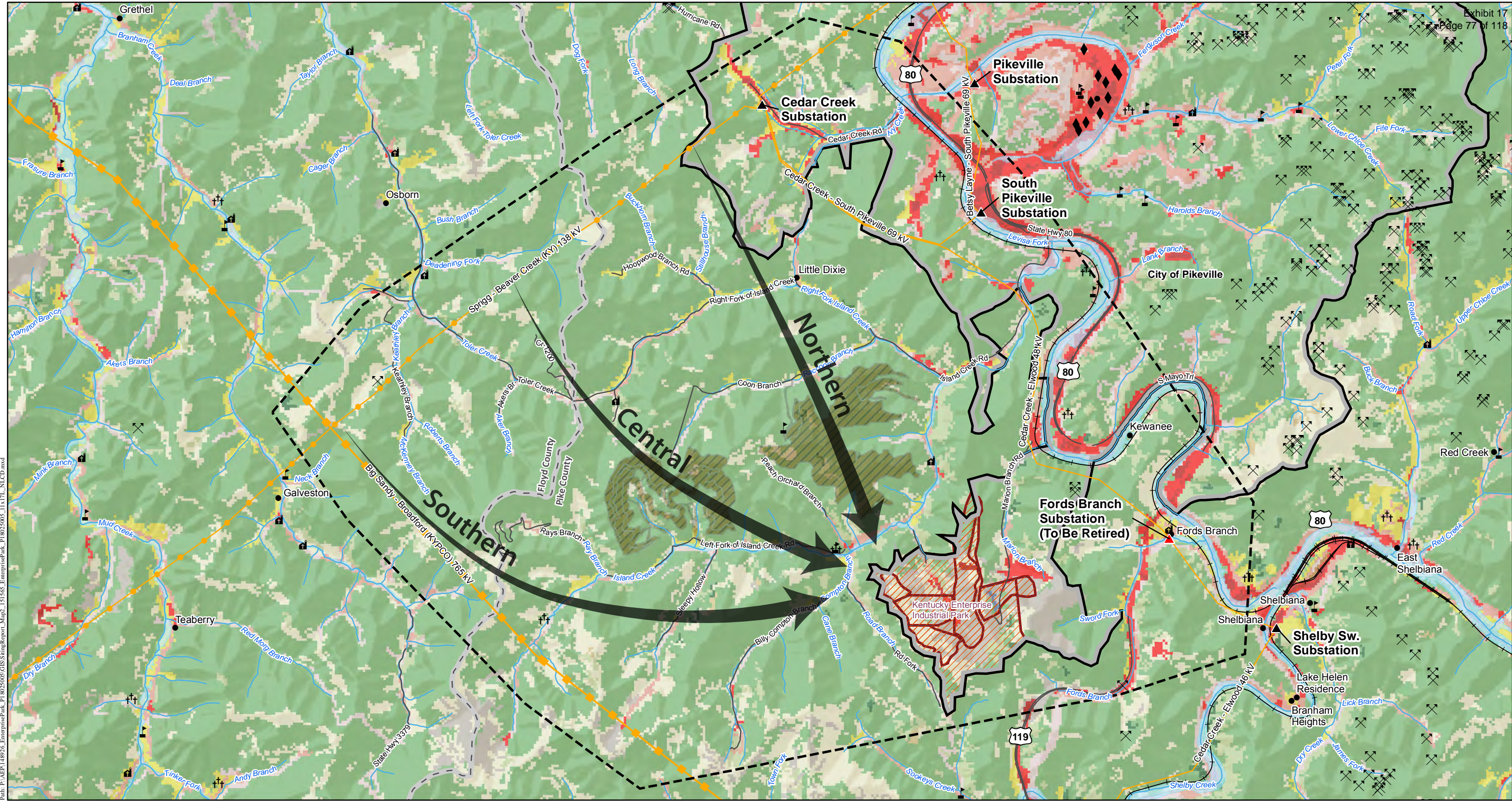
Map 1: Study Area

Enterprise Park Economic and Area Improvements Project
P18025005

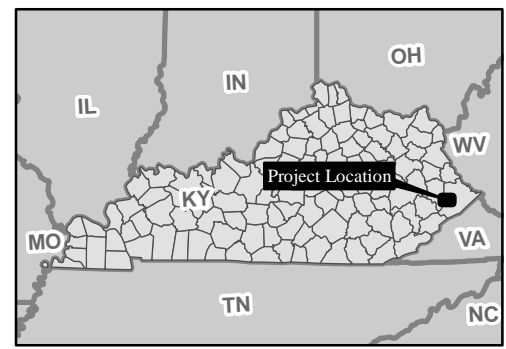
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Date: 7/26/2018
Author: AMW
Project: 153638

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● Populated Place	⛪ Cemetery	⬜ Approximate Extents of the Kentucky Enterprise Industrial Park	■ Developed, High Intensity
▲ Existing AEP Substation	⛪ Church	⬜ City of Pikeville	■ Barren Land
▲ Existing AEP Substation to be Retired	⛪ School	⬜ County Boundary	■ Deciduous Forest
— Existing AEP Transmission Line (69 kV or Lower)	⛪ Known Mine Portal Location	⬜ Project Study Area	■ Evergreen Forest
— Existing AEP Transmission Line (115-230 kV)	— Road	NLCD Land Cover Classification	■ Mixed Forest
— Existing AEP Transmission Line (345 kV +)	— Railroad	■ Open Water	■ Shrub/Scrub
◆ NRHP Site	— Stream (NHD)	■ Developed, Open Space	■ Herbaceous
	■ Future CAM Mining Permit Area	■ Developed, Low Intensity	■ Hay/Pasture
	■ FEMA Floodplain	■ Developed, Medium Intensity	■ Cultivated Crops
	■ Future Industrial Development Area		➤ Routing Concepts

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North American 1983

Floyd and Pike Counties
Kentucky

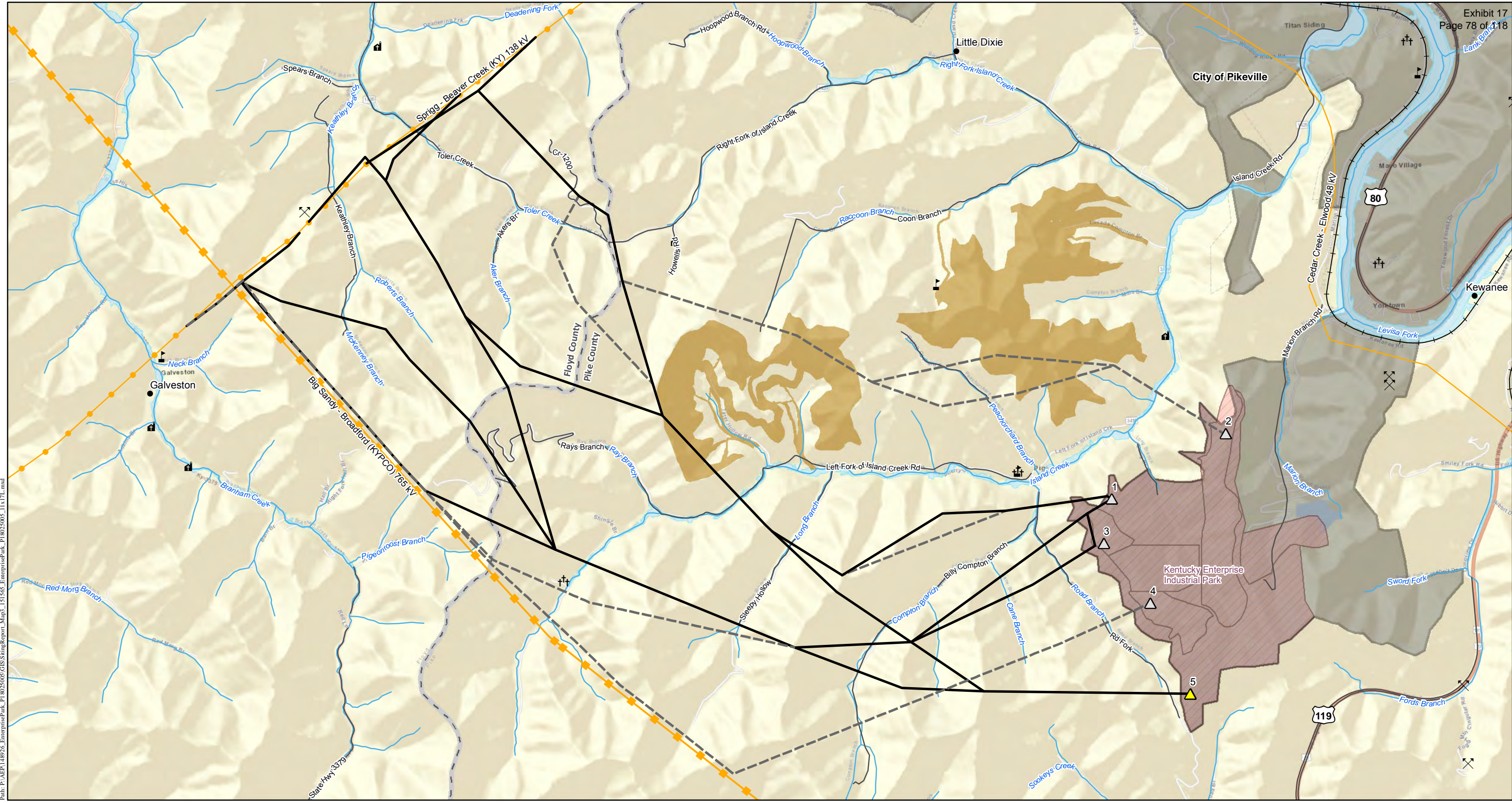
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Map 2: Routing Concepts

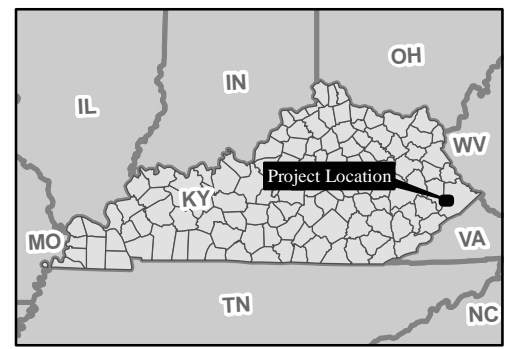
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Project: 153638


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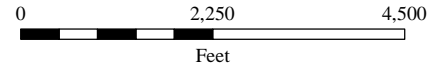
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| <ul style="list-style-type: none"> ● Populated Place ▲ Proposed Substation Site (Dismissed) — Existing AEP Transmission Line (69 kV or Lower) — Existing AEP Transmission Line (115-230 kV) | <ul style="list-style-type: none"> — Existing AEP Transmission Line (345 kV +) ⛔ Cemetery ⛑ Church 🎓 School ⛏ Known Mine Portal Location — Road — Railroad — Stream (NHD) | <ul style="list-style-type: none"> ■ Future CAM Mining Permit Area ■ FEMA Floodplain ■ Future Industrial Development Area ■ Approximate Extents of the Kentucky Enterprise Industrial Park ■ City of Pikeville --- Dismissed Preliminary Study Segments | <ul style="list-style-type: none"> — Preliminary Study Segments Carried Forward ▭ County Boundary |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|


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**Floyd and Pike Counties
Kentucky**


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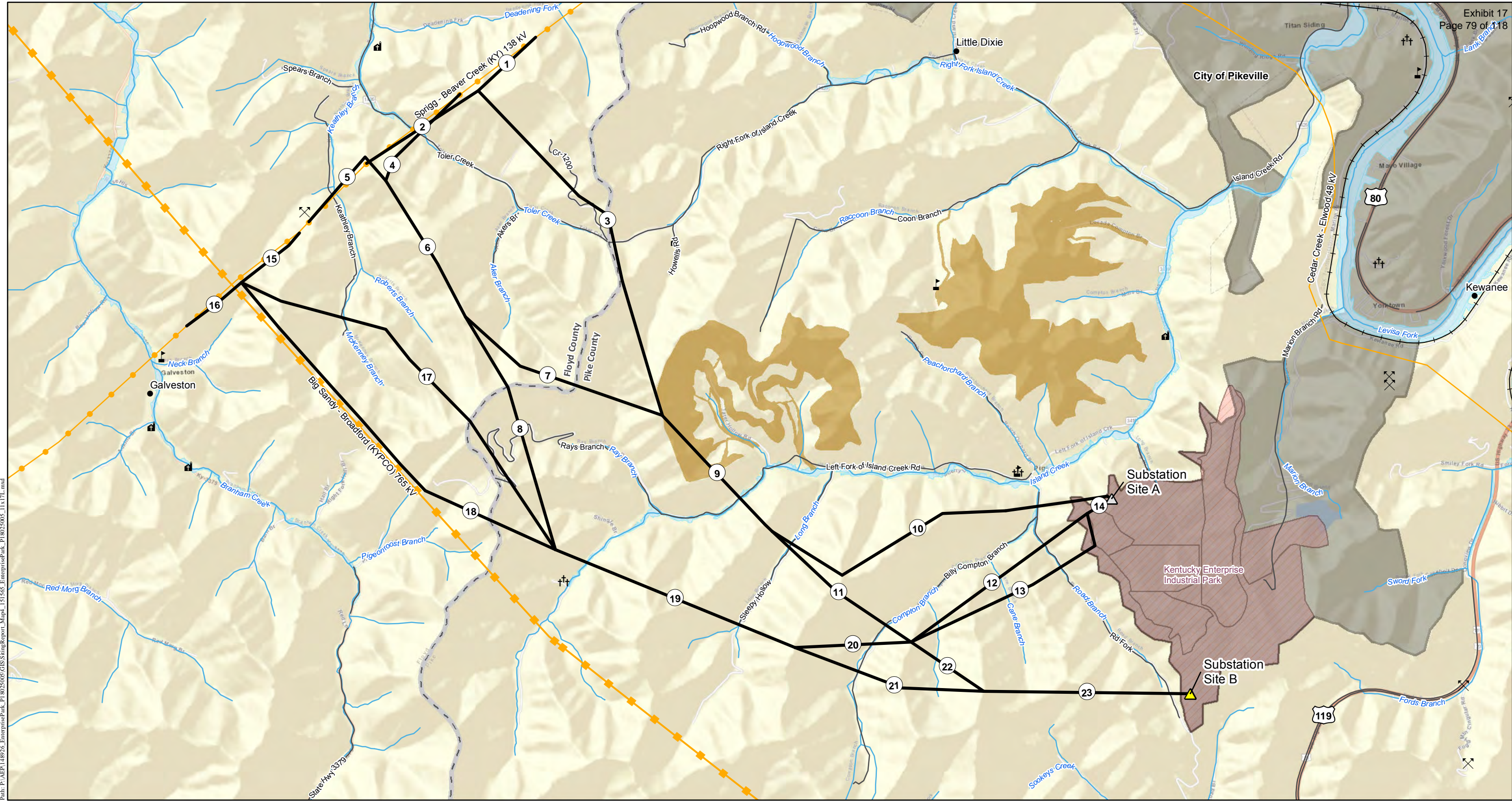
1" = 2,250'
 Page 1 of 1

Map 3: Preliminary Study Segment Network and Substation Study Sites

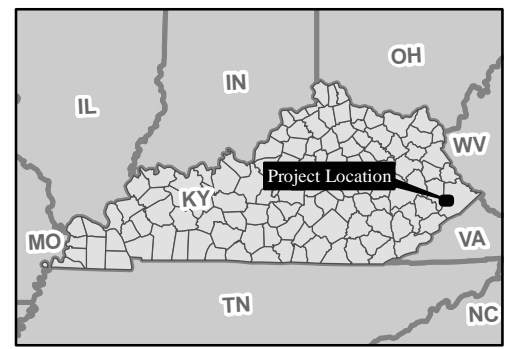
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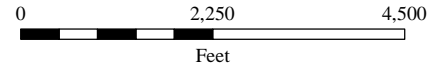
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 Author: AMW
 Project: 153638




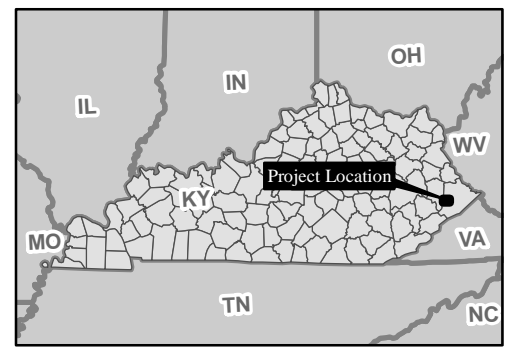
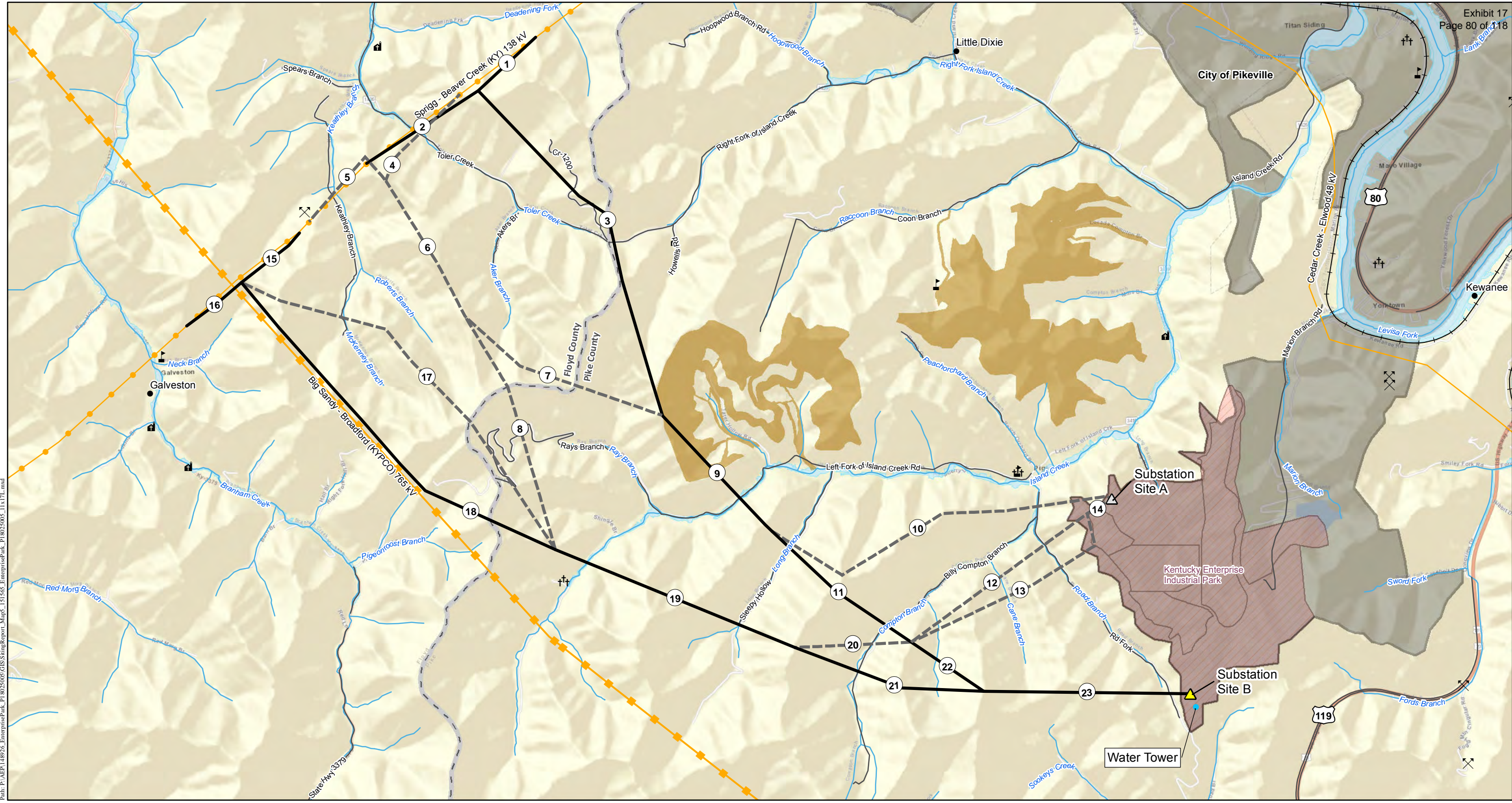
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● Populated Place	Existing AEP Transmission Line (345 kV +)	Stream (NHD)
▲ Proposed Substation Site	†† Cemetery	Future CAM Mining Permit Area
△ Dismissed Substation Site	⛪ Church	FEMA Floodplain
— Preliminary Study Segments Carried Forward	⛪ School	Future Industrial Development Area
— Existing AEP Transmission Line (69 kV or Lower)	⛪ Known Mine Portal Location	Approximate Extents of the Kentucky Enterprise Industrial Park
— Existing AEP Transmission Line (115-230 kV)	— Road	City of Pikeville
	— Railroad	County Boundary

 NAD 1983 StatePlane Kentucky South FIPS 1602 Feet
 Foot US
 Lambert Conformal Conic
 North American 1983
 Floyd and Pike Counties
 Kentucky

 1" = 2,250'

Map 4: Study Segment Network and Substation Study Sites
 Enterprise Park Economic and Area Improvements Project
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 Author: AMW
 Project: 153638
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<ul style="list-style-type: none"> ● Populated Place ▲ Proposed Substation Site △ Dismissed Substation Site — Study Segments Carried Forward - - - Study Segments Dismissed — Existing AEP Transmission Line (69 kV or Lower) — Existing AEP Transmission Line (115-230 kV) 	<ul style="list-style-type: none"> — Existing AEP Transmission Line (345 kV +) †† Cemetery ⛪ Church ⚎ School ⊗ Known Mine Portal Location ● Water Tower — Road — Railroad 	<ul style="list-style-type: none"> — Stream (NHD) ■ Future CAM Mining Permit Area ■ FEMA Floodplain ■ Future Industrial Development Area ■ Approximate Extents of the Kentucky Enterprise Industrial Park ■ City of Pikeville ■ County Boundary
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Kentucky

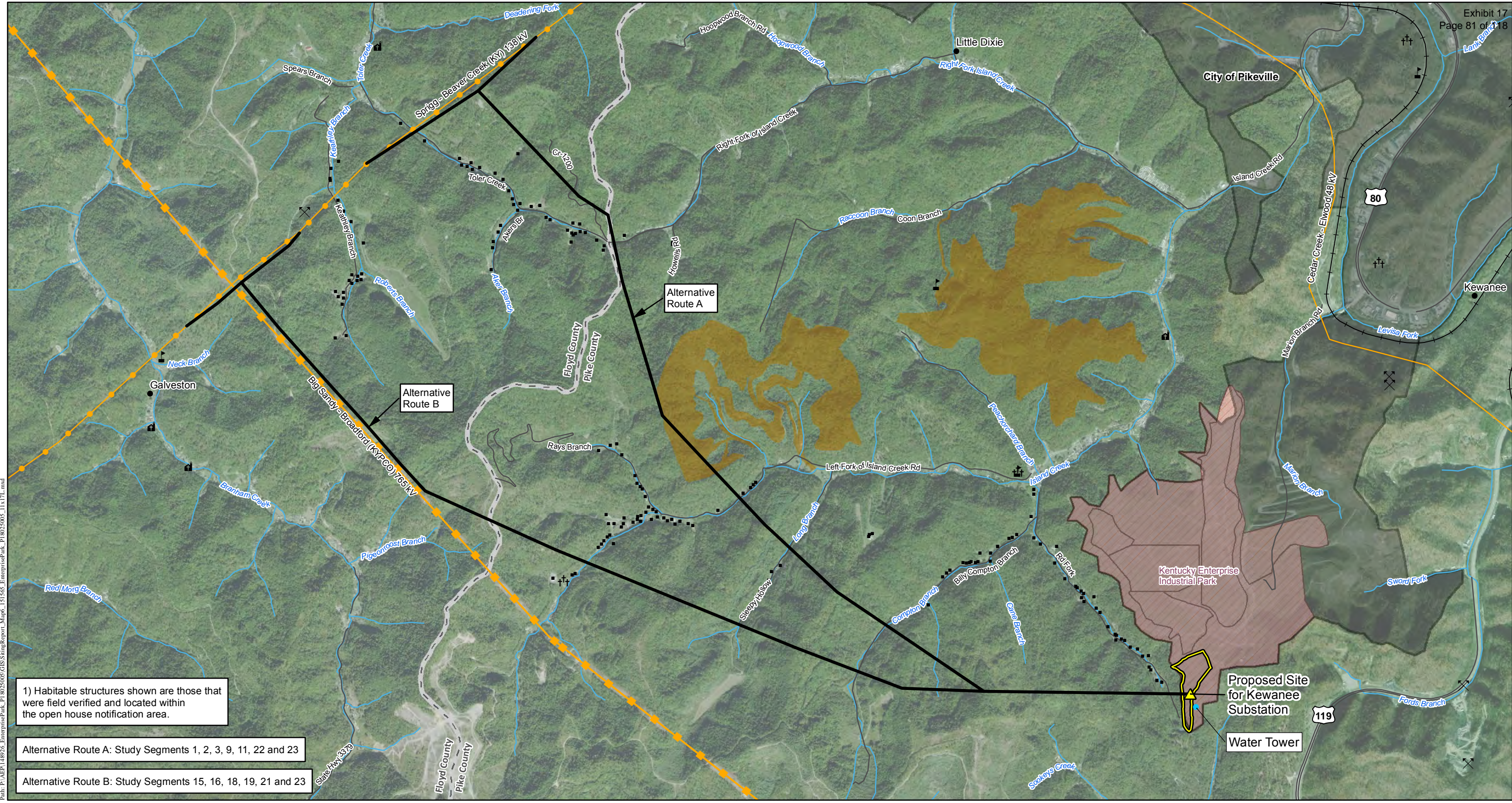
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1" = 2,250'

Map 5: Refined Study Segment Network and Substation Study Sites
 Enterprise Park Economic and Area Improvements Project
 P18025005

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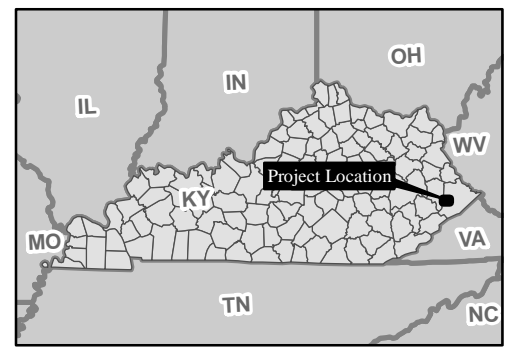
Date: 7/26/2018
 Author: AMW
 Project: 153638



1) Habitable structures shown are those that were field verified and located within the open house notification area.

Alternative Route A: Study Segments 1, 2, 3, 9, 11, 22 and 23

Alternative Route B: Study Segments 15, 16, 18, 19, 21 and 23



- Populated Place
- ▲ Proposed Substation Site
- Alternative Routes
- Existing AEP Transmission Line (69 kV or Lower)
- Existing AEP Transmission Line (115-230 kV)
- Existing AEP Transmission Line (345 kV +)
- Habitable Structure¹
- †† Cemetery
- ⛪ Church
- ⚪ School
- ⊗ Known Mine Portal Location
- Water Tower
- Road
- Railroad
- Stream (NHD)
- ▭ Parcel to be Purchased for Substation
- ▭ Future CAM Mining Permit Area
- ▭ Future Industrial Development Area
- ▭ Approximate Extents of the Kentucky Enterprise Industrial Park
- ⊞ City of Pikeville
- ⊞ County Boundary

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Floyd and Pike Counties
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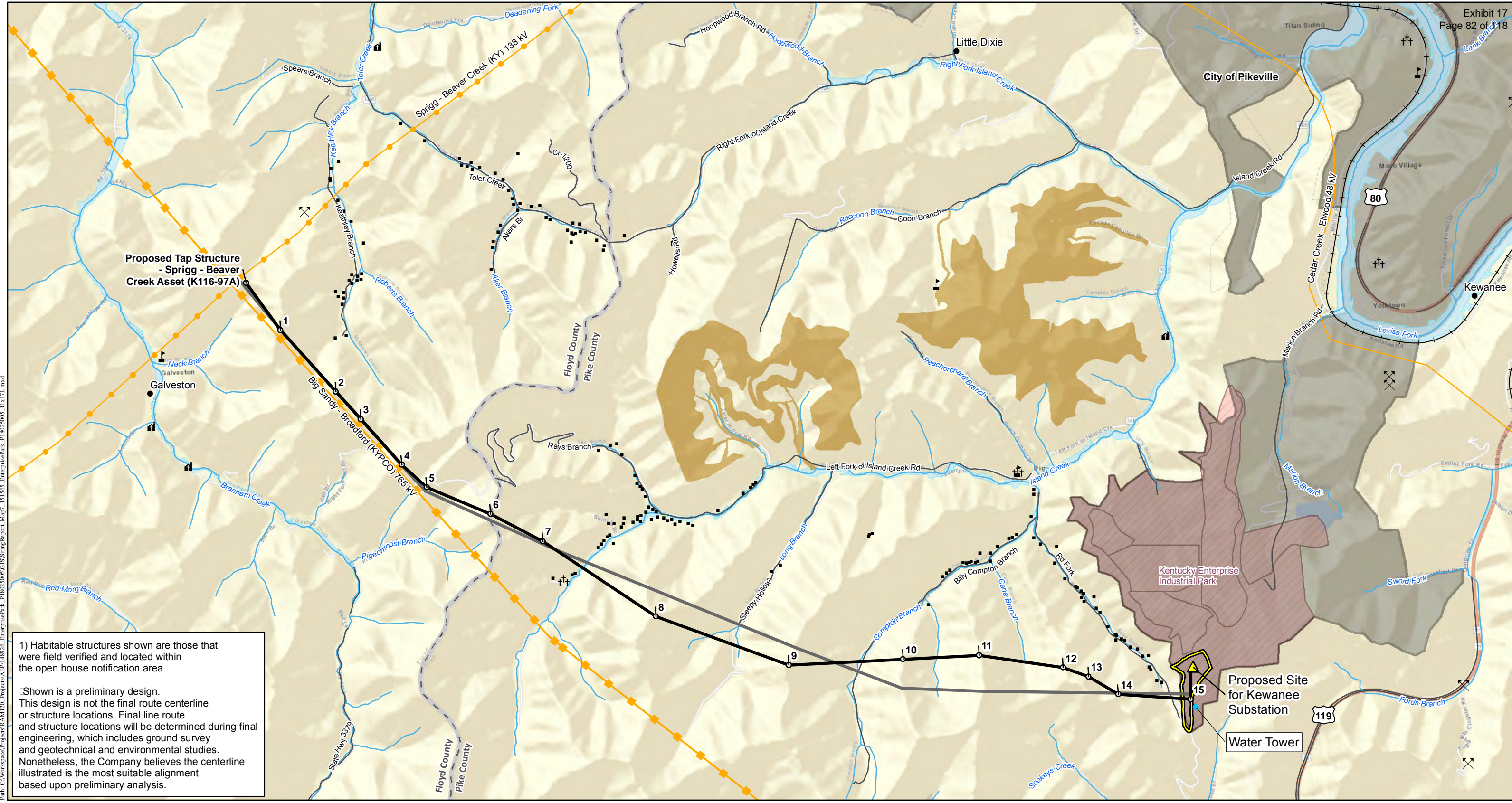
1" = 2,250'

Map 6: Alternative Routes

Enterprise Park Economic and Area Improvements Project
P18025005

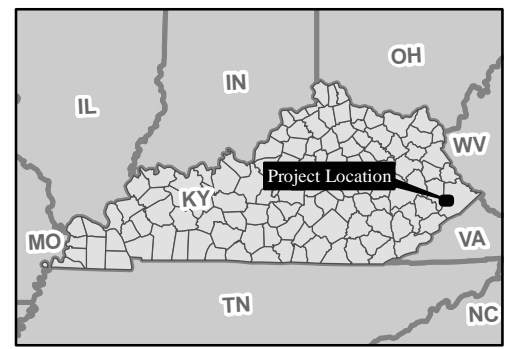
Date: 7/27/2018
Author: AMW
Project: 153638

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1) Habitable structures shown are those that were field verified and located within the open house notification area.

Shown is a preliminary design. This design is not the final route centerline or structure locations. Final line route and structure locations will be determined during final engineering, which includes ground survey and geotechnical and environmental studies. Nonetheless, the Company believes the centerline illustrated is the most suitable alignment based upon preliminary analysis.



● Populated Place	● Existing AEP Transmission Line (115-230 kV)	✕ Known Mine Portal Location	▨ Future Industrial Development Area
▲ Proposed Substation Site	● Existing AEP Transmission Line (345 kV +)	● Water Tower	▨ Approximate Extents of the Kentucky Enterprise Industrial Park
○ Preliminary Structure Location	■ Habitable Structure ¹	— Road	■ City of Pikeville
— Proposed Route Before Modification	⛔ Cemetery	— Railroad	▭ County Boundary
— Proposed Route with Modification	⛔ Church	— Stream (NHD)	
— Existing AEP Transmission Line (69 kV or Lower)	⛔ School	▭ Parcel to be Purchased for Substation	
		▭ Future CAM Mining Permit Area	
		▭ FEMA Floodplain	

NAD 1983 StatePlane Kentucky South FIPS 1602 Feet
Foot US
Lambert Conformal Conic
North American 1983

Floyd and Pike Counties
Kentucky

1" = 2,250'

Map 7: Proposed Route with Modification
Enterprise Park Economic and Area Improvements Project
P18025005

Date: 8/5/2018
Author: AMW
Project: 153638

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Enterprise Park Economic and Area Improvements Project
Siting Study

Attachment C: Stakeholder Meeting Notes



POWER ENGINEERS, INC.
2920 WEST BROAD STREET
SUITE 206
RICHMOND, VA 23230

PHONE 609-570-2772

MEMORANDUM

DATE: July 6, 2018

TO: Shaun Lopez and Scott Kennedy

C: Jaime Newell

FROM: Ryan Weyant and Emily Larson

SUBJECT: Enterprise Park Economic & Area Improvements Project Stakeholder Meetings

MESSAGE

STAKEHOLDER MEETING AND FIELD REVIEW GOAL

Key stakeholders were identified early in the siting process. The Siting Team contacted and met with key stakeholders in the field on March 8 and 19, 2018 and April 4, 2018. These stakeholders included local representatives from Pike and Floyd counties for which the Project is located; Cam Kentucky Real Estate, LLC (CAM Mining), a company with large mining tracts of land in the northern portion of the Study Area; and Utility Management Group, LLC (UMG), an organization that owns a water tower adjacent to a proposed substation site and manages the underground water lines situated throughout the Kentucky Enterprise Industrial Park.

The goal of the stakeholder meetings was to solicit information and gain feedback on the preliminary proposed routing concepts for the proposed Project.

STAKEHOLDER MEETINGS

Pike County and City of Pikeville
March 8th, 2018 at 12:30 pm

Meeting Attendees

Shaun Lopez: AEP, Project Manager
Scott Kennedy: AEP, Siting
Cortney Mustard: EASI, Public Outreach
Ryan Weyant: POWER, Engineering
Bob Shurtleff: AEP, Distribution

Contacts

Herbert Deskins: Deputy Judge Exec.
Elizabeth Thompson: Economic Development Administration
Sean Cochran: Executive Director of Economic Development
Brad Slone: Deputy City Manager of Operations
Phillip Elswick, P.E.: City Manager of Pikeville

Discussion

An in-person meeting was held at Pikeville City Hall with Pike County and City officials. The preliminary routes were presented to the officials for their comment and review. The siting and construction processes associated with transmission lines and the Kentucky Public Service Commission (PSC) filing for this Project was also presented. The City and County representatives did not foresee any major issues based on the need and schedule of the Project; however, it was mentioned that landowners will likely be unwilling to relocate. No potentially affected landowner was named to have a strong opposition to the Project. The Cedar Hills neighborhood, located approximately 1.8 miles north of the northern alternatives presented, had voiced concerns regarding visual impacts of the existing industrial park at the time of its construction. It was noted that residents of this neighborhood may have similar concerns for this transmission line project. In discussing potential concerns from the neighborhood, they will most likely not be affected due to their location north and away from the right-of-way. It was suggested by the City and County representatives that candidates running for the local government be invited to the open house, and that also the open house avoid being held the third week of April due to a local festival. The alternative substation site was also presented to the local officials with no objections; however, this site has concerns related to distribution.

**Cam Kentucky Real Estate, LLC
March 19th, 2018*****Meeting Attendees***

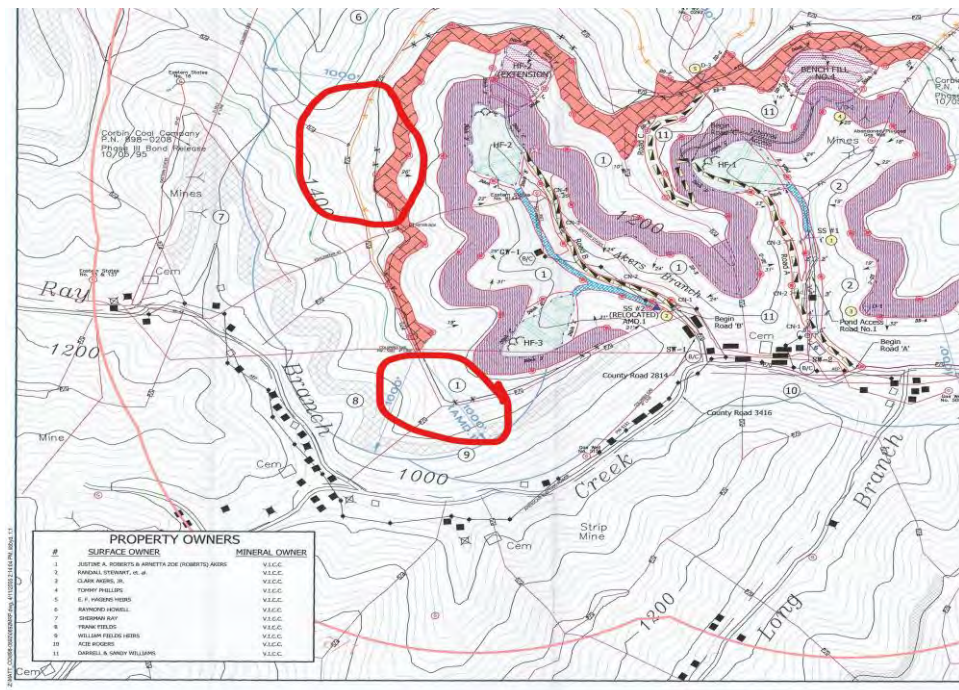
Scott Blevins: ORC, Right-of-Way

Contacts

Dennis Halbert: CAM Mining, Engineer

Discussion

A meeting was held among members of the Siting Team and CAM Mining. Preliminary routes were presented to CAM Mining to receive feedback regarding their mining permit areas in the northern portions of the Study Area. Larger mining plans are anticipated near the northernmost routes and would likely interfere with preliminary routes in the area. The Siting Team took this into consideration as interference with the future mining plans would likely need a relocation agreement. It was also noted that a mining operation consisting of a minor contour job was currently located on the middle route options. CAM Mining provided suggestions for structure placements in order to avoid the mining operation. Two knobs on the middle route options were noted on maps that would keep transmission structures outside of their mining plan limits (see image below). Their preferred location would be the northernmost structure; however, either noted location would be acceptable to them.



Utility Management Group, LLC (UMG)
April 4th, 2018 at 4:00 pm

Meeting Attendees

Scott Kennedy: AEP, Siting
 Craig Pritt: AEP, Siting
 George Porter: AEP, Public Outreach
 Emily Larson: POWER, Siting
 Roya Pardis: POWER, Siting

Contacts

Grondall Potter: Special Projects Manager

Discussion

An in-person meeting was held on April 4, 2018 at the UMG office in Pikeville, Kentucky. UMG maintains water lines throughout the Kentucky Enterprise Industrial Park (KEIP) and owns a water tower near the southernmost proposed site for the Kewanee 138 kV Substation. The study segments and five potential substation sites were discussed in conjunction with future plans of the KEIP. The water tower, known as the Island Creek Tank, is currently owned by UMG; there would likely be no impacts if the proposed Kewanee 138 kV Substation were to be constructed on potential Substation Site 5. Water lines going to the Island Creek Tank are located south of the water tank and away from Substation Site 5. Mr. Potter showed the Team maps of the KEIP indicating the landowner of Substation Site 5 as Kent and Vivian Snodgrass; there will be follow-up through ORC for the permission to survey on the parcel and determine if they are interested in selling. There was discussion on mining areas throughout the Study Area, specifically north and south of the routes. Old mining areas to the south of the study segments could be a site for a residential development in the future. As a result of mining on the KEIP site, there is backfill located on all potential substation sites, varying from 80 to 300 feet deep. Mr. Potter said he will provide boring information to AEP that has been completed where Substation Site 5 is currently situated. There was discussion regarding proposals for an additional entrance road into the KEIP, one of which is near Substation Site 5; however, the most probable entrance that will be chosen

will be via Sword Fork and away from all potential substation sites. Overall, there is positive response from the community regarding EnerBlu and other industries expanding into the KEIP.

Mr. Potter provided contact information for the City's Engineer, Brad Slone, who could provide environmental surveys that were completed. He also provided contact information for John Michael Johnson, Kentucky Highway Department, who has extensive knowledge of the Study Area, particularly the Cline Heirs who own property throughout the Study Area. These contacts were forwarded to ORC for further coordination.



Attachment D: Siting Team Members



Table 5. Siting Team Members

Siting Team Member	Company	Role
Shaun Lopez	AEP	Project Manager
Will Burkett	AEP	Planning
Scott Kennedy	AEP	Siting
Craig Pritt	AEP	Siting
Chad Howell	AEP	Transmission Construction Representative
John Booze	AEP	Transmission Line Engineer
Brad Bonham	AEP	Civil Engineer
John Dickman	AEP	Substation Engineer
Andrea King	AEP	Civil Engineer
Ryan Howell	AEP	ROW
Tyler Emery	AEP	Environmental
Craig Broman	AEP	Project Support
Brent McMillion	AEP	Distribution
Michael Lasslo	AEP	Utilities
Eric Hesler	AEP	Transmission
Regina Holbert	AEP	Real Estate
Bob Shurtleff	AEP	External Affairs
Larry Pelfrey	AEP	Outage Planner
Jacob Colley	AEP	External Affairs
George Porter	AEP	Public Outreach
Cortney Mustard	EASI	Public Outreach
Richard McNally	ORC	ROW
Scott Blevins	ORC	ROW
Andrea DeMoss	POWER	Transmission Line Engineer
Ryan Weyant	POWER	Transmission Line Engineer
Kyle Fisher	POWER	Transmission Line Engineer
Emily Larson	POWER	Siting
Roya Pardis	POWER	Siting
Craig Kunde	POWER	GIS
Aaron Wolf	POWER	GIS
Lindsey Weeks	POWER	Cultural Resources

Attachment E: GIS Data Sources



Enterprise Park Economic and Area Improvements Project
Siting Study

Attachment E. GIS Data Sources		
Siting Evaluation Factor	Source	Description
Land Use		
Number of parcels crossed by the ROW	Floyd and Pike counties, Kentucky (2017) PVA Offices	Count of the number of parcels crossed by the ROW.
Number of residences within 500 feet of the route centerline	Digitized from LiDAR ortho imagery (2018), Environmental Systems Research Institute (Esri) Imagery (2016), and Google Earth imagery. Data also field verified from points of public access (2018).	Count of the number of residences within the ROW and within 500 feet of potential routes.
Number of commercial buildings within 500 feet of the route centerline	Digitized from LiDAR ortho imagery (2018), Environmental Systems Research Institute (Esri) Imagery (2016), and Google Earth imagery. Data also field verified from points of public access	Count of the number of commercial buildings within the ROW and within 500 feet of potential routes.
Land use within the Study Area	NLCD was downloaded from the NRCS Geospatial Data Gateway (date unavailable)	The NLCD data compiled by the Multi-Resolution Land Characteristics (MRLC) Consortium includes 15 classes of land cover from Landsat satellite imagery.
Acres of conservation easements crossed	National Conservation Easement Database (NCED) (2017)	Private conservation easements crossed by the routes from the NCED which is comprised of voluntarily reported conservation easement information from land trusts and public agencies.
Number of archeological resources within the ROW and within 250 feet of the route centerline	Kentucky Office of State Archaeology (2018)	Previously identified archeological resources listed or eligible on the National Register of Historic Places (NRHP) acquired through Kentucky Office of State Archaeology (2018).



Enterprise Park Economic and Area Improvements Project

Siting Study

Attachment E. GIS Data Sources		
Siting Evaluation Factor	Source	Description
Number of historic architectural resources within the ROW and within one mile of the centerline	Kentucky Heritage Council (KHC) (2018)	Previously identified historic architectural resource sites and districts listed or eligible on the NRHP acquired through KHC.
Institutional uses (schools, places of worship and cemeteries) within 1,000 feet of the route centerline	U.S. Geological Survey's GNIS (2018)	This dataset includes the locations of cemeteries, churches, hospitals, parks, and schools. Features within 1,000 feet of potential routes were field verified.
Airfield and heliports within one mile of the route centerline	GNIS (2018) and the Federal Aviation Administration database (2018)	Distance from airfields and heliports.
Mining areas within study area and crossed by centerline	Kentucky Mine Mapping Information System (2018)	Dataset includes mining information regarding Mining Areas, Mined Out Areas, Mine Portal Locations, and MMIs Coal Mine Data. Data also available for oil and gas wells.
Natural Environment		
Forest clearing within the ROW	Digitized based on LiDAR ortho imagery sources	Acres of forest within the ROW.
Number of National hydrography dataset (NHD) stream and waterbody crossings within the ROW	USGS (NHD) (2016)	The NHD is a comprehensive set of digital spatial data prepared by the USGS that contains information about surface water features such as lakes, ponds, streams, rivers, springs and wells.
Acres of National Wetland Inventory (NWI) wetland crossings within the ROW	U.S. Fish and Wildlife Service (USFWS) (2017)	The NWI produces information on the characteristics, extent, and status of the Nation's wetlands and deepwater habitats.



Attachment E. GIS Data Sources		
Siting Evaluation Factor	Source	Description
Acres of 100-year floodplain crossing within the ROW	U.S. Federal Emergency and Management Agency (FEMA) (2017)	Acres of 100-year floodplain within the ROW.
Miles of public lands crossed by the route	The Protected Areas Database of the United States (PAD-US) (2018)	Miles of federal, state and local lands crossed by the ROW.
Threatened, endangered, rare or sensitive species occurrence within the Project vicinity	USFWS (2018)	Locations of potential habitat based on land use.
Technical		
Route length	Measured in GIS	Length of route in miles.
Number and severity of angled structures	Developed in CAD	Anticipated number of angled structures < 3 degrees, 3 to 45 degrees and over 45 degrees based on preliminary design.
Number of road crossings	TIGER roads file (2016)	Count of federal, state and local roadway crossings.
Number of pipeline crossings	S&P Platts database (2018)	Number of known pipelines crossed by the transmission ROW.
Number of transmission line crossings	AEP TGIS	Number of high voltage (100 kV or greater) transmission lines crossed by the ROW.
Distance of steep slopes crossed	Derived from seamless Digital Elevation Models (DEMs) obtained from the U.S. Geologic Survey (Date unavailable)	Miles of slope greater than 20 percent crossed by the routes.
Length of transmission line parallel	AEP TGIS	Miles of the route parallel to existing high voltage transmission lines.
Length of pipeline parallel	S&P Platts database (2018)	Miles of the route parallel to existing pipelines.



Enterprise Park Economic and Area Improvements Project

Siting Study

Attachment E. GIS Data Sources

Siting Evaluation Factor	Source	Description
Length of road parallel	TIGER roads file (2016)	Miles of the route parallel to existing roadways.

Attachment F: Agency Correspondence



POWER ENGINEERS, INC.
1041 RED VENTURES DR.
SUITE 105
FORT MILL, SC 29707 USA

PHONE 803-835-5900
FAX 803-835-5999

March 12, 2018

Mr. Tom Timmerman
Kentucky Department of Fish and Wildlife Resources
Northeastern District
120 Fish Hatchery Road
Morehead, Kentucky 40351

Subject: Kentucky Power Enterprise Park Economic Expansion Project (Floyd and Pike Counties, Kentucky) – Siting Study and Kentucky Public Service Commission Application

Dear Mr. Timmerman:

POWER Engineers, Inc. (POWER) is preparing a siting study and Kentucky Public Service Commission Application on behalf of Kentucky Power for an upcoming transmission line project. Kentucky Power is planning to improve electric reliability to customers and increase economic development opportunities in eastern Kentucky by making upgrades to the power grid in Floyd and Pike counties. Kentucky Power plans to construct approximately five miles of double circuit 138 kilovolt (kV) transmission line and a new substation to ensure continued reliable electric service to existing customers and to provide a new source of power to the 300-acre Kentucky Enterprise Industrial Park located in Pikeville. The transmission upgrades will reduce the likelihood of extended outages while providing the 300-acre industrial park with a reliable and robust power source capable of handling continued customer growth. The transmission line will be constructed within a new 100-foot right-of-way. Construction is expected to start the beginning of 2019 and be complete by the end of the year.

POWER is requesting information concerning the potential for the occurrence of rare, threatened, or endangered species, habitats of concern, and significant biological resources under the jurisdiction of the Kentucky Department of Fish and Wildlife Resources within the Study Area as shown on the attached Figure 1.

Should you have any questions or concerns, please feel free to contact me at 609-570-7227 or Emily.Larson@powereng.com.

Sincerely,

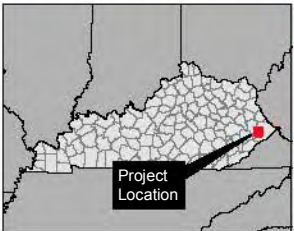
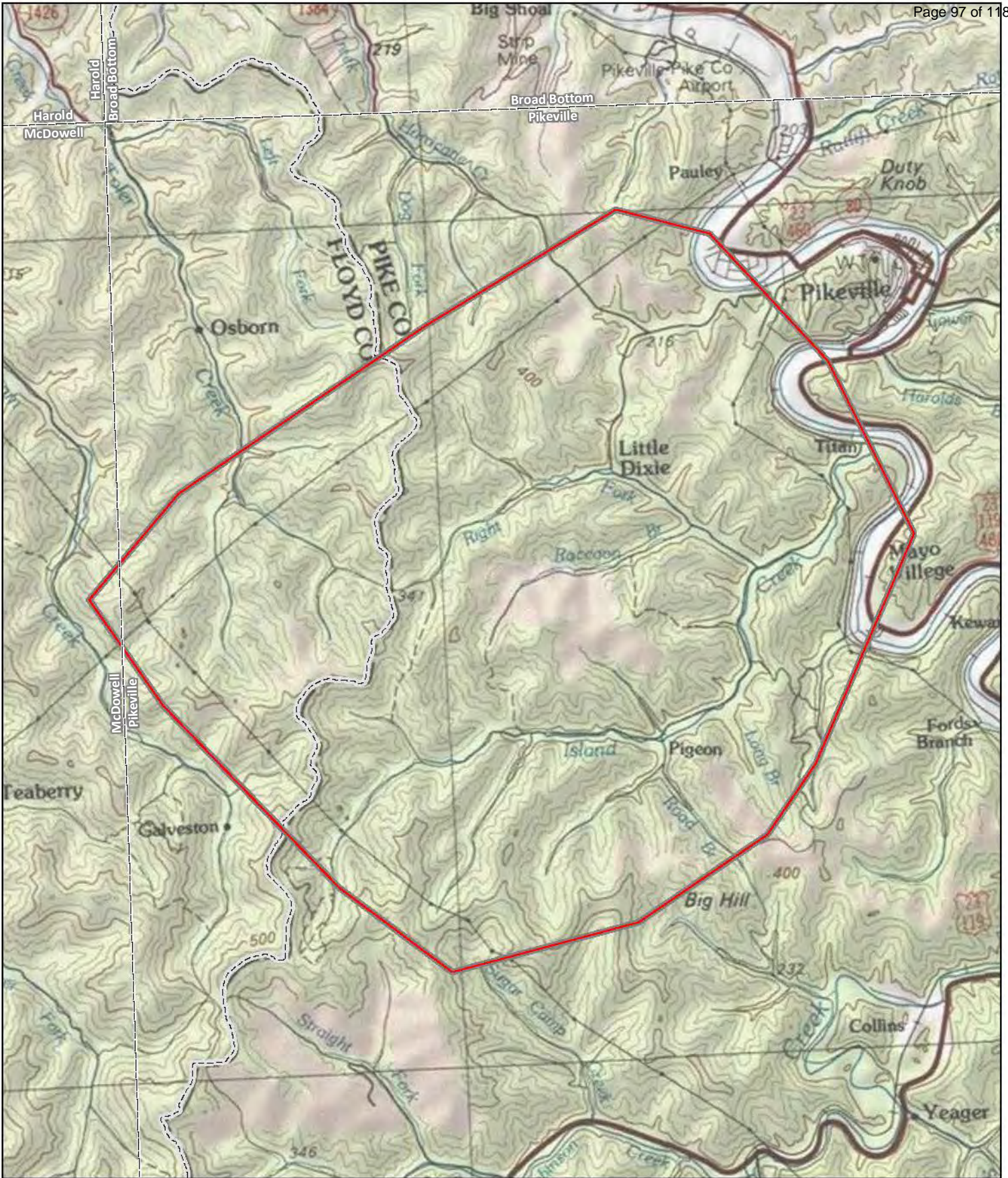
A handwritten signature in black ink that reads "Emily Larson". The signature is written in a cursive, flowing style.

Emily Larson
Environmental Project Manager
POWER Engineers, Inc.

Attachment: Figure 1: Project Study Area

c: Scott Kennedy, American Electric Power
Jared Webb, American Electric Power
Tyler Emery, American Electric Power
DMS: 148926/PER-03

Path: C:\Raml\20_Projects\148926_SouthPikeville_P18025005\GIS\ProjectOverview_Topo_148926_EnterpriseParkExpansion_P18025005_8x11P.mxd



	USGS Topo Quad Boundary
	Project Study Area
	County Boundary

SCALE: 1" = 5,000'

 Feet

Floyd & Pike Counties,
 Kentucky

NAD 1983 State Plane Kentucky South FIPS 1602 Feet
 Foot US
 Lambert Conformal Conic
 North American 1983

Date: 3/7/2018
 By: CTK
 POWER: 148926

Sheet 1 of 1

Enterprise Park
Economic Expansion Project
 BPID: P17084003
PROJECT STUDY AREA

BOUNDLESS ENERGY



**TOURISM, ARTS AND HERITAGE CABINET
KENTUCKY DEPARTMENT OF FISH & WILDLIFE RESOURCES**

Matthew G. Bevin
Governor

#1 Sportsman's Lane
Frankfort, Kentucky 40601
Phone (502) 564-3400
1-800-858-1549
Fax (502) 564-0506
fw.ky.gov

Regina Stivers
Deputy Secretary

Don Parkinson
Secretary

Gregory K. Johnson
Commissioner

23 March 2018

Power Engineers, Inc.
Attn: Emily Larson
1041 Red Ventures Drive
Suite 105
Fort Mill, South Carolina 29707

RE: Kentucky Power Enterprise Park Economic Expansion Project (Floyd and Pike Counties)
Siting Study and Kentucky Public Service Commission Application

Dear Ms. Larson:

The Kentucky Department of Fish and Wildlife Resources (KDFWR) has received your request for information pertaining to the subject project. The Kentucky Fish and Wildlife Information System indicates that the federally-listed Northern Long-eared bat (*Myotis septentrionalis*), Indiana bat (*Myotis sodalis*), Grey bat (*Myotis grisescens*), and Big Sandy Crayfish (*Cambarus callainus*) are known to occur within 10 miles of the project site. The state-listed Eastern Small-footed Myotis (*Myotis leibii*), American Black Bear (*Ursus americanus*), and Northern Harrier (*Circus cyaneus*) are known to occur within one mile of the project site. Please be aware that our database system is a dynamic one that only represents our current knowledge of various species distributions.

If tree clearing is required for the project, please coordinate with the U.S. Fish and Wildlife Service Kentucky Field Office (502-695-0468) to ensure compliance under the Federal Endangered Species Act. Questions pertaining to plant communities should be directed to the Kentucky State Nature Preserves Commission at 502-573-2886.

KDFWR recommends that you contact the appropriate US Army Corps of Engineers office and the Kentucky Division of Water prior to any work within the waterways or wetland habitats of Kentucky. Additionally, KDFWR recommends the following for the portions of the project that impact streams:

- Channel changes located within the project area should incorporate natural stream channel design.
- If culverts are used, the culvert should be designed to allow the passage of aquatic organisms.
- Culverts should be designed so that degradation upstream and downstream of the culvert does not occur.
- Development/excavation during low flow period to minimize disturbances.
- Proper placement of erosion control structures below highly disturbed areas to minimize entry of silt into area streams.



- Replanting of disturbed areas after construction, including stream banks, with native vegetation for soil stabilization and enhancement of fish and wildlife populations. We recommend a 100 foot forested buffer along each stream bank.
- Return all disturbed instream habitat to a stable condition upon completion of construction in the area.
- Preservation of any tree canopy overhanging any streams within the project area.

To minimize indirect impacts to the aquatic environment, the KDFWR recommends that erosion control measures be developed and implemented prior to construction to reduce siltation into waterways located within the project area. Such erosion control measures may include, but are not limited to silt fences, staked straw bales, brush barriers, sediment basins, and diversion ditches. Erosion control measures will need to be installed prior to construction and should be inspected and repaired regularly as needed.

I hope this information is helpful to you, and if you have questions or require additional information, please call me at (502) 564-7109 extension 4453.

Sincerely,



Dan Stoelb
Environmental Scientist

Cc: Environmental Section File



POWER ENGINEERS, INC.
1041 RED VENTURES DR.
SUITE 105
FORT MILL, SC 29707 USA

PHONE 803-835-5900
FAX 803-835-5999

March 12, 2018

Mr. Lee Andrews
Field Supervisor
U.S. Fish and Wildlife Service, Kentucky Ecological Services
330 West Broadway, Room 265
Frankfort, Kentucky 40601

Subject: Kentucky Power Enterprise Park Economic Expansion Project (Floyd and Pike Counties, Kentucky) – Siting Study and Kentucky Public Service Commission Application

Dear Mr. Lee:

POWER Engineers, Inc. (POWER) is preparing a siting study and Kentucky Public Service Commission Application on behalf of Kentucky Power for an upcoming transmission line project. Kentucky Power is planning to improve electric reliability to customers and increase economic development opportunities in eastern Kentucky by making upgrades to the power grid in Floyd and Pike counties. Kentucky Power plans to construct approximately five miles of double circuit 138 kilovolt (kV) transmission line and a new substation to ensure continued reliable electric service to existing customers and to provide a new source of power to the 300-acre Kentucky Enterprise Industrial Park located in Pikeville. The transmission upgrades will reduce the likelihood of extended outages while providing the 300-acre industrial park with a reliable and robust power source capable of handling continued customer growth. The transmission line will be constructed within a new 100-foot right-of-way. Construction is expected to start the beginning of 2019 and be complete by the end of the year.

POWER is requesting information concerning the potential for the occurrence of rare, threatened, or endangered species, habitats of concern, and significant biological resources under the jurisdiction of the U.S. Fish and Wildlife Service within the Study Area as shown on the attached Figure 1.

Should you have any questions or concerns, please feel free to contact me at 609-570-7227 or Emily.Larson@powereng.com.

Sincerely,

A handwritten signature in black ink that reads "Emily Larson". The signature is written in a cursive, flowing style.

Emily Larson
Environmental Project Manager
POWER Engineers, Inc.

Attachment: Figure 1: Project Study Area

c: Scott Kennedy, American Electric Power
Jared Webb, American Electric Power
Tyler Emery, American Electric Power

DMS: 148926/PER-03



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Kentucky Ecological Services Field Office
330 West Broadway, Suite 265
Frankfort, Kentucky 40601
(502) 695-0468

Dear Project Proponent:

We have received your request for a species list for your project. The Kentucky Field Office (KFO) is directing project proponents to obtain species lists from the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) system located at: <https://ecos.fws.gov/ipac/>. IPaC will immediately provide you with a current species list appropriate for your proposed project and an official letter on USFWS letterhead. This list will include species currently listed as threatened or endangered, species proposed for listing, critical habitat for listed species, and bird species of conservation concern.

When you open the IPaC site, you will be asked to input a location for your proposed project. The location can be input in different ways. Often, the easiest way is to zoom into the vicinity of the project area on the map and use the sketch tool to approximate the boundaries of the proposed project site, plus an appropriate buffer. This location that you input should represent the entire "action area" of your proposed project by considering all the potential "effects of the action," including potential direct, indirect, and cumulative effects to federally-listed species or their critical habitat as defined in 50 CFR 402.02. This includes effects of any "interrelated actions" that are part of a larger action and depend on the larger action for their justification and "interdependent actions" that have no independent utility apart from the action under consideration (e.g.; utilities, access roads, etc.) and future actions that are reasonably certain to occur as a result of the proposed project (e.g.; development in response to a new road).

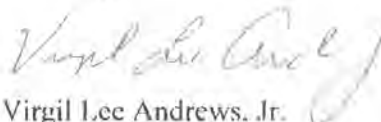
IPaC will generate a species list specific to the action area of the proposed project, as you defined it. You can then request an official species list under the "Regulatory Documents" tab. This species list fulfills the requirements of the USFWS under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.) to provide information as to whether any proposed or listed species may be present in the area of a proposed action. The letter generated by IPaC will explain how to request an updated list or a revised list based on project modifications.

The official species list is not a concurrence letter; additional coordination with the KFO may be necessary to ensure ESA compliance. Please read the letter that accompanies the species list for further direction as to how to request technical assistance or section 7 consultation from the KFO. Please include the consultation tracking number on the IPaC-generated letter (e.g., 04EK1000-####-SLI-####) at the top of your future correspondences with the KFO. The KFO

will be able to retrieve the information that you input into IPaC; there is no need to include a printed copy of your IPaC-generated letter or species list with your correspondence.

Thank you for your request. Your concern for the protection of endangered and threatened species is greatly appreciated. If you have any questions or problems obtaining a species list from IPaC, please contact Jessica Blackwood Miller at (502) 695-0468 extension 104 or jessica_miller@fws.gov.

Sincerely,

A handwritten signature in cursive script that reads "Virgil Lee Andrews, Jr." The signature is written in dark ink and is positioned above the printed name.

Virgil Lee Andrews, Jr.
Field Supervisor



POWER ENGINEERS, INC.
1041 RED VENTURES DR.
SUITE 105
FORT MILL, SC 29707 USA

PHONE 803-835-5900
FAX 803-835-5999

March 12, 2018

Mr. Ian Horn
Data Manager
Kentucky State Nature Preserves Commission
801 Teton Trail
Frankfort, Kentucky 40601

Subject: Kentucky Power Enterprise Park Economic Expansion Project (Floyd and Pike Counties, Kentucky) – Siting Study and Kentucky Public Service Commission Application

Dear Mr. Horn:

POWER Engineers, Inc. (POWER) is preparing a siting study and Kentucky Public Service Commission Application on behalf of Kentucky Power for an upcoming transmission line project. Kentucky Power is planning to improve electric reliability to customers and increase economic development opportunities in eastern Kentucky by making upgrades to the power grid in Floyd and Pike counties. Kentucky Power plans to construct approximately five miles of double circuit 138 kilovolt (kV) transmission line and a new substation to ensure continued reliable electric service to existing customers and to provide a new source of power to the 300-acre Kentucky Enterprise Industrial Park located in Pikeville. The transmission upgrades will reduce the likelihood of extended outages while providing the 300-acre industrial park with a reliable and robust power source capable of handling continued customer growth. The transmission line will be constructed within a new 100-foot right-of-way. Construction is expected to start the beginning of 2019 and be complete by the end of the year.

POWER is requesting information concerning the potential for the occurrence of rare, threatened, or endangered species, habitats of concern, and significant biological resources under the jurisdiction of the Kentucky State Nature Preserves Commission within the Study Area, as shown on the attached Figure 1.

Should you have any questions or concerns, please feel free to contact me at 609-570-7227 or Emily.Larson@powereng.com.

Sincerely,

A handwritten signature in black ink that reads "Emily Larson". The signature is written in a cursive, flowing style.

Emily Larson
Environmental Project Manager
POWER Engineers, Inc.

Attachment: Figure 1: Project Study Area

c: Scott Kennedy, American Electric Power
Jared Webb, American Electric Power
Tyler Emery, American Electric Power
DMS: 148926/PER-03

Attachment G: United States Fish and Wildlife IPaC Report

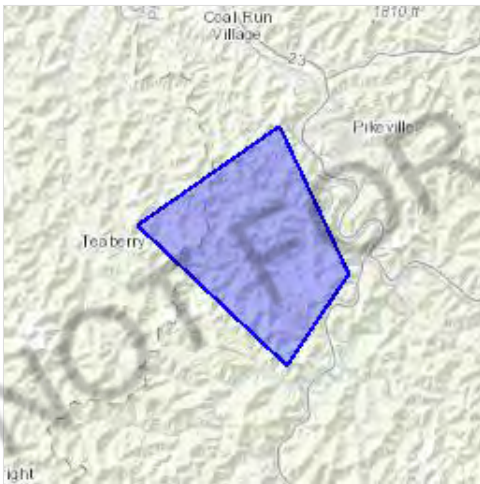
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Floyd and Pike counties, Kentucky



Local office

Kentucky Ecological Services Field Office

☎ (502) 695-0468

📠 (502) 695-1024

J C Watts Federal Building, Room 265
330 West Broadway
Frankfort, KY 40601-8670

<http://www.fws.gov/frankfort/>

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please [contact NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME

STATUS

Gray Bat *Myotis grisescens* Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/6329>

Indiana Bat *Myotis sodalis* Endangered

This species only needs to be considered if the following condition applies:

- All activities in this location should consider possible effects to this species. The project area includes "potential" habitat.

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/5949>

Northern Long-eared Bat *Myotis septentrionalis* Threatened

This species only needs to be considered if the following condition applies:

- The specified area includes areas in which incidental take would not be prohibited under the 4(d) rule. For reporting purposes, please use the "streamlined consultation form," linked to in the "general project design guidelines" for the species.

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9045>

Crustaceans

NAME	STATUS
Big Sandy Crayfish <i>Cambarus callainus</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8285	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see maps of where birders and the general public have sighted birds in and around your project area, visit E-bird tools such as the [E-bird data mapping tool](#) (search for the name of a bird on your list to see specific locations where that bird has been reported to occur within your project area over a certain timeframe) and the [E-bird Explore Data Tool](#) (perform a query to see a list of all birds sighted in your county or region and within a certain timeframe). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Cerulean Warbler *Dendroica cerulea* Breeds Apr 27 to Jul 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/2974>

Eastern Whip-poor-will *Antrostomus vociferus* Breeds May 1 to Aug 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Henslow's Sparrow *Ammodramus henslowii* Breeds May 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3941>

Prairie Warbler *Dendroica discolor* Breeds May 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wood Thrush *Hylocichla mustelina* Breeds May 10 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Yellow-bellied Sapsucker *sphyrapicus varius* Breeds May 10 to Jul 15

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/8792>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in your project's counties during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence

across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

- The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the counties of your project area. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

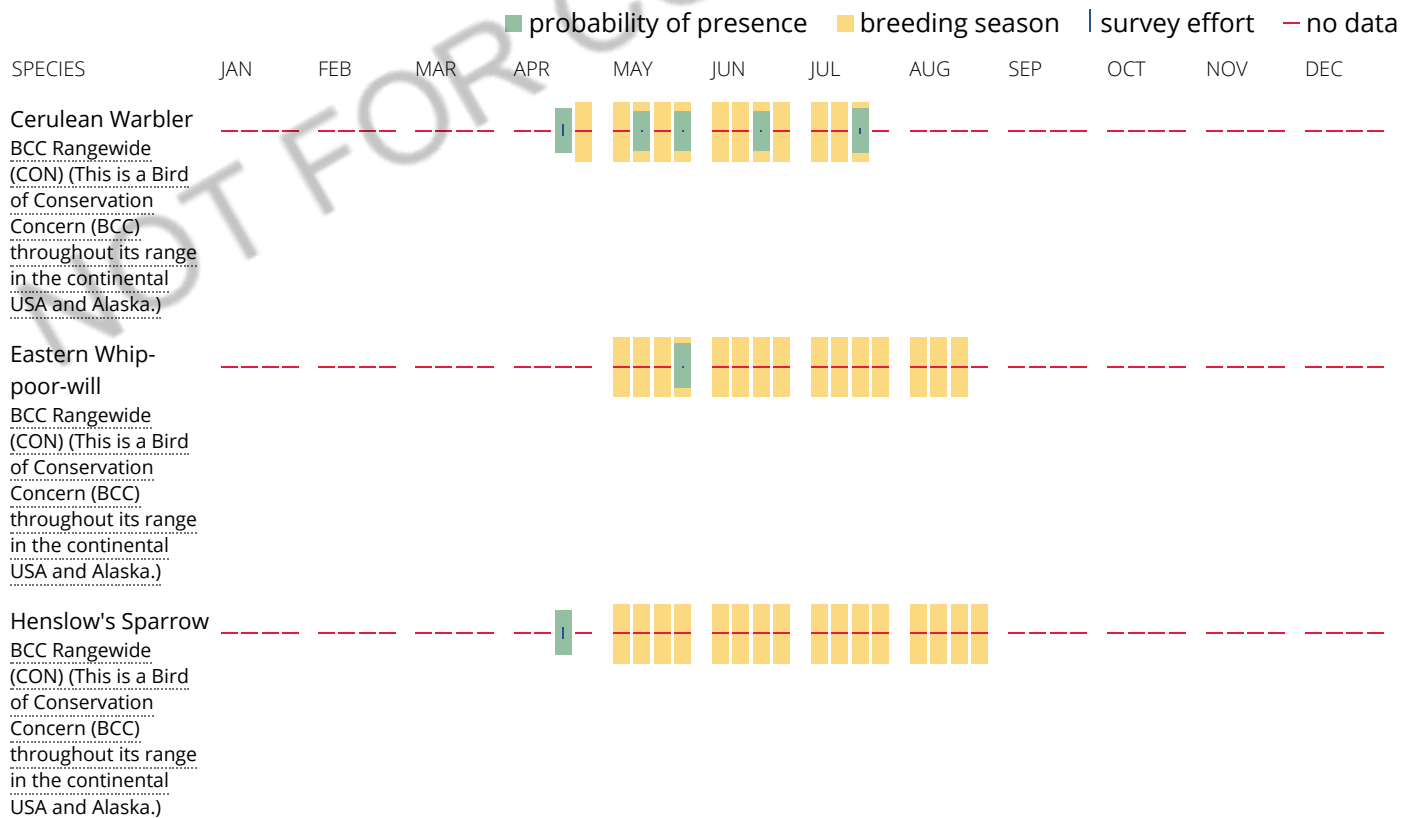
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

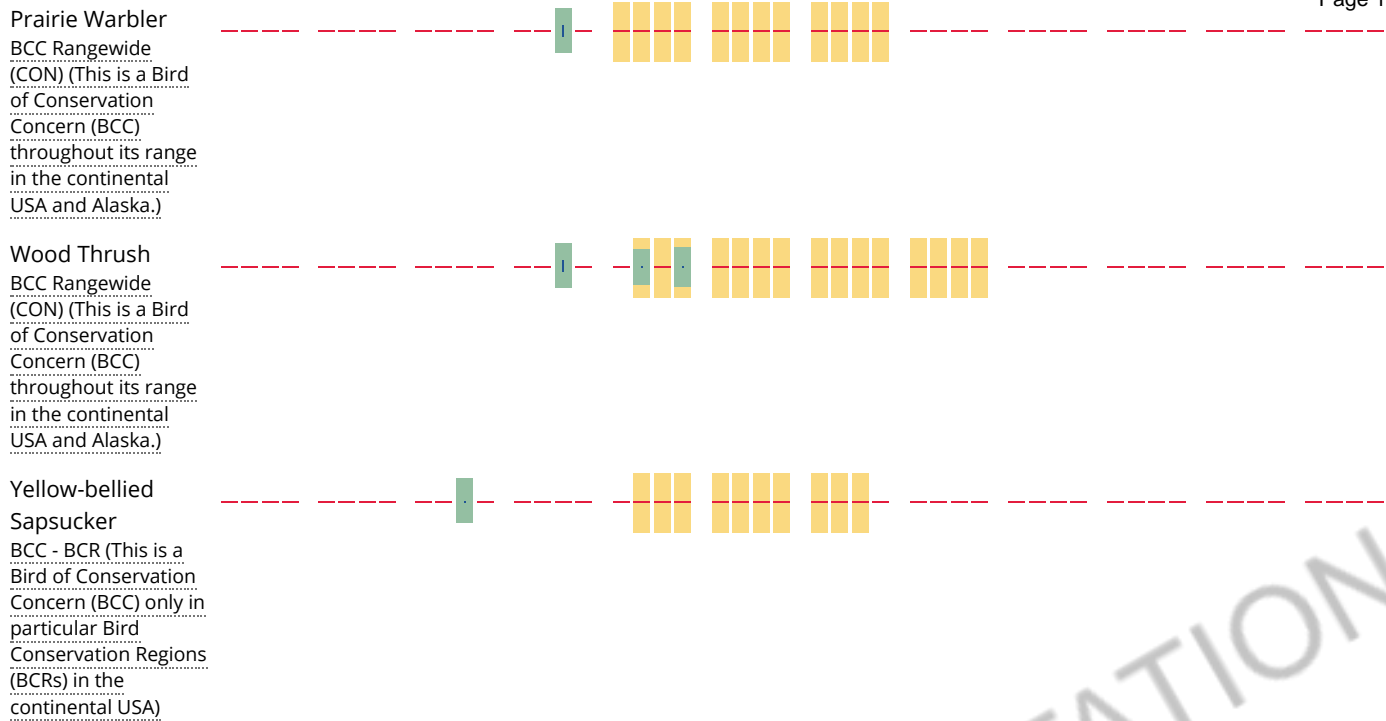
No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the counties which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [E-bird Explore Data Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird entry on your migratory bird species list indicates a breeding season, it is probable that the bird breeds in your project's counties at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the BGEPA should such impacts occur.

Facilities

Wildlife refuges and fish hatcheries

REFUGE AND FISH HATCHERY INFORMATION IS NOT AVAILABLE AT THIS TIME

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

[PEM1Ch](#)

FRESHWATER POND

[PUBHh](#)

[PUBHx](#)

A full description for each wetland code can be found at the National Wetlands Inventory website: <https://ecos.fws.gov/ipac/wetlands/decoder>

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

Attachment H: Study Area Context Photographs



Photo 1. View of Enterprise Park



Photo 2. Facing Southeast from the Big Sandy – Broadford 765 kV Transmission Line



Photo 3. Facing southeast towards Enterprise Park from the Big Sandy – Broadford 765 kV Transmission Line



Photo 4. Facing northeast from the northern extents of Enterprise Park