

**Virginia State Corporation Commission
eFiling CASE Document Cover Sheet**

Case Number (if already assigned)	PUR-2025-00032
Case Name (if known)	Application of Virginia Electric and Power Company for approval and certification of electric transmission facilities: Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project
Document Type	APLA
Document Description Summary	1 of 10 - Virginia Electric and Power Company's Application Volume 1 of 5
Total Number of Pages	133
Submission ID	32987
eFiling Date Stamp	2/20/2025 12:18:30PM



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February 20, 2025

BY ELECTRONIC FILING

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Application of Virginia Electric and Power Company for approval and certification of electric transmission facilities: Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065
Conversion Project
Case No. PUR-2025-00032

Dear Mr. Logan:

Please find enclosed for electronic filing in the above-captioned proceeding the application for approval of electric transmission facilities on behalf of Virginia Electric and Power Company (the “Company”). This filing contains the Application, Appendix, Direct Testimony, DEQ Supplement, and Environmental Routing Study, including attachments.

As indicated in Section II.A.12.b of the Appendix, an electronic copy of the map of the Virginia Department of Transportation “General Highway Map” for Culpeper County, Orange County, and Fauquier County, as well as the digital geographic information system (“GIS”) map required by § 56-46.1 of the Code of Virginia, which is Attachment II.A.2 to the Appendix, were provided via an e-room to the Commission’s Division of Public Utility Regulation on February 18, 2025.

Please do not hesitate to call if you have any questions regarding the enclosed.

Highest regards,

Vishwa B. Link

Enclosures

cc: William H. Chambliss, Esq.

Mr. Bernard Logan, Clerk
February 20, 2025
Page 2

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**Application, Appendix,
DEQ Supplement, Routing
Study, Direct Testimony
and Exhibits of Virginia
Electric and Power
Company**

**Before the State Corporation
Commission of Virginia**

**Culpeper Technology Zone 230
kV Loop and Lines #2 and
#1065 Conversion Project**

Application No. 347

Case No. PUR-2025-00032

Filed: February 20, 2025

Volume 1 of 5

COMMONWEALTH OF VIRGINIA
BEFORE THE
STATE CORPORATION COMMISSION

APPLICATION OF
VIRGINIA ELECTRIC AND POWER COMPANY
FOR APPROVAL AND CERTIFICATION
OF ELECTRIC TRANSMISSION FACILITIES

Culpeper Technology Zone 230 kV Loop and Lines #2 and
#1065 Conversion Project

Application No. 347

Containing Information in Response to
“Guidelines for Transmission Line Applications Filed Under title 56 of the Code of Virginia”

Case No. PUR-2025-00032

Filed: February 20, 2025

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

APPLICATION OF)	
)	
VIRGINIA ELECTRIC AND POWER COMPANY)	Case No. PUR-2025-00032
)	
For approval and certification of electric transmission)	
facilities: Culpeper Technology Zone 230 kV Loop)	
and Lines #2 and #1065 Conversion Project)	

**APPLICATION OF VIRGINIA ELECTRIC AND POWER COMPANY
FOR APPROVAL AND CERTIFICATION OF
ELECTRIC TRANSMISSION FACILITIES: CULPEPER TECHNOLOGY
ZONE 230 KV LOOP AND LINES #2 AND #1065 CONVERSION PROJECT**

Pursuant to § 56-46.1 of the Code of Virginia (“Va. Code”) and the Utility Facilities Act, Va. Code § 56-265.1 *et seq.*, Virginia Electric and Power Company (“Dominion Energy Virginia” or the “Company”), by counsel, files with the State Corporation Commission of Virginia (the “Commission”) this application for approval and certification of electric transmission facilities (the “Application”). In support of its Application, Dominion Energy Virginia respectfully states as follows:

1. Dominion Energy Virginia is a public service corporation organized under the laws of the Commonwealth of Virginia furnishing electric service to the public within its Virginia service territory. The Company also furnishes electric service to the public in portions of North Carolina. Dominion Energy Virginia’s electric system—consisting of facilities for the generation, transmission, and distribution of electric energy—is interconnected with the electric systems of neighboring utilities and is a part of the interconnected network of electric systems serving the continental United States. By reason of its operation in two states and its interconnections with other utilities, the Company is engaged in interstate commerce.

2. In order to perform its legal duty to furnish adequate and reliable electric service, Dominion Energy Virginia must, from time to time, replace existing transmission facilities or construct new transmission facilities in its system. The electric facilities proposed in this Application are necessary so that Dominion Energy Virginia can continue to provide reliable electric service to its customers, consistent with applicable reliability standards.

3. In this Application, in order to provide service requested by three Customers¹ developing separate new data center campuses in Culpeper County and the Town of Culpeper, Virginia, to maintain reliable service for the overall load growth in the area, and to comply with mandatory North American Electric Reliability Corporation (“NERC”) Reliability Standards, Virginia Electric and Power Company (“Dominion Energy Virginia” or the “Company”) proposes in Culpeper County, the Town of Culpeper, Orange County, and Fauquier County, Virginia, to:

- (i) Construct new approximately 5.2-mile overhead 230 kilovolt (“kV”) double circuit transmission lines: Mt. Pony – Potato Run Line #2437 (“Mt. Pony – Potato Run Line”) and the Mt. Pony – Oak Green Line #2438 (“Mt. Pony – Oak Green Line”) (collectively the “Mt. Pony Lines”) primarily on new right-of-way. The new transmission lines will extend from the converted Potato Run – Remington and Oak Green – Potato Run Lines near Structures #1065/496 / #2331/110, as described below, to the proposed Mt. Pony Substation. The proposed Mt. Pony – Potato Run Line and the Mt. Pony – Oak Green Line will be constructed primarily with double circuit weathering steel monopole structures, utilizing two circuits of three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The Mt. Pony Lines will utilize a total of 100 or 160 feet of right-of-way, which includes both new 100-footwide right-of-way, and collocated 160-foot right-of-way. The amount of new right-of-way width for this line will vary from 60 feet to 100 feet.²

¹ The three Customers (individually, “Customer A,” “Customer B,” and “Customer C,” and collectively the “Customers”) have requested that Dominion Energy Virginia serve three new data center campuses in the Project area: Campus A, Campus B, and Campus C (collectively, the “Campuses”). Campus A is owned by Customer A, Culpeper DataBank (“DataBank”), Campus B is owned by Customer B, Stack Infrastructure Inc. (“STACK”), and Campus C is owned by Customer C, Copper Ridge Data Center Campus (“Copper Ridge”). Pursuant to the Company’s privacy policy and/or a specific customer non-disclosure agreement, the Company is obligated to maintain the confidentiality of customer information and obtain customer consent prior to public disclosure. All three Customers have provided consent for identification in this filing.

² Approximately 1.5 miles of the Mt. Pony Proposed Route will be within new 100-foot-wide right-of-way, including a 1.2-mile segment from the cut-in at existing Structure #2/496 / #2199/110 and the 0.3-mile segment along James Madison Highway that terminates at the proposed Mt. Pony Substation. Approximately 3.7 miles, or approximately 71% of the total length, will be collocated along the existing right-of-way. This collocated 3.7 miles will have 60 feet

- (ii) Construct a new approximately 3.7-mile³ overhead 230 kV double circuit transmission line (the “Cirrus – Mt. Pony Line” of the “Tech Park Lines”) primarily on new right-of-way and planned data center campuses. The Tech Park Lines will extend from the proposed 230 kV Mt. Pony Substation to the future 230 kV Cirrus Switching Station⁴ and interconnect the proposed 230 kV Chandler, McDevitt, and Palomino Substations. The Tech Park Lines will be constructed primarily with double circuit pre-dulled galvanized steel monopole structures, utilizing two circuits of three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The amount of new right-of-way width for this line will vary from 100 feet to 160 feet.⁵
- (iii) Convert and rebuild the Company’s existing 2.5-mile overhead double circuit 115 kV Oak Green – Potato Run Line #1065 to 230 kV and rebuild Gordonsville – Oak Green Line #11 to 230 kV⁶ from the existing Oak Green Switching Station to existing Structure #2199/164 / #11/550 / #1065/550. This uprate of Line #1065 will create the new Oak Green – Mt Pony Line #2438. A 25-foot expansion of the existing 75-foot right-of-way is required, except where not feasible on Virginia Outdoors Foundation (“VOF”) conservation easements. Construct approximately 0.2 mile of two new single circuit 230 kV lines to extend Line #1065 and Line #11 into the relocated Oak Green Switching Station within a variable width right-of-way. The relocation of the existing Oak Green Switching Station will also require construction of 0.2-mile of new single circuit 115 kV transmission line (designed to 230 kV) to extend the existing Oak Green – Pine Glade Line #153 into the new Oak Green Switching Station. Relocation of the existing Oak Green Switching Station is necessary to accommodate the installation of

of new right-of-way adjacent to the Company’s existing 100-foot right-of-way, utilizing a total right-of-way width of 160 feet.

³ If Mt. Pony Proposed Route (Route 1) and Tech Park Proposed Route (Route 1) are selected by the Commission, then a 0.3-mile segment of 100-foot wide right-of-way along the south side of US 15/29 will not be needed by the Tech Park Proposed Route, as the Tech Park Proposed Route will tap into the Mt. Pony Proposed Route at proposed Structure # 2437/168 / 2438/126 rather than beginning at the proposed Mt. Pony Substation. In this scenario, the Tech Park Proposed Route is 3.4 miles in length, rather than 3.7 miles, and the Tech Park Proposed Route right-of-way would be reduced by approximately 3.7 acres. If Mt. Pony Alternative Route 2 is selected by the Commission, this 0.3-mile (3.7 acre) segment will be included. To ensure that all potential Project impacts are evaluated, this 0.3-mile segment is included in both the Mt. Pony Proposed Route and Tech Park Proposed Route impacts in this filing.

⁴ See *Application of Virginia Electric and Power Company, For approval and certification of electric transmission facilities: Cirrus – Keyser 230 kV Loop and Related Projects*, Case No. PUR-2022-00198, Final Order (Oct. 23, 2023).

⁵ Approximately 3.3 miles of the total 3.7-mile Tech Park Proposed Route would be located within new 100-foot-wide right-of-way, with one 0.2-mile segment collocated with the existing Company Lines #2 and #70, and one 0.2-mile segment collocated with the Company’s existing Line #2 rights-of-way that require only 60 additional feet in width. Approximately 0.4 mile, or approximately 11% of the total length, will be collocated with the existing right-of-way. This collocated 0.4 mile will require 60 feet of new right-of-way width adjacent to the Company’s existing 100-foot right-of-way, utilizing a total 160-foot-wide right-of-way.

⁶ This portion of Line #11 will initially operate at 115 kV, but will be constructed for operations at 230 kV.

230 kV and 115 kV ring busses and two 230 -115 kV transformers (“Oak Green Rebuild and Relocation”).

- (iv) Convert and rebuild an approximately 0.7-mile segment of the Company’s existing 115 kV Potato Run – Remington Line #2 from existing Structure #2/147 to Remington Substation as double circuit 230 kV. This portion of Line #2 is currently double circuit with Company’s distribution line #655, which will be rebuilt and converted to 230 kV to accommodate a double circuit 230 kV line, with Line #655 operating at distribution voltage (“Remington Rebuild”).
- (v) Construct four new 230 kV substations and one relocated 230 kV switching station (i.e., the Oak Green Switching Station as described previously) in Culpeper County, the Town of Culpeper, and Orange County, Virginia (the “Mt. Pony Substation,” “McDevitt Substation,” “Chandler Substation,” “Palomino Substation,” and “Relocated Oak Green Switching Station”). The proposed Mt. Pony Substation and Palomino Substation will be on an easement to be acquired by the Company, and the proposed Chandler Substation, McDevitt Substation, and Relocated Oak Green Switching Station will be on Company property. The Mt. Pony Substation will be in Culpeper County; the Chandler, McDevitt, and Palomino Substations will be in the Town of Culpeper; and the Oak Green Switching Station will be relocated within Orange County, Virginia.

The components described above are collectively referred to as the “Project.”

4. The Project is needed to interconnect and provide service requested by three Customers developing separate new data center campuses in Culpeper County and the Town of Culpeper, Virginia, to maintain reliable service for the overall load growth in the project area, and to comply with mandatory NERC Reliability Standards.

5. Dominion Energy Virginia’s transmission system is responsible for providing transmission service (i) for redelivery to the Company’s retail customers; (ii) to Appalachian Power Company, Old Dominion Electric Cooperative, Northern Virginia Electric Cooperative, Central Virginia Electric Cooperative, and Virginia Municipal Electric Association for redelivery to their retail customers in Virginia; and, (iii) to North Carolina Electric Membership Corporation and North Carolina Eastern Municipal Power Agency for redelivery to their customers in North Carolina (collectively, the “DOM Zone”). The Company needs to be able to maintain the overall,

long-term reliability of its transmission system to meet its customers' evolving power needs in the future.

6. As to the federally mandated NERC Reliability Standards, the Company must comply with minimum criteria binding to all public utilities as components of the interstate electric transmission system. Moreover, the Energy Policy Act of 2005 mandates that electric utilities must follow these NERC Reliability Standards and imposes fines on utilities found to be in noncompliance up to \$1.3 million a day per violation.

7. Accordingly, the Project as proposed herein is required to provide service requested by the Customers, maintain reliable service for overall load growth in the Project area, and to maintain compliance with mandatory NERC Reliability Standards.

8. For the Mt. Pony Lines, the Company identified an approximately 5.2-mile overhead proposed route ("Mt. Pony Proposed Route" or "Mt. Pony Route 1") in an approximately 100-foot-wide new right-of-way or within a new 60-foot-wide right-of-way collocated with existing Company rights-of-way. One overhead alternative route ("Mt. Pony Alternative Route 2") was also identified entirely in a new 100-foot-wide right-of-way. The Mt. Pony Lines are entirely within Culpeper County, Virginia.

9. For the Tech Park Lines, the Company identified an approximately 3.7-mile overhead proposed route ("Tech Park Proposed Route" or "Tech Park Route 1"), as well as two overhead alternative routes ("Tech Park Alternative Route 2" and "Tech Park Alternative Route 3"). The Tech Park Proposed and Alternative Routes would be primarily within new 100-foot-wide rights-of-way, except for two 0.2-mile segments within a new 60-foot-wide right-of-way collocated within existing Company rights-of-way. Approximately 1.5 miles of each of the Tech Park Lines is within the Town of Culpeper, with the remainder (2.2 miles of the Proposed Route

and 2.0 miles of each Alternative Route) within Culpeper County, Virginia.

10. For the Oak Green Rebuild and Relocation, the Company identified an approximately 2.9-mile overhead proposed route (“Oak Green Proposed Route” or “Oak Green Rebuild”), comprised of 2.5 miles of existing and 0.4-mile new right of way. The existing 2.5-mile right-of-way is 75 feet wide. Of this, approximately 2.0 miles of the existing right-of-way will be expanded by 25 feet to a new total of 100 feet wide, while approximately 0.5 mile will be maintained at 75 feet due to conservation easements which prevent right-of-way expansion. In addition, approximately 0.2 mile of new variable width right-of-way will be acquired to connect the existing Oak Green Switching Station to the proposed relocated Oak Green Switching Station, and 0.2 mile of new 100 feet wide right-of-way will be acquired to connect the proposed relocated Oak Green Switching Station to the existing Oak Green – Pine Glade Line #153.

11. For the Remington Rebuild, the Company identified an approximately 0.7-mile overhead proposed route (“Remington Proposed Route” or “Remington Rebuild”). The Remington Rebuild is located entirely within an existing Company right-of-way or on Company-owned lands. Because the Remington Proposed Route is entirely within existing Company right-of-way, no alternative routes were identified. The Remington Proposed Route is entirely in Fauquier County, Virginia.

12. The Company is proposing all these Proposed and Alternative Routes for Commission consideration and notice. Discussion of these Proposed and Alternative Routes, as well as other overhead routes that the Company studied but ultimately rejected, is provided in Section II of the Appendix and discussed in more detail in the Environmental Routing Study submitted with the Application.

13. The four new Proposed Substations will be constructed with 112 MVA 230-34.5

kV transformers with a six (McDevitt Substation, Chandler Substation, and Palomino Substation) or four (Mt. Pony Substation) circuit breaker configuration, and other associated equipment. The total area of the Mt. Pony Substation is approximately 5.0 acres, the McDevitt Substation is approximately 4.5 acres, the Chandler Substation is approximately 4.7 acres, and the Palomino Substation is approximately 4.4 acres. The Mt. Pony Substation will be in Culpeper County; and the Chandler, McDevitt, and Palomino Substations will be in the Town of Culpeper, Virginia.

14. The desired in-service target date for the proposed Project is May 1, 2028. The Company estimates it will take approximately 27 months for detailed engineering, materials procurement, permitting, real estate, and construction after a final order from the Commission. Accordingly, to support this estimated construction timeline and construction plan, the Company respectfully requests a final order by January 31, 2026. Should the Commission issue a final order by January 31, 2026, to accommodate long-lead materials procurement, the Company estimates that construction should begin around October 15, 2026, and be completed by May 1, 2028. This schedule is contingent upon obtaining the necessary permits and outages. Dates may need to be adjusted based on permitting delays or design modifications to comply with additional agency requirements identified during the permitting application process, as well as the ability to schedule outages, and unpredictable delays due to labor shortages, or materials/supply issues. This schedule is also contingent upon the Company's ability to negotiate for easements with property owners along the approved routes and to purchase land for substation use without the need for additional litigation.

15. In addition, the Company is monitoring actively regulatory changes and requirements associated with the Northern long-eared bat ("NLEB") and how they could potentially impact construction timing associated with time of year restrictions ("TOYRs"). The

U.S. Fish and Wildlife Service (“USFWS”) previously indicated that it planned to issue final NLEB guidance to replace the interim guidance by April 1, 2024; however, the interim guidance has been extended by USFWS until late summer 2024. The Company is actively tracking updates from the USFWS with respect to the final guidance. Once issued, the Company plans to review and follow the final guidance to the extent it applies to the Company’s projects. Until the final guidance is issued, the Company will continue following the interim guidance. For projects that may require additional coordination, the Company will coordinate with the USFWS.

16. The Company is also monitoring potential regulatory changes associated with the potential up-listing of the Tricolored bat (“TCB”). On September 14, 2022, the USFWS published the proposed rule to the Federal Register to list the TCB as endangered under the Endangered Species Act. USFWS extended its Final Rule issuance target from September 2023 to September 2024. The Company is actively tracking this ruling and evaluating the effects of potential outcomes on Company projects’ permitting, construction, and in-service dates, including electric transmission projects.

17. Any adjustments to this Project schedule resulting from these or similar challenges could necessitate a minimum of a six- to twelve-month delay in the targeted in-service date. Accordingly, for purposes of judicial economy, the Company requests that the Commission issue a final order approving both a desired in-service target date (*i.e.*, May 1, 2028) and an authorization sunset date (*i.e.*, May 1, 2029) for energization of the Project.

18. The total estimated conceptual cost of the Project as proposed is approximately \$253.7 million, which includes approximately \$163.5 million for transmission-related work and approximately \$90.1 million for substation-related work (2024 dollars).

19. Based on consultations with the Virginia Department of Environmental Quality

(“DEQ”), the Company has developed a supplement (“DEQ Supplement”) containing information designed to facilitate review and analysis of the proposed facilities by the DEQ and other relevant agencies. The DEQ Supplement is attached to this Application.

20. Based on the Company’s experience, the advice of consultants, and a review of published studies by experts in the field, the Company believes that there is no causal link to harmful health or safety effects from electric and magnetic fields generated by the Company’s existing or proposed facilities. Section IV of the Appendix provides further details on Dominion Energy Virginia’s consideration of the health aspects of electric and magnetic fields.

21. Section V of the Appendix provides a proposed route description for public notice purposes and a list of federal, state, and local agencies and officials that the Company has or will notify about the Application.

22. In addition to the information provided in the Appendix, the DEQ Supplement, and the Environmental Routing Study, this Application is supported by the pre-filed direct testimony of Company Witnesses Vishal S. Dixit, Wesley Strunk, Mohammed M. Othman, Gregory R. Baka, and Jared Brandell-Douglas filed with this Application.

23. Finally, Dominion Energy Virginia requests that, to the extent the Commission modifies the deadline for responses to interrogatories and requests for production of documents in 5 VAC 5-20-260, the Commission grant Staff and the parties seven calendar days to afford adequate time to provide comprehensive responses to discovery.

WHEREFORE, Dominion Energy Virginia respectfully requests that the Commission:

- (a) direct that notice of this Application be given as required by § 56-46.1 of the Code of Virginia;
- (b) approve pursuant to § 56-46.1 of the Code of Virginia the construction of

the Project; and,

(c) grant a certificate of public convenience and necessity for the Project under the Utility Facilities Act, § 56-265.1 *et seq.* of the Code of Virginia.

VIRGINIA ELECTRIC AND POWER COMPANY

By: [s] Vishwa B. Link
Counsel for Applicant

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February 20, 2025

COMMONWEALTH OF VIRGINIA
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Culpeper Technology Zone 230 kV Loop and Lines #2
and #1065 Conversion Project

Application No. 347

Appendix

Containing Information in Response to
“Guidelines for Transmission Line Applications Filed Under title 56 of the Code of Virginia”

Case No. PUR-2025-00032

Filed: February 20, 2025

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EXECUTIVE SUMMARY

In order to provide service requested by three data center customers¹ (collectively, the “Customers”), to maintain reliable service for the overall load growth in the area, and to comply with mandatory North American Electric Reliability Corporation (“NERC”) Reliability Standards, Virginia Electric and Power Company (“Dominion Energy Virginia” or the “Company”) proposes in Culpeper County, the Town of Culpeper, Orange County, and Fauquier County, Virginia, to:

- Construct new approximately 5.2-mile overhead 230 kilovolt (“kV”) double circuit transmission lines: Mt. Pony – Potato Run Line #2437 (“Mt. Pony – Potato Run Line”) and the Mt. Pony – Oak Green Line #2438 (“Mt. Pony – Oak Green Line”) (collectively the “Mt. Pony Lines”) primarily on new right-of-way. The new transmission lines will extend from the converted Potato Run – Remington and Oak Green – Potato Run Lines near Structure #1065/496 / #2331/110, as described below, to the proposed Mt. Pony Substation. The proposed Mt. Pony – Potato Run Line and the Mt. Pony – Oak Green Line will be constructed primarily with double circuit weathering steel monopole structures, utilizing two circuits of three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA.² The Mt. Pony Lines will utilize a total of 100 or 160 feet of right-of-way, which includes both new 100-foot wide right-of-way, and collocated 160-foot right-of-way. The amount of new right-of-way width for this line will vary from 60 feet to 100 feet.³
- Construct a new approximately 3.7-mile⁴ overhead 230 kV double circuit transmission

¹ The three Customers (individually, “Customer A,” “Customer B,” and “Customer C,” and collectively the “Customers”) have requested that Dominion Energy Virginia serve three new data center campuses in the Project area: Campus A, Campus B, and Campus C (collectively, the “Campuses”). Campus A is owned by Customer A, Culpeper DataBank (“DataBank”), Campus B is owned by Customer B, Stack Infrastructure Inc. (“STACK”), and Campus C is owned by Customer C, Copper Ridge Data Center Campus (“Copper Ridge”). Pursuant to the Company’s privacy policy and/or a specific customer non-disclosure agreement, the Company is obligated to maintain the confidentiality of customer information and obtain customer consent prior to public disclosure. All three Customers have provided consent for identification in this filing.

² Apparent power, measured in megavolt amperes (“MVA”), is made up of real power (megawatt or “MW”) and reactive power (megavolt ampere reactive or “MVAR”). The power factor (“pf”) is the ratio of real power to apparent power. For loads with a high pf (approaching unity), real power will approach apparent power and the two can be used interchangeably. Load loss criteria specify real power (MW) units because that represents the real power that will be dropped; however, MVA is used to describe the equipment ratings to handle the apparent power, which includes the real and reactive load components.

³ Approximately 1.5 miles of the Mt. Pony Proposed Route will be within new 100-foot-wide right-of-way, including a 1.2-mile segment from the cut-in at existing Structure #2/496 / #2199/110 and the 0.3-mile segment along James Madison Highway that terminates at the proposed Mt. Pony Substation. Approximately 3.7 miles, or approximately 71% of the total length, will be collocated along the existing right-of-way. This collocated 3.7 miles will have 60 feet of new right-of-way adjacent to the Company’s existing 100-foot right-of-way, utilizing a total right-of-way width of 160 feet.

⁴ If Mt. Pony Proposed Route (Route 1) and Tech Park Proposed Route (Route 1) are selected by the Commission, then a 0.3-mile segment of 100-foot wide right-of-way along the south side of US 15/29 will not be needed by the Tech Park Proposed Route, as the Tech Park Proposed Route will tap into the Mt. Pony Proposed Route at proposed Structure # 2437/168 / 2438/126 rather than beginning at the proposed Mt. Pony Substation. In this scenario, the Tech Park Proposed Route is 3.4 miles in length, rather than 3.7 miles, and the Tech Park Proposed Route right-of-way would be reduced by approximately 3.7 acres. If Mt. Pony Alternative Route 2 is selected by the Commission, this

line (the “Cirrus – Mt. Pony Line” of the “Tech Park Lines”) primarily on new right-of-way and planned data center campuses. The Tech Park Lines will extend from the proposed 230 kV Mt. Pony Substation to the future 230 kV Cirrus Switching Station⁵ and interconnect the proposed 230 kV Chandler, McDevitt, and Palomino Substations. The Tech Park Lines will be constructed primarily with double circuit pre-dulled galvanized steel monopole structures, utilizing two circuits of three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The amount of new right-of-way width for this line will vary from 100 feet to 160 feet.⁶

- Convert and rebuild the Company’s existing 2.5-mile overhead double circuit 115 kV Oak Green – Potato Run Line #1065 to 230 kV and rebuild Gordonsville – Oak Green Line #11 to 230 kV⁷ from the existing Oak Green Switching Station to existing Structure #2199/164 / #11/550 / #1065/550. This uprate of Line #1065 will create the new Oak Green – Mt Pony Line #2438. A 25-foot expansion of the existing 75-foot right-of-way is required, except where not feasible on Virginia Outdoors Foundation (“VOF”) conservation easements. Construct approximately 0.2 mile of two new single circuit 230 kV lines to extend Line #1065 and Line #11 into the relocated Oak Green Switching Station within a variable width right-of-way. The relocation of the existing Oak Green Switching Station will also require construction of 0.2-mile of new single circuit 115 kV transmission line (designed to 230 kV) to extend the existing Oak Green – Pine Glade Line #153 into the new Oak Green Switching Station. Relocation of the existing Oak Green Switching Station is necessary to accommodate the installation of 230 kV and 115 kV ring busses and two 230-115 kV transformers (“Oak Green Rebuild and Relocation”).
- Convert and rebuild an approximately 0.7-mile segment of the Company’s existing 115 kV Potato Run – Remington Line #2 from existing Structure #2/147 to Remington Substation as double circuit 230 kV. This portion of Line #2 is currently double circuit with Company’s distribution line #655, which will be rebuilt and converted to 230 kV to accommodate a double circuit 230 kV line, with Line #655 operating at distribution voltage (“Remington Rebuild”).
- Construct four new 230 kV substations and one relocated 230 kV switching station (i.e., the Oak Green Switching Station as described previously) in Culpeper County, the Town of Culpeper, and Orange County, Virginia (the “Mt. Pony Substation,”

0.3-mile (3.7 acre) segment will be included. To ensure that all potential Project impacts are evaluated, this 0.3-mile segment is included in both the Mt. Pony Proposed Route and Tech Park Proposed Route impacts in this filing.

⁵ See *Application of Virginia Electric and Power Company, For approval and certification of electric transmission facilities: Cirrus – Keyser 230 kV Loop and Related Projects*, Case No. PUR-2022-00198, Final Order (Oct. 23, 2023).

⁶ Approximately 3.3 miles of the total 3.7-mile Tech Park Proposed Route would be located within new 100-foot wide right-of-way, with one 0.2-mile segment collocated with the existing Company Lines #2 and #70, and one 0.2-mile segment collocated with the Company’s existing Line #2 rights-of-way that require only 60 additional feet in width. Approximately 0.4 mile, or approximately 11% of the total length, will be collocated with the existing right-of-way. This collocated 0.4 mile will require 60 feet of new right-of-way width adjacent to the Company’s existing 100-foot right-of-way, utilizing a total 160-foot-wide right-of-way.

⁷ This portion of Line #11 will initially operate at 115 kV, but will be constructed for operations at 230 kV.

“McDevitt Substation,” “Chandler Substation,” “Palomino Substation,” and “Relocated Oak Green Switching Station”). The proposed Mt. Pony Substation and Palomino Substation will be on an easement to be acquired by the Company, and the proposed Chandler Substation, McDevitt Substation, and Relocated Oak Green Switching Station will be on Company property. The Mt. Pony Substation will be in Culpeper County; the Chandler, McDevitt, and Palomino Substations will be in the Town of Culpeper; and the Oak Green Switching Station will be relocated within Orange County, Virginia.

The components described above are collectively referred to as the “Project.”

Culpeper County and the Town of Culpeper have recently approved zoning changes to promote the development of the “Culpeper Tech Zone,” which is driving significant new load growth in the area. Three new data center campuses, each consisting of several new data centers, are the main load driver for this Project. Within this area, the Company projects load growth of approximately 188 MW initially by 2028, and expects that load to grow by 1,164 MW by 2034 in Culpeper County and the Town of Culpeper. This load growth is a combination of data center growth (140 MW by 2028; 943 MW by 2034) and other load growth on the Rappahannock Electric Cooperative (“REC”) system. The additional REC load on the Mountain Run Substation is projected to be approximately 100 MW by 2034, creating a total of 320 MW load. According to Dominion Energy Virginia transmission planning criteria, a substation cannot serve more than 300 MW of load. Additionally, any substation that serves more than 100 MW of load should be networked to the system and may not be served radially.

As to the need to provide requested service, the Customers’ projected load combined with emerging load in the area (approximately 1,372 MW) would lead to a potential 300 MW load drop which is in violation of NERC’s criteria to serve all load reliably. Accordingly, the proposed Mt. Pony Lines, Tech Park Lines and the converted Lines #2 and #1065 are essential to reliably serve the Customers as well as emerging load in the Culpeper load area. For purposes of this Application, the Culpeper Load Area is defined generally as the area within Culpeper County and the Town of Culpeper (“Culpeper Load Area”).

For the Mt. Pony Lines, the Company identified an approximately 5.2 mile overhead proposed route (“Mt. Pony Proposed Route” or “Mt. Pony Route 1”) in an approximately 100-foot-wide new right-of-way or within a new 60-foot-wide right-of-way collocated with existing Company rights-of-way. One overhead alternative route (“Mt. Pony Alternative Route 2”) was also identified entirely in a new 100-foot-wide right-of-way. The Mt. Pony Lines are entirely within Culpeper County, Virginia.

For the Tech Park Lines, the Company identified an approximately 3.7-mile overhead proposed route (“Tech Park Proposed Route” or “Tech Park Route 1”), as well as two overhead alternative routes (“Tech Park Alternative Route 2” and “Tech Park Alternative Route 3”). The Tech Park Proposed and Alternative Routes would be primarily within new 100-foot-wide rights-of-way, except for two 0.2-mile segments within a new 60-foot-wide right-of-way collocated with existing Company rights-of-way. Approximately 1.5 miles of each of the Tech Park Lines is within the Town of Culpeper, with the remainder (2.2 miles of the Proposed Route and 2.0 miles of each Alternative Route) within Culpeper County, Virginia.

For the Oak Green Rebuild and Relocation, the Company identified an approximately 2.9-mile overhead proposed route (“Oak Green Proposed Route” or “Oak Green Rebuild”), comprised of 2.5 miles of existing and 0.4 mile of new right-of-way. The existing 2.5-mile right-of-way is 75 feet wide. Of this, approximately 2.0 miles of the existing right-of-way will be expanded by 25 feet to a new total of 100 feet wide, while approximately 0.5 mile will be maintained at 75 feet due to conservation easements which prevent right-of-way expansion. In addition, approximately 0.2 mile of new variable width right-of-way will be acquired to connect the existing Oak Green Switching Station to the proposed relocated Oak Green Switching Station, and 0.2 mile of new 100 feet wide right-of-way will be acquired to connect the proposed relocated Oak Green Switching Station to the existing Oak Green – Pine Glade Line #153.

The proposed Oak Green Switching Station initially will be constructed with four 230 kV circuit breakers, one 230 kV line terminals, two 230 – 115 kV, 224 MVA transformers, six 115 kV circuit breakers, two 115 kV line terminals and other associated equipment. In total, it will be designed to accommodate future growth in the area with a build-out of six additional 230 kV circuit breakers and two additional 115 kV breakers, three additional 230 kV line terminals, two 115 kV line terminals and two 230 kV capacitor banks. Additionally, a new control enclosure will be installed to accommodate the protective relay and communications cabinets. The total area required to build Oak Green Switching Station is approximately 4.7 acres. In addition, an approximately 0.2-mile segment of new 100-foot-wide right-of-way is required to connect the relocated Oak Green Switching Station to the existing Oak Green – Pine Glade Line #153. Due to the utilization of existing right-of-way, no alternative routes were identified for the Oak Green Rebuild. Approximately 0.2 mile of the Oak Green Proposed Route is in Culpeper County and 2.5 miles are in Orange County. The relocated Oak Green Switching Station and 0.2-mile Line #153 tap are also located in Orange County, Virginia.

For the Remington Rebuild, the Company identified an approximately 0.7 mile overhead proposed route (“Remington Proposed Route” or “Remington Rebuild”). The Remington Rebuild is located entirely within existing Company right-of-way or on Company-owned lands. Because the Remington Proposed Route is entirely within existing Company right-of-way, no alternative routes were identified. The Remington Proposed Route is entirely in Fauquier County, Virginia.

The Company is proposing all these Proposed and Alternative Routes for Commission consideration and notice. Discussion of these Proposed and Alternative Routes, as well as other overhead and underground routes that the Company studied but ultimately rejected, is provided in Section II of the Appendix and discussed in more detail in the Environmental Routing Study (or “Routing Study”) included with the Application.

The four new Proposed Substations will be constructed with 112 MVA 230-34.5 kV transformers with a six (McDevitt Substation, Chandler Substation, and Palomino Substation) or four (Mt. Pony Substation) circuit breaker configuration, and other associated equipment. The total area of the Mt. Pony Substation is approximately 5.0 acres, the McDevitt Substation is approximately 4.5 acres, the Chandler Substation is approximately 4.7 acres, and the Palomino Substation is approximately 4.4 acres. The Mt. Pony Substation will be in Culpeper County; and the Chandler, McDevitt, and Palomino Substations will be in the Town of Culpeper, Virginia.

The estimated conceptual cost of the Project utilizing the Proposed Routes is approximately \$253.7 million which includes approximately \$163.5 million for transmission-related work and approximately \$90.1 million for substation-related work (2024 dollars).⁸

The desired in-service target date for the Project is May 1, 2028. The Company estimates it will take approximately 27 months for detailed engineering, materials procurement, permitting, real estate, and construction after a final order from the Commission. Accordingly, to support this estimated construction timeline and construction plan, the Company respectfully requests a final order by January 31, 2026. Should the Commission issue a final order by January 31, 2026, to accommodate long-lead materials procurement, the Company estimates that construction should begin around October 15, 2026, and be completed by May 1, 2028. This schedule is contingent upon obtaining the necessary permits and outages, the latter of which may be particularly challenging due to the amount of new load growth, rebuilds, and new builds scheduled to occur in this load area. Dates may need to be adjusted based on permitting delays or design modifications to comply with additional agency requirements identified during the permitting application process, as well as the ability to schedule outages, and unpredictable delays due to labor shortages, or materials/supply issues. This schedule is also contingent upon the Company's ability to negotiate for easements with property owners along the approved routes without the need for additional litigation.

In addition, the Company is actively monitoring regulatory changes and requirements associated with the Northern long-eared bat ("NLEB") and how they could potentially impact construction timing associated with time of year restrictions ("TOYRs"). The U.S. Fish and Wildlife Service ("USFWS") previously indicated that it planned to issue final NLEB guidance to replace the interim guidance by April 1, 2024; however, the interim guidance has been extended by USFWS until late summer 2024. The Company is actively tracking updates from the USFWS with respect to the final guidance. Once issued, the Company plans to review and follow the final guidance to the extent it applies to the Company's projects. Until the final guidance is issued, the Company will continue following the interim guidance. For projects that may require additional coordination, the Company will coordinate with the USFWS.

The Company is also monitoring potential regulatory changes associated with the potential up-listing of the Tricolored bat ("TCB"). On September 14, 2022, the USFWS published the proposed rule to the Federal Register to list the TCB as endangered under the Endangered species Act. USFWS extended its Final Rule issuance target from September 2023 to September 2024. The Company is actively tracking this ruling and evaluating the effects of potential outcomes on Company projects' permitting, construction, and in-service dates, including electric transmission projects.

Any adjustments to this Project schedule resulting from these or similar challenges could necessitate a minimum of a six- to twelve-month delay in the targeted in-service date. Accordingly, for purposes of judicial economy, the Company requests that the Commission issue a final order approving both a desired in-service target date (i.e., May 1, 2028) and an authorization sunset date (i.e., May 1, 2029) for energization of the Project.

⁸ These total Project costs are inclusive of projected real estate costs that the Company anticipates will be required to acquire the property rights for the Project.

I. NECESSITY FOR THE PROPOSED PROJECT

- A. State the primary justification for the proposed project (for example, the most critical contingency violation including the first year and season in which the violation occurs). In addition, identify each transmission planning standard(s) (of the Applicant, regional transmission organization ("RTO"), or North American Electric Reliability Corporation) projected to be violated absent construction of the facility.**

Response: The Project is necessary to provide service requested by three Customers developing separate new data center campuses in Culpeper County and the Town of Culpeper, Virginia; to maintain reliable service for the overall load growth in the Project area; and to comply with mandatory NERC Reliability Standards. See Attachment I.A.1 for an overview map of the proposed Project along the Proposed Routes in the Culpeper Load Area.

Dominion Energy Virginia's transmission system is responsible for providing transmission service (i) for redelivery to the Company's retail customers; (ii) to Appalachian Power Company, Old Dominion Electric Cooperative, Northern Virginia Electric Cooperative, Central Virginia Electric Cooperative, and Virginia Municipal Electric Association for redelivery to their retail customers in Virginia; and, (iii) to North Carolina Electric Membership Corporation and North Carolina Eastern Municipal Power Agency for redelivery to their customers in North Carolina (collectively, the "DOM Zone"). The Company needs to be able to maintain the overall, long-term reliability of its transmission system to meet its customers' evolving power needs in the future.

Dominion Energy Virginia is part of the PJM Interconnection, L.L.C. ("PJM") regional transmission organization ("RTO"), which provides service to a large portion of the eastern United States. PJM is currently responsible for ensuring the reliability and coordinating the movement of electricity through all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia. This service area has a population of approximately 65 million and, on August 2, 2006, set a record high of 165,563 MW for summer peak demand, of which Dominion Energy Virginia's load portion was approximately 19,256 MW. On July 16, 2024, the DOM Zone set a record high of 23,127 MW for summer peak demand. On January 23, 2025, the DOM Zone set a preliminary winter and all-time record demand of 24,678 MW. Based on the 2024 PJM Load Forecast, the DOM Zone is expected to grow with average growth rates of 5.6% summer and 5.1% winter over the next 10 years compared to the PJM average of 1.7% and 2.0% over the same period for the summer and winter, respectively.⁹

Dominion Energy Virginia is also part of the Eastern Interconnection transmission

⁹ A copy of the 2024 PJM Load Report is available at the following: <https://www.pjm.com/-/media/library/reports-notices/load-forecast/2024-load-report.ashx>. See, in particular, page 3 (PJM) and pages 28, 35, 39 (DOM Zone).

grid, meaning its transmission system is interconnected, directly or indirectly, with all of the other transmission systems in the United States and Canada between the Rocky Mountains and the Atlantic coast, except for Quebec and most of Texas. All of the transmission systems in the Eastern Interconnection are dependent on each other for moving bulk power through the transmission system and for reliability support. Dominion Energy Virginia's service to its customers is extremely reliant on a robust and reliable regional transmission system.

NERC has been designated by the Federal Energy Regulatory Commission ("FERC") as the electric reliability organization for the United States. Accordingly, NERC requires that the planning authority and transmission planner develop planning criteria to ensure compliance with NERC Reliability Standards. Mandatory NERC Reliability Standards require that a transmission owner ("TO") develop facility interconnection requirements that identify load and generation interconnection minimum requirements for a TO's transmission system, as well as the TO's reliability criteria.¹⁰

Federally mandated NERC Reliability Standards constitute minimum criteria with which all public utilities must comply as components of the interstate electric transmission system. Moreover, the Energy Policy Act of 2005 mandates that electric utilities must follow these NERC Reliability Standards and imposes fines on utilities found to be in noncompliance up to \$1.3 million a day per violation.

PJM's Regional Transmission Expansion Plan ("RTEP") is the culmination of a FERC-approved annual transmission planning process that includes extensive analysis of the electric transmission system to determine any needed improvements.¹¹ PJM's annual RTEP is based on the effective criteria in place at the time of the analyses, including applicable standards and criteria of NERC, PJM, and local reliability planning criteria, among others.¹² Projects identified through the RTEP process are developed by the TO in coordination with PJM, and are presented at the Transmission Expansion Advisory Committee ("TEAC") meetings prior to inclusion in the RTEP, which is then presented for approval to the PJM Board of Managers (the "PJM Board").

Outcomes of the RTEP process include three types of transmission system upgrades or projects: (i) baseline upgrades are those that resolve a system reliability criteria violation, which can include planning criteria from NERC, ReliabilityFirst, SERC

¹⁰ The Company's Transmission Planning Criteria (effective September 1, 2024) can be found in Attachment 1 of the Company's Facility Interconnection Requirements ("FIR") document, which is available online at <https://cdn-dominionenergy-prd-001.azureedge.net/-/media/pdfs/virginia/parallel-generation/sig-on-file--devet-facility-interconnection-requirements-rev23-eff-date-09012024.pdf?rev=116db3b1c4ce4d239843c601616b18e9&hash=64AB2F5B22CE90BE545783726485AE4C>.

¹¹ PJM Manual 14B (effective June 27, 2024) focuses on the RTEP process and can be found at <https://www.pjm.com/-/media/documents/manuals/m14b.ashx>.

¹² See PJM Manual 14B, Attachment D: PJM Reliability Planning Criteria.

Reliability Corporation, PJM, and TOs; (ii) network upgrades are new or upgraded facilities required primarily to eliminate reliability criteria violations caused by proposed generation, merchant transmission, or long-term firm transmission service requests; and (iii) supplemental projects are projects initiated by the TO in order to interconnect new customer load, address degraded equipment performance, improve operational flexibility and efficiency, and increase infrastructure resilience. The Project is classified as a supplemental project initiated by the TO to interconnect new customer load. While supplemental projects are included in the RTEP, the PJM Board does not actually approve such projects. See Section I.J for a discussion of the PJM process as it relates to this Project.

NEED FOR THE PROJECT

As discussed in more detail below, the Project is needed to interconnect and provide service requested by three data center customers in the Culpeper Load Area, and to maintain compliance with mandatory NERC Reliability Standards. The combination of competitive collocation/cloud environment, fiber connectivity, strategic geographic location, low risk of business disruptions, affordable and reliable power, and the business climate in Virginia has created the largest market for data center capacity in the United States. The data center market continues to rapidly expand in Virginia, and the growing demand for data center space in Virginia has led the industry to locations within other regions of Virginia.

Between 2023 and 2024, the Company's Distribution Planning group submitted delivery point ("DP") requests to the Transmission Planning group for approximately 1,100 MW requiring four new substations, as described below.

To serve the Customers' projected load, the Company is proposing to construct four substations with the targeted sequencing as follows:

Driver	Station	DP Requested Load	DP Requested ISD Ramp Start Year and Target Sequencing of Substation In-Service
Customer A	Mt. Pony	259 MW	May 2028
Customer B	McDevitt	275 MW	May 2028
	Chandler	270 MW	May 2028
Customer C	Palomino	295 MW	May 2028

THE PROPOSED PROJECT

To provide service requested by three data center Customers, to maintain reliable service for the overall load growth in the area, and to comply with mandatory NERC Reliability Standards, the Company is proposing in Culpeper County, the Town of Culpeper, Orange County, and Fauquier County, Virginia to construct the Project as follows:

Mt. Pony Lines and Mt. Pony Substation

As a part of the Project, the Company proposes to construct a new overhead 230 kV double circuit transmission line (i.e., Mt. Pony Lines) by cutting the Company's existing 230 kV Oak Green – Potato Run Line #1065 which is collocated within an existing 100-foot-wide right-of-way, to connect the existing Line #1065/#2331 corridor to the proposed Mt. Pony Substation. Existing Oak Green – Potato Run Line #1065 will be cut at Structure #1065/496 / #2331/110. The new double circuit lines will extend approximately 5.2 miles from the cut-in location before terminating at the new proposed 230-34.5 kV Mt. Pony Substation located on property to be obtained by the Company in Culpeper County, Virginia, resulting in (i) 230 kV Mt. Pony – Potato Run Line #2437 and (ii) 230 kV Mt. Pony – Oak Green Line #2438.

At the cut-in location, the Company will install a new monopole structure at Structure #1065/496 / #2331/110 to provide a network connection that will allow the Takeoff Substation to connect to other existing substations for increased reliability. While the structure installed at the proposed cut-in location is within the existing right-of-way, the proposed 5.2-mile Mt. Pony Lines will be constructed in a new 100-foot-wide right-of-way (1.5 miles) or within a 60-foot right-of-way expansion located adjacent to an existing 100-foot-wide right-of-way (3.7 miles) supported primarily by double circuit weathering steel monopole structures and utilizing two circuits of three-phase twin-bundled 768.2 ACSS/TW/HS type conductors with a summer transfer capability of 1,573 MVA, with one new shield wire over each circuit.

For the Mt. Pony Lines, the Company identified an approximately 5.2-mile overhead Mt. Pony Proposed Route (Route 1) within a variable 100-foot new or 60-foot expanded (160-foot total) right-of-way, as well as an approximately 4.8-mile overhead Mt. Pony Alternative Route 2 within a 100-foot right-of-way, both of which the Company is proposing for Commission consideration and notice.

The Company also proposes to construct the 230-34.5 kV Mt. Pony Substation in Culpeper County, Virginia, as part of the Project. See Section II.C for a description of the substation, as well as a one-line diagram and general arrangement.

Tech Park Lines and McDevitt, Chandler, and Palomino Substations

As a part of the Project, the Company proposes to construct a new overhead 230 kV double circuit transmission line from the Mt. Pony Substation to McDevitt, Chandler, Palomino, and Cirrus Switching Stations. An approximately 3.7-mile¹³ overhead 230 kV double circuit transmission line will connect the proposed substations, which will be primarily on new right-of-way and planned data center campuses. The Tech Park Lines will be supported primarily by double circuit monopole structures of pre-dulled galvanized and weathering steel and utilizing two circuits of three-phase twin-bundled 768.2 ACSS/TW/HS type conductors with a summer transfer capability of 1,573 MVA, with one new shield wire over each circuit. The proposed right-of-way width will be 100 feet where one double circuit line exists and 160 feet where two double circuit lines are parallel. The line names and numbers for the Tech Park Lines are below.

Line Number	Line Name
2438	Oak Green – Mt. Pony
2437	Potato Run – Mt. Pony (Future Potato Run – McDevitt)*
2439	Potato Run – Remington
2429	Mt. Pony – McDevitt
2430	McDevitt – Chandler
2431	McDevitt – Chandler
2432	Chandler – Palomino
2433	Chandler – Palomino
2434	Palomino – Cirrus
2435	Palomino – Cirrus

* Line will terminate into Mt. Pony initially and into McDevitt in the final configuration.

¹³ If Mt. Pony Proposed Route (Route 1) and Tech Park Proposed Route (Route 1) are selected by the Commission, then a 0.3-mile segment of 100-foot wide right-of-way along the south side of James Madison Highway will not be needed by the Tech Park Proposed Route, as the Tech Park Proposed Route will tap into the Mt. Pony Proposed Route at proposed Structure # 2437/168 / #2438/126 rather than beginning at the proposed Mt. Pony Substation. In this scenario, the Tech Park Proposed Route is 3.4 miles in length, rather than 3.7 miles, and the Tech Park Proposed Route right-of-way would be reduced by approximately 3.7 acres. If Mt. Pony Alternative Route 2 is selected by the Commission, this 0.3-mile (3.7 acre) segment will be included. To ensure that all potential Project impacts are evaluated, this 0.3-mile segment is included in both the Mt. Pony Proposed Route and Tech Park Proposed Route impacts in this filing.

Oak Green Rebuild and Relocation

An approximately 2.5-mile segment of the existing 115 kV Lines #1065/#11 would be rebuilt and uprated to 230 kV in a new variable-width right-of-way from existing Structure #2199/164 / 11/550 / 1065/550 to the existing Oak Green Switching Station. The existing right-of-way is 75 feet wide but will be expanded to 100 feet for the majority of the length to accommodate the rebuild of the Company's uprated Lines #1065/#11. The existing right-of-way crosses two VOF easements, and the right-of-way would not be expanded on these parcels. In addition, 0.2 mile of new variable width right-of-way would be acquired to connect the existing Oak Green Switching Station to the relocated Proposed Oak Green Switching Station, and 0.2 mile of new 100 feet wide right-of-way would be acquired to connect the proposed relocated Oak Green Switching Station to the Oak Green – Pine Glad Line #153. No alternatives are being considered for this segment due to use of existing right-of-way. The Oak Green Rebuild and Relocation spans across Culpeper and Orange Counties.

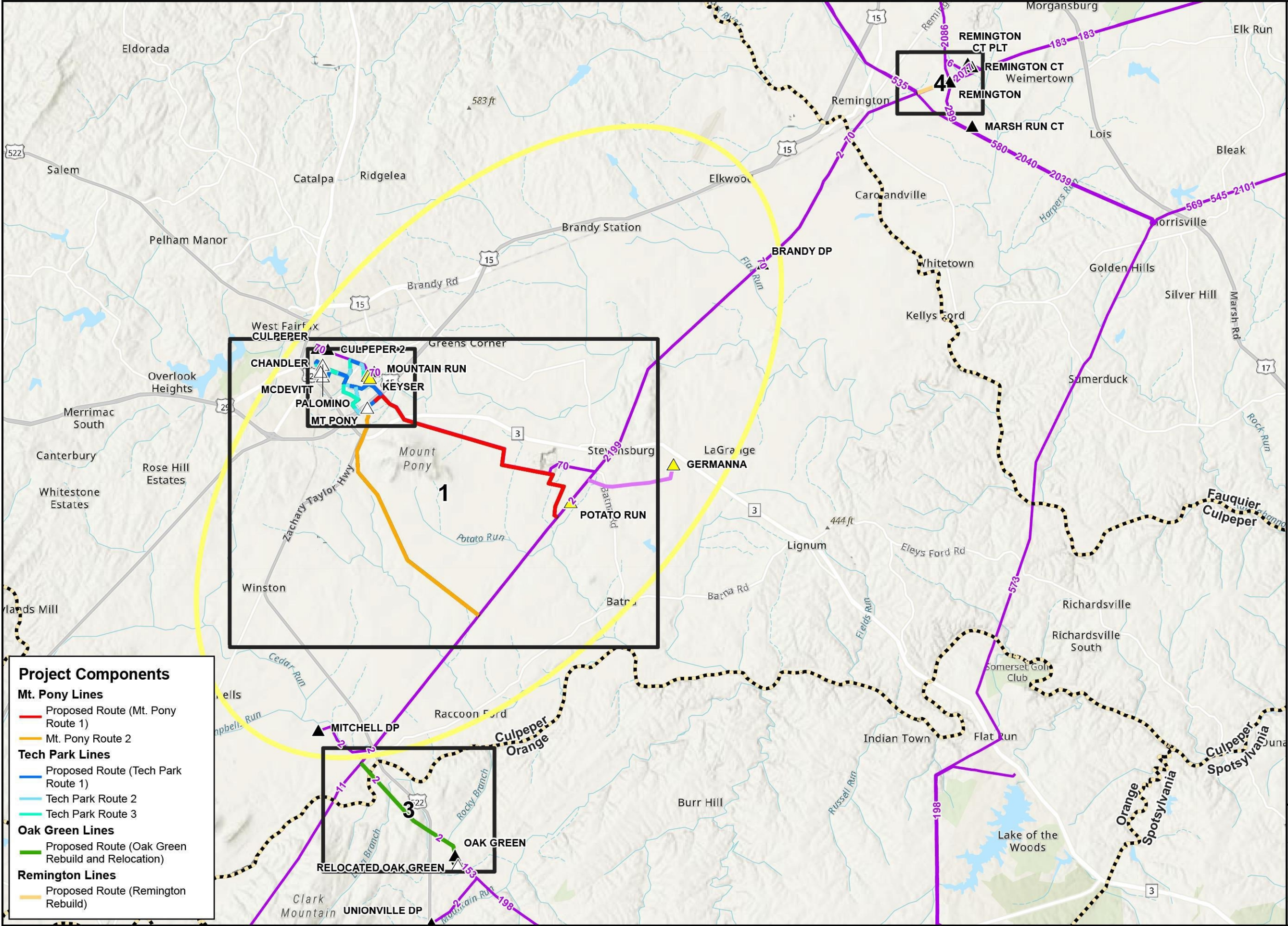
Remington Rebuild

An approximately 0.7-mile segment of the existing Line #2 will be rebuilt within the existing right-of-way from existing Structure #2/147 to the existing Remington Substation. The rebuild will not require any new right-of-way acquisition. The Company's existing distribution line #655 is double circuit with Line #2 in this segment and both will be rebuilt to accommodate a double circuit 230 kV line with Line #655 operating at distribution voltage. No alternatives are being considered for this rebuild due to use of existing right-of-way. The Remington Rebuild is in Fauquier County, Virginia.

See Section II.A.9 for more details regarding the route selection process.

Attachment I.A.2 provides a one-line diagram of the existing transmission system in the Project Area. Attachment I.A.3 provides a one-line diagram of the transmission system in the Project Area with the proposed Project, including future substations presented to PJM in the Project load area.

In summary, the proposed Project will provide service requested by the Customers, maintain reliable service for the overall load growth in the area, and comply with mandatory NERC Reliability Standards.



Project Components

- Mt. Pony Lines**
 - Proposed Route (Mt. Pony Route 1)
 - Mt. Pony Route 2
- Tech Park Lines**
 - Proposed Route (Tech Park Route 1)
 - Tech Park Route 2
 - Tech Park Route 3
- Oak Green Lines**
 - Proposed Route (Oak Green Rebuild and Relocation)
- Remington Lines**
 - Proposed Route (Remington Rebuild)



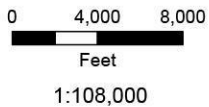
**Attachment I.A.1
Project Overview and
Culpeper Load Area**

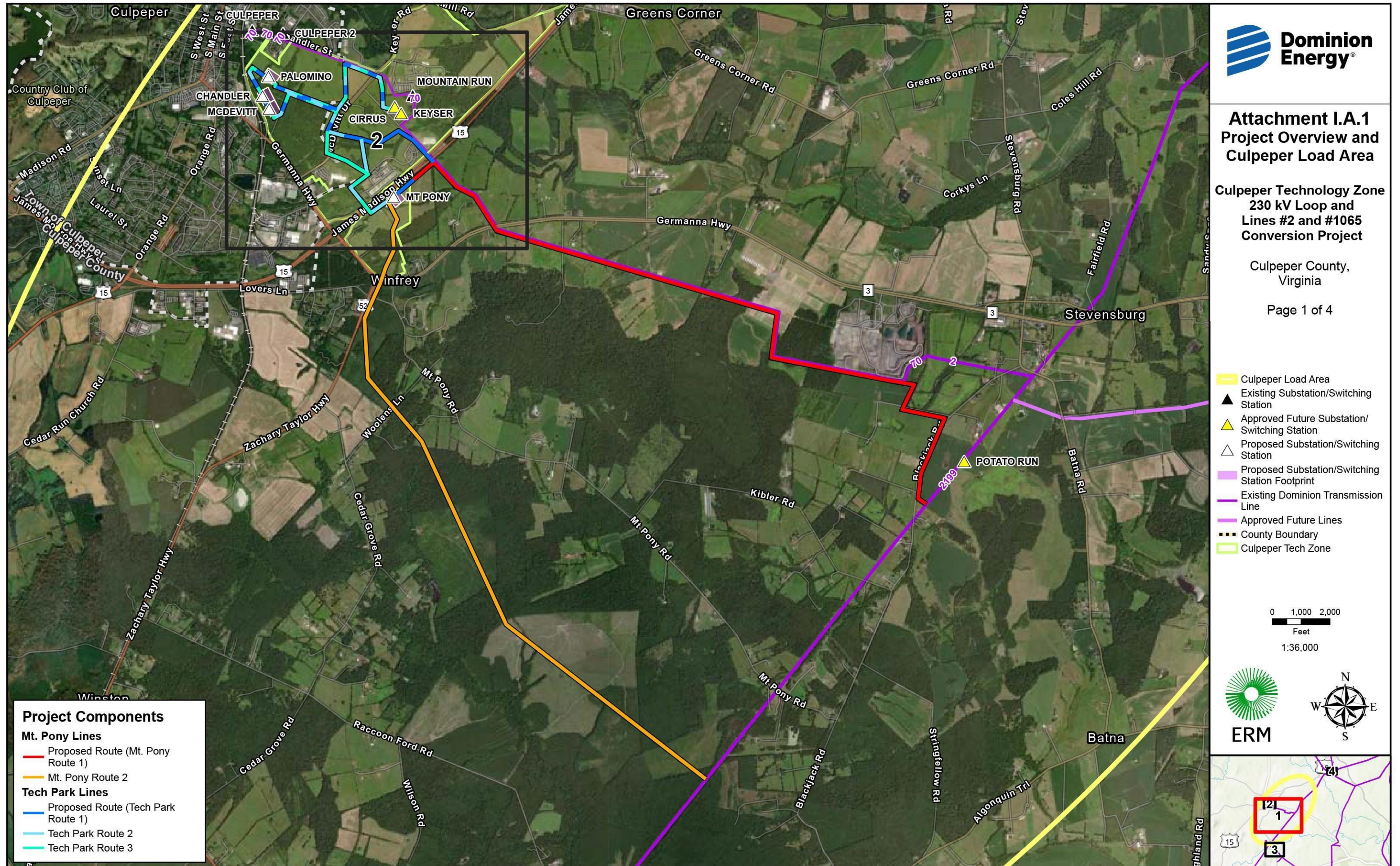
**Culpeper Technology Zone
230 kV Loop and
Lines #2 and #1065
Conversion Project**

Culpeper, Fauquier, and
Orange County, Virginia

Index Page

- Culpeper Load Area
- Existing Substation/Switching Station
- Approved Future Substation/Switching Station
- Proposed Substation/Switching Station
- Existing Dominion Transmission Line
- Approved Future Lines
- County Boundary







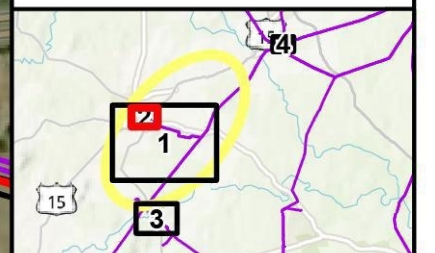
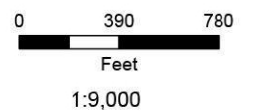
Attachment I.A.1 Project Overview and Culpeper Load Area

Culpeper Technology Zone
230 kV Loop and
Lines #2 and #1065
Conversion Project

Culpeper County,
Virginia

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- ▲ Existing Substation/Switching Station
- ▲ Approved Future Substation/Switching Station
- △ Proposed Substation/Switching Station
- Proposed Substation/Switching Station Footprint
- Existing Dominion Transmission Line
- County Boundary
- Proposed Data Center Building
- Culpeper Tech Zone
- Right-of-Way



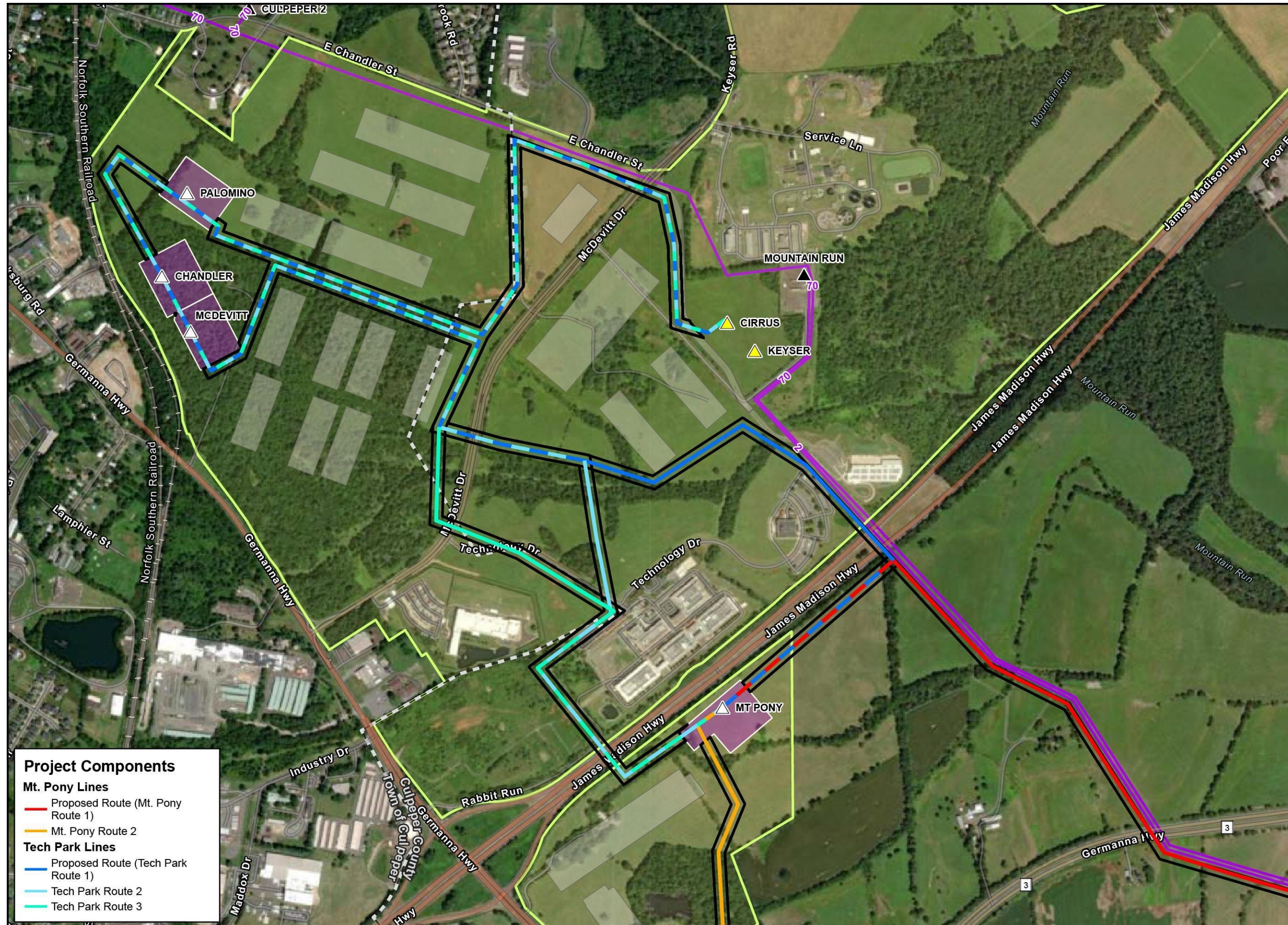
Project Components

Mt. Pony Lines

- Proposed Route (Mt. Pony Route 1)
- Mt. Pony Route 2

Tech Park Lines

- Proposed Route (Tech Park Route 1)
- Tech Park Route 2
- Tech Park Route 3





Project Components

Oak Green Lines

- Proposed Route (Oak Green Rebuild and Relocation)



Attachment I.A.1

Project Overview and Culpeper Load Area

Culpeper Technology Zone
230 kV Loop and
Lines #2 and #1065
Conversion Project

Culpeper and Orange
County, Virginia

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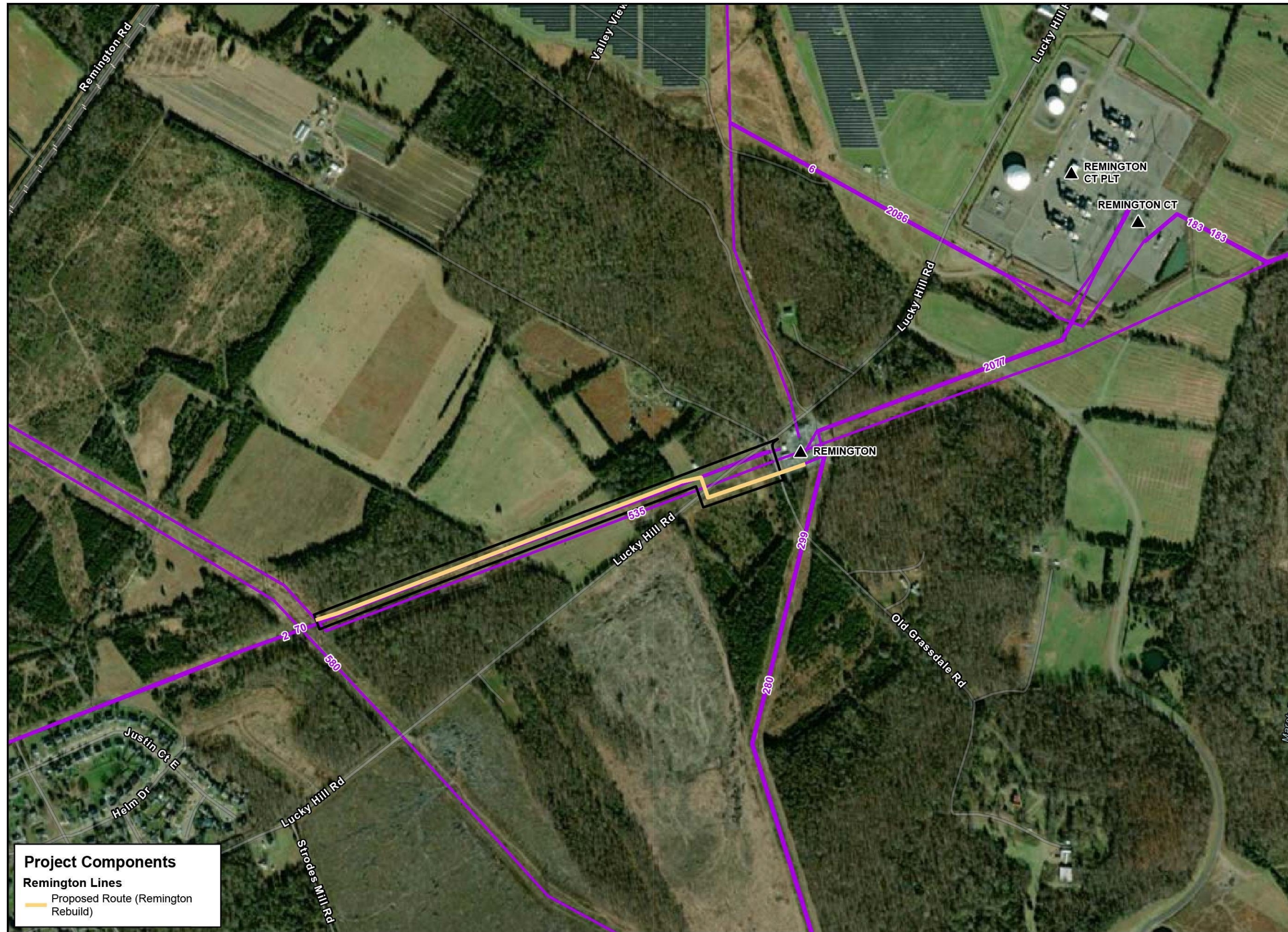
- Culpeper Load Area
- Existing Substation/Switching Station
- Proposed Substation/Switching Station
- Proposed Substation/Switching Station Footprint
- Existing Dominion Transmission Line
- County Boundary
- Right-of-Way (Existing and Proposed)



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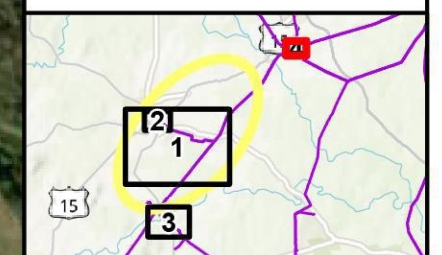
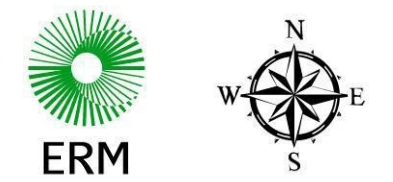
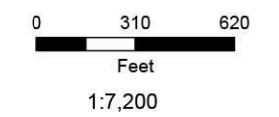
Attachment I.A.1 Project Overview and Culpeper Load Area

Culpeper Technology Zone
230 kV Loop and
Lines #2 and #1065
Conversion Project

Fauquier County,
Virginia

Page 4 of 4

- ▲ Existing Substation/Switching Station
- Existing Dominion Transmission Line
- ▭ Right-of-Way (Existing)

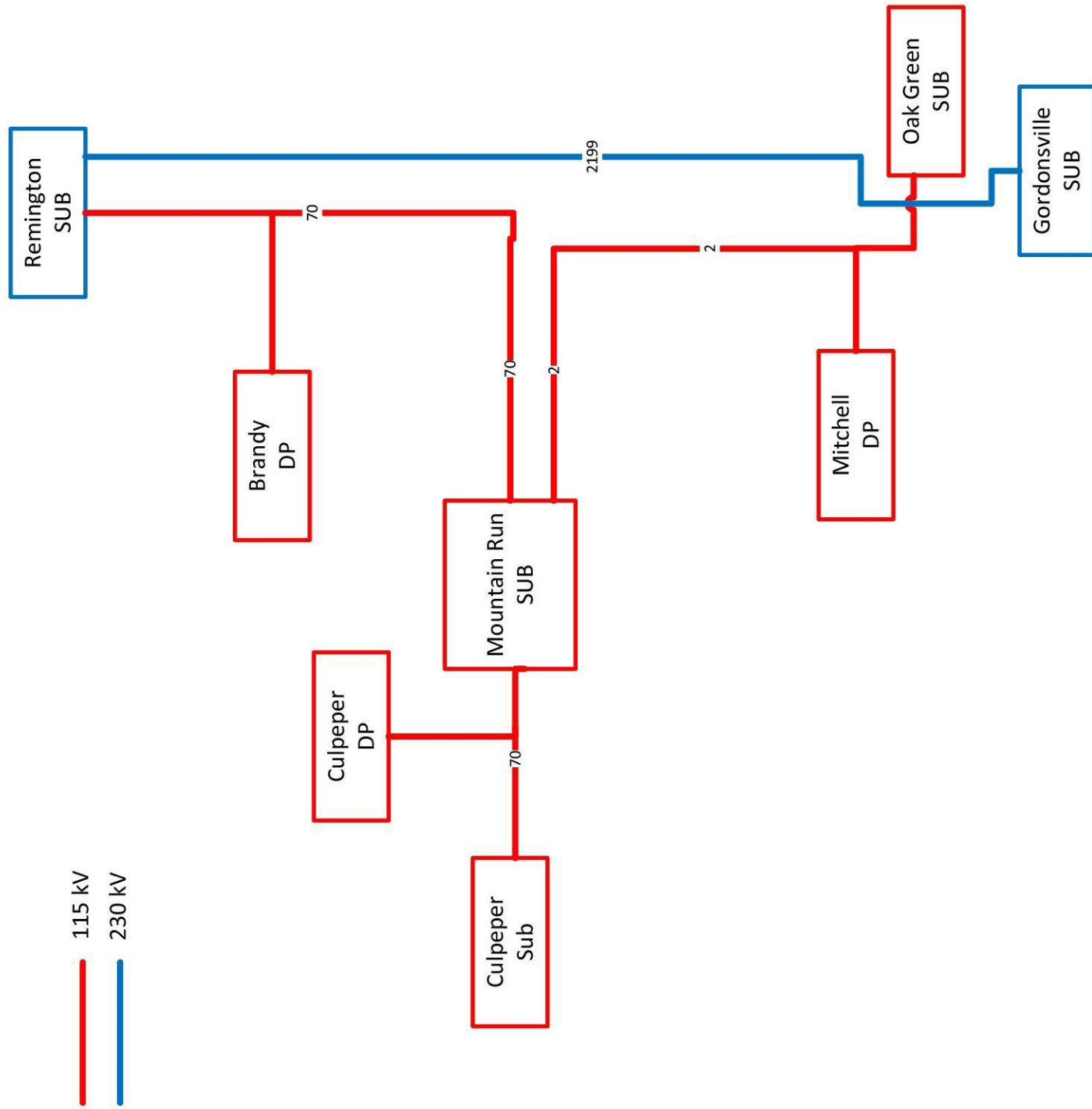


Project Components

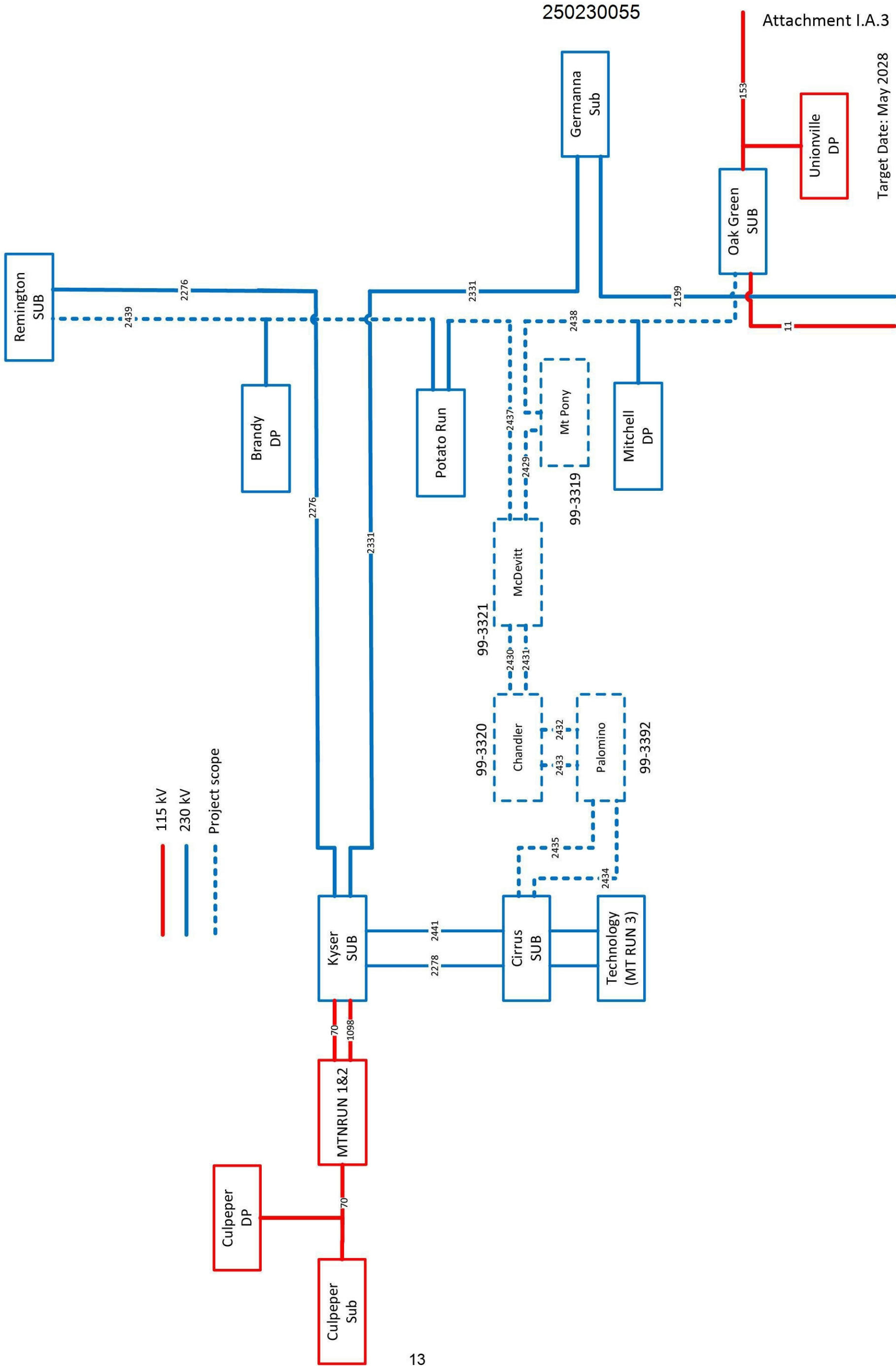
Remington Lines

Proposed Route (Remington Rebuild)

Existing System



Proposed Project



I. NECESSITY FOR THE PROPOSED PROJECT

- B. Detail the engineering justifications for the proposed project (for example, provide narrative to support whether the proposed project is necessary to upgrade or replace an existing facility, to significantly increase system reliability, to connect a new generating station to the Applicant's system, etc.). Describe any known future project(s), including but not limited to generation, transmission, delivery point or retail customer projects, that require the proposed project to be constructed. Verify that the planning studies used to justify the need for the proposed project considered all other generation and transmission facilities impacting the affected load area, including generation and transmission facilities that have not yet been placed into service. Provide a list of those facilities that are not yet in service.**

Response: **(1) Engineering Justification for Project**

Detail the engineering justifications for the proposed project (for example, provide narrative to support whether the proposed project is necessary to upgrade or replace an existing facility, to significantly increase system reliability, to connect a new generating station to the Applicant's system, etc.).

See Section I.A of the Appendix.

(2) Known Future Projects

Describe any known future project(s), including but not limited to generation, transmission, delivery point or retail customer projects, that require the proposed project to be constructed.

The proposed Project is needed to serve emerging data center development in the Project area as described in Section I.A. See Attachment I.A.1 for existing and future distribution facilities in the affected load area, including the proposed Project, which will work together to reliably serve existing and future customers in the vicinity. While future Company projects are located generally within the same load area as the proposed switching stations and substations (as shown on Attachment I.A.1), each has its own unique load growth drivers, and as such, these future projects do not require the proposed Project to be constructed so are not responsive to this prompt.

(3) Planning Studies

Verify that the planning studies used to justify the need for the proposed project considered all other generation and transmission facilities impacting the affected load area, including generation and transmission facilities that have not yet been placed into service.

For this Project, the Company's Distribution Planning group first analyzed

Customer A and Customer B's contract load information for the data center developments. Based on this total combined contract load, the Distribution Planning group determined that it was not feasible to serve this amount of load from any of the Company's primary sources of distribution power in the Culpeper Load Area. Specifically, the Company determined that connecting the Customers' total combined contract load to the existing transmission system would result in transformer overloads and violations of the NERC 300 MW reliability criteria, as discussed in Section I.C.

See also Section I.C for discussion of the interconnection requirements for transmission facilities, and Section I.A as to load at full build out at the various substations and bridging power offered, as available.

(4) Facilities List

Provide a list of those facilities that are not yet in service.

See Attachment I.A.3 for transmission infrastructure planned for the affected area of the Town of Culpeper, Culpeper County, Orange County, and Fauquier County, Virginia. See Attachment I.A.1 for existing and future transmission facilities.

I. NECESSITY FOR THE PROPOSED PROJECT

- C. Describe the present system and detail how the proposed project will effectively satisfy present and projected future electrical load demand requirements. Provide pertinent load growth data (at least five years of historical summer and winter peak demands and ten years of projected summer and winter peak loads where applicable). Provide all assumptions inherent within the projected data and describe why the existing system cannot adequately serve the needs of the Applicant (if that is the case). Indicate the date by which the existing system is projected to be inadequate.**

Response: The three new data center campuses are located in Culpeper, Virginia in the Culpeper Load Area. For purposes of this Application, the Culpeper Load Area is defined generally as the area within Culpeper County and the Town of Culpeper. See Attachment I.A.1 for a map of the general locations of the data center projects that comprise the need for the Project, and Attachment I.G.1 for the portion of the Company's transmission facilities in the area of the proposed Project.

The total load at the Customers' new data center campuses is projected to be approximately 1,100 MW¹⁴ after energization. Adding the load from the Customers' planned data centers to the existing substations would result in overload conditions and NERC transmission system reliability criteria violations, as discussed below. As a result, the proposed Chandler, McDevitt, Mt. Pony, and Palomino Substations are needed to provide the primary sources of distribution power for the Customers' new data center developments. Attachment I.C.1 shows the five-year historical and 10-year projected loads in the Culpeper Load Area and the projected loads at Chandler, McDevitt, Mt. Pony, and Palomino Substations.

Note that Attachment I.C.1 includes only normal feed circuits; they do not include any alternate feed loads. To be clear, that means there are no alternate feed loads from the two Customers or from other customers that have existing alternate feed contracts in any of the Section I.C attachments. Also note that the load tables in the Section I.C attachment shows actual and projected peak loading in MVA based on the Customers' contracted load, exclusive of emerging load in the Culpeper Load Area.

Each substation transformer has a normal overload ("NOL") rating that cannot be exceeded. These distribution circuits each have a thermal overload rating that is based on the type of equipment and the configuration of the equipment in the field. To prevent overloads that could cause equipment damage or failure, the maximum

¹⁴ Distribution load forecasts for data centers typically involve use of customer-requested load ramps to project load growth based on historical knowledge of the customer requesting service for the new data center. The data center customer typically requests the full maximum capacity that their data center building can support to ensure they are able to fully utilize or lease their building investment. The Company has applied a diversification factor to the Customers' block load request to project load at full build out.

capacity limits of the distribution circuits and the substation transformers cannot be exceeded.

To ensure reliability to its customers, the Company maintains a substation transformer contingency plan. Because of the negative impact to customers due to the outage duration if a substation transformer were to fail, the Company creates a switching plan that allows customer load to be picked up on other equipment for the loss of any substation transformer. There are various switching methods that can be used for these substation transformer contingency plans. If the contingency plan creates overloads in other equipment because of the switching, new substation capacity, such as constructing the five new stations proposed herein, is necessary.

In order to maintain reliable service to the Company's customers and to comply with mandatory NERC Reliability Standards, specifically Facility Connection ("FAC") standard FAC-001, the Company's Facilities Interconnection Requirement ("FIR")¹⁵ document addresses the interconnection requirements of generation, transmission, and electricity end-user facilities. The purpose of the NERC FAC standards is to avoid adverse impacts on reliability by requiring that each TO establish facility connection and performance requirements in accordance with FAC-001, and the TO's and end-users meet and adhere to the established facility connection and performance requirements in accordance with FAC-002.¹⁶

NERC Reliability Standards TPL-001 requirements R2, R5, and R6 require that PJM, the Planning Coordinator ("PC") and the TO have criteria. PJM's planning criteria outlined in Attachment D of Manual 14B requires the Company, as a TO, to follow NERC and Regional Planning Standards and criteria as well as the TO Standards filed in Dominion Energy Virginia's FERC 715 filings. The Company's FERC 715 filing contains the Dominion Energy Virginia Transmission Planning Criteria in Exhibit A of the FIR document.

The Company's FIR document (Section C.2.8) requires that the total load in any distribution substation not exceed 300 MW to ensure system reliability and to remain in compliance with NERC mandated reliability criteria. If the projected load inside a given substation will exceed 300 MW, the Company must create a project that eliminates the overload, such as constructing new substations as proposed herein.

The four major criteria considered as part of this Project were:

- 1) Ring bus arrangement is required for load interconnections in excess of 100 MW (Company's FIR, Section 6.2);

¹⁵ *Supra* n. 11.

¹⁶ See <https://www.nerc.com/pa/Stand/Reliability%20Standards/FAC-002-2.pdf>.

- 2) The amount of direct-connected load at any substation is limited to 300 MW (Company's Transmission Planning Criteria Exhibit A, Section C.2.8);
- 3) N-1-1 contingencies load loss is limited to 300 MW (PJM Manual 14B Section 2.3.8, Attachment D, Attachment D-1, Attachment F); and
- 4) The minimum load levels within a 10-year planning horizon for the direct interconnection to existing transmission lines is 30 MW for a 230 kV delivery (Company's FAC-001 Section 6, Load Criteria – End User).¹⁷

¹⁷ See the Company's Electric Transmission Planning Criteria, available at: <https://www.pjm.com/-/media/planning/planning-criteria/dominion-planning-criteria.ashx>.

I.C.1

Historical and Forecast MW Loads - Culpeper Load Area

Station / Year	Historical					Projected									
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Culpeper	54	54	54	54	54	60	61	61	61	62	62	63	63	63	63
Brandy	5	7	16	18	18	18	21	23	23	23	23	23	23	23	23
Mitchell	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Germanna	0	0	0	0	17	32	50	57	65	67	67	67	67	67	67
Mountain Run	34	36	36	36	44	44	44	44	44	44	44	44	44	44	44
Technology	0	0	0	0	0	0	0	19	59	140	157	175	193	210	228
Chandler	0	0	0	0	0	0	0	0	32	112	205	213	221	229	237
Mt Pony	0	0	0	0	0	0	0	0	32	80	141	155	170	185	200
McDevitt	0	0	0	0	0	0	0	0	34	118	216	223	230	238	245
Palomino	0	0	0	0	0	0	0	0	42	120	228	236	244	253	261
Total Load	97	101	110	112	137	158	180	208	396	770	1147	1203	1259	1316	1372

Station / Year	Historical					Projected									
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Culpeper	49	49	49	49	49	49	49	49	49	50	50	50	50	50	50
Brandy	6	7	16	16	16	16	19	21	21	21	21	21	21	21	21
Mitchell	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6
Germanna	0	0	0	0	17	39	56	63	70	71	71	71	71	71	71
Mountain Run	26	26	38	38	46	46	46	46	46	46	46	46	46	46	46
Technology	0	0	0	0	0	0	0	19	59	140	157	175	193	210	228
Chandler	0	0	0	0	0	0	0	0	10	66	160	173	187	201	215
Mt Pony	0	0	0	0	0	0	0	0	8	56	117	134	152	170	188
McDevitt	0	0	0	0	0	0	0	0	10	70	168	181	194	208	221
Palomino	0	0	0	0	0	0	0	0	0	54	193	205	218	231	244
Total Load	86	87	109	109	134	156	176	204	279	580	989	1062	1138	1214	1290

I. NECESSITY FOR THE PROPOSED PROJECT

- D. If power flow modeling indicates that the existing system is, or will at some future time be, inadequate under certain contingency situations, provide a list of all these contingencies and the associated violations. Describe the critical contingencies including the affected elements and the year and season when the violation(s) is first noted in the planning studies. Provide the applicable computer screenshots of single-line diagrams from power flow simulations depicting the circuits and substations experiencing thermal overloads and voltage violations during the critical contingencies described above.**

Response: Even after the completion of the Cirrus-Kyser Project, the Culpeper Load Area will be sourced by only two 230 kV transmission lines (Line #2276 and Line #2331). In an N-1-1 contingency situation, with the loss of both Lines #2276 and #2331, the Culpeper Load Area, with a combined projected load of around 770 MW by year 2029, would not have a remaining source of power. This violates the 300 MW load criteria for planning. See Attachment I.C.1 for Project Area load ramp which indicates the need for an additional transmission source to the Culpeper Load Area by the year 2028.

I. NECESSITY FOR THE PROPOSED PROJECT

- E. Describe the feasible project alternatives, if any, considered for meeting the identified need including any associated studies conducted by the Applicant or analysis provided to the RTO. Explain why each alternative was rejected.**

Response: There are no project alternatives being considered to meet the need for this Project.

Analysis of Demand-Side Resources:

Pursuant to the Commission's November 26, 2013, Order entered in Case No. PUE-2012-00029, and its November 1, 2018, Final Order entered in Case No. PUR-2018-00075, the Company is required to provide analysis of demand-side resources ("DSM") incorporated into the Company's planning studies. DSM is the broad term that includes both energy efficiency ("EE") and demand response ("DR").

In this case, the Company has identified a need for the Project in order to provide requested service and comply with mandatory NERC Reliability Standards, thereby enabling the Company to maintain the overall long-term reliability of its transmission system.¹⁸ Mt. Pony Substation is needed to serve Customer A's data center campus, with a projected total load of 259 MW. McDevitt and Chandler Substations are needed to serve Customer B's data center campus, with a projected total load of 545 MW. Palomino Substation is needed to serve Customer C's data center campus, with a projected total load of 295 MW. Notwithstanding, when performing an analysis based on PJM's 50/50 load forecast, there is no adjustment in load for DR programs because PJM only dispatches DR when the system is under stress (i.e., a system emergency). Accordingly, while existing DSM is considered to the extent the load forecast accounts for it, DR that has been bid previously into PJM's capacity market is not a factor in this particular Application because of the identified need for the Project. Based on these considerations, the evaluation of the Project demonstrated that despite accounting for DSM consistent with PJM's methods, the Project is necessary.

Incremental DSM also will not eliminate the need for the Project. As discussed in Section I.C, the need is based on the Company's obligation to interconnect the new Customers' Campuses consistent with the FIR document and mandatory NERC Reliability Standards. As reflected in Sections I.A and I.C, the Customers' projected load fully built out in the Project area is approximately 1,100 MW. By way of comparison, the Company achieved demand savings of 276.5 MW (net) / 350 MW (gross) statewide from its DSM Programs in 2023.

¹⁸ While the PJM load forecast does not directly incorporate DR, its load forecast incorporates variables derived from Itron that reflect EE by modeling the stock of end-use equipment and its usages. Further, because PJM's load forecast considers the historical non-coincident peak ("NCP") for each load serving entity ("LSE") within PJM, it reflects the actual load reductions achieved by DSM programs to the extent an LSE has used DSM to reduce its NCPs.

I. NECESSITY FOR THE PROPOSED PROJECT

- F. Describe any lines or facilities that will be removed, replaced, or taken out of service upon completion of the proposed project, including the number of circuits and normal and emergency ratings of the facilities.**

Response: Existing Line #2 from existing structure #2/147 to Remington Substation will be rebuilt to accommodate a double circuit 230 kV line, with Line #655 operating at distribution voltage. Existing Line #2 in this segment has a rating of 353 MVA. This segment of Line #2 will be rebuilt to the Company's current 230 kV standards of 1573 MVA, 4000 Amps ("A") at 250 degrees Celsius along this section of the line.

Existing Lines #1065 and #11 from existing structure #2199/164 / 11/550 / 1065/550 to Oak Green Switching Station will be rebuilt to 230 kV with double-circuit weathering steel pole structures. Existing Lines #1065 and #11 in this segment have a rating of 231 MVA. This segment of Lines #1065 and #11 will be rebuilt to the Company's current 230 kV standards of 1573 MVA, 4000 A at 250 degrees Celsius along this section of the line.

Existing Line #153 from existing structure #153/937 to Oak Green Switching Station will be rebuilt to 230 kV with single-circuit weathering steel pole structures. Existing Line #153 in this segment has a rating of 262 MVA. This segment of Line #153 will be rebuilt to the Company's current 230 kV standards of 1573 MVA, 4000 A at 250 degrees Celsius along this section of the line.

I. NECESSITY FOR THE PROPOSED PROJECT

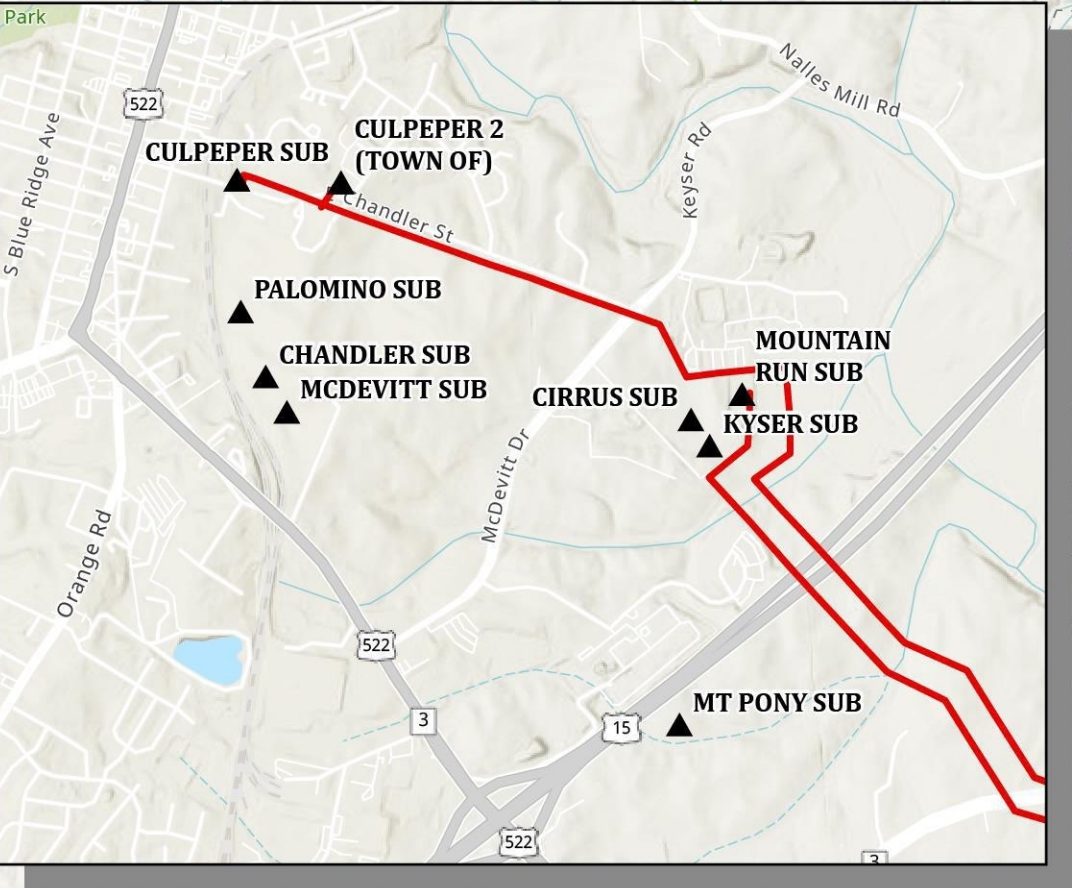
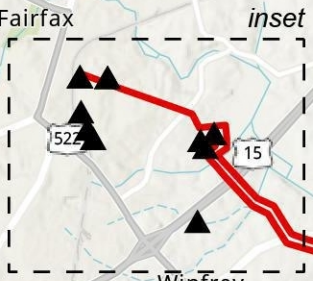
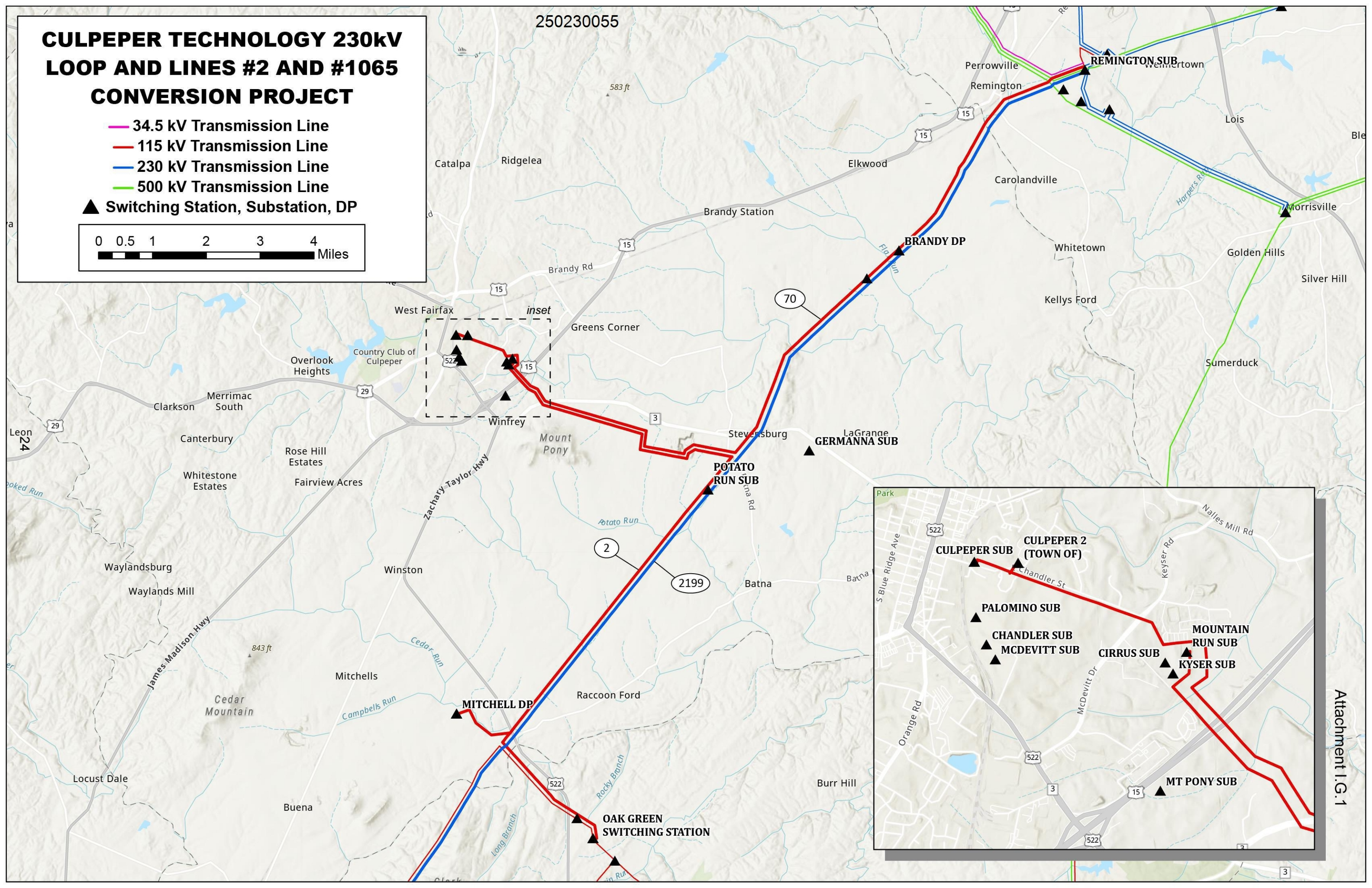
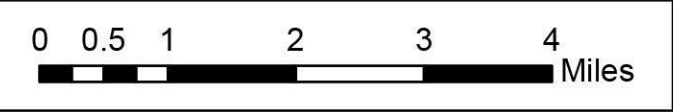
- G. Provide a system map, in color and of suitable scale, showing the location and voltage of the Applicant's transmission lines, substations, generating facilities, etc., that would affect or be affected by the new transmission line and are relevant to the necessity for the proposed line. Clearly label on this map all points referenced in the necessity statement.**

Response: See Attachment I.G.1.

**CULPEPER TECHNOLOGY 230kV
LOOP AND LINES #2 AND #1065
CONVERSION PROJECT**

- 34.5 kV Transmission Line
- 115 kV Transmission Line
- 230 kV Transmission Line
- 500 kV Transmission Line

▲ Switching Station, Substation, DP



I. NECESSITY FOR THE PROPOSED PROJECT

H. Provide the desired in-service date of the proposed project and the estimated construction time.

Response: The desired in-service target date for the completion of the proposed Project is May 1, 2028.

The Company estimates it will take approximately 27 months for detailed engineering, materials procurement, permitting, real estate, and construction after a final order from the Commission. Accordingly, to support this estimated construction timeline and construction plan, the Company respectfully requests a final order by January 31, 2026. Should the Commission issue a final order by January 31, 2026, the Company estimates that construction should begin around October 15, 2026, and be completed by May 1, 2028. Customer in-service dates occur within the total project duration. This schedule is contingent upon obtaining the necessary permits and outages. Dates may need to be adjusted based on permitting delays or design modifications to comply with additional agency requirements identified during the permitting application process, as well as the ability to schedule outages, and unpredictable delays due to labor shortages or materials/supply issues. This schedule is also contingent upon the Company's ability to negotiate for easements with property owners along the approved route and to purchase land for substation use without the need for additional litigation.

In addition, the Company is actively monitoring regulatory changes and requirements associated with the Northern long-eared bat ("NLEB") and how they could potentially impact construction timing associated with time of year restrictions ("TOYRs"). The U.S. Fish and Wildlife Service ("USFWS") previously indicated that it planned to issue final NLEB guidance to replace the interim guidance by April 1, 2024; however, the interim guidance has been extended by USFWS until late summer 2024. The Company is actively tracking updates from the USFWS with respect to the final guidance. Once issued, the Company plans to review and follow the final guidance to the extent it applies to the Company's projects. Until the final guidance is issued, the Company will continue following the interim guidance. For projects that may require additional coordination, the Company will coordinate with the USFWS.

The Company is also monitoring potential regulatory changes associated with the potential up-listing of the Tricolored bat ("TCB"). On September 14, 2022, the USFWS published the proposed rule to the Federal Register to list the TCB as endangered under the Endangered species Act. USFWS extended its Final Rule issuance target from September 2023 to September 2024. The Company is actively tracking this ruling and evaluating the effects of potential outcomes on Company projects' permitting, construction, and in-service dates, including electric transmission projects.

Any adjustments to this Project schedule resulting from these or similar challenges could necessitate a minimum of a six- to twelve-month delay in the targeted in-service date. Accordingly, for purposes of judicial economy, the Company requests that the Commission issue a final order approving both a desired in-service target date (i.e., May 1, 2028) and an authorization sunset date (i.e., May 1, 2029) for energization of the Project.

I. NECESSITY FOR THE PROPOSED PROJECT

- I. Provide the estimated total cost of the project as well as total transmission-related costs and total substation-related costs. Provide the total estimated cost for each feasible alternative considered. Identify and describe the cost classification (e.g. "conceptual cost," "detailed cost," etc.) for each cost provided.**

Response: The total estimated conceptual cost of the Project utilizing the Proposed Route(s) is approximately \$253.7 million, which includes approximately \$163.5 million for transmission-related work and approximately \$90.1 million for substation-related work (2024 dollars).

Project-Related Costs for Transmission-Related Work by Component (approximate)

Station	Estimated Conceptual Costs
Mt. Pony Lines	\$59,149,103
Tech Park Lines	\$63,363,743
Oak Green Rebuild and Relocation	\$28,976,214
Remington Rebuild	\$12,058,083
Total	\$163,547,143

The Project-related costs are broken out by substation in the table below:

Project-Related Costs by Substation (approximate)

Station	Estimated Conceptual Costs
Mt. Pony	\$11,187,087
McDevitt	\$10,286,983
Chandler	\$10,868,141
Palomino	\$11,408,425
Oak Green	\$39,521,028
Remington	\$2,472,776
Cirrus	\$2,755,494
Potato Run	\$1,639,699
Total	\$90,139,633

See Section II.A. 9 for alternative costs.

I. NECESSITY FOR THE PROPOSED PROJECT

- J. If the proposed project has been approved by the RTO, provide the line number, regional transmission expansion plan number, cost responsibility assignments, and cost allocation methodology. State whether the proposed project is considered to be a baseline or supplemental project.**

Response: The Project is classified as a supplemental project initiated by the Company as TO in order to reliably interconnect new customer load, as follows:

The Company presented the need slides for Supplemental Project DOM-2024-0082 Chandler 230 kV Delivery – DEV, DOM-2024-0083 McDevitt 230 kV Delivery – DEV, DOM-2024-0084 Mt. Pony 230 kV Delivery – DEV, and DOM-2024-0085 Palomino 230 kV Delivery – DEV at the November 6, 2024 TEAC meeting (see Attachment I.J.1), and presented the solution slides at the February 4, 2025 TEAC Meeting (See Attachment I.J.2). Supplemental Project IDs will be provided once they are assigned by PJM.

Mt. Pony Lines

The Company presented the need and solution slides for Supplemental Project DOM-2024-0084-DNH Mt. Pony at the February 4, 2025 TEAC Meeting (see Attachment I.J.2). This is the Do-No-Harm Analysis to address the 300 MW load drop N-1-1 violation caused by the four new substations DOM-2024-0085 Palomino, DOM-2024-0082 Chandler, DOM-2024-0083 McDevitt and DOM-2024-0084 Mt. Pony (see Attachment I.J.1). Supplemental Project IDs will be provided once they are assigned by PJM.

Tech Park Lines

The Company presented the need slides for Supplemental Projects DOM-2024-0085 Palomino, DOM-2024-0082 Chandler, DOM-2024-0083 McDevitt and DOM-2024-0084 Mt. Pony at the November 6, 2024 TEAC Meeting (see Attachment I.J.1), and presented the solution slides at the February 4, 2025 TEAC Meeting (see Attachment I.J.2).

Oak Green Rebuild and Relocation

Oak Green Rebuild and Relocation is part of the Supplemental solution (DOM-2024-0084-DNH) to meet the Do No Harm (“DNH”) 300 MW load drop N-1-1 NERC reliability criteria caused by combined loading of the Project Area. This solution was presented to PJM in the February 4, 2025 TEAC Meeting. This analysis did not require modeling due to the total projected load requests being over the 300 MW limitation while only having two transmission line sources (see Attachment I.C.1). However, as part of the PJM Attachment M-3 Process, transmission operators first present the needs and solutions to delivery point requests that require transmission upgrades. PJM then analyzes these projects and issues Supplemental Project ID numbers and puts the project into the next RTEP

model. From there, PJM analyzes whether there is harm done to the system and, if so, notifies the transmission operator. At that time, a DNH solution is created and presented to PJM.

Solutions

Stakeholders must submit any comments within 10 days of this meeting in order to provide time necessary to consider these comments prior to the next phase of the M-3 process

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Attachment I.J.1

Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2022-0034

Process Stage: Need Meeting 06/07/2022

Project Driver: Customer Service

Specific Assumption References:

Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

Problem Statement:

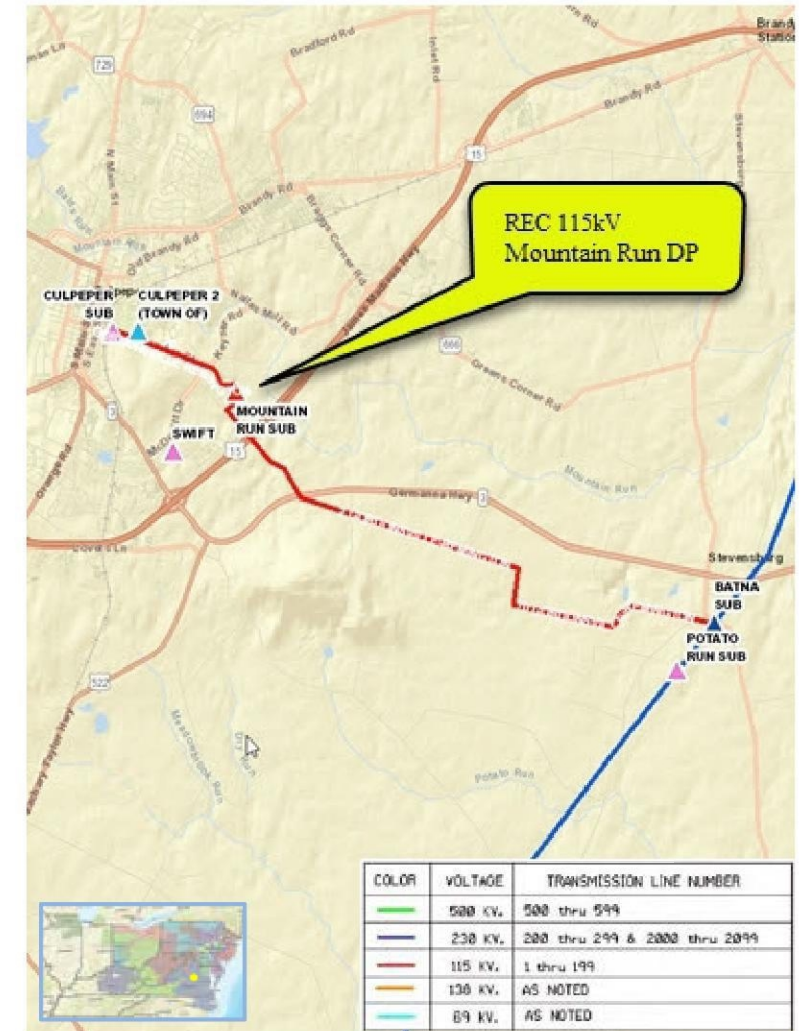
Rappahannock Electric Cooperative (REC) has submitted a DP Request to increase capacity at their existing 115kV Mountain Run DP to serve a new data center complex in Culpeper County with a total projected load of 242 MW. The requested in-service date is 06/01/2024.

Initial In-Service Load

Projected 2027 Load

Summer: 39.2 MW

Summer: 111.5 MW



Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2024-0082

Process Stage: Need Meeting 11/6/2024

Project Driver: Customer Service

Specific Assumption References:

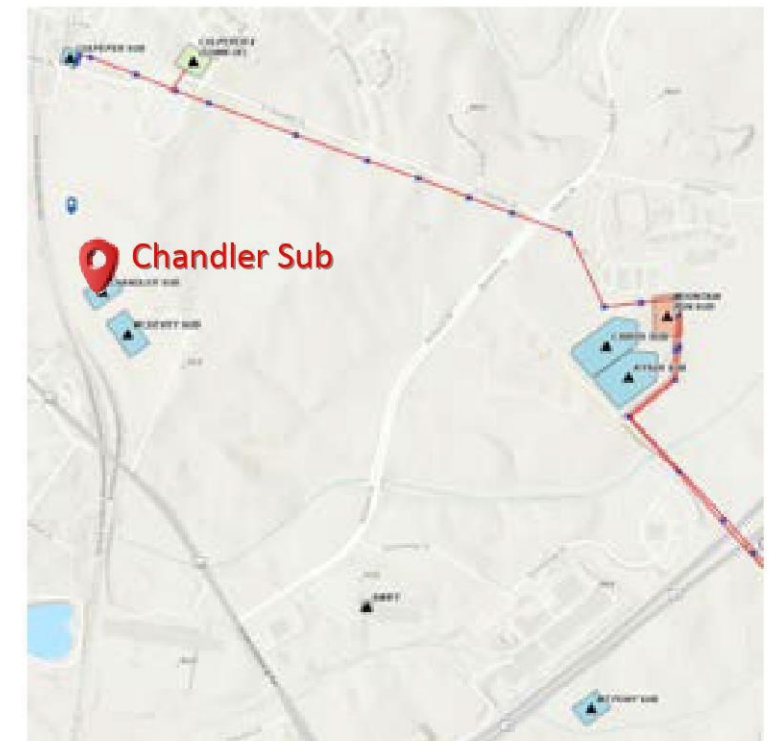
Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

Problem Statement:

DEV distribution has submitted a DP request for a new 230 kV delivery point (Chandler Sub) to serve a data center customer in Culpeper County with a total load in excess of 100 MW. Requested in-service date is 10/15/2027.



COLOR	VOLTAGE	TRANSMISSION LINE NUMBER
Green	500 KV	500 thru 599
Blue	230 KV	200 thru 299 & 2000 thru 2999
Red	115 KV	1 thru 199
Orange	138 KV	AS NOTED
Cyan	69 KV	AS NOTED



Initial In-Service Load	Projected 2029 Load
Summer: 32 MW Winter: 10 MW	Summer: 112 MW Winter: 66 MW

Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2024-0083

Process Stage: Need Meeting 11/6/2024

Project Driver: Customer Service

Specific Assumption References:

Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

Problem Statement:

DEV distribution has submitted a DP request for a new 230 kV delivery point (McDevitt Sub) to serve a data center customer in Culpeper County with a total load in excess of 100 MW. Requested in-service date is 10/15/2027.



COLOR	VOLTAGE	TRANSMISSION LINE NUMBER
Green	500 KV	500 thru 599
Blue	230 KV	200 thru 299 & 2000 thru 2099
Red	115 KV	1 thru 199
Orange	138 KV	AS NOTED
Cyan	69 KV	AS NOTED



Initial In-Service Load	Projected 2029 Load
Summer: 34 MW Winter: 10 MW	Summer: 118 MW Winter: 70 MW

Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2024-0084

Process Stage: Need Meeting 11/6/2024

Project Driver: Customer Service

Specific Assumption References:

Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

Problem Statement:

DEV distribution has submitted a DP request for a new 230 kV delivery point (Mt. Pony Sub) to serve a data center customer in Culpeper County with a total load in excess of 100 MW. Requested in-service date is 01/01/2027.



COLOR	VOLTAGE	TRANSMISSION LINE NUMBER
Green	500 KV	500 thru 599
Blue	230 KV	200 thru 299 & 2000 thru 2099
Red	115 KV	1 thru 199
Orange	138 KV	AS NOTED
Cyan	69 KV	AS NOTED



Initial In-Service Load	Projected 2029 Load
Summer: 32 MW Winter: 8 MW	Summer: 160 MW Winter: 140 MW

Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2024-0085

Process Stage: Need Meeting 11/6/2024

Project Driver: Customer Service

Specific Assumption References:

Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

Problem Statement:

DEV distribution has submitted a DP request for a new 230 kV delivery point (Palomino Sub) to serve a data center customer in Culpeper County with a total load in excess of 100 MW. Requested in-service date is 07/01/2028.



COLOR	VOLTAGE	TRANSMISSION LINE NUMBER
Green	500 KV.	500 thru 599
Blue	230 KV.	200 thru 299 & 2000 thru 2099
Red	115 KV.	1 thru 199
Orange	138 KV.	AS NOTED
Cyan	69 KV.	AS NOTED



Initial In-Service Load	Projected 2029 Load
Summer: 42 MW Winter: 0 MW	Summer: 120 MW Winter: 54 MW

Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2022-0034 (Update)

Process Stage: Solutions Meeting 02/04/2025

Previously Presented: Solution Meeting 09/06/2022

Project Driver: Customer Service

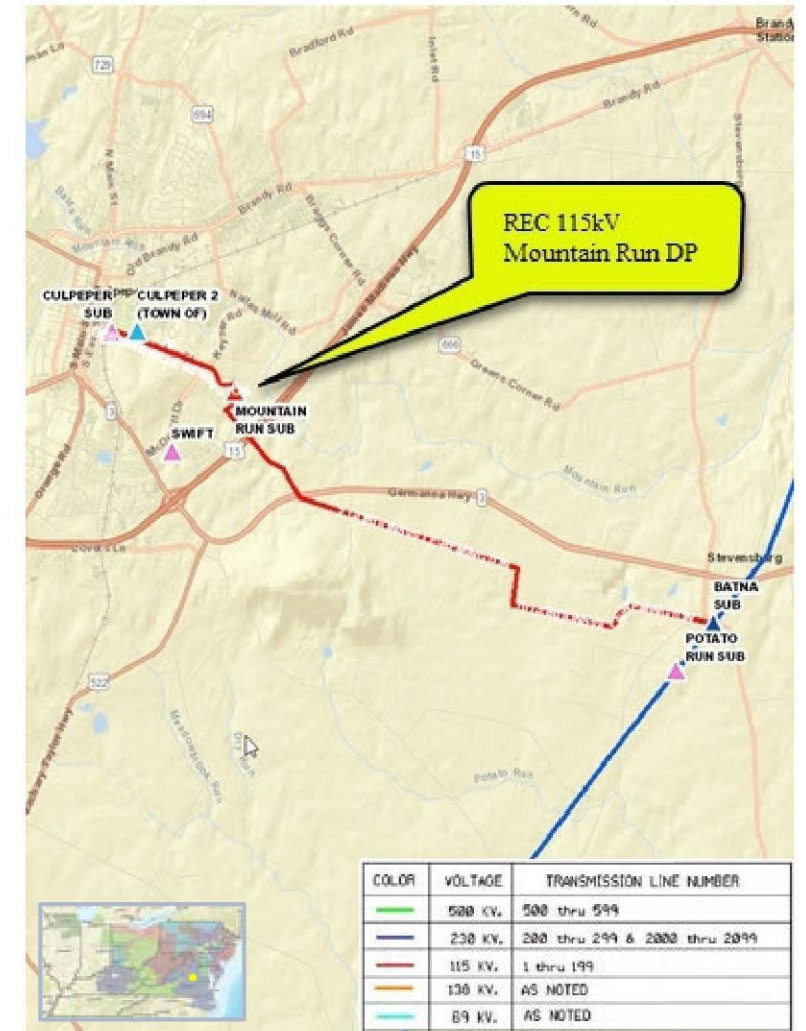
Specific Assumption References:

Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

Problem Statement:

Rappahannock Electric Cooperative (REC) has submitted a DP Request to supply a new substation Technology [previously called Mountain Run 3] to serve a new data center with a total projected load of ~~350~~ **298** MW. The requested in-service date is ~~06/01/2024~~ **11/22/2027**.

Initial In-Service Load	Projected 2029 Load
Summer: 19 MW	Summer: 140 MW



Dominion Transmission Zone: Supplemental Mountain Run 230kV Delivery - REC

Need Number: DOM-2022-0034 (Update)

Process Stage: Solutions Meeting 02/04/2025

Proposed Solution:

1. Build a new switching station Kyser next to the existing Mountain Run substation. Construct Kyser to accommodate a 230-kV breaker and a half configuration with 2 rows initially installed, and 3 rows ultimately.
2. Build new Cirrus switching station with 230kV six-breaker ring arrangement with four breakers installed initially.
3. Wreck and rebuild approximately five miles of existing double-circuit 115kV Line #2 and Line #70 on the same structure (from 2/1201, 70/53 to 2/1253, 70/1), using 230kV construction, from Mountain Run Junction to the new Kyser and Cirrus switching stations.
4. Cut 230kV Line #2199 at Mountain Run Junction and feed the rebuilt double-circuit line to Kyser and Cirrus switching stations.
5. Two 230/115kV – 168 MVA transformer will be installed at Kyser switching station to continue the 115kV service to Culpeper and Mountain Run.

Estimated Project Cost: \$60 M (Total)

Transmission Line - \$22M

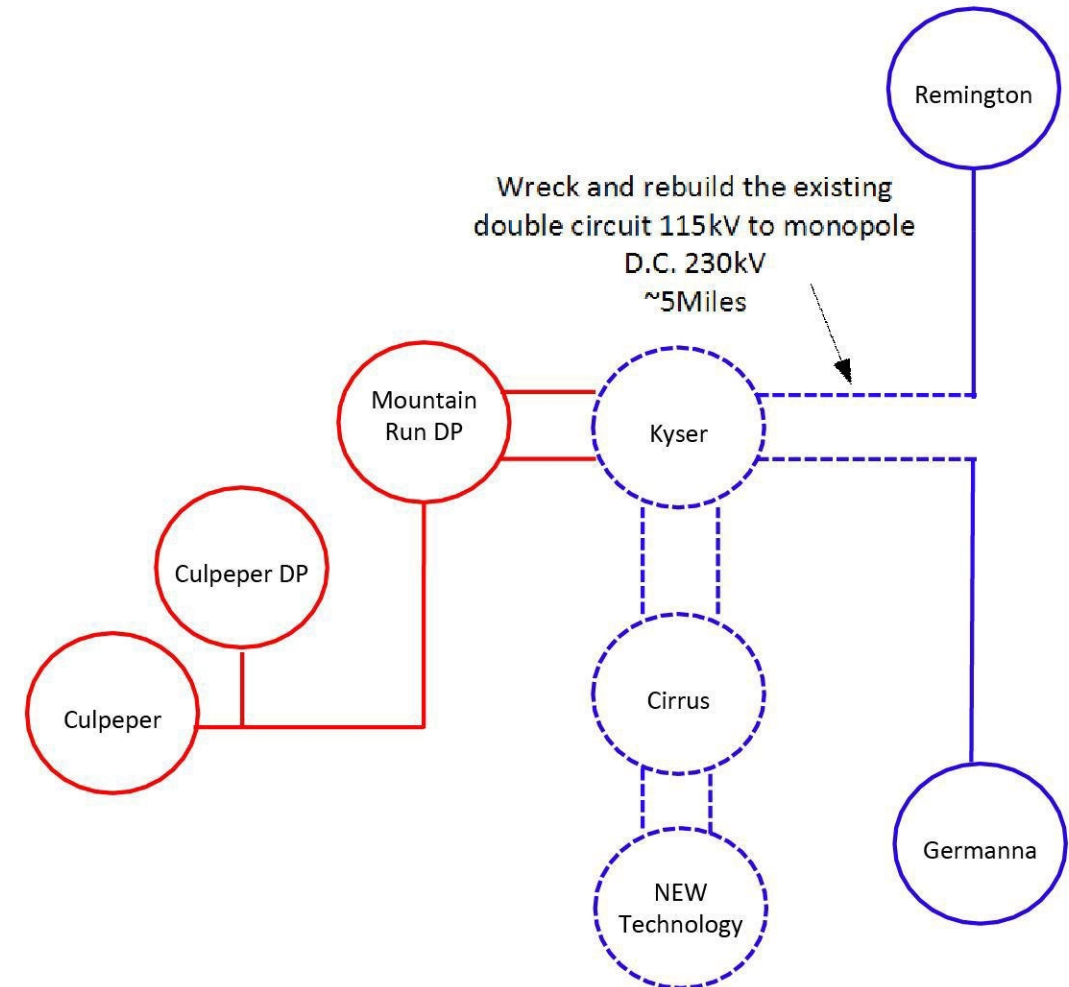
Substation - \$38M

Alternatives Considered: No feasible alternatives

Projected In-service Date: Q4 2027

Project Status: Engineering

Model: 2029 RTEP



Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2024-0085

Process Stage: Solution Meeting 02/04/2025

Previously Presented: Need Meeting 11/06/2024

Project Driver: Customer Service

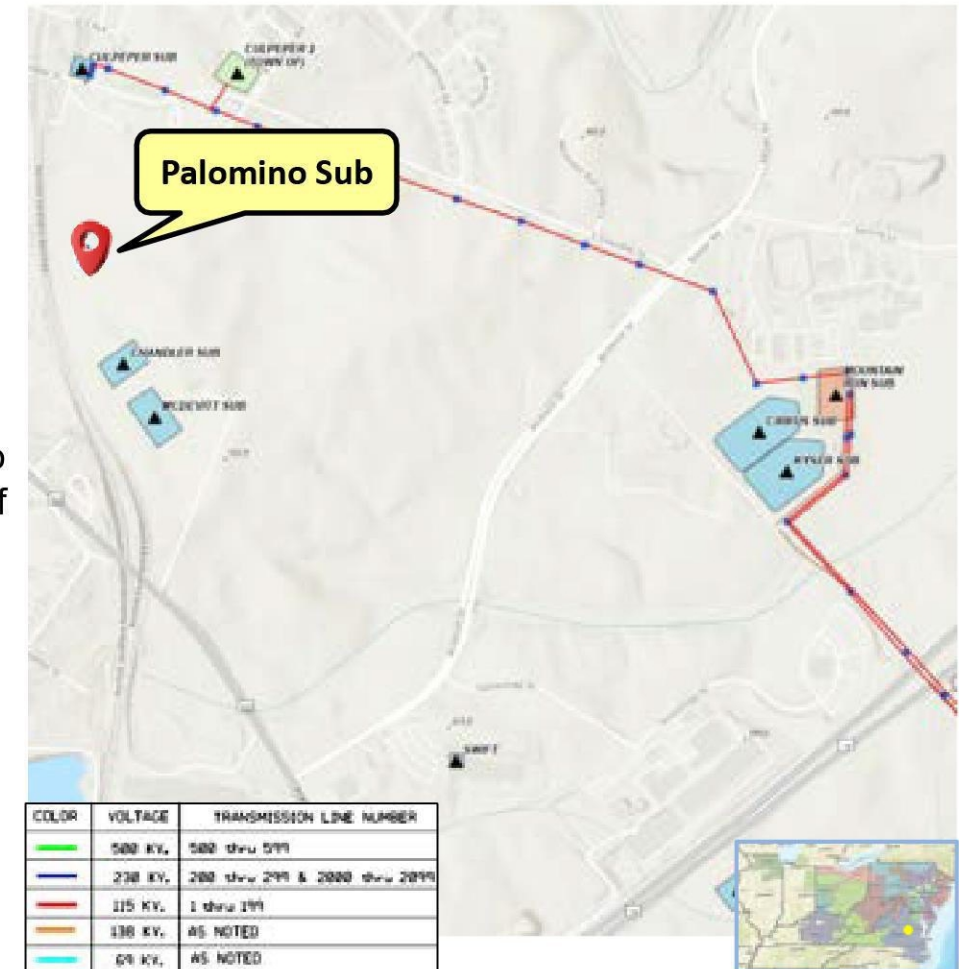
Specific Assumption References:

Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

Problem Statement:

DEV distribution has submitted a DP request for a new 230 kV delivery point (Palomino Sub) to serve a data center customer in Culpeper County with a total load in excess of 100 MW. Requested in-service date is 07/01/2028.

Initial In-Service Load	Projected 2029 Load
Summer: 42 MW Winter: 0 MW	Summer: 120 MW Winter: 54 MW



Dominion Transmission Zone: Supplemental Palomino 230kV Delivery - DEV

Need Number: DOM-2024-0085

Process Stage: Solution Meeting 02/04/2025

Proposed Solution:

Connect the new substation Palomino by extending a new double circuit 230kV feed from future Cirrus Substation. Lines to terminate in a 230kV six-breaker ring arrangement.

Estimated Project Cost: \$38.6M

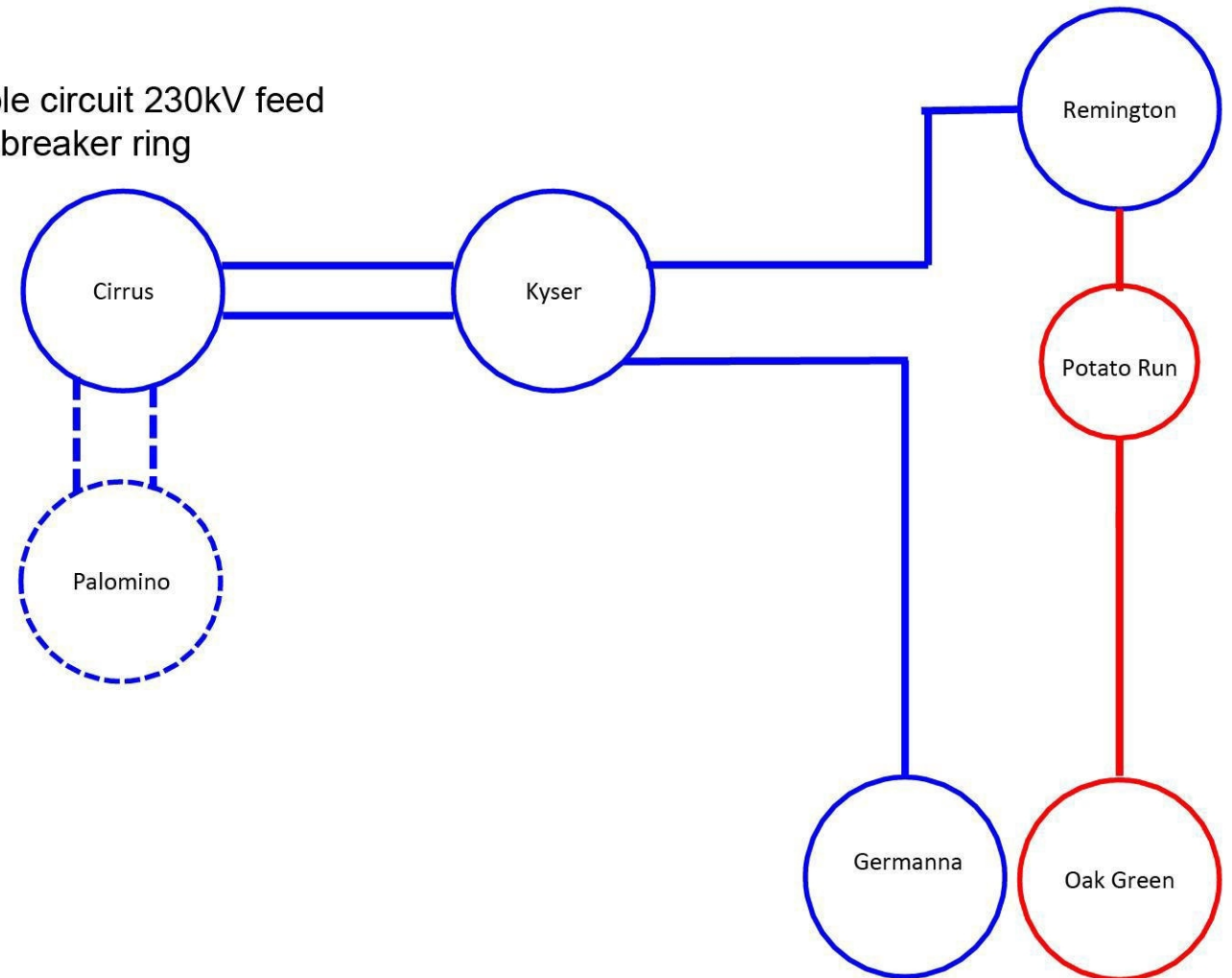
- Substation: \$14.3M
- Transmission Lines: \$24.2M

39 **Alternatives Considered:** No feasible alternatives

Projected In-service Date: Q2 2028

Project Status: Conceptual

Model: 2029 RTEP



Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2024-0082

Process Stage: Solution Meeting 02/04/2025

Previously Presented: Need Meeting 11/06/2024

Project Driver: Customer Service

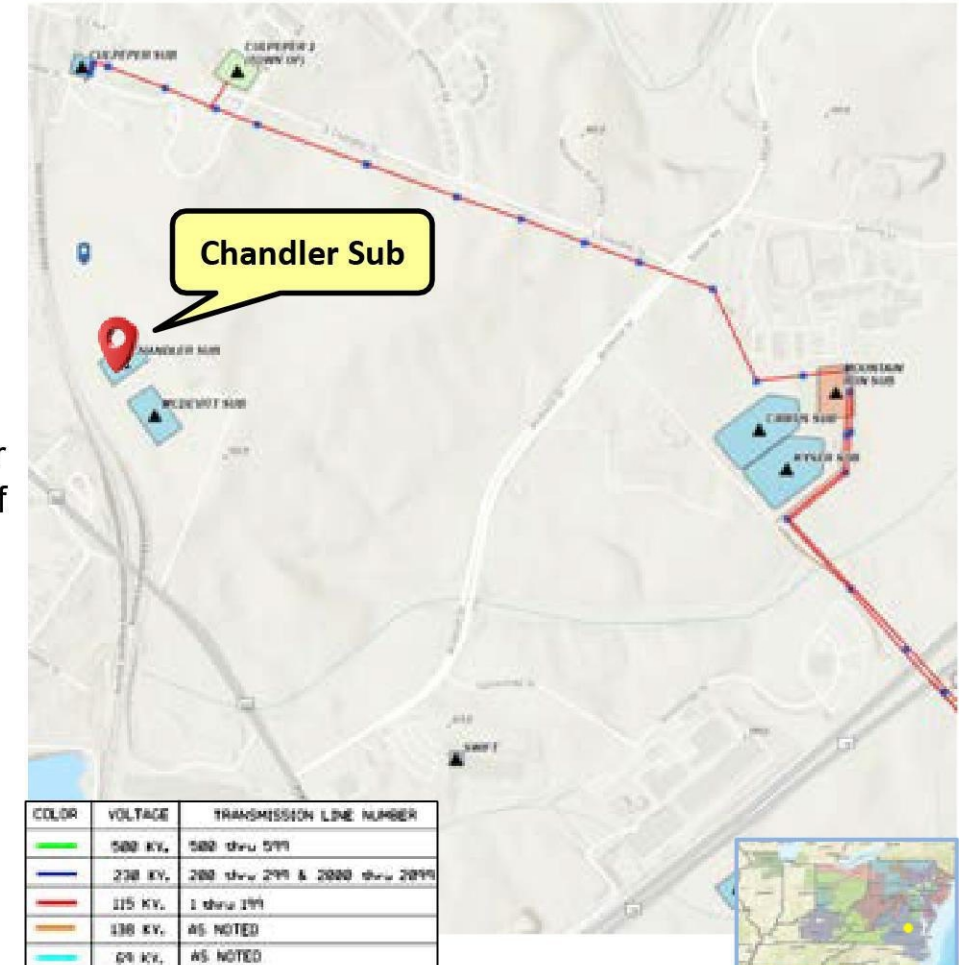
Specific Assumption References:

Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

Problem Statement:

DEV distribution has submitted a DP request for a new 230 kV delivery point (Chandler Sub) to serve a data center customer in Culpeper County with a total load in excess of 100 MW. Requested in-service date is 10/15/2027.

Initial In-Service Load	Projected 2029 Load
Summer: 32 MW Winter: 10 MW	Summer: 112 MW Winter: 66 MW



Dominion Transmission Zone: Supplemental Chandler 230kV Delivery - DEV

Need Number: DOM-2024-0082

Process Stage: Solutions Meeting 02/04/2025

Proposed Solution:

Connect the new substation by extending a new double circuit 230kV feed from future Palomino Substation. Lines to terminate in a 230kV six-breaker ring arrangement.

Estimated Project Cost: \$20.8M

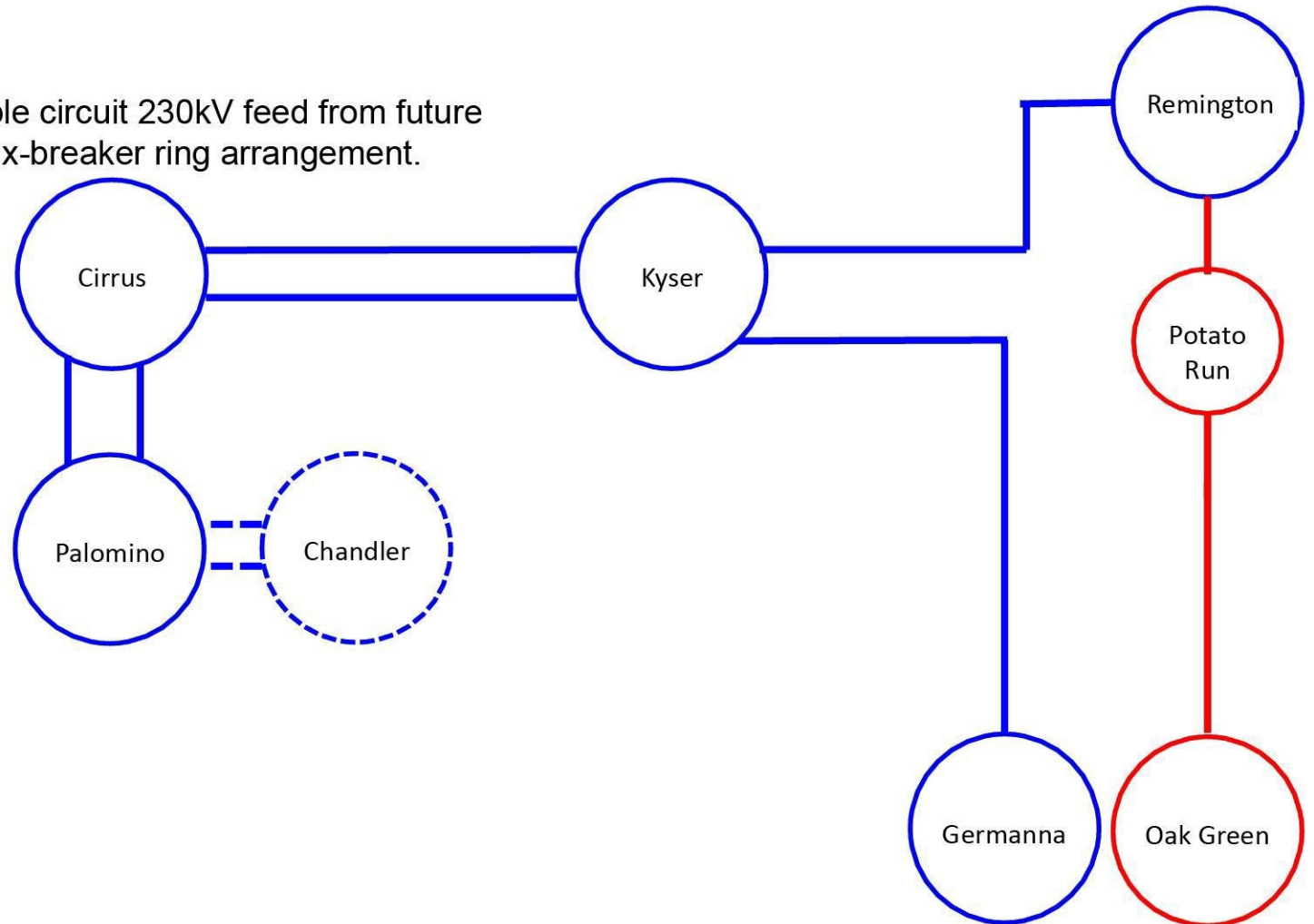
- Substation: \$14.3M
- Transmission Lines: \$6.5M

Alternatives Considered: No feasible alternatives

Projected In-service Date: Q2 2028

Project Status: Conceptual

Model: 2029 RTEP



Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2024-0083

Process Stage: Solution Meeting 02/04/2025

Previously Presented: Need Meeting 11/06/2024

Project Driver: Customer Service

Specific Assumption References:

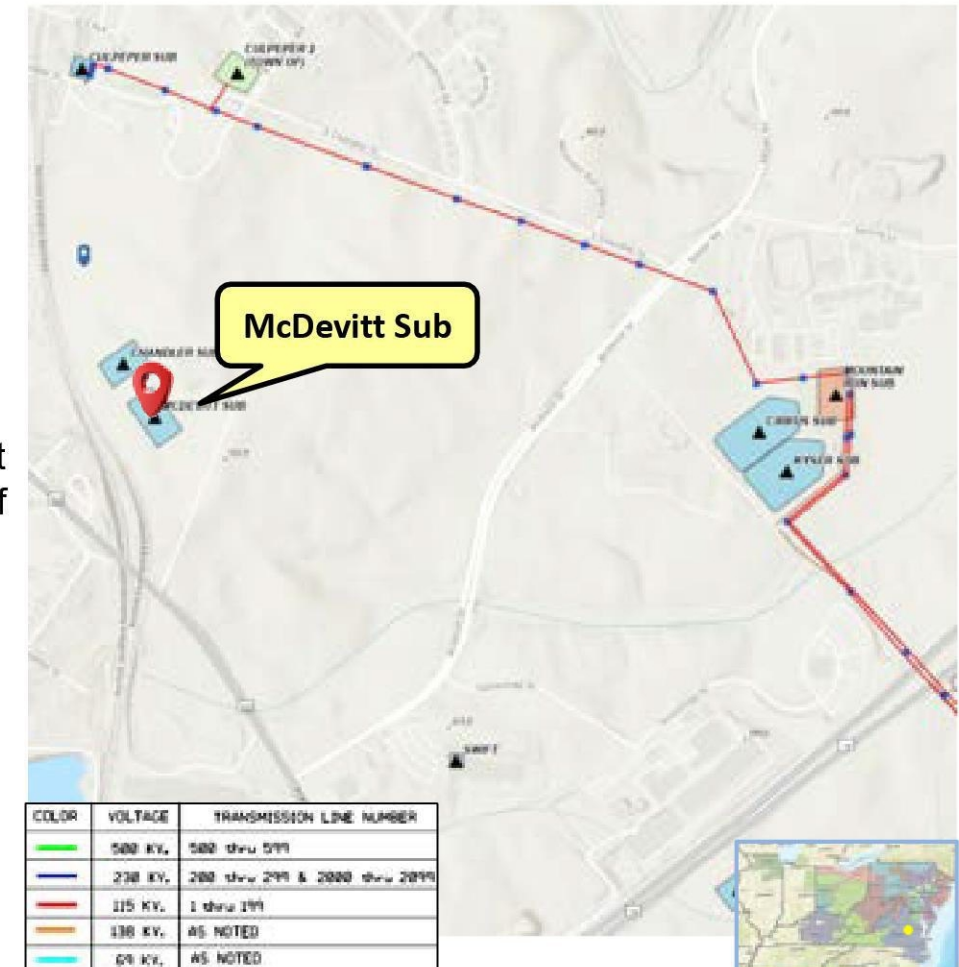
Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

Problem Statement:

42

DEV distribution has submitted a DP request for a new 230 kV delivery point (McDevitt Sub) to serve a data center customer in Culpeper County with a total load in excess of 100 MW. Requested in-service date is 10/15/2027.

Initial In-Service Load	Projected 2029 Load
Summer: 34 MW Winter: 10 MW	Summer: 118 MW Winter: 70 MW



Dominion Transmission Zone: Supplemental McDevitt 230kV Delivery - DEV

Need Number: DOM-2024-0083

Process Stage: Solution Meeting 02/04/2025

Proposed Solution:

Connect the new substation by extending a new double circuit 230kV feed from future Chandler Substation. Lines to terminate in a 230kV six-breaker ring arrangement.

Estimated Project Cost: \$19.8M

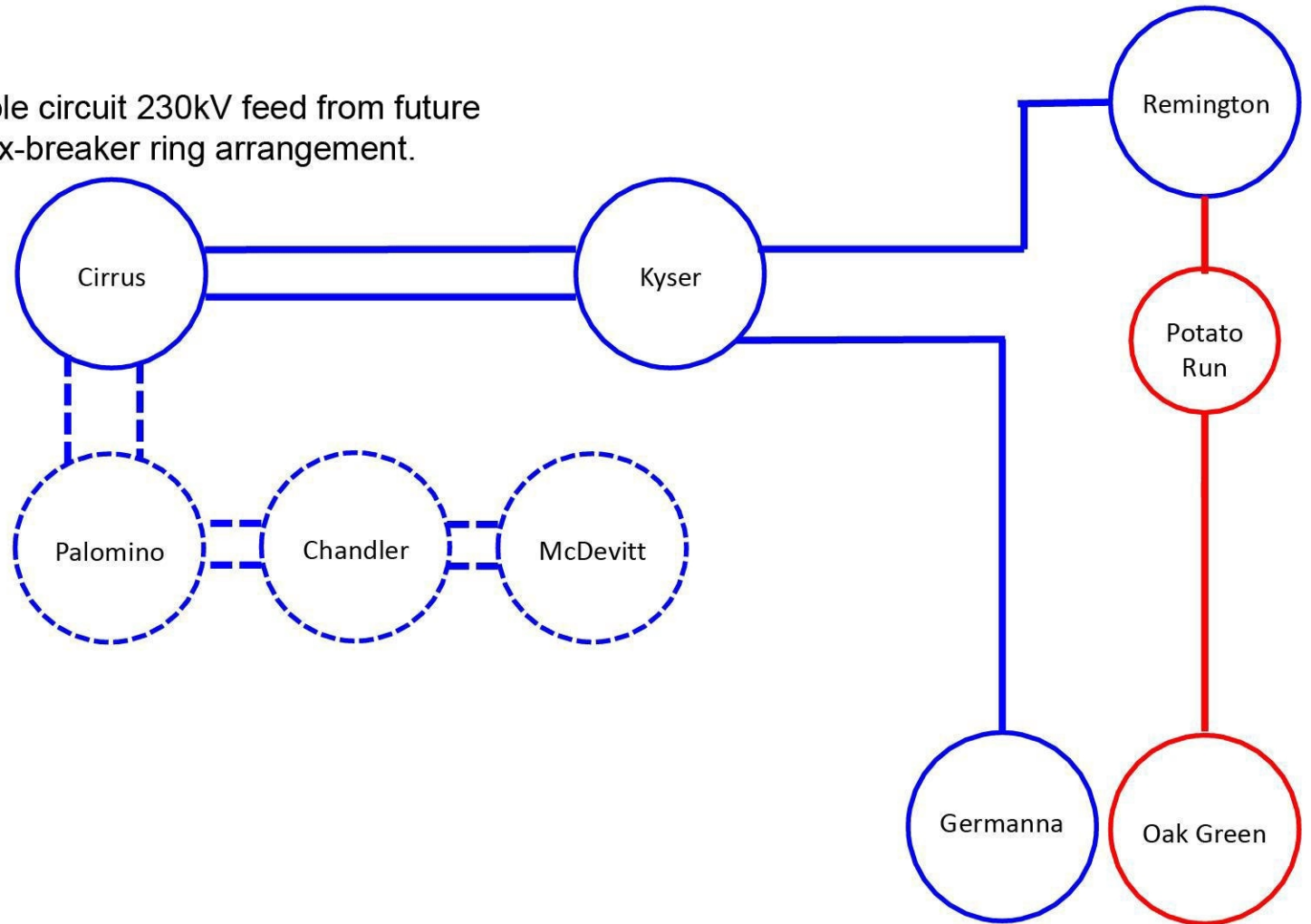
- Substation: \$14.3M
- Transmission Lines: \$5.5M

Alternatives Considered: No feasible alternatives

Projected In-service Date: Q2 2028

Project Status: Conceptual

Model: 2029 RTEP



Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2024-0084

Process Stage: Solution Meeting 02/04/2025

Previously Presented: Need Meeting 11/06/2024

Project Driver: Customer Service

Specific Assumption References:

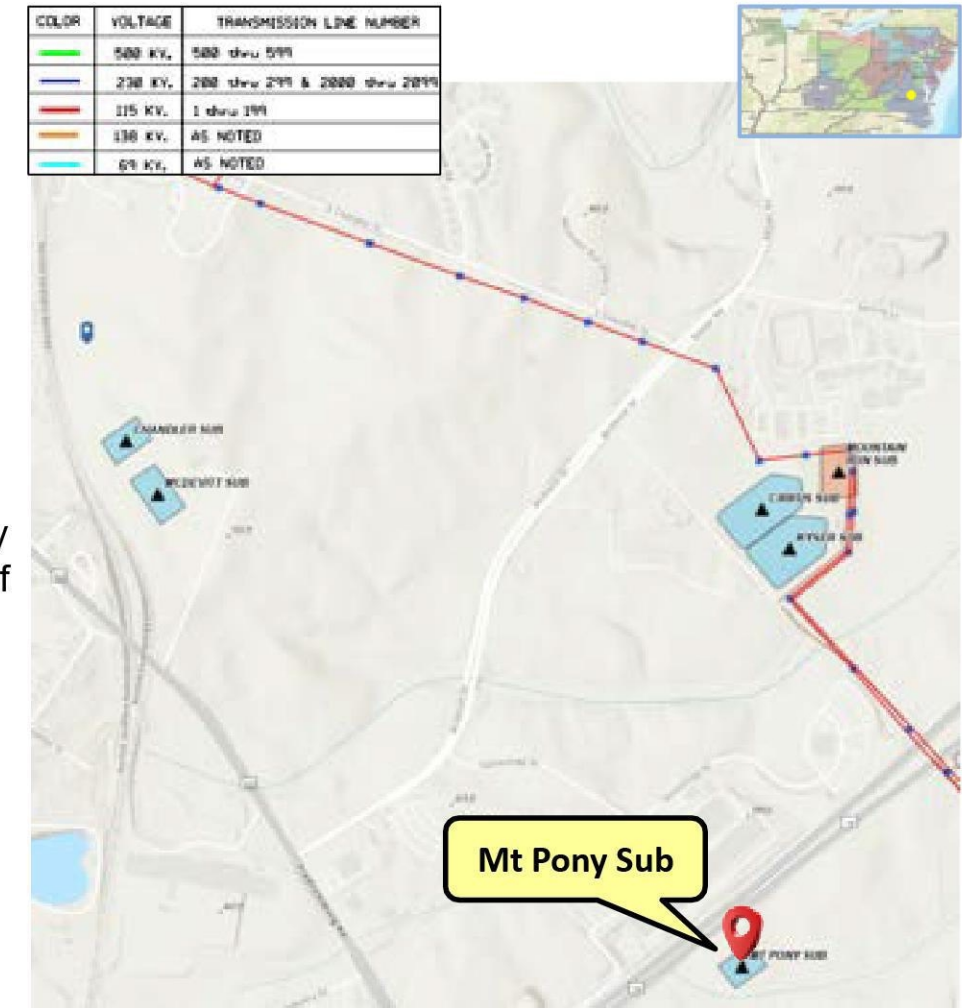
Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

Problem Statement:

44

DEV distribution has submitted a DP request for a new 230 kV delivery point (Mt. Pony Sub) to serve a data center customer in Culpeper County with a total load in excess of 100 MW. Requested in-service date is 01/01/2027.

Initial In-Service Load	Projected 2029 Load
Summer: 32 MW Winter: 8 MW	Summer: 160 MW Winter: 140 MW



Dominion Transmission Zone: Supplemental Mt Pony 230kV Delivery - DEV

Need Number: DOM-2024-0084

Process Stage: Solution Meeting 02/04/2025

Proposed Solution:

Connect the new substation by extending a new double circuit 230kV feed from future McDevitt Substation. Lines to terminate in a 230kV six-breaker ring arrangement.

Estimated Project Cost: \$39.8M

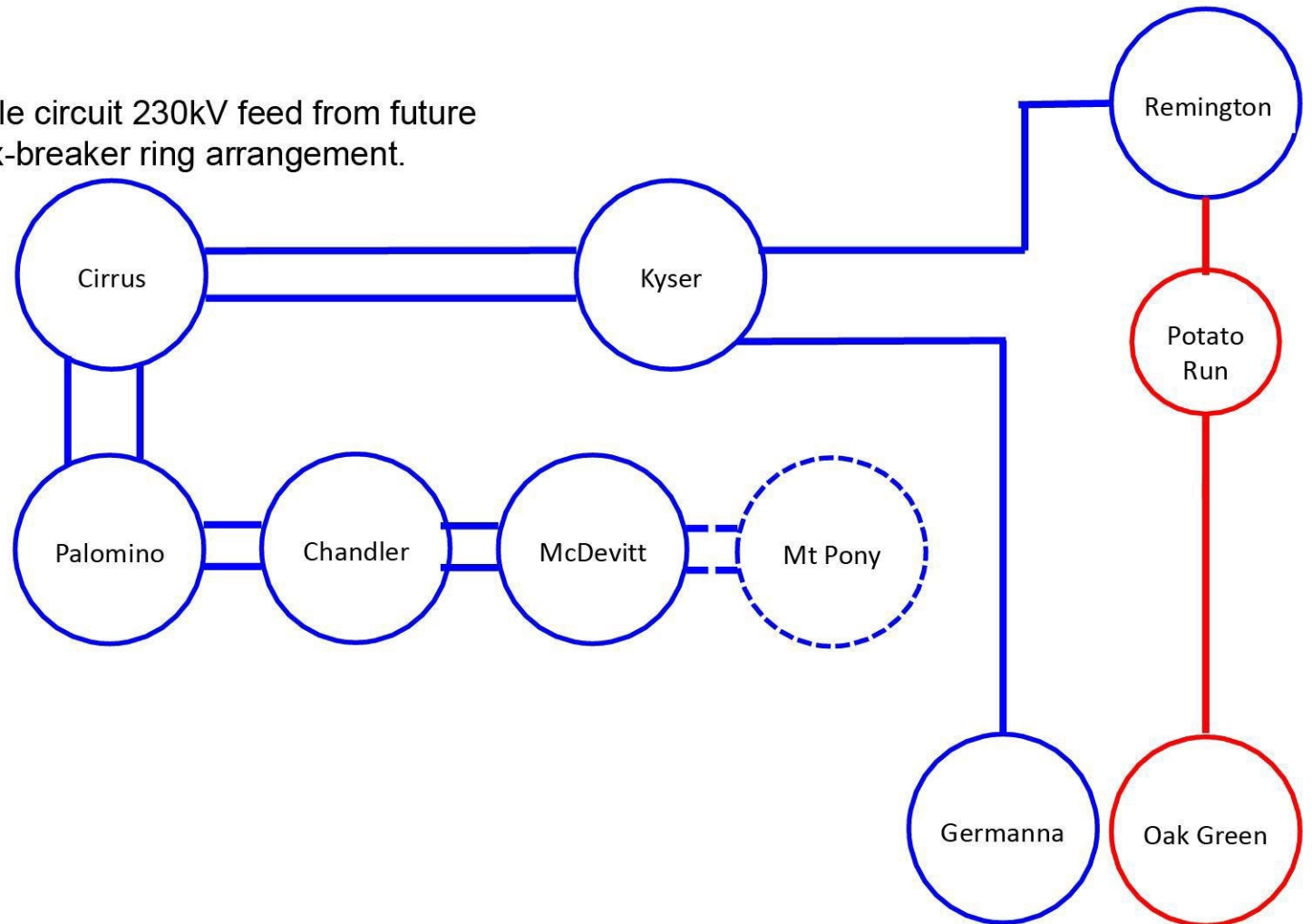
- Substation: \$11.6M
- Transmission Lines: \$28.2M

Alternatives Considered: No feasible alternatives

Projected In-service Date: Q2 2028

Project Status: Conceptual

Model: 2029 RTEP



Dominion Transmission Zone: Supplemental Do No Harm Analysis

Need Number: DOM-2024-0084-DNH

Process Stage: Solution Meeting 02/04/2025

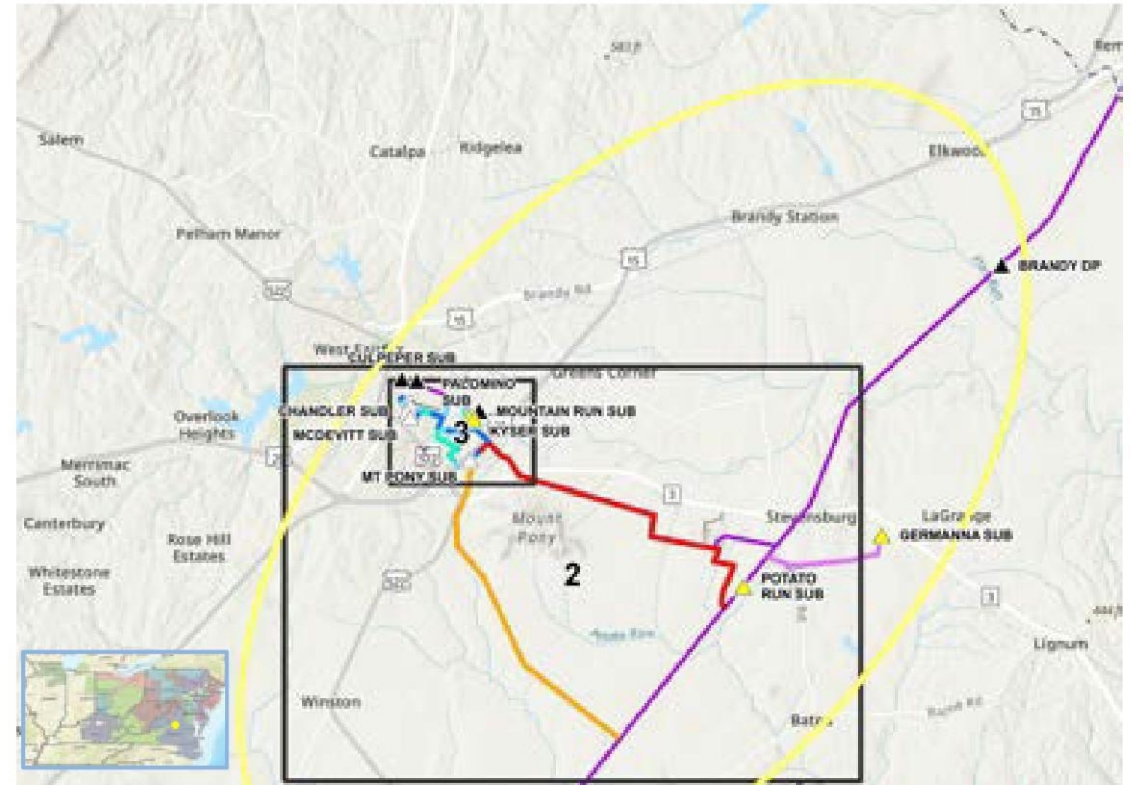
Project Driver: Do-No-Harm analysis

Specific Assumption References:

Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

Problem Statement:

There are 5 new data center delivery points requested in the Culpeper Area near Cirrus-Kyser substations. With the current infrastructure, there will be a load drop in excess of 300 MW if the data centers are fed through Line #2276 alone. This is a violation of DE Planning Criteria.



Dominion Transmission Zone: Supplemental Do No Harm Analysis

Need Number: DOM-2024-0084-DNH

Process Stage: Solution Meeting 02/04/2025

Proposed Solution:

1. Convert lines #2 and #1065 from Remington Sub to Potato Run and Potato Run to Oak Green Sub to 230kV
2. At Oak Green Sub – Expand the station and install a 230kV ring bus with 3 breakers (allow for future 6 breakers), add a 4th breaker to the 3 breaker 115kV ring bus and install 2 – 230/115kV 224 MVA transformers.

Estimated Project Cost: \$140.8M

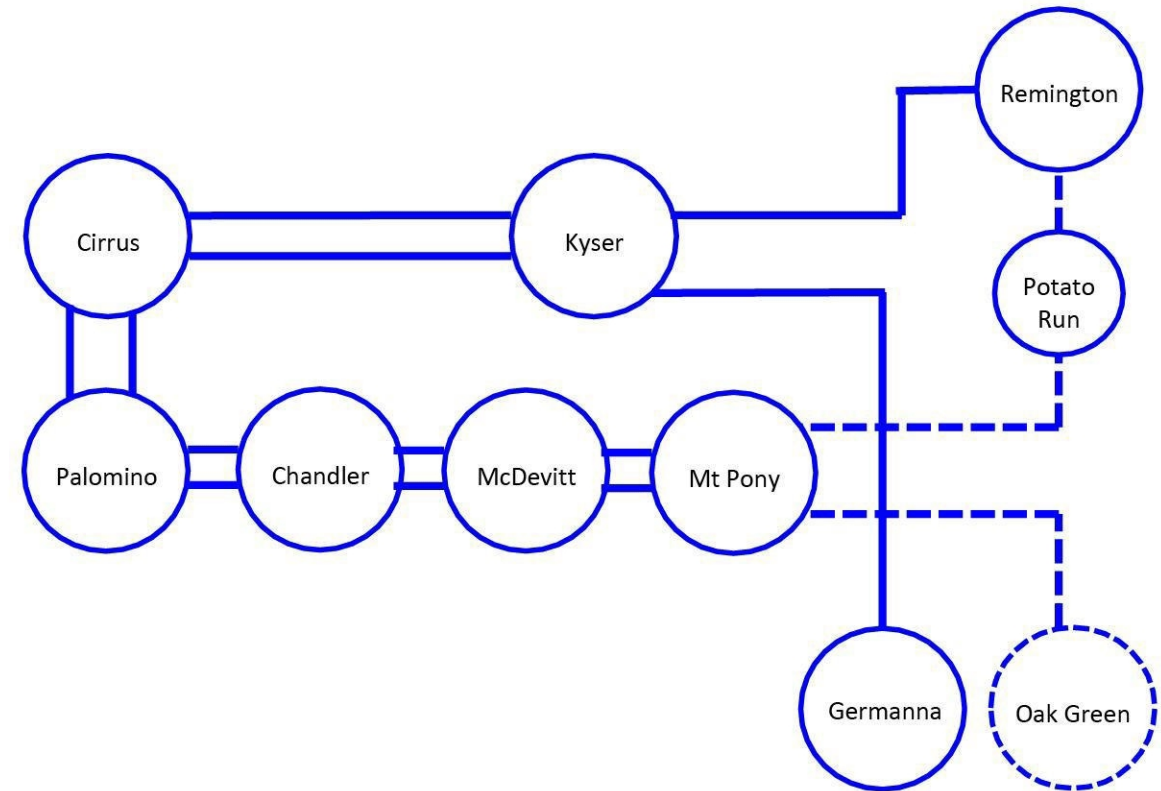
- Substation: \$40.8M
- Transmission Lines: \$100M

Alternatives Considered: No feasible alternatives

Projected In-service Date: Q2 2028

Project Status: Conceptual

Model: 2029 RTEP



I. NECESSITY FOR THE PROPOSED PROJECT

- K. If the need for the proposed project is due in part to reliability issues and the proposed project is a rebuild of an existing transmission line(s), provide five years of outage history for the line(s), including for each outage the cause, duration and number of customers affected. Include a summary of the average annual number and duration of outages. Provide the average annual number and duration of outages on all Applicant circuits of the same voltage, as well as the total number of such circuits. In addition to outage history, provide five years of maintenance history on the line(s) to be rebuilt including a description of the work performed as well as the cost to complete the maintenance. Describe any system work already undertaken to address this outage history.**

Response: Not applicable. The need for the Project is not driven by outage history, but rather by the need to support load growth in the area. See Sections I.A and I.J.

I. NECESSITY FOR THE PROPOSED PROJECT

- L. If the need for the proposed project is due in part to deterioration of structures and associated equipment, provide representative photographs and inspection records detailing their condition.**

Response: Not applicable. See Sections I.A and I.C.

I. NECESSITY FOR THE PROPOSED PROJECT

- M. In addition to the other information required by these guidelines, applications for approval to construct facilities and transmission lines interconnecting a Non-Utility Generator ("NUG") and a utility shall include the following information:**
- 1. The full name of the NUG as it appears in its contract with the utility and the dates of initial contract and any amendments;**
 - 2. A description of the arrangements for financing the facilities, including information on the allocation of costs between the utility and the NUG;**
 - 3. a. For Qualifying Facilities ("QFs") certificated by Federal Energy Regulatory Commission ("FERC") order, provide the QF or docket number, the dates of all certification or recertification orders, and the citation to FERC Reports, if available;**
 - b. For self-certificated QFs, provide a copy of the notice filed with FERC;**
 - 4. Provide the project number and project name used by FERC in licensing hydroelectric projects; also provide the dates of all orders and citations to FERC Reports, if available; and**
 - 5. If the name provided in 1 above differs from the name provided in 3 above, give a full explanation.**

Response: Not applicable.

I. NECESSITY FOR THE PROPOSED PROJECT

- N. Describe the proposed and existing generating sources, distribution circuits or load centers planned to be served by all new substations, switching stations and other ground facilities associated with the proposed project.**

Response: The proposed Project will serve the Project load area, as described in Section I.C. and generally depicted in Attachment I.A.1. The Project may also be used to support future load in the area.

II. DESCRIPTION OF THE PROPOSED PROJECT

A. Right-of-way ("ROW")

1. Provide the length of the proposed corridor and viable alternatives.

Response: The approximate lengths of the proposed route for each component are as follows:

Mt. Pony Lines

Proposed Route (Route 1): 5.2 miles

Alternative Route 2: 4.8 miles

Tech Park Lines

Proposed Route (Route 1): 3.7 miles¹⁹

Alternative Route 2: 3.5 miles

Alternative Route 3: 3.5 miles

Oak Green Rebuild and Relocation

No alternative routes are proposed for the Oak Green Rebuild and Relocation because alternatives to the Project would require extensive acquisitions of new permanent rights-of-way. The length of the Oak Green Rebuild and Relocation (inclusive of the Line #153 Tap) is approximately 2.9 miles.

Remington Rebuild

No alternative routes are proposed for the Remington Rebuild because alternatives to the Project would require extensive acquisitions of new permanent rights-of-way. The length is approximately 0.7 mile.

See Section II.A.9 of the Appendix for an explanation of the Company's route selection process.

¹⁹ See *supra*, n. 4.

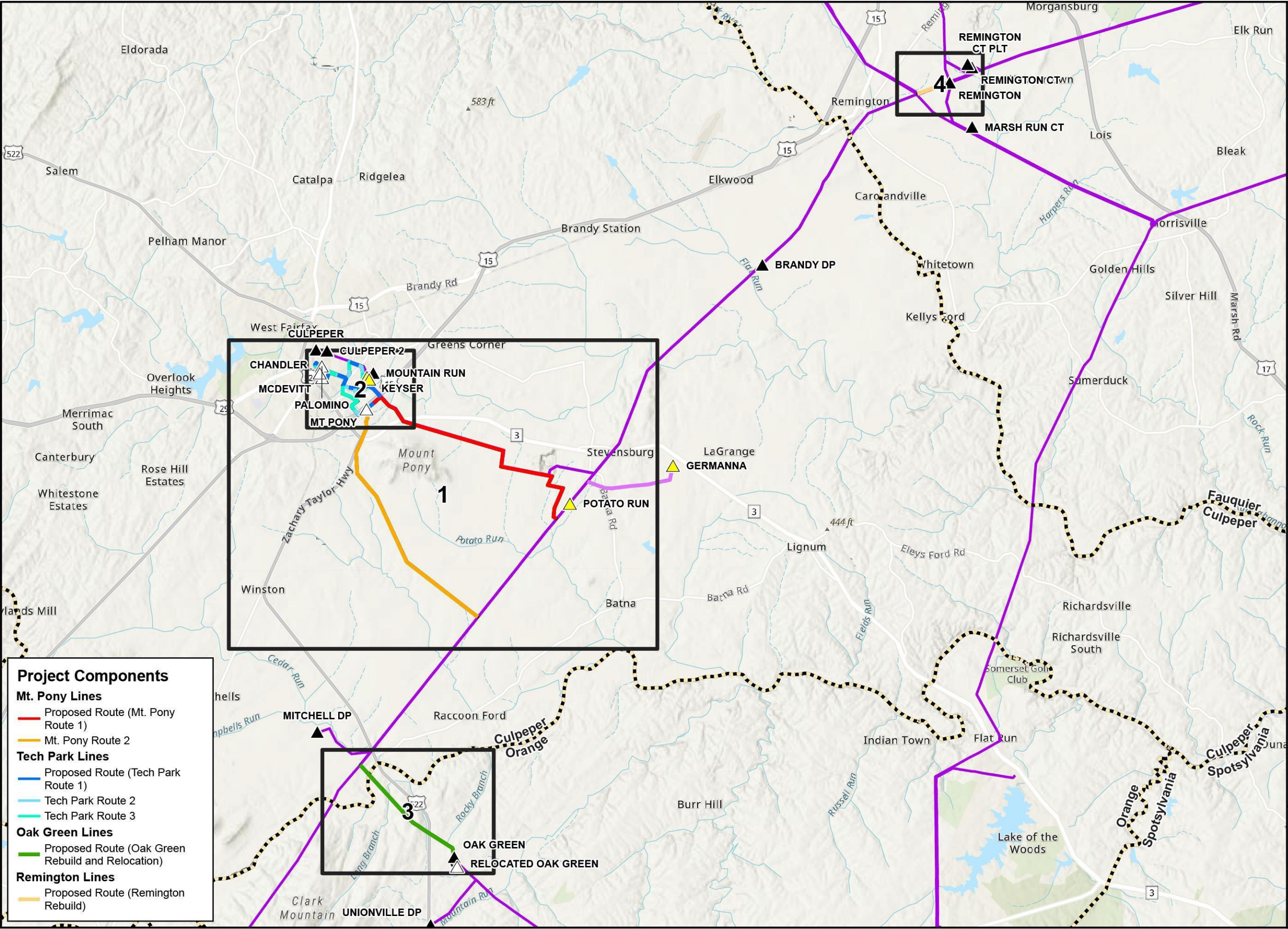
II. DESCRIPTION OF THE PROPOSED PROJECT

A. Right-of-way ("ROW")

2. Provide color maps of suitable scale (including both general location mapping and more detailed GIS-based constraints mapping) showing the route of the proposed line and its relation to: the facilities of other public utilities that could influence the route selection, highways, streets, parks and recreational areas, scenic and historic areas, open space and conservation easements, schools, convalescent centers, churches, hospitals, burial grounds/cemeteries, airports and other notable structures close to the proposed project. Indicate the existing linear utility facilities that the line is proposed to parallel, such as electric transmission lines, natural gas transmission lines, pipelines, highways, and railroads. Indicate any existing transmission ROW sections that are to be quitclaimed or otherwise relinquished. Additionally, identify the manner in which the Applicant will make available to interested persons, including state and local governmental entities, the digital GIS shape file for the route of the proposed line.

Response: See Attachment II.A.2. No portion of the right-of-way is proposed to be quitclaimed or relinquished, including the existing Oak Green Switching Station site.

Dominion Energy Virginia will make the digital Geographic Information Systems ("GIS") shape file available to interested persons upon request to the Company's legal counsel as listed in the Project Application.



Project Components

Mt. Pony Lines

Proposed Route (Mt. Pony Route 1)

Mt. Pony Route 2

Tech Park Lines

Proposed Route (Tech Park Route 1)

Tech Park Route 2

Tech Park Route 3

Oak Green Lines

Proposed Route (Oak Green Rebuild and Relocation)

Remington Lines

Proposed Route (Remington Rebuild)



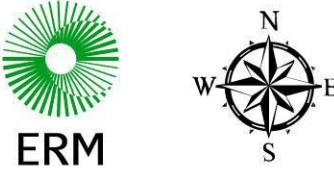
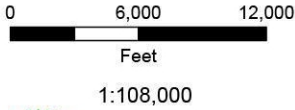
Attachment II.A.2
Project Overview and
Constraints Map

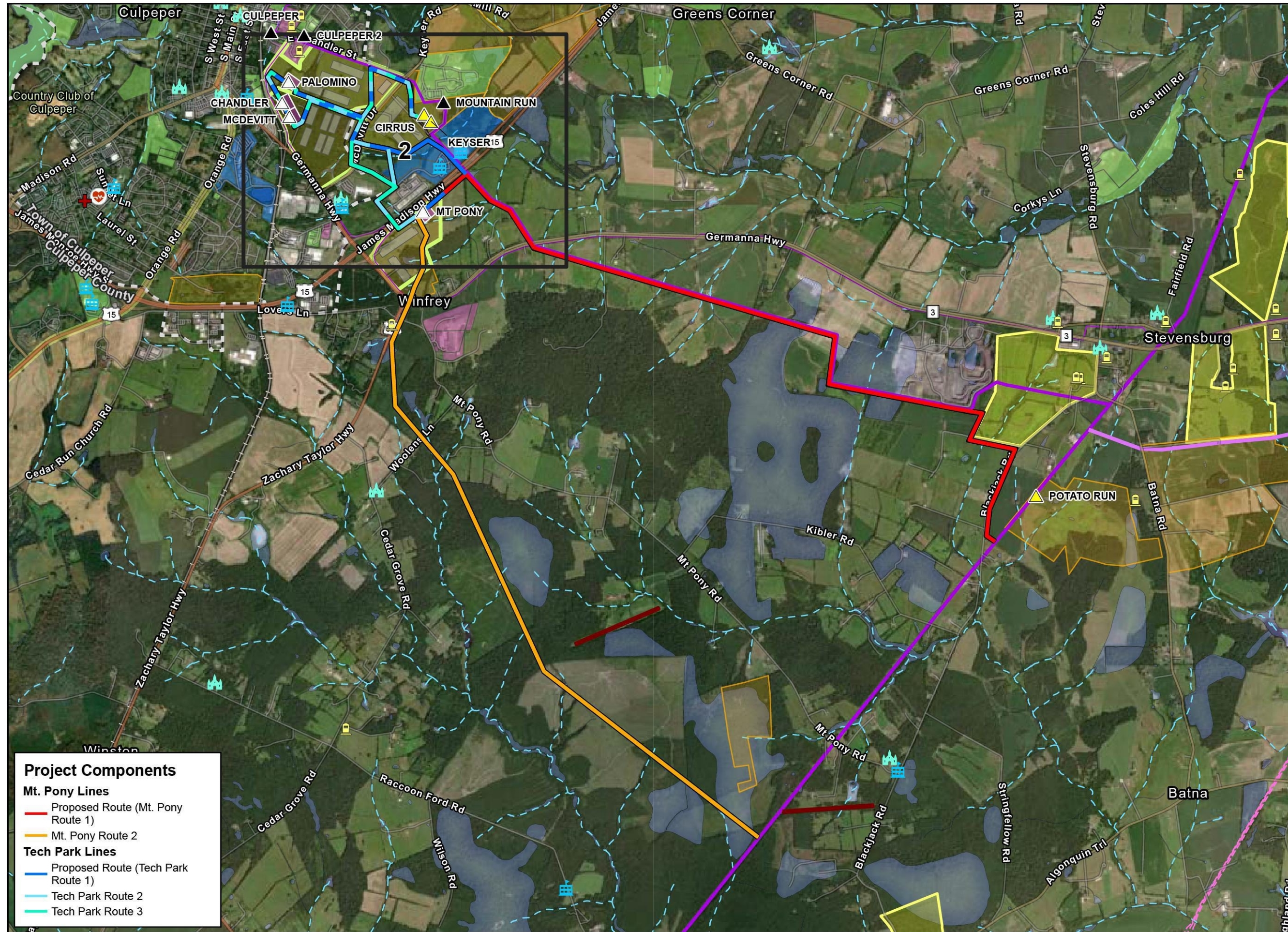
Culpeper Technology Zone
230 kV Loop and
Lines #2 and #1065
Conversion Project

Culpeper, Fauquier, and
Orange County, Virginia

Index Page

- ▲ Existing Substation/Switching Station
- ▲ Approved Future Substation/Switching Station
- △ Proposed Substation/Switching Station
- Existing Dominion Transmission Line
- Approved Future Lines
- - - County Boundary





Project Components

Mt. Pony Lines

- Proposed Route (Mt. Pony Route 1)
- Mt. Pony Route 2

Tech Park Lines

- Proposed Route (Tech Park Route 1)
- Tech Park Route 2
- Tech Park Route 3



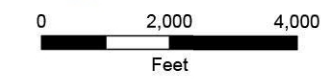
Attachment II.A.2 Project Overview and Constraints Map

Culpeper Technology Zone
230 kV Loop and
Lines #2 and #1065
Conversion Project

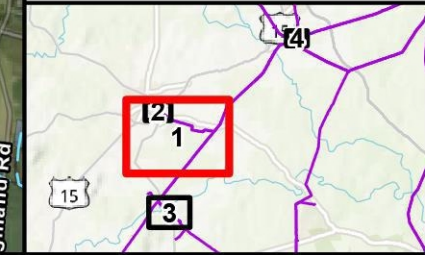
Culpeper County,
Virginia

Page 1 of 4

- Existing Substation/Switching Station
- Approved Future Substation/Switching Station
- Proposed Substation/Switching Station
- Proposed Substation/Switching Station Footprint
- Existing Dominion Transmission Line
- Approved Future Lines
- Customer Data Center
- Planned Development
- Cemetery
- Place of Worship
- School
- VDOT Virginia Scenic Byways
- VDOT Road Alignment
- County Boundary
- Airport/Airstrip
- Hospital
- Helipoint
- VA Outdoor Foundation Easement
- Federal Lands
- State Lands
- Local Lands
- Other Electric Transmission Lines
- Natural Gas Pipeline
- Proposed Data Center Building
- NHD Stream
- NWI Wetland



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Attachment II.A.2 Project Overview and Constraints Map

**Culpeper Technology Zone
230 kV Loop and
Lines #2 and #1065
Conversion Project**

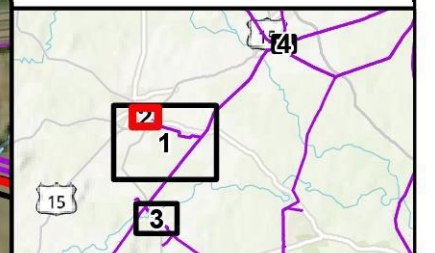
Culpeper County,
Virginia

Page 2 of 4

- ▲ Existing Substation/Switching Station
- ▲ Approved Future Substation/Switching Station
- △ Proposed Substation/Switching Station
- Proposed Substation/Switching Station Footprint
- Existing Dominion Transmission Line
- Right-of-Way
- Customer Data Center
- Planned Development
- Cemetery
- Place of Worship
- School
- County Boundary
- VDOT Road Alignment
- Federal Lands
- State Lands
- Local Lands
- Other Electric Transmission Lines
- Proposed Data Center Building
- NHD Stream
- NWI Wetland

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Feet

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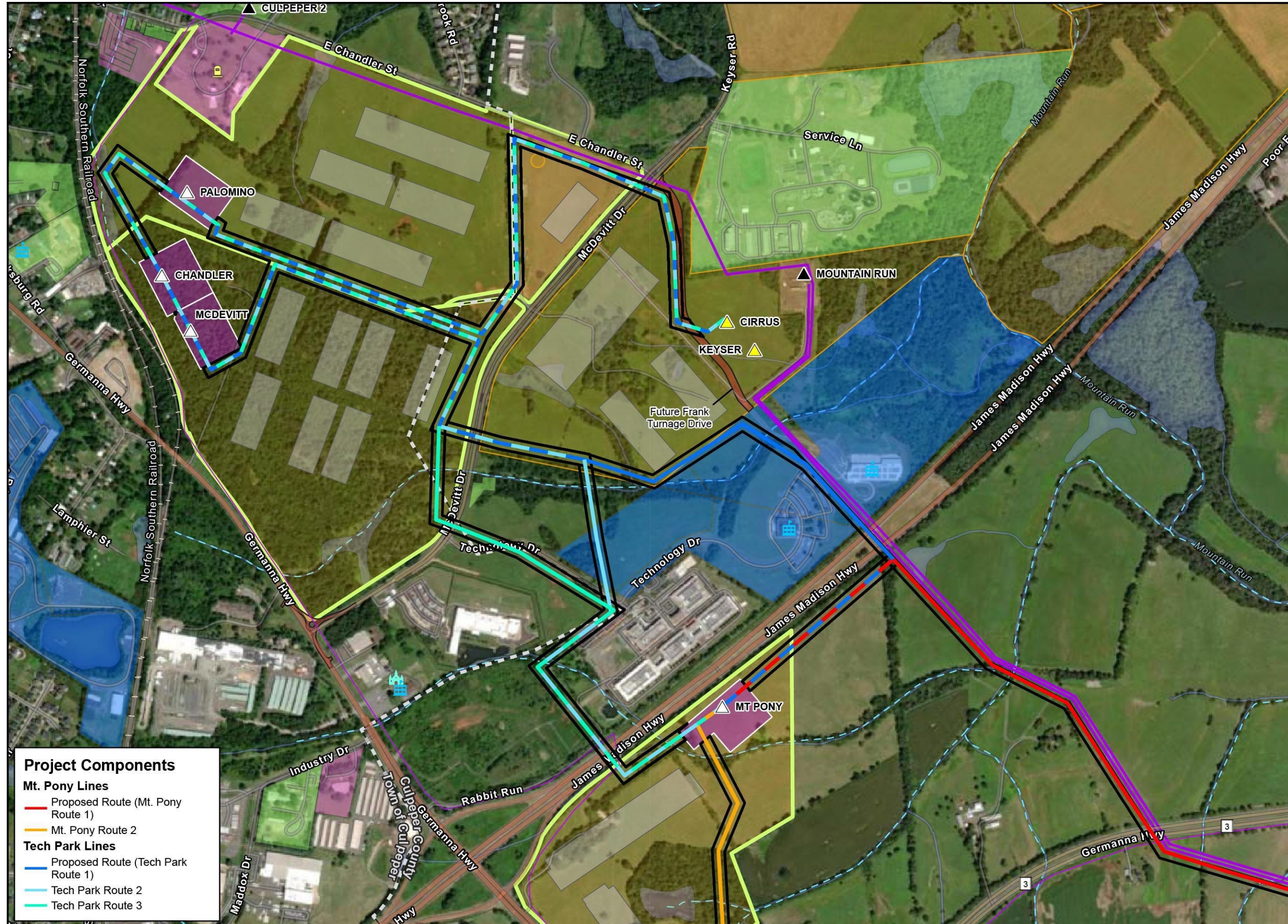
Project Components

Mt. Pony Lines

- Proposed Route (Mt. Pony Route 1)
- Mt. Pony Route 2

Tech Park Lines

- Proposed Route (Tech Park Route 1)
- Tech Park Route 2
- Tech Park Route 3





Project Components

Oak Green Lines

- Proposed Route (Oak Green Rebuild and Relocation)



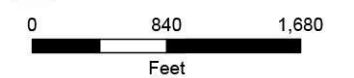
Attachment II.A.2 Project Overview and Constraints Map

**Culpeper Technology Zone
230 kV Loop and
Lines #2 and #1065
Conversion Project**

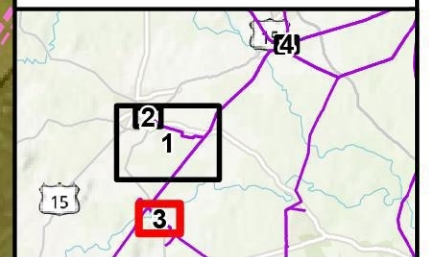
Culpeper and Orange
County, Virginia

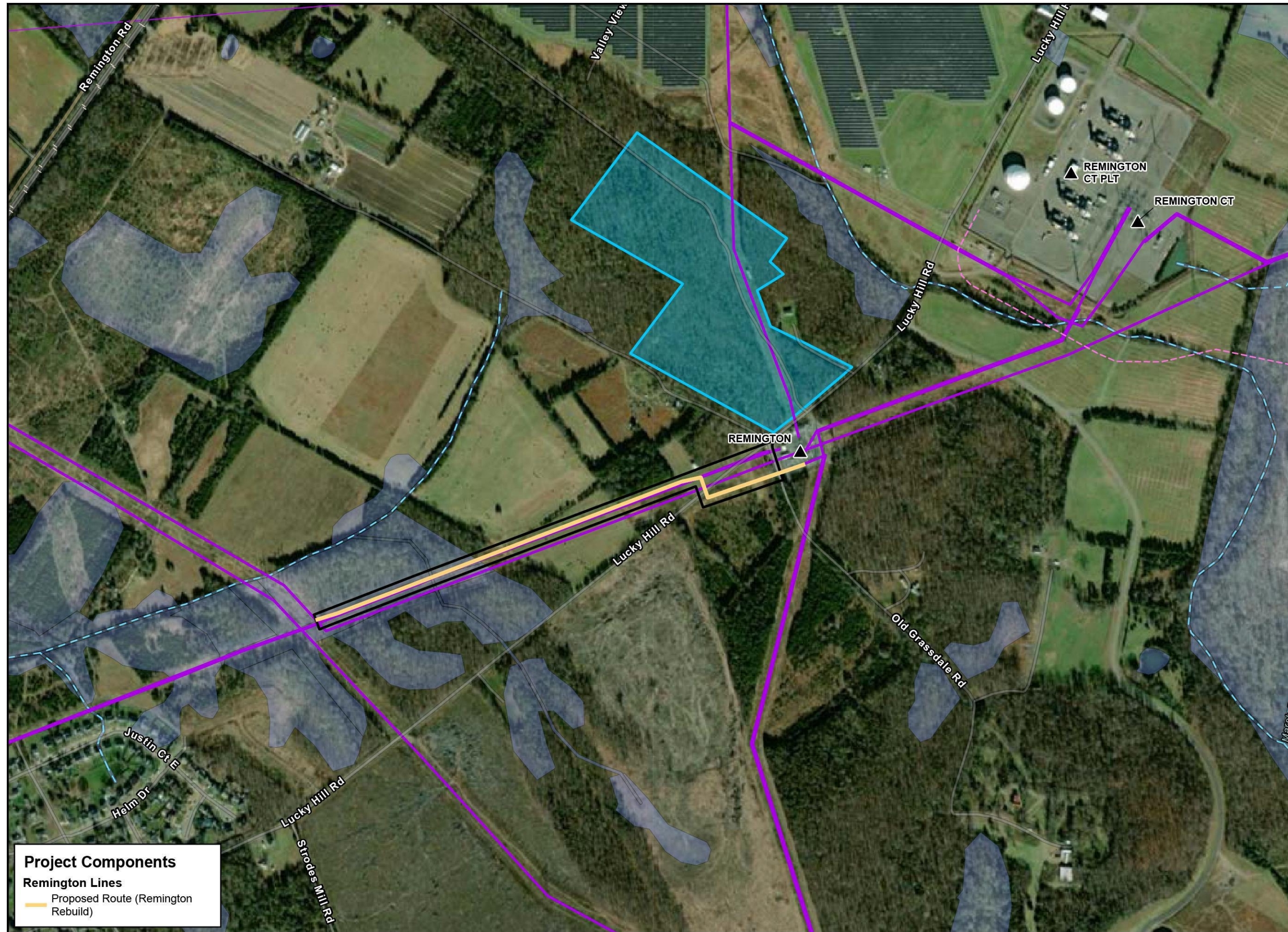
Page 3 of 4

- ▲ Existing Substation/Switching Station
- △ Proposed Substation/Switching Station
- Proposed Substation/Switching Station Footprint
- Existing Dominion Transmission Line
- Right-of-Way (Existing and Proposed)
- Planned Development
- ☠ Cemetery
- ⛔ Place of Worship
- County Boundary
- Ⓜ Natural Resource Conservation Service Easement
- Ⓜ Piedmont Environmental Council Easement
- Ⓜ VA Outdoors Foundation Easement
- Other Electric Transmission Lines
- Natural Gas Pipeline
- NHD Stream
- NWI Wetland



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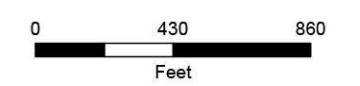
Attachment II.A.2 Project Overview and Constraints Map

Culpeper Technology Zone
230 kV Loop and
Lines #2 and #1065
Conversion Project

Fauquier County,
Virginia

Page 4 of 4

- ▲ Existing Substation/Switching Station
- Existing Dominion Transmission Line
- ▭ Right-of-Way (Existing)
- ▭ Fauquier County BOS Easement
- Other Electric Transmission Lines
- - - Natural Gas Pipeline
- - - NHD Stream
- ▭ NWI Wetland



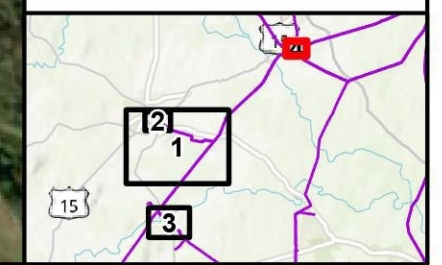
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Project Components

Remington Lines

Proposed Route (Remington Rebuild)



II. DESCRIPTION OF THE PROPOSED PROJECT

A. Right-of-way ("ROW")

- 3. Provide a separate color map of a suitable scale showing all the Applicant's transmission line ROWs, either existing or proposed, in the vicinity of the proposed project.**

Response: See Attachment I.G.1 for existing transmission line rights-of-way and Attachment II.B.3 for proposed and future transmission line rights-of-way in the Project area.

II. DESCRIPTION OF THE PROPOSED PROJECT

A. Right-of-way (“ROW”)

4. To the extent the proposed route is not entirely within existing ROW, explain why existing ROW cannot adequately service the needs of the Applicant.

Response: **Mt. Pony Lines**

There is no existing Company owned right-of-way adequate to accommodate the Mt. Pony Lines as proposed.

The Company has an existing transmission line corridor containing the approved future double circuit 230 kV Lines #2276/#2331 which extends from the existing Line #2/#2199 corridor to the approved future Cirrus and Keyser Switching Stations. While this existing corridor has similar start and end points to the Mt. Pony Lines, this 100-foot-wide right-of-way is not sufficient to accommodate the additional double circuit 230 kV lines of the Proposed Project. However, the Company is able to utilize a portion of this existing right-of-way in areas where collocation with the Mt. Pony Lines is possible, and in these areas of collocation, the Mt. Pony Proposed Route will only require 60 feet of new width directly adjacent to the existing 100 feet of right-of-way. Entirely new 100-foot-wide right-of-way outside of this collocation and an expansion of the existing line’s right-of-way will be required to serve the proposed Mt. Pony Substation from the cut-in location at existing Structure #2331/110 to accommodate the Project as proposed.

Tech Park Lines

There is no existing right-of-way that connects the proposed Mt. Pony Substation to the proposed McDevitt, Chandler, or Palomino Substations and from these proposed substations to the future Cirrus Switching Station to accommodate the Project as proposed.

Oak Green Rebuild and Relocation

There is no existing 100-foot-wide right-of-way that serves the Oak Green Switching Station from existing Lines #1065/#11/#153 to accommodate the uprate to 230 kV as proposed. However, the Oak Green Rebuild Proposed Route will utilize 2.5 miles of the existing 75-foot-wide right-of-way. This existing right-of-way will be expanded by 25 feet for a total 100 feet wide right-of-way, along the majority of the route (i.e., in all areas where not constrained by existing conservation easements), from the existing Lines #1065/#11 to the existing Oak Green Switching Station for the Oak Green Rebuild Proposed Route.

Remington Rebuild

The Remington Rebuild will not require new right-of-way and will be constructed entirely within existing right-of-way and Company property.

II. DESCRIPTION OF THE PROPOSED PROJECT

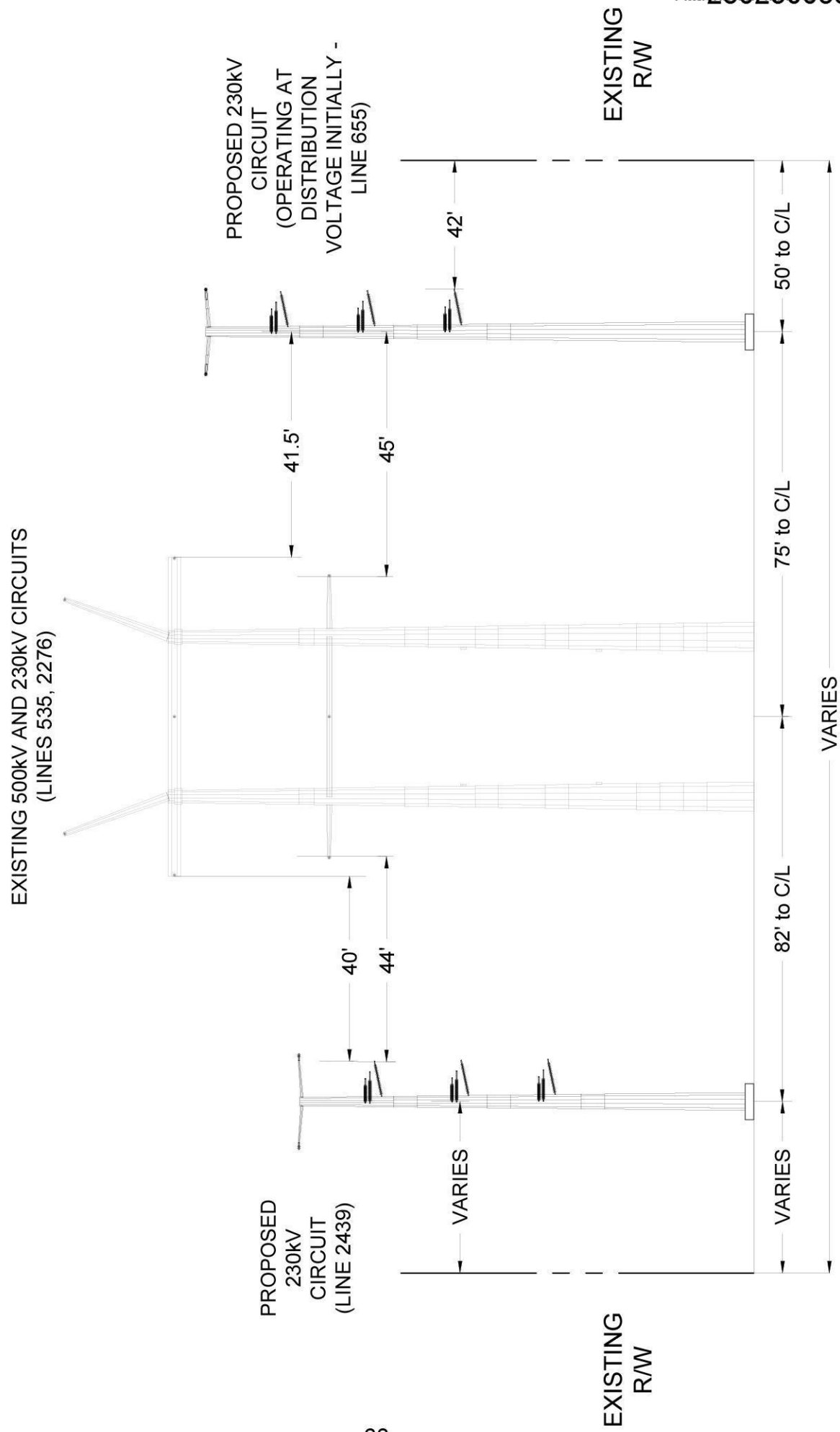
A. Right-of-way ("ROW")

- 5. Provide drawings of the ROW cross section showing typical transmission line structure placements referenced to the edge of the ROW. These drawings should include:**
 - a. ROW width for each cross section drawing;**
 - b. Lateral distance between the conductors and edge of ROW;**
 - c. Existing utility facilities on the ROW; and**
 - d. For lines being rebuilt in existing ROW, provide all of the above (i) as it currently exists, and (ii) as it will exist at the conclusion of the proposed project.**

Response: See Attachment II.A.5.a through II.A.5.x.

For additional information on the structures, see Section II.B.3.

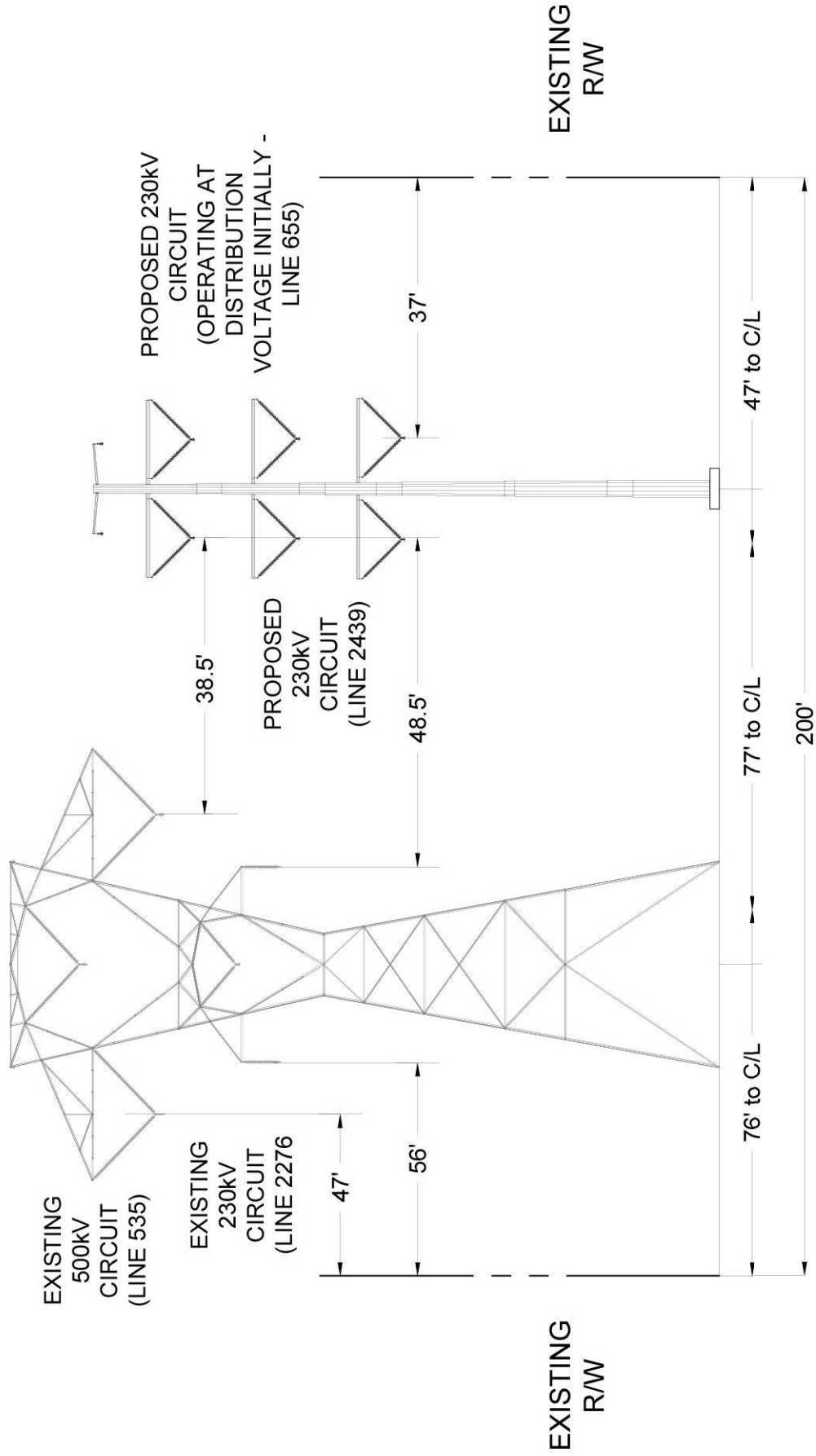
PROPOSED CONFIGURATION
(LOOKING TOWARD MT. PONY FROM REMINGTON SUBSTATION)



TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

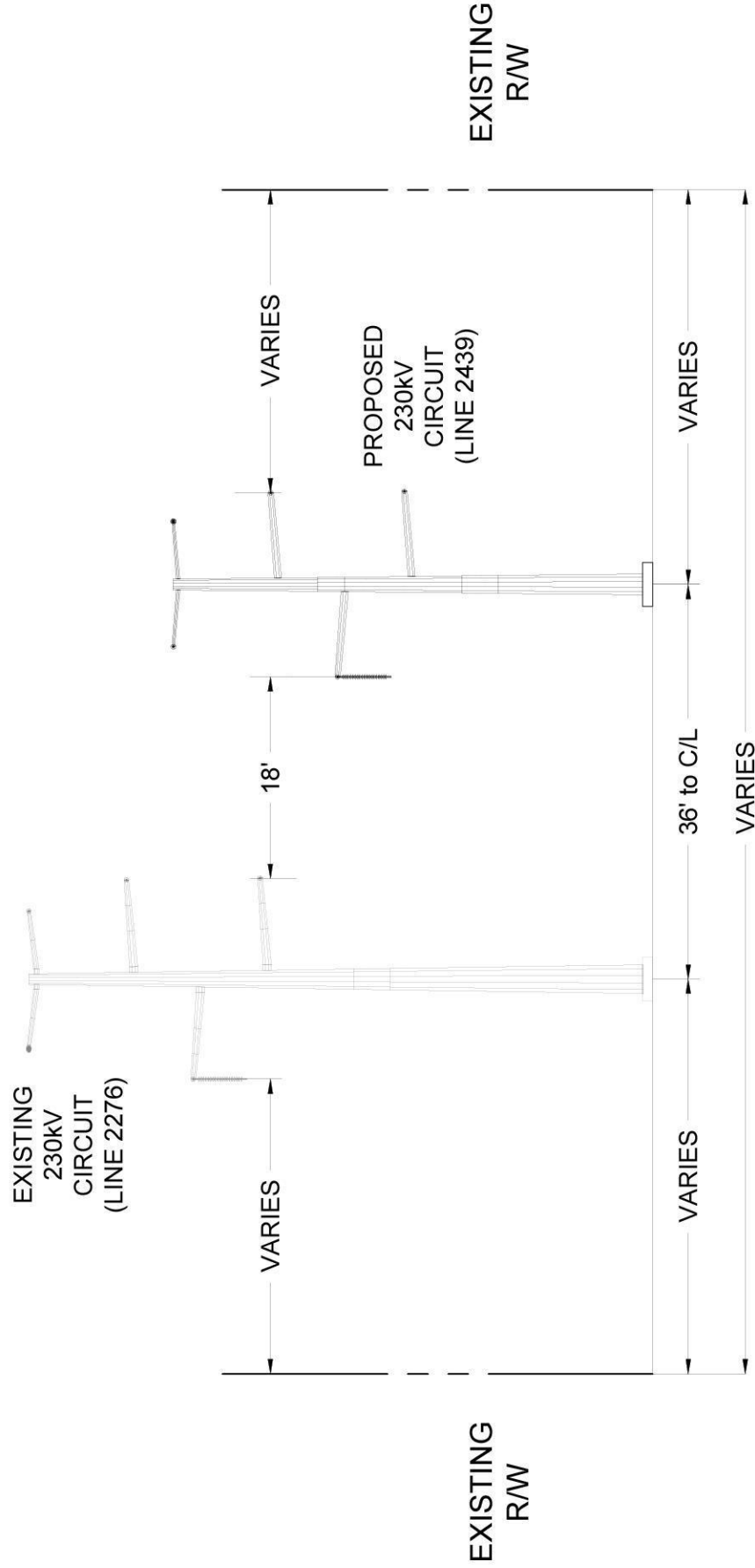
PROPOSED CONFIGURATION (LOOKING TOWARD MT. PONY FROM REMINGTON SUBSTATION)



TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

PROPOSED CONFIGURATION (LOOKING TOWARD MT. PONY FROM REMINGTON SUBSTATION)

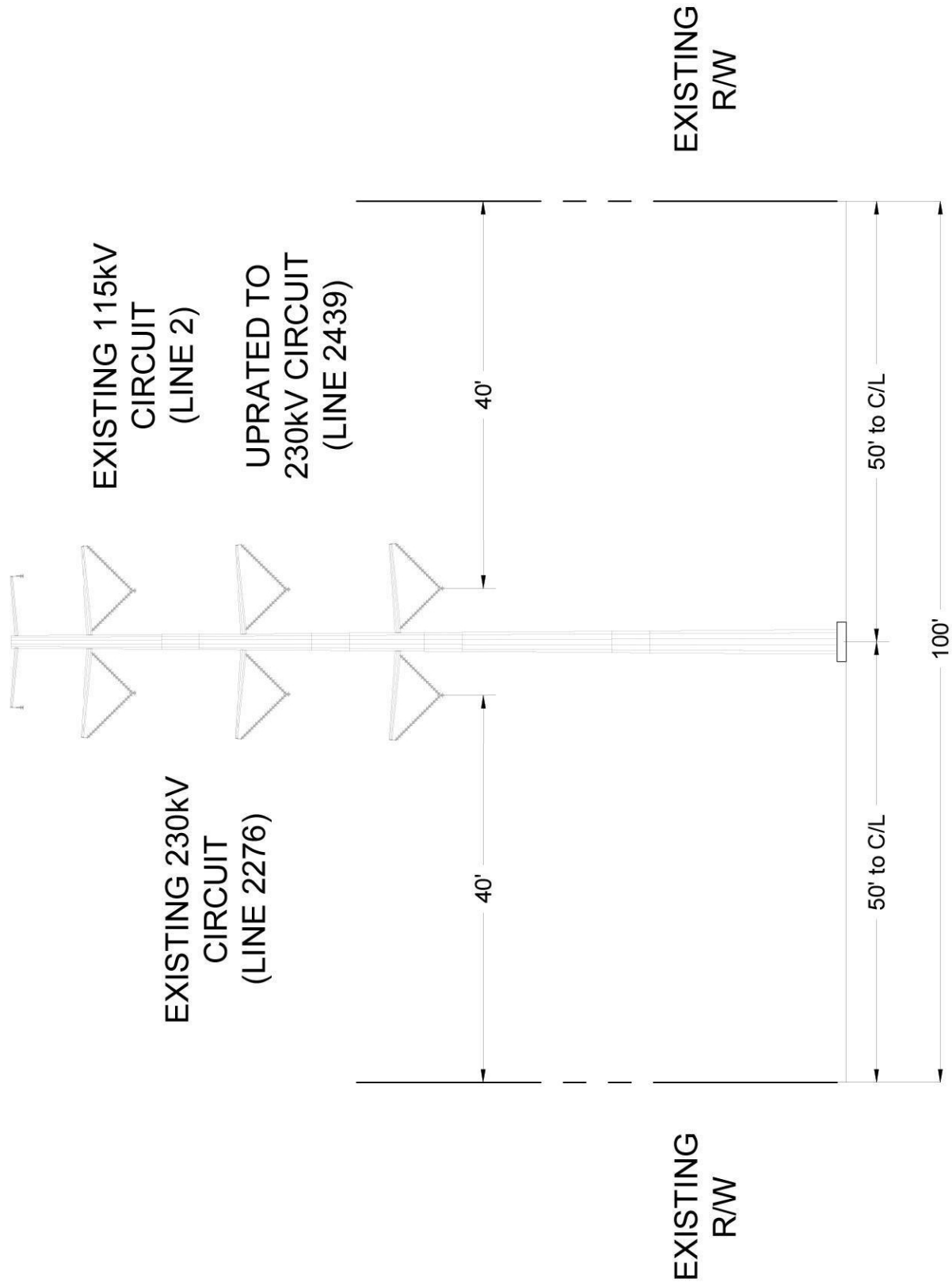


Attachment 11.3.3
250230055

TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

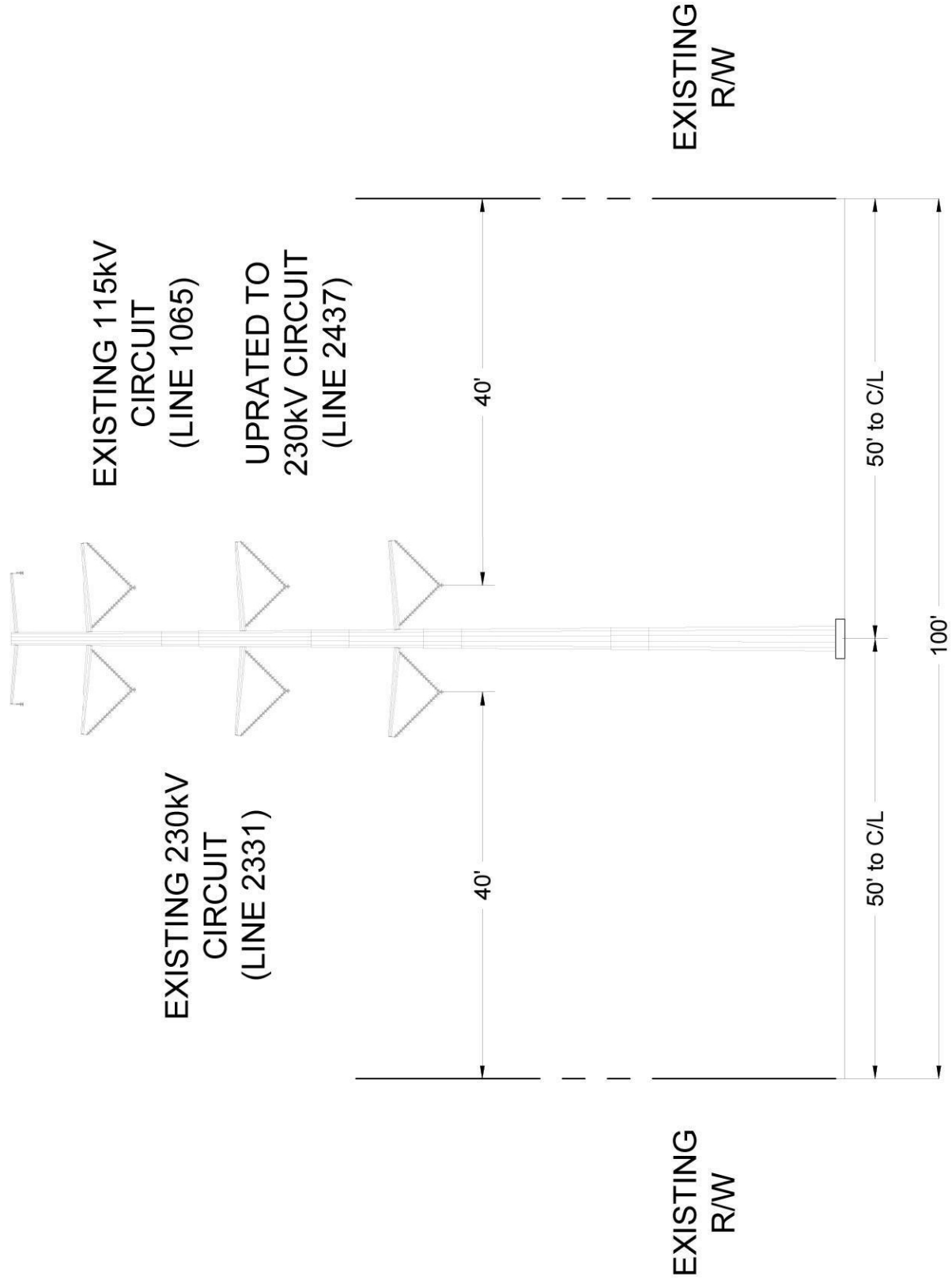
EXISTING CONFIGURATION
(LOOKING TOWARD MT. PONY FROM REMINGTON SUBSTATION)



TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

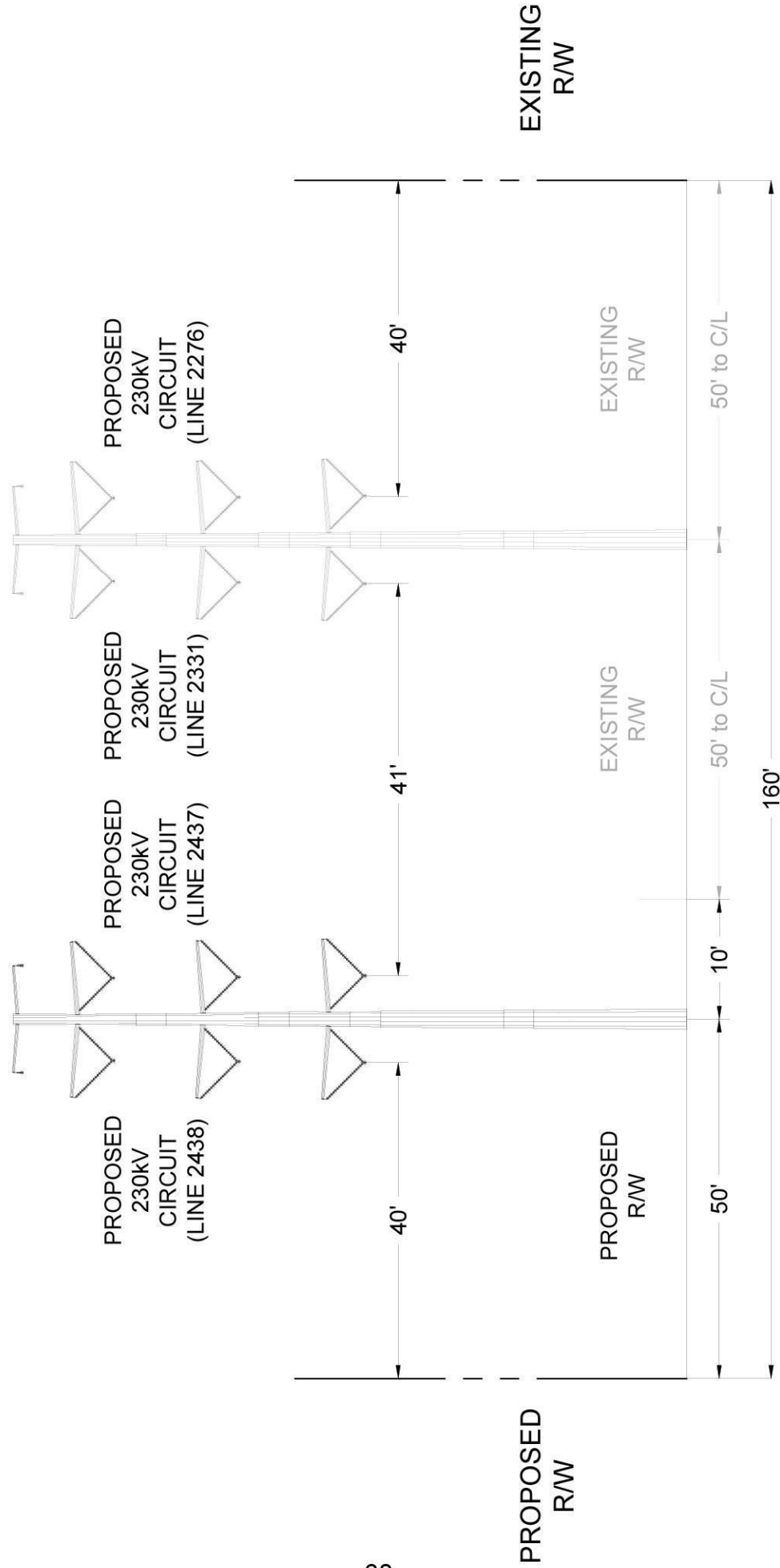
EXISTING CONFIGURATION
(LOOKING TOWARD MT. PONY FROM REMINGTON SUBSTATION)



TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

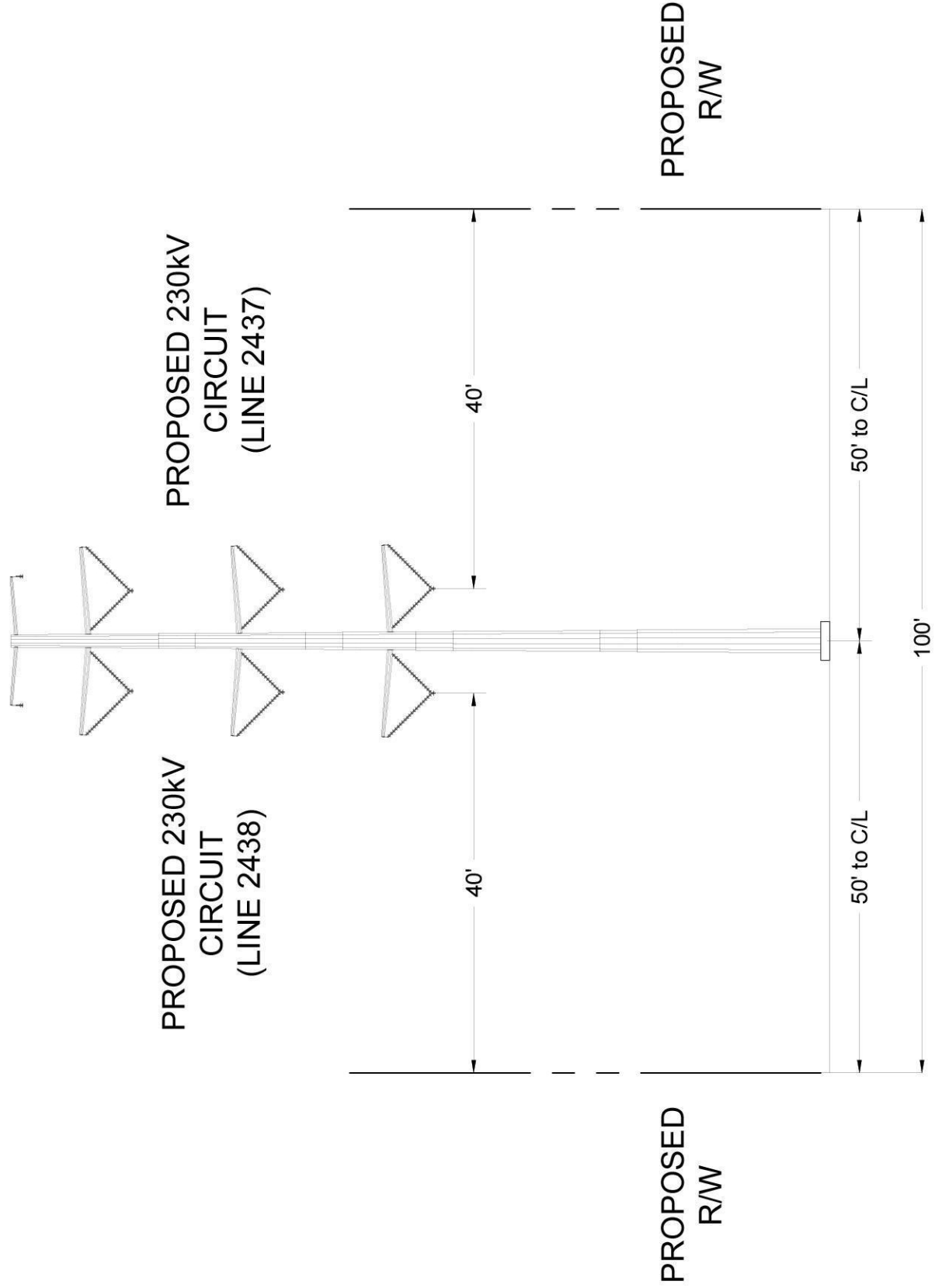
PROPOSED CONFIGURATION (LOOKING TOWARD MT. PONY FROM REMINGTON SUBSTATION)



TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

PROPOSED CONFIGURATION
(LOOKING TOWARD MT. PONY FROM REMINGTON SUBSTATION)

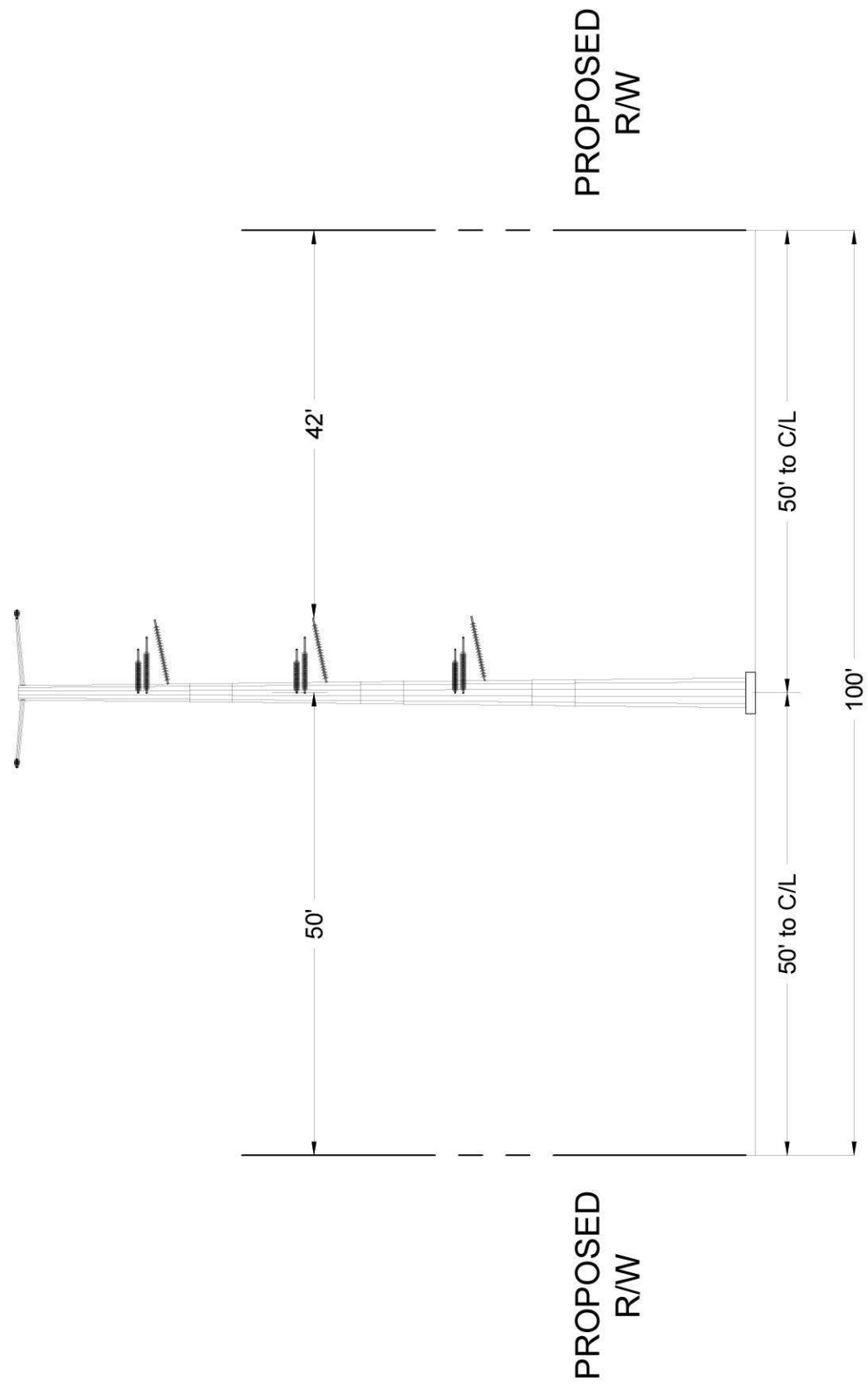


Attachment 2502300055

TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

PROPOSED CONFIGURATION
 (LOOKING TOWARD MT. PONY FROM OAK GREEN SUBSTATION)
 PROPOSED 230kV CIRCUIT
 (LINE 2438)

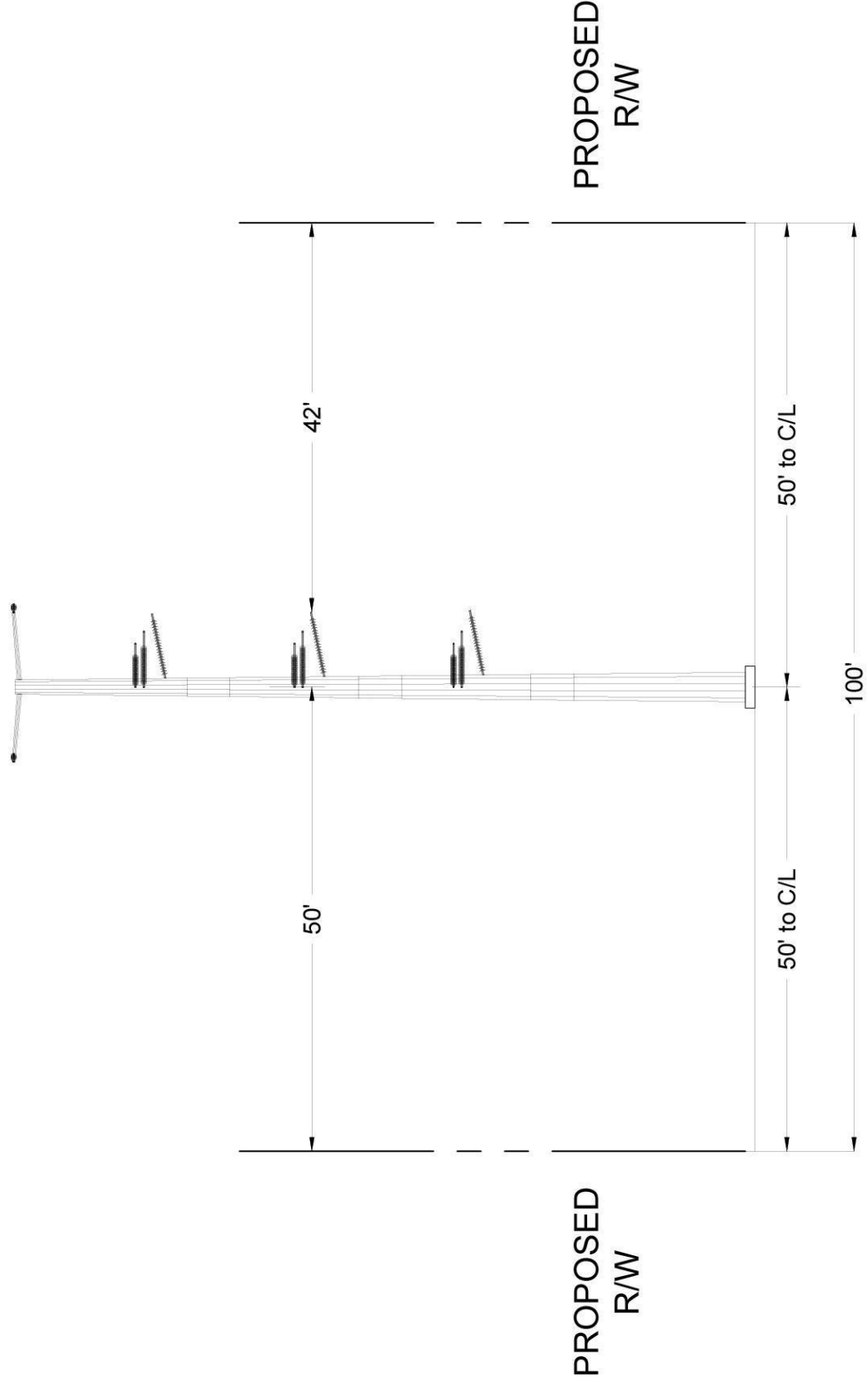


TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

PROPOSED CONFIGURATION
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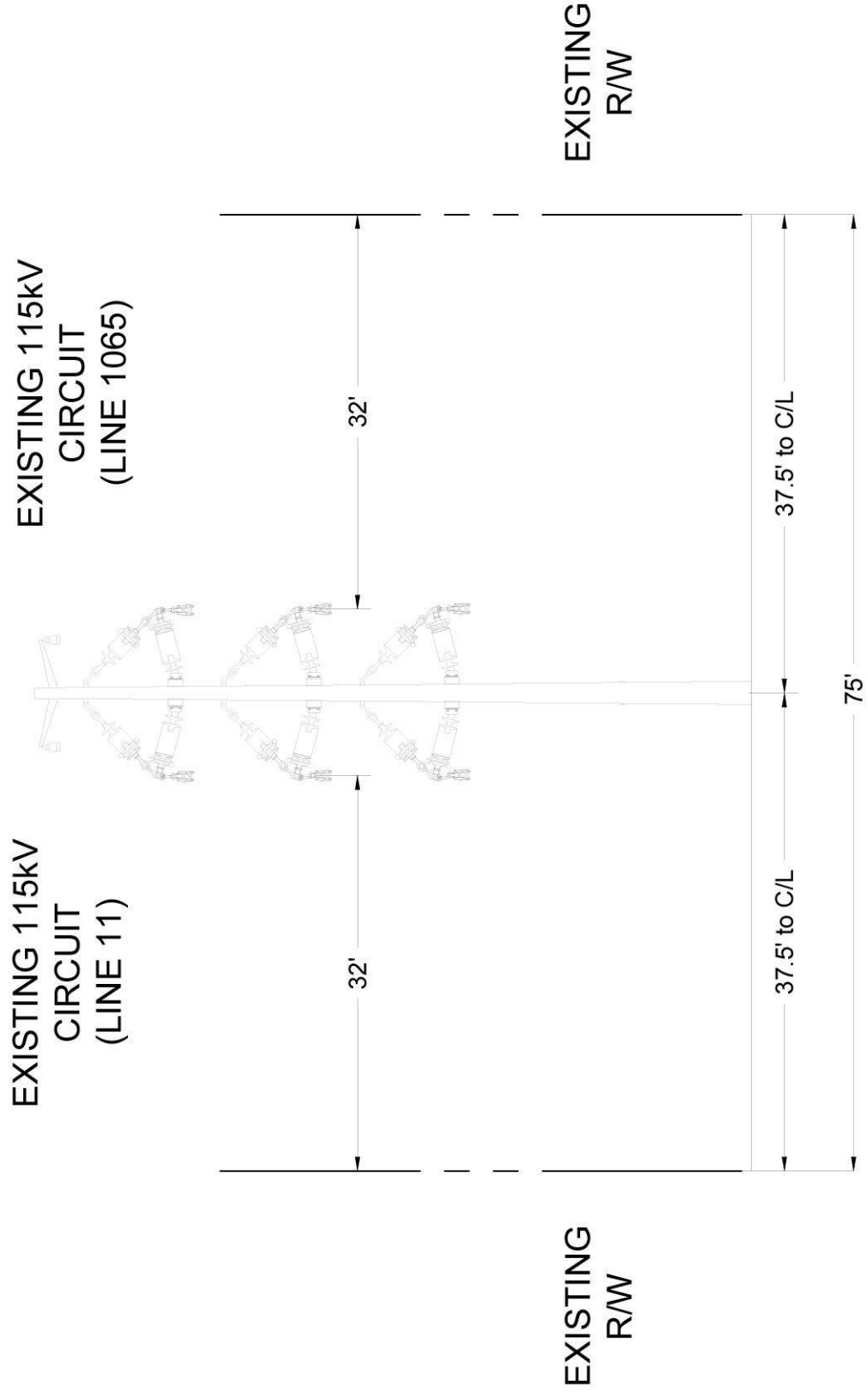
PROPOSED 230kV CIRCUIT
(OPERATING AT 115kV - LINE 11)



TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

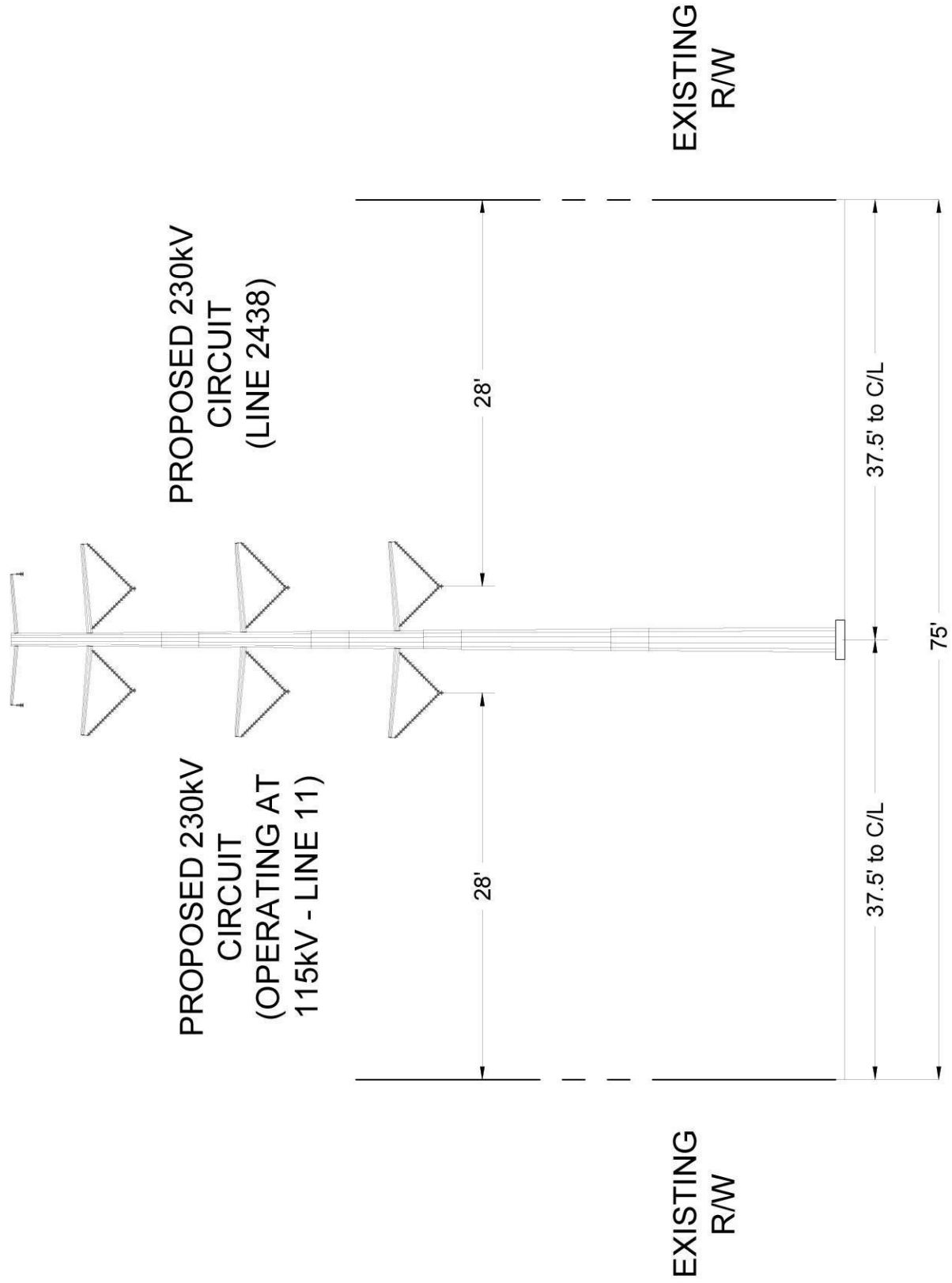
EXISTING CONFIGURATION (LOOKING TOWARD MT. PONY FROM OAK GREEN SUBSTATION)



TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

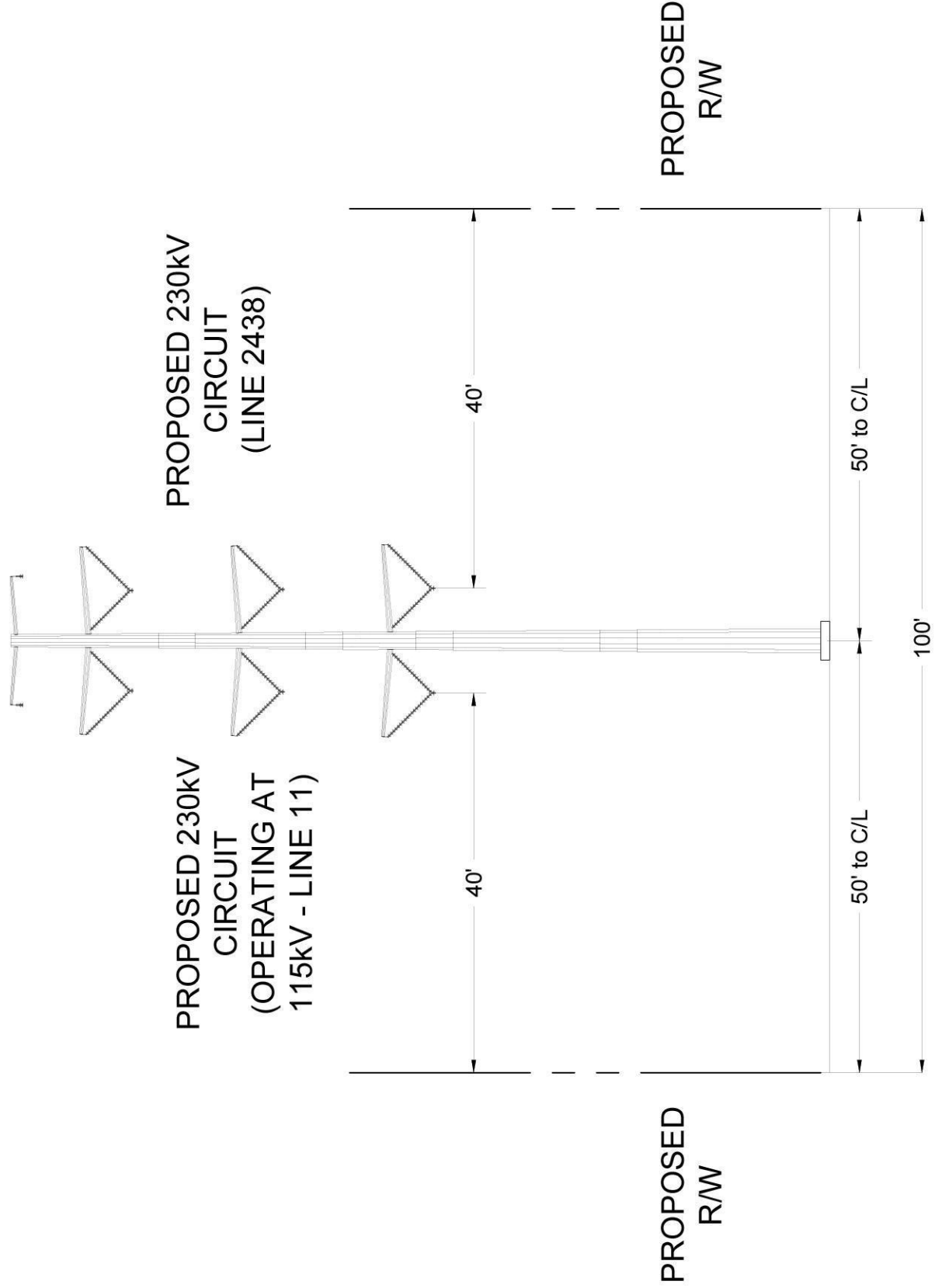
PROPOSED CONFIGURATION
(LOOKING TOWARD MT. PONY FROM OAK GREEN SUBSTATION)



TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

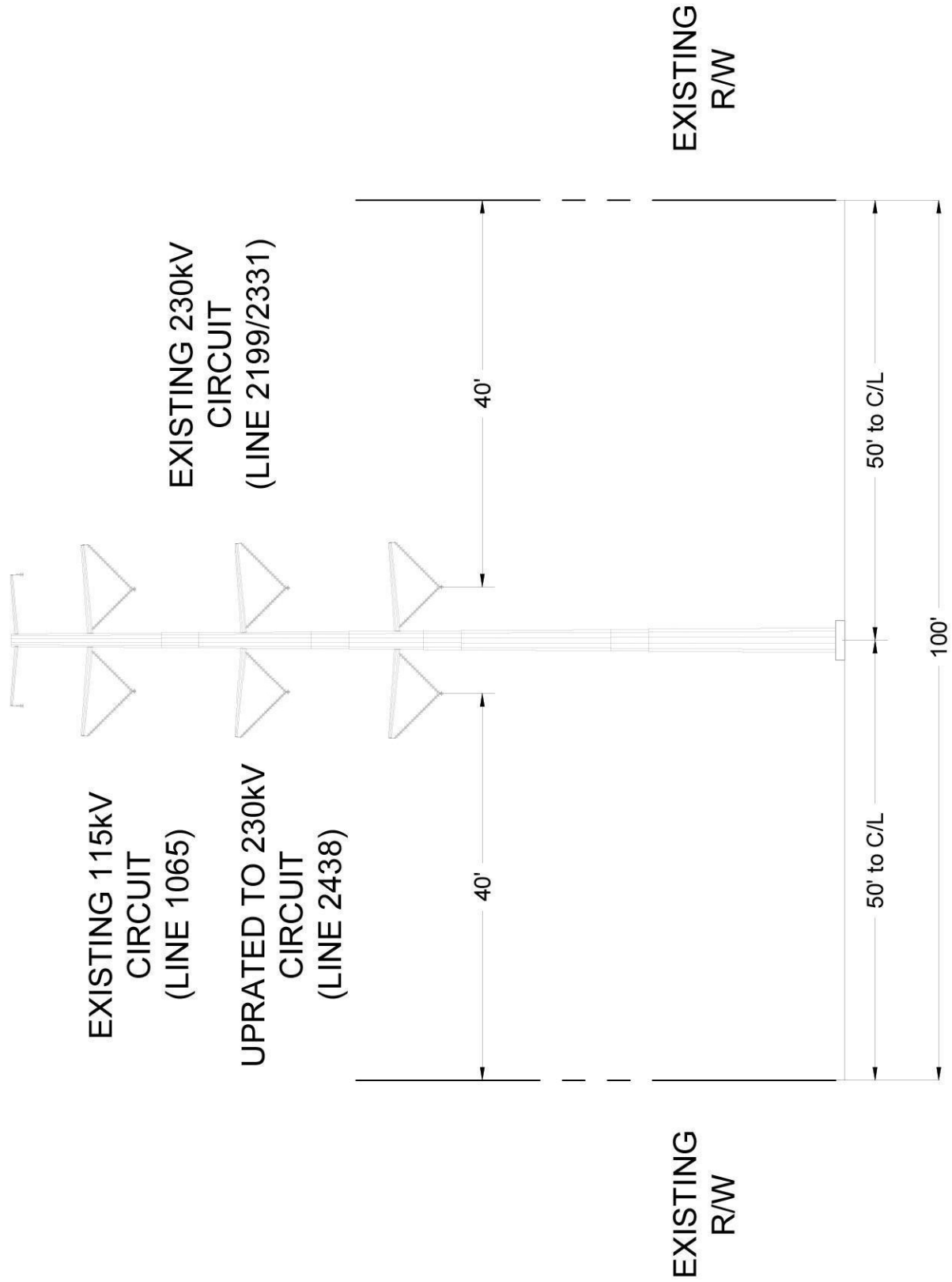
PROPOSED CONFIGURATION
(LOOKING TOWARD MT. PONY FROM OAK GREEN SUBSTATION)



TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

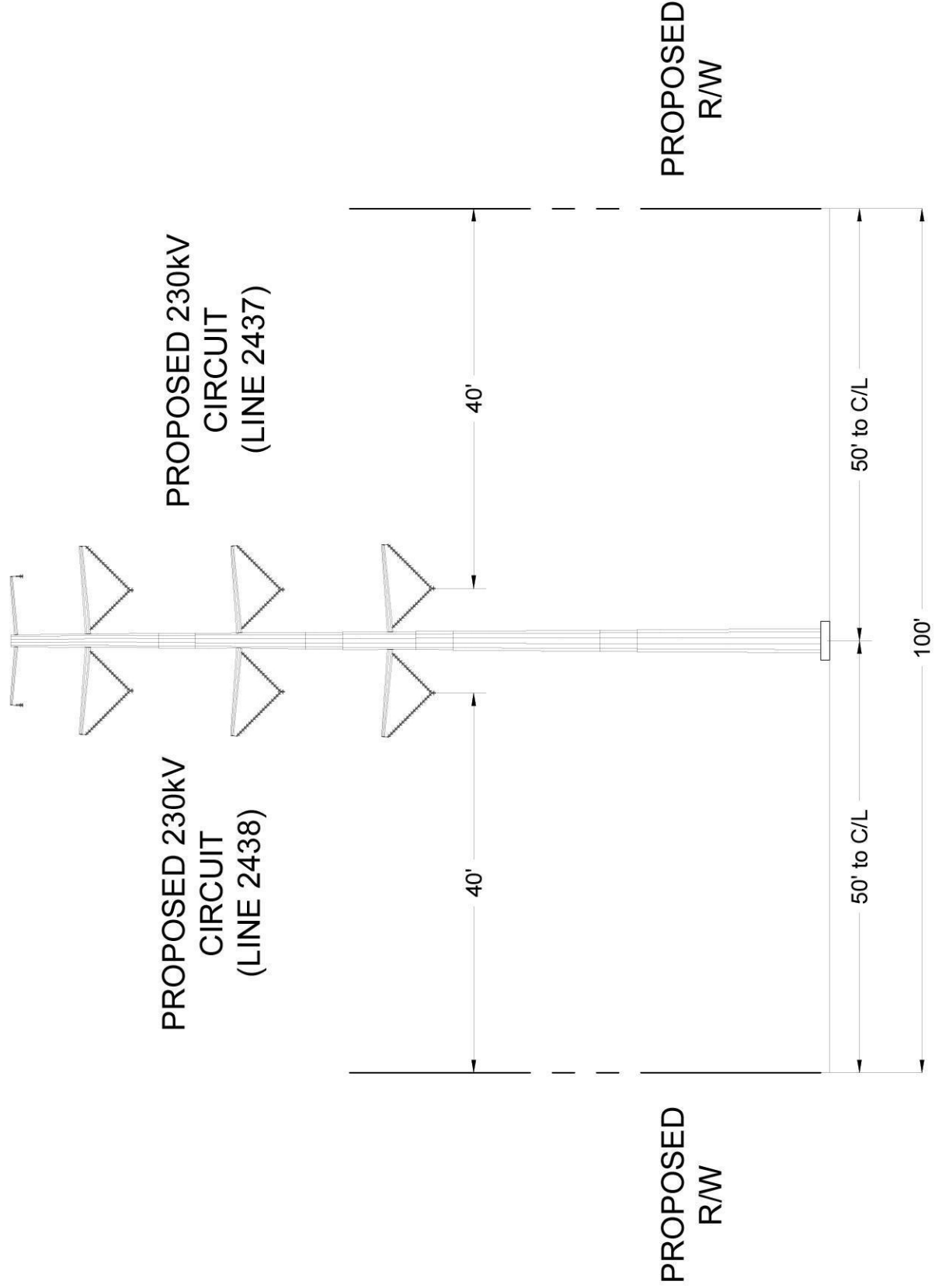
EXISTING CONFIGURATION
(LOOKING TOWARD MT. PONY FROM OAK GREEN SUBSTATION)



TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

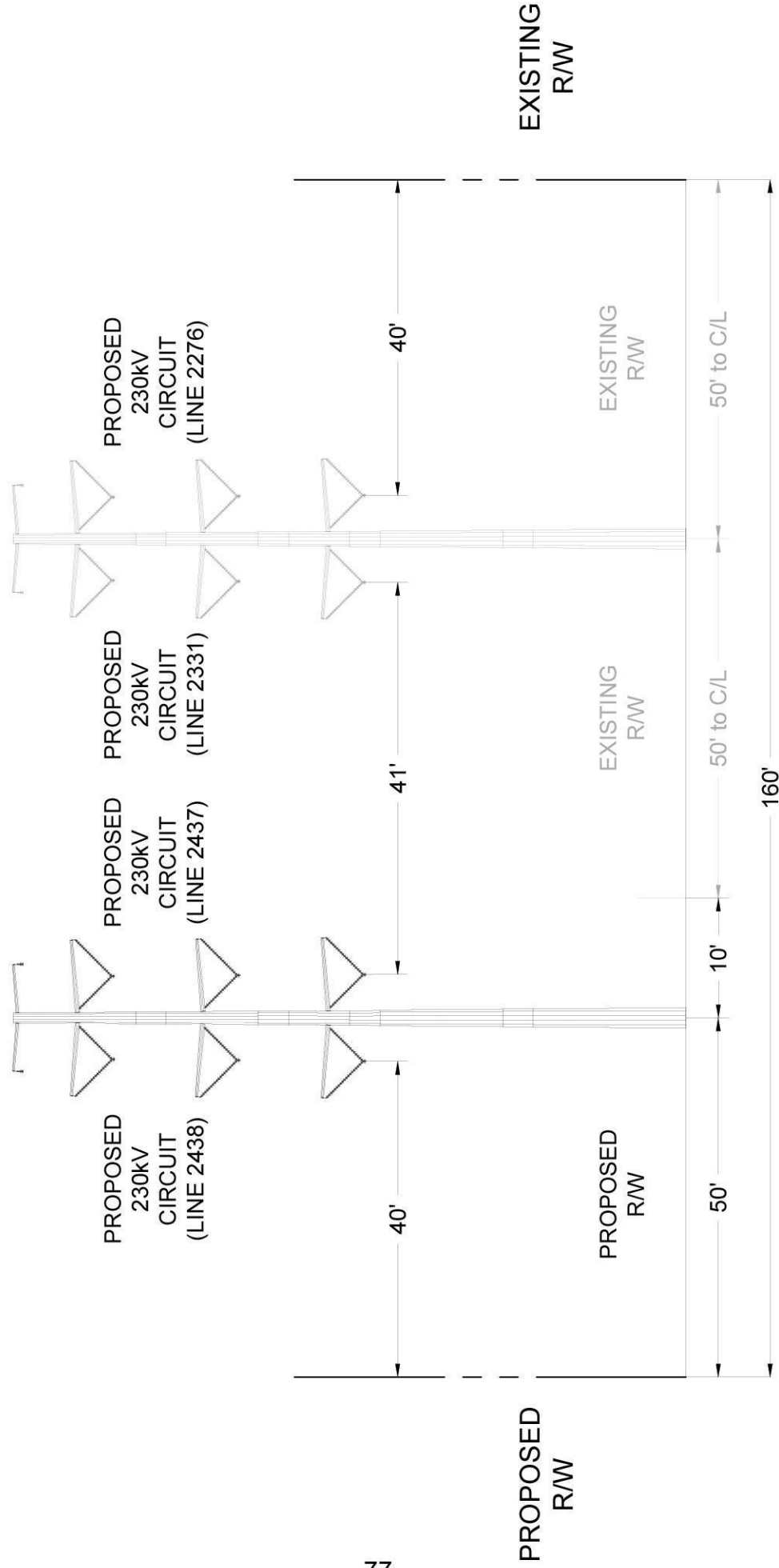
PROPOSED CONFIGURATION
(LOOKING TOWARD MT. PONY FROM OAK GREEN SUBSTATION)



TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

PROPOSED CONFIGURATION (LOOKING TOWARD MT. PONY FROM OAK GREEN SUBSTATION)

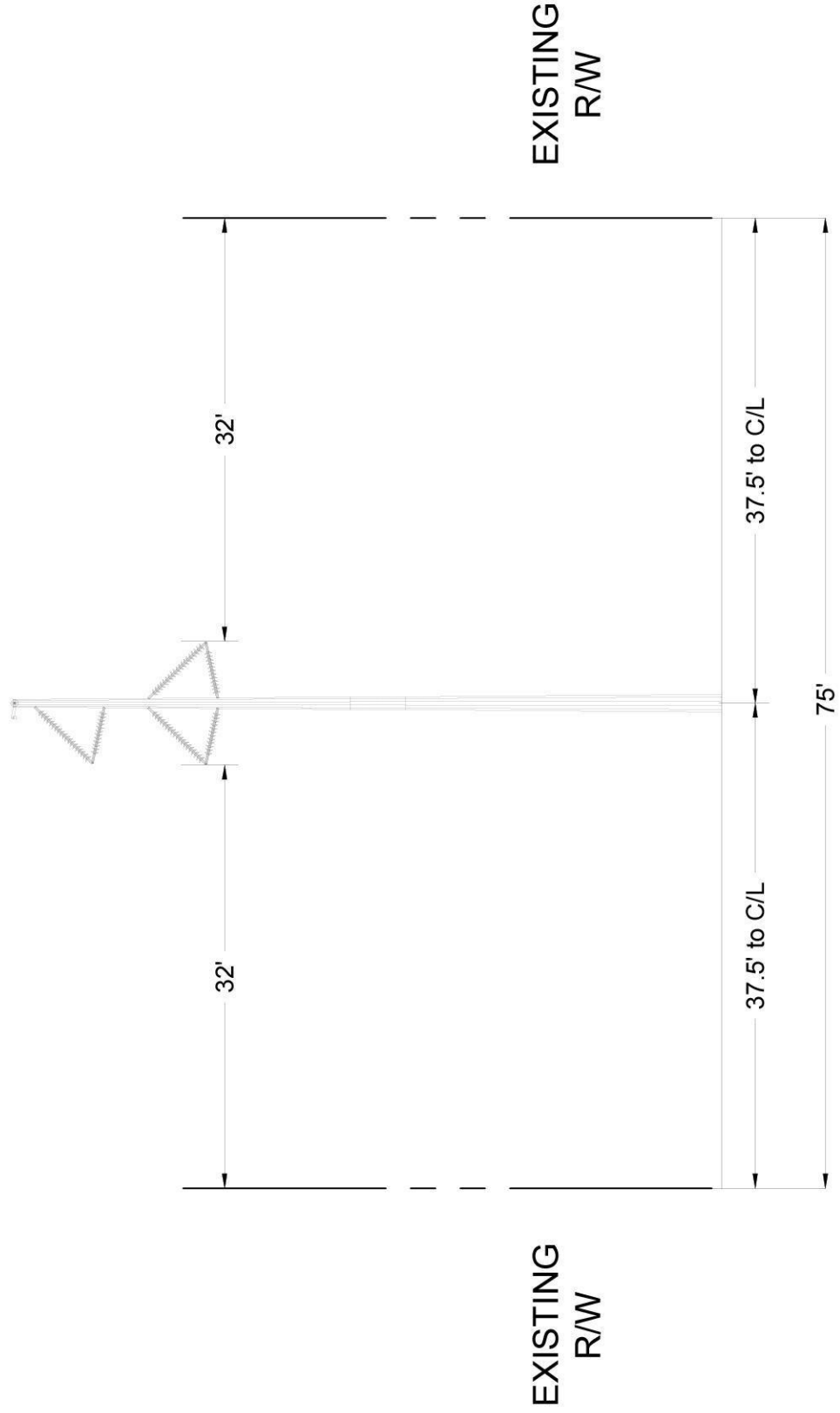


TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

EXISTING CONFIGURATION
(LOOKING TOWARD PINE GLADE FROM OAK GREEN SUBSTATION)

EXISTING 115kV
CIRCUIT
(LINE 153)



EXISTING
R/W

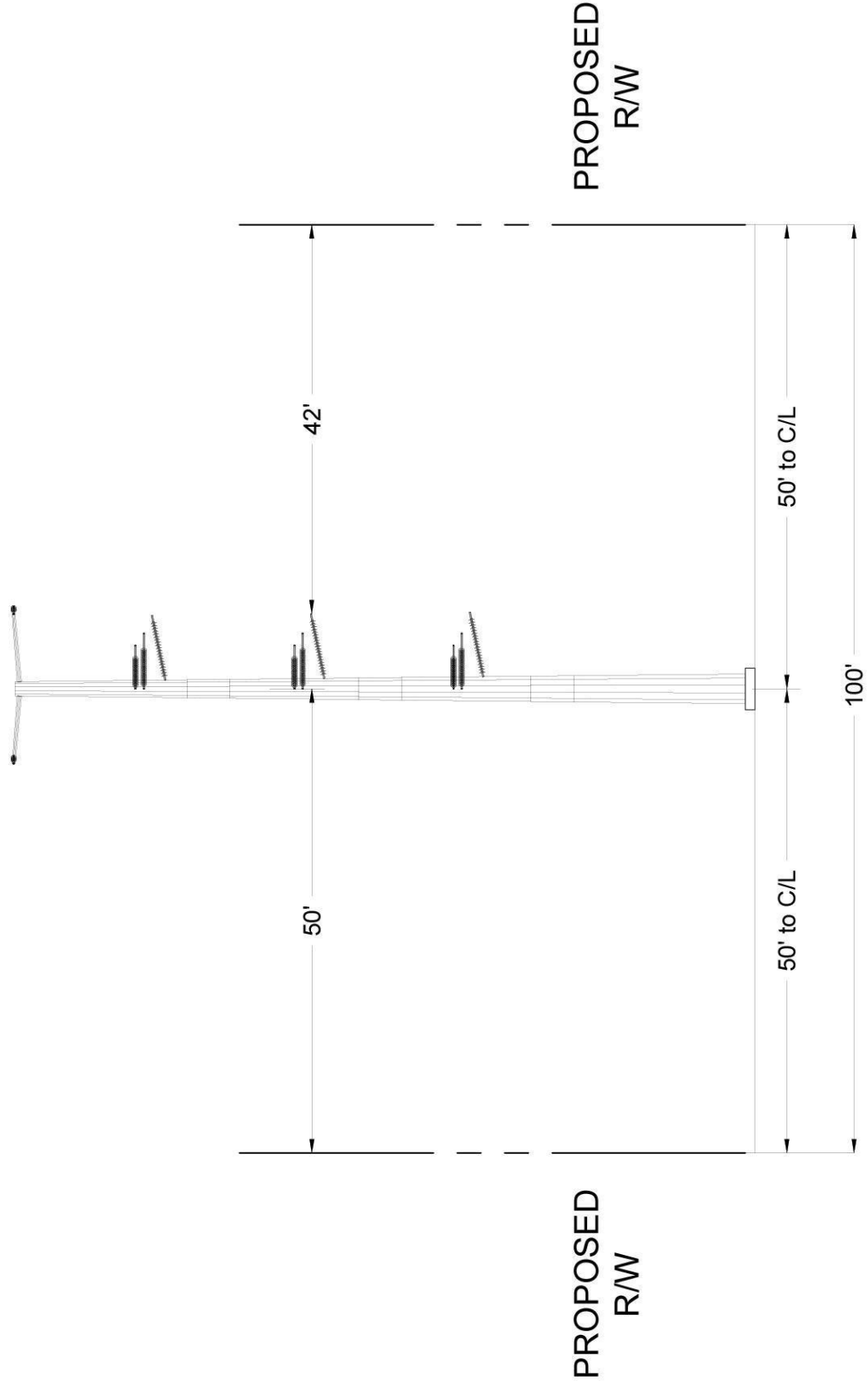
EXISTING
R/W

TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

PROPOSED CONFIGURATION
(LOOKING TOWARD PINE GLADE FROM OAK GREEN SUBSTATION)

PROPOSED 230kV CIRCUIT
(OPERATING AT 115kV - LINE 153)

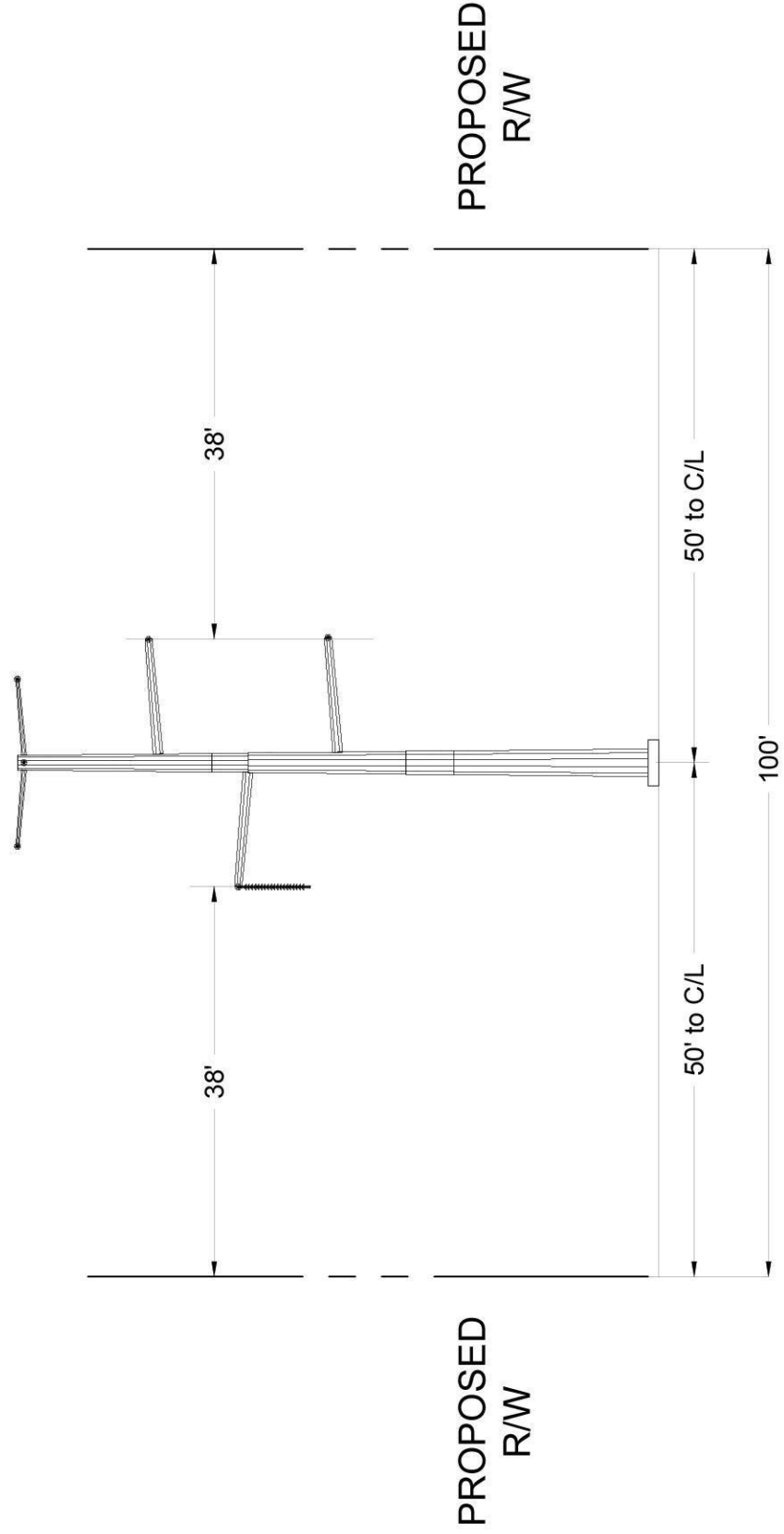


TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

PROPOSED CONFIGURATION
(LOOKING TOWARD PINE GLADE FROM OAK GREEN SUBSTATION)

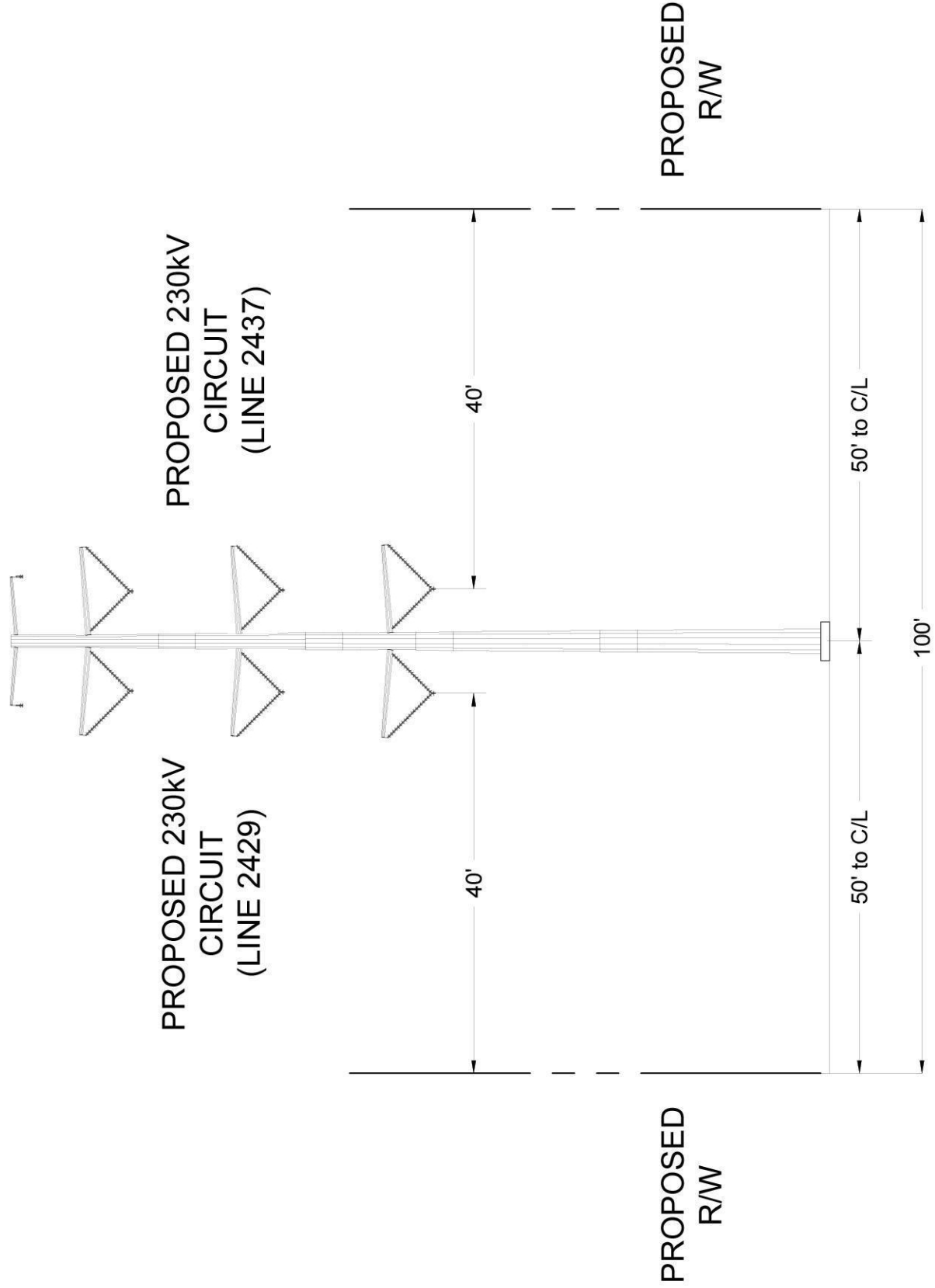
PROPOSED 230kV CIRCUIT
(OPERATING AT 115kV - LINE 153)



TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

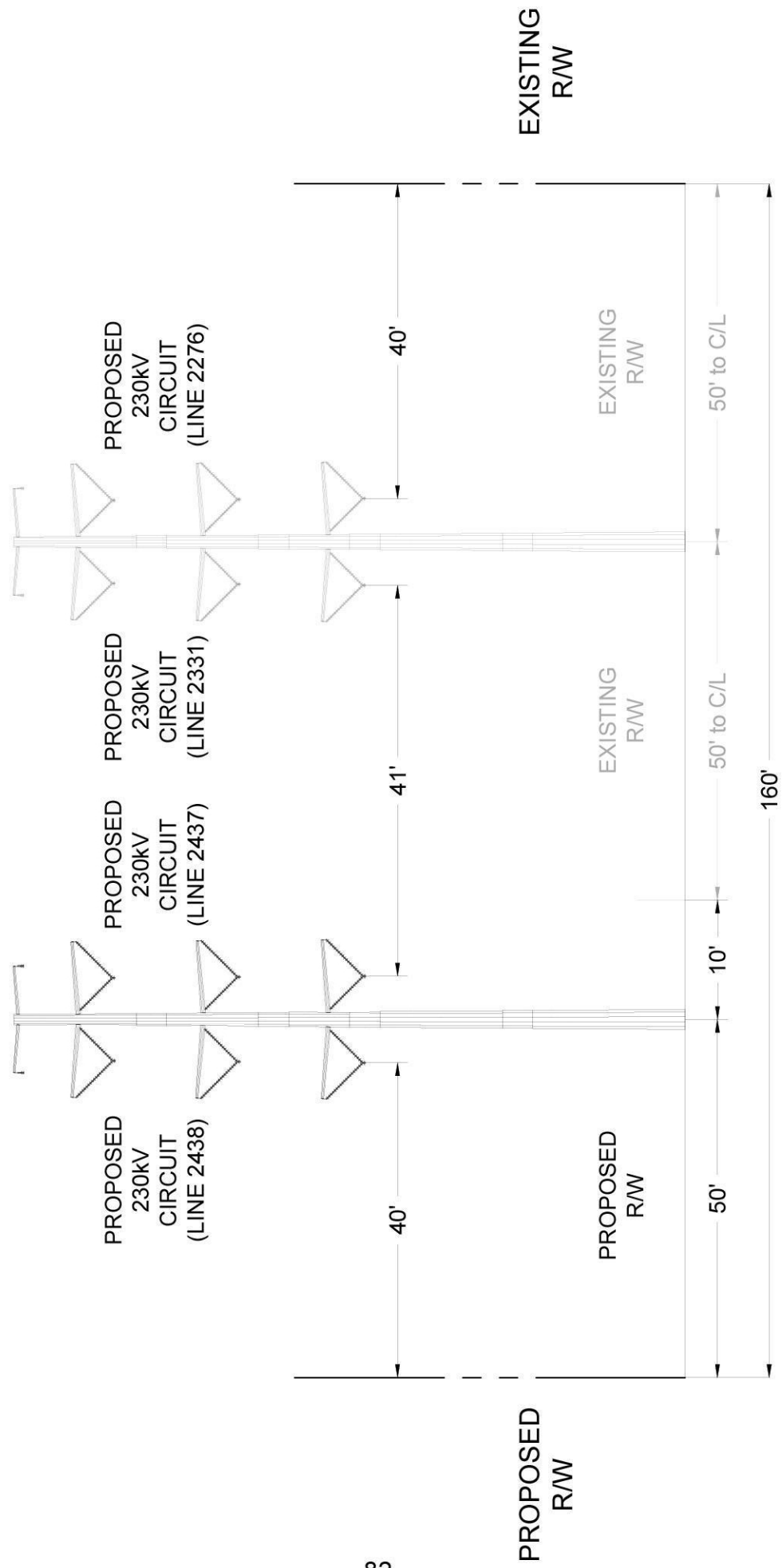
PROPOSED CONFIGURATION
(LOOKING TOWARD MCDEVITT FROM MT. PONY SUBSTATION)



TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

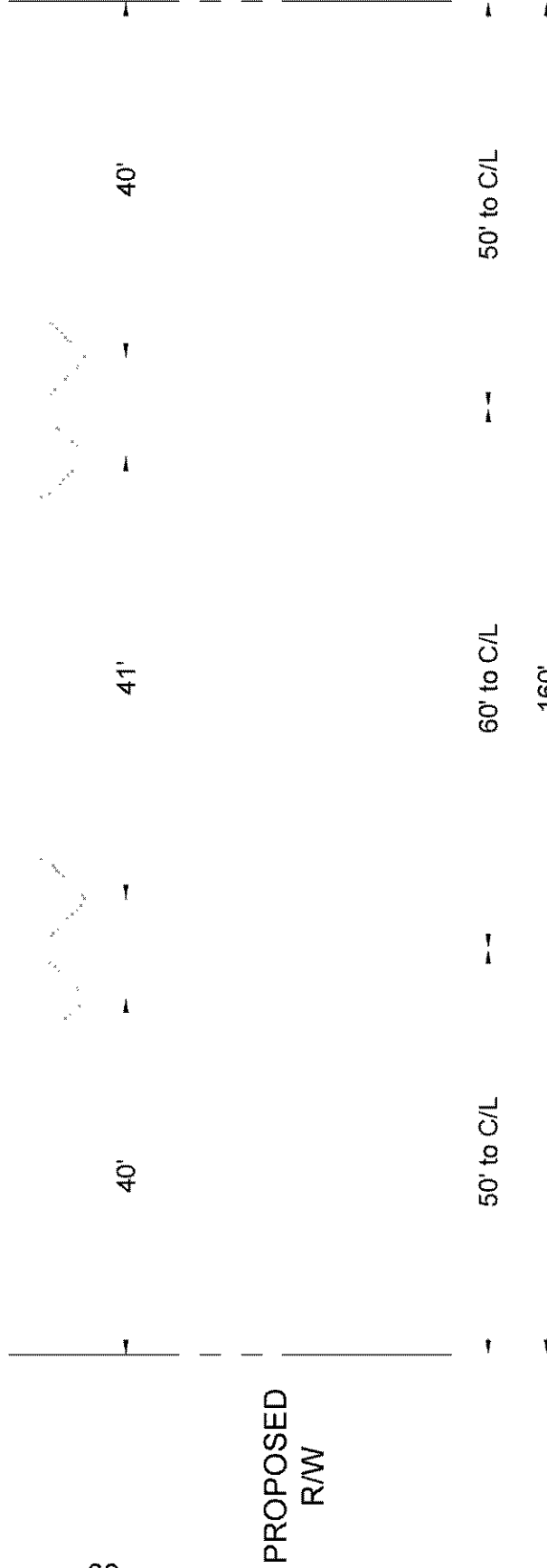
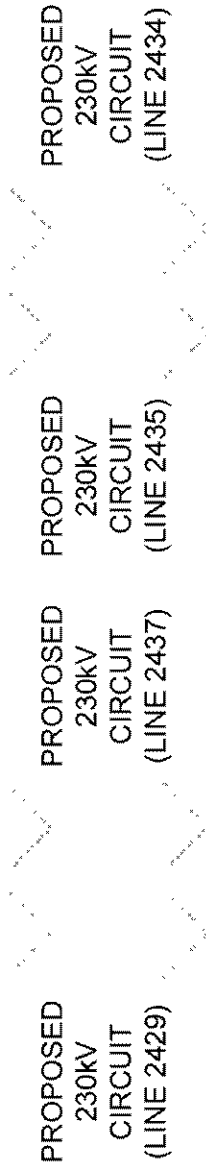
PROPOSED CONFIGURATION
(LOOKING TOWARD MCDEVITT FROM MT PONY SUBSTATION)



TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

PROPOSED CONFIGURATION (LOOKING TOWARD MCDEVITT FROM MT. PONY SUBSTATION)

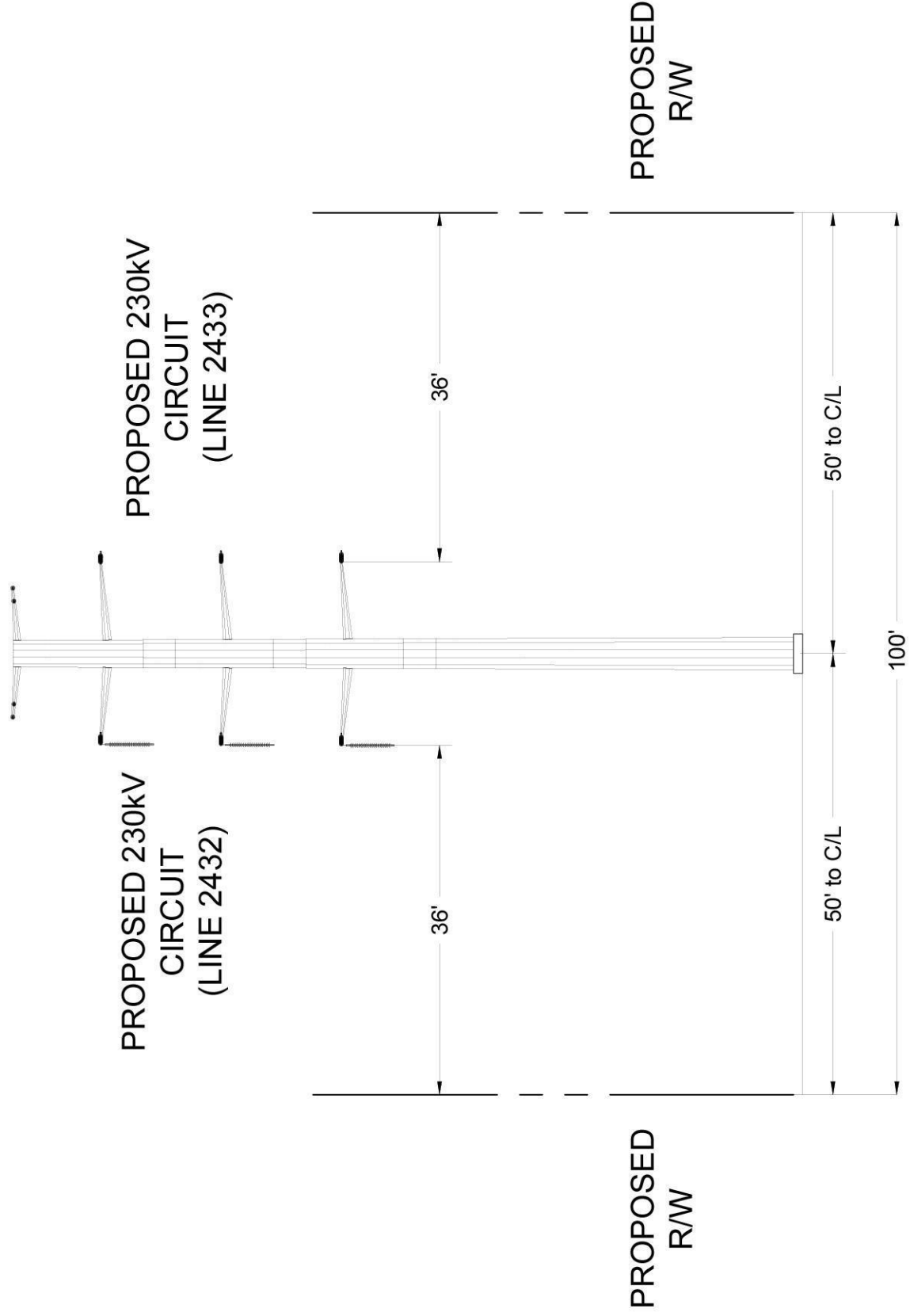


Attachment 250200055

TYPICAL RIGHT OF WAY

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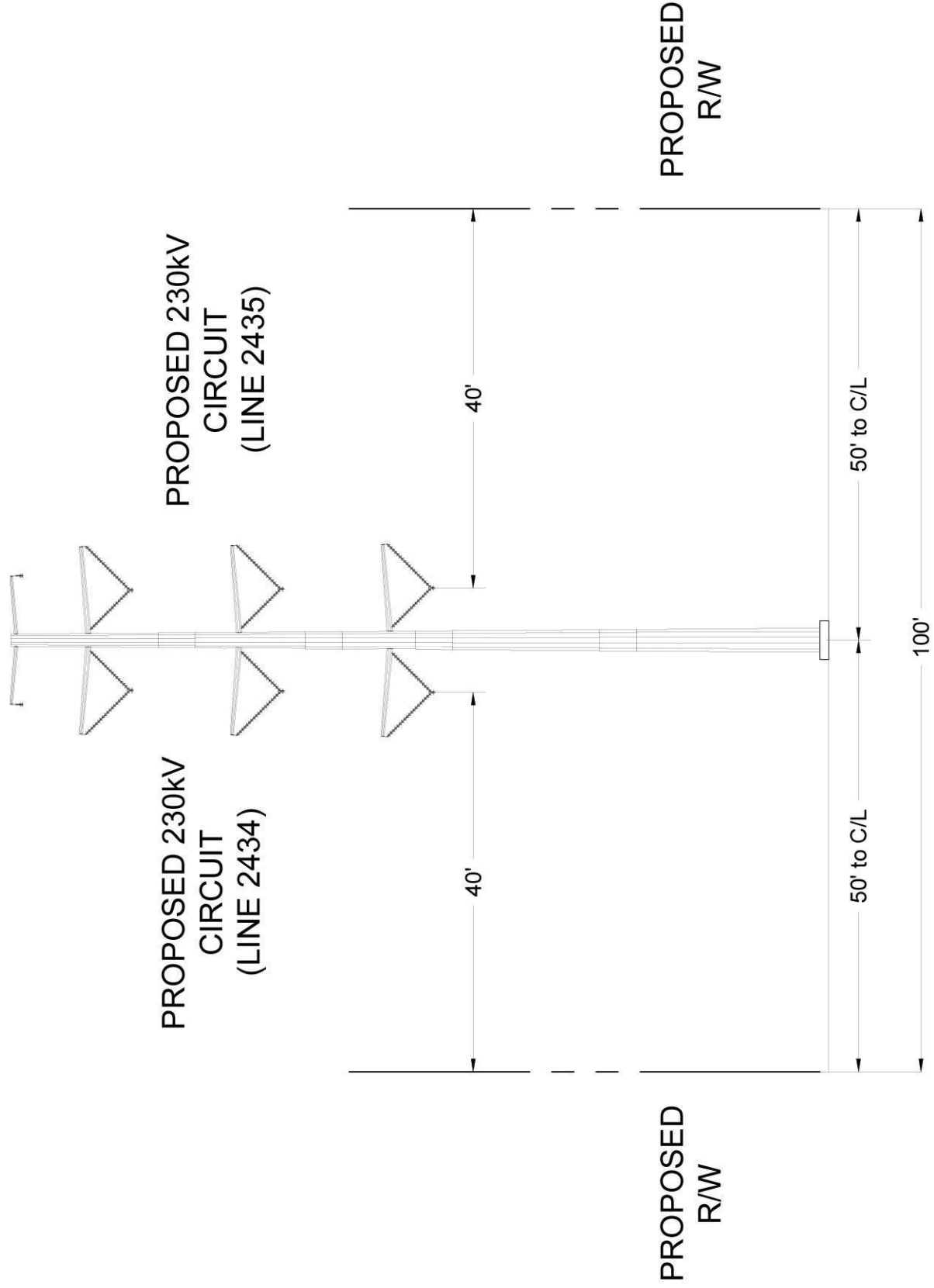
PROPOSED CONFIGURATION
(LOOKING TOWARD PALOMINO FROM CHANDLER SUBSTATION)



TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

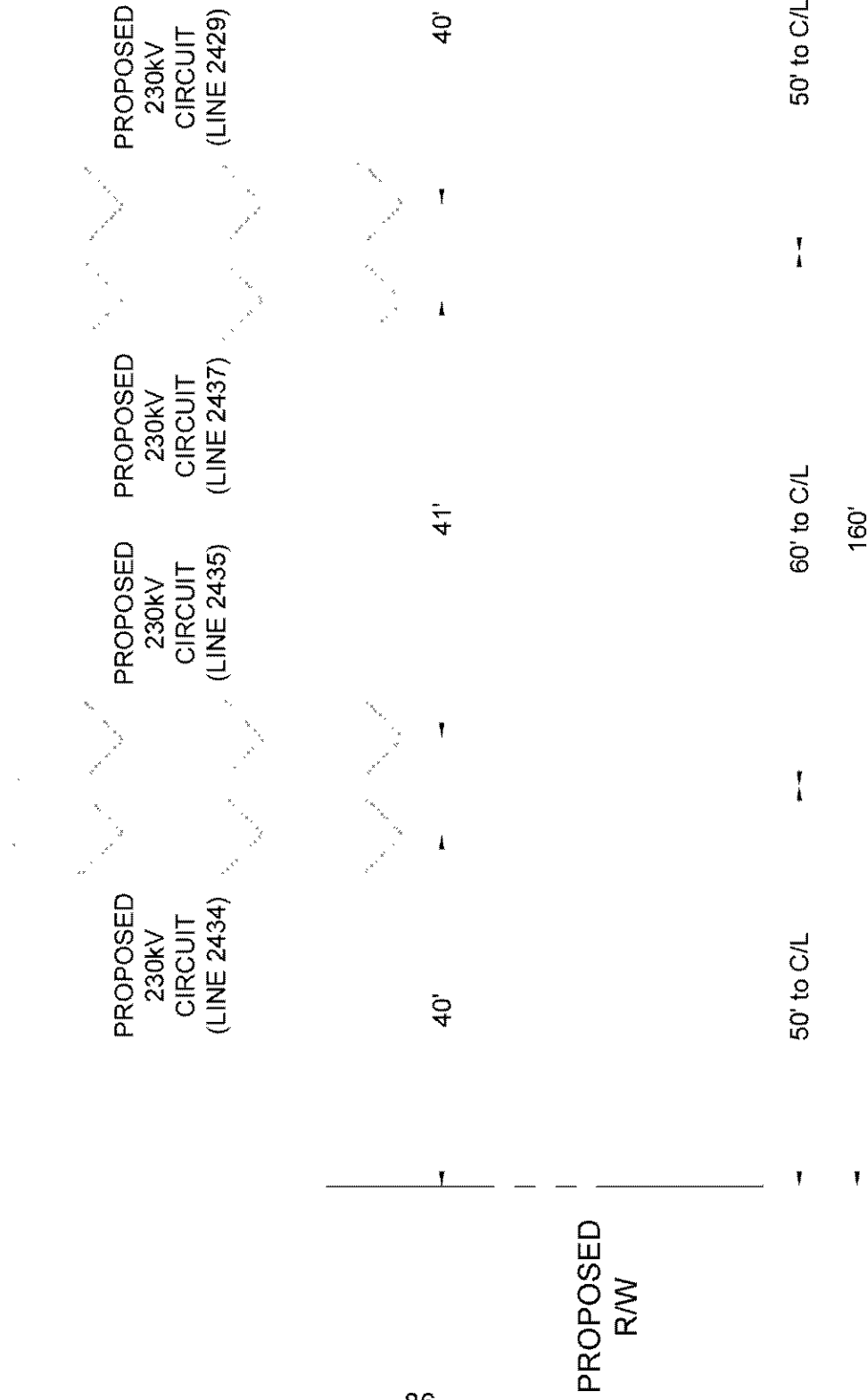
PROPOSED CONFIGURATION
(LOOKING TOWARD CIRRRUS FROM PALOMINO SUBSTATION)



TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

PROPOSED CONFIGURATION (LOOKING TOWARD CIRRRUS FROM PALOMINO SUBSTATION)



TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

II. DESCRIPTION OF THE PROPOSED PROJECT

A. Right-of-way ("ROW")

6. Detail what portions of the ROW are subject to existing easements and over what portions new easements will be needed.

Response: As discussed in Section II.A.4, portions of the Project are within existing right-of-way; however new right-of-way width will be required to accommodate the Project as proposed. See Attachment II.A.6.

Mt. Pony Lines

For the Mt. Pony Proposed Route, the amount of new right-of-way width for these lines will vary from 60 feet to 100 feet, and the new right-of-way will require new easements. Private property owners will be providing new easements to the Company.

Tech Park Lines

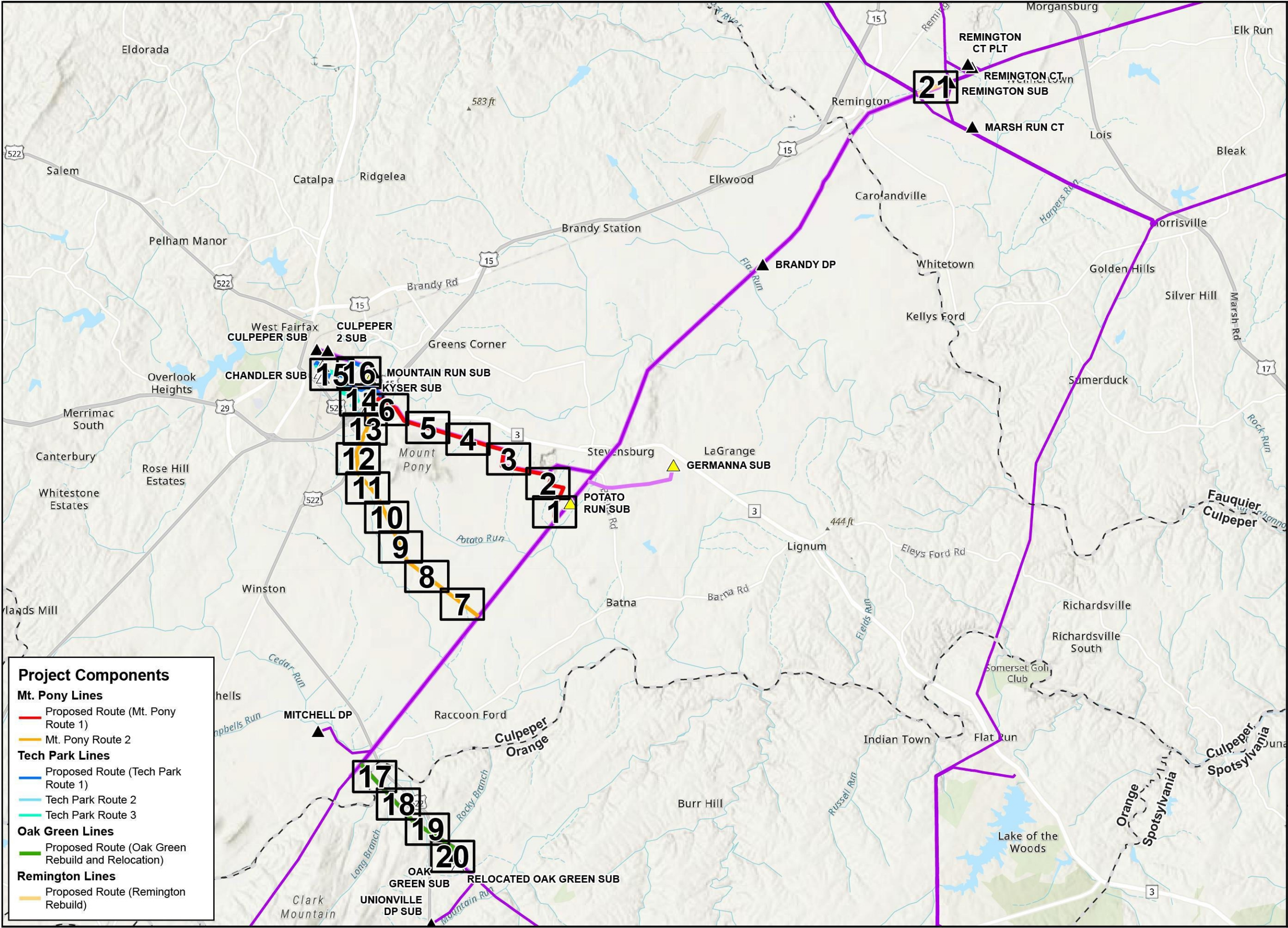
For the Tech Park Proposed Route, the amount of new right-of-way width for these lines will vary from 60 feet to 100 feet, and the new right-of-way will require new easements from the Virginia Community College System, the Germanna Real Estate Foundation, and private property owners.

Oak Green Rebuild and Relocation

Portions of the Oak Green Rebuild and Relocation will require new easements due to right-of-way width expansion along the route. Private property owners will be providing new easements to the Company. The rebuild portions of this component of the Project within VOF easements will not require new right-of-way. The Oak Green Switching Station relocation will require new easements from private property owners.

Remington Rebuild

No new easements will be required for the Remington Rebuild, as it will be constructed within existing right-of-way and Company property.



Project Components

Mt. Pony Lines

Proposed Route (Mt. Pony Route 1)

Mt. Pony Route 2

Tech Park Lines

Proposed Route (Tech Park Route 1)

Tech Park Route 2

Tech Park Route 3

Oak Green Lines

Proposed Route (Oak Green Rebuild and Relocation)

Remington Lines

Proposed Route (Remington Rebuild)

Attachment II.A.6
Right-of-Way
Subject to New and
Existing Easements

Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project
Culpeper, Fauquier, and
Orange County, Virginia

Index Map

Page Index

Existing Substation

Future Substation

Proposed Substation

Existing Dominion Transmission Line

Approved Future Lines

County Boundary

04,5009,000

Feet

1:108,000

Project Location

Virginia

Attachment II.A.6

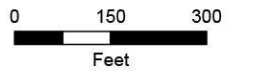


Attachment II.A.6
Right-of-Way
Subject to New and
Existing Easements

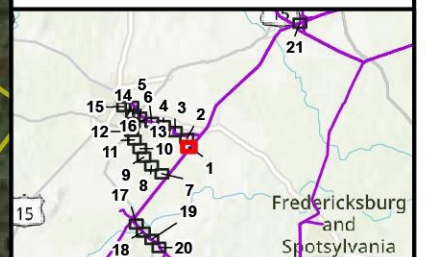
Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project
Culpeper County

Page 1 of 21

- ▲ Approved Future Substation
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- Parcel Boundary



1:3,600



Project Components

- Mt. Pony Lines**
- Proposed Route (Mt. Pony Route 1)

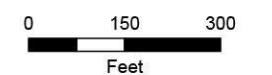


Attachment II.A.6
Right-of-Way
Subject to New and
Existing Easements

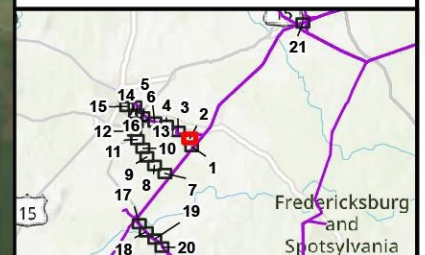
Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project
Culpeper County

Page 2 of 21

- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- New Company Easement (60 Feet Expansion)
- Parcel Boundary
- VA Outdoors Foundation Easement



1:3,600



Project Components

- Mt. Pony Lines**
- Proposed Route (Mt. Pony Route 1)

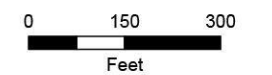


Attachment II.A.6
Right-of-Way
Subject to New and
Existing Easements

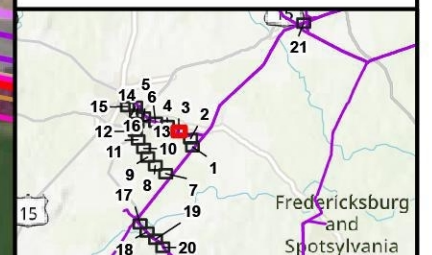
Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project
Culpeper County

Page 3 of 21

- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (60 Feet Expansion)
- Parcel Boundary



1:3,600



Project Components

- Mt. Pony Lines**
- Proposed Route (Mt. Pony Route 1)

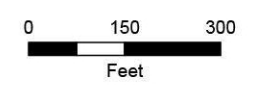


Attachment II.A.6
Right-of-Way
Subject to New and
Existing Easements

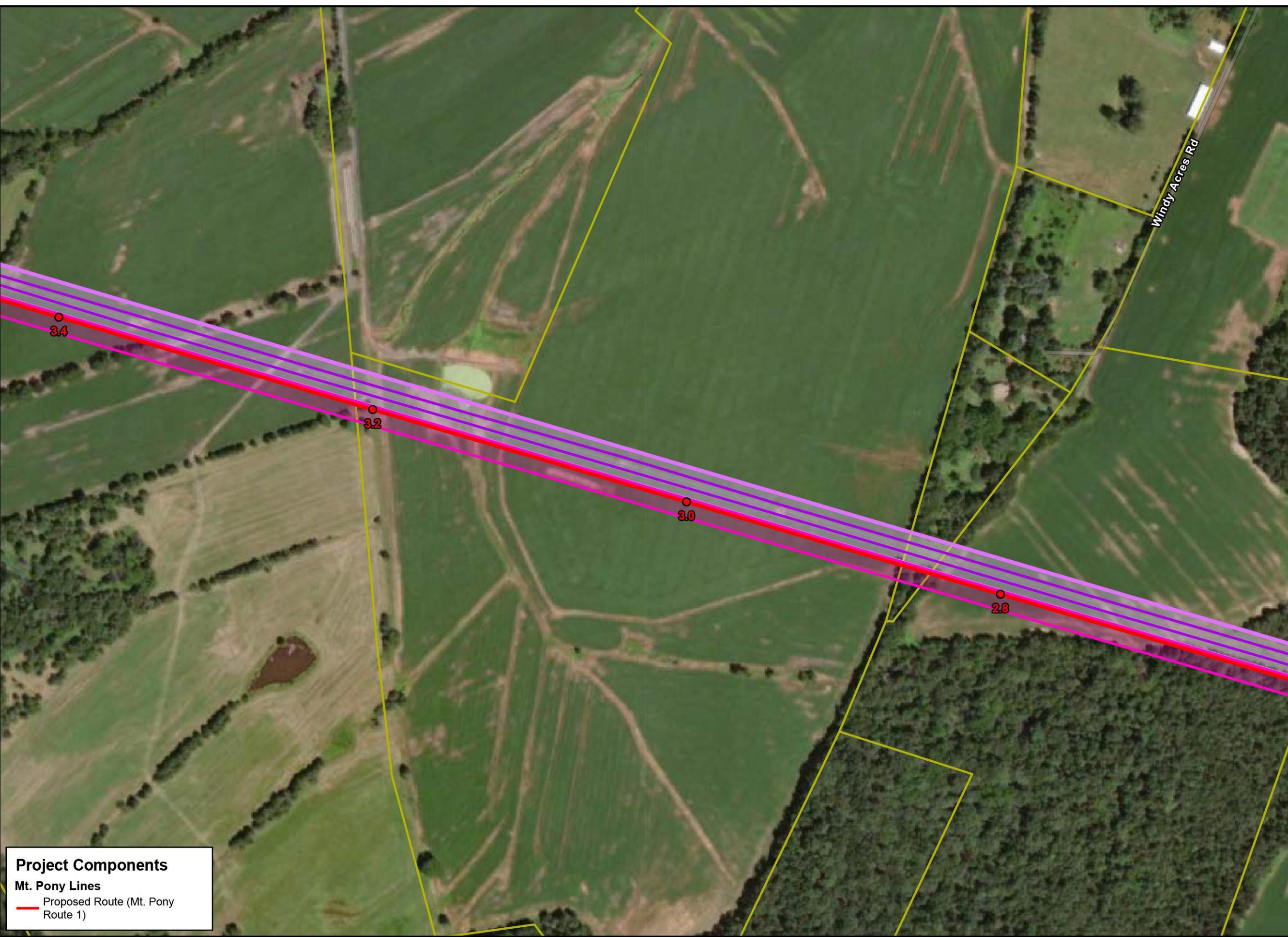
Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project
Culpeper County

Page 4 of 21

- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (60 Feet Expansion)
- Parcel Boundary



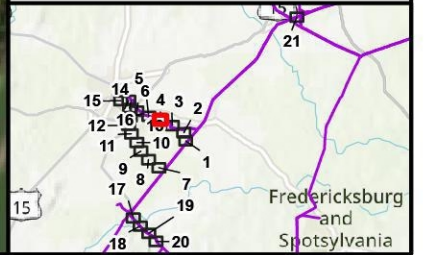
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Project Components

Mt. Pony Lines

— Proposed Route (Mt. Pony Route 1)



92

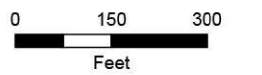


Attachment II.A.6 Right-of-Way Subject to New and Existing Easements

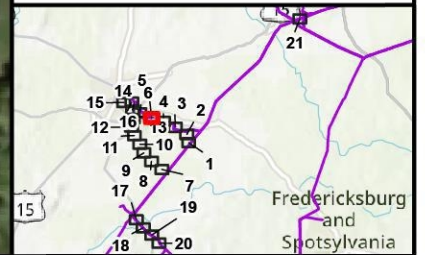
Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project
Culpeper County

Page 5 of 21

- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (60 Feet Expansion)
- Parcel Boundary



1:3,600



Project Components

- Mt. Pony Lines**
- Proposed Route (Mt. Pony Route 1)





Attachment II.A.6 Right-of-Way Subject to New and Existing Easements

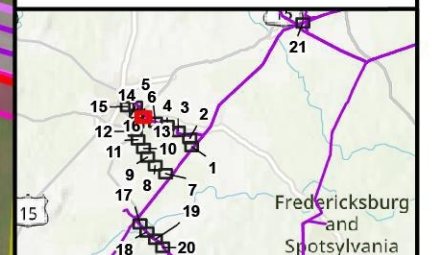
**Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project**
Culpeper County

Page 6 of 21

- Proposed Substation
- Proposed Substation Footprint
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- New Company Easement (60 Feet Expansion)
- Proposed Data Center Building
- Parcel Boundary
- State Lands

0 150 300
Feet

1:3,600



Project Components

Mt. Pony Lines

- Proposed Route (Mt. Pony Route 1)
- Mt. Pony Route 2

Tech Park Lines

- Proposed Route (Tech Park Route 1)
- Tech Park Route 2
- Tech Park Route 3

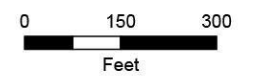


Attachment II.A.6
Right-of-Way
Subject to New and
Existing Easements

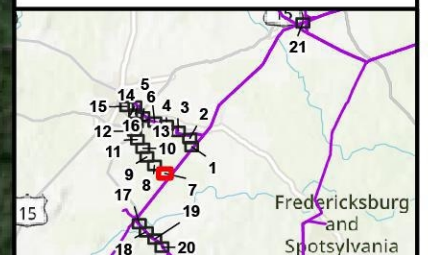
Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project
Culpeper County

Page 7 of 21

- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- Parcel Boundary



1:3,600



Project Components
— Mt. Pony Route 2

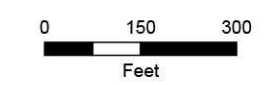


Attachment II.A.6
Right-of-Way
Subject to New and
Existing Easements

Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project
Culpeper County

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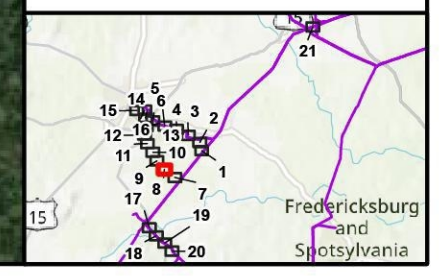
- Milepost
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- Parcel Boundary



1:3,600



Project Components
Mt. Pony Route 2



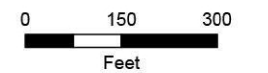


**Attachment II.A.6
Right-of-Way
Subject to New and
Existing Easements**

**Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project**
Culpeper County

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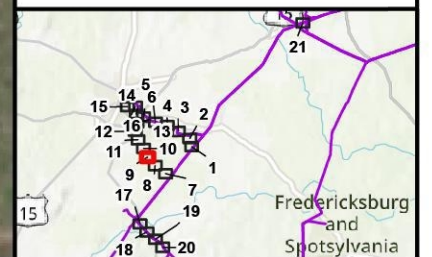
- Milepost
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- Parcel Boundary



1:3,600



Project Components
Mt. Pony Route 2



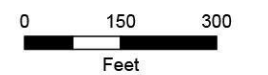


Attachment II.A.6
Right-of-Way
Subject to New and
Existing Easements

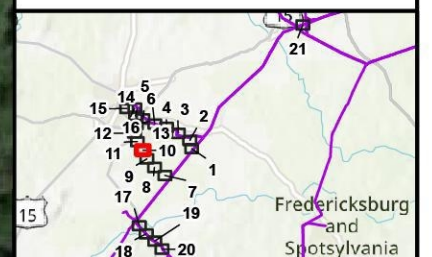
Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project
Culpeper County

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- Milepost
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- Parcel Boundary



1:3,600



Project Components
Mt. Pony Route 2

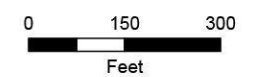


Attachment II.A.6
Right-of-Way
Subject to New and
Existing Easements

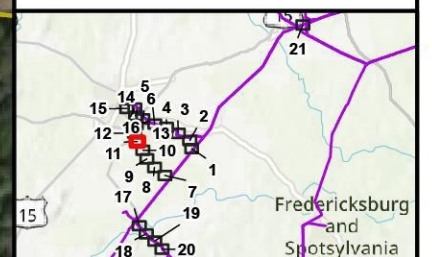
Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project
Culpeper County

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- Milepost
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- Parcel Boundary



1:3,600



Project Components

— Mt. Pony Route 2

100



Project Components

— Mt. Pony Route 2

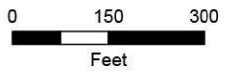


Attachment II.A.6
Right-of-Way
Subject to New and
Existing Easements

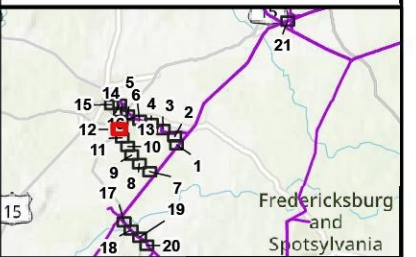
Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project
Culpeper County

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- Milepost
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- Parcel Boundary
- Federal Lands



1:3,600



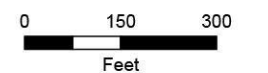


Attachment II.A.6
Right-of-Way
Subject to New and
Existing Easements

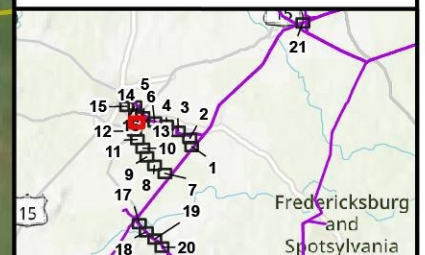
Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project
Culpeper County

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- Milepost
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- Proposed Data Center Building
- Parcel Boundary
- Federal Lands
- Local Lands



1:3,600



Project Components

- Mt. Pony Route 2
- Tech Park Route 2
- Tech Park Route 3



Attachment II.A.6 Right-of-Way Subject to New and Existing Easements

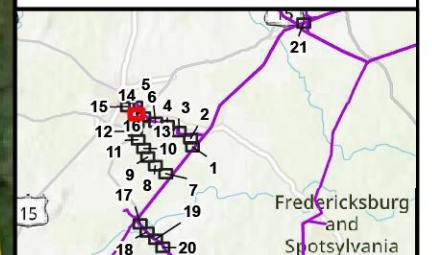
**Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project**
Culpeper County

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- Proposed Substation
- Proposed Substation Footprint
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- New Company Easement (60 Feet Expansion)
- Proposed Data Center Building
- Parcel Boundary
- State Lands
- Local Lands

0 150 300
Feet

1:3,600



Project Components

Mt. Pony Lines

- Proposed Route (Mt. Pony Route 1)
- Mt. Pony Route 2

Tech Park Lines

- Proposed Route (Tech Park Route 1)
- Tech Park Route 2
- Tech Park Route 3



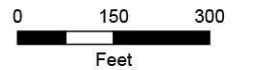


Attachment II.A.6 Right-of-Way Subject to New and Existing Easements

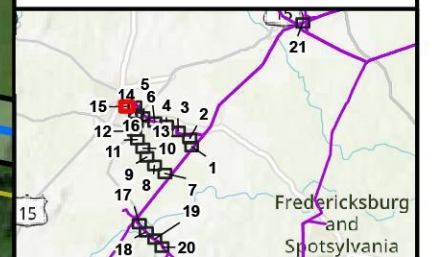
Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project
Culpeper County

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- △ Proposed Substation
- Proposed Substation Footprint
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- New Company Easement (60 Feet Expansion)
- Proposed Data Center Building
- Parcel Boundary
- Federal Lands
- State Lands
- Local Lands



1:3,600



Project Components

Tech Park Lines

- Proposed Route (Tech Park Route 1)
- Tech Park Route 2
- Tech Park Route 3



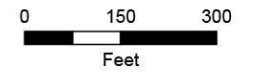


Attachment II.A.6 Right-of-Way Subject to New and Existing Easements

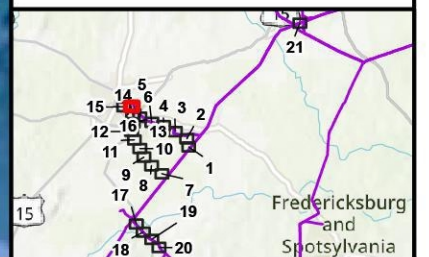
Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project
Culpeper County

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- ▲ Existing Substation
- ▲ Approved Future Substation
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- New Company Easement (60 Feet Expansion)
- Proposed Data Center Building
- Parcel Boundary
- State Lands
- Local Lands



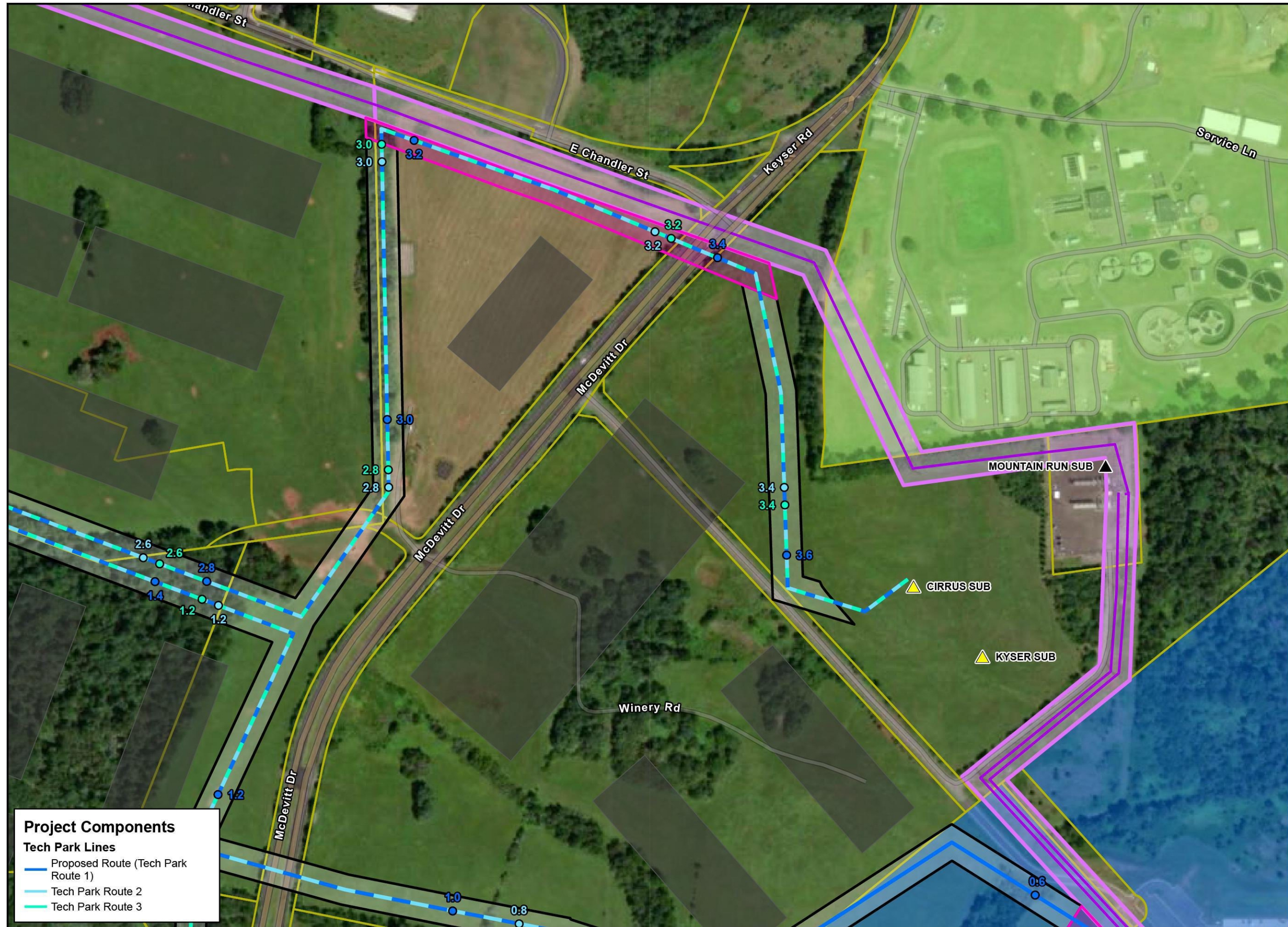
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Project Components

Tech Park Lines

- Proposed Route (Tech Park Route 1)
- Tech Park Route 2
- Tech Park Route 3



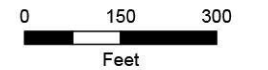


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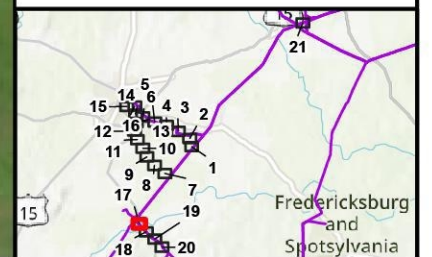
Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project
 Culpeper and Orange Counties

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- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (Variable Width Expansion)
- Existing Company Easement Crossed (75 Feet Wide)
- County Boundary
- Parcel Boundary
- VA Outdoors Foundation Easement



1:3,600



Project Components

Oak Green Lines

- Proposed Route (Oak Green Rebuild and Relocation)



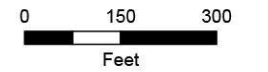


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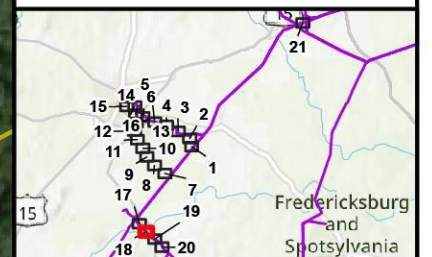
Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project
 Orange County

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- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (Variable Width Expansion)
- Existing Company Easement Crossed (75 Feet Wide)
- Parcel Boundary
- VA Outdoors Foundation Easement



1:3,600



Project Components
Oak Green Lines
 Proposed Route (Oak Green Rebuild and Relocation)



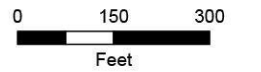


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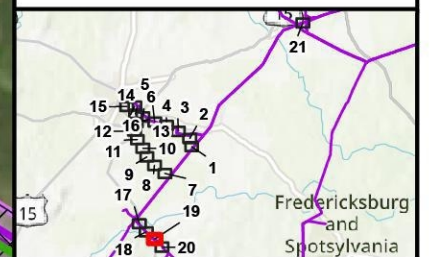
Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project
 Orange County

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- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (Variable Width Expansion)
- ⊠ Existing Company Easement Crossed (75 Feet Wide)
- ▭ Parcel Boundary



1:3,600



Project Components

Oak Green Lines

- Proposed Route (Oak Green Rebuild and Relocation)



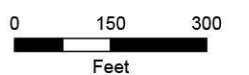


Attachment II.A.6 **Right-of-Way** **Subject to New and** **Existing Easements**

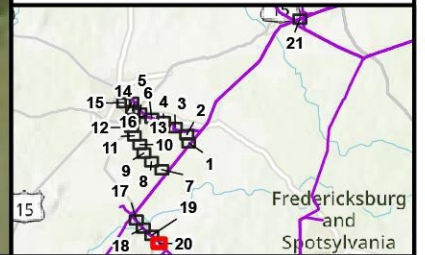
Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project
 Orange County

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- ▲ Existing Substation
- △ Proposed Substation
- Proposed Substation Footprint
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- ▭ New Company Easement (Variable Width)
- ▭ New Company Easement (Variable Width Expansion)
- ▭ Existing Company Easement Crossed (75 Feet Wide)
- ▭ Parcel Boundary



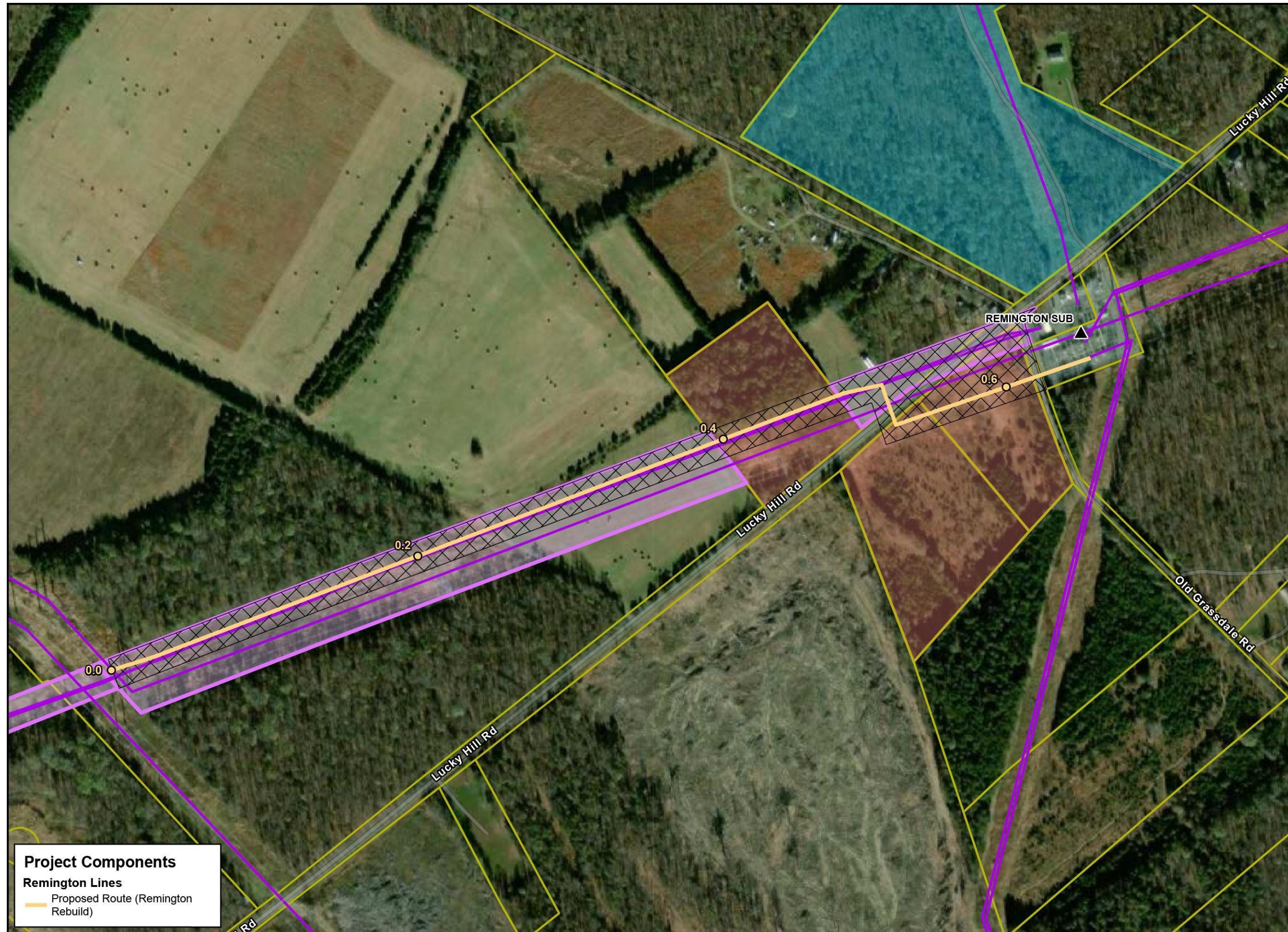
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Project Components

Oak Green Lines

- Proposed Route (Oak Green Rebuild and Relocation)

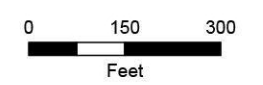


Attachment II.A.6
Right-of-Way
Subject to New and
Existing Easements

Culpeper Technology
Zone 230 kV Loop &
Line #2 Conversion Project
Fauquier County

Page 21 of 21

- ▲ Existing Substation
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- ▨ Existing Company Easement Crossed (Variable Width)
- Company Owned Parcel
- ▭ Parcel Boundary
- Fauquier County BOS Easement



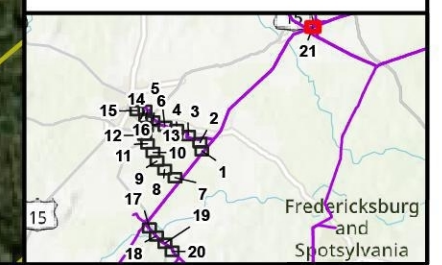
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Project Components

Remington Lines

- Proposed Route (Remington Rebuild)



II. DESCRIPTION OF THE PROPOSED PROJECT

A. Right-of-way ("ROW")

7. Detail the proposed ROW clearing methods to be used and the ROW restoration and maintenance practices planned for the proposed project.

Response: The rights-of-way for the Mt. Pony Proposed Route and the Tech Park Proposed Route will be 100 feet in width except in areas where the proposed right-of-way will be able to collocate adjacent to the existing Cirrus-Keyser corridor, where the new right-of-way will be 60 feet wide, creating a 160-foot-wide corridor in these collocated areas. Based on existing conditions, the Company anticipates tree clearing will be required along a portion of these Project routes.

Trimming of tree limbs along the edge of the right-of-way also may be conducted to support construction activities for the Project. For any such minimal clearing within the right-of-way where development has already occurred, trees will be cut to no more than three inches above ground level. Trees located outside of the right-of-way that are tall enough to potentially impact the transmission facilities, commonly referred to as “danger trees,” may also need to be cut. Danger trees will be cut to be no more than three inches above ground level, limbed, and will remain where felled. Debris that is adjacent to homes will be disposed of by chipping or removal. In other areas, debris may be mulched or chipped as practicable. Danger tree removal will be accomplished by hand in wetland areas and within 100 feet of streams, if applicable. Care will be taken not to leave debris in streams or wetland areas. Matting will be used for heavy equipment in these areas. Erosion control devices will be used where applicable on an ongoing basis during all clearing and construction activities accompanied by weekly Virginia Stormwater Management Program inspections.

Erosion control will be maintained and temporary stabilization for all soil disturbing activities will be used until the right-of-way has been restored. Upon completion of the Project, the Company will restore the right-of-way utilizing site rehabilitation procedures outlined in the Company’s *Standards & Specifications for Erosion & Sediment Control and Stormwater Management for Construction and Maintenance of Linear Electric Transmission Facilities* that was approved by the Virginia Department of Environmental Quality (“DEQ”). Time of year and weather conditions may affect when permanent stabilization takes place.

This right-of-way will continue to be maintained on a regular cycle to prevent interruptions to electric service and provide ready access to the right-of-way to patrol and make emergency repairs. Periodic maintenance to control woody growth will consist of hand cutting, machine mowing and/or herbicide application.

II. DESCRIPTION OF THE PROPOSED PROJECT

A. Right-of-way ("ROW")

8. Indicate the permitted uses of the proposed ROW by the easement landowner and the Applicant.

Response: Any non-transmission use will be permitted that:

- Is in accordance with the terms of the easement agreement for the right-of-way;
- Is consistent with the safe maintenance and operation of the transmission lines;
- Will not restrict future line design flexibility; and
- Will not permanently interfere with future construction.

Subject to the terms of the easement, examples of typical permitted uses include but are not limited to:

- Agriculture
- Hiking Trails
- Fences
- Perpendicular Road Crossings
- Perpendicular Utility Crossings
- Residential Driveways
- Wildlife / Pollinator Habitat

II. DESCRIPTION OF THE PROPOSED PROJECT

A. Right-of-way ("ROW")

9. **Describe the Applicant's route selection procedures. Detail the feasible alternative routes considered. For each such route, provide the estimated cost and identify and describe the cost classification (e.g. "conceptual cost," "detailed cost," etc.). Describe the Applicant's efforts in considering these feasible alternatives. Detail why the proposed route was selected and other feasible alternatives were rejected. In the event that the proposed route crosses, or one of the feasible routes was rejected in part due to the need to cross, land managed by federal, state, or local agencies or conservation easements or open space easements qualifying under §§ 10.1-1009 – 1016 or §§ 10.1-1700 – 1705 of the Code (or a comparable prior or subsequent provision of the Code), describe the Applicant's efforts to secure the necessary ROW.**

Response: This Project involves both new transmission lines in new right-of-way (i.e., the Mt. Pony Lines and Tech Park Lines), a rebuild and expansion of existing right-of-way (i.e., Oak Green Rebuild and Relocation), and rebuild within existing right-of-way (i.e., Remington Rebuild). The route selection process for each is outlined below, followed by the identified route options.

The Company's route selection for new transmission lines typically begins with identification of the project "origin" and "termination" points provided by the Company's Transmission Planning Department. This is followed by the development of a study area for the project. The study area represents a circumscribed geographic area from which potential routes suitable for a transmission line can be identified.

For this Project, the Company retained the services of Environmental Resources Management ("ERM") to help collect information within the study area, identify potential routes, perform a routing analysis comparing the route alternatives, and document the routing efforts in an Environmental Routing Study. After review of the new build options, the Company identified a preferred electrical option for the Project, which is located in Culpeper County, the Town of Culpeper, Orange County, and Fauquier County, Virginia.

For the Mt. Pony Lines and Tech Park Lines, the study area encompasses an area containing the Project origin and termination points, and is bounded by the following features:

- Railroad operated by Norfolk Southern to the north and west;
- Greens Corner Road and the town of Stevensburg to the northeast;