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May 9, 2025

BY ELECTRONIC FILING
Hon. Bernard J. Logan, Clerk
State Corporation Commission
Tyler Building, 1st Floor
1300 East Main Street
Richmond, VA 23219

Re: Application of Virginia Electric and Power Company for Approval and Certification of Electric Transmission Facilities: Chickahominy-Elmont Line #557 Rebuild and New Future 230 kV Lines – Case No. PUR-2025-00077.

Dear Mr. Logan:

Please find enclosed for electronic filing in the above-captioned proceeding the application for approval of electric facilities on behalf of Virginia Electric and Power Company (the "Company"). This filing contains the Application, Appendix, Direct Testimony, and DEQ Supplement, 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 Charles City, Henrico, and Hanover Counties, 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 email to the Commission's Division of Public Utility Regulation on May 8, 2025.

If you have any questions or need further information, please feel free to contact us.

Sincerely,

/s/ Timothy L. McHugh
Timothy L. McHugh

/s/ Andrew J. Flavin
Andrew J. Flavin

Enclosures

cc: William H. Chambliss, Esq.
Mr. David Essah (without enclosures)
Mr. Neil Joshipura (without enclosures)
Mr. Michael A. Cizenski (without enclosures)
David J. DePippo, Esq.
Charlotte P. McAfee, Esq.
Annie C. Larson, Esq.
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Dominion Energy®

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

Before the State Corporation Commission of Virginia

Chickahominy-Elmont Line #557 Rebuild and New Future 230 kV Lines

Application No. 352

Case No. PUR-2025-00077

Filed: May 9, 2025

Volume 1 of 2

COMMONWEALTH OF VIRGINIA
BEFORE THE
STATE CORPORATION COMMISSION

APPLICATION OF

VIRGINIA ELECTRIC AND POWER COMPANY

FOR APPROVAL AND CERTIFICATION
OF ELECTRIC TRANSMISSION FACILITIES

Chickahominy-Elmont Line #557 Rebuild
and New Future 230 kV Lines

Application No. 352

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Filed: May 9, 2025

COMMONWEALTH OF VIRGINIA

STATE CORPORATION COMMISSION

APPLICATION OF	)	
	)	
VIRGINIA ELECTRIC AND POWER COMPANY	)	Case No. PUR-2025-00077
	)	
For approval and certification of electric transmission facilities: Chickahominy-Elmont Line #557 Rebuild and New Future 230 kV Lines	)	

APPLICATION OF VIRGINIA ELECTRIC AND POWER COMPANY FOR APPROVAL AND CERTIFICATION OF ELECTRIC TRANSMISSION FACILITIES: CHICKAHOMINY-ELMONT LINE #557 REBUILD AND NEW FUTURE 230 KV LINES

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 shows 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. In order to perform its legal duty to furnish adequate and reliable electric service, Dominion Energy Virginia must, from time to time, replace or construct new transmission facilities in its system.

2. In this Application, in order to maintain the structural integrity and reliability of the networked transmission system in compliance with mandatory North American Electric Reliability Corporation ("NERC") Reliability Standards, and provide for future load growth in the Richmond Load Area, Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company") proposes, in Charles City, Henrico, and Hanover Counties,[1] to:

- Rebuild, within existing right-of-way, approximately 27.6 miles of the existing 500 kilovolt ("kV") Chickahominy-Elmont Line #557 by removing the existing 500 kV single circuit COR-TEN® structures and replacing them with new 500/230 kV double circuit weathering steel H-frame structures.[2]

- Install approximately 8.1 miles of idle 230 kV conductors on the vacant arms of the structures of the Company's existing 230 kV Chickahominy-Elmont Line #2075,[3] between

[1] A short, approximately 0.2-mile segment of the Rebuild Project right-of-way traverses a small area of land that has not been incorporated into any of the surrounding localities. Although this area is not part of New Kent County or any other county, the Company has included New Kent County in its project maps, provided New Kent County officials with notice of the Rebuild Project, and notified New Kent County residents about the Rebuild Project. Because the land in question is unincorporated, the Company does not consider the Rebuild Project to cross New Kent County. Consequently, the Company has not taken further action to otherwise include New Kent County into this Appendix.

[2] As part of the Rebuild Project, the Company proposes to install 27.6 miles of idle 230 kV conductors on the lower level of the Company's proposed 500/230 kV double circuit structures between Chickahominy Substation and Elmont Substation. As explained in this Executive Summary and Section I.A, this work is needed so that the Company can continue to provide reliable service for the significant load growth anticipated in the Rebuild Project area. The Company will not energize the new conductors until the anticipated load materializes and the substation terminations are available.

[3] Heading north after exiting Chickahominy Substation, 500 kV Line #557 and 230 kV Line #2075 parallel each other for approximately 8.1 miles within the same corridor, until diverging at Structure #2075/148 (Structure #557/264). In addition to installing idle conductors on the vacant arms of Line #2075, the Company intends to opportunistically reconductor Line #2075 between Chickahominy Substation and Structure #2075/150. The Company considers this reconductoring to qualify as an "ordinary extension[] or improvement[] in the usual course of business" (*i.e.*, "ordinary course") pursuant to Va. Code § 56-265.2 A 1 and, therefore, does not require approval pursuant to Va. Code § 56-46.1 B or a certificate of public convenience and necessity ("CPCN") from the Commission. This is consistent with the Staff's July 6, 2017 guidance (available at https://www.scc.virginia.gov/media/sccvirginiagov-home/regulated-industries/utility-regulation/responsibilities/guidance-documents/staffguidanceordvsnonord.pdf), which provides that any transmission project that only requires reconductoring, maintenance or station work does not require a CPCN.

Chickahominy Substation and Structure #2075/148.[4]

The Chickahominy-Elmont 500 kV Line #557 and new future 230 kV lines are collectively referred to as the "Rebuild Project".[5]

3. The Rebuild Project will replace aging infrastructure that is at the end of its service life to comply with the Company's mandatory electric transmission planning criteria (the "Planning Criteria"), thereby enabling the Company to maintain the overall long-term reliability of its transmission system. Specifically, Line #557 between Chickahominy and Elmont Substations has been identified for rebuild because it was constructed in 1971 on COR-TEN® steel lattice towers, which are approaching the end of their useful life based on industry standards, which is 40-60 years for COR-TEN® steel structures. These COR-TEN® towers have been identified for rebuild based on the Company's assessment in accordance with the Company's mandatory Planning Criteria.

4. The Rebuild Project is also needed so that the Company can continue to provide reliable service for the significant load growth anticipated in the area. Between 2021 and 2024, the Company's Distribution Planning group submitted multiple delivery point ("DP") requests to the Transmission Planning group in the transmission corridor between the Company's Chickahominy and Elmont Substations associated with new data center developments. The

[4] The Company intends to install conductors between Structure #2075/149 and Elmont Substation on the existing vacant arms as part of a future project.

[5] The Company will also perform work associated with the Rebuild Project at the Elmont Substation. This work, while not included as part of the Rebuild Project, is discussed in Section II.C. In addition, Line #2075 currently terminates at Elmont Substation. Upon completion of the Rebuild Project, Line #2075 will double dead-end at or near Elmont Substation to capture significant cost savings and minimize environmental impacts, as compared to leaving Line #2075 unaddressed until a later date when the station can be arranged to accept the termination. While the work is required by the proposed Rebuild Project, the Company considers the work at Elmont Substation and the work related to Line #2075's termination to qualify as an "ordinary extension[] or improvement[] in the usual course of business (*i.e.*, "ordinary course") pursuant to § 56-265.2 A 1 of the Code of Virginia ("Va. Code") and, therefore, does not require approval pursuant to Va. Code § 56-46.1 B or a CPCN from the Commission. Because this work is not a component of the proposed Rebuild Project, the costs associated with this work are not included in the total Rebuild Project costs.

Company's Distribution Planning group submitted DP requests to either begin interconnection or study the feasibility and develop a plan to interconnect at least 11 new substations in the Chickahominy to Elmont Corridor. To serve its customers' projected load, the Company is proposing to rebuild Line #557 on 500/230 kV structures with idle 230 kV conductors underbuilt, and to install 8.1 miles of idle 230 kV conductors on the existing vacant arms on the structures supporting Line #2075. The Company will not energize the new conductors until the load materializes and the substation terminations are available.

5. Installing the idle 230 kV conductors will provide significant cost savings as compared to adding these conductors at a later date. Without installing these additional circuits as part of the Rebuild Project, the Company would have to replace some or all of the proposed facilities in the near term to add transmission lines to support regional growth. Moreover, installing the proposed facilities as part of the Rebuild Project allows the Company to reduce costs, outages, and impacts to the community and to environmental, historical, and cultural resources.

6. The Rebuild Project, spanning approximately 27.7 miles, will be located entirely on existing transmission line right-of-way or on Company-owned property. The entire length of the proposed route is adequate for the construction of the Rebuild Project. Given the availability of existing rights-of-way and the statutory preference to use of existing rights-of-way, and because additional costs and environmental impacts would be associated with the acquisition and construction of new rights-of-way, the Company did not consider alternate routes requiring new rights-of-way for this Rebuild Project.

7. The estimated conceptual cost of the Rebuild Project is approximately $186.6 million, which includes approximately $183.3 million for transmission-related work and approximately $3.3 million for substation-related work (2025 dollars).

8. The desired in-service target date for the Rebuild Project is December 31, 2028. The Company estimates it will take approximately 35 months after a final order from the Commission for detailed engineering, materials procurement, permitting, real estate, and construction of the Rebuild Project. 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 in Fall 2026 with the Rebuild Project to be completed by the in-service target date of December 31, 2028. This schedule is contingent upon obtaining the necessary permits and careful coordination of 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 labor shortages or materials/supply issues. Based on the Rebuild Project's complexity, there may be delays with procurement of materials.

9. 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") issued the final guidance, replacing the interim guidance, on October 23, 2024 and the final guidance was fully implemented November 30, 2024.

The Company is reviewing the final guidance to the extent it applies to the Company's projects and will coordinate with USFWS during the permitting stage.

10. 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, but as of the date of this filing, the TCB listing decision has not been issued. The Company is tracking actively this ruling and evaluating the effects of potential outcomes on Company projects' permitting, construction, and in-service dates, including electric transmission projects.

11. Any adjustments to the Rebuild 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.*, December 31, 2028) and an authorization sunset date (*i.e.*, December 31, 2029) for energization of the Rebuild Project.[6]

[6] The Company notes that this request is consistent with the Commission's findings in other recent proceedings. *See Application of Virginia Electric and Power Company for approval of electric transmission facilities: 230 kV Rebuild, Reconductoring, and New Line Projects to Network Takeoff Substation*, Case No. PUR-2024-00131, Final Order (Mar. 19, 2025), approving an in-service date of August 1, 2027, and a CPCN sunset date of August 1, 2028, for energization of that project in Ordering Paragraph (3); *Application of Virginia Electric and Power Company for approval of electric transmission facilities: Fentress-Yadkin 500 kV Line #588 Rebuild and New 500 kV Fentress-Yadkin Line #5005*, Case No. PUR-2024-00105, Final Order (Feb. 28, 2025), approving an in-service date of January 1, 2027, and a CPCN sunset date of January 1, 2028, for energization of that project in Ordering Paragraph (8); *Application of Virginia Electric and Power Company for approval of electric transmission facilities: 500-230 kV Aspen Substation, 500 kV Aspen-Goose Creek Line #5002, 500 kV and 230 kV Aspen-Golden Lines #5001 and #2333, 500-230 kV Golden Substation, and Lines #2081/#2150 Loop*, Case No. PUR-2024-00032, Final Order (Feb. 6, 2025), approving an in-service date of June 1, 2028, and a CPCN sunset date of June 1, 2029, for energization of that project in Ordering Paragraph (8); and *Application of Virginia Electric and Power Company for approval of electric transmission facilities: 230 kV Apollo-Twin Creeks Lines, and Twin Creeks, Sycolin Creek, Starlight, Lunar, and Apollo Substations*, Case No. PUR-2024-00044, Final Order (Feb. 5, 2025), approving an in service date of September 30, 2028, and a CPCN sunset date of September 30, 2029, for energization of that project in Ordering Paragraph (8).

12. 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.

13. 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.

14. 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.

15. In addition to the information provided in the Appendix and the DEQ Supplement, this Application is supported by the pre-filed direct testimony of Company Witnesses Jason Whitlow, Trey Rydel, Mohammad Othman, and Hannah Hurst filed with this Application.

WHEREFORE, Dominion Energy Virginia respectfully requests that the Commission:

a) Direct that notice of this Application be given as required by Va. Code § 56-46.1;

b) Approve pursuant to Va. Code § 56-46.1 the construction of the Rebuild Project; and

c) Grant a certificate of public convenience and necessity for the facilities under the Utility Facilities Act to the Applications by January 31, 2026, if possible.

VIRGINIA ELECTRIC AND POWER COMPANY

By: /s/Andrew F. Flavin
Counsel

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Counsel for Virginia Electric and Power Company

May 9, 2025

COMMONWEALTH OF VIRGINIA
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APPLICATION OF

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FOR APPROVAL AND CERTIFICATION
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Chickahominy-Elmont Line #557 Rebuild
and New Future 230 kV Lines

Application No. 352

Appendix

Containing Information in Response to
"Guidelines for Transmission Line Applications Filed Under Title 56 of the Code of Virginia"

Case No. PUR-2025-00077

Filed: May 9, 2025

TABLE OF CONTENTS

EXECUTIVE SUMMARY

In order to maintain the structural integrity and reliability of the networked transmission system in compliance with mandatory North American Electric Reliability Corporation ("NERC") Reliability Standards, and provide for future load growth in the Richmond Load Area, Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company") proposes, in Charles City, Henrico, and Hanover Counties,[1] to:

(i) Rebuild, within existing right-of-way, approximately 27.6 miles of the existing 500 kilovolt ("kV") Chickahominy-Elmont Line #557 by removing the existing 500 kV single circuit COR-TEN® structures and replacing them with new 500/230 kV double circuit weathering steel H-frame structures.[2]

(ii) Install approximately 8.1 miles of idle 230 kV conductors on the vacant arms of the structures of the Company's existing 230 kV Chickahominy-Elmont Line #2075, between Chickahominy Substation and Structure #2075/148.[3, 4]

[1] A short, less than 0.02-mile segment of the Rebuild Project right-of-way traverses a small area of land whose ownership between the surrounding localities cannot be determined. In this less than 0.02-mile segment of the Rebuild Project, the Rebuild Project's conductor may traverse a small area of New Kent County. Despite this crossing, no structures currently exist or will be constructed in New Kent County. Because the Rebuild Project does not meaningfully—if at all—traverse New Kent County, the Company does not consider the Rebuild Project to cross New Kent County. The Company has nonetheless provided New Kent County officials and residents with notice of the Rebuild Project, but has not otherwise included New Kent County in this Appendix.

[2] As part of the Rebuild Project, the Company proposes to install 27.6 miles of idle 230 kV conductors on the lower level of the Company's proposed 500/230 kV double circuit structures between Chickahominy Substation and Elmont Substation. As explained in this Executive Summary and Section I.A, this work is needed so that the Company can continue to provide reliable service for the significant load growth anticipated in the Rebuild Project area. The Company will not energize the new conductors until the anticipated load materializes and the substation terminations are available.

[3] Heading north after exiting Chickahominy Substation, 500 kV Line #557 and 230 kV Line #2075 parallel each other for approximately 8.1 miles within the same corridor, until diverging at Structure #2075/148 (Structure #557/264). In addition to installing idle conductors on the vacant arms of Line #2075, the Company intends to opportunistically reconductor Line #2075 between Chickahominy Substation and Structure #2075/150. The Company considers this reconductoring to qualify as an "ordinary extension[] or improvement[] in the usual course of business" (*i.e.*, "ordinary course") pursuant to Va. Code § 56-265.2 A 1 and, therefore, does not require approval pursuant to Va. Code § 56-46.1 B or a certificate of public convenience and necessity ("CPCN") from the Commission. This is consistent with the Staff's July 6, 2017 guidance (available at https://www.scc.virginia.gov/media/sccvirginiagov-home/regulated-industries/utility-regulation/responsibilities/guidance-documents/staffguidanceordvsnonord.pdf), which provides that any transmission project that only requires reconductoring, maintenance or station work does not require a CPCN.

[4] The Company intends to install conductors between Structure #2075/149 and Elmont Substation on the existing vacant arms as part of a future project.

(collectively, the "Rebuild Project").[5]

The proposed Rebuild Project is necessary for two primary reasons.

Compliance with Mandatory NERC Reliability Standards

The Rebuild Project will replace aging infrastructure that is at the end of its service life to comply with the Company's mandatory electric transmission planning criteria (the "Planning Criteria"), which are required under NERC Reliability Standards, thereby enabling the Company to maintain the overall long-term reliability of its transmission system. Specifically, Line #557 between Chickahominy and Elmont Substations has been identified for rebuild because it was constructed in 1971 on COR-TEN® steel lattice towers, which are approaching the end of their useful life based on industry standards, which is 40-60 years for COR-TEN® steel structures. These COR-TEN® towers have been identified for rebuild based on the Company's assessment in accordance with the Company's mandatory Planning Criteria. The Company hired a third-party company, Quanta, to evaluate the condition of its COR-TEN® towers. Quanta confirmed the need to rebuild certain COR-TEN® towers, including those on Line #557.

Furthermore, the Company conducted a study to assess the impact on reliability violations if Line #557 was removed from service without being replaced by a rebuilt 500 kV line. The Company submitted its study results to the PJM Interconnection L.L.C. ("PJM") Regional Transmission Expansion Plan ("RTEP") process in 2021 and 2022.[6] The results of these studies indicated that there would be reliability violations if Line #557 was permanently removed from service. These same studies also indicate that if Line #557 remains in-service, these reliability violations are resolved.

The Company also reviewed the impact of Line #557 on Operational Performance, finding that the loss of Line #557 would negatively impact the ability of multiple generation queue projects to be deliverable, since multiple PJM generation queue projects are dependent on Line #557 being in-service.

[5] The Company will also perform work associated with the Rebuild Project at the Elmont Substation. This work, while not included as part of the Rebuild Project, is discussed in Section II.C. In addition, Line #2075 currently terminates at Elmont Substation. Upon completion of the Rebuild Project, Line #2075 will double dead-end at or near Elmont Substation to capture significant cost savings and minimize environmental impacts, as compared to leaving Line #2075 unaddressed until a later date when the station can be arranged to accept the termination. While the work is required by the proposed Rebuild Project, the Company considers the work at Elmont Substation and the work related to Line #2075's termination to qualify as an "ordinary extension[] or improvement[] in the usual course of business (*i.e.*, "ordinary course") pursuant to § 56-265.2 A 1 of the Code of Virginia ("Va. Code") and, therefore, does not require approval pursuant to Va. Code § 56-46.1 B or a CPCN from the Commission. Because this work is not a component of the proposed Rebuild Project, the costs associated with this work are not included in the total Rebuild Project costs.

[6] As discussed in Section I.J, the Company modified its proposal to rebuild 500 kV Line #557 on 500/230 kV double circuit weathering steel H-frame structures, and to string 8.1 miles of conductor on Line #2075's vacant arms. The Company submitted the Rebuild Project's updated cost and scope to PJM for approval on April 15, 2025, and PJM presented the updated project scope and in-service date at its May 6, 2025 Transmission Expansion Advisory Committee ("TEAC") meeting.

Significant Anticipated Load Growth

The Rebuild Project is also needed so that the Company can continue to provide reliable service for the significant load growth anticipated in the area. Between 2021 and 2024, the Company's Distribution Planning group submitted multiple delivery point ("DP") requests to the Transmission Planning group in the transmission corridor between the Company's Chickahominy and Elmont Substations associated with new data center developments. The Company's Distribution Planning group submitted DP requests to either begin interconnection or study the feasibility and develop a plan to interconnect at least 11 new substations in the Chickahominy-Elmont Corridor.

To serve its customers' projected load, the Company is proposing to rebuild Line #557 on 500/230 kV structures with idle 230 kV conductors underbuilt, and to install 8.1 miles of idle 230 kV conductors on the existing vacant arms on the structures supporting Line #2075. The Company will not energize the new conductors until the load materializes and the substation terminations are available.

Installing the idle 230 kV conductors will provide significant cost savings as compared to adding these conductors at a later date. Without installing these additional circuits as part of the Rebuild Project, the Company would have to replace some or all of the proposed facilities in the near term to add transmission lines to support regional growth. Moreover, installing the proposed facilities as part of the Rebuild Project allows the Company to reduce costs, outages, and impacts to the community and to environmental, historical, and cultural resources. The ability to energize future 230 kV circuits to accommodate the significant load growth preserves the option to address future reliability issues and is consistent with prudent utility planning for the future.

The Rebuild Project will be located entirely within existing transmission line rights-of-way. Because of the availability of existing rights-of-way and the statutory preference given to use of existing rights-of-way, and because of the additional costs and environmental impacts that would be associated with the acquisition and construction of new rights-of-way, the Company did not consider any alternate routes requiring new rights-of-way for this Rebuild Project.

The estimated conceptual cost of the Rebuild Project is approximately $186.6 million, which includes approximately $183.3 million for transmission-related work and approximately $3.3 million for substation-related work (2025 dollars).

The desired in-service target date for the Rebuild Project is December 31, 2028. The Company estimates it will take approximately 35 months after a final order from the Commission for detailed engineering, materials procurement, permitting, real estate, and construction of the Rebuild Project. 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 in Fall 2026 with the Rebuild Project to be completed by the in-service target date of December 31, 2028. This schedule is contingent upon obtaining the necessary permits and careful coordination of 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 labor shortages or materials/supply issues. Based on the Rebuild Project's complexity, there may be delays with procurement of materials.

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") issued the final guidance, replacing the interim guidance, on October 23, 2024 and the final guidance was fully implemented November 30, 2024. The Company is reviewing the final guidance to the extent it applies to the Company's projects and will coordinate with USFWS during the permitting stage.

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, but as of the date of this filing, the TCB listing decision has not been issued. The Company is tracking actively 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 the Rebuild 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.*, December 31, 2028) and an authorization sunset date (*i.e.*, December 31, 2029) for energization of the Rebuild Project.[7]

[7] The Company notes that this request is consistent with the Commission's findings in other recent proceedings. *See Application of Virginia Electric and Power Company for approval of electric transmission facilities: 230 kV Rebuild, Reconductoring, and New Line Projects to Network Takeoff Substation*, Case No. PUR-2024-00131, Final Order (Mar. 19, 2025), approving an in-service date of August 1, 2027, and a CPCN sunset date of August 1, 2028, for energization of that project in Ordering Paragraph (3); *Application of Virginia Electric and Power Company for approval of electric transmission facilities: Fentress-Yadkin 500 kV Line #588 Rebuild and New 500 kV Fentress-Yadkin Line #5005*, Case No. PUR-2024-00105, Final Order (Feb. 28, 2025), approving an in-service date of January 1, 2027, and a CPCN sunset date of January 1, 2028, for energization of that project in Ordering Paragraph (8); *Application of Virginia Electric and Power Company for approval of electric transmission facilities: 500-230 kV Aspen Substation, 500 kV Aspen-Goose Creek Line #5002, 500 kV and 230 kV Aspen-Golden Lines #5001 and #2333, 500-230 kV Golden Substation, and Lines #2081/#2150 Loop*, Case No. PUR-2024-00032, Final Order (Feb. 6, 2025), approving an in-service date of June 1, 2028, and a CPCN sunset date of June 1, 2029, for energization of that project in Ordering Paragraph (8); and *Application of Virginia Electric and Power Company for approval of electric transmission facilities: 230 kV Apollo-Twin Creeks Lines, and Twin Creeks, Sycolin Creek, Starlight, Lunar, and Apollo Substations*, Case No. PUR-2024-00044, Final Order (Feb. 5, 2025), approving an in service date of September 30, 2028, and a CPCN sunset date of September 30, 2029, for energization of that project in Ordering Paragraph (8).

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 proposed Rebuild Project is necessary to comply with mandatory NERC Reliability Standards and to maintain reliable service to accommodate overall growth in the area. See Attachment I.A.1 for an overview map of the Rebuild Project.

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 retail 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 as its customers require more power in the future.

Dominion Energy Virginia is part of PJM, the RTO that provides service to a large portion of the eastern United States. PJM currently is responsible for ensuring the reliability of, 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 166,929 megawatts ("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 winter and all-time record demand of 24,678 MW. Based on the 2025 PJM Load Forecast, the DOM Zone is expected to grow with average growth rates of 6.3% summer and 6.0% winter over the next 10 years compared to the PJM average of 3.1% and 3.8% over the same period for the summer and winter, respectively.[8]

Dominion Energy Virginia is also part of the Eastern Interconnection transmission

[8] A copy of the 2025 PJM Load Report is available at the following: https://www.pjm.com/-/media/DotCom/library/reports-notices/load-forecast/2025-load-report.pdf. *See, in particular*, page 9 (PJM) and page 34 (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.[9]

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 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.[10] 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.[11] Projects identified through the RTEP process are developed by the TO in coordination with PJM, and are presented at 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, Reliability First, SERC Reliability Corporation, PJM, and TOs; (ii) network upgrades are new or upgraded facilities required primarily to eliminate reliability criteria violations caused by

[9] *See* Facility Connection ("FAC") Standard FAC-001-4 (effective January 1, 2024), which can be found at https://www.nerc.com/pa/Stand/Reliability%20Standards/FAC-001-4.pdf.

[10] PJM Manual 14B (effective September 25, 2024) focuses on the RTEP process and can be found at https://www.pjm.com/-/media/DotCom/documents/manuals/m14b.pdf.

[11] *See* PJM Manual 14B, Attachment D: PJM Reliability Planning Criteria. *See supra*, n.10 for a link to PJM Manual 14B.

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 500 kV components of the Rebuild Project are classified as a baseline project, and were approved by the PJM Board of Managers at its February 2022 meeting as baseline project b3692. The 230 kV components of the Rebuild Project are classified as a supplemental project, and have not yet been approved by PJM. See Section I.J for a discussion of the PJM process as it relates to this Rebuild Project.

Need for the Rebuild Project

The proposed Rebuild Project is needed to maintain the structural integrity and reliability of the networked transmission system and to provide for future load growth in the Richmond Load Area, which is generally defined as the area which includes, roughly, all of Charles City, Henrico, and Hanover Counties. Within the Richmond Load Area, the Rebuild Project is focused on the Chickahominy-Elmont Corridor which, as its name implies, is the electric transmission corridor between the Company's Chickahominy and Elmont Substations. As discussed in Section I.C and depicted in Attachment I.G.1, the corridor contains one 500 kV source (Line #557) that supports the transfer of bulk power from generating resources to major load centers. The corridor also contains one 230 kV source (Line #2075) that feeds the various substations between the Chickahominy and Elmont terminals. Between 2021 and 2024, the Company's Distribution Planning group submitted 11 DP requests to the Transmission Planning group in the transmission corridor between the Company's Chickahominy Substation and Elmont Substation associated with new data center developments. A map depicting the future locations of each of these substations can be found in Attachment I.A.7. The area served by the substations in the corridor is defined, generally, as Charles City, Henrico, and Hanover Counties.

The following is a discussion of each driver which the Rebuild Project was developed to address: (1) aging infrastructure that is at the end of its service life based on the Company's mandatory Planning Criteria, which are required under NERC Reliability Standards, and (2) future load growth anticipated in the Richmond Load area.

Compliance with Mandatory NERC Reliability Standards

The Company has developed a proactive plan to rebuild transmission lines that are comprised of weathering steel (COR-TEN®) towers. The Rebuild Project is necessary to address the condition of Line #557, which is approaching its end of service life by rebuilding approximately 27.6 miles of existing infrastructure, in compliance with the Company's mandatory Planning Criteria, thereby enabling the Company to maintain the overall long-term reliability of its transmission system.

Specifically, the 27.6-mile Line #557 has been identified for rebuild. Line #557 has was constructed in 1971—meaning its structures are currently 54 years old and approaching their expected life span—on COR-TEN® steel lattice towers. These COR-TEN® s steel lattice towers have been identified for rebuild based on the Company's assessment in accordance with the Company's mandatory Planning Criteria, thereby enabling the Company to maintain the overall long-term reliability of its transmission system. The Company hired a third-party company, Quanta Technology, LLC ("Quanta"), to evaluate the condition of its COR-TEN® towers, including those supporting Line #557. In its November 1, 2016 report entitled "230kV & 500kV COR-TEN Lines Review" (the "2016 Quanta Report"), Quanta confirmed the need to rebuild the Line #557 COR-TEN® towers.

Section 3.1.9 of the Planning Criteria addresses electric transmission infrastructure approaching its end of life:[12]

> Electric transmission infrastructure reaches its end of life as a result of many factors. Some factors such as extreme weather and environmental conditions can shorten infrastructure life, while others such as maintenance activities can lengthen its life. Once the end of life is recognized, in order to ensure continued reliability of the transmission grid, a decision must be made regarding the best way to address this end-of-life asset.
>
> For this criterion, "end of life" is defined as the point at which infrastructure is at risk of failure, and continued maintenance and/or refurbishment of the infrastructure is no longer a valid option to extend the life of the facilities consistent with Good Utility Practice and Dominion Energy Virginia Transmission Planning Criteria. The infrastructure to be evaluated under this end-of-life criteria are all regional transmission lines operated at 500 kV and above.
>
> The decision point of this criterion is based on satisfying two metrics:
>
> 1. Facility is nearing, or has already passed, its end of life, and
> 2. Continued operation risks negatively impacting reliability of the transmission system.
>
> For Facilities that satisfy both of these metrics, this criterion mandates either replacing these Facilities with in-kind infrastructure that meets current Dominion Energy Virginia standards or employing an alternative solution to ensure the Dominion Energy Virginia

[12] The Company's Transmission Planning Criteria (effective Apr. 1, 2025) 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/facility-connection-requirements.pdf?la=en&rev=f280781e90cf47f69ea526c944c9c347&hash=82DD2567D0B033C47536134B8C4D5C5E.

transmission system satisfies all applicable reliability criteria.

The Company's Planning Criteria was presented at the December 12, 2024, PJM Sub-Regional RTEP meeting. See Attachment I.A.2 for updated slides presented by the Company at that meeting. As discussed in Attachment I.A.2, end-of-life projects at 500 kV and above are classified as baseline projects, and are evaluated using the criteria evaluation process outlined in Section 3.1.9 of the Planning Criteria. The Company submitted the Rebuild Project in accordance with the PJM RTEP process to address the end-of-life criteria.

1. *Facility is nearing, or has already passed, its end of life.*

   Factors that support a determination that a facility has reached its end of life include, but are not limited to, the following:

   - **Condition** of the facility, taking into consideration:
     - Industry recommendations on service life for the particular type of facility
     - The facility's performance history
       - Documented evidence indicating that the facility has reached the end of its useful service life
     - The facility's maintenance and expense history

   - **Third-party assessment** – While not required, the Company has the option of seeking a third-party assessment of a facility to determine if industry specialists agree the facility has reached the end of its useful service life

2. *Reliability and System Impact*

   The reliability impact of continued operation of a facility will be determined based on a planning power flow assessment and operational performance considerations. The end-of-life determination for a facility to be tested for reliability impact will be assessed by evaluating the impact on short- and long-term reliability with and without the facility in service in the power flow model. The existing system with the facility removed will become the base case system for which all reliability tests will be performed.

   The primary four (4) reliability tests to be considered are:

   1. NERC Reliability Standards
   2. PJM Planning Criteria - as documented in PJM Manual 14B - PJM Region Transmission Planning Process
   3. Dominion Energy Transmission Planning Criteria contained in this document
   4. Operational Performance - This test will be based on input from PJM and/or Dominion Energy System Operations as to

the impact on reliably operating the system without the facility.

Additional factors to be evaluated under system impact may include but not be limited to:

1. Market efficiency
2. Stage 1A [Auction Revenue Rights] sufficiency
3. Public policy
4. [SERC Reliability Corporation] reliability criteria.

Failure of any of these reliability tests, along with the end-of-life assessment discussed herein, will indicate a violation of the End-of-Life Criteria and necessitate replacement as mandated earlier in this document.

After the end of service life and reliability impact of a facility are evaluated and it has been determined that the facility violates the End-of-Life Criteria, a determination will be made as to whether replacement of the facility is the most effective solution for an identified reliability need, or whether an alternative solution should be employed. One or more of the following factors may be considered in determining whether to proceed with facility replacement or with an alternative solution:

- Planning analysis which may include power flow studies
- Operational performance
- System Reliability
- Effectiveness of the alternative as compared to the replacement facility
- Future load growth in the study area
- Future transmission projects or interconnects that impact the study area
- Constructability comparison
- Cost comparison

1. Facility is nearing, or has already passed, its end of life.

In regard to the first metric of the Company's Planning Criteria addressing end of life, the structures on Line #557 are primarily COR-TEN® steel lattice towers that were erected in 1971. COR-TEN® steel is now known to be problematic when used for lattice-type structures. Utility companies have been monitoring the material since the 1970s and the problems are well documented. As noted in the 2016 Quanta Report, weathering steel lattice towers have design features that enable significant deterioration in the connections of these towers. Industry guidelines indicate equipment life for wood structures is 35-55 years, for COR-TEN® steel

structures is 40-60 years, for conductor and connectors is 40-60 years, and for porcelain insulators is 50 years. The structures supporting Line #557 are approaching their end of life, driving the Company's need to rebuild the line.

2. Continued operation risks negatively impacting reliability of the transmission system.

Regarding the second metric of the Company's Planning Criteria addressing end of life, Line #557 serves as a regional backbone to the Company's 500 kV system and supports the transfer of bulk power from generating resources to major load centers. Addressing aging infrastructure through the Rebuild Project will support the Company's ability to continue providing reliable transmission service to these customers.

The 500 kV component of the Rebuild Project was first presented to the PJM stakeholders at the TEAC meeting as part of the 2021 Window #1 on November 2, 2021, and again on November 30, 2021 as an end-of-life rebuild project with a proposed solution to rebuild 27.6 miles of 500 kV Line #557 from Chickahominy Substation to Elmont Substation to achieve a summer rating of 4,357 MVA.[13] Attachments I.A.3 and I.A.4 include the slides that were presented at the corresponding TEAC meetings. The 500 kV component of the Rebuild Project has been issued baseline upgrade identification number "b3692" by PJM.

As discussed in Section I.J, the originally approved baseline project b3692 was submitted during the 2021 Open Window and accounted for rebuilding Line #557 as a single circuit 500kV transmission line. However, due to the significant number of DP requests in the Richmond Load Area since 2021, the Company modified its proposal to rebuild Line #557 with a 230 kV circuit underbuilt, and to string 8.1 miles of conductor on Line #2075's vacant arms. The Company submitted the Rebuild Project's updated cost and scope to PJM for approval on April 15, 2025, and PJM presented the updated project scope and in-service date at its May 6, 2025 TEAC meeting. See Attachment I.A.5 for the revised slides

Additionally, the Company studied the result that removing Line #557 from service, and not replacing it with a rebuilt 500 kV Line, would have on reliability violations. The Company submitted its study results to the PJM RTEP process on August 26, 2021. These study results, based on the Summer 2026 RTEP Case, showed that removing Line #557 from service would result in multiple thermal violations under the Generation Deliverability study. The results of these studies are included in Attachment I.A.6.

The Company re-verified the need to rebuild Line #557 by using the Summer 2027 RTEP Case that PJM released on July 1, 2022. This power flow case is based on the 2022 Load Forecast for Summer 2027, which is 1,532 MW more than the 2021

[13] Note that the Company currently is evaluating its standard conductor for new 500 kV construction.

Load Forecast for 2026. The results of these studies indicate that there would be reliability violations if Line #557 was permanently removed from service. These same studies also indicate that if Line #557 remains in service, these reliability violations are resolved.

The Company also evaluated the impact of Line #557 on Operational Performance. Existing Line #557 is an integrated component of the Company's 500 kV network, and if Line #557 was removed from service and not replaced with a rebuilt 500 kV line, it would negatively impact the ability of multiple generation queue projects to be deliverable. Projects entering the PJM generation queue are studied with all existing and approved PJM RTEP Projects in service. Multiple PJM generation queue projects are dependent on Line #557 being in-service. Some of these projects have received a CPCN from the Commission (*e.g.*, Case No. PUR-2021-00142).

In summary, the Rebuild Project will replace aging infrastructure at the end of its service life to comply with the Company's mandatory Planning Criteria, which are required under NERC Reliability Standards, thereby enabling the Company to maintain the overall long-term reliability of its transmission system.

Significant Anticipated Load Growth

As described previously, the Rebuild Project is in the Chickahominy-Elmont Corridor of the Company's Richmond Load Area. The Chickahominy-Elmont Corridor in Charles City, Henrico, and Hanover Counties have experienced increased interest from data center developers since approximately 2022. Between 2021 and 2024, the Company's Distribution Planning group submitted multiple DP requests to the Transmission Planning group in the transmission corridor between the Company's Chickahominy Substation and Elmont Substation associated with new data center developments. The Company's Distribution Planning group submitted DP requests to either begin interconnection or study the feasibility and develop a plan to interconnect at least 11 new substations, listed below, in the Chickahominy-Elmont portion of the Richmond Load Area. A map depicting the future locations of each of these substations can be found in Attachment I.A.7.

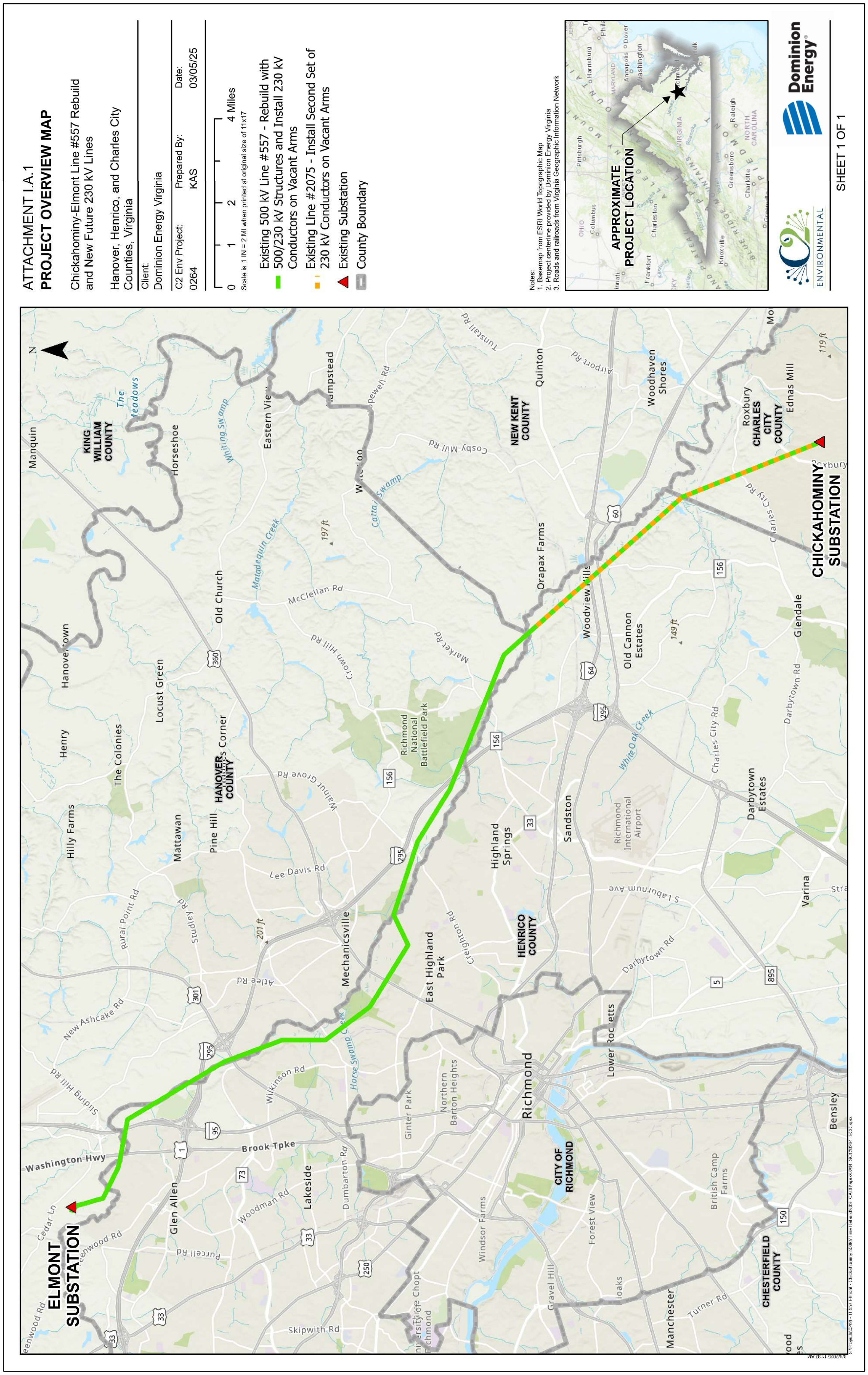
Project Name	Projected Load (MW)	Target In Service Date
Bunker Substation	275	12/1/2027
Saltwood Substation	300	12/1/2027
Letterkenny Substation	300	5/30/2028
Harlem Substation	200	8/1/2028
Stockholm Substation	300	12/1/2028
Thicket Substation	300	5/30/2029
Sunfield Substation	300	7/1/2029
Winterfield Substation	300	7/1/2029
Gray Bark Substation	300	11/30/2029
Oslo Substation	300	5/30/2030
Lisbon Substation	300	11/30/2030

To serve customers' projected load, the Company is proposing to rebuild Line #557 on 500/230 kV structures with idle 230 kV conductors underbuilt, and to install 8.1 miles of idle 230 kV conductors on the existing vacant arms on the structures supporting Line #2075 within the same corridor. Notably, 230 kV conductors will be installed only on Line #2075's vacant arms between Chickahominy Substation and Structure #2075/148 (Structure #557/264). This approximately 8.1-mile segment of Line #2075 shares the corridor with Line #557. The Company will not energize the new conductors until the load materializes and the substation terminations are available.[14]

Based on the load growth described above and in Section I.C, the Company determined that installing an underbuilt 230 kV Line on Line #557 and installing conductors on the vacant arms of Line #2075 will provide significant cost savings as compared to adding additional 230 kV lines and/or installing conductor at a later date. Installing the new future 230 kV conductors will allow the Company to satisfy the growing demand for electricity in the Chickahominy-Elmont Corridor while minimizing the need to rework customer interconnections, reducing outage durations, minimizing environmental impacts, and prudently reducing overall costs as compared to retroactively installing new future 230 kV circuits in the same corridor as part of a future project. The key benefit to stringing this conductor as part of the Rebuild Project is to avoid duplicative access activities, costs, and impacts. The Company estimates cost savings of $79.4 million by installing the new future 230 kV Lines as part of the Rebuild Project.

In summary, the Rebuild Project is needed to: (a) comply with the Company's mandatory Planning Criteria, which are required under NERC Reliability Standards for transmission owners to ensure system reliability and interconnection requirements; and (b) allow the Company to continue providing reliable service based on the significant load growth anticipated in the Richmond Load area.

[14] The 230 kV conductor installed on Line #557's structures will not have a termination available under this Project; the termination point will be part of a future supplemental project once the requisite load growth materializes.


ATTACHMENT I.A.1
PROJECT OVERVIEW MAP
Chickahominy-Elmont Line #557 Rebuild and New Future 230 kV Lines
Hanover, Henrico, and Charles City Counties, Virginia
Client:
Dominion Energy Virginia
C2 Env Project: 0264
Prepared By: KAS
Date: 03/05/25
0 1 2 4 Miles
Scale is 1 IN = 2 MI when printed at original size of 11x17
Existing 500 kV Line #557 - Rebuild with 500/230 kV Structures and Install 230 kV Conductors on Vacant Arms
Existing Line #2075 - Install Second Set of 230 kV Conductors on Vacant Arms
Existing Substation
County Boundary
Notes:
1. Basemap from ESRI World Topographic Map
2. Project centerline provided by Dominion Energy Virginia
3. Roads and railroads from Virginia Geographic Information Network
APPROXIMATE PROJECT LOCATION
C2 ENVIRONMENTAL
Dominion Energy
SHEET 1 OF 1
ELMONT SUBSTATION
CHICKAHOMINY SUBSTATION
HANOVER COUNTY
HENRICO COUNTY
NEW KENT COUNTY
CHARLES CITY COUNTY
KING WILLIAM COUNTY
CHESTERFIELD COUNTY
CITY OF RICHMOND
Richmond
Mechanicsville

Dominion Energy

PJM Southern Sub-Regional RTEP Meeting

Planning Assumptions

Planning Criteria and Assumptions

- PJM Assumptions Apply
- All analysis and solutions must satisfy
  - NERC TPL standards
  - PJM Planning Criteria in Attachment D & G of PJM Manual 14B
  - Dominion Energy's Facility Interconnection Requirements
    - Requirements to connect to Dominion's Transmission system
    - Attachment 1 – Dominion's FERC Form 715 Planning Criteria
    - Attachment 3 – Generation Interconnection Protection Requirements
    - Attachment 4 – Generator Ride-Through Requirements
    - Attachment 5 – Generator Interconnection Data Communication and Data Exchange Requirements
    - Attachment 6 – Technical Requirements for Generation Interconnection Substations
  - Supplemental Project Drivers as Described Below
- PJM and Dominion validate each other's study results to ensure solutions resolve specific need and create no other harm to system
- Proposed solutions are presented
  - TEAC for facilities 230 kV and above
  - Southern Sub-regional for facilities below 230 kV

Power Flow Modeling Assumptions

- Dominion uses PJM RTEP developed power flow models for 5 year and intermediate year assessments
- For situations where a PJM RTEP model is not available, Dominion will create a specific case using a PJM RTEP case
- Dominion at times may also utilize a MMWG series power flow case
- Loads used in all power flow cases will be modeled consistent with the 2025 PJM Load Forecast Report
- Generation retirements modeled as outlined in the PJM's Generation Retirement Process
  - Dominion may also consider future generation retirements consistent with the VA/NC Integrated Resource Plan

Dominion Energy's FERC Form 715 End of Life Planning Criteria

- Infrastructure to be evaluated under this end-of-life criteria are all regional transmission lines operated at 500 kV and above
- The decision point of this criterion is based on satisfying two metrics:
  1) Facility is nearing, or has already passed, its end of life, and
  2) Continued operation risks negatively impacting reliability of the transmission system, including our ability to serve local load.
- Projects approved by PJM under this criteria are classified as baseline
- Detailed discussion on the End of Life criteria can be found in Attachment 1, section C.2.9 of Dominion Energy's Facility Interconnection Requirements document
- All other asset management of transmission infrastructure is covered by the M-3 Supplemental process
- The Appendix lists transmission lines expected to be evaluated using the FERC Form No. 715 End of Life criteria in the 2025 RTEP cycle

Supplemental Project Drivers

Summary of Supplemental Project Drivers

I. Customer Service	• Service to new and existing customers. Interconnect new customer load. Address distribution load growth, customer outage exposure, equipment loading
II. Equipment Material Condition, Performance and Risk	• Degraded equipment performance, material condition, obsolescence, equipment failure, employee and public safety and environmental impact • Substation Assets, Transmission Line Assets, Transmission Transformers
III. Operational Flexibility and Efficiency	• Optimizing system configuration, equipment duty cycles and restoration capability, minimize outages
IV. Infrastructure Resilience	• Improve system ability to anticipate, absorb, adapt to, and/or rapidly recover from a potentially disruptive event, including severe weather, geo-magnetic disturbances, electromagnetic pulses, physical and cyber security challenges, critical infrastructure reduction.
V. Other	• Meet objectives not included in other definitions

I. Customer Service

- Service to new and existing customers. Interconnect new customer load. Address distribution load growth, customer outage exposure, equipment loading

Customer Service Considerations

Project Drivers typically include:

- New Load Delivery Points (DP)
- Upgrades or modifications to existing Load Delivery Points(DP)
- Other customer requests

II. Equipment Material Condition, Performance and Risk

- Degraded equipment performance, material condition, obsolescence, equipment failure, employee and public safety and environmental impact
- Substation Assets, Transmission Line Assets, Transmission Transformers

Equipment Material Condition, Performance and Risk

- End of Life
  - Transmission Lines operated at or above 100 kV and below 500 kV
  - Transformers with high-side operated at or above 100 kV
- Other Asset Management

  Types of equipment assessed include but not limited to:
  - Transmission Lines below 100 kV
  - Line Components (not part of EOL Criteria)
  - Transformers below 100 kV
  - Breakers
  - Circuit Switchers
  - Reactors
  - Capbanks
  - Wave Traps
  - Relaying
  - Switches
  - Bus Work, Leads
  - FACTS Devices

Equipment Material Condition, Performance and Risk

Project Drivers

- EOL and Asset Management projects include the replacement, modification, upgrade or addition of transmission equipment for the following purposes:
  - Replacement of equipment due to eminent failure
  - Safety concerns
  - Compliance (internal and external)
  - Reliability
  - Operating Flexibility
  - Obsolescence
  - Other

Dominion Energy's Attachment M-3 End of Life Planning Criteria for Transmission Lines

- Infrastructure to be evaluated under this end-of-life criteria are all transmission lines operated at or above 100kV and below 500 kV
- Projects must satisfy the following two decision point metrics:
  1) Facility is nearing, or has already passed, its end of life, and
  2) Continued operation risks negatively impacting reliability of the transmission system, including our ability to serve local load.
- Projects will be classified as supplemental

Transmission Line Facilities

Project Development Process

- All project requests and inputs are reviewed
- Records of inspections, component failures, refurbishments/repairs, tower loading studies, COR-TEN corrosion studies and other relevant information are reviewed
- Field sampling and inspections are performed
- Perform analysis to determine condition of individual lines and a ranking to support remediation

Transmission Line Components

Project Development Process

- Industry typical “expected” service life are considered:
  - Steel structures 40 to 60 years
  - Conductors 60 years
  - Connectors 40 to 60 years
  - Insulators (Porcelain/Glass) 50 years+ (Polymer) 30 years
  - Fiber 30 years
  - Wood 55 years with maintenance
- However, the actual service life is dependent upon many variables and ongoing inspection to evaluate condition is the best determinant of end of service life.

Dominion Energy's Attachment M-3
End of Life Planning Criteria for Transformers

- Infrastructure to be evaluated under this end-of-life criteria are transmission transformers, high side operated at or above 100kV
- Transformer Health Assessment Program (THA)

500 kV Transformer Failure in 2000

230 kV Transformer Failure in 2001

Transmission Transformer THA Overview

- For Transmission Transformers, Dominion uses a Transformer Health Assessment (THA) approach to prioritize replacement
- A proven systematic approach to calculating transformer health and risk
- Not just about age – several condition-based parameters are considered
- Supports possible additional maintenance, online monitoring, proactive replacements

Transmission Transformer THA Overview

Parameters Considered for Proactive Replacement:

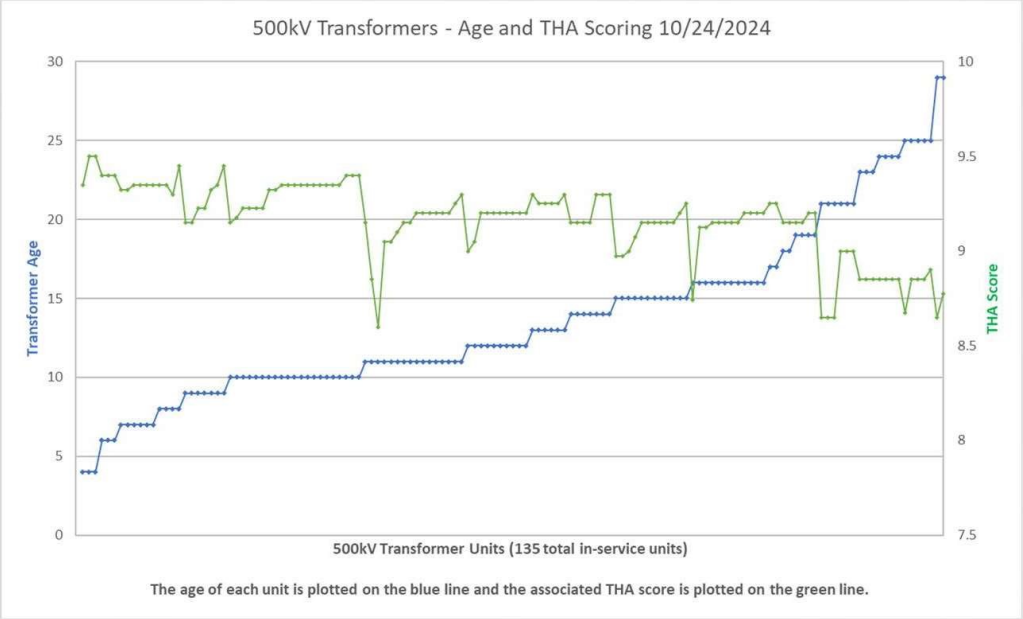
- THA score less than 80
- Maintenance history/environmental risk
- Previous transformer failures of same manufacturer
- Previous failures and remanufacturing history
- Dissolved Gas-in-Oil Analysis (DGA) trends

THA Condition-Based Parameter Weighting

Data Type	Parameter	Weights	Sub-Weights
Design	Age	15%	
	BIL Ratings	10%	
	LTC Design	5%	
Testing	Winding Power Factor	5%	
	Moisture in Oil/Insulation	5%	
	Disolved Gas-In-Oil Analysis	30%	
	C2H2		46%
	H2		9%
	C2H4		15%
	TOTAL COMB. GAS		10%
	C2H6		5%
	CH4		5%
	CO		5%
	CO2		5%
Accessories	Bushing Type/Age	5%	
	Bushing Power Factor	5%	
Operational	Fault Exposure	10%	
	Loading	10%	

Example Scoring of Age Parameter

Age	Score
0 - 10 years	10
10 - 30 years	7
30 - 40 years	4
40 - 45 years	1
45 - 50 years	-5
50 - 55 years	-10
> 55 years	-15



Other Asset Management

Project Development Process

Other Transmission Line and Transformer Projects (below 100kV)

- Projects are evaluated using the same process as EOL

Substation Projects

- Projects are prioritized based on many different factors including:
  - Project Type
  - Likelihood and consequence of failure
  - Completing work in conjunction with other planned capital improvement work or scheduled maintenance activities and outages
  - Project cost
- Projects are assigned to a project manager and the conceptual team for detailed review and estimating
- Planning reviews projects to ensure they do not conflict with long term plans prior to submittal to PJM through the M-3 Planning process

Other Asset Management

Project Development Process

- All project requests and inputs are reviewed
- Compliance projects (time based) are identified and documented. These typically include:
  - Wave Traps – 25 years
  - CCVT's - 25 years
  - Batteries – 20 years
  - Battery Chargers – 20 years
  - Nuclear (Switchyard and one terminal away) – 20 years
- A high-level scope and cost estimate is developed

III. Operational Flexibility and Efficiency

- Optimizing system configuration, equipment duty cycles and restoration capability, minimize outages

Operational Flexibility and Efficiency Considerations

Project Drivers typically include:

- Operational flexibility issues identified by Dominion's SOC and/or field operations
- Recurring thermal, voltage, or stability issues identified by System Operations in real time but not captured in planning studies
- Projects related to ability to safely and reliably operate the transmission system
- Provide flexibility and improvement to serve customer load
- Adherence to Facility Interconnection Requirements
- Other

IV. Infrastructure Resilience

- Improve system ability to anticipate, absorb, adapt to, and/or rapidly recover from a potentially disruptive event, including severe weather, geo-magnetic disturbances, physical and cyber security challenges, critical infrastructure reduction

Infrastructure Resilience
Considerations

Project Drivers typically include:

- Hardening for severe weather
- GMD (geo-magnetic disturbances)
- EMP (electromagnetic pulses)
- Physical and Cyber security challenges
- Reduction of Critical Infrastructure
- Rapid Restoration of Services (mobiles, spares, etc.)
- Adherence to Facility Interconnection Requirements

V. Other

- Meet objectives not included in other definitions

Other Planning Considerations

Project Drivers typically include:

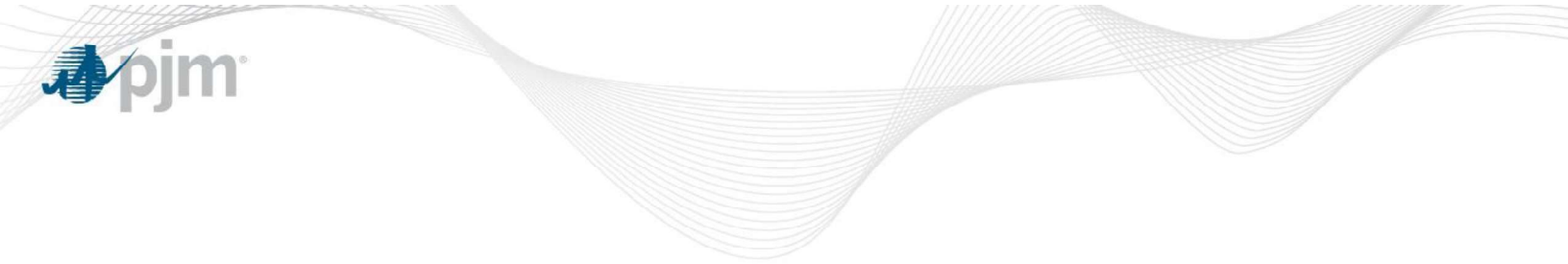
- Unique situations that drive “needs” not covered in other objectives
- Adhere to Good Utility Practice
- Maintain system reliability

Questions?

Appendix A:
Transmission lines expected to be evaluated using Dominion Energy's FERC Form 715 End of Life criteria in 2025 RTEP cycle

Line A	Line B	Line Section	Line A kV	Line B kV	Line A Year	Line B Year
None			500			

Note: This list covers lines to be evaluated under Dominion's End of Life criteria during the 2025 planning cycle. The evaluation could lead to some of these facilities being delayed, cancelled or removed from consideration as well as other facilities added.



Reliability Analysis Update

Aaron Berner, Senior Manager

Transmission Expansion Advisory Committee
Tuesday, November 2, 2021

Changes for the Existing Project

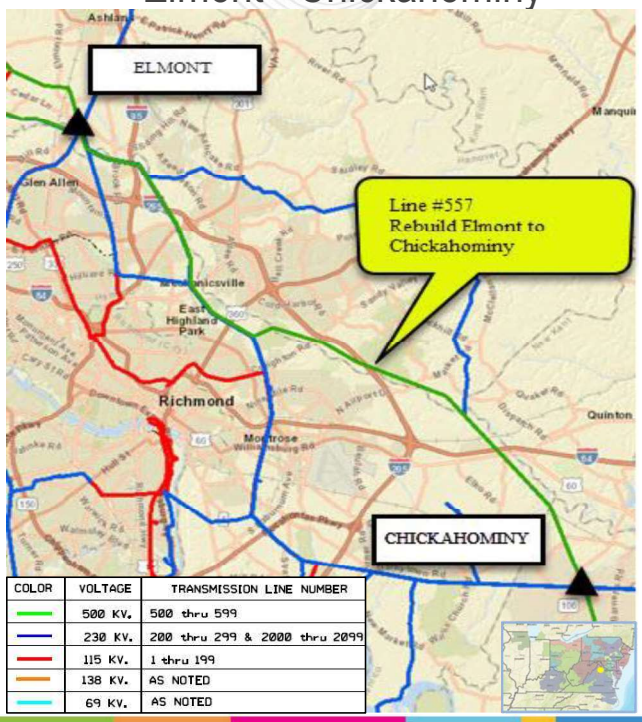
Baseline Reliability Projects

Dominion Transmission Zone: Baseline Elmont - Chickahominy

Process Stage: First Read
Criteria: FERC Form 715 (C.2.9 End-of-Life Criteria)
Assumption Reference: 2026 RTEP assumption
Model Used for Analysis: 2026 RTEP cases
Proposal Window Exclusion: None
Problem Statement:
DOM-O2
500kV Line #557 Elmont to Chickahominy was constructed in 1971 with ACAR conductor and 5-series Corten towers that need to be rebuilt to current standards based on Dominion's End-of-Life Criteria.

Existing Facility Rating:

Branch	SN/SE/WN/WE (MVA)
8ELMONT – 8CHCKAHM 230kV	2598/2598/2988/3014



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SN / SE / WN / WE: Summer Normal / Summer Emergency / Winter Normal / Winter Emergency

Dominion Transmission Zone: Baseline Elmont - Chickahominy

As part of the 2021 RTEP Window #1, the following projects was proposed to address violations on 500kV Line #557:

Proposal ID	Proposing Entity	Upgrade Description	Upgrade Cost ($M)
124	Dominion	Line #557 Elmont to Chickahominy reconductor	58.155

Proposed Solution: Proposal #2021_1-124

- Rebuild approximately 27.7-miles of 500 kV transmission line from Elmont to Chickahominy with current 500 kV standards construction practices to achieve a summer rating of 4330 MVA.

Total Estimated Cost: $58.155M

Required IS Date: 6/1/2026

Revision History

Version No.	Date	Description
1	10/28/2021	• Original slides posted
2	10/29/2021	• Added slides 7, 8, 9, and 10, plus made a date correction on slide #6
3	11/1/2021	• Corrected slide 13 header information
4	11/4/2021	• Corrected transformer # on slide 8 (Lawrence 230/69 kV 220-4)
5	11/9/2021	• Corrected FG#s on slide 58
6	11/15/2021	• Corrected preliminary facility ratings on slide 42
7	12/13/2021	• Slide #16, changed the 2nd “Required IS date” to “Projected IS date”

Reliability Analysis Update

Aaron Berner, Senior Manager

Transmission Expansion Advisory Committee
Tuesday, November 30, 2021

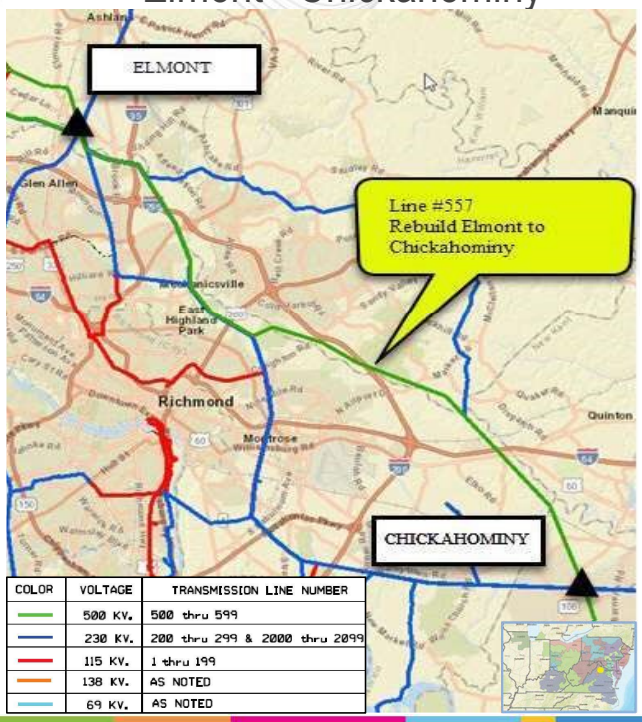
2021 RTEP Proposal Window

Dominion Transmission Zone: Baseline Elmont - Chickahominy

Process Stage: Second Review
Criteria: FERC Form 715 (C.2.9 End-of-Life Criteria)
Assumption Reference: 2026 RTEP assumption
Model Used for Analysis: 2026 RTEP cases
Proposal Window Exclusion: None
Problem Statement:
DOM-O2
500kV Line #557 Elmont to Chickahominy was constructed in 1971 with ACAR conductor and 5-series Corten towers that need to be rebuilt to current standards based on Dominion's End-of-Life Criteria.

Existing Facility Rating:

Branch	SN/SE/WN/WE (MVA)
8ELMONT – 8CHCKAHM 500kV	2598/2598/2988/3014



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SN / SE / WN / WE: Summer Normal / Summer Emergency / Winter Normal / Winter Emergency

Dominion Transmission Zone: Baseline Elmont - Chickahominy

As part of the 2021 RTEP Window #1, the following projects was proposed to address violations on 500kV Line #557:

Proposal ID	Proposing Entity	Upgrade Description	Upgrade Cost ($M)
124	Dominion	Line #557 Elmont to Chickahominy reconductor	58.155

Recommended Solution: Proposal #2021_1-124

- Rebuild approximately 27.7-miles of 500 kV transmission line from Elmont to Chickahominy with current 500 kV standards construction practices to achieve a summer rating of 4330 MVA. **(b3692)**

Preliminary Facility Rating:

Branch	SN/SE/WN/WE (MVA)
8ELMONT – 8CHCKAHM 500kV	4330/4330/4980/5023

Total Estimated Cost: $58.155M

Projected In-Service Date: 6/1/2026
Required In-Service Date: 6/1/2026

Previously Presented: 11/2/2021

Revision History

Version No.	Date	Description
1	11/23/2021	• Original slides posted
2	12/13/2021	• Slide #6, Changed the 2nd "Required IS date" to "Projected IS date"
3	4/27/2022	• Slide #29, Changed "Reconductor" to "Rebuild" for the 211/228 uprates in the Hopewell area.

Reliability Analysis Update

Stan Sliwa, Senior Lead Engineer
PJM Transmission Planning

Transmission Expansion Advisory Committee
May 6, 2025

Dominion Transmission Zone: Baseline 500kV Line #557 Elmont-Chickahominy

Scope Change for b3692 (500kV Line Elmont – Chickahominy):

Part of the recommended solution for 2021 RTEP Window 1 (2021-W1-124) is to rebuild 500kV line #557 Elmont – Chickahominy to address violations identified on the line based on Dominion's End-of-Life Criteria.

Original Proposed Scope:

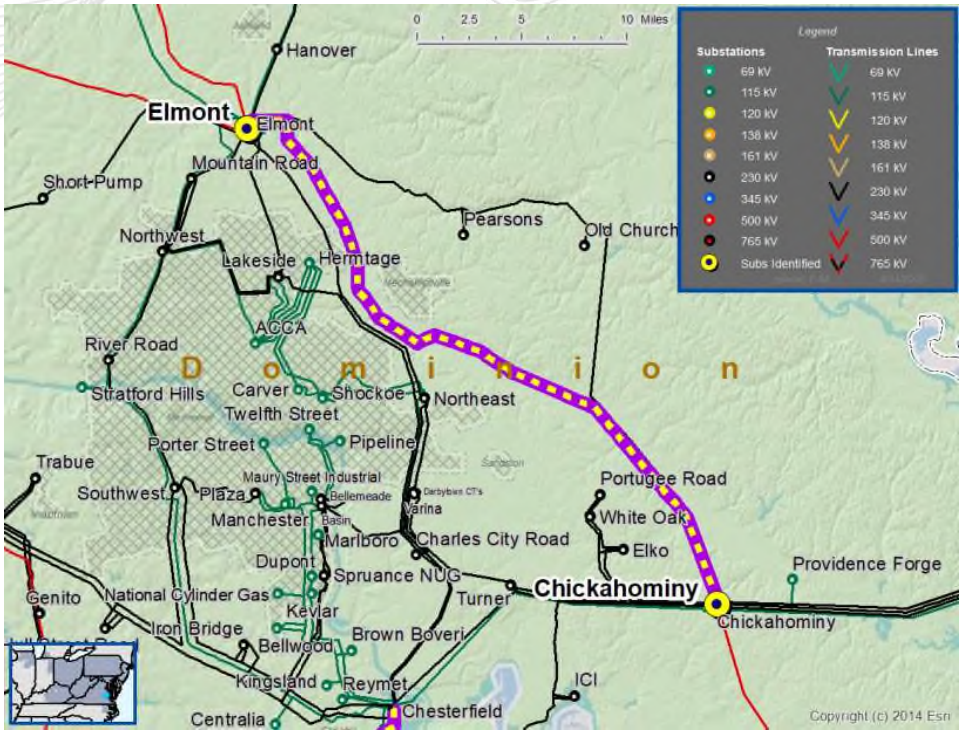
Rebuild approximately 27.7-miles of 500 kV transmission line from Elmont to Chickahominy with current 500 kV standards construction practices to achieve a summer rating of 4330 MVA.

Transmission Estimated Cost: $58.155 M

Required IS Date: 6/1/2026

Projected IS Date: 6/1/2026

Previously Presented: 11/30/2021



Dominion Transmission Zone: Baseline 500kV Line #557 Elmont-Chickahominy

Revised Solution for b3692 (500kV Line Elmont – Chickahominy):

Structure change from lattice structures to H-frame structures for the whole span of the transmission line.

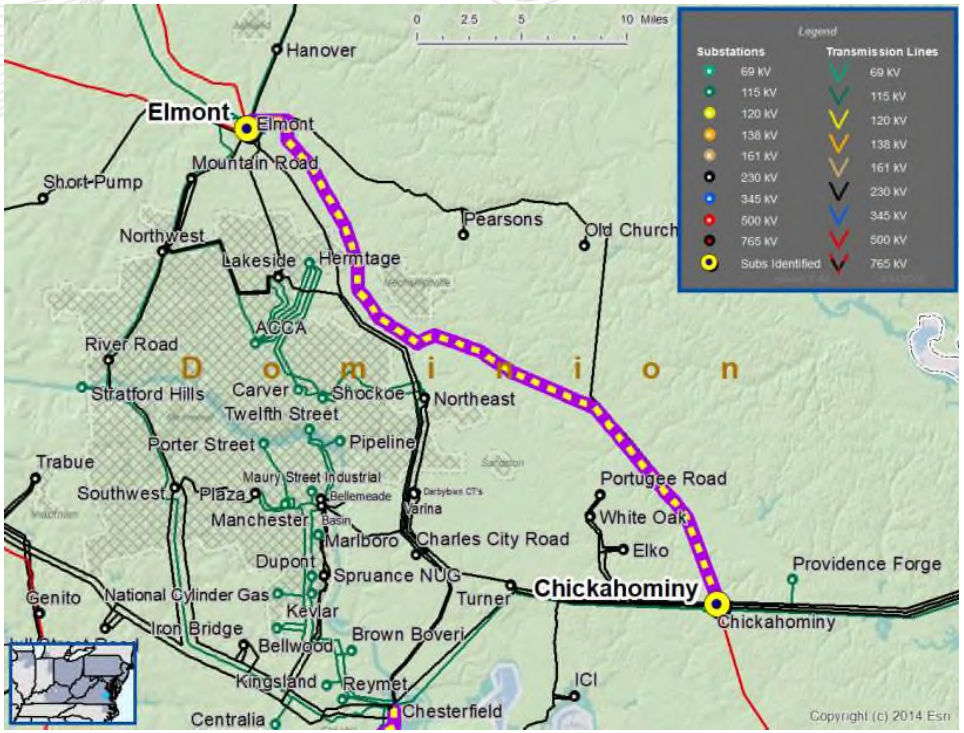
Reason for Scope Change & Cost Update:

Transmission ROW contains approximately 8 miles of heavy swamp terrain that requires additional materials for access increasing construction costs. In addition, inflation between 2021 & 2023 timeframes increased material costs.

Additional Cost Estimate: $52.5 M

Revised Cost Estimate: $110.66 M

Revised In-Service Date: 6/30/2028



Dominion Transmission Zone: Baseline 500kV Line #557 Elmont-Chickahominy

Additional 230kV Scope for b3692 (500kV Line Elmont – Chickahominy):

Switch to 5/2 H-frame structures and install approximately 27.7 miles of 230kV transmission line (but not be terminated) from Elmont to Chickahominy. String up approximately 8 miles of new 230kV conductor on the open arms of the structures of 230kV Line #2075 that runs parallel to 500kV Line #557.

Reason for additional 230kV Scope Change & Cost Update:

The general area within proximity of the Line #557 Elmont-Chickahominy rebuild has received approximately 15 Delivery Point requests, mainly data centers, since proposing this project during the 2021 RTEP Open Window 1.

Since Line #2075 runs parallel to Line #557 in the same ROW corridor, the 8 mile portion that runs through the heavy swamps will be strung up with new 230kV conductor on the open arms of the structures for Line #2075 for future use. This will minimize future environmental impacts and construction costs due to the challenges of the swampy terrain in this ROW.

Additional Scope Cost Estimate: $74.5 M

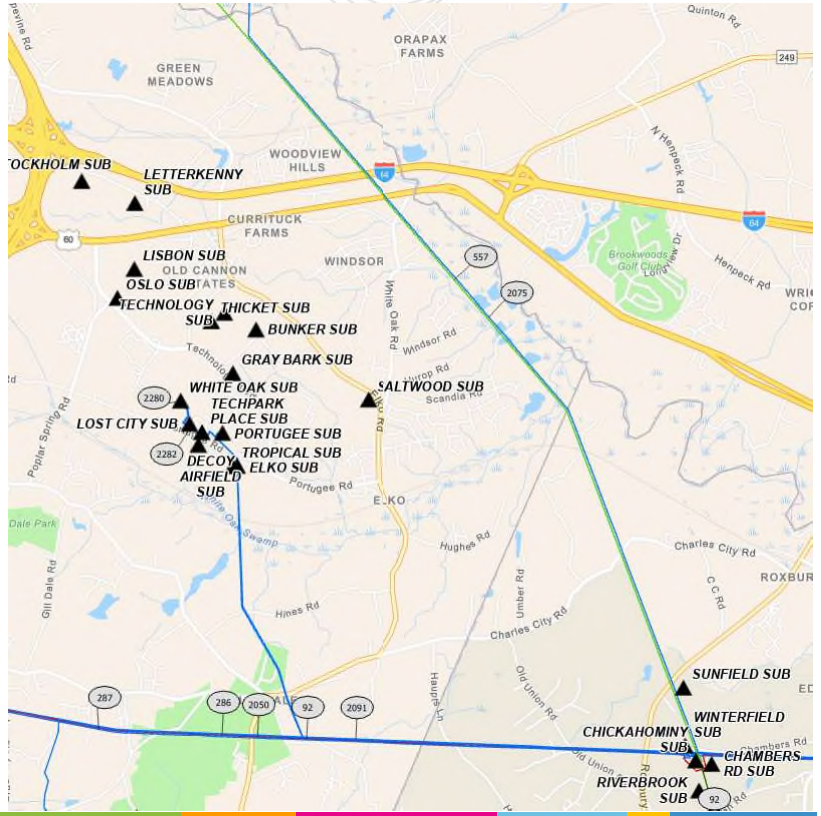
Original Cost Estimate: $58.155 M

Revised Cost Estimate: $110.66 M

Additional Scope Cost Estimate: $74.5 M

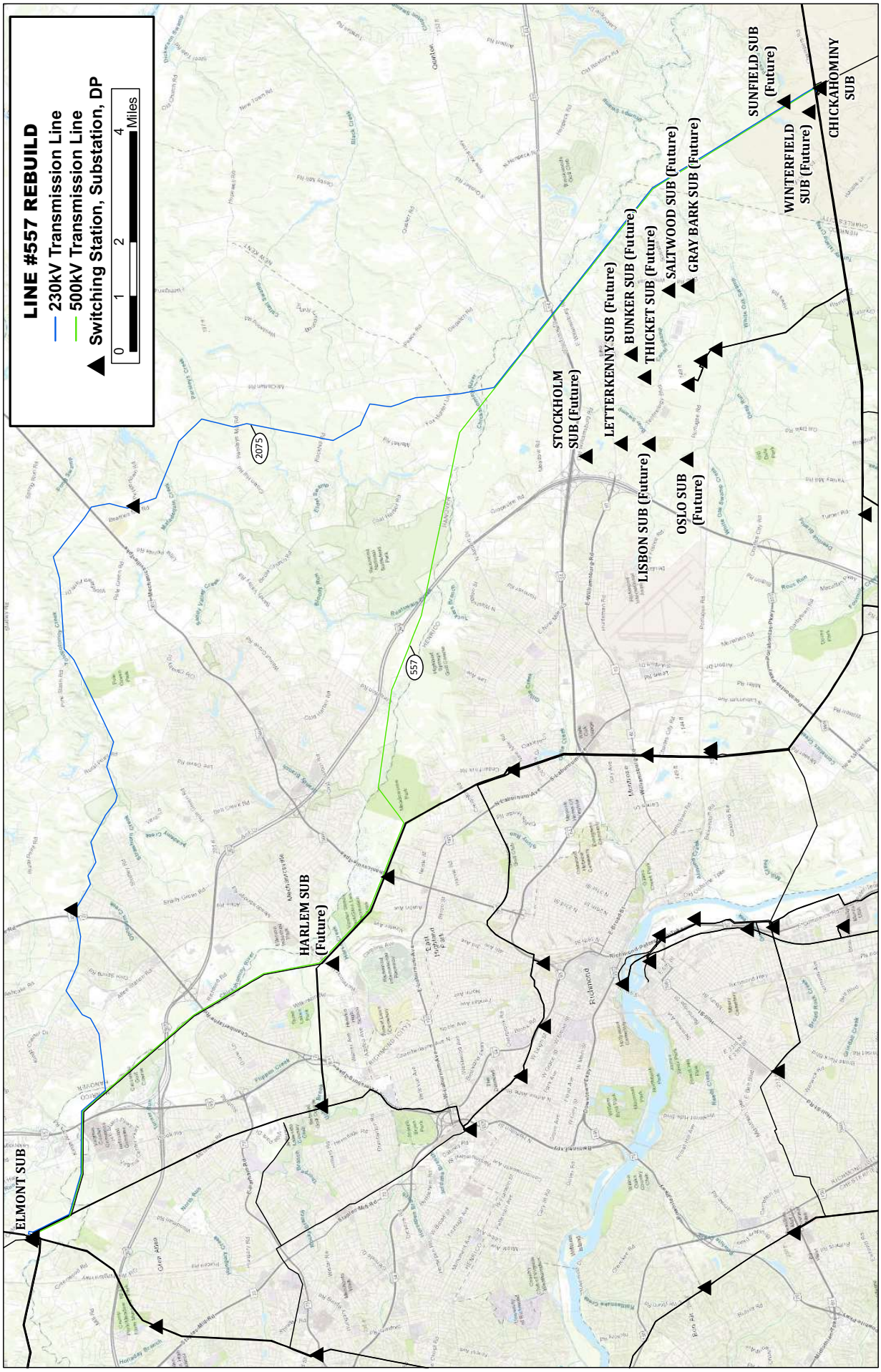
Total Proposed Cost Estimate: $185.16 M (increase of $127 M)

Revised In-Service Date: 6/30/2028



2026 GEN DELIV THERMAL RESULTS

Monitored Facility	Cont Name	ContType	Max of Final AC %LD	
			Scenario	
			2026SUM_BASE	2026_SUM_557OOS
314903 8CHCKAHM 500 314214 6CHCKAHM 230 1	DVP_P4-2: H4T567_SRT-A	Breaker	< 90%	145.86
314903 8CHCKAHM 500 314214 6CHCKAHM 230 2	DVP_P4-2: H1T567_SRT-A	Breaker	< 90%	145.86
314289 6DARBYTN 230 314236 6NRTHEST 230 1	DVP_P1-2: LN 563_SRT-SL	Single	< 90%	113.87
314285 6CHAPARRAL T 230 314316 6LOCKS 230 1	DVP_P4-2: 562T563_SRT-A	Breaker	96.2	109.47
314142 6STAFORD 230 314145 6AQUI_HARB_B 230 1	DVP_P1-2: LN 568_SRT-SL	Single	< 90%	106.64


LINE #557 REBUILD
230kV Transmission Line
500kV Transmission Line
Switching Station, Substation, DP
0
1
2
4
Miles
ELMONT SUB
HARLEM SUB (Future)
STOCKHOLM SUB (Future)
LETTERKENNY SUB (Future)
BUNKER SUB (Future)
THICKET SUB (Future)
LISBON SUB (Future)
OSLO SUB (Future)
SALTWOOD SUB (Future)
GRAY BARK SUB (Future)
WINTERFIELD SUB (Future)
SUNFIELD SUB (Future)
CHICKAHOMINY SUB
2075
557

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:

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.).

For a detailed description of the engineering justification of the proposed Rebuild Project, see Section I.A.

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.

See Section I.A. for known future projects.

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.

The power flow model used for the end-of-life study was the 2026 RTEP Case. The PJM RTEP model accounts for any known future generation, transmission, DP, or retail customer projects in addition to any existing or future generation or transmission facilities impacted in the affected area. The model also considered generation deactivations and projects that have been driven by the generation deactivations.

Facilities List

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

Other generation and transmission facilities that were included in the planning studies but that have not yet been placed into service include those identified in response to Section I.A above.

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: Attachment I.G.1 shows the portion of the transmission system in the area of the proposed Rebuild Project. Line #557 is part of the Company's 500 kV system, which supports the transfer of bulk power from generating resources to major load centers. Line #2075 is part of the Company's 230 kV network, which supports the delivery of electric generation to retail and wholesale customers.

The tables in Attachment I.C.1 provide the historic summer and winter loads from 2020-2024 and the projected summer and winter peak loads from 2025-2035 for the DOM Zone.

Line #557 Rebuild

The existing Line #557 cannot continue to adequately serve the needs of the Company and its customers due to the condition of its aging infrastructure as discussed in Section I.A. The Company has created a proactive plan to rebuild transmission lines that are comprised of COR-TEN® weathering steel towers, setting target completion dates for end-of-life projects based on the condition of the facilities, the Company's resources, and the need to schedule outages. The in-service date for the proposed Rebuild Project (December 31, 2028) also supports the conclusions reflected in the 2016 Quanta Report balanced against the timeline for permitting, construction, and obtaining necessary outages.

Completing the Rebuild Project will support the Company's ability to continue to provide reliable electric service to retail and wholesale customers and will support the future overall growth and system reliability in the area. See Section I.A.

The New Future 230 kV Lines

As discussed in Section I.A, between 2021 and 2024, the Company's Distribution Planning group submitted 11 DP requests to the Transmission Planning group in the transmission corridor between the Company's Chickahominy Substation and Elmont Substation associated with new data center developments. The new future 230 kV lines are therefore needed to help allow the Company to successfully satisfy the growing demand for electricity in the Chickahominy-Elmont Corridor while minimizing the need to rework customer interconnections, reducing outage durations, minimizing environmental impacts, and prudently reducing overall costs

as compared to retroactively installing 230 kV circuits in the same corridor as part of a future project.

Forecast Load MW

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	MAX	MIN
DOM Zone Summer	24406	26356	28255	30564	32506	34170	35630	37020	38438	39817	**39817**	**24406**
DOM Zone Winter	23381	24797	26527	28533	30310	32036	33501	34854	35919	37032	**37032**	**23381**

Historic Load MW

	2020	2021	2022	2023	2024						MAX	MIN
DOM Zone Summer	18602	20307	21046	21954	23502						**23502**	**18602**
DOM Zone Winter	17100	17446	19683	21835	21836						**21836**	**17100**

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: As discussed in Section I.C, the existing Line #557 cannot continue to adequately serve the current and projected needs of the Company and its customers because it is approaching the end of its useful service life. The Company has developed a plan to address its end-of-life facilities, setting completion target dates for end-of-life projects based on the condition of the facilities, the Company's resources, and the need to schedule outages. The Company has set December 31, 2028, as the target in-service date for the proposed Rebuild Project.

As discussed in Section I.A, the Company performed, and PJM validated, an end-of-life study with Line #557 modeled as out-of-service to assess the reliability impact of this line. The power flow model used was the 2026 RTEP Case. The study identified several thermal overloads which are shown in Attachment I.A.6.

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: Feasible Project Alternatives

No feasible alternatives have been submitted to PJM as the Rebuild Project's primary driver is the need to replace aging infrastructure at the end of its service life in compliance with the Company's Planning Criteria. See Section I.A. Alternatives requiring additional new right-of-way were not considered because the existing corridor is adequate to construct the proposed Rebuild Project. Furthermore, PJM did not require the Company to consider alternatives that would require new right-of-way to be built.

Analysis of Demand-Side Resources

Pursuant to the Commission's November 26, 2013, Order entered in Case No. PUE-2012-00029,[15] and its November 1, 2018, Final Order entered in Case No. PUR-2018-00075[16] ("2018 Final Order"), the Company is required to provide an analysis of demand-side resources ("DSM") as 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, PJM and the Company have identified a need for the proposed Rebuild Project in order to comply with mandatory Planning Criteria, thereby enabling the Company to maintain the overall long-term reliability of its transmission system and to comply with mandatory NERC Reliability Standards.[17] 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 Rebuild Project. Based on these considerations, the evaluation of the Rebuild

[15] *Application of Virginia Electric and Power Company d/b/a Dominion Virginia Power for approval and certification of electric facilities: Surry-Skiffes Creek 500 kV Transmission Line, Skiffes Creek-Whealton 230 kV Transmission Line, and Skiffes Creek 500 kV-230 kV-115 kV Switching Station*, Case No. PUE-2012-00029, Final Order (Nov. 26, 2023).

[16] *Application of Virginia Electric and Power Company for approval and certification of electric transmission facilities under Va. Code § 56-46.1 and the Utility Facilities Act*, Va. Code § 56-265.1 et seq., Case No. PUR-2018- 00075, Final Order (Nov. 1, 2018).

[17] 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.

Project demonstrated that despite accounting for DSM consistent with PJM's methods, the Rebuild Project is necessary.

Incremental DSM also will not eliminate the need for the Rebuild Project. As reflected in Attachment I.C.1 the highest annual projected peak load over the next 10 years in the DOM Zone is projected to total approximately 39,817 MW (including future planned stations). By way of comparison, statewide, the Company achieved demand savings of 276.5 MW (net) / 350.0 MW (gross) from its DSM programs in 2023.

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: The proposed Rebuild Project includes the removal of 132 500 kV single circuit weathering steel lattice towers supporting existing Line #557, which will be replaced with 125 500/230 kV double-circuit weathering steel H-frames; and 7 weathering steel 500/230 kV double-circuit three-pole structures[16]

The existing Line #557 3-phase twin-bundled 2500 ACAR conductors will be replaced with 3-phase triple-bundled 1351.5 ACSR conductors. The existing Line #557 3-phase twin-bundled 2500 ACAR conductors have a normal/emergency transfer capability of 2,598 MVA. The proposed triple-bundled 1351.5 ACSR conductors will have a normal/emergency transfer capability of 4,357 MVA.

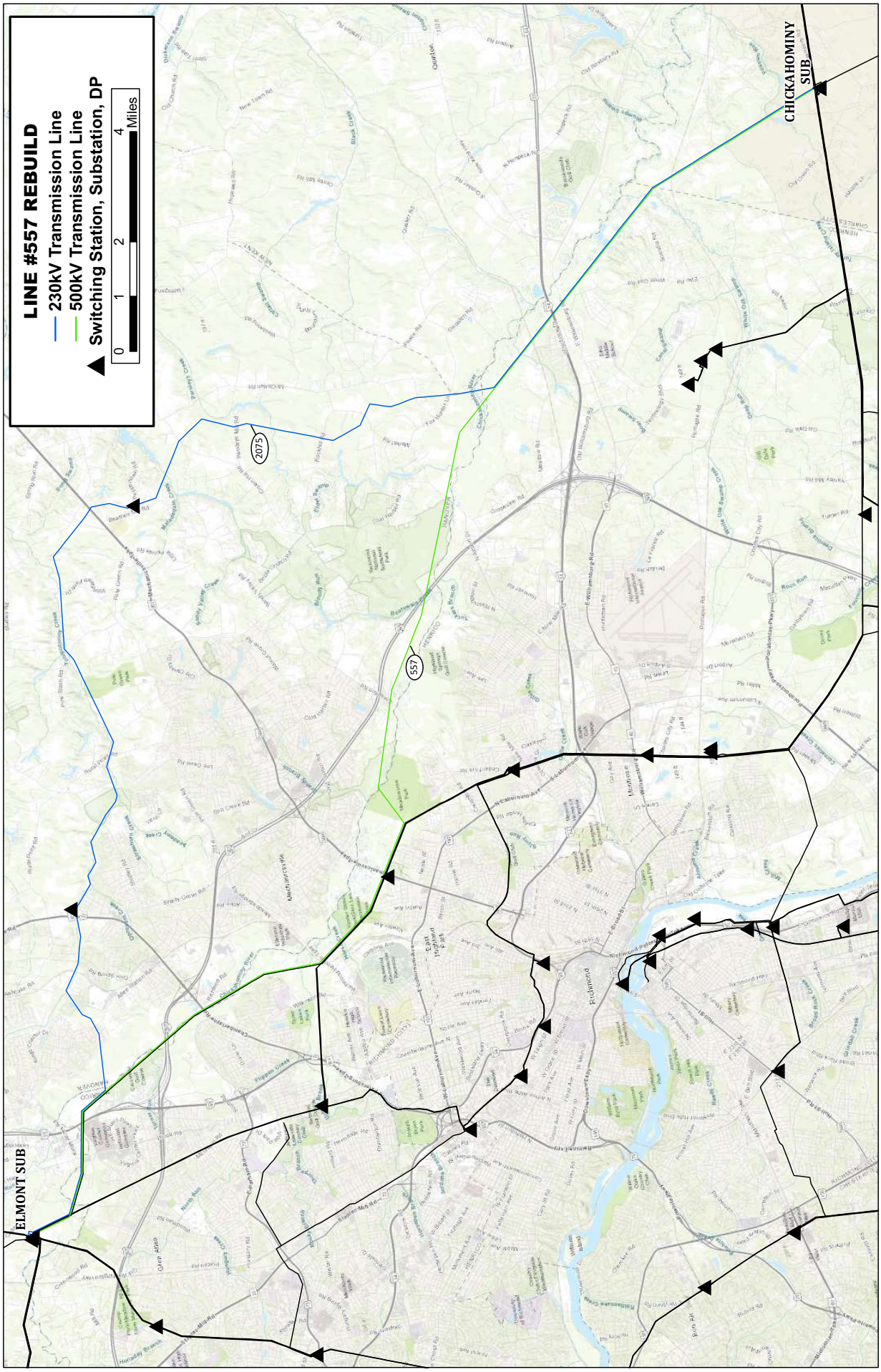
The two 7#7 alumoweld shield wires will be replaced with two fiber optic shield wires. The proposed conductors and shield wire will be non-specular (de-glared).

[16] No changes are anticipated for existing 230 kV Line #2075 except for the addition of conductor to existing vacant arms.

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.


LINE #557 REBUILD
230kV Transmission Line
500kV Transmission Line
Switching Station, Substation, DP
0
1
2
4
Miles
ELMONT SUB
CHICKAHOMINY SUB
2075
557
Richmond

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 Rebuild Project is December 31, 2028. The Company estimates it will take approximately 35 months after a final order from the Commission for detailed engineering, materials procurement, permitting, real estate, and construction of the Rebuild Project. 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 in Fall 2026, with the Rebuild Project to be completed by the in-service target date of December 31, 2028. This schedule is contingent upon obtaining the necessary permits and careful coordination of 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 labor shortages or materials/supply issues. Based on the Rebuild Project's complexity, there may be delays with procurement of materials.

Any adjustments to the Rebuild 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.*, December 31, 2028) and an authorization sunset date (*i.e.*, December 31, 2029) for energization of the Rebuild Project.[17]

In addition, the Company is monitoring actively regulatory changes and requirements associated with the NLEB and how they could potentially impact construction timing associated with TOYRs. The USFWS issued the final guidance, replacing the interim guidance, on October 23, 2024 and the final guidance was fully implemented November 30, 2024. The Company is reviewing the final guidance to the extent it applies to the Company's projects and will coordinate with USFWS during the permitting stage.

The Company is also monitoring potential regulatory changes associated with the potential up-listing of the 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, but as of the date of this filing, the TCB listing decision has not been issued. The Company is tracking actively this ruling and

[17] *See* n. 4.

evaluating the effects of potential outcomes on Company projects' permitting, construction, and in-service dates, including electric transmission projects.

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 estimated conceptual cost of the proposed Rebuild Project is approximately $186.6 million, which includes approximately $183.3 million for transmission-related work and approximately $3.3 million for substation-related work (2025 dollars).

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 500 kV components of the proposed Rebuild Project were first presented to the PJM stakeholders at the TEAC meeting as part of the 2021 Window #1 on November 2, 2021, and again on November 30, 2021 as an end-of-life rebuild project. The 500 kV components were approved by the PJM Board at its February 2022 meeting as baseline project b3692. See Attachments I.A.3 and I.A.4 for the relevant slides presented in the PJM TEAC meetings on November 2, 2021 and November 30, 2021. The cost allocation for the Line #557 Rebuild Project is shown in table below.

TEAC Recommendations to the PJM Board – February 2022

Attachment B – Reliability Project Multi-Zone Allocations

Upgrade ID	Description	Cost Estimate ($M)	Transmission Owner	Cost Responsibility	Required In-Service Date
b3692	Rebuild approximately 27.7 miles of 500 kV transmission line from Elmont to Chickahominy with current 500 kV standards construction practices to achieve a summer rating of 4330 MVA.	$58.16	Dominion	AEC (0.84%) / AEP (6.97%) / APS (2.82%) / ATSI (4.01%) / BGE (2.06%) / ComEd (6.73%) / Dayton (1.06%) / DEOK (1.69%) / DL (0.88%) / DPL (1.27%) / Dominion (56.49%) / EKPC (0.90%) / JCPL (1.96%) / ME (0.97%) / Neptune (0.12%) / OVEC (0.03%) / PECO (2.70%) / PENELEC (0.92%) / PEPCO (1.86%) / PPL (2.39%) / PSEG (3.20%) / RE (0.13%)	6/1/2026

The originally approved baseline project b3692, which was submitted during the 2021 Open Window, accounted for rebuilding Line #557 as a single circuit 500kV transmission line. However, due to the significant number of DP requests in the Richmond Load Area since 2021, the Company modified its proposal to rebuild Line #557 with a 230 kV circuit underbuilt and to string conductors on Line #2075's vacant arms. The Company submitted the Rebuild Project's updated cost and scope to PJM for approval on April 15, 2025. The updated project scope and in-service date will be presented by PJM at the May 6, 2025 TEAC meeting. See Attachment I.A.5 for the revised slides.

The Company anticipates that the cost allocation will remain the same for the 500 kV components of the Rebuild Project, but the incremental cost associated with the Rebuild Project's 230 kV components will be allocated 100% to the DOM Zone.

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 Rebuild Project is not driven by outage history, but rather by the need to replace transmission infrastructure nearing end of life, and to maintain reliable service for the load growth anticipated in the area. See Sections I.A and I.C.

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: See Attachment I.L.1 for pictures of the deterioration of structures on Line #557 and inspection records detailing their condition. Section I.A provides further detail on the condition of these deteriorating structures.

Reported By	Notification Date	Transmission Line/Struc	Cause Text 1	GPS Latitude	GPS Longitude
PrecisionHawk	5/1/2023	"557/226A, 567/226A"	Missing	37.4368439	-77.1579056
PrecisionHawk	5/1/2023	"557/226B"	Missing	37.4374657	-77.1581802
PrecisionHawk	5/1/2023	"557/227"	557_227 asset tag missing	37.4383812	-77.158638
PrecisionHawk	5/1/2023	"557/228"	557_228 discoloration on all phases	37.4410477	-77.1599121
PrecisionHawk	5/1/2023	"557/229"	557_229 missing asset tag	37.4442711	-77.1614532
PrecisionHawk	5/1/2023	"557/230"	557_230 helicopter tag needs replaced	37.4472351	-77.1628723
PrecisionHawk	5/1/2023	"557/231"	N/A	37.4499779	-77.1641846
PrecisionHawk	5/1/2023	"557/232"	N/A	37.4532242	-77.1657333
PrecisionHawk	5/1/2023	"557/233"	557_233 flashed phases	37.4561005	-77.1671066
PrecisionHawk	5/1/2023	"557/233"	557_233 rusting on static lines	37.4561005	-77.1671066
PrecisionHawk	5/1/2023	"557/234"	N/A	37.4593239	-77.1686478
PrecisionHawk	5/1/2023	"557/235"	557_235 helicopter tag	37.4619675	-77.1699066
PrecisionHawk	5/1/2023	"557/236"	557_236 rusting on static lines	37.4648132	-77.1712723
PrecisionHawk	5/1/2023	"557/237"	557_237 rusting and discoloration on all phases	37.4677658	-77.1726837
PrecisionHawk	5/1/2023	"557/238"	557_238 MCK on DL right static line	37.4706154	-77.1740417
PrecisionHawk	5/1/2023	"557/239"	557_239 rusting on all phases	37.4734993	-77.1754227
PrecisionHawk	5/1/2023	"557/240"	557_240 rusting all phases	37.4766159	-77.1769104
PrecisionHawk	5/1/2023	"557/240"	557_240 helicopter tag	37.4766159	-77.1769104
PrecisionHawk	5/1/2023	"557/241"	N/A	37.4797745	-77.178421
PrecisionHawk	5/1/2023	"557/242"	557_242 rusting on all phases	37.4822884	-77.1796265
PrecisionHawk	5/1/2023	"557/243"	557_243 rusting on all phases	37.484726	-77.1807861
PrecisionHawk	5/1/2023	"557/244"	557_244 rusting on all phases	37.4869003	-77.1831436
PrecisionHawk	5/1/2023	"557/245"	557_245 asset tag damaged	37.4894943	-77.1859436
PrecisionHawk	5/1/2023	"557/245"	557_245 helicopter tag	37.4894943	-77.1859436
PrecisionHawk	5/1/2023	"557/246"	557_246 discoloration on all phases	37.4921112	-77.1887741
PrecisionHawk	5/1/2023	"557/247"	Missing	37.4948959	-77.1917953
PrecisionHawk	5/1/2023	"557/248"	557_248 discoloration on insulator	37.4975777	-77.1946945
PrecisionHawk	5/1/2023	"557/249"	N/A	37.5001144	-77.1974411
PrecisionHawk	5/1/2023	"557/250"	N557_250 helicopter tag damaged	37.5024529	-77.1999741
PrecisionHawk	5/1/2023	"557/251"	N/A	37.5045624	-77.2022629
PrecisionHawk	5/1/2023	"557/252"	557_252 rusting on all phases	37.5064659	-77.2043152
PrecisionHawk	5/1/2023	"557/253"	557_253 rusting on all phases	37.5085373	-77.2065582
PrecisionHawk	5/1/2023	"557/254"	557_254 rusting on all phases	37.5109406	-77.2091675
PrecisionHawk	5/1/2023	"557/255"	557_255 rusting on all phases	37.5134048	-77.2118378
PrecisionHawk	5/1/2023	"557/255"	557_255 helicopter tag	37.5134048	-77.2118378

PrecisionHawk	5/1/2023	"557/256"	557_256 rusting on all phases	37.5159187	-77.2145615
PrecisionHawk	5/1/2023	"557/257"	557_257 rusting on all phases	37.5181503	-77.21698
PrecisionHawk	5/1/2023	"557/258"	557_258 rusting on all phases	37.5206451	-77.2196884
PrecisionHawk	5/1/2023	"557/259"	557_259 discoloration on all phases	37.5231056	-77.2223511
PrecisionHawk	5/1/2023	"557/260"	557_260 discoloration on all phases	37.5255241	-77.2249756
PrecisionHawk	5/1/2023	"557/260"	557_260 helicopter tag	37.5255241	-77.2249756
PrecisionHawk	5/1/2023	"557/260"	557_260 MCK middle phase	37.5255241	-77.2249756
PrecisionHawk	5/1/2023	"557/261"	557_261 rusting on both static lines	37.5280228	-77.227684
PrecisionHawk	5/1/2023	"557/262"	557_262 discoloration on all phases	37.5303383	-77.2301941
PrecisionHawk	5/1/2023	"557/263"	557_263 rusting on all phases	37.5328522	-77.2329254
PrecisionHawk	5/1/2023	"557/264"	N/A	37.5354691	-77.2357635
PrecisionHawk	5/1/2023	"557/265"	N/A	37.5379219	-77.2384186
PrecisionHawk	5/1/2023	"557/266"	557_266 flashing on phases	37.5403137	-77.2410126
PrecisionHawk	5/1/2023	"557/267"	557_267 rust and burn on all phases	37.5426216	-77.243515
PrecisionHawk	5/1/2023	"557/268"	N/A	37.5450363	-77.2461395
PrecisionHawk	5/1/2023	"557/269"	N/A	37.5468025	-77.2480545
PrecisionHawk	5/1/2023	"557/270"	557_270 helicopter tag	37.5477867	-77.2510071
PrecisionHawk	5/1/2023	"557/271"	557_271 asset tag missing	37.5488281	-77.2541351
PrecisionHawk	5/1/2023	"557/271"	557_271 static lines rusted	37.5488281	-77.2541351
PrecisionHawk	5/1/2023	"557/272"	557_272 asset tag missing	37.5500412	-77.2577972
PrecisionHawk	5/1/2023	"557/273"	557_273 discoloration on all phases	37.5513763	-77.2618103
PrecisionHawk	5/1/2023	"557/274"	557_274 rusting on all phases	37.5526352	-77.2656021
PrecisionHawk	5/1/2023	"557/275"	557_275 asset tag missing	37.5538521	-77.2692642
PrecisionHawk	5/1/2023	"557/275"	557_275 both static lines rusted	37.5538521	-77.2692642
PrecisionHawk	5/1/2023	"557/275"	557_275 helicopter tag	37.5538521	-77.2692642
PrecisionHawk	5/1/2023	"557/276"	N/A	37.5551567	-77.2731857
PrecisionHawk	5/1/2023	"557/277"	557_277 asset tag missing	37.5564117	-77.2769775
PrecisionHawk	5/1/2023	"557/278"	557_277 asset tag missing	37.557766	-77.281044
PrecisionHawk	5/1/2023	"557/279"	557_279 asset tag missing	37.5590057	-77.2847824
PrecisionHawk	5/1/2023	"557/280"	557_280 asset tag needs replaced	37.5604858	-77.2892456
PrecisionHawk	5/1/2023	"557/280"	557_280 helicopter tag	37.5604858	-77.2892456
PrecisionHawk	5/1/2023	"557/281"	557_281 discoloration on all phases	37.5619202	-77.2935562
PrecisionHawk	5/1/2023	"557/282"	N/A	37.5631561	-77.2972717
PrecisionHawk	5/1/2023	"557/283"	N/A	37.5645638	-77.301506
PrecisionHawk	5/1/2023	"557/284"	N/A	37.5659218	-77.3055801
PrecisionHawk	5/1/2023	"557/285"	557_285 helicopter tag	37.5674324	-77.3085861
PrecisionHawk	5/1/2023	"557/285"	557_285 rust and burns on all phases	37.5674324	-77.3085861

PrecisionHawk	5/1/2023	"557/286"	557_286 flashing on phases	37.5690918	-77.311821
PrecisionHawk	5/1/2023	"557/287"	557_287 asset tag damaged	37.5709496	-77.315506
PrecisionHawk	5/1/2023	"557/287"	557_287 rust and flashing on all phases	37.5709496	-77.315506
PrecisionHawk	5/1/2023	"557/288"	557_288 rkust and flashing on all phases	37.5727043	-77.318985
PrecisionHawk	5/1/2023	"557/289"	557_289 rust on all phases	37.5744019	-77.3223495
PrecisionHawk	5/1/2023	"557/290"	557_290 helicopter tag	37.5759315	-77.325386
PrecisionHawk	5/1/2023	"557/291"	N/A	37.5772858	-77.328064
PrecisionHawk	5/1/2023	"557/292"	557_292 rust on all phases and supports	37.5782166	-77.3314972
PrecisionHawk	5/1/2023	"557/293"	N/A	37.5789185	-77.3340759
PrecisionHawk	5/1/2023	"557/294"	557_294 rust and flashing on all phases	37.5799217	-77.3377762
PrecisionHawk	5/1/2023	"557/295"	557_295 asset tag missing	37.5809822	-77.3416748
PrecisionHawk	5/1/2023	"557/295"	557_295 helicopter tag needs replaced	37.5809822	-77.3416748
PrecisionHawk	5/1/2023	"557/296"	557_296 rust and flashing on all phases	37.5820618	-77.3456421
PrecisionHawk	5/1/2023	"557/297"	557_297 rust and flashing on all phases	37.5831146	-77.3495255
PrecisionHawk	5/1/2023	"557/298"	557_298 rust and flashing on all phases	37.5840988	-77.3531494
PrecisionHawk	5/1/2023	"557/299"	557_299 as tag damaged	37.5849762	-77.3563843
PrecisionHawk	5/1/2023	"557/299"	557_299 rust and flashing all phases	37.5849762	-77.3563843
PrecisionHawk	5/1/2023	"557/300"	557_300 helicopter tag	37.5857925	-77.3594513
PrecisionHawk	5/1/2023	"557/300"	557_300 rust on all phases	37.5857925	-77.3594513
PrecisionHawk	5/1/2023	"557/301"	557_301 rust and flashing on all phases	37.5847206	-77.362381
PrecisionHawk	5/1/2023	"557/302"	557_302 rust and flashing on all phases	37.5833893	-77.3659515
PrecisionHawk	5/1/2023	"557/302"	557_302 wrong asset tag	37.5833893	-77.3659515
PrecisionHawk	5/1/2023	"557/303"	557_303 no asset tag	37.582058	-77.3695068
PrecisionHawk	5/1/2023	"557/303"	557_303 rust and flashing on all phases	37.582058	-77.3695068
PrecisionHawk	5/1/2023	"557/304"	N/A	37.5809669	-77.3724823
PrecisionHawk	5/1/2023	"557/305"	557_305 helicopter tag	37.58218	-77.3749313
PrecisionHawk	5/1/2023	"557/305"	557_305 rust and flashing on all phases	37.58218	-77.3749313
PrecisionHawk	5/1/2023	"557/306"	557_306 rust and flashing on all phases	37.583477	-77.3774872
PrecisionHawk	5/1/2023	"557/307"	N/A	37.5849419	-77.3803864
PrecisionHawk	5/1/2023	"557/308"	N/A	37.5866127	-77.3836899
PrecisionHawk	5/1/2023	"557/309"	N/A	37.5882759	-77.3869781
PrecisionHawk	5/1/2023	"557/310"	557_310 helicopter tag	37.5898705	-77.3901291
PrecisionHawk	5/1/2023	"557/310"	557_310 rust and flashing all phases	37.5898705	-77.3901291
PrecisionHawk	5/1/2023	"557/311"	557_311 rust and flashing all phases	37.5915756	-77.3935013
PrecisionHawk	5/1/2023	"557/312"	557_312 rust on both statics and phases	37.5931511	-77.3966217
PrecisionHawk	5/1/2023	"557/313"	N/A	37.5943794	-77.3990402
PrecisionHawk	5/1/2023	"557/314"	557_314 rust and flashing on all phases	37.5967674	-77.4012299

PrecisionHawk	5/1/2023	"557/315"	557_315 helicopter tag	37.5992622	-77.403511
PrecisionHawk	5/1/2023	"557/315"	557_315 rust and flashing on all phases	37.5992622	-77.403511
PrecisionHawk	5/1/2023	"557/316"	557_316 rust and flashing on all phases	37.6020699	-77.4060822
PrecisionHawk	5/1/2023	"557/317"	557_317 rust and flashing on all phases	37.6049156	-77.4086838
PrecisionHawk	5/1/2023	"557/318"	N/A	37.6077766	-77.4113007
PrecisionHawk	5/1/2023	"557/319"	N/A	37.6097336	-77.4130859
PrecisionHawk	5/1/2023	"557/320"	557_320 helicopter tag	37.6118393	-77.413063
PrecisionHawk	5/1/2023	"557/321"	N/A	37.6149635	-77.4130249
PrecisionHawk	5/1/2023	"557/322"	N/A	37.6183968	-77.4129868
PrecisionHawk	5/1/2023	"557/323"	N/A	37.6218147	-77.4129486
PrecisionHawk	5/1/2023	"557/324"	N/A	37.6246033	-77.4129105
PrecisionHawk	5/1/2023	"557/325"	557_325 helicopter tag	37.627636	-77.4142914
PrecisionHawk	5/1/2023	"557/325"	557_325 rust and flashing on all phases	37.627636	-77.4142914
PrecisionHawk	5/1/2023	"557/326"	N/A	37.6308823	-77.4157715
PrecisionHawk	5/1/2023	"557/327"	557_327 rust and flashing on all phases	37.6341629	-77.4172592
PrecisionHawk	5/1/2023	"557/328"	N/A	37.637413	-77.4187393
PrecisionHawk	5/1/2023	"557/329"	N/A	37.640358	-77.4200745
PrecisionHawk	5/1/2023	"557/330"	Missing	37.6424599	-77.4210358
PrecisionHawk	5/1/2023	"557/331"	N/A	37.6446495	-77.4220276
PrecisionHawk	5/1/2023	"557/332"	N/A	37.6469765	-77.4237289
PrecisionHawk	5/1/2023	"557/333"	N/A	37.6492538	-77.4253922
PrecisionHawk	5/1/2023	"557/334"	N/A	37.6517792	-77.4272385
PrecisionHawk	5/1/2023	"557/335"	557_335 rust	37.653759	-77.428688
PrecisionHawk	5/1/2023	"557/336"	557_336 rust and flashing on all phases	37.6562233	-77.4304886
PrecisionHawk	5/1/2023	"557/337"	557_337 asset tag missing	37.6591949	-77.432663
PrecisionHawk	5/1/2023	"557/338"	557_338 asset tag missing	37.6620598	-77.434761
PrecisionHawk	5/1/2023	"557/339"	557_339 MCK on middle phase	37.665123	-77.4370041
PrecisionHawk	5/1/2023	"557/340"	557_340 helicopter tag	37.6679115	-77.4390411
PrecisionHawk	5/1/2023	"557/341"	557_341 rust and flashing on phases	37.6706505	-77.44104
PrecisionHawk	5/1/2023	"557/342"	N/A	37.673378	-77.4430389
PrecisionHawk	5/1/2023	"557/343"	557_343 rusting on both static lines	37.675766	-77.4447861
PrecisionHawk	5/1/2023	"557/344"	557_344 splicing	37.6780281	-77.4464417
PrecisionHawk	5/1/2023	"557/345"	557_345 helicopter tag	37.6785202	-77.4494858
PrecisionHawk	5/1/2023	"557/346"	557_346 discoloration on all phases	37.6790085	-77.4525223
PrecisionHawk	5/1/2023	"557/347"	557_347 rust and flashing on all phses	37.6795616	-77.4559402
PrecisionHawk	5/1/2023	"557/348"	557_348 rust and flahsing on all phases	37.6800804	-77.4591522
PrecisionHawk	5/1/2023	"557/349"	N/A	37.6805649	-77.4621582

PrecisionHawk	5/1/2023	"557/350"	557_350 helicopter tag	37.6810875	-77.4654083
PrecisionHawk	5/1/2023	"557/351"	557_351 MCK DL left phase	37.6813354	-77.4669189
PrecisionHawk	5/1/2023	"557/352"	557_352 MCK on DL left phase	37.682663	-77.4702377
PrecisionHawk	5/1/2023	"557/353"	557_353 rust and flashing on all phases	37.6841354	-77.4738922
PrecisionHawk	5/1/2023	"557/354"	557_354 rust and flashing on all phases	37.685791	-77.4780121
PrecisionHawk	5/1/2023	"557/355"	557_355 helicopter tag	37.6867294	-77.4803314
PrecisionHawk	5/1/2023	"557/356"	557_356 rust and flashing on all phases	37.6897888	-77.4813919
PrecisionHawk	5/1/2023	"557/357"	557_357 rust and flashing on all phases	37.6929893	-77.4824905
PrecisionHawk	5/1/2023	"557/358"	N/A	37.6959915	-77.4835205
PrecisionHawk	5/1/2023	"557/359"	Missing	37.6970329	-77.4855957
PrecisionHawk	5/1/2023	"553/808, 557/360, 574/1A	Missing	37.6982231	-77.4849548
PrecisionHawk	5/1/2023				
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37.1608772 -76.6945496 I231/1
37.1599312 -76.6953964 I231/2
37.1592026 -76.6960526 I231/3

NICKNAME	MANUFACTURER	MODEL	SERIAL NUMBER	REGISTRATION	ISSUED	EXPIRES	STATUS
Mantis	Parrot	Anafi	PS728210AB1C000757	FA3EC3RMK9	05/03/2021	05/03/2024	Active
La Salle	Parrot	Anafi	PS728210AB1C000728	FA3YNACRXK	04/01/2021	04/01/2024	Active

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: Not applicable.

II. DESCRIPTION OF THE PROPOSED PROJECT

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

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

Response: The total length of the existing Rebuild Project transmission corridor is approximately 27.6 miles between Chickahominy Substation (Structure #557/227) and Elmont Substation (Structure # 557/360) and approximately 8.1 miles between Chickahominy Substation (Structure #2075/185) to Structure #2075/148. The right-of-way is located within Charles City, Henrico, and Hanover Counties, Virginia.

The Rebuild Project will be constructed entirely within existing transmission line right-of-way or on Company-owned property, with no additional rights-of-way required. Because alternatives to the Rebuild Project that would require new rights-of-way were not considered, no alternative routes are proposed. See Section II.A.9.

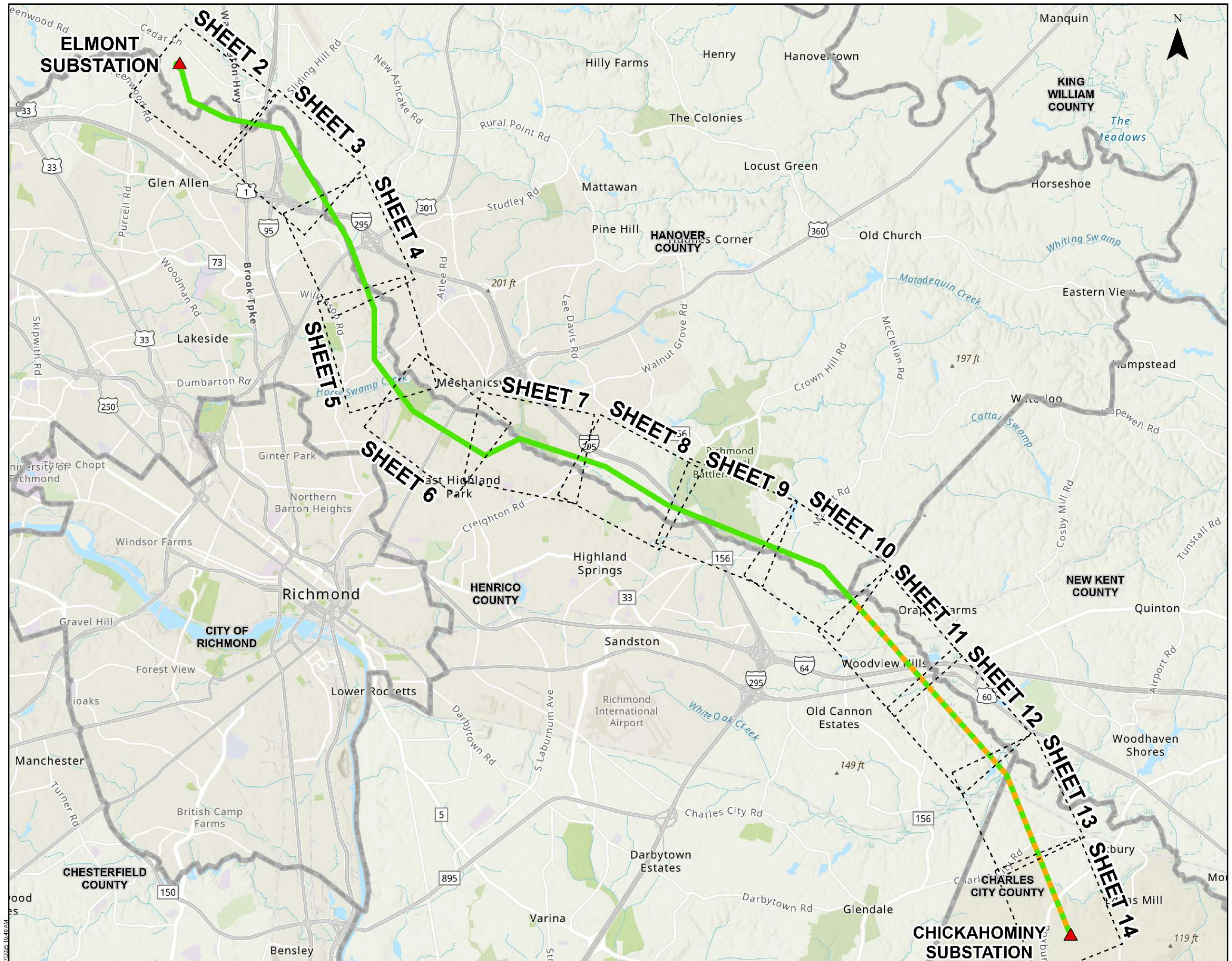
II. DESCRIPTION OF THE PROPOSED PROJECT

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, which includes existing linear utilities paralleled by the existing transmission line corridor. The Rebuild Project is entirely located within existing transmission line right-of-way or on Company-owned property. No portion of the right-of-way is proposed to be quitclaimed or relinquished.

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 Rebuild Project Application.



ATTACHMENT II.A.2
ENVIRONMENTAL CONSTRAINTS MAP

Chickahominy-Elmont Line #557 Rebuild and New Future 230 kV Lines

Hanover, Henrico, and Charles City Counties, Virginia

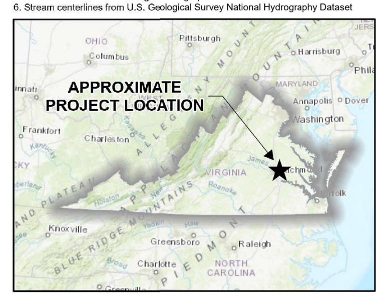
Client:
Dominion Energy Virginia

C2 Env Project:	Prepared By:	Date:
0264	KAS	03/10/25

0 1 2 4 Miles
Scale is 1 IN = 2 MI when printed at original size of 11x17

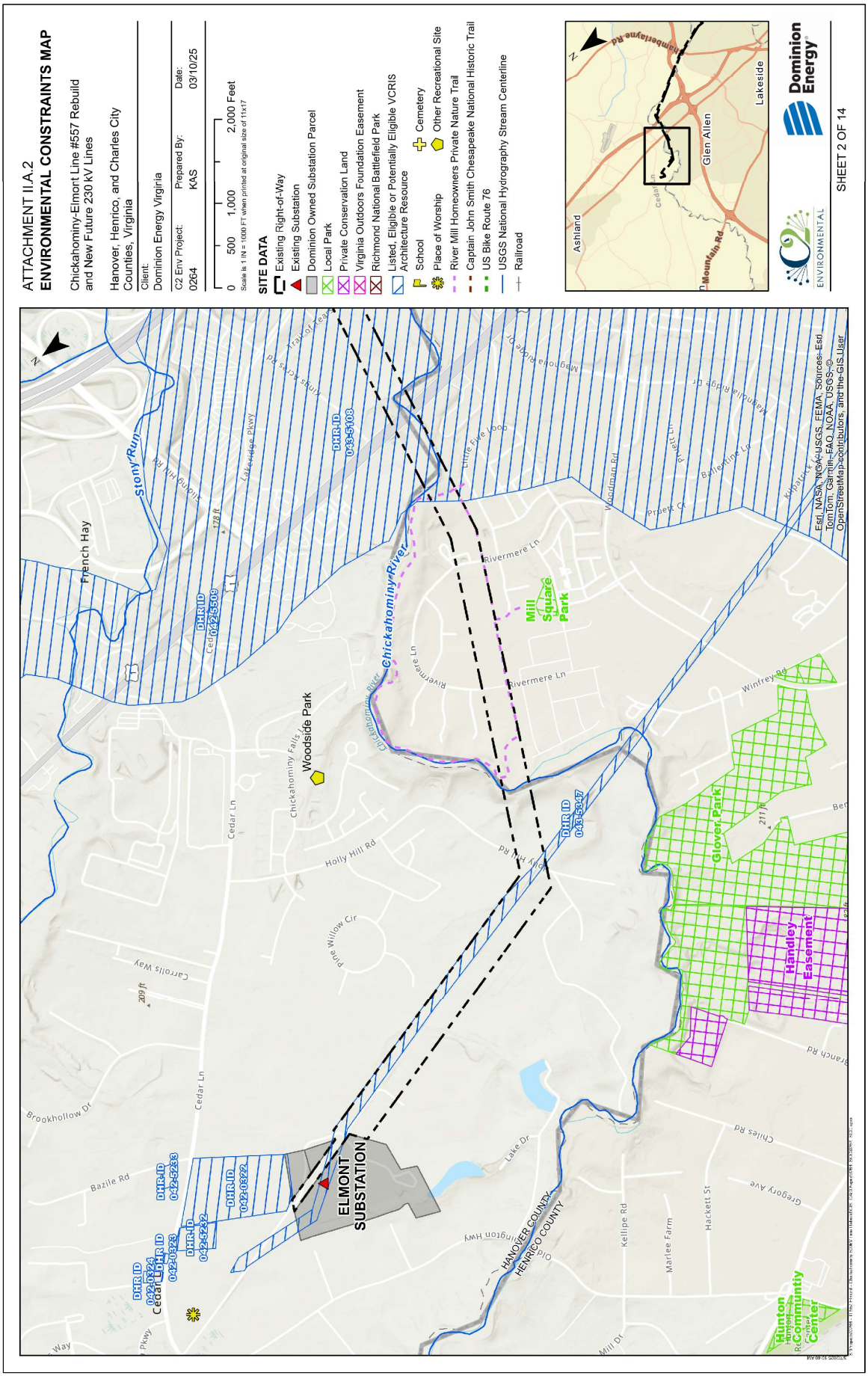
- Existing 500 kV Line #557 - Rebuild with 500/230 kV Structures and Install 230 kV Conductors on Vacant Arms
- Existing Line #2075 - Install Second Set of 230 kV Conductors on Vacant Arms
- Existing Substation
- County Boundary

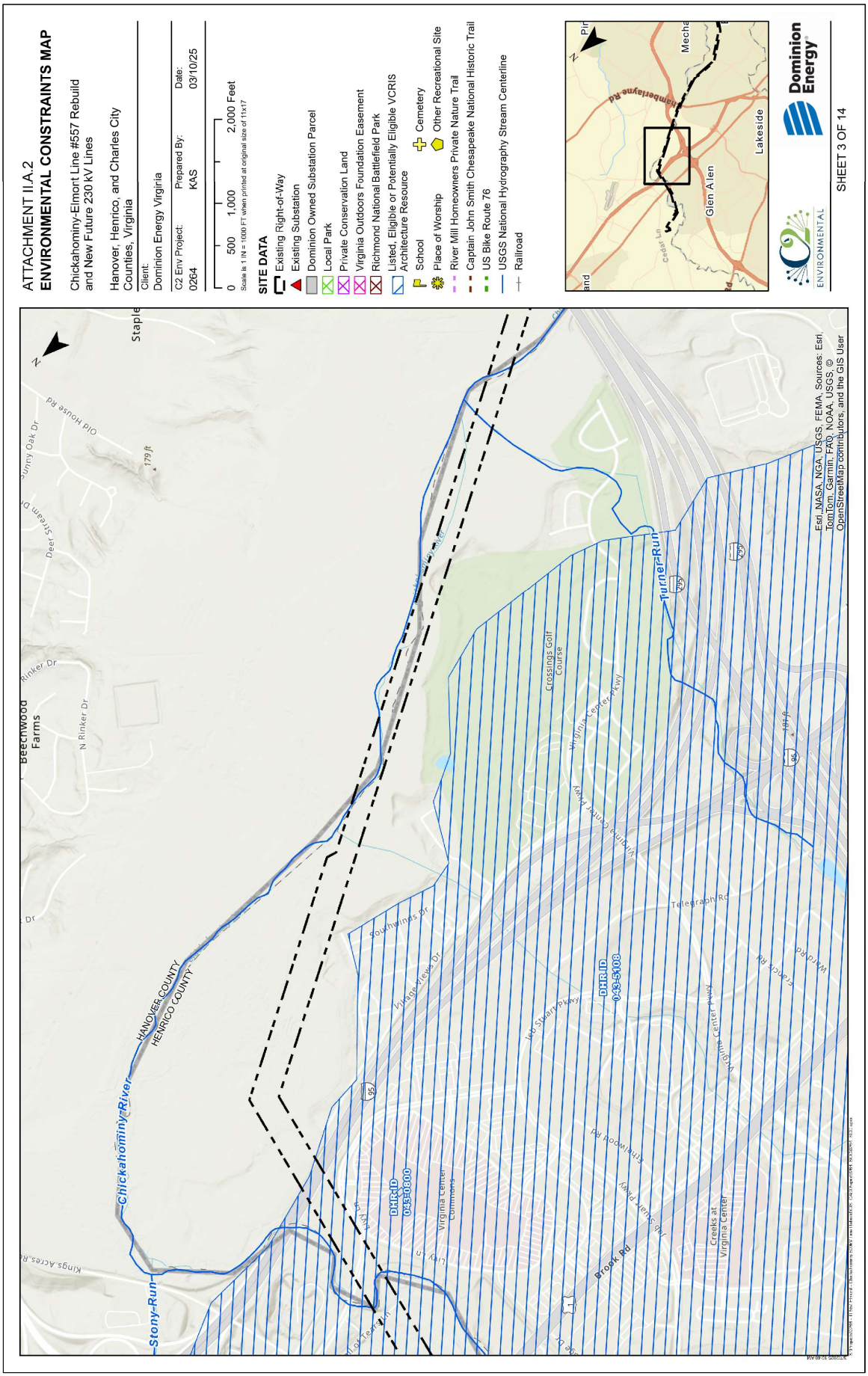
Notes:
1. Basemap from ESRI World Topographic Map
2. Project centerline provided by Dominion Energy Virginia
3. Conservation lands, easements, and local lands from Virginia Department of Conservation and Recreation, U.S. Geological Survey Protected Areas Database of the U.S., and Department of Historic Resources Virginia Cultural Resources Information System
4. Places digitized from Google Earth
5. Roads and railroads from Virginia Geographic Information Network
6. Stream centerlines from U.S. Geological Survey National Hydrography Dataset



C2 ENVIRONMENTAL
Dominion Energy

SHEET 1 OF 14


ATTACHMENT II.A.2
ENVIRONMENTAL CONSTRAINTS MAP
Chickahominy-Elmont Line #557 Rebuild and New Future 230 kV Lines
Hanover, Henrico, and Charles City Counties, Virginia
Client: Dominion Energy Virginia
C2 Env Project: 0264
Prepared By: KAS
Date: 03/10/25
0 500 1,000 2,000 Feet
Scale is 1 IN = 1000 FT when printed at original size of 11x17
SITE DATA
Existing Right-of-Way
Existing Substation
Dominion Owned Substation Parcel
Local Park
Private Conservation Land
Virginia Outdoors Foundation Easement
Richmond National Battlefield Park
Listed, Eligible or Potentially Eligible VCRIS Architecture Resource
School
Cemetery
Place of Worship
Other Recreational Site
River Mill Homeowners Private Nature Trail
Captain John Smith Chesapeake National Historic Trail
US Bike Route 76
USGS National Hydrography Stream Centerline
Railroad
Ashland
Glen Allen
Lakeside
Dominion Energy
ENVIRONMENTAL
SHEET 2 OF 14
ELMONT SUBSTATION
Chickahominy River
Stony Run
Woodside Park
Mill Square Park
Glover Park
Handley Easement
HANOVER COUNTY
HENRICO COUNTY
Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User


ATTACHMENT II.A.2
ENVIRONMENTAL CONSTRAINTS MAP
Chickahominy-Elmort Line #557 Rebuild and New Future 230 kV Lines
Hanover, Henrico, and Charles City Counties, Virginia
Client: Dominion Energy Virginia
C2 Env Project: 0264
Prepared By: KAS
Date: 03/10/25
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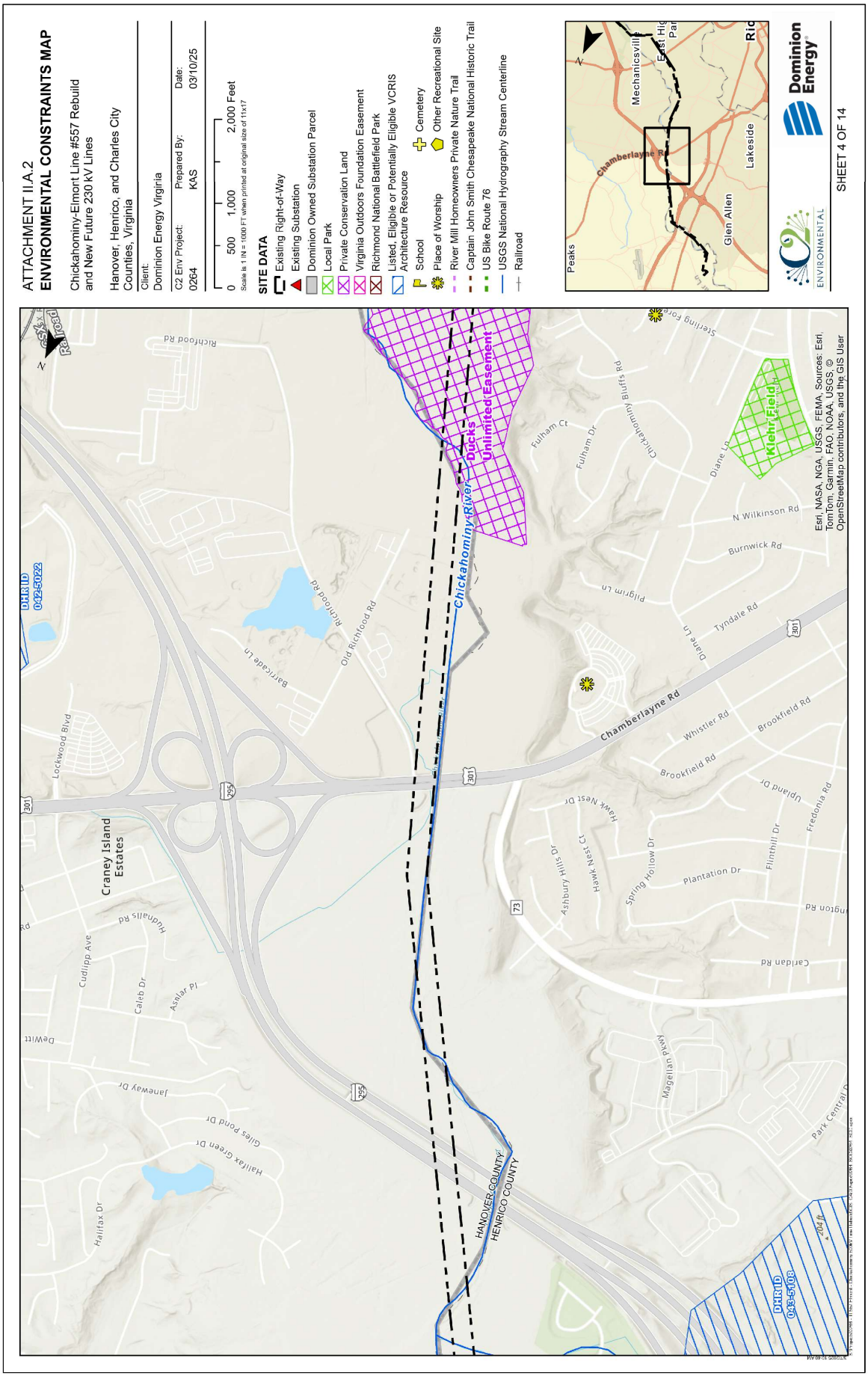
Dominion Owned Substation Parcel
Local Park
Private Conservation Land
Virginia Outdoors Foundation Easement
Richmond National Battlefield Park
Listed, Eligible or Potentially Eligible VCRIS Architecture Resource
School
Cemetery
Place of Worship
Other Recreational Site
River Mill Homeowners Private Nature Trail
Captain John Smith Chesapeake National Historic Trail
US Bike Route 76
USGS National Hydrography Stream Centerline
Railroad
Chickahominy River
Stony Run
Turner Run
HANOVER COUNTY
HENRICO COUNTY
DHR ID 0330300
DHR ID 043-5108
Beechwood Farms
Crossings Golf Course
Virginia Center Commons
Creeks at Virginia Center
Brook Rd
Telegraph Rd
Virginia Center Pkwy
Jet Stream Pkwy
Lakeside
Glen Allen
Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User
Dominion Energy
ENVIRONMENTAL
SHEET 3 OF 14


ATTACHMENT II.A.2
ENVIRONMENTAL CONSTRAINTS MAP
Chickahominy-Elmort Line #557 Rebuild and New Future 230 kV Lines
Hanover, Henrico, and Charles City Counties, Virginia
Client: Dominion Energy Virginia
C2 Env Project: 0264
Prepared By: KAS
Date: 03/10/25
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SITE DATA
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Existing Substation
Dominion Owned Substation Parcel
Local Park
Private Conservation Land
Virginia Outdoors Foundation Easement
Richmond National Battlefield Park
Listed, Eligible or Potentially Eligible VCRIS Architecture Resource
School
Cemetery
Place of Worship
Other Recreational Site
River Mill Homeowners Private Nature Trail
Captain John Smith Chesapeake National Historic Trail
US Bike Route 76
USGS National Hydrography Stream Centerline
Railroad
Chamberlayne Rd
Peaks
Mechanicsville
Glen Allen
Lakeside
Dominion Energy
ENVIRONMENTAL
SHEET 4 OF 14
Chickahominy River
Ducks Unlimited Easement
Kiehn Field
Craney Island Estates
HANOVER COUNTY
HENRICO COUNTY
DHR ID 042-5022
DHR ID 020-5106
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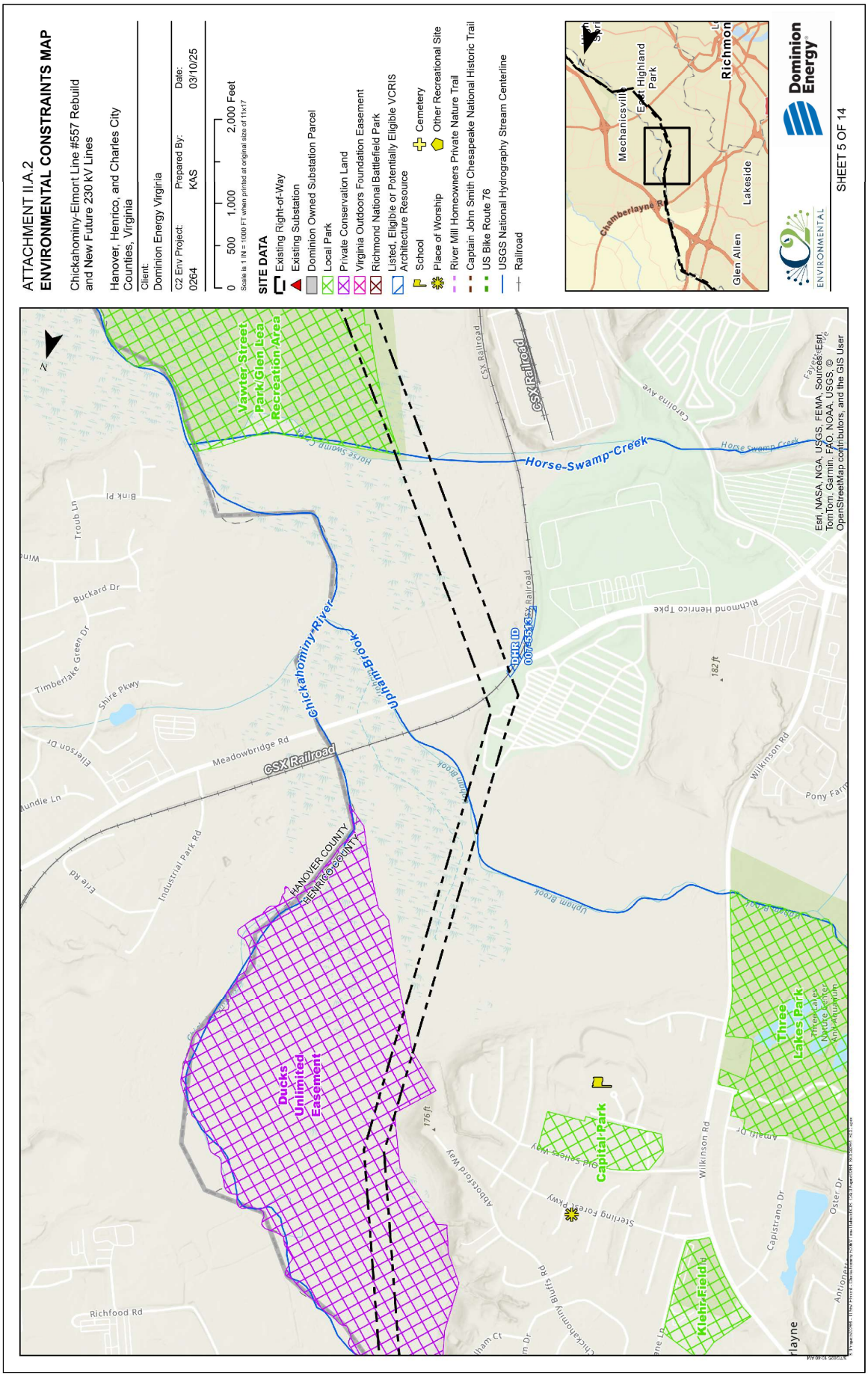
ATTACHMENT II.A.2
ENVIRONMENTAL CONSTRAINTS MAP
Chickahominy-Elmort Line #557 Rebuild and New Future 230 kV Lines
Hanover, Henrico, and Charles City Counties, Virginia
Client: Dominion Energy Virginia
C2 Env Project: 0264
Prepared By: KAS
Date: 03/10/25
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Private Conservation Land
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Richmond National Battlefield Park
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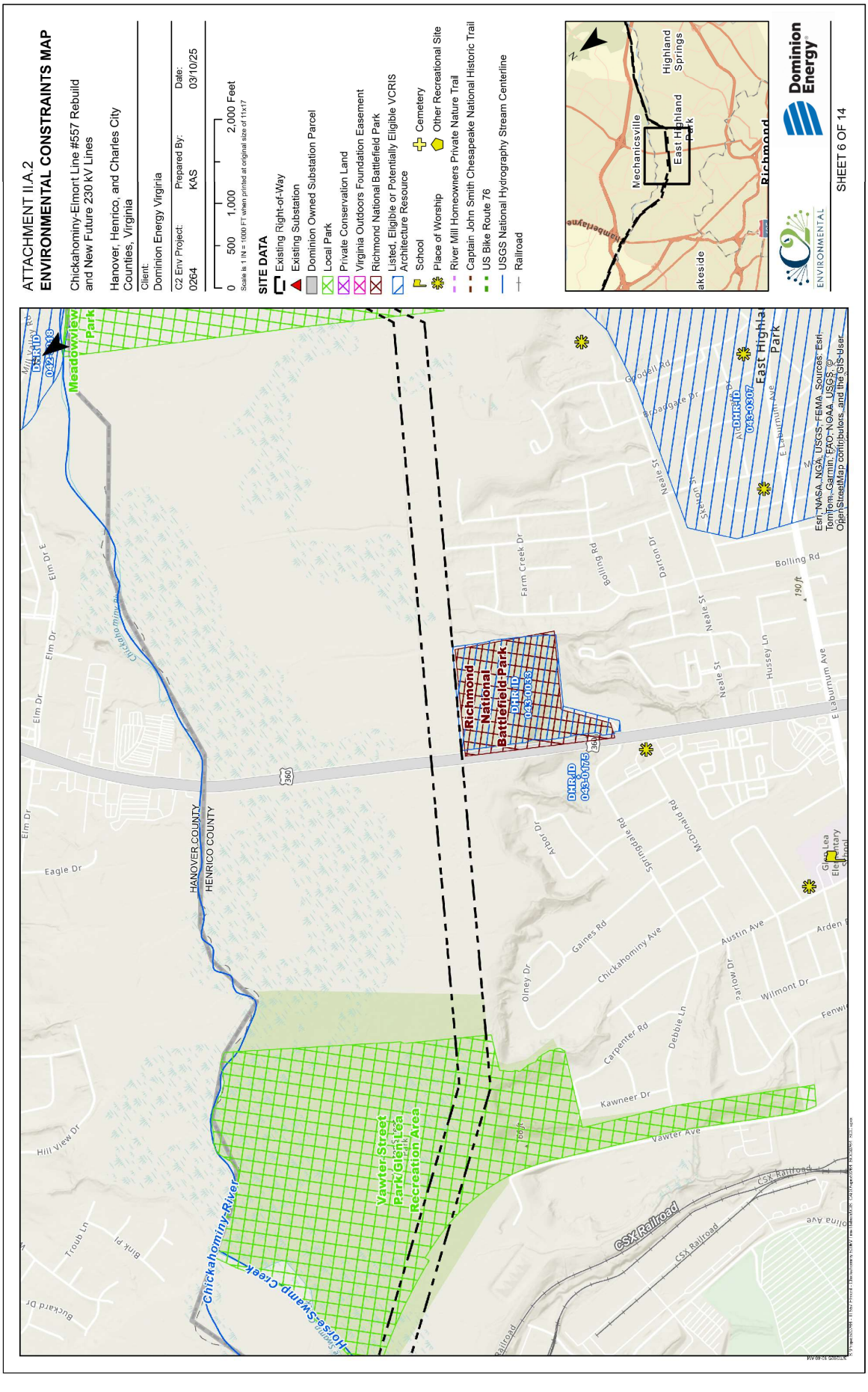
Cemetery
Place of Worship
Other Recreational Site
River Mill Homeowners Private Nature Trail
Captain John Smith Chesapeake National Historic Trail
US Bike Route 76
USGS National Hydrography Stream Centerline
Railroad
Dominion Energy
ENVIRONMENTAL
SHEET 5 OF 14
Vawter Street Park/Glen Lea Recreation Area
Horse Swamp Creek
CSX Railroad
Chickahominy River
Upham Brook
VDHR ID 007-5514
Ducks Unlimited Easement
HANOVER COUNTY
HENRICO COUNTY
Three Lakes Park
Capital Park
Klehr Field
Richmond Henrico Tpke
Meadowbridge Rd
Wilkinson Rd
Industrial Park Rd
Richfood Rd
Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User


ATTACHMENT II.A.2
ENVIRONMENTAL CONSTRAINTS MAP
Chickahominy-Elmort Line #557 Rebuild and New Future 230 kV Lines
Hanover, Henrico, and Charles City Counties, Virginia
Client: Dominion Energy Virginia
C2 Env Project: 0264
Prepared By: KAS
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Other Recreational Site
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Captain John Smith Chesapeake National Historic Trail
US Bike Route 76
USGS National Hydrography Stream Centerline
Railroad
Meadowview Park
Richmond National Battlefield Park
Vawter Street Park, Gilbert Lea Recreation Area
Chickahominy River
Horse Swamp Creek
HANOVER COUNTY
HENRICO COUNTY
CSX Railroad
East Highland Park
Mechanicsville
Highland Springs
Richmond
Dominion Energy
ENVIRONMENTAL
SHEET 6 OF 14
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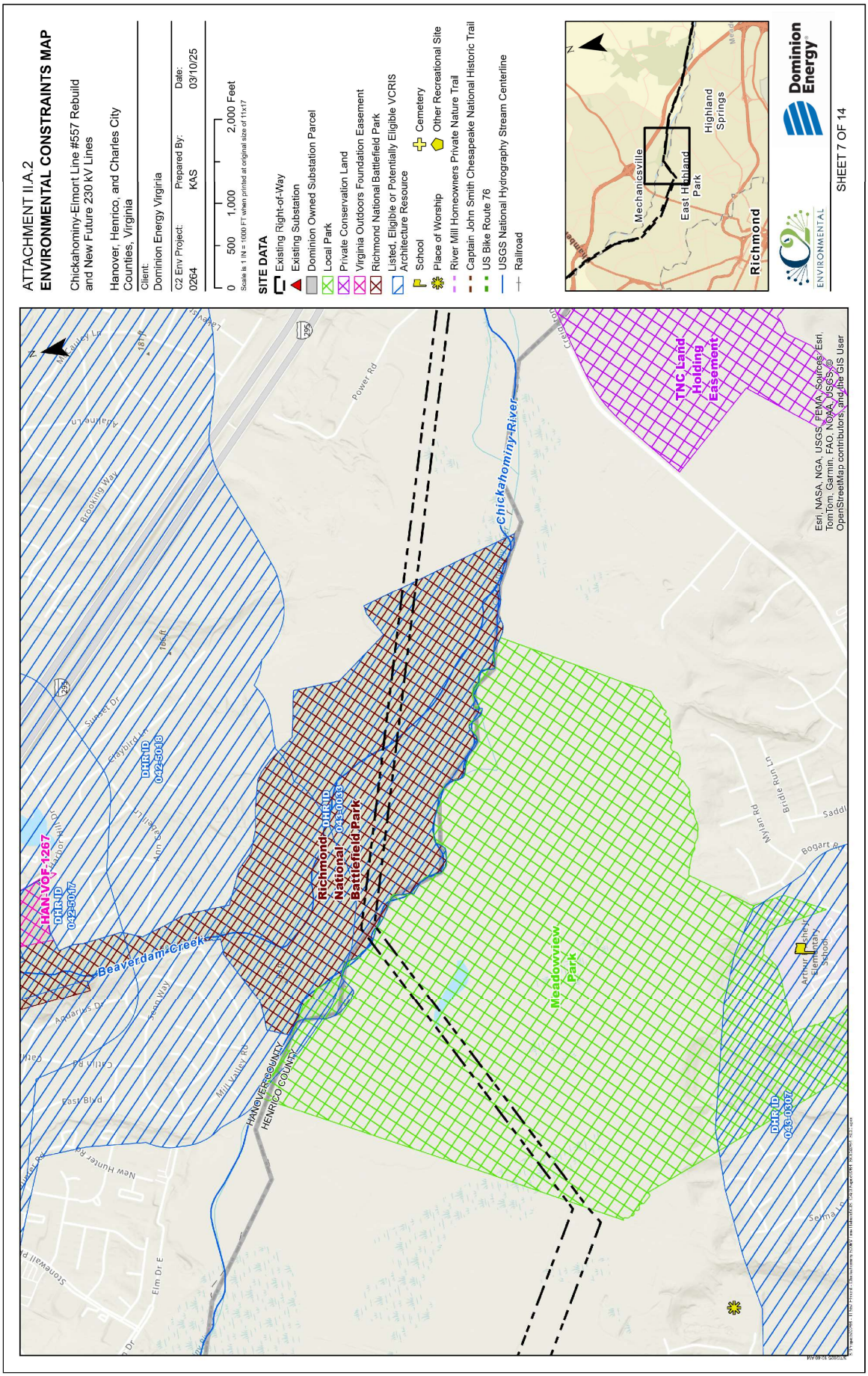
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ENVIRONMENTAL CONSTRAINTS MAP
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Mechanicsville
East Highland Park
Highland Springs
Dominion Energy
ENVIRONMENTAL
SHEET 7 OF 14
HAN-VOF-1267
DHD
042-5007
Beaverdam Creek
Richmond National Battlefield Park
042-5053
042-5008
Chickahominy River
TNC Land Holding Easement
Meadowview Park
042-0501
HANOVER COUNTY
HENRICO COUNTY
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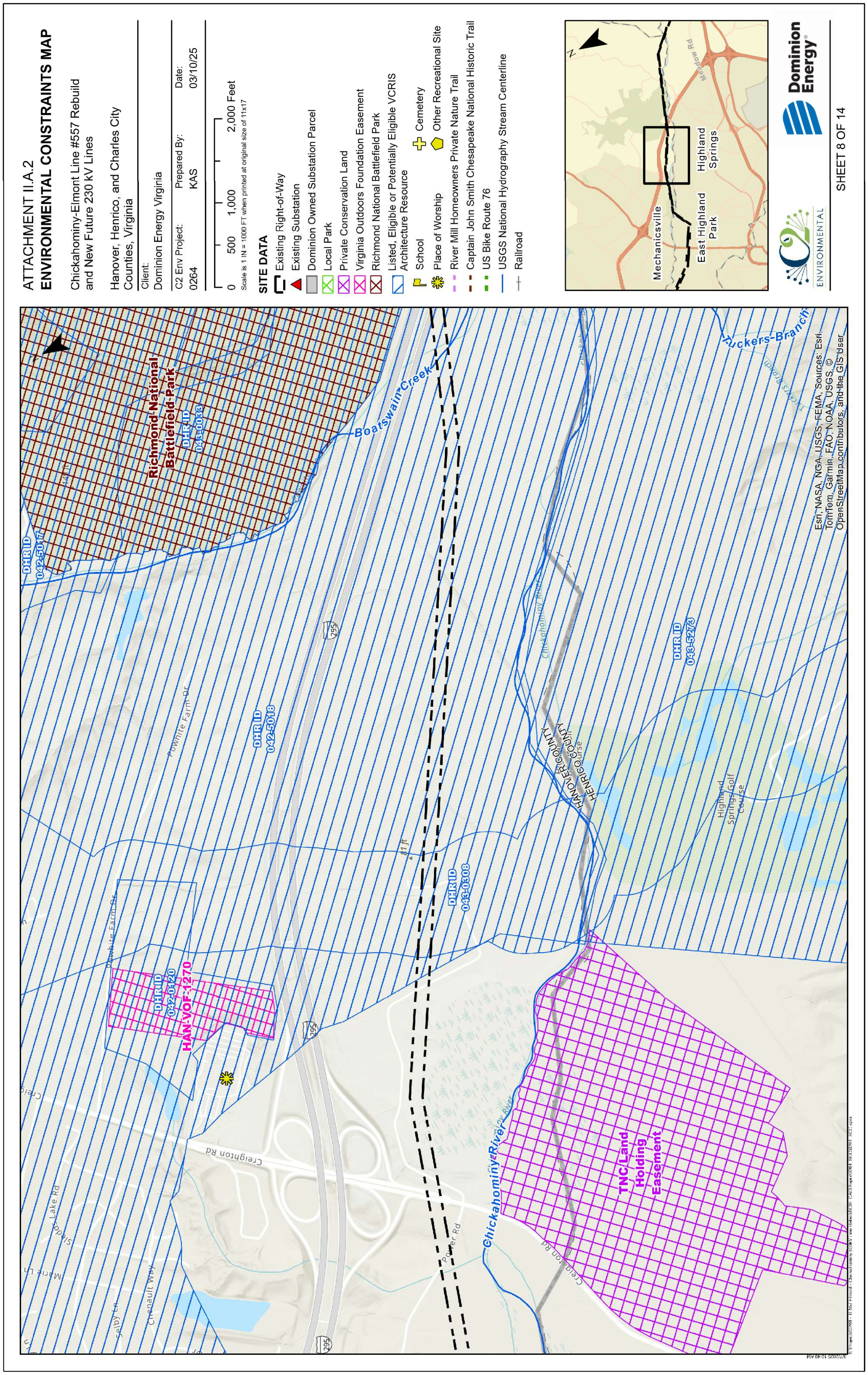
ATTACHMENT II.A.2
ENVIRONMENTAL CONSTRAINTS MAP
Chickahominy-Elmont Line #557 Rebuild and New Future 230 kV Lines
Hanover, Henrico, and Charles City Counties, Virginia
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0264
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Railroad
Mechanicsville
East Highland Park
Highland Springs
SHEET 8 OF 14
Richmond National Battlefield Park
DHR ID 043-0038
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DHR ID 042-0120
HAN-VOF-1270
TNC Land Holding Easement
Boatswain Creek
Tuckers Branch
Chickahominy River
HANOVER COUNTY
HENRICO COUNTY
Highland Springs Golf Course
Creighton Rd
Powhite Farm Dr
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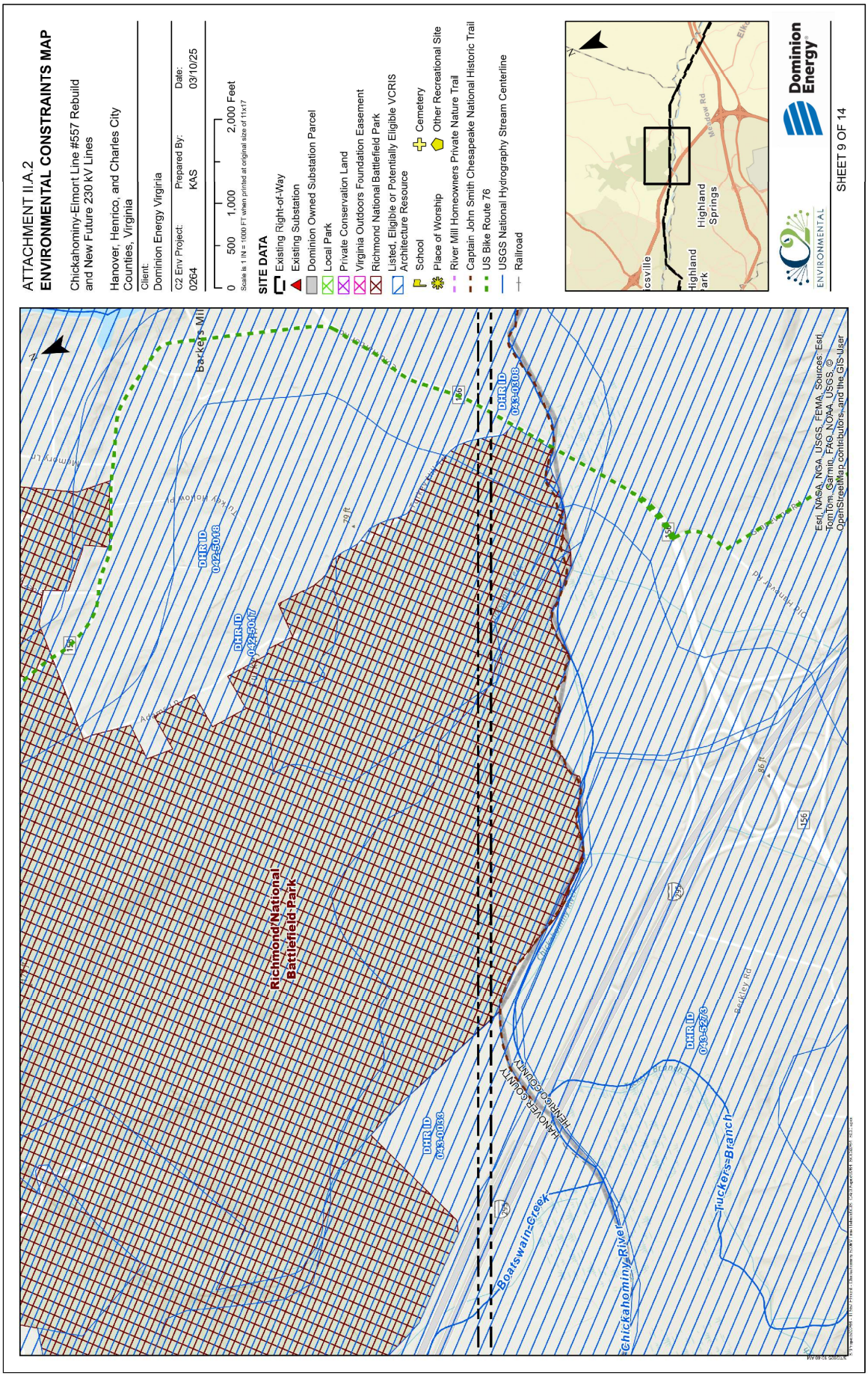
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Richmond National Battlefield Park
DHR ID 042-5066
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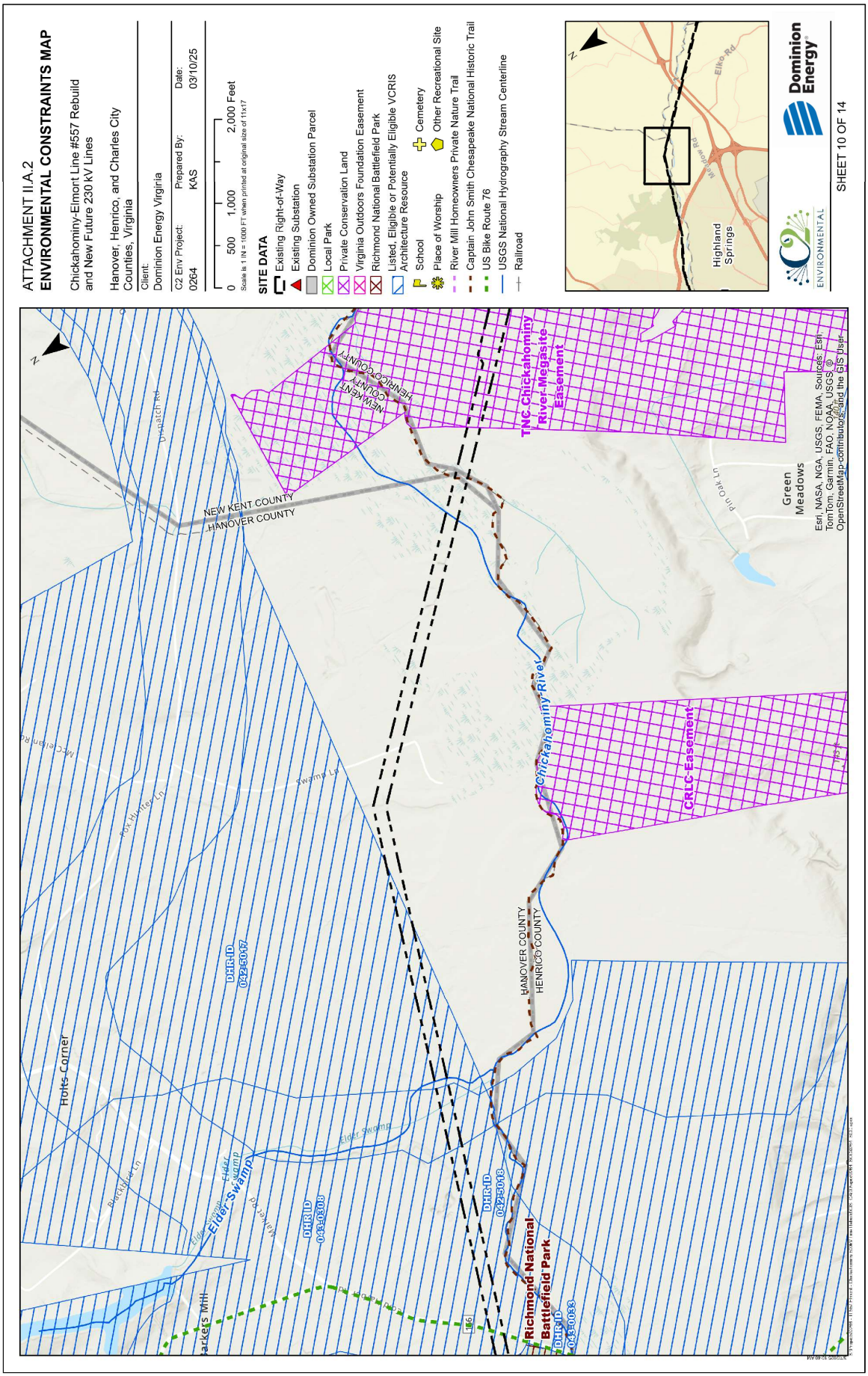
DHR ID 018-0083
DHR ID 018-0808
DHR ID 018-5278
HANOVER COUNTY
HENRICO COUNTY
Boatswain Creek
Chickahominy River
Tuckers Branch
Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User
Dominion Energy
ENVIRONMENTAL
SHEET 9 OF 14


ATTACHMENT II.A.2
ENVIRONMENTAL CONSTRAINTS MAP
Chickahominy-Elmort Line #557 Rebuild and New Future 230 kV Lines
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Cemetery
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Other Recreational Site
River Mill Homeowners Private Nature Trail
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US Bike Route 76
USGS National Hydrography Stream Centerline
Railroad
Highland Springs
Elko Rd
Meadow Rd
Dominion Energy
ENVIRONMENTAL
SHEET 10 OF 14
TNC Chickahominy River Megasite Easement
CRLC Easement
Chickahominy River
Elder Swamp
Richmond National Battlefield Park
NEW KENT COUNTY
HANOVER COUNTY
HENRICO COUNTY
Holts Corner
Green Meadows
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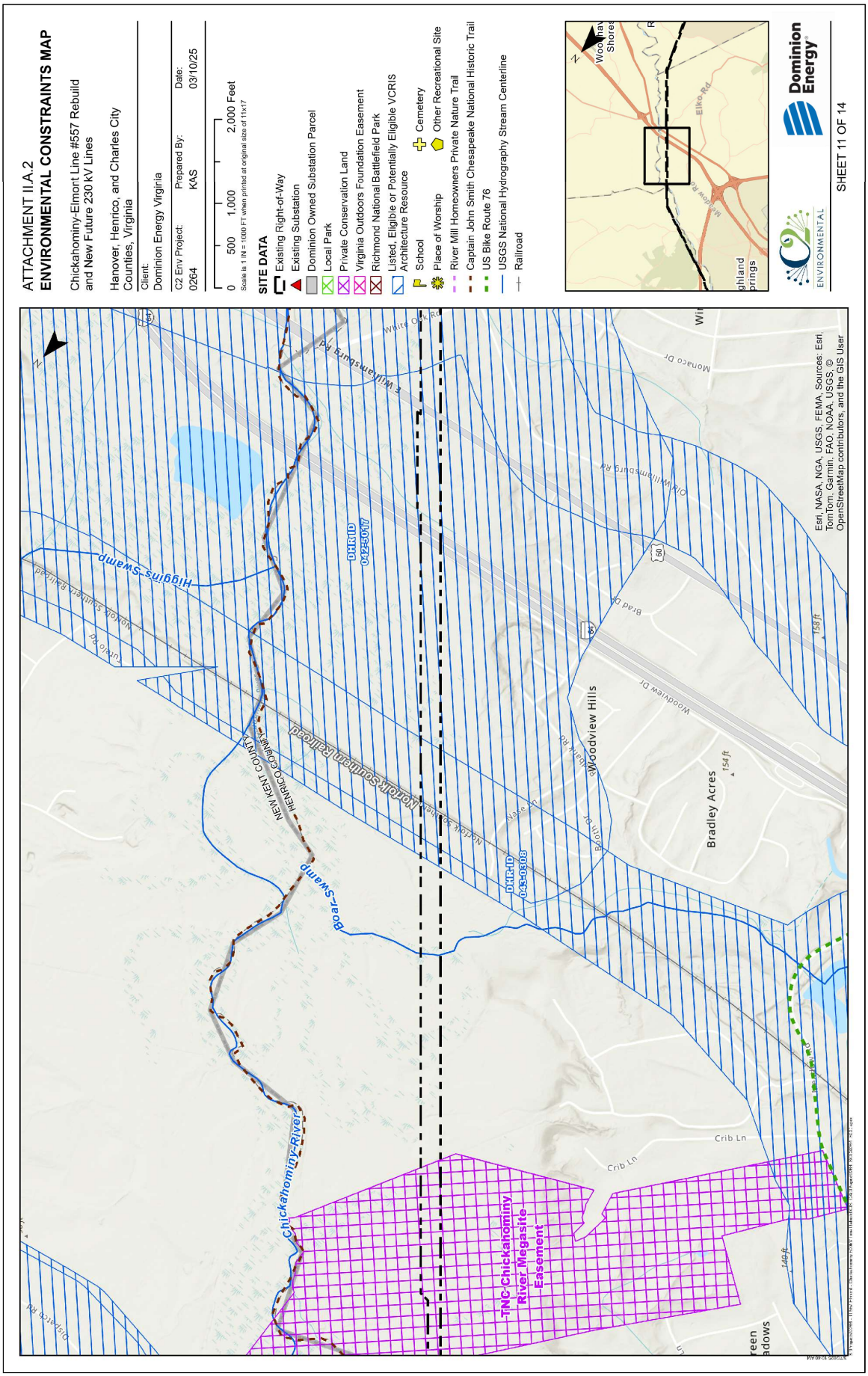
ATTACHMENT II.A.2
ENVIRONMENTAL CONSTRAINTS MAP
Chickahominy-Elmort Line #557 Rebuild and New Future 230 kV Lines
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Captain John Smith Chesapeake National Historic Trail
US Bike Route 76
USGS National Hydrography Stream Centerline
Railroad
Dominion Energy
ENVIRONMENTAL
SHEET 11 OF 14
Higgins Swamp
Boat Swamp
Chickahominy River
TNC Chickahominy River Megasite Easement
DHR ID 043-5067
DHR ID 043-0606
Norfolk Southern Railroad
New Kent County
Henrico County
E Williamsburg Rd
White Oak Rd
Woodview Dr
Woodview Hills
Bradley Acres
Crib Ln
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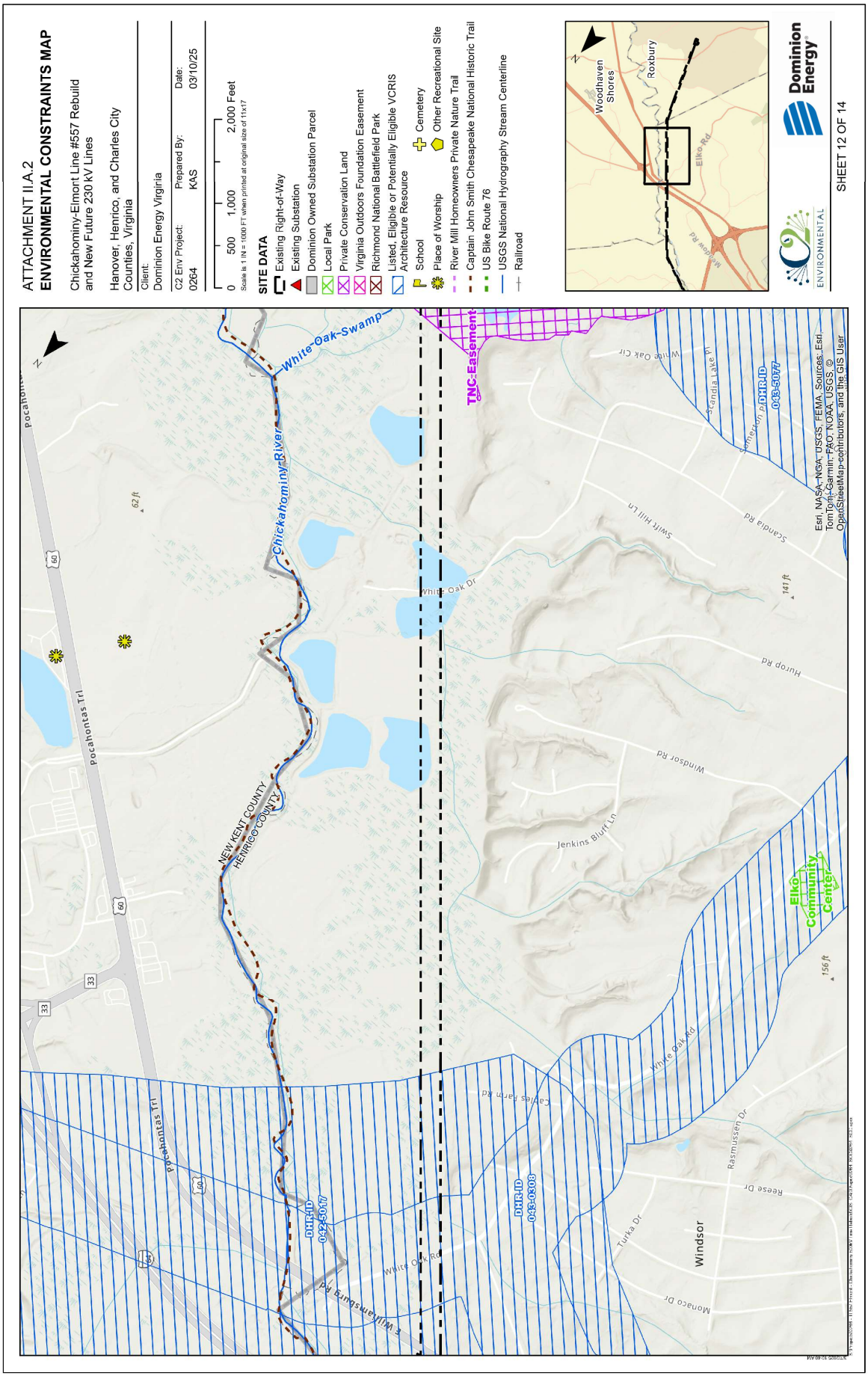
ATTACHMENT II.A.2
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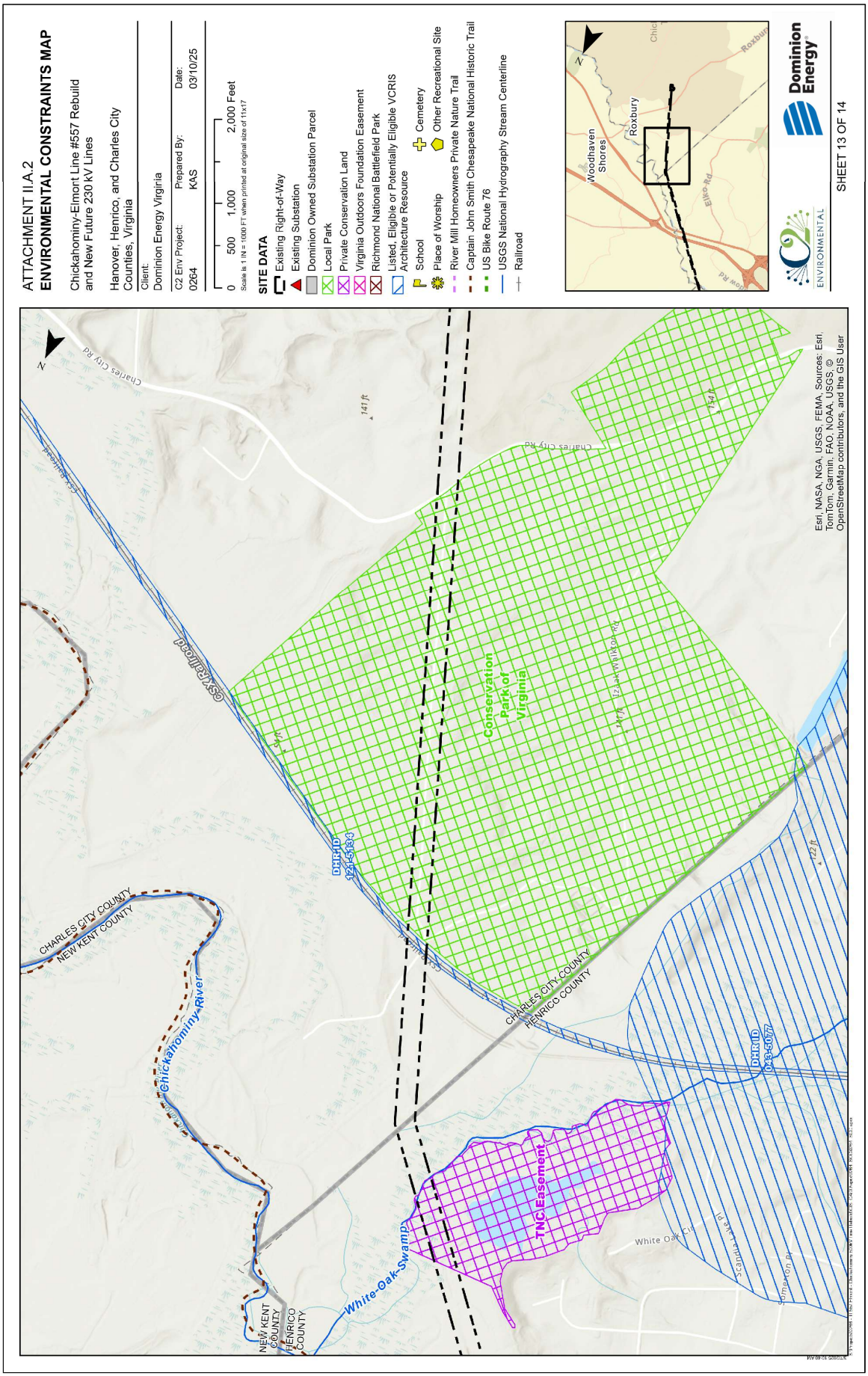
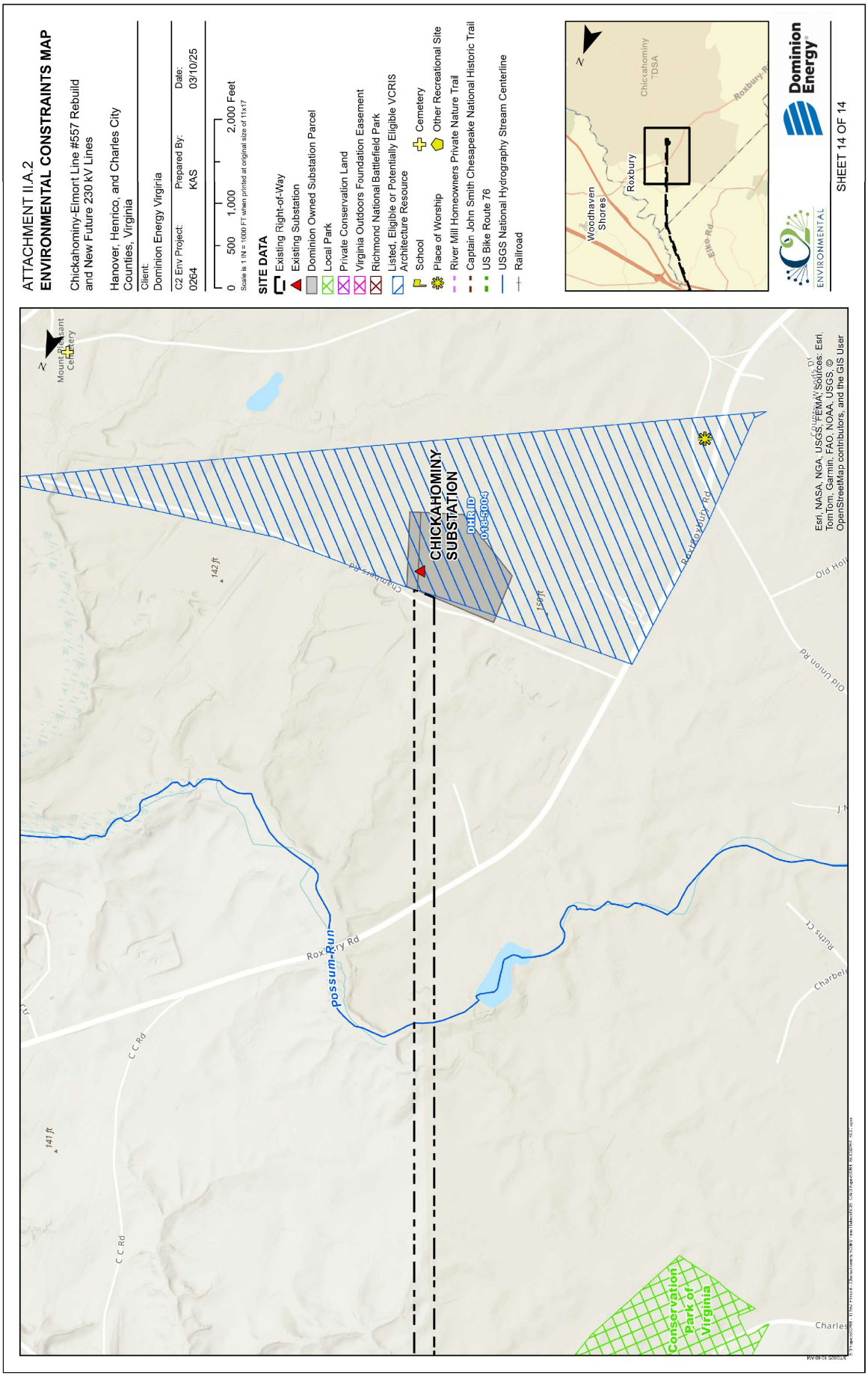
Hanover, Henrico, and Charles City Counties, Virginia
Client: Dominion Energy Virginia
C2 Env Project: 0264
Prepared By: KAS
Date: 03/10/25
0 500 1,000 2,000 Feet
Scale is 1 IN = 1000 FT when printed at original size of 11x17
SITE DATA
Existing Right-of-Way
Existing Substation
Dominion Owned Substation Parcel
Local Park
Private Conservation Land
Virginia Outdoors Foundation Easement
Richmond National Battlefield Park
Listed, Eligible or Potentially Eligible VCRIS Architecture Resource
School
Cemetery
Place of Worship
Other Recreational Site
River Mill Homeowners Private Nature Trail
Captain John Smith Chesapeake National Historic Trail
US Bike Route 76
USGS National Hydrography Stream Centerline
Railroad
Woodhaven Shores
Roxbury
Elko Rd
Dominion Energy
ENVIRONMENTAL
SHEET 12 OF 14
White Oak Swamp
Chickahominy River
TNC-Easement
NEW KENT COUNTY
HENRICO COUNTY
Pocahontas Trl
E Williamsburg Rd
White Oak Rd
White Oak Dr
Windsor Rd
Jenkins Bluff Ln
Swift Hill Ln
Scandia Rd
Huiop Rd
Reese Dr
Rasmussen Dr
Turka Dr
Monaco Dr
Windsor
Elko Community Center
DHR-ID 042-5047
DHR-ID 043-0303
DHR-ID 043-5077
62 ft
141 ft
156 ft
Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User


ATTACHMENT II.A.2
ENVIRONMENTAL CONSTRAINTS MAP
Chickahominy-Elmort Line #557 Rebuild and New Future 230 kV Lines
Hanover, Henrico, and Charles City Counties, Virginia
Client: Dominion Energy Virginia
C2 Env Project: 0264
Prepared By: KAS
Date: 03/10/25
0 500 1,000 2,000 Feet
Scale is 1 IN = 1000 FT when printed at original size of 11x17
SITE DATA
Existing Right-of-Way
Existing Substation
Dominion Owned Substation Parcel
Local Park
Private Conservation Land
Virginia Outdoors Foundation Easement
Richmond National Battlefield Park
Listed, Eligible or Potentially Eligible VCRIS Architecture Resource
School
Cemetery
Place of Worship
Other Recreational Site
River Mill Homeowners Private Nature Trail
Captain John Smith Chesapeake National Historic Trail
US Bike Route 76
USGS National Hydrography Stream Centerline
Railroad
Dominion Energy
ENVIRONMENTAL
SHEET 13 OF 14
Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User
Conservation Park of Virginia
TNC Easement
Chickahominy River
White Oak Swamp
CHARLES CITY COUNTY
NEW KENT COUNTY
HENRICO COUNTY
DHR ID 127-5083
DHR ID 043-5077
Charles City Rd
Woodhaven Shores
Roxbury
Elko Rd


ATTACHMENT II.A.2
ENVIRONMENTAL CONSTRAINTS MAP
Chickahominy-Elmort Line #557 Rebuild and New Future 230 kV Lines
Hanover, Henrico, and Charles City Counties, Virginia
Client: Dominion Energy Virginia
C2 Env Project: 0264
Prepared By: KAS
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Scale is 1 IN = 1000 FT when printed at original size of 11x17
SITE DATA
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USGS National Hydrography Stream Centerline
Railroad
Woodhaven Shores
Roxbury
Chickahominy TDSA
Elmo Rd
Roxbury Rd
Dominion Energy
ENVIRONMENTAL
SHEET 14 OF 14
CHICKAHOMINY SUBSTATION
DHR ID: 100-5004
150 ft
Possum Run
Roxbury Rd
C C Rd
Old Union Rd
Conservation Park of Virginia
Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User

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.

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: Not applicable.

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;

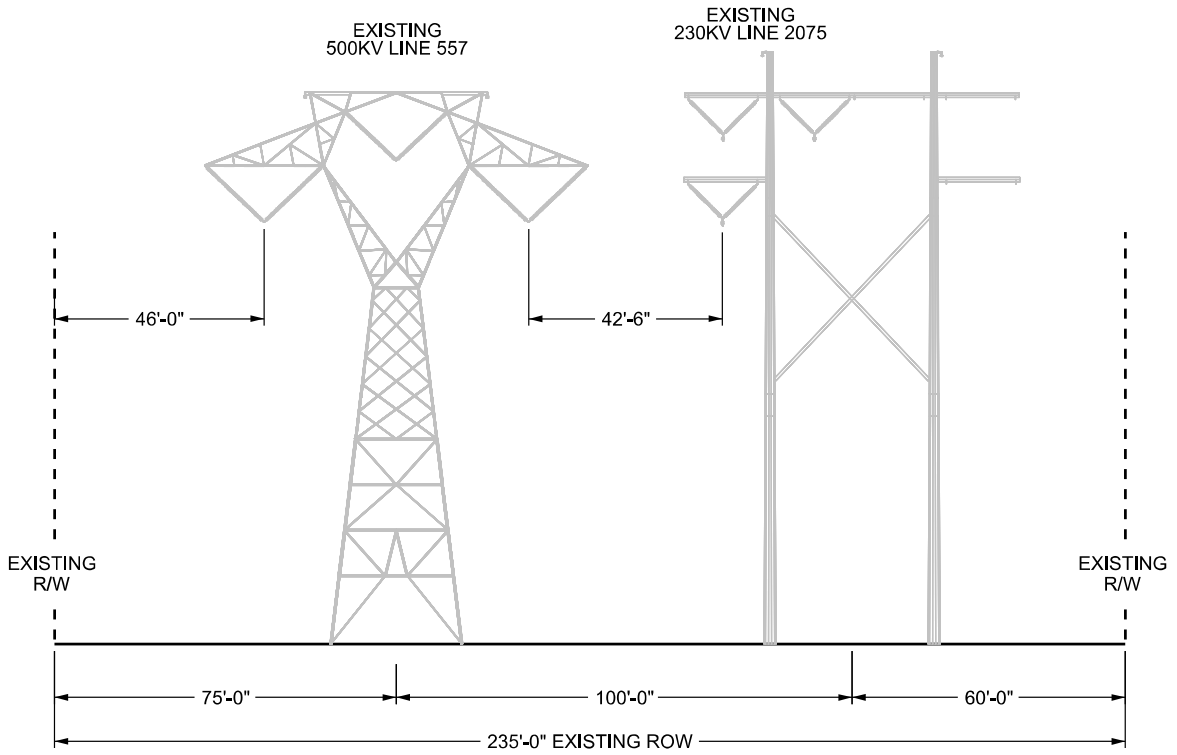
b. Lateral distance between the conductors and edge of ROW;

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.

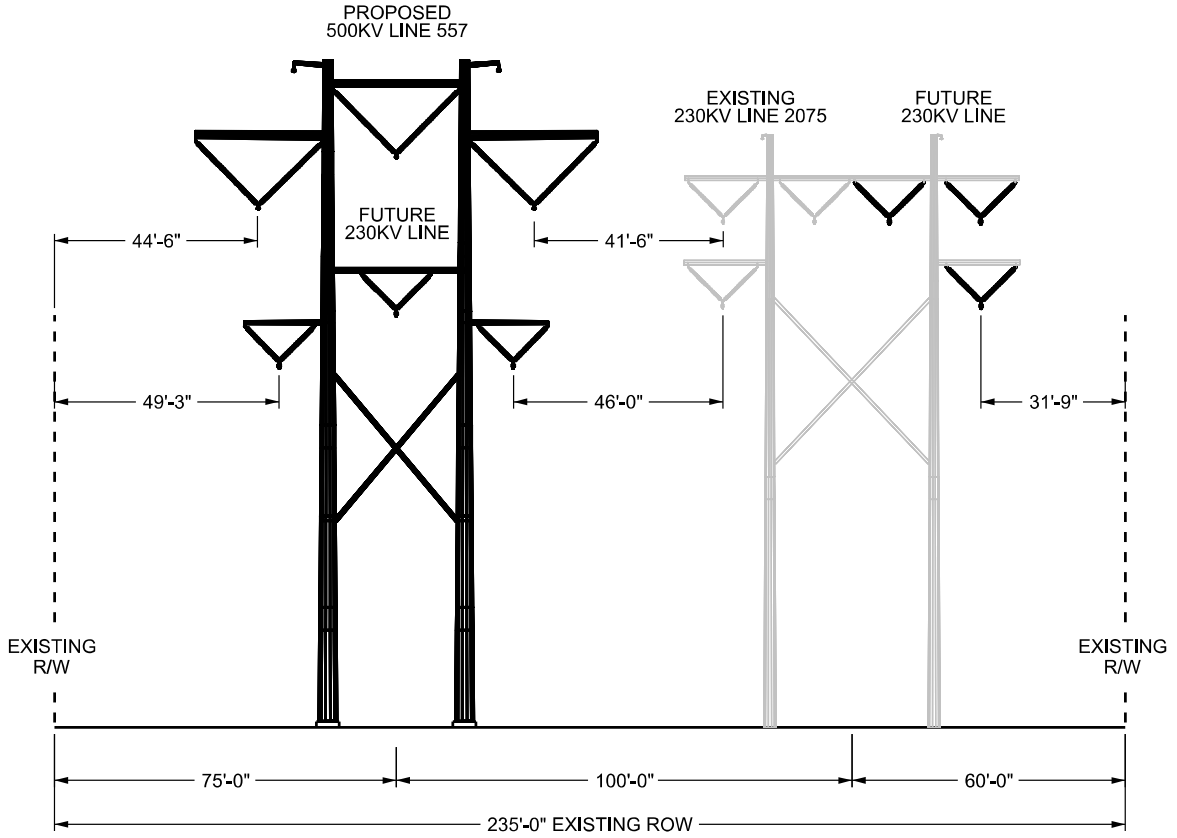
Response: See Attachments II.A.5.a – l.

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



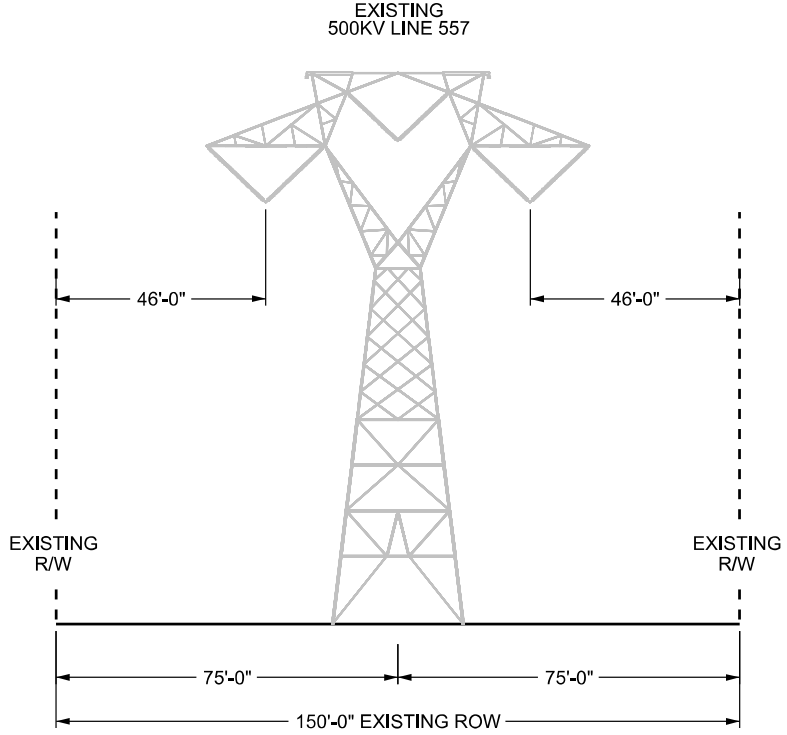
EXISTING ROW CONFIGURATION

DISCLAIMER		DESCRIPTION & VIEW	ATTACHMENT NO.
THE INFORMATION CONTAINED ON THIS DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND IS SUBJECT TO CHANGE BASED ON FINAL DESIGN	Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060	STR. 557/228 - 557/264 TYPICAL RIGHT OF WAY LOOKING TOWARDS ELMONT SUBSTATION	II.A.5.a DRAWN BY: TMR



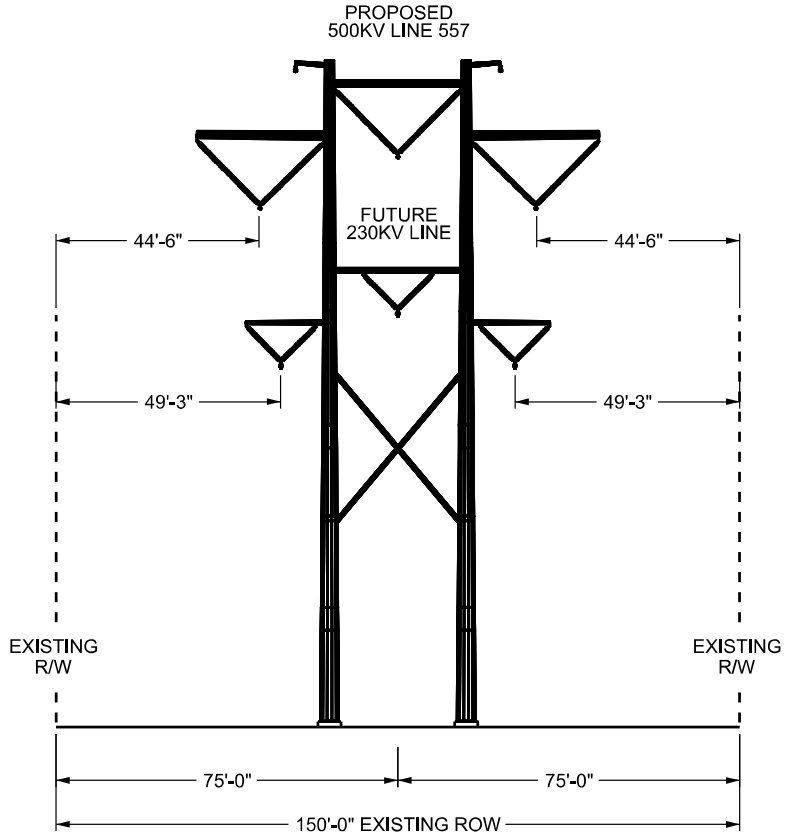
PROPOSED ROW CONFIGURATION

DISCLAIMER		DESCRIPTION & VIEW	ATTACHMENT NO.
THE INFORMATION CONTAINED ON THIS DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND IS SUBJECT TO CHANGE BASED ON FINAL DESIGN	Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060	STR. 557/228 - 557/264 TYPICAL RIGHT OF WAY LOOKING TOWARDS ELMONT SUBSTATION	II.A.5.b DRAWN BY: TMR



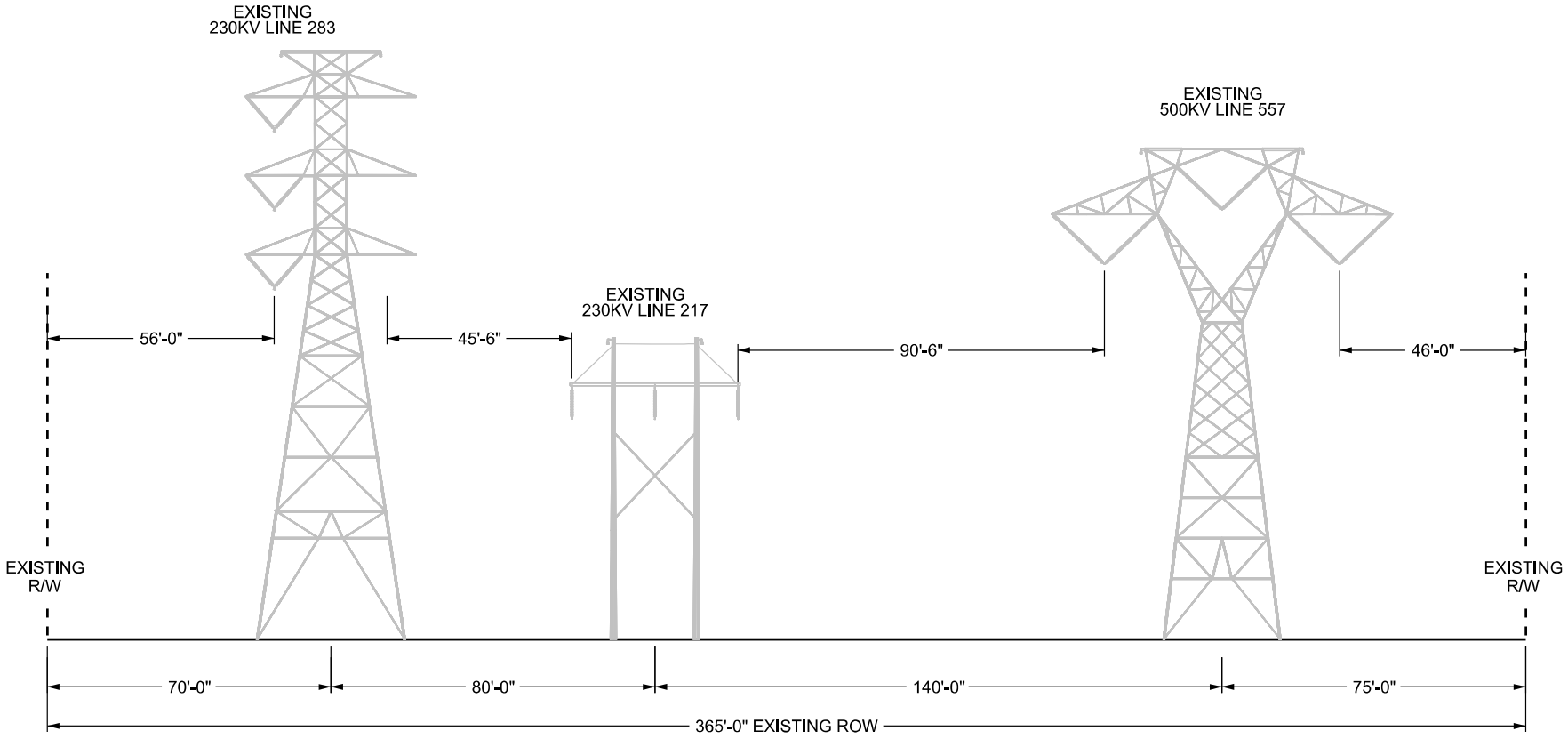
EXISTING ROW CONFIGURATION

DISCLAIMER		DESCRIPTION & VIEW	ATTACHMENT NO.
THE INFORMATION CONTAINED ON THIS DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND IS SUBJECT TO CHANGE BASED ON FINAL DESIGN	Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060	STR. 557/265 - 557/303 TYPICAL RIGHT OF WAY LOOKING TOWARDS ELMONT SUBSTATION	II.A.5.c DRAWN BY: TMR



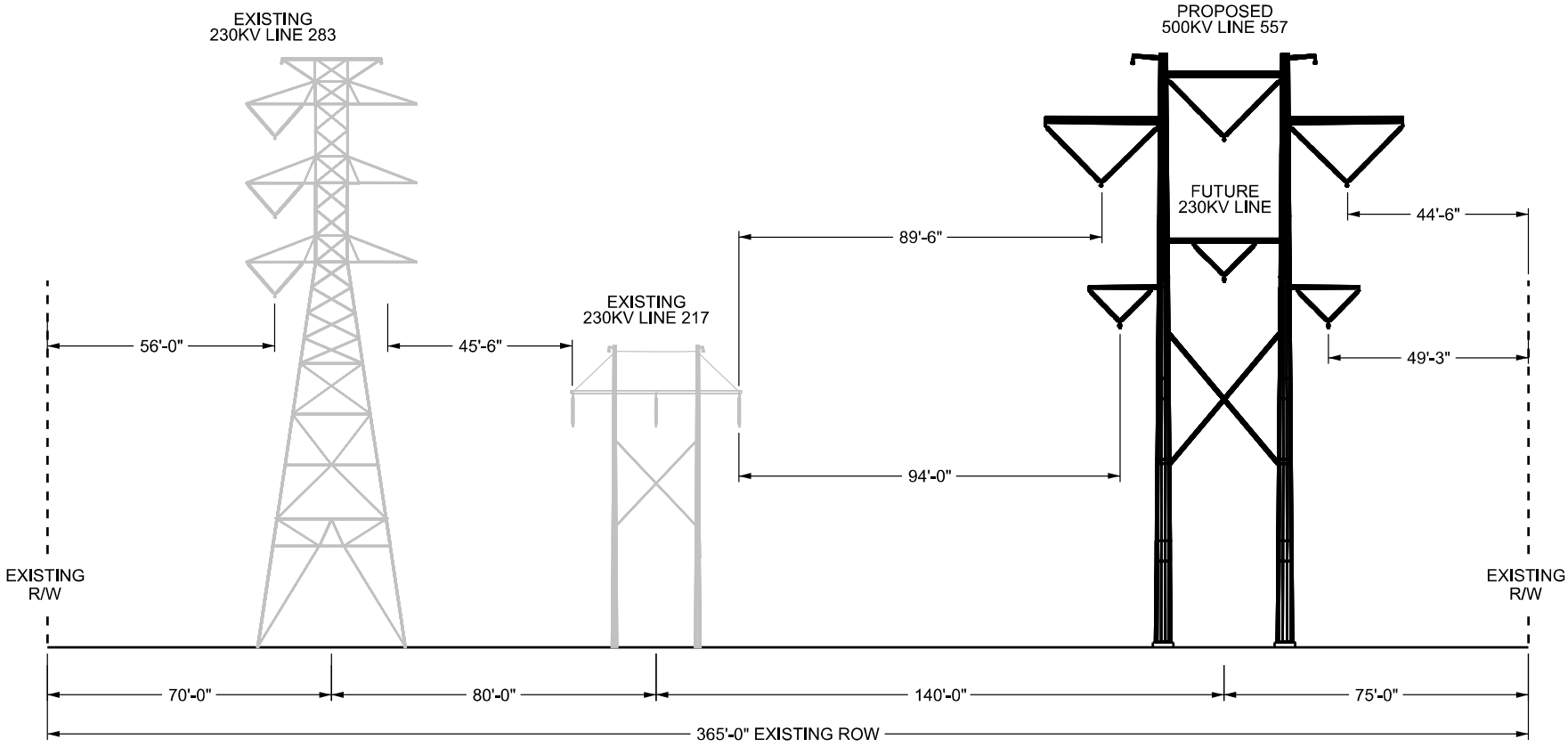
PROPOSED ROW CONFIGURATION

DISCLAIMER		DESCRIPTION & VIEW	ATTACHMENT NO.
THE INFORMATION CONTAINED ON THIS DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND IS SUBJECT TO CHANGE BASED ON FINAL DESIGN	Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060	STR. 557/265 - 557/303 TYPICAL RIGHT OF WAY LOOKING TOWARDS ELMONT SUBSTATION	II.A.5.d DRAWN BY: TMR



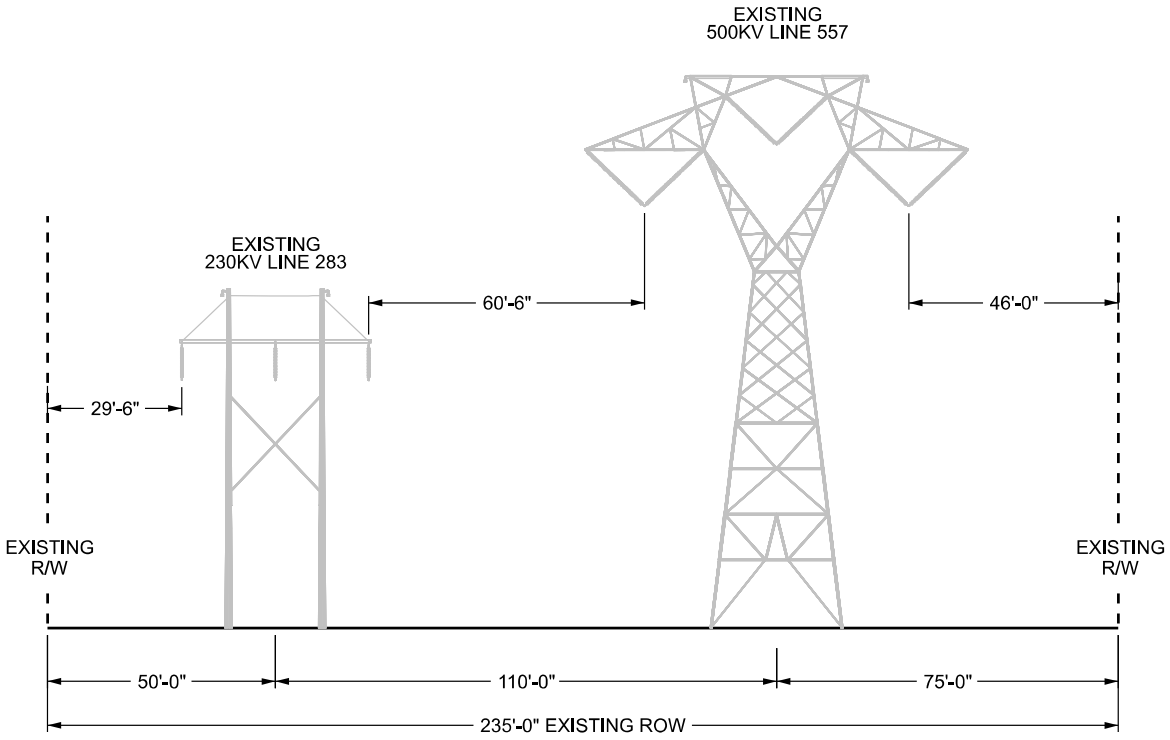
EXISTING ROW CONFIGURATION

DISCLAIMER		DESCRIPTION & VIEW	ATTACHMENT NO.
THE INFORMATION CONTAINED ON THIS DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND IS SUBJECT TO CHANGE BASED ON FINAL DESIGN	Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060	STR. 557/304 - 557/319 TYPICAL RIGHT OF WAY LOOKING TOWARDS ELMONT SUBSTATION	II.A.5.e DRAWN BY: TMR



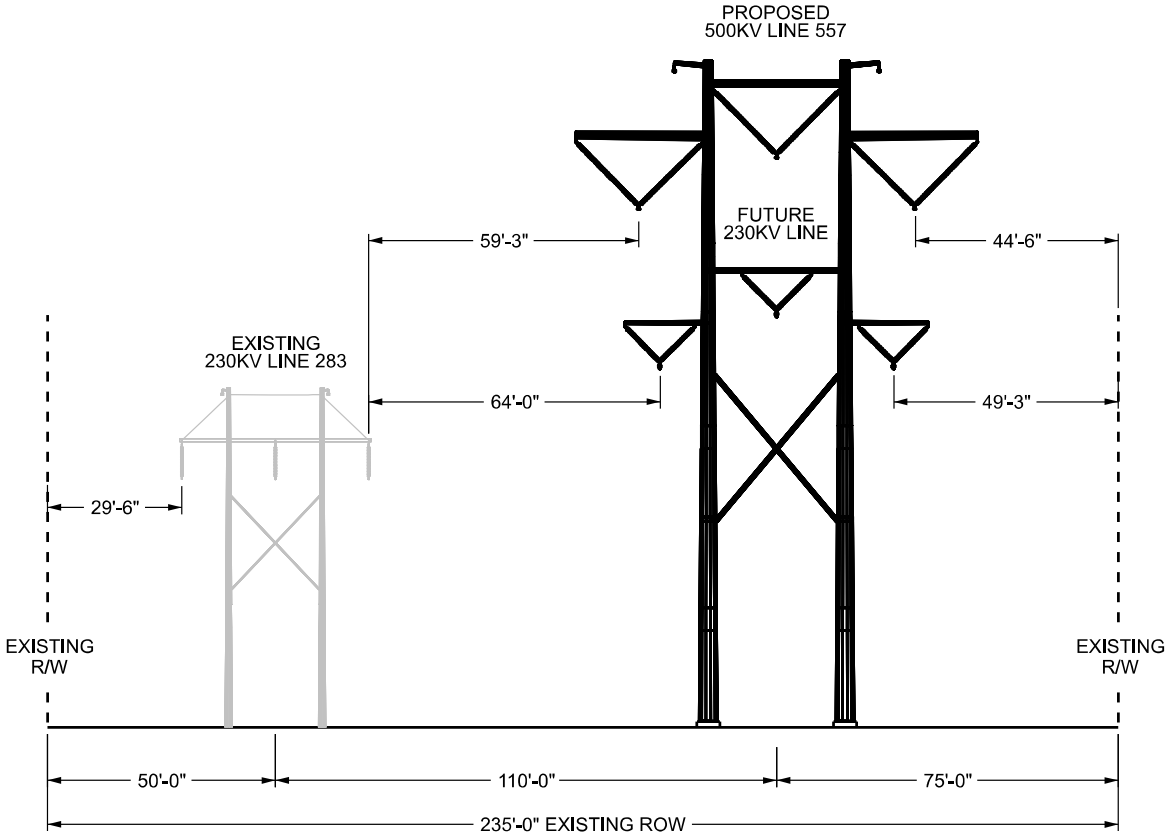
PROPOSED ROW CONFIGURATION

DISCLAIMER		DESCRIPTION & VIEW	ATTACHMENT NO.
THE INFORMATION CONTAINED ON THIS DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND IS SUBJECT TO CHANGE BASED ON FINAL DESIGN	Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060	STR. 557/304 - 557/319 TYPICAL RIGHT OF WAY LOOKING TOWARDS ELMONT SUBSTATION	II.A.5.f DRAWN BY: TMR



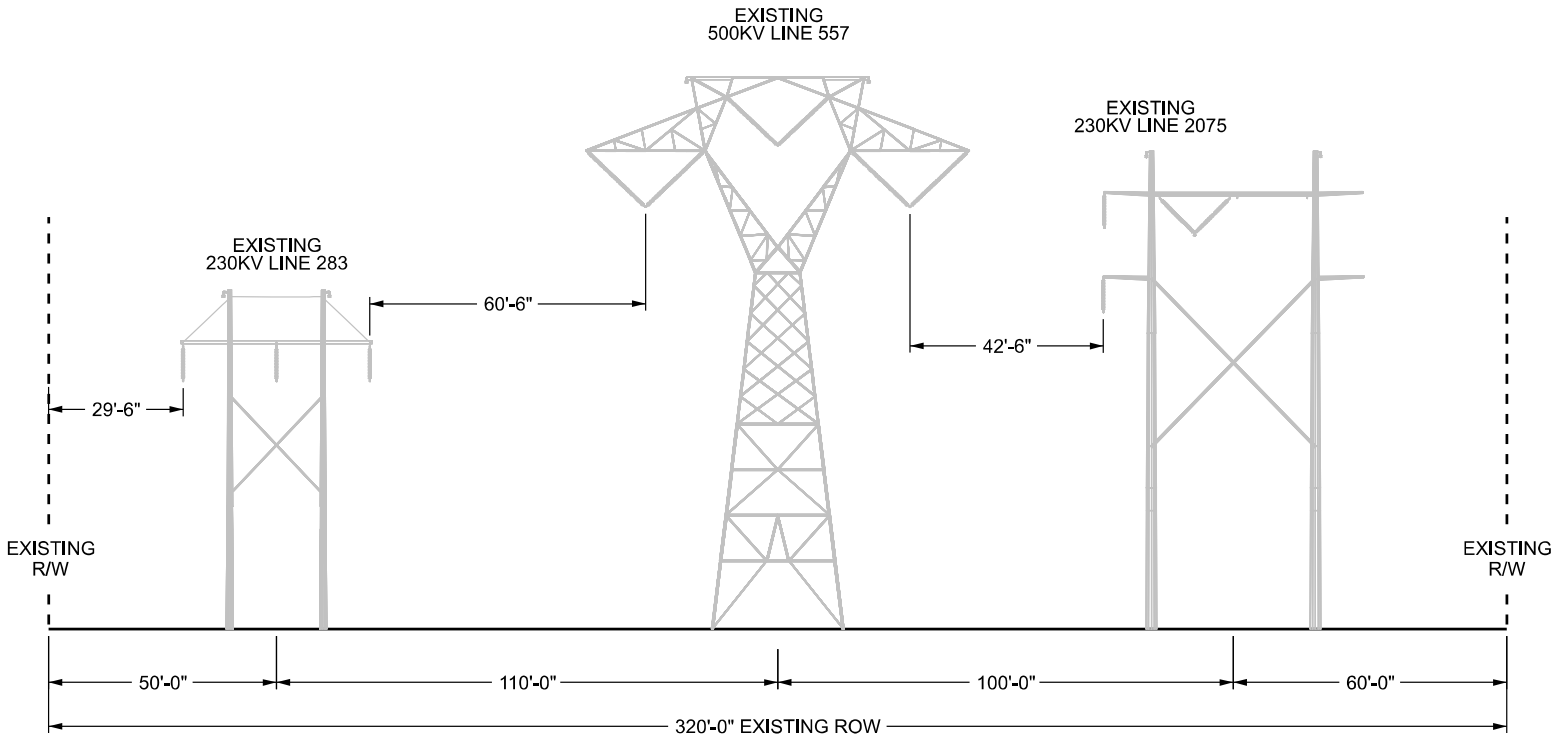
EXISTING ROW CONFIGURATION

DISCLAIMER		DESCRIPTION & VIEW	ATTACHMENT NO.
THE INFORMATION CONTAINED ON THIS DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND IS SUBJECT TO CHANGE BASED ON FINAL DESIGN	Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060	STR. 557/320 - 557/341 TYPICAL RIGHT OF WAY LOOKING TOWARDS ELMONT SUBSTATION	II.A.5.g DRAWN BY: TMR



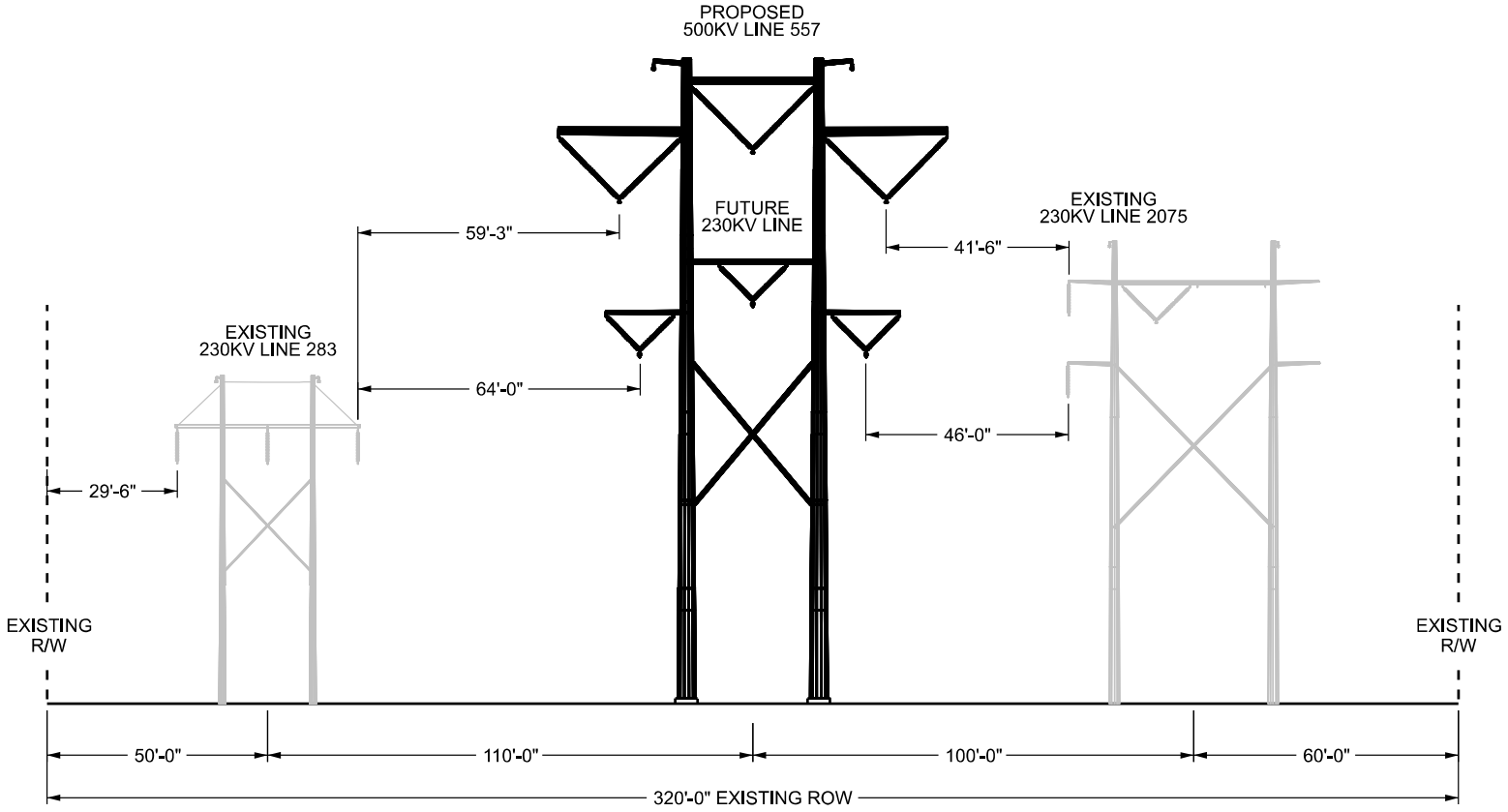
PROPOSED ROW CONFIGURATION

DISCLAIMER		DESCRIPTION & VIEW	ATTACHMENT NO.
THE INFORMATION CONTAINED ON THIS DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND IS SUBJECT TO CHANGE BASED ON FINAL DESIGN II.A.5.b	Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060	STR. 557/320 - 557/341 TYPICAL RIGHT OF WAY LOOKING TOWARDS ELMONT SUBSTATION	II.A.5.h DRAWN BY: TMR



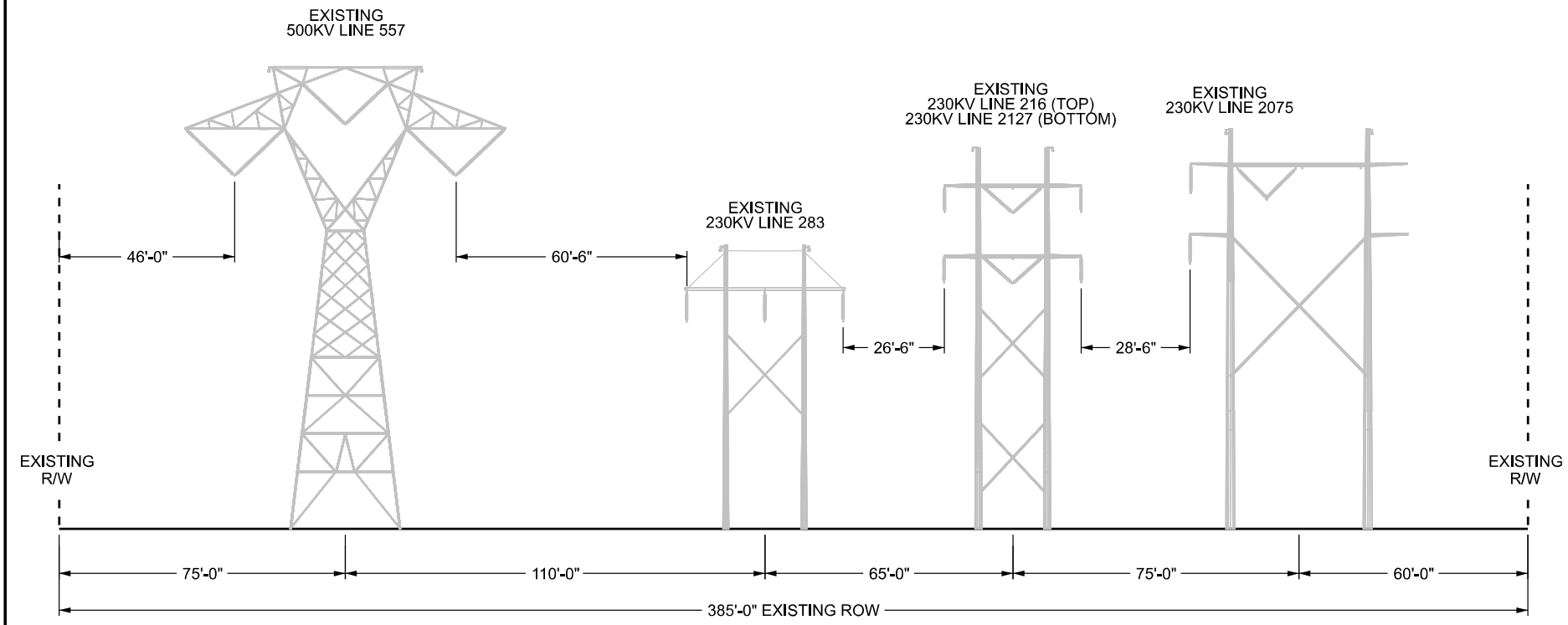
EXISTING ROW CONFIGURATION

DISCLAIMER		DESCRIPTION & VIEW	ATTACHMENT NO.
THE INFORMATION CONTAINED ON THIS DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND IS SUBJECT TO CHANGE BASED ON FINAL DESIGN	Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060	STR. 557/342 - 557/354 TYPICAL RIGHT OF WAY LOOKING TOWARDS ELMONT SUBSTATION	II.A.5.i DRAWN BY: TMR



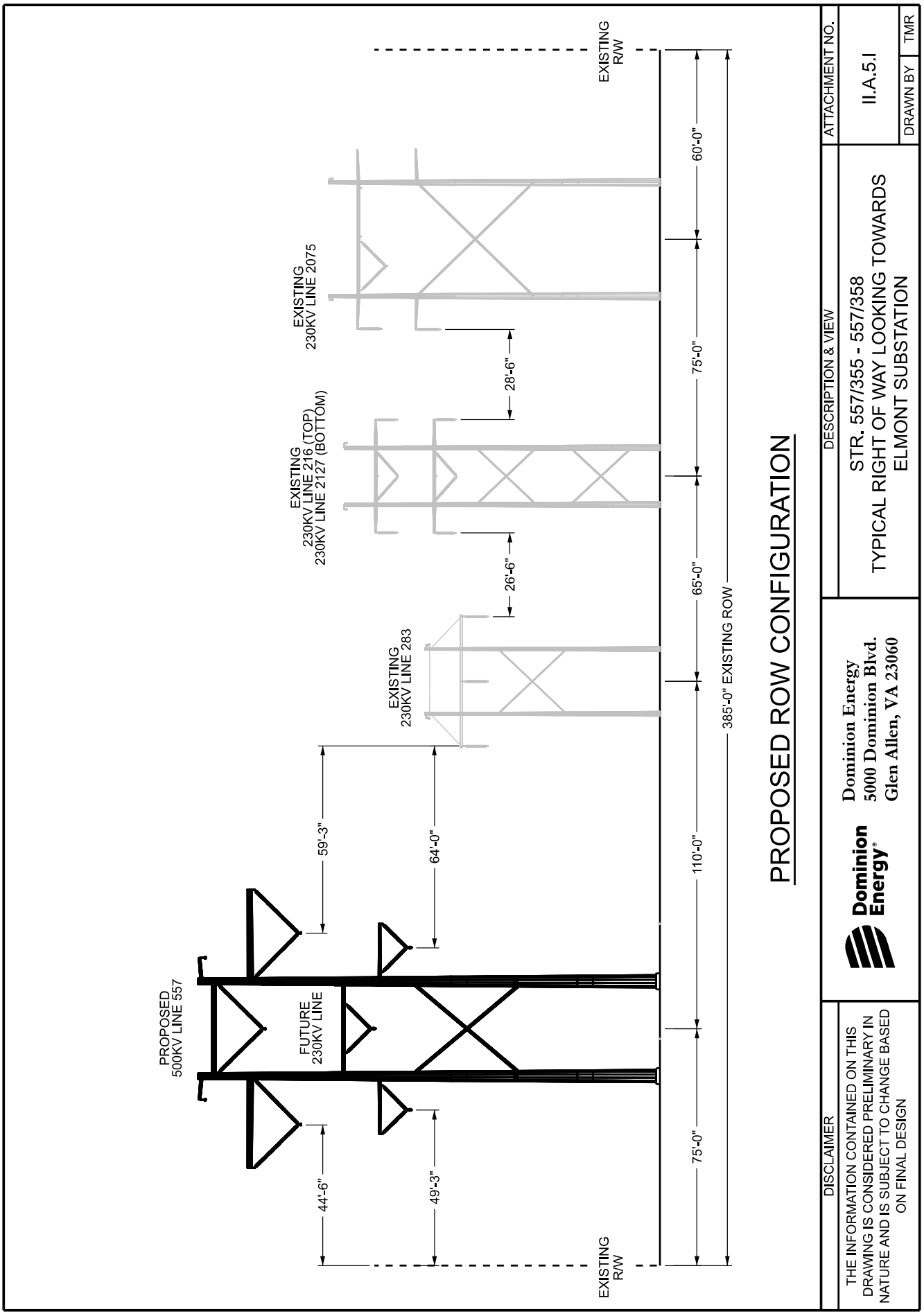
PROPOSED ROW CONFIGURATION

DISCLAIMER		DESCRIPTION & VIEW	ATTACHMENT NO.
THE INFORMATION CONTAINED ON THIS DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND IS SUBJECT TO CHANGE BASED ON FINAL DESIGN	Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060	STR. 557/342 - 557/354 TYPICAL RIGHT OF WAY LOOKING TOWARDS ELMONT SUBSTATION	II.A.5.j DRAWN BY: TMR



EXISTING ROW CONFIGURATION

DISCLAIMER		DESCRIPTION & VIEW	ATTACHMENT NO.
THE INFORMATION CONTAINED ON THIS DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND IS SUBJECT TO CHANGE BASED ON FINAL DESIGN	Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060	STR. 557/355 - 557/358 TYPICAL RIGHT OF WAY LOOKING TOWARDS ELMONT SUBSTATION	II.A.5.k DRAWN BY: TMR



PROPOSED ROW CONFIGURATION

DISCLAIMER

THE INFORMATION CONTAINED ON THIS DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND IS SUBJECT TO CHANGE BASED ON FINAL DESIGN

Dominion Energy

Dominion Energy
5000 Dominion Blvd.
Glen Allen, VA 23060

DESCRIPTION & VIEW

STR. 557/355 - 557/358
TYPICAL RIGHT OF WAY LOOKING TOWARDS
ELMONT SUBSTATION

ATTACHMENT NO.

II.A.5.l

DRAWN BY TMR

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: The Company obtained most of its easements along the existing right-of-way of the Rebuild Project corridor for initial construction of Line #557 between 1965 and 1970, and the corridor has been in continuous use since. The Company does not anticipate that new easements will be required, as the Rebuild Project is within existing rights-of-way or on Company-owned property.

Three existing conservation easements are crossed by the Rebuild Project, a Ducks Unlimited easement US-VA-31-1, and two Nature Conservancy easements (Chickahominy River Megasite, and an unnamed easement). These easements were created after the Company's initial establishment of the transmission corridor. The Rebuild Project also crosses land in Hanover County that is held by the Civil War Trust. The Company does not expect new easements will be required for the Rebuild Project as it will be located within the existing rights-of-way of Lines #557 and #2075.

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 Rebuild Project will utilize existing right-of-way (which ranges from 150 to 385 feet wide). As such, additional clearing is not necessary, but the existing rights-of-way are currently and will continue to be maintained for the operation of the existing transmission facilities.

Trimming of tree limbs along the edge of the right-of-way may be conducted to support construction activities for the Rebuild Project. For any such minimal clearing within the right-of-way, 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 also 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 avoid land disturbance 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 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 Rebuild Project, the Company will restore the right-of-way utilizing site rehabilitation procedures outlined in the *Standards & Specifications for Erosion & Sediment Control and Stormwater Management for Construction and Maintenance of Linear Transmission Facilities* that was approved by the Virginia Department of Environmental Quality ("DEQ"). TOYR and weather conditions may affect when permanent stabilization takes place.

The 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 in order 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; and,
- Wildlife / Pollinator Habitat.

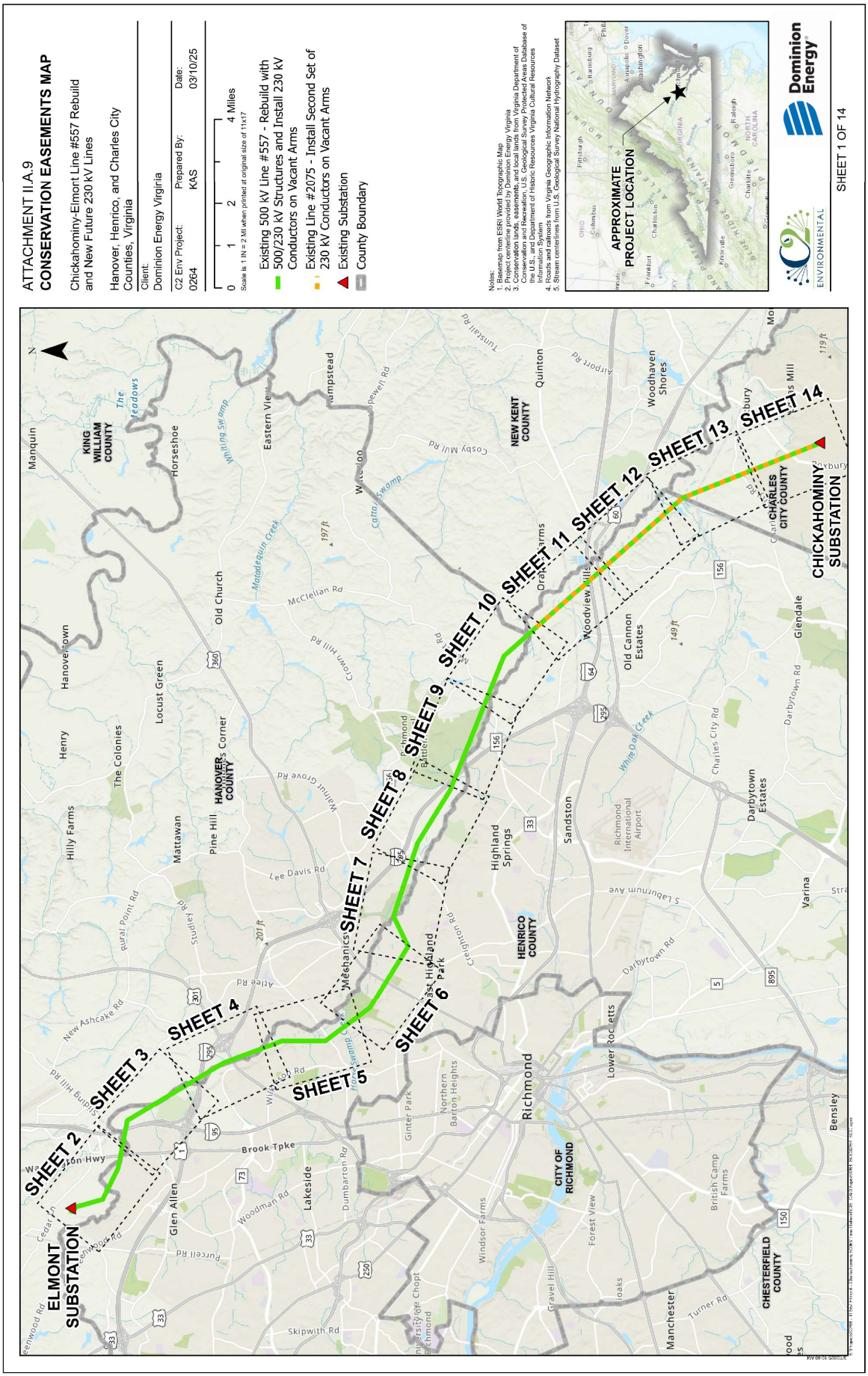
II. DESCRIPTION OF THE PROPOSED PROJECT

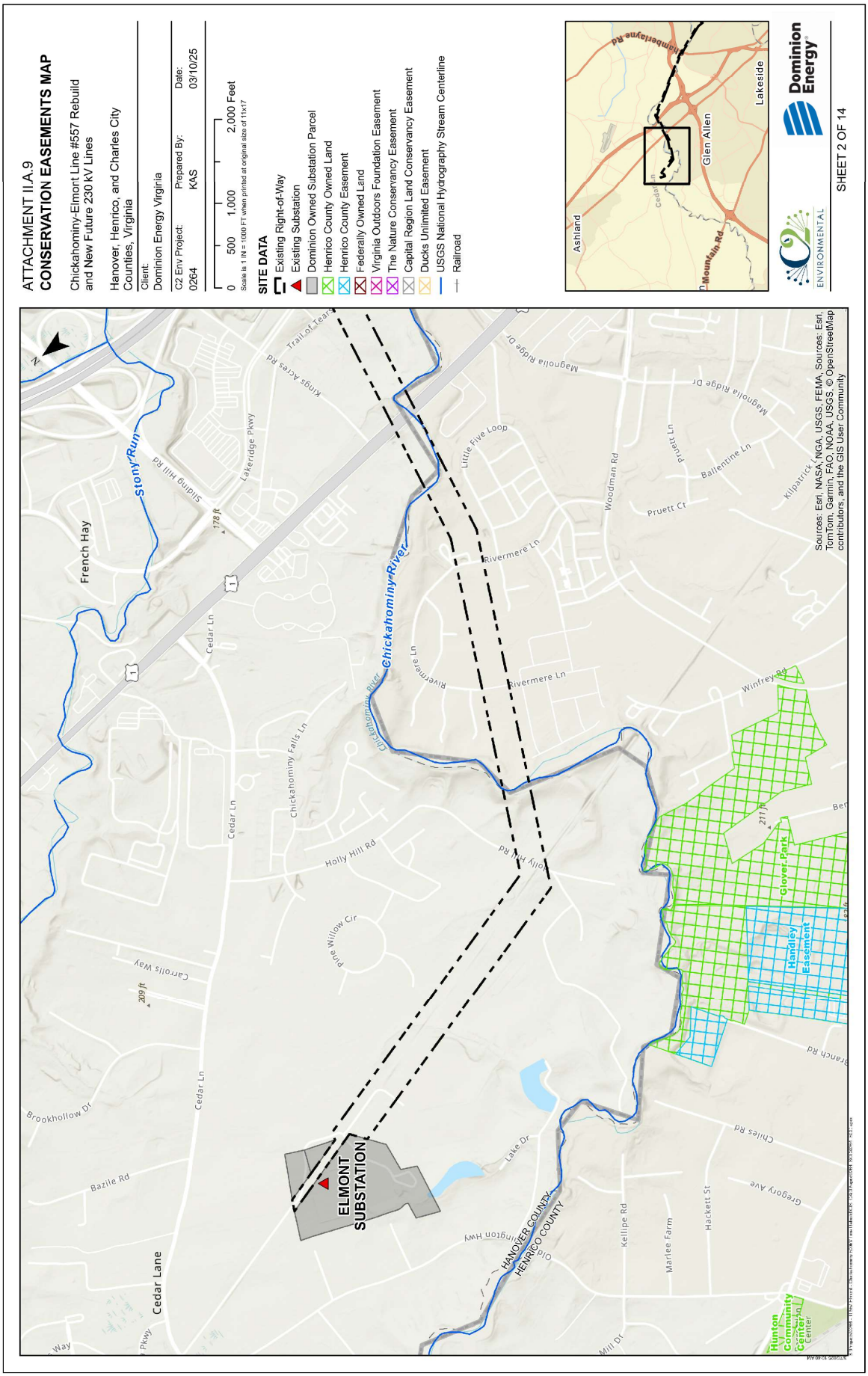
A. Right-of-way ("ROW")

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: The Company's route selection for transmission line rebuild projects begins with a review of the existing right-of-way. This approach generally minimizes impacts on the natural and human environments. This approach is also consistent with FERC Guideline #1 (included as Attachment 1 to these Guidelines), which states that existing rights-of-way should be given priority when adding new transmission facilities, and with §§ 56-46.1 and 56-259 of the Code of Virginia, which promote the use of existing rights-of-way for new transmission facilities. For the proposed Rebuild Project, the existing transmission corridor right-of-way that currently contains Lines #557 and #2075 is adequate.

Because the existing right-of-way and Company-owned property is adequate to construct the proposed Rebuild Project, no new right-of-way is necessary. Given the availability of existing right-of-way and the statutory preference given to the use of existing right-of-way, and because additional costs and environmental impacts would be associated with the acquisition of and construction on new right-of-way, the Company did not consider any alternate routes requiring new right-of-way for the Rebuild Project. See Section I.I for costs of the Rebuild Project and Attachment II.A.9 for conservation easements crossed by the Rebuild Project. As noted previously, these conservation easements were created after the establishment of the existing corridor.


ATTACHMENT II.A.9
CONSERVATION EASEMENTS MAP
Chickahominy-Elmont Line #557 Rebuild and New Future 230 kV Lines
Hanover, Henrico, and Charles City Counties, Virginia
Client:
Dominion Energy Virginia
C2 Env Project: 0264
Prepared By: KAS
Date: 03/10/25
0 1 2 4 Miles
Scale is 1 IN = 2 MI when printed at original size of 11x17
Existing 500 kV Line #557 - Rebuild with 500/230 kV Structures and Install 230 kV Conductors on Vacant Arms
Existing Line #2075 - Install Second Set of 230 kV Conductors on Vacant Arms
Existing Substation
County Boundary
Notes:
1. Basemap from ESRI World Topographic Map
2. Project centerline provided by Dominion Energy Virginia
3. Conservation lands, easements, and local lands from Virginia Department of Conservation and Recreation's Conservation Lands Database, Database of the U.S., and Department of Historic Resources Virginia Cultural Resources Information System
4. Roads and railroads from Virginia Geographic Information Network
5. Stream centerlines from U.S. Geological Survey National Hydrography Dataset
APPROXIMATE PROJECT LOCATION
Dominion Energy
ENVIRONMENTAL
SHEET 1 OF 14
ELMONT SUBSTATION
CHICKAHOMINY SUBSTATION
SHEET 2
SHEET 3
SHEET 4
SHEET 5
SHEET 6
SHEET 7
SHEET 8
SHEET 9
SHEET 10
SHEET 11
SHEET 12
SHEET 13
SHEET 14
KING WILLIAM COUNTY
HANOVER COUNTY
NEW KENT COUNTY
CHARLES CITY COUNTY
HENRICO COUNTY
CITY OF RICHMOND
CHESTERFIELD COUNTY


ATTACHMENT II.A.9
CONSERVATION EASEMENTS MAP
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Henrico County Easement
Federally Owned Land
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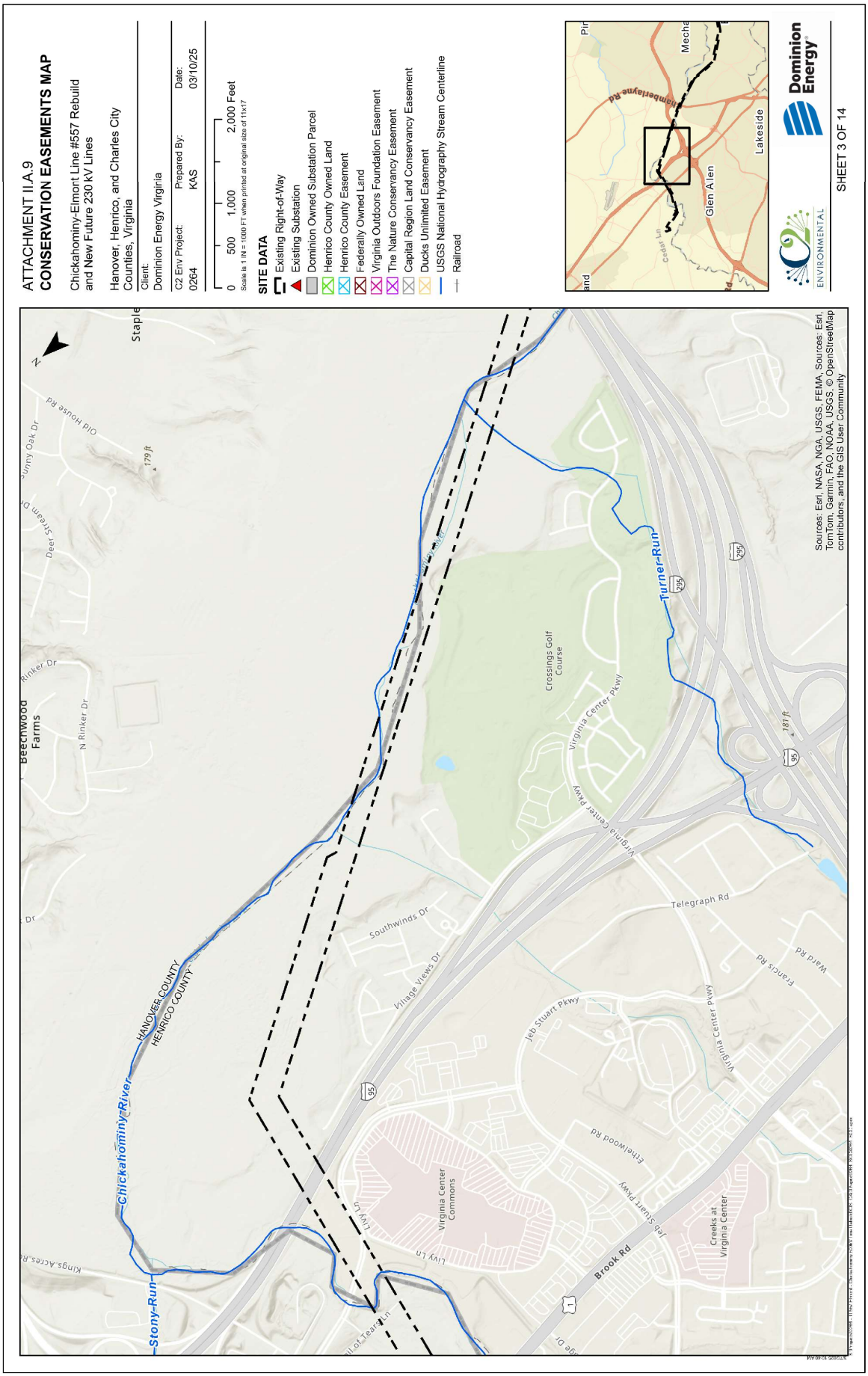
The Nature Conservancy Easement
Capital Region Land Conservancy Easement
Ducks Unlimited Easement
USGS National Hydrography Stream Centerline
Railroad
Ashland
Glen Allen
Lakeside
Dominion Energy
ENVIRONMENTAL
SHEET 2 OF 14
ELMONT SUBSTATION
Chickahominy River
Stony Run
Handley Easement
Glover Park
HANOVER COUNTY
HENRICO COUNTY
Cedar Lane
French Hay
Sources: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community


ATTACHMENT II.A.9
CONSERVATION EASEMENTS MAP
Chickahominy-Elmort Line #557 Rebuild and New Future 230 kV Lines
Hanover, Henrico, and Charles City Counties, Virginia
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Dominion Energy Virginia
C2 Env Project: 0264
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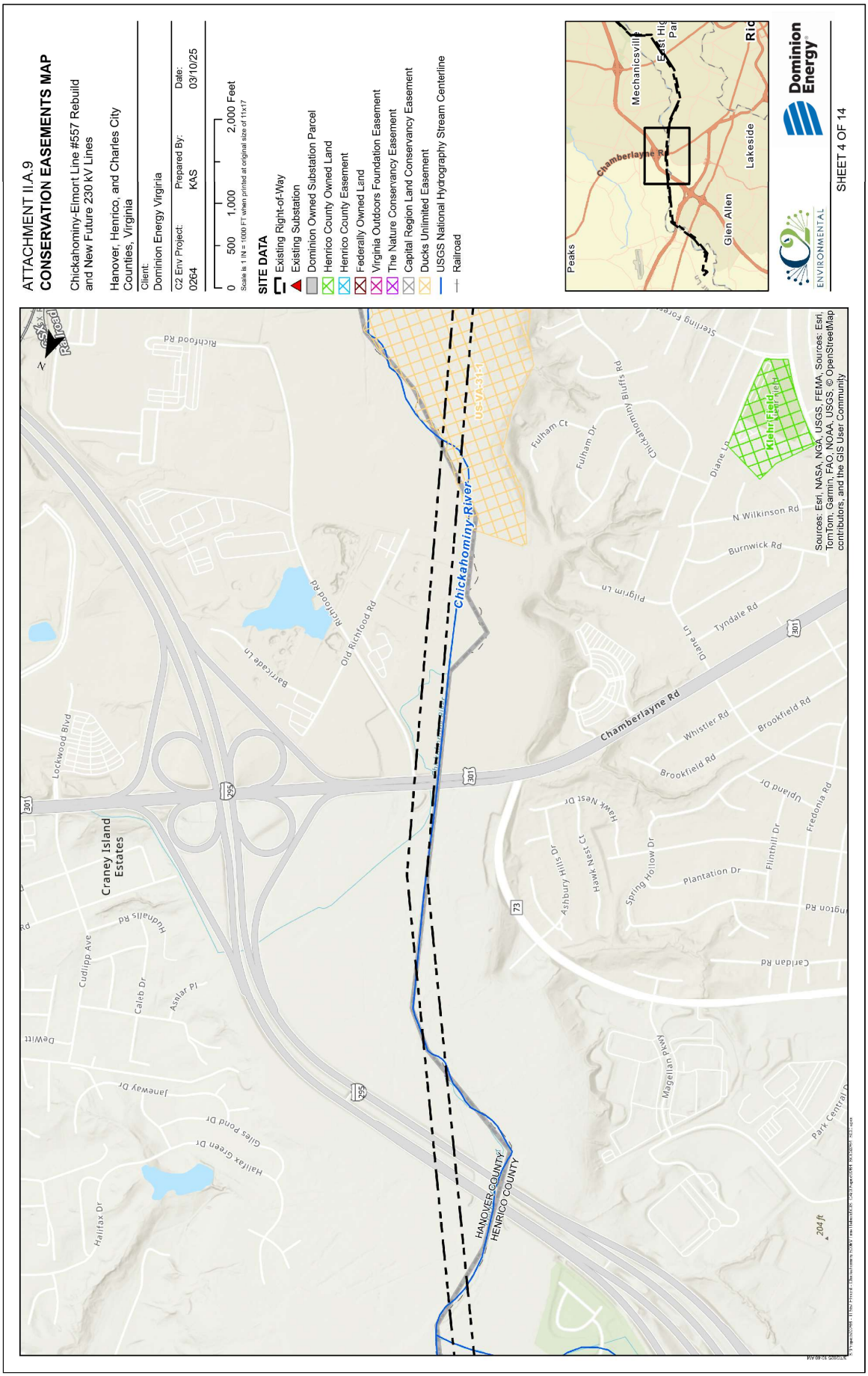
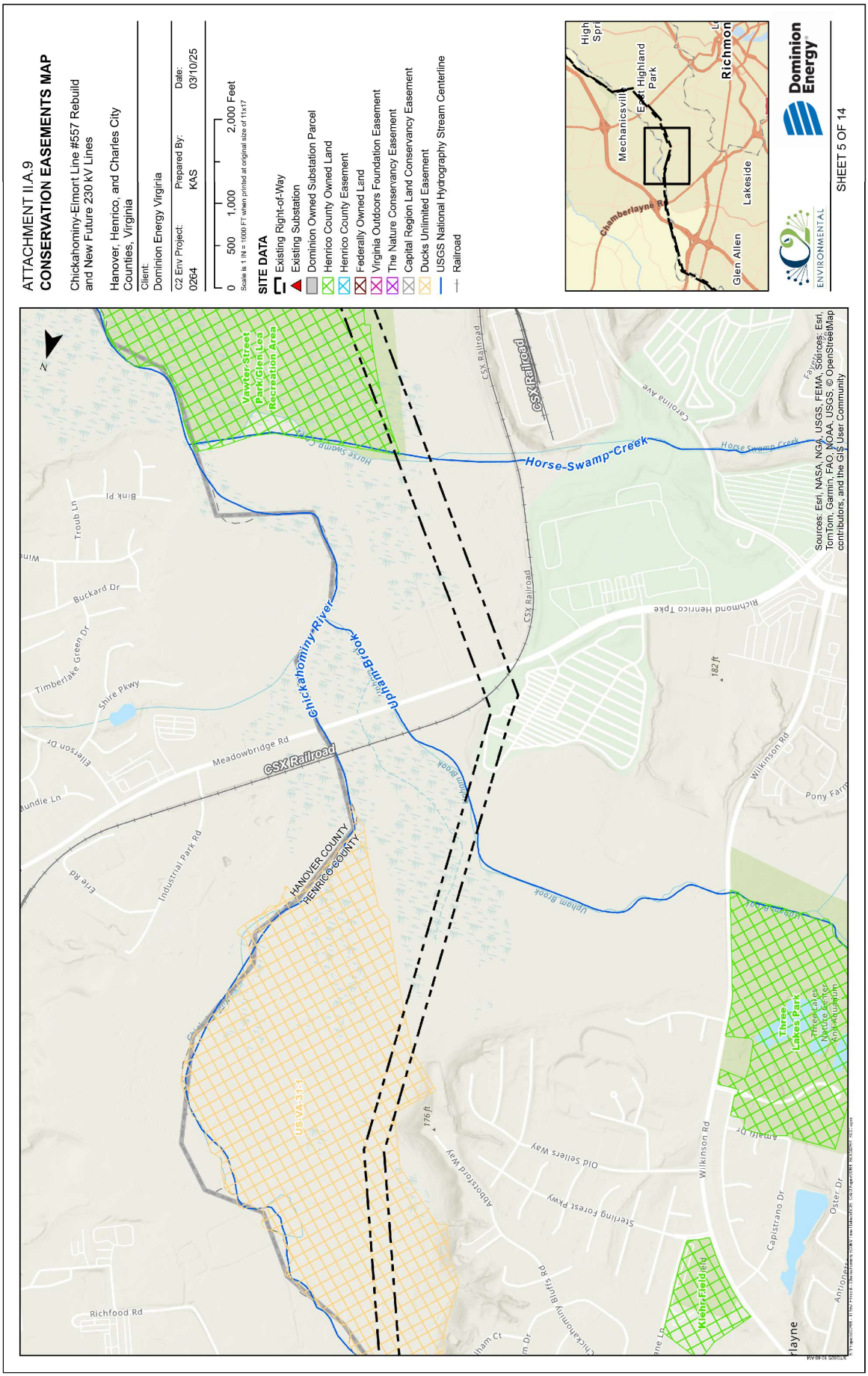
Ducks Unlimited Easement
USGS National Hydrography Stream Centerline
Railroad
Dominion Energy
ENVIRONMENTAL
SHEET 3 OF 14
Chickahominy River
HANOVER COUNTY
HENRICO COUNTY
Stony Run
Turner Run
Beechwood Farms
Crossings Golf Course
Virginia Center Commons
Creeks at Virginia Center
Lakeside
Glen Allen
Brook Rd
Telegraph Rd
Virginia Center Pkwy
Jeb Stuart Pkwy
Southwinds Dr
Village Views Dr
Livy Ln
Ethelwood Rd
Francis Rd
Ward Rd
N Rinker Dr
Old House Rd
Sunny Oak Dr
Deer Stream Dr
Staple
179 ft
181 ft
Sources: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community


ATTACHMENT II.A.9
CONSERVATION EASEMENTS MAP
Chickahominy-Elmort Line #557 Rebuild and New Future 230 kV Lines
Hanover, Henrico, and Charles City Counties, Virginia
Client: Dominion Energy Virginia
C2 Env Project: 0264
Prepared By: KAS
Date: 03/10/25
0 500 1,000 2,000 Feet
Scale is 1 IN = 1000 FT when printed at original size of 11x17
SITE DATA
Existing Right-of-Way
Existing Substation
Dominion Owned Substation Parcel
Henrico County Owned Land
Henrico County Easement
Federally Owned Land
Virginia Outdoors Foundation Easement
The Nature Conservancy Easement
Capital Region Land Conservancy Easement
Ducks Unlimited Easement
USGS National Hydrography Stream Centerline
Railroad
Chamberlayne Rd
Peaks
Mechanicsville
Glen Allen
Lakeside
Dominion Energy
ENVIRONMENTAL
SHEET 4 OF 14
Chickahominy River
HANOVER COUNTY
HENRICO COUNTY
US-VA-311
Kiehn Field
Craney Island Estates
Richfood Rd
Old Richfood Rd
Lockwood Blvd
Barrcade Ln
Fulham Ct
Fulham Dr
Chickahominy Bluffs Rd
Diane Ln
N Wilkinson Rd
Burnwick Rd
Pilgrim Ln
Tyndale Rd
Whistler Rd
Brookfield Rd
Hawk Nest Dr
Hawk Nest Ct
Ashbury Hills Dr
Spring Hollow Dr
Plantation Dr
Flinthill Dr
Fredonia Rd
Upland Dr
Carlisle Rd
Magellan Pkwy
Park Central Dr
Hudnalls Rd
Cudlipp Ave
Caleb Dr
Asnlar Pl
Dewitt
Janeway Dr
Giles Pond Dr
Halifax Green Dr
Halifax Dr
Sterling Forest
Sources: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community


ATTACHMENT II.A.9
CONSERVATION EASEMENTS MAP
Chickahominy-Elmort Line #557 Rebuild and New Future 230 kV Lines
Hanover, Henrico, and Charles City Counties, Virginia
Client: Dominion Energy Virginia
C2 Env Project: 0264
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Date: 03/10/25
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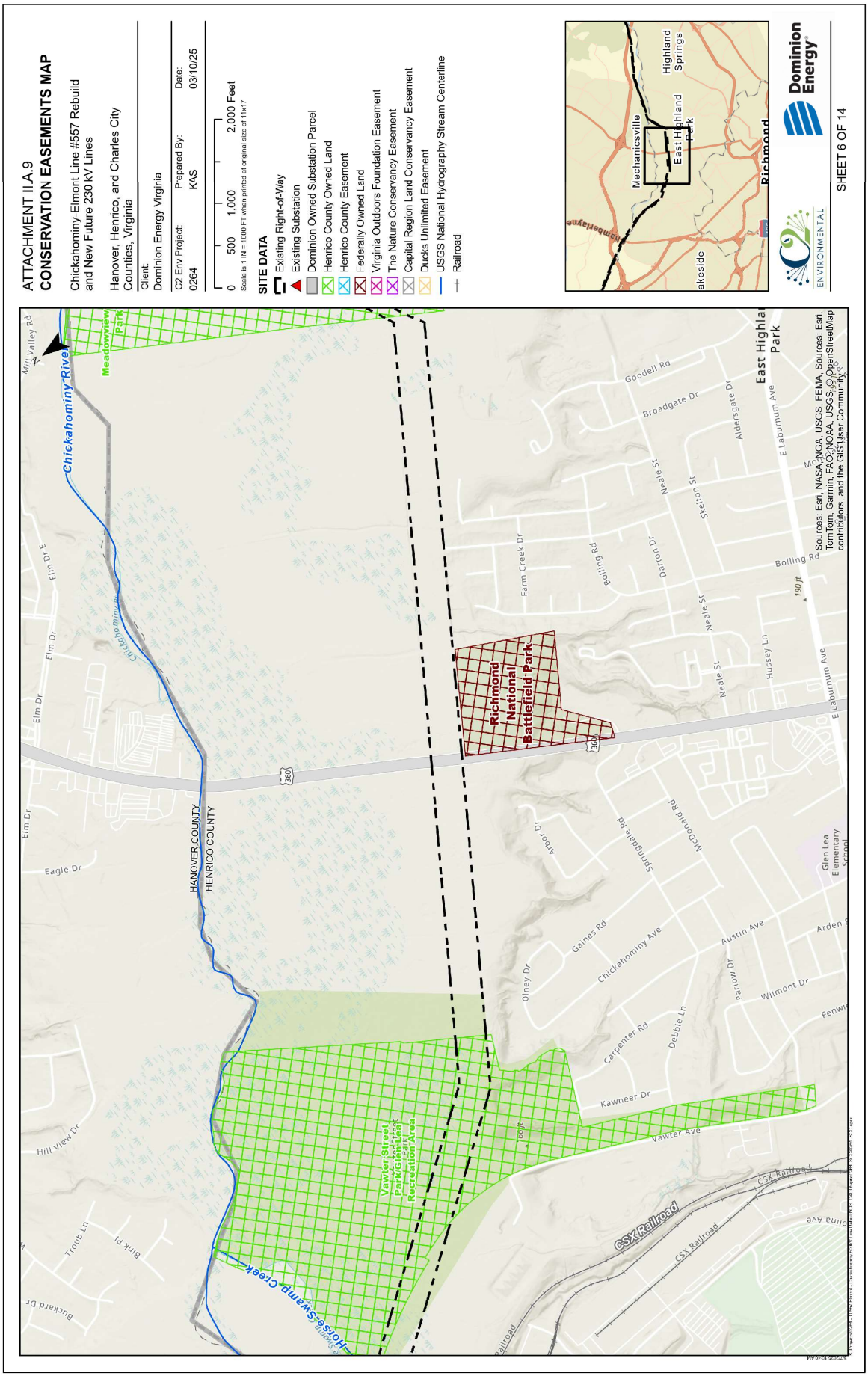
SITE DATA
Existing Right-of-Way
Existing Substation
Dominion Owned Substation Parcel
Henrico County Owned Land
Henrico County Easement
Federally Owned Land
Virginia Outdoors Foundation Easement
The Nature Conservancy Easement
Capital Region Land Conservancy Easement
Ducks Unlimited Easement
USGS National Hydrography Stream Centerline
Railroad
Dominion Energy
ENVIRONMENTAL
SHEET 5 OF 14
Horse Swamp Creek
Chickahominy River
Upham Brook
CSX Railroad
HANOVER COUNTY
HENRICO COUNTY
Richmond Henrico Tpke
Meadowbridge Rd
Wilkinson Rd
Three Lakes Park
Kiani Fieldfield
US-VA-315
Richfood Rd
Sources: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community


ATTACHMENT II.A.9
CONSERVATION EASEMENTS MAP
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Hanover, Henrico, and Charles City Counties, Virginia
Client: Dominion Energy Virginia
C2 Env Project: 0264
Prepared By: KAS
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SITE DATA
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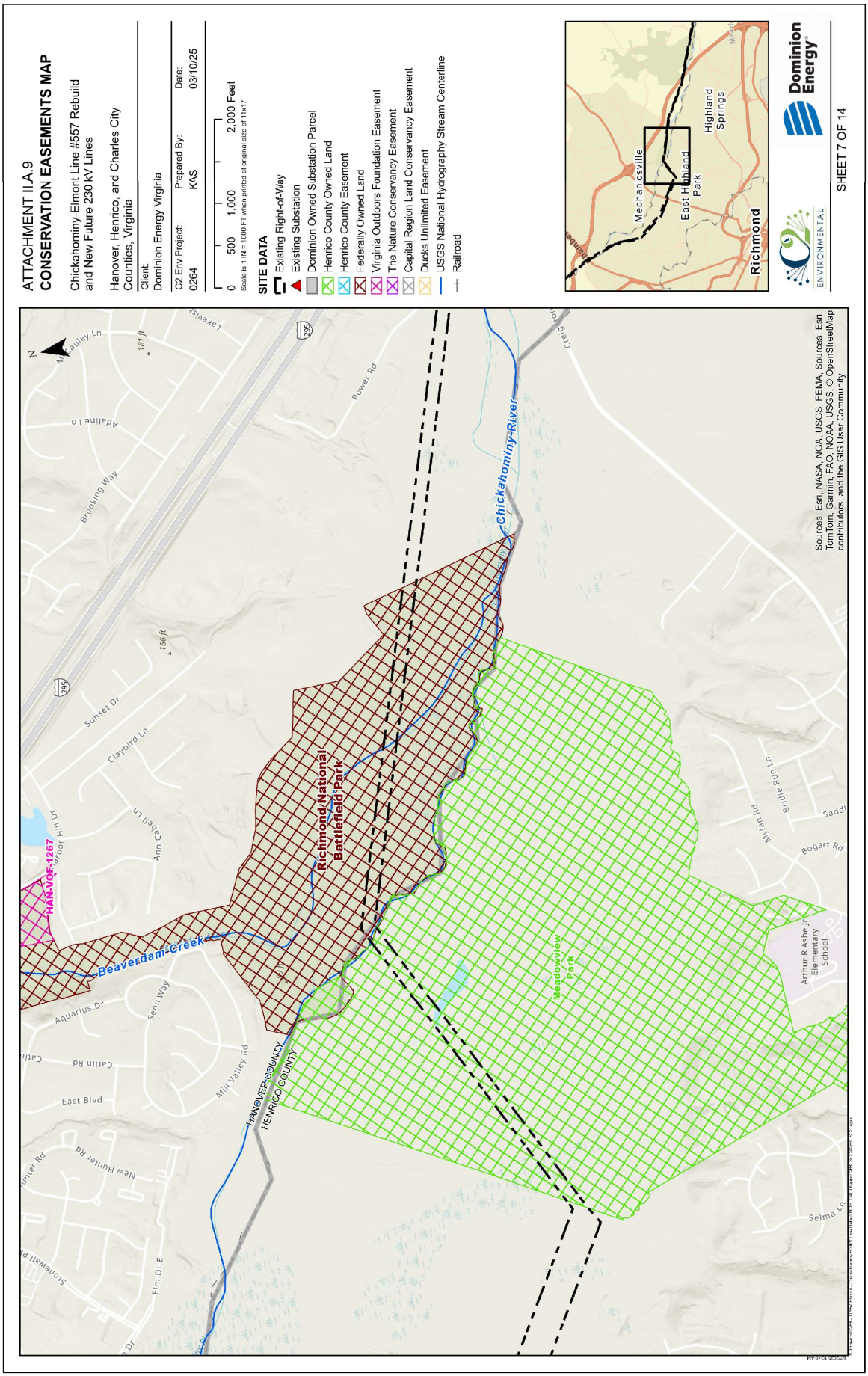
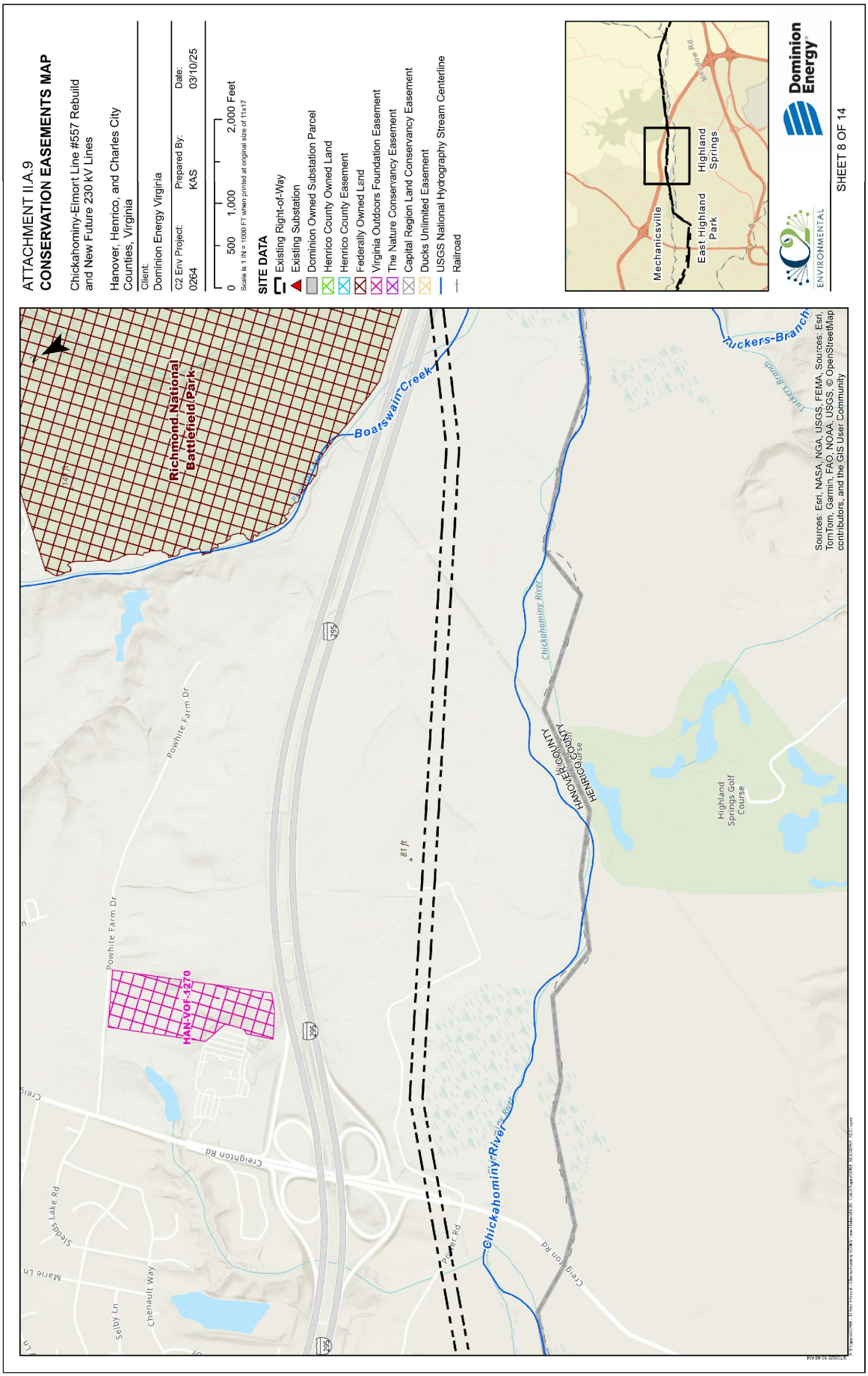
Henrico County Owned Land
Henrico County Easement
Federally Owned Land
Virginia Outdoors Foundation Easement
The Nature Conservancy Easement
Capital Region Land Conservancy Easement
Ducks Unlimited Easement
USGS National Hydrography Stream Centerline
Railroad
Chickahominy River
Meadowview Park
Richmond National Battlefield Park
East Highland Park
Vawter Street Park/Gaines Field Park Recreation Area
Horse Swamp Creek
HANOVER COUNTY
HENRICO COUNTY
CSX Railroad
Glen Lea Elementary School
Sources: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community
Mechanicsville
Highland Springs
East Highland Park
Richmond
Dominion Energy
ENVIRONMENTAL
SHEET 6 OF 14


ATTACHMENT II.A.9
CONSERVATION EASEMENTS MAP
Chickahominy-Elmort Line #557 Rebuild and New Future 230 kV Lines
Hanover, Henrico, and Charles City Counties, Virginia
Client:
Dominion Energy Virginia
C2 Env Project: 0264
Prepared By: KAS
Date: 03/10/25
0 500 1,000 2,000 Feet
Scale is 1 IN = 1000 FT when printed at original size of 11x17
SITE DATA
Existing Right-of-Way
Existing Substation
Dominion Owned Substation Parcel
Henrico County Owned Land
Henrico County Easement
Federally Owned Land
Virginia Outdoors Foundation Easement
The Nature Conservancy Easement
Capital Region Land Conservancy Easement
Ducks Unlimited Easement
USGS National Hydrography Stream Centerline
Railroad
Richmond
Mechanicsville
East Highland Park
Highland Springs
Dominion Energy
ENVIRONMENTAL
SHEET 7 OF 14
Richmond National Battlefield Park
Meadowview Park
Chickahominy River
Beaverdam Creek
HAN-VOF-1267
HANOVER COUNTY
HENRICO COUNTY
Arthur R Ashe Jr Elementary School
Sources: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community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Dominion Energy Virginia
C2 Env Project: 0264
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Existing Substation
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Henrico County Owned Land
Henrico County Easement
Federally Owned Land
Virginia Outdoors Foundation Easement
The Nature Conservancy Easement
Capital Region Land Conservancy Easement
Ducks Unlimited Easement
USGS National Hydrography Stream Centerline
Railroad
Mechanicsville
East Highland Park
Highland Springs
Dominion Energy
ENVIRONMENTAL
SHEET 8 OF 14
Richmond National Battlefield Park
Boatswain Creek
Chickahominy River
Ruckers Branch
HANOVER COUNTY
HENRICO COUNTY
HAN-VOF-1270
Powhite Farm Dr
Creighton Rd
Highland Springs Golf Course
Sources: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community