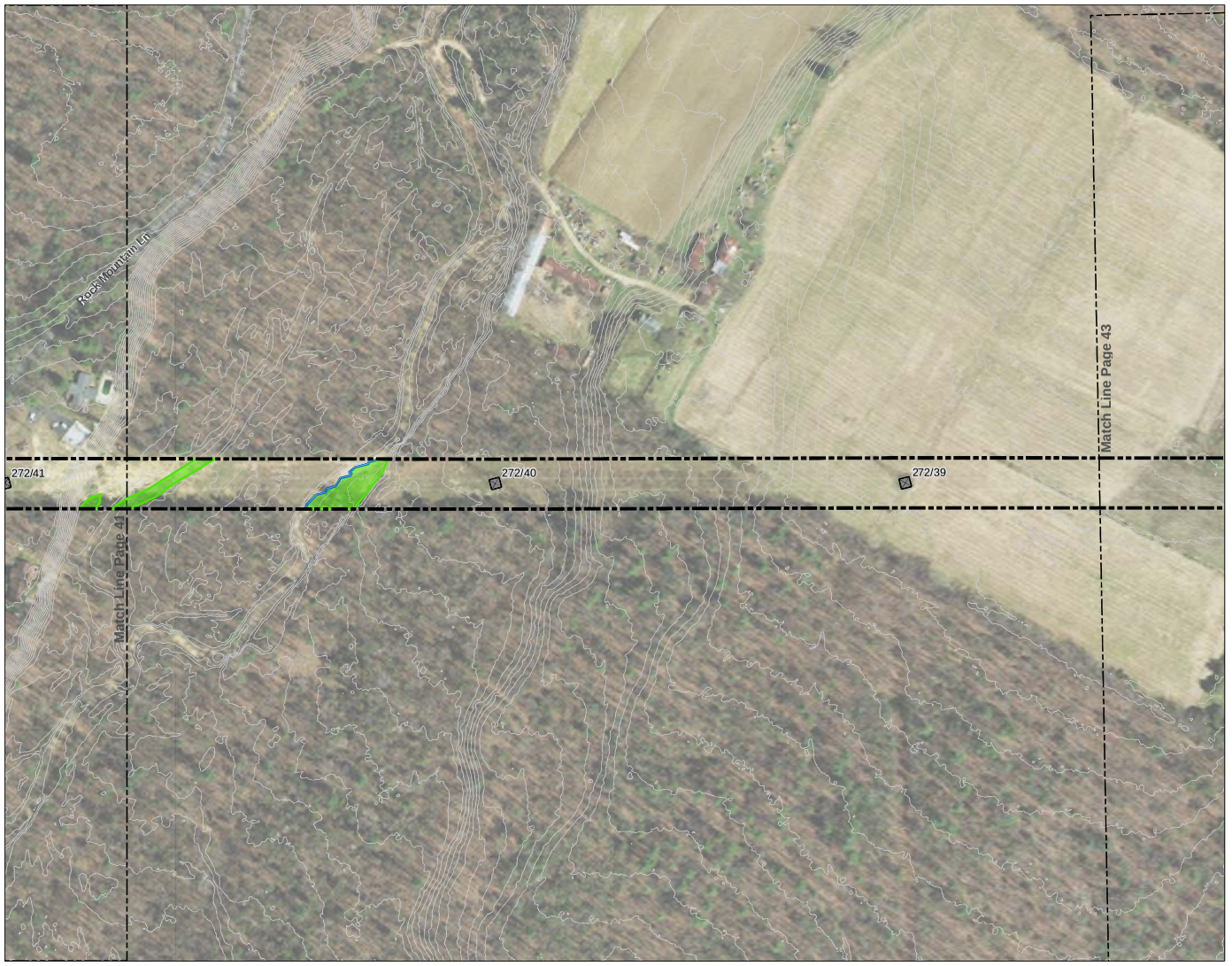

Figure No.
1

Title
Wetland and Surface Water Desktop Analysis

Client/Project 203401846
Dominion Energy Virginia
Dooms-Harrisonburg 230 kV Line #260 and #272
Rebuild Project

Project Location
Rockingham County and Augusta Counties, Virginia

Prepared by JBB on 2024-02-19
TR by MGS on 2024-03-04
IR by KHP on 2024-02-27

0 200 400 Feet
(At original document size of 11x17)
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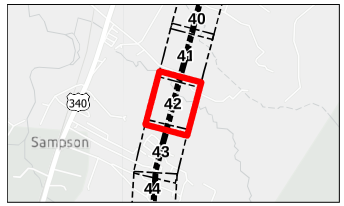
- Existing Structure
- Project Limits
- Approximate PEM/PSS Wetland: Low Probability
- Stream Channel
- Railroad
- 2-Foot Contour



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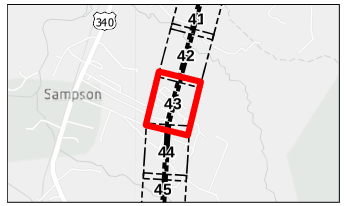

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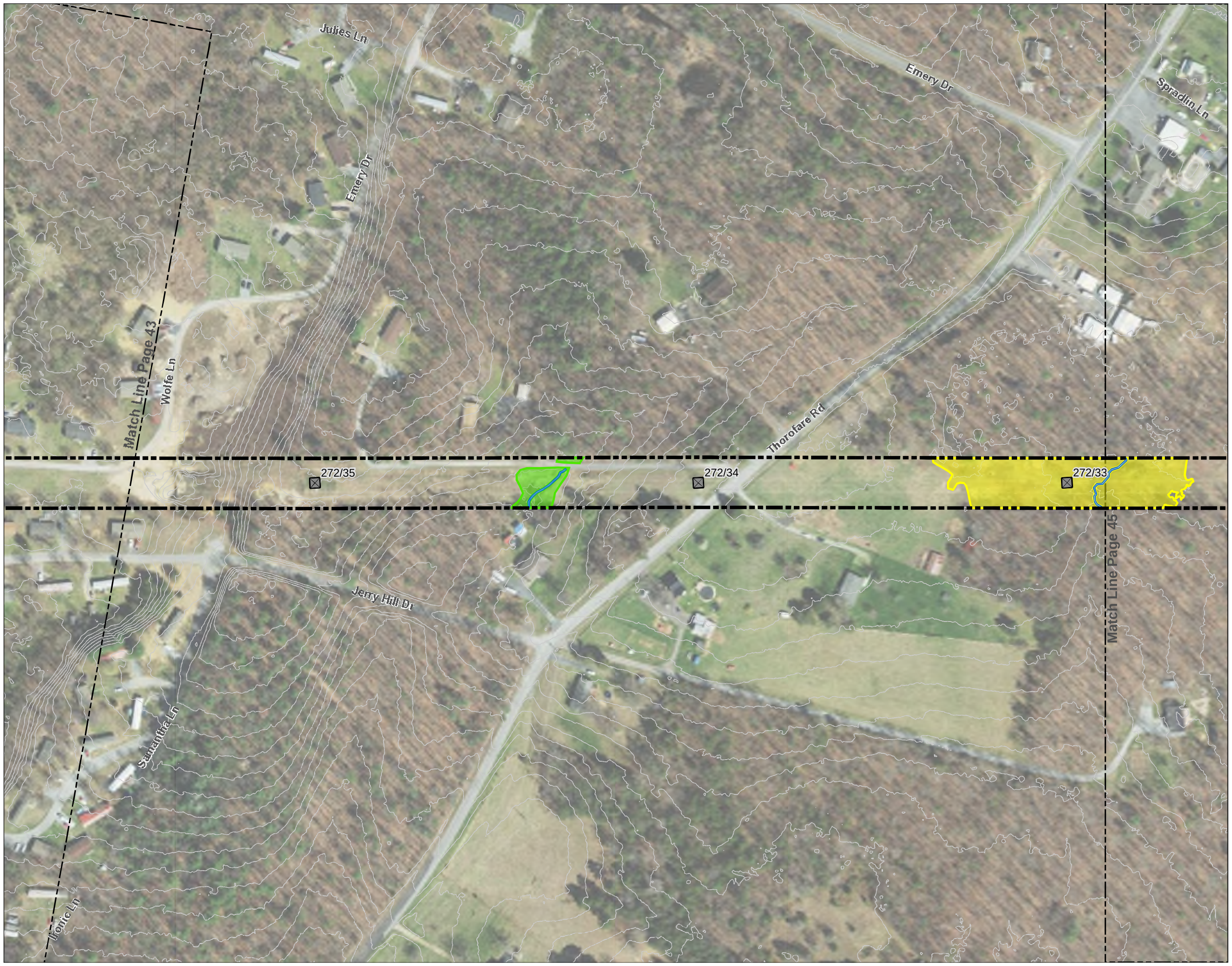

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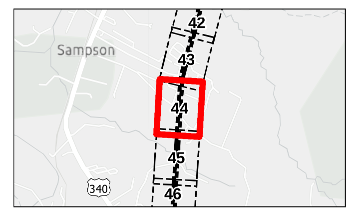

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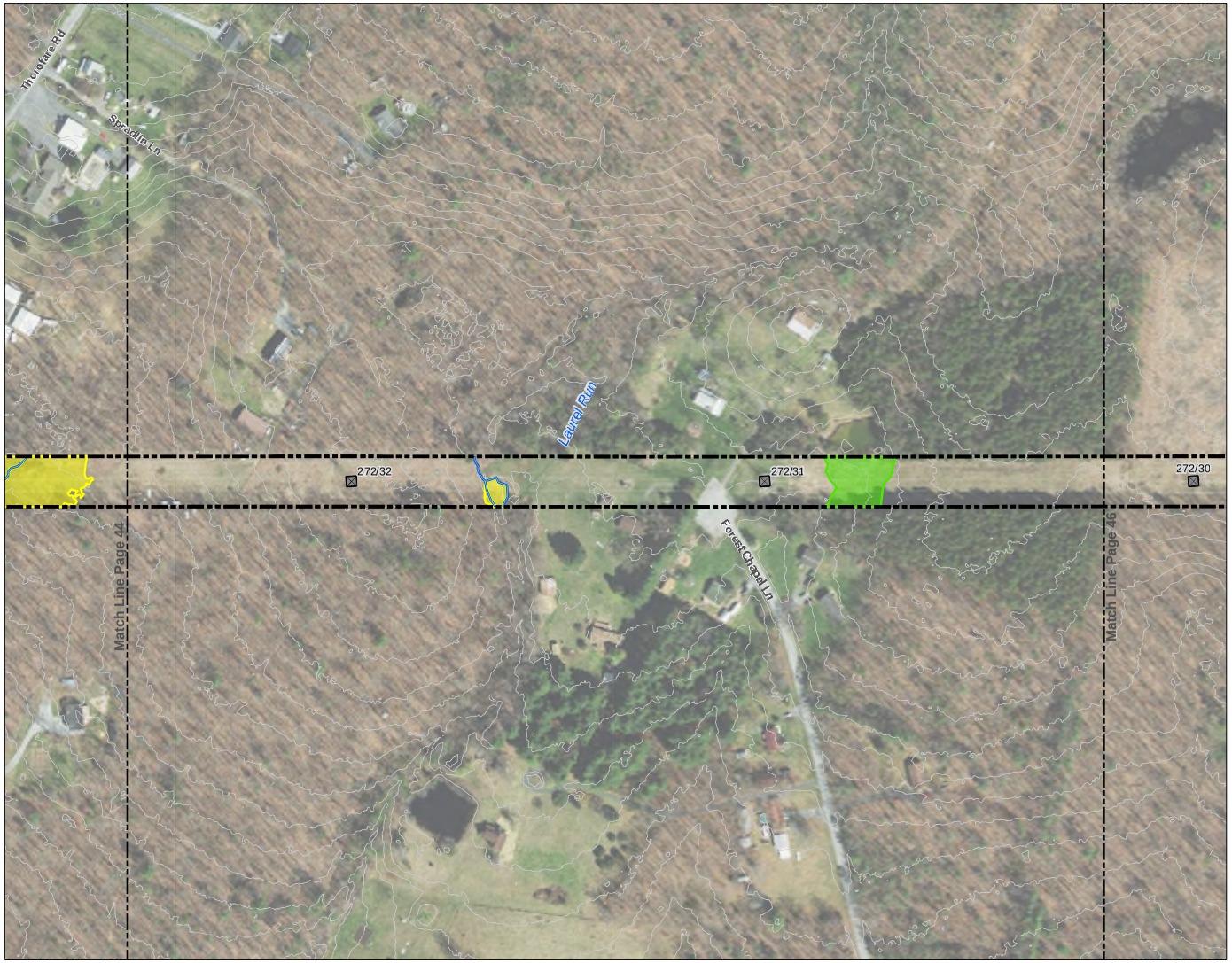

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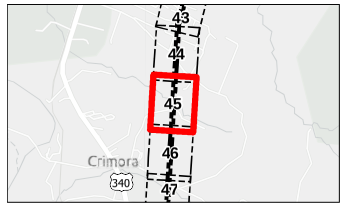

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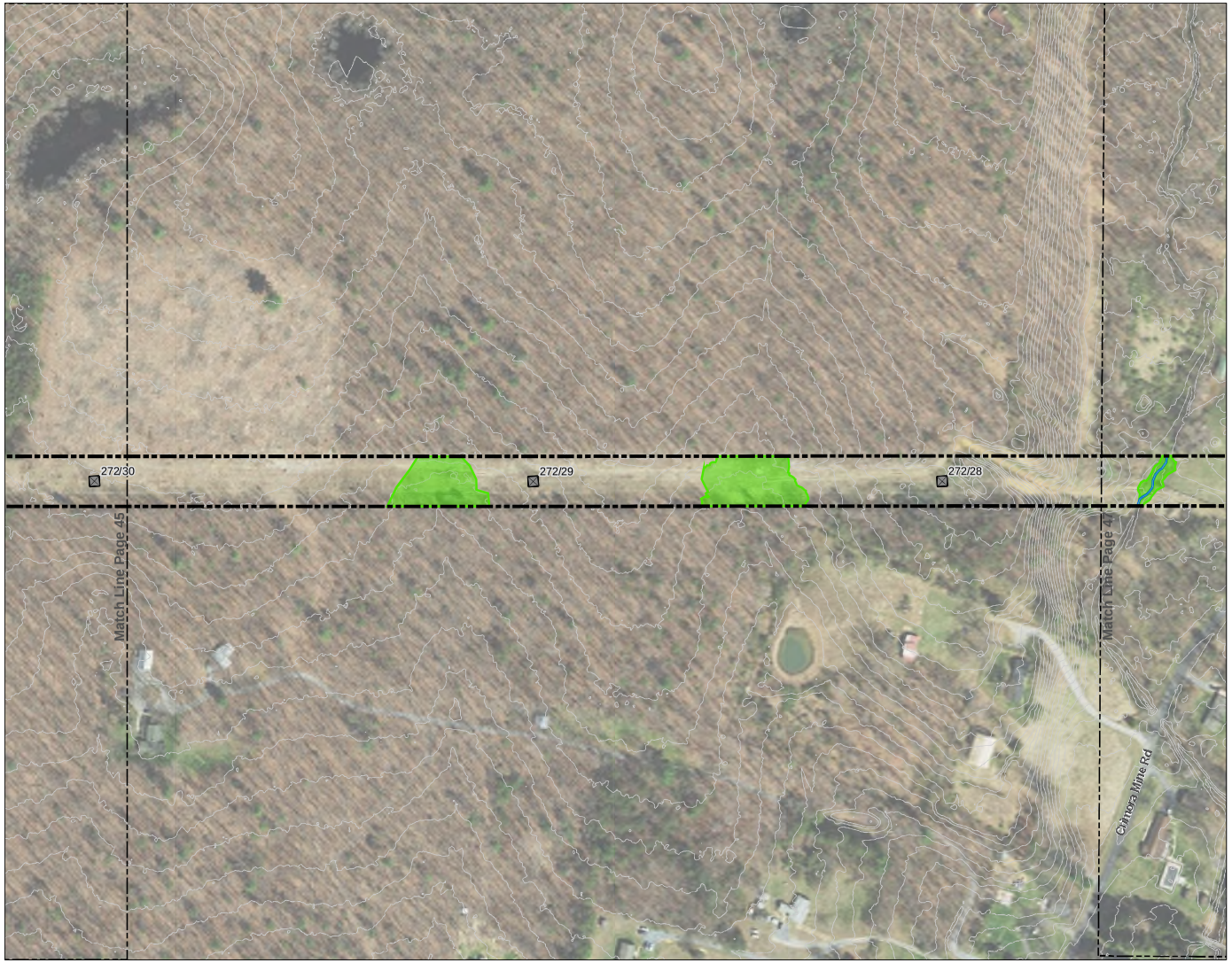

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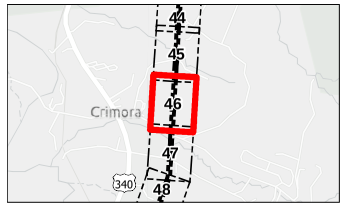

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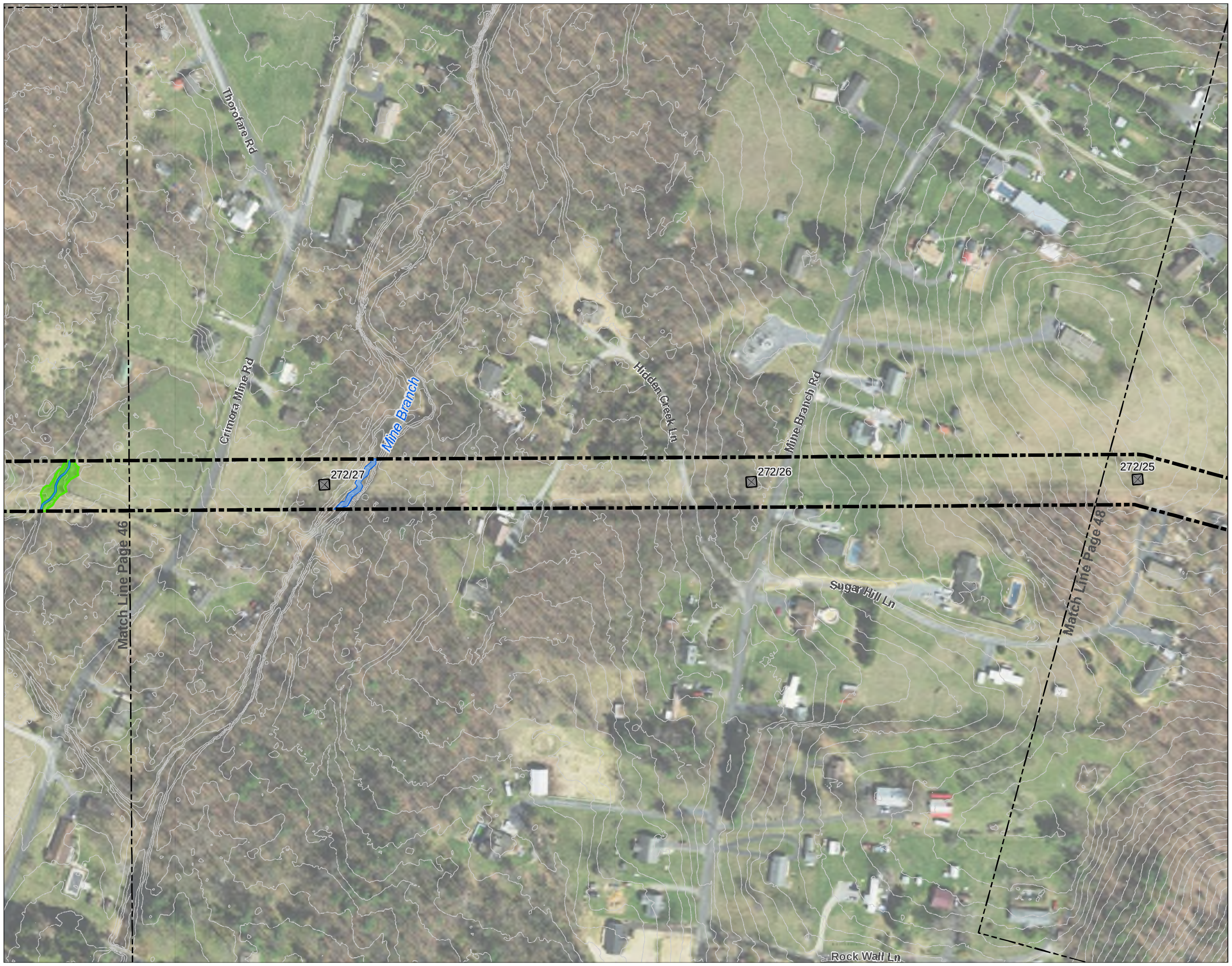

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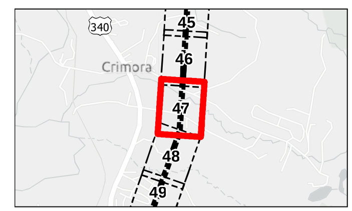

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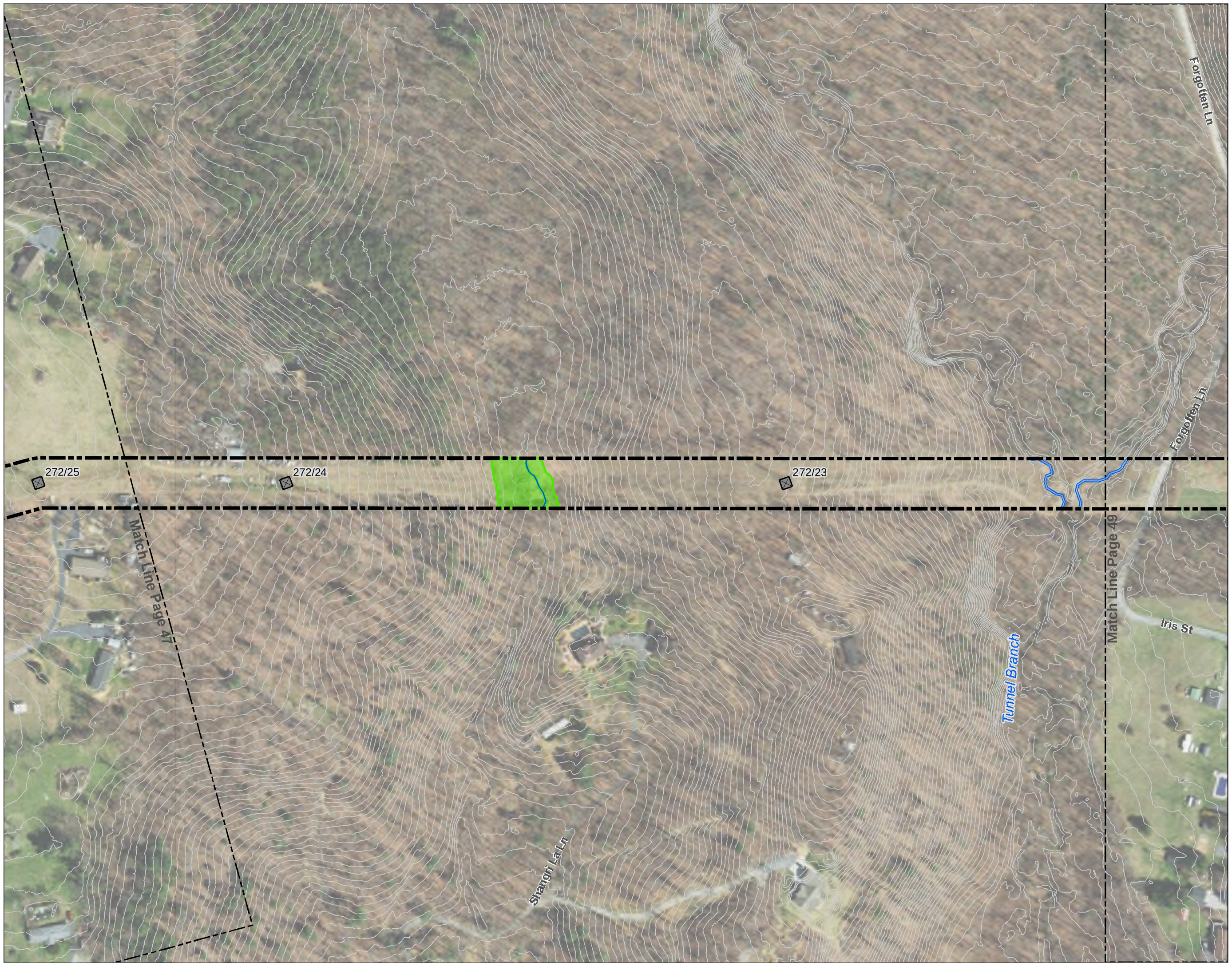

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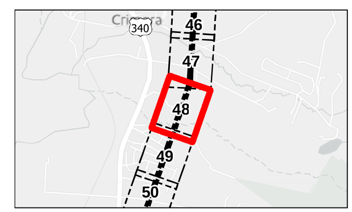

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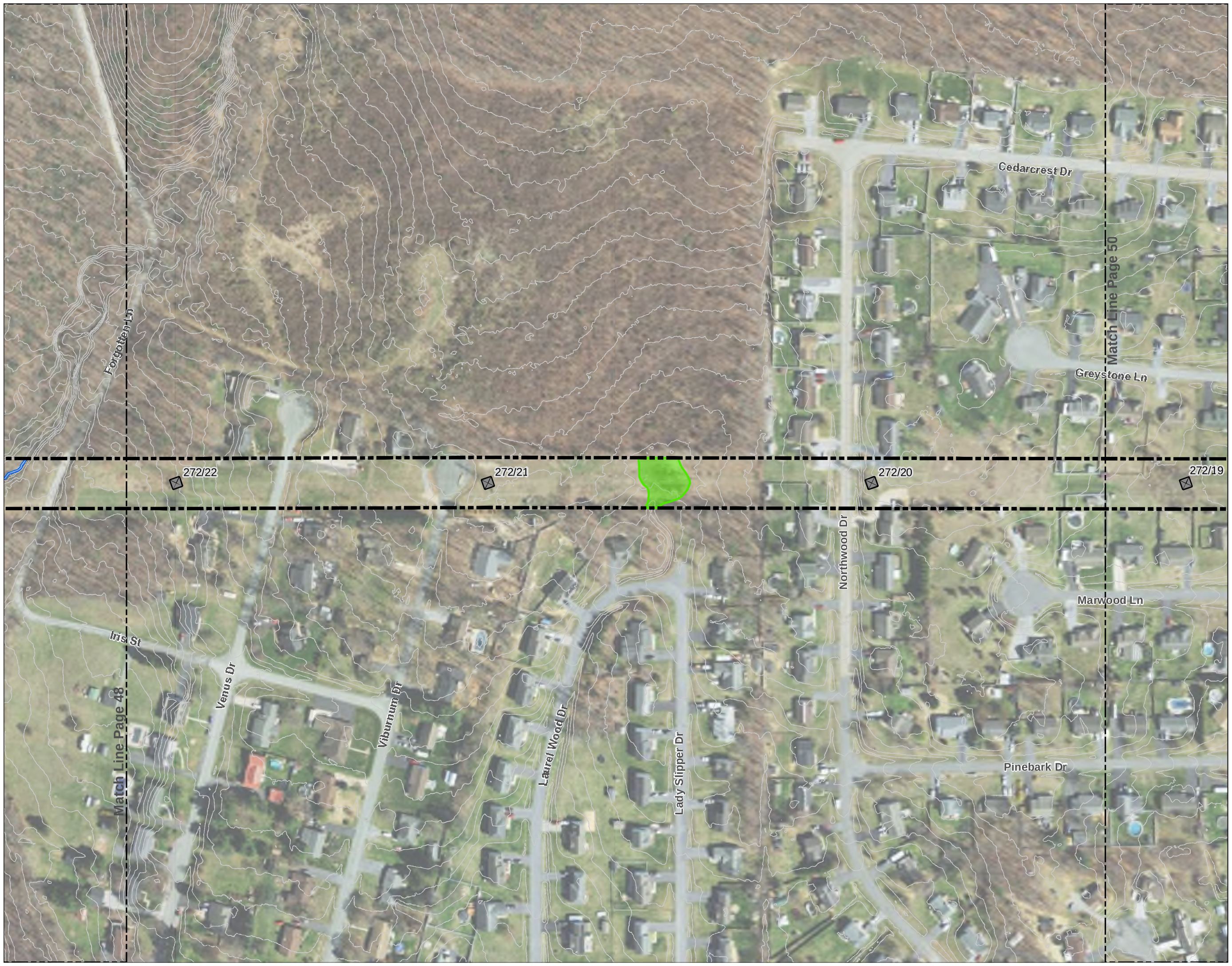

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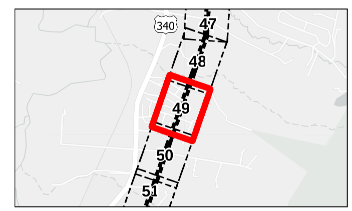

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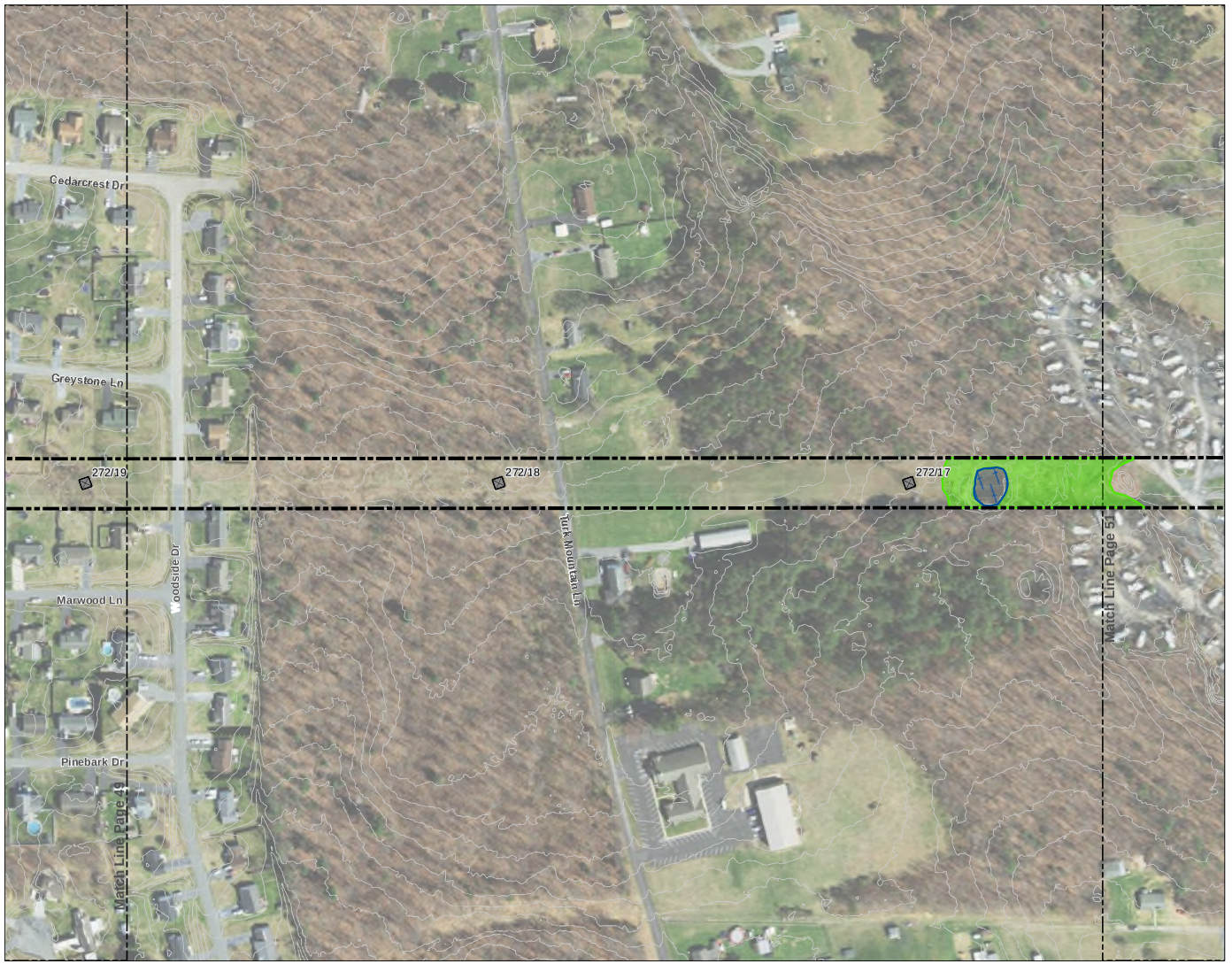

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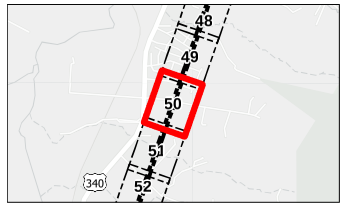

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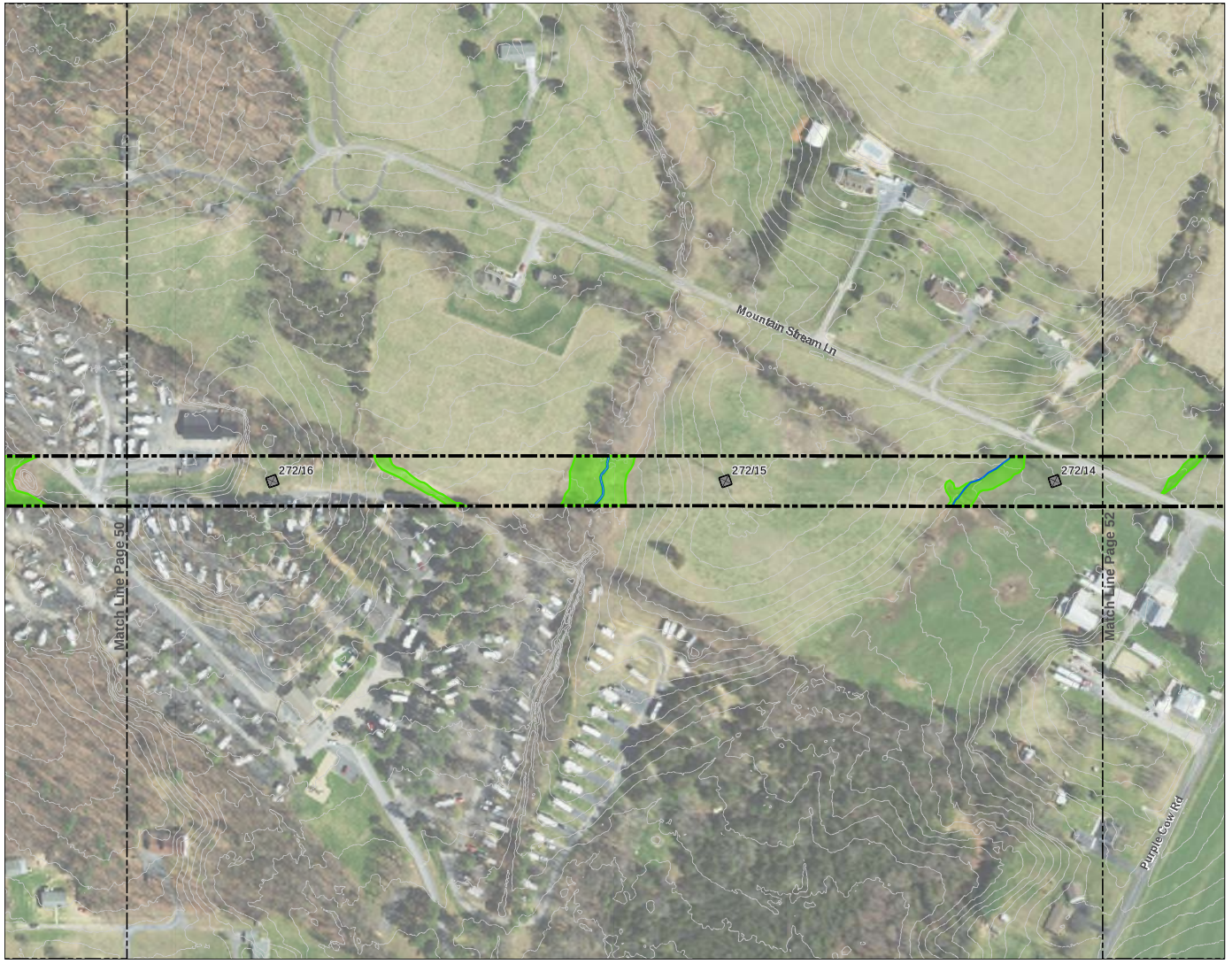

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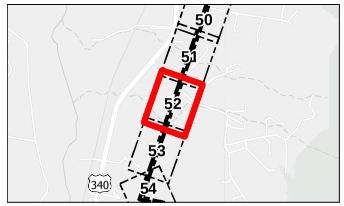

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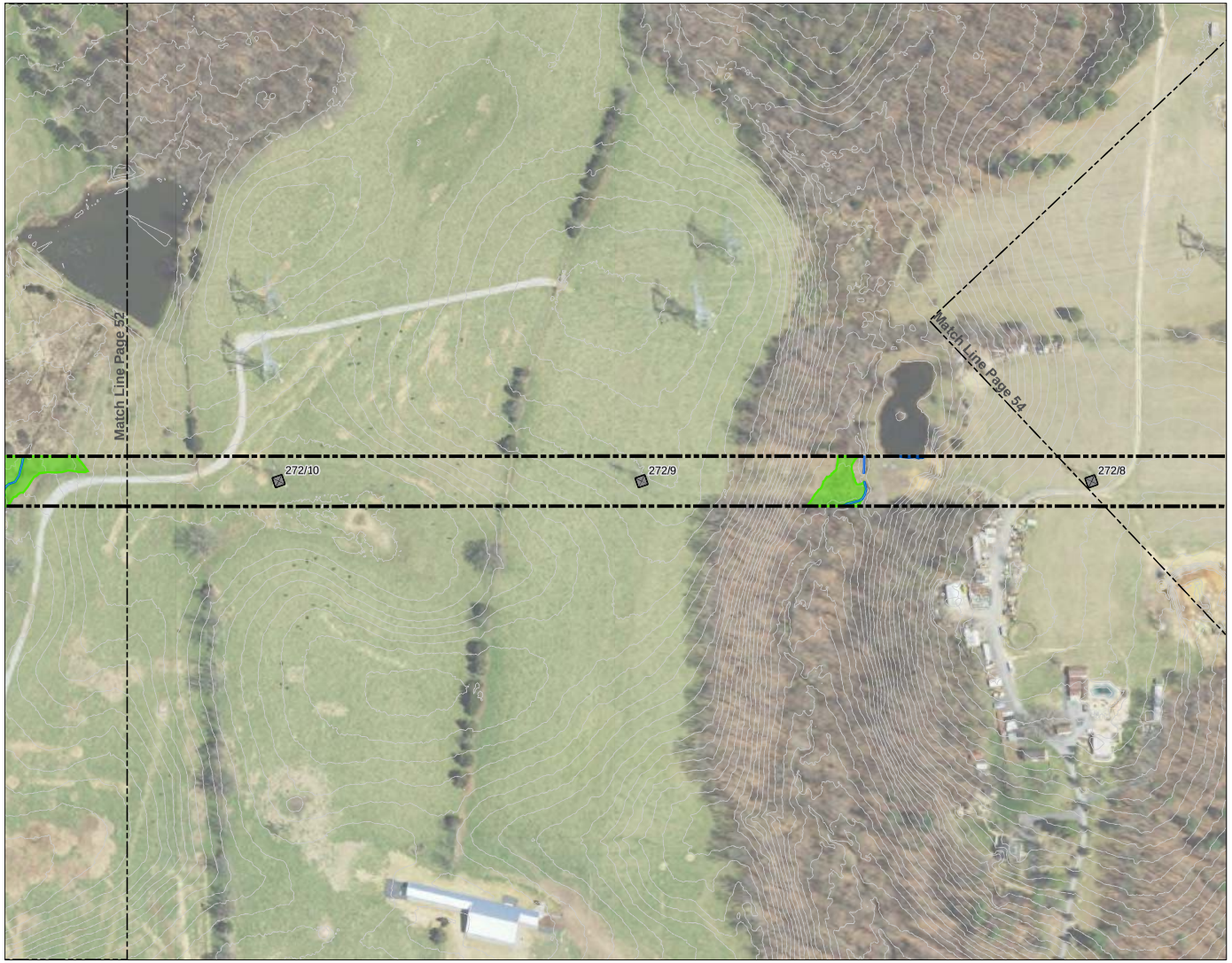

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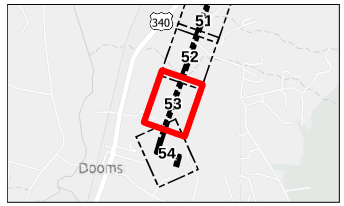

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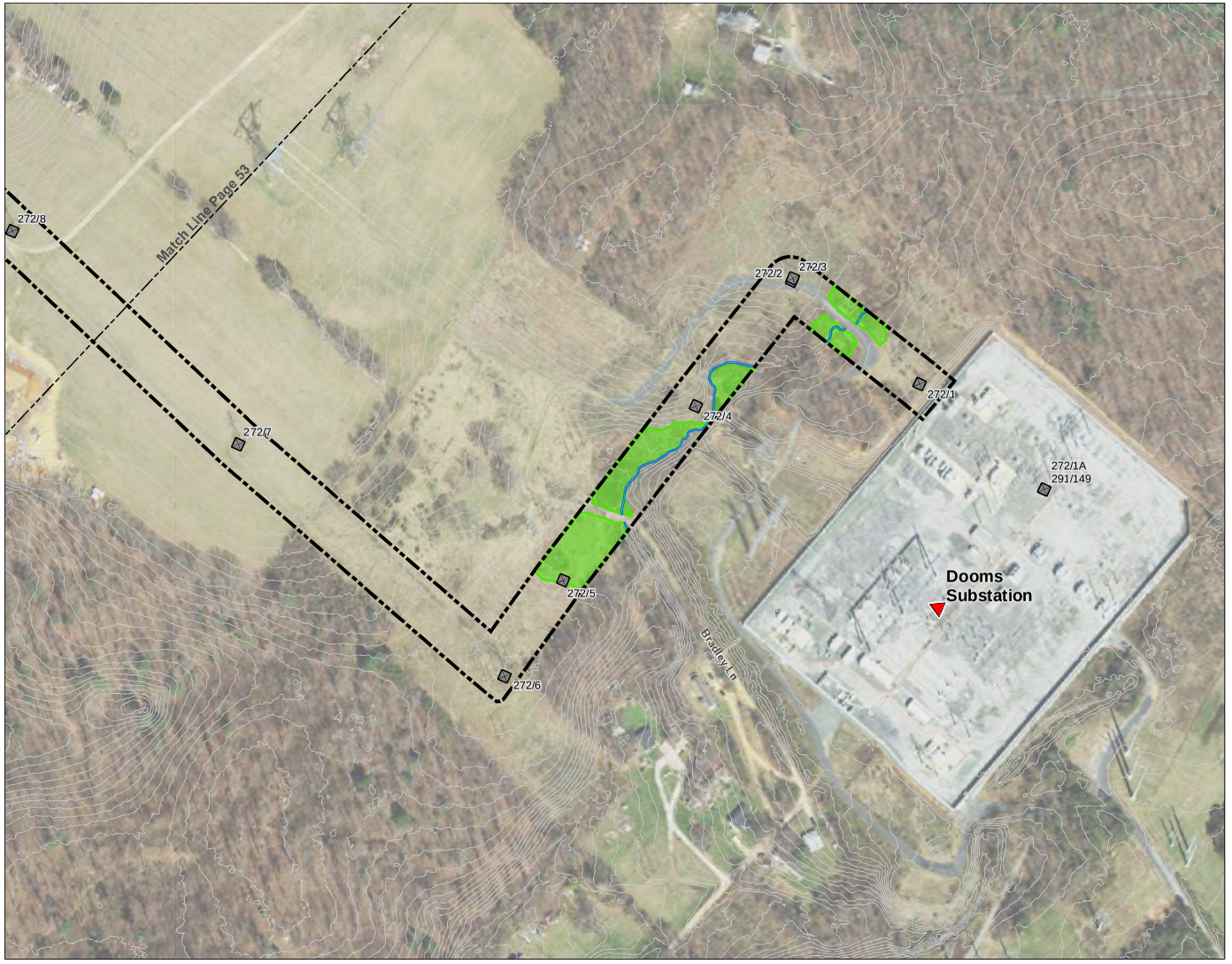

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- Substation
- Existing Structure
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- Railroad
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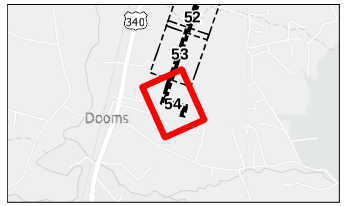

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Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

1111 E. Main Street, Suite 1400, Richmond, Virginia 23219
P.O. Box 1105, Richmond, Virginia 23218
(800) 592-5482 FAX (804) 698-4178
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Travis A. Voyles
Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus
Director
(804) 698-4020

April 25, 2024

Virginia Gills
Environmental Specialist III
Dominion Energy Environmental & Sustainability
120 Tredegar Street, Richmond, VA 23219

RE: **Dominion Energy Virginia's Proposed Dooms-Harrisonburg 230 kV Lines #260 and #272 Rebuild, Augusta and Rockingham Counties, Virginia**

Dear Ms. Gills,

In accordance with the Department of Environmental Quality-State Corporation Commission *Memorandum of Agreement Regarding Wetland Impact Consultation* (July 2003), we have reviewed the information submitted by Dominion Energy Virginia. Dominion is proposing to wreck and rebuild Lines #260 and #272, entirely within existing rights-of-way on Company owned property with new weathering steel structures.

Summary of Findings

A jurisdictional wetland and waters delineation has not been conducted at this time; however, Stantec conducted a wetland desktop study to identify probable wetlands based on a review of multiple data sources. The full Wetland Desktop Study will be submitted once finalized. Subsequently, a field wetland delineation will be conducted and the extent of wetlands of other waters of the United States will be submitted to the U.S. Army Corps of Engineers for confirmation. Table 1 below provides a summary of the medium to high probability wetlands that could be affected within the proposed project right-of-way.

Table 1: Summary of the Probabilities of Wetland and Waterbody Occurrence along the **Rebuild Project Corridor**

Resource Type	Probability			Total
	Low	Medium	High	
Palustrine Emergent and Scrub/Shrub Non-tidal wetlands	9.81 acres	6.08 acres	0.69 acres	16.58 acres
Open Water Non-Tidal	N/A	N/A	0.87 acres	0.87 acres
Stream	N/A	N/A	1.29 Acres 7,370 Linear Feet	1.29 Acres 7,370 Linear Feet

Water Quality and Wetlands. The disturbance of land and surface waters, which include wetlands, open water, and streams, may require prior approval by the Virginia Department of Environmental Quality (DEQ); the U.S. Army Corps of Engineers (USACE); the Virginia Marine Resources Commission (VMRC); and/or local government wetlands boards (generally in the northern and piedmont regions of Virginia). Measures such as but not limited to Best Management Practices (BMPs) must be taken to first avoid and minimize impacts to surface waters during construction activities, including potential water quality impacts resulting from construction site runoff. Unavoidable impacts may require compensatory mitigation.

The USACE and DEQ work in conjunction to provide official confirmation of whether there are federal and/or state jurisdictional surface waters that may be impacted by the proposed project. DEQ may confirm additional waters as jurisdictional beyond those under federal authority. VMRC provides its own review to determine its agency jurisdiction. Review of National Wetland Inventory maps or topographic maps for locating wetlands, open waters, or streams may not be sufficient; there may need to be a site-specific review by a qualified professional.

If construction activities will occur in or along any streams (perennial, intermittent, or ephemeral), open water, or wetlands, the applicant should contact the DEQ-VWP manager at the DEQ regional office closest to the project location (https://www.deq.virginia.gov/get-involved/about-us/contact-us) to determine the need for any permits prior to commencing work that could impact surface waters. Even if there will be no intentional placement of fill material in jurisdictional waters, potential water quality impacts resulting from construction site surface runoff must be minimized. This can be achieved by using BMPs. DEQ's permit need decisions neither replace nor supersede requirements set forth by other local, state, federal, and tribal laws, nor eliminate the need to obtain additional permits, approvals, consultations, or authorizations as required by law before proposed activities may commence.

Erosion and Sediment Control and Storm Water Management. DEQ has regulatory authority for the Virginia Pollutant Discharge Elimination System (VPDES) programs related to municipal separate storm sewer systems (MS4s) and construction activities. Erosion and sediment control (ESC) measures are addressed in local ordinances and State regulations. Additional information is available at https://www.deq.virginia.gov/permits/water/stormwater-construction. Non-point source pollution resulting from this project should be minimized by using effective erosion and sediment control practices and structures. Consideration should also be given to denuded areas to be promptly revegetated following construction work. If the total land disturbance exceeds 10,000 square feet, an ESC plan will be required. Some localities also require an ESC plan for disturbances less than 10,000 square feet. A stormwater management plan may also be required. For any land disturbing activities equal to one acre or more, you are required to apply for coverage under the VPDES General Permit for Discharges of Storm Water from Construction Activities. The Virginia Stormwater Management Permit Authority may be DEQ or the locality.

Recommendations and Potential Permits:

Based upon review of the information provided, DEQ's Virginia Water Protection (VWP) Permit Program offers the following general recommendations concerning potential surface water impacts:

1. Prior to commencing project work, all surface waters on the project site should be delineated by a qualified professional and verified by the USACE or DEQ. Note that the USACE can confirm boundaries of federal jurisdictional waters and state jurisdictional waters but may only provide confirmation of Waters of the United States (WOTUS) boundaries. Except in couple of situations,

DEQ provides confirmation of all state surface waters boundaries, whether or not the USACE has jurisdiction.

2. Wetland, stream, and open water impacts should be avoided and minimized to the maximum extent practicable.

3. If the scope of the project changes, additional review will be necessary by one or more offices in the Commonwealth's Secretariat of Natural Resources and/or the USACE.

4. At a minimum, any required compensation for permanent impacts to State Waters, including the compensation for permanent conversion of forested wetlands and scrub-shrub wetlands to emergent wetlands, should be in accordance with all applicable state regulations and laws. The typical ratios for permanent conversion impacts is 1:1 (not a standard ratio). Secondary impacts (e.g., loss of hydrology, significant temporary impacts, etc.) should also be considered, and may require compensatory mitigation at the standard ratios, unless determined otherwise based on project-specific considerations. Permanent impacts to forested or converted wetlands are required to be compensated by establishing or restoring new forested or scrub-shrub wetlands, within the impacted watershed. Compensation is preferred through available sources of mitigation bank and in-lieu program wetland mitigation credits.

5. Any temporary impacts to surface waters associated with this project should be restored to pre-existing conditions.

6. No activity may substantially disrupt the movement of aquatic life indigenous to the water body, including those species which normally migrate through the area, unless the primary purpose of the activity is to impound water. Culverts placed in streams must be installed to maintain low flow conditions. No activity may cause more than minimal adverse effect on navigation. Furthermore, the activity must not impede the passage of normal or expected high flows and the structure or discharge must withstand expected high flows.

7. Erosion and sedimentation controls (ESC) should be designed in accordance with the most recent version of the Virginia Stormwater Management Handbook. These controls should be placed prior to clearing and grading and maintained in good working order to minimize impacts to state waters. These controls should also remain in place until the area is stabilized and should then be removed. Any exposed slopes and streambanks should be stabilized immediately upon completion of work in each permitted area. All denuded areas should be properly stabilized in accordance with the most recent Virginia Stormwater Management Handbook. Please note that on June 22, 2023, Virginia's State Water Control Board adopted new Virginia Erosion and Stormwater Management Regulations (9VAC25-875) to consolidate program requirements and correct inconsistencies between erosion and sediment control and stormwater management program regulations. Additionally, the project will require coverage under the new Construction General Permit. These changes will become effective on July 1, 2024.

8. No machinery may enter state surface waters, unless authorized by a Virginia Water Protection (VWP) individual permit, general permit, or general permit coverage.

9. Heavy equipment in temporarily impacted surface waters should be placed on mats, geotextile fabric, or other suitable material, to minimize soil disturbance to the maximum extent practicable. Equipment and materials should be removed immediately upon completion of work.

10. Activities should be conducted in accordance with any time-of-year restriction(s) as recommended by the Department of Wildlife Resources, the Department of Conservation and Recreation (DCR), the Virginia Marine Resources Commission (VMRC), and the U.S. Fish and Wildlife Service (USFWS), or other protective measures for listed threatened or endangered species and/or critical habitat. The permittee should retain a copy of any DEQ and resource

agency correspondence concerning species or habitats for the duration of the construction phase of the project.

11. All construction, construction access, and demolition activities associated with this project should be accomplished in a manner that minimizes construction materials or waste materials from entering surface waters, unless authorized by a Virginia Water Protection (VWP) individual permit, general permit, or general permit coverage. Wet, excess, or waste concrete is prohibited from entering surface waters.
12. Herbicides used in or around any surface water should be approved for aquatic use by the United States Environmental Protection Agency (EPA) or the USFWS. Use of herbicides in state waters shall be performed in accordance with Code of Virginia Chapter 39 - Pesticide Control (§§ 3.2-3900 through 3.2-3947) and 9VAC25-800 et. seq. These herbicides should be applied according to label directions by an herbicide applicator licensed by the Virginia Department of Agriculture and Consumer Services (VDACS), Office of Pesticide Services. A non-petroleum-based surfactant should be used in or around any surface waters.

Permits:

Based on DEQ's review of Dominion's report dated March 6, 2024, and received on March 28, 2024, the proposed project may require a Virginia Water Protection (VWP) individual permit or general permit coverage. The applicant may submit a Joint Permit Application (JPA) in accordance with form instructions for further evaluation and final permit need determination by DEQ.

Should you have any questions, please don't hesitate to contact me at 804-965-4329 or at **michelle.henicheck@deq.virginia.gov.**

Sincerely,

Michelle Henicheck

Michelle Henicheck, PWS
Senior Wetland Ecologist
Office of Wetlands & Stream Protection

Cc: Eric Millard, DEQ - VRO
Bettina Rayfield, DEQ - Office of Environmental Review

Stantec

Memo

To:	Virginia Gills Dominion Energy 120 Tredegar Street Richmond, VA 23219	From:	Kenrick Presgraves Stantec Consulting Services, Inc. 5209 Center Street Williamsburg, VA 23188
File:	203401846	Date:	March 6, 2024

Reference: Dooms–Harrisonburg 230 kV Lines #260 and #272 Rebuild Project - Augusta and Rockingham Counties and the City of Harrisonburg, VA: Solid & Hazardous Waste Search

Stantec conducted database searches for solid and hazardous wastes and petroleum release sites within a 0.5-mile radius of the proposed Dooms–Harrisonburg 230 kV Lines #260 and #272 Rebuild project. The project involves the wreck and rebuild of two 230 kV transmission lines. The approximately 11.5-mile Dooms to Grottoes Line 272 begins at the Dooms substation in Augusta County and ends at the Grottoes substation in Rockingham County, Virginia. The approximately 10.6-mile Grottoes to Harrisonburg Line 260 begins at the Grottoes substation and then ends at the Harrisonburg substation in the City of Harrisonburg, Virginia. The project will take place within the existing cleared and maintained transmission line right-of-way (ROW) with no additional temporary or permanent ROW required. The project involves the wreck and replacement of 230 kV wood, COR-TEN, and weathering steel transmission towers within two existing transmission lines.

Stantec obtained publicly available data from the Environmental Protection Agency (EPA) Facility Registry System (FRS), which provides information about facilities, sites, or places subject to environmental regulation or of environmental interest. Although this data set includes all sites subject to environmental regulation by the EPA or other state authority, such as sites that fall under air emissions or wastewater programs, the results reported here only include those sites which fall under the EPA's hazardous waste, solid waste, remediation, and underground storage tank programs. These sites include Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)/Superfund; Resource Conservation and Recovery Act (RCRA); and brownfield sites. Per this database, there are three registered RCRA sites present within a 0.5-mile radius of the project (Table 1). Two of these sites are inactive, and only one is an active site. Kees Body Shop (Permit Number: VAR000015347) is the active site located approximately 875 feet away from the ROW. No sites are documented within the project ROW.

The Virginia Department of Environmental Quality (DEQ) records were also searched for the presence of solid waste management facilities, Voluntary Remediation Program sites, and petroleum releases within 0.5 mile of the proposed project. Three solid waste permit sites (Table 2) are documented where one is approximately 870 feet from the project area and two are co-located at approximately 1,902 feet from the project area. They are outside of the ROW, and the systems associated with the permit are either closed or undesignated. A total of 28 suspected and confirmed petroleum release sites were identified within the search radius, with the closest site Rinaca Station (PC Number 19995151) located approximately 343 linear feet from the project area. All the petroleum release sites are closed. Additionally, none of the identified petroleum release sites identified within 0.5 mile of the proposed project intersect with the project ROW and thus are not expected to have an impact on the proposed project.

In summary, a total of 22 confirmed petroleum release sites, three solid waste permit site, and three RCRA sites are located within a 0.5-mile radius of the project area. No EPA registered brownfield sites, or CERCLA/Superfund sites are located within 0.5 mile of the project area.

Reference: **Dooms–Harrisonburg 230 kV Lines #260 and #272 Rebuild Project - Augusta and Rockingham Counties and the City of Harrisonburg, VA: Solid & Hazardous Waste Search**

Table 1. RCRA sites identified by the EPA as occurring within 0.5-mile of the Dooms to Harrisonburg 230 kV Rebuild project.

Site Name	Permit Number	Interest Type	Location	Latitude	Longitude	Status	Proximity to Centerline (feet)
Sunrise Motors*	VAR000007393	RCRA	Rockingham County	38.413653	-78.876249	Inactive	1,755
Kees Body Shop	VAR000015347	RCRA	City of Harrisonburg	38.40916	-78.88468	Active	875
7-Eleven #23671*	VAD988192480	RCRA	City of Harrisonburg	38.413653	-78.876249	Inactive	1,755

*EPR FRS database provides same coordinates for Sunrise Motors and 7-Eleven #23671. 7-Eleven #23671 actual location may be greater than 1-mile from project centerline.

Table 2. Solid waste sites identified by the DEQ as occurring within 0.5-mile of the Dooms to Harrisonburg 230 kV Rebuild project.

Site Name	Permit Number	Interest Type	Location	Latitude	Longitude	Status	Proximity to Centerline (feet)
Contract V84235, Poultry Disposal Site, Gwnf	900000000341	Solid Waste Permit	Rockingham County	38.346916	-78.855056	N/A	1,902
VDOT Route 609 Debris Site	900000002821	Solid Waste Permit	Rockingham County	38.346916	-78.855056	N/A	1,902
City of Harrisonburg – Sanitary Landfill	900000000216	Solid Waste Permit	City of Harrisonburg	38.411449	-78.884827	Closed	870

Reference: **Dooms–Harrisonburg 230 kV Lines #260 and #272 Rebuild Project - Augusta and Rockingham Counties and the City of Harrisonburg, VA: Solid & Hazardous Waste Search**

Table 3. Petroleum releases identified by the DEQ as occurring within 0.5 mile of the Dooms to Harrisonburg 230 kV Rebuild project.

Site Name	PC Number	Location	Latitude	Longitude	Status	Type of Release	Federally Registered Tank?	Proximity to Centerline (feet)
Wampler Property	19954759	Rockingham County	38.26168362	-78.82348538	Closed	Confirmed	N	2,238
GTE Grottoes	19975056	Rockingham County	38.26195344	-78.82256614	Closed	Confirmed	Y	2,023
Valley Motor Service	20026043	Rockingham County	38.26145126	-78.82212719	Closed	Confirmed	Y	1,840
Grottoes Volunteer Fire Department	19995098	Rockingham County	38.26186932	-78.82191700	Closed	Confirmed	Y	1,843
James Justis Residence	20106061	Rockingham County	38.25946929	-78.82160700	Closed	Confirmed	N	1,425
Grottoes Municipal Building	19995095	Rockingham County	38.26364039	-78.82194055	Closed	Confirmed	Y	2,094

Reference: **Dooms–Harrisonburg 230 kV Lines #260 and #272 Rebuild Project - Augusta and Rockingham Counties and the City of Harrisonburg, VA: Solid & Hazardous Waste Search**

Site Name	PC Number	Location	Latitude	Longitude	Status	Type of Release	Federally Registered Tank?	Proximity to Centerline (feet)
Miller Fuel – Grottoes Bulk Storage	20046072	Rockingham County	38.26387113	-78.82083984	Closed	Confirmed	N	1,836
7 Eleven 28415	20086112	Rockingham County	38.26185060	-78.81985404	Closed	Confirmed	Y	1,292
Grottoes Exxon	19964765	Rockingham County	38.26227774	-78.81961399	Closed	Confirmed	Y	1,284
Former Grottoes Exxon	20056155	Rockingham County	38.26225630	-78.81956545	Closed	Confirmed	Y	1,260
Shreckhise Nursery	19954612	Rockingham County	38.27818321	-78.82401201	Closed	Confirmed	Y	1,762
Rinaca Station	19995151	Rockingham County	38.27120648	-78.81288585	Closed	Confirmed	Y	343
Mawyer, James F. Residence	20006110	Augusta County	38.17381204	-78.84035329	Closed	Confirmed	N	2,362

Reference: **Dooms–Harrisonburg 230 kV Lines #260 and #272 Rebuild Project - Augusta and Rockingham Counties and the City of Harrisonburg, VA: Solid & Hazardous Waste Search**

Site Name	PC Number	Location	Latitude	Longitude	Status	Type of Release	Federally Registered Tank?	Proximity to Centerline (feet)
Rockingham Farm Bureau	19920674	Rockingham County	38.35546937	-78.84740293	Closed	Confirmed	Y	1,208
Motley Residence	19964760	Augusta County	38.15823060	-78.83849185	Closed	Confirmed	N	1,353
Boyd Residence	19995142	Rockingham County	38.36377617	-78.86015547	Closed	Confirmed	N	1,290
Forest Chapel Church of the Brethren	20076062	Augusta County	38.15477707	-78.84112441	Closed	Confirmed	N	2,035
Hope Crest Mobile Home Park	20036002	Augusta County	38.15412569	-78.83904371	Closed	Confirmed	N	1,440
Sammy's Exxon	19920866	Augusta County	38.15396535	-78.84295545	Closed	Confirmed	Y	2,547
Gordon Truslow Well	19780435	Augusta County	38.15328470	-78.83882294	Closed	Confirmed	N	1,344

Reference: **Dooms–Harrisonburg 230 kV Lines #260 and #272 Rebuild Project - Augusta and Rockingham Counties and the City of Harrisonburg, VA: Solid & Hazardous Waste Search**

Site Name	PC Number	Location	Latitude	Longitude	Status	Type of Release	Federally Registered Tank?	Proximity to Centerline (feet)
Tammy Valdez Residence	20106068	Rockingham County	38.37379041	-78.86847701	Closed	Confirmed	N	2,156
Columbia Gas	19995026	Augusta County	38.11127200	-78.85730834	Closed	Confirmed	Y	2,076

Stantec

Memo

If you have any questions regarding the details presented in this report, please feel free to contact me at your convenience.

Stantec Consulting Services Inc.

Kenrick Presgraves, PWD
Senior Ecologist
Phone: 757-810-1464
kenny.presgraves@stantec.com

USFWS-IPaC

Database Search

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
Phone: (804) 693-6694

In Reply Refer To:
Project Code: 2024-0053755
Project Name: Dooms to Harrisonburg 230 kV Rebuild

February 23, 2024

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Project Code in the header of this

letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
(804) 693-6694

PROJECT SUMMARY

Project Code: 2024-0053755
Project Name: Dooms to Harrisonburg 230 kV Rebuild
Project Type: Distribution Line - Maintenance/Modification - Above Ground
Project Description: An approximately 22 mile transmission line rebuild involving the replacement of structures and overhead transmission line.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.25877765,-78.81662822288672,14z

Counties: Augusta and Rockingham counties, Virginia

ENDANGERED SPECIES ACT SPECIES

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered
Virginia Big-eared Bat *Corynorhinus (=Plecotus) townsendii virginianus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8369	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRUSTACEANS

NAME	STATUS
Madison Cave Isopod *Antrolana lira*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/4162

FLOWERING PLANTS

NAME	STATUS
Northeastern Bulrush *Scirpus ancistrochaetus*	Endangered

Population:
No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/6715

Virginia Sneezeweed *Helenium virginicum*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/6297

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.

3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

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

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Aug 31
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

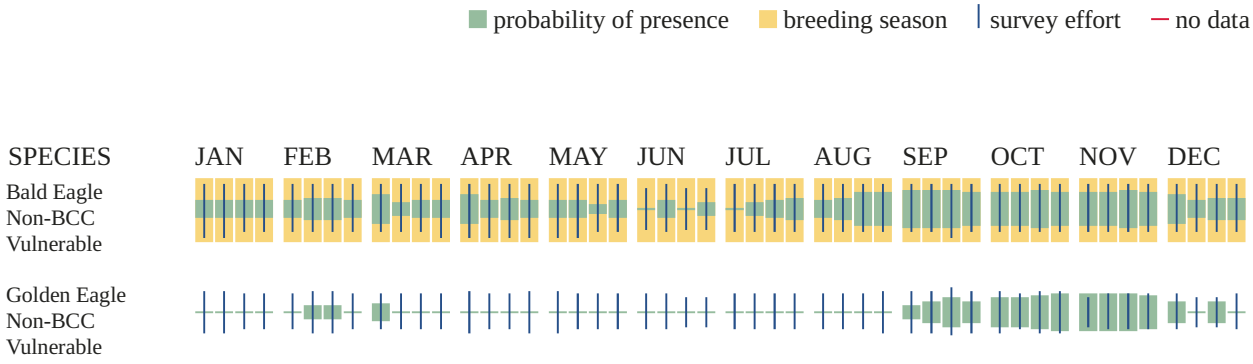
Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Aug 31
Black-billed Cuckoo *Coccyzus erythropthalmus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Black-capped Chickadee *Poecile atricapillus practicus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/10645	Breeds Apr 10 to Jul 31
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler *Cardellina canadensis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10
Cerulean Warbler *Dendroica cerulea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 27 to Jul 20
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will *Antrostomus vociferus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10678	Breeds May 1 to Aug 20
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Golden-winged Warbler *Vermivora chrysoptera* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20

NAME	BREEDING SEASON
Kentucky Warbler *Oporornis formosus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9443	Breeds Apr 20 to Aug 20
Northern Saw-whet Owl *Aegolius acadicus acadicus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/10655	Breeds Mar 1 to Jul 31
Prairie Warbler *Dendroica discolor* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9513	Breeds May 1 to Jul 31
Prothonotary Warbler *Protonotaria citrea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird *Euphagus carolinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

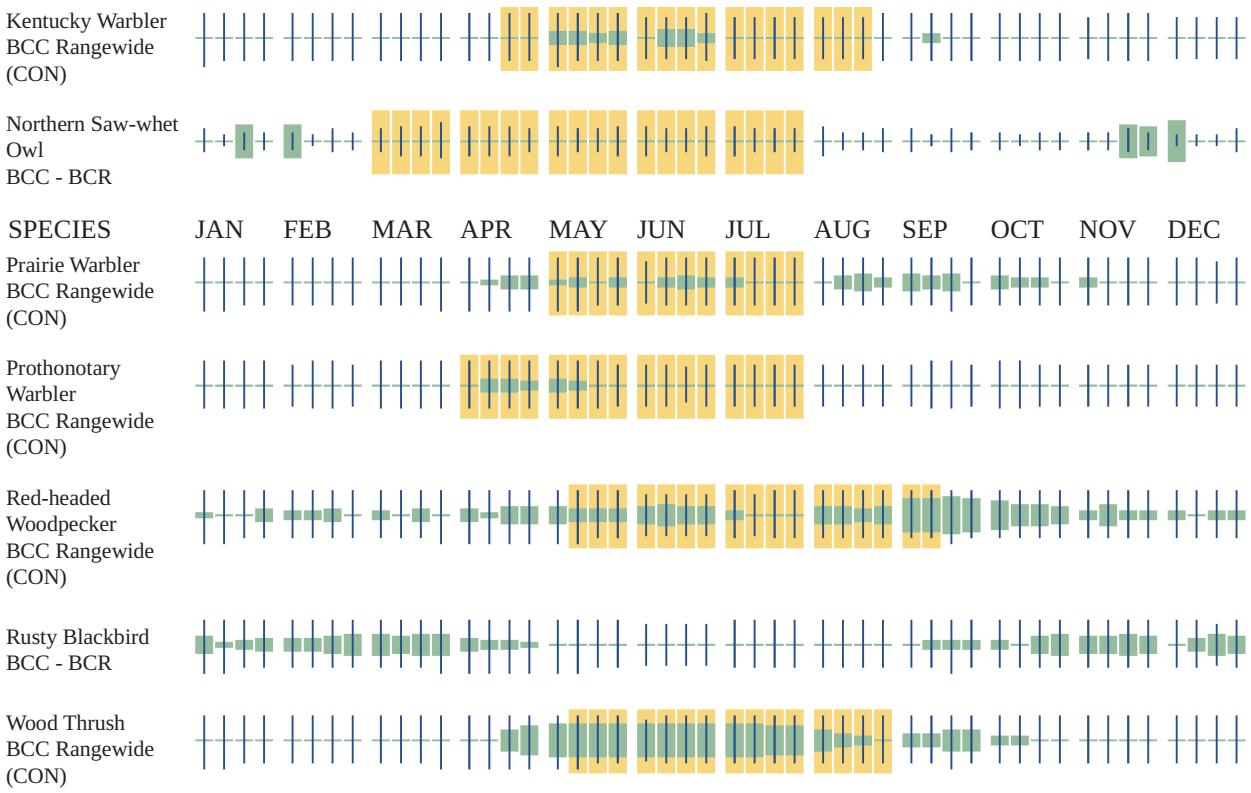
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

IPAC USER CONTACT INFORMATION

Agency: Stantec Consulting Services
Name: Mitch Dannon
Address: 5209 Center Street
City: Williamsburg
State: VA
Zip: 23188
Email mitch.dannon@stantec.com
Phone: 7572206869

DWR VAFWIS

Database Search

VaFWIS Search Report Compiled on 2/23/2024, 10:16:05 AM

Help

Known or likely to occur within a **2 mile buffer around line beginning 38,24,37.8 -78,52,55.7** in **015 Augusta County, 165 Rockingham County, 660 Harrisonburg City, 820 Waynesboro City, VA**

View Map of Site Location

635 Known or Likely Species ordered by Status Concern for Conservation (displaying first 36) (36 species with Status* or Tier I** or Tier II**)

BOVA Code	Status*	Tier**	Common Name	Scientific Name	Confirmed	Database(s)
050022	FEST	Ia	Bat, northern long-eared	Myotis septentrionalis	Yes	BOVA,SppObs,HU6
101005	FE	Ia	Bee, rusty patched bumble	Bombus affinis		BOVA
050035	FESE	IIa	Bat, Virginia big-eared	Corynorhinus townsendii virginianus		BOVA,HU6
070001	FTST	IIc	Isopod, Madison Cave	Antrolana lira	Yes	BOVA,SppObs,HU6
050020	SE	Ia	Bat, little brown	Myotis lucifugus	Yes	BOVA,SppObs,HU6
050027	FPSE	Ia	Bat, tri-colored	Perimyotis subflavus	Yes	BOVA,SppObs,HU6
060006	SE	Ib	Floater, brook	Alasmidonta varicosa	Potential	BOVA,Habitat,HU6
020052	SE	IIa	Salamander, eastern tiger	Ambystoma tigrinum		BOVA
050009	SE	IIa	Shrew, American water	Sorex palustris		BOVA
040267	SE		Wren, Bewick's	Thryomanes bewickii		BOVA
030062	ST	Ia	Turtle, wood	Glyptemys insculpta		BOVA
040096	ST	Ia	Falcon, peregrine	Falco peregrinus		BOVA,HU6
040293	ST	Ia	Shrike, loggerhead	Lanius ludovicianus	Yes	BOVA,BBA,SppObs,HU6
100155	ST	Ia	Skipper, Appalachian grizzled	Pyrgus wyandot		BOVA,HU6
070012	ST	Ib	Amphipod, Madison Cave	Stygobromus stegerorum	Yes	BOVA,SppObs,HU6
060081	FPST	IIa	Floater, green	Lasmigona subviridis		BOVA
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans		BOVA

100079	FC	IIIa	Butterfly, monarch	Danaus plexippus		BOVA
030063	CC	IIIa	Turtle, spotted	Clemmys guttata		BOVA,HU6
030012	CC	IVa	Rattlesnake, timber	Crotalus horridus	Yes	BOVA,SppObs,HU6
030040		Ia	Pinesnake, northern	Pituophis melanoleucus melanoleucus		BOVA,HU6
040092		Ia	Eagle, golden	Aquila chrysaetos		BOVA,HU6
040040		Ia	Ibis, glossy	Plegadis falcinellus		HU6
040306		Ia	Warbler, golden-winged	Vermivora chrysoptera		BOVA,HU6
050024		Ia	Myotis, eastern small-footed	Myotis leibii		BOVA,HU6
100248		Ia	Fritillary, regal	Speyeria idalia idalia		BOVA,HU6
010346		Ib	Shiner, roughhead	Notropis semperasper		BOVA
020027		Ic	Salamander, Cow Knob	Plethodon punctatus		BOVA
040213		Ic	Owl, northern saw-whet	Aegolius acadicus		BOVA,HU6
040052		IIa	Duck, American black	Anas rubripes		BOVA,HU6
040036		IIa	Night-heron, yellow-crowned	Nyctanassa violacea violacea		BOVA
040320		IIa	Warbler, cerulean	Setophaga cerulea		BOVA,HU6
040140		IIa	Woodcock, American	Scolopax minor		BOVA,HU6
040203		IIb	Cuckoo, black-billed	Coccyzus erythropthalmus	Potential	BOVA,BBA
110266		IIb	PSEUDOSCORPION, CAVE	Apochthonius coecus		HU6
040304		IIc	Warbler, Swainson's	Limnothlypis swainsonii		BOVA,HU6

To view **All 635 species** View 635

*FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed; FC=Federal Candidate; CC=Collection Concern

**I=VA Wildlife Action Plan - Tier I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II - Very High Conservation Need; III=VA Wildlife Action Plan - Tier III - High Conservation Need; IV=VA Wildlife Action Plan - Tier IV - Moderate Conservation Need
Virginia Widlife Action Plan Conservation Opportunity Ranking:
a - On the ground management strategies/actions exist and can be feasibly implemented.;
b - On the ground actions or research needs have been identified but cannot feasibly be implemented at this time.;
c - No on the ground actions or research needs have been identified or all identified conservation opportunities have been exhausted.

View Map of All Query Results from All

Observation Tables

Bat Colonies or Hibernacula: **Not Known**

Anadromous Fish Use Streams

N/A

Impediments to Fish Passage (2 records)

View Map of All Fish Impediments

ID	Name	River	View Map
1114	LAKE SHENANDOAH	CONGERS CREEK	Yes
1142	NEWMAN LAKE DAM	TR-BLACKS RUN	Yes

Colonial Water Bird Survey

N/A

Threatened and Endangered Waters

N/A

Managed Trout Streams (7 records) (Click on Stream Name to view complete reach history)

View Map of All Trout Stream Surveys

Reach ID	Stream Name	Class	Brook Trout	Brown Trout	Rainbow Trout	View Map
07DOH-01	Dorsey Hanger Hollow	Wild trout	Y			Yes
07LEP-01	Left Hand Hollow	Wild trout	Y			Yes
07MAD-01	Madison Run	Wild trout	Y			Yes
07MDW-01	Meadow Run	Wild trout	Y			Yes
07PAN-01	Paine Run	Wild trout	Y			Yes
07SAW-01	Sawmill Run	Wild trout	Y			Yes
07STH-01	South River	Stockable				Yes

Bald Eagle Concentration Areas and Roosts

N/A

Bald Eagle Nests

N/A

Species Observations (767 records - displaying first 68 , 68 Observations with Threatened or Endangered species)

View Map of All Query Results
Species Observations

obsID	class	Date Observed	Observer	N Species			View Map
				Different Species	Highest TE*	Highest Tier**	
320373	SppObs	Jun 19 2007	David Evers	2	FEST	I	Yes
320371	SppObs	Jun 12 2007	David Evers	2	FESE	I	Yes
320375	SppObs	Jun 6 2007	David Evers	4	FESE	I	Yes
315969	SppObs	Aug 10 2006	David Evers	5	FESE	I	Yes
318253	SppObs	Aug 10 2006	David Evers	5	FESE	I	Yes
630934	SppObs	Oct 31 2017	Tom Malabad	3	FTST	I	Yes
630918	SppObs	Jul 7 2017	Tom Malabad	4	FTST	I	Yes
630915	SppObs	Mar 23 2017	Wil Orndorff	2	FTST	I	Yes
630662	SppObs	Dec 1 2016	Wil Orndorff	4	FTST	I	Yes
630651	SppObs	Apr 23 2016	Wil Orndorff	2	FTST	I	Yes
615825	SppObs	Oct 26 2011	Wil; Orndorff	2	FTST	I	Yes
615824	SppObs	Oct 19 2011	Wil; Orndorff	2	FTST	I	Yes
615823	SppObs	Oct 5 2011	Wil; Orndorff	3	FTST	I	Yes
631000	SppObs	Dec 12 2018	Tom Malabad; Wil Orndorff	1	FTST	II	Yes
630999	SppObs	Dec 11 2018	Tom Malabad; Wil Orndorff	1	FTST	II	Yes
630998	SppObs	Aug 21 2018	Tom Malabad	2	FTST	II	Yes
630997	SppObs	Aug 20 2018	Tom Malabad; wil Orndorff	1	FTST	II	Yes
623148	SppObs	Aug 1 2014	Wil; Orndorff	1	FTST	II	Yes
621277	SppObs	Jun 20 2013	Wil; Orndorff	1	FTST	II	Yes
621112	SppObs	Jun 20 2013	Wil; Orndorff	1	FTST	II	Yes

621276	SppObs	May 21 2013	Anne; Chazal| Chris; Hobson| Wil; Orndorff	1	FTST	II	Yes
620591	SppObs	May 21 2013	Wil; Orndorff	1	FTST	II	Yes
615822	SppObs	Oct 4 2011	Wil; Orndorff	1	FTST	II	Yes
615820	SppObs	Sep 21 2011	Wil; Orndorff	1	FTST	II	Yes
317146	SppObs	Mar 20 2006	Daniel Fong	1	FTST	II	Yes
317147	SppObs	Mar 20 2006	Daniel Fong	1	FTST	II	Yes
1646	SppObs	Jan 1 1900		1	FTST	II	Yes
231019	SppObs	May 22 2019	R. Reynolds, K. Powers, Logan Vanmeter, Kayla Nelson Anderson, Miranda Dimas, Hila Taylor	1	SE	I	Yes
230989	SppObs	Jul 11 2016	K. Powers, R. Reynolds, H. Custer, C. Comer	2	SE	I	Yes
230984	SppObs	May 25 2016	Karen Powers, Rick Reynolds, Heather Custer, Ruth Boylan, Cameron Comer	2	SE	I	Yes
230976	SppObs	Jul 9 2015	R. Reynolds, K. Powers, M. Collier, Z. Pike, J. Vaughn, H. Bates	2	SE	I	Yes
230972	SppObs	May 27 2015	K. Powers, R. Reynolds, H. Bates, Jasmine, Megan	1	SE	I	Yes
230956	SppObs	Jul 16 2014	R. Reynolds, K. Powers, D. Wright	4	SE	I	Yes
230955	SppObs	May 20 2014	R. Reynolds, K. Powers, B. Hyzy, J. Huth, J. Vaughn	2	SE	I	Yes
230125	SppObs	Jul 15 2013	K. Power, B. Power, D. Landgren, R. Reynolds, R. Stewart	3	SE	I	Yes
230123	SppObs	May 30 2013	K. Francl, R. Reynolds, Debbie Wright, B. Hyzy, Nikohl Miller	2	SE	I	Yes
230124	SppObs	Jun 29 2012	K. Langwig et al.	2	SE	I	Yes
230122	SppObs	May 10 2012	K. Langwig, R. Reynolds, J. Hoyt, T. Cheng	1	SE	I	Yes
231010	SppObs	Jun 5 2009	CH	1	SE	I	Yes
600822	SppObs	Jun 4 2009	David ; Yates| Pedro ; Ardapple| Casey; Huck	1	SE	I	Yes
607561	SppObs	Aug 28 2008	Oksana Lane	1	SE	I	Yes
604146	SppObs	Jul 17 2008	Oksana Lane	1	SE	I	Yes

601590	SppObs	Jun 27 2008	Oksana Lane	1	SE	I	Yes
606732	SppObs	Jun 24 2008	Oksana Lane	1	SE	I	Yes
606622	SppObs	Jun 23 2008	Oksana Lane	1	SE	I	Yes
630661	SppObs	Nov 30 2016	Wil Orndorff	1	ST	I	Yes
622811	SppObs	May 29 2014	Wil; Orndorff	1	ST	I	Yes
95030	SppObs	Mar 1 2000	John Irvine	1	ST	I	Yes
3045	SppObs	Mar 19 1975	Div. Natural Heritage	1	ST	I	Yes
3044	SppObs	Jun 8 1974	Div. Natural Heritage, Holsinger, Hetrick, and Estes	1	ST	I	Yes
3520	SppObs	Jan 1 1900	Div. Natural Heritage, Holsinger and Norton	1	ST	I	Yes
425	SppObs	Jan 1 1900		1	ST	I	Yes
1013	SppObs	Jan 1 1900		1	ST	I	Yes
3046	SppObs	Jan 1 1900	Holsinger	1	ST	I	Yes
1014	SppObs	Jan 1 1900		1	ST	I	Yes
1009	SppObs	Jan 1 1900		1	ST	I	Yes
231029	SppObs	Jul 9 2009	CH	2	FPSE	I	Yes
602898	SppObs	Jul 8 2009	David ; Yates| Pedro ; Ardapple| Casey; Huck	2	FPSE	I	Yes
231020	SppObs	Jun 23 2009	CH	3	FPSE	I	Yes
606221	SppObs	Jun 22 2009	David ; Yates| Pedro ; Ardapple| Casey; Huck	3	FPSE	I	Yes
231011	SppObs	Jun 21 2009	SA	2	FPSE	I	Yes
603155	SppObs	Jun 20 2009	David ; Yates| Pedro ; Ardapple| Casey; Huck	2	FPSE	I	Yes
231048	SppObs	Jun 10 2009	DY	2	FPSE	I	Yes
231047	SppObs	Jun 9 2009	DY	1	FPSE	I	Yes
605577	SppObs	Jun 9 2009	David ; Yates| Pedro ; Ardapple| Casey; Huck	2	FPSE	I	Yes

603984	SppObs	Jun 8 2009	David ; Yates| Pedro ; Ardapple| Casey; Huck	1	FPSE	I	Yes
320374	SppObs	Jun 23 2007	David Evers	1	FPSE	I	Yes
50265	SppObs	Jul 5 1995	Joe Mitchell, U of R	1	CC	IV	Yes

Displayed 68 Species Observations

Selected 767 Observations View 500 (system constraint) Species Observations

Habitat Predicted for Aquatic WAP Tier I & II Species (2 Reaches)

View Map Combined Reaches from Below of Habitat Predicted for WAP Tier I & II Aquatic Species

Stream Name	Tier Species						View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name					
South Fork Shenandoah River (20700052)	SE	060006	SE	Ib	Floater, brook	Alasmidonta varicosa	Yes
South River (20700052)	SE	060006	SE	Ib	Floater, brook	Alasmidonta varicosa	Yes
South River (20700052)	SE	060006	SE	Ib	Floater, brook	Alasmidonta varicosa	Yes

Habitat Predicted for Terrestrial WAP Tier I & II Species

N/A

Virginia Breeding Bird Atlas Blocks (14 records)

View Map of All Query Results
Virginia Breeding Bird Atlas Blocks

BBA ID	Atlas Quadrangle Block Name	Breeding Bird Atlas Species			View Map
		Different Species	Highest TE*	Highest Tier**	
39166	Bridgewater, SE	59		III	Yes
40141	Crimora, NW	5	ST	I	Yes
40146	Crimora, SE	76		III	Yes
39146	Fort Defiance, SE	72		II	Yes
40154	Grottoes, CE	58		III	Yes
40153	Grottoes, CW	69		III	Yes
40152	Grottoes, NE	14		III	Yes
40151	Grottoes, NW	1			Yes
40156	Grottoes, SE	67		III	Yes
40155	Grottoes, SW	1			Yes
40163	Harrisonburg, CW	1			Yes
40165	Harrisonburg, SW	67	ST	I	Yes

40133	Waynesboro East, CW	62		III	Yes
40131	Waynesboro East, NW	1			Yes

Public Holdings: (2 names)

Name	Agency	Level
Shenandoah National Park	National Park Service	Federal
Deep Run Ponds Natural Area Preserve	VA Dept. of Conservation and Recreation	State

Summary of BOVA Species Associated with Cities and Counties of the Commonwealth of Virginia:

FIPS Code	City and County Name	Different Species	Highest TE	Highest Tier
015	Augusta	487	FESE	I
165	Rockingham	453	FESE	I
660	Harrisonburg City	377	FESE	I
820	Waynesboro City	439	FESE	I

USGS 7.5' Quadrangles:
Waynesboro West
Fort Defiance
Mount Sidney
Bridgewater
Waynesboro East
Crimora
Grottoes
Harrisonburg

USGS NRCS Watersheds in Virginia:

N/A

USGS National 6th Order Watersheds Summary of Wildlife Action Plan Tier I, II, III, and IV Species:

HU6 Code	USGS 6th Order Hydrologic Unit	Different Species	Highest TE	Highest Tier
PS11	Middle River-Broad Run	74	FESE	I
PS22	Blacks Run	59	FESE	I
PS23	Cooks Creek	61	FESE	I
PS25	North River-Pleasant Run	75	FESE	I
PS26	North River-Mill Creek	72	FESE	I
PS30	South River-Porterfield Run	82	FESE	I
PS31	South River-Paine Run	88	FESE	I
PS32	South Fork Shenandoah River-Big Run	76	FESE	I
PS33	Cub Run-Keezletown	59	FESE	I

Compiled on 2/23/2024, 10:16:05 AM I1816948.0 report=all searchType= L dist= 3218 poi= 38,24,37.8 -78,52,55.7 siteDD= 38.4105138 -78.8821610;38.3813750 -78.8647332;38.3709833 -78.8585443;38.3286555 -78.8403665;38.2899333 -78.8237554;38.2844916 -78.8204971;38.2674972 -78.8123721;38.2662000 -78.8130471;38.2651555 -78.8132776;38.2545750 -78.8187776;38.2159888 -78.8180304;38.1709361 -78.8329193;38.1463500 -78.8347554;38.1090583 -78.8508110;38.1084694 -78.8474915;38.1068555 -78.8480193

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PublicLands=0.061052; Quad=0.068711; SppObs=0.64408; TEWaters=0.044859; TierReaches=0.07179; TierTerrestrial=0.145927; Total=2.676748; Tracking_BOVA=0.194652; Trout=0.050799; huva=0.08239

Site Location

38,24,37.8 -78,52,55.7
is **the Search Point**

Show Position Rings
(•) Yes ( ) No
4 miles and 1 mile at the **Search Point**

Show Search Area
(•) Yes ( ) No
2 Search distance miles buffer

Display at center	**Search Point** is not at map center

Base Map Choices
Topography

Map Overlay Choices
Current List: Position, Search, BECAR, BAEANests, TEWaters, TierII, Habitat, Trout, Anadromous

Map Overlay Legend

T & E Waters
Federal
State

Predicted Habitat WAP Tier I & II
Aquatic
Terrestrial

Trout Waters
Class I - IV
Class V - VI

Anadromous Fish Reach
Confirmed
Potential

Impediment

Position Rings 4 miles and 1 mile at the Search Point

2 mile radius Search Area

Bald Eagle Concentration Areas and Roosts

Refresh Browser Page

Map Click 38,26,02.0 -78,37,12.2 Pan Id M

Map Scale In Zoom

Screen Size Small Size Big

Help

Point of Search 38,24,37.8 -78,52,55.7
Map Location 38,15,30.2 -78,50,58.6

Select **Coordinate System:**
(•) Degrees,Minutes,Seconds Latitude - Longitude
( ) Decimal Degrees Latitude - Longitude
( ) Meters UTM NAD83 East North Zone
( ) Meters UTM NAD27 East North Zone

Base Map source: USGS 1:250,000 topographic maps (see Microsoft terraserver-usa.com for details)

Map projection is UTM Zone 17 NAD 1983 with left 649744 and top 4275073. Pixel size is 66. .
Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixles. The map display represents 76800 meters east to west by 76800 meters north to south for a total of 5898.2 square kilometers. The map display represents 252011 feet east to west by 252011 feet north to south for a total of 2278.0 square miles.

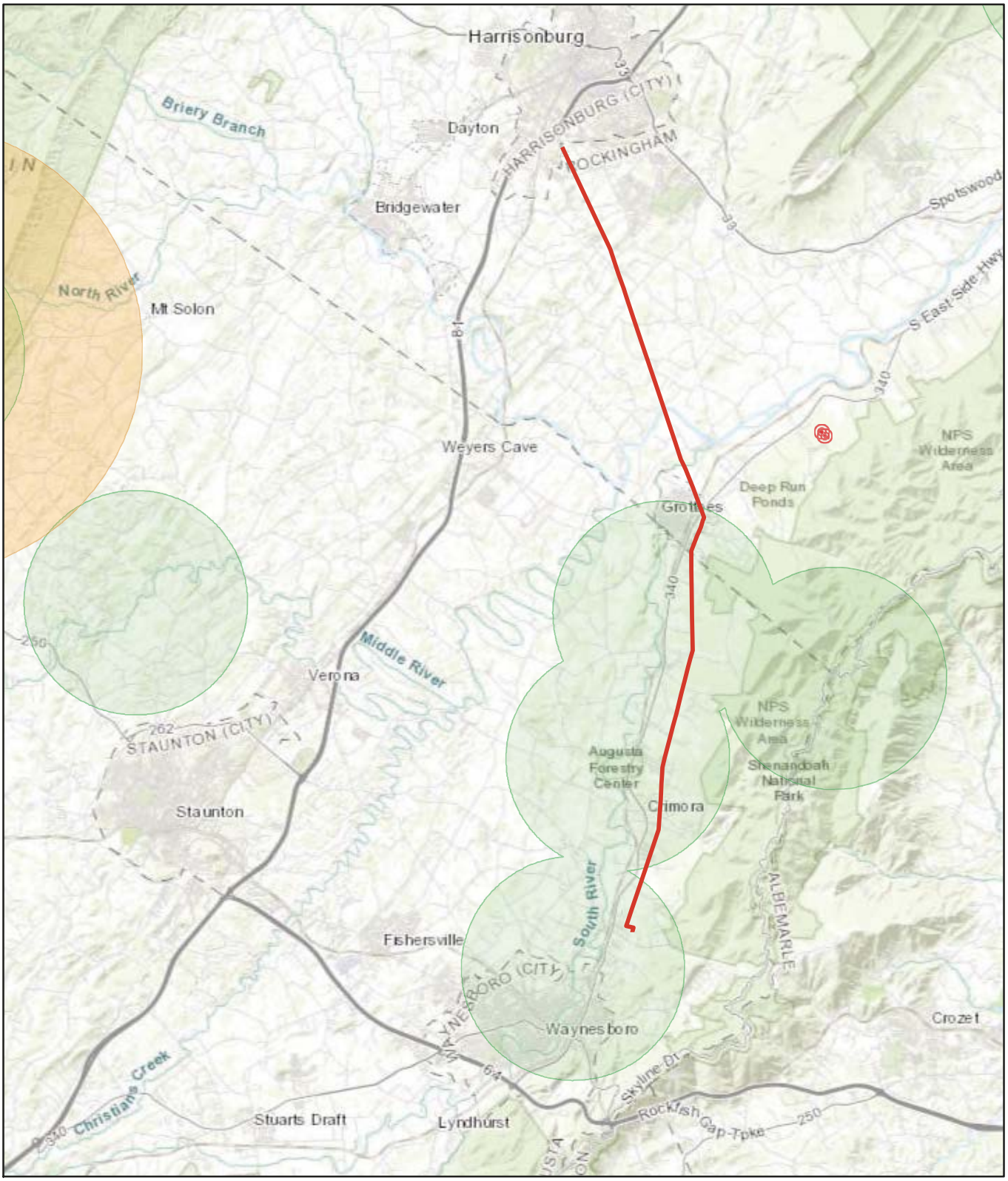
Topographic maps and Black and white aerial photography for year 1990+-
are from the United States Department of the Interior, United States Geological Survey.
Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.
Shaded topographic maps are from TOPO! ©2006 National Geographic
http://www.national.geographic.com/topo
All other map products are from the Commonwealth of Virginia Department of Wildlife Resources.

map assembled 2024-02-23 10:19:33 (qa/qc March 21, 2016 12:20 - tn=1816948.0 dist=3218 I)
$poi=38.4105000 -78.8821389

DWR NLEB

Database Search

NLEB Locations and Roost Trees



2/23/2024, 5:09:20 PM

1:288,895

0 2 4 8 mi

0 3 6 12 km

- NLEB Known Occupied Maternity Roost (Summer Habitat)
- NLEB Roost Tree 150-Foot Buffer
- NLEB Hibernaculum 5.5 Mile Buffer
- NLEB Capture 3 Mile Buffer

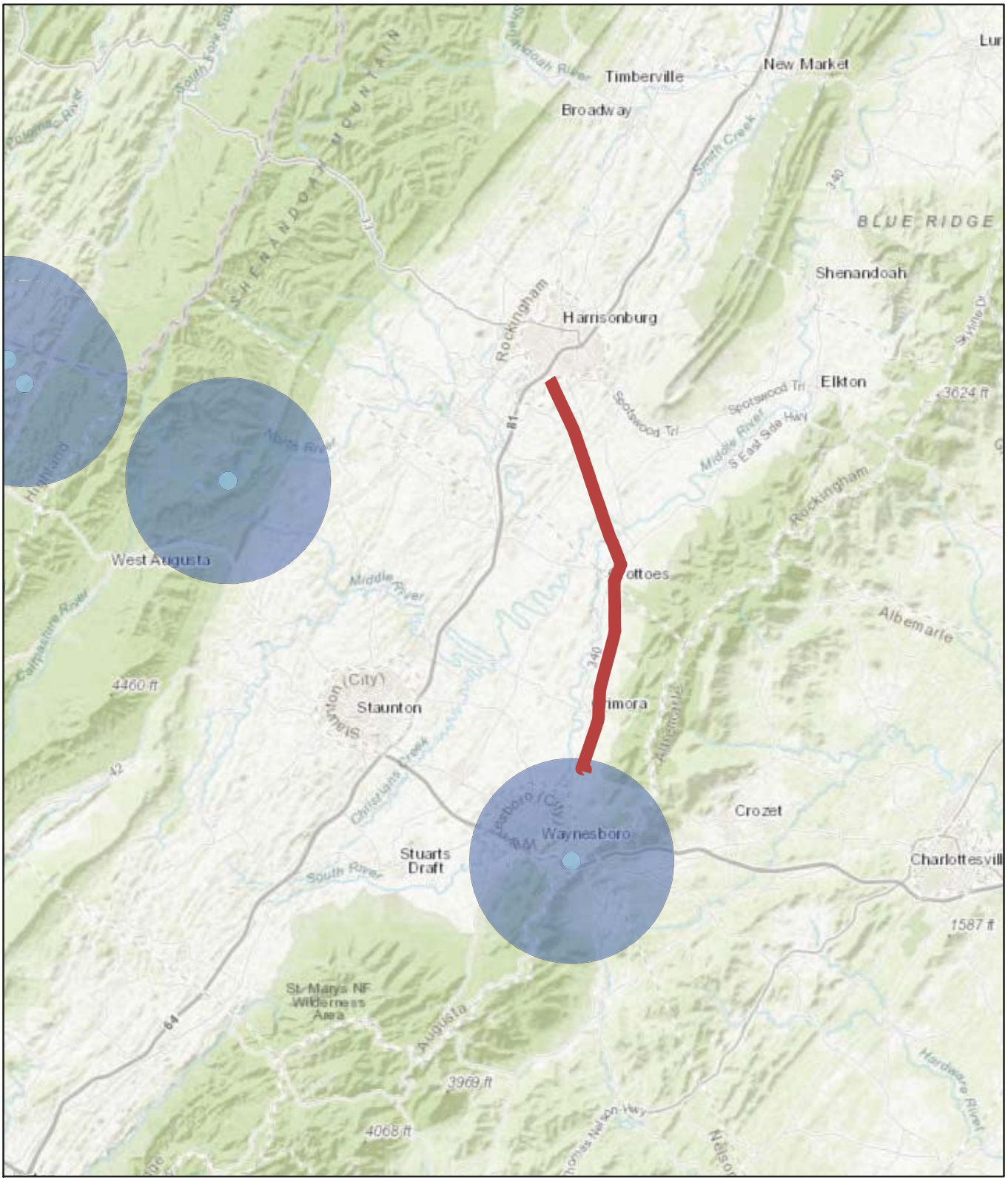
VITA, West Virginia GIS, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

VA Dept. Game & Inland Fisheries
Virginia Geographic Information Network (VGIN), and the Census and Localities and Towns submitting data to the project | Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS |

DWR MYLU/PESU

Database Search

ArcGIS Web Map



2/23/2024, 5:21:57 PM

1:577,791

0 3.75 7.5 15 mi

0 5 10 20 km

Tri-colored and Little Brown Hibernaculum Half Mile Buffer

Tri-colored and Little Brown Hibernaculum 5.5 Mile Buffer

Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

DCR

Biotics Data System

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

October 11, 2023

Corey Gray
Stantec Consulting Services
5209 Center Street
Williamsburg, VA 23188

Re: 203401846, Dooms to Harrisonburg Rebuild Project

Dear Mr. Gray:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information in our files, the Furnace Mountain - Turk Mountain - Harriston - Mt Bethel Ponds Conservation Site is located within the project area. Conservation sites are tools for representing key areas of the landscape that warrant further review for possible conservation action because of the natural heritage resources and habitat they support. Conservation sites are polygons built around one or more rare plant, animal, or natural community designed to include the element and, where possible, its associated habitat, and buffer or other adjacent land thought necessary for the element's conservation. Conservation sites are given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain; on a scale of 1-5, 1 being most significant. The Furnace Mountain - Turk Mountain - Harriston - Mt Bethel Ponds Conservation Site has been assigned a biodiversity rank of B1, which represents a site of outstanding significance. The natural heritage resource of concern associated with this site is:

Desmodium sessilifolium	Sessile-leaf Tick-trefoil	G5/S2/NL/NL

The Sessile-leaf Tick- trefoil is an herbaceous plant in the legume family that is primarily found in the Midwest, with the populations in Virginia being notably disjunct. There are currently eight documented occurrences in Virginia, three of these are historic. These occurrences are in the northern ridge and valley mountain regions and the northern piedmont region of Virginia (Virginia Botanical Associates, 2023).

Sessile-leaf Tick-trefoil is found in dry to mesic woodlands, clearings, and meadows. This species flowers from July to August and fruits from August to October (Virginia Botanical Associates, 2023).

DCR recommends avoiding tree removal and other ground disturbing work within the conservation site, with particular attention paid to the documented occurrence of the Sessile-leaf Tick-trefoil, which is within the existing right-of-way (ROW). DCR recommends a survey of the documented occurrence to confirm the location and determine the extent of the population. There is also potential for undocumented occurrences of the Sessile-leaf

Tick- trefoil in other areas of the powerline right-of-way (ROW). Therefore, DCR recommends an inventory for the Sessile-leaf Tick-trefoil in the study area. With the survey results we can more accurately evaluate potential impacts to natural heritage resources and offer specific protection recommendations for minimizing impacts to the documented resources.

DCR-Division of Natural Heritage biologists are qualified to conduct inventories for rare, threatened, and endangered species. Please contact Anne Chazal, Natural Heritage Chief Biologist, at anne.chazal@dcr.virginia.gov or 804-786-9014 to discuss availability and rates for field work.

DCR recommends the development and implementation of an invasive species plan to be included as part of the maintenance practices for the right-of-way (ROW). The invasive species plan should include an invasive species inventory for the project area based on the current DCR Invasive Species List (http://www.dcr.virginia.gov/natural-heritage/document/nh-invasive-plant-list-2014.pdf) and methods for treating the invasives. DCR also recommends the ROW restoration and maintenance practices planned include appropriate revegetation using native species in a mix of grasses and forbs, robust monitoring, and an adaptive management plan to provide guidance if initial revegetation efforts are unsuccessful or if invasive species outbreaks occur.

Due to the presence of rare plants DCR has the following additional recommendations for the maintenance of the ROW:

1. DCR recommends documenting and avoiding Natural Heritage Resources (Rare, Threatened and Endangered) within the ROW. The maintenance of the ROW as early successional habitats with open canopy provide suitable habitat for many rare resources.

2. Marking all rare plant sites with signs from the transmission towers just outside the rare plant populations so that the population(s) are contained entirely within the defined area.

3. DCR recommends maintenance of vegetation using annual mowing in the non-growing season between 15 October and April 1 and minimal to no use of chemicals especially in sensitive areas with documented natural heritage resources.

4. When woody plant management is required, carefully treat the woody species with herbicide. This treatment is conducted under a different contract than used on non-rare plant lines. The rate set up for this contract helps insure precise herbicide application with less accidental overspray.

5. Monitoring a subset of the rare plant populations carefully to make sure that this management prescription is effective in maintaining the rare plant populations.

Additionally, this project is situated on karst-forming carbonate rock and can be characterized by sinkholes, caves, disappearing streams, and large springs. The Virginia DCR, Division of Natural Heritage karst staff screened this project against the Virginia Speleological Survey (VSS) database, the Virginia Department of Energy (VDE) sinkhole coverage, and other karst layers for documented sensitive karst features.

This project has intersected the karst bedrock and VDE sinkhole screening layers. Sinkholes mapped by the Virginia Department Energy are within the project site (see Sinkhole layer on the Natural Heritage Data Explorer at vanhde.org). Typically, additional, smaller unmapped sinkholes can also be present in the vicinity. Sinkholes are areas where surface material has collapsed into the subsurface and into underground watercourses. Sinkhole areas are places where surface water directly affects groundwater quality and flow. What goes into sinkholes comes out in wells and springs, and can degrade drinking water, springs and spring-fed surface waters, and the habitat of subterranean creatures. Discharge of untreated stormwater runoff to sinkholes is discouraged, and sinkholes to which stormwater is diverted or which have been modified to accept stormwater are required by law to be registered as Class 5 Injection Wells with the US Environmental Protection Agency. Filling

or alteration of natural (pre-existing) sinkholes is discouraged, and designation of natural buffers around sinkholes is desirable. If the project involves filling or "improvement" of sinkholes or cave openings, DCR would like detailed location information and copies of the design specifications. In cases where sinkhole improvement is for storm water discharge, copies of VDOT Form EQ-120 will suffice.

DCR recommends a survey for karst features along the proposed ROW and avoiding any karst features that are identified. Please coordinate with Wil Orndorff (540-230-5960, Wil.Orndorff@dcr.virginia.gov) the Virginia DCR, Division of Natural Heritage Karst Protection Coordinator, to document and protect these karst resources.

In addition, there is potential for the Madison Cave isopod (*Antrolana lira*, G2G4/S2/LT/LT) and the Madison Cave amphipod (*Stygobromus stegerorum*, G1/S1/SOC/LT) to occur in the ground water of the project area. The Madison Cave isopod is an extremely rare troglobitic species that typically inhabits cave lakes (Holsinger, 1991) and ranges from Lexington, VA to Leetown, WV. It is the only known member of the genus Antrolana. Isopods, also known as aquatic sow bugs, seldom come into open waters but remain secreted under rocks, vegetation, and debris. They are primarily inhabitants of the unpolluted shallows, rarely being found in water more than a meter deep.

Threats to the Madison Cave isopod include groundwater pollution and disruptive human activities. Please note that this species is currently listed as threatened by the United States Fish and Wildlife Service (USFWS) and the Virginia Department of Wildlife Resources (VDWR).

The Madison Cave amphipod is a blind, unpigmented cave-dwelling amphipod known only from Virginia. Amphipods are elongated and laterally compressed animals belonging to the order Crustacea (as are crabs and shrimp; Fasulo, 2009). The Madison Cave amphipod inhabits deep groundwater lakes and coexists with the Madison Cave isopod. Little is known of its life history; however, like other amphipods, it is believed to feed on microorganisms and organic matter.

Threats to the Madison Cave amphipod are pollution of the cave aquifer, disturbance of the sinkhole recharge area and disturbance of lakes from inside the caves (Holsinger, 1991). Please note that this species is currently listed as threatened by the Virginia Department of Wildlife Resources (VDWR). This species is also tracked as a species of concern by the United States Fish and Wildlife Service (USFWS); however, this designation has no official legal status.

During every phase of the project, DCR recommends the stabilization of the soil around the site. Special attention should be paid to any identified karst features such as sinkholes, sinking streams, and cave entrances to help reduce sediment transport into the groundwater. Minimizing surface disturbance, strict use of E&S control measures appropriate for the location and adherence to best management practices appropriate for karst will help to reduce any potential impact to the karst, groundwater and surface water resources as well as any associated fauna and flora.

If karst features such as additional undocumented sinkholes, caves, disappearing streams, and large springs are encountered during the project, please coordinate with Wil Orndorff (540-230-5960, Wil.Orndorff@dcr.virginia.gov) the Virginia DCR, Division of Natural Heritage Karst Protection Coordinator, to document and minimize adverse impacts. Activities such as discharge of runoff to sinkholes or sinking streams, filling of sinkholes, and alteration of cave entrances can lead to environmental impacts including surface collapse, flooding, erosion and sedimentation, contamination of groundwater and springs, and degradation of subterranean habitat for natural heritage resources (e.g., cave adapted invertebrates, bats). These potential impacts are not necessarily limited to the immediate project area, as karst systems can transport water and associated contaminants rapidly over relatively long distances, depending on the nature of the local karst system.

Due to the legal status of the Madison Cave isopod, DCR recommends coordination with the US Fish and Wildlife Service (USFWS) and the VDWR, Virginia's regulatory authority for the management and protection of

this species to ensure compliance with protected species legislation. Due to the legal status of the Madison Cave amphipod, DCR also recommends coordination with the VDWR, Virginia's regulatory authority for the management and protection of the Madison Cave amphipod to ensure compliance with the Virginia Endangered Species Act (VA ST §§ 29.1-563 – 570).

There is also potential for the little brown bat (*Myotis lucifugus,* G3G4/S1S3/NL/LE), the tri-colored bat (*Perimyotis subflavus,* G3G4/S1S3/PE/LE), and the northern long-eared bat (*Myotis septentrionalis,* G2G3/S1S3/LE/LT) to occur within the project area. DCR recommends adhering to time-of-year (TOYR) restrictions for bats when cutting or removing trees. Due to the legal status of the little brown bat, the tri-colored bat, and the northern long-eared bat, DCR recommends coordination with the VDWR, Virginia's regulatory authority for the management and protection of these species to ensure compliance with the Virginia Endangered Species Act (VA ST §§ 29.1-563 – 570). Due to the legal status of the Northern long-eared bat, DCR also recommends coordination with the USFWS to ensure compliance with protected species legislation.

Furthermore, if tree removal outside of the existing ROW is necessary, the proposed project will impact multiple Ecological Cores **(C3, C4, and C5)** as identified in the Virginia Natural Landscape Assessment (https://www.dcr.virginia.gov/natural-heritage/vaconvisvnla). Mapped cores in the project area can be viewed via the Virginia Natural Heritage Data Explorer, available here: http://vanhde.org/content/map.

Ecological Cores are areas of at least 100 acres of continuous interior, natural cover that provide habitat for a wide range of species, from interior-dependent forest species to habitat generalists, as well as species that utilize marsh, dune, and beach habitats. Interior core areas begin 100 meters inside core edges and continue to the deepest parts of cores. Cores also provide the natural, economic, and quality of life benefits of open space, recreation, thermal moderation, water quality (including drinking water recharge and protection, and erosion prevention), and air quality (including sequestration of carbon, absorption of gaseous pollutants, and production of oxygen). Cores are ranked from C1 to C5 (C5 being the least significant) using nine prioritization criteria, including the habitats of natural heritage resources they contain.

Impacts to cores occur when their natural cover is partially or completely converted permanently to developed land uses. Habitat conversion to development causes reductions in ecosystem processes, native biodiversity, and habitat quality due to habitat loss; less viable plant and animal populations; increased predation; and increased introduction and establishment of invasive species.

DCR recommends avoidance of impacts to cores. When avoidance cannot be achieved, DCR recommends minimizing the area of impacts overall and concentrating the impacted area at the edges of cores, so that the most interior remains intact.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

New and updated information is continually added to Biotics. Please re-submit a completed order form and project map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

A fee of $250.00 has been assessed for the service of providing this information. Please find attached an invoice for that amount. Please return one copy of the invoice along with your remittance made payable to the Treasurer of Virginia, DCR Finance, 600 East Main Street, 24th Floor, Richmond, VA 23219. Payment is due within thirty days of the invoice date. Please note late payment may result in the suspension of project review service for future projects.

The U.S. Fish and Wildlife Service (USFWS) utilizes an online project review process (https://www.fws.gov/office/virginia-ecological-services/virginia-field-office-online-review-process) to facilitate compliance with the Endangered Species Act (16 U.S.C. 1531-1544, 87 Stat. 884) (ESA), as amended. The process enables users to 1) follow step-by-step guidance; 2) access information that will allow them to identify threatened and endangered species, designated critical habitat, and other Federal trust resources that may be affected by their project; and 3) accurately reach determinations regarding the potential effects of their project on these resources as required under the ESA. If you have questions regarding the online review process, please contact Rachel Case at rachel_case@fws.gov.

The Virginia Department of Wildlife Resources (VDWR) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed https://services.dwr.virginia.gov/fwis/ or contact Amy Martin at 804-367-2211 or amy.martin@dwr.virginia.gov.

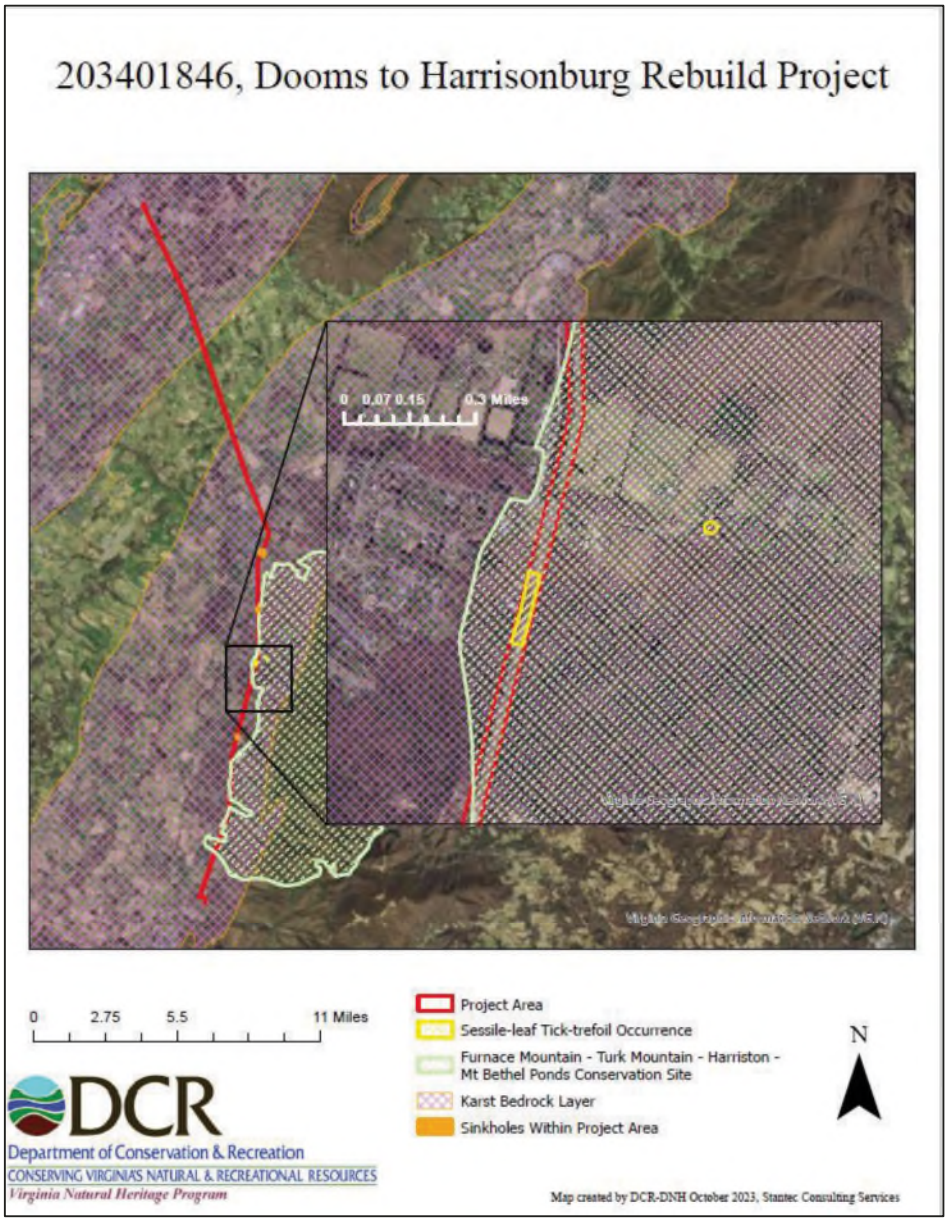
Should you have any questions or concerns, feel free to contact me at 804-371-2708. Thank you for the opportunity to comment on this project.

Sincerely,

S. René Hypes
Natural Heritage Project Review Coordinator

Cc: Wil Orndorff, DCR-Karst
Amy Martin, VDWR

Figure 1. Documented natural heritage resources and karst features including sinkholes within the study area.



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CCB BALD EAGLE

Database Search

CCB Mapping Portal

Layers: VA Eagle Nest Locator

Map Center [longitude, latitude]: [-78.81729125976561, 38.25354917285299]

Map Link:
https://ccbbirds.org/maps/#layer=VA+Eagle+Nest+Locator&zoom=11&lat=38.25354917285299&lng=-78.81729125976561&legend=legend_tab_7c321b7e-e523-11e4-aaa0-0e0c41326911&base=World+Imagery+%28ESRI%29

Report Generated On: 02/26/2024

Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

1111 E. Main Street, Suite 1400, Richmond, Virginia 23219
P.O. Box 1105, Richmond, Virginia 23218
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Travis A. Voyles
Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus
Director
(804) 698-4020

February 27, 2024

Dominion Energy
120 Tredegar Street
Richmond, VA 23219
Attn: Elizabeth L. Hester

Transmitted Via Email: (Elizabeth.l.hester@dominionenergy.com)

Re: Dominion Energy (Electric Transmission) - AS&S - Program Renewal – 2024/2025

Dear Ms. Hester:

The Virginia Department of Environmental Quality (DEQ) hereby approves the Annual Standards and Specifications for Erosion & Sediment Control and Stormwater Management for Construction and Maintenance of Linear Electric Transmission Facilities for Dominion Energy's document dated "February 2024". This coverage is effective from February 27, 2024, to February 26, 2025.

To ensure compliance with approved specifications, the Virginia Erosion and Sediment Control Law and the Virginia Stormwater Management Act, DEQ staff will conduct random site inspections, respond to complaints, and provide on-site technical assistance with specific erosion and sediment control and stormwater management measures and plan implementation.

Please note that your approved Annual Standards and Specifications include the following requirements:

1. Variance, exception, and deviation requests must be submitted to DEQ separately from this Annual Standards and Specifications' submission. DEQ may require project-specific plans associated with such requests to be submitted for review and approval.

2. The following information must be submitted to DEQ for each project at least two weeks in advance of the commencement of regulated land-disturbing activities. Notifications shall be sent by email to: StandardsandSpecs@deq.virginia.gov
   a. Project name or project number;
   b. Project location (including nearest intersection, latitude and longitude, access point);
   c. On-site project manager name and contact info;

d. Responsible Land Disturber (RLD) name and contact info;
e. Project description;
f. Acreage of disturbance for project;
g. Project start and finish date; and
h. Any variances/exceptions/deviations associated with this project.

3. Project tracking of all regulated land disturbing activities (LDA) must be submitted to DEQ once per 6-month period. Project tracking records shall contain the same information as required in the two week e-notifications for each regulated LDA.

4. Erosion & Sediment Control and Stormwater Management plans must be reviewed by DEQ-certified Plan Reviewers. Dominion Energy, as the AS&S holder, retains the authority to approve plans and must do so in writing. Should an AS&S holder contract out to a third-party to fulfill the plan review function, the third-party Plan Reviewer may recommend approval of the plan, but final approval must come from the AS&S holder.

To ensure an efficient information exchange and response to inquiries, DEQ Central Office is your primary point of contact. Central Office staff will coordinate with our Regional Office staff as appropriate

Please contact Abigail Snider at 804-486-0365 or Abigail.Snider@deq.virginia.gov if you have any questions about this letter.

Respectfully,

Kyle Kennedy, Manager
Office of Stormwater Management

Cc: Larry Gavan, DEQ-CO
Antony Angueira, DEQ-CO

STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA DOOMS-HARRISONBURG 230 kV LINES #260 AND #272 REBUILD PROJECT, AUGUSTA AND ROCKINGHAM COUNTIES AND THE TOWN OF GROTTOES, VIRGINIA

April 18, 2024

Prepared for:

Dominion Energy Virginia
Attention: Virginia Fills
120 Tredegar Street
Richmond, Virginia 23219

Prepared by:

Sonja Lengel
Architectural Historian

Sandra DeChard
Senior Architectural Historian

and

Ellen M. Brady
Technical Discipline Leader

Stantec Consulting Services Inc.
1011 Boulder Springs Drive, Suite 225
Richmond, Virginia 23225

Sign-off Sheet

The conclusions in the Report are Stantec's professional opinion, as of the time of the Report, and concerning the scope described in the Report. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. The Report relates solely to the specific project for which Stantec was retained and the stated purpose for which the Report was prepared. The Report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

Stantec has assumed all information received from the Client and third parties in the preparation of the Report to be correct. While Stantec has exercised a customary level of judgment or due diligence in the use of such information, Stantec assumes no responsibility for the consequences of any error or omission contained therein.

This Report is intended solely for use by the Client in accordance with Stantec's contract with the Client. While the Report may be provided to applicable authorities having jurisdiction and others for whom the Client is responsible, Stantec does not warrant the services to any third party. The report may not be relied upon by any other party without the express written consent of Stantec, which may be withheld at Stantec's discretion.

Prepared by _____

Sonja Lengel, Architectural Historian

Prepared by _____

Sandra DeChard, Senior Architectural Historian

Reviewed by Brady, Ellen Digitally signed by Brady, Ellen Date: 2024.04.18 14:13:19 -05'00'

Ellen Brady, Technical Discipline Leader, Cultural and Social Sciences

Approved by Presgraves, Kenny Digitally signed by Presgraves, Kenny Date: 2024.04.19 10:18:52 -04'00'

Kenny Presgraves, Project Manager

Table of Contents

LIST OF TABLES

TABLE OF CONTENTS

LIST OF FIGURES

TABLE OF CONTENTS

TABLE OF CONTENTS

LIST OF APPENDICES

Executive Summary

Stantec Consulting Services Inc. (Stantec) was retained by Dominion Energy Virginia (Dominion Energy) to conduct a Stage I Pre-Application Analysis for the proposed partial rebuild of transmission lines between the Dooms Substation in Augusta County and the Harrisonburg substation in Rockingham County, Virginia. Dominion Energy, in order to maintain the structural integrity and reliability of its transmission system to comply with mandatory North American Electric Reliability Corporation (NERC) Reliability Standards, proposes to:

(i) Rebuild, entirely within existing right-of-way (ROW) or on Company-owned property, approximately 10.6 miles of the existing 230 kV Line #260 on single circuit wooden H-frame structures with weathering steel H-frame structures;

(ii) Rebuild, entirely within existing ROW or on Company-owned property, approximately 11.5 miles of the existing 230 kV Line #272 on single circuit COR-TEN® lattice towers with weathering steel monopole structures.

This project is collectively known as the Dooms-Harrisonburg 230 kV Lines #260 and #272 Rebuild Project ("Rebuild Project"). The proposed Rebuild Project will replace aging infrastructure that is approaching the end of its service life in order to comply with the Company's mandatory Planning Criteria, thereby enabling the Company to maintain the overall long-term reliability of its transmission system.

The total length of the existing ROW easements and Company-owned property to be used for the Rebuild Project is approximately 22.1 miles. Because the existing ROW is adequate to construct the proposed Rebuild Project, no new rights-of-way are necessary.

All proposed structure heights and locations provided in this report are based upon preliminary engineering and are subject to final design. Based on this information, the proposed average structure height increase is 6.5 feet with the maximum structure height increase of 39.5 feet. However, there are structures being built in locations where there are no existing structures and the maximum increase in those locations is 75.98 feet. Forty-two structures will decrease in height.

Background research for the Stage I Pre-Application Analysis was conducted in September 2023 and again in March 2024 by Stantec staff. The preliminary background research and the field study was conducted pursuant to the *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* (Virginia Department of Historic Resources [DHR] 2008) for proposed transmission line improvements. As detailed by DHR guidance, consideration was given to National Historic Landmark (NHL) properties located within a 1.5-mile radius of the project centerline; National Register of Historic Places (NRHP)-listed properties, battlefields, and historic landscapes located within a 1.0-mile radius of the project centerline; NRHP-eligible sites located within a 0.5-mile radius of the project centerline; and archaeological sites located within the project ROW for each line. The research identified 13 previously recorded architectural resources for inclusion in the Stage I analysis. No previously recorded archaeological resources were located within the existing ROW.

EXECUTIVE SUMMARY

Recommendations

Architectural Resources

No NHL-listed architectural resources are located within the 1.5-mile buffer. Four NRHP-listed resources were identified within 1.0 mile of the transmission line centerline and include the Crimora Elementary School (DHR #007-0964), Port Republic Historic District (DHR #082-0123), the Kyle's Mill House (DHR #082-5075), and the Steven Hainsberger House (DHR #228-5022). Eight NRHP-eligible resources were identified within 0.5 mile of the Project Rebuild centerline and include the Dr. Joseph B. Webb House (DHR #082-0368), William VanLear Farm/Kiblinger House (DHR #082-0369), Cross Keys Battlefield (DHR #082-0376), William Saufley Farm (DHR #082-0401), Peter Heil House/Springdale Farm (DHR #082-5096), Dundore House (DHR #082-5156), and the Argubright Barn (DHR #115-5055; now demolished). Additionally, the NRHP potentially eligible Port Republic Battlefield (DHR #082-5430) was also identified for consideration for visual effects.

Based on preliminary engineering, the results of the fieldwork and visual modeling, it is recommended that there would be No Visual Effect to the Crimora Elementary School (DHR #007-0964), the Steven Hainsberger Octagon House (DHR #228-5022), and Kyle's Mill House (DHR #082-5075) . It is further recommended that there would be a Minimal Visual Effect to the Port Republic Historic District (DHR #082-0123), the, Dr. Joseph B. Webb House (DHR #082-0368), William VanLear Farm/Kiblinger House (DHR #082-0369), Cross Keys Battlefield (DHR #082-0376), William Saufley Farm (DHR #082-0401), Peter Heil House/Springdale Farm (DHR #082-5096), German Reformed Church Parsonage (DHR #082-5204), and Dundore House (DHR #082-5156). It is also recommended that there would be a Minimal Visual Impact to the potentially NRHP-eligible Port Republic Battlefield (DHR #082-5430). The Argubright Barn is demolished and was not considered for visual impacts. The following table details the potential impacts to historic resources for the Rebuild Project.

Previously Recorded Architectural Resources Considered under the Stage I Pre-Application Guidelines

DHR #	Resource Name	NRHP Status	Rebuild Project	Distance to Closest Structure (Feet)	Impact
007-0964	Crimora Elementary School, Route 612	NRHP-Listed	Line #272	5,175	None
082-0123	Port Republic Historic District	NRHP-Listed	Line #260	704	Minimal
082-0368	Dr. Joseph B. Webb House, 3327 Cross Keys Road	NRHP-Eligible	Line #260	1,217	Minimal
082-0369	William VanLear Farm/Kiblinger House, 3591 Cross Keys Road	NRHP-Eligible	Line #260	311	Minimal
082-0376	Cross Keys Battlefield	NRHP-Eligible	Line #260	0	Minimal

DHR #	Resource Name	NRHP Status	Rebuild Project	Distance to Closest Structure (Feet)	Impact
082-0401	William Saufley Farm, 7358 Shady Grove Road	NRHP-Eligible	Line #260	0	Minimal
082-5075	Kyle's Mill House, 1764 Cross Keys Road	NRHP-Listed	Line #260	4,096	None
082-5096	Peter Heil House/ Springdale Farm, 4090 Cross Keys Road	NRHP-Eligible	Line #260	2,346	Minimal
082-5156	Dundore House, 1582 Ridgedale Road	NRHP-Eligible	Line #260	171	Minimal
082-5204	German Reformed Church Parsonage, 4067 Cross Keys Road	NRHP-Eligible	Line #260	1,252	Minimal
082-5430	Port Republic Battlefield	NRHP Potentially Eligible	Line #260	0	Minimal
115-5055	Argubright Barn (demolished), 740 Stone Spring Road	NRHP-Eligible	N/A	N/A	N/A
228-5022	Steven Hainsberger House, Holly Avenue	NRHP-Listed	Line #260	3,580	None

Archaeological Resources

No previously recorded archaeological resources were identified within the transmission line ROW. Per the DHR's guidelines, Stage II archaeological survey is recommended for the Rebuild Project.

Abbreviations

ABPP	American Battlefield Protection Program
CWSAC	Civil War Sites Advisory Commission
DEM	Digital Elevation Model
DHR	Department of Historic Resources
DSM	Digital Surface Model
Dominion Energy	Dominion Energy Virginia
kV	Kilovolt
NERC	North American Electric Reliability Corporation
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
PotNR	Potential National Register
ROW	Right-of-Way
SCC	State Corporation Commission
Stantec	Stantec Consulting Services Inc.
V-CRIS	Virginia Cultural Resources Information System
VHLC	Virginia Historic Landmarks Commission
VLR	Virginia Landmarks Register

1.0 INTRODUCTION

1.1 OVERVIEW

Stantec Consulting Services Inc. (Stantec) was retained by Dominion Energy Virginia (Dominion Energy) to conduct a Stage I Pre-Application Analysis for the proposed partial rebuild of transmission lines between the Dooms Substation in Augusta County and the Harrisonburg substation in Rockingham County, Virginia (Figure 1). Dominion Energy, in order to maintain the structural integrity and reliability of its transmission system to comply with mandatory North American Electric Reliability Corporation (NERC) Reliability Standards, proposes to:

(i) Rebuild, entirely within existing right-of-way (ROW) or on Company-owned property, approximately 10.6 miles of the existing 230 kV Line #260 on single circuit wooden H-frame structures with weathering steel H-frame structures;

(ii) Rebuild, entirely within existing ROW or on Company-owned property, approximately 11.5 miles of the existing 230 kV Line #272 on single circuit COR-TEN® lattice towers with weathering steel monopole structures.

This project is collectively known as the Dooms-Harrisonburg 230 kV Lines #260 and #272 Rebuild Project ("Rebuild Project"). The proposed Rebuild Project will replace aging infrastructure that is approaching the end of its service life in order to comply with the Company's mandatory Planning Criteria, thereby enabling the Company to maintain the overall long-term reliability of its transmission system.

The total length of the existing ROW easements and Company-owned property to be used for the Rebuild Project is approximately 22.1 miles. Because the existing ROW is adequate to construct the proposed Rebuild Project, no new rights-of-way are necessary.

All proposed structure heights and locations provided in this report are based upon preliminary engineering and are subject to final design. Based on this information, the proposed average structure height increase is 6.5 feet with the maximum structure height increase of 39.5 feet. However, there are structures being built in locations where there are no existing structures and the maximum increase in those locations is 75.98 feet. Forty-two structures will decrease in height.

1.2 STAGE I PRE-APPLICATION ANALYSIS

The *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* (Virginia Department of Historic Resources [DHR] 2008) were developed by the DHR to assist the State Corporation Commission (SCC) and their applicants to address and minimize potential impacts to historic resources associated with the construction of large-scale transmission lines and associated facilities. In consideration of the general project design, as described above, Stantec designed the present study to identify all previously recorded architectural and archaeological resources requiring inclusion in a formal Stage I Pre-Application Analysis, as defined by the 2008 *Guidelines*.

STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA 230 KV LINES #272 AND #260 TRANSMISSION LINE REBUILDS, AUGUSTA AND ROCKINGHAM COUNTIES AND THE TOWN OF GROTTOES, VIRGINIA

INTRODUCTION

As detailed by DHR guidance, consideration was given to National Historic Landmarks (NHL) properties located within a 1.5-mile radius of the project centerline; National Register of Historic Places (NRHP)-listed properties, battlefields, and historic landscapes located within a 1.0-mile radius of the project centerline; NRHP-eligible sites located within a 0.5-mile radius of the project centerline; and archaeological sites located within the project ROW. This document includes a viewshed analysis to address potential visual impacts to the 13 resources considered during the Stage I study.

This Stage I Pre-Application Analysis project was directed by Senior Environmental Scientist Kenny Presgraves and the report co-authored by Senior Architectural Historian Sandra DeChard and Architectural Historian Sonja Lengel. The visual effects survey was conducted by Assistant Architectural Historian Olivia McCarty under the supervision of Ms. DeChard. Photo simulations provided in Appendix C were prepared by POWER Engineers on behalf of Dominion Energy. Visual modeling was prepared by GIS Coordinator, Melissa Sanderson and Environmental Scientist, Jordan Bryant. Support graphics were prepared by GIS Coordinator Melissa Sanderson and Environmental Scientist Jordan Bryant.

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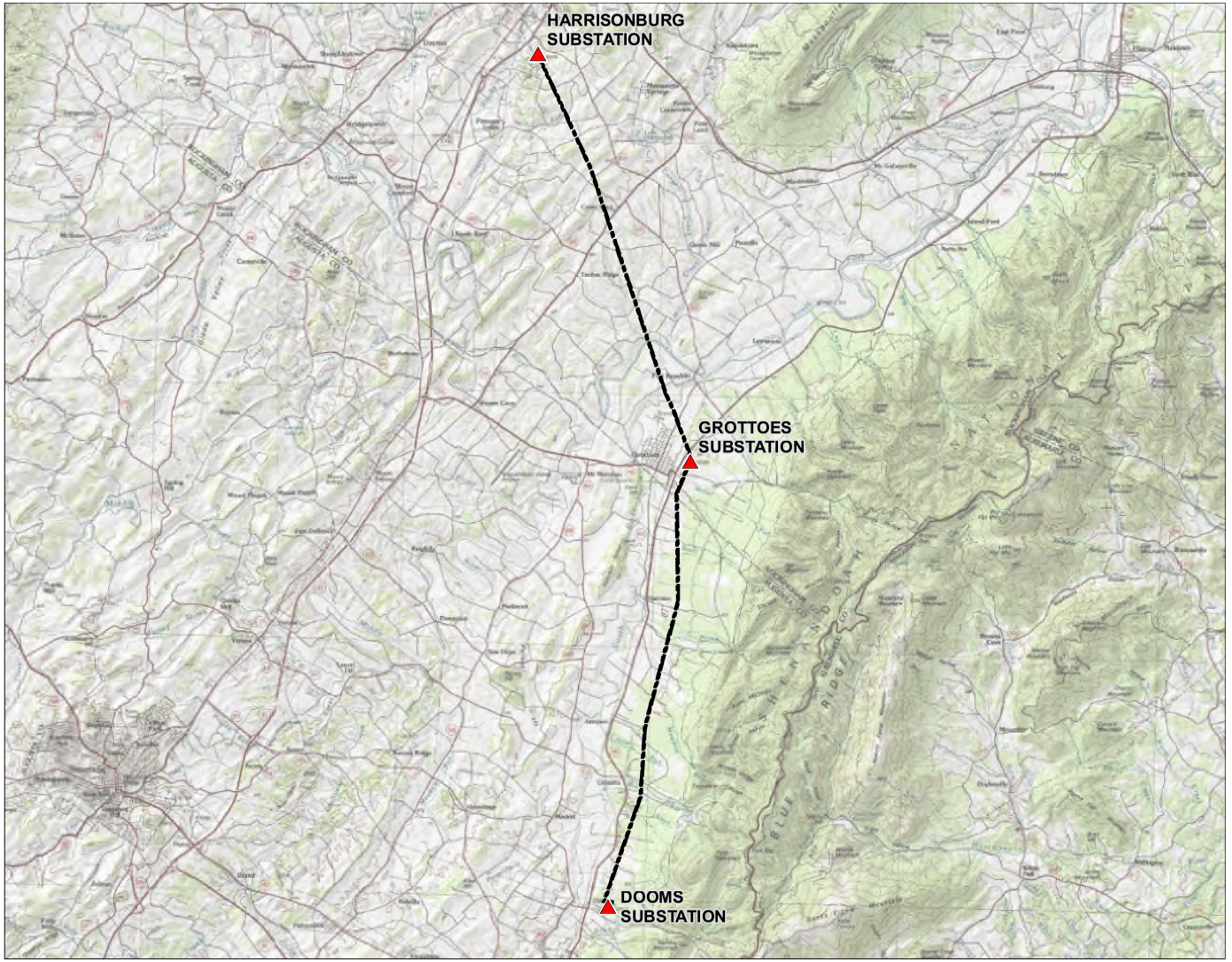


Figure No.
1

Title
Project Location Map

Client/Project
203401846
Dominion Energy Virginia
Dooms-Harrisonburg 230 KV Line #272 and #260
Rebuild Project

Project Location
Augusta and Rockingham Counties
and the Town of Grottoes Virginia

Prepared by JBB on 2024-03-25
TR by MGS on 2024-04-15
IR by EJMB on 2024-04-11

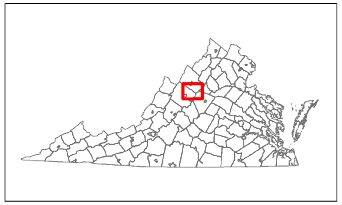
N

0 13,000 26,000 Feet

(At original document size of 11x17)
1:156,000

Substation

Project Area



Notes
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
2. Data Sources: Dominion Energy Virginia, U.S. Census Bureau
3. Topographic map © USGS 30x60 Minute Series Topographic Map

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2.0 BACKGROUND RESEARCH

As part of the Stage I Pre-Application Analysis effort, DHR guidance recommends a four-tier study area strategy to be considered for each alternative alignment for the proposed undertaking (Table 1). Per this guidance consideration was given to NHL properties located within a 1.5-mile radius of the project centerline; NRHP-listed properties, battlefields, and historic landscapes located within a 1.0-mile radius of the project centerline; NRHP-eligible resources located within a 0.5-mile radius of the project centerline; and archaeological sites located within the project ROW.

Table 1 Study Areas as Defined by DHR Guidelines for Transmission Lines

Radial Buffer (in miles)	Considered Resources
1.5	National Historic Landmarks
1.0	Above resources and: National Register Properties (listed), Battlefields, Historic Landscapes (e.g. Rural HD)
0.5	Above resources and: National Register-eligible (as determined by DHR)
0.0 (Within ROW)	Above resources and Archaeological Sites

The background research included a review of the DHR archives and of data collected from the DHR's Virginia Cultural Resource Information System (V-CRIS) database using the most current data as provided by the DHR. The DHR files of archaeological sites and historic structures were examined and information was retrieved on all archaeological sites located up to a 0.5-mile radius of the project area and all previously recorded architectural resources up to a 1.5-mile radius of the project. ESRI ArcGIS Online aerial photography of current conditions was examined for the entire project area. Photographs of the viewshed of each of the architectural resources under consideration were taken from the public ROW.

2.1 RESULTS OF THE BACKGROUND RESEARCH

2.1.1 Architectural Resources

No NHL-listed architectural resources are located within the 1.5-mile radius. Four NRHP-listed resources are located within 1.0 mile, including an historic district, and eight NRHP-eligible individual resources are located within 0.5 mile of the Rebuild Project. Additionally, portions of two battlefields, one that is potentially eligible for listing in the NRHP and one that has been determined eligible for listing in the NRHP, are located within the 1.0-mile radius (Appendix B). Table 2 provides a listing of the architectural resources considered for the Stage I Pre-Application Analysis.

Table 2 Previously Recorded Architectural Resources Considered under the Stage I Pre-Application Guidelines

DHR #	Resource Name	NRHP Status	Distance to Closest Structure (Feet)	Closest Existing Structure(s)
007-0964	Crimora Elementary School, Route 612	NRHP-Listed	5,175	272/29
082-0123	Port Republic Historic District	NRHP-Listed	704	260/67
082-0368	Dr. Joseph B. Webb House, 3327 Cross Keys Road	NRHP-Eligible	1,217	260/35
082-0369	William VanLear Farm/Kiblinger House, 3591 Cross Keys Road	NRHP-Eligible	311	260/36
082-0376	Cross Keys Battlefield	NRHP-Eligible	0	260/30*
082-0401	William Saufley Farm, 7358 Shady Grove Road	NRHP-Eligible	0	260/55
082-5075	Kyle's Mill House, 1764 Cross Keys Road	NRHP-Listed	4,096	260/27
082-5096	Peter Heil House/ Springdale Farm, 4090 Cross Keys Road	NRHP-Eligible	2,346	260/36
082-5156	Dundore House, 1582 Ridgedale Road	NRHP-Eligible	171	260/6
082-5204	German Reformed Church, 4067 Cross Keys Road	NRHP-Eligible	1,252	260/38
082-5430	Port Republic Battlefield	NRHP Potentially Eligible	0	260/68**
115-5055	Argubright Barn (demolished), 740 Stone Spring Road	NRHP-Eligible; Demolished	N/A	N/A
228-5022	Steven Hainsberger House, Holly Avenue	NRHP-Listed	3,580	260/75

*Structures 260/30-260/47 are within Cross Keys Battlefield
**Structures 260/68-260/70 are within Port Republic Battlefield

2.1.2 Archaeological Resources

No previously recorded archaeological resources are located within the transmission line ROW.

3.0 STAGE I PRE-APPLICATION ANALYSIS RESULTS

3.1 VISUAL EFFECTS METHODOLOGY

Fieldwork for the proposed Rebuild Project was undertaken by Stantec's Assistant Architectural Historian Olivia McCarty under the direction of Senior Architectural Historian, Sandra DeChard from June 20 to 23, 2023. The fieldwork for the assessment entailed photographing the resources requiring viewshed analysis according to the Stage I Pre-Application guidelines and examining the potential views from the resources towards the proposed transmission line improvements. As the fieldwork was conducted prior to a formal SCC application submittal, all photographs were taken from public ROW locations with aerial photography utilized to supplement the analysis of project visibility and potential visual effects. As the proposed line is a rebuild of an existing transmission line and the proposed new line will be located within the existing alignment, the existing line was utilized, to the extent possible, to assist with the assessment of potential visual effects.

A detailed viewshed was modeled for the existing and proposed structures. This analysis required the creation of two datasets, a digital elevation model (DEM) which provided base ground elevations, and a digital surface model (DSM) which provided overall elevations for features on the terrain, such as trees and buildings. Using the existing structure heights and preliminary proposed structure heights provided by Dominion Energy, two viewshed analyses were run using these datasets to determine where the existing and proposed structures are or will be visible in the landscape surrounding the proposed transmission line improvements. The visibility is illustrated by three color shadings:

- Orange - where both existing and proposed structures are/will be visible,
- Burgundy - where the existing structures are visible, but the proposed structures will not be, and
- Blue - where the existing structures are not visible, but the proposed structures will be.

3.2 INDIVIDUAL ARCHITECTURAL RESOURCES CONSIDERED

Ten individual resources are located within 1.0 mile of the Rebuild Project and are the Crimora Elementary School (DHR #007-0964), Dr. Joseph B. Webb House (DHR #082-0368), William VanLear Farm/Kiblinger House (DHR #082-0369), William Saufley Farm (DHR #082-0401), Kyle's Mill House (DHR #082-5075), Peter Kiel House/Springdale Farm (DHR #082-5096), Dundore House (DHR #082-5156), German Reformed Church (DHR #082-5204), Argubright Barn (DHR #115-5055), and Steven Hainsberger House (DHR #228-5022). The resources are further described below along with a discussion and recommendation of potential effects as a result of the Rebuild Project.

3.2.1 Crimora Elementary School (DHR #007-0964)

The Crimora Elementary School, built around 1927, is reflective of the central auditorium plan which was designed by the State Department of Education during the 1920s and 1930s. The one-story school features a brick exterior and concrete foundation with pressed metal sheathing on a majority of the cross-gable roof surfaces. Additional features of the school include nine-over-nine double-hung wood sash windows, which are in groups of five along the side elevations, and wood and glass entry doors sheltered by a shed-roofed hood. Several one- and two-story additions, constructed in 1954 to 1955, extend the school to the northeast and features flat parapeted roofs (Figure 2). In 1985, the Crimora Elementary School was listed in the NRHP for its significance in early twentieth century school planning (DHR Site Files; McCleary 1984).

3.2.1.1 Visual Effects

Crimora Elementary School is located on the north side of New Hope Crimora Road (Route 612) at Kay Frye Road west of and within 1.0 mile of the Rebuild Project (Appendix B). The school sits slightly back from and above the road within an open landscape. A paved driveway runs past the front of the school and curves and extends along the northwest elevation to access a parking lot behind the building. Kay Frye Lane extends along the southeast elevation. Several trees dot the property, and a tree line is located along the southeastern side of Kay Frye Lane. Behind the building are playing fields.

Crimora Elementary School is approximately 5,175 feet west of the nearest point of the existing Line #272 transmission line corridor (Appendix B). The site visit indicates that, under current conditions, there is no visibility of the existing transmission line structures (Figures 2 and 3). Visual modeling for the Rebuild Project confirms that there is no visibility of the current transmission line structures and that, based on the preliminary design, there would be no visibility of the proposed Line #272 replacement structures (Figure 4; Appendix C; VP 17). ***It is therefore anticipated that the proposed Rebuild Project would have No Visual Impact on the Crimora Elementary School (DHR #007-0964).***

Figure 2 View of Crimora Elementary School in the Direction of the Rebuild Project (Photo Location 2) Looking Northeast. Existing Transmission Line is Not Visible.

Figure 3 View from Crimora Elementary School (Photo Location 2) Looking East. Existing Transmission Line is Not Visible.

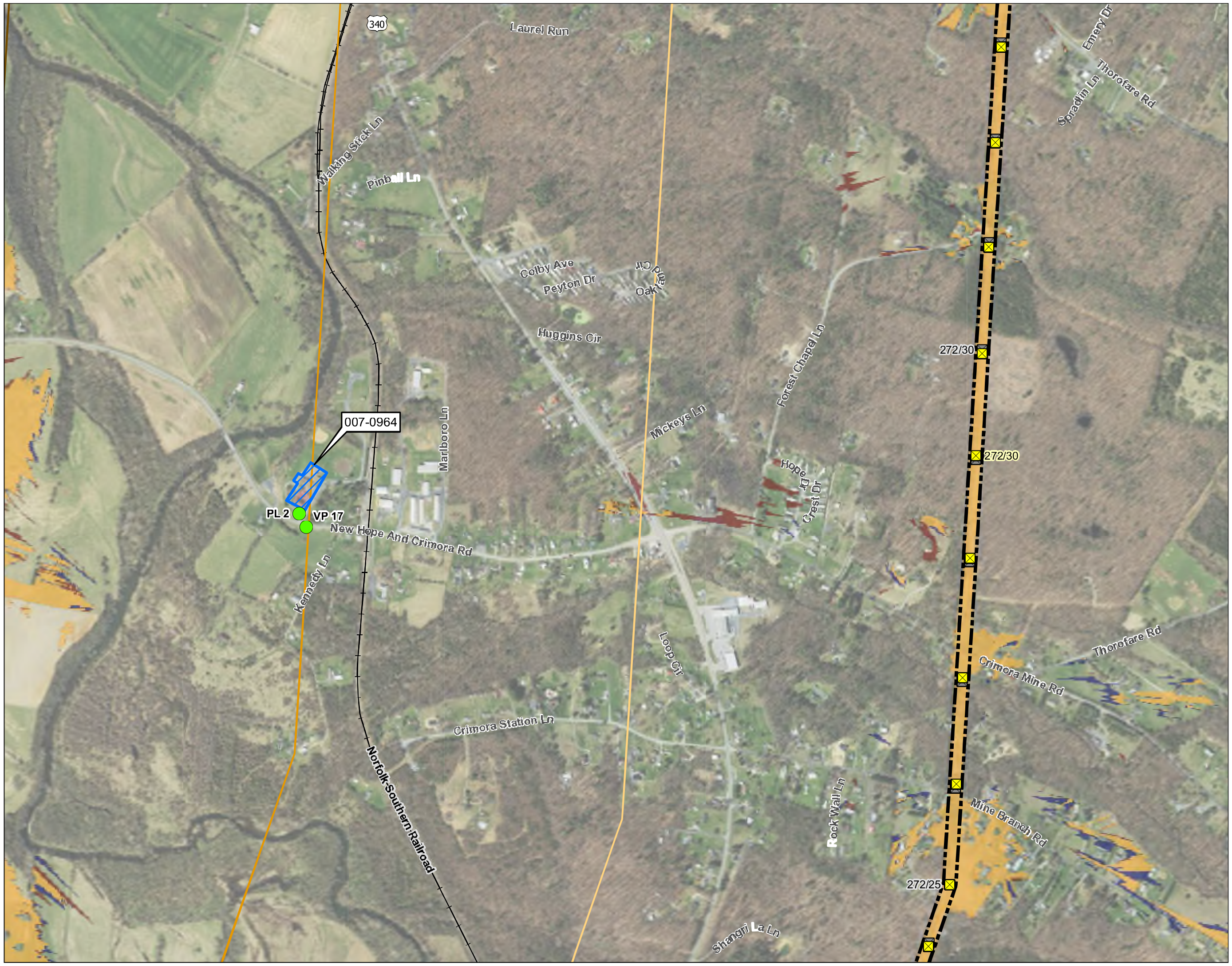


Figure No.
4

Title
Viewshed Analysis and Photo Location Map for Crimora Elementary School (DHR #007-0964)

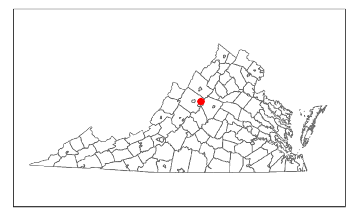
Client/Project
203401846
Dominion Energy Virginia
Dooms-Harrisonburg 230 KV Line #272 and #260 Rebuild Project

Project Location
Augusta and Rockingham Counties and the Town of Grottoes Virginia

Prepared by JBB on 2024-03-25
TR by MGS on 2024-04-15
IR by EMB on 2024-04-11

N
0 800 1,600 Feet
(At original document size of 11x17)
1:9,600

- Viewpoint/Photo Location
- Proposed Structure
- Existing Structure
- Project Area
- 0.5-Mile Buffer
- 1.0-Mile Buffer
- 1.5-Mile Buffer
- Architectural Resource
- Existing Visible, Proposed Not Visible
- Both Existing and Proposed Visible
- Existing Not Visible, Proposed Visible
- Railroad



Notes
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, U.S. Census Bureau, Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS), VGIN, U.S. National Park Service, American Battlefield Protection Program; U.S. National Park Service, Cultural Resources Geographic Information System Facility
3. Orthoimagery © Virginia Geographic Information Network (VGIN)
4. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LiDAR

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Page 3.4

3.2.2 Dr. Joseph B. Webb House (DHR #082-0368)

The Dr. Joseph B. Webb House is a two-story, three-bay, Greek Revival-style brick dwelling constructed around 1858. It is covered by a low-pitched standing seam metal side gable roof, which is pierced by interior end chimneys. On the main elevation, the brickwork is a staggered Flemish bond, with seven course American bond brick pattern on the side elevations. Also present is water table and a corbeled brick cornice. Fenestration comprises a combination of two-over-two wood and four-over-four metal sash windows. The front door is centered on the façade and features a wide four-paneled single-leaf wood door with four-light transom and is flanked by four-light sidelights with wood panels below. The entrance is sheltered by a full-width porch with hipped roof supported by square posts (Figure 5). The house has a rear two-story ell with a two-story shed-roof enclosed porch. Fourteen secondary resources, built between 1920 and 1950, were located on the property at the time of the previous survey and include a corn crib, well house, garage, four chicken houses, two sheds, two barns, two silos, and a foundation built circa 1860. In 2006, DHR identified the resource as a contributing resource to the Cross Keys Battlefield (DHR #082-0376) and determined the Dr. Joseph B. Webb House as individually eligible under Criterion C for listing in NRHP for its architectural merit as an intact example of mid-nineteenth century rural Greek Revival architecture (DHR Site File).

3.2.2.1 Visual Effects

The Dr. Joseph B. Webb House is located within 0.5 mile and east of the Rebuild Project and is set back from Cross Keys Road (Route 275) on a 102-acre parcel (Appendix B). There are large trees within the immediate vicinity of the dwelling and along the gravel driveway. Relatively level and gently rolling, open fields are located to the northeast, east, and southeast with some later mid-to late twentieth century dwellings across the street to the northwest.

The existing Line #260 structures closest to the resource, #260/33 through #260/38 range in height from approximately 60 feet to 65 feet and, under current conditions, were not visible from the resource (Figures 5-7; Appendix A). Based on preliminary design, the proposed structures, #260/33 through #260/38 will range in height from approximately 65.5 feet to 79 feet and will be, on average, approximately 8.5 feet taller than the existing structures (Appendix A).

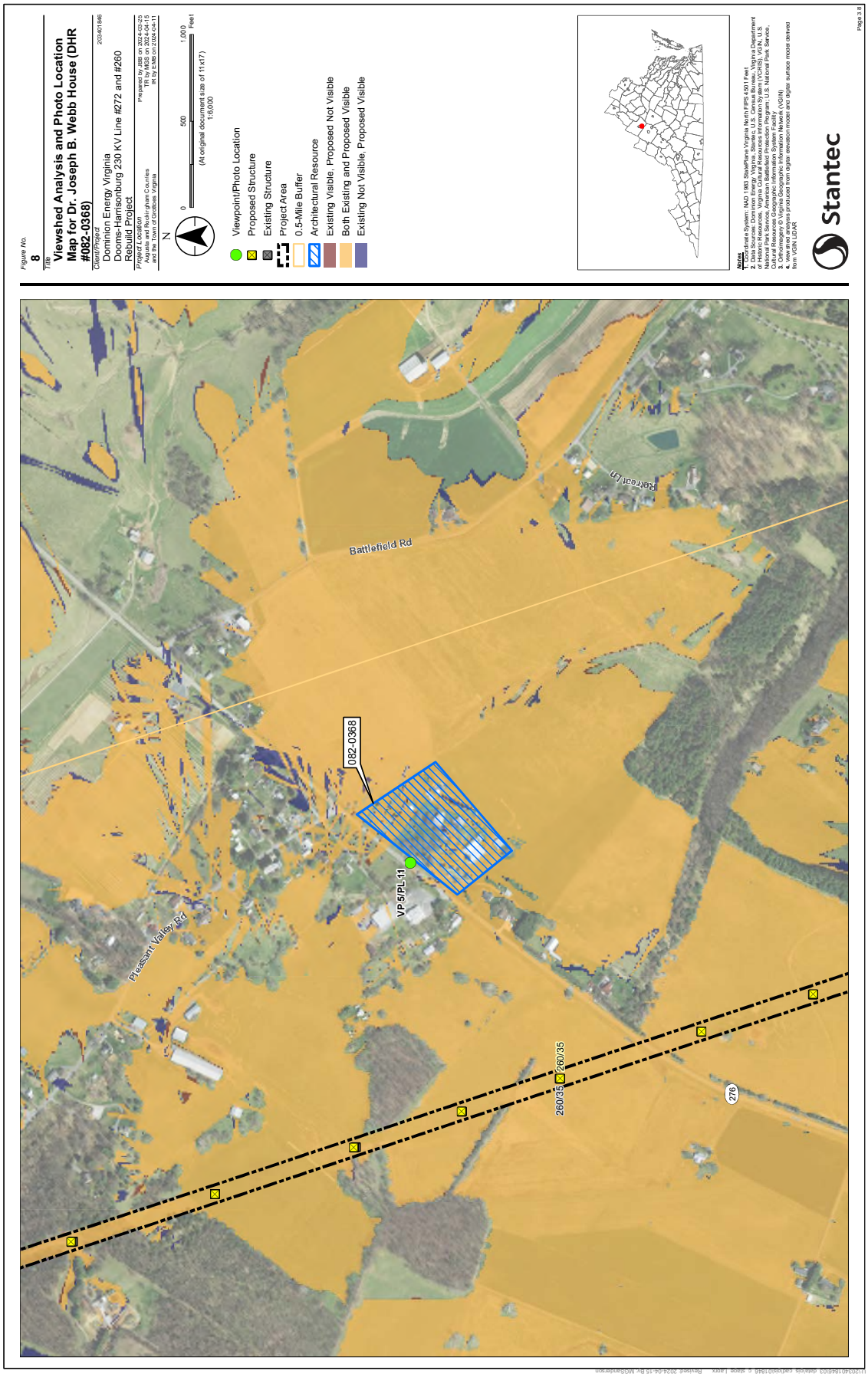
Viewshed modeling and visual simulations conducted for the Rebuild Project indicate that the existing Line #260 structures are visible from portions of the overall property and that the proposed Structures #260/33 through #260/38 would be similarly visible in portions of the overall property (Figure 8; Appendix C; VP 5/PL 11). The primary resource, however, according to the visual modeling, does not view the existing structures and would also not view the proposed. Existing Structures #260/33 through #260/35 are currently weathering steel H-frames and would be replaced with in-kind structures. Existing Structures #260/36 through #260/38 are wood H-frames and would be replaced with weathering steel H-frame structures. Although the structure material will be different for several structures in the vicinity, the overall visual impact would not be significantly different than the existing.

Although the proposed structures will be slightly taller, it is anticipated that the overall change in the visual impact will be minimal. As such, it is anticipated that the proposed Rebuild Project will have a ***Minimal Visual Impact on Dr. Joseph B. Webb House (DHR #082-00368).***

Figure 5 View of Dr. Joseph B. Webb House (DHR #082-0368), Looking Southeast.

Figure 6 View from Dr. Joseph B. Webb House (DHR #082-0368) and the Cross Keys Battlefield (DHR #082-0376; Photo Location PL 11) Looking Southwest. Existing Transmission Line is Not Visible.

Figure 7 View from Dr. Joseph B. Webb House (DHR #082-0368) and the Cross Keys Battlefield (DHR #082-0376; Photo Location PL 11) Looking Northwest. Existing Transmission Line is Not Visible.



3.2.3 William VanLear Farm/Kiblinger House (DHR #082-0369)

Built around 1835, the William VanLear Farm/Kiblinger House is a two-story, four-bay, five-course American bond brick house with a limestone foundation. Capped by an asphalt shingle side gable roof. Extending above the roof are five corbeled brick chimneys: two exterior end and three interior end. Along the roofline are overhanging eaves with a molded cornice, flush fascia, and gable end returns. The off-center main entrance is a single leaf wood door with a blind transom. A hipped roof porch is supported by Tuscan columns and extends across the full width of the façade. Fenestration comprises replacement one-over-one wood sashes with stone sills (Figure 9). At the rear of the house is a two-story ell and one-story addition. The property has six secondary resources including a swimming pool, a garage, an animal shelter, a corn crib, a chicken house, and a barn ranging in date from the early to late twentieth century. The dwelling was recommended eligible for the NRHP by DHR in 2006 under Criterion A for its association with the Kiblinger family, who were early settlers to Rockingham County, and under Criterion C for its architectural merit. The resource is also considered a contributing resource to the Cross Keys Battlefield (DHR #082-0376; DHR Site Files).

3.2.3.1 Visual Effects

The William VanLear Farm/Kiblinger House is located east of the Rebuild Project proximate to the transmission line corridor's crossing of Route 276. The primary residence is set close to the road on a 56-acre parcel (Appendix B). The parcel is wooded on it southeast side closest to the transmission line corridor which partially shields the view of the transmission line structures in this direction. However, the view to the northwest is open field and two of the structures were visible from several locations on the property based on the field survey (Figures 10 and 11).

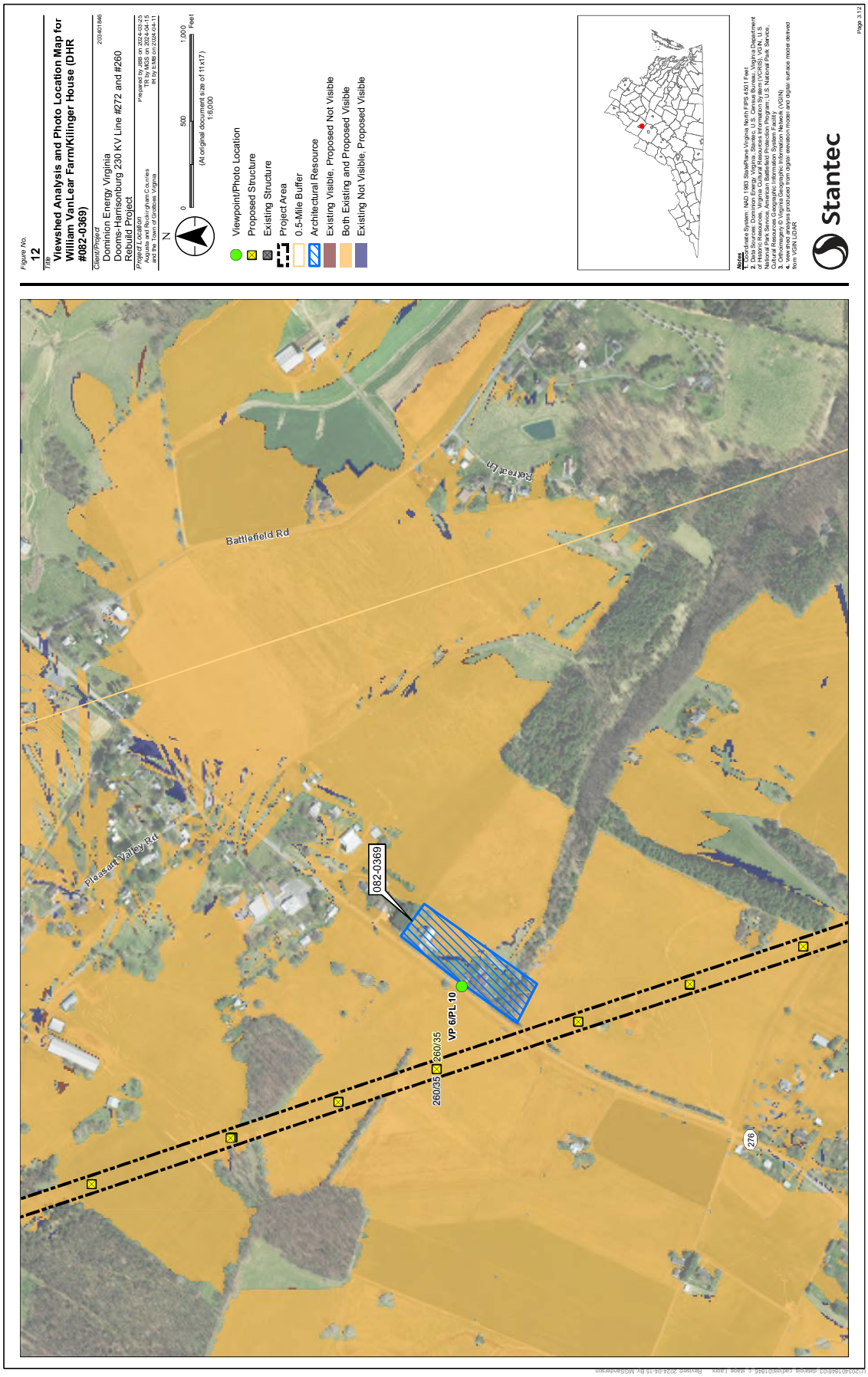
The existing Line #260 structures closest to the resource, #260/33 through #260/38 range in height from approximately 60 feet to 65 feet and, under current conditions, were not visible from the resource (Figures 11 and 12; Appendix A). Based on preliminary design, the proposed structures, #260/33 through #260/38 will range in height from approximately 65.5 feet to 79 feet and will be, on average, approximately 8.5 feet taller than the existing structures (Appendix A).

Viewshed modeling and visual simulations conducted for the Rebuild Project indicate that the existing Line #260 structures are visible from portions of the overall property and that the proposed Structures #260/33 through #260/38 would be similarly visible in portions of the overall property (Figure 12; Appendix C; VP 6//PL 10). The primary resource, however, according to the visual modeling, does not view the existing structure closest to the parcel boundary (#260/36) but does view Structures #260/35 and #260/34. The view of the proposed structures would be similar to the existing. Existing Structures #260/33 through 260/35 are currently weathering steel H-frames and would be replaced with in-kind structures slightly taller in height. Existing Structures #260/36 through #260/38 are wood H-frames and would be replaced with weathering steel H-frame structures. Although the structure material will be different for several structures in the vicinity, the overall visual impact would not be significantly different than the existing. However, due to the minimal increase in height, it is anticipated that the overall change in the visual impact will be minimal. As such it is anticipated that the proposed Rebuild Project will have a ***Minimal Visual Impact on William VanLear Farm/Kiblinger House (DHR #082-0369).***

Figure 9 View of the William VanLear Farm/Kiblinger House (DHR #082-0369), Looking Southeast.

Figure 10 View from William VanLear Farm/Kiblinger House (DHR #082-0369) and the Cross Keys Battlefield (DHR #082-0376; Photo Location VP 6/PL 10) Looking West. Existing Transmission Line Structure #260/35 is Visible.

Figure 11 View from William VanLear Farm/Kiblinger House (DHR #082-0369) and the Cross Keys Battlefield (DHR #082-0376; Photo Location VP 6/PL 10) Looking Northwest. Existing Transmission Line Structures #260/35 and #260/34 are Visible.



3.2.4 William Saufley Farm (DHR #082-0401)

The William Saufley Farm includes a circa 1840 Greek Revival-style, two-story, double pile, five-bay, brick dwelling, set on a stone foundation, and capped by a side-gable standing seam metal roof. There are two brick chimneys at the gable ends; the east gable is a double chimney connected by a parapet, and the west gable end is a single chimney. Fenestration comprises nine-over-six wood sash windows on the first floor and six-over-six wood sashes on the second floor. A partial width porch with full pediment supported by brick columns parged with stucco extends from the façade (Figure 13). A nineteenth century servants' quarter and a one-story addition constructed in the twentieth century were built onto the northeast and northwest corners, respectively. According to the previous survey, six secondary resources are located on the property and include a springhouse, barn, garage, shed, stable, and a foundation, constructed during the mid-nineteenth to the early twentieth century. In 2011, DHR determined the William Saufley Farm eligible for listing on the NRHP under Criterion C for architecture with a Period of Significance from circa 1838 to 1960 (DHR Site File).

3.2.4.1 Visual Effects

The William Saufley Farm is located on a 44-acre parcel east of and intersected by the Rebuild Project. The Rebuild Project and existing transmission line corridor cross the boundary of the resource in the southern portion of the parcel (Appendix B). Two of the structures were visible from several locations on the property based on the field survey. The resource sits back from the road and is immediately surrounded by mature trees. Several additional tree lines on the property shield the resource from view of fields to the west, southwest, south, and southeast.

The closest existing structures to the resource, #260/52 through #260/58 range in height from approximately 54 to 67 feet. Structure #260/55 is sited just inside the property boundary and within the existing transmission line easement (Appendix A). As identified during the field visit and under current conditions, Structure #260/55 was visible from the Photo Location (PL 7) (Figure 13). This same structure was also visible from VP 10 located at the intersection of Stoney Lick Road and the existing transmission line corridor (Appendix C, VP 10). Based on preliminary design, the proposed structures, #260/52 through #260/58 will range in height from approximately 70 feet to 79 feet, and will be, on average 12 feet taller than the existing structures (Appendix A).

Viewshed modeling and visual simulations conducted for the Rebuild Project indicate that the proposed Structures #260/52 through #260/58 will be visible within portions of the overall property. The location of the primary resource associated with the farm currently views the existing structures closest to the residence and would also view the proposed (Figure 15; Appendix C, VP 10). The proposed structures will be weathering steel H-frame structures instead of wood H-frame structures. Although the material type is different than the existing, the overall impact to the viewshed would be minimal. Weathering steel is designed to minimize the visual impact of the structures on the landscape. Although the proposed structures will be taller and of steel construction, it is anticipated that the overall change in the visual impact will be minimal. As such it is anticipated that the proposed Rebuild Project will have a ***Minimal Visual Impact on William Saufley Farm (DHR #082-0401).***

Figure 13 View of William Saufley Farm (DHR #082-0401), Looking North.

Figure 14 View from Saufley Farm (DHR #082-0401; Photo Location PL 7) Looking South. Existing Transmission Line Structure #260/55 is Visible.

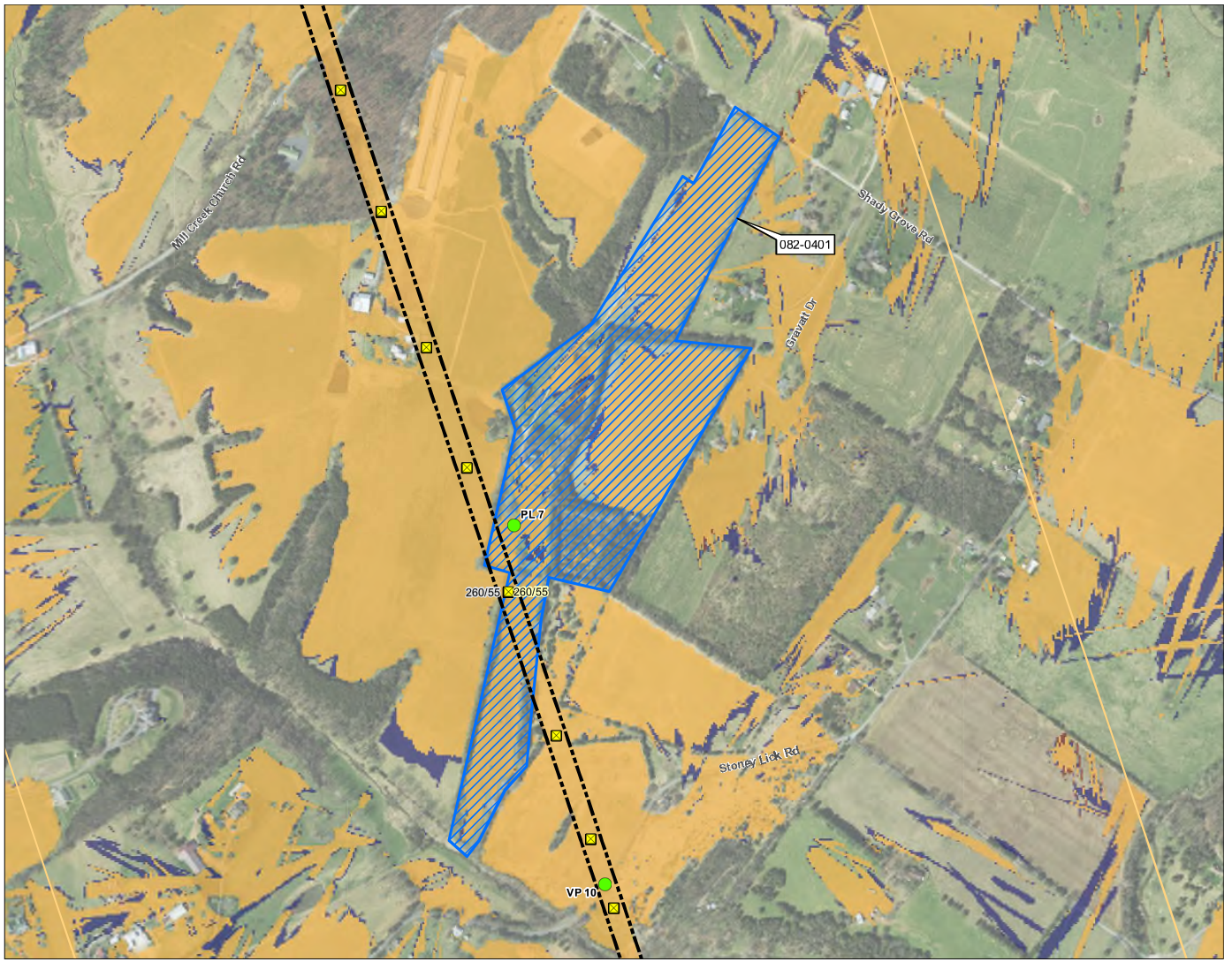


Figure No.
15

Title
Viewshed Analysis and Photo Location Map for William Saufley Farm (DHR #082-0401)

Client/Project
203401846
Dominion Energy Virginia
Dooms-Harrisonburg 230 KV Line #272 and #260 Rebuild Project

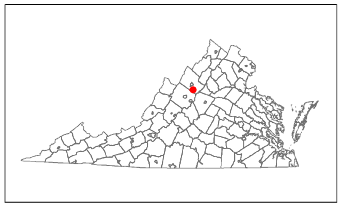
Project Location
Augusta and Rockingham Counties and the Town of Grottoes Virginia

Prepared by JBB on 2024-03-25
TR by MGS on 2024-04-15
IR by EMB on 2024-04-11

N

0 500 1,000 Feet
(At original document size of 11x17)
1:6,000

- Viewpoint/Photo Location
- Proposed Structure
- Existing Structure
- Project Area
- 0.5-Mile Buffer
- Architectural Resource
- Existing Visible, Proposed Not Visible
- Both Existing and Proposed Visible
- Existing Not Visible, Proposed Visible



Notes
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, U.S. Census Bureau, Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS), VGIN, U.S. National Park Service, American Battlefield Protection Program; U.S. National Park Service, Cultural Resources Geographic Information System Facility
3. Orthoimagery © Virginia Geographic Information Network (VGIN)
4. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LiDAR

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3.2.5 Kyle's Mill House (DHR #082-5075)

The dwelling of the Kyle's Mill House was built around 1750 as a one-story hall-and-parlor plan with subsequent additions in 1826 and 1903. The original dwelling was constructed of hand-hewn logs using the half-dovetail construction method with chinking and daubing in between and the roof rafters were of mortise and tenon construction. In 1826, a two-story addition with Federal-style details was added and the interior reworked to accommodate a stair. In 1903, a rear ell was built with Victorian details. Fenestration comprises six-over-six and nine-over-six wood sash double-hung windows. The dwelling is clad in weatherboards and capped by an asphalt shingle gable roof. A central one-bay porch extends from the front façade (Figure 16). There are seven non-contributing resources dating to the mid-to-late twentieth century located on the property including three sheds, two chicken houses, and two barns. The Kyle's Mill House was listed in the VLR in 2000 and listed in the NRHP in 2001 under Criterion C for its architectural merit with a Period of Significance from 1750 to 1903 (DHR Site Files; Tucker 2000).

3.2.5.1 Visual Effects

Kyle's Mill House is located within 1.0 mile and east of the Rebuild Project and is set back from the road on an approximately 277-acre parcel (Appendix B). A tree line is located to the south/southeast of the house along a farm access road as well as along Cross Keys Road. Several large trees are also present in the immediate area surrounding the dwelling. Open areas of agricultural fields are located to the northwest and west of the dwelling with several tree lines delineating sections of fields. The closest existing structures to the resource, #260/23 through #260/32 range in height from 47 feet to 81 feet, and under current conditions, were not visible from the resource (Figure 18; Appendix A). Based on preliminary design, the proposed structures,# 260/23 through #260/32 will range in height from approximately 60 feet to 97 feet and will be, on average, 14.5 feet taller than the existing structures (Appendix A).

Kyle's Mill House is approximately 4,096 feet east of the nearest point of the existing Line #260 transmission line corridor (Appendix B). The site visit indicates that, under current conditions, there is no visibility of the existing transmission line structures (Figure 17). Visual modeling for the Rebuild Project, however, indicates that there would be potential visibility within certain portions of the overall property (Figure 18). However, visual simulations and an overlay of the proposed Rebuild Project suggests that there would be no visibility of the Rebuild Project from the resource (Appendix C, VP 17) based on the preliminary design (Appendix A; Appendix C; VP 17). ***It is therefore anticipated that the proposed Rebuild Project would have No Visual Impact on the Kyle's Mill House (DHR #082-5075).***

Figure 16 View of the Kyle's Mill House (DHR #082-5075), Looking Northwest.

Figure 17 View from Kyle's Mill House (DHR #082-5075) and the Cross Keys Battlefield (DHR #082-0376; Photo Location VP 4/PL 12) Looking Southwest. Existing Transmission Line is Not Visible.

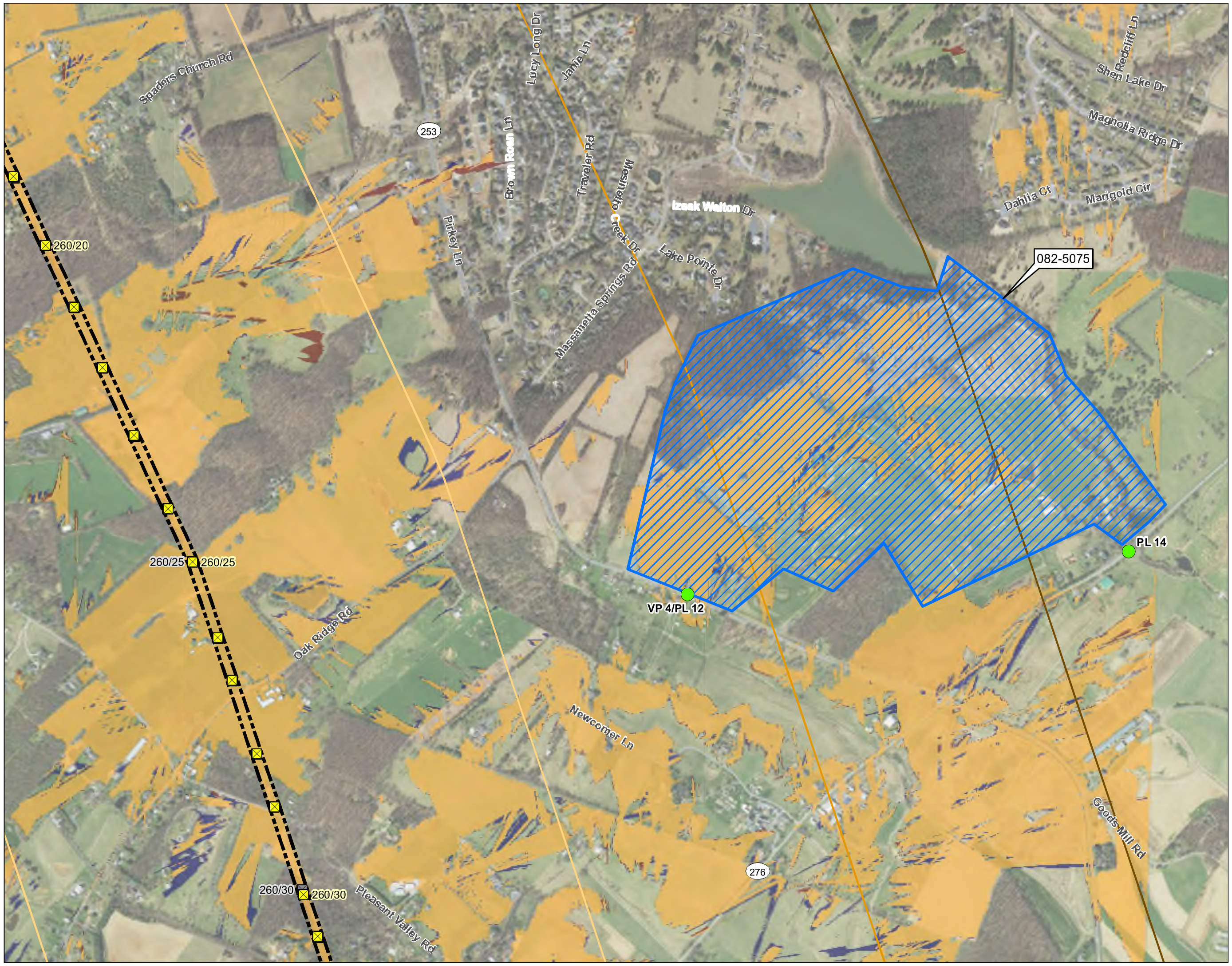


Figure No.
18

Title
Viewshed Analysis and Photo Location Map for Kyle's Mill House (DHR #082-5075)

Client/Project 203401846
Dominion Energy Virginia
Dooms-Harrisonburg 230 KV Line #272 and #260 Rebuild Project

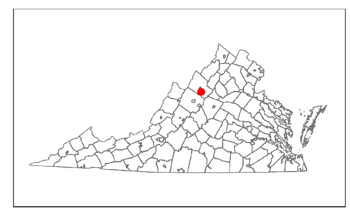
Project Location
Augusta and Rockingham Counties and the Town of Grottoes Virginia

Prepared by JBB on 2024-03-25
TR by MGS on 2024-04-15
IR by EMB on 2024-04-11

N

0 1,000 2,000 Feet
(At original document size of 11x17)
1:12,000

- Viewpoint/Photo Location
- Proposed Structure
- Existing Structure
- Project Area
- 0.5-Mile Buffer
- 1.0-Mile Buffer
- 1.5-Mile Buffer
- Architectural Resource
- Existing Visible, Proposed Not Visible
- Both Existing and Proposed Visible
- Existing Not Visible, Proposed Visible



Notes
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, U.S. Census Bureau, Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS), VGIN, U.S. National Park Service, American Battlefield Protection Program; U.S. National Park Service, Cultural Resources Geographic Information System Facility
3. Orthoimagery © Virginia Geographic Information Network (VGIN)
4. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LiDAR

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3.2.6 Peter Hiel House/Springdale Farm (DHR #082-5096)

The Peter Hiel House is a two-story, three-bay, brick dwelling with a fieldstone foundation built around 1880. The dwelling is capped by a hipped asphalt shingle roof, with two large interior brick chimneys, and a molded wood cornice and frieze. The brick is laid in the regional method of staggered Flemish bond on the façade and the side elevations are laid in a six-course American bond, with a molded water table. Fenestration comprises six-over-six wood sash windows with rowlock lintels, stone sills, and louvered wood shutters on the second floor. A central double-leaf paneled door with a blind transom and sidelights is sheltered under a three-quarter width porch that features bracketed wood posts and a second story roof balcony with balustrade (Figure 19). There is a one-story frame addition at the rear of the dwelling built in the early twentieth century. The property includes 17 secondary resources constructed between 1830 and the mid-twentieth century including four barns, a dairy, four silos, two corncribs, two sheds, a garage, a secondary dwelling, a cemetery, and a washhouse. In 2006, DHR determined the dwelling as eligible for the NRHP under Criterion C for architecture. It is also a contributing resource to the Cross Keys Battlefield Historic District (DHR #082-0376; DHR Site File).

3.2.6.1 Visual Effects

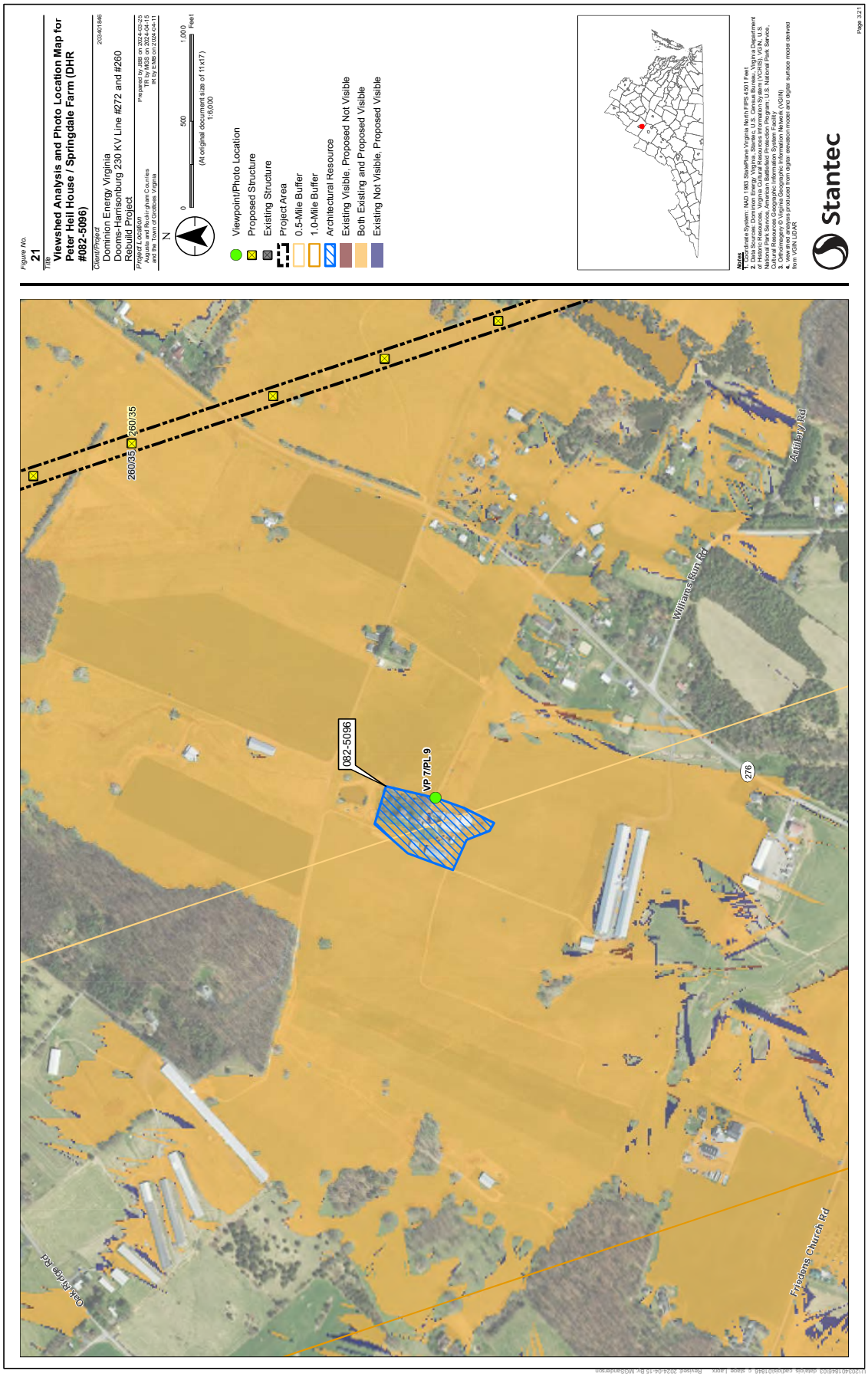
The Peter Hiel House/Springdale Farm is located on a 139-acre parcel west of the Rebuild Project on Cross Keys Road (Route 276) and within the 0.5-mile buffer (Appendix B). To the north of the house is a small area of trees and to the west and east are open agricultural fields. South of the residence is a cluster of agricultural buildings with fields beyond. This resource was not accessible during the field survey. Figure 19 illustrates the view of the property entrance from Cross Keys Road.

The Peter Hiel House is approximately 2,346 feet to the west of the closest existing structures associated with Line #260. Structures #260/34 through #260/38 range in height from approximately 60 to 74 feet (Appendix A). Based on preliminary design, the proposed structures, Structures #260/34 through #260/38 will range in height from approximately 70 feet to 79 feet, and will be, on average 10.6 feet taller than the existing structures (Appendix A).

Viewshed modeling and visual simulations prepared for the Rebuild Project indicate that both the existing and proposed Line #260 structures in proximity to the resource would be visible (Figure 21; Appendix C VP 7). Field photography captured at the entrance of the resource also indicate that structures would be visible (see Figure 21). The proposed structures will be weathering steel H-frame structures instead of wood H-frame structures. Although the material type is different than the existing, the overall impact to the viewshed would be minimal. Weathering steel is designed to minimize the visual impact of the structures on the landscape. Although the proposed structures will be taller and of steel construction, it is anticipated that the overall change in the visual impact will be minimal. As such it is anticipated that the proposed Rebuild Project will have a ***Minimal Visual Impact on Peter Hiel House/Springdale Farm (DHR #082-5096).***

Figure 19 View of the entrance drive to the Peter Hiel House/Springdale Farm (DHR #082-5096), Looking Northwest.

Figure 20 View from the entrance to the Peter Hiel House/Springdale Farm (DHR #082-5096), German Reformed Church Parsonage (DHR #082-5204), and the Cross Keys Battlefield (DHR #082-0376; VP 8/ PL 8) Looking Northeast. Existing Transmission Line is Visible in the Distance to Right of Frame.



3.2.7 Dundore House (DHR #082-5156)

The Dundore House, constructed around 1873, is a two-story, three-bay, Greek Revival-style frame dwelling that is capped by a side gable, standing seam metal roof, with a wide frieze, and an ornamented with a molded cornice. The dwelling's foundation is stone. Two exterior stone chimneys are present off the gable ends. The exterior is clad in board-and-batten siding. Fenestration comprises nine-over-six wood sash double- hung windows on the first floor and multi-light casements on the second floor. A one-story porch shelters the paneled entrance door with transom and is supported by a stone foundation with square wood posts that support a full entablature and balcony with delicate balustrade. A two-story gable roof ell is also present (Figure 22). There are nine secondary resources on the property including a barn, dairy, chicken house, shed, well house, wash house, garage, a wall, and a secondary dwelling that date to the twentieth century except for the secondary dwelling, which was built around 1850. In 2006, DHR determined the house as eligible for listing in the NRHP under Criterion C for its significance in architecture (DHR Site File). It is important to note, however, that the outbuildings associated with the property date to the early to mid-twentieth century are considered non-contributing to the resource per the previous survey.

3.2.7.1 Visual Effects

Dundore House is located within 0.5 mile and west of the Rebuild Project and is set back from Ridgedale Road on an approximately 81.8-acre parcel (Appendix B). The northeastern corner of the overall resource boundary is located 171 feet to the west of the existing Line #260 transmission line corridor and Rebuild Project. The primary residence is located in the southeastern section of the overall parcel.

The closest existing structures to the resource Structures #260/4 through #260/9 range in height from approximately 56 feet to 78 feet, and under current conditions are visible from the resource (Figure 23). Based on preliminary design, the proposed structures, #260/4 through #260/9 will range in height from approximately 65.5 feet to 89 feet and will be, on average, approximately 12.5 feet taller than the existing structures (Appendix A).

Viewshed modeling and visual simulations conducted for the Rebuild Project indicate that the proposed Structures #260/4 through #260/9 will be visible within portions of the overall property. The location of the primary resource associated with the farm does not directly view the existing transmission line structures due to the presence of trees surrounding the dwelling (Appendix C, VP 1). The proposed structures will be weathering steel H-frame structures instead of the existing combination of wood and steel H-frame structures. Although the material type is different than the existing, the overall impact to the viewshed would be minimal. Weathering steel is designed to minimize the visual impact of the structures on the landscape. Although the proposed structures will be taller and of steel construction, it is anticipated that the overall change in the visual impact will be minimal. As such it is anticipated that the proposed Rebuild Project will have a ***Minimal Visual Impact on Dundore House (DHR #082-5156).***

Figure 22 View of the Dundore House (DHR #082-5156), Looking Northeast.

Figure 23 View from the Dundore House (DHR #082-5156; PL 3) Looking Northeast. Existing Transmission Line is Visible.

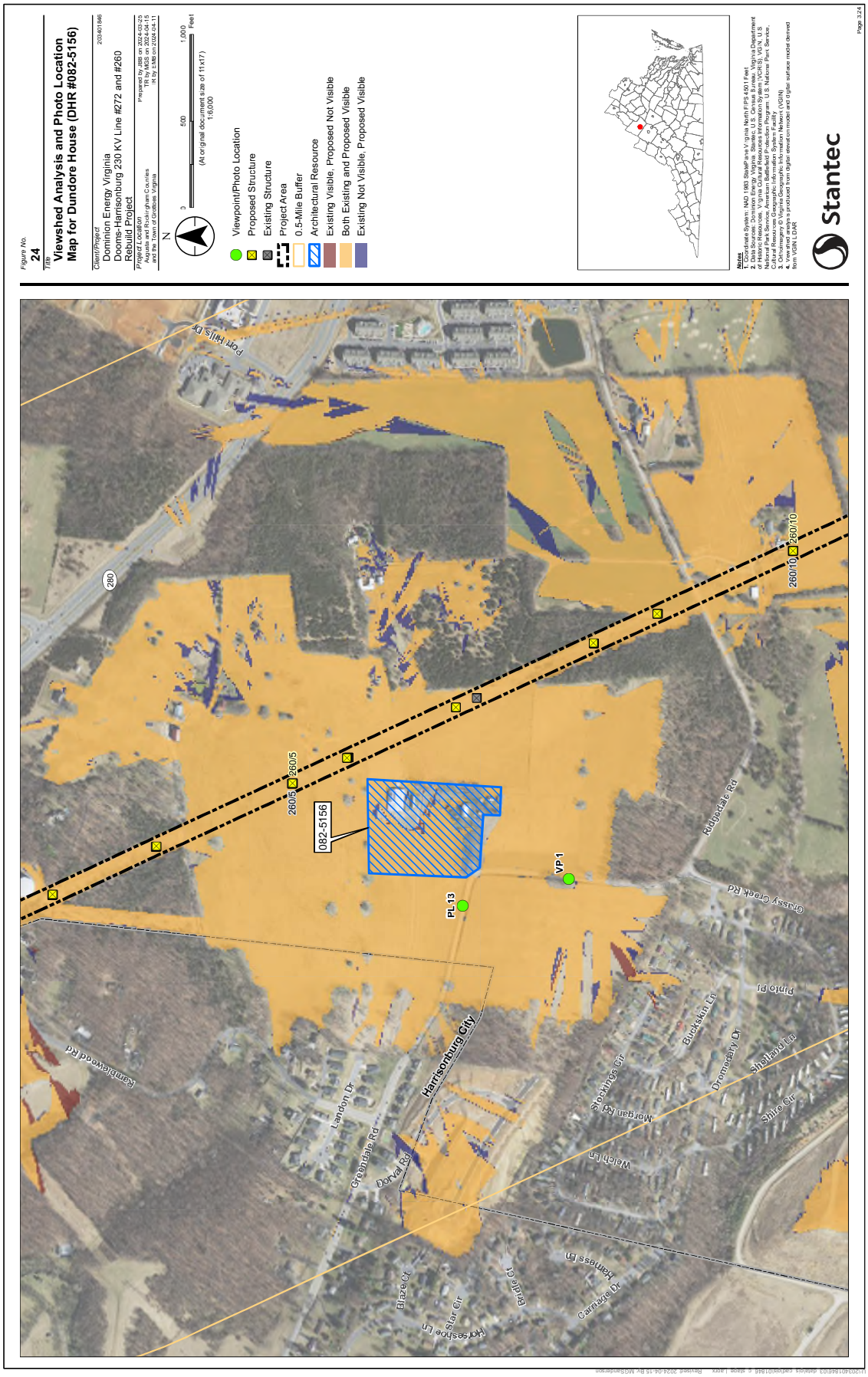


Figure No.
24
Title
Viewshed Analysis and Photo Location
Map for Dundore House (DHR #082-5156)
Client/Project
Dominion Energy Virginia
Dooms-Harrisonburg 230 KV Line #272 and #260
Rebuild Project
Project Location
Augusta and Rockingham Counties
and the town of Grottoes, Virginia
2034019#6
Prepared by JBB on 2024-03-25
TR by MDS on 2024-04-15
IR by MDS on 2024-04-17
N
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Feet
(At original document size of 11x17)
1:6,000
Viewpoint/Photo Location
Proposed Structure
Existing Structure
Project Area
0.5-Mile Buffer
Architectural Resource
Existing Visible, Proposed Not Visible
Both Existing and Proposed Visible
Existing Not Visible, Proposed Visible
Notes
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
2. Data Sources: Dominion Energy Virginia; Stantec; U.S. Census Bureau; Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS), VGIN, U.S. National Park Service, National Register of Historic Places Program; U.S. National Park Service, Cultural Resources Geographic Information System Facility
3. Orthoimagery © Virginia Geographic Information Network (VGIN)
4. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LiDAR
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Page 3.24
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082-5156
260/5
260/10
VP-1
PL 13
Harrisonburg City
Ridgedale Rd
Grassy Creek Rd
Pinto Pl
Buckskin Ln
Dromedary Dr
Shetland Ln
Shire Cir
Morgan Rd
Spotlight Cir
Welch Ln
Carriage Dr
Harness Ln
Bridle Ct
Harness Ter Ln
Blaze Ct
Dorval Rd
Grandale Rd
Landon Dr
Fernbrook Rd
Port Hills Dr
280

3.2.8 German Reformed Church Parsonage (DHR #082-5204)

The German Reformed Church Parsonage was built around 1790 as a single-room plan with chamber above. The original section of the dwelling is believed to the dwelling's northern end which was constructed with brick nogging and an exterior end brick chimney. In the mid-nineteenth century, the building was enlarged to be a two-over-two room dwelling with a central chimney. The building is clad in aluminum siding. Fenestration comprises six-over-six wood sash windows with louvered shutters and wood sills. The main door is Italianate in style and has Colonial Revival-style trim including Tuscan pilasters, four-light transom, and ogee-molded lintel (Figure 25). The property includes 10.5 acres and three secondary resources: a circa 1890 barn, a circa 1847 kitchen, and a circa 1930 chicken house. The German Reformed Church Parsonage was determined eligible for listing on the NRHP by DHR in 2001 under Criterion C for architecture (DHR Site File).

3.2.8.1 Visual Effects

The German Reformed Church Parsonage is located within 0.5 mile of the Rebuild Project and is set back from Cross Keys Road (Appendix B). The dwelling is surrounded by a large expanse of lawn with several large trees located in the immediate vicinity of the house. Approximately 543 feet to the southeast dwelling is an area of woods with a depth ranging from approximately 387 to 850 feet in a northwest to southeast direction.

At its closest point, the German Reformed Church Parsonage is 1,252 feet to the west of the existing transmission line corridor. The closest existing structures to the resource, Structures #260/35 through #260/39, range in height from approximately 47 feet to 65 feet. Field survey indicated that two of the structures were visible from the photo location on the northwest corner of the property boundary at Cross Keys Road (see Figure 2, Figure 26; Appendix A). Based on preliminary design, the proposed structures, Structures #260/35 through #260/39 will range in height from approximately 70 feet to 79 feet and will be, on average, approximately 14.2 feet taller than the existing structures (Appendix A).

Viewshed modeling and visual simulations conducted for the Rebuild Project indicate that the proposed Structures #260/35 through #260/39 will be visible within portions of the overall property; primarily in the western and eastern sections. The central portion of the property is shielded from view by other buildings and wooded conditions (Appendix C, VP 8/PL8). The proposed structures will be weathering steel H-frame structures instead of the existing combination of wood and steel H-frame structures. Although the material type is different than the existing, the overall impact to the viewshed would be minimal. Weathering steel is designed to minimize the visual impact of the structures on the landscape. Although the proposed structures will be taller and of steel construction, it is anticipated that the overall change in the visual impact will be minimal. As such it is anticipated that the proposed Rebuild Project will have a ***Minimal Visual Impact on the German Reformed Parsonage House (DHR #082-5204).***

Figure 25 View of the German Reformed Church Parsonage (DHR #082-5204), Looking Southeast.

Figure 26 View from the German Reformed Church Parsonage (DHR #082-5204) and the Cross Keys Battlefield (DHR #082-0376; Photo Location VP8/PL8) Looking Southeast. Existing Transmission Line is Not Visible.

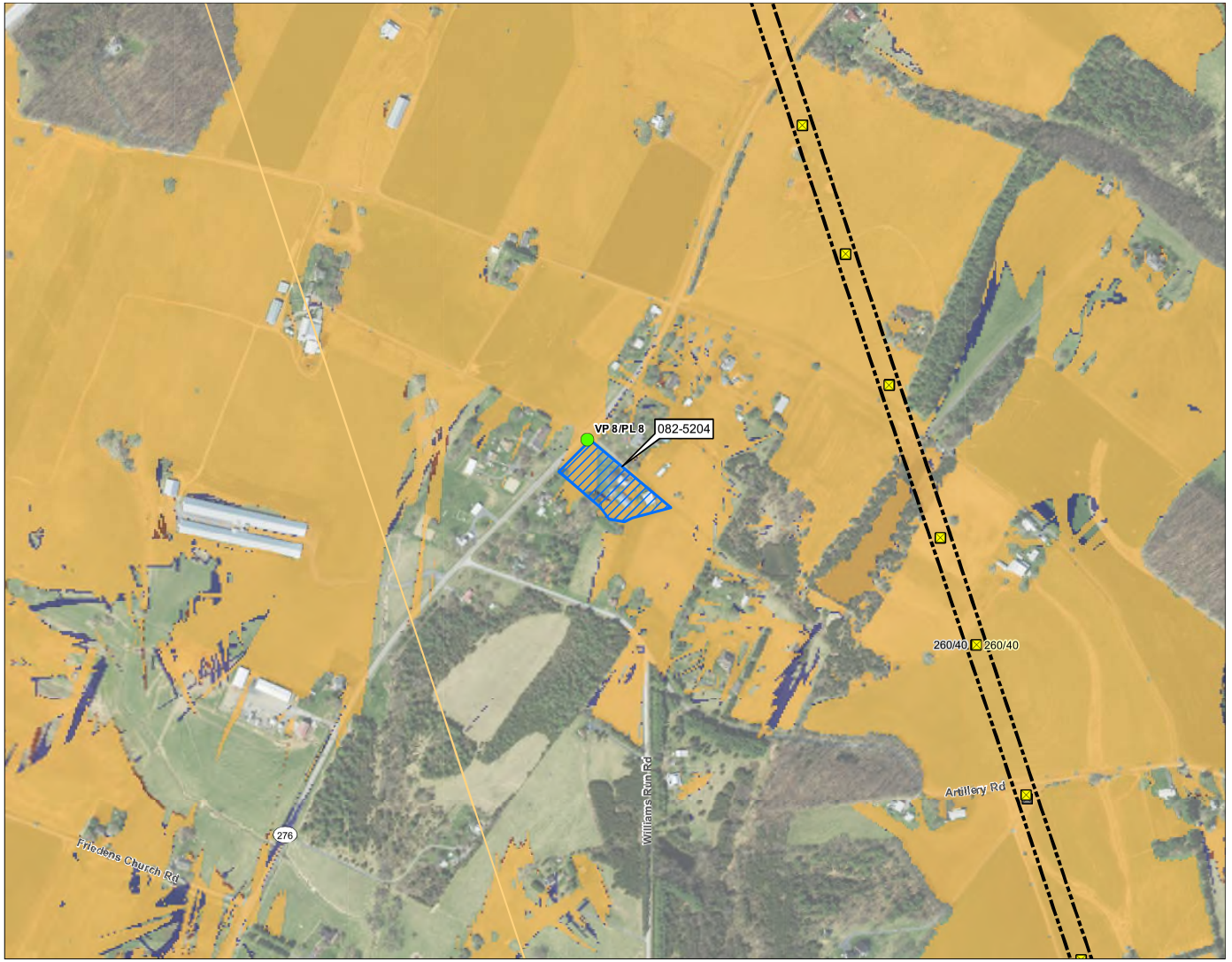


Figure No.
27

Title
Viewshed Analysis and Photo Location Map for German Reformed Church Parsonage (DHR #082-5204)

Client/Project
203401846
Dominion Energy Virginia
Dooms-Harrisonburg 230 KV Line #272 and #260 Rebuild Project

Project Location
Augusta and Rockingham Counties and the Town of Grottoes Virginia

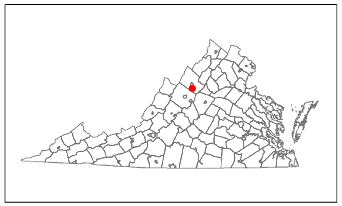
Prepared by JBB on 2024-03-25
TR by MGS on 2024-04-15
IR by EMB on 2024-04-11

N

0 500 1,000 Feet

(At original document size of 11x17)
1:6,000

- Viewpoint/Photo Location
- Proposed Structure
- Existing Structure
- Project Area
- 0.5-Mile Buffer
- Architectural Resource
- Existing Visible, Proposed Not Visible
- Both Existing and Proposed Visible
- Existing Not Visible, Proposed Visible



Notes
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, U.S. Census Bureau, Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS), VGIN, U.S. National Park Service, American Battlefield Protection Program; U.S. National Park Service, Cultural Resources Geographic Information System Facility
3. Orthoimagery © Virginia Geographic Information Network (VGIN)
4. view shed analysis produced from digital elevation model and digital surface model derived from VGIN LiDAR

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3.2.9 Argubright Barn (DHR #115-5055)

The Argubright Barn (DHR #115-5055) has been demolished, therefore no visual effects evaluation was conducted.

3.2.10 Steven Hainsberger House (DHR #228-5022)

The Steven Hainsberger House, built around 1856, is an Octagon house constructed of brick that was parged in stucco around 1916. The raised basement is also parged in stucco and features an exterior basement level entrance. The dwelling features a flat roof and a bracketed molded cornice with frieze. Two interior chimneys are visible above the roof line. Fenestration comprises four-over-four wood sash windows arranged in pairs with wood trim. The main entrance door is framed by sidelights and a transom and is sheltered underneath a flat-roofed porch with stone foundation, square columns, and Greek Revival-style dentils. Above the main door, on the second story, is a door flanked by sidelights (Figure 28). In the 1890s, a frame kitchen ell with side porches was added to the rear of the main octagonal block. According to the previous survey, a circa 1870 barn is also located on the property. The Steven Hainsberger House was listed in the NRHP in 1982 under Criterion C as a locally significant example of octagonal architecture (DHR Site File; VHLC 1981).

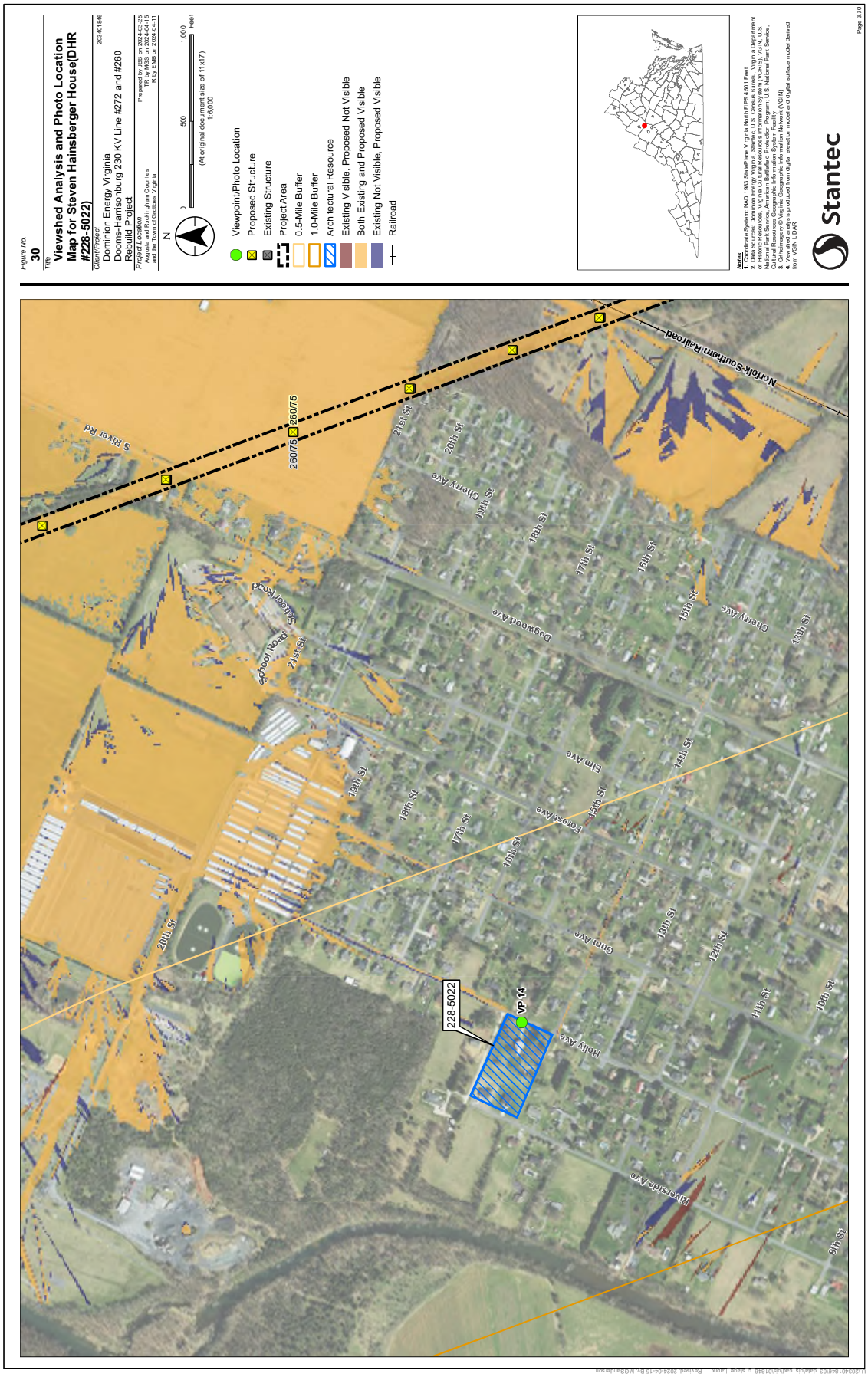
3.2.10.1 Visual Effects

The Steven Hainsberger Octagon House is located at the intersection of 14th Street and Holly Avenue in the Town of Grottoes west of and within 1.0 mile of the Rebuild Project (Appendix B). The house sits back from the road on a level lot surrounded by a lawn dotted with small trees. Several larger trees are located along the northeastern and southwestern property boundary.

The Steven Hainsberger Octagon House is approximately 3,580 feet west/southwest of the nearest point of the existing Line #260 transmission line corridor (Appendix B). The site visit indicates that, under current conditions, there is no visibility of the existing transmission line structures (Figures 29 and 30). Visual modeling for the Rebuild Project confirms that there is no visibility of the current transmission line structures and that, based on the preliminary design, there would be no visibility of the proposed Line #260 replacement structures (Figure 30; Appendix C; VP 14). ***It is therefore anticipated that the proposed Rebuild Project would have No Visual Impact on the Steven Hainsberger Octagon House (DHR #228-5022).***

Figure 28 View of the Steven Hainsberger Octagon House (DHR #228-5022), Looking West.

Figure 29 View from the Steven Hainsberger Octagon House (DHR #228-5022; VP14) Looking Northeast. Existing Transmission is Not Visible.



3.3 HISTORIC DISTRICTS CONSIDERED

One NRHP-listed historic district, the Port Republic Historic District (DHR #-82-0123), is located within 1.0 mile of the Rebuild Project's centerline and was therefore considered for visual effects per DHR guidelines. The resource is further described below along with a discussion and recommendation of potential effects as a result of the project.

3.3.1 Port Republic Historic District (DHR #082-0123)

The Port Republic Historic District includes 73 acres within the small village of Port Republic at the point where the North and South rivers converge into the Shenandoah River. The district comprises portions of Main and Water streets as well as several side streets, and includes approximately 50 buildings, a majority of which were built between 1803 and World War I (Figure 31). The town exhibits representative styles from three main periods, the late eighteenth to early nineteenth century during the town's original layout, the second half of the nineteenth century, and the first quarter of the twentieth century. The historic district was listed in the NRHP in 1980 for its significance in commerce, community planning, and industry as well as for its architectural merit (DHR Site File; VHLC 1979).

Figure 31 Port Republic Historic District (DHR #082-0123) Looking Southwest.

3.3.1.1 Visual Effects

The Port Republic Historic District comprises 73 acres of relatively level landscape with lots of varying size within a mainly gridded street layout. The lots feature manicured lawns dotted with large trees, and in some cases, small, wooded areas behind the buildings. Trees also line several of the streets. As the district becomes more rural heading to the southwest, the landscape transitions to gently rolling fields (Appendix B).

STAGE I PRE-APPLICATION ANALYSIS RESULTS

The Port Republic Historic District is located east of and within 1.0 mile of the existing Line #260 transmission line and Rebuild Project centerline. At its closest point, the western boundary of the historic district is approximately 704 feet northeast from the transmission line centerline (Appendix B). As indicated during the site visit, and under current conditions, the existing structures nearest to the historic district from Structure #260/66 to Structure #260/71, are visible from only the westernmost portion of the district west from Route 1607. The eastern portions of the district, east of Route 1607 and along Main and Water streets do not view the existing transmission line corridor.

The existing structures in proximity to the historic district range in height from 56 to 76 feet (Appendix A) and were visible from Viewpoint 12 (Figure 32; Appendix C, VP 12) and also from Photo Location 26 (Figure 33). Field photographs captured from Photo Locations 19 and 24 documented that the existing transmission line structures were not visible from these locations (Figure 34 and 35).

Based upon preliminary design, the proposed replacement structures associated with Line #260 and in proximity to the historic district will have heights ranging from approximately 65 to 92.5 feet with a maximum increase of 17 feet (Structure #260/70) above the height of the existing structures. On average, the change in height from existing to proposed structures is approximately 10 feet. Viewshed modeling and visual simulations conducted for the Rebuild Project indicate that proposed structures Structure #260/66 to Structure #260/70, will be visible from the westernmost section of the historic district (Figure 36; Appendix C, VP 12). Generally, the change in height of the structures nearest the historic district boundary will not significantly alter or change the viewshed associated with the transmission line over what is currently present. While most structures will be only slightly taller than the existing, there will be a change in structure type and material from the current wood H-frame style structure to weathering steel H-frame structures. This change, however, would not likely constitute a significant visual change over what is currently present in the vicinity of the historic district. The district is considered eligible under Criterion C for its architecture, but also for its significance in community development and commerce. It is unlikely that the proposed Rebuild Project would diminish these characteristics to a point that the district could no longer convey its eligibility.

Based on the fieldwork, the visual modeling, and a review of the Rebuild Project activities, ***it is anticipated that the Rebuild Project would have a Minimal Visual Impact on the Port Republic Historic District (DHR #082-0123).***

Figure 32 View from Port Republic Historic District (DHR #082-0123) and Port Republic Battlefield (DHR #082-5430; VP 12) Looking Southwest. The Existing Transmission Line is Visible.

Figure 33 View from Port Republic Historic District (DHR #082-0123) and Port Republic Battlefield (DHR #082-5430; Photo Location 26) Looking Southwest. The Existing Transmission Line is Visible.

Figure 34 View from Port Republic Historic District (DHR #082-0123) and Port Republic Battlefield (DHR #082-5430; Photo Location 19) Looking West. The Existing Transmission Line is Not Visible.

Figure 35 View from Port Republic Historic District (DHR #082-0123) and Port Republic Battlefield (DHR #082-5430; Photo Location 24) Looking Southwest. The Existing Transmission Line is Not Visible.

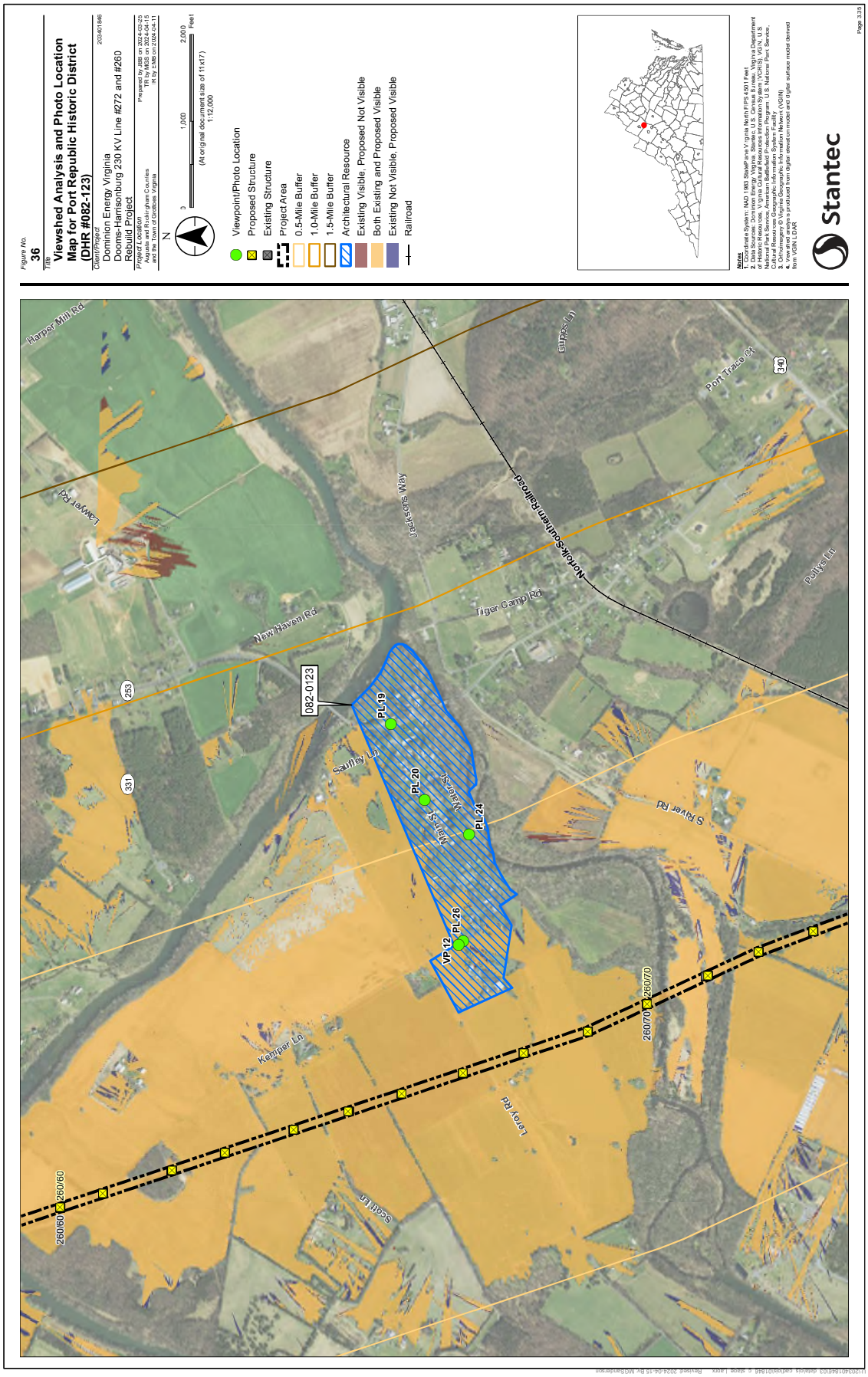


Figure No.
36
Title
Viewshed Analysis and Photo Location Map for Port Republic Historic District (DHR #082-123)
Client/Project
Dominion Energy Virginia
Dooms-Harrisonburg 230 KV Line #272 and #260 Rebuild Project
Project Location
Augusta and Rockingham Counties and the Town of Grottoes, Virginia
Prepared by JBB on 2024-03-25
TR by MDS on 2024-04-15
IR by MDS on 2024-04-17
N
0
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(At original document size of 11x17)
1:12,000
Viewpoint/Photo Location
Proposed Structure
Existing Structure
Project Area
0.5-Mile Buffer
1.0-Mile Buffer
1.5-Mile Buffer
Architectural Resource
Existing Visible, Proposed Not Visible
Both Existing and Proposed Visible
Existing Not Visible, Proposed Visible
Railroad
Notes
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
2. Data Sources: Dominion Energy Virginia; Stantec; U.S. Census Bureau; Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS), VGIN, U.S. National Park Service, National Register of Historic Places Program; U.S. National Park Service, Cultural Resources Geographic Information System Facility
3. Orthoimagery © Virginia Geographic Information Network (VGIN)
4. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LiDAR
Stantec
Page 3.35
Harper Mill Rd
Lawyer Rd
New Haven Rd
Jacksons Way
Tiger Camp Rd
Norfolk Southern Railroad
Cliffs Ln
Port Trace Ct
Polly Ln
S River Rd
Saufley Ln
Kepper Ln
Leroy Rd
Scott Ln
253
331
340
082-0123
PL19
PL20
PL24
PL26
VP 12
260/60
260/70
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3.4 BATTLEFIELD RESOURCES CONSIDERED

Portions of two battlefields, the Cross Keys Battlefield (DHR #082-0376) and the Port Republic Battlefield (DHR #082-5430), are crossed by the proposed Rebuild Project and located within 1.0 mile of the Rebuild Project centerline (Table 3). The resources are further described below along with a discussion and recommendation of potential effects as a result of the project.

Table 3 Battlefield Resources Considered within the Stage I Pre-Application Process

DHR #	Resource Name	Total Acreage of ABPP-Defined Battlefield	Acreage of ABPP-Defined Study Area within 1.0-Mile	Acreage of Core Area within 1.0 Mile	Acreage of PotNR Area within 1.0 Mile
082-0376	Cross Keys Battlefield	4,497.36	2,535.10	1,013.69	2505.94
082-5430	Port Republic Battlefield	5,444.85	892.55	257.96	873.56

For the assessment of battlefield resources, Stantec took into consideration the guidance and recommendations of the American Battlefield Protection Program's (ABPP's) 2009 assessment of Virginia's Civil War period resources and subsequent updates. In 2009, the ABPP revised the 1992 Civil War Sites Advisory Commission (CWSAC) boundaries for Virginia, and many of the battlefields were greatly expanded in size. For each battlefield, the ABPP defined Study Areas and Core Areas. The larger Study Area contains all resources known to relate to or contribute to the battlefield event, such as where troops maneuvered and deployed, immediately before or after combat, and where they fought during combat. Within the Study Area are Core Areas, which denote the actual fighting areas located within the larger battlefield. In addition, the ABPP defined Potential National Register (PotNR) boundaries for each battlefield. The PotNR boundary represents the ABPP's assessment of a Study Area's current integrity. The PotNR area may include all or some of the Study Area, or all or some of the Core Area, associated with a battlefield engagement. The PotNR boundary does not constitute a formal determination of eligibility by the Keeper of the NRHP; however, it is a recommendation of potential eligibility.

3.4.1 Cross Keys Battlefield (DHR #082-0376)

The Battle of Cross Keys took place on June 7, 1862, with 5,800 Confederate forces commanded by Major General Richard Ewell and Major General Thomas "Stonewall" Jackson against Union troops under Major Generals John Fremont and Nathaniel Banks and Brigadier General James Shields. In analyzing the prior movements of Major General Jackson, Lincoln's administration anticipated that Jackson was planning to attack either Harper's Ferry or Washington D.C., or nearby areas in Maryland. The Union Army, comprised of three separate units, were sent to the lower Shenandoah Valley in an attempt to isolate and destroy Jackson's army. The Union Forces emerged from the Luray Valley at Cross Keys and attacked the Confederates at Cross Keys. The Confederate counterattack forced the Federals to retreat to Keezletown Road and reposition their artillery along Oak Ridge. The Confederate victory under Ewell at Cross Keys helped establish the important victory the next day at Port Republic, which allowed Jackson's army to leave the Valley and meet up with General Robert E. Lee for his offense against the

Union Army in Richmond. During the battle, there were 664 Federal casualties and 287 Confederate casualties. In 2004, DHR determined the battlefield eligible for listing on the NRHP under Criterion A for its significance as a Civil War battle site and under Criterion D for its archaeological potential (DHR Site File).

The ABPP has designated approximately 4,497 acres of Study Area for the Cross Keys Battlefield (DHR Site Files; ABPP 2009). Of the 4,497 acres, 2,535 acres are located within 1.0 mile of the Rebuild Project and includes approximately 1,014 acres of the battlefield's Core Area. The entire battlefield Study Area has been identified as PotNR, with approximately 2,506 acres within the 1.0-mile radius utilized for the Stage I analysis. This battlefield overlaps with portions of the following battlefields and historic districts:

- Port Republic Battlefield (DHR #082-5430)
- Port Republic Historic District (DHR #-82-0123)

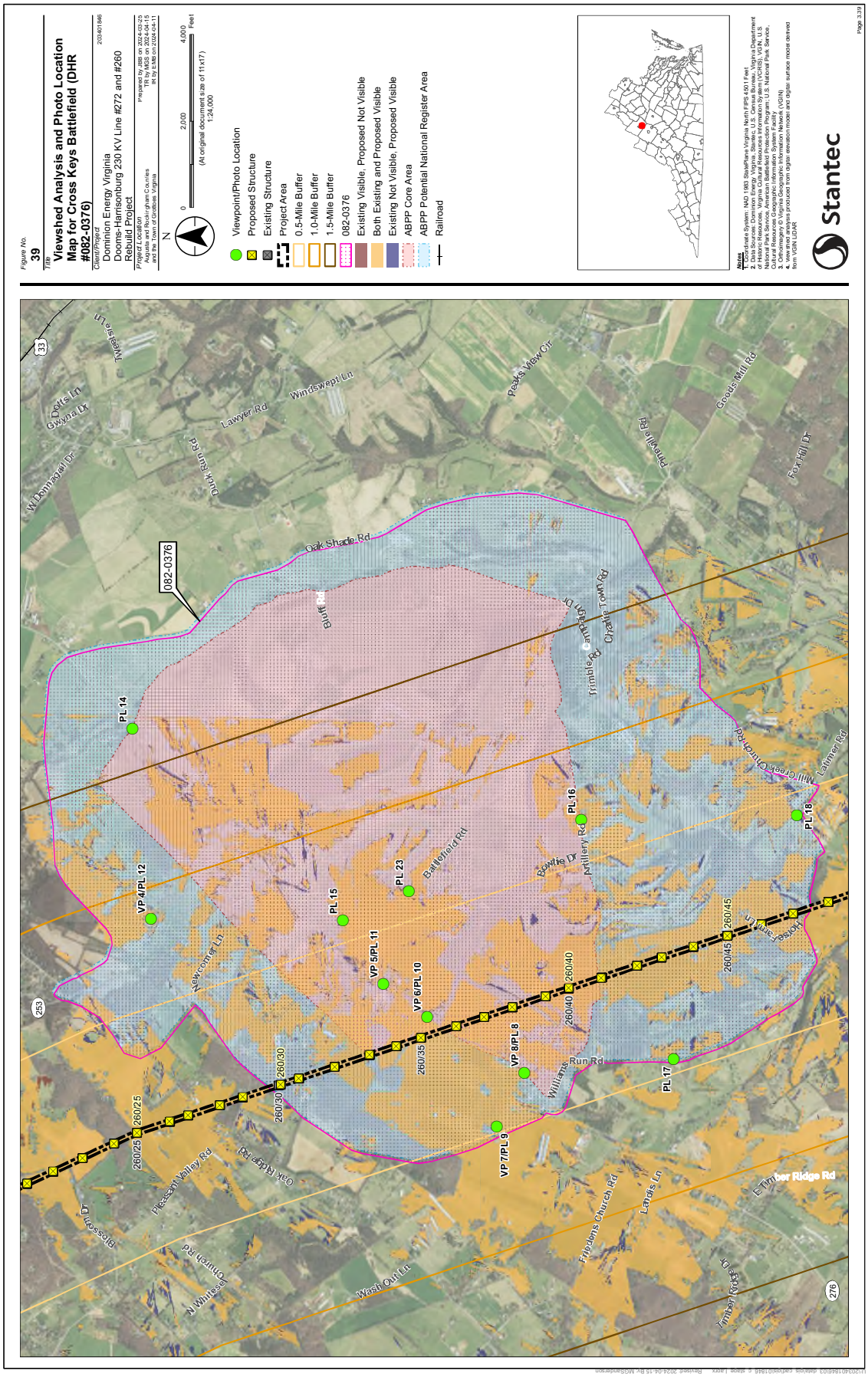
3.4.1.1 Visual Effects

The landscape within the battlefield remains rural with some sparse late nineteenth through late twentieth century residences and comprises open, level and gently rolling fields as well as wooded areas and tree lines. The Cross Keys Battlefield is crossed by the existing Line #260 transmission line corridor and the Rebuild Project centerline on its western side (Appendix B). Approximately 17 existing structures (Structure #260/30 through #260/46) are located within the battlefield boundary. Approximately nine structures are within the Core area as defined by the ABPP. The existing structures within the battlefield boundary comprise both wood and weathering steel H-frame structures and structures within view of the battlefield resource (Structure #260/24 through #260/51) are also a combination of structure materials. These existing structures have heights ranging from approximately 47 to 81 feet and have varying levels of visibility from within the battlefield boundary (Figures 6, 7, 10, 11, 17, 20, 26, 37, and 38).

Based upon preliminary design, the proposed replacement structures in the section of the transmission line closest to and within the battlefield will have heights ranging from approximately 65 to 97 feet with a maximum increase of 28 feet (Structure #260/30) above the height of the existing structures. The overall average change in height from existing to proposed structures throughout the battlefield is approximately 12 feet. Viewshed modeling and visual simulations prepared for the Rebuild Project indicate that proposed Structures #260/30 to Structure #260/46 will have varying levels of visibility within the transmission line corridor and in those portions of the battlefield closest to the transmission line (Figure 39; Appendix C). There are few areas within the overall battlefield boundary that would view the proposed transmission structures and not the existing, suggesting that the overall change in the viewshed would be minimal. Although the Rebuild Project, and the existing transmission line corridor, cross through PotNR and Core battlefield areas, the size of these areas is small as compared to the large size of the overall battlefield. While most structures will be only slightly taller than the existing, there will be a change in structure material type for the structures that are currently wood H-frames to weathering steel H-frame structures. In addition, the change in height of the structures will not significantly alter or change the viewshed associated with the transmission line over what is currently present. Because of limited visual impacts when considering the overall battlefield boundary, it is anticipated that the ***proposed Rebuild Project would have a Minimal Visual Impact on the Cross Keys Battlefield (DHR #082-0376).***

Figure 37 View from the Cross Keys Battlefield (DHR #082-0376; PL 23) Looking West. The Existing Transmission Line is Not Visible.

Figure 38 View from the Cross Keys Battlefield (DHR #082-0376; PL 15) Looking Southwest. The Existing Transmission Line is Not Visible.



3.4.2 Port Republic Battlefield (DHR #082-5430)

The Battle of Port Republic took place on June 9, 1962, with 6,000 Confederate forces under the command of General Thomas J. Jackson and 3,500 Union troops under Brigadier General Erastus Tyler. During the battle, the Confederates concentrated their forces east of the South Fork of the Shenandoah River against the isolated brigades of Union soldiers. Although the Confederate assaults across the bottomland were repulsed with heavy casualties, the Confederate flanking column turned the Union left flank at Coaling, which forced the Union brigades to retreat. The Confederates defeated the Union forces, while Jackson retained control of the upper and middle Shenandoah Valley, allowing him to reinforce General Lee. The casualties during the battle totaled 816 for the Confederates and 1,002 for the Union Army. In 2007, DHR determined the Port Republic Battlefield as potentially eligible under Criterion A (DHR Site File).

The ABPP has designated approximately 5,445 acres of Study Area for the Port Republic Battlefield (DHR Site Files; ABPP 2009). Of the 5,445 acres, approximately 893 acres are located within 1.0 mile of the Rebuild Project and includes 258 acres of the battlefield's Core Area. Approximately 5,391 acres of the battlefield Study Area has been identified as PotNR, with 874 acres within the 1.0-mile radius utilized for the Stage I analysis. This battlefield overlaps with portions of the following battlefields and historic districts:

- Cross Keys Battlefield (DHR #082-0376)
- Port Republic Historic District (DHR #-82-0123)

3.4.2.1 Visual Effects

The landscape within the battlefield remains rural with the exception of the town of Port Republic and a developed area to the southeast along Port Republic Road and comprises open, level and gently rolling fields as well as wooded areas and tree lines.

A very small portion of The Port Republic Battlefield is crossed by the existing Line #260 transmission line corridor and the Rebuild Project centerline on its western side (Appendix B). A larger portion of the battlefield (see Table 3) is located within 1.0-mile and east of the existing transmission line corridor and Rebuild Project. Three existing structures (Structure #260/68 through #260/70) are located within the battlefield Study Area boundary. The existing structures within the battlefield boundary comprise wood H-frame structures and structures within view of the battlefield resource (Structure #260/59 through #260/78) are also a combination of structure materials. These existing structures have heights ranging from approximately 50 to 79 feet and have varying levels of visibility from within the battlefield boundary were not visible from the battlefield (Figures 32-35; 40-41 ; Appendix C, VP 11 and 12)

Based upon preliminary design, the proposed replacement structures in the section of the transmission line closest to the resource will have heights ranging from approximately 65 to 92.5 feet with a maximum increase of 19 feet (Structure #260/64) above the height of the existing structures. The average overall change in height from existing to proposed structures is approximately 9 feet. Viewshed modeling and visual simulations prepared for the Rebuild Project indicate that proposed Structures #260/68 to Structure #260/70 will have varying levels of visibility within the transmission line corridor and in those portions of

the battlefield closest to the transmission line (Figure 42; Appendix C). There are few areas within the overall battlefield boundary that would view the proposed transmission structures and not the existing, suggesting that the overall change in the viewshed would be minimal. The large majority of the battlefield does not view the existing transmission line and would not view the Rebuild Project. Although the Rebuild Project, and the existing transmission line corridor are in close proximity to both PotNR and Core battlefield areas, the line itself is outside of the boundary. The visual impact to these areas is illustrated in Appendix C and Figure 42. Generally, it appears that the change in height of the structures will not significantly alter or change the viewshed associated with the transmission line over what is currently present. While most structures will be only slightly taller than the existing (Appendix A), there will be a change in structure material type for the structures that are currently wood H-frames to weathering steel H-frame structures. This change, however, would not likely constitute a significant visual change over what is currently present within the battlefield. Because of limited visual impacts when considering the overall battlefield boundary, ***it is anticipated that the proposed Rebuild Project would have a Minimal Visual Impact on the on the Port Republic Battlefield (DHR #082-5430).***

Figure 40 View from the Port Republic Battlefield (DHR #082-5430; PL 21) Looking Southwest. The Existing Transmission Line is Visible.

Figure 41 View from the Port Republic Battlefield (DHR #082-5430; PL 22) Looking Southwest. The Existing Transmission Line is Not Visible.

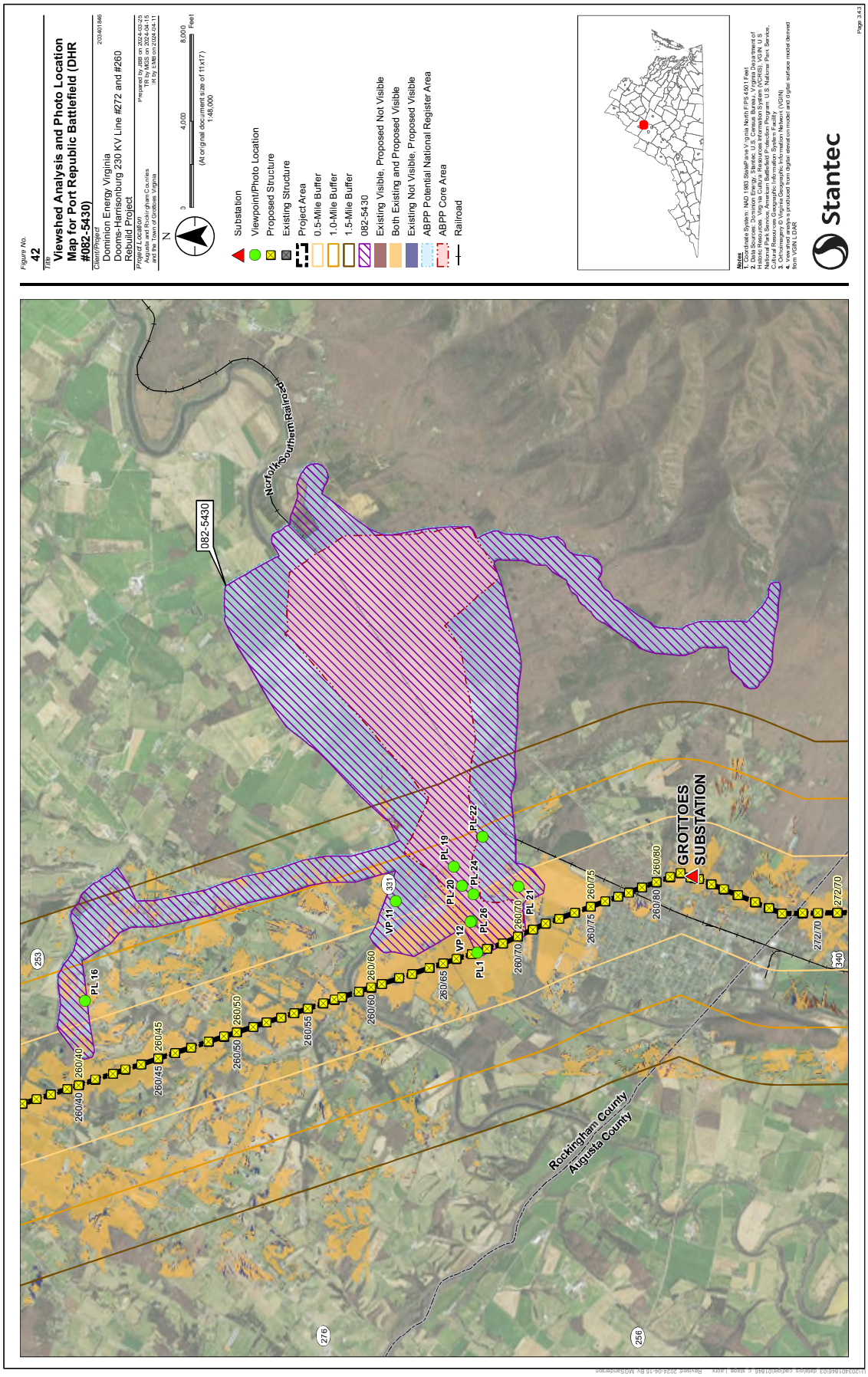


Figure No.
42
Title
Viewshed Analysis and Photo Location Map for Port Republic Battlefield (DHR #082-5430)
Client/Project
Dominion Energy Virginia
Dooms-Harrisonburg 230 KV Line #272 and #260 Rebuild Project
Project Location
Augusta and Rockingham Counties and the Town of Grottoes, Virginia
Prepared by JBB on 2024-03-25
TR by MDS on 2024-04-15
IR by KMH on 2024-04-17
N
0
4,000
8,000
Feet
(At original document size of 11x17)
1:48,000
Substation
Viewpoint/Photo Location
Proposed Structure
Existing Structure
Project Area
0.5-Mile Buffer
1.0-Mile Buffer
1.5-Mile Buffer
082-5430
Existing Visible, Proposed Not Visible
Both Existing and Proposed Visible
Existing Not Visible, Proposed Visible
ABPP Potential National Register Area
ABPP Core Area
Railroad
Notes
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
2. Data Sources: Dominion Energy; Stantec; U.S. Census Bureau; Virginia Department of Historic Resources; Virginia Cultural Resources Information System (VCRIS); VGIN; U.S National Park Service; Civil War Sites from the Battlefield Protection Program U.S. National Park Service; Cultural Resources Geographic Information System Facility
3. Orthoimagery © Virginia Geographic Information Network (VGIN)
4. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LiDAR
Stantec
Page 3 of 3
Norfolk Southern Railroad
082-5430
PL 16
PL 19
PL 20
PL 22
PL 24
PL 26
PL 1
PL 21
VP 11
VP 12
331
253
276
256
340
260/40
260/45
260/50
260/55
260/60
260/65
260/70
260/75
260/80
272/70
GROTTOES SUBSTATION
Rockingham County
Augusta County

4.0 CONCLUSIONS

Stantec was retained by Dominion Energy to conduct a Stage I Pre-Application Analysis for the proposed partial rebuild of transmission lines between the Dooms Substation in Augusta County and the Harrisonburg substation in Rockingham County, Virginia. Dominion Energy, in order to maintain the structural integrity and reliability of its transmission system to comply with mandatory NERC Reliability Standards, proposes to:

(i) Rebuild, entirely within existing ROW or on Company-owned property, approximately 10.6 miles of the existing 230 kV Line #260 on single circuit wooden H-frame structures with weathering steel H-frame structures;

(ii) Rebuild, entirely within existing ROW or on Company-owned property, approximately 11.5 miles of the existing 230 kV Line #272 on single circuit COR-TEN® lattice towers with weathering steel monopole structures.

The Dooms-Harrisonburg 230 kV Lines #260 and #272 Rebuild Project will replace aging infrastructure that is approaching the end of its service life in order to comply with the Company's mandatory Planning Criteria, thereby enabling the Company to maintain the overall long-term reliability of its transmission system. The total length of the existing ROW easements and Company-owned property to be used for the Rebuild Project is approximately 22.1 miles. Because the existing ROW is adequate to construct the proposed Rebuild Project, no new rights-of-way are necessary

All proposed structure heights and locations provided in this report are based upon preliminary engineering and are subject to final design. Based on this information, the proposed average structure height increase is 6.5 feet with the maximum structure height increase of 39.5 feet. However, there are structures being built in locations where there are no existing structures and the maximum increase in those locations is 75.98 feet. Forty-two structures will decrease in height.

Background research for the Stage I Pre-Application Analysis was conducted in September 2023 and again in March 2024 by Stantec staff. The preliminary background research and the field study was conducted pursuant to the *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* (DHR 2008) for proposed transmission line improvements. The research identified 13 previously recorded architectural resources for inclusion in the Stage I analysis. No previously recorded archaeological resources were located within the existing ROW.

4.1 RECOMMENDATIONS – ARCHITECTURAL RESOURCES

No NHL-listed architectural resources are located within the 1.5-mile buffer for the Rebuild Project. Four NRHP-listed resources were identified within 1.0 mile of the transmission line centerline and are the Crimora Elementary School (DHR #007-0964), the Port Republic Historic District (DHR #082-0123), the Kyle's Mill House (DHR #082-5075), and the Steven Hainsberger House (DHR #228-5022). Eight NRHP-

eligible resources were identified within 0.5 mile of the Rebuild Project and include the Dr. Joseph B. Webb House (DHR #082-0368), William VanLear Farm/Kiblinger House (DHR #082-0369), Cross Keys Battlefield (DHR #082-0376), William Saufley Farm (DHR #082-0401), Peter Heil House/Springdale Farm (DHR #082-5096), Dundore House (DHR #082-5156), the German Reformed Church Parsonage (DHR # 082-5204), and the Argubright Barn (DHR #115-5055; now demolished). Additionally, the potentially NRHP-eligible Port Republic Battlefield (DHR #082-5430) was identified for consideration for visual effects.

All proposed structure heights and locations provided in this report are based upon preliminary engineering and are subject to final design. Based on this information, the proposed average structure height increase is 6.5 feet with the maximum structure height increase of 39.5 feet. However, there are structures being built in locations where there are no existing structures and the maximum increase in those locations is 75.98 feet. Forty-two structures will decrease in height.

Based on preliminary engineering, the results of the fieldwork and visual modeling, it is recommended that there would be No Visual Effect to the Crimora Elementary School (DHR #007-0964), the Steven Hainsberger Octagon House (DHR #228-5022), and Kyle's Mill House (DHR #082-5075) . It is further recommended that there would be a Minimal Visual Effect to the Port Republic Historic District (DHR #082-0123), the, Dr. Joseph B. Webb House (DHR #082-0368), William VanLear Farm/Kiblinger House (DHR #082-0369), Cross Keys Battlefield (DHR #082-0376), William Saufley Farm (DHR #082-0401), Peter Heil House/Springdale Farm (DHR #082-5096), German Reformed Church Parsonage (DHR #082-5204), and Dundore House (DHR #082-5156). It is also recommended that there would be a Minimal Visual Impact to the potentially NRHP-eligible Port Republic Battlefield (DHR #082-5430). The Argubright Barn is demolished and was not considered for visual impacts. The following table details the potential impacts to historic resources for the Rebuild Project.

Table 4 Previously Recorded Architectural Resources Considered under the Stage I Pre-Application Guidelines

DHR #	Resource Name	NRHP Status	Distance to Closest Structure (Feet)	Closest Existing Structure(s)	Impact
007-0964	Crimora Elementary School, Route 612	NRHP-Listed	5,175	272/29	None
082-0123	Port Republic Historic District	NRHP-Listed	704	260/67	Minimal
082-0368	Dr. Joseph B. Webb House, 3327 Cross Keys Road	NRHP-Eligible	1,217	260/35	Minimal
082-0369	William VanLear Farm/Kiblinger House, 3591 Cross Keys Road	NRHP-Eligible	311	260/36	Minimal
082-0376	Cross Keys Battlefield	NRHP-Eligible	0	260/30*	Minimal
082-0401	William Saufley Farm, 7358 Shady Grove Road	NRHP-Eligible	0	260/55	Minimal

CONCLUSIONS

DHR #	Resource Name	NRHP Status	Distance to Closest Structure (Feet)	Closest Existing Structure(s)	Impact
082-5075	Kyle's Mill House, 1764 Cross Keys Road	NRHP-Listed	4,096	260/27	None
082-5096	Peter Heil House/ Springdale Farm, 4090 Cross Keys Road	NRHP-Eligible	2,346	260/36	Minimal
082-5156	Dundore House, 1582 Ridgedale Road	NRHP-Eligible	171	260/6	Minimal
082-5204	German Reformed Church Parsonage, 4067 Cross Keys Road	NRHP-Eligible	1,252	260/38	Minimal
082-5430	Port Republic Battlefield	NRHP Potentially Eligible	0	260/68**	Minimal
115-5055	Argubright Barn (demolished), 740 Stone Spring Road	NRHP-Eligible	N/A	N/A	N/A
228-5022	Steven Hainsberger House, Holly Avenue	NRHP-Listed	3,580	260/75	None

4.2 RECOMMENDATIONS – ARCHAEOLOGICAL RESOURCES

No previously recorded archaeological resources were identified within the Rebuild Project ROW. Per the DHR's guidelines, Stage II archaeological survey is recommended for the Rebuild Project.

5.0 REFERENCES

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2017 *Guidelines for Conducting Historic Resource Survey in Virginia*. DHR, Richmond.

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APPENDIX A EXISTING AND PROPOSED STRUCTURE HEIGHTS AND STRUCTURE DETAILS

A.1 EXISTING AND PROPOSED STRUCTURE HEIGHTS

Existing Structure #	Existing Pole Material/Structure Type	Existing Structure Height (ft)	Proposed Pole Material/Structure Type	Proposed Structure Height (ft)	Height Change (ft)
260/1A	GALVANIZED STEEL	75	GALVANIZED STEEL	75	0
260/1B	GALVANIZED STEEL	100	GALVANIZED STEEL	100	0
260/1	WEATHERING STEEL H-FRAME	60	WEATHERING STEEL H-FRAME	64.83	4.83
260/2	WOOD H-FRAME	54.362	WEATHERING STEEL H-FRAME	61	6.638
260/3	WEATHERING STEEL H-FRAME	69.521	WEATHERING STEEL H-FRAME	74.5	4.979
260/4	WOOD H-FRAME	78.12	WEATHERING STEEL H-FRAME	89.45	11.33
260/5	WOOD/WEATHERING STEEL H-FRAME	65.223	WEATHERING STEEL H-FRAME	70	4.777
260/6	WOOD H-FRAME	60.696	WEATHERING STEEL H-FRAME	65.5	4.804
260/7	WOOD H-FRAME	57.472	WEATHERING STEEL H-FRAME	97	39.528
260/8	WEATHERING STEEL H-FRAME	55.552	WEATHERING STEEL H-FRAME	70	14.448
260/9	WEATHERING STEEL H-FRAME	70	WEATHERING STEEL H-FRAME	70	0
260/10	WOOD H-FRAME	64.402	WEATHERING STEEL H-FRAME	70	5.598
260/11	WEATHERING STEEL H-FRAME	56.299	WEATHERING STEEL H-FRAME	70	13.701
260/12	WEATHERING STEEL H-FRAME	59.679	WEATHERING STEEL H-FRAME	65.5	5.821
260/13	WOOD H-FRAME	72.574	WEATHERING STEEL H-FRAME	79	6.426
260/14	WOOD H-FRAME	78.764	WEATHERING STEEL H-FRAME	90	11.236
260/15	WOOD H-FRAME	56.143	WEATHERING STEEL H-FRAME	83.5	27.357
260/16	WOOD H-FRAME	64.993	WEATHERING STEEL H-FRAME	74.5	9.507
260/17	WEATHERING STEEL H-FRAME	72	WEATHERING STEEL H-FRAME	74.5	2.5
260/18	WEATHERING STEEL H-FRAME	62	WEATHERING STEEL H-FRAME	65.5	3.5
260/19	WOOD H-FRAME	50.022	WEATHERING STEEL H-FRAME	65.5	15.478
260/20	WOOD H-FRAME	78.576	WEATHERING STEEL H-FRAME	97	18.424
260/21	WOOD H-FRAME	72.9	WEATHERING STEEL H-FRAME	65.5	-7.4
260/22	WOOD H-FRAME	77.692	WEATHERING STEEL H-FRAME	83.5	5.808
260/23	WOOD H-FRAME	77.039	WEATHERING STEEL H-FRAME	83.5	6.461

STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA 230 KV LINES #272 AND #260 TRANSMISSION LINE REBUILDS, AUGUSTA AND ROCKINGHAM COUNTIES AND THE TOWN OF GROTTOES, VIRGINIA

Existing Structure #	Existing Pole Material/Structure Type	Existing Structure Height (ft)	Proposed Pole Material/Structure Type	Proposed Structure Height (ft)	Height Change (ft)
260/24	WOOD H-FRAME	74.612	WEATHERING STEEL H-FRAME	79	4.388
260/25	WOOD H-FRAME	55.873	WEATHERING STEEL H-FRAME	66.5	10.627
260/26	WOOD H-FRAME	47.233	WEATHERING STEEL H-FRAME	60.15	12.917
260/27	WOOD H-FRAME	69.915	WEATHERING STEEL H-FRAME	97	27.085
260/28	WOOD H-FRAME	69.227	WEATHERING STEEL H-FRAME	74.5	5.273
260/29	WEATHERING STEEL H-FRAME	66.663	WEATHERING STEEL H-FRAME	92.5	25.837
260/30	WEATHERING STEEL H-FRAME	68.701	WEATHERING STEEL H-FRAME	97	28.299
260/31	WEATHERING STEEL H-FRAME	81	WEATHERING STEEL H-FRAME	74.5	-6.5
260/32	WEATHERING STEEL H-FRAME	64.99	WEATHERING STEEL H-FRAME	88	23.01
260/33	WEATHERING STEEL H-FRAME	65.447	WEATHERING STEEL H-FRAME	65.5	0.053
260/34	WEATHERING STEEL H-FRAME	74	WEATHERING STEEL H-FRAME	79	5
260/35	WEATHERING STEEL H-FRAME	64.202	WEATHERING STEEL H-FRAME	79	14.798
260/36	WOOD H-FRAME	64.765	WEATHERING STEEL H-FRAME	74.5	9.735
260/37	WOOD H-FRAME	64.834	WEATHERING STEEL H-FRAME	70	5.166
260/38	WOOD H-FRAME	60.621	WEATHERING STEEL H-FRAME	79	18.379
260/39	WOOD H-FRAME	47.014	WEATHERING STEEL H-FRAME	70	22.986
260/40	WOOD H-FRAME	65.173	WEATHERING STEEL H-FRAME	70	4.827
260/41	WOOD H-FRAME	64.406	WEATHERING STEEL H-FRAME	80.48	16.074
260/42	WOOD H-FRAME	63.518	WEATHERING STEEL H-FRAME	70	6.482
260/43	WOOD H-FRAME	65.377	WEATHERING STEEL H-FRAME	74.5	9.123
260/44	WOOD H-FRAME	64.173	WEATHERING STEEL H-FRAME	83.5	19.327
260/45	WOOD H-FRAME	78.478	WEATHERING STEEL H-FRAME	83.5	5.022
260/46	WEATHERING STEEL H-FRAME	69.816	WEATHERING STEEL H-FRAME	79	9.184
260/47	WOOD H-FRAME	64.073	WEATHERING STEEL H-FRAME	83.5	19.427
260/48	WOOD H-FRAME	49.542	WEATHERING STEEL H-FRAME	70	20.458
260/49	WEATHERING STEEL H-FRAME	67.721	WEATHERING STEEL H-FRAME	70	2.279
260/50	WEATHERING STEEL H-FRAME	58.82	WEATHERING STEEL H-FRAME	70	11.18
260/51	WOOD H-FRAME	59.781	WEATHERING STEEL H-FRAME	70	10.219

STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA 230 KV LINES #272 AND #260 TRANSMISSION LINE REBUILDS, AUGUSTA AND ROCKINGHAM COUNTIES AND THE TOWN OF GROTTOES, VIRGINIA

Existing Structure #	Existing Pole Material/Structure Type	Existing Structure Height (ft)	Proposed Pole Material/Structure Type	Proposed Structure Height (ft)	Height Change (ft)
260/52	WOOD H-FRAME	64.272	WEATHERING STEEL H-FRAME	79	14.728
260/53	WOOD H-FRAME	64.139	WEATHERING STEEL H-FRAME	74.5	10.361
260/54	WOOD H-FRAME	63.681	WEATHERING STEEL H-FRAME	70	6.319
260/55	WOOD H-FRAME	62.621	WEATHERING STEEL H-FRAME	79	16.379
260/56	WOOD H-FRAME	67.42	WEATHERING STEEL H-FRAME	79	11.58
260/57	WOOD H-FRAME	59.553	WEATHERING STEEL H-FRAME	70	10.447
260/58	WOOD H-FRAME	54.1	WEATHERING STEEL H-FRAME	73.01	18.91
260/59	WEATHERING STEEL H-FRAME	70.814	WEATHERING STEEL H-FRAME	79	8.186
260/60	WOOD H-FRAME	57.5	WEATHERING STEEL H-FRAME	70	12.5
260/61	WEATHERING STEEL H-FRAME	50.426	WEATHERING STEEL H-FRAME	65.5	15.074
260/62	WOOD/WEATHERING STEEL H-FRAME	78.543	WEATHERING STEEL H-FRAME	88	9.457
260/63	WOOD H-FRAME	79.396	WEATHERING STEEL H-FRAME	79	-0.396
260/64	WOOD H-FRAME	64.597	WEATHERING STEEL H-FRAME	83.5	18.903
260/65	WOOD H-FRAME	60.728	WEATHERING STEEL H-FRAME	74.5	13.772
260/66	WOOD H-FRAME	65.912	WEATHERING STEEL H-FRAME	74.5	8.588
260/67	WOOD H-FRAME	69.455	WEATHERING STEEL H-FRAME	79	9.545
260/68	WOOD H-FRAME	74.219	WEATHERING STEEL H-FRAME	79	4.781
260/69	WOOD H-FRAME	55.643	WEATHERING STEEL H-FRAME	65.3	9.657
260/70	WOOD H-FRAME	75.591	WEATHERING STEEL H-FRAME	92.5	16.909
260/71	WOOD H-FRAME	70.21	WEATHERING STEEL H-FRAME	74.5	4.29
260/72	WOOD H-FRAME	56.348	WEATHERING STEEL H-FRAME	65	8.652
260/73	WOOD H-FRAME	66.324	WEATHERING STEEL H-FRAME	74.5	8.176
260/74	WOOD H-FRAME	74.738	WEATHERING STEEL H-FRAME	83.5	8.762
260/75	WOOD H-FRAME	73.431	WEATHERING STEEL H-FRAME	79	5.569
260/76	WOOD/WEATHERING STEEL H-FRAME	77.264	WEATHERING STEEL H-FRAME	74.5	-2.764
260/77	WEATHERING STEEL H-FRAME	66.086	WEATHERING STEEL H-FRAME	70	3.914

Existing Structure #	Existing Pole Material/Structure Type	Existing Structure Height (ft)	Proposed Pole Material/Structure Type	Proposed Structure Height (ft)	Height Change (ft)
260/78	WOOD/WEATHERING STEEL H-FRAME	68.37	WEATHERING STEEL H-FRAME	79	10.63
260/79	WEATHERING STEEL H-FRAME	69.816	WEATHERING STEEL H-FRAME	79	9.184
260/80	WEATHERING STEEL H-FRAME	74.282	WEATHERING STEEL H-FRAME	88	13.718
260/81	WOOD 3-POLE	68.174	WEATHERING STEEL 3-POLE	65.5	-2.674
260/82	WEATHERING STEEL 3-POLE	64.772	WEATHERING STEEL 3-POLE	75.25	10.478
260/83	CONCRETE	67	GALVANIZED STEEL	75	8
272/1	CONCRETE	69.91	GALVANIZED STEEL	75.04	5.13
272/2	WEATHERING STEEL	75.545	WEATHERING STEEL	65.32	-10.225
272/3	-	0	GALVANIZED STEEL	39.188	39.188
272/4	WEATHERING STEEL	52.53	WEATHERING STEEL	50	-2.53
272/5	WEATHERING STEEL	58.576	WEATHERING STEEL	55.28	-3.296
272/6	WEATHERING STEEL	70.007	WEATHERING STEEL	60.13	-9.877
272/7	WEATHERING STEEL	79.548	WEATHERING STEEL	70.46	-9.088
272/8	CORTEN STEEL TOWER	80.008	WEATHERING STEEL MONOPOLE	85.003	4.995
272/9	CORTEN STEEL TOWER	79.726	WEATHERING STEEL MONOPOLE	85.003	5.277
272/10	CORTEN STEEL TOWER	86.531	WEATHERING STEEL MONOPOLE	90.003	3.472
272/11	CORTEN STEEL TOWER	95.104	WEATHERING STEEL MONOPOLE	95.003	-0.101
272/12	CORTEN STEEL TOWER	51.412	WEATHERING STEEL H-FRAME	45.14	-6.272
272/12A	-	0	WEATHERING STEEL MONOPOLE	37.231	37.231
272/13	CORTEN STEEL TOWER	65.81	WEATHERING STEEL MONOPOLE	60.32	-5.49
272/14	CORTEN STEEL TOWER	100.376	WEATHERING STEEL MONOPOLE	105.003	4.627
272/15	CORTEN STEEL TOWER	89.5	WEATHERING STEEL MONOPOLE	105.003	15.503
272/16	CORTEN STEEL TOWER	79.822	WEATHERING STEEL MONOPOLE	85.003	5.181
272/17	CORTEN STEEL TOWER	90.159	WEATHERING STEEL MONOPOLE	95.003	4.844
272/18	CORTEN STEEL TOWER	100.284	WEATHERING STEEL MONOPOLE	105.003	4.719
272/19	CORTEN STEEL TOWER	89.806	WEATHERING STEEL MONOPOLE	100.003	10.197
272/20	CORTEN STEEL TOWER	90.091	WEATHERING STEEL MONOPOLE	90.003	-0.088

STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA 230 KV LINES #272 AND #260 TRANSMISSION LINE REBUILDS, AUGUSTA AND ROCKINGHAM COUNTIES AND THE TOWN OF GROTTOES, VIRGINIA

Existing Structure #	Existing Pole Material/Structure Type	Existing Structure Height (ft)	Proposed Pole Material/Structure Type	Proposed Structure Height (ft)	Height Change (ft)
272/21	CORTEN STEEL TOWER	80.51	WEATHERING STEEL MONOPOLE	85.003	4.493
272/22	CORTEN STEEL TOWER	80.474	WEATHERING STEEL MONOPOLE	85.003	4.529
272/23	CORTEN STEEL TOWER	111.504	WEATHERING STEEL MONOPOLE	105.003	-6.501
272/24	CORTEN STEEL TOWER	81.709	WEATHERING STEEL MONOPOLE	80.003	-1.706
272/25	CORTEN STEEL TOWER	80.414	WEATHERING STEEL MONOPOLE	85.003	4.589
272/26	CORTEN STEEL TOWER	80.51	WEATHERING STEEL MONOPOLE	75	-5.51
272/27	CORTEN STEEL TOWER	100.77	WEATHERING STEEL MONOPOLE	105.003	4.233
272/28	CORTEN STEEL TOWER	111.15	WEATHERING STEEL MONOPOLE	115.003	3.853
272/29	CORTEN STEEL TOWER	100.469	WEATHERING STEEL MONOPOLE	90.003	-10.466
272/30	CORTEN STEEL TOWER	100.451	WEATHERING STEEL MONOPOLE	95.003	-5.448
272/31	CORTEN STEEL TOWER	100.248	WEATHERING STEEL MONOPOLE	100.003	-0.245
272/32	CORTEN STEEL TOWER	122.243	WEATHERING STEEL MONOPOLE	100.003	-22.24
272/33	CORTEN STEEL TOWER	79.895	WEATHERING STEEL MONOPOLE	90.003	10.108
272/34	CORTEN STEEL TOWER	95.168	WEATHERING STEEL MONOPOLE	95.003	-0.165
272/35	CORTEN STEEL TOWER	81.51	WEATHERING STEEL MONOPOLE	100.003	18.493
272/36	CORTEN STEEL TOWER	81.674	WEATHERING STEEL MONOPOLE	85.003	3.329
272/37	CORTEN STEEL TOWER	80.79	WEATHERING STEEL MONOPOLE	85	4.21
272/38	CORTEN STEEL TOWER	100.2	WEATHERING STEEL MONOPOLE	105.003	4.803
272/39	CORTEN STEEL TOWER	95.38	WEATHERING STEEL MONOPOLE	95.003	-0.377
272/40	CORTEN STEEL TOWER	95.062	WEATHERING STEEL MONOPOLE	95.003	-0.059
272/41	CORTEN STEEL TOWER	101.499	WEATHERING STEEL MONOPOLE	105.003	3.504
272/42	CORTEN STEEL TOWER	81.134	WEATHERING STEEL MONOPOLE	95.003	13.869
272/43	CORTEN STEEL TOWER	100.408	WEATHERING STEEL MONOPOLE	100.003	-0.405
272/44	CORTEN STEEL TOWER	100.743	WEATHERING STEEL MONOPOLE	100.003	-0.74
272/45	CORTEN STEEL TOWER	120.105	WEATHERING STEEL MONOPOLE	115	-5.105
272/46	CORTEN STEEL TOWER	100.307	WEATHERING STEEL MONOPOLE	105.003	4.696
272/47	CORTEN STEEL TOWER	81.042	WEATHERING STEEL MONOPOLE	85.003	3.961
272/48	CORTEN STEEL TOWER	101.856	WEATHERING STEEL MONOPOLE	105.003	3.147

STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA 230 KV LINES #272 AND #260 TRANSMISSION LINE REBUILDS, AUGUSTA AND ROCKINGHAM COUNTIES AND THE TOWN OF GROTTOES, VIRGINIA

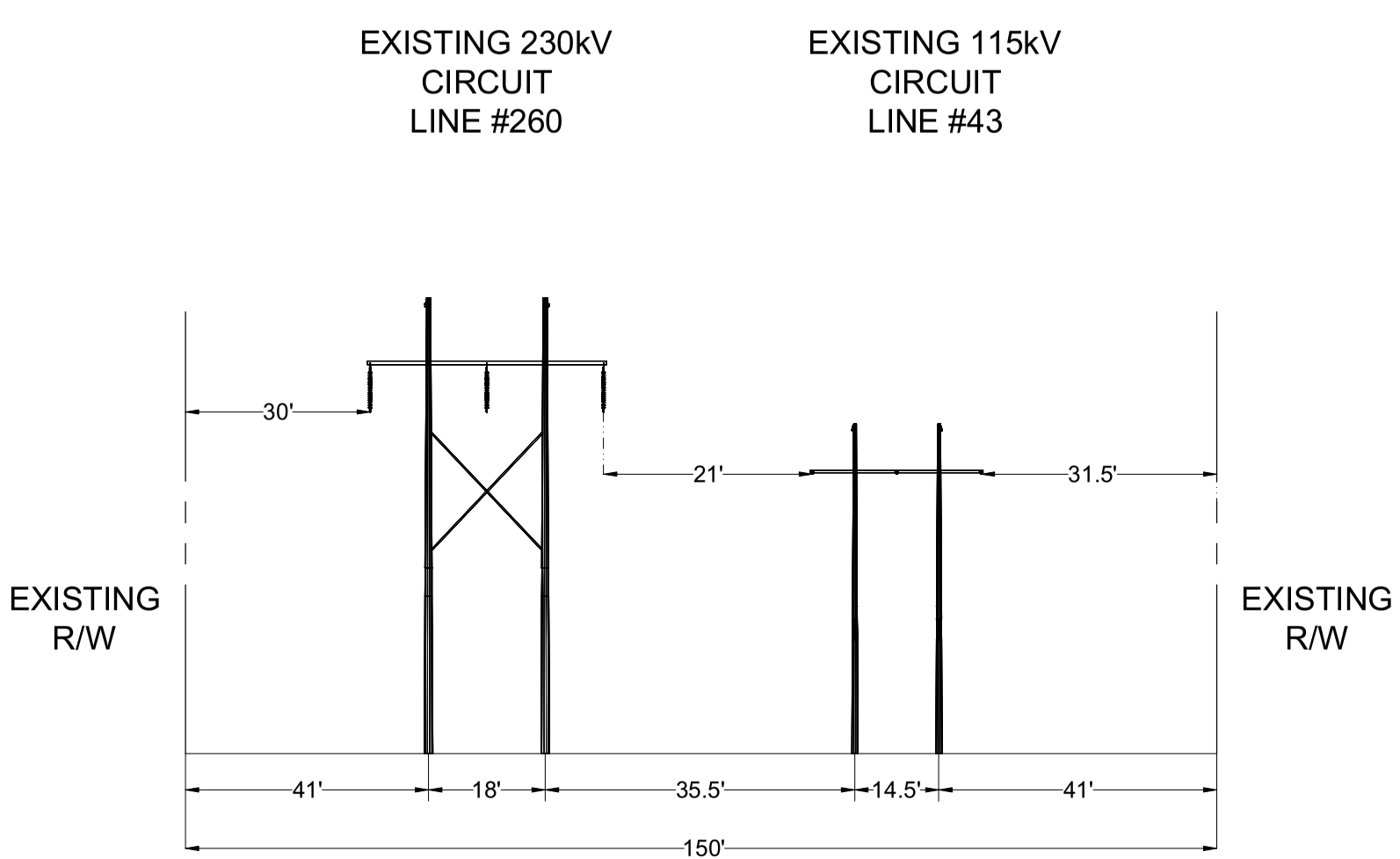
Existing Structure #	Existing Pole Material/Structure Type	Existing Structure Height (ft)	Proposed Pole Material/Structure Type	Proposed Structure Height (ft)	Height Change (ft)
272/49	CORTEN STEEL TOWER	100.31	WEATHERING STEEL MONOPOLE	100.003	-0.307
272/50	CORTEN STEEL TOWER	96.789	WEATHERING STEEL MONOPOLE	95.003	-1.786
272/51	CORTEN STEEL TOWER	95.318	WEATHERING STEEL MONOPOLE	100.003	4.685
272/52	CORTEN STEEL TOWER	89.959	WEATHERING STEEL MONOPOLE	90.003	0.044
272/53	CORTEN STEEL TOWER	96.655	WEATHERING STEEL MONOPOLE	100.003	3.348
272/54	CORTEN STEEL TOWER	100.175	WEATHERING STEEL MONOPOLE	100.003	-0.172
272/55	CORTEN STEEL TOWER	80.22	WEATHERING STEEL MONOPOLE	95.003	14.783
272/56	CORTEN STEEL TOWER	80.37	WEATHERING STEEL MONOPOLE	90.003	9.633
272/57	CORTEN STEEL TOWER	81.39	WEATHERING STEEL MONOPOLE	80	-1.39
272/58	CORTEN STEEL TOWER	94.031	WEATHERING STEEL MONOPOLE	95.003	0.972
272/59	CORTEN STEEL TOWER	101.261	WEATHERING STEEL MONOPOLE	100.003	-1.258
272/60	CORTEN STEEL TOWER	100.395	WEATHERING STEEL MONOPOLE	105.003	4.608
272/61	CORTEN STEEL TOWER	109.79	WEATHERING STEEL MONOPOLE	105.003	-4.787
272/62	CORTEN STEEL TOWER	90.341	WEATHERING STEEL MONOPOLE	105.003	14.662
272/63	CORTEN STEEL TOWER	120.24	WEATHERING STEEL MONOPOLE	110.003	-10.237
272/64	CORTEN STEEL TOWER	100.415	WEATHERING STEEL MONOPOLE	110.003	9.588
272/65	CORTEN STEEL TOWER	89.39	WEATHERING STEEL MONOPOLE	85	-4.39
272/66	CORTEN STEEL TOWER	95.554	WEATHERING STEEL MONOPOLE	105.003	9.449
272/67	CORTEN STEEL TOWER	99.997	WEATHERING STEEL MONOPOLE	100.003	0.006
272/68	CORTEN STEEL TOWER	100.427	WEATHERING STEEL MONOPOLE	105.003	4.576
272/69	CORTEN STEEL TOWER	94.976	WEATHERING STEEL MONOPOLE	95.003	0.027
272/70	CORTEN STEEL TOWER	100.143	WEATHERING STEEL MONOPOLE	100.003	-0.14
272/71	CORTEN STEEL TOWER	85.036	WEATHERING STEEL MONOPOLE	95.003	9.967
272/72	CORTEN STEEL TOWER	102.074	WEATHERING STEEL MONOPOLE	95.003	-7.071
272/73	CORTEN STEEL TOWER	81.69	WEATHERING STEEL MONOPOLE	90	8.31
272/74	CORTEN STEEL TOWER	100.468	WEATHERING STEEL MONOPOLE	95.003	-5.465
272/75	CORTEN STEEL TOWER	79.843	WEATHERING STEEL MONOPOLE	85.003	5.16
272/76	CORTEN STEEL TOWER	100.094	WEATHERING STEEL MONOPOLE	100.003	-0.091

STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA 230 KV LINES #272 AND #260 TRANSMISSION LINE REBUILDS, AUGUSTA AND ROCKINGHAM COUNTIES AND THE TOWN OF GROTTOES, VIRGINIA

Existing Structure #	Existing Pole Material/Structure Type	Existing Structure Height (ft)	Proposed Pole Material/Structure Type	Proposed Structure Height (ft)	Height Change (ft)
272/77	CORTEN STEEL TOWER	79.9	WEATHERING STEEL MONOPOLE	75.003	-4.897
272/78	CORTEN STEEL TOWER	78.798	WEATHERING STEEL MONOPOLE	85.003	6.205
272/79	CORTEN STEEL TOWER	100.5	WEATHERING STEEL	100	-0.5
272/80	WOOD	74.667	WEATHERING STEEL	39.758	-34.909
272/81	-	0	WEATHERING STEEL	75.98	75.98
272/82	CONCRETE	69.814	GALVANIZED STEEL	76	6.186

A.2 STRUCTURE DETAILS

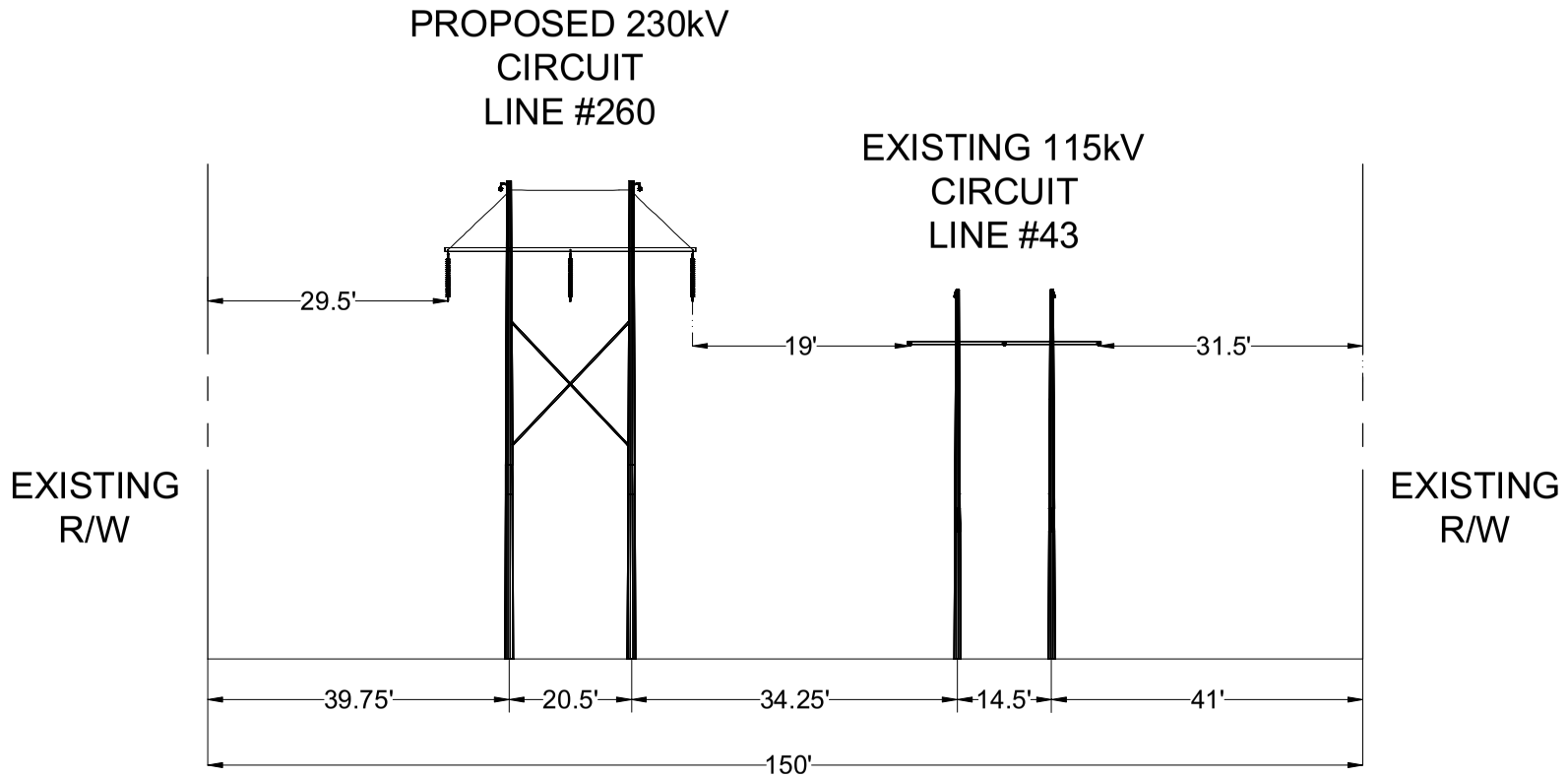
GROTTOES - HARRISONBURG, LINE #260
EXISTING CONFIGURATION



TYPICAL RIGHT OF WAY LOOKING TOWARD GROTTOES FROM HARRISONBURG FOR STR. 260/2

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

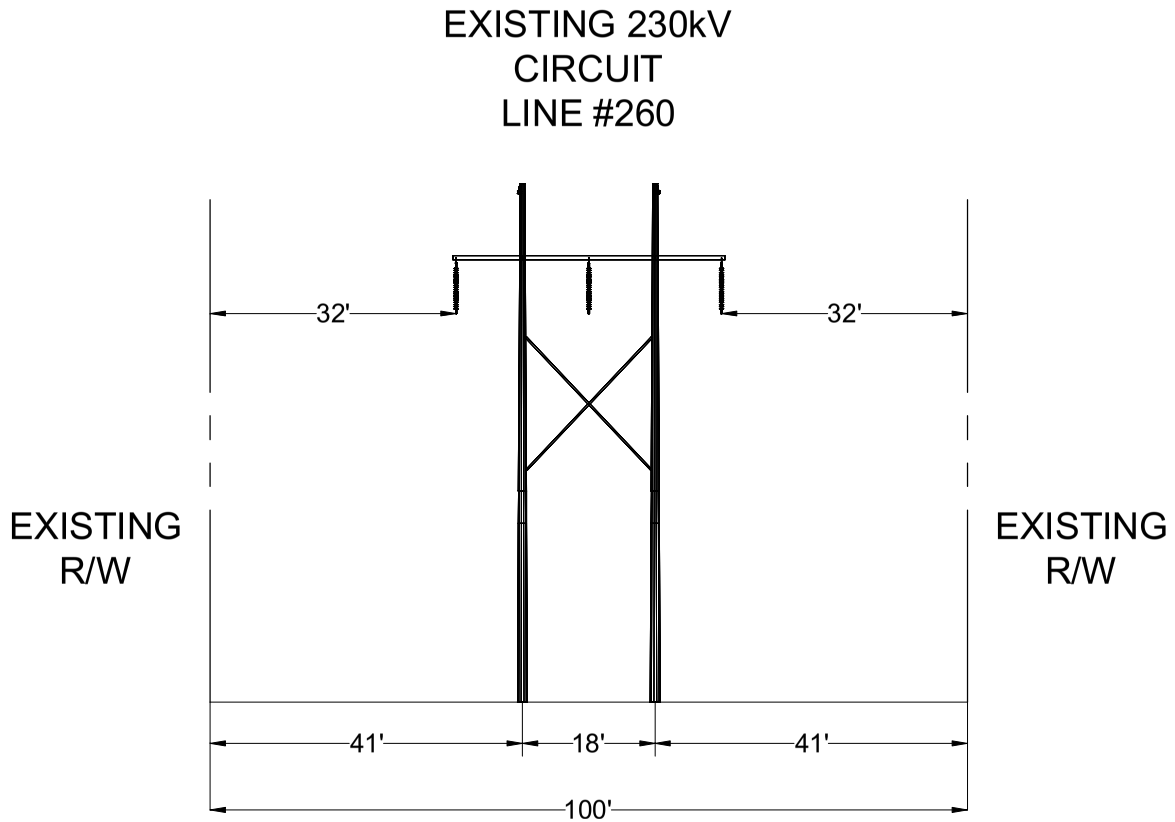
GROTTOES - HARRISONBURG, LINE #260
PROPOSED CONFIGURATION



TYPICAL RIGHT OF WAY LOOKING TOWARD GROTTOES FROM HARRISONBURG FOR STR. 260/2

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

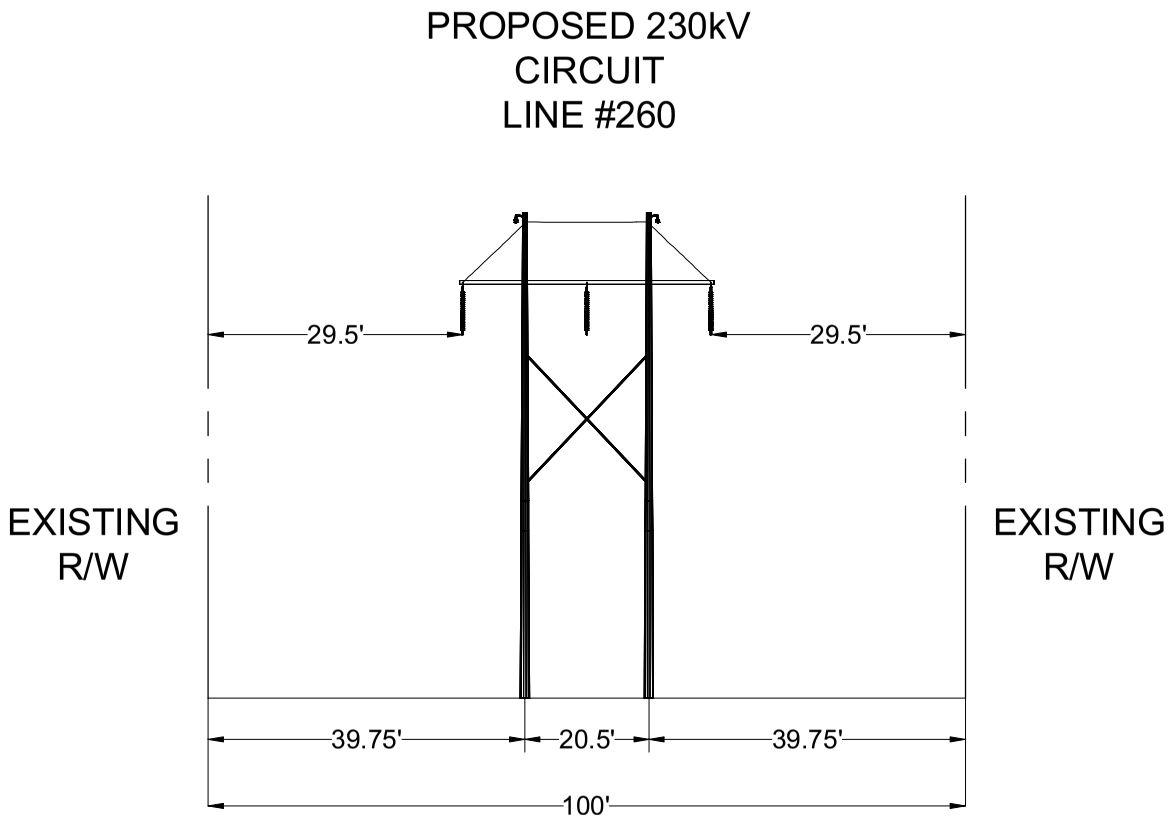
GROTTOES - HARRISONBURG, LINE #260
EXISTING CONFIGURATION



TYPICAL RIGHT OF WAY LOOKING TOWARD GROTTOES FROM HARRISONBURG

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

GROTTOES - HARRISONBURG, LINE #260
PROPOSED CONFIGURATION



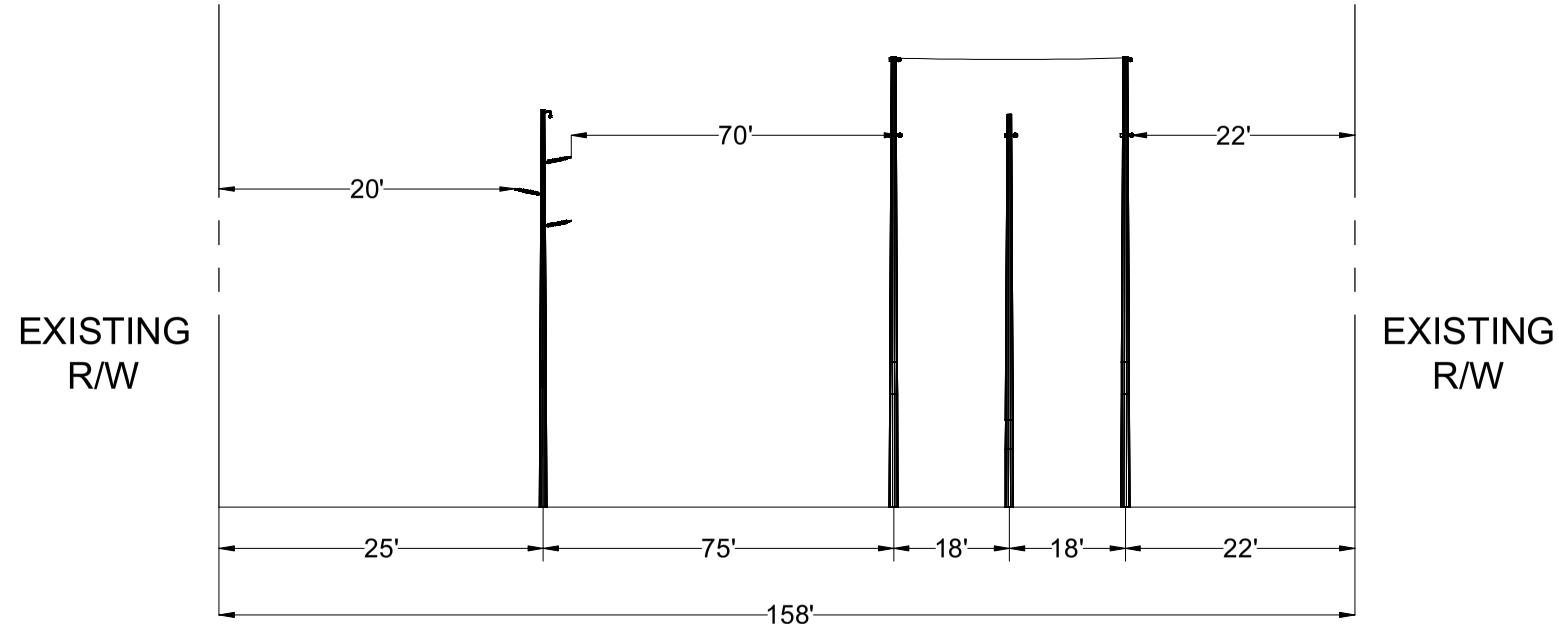
TYPICAL RIGHT OF WAY LOOKING TOWARD GROTTOES FROM HARRISONBURG

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

GROTTOES - HARRISONBURG, LINE #260
EXISTING CONFIGURATION

EXISTING 115kV CIRCUIT LINE #119

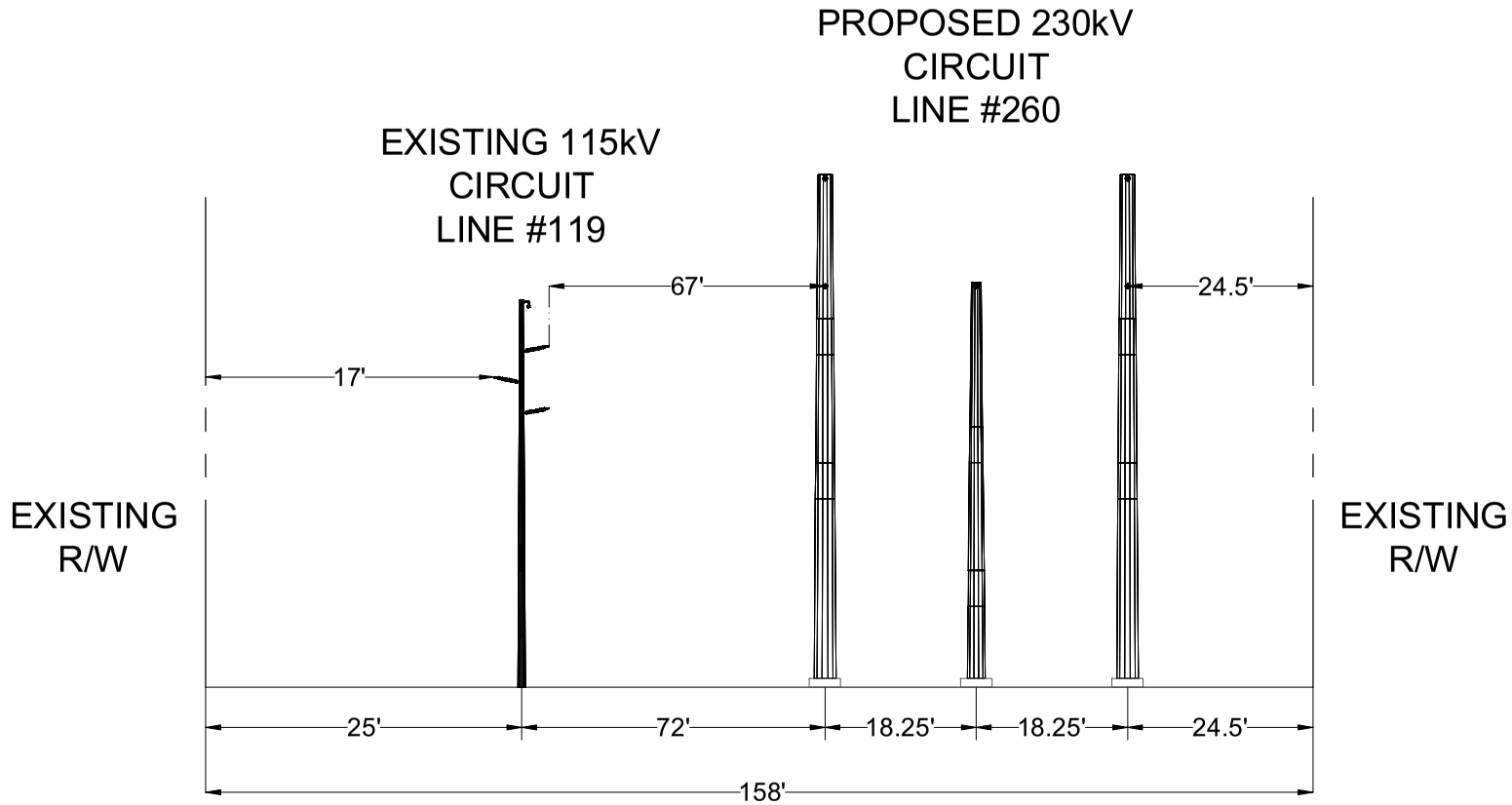
EXISTING 230kV CIRCUIT LINE #260



TYPICAL RIGHT OF WAY LOOKING TOWARD GROTTOES FROM HARRISONBURG FOR STR. 260/81

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

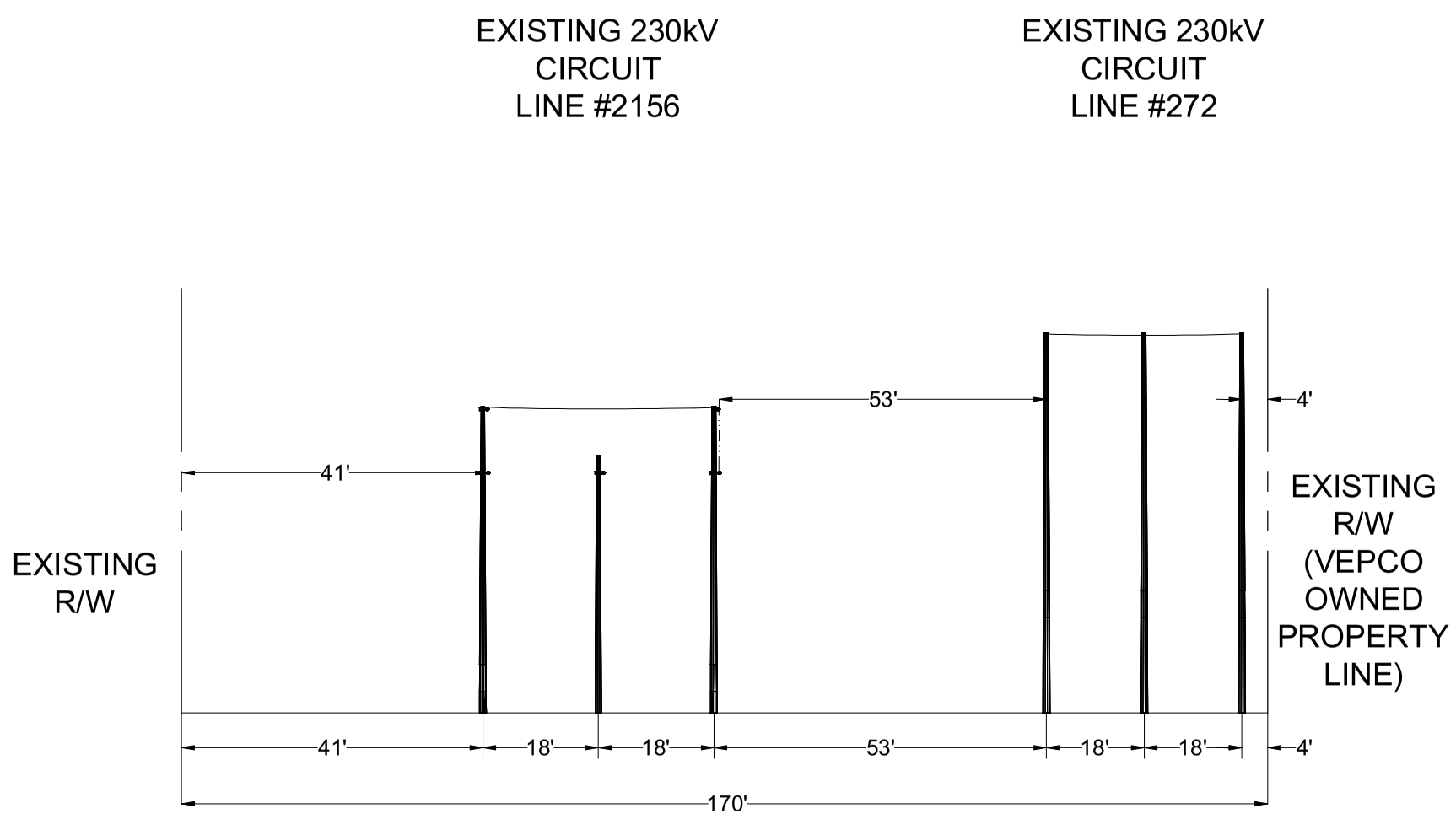
GROTTOES - HARRISONBURG, LINE #260
PROPOSED CONFIGURATION



TYPICAL RIGHT OF WAY LOOKING TOWARD GROTTOES FROM HARRISONBURG FOR STR. 260/81

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

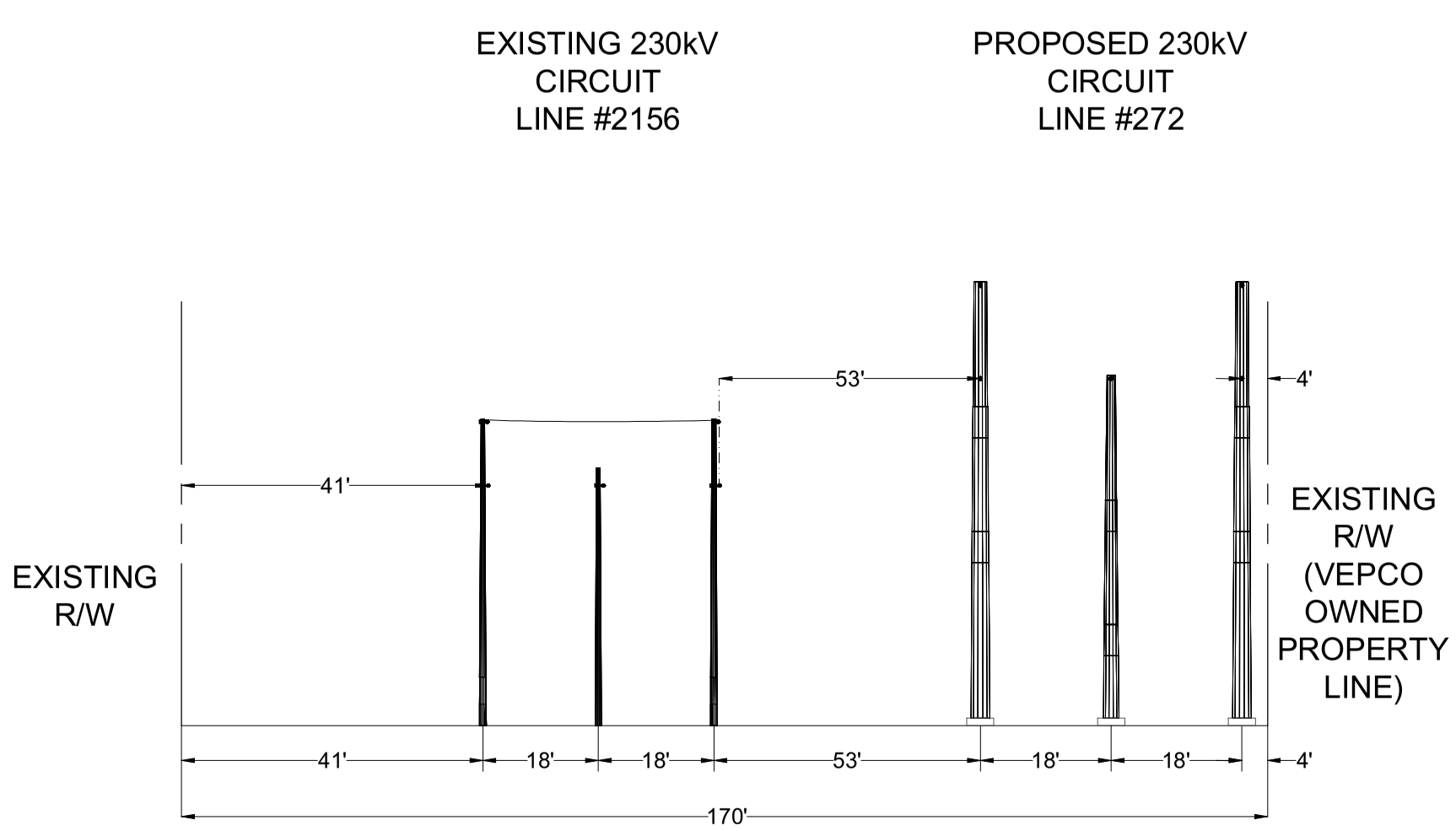
DOOMS - GROTTOES, LINE #272
EXISTING CONFIGURATION



TYPICAL RIGHT OF WAY LOOKING FROM DOOMS TO GROTTOES FOR STR. 272/7

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

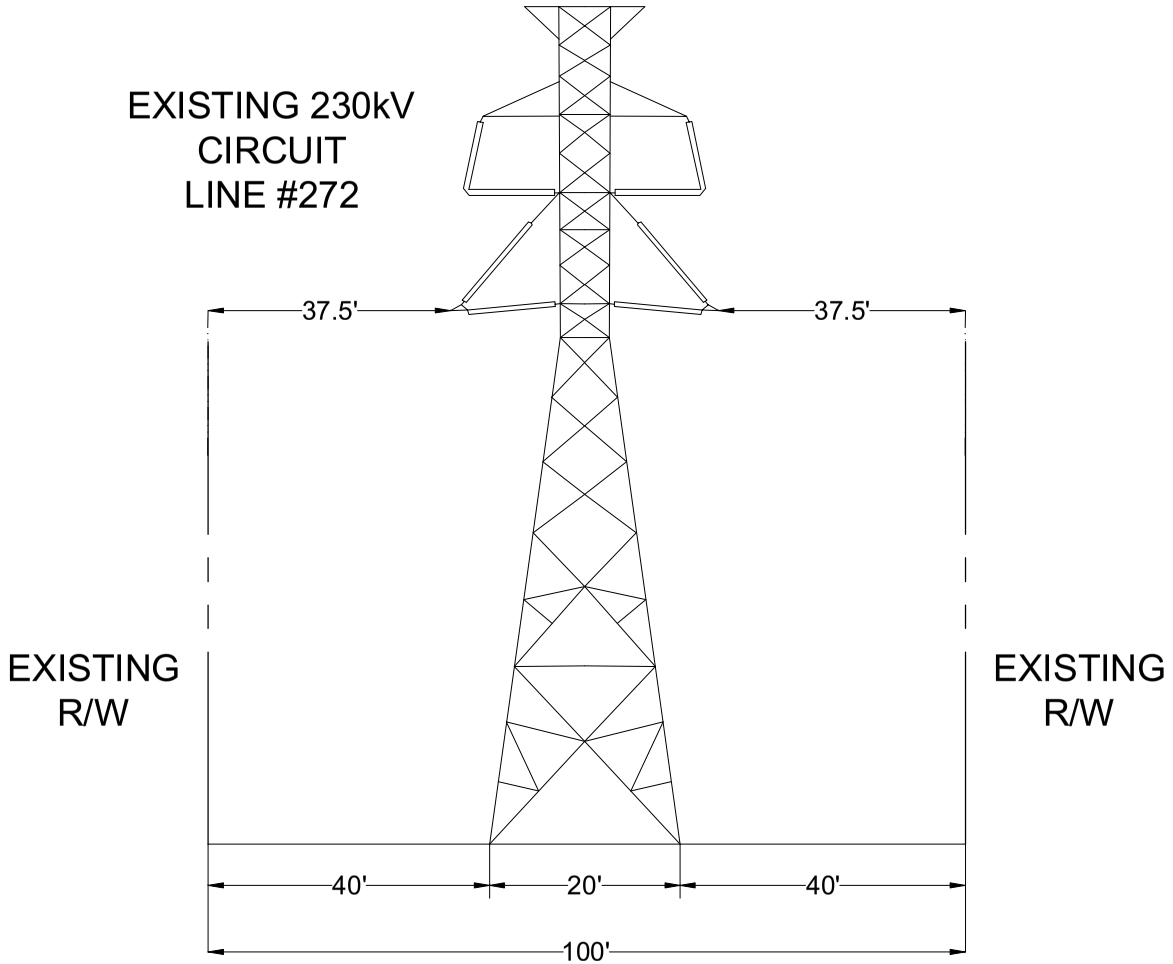
DOOMS - GROTTOES, LINE #272
PROPOSED CONFIGURATION



TYPICAL RIGHT OF WAY LOOKING FROM DOOMS TO GROTTOES FOR STR. 272/7

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

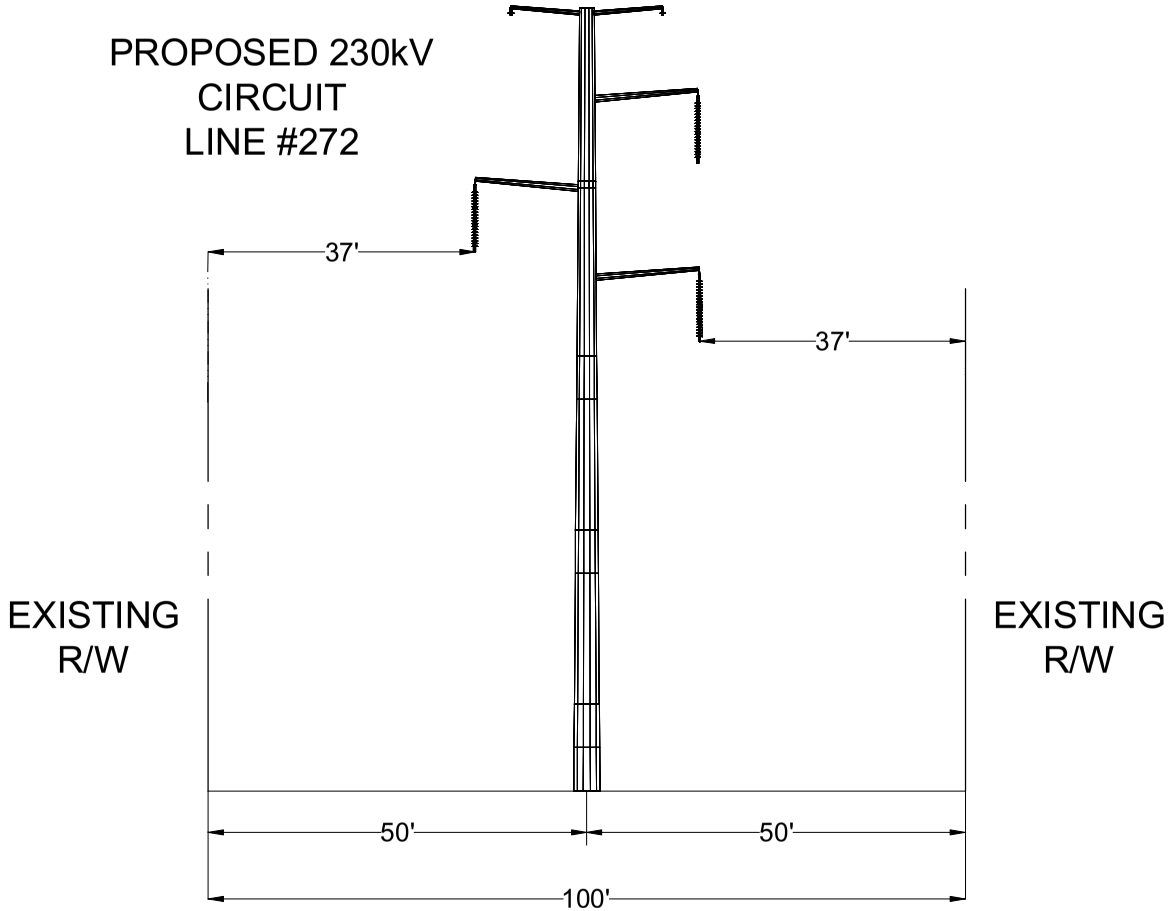
DOOMS - GROTTOES, LINE #272
EXISTING CONFIGURATION



TYPICAL RIGHT OF WAY LOOKING FROM DOOMS TO GROTTOES

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

DOOMS - GROTTOES, LINE #272
PROPOSED CONFIGURATION

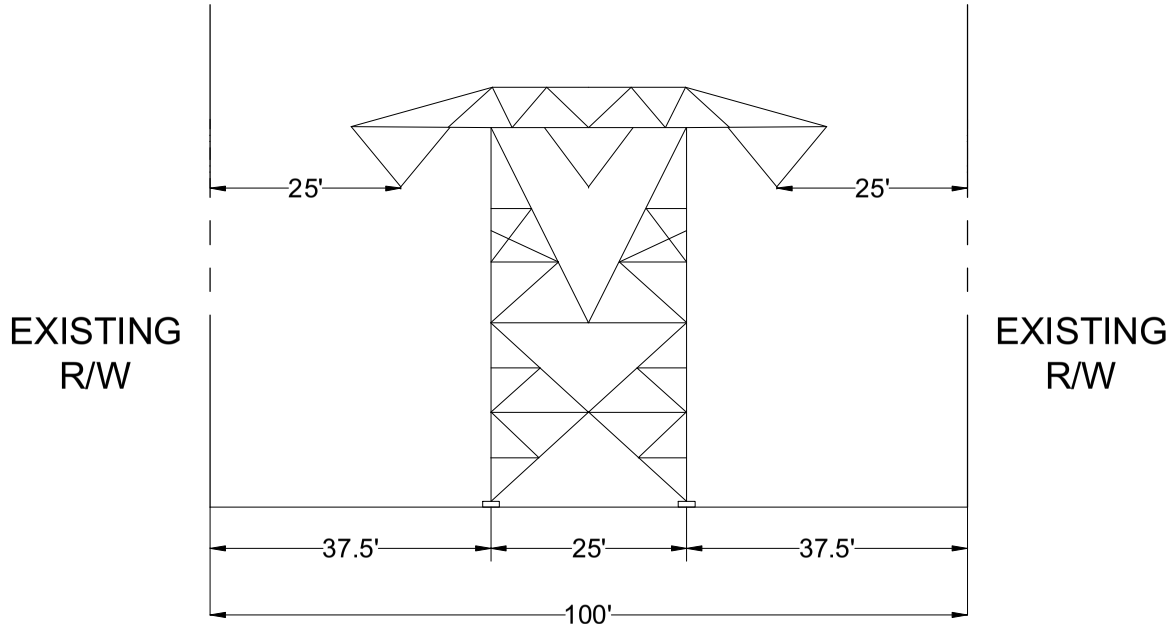


TYPICAL RIGHT OF WAY LOOKING FROM DOOMS TO GROTTOES FOR STR. 272/8 THROUGH STR. 272/78

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

DOOMS - GROTTOES, LINE #272
EXISTING CONFIGURATION

EXISTING 230kV
CIRCUIT
LINE #272

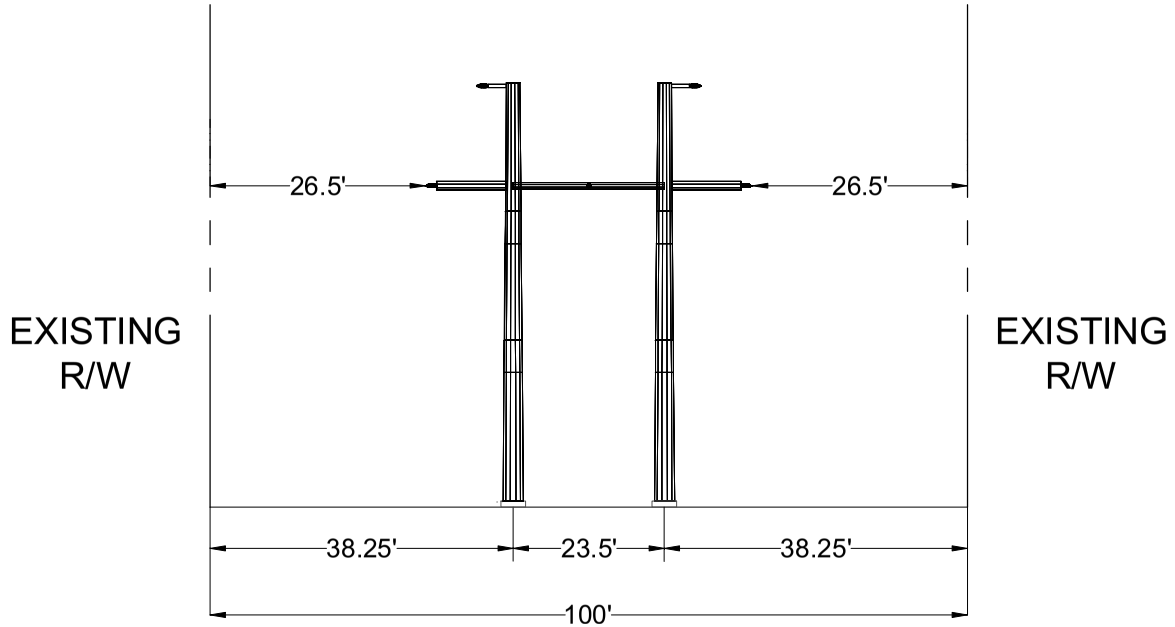


TYPICAL RIGHT OF WAY LOOKING FROM DOOMS TO GROTTOES FOR STR. 272/12

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

DOOMS - GROTTOES, LINE #272
PROPOSED CONFIGURATION

PROPOSED 230kV
CIRCUIT
LINE #272



TYPICAL RIGHT OF WAY LOOKING FROM DOOMS TO GROTTOES FOR STR. 272/12

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

APPENDIX B ARCHITECTURAL RESOURCE MAPS

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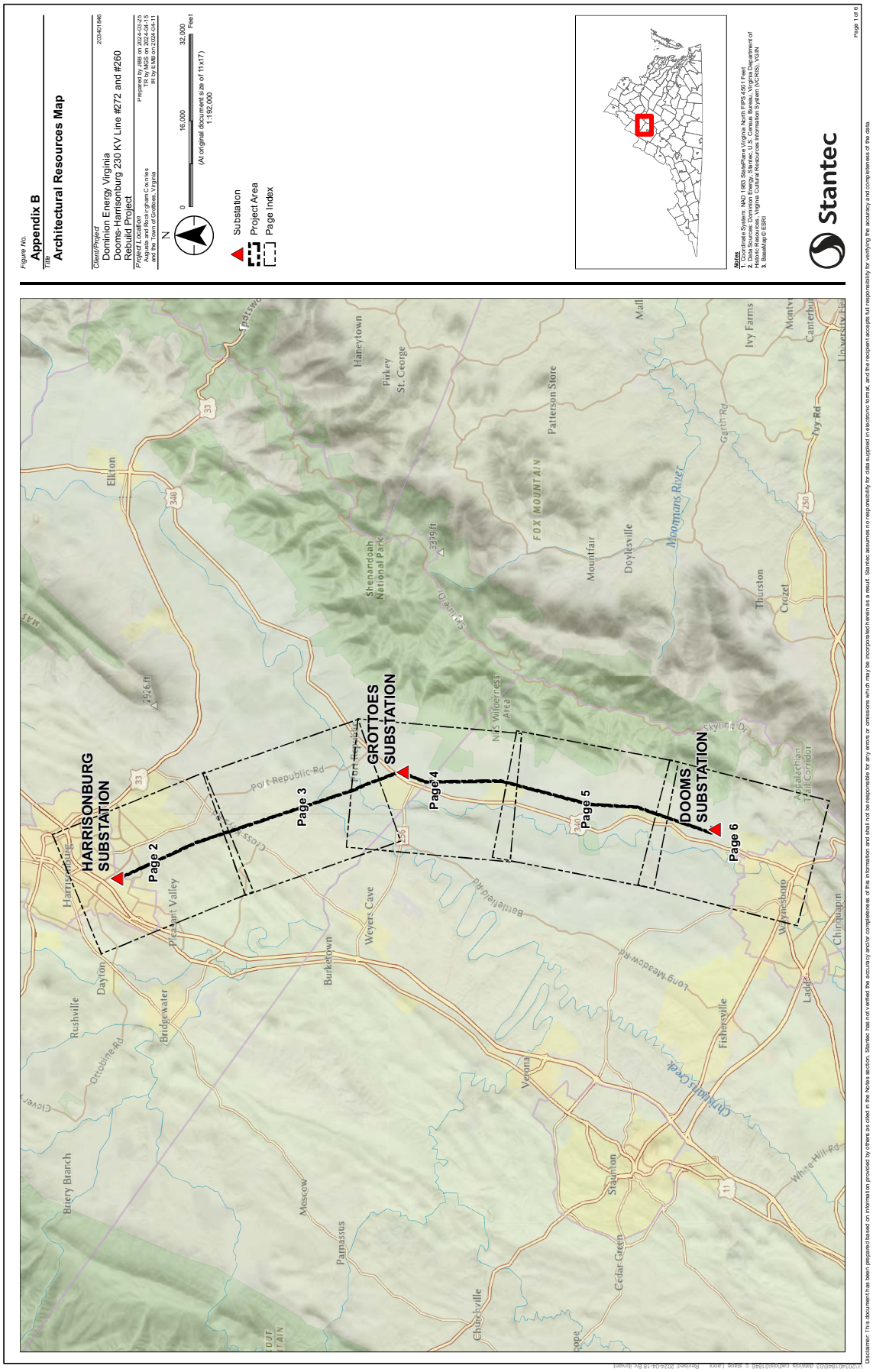


Figure No.
Appendix B
Title
Architectural Resources Map
Client/Project
Dominion Energy Virginia
Dooms-Harrisonburg 230 KV Line #272 and #260 Rebuild Project
Project Location
Augusta and Rockingham Counties and the Town of Grottoes, Virginia
2014011946
Prepared by JBB on 2024-03-25
TR by MGS on 2024-04-15
IR by MGS on 2024-04-17
N
0
16,000
32,000
Feet
(At original document size of 11x17)
1:192,000
Substation
Project Area
Page Index
HARRISONBURG SUBSTATION
GROTTOES SUBSTATION
DOOMS SUBSTATION
Page 2
Page 3
Page 4
Page 5
Page 6
Notes
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
2. Data Sources: Dominion Energy, Stantec, U.S. Census Bureau, Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS), VGIN
3. Basemap(s): ESRI
Stantec
Page 1 of 6
Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

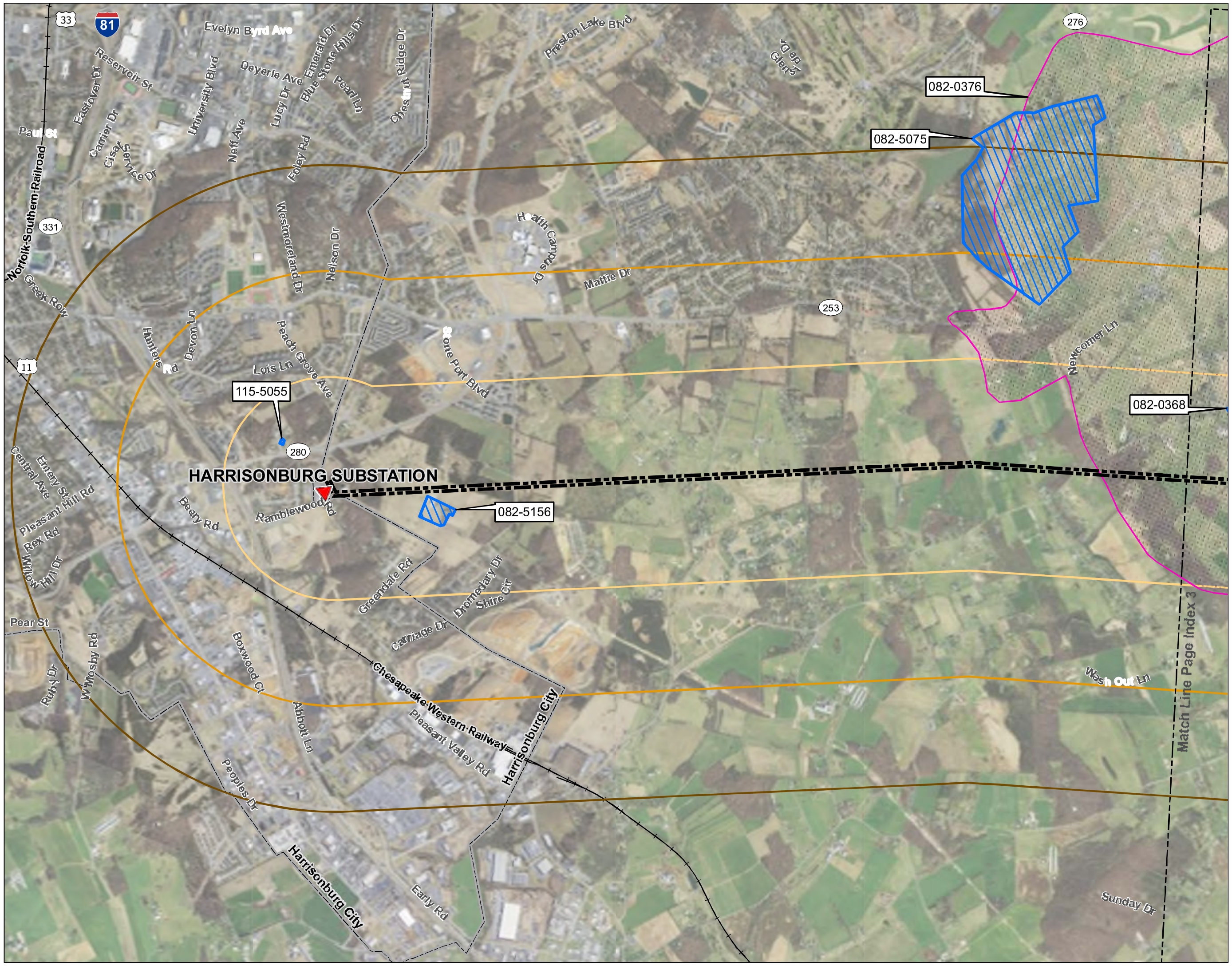


Figure No.
Appendix B

Title
Architectural Resources Map

Client/Project
203401846
Dominion Energy Virginia
Dooms-Harrisonburg 230 KV Line #272 and #260
Rebuild Project

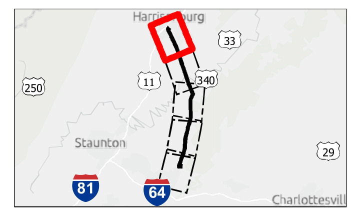
Project Location
Augusta and Rockingham Counties
and the Town of Grottoes, Virginia

Prepared by JBB on 2024-03-25
TR by MGS on 2024-04-15
IR by EMB on 2024-04-11

N

0 2,500 5,000 Feet
(At original document size of 11x17)
1:30,000

- Substation
- Project Area
- Architectural Resource
- 082-0376
- 082-5430
- 0.5-Mile Buffer
- 1.0-Mile Buffer
- 1.5-Mile Buffer
- Railroad



Notes
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, U.S. Census Bureau, Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS), VGIN
3. Orthoimagery © VGIN

Stantec

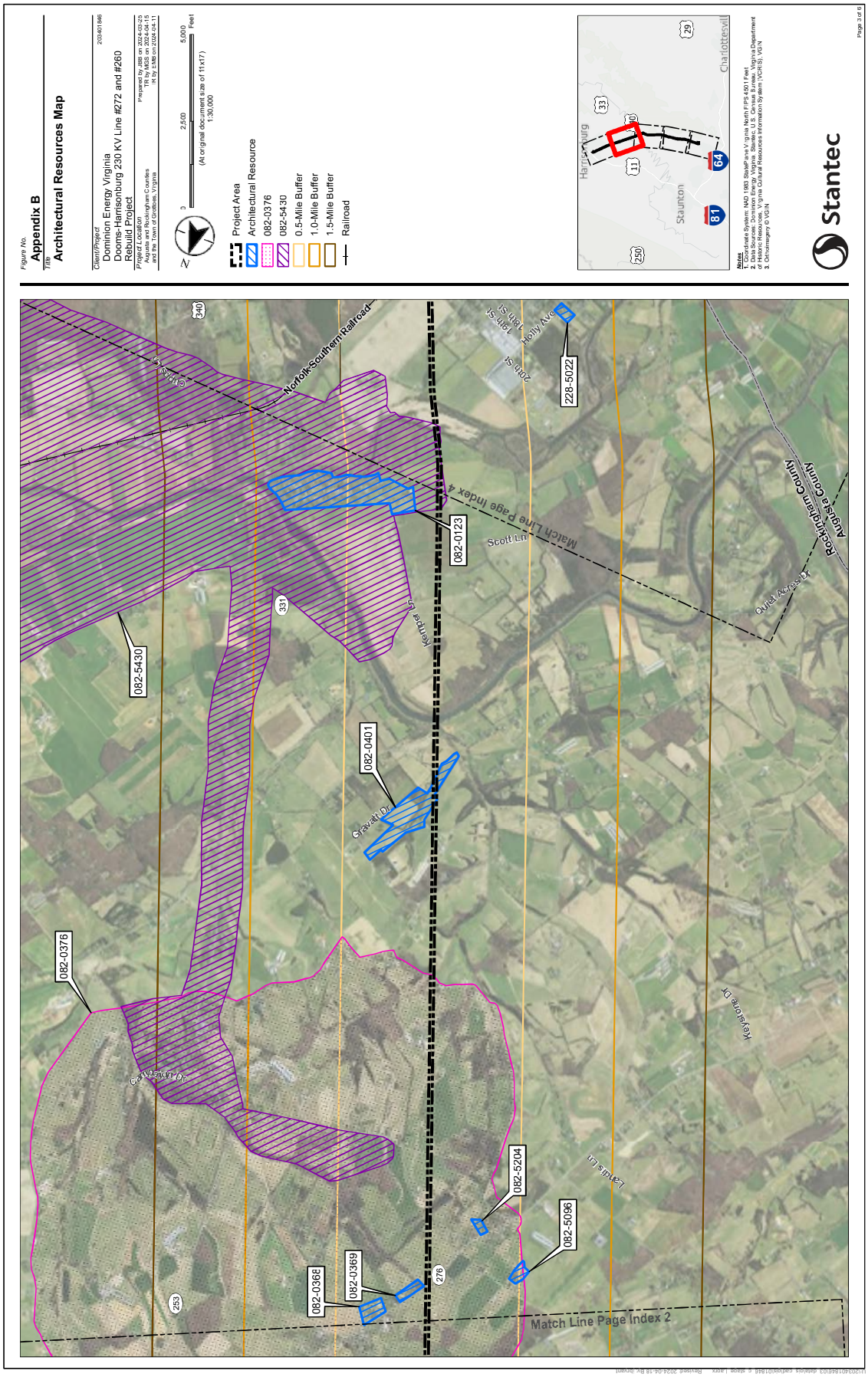


Figure No.
Appendix B
Title
Architectural Resources Map
Client/Project
Dominion Energy Virginia
Dooms-Harrisonburg 230 KV Line #272 and #260 Rebuild Project
Project Location
Augusta and Rockingham Counties and the Town of Grottoes, Virginia
2014019#6
Prepared by JBB on 2024-03-25
TR by MDB on 2024-04-15
IR by MDB on 2024-04-17
0
2,500
5,000
Feet
(At original document size of 11x17)
1:30,000
N
Project Area
Architectural Resource
082-0376
082-5430
0.5-Mile Buffer
1.0-Mile Buffer
1.5-Mile Buffer
Railroad
Harrisonburg
Staunton
Charlottesville
81
64
33
11
29
250
Notes
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
2. Data Sources: Dominion Energy Virginia; Stantec; U.S. Census Bureau; Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS); VGIN
3. Orthoimagery © VGIN
Stantec
Page 3 of 6
Norfolk Southern Railroad
Match Line Page Index 4
Match Line Page Index 2
Scott Ln
Kemper Ln
Gravel Dr
Keystone Dr
Tennis Ln
Rockingham County
Augusta County
082-5430
082-0376
082-0401
082-0123
082-5204
082-5096
082-0369
082-0366
228-5022
340
331
276
253
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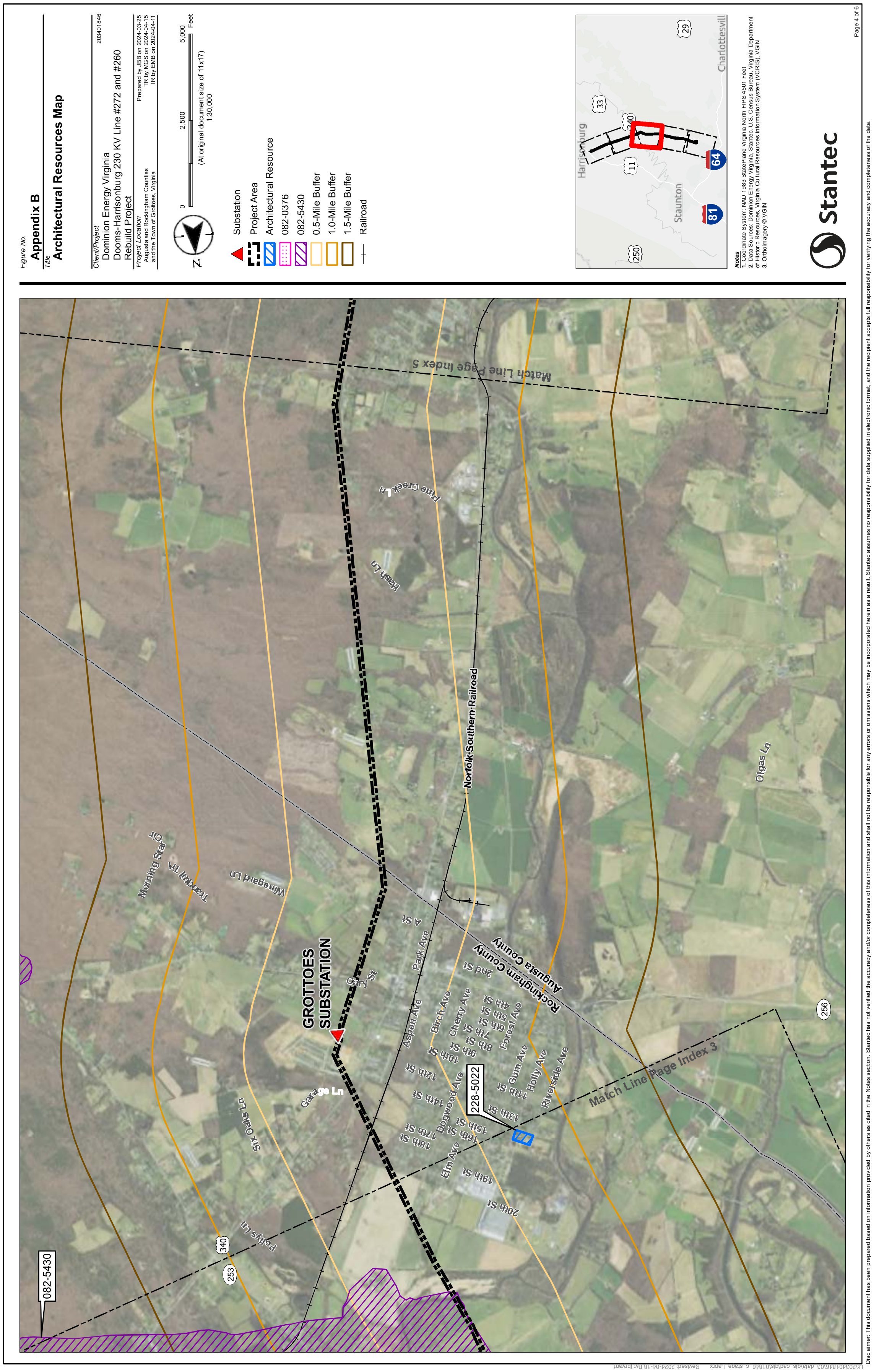
Figure No.
Appendix B
Title
Architectural Resources Map
Client/Project
Dominion Energy Virginia
Dooms-Harrisonburg 230 KV Line #272 and #260 Rebuild Project
203401846
Project Location
Augusta and Rockingham Counties and the Town of Grottoes, Virginia
Prepared by JBB on 2024-03-25
TR by MGS on 2024-04-15
IR by EMB on 2024-04-11
0
2,500
5,000
Feet
(At original document size of 11x17)
1:30,000
Substation
Project Area
Architectural Resource
082-0376
082-5430
0.5-Mile Buffer
1.0-Mile Buffer
1.5-Mile Buffer
Railroad
Notes
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, U.S. Census Bureau, Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS), VGIN
3. Orthoimagery © VGIN
Stantec
Page 4 of 6
Harrisonburg
Staunton
Charlottesville
GROTTOES SUBSTATION
Match Line Page Index 5
Match Line Page Index 3
Norfolk Southern Railroad
Rockingham County
Augusta County
228-5022
082-5430
Pine Creek Ln
Hash Ln
Olgas Ln
Winegard Ln
Morning Star Cir
Tranquil Trl
Six Oaks Ln
Pollys Ln
Garage Ln
Park Ave
Aspen Ave
Birch Ave
Cherry Ave
Dogwood Ave
Elm Ave
Forest Ave
Gum Ave
Holly Ave
Riverside Ave
A St
2nd St
4th St
5th St
6th St
7th St
8th St
9th St
10th St
11th St
12th St
13th St
14th St
15th St
16th St
17th St
18th St
19th St
20th St
340
253
256
250
33
29
11
64
81
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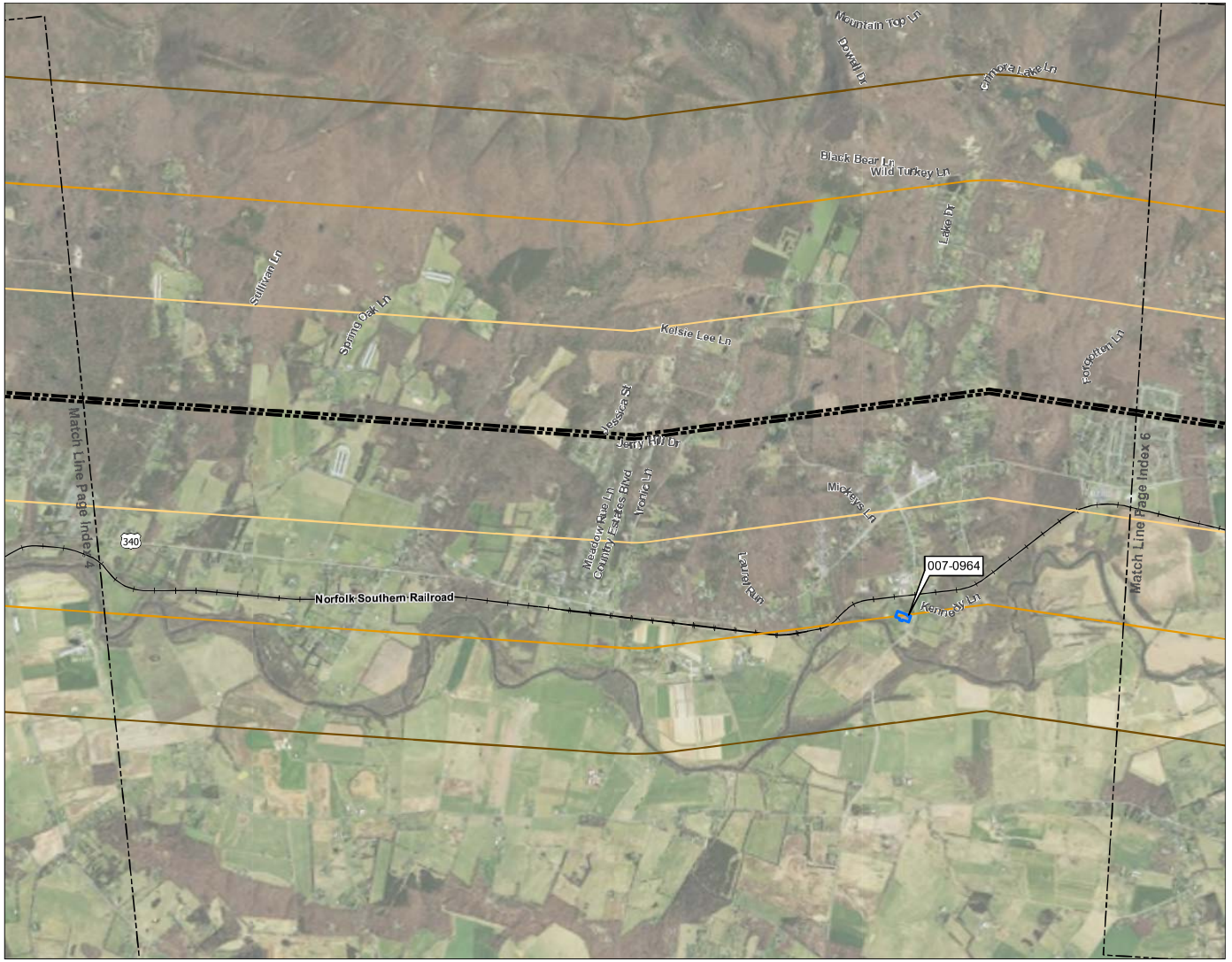

Figure No.

Appendix B

Title

Architectural Resources Map

Client/Project

203401846

Dominion Energy Virginia
Dooms-Harrisonburg 230 KV Line #272 and #260
Rebuild Project

Project Location

Augusta and Rockingham Counties
and the Town of Grottoes, Virginia

Prepared by JBB on 2024-03-25
TR by MGS on 2024-04-15
IK by EMB on 2024-04-11

N

0 2,500 5,000 Feet

(At original document size of 11x17)
1:30,000

- Project Area
- Architectural Resource
- 082-0376
- 082-5430
- 0.5-Mile Buffer
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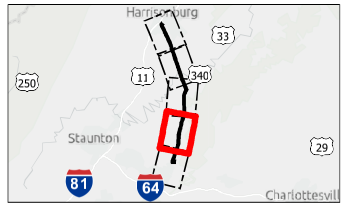
- 1.5-Mile Buffer
- Railroad



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, U.S. Census Bureau, Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS), VGIN
3. Orthoimagery © VGIN

Stantec

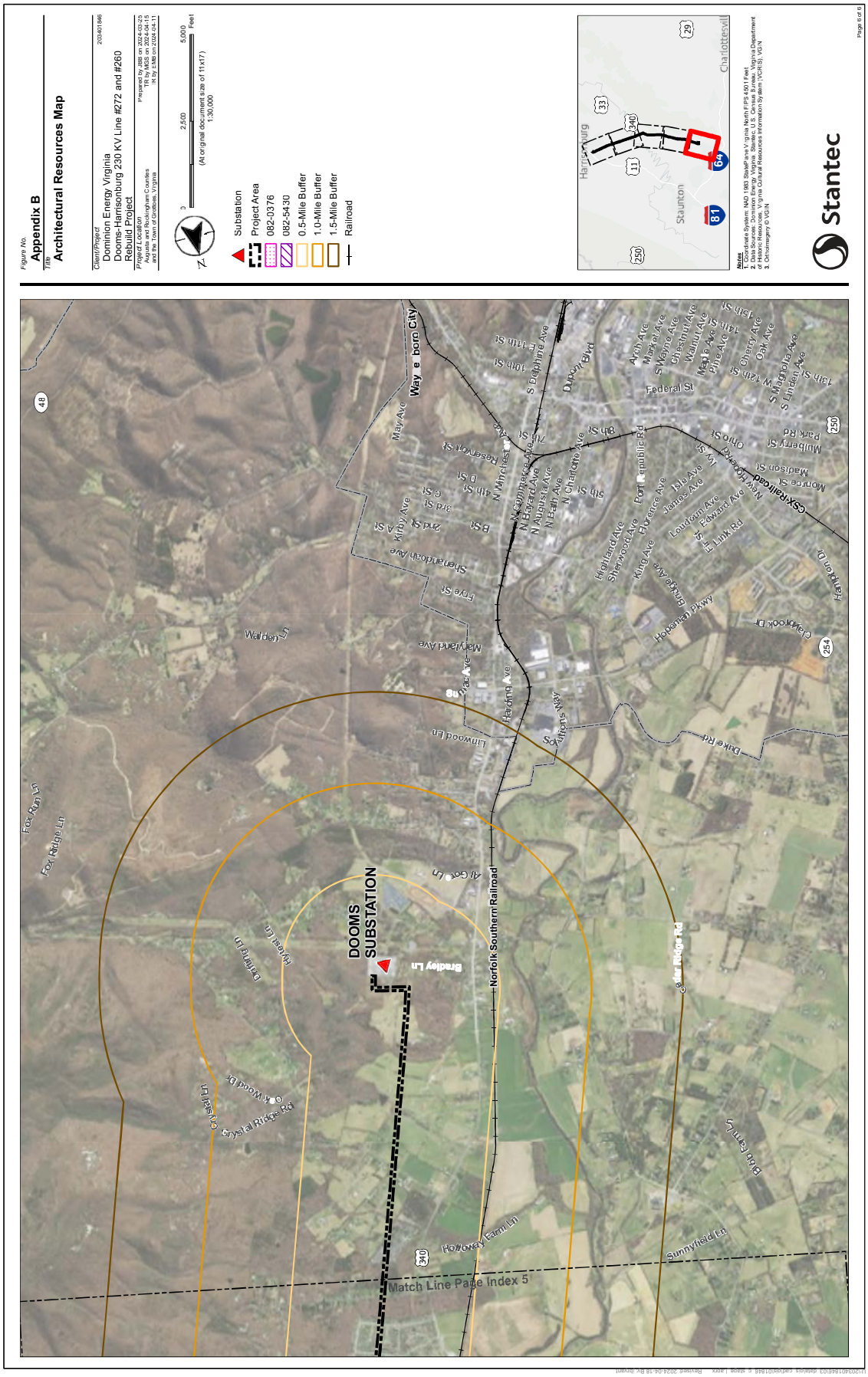


Figure No.
Appendix B
Title
Architectural Resources Map
Client/Project
Dominion Energy Virginia
Dooms-Harrisonburg 230 KV Line #272 and #260 Rebuild Project
Project Location
Augusta and Rockingham Counties and the Town of Grottoes, Virginia
2014011946
Prepared by JBB on 2024-03-25
TR by MGB on 2024-04-15
IR by MEH on 2024-04-17
0
2,500
5,000
Feet
(At original document size of 11x17)
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Substation
Project Area
082-0376
082-5430
0.5-Mile Buffer
1.0-Mile Buffer
1.5-Mile Buffer
Railroad
DOOMS SUBSTATION
Bradley Ln
Norfolk Southern Railroad
Match Line Page Index 5
Harrisonburg
Staunton
Charlottesville
Notes
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
2. Data Sources: Dominion Energy Virginia; Stantec; U.S. Census Bureau; Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS); VGIN
3. Orthoimagery © VGIN
Stantec
Page 6 of 6
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APPENDIX C VIEWSHED MAPS AND PHOTO SIMULATIONS

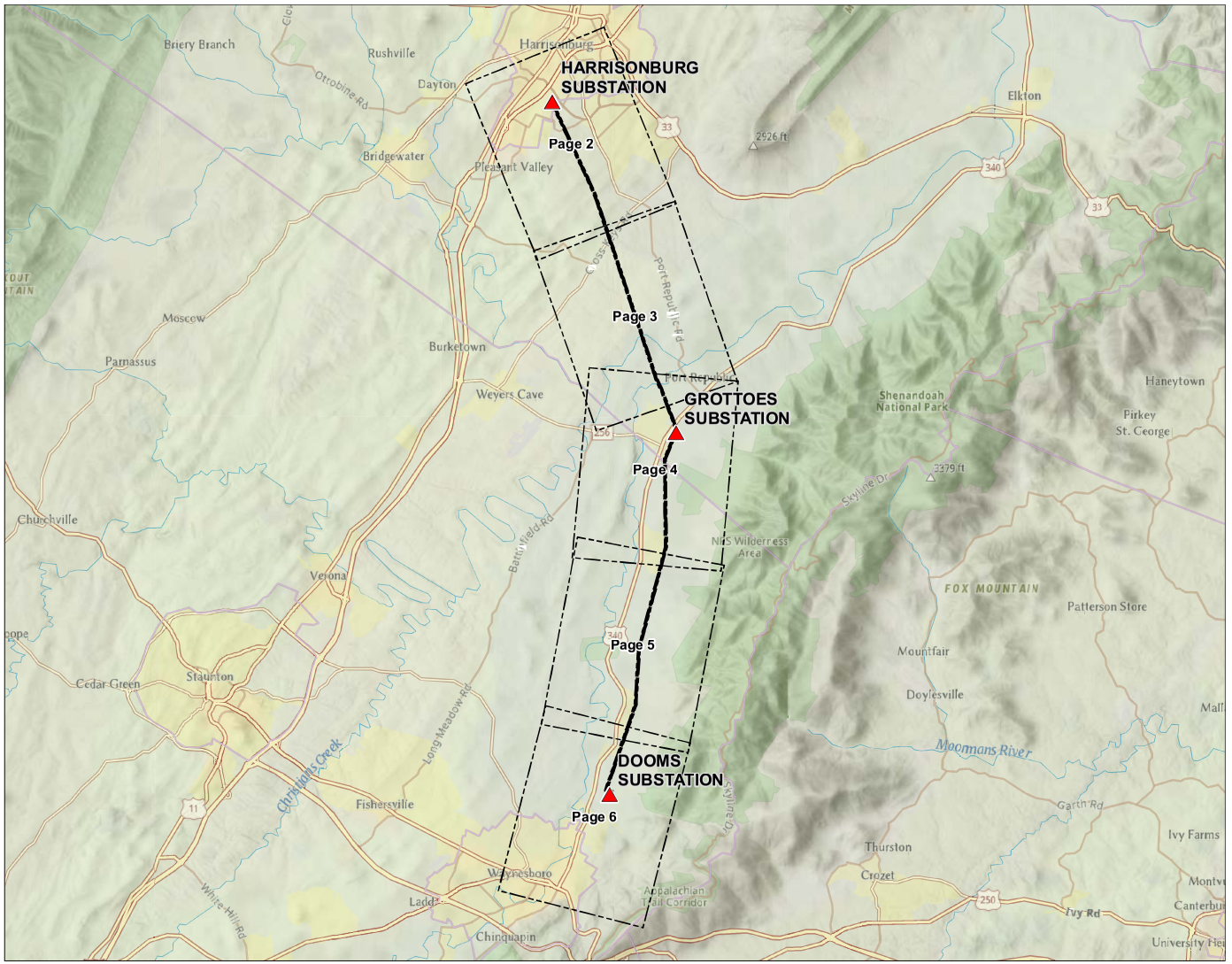

Figure No.
Appendix C

Title
Visual Model and Viewpoints/Photo Locations

Client/Project
Dominion Energy Virginia
Dooms-Harrisonburg 230 KV Line #272 and #260 Rebuild Project
203401846

Project Location
Augusta and Rockingham Counties and the Town of Grottoes, Virginia

Prepared by JBB on 2024-03-25
TR by MGS on 2024-04-15
IR by EMB on 2024-04-11

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(At original document size of 11x17)
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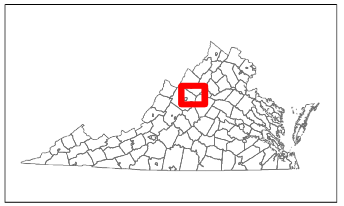
- Substation
- Project Area
- Page Index



Notes
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, U.S. Census Bureau
3. BaseMap© ESRI

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Page 1 of 6

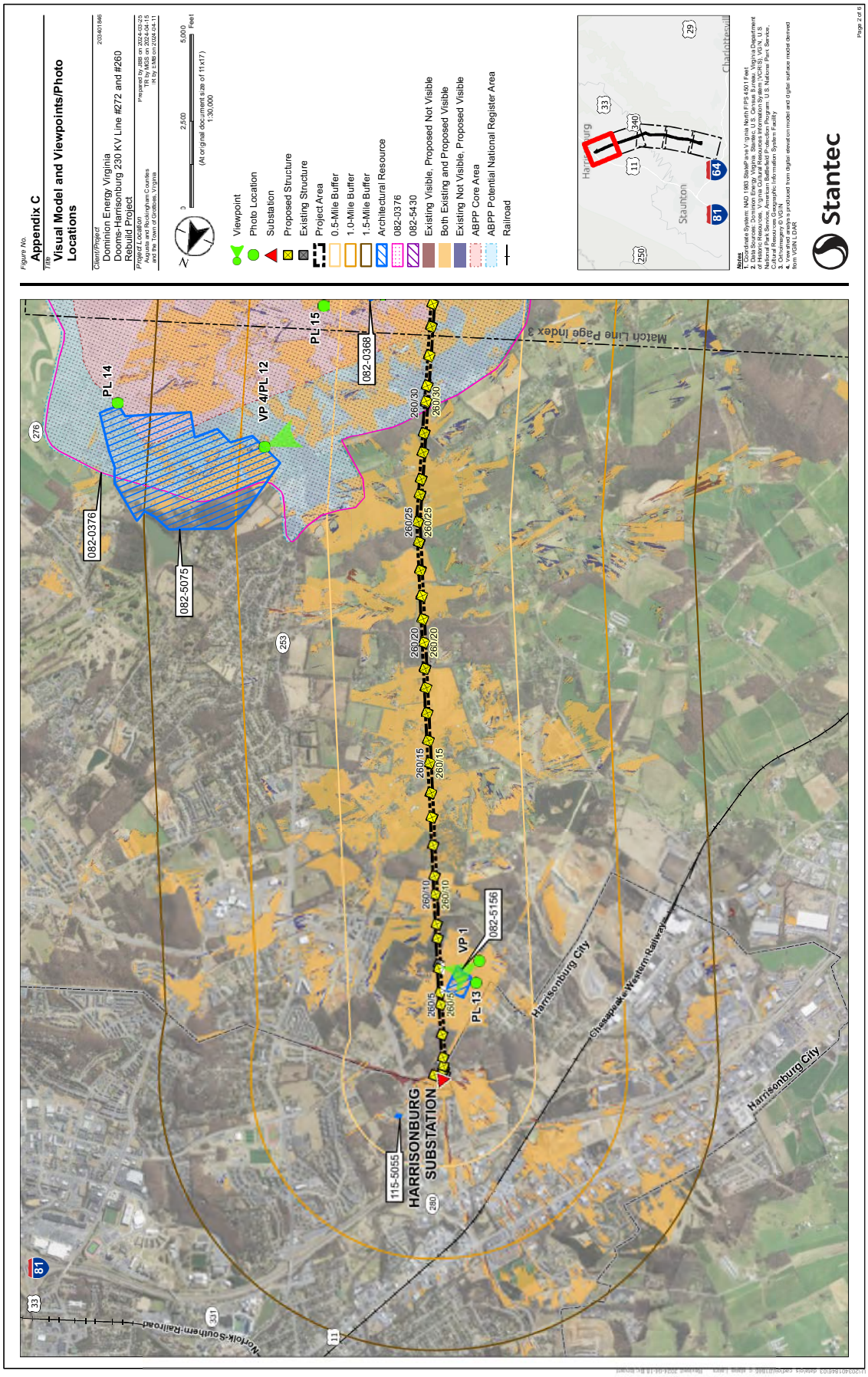
Figure No.
Appendix C
Title
Visual Model and Viewpoints/Photo Locations
Client/Project
Dominion Energy Virginia
Dooms-Harrisonburg 230 KV Line #272 and #260 Rebuild Project
2014019#6
Project Location
Augusta and Rockingham Counties and the Town of Grottoes, Virginia
Prepared by JBB on 2024-03-25
TR by MDB on 2024-04-15
IR by MDB on 2024-04-17
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2,500
5,000
Feet
(At original document size of 11x17)
1:30,000
N
Viewpoint
Photo Location
Substation
Proposed Structure
Existing Structure
Project Area
0.5-Mile Buffer
1.0-Mile Buffer
1.5-Mile Buffer
Architectural Resource
082-0376
082-5430
Existing Visible, Proposed Not Visible
Both Existing and Proposed Visible
Existing Not Visible, Proposed Visible
ABPP Core Area
ABPP Potential National Register Area
Railroad
Harrisonburg
Staunton
Charlottesville
64
81
33
11
340
29
250
Notes
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
2. Data Sources: Dominion Energy Virginia; Stantec; U.S. Census Bureau; Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS), VGIN, U.S. National Park Service, National Register of Historic Places Publication System; U.S. National Park Service, Cultural Resources Geographic Information System Facility
3. Orthoimagery © VGIN
4. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LiDAR
Stantec
Page 2 of 6
Match Line Page Index 3
PL 14
PL 15
VP 4/PL 12
082-0376
082-5075
082-0368
276
253
260/30
260/25
260/20
260/15
260/10
260/5
VP 1
PL 13
082-5156
115-5055
HARRISONBURG SUBSTATION
280
Harrisonburg City
Chesapeake Western Railway
Norfolk Southern Railroad
331
11
33
81
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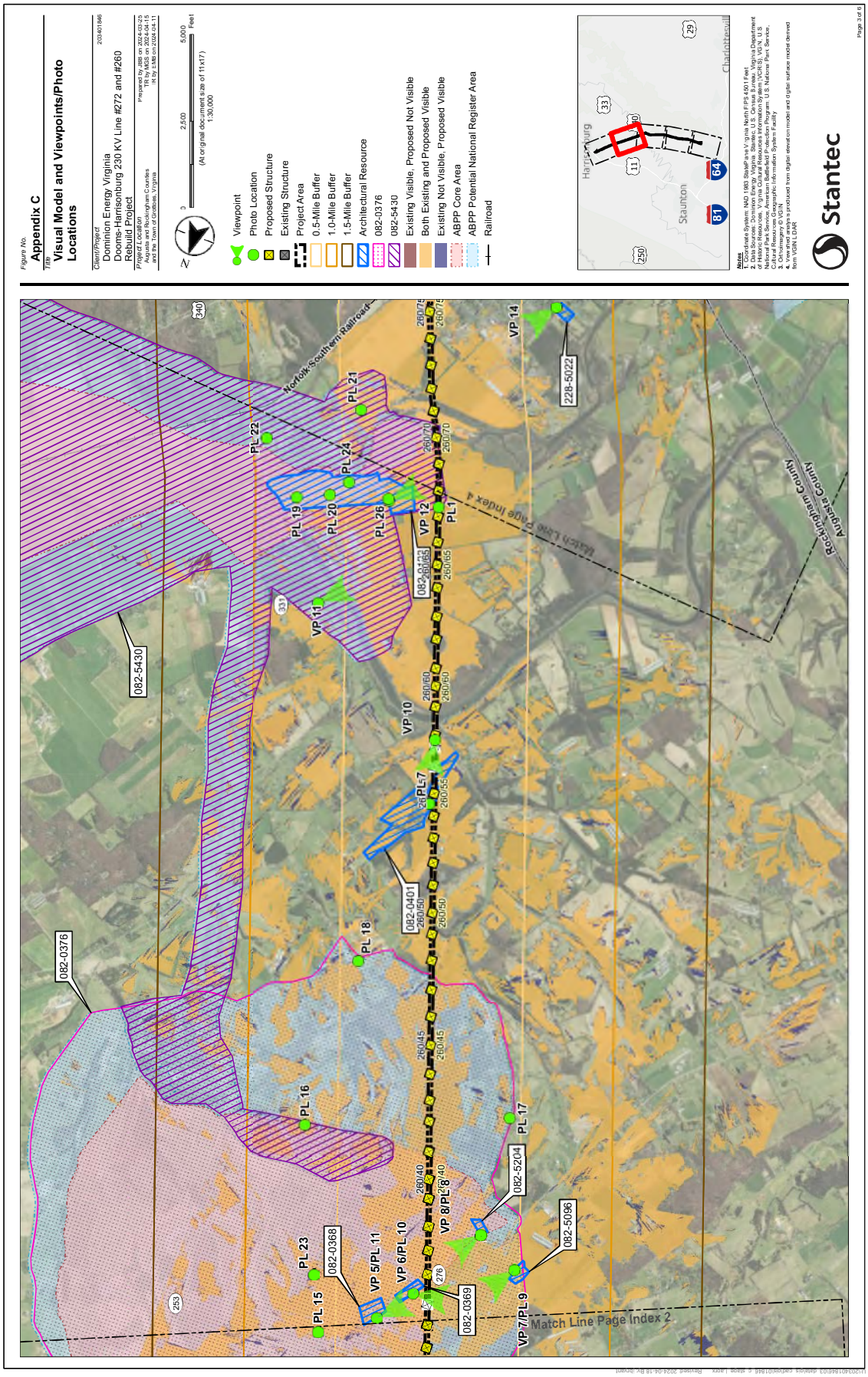
Figure No.
Appendix C
Title
Visual Model and Viewpoints/Photo Locations
Client/Project
Dominion Energy Virginia
Dooms-Harrisonburg 230 KV Line #272 and #260 Rebuild Project
Project Location
Augusta and Rockingham Counties and the Town of Grottoes, Virginia
2014019#6
Prepared by JBB on 2024-03-25
TR by MDB on 2024-04-15
IR by MDB on 2024-04-17
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2,500
5,000 Feet
(At original document size of 11x17)
1:30,000
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Viewpoint
Photo Location
Proposed Structure
Existing Structure
Project Area
0.5-Mile Buffer
1.0-Mile Buffer
1.5-Mile Buffer
Architectural Resource
082-0376
082-5430
Existing Visible, Proposed Not Visible
Both Existing and Proposed Visible
Existing Not Visible, Proposed Visible
ABPP Core Area
ABPP Potential National Register Area
Railroad
Harrisonburg
Staunton
Charlottesville
33
11
64
81
29
250
Notes
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
2. Data Sources: Dominion Energy Virginia; Stantec; U.S. Census Bureau; Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS), VGIN, U.S. National Park Service, National Register of Historic Places Program; U.S. National Park Service, Cultural Resources Geographic Information System Facility
3. Orthoimagery © VGIN
4. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LiDAR
Stantec
Page 3 of 6
Norfolk Southern Railroad
Match Line Page Index 4
Match Line Page Index 2
Rockingham County
Augusta County
082-0376
082-5430
082-0401
082-0368
082-0369
082-5204
082-5096
228-5022
PL 1
PL 7
PL 10
PL 11
PL 15
PL 16
PL 17
PL 18
PL 19
PL 20
PL 21
PL 22
PL 23
PL 24
PL 26
VP 5/PL 11
VP 6/PL 10
VP 7/PL 9
VP 8/PL 8
VP 10
VP 11
VP 12
VP 14
260/75
260/70
260/65
260/60
260/55
260/50
260/45
260/40
340
331
276
253
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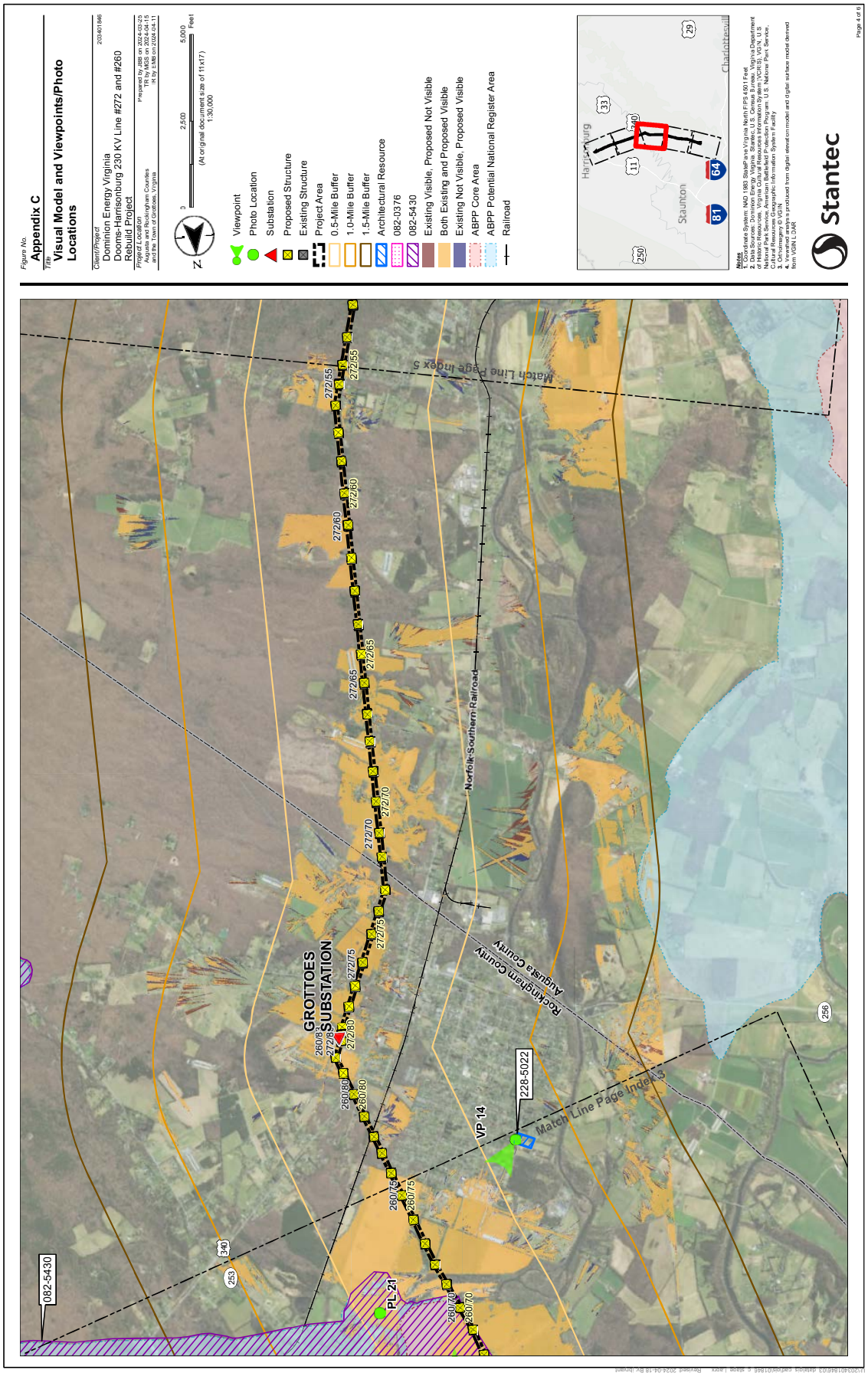


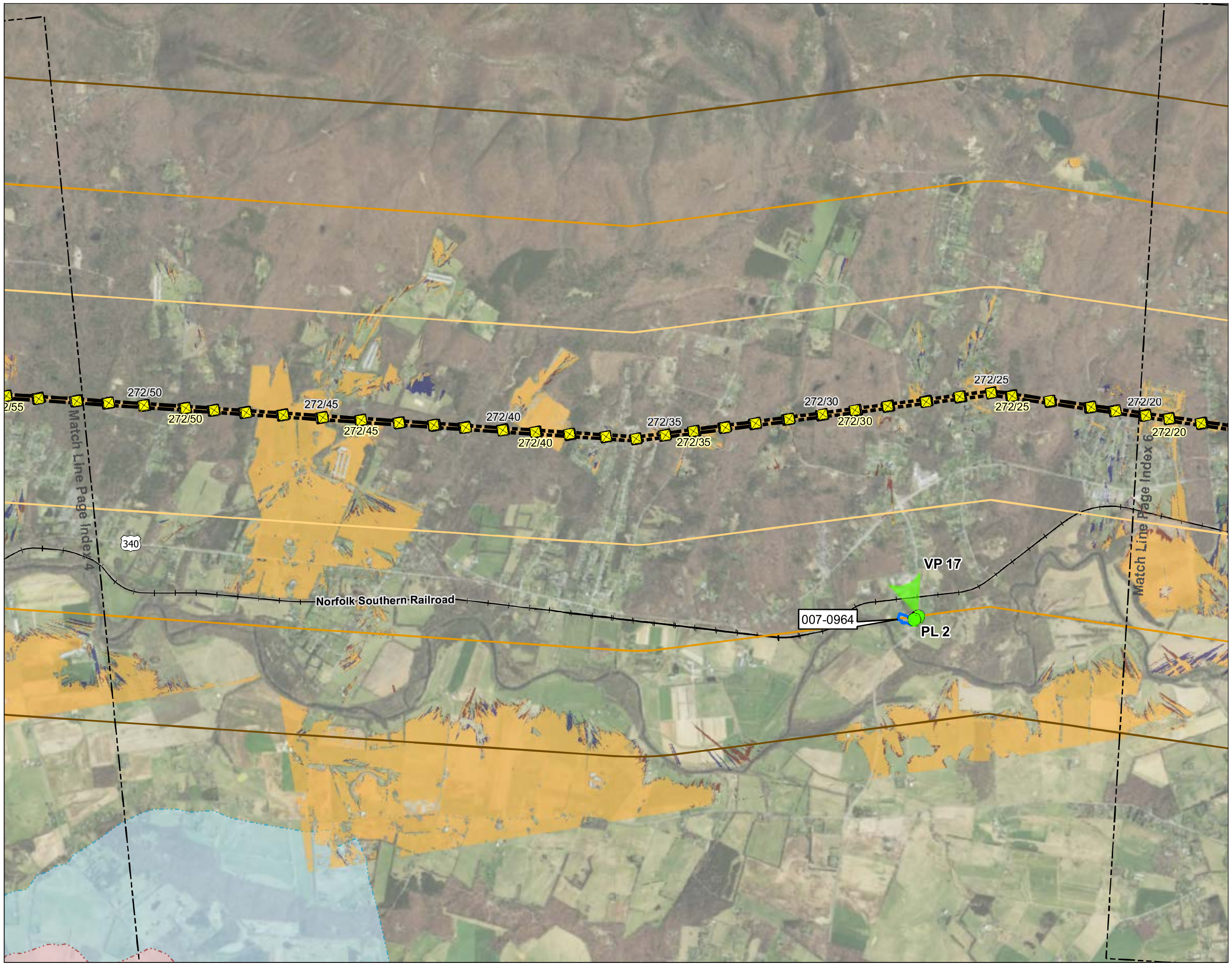


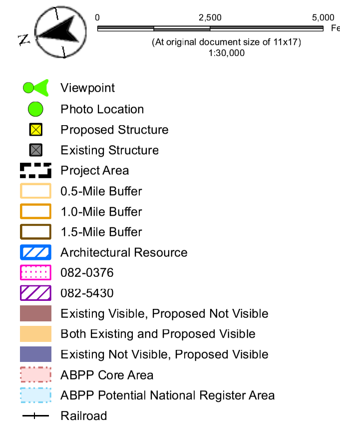
Figure No.
Appendix C

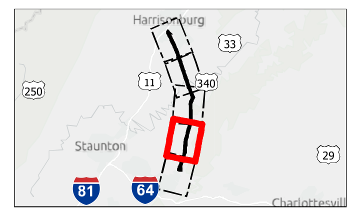
Title
Visual Model and Viewpoints/Photo Locations

Client/Project 203401846
Dominion Energy Virginia
Dooms-Harrisonburg 230 KV Line #272 and #260 Rebuild Project

Project Location
Augusta and Rockingham Counties and the Town of Grottoes, Virginia

Prepared by JBB on 2024-03-25
TR by MGS on 2024-04-15
IR by EMB on 2024-04-11





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2. Data Sources: Dominion Energy Virginia, Stantec, U.S. Census Bureau, Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS), VGIN, U.S National Park Service, American Battlefield Protection Program; U.S. National Park Service, Cultural Resources Geographic Information System Facility
3. Orthoimagery © VGIN
4. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LiDAR

Stantec

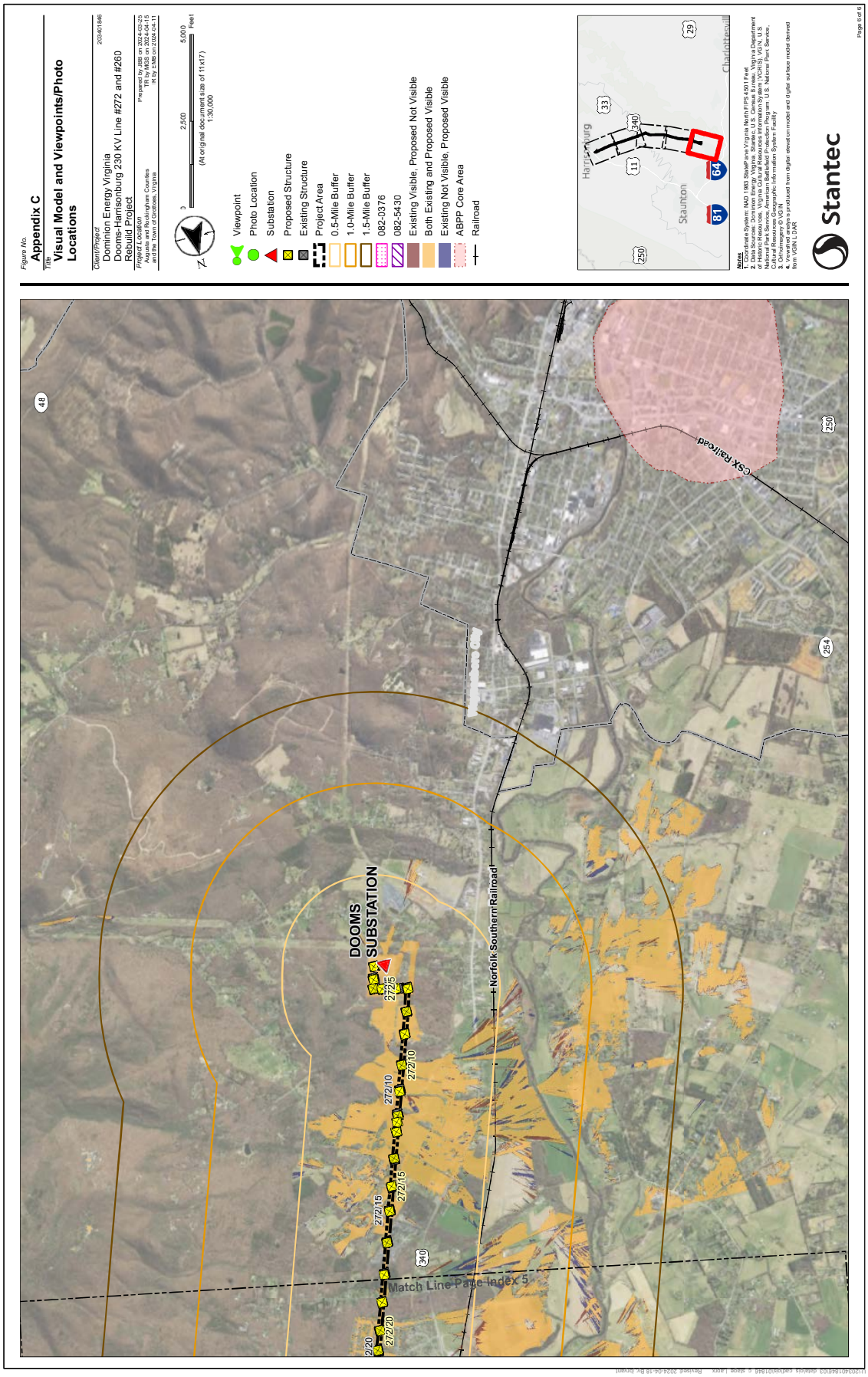
Figure No.
Appendix C
Title
Visual Model and Viewpoints/Photo Locations
Client/Project
Dominion Energy Virginia
Dooms-Harrisonburg 230 KV Line #272 and #260 Rebuild Project
Project Location
Augusta and Rockingham Counties and the Town of Grottoes, Virginia
2514011946
Prepared by JBB on 2024-03-25
TR by MDS on 2024-04-15
IR by MDS on 2024-04-17
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5,000
Feet
(At original document size of 11x17)
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Viewpoint
Photo Location
Substation
Proposed Structure
Existing Structure
Project Area
0.5-Mile Buffer
1.0-Mile Buffer
1.5-Mile Buffer
082-0376
082-5430
Existing Visible, Proposed Not Visible
Both Existing and Proposed Visible
Existing Not Visible, Proposed Visible
ABPP Core Area
Railroad
DOOMS SUBSTATION
Norfolk Southern Railroad
CSX Railroad
Match Line Page Index 5
Harrisonburg
Staunton
Charlottesville
Notes
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
2. Data Sources: Dominion Energy Virginia; Stantec; U.S. Census Bureau; Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS), VGIN, U.S. National Park Service, National Register of Historic Places; Virginia Cultural Resources Information System, U.S. National Park Service, Geographic Information System Facility
3. Orthoimagery © VGIN
4. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LiDAR
Stantec
Page 6 of 6
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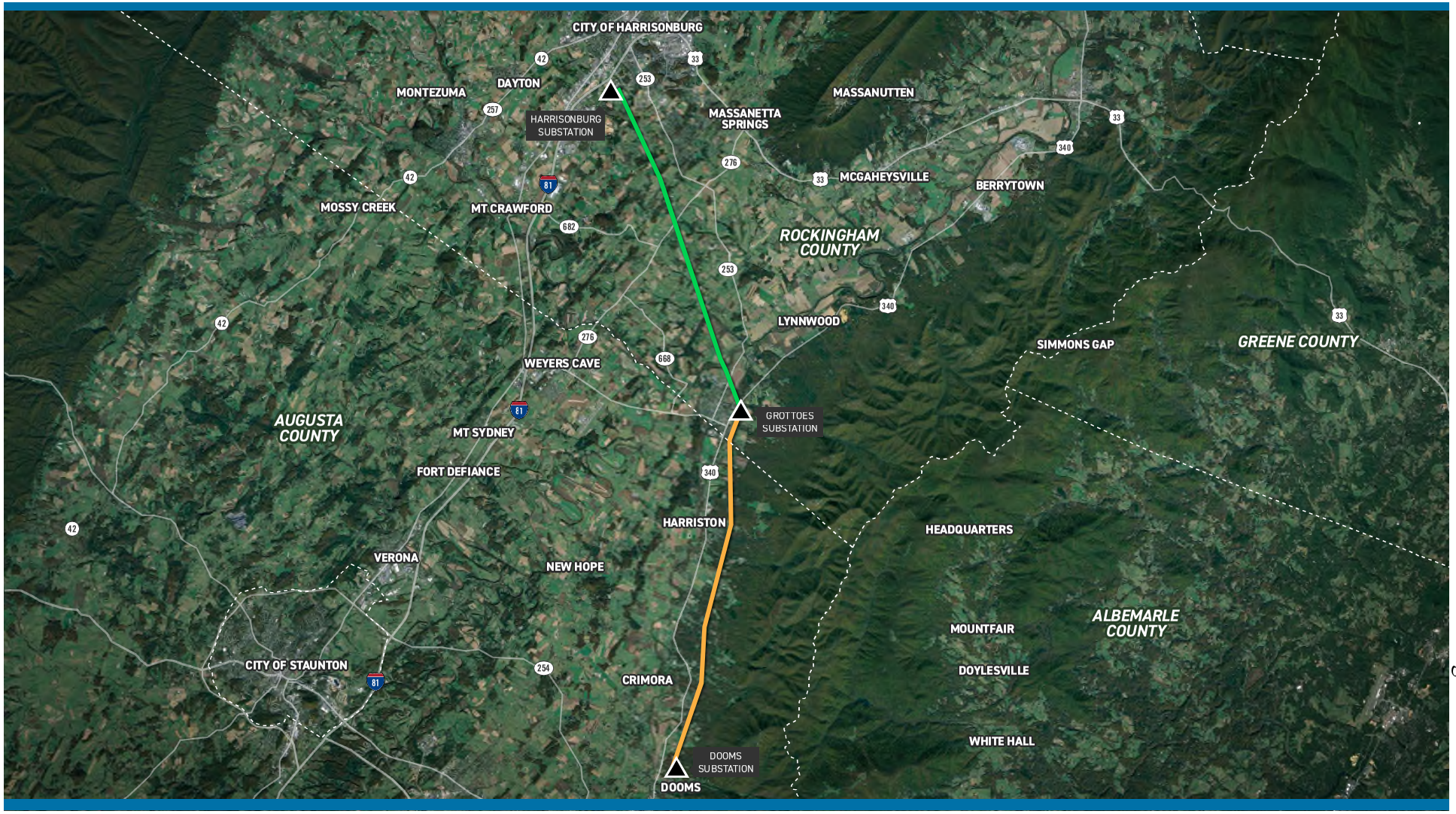
DOOMS-HARRISONBURG

Electric Transmission Rebuild Project

Photo Location Map

1 Viewpoint Location — Harrisonburg-Grottoes Section — Grottoes-Dooms Section — Existing Substation

Dominion Energy



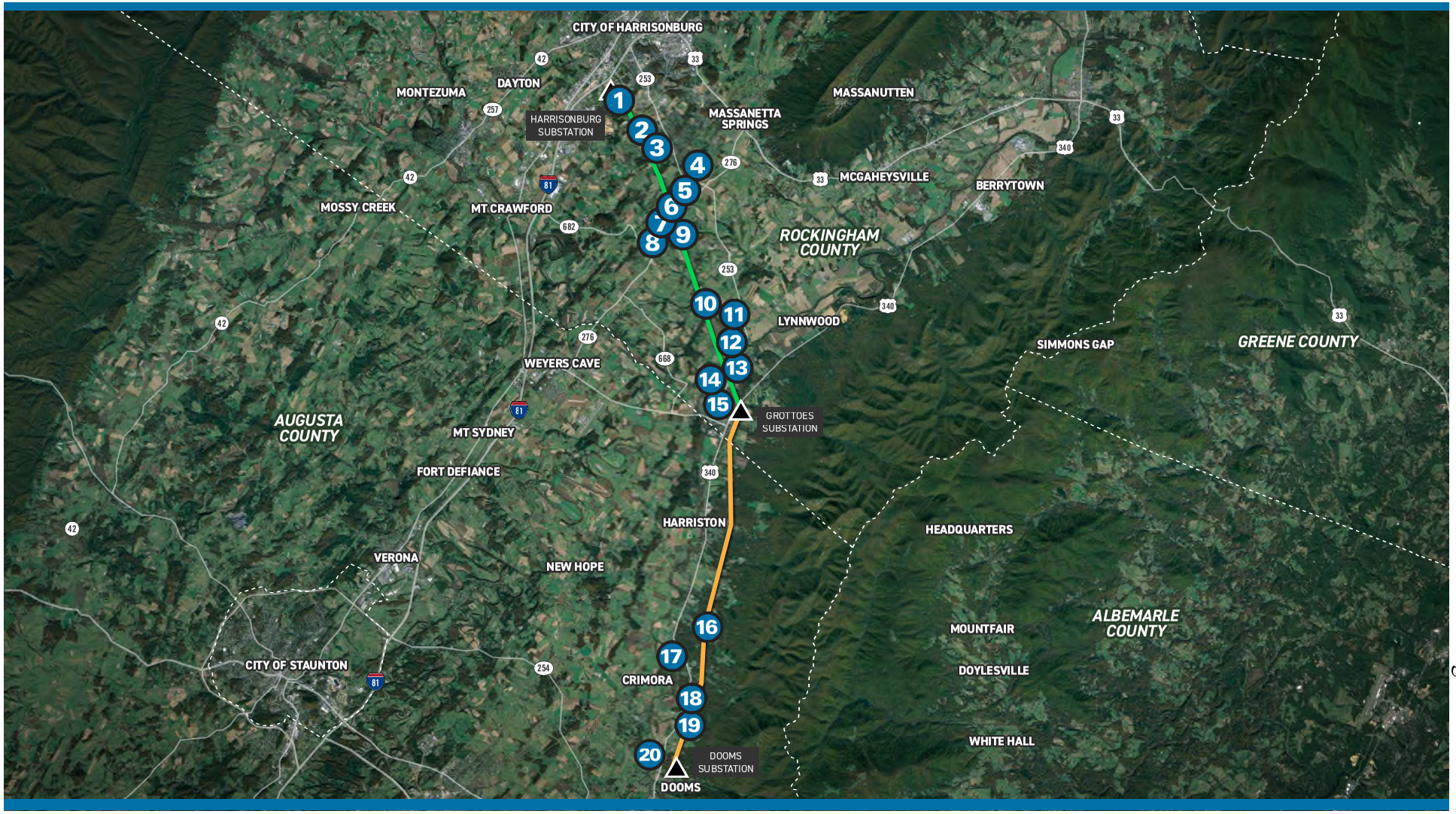
DOOMS-HARRISONBURG

Electric Transmission Rebuild Project

Photo Location Map

1 Viewpoint Location — Harrisonburg-Grottoes Section — Grottoes-Dooms Section — Existing Substation

Dominion Energy



DOOMS-HARRISONBURG

Electric Transmission Rebuild Project

Viewpoint 1 **DHR ID:** 82-5156

Date: 11/09/2023 **Time:** 10:14 am **Viewing Direction:** Northeast

1 Viewpoint Location — Harrisonburg-Grottoes Section

Property Name: Dundore House

Dominion Energy

EXISTING CONDITIONS

PROPOSED CONDITIONS

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

DOOMS-HARRISONBURG

Electric Transmission Rebuild Project

Viewpoint 4 **DHR ID:** 082-5075; 082-0376

Date: 11/09/2023 **Time:** 10:47 am **Viewing Direction:** Southwest

4 Viewpoint Location — Harrisonburg-Grottoes Section

Property Name: Kyle's Mill House; Cross Keys Battlefield

Dominion Energy

EXISTING CONDITIONS

PROPOSED CONDITIONS OVERLAY

Objects displayed in yellow will be fully or partially obscured by terrain and vegetation.

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

DOOMS-HARRISONBURG

Electric Transmission Rebuild Project

Viewpoint 5

DHR ID: 082-0368; 082-0376

Date: 11/09/2023 **Time:** 10:58 am **Viewing Direction:** Southwest

5 Viewpoint Location — Harrisonburg-Grottoes Section

Property Name: Dr. Joseph B. Webb House; Cross Keys Battlefield

Dominion Energy

EXISTING CONDITIONS

PROPOSED CONDITIONS

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

DOOMS-HARRISONBURG

Electric Transmission Rebuild Project

Viewpoint 5

DHR ID: 082-0368; 082-0376

Date: 11/09/2023 **Time:** 10:58 am **Viewing Direction:** Southwest

5 Viewpoint Location — Harrisonburg-Grottoes Section

Property Name: Dr. Joseph B. Webb House; Cross Keys Battlefield

Dominion Energy®

EXISTING CONDITIONS

PROPOSED CONDITIONS | OVERLAY

Objects displayed in yellow will be fully or partially obscured by terrain and vegetation.

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

DOOMS-HARRISONBURG

Electric Transmission Rebuild Project

Viewpoint 6

DHR ID: 082-0369; 082-0376

Date: 11/09/2023 **Time:** 11:05 am **Viewing Direction:** West

6 Viewpoint Location — Harrisonburg-Grottoes Section

Property Name: William VanLear Farm/Kiblinger (Kublinger) House; Cross Keys Battlefield

Dominion Energy

EXISTING CONDITIONS

PROPOSED CONDITIONS

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

DOOMS-HARRISONBURG

Electric Transmission Rebuild Project

Viewpoint 7

DHR ID: 082-5096; 082-0376

Date: 11/09/2023 **Time:** 11:20 am **Viewing Direction:** Northeast

7 Viewpoint Location — Harrisonburg-Grottoes Section

Property Name: Peter Hiel House/Springdale Farm; Cross Keys Battlefield

Dominion Energy

EXISTING CONDITIONS

PROPOSED CONDITIONS

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

DOOMS-HARRISONBURG

Electric Transmission Rebuild Project

Viewpoint 7

DHR ID: 082-5096; 082-0376

Date: 11/09/2023 **Time:** 11:20 am **Viewing Direction:** Northeast

7 Viewpoint Location — Harrisonburg-Grottoes Section

Property Name: Peter Hiel House/Springdale Farm; Cross Keys Battlefield

Dominion Energy

EXISTING CONDITIONS

PROPOSED CONDITIONS | OVERLAY

Objects displayed in yellow will be fully or partially obscured by terrain and vegetation.

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

DOOMS-HARRISONBURG

Electric Transmission Rebuild Project

Viewpoint 8

DHR ID: 082-5204; 082-0376

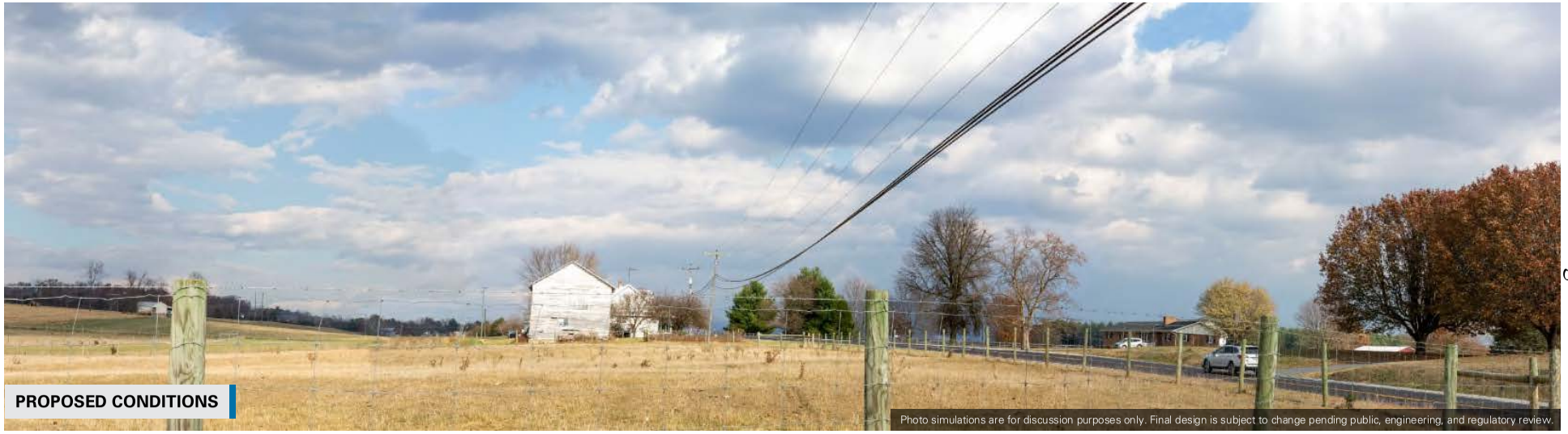
Date: 11/09/2023 **Time:** 11:23 am **Viewing Direction:** Northeast

8 Viewpoint Location — Harrisonburg-Grottoes Section

Property Name: German Reformed Church Parsonage; Cross Keys Battlefield

Dominion Energy

EXISTING CONDITIONS



PROPOSED CONDITIONS

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

DOOMS-HARRISONBURG

Electric Transmission Rebuild Project

Viewpoint 8

DHR ID: 082-5204; 082-0376

Date: 11/09/2023 **Time:** 11:23 am **Viewing Direction:** Northeast

8 Viewpoint Location — Harrisonburg-Grottoes Section

Property Name: German Reformed Church Parsonage; Cross Keys Battlefield

Dominion Energy

EXISTING CONDITIONS

PROPOSED CONDITIONS | OVERLAY

Objects displayed in yellow will be fully or partially obscured by terrain and vegetation.

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

DOOMS-HARRISONBURG

Electric Transmission Rebuild Project

Viewpoint 10 DHR ID: 082-0401

Date: 11/09/2023 **Time:** 11:50 am **Viewing Direction:** North

10 Viewpoint Location — Harrisonburg-Grottoes Section

Property Name: William Saufley Farm

Dominion Energy

EXISTING CONDITIONS

PROPOSED CONDITIONS

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

DOOMS-HARRISONBURG

Electric Transmission Rebuild Project

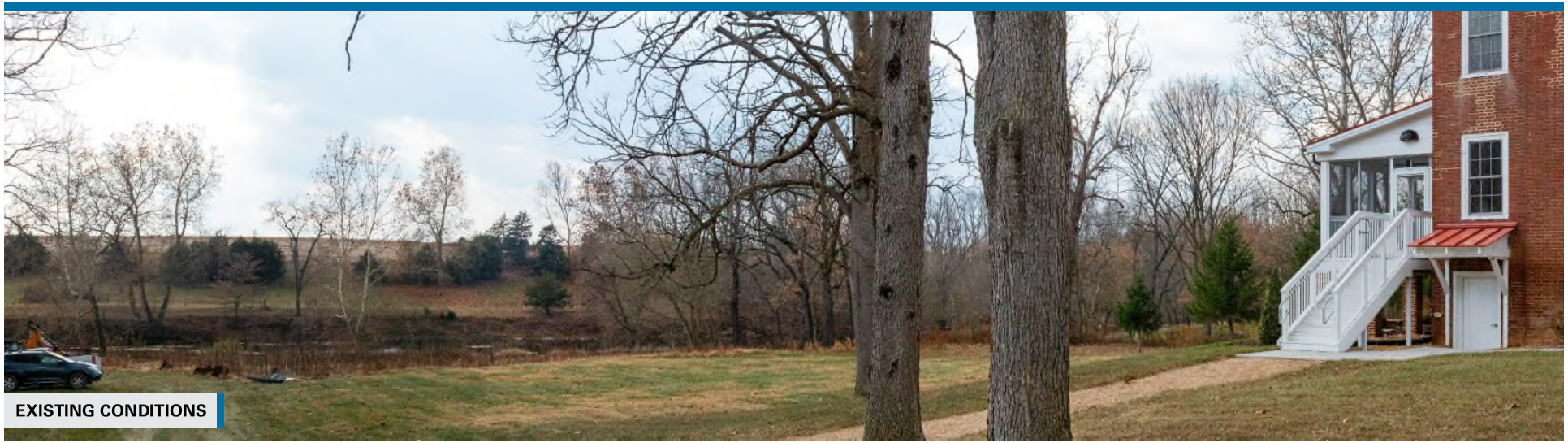
Viewpoint 11 DHR ID: 082-0010; 082-5430

Date: 11/09/2023 **Time:** 12:03 pm **Viewing Direction:** Southwest

11 Viewpoint Location — Harrisonburg-Grottoes Section

Property Name: College Camp; Port Republic Battlefield

Dominion Energy



EXISTING CONDITIONS

PROPOSED CONDITIONS OVERLAY

Objects displayed in yellow will be fully or partially obscured by terrain and vegetation.

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

DOOMS-HARRISONBURG

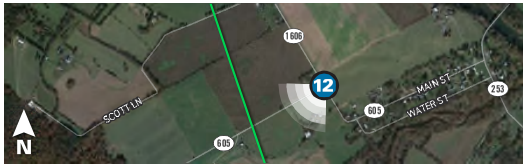
Electric Transmission Rebuild Project

Viewpoint 12 **DHR ID:** 082-0123; 082-5430

Date: 11/09/2023 **Time:** 12:11 pm **Viewing Direction:** Southwest

12 Viewpoint Location — Harrisonburg-Grottoes Section

Property Name: Port Republic Historic District; Port Republic Battlefield



Dominion Energy®

EXISTING CONDITIONS

PROPOSED CONDITIONS

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

DOOMS-HARRISONBURG

Electric Transmission Rebuild Project

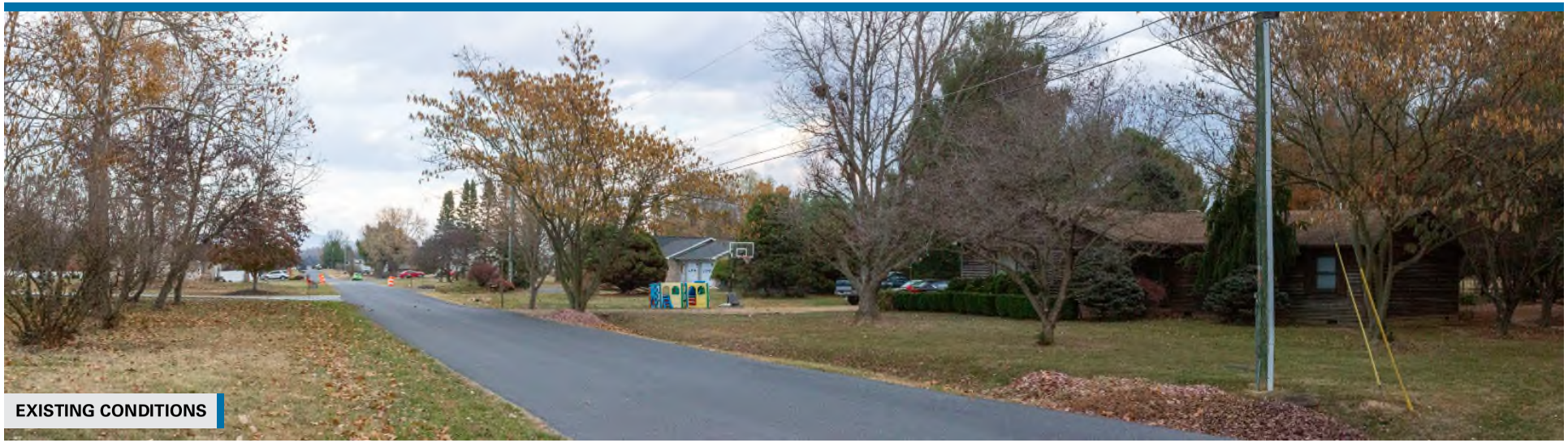
Viewpoint 14 DHR ID: 228-5022

Date: 11/09/2023 **Time:** 12:57 pm **Viewing Direction:** Northeast

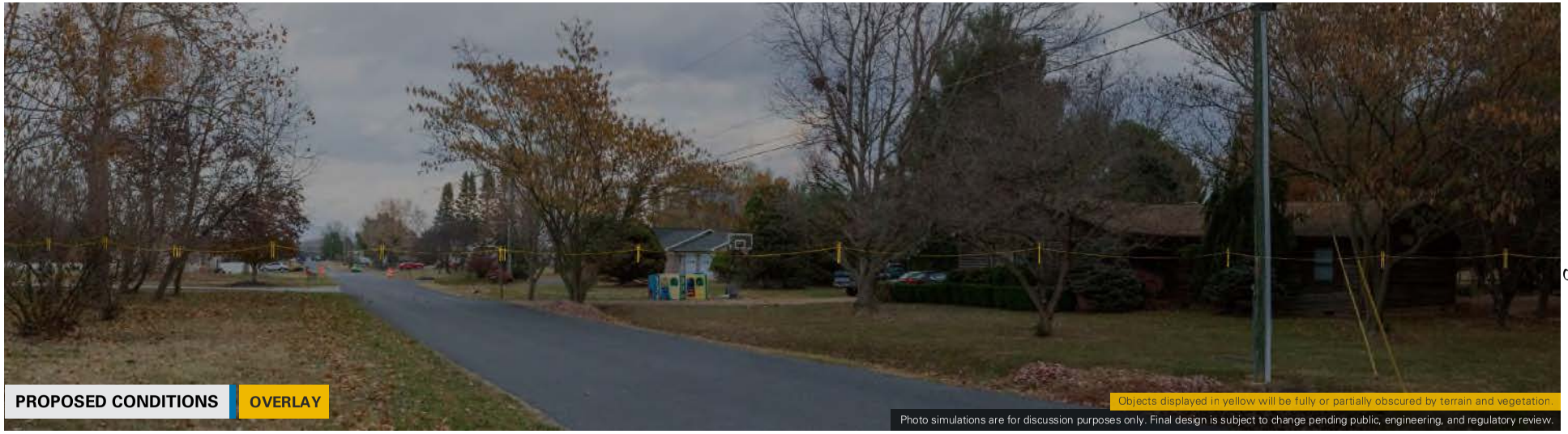
14 Viewpoint Location — Harrisonburg-Grottoes Section

Property Name: Steven Hainsberger House

Dominion Energy®



EXISTING CONDITIONS



PROPOSED CONDITIONS OVERLAY

Objects displayed in yellow will be fully or partially obscured by terrain and vegetation.

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

DOOMS-HARRISONBURG

Electric Transmission Rebuild Project

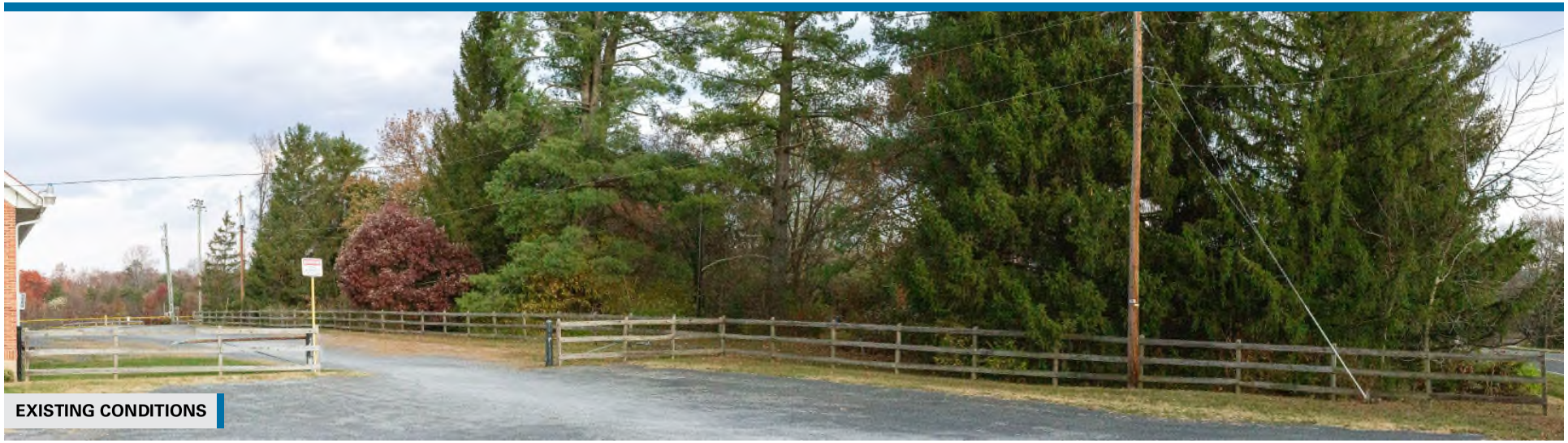
Viewpoint 17 DHR ID: 007-0964

Date: 11/09/2023 **Time:** 1:23 pm **Viewing Direction:** East

17 Viewpoint Location — Grottoes-Dooms Section

Property Name: Crimora Elementary School

Dominion Energy



EXISTING CONDITIONS

PROPOSED CONDITIONS OVERLAY

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VIRGINIA OUTDOORS FOUNDATION

April 19, 2024

[SENT VIA EMAIL]

Charles Weil, PE
Siting and Permitting Specialist
Dominion Energy Services, Inc.
5000 Dominion Boulevard, 3rd Floor
Glen Allen, VA 23060
Charles.H.Weil@dominionenergy.com

RE: Dooms-Harrisonburg 230 kV Electric Transmission Rebuild Project

Dear Mr. Weil:

The Virginia Outdoors Foundation (VOF) thanks you for the notice of the above-referenced project and the opportunity to provide direct comments regarding upgrades to this area.

Based on the letter dated March 28, 2024, Dominion Energy Virginia is proposing to wreck and rebuild the existing transmission lines between Dooms and the City of Harrisonburg (Line #260 and #272). These improvements will replace aging infrastructure within the existing right-of-way along a corridor of approximately 22 miles. Please accept these comments in response to your inquiry.

> VOF, an agency of the Commonwealth, was established by the General Assembly in 1966 to promote the preservation of Virginia's natural and cultural resources by encouraging private philanthropy in fulfillment of state policy. As a result of Virginia's commitment to ensure a vibrant natural environment for today and future generations, VOF owns thousands of acres managed for public access and holds more than 4,500 open-space easements across the Commonwealth, which protect over 880,000 acres.
>
> An open-space easement is a legal interest in real property that creates a relationship between the holders of the easement and the property owner. By means of the easement, VOF has an interest in specific conservation values of the property and a legal obligation to protect these values. VOF easements provide important public benefits by protecting, in perpetuity, significant tracts of mostly undeveloped land, which may contribute to the protection of water quality, productive soils, natural heritage resources, historic resources, and scenic viewsheds. VOF easements represent over $1 billion of public investment and fulfillment of Title XI of the Virginia Constitution and other public policies to ensure the conservation of natural and cultural resources.

VOF holds open-space easements on ten properties within a mile and a half of the existing transmission line and numerous easements throughout Augusta and Rockingham Counties. These easements and other projects, directly and indirectly, protect numerous conservation values for the benefit of the public and contribute to the overall high quality of life in the Commonwealth, specifically the Shenandoah Valley. As such, VOF is concerned about the potential characteristics of the replacement structures and associated project components. While recognizing safety, reliability, and NERC standards, we strongly advocate for the replacement structures and associated project components to have a minimal presence on the landscape or, at most, mimic the characteristics and impacts of the existing towers and structures in height, size, and reflectivity.

Thank you for the notice, and we look forward to working with Dominion Energy Virginia in the continued planning and development of this project as needed. If you have any further questions or comments, please feel free to contact me at (540) 430-0292 or via email at hhibbitts@vof.org.

Sincerely,

Harry Hibbitts
Regional Conservation Director

From: Denny, S. Scott (DOAV) <Scott.Denny@doav.virginia.gov>
Sent: Friday, March 29, 2024 10:55 AM
To: Charles.H.Weil@dominionenergy.com
Subject: [EXTERNAL] Re: Dooms to Harrisonburg 230kV Lines #260 & #272 Rebuild Project - Agency Notification

Charles:

The Virginia Department of Aviation as reviewed the proposed Dooms to Harrisonburg project and it appears as though a portion of the project will be located within 20,000 linear feet of the Shenandoah Valley Regional Airport. Therefore, a 7460 form must be submitted to the Federal Aviation Administration to ensure that the replacement of this powerline will not constitute a "Hazard to Air Navigation". Additionally, any structure, be it temporary or permanent, that reaches a height of 200' above ground level should also be evaluated. Please let me know if you have any questions.

Scott Denny
Senior Aviation Planner
Virginia Department of Aviation

From: Charles.H.Weil@dominionenergy.com <Charles.H.Weil@dominionenergy.com>
Sent: Thursday, March 28, 2024 10:46 AM
To: Denny, S. Scott (DOAV) <scott.denny@doav.virginia.gov>
Cc: Virginia.B.Gills@dominionenergy.com <Virginia.B.Gills@dominionenergy.com>
Subject: Dooms to Harrisonburg 230kV Lines #260 & #272 Rebuild Project - Agency Notification
Good morning Mr. Denny,
Please see the attached project notification as required for our CPCN application filing. If you have any questions, please feel free to contact me.
Thank you!

Chuck Weil, PE
Engineer III
Siting & Permitting, Electric Transmission
5000 Dominion Blvd.
Glen Allen, VA 23060
M: 804-239-6450

have received this electronic transmission in error, please reply immediately to the sender that you have received the message in error, and delete it. Thank you.

From: Warren, Arlene (VDH) <arlene.warren@vdh.virginia.gov>
Sent: Wednesday, April 17, 2024 2:50 PM
To: Virginia B Gills (Services - 6) <Virginia.B.Gills@dominionenergy.com>
Cc: Environmental Impact Review (DEQ) <eir@deq.virginia.gov>
Subject: [EXTERNAL] RE: Dominion Energy Virginia's Proposed Dooms-Harrisonburg 230 kV Lines #260 and #272 Rebuild - SCC Project Notification for CPCN

Project #: N/A
Project Name: Dominion Energy Virginia's Proposed Dooms-Harrisonburg 230 kV Lines #260 and #272 Rebuild - SCC Project Notification for CPCN
UPC #: N/A
Location: Augusta & Rockingham Cos., Town of Grottoes

VDH – Office of Drinking Water has reviewed the above project. Below are our comments as they relate to proximity to **public drinking water sources** (groundwater wells, springs and surface water intakes). Potential impacts to public water distribution systems or sanitary sewage collection systems **must be verified by the local utility.**

The following public groundwater wells are located within a 1-mile radius of the project site (wells within a 1,000-foot radius are formatted in **bold):**

PWS ID Number	City/County	System Name	Facility Name
2165660	ROCKINGHAM CO	WHITE OAK LAVENDER FARM	WELL NO. 1
2165185	ROCKINGHAM CO	CROSS KEYS VINEYARDS	WELL NO. 1
2165330	**ROCKINGHAM CO**	**GROTTOES, TOWN OF**	**WELL #1**
2165330	**ROCKINGHAM CO**	**GROTTOES, TOWN OF**	**WELL #2**
2015330	AUGUSTA COUNTY	GRAND CAVERNS	WELL 1
2015330	AUGUSTA COUNTY	GRAND CAVERNS	WELL 2
2165030	ROCKINGHAM CO	BLACK ROCK MOBILE HOME PARK	WELL #1
2165030	ROCKINGHAM CO	BLACK ROCK MOBILE HOME PARK	WELL #2
2015375	**AUGUSTA COUNTY**	**HARRISTON - ACSA**	**WELL #2**
2015375	**AUGUSTA COUNTY**	**HARRISTON - ACSA**	**WELL #1**
2015050	AUGUSTA COUNTY	JOLLETT SPRINGS MOBILE HOME PARK	JOLLETT WELL
2015523	AUGUSTA COUNTY	ROCKWOOD MOBILE HOME PARK	ROCKWOOD MHP WELL
2015300	AUGUSTA COUNTY	MEADOW RUE MOBILE HOME PARK	WELL NO. 2
2015300	AUGUSTA COUNTY	MEADOW RUE MOBILE HOME PARK	WELL NO. 1

2015325	AUGUSTA COUNTY	COUNTRY ESTATES MOBILE HOME PARK	WELL #1
2015325	**AUGUSTA COUNTY**	**COUNTRY ESTATES MOBILE HOME PARK**	**WELL #2**
2015075	AUGUSTA COUNTY	BLUE RIDGE MOBILE HOME PARK	WELL NO.2
2015075	AUGUSTA COUNTY	BLUE RIDGE MOBILE HOME PARK	WELL NO. 1
2015225	AUGUSTA COUNTY	DOOMS - ACSA	CRIMORA WELL
2015225	**AUGUSTA COUNTY**	**DOOMS - ACSA**	**VESPER VIEW WELL**
2015119	AUGUSTA COUNTY	CARDINAL HOUSE	WELL #2
2015119	AUGUSTA COUNTY	CARDINAL HOUSE	WELL #1
2015477	**AUGUSTA COUNTY**	**NORTH 340 CAMPGROUND**	**WELL NO. 1**

The following surface water intakes are located within a 5-mile radius of the project site:

PWS ID Number	System Name	Facility Name
2165210	DAYTON, TOWN OF	SILVER LAKE
2660345	HARRISONBURG, CITY OF	SILVER LAKE

The project is within the watershed of the following public surface water sources:

PWS ID Number	System Name	Facility Name
2043125	TOWN OF BERRYVILLE	SHENANDOAH RIVER
2043634	MOUNT WEATHER	SHENANDOAH RIVER
2187406	FRONT ROYAL, TOWN OF	SOUTH FORK SHENANDOAH RIVER
6059501	FAIRFAX CO WATER AUTHORITY	INTAKE (POTOMAC RIVER)
6107300	LEESBURG, TOWN OF	POTOMAC INTAKE
6107350	LOUDOUN WATER - CENTRAL SYSTEM	POTOMAC RIVER INTAKE

Best Management Practices should be employed, including Erosion & Sedimentation Controls and Spill Prevention Controls & Countermeasures on the project site.

Well(s) within a 1,000-foot radius from project site should be field marked and protected from accidental damage during construction.

Materials should be managed while on site and during transport to prevent impacts to nearby surface water.

The Virginia Department of Health – Office of Drinking Water appreciates the opportunity to provide comments. If you have any questions, please let me know.

Best Regards,

Arlene F. Warren
GIS Program Support Technician
Mobile 804-389-2167 (office/cell/text)
Email arlene.warren@vdh.virginia.gov
VDH, Office of Drinking Water
109 Governor Street, 6th Floor
Richmond, VA 23219

From: Virginia.B.Gills@dominionenergy.com <Virginia.B.Gills@dominionenergy.com>
Sent: Thursday, March 28, 2024 10:49 AM
To: Rayfield, Bettina (DEQ) <Bettina.Rayfield@deq.virginia.gov>; Hypes, Rene (DCR) <rene.hypes@dcr.virginia.gov>; DCR-PRR Environmental Review (DCR) <envreview@dcr.virginia.gov>; Martin, Amy (DWR) <Amy.Martin@dwr.virginia.gov>; Tignor, Keith (VDACS) <Keith.Tignor@vdacs.virginia.gov>; Folks, Clint (DOF) <Clint.Folks@dof.virginia.gov>; MRC - Scoping (MRC) <scoping@mrc.virginia.gov>; Troy Andersen <troy_andersen@fws.gov>; keith.r.goodwin@usace.army.mil; Regena.D.Bronson@usace.army.mil; Warren, Arlene (VDH) <arlene.warren@vdh.virginia.gov>
Cc: Charles.H.Weil@dominionenergy.com; Frank.J.Greco@dominionenergy.com; annie.c.larson@dominionenergy.com; Charlotte.P.McAfee@dominionenergy.com; andy.flavin@troutman.com; Tim.mchugh@troutman.com; kenny.presgraves@stantec.com
Subject: Dominion Energy Virginia's Proposed Dooms-Harrisonburg 230 kV Lines #260 and #272 Rebuild - SCC Project Notification for CPCN

To Whom it May Concern –

Please see the attached project agency notification for Dominion Energy's Certificate of Public Convenience and Necessity (CPCN) application with the State Corporation Commission (SCC) and associated project location map for the proposed Dooms-Harrisonburg 230 kV Lines #260 and #272 Rebuild Project in Augusta and Rockingham Counties and the Town of Grottoes, Virginia.

Also attached is the shapefile of the proposed project area. If you have any questions, please feel free to contact me directly.

Thank you,

Ginny Gills
Environmental Specialist III
Dominion Energy Environmental & Sustainability
120 Tredegar Street, Richmond, VA 23219
Cell: (804) 201-3635

From: Warren, Arlene
To: Rachel M Studebaker (Services - 6)
Subject: [EXTERNAL] Re: FW: SCC Case No. PUR-2021-00010/DEQ21-013S
Date: Tuesday, June 22, 2021 7:54:22 AM
Attachments: image001.png

The proposal from Dominion is reasonable and we consider it acceptable.

Best Regards,

Arlene Fields Warren

GIS Program Support Technician

Office of Drinking Water

Virginia Department of Health

109 Governor Street

Richmond, VA 23219

(804) 864-7781

On Thu, Jun 17, 2021 at 4:33 PM Rachel.M.Studebaker@dominionenergy.com <Rachel.M.Studebaker@dominionenergy.com> wrote:

> Hello Ms. Warren,
>
> I am reaching out in regard to the DEQ Report for SCC Case No. PUR-2021-00010/DEQ21-013S (230 kV lines #2113 and #2154 Transmission Line Rebuilds and Related Projects). As part of the VDH ODW review, it was recommended that all wells within a 1,000-foot radius of the project site be field marked and protected from accidental damage. It is our custom construction process to not conduct any work outside of the existing right-of-way (ROW), with the exception of entry using existing access roads, and use DEQ approved erosion and sediment controls. These well are located outside of the project area ROW on private land and Dominion Energy does not have permission to enter private property to field mark the wells.

Therefore, we are proposing to plot and call out the wells on the Erosion and Sediment control plans as a way of flagging them for the construction team for protection from accidental damage. Is this a sufficient approach to comply with the ODW recommendation?

Thank you,

Rachel Studebaker

Environmental Specialist II

Dominion Energy Services

120 Tredegar Street, Richmond, VA 23219

Office: (804) 273-4086

Cell: (804) 217-1847