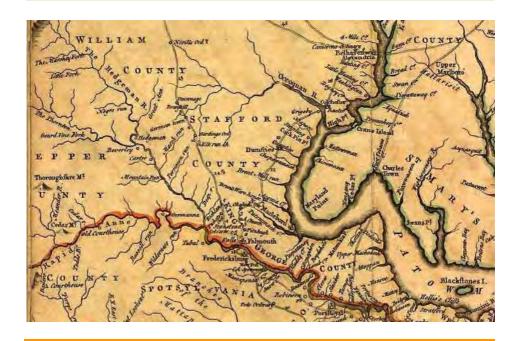
REPORT >

SCC Pre-Application Analysis Of Cultural Resources for the Bristers-Ladysmith 500kV Rebuild Project

LOCATION > Caroline, Spotsylvania, Stafford, and Fauquier Counties, Virginia DATE > APRIL 2020

PREPARED FOR >

Dominion Energy



PREPARED BY >

Dutton + Associates, LLC

PROJECT REVIEW # >

Dutton + Associates

SCC Pre-Application Analysis of Cultural Resources for the Bristers-Ladysmith 500kV Rebuild Project

Caroline, Spotsylvania, Stafford, and Fauquier Counties, Virginia

PREPARED FOR:

DOMINION ENERGY

PREPARED BY:

DUTTON + ASSOCIATES, LLC 1115 Crowder Drive Midlothian, Virginia 23236 804.644.8290

PRINCIPAL INVESTIGATOR:

Robert J. Taylor, Jr. M.A.

ABSTRACT

From November 2019 to April 2020, Dutton + Associates, LLC (D+A) conducted a Pre-Application Analysis (analysis) of cultural resources for the Bristers-Ladysmith 500kV Rebuild Project in Caroline, Spotsylvania, Stafford, and Fauquier counties, Virginia. The analysis was performed for Dominion Virginia Power (Dominion) in support of a State Corporation Commission (SCC) application. The analysis was conducted in accordance with Virginia Department of Historic Resources' (VDHR) guidance titled "Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia" (January 2008) and Commonwealth of Virginia State Corporation Commission Division of Public Utility "Regulation Guidelines for Transmission Line Applications Filed Under Title 56 of the Code of Virginia" (August 2017).

As part of the Bristers-Ladysmith 500kV Rebuild Project, Dominion proposes to replace the existing structures on the transmission line from the Bristers Switching Station in Fauquier County to the Ladysmith Switching Station in Caroline County. This 47-mile segment of transmission line is comprised of two existing line segments, TL552 which extends from the Bristers Switching Station to the Chancellor Substation in Spotsylvania County, and TL581 which continues from the Chancellor Substation to the Ladysmith Switching Station. Both line segments are currently strung from steel lattice structures and rated for 230kV of service. The existing structures on the TL552 portion of the line range in height from 72 to 150 feet with an average height of 103 feet; and the replacement structures will range from 103 to 159 feet with an average of 131 feet. The existing structures on the TL581 portion of the line range in height from 75 to 150 feet with an average height of 103 feet; and the replacement structures will range from 100 to 159 feet with an average of 135 feet. The structures will be replaced on a one-to-one basis in generally the same footprints as the existing structures. All improvements will take place within the existing ROW.

The background research conducted as part of this analysis was guided by VDHR guidance and designed to identify all previously recorded National Historic Landmarks (NHL) located within 1.5-miles of the proposed project, all historic properties listed in the National Register of Historic Places (NRHP) or battlefields located within 1-mile of the proposed project, all historic properties considered eligible for listing in the NRHP located within 0.5-miles of the proposed project, and all buildings, structures, and archaeological sites located directly within the proposed project area. Historic properties include architectural and archaeological (terrestrial and underwater) resources, historic and cultural landscapes, battlefields, and historic districts. For each historic property within the defined tiers, a review of existing documentation and a field reconnaissance was undertaken to assess each property's significant character-defining features, as well as the character of its current setting. Following identification of historic properties, D+A assessed the potential for impacts to any identified properties as a result of the proposed project. Specific attention was given to determining whether or not construction related to the project could introduce new visual elements into the property's viewshed or directly impact the property through construction, which would either directly or indirectly alter those qualities or characteristics that qualify the historic property for listing in the NRHP.

Review of the VDHR Virginia Cultural Resource Information System (VCRIS) inventory records revealed a total of 208 previously recorded architectural resources are located 1.5-miles of the project area. Of these, there are no NHLs located within 1.5-miles of the project area; four properties that are listed in the NRHP, three battlefields, and seven historic landscape located within 1-mile of the project area, and four properties that have been determined eligible for listing in the NRHP by the VDHR within 0.5-miles of the project area.

Following identification and field inspection of historic properties, D+A assessed each resource for potential impacts brought about by the proposed project according to VDHR guidance. Because of the increase in structure height that meets the definition of a substantial increase, assessment included pedestrian inspection and ground-based photography, in addition to photo simulation. When assessing impacts, D+A considered those qualities and characteristics that qualify the property for listing and whether the project had the potential to alter or diminish the integrity of the property and its associated significance. Specific attention was given to determining whether or not the proposed project would introduce new visual elements into a property's viewshed, which would either directly or indirectly alter those qualities or characteristics that qualify the historic property for listing in the NRHP.

This analysis revealed that because the project involves the rebuild of an existing transmission line with new structures replaced on a one-to-one basis, sited in a landscape with a rolling topography interspersed by wide wooded areas and pockets of modern development, the project will result in a change in visibility from some vantage points and resources, but little to no change from others. As such, there will be no more than a minimal visual impact to most significant cultural resources. Many resources will have no impact due to the topography and vegetation of the surrounding setting that completely screens visibility of the existing transmission line and will likely continue to do so following replacement of structures in the ROW.

For other resources that are set in closer proximity to the project area, or already directly crossed by the ROW may have a slight change in visibility, however, in most cases, the existing line is already visible from vantage points on or near the property. In many locations where the existing line is visible, it is seen against the backdrop of nonhistoric development and other infrastructure and partially to mostly screened by the intervening topography and vegetation. In most vantage points where the existing line may be seen the views only include short lengths of line and several structures at most. The vegetation and topography of the area generally inhibit long, uninterrupted views of the line. The increase in proposed structure height may allow additional visibility and views of the transmission line and thus may result in a moderate impact to some resources.

The following list (Table 1) summarizes the status and recommended impacts for each of the NHL/NRHP-Listed/NRHP-Eligible architectural resources within the study tiers around the Bristers-Ladysmith 500kV Rebuild Project.

Table 1: Summary of potential impacts summary for architectural resources.

Table 1: Summary of potential impacts summary for architectural resources.					
			Proximity		
VDHR ID#	Resource Name	NRHP	to the	Impact	
V DIIK ID π	Resource Ivanie	Status	Project	Impact	
			Area		
	Elk Run Rural Historic				
	District (Historic), Elk				
	Run-Germantown-Cedar				
	Run Rural Historic District				
030-5588	(Historic/Current)	NRHP-Eligible	0.32 miles	Minimal Impact	
000 000	Hedgeman-Rappahannock	Tituli Eligieit	0.02 1111100	Transmit imput	
	Rural Historic District				
030-5607	(Historic)	NRHP-Eligible	0.28 miles	Minimal Impact	
030 3007	Berkwood (Current),	TVICITI Eligible	0.20 IIIICS	winima impact	
	Goodloe Plantation				
	(Historic), House, Route				
			D:		
000 0015	605 (Function/Location),	NIDIID EU. 11.	Directly crossed by	Minimali	
088-0015	Oak Hill (Historic)	NRHP-Eligible	ROW	Minimal Impact	
	Gayle House (Historic),				
	Rose Mount (Historic),				
088-0059	Rosemont (Historic)	NRHP-Eligible	~0.21 miles	No Impact	
	Whig Hill				
088-0070	(Historic/Current)	NRHP-Eligible	~0.25 miles	No Impact	
	Tabul Furnace (Historic),			•	
	Tabul Furnace				
	Archaeological Site				
088-0074	(Current)	NRHP-Listed	0.31-miles	No Impact	
	Rapidan Dam Canal of the				
	Rappahannock Navigation				
088-0137	(Current)	NRHP-Listed	Directly Crossed	Minimal Impact	
000 0157	Spotsylvania Court House	TVICH Elsted	Directly Clossed	William Impact	
	Historic District (NRHP				
088-0142	Listing)	NRHP-Listed	~0.72 miles	No Impact	
000-01-42	Ashley Farm (Historic),	NKIII -LISICU	~0.72 iiiies	No impact	
	First Day at Chancellorsville Property				
		D			
000 0220	(Descriptive), John	Preservation	D:	Madausta Innasa	
088-0220	Mullins Farm (Current)	Easement	Directly Crossed	Moderate Impact	
	Lick Run Battlefield	NI - F 11			
000 0224	Historic District	Not Formally	D: 4 G 1	3.6' ' 1.7	
088-0334	(Historic/Current)	Evaluated	Directly Crossed	Minimal Impact	
	Rowe House, 9400				
	Courthouse Rd				
088-5129	(Historic/Location)	NRHP-Eligible	~0.31 miles	No Impact	
	Chancellorsville		Directly crossed by		
088-5180	Battlefield (Current)	NRHP-Eligible	ROW	Moderate Impact	
	Spotsylvania Court House				
	Battlefield (Current				
	Name), Spotsylvania Court				
	House Battlefield		Directly crossed by		
088-5182	(Historic)	NRHP-Eligible	ROW	Minimal Impact	
	Battle of Harris Farm	<u> </u>		1	
088-5188	Battlefield (Historic)	Not Evaluated	~0.12 miles	Minimal Impact	
000-2100	Zastieniela (Historie)	Not Evaluated	~0.12 iiiies	iviiiiiiai iiiipact	

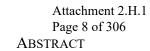
VDHR ID#	Resource Name	NRHP Status	Proximity to the Project Area	Impact
	Fredericksburg and			
	Gordonsville Railroad			
	(Historic), Fredericksburg,			
	Orange, and			
	Charlottesville Railroad			
	(Historic), Potomac,			
	Fredericksburg, and			
	Piedmont Railroad			
	(Historic), Unfinished			
	Railroad (Historic),			
	Virginia Central Railway Historic District			
088-5364	(Historic/Current)	NRHP-Eligible	Directly Crossed	Minimal Impact
000-3304	Rappahannock Navigation	NKIII -Eligible	Directly Clossed	William Impact
	System (Canal)			
111-0134	(Historic/Current)	NRHP-Eligible	Directly Crossed	Minimal Impact
111 013 1	Fredericksburg and	TVICH Eligible	Directly Clossed	William Impact
	Spotsylvania Battlefields			
	National Military Park			
	(Historic/Current),			
	Fredericksburg and			
	Spotsylvania County			
	Battlefields Memorial			
	National Military Park and			
111-0147	Cemetery (NRHP Listing)	NRHP-Listed	~0.41 miles	No Impact
	Rappahannock River Rural			
111-5001	Historic District	Not Eligible	Directly Crossed	No Impact

With regards to archaeology, there are 18 previously recorded archaeological sites located directly within or adjacent to the project area (Table 2). Of these, one has been determined not eligible for listing in the NRHP by the VDHR and the others have not been formally evaluated. No archaeological field work was conducted as part of this effort and previously recorded sites within or adjacent to the project were not visited or assessed at this time, but should be assessed for existing conditions and project impacts as additional project construction details become available.

Table 2: Summary of potential impacts summary for archaeological resources.

VDHR ID#	NRHP Status	Proximity to the Project Area	Impacts
44FQ0108	Not Evaluated	Within ROW	TBD
44FQ0109	Not Evaluated	Within ROW	TBD
44SP0079	Not Evaluated	Within ROW	TBD
44SP0080	Not Evaluated	Within ROW	TBD
44SP0111	Not Evaluated	Adjacent to ROW	TBD
44SP0165	Not Evaluated	Adjacent to ROW	TBD
44SP0166	Not Evaluated	Within ROW	TBD
44SP0167	Not Evaluated	Within ROW	TBD
44SP0168	Not Evaluated	Within ROW	TBD
44SP0170	Not Evaluated	Within ROW	TBD

VDHR ID#	NRHP Status	Proximity to the Project Area	Impacts
44SP0171	Not Evaluated	Within ROW	TBD
44SP0172	Not Evaluated	Within ROW	TBD
44SP0174	Not Evaluated	Within ROW	TBD
44SP0333	Not Evaluated	Within ROW	TBD
44SP0340	Not Evaluated	Adjacent to ROW	TBD
	VDHR: Not		TBD
44SP0682	Eligible	Within ROW	
44ST0142	Not Evaluated	Within ROW	TBD
44ST0143	Not Evaluated	Within ROW	TBD



THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

1. INTRODUCTION	1-1
2. PROJECT DESCRIPTION	2-1
3. RESEARCH DESIGN	3-1
Archival Research	
Field Reconnaissance	
Assessment of Potential Impacts	
Report Preparation	
4. ARCHIVAL RESARCH	4-1
Previously Surveyed Areas	
Architectural Resources	4-4
NPS American Battlefield Protection Program (ABPP)	4-12
Archaeological Sites	
5. RESULTS OF FIELD RECONNAISSANCE	5-1
National Register of Historic Places-Listed Properties	5-3
Battlefields	
Historic landscapes	
National Register of Historic Places-Eligible Properties	
6. SUMMARY OF POTENTIAL IMPACTS	6-1
7. REFERENCES	7-1
Figure 2-1: Bristers-Ladvemith 500kV Rebuild Project General Location	2-2
Figure 2-1: Bristers-Ladysmith 500kV Rebuild Project General Location	2-2
Figure 2-2: Bristers-Ladysmith 500kV Rebuild Project General Alignment (Go	
Figure 2-3: Bristers-Ladysmith 500kV Rebuild Project Alignment Detail (Goo	
Figure 2-4: Schematics of representative existing and proposed structures. Sou	
Figure 2-5: Schematics of representative existing and proposed structures. Sou	
Figure 2-6: Schematics of representative existing and proposed structures. Sou Figure 2-7: Schematics of representative existing and proposed structures. Sou	
Figure 4-1: Previously conducted phase I surveys within 1.5-miles of the projection.	
Half of Alignment). Source: VCRIS	`
Figure 4-2: Previously conducted phase I surveys within 1.5-miles of the proje	
Half of Alignment). Source: VCRIS.	`
Figure 4-3: Architectural Resources within 1.5-miles of the project area (North	
Alignment). Source: VCRIS	4-6
Figure 4-4: Architectural Resources within 1.5-miles of the project area (South	n Half of
Alignment). Source: VCRIS	
Figure 4-5: NHL, NRHP-Listed, and Eligible Architectural Resources within 1	
project area (North Quarter of alignment). Source: VCRIS	
Figure 4-6: NHL, NRHP-Listed, and Eligible Architectural Resources within 1	
project area (North-Central Quarter of alignment). Source: VCRIS	
Figure 4-7: NHL, NRHP-Listed, and Eligible Architectural Resources within 1 project area (South-Central Quarter of alignment). Source: VCRIS	
project area (South-Central Quarter of alignment). Source: VCKIS	4-1U

Figure 4-8: NHL, NRHP-Listed, and Eligible Architectural Resources within 1.5-miles of the
project area (South Quarter of alignment). Source: VCRIS4-11
Figure 4-9: Chancellorsville Battlefield tiers in relation to the project area and viewshed buffers.
Source: VCRIS/ American Battlefield Protection Program (ABPP)4-13
Figure 4-10: Spotsylvania Courthouse Battlefield tiers in relation to the project area and
viewshed buffers. Source: VCRIS/ American Battlefield Protection Program (ABPP)4-14
Figure 4-11: Previously recorded archaeological resources located within 1.5 miles of the project
area (North Half of Alignment). Source: VCRIS
Figure 4-12: Previously recorded archaeological resources located within 1.5 miles of the project
area (South Half of Alignment). Source: VCRIS4-17
Figure 4-13: Previously recorded archaeological resources located within or adjacent to the
project area ROW (North Quarter of Alignment). Source: VCRIS
Figure 4-14: Previously recorded archaeological resources located within or adjacent to the
project area ROW (North-Central Quarter of Alignment). Source: VCRIS4-20
Figure 4-15: Previously recorded archaeological resources located within or adjacent to the
project area ROW (South-Central Quarter of Alignment). Source: VCRIS4-21
Figure 4-16: Previously recorded archaeological resources located within or adjacent to the
project area ROW (South Quarter of Alignment). Source: VCRIS
Figure 5-1: Location and direction of representative photos of Tubal Furnace Archaeological
Site. Photo locations and directions shown in yellow. Base map source: V-CRIS5-6
Figure 5-2: Tubal Furnace Archaeological Site in relation to the project area and viewshed
buffers. Photo locations and directions shown in yellow. Base map source: V-CRIS5-7
Figure 5-3: Location of Rapidan Dam Canal of the Rappahannock Navigation. Base map
source: V-CRIS
Figure 5-4: Rapidan Dam Canal of the Rappahannock Navigation in relation to the project area
and viewshed buffers. Base map source: V-CRIS
Figure 5-5: Location and direction of representative photos of the Spotsylvania Courthouse
Historic District. Photo locations and directions shown in yellow. Base map source: V-CRIS5-
Figure 5-6: Spotsylvania Courthouse Historic District in relation to the project area and
viewshed buffers. Photo locations and directions shown in yellow. Simulation locations and
directions shown in green. Base map source: V-CRIS
Figure 5-7: Location and direction of representative photos of Fredericksburg Spotsylvania
Battlefield National Military Park Spotsylvania Courthouse Tract. Photo locations and directions
shown in yellow. Base map source: V-CRIS
Figure 5-8: Fredericksburg and Spotsylvania National Military Park Spotsylvania Courthouse
Tract in relation to the project area and viewshed buffers. Photo locations and directions shown
in yellow. Simulation locations shown in green. Base map source: V-CRIS5-30
Figure 5-9: Location and direction of representative photos of Fredericksburg Spotsylvania
Battlefield National Military Park Chancellorsville Battlefield tract in the vicinity of the project
area. Photo locations and directions shown in yellow. Base map source: V-CRIS5-35
Figure 5-10: Fredericksburg and Spotsylvania National Military Park Chancellorsville
Battlefield tract in relation to the project area and viewshed buffers. Photo locations and
directions shown in yellow. Simulation locations shown in green. Base map source: V-CRIS 5-36
Figure 5-11: Location and direction of representative photos of Chancellorsville Battlefield.
Photo locations and directions shown in yellow. Base map source: V-CRIS5-57

Figure 5-12: Location and direction of representative photos of Chancellorsville Battlefield.
Photo locations and directions shown in yellow. Base map source: V-CRIS5-58
Figure 5-13: Chancellorsville Battlefield in relation to the project area and viewshed buffers.
Photo locations and directions shown in yellow. Simulation locations shown in green. Base map
source: V-CRIS5-59
Figure 5-14: Chancellorsville Battlefield in relation to the project area and viewshed buffers.
Photo locations and directions shown in yellow. Base map source: V-CRIS5-60
Figure 5-15: Chancellorsville Battlefield ABPP-defined tiers in relation to the project area and
viewshed buffers. Base map source: NPS/V-CRIS5-61
Figure 5-16: Location and direction of representative photos of Spotsylvania Courthouse
Battlefield. Photo locations and directions shown in yellow. Base map source: V-CRIS 5-95
Figure 5-17: Location and direction of representative photos of Spotsylvania Courthouse
Battlefield. Photo locations and directions shown in yellow. Base map source: V-CRIS 5-96
Figure 5-18: Spotsylvania Courthouse Battlefield in relation to the project area and viewshed
buffers. Photo locations and directions shown in yellow. Simulation locations shown in green. Base map source: V-CRIS
1
Figure 5-19: Spotsylvania Courthouse Battlefield in relation to the project area and viewshed
buffers. Photo locations and directions shown in yellow. Base map source: V-CRIS5-98
Figure 5-20: Spotsylvania Courthouse Battlefield ABPP-defined tiers in relation to the project
area and viewshed buffers. Base map source: NPS/V-CRIS
Figure 5-21: Location and direction of representative photos of Harris Farm Battlefield. Photo
locations and directions shown in yellow. Base map source: V-CRIS
Figure 5-22: Harris Farm Battlefield in relation to the project area and viewshed buffers. Photo
locations and directions shown in yellow. Simulation locations shown in green. Base map
source: V-CRIS
Figure 5-23: Spotsylvania Courthouse Battlefield (with Harris Farm Core Area) ABPP-defined
tiers in relation to the project area and viewshed buffers. Base map source: NPS/V-CRIS5-136
Figure 5-24: Location and direction of representative photos of Elk-Run-Germantown-Cedar
Run Rural Historic District. Photo locations and directions shown in yellow. Base map source:
V-CRIS
Figure 5-25: Elk-Run-Germantown-Cedar Run Rural Historic District in relation to the project
area and viewshed buffers. Photo locations and directions shown in yellow. Base map source:
V-CRIS5-150
Figure 5-26: Location and direction of representative photos of Hedgeman-Rappahannock Rural
Historic District. Photo locations and directions shown in yellow. Base map source: V-CRIS5-
155
Figure 5-27: Hedgeman-Rappahannock Rural Historic District in relation to the project area and
viewshed buffers. Photo locations and directions shown in yellow. Base map source: V-CRIS 5-
156
Figure 5-28: Location and direction of representative photos of John Mullins Farm. Photo
locations and directions shown in yellow. Base map source: V-CRIS5-160
Figure 5-29: John Mullins Farm in relation to the project area and viewshed buffers. Photo
locations and directions shown in yellow. Photo simulation locations shown in green. Base map
source: V-CRIS
Figure 5-30: Location and direction of representative photos of Lick Run Battlefield Historic
District. Photo locations and directions shown in yellow. Base map source: V-CRIS 5-170
2 12 11 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Figure 5-31: Lick Run Battlefield Historic District in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Photo simulation locations shown in
green. Base map source: V-CRIS
Figure 5-32: Location and direction of representative photos of Virginia Central Railway (VCR)
Historic District. Photo locations and directions shown in yellow. Base map source: V-CRIS5-
184
Figure 5-33: Virginia Central Railway (VCR) Historic District in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Photo simulation location shown in green. Base map source: V-CRIS
199
Figure 5-37: Rappahannock River Rural Historic District in relation to the project area and
viewshed buffers. Photo locations and directions shown in yellow. Base map source: V-CRIS 5-
200 Eigen 5 28: I and in addition of assume at the above of Boulevand. Block leading and
Figure 5-38: Location and direction of representative photos of Berkwood. Photo locations and directions shown in yellow. Base map source: V-CRIS
Figure 5-39: Berkwood in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Photo simulation location shown in green. Base map source: V-
CRIS
Figure 5-40: Location and direction of representative photos of Gayle House. Photo locations and directions shown in yellow. Base map source: V-CRIS
Figure 5-41: Gayle House in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Photo simulation location shown in green. Base map source: V-CRIS
Figure 5-42: Location and direction of representative photos of Wigg Hall. Photo locations and
directions shown in yellow. Base map source: V-CRIS5-230
Figure 5-43: Wigg Hall in relation to the project area and viewshed buffers. Photo locations and
directions shown in yellow. Photo simulation location shown in green. Base map source: V-CRIS
Figure 5-44: Location and direction of representative photos of Rowe House. Photo locations
and directions shown in yellow. Base map source: V-CRIS
Figure 5-45: Rowe House in relation to the project area and viewshed buffers. Photo locations
and directions shown in yellow. Photo simulation locations shown in green. Base map source: V-CRIS

LIST OF TABLES

Table 2-1: Existing and proposed structure heights. Source: Dominion.2-7

TABLE OF CONTENTS

Table 4-1: Previously conducted cultural resource surveys within the Project Area. Source:	
VDHR	4-]
Table 4-2: Previously recorded architectural resources within their respective tiered study area	S
for the Line 581 Rebuild Project as specified in the VDHR Guidelines for Assessing Impacts of	of
Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the	
Commonwealth of Virginia	4-4
Table 4-3: Previously recorded archaeological resources located directly within or adjacent to	the
project area (bold listings denote sites eligible for the NRHP)4	-18
Table 6-1: Summary of potential impacts summary for architectural resources	6-2
Table 6-2: Summary of potential impacts summary for archaeological resources	6-3



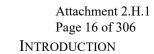
THIS PAGE INTENTIONALLY LEFT BLANK

1. INTRODUCTION

From November 2019 to April 2020, Dutton + Associates, LLC (D+A) conducted a Pre-Application Analysis (analysis) of cultural resources for the Brister-Ladysmith 500kV Rebuild Project in Caroline, Spotsylvania, Stafford, and Fauquier Counties, Virginia. The analysis was performed for Dominion Virginia Power (Dominion) in support of a State Corporation Commission (SCC) application. The analysis was conducted in accordance with Virginia Department of Historic Resources' (VDHR) guidance titled Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia (January 2008) and Commonwealth of Virginia State Corporation Commission Division of Public Utility Regulation Guidelines for Transmission Line Applications Filed Under Title 56 of the Code of Virginia (August 2017).

This analysis was performed at a level that meets the purpose and intent of VDHR and the SCC's guidance. It provides information on the presence of previously recorded cultural resources in the vicinity of the project area according to tiered study areas. This includes National Historic Landmark (NHL) properties located within a 1.5-mile buffer area established around the project area; National Register of Historic Places (NRHP)-listed properties, battlefields, and historic landscapes located within a 1-mile buffer around the project area; properties previously determined eligible for listing in the NRHP by the VDHR located within a 0.5-mile buffer area around the project area; and previously identified archaeological resources directly within the project area. This analysis will not satisfy Section 106 identification and evaluation requirements in the event federal permits or licenses are needed; however, it can be used as a planning document to assist in making decisions under Section 106 as to whether further cultural resource identification efforts may be warranted.

This report contains a research design which describes the scope and methodology of the analysis, discussion of previously identified historic properties, and an assessment of potential impacts. D+A Senior Architectural Historian Robert J. Taylor, Jr. M.A. served as Principal Investigator and oversaw the general course of the project and supervised all aspects of the work. Copies of all notes, maps, correspondence, and historical research materials are on file at the D+A main office in Midlothian, Virginia.



THIS PAGE LEFT INTENTIONALLY BLANK

2. PROJECT DESCRIPTION

As part of the Bristers-Ladysmith 500kV Rebuild Project, Dominion proposes to replace the existing structures on the transmission line from the Bristers Switching Station in Fauquier County to the Ladysmith Switching Station in Caroline County (Figures 2-1 and 2-2). This 47-mile segment of transmission line is comprised of two existing line segments, TL552 which extends from the Bristers Switching Station to the Chancellor Substation in Spotsylvania County, and TL581 which continues from the Chancellor Substation to the Ladysmith Switching Station (Figure 2-3). Both line segments are currently strung from steel lattice structures and rated for 230kV of service.

The project will include replacement of the steel lattice structures with new steel lattice structures (Figures 2-4 through 2-7). The existing structures on the TL552 portion of the line range in height from 72 to 150 feet with an average height of 103 feet; and the replacement structures will range from 103 to 159 feet with an average of 131 feet. The existing structures on the TL581 portion of the line range in height from 75 to 150 feet with an average height of 103 feet; and the replacement structures will range from 100 to 159 feet with an average of 135 feet (Table 2-1). The structures will be replaced on a one-to-one basis in generally the same footprints as the existing structures. All improvements will take place within the existing ROW.

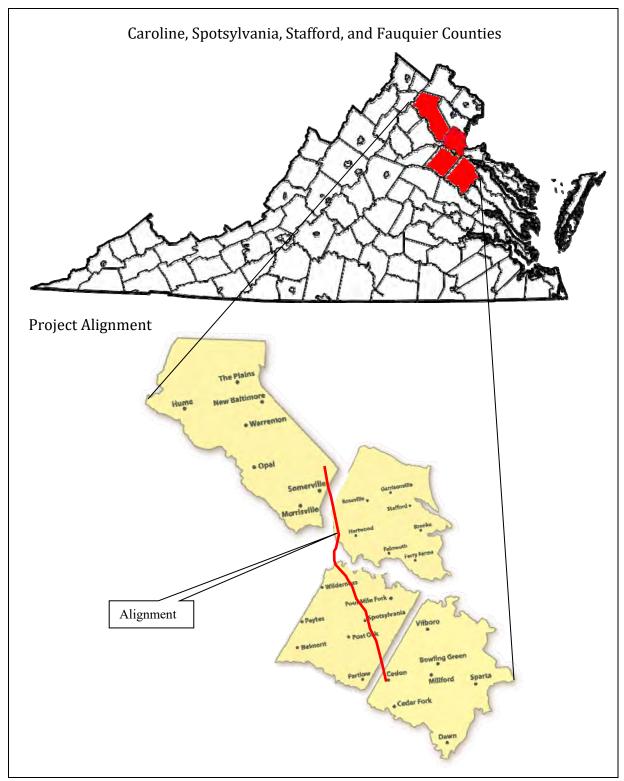


Figure 2-1: Bristers-Ladysmith 500kV Rebuild Project General Location

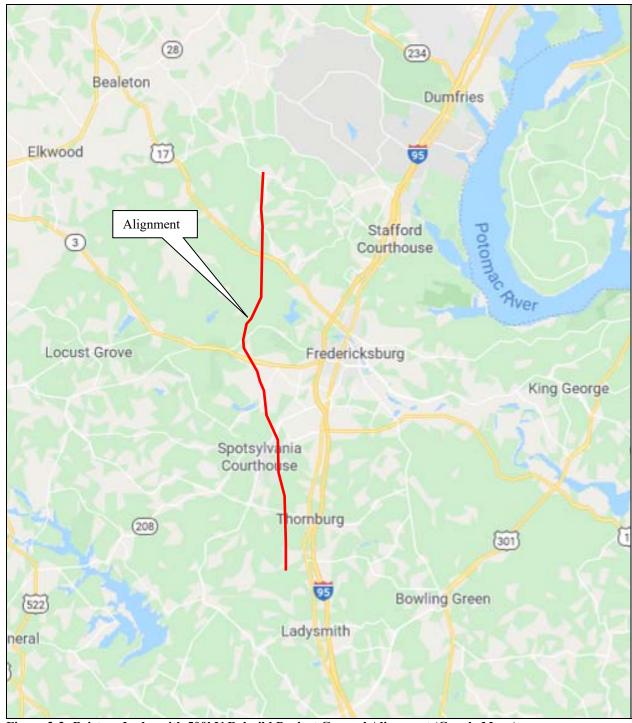


Figure 2-2: Bristers-Ladysmith 500kV Rebuild Project General Alignment (Google Maps)

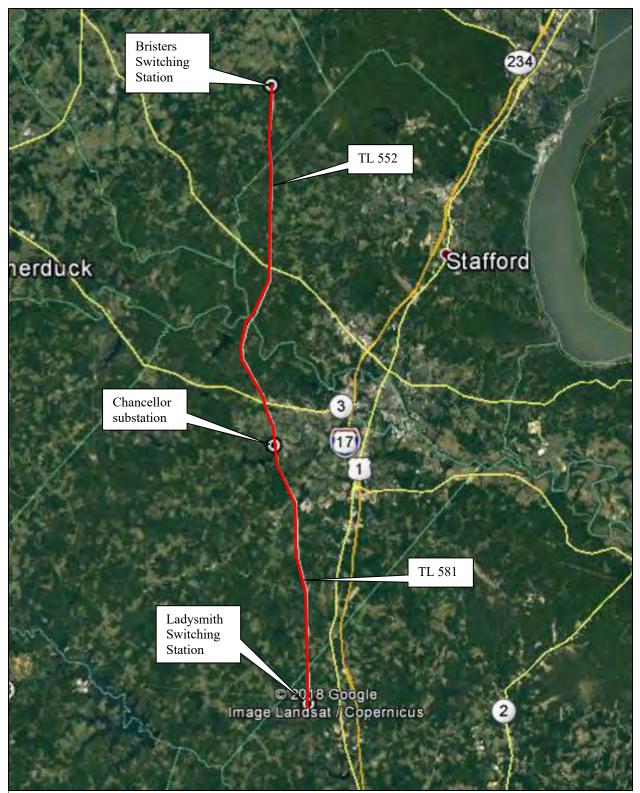


Figure 2-3: Bristers-Ladysmith 500kV Rebuild Project Alignment Detail (Google Earth)

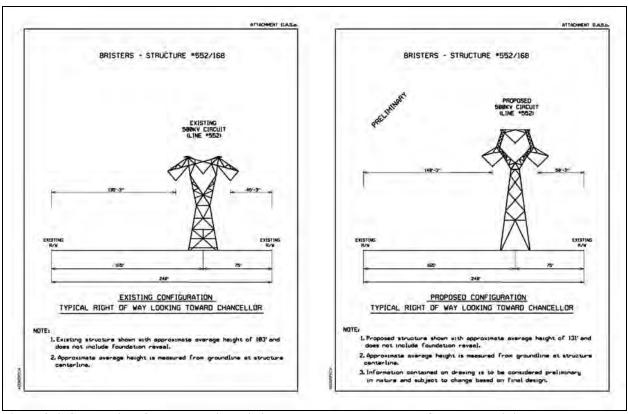


Figure 2-4: Schematics of representative existing and proposed structures. Source: Dominion

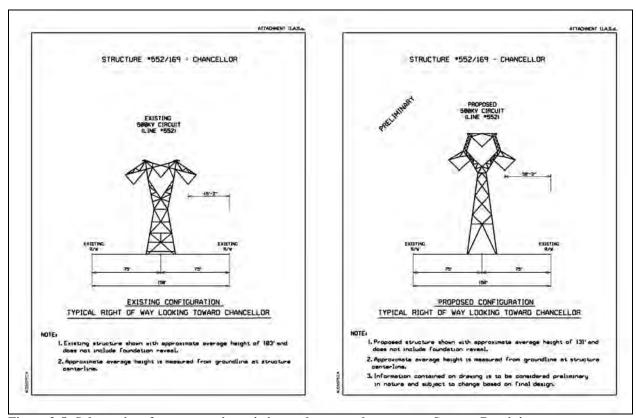


Figure 2-5: Schematics of representative existing and proposed structures. Source: Dominion

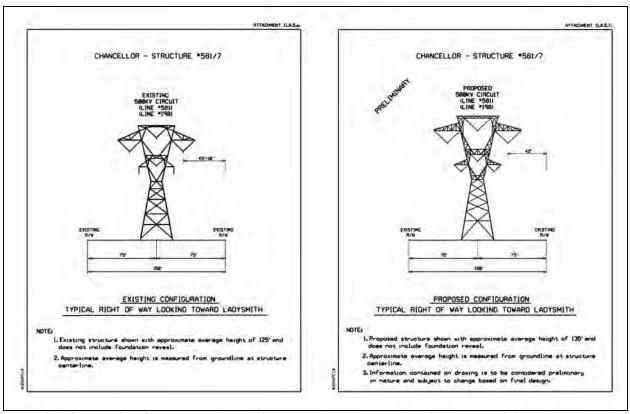


Figure 2-6: Schematics of representative existing and proposed structures. Source: Dominion

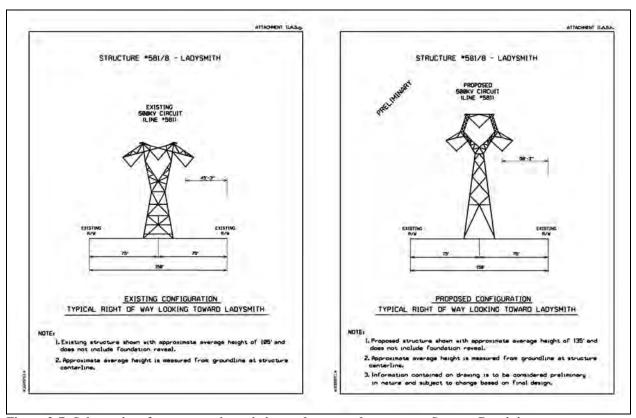


Figure 2-7: Schematics of representative existing and proposed structures. Source: Dominion

Table 2-1: Existing and proposed structure heights. Source: Dominion.

Structure Number	Existing Structure Height (ft)	Proposed Structure Height (ft)	Attachment II.B.3. Structure Type
552/134	135	130	XV
552/135	95	119	xiii
552/136	95	119	xiii
552/137	95	124	xiii
552/138	95	129	xiii
552/139	92	123	xiv
552/140	125	154	xiii
552/141	120	154	xiii
552/142	90	134	xiii
552/143	110	139	xiii
552/144	90	129	xiii
552/145	120	129	xiii
552/146	90	124	xiii
552/147	95	129	xiii
552/148	90	124	xiii
552/149	92	123	xiv
552/150	75	114	xiii
552/151	125	139	xiii
552/152	120	144	xiii
552/153	105	144	xiii
552/154	110	139	xiii
552/155	105	134	xiii
552/156	92	113	xiv
552/158	90	129	xiii
552/159	90	129	xiii
552/160	125	149	xiii
552/161	120	149	xiii
552/162	95	134	xiii
552/163	100	134	xiii
552/164	105	134	xiii
552/165	90	124	xiii
552/166	90	119	xiii
552/167	125	129	xiii
552/168	125	139	xiii
552/169	125	130	xi
552/170	105	139	viii
552/171	105	134	viii
552/172	100	134	viii

Structure Number	Existing Structure Height (ft)	Proposed Structure Height (ft)	Attachment II.B.3. Structure Type
552/173	95	129	viii
552/174	110	144	viii
552/175	125	159	viii
552/176	120	154	viii
552/177	125	144	viii
552/178	100	139	viii
552/179	110	134	viii
552/180	120	144	viii
552/181	100	139	viii
552/182	115	149	viii
552/183	120	139	viii
552/184	115	144	viii
552/185	110	139	viii
552/186	100	124	viii
552/187	90	124	viii
552/188	75	104	viii
552/189	80	119	viii
552/190	94	115	xii
552/191	100	139	viii
552/192	100	134	viii
552/193	100	129	viii
552/194	100	134	viii
552/195	100	129	viii
552/196	75	109	viii
552/197	85	119	viii
552/198	100	124	viii
552/199	115	144	viii
552/200	110	144	viii
552/201	82	124	X
552/202	150	124	viii
552/203	150	124	viii
552/204	92	105	xii
552/205	80	104	viii
552/206	85	119	viii
552/207	80	114	viii
552/208	80	119	viii
552/209	110	129	viii
552/210	100	129	viii
552/211	110	144	viii

Structure Number	Existing Structure Height (ft)	Proposed Structure Height (ft)	Attachment II.B.3. Structure Type
552/212	87	129	X
552/213	75	119	viii
552/214	125	134	viii
552/215	125	124	viii
552/216	72	114	X
552/217	75	109	viii
552/218	100	129	viii
552/219	135	149	viii
552/220	135	159	viii
552/221	115	149	viii
552/222	90	109	viii
552/223	100	134	viii
552/224	100	134	viii
552/225	85	114	viii
552/226	95	119	viii
552/227	100	134	viii
552/228	92	118	ix
552/229	105	144	viii
552/230	110	139	viii
552/231	72	103	ix
552/232	75	109	viii
552/233	110	139	viii
552/234	115	149	viii
552/235	120	154	viii
552/236	125	154	viii
552/237	82	129	X
552/238	120	149	viii
552/239	105	134	viii
552/240	105	139	viii
552/241	115	139	viii
552/242	95	120	xi
Min	72	103	
Max	150	159	
Average	103	131	
581/2	138	150	vii
581/3	118	129	vi
581/4	138	149	vi
581/5	123	134	vi

Structure Number	Existing Structure Height (ft)	Proposed Structure Height (ft)	Attachment II.B.3. Structure Type
581/6	113	124	vi
581/7	119	125	vii
581/8	135	149	i
581/9	125	159	i
581/10	150	149	i
581/11	75	139	i
581/12	110	139	i
581/13	100	134	i
581/14	80	119	i
581/15	105	124	i
581/16	110	139	i
581/17	85	119	i
581/18	92	124	iii
581/19	90	129	i
581/20	120	139	i
581/21	110	144	i
581/22	115	149	i
581/23	125	154	i
581/24	105	134	i
581/25	115	139	i
581/26	80	119	i
581/27	110	134	i
581/28	110	149	i
581/29	120	144	i
581/30	110	144	i
581/31	100	124	i
581/32	75	124	i
581/33	85	119	i
581/34	82	100	V
581/35	80	119	i
581/36	115	139	i
581/37	140	159	i
581/38	140	159	i
581/39	115	144	i
581/40	120	149	i
581/41	145	149	i
581/42	87	123	ii
581/43	120	144	i
581/44	125	149	i

Structure Number	Existing Structure Height (ft)	Proposed Structure Height (ft)	Attachment II.B.3. Structure Type
581/45	80	119	i
581/46	95	124	i
581/47	110	149	i
581/48	120	139	i
581/49	85	129	i
581/50	95	119	i
581/51	95	119	i
581/52	80	119	i
581/53	87	118	ii
581/54	115	144	i
581/55	125	149	i
581/56	115	134	i
581/57	100	139	i
581/58	105	129	i
581/59	77	113	ii
581/60	80	119	i
581/61	100	129	i
581/62	100	139	i
581/63	115	139	i
581/64	110	139	i
581/65	100	139	i
581/66	100	134	i
581/67	85	124	i
581/68	90	128	ii
581/69	125	149	i
581/70	105	149	i
581/71	115	149	i
581/72	110	129	i
581/73	110	125	iv
Min	75	100	
Max	150	159	
Average	107	135	



THIS PAGE INTENTIONALLY LEFT BLANK

3. RESEARCH DESIGN

The intent of this effort was to identify all known historic properties within the vicinity of the proposed project area in order to assess them for potential impacts brought about by the project. Historic properties include architectural and archaeological (terrestrial and underwater) resources, historic and cultural landscapes, battlefields, and historic districts. For each previously recorded historic property, an examination of property documentation, current aerial photography, and a field reconnaissance was undertaken to assess each property's integrity of feeling, setting, and association, and to provide photo documentation of the property including views toward the proposed project. The D+A personnel who directed and conducted this survey meet the professional qualification standards of the Department of the Interior (48 FR 44738-9).

ARCHIVAL RESEARCH

In August 2019, D+A conducted archival research with the goal of identifying all previously recorded historic properties and any additional historic property locations referred to in historic documents and other archives, as well as consultation with local informants and other professionals with intimate knowledge of the project area as appropriate. Background research was conducted at the VDHR and on the internet and included the following sources:

- ➤ VDHR Virginia Cultural Resource Information System (V-CRIS) site files; and
- National Park Service (NPS), American Battlefield Protection Program (ABPP), maps and related documentation.

Data collection was performed according to VDHR guidance in *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* (January 2008) and was organized in a multi-tier approach. As such, the focus of the effort was to identify all previously recorded NHL's located within 1.5-miles of the proposed project area, all historic properties listed in the NRHP, battlefields, and historic landscapes located within 1-mile of the project area, all historic properties previously determined eligible for listing in the NRHP located within 0.5-mile of the project area, and all previously recorded archaeological sites located directly within the project area.

FIELD RECONNAISSANCE

Field reconnaissance included visual inspection of those previously recorded historic/architectural properties that are NHLs, NRHP-listed, or NRHP-eligible within their respective tiers. Visual inspection included digital photo documentation of each property's existing conditions including its setting and views toward the proposed project area. Photographs were taken of primary resource elevations, general setting, and existing viewsheds. All photographs were taken from public right-of-way or where property access was granted. No inspection of archaeological sites or subsurface testing was conducted as part of this effort.

ASSESSMENT OF POTENTIAL IMPACTS

Following identification and field inspection of historic properties, D+A assessed each resource for potential impacts brought about by the proposed project according to VDHR guidance. Because of the increase in structure height that meets the definition of a substantial increase, assessment included pedestrian inspection and ground-based photography, in addition to photo simulation. When assessing impacts, D+A considered those qualities and characteristics that qualify the property for listing and whether the project had the potential to alter or diminish the integrity of the property and its associated significance. Specific attention was given to determining whether or not the proposed project would introduce new visual elements into a property's viewshed, which would either directly or indirectly alter those qualities or characteristics that qualify the historic property for listing in the NRHP.

According to VDHR guidance, project impacts are characterized by the definitions below:

- None Project is not visible from the property
- **Minimal** Occur within viewsheds that have existing transmission lines, locations where there will only be a minor change in tower height, and/or views that have been partially obstructed by intervening topography and vegetation.
- **Moderate** Include viewsheds with expansive views of the transmission line, more dramatic changes in the line and tower height, and/or an overall increase in the visibility of the route from the historic properties.
- Severe Occur within viewsheds that do not have existing transmission lines and where the views are primarily unobstructed, locations where there will be a dramatic increase in tower visibility due to the close proximity of the route to historic properties, and viewsheds where the visual introduction of the transmission line is a significant change in the setting of the historic properties.

REPORT PREPARATION

The results of the archival resource, field inspection, and analysis were synthesized and summarized in a summary report accompanied by maps, illustrations, and photographs as appropriate. All research material and documentation generated by this project is on file at D+A's office in Midlothian, Virginia.

4. ARCHIVAL RESARCH

This section includes a summary of efforts to identify previously known and recorded cultural resources within the tiered project buffers. It includes lists, maps, and descriptive data on all previously conducted cultural resource surveys, and previously recorded architectural resources and archaeological sites according to the VDHR archives and VCRIS database.

PREVIOUSLY SURVEYED AREAS

VDHR and VCRIS records indicate that there have been 38 prior Phase I cultural resource surveys within 1.5-miles of the project area, including ten that included portions of the project area. These surveys are at minimum archaeological in nature, although some include architectural resources as well. The ten surveys that include portions of the project area include reconnaissance surveys for transportation and utility projects, as well as focused investigations of battlefield areas. The previously conducted cultural resource surveys that include portions of the project area are listed in Table 4-1 and illustrated in Figures 4-1 and 4-2.

Table 4-1: Previously conducted cultural resource surveys within the Project Area. Source: VDHR.

VDHR Survey #	Title	Author	Date
	Phase I Archaeological Survey of the Proposed Eight-		
	Mile 500kV Transmission Line from Morrisville to		
FQ-048	Bristerburg, Fauquier County, Virginia	Cultural Resources, Inc.	2005
	Phase I Archeological Resources Reconnaissance of a		
	Proposed Transmission Line in the Outer Piedmont	Thunderbird Archaeological	
	Farm Locust Grove, Orange County to Deerfield,	Associates (Thunderbird	
OR-010	Spotsylvania County, Virginia	Research Corp.)	1989
		James Madison University	
	A Phase I Cultural Resource Technical Report of a	(Archaeological Research	
SP-019	Section of Route 208, Spotsylvania County, Virginia	Center/Laboratory)	1987
	Phase I Archaeological Survey, Proposed Wishner		
SP-091	Gravity Influent Sewer, Spotsylvania County, Virginia	Coastal Carolina Research	2004
	A Phase I Metal Detector Survey and Phase I-Level		
	Shovel Testing of Previously Unsurveyed Portions of		
	the Proposed Stage 1 Trail Route, First Day		
SP-130	Chancellorsville, Spotsylvania County, Virginia	Cultural Resources, Inc.	2007
	Cultural Landscape Report First Day at Chancellorsville		
SP-134	Property, Spotsylvania County, Virginia	Cultural Resources, Inc.	2008
	Archaeological Survey, Proposed Massaponax Gravity		
	Sewer Interceptor Pipeline Replacement, Spotsylvania		
SP-145	County, Virginia	Coastal Carolina Research	2005
	Archaeological Survey as Part of a Cultural Resource		
	Survey of the Proposed North Anna-Ladysmith 500kV		
	Transmission Line, Louisa, Spotsylvania, and Caroline	Louis Berger Group (Louis	
SP-157	Counties, Virginia	Berger and Associates)	2009
	Archaeological Survey of Corridor 1, Outer Connector		
	Study, City of Fredericksburg, Spotsylvania and		
SP-163	Stafford Counties, Virginia	Coastal Carolina Research	2000
	A Phase I Survey of the Proposed Right-of-Way for the		
	Northern Virginia Electric Cooperative's Sowego to	Thunderbird Archaeological	
	Stafford Transmission Line, Stafford and Fauquier	Associates (Thunderbird	
ST-027	Counties, Virginia	Research Corp.)	1992

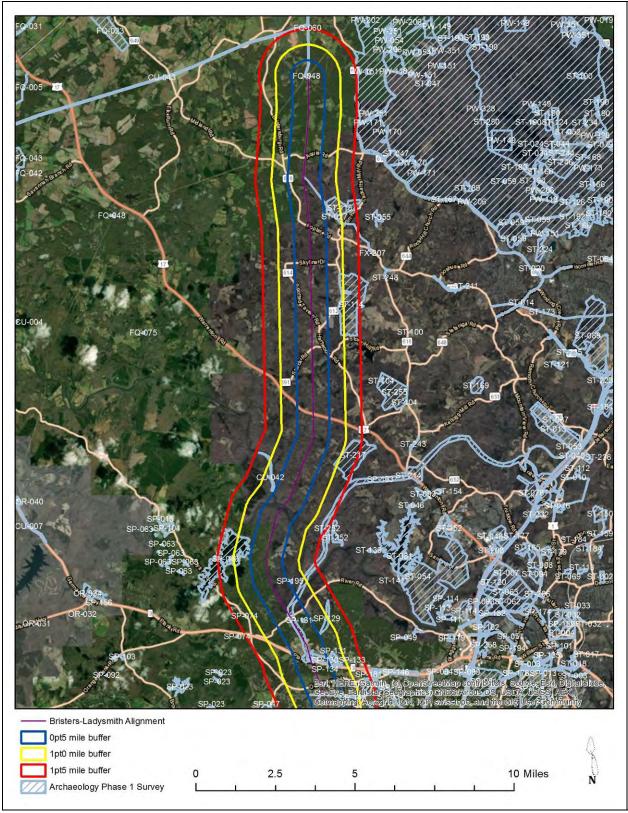


Figure 4-1: Previously conducted phase I surveys within 1.5-miles of the project area (North Half of Alignment). Source: VCRIS

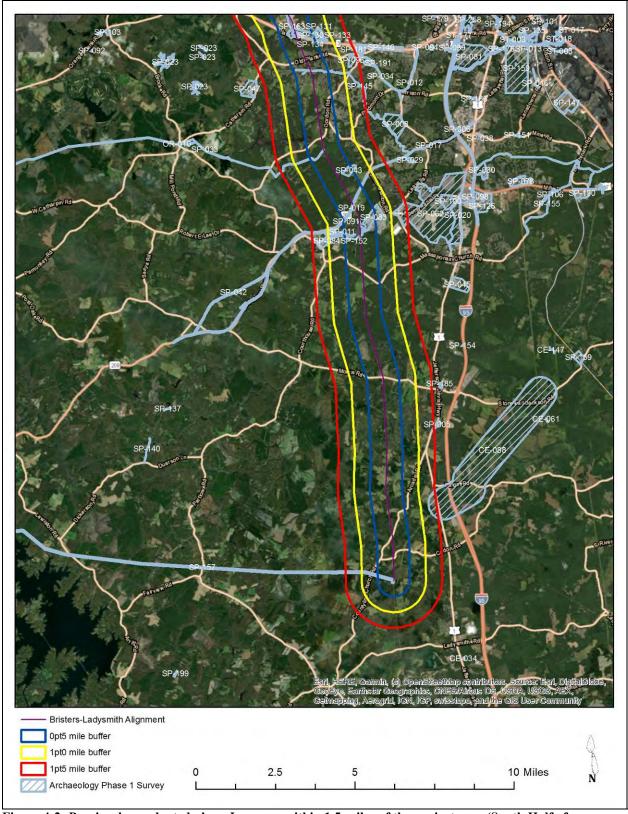


Figure 4-2: Previously conducted phase I surveys within 1.5-miles of the project area (South Half of Alignment). Source: VCRIS

ARCHITECTURAL RESOURCES

Review of the VDHR VCRIS inventory records revealed a total of 208 previously recorded architectural resources are located 1.5-miles of the project area. Of these, there are no NHLs located within 1.5-miles of the project area; five properties that are listed in the NRHP, three battlefields and seven historic landscapes located within 1-mile of the project area, and four properties that have been determined eligible for listing in the NRHP by the VDHR within 0.5-miles of the project area.

Table 4-2 provides a list of the NRHP-listed and eligible resources within their respective buffered tiers. Maps of all architectural resources within 1.5-miles of the project are depicted in Figures 4-3 and 4-4 and maps of the NRHP-listed, and eligible architectural resources are in Figures 4-5 through 4-8.

Table 4-2: Previously recorded architectural resources within their respective tiered study areas for the Bristers-Ladysmith 500kV Rebuild Project as specified in the VDHR Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth

of Virginia

Buffer (miles)	Considered Resources	Site Number	Description
1.5	National Historic Landmarks	None	
	Above Resources and:		
	National Register - Listed	088-0074	Tabul Furnace (Historic) Tabul Furnace Archaeological Site (Current)
		088-0137	Rapidan Dam Canal of the Rappahannock Navigation
		088-0142	Spotsylvania Court House Historic District (NRHP Listing)
			Fredericksburg and Spotsylvania Battlefields National Military Park (Historic/Current), Fredericksburg and Spotsylvania County Battlefields Memorial National Military
		111-0147	Park and Cemetery (NRHP Listing)
1.0	Battlefields	088-5180	Chancellorsville Battlefield (Current)
		088-5182	Spotsylvania Court House Battlefield (Current Name), Spotsylvania Court House Battlefield (Historic)
		088-5188	Battle of Harris Farm Battlefield (Historic)
	Historic Landscapes	030-5588	Elk Run Rural Historic District (Historic), Elk Run- Germantown-Cedar Run Rural Historic District (Historic/Current)
		030-5607	Hedgeman-Rappahannock Rural Historic District
	Thomas Landscapes	088-0220	Ashley Farm (Historic), First Day at Chancellorsville Property (Descriptive), John Mullins Farm (Current)
		088-0334	Lick Run Battlefield Historic District (Historic/Current)

		111-0134 111-5001	Fredericksburg and Gordonsville Railroad (Historic), Fredericksburg, Orange, and Charlottesville Railroad (Historic), Potomac, Fredericksburg, and Piedmont Railroad (Historic), Unfinished Railroad (Historic), Virginia Central Railway Historic District (Historic/Current) Rappahannock Navigation System (Canal) (Historic/Current) Rappahannock River Rural Historic District (Current)
	Above Resources and:		
0.5 National Register - Eligible	088-0015	Berkwood (Current), Goodloe Plantation (Historic), House, Route 605 (Function/Location), Oak Hill (Historic)	
	National Register -	088-0059	Gayle House (Historic), Rose Mount (Historic), Rosemont (Historic)
	Eligible	Eligible 088-0070	Whig Hill (Historic/Current)
		088-5129	Rowe House, 9400 Courthouse Rd (Historic/Location)

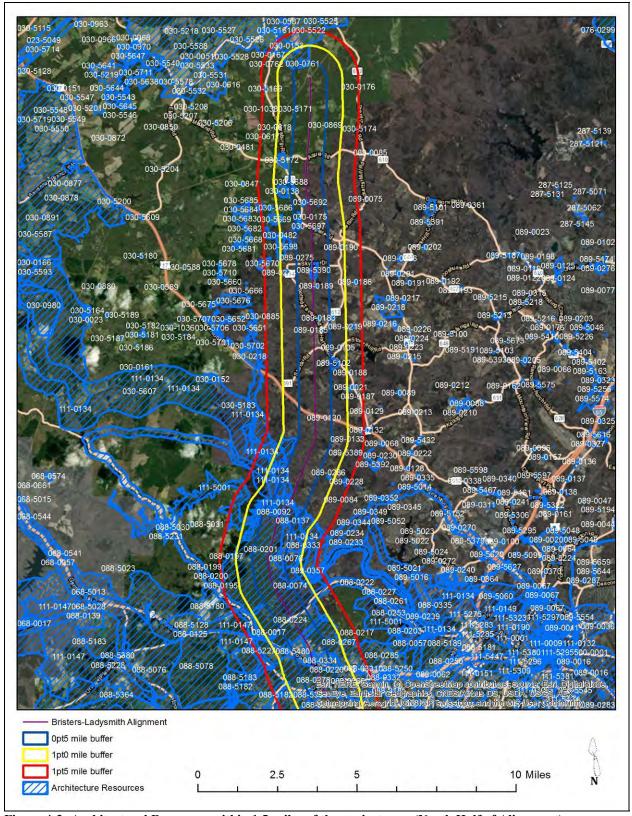


Figure 4-3: Architectural Resources within 1.5-miles of the project area (North Half of Alignment). Source: VCRIS

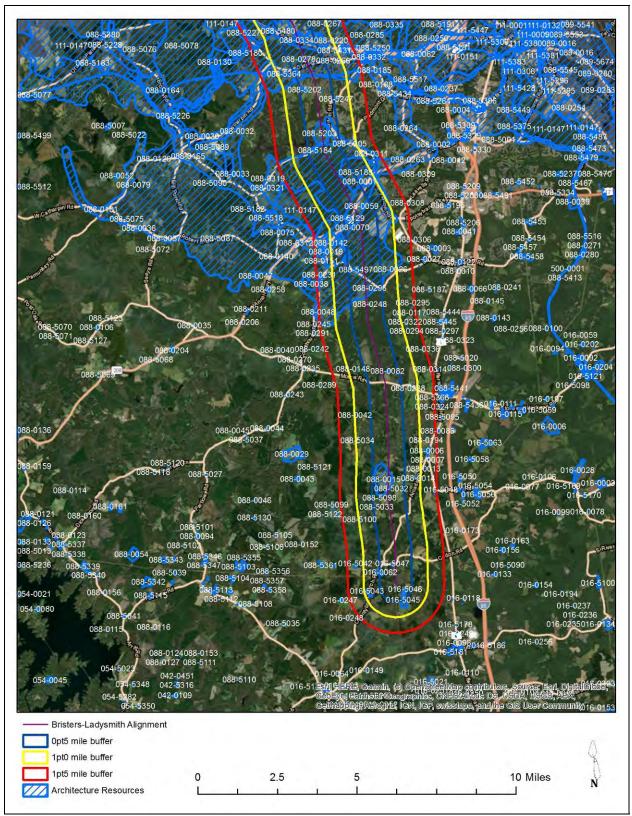


Figure 4-4: Architectural Resources within 1.5-miles of the project area (South Half of Alignment). Source: VCRIS

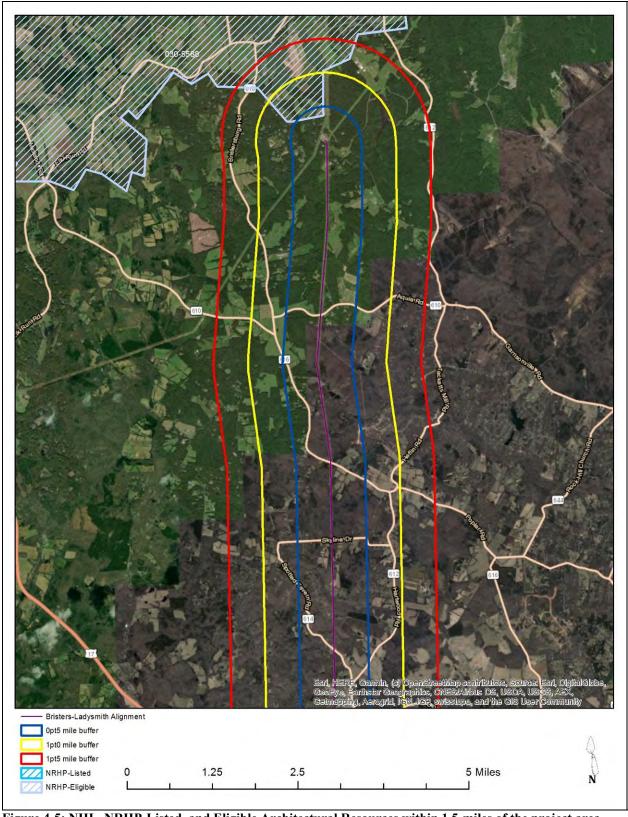


Figure 4-5: NHL, NRHP-Listed, and Eligible Architectural Resources within 1.5-miles of the project area (North Quarter of alignment). Source: VCRIS

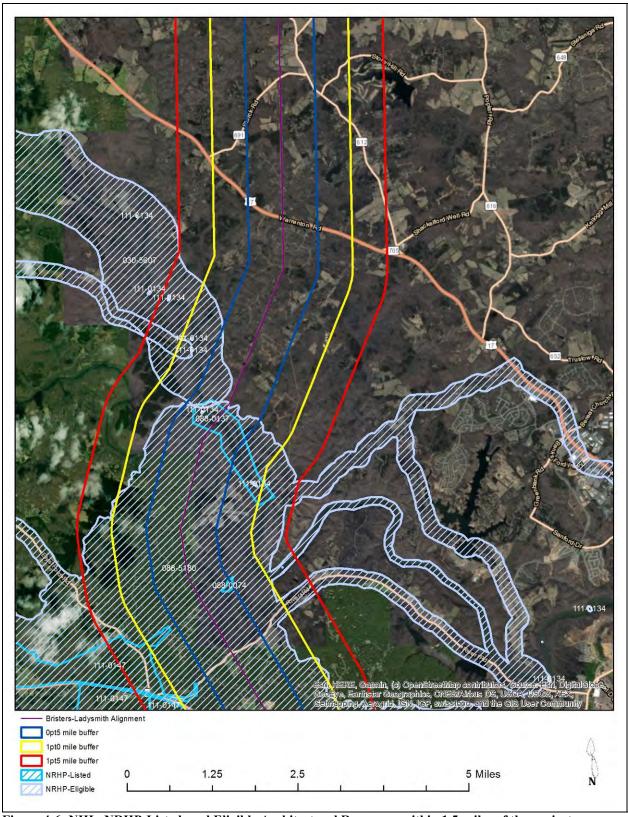


Figure 4-6: NHL, NRHP-Listed, and Eligible Architectural Resources within 1.5-miles of the project area (North-Central Quarter of alignment). Source: VCRIS

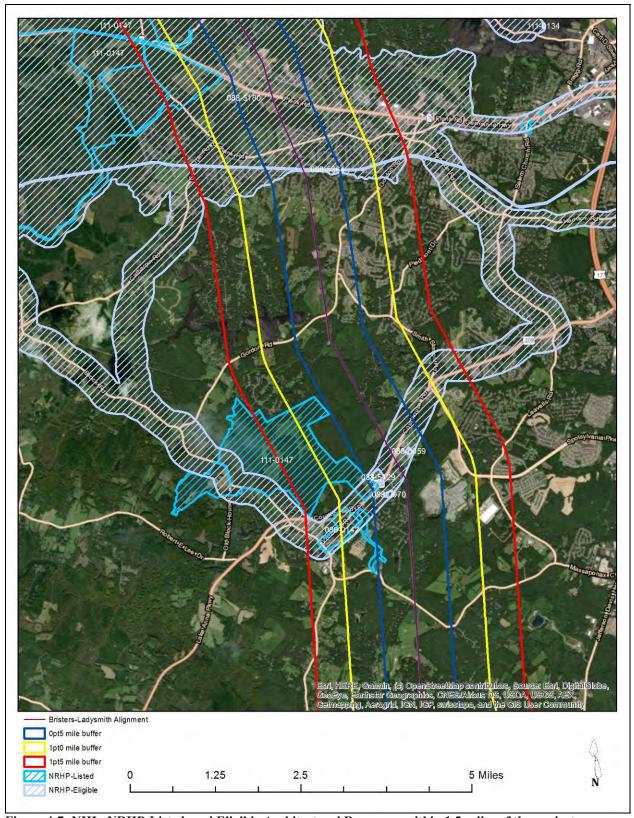


Figure 4-7: NHL, NRHP-Listed, and Eligible Architectural Resources within 1.5-miles of the project area (South-Central Quarter of alignment). Source: VCRIS

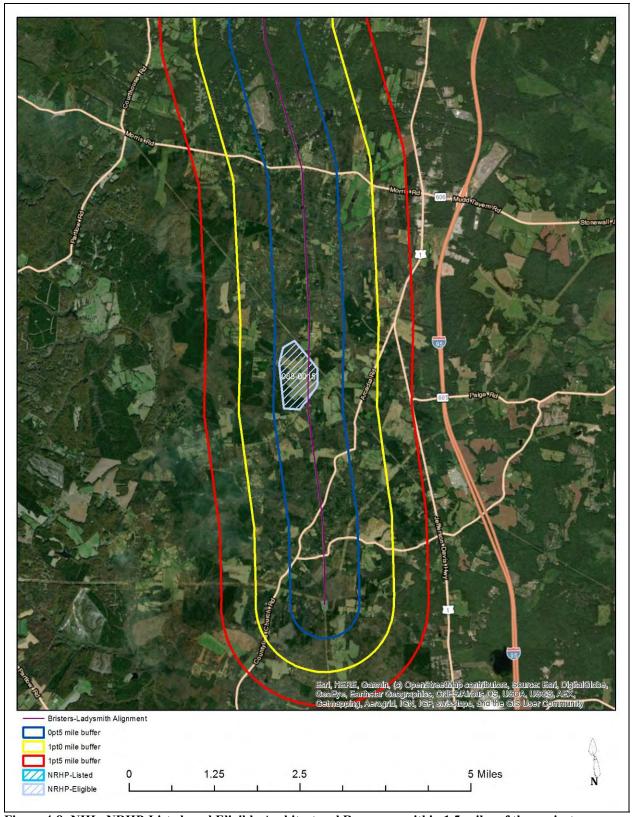


Figure 4-8: NHL, NRHP-Listed, and Eligible Architectural Resources within 1.5-miles of the project area (South Quarter of alignment). Source: VCRIS

NPS AMERICAN BATTLEFIELD PROTECTION PROGRAM (ABPP)

Because portions of three documented battlefields are located within 1-mile of the project area, the NPS ABPP records and maps prepared by the Civil War Sites Advisory Commission (CWSAC) were reviewed to note the existing conditions and integrity, as well as recommendation of NRHP-eligibility for those portions of the battlefields.

As defined by the ABPP in 2009, battlefields may be divided into three tiers that correlate to both the historic association and the current level of integrity and preservation. The battlefield *study area* represents the historic extent of the battle as it unfolded upon the landscape; the battlefield *core area* represents the areas of fighting on the battlefield and typically includes the areas of greatest importance to understanding the events of the battle; and the *potential National Register boundaries* encompass the area that remains reasonably intact and warrant preservation.

The three battlefields that are located within one mile of the project area include Chancellorsville (VA-032), Spotsylvania Courthouse (VA-048), and Harris Farm. Harris Farm although recorded separately by VDHR, is considered integral and within the boundaries of Spotsylvania Courthouse Battlefield by the CWSAC. The project area crosses directly through portions of both CWSAC defined battlefields. The Chancellorsville Battlefield is crossed directly by the project alignment, including portions of the "study area", "core area", and "potential National Register area" of the battlefield (Figure 4-9). With regards to the Spotsylvania Courthouse Battlefield, the "study area", "core area", and "potential National Register area" are all crossed directly by the project alignment (Figure 4-10).

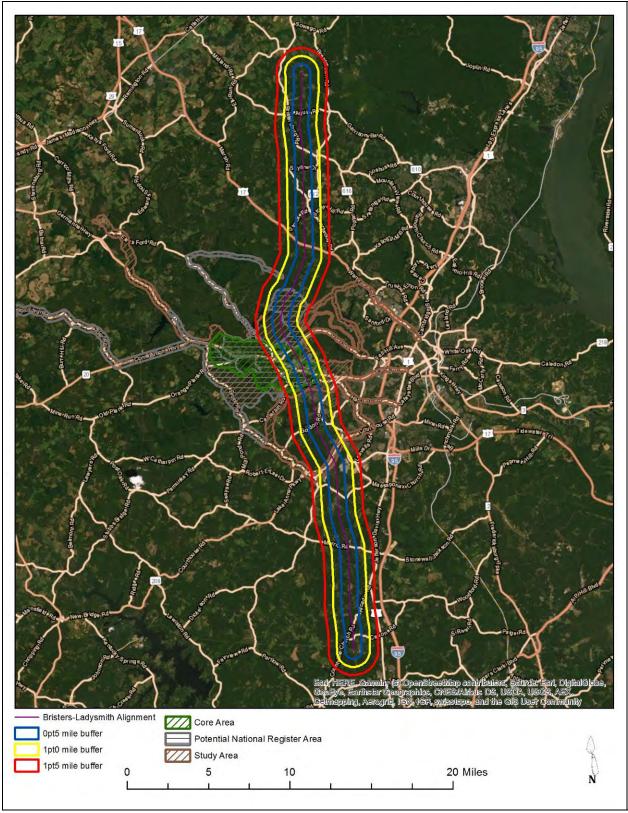


Figure 4-9: Chancellorsville Battlefield tiers in relation to the project area and viewshed buffers. Source: VCRIS/ American Battlefield Protection Program (ABPP)

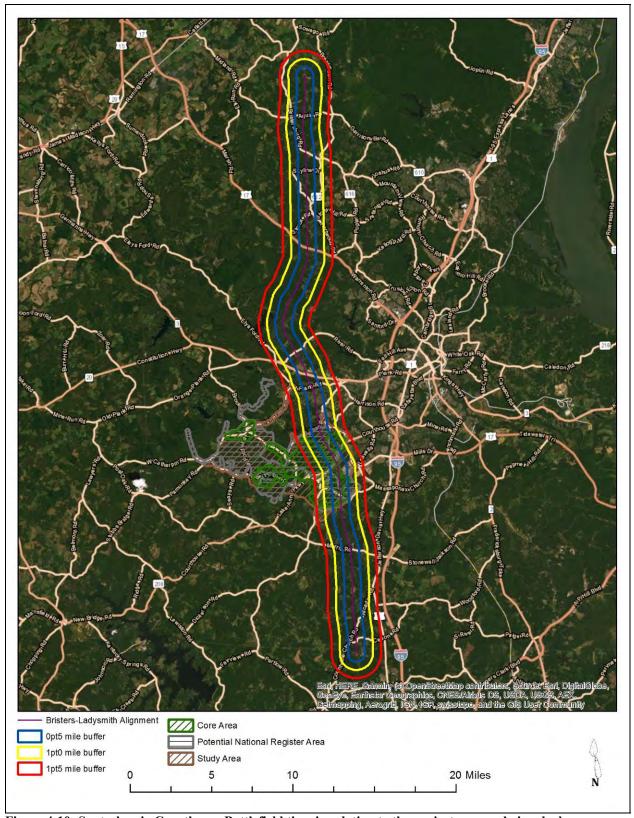


Figure 4-10: Spotsylvania Courthouse Battlefield tiers in relation to the project area and viewshed buffers. Source: VCRIS/ American Battlefield Protection Program (ABPP)

ARCHAEOLOGICAL SITES

Review of the VDHR VCRIS records reveals there are 137 previously recorded archaeological sites within 1-mile of the project area (Figures 4-11 and 4-12). Eighteen (18) of these sites are located directly within or adjacent to the project area. The sites within or adjacent to the ROW include a prehistoric camps and lithic scatters; as well as a historic canal, earthworks, and mine. Only the earthworks have been formally evaluated and found to be not eligible for listing in the NRHP by the VDHR.

Table 4-3 lists the previously recorded archaeological resources located directly within or adjacent to the project area and Figures 4-13 through 4-16 illustrate the locations of these sites in relation to the project area.

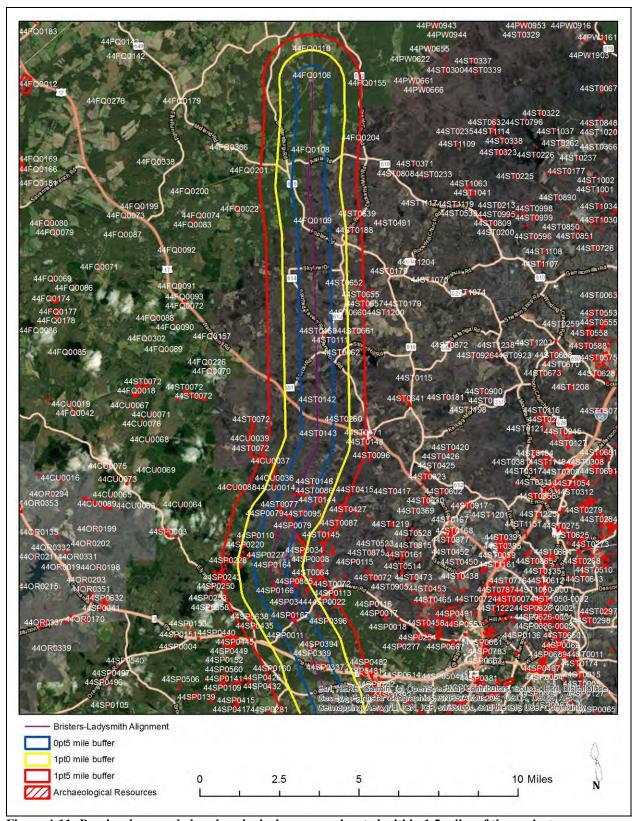


Figure 4-11: Previously recorded archaeological resources located within 1.5 miles of the project area (North Half of Alignment). Source: VCRIS

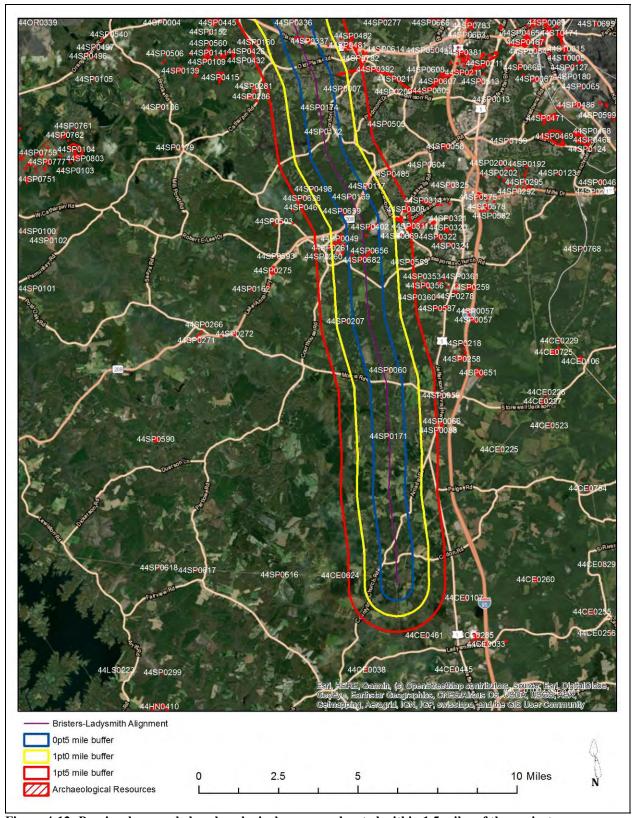


Figure 4-12: Previously recorded archaeological resources located within 1.5 miles of the project area (South Half of Alignment). Source: VCRIS

Table 4-3: Previously recorded archaeological resources located directly within or adjacent to the project area (hold listings denote sites eligible for the NRHP).

	tings denote sites eligible for th	e NRHP).		
VDHR ID#	Site Category	Site Type	Temporal Association	NRHP Status
			Prehistoric/Unknown	
			(15000 B.C 1606	
44FQ0108	DSS Legacy	Other	A.D.)	Not Evaluated
			Prehistoric/Unknown	
			(15000 B.C 1606	
44FQ0109	Domestic	Camp, temporary	A.D.)	Not Evaluated
			19th Century (1800 -	
44SP0079	DSS Legacy	Canal	1899)	Not Evaluated
44070000		~	19th Century (1800 -	
44SP0080	Technology/Engineering	Canal lock	1899)	Not Evaluated
44000444	Industry/Processing/Extracti	3.51	19th Century: 1st half	
44SP0111	on	Mine, gold	(1800 - 1849)	Not Evaluated
			Prehistoric/Unknown	
44000165			(15000 B.C 1606	
44SP0165	Domestic	Camp, temporary	A.D.)	Not Evaluated
			Prehistoric/Unknown	
44000466		_	(15000 B.C 1606	
44SP0166	Domestic	Camp, temporary	A.D.)	Not Evaluated
			Prehistoric/Unknown	
44000165			(15000 B.C 1606	N
44SP0167	Domestic	Camp, temporary	A.D.)	Not Evaluated
			Prehistoric/Unknown	
4.4CD01.60	D .:		(15000 B.C 1606	NI (F. 1 (1
44SP0168	Domestic	Camp, temporary	A.D.)	Not Evaluated
			Prehistoric/Unknown	
44CD0170	AL-11s	AL-11s	(15000 B.C 1606	Ni 4 Escalada 1
44SP0170	<null></null>	<null></null>	A.D.)	Not Evaluated
			Prehistoric/Unknown	
44CD0171	Damastia	C	(15000 B.C 1606	Not Family at a
44SP0171	Domestic	Camp, temporary	A.D.) Prehistoric/Unknown	Not Evaluated
44SP0172	<null></null>	<null></null>	(15000 B.C 1606 A.D.)	Not Evaluated
TTD1 01 / 2	Nuii/	-1NuII/	Prehistoric/Unknown	TYOU LEVAIUALEU
			(15000 B.C 1606	
44SP0174	Domestic	Camp, temporary	A.D.)	Not Evaluated
44510174	Domestic	Camp, temporary	19th Century (1800 -	1vot Evaluated
44SP0333	DSS Legacy	Trash scatter	1899)	Not Eligible
11010000		Tradit Souttor	19th Century: 3rd	1 tot Eligiote
44SP0340	Military/Defense	Earthworks	quarter (1850 - 1874)	Not Evaluated
			Civil War (1861 -	VDHR: Not
44SP0682	Military/Defense	Earthworks	1865)	Eligible
21 0002			Prehistoric/Unknown	
			(15000 B.C 1606	
44ST0142	Domestic	Camp, temporary	A.D.)	Not Evaluated
			Prehistoric/Unknown	
			(15000 B.C 1606	
44ST0143	Domestic	Camp, temporary	A.D.)	Not Evaluated
CLINICLE	Domesiic	camp, comporary	A.D.)	1101 L valuated

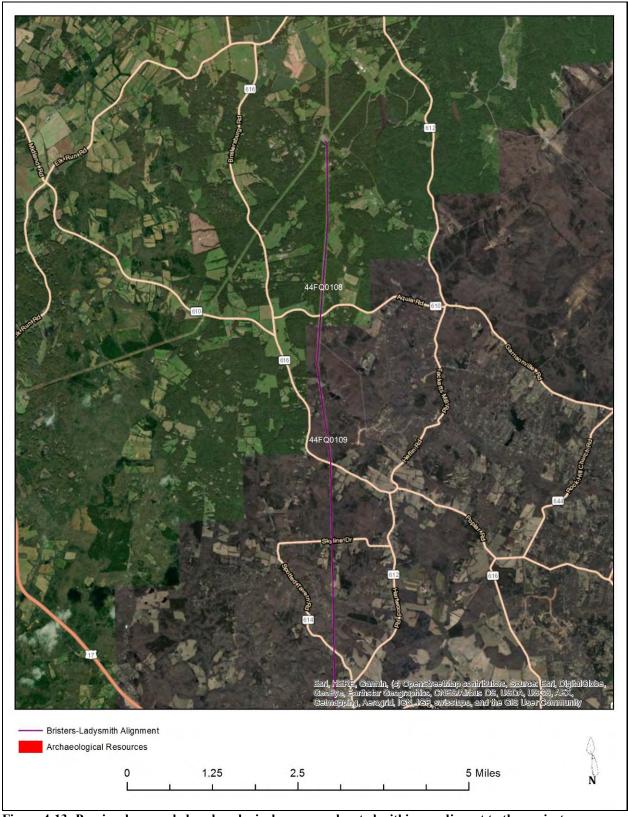


Figure 4-13: Previously recorded archaeological resources located within or adjacent to the project area ROW (North Quarter of Alignment). Source: VCRIS

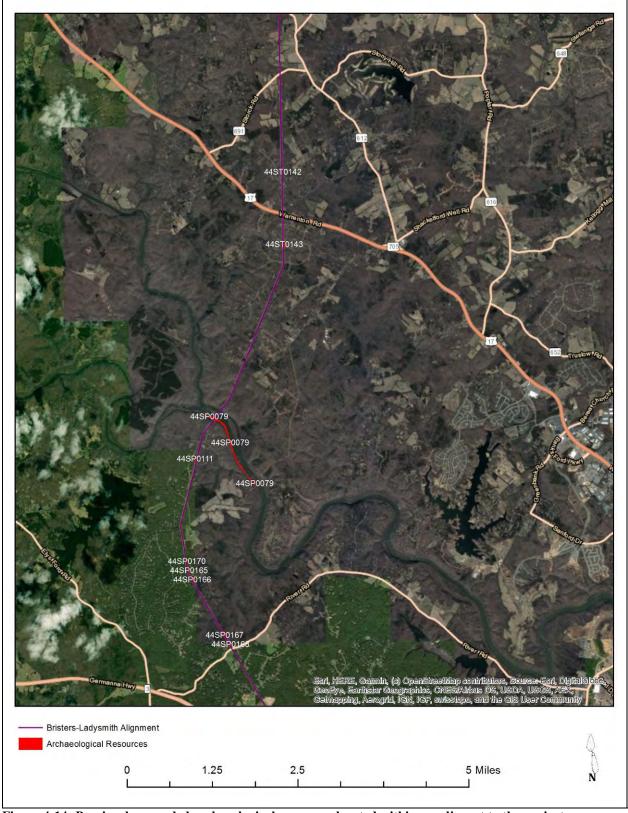


Figure 4-14: Previously recorded archaeological resources located within or adjacent to the project area ROW (North-Central Quarter of Alignment). Source: VCRIS

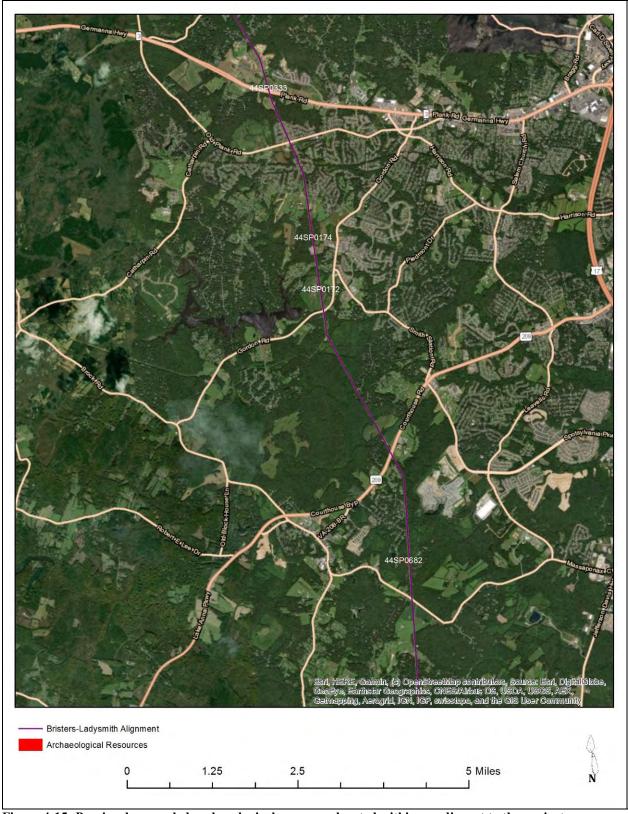


Figure 4-15: Previously recorded archaeological resources located within or adjacent to the project area ROW (South-Central Quarter of Alignment). Source: VCRIS

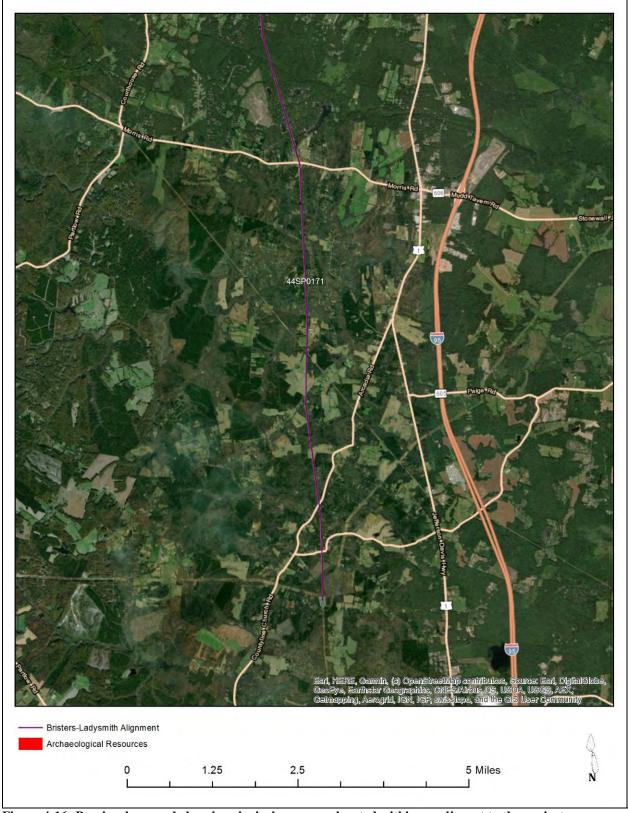


Figure 4-16: Previously recorded archaeological resources located within or adjacent to the project area ROW (South Quarter of Alignment). Source: VCRIS

5. RESULTS OF FIELD RECONNAISSANCE

In accordance with the VDHR guidelines for assessing impacts of proposed electric transmission lines on historic resources, each of the previously recorded historic properties either designated an NHP, listed in the NRHP, or determined eligible for listing within their respective buffered tiers were field verified for existing conditions and photo documented (Table 5-1). Inspection and analysis of the setting around the resource and views towards the project area were also assessed. Archaeological sites within or adjacent to the project were not visited or assessed at this time, but should be as additional project construction details become available. The results of the field reconnaissance for each resource are organized by tier and summarized in the following pages.

Table 5-1: Previously recorded architectural resources within their respective tiered study areas for the Bristers-Ladysmith 500kV Rebuild Project as specified in the VDHR Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia

Buffer (miles)	Considered Resources	Site Number	Description
1.5	National Historic Landmarks	None	
	Above Resources and:		
1.0	National Register - Listed	088-0074	Tabul Furnace (Historic) Tabul Furnace Archaeological Site (Current)
		088-0137	Rapidan Dam Canal of the Rappahannock Navigation
		088-0142	Spotsylvania Court House Historic District (NRHP Listing)
			Fredericksburg and Spotsylvania Battlefields National Military Park (Historic/Current), Fredericksburg and Spotsylvania County Battlefields Memorial National Military
		111-0147	Park and Cemetery (NRHP Listing)
	Battlefields	088-5180	Chancellorsville Battlefield (Current)
		088-5182	Spotsylvania Court House Battlefield (Current Name), Spotsylvania Court House Battlefield (Historic)
		088-5188	Battle of Harris Farm Battlefield (Historic)
	Historic Landscapes	030-5588	Elk Run Rural Historic District (Historic), Elk Run- Germantown-Cedar Run Rural Historic District (Historic/Current)
		030-5607	Hedgeman-Rappahannock Rural Historic District
		088-0220	Ashley Farm (Historic), First Day at Chancellorsville Property (Descriptive), John Mullins Farm (Current)
		088-0334	Lick Run Battlefield Historic District (Historic/Current)
		088-5364	Fredericksburg and Gordonsville Railroad (Historic), Fredericksburg, Orange, and Charlottesville Railroad (Historic), Potomac, Fredericksburg, and Piedmont Railroad (Historic), Unfinished Railroad (Historic), Virginia Central

RESULTS OF FIELD RECONNAISSANCE

			Railway Historic District (Historic/Current)
		111-0134	Rappahannock Navigation System (Canal) (Historic/Current)
		111-5001	Rappahannock River Rural Historic District (Current)
	Above Resources and:		
0.5	National Register - Eligible	088-0015	Berkwood (Current), Goodloe Plantation (Historic), House, Route 605 (Function/Location), Oak Hill (Historic)
		088-0059	Gayle House (Historic), Rose Mount (Historic), Rosemont (Historic)
		088-0070	Whig Hill (Historic/Current)
		088-5129	Rowe House, 9400 Courthouse Rd (Historic/Location)







THIS PAGE INTENTIONALLY LEFT BLANK	

Tubal Furnace Archaeological Site (VDHR ID# 088-0074)

The Tubal Furnace Archeological Site is the site of an early-eighteenth century industrial iron works located near Chancellor in Spotsylvania County. Established by colonial Lieutenant Governor Alexander Spotswood in c. 1717, the site included a furnace and waterworks. It was operated, primarily by skilled slave labor, into the early 19th century. The site was listed in the NRHP in 1982.

The site is located at the base of a narrow, heavily wooded hollow on a slope up from the Rappahannock River. The furnace base measures roughly twenty feet square and fifteen feet tall is overgrown in thick vegetation. The site boundaries also include the area which is expected to encompass the Furnace's principal ore-processing area and related facilities. A variety of landscape features can be seen, although the site overall is heavily wooded.

In order to assess the potential impact of the proposed project, visual inspection was conducted of the setting around and within the site boundaries with emphasis on views towards the project area. This assessment found that the Tubal Furnace is located 0.31-miles from the project area at its nearest point. The site is completely wooded and set on a sloped landscape downhill from the project area. The area between the site and the project area is also heavily wooded with the only development being a street of nonhistoric single family homes set on small rural lots. Because of the intervening topography and vegetation, there is no visibility of the existing transmission line from the site.

The existing transmission line structures in the vicinity of the property range from 72-feet to 135-feet tall and the proposed replacement structures will range from 109-feet to 149-feet tall. As such, the proposed structures will be substantially taller than the existing structures, however, there will be no additional ROW clearing and structures will be replaced on a one-to-one basis. It is therefore anticipated that visibility following the project will be similar to the existing views in which the transmission line cannot be seen, and thus will not introduce any substantially new or different views or features into the setting of the property. Further, as an archaeological site listed in the NRHP under Criterion D, the significance is primarily derived from its research potential and the surrounding setting is not considered in integral aspect of eligibility. It is therefore D+A's opinion that the proposed project will have *no impact* on the Tubal Furnace Archaeological Site.

Figure 5-1 illustrates the location and direction of representative photographs of Tubal Furnace Archaeological Site. Figure 5-2 depicts the location of the resource in relation to the project alignment with viewshed buffers and photographic views towards the project area. Photos 1 through 3 are representative photographs of the district, as well as those taken from locations within the property towards the project alignment.



Figure 5-1: Location and direction of representative photos of Tubal Furnace Archaeological Site. Photo locations and directions shown in yellow. Base map source: V-CRIS

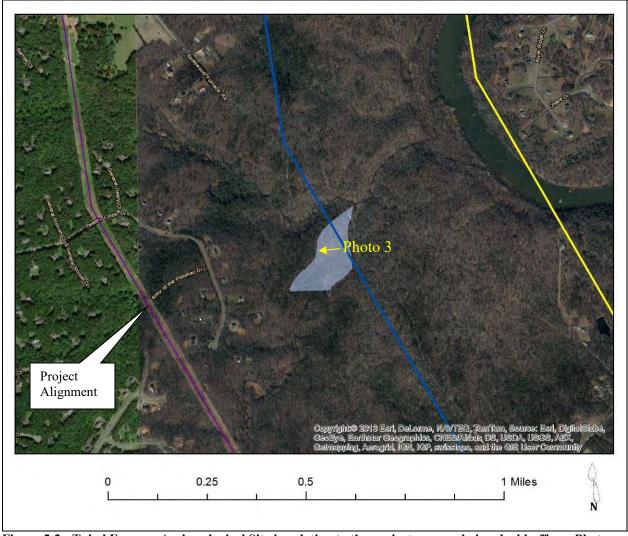


Figure 5-2: Tubal Furnace Archaeological Site in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Base map source: V-CRIS



Photo 1: Representative view of features within the site, facing southeast



Photo 2: Landscape within the site, facing east



Photo 3: View from the site towards the existing transmission line (not visible), facing southwest

Rapidan Dam Canal of the Rappahannock Navigation (VDHR ID #088-0137)

The Rapidan Dam Canal of the Rappahannock Navigation consists of remnants and features of an early-nineteenth century canal built for transporting cargo, around the rapids at the confluence of the Rappahannock and Rapidan Rivers. The system, which consisted of twenty dams, each with its own system of locks, is ranked by canal experts as the country's most intact example of a lock-and-dam navigation system for bateaux. Construction of the fifty-mile project began in 1829 and was not completed until twenty years later, just as railroad competition made it useless. The Rapidan Dam Canal parallels the Rappahannock River from the mouth of the Rapidan for one and a half miles and then reenters the river through three locks. The Rapidan Canal was listed in the NRHP in 1973.

The Rapidan Dam Canal was not accessible for inspection at this time, but according to previous documentation, the boundaries include 500 feet from each side of the Rappahannock River from the mouth of the Rapidan to a point 1 1/2 miles below where it re-enters the river through three locks. The canal is located on the south side of the river and is now dry, but remains visible. There are five locks' on the canal, all of stone; primarily broken range rubble masonry. Aerial photography reveals that the landscape within the resource boundaries is completely wooded on both sides of the river.

In order to assess the potential impact of the proposed project, analysis was conducted of the setting around the park parcel with emphasis on views towards the project area. As access to the river and navigation features were not possible at the time of this effort, the assessment considered aerial photography and previous property descriptions. This assessment found that the resource is crossed directly by the project area alignment near its northern (upriver) end. Bordering the resource on the south side, particularly in the vicinity of the existing transmission line is also a nonhistoric suburban residential development. Inspection of the canal and navigation was not possible due to lack of access, however, it can be assumed that there is visibility of the existing transmission line in the vicinity of its crossing over the Rapidan River. Because of the thick vegetation and sloped topography in the area, visibility from further vantage points in the resource are less likely.

The existing transmission line structures on each side of the river crossing in the vicinity of the resource are 150-feet tall and the proposed replacement structures will be 124-feet tall. As the proposed structures in the vicinity of the resource are decreasing in height with no additional ROW clearing, it is anticipated that visibility following the project will be similar to the existing views which already include the transmission line, and thus will not introduce any substantially new or different views or features into the setting of the property. It is therefore D+A's opinion that the proposed project will have no more than a *minimal impact* on the Rapidan Dam Canal of the Rappahannock Navigation.

Figure 5-3 illustrates the location and direction of representative photographs of Rappahannock Navigation System. Figure 5-4 depicts the location of the resource in relation to the project alignment with viewshed buffers and photographic views towards the project area. Photos 1 and 2 are representative photographs of the property, as well as those taken from locations within the property towards the project alignment.

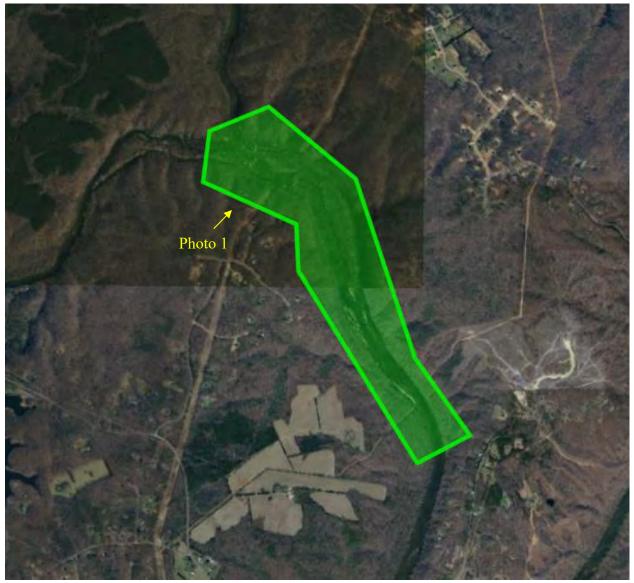


Figure 5-3: Location of Rapidan Dam Canal of the Rappahannock Navigation. Base map source: V-CRIS

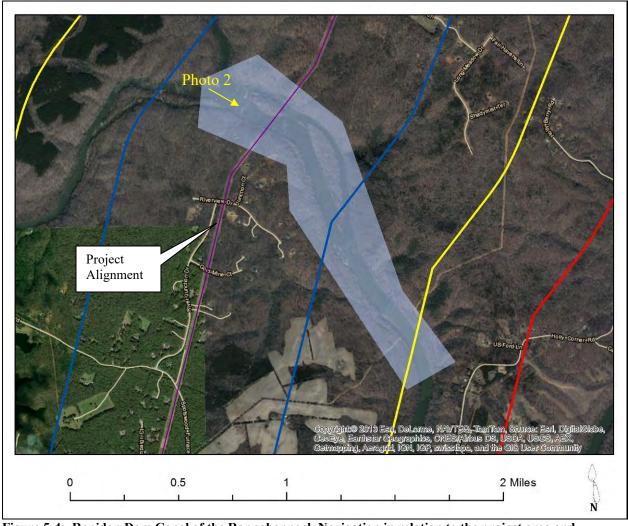


Figure 5-4: Rapidan Dam Canal of the Rappahannock Navigation in relation to the project area and viewshed buffers. Base map source: V-CRIS



Photo 1: Aerial view showing topography and vegetation at the confluence of the Rappahannock and Rapidan Rivers, facing north (Source: Waymarking.com)



Photo 2: View from the confluence of the Rappahannock and Rapidan Rivers showing existing transmission line (red), facing east (Source: Waymarking.com)

Spotsylvania Courthouse Historic District (VDHR ID# 088-0142)

The Spotsylvania Courthouse Historic District consists of the small village surrounding the courthouse and county seat of Spotsylvania County. It is located centrally in the county, along Route 208 at its intersection with Route 608 about 10 miles southwest of Fredericksburg. The focal point of the district is the Roman Revival courthouse, completed in 1840 by Malcolm B. Crawford, who worked for Thomas Jefferson as a builder of the University of Virginia. There are a handful of other nineteenth century buildings as well, although it didn't experience substantial growth and development until late in the nineteenth century due to heavy combat and devastation during the 1864 battle that took place in the vicinity. The district was listed in both the VLR and NRHP in 1983 under Criteria A and C.

The boundaries of the district include a large part of the rural village surrounding the court house. The contributing properties include all existing structures that stood in the vicinity of the court house at the time of the Civil War. They also include several late 19th-century and early 20th-century houses on the south side of Route 208 east of the courthouse and on both sides of Route 208 south of the courthouse. Also within the district is a large Confederate cemetery.

The boundaries of the district also incorporate some adjacent farm land, a pond, and woodland bordering the district, particularly to the east and north. Fields to the east of the town proper are included as the site of major Confederate defenses and major fighting between the Army of Northern Virginia under Robert E. Lee and the Army of the United States under Ulysses S. Grant, and to provide a rural setting for that side of town.

In order to assess the potential impact of the proposed project, visual inspection was conducted of the setting around and within the district boundaries with emphasis on views towards the project area. This assessment found that the Spotsylvania Courthouse Historic District is located 0.72-miles from the project area at its nearest point; however the courthouse and village core of the district is located 1.28-miles away. The portion of the district set closest to the project area is sparsely developed with wooded areas bordering the cemetery and in the direction of the project area. All along the eastern edge of the historic district, bordering it in the direction of the project area is extensive modern development, including municipal buildings in the vicinity of the courthouse and village core, and suburban residential neighborhoods at the end of the district closest to the project area. Between the district and the project area the landscape is generally characterized by woodland with sporadic nonhistoric suburban homes. The topography is also rolling, with a general downward slope towards the project area. As such, the project area is lower than the historic district, and the intervening vegetation and development completely screen visibility of the project area and existing transmission line from all vantage points within the Spotsylvania Courthouse Historic District.

The existing transmission line structures in the vicinity of the property range from 80-feet to 125-feet tall and the proposed replacement structures will range from 119-feet to 154-feet tall. As such, there will be a substantial increase in structure height, however, there will be no additional ROW clearing, and structures will be replaced on a one-to-one basis. It is therefore anticipated that visibility following the project will be similar to the existing views, in which intervening development, vegetation, and topography screen the line. This was confirmed

through photo simulation from select public vantage points within the historic district that show proposed structures will remain not visible. It is therefore D+A's opinion that the proposed project will have *no impact* on the Spotsylvania Courthouse Historic District.

Figure 5-5 illustrates the location and direction of representative photographs of Spotsylvania Courthouse Historic District. Figure 5-6 depicts the location of the resource in relation to the project alignment with viewshed buffers, photographic views towards the project area, and photo simulations. Photos 1 through 6 are representative photographs of the district, as well as those taken from locations within the district towards the project alignment. Photo Simulations 1a through 2c illustrate the location of each simulation and structures modeled along with the existing views and proposed views.



Figure 5-5: Location and direction of representative photos of the Spotsylvania Courthouse Historic District. Photo locations and directions shown in yellow. Base map source: V-CRIS

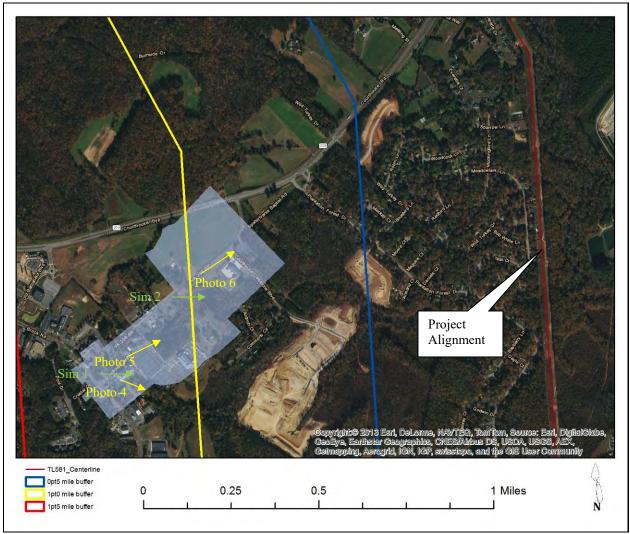


Figure 5-6: Spotsylvania Courthouse Historic District in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Photo simulation locations shown in green. Base map source: V-CRIS



Photo 1: Representative view along Courthouse Road, facing southwest



Photo 2: Representative view along Courthouse Road, facing west



Photo 3: Representative view of Confederate Cemetery, facing southeast



Photo 4: View from historic district along Dean Ridings Land towards the existing transmission line (not visible), facing southeast



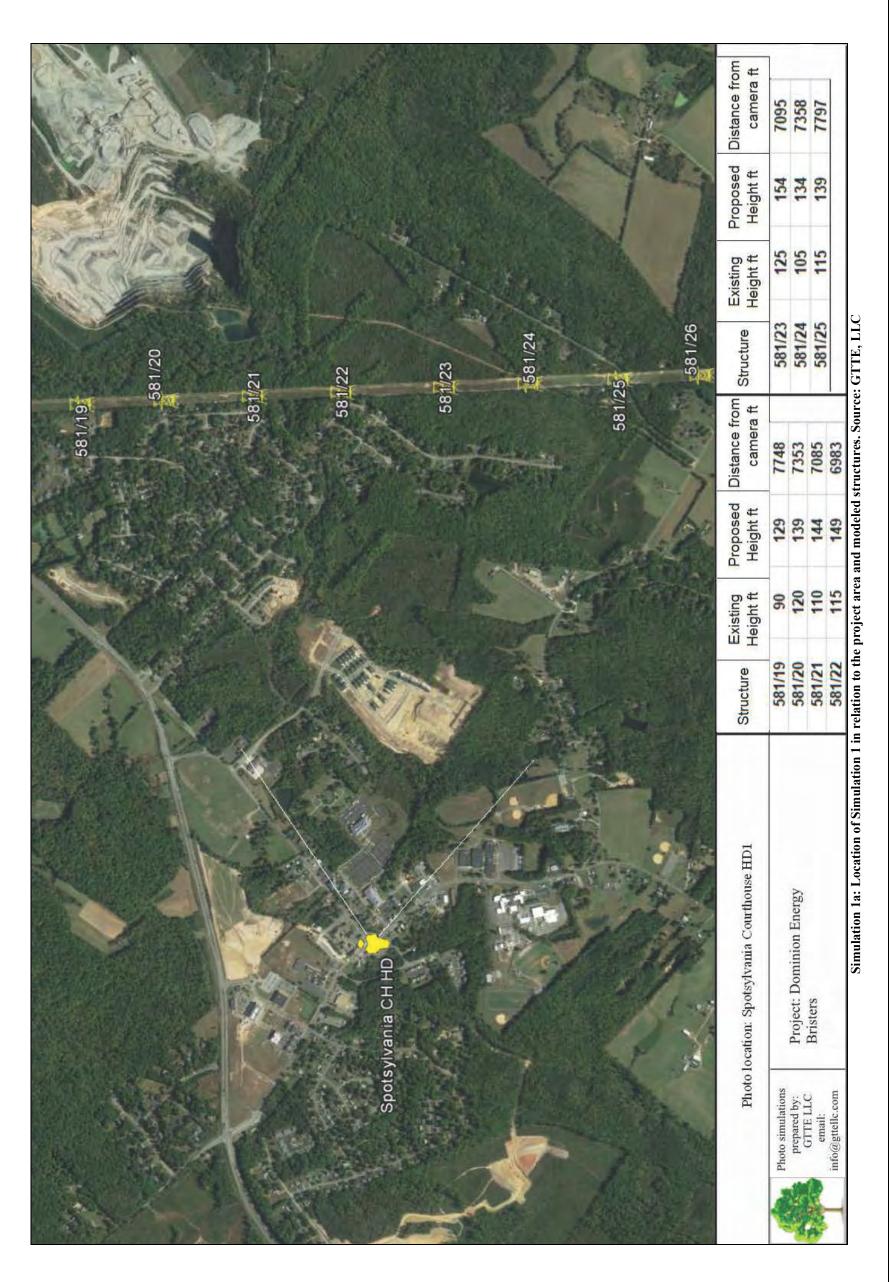
Photo 5: View from historic district along Courthouse Road towards the existing transmission line (not visible), facing east



Photo 6: View from historic district along Courthouse Road towards the existing transmission line (not visible), facing northeast

	Attachment 2.H.1
	Page 72 of 306
RESULTS OF FIELD RECONN	IAISSANCE

THIS PAGE INTENTIONALLY LEFT BLANK



5-21



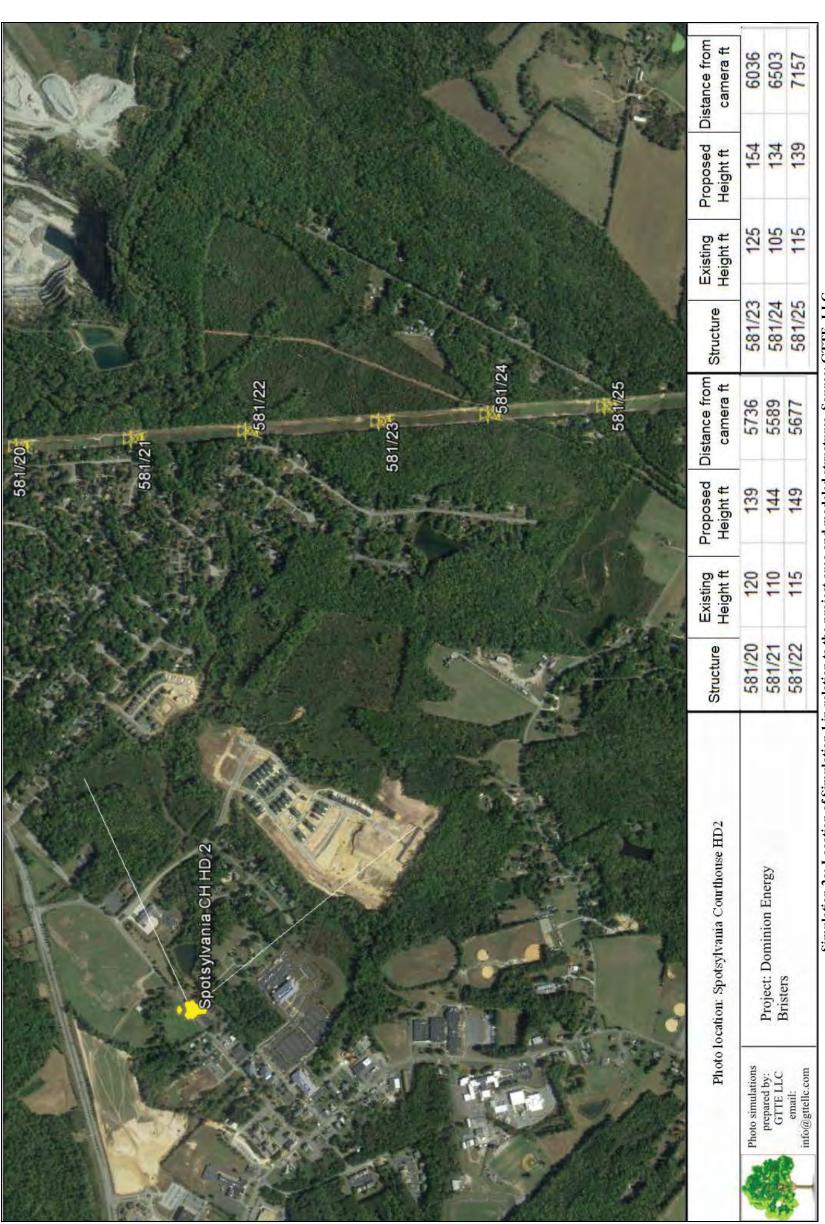
Simulation 1b: Simulation 1 existing view. Source: GTTE, LLC



This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Simulation 1c: Simulation 1 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC



Simulation 2a: Location of Simulation 1 in relation to the project area and modeled structures. Source: GTTE, LLC



This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location. Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Photo simulations prepared by: GTTE LLC email: info@gttellc.com

Simulation 2b: Simulation 1 existing view. Source: GTTE, LLC



This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 2c: Simulation 1 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Photo simulations prepared by: GTTE LLC email: info@gttellc.com

Fredericksburg and Spotsylvania Battlefields National Military Park (VDHR ID #111-0147)

Fredericksburg and Spotsylvania Battlefields National Military Park encompasses portions of four major Civil War battles: Battle of Fredericksburg, Battle of Chancellorsville, Battle of the Wilderness, and Battle of Spotsylvania Court House. The boundaries of the park include over 8,000 acres of battlefield throughout Fredericksburg and Spotsylvania County. Fredericksburg and Spotsylvania Battlefields National Military Park was listed in the NRHP in 1966 and VLR in 1973 under Criterion A for military history.

There are roughly one dozen discrete and discontiguous portions, or tracts, of the Fredericksburg and Spotsylvania Battlefield National Military Park located throughout the City of Fredericksburg and Spotsylvania County, Virginia. Two discrete tracts of the park are located within one mile of the project alignment, including a portion associated with the Battle of Spotsylvania Courthouse and a portion associated with the Chancellorsville Battlefield. In order to assess the potential impact of the proposed project, visual inspection was conducted of the setting around the park tracts in proximity to the project area with emphasis on views towards the project alignment.

The Spotsylvania Courthouse Battlefield tract includes 1,328 acres of land just north of the village of Spotsylvania Courthouse. The landscape of this parcel is a mix of open field and woodland crossed by a network of earthworks. The existing transmission line ROW extends to the east and north of this portion of the battlefield park and does not cross or border it at any point.

Assessment found that this parcel is set roughly 0.41-miles from the project area at its nearest point which is the end of the park driveway along Route 208. The next closest point is the northeastern corner of the park tract which is 0.52-miles from the project area. While the tract is a mix of open field and woodland, the open interpretative areas are primarily set within the interior of the park parcel while the perimeter is heavily wooded. The east side of the park parcel, closest to the project area is wooded with additional woodland beyond. The area between the park and the project area to the northeast is only lightly developed with several small residential areas scattered through the otherwise wooded landscape. The area between the park and the project area to the east and southeast includes the village of Spotslyvania Courthouse with the municipal and residential development located there. The landscape also generally slopes down from the park parcel towards the project area. As such, the intervening topography, vegetation, and development completely screen visibility of the project area and existing transmission line from all vantage points within the Fredericksburg Spotsylvania Battlefield National Military Park Fall Hill Tract Spotsylvania Courthouse tract.

The Chancellorsville Battlefield tract within one mile of the project area straddles both sides of Route 3 (Plank Road) west of Fredericksburg, centered on the intersection with Ely's Ford Road. Just the extreme eastern edge of the tract extends within one mile of the project area; no portions are within a half-mile. The portions of the park tract within one-mile include two narrow appendages as well as a larger parcel. The two narrow extensions are both on the north side of Plank Road. The northernmost tract is a former extension of Bullock Road that is no longer in place, and is now mostly wooded and interspersed with nonhistoric suburban residential

development. The lower appendage follows the present-day alignment of River Road which is also mostly wooded and lined by nonhistoric suburban homes. The largest portion of the park that extends within one-mile of the project area is on the south side of Plank Road and includes a parcel that was part of Confederate General McLaws's line during the battle. This area is a mix of woodland and open field.

Assessment from the Chancellorsville Battlefield tract found that the parcel is roughly 0.61 miles from the project area at its nearest point. The center of the battle, at the intersection of Plank Road and Ely's Ford Road is 1.4 miles away. The nearest portion of the park tract to the project area, the McLaws's Line area, borders the south side of Plank Road. It is a mix of woodland and open field. The corner closest to the project is a wooded cluster atop a ride with open field in the slopes below. The area between the tract and the project area is also a mix of open fields with ongoing suburban residential development interspersed with treelines. Inspection from the upper corner along Plank Road found that there are ephemeral views of the existing transmission line through the treelines; however, where visible, only the tops of existing structures may be seen over treelines and in conjunction with modern homes and other development. Because of the topography and vegetation, the line quickly becomes screened from vantage points further within the park tract. Inspection from the other two appendages of the battlefield within one-mile found that the existing transmission line is completely screened by dense vegetation.

The existing transmission line structures in the vicinity of both park parcels near the project area range from 75-feet to 150-feet tall and the proposed replacement structures will range from 109feet to 159-feet tall. As such, there will be a substantial increase in structure height, however, there will be no additional ROW clearing, and structures will be replaced on a one-to-one basis. It is therefore anticipated that visibility following the project will be similar to the existing views with the potential for slightly increased visibility from discrete vantage points. This currently includes no visibility of the existing transmission line from the Spotsylvania Courthouse Battlefield tract, and limited visibility of the existing transmission line from discrete locations at the edge of the Chancellorsville Battlefield park tract. This was confirmed through photo simulation that reveals proposed structure will generally continue to be screened where the existing structures are not visible, and visibility of already visible structures may increase slightly. Some structures that currently may only be seen above or through treelines may also rise above treelines. Still, these will be seen in conjunction with other structures that are already clearly visible and not include any wide or uninterrupted vistas of numerous structures that would cumulatively change the character of existing views. It is therefore D+A's opinion that the proposed project will have no more than a *minimal impact* overall on the Fredericksburg and Spotsylvania Battlefield National Military Park.

Figure 5-7 illustrates the location and direction of representative photographs of the Fredericksburg Spotsylvania Battlefield National Military Park Spotsylvania Courthouse tract. Figure 5-8 depicts the location of the Spotsylvania Courthouse tract in relation to the project alignment with viewshed buffers, photographic views towards the project area, and photo simulations. Photos 1 through 7 are representative photographs of the Spotsylvania Courthouse park tract, as well as those taken from locations within the tract towards the project alignment. Photo Simulations 1a through 2c illustrate the location of each simulation and structures modeled along with the existing views and proposed views.

Figure 5-9 illustrates the location and direction of representative photographs of the Fredericksburg Spotsylvania Battlefield National Military Park Chancellorsville Battlefield tract. Figure 5-10 depicts the location of the Chancellorsville Battlefield tract in relation to the project alignment with viewshed buffers, photographic views towards the project area, and photo simulations. Photos 8 through 14 are representative photographs of the Chancellorsville Battlefield tract, as well as those taken from locations within the tract towards the project alignment. Photo Simulations 1a through 4c illustrate the location of each simulation and structures modeled along with the existing views and proposed views.

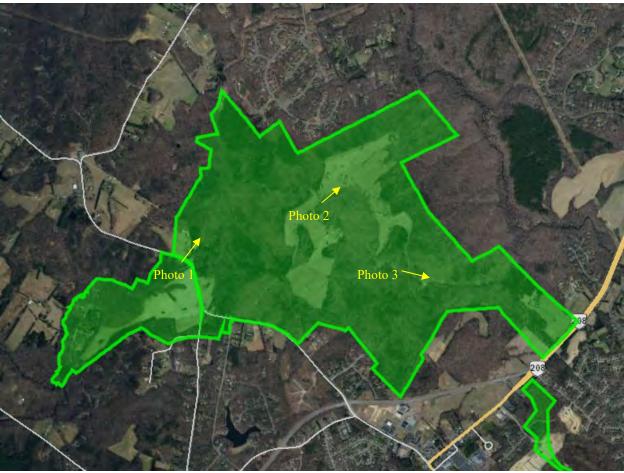


Figure 5-7: Location and direction of representative photos of Fredericksburg Spotsylvania Battlefield National Military Park Spotsylvania Courthouse Tract. Photo locations and directions shown in yellow. Base map source: V-CRIS

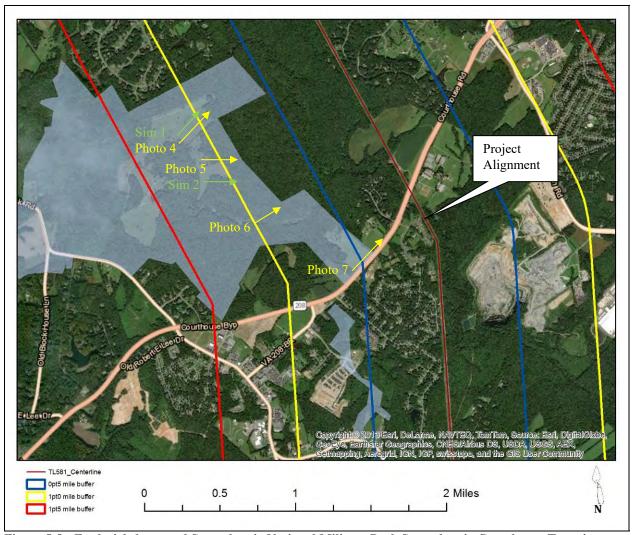


Figure 5-8: Fredericksburg and Spotsylvania National Military Park Spotsylvania Courthouse Tract in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Photo simulation locations shown in green. Base map source: V-CRIS



Photo 1: Entry and driveway to Spotsylvania Courthouse tract, facing northeast



Photo 2: Representative view of interpretative trail and landscape, facing northeast



Photo 3: View of landscape along driveway approaching tract exit, facing east



Photo 4: View from Bloody Angle interpretive area towards existing transmission line (not visible), facing north



Photo 5: View from Muleshoe interpretive area towards existing transmission line (not visible), facing east



Photo 6: View from driveway at one-mile buffer towards existing transmission line (not visible), facing east



Photo 7: View from tract exit on Courthouse Road towards existing transmission line (not visible), facing north



Figure 5-9: Location and direction of representative photos of Fredericksburg Spotsylvania Battlefield National Military Park Chancellorsville Battlefield tract in the vicinity of the project area. Photo locations and directions shown in yellow. Base map source: V-CRIS

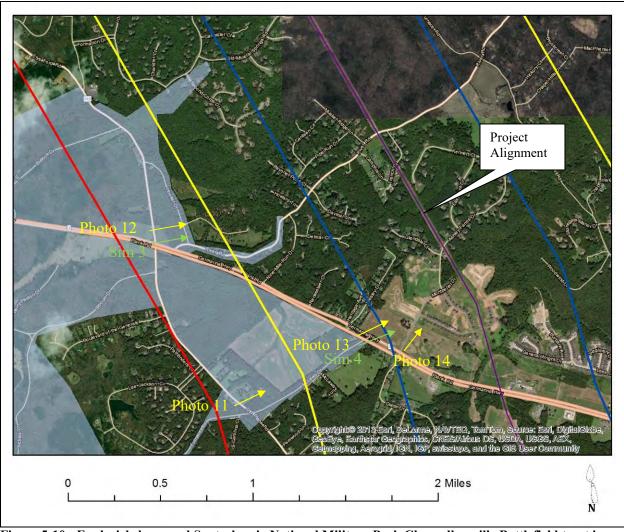


Figure 5-10: Fredericksburg and Spotsylvania National Military Park Chancellorsville Battlefield tract in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Photo simulation locations shown in green. Base map source: V-CRIS



Photo 8: View of Lee-Jackson Bivouac, facing northeast



Photo 9: View of Catharine's Furnace Ruins, facing southwest



Photo 10: View of Chancellorsville homesite setting, view southwest



Photo 11: View from Lee-Jackson Bivouac towards the existing transmission line (not visibyle), facing northeast



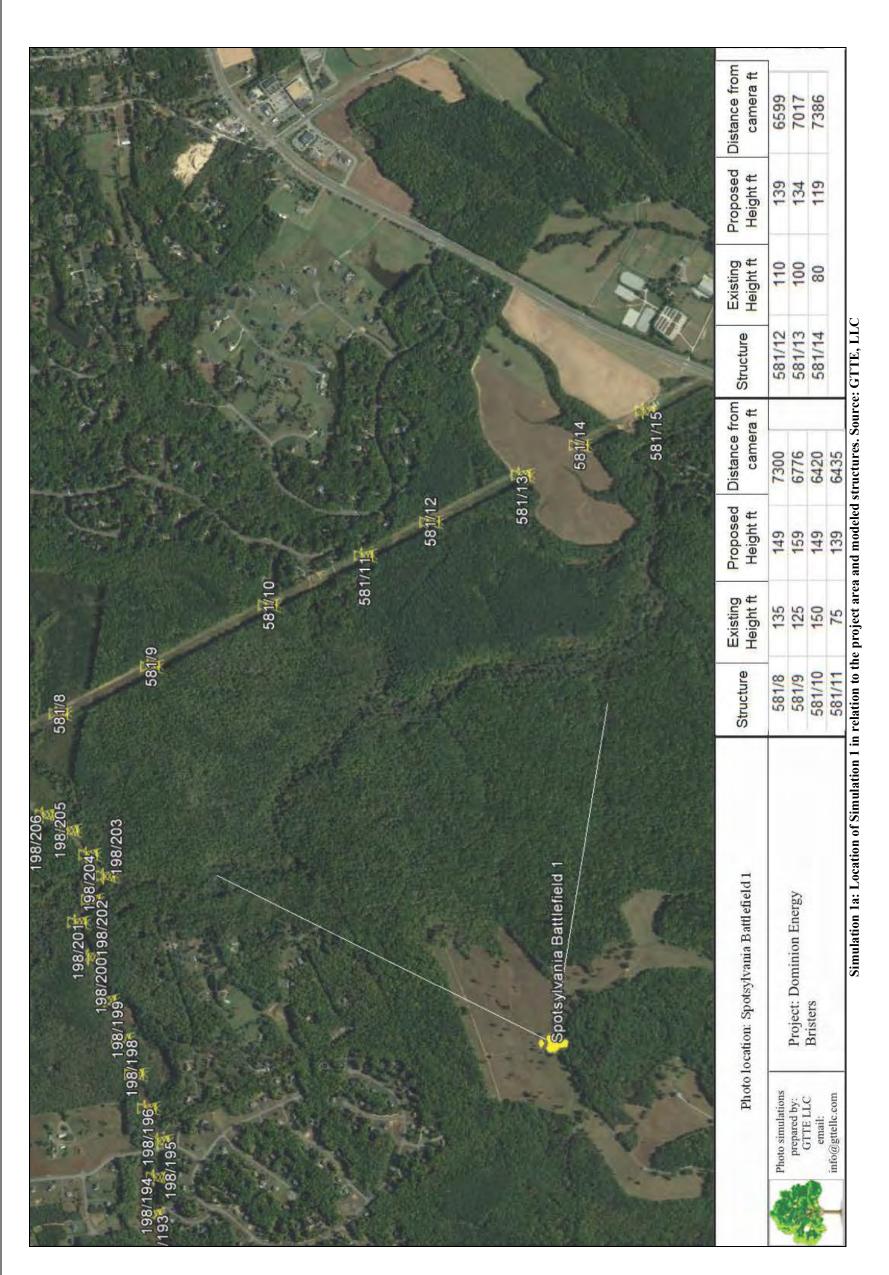
Photo 12: View from Chancellorsville Ruins towards the exiting transmission line (not visible), facing east



Photo 13: View from McLaws Drive showing the exiting transmission line (red) with detail of existing structure, facing northeast



Photo 14: View of ongoing suburban development between the battlefield park and project area, facing north





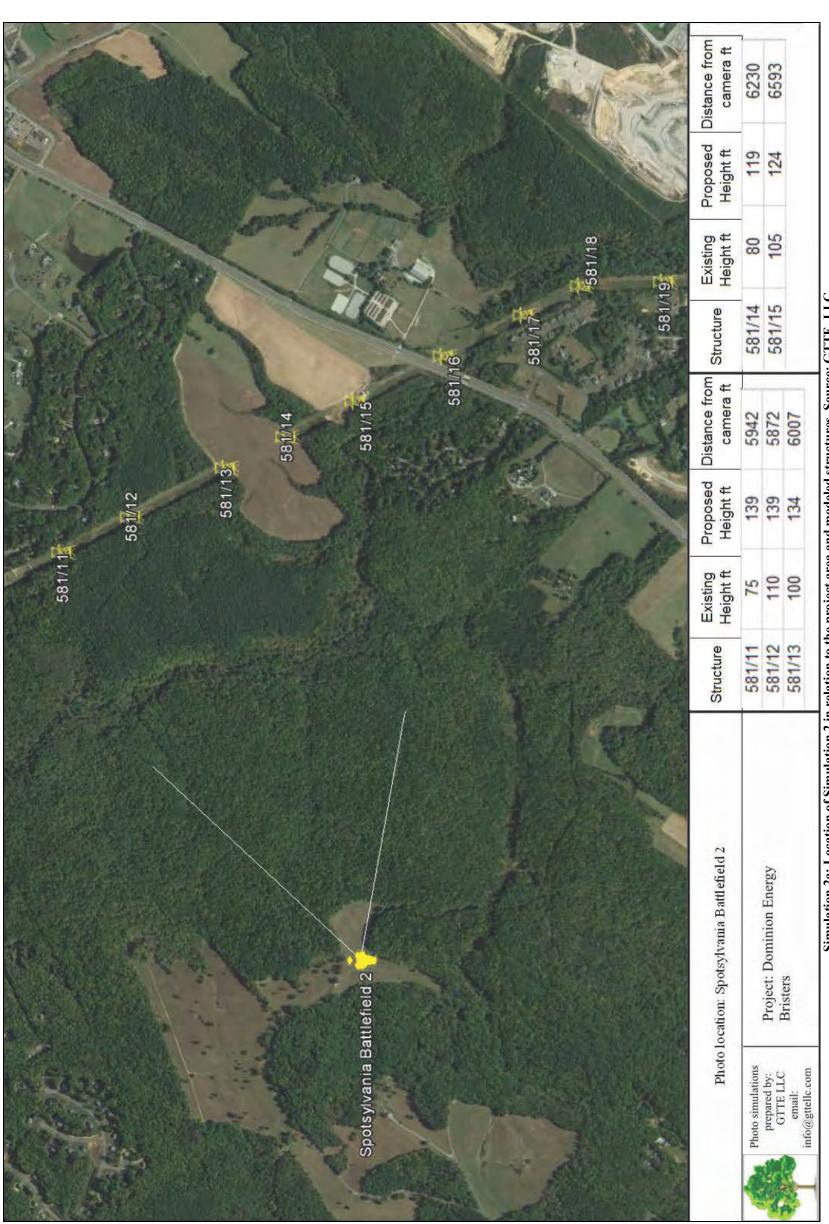
Simulation 1b: Simulation 1 existing view. Source: GTTE, LLC



Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 1c: Simulation 1 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC



Simulation 2a: Location of Simulation 2 in relation to the project area and modeled structures. Source: GTTE, LLC



Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 2b: Simulation 2 existing view. Source: GTTE, LLC

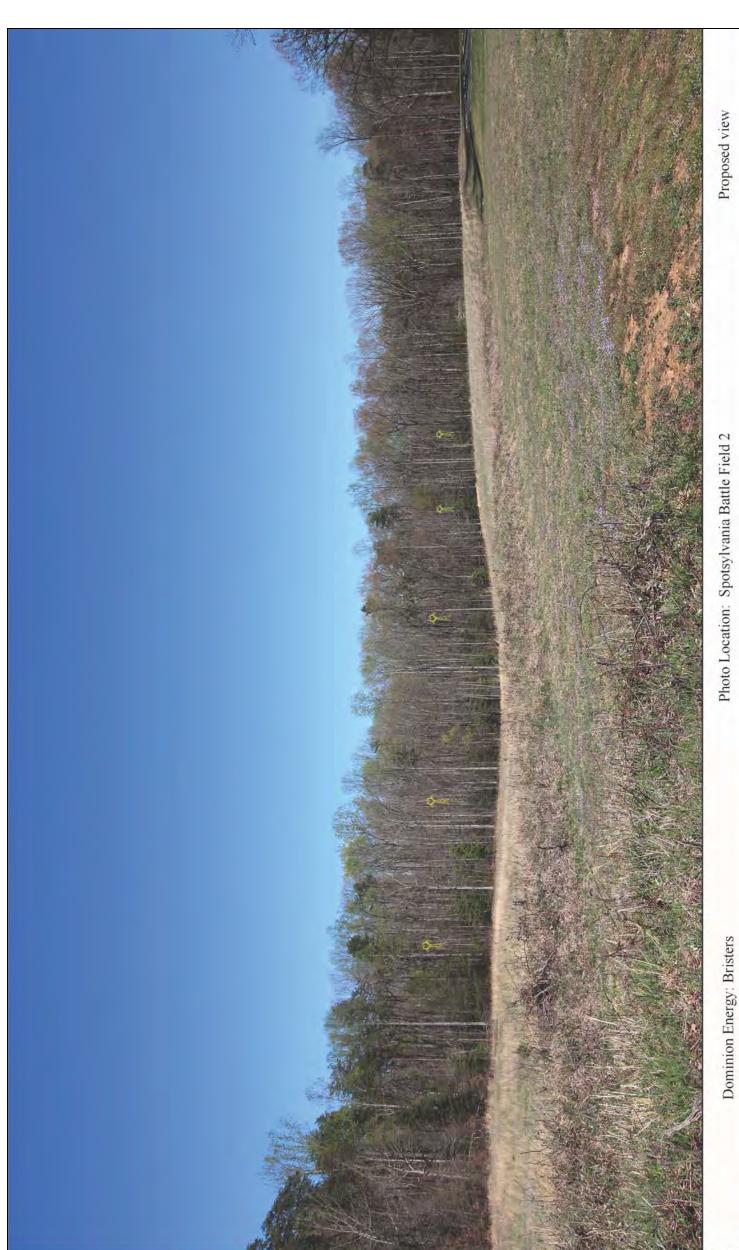
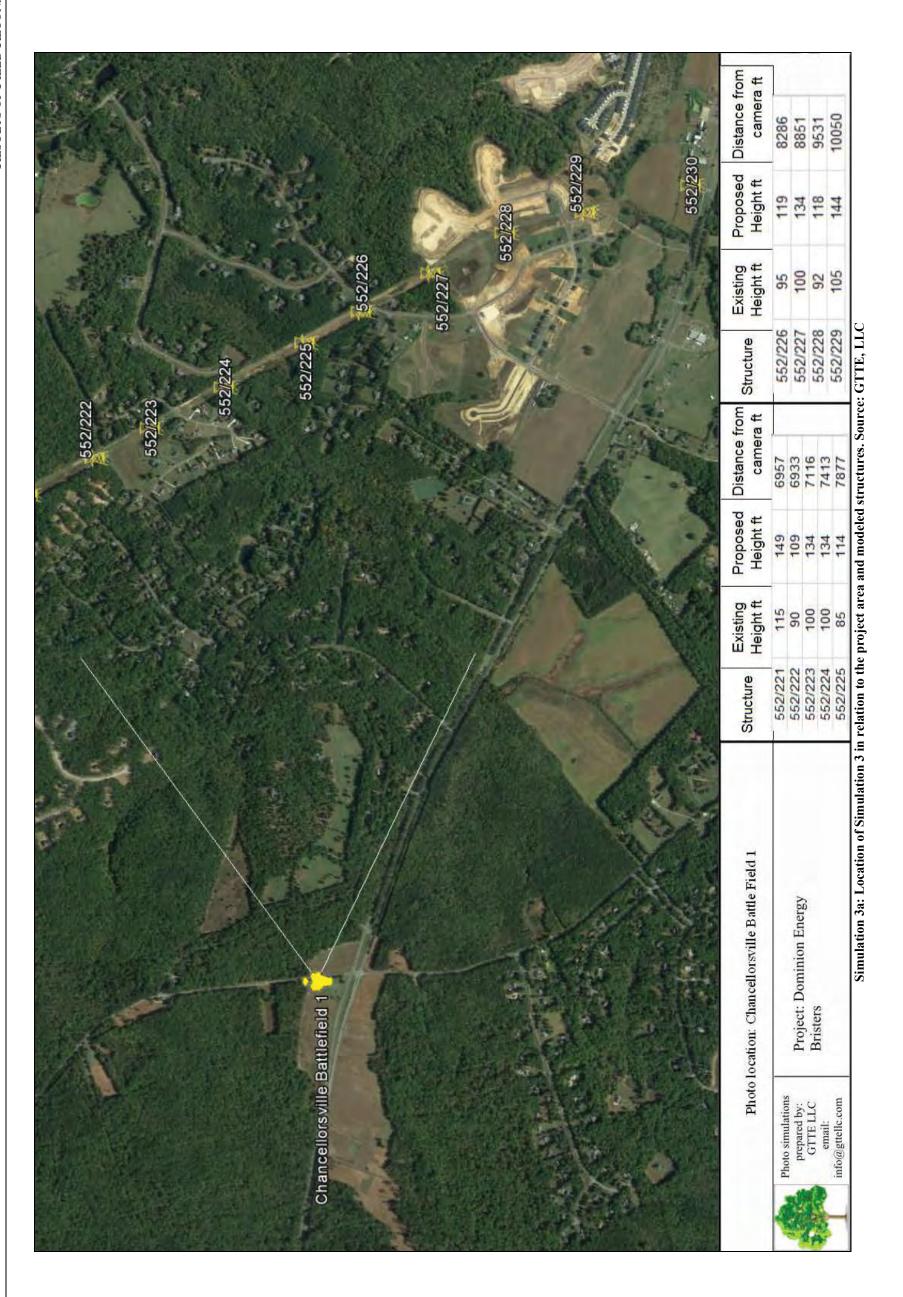
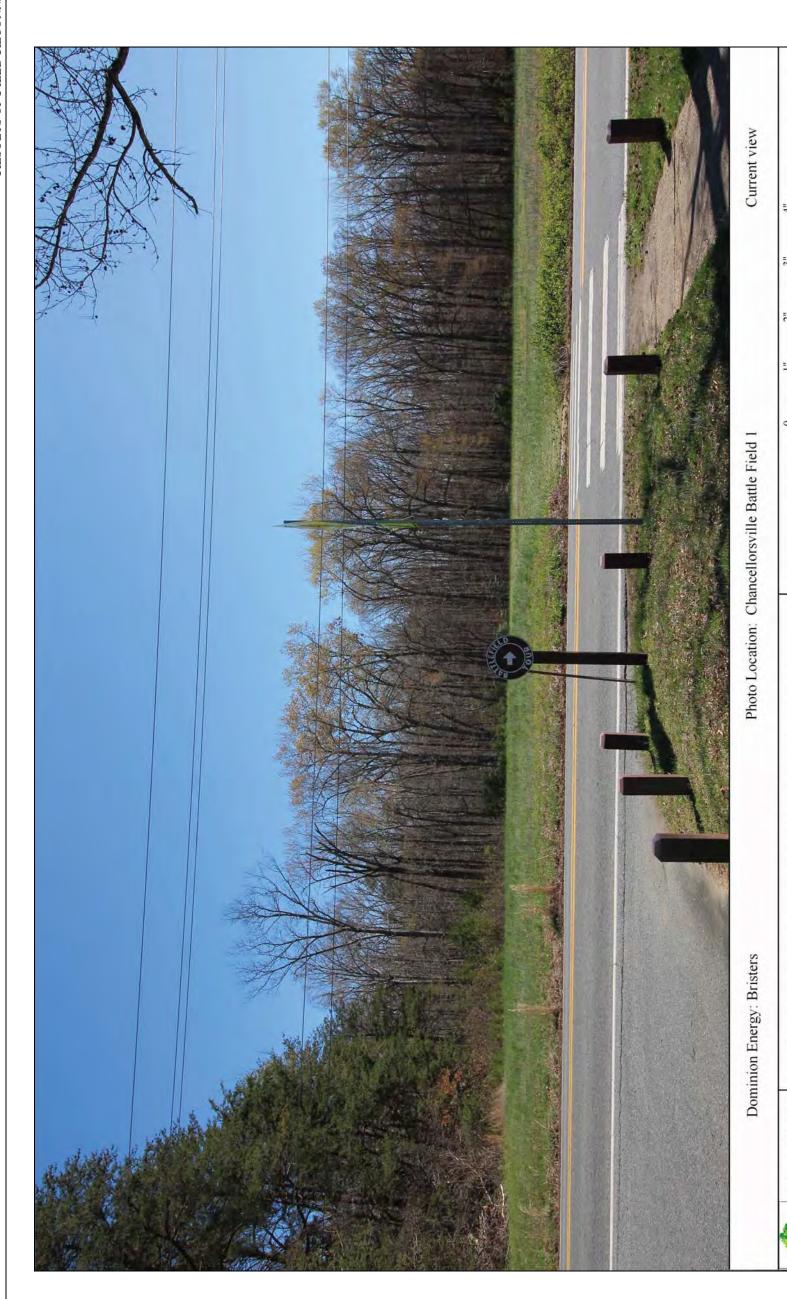


Photo simulations prepared by: GTTE LLC email: info@gttellc.com

This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location. Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Simulation 2c: Simulation 2 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC





This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location. Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Simulation 3b: Simulation 3 existing view. Source: GTTE, LLC

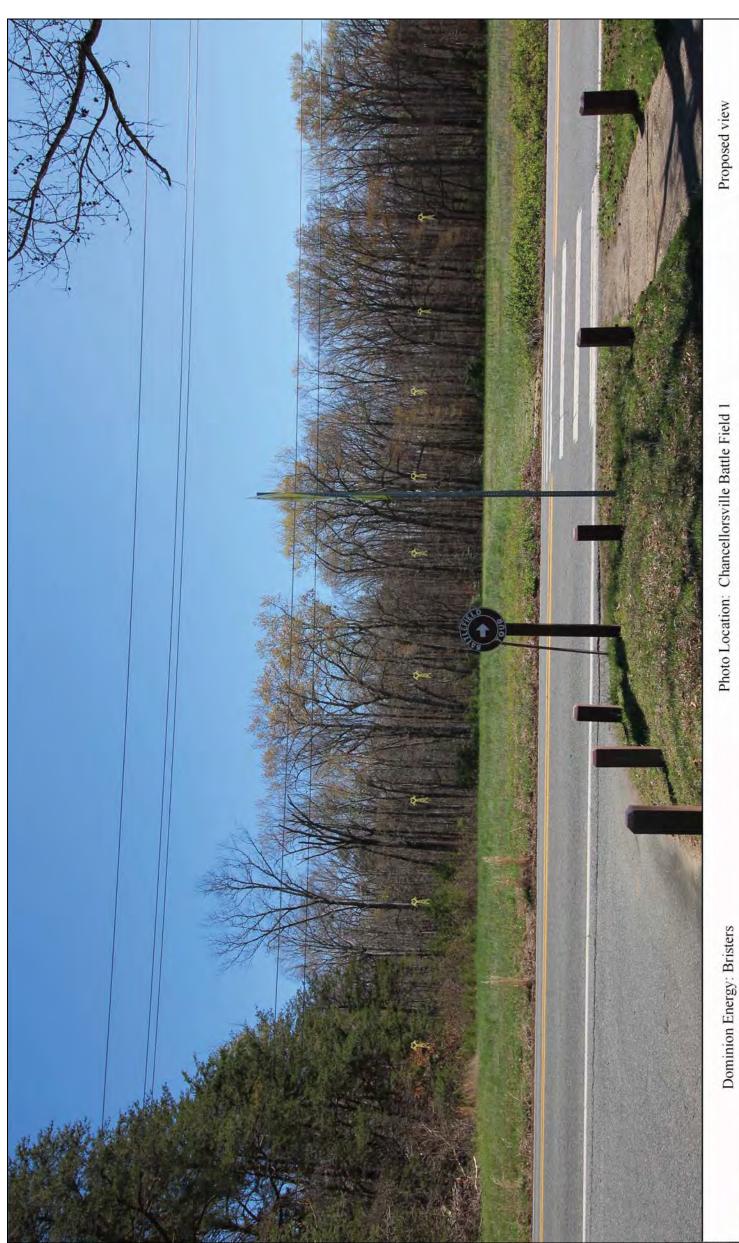


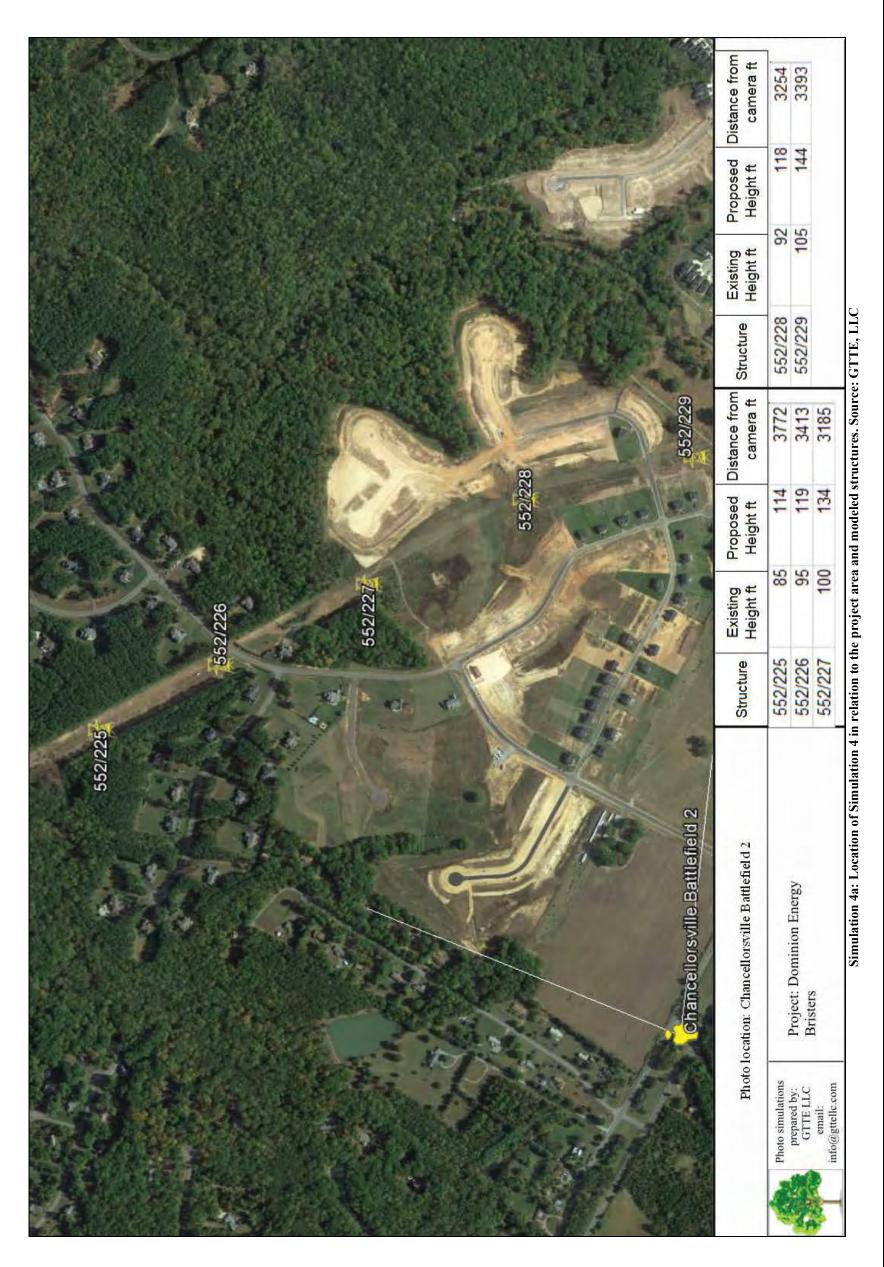
Photo Location: Chancellorsville Battle Field 1

This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 3c: Simulation 3 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC

Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Photo simulations prepared by: GTTE LLC email: info@gttellc.com



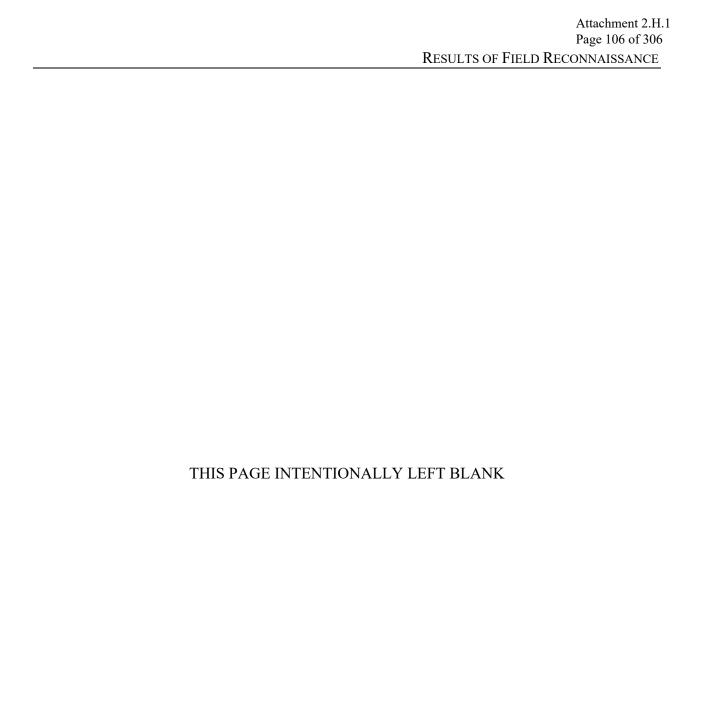




Simulation 4c: Simulation 4 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC



BATTLEFIELDS Located within 1.0-Mile of the Project Area



Chancellorsville Battlefield (VDHR ID# 088-5180)

The Chancellorsville Battlefield site corresponds to areas of combat and troop movement associated with the April to May 1863 Battle of Chancellorsville. The battlefield is located on Spotsylvania County along Route 3 (Plank Road) roughly 10 miles west of Fredericksburg. The battlefield maintains much of its historic landscape and setting, although is increasingly threatened by development. It was determined eligible for listing in the NRHP by DHR in 2000 and confirmed by the NPS ABPP in 2007.

The project alignment crosses directly through the Chancellorsville Battlefield in two discrete areas. This includes a narrow avenue of approach along Route 208 through the village of Spotsylvania Courthouse at the southern edge of the defined battlefield that is directly crossed by the project alignment just north of the village. This portion of the battlefield is considered "study area" as defined by the NPS ABPP. Because this road is still a regional transportation corridor, the landscape surrounding the road and within this portion of study area is developed with a variety of modern properties. As such, it is not included within the portion of the battlefield defined by the ABPP as "potentially National Register eligible." Assessment found that this portion of the battlefield is compromised by nonhistoric development lining both sides of the corridor in addition to being crossed by the existing transmission line and other utilities in the vicinity. The existing transmission line is visible from vantage points along the highway, however, is generally seen in conjunction with other nonhistoric development as well. Because of the rolling landscape and vegetation in the area, views of the line are limited to vantage points in close proximity to its crossing over the road, and quickly become screened at greater distances. Views in these areas are not considered primary interpretive views or inclusive of potentially NRHP eligible areas

The project alignment also crosses directly through the Chancellorsville Battlefield along Plank Road just east of Chancellorsville. The portion of battlefield crossed is considered part of the "core area" as defined by the NPS ABPP and discrete portions of this area are also "potentially National Register eligible", although other areas crossed and in the vicinity are not as they have been fragmented and compromised by encroaching suburban development. Plank Road has become an increasingly developed corridor and both sides are now lined with a mix of commercial and residential development. As the project alignment continues to the north, it crosses through additional "study area", some of which is also "potentially National Register eligible" and some of which is not due to development. Overall, the portions of the battlefield crossed by and in proximity to the project area include a mix of relatively intact battlefield landscape characterized by rolling fields interspersed by woodland; with pockets of nonhistoric development and large suburban neighborhoods. The most intact areas of the battlefield are included within the Fredericksburg Spotsylvania Battlefields National Military Park. Assessment found that roughly six miles of the battlefield are crossed by the project alignment in this area, including two miles of which are considered core area. This area borders Plank Road which is lined by commercial and residential development. Some open fields and landscape remain beyond the properties lining the road, although extensive suburban development and neighborhoods are set further beyond the road. The existing transmission line may be seen from vantage points along Plank Road although views are interrupted by the rolling topography and treelines. Where it may be seen, the existing structures are only minimally taller than the average

tree cover and are generally seen in conjunction with and behind nonhistoric development. The landscape further from Plank Road is more heavily wooded, even in areas with suburban development. Inspection from these areas show that the existing transmission line can generally only be seen from short distances where it crosses public roads, but quickly becomes screened by vegetation and topography. Overall, the current landscape and development pattern inhibit long or uninterrupted views of the transmission line.

The existing transmission line structures in the vicinity of the battlefield range from 72-feet to 135-feet tall and the proposed replacement structures will range from 104-feet to 159-feet tall. As such, there will be a substantial increase in structure height, however, there will be no additional ROW clearing and structures will be replaced on a one-to-one basis. It is therefore anticipated that visibility following the project will be generally similar to the existing views from most vantage points with a slight increase in visibility from others. In some areas, the existing line is screened by intervening distance and vegetation and will likely remain so. Other areas and vantage points already include views of the existing transmission line, albeit short and interrupted and this is anticipated to change only minimally. The increase in structure height may allow additional visibility of some structures that are already visible and views of some additional structures above treelines where views are currently screened. In general, it is anticipated that visible structures would be seen in conjunction with views that already include existing structures. This was confirmed by photo simulation that illustrated additional portions of structures may rise above treelines where they are currently partially to complete obscured, although in general, visibility will remain limited to only a few structures from most vantage points. The intervening topography and vegetation will continue to inhibit long and uninterrupted views of multiple structures. As such, the project has the potential to introduce a slight change in viewshed for discrete portions of the Chancellorsville Battlefield, however, the line will continue to be screened from other areas, particularly public interpretation areas and waysides. Still, the the project will result in increased visibility of the line from a number of points within the battlefield. It is therefore D+A's opinion that the proposed project will have no more than a moderate impact overall on the Chancellorsville Battlefield.

Figures 5-11 and 5-12 illustrate the location and direction of representative photographs of Chancellorsville Battlefield. Figures 5-13 and 5-14 depict the location of the resource in relation to the project alignment with viewshed buffers, photographic views towards the project area, and photo simulations. Figure 5-15 illustrates the limits of the battlefield and ABPP-defined tiers in relation to the project area. Photos 1 through 25 are representative photographs of the battlefield, as well as those taken from locations within the battlefield towards the project alignment. Photo Simulations 1a through 6c illustrate the location of each simulation and structures modeled along with the existing views and proposed views.



Figure 5-11: Location and direction of representative photos of Chancellorsville Battlefield. Photo locations and directions shown in yellow. Base map source: V-CRIS



Figure 5-12: Location and direction of representative photos of Chancellorsville Battlefield. Photo locations and directions shown in yellow. Base map source: V-CRIS

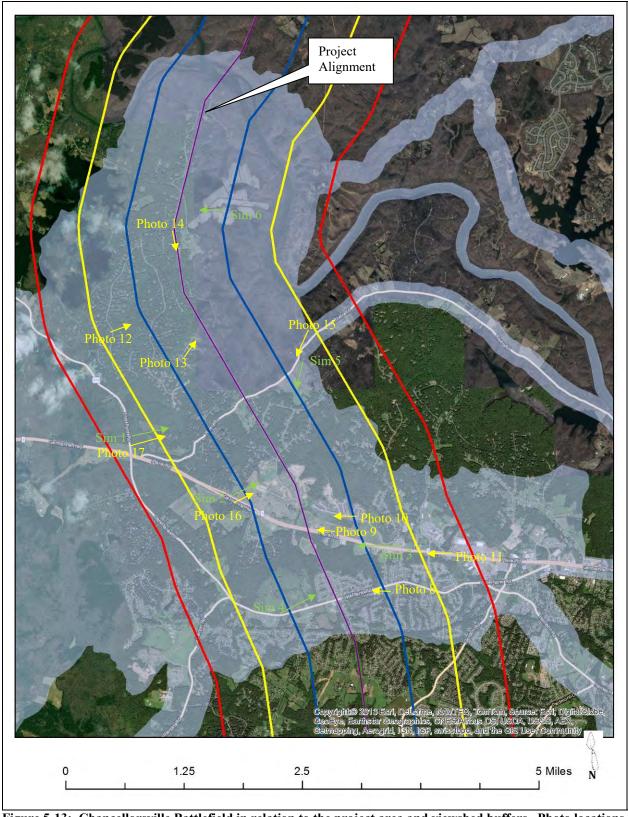


Figure 5-13: Chancellorsville Battlefield in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Simulation locations shown in green. Base map source: V-CRIS

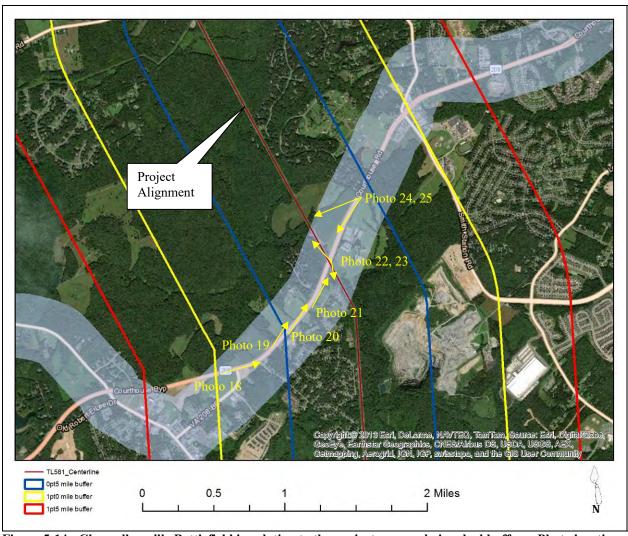


Figure 5-14: Chancellorsville Battlefield in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Base map source: V-CRIS

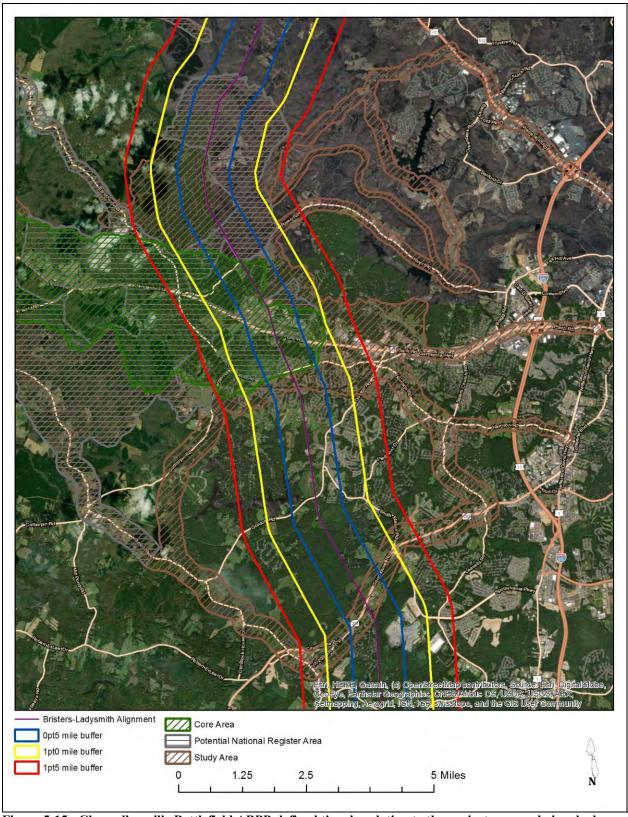


Figure 5-15: Chancellorsville Battlefield ABPP-defined tiers in relation to the project area and viewshed buffers. Base map source: NPS/V-CRIS



Photo 1: View of setting along Old Plank Road (potential National Register area), facing west



Photo 2: View of setting along Old Plank Road (potential National Register area), facing east



Photo 3: View of setting along Plank Road (potential National Register area), facing east



Photo 4: View of modern development along Lees Command Boulevard (potential National Register area), facing west



Photo 5: View of extensive development near intersection of Plank Road and Harrison Road (study area), facing southeast



Photo 6: View of Old Mineral Spring Road in Estates of Chancellorsville (study area), facing south



Photo 7: View of existing setting along Spottswood Furnace Road (potential National Register area), facing east



Photo 8: View from Old Plank Road (core area) showing existing transmission line (red), facing west



Photo 9: View from Plank Road (core area) showing existing transmission line (red), facing west



Photo 10: View from Lees Command Boulevard (core area) showing existing transmission line (red), facing west



Photo 11: View from intersection of Plank Road and Harrison Road (study area) showing existing transmission line (red), facing west



Photo 12: View from La Roque Run Road (study area) towards existing transmission line (not visible), facing east



Photo 13: View from Old Mineral Spring Road (study area) showing existing transmission line (red), facing northeast

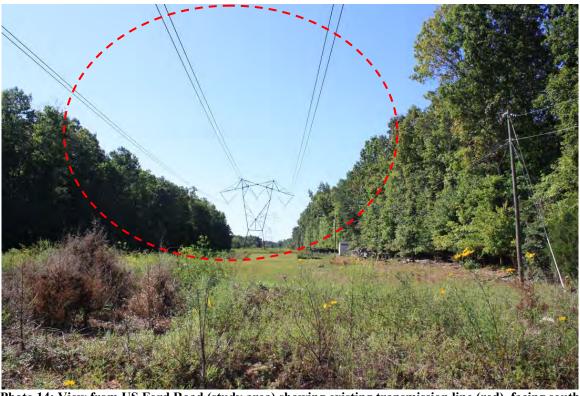


Photo 14: View from US Ford Road (study area) showing existing transmission line (red), facing south



Photo 15: View from intersection of River Road and US Ford Road (potential National Register area) towards existing transmission line (not visible), facing west



Photo 16: View from McLaws Drive (core area) showing the exiting transmission line (red) with detail of existing structure, facing northeast



Photo 17: View from Chancellorsville Ruins (core area) towards the exiting transmission line (not visible), facing east



Photo 18: View of setting along Courthouse Road at Courthouse Bypass, facing east



Photo 19: View from Fredericksburg Spotsylvania Battlefield Park exit along Courthouse Road towards the existing transmission line (not visible), facing east



Photo 20: View from Courthouse Road towards the existing transmission line (not visible), facing northeast



Photo 21: View from Courthouse Road showing one visible structure on exiting transmission line (red), facing northeast

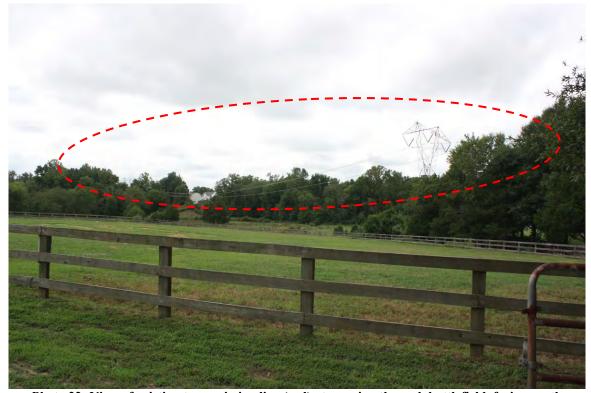


Photo 22: View of existing transmission line (red) at crossing through battlefield, facing south



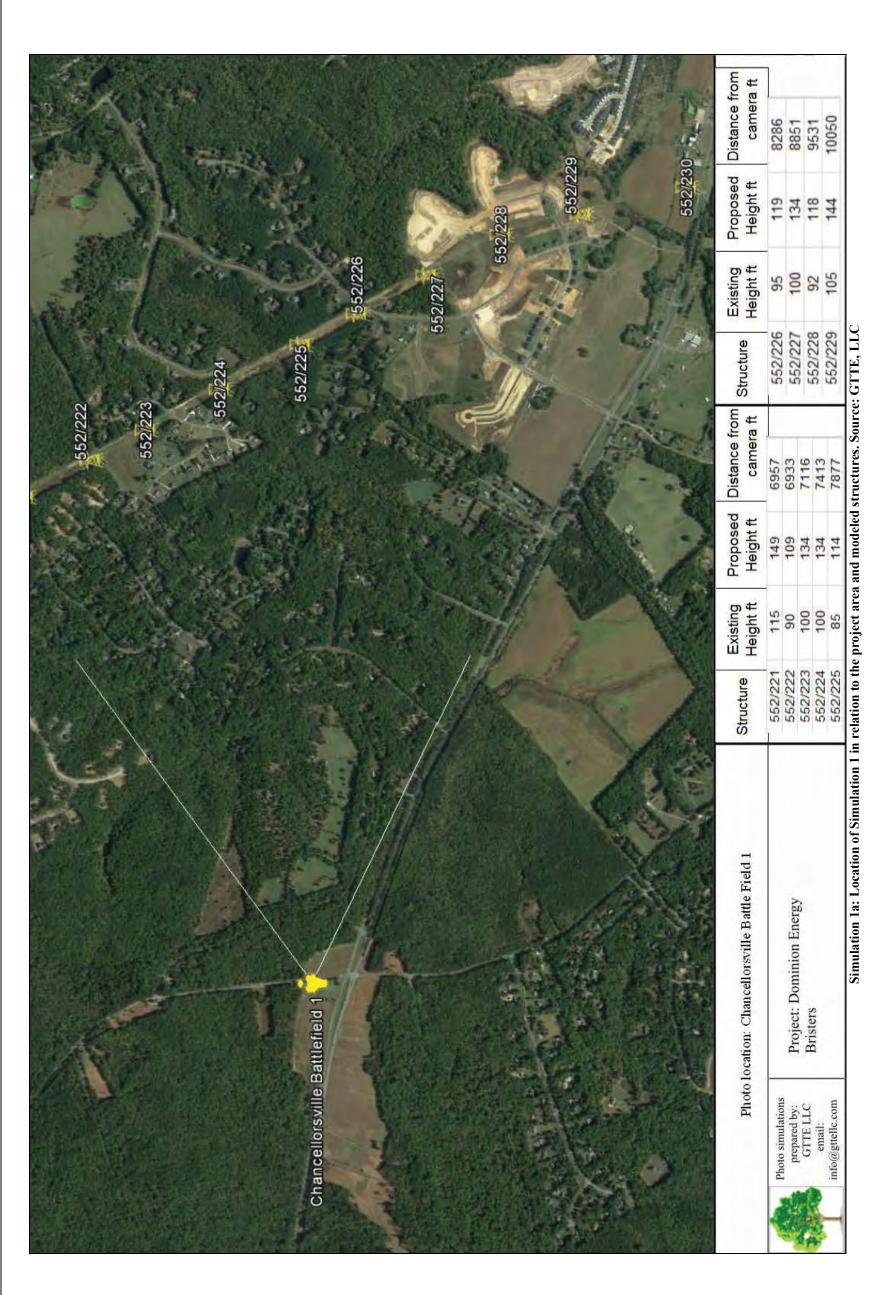
Photo 23: View of existing transmission line (red) at crossing through battlefield, facing north



Photo 24: View from along Courthouse Road showing visible components of existing transmission line (red), facing southwest



Photo 25: View from along Courthouse Road showing visible components of existing transmission line (red), facing west



5-75



This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location. Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Simulation 1b: Simulation 1 existing view. Source: GTTE, LLC

92-2

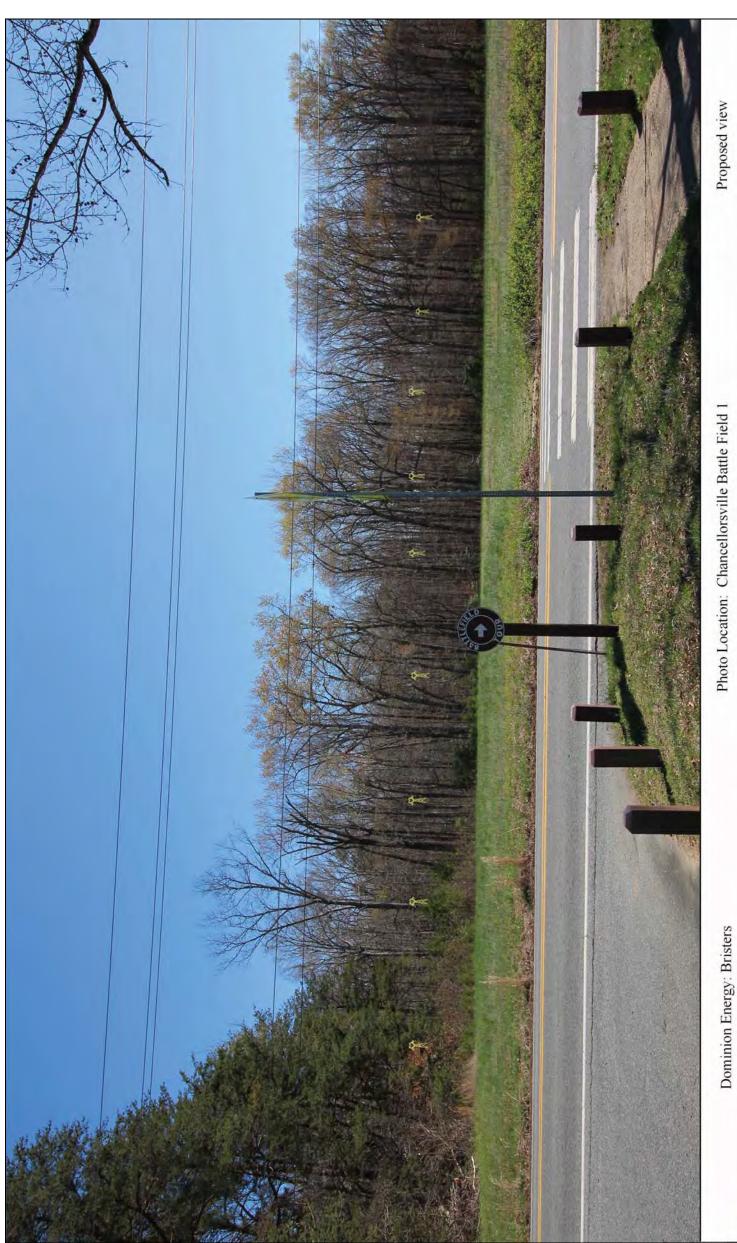


Photo Location: Chancellorsville Battle Field 1

This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 1c: Simulation 1 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC

Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Photo simulations prepared by: GTTE LLC email: info@gttellc.com



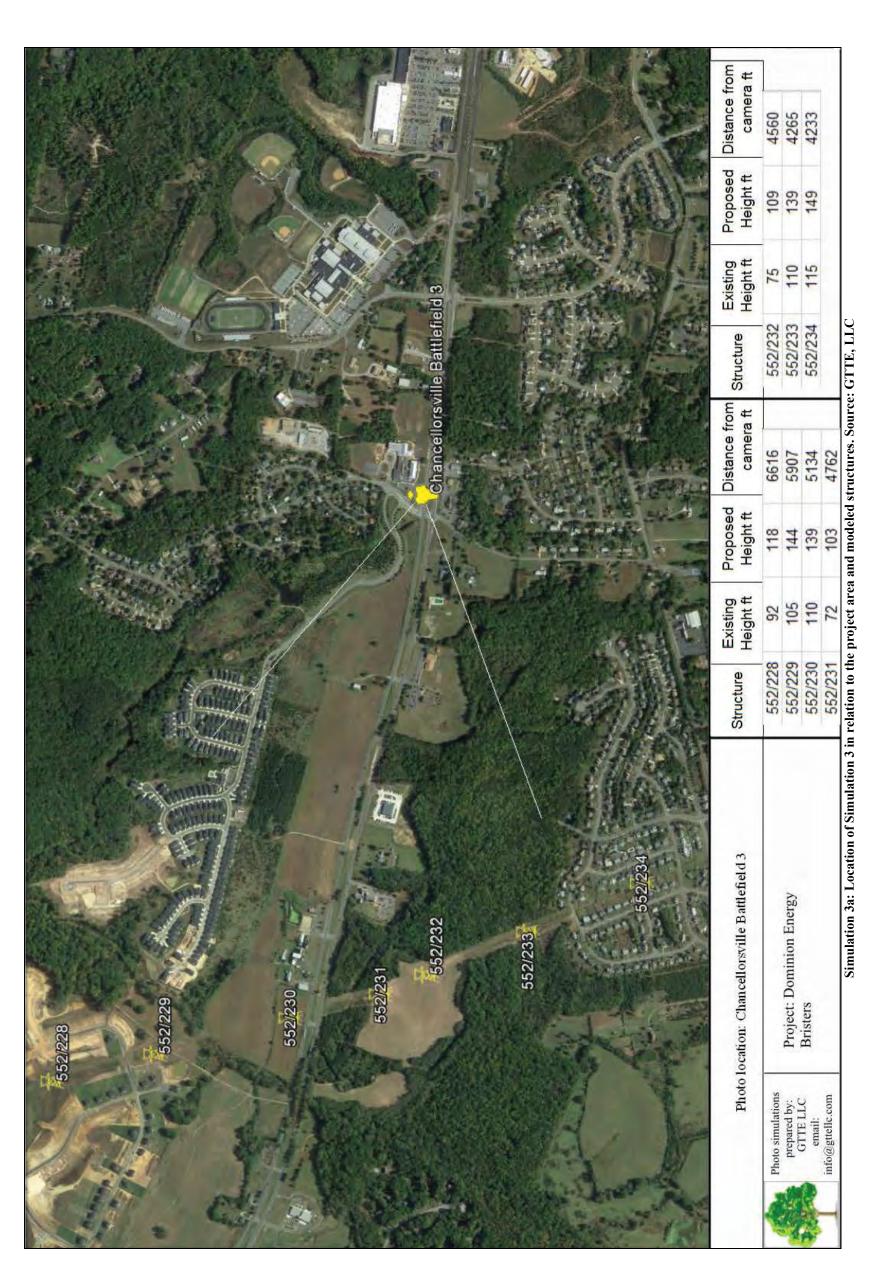


Simulation 2b: Simulation 2 existing view. Source: GTTE, LLC



This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 2c: Simulation 2 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC





Simulation 3b: Simulation 3 existing view. Source: GTTE, LLC



This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 3c: Simulation 3 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC

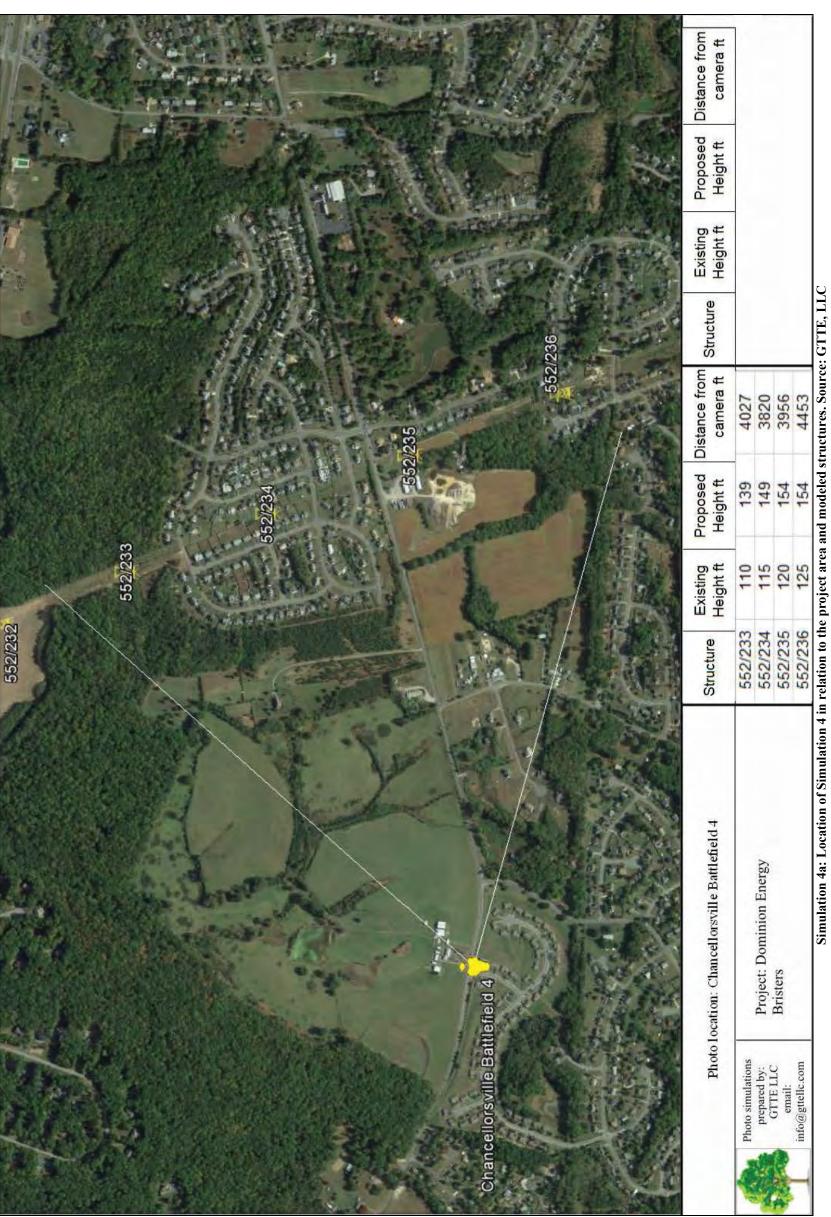




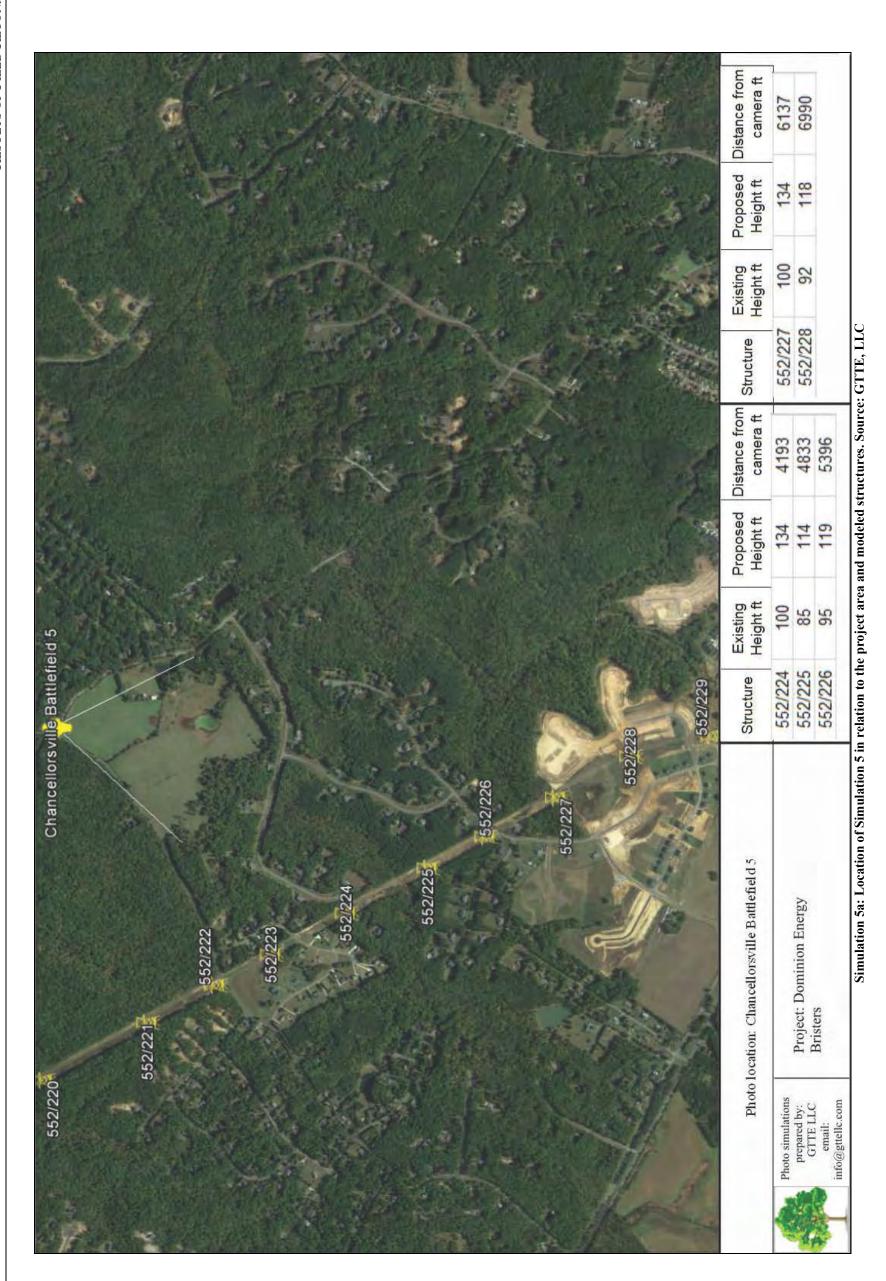
Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 4b: Simulation 4 existing view. Source: GTTE, LLC

5-85

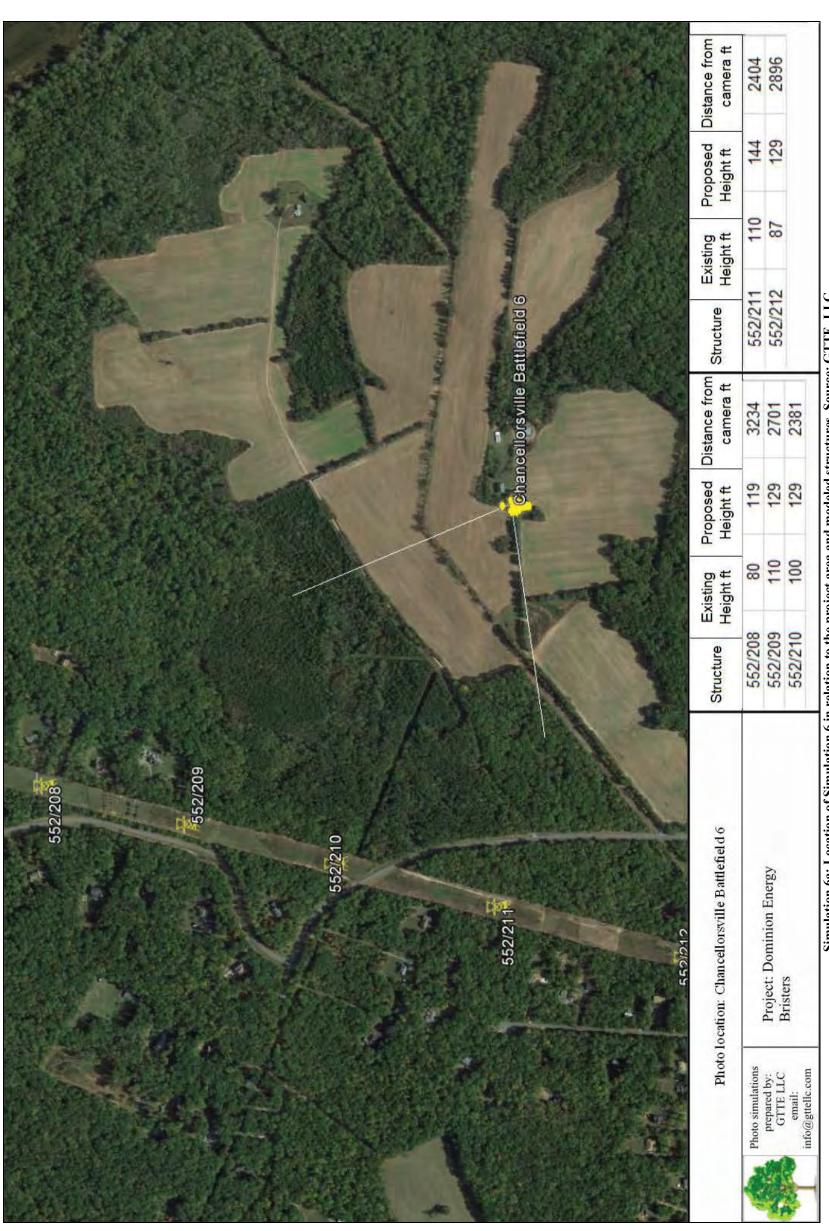






2-88





Simulation 6a: Location of Simulation 6 in relation to the project area and modeled structures. Source: GTTE, LLC



Simulation 6b: Simulation 6 existing view. Source: GTTE, LLC



Simulation 6c: Simulation 6 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC

Spotsylvania Courthouse Battlefield (VDHR ID# 088-5182)

The Spotsylvania Courthouse Battlefield represents the area of combat and troop movement during the two week long battle in May 1864. The battlefield includes a large area surrounding the village of Spotsylvania Courthouse. Some of the key battlefield terrain and landscape, including a large network of earthworks has been preserved and is included as a tract within the Fredericksburg Spotsylvania National Battlefield Park managed by the NPS. The battlefield was originally determined eligible for listing in the NRHP by VDHR in 1997 and was confirmed by the NPS ABPP in 2007.

The project area directly crosses through the eastern portion of the battlefield, however, the majority of the battlefield is located to the west. The project area crosses through the battlefield east of the village of Spotsylvania Courthouse and then extends north and out of the battlefield as it extends towards Chancellor to the north. Roughly five miles of the project area are located directly within the boundaries of the battlefield. Another short segment of alignment is also within one mile of a separate and discrete portion of avenue of approach at the northern end of the battlefield.

The portions of the battlefield directly crossed are all considered "study area" as defined by the NPS ABPP. Portions of the "core area" as defined by the NPS ABPP are also directly crossed, although because much of area surrounding Spotsylvania Courthouse and extending north towards Chancellor has been suburbanized with a mix of nonhistoric development, only discrete areas have been defined by the ABPP as "potentially National Register eligible." Portions of the National Register area crossed by the project area include open field and undeveloped woodland to the south of Spotsylvania Courthouse, as well as to the east and north of the battlefield park tract. The separate and discrete portion of the battlefield within one mile of the project area to the north consists of the extreme end of an avenue of approach near the intersection of Carthapin Road at Old Plank Road and is considered "study area" as defined by the NPS ABPP. As this portion of the battlefield is situated along a modern transportation corridor, the landscape is characterized by nonhistoric development lining the modern roadway.

In order to assess the potential impact of the proposed project, visual inspection was conducted of the setting within those portions of the battlefield in the vicinity of the project area with emphasis on views towards the project alignment. This assessment found that while the project area crosses directly through core areas of the battlefield, many of these areas are highly fragmented by suburban development. Residential neighborhoods flank the project alignment along much of its corridor through the battlefield and new and additional neighborhoods are actively being developed. Those potential National Register areas crossed by the project area are mostly undeveloped woodland, but are generally not publicly accessible or visible from public vantage points. In those locations where the existing transmission line is visible it is generally seen in conjunction with other nonhistoric development and in compromised settings. Where it crosses through undeveloped woodland, the existing structures are only minimally taller than the average tree cover, and therefore only seen in close proximity and generally screened from longer viewsheds. Assessment of the avenue of approach situated within one-mile of the project area found it is situated roughly 0.47 miles south of the project area at its nearest point. Inspection found that the existing transmission line may be seen from the study area at the

intersection of Smith Station and Gordon Road, although this areas is heavily fragmented by modern development and views of the line are seen in conjunction with nonhistoric homes, and other development and utilities. The topography and vegetation in the area further screens visibility of the line, with only the tops of existing structures protruding over the treeline.

The existing transmission line structures in the vicinity of the battlefield range from 75-feet to 135-feet tall and the proposed replacement structures will range from 119-feet to 159-feet tall. As such, there will be a substantial increase in structure height, however, there will be no additional ROW clearing and structures will be replaced on a one-to-one basis. It is therefore anticipated that visibility following the project will be similar to the existing views with the potential for slightly increased visibility from discrete vantage points within the battlefield. This currently includes interrupted visibility of the existing transmission line from areas already compromised by nonhistoric development, and limited to no visibility from intact landscapes. This was confirmed through photo simulation that reveals visibility will generally continue to be screened where the existing towers are not visible, and where there are already views of the existing alignment, visibility may increase slightly. Therefore, the project will not introduce any substantially new or different views or features into the setting of those portions of the battlefield considered National Register eligible. It is therefore D+A's opinion that the proposed project will have no more than a *minimal impact* overall on the Spotsylvania Courthouse Battlefield.

Figures 5-16 and 5-17 illustrate the location and direction of representative photographs of Spotsylvania Courthouse Battlefield. Figures 5-18 and 5-19 depicts the location of the resource in relation to the project alignment with viewshed buffers, photographic views towards the project area, and photo simulations. Figure 5-20 illustrates the limits of the battlefield and ABPP-defined areas in relation to the project area. Photos 1 through 22 are representative photographs of the property, as well as those taken from locations within the battlefield towards the project alignment. Photo Simulations 1a through 7c illustrate the location of each simulation and structures modeled along with the existing views and proposed views.



Figure 5-16: Location and direction of representative photos of Spotsylvania Courthouse Battlefield. Photo locations and directions shown in yellow. Base map source: V-CRIS



Figure 5-17: Location and direction of representative photos of Spotsylvania Courthouse Battlefield. Photo locations and directions shown in yellow. Base map source: V-CRIS

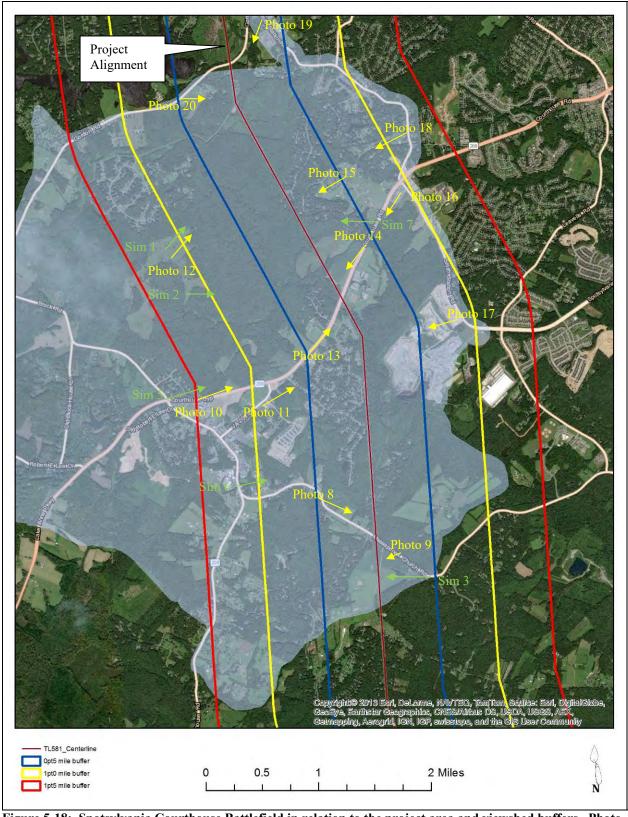


Figure 5-18: Spotsylvania Courthouse Battlefield in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Photo simulation locations shown in green. Base map source: V-CRIS

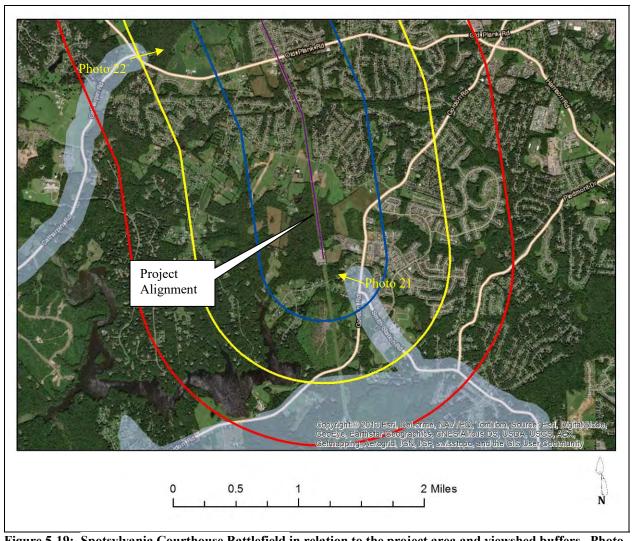


Figure 5-19: Spotsylvania Courthouse Battlefield in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Base map source: V-CRIS



Figure 5-20: Spotsylvania Courthouse Battlefield ABPP-defined tiers in relation to the project area and viewshed buffers. Base map source: NPS/V-CRIS



Photo 1: Representative view of battlefield in village of Spotsylvania Courthouse (Core Area), facing west



Photo 2: Existing setting along Courthouse Road just east of courthouse village (Core Area), facing west



Photo 3: View of landscape within Fredericksburg Spotsylvania Military Park (National Register Area), facing north



Photo 4: View of Spotsylvania Courthouse from intersection of Courthouse Road and Brock Road (Core Area), facing southeast



Photo 5: View of representative suburban development within battlefield (Core Area), facing north



Photo 6: View of ongoing suburban development within battlefield (National Register area), facing southeast



Photo 7: Existing setting at intersection of Smith Station Road and Gordon Road (study area), facing southeast



Photo 8: View from Massaponax Road (National Register area) towards the existing transmission (red), facing southeast



Photo 9: View from Massaponax Road (National Register area) towards the existing transmission (red), facing west



Photo 10: View from Spotsylvania Courthouse town center (Core area) towards the existing transmission (not visible), facing east



Photo 11: View from Confederate Cemetery (Core Area) towards the existing transmission line (not visible), facing northeast



Photo 12: View from battlefield park (National Register area) towards the existing transmission (not visible), facing northeast

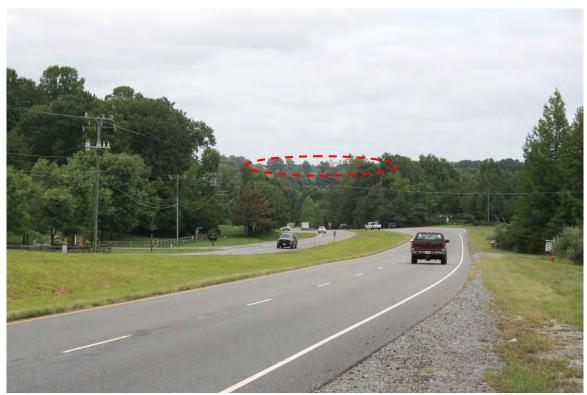


Photo 13: View from Courthouse Road (Core Area) towards the existing transmission line (red), facing east



Photo 14: View from Courthouse Road (National Register Area) towards the existing transmission line (red), facing southeast



Photo 15: View from Bloomsbury Farm subdivision (Core Area) towards the existing transmission line (red), facing west



Photo 16: View from Smith Station Road (Study Area) towards the existing transmission line (not visible), facing southwest



Photo 17: View from Smith Station Road (Study Area) towards the existing transmission line (not visible), facing west



Photo 18: View from Smith Station Road (Core Area) towards the existing transmission line (not visible), facing west



Photo 19: View from intersection of Smith Station and Gordon Road (Study Area) towards the existing transmission line (red), facing southwest



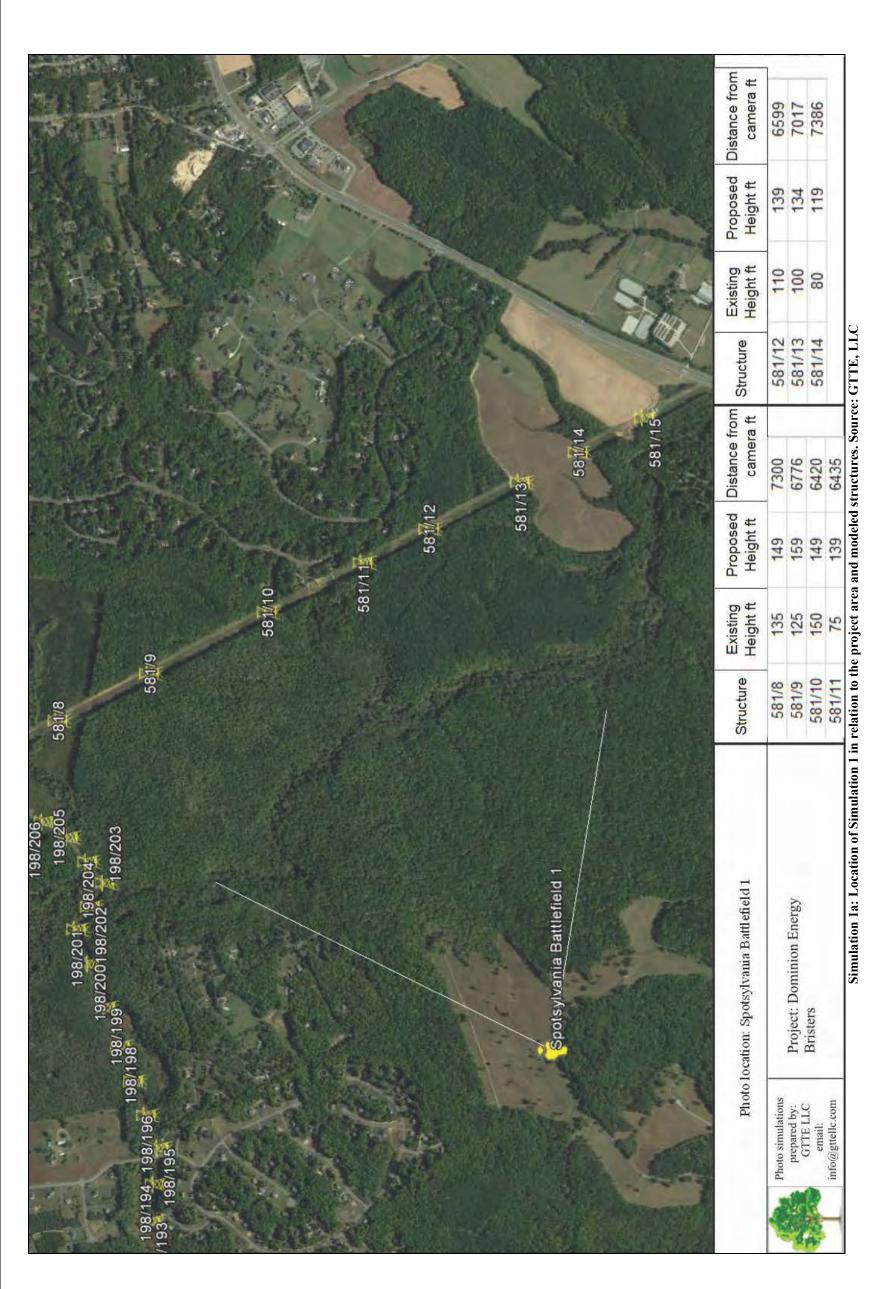
Photo 20: View from Gordon Road (National Register Area) towards the existing transmission line (not visible), facing east



Photo 21: View from intersection of Smith Station Road and Gordon Road (study area) showing existing transmission line (red), facing west



Photo 22: View from intersection of Carthapin Road and Old Plank Road (study area) towards the existing transmission line (not visible), facing east



5-111

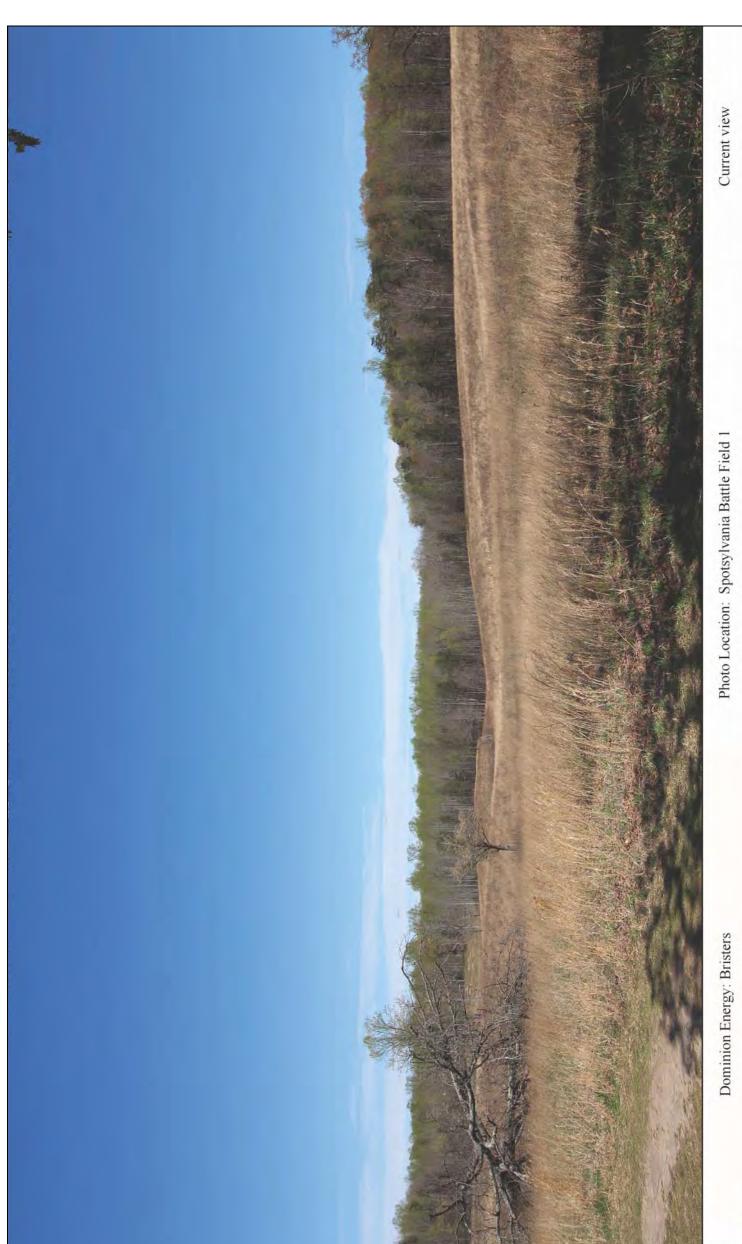


Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Photo simulations prepared by: GTTE LLC email: info@gttellc.com

This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 1b: Simulation 1 existing view. Source: GTTE, LLC

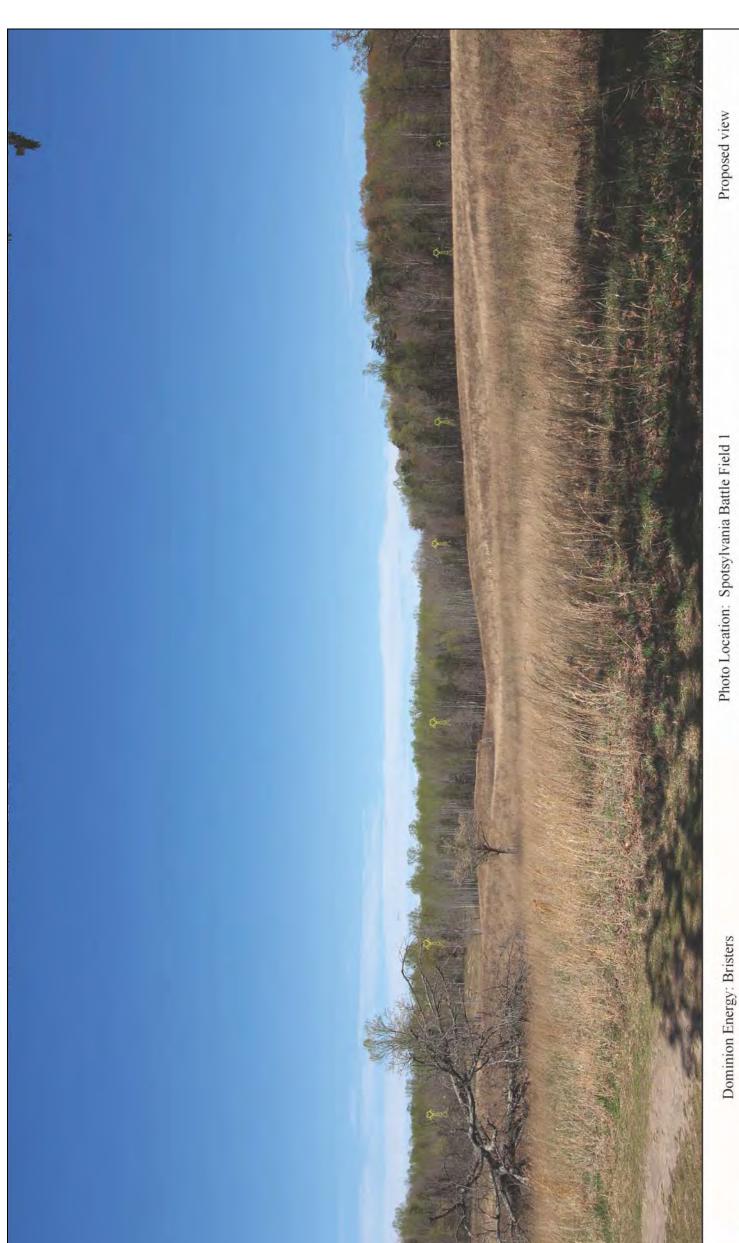


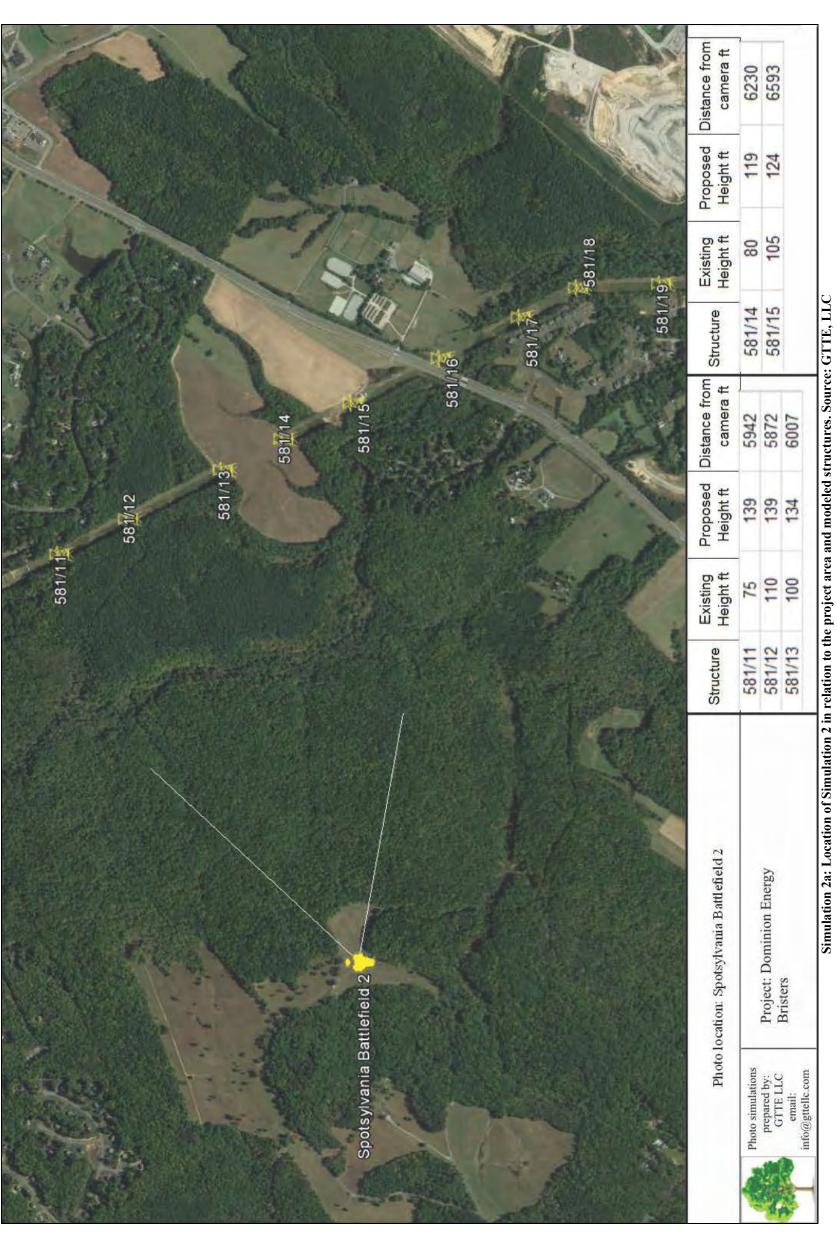
Photo Location: Spotsylvania Battle Field 1

This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 1c: Simulation 1 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC

Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Photo simulations prepared by: GTTE LLC email: info@gttellc.com



,

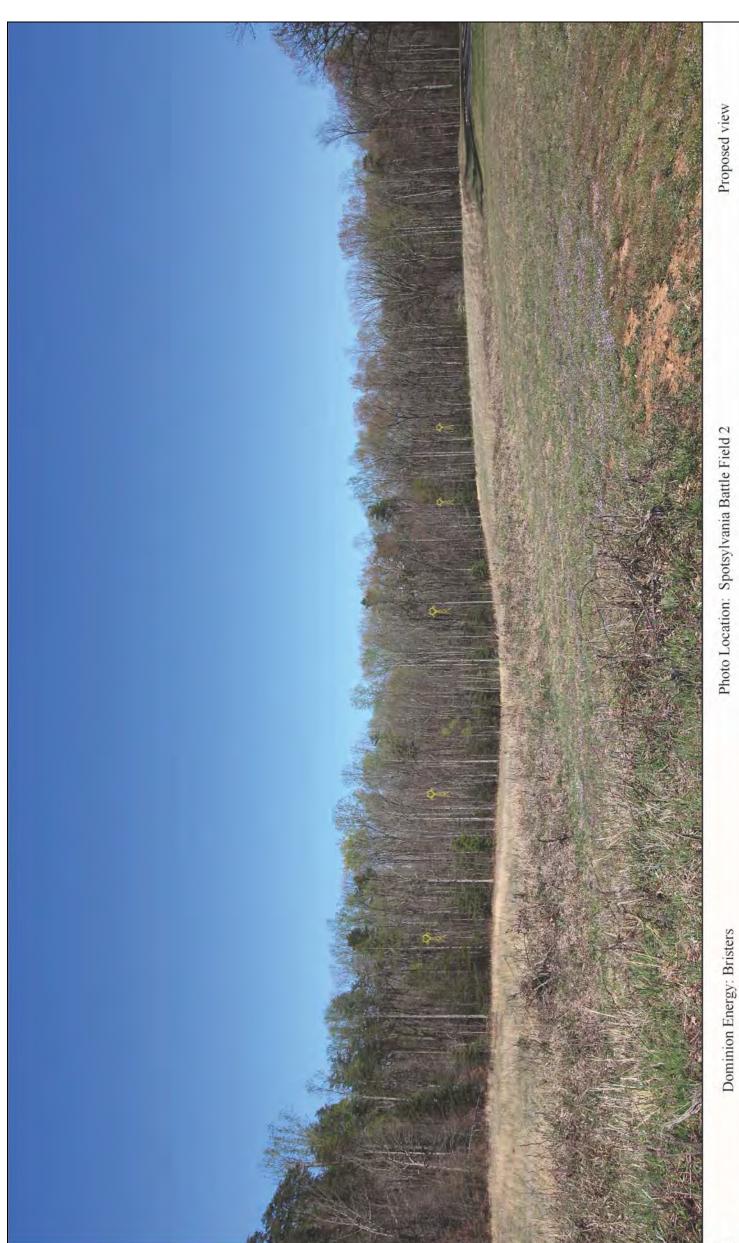


Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Photo simulations prepared by: GTTE LLC email: info@gttellc.com

This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 2b: Simulation 2 existing view. Source: GTTE, LLC

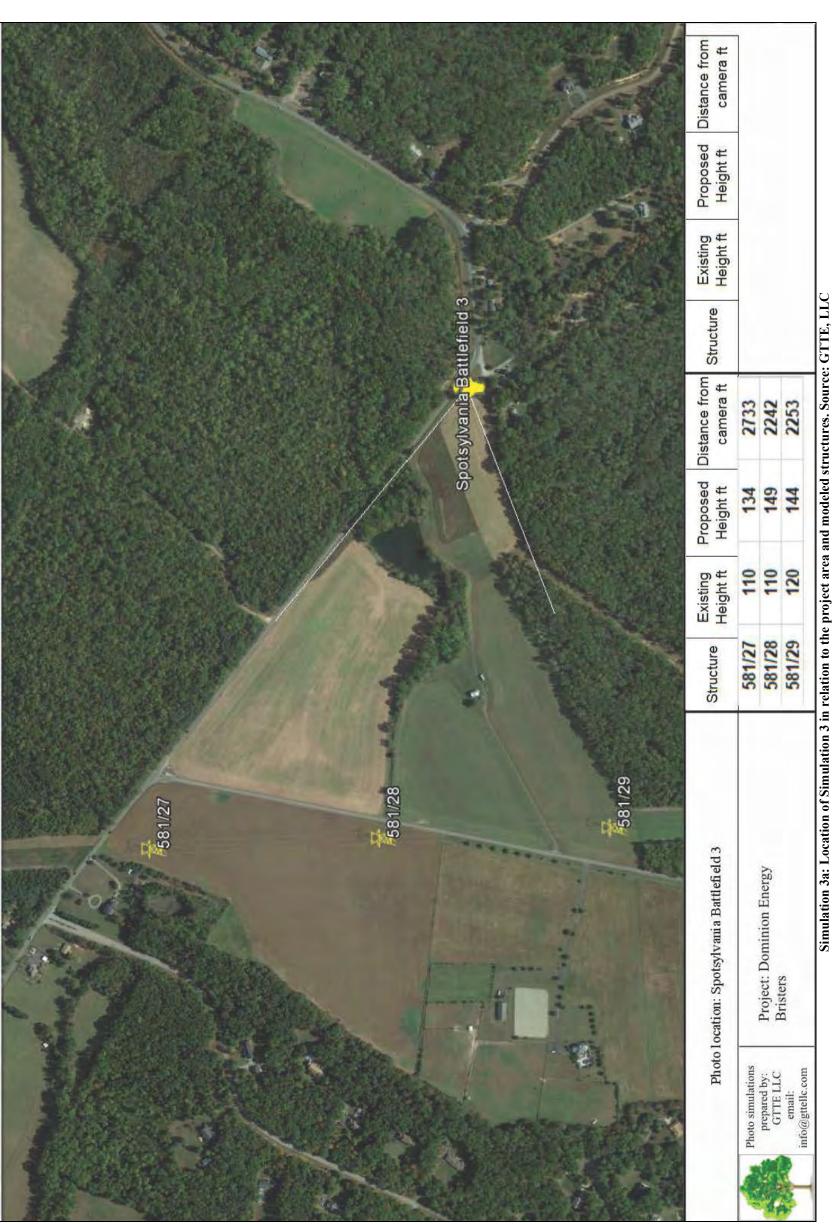


This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 2c: Simulation 2 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC

Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Photo simulations prepared by: GTTE LLC email: info@gttellc.com





Simulation 3b: Simulation 3 existing view. Source: GTTE, LLC



Simulation 3c: Simulation 3 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC





This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location. Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Simulation 4b: Simulation 4 existing view. Source: GTTE, LLC

5-121



This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of the screen the image will have the same scale as if the screen the image will have the same scale as if the screen the image will have the same scale as if the screen the image will have the same scale as if the screen the image will have the same scale as if the screen the image will have the same scale as if the screen the image will have the same scale as if the screen the image will have the same scale as if the screen the image will have the same scale as if the screen the image will have the same scale as if the screen the image will have the same scale as if the screen the image will have the same scale as if the screen the image will have the same scale as if the screen the image will have the same scale as if the screen the image will have the same scale as if the screen the image will have the scale as if the screen the image will have the scale as if the screen the image will have the scale as if the screen the image will have the scale as if the screen the image will have the scale as if the screen the scale as if the scale

Photo simulations prepared by: GTTE LLC email: info@gttellc.com

Simulation 4c: Simulation 4 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC

5-123

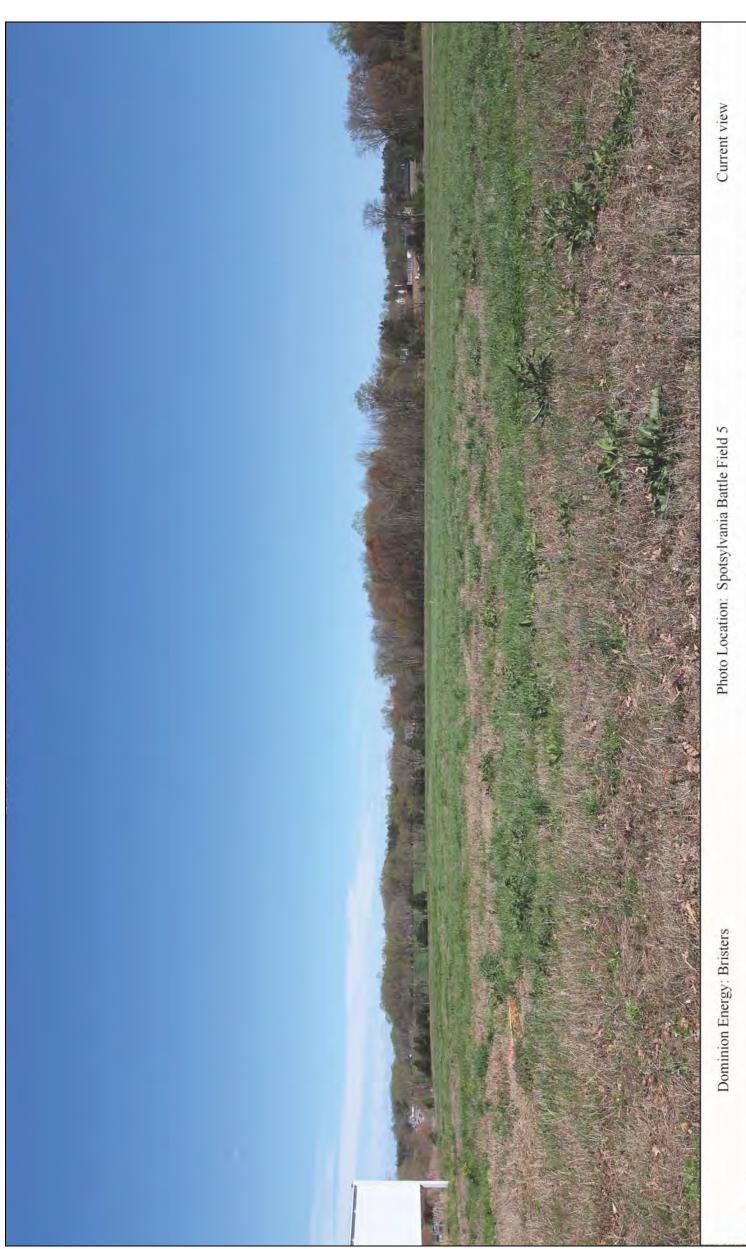


Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Photo simulations prepared by: GTTE LLC email: info@gttellc.com

This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 5b: Simulation 5 existing view. Source: GTTE, LLC

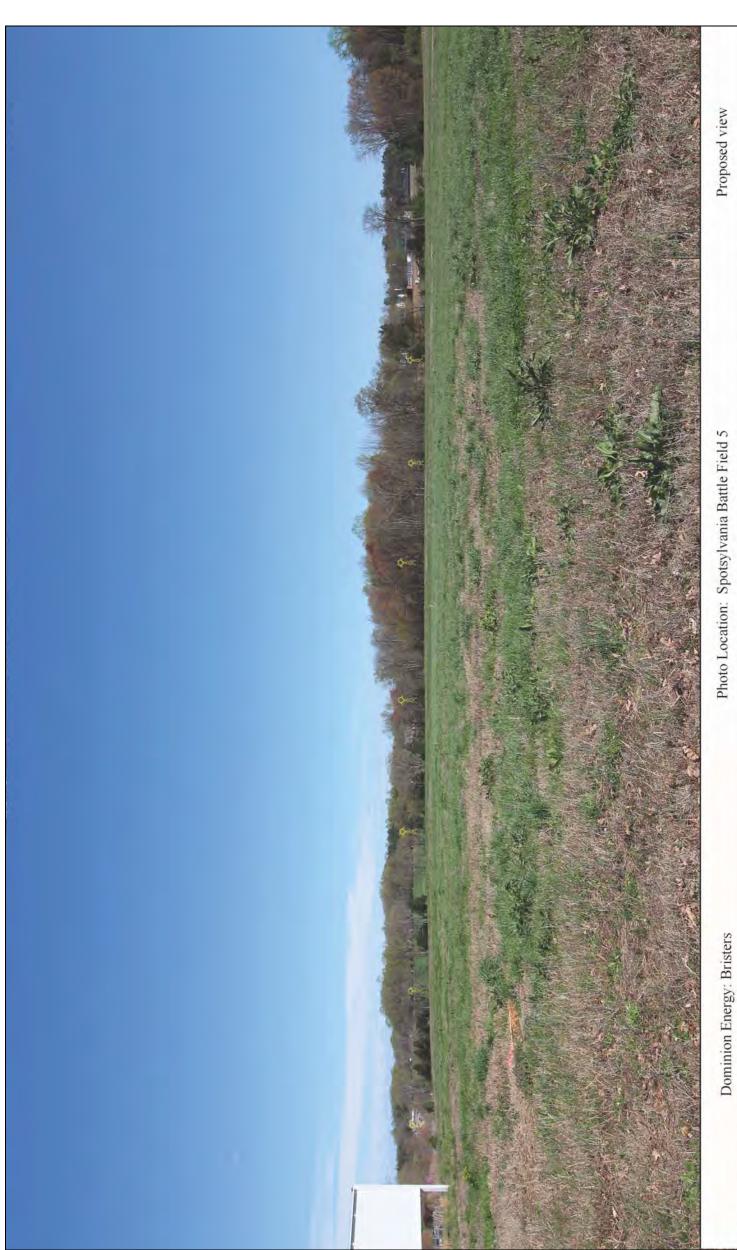


Photo simulations prepared by: GTTE LLC email: info@gttellc.com

Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 5c: Simulation 5 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC

5-126



Simulation 6b: Simulation 6 existing view. Source: GTTE, LLC



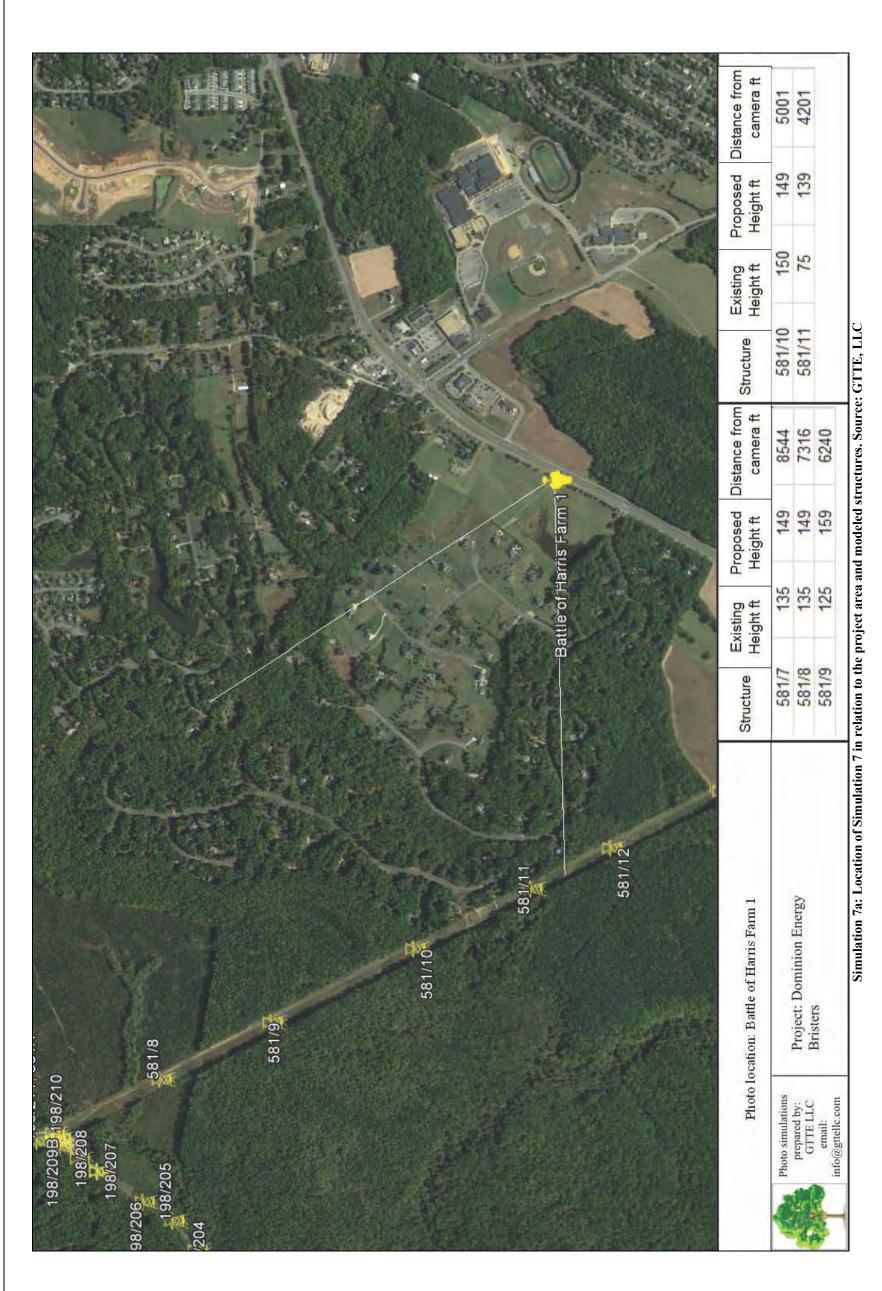
Photo Location: Spotsylvania Battle Field 6

This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 6c: Simulation 6 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC

Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Photo simulations prepared by: GTTE LLC email: info@gttellc.com



5-129



Simulation 7b: Simulation 7 existing view. Source: GTTE, LLC



Simulation 7c: Simulation 7 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC

Battle of Harris Farm (VDHR ID# 088-5188)

The Battle of Harris Farm was an engagement that took place within the Spotsylvania Courthouse campaign in May 1864. The battle site is located roughly 2.5 miles northeast of the village of Spotsylvania Courthouse, and although has its own delineated boundaries, is located completely within the larger Spotsylvania Courthouse Battlefield boundaries. As a separately delineated site, the Harris Farm battlefield has not been formally evaluated for NRHP eligibility by the VDHR or NPS.

The project area passes by the west side of the battlefield, but does not cross directly through it. As the Harris Farm battlefield has not been evaluated by the NPS, it does not have its own ABPP tiers, however, it is included within the "core area" of the delineated Spotsylvania Courthouse Battlefield. Nearly the entire limits of the Harris Farm battle site have been developed into the Bloomsbury suburban residential neighborhood. This development has greatly altered the setting of the area, as well as the landscape and topography due to extensive grading. As such, the area is not considered potentially NRHP eligible.

In order to assess the potential impact of the proposed project, visual inspection was conducted of the setting within those portions of the battlefield in the vicinity of the project area with emphasis on views towards the project area. This assessment found that the battlefield is located roughly 0.12 miles from the project area at its nearest point. Inspection found that the entire battle site has been developed with nonhistoric suburban homes set on small lots. A network of graded streets crosses the area and the vegetation patterns have been changed by landscaping. Some structures and portions of the existing transmission line may be seen from select vantage points in the neighborhood, however where visible, they are seen in conjunction with extensive nonhistoric development and a compromised setting.

The existing transmission line structures in the vicinity of the battlefield range from 75-feet to 150-feet tall and the proposed replacement structures will range from 119-feet to 149-feet tall. As such, there will be a substantial increase in structure height, however, there will be no additional ROW clearing and structures will be replaced on a one-to-one basis. It is therefore anticipated that visibility following the project will be similar to the existing views, in which the existing line is mostly to completely screened from throughout the battlefield area. This was confirmed by photo simulation that shows intervening development, topography, and vegetation will continue to screen the proposed structures. Thus, the project will not introduce any substantially new or different views or features into the setting of the battlefield. Further, this battlefield is not considered NRHP eligible due to an already compromised setting. It is therefore D+A's opinion that the proposed project will have no more than a *minimal impact* on the Harris Farm Battlefield.

Figure 5-21 illustrates the location and direction of representative photographs of Harris Farm Battlefield. Figure 5-22 depicts the location of the resource in relation to the project alignment with viewshed buffers, photographic views towards the project area, and photo simulations. Figure 5-23 illustrates the limits of the battlefield and ABPP-defined areas in relation to the project area. Photos 1 through 4 are representative photographs of the property, as well as those taken from locations within the property towards the project alignment. Photo Simulations 1a

through 2c illustrate the location of each simulation and structures modeled along with the existing views and proposed views.

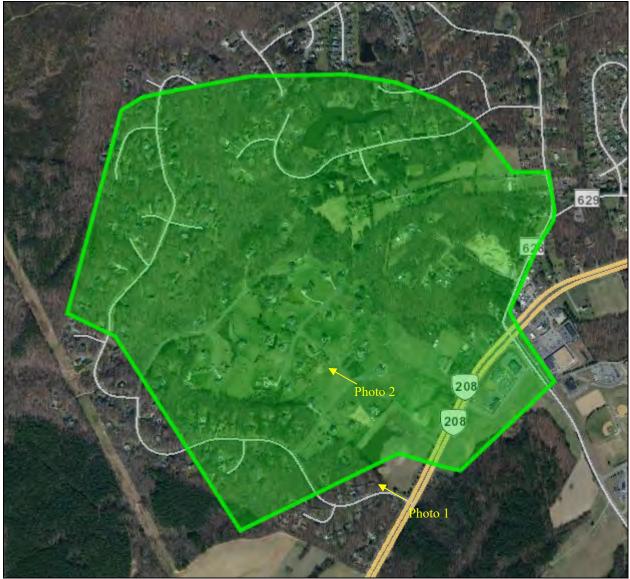


Figure 5-21: Location and direction of representative photos of Harris Farm Battlefield. Photo locations and directions shown in yellow. Base map source: V-CRIS

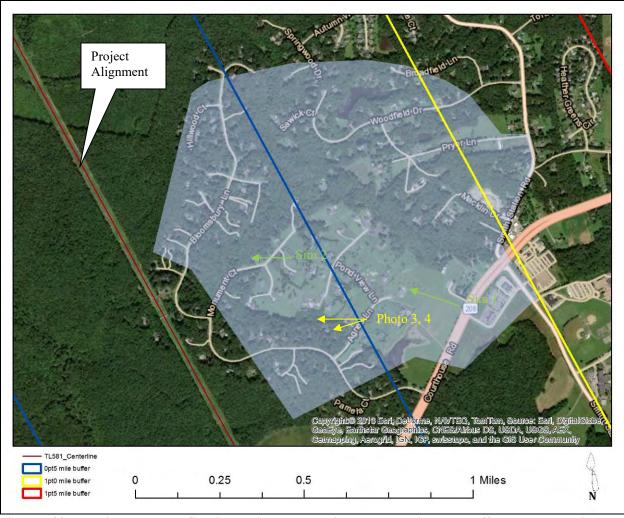


Figure 5-22: Harris Farm Battlefield in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Photo simulation locations shown in green. Base map source: V-CRIS

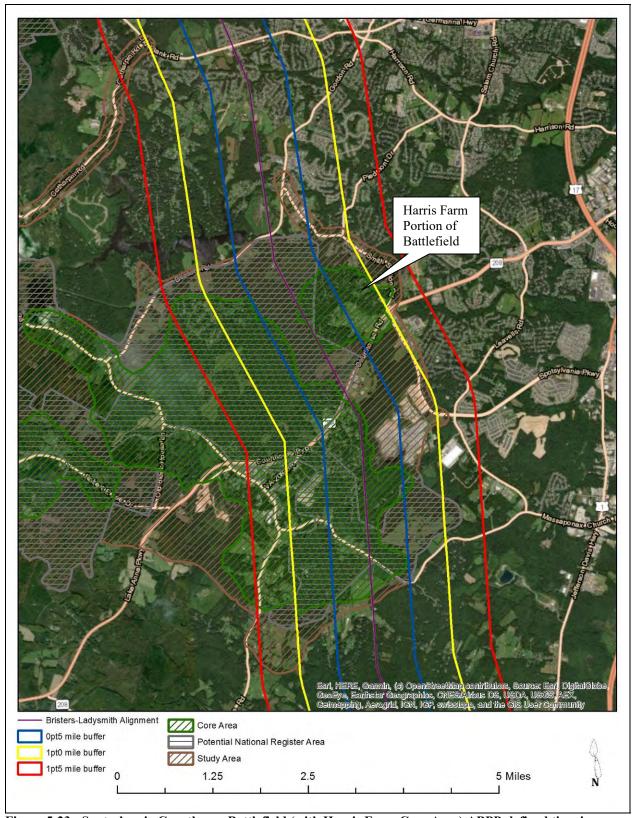


Figure 5-23: Spotsylvania Courthouse Battlefield (with Harris Farm Core Area) ABPP-defined tiers in relation to the project area and viewshed buffers. Base map source: NPS/V-CRIS



Photo 1: View of entrance to Bloomsbury Farm subdivision occupying Harris Farm Battlefield, facing northwest



Photo 2: Representative view of suburban development in battlefield (Core area), facing northwest



Photo 3: View from neighborhood (Core area) towards the existing transmission line (red), facing northwest

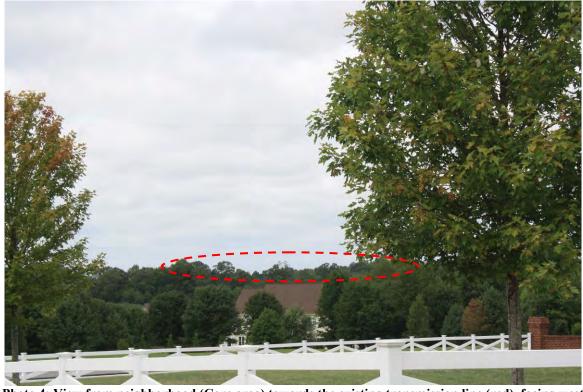


Photo 4: View from neighborhood (Core area) towards the existing transmission line (red), facing west



Simulation 1a: Location of Simulation 1 in relation to the project area and modeled structures. Source: GTTE, LLC



Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Simulation 1b: Simulation 1 existing view. Source: GTTE, LLC

5-140



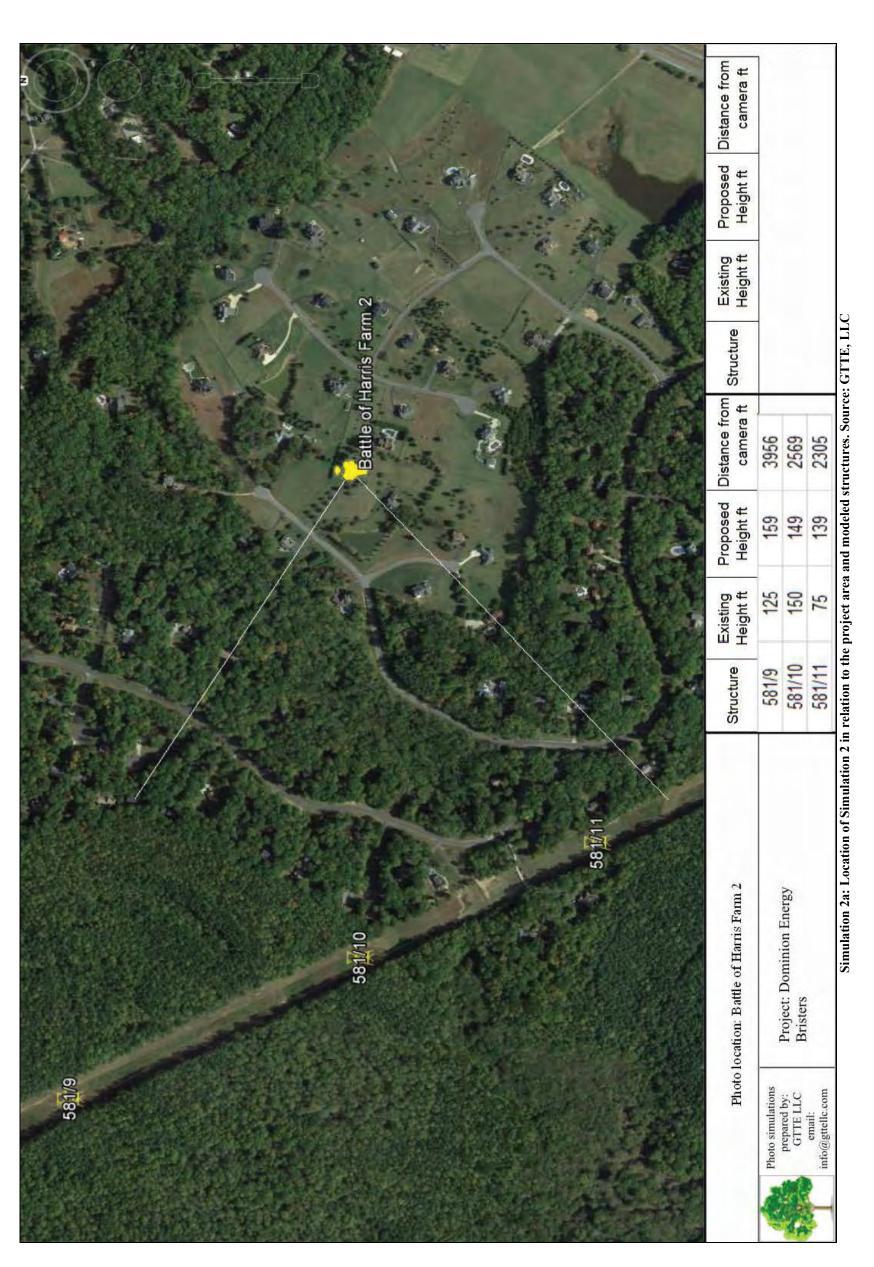
Photo Location: Battle of Harris Farm 1

This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 1c: Simulation 1 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC

Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Photo simulations prepared by: GTTE LLC email: info@gttellc.com



5-142

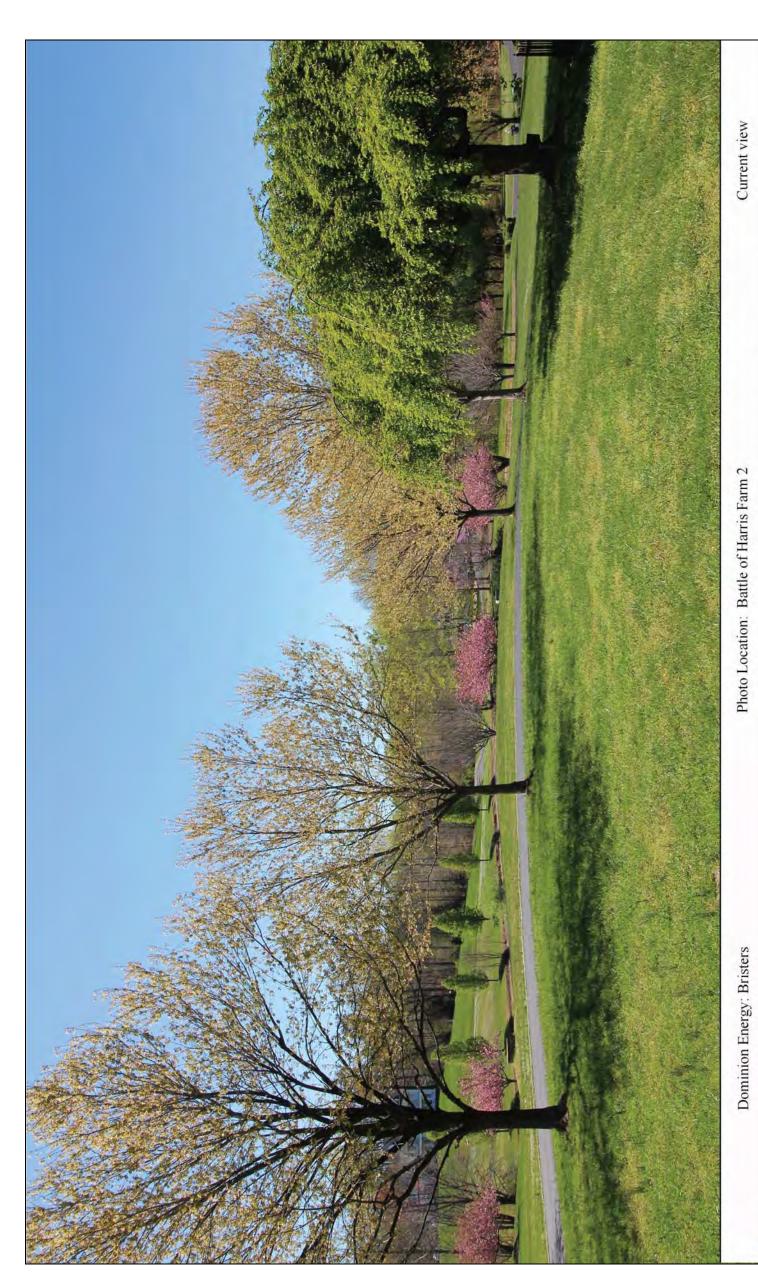
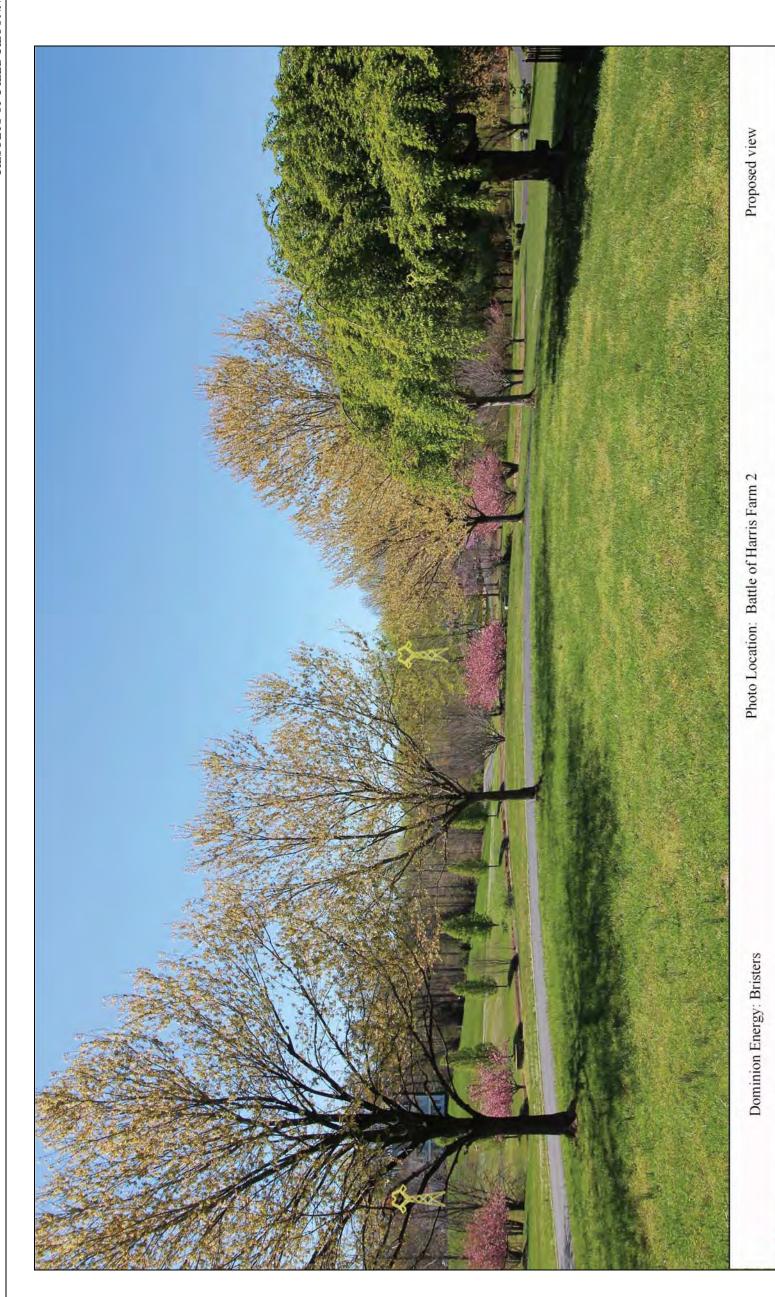


Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Photo simulations prepared by: GTTE LLC email: info@gttellc.com

This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 2b: Simulation 2 existing view. Source: GTTE, LLC



Simulation 2c: Simulation 2 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC

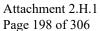
Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Photo simulations prepared by: GTTE LLC email: info@gttellc.com

Attac	hme	nt	2.H.1
Page	197	of	306

NESULTS OF FIELD NECONNAISSAN	RESULTS OF FIELD RECONNAISS	ANCE
-------------------------------	-----------------------------	------

HISTORIC LANDSCAPESLocated within 1.0-Mile of the Project Area





Elk Run-Germantown-Cedar Run Rural Historic District (VDHR ID# 030-5588)

The proposed Elk Run-Germantown-Cedar Run Rural Historic District is a distinctly representative rural landscape in southern Fauquier County, comprising a complementary mix of cultural and natural resources that embody and reflect several important themes and phases of local and regional development from the 17th century through the present. Setting this area apart from other parts of Fauquier County is its high-concentration of late-19th to mid-20th century dairy farm complexes, which provide invaluable insights on the region's agricultural economy over the last hundred years or more. The Elk Run Rural Historic District was determined eligible for the NRHP under Criterion A and C in 2018.

The district encompasses a large area totaling roughly 20,000 acres. The majority of the properties in this district remain in agricultural use, with very few residential subdivisions, like other parts of the County and the region at large. It is estimated that approximately 80 percent of extant buildings within the proposed boundaries date to the Period of Significance, and would be potentially contributing resources to the Elk Run Rural Historic District. Much of the landscape also remains rural and undeveloped, with open and rolling agricultural fields and pasture interspersed by woodland and tree lined creeks.

In order to assess the potential impact of the proposed project, visual inspection was conducted of the setting around the district with emphasis on views towards the project area. This assessment found that just a small portion of the southeastern edge of the large historic district is within proximity to the project area. Although the district is bordered and crossed by a portion of a separate transmission line not included in this project, the nearest length of existing transmission line in the project area is 0.32 miles away. This includes the Bristersburg Substation at the norther terminus of the project area, and where several other existing transmission lines come together. The portion of the district in proximity to the project area includes just several farmsteads set on large properties surrounded by patches of open fields mixed with woodland. The area between the district and the project area is more heavily wooded and developed with a denser collection of nonhistoric suburban homes lining a grid of secondary roads. Inspection showed that portions of another existing transmission line not included in this project may be seen from Cromwell Road along the southern edge of the historic district, but the project area alignment is screened by intervening vegetation. There was limited to access to the large properties within the district, although the rolling topography and treelines likely partially to completely screen visibility of the project area. Inspection from Bristersburg Road further into the historic district revealed that the existing transmission line is completely screened by vegetation.

The existing transmission line structures in the vicinity of the property are 95-feet tall as they enter the Brister Switching Station and the proposed replacement structures will be 119-feet tall. As such, there be a substantial increase in structure height, however, there will be no additional ROW clearing and structures will be replaced on a one-to-one basis. It is therefore anticipated that visibility following the project will be similar to the existing views, in which the line is screened by distance and vegetation. Further, several other existing transmission lines with equally tall or taller structures, and the Bristersburg Substation where the lines meet, are in the vicinity of the district and can already be seen from public vantage points around the perimeter.

As such, any additional visibility of the structures to be replaced as part of this project would be seen in conjunction with and behind the substation and other structures. As visibility is still anticipated to be minimal, and would be limited to only the extreme lower corner of the large historic district, this project will not independently or cumulatively introduce any substantially new or different qualities into the setting of the district. It is therefore D+A's opinion that the proposed project will have no more than a *minimal impact* on the Elk Run-Germantown-Cedar Run Rural Historic District.

Figure 5-24 illustrates the location and direction of representative photographs of the Elk Run-Germantown-Cedar Run Rural Historic District. Figure 5-25 depicts the location of the district in relation to the project alignment with viewshed buffers and photographic views towards the project area. Photos 1 through 6 are representative photographs of the district, as well as those taken from locations within the district towards the project alignment.

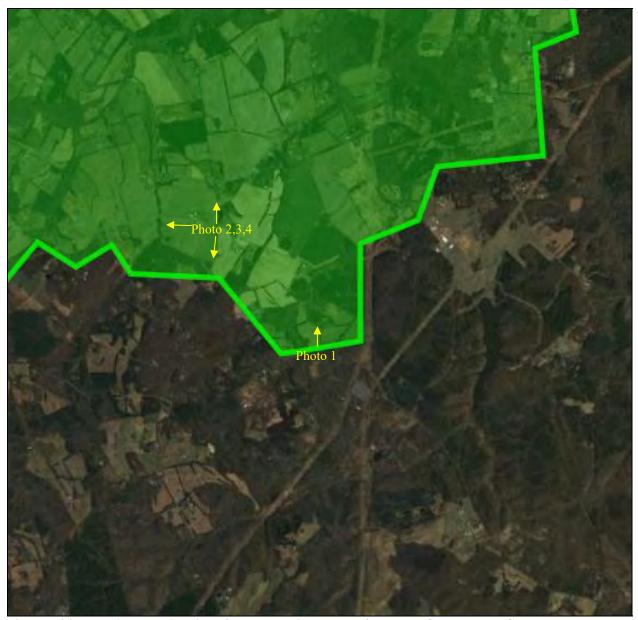


Figure 5-24: Location and direction of representative photos of Elk-Run-Germantown-Cedar Run Rural Historic District. Photo locations and directions shown in yellow. Base map source: V-CRIS

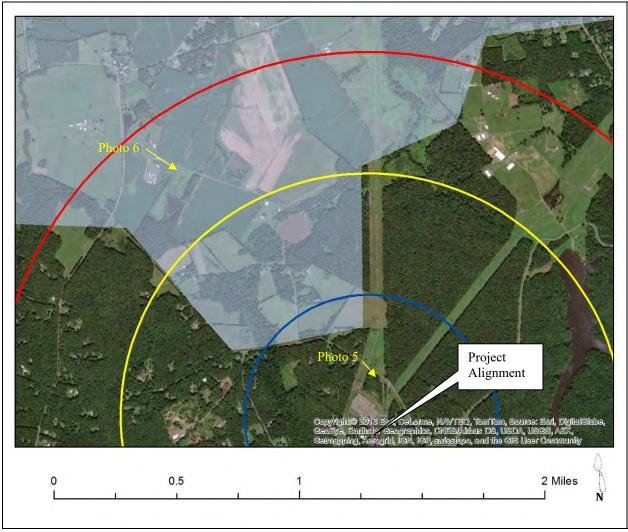


Figure 5-25: Elk-Run-Germantown-Cedar Run Rural Historic District in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Base map source: V-CRIS



Photo 1: View of Setting along Cromwell Road, facing north



Photo 2: View of landscape in district along Bristerburg Road, facing north



Photo 3: View along Bristerburg Road, facing south



Photo 4: View of setting along Bristerburg Road showing an existing transmission line not included in this project (yellow), facing west

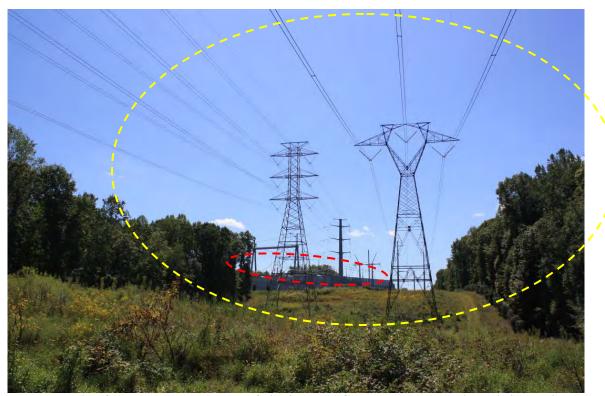


Photo 5: View from southern boundary of district along Cromwell Road showing existing project transmission lines (red) and non-project related transmission lines (yellow), facing south



Photo 6: View from Bristerburg Road towards the existing transmission line (not visible), facing east

Hedgeman-Rappahannock Rural Historic District (VDHR ID# 030-5607)

The proposed Hedgeman-Rappahannock Rural Historic District is defined by the river that marks its centerline, as both a natural and cultural resource coursing through thousands of years of human experience. The 30-mile long stretch of the Rappahannock River extends from the split with the Rapidan River to Cedar Run in upper Fauquier County. The Hedgeman-Rappahannock Rural Historic District was determined eligible for listing in the NRHP under criteria A, C, and D in 2014.

Once known as Hedgeman's River, the Rappahannock is bordered on both sides within the district by wide expanses of farmland and forest encompassing a remarkably intact rural landscape that developed in direct relation to the river and its tributaries. The most noteworthy landscape features relate to the dramatic events of the Civil War and the evolution of agricultural systems, most recently dairy farming that included commercial and industrial enterprises, such as locks and dams associated with the Rappahannock Canal, as well as numerous grist mills. Gold mining also played a significant role during the 19th century. Remnants of villages, such as Kelly's Ford and Waterloo survive within the district on either side of the river. A few prominent specific features include the significant bridges, such as the Waterloo Bridge; and fords, including Freeman's and Cow's Fords, that connected the two counties' many farms and agricultural operations, and often marked the locations of troop movements during the Civil War and the line between freedom and slavery for escaping African bonds people.

In order to assess the potential impact of the proposed project, visual inspection was conducted of the setting around the district with emphasis on views towards the project area. This assessment found that the project area is roughly 0.28 miles from the historic district at its nearest point. The portion of the district within the vicinity of the project area (1.5 miles) is mostly rural and undeveloped and therefore access to public vantage points was limited. There are only several homes within this portion of the district, all of which are nonhistoric. All of the shoreline is privately-owned and there are few public roads through the district. The landscape is rolling and densely wooded. Inspection from Richards Ferry Road, the only publicly accessible route through this portion of the district revealed that the intervening topography and vegetation completely screen visibility of the existing transmission line. Assessment of aerial photography indicates that the only portion of the district with the potential for views is the extreme eastern boundary where the Rappahannock and Rapidan Rivers split. From here, the existing transmission line is likely visible from the river itself as well as the shorelines immediately adjacent, but likely becomes screened by vegetation at any greater distance.

The existing transmission line structures in the vicinity of the property range from 75-feet to 115-feet tall and the proposed replacement structures will range from 109-feet to 144-feet tall. As such, there will be a substantial increase in structure height, however there will be no additional ROW clearing and structures will be replaced on a one-to-one basis. Further, the proposed structures holding the line as it crosses the river will actually decrease in height from 150-feet to 124- feet. It is therefore anticipated that visibility following the project will be similar to the existing views in which the line is screened by topography and vegetation from most locations, and thus will not introduce any substantially new or different views or features into the setting of the historic district. The exception is from the river itself in which the line may be seen

as it crosses overhead. It is therefore D+A's opinion that the proposed project will have no more than a *minimal impact* on the Hedgeman-Rappahannock Rural Historic District.

Figure 5-26 illustrates the location and direction of representative photographs of Hedgeman-Rappahannock Rural Historic District. Figure 5-27 depicts the location of the resource in relation to the project alignment with viewshed buffers and photographic views towards the project area. Photos 1 through 3 are representative photographs of the district, as well as those taken from locations within the district towards the project alignment.

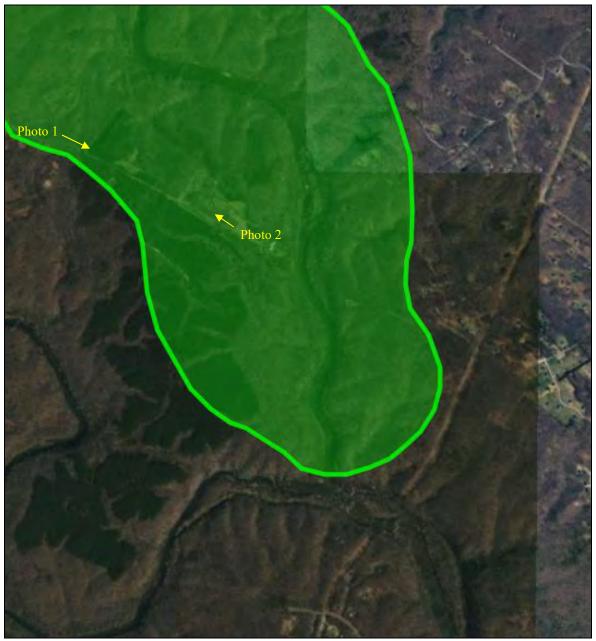


Figure 5-26: Location and direction of representative photos of Hedgeman-Rappahannock Rural Historic District. Photo locations and directions shown in yellow. Base map source: V-CRIS

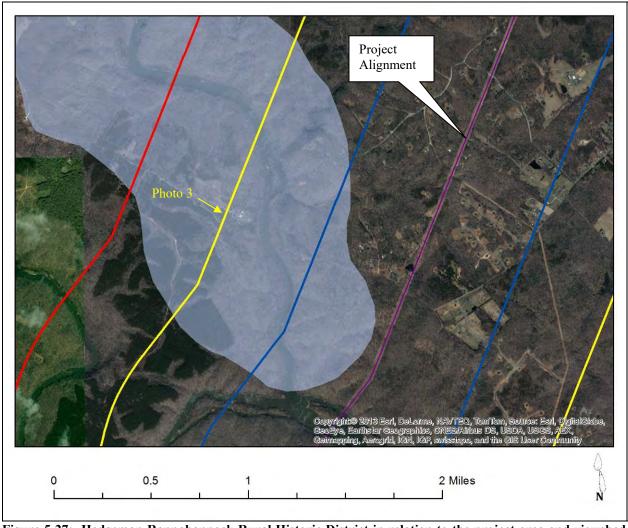


Figure 5-27: Hedgeman-Rappahannock Rural Historic District in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Base map source: V-CRIS



Photo 1: Richard Ferry Road setting, facing east



Photo 2: Richard Ferry Road setting, facing west



Photo 3: View from Richard Ferry Road towards the existing transmission line (not visible), facing east

John Mullins Farm (VDHR ID# 088-0220)

The John Mullins Farm, historically known as Ashley Farm, is located along Plank Road near Chancellorsville in Spotsylvania County. The 134-acre property has a turn of the twentieth century farmstead and home; however, is primarily significant as the site of intense combat during the first day of the Battle of Chancellorsville in May 1863. The property is considered contributing to the Lick Run Battlefield Historic District and placed under a Historic Preservation Easement in 2006.

The large property is a mix of open agricultural field and scrub land. Open fields border Plank Road while the landscape further in from the road is partially wooded. No Antebellum improvements are extant on the property; currently the only buildings are an early-twentieth century vernacular home and barn. A larger twentieth century farm complex is set adjacent to Plank Road and surrounded by the property, but has been excluded from the resource boundaries. Bordering the property to the east is a single-family home development and another residential development has recently been built along the rear boundary. That development also resulted in the construction of a new access road cutting directly through the eastern end of the property.

In order to assess the potential impact of the proposed project, visual inspection was conducted of the setting around the resource property with emphasis on views towards the project area. This assessment found that the John Mullins Farm property is directly crossed by the project area. One structure is located within the property, set in an open field near Plank Road. As the landscape is open in this area, the existing line is clearly visible from the portion of the property in the immediate vicinity. The existing structure may also be seen from vantage points further to the east along Plank Road and within the resource property, although the rolling topography and the large nonhistoric farmstead set centrally within the property provide partial screening and interruption to views of the project area. In those places where the existing transmission line and project area may be seen, it is in conjunction with the modern residential development bordering the property as well as an existing set of distribution power lines that border Plank Road through the property.

The existing transmission line structures in the vicinity of the property range from 72-feet to 105-feet tall and the proposed replacement structures will range from 103-feet to 144-feet tall. As such, there will be a substantial increase in structure height, however there will be no additional ROW clearing and structures will be replaced on a one-to-one basis. It is therefore anticipated that there may be some increased visibility of the line as a result of the project. This was confirmed through photo simulation which shows that in general, those structures that are currently screened by topography and vegetation will likely remain screened, whereas those existing structures that may currently be seen slightly above treelines, may rise higher above treelines allowing increased visibility. There is also the potential for some structures that are currently screened to become slightly visible. It is therefore D+A's opinion that the proposed project will have no more than a *moderate impact* on the John Mullins Farm.

Figure 5-28 illustrates the location and direction of representative photographs of John Mullins Farm. Figure 5-29 depicts the location of the resource in relation to the project alignment with viewshed buffers, photographic views towards the project area, and photo simulations. Photos 1

through 5 are representative photographs of the property, as well as those taken from locations within the property towards the project alignment. Photo Simulations 1a through 1c illustrate the location of each simulation and structures modeled along with the existing views and proposed views.



Figure 5-28: Location and direction of representative photos of John Mullins Farm. Photo locations and directions shown in yellow. Base map source: V-CRIS

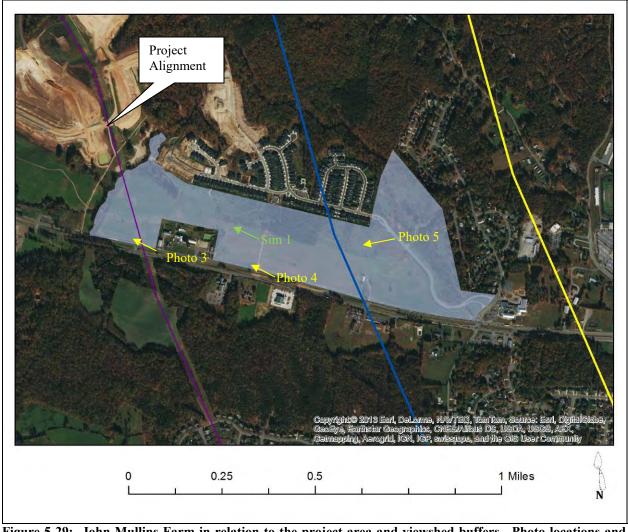


Figure 5-29: John Mullins Farm in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Photo simulation locations shown in green. Base map source: V-CRIS



Photo 1: Setting of farmland, facing east



Photo 2: Setting of John Mullins Farm, facing west

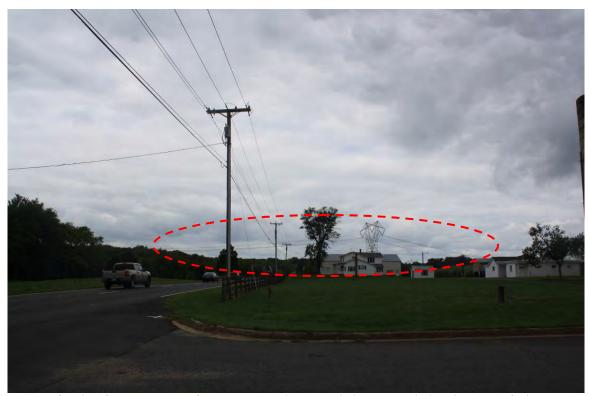


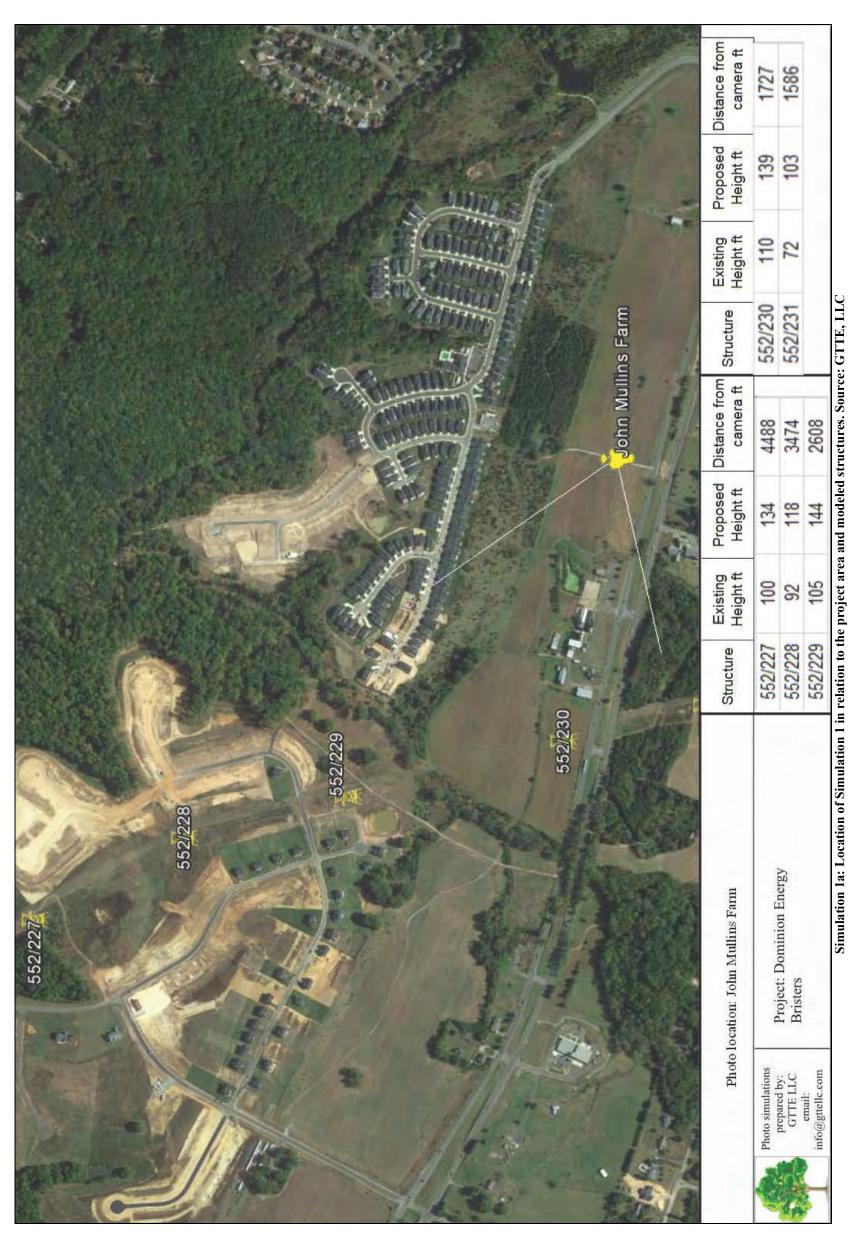
Photo 3: View from west end of property showing the existing transmission line (red), facing west



Photo 4: View from central portion of property showing the existing transmission line (red), facing west



Photo 5: View from east end of property towards the existing transmission line (not visible), facing west



5-165

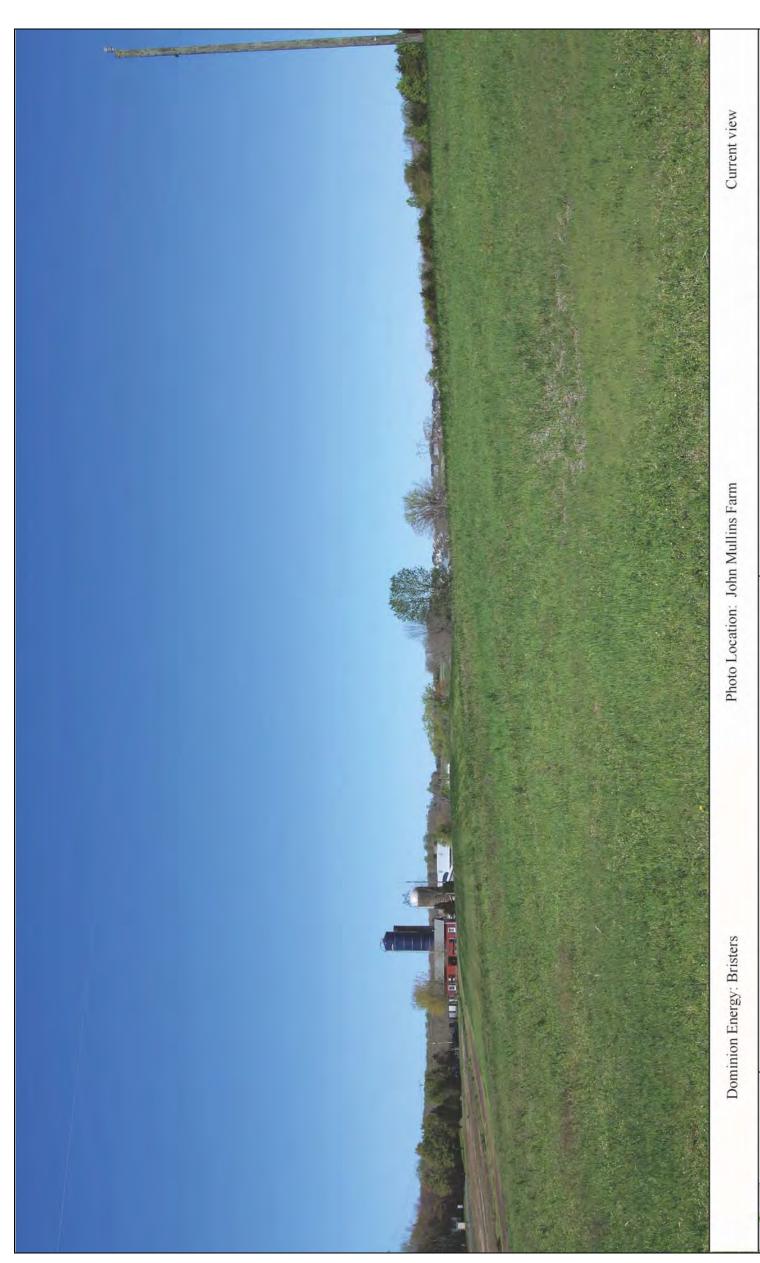


Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Photo simulations prepared by: GTTE LLC email: info@gttellc.com

This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 1b: Simulation 1 existing view. Source: GTTE, LLC

5-166



Simulation 1c: Simulation 1 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC

THIS PAGE INTENTIONALLY LEFT BLANK

Lick Run Battlefield Historic District (VDHR ID# 088-0334)

The Lick Run Battlefield Historic District encompasses properties and landscape associated with combat on the first day of the Battle of Chancellorsville in Spotsylvania County. A division of the Confederate Army erected fortifications at the east end of the Lick Run area to block the Union Army advance towards Fredericksburg. The district has not been formally evaluated for listing in the NRHP, but has been recommended a potentially eligible historic landscape.

The proposed Lick Run Battlefield Historic District includes roughly 500 acres of still primarily rural landscape bordering the north side of Plank Road just east of Chancellorsville. The proposed boundaries for the district excluded areas of residential and commercial development at the time they were drawn, however, the landscape surrounding and within the district has become increasingly threatened by ongoing development in recent years. Agricultural fields immediately bordering Plank Road are generally still intact and open, but large-scale suburban residential developments have occurred further back from the road.

In order to assess the potential impact of the proposed project, visual inspection was conducted of the setting around the district with emphasis on views towards the project area. This assessment found that the proposed Lick Run Battlefield Historic District is directly crossed by the project area in two discrete locations. One existing structure is set within the district boundaries in an open field near Plank Road that is part of the contributing John Mullins Farm property. The existing transmission line also crosses through a spur of the historic district along Ashley Farm Drive to the north. Because the project area crosses directly through the historic district there are existing views of the transmission line from surrounding vantage points. It may be seen from along Plank Road to the south, although the rolling topography and presence of a large nonhistoric farmstead provide some screening. Where the existing transmission line may be seen it is in conjunction with extensive suburban residential development in the background. There is also existing visibility of the line from the northern spur of the district along Ashley Farm Road, however, this road is flanked by suburban residential development and thickly wooded, and therefore visibility is interrupted and sporadic.

The existing transmission line structures in the vicinity of the district range from 85-feet to 110-feet tall and the proposed replacement structures will range from 114-feet to 144-feet tall. As such, there will be a substantial increase in structure height, however there will be no additional ROW clearing and structures will be replaced on a one-to-one basis. It is therefore anticipated that there may be some increased visibility of the line as a result of the project. This was confirmed through photo simulation which shows that in general, those structures that are currently screened by topography and vegetation will likely remain screened, whereas those existing structures that may currently be seen slightly rising above treelines, may rise higher above treelines allowing the increased visibility. However, as existing structures are already visible from the resource, and visibility following the project is anticipated to be only slightly increased, it will not introduce any substantially new or different views or features into the setting of the property. Further, those areas in which visibility will be increased the proposed structures will be seen in conjunction with extension and ongoing suburban development that compromises the setting. It is therefore D+A's opinion that the proposed project will have no more than a *minimal impact* on the Lick Run Battlefield Historic District.

Figure 5-30 illustrates the location and direction of representative photographs of Lick Run Battlefield Historic District. Figure 5-31 depicts the location of the district in relation to the project alignment with viewshed buffers, photographic views towards the project area, and photo simulations. Photos 1 through 7 are representative photographs of the property, as well as those taken from locations within the property towards the project alignment. Photo Simulations 1a through 2c illustrate the location of each simulation and structures modeled along with the existing views and proposed views.



Figure 5-30: Location and direction of representative photos of Lick Run Battlefield Historic District. Photo locations and directions shown in yellow. Base map source: V-CRIS

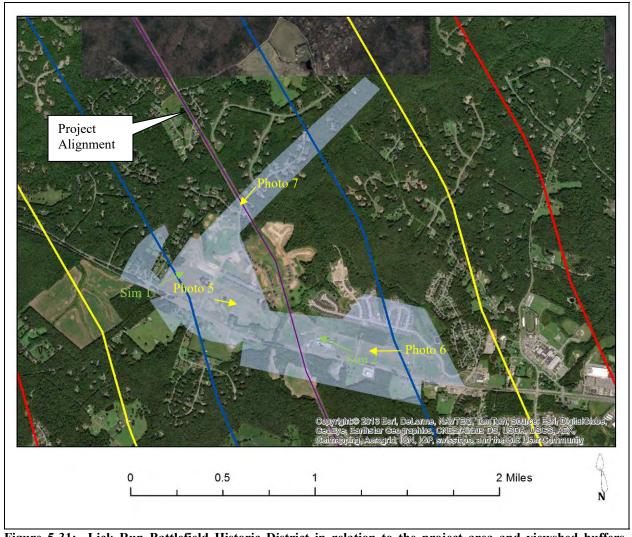


Figure 5-31: Lick Run Battlefield Historic District in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Photo simulation locations shown in green. Base map source: V-CRIS



Photo 1: View of historic district setting from Plank Road, facing east



Photo 2: Development within historic district, facing northeast



Photo 3: Setting of historic district along Glade Drive, facing southeast



Photo 4: Setting of historic district near Lee's Command Road, facing west



Photo 5: View from Glade Drive showing existing transmission line (red), facing east



Photo 6: View from Lee's Command Road showing existing transmission line (red), facing west



Photo 7: View from Ashley Farm Road showing existing transmission line (red), facing south

	Attachment 2.H.1
	Page 228 of 306
RESULTS OF FIELD RECONNAISSANCE	

THIS PAGE INTENTIONALLY LEFT BLANK

5-177



Simulation 1b: Simulation 1 existing view. Source: GTTE, LLC

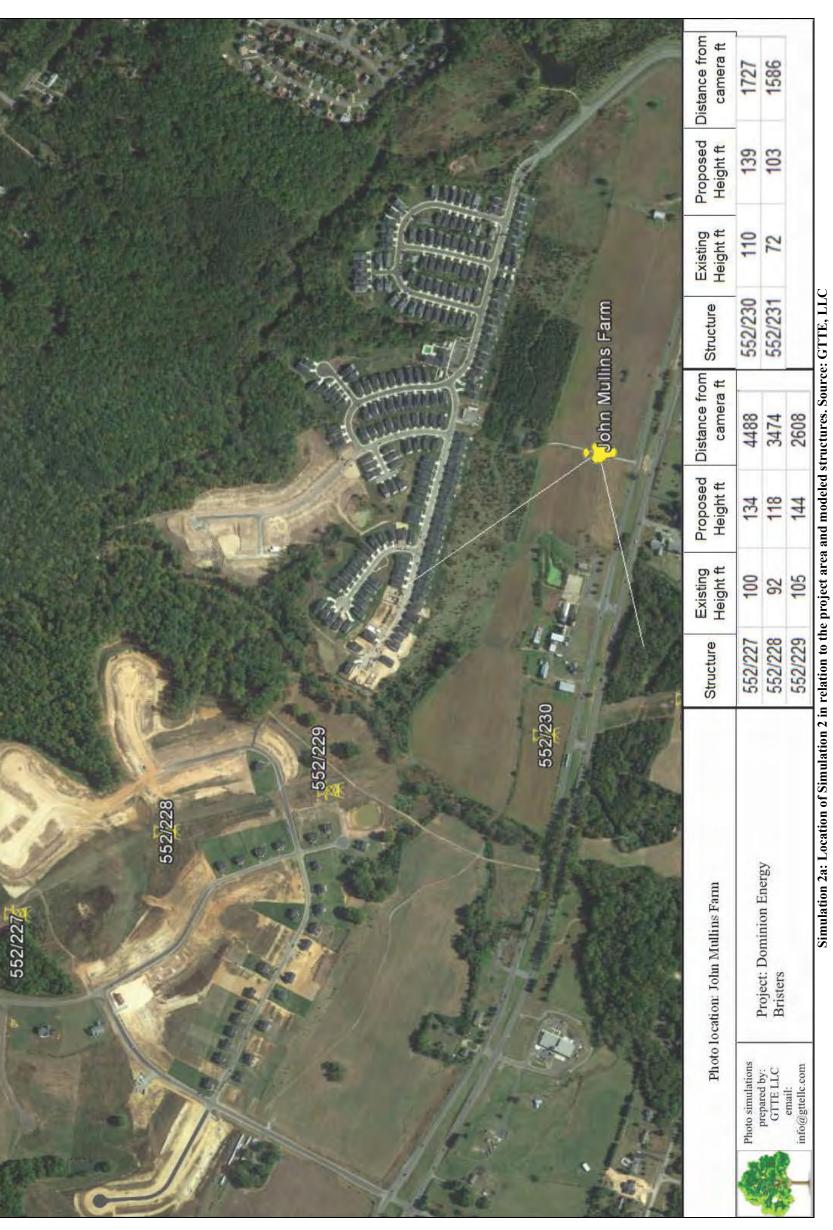
5-178



Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 1c: Simulation 1 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC





Simulation 2b: Simulation 2 existing view. Source: GTTE, LLC



5-182

Simulation 2c: Simulation 2 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC

Virginia Central Railway Historic District (VDHR ID# 088-5364)

The Virginia Central Railway (VCR) Historic District is a 38-mile-long railroad corridor that extends west from the CSX railroad (formerly the Rappahannock, Fredericksburg & Potomac Railroad [RF&P]) tracks in the City of Fredericksburg to the town of Orange. The line was laid shortly after land was cleared and graded in 1857, and though the entire line was incomplete at the outset of the Civil War, the stretch west of Fredericksburg was used for movement of troops during the Civil War. The railroad eventually went into operation in 1877 but ceased operations in 1938. This linear historic district was determined eligible for the NRHP by DHR staff under Criterion A in 2011, although it was noted that portions of the corridor would be evaluated separately on a project to project basis.

The VCR Historic District includes the entire 38-mile corridor from Fredericksburg to Orange, however, only discrete portions have actually been surveyed or evaluated. The first 3.5-miles of the corridor west from Fredericksburg consists of the rail bed itself, which passes over raised, man-made embankments and through road cuts that were constructed at the time the rail bed was initially graded in the mid-nineteenth century. The right of way is approximately 80 feet wide and encompasses several built structures; no associated buildings were identified. Associated historic structures identified within the trail project area include six culverts that provide drainage beneath the railroad embankments, two bridges that retain only their concrete piers, and a stone retaining wall. In areas further to the west, the corridor can only be made out through field patterning and treelines, but no other physical evidence remains. The portion of the district in the vicinity of the project area extends through a heavily developed suburban area. In some locations, there corridor has been built over by homes and roads, while in others it remains as a discernable linear feature lined by trees.

In order to assess the potential impact of the proposed project, visual inspection was conducted of the setting around the district with emphasis on views towards the project area. This assessment found that the district is directly crossed by the project area. Where the district is crossed, the former railroad corridor has been paved over by McGinty Drive, a cul-de sac street through a modern residential neighborhood. To either side of the crossing the corridor forms the rear property line for suburban lots and is discernable only from aerial photography. The corridor is only publicly accessible by several suburban street crossings in the area. The existing transmission line may be seen from the district where it is directly crossed, but likely quickly becomes screened by modern development and landscaping. Where it is seen, it is in conjunction with dense modern development.

The existing transmission line structures in the vicinity of the property range from 82-feet to 125-feet tall and the proposed replacement structures will range from 129-feet to 154-feet tall. As such, there will be a substantial increase in structure height, however there will be no additional ROW clearing and structures will be replaced on a one-to-one basis. It is therefore anticipated that visibility following the project may be slightly increased from the existing views which already include the existing line. This was confirmed through photo simulation that shows proposed structures will rise slightly higher above treelines and development, however will not introduce any substantially new or different views or features into the setting of the resource. Further, the portion of the resource crossed by the project area is no longer discernable from

ground level and has been heavily fragmented by modern development. It is therefore D+A's opinion that the proposed project will have no more than a *minimal impact* on the Virginia Central Railway Historic District.

Figure 5-32 illustrates the location and direction of representative photographs of the Virginia Central Railway Historic District. Figure 5-33 depicts the location of the resource in relation to the project alignment with viewshed buffers, photographic views towards the project area, and photo simulation. Photos 1 through 6 are representative photographs of the district, as well as those taken from locations within the district towards the project alignment. Photo Simulations 1a through 1c illustrate the location of each simulation and structures modeled along with the existing views and proposed views.

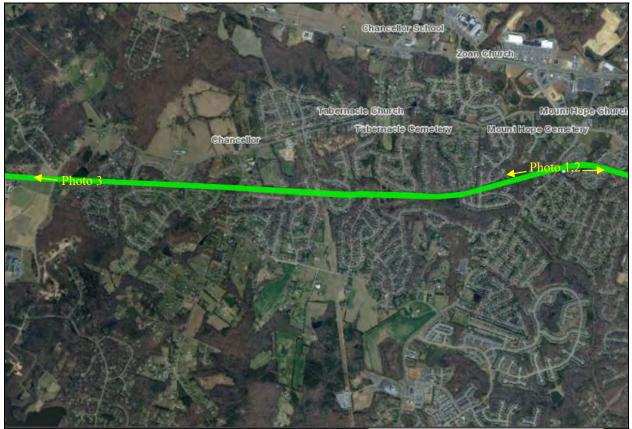


Figure 5-32: Location and direction of representative photos of Virginia Central Railway (VCR) Historic District. Photo locations and directions shown in yellow. Base map source: V-CRIS

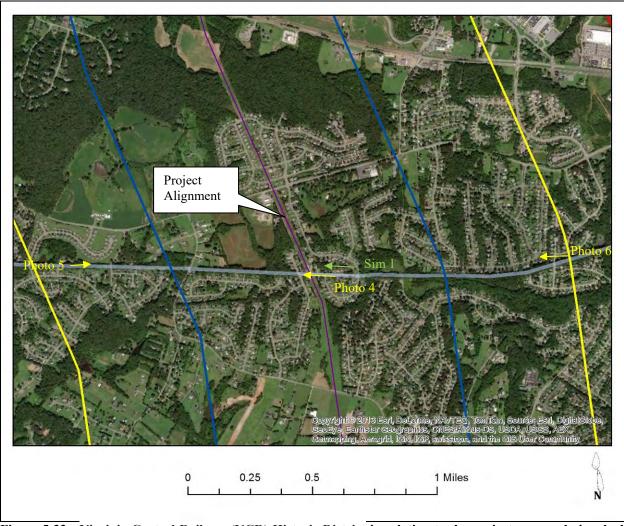


Figure 5-33: Virginia Central Railway (VCR) Historic District in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Photo simulation location shown in green. Base map source: V-CRIS



Photo 1: View of railroad corridor converted to rails to trails, facing east



Photo 2: View of development on former railbed, facing west



Photo 3: View of railway cut, facing west



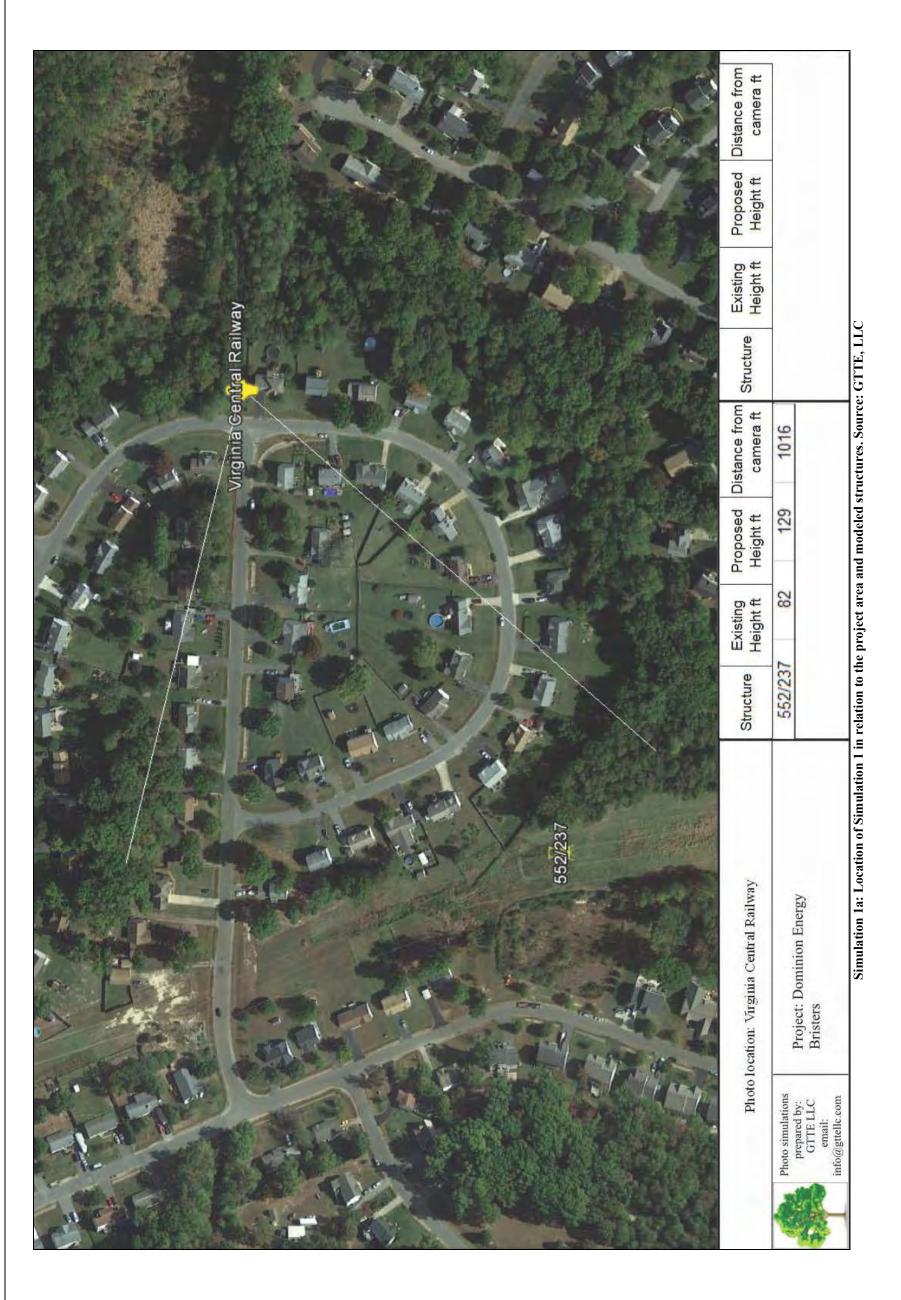
Photo 4: View from former railroad corridor under McGinty Drive showing existing transmission line (red), facing west



Photo 5: View from Lewis Thorburn Road towards existing transmission line (not visible), facing east



Photo 6: View from Geranium Street towards existing transmission line (not visible), facing northwest



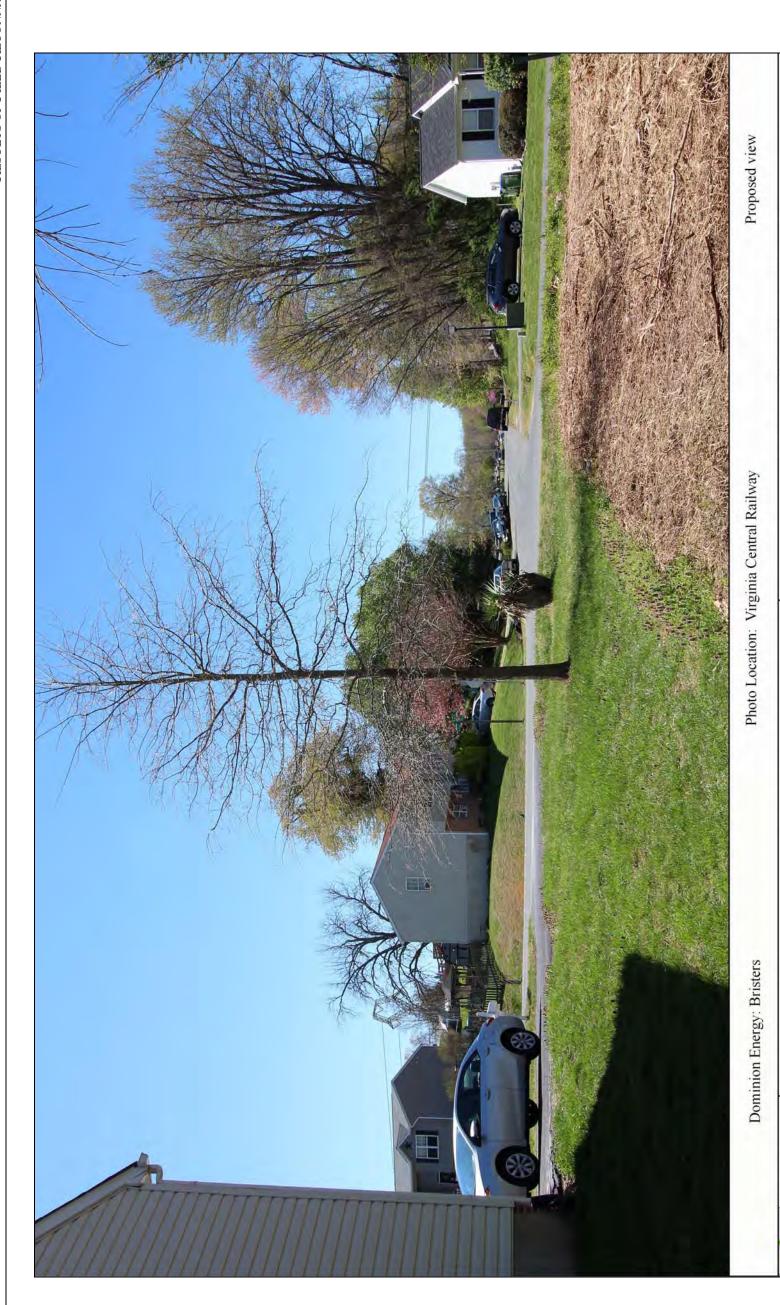
5-189



Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 1b: Simulation 1 existing view. Source: GTTE, LLC



This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 1c: Simulation 1 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC

Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Photo simulations prepared by: GTTE LLC email: info@gttellc.com

Rappahannock Navigation System (VDHR ID# 111-0134)

The Rappahannock Navigation System encompasses a network of improvements made to allow batteau commerce on the Rappahannock River from Fredericksburg to Carter's Run in Fauquier County over a distance of nearly 50 miles. Although organized in 1816, the route was not completed until 1849 and by 1855 was largely replaced by rail service. At the present time, no wooden locks remain, but a number of stone features and earthworks are still discernable along the river. The complete system has not been formally surveyed or evaluated, but discrete portions and elements have been determined eligible for listing in the NRHP by the Keeper as part of a compliance project in 2000.

At its peak of operation in the mid-nineteenth century, the system included five stone locks, 55 wooden locks, 15 miles of canals and 20 dams. At the present time all of the wooden locks are believed to be gone, but many of the stone locks and a good deal of earthworks are believed to still be present in the lower 20 miles of the navigation below the Stafford County line and particularly in the vicinity of Fredericksburg where features have been investigated in more detail. Additional mapped features of the system are derived from historic map projections. Within the vicinity of the project area, several features are mapped, although none were accessible for inspection or confirmation at this time.

In order to assess the potential impact of the proposed project, visual inspection was conducted of the setting around the resource property with emphasis on views towards the project area. As access to the river and navigation features were not possible at the time of this effort, the assessment considered aerial photography and previous property descriptions. This assessment found that the nearest mapped feature of the resource is located within the project area and crossed directly by the overhead transmission line alignment. Another feature is roughly 0.27 upriver at the split of the Rappahannock and Rapidan Rivers, and a third feature is over a mile downstream. It is assumed that if the feature mapped within the project area ROW is present, it would have an unobstructed view of the existing transmission line directly above it as it crosses the river, although visibility would quickly become screened by the thickly wooded bluffs bordering the river. The two other mapped features in the area would likely have only partial to mostly screened views of the project area due to the bends of the river and the intervening topography and vegetation.

The existing transmission line structures on each side of the river crossing in the vicinity of the resource are 150-feet tall and the proposed replacement structures will be 124-feet tall. As the proposed structures in the vicinity of the resource are decreasing in height with no additional ROW clearing, it is anticipated that visibility following the project will be similar to the existing views which already include the transmission line, and thus will not introduce any substantially new or different views or features into the setting of the property. It is therefore D+A's opinion that the proposed project will have no more than a *minimal impact* on the Rappahannock Navigation System.

Figure 5-34 illustrates the location and direction of representative photographs of Rappahannock Navigation System. Figure 5-35 depicts the location of the resource in relation to the project alignment with viewshed buffers and photographic views towards the project area. Photos 1

through 3 are representative photographs of the property, as well as those taken from locations within the property towards the project alignment.

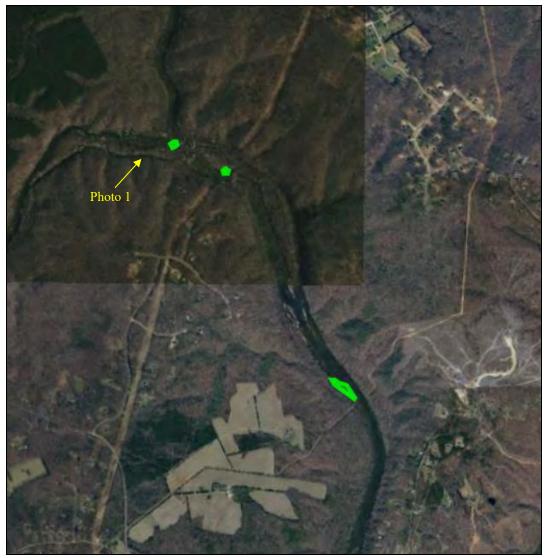


Figure 5-34: Location and direction of representative photos of Rappahannock Navigation System. Photo locations and directions shown in yellow. Base map source: V-CRIS

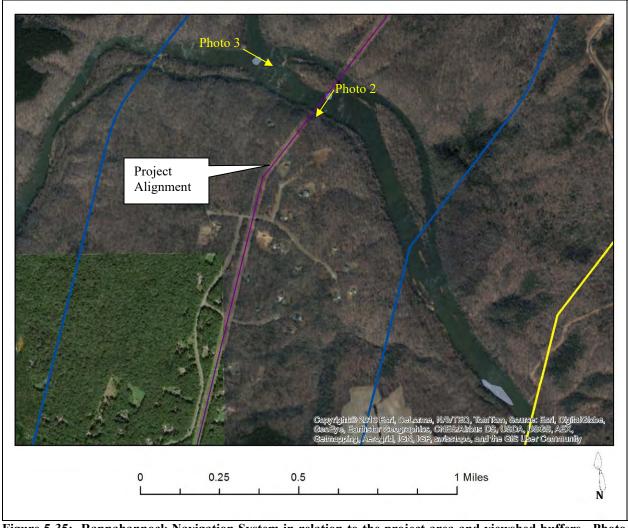


Figure 5-35: Rappahannock Navigation System in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Base map source: V-CRIS



Photo 1: Aerial view showing topography and vegetation at the confluence of the Rappahannock and Rapidan Rivers, facing north (Source: Waymarking.com)



Photo 2: Terrain model depicting topography in the vicinity of the project area as it crosses the Rappahannock River with the existing transmission line modeled above (red), facing south. Source: Google Earth



Photo 3: View from the confluence of the Rappahannock and Rapidan Rivers showing existing transmission line (red), facing east (Source: Waymarking.com)

Rappahannock River Rural Historic District (VDHR ID# 111-5001)

The Rappahannock River Rural Historic District is a proposed linear resource that includes the shorelines and riparian lands bordering the Rappahannock and Rapidan Rivers from the I-95 bridge to Deep Run (up the Rappahannock) and to the Culpeper Mine mills (site-up the Rapidan). The boundaries include portions of the City of Fredericksburg, counties of Spotsylvania, Stafford, Orange and Culpeper. The district was proposed as representative of centuries of human occupation and usage of the river valleys. The proposed district was determined not eligible for listing in the NRHP by the Keeper in 2000.

The proposed district encompasses a massive area throughout the piedmont of Virginia totaling nearly 4,500 acres. The portion in the vicinity of the project area includes the confluence of the Rappahannock and Rapidan Rivers. The topography in the area is gently to moderately rolling and the landscape is mostly wooded. There is a light scattering of nonhistoric homes set on larger properties although the area is mostly undeveloped and unimproved.

In order to assess the potential impact of the proposed project, visual inspection was conducted of the setting around the district with emphasis on views towards the project area. This assessment found that the historic district is directly crossed by the project area roughly 0.27 miles downstream of the confluence of the two rivers. The existing transmission line extends through a cleared right-of-way flanked by thick wooded areas. As all of the land within the this portion of the historic district is private with no public roads, access for inspection was not possible, but review of aerial photography reveals that the existing line can likely be seen from within the river and the immediate shoreline at a close distance to the project area, however, because of the bends in the river coupled with the topography and vegetation, visibility likely quickly becomes screened at further distances.

The existing transmission line structures on each side of the river crossing in the vicinity of the resource are 150-feet tall and the proposed replacement structures will be 124-feet tall. As the proposed structures in the vicinity of the resource are decreasing in height with no additional ROW clearing, it is anticipated that visibility following the project will be similar to the existing views which already include the transmission line, and thus will not introduce any substantially new or different views or features into the setting of the property. Further, the proposed Rappahannock River Rural Historic District has been determined not eligible for listing in the NRHP by the Keeper. It is therefore D+A's opinion that the proposed project will have *no impact* on the Rappahannock River Rural Historic District.

Figure 5-36 illustrates the location and direction of representative photographs of the Rappahannock River Rural Historic District. Figure 5-37 depicts the location of the resource in relation to the project alignment with viewshed buffers and photographic views towards the project area. Photos 1 through 7 are representative photographs of the property, as well as those taken from locations within the property towards the project alignment.

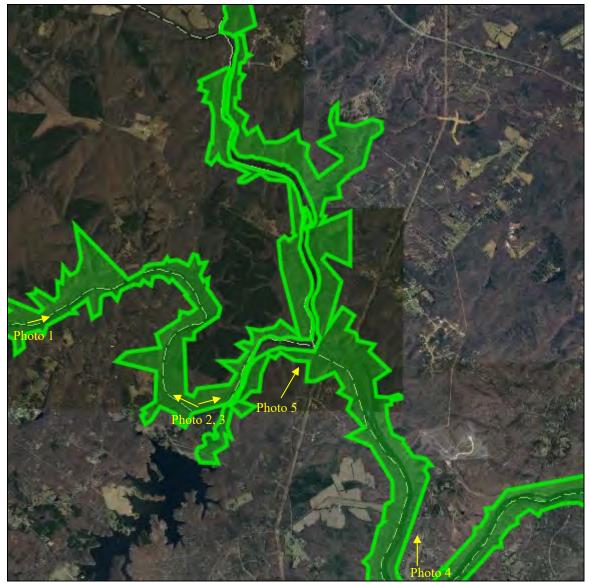


Figure 5-36: Location and direction of representative photos of Rappahannock River Rural Historic District.

Photo locations and directions shown in yellow. Base map source: V-CRIS

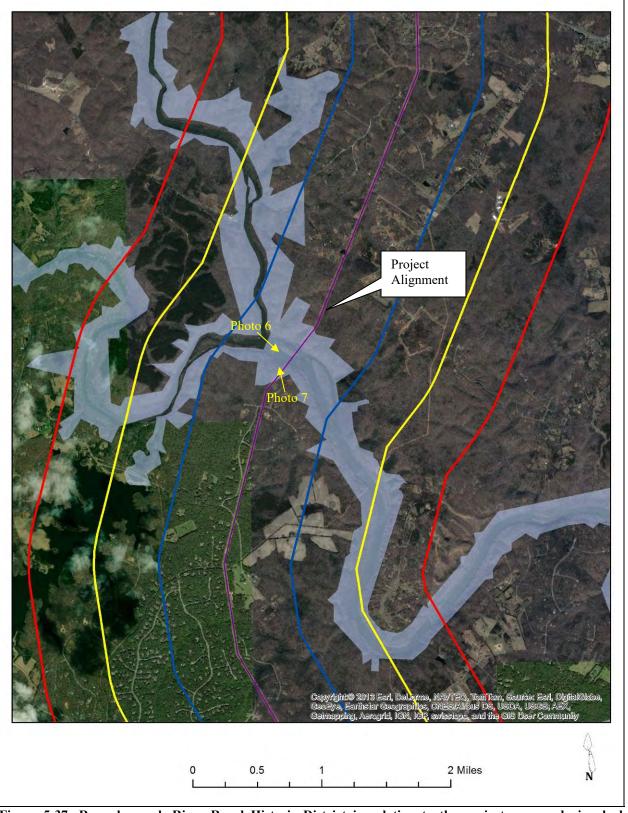


Figure 5-37: Rappahannock River Rural Historic District in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Base map source: V-CRIS



Photo 1: View of Rapidan River from Elys Ford Bridge, facing east



Photo 2: View of Rapidan River from Hunting Creek, facing east



Photo 3: View of Rapidan River from Hunting Creek, facing west



Photo 4: View of residential development along River Ridge Lane, facing north



Photo 5: Aerial view showing topography and vegetation at the confluence of the Rappahannock and Rapidan Rivers, facing north (Source: Waymarking.com)



Photo 6: View from the confluence of the Rappahannock and Rapidan Rivers showing existing transmission line (red), facing east (Source: Waymarking.com)



Photo 7: View from Riverview Drive showing existing transmission line (red), facing northwest



NATIONAL REGISTER OF HISTORIC PLACES-ELIGIBLE PROPERTIES Located within 0.5-Mile of the Project Area				
				PERTIES
	Located	within 0.3-ivine of the	e i i ojeci Aica	

Attachment 2.H.1
Page 258 of 306
RESULTS OF FIELD RECONNAISSANCE

Berkwood (VDHR ID# 088-0015)

Berkwood, historically known as Goodloe Plantation, is located at 6301 Marye Road in Ladysmith in southeastern Spotsylvania County. Constructed circa 1840, the dwelling stands as a good example of a mid-nineteenth century plantation in the county. The house was determined eligible for listing in the NRHP in 2001 under Criterion C for architecture.

The vernacular building has a two-story T-shaped form. The wood frame structural system is clad with clapboard and topped with a cross-gable roof covered with asphalt shingles. A one-story porch is set on the front of the building next to the forward gable and along the front of the side wing. A pair of exterior brick end chimneys extend up the side of the wing. Fenestration consists of two-over-two double-hung sash windows.

The home is set centrally on a large agricultural property. Also set in the homesite is a large twentieth century barn. Other historic outbuildings known to have existed are no longer present. The homesite is shaded by a variety of trees and landscaping. A long gravel driveway leads to the homesite from the road. The driveway cuts through open agricultural fields currently planted with corn. The property is gently rolling and bordered by woodland around the outer edges.

In order to assess the potential impact of the proposed project, visual inspection was conducted of the setting around the resource property with emphasis on views towards the project area. This assessment found that the Berkwood property is directly crossed by the project area. The alignment cuts through the agricultural fields to the west of the house, bordering woodland to the side. The house itself is set roughly 625 feet from the project area at its nearest point. The home is oriented to the south with the project area to its side. The existing transmission line can be seen from multiple vantage points in the property including from the road bordering the property, along the driveway leading to the homesite, and from the home itself. Where it can be seen from the house, it is seen against the backdrop of a treeline which is lower than the existing line, however, the treeline obscures views of the structures themselves.

The existing transmission line structures in the vicinity of the property range from 100-feet to 125-feet tall and the proposed replacement structures will range from 129-feet to 149-feet tall. As such, there will be a substantial increase in structure height, however structures will be replaced on a one-to-one basis. As the existing line is already clearly visible as it crosses the resource property, it is anticipated that there visibility following the project will be similar to the existing views with slightly larger structures. This was confirmed with photo simulation that shows the structures will rise slightly higher above the treeline, but no additional structures that are currently screened will become visible. As such, the project will not introduce any substantially new or different views or features into the setting of the property. It is therefore D+A's opinion that the proposed project will have no more than a *minimal impact* on Berkwood.

Figure 5-38 illustrates the location and direction of representative photographs of Berkwood. Figure 5-39 depicts the location of the resource in relation to the project alignment with viewshed buffers, photographic views towards the project area, and photo simulations. Photos 1 through 6 are representative photographs of the property, as well as those taken from locations

within the property towards the project alignment. Photo Simulations 1a through 1c illustrate the location of each simulation and structures modeled along with the existing views and proposed views.

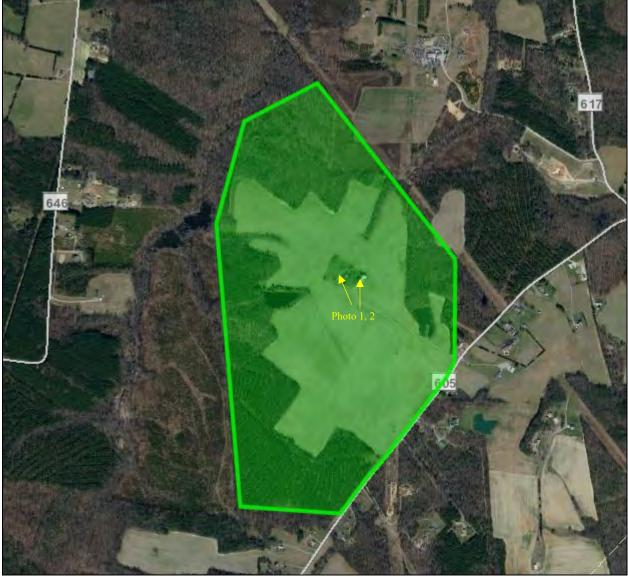


Figure 5-38: Location and direction of representative photos of Berkwood. Photo locations and directions shown in yellow. Base map source: V-CRIS

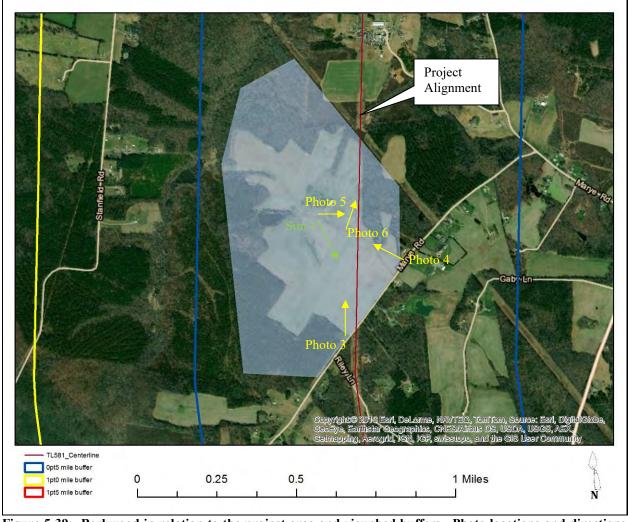


Figure 5-39: Berkwood in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Photo simulation location shown in green. Base map source: V-CRIS



Photo 1: View of house and homesite, facing northwest



Photo 2: View of barn in homesite, facing north

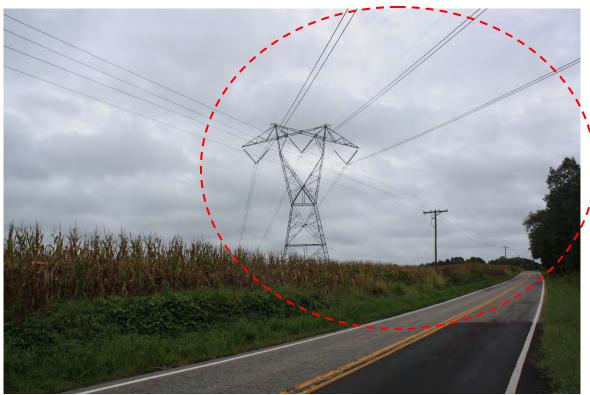


Photo 3: View from southern edge of property showing existing transmission line (red), facing north



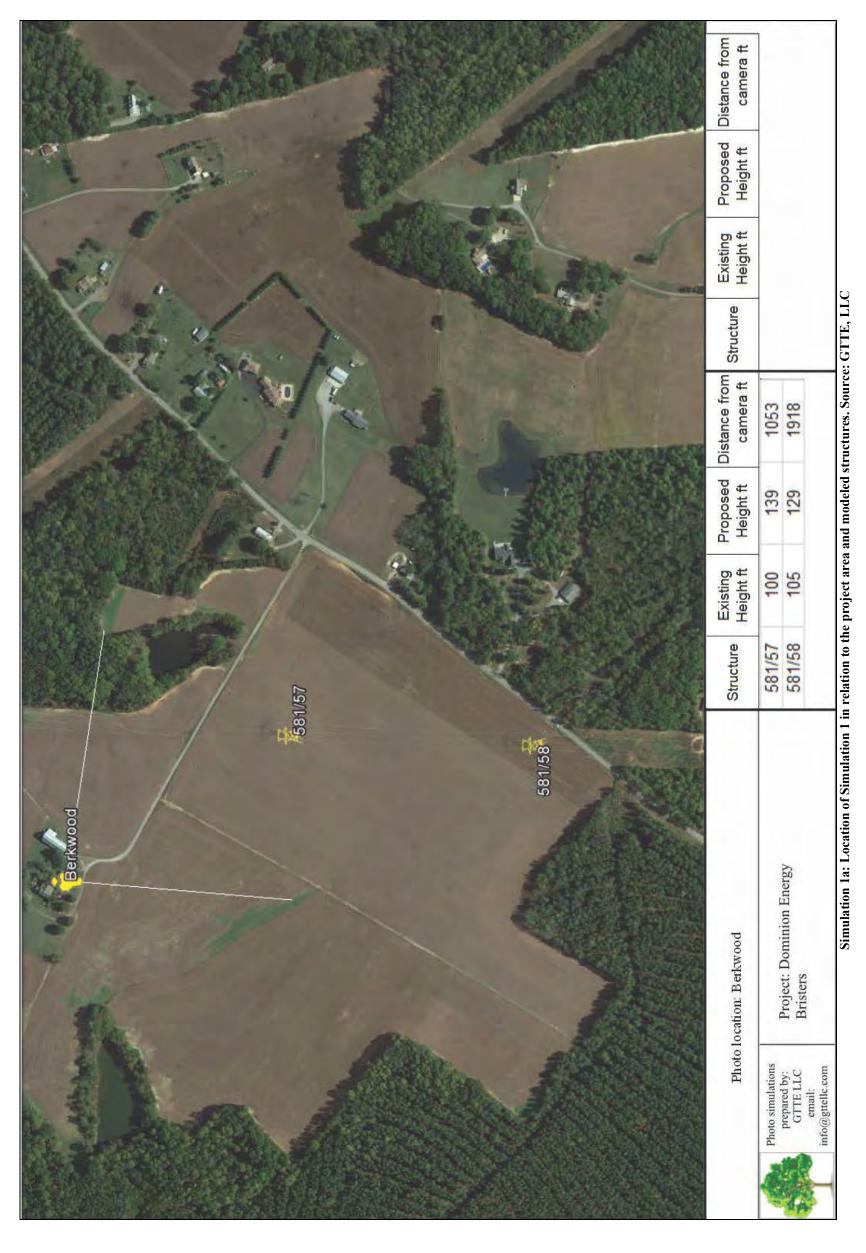
Photo 4: View from end of driveway showing existing transmission line (red), facing west



Photo 5: View from driveway near homesite showing existing transmission line (red), facing east



Photo 6: View from driveway showing existing transmission line (red), facing north



5-213



Simulation 1b: Simulation 1 existing view. Source: GTTE, LLC

5-214



Simulation 1c: Simulation 1 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC

Gayle House (VDHR ID# 088-0059)

Gayle House is located at 9601 Courthouse Road roughly 2 miles northeast of the village of Spotsylvania Courthouse. Gayle House (also called Rosemont) is an excellent example of the Georgian style. The Rosemont estate was part of a patent grant to John Smith conveyed in 1730. Smith conveyed the property to Charles Washington in 1757, although the records do not state if the house was part of this transaction. The house was definitely built by 1780 when Charles Washington conveyed the land, "all houses, orchards, woodways, etc." to Thomas Strachen The house was determined eligible for listing in the NRHP in 2002 under Criteria A for its association to the Battle of Spotsylvania Courthouse and C for architecture.

This large, two-and-a-half-story, frame house presently has a cross gable roof that forms a T-shape. The original portion of the house is a two-story wing with a side gable roof that faces northeast. The house is an excellent example of the Georgian style: a rectangular block form with aside gable roof; a five-bay wide front elevation with a center entrance; a paneled front door with five-light transom above; windows with double-hung, multi-light sashes with thick wooden muntins; and a cornice emphasized with a band of slightly-scrolled modillions. The house rests on a foundation of brick laid in English bond. Massive exterior end chimneys at the northwest and southeast elevations of the main block are also constructed of brick, one laid in Flemish bond, and the other laid in English bond--a modern replacement. The tops of the chimneys pull away from the house, a detail that was typical of the building style in this area during the eighteenth century. All of the windows align vertically and horizontally and are balanced symmetrically. The 6/9 windows on the second story and the 9/9 windows on the first story are typical of the Georgian style. The modest portico sheltering the front door is a later addition to the house, as it is atypical of Georgian style. A one-and-a-half-story extension with a gable roof has been added to the southeast elevation.

Gayle House sits on a large farm property on the south side of Courthouse Road. The house is set at the end of a long driveway. The homesite is landscaped along the front of the house with a walkway to the driveway. The landscape slopes down to the west side of the house with a small historic smokehouse set near the southeast elevation of the house. During the 1980s and 1990s, the farm was developed as a commercial riding school and stable. The landscape around the house was substantially re-defined with new asphalt and gravel driveways; new fencelines; three paved oval riding rings; a grouping of eight frame stables with gravel driveways; and a large indoor riding arena/show barn. Much the riding school landscape and buildings have now been removed from the property boundary.

In order to assess the potential impact of the proposed project, visual inspection was conducted of the setting around the resource property with emphasis on views towards the project area. This assessment found that the Gayle House property is located roughly 1,000 feet from the project area at its nearest point. The home is oriented to the southeast with the project area generally to its west side. Bordering the south and west side of the property, between it and the project area are a number of buildings, fences, and farm roads associated with the riding school. However, the landscape is generally clear in this direction offering uninterrupted views of the existing transmission line at its nearest point. Treelines and woodland bordering the property further to the south, as well as along and on the opposite side of Courthouse Road screen the line as it

extends away from the property in both directions. As such, there may be additional views of the project area from the home seasonally. The rolling topography of the area and additional suburban development surrounding the property provide additional screening.

The existing transmission line structures in the vicinity of the property range from 80-feet to 105-feet tall and the proposed replacement structures will range from 119-feet to 139-feet tall. As such, there will be a substantial increase in structure height, however there will be no additional ROW clearing and structures will be replaced on a one-to-one basis. It is therefore anticipated that visibility following the project may be slightly increased from existing views which already include the existing line in some locations and partial screening in others. This was confirmed with photo simulation that shows existing structures that are already visible above the treeline will rise slightly higher while structures that are currently screened will largely remain as such. While there may be slightly increased visibility of some structures, they are already clearly visible, and thus will not introduce any substantially new or different views or features into the setting of the property. It is therefore D+A's opinion that the proposed project will have no more than a *minimal impact* on Gayle House.

Figure 5-40 illustrates the location and direction of representative photographs of Gayle House. Figure 5-41 depicts the location of the resource in relation to the project alignment with viewshed buffers, photographic views towards the project area, and photo simulations. Photos 1 through 6 are representative photographs of the property, as well as those taken from locations within the property towards the project alignment. Photo Simulations 1a through 1c illustrate the location of each simulation and structures modeled along with the existing views and proposed views.



Figure 5-40: Location and direction of representative photos of Gayle House. Photo locations and directions shown in yellow. Base map source: V-CRIS

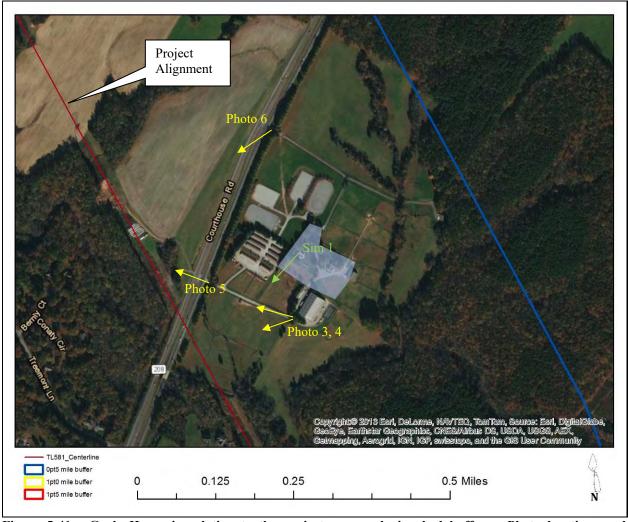


Figure 5-41: Gayle House in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Photo simulation location shown in green. Base map source: V-CRIS



Photo 1: View of setting around homesite, facing north



Photo 2: View of home and homesite, facing north

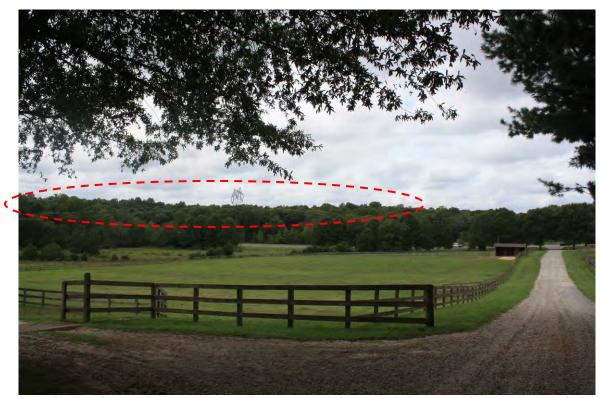


Photo 3: View from riding school south of property showing the existing transmission line (red), facing southwest



Photo 4: View from riding school south of property showing the existing transmission line (red), facing west

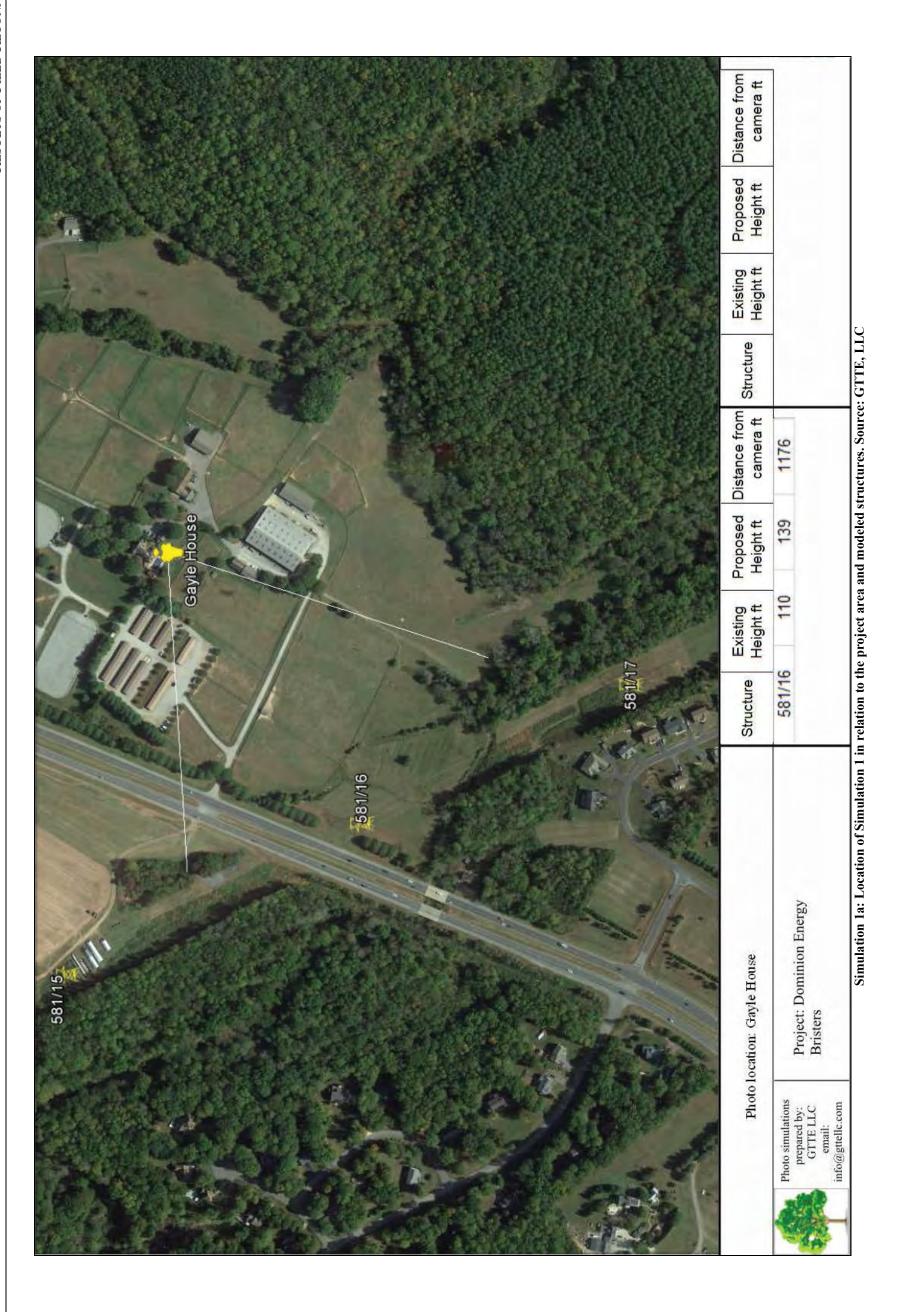


Photo 5: View from end of south driveway showing the existing transmission line (red), facing west



Photo 6: View from end of north driveway showing the existing transmission line (red), facing west





5-225



This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Simulation 1b: Simulation 1 existing view. Source: GTTE, LLC

5-226



This simulation is designed for viewing on a computer monitor. To achieve the correct scale the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 20 inches from the screen the image will have the same scale as if the viewer were standing at the camera location.

Photo simulations and diagrams represent approximate heights for electric transmission structures from conceptual design used for the proposed Project. These illustrations do not necessarily depict exact structure design or location. The approximate heights include foundation reveal (minimum of 18 inches) and are also subject to change based on final design.

Simulation 1c: Simulation 1 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC

Wigg Hall (VDHR ID# 088-0070)

Wigg Hall is located on the south side of Courthouse Road roughly 1.5 miles northeast of the village of Spotsylvania Courthouse. Constructed circa 1783, the home is an example of colonial architecture in the region, and is also associated with the Battle of Spotsylvania Courthouse. The house was determined eligible for listing in the NRHP in 1989 under Criterion A.

Wigg Hall was not available for inspection at this time, but according to previous survey, the main house is a 6-room, wood-frame structure with center hall and 2.5 baths. By strict definition, this is a 1.5 story dwelling with intersecting gambrel roofs forming an L-shape. There is a 1-room, 1-story hipped roof addition on one side. The second story walls slant inward slightly and have small dormers giving the overall appearance of having a gambrel roof, but this 2nd story has a separate and distinct roof. The gable roof extends out and forms the roofs on the dormers.

Wigg Hall is situated on the south side of Courthouse Road on a small rural lot surrounded by suburban development. The house sits back from the road at the end of a long gated driveway. The property and homesite are mostly wooded although there are several small cleared fields to the rear of the house. Aerial photography indicates several barns or other outbuildings are set on the property.

In order to assess the potential impact of the proposed project, visual inspection was conducted of the setting around the resource property with emphasis on views towards the project area. Access to the property was not possible at the time of this survey, so the assessment was conducted from public ROW but also considered aerial photography and previous property descriptions. This assessment found that the Wigg Hall property is set roughly one-quarter mile from the project area at its nearest point. The home is oriented to the east and thus faces the project area. However, it is set within a thick cluster of trees with additional woodland between it and the project area. Also set between the property and the project area is a recently developed suburban neighborhood. Inspection from public ROW in this neighborhood, just 400 feet east of the home revealed that the intervening development, topography, and vegetation completely screen visibility of the project area and existing transmission line and would be further screened from the Wigg Hill property by the extensive tree cover on the property.

The existing transmission line structures in the vicinity of the property range from 85-feet to 120-feet tall and the proposed replacement structures will range from 119-feet to 139-feet tall. As such, there will be a substantial increase in structure height, however, there will be no additional ROW clearing and structures will be replaced on a one-to-one basis. Still, it is anticipated that visibility following the project will be similar to the existing views in which intervening topography and vegetation provide complete screening of the line from the resource. This was confirmed with photo simulation. It is therefore D+A's opinion that the proposed project will have *no impact* on Wigg Hall.

Figure 5-42 illustrates the location and direction of representative photographs of Wigg Hall. Figure 5-43 depicts the location of the resource in relation to the project alignment with viewshed buffers, photographic views towards the project area, and photo simulation. Photos 1 through 4 are representative photographs of the property, as well as those taken from locations

within the property towards the project alignment. Photo Simulations 1a through 1b illustrate the location of each simulation and structures modeled along with the existing views and proposed views.



Figure 5-42: Location and direction of representative photos of Wigg Hall. Photo locations and directions shown in yellow. Base map source: V-CRIS



Figure 5-43: Wigg Hall in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Photo simulation location shown in green. Base map source: V-CRIS



Photo 1: View of entrance and driveway to property, facing northeast



Photo 2: View of driveway and gate approaching the homesite, facing southeast

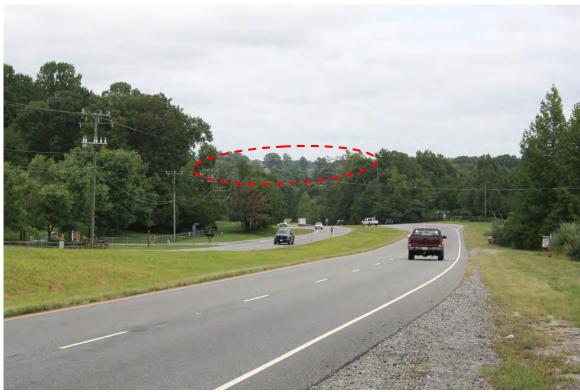
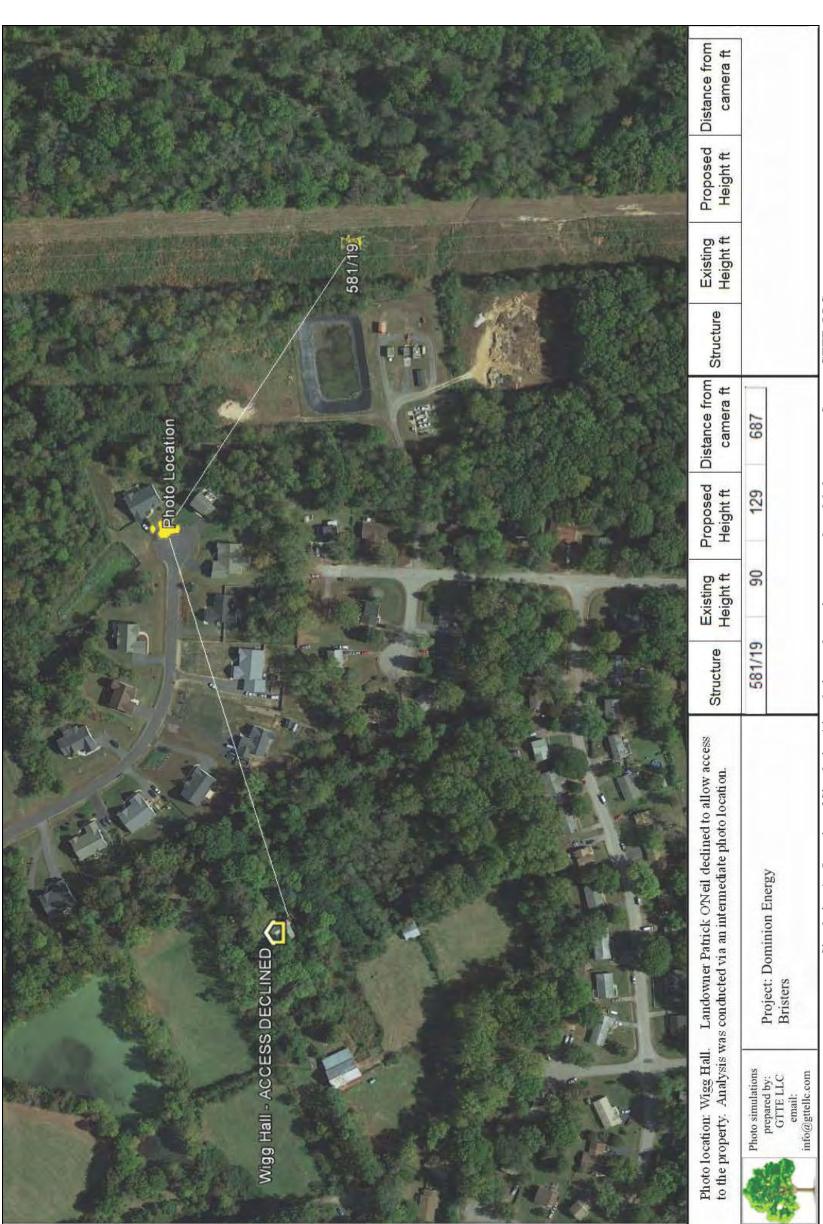


Photo 3: View from driveway on Courthouse Road showing the existing transmission line (red), facing northeast



Photo 4: View from neighborhood bordering east side of property towards the existing transmission line (not visible), facing east

	Attachment 2.H.1
	2
	Page 286 of 306
RESULTS OF FIELD RECO	ONNAISSANCE



Simulation 1a: Location of Simulation 1 in relation to the project area and modeled structures. Source: GTTE, LLC



Simulation 1b: Simulation 1 proposed view. Source: GTTE, LLC

Rowe House (VDHR ID# 088-5129)

Rowe House is located at 9400 Courthouse Road just east of the village of Spotsylvania Courthouse. The home was present during the May 1864 battle of Spotsylvania Courthouse and is considered significant for the troop activity that took place within it and on the property during that campaign. The house was determined eligible for listing in the NRHP in 2001 under Criteria A for its association to the Civil War as well as Criteria C for architecture.

The Rowe House is a 1.5-story vernacular dwelling built circa 1840. The building is constructed of wood frame on a stone foundation. The now-altered structure originally had a side gable roof with interior end chimneys that have a stone base and brick cap. The building appears to have always been 1-1/2-stories although a new roof structure with exposed rafter ends now exists. Originally, the building had a T-shaped plan, created by the contemporaneous rear ell. The central entry was flanked by single window openings. Despite the additions, the original form is visible.

This property is set uphill from Courthouse Road, directly across from Whig Hill and to the northeast of Dixie. It is approached by a long tree-lined driveway bordered by open fields to each side. There are numerous historic outbuildings, including a 1920s agricultural complex, set to the rear of the house and a large modern barn to the west side. The buildings are set closely together, surrounded by a grassy yard. Bordering the property to the rear is woodland included in the Spotsylvania Courthouse Tract of the Fredericksburg Spotsylvania Battlefield Park. To the northeast side of the property is a nonhistoric suburban development.

In order to assess the potential impact of the proposed project, visual inspection was conducted of the setting around the resource property with emphasis on views towards the project area. This assessment found that the Rowe House property is located roughly 0.31 miles from the project area at its nearest point. The home is oriented to the southeast with the project area generally to its east side. The home sits within a complex of buildings, including a variety of early-twentieth century agricultural buildings and more modern outbuildings. There are numerous mature trees and other landscaping scattered throughout the homesite. Beyond the homesite on the property is cleared field which is bordered to the east, between it and the project area, by a thick wooded area. Located within the treeline and in the area beyond is a nonhistoric suburban residential development. The divided four-lane Courthouse Road extends along the front of the property with additional nonhistoric development across it, also between the property and the project area as it extends to the south. Inspection showed that because of the rolling topography with patches of wooded and nonhistoric development, the existing transmission line is screened from vantage points on the property.

The existing transmission line structures in the vicinity of the property range from 85-feet to 120-feet tall and the proposed replacement structures will range from 119-feet to 139-feet tall. As such, there will be a substantial increase in structure height, however, there will be no additional ROW clearing and structures will be replaced on a one-to-one basis. It is therefore anticipated that visibility following the project will be similar to the existing views and thus continue to not be visible from the property. This was confirmed with photo simulation that

shows proposed structures will remain screened by intervening topography and vegetation. It is therefore D+A's opinion that the proposed project will have *no impact* on Rowe House.

Figure 5-44 illustrates the location and direction of representative photographs of Rowe House. Figure 5-45 depicts the location of the resource in relation to the project alignment with viewshed buffers, photographic views towards the project area, and photo simulations. Photos 1 through 7 are representative photographs of the property, as well as those taken from locations within the property towards the project alignment. Photo Simulations 1a through 1c illustrate the location of each simulation and structures modeled along with the existing views and proposed views.



Figure 5-44: Location and direction of representative photos of Rowe House. Photo locations and directions shown in yellow. Base map source: V-CRIS

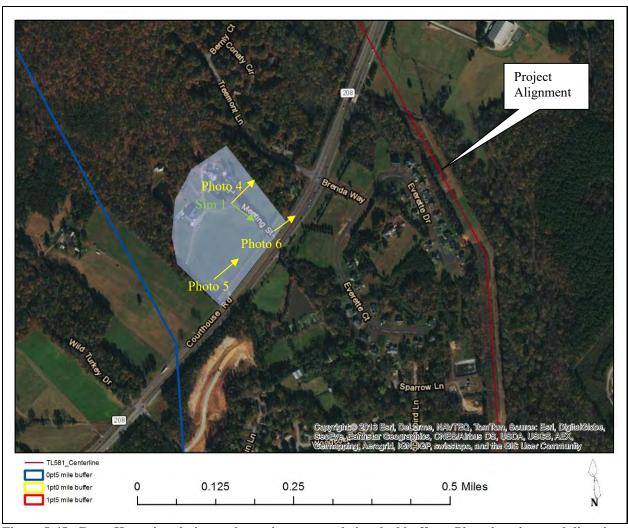


Figure 5-45: Rowe House in relation to the project area and viewshed buffers. Photo locations and directions shown in yellow. Photo simulation locations shown in green. Base map source: V-CRIS



Photo 1: View of driveway to property, facing west



Photo 2: View of the Rowe House and homesite, facing north



Photo 3: View of Rowe House front facade, facing north



Photo 4: View of large modern barn, facing west



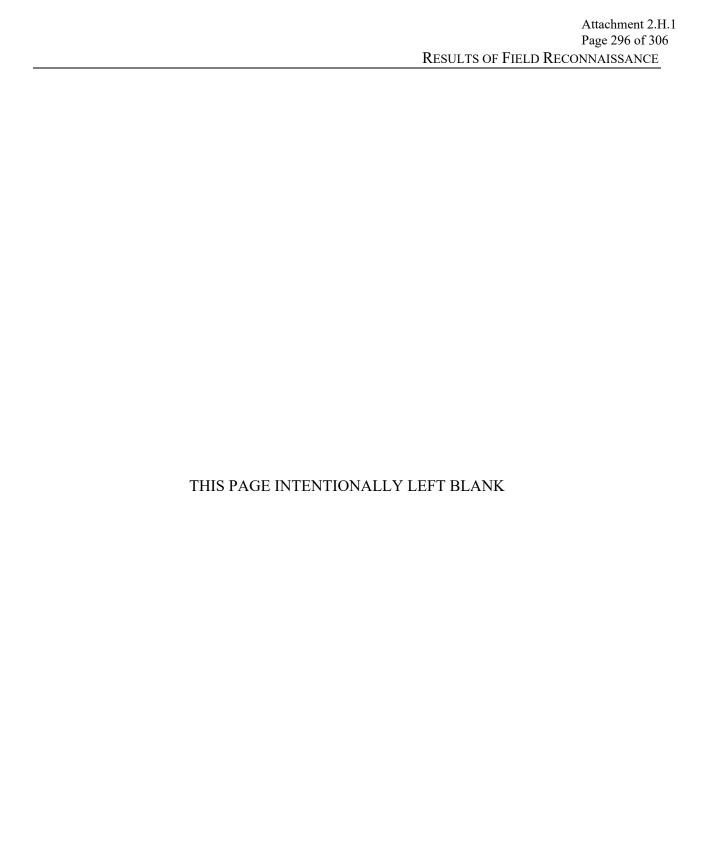
Photo 5: View from homesite towards the existing transmission line (not visible), facing northeast



Photo 6: View from front of property towards the existing transmission line (not visible), facing northeast



Photo 7: View from driveway towards the existing transmission line (not visible), facing northeast







Simulation 1b: Simulation 1 existing view. Source: GTTE, LLC

5-246



Simulation 1c: Simulation 1 proposed view (visible structures shown in brown; non-visible structures shown in yellow). Source: GTTE, LLC

6. SUMMARY OF POTENTIAL IMPACTS

As part of this pre-application analysis of cultural resources for the proposed Brister-Ladysmith 500kV Rebuild Project, potential impacts to previously recorded historic properties listed or considered eligible for listing in the NRHP within the VDHR-defined study tiers were assessed in accordance with the VDHR guidelines for transmission line impacts. For the purposes of this analysis, an impact is one that alters, either directly or indirectly, those qualities or characteristics that qualify a particular property for listing in the NRHP and does so in a manner that diminishes the integrity of a property's materials, workmanship, design, location, setting, feeling, and/or association. With respect to transmission lines, direct impacts typically are associated with ground disturbance resulting from ROW clearing and structure construction. Indirect impacts typically are associated with the introduction of new visual elements or changes to the physical features of a property's setting or viewshed. According to VDHR guidance, project impacts are characterized as such:

- None Project is not visible from the property
- **Minimal** Occur within viewsheds that have existing transmission lines, locations where there will only be a minor change in tower height, and/or views that have been partially obstructed by intervening topography and vegetation.
- **Moderate** Include viewsheds with expansive views of the transmission line, more dramatic changes in the line and tower height, and/or an overall increase in the visibility of the route from the historic properties.
- Severe Occur within viewsheds that do not have existing transmission lines and where the views are primarily unobstructed, locations where there will be a dramatic increase in tower visibility due to the close proximity of the route to historic properties, and viewsheds where the visual introduction of the transmission line is a significant change in the setting of the historic properties.

With regards to architectural resources, there are eighteen (18) NHL/NRHP-Listed/NRHP-Eligible resources within the defined study tiers for the Bristers-Ladysmith 500kV Rebuild Project. This includes four properties that are listed in the NRHP, three battlefields, and seven historic landscapes located within 1-mile of the project area; and four properties that have been determined eligible for listing in the NRHP by the VDHR within 0.5-miles of the project area.

Following identification and field inspection of historic properties, D+A assessed each resource for potential impacts brought about by the proposed project according to VDHR guidance. Because of the increase in structure height that meets the definition of a substantial increase according to VDHR guidance, assessment included pedestrian inspection and ground-based photography, in addition to photo simulation. Field inspection, representative photography, and analysis reveal that because the project involves the rebuild of an existing transmission line with new structures replaced on a one-to-one basis, sited in a landscape with a rolling topography interspersed by wide wooded areas and pockets of modern development, the project will result in a change in visibility from some vantage points and resources, but little to no change from others. As such, there will be no more than a minimal visual impact to most significant cultural resources. Many resources will have no impact due to the topography

and vegetation of the surrounding setting that completely screens visibility of the existing transmission line and will likely continue to do so following replacement of structures in the ROW.

For other resources that are set in closer proximity to the project area, or already directly crossed by the ROW may have a slight change in visibility, however, in most cases, the existing line is already visible from vantage points on or near the property. In many locations where the existing line is visible, it is seen against the backdrop of nonhistoric development and other infrastructure and partially to mostly screened by the intervening topography and vegetation. In most vantage points where the existing line may be seen the views only include short lengths of line and several structures at most. The vegetation and topography of the area generally inhibit long, uninterrupted views of the line. The increase in proposed structure height may allow additional visibility and views of the transmission line and thus may result in a moderate impact to some resources.

The following list (Table 6-1) summarizes the status and recommended impacts for each of the NHL/NRHP-Listed/NRHP-Eligible architectural resources within the study tiers around the Bristers-Ladysmith 500kV Rebuild Project.

Table 6-1: Summary of potential impacts summary for architectural resources.

	Proximity			
VDHR	Resource Name	NRHP	to the	Impaat
ID#	Resource Name	Status	Project	Impact
			Area	
	Elk Run Rural Historic District			
	(Historic), Elk Run-Germantown-			
	Cedar Run Rural Historic District			
030-5588	(Historic/Current)	NRHP-Eligible	0.32 miles	Minimal Impact
	Hedgeman-Rappahannock Rural			
030-5607	Historic District (Historic)	NRHP-Eligible	0.28 miles	Minimal Impact
	Berkwood (Current), Goodloe			
	Plantation (Historic), House,			
000 0015	Route 605 (Function/Location),	MDID EL 11	Directly crossed by	3.61 1.7
088-0015	Oak Hill (Historic)	NRHP-Eligible	ROW	Minimal Impact
	Gayle House (Historic), Rose			
000 0050	Mount (Historic), Rosemont	AIDIID EI' 'I I	0.21 1	NT T
088-0059	(Historic)	NRHP-Eligible	~0.21 miles	No Impact
	Whig Hill (Historic/Current)			
088-0070		NRHP-Eligible	~0.25 miles	No Impact
	Tabul Furnace (Historic), Tabul			
	Furnace Archaeological Site			
088-0074	(Current)	NRHP-Listed	0.31-miles	No Impact
	Rapidan Dam Canal of the			
000 012-	Rappahannock Navigation	NIDITE I	D : 1 G	
088-0137	(Current)	NRHP-Listed	Directly Crossed	Minimal Impact
000 01 12	Spotsylvania Court House	NIDITE I	0.50	NT T
088-0142	Historic District (NRHP Listing)	NRHP-Listed	~0.72 miles	No Impact
	Ashley Farm (Historic), First Day			
	at Chancellorsville Property			
000 0220	(Descriptive), John Mullins Farm	Preservation	D: 41 G 1	No. 1 of T
088-0220	(Current)	Easement	Directly Crossed	Moderate Impact

VDHR ID#	Resource Name	NRHP Status	Proximity to the Project Area	Impact
	Lick Run Battlefield Historic	Not Formally		
088-0334	District (Historic/Current)	Evaluated	Directly Crossed	Minimal Impact
1.	Rowe House, 9400 Courthouse			
088-5129	Rd (Historic/Location)	NRHP-Eligible	~0.31 miles	No Impact
000 5100	Chancellorsville Battlefield	ND ID E1: 11 1	Directly crossed by	3.5.1
088-5180	(Current)	NRHP-Eligible	ROW	Moderate Impact
	Spotsylvania Court House			
	Battlefield (Current Name),		D' 4 11	
000 5102	Spotsylvania Court House	AIDIID EI' 'I I	Directly crossed by	NC 1 17
088-5182	Battlefield (Historic) Battle of Harris Farm Battlefield	NRHP-Eligible	ROW	Minimal Impact
088-5188	(Historic)	Not Evaluated	~0.12 miles	Minimal Impact
	Fredericksburg and Gordonsville			
	Railroad (Historic),			
	Fredericksburg, Orange, and			
	Charlottesville Railroad			
	(Historic), Potomac,			
	Fredericksburg, and Piedmont Railroad (Historic), Unfinished			
	Railroad (Historic), Virginia			
	Central Railway Historic District			
088-5364	(Historic/Current)	NRHP-Eligible	Directly Crossed	Minimal Impact
000 3304	Rappahannock Navigation	TVICHT Eligible	Directly Clossed	TVIIIIIIai IIIipaet
	System (Canal)			
111-0134	(Historic/Current)	NRHP-Eligible	Directly Crossed	Minimal Impact
	Fredericksburg and Spotsylvania			
	Battlefields National Military			
	Park (Historic/Current),			
	Fredericksburg and Spotsylvania			
	County Battlefields Memorial			
	National Military Park and			
111-0147	Cemetery (NRHP Listing)	NRHP-Listed	~0.41 miles	No Impact
	Rappahannock River Rural			
111-5001	Historic District	Not Eligible	Directly Crossed	No Impact
L	ı			1

With regards to archaeology, there are 18 previously recorded archaeological sites located directly within or adjacent to the project area. Of these, one has been determined not eligible for listing in the NRHP by the VDHR and the others have not been formally evaluated. No archaeological field work was conducted as part of this effort and previously recorded sites within or adjacent to the project were not visited or assessed at this time, but should be assessed for existing conditions and project impacts as additional project construction details become available.

Table 6-2: Summary of potential impacts summary for archaeological resources.

VDHR ID#	NRHP Status	Proximity to the Project Area	Impacts
44FQ0108	Not Evaluated	Within ROW	TBD
44FQ0109	Not Evaluated	Within ROW	TBD
44SP0079	Not Evaluated	Within ROW	TBD

VDHR ID#	NRHP Status	Proximity to the Project Area	Impacts
44SP0080	Not Evaluated	Within ROW	TBD
44SP0111	Not Evaluated	Adjacent to ROW	TBD
44SP0165	Not Evaluated	Adjacent to ROW	TBD
44SP0166	Not Evaluated	Within ROW	TBD
44SP0167	Not Evaluated	Within ROW	TBD
44SP0168	Not Evaluated	Within ROW	TBD
44SP0170	Not Evaluated	Within ROW	TBD
44SP0171	Not Evaluated	Within ROW	TBD
44SP0172	Not Evaluated	Within ROW	TBD
44SP0174	Not Evaluated	Within ROW	TBD
44SP0333	Not Evaluated	Within ROW	TBD
44SP0340	Not Evaluated	Adjacent to ROW	TBD
	VDHR: Not		TBD
44SP0682	Eligible	Within ROW	
44ST0142	Not Evaluated	Within ROW	TBD
44ST0143	Not Evaluated	Within ROW	TBD

7. REFERENCES

National Park Service

2009 "Civil War Sites Advisory Commission Report Update and Resurvey," American Battlefield Protection Program

Virginia Cultural Resource Information System (VCRIS)

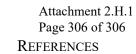
Various Site File records for previously recorded architectural and archaeological resources

Virginia Department of Historic Resources

2008 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

2016 Virginia Cultural Resource Information System (VCRIS) database and GIS server.



THIS PAGE LEFT INTENTIONALLY BLANK

From: Rhur, Roberta <robbie.rhur@dcr.virginia.gov> Sent: Wednesday, April 8, 2020 4:00 PM</robbie.rhur@dcr.virginia.gov>
To: Rachel M Studebaker (Services - 6) < Rachel.M.Studebaker@dominionenergy.com > Subject: [EXTERNAL] Re: Re: Re: Proposed Bristers to Ladysmith 500kV Transmission Line Rebuild
Afternoon;
I wanted to thank you for sending me the shapefiles, after a review of the data, the project crossed a the scenically designated Rappahannock River; however we do not anticipate the project will impact the resource. We recommend that this project be submitted to the Division of Natural Heritage for review as well.
Thank you for the opportunity to comment
Robbie Rhur DCR EIR Coordinator
On Wed, Apr 8, 2020 at 12:30 PM Rachel.M.Studebaker@dominionenergy.com < Rachel.M.Studebaker@dominionenergy.com > wrote:
Hello Robbie,
I apologize for the confusion. I have attached a shapefile of the entire ROW for the proposed project. Please let me know if you need anything additional for your review.
Thank you,
Rachel

From: Rhur, Roberta < robbie.rhur@dcr.virginia.gov >	Page 2 of 6
Sent: Wednesday, April 8, 2020 11:50 AM To: Rachel M Studebaker (Services - 6) < Rachel.M.Studebaker@dominionenergy.com >	
Subject: [EXTERNAL] Re: Re: Proposed Bristers to Ladysmith 500kV Transmission Line Rebuild	
Manada	
Morning;	
I just downloaded and opened this file, this appears to be wetland delineation data, this is not what DCR review a project since we are not looking at wetland impacts, what I need is a line file that shows the rout project, that way I can tell if it will impact DCR resources,	
On Fri, Apr 3, 2020 at 2:28 PM <u>Rachel.M.Studebaker@dominionenergy.com</u> < <u>Rachel.M.Studebaker@dominionenergy.com</u> > wrote:	
Hi Robbie,	
TH ROBBIC,	
Please see the attached shapefile for this project. Please let me know if you need any additional information	tion to
complete your review.	
Thank you,	
Rachel	
From: Rachel M Studebaker (Services - 6) Sent: Monday, March 23, 2020 3:10 PM	
To: Rhur, Roberta < robbie.rhur@dcr.virginia.gov >	
Subject: RE: [EXTERNAL] Re: Re: Proposed Bristers to Ladysmith 500kV Transmission Line Rebuild	
Hi Robbie,	
TH NODDIC)	
We are still in the process of finalizing the shapefile, but I should be able to forward it towards the end o	f the week.

Pag	ge 3 of 6
Rachel	
From: Rhur, Roberta < robbie.rhur@dcr.virginia.gov > Sent: Monday, March 23, 2020 1:19 PM Fo: Rachel M Studebaker (Services - 6) < Rachel.M.Studebaker@dominionenergy.com > Subject: [EXTERNAL] Re: Re: Proposed Bristers to Ladysmith 500kV Transmission Line Rebuild	
di Rachel;	
Ifter looking at my GIS resource, I can't make a solid set of comments without a GIS line file - can you send?	
On Thu, Mar 19, 2020 at 3:57 PM <u>Rachel.M.Studebaker@dominionenergy.com</u> Rachel.M.Studebaker@dominionenergy.com> wrote:	
Apologies, I forgot to include a copy of the project map. Please see attached.	
From: Rhur, Roberta < robbie.rhur@dcr.virginia.gov Sent: Thursday, March 19, 2020 3:54 PM To: Rachel M Studebaker (Services - 6) < Rachel.M.Studebaker@dominionenergy.com Subject: [EXTERNAL] Re: Proposed Bristers to Ladysmith 500kV Transmission Line Rebuild	
Got it - thank you	
On Thu, Mar 19, 2020 at 3:41 PM <u>Rachel.M.Studebaker@dominionenergy.com</u> < <u>Rachel.M.Studebaker@dominionenergy.com</u> > wrote: Ms. Rhur,	
Please find the attached letter notifying you of the proposed transmission line rebuild located in Fauquier, Stafford, Spotsylvania and Caroline Counties, Virginia.	l project

Please contact me with any questions or for additional information.

Thank you,

Rachel Studebaker

Environmental Specialist II

Dominion Energy Services

5000 Dominion Boulevard, Glen Allen, VA 23060

Office: (804) 273-4086

Cell: (804) 217-1847



--

Robbie Rhur

DCR VOP Project Planner and Environmental Review Coordinator

600 East Main Street

Richmond VA 23219

804-371-2594

--

Robbie Rhur

DCR VOP Project Planner and Environmental Review Coordinator

600 East Main Street

Richmond VA 23219

804-371-2594

CONFIDENTIALITY NOTICE: This electronic message contains information which may be legally confidential and or privileged and does not in any case represent a firm ENERGY COMMODITY bid or offer relating thereto which binds the sender without an additional express written confirmation to that effect. The information is intended solely for the individual or entity named above and access by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution, or use of the contents of this information is prohibited and may be unlawful. If you 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.

--

Robbie Rhur

DCR VOP Project Planner and Environmental Review Coordinator

600 East Main Street

Richmond VA 23219

804-371-2594

CONFIDENTIALITY NOTICE: This electronic message contains information which may be legally confidential and or privileged and does not in any case represent a firm ENERGY COMMODITY bid or offer relating thereto which binds the sender without an additional express written confirmation to that effect. The information is intended solely for the individual or entity named above and access by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution, or use of the contents of this information is prohibited and may be unlawful. If you 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.

__

Robbie Rhur DCR VOP Project Planner and Environmental Review Coordinator 600 East Main Street Richmond VA 23219 804-371-2594 CONFIDENTIALITY NOTICE: This electronic message contains information which may be legally confidential and or privileged and does not in any case represent a firm ENERGY COMMODITY bid or offer relating thereto which binds the sender without an additional express written confirmation to that effect. The information is intended solely for the individual or entity named above and access by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution, or use of the contents of this information is prohibited and may be unlawful. If you 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.



April 16, 2020

Ms. Laura P. Meadows
Siting and Permitting Specialist
Dominion Energy Virginia
10900 Nuckols Rd., 4th Floor
Glen Allen, VA 23060
By email only:
Laura.P.Meadows@dominionenergy.com

RE: **Proposed Bristers to Ladysmith 500kV Transmission Rebuild**

Dear Ms. Meadows:

We are writing in response to your recent request for input on a newly proposed 500 kV transmission line rebuild ("Project"). The Project, as described in your letter of March 19, 2020 and as shown on the maps attached to the letter, may impact open space easement properties in Spotsylvania and Stafford counties.

We appreciate the opportunity to provide comments early in the design phase regarding the rebuild of the existing 500 kilovolt ("kV") electric transmission line from Bristers to Ladysmith. Dominion Energy Virginia (the "Company") is proposing to rebuild existing 500kV transmission lines #552 and #581 along a 36.7-mile corridor between the existing Bristers Substation in Fauquier County and the existing Ladysmith Substation in Caroline County. The Company provided VOF with specific information on the proposed preliminary conceptual structure height minimums, maximums, and averages for existing and proposed structures for the Bristers to Ladysmith Lines #552 and #581 Rebuild. The Company also stated that the current structures are composed of weathering steel and the proposed new structures would be constructed with galvanized steel.

In reviewing the existing transmission line corridor, VOF found the following:

Existing Open-Space Easements traversed by the 500kV transmission line corridor

- SPT-02592
- STF-00430

Existing Open-Space Easements within 1/2 mile of the existing 500kV transmission line corridor

• STF-00431

Summary of Protected Conservation Values and Pertinent Restrictions

In reviewing the potential impacts to SPT-02592, VOF coordinated with The Nature Conservancy (TNC) a co-holder of the easement.

SPT-02592

The easement covers approximately 4,232 acres in the counties of Spotsylvania, Fauquier, Stafford, Culpeper and Orange. It was partially purchased using funds from the Virginia Aquatic Resources Trust Fund as administered by the United States Army Corps of Engineers, Norfolk District. It is co-held by VOF, TNC and DGIF and the land is owned and managed by the City of Fredericksburg. The protected land includes a 100-foot riparian buffer along 21.9 miles of the Rappahannock River, 11.6 miles on the Rapidan River and 32.2 miles of tributaries of these rivers, which include land of both ecological and historic significance. The conservation values protected by the easement include the natural environment and habitats together with the viewscape to and from the Rappahannock and Rapidan Rivers.

Please note that the easement has specific restrictions regarding public utilities and tree removal and does not allow for new access easements or rights-of-way should they diminish or impair protected conservation values.

In addition, SPT-02592 is a highly visible easement along a Commonwealth designated Scenic River. The property also affords the public access not only to the adjacent land but to the rivers for recreation opportunities. As the existing transmission line corridor may be highly visible to those Commonwealth citizens using the public access site, we strongly advocate for the new structures and associated Project components to have less of a presence on the landscape by an overall reduction in height and size and the use of materials that blend in with the surrounding landscape.

In particular, VOF and TNC recognize that the heights of towers 552/202 and 552/203 will be reduced from 150 feet to 124 feet. This reduction in height has the potential to improve the overall visual impact from the towers in a highly scenic area. Therefore, the only additional recommendation that the easement holders request is the use of materials that would minimize the visual impact of the Project. VOF and TNC would request that the Company use chemically dulled galvanized steel for the tower structures and non-reflecting or de-glared conductors in the Project crossing SPT-02592.

STF-00430

186 acres of land protected as open-space located adjacent to the Rappahannock River and SPT-02592 in Stafford County.

Since this VOF easement is adjacent to the highly visible public access easement addressed above, we also ask that the significant increase in height of the three towers, 552/201 by 42 feet, 552/200 by 34 feet, and 552/199 by 29 feet, be reconsidered as to the impacts the additional height would have on the viewshed of SPT-02592. In addition, as above, VOF requests the use of materials that would minimize the visual impact of the Project from SPT-02592 by using chemically dulled galvanized steel for the towers and non-reflecting or de-glared conductors.

STF-00431

Although not within the Project corridor, this VOF easement protects 47 acres of land protected as open-space located adjacent to SPT-02592 in Stafford County.

Please contact me at 804-577-3337 or via email at mlittle@vof.org with any questions, comments or concerns.

Respectfully,

Martha Little Deputy Director

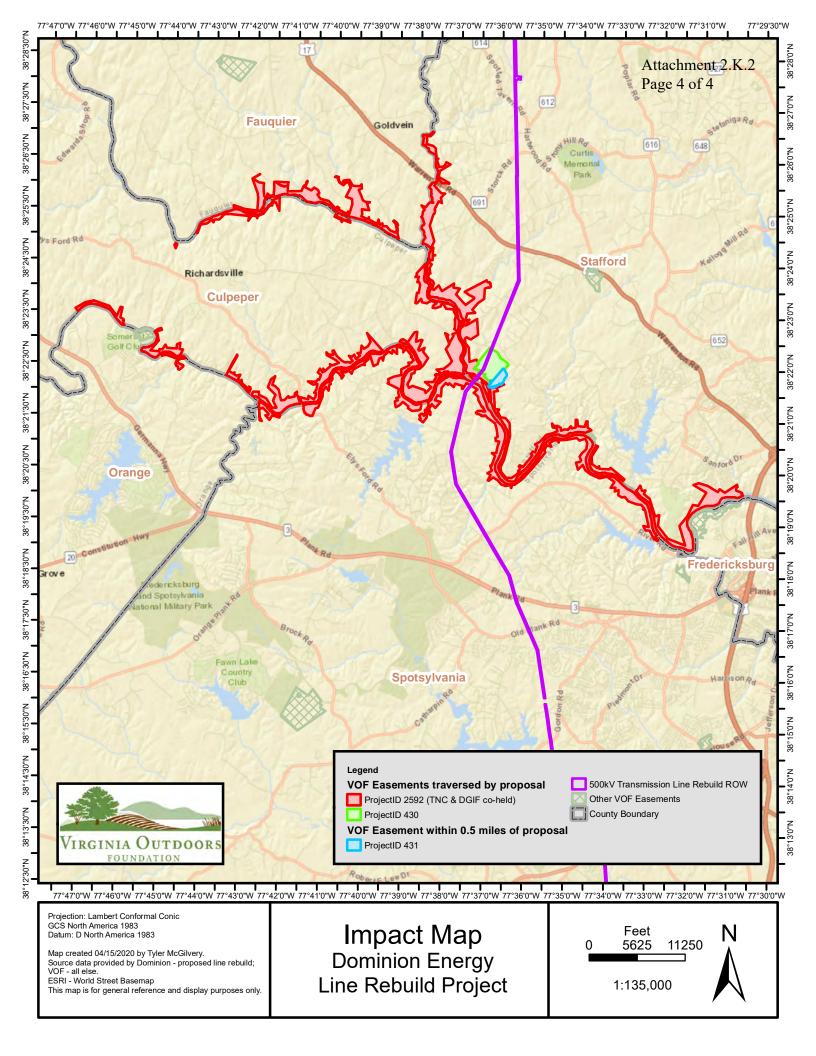
Matthew J. Zabik

Easement Stewardship Coordinator

Attachment: Open-Space Easement Map

CC [EMAIL ONLY]:

Julia Welman, Environment Impact Review Coordinator, DEQ Diane M. Beyer, Public Works Director, City of Fredericksburg Ron Hughes, Land and Facilities Manager, DGIF



From: Dan Holmes < dholmes@pecva.org Sent: Thursday, April 16, 2020 11:18 AM

To: Tiffany N Taylor-Minor (DEV Trans Distribution - 1) < T.Taylor-Minor@dominionenergy.com >

Subject: [EXTERNAL] Re: Re: Re: Bristers to Ladysmith

Tiffany,

I will offer the following comments in advance

of the SCC application:

- 1) We would ask that some treatment be provided for the replacement towers to minimize the impact that highly visible towers would have on the numerous historic resources within 2 miles of the proposed rebuild. These resources include but are not limited to the Chancellorsville Battlefield, Fredericksburg Battlefield and Spotsylvania Courthouse and resources in the Bristersburg Historic District near the northern terminus of the project. Galvanized replacement towers are inappropriate given a galvanized finish will be more visible than other treatments available and the nature of the rebuild which includes towers that will be 30 feet higher than the original towers.
- 2) We contend the proposed height increase will have a detrimental impact on natural historic and cultural resources in the area. We ask if there has been an analysis of any alternative designs that may result in a lower height than what is proposed. If yes, why were they rejected? If no, we would ask that Dominion demonstrate why a different design with lower heights is not available for the project.
- 3) We would ask Dominion to consider additional measures/treatments designed to reduce the visibility of other components of the rebuild, including the lines, conductors and insulators.

I again apologize for the inability to connect with you earlier on the project. I am available to discuss these comments or considerations further at your convenience.

Best,

Dan

Dan Holmes Director of State Policy Piedmont Environmental Council (571) 213-4250

On Tue, Apr 14, 2020 at 2:33 PM Tiffany N Taylor-Minor <T.Taylor-Minor@dominionenergy.com> wrote:

Hi Dan,
Can you do Thursday at 12:30 p.m., 2:30 p.m. or 3 p.m.?
Thanks again,
Tiffany

Tiffany
O: 804-771-4936
From: Dan Holmes < dholmes@pecva.org Sent: Wednesday, April 8, 2020 10:38 AM To: Tiffany N Taylor-Minor (DEV Trans Distribution - 1) < T.Taylor-Minor@dominionenergy.com > Subject: [EXTERNAL] Re: Re: Bristers to Ladysmith
Tiffany,
I apologize for not getting back to you on your last email. I am available this afternoon (after 3pm), after noon tomorrow or Friday morning from 9-11am. As for Next week, Tuesday after 1pm and most of the day Thursday. Do any of those dates/times work for you?
Thanks,
Dan

Dan Holmes Director of State Policy Piedmont Environmental Council (571) 213-4250

On Wed, Apr 8, 2020 at 9:59 AM Tiffany N Taylor-Minor < T.Taylor-Minor@dominionenergy.com > wrote: Good morning,				
Just circling back to see if you'd still like to meet to discuss this project.				
Please feel free to send me some date and time options that work for you.				
Thanks,				
Tiffany				
O: 804-771-4936				

From: Tiffany N Taylor-Minor (DEV Trans Distribution - 1)

Sent: Thursday, March 26, 2020 5:02 PM **To:** Dan Holmes < dholmes@pecva.org>

Subject: RE: [EXTERNAL] Re: Re: Bristers to Ladysmith

Hi Dan,

Would you be available for a call Tues. or Wed. after 12 noon or Thurs. at 9 a.m.?

In the interim, here are specific answers to your initial questions:

- 1)What is design type of the proposed towers? The existing weathering steel lattice towers are to be replaced with galvanized steel lattice towers with the exception south of Chancellor where the 6 existing galvanized steel lattice towers will be replaced with 4 galvanized steel lattice towers and 2 galvanized steel 3-pole structures.
- 2) What is the height differential between existing and proposed towers? The SCC Appendix Section II.B.5 will include the proposed **preliminary conceptual heights** which do not include foundation reveal and are subject to change based on final design. Cross section drawings on website indicate average heights.
- 3) Is the project envisioned as a pole to pole replacement? Yes the project has been estimated as a structure for structure replacement.
- 4) Is Dominion considering any treatment of the new towers specifically designed to minimize impacts to communities and historic and cultural resources? At this point, we are looking to hear back from the community and will include feedback in the application. Ultimately, it's at the discretion of the SCC.
- 5) Can you provide additional insight into the design changes Dominion is considering that necessitated current standards? The existing weathering steel lattice towers were installed in the 1960's are in need of replacement. The present day galvanized steel lattice towers would be installed.

Thanks again,

Tiffany

From: Dan Holmes < dholmes@pecva.org Sent: Tuesday, March 24, 2020 1:50 PM

To: Tiffany N Taylor-Minor (DEV Trans Distribution - 1) <T.Taylor-Minor@dominionenergy.com>

Subject: [EXTERNAL] Re: Re: Bristers to Ladysmith

Beyond the interest to discuss the standards that are driving the proposed changes and the choice to replace with galvanized vs a weathered steel look, most of my questions are process related - SCC process and timeline, public information and input. Some of these I know are unanswerable given the current/future limitations on participation related to the coronavirus. But even in those cases, any clarity would be helpful. As it relates to visual impact, I would also like to hear what options Dominion is considering employing, or have rejected, to reduce impacts to communities and resources along the path.

Thanks again,
Dan
Dan Holmes Director of State Policy Piedmont Environmental Council (571) 213-4250
On Tue, Mar 24, 2020 at 1:36 PM Tiffany N Taylor-Minor < T.Taylor-Minor@dominionenergy.com > wrote: Hi Dan,
I'm happy to arrange a call.
Are there subsequent questions you have that I might line up the appropriate team members to participate on the call?
Many thanks,
 Tiffany

From: Dan Holmes < dholmes@pecva.org Sent: Tuesday, March 24, 2020 12:38 PM To: Tiffany N Taylor-Minor (DEV Trans Distribution - 1) < T.Taylor-Minor@dominionenergy.com Subject: [EXTERNAL] Re: Bristers to Ladysmith
I was able to find the project information on your website. Having reviewed the material, I do have some additional questions. Could you give me a call to discuss further?
Thanks,
Dan
Dan Holmes Director of State Policy Piedmont Environmental Council (571) 213-4250
On Tue, Mar 24, 2020 at 11:32 AM Dan Holmes < dholmes@pecva.org > wrote:
Ms Taylor-Minor,
Thank you on behalf of the Piedmont Environmental Council for reaching out to us on the Bristers to Ladysmith partial rebuild project. To better assist us in providing comments on the project, we request additional details on the nature of the proposed rebuild. With the understanding that you are in the conceptual phase and may not have all the details, the initial questions we have are:
1)What is design type of the proposed towers?
2) What is the height differential between existing and proposed towers?
3) Is the project envisioned as a pole to pole replacement?

Attachment 2.K.3 Page 7 of 8

ent

CONFIDENTIALITY NOTICE: This electronic message contains information which may be legally confidential and or privileged and does not in any case represent a firm ENERGY COMMODITY bid or offer relating thereto which binds the sender without an additional express written confirmation to that effect. The information is intended solely for the individual or entity named above and access by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution, or use of the contents of this information is prohibited and may be unlawful. If you 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.

CONFIDENTIALITY NOTICE: This electronic message contains information which may be legally confidential and or privileged and does not in any case represent a firm ENERGY COMMODITY bid or offer relating thereto which binds the sender without an additional express written confirmation to that effect. The information is intended solely for the individual or entity named above and access by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution, or use of the contents of this information is prohibited and may be unlawful. If you 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.

CONFIDENTIALITY NOTICE: This electronic message contains information which may be legally confidential and or privileged and does not in any case represent a firm ENERGY COMMODITY bid or offer relating thereto which binds the sender without an additional express written confirmation to that effect. The information is intended solely for the individual or entity named above and access by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution, or use of the contents of this information is prohibited and may be unlawful. If you 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.

CONFIDENTIALITY NOTICE: This electronic message contains information which may be legally confidential and or privileged and does not in any case represent a firm ENERGY COMMODITY bid or offer relating thereto which binds the sender without an additional express written confirmation to that effect. The

Attachment 2.K.3 Page 8 of 8

information is intended solely for the individual or entity named above and access by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution, or use of the contents of this information is prohibited and may be unlawful. If you 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.

This e-mail from McGuireWoods may contain confidential or privileged information. If you are not the intended recipient, please advise by return e-mail and delete immediately without reading or forwarding to others.

(804) 786-2701

Fax: (804) 786-2940



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION

Stephen C. Brich, P.E. Commissioner

1401 East Broad Street Richmond, Virginia 23219

March 17, 2020

Laura P. Meadows
Siting and Permitting Specialist
Dominion Energy Virginia
10900 Nuckols Road, 4th Floor
Glen Allen, Virginia 23060

Subject: Dominion Energy Proposed Bristers to Ladysmith 500kV Transmission Line Rebuild

Dear Ms. Meadows,

Our District Engineer, John Lynch has asked me to respond to your March 19th letter regarding the subject 500kV Transmission Line rebuild. Our comments only pertain to the segment of the transmission line rebuild within our district (Fauquier County). The remainder of the proposed project is the responsibility of the Fredericksburg District. I have copied Stephen Haynes, the contact for the Fredericksburg District (540) 899-4709 for review and comment.

The proposed project in Fauquier County crosses Route 610 (Aquia Road) and Route 1630 (Beaver Dam Road) two state maintained secondary roads in Fauquier County. Any work within VDOT right-of-way will require a land use permit. Any damage to VDOT roadways will require restoration and is the responsibility of the applicant and a surety will be required for all work within VDOT right-of-way. A maintenance of traffic plan for construction within VDOT right-of-way also needs to be submitted with the permit application. Joe Webb, (540) 347-6445 of the Warrenton Residency is the contact regarding the permit application process.

Should you have any questions regarding this response I can be contacted at (540) 317-6262.

Sincerely,

L. Marshall Barron, III

Transportation and Land Use Director

S. Marshall Barron III

Culpeper District

Cc: Mark Nesbit, P.E., Warrenton Residency Engineer Joe Webb, P.E., Warrenton Residency Area Land Use Engineer Stephen Haynes, District Planning Manager, Fredericksburg District



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION

Stephen C. Brich, P.E. COMMISSIONER

87 Deacon Road Fredericksburg, Virginia 22405

March 31, 2020

Ms. Laura P. Meadow Dominion Energy Virginia 10900 Nuckols Rd, 4th Floor Glen Allen, VA 23060

Dear Ms. Meadow:

The VDOT Fredericksburg District has reviewed your request for comments by April 15, 2020 for the aerial 500kv rebuild in Stafford, Spotsylvania, Caroline and Fauquier Counties as shown on the location map dated 1/28/20 and offer the following comments:

- 1. A land Use permit will be required for any work performed in the VDOT right of way, for example, construction entrances. Once the SCC approves the request, final detailed plans showing the proposed work and maintenance of traffic will be required as part of the Land Use Permit application.
- 2. Tree pruning or removal operations will be in accordance with the attached existing District wide permit which is valid until January 03, 2021.
- 3. The VDOT Fredericksburg Residency will issue the Land Use Permit for Stafford, Spotsylvania and Caroline County. The address is Fredericksburg Residency, 86 Deacon Road, Fredericksburg, Virginia 22405.
- 4. The VDOT Warrenton Residency will issue the Land Use Permit for Fauquier County. The address is Warrenton Residency, 457 E. Shirley Ave., Warrenton, Virginia, 20186. Please include tree trimming as part of the desired work.
- 5. A surety to guarantee the satisfactory performance of the activity authorized under the land use permit and a nominal permit fee will required.

For further information, please call James C. Rice, PE 540-987-7083.

Sincerely,

David L. Beale

Asst. Resident Engineer Land Use

Fredericksburg Residency



COMMONWEALTH of VIRGINIA

Mark K. Flynn Director

Department of Aviation 5702 Gulfstream Road Richmond, Virginia 23250-2422

V/TDD • (804) 236-3624 FAX • (804) 236-3635

March 23, 2020

Ms. Laura Meadows, Siting and Permitting Specialist Dominion Energy Virginia IT Infrastructure Partnership 10900 Nuckols Road, 4th Floor Glen Allen, Virginia 23060

RE: Bristers to Ladysmith 500kV Transmission Line Rebuild

Dear Ms. Meadows:

Thank you for reaching out to us for comment on the above referenced project. Based on our review, it does not appear as though any portion of the proposed project will be located within 20,000 linear feet of a public use airport. Therefore, unless any of the support structures or temporary cranes, reach a height of 200' above ground level, no airspace case would be required by the Federal Aviation Administration.

If you have any questions regarding this matter, please contact me at (804) 236-3638.

Sincerely/

S. Scott Denny
Senior Aviation Planner

Virginia Department of Aviation