

**Cultural Resources Effects Assessment,
Surry-Skiffes Creek-Whealton
Transmission Line Project, Surry, James
City, and York Counties, Cities of
Newport News and Hampton, Virginia**

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EXECUTIVE SUMMARY

Stantec Consulting Services, Inc. (Stantec), on behalf of Dominion Virginia Power (Dominion), has conducted a number of studies for the proposed Surry – Skiffes Creek – Whealton Transmission Line Project (Project) in support of Dominion's Joint Permit Application currently under agency review. The goal of these studies was to identify and evaluate historic properties located within the Area of Potential Effect (APE) for the project, as well as assess the potential affects to any properties listed or eligible for listing on the National Register of Historic Places (NRHP) in accordance with 36 CFR 800. Studies were conducted between 2011 and 2015 within the APE as defined by the U.S. Army USACE of Engineers (USACE) and concurred with by the Virginia Department of Historic Resources (VDHR).

During the course of identification survey and subsequent review of the project, the USACE and VDHR identified a total of 37 architectural resources and 19 archaeological resources within the APE as having the potential to be affected by the proposed undertaking. One additional resource, the grouping of 76 submerged anomalies, was also identified by the USACE and VDHR for consideration. The resources identified were evaluated according to the NRHP Criteria for eligibility and recommended as Historic Properties, per the definitions provided in 36 CFR 800.16.

Recommendations of eligibility were made by Stantec during the historic property identification phase of the project and submitted to the USACE and VDHR for review and concurrence. As a result of the investigations, a final list of historic properties (37 architectural, 19 archaeological, and the grouping of 76 submerged anomalies) was prepared by the USACE with concurrence from the VDHR and presented in their Public Notice dated May 21, 2015. Since the issuance of the Public Notice in a letter dated August 14, 2015, the Keeper of the National Register determined that the portion of the Captain John Smith Chesapeake National Historic Trail within the limits of the Indirect APE established for the river crossing is eligible for listing on the NHRP as a historical district.¹ To recognize this eligibility determination, the Jamestown Island-Hog Island Cultural Landscape originally designated by the USACE has been replaced with the Eligible Historic District. The Jamestown Island-Hog Island Cultural Landscape is wholly located within the Keeper-designated Eligible Historic District and has been addressed as part of this resource. The properties included in the list of historic properties for the project are either listed, eligible for listing, or assumed eligible for purposes of the project.

Stantec has previously evaluated the potential effects for all 37 architectural resources, the 19 archaeological resources and the 76 submerged anomalies within separate reports previously provided to the USACE and VDHR. This document also includes an evaluation of the recently defined Eligible Historic District. While this resource has not been specifically evaluated in any preceding reports, the individual resources located within its bounds and contributing to its eligibility have all been considered in prior surveys and reports. As such, the inclusion of the Eligible Historic District does not significantly change the number of resources previously evaluated, nor does it significantly alter the overall effects determinations associated with the project as the individual contributing resources have already been considered.

¹ The USACE request for Determination of Eligibility also included the portion of the Washington-Rochambeau Revolutionary Route National Historic Trail. The letter from the Keeper of the National Register states: "As to the Washington-Rochambeau Revolutionary Route National Historic Trail, no information has been provided with the determination of eligibility request regarding the trail section located within the APE, thus we cannot provide a determination of the trail's eligibility."

Stantec has previously evaluated the potential effects for all 37 architectural resources, the 19 archaeological resources and the 76 submerged anomalies within separate reports previously provided to the USACE and VDHR. This document also includes an evaluation of the recently defined Eligible Historic District. While this resource has not been specifically evaluated in any preceding reports, the individual resources located within its bounds and contributing to its eligibility have all been considered in prior surveys and reports. As such, the inclusion of the Eligible Historic District does not significantly change the number of resources previously evaluated, nor does it significantly alter the overall effects determinations associated with the project as the individual contributing resources have already been considered.

The USACE has preliminarily determined effects to historic properties in their Public Notice dated May 21, 2015. The USACE identified adverse effects to these resources: Jamestown (VDHR #047-0009), the Colonial Parkway (VDHR #047-0002), Carter's Grove NHL site (VDHR #047-0001), Hog Island Wildlife Management Area (090-0121), the Jamestown-Hog Island Cultural Landscape as defined by the USACE (now included as the Eligible Historic District), and archaeological site 44JC0662. These determinations are included herein. USACE preliminarily determined that the project would have No Adverse Effect to the remaining resources identified. Recommendations presented in this report are those provided by Stantec unless otherwise noted. Generally, USACE determinations to date concur with those of Stantec with the exception of recommendations for the Colonial Parkway Historic District and the Jamestown Island Historic District. In these cases, the USACE determinations of adverse effect are noted.

Summary of Effects to Historic Properties Identified Within The APE For The Surry-Skiffes Creek-Wheaton Transmission Line Project						
VDHR ID#	Resource Name	Final Eligibility Determination (USACE, 5/21/2015)	Segment	Distance From ROW (miles)	Stantec Recommendation of Effect	USACE Determination of Effect (5/21/2015)
046-0031	Bourne-Turner House at Smith's Beach	Potentially Eligible - Criterion C	Surry to Skiffes Creek	8.75	No Adverse Effect	No Adverse Effect
046-0037	Fort Huger	NRHP-Listed – Criterion D	Surry to Skiffes Creek	3.21	No Adverse Effect	No Adverse Effect
046-0044	Bay Cliff Manor on Burwell's Bay/James C. Sprigg, Jr. House	Potentially Eligible under Criterion C	Surry to Skiffes Creek	7.11	No Adverse Effect	No Adverse Effect
046-0094	Basses Choice (Days Point Archeological District, Route 673)	NRHP-Listed; Archaeological Sites 44IW0003-44IW0237 – Criterion D	Surry to Skiffes Creek	9.85	No Adverse Effect	No Adverse Effect
046-0095	Fort Boykin Archaeological Site/Herbert T. Greer House and Gardens, Route 705	NRHP-Listed – Criterion D	Surry to Skiffes Creek	8.84	No Adverse Effect	No Adverse Effect
046-5045	Barlow-Nelson House, 5374 Old Stage Highway	Potentially Eligible Under Criterion C	Surry to Skiffes Creek	6.33	No Adverse Effect	No Adverse Effect
046-5138	Bay View School, 6114 Old Stage Hwy	Potentially Eligible Under Criteria A and C	Surry to Skiffes Creek	6.84	No Adverse Effect	No Adverse Effect
046-5415	USS Sturgis (MH-1A Sturgis, Nuclear Barge, James River Reserve Fleet)	Eligible	Surry to Skiffes Creek	1.92	Not Applicable. Resource has been moved.	No Adverse Effect

Summary of Effects to Historic Properties Identified Within The APE For The Surry-Skiffes Creek-Whealton Transmission Line Project						
VDHR ID#	Resource Name	Final Eligibility Determination (USACE, 5/21/2015)	Segment	Distance From ROW (miles)	Stantec Recommendation of Effect	USACE Determination of Effect (5/21/2015)
047-0001	Carter's Grove	NHL; NRHP-Listed – Criterion C	Surry to Skiffes Creek; Skiffes Creek Switching Station; Skiffes Creek to Whealton	0.43	Adverse Effect	Adverse Effect
047-0002	Colonial National Historic Park; Colonial Parkway Historic District	NRHP-Listed – Criteria A and C	Surry to Skiffes Creek	3.16	No Adverse Effect	Adverse Effect
047-0009	Jamestown National Historic Site / Jamestown Island / Jamestown Island Historic District	NRHP-Listed – Criteria A and D	Surry to Skiffes Creek	3.26	No Adverse Effect	Adverse Effect
047-0010	Kingsmill Plantation	NRHP-Listed – Criteria A and D	Surry to Skiffes Creek	3.16	No Adverse Effect	No Adverse Effect
047-0043	Amblers (Amblers-on-the-James)	Eligible (Recently NRHP-Listed) – Criterion C	Surry to Skiffes Creek	6.64	No Adverse Effect	No Adverse Effect
047-0082	Governor's Land Archaeological District	NRHP-Listed – Criteria A and D	Surry to Skiffes Creek	5.70	No Adverse Effect	No Adverse Effect
047-5307	Artillery Landing Site at Trebell's Landing	Potentially Eligible - Criterion D	Surry to Skiffes Creek	0.52	No Adverse Effect	No Adverse Effect
047-5333	Martin's Hundred Graveyard (Cemetery)	Eligible - Criteria A and D	Skiffes Creek to Whealton; Surry to Skiffes Creek	0.00	No Adverse Effect	No Adverse Effect
047-5432	4H Camp, 4H Club Road	Potentially Eligible - Criteria A and C	Surry to Skiffes Creek	9.20	No Adverse Effect	No Adverse Effect
090-0020	Pleasant Point (Crouches Creek Plantation)	NRHP-Listed – Criteria A and C	Surry to Skiffes Creek	4.32	No Adverse Effect	No Adverse Effect
090-0024	New Chippokes (Jones-Stewart Mansion)	NRHP-Listed; associated with Chippokes Plantation Historic District – Criterion C	Surry to Skiffes Creek	2.07	No Adverse Effect	No Adverse Effect
090-0070/090-0003	Chippokes Plantation Historic District (Chippokes State Park)	NRHP-Listed – Criteria A, C, and D	Surry to Skiffes Creek	1.26	No Adverse Effect	No Adverse Effect
090-0121	Hog Island Wildlife Management Area	Potentially Eligible - Criteria A and D for purposes of 106 review	Surry to Skiffes Creek	0.00	Adverse Effect	Adverse Effect
090-5046	Scotland Wharf Historic District	Potentially Eligible - Criteria A and C	Surry to Skiffes Creek	5.03	No Adverse Effect	No Adverse Effect
090-5046-0001	House, 16177 Rolfe Hwy (Rt 31)	Not Individually Eligible; Contributing to Scotland Wharf Historic District	Surry to Skiffes Creek	5.16	No Adverse Effect	No Adverse Effect

Summary of Effects to Historic Properties Identified Within The APE For The Surry-Skiffes Creek-Wheaton Transmission Line Project						
VDHR ID#	Resource Name	Final Eligibility Determination (USACE, 5/21/2015)	Segment	Distance From ROW (miles)	Stantec Recommendation of Effect	USACE Determination of Effect (5/21/2015)
090-5046-0002	House, 16223 Rolfe Hwy (Rt 31)	Not Individually Eligible; Contributing to Scotland Wharf Historic District	Surry to Skiffes Creek	5.16	No Adverse Effect	No Adverse Effect
090-5046-0003	House, 16239 Rolfe Hwy (Rt 31)	Not Individually Eligible; Contributing to Scotland Wharf Historic District	Surry to Skiffes Creek	5.16	No Adverse Effect	No Adverse Effect
090-5046-0004	House, 16271 Rolfe Hwy (Rt 31)	Not Individually Eligible; Contributing to Scotland Wharf Historic District	Surry to Skiffes Creek	5.14	Not Applicable - Demolished	No Adverse Effect
090-5046-0008	House, 16206 Rolfe Hwy (Rt 31)	Not Individually Eligible; Contributing to Scotland Wharf Historic District	Surry to Skiffes Creek	5.12	No Adverse Effect	No Adverse Effect
099-5241	Yorktown and Yorktown Battlefield (Colonial National Monument/Historical Park)	Eligible (resource is NRHP-Listed as part of Colonial National Historical Park) – Criteria A, C, and D	Surry to Skiffes Creek	1.37	No Adverse Effect	No Adverse Effect
099-5283	Battle of Yorktown (Civil War)	Eligible - Criteria A and D	Surry to Skiffes Creek; Skiffes Creek to Wheaton	0.00	No Adverse Effect	No Adverse Effect
121-0006	Matthew Jones House	NRHP-Listed - Criterion C	Surry to Skiffes Creek	1.93	No Adverse Effect	No Adverse Effect
121-0017	Crafford House Site/ Earthworks (Fort Eustis)	NRHP-Listed as part of 121-0027/44NN0070 – Criteria A and D	Surry to Skiffes Creek	3.38	No Adverse Effect	No Adverse Effect
121-0027	Fort Crafford	NRHP-Listed – Criteria A and D	Surry to Skiffes Creek	3.28	No Adverse Effect	No Adverse Effect
121-0045	S.S. John W. Brown	NRHP-Listed - Criterion A	Surry to Skiffes Creek	2.18	No Adverse Effect	No Adverse Effect
121-5068	Village of Lee Hall Historic District	Eligible – Criteria A and C (Public Notice notes that Lee Hall NRHP-Listed - Criterion C; VCRIS identifies this resource as eligible)	Skiffes Creek to Wheaton	0.25	No Adverse Effect	No Adverse Effect
121-5070	Ghost Fleet (James River Reserve Fleet/ Maritime Admin. Non-Retention Ships)	Eligible- Criterion A	Surry to Skiffes Creek	1.64	No Adverse Effect	No Adverse Effect
	Battle of Green Springs	NRHP-Listed – Criterion A	Surry to Skiffes Creek	5.70	No Adverse Effect	No Adverse Effect
	Eligible Historic District	Eligible - Criteria A, B,C, and D	Surry to Skiffes Creek	0.00	Adverse Effect	Adverse Effect

Summary of Effects to Historic Properties Identified Within The APE For The Surry-Skiffes Creek-Whealton Transmission Line Project						
VDHR ID#	Resource Name	Final Eligibility Determination (USACE, 5/21/2015)	Segment	Distance From ROW (miles)	Stantec Recommendation of Effect	USACE Determination of Effect (5/21/2015)
44JC0048	17th Century Cemetery Martin's Hundred	Eligible- Criteria A and D	Surry to Skiffes Creek; Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44JC0649	Indet. Historic	manage as unevaluated	Surry to Skiffes Creek	0.00	No Adverse Effect	No Adverse Effect
44JC0650	Indet. 18th Cent	manage as unevaluated	Surry to Skiffes Creek	0.00	No Adverse Effect	No Adverse Effect
44JC0662	18th to 19th Cent Dwelling	Eligible - Criterion D	Skiffes Creek Switching Station	0.00	Adverse Effect	Adverse Effect
44JC0751	Prehistoric Camp, 18th to 19th Century Dwelling	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44JC0826	19th Century Farmstead	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44NN0060	Indeter. Woodland	Potentially Eligible - Criterion D	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO0092	Civil War Earthworks	Potentially Eligible - Criterion D	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO0180	Prehistoric Camp	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO0181	Indet. Late Archaic	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO0183	18th Century Domestic	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO0184	Indet. 19th to 20th Century	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO0233	Civil War Military base	Potentially Eligible - Criterion D	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO0237	Archaic & Woodland Camp	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO0240	Historic Bridge & Road	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO0592	Mid 18th to 19th Century Military Camp	Potentially Eligible - Criterion D	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO1059	Prehistoric Camp, Early to Mid 18th Century Dwelling	Potentially Eligible - Criterion D	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO1129	Historic Dwelling	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO1131	19th Century Dwelling	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect

Summary of Effects to Historic Properties Identified Within The APE For The Surry-Skiffes Creek-Whealton Transmission Line Project						
<i>VDHR ID#</i>	<i>Resource Name</i>	<i>Final Eligibility Determination (USACE, 5/21/2015)</i>	<i>Segment</i>	<i>Distance From ROW (miles)</i>	<i>Stantec Recommendation of Effect</i>	<i>USACE Determination of Effect (5/21/2015)</i>
	76 submerged anomalies, managed in 23 buffer areas	Potentially Eligible - Criteria A and D	Surry to Skiffes Creek	0.00	No Adverse Effect	No Adverse Effect

An assessment of potential cumulative effects associated with the proposed undertaking was also prepared as part of this assessment of adverse effects. For architectural properties that will not be adversely affected by the proposed transmission line, no cumulative effects are expected as a result of the project. For properties that have been determined to be adversely affected by the project, the proposed line would contribute to cumulative effects. Out of the 37 architectural historic properties identified within the APE, 32 properties would not experience cumulative effects from the project as they have been determined to have no adverse effect as a result of the project. The remaining properties will be adversely affected by the project and are therefore subject to cumulative effects as well. The effected properties have experienced a diminished integrity of setting and feeling from past and present actions, as well as expected effects from reasonably foreseeable actions. These properties include Carter's Grove, Colonial National Historical Park (Colonial Parkway), Jamestown Island, Hog Island, and the Eligible Historic District. While the project will result in adverse effects to these resources, the incremental effect of the project would not interact with the effects of the other actions in a way that would amplify the effects to a greater level or significance. Specifically, the other actions affecting these properties are largely due to past or present intrusions, the effects of which have been discussed in the eligibility sections for each resource in Section 3. Additionally, the cumulative adverse effects will not result from any reasonably foreseeable future actions proposed by Dominion. As such, the cumulative adverse effects to these properties are not expected to be significant or greater than the visual adverse effects of the transmission line as evaluated in Section 3.

No cumulative adverse effects are expected to archaeological historic properties. In general, construction will avoid most archaeological properties and minimization measures, such as timber mats, will be used to minimize the effects to such resources. With the exception of 44JC0662, work is only proposed within portions of archaeological properties that have been disturbed by previous construction activities and that lack integrity that would contribute to the eligibility of the entire site. Most of these resources are being managed as unevaluated and are not necessarily eligible for listing in the NRHP. The construction of the proposed switching station will result in the destruction of archaeological site 44JC0662. Since proposed mitigation measures would be to conduct Phase III data recovery on this resource, the entire site would be excavated and there would be no potential for additional cumulative effects.

1.0 INTRODUCTION AND PROJECT BACKGROUND

Stantec Consulting Services (Stantec), on behalf of Dominion Virginia Power (Dominion), has conducted effects assessments for 37 architectural resources and 19 archaeological resources identified by the U.S. Army USACE of Engineers (USACE) as historic properties that may be affected by the proposed Surry – Skiffes Creek – Whealton Transmission Line Project (USACE Project NAO-2012-00080 / 13-V0408; VDHR File 2015-2071). Also included in this assessment is one additional resource, a grouping of 76 submerged anomalies that are managed in 23 buffers, that has been recommended potentially eligible for purposes of Section 106 compliance for this project. This assessment also reflects the August 14, 2015, determination by the Keeper of the National Register that the portion of the Captain John Smith Chesapeake National Historic Trail within the Area of Potential Effect (APE) for this Project is eligible for listing as a Historic District (Eligible Historic District). This Eligible Historic District has replaced the USACE-identified Jamestown Island – Hog Island Cultural Landscape as that landscape is located wholly within the boundary of the Eligible Historic District.

1.1 HISTORY OF THE PROJECT

The Effects Assessments presented herein were conducted pursuant to the National Historic Preservation Act of 1966, as amended, the Archaeological and Historic Preservation Act of 1974, Executive Order 11593, relevant sections of 36 C.F.R. 60 and 36 C.F.R. 800. The Stantec Senior Principal Investigator and Senior Architectural Historian conducting the work meet the professional qualification standards of the Department of the Interior (48 Fed. Reg. 44738-9). The work conformed to the qualifications specified in the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (48 Fed. Reg. 44716-44742 (Sept. 29, 1983)), and the *Guidelines for Conducting Historic Resource Survey in Virginia* (VDHR 2011). The report also takes into account Virginia Department of Historic Resources' (VDHR) 2010 guidance, *Assessing Visual Effects on Historic Properties*.

Between 2011 and 2015 a number of studies were conducted with the goal of identifying historic properties within the Area of Potential Effect for this project. The following report draws from multiple field efforts, as well as digitally based modeling and is presented in an effort to provide a consolidated Assessment of Effects to Historic Properties associated with this proposed undertaking. The APE was broadly defined through consultation with the USACE and VDHR to include the area that would include both direct and indirect effects caused by the project. The following studies were prepared by Cultural Resources, Inc. (CRI) and Stantec and were submitted to the USACE and the VDHR for review and concurrence. A number of architectural and archaeological resources were identified during this process and evaluated for listing on the National Register of Historic Places (NRHP). A total of 37 architectural resources, 19 archaeological resources, and one additional resource identified as a grouping of 76 submerged anomalies managed in 23 buffers and located within the James River crossing for the project, were identified as Historic Properties consistent with regulations at 36 CFR Part 60 and, 36 CFR 800.16, and subject to the consideration of effects. The USACE determined that historic property identification was complete and on May 11, 2015, and the VDHR concurred (Appendix A). Studies Associated with the Identification of Historic Properties include:

- *A Phase I Cultural Resources Survey of the Proposed Dominion Virginia Power Surry to Skiffes Creek 500 kV Transmission Line Alternatives in James City and Surry Counties, Virginia, Volumes I and II*, (Leithoff et al. 2014a).
- *Addendum to the Phase I Cultural Resources Survey of the Proposed Dominion Virginia Power Surry to Skiffes Creek 500 kV Transmission Line in James City, Isle of Wight and Surry*

Counties, Virginia (Leithoff et al. 2014c). Additional information regarding three properties per VDHR's request was provided by Stantec in a letter dated February 2, 2015.

- Memoranda Titled: *Phase IA Walkover and Phase I Archaeological Survey - BASF Corridor Realignment – Surry to Skiffes Creek 500 kV Transmission Line Project* (Leithoff et al. 2014b).
- *Phase I Cultural Resources Survey of the Proposed Approximately 20.2-mile Dominion Virginia Power Skiffes Creek to Whealton 230 kV Transmission Line in James City and York Counties, and the Cities of Newport News and Hampton, Virginia, Volumes I and II*, (Leithoff et al. 2012).
- Memoranda Titled: *Addendum to A Phase I Cultural Resources Survey of the Proposed Approximately 20.2-Mile Dominion Virginia Power Skiffes Creek to Whealton 230 kV Transmission Line in James City and York Counties, and the Cities of Newport News and Hampton, Virginia. Volume I: Technical Report* (Stewart 2015).
- *Phase I Archaeological Survey of the Proposed 51-Acre Skiffes Creek 500-230-115 kV Switching Station Parcel, James City County, Virginia* (Leithoff et al. 2012a).
- *Phase II Evaluation Site 44JC0662 for the Dominion Virginia Power Skiffes Switching Station, James City County, Virginia* (Leithoff et al. 2012b).

1.2 DESCRIPTION OF THE PROJECT

Dominion proposes the construction of 7.4 miles of new 500kV overhead transmission line from the Surry Power Station to a proposed Skiffes Creek 500 kV-230 kV-115 kV switching station in James City County, followed by 20.2 miles of new 230 kV overhead transmission line within existing easement that connects with the existing Whealton substation in Hampton, Virginia (Figure 1). Structure type and structure height summaries are presented in Appendices B and C. The project has been subdivided into segments for the purpose of the historic identification surveys. References to those segments are included in the assessment of effects to the historic properties. The majority of historic properties identified as potentially being affected by the project are located within the Surry to Skiffes Creek portion of the project, with a few resources located in the Skiffes Creek Switching Station section or Skiffes Creek to Whealton section. The following are brief descriptions of each of these sections and the proposed activities associated with the transmission line construction and improvements.

1.2.1 Surry to Skiffes Creek 500 kV Line Segment

This portion of the project primarily involves the construction of a single circuit overhead line (Line 582) and will require the placement of 17 structures within the James River. The overhead line extends in a northeasterly direction from Dominion's Surry Power Station in Surry County, crosses the James River, and terminates at the proposed Skiffes Creek Switching Station in James City County. The route originates at the Surry Station and continues east for a distance of 1.38 miles, paralleling an unnamed service road and a canal associated with the Surry Power Station. The route then pivots to the southeast for 0.23 mile, to a point just offshore on the James River, and then turns to the northeast for 3.48 miles and crosses the James River. After leaving the shoreline in Surry County, the river crossing continues southeast for a distance of 0.1 mile. The river crossing then turns to the northeast across the James River for a distance of 0.55 mile. From this point, the river crossing pivots to the north for 1.02 miles adjacent to the shoreline of the Hog Island Wildlife Management Area. The river crossing then turns east for 2.46 miles, reaching the shoreline of the river in James City County. After coming onshore in James City County, the route continues

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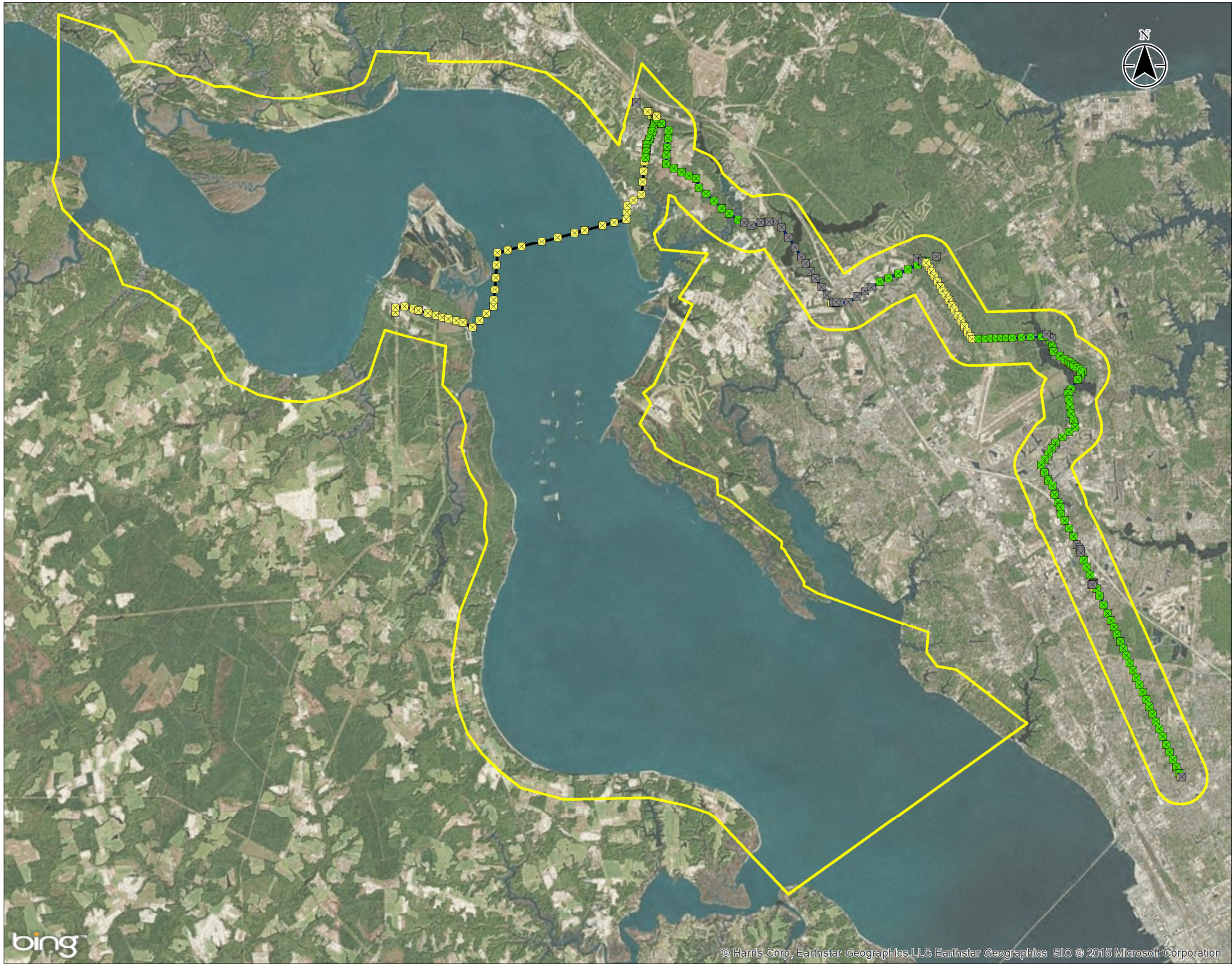


Figure No.
1

Title
**Proposed Surry-Skiffes Creek-Whealton
Transmission Line Project Overview Map**

Client/Project

Dominion Virginia Power

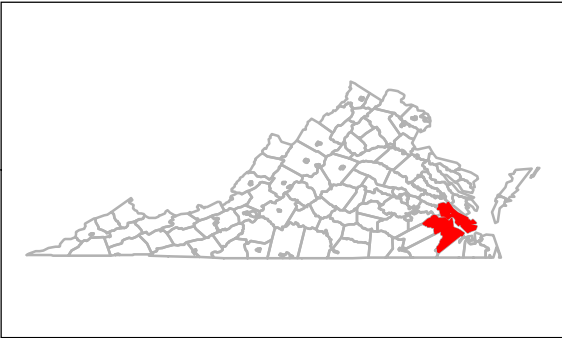
Project Location 203416120
County: James City, York, Surry,
Newport News, Isle of Wight, Hampton,
Poquoson
USGS Quad: Surry, Hog Island, Yorktown,
Poquoson West, Runnymede, Bacon's Castle,
Mulberry Island, Newport News North,
Raynor, Smithfield, Bennis Church,
Newport News South

Prepared by SWS on 2015-09-11
Technical Review by AJL on 2015-09-11
Independent Review by EMB on 2015-09-11

0 10,000 20,000 Feet
1:120,000 (At original document size of 11x17)

Legend

- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502
2. Orthoimagery © Bing Maps



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northwest through the former BASF chemical plant and trends north to the proposed Skiffes Creek Switching Station utilizing an existing 115 kV line. From the proposed Switching Station to the BASF property, Line 34 will be rebuilt and renamed Line 7 in conjunction with this project. Twelve structures will be rebuilt for the Line 34 modifications and will include monopole, three-pole, and H-frame structures. This existing right-of-way is 80 to 130 feet wide and would require expansion to a 150-foot width. It crosses through lightly developed and cleared forested land and residential areas. The route then continues for 1.45 miles to the north, crossing Route 60. The route next pivots to the northwest for 0.19 mile to its terminus at the proposed Skiffes Creek Switching Station.

The structures leaving the Surry Power Station (582/1-582/11) will consist of new monopole structures ranging in height from approximately 142 feet to 197 feet (Table 1; Appendices B and C). The river crossing will consist of new steel lattice structures ranging in height from 128 feet to 297 feet. The four tallest structures, 582/21 and 582/22, and 582/25 and 582/26, within the river crossing will reach heights of 297 feet or 277 feet, respectively, to accommodate the shipping channel within the river. The proposed land based structures (582/29 – 582/44) from the shoreline to the proposed site for the Skiffes Creek Switching Station will range in height from 102 feet to 152 feet (Table 1; Appendices B and C).

Table 1. Surry to Skiffes Creek 500 kV Segment (LINE 582; LINE 7)

Structure	Structure Type	Proposed Height	Proposed Work	Structure	Structure Type	Proposed Height	Proposed Work
582/1	DC A-Frame Backbone	117	New	582/31	Monopole SC DDE Steel Staggered Arms	107	New
582/2	Monopole	142	New	582/32 – 582/34	Monopole SC Suspension	152/135/132	New
582/3	Monopole	167	New	582/35 - 582/37	Monopole SC Suspension	137	New
582/4	Monopole	187	New	582/38 - 582/39	Monopole SC DDE Steel Staggered Arms	132	New
582/5 - 582/6	Monopole	197	New	582/40	Monopole SC Suspension	127	New
582/7 - 582/10	Monopole	157	New	582/41	Monopole SC DDE Steel Staggered Arms	137	New
582/11	Monopole	172	New	582/42	500 kv/230 kV 3 Pole Steel SC DDE	102	New
582/12	Steel Lattice - DE (Angle)	138	New	582/43	Steel H-Frame	112	New
582/13 - 582/14	Steel Lattice	134	New	582/44	DC A-Frame Backbone	117	New
582/15	Steel Lattice - DE (Angle)	128	New	7/5*	Double Dead End, 3-pole	47.5	Replacement
582/16 - 582/17	Steel Lattice	134	New	7/6	Double Dead End, single pole	65.5	Replacement
582/18 - 582/19	Steel Lattice	159	New	7/7 – 7/8	Running Angle, single pole	70.5/65.5	Replacement
582/20	Steel Lattice - DE (Angle)	138	New	7/9	Double Dead End, single pole	65.5	Replacement
582/21 - 582/22	Steel Lattice	297	New	7/10 – 7/11	Running Angle, single pole	83.5/92.5	Replacement
582/23 - 582/24	Steel Lattice	189	New	7/12	Running Angle, single pole	83.5	Replacement

Table 1. Surry to Skiffes Creek 500 kV Segment (LINE 582; LINE 7)							
Structure	Structure Type	Proposed Height	Proposed Work	Structure	Structure Type	Proposed Height	Proposed Work
582/25 - 582/26	Steel Lattice	277	New	7/13	Running Angle, single pole	65.5	Replacement
582/27 - 582/28	Steel Lattice	179	New	7/14	Double Dead End, single pole	70.5	Replacement
582/29	500 kV 3 Pole Steel SC DDE	107	New	7/15	Double Dead End, Anchor H-frame	47.5	Replacement
582/30	Monopole SC Suspension	132	New	7/16	Double Dead End, 3-pole	38.5	Replacement

**Structure Drawings were not available at time of publication for the Line 7 structures. They will be provided when they are available.*

Due to their height and proximity to Felker Airfield at Fort Eustis, 10 of the 17 structures located within the James River will require lighting pursuant to Federal Aviation Authority (FAA) safety standards. Table 2 lists the structures required to have lighting and the type of lighting that will be installed. Towers 13-17 will require a single red light with marker balls along the highest line between structures 582/13 and 582/22. The marker balls are typically 3-feet in diameter and would be placed at an interval of approximately 200 feet between markers. The lights are required to blink red at night but will not blink during daytime hours. Towers 18-25, located within the central portion of the river crossing, are the tallest structures in the crossing and are located adjacent to the active shipping channels. Towers 18-25 will require lights both at the top of the structure as well as mid-structure. These lights will blink red during night time hours and will not blink during daylight.

To meet the FAA requirements for structure lighting (FAA, Advisory Circular, AC 70/7460-1K, February 1, 2007) the structures requiring lighting noted above would be lit with an L-864 red flashing light with a luminous intensity of 2,000 candelas. The mid-structure light would be of the same type, L-864, with a maximum luminous intensity of 2,000 candelas. L-864 blinking red lights have a flash rate of 20-40 flashes per minute (FPM). The lights, both at the top and mid-level points on the structures, would be lit only at night. The L-864 light would be visible for a distance of 3.1 statute miles (approximately 3.29 nautical miles) at the intensity of 2,000 candelas. Lights may be positioned to minimize light pollution within adjacent areas including residential neighborhoods, parks, or other areas as approved by the FAA

Table 2. Surry to Skiffes Creek 500 kV – Lighting Plan		
Tower	Marking/Lighting	Lighting Type
582/13 – 582/17	Yes	Single red
582/18 – 582/19	Yes	Dual Red
582/21 – 582/22	Yes	Dual Red
582/25	Yes	Dual Red

1.2.2 Skiffes Creek 500 kV- 230 kV-115 kV Switching Station

The Skiffes Creek Switching Station is located on a lightly wooded parcel measuring approximately 50 acres between the existing transmission line corridor and Merrimac Trail (Route 143) in James City County. The Switching Station parcel is transected by existing 230 kV transmission line corridors that extends both to the northwest and southeast of the site. The switching station comprises new construction within the ~50 acre parcel (Appendix B).

1.2.3 Skiffes Creek to Whealton 230 kV Line Segment

This portion of the project involves structure replacements at varying heights or simply stringing transmission cable onto existing structures. The proposed upgrades will occur within an existing overhead power line easement and therefore will not alter the visual characteristics of the surrounding area from current conditions. The proposed line, Line 2138, will generally utilize double circuit structures combining the existing lines located within the project right-of-way (ROW). Within the following report, the proposed structures will be referenced using their Line 2138 structure number. From the proposed Skiffes Creek Switching Station, the line will proceed in a southeasterly direction for 3.6 miles, crossing Highway 60 twice, Skiffes Creek, and the Chesapeake and Ohio Railroad. This portion of the route crosses a combination of undeveloped forest, commercial, and residential lands. The remainder of the route crosses primarily residential and commercial properties within the City of Newport News. After crossing the railroad, the route turns to the southeast to parallel the CSX railroad corridor for a distance of 1.8 miles. The route then pivots to the east for 1.9 miles, crossing Interstate 64 to parallel another Chesapeake and Ohio railroad corridor up to Richneck Road (SR 636). The route then turns in a southeasterly direction for a distance of 7.4 miles to travel around the eastern perimeter of Newport News-Williamsburg International Airport, crossing Denbigh Boulevard, the Harwoods Mill Reservoir, Kiln Creek Parkway, Victory Boulevard, and Interstate Highway 64. The route then continues in a southeasterly direction for 5.5 miles through commercial and residential areas crossing J. Clyde Morris Boulevard, Hampton Roads Center Parkway, and Todds Lane (SR 152) and ending at the Whealton Substation. The proposed corridor crosses a number of major drainages and wetlands including Skiffes Creek (James City County), City Reservoir (Newport News), Harwoods Mill Reservoir (York), Brick Kiln Creek (Newport News), and Newmarket Creek (Hampton).

The proposed Skiffes Creek to Whealton 230 kV line segment comprises several activities including structure replacement, new structure construction, and reconductoring/restringing on existing structures. Structure heights within the Skiffes Creek to Whealton segment range from 55 feet to 150 feet and include several structure types including monopole, wooden H-frame structures, and steel lattice structures (Table 3; Appendices B and C).

Table 3. Skiffes Creek to Whealton 230 kV Segment (LINE 2138)

Structure	Structure Type	Proposed Height (feet)	Proposed Work	Structure	Structure Type	Proposed Height (feet)	Proposed Work
2138/5 - 2138/21	Monopole	110-155	Replacement	58/306	3 Pole Wood	55	nothing
2138/22 - 2138/35	Existing Monopole	100 - 145	Reconductoring	288/37	existing weathering structure	65	Reconductoring
	Existing Monopole	100	Reconductoring	2138/76 - 2138/79	Monopole	110 - 120	Replacement
	Existing Monopole	55	Reconductoring	2138/80 - 2138/87	DOM pole H-Frame	55 - 70	new
	Existing Monopole	55	Reconductoring	292/579 - 292/586	DOM pole H-Frame	55 - 70	Replacement
2138/36	Monopole	100	new	2138/88	3 Pole	75	Replacement
2138/37	Monopole	75	new	2138/89	weathering H-frame	80	Replacement
2138/38 -	Existing Monopole	110 - 135	Reconductoring	2138/90 - 2138/115	monopole	100 - 155	Replacement

Table 3. Skiffes Creek to Whealton 230 kV Segment (LINE 2138)

Structure	Structure Type	Proposed Height (feet)	Proposed Work	Structure	Structure Type	Proposed Height (feet)	Proposed Work
2138/42							
2138/43 - 2138/47	Monopole	130 - 145	Replacement	2138/116	Existing Monopole	100	Reconductoring
2138/48	Monopole	130	new	2138/117	Monopole	75	new
209/545	3-pole Wood	50	Reconductoring	292/614A	Existing Monopole	96	Reconductoring
209/546	DDE H-Frame	75	Replacement	292/614B	Existing DC Backbone	95	Reconductoring
209/548	Monopole	160	Replacement	292/614C	Existing Monopole	95	Reconductoring
209/549	existing weathering structure	130	Reconductoring	2138/118 - 2138/122	monopole	100 - 130	Reconductoring
58/275	3 Pole	60	Replacement	2138/123	Existing Monopole	117	Reconductoring
2138/48	DDE	130	new	2138/124	Existing Backbone	65	Reconductoring
2138/49 - 2138/68	Monopole	85 - 110	Replacement	2138/125	Existing Monopole	96	Reconductoring
2138/69 - 2138/72	weathering H-Frame	90 - 140	Replacement	2138/126	Existing Backbone	65	Reconductoring
2138/73 - 2138/74	Monopole	140	Replacement	2138/127	monopole	75	new
292/573	existing weathering structure	65	Reconductoring	2138/128 - 2138/153	monopole	110 - 140	Replacement
2138/75	Monopole	120	Replacement	292/646	Existing Concrete Backbone	75	Reconductoring
58/305	3 Pole	65	Replacement	2138/154	Steel Backbone	75	New

Because a portion of the 230 kV transmission line is near the Newport News – Williamsburg International Airport, 17 structures in this vicinity will require lighting pursuant to federal safety standards. Table 4 lists the structures required to have lighting and the type of lighting that will be installed. The FAA has required a single red light at the top of each structure. Like the structures crossing the James River, the lighting plan includes the utilization of an L-864 style light with a blink rate of 20-40 FPM and a maximum luminous intensity of 2000 candelas. Towers 2138/68 and 2138/69 as well as 292/584 and 2138/88 – 2138/91 are located at the end of the runway closest to the transmission line improvements.

Table 4. Skiffes Creek to Whealton 230 kV – Lighting Plan		
Tower	Marking/Lighting	Lighting Type
2138/64 – 2138/69	Yes	Single red
2138/81 – 2138/87	Yes	Single red
292/584	Yes	Single red
2138/88	Yes	Single red
2138/90	Yes	Single red
2138/91	Yes	Dual red

1.3 AREA OF POTENTIAL EFFECTS (APE)

The Area of Potential Effect (APE) for this project was broadly defined to include both direct and indirect effects from the Project. When considering the limits of the APE, the traditional project limits and additional 0.5-mile buffer for visual effects was deemed insufficient due to the extended visibility associated with the riverine portion of the project. As such, the proposed APE limits were divided into a “Direct” and “Indirect” APE. In consultation with the USACE and VDHR, initial APE limits were determined for both the Direct and Indirect APE. The limits were further refined in consultation with the USACE, and concurrence with the recommended APE boundary was obtained from VDHR on January 15, 2015 (Appendix A). Further information regarding the definition of the Direct and Indirect APE limits are provided below.

The APE for Direct Effects consists of areas where direct impacts from land-disturbing activities may occur, thus potentially affecting archaeological resources as well as architectural resources located within the project limits. The limits of the Direct APE consist of the limits of the project ROW which measures approximately 150 feet in width with some variation and identified construction access areas. For construction access areas, a 25-foot width was used along the centerline of field located paths and roads outside of the project ROW. Direct impacts caused by the undertaking were considered for all historic resources identified within the project ROW and construction access roads.

The limits of the Indirect APE for the overland portion of the project was defined as a 0.5 mile buffer along either side of the ROW for those portions of the project where structure replacement or new structure construction is required. For many portions of the project, specifically within the Skiffes Creek to Whealton 230 kV segment, no new structures are required or if replacement structures are required, the effect of the replacement structures will not be significantly different from what is currently present within the ROW. Due to the absence of significant alteration of the existing landscape, the 0.5 mile buffer was reduced to be either the boundary of the parcel adjacent to the project ROW or 0.5 miles, whichever was less.

The limits of the Indirect APE for the riverine portion of the project extends approximately 10 miles upstream with a western extent of Grays Creek, just west of Jamestown Island. The downstream limits of the Indirect APE extend approximately 13 miles downstream of the proposed crossing of the James River to Burwell’s Bay and the mouth of the Pagan River. The Indirect APE also extends 0.5 miles inland along the shoreline of the James River on both the eastern and western sides.

1.4 SUMMARY OF RESOURCES INCLUDED IN EFFECTS ASSESSMENT

During the course of Identification survey and subsequent review by the USACE and the VDHR, a total of 37 architectural, 19 archaeological resources and one grouping of 76 submerged anomalies identified as potential submerged cultural resources, were identified within the APE as having the potential to be affected by the proposed undertaking (Table 3). To be considered a Historic Property, a resource must be 50 years of age or older, meet one of the four NRHP criteria

listed below, and retain sufficient integrity to demonstrate significance under the identified criteria. The four NRHP criteria for significance are:

- **Criterion A:** Associated with significant events in the broad patterns of national history.
- **Criterion B:** Associated with the lives of persons significant in our past.
- **Criterion C:** Representative of a type, period, or method of construction, or the work of a master (i.e. architecture).
- **Criterion D:** Capable of yielding important information about the past.

The resources identified were evaluated according to the NRHP Criteria for eligibility and recommended as Historic Properties, per the definitions provided in 36 CFR 800.4(c). Recommendations of eligibility were made by Stantec during the historic property identification phase of the project and submitted to the USACE and VDHR for review and concurrence (Appendix A). As a result of the investigations described in Section 1.1, a final list of historic properties (37 architectural, 19 archaeological, and the grouping of 76 submerged anomalies) was prepared by the USACE with concurrence from the VDHR and presented in their Public Notice dated May 21, 2015. Since the issuance of the Public Notice, in a letter dated August 14, 2015, the Keeper of the National Register determined that the portion of the Captain John Smith Chesapeake National Historic Trail within the limits of the Indirect APE established for the river crossing is eligible for listing on the NHRP as a historical district². To recognize this eligibility determination, the Jamestown Island-Hog Island Cultural Landscape, previously defined by the USACE, has been replaced with the Eligible Historic District. The Jamestown Island-Hog Island Cultural Landscape is wholly located within the Keeper-designated Eligible Historic District and therefore, has been addressed in this document as part of the Eligible Historic District. The properties included in the list of historic properties for the project are either listed, eligible for listing, or assumed eligible for purposes of the project. As part of the identification and evaluation of these properties, the seven aspects of integrity - location, design, setting, materials, workmanship, feeling, and association - were applied to identify those primary qualities and characteristics that qualify the resource for listing on the NRHP. The seven aspects of integrity, according to the NRHP, are defined below (http://www.nps.gov/nr/publications/bulletins/nrb34/nrb34_8.htm), are defined below:

- **Location:** Location is the place where the historic property was constructed or the place where the historic event took place. Integrity of location refers to whether the property has been moved or relocated since its construction.
- **Design:** Design is the composition of elements that constitute the form, plan, space, structure, and style of a property.
- **Setting:** Setting is the physical environment of a historic property that illustrates the character of the place.
- **Materials:** Materials are the physical elements combined in a particular pattern or configuration to form the aid during a period in the past. Integrity of materials determines whether or not an authentic historic resource still exists.
- **Workmanship:** Workmanship is the physical evidence of the crafts of a particular culture or people during any given period of history.

² The USACE request for Determination of Eligibility also included the portion of the Washington-Rochambeau Revolutionary Route National Historic Trail. The letter from the Keeper of the National Register states: "As to the Washington-Rochambeau Revolutionary Route National Historic Trail, no information has been provided with the determination of eligibility request regarding the trail section located within the APE, thus we cannot provide a determination of the trail's eligibility."

- **Feeling:** Feeling is the quality that a historic property has in evoking the aesthetic or historic sense of a past period of time. Although it is itself intangible, feeling is dependent upon the significant physical characteristics that convey historic qualities.
- **Association:** Association is the direct link between a property and the event or person for which the property is significant.

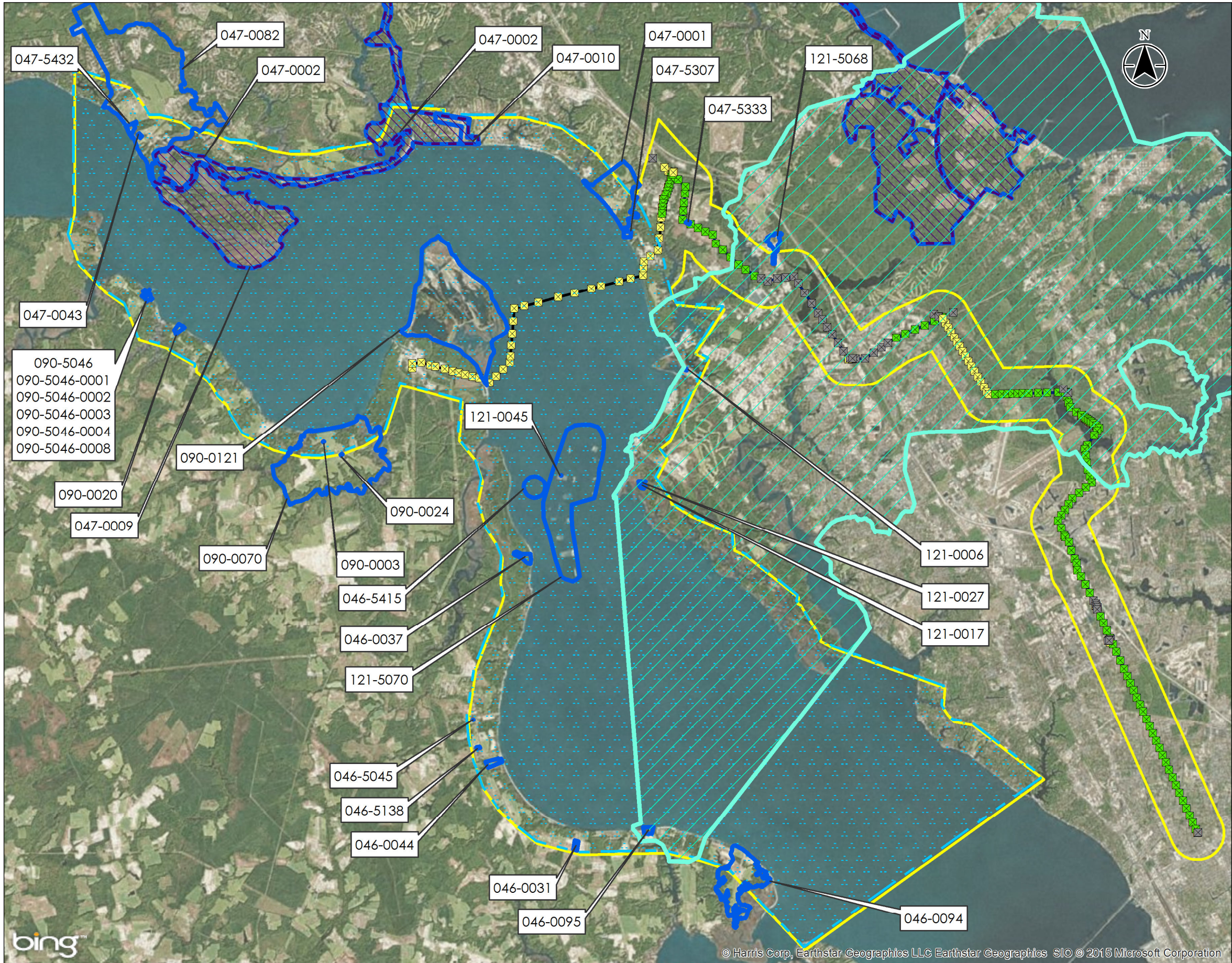
VDHR ID#	Resource Name	Final Eligibility Determination (USACE May 21, 2015)	Segment	Distance From ROW (miles)
046-0031	Bourne-Turner House at Smith's Beach	Potentially Eligible - Criterion C	Surry to Skiffes Creek	8.75
046-0037	Fort Huger	NRHP Listed – Criterion D	Surry to Skiffes Creek	3.21
046-0044	Bay Cliff Manor on Burwell's Bay/James C. Sprigg, Jr. House	Potentially Eligible under Criterion C	Surry to Skiffes Creek	7.11
046-0094	Basses Choice (Days Point Archeological District, Route 673)	NRHP Listed; Archaeological Sites 44IW0003-44IW0237 – Criterion D	Surry to Skiffes Creek	9.85
046-0095	Fort Boykin Archaeological Site/Herbert T. Greer House and Gardens, Route 705	NRHP Listed – Criterion D	Surry to Skiffes Creek	8.84
046-5045	Barlow-Nelson House, 5374 Old Stage Highway	Potentially Eligible Under Criterion C	Surry to Skiffes Creek	6.33
046-5138	Bay View School, 6114 Old Stage Hwy	Potentially Eligible Under Criteria A and C	Surry to Skiffes Creek	6.84
046-5415	USS Sturgis (MH-1A Sturgis, Nuclear Barge, James River Reserve Fleet)	Eligible	Surry to Skiffes Creek	1.92
047-0001	Carter's Grove	NHL; NRHP Listed – Criterion C	Surry to Skiffes Creek; Skiffes Creek Switching Station; Skiffes Creek to Whealton	0.43
047-0002	Colonial National Historic Park; Colonial Parkway Historic District	NRHP Listed – Criteria A and C	Surry to Skiffes Creek	3.16
047-0009	Jamestown National Historic Site / Jamestown Island / Jamestown Island Historic District	NRHP Listed – Criteria A and D	Surry to Skiffes Creek	3.26
047-0010	Kingsmill Plantation	NRHP Listed – Criteria A and D	Surry to Skiffes Creek	3.16
047-0043	Amblers (Amblers-on-the-James)	Eligible (Recently NRHP Listed) – Criterion C	Surry to Skiffes Creek	6.64
047-0082	Governor's Land Archaeological District	NRHP Listed – Criteria A and D	Surry to Skiffes Creek	5.70
047-5307	Artillery Landing Site at Trebell's Landing	Potentially Eligible - Criterion D	Surry to Skiffes Creek	0.52
047-5333	Martin's Hundred Graveyard (Cemetery)	Eligible - Criteria A and D	Skiffes Creek to Whealton; Surry to Skiffes Creek	0.00
047-5432	4H Camp, 4H Club Road	Potentially Eligible - Criteria A and C	Surry to Skiffes Creek	9.20
090-0020	Pleasant Point (Crouches Creek Plantation)	NRHP Listed – Criteria A and C	Surry to Skiffes Creek	4.32
090-0024	New Chippokes (Jones-Stewart Mansion)	NRHP Listed; associated with Chippokes	Surry to Skiffes Creek	2.07

Table 5. Historic Properties Identified Within The APE For The Surry-Skiffes Creek-Whealton Transmission Line Project				
VDHR ID#	Resource Name	Final Eligibility Determination (USACE May 21, 2015)	Segment	Distance From ROW (miles)
		Plantation Historic District – Criterion C		
090-0070/090-0003	Chippokes Plantation Historic District (Chippokes State Park)	NRHP Listed – Criteria A, C, and D	Surry to Skiffes Creek	1.26
090-0121	Hog Island Wildlife Management Area	Potentially Eligible - Criteria A and D for purposes of 106 review	Surry to Skiffes Creek	0.00
090-5046	Scotland Wharf Historic District	Potentially Eligible - Criteria A and C	Surry to Skiffes Creek	5.03
090-5046-0001	House, 16177 Rolfe Hwy (Rt 31)	Not Individually Eligible; Contributing to Scotland Wharf Historic District	Surry to Skiffes Creek	5.16
090-5046-0002	House, 16223 Rolfe Hwy (Rt 31)	Not Individually Eligible; Contributing to Scotland Wharf Historic District	Surry to Skiffes Creek	5.16
090-5046-0003	House, 16239 Rolfe Hwy (Rt 31)	Not Individually Eligible; Contributing to Scotland Wharf Historic District	Surry to Skiffes Creek	5.16
090-5046-0004	House, 16271 Rolfe Hwy (Rt 31)	Not Individually Eligible; Contributing to Scotland Wharf Historic District	Surry to Skiffes Creek	5.14
090-5046-0008	House, 16206 Rolfe Hwy (Rt 31)	Not Individually Eligible; Contributing to Scotland Wharf Historic District	Surry to Skiffes Creek	5.12
099-5241	Yorktown and Yorktown Battlefield (Colonial National Monument/Historical Park)	NRHP Listed (Colonial National Historical Park) – Criteria A, C, D	Surry to Skiffes Creek	1.37
099-5283	Battle of Yorktown (Civil War)	Eligible - Criteria A and D	Surry to Skiffes Creek; Skiffes Creek to Whealton	0.00
121-0006	Matthew Jones House	NRHP Listed - Criterion C	Surry to Skiffes Creek	1.93
121-0017	Crafford House Site/ Earthworks (Fort Eustis)	NRHP Listed as part of 121-0027/44NN0070 – Criteria A and D	Surry to Skiffes Creek	3.38
121-0027	Fort Crafford	NRHP Listed – Criteria A and D	Surry to Skiffes Creek	3.28
121-0045	S.S. John W. Brown	NRHP Listed - Criterion A	Surry to Skiffes Creek	2.18
121-5068	Village of Lee Hall Historic District	Eligible – Criteria A and C (Public Notice notes that Lee Hall is NRHP-Listed - Criterion C; VCRIS identifies this resource as eligible)	Skiffes Creek to Whealton	0.25
121-5070	Ghost Fleet (James River Reserve Fleet/ Maritime Admin. Non-Retention Ships)	Eligible- Criterion A	Surry to Skiffes Creek	1.64
	Battle of Green Springs	NRHP Listed – Criterion A	Surry to Skiffes Creek	5.70
	Eligible Historic District *	Eligible - Criteria A, B, C, D	Surry to Skiffes Creek	0.00
44JC0048	17th Century Cemetery Martin's Hundred	Eligible - Criteria A and D	Skiffes Creek to Whealton	0.00

Table 5. Historic Properties Identified Within The APE For The Surry-Skiffes Creek-Whealton Transmission Line Project				
VDHR ID#	Resource Name	Final Eligibility Determination (USACE May 21, 2015)	Segment	Distance From ROW (miles)
44JC0649	Indeterminate Historic	manage as unevaluated	Surry to Skiffes Creek	0.00
44JC0650	Indeterminate 18th Cent	manage as unevaluated	Surry to Skiffes Creek	0.00
44JC0662	18th to 19th Cent Dwelling	Eligible - Criterion D	Skiffes Creek Switching Station	0.00
44JC0751	Prehistoric Camp, 18th to 19th Century Dwelling	Manage as Unevaluated	Skiffes Creek to Whealton	0.00
44JC0826	19th Century Farmstead	Manage as Unevaluated	Skiffes Creek to Whealton	0.00
44NN0060	Indeterminate Woodland	Potentially Eligible - Criterion D	Skiffes Creek to Whealton	0.00
44YO0092	Civil War Earthworks	Potentially Eligible - Criterion D	Skiffes Creek to Whealton	0.00
44YO0180	Prehistoric Camp	Manage as Unevaluated	Skiffes Creek to Whealton	0.00
44YO0181	Indeterminate Late Archaic	Manage as Unevaluated	Skiffes Creek to Whealton	0.00
44YO0183	18th Century Domestic	Manage as Unevaluated	Skiffes Creek to Whealton	0.00
44YO0184	Indeterminate 19th to 20th Century	Manage as Unevaluated	Skiffes Creek to Whealton	0.00
44YO0233	Civil War Military base	Potentially Eligible - Criterion D	Skiffes Creek to Whealton	0.00
44YO0237	Archaic & Woodland Camp	Manage as Unevaluated	Skiffes Creek to Whealton	0.00
44YO0240	Historic Bridge & Road	Manage as Unevaluated	Skiffes Creek to Whealton	0.00
44YO0592	Mid 18th to 19th Century Military Camp	Potentially Eligible - Criterion D	Skiffes Creek to Whealton	0.00
44YO1059	Prehistoric Camp, Early to Mid-18th Century Dwelling	Potentially Eligible - Criterion D	Skiffes Creek to Whealton	0.00
44YO1129	Historic Dwelling	Manage as Unevaluated	Skiffes Creek to Whealton	0.00
44YO1131	19th Century Dwelling	Manage as Unevaluated	Skiffes Creek to Whealton	0.00
	76 submerged anomalies, managed in 23 buffer areas	Potentially Eligible - Criteria A and D	Surry to Skiffes Creek	0.00

**Resource initially identified as the Jamestown Island-Hog Island Cultural Landscape in the May 21, 2015 USACE Public Notice. A determination of eligibility for the Captain John Smith Chesapeake National Historic Trail was subsequently submitted to the Keeper of the National Register on July 2, 2015 by the USACE. The Keeper of the National Register, by correspondence dated August 14, 2015, has determined that the Historic District is eligible for listing on the NRHP. Therefore, the Eligible Historic District has taken the place of the previously identified Jamestown Island-Hog Island Cultural Landscape.*

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Revised: 2015-09-14 By: sutor



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Figure No.
2
Title
**Overview of Resources Located within
the Indirect APE for the Project**

Client/Project

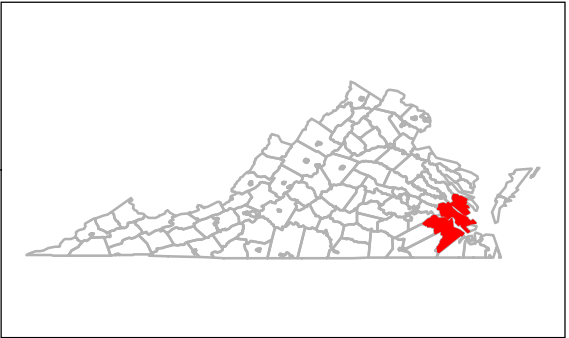
Dominion Virginia Power

Project Location
County: Williamsburg, Gloucester, James City,
York, Surry, Newport News, Isle of Wight,
Hampton, Poquoson
USGS Quad: Norge, Williamsburg, Clay Bank, Achilles,
Surry, Hog Island, Yorktown, Poquoson West,
Runnymede, Bacons Castle, Mulberry Island,
Newport News North, Raynor, Smithfield,
Bennis Church, Newport News South

203416120
Prepared by SWS on 2015-09-11
Technical Review by A.J.L on 2015-09-11
Independent Review by EMB on 2015-09-11

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- Legend
- Battle of Yorktown (099-5283)
 - Colonial National Historic Park (099-5241)
 - Architectural Resources
 - Eligible Historic District
 - Proposed New Structure
 - Reconductoring Existing Structure
 - Remove and Replace Existing Structure
 - Photograph Location
 - Approximate Area of Potential Effects
 - Skiffes Creek to Wheatton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



- Notes
- Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502
 - Orthoimagery © Bing Maps



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Figure No.

3

Title

Overview of Resources Located within the Direct APE for the Project

Client/Project

Dominion Virginia Power

Project Location

County: James City, York, Newport News
USGS Quad: Hog Island, Yorktown,
Poquoson West, Bacons Castle,
Mulberry Island, Newport News North

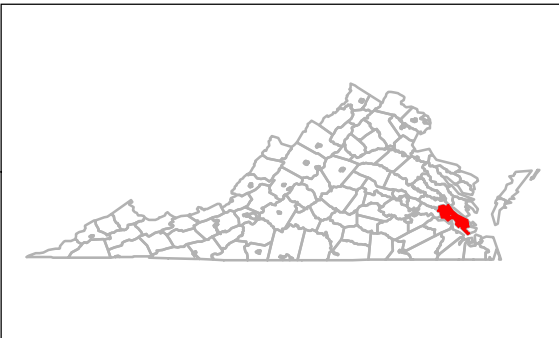
Prepared by SWS on 2015-09-11
Technical Review by AJL on 2015-09-11
Independent Review by EMB on 2015-09-11

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Legend

- Archaeological Resources
- Eligible Historic District
- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Approximate Area of Potential Effects
- Skiffes Creek to Wheelton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line



Notes

- Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502
- Orthoimagery © Bing Maps



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2.0 METHODOLOGY – ASSESSMENT OF EFFECTS

The assessment of effects should take into consideration all potential effects caused by the project on any historic resource identified within the APE. The USACE analysis is based on the regulations at 33 CFR Part 325, Appendix C (15) and consistent with the Advisory Council on Historic Preservation regulations at 36 C.F.R. 800. The USACE criteria of effect and adverse effect are defined as follows:

An undertaking has an effect on a designated historic property when the undertaking may alter characteristics of the property that qualified the property for inclusion in the National Register. For the purpose of determining effect, alteration to features of a property's location, setting, or use may be relevant, and depending on a property's important characteristics, should be considered. An undertaking is considered to have an adverse effect when the effect on a designated historic property may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects include, but are not limited to: (1) Physical destruction, damage, or alteration of all or part of the property; (2) Isolation of the property from or alteration of the character of the property's setting when that character contributes to the property's qualification for the NR; (3) Introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting; (4) Neglect of a property resulting in its deterioration or destruction; and (5) Transfer, lease or sale of the property.

An assessment of adverse effects was conducted for each of the resources identified as a Historic Property and listed in Table 3. To appropriately assess adverse effects, consideration should be given to whether the property retains the identity for which it was determined important. For this, the analysis requires an evaluation of the seven aspects of integrity: location, design, setting, material, workmanship, feeling and association. These aspects are used to evaluate how the property conveys its historic character. Any effects that will diminish these aspects of integrity threaten the eligibility of the property and should be considered. Properties change over time and it is not necessary for a property to retain all its historic features and character to remain eligible or listed on the NRHP. However, a property must retain the essential features that enable it to convey its historic identity. Essential features are those that define why, where and when a property is important.

When assessing the potential effects the project may have on each resource, the following general guidelines were referenced as a basic "test" of a property's significance under the NRHP eligibility criteria (USDI 1991).

- **Criterion A:** A basic test for integrity for a property associated with an event, historical pattern, or person is whether a historical contemporary would recognize the property as it exists today.
- **Criterion B:** A property significant under Criterion B must be associated with individuals whose contributions to history can be identified and documented are important within a local, State, or national historic context. Generally the resource is associated with an individual's productive life and the period during which the individual achieved significance.
- **Criterion C:** A property significant under Criterion C must retain those physical features that characterize the type, period, or method of construction that the property represents. Retention of design, workmanship, and materials will usually be more important than location, setting, feeling and association (USDI 1991). If the primary characteristics qualifying the resource for listing under Criterion C are related to the

resource's retention of integrity of design, workmanship, or materials, then the diminishment of the integrity of the resource's setting, location, or feeling may not be considered adverse as these are not the primary characteristics of eligibility.

- **Criterion D:** For Criterion D, setting and feeling may not have direct bearing on the property's ability to yield important information. Primary features of integrity will be location, design, materials, and workmanship.

2.1 RECOMMENDATIONS OF EFFECTS

Stantec assessed each resource with respect to the NRHP eligibility criteria as well as the applicable aspects of integrity so that an appropriate recommendation of effect could be made. Stantec's Architectural Historian and Senior Principal Investigator reviewed both indirect and direct effects. For above-ground resources, (i.e. architectural properties), the assessment of indirect effects focused on visual effect as these were identified as the major concerns or potential effects to historic properties within the APE. Indirect effects such as noise, vibration, and visual impacts from line and structure lighting were considered. It was determined with only a few exceptions that these additional adverse effects considered were not applicable except for structure lighting. For archaeological resources, the assessment of effects was generally limited to direct effect – physical damage or destruction – as the ability of archaeological sites to provide important information is not impacted by visual effects. In addition, other potential adverse effects were identified and considered, including changes in property use or character, or a forced change in the location of a resource (i.e. if a resource were to be moved). As such, for above-ground resources, the primary indirect effect was visual, including the effects of lighting to be required on select transmission line structures. For archaeological sites within the construction corridor and ground disturbance areas, the primary potential for direct effect was physical damage or destruction.

To identify specific project effects, available information was reviewed and site visits were made to each historic property. In response to comments raising concerns about the location and setting of many of the properties, information for each architectural property was reviewed to determine if the setting, both within the NRHP resource's boundary and within the viewshed of the historic resource, was an essential feature in the property's ability to convey its historical identity. Four of the 37 architectural properties identified are actually archaeological sites or districts that do not contain above-ground elements. These properties, Basses Choice/Days Point Archaeological District (VDHR #046-0094), Governor's Land Archaeological District (VDHR #047-0082), The Artillery Landing Site at Trebell's Landing (VDHR #047-5307), and The Crafford House Site (VDHR #121-0017) were examined for their potential to be affected visually by the project. While all four resources are included in the assessment of effects to architectural resources in Section 3, only Basses Choice and Governor's Land were evaluated for indirect effects as a review of integrity and the components included within the resource boundaries indicated that there may be a potential visual effect. The remaining two resources were assessed for direct effects only as it was determined that visual effects would not detract from their primary significance under Criterion D.

2.2 VISUAL EFFECTS ASSESSMENT - METHODOLOGY

Visual effects assessments were conducted by Stantec for all above-ground resources identified as Historic Properties. This includes those resources listed or eligible for listing on the NRHP, those identified as eligible for purposes of the project, National Historic Landmarks and those resources which may contain elements that could be visually affected by the proposed transmission line project (see Figure 2). The assessment entailed a study to determine the indirect effects the proposed 102- to 297-foot tall structures and associated lines would potentially have on identified historic resources within the APE for the proposed Surry to Skiffes Creek 500 kV

transmission line which crosses the James River and the proposed Skiffes Creek to Whealton 230 kV transmission line. As described in more detail in Section 3.35 and Section 5.0, the APE is not pristine: located in or near it and visible from portions of the APE is Surry Power Station, Busch Gardens Amusement park, Kingsmill Resort, an inactive BASF Chemical Plant, the Ghost Fleet, and a working ferry.

Since the section of the proposed Surry to Skiffes Creek line subject to the viewshed study is partially located within the existing Surry Power Station and includes structure locations within the channel of the James River, balloon flights were not able to be utilized to determine potential visual effects to the resources under consideration. As such, site visits were conducted for each property in order to photograph and document current conditions as well as potential visual effects, where possible. If access to the property was not obtainable, photographs were taken from the public ROW closest to the resource towards the proposed transmission line. Balloon flights were also not utilized for the Skiffes Creek to Whealton 230 kV portion of the project for several reasons including safety and the ability to utilize the existing transmission line structures as a gauge for the assessment of potential effects arising from reconductoring/restringing on existing structures as well as the replacement of structures within certain sections of the project.

In addition to the site visits, digitally generated line-of-sight models were used to further assess the potential visual effects for resources within the Indirect APE for the project. For the line-of-sight models, sight lines were run for each resource from observation points that would represent the potential visibility of the proposed transmission line project from the selected resource. For the line-of-sight models for those resources within the viewshed of the Surry to Skiffes Creek segment of the project including the James River Crossing, the structures associated with proposed Line 582 were utilized for the basis of the study. Collocated within the existing easement for Line 582 is existing Line 34 which will be partially rebuilt as Line 7, as noted in Section 1.2.1. The Line 7 structures range in height from 45.5 feet to 92.5 feet, well below the adjacent Line 582 structures which measure 132 feet to 137 feet in height. The Line 7 structures (7/5 through 7/15) are located entirely on the land-based portion of the Surry to Skiffes Creek 500kV Segment adjacent to Line 582 structures 582/37 through 582/40. For the Skiffes Creek to Whealton segment of the project, the structures associated with Line 2138 were utilized for the visibility analysis. Line 2138 encompasses both the proposed new structures associated with the 230 kV segment of the project as well as those structures that will be replaced or reconductored.

The visibility analysis was based on LiDAR data that was obtained from virginialidar.com. The LiDAR data was downloaded as LAZ files which were processed into LAS files using LAStools. The LAS files were subsequently compiled into an LAS Dataset using the Esri ArcGIS product suite. The LAS Dataset was then used to generate two raster datasets, one of which was a digital elevation model (DEM) which provided base ground elevations and the second of which was a digital surface model (DSM) which provided overall elevations for features on the terrain, such as trees. Both the DEM and the DSM datasets contained some anomalies, especially in portions of the James River. Inconsistent LiDAR returns along the river may have been due to factors such as atmospheric interference or the presence of large ships in the channel. To normalize the inaccurate returns and provide a realistic interpretation of the James River surface, the elevation values for the raster cells in the James River were adjusted to zero (0).

The visual impacts of the proposed structures were evaluated using two different analyses. All analyses were conducted using geoprocessing tools from the Esri ArcGIS product suite. The first analysis utilized the visibility geoprocessing tool. This tool outputs a raster with cell values that indicate the frequency at which the cells, in this case the structures, are visible to the observer points. The observer height for the analysis was set based on the base elevation from the DEM and a vertical offset which was based on the proposed structure height. The analysis used the DSM as the surface in order to account for landscape features that may obstruct the view of

some cells from the observation points. While the visibility analysis is a useful tool to generate a landscape-level visual impact assessment, it should be noted that it has the potential to overestimate the visibility of features. The entire analysis is based on the DSM, which indicates the maximum height for a given cell. So, if a person were standing at a location on the landscape that has tall features around them, the visibility analysis calculates the visibility of that location based on the top of the surrounding features, not based on the ground level.

The second analysis utilized the line-of-sight geoprocessing tool. This analysis utilizes specific observation locations and observation targets to determine whether each target can be seen from a given observation location. The benefit of this analysis is that the elevations of the observation and target locations can be set independently, which minimizes the issues described for the visibility analysis. The line-of-sight analysis utilized sight lines that were generated by the Construct Sight Lines geoprocessing tool. The observer and target heights were embedded in the output of the tool. Once the sight lines were created, they were used as an input in the line-of-sight analysis, along with the DSM. The output of the line-of-sight analysis is a series of lines which connect each observation location with each target. The output lines are coded to indicate whether the target is visible or not. The result is very specific to a given location. For example, in some instances raising/lowering the observer elevation by as little as 6 inches can have a profound effect on which targets are visible or not visible. The output generated consists of red lines terminating in red dots on the proposed structures for site lines that would have an unobstructed or full view of a given structure from the observation point. In instances where there is an obstruction in the site line which would limit or shield the observation point from a full view indicating only partial visibility, the red sight line shifts to gray at the point of obstruction and then terminates at a red dot on the proposed structure. The sight line will be gray and will terminate in a gray point from the point of observation to the targeted structure if there is no visibility from the observation point.

2.3 DIRECT EFFECTS ASSESSMENT – METHODOLOGY

The assessment of direct effects utilized available project data in order to determine if the proposed project could directly affect historic properties. Direct effects assessments are typically focused on archaeological sites or other historic properties within the APE or construction footprint that will be directly impacted by the project. The Direct Effects assessments took into account the locations of access roads, staging areas, construction laydown areas, structure replacements, or other areas where ground disturbing activity may take place.

For purposes of the direct effects assessments for archaeological sites, two categories of resources were utilized: those identified as eligible for listing on the NRHP and those that, during the course of Phase I Identification Level investigations, were found to either lack integrity within the portion of the site located within the Direct APE or were not re-identified within the Direct APE as a result of archaeological survey. These resources were grouped in a management category termed “manage as unevaluated.” In general, with a few exceptions, the resources recommended to be managed as unevaluated, but included as Historic Properties for purposes of the project, lacked integrity within the Direct APE and as such would not contribute to the overall integrity of a larger site. In many instances, site boundaries extended outside of the linear survey corridor and Direct APE and the sites were therefore not evaluated fully with regards to NRHP-eligibility. In other instances, sites were not re-identified during the survey, potentially mismatched, or were potentially destroyed by previous development near the project corridor. For the resources identified in this category, the recommendation of No Adverse Effect was made because in these cases, the site deposits lacked integrity, did not exist within the Direct APE, or otherwise would not contribute to the eligibility of a larger site. Therefore, impacts to these sites would not adversely affect the potential eligibility of a historic property nor detract from the archaeological sites potential to provide significant information under Criterion D.

3.0 EFFECTS ASSESSMENT – ARCHITECTURAL RESOURCES

The following section presents a summary of effects for the 37 architectural resources identified during the Section 106 consultation process. These 37 resources are located within the Indirect APE for the project and are potentially affected by the project activities. Three resources, the Martin's Hundred Graveyard (047-333/44JC0048), the Battle of Yorktown (099-5283), and the newly identified Eligible Historic District are located within both the Indirect and Direct APE. For each resource, there is a description of the resource, documentation of the resource's NRHP status, distance to the proposed activity, description of proposed activities associated with the transmission line, and an assessment of effect. The information provided herein has been compiled from data collected and work conducted over the course of this project and is presented here as a consolidated review of the identified resources. As a general note, the resources are presented in VDHR resource number order with the exception of the resources associated with the larger Colonial National Historical Park (Colonial Parkway, Jamestown Island, and Yorktown/Yorktown Battlefield) and the Civil War Battle of Yorktown. These four resources have been isolated in order to provide better clarification regarding potential adverse effects to each individual resource as well as the larger implications of these resources' association with Colonial National Historical Park and the Civil War in Virginia, 1861-1865, Multiple Property District (MPD). The newly defined Eligible Historic District is also discussed, although the resources contributing to its significance are also addressed as individual resources within the following section.

It should also be noted that the USACE preliminarily determined effects to historic properties in their Public Notice dated May 21, 2015. The USACE identified adverse effects to these resources: Jamestown (VDHR #047-0009), the Colonial Parkway (VDHR #047-0002), Carter's Grove NHL site (VDHR #047-0001), Hog Island Wildlife Management Area (090-0121), the Jamestown-Hog Island Cultural Landscape as defined by the USACE, and archaeological site 44JC0662. The Jamestown Island – Hog Island Cultural Landscape has since been replaced with the Eligible Historic District resulting from the decision presented by the Keeper of the National Register dated August 14, 2015. The identification is a result of the Keeper's determination that the portion of the Captain John Smith Chesapeake National Historic Trail, which for purposes of this project is coterminous with the limits of the Indirect APE established for the river crossing, is eligible as an Historic District. Recommendations presented in this report are those provided by Stantec. Generally, USACE's preliminary determinations concur with the recommendations of Stantec with the exception of recommendations for the Colonial Parkway (VDHR #047-0002) and Jamestown Island (VDHR #047-0009). In these cases, the USACE determinations of adverse effect are noted as the accepted determination of effect.

Effects to the identified resources were generally considered for the Surry to Skiffes Creek 500kV segment, including both the land- and water-based portions, the Switching Station and/or the Skiffes Creek to Whealton 230kV segment. Due to the number of resources evaluated for effects associated with the Surry to Skiffes Creek 500kV segment, a general description of the proposed transmission line activities is provided below. More specific details for this segment and other segments of the project are provided in the discussion of each individual resource as applicable.

Surry to Skiffes Creek 500kV Segment: Effects due to this segment of the project include those arising from the portion of the line extending from the Surry Power Station to the Skiffes Creek Switching Station, including the James River crossing. The structures within the Surry Power Station (582/1-582/11) will consist of new monopole structures ranging in height from approximately 142 feet to 197 feet (Appendix B). The river crossing will consist of new steel lattice structures ranging in height from 128 feet to 297 feet. The four tallest structures, 582/21

and 582/22, and 582/25 and 582/26, within the river crossing will reach heights of 297 feet or 277 feet, respectively, to accommodate the shipping channel within the river (Appendix B). Additionally, 10 of the 17 structures associated with the river crossing will require lighting to meet safety requirements of the FAA. The lights will blink red at night and be located at the top of the structure. In addition to the top lit structures, structures 582/18, 582/19, 582/21, 582/22, and 582/25 will also have a mid-structure blinking red light. There will be marker balls on the top conductor between the series of structures from 582/13 to 582/25. The proposed land based structures (582/29 – 582/44) from the shoreline to the proposed site for the Skiffes Creek Switching Station will range in height from 102 feet to 152 feet (Appendices B and C). Collocated within the ROW for the land based portion of the 500 kV segment is existing Line 34; a portion of which will be replaced with new structures designated as Line 7. These structures range in height from 47.5 feet to 92.5 feet and are located in the ROW adjacent to structures 582/37 through 582/40. Visual analyses utilized the taller Line 582 structures as the Line 7 structures are significantly smaller.

3.1 BOURNE-TURNER HOUSE, 16305 MORGART'S BEACH ROAD (VDHR #046-0031)

3.1.1 Description of Resource

The Bourne-Turner House dates to c. 1790 and is a two-story side passage frame dwelling with two large exterior end brick chimneys and a side gable roof (Figure 6). The exterior walls are clad in weatherboards with the roof in wood shingles. The dwelling also features six-over-six wood double-hung sash windows and a single-bay porch. Secondary resources include a c. 1790 smoke house, c. 1930s barns, mid-twentieth century sheds, and a modern animal shelter (VDHR Site Files).

3.1.2 National Register Status – Eligible, Criterion C

The Bourne-Turner House was determined eligible for listing on the NRHP by VDHR on August 21, 2014 under Criterion C for its architectural merit. The resource is a good example of a late eighteenth-century dwelling that has undergone few exterior changes and retains integrity of location, design, setting, feeling, workmanship, and materials. Integrity of association was considered not applicable in this assessment as the resource is not known to be associated with a significant person or event.

3.1.3 Distance of Resource to ROW and Transmission Line Data

The resource is approximately 8.75 miles south of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.1.4 Effects Analysis

The house is located down a long gravel driveway and sits on a level 45.65-acre parcel (Isle of Wight Online Tax Assessment Records). Immediately surrounding the dwelling are a number of mature trees which shield the residence from the road. Beyond the immediate area surrounding the dwelling are open fenced-in pastures. To the rear of the property, on the opposite side of open farm field is a tree line approximately 400 feet in depth. To the northwest of the resource, shielding the view of the proposed transmission line, is an area of dense woods of approximately 1,500 feet deep.

During the field visit to the resource, it was determined that the resource retains integrity of location, design, setting, materials, workmanship, and feeling. There will be no physical

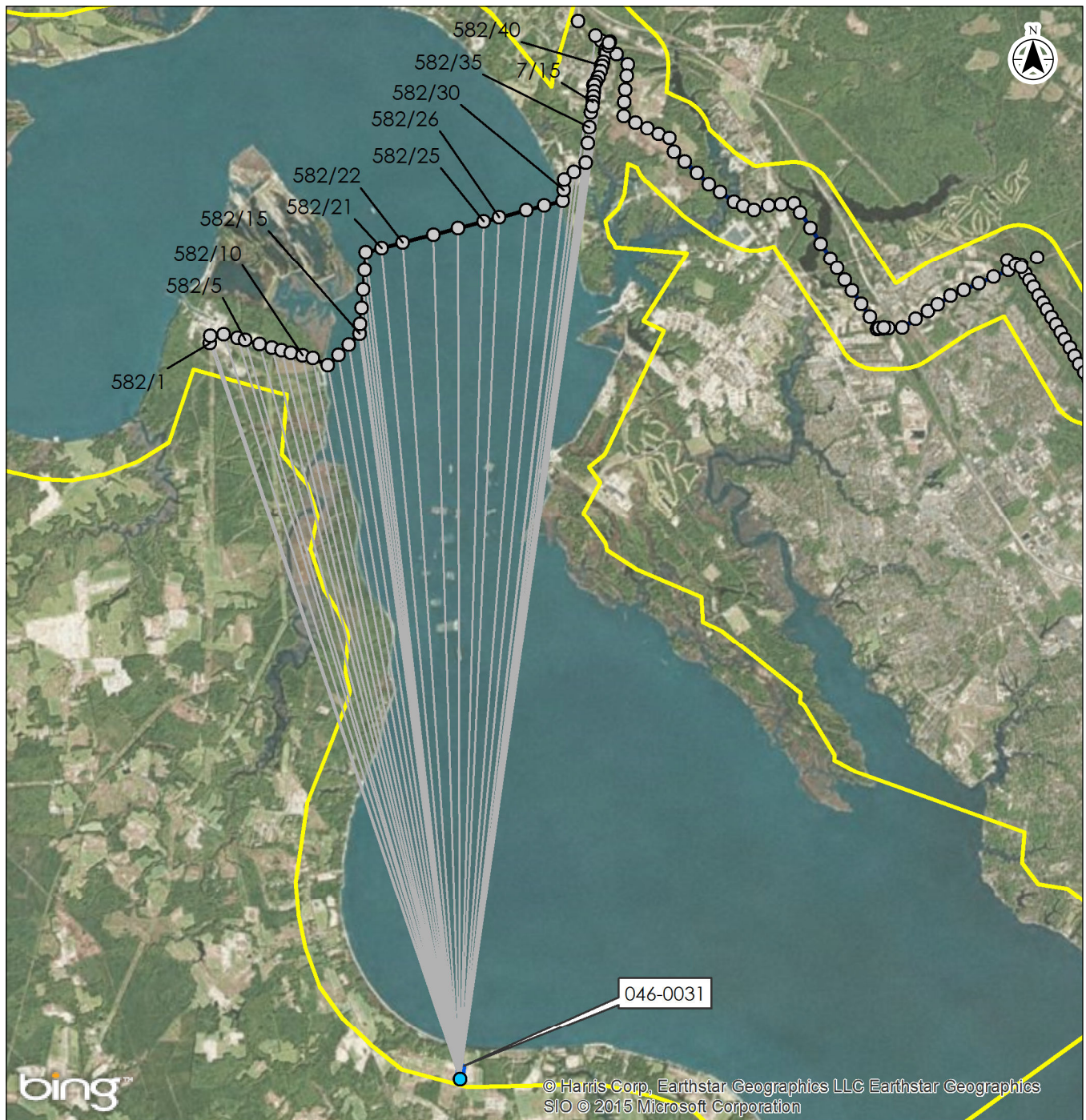
compromise to the property as a result of the project; therefore there would be no effect to the integrity of location, design, materials, and workmanship. There would also be no change to the property's use and/or character.

It was therefore determined that an assessment of potential visual effects would be appropriate as the resource does retain its integrity of setting and feeling. Stantec's computer line-of-sight modeling suggests that none of the land-based structures within the Surry Power Station or the riverine structures would be visible from this resource (Figure 4). The transmission line structures on the James City County side of the James River would also not be visible. This resource is set back from the river at a distance of over 8 miles from the proposed transmission line.

Photographs from the closest point of the Bourne-Turner House property looking north toward the proposed Surry to Skiffes Creek 500 kV Transmission line were taken along Morgart's Beach Road from the public ROW because access to the property was not permitted at the time of the effects assessment (Figures 5-7). Existing structures associated with the Surry Power Station were not visible from the resource during the assessment. To the rear of the recorded boundary of the resource is an expanse of open farm field bordered by dense stands of trees.

The Bourne-Turner House is located at a significant distance from the proposed undertaking. It was determined through line-of-sight modeling and photographic simulations that the property would not be affected by the proposed project. In addition, the primary characteristics qualifying the Bourne-Turner House for listing on the NRHP are the resource's architectural features which retain integrity of workmanship, design, and materials. While the setting of the resource does retain integrity, it is not the primary characteristic for which the resource is eligible.

Stantec concludes that the proposed project will have No Adverse Effect on the Bourne-Turner House (VDHR #046-0031). In addition, the construction of the project will not detract from or adversely affect those characteristics which make the Bourne-Turner House potentially eligible for listing on the NRHP.



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Orthoregistry © Bing Maps

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Legend

- Observer Point
- Observation Point Sight Lines
- Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

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Feet
1:120,000 (at original document size of 8.5x11)



Project Location 203416120
County: York, James City, Surry,
Newport News, City of Norfolk
Bacon Station, Poplarville, Yorktown,
Pocomoke Neck, Bacon Station,
Military Station, Newport News North

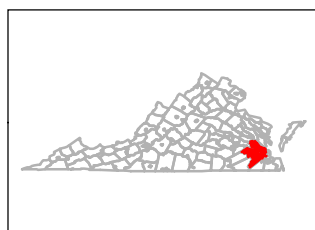
Client/Project

Dominion Virginia Power

Figure No.

4

**Line of Sight Analysis for
VDHR# 046-0031**



- Notes**
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Legend

- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Wheaton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 4,500 9,000
Feet
1:108,000 (at original document size of 8.5x11)



Project Location 203416120
County: York, James City, Surry
Newport News, Site of Work
Baptist Hospital, Yorktown
Population: West, Bacon, Castle,
Military Base, Newport News North

Prepared by SWS on 2015-09-10
Technical Review by A.J.L. on 2015-09-10
Independent Review by EM8 on 2015-09-10

Client/Project

Dominion Virginia Power

Figure No.

5

Title

Photograph Location and Direction



Figure 6. Bourne-Turner House (VDHR #046-0031), 16305 Morgart's Beach Road, View Looking Northeast.



Figure 7. View from Bourne-Turner House (VDHR #046-0031) Looking North towards the Proposed Surry to Skiffes Creek 500 kV Transmission Line (Figure 5 - Photo Arrow 1). Red Arrows Denote Location of Proposed Transmission Line Path. The Power Station is Located to the Left of the Photograph behind the trees.

3.2 FORT HUGER (VDHR #046-0037)

3.2.1 Description of Resource

Fort Huger is a Civil War era fort characterized by the presence of extant Civil War period earthworks along the cliff edge looking over the James River. In addition to the earthworks, the fort also features the remains of a moat (Figure 10). Construction of the fort began in 1860, and it was completely outfitted by March 1862. During a Civil War battle in May 1862, the fort was barraged with heavy artillery fire from the Union ships *Galena* and *Monitor*. The fort sustained heavy damage: its powder magazine and several gun emplacements were destroyed. As a result of the damage, Fort Huger was abandoned shortly after the battle (VDHR Site Files).

3.2.2 National Register Status – Eligible, Criteria A and D

Fort Huger was listed on the NRHP in 2008 under Criterion A for the site's importance and association with the Civil War in Virginia and Criterion D for its potential to provide important archaeological data relating both to the fort and the lives of Civil War soldiers residing there in 1861-1862. Fort Huger is managed under the jurisdiction of Isle of Wight County and is open to the public. The resource retains its integrity of setting, location, feeling, and association as well as the integrity of design. Portions of the fort have been destroyed and altered for use as a public resource; therefore integrity of materials and workmanship is minimal.

3.2.3 Distance of Resource to ROW and Transmission Line Data

The resource is approximately 3.21 miles southwest of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment

3.2.4 Effects Analysis

Fort Huger has been developed as a historical park with gravel paths and reconstructed gun emplacements (Figure 10). Although trees have been removed across the Fort's site, new growth pines and other trees growing at the cliff edge impede the view of the river from the Fort and the interpretive trail except for along the immediate shoreline. While the resource retains integrity of design as well as some integrity of workmanship and materials, the resource will not be physically compromised or damaged as a result of this project. Therefore, there would be no adverse effects to these aspects of integrity. Fort Huger does retain integrity of setting, location, and feeling as well as integrity of association for its role in the Civil War. A visual effects evaluation was conducted for the resource with respect to the potential effect the transmission line could have on the character defining elements, such as setting, which qualify Fort Huger for listing on the National Register particularly under Criterion A. The transmission line would not affect the character of the resource or integrity under Criterion D.

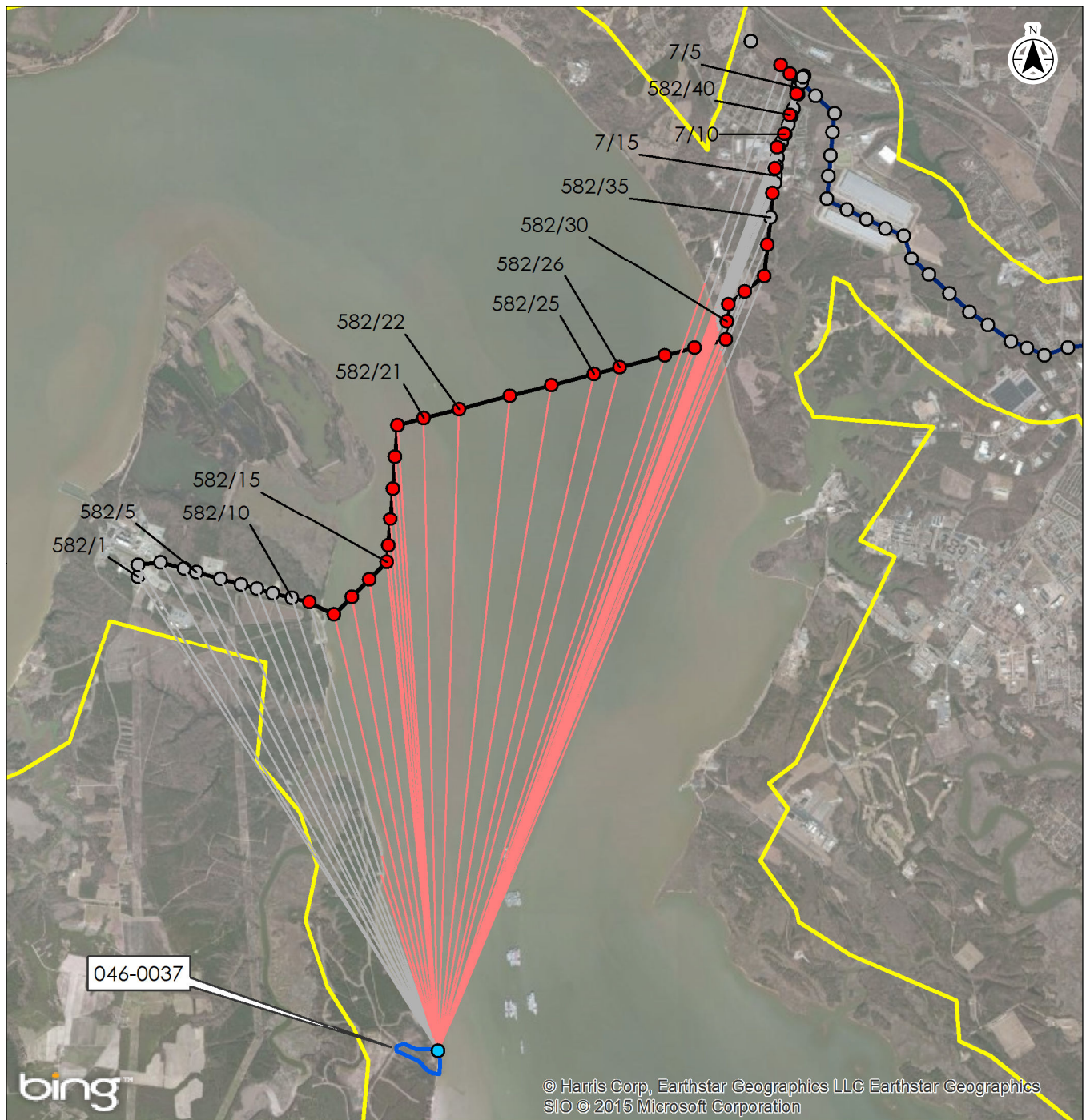
Stantec's computer line-of-sight modeling was generated from an observer point at the edge of the resource boundary along the James River shoreline. The line-of-sight modeling indicates that the land based structures from structure 582/1 at 142 feet in height through 582/10 at 197 feet in height and located on the Surry Power Station section of the proposed Surry to Skiffes Creek 500 kV segment would not be visible from this observer point. However, the line-of-sight modeling suggests that structure 582/11 would be partially visible and that structures 582/12 through 582/28, ranging in height from 128 feet to a maximum height of 297 feet (structures 582/21 and 582/22) would be completely visible from this point on the shoreline (Figure 8). Additional land-

based structures may be visible where the transmission line comes on-shore in James City County, but these views would be limited to the tops of structures above the tree line.

Photographs taken from within the Fort depict the density and type of trees located directly behind the shoreline (Figures 9-12) which suggest that the views of the proposed transmission line would be greatly minimized from the interior of the resource. Photographs for the effects assessment were taken in winter when the deciduous trees were not in leaf and present the "worst case scenario" for visibility of the transmission line within the earthworks of the resource, excluding views from the immediate shoreline. Photographs taken towards the proposed Surry to Skiffes Creek 500 kV transmission line from the shoreline indicate that the proposed transmission line would be visible as it crosses the James River from Surry to James City County (Figures 9 and 11; Photo Arrow 1). Although the structures within the river crossing would be visible, they would be partially obstructed by the presence of the Ghost Fleet and the geographic siting of Fort Huger (Figures 9 and 12; Photo Arrow 2). The resource is sited on the southern side of a protruding point of land. Thus, the view toward the structures on the western side of the river crossing would be obscured by virtue of the geographic location of the resource.

At 3.21 miles, the view of the proposed structures would be minimized by the distance, several obstructions, and a blurry effect on the horizon created by atmospheric conditions. To simulate potential visual effects of the proposed transmission line crossing, photographs of the James River Bridge crossing were taken from points within the river at a distance of approximately 3.5 miles. These photographs indicate that the visual impact of the structures across the river is minimized when viewed from distances over 3.0 miles away (Figures 13 and 14; Figure 9, Photo Location B). A similar effect would be expected when viewing the proposed transmission line crossing from similar distances. Ten of the 17 structures crossing the James River require lighting at the top, with several requiring mid-level lighting. The type of light typically required, the L-864 red blinking light, may be visible at the distance of 3.2 miles; however, as noted there are several visual obstructions between the resource and the transmission line structures as well as existing light intrusions resulting from residential neighborhoods as well as Fort Eustis. The addition of the structure lighting, with minimal visual impact and intensity at this distance, would not adversely affect or detract from the resource's primary characteristics qualifying it for listing on the NRHP under Criterion D.

Stantec concludes that the proposed project will have No Adverse Effect on Fort Huger (VDHR #046-0037) or compromise the integrity of the resource's setting, feeling, or association. In addition, the construction of the project will not directly impact the resource, detract from or adversely affect those characteristics under which Fort Huger was listed on the NRHP.



Notes

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Legend

- Observer Point
- Observation Point Sight Lines
- Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Wheaton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

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Feet
1:72,000 (at original document size of 8.5x11)



Project Location 203416120
County: James City, Surry
Newport News, Site of Wright
USGS Quad: Hog Island, Yorktown,
Bacon's Castle, Mulberry Island
Prepared by SW5 on 2015-09-09
Technical Review by A.J.L. on 2015-09-09
Independent Review by EM8 on 2015-09-09

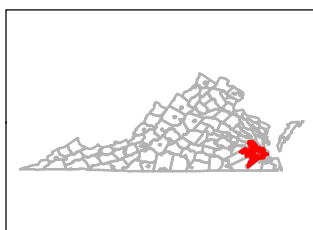
Client/Project

Dominion Virginia Power

Figure No.

8

Title
**Line of Sight Analysis for
VDHR# 046-0037**



Notes

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Legend

- Proposed New Structure
- Reconducting Existing Structure
- Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Wheaton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

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Feet
1:144,000 (at original document size of 8.5x11)



Project Location
County: James City, Surry, Newport News, VA
Site of Project
USGS Quaker Run Island, Yorktown, Poquoson
West: Bacon's Castle, Mudberry Island, Newport
Newport News, Southfield, Saint John's Church, Newport News, South
203416120
Prepared by SWS on 2015-09-10
Technical Review by A.J.L. on 2015-09-10
Independent Review by EM8 on 2015-09-10

Client/Project

Dominion Virginia Power

Figure No.

9

Title

Photograph Location and Direction



Figure 10. View of Fort Huger Parade Ground and the Interpretive Park Looking Southeast.



Figure 11. View from Fort Huger (VDHR #046-0037) Looking Northeast towards Proposed Surry to Skiffes Creek 500 kV Transmission Line River Crossing (Figure 9 - Photo Arrow 1). Red Arrow Denotes Approximate Location of Transmission Line.



Figure 12. View Looking Northeast toward the Proposed Transmission Line from the Shoreline of Fort Huger. Ghost Fleet (VDHR #121-5070) is in the Immediate View Shed (Figure 9 - Photo Arrow 2). Transmission Line Crossing the River (Vicinity Designated with the Red Arrow) would be Visible from this Location.



Figure 13. View of the James River Bridge and Transmission Line Crossing from Photo Point B (Figure 9; Point B) in the James River at a Distance of 3.5 Miles (Photo date 9/2/2015), Facing South. The view of the Bridge and Transmission Line Structures is faded and distant. Similar views would be expected toward the Surry-Skiffes Creek Transmission Line Crossing. Red Arrow Denotes Bridge and Transmission Line Crossing.



Figure 14. View of the James River Bridge and Transmission Line Crossing from Point B (Figure 9, Point B) in the James River at a Distance of 3.5 Miles (50% Zoom; Photo Date 9/2/2015), Facing South. The view of the Bridge and Transmission Line Structures is faded and distant. Similar views would be expected from Fort Huger toward the Surry-Skiffes Creek Transmission Line Crossing.

3.3 JAMES C. SPRIGG JR. HOUSE/BAY CLIFF MANOR, 6293 OLD STAGE HIGHWAY (VDHR #046-0044)

3.3.1 Description of Resource

The James C. Sprigg Jr. House dates to 1764 and is a one-and-a-half-story, frame, multi-bay dwelling that has been significantly altered (Figure 17). The exterior walls are partially constructed in Flemish bond brick and partially sheathed in weatherboard siding. The side gable roof is covered with asphalt shingles and features front gabled dormers on the front roof slope. The house also features two interior and an exterior end brick chimney. A garage and ruinous shed are located south of the house (VDHR Site Files).

3.3.2 National Register Status – Eligible, Criterion C

The James C. Sprigg Jr. House was determined eligible for listing on the NRHP by VDHR on June 12, 2014 under Criterion C for its architectural merit. The resource's primary features have been somewhat altered and however the resource retains integrity of materials and workmanship as some elements of the original building do remain. The building appears to lack integrity of design due to the alterations to the original building. The resource does retain integrity of setting, feeling, and location.

3.3.3 Distance to ROW and Transmission Line Data

The resource is approximately 7.11 miles southwest of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment

3.3.4 Effects Analysis

The house, located down a long tree-lined gravel driveway, sits on a level 18.55-acre parcel of land (Isle of Wight Online Tax Assessment Records). Immediately surrounding the dwelling is a number of mature trees with an open grassy area to the south and southwest. To the rear of the property at the shoreline is an area of woods approximately 400 feet in depth. To the northwest of the resource, shielding the view of the proposed Surry to Skiffes Creek 500 kV line (James River Crossing) is an additional area of dense woods approximately 350 feet deep. The wooded areas comprise a mixture of hardwoods and pine and have an average height of approximately 70 feet.

The James C. Sprigg Jr. House retains its integrity of location, setting, and feeling; therefore a visual effects evaluation was conducted for the resource with respect to the potential effect the transmission line could have on the character defining elements, such as setting, which would qualify the property for listing on the National Register under Criterion C. The resource is characterized by its rural feeling and setting of the property with open spaces and woodlands surrounding the resource.

Computer line-of-sight modeling suggests that the proposed structures associated with the Surry to Skiffes Creek 500 kV line, which range in height from 102 feet to 297 feet, will not be visible from the western portion of the property associated with the James C. Sprigg Jr. House due primarily to the presence of dense stands of trees located between the resource and the proposed 500 kV line as well as the distance (Figure 15).

Access to the property was not available during the effects assessment, therefore photographs were not taken from the portion of the property bordering the James River. Instead, photographs were taken at the end of the driveway along Old Stage Road from the public ROW which was the closest point to the proposed Surry to Skiffes Creek 500kV segment accessible (Figures 16 and 18; Photo Arrow 1). During the fieldwork portion of the effects study, it was noted that dense tree cover surrounded the resource. In addition, neither the James River nor the Surry Power Station was visible from the point of survey under current visual conditions.

Although the field visit and line-of-sight analysis indicated minimal visibility, it is possible that the structures associated with the James River crossing would be visible from the shoreline at the property boundary. However, this property boundary is wooded and undeveloped according to current aerial photography. The distance from the property to the proposed transmission line would minimize the potential visual effects as would the geographic location of the resource. The resource is located in a small bend in the shoreline and the sight line between the resource and the proposed transmission line crosses large expanses of wooded terrain and does not have a direct view upriver toward the proposed project. Additionally, the sight line from the resource is obstructed by the presence of the Ghost Fleet. Although 10 of the 17 structures crossing the James River require lighting at the top, with several requiring mid-level lighting, the lights would not affect the integrity of the James C. Sprigg House or its NRHP-qualifying characteristics. The type of light typically required, the L-864 red blinking light, would have limited visibility at the distance of 7.1 miles and as noted there are several visual obstructions between the resource and the transmission line structures. The structure lighting, with minimal visual impact and intensity at this distance, would not adversely affect or detract from the resource's primary characteristics qualifying it for listing on the NRHP under Criterion C.

It is therefore recommended that while some visibility of the transmission line may be present under the best conditions, the proposed project would not adversely affect the defining characteristics of the property or detract from the resource's integrity of setting, feeling, and location. In addition, there will be no physical compromise to the property as a result of the undertaking. Therefore, there would be no effect to the integrity of location, design, materials, and workmanship. There would also be no change to the property's use and/or character.

Stantec concludes that the proposed project will have No Adverse Effect on the James C. Sprigg Jr. House (VDHR #046-0044). In addition, the construction of the project will not detract from or adversely affect those primary characteristics which make the James C. Sprigg Jr. House potentially eligible for listing on the NRHP.



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Orthorectified by Bing Maps

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Legend

- Observer Point
- Observation Point Sight Lines
- Area Visible
- Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

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Feet
1:103,200 (at original document size of 8.5x11)



Project Location 203416120
County: York, James City, Surry
Newport News, Isle of Wight
USGS Quad: Hog Island, Yorktown,
Bacon's Castle, Mulberry Island
Prepared by SWS on 2015-09-09
Technical Review by A.J.L. on 2015-09-09
Independent Review by EMB on 2015-09-09

Client/Project

Dominion Virginia Power

Figure No.

15

Title
**Line of Sight Analysis for
VDHR# 046-0044**



Notes

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Legend

- X Proposed New Structure
- X Reconducting Existing Structure
- X Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 4,300 8,600 Feet
1:103,200 (at original document size of 8.5x11)



Project Location 203416120
County: York, James City, Surry
Newport News, Isle of Wight
USGS Quad: Hog Island, Yorktown,
Bacon's Castle, Mulberry Island
Prepared by SWS on 2015-09-10
Technical Review by A.J.L. on 2015-09-10
Independent Review by EMB on 2015-09-10

Client/Project

Dominion Virginia Power

Figure No.

16

Title

Photograph Location and Direction



Figure 17. James C. Spriggs Jr. House (VDHR #046-0044), 6293 Old Stage Highway, View Looking Northeast. Photograph taken March, 2014. Property was not accessible during site visit for effects assessment.



Figure 18. View from James C. Spriggs Jr. House (VDHR #046-0044) Looking Northeast towards the Proposed Surry to Skiffes Creek 500 kV Transmission Line River Crossing (Figure 16 – Photo Arrow 1). Red Arrow Denotes General Direction and Location of Crossing.

3.4 BASSES CHOICE/DAYS POINT ARCHAEOLOGY DISTRICT (VDHR #046-0094)

3.4.1 Description of Resource

The Basses Choice/Days Point Archaeological District is located at the confluence of the James and Pagan rivers and includes 28 archaeological sites dating from circa 4000 B.C. through the nineteenth century. The property consists of primarily flat, open fields that are farmed. A notable environmental feature is a sheer thirty foot cliff along the James River frontage. There are no historic buildings or above-ground remains associated with this resource. The resource is located on private property and the existing structures on the property are not historic (VDHR Site Files).

3.4.2 National Register Status – NRHP-Listed, Criterion D

Basses Choice/Days Point Archaeological District was listed on the NRHP in 1983 under Criterion D for its potential to yield important information in prehistory and history as a site of prehistoric settlement and European exploration with a period of significance from 4,000 B.C. through the nineteenth-century. The resource is a collection of archaeological sites, and the district as a whole retains integrity of location, feeling, and setting but feeling and setting do not bear on ability to yield important information. The additional aspects of integrity including materials, design, workmanship, and association do not apply to this resource for purposes of the current assessment.

3.4.3 Distance to ROW and Transmission Line Data

Basses Choice is approximately 9.85 miles southwest of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.4.4 Effects Analysis

The landscape within the Basses Choice/Days Point Archaeology District comprises flat open agricultural fields with small trees dotting portions of the fields. Surrounding the site on the southeast, southwest and west are areas of dense trees surrounding natural drainages.

Because the resource was identified as an architectural resource, despite its status as an archaeological district, it was included in this assessment of indirect effects. Typically archaeological sites are not assessed for visual effects unless they feature above-ground resources. However, the Basses Choice district was considered for visual effects because the resource possesses integrity of setting as well as location.

Line-of-sight computer modeling was conducted for this resource from an unobstructed point at the edge of the shoreline (Figure 19). Line-of-sight analysis suggests that structures 582/1 through 582/11 located within the Surry Power Station would be partially visible above the tree line and that structures 582/12 through 582/26 would be fully visible from the observer point on the James River bank. The computer modeling suggests that due to extensive tree cover along the eastern shore of the James River, the large majority of land-based structures on the James City County side of the transmission line segment would not be visible. Minimal views of the first three land-based structures in James City County (582/29 through 582/31) and structure 582/33 are suggested by the line-of-sight modeling. However, the model cannot account for the distance, visual horizon or atmospheric and weather conditions. At a distance of over seven miles it is unlikely that the views of the structures would be distinct. As a point of reference, photographs were taken from the James River at a distance of 1.5, 3.5, and 4.5 miles of the James River Bridge

and the existing transmission line crossing. At a distance of 3.5 miles, the structures associated with not only the draw bridge, but also the transmission line were faded and distant (see Figures 13 and 14).

Photographs as part of the fieldwork portion of the effects assessment were taken from the closest accessible point to the resource as the majority of the Basses Choice is located on privately held property (Figures 20-21; Photo Arrow 1). Views of landmasses within sight range of the resource as well as the point where the proposed line would cross the James River were limited. This suggests that although the structures would be visible from this resource based on the computer modeling, the distance of over 9 miles would diminish the overall visibility of the structures from the resource. Therefore, it is recommended that the proposed transmission line would not directly affect this resource as there would be no compromise to the resource's elements of setting, location, and feeling which qualify it for listing on the NRHP.

Tower lighting would also not detract from the overall integrity of the resource. Although 10 of the 17 structures crossing the James River require lighting at the top, with several requiring mid-level lighting, the lights would not affect the integrity of Basses Choice or its NRHP-qualifying characteristics under Criterion D due to the distance from the resource to the proposed project. Basses Choice is also located across the James River from residential neighborhoods as well as upriver from Newport News Shipbuilding and the developed and industrialized Newport News shoreline. Light intrusions already exist within the view shed of this resource and the addition of the structure lighting, with minimal visual impact and intensity at this distance, would not adversely affect or detract from the resource's primary characteristics qualifying it for listing on the NRHP under Criterion D.

Stantec concludes that the proposed project will have No Adverse Effect on the Basses Choice Archaeological District (VDHR #046-0094). In addition, the construction of the project will not detract from or adversely affect those characteristics which make the Basses Choice Archaeological District eligible for listing on the NRHP.

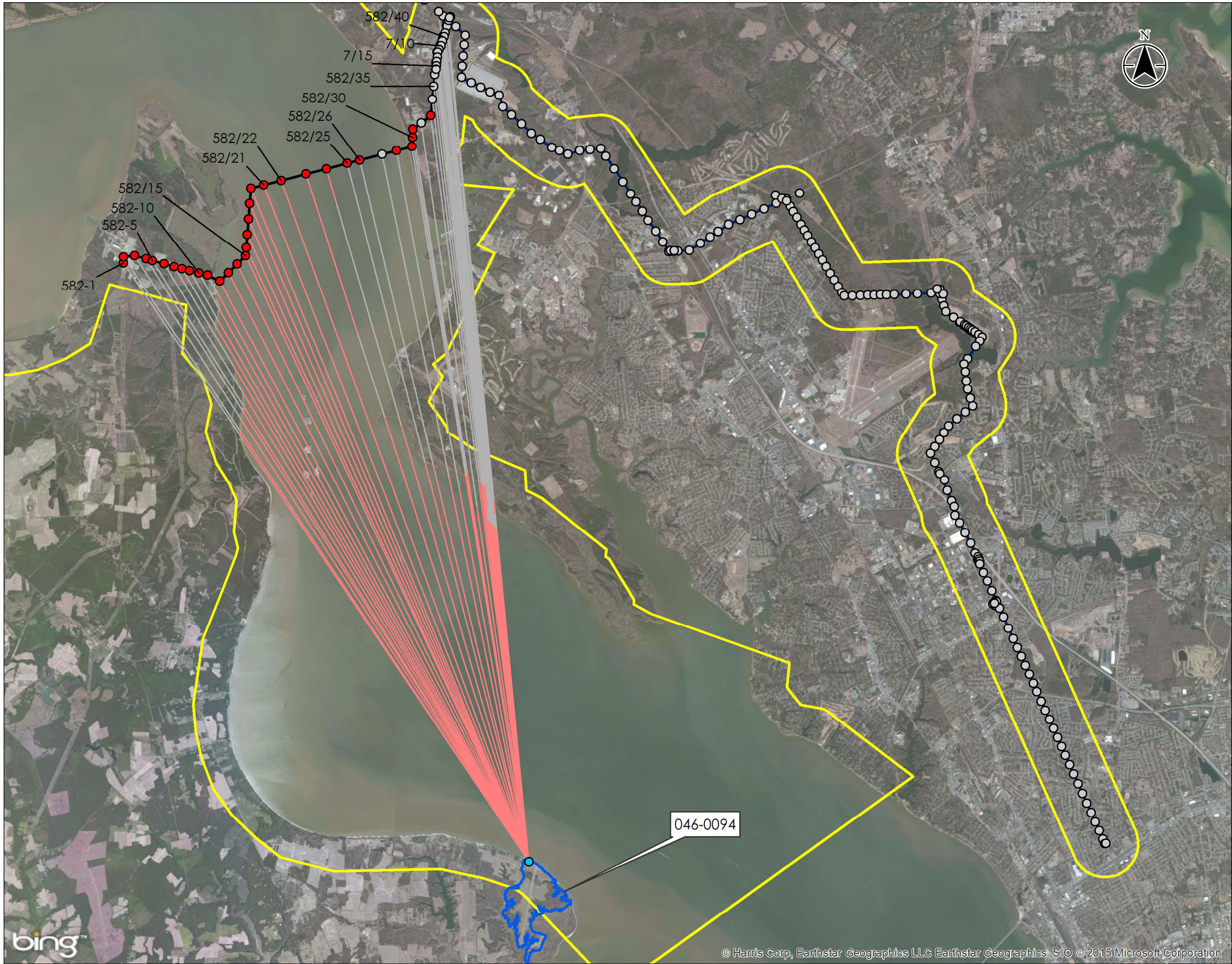


Figure No.
19

Title
**Line of Sight Analysis for
VDHR# 046-0094**

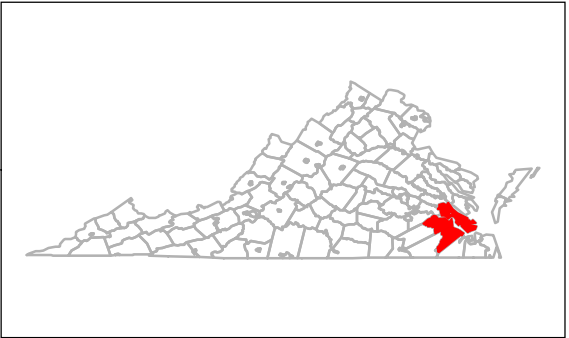
Client/Project
Dominion Virginia Power

Project Location
USGS Quad: Hog Island, Yorktown, Poquoson
West, Bacons Castle, Mulberry Island,
Newport News North
County: James City, York, Surry, Poquoson,
Hampton, Newport News, Isle of Wight

203416120
Prepared by SWS on 2015-09-09
Technical Review by AJL on 2015-09-09
Independent Review by EMB on 2015-09-09

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1:96,000 (At original document size of 11x17)

- Legend
- Observer Point
 - Observation Point Sight Lines
 - Area Visible
 - Area Not Visible
 - Proposed Tower Location - Visible
 - Proposed Tower Location - Not Visible
 - Architectural Resources
 - Approximate Area of Potential Effects
 - Skiffes Creek to Wheelton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



Notes

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- Orthoimagery © Bing Maps



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Figure No.
20
Title

Photograph Location and Direction

Client/Project

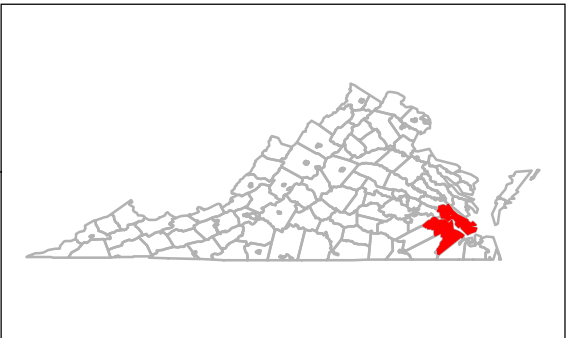
Dominion Virginia Power

Project Location
USGS Quad: Hog Island, Yorktown, Poquoson
West, Bacons Castle, Mulberry Island,
Newport News North
County: James City, York, Surry, Poquoson,
Hampton, Newport News, Isle of Wight

203416120
Prepared by SWS on 2015-09-10
Technical Review by AJL on 2015-09-10
Independent Review by EMB on 2015-09-10

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Feet
1:91,200 (At original document size of 11x17)

- Legend
- Proposed New Structure
 - Reconductoring Existing Structure
 - Remove and Replace Existing Structure
 - Photograph Location
 - Architectural Resources
 - Approximate Area of Potential Effects
 - Skiffes Creek to Whealton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



Notes

- Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502
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Figure 21. View from the Closest Accessible Point to Basses Choice District (VDHR #046-0094) Looking North Northwest towards the Proposed Surry to Skiffes Creek 500 kV Transmission Line River Crossing (Figure 20 - Photo Arrow 1). The landmass on the horizon is the eastern bank of the James River and the western boundary of Fort Eustis. The Transmission Line Crossing would be located to the Left of the Photograph on the horizon, however because of the photo location a clear view was not attained.

3.5 FORT BOYKIN ARCHAEOLOGY SITE/HERBERT T. GREER HOUSE AND GARDENS (VDHR #046-0095)

3.5.1 Description

Fort Boykin, located within the Study Area boundaries of the Yorktown Battlefield (VDHR #099-5241), is an archaeological site characterized by extant earthworks along the western bank of the James River. This Fort, like Fort Huger, has been developed as a historical park with reconstructed gun emplacements. Located within the Fort is the Herbert T. Greer House, with its associated gardens (Figures 24 and 25). The dwelling, although dated to 1908, appears to have been heavily altered in the late 1950s and has been destroyed by a recent fire. Additional secondary resources located on the property include a well, an early twentieth century barn, several sheds, and modern recreational amenities (VDHR Site Files).

3.5.2 National Register Status – NRHP-Listed, Criterion D

Fort Boykin Archaeology Site/Herbert T. Greer House and Gardens was listed on the NRHP in 1985 under Criterion D, with a period of significance from 1861-1862, for its archaeological potential to yield important historical information (Fort Boykin Archaeological Site NRHP Nomination Form). This resource is an archaeological site with its primary area of significance residing under Criterion D, for its information potential. The resource retains its integrity of setting and location as well as integrity of association and design. Portions of the earthworks remain, contributing to the integrity of design; however reconstructed gun emplacements, and park structures have been added to facilitate public use and visitation. The additional aspects of integrity including feeling, workmanship, and materials were not considered applicable to this resource.

3.5.3 Distance to ROW and Transmission Line Data

The resource is approximately 8.84 miles south/southwest of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.5.4 Effects Analysis

The landscape within Fort Boykin comprises a central grassy area within the confines of the site with trees and other vegetation extending from either side and on top of the earthworks. Several small park structures including stairs have been added to the site because the resource now serves as an historical park. The extant twentieth century buildings on the site are not contributing to the resource to Fort Boykin. The primary dwelling has burned recently; however, the gardens remain an integral part of the property.

Fort Boykin was listed on the NRHP under Criterion D as an archaeological site. Defining characteristics of the site include extant earthworks as well as its potential to contain significant archaeological deposits. The proposed transmission line project will not have a direct effect on this resource, and there will be no physical compromise to the extant portions of the earthworks or any ground disturbing activity that would affect the potential below-ground resources. The site does retain integrity of setting and location, and thus a visual effects analysis was conducted to determine the potential indirect effects to the resource.

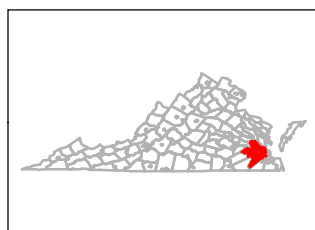
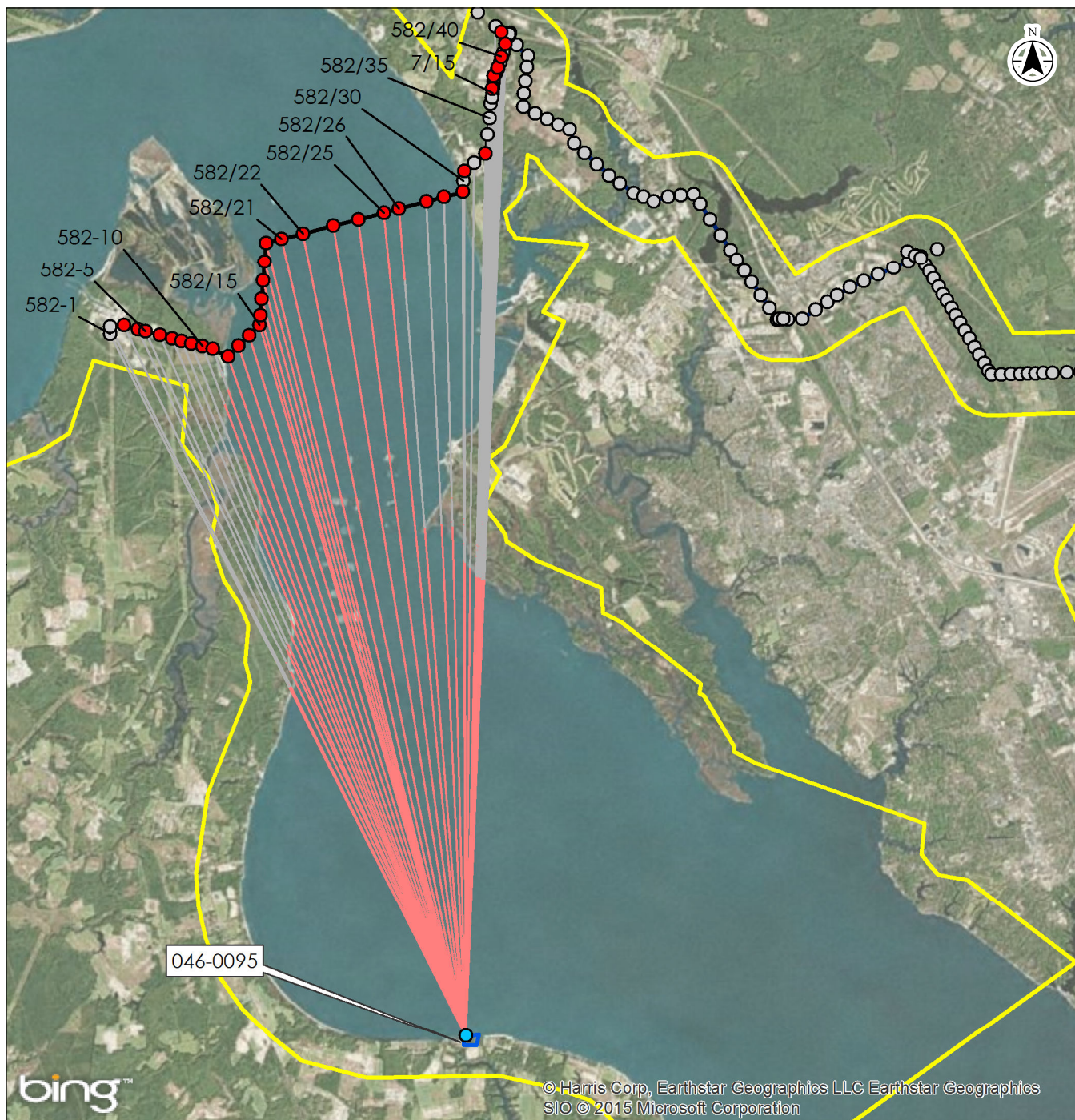
Line-of-sight computer modeling was conducted for this resource from an unobstructed point at the edge of the James River shoreline (Figure 22). Line-of-sight analysis suggests that structures 582/1 through 582/11 located within the Surry Power Station would be partially visible above the tree line and that structures 582/12 through 582/26 would be fully visible from the observer point

on the James River bank. Minimal views of the first three land-based structures in James City County (582/29 through 582/31) and structure 582/33 are suggested by the line-of-sight modeling as are limited views of structures in proximity to the proposed switching station. However, the model cannot account for the distance, visual horizon or atmospheric and weather conditions. At a distance of over eight miles it is unlikely that the views of the structures would be distinct. As a point of reference, photographs were taken from the James River at a distance of 1.5, 3.5, and 4.5 miles of the James River Bridge and the existing transmission line crossing. At a distance of 3.5 miles, the structures associated with not only the draw bridge, but also the transmission line were faded and distant (see Figures 13 and 14).

Photographs taken from the Fort depict the density and type of trees located directly behind the shoreline (Figure 23; Figure 26-27). Photographs for the effects assessment were taken in winter time when the deciduous trees were not in leaf. This view indicates that the proposed transmission line would be slightly visible as it crosses the James River from Surry to James City County. The Ghost Fleet is also in a direct line-of-sight of Fort Boykin and has the potential to block the view of several of the structures within the James River (Figure 23 - Photo Arrow 1; Figure 26). Although 10 of the 17 structures crossing the James River require lighting at the top, with several requiring mid-level lighting, it is not likely that the lights would affect the integrity of Fort Boykin or its NRHP-qualifying characteristics.

Fort Boykin is located over 8 miles from the proposed transmission line crossing and as noted there are several visual obstructions between the resource and the transmission line structures including the ships associated with the Ghost Fleet. Light intrusions already exist within the viewshed of this resource due to its proximity to the James River Bridge and the developed and industrialized shoreline of Newport News. The addition of the structure lighting, with minimal visual impact and intensity at this distance, would not adversely affect or detract from the resource's primary characteristics qualifying it for listing on the NRHP under Criterion D. Because Fort Boykin is over eight miles from the project area it would be difficult to pick out details of the proposed transmission line and its associated structures. It is difficult to pick out details of the Fort Eustis shoreline to the east at a little over four miles from the resource (Figure 23 – Photo Arrow 2; Figure 27).

Stantec concludes that the proposed project will have No Adverse Effect on Fort Boykin (VDHR #046-0095). In addition, the construction of the project will not detract from or adversely affect those primary characteristics, the potential to yield information, for which Fort Boykin was listed on the NRHP.



- Notes**
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502
 2. Orthorectification © Bing Maps

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Legend

- Observer Point
- Observation Point Sight Lines
- Area Visible
- Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Wheaton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

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Feet
1:120,000 (at original document size of 8.5x11)



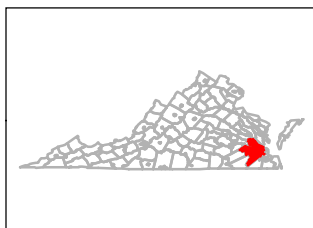
Project Location 203416120
County: York, James City, Surry,
Newport News, Isle of Wight
Boca Raton, Palm Beach, Tallahassee,
Palm Beach Gardens, Boca Raton,
Maitland, Orlando, Jacksonville
Client/Project

Dominion Virginia Power

Figure No.

22

**Line of Sight Analysis for
VDHR# 046-0095**



Notes

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Legend

- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Wheaton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

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Feet
1:96,000 (at original document size of 8.5x11)



Project Location 203416120
County: York, James City, Surry,
Newport News, Isle of Wight
8003 Quaker Hog Island, Yorktown,
Bacon's Castle, Mobjerry Island
Prepared by SWS on 2015-09-10
Technical Review by A.J.L. on 2015-09-10
Independent Review by D.W.B. on 2015-09-10

Client/Project

Dominion Virginia Power

Figure No.

23

Title

Photograph Location and Direction



Figure 24. Interior of Fort Boykin (VDHR #046-0095), View Looking North.



Figure 25. Herbert T. Greer House, View Looking Northwest.



Figure 26. View Upriver toward the Proposed Transmission line from Fort Boykin (VDHR # 046-0095) (Figure 23 - Photo Arrow 1). Note the Ghost Fleet, Denoted by a Yellow Arrow, on the Horizon. Proposed Transmission Line Crossing (Red Arrow) is an Additional Two Miles to the North.



Figure 27. View from Fort Boykin (VDHR #046-0095) Looking Northeast across the River toward Fort Eustis (Figure 23 - Photo Arrow 2).

3.6 BARLOW-NELSON HOUSE (VDHR #046-5045)

3.6.1 Description of Resource

The Barlow-Nelson House, located at 5374 Old Stage Road, dates to 1913 and is a two-and-a-half-story frame dwelling with a front-facing gable roof with gable end returns and a two-story, side gable rear addition (Figure 30). A hipped roof is located on the wrap-around porch and supported by Tuscan columns. Windows have been altered from the original and are now one-over-one vinyl sashes. A barn is located southwest of the house (VDHR Site Files).

3.6.2 National Register Status - Eligible, Criterion C

The Barlow-Nelson House was determined eligible for listing on the NRHP by VDHR on August 21, 2014 under Criterion C for its architectural merit. The resource is a good example of an early twentieth-century dwelling that has undergone few exterior changes and retains integrity of location, design, setting, feeling, and to a lesser degree workmanship. The resource retains some level of integrity of materials, but the windows have been replaced. Integrity of association is not applicable because the resource is not known to be associated with a significant person or event.

3.6.3 Distance of Resource to ROW and Transmission Line Data

The resource is approximately 6.33 miles southwest of the proposed Line 582 Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.6.4 Effects Analysis

The house, located down a long gravel driveway, sits on an open level one-acre parcel (Isle of Wight Online Tax Assessment Records). Surrounding the dwelling is a manicured lawn with an area of trees behind. A split rail fence runs adjacent to the north side of the gravel drive that accesses the dwelling. The river, which is to the east of the resource, is not visible due to approximately 1,700 to 2,000 feet of woods between the resource and the water. Dense areas of woods, approximately 3,000 feet deep at the shortest distance from the proposed line, are located to the north/northeast of the resource, which will shield the view of the proposed Surry to Skiffes Creek 500 kV line from the resource.

During the field visit to the resource, it was determined that the resource does retain integrity of location, design, setting, and feeling and also, though less so, materials, and workmanship. There will be no physical compromise to the property as a result of the undertaking; therefore there would be no effect to the integrity of location, design, materials, and workmanship. There would also be no change to the property's use and/or character as a result of this project.

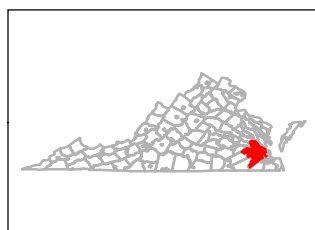
It was therefore determined that an assessment of potential visual effects would be appropriate as the resource does retain its integrity of setting and feeling. Stantec's computer line-of-sight modeling suggests that the proposed structures associated with the Surry to Skiffes Creek 500 kV line, which range in height from 102 feet to 297 feet, will not be visible from the Barlow-Nelson House due to 1) tree cover between the resource and the proposed 500 kV line, and 2) the distance from the resource to the proposed project (Figure 28).

Photographs from the closest point of the Barlow-Nelson House property toward the proposed Surry to Skiffes Creek 500 kV transmission line were taken at the end of the driveway along Old Stage Road from the public ROW because access to the property was not permitted at the time

of the effects assessment (Figures 29 and 31; Photo Arrow 1). During the fieldwork portion of the effects study it was noted that dense tree cover surrounded the resource. In addition, neither the James River nor the Surry Power Station was visible from the point of survey under current visual conditions.

The location of the Barlow-Nelson House at nearly 6.33 miles south of the proposed project as well as the character of the surrounding landscape will shield the proposed project from view. Therefore, the proposed project will not affect the resource's integrity of setting, location, or feeling nor will there be a direct effect to the resource's physical characteristics, which qualify it for listing on the NRHP.

Stantec concludes that the proposed project will have No Adverse Effect on the Barlow-Nelson House (VDHR #046-5045). The construction of the project will not detract from or adversely affect those primary characteristics which make the Barlow-Nelson House eligible for listing on the NRHP.



- Notes**
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
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Legend

- Observer Point
- Observation Point Sight Lines
- Area Visible
- Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Wheaton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 4,100 8,200
Feet
1:98,528 (at original document size of 8.5x11)



Project Location
County: York, James City, Surry,
Newport News, Isle of Wight
BOD District: Poplarville, Yorktown,
Poplarville West, Bacon's Castle,
Military Stand, Newport News North

203416120
Prepared by SWS on 2015-09-09
Technical Review by A.J.L. on 2015-09-09
Independent Review by EMB on 2015-09-09

Client/Project

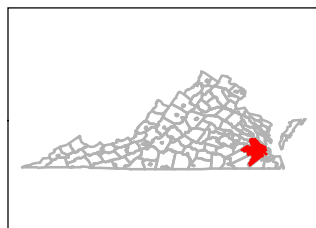
Dominion Virginia Power

Figure No.

28

Title

**Line of Sight Analysis for
VDHR# 046-5045**



Notes

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Legend

- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 4,000 8,000
Feet
1:96,000 (at original document size of 8.5x11)



Project Location 203416120
County: York, James City, Surry
Newport News, Isle of Wight
USGS Quad: Hog Island, Yorktown,
Bacon's Castle, Mulberry Island
Prepared by SWS on 2015-09-10
Technical Review by A.J.L. on 2015-09-10
Independent Review by EMB on 2015-09-10

Client/Project

Dominion Virginia Power

Figure No.

29

Title

Photograph Location and Direction



Figure 30. Barlow-Nelson House (VDHR #046-5045), 5374 Old Stage Road, View Looking Southwest.



Figure 31. View from Barlow-Nelson House (VDHR #046-5045) Looking Northeast towards the Proposed Surry to Skiffes Creek 500 kV Transmission Line River Crossing (Figure 29 - Photo Arrow 1). Red arrows denote the general location of the Transmission Line 6.33 Miles to the North and Northeast.

3.7 BAY VIEW SCHOOL (VDHR #046-5138)

3.7.1 Description of Resource

The Bay View School dates to 1914 and was in operation until 1927. Constructed in a cross-shaped plan, the school features weatherboard siding and a pressed metal roof (Figure 34). Additional architectural elements include interior end brick chimneys, gable end returns, two-over-two wood double-hung sash windows, and a one-story entry porch supported by paired wood columns (VDHR Site Files).

3.7.2 National Register Status - Eligible, Criterion C

The Bay View School was determined eligible for listing on the NRHP by VDHR on August 21, 2014 under Criterion A for its significance in broad patterns in history and under Criterion C for its architectural merit. The Bay View School's significance is associated with its role as an early twentieth-century educational facility in Isle of Wight County and its architecture which reflects design standards for school buildings developed in the early twentieth century. When applying the seven aspects of integrity to this resource, the resource retains its integrity of location, workmanship, materials and design as well as integrity of association. The integrity of setting and feeling has been slightly diminished by modern construction on the adjacent properties and in close proximity to the building.

3.7.3 Distance to ROW and Transmission Line Data

The resource is approximately 6.84 miles southwest of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.7.4 Effects Analysis

The school sits on a relatively level one-acre parcel (Isle of Wight Online Tax Assessment Records) on the west side of Old Stage Highway north of Burwells Bay Road near the Village of Burwell's Bay. Trees grow adjacent to the foundation, as well as bordering the property boundary. A manicured lawn is also present with an open field located to the south of the building. A privacy fence extends off the main façade. The James River, which is to the east of the resource, is not visible due to two 250-foot sections of woods as well as the expansive the field across the street, located between the resource and the water. Dense areas of woods, approximately 1,250 feet deep are located to the north/northeast of the school, which will shield the view of the proposed Surry to Skiffes Creek 500 kV line from the resource.

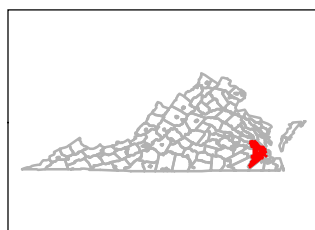
The Bay View School retains integrity with respect to its Criterion A association with the early twentieth-century educational system in Isle of Wight County as well as integrity of materials, workmanship, and design. The building will not be physically compromised as a result of this project because there will be no direct impact to the resource or the surrounding grounds. Therefore there would be no direct effect to the resource or compromise to its integrity and significance under Criterion A and C. Also considered an important part of the resource's significance and integrity are its location, setting, and feeling. The resource retains integrity of location and this will not be affected by the proposed project. The resource retains, to some degree, its integrity of setting as the setting is much as it would have been during the school's period of significance. Therefore, a visual effects study was completed for this resource to assess the potential to affect the school's character defining elements.

Stantec's computer line-of-sight modeling suggests that the proposed structures associated with the Surry to Skiffes Creek 500 kV line, which range in height from 102 feet to 297 feet, will not be visible from the Bay View School due to tree cover between the resource and the proposed 500 kV line (Figure 32).

Photographs from the closest point of the Bay View School property towards the proposed Surry to Skiffes Creek 500 kV Transmission line were taken at the end of the driveway along Old Stage Road approximately 100 feet to the east of the school's entry door (Figures 33 and 35; Photo Arrow 1). During the fieldwork portion of the effects study it was noted that dense tree cover surrounded the resource. In addition, neither the James River nor the Surry Power Station was visible from the point of survey.

The proposed project will be shielded from view at the Bay View School because of the school's location, approximately 6.85 miles south of the proposed transmission line project, and the character of the surrounding landscape. Therefore, the proposed project will not affect the resource's integrity of association, setting, location, or feeling. There will not be a direct effect to the resource's physical and architectural characteristics, which qualify it for listing on the NRHP.

Stantec concludes that the proposed project will have No Adverse Effect on the Bay View School (VDHR #046-5138). The construction of the project will not detract from or adversely affect those characteristics which make the Bay View School potentially eligible for listing on the NRHP.



- Notes**
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Legend

- Observer Point
- Observation Point Sight Lines
 - Area Visible
 - Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Wheaton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 4,500 9,000
Feet
1:108,000 (at original document size of 8.5x11)



Project Location 203416120
County: York, James City, Surry
Newport News, Isle of Wight
USGS Quad: Hog Island, Yorktown,
Bacon's Castle, Mulberry Island
Prepared by SWS on 2015-09-09
Technical Review by A.J.L. on 2015-09-09
Independent Review by EMB on 2015-09-09

Client/Project

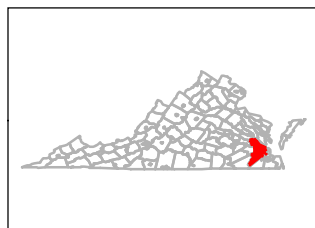
Dominion Virginia Power

Figure No.

32

Title

**Line of Sight Analysis for
VDHR# 046-5138**



Notes

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2. Orthorectification © Bing Maps

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Legend

- X Proposed New Structure
- X Reconductoring Existing Structure
- X Remove and Replace Existing Structure
- O Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Wheaton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 4,000 8,000
Feet
1:96,000 (at original document size of 8.5x11)



Project Location 203416120
County: York, James City, Surry
Newport News, Isle of Wight
USGS Quad: Hag Island, Yorktown,
Bacon's Castle, Mulberry Island
Prepared by SWS on 2015-09-10
Technical Review by A.J.L. on 2015-09-10
Independent Review by EMB on 2015-09-10

Client/Project
Dominion Virginia Power

Figure No.
33

Title
Photograph Location and Direction



Figure 34. Bay View School (VDHR #046-5138), 6114 Old Stage Highway, View Looking Southwest.



Figure 35. View from Bay View School (VDHR #046-5138) Looking Northeast towards Proposed Surry to Skiffes Creek 500 kV Transmission Line River Crossing (Figure 33 - Photo Arrow 1). Red Arrow Denotes Direction and Location of Transmission Line.

3.8 USS STURGIS (MH-1A STURGIS) (VDHR #046-5415)

3.8.1 Description of Resource

The SS *Charles H. Cogle*/USS *Sturgis* was anchored in the James River as part of the James River Reserve Fleet (Ghost Fleet) (Figure 36). Originally named the SS *Charles H. Cogle*, the USS *Sturgis* was one of over 2,700 Liberty Ships built during World War II to serve as cargo and troop transport ships. The Liberty Ships were built according to a standardized plan and were manned by merchant seamen. After World War II, efforts were made to develop a mobile nuclear Power Station in an effort to better serve military needs at home and abroad. The *Cogle*, renamed *Sturgis*, was selected as the carrier of one such facility (VDHR Site Files).

3.8.2 National Register Status – Eligible, Criterion A, Criteria Consideration G

USS *Sturgis* has been recommended potentially eligible for listing on the NRHP under Criterion A as the first floating nuclear power plant in the world. Because it is less than 50 years of age, the USS *Sturgis* must also meet Criteria Consideration G - that it is of exceptional importance. It has been recommended that this resource does meet Criteria Consideration G as the first floating nuclear power plant (VDHR Site Files). The USS *Sturgis* is significant primarily for its importance as the first floating nuclear power plant in the world.

3.8.3 Distance to ROW and Transmission Line Data

Not Applicable. The USS *Sturgis* was removed from the James River and the Ghost Fleet in the spring of 2015 and arrived in port in Galveston, Texas on April 30, 2015 (<http://www.nab.usace.army.mil/Missions/Environmental/Sturgis.aspx>). The vessel was towed to Malin International Shipyard in Galveston for decontamination and eventual dismantling. A Memorandum of Agreement (MOA) between the USACE Baltimore District and the Virginia State Historic Preservation Office (SHPO) was drafted and signed by the USACE in April 2014 to guide the decontamination and eventual dismantling of the USS *Sturgis*. The resource was identified as an eligible historic resource and the decommissioning and eventual dismantling of the vessel would constitute an adverse effect to the resource. The MOA stipulates that the USACE Baltimore district shall mitigate the adverse effect through a series of documentary efforts highlighting the significance of the USS *Sturgis*.

3.8.4 Effects Analysis

Not Applicable. The USS *Sturgis* is no longer present within the James River and is no longer moored on the western side of the Ghost Fleet. The USS *Sturgis* is currently located at Malin International Shipyard in Galveston, Texas.



Legend

- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 2,500 5,000
Feet
1:60,000 (at original document size of 8.5x11)



Project Location 203416120
County: James City, Surry
Newport News, Site of Work
USGS Quad: Hog Island, Yorktown,
Bacon's Castle, Mulberry Island
Prepared by SWS on 2015-09-11
Technical Review by A.J.L. on 2015-09-11
Independent Review by EMB on 2015-09-11

Client/Project
Dominion Virginia Power

Figure No.

36

Title

**Aerial Photo Depicting the Former
Location of the USS Sturgis**

Notes
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3.9 CARTER'S GROVE (VDHR #047-0001)

3.9.1 Description of Resource

Carter's Grove is a well-preserved example of a two-story, seven-bay, mid-eighteenth century Georgian dwelling (Figure 39). Flanking the main block are one-story brick dependencies thought to have been constructed prior to the main dwelling, although the precise date is unknown. The main block features a hipped roof, two large interior chimneys and hipped-roof dormers. Other features include rubbed brick quoins, a modillioned cornice, nine-over-nine wood double-hung sash windows, and a rubbed brick belt course (VDHR Site Files). The Carter's Grove property measures approximately 400 acres and is characterized by broad open agricultural fields and large stands of mature trees. There are several drainages/ravines located across the property that are densely wooded with mature oak, poplar, pine, and other varieties of trees and vegetation. The eastern and western boundaries of the parcel are wooded as are sections of the James River water front. In some places the trees reach heights of nearly 150 feet. The property includes reconstructed slave cabins, the closed archaeology museum, several reconstructed dependencies, and the grave site of Susanna Burwell, the wife of Nathaniel Burwell dated 1788. Adjacent to her marked grave are two smaller graves, presumably of her children.

3.9.2 National Register Status – NRHP-Listed, Criterion C; NHL

Carter's Grove was listed on the NRHP in 1969 and specified as a National Historic Landmark (NHL) in 1970 (VDHR Site Files) for its significance under Criterion C (architecture). The defining elements qualifying it for the NRHP included its well-preserved architectural features indicative of its period of significance dating from the eighteenth century through the early twentieth century. Additionally, significant archaeological resources are located within the grounds of the property suggesting that the property is also eligible for listing under Criterion D for information potential. Carter's Grove, including its surrounding grounds, has retains integrity with respect to all seven aspects of integrity. The property remains much as it was in the eighteenth century and has retained integrity of location, setting, feeling, workmanship, materials, design, and association.

3.9.3 Distance of Resource to ROW and Transmission Line Data

The resource is approximately 0.43 miles northwest of the proposed Surry to Skiffes Creek 500 kV transmission line land-based structures and 0.65 miles southwest of the Skiffes Creek Switching Station and Skiffes to Whealton 230 kV segment. The shoreline directly south of the mansion is approximately 1.5 miles north of the proposed transmission line as it crosses the James River. Carter's Grove is within the APE for all segments of the project. As such, effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment. For the 230kV segment, the proposed monopoles closest to the resource are structures 2138/5-2138/11 and range in height from 110 to 135 feet. The existing weathering lattice structures (Line 285), which will be replaced by the proposed monopoles, average 120 feet in this section of the ROW corridor.

3.9.4 Effects Analysis

Carter's Grove retains integrity with respect to all seven aspects of integrity as described above. The proposed transmission line – including the Surry to Skiffes Creek, Skiffes Creek Switching Station, and Skiffes Creek to Whealton segments – will not directly affect the Carter's Grove property because there will be no ground disturbing or physical impacts to the resource's assets

or character defining elements which include the mansion, grounds, archaeological sites, and associated resources. Indirect effects to the property were determined to be visual; therefore visual effects assessments were conducted which would include all three segments of the overall transmission line project.

Skiffes Creek Switching Station and Skiffes Creek to Whealton 230 kV Segments: The property, at its closest point, is approximately 3,000 feet from the proposed Skiffes Creek Switching Station and an existing 230 kV transmission line ROW corridor. In addition, an area of modern residential and industrial development is located to the north and northeast of the resource. The house itself is set back down a long driveway with the property shielded on the north and northeast by areas of dense woods approximately 500 to 1,000 feet in depth.

Line-of-sight analysis conducted from two points within the boundary of the resource indicates that there would be no visibility of the Switching Station or 230 kV segment (Figure 37). Photographs were taken from the end of the driveway towards the resource (Figure 38 – Photo Arrow 1A and Figure 40) and then from the resource towards the proposed Skiffes Creek to Whealton 230 kV Transmission line and location of the Switching Station (Figure 38 – Photo Arrow 1b and Figure 41). The location of the property and the dense stands of trees present along the boundaries of the parcels effectively shield the property from indirect visual effects associated with these two segments. The tree heights along the parcel boundaries in some places exceed 120 feet. There would be no direct effect to the property as a result of the construction activities associated with this segment of the transmission line project.

Surry to Skiffes Creek 500 kV Segment: Carter's Grove Mansion and the associated grounds will have a direct view of the proposed Surry to Skiffes Creek 500 kV Transmission line segment, particularly with respect to the structures associated with the crossing of the James River. Line-of-sight computer modeling was conducted for this resource from the mansion, as well as two select points within the 400-acre parcel (Figure 37). Because of the large size of the property, its significance as a National Historic Landmark (NHL) and integrity with regards to its NRHP-eligibility, it was determined that multiple viewpoints should be represented.

Line-of-sight analysis indicated that nearly all of structures located within the river crossing, ranging in height from 177 feet to 297 feet would be visible from the shoreline while Structures 582/23 and 582/24 would be visible from the vicinity of the rear porch entrance of the main house. Views from the main house would be shielded by the topography and vegetation present between the house and the proposed transmission line structures. Structures 582/27 through 582/44 would not be visible from either location utilized for the visual study. However, from the shoreline all or portions of Structures 582/1 through 582/26 would be clearly visible. Visibility would be minimized from interior portions of the property due to the presence of mature stands of trees present between the resource and the proposed transmission line structures.

Photographs taken from multiple viewpoints from within the Carters Grove property illustrated varying degrees of visibility. However, views from the main house and immediate grounds would be clear and would detract from the resource's integrity of setting and feeling (Figures 42-48; Photo Arrows 2-6). From Photo Location 2, along the lane leading to the house (Figure 138 – Photo Arrow 2a and Figure 43), the view of the transmission line project would be completely obscured by the presence of dense stands of trees and the main house. From this same location, (Figure 38 – Photo Arrow 2b and Figure 44) and facing to the southeast, the land-based portions of the Surry to Skiffes Segment in James City County would also not be visible. The density and maturity of the trees located along the property boundary on the BASF side would effectively shield the structures from view in this location and along the eastern property boundary. Photographs taken from the rear of the main house (Figure 38 –

Photo Arrow 3 and Figure 45) show a direct view of a portion of the transmission line crossing as well as Hog Island. The view from the house, however, would be distant from this location, but the structures in the river would be visible. Additional photos taken from the interior of the property to the west of the main house (Figure 38 – Photo Arrow 4 and Figure 46) indicate limited visibility of several of the riverine structures as well as visibility toward Hog Island. Photographs taken from the shoreline of the property in several locations (Figure 38 – Photo Arrows 5 and 6 and Figures 47 and 48) illustrate that the transmission line structures as well as those located within the Surry Power Station would be visible. The shoreline views, in particular the view from Photo Location 6, would be significant particularly with respect to the river crossing. From this point, the transmission line crossing is approximately 1.5 miles distant; however, the view would be direct. Additionally, photo simulations prepared by Truescape on behalf of Dominion illustrate the potential view from Carter's Grove (Appendix D).

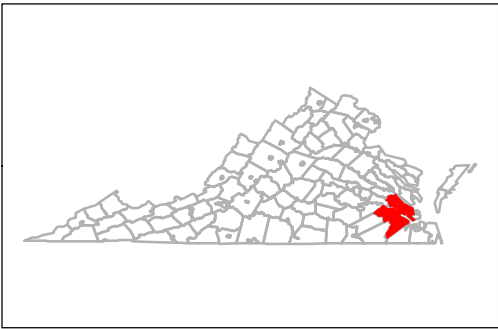
Ten of the 17 structures crossing the James River require lighting at the top, with several requiring mid-level lighting, and due to the proximity of this resource to the lighted structures, it is anticipated that the addition of the structure lighting would affect the integrity of setting, a primary characteristic associated with the Carter's Grove NHL property. As such, it was recommended that Carter's Grove would be adversely affected by the proposed Surry to Skiffes Creek 500 kV transmission line segment.

Therefore, Stantec concludes that the proposed project would have an Adverse Effect to Carter's Grove (VDHR #047-0001). The close proximity to the resource and views to the proposed river crossing in particular would detract from the resource's characteristics of setting and feeling which are integral to the resource's qualifications for listing on the NRHP and as a NHL property.

Per the USACE Public Notice, published May 21, 2015, the USACE has determined that the project would have an Adverse Effect to Carter's Grove. The USACE' determination is that the project would have an Adverse Effect and that the project would detract from the resource's characteristics and integrity qualifying it for listing on the NRHP.

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- Notes**
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
 2. Orthoimagery © Bing Maps

- Legend**
- Observer Point
 - Observation Point Sight Lines
 - Area Visible
 - Area Not Visible
 - Proposed Tower Location - Visible
 - Proposed Tower Location - Not Visible
 - Architectural Resources
 - Approximate Area of Potential Effects
 - Skiffes Creek to Wheaton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line

0 2,250 4,500 Feet
1:54,000 (at original document size of 8.5x11)



Project Location
County: York, James City, Surry,
Newport News, Isle of Wight
USGS Quad: Hog Island, Yorktown,
Pocahontas West, Bacon's Castle,
Mulberry Island, Newport News North

203416120
Prepared by SWS on 2015-09-09
Technical Review by AJL on 2015-09-09
Independent Review by EMB on 2015-09-09

Client/Project
Dominion Virginia Power

Figure No.
37

Title
Line of Sight Analysis for
VDHR# 047-0001

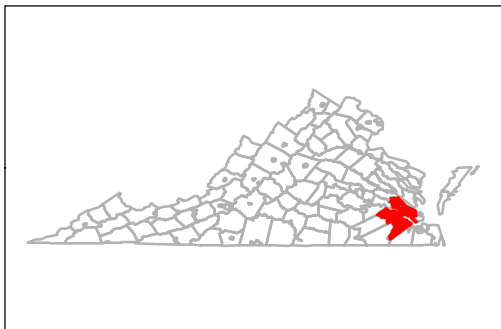
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Revised: 2015-09-15 By: ssulor
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Revised: 2015-09-15 By: ssulor

Photograph Locations 1, 2, and 3



Photograph Locations 4, 5, and 6



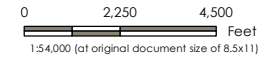
Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
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Legend

- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line



Project Location

County: York, James City, Surry,
Newport News, Isle of Wight
USGS Quad: Hog Island, Yorktown,
Poquoson West, Bacon's Castle,
Mulberry Island, Newport News North

203416120
Prepared by SWS on 2015-09-15
Technical Review by AJL on 2015-09-15
Independent Review by EMB on 2015-09-15

Client/Project

Dominion Virginia Power

Figure No.

38

Title

Photograph Location and Direction



Figure 39. Carter's Grove (VDHR #047-0001), View Looking Southwest.



Figure 40. Approach to Carter's Grove (VDHR #047-0001), View Looking Southwest (Figure 38 - Photo Arrow 1a).



Figure 41. View from Approach to Carter's Grove (VDHR #047-0001) Looking East towards the Existing Skiffes Creek to Whealton 230 kV Transmission Line (Figure 38 – Photo Arrow 1b).



Figure 42. View from Photo Location 2 (Figure 38 – Photo Arrow 2a), Looking South toward Carter's Grove Mansion and Proposed Surry to Skiffes Creek 500 kV Transmission Line. Red arrow denotes general location of proposed transmission line.



Figure 43. Zoomed View of Carter's Grove (Figure 38 – Photo Arrow 2a) Looking Southwest towards Proposed Surry to Skiffes Creek 500 kV Transmission Line. Red arrow denotes general location of proposed transmission line.



Figure 44. View Looking Southeast from Photo Location 2 toward the Land-Based Portion of the Proposed Surry to Skiffes Creek 500 kV Transmission Line (Figure 38 – Photo Arrow 2b). The distance, dense tree cover and natural terrain will shield this location from view. Red arrow denotes general location of proposed transmission line.

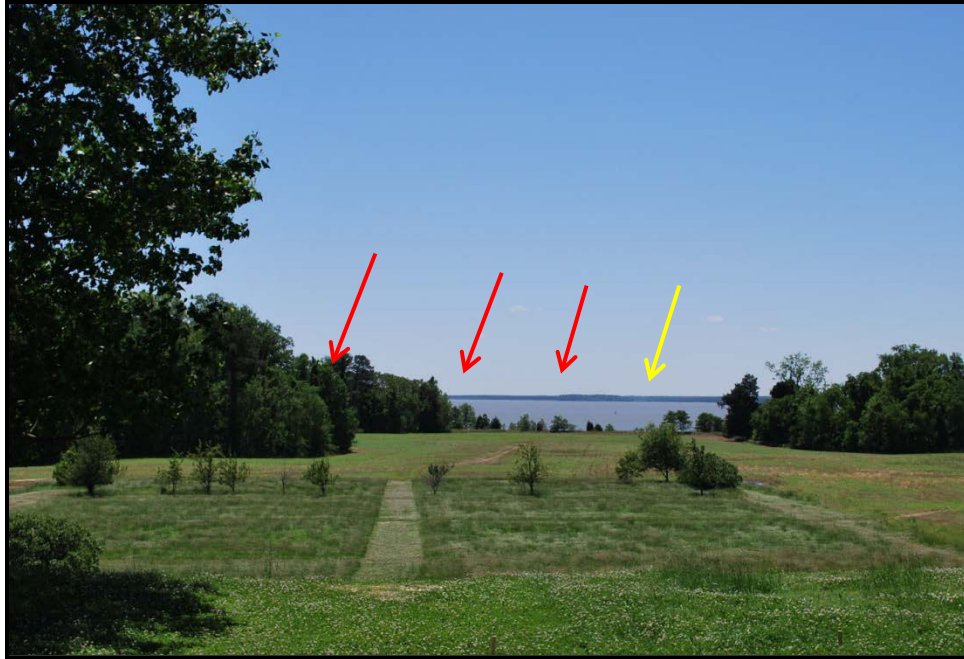


Figure 45. View from Photo Location 3, the Rear of the Main House, Looking South towards Proposed Surry to Skiffes Creek 500 kV Transmission Line. Red arrow denotes general location of proposed transmission line (Figure 38 – Photo Arrow 3). Yellow line depicts location of Hog Island and the Surry Power Station.



Figure 46. View from Photo Location 4, Looking South/Southwest toward the Proposed Surry to Skiffes Creek 500 kV Transmission Line (Figure 38 – Photo Arrow 4). Red arrow denotes general location of proposed transmission line. Yellow line depicts location of Hog Island and the Surry Power Station.



Figure 47. View from Photo Location 5, the Bank of the James River, Looking South/Southwest toward the Proposed Surry to Skiffes Creek 500 kV Transmission Line (Figure 38 – Photo Arrow 5). Red arrow denotes general location of proposed transmission line. Yellow line depicts location of Hog Island and the Surry Power Station.



Figure 48. View from Photo Location 6, the Bank of the James River, South of the Main House, Looking South Southeast toward the Proposed Surry to Skiffes Creek 500 kV Transmission Line (Figure 38 – Photo Arrow 6). Red arrow denotes general location of proposed transmission line.

3.10 KINGSMILL PLANTATION (VDHR #047-0010)

The Kingsmill area was first patented in approximately 1619, 12 years after the landing at Jamestown. In the vicinity of Kingsmill were several large plantations likely named after the longest staying tenants (Kelso 1984). These included Farley's plantation, Utopia, the land of John Utie, Hartrop's, for possibly Edward Hartrop, Tuttey's Neck, likely named for Thomas Tutty, and Kingsmill, most likely named for Richard Kingsmill. By 1640, Kingsmill had become divided into two large plantations and nearly all the aforementioned lands had been acquired by Humphrey Higginson and combined, except for Littleton and Utopia, which were purchased and combined by Colonel Thomas Pettus (Kelso 1984). By the end of the seventeenth Century, Thomas Pettus acquired all the land encompassing the current Kingsmill. The site currently encompasses archaeological elements associated with the Colonial period occupation of the site as well as two brick dependencies, the filled remains of the main house cellar, and several other outbuilding foundations (VDHR Site Files).

3.10.1 National Register Status – NRHP-Listed, Criteria A and D

Kingsmill Plantation was listed on the NRHP and the VLR in 1972 (VDHR Site Files). Kingsmill Plantation was listed under Criterion D for its archaeological significance and also under Criterion A for its association with the Colonial Period in Virginia. The Kingsmill Plantation is located within the Kingsmill Resort Property. While the primary significance of the resource lies in its archaeological context, an assessment of the seven aspects of integrity for both archaeological significance and association with Virginia's Colonial Period was applied. Because of its location in the Kingsmill Resort, the site has diminished integrity of setting and feeling. It does retain integrity of location and integrity associated with design, workmanship, and materials. The historic site contains two extant dependencies associated with the Kingsmill main house that have been excavated archaeologically (Figure 52). The resource's integrity of association is also retained because it serves as an important part of the Colonial period history.

3.10.2 Distance to ROW and Transmission Line Data

The resource is approximately 3.16 miles north/northwest of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.10.3 Effects Analysis

The plantation sits on a portion of the gently undulated 190.73 acre parcel of Kingsmill Resort along the northern shore of the James River (James City County Online Tax Assessment Records). Modern residential development and several golf courses currently surround the resource. The landscape immediately surrounding the resource includes a manicured lawn with trees throughout, modern residential homes, and a soccer field.

The Kingsmill Plantation Site is noted primarily for its archaeological significance with respect to both the information that has been discovered through excavation of the site as well as the archaeological potential that the site retains. In addition to the interpreted area of the site, the resource extends along the shoreline of the James River. Kingsmill was excavated intensively in the 1970s and sites dating from the early colonial period through the nineteenth century were identified. The Kingsmill Plantation Site, as it is today, focused on the accessible historic site and location of interpretive signage, retains integrity with respect to workmanship, materials, design, location, and association. However, the integrity of setting and feeling has been diminished by the development of the surrounding resort community. It should also be noted that the majority

of the site has been disturbed by the construction of the Kingsmill Resort and its associated golf courses, residences, resort accommodations, and piers.

The proposed transmission line project will have no direct effect to the Kingsmill Plantation Site. There will be no ground disturbing or other construction activity with the bounds of the resource resulting in no direct impact which would affect the resource's integrity or character. The property use will also not be affected by the proposed project. To ascertain the potential indirect effects that the project may pose to the resource, visual effects were analyzed for the interpreted site (including the filled cellar of the main house); the two brick dependencies; and the portion of the resource located along the James River shoreline.

Line-of-sight computer modeling was conducted for this resource from the historic site including the filled brick cellar, brick dependencies and interpretive signs (Figure 49). The line-of-sight analysis suggests that the transmission line structures, both land-based and associated with the river crossing, would not be visible from this area (Observer Point/Photo Location 2). Photographs taken from the resource toward the project and the Surry Power Station indicated that the existing structures present within the power plant were not visible due to the presence of modern residences and dense tree cover surrounding the historic site (Figure 50 – Photo Arrow 2 and Figure 52). Although a large portion of the site has been compromised by residential development, a photograph was taken from the shoreline toward the proposed transmission line crossing and within the mapped boundaries of the site (Figure 50 and Figure 53; Photo Arrow 1).

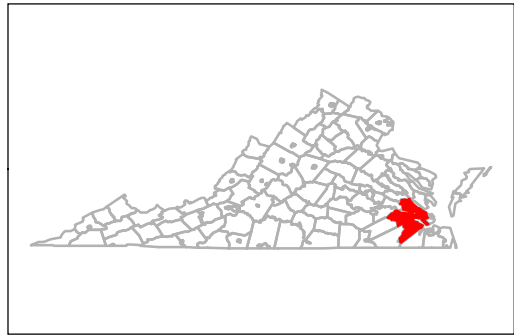
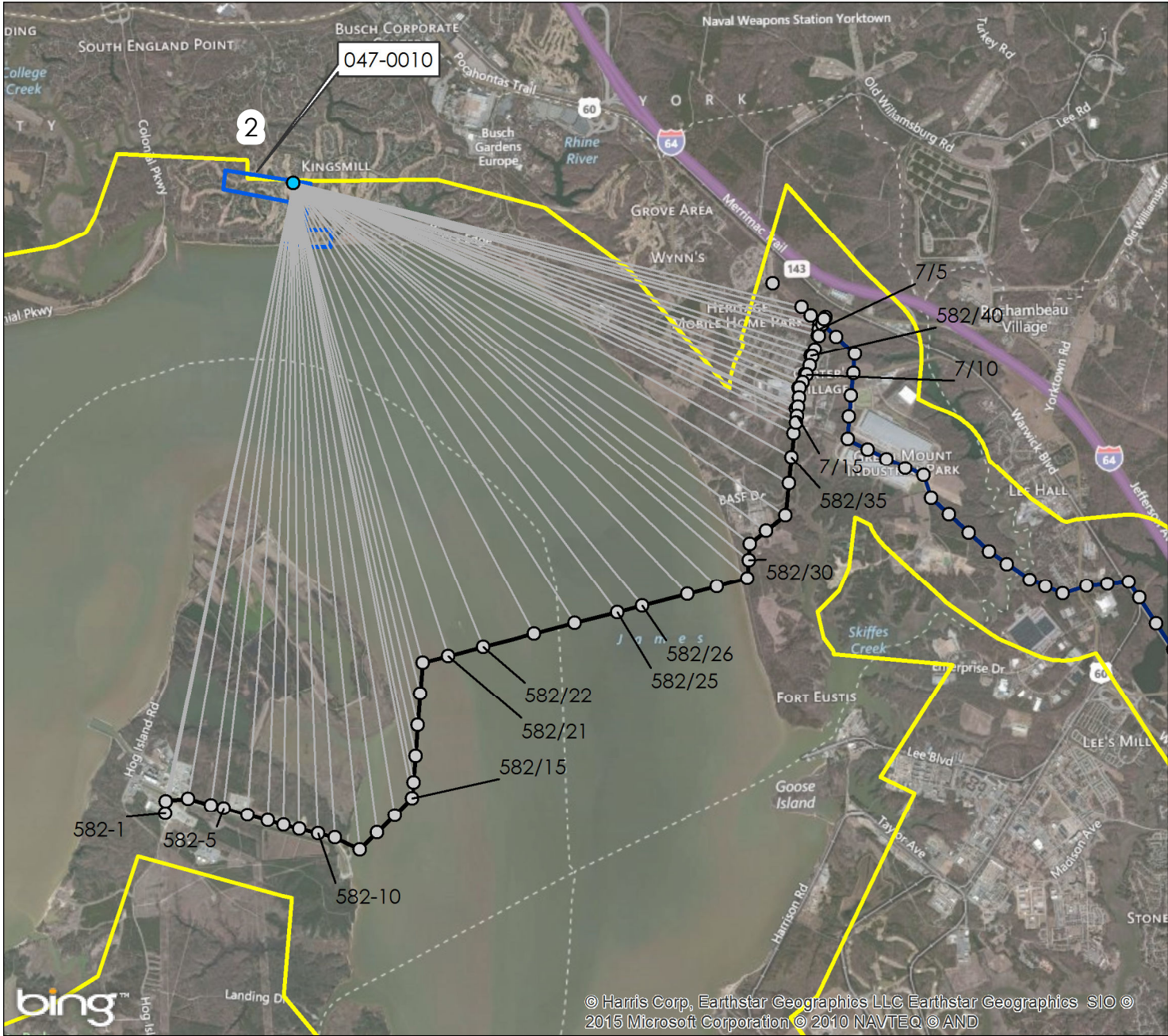
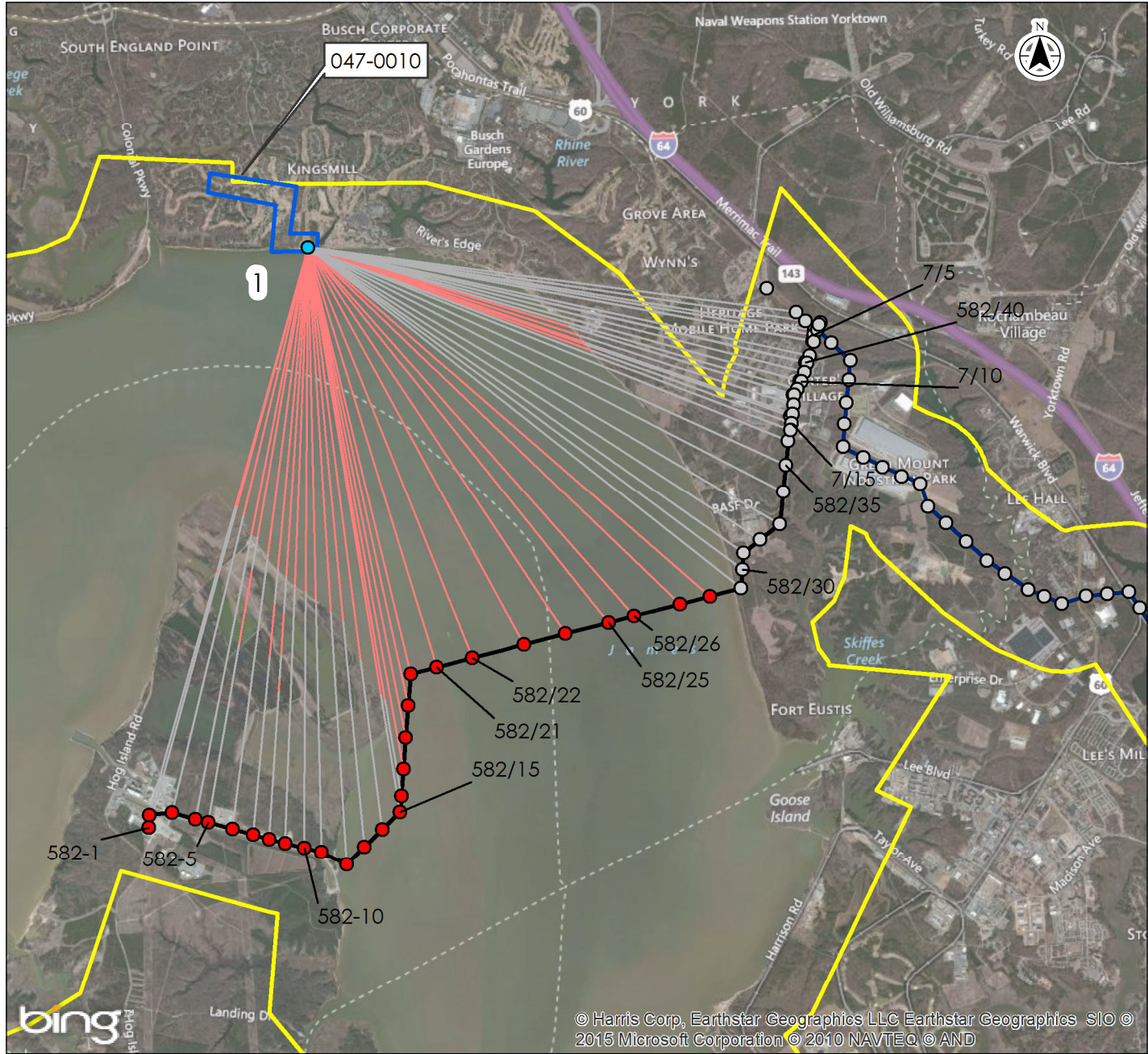
The photographs as well as a line-of-sight analysis (Photo Location/Observer Point 1) indicated that there would be a view of the transmission line crossing in this area (Figure 50 – Photo Arrow 1 and Figure 53). There would be a clear view of the line from this location and structures 582/18 through 582/26 would be fully visible and structures 582/1 through 582/17 would be partially obstructed with the top portions of the towers visible over the trees on Hog Island; however this single view would not compromise the aspects of integrity qualifying the resource for listing on the NRHP, which are primarily related to Criterion D and the site's potential to yield significant information in history. Photo simulations prepared by Truescape on behalf of Dominion illustrate the potential view from the vicinity of this location, and within the Kingsmill Resort (Appendix D).

Although 10 of the 17 structures crossing the James River require lighting at the top with several requiring mid-level lighting, it is not likely that the lights would affect the integrity of Kingsmill Plantation site or its NRHP-qualifying characteristics. FAA guidance indicates that the type of light typically required, the L-864 red blinking light, may be visible for distances up to approximately 3.1 miles. The Kingsmill Plantation site is located approximately 3.16 miles from the proposed transmission line crossing. While the structure lighting may be slightly visible at night, the lights would not detract from those characteristics qualifying Kingsmill for listing on the NRHP. Light intrusions already exist within the viewshed of this resource including lighting associated with the Kingsmill Resort and nearby Busch Gardens, as well as lighting associated with the Surry Power Station and lighted navigational markers present within the James River channel. The addition of the structure lighting, with minimal impact and intensity at this distance, would not adversely impact or detract from the resource's primary characteristics qualifying it for listing on the NRHP under Criterion A or D.

The Kingsmill Plantation historic site is shielded from view of the transmission line project by natural conditions as well as the surrounding development. A view from within the boundary of the resource along the shoreline of the James River would afford views of the transmission line; however, this area is at the rear of modern residential development featuring manicured lawns, piers, and other amenities. The integrity of setting and feeling has been diminished due to the modern developments within the boundary of the resource, as well as within the surrounding resort community. Therefore the proposed project will not have a negative indirect or visual effect to the historic resource, as it would not detract from the integrity of location, association, workmanship, materials or design for those characteristics qualifying the site for

listing on the NRHP. The proposed project would also not have a direct effect to this resource as an archaeological site as there will be no ground disturbing or construction activities within the bounds of the NRHP-listed resource.

Stantec concludes that the proposed project will have No Adverse Effect on the Kingsmill Planation Site (VDHR #047-0010). In addition, the construction of the project will not detract from or adversely affect those characteristics which contribute to Kingsmill's status for listing on the NRHP.



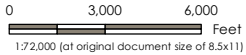
Notes

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Legend

- Observer Point
- Observation Point Sight Lines
- Area Visible
- Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Wheaton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line



Project Location
County: York, James City, Surry,
Newport News, Isle of Wight
USGS Quad: Williamsburg, Clay Bank,
Hog Island, Yorktown.

203416120
Prepared by SWS on 2015-09-09
Technical Review by AJL on 2015-09-09
Independent Review by EMB on 2015-09-09

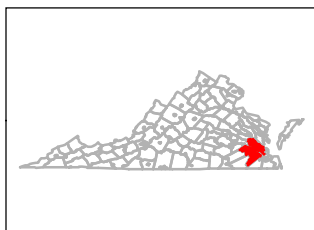
Client/Project
Dominion Virginia Power

Figure No.

49

Title

Line of Sight Analysis for
VDHR# 047-0010



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Legend

- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

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Project Location 203416120
 County: York, James City, Surry
 Newport News, Site of Wight
 USGS Quad: Williamsburg, Clay Bank
 Hog Island, Yorktown
 Client/Project
 Dominion Virginia Power

Figure No.
50
 Title
Photograph Location and Direction



Figure 51. Kingsmill (VDHR #047-0010), View Looking Southwest.



Figure 52. View from Kingsmill Plantation Site at Frances Thacker Drive toward the Proposed Transmission Line Project. View Looking Southeast (Figure 51– Photo Arrow 2). Red Arrow Denotes the direction and approximate location of the Proposed Transmission Line.



Figure 53. View from Kingsmill Plantation (VDHR #047-0010) Looking Southeast from the shoreline boundary of the resource towards Proposed Surry to Skiffes Creek 500 kV Transmission Line River Crossing (Figure 51 – Photo Arrow 1). The shoreline to the right of the photo is Hog Island (denoted by the yellow arrow) and the Location of the Surry Power Station.

3.11 AMBLERS/COKE-WATTS HOUSE (VDHR #047-0043)

3.11.1 Description of Resource

Amblers is a two-story, H-shaped brick dwelling with five bays across the front façade and supported by a brick foundation (Figure 56). The current roof is slate. Additional features include six-over-six and nine-over-six wood double-hung sash windows and three interior brick chimneys. The dwelling was restored in the 1930s and has also been added on to several times, including a large two-story wing. The property also includes two outbuildings: a brick smokehouse and a brick building of unspecified function. According to the NRHP nomination, the house is currently vacant (VDHR Site Files; Amblers National Register nomination form).

3.11.2 National Register Status- NRHP-Listed, Criterion C

At the time the identification surveys were conducted for this project, the Amblers/Coke Watts House was identified as eligible for listing on the NRHP. Since that time, the Amblers/Coke Watts House has been listed on the NRHP under Criterion C for its architectural merit (Amblers National Register nomination form 2015) with a period of significance of 1852 to 1950. Ambler's was listed on the NRHP for its architectural integrity including workmanship, materials, and design. The resource also retains integrity of setting and feeling as well as location. The dwelling is located on property owned by James City County and is in the immediate vicinity of several other county-owned recreational facilities. In addition the property is located within the NRHP-listed Governor's Land Archaeological district.

3.11.3 Distance to ROW and Transmission Line Data

The resource is approximately 6.64 miles west/northwest of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.11.4 Effects Analysis

Amblers is accessed down a long circular driveway that terminates in front of the dwelling. The house sits on a 2.5 acre parcel and is surrounded by a manicured lawn with a number of large trees in the immediate vicinity of the dwelling. To the northeast is an open field area, and to the southwest is a view of the James River.

The defining characteristics which qualify Amblers for listing on the NRHP are the resource's architectural significance and its setting. As noted in the NRHP nomination, Amblers is the "only known surviving example in the Peninsula area of the Picturesque design aesthetic that transformed American architecture in the middle decades of the nineteenth century" (NRHP nomination). Although alternations were made to the house in the 1950s, the addition was constructed in kind, using the materials, layout, and details of the earlier work. However, the addition did alter some of the features of the Picturesque style to be more reflective of the Colonial Revival movement, another significant architectural movement in the region.

The proposed transmission line project will not directly affect the dwelling or outbuildings; therefore there would no adverse effect to the resource's integrity of design, workmanship, or materials. In addition, the location of the resource will be unaltered. Visual effects assessments were conducted to determine if the proposed transmission line would be potentially visible from this resource and therefore have the potential to affect the integrity of setting and feeling.

Computer line-of-sight modeling suggests that the proposed structures associated with the Surry to Skiffes Creek 500 kV line, which range in height from 102 feet to 297 feet, will not be visible from Amblers/Coke-Watts House due to the distance and tree cover between the resource and the proposed 500 kV line (Figure 54). The location of the resource, at a distance of 6.64 miles, coupled with the natural and modern obstructions located between the resource and the proposed project, protect the resource from view and potentially adverse effects to the resource's integrity. Because the project would not be visible from this resource, and there would be no direct impact to the physical structure and location of the resource, the integrity of those characteristics qualifying it for the NRHP would not be affected.

Photographs from the Amblers/Coke-Watts House towards the proposed Surry to Skiffes Creek 500 kV Transmission line were taken from the front of the dwelling. During the fieldwork portion of the effects study it was noted that dense tree cover on the southeastern and eastern portions of the property obscured the views of the portion of the river where the proposed Surry to Skiffes Creek 500 kV transmission line would cross the James River (Figures 55 and 57; Photo Arrow 1).

Stantec concludes that the proposed project will have No Adverse Effect on Amblers/Coke-Watts House (VDHR #047-0043). In addition, the construction of the project will not detract from or adversely affect those characteristics which contribute to Amblers/Coke-Watts House's status for listing on the NRHP.



Figure No.
54

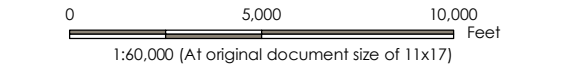
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**Line of Sight Analysis for
VDHR# 047-0043**

Client/Project
Dominion Virginia Power

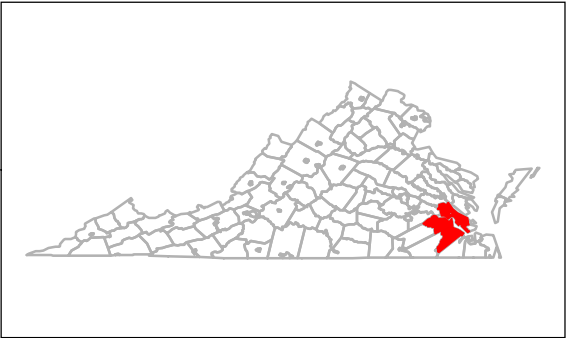
Project Location
203416120

USGS Quad: Surry, Hog Island, Yorktown, Runnymede, Bacons Castle, Mulberry Island
County: James City, York, Surry, Newport News, Isle of Wight

Prepared by SWS on 2015-09-09
Technical Review by AJL on 2015-09-09
Independent Review by EMB on 2015-09-09



- Legend
- Observer Point
 - Observation Point Sight Lines
 - Area Visible
 - Area Not Visible
 - Proposed Tower Location - Visible
 - Proposed Tower Location - Not Visible
 - Architectural Resources
 - Approximate Area of Potential Effects
 - Skiffes Creek to Wheelton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
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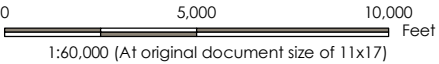
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Title
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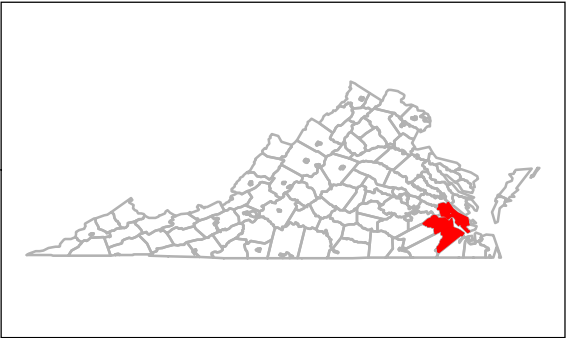
Client/Project
Dominion Virginia Power

Project Location
USGS Quad: Surry, Hog Island, Yorktown, Runnymede, Bacons Castle, Mulberry Island
County: James City, York, Surry, Newport News, Isle of Wight

203416120
Prepared by SWS on 2015-09-10
Technical Review by AJL on 2015-09-10
Independent Review by EMB on 2015-09-10



- Legend
- Proposed New Structure
 - Reconductoring Existing Structure
 - Remove and Replace Existing Structure
 - Photograph Location
 - Architectural Resources
 - Approximate Area of Potential Effects
 - Skiffes Creek to Whealton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



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Figure 56. Amblers (VDHR #047-0043), View Looking Northwest.



Figure 57. View from Amblers (VDHR #047-0043) Looking Southeast towards Proposed Surry to Skiffes Creek 500 kV Transmission Line (Figure 55 – Photo Arrow 1). Red arrow denotes general location and direction of the proposed transmission line project.

3.12 GOVERNOR'S LAND ARCHAEOLOGICAL DISTRICT (VDHR #047-0082)

3.12.1 Description of Resource

Governor's Land Archaeological District is one of the earliest settlements of the Virginia Colony beyond the bounds of Jamestown. The district as listed contains over 2,000 acres. The district contains a concentrated area of early to mid-seventeenth century building sites (VDHR Site Files). A large portion of this district is located within the Governor's Land residential development.

3.12.2 National Register Status – NRHP-Listed, Criterion D

The Governor's Land Archaeological District was listed on the NRHP 1973 (VDHR Site Files) under Criterion D for its archaeological significance and information potential. Typically archaeological sites are addressed for direct effects associated with ground disturbing activities that may affect the integrity of documented archaeological deposits. The archaeological sites associated with the Governor's Land Archaeological District have been largely excavated. However, the potential for additional archaeological deposits within the undeveloped portions of the district remains. The district's significance and integrity rest primarily with the potential for archaeological remains and the potential to yield significant information about the past, but, the resource's location also retains integrity. Integrity of setting and feeling has been diminished by the fact that a large majority of the resources have been excavated and that the site is largely developed; however within some portions of the district integrity of setting may be identified.

3.12.3 Distance to ROW and Transmission Line Data

The resource is approximately 5.70 miles west/northwest of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.12.4 Effects Analysis

The landscape of Governor's Land Archaeology District comprises open fields, wooded areas, and within the northwest portion of the resource, modern residential development. The resource is bounded on the southwest by the James River. Located within Governor's Land Archaeology District is Amblers (VDHR #047-0043) which was discussed in Section 3.11 and Green Springs Battlefield, which currently does not have a discreet architectural identifier and is discussed as a separate resource in section 3.32.

Typically archaeological sites are not assessed for visual effects as they do not often include above-ground resources. However, the Governor's Land Archaeological District was considered for visual effects because of the location of the resource and integrity of setting present in portions of the resource. Also included within this resource is the Battle of Green Springs, which is characterized by open landscape. The proposed transmission line would not directly affect this resource and there would be no compromise to the archaeological integrity of the district which qualifies it for listing on the NRHP. Additionally, the association of the district with the Colonial Period in Virginia would not be affected by the construction of the transmission line. A large majority of identified significant archaeological resources have already been excavated prior to the development of the residential subdivision.

Computer line-of-sight modeling indicates that the proposed structures associated with the Surry to Skiffes Creek 500 kV line, which range in height from 102 feet to 297 feet, will not be visible

from the Governor's Land Archaeology District due to tree cover between the resource and the proposed 500 kV line (Figure 58). The distance and landscape located between this resource and the proposed project would shield the resource from view of the transmission line structures.

Photographs from an accessible location within the Governor's Land boundary and the APE for the project towards the proposed Surry to Skiffes Creek 500 kV Transmission line were taken from the shoreline at the southeastern end of the resource at the northern end of Jamestown Settlement (Figures 59-60; Photo Arrow 1). The view toward the proposed transmission line as it crosses the river from Surry to James City County would be obscured by distance and natural conditions located between the resource and the project area. The Surry Power Station and associated structures were not visible from the point of survey as viewed during the fieldwork portion of the effects study. The proposed transmission line would not detract from the resource's character defining elements of setting, location, and feeling or because the transmission line would be visible from the resource.

Stantec concludes that the proposed project will have No Adverse Effect on Governor's Land Archaeological District (VDHR #047-0082). In addition, the construction of the project will not detract from or adversely affect those characteristics which contribute to Governor's Land Archaeology District's status for listing on the NRHP.

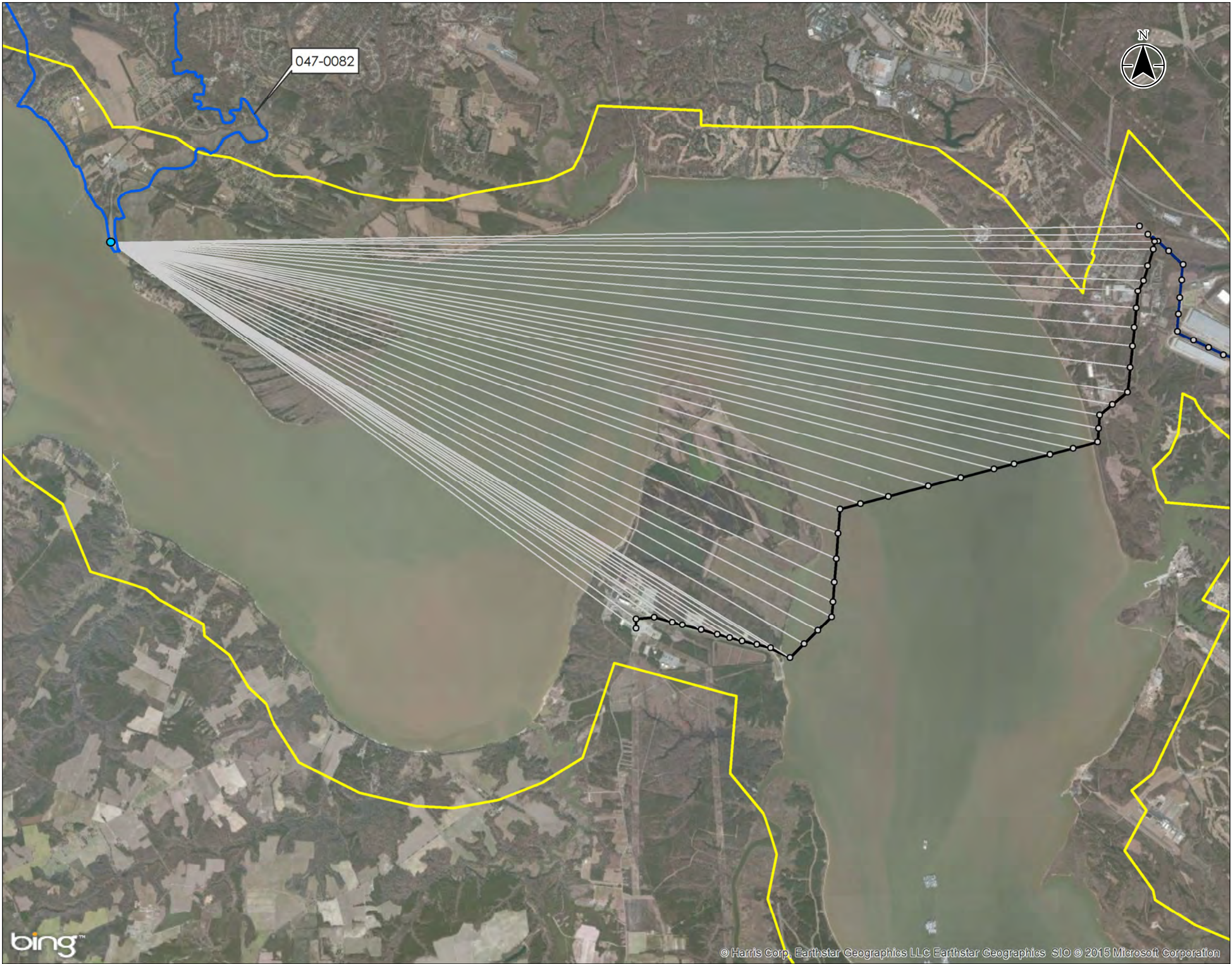


Figure No.
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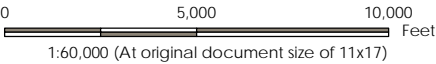
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**Line of Sight Analysis for
VDHR# 047-0082**

Client/Project
Dominion Virginia Power

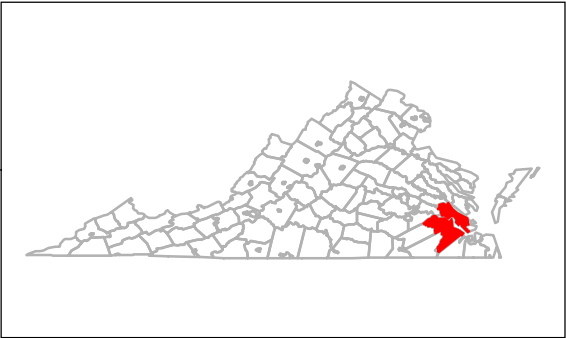
Project Location
USGS Quad: Surry, Hog Island, Yorktown, Runnymede, Bacons Castle, Mulberry Island
County: James City, York, Surry, Newport News, Isle of Wight

203416120

Prepared by SWS on 2015-07-27
Technical Review by AJL on 2015-07-27
Independent Review by EMB on 2015-07-27



- Legend
- Observation Point
 - Proposed Tower Location - Visible
 - Proposed Tower Location - Not Visible
 - Architectural Resources
 - Observation Point Sight Lines
 - Area Visible
 - Area Not Visible
 - Approximate Area of Potential Effects
 - Skiffes Creek to Whealton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



- Notes
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Figure No.

59

Title

Photograph Location and Direction

Client/Project

Dominion Virginia Power

Project Location

203416120

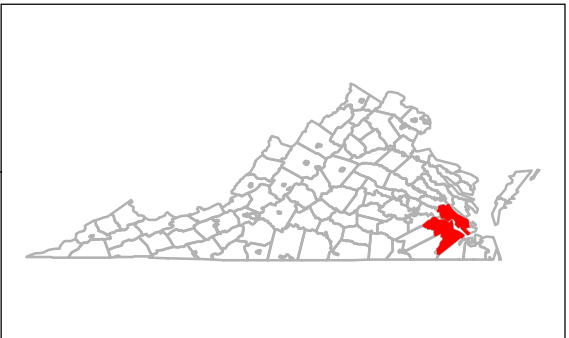
USGS Quad: Surry, Hog Island, Yorktown,
Runnymede, Bacons Castle, Mulberry Island
County: James City, York, Surry,
Newport News, Isle of Wight

Prepared by SWS on 2015-09-10
Technical Review by AJL on 2015-09-10
Independent Review by EMB on 2015-09-10

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Legend

- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line



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Figure 60. View from Governor's Land Archaeological District (VDHR #047-0082) Looking Southeast towards the Proposed Surry to Skiffes Creek 500 kV Transmission Line River Crossing (Figure 59 – Photo Arrow 1). Red Arrow Denotes General Location of Proposed Crossing.

3.13 ARTILLERY LANDING SITE AT TREBELL'S LANDING (VDHR #047-5307)

3.13.1 Description of Resource

Trebell's Landing, currently an open grassy area along the northern shore of the James River (Figure 61), was part of a 107-acre parcel owned by William Trebell in 1768 (Goodwin 1970:3 and 5-6). The site is located on a portion of the 648.8-acre parcel currently owned by the BASF Corporation (James City County Online Tax Assessment Records). The landing is no longer obviously visible. A 1782 map that depicts Trebell's Landing also shows several buildings of different sizes located slightly inland from the landing. The largest building may indicate the location of Trebell's dwelling; however, no buildings associated with Trebell's occupation are visible above ground on the parcel (VDHR Site Files).

3.13.2 National Register Status – Eligible, Criterion D

The Artillery Landing Site at Trebell's Landing is determined potentially eligible for listing on the NRHP under Criterion D for its potential to yield important information in history, particularly as a military site associated with the Revolutionary War and Battle of Yorktown (VDHR Site Files). Trebell's Landing's significance lies in its archaeological potential and association with the Revolutionary War; therefore the aspects of integrity including workmanship, materials, and design were not considered applicable to this evaluation of effect. However, the parcel does retain integrity of location. The parcel has been altered and is located adjacent to the BASF industrial facility, which diminishes the resource's integrity of feeling and setting.

3.13.3 Distance to ROW and Transmission Line Data

The resource is approximately 0.52 miles northeast of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.13.4 Effects Analysis

The landscape of the resource consists of an open grassy field with trees to the northeast, northwest, and southeast. To the southeast is the shoreline of the James River where artillery was off-loaded from ships. No above ground resources, including any wharf remains, are visible (Figure 61).

Trebell's landing has been recommended eligible for listing on the NRHP for its archaeological significance. Typically archaeological sites are assessed for direct effects associated with ground disturbing or construction activities. The proposed transmission line project will not directly affect the potential archaeological resources or deposits associated with this resource because there will be no construction associated with the project within the bounds of the resource. Because the resource has a diminished integrity of setting and feeling and because the resource's primary significance is rooted in its archaeological potential, line of sight analysis was not completed for this resource. However, photographs from the vicinity of Trebell's landing and toward the proposed transmission line were taken (Figure 62 and 63 – Photo Arrow 1). The line would be present to the south southwest of the site and would be visible.

The resource is eligible for listing under Criterion D, for its archaeological potential. The site is chiefly important for its ability to reveal significant archaeological information and its integrity of setting and feeling have been diminished and are not considered character defining elements of the resource's NRHP eligibility. The proposed transmission line would not detract from the characteristics qualifying this resource for listing on the NRHP.

Stantec concludes that the proposed project will have No Adverse Effect to this resource. In addition, the construction of the project will not detract from or adversely affect those primary characteristics which would affect Trebell's Landing's eligibility status for listing on the NRHP.



Figure 61. Trebell's Landing (VDHR #047-5307), View Looking Northeast.



Figure 62. View from vicinity of Trebell's Landing (VDHR #047-5307) Looking Southwest towards Proposed Surry to Skiffes Creek 500 kV Transmission Line James River Crossing (Figure 63 – Photo Arrow 1).



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Legend

- X Proposed New Structure
- X Reconstructing Existing Structure
- X Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

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Project Location 203416120
County: James City, Newport News Prepared by SWS on 2015-09-10
USGS Quad: Hog Island, Yorktown Technical Review by A.J.L. on 2015-09-10
Independent Review by EMB on 2015-09-10

Client/Project

Dominion Virginia Power

Figure No.

63

Title

Photograph Location and Direction

3.14 MARTIN'S HUNDRED GRAVEYARD (VDHR #047-5333/SITE44JC0048)

3.14.1 Description of Resource

Martin's Hundred Graveyard dates to the late seventeenth century (VDHR Site Files). The site was originally recorded in 1977 and was subject to Phase II archaeological evaluation in 1992 at which time a boundary was delineated. At the time of the Phase II survey, one gravestone was extant. The stone, lying on the ground surface, was inscribed as follows: "Here Lieth...Resurrection the body of Samuel Pond of Martins Hundred Parish in James City County in the Dominion of Virginia. Physician who Departed this Life the 26 of October in the Year of Our Lord 1694, Age 43" (VDHR Site Files; Leithoff et al. 2012). Markers were not visible during the subsequent archaeological and architectural surveys conducted in 2012 (Figure 66).

3.14.2 National Register Status – Eligible, Criteria A and D

Martin's Hundred Graveyard is eligible for listing on the NRHP under Criterion A for its association with the seventeenth century settlement of Martin's Hundred Parish and under Criterion D for its potential to yield important information in history (VDHR Site Files). The graveyard retains integrity of location because it has not been moved; however the integrity of setting and feeling has been diminished by the presence of the resource within the power line and adjacent to a large distribution facility. At the time of survey, the cemetery was so overgrown that an inspection of the interior of the resource (to identify the reported gravestone) was not possible. The cemetery retains its integrity of location; however integrity of workmanship, materials, and design cannot be adequately assessed. Its association with the seventeenth century settlement of the area would also be considered a defining characteristic.

3.14.3 Distance to ROW and Transmission Line Data

Martin's Hundred Graveyard (Site 44JC0048) is located within the Skiffes Creek to Whealton 230 kV transmission line ROW corridor between proposed structures 2138/12 (to the southeast) and 2138/11 (to the northwest). Existing structure 285/427 is a four-leg lattice style structure that is currently 115 feet in height, and its replacement structure, 2138/12, will also be 115 feet in height. Tower 285/426, also a four-leg lattice style structure is currently 120 feet in height, and its replacement, 2138/11, will measure 130 feet in height. The existing structures are weathering lattice structures, and the replacements will be steel monopoles (Appendix C2, Sheets 1-4). The site is also within the APE for Indirect Effects for the Surry to Skiffes Creek 500 kV line. However, any view of this segment of the project will be obstructed by the adjacent distribution center buildings (Figure 64).

3.14.4 Effects Analysis

The cemetery is currently enclosed by a modern chain link fence and is overgrown. To the northeast and southwest of the resource are large Walmart distribution center buildings with associated access roads and parking lots. The resource is also within the Skiffes Creek to Whealton 230 kV transmission line ROW corridor. The site has been addressed as an archaeological resource as well as an architectural resource, and as such both direct and indirect effects are addressed in this analysis.

Because of this resource's location within the existing transmission line corridor, computer generated line-of-sight modeling was not conducted. The site is located between two existing structures which are scheduled for replacement (Figure 64). During the fieldwork portion of the effects assessment, photographs were taken from the fence line of the cemetery looking

northwest and southeast along the existing Skiffes Creek to Whealton 230 kV transmission line and to the southwest towards the location where the Surry to Skiffes 500 kV transmission line is proposed (Figures 65-69; Photo Arrow 1, A-C). These photographs were taken in an effort to ascertain the potential indirect or visual effects that affect the character-defining elements of this resource.

The Martin's Hundred Graveyard retains significance for its association with the Colonial period in Virginia and the seventeenth-century settlement of Martin's Hundred. It is also significant for its archaeological potential. The setting and feeling of the resource have been compromised and are not considered defining elements of this resource; however it does retain its integrity of location. Although the graveyard is located within the power line easement it will not be directly impacted by the proposed project because it will remain protected during all construction activities. Because there will be no physical impact to the cemetery, the characteristics of the cemetery, including layout, potential markers and headstones, as well as decorative elements, would not be altered by the proposed transmission project. Indirect effects, which would include visual effects, are present; however the addition of replacement structures does not change the existing conditions surrounding the resource and would not further detract from the resource's character, use, or integrity. Furthermore, the proposed 500 kV transmission line would not be visible from this resource due to the surrounding distribution center buildings. Other potential effects, including noise, future development, or impacts from access roads, do not affect this resource and would not detract from the resource's significance.

Stantec concludes that the proposed project will have No Adverse Effect to this resource. In addition, the construction of the project will not detract from or adversely affect those characteristics which would affect Martin's Hundred Cemetery's eligibility status for listing on the NRHP. The replacement of structures does not alter the existing conditions or create a cumulative adverse effect to this resource or the elements qualifying it for listing on the NRHP.

REDACTED ARCHEOLOGICAL SITE LOCATIONAL INFORMATION

REDACTED ARCHEOLOGICAL SITE LOCATIONAL INFORMATION

3.15 4H CAMP (VDHR #047-5432)

3.15.1 Description of Resource

The 4H Camp dates to c. 1950 and is located on a cliff edge overlooking the James River. The hall is a one-story, masonry, four-bay building supported by a concrete block foundation. The exterior walls are constructed of concrete block, and the side gable roof with clipped gables is covered with asphalt shingles. Visible fenestration includes single and paired twelve-over-twelve vinyl double-hung sash windows. Paved drives cut through the wooded property to access the level, central, open grassy area around which the buildings are oriented. A large, arched sign marks the main entrance to the property. Secondary resources include a picnic shelter located south of the hall, a cabin located to the west, three cabins to the northeast, a basketball court, pool with pool shed, vehicle shed, lodge, and two cabins (to the east), two lodges, a picnic shelter, archery range, amphitheater, two sheds, a boat shelter, a lodge, a bell, a flagpole, and monument to the southeast (VDHR Site Files).

3.15.2 National Register Status - Eligible, Criterion C

The 4H Camp has been determined potentially eligible for listing on the NRHP under Criterion A for Broad Patterns in History for its significance as an example of a mid-twentieth century recreational facility and under Criterion C for its architectural merit (VDHR Site Files). The 4H Camp retains elements that would be associated with all seven aspects of integrity. The primary significance lies in its integrity of workmanship, materials, design, location, setting, and feeling. While associated with the broad topic of early twentieth-century recreation it is not specifically associated with a person or event, and therefore integrity of association would not be applicable in this case.

3.15.3 Distance to ROW and Transmission Line Data

The resource is approximately 9.20 miles northwest of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment (Figures 70-73).

3.15.4 Effects Analysis

The camp sits on a relatively level 15.96 acre parcel (James City County Online Tax Assessment Records) on the northern shore of the James River at the end of 4H Club Road. The camp contains areas of open fields as well as wooded areas. The river, which is to the west of the camp buildings, is mostly obscured by a dense tree line that borders the river's shoreline. Additionally numerous areas of woods as well as Jamestown Island are located between the resource and the proposed Surry to Skiffes Creek 500 kV line shielding the view from the resource.

The 4H Camp is eligible for listing on the NRHP under Criteria A and C. The characteristics qualifying the Camp for listing are its integrity as a good example of an early twentieth century recreational facility and its architectural components – including the circa 1950 main hall and supporting buildings including cabins, recreational facilities, picnic shelters, and amphitheater – which retain integrity of workmanship, design, and materials. The camp also retains integrity of location, feeling, and setting. The camp is nestled in an area of dense woodland, along the bank of the James River at the dead end of 4H Club Road near the northern terminus of the current project APE. The project as proposed will not have a direct effect on the physical components associated with and contributing to the 4H Camp's eligibility and will not alter the resource's location, character, or use. Therefore there will be no direct effect to the resource

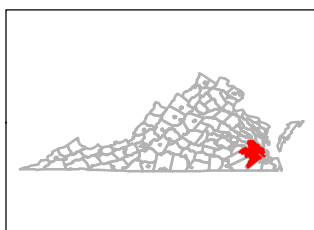
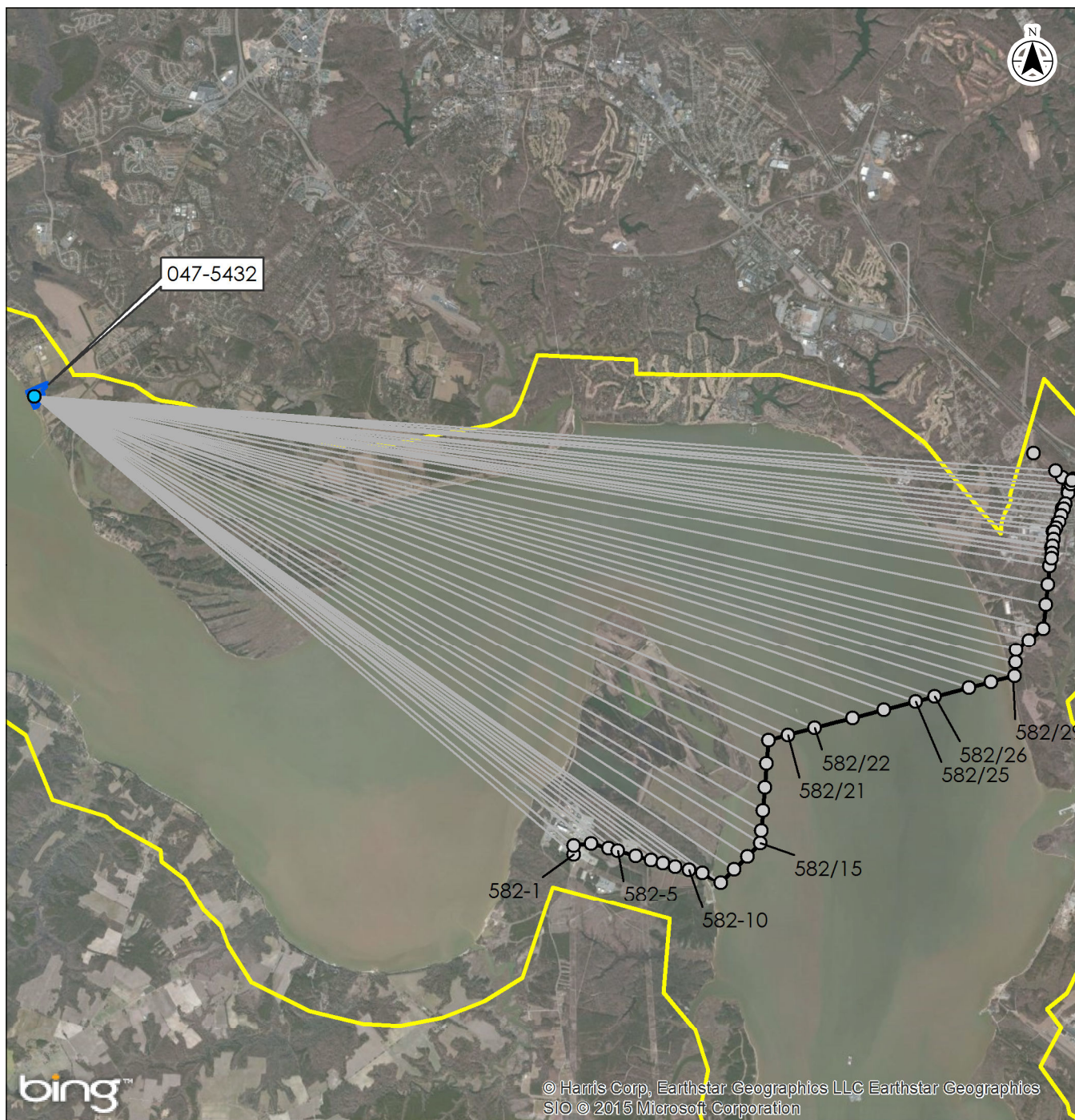
that would compromise its integrity. A visual effects assessment was conducted for the property to ascertain if the proposed transmission line might impose any visual or indirect effects to the camp that would compromise its integrity of setting and feeling.

Computer line-of-sight modeling suggests that the proposed structures associated with the Surry to Skiffes Creek 500 kV line, which range in height from 102 feet to 297 feet, will not be visible from the 4H Camp due to distance and tree cover between the resource and the proposed 500 kV line (Figure 70).

Photographs from the 4H Camp towards the proposed Surry to Skiffes Creek 500 kV Transmission line were taken from within the camp grounds in an open field area (Figure 71 – Photo Arrow 1 and Figure 73). During the fieldwork portion of the effects study it was noted that dense tree cover on the southeastern and eastern portions of the property obscured the views of the portion of the river where the proposed Surry to Skiffes Creek 500 kV transmission line crosses as well as any land-based sections associated with the transmission line. In addition, the Surry Power Station was not visible from the point of survey during the fieldwork portion of the effects study.

The assessment indicates that the 4H Club will not have a view of the proposed transmission line. Its location, nestled in a dense area of woodland, as well as the distance from the proposed project, effectively protects the resource from view of the transmission line and associated structures. The sight line from the camp crosses Jamestown Settlement, as well as Jamestown Island and Hog Island, which also obscure any views of the proposed transmission line from the property. In addition there will be no direct effects to this resource as a result of the transmission line construction.

Stantec concludes that the proposed project will have No Adverse Effect on the 4H Camp (VDHR #047-5432). In addition, the construction of the project will not detract from or adversely affect those characteristics which contribute to 4H Camp's eligibility for listing on the NRHP.









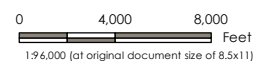
Notes

- Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
 2. Orthoimagery © Bing Maps

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Legend

-  Observer Point
- Observation Point Sight Lines
- Area Visible
-  Area Not Visible
-  Proposed Tower Location - Visible
-  Proposed Tower Location - Not Visible
-  Architectural Resources
-  Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line



<p>Project Location</p> <p>County: Williamsburg, York, James City, Sully, Newport News, Isle of Wight USGS Quad: Norge, Williamsburg, Cloy Bank, Sully, Hog Island, Yorktown, Runnymede, Bacon's castle Yorktown</p>	<p>203416120</p> <p>Prepared by SWS on 2015-09-09 Technical Review by A.JL on 2015-09-09 Independent Review by EMB on 2015-09-09</p>
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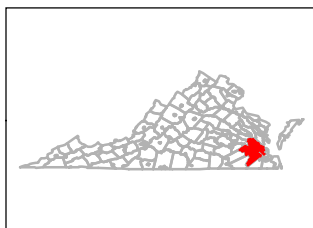
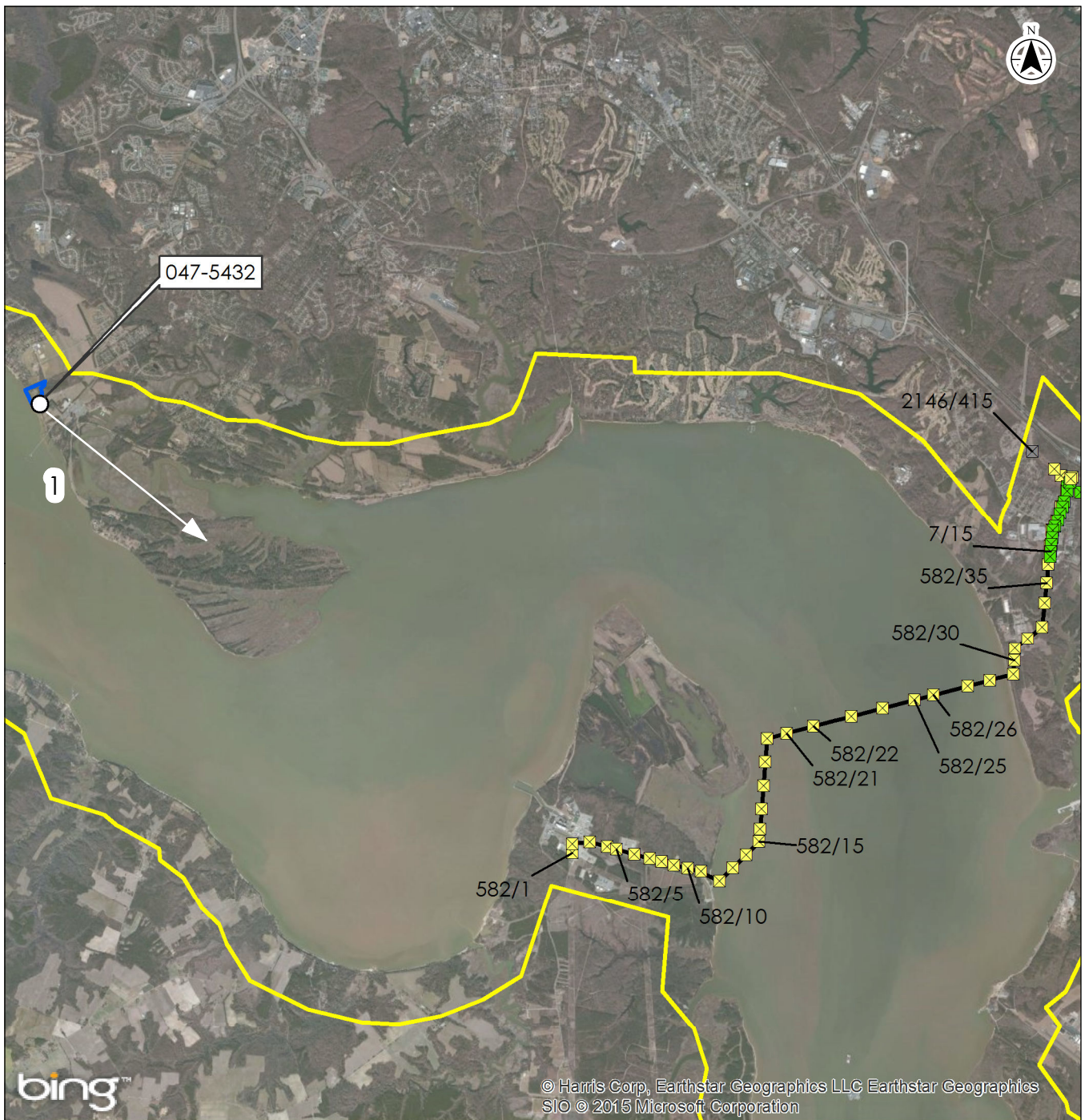
Client/Project

Dominion Virginia Power

Figure No.

70

**Line of Sight Analysis for
VDHR# 047-5432**



Notes

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Legend

- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

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Project Location 203416120
County: Williamsburg, York, James City
Surry, Newport News, Isle of Wight
8023 Ocean Ridge, Williamsburg, City Park
Surry, Hog Island, Yorktown, Runnyside, Bacon's Castle
Yorktown
Prepared by SWS on 2015-09-10
Technical Review by A.J.L. on 2015-09-10
Independent Review by EMB on 2015-09-10

Client/Project

Dominion Virginia Power

Figure No.

71

Title

Photograph Location and Direction



Figure 72. 4H Camp (VDHR #047-5432), 4H Club Road, View Looking North.



Figure 73. View from 4H Camp (VDHR #047-5432), 4H Club Road, Looking Southeast towards Proposed Surry to Skiffes Creek 500 kV Transmission Line (Figure 71 – Photo Arrow 1). Red Arrow Denotes Direction and Location of Proposed Transmission Line.

3.16 PLEASANT POINT/CROUCHES CREEK PLANTATION (VDHR #090-0020)

3.16.1 Description of Resource

Pleasant Point/Crouches Creek Plantation dates to c. 1765 and was listed on the NRHP in 1976 and the VLR in 1973. The house is a frame one-and-a-half-story, three-bay dwelling with exterior end brick chimneys. The house features aluminum siding on the front façade with brick gable ends laid in a Flemish bond pattern. Located on the front roof slope are three gable-roofed dormers. The house was altered to its current appearance in the 1950s but does retain some of the original elements of its eighteenth century design. According to the VCRIS form, Pleasant Point is reminiscent of a time of high prosperity in Surry County during the late eighteenth century. Secondary resources located on the property include a dairy, meat house, and wash house (VDHR Site Files).

3.16.2 National Register Status – NRHP-Listed, Criteria A and C

Pleasant Point/Crouches Creek Plantation was listed on the NRHP in 1976 for its significance in eighteenth-century architecture, landscape architecture, and history (Pleasant Point NRHP nomination form). Pleasant Point/Crouches Creek Plantation remains as an example of eighteenth-century architecture and retains integrity of location, setting, and feeling. Although the house has been altered, elements of the eighteenth-century design, workmanship, and materials remain. The characteristics which define the resource and qualify it for listing on the NRHP are its architectural features reminiscent of the eighteenth century and its integrity of setting. The plantation is located in rural Surry County and abuts the James River (Figures 74-78).

3.16.3 Distance to ROW and Transmission Line Data

The resource is approximately 4.32 miles west of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.16.4 Effects Analysis

The house is set back from the road on a 12.05 acre parcel and accessed by a long gravel driveway (Surry County Online Tax Assessment Records). The driveway is flanked by split rail fencing with mature trees beyond the fence on either side. The river, which is to the northeast of the dwelling, is mostly obscured by a dense tree line which borders the river's shoreline. Additionally an area of woods approximately 500 feet deep is located between the resource and the proposed Surry to Skiffes Creek 500 kV line; this wooded area shields the view from the resource.

Pleasant Point/Crouches Creek Plantation retains integrity particularly with respect to location, feeling, and setting. The property also retains integrity with respect to its architectural elements; although the property was altered to its current appearance in 1950, portions of the eighteenth-century building are still apparent. The project as proposed will not have a direct effect on the physical components associated with and contributing to the eligibility of Pleasant Point and will not alter the resource's location, character, or use. Therefore there will be no direct effect to the resource that would compromise its integrity. A visual effects assessment was conducted for the property to ascertain if the proposed transmission line might impose any visual or indirect effects to the resource that would compromise its integrity of setting and feeling.

Computer line-of-sight modeling from the open area behind the main house, at an unobstructed point on the shoreline at the property boundary suggests that the proposed

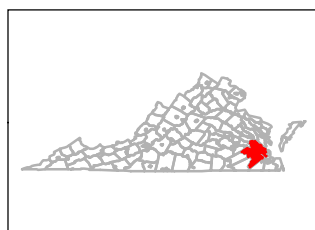
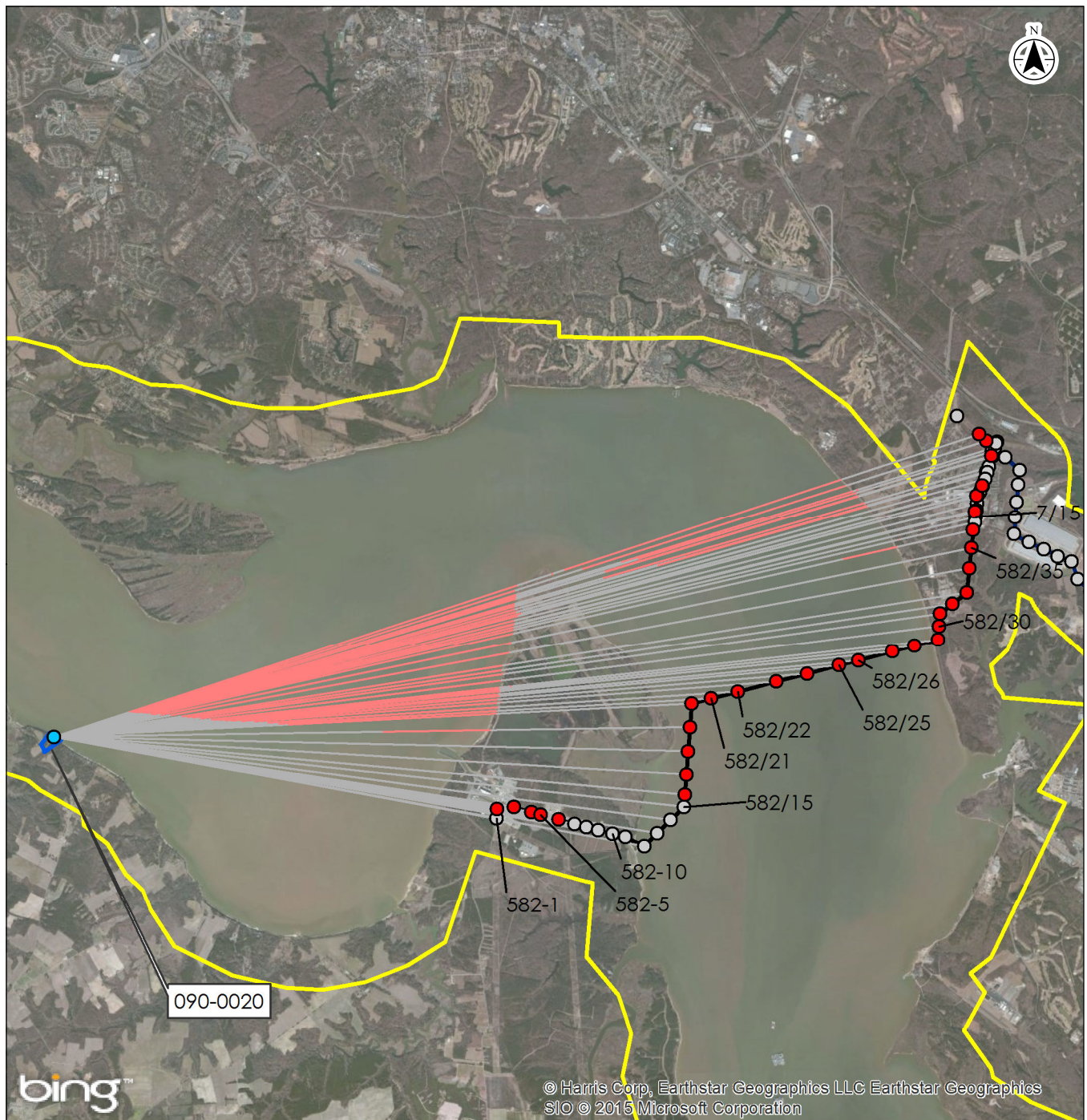
transmission line crossing, including those structures within the Surry Power Station would be partially visible. Because of the distance and vegetation on Hog Island, no complete structures would be visible. However, the line-of-sight suggests that portions of structures 582/2 – 582/5, and 582/7 within the Surry Power Station would be visible as would portions of structures 582/16 through 582/28 which comprise the river crossing. In addition, the first six structures on land (582/29-582/36) in James City County would also be visible (Figure 74). Stantec's computer line-of-sight modeling, as depicted from the end of the driveway, however, suggests that the proposed structures associated with the Surry to Skiffes Creek 500 kV line, which range in height from 102 feet to 297 feet, will not be visible from the Pleasant Point house because of the distance and tree cover between the resource and the proposed 500 kV line (Figure 75).

Photographs from Pleasant Point towards the proposed Surry to Skiffes Creek 500 kV Transmission line were taken from the end of the driveway as permission to access the property was not granted at the time of the survey (Figure 76 – Photo Arrow 1 and Figure 78). During the fieldwork portion of the effects study it was noted that dense tree cover is located on either side of the driveway and to the east of the dwelling which obscures the views of the portion of the river where the proposed Surry to Skiffes Creek 500 kV transmission line crosses.

The results of the fieldwork and analysis suggest that the proposed transmission line will not be visible from the primary resource associated with Pleasant Point but would be visible from the shoreline as depicted in the line-of-sight analysis. The shoreline is currently characterized by a stand of trees that is moderately dense and does not appear to have an open view of the James River or the existing Surry Power Station and proposed undertaking. Some visibility may be present but would be limited to the upper halves of the noted structures, due to obstructions, including natural topography and trees on Hog Island.

Because potential visibility may be realized of the structures associated with the river crossing, structure lighting should also be considered. The distance from Pleasant Point to the lit structures is over 6 miles with sight lines that cross the Surry Power Station as well as portions of Hog Island. This view, with light intrusions associated with the Surry Power Station present in the view shed would be minimal, and the blinking lights, with a maximum flash rate of 40 FPM and limited intensity at this distance would not constitute an adverse effect to this resource nor would it detract from the resource's character defining elements.

Stantec concludes that the proposed project will have No Adverse Effect on Pleasant Point/Crouches Creek Plantation (VDHR #090-0020). In addition, the construction of the project will not detract from or adversely affect those primary characteristics which contribute to Pleasant Point's status as a property listed on the NRHP.



- Notes**
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Legend

- Observer Point
- Observation Point Sight Lines
- Area Visible
- Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Wheaton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

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Feet
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Project Location
County: Williamsburg, York, James City
Surry, Newport News, Isle of Wight
8023 Ocean Ridge, Williamsburg, Clay Bank
Surry, Hog Island, Yorktown, Runnyside, Bacon's Castle
Township

Prepared by SWS on 2015-09-09
Technical Review by A.J.L. on 2015-09-09
Independent Review by EMB on 2015-09-09

Client/Project

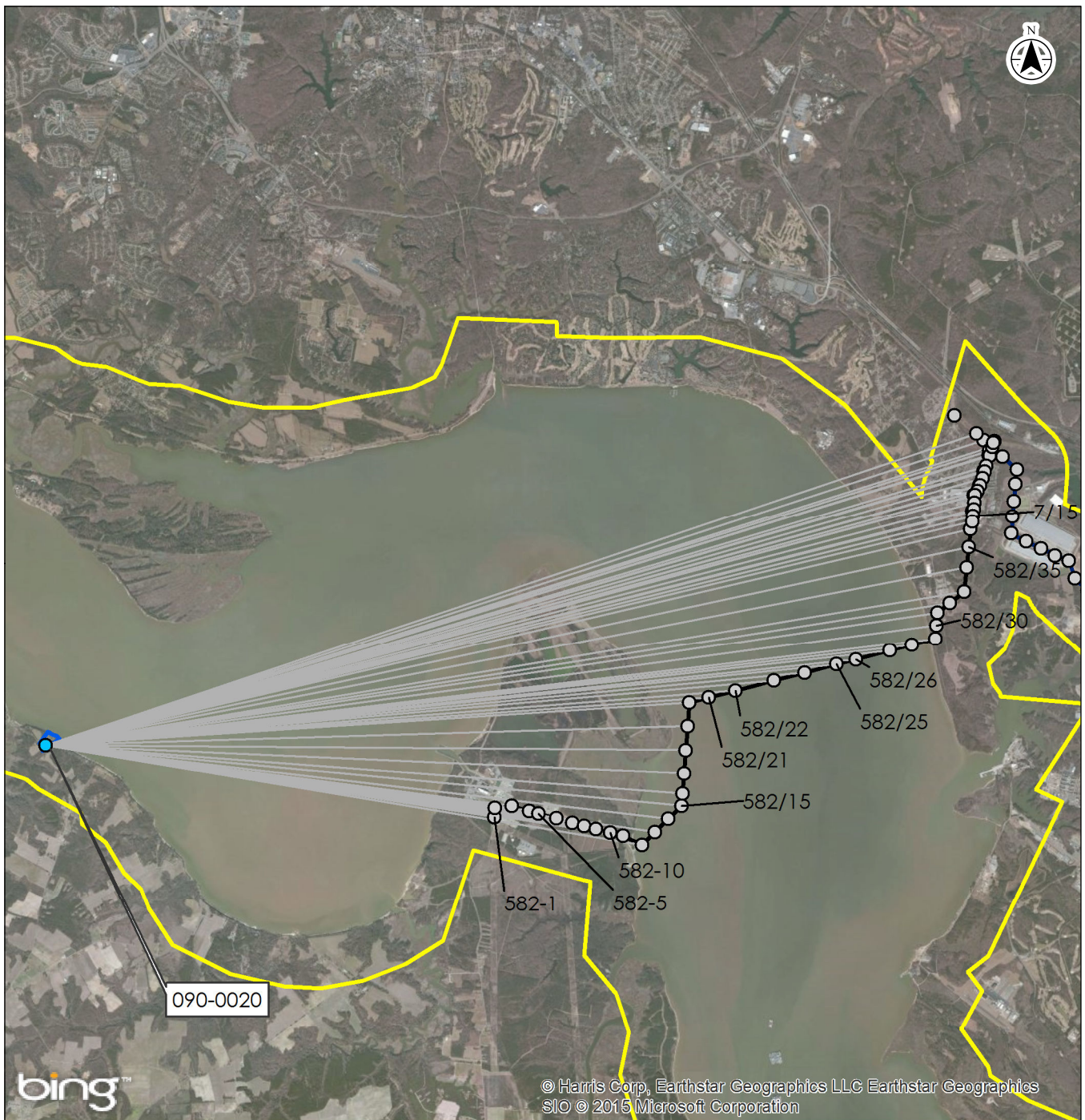
Dominion Virginia Power

Figure No.

74

Title

**Line of Sight Analysis for
VDHR# 090-0020**



Notes

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Legend

- Observer Point
- Observation Point Sight Lines
- Area Visible
- Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Wheaton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

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Feet
1:96,000 (at original document size of 8.5x11)



Project Location 203416120
County: Williamsburg, York, James City
Surry, Newport News, Isle of Wight
8023 Ocean Ridge, Williamsburg, Clay Bank
Surry, Hog Island, Yorktown, Runnyside, Bacon's Castle
Township

Client/Project

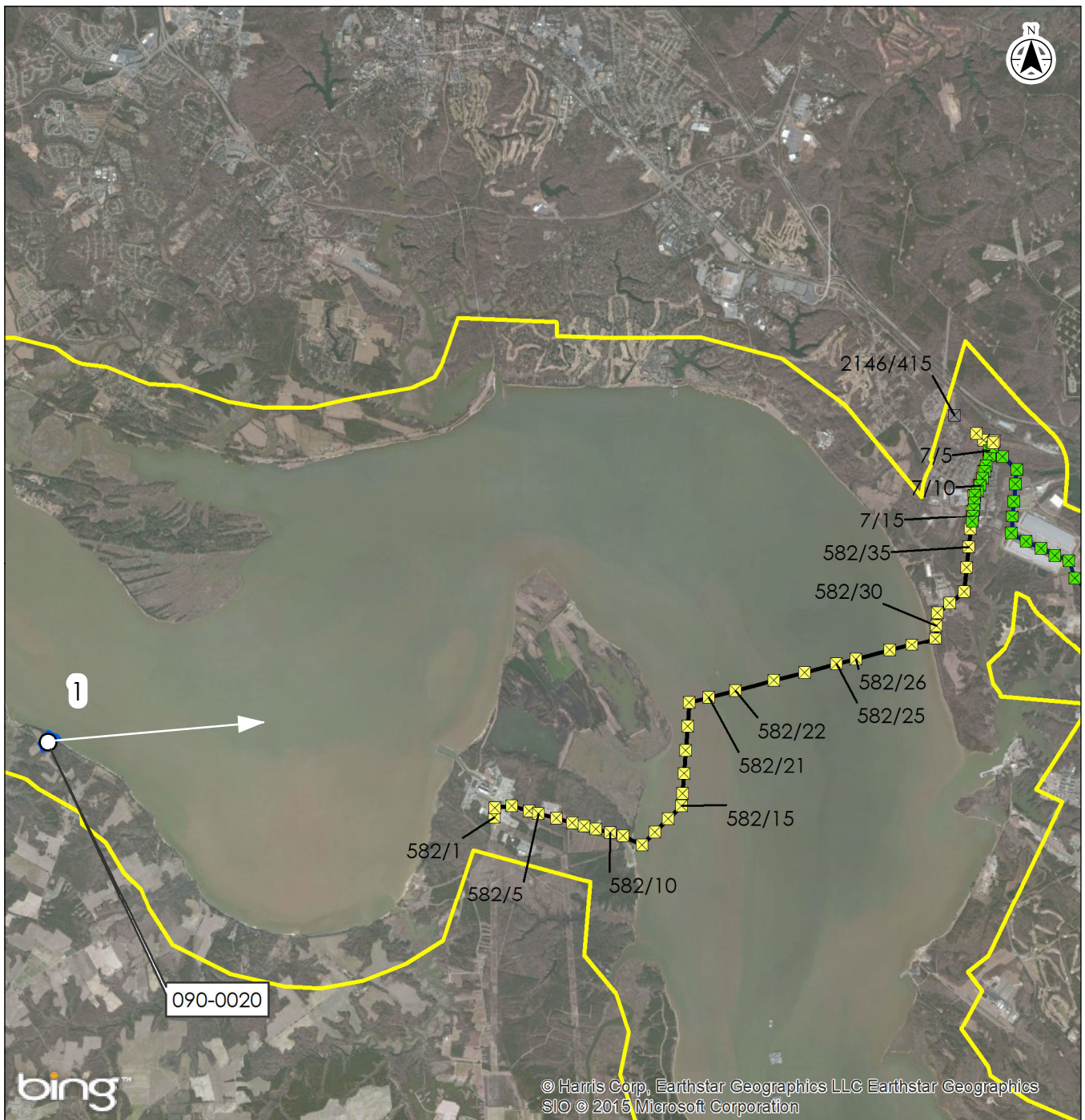
Dominion Virginia Power

Figure No.

75

Title

**Line of Sight Analysis for
VDHR# 090-0020**



Notes

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Legend

- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

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1:96,000 (at original document size of 8.5x11)



Project Location 203416120
County: Williamsburg, York, James City
Surry, Newport News, City of Norfolk
8023 Ocean Ridge, Williamsburg, City of Norfolk
Surry, Hog Island, Yorktown, Surryville, Bacon's Castle
Independent Review by EM8 on 2015-09-10

Client/Project

Dominion Virginia Power

Figure No.

76

Title

Photograph Location and Direction



Figure 77. Pleasant Point (VDHR #090-0020), Pleasant Point Road, View Looking Northeast.



Figure 78. View from Pleasant Point (VDHR #090-0020), Pleasant Point Road, Looking East towards Proposed Surry to Skiffes Creek 500 kV Transmission Line River Crossing (Figure 76 – Photo Arrow 1).

3.17 NEW CHIPPOKES/JONES-STEWART MANSION (VDHR #090-0024)

3.17.1 Description of Resource

New Chippokes is a large two-story, five-bay brick dwelling constructed c. 1860. The original block features a single bay one-story porch with square fluted columns and pilasters. The house also features large brick chimneys, six-over-six wood double-hung sash windows, and hipped roof. In the 1950s a two-story and one-story wing were added to the dwelling's gable end (VDHR Site Files).

3.17.2 National Register Status - Eligible, Criterion C

The resource, as a stand-alone structure, has not been evaluated by VDHR for listing on the NRHP; however, the dwelling is considered a contributing resource to the NRHP-listed Chippokes Plantation Historic District (VDHR Site Files). For purposes of the current project, it is considered eligible for the NRHP under Criterion C for its architectural merit. A field visit to the resource indicates that New Chippokes retains integrity for its architectural elements and with respect to its design, workmanship, and materials. The resource's setting and location, on an undeveloped marsh, also retains integrity.

3.17.3 Distance to ROW and Transmission Line Data

The resource is approximately 2.07 miles southwest of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment (Figures 79-80).

3.17.4 Effects Analysis

New Chippokes sits on a relatively level parcel of land and is surrounded by a manicured lawn dotted with trees (Figure 81). Gardens have been planted adjacent to the foundation with several large trees directly to the north of the dwelling. Beyond the immediate area of the house, the landscape gently slopes towards the river, with agricultural fields and areas of dense woods beyond (Figure 82-83). New Chippokes is located to the southwest of the Surry Power Station and is associated with Chippokes Plantation Historic District. Lying between the Power Station and the resource is an expanse of farmland, currently planted with corn, dense stands of trees, and a large marsh/wetland area. Characteristics qualifying New Chippokes for listing on the NRHP are its architectural integrity as well as integrity of setting and location.

The project as proposed will not have a direct effect on the physical components associated with and contributing to the eligibility of new Chippokes and will not alter the resource's location, character, or use. Therefore there will be no direct effect to the resource that would compromise its integrity. A visual effects assessment was conducted for the property to ascertain if the proposed transmission line might impose any visual or indirect effects to the resource which would compromise its integrity of setting and feeling.

Computer line-of-sight modeling suggests that the proposed structures associated with the Surry to Skiffes Creek 500 kV line, which range in height from 102 feet to 297 feet, will not be visible from New Chippokes, due to distance and tree cover between the resource and the proposed 500 kV line (Figure 79).

Photographs from New Chippokes towards the existing Surry Power Station and the proposed Surry to Skiffes Creek 500 kV Transmission line were taken from the side yard of the resource across the open farm fields (Figure 80 – Photo Arrow 1 and Figure 83). This view toward the Surry

Power Station indicated that the existing plant and associated structures were not visible. The resource's location and the large expanse of natural terrain and stands of woods shield the resource from view of the existing Surry Power Station and associated structures; therefore it would be reasonable to assert that the new structures within the power station and those crossing the river would also not be visible to the resource. Therefore the proposed transmission line would not detract from the resource's integrity or compromise those characteristics qualifying it for listing on the NRHP.

Stantec concludes that the proposed project will have No Adverse Effect on New Chippokes (VDHR #090-0024). In addition, the construction of the project will not detract from or adversely affect those characteristics which contribute New Chippokes' status as a contributing resource to the NRHP-listed Chippokes Plantation (VDHR #090-0070).



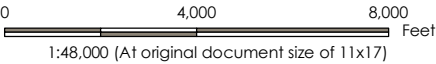
Figure No.
79

Title
**Line of Sight Analysis for
VDHR# 090-0024**

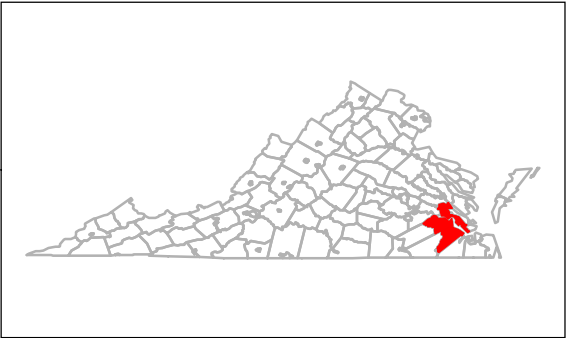
Client/Project
Dominion Virginia Power

Project Location
USGS Quad: Hog Island, Yorktown,
Baccons Castle, Mulberry Island
County: James City, Surry,
Newport News, Isle of Wight

203416120
Prepared by SWS on 2015-09-10
Technical Review by AJL on 2015-09-10
Independent Review by EMB on 2015-09-10



- Legend
- Observer Point
 - Observation Point Sight Lines
 - Area Visible
 - Area Not Visible
 - Proposed Tower Location - Visible
 - Proposed Tower Location - Not Visible
 - Architectural Resources
 - Approximate Area of Potential Effects
 - Skiffes Creek to Wheatlton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



Notes

- Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
- Orthoimagery © Bing Maps



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Figure No.
80

Title

Photograph Location and Direction

Client/Project

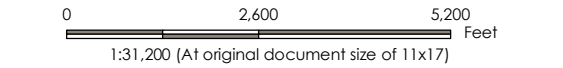
Dominion Virginia Power

Project Location

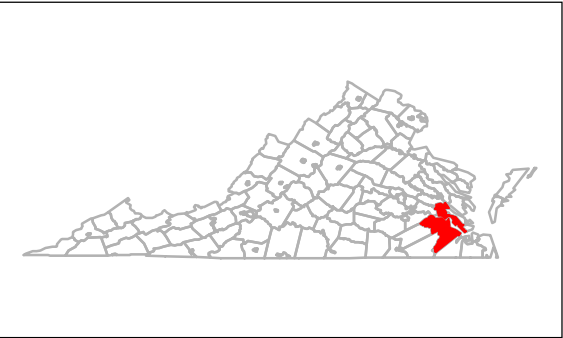
203416120

USGS Quad: Hog Island, Yorktown
County: James City, Surry,
Newport News, Isle of Wight

Prepared by SWS on 2015-09-10
Technical Review by AJL on 2015-09-10
Independent Review by EMB on 2015-09-10



- Legend
- Proposed New Structure
 - Reconductoring Existing Structure
 - Remove and Replace Existing Structure
 - Photograph Location
 - Architectural Resources
 - Approximate Area of Potential Effects
 - Skiffes Creek to Whealton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



Notes

- Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502
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Figure 81. New Chippokes (VDHR #090-0024), View Looking South.



Figure 82. View from Front of New Chippokes Looking Northeast towards Proposed Surry to Skiffes Creek 500 kV Transmission Line. Red Arrow denotes the direction and approximate location of the Surry Power Station (Figure 80 – Photo Arrow 1).



Figure 83. View from Northeast Elevation of New Chippokes Looking Northeast towards Proposed Surry to Skiffes Creek 500 kV Transmission Line (Figure 80 – Photo Arrow 2). The yellow Arrow denotes the general location and direction of the Surry Power Station, the closest element of the project to New Chippokes. The red arrow denotes the general location of the transmission line crossing as it approaches the James River.

3.18 CHIPPOKES PLANTATION HISTORIC DISTRICT (VDHR #090-0070/#090-0003)

3.18.1 Description of Resource

Chippokes Plantation is a 1,403-acre parcel located on the James River in Surry County, south of and across the river from Jamestown. The historic resource, VDHR #090-0070, is located entirely within the boundaries of Chippokes State Park. The Plantation comprises nearly all of the park save for approximately 150 acres. There are 37 buildings and/or structures associated with the district and located with the park. Of note are two largely unaltered plantation houses dating to circa 1830 and 1860 (see Figure 81 and Figure 86). There are also several nineteenth-century outbuildings, nineteenth-century slave quarters, and more modern early twentieth-century farm buildings. All buildings or structures over 50 years of age at the time of the district's nomination were included as contributing to the historic significance of the site. In addition to the architectural features of the property, there are 34 identified archaeological sites dating to prehistoric time periods through the nineteenth century (VDHR Site Files).

3.18.2 National Register Status – NRHP-Listed - Criteria A, C, and D

Chippokes Plantation Historic District was listed on the NRHP and the VLR in 1969 (VDHR Site Files). The Chippokes Plantation Historic District was listed on the NRHP under Criteria A, C, and D for its association with early exploration and settlement, architectural merit, and archaeological potential. Defining characteristics qualifying Chippokes Plantation for listing on the NRHP are sites of archaeological significance dating to the prehistoric periods and through the nineteenth century as well as the architectural integrity associated with the historic dwellings and support buildings associated with the plantation, and its association with early settlement in Surry County. The historic district retains integrity of location, setting, and feeling as well as integrity of workmanship, materials, and design, as evidenced by the well-preserved historic buildings associated with the resource. While important under Criterion A, there is no association with a specific event or individual of importance therefore integrity of association is not applicable.

3.18.3 Distance to ROW and Transmission Line Data

The resource is approximately 1.26 miles southwest of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.18.4 Effects Analysis

Chippokes Plantation is approximately 1,403 acres and consists of a gently sloping parcel of land with open manicured lawns, agricultural fields, and dense areas of woods. The shoreline of the James River is located along the northwestern boundary of the resource. The resource currently serves as a state park. Chippokes Plantation Historic District has a period of significance ranging in date to include Native American archaeological sites as well as early twentieth-century tenant farmers' dwellings. The character defining elements of the resource include not only its archaeological potential, but also architectural significance as evidenced by the well-preserved buildings associated with the property. Setting and location are also integral parts of the significance of this resource, as is its use as a state park.

The proposed transmission line project will not directly affect the resource because no construction activities or alterations would take place in the vicinity or within the bounds of the NRHP-listed property. Therefore the project would not affect the resource's integrity of location, workmanship, design or materials. The project would also not affect the character of the

property nor its use. A visual effects assessment was conducted to ascertain if the proposed transmission line project would be visible from the resource and if it would detract from the property's integrity of setting and feeling.

Computer line-of-sight modeling suggests that the proposed structures associated with the Surry to Skiffes Creek 500 kV line, which range in height from 102 feet to 297 feet, will not be visible from Chippokes due to distance and tree cover between the resource and the proposed 500 kV line (Figure 84).

Photographs from Chippokes Plantation towards the proposed Surry to Skiffes Creek 500 kV Transmission line were taken from the vicinity of the River House (Figure 85 – Photo Arrow 1 and Figure 87) as well as New Chippokes (090-0024) (see Figures 80-83; Section 13.17.4). These views toward the Surry Power Station indicated that the existing Power Station and associated structures were not visible. The resource's location and the large expanse of natural terrain and stands of woods located between the resource and the project area shield the resource from view of the existing Surry Power Station and associated structures; therefore it would be reasonable to assert that the new structures within the power station and those crossing the river would also not be visible to the resource (Figure 87). Therefore the proposed transmission line would not detract from the resource's integrity or compromise those characteristics qualifying it for listing on the NRHP.

Stantec concludes that the proposed project will have No Adverse Effect to Chippokes Plantation Historic District and its contributing resources (VDHR #090-0070). In addition, the construction of the project will not detract from or adversely affect those characteristics which contribute to Chippokes' status as a listed property on the NRHP.

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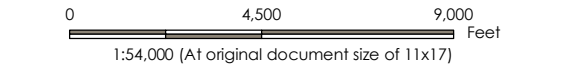
Figure No.
84

Title
**Line of Sight Analysis for
VDHR# 090-0003/090-0070**

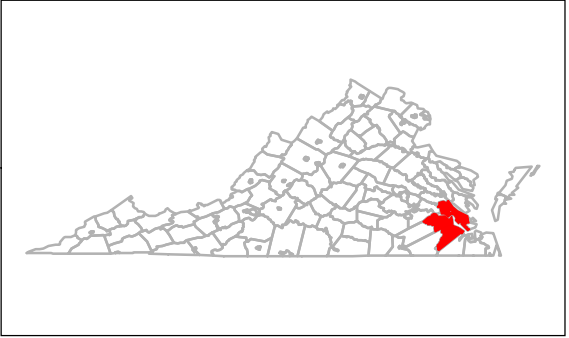
Client/Project
Dominion Virginia Power

Project Location
USGS Quad: Surry, Hog Island, Yorktown
County: James City, York, Surry,
Newport News, Isle of Wight

203416120
Prepared by SWS on 2015-09-10
Technical Review by AJL on 2015-09-10
Independent Review by EMB on 2015-09-10



- Legend
- Observer Point
 - Observation Point Sight Lines
 - Area Visible
 - Area Not Visible
 - Proposed Tower Location - Visible
 - Proposed Tower Location - Not Visible
 - Architectural Resources
 - Approximate Area of Potential Effects
 - Skiffes Creek to Whealton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



Notes

- Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
- Orthoimagery © Bing Maps





Figure No.
85

Title

Photograph Location and Direction

Client/Project

Dominion Virginia Power

Project Location 203416120

USGS Quad: Surry, Hog Island, Yorktown
County: James City, York, Surry,
Newport News, Isle of Wight

Prepared by SWS on 2015-09-10
Technical Review by AJL on 2015-09-10
Independent Review by EMB on 2015-09-10

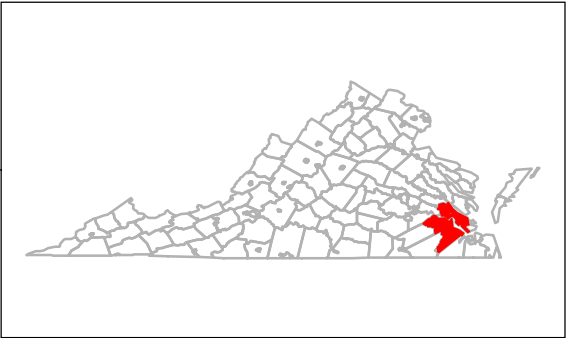
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Legend

- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line



- Notes
- Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502
 - Orthoimagery © Bing Maps





Figure 86. The River House at Chippokes Plantation (VDHR #090-0070/090-0003).



Figure 87. View from the River House at Chippokes Plantation Looking Northeast towards Proposed Surry to Skiffes Creek 500 kV Transmission Line River Crossing (Figure 85 – Photo Arrow 1). The Surry Power Station is Denoted by the Yellow Arrow. Red Arrows Denote the General Location and Direction of the Proposed Transmission Line.

3.19 HOG ISLAND WILDLIFE MANAGEMENT AREA (VDHR #090-0121)

3.19.1 Description of Resource

The Hog Island Wildlife Management Area encompasses approximately 3,908 acres of land comprising three separate tracts: the Hog Island Tract, the northern-most section of the peninsula; the Carlisle Tract, the section to the south; and Stewart Tract, the section to the east of the Carlisle Tract at Lawnes Point. The entirety of Hog Island is a relatively level landform just above sea level and is comprised of open flat land, marsh areas and pine forests (Figure 90-91). A series of dirt roads winding through the marsh areas provides access to most of this section of the management area. Several large water fowl impoundment areas have altered the landmass to some degree (VDHR Site Files).

3.19.2 National Register Status – Eligible, Criteria A and D

The Hog Island Wildlife Management Area has been determined potentially eligible for listing on the NRHP under Criterion A for Broad Patterns in History as one of the earliest settlements outside of Jamestown and under Criterion D for its archaeological potential to yield important information in prehistory and history (VDHR Site Files). In assessing the potential of the project to have adverse effects to this resource, an assessment of the seven aspects of integrity was applied to identify the character defining traits of the resource. Hog Island exhibits integrity of association, setting, feeling, and location. The extant architectural resources are not individually eligible or outstanding and therefore the aspects of integrity including workmanship, materials, and design are not applicable. Hog Island is also included in the newly defined Eligible Historic District discussed in Section 3.35.

3.19.3 Distance to ROW and Transmission Line Data

The resource is within the area of potential effect and is approximately several hundred feet from the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.19.4 Effects Analysis

Hog Island is currently protected as a wildlife management area managed by the Virginia Department of Game and Inland Fisheries. The landscape is characterized by a combination of tidal wetlands and open floodplain. It has a combination of various types of vegetation, including hardwoods, pine, and low scrub brush. The Island retains much of its landscape however several large water fowl impoundment areas have been created on the island. Several twentieth-century buildings associated with the management of the refuge are present and extant within the resource boundary. Adjacent to the Hog Island Wildlife Management Area is the Surry Nuclear Power Station, which shares a boundary with the resource on the southern side.

As mentioned, Hog Island retains integrity of location, setting, and feeling. While recommended eligible for listing on the NRHP under Criterion A and Criterion D, its primary significance lies both in its relatively unaltered setting as a landscape associated with Colonial Period settlement along the James River and its potential to yield significant information about the past. With respect to direct effects, the construction of the transmission line will not directly impact those characteristics that qualify the resource for listing under Criterion D because there will no ground disturbing activity on land within the boundaries of the resource. However, because of its close

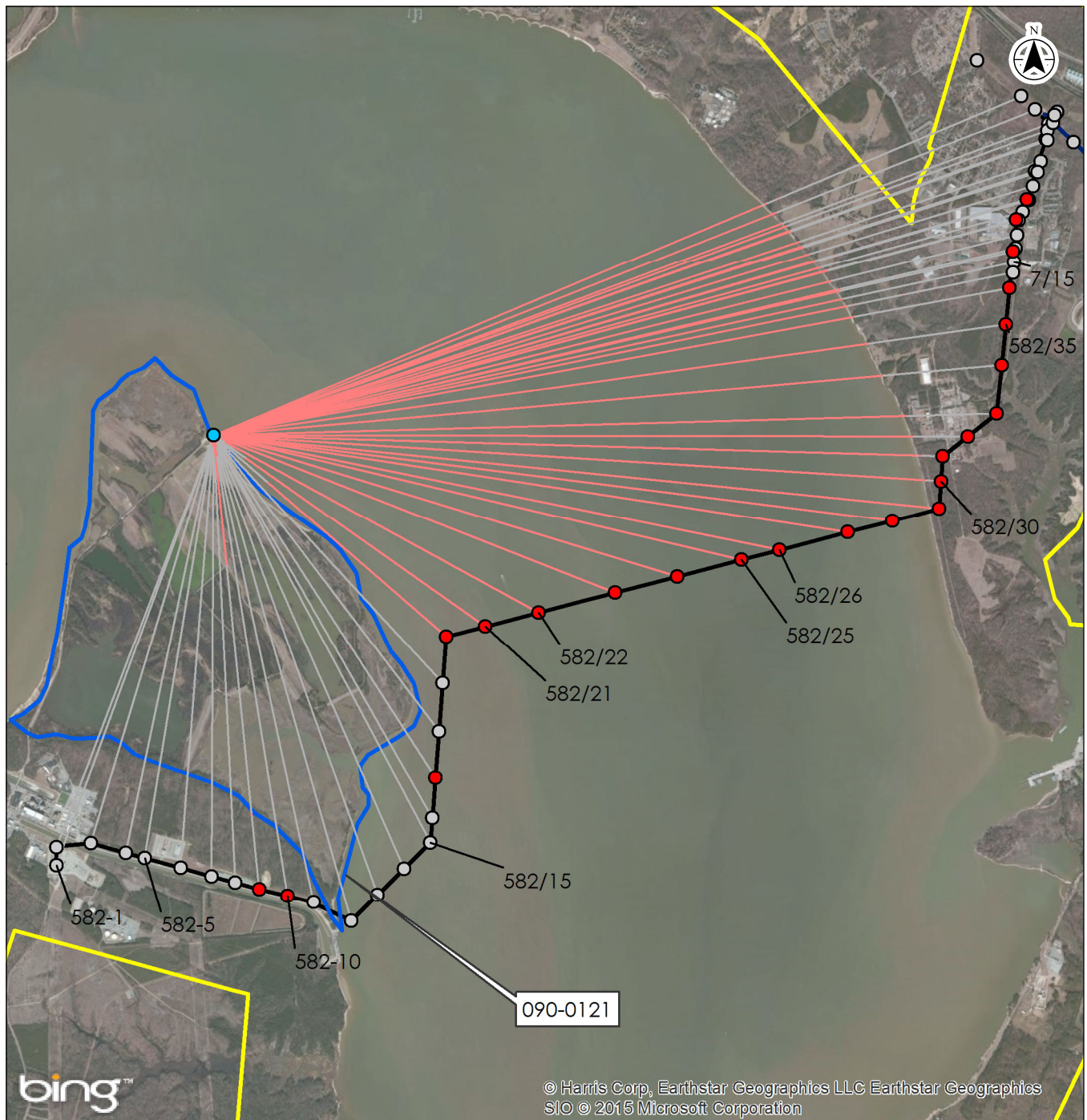
proximity to the proposed transmission line – both land based and the river crossing – indirect effects, including visual and an alteration of character of the landscape, were assessed utilizing a visual effects assessment.

Stantec's computer generated line-of-sight modeling, indicates that the proposed 500 kV line will be visible from the resource (Figure 88). Photographs taken from both the land within the wildlife management area and from the water adjacent to the Hog Island shoreline indicate that those nearby land-based structures within the Surry Power Station as well as the structures associated with the river crossing will be visible (Figures 89 - 93). Structures 582/20 -582/29 would be fully visible while structures 582/30 - 582/36 would have partial visibility above the tree line. Structures 582/37 – 582/39 are also noted as partially visible in the line-of-sight model, however it is anticipated that the views of these structures (582/30 – 582/39) would be minimal and not easily distinguished by the observer due to the distance and wooded conditions. The line-of-sight model from the chosen observer point on the shoreline, however, suggests that the existing structures within the Surry Power Station would not be visible from the origination point for the line-of-sight with the exception of structures 582/9 and 582/10. Although the model suggests a lack of visibility from the observation, the tallest structures within the power station would be visible particularly from that portion of the resource closest to the power station facility.

The proximity of the proposed transmission line, despite the presence and existence of the Surry Power Station to the south, will negatively impact the resource's integrity of setting and feeling. The views from the Island contribute to the overall setting and feeling associated with the resource as it is related to Criterion A. In addition, 10 of the 17 structures crossing the James River require lighting at the top, with several requiring mid-level lighting. Due to the proximity of this resource to the lighted structures, it is anticipated that the addition of the structure lighting would adversely affect the integrity of setting, a primary characteristic associated with the Hog Island property.

Stantec concludes that the proposed project will have an Adverse Effect on the Hog Island Wildlife Management Area (VDHR #090-0121). The overall impact of the project will detract from the resource's integrity of setting and feeling, creating an adverse effect to the resource.

Per the USACE Public Notice, published May 21, 2015, the USACE has determined that the project would have an Adverse Effect to the Hog Island Wildlife Management Area. The USACE's determination is that the project would have an Adverse Effect and that the project would detract from the resource's characteristics and integrity qualifying it for listing on the NRHP.



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
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Legend

- Observer Point
- Observation Point Sight Lines
- Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Wheaton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

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Project Location 203416120
County: James City, Surry, Prepared by SWS on 2015-09-10
Newport News, Isle of Wight Technical Review by A.J.L. on 2015-09-10
USGS Quad: Hog Island, Yorktown Independent Review by EMB on 2015-09-10

Client/Project

Dominion Virginia Power

Figure No.
88

Title
**Line of Sight Analysis for
VDHR# 090-0121**



Notes

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Legend

- X Proposed New Structure
- X Reconductoring Existing Structure
- X Remove and Replace Existing Structure
- O Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Wheelton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

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Feet
1:48,000 (at original document size of 8.5x11)



Project Location 203416120
County: James City, Surry, Prepared by SWS on 2015-09-10
Newport News, Isle of Wight Technical Review by A.J.L. on 2015-09-10
USGS Quad: Hog Island, Yorktown Independent Review by EMB on 2015-09-10

Client/Project

Dominion Virginia Power

Figure No.

89

Title

Photograph Location and Direction



Figure 90. Hog Island Wildlife Management Area (VDHR #090-0121), View Looking Southeast.



Figure 91. Hog Island Wildlife Management Area (VDHR #090-0121), View Looking Southeast.



Figure 92. View from Hog Island Wildlife Management Area (VDHR #090-0121) Looking Southeast towards Proposed Surry to Skiffes Creek 500 kV Transmission Line (Figure 89 – Photo Arrow 2).



Figure 93. View from Hog Island Wildlife Management Area (VDHR #090-0121) Looking South Southeast towards Proposed Surry to Skiffes Creek 500 kV Transmission Line (Figure 89 – Photo Arrow 1). The Surry Power Station is located to the right of the photo indicated by the yellow arrow.

3.20 SCOTLAND WHARF HISTORIC DISTRICT (VDHR #090-5046)

3.20.1 Description of Resource

The Scotland Wharf District flanks Rolfe Highway (Route 31) and overlooks the James River and the Jamestown-Scotland Ferry wharf, with additional resources located along Captain John Smith Lane, Company Wharf Road, Pineridge Lane, Pocahontas Lane, and Chanco Drive. Scotland Wharf consists of winding lanes and roads, and abrupt elevation changes. Most roads within the district are unpaved private streets and lanes (Figure 94 and 97; VDHR Site Files).

The district developed in the late nineteenth and early twentieth centuries as a result of the Surry Lumber Company's shipping operations. The Surry, Sussex, and Southampton Railroad transported lumber to the wharf, located southeast of the present ferry dock. The railroad began c.1886 and stopped running in 1930. Scotland Wharf became a vacation spot in the twentieth century, with a portion of the beach being reserved for public use. The earlier extant buildings within the district directly relate to the lumber shipping period. Later buildings within the district relate to the growth of Scotland as a resort community (VDHR Site Files).

3.20.2 National Register Status - Eligible, Criterion C

Scotland Wharf Historic District has been determined potentially eligible for listing on the NRHP under Criterion A for Broad Patterns in History as an example of an early twentieth-century resort community and under Criterion C for its architectural merit as a whole (VDHR Site Files). The historic district, with its unpaved streets and generally cohesive architectural stylings retains integrity of location, setting and feeling, workmanship, materials, and design. Integrity of association was not applied to the assessment of this resource as it is not directly related to a specific significant event or person.

3.20.3 Distance to ROW and Transmission Line Data

The resource is approximately 5.03 miles southwest of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.20.4 Effects Analysis

Scotland Wharf Historic District is located on the bank of the James River at the Jamestown-Scotland Wharf Ferry landing. The district is characterized by winding lanes and generally unpaved streets with an undulating topography dotted with mature trees and manicured lawn areas. Along Rolfe Highway (Route 31) the landscape is open with open lots which descend to an expanse of beach.

The Scotland Wharf Historic District is eligible for listing under Criterion A and C and retains integrity of location, workmanship, design, materials, setting, and feeling. The district's cohesive collection of early twentieth-century architectural buildings and style convey integrity of location and feeling, as does the overall setting associated with an early twentieth-century resort town. The architectural elements and characteristics would not be affected by the proposed project directly because there is no planned activity within the boundaries of the historic district. There will be no physical or direct compromise to the district's integrity of location, workmanship, materials, or design. In order to assess the potential indirect effects associated with the proposed transmission line project, a visual effects assessment was conducted to identify potential effects of the project on the district's character, setting, and feeling.

Computer line-of-sight modeling from an observer point located at the edge of the district on the beach suggests that the proposed structures associated with the Surry to Skiffes Creek 500 kV line, which range in height from 102 feet to 297 feet, will be visible from the resource (Figure 95). This point represents an unobstructed view from the beach/ferry landing downriver of the proposed undertaking and the existing Surry Power Station. The analysis suggests that portions of the structures associated with the river crossing would be visible including nearly all of the structures within the land-based portion of the segment in James City County. These include 582/17 through 582/29 as well as 582/30 through 582/38 on the James City County side of the river. Conversely, the line-of-sight analysis indicates that the structures within the Surry Power Station would not be visible. Aerial photography indicates that the sight line from the observer point to the Surry Power Station traverses dense stands of trees and it is likely that this vegetation obscures the potential views of the proposed power plant-based structures.

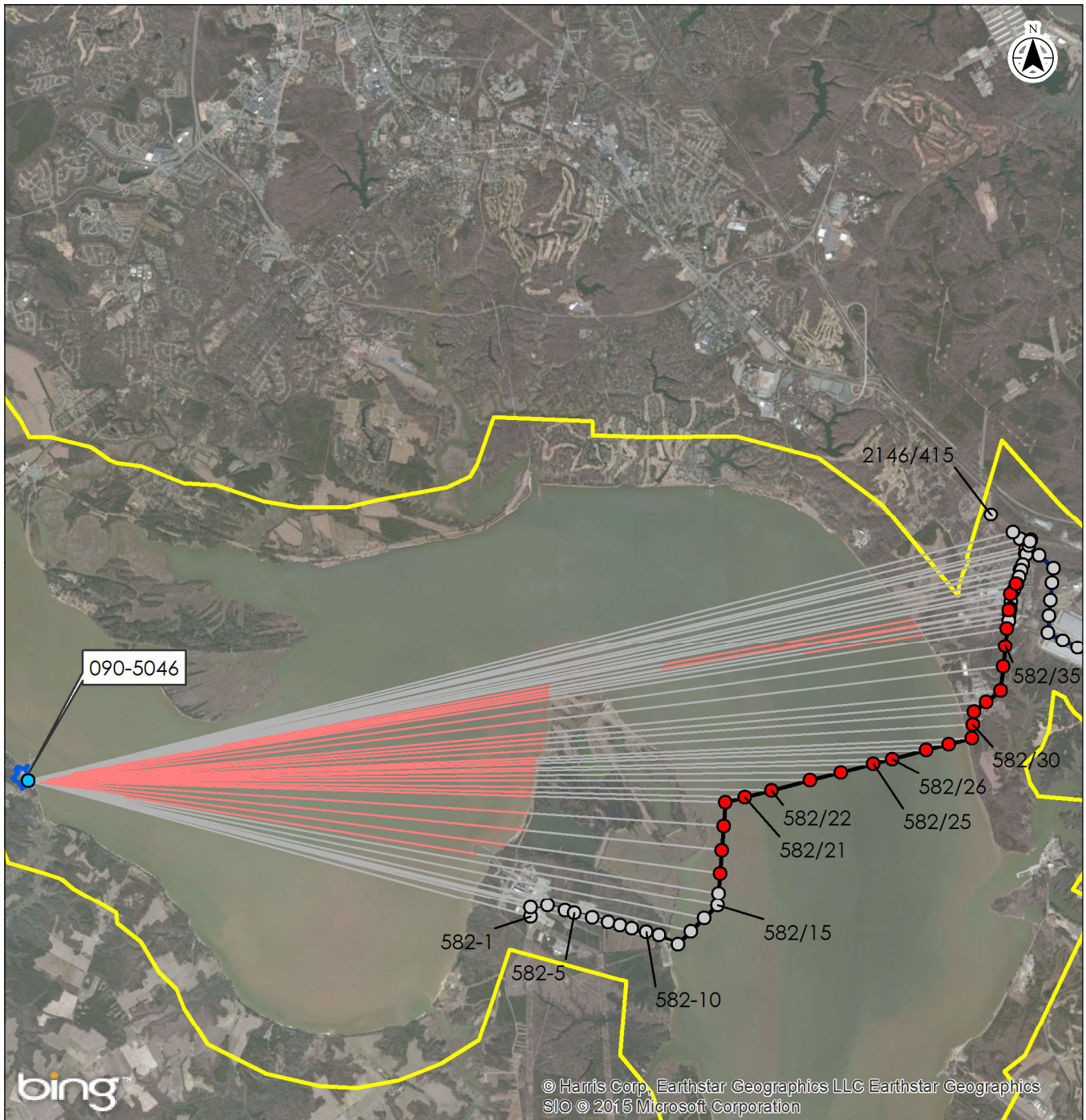
Photographs were taken from the resource in the direction of the proposed project and the existing Surry Power Station (Figure 96 – Photo Arrow 1 and Figures 98-99). The photographs suggest that the proposed transmission line and associated structures would not be visible from this location within the interior portion of the district. The existing Surry Power Station and its associated structures were not visible from this resource during the site visit or were not discernible on the horizon. The proposed structures are of similar height to the existing and any potential views would be limited to the tops of the structures above the tree line. Site visits to the historic district indicate that the proposed transmission line and associated structures would not likely be visible from the interior of the district to the west of the James River-Scotland Wharf Ferry crossing and boundary along the James River shoreline due to changes in topography and distance.

Although the proposed structures within the plant facility and associated with the river crossing and land-based portion of the line may have limited visibility from this resource under the best conditions, the view would be distant and somewhat obscured. Although 10 of the 17 structures crossing the James River require lighting at the top, with several requiring mid-level lighting, the lights would not affect the integrity of the Scotland Wharf Historic District or its NRHP-qualifying characteristics. The type of light typically required, the L-864 red blinking light, may be visible at night when lit; however, the intensity of the lights would be diminished due to the distance from the historic district as well as existing light intrusions resulting from the Surry Power Station. The addition of the structure lighting, with minimal visual impact and intensity at this distance, would not adversely affect or detract from the resource's primary characteristics qualifying it for listing on the NRHP. The visual effect as suggested by the line-of-sight analysis and site visits would also not detract from the historic district's character-defining architectural features or the overall setting and feeling. The majority of the district would not have visibility to the proposed transmission line project because of its location, set back slightly from the riverbank and the presence of mature trees and landscape present throughout the area.

Stantec concludes that the proposed project will have No Adverse Effect on the Scotland Wharf Historic District (VDHR #090-5046). The overall impact of the project will not detract from the resource's integrity of setting and feeling nor will it impact the resource's integrity of design, workmanship, materials, or location.



Figure 94. Scotland Wharf Historic District (VDHR #090-5046) from Ferry Wharf, View Looking South.



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Orthomagery © Bing Maps

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Legend

- Observer Point
- Observation Point Sight Lines
- Area Visible
- Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

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Feet
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Project Location
County: Williamsburg, York, James City,
Surry, Newport News, Isle of Wight
8623 Quaker Ridge, Williamsburg, Clay Bank,
Surry, Hog Island, Yorktown, Runnymeade, Bacon's Castle
Township

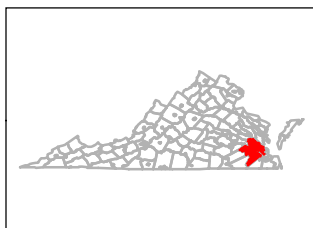
Client/Project
Dominion Virginia Power

Figure No.

95

Title

**Line of Sight Analysis for
VDHR# 090-5046**



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502
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Legend

- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Wheaton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

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1:96,000 (at original document size of 8.5x11)



Project Location 203416120
County: Williamsburg, York, James City
Surry, Newport News, Isle of Wight
8023 Ocean Ridge, Williamsburg, City Park
Surry, Hog Island, Yorktown, Runnyside, Bacon's Castle
Yorktown
Prepared by SWS on 2015-09-10
Technical Review by A.J.L. on 2015-09-10
Independent Review by EM8 on 2015-09-10

Client/Project

Dominion Virginia Power

Figure No.

96

Title

Photograph Location and Direction



Figure 97. View of Scotland Wharf Historic District (VDHR #090-5046) from John Rolfe Highway, Looking South.



Figure 98. View from Scotland Wharf Historic District (VDHR #090-5046) Looking Southeast towards the Proposed Surry to Skiffes Creek 500 kV Transmission Line (Figure 96 – Photo Arrow 1). Red Arrow Denotes Direction and Location of the Surry Power Station and Transmission Line.



Figure 99. View from Scotland Wharf Historic District (VDHR #090-5046) Looking Southeast towards the Proposed Surry to Skiffes Creek 500 kV Transmission Line (Figure 96 – Photo Arrow 1). Red Arrow Denotes Direction and Location of the Surry Power Station and Transmission Line.

3.21 HOUSE (VDHR #090-5046-0001)

3.21.1 Description of Resource

This house is a part of the Scotland Wharf District (VDHR #090-5046), which developed in the late-nineteenth and early-twentieth centuries as a result of the Surry Lumber Company's shipping operations. The house dates to c. 1920 and is a one-and-a-half-story, frame, three-bay dwelling. The exterior walls are sheathed in weatherboard siding. The front gable roof is covered with an indistinguishable material, and features overhanging eaves with knee brackets. A small portion of the hipped roof front porch is visible (VDHR Site Files). No other features can be determined due to vegetation (VDHR Site Files).

3.21.2 National Register Status

The house is considered not individually eligible for listing on the NRHP; however, it is considered a contributing resource to the potentially eligible Scotland Wharf Historic District (VDHR #090-5046) (VDHR Site Files). It contributes to the district under Criterion C and retains integrity of location, workmanship, materials, and design.

3.21.3 Distance to ROW and Transmission Line Data

The resource is approximately 5.16 miles southwest of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.21.4 Effects Analysis

The house sits back from the road on a 5.85-acre parcel above street level (Surry County Online Tax Assessment Records). Overgrowth obscures most of the dwelling from view from the public access route (Figure 102). The house is accessed by a long gravel driveway flanked by overgrowth on either side. The river, which is located to the northeast and east of the dwelling, is mostly obscured by dense trees, which engulf the property and obscure the view of the resource from the proposed Surry to Skiffes Creek 500 kV line project (Figures 102 and 103).

This resource is eligible under Criterion C as a contributing element to the Scotland Wharf Historic District and retains integrity of location, workmanship, design, and materials. Characteristics defining the resource are its intact elements typical of early twentieth-century construction which contribute to the overall cohesiveness of the historic district. The architectural elements and characteristics would not be affected by the proposed project directly as there is no planned activity within the boundaries of the historic district. There will be no physical or direct compromise to the resource's integrity of location, workmanship, materials, or design. Because the resource is contributing to the overall district a visual effects assessment was conducted to identify potential effects of the project on the district's character, setting, and feeling.

Computer line-of-sight modeling suggests that the proposed structures associated with the Surry to Skiffes Creek 500 kV line, which range in height from 102 feet to 297 feet, will not be visible from the resource (Figure 100)) due to changes in topography and distance.

Photographs were taken from the resource in the direction of the proposed project and the existing Surry Power Station (Figure 101 – Photo Arrow 1 and Figure 103). The photographs suggest that the transmission line would not be visible from this location. The Surry Power Station and its associated structures were not visible from this resource during the site visit or were not discernible on the horizon (Figure 103). The proposed structures are of similar height to the existing and any potential views would be limited to the tops of the structures above the tree line.

Although the proposed structures within the plant facility may have limited visibility from this resource under the best conditions, the view would be distant and somewhat obscured. The visual effect would not detract from the resource's character defining architectural features or the overall setting and feeling of the larger historic district to which this resource contributes.

Stantec concludes that the proposed project will have No Adverse Effect to this resource (VDHR #090-5046-0001). In addition, the construction of the project will not detract from or adversely affect those characteristics which contribute to house's status as a contributing resource to the NRHP potentially eligible Scotland Wharf Historic District.



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Orthomagery © Bing Maps

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Legend

- Observer Point
- Observation Point Sight Lines
- Area Visible
- Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Wheaton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 4,000 8,000
Feet
1:96,000 (at original document size of 8.5x11)



Project Location
County: Williamsburg, York, James City
Surry, Newport News, Isle of Wight
8023 Quaker Ridge, Williamsburg, Clay Bank
Surry, Hog Island, Yorktown, Runnyside, Bacon's Castle
Township

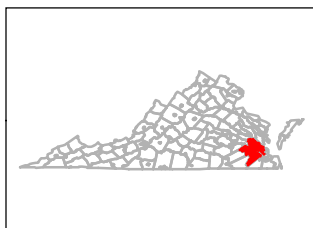
Client/Project
Dominion Virginia Power

Figure No.

100

Title

**Line of Sight Analysis for
VDHR# 090-5046-0001**



Notes

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Legend

- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 4,000 8,000 Feet
1:96,000 (at original document size of 8.5x11)



Project Location 203416120
County: Williamsburg, York, James City
Surry, Newport News, Isle of Wight
8023 Ocean Ridge, Williamsburg, City Park
Surry, Hog Island, Yorktown, Runnyside, Bacon's Castle
Township
Prepared by SWS on 2015-09-10
Technical Review by A.J.L. on 2015-09-10
Independent Review by EM8 on 2015-09-10

Client/Project
Dominion Virginia Power

Figure No.

101

Title

Photograph Location and Direction



Figure 102. House (VDHR #090-5046-0001), 16177 Rolfe Highway, View Looking Northwest.



Figure 103. View from House (VDHR #090-5046-0001), 16177 Rolfe Highway Looking East towards Proposed Surry to Skiffes Creek 500 kV Transmission Line River Crossing (Figure 101 – Photo Arrow 1). Red Arrows Denote General Direction and Location of Transmission Line.

3.22 HOUSE (VDHR #090-5046-0002)

3.22.1 Description of Resource

This house is a part of the Scotland Wharf District (VDHR #090-5046), which developed in the late-nineteenth and early-twentieth centuries as a result of the Surry Lumber Company's shipping operations. The house dates to c. 1920 and is a one-and-a-half-story, frame, three-bay dwelling supported by a concrete block foundation (see Figure 106). The exterior walls are sheathed in weatherboard and vinyl siding, and the side gable roof is covered with asphalt shingles. Vinyl-sided, front-gabled dormers are set in both roof slopes. Visible fenestration includes six-over-six wood double-hung sash windows, and a four-over-four vinyl double-hung sash window. The house also features a full-width, engaged one-story screened-in front porch. A shed, located northwest of the house, is the only visible secondary resource on the property (VDHR Site Files).

3.22.2 National Register Status

The house is considered not individually eligible for listing on the NRHP; however, it is considered a contributing resource to the potentially eligible Scotland Wharf Historic District (VDHR #090-5046) (VDHR Site Files). It contributes to the district under Criterion C and retains integrity of location, workmanship, materials, and design.

3.22.3 Distance to ROW and Transmission Line Data

The resource is approximately 5.16 miles southwest of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.22.4 Effects Analysis

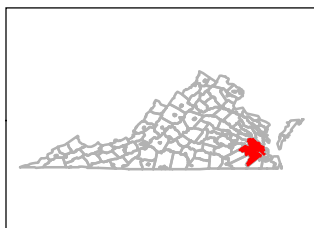
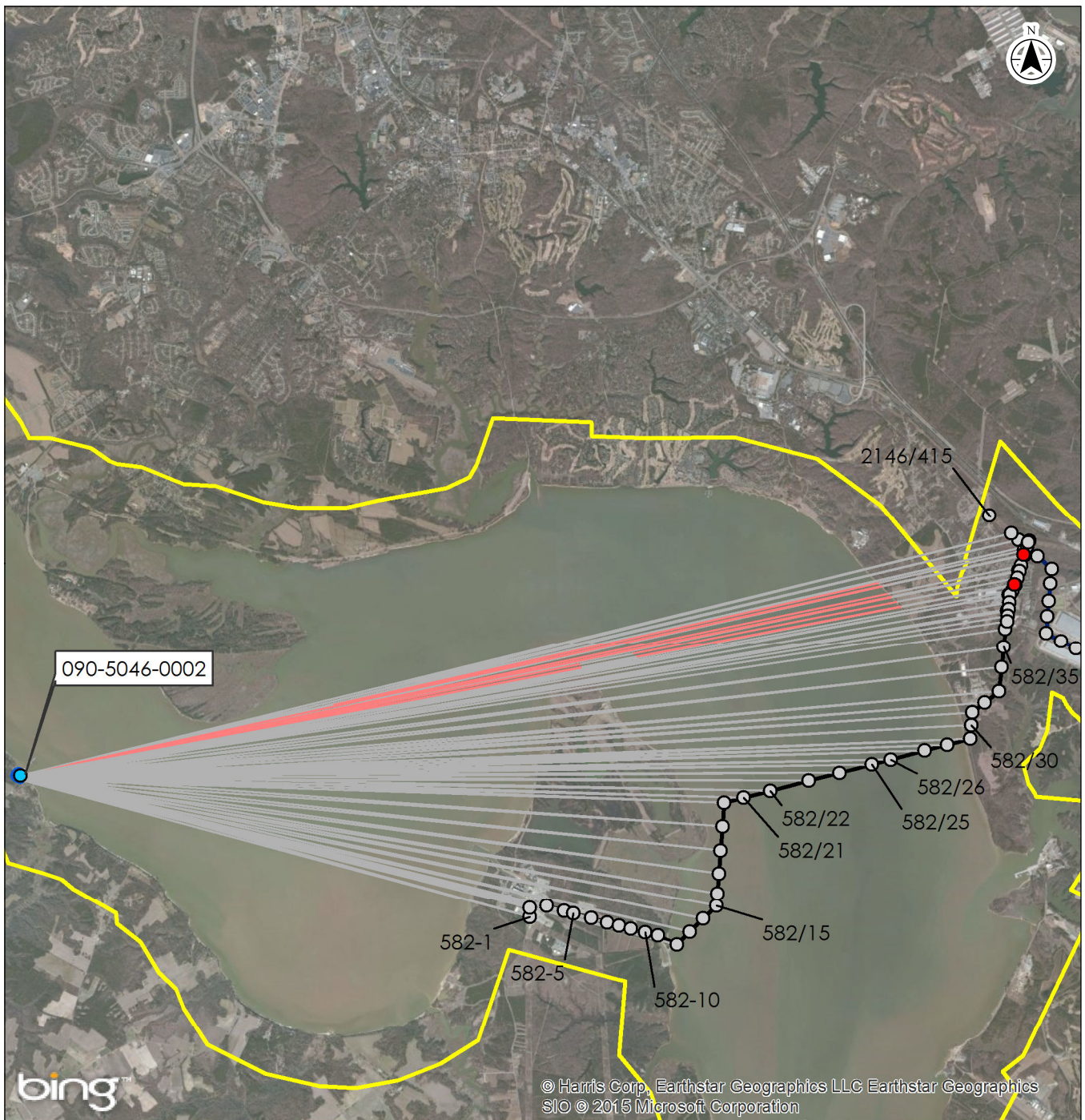
The house is located on a 0.62-acre sloping lot and sits above street level at the intersection of Rolfe Highway and River View Drive (Surry County Online Tax Assessment Records). Trees surround the property, which is accessed by a dirt drive. Two shrubs grow adjacent to the foundation. This resource is eligible under Criterion C as a contributing element to the Scotland Wharf Historic District and retains integrity of location, workmanship, design, and materials. Characteristics defining the resource are its intact elements typical of early twentieth-century construction which contribute to the overall cohesiveness of the historic district. The architectural elements and characteristics would not be affected by the proposed project directly because there is no planned activity within the boundaries of the historic district. There will be no physical or direct compromise to the resource's integrity of location, workmanship, materials, or design. Because the resource is contributing to the overall district, a visual effects assessment was conducted to identify potential effects of the project on the district's character, setting, and feeling.

Computer line-of-sight modeling suggests that the proposed structures associated with the Surry to Skiffes Creek 500 kV line, which range in height from 102 feet to 297 feet, will not be visible from the resource (Figure 104) due to changes in topography and distance with the exception of two structures, 582/38 and 582/50. These structures would only be barely visible, if at all over the trees. The distance would likely render the tops of the structures nearly invisible on the horizon.

Photographs were taken from the resource in the direction of the proposed project and the existing Surry Power Station. The photographs suggest that the transmission line would not be

visible from this location. The view of the river, which is to the east of the resource, is partially obscured by the built environment within the Scotland Wharf Historic District. The Surry Power Station and its associated structures were not visible from this resource during the site visit or were not discernible on the horizon (Figure 105 – Photo Arrow 1 and Figure107) suggesting that the proposed structures would also be obscured from view. The proposed structures are of similar height to the existing and any potential views would be limited to the tops of the structures above the tree line. Although the proposed structures within the plant facility may have limited visibility from this resource under the best conditions, the view would be distant and somewhat obscured. The visual effect would not detract from the resource's character defining architectural features or the overall setting and feeling of the larger historic district to which this resource contributes.

Stantec concludes that the proposed project will have No Adverse Effect to this resource (VDHR #090-5046-0002). In addition, the construction of the project will not detract from or adversely affect those characteristics which contribute to house's status as a contributing resource to the NRHP potentially eligible Scotland Wharf Historic District.



Notes

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Legend

- Observer Point
- Observation Point Sight Lines
 - Area Visible
 - Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Wheaton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 4,000 8,000
Feet
1:96,000 (at original document size of 8.5x11)



Project Location 203416120
County: Williamsburg, York, James City
Surry, Newport News, Isle of Wight
8023 Quaker Ridge, Williamsburg, Clay Bank
Surry, Hog Island, Yorktown, Runnyside, Bacon's Castle
Yorktown
Prepared by SWS on 2015-09-10
Technical Review by A.J.L. on 2015-09-10
Independent Review by EM8 on 2015-09-10

Client/Project
Dominion Virginia Power

Figure No.

104

Title

**Line of Sight Analysis for
VDHR# 090-5046-0002**



Notes

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Legend

- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 4,000 8,000 Feet
1:96,000 (at original document size of 8.5x11)



Project Location 203416120
County: Williamsburg, York, James City
Surry, Newport News, Isle of Wight
8023 Ocean Ridge, Williamsburg, City Park
Surry, Hog Island, Yorktown, Runnyside, Bacon's Castle
Township
Prepared by SWS on 2015-09-10
Technical Review by A.J.L. on 2015-09-10
Independent Review by EM8 on 2015-09-10

Client/Project
Dominion Virginia Power

Figure No.

105

Title

Photograph Location and Direction



Figure 106. House (VDHR #090-5046-0002), 16223 Rolfe Highway, View Looking West.



Figure 107. View from House (VDHR #090-5046-0002), 16223 Rolfe Highway, Looking East towards Proposed Surry to Skiffes Creek 500 kV Transmission Line River Crossing (Figure 105 – Photo Arrow 1). Red Arrows Denote General Direction and Location of Transmission Line.

3.23 HOUSE (VDHR #090-5046-0003)

3.23.1 Description of Resource

This house is a part of the Scotland Wharf District (VDHR #090-5046) which developed in the late-nineteenth and early-twentieth centuries as a result of the Surry Lumber Company's shipping operations. The house dates to c. 1920 and is a one-and-a-half-story, frame, three-bay dwelling supported by a brick foundation (see Figure 110). The exterior walls are sheathed in asbestos shingle siding, and the front gable roof is covered with asphalt shingles. Two front gabled dormers are set in the eastern roof slope, and a front gable projection is visible in the western slope. Visible fenestration includes one-over-one vinyl double-hung sash windows, and two-over-two and four-over-four wood double-hung sash windows. The house also features a one-story, full-width front porch enclosed with vertical board on the lower half of the walls and metal screening on the upper half, and a one-story, shed-roofed side porch enclosed with board-and-batten siding. A garage, located north of the house, is the only visible secondary resource on the property (VDHR Site Files).

3.23.2 National Register Status

The house is considered not individually eligible for listing on the NRHP; however, it is considered a contributing resource to the potentially eligible Scotland Wharf Historic District (VDHR #090-5046) (VDHR Site Files). It contributes to the district under Criterion C and retains integrity of location, workmanship, materials, and design.

3.23.3 Distance to ROW and Transmission Line Data

The resource is approximately 5.16 miles southwest of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.23.4 Effects Analysis

The house is located on an upward sloping 0.26 acre lot at the intersection of Rolfe Highway and River View Drive (Surry County Online Tax Assessment Records). Stones define a planting bed adjacent to the foundation where a single shrub grows. Mature trees are visible behind the house, and a gravel drive accesses the property. The view of the river, which is to the east of the resource, is partially obscured by the built environment within the Scotland Wharf Historic District. The built environment also obscures the view of proposed Surry to Skiffes Creek 500 kV line (Figure 111) from the resource.

This resource is eligible under Criterion C as a contributing element to the Scotland Wharf Historic District and retains integrity of location, workmanship, design, and materials. Characteristics defining the resource are its intact elements typical of early-twentieth century construction which contribute to the overall cohesiveness of the historic district. The architectural elements and characteristics would not be affected by the proposed project directly because there is no planned activity within the boundaries of the historic district.

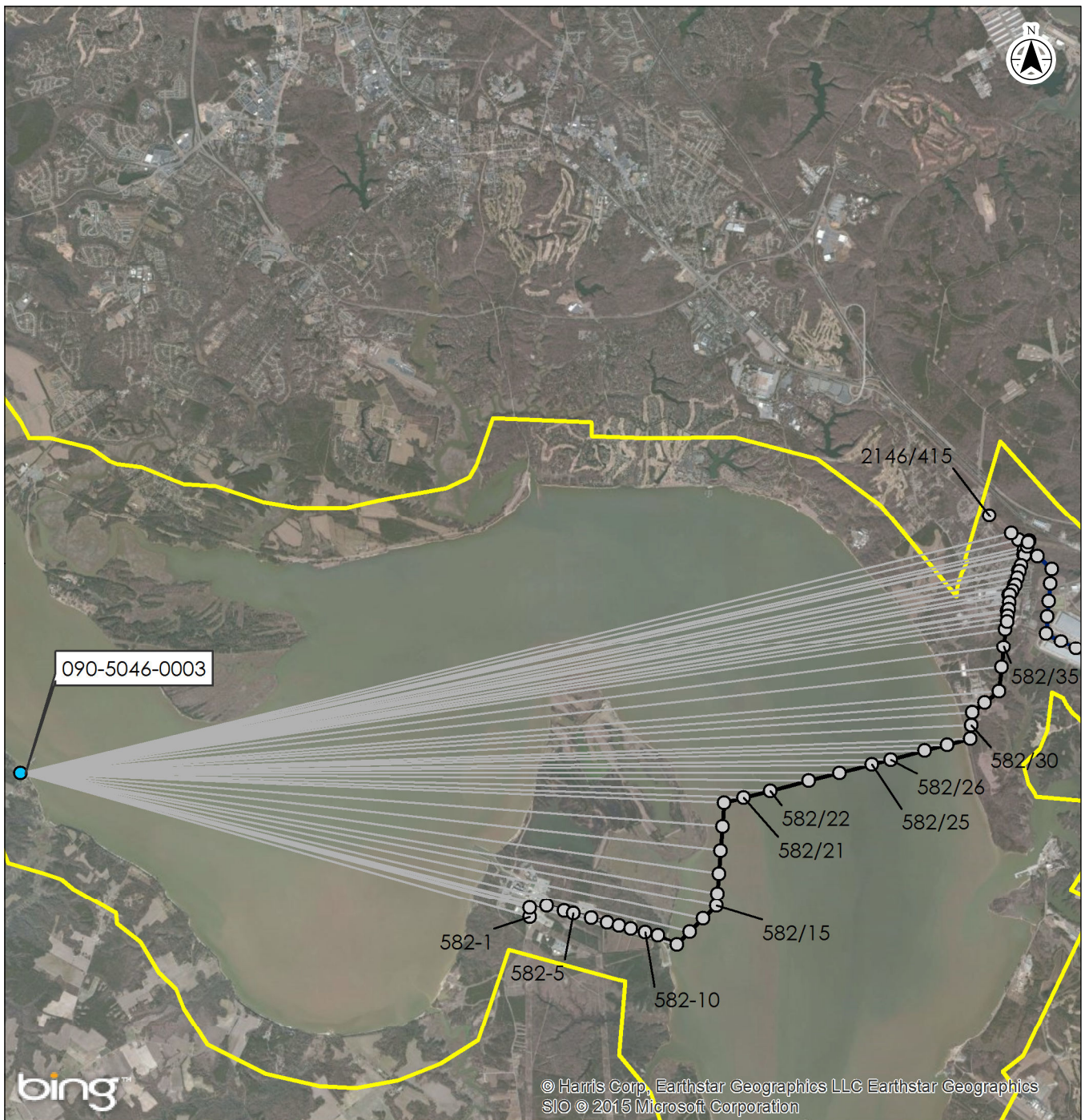
There will be no physical or direct compromise to the resource's integrity of location, workmanship, materials, or design. Because the resource is contributing to the overall district a visual effects assessment was conducted to identify potential effects of the project on the district's character, setting, and feeling.

Computer line-of-sight modeling suggests that the proposed structures associated with the Surry to Skiffes Creek 500 kV line, which range in height from 102 feet to 297 feet, will not be visible from the resource (Figure 108) due to changes in topography and distance.

Photographs were taken from the resource in the direction of the proposed project and the existing Surry Power Station. The photographs suggest that the transmission line would not be visible from this location. The Surry Power Station and its associated structures were not visible from this resource during the site visit or were not discernible on the horizon (Figure 109 – Photo Arrow 1 and Figure 111). The proposed structures are of similar height to the existing and any potential views would be limited to the tops of the structures above the tree line.

Although the proposed structures within the plant facility may have limited visibility from this resource under the best conditions, the view would be distant and somewhat obscured. The visual effect would not detract from the resource's character defining architectural features or the overall setting and feeling of the larger historic district to which this resource contributes.

Stantec concludes that the proposed project will have No Adverse Effect to this resource (VDHR #090-5046-0003). In addition, the construction of the transmission line project will not detract from or adversely affect those characteristics which contribute to house's status as a contributing resource to the NRHP potentially eligible Scotland Wharf Historic District.



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Orthimagery © Bing Maps

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Legend

- Observer Point
- Observation Point Sight Lines
- Area Visible
- Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 4,000 8,000
Feet
1:96,000 (at original document size of 8.5x11)



Project Location
County: Williamsburg, York, James City
Surry, Newport News, Isle of Wight
8023 Quaker Ridge, Williamsburg, Clay Bank
Surry, Hog Island, Yorktown, Runnymeade, Bacon's Castle
Township

203416120
Prepared by SWS on 2015-09-10
Technical Review by A.J.L. on 2015-09-10
Independent Review by EM8 on 2015-09-10

Client/Project
Dominion Virginia Power

Figure No.
108

Title
**Line of Sight Analysis for
VDHR# 090-5046-0003**



- Notes**
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Legend

- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 4,000 8,000 Feet
1:96,000 (at original document size of 8.5x11)



Project Location
County: Williamsburg, York, James City
Surry, Newport News, City of Norfolk
8023 Ocean Ridge, Williamsburg, City of Norfolk
Surry, Hog Island, Yorktown, Surryville, Bacon's Castle
Township

203416120
Prepared by SWS on 2015-09-10
Technical Review by A.J.L. on 2015-09-10
Independent Review by EMB on 2015-09-10

Client/Project
Dominion Virginia Power

Figure No.

109

Photograph Location and Direction



Figure 110. House (VDHR #090-5046-0003), 16239 Rolfe Highway, View Looking Northwest.



Figure 111. View from House (VDHR #090-5046-0003), 16239 Rolfe Highway Looking East towards Proposed Surry to Skiffes Creek 500 kV Transmission Line River Crossing (Figure 109 – Photo Arrow 1). Red Arrows Denote General Direction and Location of Transmission Line.

3.24 HOUSE (VDHR #090-5046-0004)

3.24.1 Description of Resource

The house designated as VDHR #090-5046-0004 dated to c. 1900 and was a one-and-a-half-story, frame, multi-bay dwelling supported by a brick foundation. The exterior walls were sheathed in vinyl siding, and the side gable roof was covered with asphalt shingles and featured several gabled projections. Visible fenestration included a twelve-light fixed wood window, six-over-six wood double-hung sash windows, and six-light fixed wood windows. An enclosed, hipped roof, one-story front porch featured one-over-one vinyl double-hung sash windows. A one-story, shed-roofed addition extended off the rear of the dwelling. The house, located off a dirt drive immediately adjacent to the ferry landing, overlooked and sat very close to the James River (VDHR Site Files). The house was recently demolished (Figure 112).

3.24.2 National Register Status

Not Applicable. The resource has been demolished.

3.24.3 Distance to ROW and Transmission Line Data

Not Applicable. The resource has been demolished.

3.24.4 Effects Analysis

Not Applicable. The resource has been demolished.



Figure 112. Former Location of House (VDHR #090-5046-0004).

3.25 HOUSE (VDHR #090-5046-0008)

3.25.1 Description of Resource

This house is a part of the Scotland Wharf District (VDHR #090-5046), which developed in the late-nineteenth and early-twentieth centuries as a result of the Surry Lumber Company's shipping operations. The house dates to c. 1900 and is a two-story, frame, multi-bay dwelling supported by concrete block piers. The exterior walls are sheathed in vinyl siding, and the side gable roof is covered with seamed metal (Figure 115). A front gabled projection with a shed-roofed addition extends off the main elevation. Visible fenestration includes six-over-six wood double-hung sash windows, and metal louvered windows. Many windows have aluminum awnings. The dwelling features two interior brick chimneys, a two-story side addition, and an enclosed rear porch with external staircase accessing the second floor. A shed, the only secondary resource visible on the lot, is located northeast of the house (VDHR Site Files).

3.25.2 National Register Status

The house is not individually eligible for listing on the NRHP; however, is considered a contributing resource to the potentially eligible Scotland Wharf Historic District (VDHR #090-5046) (VDHR Site Files). It contributes to the district under Criterion C and retains integrity of location, workmanship, materials, and design.

3.25.3 Distance to ROW and Transmission Line Data

The resource is approximately 5.12 miles southwest of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.25.4 Effects Analysis

The house is located on a pie-shaped 0.559 acre lot edging Rolfe Highway, Company Wharf Road and Pine Ridge Lane (Surry County Online Tax Assessment Records). Trees and shrubs edge the manicured yard that surrounds the dwelling. The view of the proposed Surry to Skiffes Creek 500 kV line river crossing, which is to the southeast of the resource, is obscured by a rise in the landscape to the east and southeast of the resource within the Scotland Wharf Historic District. This resource is eligible under Criterion C as a contributing element to the Scotland Wharf Historic District and retains integrity of location, workmanship, design, and materials. Characteristics defining the resource are its intact elements typical of early twentieth century construction which contribute to the overall cohesiveness of the historic district.

The architectural elements and characteristics would not be affected by the proposed project directly because there is no planned activity within the boundaries of the historic district. There will be no physical or direct compromise to the resource's integrity of location, workmanship, materials, or design. Because the resource is contributing to the overall district, a visual effects assessment was conducted to identify potential effects of the project on the district's character, setting, and feeling.

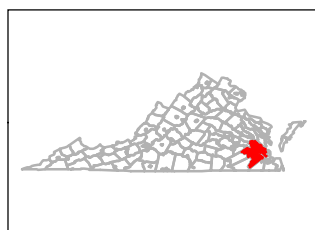
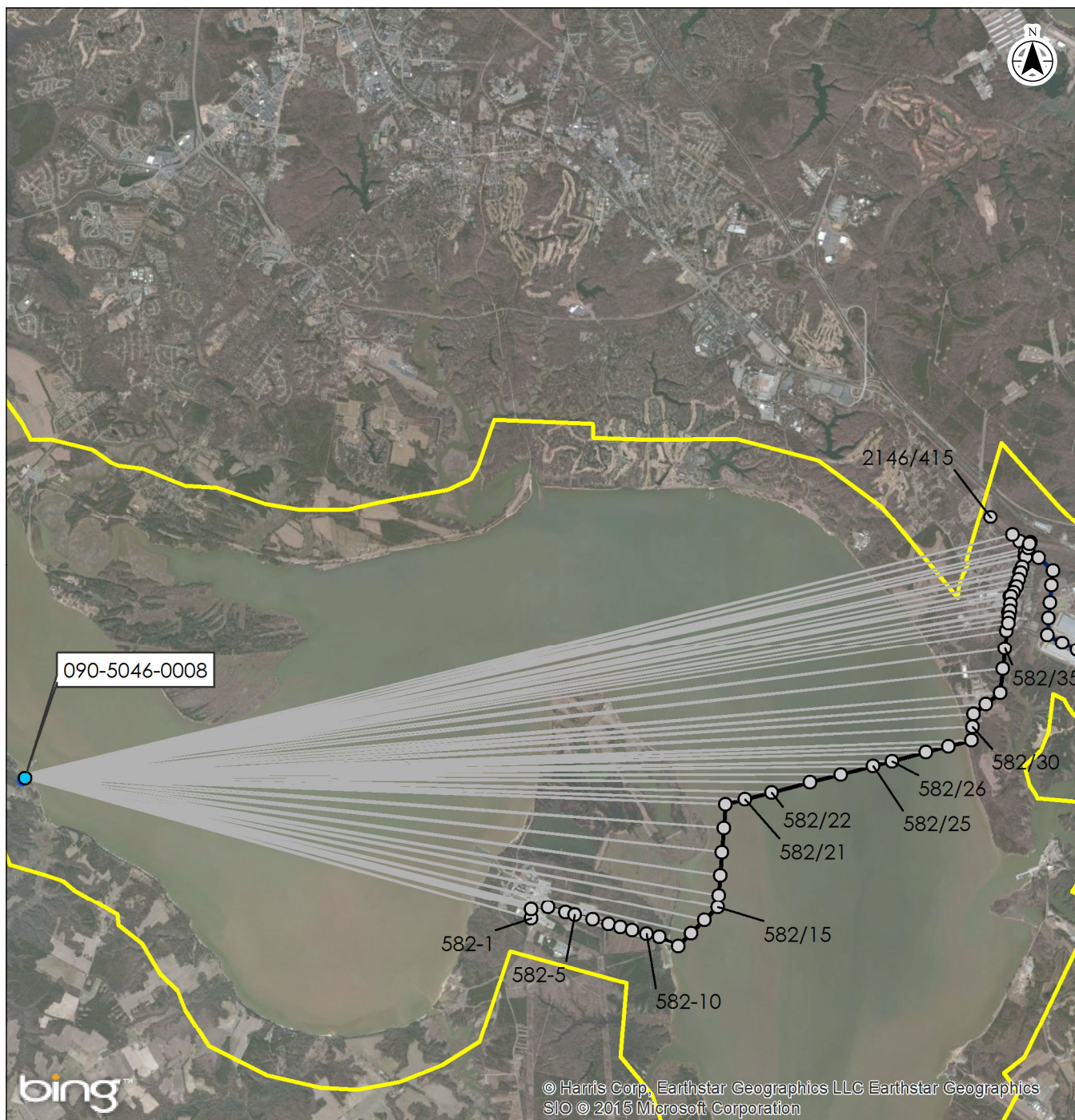
Computer line-of-sight modeling suggests that the proposed structures associated with the Surry to Skiffes Creek 500 kV line, which range in height from 102 feet to 297 feet, will not be visible from the resource (Figure 113) due to changes in topography and distance.

Photographs were taken from the resource in the direction of the proposed project and the existing Surry Power Station (Figure 114). The photographs suggest that the transmission

line would not be visible from this location. The Surry Power Station and its associated structures were not visible from this resource during the site visit or were not discernible on the horizon (Figure 114; 116). The proposed structures are of similar height to the existing and any potential views would be limited to the tops of the structures above the tree line.

Although the proposed structures within the plant facility may have limited visibility from this resource under the best conditions, the view would be distant and somewhat obscured. The visual effect would not detract from the resource's character defining architectural features or the overall setting and feeling of the larger historic district to which this resource contributes. The majority of the district, including this resource, would not have visibility to the proposed project because of its location, set back slightly from the riverbank and the presence of mature trees and landscape present throughout the area.

Stantec concludes that the proposed project will have No Adverse Effect to this resource (VDHR #090-5046-0008). In addition, the construction of the project will not detract from or adversely affect those characteristics which contribute to house's status as a contributing resource to the NRHP potentially eligible Scotland Wharf Historic District.



- Notes**
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
 2. Orthorectified by Bing Maps

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Legend

- Observer Point
- Observation Point Sight Lines
- Area Visible
- Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Wheaton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 4,000 8,000
Feet
1:96,000 (at original document size of 8.5x11)



Project Location
County: Williamsburg, York, James City
Surry, Newport News, Isle of Wight
8023 Quaker Ridge, Williamsburg, Clay Bank
Surry, Hog Island, Yorktown, Runnymeade, Bacon's Castle
Township

203416120
Prepared by SWS on 2015-09-10
Technical Review by A.J.L. on 2015-09-10
Independent Review by EM8 on 2015-09-10

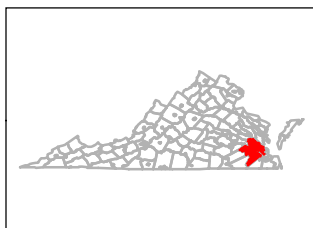
Client/Project
Dominion Virginia Power

Figure No.

113

Title

**Line of Sight Analysis for
VDHR# 090-5046-0008**



Notes

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Legend

- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 4,000 8,000 Feet
1:96,000 (at original document size of 8.5x11)



Project Location 203416120
County: Williamsburg, York, James City
Surry, Newport News, Isle of Wight
8023 Ocean Ridge, Williamsburg, City Park
Surry, Hog Island, Yorktown, Runnyside, Bacon's Castle
Township
Prepared by SWS on 2015-09-10
Technical Review by A.J.L. on 2015-09-10
Independent Review by EM8 on 2015-09-10

Client/Project

Dominion Virginia Power

Figure No.

114

Title

Photograph Location and Direction



Figure 115. House (VDHR #090-5046-0008), 16206 Rolfe Highway, View Looking Northwest.



Figure 116. View from House (VDHR #090-5046-0008), 16206 Rolfe Highway Looking East towards Proposed Surry to Skiffes Creek 500 kV Transmission Line River Crossing (Figure 114 – Photo Arrow 1). Red Arrow Denotes General Direction and Location of Transmission Line.

3.26 MATTHEW JONES HOUSE (VDHR #121-0006)

3.26.1 Description of Resource

The Matthew Jones House, located on Fort Eustis, was originally constructed c. 1720 by Matthew Jones as a one-story earth-fast dwelling with brick exterior chimneys. In 1727, shortly after construction of the house, Jones added a brick kitchen (now demolished). To commemorate the building's construction, bricks imprinted with Jones' name and the date were incorporated into the exterior kitchen walls. The house was modified c.1729 by the addition of the brick exterior walls which encased portions of the original frame within, and the addition of the front porch structure. The dwelling remained relatively untouched until 1892. During modernization of the house during this time, the building was raised to two stories, utilizing the bricks from the demolished kitchen. The line of the original gable roof line is still visible on the ends of the dwelling (see Figure 119). The stair passage was added during this phase of building as well. In 1993-1994, the dwelling's exterior was restored by the National Park Service Williamsport Training Center to its 1893 appearance (McDaid 2014:2-3) (VDHR Site Files).

3.26.2 National Register Status - Eligible, Criterion C

The Matthew Jones House was listed on the NRHP in 1969 under Criterion C for its architectural significance (VDHR Site Files). The resource is listed on the NRHP for its architectural features and its integrity of location, workmanship, design, and materials. The Matthew Jones House also retains integrity of setting although the setting and the quality of feeling have been diminished by its presence within the Fort Eustis military base.

3.26.3 Distance to ROW and Transmission Line Data

The Matthew Jones House is located 1.93-miles southeast of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.26.4 Effects Analysis

The house is located on a slight rise in the landscape within the boundary of Fort Eustis. The resource, at its closest point, is approximately 1.93 miles to the southeast of the proposed Surry to Skiffes Creek 500 kV transmission line. Tall grasses surround the dwelling. Trees are located near the water's edge and dot the landscape in the vicinity of the resource. To the north of the resource is Eustis Lake and to the south Miltstead Creek. The main area of the Fort Eustis Military Base is located to the north, northeast, and southeast of the dwelling. The Matthew Jones House retains integrity of location, workmanship, materials, design, setting, and feeling. The house is listed on the NRHP primarily for its architectural qualities and these would not be directly affected by the proposed transmission line project.

The project will not directly impact the resource or its location and will not alter the property's use or character. Regarding integrity of setting and feeling, visual analyses were prepared to ascertain if the proposed transmission line would present an impact to the resource that would alter the integrity of these important characteristics associated with the resource.

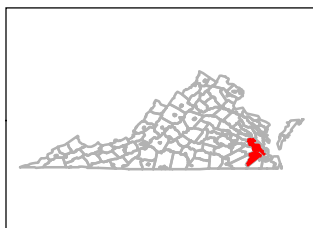
Computer line-of-sight modeling suggests that the proposed Dominion Virginia Power 500 kV line would have no visibility of the proposed structures associated with the river crossing and land-based portion of the segment in James City County (Figure 117). However, the line-of-sight analysis does indicate that limited or partial visibility of those structures due west of the resource and within the Surry Power Station would be present. Structures 582/1 and 582/2, and Structures

582/3 through 582/14 would be partially visible from the resource. These views would be limited to the top portions of the structures due to existing vegetation present between the Matthew Jones House and the proposed structures (Figure 117). The sight line to the north and northwest traverses Mulberry Island and its northernmost point, which is characterized by trees of varying height, and the marshlands adjacent to the James River. These natural areas would prevent visibility of the structures in the river and to the east (Figure 118 – Photo Arrow 1 and Figure 120).

Photographs taken from the front of the resource toward the proposed transmission line river crossing also indicated that there would be no or limited visibility of the proposed structures from this resource even in the best conditions for visibility (Figures 118 and 120). Photographs taken from the resource to the west and toward the Surry Power Station indicate that there would in fact, be a clear line of sight to the proposed transmission line structures within the river and proposed within the Surry Power Station (Figure 118 - Photo Arrow 2 and Figure 121). However, the view, as evidenced by the photographs, would be minimal and distant. The existing structures associated with the power station, which are of similar height to those proposed, are barely discernible above the tree line. The structures requiring lighting, including 582/13 through 582/25 would not be visible from the resource therefore the potential visual effects of the structure lighting would not be applicable.

Although some minimal views would be present of the proposed structures on the Surry County side of the project, the resource would experience no adverse effect to the setting and feeling associated with property, nor would there be a direct effect to its location, workmanship, design, or materials, all defining characteristics which qualify the resource for listing on the NRHP. These views would be minimal and distant.

Stantec concludes that the proposed project would have No Adverse Effect on the Matthew Jones House (VDHR #121-0006). The construction of the project will not detract from or adversely affect those characteristics which make the resource eligible for listing on the NRHP.



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
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Legend

- Observer Point
- Observation Point Sight Lines
- Area Visible
- Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 2,100 4,200
Feet
1:50,400 (at original document size of 8.5x11)



Project Location 203416120
County: Newport News, James City. Prepared by SWS on 2015-09-10
Surry, Isle of Wight Technical Review by A.J.L. on 2015-09-10
USGS Quad: Hog Island, Yorktown Independent Review by EM8 on 2015-09-10

Client/Project

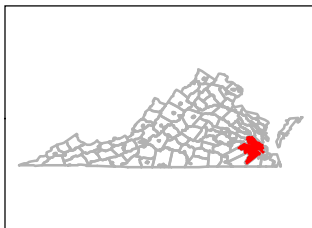
Dominion Virginia Power

Figure No.

117

Title

**Line of Sight Analysis for
VDHR# 121-0006**











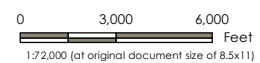
Notes

- Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502
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Legend

-  Proposed New Structure
-  Reconductoring Existing Structure
-  Remove and Replace Existing Structure
-  Photograph Location
-  Architectural Resources
-  Approximate Area of Potential Effects
-  Skiffes Creek to Whealton 230kV Transmission Line
-  Skiffes Creek to Surry 500kV Transmission Line



Project Location	203416120
County: York, Surry, Newport News, James City, Isle of Wight	Prepared by SWS on 2015-09-10
USGS Quad: Hog Island, Yorktown, Bacon's Castle, Mulberry Island	Technical Review by AJL on 2015-09-10 Independent Review by EMB on 2015-09-10
Client/Project	

Dominion Virginia Power

Figure No.

118

Photograph Location and Direction



Figure 119. Matthew Jones House (Fort Eustis; VDHR #121-0006), View Looking North.



Figure 120. View from Matthew Jones House (VDHR #121-0006) Looking Northwest towards Proposed Surry to Skiffes Creek 500 kV Transmission Line River Crossing (Figure 118 – Photo Arrow 1). Red Arrow Denotes Direction and General Location of the Transmission Line.

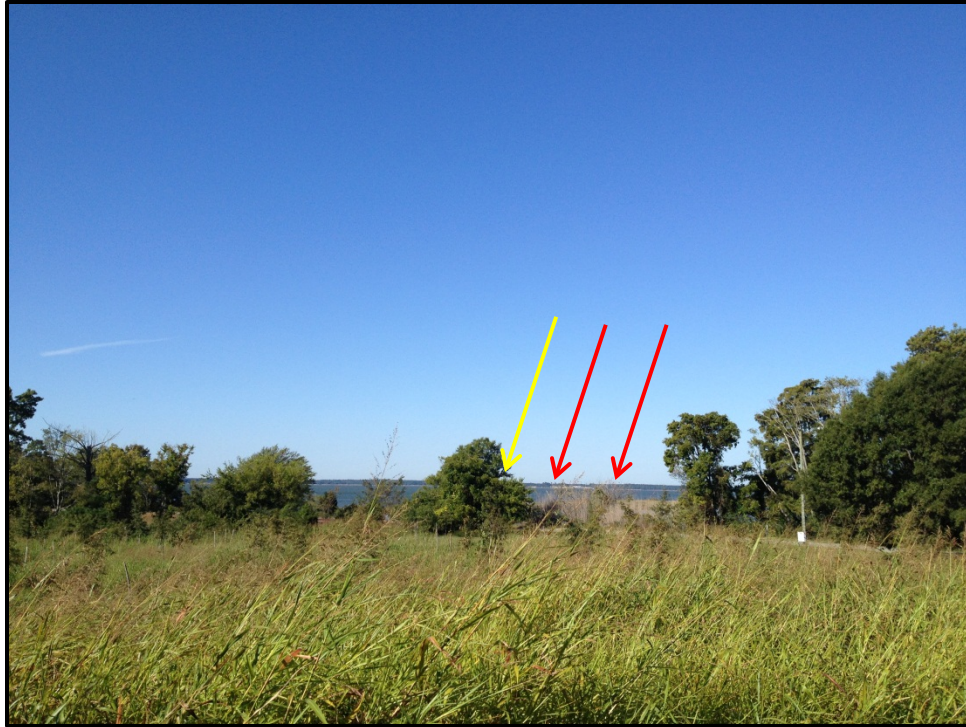


Figure 121. View from Matthew Jones House (VDHR #121-0006) Looking West towards Existing Surry Power Station and Proposed Surry to Skiffes Creek 500 kV Transmission Line (Figure 118 – Photo Arrow 2). Red Arrow Denotes Direction and General Location of the Transmission Line. Yellow line denotes location of existing Surry Power Station.

3.27 CRAFTFORD HOUSE SITE (VDHR #121-0017)

3.27.1 Description of Resource

The Crafford House Site is an archaeological site excavated in 1971. Currently, all that remains of the house is an open brick-lined cellar pit. The cellar pit is enclosed by a wood rail fence and the site is integrated into the public presentation of the fort (VDHR Site Files).

3.27.2 National Register Status – Eligible, Criterion D

The Crafford House Site was listed on the NRHP as part of the Fort Crafford resource (121-0027)(VDHR Site Files). The Crafford House Site, although not specified in the NRHP nomination, would be likely be eligible under Criterion D for its archaeological significance and potential to yield significant information about the past.

3.27.3 Distance to ROW and Transmission Line Data

Crafford House Site is located approximately 3.38 miles southeast of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.27.4 Effects Analysis

The landscape surrounding the Crafford House Site, like that of Fort Crafford (Section 3.28), comprises lightly wooded undeveloped land located on the grounds of Fort Eustis (Figure 122). The house site and fort are on a peninsula and are set back from the river bank. Between the resource and the edge of the riverbank is a buffer of trees that appear to average approximately 60 feet in height comprised primarily of hardwood and pine. On the northern side of the peninsula is an expanse of tidal wetland and a portion of Skiffes Creek which drains into the James River to the west. To the east of the site are developed portions of the military installation.

The Crafford House Site is significant as an archaeological site and was listed on the NRHP as part of the larger Fort Crafford resource. The aspects of integrity associated with the Crafford House Site would be limited to location, as it is an archaeological site, and its potential to yield significant information. Its primary importance is associated with the information that the site has provided and could provide through additional subsurface excavation. The remaining five aspects of integrity do not directly apply when assessing the characteristics qualifying this resource for listing on the NRHP.

The proposed transmission line will not directly affect the Crafford House Site as there will be no ground disturbing or construction activity within the bounds of the NRHP-listed site location. An assessment of potential visual effect was conducted as part of the Fort Crafford Site assessment, documented in the following section (3.28) (see Figures 123 and 124). The Crafford House Site is located within the larger Fort Crafford Site therefore the visual impacts would be the same. The line-of-sight analysis indicated limited visibility of the tallest structures within the riverine portion of the Surry to Skiffes Creek transmission line segment (see Figure 123).

Because the Crafford House Site is an archaeological site with no above ground elements, the proposed transmission line would not affect those characteristics, i.e. information potential, that qualify this resource for listing on the NRHP. There would be no adverse effect to the resource's defining characteristics as an archaeological site.

Stantec concludes that the proposed project will have No Adverse Effect on the Crafford House Site (VDHR #121-0017). The construction of the project will not detract from or adversely affect those characteristics which make the resource eligible for listing on the NRHP.



Figure 122. Current View of the Crafford House Site (VDHR #121-0017).

3.28 FORT CRAFFORD (VDHR #121-0027)

3.28.1 Description of Resource

Fort Crafford was designed as a pentagonal shape earthworks comprising 20-foot inner walls and containing approximately 7 acres (Figure 125). The Fort's earthworks are accessible for public presentation. The fort interior is covered by open mowed areas, and the earthworks themselves are accessible at several locations by cleared foot paths (VDHR Site Files).

3.28.2 National Register Status – Criteria A and D

Fort Crafford was listed on the NRHP in 1969 (VDHR Site Files). Although the NRHP nomination does not indicate the specific criteria under which the resource was listed, it is reasonable to assign significance to this resource under Criterion A for its significance to the Civil War and as a well-preserved example of a Civil War period strategically placed earthwork and under Criterion D for its potential to yield significant archaeological information about the Civil War period and fort construction. Fort Crafford retains integrity of location, design, materials, workmanship, and setting. The resource also retains integrity of association for its association with the Civil War. The integrity of feeling has been diminished somewhat by the presence of the nearby military installation, however, the Fort's location on a small wooded peninsula are reminiscent of the landscape and feeling of the mid-nineteenth century.

3.28.3 Distance to ROW and Transmission Line Data

Fort Crafford is located approximately 3.28 miles southeast of the proposed Surry to Skiffes Creek 500 kV transmission line within the bounds of the Fort Eustis military base. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.28.4 Effects Analysis

The landscape surrounding the Fort Crafford comprises lightly wooded undeveloped land located on the grounds of Fort Eustis. The house site and fort are on a peninsula and are set back from the river bank. Between the resource and the edge of the riverbank is a buffer of trees that appear to average approximately 60 feet in height comprised primarily of hardwood and pine. On the northern side of the peninsula are an expanse of tidal wetland and a portion of Skiffes Creek which drains into the James River to the west. To the east of the site are developed portions of the military installation.

Fort Crafford is significant for its association with the Civil War and because it is a well-preserved Civil War period earthwork and fort. The resource retains integrity of location, workmanship, design, and setting. The construction of the proposed project would not directly affect the location or the integrity of design, workmanship, and materials because there would be no construction or activity which would alter these elements of the resource. Indirect effects to the resource may include visual impacts which may alter the resource's integrity of setting and feeling. Therefore a visual effects assessment was conducted.

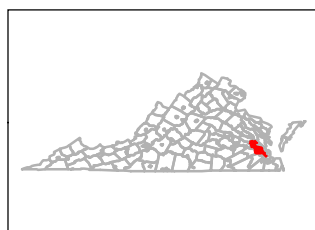
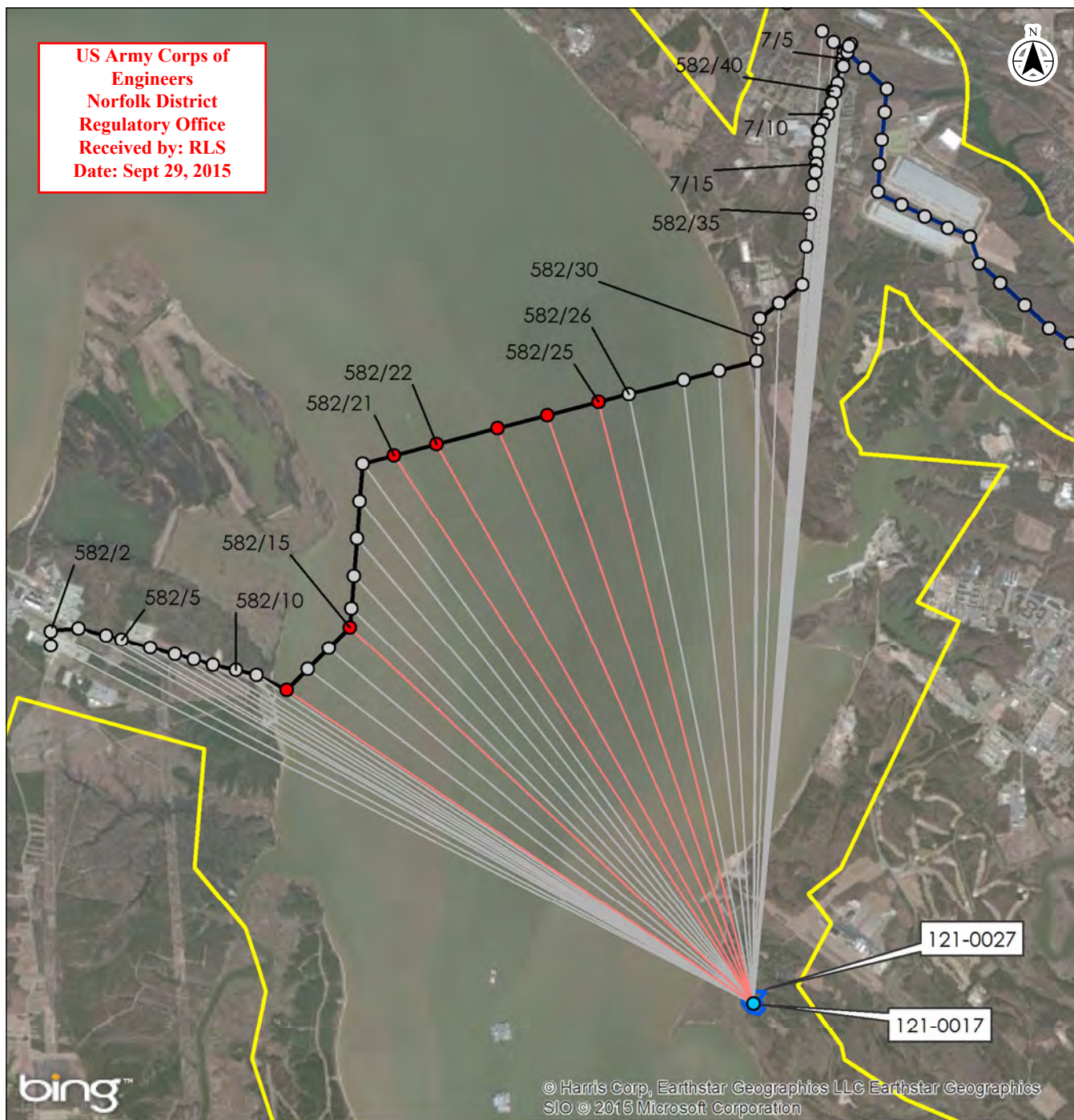
Computer line-of-sight modeling suggests that the proposed Surry-Skiffes Creek 500 kV line will be visible from the resource (Figure 123) primarily to the northwest through more open expanses of trees and vegetation. The line-of-sight analysis indicates that there will be at least partial visibility of structures 582/12, 582/15, and 582/21 – 582/25. Photographs taken from the site vicinity and the Fort Crafford site indicate that there will be some obstruction of view when looking north toward the proposed transmission line (Figure 124 – Photo Arrow 2 and Figure 126) because of

the vegetation and distance, but a view will still be present. Views toward the transmission line project to the northwest will be more open with more direct visibility (Figure 124 – Photo Arrow 1 and Figures 127 and 128). In addition, 10 of the 17 structures crossing the James River require lighting at the top, with several requiring mid-level lighting. However, the visibility and intensity of the lighting would be minimal because of the vegetation and distance between the resource and the lighted structures (approximately 3.9 miles distant). The type of light typically required, the L-864 red blinking light, would be likely visible; however, as noted there are several visual obstructions between the resource and the transmission line structures as well as existing light intrusions resulting from Fort Eustis as well as the Surry Power Station located directly across the channel. There are also numerous lighted channel buoys located in the vicinity of these resources off the James River shoreline. The addition of the lights, with a flash rate of not more than 40 FPM, would not affect the integrity of Fort Crafford or the associated Crafford House Site or those characteristics qualifying the sites for listing on the NRHP.

The views of the proposed project and associated structures and lighting would not detract from these sites' defining characteristics associated with its integrity of location, design, and workmanship because there would be no physical compromise to the resource. The minimal visual effects would not affect the resource's integrity of setting or feeling and views of the proposed project and associated structures would be minimized by vegetative cover and distance.

Stantec concludes that the proposed project will have No Adverse Effect to Fort Crafford (VDHR #121-0027). The construction of the transmission line will not detract from or adversely affect those characteristics which make the resource eligible for listing on the NRHP.

**US Army Corps of
Engineers
Norfolk District
Regulatory Office
Received by: RLS
Date: Sept 29, 2015**



Notes

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Legend

- Observer Point
- Observation Point Sight Lines
- Area Visible
- Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 2,500 5,000
Feet
1:60,000 (at original document size of 8.5x11)



Project Location 203416120
County: James City, Newport News
USGS Quad: Hog Island, Yorktown
Bacon's Castle, Mulberry Island
Prepared by SWS on 2015-09-10
Technical Review by A.J. on 2015-09-10
Independent Review by EMB on 2015-09-10

Client/Project

Dominion Virginia Power

Figure No.

123

Title
Line of Sight Analysis for
VDHR# 121-0017, 121-0027



Notes
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Legend

- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

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 Feet
 1:48,000 (at original document size of 8.5x11)



Project Location 203416120
 County: James City, Newport News
 USGS Quad: Hog Island, Yorktown
 Baccus Castle, Mulberry Island
 Prepared by SWS on 2015-09-10
 Technical Review by A.J.L. on 2015-09-10
 Independent Review by EMB on 2015-09-10

Client/Project

Dominion Virginia Power

Figure No.

124

Title

Photograph Location and Direction



Figure 125. Remains of Fort Crafford Earthworks (VDHR #121-0027), View Looking Southeast.



Figure 126. View from Fort Crafford (VDHR #121-0027) Looking North towards Proposed Surry to Skiffes Creek 500 kV Transmission Line (Figure 124 – Photo Arrow 2). Red Arrow Denotes Direction and Location of the Proposed Transmission Line.



Figure 127. View from Fort Crafford (VDHR #121-0027) and Crafford House Site (VDHR #121-0017) Looking Northwest towards Proposed Surry to Skiffes Creek 500 kV Transmission Line River Crossing (Figure 124 – Photo Arrow 1). Red Arrow Denotes Direction and Location of the Proposed Transmission Line.



Figure 128. View from Fort Crafford (VDHR #121-0027) and the Crafford House Site (VDHR #121-0017) Looking Northwest towards Proposed Surry to Skiffes Creek 500 kV Transmission Line River Crossing (Figure 124 – Photo Arrow 1). Red Arrow Denotes Direction and Location of the Proposed Transmission Line.

3.29 S.S. JOHN W. BROWN (VDHR #121-0045)

3.29.1 Description of Resource

The SS John W. Brown is a World War II Liberty Ship which, during 1939 and 1945, was designed to assist the Maritime Commission to fulfill the need for a standardized cargo steamer that could be massed produced. During this period, the Maritime Commission building program constructed nearly 5,095 non-military vessels to help fill the maritime needs associated with World War II. The SS John W. Brown is a large vessel with a length of approximately 441 feet. The S.S. John W. Brown is anchored with the Ghost Fleet, which is a group of ships constructed post 1935 that served as cargo and transport ships during World War II. Currently the ships are still part of the Maritime Administration non-retention inventory (VDHR Site Files) (Figure 129).

3.29.2 National Register Status

The S.S. *John W. Brown* was listed on the NRHP in 1984 (VDHR Site Files) for its significance to military history as a World War II era liberty ship. The S.S. *John W. Brown* is significant primarily for its importance as a World War II Liberty Ship and its use in the maritime industry for the transport of cargo. The resource retains its integrity of association, workmanship, materials, and design. The resource retains, to some degree, integrity of setting and feeling because of its marine location. As a ship that operated worldwide, simply being located in a marine environment provides some level of integrity of setting, feeling, and location. The ship is moored in the James River as part of the Ghost Fleet, which is still part of the Maritime Administration non-retention inventory.

3.29.3 Distance to ROW and Transmission Line Data

The S.S. John W. Brown is located approximately 2.18 miles south of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.29.4 Effects Analysis

The S.S. *John W. Brown* is moored on the eastern side of the Ghost Fleet (VDHR #121-5070), which is located at the Newport News and Isle of Wight County division in the James River, according to the mapped location in VCRIS. It is assumed that the S.S. *John W. Brown* is one of the smaller ships moored in the central grouping of ships located on the eastern side of the fleet.

The significance of the SS *John W. Brown* lies primarily in its association with military history and its use as a Liberty Ship. The resource retains its integrity of association, workmanship, materials, and design none of which would be directly or indirectly affected by the proposed transmission line project. The vessel is moored along with other retired military vessels in the James River as part of the Ghost Fleet which are still part of the Maritime Administration non-retention inventory.

Line-of-sight computer modeling was conducted for this resource from a point within the Ghost Fleet representative of the vessel's location within the fleet (Figure 130). Line-of-sight analysis and a review of aerial photography indicates a clear, unobstructed view of the river crossing portion of the proposed Surry to Skiffes Creek 500 kV transmission line which range in height from 128 feet to 297 feet. Line-of-sight analysis suggests that all of the proposed structures associated with Line 582 and the Surry to Skiffes Creek segment of the project would be visible; either fully (riverine structures) or partially (land-based structures).

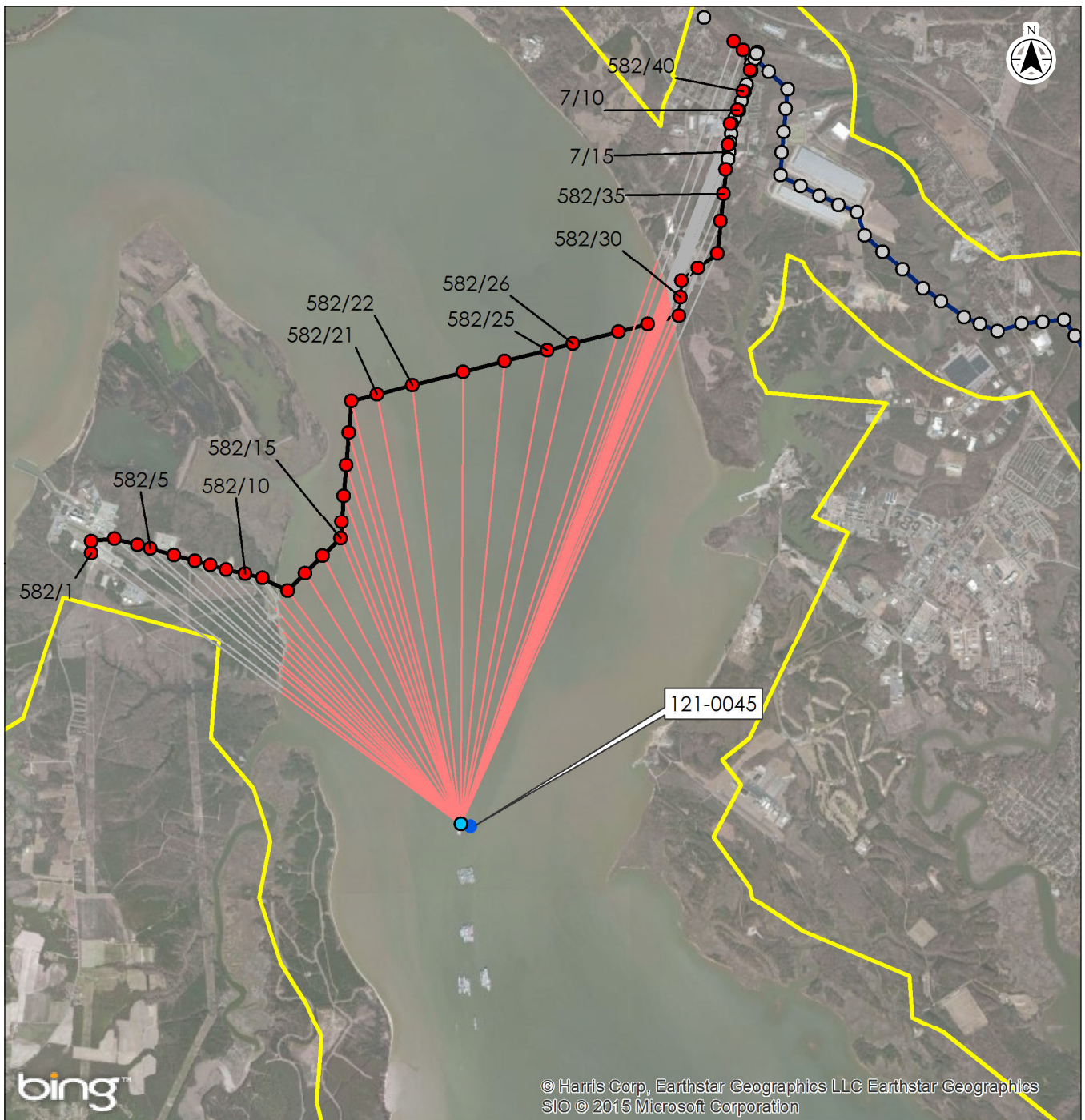
Current photographs of the Ghost Fleet as a whole were taken from the shoreline at Burwell's Bay Road (Figure 129; see Figures 136 and 137). Due to the uncertainty of the location of the S.S. *John W. Brown* within the Ghost Fleet, only general photographs of the Ghost Fleet were taken. It is clear; however, that the proposed transmission line will be visible from this resource as it has a clear, unobstructed view of the proposed crossing and all associated structures both riverine and land-based. The land-based structures would only be visible above the tree line with the exception of 582/29 – the first structure on land on the James City County side of the crossing.

The characteristics for which the S.S. *John W. Brown* is listed on the NRHP would not be affected visually by this project. Lighting proposed for the structures in the river crossing would also not affect the integrity of those characteristics qualifying the vessel for listing on the NRHP. The structure lighting would be visible, however, The SS *John W. Brown* is eligible for its association with military history and its use as a Liberty Ship. The presence of structure lighting would not detract from the vessel's significance. The proposed transmission line project would not detract from the vessel's integrity as an NRHP-eligible resource because its primary significance is rooted in its integrity of association, workmanship, design, and materials. Moreover a historic contemporary would recognize the S.S. *John Brown* as it exists, unaffected by the project.

Although there will be a direct line-of-sight between this resource and the proposed project, Stantec concludes that the proposed project will have No Adverse Effect to The S.S. John W. Brown. The construction of the project will not detract from or adversely affect those characteristics which make the vessel eligible for listing on the NRHP.



Figure 129. General View of the Ghost Fleet (VDH R#121-5070) Looking Northeast from Burwell's Bay Road towards the Proposed Surry to Skiffes 500 kV Transmission Line (see Figure 9 – Photo Arrow 1). Red Arrow Denotes General Direction of Proposed Transmission Line. Line is approximately 2 miles to the North of the Ghost Fleet.



Notes

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Legend

- Observer Point
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- Area Visible
- Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Wheaton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

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Feet
1:72,000 (at original document size of 8.5x11)



Project Location 203416120
County: James City, Surry
Newport News, Site of Wight
USGS Quad: Hog Island, Yorktown,
Bacon's Castle, Mulberry Island
Prepared by SW5 on 2015-09-10
Technical Review by A.J.L. on 2015-09-10
Independent Review by EM8 on 2015-09-10

Client/Project

Dominion Virginia Power

Figure No.

130

Title

**Line of Sight Analysis for
VDHR# 121-0045**

3.30 VILLAGE OF LEE HALL HISTORIC DISTRICT (VDHR #121-5068)

3.30.1 Description of Resource

The Village of Lee Hall, also known as the Lee Hall Historic District (VDHR #121-5068), is a collection of post 1881 architectural resources located within the present-day city of Newport News. The district has two sections that touch at the intersection of Warwick Boulevard (Route 60) and Ripley Street. The northern section is irregular in shape and includes Routes 60 and 238, Warwick Boulevard and Yorktown Road respectively, and the area in between. The southern section is roughly rectangular and includes the residences on the west side of Warwick Boulevard from Ripley Street southward (VDHR Site Files).

3.30.2 National Register Status - Eligible, Criteria A and C

The Village of Lee Hall Historic District was determined eligible for listing on the NRHP by VDHR in 2001 under Criterion C, architectural significance (VDHR Site Files). The collection of buildings comprises a good example of a late nineteenth and early twentieth century neighborhood that has not been altered. The district retains integrity of location, workmanship, design, and materials which are the primary characteristics qualifying it for listing on the NRHP. It is also significant at the local level under Criterion A for its association with early-twentieth century residential development. Modern infill and surrounding development have diminished to some degree the resource's integrity of setting and feeling.

3.30.3 Distance to ROW and Transmission Line Data

The resource is approximately 0.25 miles northeast of the existing Skiffes Creek to Whealton 230 kV transmission line corridor. Effects to this resource are considered for the segment of the project extending from the proposed Skiffes Creek Switching Station to the Whealton Substation in Newport News. The Skiffes Creek to Whealton segment is sited within existing ROW and proposed work associated with this segment of the project is structure replacement, new structure construction, and reconductoring/restringing on existing structures. A proposed access to the transmission line project is located along Route 60 and terminates at the intersection of Route 60 and Route 238 at the edge of the district boundary. The Village of Lee Hall is in closest proximity to proposed structures 2138/23 through 2138/25 at the transmission line corridor's intersection with Route 238. The existing transmission line ROW is located to the south of the Village of Lee Hall Historic District. Improvements associated with the 230 kV transmission line project in this area include reconductoring of existing structures. The proposed reconductoring/restringing will not change the existing conditions within the vicinity of the resource.

3.30.4 Effects Analysis

The Village of Lee Hall is located within the City of Newport News and straddles Route 60 in the vicinity of Ripley Street and Elmhurst Lane. The district is bordered by woodland to the east and an area of open space to the north which appears to be a community garden. Partially within and adjacent to the district, commercial and industrial development is present. The district contains mature trees along the streets and is suburban.

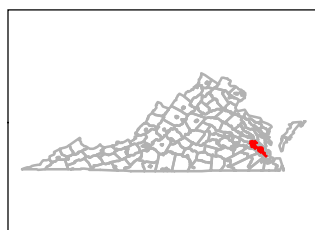
The qualities that qualify the district for listing on the NRHP are related to the architectural styles of the contributing resources and the unaltered state of the neighborhood with little infill within the boundaries of the district. The physical and architectural elements of the contributing resources are reminiscent of late-nineteenth and early-twentieth century styles. The district

retains integrity of location, workmanship, materials, and design. The district's integrity of setting and feeling has been slightly diminished due to the adjacent commercial and industrial development area along Route 60. The proposed transmission line project would not directly affect the architectural characteristics of the district or the individual resources within the district because there would be no immediate construction activity or disturbance within the bounds of the resource. Effects to the district's integrity of setting and feeling were assessed through a visual effects analysis.

Line-of-sight computer modeling was conducted for this resource from the center point within the district which also represents an open space from which the proposed project may be visible (Figure 131). Line-of-sight analysis and a review of aerial photography indicates that the proposed structures associated with the transmission line project in the vicinity of proposed structures 2138/6 through 2138/27 would not be visible to the historic district. In addition, those structures to the west of the district would be obscured from view by vegetation as well as the presence of a large industrial distribution plant.

Photographs were taken from several locations within the district to assess the potential visibility under current conditions (Figures 132; 133-134; Photo Arrows 1 and 2). Views to the southwest along Elmhurst Street and within the district indicated that the transmission line structures would not be visible (Figure 132 – Photo Arrow 1 and Figure 133). A view due south along Route 238 toward the proposed transmission line corridor also indicated that there would be no visibility of the transmission line structures (Figure 132 – Photo Arrow 2 and Figure 134). Multiple overhead transmission lines are present within the boundaries of the district and activities associated with the current project would be limited. The closest structures to the district boundary – 2138/23 through 2138/25 - were not visible during the site visits. Moreover, the activities associated with the proposed undertaking in the vicinity of this resource are limited to the reconductoring of existing structures. This activity would not comprise a change in the existing conditions and therefore there would be no adverse impact to the Village of Lee Hall's integrity or those characteristics qualifying it for listing on the NRHP. There would be no discernible change in the existing conditions which would affect the district's integrity of setting or feeling or detract from those characteristics qualifying the resource for listing on the NRHP.

Stantec concludes that the proposed project will have No Adverse Effect to The Village of Lee Hall Historic District. The construction of the project will not detract from or adversely affect those primary characteristics which make the district eligible for listing on the NRHP.



- Notes**
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Legend

- Observer Point
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 - Area Visible
 - Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 1,000 2,000
Feet
1:24,000 (at original document size of 8.5x11)



Project Location 203416120
County: James City, Newport News Prepared by SWS on 2015-09-10
USGS Quad: Yorktown Technical Review by A.J.L. on 2015-09-10
Independent Review by EMB on 2015-09-10

Client/Project

Dominion Virginia Power

Figure No.

131

Title

**Line of Sight Analysis for
VDHR# 121-5068**



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502
2. Orthimagery © Bing Maps

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Legend

- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 1,000 2,000
Feet
1:24,000 (at original document size of 8.5x11)



Project Location
County: York, James City, Surry,
Newport News, City of Norfolk
Baptist General Hospital, Tidewater
Population: West, Bacon's Castle,
Military Base, Newport News North
Client/Project
Dominion Virginia Power

Figure No.

132

Title

Photograph Location and Direction



Figure 133. View looking Southwest along Elmhurst Street towards existing transmission line ROW corridor (Figure 132 – Photo Arrow 1). The extant transmission line structures and associated wires were not visible from this location. Red arrow denotes general direction and location of the proposed transmission line.



Figure 134. View looking South towards existing transmission line ROW corridor. The extant transmission line structures and associated wires were not visible from this location (Figure 132 – Photo Arrow 2). Red arrows denote general direction and location of the proposed transmission line.

3.31 GHOST FLEET (VDHR #121-5070)

3.31.1 Description of Resource

The ships which comprise the Ghost Fleet were constructed post 1935 and served as cargo and transport ships during World War II. Two of the ships in the Ghost Fleet were built as attack transport class vessels and one was utilized as an oil tanker. Currently the ships are still part of the Maritime Administration non-retention inventory (VDHR Site Files) (Figures 136 and 137).

3.31.2 National Register Status – Eligible, Criterion A

The Ghost Fleet has been determined eligible for listing on the NRHP by VDHR under Criterion A for Broad Patterns in History (VDHR Site Files). The Ghost Fleet and its associated vessels are significant primarily for their importance in maritime and military history. The resource retains its integrity of association, workmanship, materials, and design. The resource retains, to some degree, integrity of setting and feeling because of its marine location. As a group of ships that operated worldwide, simply being located in a marine environment provides some level of integrity of setting, feeling, and location. The ships are moored in the James River and are part of the Maritime Administration non-retention inventory.

3.31.3 Distance to ROW and Transmission Line Data

The Ghost Fleet is located approximately 1.64 miles south of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.31.4 Effects Analysis

The Ghost Fleet is moored in the channel of the James River adjacent to the southwestern boundary of Fort Eustis to the east. To the west is the rural Isle of Wight County shoreline and to the south are the more industrialized areas of the James River in Newport News and Isle of Wight County as one approaches the James River Bridge. The significance of the vessels associated with the Ghost Fleet lies primarily in their association with military history and use in maritime activities. The resource, as a group, retains integrity of workmanship, materials, and design.

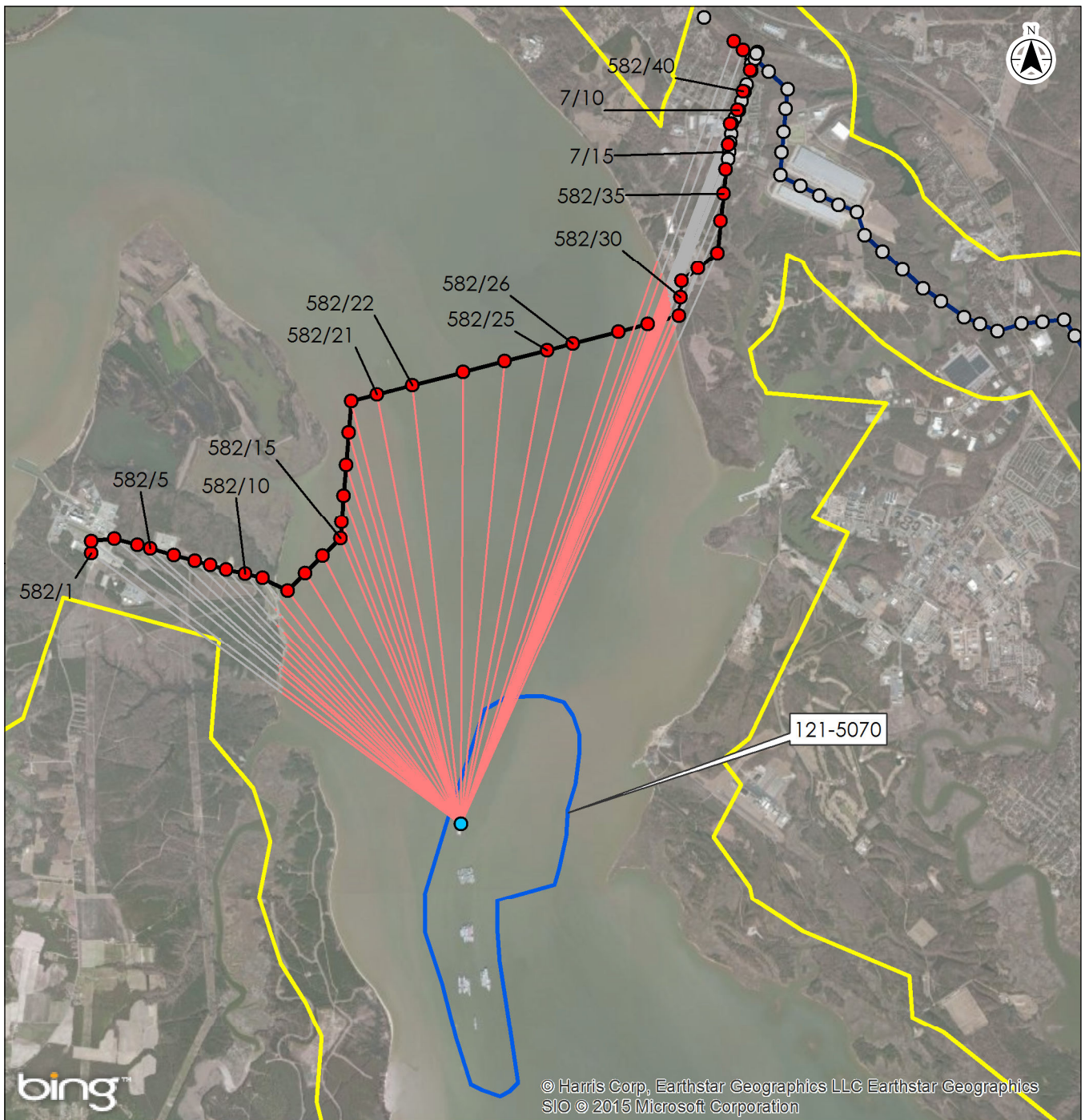
Line-of-sight computer modeling was conducted for this resource from a point within the Ghost Fleet representative of the general location of the fleet (Figure 135). Line-of-sight analysis and a review of aerial photography indicates a clear, unobstructed view of the river crossing portion of the proposed Surry to Skiffes Creek 500 kV transmission line which range in height from 128 feet to 297 feet. Line-of-sight analysis suggests that all of the proposed structures associated with Line 582 and the Surry to Skiffes Creek segment of the project would be visible; either fully (riverine structures) or partially (land-based structures).

Current photographs of the Ghost Fleet as a whole were taken from the shoreline at Burwell's Bay Road (Figures 136 and 137). It is clear; however, that the proposed transmission line will be visible from this resource as it has a clear, unobstructed view of the proposed crossing and all associated structures both riverine and land-based. The land-based structures would only be visible above the tree line with the exception of 582/29 – the first structure on land on the James City County side of the crossing.

It is clear that the proposed transmission line will be visible from this resource as it has a clear, unobstructed view of the proposed crossing as well as the land-based portions of the line. However, the characteristics for which the Ghost Fleet is listed on the NRHP would not be

affected visually by this project. Similarly, the presence of lights on the structures within the river crossing would not affect the characteristics for which the Ghost Fleet has been recommended eligible for listing on the NRHP. The fleet of vessels retains integrity of workmanship, design, and materials and is significant for their association with maritime history. While the resource maintains some integrity of setting, location, and feeling due to its marine location, these aspects of integrity are not considered defining characteristics for which the resource is eligible for listing on the NRHP. The construction of the transmission line project would not detract from the defining characteristics or integrity of association, workmanship, materials, or design for which the Ghost Fleet is eligible for listing on the NRHP.

Although there will be a direct line-of-sight between this resource and the project, Stantec concludes that the proposed project will have No Adverse Effect to The Ghost Fleet. The construction of the project will not detract from or adversely affect those primary characteristics which make the collection of vessels eligible for listing on the NRHP.



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Orthimagery © Bing Maps

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Legend

- Observer Point
- Observation Point Sight Lines
- Area Visible
- Area Not Visible
- Proposed Tower Location - Visible
- Proposed Tower Location - Not Visible
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 3,000 6,000
Feet
1:72,000 (at original document size of 8.5x11)



Project Location 203416120
County: James City, Surry
Newport News, Site of Work
USGS Quad: Hog Island, Yorktown,
Bacon's Castle, Mulberry Island
Prepared by SW5 on 2015-09-10
Technical Review by A.J.L. on 2015-09-10
Independent Review by EM8 on 2015-09-10

Client/Project
Dominion Virginia Power

Figure No.

135

Title
**Line of Sight Analysis for
VDHR# 121-5070**



Figure 136. View of the Ghost Fleet (VDHR #121-5070) looking **North Northeast** from the Shoreline at Fort Huger (see Figure 23 – Photo Arrow 2) . Red arrow denotes approximate direction of proposed transmission line. Line is approximately 2 miles north of the Ghost Fleet.



Figure 137. General View of the Ghost Fleet (VDH R#121-5070) Looking **North Northwest** from Burwell's Bay Road towards the Proposed Surry to Skiffes 500 kV Transmission Line (see Figure 23 – Photo Arrow 1).

3.32 BATTLE OF GREEN SPRINGS

3.32.1 Description of Resource

The Green Spring Battlefield lies between Jamestown Island, to the south, and the historical site of Green Springs Plantation, on present day Route 5, to the north. On July 6, 1781, the last major land battle of the Revolutionary War's Virginia campaign prior to Yorktown, took place in fields along the James River, on what was Green Springs Planation, in James City County, Virginia. United States Brigadier General "Mad" Anthony Wayne, led advance forces commanded by the Marquis de Lafayette against British troops under the command of General Cornwallis. The battle was a strategically planned trap for Lafayette's troops.

3.32.2 National Register Status – Eligible, Criterion A and D

In 1973, the Battlefields of Green Spring were placed on the National Register of Historic Places as part of the 2,000-acre Governor's Land Archaeological District (VDHR #047-0082). Recently, a 214-acre easement on the major portion of the battlefield, Mainland Farm, was conveyed by James City County to the Williamsburg Land Conservancy for stewardship and consists of trails, historic signage, and open fields bordered by woodlands (VDHR Site Files). Unlike most Revolutionary War battlefields, a portion of the battlefield remains much as it was in 1781 as determined by a comparison of the current landscape of open fields and woodlands.

3.32.3 Distance to ROW and Transmission Line Data

The resource is approximately 5.70 miles west/northwest of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.32.4 Effects Analysis

Green Springs Battlefield is characterized partially by open grasslands and woodland and retains much of the same setting and feeling as it did during its period of significance. The battlefield area is however partially affected by modern residential development which surrounds the battlefield Core areas which diminishes its integrity of feeling. However, the recent protection of approximately 214 acres for use as open space and recreational facilities contributes to the protection of the resource as well as its integrity of location, setting, and feeling. The Battlefield also retains integrity of association for its association with the Revolutionary War and significance as the location of one of the last major land engagements associated with the War.

The significance of Green Springs lies primarily in its association with important events of the Revolutionary War as well as its integrity of location and setting. The battlefield retains some integrity of feeling; however it is located among modern residential areas. The Core area of the battlefield remains much as it was in 1781 comprised of open farmlands and woodland. The proposed project would not detract from the resource's integrity of association or location as there would not be direct physical impacts to the resource which would detract from or diminish the characteristics qualifying it for listing under Criterion A. A visual effects assessment was conducted to ascertain if the proposed transmission line project would be visible from the resource.

The resource, at its closest point, is approximately 5.70 miles to the northwest of the proposed Surry to Skiffes Creek 500 kV transmission line. Computer line-of-sight modeling indicates that the proposed structures associated with the Surry to Skiffes Creek 500 kV line, which range in height from 102 feet to 297 feet, will not be visible from the Battle of Green Springs due to tree cover

between the resource and the proposed 500 kV line (Figure 138). Photographs taken from the edge of the Core Area of the battlefield also indicate that there would be no visibility of the project from this resource (Figure 139 Photo Arrow 1 and Figure 140). As such, it was determined that the project will not directly or indirectly effect this resource.

Stantec concludes that the proposed project will have No Adverse Effect on the Green Springs Battlefield within the Governor's Land Archaeology District (VDHR #47-0082) and that the proposed transmission line would not detract from those qualities qualifying the resource for listing on the NRHP.

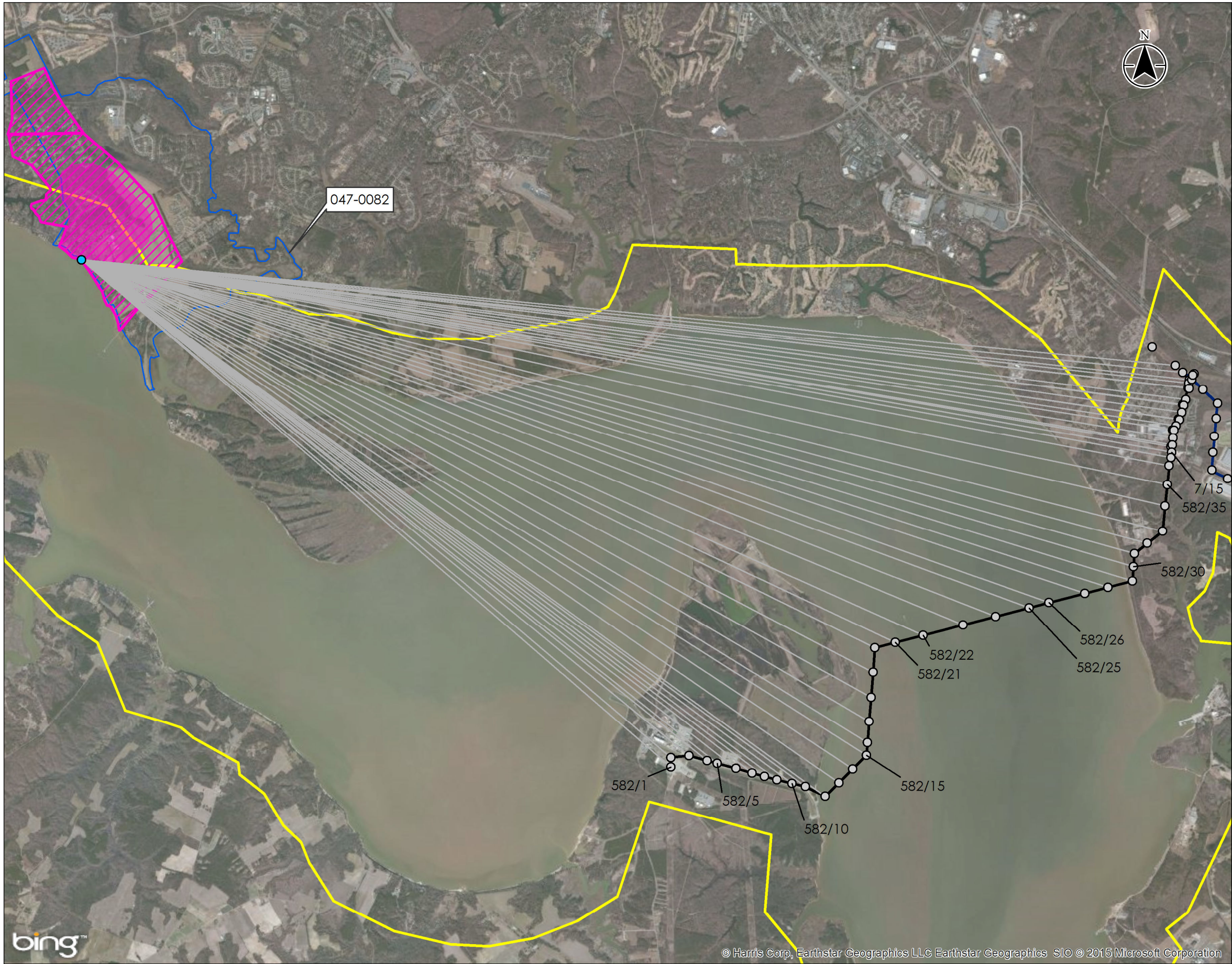
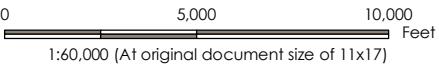


Figure No.
138

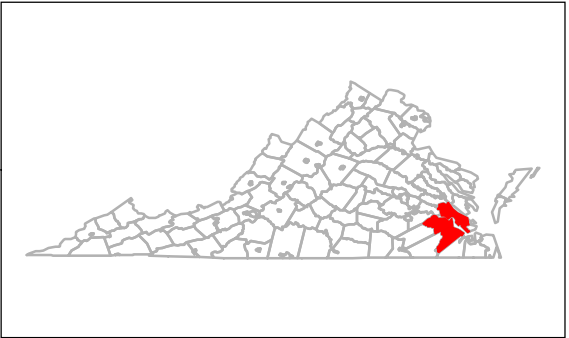
Title
**Line of Sight Analysis for
VDHR# 047-0082**

Client/Project
Dominion Virginia Power

Project Location
203416120
USGS Quad: Surry, Hog Island, Yorktown,
Runnymede, Bacon's Castle, Mulberry Island
County: James City, York, Surry,
Newport News, Isle of Wight
Prepared by SWS on 2015-09-10
Technical Review by AJL on 2015-09-10
Independent Review by EMB on 2015-09-10



- Legend
- Observer Point
 - Observation Point Sight Lines
 - Area Visible
 - Area Not Visible
 - Proposed Tower Location - Visible
 - Proposed Tower Location - Not Visible
 - Architectural Resources
 - Green Springs Core Areas
 - Green Springs Study Area
 - Green Springs Potential NR Areas
 - Approximate Area of Potential Effects
 - Skiffes Creek to Wheaton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line

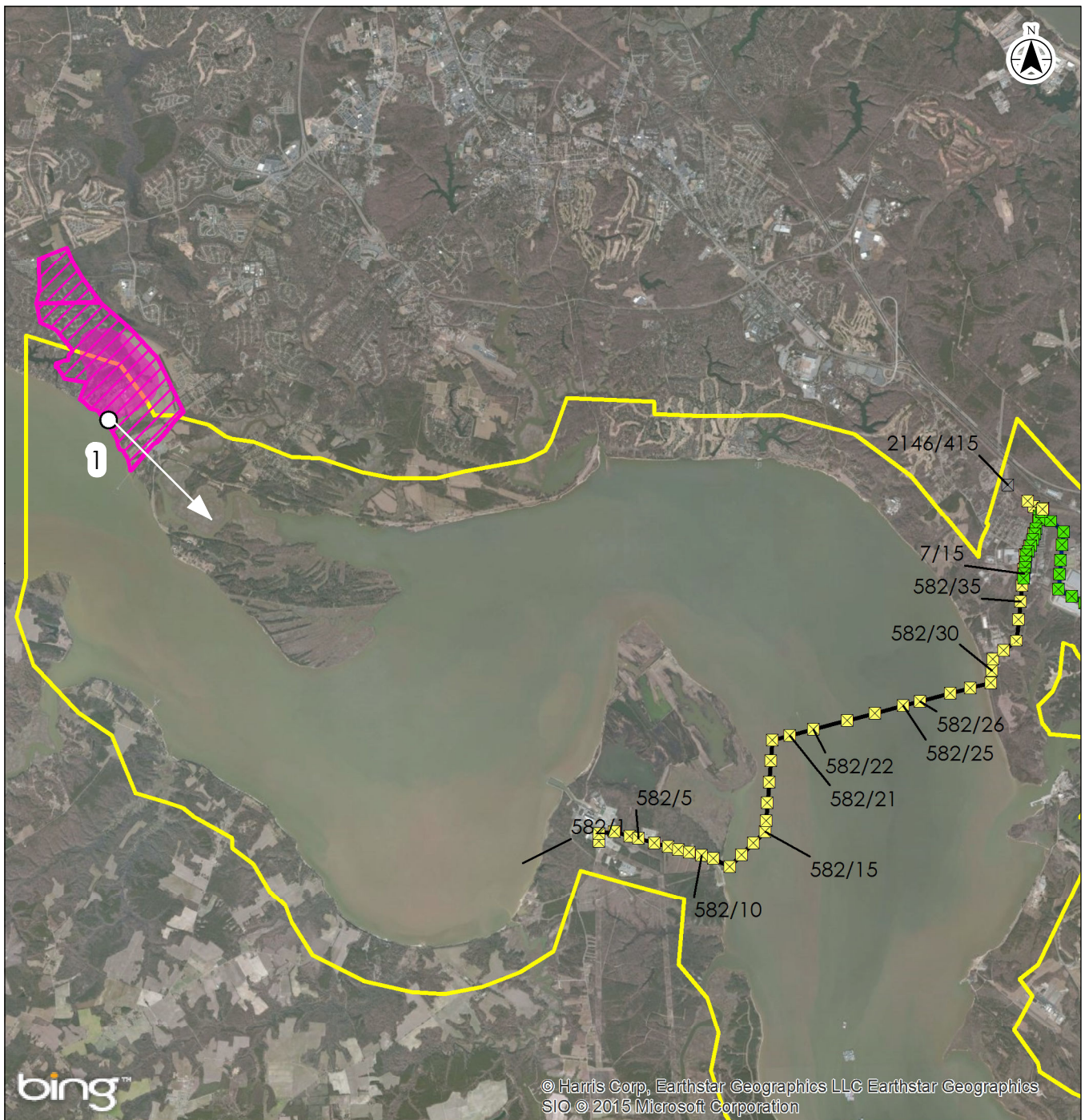


Notes

- Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
- Orthoimagery © Bing Maps



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Notes

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Legend

- Proposed New Structure
- Reconductoring Existing Structure
- Remove and Replace Existing Structure
- Photograph Location
- Architectural Resources
- Approximate Area of Potential Effects
- Skiffes Creek to Whealton 230kV Transmission Line
- Skiffes Creek to Surry 500kV Transmission Line

0 4,500 9,000
Feet
1:108,000 (at original document size of 8.5x11)



Project Location 203416120
County: York, James City, Surry,
Newport News, Williamsburg, Isle of Wight
8201 Ocean Ridge, Williamsburg,
City State, Surry, Hog Island, York,
Runnymede, Bacon's Castle, Nulbury Island

Client/Project

Dominion Virginia Power

Figure No.

139

Title

Photograph Location and Direction



Figure 140. View from Green Springs Battlefield within the Governor's Land Archaeological District (VDHR #047-0082) Looking Southeast towards the Proposed Surry to Skiffes Creek 500 kV Transmission Line River Crossing (Figure 139 – Photo Arrow 1). Red arrow denotes location of proposed transmission line on the opposite side of Jamestown Island.

3.33 COLONIAL NATIONAL HISTORICAL PARK (VDHR #047-0002) AND ASSOCIATED RESOURCES

Although documented in the May 21, 2015 Public Notice regarding the assessment of Adverse Effects to Historic Resources as the Colonial National Historical Park/Colonial Parkway Historic District, the resource identified by VDHR #047-0002, as documented in the site form and National Register Nomination is reflective of just the Colonial Parkway Historic District. However, the mapped boundary of the resource is associated with the Colonial National Historical Park which comprises the Colonial Parkway Historic District (047-0002), the Jamestown National Historic Site/Jamestown Historic District (047-0009) and Yorktown and Yorktown Battlefield (099-5241). The resource boundaries as mapped in V-CRIS for both VDHR #047-0002 and VDHR #99-5241 are identical and include all three components of the larger Colonial National Historical Park.

According to the site form for VDHR #099-5241, the resource as a whole is documented as being associated with the Colonial National Historical Park and the Multiple Property District (MPD) identified as the Civil War in Virginia, 1861-1865, Historic and Archaeological Resources. The information contained in the site form, however, appears to be limited to the Yorktown National Battlefield and associated Village of Yorktown. The Civil War period Battle of Yorktown is documented and described under VDHR #099-5283 and is addressed in Section 3.34.

In an effort to address first each resource individually, and then the resources as related to the Colonial National Historical Park and the above-mentioned MPD, the following three resources have been included in a single section: Colonial Parkway Historic District (047-0002); Jamestown National Historic Site/Jamestown Historic District (047-0009); Yorktown and Yorktown Battlefield (099-5241). Each resource will be addressed individually followed by an overall summary.

3.33.1 Colonial Parkway Historic District (VDHR #047-0002)

3.33.1.1 Description of Resource

The Colonial Parkway was constructed between 1931 and 1958 as a scenic roadway connecting Jamestown, Williamsburg, and Yorktown. The Parkway was constructed by the National Park Service in conjunction with the Bureau of Public Roads. The entire district encompasses 21.44 miles of road between the Visitor Center at Yorktown National Battlefield and the Visitor Center at Jamestown Island. The portion of the Colonial Parkway within the APE is located along the shoreline of the James River east of Jamestown Island. The Parkway in this area connects Jamestown Island to Colonial Williamsburg (VDHR Site Files).

3.33.1.2 National Register Status – NRHP-Listed, Criteria A and C

Colonial Parkway Historic District (VDHR #047-0002) was listed on the NRHP in 1966 under Criterion A and C (Colonial Parkway National Register nomination). The Parkway is eligible under Criterion A for its association with the early twentieth-century trends of recreation and conservation with respect to the National Park Service's conservation ethic as applied to historic resources and as an intact example of an early twentieth-century recreational parkway constructed partially in response to the popularity of recreational "motoring" during the period of construction. The Parkway is also significant under Criterion C for landscape architecture as an intact example of Parkway Design and for its architectural features, which reflect the Colonial Revival style utilized during the renovation of Colonial Williamsburg (NRHP nomination). The Parkway exhibits integrity of setting, location, feeling, association, design, materials, and workmanship. The Parkway's setting is reminiscent of a natural landscape although some of the rural lands surrounding the parkway have been altered. The Parkway's integrity of design, workmanship, and materials is rooted in its early to mid-twentieth century construction and elements characteristic of a recreational parkway. Defining characteristics associated with this particular portion of the

Parkway between College Creek and Jamestown includes the open landscape and views of the James River, particularly in the vicinity of College Creek. As the Parkway trends to the west toward Jamestown, river views become more obscured due to the presence of vegetative screening.

3.33.1.3 Distance to ROW and Transmission Line Data

The section of the Parkway located within the APE for the project and in particular the James River Crossing is approximately 3.16 miles northwest of the proposed 582 Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.33.1.4 Effects Analysis

For purposes of this assessment, only the portion of the Colonial Parkway within the Indirect APE for the project was included in the site visit and visual analysis. The landscape within the Colonial Parkway Historic District consists of both open and wooded areas along the parkway with views in places overlooking the James River. Visitor pull-offs are present along the Parkway not only to provide views of the James River but also to provide interpretive information regarding the history of Jamestown and the Historic Triangle.

The entire length of the Colonial Parkway possesses integrity of location, workmanship, design, materials, and association as well as integrity of setting and feeling. The proposed transmission line project will not detract from the first set of criteria and those characteristics related to the physical aspects of the parkway because there will be no direct impact to the resource within the resource's boundary. The structures, parkway design, and other related architectural-type elements, including brickwork, interpretive signs, and the width and alignment of the road, will not be compromised, and thus there will be no loss of integrity to these elements. However, with respect to the Parkway's integrity of setting and feeling, it was determined that a visual effects analysis would be appropriate to ascertain the potential effects the proposed transmission line may have on the integrity of the characteristics qualifying the Parkway for listing on the NRHP.

Line-of-sight computer modeling was conducted for this resource from two observer points (Figure 141). Observer Point 1/Photo Location 1 is located on the western end of the Parkway approaching Jamestown. From this point, Structures 582/23 through 582/29 would be nearly 100% visible and structures 582/1 through 582/11 within the Surry Power Station, would be partially visible above the trees, according to the model (Figure 141). Structure 582/12 would not be visible from Observer Point 1/Photo Location 1 and Structures 582/13 through 582/22 would be only partially visible. Structures on shore in James City County would be only slightly visible above the trees as the transmission line approaches the proposed Skiffes Creek Switching Station according to the line-of-sight model. Structures 582/29 and 582/30 would be visible as the line comes on shore, however structures 582/31 through 582/37 would be only partially visible above the tree line. Structures 582/38 through 582/44 would not be visible.

Line-of-sight computer modeling was also conducted for this resource from a second point near the edge of the shoreline in the vicinity of College Creek at the location of the College Creek lookout point (Observer Point 2/Photo Location 2). This area features a large gravel parking area, an open expanse of grass, and interpretive signage (Figure 141, Figure 143 and 144). Line-of-sight analyses indicated a clear, unobstructed view of the river crossing associated with the proposed Surry to Skiffes Creek 500 kV transmission line. These structures range in height from 128 feet to 297 feet. Structures associated with the land-based portion of this segment of the transmission line project, as the line comes on shore in James City County, would be only minimally visible over the tops of the trees. Structures 582/29-582/35 would be partially visible from Observer Point 2/Photo Location 2. Structures 582/18 through 582/29 would be nearly 100% visible while structures 582/2 through 582/17 would have partial visibility from this location.

Structures 582/36 and 582/37, at 137 feet in height, would be partially visible above the trees and structures 582/38 through 582/44 would not be visible at all.

Photographs were taken at several points along the Parkway (Photo Locations 1 and 2) to illustrate the potential views of the proposed transmission line from the Parkway. Photography suggests that along the stretch of Colonial Parkway adjacent to the shoreline between Jamestown and where the parkway turns north to cross College Creek the proposed transmission line crossing will be visible (Figure 142 – Photo Arrow 2 and Figures 147 and 148). The line will be visible along several stretches of the eastern portion of this section of parkway where there are few trees; where the parkway runs very close to the shore along a narrow isthmus; at several interpretive pull offs adjacent to the shoreline; and where the north end of Hog Island does not interfere with the view down river. Visibility would be less apparent at Photo Location 1 (Figure 142 – Photo Arrow 1 and Figure 146) because of the dense vegetation present in this vicinity along the shoreline.

In addition to the site visit, photo simulations (Appendix D) prepared previously by Truescape on behalf of Dominion were reviewed as part of the assessment of effects in combination with the computer generated visibility analysis and modeling. A review of the simulations indicates that the structures particularly associated with the crossing of the James River would be visible from locations along the Colonial Parkway. However, the distance between the parkway and the proposed crossing diminishes the view of the proposed structures. To further assess the potential visibility of the proposed transmission line from the Colonial Parkway, photographs were taken from several points within the James River toward the James River Bridge and transmission line crossing (Appendix D.5). These photos, taken at distances of 1.5, 3.5, and 4.5 miles from the bridge crossing indicated that the visual impacts of the structures diminished over distance. Point B (see Figures 13 and 14) was located at approximately 3.5 miles north of the James River Bridge and adjacent transmission line crossing. The view of the structures from this location was distant and faded and a similar result would be expected on a similar day for views from the Colonial Parkway. The structures would be visible, but would appear distant.

Although 10 of the 17 structures crossing the James River require lighting at the top with several requiring mid-level lighting, it is not likely that the lights would affect the integrity of the portion of the Colonial Parkway Historic District located within the project APE nor diminish its NRHP-qualifying characteristics. FAA guidance indicates that the type of light typically required, the L-864 red blinking light, may be visible for distances up to approximately 3.1 miles. The Parkway is just over three miles from the proposed transmission line crossing. While the red lights would be visible, the impacts of the blinking lights would be minimal. The lights would only blink at night at a maximum frequency of 40 FPM. In addition, some light intrusions already exist in the view shed for the resource including a number of lighted channel markers within the James River as well as light pollution from nearby Kingsmill Resort, the Surry Power Station and the Busch Gardens Theme Park. The minimal impact and intensity of the structure lighting at this distance would not adversely affect or detract from the resource's primary characteristics qualifying it for listing on the NRHP.

Stantec concludes that the proposed project will have No Adverse Effect on the Colonial Parkway Historic District (VDHR #047-0002) and that the construction of the project will not detract from or adversely affect those characteristics which contribute to the Colonial Parkway's status for listing on the NRHP.

However, per the USACE Public Notice, published May 21, 2015, the USACE has determined that the project would have an Adverse Effect to the Colonial Parkway. As such, the recommendation of effect, per the USACE' determination, is that the project would have an Adverse Effect and that the project would detract from the resource's characteristics and integrity qualifying it for listing on the NRHP.

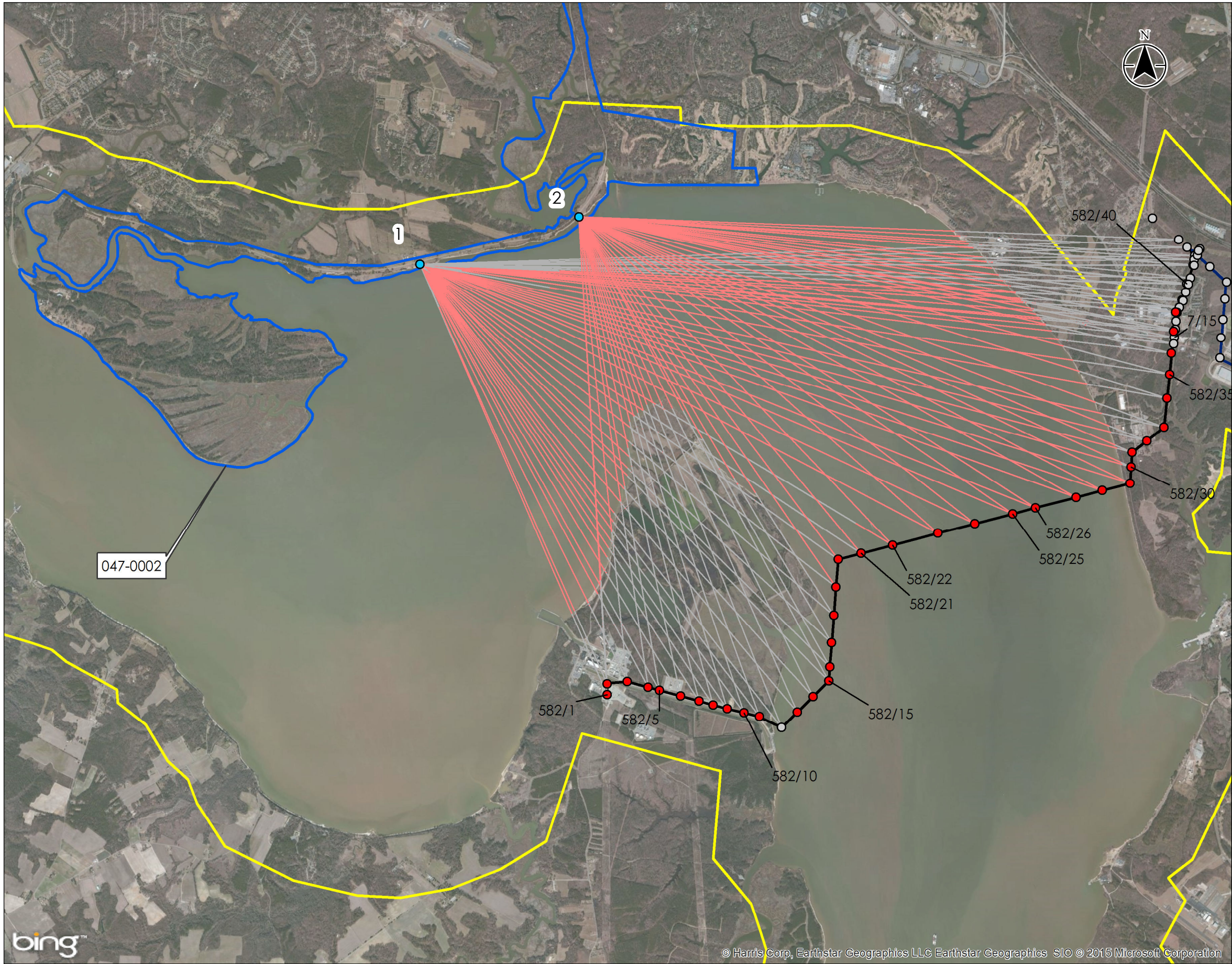


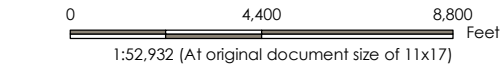
Figure No.
141

Title
**Line of Sight Analysis for
VDHR# 047-0002**

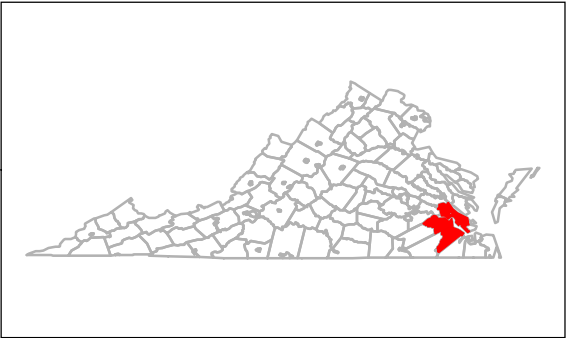
Client/Project
Dominion Virginia Power

Project Location
USGS Quad: Surry, Hog Island, Yorktown
County: James City, York, Surry,
Newport News, Isle of Wight

203416120
Prepared by SWS on 2015-09-09
Technical Review by AJL on 2015-09-09
Independent Review by EMB on 2015-09-09



- Legend
- Observation Point
 - Proposed Tower Location - Visible
 - Proposed Tower Location - Not Visible
 - Architectural Resources
 - Observation Point Sight Lines
 - Area Visible
 - Area Not Visible
 - Approximate Area of Potential Effects
 - Skiffes Creek to Wheaton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Orthoimagery © Bing Maps



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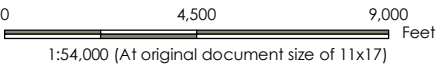


Figure No.
142

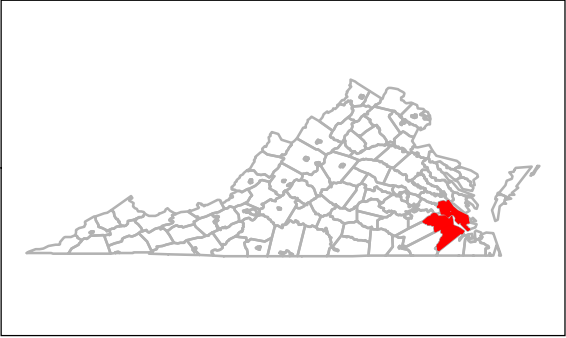
Title
Photograph Location and Direction

Client/Project
Dominion Virginia Power

Project Location 203416120
USGS Quad: Surry, Hog Island, Yorktown
County: James City, York, Surry, Newport News, Isle of Wight
Prepared by SWS on 2015-09-10
Technical Review by AJL on 2015-09-10
Independent Review by EMB on 2015-09-10



- Legend
- Proposed New Structure
 - Reconductoring Existing Structure
 - Remove and Replace Existing Structure
 - Photograph Location
 - Architectural Resources
 - Approximate Area of Potential Effects
 - Skiffes Creek to Whealton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



Notes

- Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502
- Orthoimagery © Bing Maps





Figure 143. View of the Colonial Parkway (VDHR #047-0002) east of College Creek. View to the East (Figure 141 - Photo Location 2).



Figure 144. View of the Colonial Parkway (VDHR #047-0002) East of Mill Creek. View to the East. The James City Bible and Horticultural School (VDHR # 047-5113) is located to the Left of the Photo.



Figure 145. View of the Colonial Parkway (VDHR #047-0002) West of Mill Creek. View to the West toward Jamestown (Figure 141 - Photo Arrow 1).



Figure 146. View Looking Southeast toward Proposed Transmission Line from Location 2 along the Colonial Parkway Historic District (VDHR #047-0002) (Figure 141 – Photo Arrow 1). Proposed Surry to Skiffes 500 kV Transmission Line would Cross the James River in Vicinity of Red Arrow.



Figure 147. View Looking Southeast toward Proposed Transmission Line from Vicinity of Location 2, Near College Creek and along the Colonial Parkway Historic District (VDHR #047-0002) (Figure 141 – Photo Arrow 2) Proposed Surry to Skiffes 500 kV Transmission Line would Cross the James River in Vicinity of Red Arrow. Hog Island and Surry Power Station are to the Right of the Photo (Yellow Arrow).



Figure 148. View from Photo Location 1 along the Colonial Parkway Historic District (VDHR #047-0002) Looking Southeast toward the Proposed Surry to Skiffes Creek 500 kV Transmission Line (Figure 141 – Photo Arrow 2). Line would Cross in Vicinity of Red Arrows.

3.33.2 Jamestown National Historic Site/Jamestown Island Historic District (VDHR #047-0009)

3.33.2.1 Description of Resource

Jamestown Island is the site of the first permanent English settlement in North America. The island is currently owned by the National Park Service and open to the public. The island contains many above-ground resources, including the ruins of a church structure, reconstructed seventeenth-century dwelling, brick kiln foundation, and a statue of John Smith. It also contains archaeological sites related to the colonial settlement at Jamestown and later periods, as well as Native American settlement and use of the island (VDHR Site Files). The east end of the island is largely undeveloped marsh and wooded areas, with Island Drive accessing the east end at Black Point.

3.33.2.2 National Register Status – NRHP-Listed, Criteria A and D

Jamestown Island was listed on the NRHP in 1966 (VDHR Site Files). Jamestown was listed on the NRHP under Criterion A as the first permanent English settlement and its association with the colonization of Virginia and under Criterion D for its archaeological potential. The site is also part of the larger Colonial National Historical Park (VDHR #099-5241; also #047-0002). Character defining characteristics of Jamestown Island Historic District include its numerous archaeological resources and its significance in history. The resource retains integrity with respect to all seven aspects of integrity – association, location, setting, feeling, workmanship, materials, and design.

3.33.2.3 Distance to ROW and Transmission Line Data

The resource is approximately 3.26 miles north/northwest of the proposed Surry to Skiffes Creek 500 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.33.2.4 Effects Analysis

The Jamestown Island Historic Site and Historic District is listed on the NRHP under Criterion A and D for its association with the early colonization of Virginia and North America and for its archaeological potential. Archaeological sites identified on Jamestown Island are associated with both Native American and Colonial period settlement although the period of significance of the island, according to the National Register Information System, is limited to 1600-1749. The setting on Jamestown Island is appropriate and consists of the open public areas as well as wooded, non-public areas which are maintained as a natural landscape. The location and feeling of the site also retains integrity as does the site's association with the Colonial period in Virginia and the location of the Jamestown Fort. Also integral to the significance of the site are the archaeological sites and above-ground architectural remains associated with the 1607 fort and subsequent occupation of the island in the early seventeenth century.

The proposed transmission line – specifically the Surry to Skiffes Creek 500 kV segment – will not directly affect the Jamestown Historic District because there will be no ground disturbing or physical impacts to the resource's assets or character defining elements which include the site of the James Fort, visitor center, associated monuments and archaeological sites, indirect effects to the property, however, were determined to be primarily visual, therefore visual effects assessments were conducted.

Line-of-sight computer modeling was conducted for this resource from the visitor area and from Black Point, the easternmost tip of Jamestown Island closest to the proposed project (Figure 149).

The line-of-sight analysis indicated that the proposed project would not be visible from the western end of the historic district and visitor area at Observer Point 1 (Figure 149). The sight line crosses the remainder of Jamestown Island as well as Hog Island and the natural landscape and distance would shield the proposed project from direct view from this location. While the blinking lights associated with the tallest structures may be noticeable in the dark and on the horizon while the actual structures would be out of view, they would not detract from the site's overall integrity.

Line-of-sight modeling was also conducted from an observer point at Black Point (Observer Point 2), the eastern-most tip of Jamestown Island. The visual analysis indicated that the proposed transmission line crossing including both land-based and riverine portions, would be visible from this location (Figure 149). However, because of the bend in the river as well as the natural landscape of Hog Island, only two of the structures associated with the segment would be completely visible. These structures are 582/29 and 582/30; the first two structures associated with the land-based portion of the project as the line comes onshore in James City County. These two structures are in a direct, unobstructed sight line from Black Point. Other structures including those in Surry and located within the Surry Power Station and those within the land-based portion of the segment in James City County would only be partially visible due primarily to the distance and natural obstructions on the landscape. The river crossing structures 582/18 through 582/28 would only be partially visible; again due to the angle of the river and the natural landscape. According to the line-of-sight model, structures 582/12 and 582/14 through 582/17 would not be visible at all from Black Point.

Photographs from the publicly-accessible locations on Jamestown Island, primarily in the main portion of the visitor area, toward the proposed Surry to Skiffes Creek 500 kV Transmission line were taken from the shoreline in the vicinity of the ruins of the church structure (Figure 150 – Photo Arrow 1 and Figure 152). During the fieldwork portion of the effects study it was noted that dense tree cover on the southeastern and eastern portions of the island obscured the views of the portion of the river where the proposed Surry to Skiffes Creek 500 kV transmission line crossing will be placed. In addition, the Surry Power Station was not visible from the point of survey. Photographs taken from Black Point (Figure 150 – Photo Arrow 2 and Figure 153) showed a clear view of the river channel and Hog Island, however the existing structures at the Surry Power Station were difficult to distinguish. Visual simulations previously prepared by Truescape on behalf of Dominion (Appendix D.3) were also reviewed and, like the line of sight analysis, indicated that the proposed river crossing would be visible from Black Point but that the land-based structures would not be visible on both the Surry County and James City County shorelines.

To further assess the potential visibility of the proposed transmission line from Jamestown Island, photographs were taken from several points within the James River toward the James River Bridge and transmission line crossing (Appendix D.5). These photos, taken at distances of 1.5, 3.5, and 4.5 miles from the bridge crossing indicated that the visual impacts of the structures diminished over distance. Point B (Appendix D.5) was located at approximately 3.5 miles north of the James River Bridge and adjacent transmission line crossing. The view of the towers from this location was distant and faded and a similar result would be expected on a similar day for views from Jamestown Island and particularly Black Point. While the LOS model indicated that the towers would be visible, they are just over 3.0 miles away. The towers would appear very distant and would not be easily discernable from this vantage point. Thus, the towers would not detract from the resource's overall integrity of association, location, setting, or feeling.

Although 10 of the 17 structures crossing the James River require lighting at the top with several requiring mid-level lighting, it is not likely that the lights would affect the integrity of the portion of the Jamestown Historic District located within the project APE nor diminish its NRHP-qualifying characteristics. FAA guidance indicates that the type of light typically required, the

L-864 red blinking light, may be visible for distances up to approximately 3.1 miles. Jamestown Island is just over three miles from the proposed transmission line crossing. While the red lights would be visible, the impacts of the blinking lights would be minimal. The lights would only blink at night at a maximum frequency of 40 FPM. In addition, some light intrusions already exist in the view shed for the resource including a number of lighted channel markers within the James River as well as light pollution from nearby Kingsmill Resort, the Surry Power Station and the Busch Gardens Theme Park. The minimal impact and intensity of the structure lighting at this distance would not adversely affect or detract from the resource's primary characteristics qualifying it for listing on the NRHP.

As a result of this assessment, Stantec concluded that the proposed project would have No Adverse Effect on Jamestown National Historic Site/Jamestown Island Historic District (VDHR #047-0009) and that the construction of the project will not detract from or adversely affect those characteristics which contribute to Jamestown National Historic Site/Jamestown Island Historic District's status for listing on the NRHP.

However, per the USACE Public Notice, published May 21, 2015, the USACE has determined that the project would have an Adverse Effect to the Jamestown Island Historic District and Site. As such, the recommendation of effect, per the USACE's determination, is that the project would have an Adverse Effect on this resource and that the project would detract from the resource's characteristics and integrity qualifying it for listing on the NRHP.

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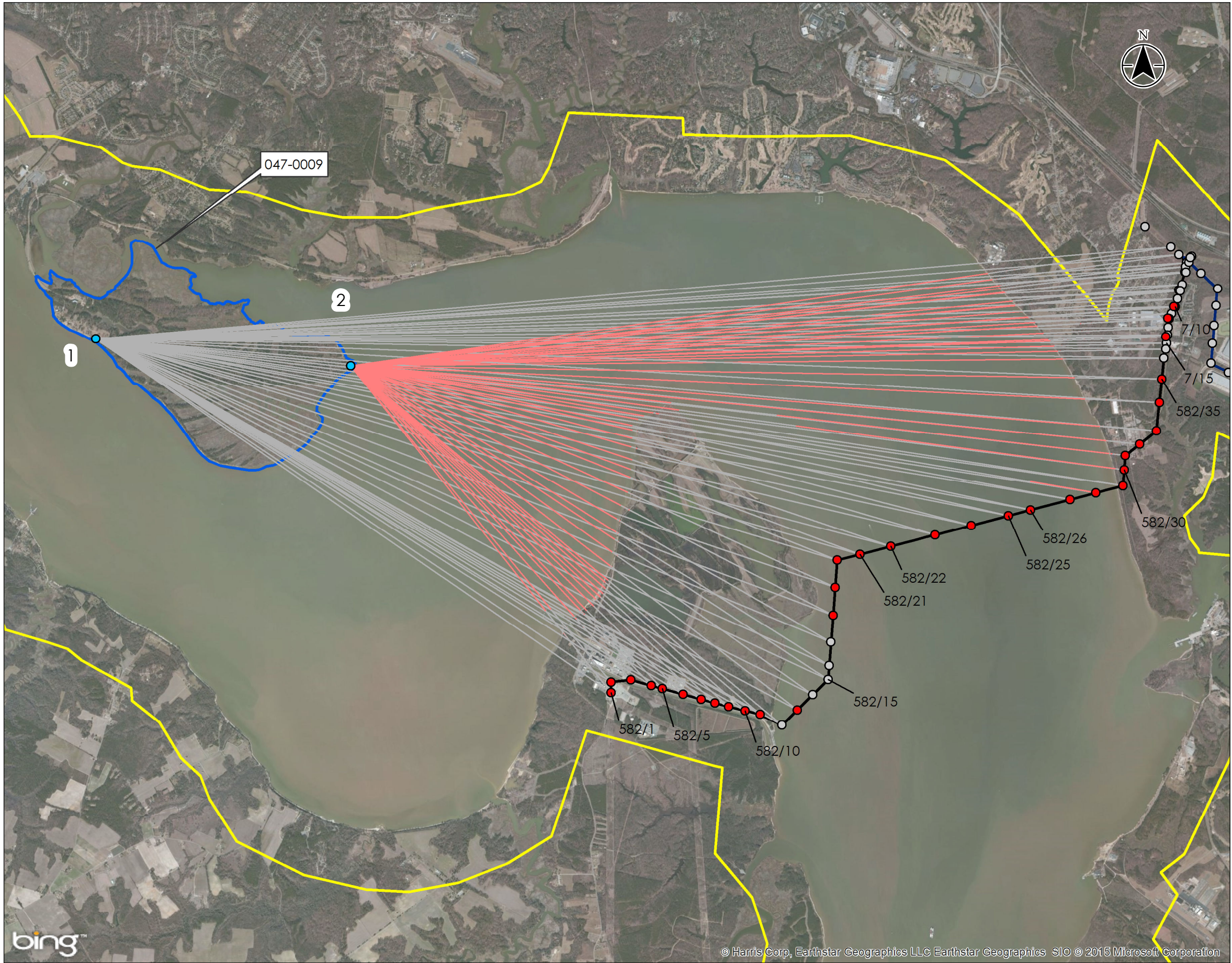
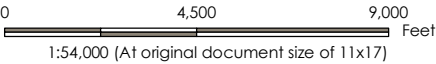


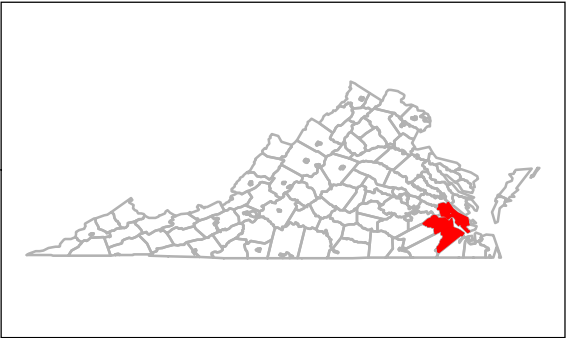
Figure No.
149
Title
**Line of Sight Analysis for
VDHR# 047-0009**

Client/Project
Dominion Virginia Power

Project Location
USGS Quad: Surry, Hog Island, Yorktown
County: James City, York, Surry,
Newport News, Isle of Wight
203416120
Prepared by SWS on 2015-09-09
Technical Review by AJL on 2015-09-09
Independent Review by EMB on 2015-09-09



- Legend
- Observation Point
 - Proposed Tower Location - Visible
 - Proposed Tower Location - Not Visible
 - Architectural Resources
 - Observation Point Sight Lines
 - Area Visible
 - Area Not Visible
 - Approximate Area of Potential Effects
 - Skiffes Creek to Wheaton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Orthoimagery © Bing Maps



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Figure No.
150
Title

Photograph Location and Direction

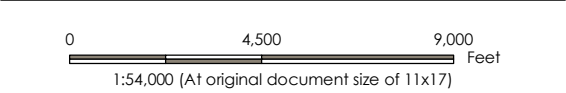
Client/Project

Dominion Virginia Power

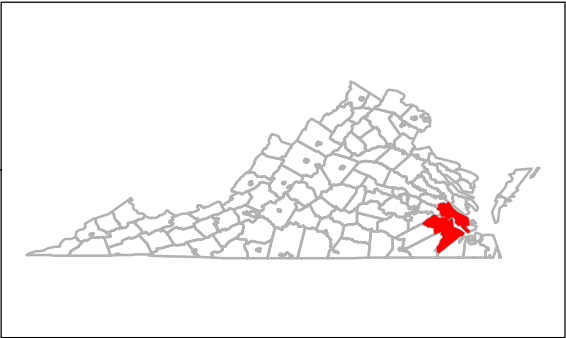
Project Location 203416120

USGS Quad: Surry, Hog Island, Yorktown
County: James City, York, Surry,
Newport News, Isle of Wight

Prepared by SWS on 2015-09-10
Technical Review by AJL on 2015-09-10
Independent Review by EMB on 2015-09-10



- Legend
- Proposed New Structure
 - Reconductoring Existing Structure
 - Remove and Replace Existing Structure
 - Photograph Location
 - Architectural Resources
 - Approximate Area of Potential Effects
 - Skiffes Creek to Whealton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502
2. Orthoimagery © Bing Maps





Figure 151. Ruins of the Church Tower and Statue of John Smith, Jamestown Island (VDHR #047-0009), View Looking East.

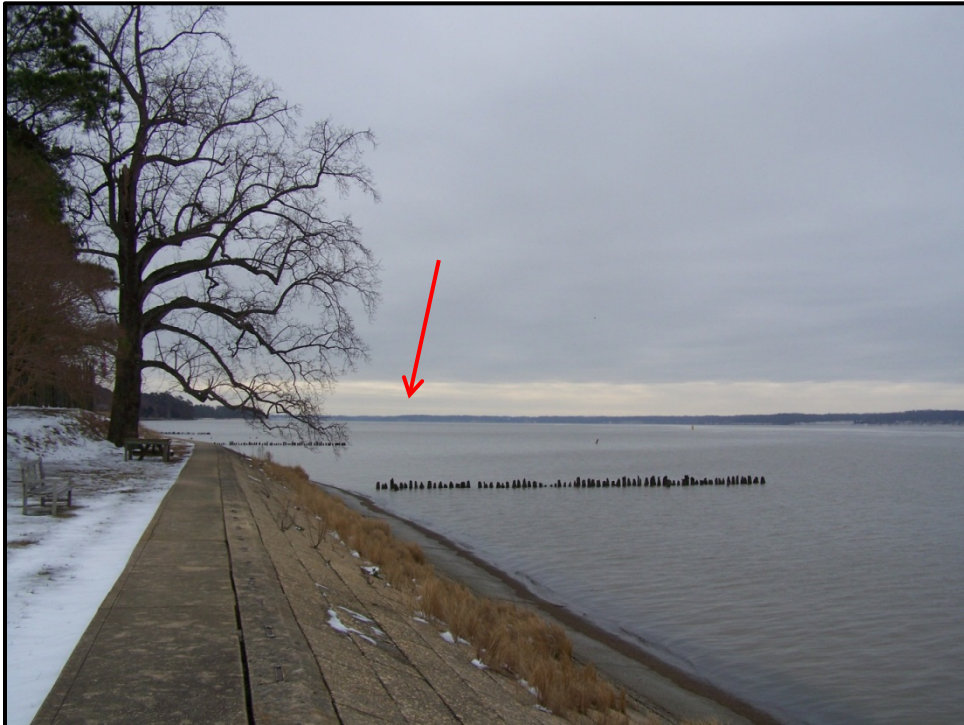


Figure 152. View Downriver from Jamestown Island (VDHR # 047-0009) Looking Southeast towards the Proposed Surry to Skiffes 500 kV Transmission Line (Figure 150 – Photo Arrow 1). Point of Land to Rear of Photo is Hog Island.



Figure 153. View Downriver from Black Point Looking Southeast towards the Proposed Surry to Skiffes 500 kV Transmission Line (Figure 150 – Photo Arrow 2). Hog Island and the Surry Power Station are denoted by the yellow arrow. The red arrows denote the approximate location of the proposed transmission line crossing.

3.33.3 Yorktown and Yorktown Battlefield (VDHR #099-5241)

3.33.3.1 Description of Resource

The resource identified as VDHR # 099-5241, according to the information presented in the site form available via the VCRIS system, is limited to the Village of Yorktown and the Yorktown National Battlefield. The notes on potential eligibility indicate, however, that the resource is associated with the Colonial National Historical Park as well as the Civil War in Virginia, 1861-1865, Historic and Archaeological Resources MPD which, in Stantec's opinion, is better applied to the Battle of Yorktown identified as VDHR #099-5283 which will be assessed in Section 3.34. The portion of Yorktown Battlefield identified as VDHR #99-5241 is encompassed by the overall boundary of the Battle of Yorktown (VDHR #099-5283). Therefore in an effort to clarify the association of these resources, the identifier VDHR #099-5241 will be utilized to address the Yorktown National Battlefield Park. This resource, when considered individually, is well outside the current APE for indirect and direct effects. Therefore, an *individual* assessment of effects was not considered for the Village of Yorktown and Yorktown National Battlefield.

3.33.3.2 National Register Status – NRHP-Listed, Criteria A, C and D

Yorktown and the Yorktown Battlefield Park are listed on the NRHP as part of the Colonial National Historical Park (VDHR Site Files). This resource is also identified as part of the Civil War in Virginia, 1861-1865, Archaeological and Historic Resources, Multiple Property District (MPD). Inclusion in this district indicates that the resource, in this case Yorktown and the Yorktown Battlefield, not the larger Colonial National Historical Park which has also been associated with VDHR # 099-5241, is significant as a battlefield and under Criterion A for its association with the

Civil War. Yorktown, as it relates to the Civil War and the Battle of Yorktown is addressed in Section 3.34.

3.33.3.3 Distance to ROW and Transmission Line Data

This resource when considered individually is well outside the APE for this project. It is located to the northwest of the Skiffes Creek to Whealton segment of the proposed transmission line project and over 1.5 miles, at its closest point, to the proposed project.

3.33.3.4 Effects Analysis

It is recommended that the proposed project would have No Effect to Yorktown/Yorktown Battlefield as documented as individual resource VDHR #099-5241. Effects to the larger, encompassing Battle of Yorktown as it pertains to the APE are addressed in Section 3.34.

3.33.4 Summary – Colonial National Historical Park and Associated Resources

As mapped within the VCRIS system, VDHR #047-0002 and VDHR #099-5241 encompasses the entirety of the Colonial National Historical Park which includes the Colonial Parkway, Jamestown National Historic Site/Jamestown Island, and Yorktown and NPS-owned Yorktown National Battlefield. The Battle of Yorktown, while encompassing the boundary of the Yorktown National Battlefield, has been identified as a separate resource and is addressed in Section 3.34 (Figure 154).

The site forms associated with these two resource numbers however are not reflective of the larger resource and are limited to the specifics of The Colonial Parkway Historic District (VDHR #047-0002) and Yorktown and the Yorktown Battlefield (VDHR 099-5241). Jamestown National Historic Site/Jamestown Island Historic District is identified as VDHR #047-0009 with notations indicating that the resource is also associated with 047-0002 and 099-5241.

Individual effects assessments were conducted for each of the three components comprising the Colonial National Historical Park. Of the three components, only two are located within the Indirect APE for the proposed undertaking. However because of the larger resource mapping within the VCRIS system and the identification of the historic properties within the Indirect APE, the three components have been included in this document.

Due to the intertwined nature and significance of the Colonial National Historic Park and it's three individual components, identifying effects for only certain components does not meet the goal of assessing adverse effects for the larger resource. While there will be no effect to the Yorktown and Yorktown Battlefield component of the Colonial National Historical Park, adverse effects have been recommended for the Colonial Parkway and for Jamestown National Historic Site/Jamestown Island Historic District. Because adverse effects have been determined for two of the three components associated with the larger Colonial National Historical Park, it is recommended that the project would have an adverse effect on the larger resource.

Therefore, Stantec concludes, based on the USACE' determination of adverse effect to the Colonial Parkway and Jamestown National Historic Site/Jamestown Island Historic District, that the project would have an adverse effect to the Colonial National Historical Park as identified under VDHR #047-0002 and VDHR #99-5241.

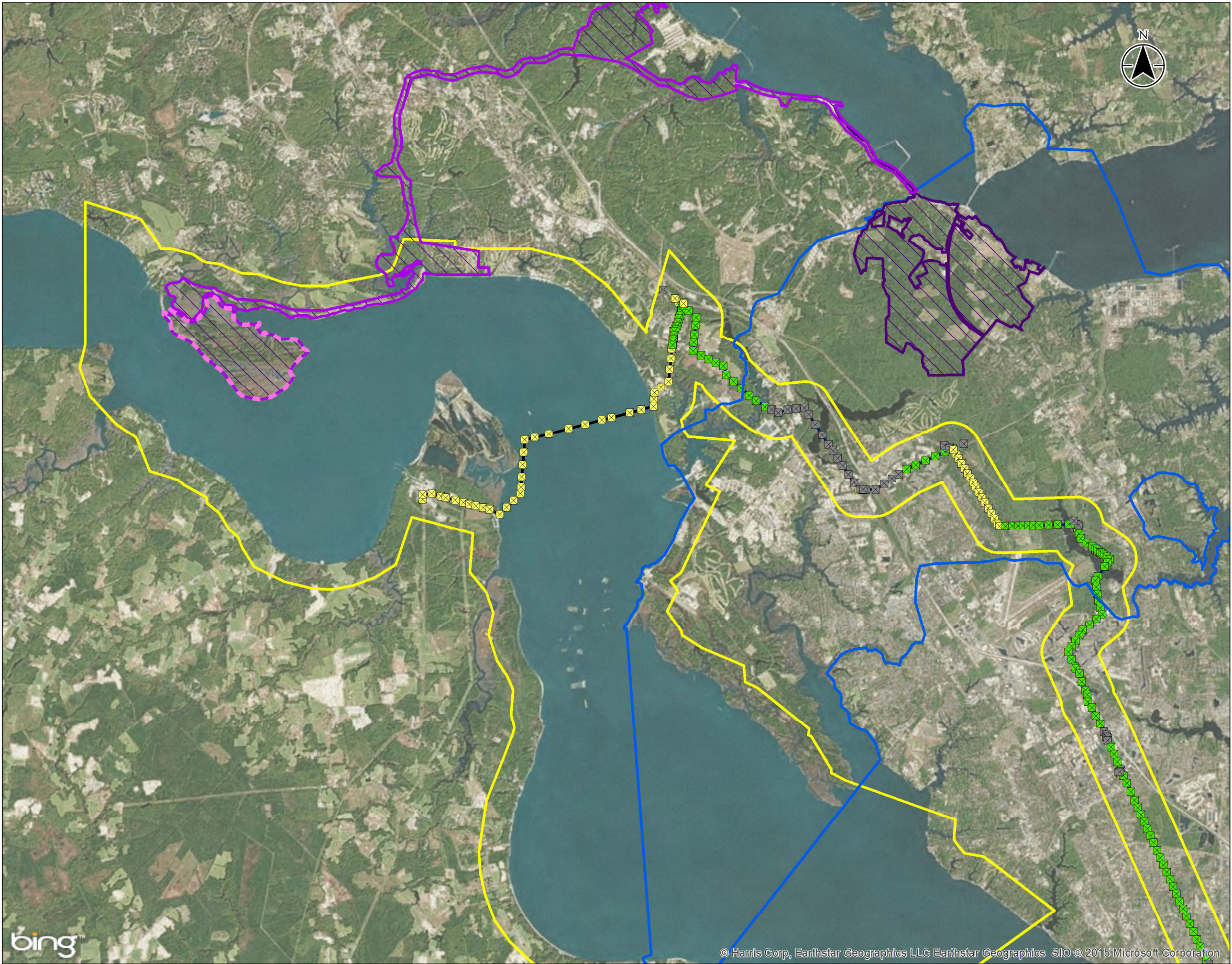


Figure No.
154

Title
**Overview Map of the Resource Boundaries
for VDHR#s 099-5241, 047-0002, and Associated
Resources VDHR#s 047-0009 and 099-5283**

Client/Project

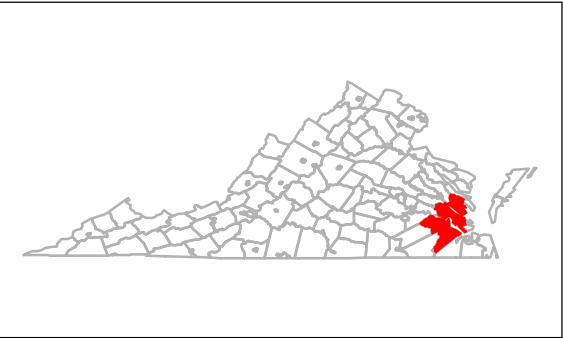
Dominion Virginia Power

Project Location
County: Williamsburg, Gloucester, James City,
York, Surry, Newport News, Isle of Wight,
Hampton
USGS Quad: Norge, Williamsburg, Clay Bank, Achilles,
Sunny, Hog Island, Yorktown, Poquoson West,
Runnymede, Bacons Castle, Mulberry Island,
Newport News North

203416120
Prepared by SWS on 2015-09-11
Technical Review by A.J.L. on 2015-09-11
Independent Review by EMB on 2015-09-11

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1:120,000 (At original document size of 11x17)

- Legend
- Jamestown Island (047-0009)
 - Colonial National Historic Park (047-0002)
 - Colonial National Historic Park (099-5241)
 - Battle of Yorktown (099-5283)
 - Proposed New Structure
 - Reconductoring Existing Structure
 - Remove and Replace Existing Structure
 - Photograph Location
 - Architectural Resources
 - Approximate Area of Potential Effects
 - Skiffes Creek to Whealton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



Notes

- Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502
- Orthoimagery © Bing Maps



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3.34 BATTLE OF YORKTOWN (VDHR #099-5283)

3.34.1 Description of Resource

The Battle of Yorktown (VDHR #099-5283) is approximately 63,960 acres and includes the Yorktown and Yorktown Battlefield identified in the VCRIS site form data as VHDR #099-5241. Mapping for VDHR #099-5241 is not consistent with the site form descriptions, however Yorktown and Yorktown Battlefield are located within the larger Battle of Yorktown as mapped by the ABPP and the VDHR. As illustrated, the battlefield resource consists of three main areas: the core area, the existing NRHP boundary, and a large area considered potentially eligible for listing on the NRHP (Figure 155). Portions of the potentially eligible battlefield areas fall within the Indirect APE for the Surry to Skiffes Creek 500 kV Transmission Line corridor as well as within the Indirect and Direct APEs for the Skiffes Creek to Whealton 230 kV transmission line (VDHR Site Files). In addition, the defined ABPP-boundary of this battlefield also encompasses Yorktown National Battlefield identified as VDHR #099-5241. Notes in the site form indicate that the Yorktown Battlefield is associated with the Civil War in Virginia, 1861-1865, Archaeological and Historic Resources MPD (076-5168) which has not been identified as a discreet resource for purposes of this project. However, The Yorktown Battlefield and Battle of Yorktown association with the MPD will be considered when assessing the potential effects of this project on this resource.

3.34.2 National Register Status – Eligible, Criteria A and D

The Battle of Yorktown was determined eligible for listing on the NRHP by VDHR (VDHR Site Files) under Criterion A for its significance to the Civil War and Criterion D for its archaeological potential. This resource also appears to be associated with the Civil War in Virginia MPD (076-5168) as noted in the site form for associated resource VDHR #099-5241, Yorktown Battlefield.

In 2009, the American Battlefield Protection Program (ABPP) revised the 1992 CWSAC boundaries for Virginia, and many of the battlefields were greatly expanded in size. For each battlefield, the ABPP defined Study Areas and Core Areas. The larger Study Area contains all resources known to relate to or contribute to the battlefield event, such as where troops maneuvered and deployed immediately before or after combat and where they fought during combat. Within the Study Area are Core Areas, which denote the actual fighting areas located within the larger battlefield. In addition, the ABPP defined Potential National Register (PotNR) boundaries for each battlefield. The PotNR boundary represents the ABPP's assessment of a battlefield's current integrity. The PotNR may include portions of the Study Area or the Core Area associated with the battlefield, but is generally the area that the ABPP has determined retains integrity. The PotNR area may include all or some of the Study Area, or all or some of the Core Area, associated with a battlefield engagement. Most importantly, the PotNR boundary does not constitute a formal determination of eligibility by the Keeper of the National Register of Historic Places (NRHP).

For this project, the portions of the entire battlefield within the Direct and Indirect APE were considered for potential effects with particular attention paid to those Core and PotNR areas (Figure 155). Portions of the Battle of Yorktown have been compromised by modern intrusions and development, including the I-64 corridor, numerous subdivisions, and commercial development. However, portions of the battlefield are in preservation within the bounds of Newport News Park and the NPS property Yorktown National Battlefield and portions of the Colonial National Historical Park. The battlefield areas within the Direct and Indirect APE for this project retain little integrity of setting because of the numerous modern intrusions to the landscape, particularly for the sections within the 230 kV transmission line segment.

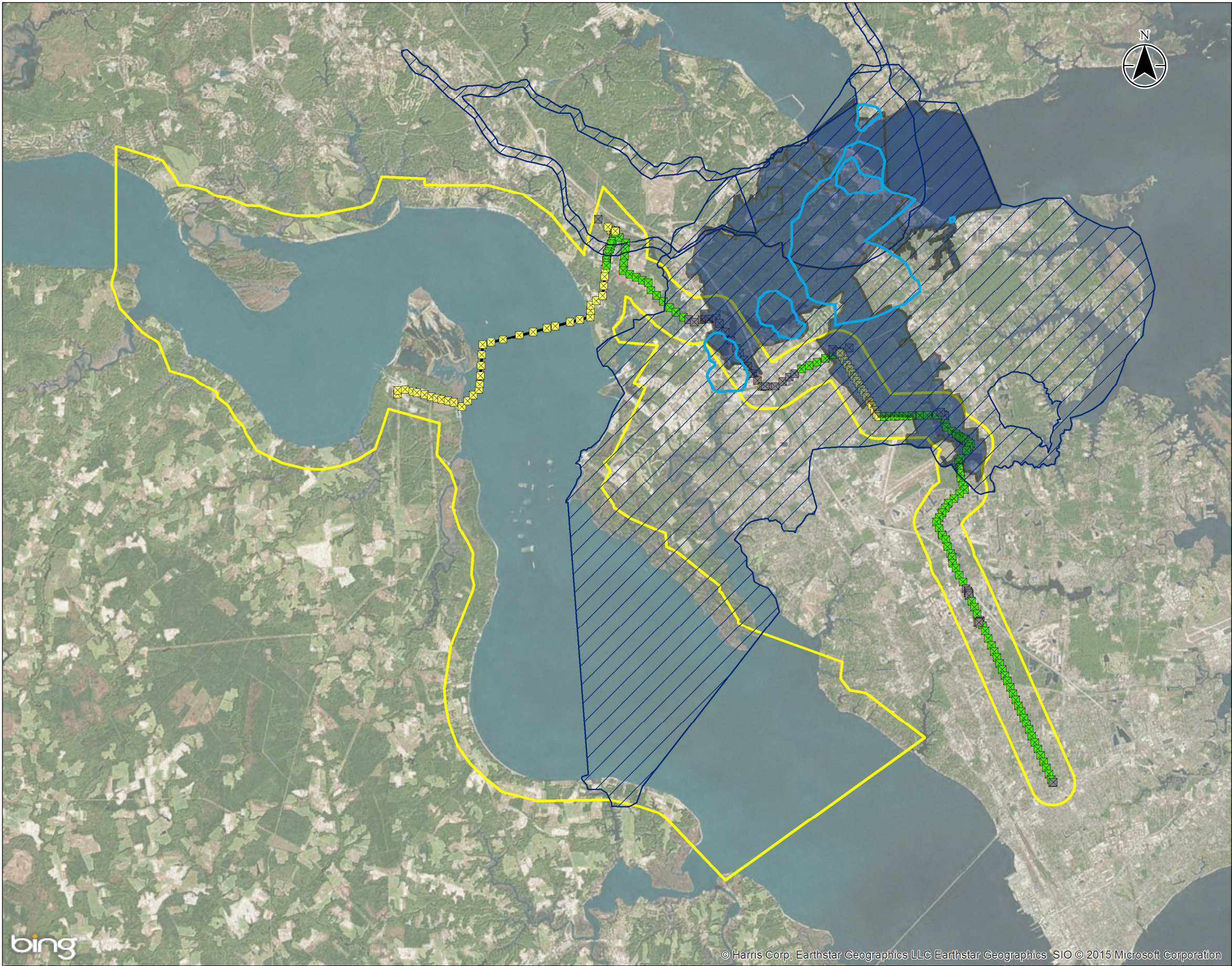


Figure No.
155

Title
**Map of Yorktown Civil War Battlefield
(VDHR# 099-5283) ABPP Designations
of Core, Study, and PotNR Areas**

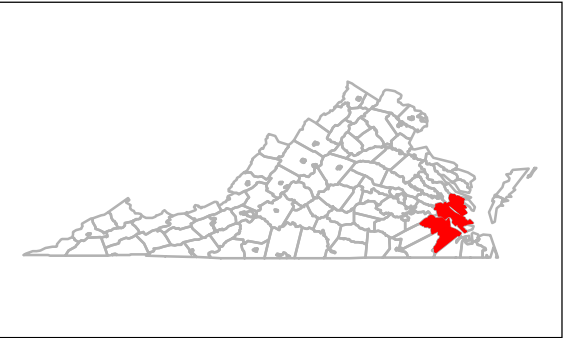
Client/Project
Dominion Virginia Power

Project Location
County: Williamsburg, Gloucester, James City,
York, Surry, Newport News, Isle of Wight,
Hampton, Poquoson
USGS Quad: Norge, Williamsburg, Clay Bank, Achilles,
Surry, Hog Island, Yorktown, Poquoson West,
Runnymede, Bacons Castle, Mulberry Island,
Newport News North, Raynor, Smithfield,
Bennis Church, Newport News South

203416120
Prepared by SWS on 2015-07-27
Technical Review by A.J.L. on 2015-07-27
Independent Review by EMB on 2015-07-27

0 12,000 24,000 Feet
1:144,000 (At original document size of 11x17)

- Legend
- Yorktown Core Areas (ABPP)
 - Yorktown Study Areas (ABPP)
 - Yorktown Potential NR Areas (ABPP)
 - Proposed New Structure
 - Reconductoring Existing Structure
 - Remove and Replace Existing Structure
 - Approximate Area of Potential Effects
 - Skiffes Creek to Whealton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



- Notes
- Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502
 - Orthoimagery © Bing Maps



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The integrity of location, workmanship, materials, and design apply to several select locations where known earthworks are extant (Site 44YO0592, 44YO0233 for example) and can be associated with the overall significance of the battlefield. The integrity of feeling is also minimized by the large areas of modern intrusion; however the battlefield retains integrity of association for its significance to the Civil War.

3.34.3 Distance to ROW and Transmission Line Data

The Battle of Yorktown is within the Indirect and Direct APE for the proposed Surry to Skiffes Creek 500 kV transmission line segment and the Skiffes Creek to Whealton 230 kV transmission line. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

Additionally, the proposed Skiffes to Whealton 230 kV transmission line improvements traverse the Yorktown Battlefield for approximately half the length of the proposed project. The line crosses into Yorktown Battlefield at approximately 1.4 miles outside of the Skiffes Creek Switching Station (straight line distance) and remains within the boundaries of the battlefield until just south of Harwoods Mill Reservoir. Throughout this section there are varying degrees of proposed work and improvement including structure replacement, reconductoring/restringing and the construction of new structures. Table 6 details the structures and proposed work associated with the proposed transmission line improvements as it pertains to the 230 kV segment of the project. Additionally, 17 structures associated with the 230 kV segment will require lighting to meet safety requirements of the FAA because of their proximity to the Newport News Williamsburg International Airport. The lights will blink red at night and be located at the top of the structures. Structures 2138/68 and 2138/69 as well as 292/584 and 2138/88 – 2138/91 are located at the end of the runway closest to the transmission line improvements.

Structure Number	Structure Type	Proposed Height	Proposed Work
2138/18	Monopole	137	Replacement
2138/19	Monopole	130	Replacement
2138/20	Monopole	155	Replacement
2138/21	Monopole	130	Replacement
2138/22	Existing Monopole	100	Reconductoring
2138/23	Existing Monopole	120	Reconductoring
2138/24	Existing Monopole	125	Reconductoring
2138/25	Existing Monopole	105	Reconductoring
2138/26	Existing Monopole	100	Reconductoring
2138/27	Existing Monopole	145	Reconductoring
2138/28	Existing Monopole	145	Reconductoring
2138/29	Existing Monopole	145	Reconductoring
2138/30	Existing Monopole	125	Reconductoring
2138/31	Existing Monopole	125	Reconductoring
2138/32	Existing Monopole	100	Reconductoring
2138/33	Existing Monopole	115	Reconductoring
2138/34	Existing Monopole	125	Reconductoring
2138/35	Existing Monopole	125	Reconductoring

Table 6. Structure Types and Proposed Work within the Battle of Yorktown (099-5283); Skiffes Creek to Whealton 230 kV Transmission Line Segment			
Structure Number	Structure Type	Proposed Height	Proposed Work
288/451	Existing Monopole	100	Reconductoring
285/452	Existing Monopole	55	Reconductoring
285/453	Existing Monopole	55	Reconductoring
2138/36	Monopole	100	New
2138/37	Monopole	75	New
2138/38	Existing Monopole	135	Reconductoring
2138/39	Existing Monopole	135	Reconductoring
2138/40	Existing Monopole	110	Reconductoring
2138/41	Existing Monopole	120	Reconductoring
2138/42	Existing Monopole	120	Reconductoring
2138/43	Monopole	130	Replacement
2138/44	Monopole	137	Replacement
2138/45	Monopole	137	Replacement
2138/46	Monopole	137	Replacement
2138/47	Monopole	142	Replacement
2138/48	Monopole	130	new
209/545	3-pole Wood	50	Reconductoring
209/546	DDE H-Frame	70	Replacement
209/548	Monopole	160	Replacement
209/549	existing weathering structure	130	Reconductoring
58/275	3 Pole	57	Replacement
2138/48	DDE	130	new
2138/49	Monopole	107	Replacement
2138/50	Monopole	107	Replacement
2138/51	Monopole	107	Replacement
2138/52	Monopole	107	Replacement
2138/53	Monopole	107	Replacement
2138/54	Monopole	107	Replacement
2138/55	Monopole	107	Replacement
2138/56	Monopole	107	Replacement
2138/57	Monopole	107	Replacement
2138/58	Monopole	107	Replacement
2138/59	Monopole	107	Replacement
2138/60	Monopole	107	Replacement
2138/61	Monopole	107	Replacement
2138/62	Monopole	107	Replacement
2138/63	Monopole	107	Replacement
2138/64	Monopole	110	Replacement
2138/65	Monopole	117	Replacement

Table 6. Structure Types and Proposed Work within the Battle of Yorktown (099-5283); Skiffes Creek to Whealton 230 kV Transmission Line Segment			
Structure Number	Structure Type	Proposed Height	Proposed Work
2138/66	Monopole	107	Replacement
2138/67	weathering H-Frame	82	Replacement
2138/68	weathering H-Frame	87	Replacement
2138/69	weathering H-Frame	87	Replacement
2138/70	weathering H-Frame	82	Replacement
2138/71	weathering H-Frame	117	Replacement
2138/72	weathering H-Frame	137	Replacement
2138/73	Monopole	137	Replacement
2138/74	Monopole	137	Replacement
292/573	existing weathering structure	65	Reconductoring
2138/75	Monopole	120	Replacement
58/305	3 Pole	57	Replacement
58/306	3 Pole Wood	45	No work
288/37	existing weathering structure	65	Reconductoring
2138/76	Monopole	107	Replacement
2138/77	Monopole	117	Replacement
2138/78	Monopole	110	Replacement
2138/79	Monopole	107	Replacement
2138/80	DOM pole H-Frame	61	New
2138/81	DOM pole H-Frame	48	New
2138/82	DOM pole H-Frame	52	New
2138/83	DOM pole H-Frame	52	New
2138/84	DOM pole H-Frame	52	New
2138/85	DOM pole H-Frame	52	New
2138/86	DOM pole H-Frame	61	New
2138/87	DOM pole H-Frame	61	New
292/579	DOM pole H-Frame	61	Replacement
292/580	DOM pole H-Frame	48	Replacement
292/581	DOM pole H-Frame	52	Replacement
292/582	DOM pole H-Frame	52	Replacement
292/583	DOM pole H-Frame	52	Replacement
292/584	DOM pole H-Frame	52	Replacement
292/585	DOM pole H-Frame	61	Replacement
292/586	DOM pole H-Frame	61	Replacement
2138/88	3 Pole	72	Replacement
2138/89	Weathering H-frame	77	Replacement
2138/90	Monopole	107	Replacement
2138/91	Monopole	152	Replacement
2138/92	Monopole	120	Replacement

Table 6. Structure Types and Proposed Work within the Battle of Yorktown (099-5283); Skiffes Creek to Whealton 230 kV Transmission Line Segment			
Structure Number	Structure Type	Proposed Height	Proposed Work
2138/93	Monopole	117	Replacement
2138/94	Monopole	117	Replacement
2138/95	Monopole	97	Replacement

3.34.4 Effects Analysis

Surry to Skiffes Creek Segment

The portion of Yorktown Battlefield that is located within the Indirect APE for the Surry to Skiffes Creek segment of the proposed transmission line is located south of Route 60 and adjacent to Skiffes Creek and forms the western boundary of the resource in this area. This portion of the Battlefield is not a core engagement area, but rather a portion of the larger Battlefield Study Area as defined by the ABPP. Additionally, the study area for the battlefield extends south from Fort Eustis and crosses the James River terminating at a point near Fort Boykin (VDHR #046-0095) (see Figure 155).

The portion of the battlefield within the Indirect APE and in the vicinity of Skiffes Creek was generally not accessible for photographs because it is located largely in a forested area, along Skiffes Creek, or in the associated swamp. Computer generated line-of-sight for this section of the battlefield indicated limited visibility of the land-based and riverine portion of the project except for at the James River shoreline (Figure 156). The battlefield also intersects the Indirect APE to the south of the proposed transmission line river crossing in the vicinity of Fort Boykin, nearly 8 miles to the south (see Figure 2). Computer generated line-of-sight analysis took into consideration one observer point within the river portion of the battlefield, points located at Fort Boykin, points along the battlefield boundary at Skiffes Creek, and points to the east of the land-based portion of the transmission line (Figure 156).

The line-of sight analysis from the river-based observer point (Figure 156 - Point A) within the study area boundary of the Battle of Yorktown indicated that there would be partial or full visibility for nearly all of the proposed structures within Surry Power Station as well as those structures associated with the river crossing. Structures 582/1, and 582/3 through 582/11 would have partial visibility according to the line-of-sight analysis. The natural topography, vegetation, and distance would obstruct the structures from view with the exception of the tops of the structures that would be visible above the tree lines. Obstructions in this view shed do include the Ghost Fleet as well as the natural shoreline of the James River near the Surry Power Station. Structures 5812/12 through 582/24 would be fully visible according to the analysis because these sight lines are generally unobstructed with the exception of the Ghost Fleet. Sight lines toward Structures 582/25 through 582/30 would be obstructed by Mulberry Island and the natural topography and vegetation present on the point of land at the mouth of Skiffes Creek. There would be no visibility of the additional inland structures (582/31-582/44) from this observation point. Visibility from Fort Boykin, as assessed in Section 3.5 indicates that there would be minimal effect to this portion of the Battle of Yorktown due to the sheer distance between the southernmost point of the battlefield and the proposed project (see Figure 22).

The line-of-sight analysis conducted from the observer point (Figure 156 - Point B) adjacent to Skiffes Creek and in the study area of the Battle of Yorktown indicated that there would be no visibility of any of the structures – either river or land-based – from this location. This viewpoint

location is heavily wooded and the natural landscape associated with Skiffes Creek and the associated marshland would shield the proposed project from view of the battlefield in this location.

Photographs were taken from several locations near to and within the Battlefield in the vicinity of the land-based portion of the 500 kV segment as it approaches the Skiffes Creek Switching Station (Figure 157- Photo Arrows 1 and 8). From Photo Location 1, the battlefield is located along Route 60 and there would be no visibility of the proposed transmission line or the Switching Station (Figure 157 – Photo Arrow1 and Figure 159). In the vicinity of Photo Location 8 and southeast of Skiffes Creek there would also be no visibility of the transmission line (Figures 157 – Photo Arrow 8 and Figure 158). In addition, photographs taken from Fort Boykin of the proposed transmission line river crossing address the potential impacts from down river that the transmission line would have on the resource (see Figure 23; 25 and 26). The line of sight analysis and the site visits indicated that there would be an unobstructed view of the proposed transmission line from the study area portion of the battlefield located within the river and that there would be limited views of the proposed river and land-based portions of the line from the resource along Skiffes Creek.

In addition, 10 of the 17 structures crossing the James River would require lighting at the top, with several requiring mid-level lighting. Although the structures would be lit, it is not likely that the lights would affect the integrity of the Battle of Yorktown or its NRHP-qualifying characteristics. The study area of the battlefield as it crosses the James River is located over 8 miles from the proposed transmission line crossing and as noted there are several visual obstructions between the resource and the transmission line structures including the ships associated with the Ghost Fleet. Light intrusions already exist within the viewshed of this resource due to its proximity to the James River Bridge and the developed and industrialized shoreline of Newport News and the addition of the structure lighting, with minimal visual impact and intensity at this distance, would not adversely affect or detract from the resource's primary characteristics qualifying it for listing on the NRHP under Criterion A or Criterion D. Because of the distance, it would be difficult to pick out details of the proposed transmission line and its associated structures. Although there would be visibility of the proposed transmission line from several locations, the view would not detract from the overall significance of the Battle of Yorktown or its integrity of association or those aspects associated with archaeological deposits.

Skiffes Creek to Whealton 230 kV Segment

In the vicinity of the proposed project, the landscape associated with the Yorktown Battlefield consists of modern residential and commercial development, I-64, and other major transportation corridors, forested areas, reservoirs, and other lakes and watercourses. The portion of the core battlefield area, also designated as a PotNR area, within the transmission line corridor near Photo Location C is bisected by Fort Eustis Boulevard/Route 105. Portions of the battlefield in this vicinity have been previously impacted by the construction of the existing transmission line, which is visible from a number of points within the resource, as well as modern development and infrastructure (see Figure 157 – aerial view). Within this section existing weathering lattice structures (Line 285) with an average of 125 feet will be replaced with steel monopole structures (2138/17 through 2138/21) with heights ranging from 130 feet to 155 feet (Appendix C2; sheets 5-8). At the existing Fort Eustis substation, two new monopole structures will be constructed with heights of 100 and 75 feet (2138/36 and 2138/37). Existing monopole structures (Line 285) will be reconducted to become structures 2138/22 through 2138/35 and 2138/38. Photographs taken from Photo Locations 2, 3, and 4 indicated that visibility would be minimal (Figures 160-162).

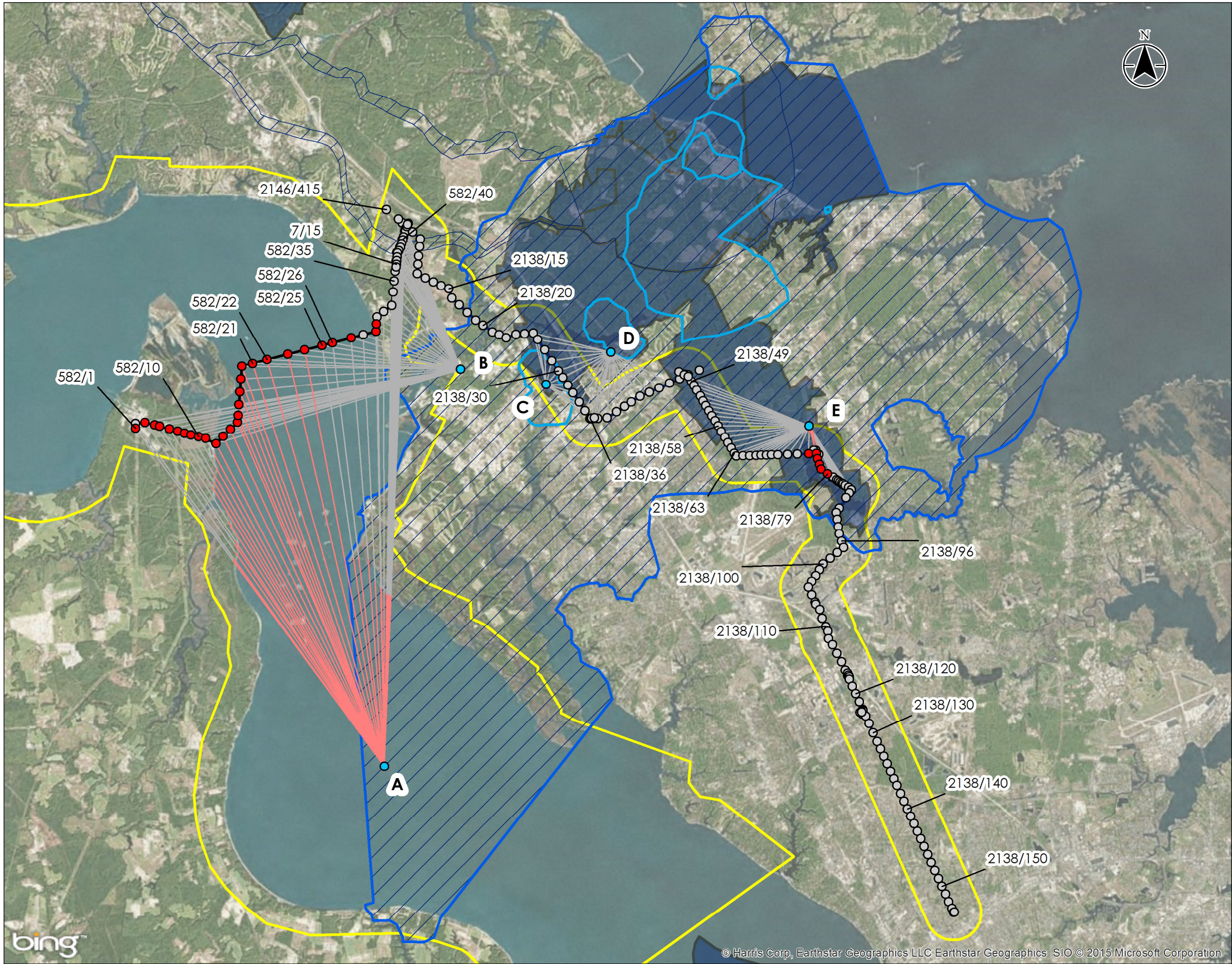


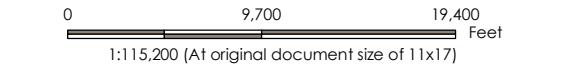
Figure No. 156

Title
**Line of Sight Analysis for
VDHR# 099-5283**

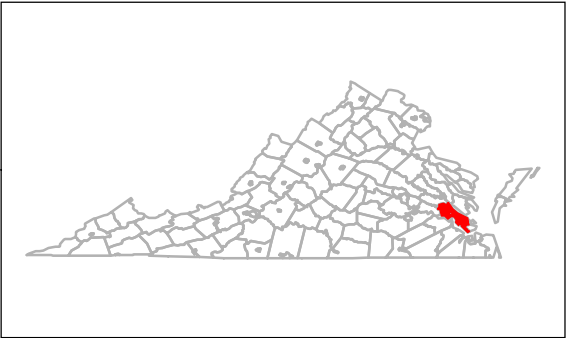
Client/Project
Dominion Virginia Power

Project Location 203416120
USGS Quad: Hog Island, Yorktown, Poquoson
West, Bacons Castle, Mulberry Island, Newport News North
County: James City, York, Newport News

Prepared by SWS on 2015-09-10
Technical Review by AJL on 2015-09-10
Independent Review by EMB on 2015-09-10



- Legend
- Observation Point
 - Proposed Tower Location - Visible
 - Proposed Tower Location - Not Visible
 - Architectural Resources
 - Observation Point Sight Lines
 - Area Visible
 - Area Not Visible
 - Yorktown Core Areas
 - Yorktown Study Areas
 - Yorktown Potential NR Areas
 - Approximate Area of Potential Effects
 - Skiffes Creek to Whealton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



Notes

- Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
- Base Map USGS 7.5 Minute Quadrangle Series



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Figure No.
157

Title

Photograph Location and Direction

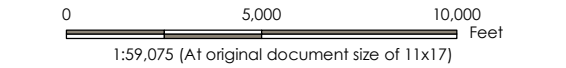
Client/Project

Dominion Virginia Power

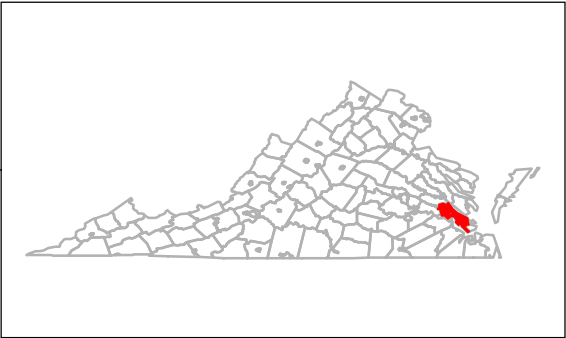
Project Location 203416120

USGS Quad: Hog Island, Yorktown, Poquoson
West, Bacons Castle, Mulberry Island, Newport News North
County: James City, York, Newport News

Prepared by SWS on 2015-09-11
Technical Review by AJL on 2015-09-11
Independent Review by EMB on 2015-09-11



- Legend
- Proposed New Structure
 - Reconductoring Existing Structure
 - Remove and Replace Existing Structure
 - Photograph Location
 - Architectural Resources
 - Approximate Area of Potential Effects
 - Skiffes Creek to Wheaton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



- Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502
 2. Base Map USGS 7.5 Minute Quadrangle Series



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Figure 158: View toward Proposed Transmission line from within Yorktown Battlefield at end of Executive Drive, facing Northwest (Figure 157 – Photo Arrow 8).



Figure 159: View looking West toward the Battlefield Boundary at Skiffes Creek at Route 60 toward the Proposed Transmission Line and Switching Station (Figure 157 – Photo Arrow 1).

The existing power line easement intersects the Yorktown Battlefield east of I-64 as the corridor travels northeast along the railroad tracks between two residential neighborhoods, turns to the southeast behind the neighborhood of Windsor Great Park, circumvents Newport News Airport, and turns again to the south where it crosses Harwood Mills Reservoir (see Figure 157 – aerial view).

Observer Points C and D are located within two core/PotNR areas of the battlefield between proposed structures 2138/26 and 2138/49. In this section, structures 2138/26 through 2138/35 are planned for reconductoring on the existing (Line 285) structures and structures 2138/36 and 2138/37 are proposed new structures. Continuing on towards Whealton, structures 2138/38 through 2138/42 will be reconductored; structures 2138/43 through 2138/47 will replace the existing (line 285) structures; structure 2138/48 will be new and 2138/49 will be a replacement (Appendix C2; sheets 9-10). The structures in this portion of the transmission line and battlefield would range in height from 50 feet to 120 feet. The line-of-sight analysis suggested there would be no visibility of the transmission line from these points (Figure 156).

The greatest change in existing conditions within this section of the project will be the replacement of the aging 3-pole-wooden structures in the existing easement (existing structures 58/276 to 58/291) with double circuit monopole (structures 2138/49 to 2138/64) in the vicinity of Windsor Great Park (Figure 157 – Photo Arrow 5 and Figure 164). The proposed new structures are limited to a maximum height of 110 feet and the maximum height of existing structures in this vicinity is 120 feet. The current area to the west of the proposed improvements is characterized by a built, residential subdivision with mature trees; the current area to the east of the proposed improvements is largely open woods. Although this one section will require structures of substantially increased height, it does not appear that the addition will detract from the overall integrity of the Yorktown Battlefield. This area contains multiple power line corridors and utility easements, and has been disturbed by the preparation of additional residential lots (Figure 164).

The final line-of-sight analysis observation point, Point E, is located to the north of the proposed transmission line project in the vicinity of structures 2138/49 through 2138/88 (Figure 156). The boundary of the battlefield crosses the transmission line corridor near structure 2138/96. The battlefield in the vicinity of Point E is characterized by substantial development including residential subdivision, the York County Sports Complex, Harwoods Mill Reservoir, and the Newport News/Williamsburg airport. The analysis indicated that the majority of the proposed structures would not be visible from the core/PotNR area in the vicinity of observer point E with the exception of structures 2138/76 through 2138/79 and structure 2138/74. These structures are proposed replacement structures ranging in height from 107 feet to 120 feet in height. Existing structures in the project ROW in this area are 105 feet in height (Appendix C2; Sheets 25-26). Although this section will require new structures as well as replacement structures, it does not appear that the addition will detract from the overall integrity of the Yorktown Battlefield. This area contains multiple power line corridors and utility easements, and has been disturbed by the preparation of additional residential lots (Figure 157 – Photo Arrow 7 and Figure 163). The replacement and addition of new structures, and particularly because of the use of monopole structures, will not visually detract from the portions of the Battle of Yorktown within the APE that have been identified as core areas and potential National Register areas. The proposed new and replacement structures will be collocated within an existing easement and the surrounding environment does not retain integrity of setting or feeling nor will the proposed transmission line affect the resource's significant characteristics qualifying it as eligible for listing on the NRHP under Criterion A.

Also important to the assessment of effect for this resource are the potential direct effects associated with the proposed improvements and the archaeological potential and integrity that

may exist within the transmission line corridor. The entire proposed 230 kV transmission line corridor was surveyed archaeologically to identify archaeological deposits within the corridor and potentially associated with the battlefield resource. Metal detecting was also employed as traditional archaeological survey is not always sufficient in the identification of military sites in particular. The archaeological survey identified several sites, including Site 44YO0592, 44YO0233, and 44YO0092 in the vicinity of Harwood Mills Reservoir (see Figure 3 and Figure 184), that appear to retain integrity as military resources and earthworks and would contribute to the overall significance of the battlefield resource. These sites will be avoided and/or protected during construction so there would no direct impact to these resources or the integrity of the battlefield's eligibility under Criterion D. Additional details and individual assessments of these sites are found in Section 4.0.

Summary of Effects – Battle of Yorktown

In summary, it is recommended that the project as a whole will not detract from those elements qualifying the Battle of Yorktown (VDHR #099-5283) for listing on the NRHP. Within the Indirect and Direct APEs for the project, the battlefield has a diminished integrity of setting and feeling, particularly in those locations traversed by the existing and proposed 230 kV transmission line corridor. The resource retains integrity of location and association; however the proposed project would not negatively detract or compromise the integrity of the elements defining the resource's significance including its association with the Civil War. The Battle of Yorktown is also eligible under Criterion D for potential archaeological significance and sites have been identified that are associated with the resource. These sites have been assessed individually and will be avoided by the proposed project. Protective measures including fencing and protective matting will be utilized to avoid damage to potentially significant archaeological resources. Therefore, it is recommended that the proposed project would not present an adverse direct effect to the Battle of Yorktown's significance and integrity with respect to Criterion D.

As noted in Section 3.34.1.1, the Yorktown National Battlefield (099-5241) is also located within the bounds of the Battle of Yorktown (099-5283). The NPS-managed Yorktown National Battlefield is well outside the APE for the current project, however because it is also located within the bounds of the Battle of Yorktown and is associated with the battlefield, it should be included in an overall assessment of effects. Portions of the Battle of Yorktown are preserved in open space primarily within Newport News Park and the Yorktown National Battlefield. The battlefield, as noted in the site form for Yorktown National Battlefield has been associated with the Civil War in Virginia, 1861-1865 MPD. Although part of this larger NRHP-eligible multiple property district, the resource, when evaluated individually does not retain integrity of setting or feeling within the portions of the resource located in the APE for this project. The significance of the battlefield has been identified under Criterion A for its association with the Civil War and under Criterion D for its archaeological potential. The proposed project would not detract from those characteristics qualifying it for eligibility nor would it affect its significance as related to the Civil War in Virginia MPD. The portion of the ~ 60,000-acre battlefield within the current APE has a diminished integrity of setting although it retains its integrity of association and location as well as its potential to yield significant archaeological information. The proposed project however will not detract from those characteristics qualifying it for listing on the NRHP under Criterion A and D and would not adversely affect the resource's integrity of association or location. ***Stantec concludes that the proposed project will not have an Adverse Effect to the Battle of Yorktown (VDHR #099-5283) nor will the transmission line improvements detract further from those elements qualifying the battlefield for listing on the NRHP. Its association and significance with respect to its inclusion in the Civil War in Virginia, MPD would also not be adversely affected by the proposed project. Identified archaeological sites within the battlefield will be avoided and the indirect visual effects associated with the project would not compromise the resource's overall integrity.***



Figure 160. Yorktown Battlefield (VDHR #099-5283), view looking East from within a core/PotNR area of the battlefield along Charles Street towards existing transmission line corridor (Figure 157 – Photo Arrow 4). Red arrow denotes general location and direction of the proposed transmission line.



Figure 161. Yorktown Battlefield (VDHR #099-5283), view looking North Northeast from at the intersection of Route 60 and Dozier Road towards existing transmission line corridor (Figure 157 – Photo Arrow 2). Red arrow denotes the Skiffes Creek to Whealton 230 kV Transmission Line. The three-pole structures in the foreground are not part of the project.



Figure 162. Yorktown Battlefield (VDHR #099-5283), view looking Northeast towards existing transmission line corridor where the line crosses Route 105 at I-64 (Figure 157 – Photo Arrow 3). Red arrow denotes the Skiffes Creek to Whealton 230 kV Transmission Line.



Figure 163. Yorktown Battlefield (VDHR #099-5283), view looking Southeast toward the existing transmission line (Idle 209/58 Line and Line 34) in the vicinity of proposed structure 2138/49 (Figure 157 – Photo Arrow 7) at the intersection of Route 105 and 636. The three-pole structure (Line 209/58) will be replaced with monopole structures (Line 2138).



Figure 164. View of Existing Conditions in Corridor and Yorktown Battlefield. Photo Located Northeast of Windsor Great Park Neighborhood, view looking Northwest (Figure 157 – Photo Arrow 5). Arrow points to structures to be replaced.



Figure 165. View of Existing Conditions **looking South Along Proposed Transmission Line** and within the Yorktown Battlefield, Facing South from within the Corridor at Intersection of Lines north of Route 620 (Oriana Road). Arrow points to line being replaced (Figure 157– Photo Arrow 6). Additional structures in the right of way will remain.

3.35 ELIGIBLE HISTORIC DISTRICT

3.35.1 Description of Resource

In correspondence dated August 14, 2015, and in response to the USACE request for a determination of eligibility, the Keeper of the National Register determined that the portion of the Captain John Smith Chesapeake National Historic Trail located within the Indirect APE for the Surry – Skiffes Creek – Whealton transmission line project comprised an Eligible Historic District that for purposes of the project would be coterminous with the Indirect APE associated with the James River crossing. On Page 2 of the letter, the Keeper specifically notes that the reference to the Indirect APE as associated with the determination of eligibility includes only the water-based portion and excludes the inland land-based portions of the APE associated with the project. For purposes of this effects document, the district has been identified as the Eligible Historic District pending an official name from the Keeper of the National Register.

The Eligible Historic District includes the extent of the Indirect APE associated with the James River crossing of the transmission line project and extends from approximately the Jamestown-Scotland Wharf Ferry crossing downstream to the Pagan River and Burwell's Bay, for a distance of approximately 13 miles. The Eligible Historic District also includes land-based areas within the Indirect APE identified as measuring 0.50-mile from the shoreline of the James River on both the east and west sides (see Figure 2 and Figure 170). Hog Island and Jamestown Island are considered to be included as part of this district as they are located within the James River and the Indirect APE. Within the Eligible Historic District, which includes a portion of the Captain John Smith Chesapeake National Historic Trail, are a number of shoreline types which include forested areas, marsh and wetlands, agricultural uses, parks, revetments, and residential, commercial and industrial developments.

Summary of Previous Coordination

During the project's initial consultation between the VDHR and USACE, VDHR recommended the Captain John Smith Chesapeake National Historic Trail be treated as eligible for the purposes of Section 106 consultation for the project in a letter dated June 12, 2014 (Appendix A). This position was supported in writing by many of the Consulting Parties associated with this project. Stantec responded to the VDHR recommendation via letter dated November 10, 2014 (Appendix A). Specifically, Stantec requested further guidance on the requirements for addressing the resource under the Section 106 process for the undertaking in the absence of a formal determination of eligibility.

The USACE subsequently issued a public notice on May 7, 2015 stating that the USACE found that the Captain John Smith Chesapeake National Historic Trail did not meet criteria for NRHP-eligibility due to the low number of documented historic properties associated with it and the compromised integrity of setting and feeling of many of the associated properties. The USACE received concurrence from the VDHR as its role as SHPO on its determination via letter dated May 11, 2015 stating, "The USACE recommends that the sections of the Captain John Smith Chesapeake National Historic Trail and Washington-Rochambeau Revolutionary Route National Historic Trail located within the Area of Potential Effects (APE) are not eligible for listing in the National Register of Historic Places. Based on the documentation provided and guidance from the Deputy Keeper of the National Register (December 22, 2014 letter to the Federal Highway Administration), VDHR concurs that the trails, in their entirety within the APE are not eligible for National Register listing."

In the Public Notice associated with the assessment of Adverse Effects to Historic Properties for the project, dated May 21, 2015, a new resource, The Jamestown Island-Hog Island Cultural Landscape, was identified by the USACE as an eligible historic resource within the bounds of the current project APE. The landscape encompassed a portion of the Captain John Smith

Chesapeake National Historic Trail. The VDHR concurred with the recommendation of eligibility for this resource (Appendix A).

Following the issuance of this Public Notice, The Advisory Council on Historic Preservation (ACHP) formally requested that the USACE obtain a determination of eligibility for the portion of the Captain John Smith Chesapeake National Historic Trail within the undertaking's APE from the Keeper of the National Register (letter dated June 19, 2015). The USACE submitted a formal request July 2, 2015. At this same time, the National Trust for Historic Preservation (NTHP) submitted to the Keeper of the National Register a National Register Nomination Form (dated June 29, 2015) for a segment of the trail identified as the Captain John Smith Chesapeake National Historic Trail, Keystone Segment, Historic District. The Keeper has not acted on that nomination.

Note that because the limits of the previously defined Jamestown Island – Hog Island Cultural Landscape are completely encompassed within the defined limits of the Eligible Historic District, the previous evaluation of the Jamestown Island – Hog Island Cultural Landscape is replaced with the Eligible Historic District for the purposes of this effects evaluation.

While the Keeper's definition of the Eligible Historic District is new, it is important to note that individual resources located within its bounds and contributing to its eligibility have all been evaluated over the course of the last two years including the USACE-defined Jamestown Island – Hog Island Cultural Landscape which is now included in the Eligible Historic District. As such, the definition of the Eligible Historic District does not introduce new resources or significantly alter the effects that have been assessed for the project. Rather, the Eligible Historic District groups these individual resources into a larger district for the purposes of evaluation.

3.35.2 National Register Status – Eligible, Criteria A, B, C, and D

Portions of the Captain John Smith Chesapeake National Historic Trail are located within the undertaking's APE and have been designated, for purposes of this report, the Eligible Historic District which is coterminous with the limits of the Indirect APE as it pertains to the transmission line crossing of the James River. The Captain John Smith Chesapeake National Historic Trail was designated by Congress in 2006 through an amendment to Section 5(a) of the National Trails System Act (16 U.S.C. 1244(a)) and is the first nationally designated water trail under the Act. The trail route extends throughout the Chesapeake Bay and includes tributaries explored by Smith. The Trail was further extended into four additional rivers considered as historic components of the Trail by the Secretary of the Interior in May 2012. Per the National Park Service (NPS) documentation: "The purpose of the Captain John Smith Chesapeake National Historic Trail is to commemorate the exploratory voyages of Captain Smith on the Chesapeake Bay and its tributaries in 1607-1609; to share knowledge about the American Indian societies and cultures of the seventeenth century; and to interpret the natural history of the Bay (both historic and contemporary). Complementing the Chesapeake Bay Gateways and Water trails Network, the Trail will provide new opportunities for education, recreation, eco-tourism, and heritage tourism in the Chesapeake Bay region."

With regards to the current undertaking and the newly defined Eligible Historic District, the Keeper's letter stated that the "entire area encompassed by the (water-based portion of the) Indirect APE is eligible for listing on the National Register of Historic Places as a historic district under National Register Criteria A, B, C, and D, in the areas of significance of Exploration/Settlement, Ethnic Heritage, and Archeology." The Keeper's correspondence goes on to note that the Eligible Historic District "forms a significant cultural landscape associated with both the American Indian inhabitants of the area and the later English settlers." The boundary of the Eligible Historic District has been interpreted as including the entire water-based portion of the Indirect APE for the project which extends from approximately the James River – Scotland

Wharf Ferry crossing downstream to the mouth of the Pagan River and includes a portion of the Captain John Smith Chesapeake National Historic Trail, which extends from shore to shore of the James River, as well as Jamestown Island and Hog Island because of their locations within the James River. Included in the boundaries of the Eligible Historic District, as noted by the Keeper's correspondence of August 14, 2015 are significant historic properties including Colonial National Historical Park, Jamestown National Historic Site, Colonial Parkway, Yorktown Battlefield, Kingsmill Plantation, Carter's Grove National Historic Landmark, as well as archaeological sites on Hog Island and twelve additional sites located within the Indirect APE that have been listed or determined eligible for listing on the NRHP.

While the Eligible Historic District has been determined eligible for listing on the NRHP, an assessment of the resource according to the seven aspects of integrity was not included in the Keeper's determination. However, in the National Register Nomination Form prepared by the William and Mary Center for Archaeological Research and submitted by the National Trust for Historic Preservation, the larger Keystone Segment Historic District was identified as significant with respect to its integrity of setting, feeling, association, and location. Integrity of workmanship and design are considered not applicable to the assessment of this resource. According to the nomination, the Eligible Historic District retains integrity of setting, association, feeling, and location.

3.35.3 Distance to ROW and Transmission Line Data

The Historic District is located within (0.0 miles) the Indirect and Direct APEs for the project and is traversed by the proposed Surry to Skiffes Creek 500 kV transmission line segment of this project. Effects to this resource include those associated with the land- and water-based portions of the Surry to Skiffes Creek 500kV segment.

3.35.4 Effects Analysis

An evaluation of the aspects of integrity associated with the Eligible Historic District indicated that the resource retains integrity of setting, association, location and feeling. The resource retains integrity of association with the early exploration and settlement of the region. The Eligible Historic District's significance also lies in the presence and potential for archaeological sites which date to the period suggesting integrity of location. Currently, the aspects of integrity including workmanship, materials, and design would not apply to the assessment of adverse effects.

While the resource retains integrity for purposes of eligibility, an evaluation of effects of the project must consider existing conditions which are not pristine. Modern intrusions, including modern residential, commercial and industrial development along the shoreline, detract from the integrity of setting but do not diminish it to the extent that the integrity would be considered insufficient for eligibility for listing on the NRHP. Additionally, the Eligible Historic District is located within an active shipping channel and the Jamestown-Scotland Wharf Ferry operates within the resource boundary. Modern intrusions within the bounds of the Eligible Historic District include residential development, most notably at the Kingsmill Resort property, as well as along portions of the shoreline of the James River in Isle of Wight County and in Newport News, commercial development, and industrial development (Figures 166-169; Figure 171). The development of the former BASF plant and Fort Eustis have impacted the overall setting as have the neighborhoods of Hidenwood and Hilton Village with private piers and amenities associated with these residential developments present in the river and in view of the Eligible Historic District and associated properties further to the south. Additionally, Busch Gardens, a 380-acre theme park has several tall attractions that can be seen from the Indirect APE, including Mach Tower (which is lighted at night), the Loch Ness Monster and the Griffin roller coasters. The Surry Power Station,

located immediately adjacent to the limits of the Eligible Historic District, has also impacted the integrity of setting within the district. Although there are undeveloped areas along the shoreline, the general setting within the overall vicinity of the Eligible Historic District has been compromised and diminished by these modern intrusions.

The visibility analysis, utilizing LiDAR data from selected points within the resource boundary and the James River, indicated that portions of the proposed transmission line project would be visible from portions of the Eligible Historic District, particularly in the vicinity of the river crossing and Surry Power Station (Figure 170). Photographs taken from the river confirm the potential visibility associated with the proposed project as well as the general conditions within the river-based portion of the resource. Multiple photographs were taken from within the bounds of the resource; however a representative sample were chosen for inclusion in the report to present a broad overview of the resource and the landscape as well as examples of the shoreline integrity throughout the area (Figure 171; Figures 166-179).

According to the line-of-sight analysis and field photography from the river and land-based locations, visibility of the project would be minimized from the northern portion of the Eligible Historic District at the Jamestown-Scotland Wharf Ferry Crossing and also from the southern limit at the mouth of the Pagan River. The central portion of the Eligible Historic District would have direct and indirect views of nearly all of the proposed structures, land-based and riverine, associated with the 500 kV segment of the proposed project. As stated above, other existing modern structures and operations are visible from this central portion.

Starting from the north, Observer Point A (Figure 170) was located at the northern boundary of the Eligible Historic District. The line-of-sight analysis indicated that there would be limited or no visibility of the proposed undertaking and associated structures from this point. The sight lines from Point A generally traverse Jamestown Island, which is characterized by dense stands of trees and natural vegetation. The distance from Point A to the transmission line structures, both land-based and riverine, would also minimize the potential visual effect. Photographs taken from this general vicinity (Photo Location 8; Figure 172) also illustrate the limited potential views of the proposed undertaking from this portion of the historic district.

The line-of-sight analysis from Observer Point B (Figure 170), west of Hog Island and in the center of the river channel, indicated that nearly all of the proposed structures within the Surry Power Station as well as those crossing the river would be partially visible from this location. Views of the bottoms of the structures would be obscured by natural topography and vegetation; however, the top portions of the structures including 582/1 – 582/29 would be visible. Photographs taken from this general vicinity (Photo Location 6; Figures 173 - 174) indicated that the existing structures within the Surry Power Station were indeed visible at close distance and therefore the proposed structures would also be visible from this portion of the Eligible Historic District. Additional photos taken in this area indicated that visibility would be diminished from points further to the north and toward the northern boundary of the district (Photo Location 7, Figure 175). The very tops of the structures, as indicated by the line of sight analysis would likely be visible. However, at a distance of approximately five miles from the river crossing, the visibility would be faded and distant similar to that exhibited in the photographs of the James River Bridge crossing (Appendix D.5).

The line-of-sight analysis from Observer Point C (Figure 170) located to the north of the proposed transmission line river crossing and in the vicinity of the Colonial Parkway Historic District indicated that most of the structures associated with the proposed Surry to Skiffes Creek 500 kV transmission line project would be either partially or fully visible from this location. This location presents an unobstructed, river-based assessment of the potential visibility from the Eligible Historic District (Figure 170). The land-based structures 582/30 through 582/38 would be only partially visible while the river structures, 582/19 – 582/29, would be fully visible. Structures located within the Surry Power Station would be partially visible above the trees (Structures 582/1 – 582/11)

Photographs taken from the river at Photo Location 5 illustrate the open view of the James River and the location of the proposed river crossing (Figure 177).

The final line-of-sight analysis observer point, Point D, is located in the southern portion of the historic district south of the Ghost Fleet (Figure 170; Photo Location 3; Figure 172). Analysis conducted from the Ghost Fleet (see Figure 135) is applicable to the assessment of visual effects from this section of the Eligible Historic District. From Point D, nearly all of the proposed structures would be either fully or partially visible from this location. However, the model cannot account for distance and at a distance of over four miles, the visibility would be diminished. Photographs taken at distances of 1.5, 3.0 and 4.5 miles of the existing riverine transmission line crossing at the James River Bridge were utilized to simulate potential, similar views that may be created by the Surry to Skiffes Creek transmission line crossing (Appendix D.5). Photographs taken from the James River on September 1, 2015 indicated that the visual impact of the James River Bridge crossing and the bridge itself was minimized greatly between 3.0 and 4.5 miles from the structures. While they were visible, the structures and bridge features appeared to fade into the horizon and were not prominent features on the visual landscape at these distances.

Additional photos were taken from within the river at Photo Locations 2 and 9 to illustrate the potential views of the proposed transmission line from the southern portion of the Eligible Historic District (Figures 178 -179). Photographs from these locations, like the line-of-sight analysis, suggest that visibility would be minimized from distances greater than four miles from the proposed crossing.

Summary

To complete its evaluation of the effects of the Project on the Eligible Historic District, Stantec evaluated the effects on a micro level (looking at individual features and areas) and macro level (looking at the Eligible Historic District as a whole). On a micro level, because the Keeper determined the Eligible Historic District was eligible based on the individual properties identified in Sections 3.1 through 3.34 of this Report and would not have been eligible independent of them, the effect of the Project on the components of the Eligible Historic District have already been identified. Looking at effects on areas of the Eligible Historic District, in the immediate vicinity of the proposed Surry to Skiffes Creek 500 kV transmission line corridor, the visual effect to those limited portions of the Eligible Historic District within the Direct APE would be significant. Those visual impacts would decrease with distance from the corridor as one moves out through the Indirect APE.

The views of the river crossing would be unobstructed from certain portions of the river as well as locations on land and within the Eligible Historic District boundary. As addressed in the line-of-sight analysis presented for specific properties within the district, additional visual effects have been identified for select resources located within the Eligible Historic District boundary and identified as historic properties during this project. These resources include, but are not limited to, Carter's Grove NHL site, Jamestown National Historic Site/Jamestown Island Historic District, the Colonial Parkway Historic District, Kingsmill Plantation, the Battle of Yorktown, and the Hog Island Wildlife Management Area. Not all views associated with the resources identified and located within the Indirect APE, and thus the boundary of the district, were considered adverse. Visibility would be minimized from the northern portion of the Eligible Historic District approaching the Jamestown-Scotland Wharf ferry crossing due to existing vegetation and screening of the project. It was also determined that visibility would diminish significantly toward the southern end of the resource boundary and Indirect APE at Burwell's Bay, nearly 8 miles to the south of the crossing. Photographs taken at distances of 1.5, 3.0 and 4.5 miles of the riverine transmission line crossing at the James River Bridge indicated that the visual impact of the James River Bridge crossing and the bridge itself was minimized greatly between 3.0 and 4.5 miles from the structures (Appendix D.5). While they were visible, the structures and bridge features appeared to fade into the horizon and were not prominent features on the visual landscape. One could

expect similar results when viewing the proposed Surry to Skiffes Creek transmission line structures over the James River at distances over 4.5 miles.

Ten of the 17 structures crossing the James River require lighting at the top, with several requiring mid-level lighting as has been noted previously. The type of light typically required, the L-864 red blinking light, may be visible at distances of up to 3.2 miles and would certainly be visible in the immediate vicinity of the Eligible Historic District and the James River crossing of the transmission line. The impacts of the lighting would be significant in the immediate vicinity of the crossing, but would be less significant in those portions of the Eligible Historic District south of the Ghost Fleet and the northern boundary of the Eligible Historic District at Scotland Wharf. The lights would blink at a maximum of 40 FPM and would only be lit at night. Other light intrusions are present with the historic district, including lighted channel buoys, lights associated with the Kingsmill Resort, Busch Gardens Theme Park, and lighting associated with the Surry Power Station. The addition of the red blinking lights both at the top and mid-level of certain structures would constitute a negative visual impact on the Eligible Historic District. However, the inclusion of these lights in the view shed only at night would not diminish the integrity of setting and feeling within this section of the historic district as they would only be visible at night along with other existing light intrusions. Visual impacts created by the proposed project would be minimal at the northern and southern portions of the Eligible Historic District. The visual impact of the proposed transmission line structures at the crossing from the Surry Power Station to the BASF property in James City County would be more pronounced in the central portion of the Eligible Historic District.

In addition to indirect effects, the proposed transmission line river crossing would have a direct effect on limited portions of the Eligible Historic District as that line crosses the James River. Underwater archaeological survey has been conducted for the river crossing resulting in the identification of 23 buffer areas, containing 76 submerged anomalies, which retained signatures consistent with submerged historic resources. Nevertheless, these anomalies will be avoided by the proposed construction of the river structures therefore avoiding impacts to the potential submerged cultural resources.

On a macro level, according to the nomination prepared by the William and Mary Center for Archaeological Research and submitted by the National Trust for Historic Preservation, the larger Keystone Segment Historic District was identified as significant with respect to its integrity of setting, feeling, association, and location. Integrity of workmanship and design are considered not applicable to the assessment of this resource.

The proposed transmission line crossing does not adversely affect the Captain John Smith Chesapeake National Historic Trail's ability to contribute to the larger historic district in which it is located because the historic significance of the district is its association with events and important persons and potential to yield important information. According to the Keeper's decision, the district forms a cultural landscape. Put in that context and properly looking at those aspects that are vital to the Eligible Historic District being eligible, the Project's impacts are minimal. More specifically, the Project will not significantly affect the river trail such that it diminishes its value as a contributing factor to the Eligible Historic District's historical significance. As to each of those factors:

- Setting - the physical environment of a historic property. The character of the place where the historic events occurred and the contributing role the river trail played is not changed since the trail is a waterbody that served as a means of transportation or an historic event may have occurred along its banks. The project does not change flow or ability to recognize that this was the river used as important routes and voyages.
- Feeling – a property's expression of the aesthetic or historic sense of a particular period of time. The importance of the river to the district's ability to convey its historic character

will be changed incrementally. The physical intrusions caused by the project will affect the ability to evoke a sense of early English or tribal life. These incremental impacts are unavoidable and minimal impacts that can be addressed through mitigation. Moreover, existing modern structures and changes in vegetation and tree cover over time have already diminished the integrity of the feeling in the Eligible Historic District.

- Association – the direct link between an important historic event or person and a historic property. The river trail remains intact, therefore no adverse effects.
- Location - place where the events occurred. The project does not affect the location, route or historic associations along the river trail.

Stantec concludes that the proposed project would have an Adverse Effect to the Eligible Historic District identified by the Keeper of the National Register in the response to the USACE's request for a determination of eligibility for the portion of the Captain John Smith Chesapeake National Historic Trail located within the APE for this project. The physical and visual intrusions to the landscape would detract from the resource's integrity of feeling and would diminish that character defining element qualifying the resource for listing on the NRHP. There are no direct effects to land-based portions of the Eligible Historic District, including those on Hog Island and Jamestown as the project would not damage or alter the identified and unidentified resources associated with the Eligible Historic District.



Figure 166. View from Photo Location 5 (Figure 171 – Photo Arrow 5A) of the Kingsmill Resort, Facing North.



Figure 167. View of the Newport News Shoreline in the Vicinity of Hidenwood, Facing Northeast from the Boundary of the Eligible Historic District at Photo Location 1 (Figure 171 – Location 1).



Figure 168. View of Mach Tower and Roller Coasters at Busch Gardens, Kingsmill Resort is in the Foreground, from Photo Location 5 (Figure 171 – Photo Arrow 5B) Facing Northeast. Mach Tower is noted by the yellow arrow.



Figure 169. View of the Surry Power Station from Photo Location 4, Facing West (Figure 171 – Photo Location 4).

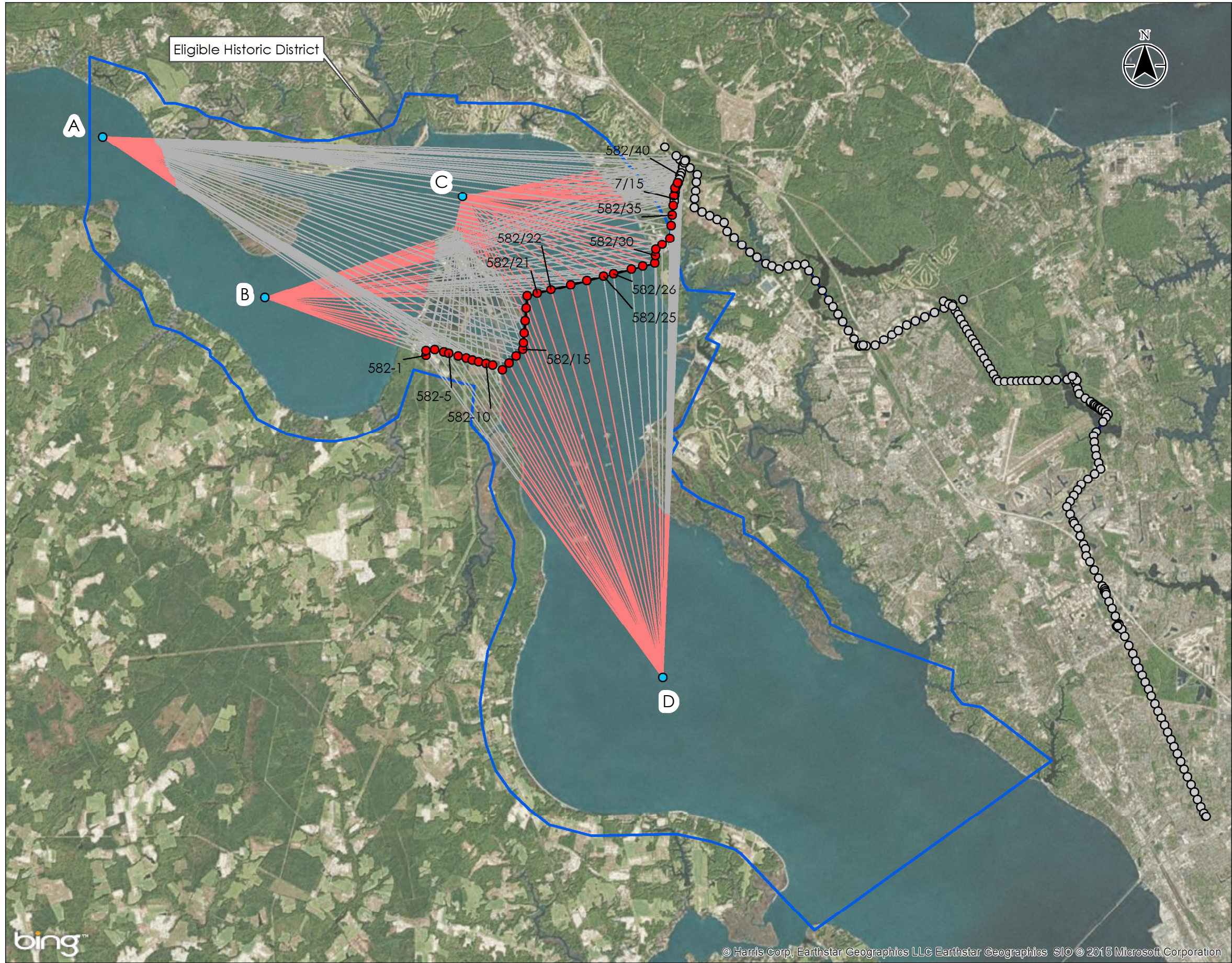


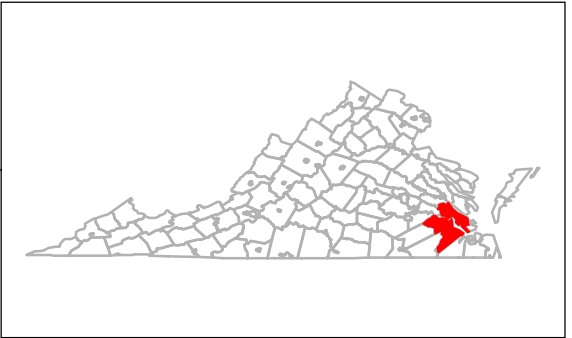
Figure No. 170
Title
Light of Sight Analysis for the Eligible Historic District

Client/Project
Dominion Virginia Power

Project Location 203416120
County: Williamsburg, James City, York, Surry, Prepared by SWS on 2015-09-10
Newport News, Isle of Wight Technical Review by AJL on 2015-09-10
USGS Quad: Norge, Williamsburg, Clay Bank, Independent Review by EMB on 2015-09-10
Achilles, Surry, Hog Island, Yorktown, Poquoson,
Runnymede, Bacon's Castle, Mulberry Island,
Newport News North, Raynor, Smithfield, Benn's Church,
Newport News South

0 10,000 20,000 Feet
1:120,710 (At original document size of 11x17)

- Legend
- Observation Point
 - Proposed Tower Location - Visible
 - Proposed Tower Location - Not Visible
 - Architectural Resources
 - Observation Point Sight Lines
 - Area Visible
 - Area Not Visible
 - Approximate Area of Potential Effects
 - Skiffes Creek to Wheelton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Orthoimagery © Bing Maps



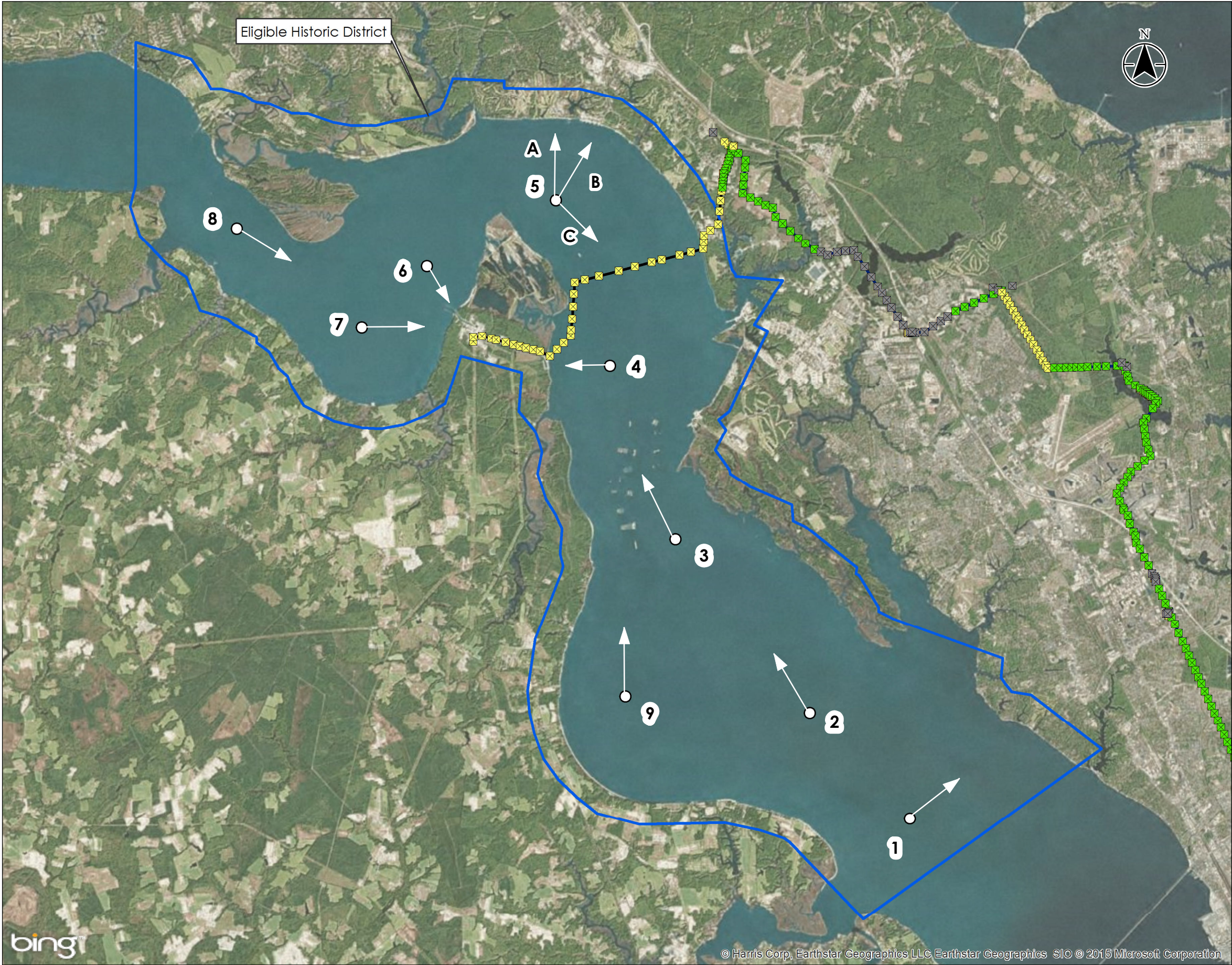


Figure No.
171

Title

Photograph Locations and Direction

Client/Project

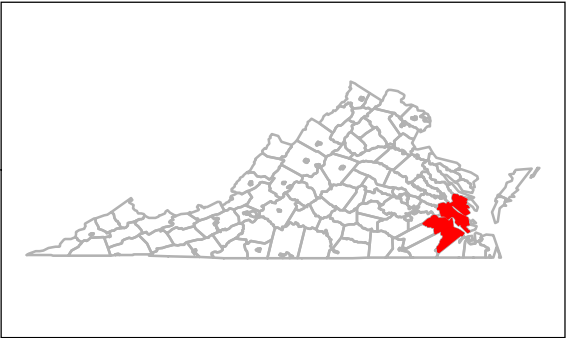
Dominion Virginia Power

Project Location 203416120

County: Gloucester, Williamsburg, James City, York, Surry, Newport News, Isle of Wight
USGS Quad: Norge, Williamsburg, Clay Bank, Surry, Hog Island, Yorktown, Runnymede, Bacons Castle, Mulberry Island, Newport News North, Raynor, Smithfield, Bennis Church, Newport News South

0 10,000 20,000 Feet
1:120,573 (At original document size of 11x17)

- Legend
- Proposed New Structure
 - Reconductoring Existing Structure
 - Remove and Replace Existing Structure
 - Photograph Location
 - Architectural Resources
 - Skiffes Creek to Wheaton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



Notes

- Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
- Orthoimagery © Bing Maps



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Figure 172. View of the Eligible Historic District from Photo Location 8 (Figure 171 – Photo Location 8). View Looking Southeast toward the Proposed Undertaking. The yellow area denotes Jamestown Island and the red arrow denotes the approximate location of the proposed undertaking.



Figure 173. View toward the proposed undertaking and the Surry Power Station from Photo Location 6 (Figure 171 – Photo Location 6). View Looking South Southeast toward the Surry Power Station. The top portions of the existing structures associated with the Power Station are Visible in the Distance and denoted by the red arrows. The proposed structures would be of similar size and would also be visible. The yellow arrow denotes Hog Island to the left of the photo.



Figure 174. Zoomed in View of Figure 173 illustrating the Visibility of the existing structures and domes associated with the Power Station over the Trees. The lower portions of the structures and facilities are obscured from view.

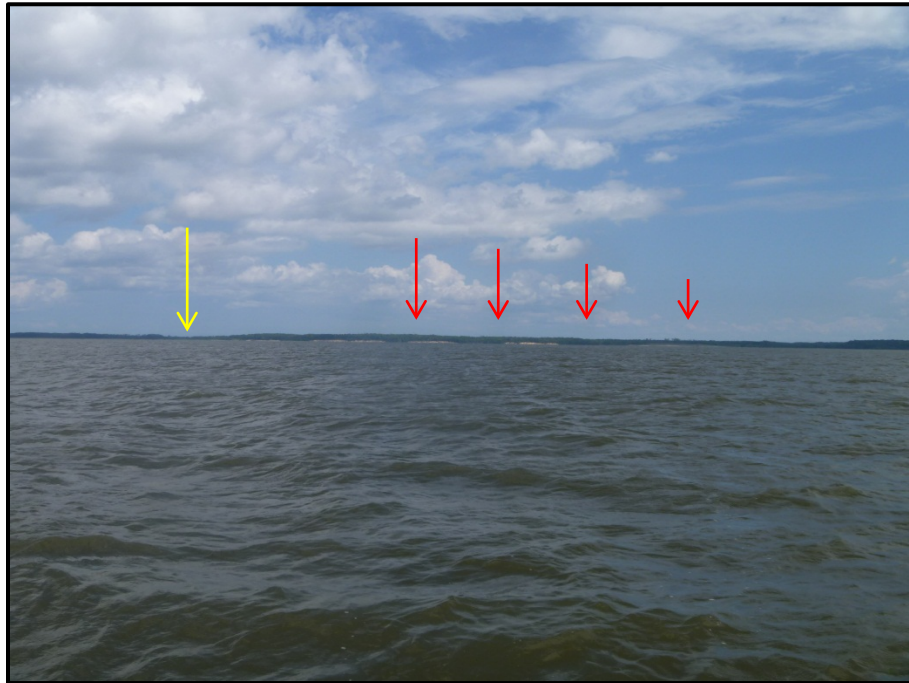


Figure 175. View toward Hog Island and the Proposed undertaking from Photo Location 7, Facing East (Figure 171 – Photo Location 7). Hog Island Wildlife Management Area is denoted by the yellow arrow and the red arrow denotes the direction of the proposed undertaking on the opposite side of Hog Island. The Surry Power Station is located out of the frame to the right of the photo.

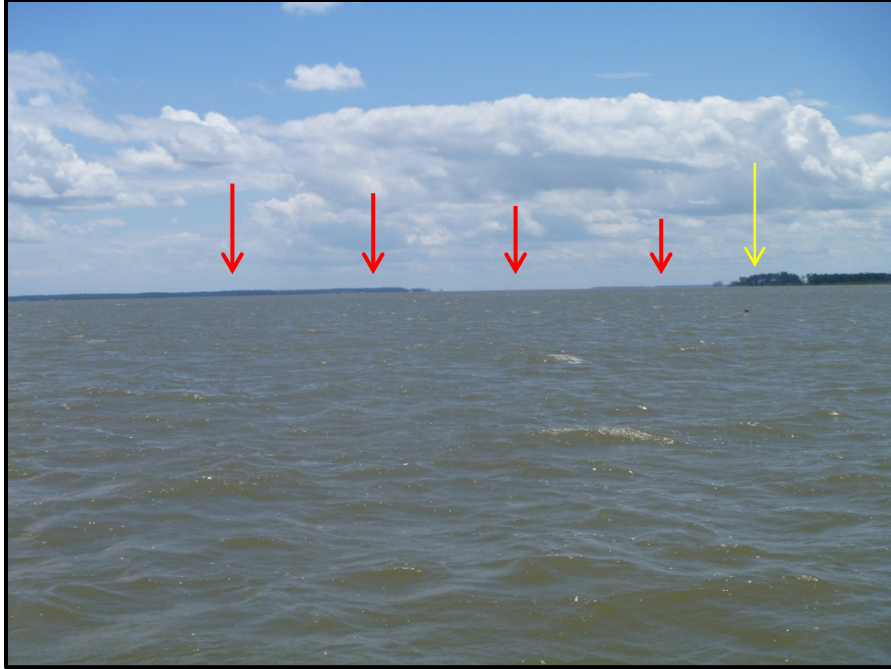


Figure 176. View looking Southeast from Photo Location 5 in the James River and Eligible River Historic District of the Proposed River Crossing (Figure 171 – Photo Arrow 5C). The eastern tip of Hog Island is noted by the yellow arrow and the proposed transmission line crossing is denoted by the red arrow.



Figure 177. View looking Northwest toward the proposed transmission line crossing from Location 3 (Figure 171 – Photo Arrow 3). The yellow arrow denotes the western most tip of Mulberry Island and Fort Eustis while the blue arrow denotes the location of the Ghost Fleet. The general direction and location of the proposed transmission line crossing is marked by red arrows.

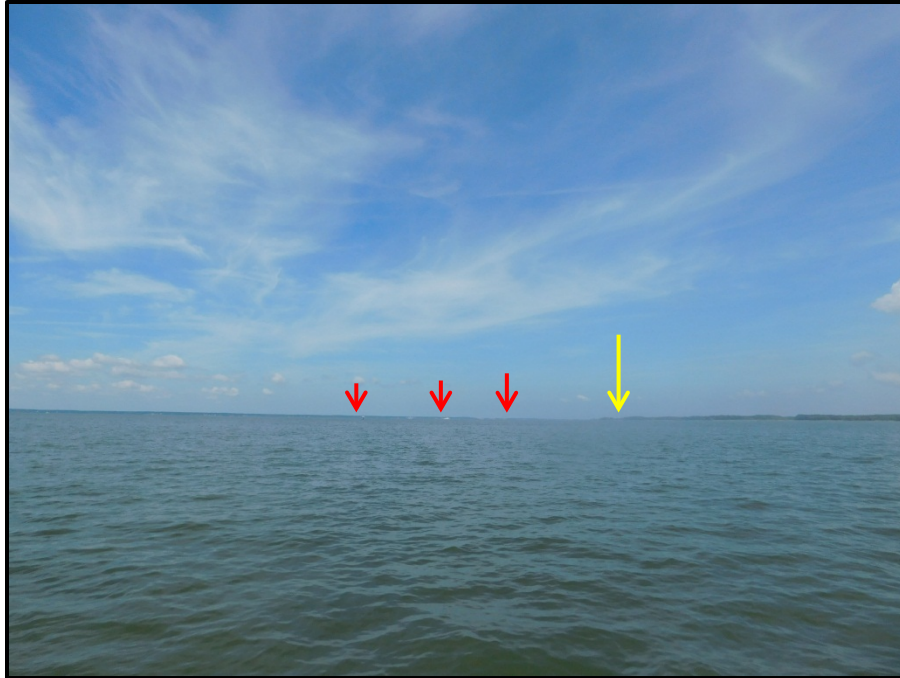


Figure 178. View **looking Northwest** from Photo Location 2 toward the Proposed Transmission Line Crossing from the Southern portion of the Eligible Historic District (Figure 171 – Photo **Arrow 2**). Distance would minimize the potential views of the structures associated with the proposed transmission line crossing. The yellow arrow denotes Mulberry Island and Fort Eustis.



Figure 179. View **looking North** from Photo Location 9 toward the Proposed Transmission Line Crossing from the Southern portion of the Eligible Historic District (Figure 171 – Photo **Arrow 9**). Distance would minimize the potential views of the structures associated with the proposed transmission line crossing. The yellow arrow denotes the Ghost Fleet in the Sight Line. The Red Arrow denotes the general direction and location of the Transmission Line Crossing.

4.0 EFFECTS ASSESSMENT – ARCHAEOLOGICAL RESOURCES

4.1 INTRODUCTION

The following section presents a summary of effects to the 19 archaeological resources identified during the Section 106 consultation process as located within the Direct APE for the project and having the potential to be affected by the project activities (Figure 180). Also included in this section is an assessment of effects to the 76 submerged anomalies present within the Indirect APE and in the vicinity of the river crossing of the Surry to Skiffes 500 kV segment (Figure 181). Typically, archaeological sites are addressed primarily with respect to direct effects because visual or indirect effects are not generally applicable. For the identified resources, an assessment of adverse direct effect was applied to all archaeological resources with the exception of Site 44JC0048, Martin's Hundred Graveyard, which was assessed for both direct and indirect effects in Section 3.14 of this document.

Effects to archaeological resources within the ROW for the project have been minimized and avoided through alterations in structure placement and careful access road planning to avoid identified resources where practicable. Specifically, Dominion has identified all access roads to be used for this project. Access will be through existing roads and paths, and no ground disturbance is proposed. Improvements to access roads may be necessary and will consist of top dressing with gravel, or timber mats will be used in sensitive areas (e.g., wetlands or areas of cultural resource sensitivity). Identified boundaries of cultural resources will be shown on construction plans, and safety fencing will be installed where work will take place in the vicinity of potentially eligible archaeological sites to avoid inadvertent disturbance. These avoidance measures apply to all land-based archaeological resources within the Direct APE with the exception of Site 44JC0662, which will be directly impacted by the proposed project. The 76 anomalies identified within the James River will be avoided through the application of buffers around the resource boundaries. No construction activities will take place within the limits of these buffers, and no structures are located within the limits of the buffers.

4.1.1 Summary of Archaeological Survey Work within the Direct APE

The following section presents a summary of the results and recommendations presented to the USACE and the VDHR during the identification and evaluation of historic resources phase of the Surry - Skiffes Creek - Whealton transmission line project. The findings are summarized in this section to provide additional context and information relevant to the discussion of direct effects to the 19 archaeological resources and group of submerged anomalies identified as historic properties for this project.

- *A Phase I Cultural Resources Survey of the Proposed Dominion Virginia Power Surry to Skiffes Creek 500 kV Transmission Line Alternatives in James City and Surry Counties, Virginia, Volumes I and II, (Leithoff et al. 2014a).*
- *Addendum to the Phase I Cultural Resources Survey of the Proposed Dominion Virginia Power Surry to Skiffes Creek 500 kV Transmission Line in James City, Isle of Wight and Surry Counties, Virginia (Leithoff et al. 2014c).* Additional information regarding three properties per VDHR's request was provided by Stantec in a letter dated February 2, 2015.
- *Memoranda Titled: Phase IA Walkover and Phase I Archaeological Survey - BASF Corridor Realignment – Surry to Skiffes Creek 500 kV Transmission Line Project (Leithoff et al. 2014b).*

REDACTED ARCHEOLOGICAL SITE LOCATIONAL INFORMATION

- *Phase I Cultural Resources Survey of the Proposed Approximately 20.2-mile Dominion Virginia Power Skiffes Creek to Whealton 230 kV Transmission Line in James City and York Counties, and the Cities of Newport News and Hampton, Virginia, Volumes I and II*, (Leithoff et al. 2012).
- Memoranda Titled: *Addendum to A Phase I Cultural Resources Survey of the Proposed Approximately 20.2-Mile Dominion Virginia Power Skiffes Creek to Whealton 230 kV Transmission Line in James City and York Counties, and the Cities of Newport News and Hampton, Virginia. Volume I: Technical Report* (Stewart 2015).
- *Phase I Archaeological Survey of the Proposed 51-Acre Skiffes Creek 500-230-115 kV Switching Station Parcel, James City County, Virginia* (Leithoff et al. 2012a).
- *Phase II Evaluation Site 44JC0662 for the Dominion Virginia Power Skiffes Switching Station, James City County, Virginia* (Leithoff et al. 2012b).

4.1.2 Previous Archaeological Survey – Surry to Skiffes Creek Segment

The Direct APE for the Surry to Skiffes Creek section of the project was subject to a Phase I cultural resources survey in 2013. This survey addressed the land-based portion of this segment as well as three viable alternatives for crossing the James River through both terrestrial and underwater surveys, as appropriate. The results were presented in the document entitled *A Phase I Cultural Resources Survey of the Proposed Dominion Virginia Power Surry to Skiffes Creek 500 kV Transmission Line Alternatives in James City and Surry Counties, Virginia, Volumes I and II* which was revised and submitted in 2014 (Leithoff et al. 2014a). This effort also included architectural survey; however this summary is focused on the results of the archaeological survey. A supplement to the Phase I survey was submitted in 2014 to include additional architectural resource survey (Leithoff et al. 2014c). An addendum letter report concerning a change in the Direct APE as it crossed the BASF property was also submitted in 2014 (Leithoff et al. 2014b).

The Phase I archaeological survey consisted of subsurface testing using shovel tests placed at a 50-foot interval within the Direct APE. Archaeologists excavated a total of 847 shovel tests, with one positive for cultural material. Two sites, 44JC0649 and 44JC0650, were identified within or immediately adjacent to the Direct APE for the Surry to Skiffes Creek segment of this project. Site 44JC0649 is mapped at the very edge of the limits of the Direct APE with no components identified within the limits of the Direct APE. Two shovel tests were excavated within the mapped site boundary on the edge of the corridor. Both shovel tests were negative and no further work was recommended. Site 44JC0650 was documented on the site form as an indeterminate eighteenth century site. The site was recorded by the Colonial Williamsburg Foundation in 1991. Eleven shovel tests were excavated in the vicinity of the mapped location of site 44JC0650. One shovel test contained a single piece of brick. The site extends outside of the limits of the Direct APE and survey corridor. The portion of the site identified by a single piece of a brick lacks integrity and no further work was recommended within the Direct APE.

The underwater survey for the Surry to Skiffes Creek segment was conducted by Tidewater Atlantic Research (TAR) under the direction of Dr. Gordon Watts and was included as an Appendix to the larger survey report. The underwater survey addressed a broad area to encompass three possible alternative routes for the James River crossing. The underwater survey resulted in the identification of 231 anomalies, 76 of which retained signatures consistent with potential submerged archaeological sites. These 76 anomalies were grouped into 23 buffer

areas which were recommended for avoidance or additional investigation if avoidance was not practicable.

The Phase I survey was submitted to the VDHR for review and concurrence in July 2013. However, review of the Phase I document was deferred until the completion of the additional architectural survey which was conducted in February and March, 2014. The VDHR, via correspondence dated June 12, 2014, concurred with the archaeological survey portion of the Phase I survey while requesting additional information for specific architectural resources. Additional concurrence regarding the level of effort achieved during the Phase I and also the applicability of the results of the Phase I survey to the Section 106 review of the project was received on May 1, 2015. Table 7 lists the archaeological sites identified in the Surry to Skiffes Creek segment report with both Stantec/CRI recommendations and the recommendations of the VDHR.

Table 7. Archaeological Sites within the Surry to Skiffes Creek Segment.			
VDHR ID #	Resource	Report Recommendations – July 2013 (revised April 2014)	Eligibility Recommendations - VDHR June 12, 2014
44JC0649	Historic - indeterminate	No further work in the APE	Unevaluated: No further work
44JC0650	18 th Century – indeterminate function	No further work in the APE	Unevaluated: No further work

4.1.3 Previous Archaeological Survey – Skiffes Creek to Whealton Segment

The Direct APE for the Skiffes Creek to Whealton portion of the project was subject to a Phase I cultural resources survey in late 2011 and early 2012. This survey addressed the 20.2-mile 230kV corridor associated with the project, which is collocated within an existing DVP transmission line right-of-way. The results of the survey were presented in the document entitled *A Phase I Cultural Resources Survey of the Proposed Approximately 20.2-Mile Dominion Virginia Power Skiffes Creek to Whealton 230 kV Transmission Line in James City and York Counties, and the Cities of Newport News and Hampton Virginia, Volumes I and II* (Leithoff et al. 2012). This effort also included an architectural survey; however, the summary provided below is focused on the results of the archaeological survey.

The Phase I archaeological survey consisted of subsurface testing using shovel tests placed at a 50-foot interval within the Direct APE. Archaeologists excavated a total of 2,723 shovel tests, with 53 positive for cultural material. Three previously recorded sites (44JC0663, 44YO0183, and 44YO0592), four new archaeological sites (44HT0118, 44YO1129, 44YO1130, and 44YO1131) and eleven Isolated Archaeological Finds (1612-IF1 through 1612-IF11) were identified during the investigation. Several additional sites including 44NN0060, 44JC0751, 44YO180, 44YO0181, 44YO0184, 44YO0237 and 44YO1059 were identified in the background research for the Phase I, but deposits associated with them were not identified within the corridor. Site 44YO0233 was also identified, but these earthworks were discussed in association with 44YO0592 and by association with that site were recommended potentially eligible for listing on the NRHP. Site 44JC0663 is located primarily within the bounds of the proposed Skiffes Creek Switching Station and was discussed within that report (see section 4.1.4). Sites 44YO1130 and 44HT0118 were recommended not eligible for listing on the NRHP. Sites 44YO0183, 44YO1129 and 44YO1131 were recommended for no further work within the Direct APE because the identified deposits lacked integrity and were considered non-contributing to the potential eligibility of the larger site. The overall eligibility of these sites outside of the Direct APE was not evaluated as no

disturbance to these areas is proposed. Site 44YO0592 was recommended potentially eligible for listing on the NRHP. The remaining Isolated Finds are not eligible for listing on the NRHP by definition.

The Phase I survey was submitted to the VDHR for review and concurrence in August 2012. Correspondence following the review of the submitted report was received from the VDHR and dated September 4, 2012. VDHR concurred with the recommendations presented in the report with the exception of Site 44JC0048. The VDHR recommended that 44JC0048 was eligible for listing on the NRHP. Additional concurrence regarding the level of effort achieved during the Phase I and also the applicability of the results of the Phase I survey to the Section 106 review of the project was received on May 1, 2015. The table below lists the archaeological sites addressed in the report with both Stantec/CRI recommendations and the recommendations of the VDHR.

Additional Phase I survey was conducted in four locations within the Direct APE for the Skiffes Creek to Whealton Segment in July, 2015. This investigation resulted in the identification of no archaeological sites or deposits and no further work was recommended (Stewart 2015). The VDHR concurred with these findings on September 4, 2015.

Table 8. Archaeological Sites within the Skiffes to Whealton Segment.			
VDHR ID #	Resource	Report Recommendations – August 2012	Eligibility Recommendations - VDHR September 4, 2012
047-5333/44JC0048	Martin's Hundred Cemetery	Not Individually Eligible	Eligible Under Criteria A & D
44JC0663	19 th Century Trash Scatter	Not Eligible: Included in Skiffes Switching Station Report	Not Eligible (VDHR 2012)
44YO0092	Civil War Earthworks	Avoidance	Potentially Eligible
44YO0183	18 th Century Domestic	No Further Work	Unevaluated: No further work
44YY0592	Late 18 th to 19 th Century Domestic, Military Camp	Potentially Eligible	Potentially Eligible
44HT0118	19 th Century Domestic	Not Eligible	Not Eligible
44YO1129	Unknown Domestic	No Further Work	Unevaluated; No Further Work
44YO1130	Mid to Late 19 th Century Domestic Scatter	Not Eligible	Not Eligible
44YO1131	19 th Century Domestic Scatter	No Further Work	Unevaluated; No Further Work

4.1.4 Previous Archaeological Survey - Skiffes Creek Switching Station

The Direct APE for the Skiffes Creek Switching Station portion of the project was subject to a Phase I cultural resources survey in December of 2011. This survey addressed the 51-acre parcel for the proposed Switching Station. The results of survey were presented in the document entitled *A Phase I Archaeological Survey of the Proposed 51-Acre Skiffes Creek 500-230-115kV Switching Station Parcel, James City County, Virginia* (Leithoff et al. 2012a).

The Phase I archaeological survey consisted of subsurface testing using shovel tests placed at a 50-foot interval within the Direct APE. Archaeologists excavated a total of 912 shovel tests, with 47 positive for cultural material. Two previously recorded sites (44JC0662 and 44JC0663), three new archaeological sites (44JC1300, 44JC1301, and 44JC1302) and seven isolated finds (1612B-IF1 through 1612B-IF4, 1612B-IF6, 1612BIF7 and 1612B-IF8) were identified during the investigation. Site 44JC0662 was recommended potentially eligible for listing on the NRHP. Sites 44JC0663, 44JC1300, 44JC1301, 44JC1302 were recommended not eligible for listing on the NRHP. Isolated Finds by definition are not eligible for listing on the NRHP.

The Phase I survey was submitted to the VDHR for review and concurrence in April 2012. Correspondence was received from the VDHR on April 24, 2012 concurring with the recommendations presented in the Phase I report. Additional concurrence regarding the level of effort achieved during the Phase I survey and also the applicability of the results of the Phase I survey to the Section 106 review of the project was received on May 1, 2015 (Appendix A). Table 9 lists the archaeological sites addressed in the report with both Stantec/CRI recommendations and VDHR concurrence.

Table 9. Archaeological Sites within the Skiffes Creek Switching Station.			
VDHR ID #	Resource	Report Recommendations – March 2012	Eligibility Recommendations - VDHR April 24, 2012
44JC0662	18 th and 19 th Century Domestic	Potentially Eligible	Potentially Eligible
44JC0663	Late 18 th to 20 th Century Domestic	Not Eligible	Not Eligible
44JC1300	20 th Century Domestic	Not Eligible	Not Eligible
44JC1301	18 th Century Domestic	Not Eligible	Not Eligible
44JC1302	19 th Century Domestic	Not Eligible	Not Eligible

In March and April of 2012, an additional evaluation of Site 44JC0662 was undertaken. This survey was conducted to determine the eligibility of site 44JC0662. The result of survey was presented in the document entitled *Phase II Evaluation Site 44JC0662 For the Dominion Virginia Power Skiffes Creek Switching Station, James City County, Virginia* (Leithoff et al. 2012b).

The Phase II archaeological survey consisted of documentary research and subsurface testing using shovel tests placed at a 25-foot interval within the site and seven 5-foot square test units. Archaeologists excavated a total of 80 shovel tests, with 26 positive for cultural material. Cultural

material was recovered from all the test units and six features were identified within the test units. As a result of this work, Stantec/CRI recommended Site 44JC0662 eligible under Criterion D.

The Phase II survey was submitted to the VDHR for review and concurrence in May 2012. Correspondence was received from the VDHR dated June 19, 2012 concurring with the recommendations regarding the eligibility of Site 44JC0662. Additional concurrence regarding the level of effort achieved during the Phase I survey and also the applicability of the results of the Phase I survey to the Section 106 review of the project was received on May 1, 2015 (Appendix A). The table below lists the archaeological sites addressed in the report with both Stantec/CRI recommendations and the recommendations of the VDHR.

Table 10. Archaeological Sites within the Skiffes Creek Switching Station, Phase II.			
VDHR ID #	Resource	Report Recommendations – May 2012	Eligibility Recommendations - VDHR June 19, 2012
44JC0662	18 th and 19 th Century Domestic	Eligible Under Criterion D	Eligible under Criterion D

4.2 POTENTIALLY ELIGIBLE ARCHAEOLOGICAL SITES WITHIN THE DIRECT APE

4.2.1 44JC0662

4.2.1.1 Description of Resource

Site 44JC0662 represents a single dwelling dating from the eighteenth to the nineteenth century within the bounds of the proposed Skiffes Creek Switching Station (Figure 182). The site was originally recorded in 1991 and was revisited later in 1991 and again in 1994. The site was re-investigated at the Phase I level by Stantec/CRI during studies in support of this project (Leithoff et al. 2012a), and a Phase II evaluation was conducted in 2012 (Leithoff et al. 2012b). The results of the Phase I and II evaluations conducted by Stantec/CRI resulted in the recommendation that the site was eligible for listing on the NRHP. The single dwelling at Site 44JC0662 is associated with the Bailey family, a low to middling income, slave-holding family in James City County (Leithoff et al. 2012b).

4.2.1.2 National Register Status – Eligible, Criterion D

Site 44JC0662 was determined to be eligible for listing to the NRHP by the VDHR on June 19, 2012 under Criterion D for its ability to yield information important in history. In particular, the site could offer important comparative material which could be utilized by archaeologists studying nineteenth-century farmsteads occupied by low to middling income whites and African-Americans. The few studies conducted to date have pointed to the need for additional comparative material from sites such as 44JC0662, particularly as related to foodways and material culture of slaves owned by farmers in this economic bracket and the material culture of low to middling income whites themselves (Adams and Boling, 1989; Otto, 1984). The site also offers insight into the growing notion that historical archaeology is a study of capitalism and how living conditions, material culture, and social spaces were influenced by the creation and maintenance of social inequality (Delle, 1998; Johnson, 1996; Leone, 1995; Orser, 1996; Paynter and McGuire, 1991). Finally, the site presents an opportunity to conduct a lifecycle study for two, and possibly three, generations of the Bailey family. This information could contribute to the database of research in the effect of life stage or social status on material culture.

4.2.1.3 Distance to ROW and Transmission Line Data

Site 44JC0662 is located within the parcel boundaries of the proposed Skiffes Creek Switching Station which is within the Direct APE for the project. The site is in proximity to proposed Structures 582/43 (Figure 180 and Figure 182).

4.2.1.4 Effects Analysis

Site 44JC0662 is located on a terrace and within a cleared transmission line corridor. The site retains subsurface integrity with multiple architectural subsurface features identified. In addition, the artifact assemblage reflects late eighteenth to nineteenth century domestic occupation verified through archival research to be associated with the Bailey family. The Bailey family was a low to middling income, slave-holding family in James City County. The site is located partially within the limits of disturbance of the proposed Skiffes Creek Switching Station and would be directly impacted by construction activities.

Stantec concludes that the proposed project will have an Adverse Effect on Site 44JC0662.

Per the USACE Public Notice, published May 21, 2015, the USACE has determined that the project would have an Adverse Effect to Site 44JC0662. The USACE determination is that the project would have an Adverse Effect and that the project would detract from the resource's characteristics and integrity qualifying it for listing on the NRHP.

4.2.2 44JC0048/VDHR File #047-5333

4.2.2.1 Description of Resource

Site 44JC0048/VDHR File #047-5333 (Martins Hundred Graveyard) represents a cemetery dating to the seventeenth century. **Please refer to section 3.14 for the assessment of effects to this resource.**

4.2.3 Site 44NN0060

4.2.3.1 Description of Resource

Site 44NN0060 represents a multi-component site featuring a Woodland period occupation component and a twentieth-century trash scatter component. The date of the original Phase I survey during which Site 44NN0060 was identified is not known. The site was identified via pedestrian survey and it was recorded that the ground surface within the resource appeared to have been heavily disturbed by construction of a power line. The site as originally recorded consisted only of the Woodland period component. In 2009, the site was intended to be subject to Phase II evaluation. At that time it was noted that the site appeared to be mismapped in the VDHR Data Sharing System (DSS), the forerunner to V-CRIS, and no evidence of the resource was identified. In 2013, the site, as mapped in the VCRIS system, was subject to Phase I survey conducted by the William and Mary Center for Archaeological Research in advance of the proposed relocation of Route 60 (VDHR Site Files). At that time, a twentieth-century trash scatter component was identified but no evidence of the Woodland period occupation was encountered. Site 44NN0060 was not identified in the Direct APE during the survey for the Skiffes Creek to Whealton transmission line project (Leithoff et al. 2012). Shovel testing in this vicinity was negative and did not produce deposits related to Site 44NN0060.

4.2.3.2 National Register Status – Potentially Eligible, Criterion D

Site 44NN0060 was determined to be potentially eligible for listing on the NRHP by the VDHR on April 16, 2001 and again on September 25, 2013 (as the result of an unrelated project) under Criterion D for information potential.

4.2.3.3 Distance to ROW and Transmission Line Data

As currently mapped, Site 44NN0060 is located partially within the Skiffes Creek to Whealton 230 kV transmission line ROW corridor at existing structure 285/436, a four-leg lattice style structure which will be replaced with proposed structure 2138/21, a steel monopole structure, at the southern edge of wetlands. However, it is likely that the site has been mismapped and is actually located north of the ROW corridor on the opposite landform (Figure 180 and Figure 183).

4.2.3.4 Effects Analysis

Site 44NN0060 may be located on a ridge at the southern edge of wetlands or, more likely, on the opposite landform to the north of the wetlands and the ROW corridor. As currently mapped, the site is located partially within the proposed Skiffes Creek to Whealton 230 kV transmission line ROW at the location of a proposed structure replacement (Figure 183). Although the exact location of the site is uncertain, the Woodland period component appears to retain research potential. However, during the Phase I identification survey for the proposed project, no evidence of this site was identified within the Direct APE and no further work was recommended. Existing structure 285/436 is present within the mapped site boundary and is a four-leg steel lattice structure. This structure will be replaced with a single monopole structure within the footprint of the existing structure. According to the proposed configuration schematic drawings (Appendix C2, Sheets 7-8), the existing steel lattice structure will be replaced with a single monopole in the center of the existing 120-foot ROW. Because the proposed monopole will be constructed in the center of the existing four-leg configuration, ground disturbance will be necessary in this location. Although the construction activities will take place within the mapped site boundary, no evidence of this site or archaeological materials were identified during the 2011 survey in the mapped location. Timber matting will be used in the site vicinity during the construction activities to minimize ground disturbance in the remainder of the site boundary.

Stantec concludes that the proposed project will have No Adverse Effect on Site 44NN0060.

4.2.4 Site 44YO0092

4.2.4.1 Description of Resource

Site 44YO0092 represents earthworks dating to the Civil War. The site was originally recorded in 1978, and was subject to Phase I survey in 1994 and 2011. In 1994, the site was subject to pedestrian survey and no cultural material was recovered. In 2011, a Phase I survey was conducted in the vicinity of Site 44YO0092 in support of the current project (Leithoff et al. 2012). As mapped in VDHR's V-CRIS, the site extended across the 2011 survey corridor; however, in this area the corridor exhibited slopes greater than 15 percent and no shovel testing occurred within the site bounds. The earthworks comprising Site 44YO0092 were noted on the south side of the Harwoods Mill Reservoir during the 2011 effort. The site is also located within the bounds of the NRHP-potentially eligible Battle of Yorktown (VDHR #099-5283) (VDHR Site Files; Leithoff et al. 2012).

4.2.4.2 National Register Status – Potentially Eligible, Criterion D

Site 44YO0092 was noted in the correspondence from the VDHR on September 4, 2012 as potentially eligible for listing on the NRHP under Criterion D. The site is considered potentially eligible under Criterion D, for its potential to yield significant information.

4.2.4.3 Distance to ROW and Transmission Line Data

Site 44YO0092 is located within the proposed Skiffes Creek to Whealton 230 kV transmission line ROW corridor adjacent to proposed replacement structure 2138/91 and existing structure 292/590 (Figure 180 and Figure 184). Also collocated within the existing easement is Line 61, which will remain unchanged as part of this project.

4.2.4.4 Effects Analysis

The earthworks at Site 44YO0092 are located on sloping land on the south side of the Harwoods Mill Reservoir. No artifacts have been recovered from the site. In addition, no artifacts have been identified on the ground surface during observation/pedestrian survey. Currently, an existing four-leg style lattice structure (292/590) is located at the northern edge of the mapped boundary of the site. This structure will be demolished and replaced with steel monopole Structure 2138/91. The new monopole structure will be built within the existing footprint of the four-leg lattice structure and approximately 6 feet east of the existing centerline to carry the 292 and 2138 Lines. According to the proposed configuration schematic drawings (Appendix C2, Sheets 29-30) the existing Line 61 wooden H-frame structures will remain unchanged. The new 2138/91 structure will be constructed further to the northeast and away from the extant earthworks associated with Site 44YO0092 and documented in the site area. Two of the footings for the existing lattice structure intersect the site boundary currently; however the replacement monopole will be sited outside the site boundary due to the smaller foundation associated with monopole construction. Timber mats will be used within the mapped boundaries of the resource to minimize the potential for ground disturbance associated with the construction. The earthworks will be avoided during construction to prevent damage to these features. Therefore, it is recommended that the proposed construction activities within Site 44YO0092 will not adversely affect the resource.

Stantec concludes that the proposed project will have No Adverse Effect on Site 44YO0092.

4.2.5 Site 44YO0233

4.2.5.1 Description of Resource

Site 44YO0233 represents earthworks dating to the Civil War. The site was originally recorded in 1981 and was subject to Phase II evaluation in 2006 and Phase I survey in 2011. In 2006, Phase II evaluation of Site 44YO0592 resulted in the inclusion of Site 44YO0233 within the boundaries of Site 44YO0592. The 2006 investigation suggested that the earthworks were associated with the Howard's Bridge fortifications. These fortifications played a significant role in Confederate Peninsula defenses during the Civil War. In 2011, Phase I survey was conducted in support of this project in the vicinity of Site 44YO0233 and the earthworks were noted extending across an existing transmission line corridor. Metal detector survey and shovel testing were conducted within the site in 2011 but no cultural material was recovered or observed (VDHR Site Files; Leithoff et al. 2012).

4.2.5.2 National Register Status – Potentially Eligible, Criterion D

Site 44YO0233 was recommended potentially eligible for listing on the NRHP by VDHR on September 4, 2012. The site is considered potentially eligible under Criterion D, for its potential to yield significant information.

4.2.5.3 Distance to ROW and Transmission Line Data

Site 44YO0233 is located within the proposed Skiffes Creek to Whealton 230 kV transmission line Direct APE. An existing structure (292/589) is located within the site boundary and will be replaced by structure 2138/90 (Figure 180 and Figure 184).

4.2.5.4 Effects Analysis

The earthworks at Site 44YO0233 are located on the sloping north bank of the Harwoods Mill Reservoir. In 2006, the earthworks were included within the bounds of Site 44YO0592, but have been maintained in the VCRIS system as an independent site. No artifacts have been recovered within the bounds of site 44YO0233. Lattice Tower 292/589 will be demolished and steel monopole Tower 2138/90 will be constructed approximately 6 feet west of the existing centerline to carry the 292 and 2138 Lines. According to the proposed configuration schematic drawings (Appendix C2, Sheets 29-30) the existing Line 61 wooden H-frame structures will remain unchanged. The new 2138/90 structure will be constructed further to the southeast and away from the extant earthworks associated with Site 44YO0233. Timber mats will be used within the mapped boundaries of the resource to minimize the potential for ground disturbance associated with the construction. The earthworks will be avoided during construction to prevent damage to these features. Therefore, it is recommended that the proposed construction activities within Site 44YO0233 will not adversely affect the resource.

Stantec concludes that the proposed project will have No Adverse Effect on Site 44YO0233.

4.2.6 44YO0592

4.2.6.1 Description of Resource

Site 44YO0592 represents a mid-eighteenth to nineteenth century site comprising a domestic component of indeterminate function and a military camp. The site was originally recorded in 1994 and was subject to additional Phase I testing and Phase II evaluation in 2006 (VCRIS Record) during which time the boundaries were greatly expanded. Although it appears that the

VDHR reviewed and concurred with the Phase I survey and the expanded site boundaries, the site is currently mapped as a small polygon located within the bounds of the current Direct APE.

The Phase I survey conducted within the bounds of Site 44YO0592 and within the Direct APE identified two concentrations of artifacts associated with the mapped boundary of Site 44YO0592 (Figure 184). These two concentrations consist of a combination of positive shovel tests and metal detector hits and were recommended as having the potential to contribute to the eligibility of Site 44YO0592.

4.2.6.2 National Register Status – Potentially Eligible, Criterion D

Site 44YO0592 was recommended potentially eligible for listing on the NRHP by VDHR on September 4, 2012. The site is considered potentially eligible under Criterion D, for its potential to yield significant information.

4.2.6.3 Distance to ROW and Transmission Line Data

Site 44YO0592, identified in two artifact concentrations within the Direct APE (identified and mapped on Figure 184), is located within the proposed Skiffes Creek to Whealton 230 kV transmission line ROW corridor and in proximity to Proposed Towers 2138/86 and 2138/87 and structures 292/585 and 292/586 which are proposed for rebuilding (see Figures 180 and 183).

4.2.6.4 Effects Analysis

Site 44YO0592 is located on a peninsula on the north side of the Harwoods Mill Reservoir. The site appears to primarily represent a Civil War-era military camp, but other mid-eighteenth- to nineteenth century components are present. Within proximity to the two artifact concentration areas documented as Site 44YO0592 within the Direct APE, existing wooden h-frame structures 292/585 and 292/586 will be rebuilt as weathering steel h-frame structures. Proposed structures 2138/86 and 2138/87 will be new weathering steel h-frame structures within an expanded ROW. A portion of the ROW around Site 44YO00592 is proposed to be cleared; however, matting will be used for access and trees will be cut above ground surface. According to the proposed configuration schematic drawings (Appendix C2, Sheets 27-28), the existing 61 Line (wooden H-frame structures) will remain unchanged while structures 292/585 and 292/586 will be demolished and reconstructed in place. Proposed Tower 2138/86 and 2138/87 will be constructed with its centerline an additional 70 feet offset from the Line 292 centerline resulting in three H-frame structures within the ROW in this location. The reconstructed structure 292/585 and proposed structure 2138/86 are located outside the boundaries of the artifact concentrations and therefore will not impact the potential site deposits. Structure 292/586 and proposed Structure 2138/87 are located within the bounds of an artifact concentration. However, this concentration consisted of a series of metal detector hits, all recovered from the topsoil in this location. The structures are in the locations of Metal Detector Hits 1-4, all of which were excavated and recovered during the Phase I survey. Therefore, it is recommended that the activities associated with the structure would not adversely affect the potentially significant deposits located to the southwest of this location.

In addition, timber mats will be used within the mapped boundaries of the resource to minimize the potential for ground disturbance associated with the construction and construction access. Therefore, it is recommended that the proposed construction activities within the portions of Site 44YO0592 identified as retaining integrity will not adversely affect the resource.

Stantec concludes that the proposed project will have No Adverse Effect on the portion of Site 44YO0592 within the Direct APE.

4.2.7 44YO1059

4.2.7.1 Description of Resource

Site 44YO1059 represents a multi-component site featuring a prehistoric temporary camp of indeterminate temporal affiliation and an early to mid-eighteenth century single dwelling component. The site was originally identified in 2006 and was subject to Phase II evaluation in the same year. When initially identified, Site 44YO1059 yielded 18 artifacts, 16 of which were historic in nature. The prehistoric component consisted of only two artifacts, one quartzite tertiary flake and one piece of fire-cracked rock. In 2011, Phase I survey was conducted in support of this project within the portion of the site extending through the proposed 230 kV transmission line ROW. No shovel tests were positive for cultural material during this investigation (VDHR Site Files; Leithoff et al. 2012).

4.2.7.2 National Register Status – Potentially Eligible, Criterion D

Site 44YO1059 was determined to be potentially eligible for listing on the NRHP by the VDHR on August 8, 2006 under Criterion D for information potential and as such is considered Potentially Eligible and a Historic Property for purposes of this project. However, during the Phase I investigation of the site conducted in support of this project (Leithoff et al. 2012), shovel tests excavated within the site boundary were negative for cultural material and it was recommended that no further work was warranted for this site within the Direct APE. The VDHR reviewed and concurred with the Phase I survey in correspondence dated September 4, 2012 (Appendix A).

4.2.7.3 Distance to ROW and Transmission Line Data

Site 44YO1059 is located within the Skiffes Creek to Whealton 230 kV transmission line ROW corridor, adjacent to existing structure 292/581 and proposed structure 2138/82 (see Figure 180; Figure 184).

4.2.7.4 Effects Analysis

Site 44YO1059 is located on the northern bank of the Harwoods Mill Reservoir. The site is located within the proposed Skiffes Creek to Whealton 230 kV transmission line ROW. Existing structure 292/581 is located on the edge of the mapped site boundary. Construction will involve the demolition and reconstruction of Tower 292/581 as well as the addition of structure 2138/82. The location for proposed structure 2138/82 is located immediately to the east and outside of the boundary of the resource. According to the proposed configuration schematic drawings (Appendix C2, Sheets 27-28), the existing Line 61 wooden H-frame structures will remain unchanged while structure 292/581 will be demolished and reconstructed in place. Tower 2138/82 will be constructed with its centerline an additional 70 feet offset from the Line 292 centerline resulting in three H-frame structures within the ROW in this location. The reconstructed structure 292/581 structure and the new structure 2138/82 will be constructed further outside of the mapped boundaries of the site. Tower 2138/82 was specifically sited to the southeast of the mapped archaeological site to avoid potential effects. Timber mats will be used within the mapped boundaries of the resource to minimize the potential for ground disturbance associated with the construction. Therefore, it is recommended that the proposed construction activities within Site 44YO1059 will not adversely affect the resource.

Stantec concludes that the proposed project will have No Adverse Effect on Site 44YO1059.

4.2.8 Submerged Anomalies

4.2.8.1 Description of Resource

Seventy-six (76) submerged anomalies were identified in the James River during remote sensing surveys of three transmission line alternatives in 2012 and 2013 (Leithoff et al 2014a). Remote sensing included magnetic remote sensing and acoustic remote sensing. Of the 231 anomalies identified during this effort, these 76 were judged to retain high potential for representing potentially significant submerged cultural resources (VDHR Site Files; Leithoff et al. 2014a). The 76 anomalies identified as retaining signatures consistent with submerged cultural resources have been grouped into 23 buffer areas within the general vicinity of the project APE (Figure 181, Figure 185, and Figure 186).

4.2.8.2 National Register Status – Potentially Eligible, Criterion D

The 76 submerged anomalies may represent shipwrecks or other submerged archaeological sites and are regarded here as potentially NRHP-eligible for the purposes of Section 106 compliance. The anomalies are considered potentially eligible for listing on the NRHP under Criterion D for information potential. The anomalies are managed in 23 buffers which were recommended for avoidance (Leithoff et al. 2014a).

4.2.8.3 Distance of Resource to ROW and Transmission Line Data

The 76 submerged anomalies are located within, or adjacent to, the Surry to Skiffes Creek 500 kV transmission line ROW corridor and Structures 582/19 through 582/23 and Structure 582/28. These anomalies are submerged in the James River (see Figures 185 and 186).

4.2.8.4 Effects Analysis

The 76 submerged anomalies are located within the James River and were judged to have a high potential for association with potentially significant submerged cultural resources. The 76 anomalies were grouped into 23 buffer areas recommended for avoidance following the underwater archaeological survey conducted in 2013 (Leithoff et al. 2014a). All 23 buffer areas have been identified and located on project maps and will be avoided by construction associated with the transmission line corridor. Additional effects for consideration to these anomalies include potential effects from vibration during pile driving. The defined buffers around each of the groups of anomalies will provide distance for attenuation of vibration associated with pile driving.

Stantec concludes that the proposed project will have No Adverse Effect on the 76 submerged anomalies in the James River.

REDACTED ARCHEOLOGICAL SITE LOCATIONAL INFORMATION

REDACTED ARCHEOLOGICAL SITE LOCATIONAL INFORMATION

4.3 SITES MANAGED AS UNEVALUATED WITHIN THE DIRECT APE

Generally, the resources documented in the USACE Public Notice dated May 21, 2015 and noted as “manage as unevaluated” are resources whose boundaries extend outside of the Direct APE for the project, or were not identified during investigations associated with the project. As noted above in the summary sections, the results of the Phase I survey efforts indicated that the deposits located within the Direct APE for these sites did not retain integrity and would therefore not contribute to the overall potential eligibility of the site. VDHR concurred with these recommendations (Appendix A). Therefore, for purposes of the project, this group of sites has been categorized as unevaluated because their site boundaries extend outside of the Direct APE and were not fully evaluated for NRHP eligibility. Because portions of the sites are located within the Direct APE and have not been formally determined *not eligible*, they have been considered historic properties for purposes of this project at the direction of the USACE and the VDHR. However, because the majority of these resources have been documented as lacking integrity within the ROW or were not re-identified during shovel testing within the ROW, the recommendation is that there will be **No Adverse Effect** to these resources.

4.3.1 Site 44JC0649

4.3.1.1 Description of Resource

Site 44JC0649 represents a historic site of indeterminate function and temporal affiliation; however, the site form completed following the site's 1991 identification mentions a brick-lined cellar dating to the Colonial period. In 2013, the site vicinity was revisited but was not formally re-identified. Two shovel tests were placed within the portion of the boundary located within the Direct APE but were both negative for cultural material (Leithoff et al. 2014a). In addition, the 2013 survey suggested that the site had been mismapped in VDHR's V-CRIS as a large concentration of brick, matching the description on the original site form, was identified approximately 100 feet outside of the Surry to Skiffes Creek 500 kV transmission line ROW corridor (VDHR Site Files).

4.3.1.2 National Register Status – Manage as Unevaluated

Site 44JC0649 has not been formally evaluated by the VDHR for potential NRHP eligibility. For the purposes of the current project, the site will be managed as an unevaluated resource. The site was investigated at the Phase I level in 2013 (Leithoff et al 2014a) and recommended for no further work within the Direct APE due to lack of integrity. VDHR concurred with these recommendations (Appendix A). The boundary of this resource outside the Direct APE was not fully delineated during the Phase I, and although the portion of the site within the Direct APE lacks integrity, it has been treated as a historic property for purposes of this project per the USACE Public Notice dated May 21, 2015.

4.3.1.3 Distance of Resource to ROW and Transmission Line Data

Site 44JC0649 is located at the western edge of the Surry to Skiffes Creek 500 kV transmission line ROW corridor, between structure 582/36 (to the north) and 582/35 (to the south) (Figure 180 and Figure 187). However, the site appears to be mismapped in VDHR's V-CRIS system and may actually be located approximately 100 feet west of the ROW corridor based on the findings of the Phase I survey.

4.3.1.4 Effects Analysis

Although Site 44JC0649 was originally mapped at the edge of the Surry to Skiffes Creek 500 kV transmission line project Direct APE, the site appears to actually be located outside of the Direct APE for the current project (Figure 180 and Figure 187). The site was not re-identified in the ROW during the 2013 survey. However, a concentration of brick matching the original site description was noted 100 feet west of the ROW corridor. The mapped area of the site will be avoided during the construction of the proposed project.

Stantec concludes that the proposed project will have No Adverse Effect on Site 44JC0649.

4.3.2 Site 44JC0650

4.3.2.1 Description of Resource

Site 44JC0650 represents a historic site of indeterminate function dating to the eighteenth century. The site was originally recorded in 1991 and was revisited during Phase I survey in 2013 (Figure 180 and Figure 187). At the time of the 2013 survey, the site vicinity was characterized by a lightly wooded area at the edge of a cleared transmission line. The site was recorded as a light artifact scatter (Leithoff et al. 2014a).

4.3.2.2 National Register Status – Manage as Unevaluated

Site 44JC0650 has not been formally evaluated by the VDHR for potential NRHP eligibility. For the purposes of this project, the site will be managed as an unevaluated resource. The site was investigated at the Phase I level in 2013 (Leithoff et al. 2014a) and recommended for no further work within the Direct APE due to lack of integrity. The deposits identified within the Direct APE would not contribute to the overall eligibility of the larger site. VDHR concurred with these recommendations (Appendix A) in correspondence dated June 12, 2014 and May 1, 2015. The boundary of this resource outside the Direct APE was not fully delineated during the Phase I, and although the portion of the site within the APE lacks integrity, it has been treated as a historic property for purposes of this project per the USACE Public Notice dated May 21, 2015.

4.3.2.3 Distance to ROW and Transmission Line Data

Site 44JC0650 is located at the western edge of the Surry to Skiffes Creek 500 kV transmission line ROW corridor, between structure 582/36 (to the north) and 582/35 (to the south) (Figure 180 and Figure 187).

4.3.2.4 Effects Analysis

Site 44JC0650 is located in light woodland at the edge of a cleared transmission line cut. The site consists of a light scatter of eighteenth-century artifacts with no evidence of subsurface features. The site has not been evaluated for potential NRHP eligibility and is being treated as unevaluated for the purposes of this project. During the Phase I investigation of the site, it was recommended that the portion of the site within the Direct APE lacked integrity and that no further work was required within the Direct APE. The site will be avoided during all construction activities as it is located approximately 150 feet from the nearest proposed structure (582/36).

Stantec concludes that the proposed project will have No Adverse Effect on Site 44JC0650.

4.3.3 44JC0751

4.3.3.1 Description of Resource

Site 44JC0751 is recorded as a multi-component site featuring a prehistoric camp component of indeterminate temporal affiliation and an eighteenth- to nineteenth-century single dwelling component. The site was originally recorded in 1992. When identified, the prehistoric component of the site was comprised of quartz and quartzite debitage, fire cracked rock, and one Late Archaic stemmed projectile point. The historic component contained hand-made brick fragments, domestic ceramic sherds, iron nails, and bottle glass. In 2011, Phase I survey in the vicinity of Site 44JC0751 was conducted (Leithoff et al. 2012). No artifacts were identified on the surface within the 2011 survey corridor and no shovel tests within the vicinity of the site were positive for cultural material (Leithoff et al. 2012). The site boundary touches the southern edge of the Direct APE and extends into the existing power line corridor for a distance of less than 10 feet.

4.3.3.2 National Register Status – Manage as Unevaluated

Site 44JC0751 has not been formally evaluated by the VDHR for potential NRHP eligibility. For the purposes of this project, the site will be managed as an unevaluated resource. The northern most boundary of Site 44JC0751 intersects the southern edge of the Direct APE. As mapped, the site extends into the Direct APE for a distance of less than 10 feet. Shovel tests were excavated in the vicinity of the site during the 2011 Phase I survey (Leithoff et al. 2012), but no surface or subsurface deposits associated with this site were identified within the Direct APE. Because the site intersects the Direct APE and is in close proximity to proposed structure 2138/16, it has been treated as a historic property for purposes of this project per the USACE Public Notice dated May 21, 2015.

4.3.3.3 Distance to ROW and Transmission Line Data

Site 44JC0751 is located almost entirely outside of the Direct APE at the western edge of the Skiffes Creek to Whealton 230 kV transmission line ROW corridor, in the immediate vicinity of an existing four-leg lattice style structure which will be replaced with proposed structure 2138/16, a steel monopole structure (Figure 180 and Figure 188). Only a small portion of the edge of the site boundary touches and extends into the ROW corridor.

4.3.3.4 Effects Analysis

Site 44JC0751 is primarily outside of the Direct APE for the current project. However, a small portion of the boundary as mapped touches the edge of the Direct APE associated with the Skiffes Creek to Whealton 230 kV transmission line ROW corridor in the vicinity of Structure 2138/16. The site has not been evaluated for potential NRHP eligibility and is being treated as unevaluated for the purposes of this project. No artifacts or deposits related to this site were identified during the Phase I survey. Structure 2138/16 is located approximately 50 feet due east of the edge of the site boundary. Construction associated with this structure will not impact the site as mapped within the Direct APE nor impact those portions of the site outside of the Direct APE.

Stantec concludes that the proposed project will have No Adverse Effect on Site 44JC0751.

4.3.4 Site 44JC0826

4.3.4.1 Description of Resource

Site 44JC0826 represents a farmstead dating to the nineteenth century. The site was originally recorded in 1995. When identified, the primary artifact type was brick fragments though fire-cracked rock was also present. The site form on file at the VDHR indicates that the site contained no subsurface integrity. However, the site was not revisited during the 2011 Phase I survey associated with the proposed Skiffes Creek to Whealton 230 kV transmission line project; the site became a concern only after the addition of an access road to the project after the 2011 survey was complete (VDHR Site Files). A current walkover and review of aerial photography indicates that the site vicinity has been significantly disturbed and that the site has likely been destroyed by the Walmart Distribution facility access road and associated water retention pond.

4.3.4.2 National Register Status – Manage as Unevaluated

Site 44JC0826 has not been formally evaluated by the VDHR for potential NRHP eligibility. For the purposes of this project, the site will be managed as an unevaluated resource. This site has likely been destroyed by the construction of the distribution facility access road and water retention pond. Walkover survey did not re-identify the site. It has been treated as a historic property for purposes of this project per the USACE Public Notice dated May 21, 2015.

4.3.4.3 Distance of Resource to ROW and Transmission Line Data

Site 44JC0826 is located within an existing road that is proposed to be used for construction access to the Skiffes Creek to Whealton 230 kV transmission line ROW corridor (Figures 180 and 188).

4.3.4.4 Effects Analysis

Site 44JC0826 is located south of the Skiffes Creek to Whealton 230 kV transmission line ROW corridor but within a road proposed to be used for construction access. The site has not been evaluated for potential NRHP eligibility and is being treated as unevaluated for the purposes of this project. The artifacts recovered from Site 44JC0826 were primarily small brick fragments and the resource was recorded as retaining no subsurface integrity. This site has likely been destroyed by activities associated with the Walmart distribution center surrounding the site location. It is within the path of an existing road and water retention pond. The existing access road will be utilized by Dominion with no ground disturbing activities occurring within the limits of the site.

Stantec concludes that the proposed project will have No Adverse Effect on Site 44JC0826.

4.3.5 Site 44YO0180

4.3.5.1 Description of Resource

Site 44YO0180 represents a prehistoric temporary camp of indeterminate temporal affiliation. The site was originally recorded in 1980 and was subject to Phase I testing in 2011 during identification survey in support of this project (Leithoff et al. 2012). The site was identified via surface inspection and no intact subsurface deposits were present. The site vicinity was eroding and artifacts were exposed on the ground surface. Although the site form on file with VDHR indicates that the site is of indeterminate temporal affiliation, several ceramic sherds were noted at the time of the survey which typically indicates a Woodland period affiliation. Information on the site form is limited and the exact nature and type of ceramics is unknown. During the 2011 Phase I survey, a single shovel test was located within the bounds of Site 44YO00180 but no cultural material was recovered (Leithoff et al. 2012). The site boundary was not delineated outside the Direct APE. The site is located on the edge of the Harwoods Mill Reservoir and was likely inundated during its construction.

4.3.5.2 National Register Status – Manage as Unevaluated

Site 44YO0180 has not been formally evaluated by the VDHR for potential NRHP eligibility. For the purposes of this project, the site will be managed as an unevaluated resource. The site was investigated at the Phase I level in 2011 (Leithoff et al. 2012) but was not formally re-identified. Shovel tests excavated in the vicinity of the site were negative for cultural material and no evidence for deposits associated with Site 44YO0180 were identified. The site has likely been inundated as a result of the construction of Harwoods Mill Reservoir. Although the site was not identified in the Direct APE, the mapped location of the site has been treated as a historic property for purposes of this project per the USACE Public Notice dated May 21, 2015.

4.3.5.3 Distance of Resource to ROW and Transmission Line Data

Site 44YO0180 is located within the proposed Skiffes Creek to Whealton 230 kV transmission line ROW corridor approximately 70 feet southwest of existing structure 292/589 and proposed structure 2138/90 (Figure 180 and Figure 189). Existing structure 292/589 is a four-leg lattice style structure which will be replaced by structure 2138/90, a steel monopole.

4.3.5.4 Effects Analysis

Site 44YO0180 is located on eroding slope on the north bank of the Harwoods Mill Reservoir. Portions of the site are likely located within the reservoir. The site has not been evaluated for potential NRHP eligibility and is being treated as unevaluated for the purposes of this project. The site was investigated at the Phase I level in 2011 (Leithoff et al. 2012) but was not formally re-identified. Shovel tests excavated within the vicinity of the mapped location of this site were negative for cultural material. This site is located 70 feet southwest of the proposed structure replacement at structure number 2138/90. No ground disturbing activities are proposed in the vicinity of the site and the site will be avoided.

Stantec concludes that the proposed project will have No Adverse Effect on Site 44YO0180.

4.3.6 Site 44YO0181

4.3.6.1 Description of Resource

Site 44YO0181 represents a multi-component site featuring a Late Archaic component of indeterminate function and a nineteenth-century component of indeterminate function. The site was originally recorded in 1980 and a second surface collection was undertaken in 1981. Identified via surface inspection with no subsurface testing, Site 44YO0181 comprised a collection of prehistoric and historic artifacts eroding from the sandy northern bank of the Harwoods Mill Reservoir. Artifacts collected from the site in 1980 and 1981 included fire-cracked rock, lithic debitage, one Savannah River projectile point, historic ceramic sherds, bottle glass, and a Civil War-era button. Phase I level survey was conducted in the immediate vicinity of the site in 2011 (Leithoff et al. 2012) but no remains associated with the site were identified (VDHR Site Files; Leithoff et al. 2012).

4.3.6.2 National Register Status – Manage as Unevaluated

Site 44YO0181 has not been formally evaluated by the VDHR for potential NRHP eligibility. For the purposes of this project, the site will be managed as an unevaluated resource. The vicinity of the site was investigated at the Phase I level in 2011 (Leithoff et al. 2012). No shovel tests were positive for cultural material, and no deposits associated with the site were identified. No further work was recommended for this site within the Direct APE, and it appears likely that the site was inundated during the construction of Harwoods Mill Reservoir. The site as mapped is over 50% submerged (Figure 180 and Figure 189).

4.3.6.3 Distance to ROW and Transmission Line Data

Site 44YO0181 is located within the proposed Skiffes Creek to Whealton 230 kV transmission line ROW corridor approximately 70 feet east of proposed structure 2138/90. The existing structure (292/589) is a four-leg lattice style structure and will be replaced by a steel monopole in this area. The site is noted as partially submerged within the Harwoods Mill Reservoir and is located partially within the survey corridor (Figure 180 and Figure 189).

4.3.6.4 Effects Analysis

Site 44YO0181 is located in a partially submerged setting near the northern bank of the Harwoods Mill Reservoir. The site has not been evaluated for potential NRHP eligibility and is being treated as unevaluated for the purposes of this project. Site 44YO0181 is mapped within the proposed Skiffes Creek to Whealton 230 kV transmission line ROW corridor, but no evidence of the site was identified during the 2011 Phase I survey (Leithoff et al. 2012). Lattice tower 292/589 will be demolished and steel monopole tower 2138/90 will be constructed approximately 6 feet west of the existing centerline to carry the 292 and 2138 Lines. According to the proposed configuration schematic drawings (Appendix C2, Sheets 29-30) the existing Line 61 wooden H-frame structures will remain unchanged. The new 2138/90 structure will be constructed approximately 70 feet from the mapped location of the resource and the site will be avoided. Therefore, the proposed construction activities within the vicinity of Site 44YO0181 will not adversely affect the resource.

Stantec concludes that the proposed project will have No Adverse Effect on Site 44YO0181.

4.3.7 Site 44YO0183

4.3.7.1 Description of Resource

Site 44YO0183 represents a single dwelling dating to the eighteenth century. The site was originally recorded in 1980. The site was initially identified via surface inspection with no subsurface testing. At that time, artifacts were noted on the ground surface within a cleared transmission line corridor, including within a dirt road and beneath existing transmission line structures. The ground surface was recorded as “chewed up” by machinery utilized in the clearing of the utility cut (VDHR Site Files). During the 2011 Phase I survey conducted in support of the current project, shovel testing was conducted throughout the portion of Site 44YO0183 located within the Direct APE and the site was formally re-identified (Leithoff et al. 2012). Artifacts recovered during shovel testing were primarily architectural material and mainly included brick fragments. No diagnostic material was recovered and no evidence of subsurface features was present (VDHR Site Files; Leithoff et al. 2012).

4.3.7.2 National Register Status – Manage as Unevaluated

Site 44YO0183 has not been formally evaluated by the VDHR for potential NRHP eligibility. For the purposes of this project, the site will be managed as an unevaluated resource. The site was investigated at the Phase I level in 2011 (Leithoff et al. 2012) and recommended for no further work within the Direct APE due to lack of integrity. The deposits identified within the Direct APE would not contribute to the overall eligibility of the larger site. VDHR concurred with these recommendations via correspondence dated September 4, 2012 (Appendix A). This resource boundary was not fully delineated outside of the Direct APE during the Phase I, and although the portion of the site within the APE lacks integrity, it has been treated as a historic property for purposes of this project per the USACE Public Notice dated May 21, 2015.

4.3.7.3 Distance of Resource to ROW and Transmission Line Data

Site 44YO0183 is located within the proposed Skiffes Creek to Whealton 230 kV transmission line ROW corridor between proposed structures 2138/72 and 2138/73 (Figure 180 and Figure 190). The current steel lattice towers carrying the idle Line 209 will be replaced with steel monopoles (Appendix C2, Sheets 23-24).

4.3.7.4 Effects Analysis

Site 44YO0183 is located within a cleared transmission line corridor within the Newport News Park, approximately 500 feet west of the Harwoods Mill Reservoir. While the site is mapped within the Skiffes Creek to Whealton 230 kV transmission line, the majority of the resource appears to fall outside of the ROW corridor. The site has not been evaluated for potential NRHP eligibility and is being treated as unevaluated for the purposes of this project. The resource is located approximately 270 feet from the closest structure replacement. Construction access may be required in the vicinity of this site and timber mats will be used in the mapped location of the resource to minimize the potential for ground disturbance.

Stantec concludes that the proposed project will have No Adverse Effect on Site 44YO0183.

4.3.8 Site 44YO0184

4.3.8.1 Description of Resource

Site 44YO0184 represents a single dwelling dating to the eighteenth century. The site was originally recorded in 1980. The site was identified via surface inspection of an area identified by an informant; no subsurface testing was conducted due to disturbance in the area. Artifacts were observed on the ground surface within a dirt road and within a 10-x-20-foot bulldozer cut. The observed artifact assemblage included brick and mortar fragments, glass fragments, and ceramic sherds.

4.3.8.2 National Register Status – Manage as Unevaluated

Site 44YO0184 has not been formally evaluated by the VDHR for potential NRHP eligibility. For the purposes of this project, the site will be managed as an unevaluated resource. This resource is located immediately adjacent to a construction access road and has been previously disturbed. No subsurface testing was conducted within the site and surface observations did not identify additional deposits. The resource is treated as a historic property for purposes of this project per the USACE Public Notice dated May 21, 2015.

4.3.8.3 Distance of Resource to ROW and Transmission Line Data

Site 44YO0184 is located adjacent to an existing dirt road proposed for construction access to the Skiffes Creek to Whealton 230 kV transmission line ROW corridor, approximately 375 feet east of proposed structure 2138/93 (Figure 180 and Figure 189).

4.3.8.4 Effects Analysis

Site 44YO0184 is located east of the Skiffes Creek to Whealton 230 kV transmission line ROW corridor but within a road proposed for construction access. The site has not been evaluated for potential NRHP eligibility and is being treated as unevaluated for the purposes of this project. The artifacts recovered from Site 44YO0184 were primarily architectural and domestic in nature. These materials were observed on the ground surface within a mechanically disturbed area when the site was identified. The site is located along the edge of the proposed access. Construction access may be required in the vicinity of this site and timber mats will be used to minimize the potential for ground disturbance.

Stantec concludes that the proposed project will have No Adverse Effect on Site 44YO0184.

4.3.9 Site 44YO0237

4.3.9.1 Description of Resource

Site 44YO0237 represents an Archaic and Woodland period site of indeterminate function, possibly a camp. The site was originally recorded in 1981 via surface inspection with no subsurface testing conducted. When initially identified, Site 44YO0237 comprised a surface scatter of prehistoric artifacts immediately north of an existing transmission line and along the edge of Harwoods Mill Reservoir. The site boundary, as defined in 1981, was noted on the VDHR site form as being considerably larger than the artifact concentration. The site yielded lithic debitage, a triangular point resembling a Dalton projectile point (Archaic), and two badly eroded ceramic sherds (Woodland) (VDHR Site Files; Leithoff et al. 2012). In 2011, Phase I survey was conducted in the vicinity of the site; however, no shovel testing was conducted during this investigation due to the presence of standing water (Leithoff et al. 2012). Shovel tests on either side of the site were negative for cultural materials.

4.3.9.2 National Register Status – Manage as Unevaluated

Site 44YO0237 has not been formally evaluated by the VDHR for potential NRHP eligibility. For the purposes of this project, the site will be managed as an unevaluated resource. The site was investigated at the Phase I level in 2011 (Leithoff et al. 2012) but was not formally re-identified. Shovel tests excavated in the vicinity of the site were negative for cultural material and no evidence for deposits associated with Site 44YO0237 were identified. Although the site was not identified in the Direct APE, the mapped location of the site has been treated as a historic property for purposes of this project per the USACE Public Notice dated May 21, 2015.

4.3.9.3 Distance of Resource to ROW and Transmission Line Data

Site 44YO0237 is located within the Skiffes Creek to Whealton 230 kV transmission line ROW corridor approximately 80 feet west of existing structure 209/573 and proposed structure 2138/74 (Figure 180 and Figure 190). The existing structure is a four-leg steel lattice structure that will be replaced with a steel monopole structure.

4.3.9.4 Effects Analysis

Site 44YO0237 is located in wetland on the east bank of the Harwoods Mill Reservoir and may extend into the reservoir. The site has not been evaluated for potential NRHP eligibility and is being treated as unevaluated for the purposes of this project. The site was not re-identified during the Phase I survey associated with this project, and according to its mapped location, has likely been partially submerged due to the construction of Harwoods Mill Reservoir. The structure to be replaced is located 80 feet to the east of the site. No ground disturbance or construction access is proposed within the boundaries of the resource; therefore, the site will be avoided during all construction activities.

Stantec concludes that the proposed project will have No Adverse Effect on Site 44YO0237.

4.3.10 Site 44YO0240

4.3.10.1 Description of Resource

Site 44YO0240 represents a historic road trace and bridge of indeterminate temporal affiliation. The site was originally recorded in 1981 via surface inspection with no subsurface testing conducted. Site 44YO0240 is mapped within the Harwoods Mill Reservoir, is inundated, and no investigation of the resource was conducted (VDHR Site Files; Leithoff et al. 2012).

4.3.10.2 National Register Status – Manage as Unevaluated

Site 44YO0240 has not been formally evaluated by the VDHR for potential NRHP eligibility. For the purposes of this project, the site will be managed as an unevaluated resource. The site is mapped within the Harwoods Mill reservoir and was likely inundated during the creation of the reservoir. It has been treated as a historic property for purposes of this project per the USACE Public Notice dated May 21, 2015.

4.3.10.3 Distance of Resource to ROW and Transmission Line Data

Site 44YO0240 is located within the Skiffes Creek to Whealton 230 kV transmission line ROW corridor, within the Harwoods Mill Reservoir between proposed structures 2138/90 and 2128/91 (Figure 180 and Figure 189).

4.3.10.4 Effects Analysis

Site 44YO0240 is located within the Harwoods Mill Reservoir. The site has not been evaluated for potential NRHP eligibility and is being treated as unevaluated for the purposes of this project. No shovel testing has been conducted within Site 44YO0240 as it is submerged in the Harwoods Mill Reservoir; a concrete bridge and road trace are noted as present below the water. No construction activities will occur within the reservoir; therefore, the site will be avoided during all construction activities.

Stantec concludes that the proposed project will have No Adverse Effect on Site 44YO0240.

4.3.11 44YO1129

4.3.11.1 Description of Resource

Site 44YO1129 represents a single dwelling of indeterminate temporal affiliation. The site was identified in 2011 during Phase I survey conducted in support of this project (Leithoff et al. 2012). Thirteen artifacts were recovered from the site, including thermally altered wine bottle glass fragments, automatic bottle machine bottle glass fragments (1901), brick fragments, and burned wood fragments. The presence of the bottle glass fragments dating to 1901 or later suggests a possible late nineteenth to early twentieth century date for the occupation (Leithoff et al. 2012).

4.3.11.2 National Register Status – Manage as Unevaluated

Site 44YO1129 has not been formally evaluated by the VDHR for potential NRHP eligibility. For the purposes of this project, the site will be managed as an unevaluated resource. The site was investigated at the Phase I level in 2011 (Leithoff et al. 2012) and recommended for no further work within the Direct APE due to lack of integrity. The VDHR concurred with these recommendations in correspondence dated September 4, 2012 (Appendix A). This resource boundary was not fully delineated outside the Direct APE during the Phase I. Although the portion of the site within the Direct APE lacks integrity and would not contribute to the overall potential eligibility of the resource, it has been treated as a historic property for purposes of this project per the USACE Public Notice dated May 21, 2015. Additional investigation of this site took place on July 20, 2015 due to a minor change in the Direct APE to include amendments to structures 58/305 and 58/306. No additional artifacts or deposits were identified during this field visit (Stewart 2015).

4.3.11.3 Distance of Resource to ROW and Transmission Line Data

Site 44YO1129 is located within the Skiffes Creek to Whealton 230 kV transmission line ROW corridor adjacent to existing structure 58/305 and proposed structure 2138/75 (see Figure 180; Figure 190).

4.3.11.4 Effects Analysis

Site 44YO1129 is located on a terrace approximately 750 feet east of the Harwoods Mill Reservoir and approximately 600 feet north of Oriana Road. The site has not been evaluated for potential NRHP eligibility and is being treated as unevaluated for the purposes of this project. Few artifacts were present within the site; however, it is located immediately west of Site 44YO547, the mid- to late nineteenth century Wider Family home site with family cemetery. It is possible that Site 44YO1129 is associated with this resource. The site is located within the proposed Skiffes Creek to Whealton 230 kV transmission line ROW corridor. Existing structure 292/574 is present within the mapped site boundary and is a four-leg steel lattice structure. This structure will be

replaced with a single monopole structure (2138/75) within the footprint of the existing structure. According to the proposed configuration schematic drawings (Appendix C2, Sheets 23-24) the existing steel lattice structure will be replaced with a single monopole located with a centerline of 50 feet from the edge of the ROW. Because the proposed monopole will be constructed in the center of the existing four-leg configuration, ground disturbance will be necessary in this location. As shown in Appendix C.2 Sheet 24, the 3-pole wooden structure carrying the 34 Line will remain unchanged. Timber matting will be used in the site vicinity during the construction activities to minimize ground disturbance in the remainder of the site. Although the construction activities will take place at the edge and partially within the mapped site boundary, it is recommended that the proposed construction will not have an adverse effect on this resource. It was recommended that the portion of the site within the Direct APE lacked integrity and would not contribute to the potential eligibility of the larger site. Therefore it was recommended that no further work was required within the project APE.

Stantec concludes that the proposed project will have No Adverse Effect on Site 44YO1129.

4.3.12 Site 44YO1131

4.3.12.1 Description of Resource

Site 44YO1131 represents a single dwelling dating to the nineteenth century. The site was identified in 2011 during Phase I survey conducted in support of the current project (Leithoff et al. 2012). Five artifacts were recovered from the site, including a brick fragment, one iron nail fragment of indeterminate type, one window glass fragment, one bottle glass fragment, and one whiteware sherd. No evidence of subsurface features was identified during this investigation (VDHR Site Files; Leithoff et al. 2012).

4.3.12.2 National Register Status – Manage as Unevaluated

Site 44YO1131 has not been formally evaluated by the VDHR for potential NRHP eligibility. For the purposes of this project, the site will be managed as an unevaluated resource. The site was investigated at the Phase I level in 2011 (Leithoff et al. 2012) and recommended for no further work within the Direct APE due to lack of integrity. VDHR concurred with these recommendations in correspondence dated September 4, 2012 (Appendix A). This resource boundary was not fully delineated outside the Direct APE during the Phase I. Although the portion of the site within the Direct APE lacks integrity and would not contribute to the overall potential eligibility of the resource, it has been treated as a historic property for purposes of this project per the USACE Public Notice dated May 21, 2015.

4.3.12.3 Distance of Resource to ROW and Transmission Line Data

Site 44YO1131 is located within the proposed Skiffes Creek to Whealton 230 kV transmission line ROW corridor between proposed structures 2138/71 and 2138/72 (Figure 180 and Figure 190). The existing steel lattice towers will be replaced with steel monopole structures (Appendix C2, Sheets 23-24).

4.3.12.4 Effects Analysis

Site 44YO1131 is located partially within woodland and partially within an existing transmission line north of Oriana Road. The site has not been evaluated for potential NRHP eligibility and is being treated as unevaluated for the purposes of this project. Few artifacts were present within the site and no evidence of subsurface features was noted. Additionally, during the Phase I investigation of the site, it was recommended that the portion of the site within the Direct APE lacked integrity and would not contribute to the overall eligibility of a larger site. No further work

was recommended for this resource within the Direct APE. If construction access is required in the site vicinity, timber mats will be used in the mapped location of the resource to minimize the potential for ground disturbance.

Stantec concludes that the proposed project will have No Adverse Effect on Site 44YO1131.

5.0 CUMULATIVE EFFECTS ASSESSMENT

Within the Section 106 process, federal agencies are required to consider whether a proposed undertaking, such as the issuance of a permit, may have cumulative adverse effects on historic properties. Under 36 CFR 800.5(1), the governing regulations of the Section 106 process states that "adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative." Preceding this statement in 36 CFR 800.5(1), adverse effects are described as occurring "when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association." Therefore, when considering cumulative effects of an undertaking on historic properties, one must relate those effects to the scope of the definition of adverse effects, namely those effects that alter and diminish the characteristics of a property that make it eligible for listing in the NRHP.³

Cumulative effects are not specifically defined in the governing regulations for Section 106 of the NHPA. Therefore, the definition of cumulative effects under the National Environmental Policy Act (NEPA) regulations should be applied. In 40 CFR 1508.7, cumulative impact is defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."

Based on these definitions and regulatory requirements, Stantec is providing this cumulative effects assessment on historic properties for the Surry – Skiffes Creek – Whealton transmission line project. The effects of the proposed project on the individual resources identified as being eligible for listing or listed on the National Register have been assessed in the previous sections of this document. Effects recommendations have been made for each individual resource. The cumulative effects discussion provided below will summarize the effects of the proposed project on these resources as a whole, as well as the incremental impact of the proposed project in conjunction with other past, present and reasonably foreseeable actions occurring within the APE.

5.1 METHODOLOGY

This assessment of cumulative effects generally follows recommendations set forth in the documents *Considering Cumulative Effects Under the National Environmental Policy Act* (CEQ 1997) and *Consideration of Cumulative Impacts in EPA Review of NEPA Documents* (EPA 1999). Within these guidance documents, the U.S. Environmental Protection Agency (EPA) sets forth a sequential approach to evaluate cumulative effects:

1. Resources subject to cumulative impact are identified;
2. Geographic boundaries and time periods are defined;
3. Past, present, and reasonably foreseeable future actions are identified;

³ The USACE also has an obligation to consider cumulative effects under the National Environmental Policy Act (NEPA) and Section 404 of the Clean Water Act; however, the scopes of resources to be considered for cumulative effects under the authority of those statutes are broader than those which are considered within the Section 106 process. Therefore, the cumulative effects analysis within this document is limited to the effects on historic properties.

4. The condition of the environment (resource) is described; and
5. Thresholds are used to assess resource degradation.

Step 1. Since this evaluation is focused on the Section 106 process, the resources consist of the historic properties that have been identified within the Area of Potential Effect (APE). Sections 3 and 4 of this document provide a list of the historic properties considered for cumulative effects.

Step 2. The geographic boundaries for consideration of cumulative effects are defined as the Direct APE boundary for archaeological resources and the Indirect APE boundary for architectural resources. The time period to assess reasonably foreseeable future actions is dictated by the timeframes for planning level documentation that can contain information on such reasonably foreseeable future actions. For land development, such as countywide comprehensive plans, these are often 10 year planning horizons, while planning for energy development typically uses a longer forecast (10 years).⁴

Step 3. A variety of data sources were used in the identification of past, present, and reasonably foreseeable future actions. Past actions consist of development or land use actions that occurred in the past, but still have the potential for effects to historic properties. For past actions, sources included aerial photography, county/city land use maps, land cover data, and the USACE assessment of shoreline landscapes within the Indirect APE as Attachment A within the U.S. Army USACE of Engineers' determination of eligibility for the Captain John Smith Chesapeake National Historic Trail, dated May 7, 2015. Present actions consist of actions that are currently underway that have the potential to affect historic properties. Present actions can include facilities that were built in the past, but have operations (e.g. ferries, airports) that could affect the identified historic properties. Reasonably foreseeable future actions include actions that are likely to occur. Highly speculative actions should not be included in an analysis on cumulative effects (CEQ 1997). Data sources for reasonably foreseeable future actions included a review of Dominion's plans within the APE, known development proposals documented during the State Corporation Commission (SCC) hearing process, and future land use maps from the counties/cities. The results of Step 3 are provided in Section 5.2.

Step 4. The current conditions of the historic properties have been well documented in previous archaeological and architectural investigations and have been summarized in Sections 3 and 4 of this document.

Step 5. The thresholds used to assess impacts to historic resources are the criteria for assessing an adverse effect as stipulated in 36 CFR 800.5(a)(1). An adverse effect results when an action may alter any of the characteristics of an historic property that qualify it for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association. The discussion of whether these thresholds are reached due the interaction of past, present, and reasonably foreseeable future actions and the project is provided in Section 5.3.

5.2 PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE ACTIONS

This section describes past, present, and reasonably foreseeable future actions that have affected or may affect historic properties within the project APE, both Direct and Indirect, and could interact with the effect of the proposed project to cumulatively affect the identified historic properties. These summaries include actions that have or may adversely affect historic properties as well as actions that may protect historic properties from adverse effects of future

⁴ Although energy development seeks to plan long term, promulgation of new regulations and other extraneous factors can significantly affect these plans through alteration of both supply side resources and demand side management.

actions (e.g. land conservation). Figure 191 shows past, present, and future actions in relation to the proposed project and historic properties.

5.2.1 Past Actions

Past actions occurred some time in the past, but have a current effect on historic properties. Many of the past actions also have some level of present action that contributes to effects on historic properties (e.g. automobile use of roadways); however, the discussion of those operational type effects will be discussed in the sections under past actions. These actions have affected the integrity of setting and feeling for historic properties either positively (i.e. through protection of land conservation and some recreational type development) or adversely (i.e. through the introduction of visual elements out of character with the expected setting of the properties).

5.2.1.1 Land Conservation

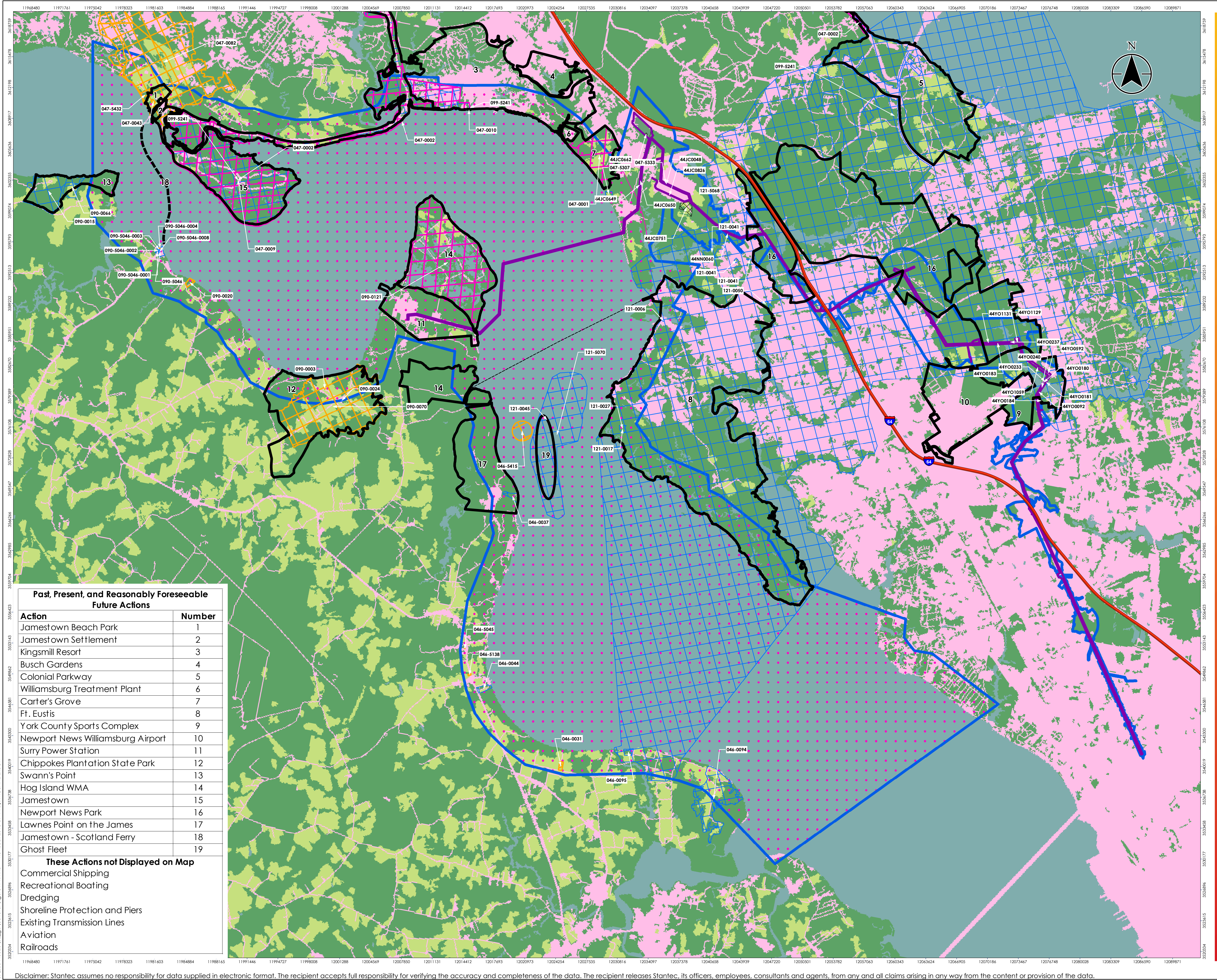
Significant portions of the Indirect APE are in conservation type land uses. Such land uses include local, state, and federal parks; wildlife management areas; and conservation easements on private land. Additionally, within the subject localities, a 100-foot Resource Protection Area (RPA) buffer along certain resources such as tidal waters and wetlands is to be maintained in an undeveloped state. The conservation areas and RPAs protect large portions of the Indirect APE from development and limit the potential for future effects to historic properties. In fact, many of the conservation areas were created to protect historic properties that are within the Indirect APE. The primary conservation areas within the Indirect APE are listed below with brief descriptions.

Carter's Grove. This National Historic Landmark and NRHP listed property (VDHR #047-0001) lies on an approximately 400-acre parcel in James City County. See Section 3.9 for further description of this property. Although privately owned, the property is protected through a conservation easement with VDHR. The conservation easement, as well as RPAs, protect over 1 mile of the James River shoreline from development, although some groins and riprap revetment have been installed to protect the shoreline from erosion.

Chippokes Plantation State Park. This approximately 1,550-acre state park is located in Surry County and encompasses Chippokes Plantation Historic District (VDHR #090-0070/090-0003) as well as New Chippokes (VDHR #090-0024). See Sections 3.17 and 3.18 for further descriptions of the historic portions of this property. In addition to the historic aspects, the state park also offers camping, hiking, and beach activities. Over 1.5 miles of James River shoreline are protected from development by the state park, although breakwaters have been installed within the non-historic portion of the park to reduce shoreline erosion.

Colonial National Historical Park and Historic Jamestowne. Colonial National Historical Park encompasses over 9,000 acres consisting of three sites open to the public: Yorktown Battlefield, Historic Jamestowne, and Colonial Parkway. A fourth area is Swann's Point, which is closed to public access. Yorktown Battlefield (VDHR #099-5241) is located well outside of the Indirect APE⁵. Located in James City County, Historic Jamestowne consists of Jamestown Island and is listed in the NRHP (VDHR #047-0009, Section 3.33.2). Jamestown Island consists of open public areas as well as wooded and marsh non-public areas. A visitor center and parking area located at the terminus of the Colonial Parkway provides a gateway to the interpretive areas of Jamestowne. A portion of the area is owned and operated by Preservation Virginia. The interpretive areas of the park include ruins and reconstructions of the seventeenth Century settlement, as

⁵ Note that although the National Park Service managed site of Yorktown is well outside the Indirect APE, the VDHR boundary for the historic property extends into the Indirect APE.



Past, Present, and Reasonably Foreseeable Future Actions

Action	Number
Jamestown Beach Park	1
Jamestown Settlement	2
Kingsmill Resort	3
Busch Gardens	4
Colonial Parkway	5
Williamsburg Treatment Plant	6
Carter's Grove	7
Ft. Eustis	8
York County Sports Complex	9
Newport News Williamsburg Airport	10
Surry Power Station	11
Chippokes Plantation State Park	12
Swann's Point	13
Hog Island WMA	14
Jamestown	15
Newport News Park	16
Lawnes Point on the James	17
Jamestown - Scotland Ferry	18
Ghost Fleet	19

These Actions not Displayed on Map	
Commercial Shipping	
Recreational Boating	
Dredging	
Shoreline Protection and Piers	
Existing Transmission Lines	
Aviation	
Railroads	

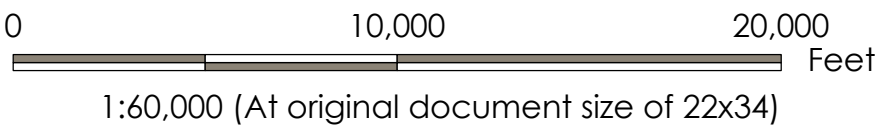
Figure No. 191

Title **Map Illustrating Past, Present, and Future Actions in Relation to the Proposed Project and Historic Properties**

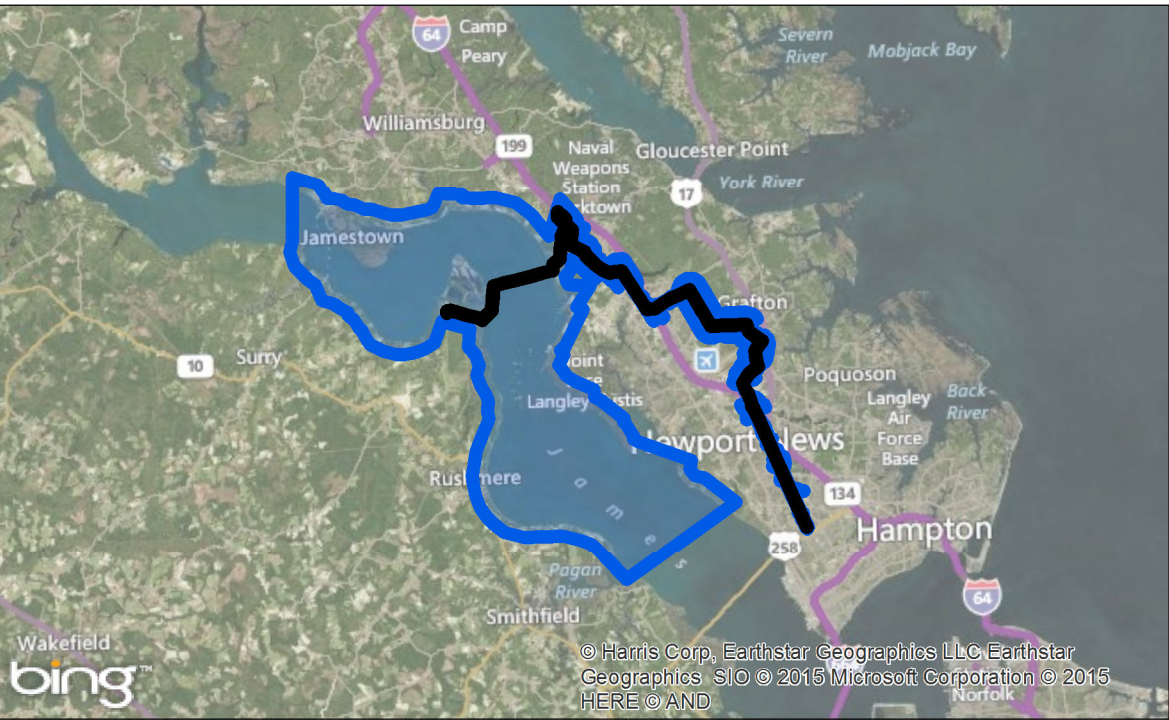
Client/Project
Dominion Virginia Power
Surry-Skiffes Creek-Wheatlton
Proposed 500/230 kV Line

Project Location
James City County, Surry County,
York County, City of Newport News,
and City of Hampton, Virginia

203445620
Prepared by MGS on 2015-09-01
Technical Review by CPG on 2015-09-08
Independent Review by CFC on 2015-09-11



- Past, Present, and Reasonably Feasible Future Actions
- Indirect APE
- Direct APE
- Other Past, Present, and Feasible Future Actions
 - Underwater Pipeline
 - Jamestown-Scotland Ferry
 - Interstate 64
- Architectural Resources
 - No visibility of project No Adverse Effect
 - With visibility of project No Adverse Effect
 - Resource with visibility of project Adverse Effect
 - Eligible Historic District Adverse Effect
- Archaeological Resources
 - Archaeological Resources
- Land Cover
 - Water
 - Developed
 - Undeveloped
 - Agriculture



- Notes
- Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
 - Project Limits provided by Dominion Virginia Power
 - Orthoimagery © Bing Maps
 - Only historic properties under the authority of Section 106 are shown. National Register of Historic Places eligibility status provided by the Corps with DHR concurrence on May 1, 2015 and May 11, 2015.
 - NLCD 2011 provided by MRLC <http://www.mrlc.gov/>
 - Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation



well as monuments, a café, archaeology museum, and research center. A concrete revetment protects the area from shoreline erosion. Along much of the island's remaining James River shoreline, breakwaters have been installed to reduce erosion. The 23-mile Colonial Parkway (VDHR #047-0002) connects Historic Jamestowne and Yorktown Battlefield, while providing access to Colonial Williamsburg. This scenic roadway consists of the three-lane road itself, natural and maintained (grass) buffers, and pull-off areas with interpretive signage. Additional information on the Colonial Parkway is found in Section 3.33.1. Much of the James River shoreline along the Colonial Parkway is unprotected by shoreline structures, although riprap revetment occurs along a few segments as well as an old, deteriorating bulkhead. Approximately 8 miles of James River shoreline are protected from development by Colonial National Historical Park, although the maintained landscape of the Colonial Parkway affords James River views of the property at the end of Treasure Island Road.

Hog Island Wildlife Management Area. The Hog Island Wildlife Management Area (WMA) consists of three tracts totaling approximately 3,900 acres. The Hog Island Tract encompasses the northern peninsula of Surry County and includes the eligible historic property VDHR #090-0121 (Section 3.19). Some modern buildings associated with Virginia Department of Game and Inland Fisheries are present on this tract and are visible from the river. The Carlisle Tract is located in Surry County west of Lawnes Creek. A boat ramp and small pier is located near the mouth of Lawnes Creek. The Stewart Tract is located on the east side of Lawnes Creek within Isle of Wight County. In total, over 6 miles of James River shoreline has been protected from development, although breakwaters and groins have been installed to protect the shoreline from erosion.

City of Newport News Park. Newport News Park is an approximately 7,700-acre park located in the northern Newport News area. The park surrounds Lee Hall Reservoir and abuts Harwood Mills reservoir. Colonial National Historical Park (Yorktown site) is adjacent to the park on the northeast boundary. Although portions of the park are in York County, the park is owned and run by the City of Newport News Parks and Recreation Department. Newport News Park consists of developed areas, including a golf course, and large undeveloped wooded areas. Although active recreation occurs at the park, large portions of the park are in conservation uses. The park is a popular destination for boating, fishing, camping, hiking, and mountain biking, and serves as a venue for local festivals. Much of Newport News Park is located within the Yorktown Battlefield (VDHR #099-5283). Newport News Park preserves large areas of the battlefield that retain integrity of setting and also preserves several of archaeological sites extending outside of the ROW.

5.2.1.2 Recreational Development

Various areas within the Indirect APE have also been developed for primarily recreational type uses, but often still preserve portions of the natural landscape. Although these areas may support features that may diminish the integrity of setting and feeling of historic properties in the Indirect APE, they also serve to prevent other potentially more damaging land uses, such as commercial or high-density residential development. Recreational areas range from high intensity recreational areas like theme parks to interpretive history facilities. Therefore, the effect of these areas varies significantly based upon the type of use. Major recreational areas within the Indirect APE are provided below.

Busch Gardens. Busch Gardens is a 380-acre park located in James City County, northeast of Kingsmill and in the limits of the Indirect APE. The park is listed on USA top amusement parks due to its high attendance, recorded in 2012 as 2.85 million annually. Busch Gardens has several tall attractions that can be seen from the Indirect APE, including the Mach Tower and the Griffin roller coaster which are 240 feet tall and 205 feet tall, respectively. Additionally, in the summer months, Busch Gardens performs nightly fireworks displays that can be seen from various points within the Indirect APE.

Jamestown Beach Park. Jamestown Beach Park is an approximately 90-acre park, located northwest of the Jamestown-Scotland Ferry terminal in James City County. Currently, it is being operated as a recreational park by James City County. The facility currently supports picnic areas and a recreational swimming beach. Future recreational development of the park is planned by James City County. The park is located within the Governor's Land Archaeological District (VDHR #047-0082) and also contains Ambler's-on-the-James (VDHR #047-0043).

Jamestown Settlement. Jamestown Settlement is an approximately 32-acre living history museum located near Jamestown, southeast of Jamestown Beach and the ferry terminal. Jamestown settlement is operated by the Jamestown-Yorktown foundation and includes a recreation of the James Fort, a Powhatan Indian Village, indoor and outdoor displays, and replicas of ships that carried Jamestown's first settlers.

York County Sports Complex. The York County Sports Complex is a 70-acre park located north of the Newport News-Williamsburg International Airport. The Sports Complex has lighted athletic fields, playgrounds, concession buildings and picnic shelters. The York County Sports Complex is within the Battle of Yorktown (VDHR #099-5283) and also contains several archaeological sites.

5.2.1.3 Residential and Commercial Development

Residential and commercial development has occurred throughout the Indirect APE. Surry County and Isle of Wight County have experienced the least amount of development within the APE, while Newport News and Hampton development has been significant. Since several large conservation areas (Section 5.2.1.1) constrain developable area, development within the James City County and York County portions of the APE is generally represented by several large developments. Figure 191 depicts the extent of developed area within the Indirect APE based upon National Land Cover Data from 2011. Land cover types have been combined to display developed areas (barren land and combined developed cover types of various intensities), agricultural area (pasture/hay and cultivated crops), undeveloped areas (combined forests and combined wetlands), and water. Some low density development has occurred within areas shown as undeveloped or agriculture on this map; however, the presence of vegetation or low density of structures lessens the effect on the landscape. Within the Indirect APE along the James River, development has been focused in several areas including Scotland Wharf (Section 3.20, VDHR #090-5046), Kingsmill Resort, waterfront areas in Isle of Wight County, and the City of Newport News. Since the Kingsmill Resort represents the largest development in close proximity of the transmission line crossing of the James River, additional details are provided below.

The Kingsmill Resort is an approximately 2,600-acre residential and resort community situated on the James River in James City County, immediately east of the Colonial Parkway. The community consists of single family residential, townhomes, condominiums, timeshares, a golf course, marina, and businesses to support the resort operations. The historic property of Kingsmill Plantation (VDHR #047-0010) is located within the boundaries of the resort. Since a large portion of Kingsmill was developed before the implementation of Virginia's Chesapeake Bay Preservation Act, much of the riparian buffer has been removed from along the James River, allowing for views of the development. Many of the single family homes at the western end of the development have private piers. The Kingsmill Marina is protected by a large breakwater and includes concrete floating docks with resident and transient slips. The shoreline of the Kingsmill community is protected from erosion through riprap revetments and breakwaters.

5.2.1.4 Transportation

Portions of the Indirect APE have been developed for various transportation uses. Such transportation development includes roadways, railroads, and aviation facilities. Roadways in the Indirect APE include Interstate 64 (I-64) and major arterial roads, as well as smaller urban connector roads. I-64 is a limited access, four-lane interstate where it is crossed by the Indirect

APE near Fort Eustis and becomes an eight-lane urban interstate where the Indirect APE recrosses it near Oyster Point Road. Other major roadways within the APE include U.S. 60 (Pocahontas Trail), Route 105 (Fort Eustis Boulevard), Route 143 (Jefferson Avenue), Route 173 (Denbigh Avenue), Route 171 (Oyster Point Road), and U.S. 17 (J. Clyde Morris Boulevard). Commercial areas are found along many of these major roadways (Section 5.2.1.3). Smaller urban connector roads are found throughout the Indirect APE, particularly through Newport News and Hampton. Residential development is typically found along these roadways (Section 5.2.1.3). Many of these roads are within the Battle of Yorktown (VDHR #099-5283). These roads may represent a visual impact from the road infrastructure as well as impacts from the automobile traffic. Additionally, although the Colonial Parkway (Section 5.2.1.1) is an historic property itself and has been developed with low impact design to the surrounding environs, traffic on the parkway introduces automobiles into the surrounding landscape, potentially representing temporary effects to other historic properties.

A railroad line runs down the peninsula and is present within the Lee Hall and Fort Eustis areas of the APE. This rail line provides both passenger (Amtrak) and freight rail service. The railroad passes through the Village of Lee Hall Historic District (VDHR #121-5068). The railroad itself represents a limited visual effect, while trains may represent a temporary visual and noise effect to the setting and feeling to historic properties.

The Newport News/Williamsburg International Airport is located within Newport News and York County, immediately south of the City of Newport News Park and York County Sports Complex. The airport has two runways, both of which have approaches toward the proposed project and Indirect APE. The airport offers commercial and general aviation services, as well as functions as an airfield for military operations. In 2014, the airport had nearly 42,000 flights, including civil and military service⁶. Portions of the airport are within the Battle of Yorktown (VDHR #099-5283). Effects from the airport include the infrastructure, including the structure.

5.2.1.5 Utility and Power

To support the needs of the region, various utilities and power related infrastructure has been constructed within the Indirect APE. This infrastructure includes electrical transmission lines, electrical distribution lines, pipelines, and the Surry Power Station.

Electrical transmission lines have been constructed within the region to supply the electrical needs of the area. Within the Indirect APE, there are several existing transmission lines that intersect with the proposed project (e.g. Line 34, Line 58, Line 292, Line 61). Several of these transmission lines occur within the Yorktown Battlefield (VDHR #099-5283). Electrical distribution lines provide power to the users and are generally above ground, following roadways. Water and sewer utilities also typically follow roadways and are underground. The 40-acre Williamsburg Treatment Plant, operated by the Hampton Roads Sanitation District, is located along the James River between the Kingsmill Resort and Carter's Grove. Some of the treatment plant facilities are visible from the river, but a conservation easement shields much of the plant from view.

Surry Power Station is located in Surry County, south of Hog Island. The power station is on an 840-acre site adjacent to the James River, across from Jamestown. The plant has two nuclear units, each consisting of a Westinghouse pressurized water reactor, with a combined electrical output of approximately 1,600 Megawatts electric (MWe). The containment domes for the reactors are visible from many vantage points within the Indirect APE. An intake/discharge canal cuts through the peninsula and serves the cooling needs for the plant. Riprap protection on the discharge (west) end of the canal is protected by riprap jetties extending approximately

⁶ FAA Air Traffic Activity Data System (ATADS) Airport Operations and Ranking Reports.
http://www.faa.gov/news/media_resources/atadsguide/

1,000 feet into the river and are marked with lights for navigational aids. The operating licenses for the units at Surry Power Station were recently renewed and expire in 2032 and 2033. Within the limits of the Surry Power Station property is also the Gravel Neck Combustion Turbines Station. This generation station has six simple-cycle turbines, four of which can operate with oil or gas, while the remaining two can only burn oil. Oil and gas are delivered by pipeline from Newport News using a pipeline installed under the James River.

5.2.1.6 Fort Eustis

Fort Eustis is part of Joint Base Langley-Eustis and is located on a peninsula in between Skiffes Creek and the Warrick River in Newport News. The installation is under the command of the U.S. Army Training and Doctrine Command. Most of the Army support facilities are located on the north portion of the installation, including a series of docking facilities at the mouth of Skiffes Creek. The waterfront areas of development can be seen from the James River. Significant portions of the southern area of the installation, known as Mulberry Island, are undeveloped with the exceptions of Felker Airfield, docking facilities at Morely's Gut, a golf course, and training areas. The Crafford House Site (VDHR #121-0017), Fort Crafford (VDHR #121-0027), and Matthew Jones House (VDHR #121-0006) are located within the boundary of Fort Eustis. Historic properties within the limits of Fort Eustis are managed under the installation's Cultural Resource Management Plan.

5.2.1.7 Waterway Development

As a working waterway, the James River itself has been subject to various past actions to improve navigation, provide water access, and prevent shoreline erosion. The USACE has maintained a federal channel within the river through dredging since authorization of the James River Federal Navigation Project by the River and Harbor Act of 1884. The federal navigational channel in the vicinity of the project was recently dredged in November 2013.

As mentioned in preceding sections, federal, state, local, and private entities have constructed various shoreline protection measures to reduce erosion. These measures include seawalls or bulkheads, groins, riprap revetment, and breakwaters. Within the Indirect APE, waterfront property owners have constructed private piers, specifically at Kingsmill, Scotland Wharf, Isle of Wight County, and Newport News. Additionally, commercial piers have been constructed at the Jamestown-Scotland Ferry terminals and Fort Eustis.

While the Ghost Fleet (VDHR #121-5070) is an historic property, the collection of World War II era ships moored in the middle of the James River can also represent an action that contributes to impacts to historic properties from other eras as these ships may affect the integrity of setting and feeling.

5.2.2 Present Actions

Most of the past actions discussed in Section 5.2.1 also represent the potential for present visual effects to historic properties through their continuing existence within the Indirect APE and their operation and use (e.g. roadways). Several other present actions may contribute to cumulative effects to historic properties.

5.2.2.1 Aviation

Portions of the Indirect APE are located within the approach and departure path for commercial and military aircraft. Small and medium commercial aircraft depart and arrive over portions of the Indirect APE in Newport News and York County. Fixed wing aircraft and a variety of helicopters utilize Felker Airfield at Fort Eustis. Portions of Newport News – Williamsburg International Airport occur within the Indirect APE. Recent operations at Newport News –

Williamsburg International Airport are described in Section 5.2.1.4. Additionally, F-22 Raptors are stationed at Langley Air Force Base, situated northeast of the Indirect APE. These fighter aircraft and others operate within air space over the Indirect APE. The presence of aircraft can represent a temporary visual intrusion as well as noise that may not be consistent with the setting or feeling of historic properties.

5.2.2.2 Waterway Transportation

As a river used for recreation and commerce, the James River is subject to a variety of watercraft that navigate through the Indirect APE of the proposed project. To facilitate navigation, channels have been dredged within the river (Section 5.2.1.7) and are marked with navigational buoys and markers. Over 70 lit navigational aids are present within the Indirect APE for the project.

The James River is used by a variety of recreational watercraft including power boats, sail boats, and paddle craft. Access points to the river within the Indirect APE include private piers throughout the river, Kingsmill Marina, Jamestown Yacht Basin (located on Powhatan Creek near Jamestown), as well as other access up and down river of the Indirect APE. Additionally, Kingsmill Resort rents pontoon boats, jet skis, and paddle craft. The presence of watercraft, primarily motorized watercraft, may contribute to temporary visual and noise effects to historic properties' setting and feeling.

In addition to recreational boating, a variety of commercial ship traffic utilizes the James River. The Jamestown-Scotland Ferry operates continual service between the Jamestown terminal, west of Jamestown, and the Scotland terminal in Surry County. The ferry fleet consists of four ferries. Typically two ferries run concurrently. Shipping and barge traffic also utilize the James River for commerce. Excluding shipping to Fort Eustis, in 2014 there were 60 ship roundtrips, representing nearly 700,000 short tons of cargo, on the James River through the Indirect APE. Excluding dredges and tugboats, there were nearly 1,200 barge roundtrips, representing over 3.4 million short tons of cargo, on the James River in 2014.⁷ The shipping is confined to the navigational channels and away from the shoreline of the river. The presence of such shipping may lead to temporary visual effects to the setting and feeling of historic properties.

5.2.3 Reasonably Foreseeable Future Actions

Reasonably foreseeable future actions include activities that may occur some time in the future that could adversely affect historic properties in the Indirect APE leading to cumulative effects with the proposed projects. Reasonably foreseeable future actions need not be related to the proposed project or be sponsored by Dominion, but should not be highly speculative in nature. Therefore, in order to be considered as a reasonably foreseeable future action, a proposed action should be on record and have a reasonable expectation for being implemented. Past and present actions discussed in Sections 5.2.1 and 5.2.2 that have operational components are expected to have effects that will remain into the foreseeable future. Additional reasonably foreseeable future actions are discussed in the following subsections.

5.2.3.1 Proposed Development

Much of the area within the Indirect APE has already been developed or is in a land use (conservation, recreation, military) that would prevent future development. A waterfront development, known as Chippokes Estates, southeast of Jamestown Island and adjacent to Chippokes Plantation State Park, was started in 2007, but became defunct during the recession of 2008-2009. Roads were constructed and riprap revetment was installed along the James River

⁷ James River Partnership XIX Vessel Traffic Update. T. Parker Host. July 8, 2015. Available at: <http://www.nao.usace.army.mil/About/Projects/JamesRiverPartnership.aspx>

shoreline. The land is currently divided into several large parcels and plans for the property are not known.

Lawnes Point on the James. In the May 2015 USACE determination of the NRHP eligibility of the Captain John Smith Chesapeake National Historic Trail, the USACE noted the development of a parcel of land in Isle of Wight County known as Lawnes Point on the James. This property is east of Lawnes Creek and south of the Hog Island WMA Stewart Tract. Roads and supporting utility infrastructure have been installed in the development, although only a few homes have been built, as determined by a review of October 2014 aerial photographs. Over 150 homes are ultimately proposed for this community. Approximately 50 of the lots are waterfront. Waterfront homes that have been built have private piers and riprap revetment, clearing vegetation between the home and shoreline. Similar development would be reasonably expected for the remaining waterfront lots.

BASF Property. The 700-acre BASF property may be developed at some point in the future. During the SCC proceedings for the proposed project, BASF representatives testified that BASF plans to rezone the property from industrial to mixed use. The property owners envision a resort hotel, time-share, and recreational uses, such as a major theme park, with portions of the property permanently set aside for wildlife habitat. Any development would need to meet conditions of James City County's Chesapeake Bay Preservation Ordinance, which enforces the RPA requirements of the Chesapeake Bay Preservation Act (see Section 5.2.1.1). Any development would require implementation of RPA buffers, which would screen most buildings from view of the river. Several of the BASF witnesses testified that James City County was supportive of their development plans; however, none of the James City County representatives' testimony confirmed this statement, nor has the property been rezoned to mixed use at this time. Before mixed-use redevelopment could occur on the property, remediation of an existing Resource Conservation Recover Act (RCRA) site will need to be completed in accordance with U.S. Environmental Protection Agency (EPA) and Virginia Department of Environmental Quality (DEQ) closure requirements.

BASF entered several conceptual plans of potential development into the record for the SCC proceeding, but has not rezoned the property or obtained any permits. At this time, it is rather speculative to determine what type of development, if any, might occur on the BASF property within the foreseeable future. Therefore, development of the BASF property is not considered a reasonably foreseeable action that may contribute to cumulative effects on historic properties.

5.2.3.2 Transportation

The Virginia Department of Transportation (VDOT) plans on expanding I-64 from four to six lanes between Route 143 (Jefferson Avenue) and Route 199 (Humelsine Parkway). A Final Environmental Impact Statement (FEIS) has been issued for the project, and Segment I, Route 143 to Route 238 (Yorktown Road), has been awarded to a contractor through design-build contracting. A large section of the roadway widening project is within the Battle of Yorktown (VDHR #099-5283). The FEIS determined that the proposed action will not adversely affect the Battle of Yorktown.

Newport News – Williamsburg International Airport completed a master plan in 2010. This master plan provides for the extension of the North-South runway to 10,000 feet and the addition of a parallel runway towards Harwoods Mill Reservoir. The master plan provides for the consideration of the runway expansions through 2030, but does not provide an expected date for the construction as this is dependent upon future aircraft operations.

5.2.3.3 Utilities

As a regulated utility in the Commonwealth of Virginia, Dominion is required to file an Integrated Resource Plan (IRP) with the SCC. The IRP provides a comprehensive plan for meeting projected electrical demand through a 25-year period, which is 2016 to 2030 in the 2015 IRP. In the IRP, Dominion evaluates the mix of resources necessary to meet projected energy and capacity needs, which include supply-side resources, demand-side resources, and market purchases. The identification of supply-side resources includes capital projects for new generation as well as new transmission construction and upgrades.

As described within the 2015 IRP, several new generation projects are planned or under construction within Dominion's service territory; however, no new generation is proposed within the Indirect APE of the Surry-Skiffes Creek-Whealton project or within the Northern Hampton Roads Load Area. As described in Section 5.2.1.5, the operating licenses for the Surry Power Station expire in 2032 and 2033. Dominion intends to inform Nuclear Regulatory Commission (NRC) in 2015 of the intent to potentially submit a second license renewal application for Surry Power Station Units 1 and 2. Under the current schedule, Dominion may submit the license renewal application seeking an additional 20 years of operation in the 2019 or 2020 timeframe. Issuance of the renewed license would follow successful NRC safety and environmental reviews in the 2022 timeframe. No new nuclear units at Surry Power Station are proposed in the 2015 IRP.

The 2015 IRP also provides a list of planned transmission additions. In addition to the Surry - Skiffes Creek 500 kV Line and the Skiffes Creek - Whealton 230 kV Line, which have service target dates of April 2017, Line 34 and part of Line 61 are proposed for rebuilding with a target service date of December 2018. Although portions of Line 34 and Line 61 are within the ROW for the new Skiffes Creek - Whealton 230 kV line, the rebuilding of these 115 kV lines is to replace aging infrastructure and is independent of the Surry - Skiffes Creek - Whealton transmission line project. The types and heights of structures to be replaced along these existing transmission lines have not yet been determined.

5.3 EFFECTS DISCUSSION

5.3.1 Architectural Resources

The effects of past, present, and reasonably foreseeable future actions are considered for all architectural historic properties that have visibility or potential visibility of the proposed Surry - Skiffes Creek - Whealton transmission line project. As with the effects of the proposed project, cumulative effects to architectural properties are primarily visual in nature and would need to consider impacts to the historic properties' integrity of feeling and setting. Discussions of cumulative impacts on each architectural historic property with visibility of the proposed transmission line are found in the subsequent subsections. Cumulative effects to architectural historic properties with no visibility of the proposed project need not be considered since there is no effect from the project to these resources. Historic properties that have no visibility of the project and are not considered further in the cumulative effects assessment are provided in Table 11.

Table 11. Architectural Properties with No Visibility of the Project		
VDHR ID#	Resource Name	Segment
046-0031	Bourne-Turner House at Smith's Beach	Surry to Skiffes Creek
046-5045	Barlow-Nelson House, 5374 Old Stage Highway	Surry to Skiffes Creek
046-5138	Bay View School, 6114 Old Stage Hwy	Surry to Skiffes Creek
046-5414	USS Sturgis (MH-1A Sturgis, Nuclear Barge, James River Reserve Fleet)	Surry to Skiffes Creek
047-0043	Amblers (Amblers-on-the-James)	Surry to Skiffes Creek
047-0082	Governor's Land Archaeological District	Surry to Skiffes Creek
047-5432	4H Camp, 4H Club Road	Surry to Skiffes Creek
090-0020	Pleasant Point (Crouches Creek Plantation)	Surry to Skiffes Creek
090-0070/090-0003	Chippokes Plantation Historic District (Chippokes State Park)	Surry to Skiffes Creek
090-5046-0004	House, 16271 Rolfe Hwy (Rt 31)	Surry to Skiffes Creek
	Battle of Green Springs	Surry to Skiffes Creek

5.3.1.1 Fort Huger (VDHR #046-0037)

As discussed in Section 3.2, Fort Huger will have a view of several river crossing transmission structures; however, Stantec concluded that the property will not be adversely affected by the proposed project. Past, present, and reasonably foreseeable actions that are in the vicinity of Fort Huger include the Ghost Fleet, recreational boating, commercial shipping, existing development in Isle of Wight County, Fort Eustis, and the proposed development of Lawnes Point on the James. The view of the structures is at 3.21 miles and is obstructed by vegetation on the property, as well as the Ghost Fleet. At this distance, the transmission structures are minimally visible within the viewshed that is dominated by the Ghost Fleet and potentially surrounding development in the foreseeable future. These features within the immediate foreground would contribute substantially more to any potential adverse effects to the integrity of setting and feeling of Fort Huger. Due to the minimal visibility from Fort Huger, the proposed project is not expected to contribute to cumulative effects to this historic property.

5.3.1.2 James C. Sprigg Jr. House/Bay Cliff Manor, 6293 Old Stage Highway (VDHR #046-0044)

As discussed in Section 3.3, viewshed modelling and field visits suggest that the James C. Sprigg Jr. House will not have a view of the transmission structures. Therefore, Stantec concluded that this property will not be adversely affected by the proposed project. It is possible that the some of the structures could be visible from the shoreline, so cumulative effects were considered for the property. Past, present, and reasonably foreseeable actions that are in the vicinity of the

James C. Sprigg Jr. House include existing shoreline development in Isle of Wight County, development within Newport News, the Ghost Fleet, Fort Eustis, recreational boating, and commercial shipping. The view of the structures is at 7.11 miles and is obstructed by vegetation on the property, as well as the Ghost Fleet. Even if the structures would be visible from the shoreline, at this distance, the transmission structures are minimally visible within a viewshed that would be dominated by the Ghost Fleet and existing development. These features within the immediate foreground would contribute substantially more to any potential adverse effects to the integrity of setting and feeling of the James C. Sprigg Jr. House. Due to the minimal visibility from the James C. Sprigg Jr. House, the proposed project is not expected to contribute to cumulative effects to this historic property.

5.3.1.3 Basses Choice/Days Point Archaeology District (VDHR #046-0094)

As discussed in Section 3.4, viewshed modelling and field visits indicated that Basses Choice will have visibility of the tallest transmission structures of the river crossing; however, Stantec concluded that the property will not be adversely affected by the proposed project. Past, present, and reasonably foreseeable actions that are in the vicinity of Basses Choice include existing shoreline development in Isle of Wight County, development within Newport News, the Ghost Fleet, recreational boating, and commercial shipping. The view of the structures is at 7.67 miles and is obstructed by vegetation on the property, as well as the Ghost Fleet. At this distance, the transmission structures are minimally visible within a viewshed that would be dominated by the Ghost Fleet and existing development. These features in closer proximity to the property would contribute substantially more to any potential adverse effects to the integrity of setting and feeling of Basses Choice. Due to the minimal visibility from Basses Choice, the proposed project is not expected to contribute to cumulative effects to this historic property.

5.3.1.4 Fort Boykin Archaeology Site/Herbert T. Greer House and Gardens (VDHR #046-0095)

As discussed in Section 3.5, viewshed modelling and field visits suggest that Fort Boykin will have visibility of the tallest transmission structures of the river crossing; however, Stantec concluded that the property will not be adversely affected by the proposed project. Past, present, and reasonably foreseeable actions that are in the vicinity of Fort Boykin include existing shoreline development in Isle of Wight County, development within Newport News, the Ghost Fleet, recreational boating, commercial shipping, and the proposed development of Lawnes Point on the James. The view of the structures is at 8.84 miles and is obstructed by vegetation on the property, as well as the Ghost Fleet. At this distance, the transmission structures are minimally visible within the viewshed that would be dominated by the Ghost Fleet and existing and future development. These features would contribute substantially more to any potential adverse effects to the integrity of setting, feeling, and association of Fort Boykin. Due to the minimal visibility from Fort Boykin, the proposed project is not expected to contribute to cumulative effects to this historic property.

5.3.1.5 Carter's Grove (VDHR #047-0001)

As discussed in Section 3.9, viewshed modelling and field visits indicate that Carter's Grove will have a direct view of the transmission line crossing of the James River; therefore, Stantec concluded that Carter's Grove will be adversely affected by the proposed project. Past, present, and reasonably foreseeable future actions that are in the vicinity of Carter's Grove include the Kingsmill Resort, developed areas of Fort Eustis, the Ghost Fleet, recreational boating, commercial shipping, and the proposed development of Lawnes Point on the James. Carter's Grove is situated adjacent to the BASF property; however, as described in Section 5.2.3, it is speculative to assume the type of development that may occur on this property. The presence

of large tracts of conserved properties within the viewshed of Carter's Grove (Colonial National Historical Park and Hog Island WMA) limits the potential for additional impacts from future development. The proposed transmission structures will generally be in the fore- to mid-ground of the viewshed for Carter's Grove and will contribute to any effects to the integrity of setting and feeling of Carter's Grove by past, present, and reasonably foreseeable future actions.

5.3.1.6 Colonial National Historical Park; Colonial Parkway Historic District (VDHR #047-0002)

As discussed in Section 3.33/3.33.1 viewshed modelling and field visits suggest that portions of the Colonial Parkway will have a direct view of the transmission line crossing of the James River. The USACE determined that the proposed project will adversely affect the Colonial Parkway. Past, present, and reasonably foreseeable future actions that are in the vicinity of the Colonial Parkway include the Kingsmill Resort, Surry Power Station, Williamsburg Treatment Plant, Busch Gardens, recreational boating, and commercial shipping. The presence of large tracts of conserved properties within the viewshed of the Colonial Parkway (Colonial National Historical Park, Chippokes Plantation State Park, and Hog Island WMA) limits the potential for future development and associated impacts within the area. At 3.16 miles, the proposed transmission structures will generally be in the background of the viewshed for the Colonial Parkway. Combined with other past, present, and reasonably foreseeable future actions in the visual landscape, the presence of the proposed transmission structures may contribute to cumulative adverse effects to the integrity of setting and feeling of the Colonial Parkway; however, these cumulative effects are not expected to be significant or greater than the effect attributed to the proposed project.

5.3.1.7 Jamestown National Historic Site/Jamestown Island Historic District (VDHR #047-0009)

As discussed in Section 3.33.2, viewshed modelling and field visits suggest that at Black Point Jamestown Island will have a direct view of the transmission line crossing of the James River. The structures cannot be seen from the western end of the historic district and visitor area. The USACE determined that the proposed project will adversely affect Jamestown Island. Past, present, and reasonably foreseeable future actions that are in the vicinity of Jamestown Island include the Kingsmill Resort, Surry Power Station, Williamsburg Treatment Plant, Busch Gardens, waterfront development in Surry County, Jamestown – Scotland Ferry and waterborne traffic. The presence of large tracts of conserved properties within the viewshed of Jamestown Island (Colonial National Historical Park, Chippokes Plantation State Park, and Hog Island WMA) limits the potential for future development and associated impacts within the area. At 3.26 miles, the proposed transmission structures will generally be in the background of the viewshed of Jamestown Island at Black Point. Combined with other past, present and reasonably foreseeable future actions in the visual landscape, the presence of the proposed transmission structures may contribute to cumulative adverse effects to the integrity of setting and feeling of Jamestown Island; however, these cumulative effects are not expected to be significant or greater than the effect attributed to the proposed project.

5.3.1.8 Kingsmill Plantation (VDHR #047-0010)

As discussed in Section 3.10, viewshed modelling and field visits demonstrate that from the shoreline Kingsmill Plantation will have a direct view of the transmission line crossing of the James River. There will be no visibility of the transmission line from the interpretive area of Kingsmill including the brick cellar and dependencies. Stantec concludes that Kingsmill Plantation will not be adversely affected by the proposed project. The development of the Kingsmill Resort has already diminished the integrity of setting and feeling for Kingsmill Plantation. Other past,

present, and reasonably foreseeable future actions that are in the vicinity of Kingsmill Plantation include the Williamsburg Treatment Plant recreational boating, and commercial shipping. Because the significance of the Kingsmill Plantation site generally relates to its archaeological significance associated with the archaeological sites associated with the interpretative area and the significant development of the Kingsmill Resort has already diminished the integrity of setting and feeling of the site, the proposed project is not expected to further contribute to cumulative adverse effects to the historic property.

5.3.1.9 Artillery Landing Site at Trebell's Landing (VDHR #047-5307)

As discussed in Section 3.13, the significance of Trebell's Landing lies in its archaeological potential and association with the Revolutionary War. The parcel has been altered and located adjacent to the BASF industrial facility, which has diminished the property's integrity of feeling and setting. The site's setting and feeling are not considered character defining elements of the property's NRHP eligibility; therefore, any views of the transmission line would not detract from the characteristics qualifying the property for listing in the NRHP. Since the visual presence of the proposed project would not affect the NRHP characteristics of the property, the project would not contribute to cumulative adverse effects to Trebell's Landing.

5.3.1.10 Martin's Hundred Graveyard (VDHR #047-5333/Site 44JC0048)

As discussed in Section 3.14, the significance of Martin's Hundred Graveyard lies in its archaeological potential and its association with the Colonial Period of Virginia. The integrity of setting and feeling of the resource has been compromised by surrounding industrial development and the existing transmission line. The site's setting and feeling are not considered character defining elements of the property's NRHP eligibility; therefore, the minor visual changes from the rebuilt 230 kV transmission line would not detract from the characteristics qualifying the property for listing in the NRHP. Since the visual presence of the proposed project would not affect the NRHP characteristics of the property, the project would not contribute to cumulative adverse effects to Martin's Hundred Graveyard.

5.3.1.11 Hog Island Wildlife Management Area (VDHR #090-0121)

As discussed in Section 3.19, viewshed modelling and field visits indicate the transmission line crossing of the James River will be visible from much of Hog Island. Stantec concluded that Hog Island will be adversely affected by the proposed project. Since Hog Island is situated on a large S-shaped curve in the river, the property has views of most locations areas of the James River within the Indirect APE. Past, present, and reasonably foreseeable future actions that are in the viewshed of Hog Island include the Kingsmill Resort, Surry Power Station, Williamsburg Treatment Plant, Busch Gardens, waterfront development in Surry County, Jamestown – Scotland Ferry, proposed development of Lawnes Point on the James, developed areas of Fort Eustis, the Ghost Fleet, recreational boating, and commercial shipping. The presence of large tracts of conserved properties within the viewshed of Hog Island (Colonial National Historical Park and Carter's Grove) limits the potential for future development and associated impacts within the area. Combined with other past, present and reasonably foreseeable future actions in the visual landscape, the presence of the proposed transmission structures will contribute to cumulative adverse effects to the integrity of setting and feeling of Hog Island.

5.3.1.12 Scotland Wharf Historic District and Contributing Resources (VDHR #090-5046, #090-5046-0001, #090-5046-0002, #090-5046-0003, and #090-5046-0008)

As discussed in Sections 3.20 through 3.25, viewshed modelling suggests that the Scotland Wharf Historic District and extant contributing resources will have limited views of the transmission structures within the river crossing as well as limited views of the proposed structures on the land-

based portion of the line in James City County; however, it also suggests that the structures within the Power Station will not be visible. Site visits suggest that some of the structures proposed within the Surry Power Station may be visible. Stantec concluded that although some structures may be visible, Scotland Wharf Historic District and contributing resources would not be adversely affected by the proposed project. Past, present, and reasonably foreseeable actions that are in the vicinity Scotland Wharf include the Scotland – Jamestown Ferry, non-contributing waterfront development in Surry County, Surry Power Station, Kingsmill Resort, recreational boating, and commercial shipping. The view of the structures is at 5.03 miles from the historic district and is obstructed by vegetation and development in the surrounding area. The minimal view of the structures at Surry Power Station would not contribute to cumulative adverse effects to the integrity of setting and feeling of the Scotland Wharf Historic District and contributing resources.

5.3.1.13 Yorktown and Yorktown Battlefield (VDHR #099-5241)

As described in Section 3.33, 3.33.3 and 3.33.4, the resource identified as VDHR # 099-5241, according to the information presented in the site form available via the VCRIS system, is limited to Yorktown and the Yorktown National Battlefield. Yorktown and Yorktown National Battlefield are well outside the Indirect APE for this project. However, the site form and mapping associated with the resource also indicate that it is part of the larger Colonial National Historical Park which includes Yorktown National Battlefield, the Colonial Parkway, and the Jamestown National Historic Site/Jamestown Island. The boundaries of the Colonial National Historical Park according to VCRIS also include a portion of Kingsmill. Cumulative effects to the components of this resource as well as its overlap with the Kingsmill Plantation Site property can be found in Sections 5.3.1.6, 5.3.1.7, and 5.3.1.8.

5.3.1.14 Battle of Yorktown (Civil War) (VDHR #099-5283)

As discussed in Section 3.34, the Battle of Yorktown is mapped along the Skiffes Creek – Whealton portion of the proposed project, as well as within the at Fort Boykin. As done for the effects section, cumulative effects will be described separately for each section of the project.

Skiffes Creek to Whealton 230 kV Segment. Within the Skiffes Creek to Whealton section, the 230 kV transmission line will be constructed primarily using double circuit structures that will replace structures supporting existing transmission line. Subsection 3.34.4 describes the existing conditions of the Battle of Yorktown, which reflect many past and present actions in the battlefield. Such past and present actions include construction of roadways and rail, residential and commercial development, Newport News – Williamsburg International Airport, and the York County Sports Complex. However, significant portions of the Battle of Yorktown are located within the City of Newport News Park and are afforded a reasonable level of protection from future effects. Reasonably foreseeable future actions include the expansion of Newport News – Williamsburg International Airport and the expansion of I-64. Since the transmission line will be rebuilt within an existing transmission line right-of-way, Stantec concluded that the Skiffes Creek – Whealton section of the project would not adversely affect the Battle of Yorktown. Due to the nature of the existing conditions and limited work within the battlefield, the proposed project is unlikely to contribute to adverse cumulative effects to the integrity of the setting or feeling of the historic property.

Surry to Skiffes Creek Segment. Subsection 3.34.4 describes how the portion of the Battle of Yorktown within the James River is not a core engagement area, but rather a portion of the larger Battlefield Study Area as defined by the ABPP. Computer generated line-of-sight modeling suggests that the transmission structures of the James River crossing will be visible from points within the river portion of the battlefield. Past, present, and reasonable foreseeable future actions within the vicinity of the Surry to Skiffes Creek portion of the Battle of Yorktown include

the Ghost Fleet, existing and proposed waterfront development in Isle of Wight County, development in Newport News, developed areas of Fort Eustis, recreational boating, and commercial shipping. Due to the minimal views of the transmission line, the proposed Surry – Skiffes Creek portion of the project would not be expected to contribute to cumulative adverse effects to the integrity of the Battle of Yorktown.

Summary. Since neither of segments of the proposed project are expected to contribute to adverse effects to the Battle of Yorktown, the project as a whole is not expected to contribute to cumulative adverse effects to this resource.

5.3.1.15 Matthew Jones House (VDHR #121-0006)

As described in Section 3.26, the Matthew Jones House was listed on the NRHP under Criterion C and having integrity of location, workmanship, design, and materials. The integrity of setting and feeling has been diminished slightly by the presence within Fort Eustis. The visibility analysis indicates that transmission structures on the Surry County side of the James River crossing may be visible from this historic property; however, Stantec concluded that the Matthew Jones House would not be adversely affected by the proposed project. Past, present, and reasonably foreseeable future actions in the vicinity of the Matthew Jones House include Fort Eustis, the Ghost Fleet, proposed development at Lawnes Point on the James, recreational boating, and commercial shipping. Vegetation obstructs the view of the majority of the James River crossing with the closest visible structure at over three miles. Due to the minimal visibility from the Matthew Jones House, the proposed project is not expected to contribute to cumulative effects to this historic property.

5.3.1.16 Crafford House Site (VDHR #121-0017)

As described in Subsection 3.27.4, the Crafford House Site is significant as an archaeological site. The aspects of integrity associated with this property are limited to location and its potential to yield significant information. Since the integrity of feeling and setting do not contribute to the property's NRHP eligibility, views of the proposed project do not diminish any eligibility characteristic; therefore, the construction of the proposed project will not lead to cumulative adverse effects to the Crafford House Site.

5.3.1.17 Fort Crafford (VDHR #121-0027)

As described in Section 3.28, computer line-of-sight modeling suggests that the proposed transmission structures along the James River Crossing will be visible from Fort Crafford; however, Stantec concluded that the property will not be adversely affected by the proposed project. Past, present, and reasonably foreseeable actions that are in the vicinity of Fort Crafford include the Ghost Fleet, existing waterfront development in Isle of Wight County, developed areas of Fort Eustis, recreational boating, and commercial shipping, and the proposed development of Lawnes Point on the James. The view of the structures is at 3.28 miles and is obstructed by vegetation on the property. Due to the minimal visibility from Fort Crafford, the proposed project is not expected to contribute to cumulative effects to this historic property.

5.3.1.18 S.S. John W. Brown (VDHR #121-0045)

As described in Section 3.29, the S.S. John W. Brown's significance lies in its association with military history. This ship retains its integrity of association, workmanship, materials, and design. Setting and feeling are not considered characteristics for which the S.S. John W. Brown is listed on the NRHP. The visibility of the proposed transmission structures within the James River crossing would not therefore interact cumulatively with other past, present, or reasonably foreseeable future actions to cause adverse effects to the historic property.

5.3.1.19 Village of Lee Hall Historic District (VDHR #121-5068)

As described in Section 3.30, computer line-of-sight modeling suggests that the replacement structures within the existing transmission ROW will not be visible from the Village of Lee Hall Historic District. There will be limited visibility of structures that will be reconductored. Reconductored structures will result in no discernable change in the viewshed, which would not affect the integrity of the Village of Lee Hall's setting or feeling. Stantec concludes that the proposed project will not adversely affect the Village of Lee Hall. Since the project would result in no discernable change in the viewshed, no cumulative adverse effects to the Village of Lee Hall would occur as a result of the proposed project.

5.3.1.20 Ghost Fleet (VDHR #121-5070)

As described in Section 3.31, the Ghost Fleet's significance lies in its association with military history. This fleet retains its integrity of association, workmanship, materials, and design. Setting and feeling are not considered characteristics contributing to the eligibility of the Ghost Fleet under Criterion A. The visibility of the proposed transmission structures within the James River crossing would not therefore interact cumulatively with other past, present, or reasonably foreseeable future actions to cause adverse effects to the historic property.

5.3.1.21 Historic District

Section 3.35 provides substantial detail on the significance and integrity of the Eligible Historic District. Because the Eligible Historic District includes the entire James River within the Indirect APE, many of the proposed structures for the Surry-Skiffes Creek segment of the project will be visible from portions of the Eligible Historic District. The degree of visibility is dependent upon where the viewer is located within the Eligible Historic District and the distance to the transmission line. Stantec has concluded that there will be an adverse effect to the Eligible Historic District, since the visual effects from the structures would diminish the feeling of the district. Because the Eligible Historic District includes the entire Indirect APE for the river crossing, most of the past, present, and reasonably foreseeable future actions that, along with the proposed project, have the potential to cumulatively affect the Eligible Historic District have already been identified in Section 5.2. Those past, present, and reasonably foreseeable future actions within the river crossing APE include:

- Significant land conservation
 - Carter's Grove
 - Chippokes Plantation State Park
 - Colonial National Historical Park
 - Hog Island Wildlife Refuge
- Recreational development
 - Busch Gardens
 - Jamestown Beach Park
 - Jamestown Settlement
- Residential development
 - Kingsmill Resort
 - Lawnes Point on the James
 - Existing waterfront development in Isle of Wight County and Newport News
- Transportation
 - Colonial Parkway
 - Overhead aviation

- Utilities
 - Surry Power Station
 - Gravel Neck Combustion Turbines Station and associated pipeline
- Fort Eustis
- Waterway development
 - Channel dredging
 - Shoreline protection measures
 - Private piers
 - Kingsmill Marina
 - Ghost Fleet
- Waterway transportation
 - Recreational boating
 - Commercial shipping
 - Jamestown – Scotland Ferry
 - Navigational markers

The majority of actions that may contribute to cumulative effects to the Eligible Historic District consist of past or present activities. These actions have affected the integrity of the setting and feeling of the Eligible Historic District to various degrees. In general, the conservation lands upriver of the proposed project have limited the available area for waterfront development activities resulting in higher integrity. Kingsmill Resort and the Surry Power Station are two notable exceptions. Substantially more development has occurred downriver of the proposed project which has diminished the integrity in this area. Recreational boating and commercial shipping occur throughout the defined historic property. The continuing development of Lawnes Point on the James is the only reasonably foreseeable future action within the Eligible Historic District. Dominion has no plans for additional crossings of the James River within the Indirect APE. Combined with other past, present and reasonably foreseeable future actions in the visual landscape, the presence of the proposed transmission structures will contribute to cumulative adverse effects to the integrity of setting and feeling of the Eligible Historic District.

5.3.2 Archaeological Resources

In general, the significance of archaeological sites lies in their ability to provide important information about the past and their association with significant events or persons in our past. Typically, archaeological sites are addressed primarily with respect to direct effects because visual or indirect effects are generally not applicable, as such effects are related to the integrity of setting and feeling, which are typically not important characteristics of archaeological sites. Since the effects analysis looks primarily at direct effects to archaeological resources, the cumulative effects assessment for archaeological resources relates to past, present, and reasonably foreseeable future actions in the immediate vicinity of the historic property that have had or may have direct adverse effects to the site.

As described in Section 4.0, effects to archaeological historic properties have been largely avoided. If there is no effect from the project on an archaeological historic property, then there would be no cumulative effects. Table 8 provides a list of archaeological historic properties that are avoided by the project construction and are therefore not considered further under the cumulative effects analysis.

Table 12. Archaeological Resources Avoided by Project Construction		
VDHR ID#	Resource Name	Segment
44JC0048	17 th Century Cemetery Martin's Hundred	Skiffes Creek to Whealton
44JC0649	Indet. Historic	Surry to Skiffes Creek
44JC0650	Indet. 18 th Cent	Surry to Skiffes Creek
44JC0751	Prehistoric Camp, 18 th to 19 th Century Dwelling	Skiffes Creek to Whealton
44YO0180	Prehistoric Camp	Skiffes Creek to Whealton
44YO0181	Indet. Late Archaic	Skiffes Creek to Whealton
44YO0237	Archaic & Woodland Camp	Skiffes Creek to Whealton
44YO0240	Historic Bridge & Road	Skiffes Creek to Whealton
44YO1059	Prehistoric Camp, Early to Mid-18 th Century Dwelling	Skiffes Creek to Whealton
44YO1131	19 th Century Dwelling	Skiffes Creek to Whealton

5.3.2.1 Site 44JC0662

As described in Subsection 4.2.1, significant portions of Site 44JC0662 will be impacted by construction activities related to the proposed switching station, resulting in an adverse effect on the site. Since the site would be excavated for data recovery prior to switching station construction, there would not be potential for further cumulative adverse effects to this resource.

5.3.2.2 Site 44JC0826

As described in Section 4.3.4, potential effects to Site 44JC0826 will be minimized through utilization of timber matting. It is likely that the site was destroyed during the construction of the Walmart Distribution facility access road and stormwater management facilities. Therefore, it is unlikely that the proposed project would contribute to cumulative adverse effects to this site.

5.3.2.3 Site 44NN0060

As described in Section 4.2.3, the exact location of Site 44NN0060 is questionable, and survey work related to the Skiffes Creek to Whealton segment identified no evidence of the site within the Direct APE. Although construction of a monopole replacement structure will occur within the mapped boundaries of the site at the location of an existing lattice structure, no archaeological deposits occur within the Direct APE. Past, present, and reasonably foreseeable future actions that may have or may affect the integrity of this site within its actual location would not interact with the actions of the proposed project. Therefore, the project is not expected to result in any cumulative adverse effects to Site 44NN0060.

5.3.2.4 Site 44YO0092

As described in Section 4.2.4, timber mats will be used within the mapped boundaries of the site to minimize effects to Site 44YO0092. The replacement structure will be built outside of the boundaries of the resource. The earthworks will be avoided during construction activities. The site is within the boundaries of Newport News Park and is protected from future activities. Therefore, since the proposed project will avoid and minimize effect to Site 44YO0092, the project is not expected to contribute to cumulative adverse effects to the site.

5.3.2.5 Site 44YO0183

As described in Section 4.3.7, the majority of Site 44YO0183 falls outside of the project ROW, within Newport News Park. Construction access for the proposed project should not need to cross this site. If access is required, timber mats will be used to minimize the potential for ground disturbance within the site. Since effects from construction are not expected to occur, the project is not expected to contribute to cumulative effects to Site 44YO0183.

5.3.2.6 Site 44YO0184

As described in Section 4.3.8, Site 44YO0184 is located along the edge of an existing access road proposed for construction access for the project. No ground disturbance is proposed and timber mats will be used in the vicinity of the resource to minimize the potential for ground disturbance. Since effects from construction are not expected to occur, the project is not expected to contribute to cumulative effects to Site 44YO0184.

5.3.2.7 Site 44YO0233

As described in Section 4.2.5, the proposed replacement H-frame structure will be constructed away from the earthworks associated with Site 44YO0233. Timber mats will be used within the mapped boundaries of the resource to minimize the potential for ground disturbance. The earthworks will be avoided during construction. Since effects from construction are not expected to occur, the project is not expected to contribute to cumulative effects to Site 44YO0233.

5.3.2.8 Site 44YO0592

As described in Subsection 4.2.6, minimization measures will be utilized during construction to preclude an adverse effect on Site 44YO0592. Construction activities for the proposed Skiffes Creek – Whealon segment of the project will not affect the integrity of this resource. Therefore, the proposed project is not expected to contribute to cumulative adverse effects to this historic property.

5.3.2.9 Site 44YO1129

As described in Section 4.3.11, Site 44YO1129 is located entirely within the existing transmission line ROW. An existing lattice structure and an existing 3-pole structure were previously constructed within the mapped boundaries of the resource. These structures will be replaced with a monopole and 3-pole structure. Although the portion of Site 44YO1129 within the Direct APE was determined to lack integrity and would not contribute to the potential eligibility of the larger site, timber matting will still be used within the boundaries of the resource to minimize the potential for additional ground disturbance. Since there will be not effects to the integrity of the resource, it is not expected that the project will contribute to cumulative effects to Site 44YO1129.

5.3.2.10 Submerged Anomalies

Subsection 4.2.8 describes how the structures within the James River have been sited to avoid the submerged anomalies and associated buffers. Additionally, efforts will be made to minimize vibrations within the sediments during the pile driving activities associated with the James River structures. Stantec has concluded that the project will not adversely affect these anomalies. Since these submerged anomalies were identified through magnetic remote sensing and acoustic remote sensing surveys, specifics on these potential resources, including contents and condition, have not been determined. Past, present, and reasonably foreseeable future actions that may affect the submerged anomalies include dredging within the barge and federal channels and activities related to the installation and maintenance of pipelines that provide fuel oil and natural gas to the Gravel Neck Combustion Turbines Station. It is unlikely that the installation of the pilings associated with the proposed project would interact cumulatively with these actions leading to adverse effects on the submerged anomalies.

5.4 CUMULATIVE EFFECTS SUMMARY

Section 106 of the NHPA requires that federal agencies consider whether their actions may have adverse effects on historic properties, including effects that may be cumulative in nature. In light of no formal guidance in assessing cumulative effects under Section 106 of the NHPA, at the direction of the USACE, Stantec has utilized methods set forth by the EPA and CEQ under NEPA. This includes setting geographical and temporal boundaries; identifying past, present, and reasonably foreseeable future actions; and assessing the effect on the resources.

The majority of actions that have the potential to interact cumulatively with the effects of the proposed project have occurred in the past or are due to ongoing activities. Three reasonably foreseeable future actions have been identified within the Indirect APE: development of Lawnes Point on the James, expansion of Newport News/Williamsburg International Airport, and expansion of I-64. None of these actions would result from or is connected to the proposed project. Within Dominion short-term and long-term plans, there are no plans for additional transmission line crossings of the James River or the expansion of Surry Power Station. The proposed Surry – Skiffes Creek – Whealton transmission line is not expected to lead to or cause additional development within the Indirect APE.

Out of the 37 architectural historic properties identified within the APE, 32 properties would not experience cumulative effects from the project. Table 13 provides a matrix of architectural historic properties that have or may have some visibility of the project as well as identified past, present, and reasonably foreseeable future actions considered in this cumulative effects analysis. For architectural properties that will not be adversely affected by the proposed transmission line, no cumulative effects are expected as a result of the project. For properties that have been determined to be adversely affected by the project, the proposed line would contribute to cumulative effects. These effected properties have experienced a diminished integrity of setting and feeling from past and present actions, as well as expected effects from reasonably foreseeable actions. These properties include Carter's Grove, Colonial National Historical Park (Colonial Parkway), Jamestown Island, Hog Island, and the Eligible Historic District. While the project will result in adverse effects to these resources, the incremental effect of the project would not interact with the effects of the other actions in a way that would amplify the effects to a greater level or significance. Specifically, the other actions affecting these properties are largely due to past or present intrusions, the effects of which have been discussed in the eligibility sections for each resource in Section 3. Additionally, the cumulative adverse effects will not result from any reasonably foreseeable future actions proposed by Dominion. As such, the cumulative adverse effects to these properties are not expected to be significant or greater than the visual adverse effects of the transmission line as evaluated in Section 3.

No cumulative adverse effects are expected to archaeological historic properties. In general, construction will avoid most archaeological properties and minimization measures, such as timber mats, will be used to minimize the effects to such resources. With the exception of 44JC0662, work is only proposed within portions of archaeological properties that have been disturbed by previous construction activities and that lack integrity that would contribute to the eligibility of the entire site. Most of these resources are being managed as unevaluated and are not necessarily eligible for listing in the NRHP. The construction of the proposed switching station will result in the destruction of archaeological site 44JC0662. Since proposed mitigation measures would be to conduct Phase III data recovery on this resource, the entire site would be excavated and there would be no potential for additional cumulative effects.

Table 13. Summary of Results for Properties Assessed for Cumulative Effects.																												
Historic Property Name (VDHR ID#) ₁	Past Actions																		Present Actions				Reasonably Foreseeable Future Actions					
	Land Conservation					Recreational			Development		Transportation			Utilities			Fort Eustis	Waterway Development			Waterway Transportation							
	Carter's Grove	Chippokes Plantation SP	Colonial National Historic Park	Hog Island Wildlife Management Area	Newport News Park	Busch Gardens	Jamestown Beach Park	Jamestown Settlement	York County Sports Complex	Kingsmill Resort	Other Existing Development	Roadways	Railroad	Newport News/Williamsburg International Airport	Existing Transmission	Surry Nuclear Power Station	Gravel Neck Combustion Turbines	Williamsburg Treatment Plant	Fort Eustis	Dredging	Shoreline Development	Ghost Fleet	Aviation	Recreational Boating	Commercial Shipping	Jamestown - Scotland Ferry	Lawnes Point on the James	Newport News/Williamsburg International Airport Expansion
Fort Huger (046-0037)										X								•/X			X	X	X	X		X		
James C. Sprigg Jr. House (046-0044)										X								•/X			X	X	X	X				
Basses Choice (046-0094)										X								•/X			X	X	X	X				
Fort Boykin (046-0095)										X								•/X			X	X	X	X				
Carter's Grove (047-0001)	•		•	•		X			X								X	•/X		X	X	X	X	X		X		
Colonial National Historical Park (047-0002)	•	•	•	•		X			X						X		X			X		X	X	X				
Jamestown National Historic Site (047-0009)	•	•	•	•					X						X		X			X		X	X	X	X			
Kingsmill Plantation (047-0010)	•								X								X			X		X	X	X				
Trebell's Landing (047-5307) ₂																												
Martin's Hundred Graveyard (047-5333)										X				X								X						
Hog Island (090-0121)	•		•	•		X			X						X		X	•/X		X	X	X	X	X	X	X		
Scotland Wharf Historic District (090-5046)									X	X					X							X	X	X				
House (090-5046-0001)									X	X					X							X	X	X				
House (090-5046-0002)									X	X					X							X	X	X				
House (090-5046-0003)									X	X					X							X	X	X				
House (090-5046-0008)									X	X					X							X	X	X				
Yorktown Battlefield (099-5241)	•	•	•	•		X			X						X		X			X		X	X	X				
Battle of Yorktown (090-5283)	•		•	•	•			X	X	X	X	X	X					•/X		X	X	X	X	X		X	X	X
Mathew Jones House (121-0006)				•														X			X	X	X	X		X		
Crafford House Site (121-0017) ₂																												
Fort Crafford (121-0027)				•														X			X	X	X	X		X		
S.S. John W. Brown (121-0045) ₂																												
Village of Lee Hall Historic District (121-5068)										X	X	X		X								X						
Ghost Fleet (121-5070) ₂																												
Historic District	•	•	•	•		X	•	•		X	X				X	X	X	•/X	X	X	X	X	X	X	X	X		
1. Historic properties highlighted in gray have been determined by the USACE to be adversely affected by the proposed project.																												
2. Integrity of setting and feeling does not contribute to the eligibility of Trebell's Landing, Crafford House Site, S.S. John W. Brown, and the Ghost Fleet; therefore, past, present, and reasonably foreseeable actions are not listed for these properties.																												
3. Potential effects of past, present, and reasonably foreseeable future actions: • = beneficial or neutral effect; X = potential for adverse effect																												

6.0 SUMMARY AND CONCLUSIONS

6.1 SUMMARY OF FINDINGS

Stantec Consulting Services (Stantec), on behalf of Dominion Virginia Power (Dominion), has conducted effects assessments for 37 architectural resources and 19 archaeological resources identified by the U.S. Army USACE of Engineers (USACE) as historic properties that may be affected by the proposed Surry – Skiffes Creek – Whealton Transmission Line Project (USACE Project NAO-2012-00080 / 13-V0408; VDHR File 2015-2071). Additionally, Stantec has conducted effects assessments for the identified Eligible Historic District which has replaced the USACE-identified Hog Island – Jamestown Island Cultural Landscape. The results provided in this report draw from multiple field efforts, as well as digitally based modeling, and are presented in an effort to provide a consolidated Assessment of Effects to Historic Properties associated with this proposed undertaking.

Between 2011 and 2015 a number of studies were conducted with the goal of identifying historic properties within the Area of Potential Effect (APE) for this project. The APE was broadly defined through consultation with Virginia Department of Historic Resources (VDHR) to include the area that would include both direct and indirect effects caused by the Project. Studies were prepared by Cultural Resources, Inc. (CRI) and Stantec and were submitted to the USACE and the Virginia Department of Historic Resources (VDHR) for review and concurrence. A number of architectural and archaeological resources were identified during this process and evaluated for listing on the National Register of Historic Places (NRHP).

During the course of Identification survey and subsequent review of the proposed Surry – Skiffes Creek – Whealton Transmission Line project, the USACE and the VDHR identified a total of 37 architectural and 19 archaeological resources within the project APE as having the potential to be affected by the proposed undertaking.

The resources identified were evaluated according to the NRHP Criteria for eligibility and recommended as Historic Properties, per the definitions provided in 36 CFR 800.4(c). Recommendations of eligibility were made by Stantec during the historic property identification phase of the project and submitted to the USACE and VDHR for review and concurrence (Appendix A). As a result of the investigations described in Section 1.1, a final list of historic properties (37 architectural, 19 archaeological, and the grouping of 76 submerged anomalies) was prepared by the USACE with concurrence from the VDHR and presented in their Public Notice dated May 21, 2015. Since the issuance of the Public Notice, in a letter dated August 14, 2015, the Keeper of the National Register determined that the portion of the Captain John Smith Chesapeake National Historic Trail within the limits of the Indirect APE established for the river crossing is eligible for listing on the NHRP as a historical district. To recognize this eligibility determination, the Jamestown Island-Hog Island Cultural Landscape has been replaced with the Eligible Historic District. The cultural landscape as defined by the USACE and the VDHR is wholly located within the Keeper-designated Eligible Historic District and has been be addressed as part of this resource. The properties included in the list of historic properties for the project are either listed, eligible for listing, or assumed eligible for purposes of the project. As part of the identification and evaluation of these properties, the seven aspects of integrity - location, design, setting, materials, workmanship, feeling, and association - were applied to identify those primary qualities and characteristics that qualify the resource for listing on the NRHP.

It should be noted that the USACE has preliminarily determined effects to historic properties in their Public Notice dated May 21, 2015. The USACE identified adverse effects to these resources: Jamestown (VDHR #047-0009), the Colonial Parkway (VDHR #047-0002), Carter's Grove NHL site (VDHR #047-0001), Hog Island Wildlife Management Area (090-0121), the Jamestown Island-Hog

Island Cultural Landscape, which has now been replaced by the Eligible Historic District, and archaeological site 44JC0662. These determinations are included herein (Table 14). USACE preliminarily determined that the project would have No Adverse Effect to the remaining resources identified. Recommendations presented in this report are Stantec's. Generally, USACE determinations concur with those of Stantec with the exception of recommendations for the Colonial Parkway Historic District and the Jamestown Island Historic District. In these cases, the USACE determinations of adverse effect are noted.

Table 14. Summary of Effects to Historic Properties Identified Within The APE For The Surry-Skiffes Creek-Whealton Transmission Line Project

VDHR ID#	Resource Name	Final Eligibility Determination (USACE, 5/21/2015)	Segment	Distance From ROW (miles)	Stantec Recommendation of Effect	USACE Determination of Effect (5/21/2015)
046-0031	Bourne-Turner House at Smith's Beach	Potentially Eligible - Criterion C	Surry to Skiffes Creek	8.75	No Adverse Effect	No Adverse Effect
046-0037	Fort Huger	NRHP-Listed – Criterion D	Surry to Skiffes Creek	3.21	No Adverse Effect	No Adverse Effect
046-0044	Bay Cliff Manor on Burwell's Bay/James C. Sprigg, Jr. House	Potentially Eligible under Criterion C	Surry to Skiffes Creek	7.11	No Adverse Effect	No Adverse Effect
046-0094	Basses Choice (Days Point Archeological District, Route 673)	NRHP-Listed; Archaeological Sites 44IW0003-44IW0237 – Criterion D	Surry to Skiffes Creek	9.85	No Adverse Effect	No Adverse Effect
046-0095	Fort Boykin Archaeological Site/Herbert T. Greer House and Gardens, Route 705	NRHP-Listed – Criterion D	Surry to Skiffes Creek	8.84	No Adverse Effect	No Adverse Effect
046-5045	Barlow-Nelson House, 5374 Old Stage Highway	Potentially Eligible Under Criterion C	Surry to Skiffes Creek	6.33	No Adverse Effect	No Adverse Effect
046-5138	Bay View School, 6114 Old Stage Hwy	Potentially Eligible Under Criteria A and C	Surry to Skiffes Creek	6.84	No Adverse Effect	No Adverse Effect
046-5415	USS Sturgis (MH-1A Sturgis, Nuclear Barge, James River Reserve Fleet)	Eligible	Surry to Skiffes Creek	1.92	No Adverse Effect	No Adverse Effect
047-0001	Carter's Grove	NHL; NRHP-Listed – Criterion C	Surry to Skiffes Creek; Skiffes Creek Switching Station; Skiffes Creek to Whealton	0.43	Adverse Effect	Adverse Effect
047-0002	Colonial National Historic Park; Colonial Parkway Historic District	NRHP-Listed – Criteria A and C	Surry to Skiffes Creek	3.16	No Adverse Effect	Adverse Effect
047-0009	Jamestown National Historic Site / Jamestown Island / Jamestown Island Historic District	NRHP-Listed – Criteria A and D	Surry to Skiffes Creek	3.26	No Adverse Effect	Adverse Effect
047-0010	Kingsmill Plantation	NRHP-Listed – Criteria A and D	Surry to Skiffes Creek	3.16	No Adverse Effect	No Adverse Effect
047-0043	Amblers (Amblers-on-the-James)	Eligible (Recently NRHP-Listed) – Criterion C	Surry to Skiffes Creek	6.64	No Adverse Effect	No Adverse Effect

Table 14. Summary of Effects to Historic Properties Identified Within The APE For The Surry-Skiffes Creek-Whealton Transmission Line Project

VDHR ID#	Resource Name	Final Eligibility Determination (USACE, 5/21/2015)	Segment	Distance From ROW (miles)	Stantec Recommendation of Effect	USACE Determination of Effect (5/21/2015)
047-0082	Governor's Land Archaeological District	NRHP-Listed – Criteria A and D	Surry to Skiffes Creek	5.70	No Adverse Effect	No Adverse Effect
047-5307	Artillery Landing Site at Trebell's Landing	Potentially Eligible - Criterion D	Surry to Skiffes Creek	0.52	No Adverse Effect	No Adverse Effect
047-5333	Martin's Hundred Graveyard (Cemetery)	Eligible - Criteria A and D	Skiffes Creek to Whealton; Surry to Skiffes Creek	0.00	No Adverse Effect	No Adverse Effect
047-5432	4H Camp, 4H Club Road	Potentially Eligible - Criteria A and C	Surry to Skiffes Creek	9.20	No Adverse Effect	No Adverse Effect
090-0020	Pleasant Point (Crouches Creek Plantation)	NRHP-Listed – Criteria A and C	Surry to Skiffes Creek	4.32	No Adverse Effect	No Adverse Effect
090-0024	New Chippokes (Jones-Stewart Mansion)	NRHP-Listed; associated with Chippokes Plantation Historic District – Criterion C	Surry to Skiffes Creek	2.07	No Adverse Effect	No Adverse Effect
090-0070/090-0003	Chippokes Plantation Historic District (Chippokes State Park)	NRHP-Listed – Criteria A, C, and D	Surry to Skiffes Creek	1.26	No Adverse Effect	No Adverse Effect
090-0121	Hog Island Wildlife Management Area	Potentially Eligible - Criteria A and D for purposes of 106 review	Surry to Skiffes Creek	0.00	Adverse Effect	Adverse Effect
090-5046	Scotland Wharf Historic District	Potentially Eligible - Criteria A and C	Surry to Skiffes Creek	5.03	No Adverse Effect	No Adverse Effect
090-5046-0001	House, 16177 Rolfe Hwy (Rt 31)	Not Individually Eligible; Contributing to Scotland Wharf Historic District	Surry to Skiffes Creek	5.16	No Adverse Effect	No Adverse Effect
090-5046-0002	House, 16223 Rolfe Hwy (Rt 31)	Not Individually Eligible; Contributing to Scotland Wharf Historic District	Surry to Skiffes Creek	5.16	No Adverse Effect	No Adverse Effect
090-5046-0003	House, 16239 Rolfe Hwy (Rt 31)	Not Individually Eligible; Contributing to Scotland Wharf Historic District	Surry to Skiffes Creek	5.16	No Adverse Effect	No Adverse Effect
090-5046-0004	House, 16271 Rolfe Hwy (Rt 31)	Not Individually Eligible; Contributing to Scotland Wharf Historic District	Surry to Skiffes Creek	5.14	No Adverse Effect	No Adverse Effect
090-5046-0008	House, 16206 Rolfe Hwy (Rt 31)	Not Individually Eligible; Contributing to Scotland Wharf Historic District	Surry to Skiffes Creek	5.12	No Adverse Effect	No Adverse Effect

Table 14. Summary of Effects to Historic Properties Identified Within The APE For The Surry-Skiffes Creek-Whealton Transmission Line Project

VDHR ID#	Resource Name	Final Eligibility Determination (USACE, 5/21/2015)	Segment	Distance From ROW (miles)	Stantec Recommendation of Effect	USACE Determination of Effect (5/21/2015)
099-5241	Yorktown and Yorktown Battlefield (Colonial National Monument/Historical Park)	NRHP-Listed (Colonial National Historical Park) – Criteria A, C, and D	Surry to Skiffes Creek	1.37	No Adverse Effect	No Adverse Effect
099-5283	Battle of Yorktown (Civil War)	Eligible - Criteria A and D	Surry to Skiffes Creek; Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
121-0006	Matthew Jones House	NRHP-Listed - Criterion C	Surry to Skiffes Creek	1.93	No Adverse Effect	No Adverse Effect
121-0017	Crafford House Site/ Earthworks (Fort Eustis)	NRHP-Listed as part of 121-0027/44NN0070 – Criteria A and D	Surry to Skiffes Creek	3.38	No Adverse Effect	No Adverse Effect
121-0027	Fort Crafford	NRHP-Listed – Criteria A and D	Surry to Skiffes Creek	3.28	No Adverse Effect	No Adverse Effect
121-0045	S.S. John W. Brown	NRHP-Listed - Criterion A	Surry to Skiffes Creek	2.18	No Adverse Effect	No Adverse Effect
121-5068	Village of Lee Hall Historic District	Eligible – Criteria A and C (Public Notice notes that Lee Hall NRHP-Listed - Criterion C; VCRIS identifies this resource as eligible)	Skiffes Creek to Whealton	0.25	No Adverse Effect	No Adverse Effect
121-5070	Ghost Fleet (James River Reserve Fleet/ Maritime Admin. Non-Retention Ships)	Eligible- Criterion A	Surry to Skiffes Creek	1.64	No Adverse Effect	No Adverse Effect
	Battle of Green Springs	NRHP-Listed – Criterion A	Surry to Skiffes Creek	5.70	No Adverse Effect	No Adverse Effect
	Eligible Historic District	Eligible - Criteria A , B, C, and D	Surry to Skiffes Creek	0.00	Adverse Effect	Adverse Effect
44JC0048	17th Century Cemetery Martin's Hundred	Eligible- Criteria A and D	Surry to Skiffes Creek; Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44JC0649	Indeterminate Historic	Manage as unevaluated	Surry to Skiffes Creek	0.00	No Adverse Effect	No Adverse Effect
44JC0650	Indeterminate 18th Century	Manage as unevaluated	Surry to Skiffes Creek	0.00	No Adverse Effect	No Adverse Effect
44JC0662	18th to 19th Century Dwelling	Eligible - Criterion D	Skiffes Creek Switching Station	0.00	Adverse Effect	Adverse Effect
44JC0751	Prehistoric Camp, 18th to 19th Century Dwelling	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44JC0826	19th Century Farmstead	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44NN0060	Indeterminate Woodland	Potentially Eligible – Criterion D	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO0092	Civil War Earthworks	Potentially Eligible – Criterion D	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect

Table 14. Summary of Effects to Historic Properties Identified Within The APE For The Surry-Skiffes Creek-Whealton Transmission Line Project						
VDHR ID#	Resource Name	Final Eligibility Determination (USACE, 5/21/2015)	Segment	Distance From ROW (miles)	Stantec Recommendation of Effect	USACE Determination of Effect (5/21/2015)
44YO0180	Prehistoric Camp	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO0181	Indeterminate Late Archaic	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO0183	18th Century Domestic	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO0184	Indeterminate 19th to 20th Century	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO0233	Civil War Military base	Potentially Eligible – Criterion D	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO0237	Archaic & Woodland Camp	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO0240	Historic Bridge & Road	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO0592	Mid 18th to 19th Century Military Camp	Potentially Eligible - Criterion D	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO1059	Prehistoric Camp, Early to Mid-18th Century Dwelling	Potentially Eligible - Criterion D	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO1129	Historic Dwelling	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
44YO1131	19th Century Dwelling	Manage as Unevaluated	Skiffes Creek to Whealton	0.00	No Adverse Effect	No Adverse Effect
	76 submerged anomalies, managed in 23 buffer areas	Potentially Eligible - Criteria A and D	Surry to Skiffes Creek	0.00	No Adverse Effect	No Adverse Effect

6.2 SUMMARY OF CUMULATIVE EFFECTS

Section 106 of the NHPA requires that federal agencies consider whether their actions may have adverse effects on historic properties, including effects that may be cumulative in nature. In light of no formal guidance in assessing cumulative effects under Section 106 of the NHPA, at the direction of the USACE, Stantec has utilized methods set forth by the EPA and CEQ under NEPA. This includes setting geographical and temporal boundaries; identifying past, present, and reasonably foreseeable future actions; and assessing the effect on the resources.

The majority of actions that have the potential to interact cumulatively with the effects of the proposed project have occurred in the past or are due to ongoing activities. Three reasonably foreseeable future actions have been identified within the Indirect APE: development of Lawnes Point on the James, expansion of Newport News/Williamsburg International Airport, and expansion of I-64. None of these actions would result from or is connected to the proposed project. Within Dominion short-term and long-term plans, there are no plans for additional transmission line crossings of the James River or the expansion of Surry Power Station. The proposed Surry – Skiffes Creek – Whealton transmission line is not expected to lead to or cause additional development within the Indirect APE.

Out of the 37 architectural historic properties identified within the APE, 32 properties would not experience cumulative effects from the project. For architectural properties that will not be

adversely affected by the proposed transmission line, no cumulative effects are expected as a result of the project. For properties that have been determined to be adversely affected by the project, the proposed line would contribute to cumulative effects. These effected properties have experienced a diminished integrity of setting and feeling from past and present actions, as well as expected effects from reasonably foreseeable actions. These properties include Carter's Grove, Colonial National Historical Park (Colonial Parkway), Jamestown Island, Hog Island, and the Historic District. While the project will result in adverse effects to these resources, the incremental effect of the project would not interact with the effects of the other actions in a way that would amplify the effects to a greater level or significance. Specifically, the other actions affecting these properties are largely due to past or present intrusions, the effects of which have been discussed in the eligibility sections for each resource in Section 3. Additionally, the cumulative adverse effects will not result from any reasonably foreseeable future actions proposed by Dominion. As such, the cumulative adverse effects to these properties are not expected to be significant or greater than the visual adverse effects of the transmission line as evaluated in Section 3.

No cumulative adverse effects are expected to archaeological historic properties. In general, construction will avoid most archaeological properties and minimization measures, such as timber mats, will be used to minimize the effects to such resources. With the exception of 44JC0662, work is only proposed within portions of archaeological properties that have been disturbed by previous construction activities and that lack integrity that would contribute to the eligibility of the entire site. Most of these resources are being managed as unevaluated and are not necessarily eligible for listing in the NRHP. The construction of the proposed switching station will result in the destruction of archaeological site 44JC0662. Since proposed mitigation measures would be to conduct Phase III data recovery on this resource, the entire site would be excavated and there would be no potential for additional cumulative effects.

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Appendix A RELEVANT PROJECT CORRESPONDENCE



COMMONWEALTH of VIRGINIA

Molly Joseph Ward
Secretary of Natural Resources

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**US Army Corps of
Engineers
Norfolk District
Regulatory Office
Received by: RLS
Date: Jan 20, 2015**

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January 15, 2015

Mr. Randy Steffey, Environmental Scientist
US Army Corps of Engineers – Southern Virginia Regulatory Section
803 Front Street
Norfolk, VA 23510

Re: Surry - Skiffes Creek - Whealton Transmission Line, Dominion Virginia Power
Surry, Charles City, James City, and York Counties; City of Williamsburg
DHR File No. 2011-2071

Dear Mr. Steffey:

Thank you for convening the consulting parties meeting on December 9, 2014. The input of all parties is important throughout the decision-making process and we look forward to continued dialogue on the impacts to historic properties and feasible alternatives. We provide the following comments to aid the Army Corps of Engineers (Corps) in satisfying its responsibilities pursuant to Section 106 of the National Historic Preservation Act.

Area of Potential Effects

In oversight, the Department of Historic Resources (DHR) never formally concurred with the Corps' Area of Potential Effects (APE) as refined and presented in the September 8, 2014 memorandum and accompanying maps titled "Indirect APE Map – Architectural Resources" and "Direct APE Map – Archaeological Resources" prepared by Stantec Consulting Service, Inc. (Stantec), formerly Cultural Resources, Inc. (CRI). By this letter, DHR concurs with the APE as refined.

Previous Studies

To further clarify another outstanding issue, it is DHR's opinion that the following reports, on which DHR provided comments to the Corps on June 12, 2014, are consistent with the Federal *Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (48 FR 44716-42) and DHR's *Guidelines for Conducting Historic Resources Survey in Virginia* (rev. 2011):

- *A Phase I Archaeological Survey of the Proposed 51-Acre Skiffes Creek 500-230-115 kV Switching Station Parcel, James City County, Virginia* (CRI, 2012)
- *Phase II Evaluation Site 44JC0662 for the Dominion Virginia Power Skiffes Switching Station, James City County, Virginia* (CRI, 2012)
- *Phase I Cultural Resources Survey of the Proposed Approximately 20.2-mile Dominion Virginia Power Skiffes Creek to Whealton 230kV Transmission Line in James City and York Counties, and the Cities of Newport News and Hampton, Virginia* (CRI, 2012)

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- *A Phase I Cultural Resources Survey of the Proposed Dominion Virginia Power Skiffes Creek to Surry 500 kV Transmission Line Alternatives in James City and Surry Counties, Virginia, Volumes I and II* (Stantec, 2014)

BASF Realignment

To address the potential direct effects of a project reroute through the BASF property in James City County, Dominion on behalf of the Corps completed archaeological study of an additional 0.5-mile corridor. The results of this study were reported in the undated Stantec memoranda titled *Phase IA Walkover – BASF Corridor Realignment – Surry to Skiffes Creek 500 kV Transmission Line Project* and *Phase I Archaeological Survey – BASF Corridor Realignment – Surry to Skiffes Creek 500 kV Transmission Line Project*. It is DHR's opinion that this additional survey is consistent with *Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (48 FR 44716-42) and DHR's *Guidelines for Conducting Historic Resources Survey in Virginia* (rev. 2011). No archaeological resources were identified as part of this study and we concur that no additional archaeological survey is warranted for this realignment.

Surry-Skiffes Creek Survey Addendum

Per a discussion among DHR, Stantec, Dominion, and the Corps on August 21, 2014, additional architectural survey was recommended within the refined APE. In response to that recommendation, DHR received the report titled *Addendum to the Phase I Cultural Resources Survey of the Proposed Dominion Virginia Power Skiffes Creek to Surry 500 kV Transmission Line Alternatives in James City, Isle of Wight, and Surry Counties, Virginia* (October 2014) prepared by Stantec. It is our opinion that this study is consistent with the *Federal Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (48 FR 44716-42) and DHR's *Guidelines for Conducting Historic Resources Survey in Virginia* (rev. 2011).

The additional survey identified 63 previously surveyed and newly recorded architectural resources; not 25 resources as stated in the report. Of these 63 resources, two (2) resources were discovered to be located outside the APE and were not resurveyed, and two (2) resources are already listed in the National Register of Historic Places (NRHP). Please see the attached table regarding our eligibility recommendations for the 63 resources.

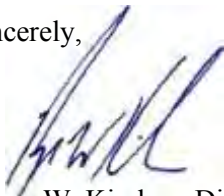
Based upon a review of the information provided, we are unable to concur with the consultant's recommendations that the Artillery Site at Trebell's Landing (DHR ID #047-5307) and the Hog Island Wildlife Management Area (DHR ID #090-0121) are eligible for the NRHP under Criterion A and D. In general, we do not recommend resources as eligible under Criterion D unless there has been archaeological survey completed to determine the presence and integrity of subsurface artifacts or features. Furthermore, a recommendation of eligibility under Criterion A, even as a cultural landscape, must be supported with physical evidence of landscape features that represent the significance of the resource. In order to support a recommendation of eligible for these two resources, we would need an analysis of what landscape features represent the significance of Trebell's Landing and Hog Island.

On August 21, 2014, DHR recommended additional survey of the Battle of Williamsburg (DHR ID #099-5282) because other portions of the battlefield had been recommended eligible by other consultants. The report lacks the necessary survey form, analysis, and photographs that justify the 'not eligible' recommendation by the consultant. Please submit these items to obtain our concurrence on eligibility for this resource.

Our records show that the Crafford House Site/Earthworks at Fort Eustis (DHR ID #121-0017) is already listed in the NRHP as part of the Fort Crafford Historic Site (DHR ID #127-0027/44NN0070). We concur that the Mogart's Beach Hotel Site/FFA FHA Camp Association property (DHR ID #046-5241) is not individually eligible.

Unfortunately, we cannot agree with the Corps that historic property identification has been completed until the above mentioned items are resolved. If you have any questions concerning our review and comments on the architectural survey, please contact Andrea Kampinen at andrea.kampinen@dhr.virginia.gov. Otherwise, please do not hesitate to contact me at roger.kirchen@dhr.virginia.gov.

Sincerely,



Roger W. Kirchen, Director
Review and Compliance Division



COMMONWEALTH of VIRGINIA

Molly Joseph Ward
Secretary of Natural Resources

Department of Historic Resources
2801 Kensington Avenue, Richmond, Virginia 23221

Julie V. Langan
Director

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May 1, 2015

Mr. Randy Steffey
US Army Corps of Engineers
803 Front Street
Norfolk, VA 23510

**US Army Corps of
Engineers
Norfolk District
Regulatory Office
Received by: RLS
Date: May 1, 2015**

Re: Surry-Skiffes Creek-Wheaton Proposed 500/230 kV Transmission Line and Switching Station
Surry, Charles City, James City, and York Counties; City of Williamsburg
DHR File No. 2011-2071

Dear Mr. Steffey:

The Virginia Department of Historic Resources (DHR) received on April 8, 2015 from the Army Corps of Engineers (Corps) an updated summary of consultation regarding the identification of archaeological properties within the Area of Potential Effects (APE). These comments supersede those provided by DHR on March 31, 2015.

The updated summary table includes 27 archaeological resources identified by the Corps within the APE for Direct Effects. These 27 resources include several sites that were previously recorded within the Direct APE, but were not re-identified during the recent studies. Also, the 76 submerged anomalies are included as a single resource, but will be managed in 23 individual buffers. DHR concurs with the Corps' determination of National Register eligibility for the 27 archaeological resources. Further, DHR concurs that the survey efforts to date are sufficient to identify archaeological properties that may be affected by this undertaking. Additional studies may be necessary if changes to the scope of the project require impacts to areas not previously surveyed.

We look forward to concluding the identification of historic properties and assessment effects. If you have any questions concerning our review or comments, please do not hesitate to contact me at roger.kirchen@dhr.virginia.gov.

Sincerely,


Roger W. Kirchen, Director
Review and Compliance Division

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May 1, 2015

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Re: Surry-Skiffes Creek-Wheaton Proposed 500/230 kV Transmission Line and Switching Station
Surry, Charles City, James City, and York Counties; City of Williamsburg
DHR File No. 2011-2071

Dear Mr. Steffey:

The Virginia Department of Historic Resources (DHR) has received from the Army Corps of Engineers (Corps) a summary of consultation regarding the identification of architectural properties within the Area of Potential Effects (APE). The summary table includes 337 architectural resources identified by the Corps within the APE for Indirect Effects. These 337 resources include 22 resources listed in the National Register of Historic Places (NRHP), of which one (1) resource is also a National Historic Landmark (NHL). The Corps is recommending an additional 20 resources as eligible or potentially eligible for listing in the NRHP as determined through survey. Three (3) resources are noted as located outside of the Indirect APE. DHR concurs with the Corps that the additional 20 architectural resources are eligible or potentially eligible for NRHP listing. Please see the attached table (*Architectural_Resource_Tables_DHR_05012015.xlsx*) for a complete list of resources. We understand that the NRHP eligibility of the Captain John Smith Chesapeake National Historic Trail and the Washington Rochambeau Revolutionary Route National Historic Trail is still under consideration by the Corps. Please continue to consult with DHR regarding these resources.

DHR also concurs that the survey efforts to date meet applicable standards and guidelines and are sufficient to identify architectural properties that may be affected by this undertaking. Additional studies may be necessary if changes to the scope of the project require updates to the APE. Once NRHP eligibility is resolved for the trails, we look forward to consultation with the Corps regarding the effect of the undertaking on historic properties. If you have any questions concerning these comments, please do not hesitate to contact me at roger.kirchen@dhr.virginia.gov.

Sincerely,

Roger W. Kirchen, Director
Review and Compliance Division

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ATTACHMENT – ARCHAEOLOGICAL RESOURCE IDENTIFICATION, UPDATED
 May 1, 2015
 DHR File No. 2011-2071

DHR ID#	Resource Type	NRHP Status as of 7/2014	USACE Eligibility Determination March/April 2015	VDHR Concurrence March/May 2015
44HT0118	20th Cent. Dwelling	Not Eligible	Not Eligible	Yes
44JC0048	17th Century Cemetery Martha's Hundred	Eligible	Eligible	Yes
44JC0649	Indet. Historic	Not Evaluated	manage as unevaluated	Yes
44JC0650	Indet. 18th Cent	Not Evaluated	manage as unevaluated	Yes
44JC0662	18th to 19th Cent Dwelling	Eligible	Eligible	Yes
44JC0663	18th to 20th Cent. Trash Scatter	Not Eligible	Not Eligible	Yes
44JC0751	Prehistoric Camp, 18th to 19th Cent. Dwelling	Not Evaluated	manage as unevaluated	Yes
44JC0826	19th Cent. Farmstead	Not Evaluated	manage as unevaluated	Yes
44JC1300	20th Cent Dwelling	Not Eligible	Not Eligible	Yes
44JC1301	18th Cent. Domestic	Not Eligible	Not Eligible	Yes
44JC1302	19th Cent. Domestic	Not Eligible	Not Eligible	Yes
44NN0060	Indet. Woodland	Potentially Eligible	Potentially Eligible	Yes
44NN0344	Archaic Camp, Indet. 19th to 20th Cent.	Not Eligible	Not Eligible	Yes
44YO0092	Civil War Earthworks	Potentially Eligible	Potentially Eligible	Yes
44YO0180	Prehistoric Camp	Not Evaluated	manage as unevaluated	Yes
44YO0181	Indet. Late Archaic	Not Evaluated	manage as unevaluated	Yes
44YO0183	18th Cent. Domestic	Not Evaluated	manage as unevaluated	Yes
44YO0184	Indet. 19th to 20th Cent.	Not Evaluated	manage as unevaluated	Yes
44YO0233	Civil War Military base	Potentially Eligible	Potentially Eligible	Yes
44YO0237	Archaic & Woodland Camp	Not Evaluated	manage as unevaluated	Yes
44YO0240	Historic Bridge & Road	Not Evaluated	manage as unevaluated	Yes
44YO0592	Mid 18th to 19th Cent. Military Camp	Potentially Eligible	Potentially Eligible	Yes
44YO1059	Prehistoric Camp, Early to Mid 18th Cent. Dwelling	Potentially Eligible	Potentially Eligible	Yes
44YO1129	Historic Dwelling	Unevaluated	manage as unevaluated	Yes
44YO1130	Mid to Late 19th Cent. Dwelling	Not Eligible	Not Eligible	Yes
44YO1131	19th Cent. Dwelling	Unevaluated	manage as unevaluated	Yes
N/A	76 submerged anomalies in James River	Potentially Eligible	Potentially Eligible	Yes

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ATTACHMENT – SURRY-SKIFFES CREEK ADDENDUM SURVEY

January 15, 2015

DHR File No. 2011-2071

DHR ID #	Resource Name/Address	Eligibility - Stantec October 2014	Eligibility - DHR January 2015
046-0045	Ray Barlow House	Outside APE	Outside APE
046-0050	The Rocks, 7431 Boydkin Lane	Not individually eligible	Not individually eligible
046-5038	Wells Family Cemetery, near 5186 Old Stage Rd.	Not individually eligible	Not individually eligible
046-5189	Farmhouse, 7428 Clifton Ln.	Not individually eligible	Not individually eligible
046-5241	FFA FHA Camp Association/ Mogart's Beach Hotel Site, 18493 Mogart's Beach Rd.	Not resurveyed; Not individually eligible	Not individually eligible
047-5307	Artillery Site at Trebell's Landing	Recommended Eligible under Criterion A and Potentially Eligible under Criterion D	<i>Need survey/analysis of landscape features that justify eligibility</i>
047-5335	House, 211 Tarleton Bivouac	Not individually eligible	Not individually eligible
047-5336	House, 209 Tarleton Bivouac	Not individually eligible	Not individually eligible
047-5337	House, 104 Plantation Rd.	Not individually eligible	Not individually eligible
047-5338	House, 103 Plantation Rd.	Not individually eligible	Not individually eligible
090-0015	Mount Pleasant Historic District	Outside APE	Outside APE
090-0020	Pleasant Point, Pleasant Point Rd.	VLR/NRHP-Listed	VLR/NRHP-Listed
090-0052	Smokehouse, Hog Island Wildlife Management Area	Not individually eligible; Non-contributing to potential Hog Island Wildlife Management Area Historic District	Not individually eligible; Non-contributing to potential Hog Island Wildlife Management Area Historic District
090-0121	Hog Island Wildlife Management Area	Recommended Potentially Eligible under Criterion A and Criterion D	<i>Need survey/analysis of landscape features that justify eligibility</i>
090-0121-0001	Hog Island Residence	Demolished	Demolished
090-0121-0002	Hog Island Office	Not individually eligible; Non-contributing to potential Hog Island Wildlife Management Area Historic District	Not individually eligible; Non-contributing to potential Hog Island Wildlife Management Area Historic District
090-0121-0003	Hog Island Open Shed and Shop	Not individually eligible; Non-contributing to potential Hog Island Wildlife Management Area Historic District	Not individually eligible; Non-contributing to potential Hog Island Wildlife Management Area Historic District

ATTACHMENT – SURRY-SKIFFES CREEK ADDENDUM SURVEY

January 15, 2015

DHR File No. 2011-2071

DHR ID #	Resource Name/Address	Eligibility - Stantec October 2014	Eligibility - DHR January 2015
090-0121-0004	Hog Island Shed #1	Not individually eligible; Non-contributing to potential Hog Island Wildlife Management Area Historic District	Not individually eligible; Non-contributing to potential Hog Island Wildlife Management Area Historic District
090-0121-0005	Hog Island Shed #2	Not individually eligible; Non-contributing to potential Hog Island Wildlife Management Area Historic District	Not individually eligible; Non-contributing to potential Hog Island Wildlife Management Area Historic District
090-0121-0006	Hog Island Shed #3	Not individually eligible; Non-contributing to potential Hog Island Wildlife Management Area Historic District	Not individually eligible; Non-contributing to potential Hog Island Wildlife Management Area Historic District
090-0121-0007	Hog Island Seed Shed	Not individually eligible; Non-contributing to potential Hog Island Wildlife Management Area Historic District	Not individually eligible; Non-contributing to potential Hog Island Wildlife Management Area Historic District
090-5045	Scotland Heights Historic District	Not Eligible	Not Eligible
090-5045-0001	House, 110 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0002	House, 126 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0003	House, 222 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0004	House, 244River View Dr.	Not individually eligible	Not individually eligible
090-5045-0005	House, 252 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0007	House, 322 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0008	House, 342 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0009	House, 350 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0010	House, 366 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0011	House, 325 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0012	House, 217 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0014	House, 175 River View Dr.	Not individually eligible	Not individually eligible

ATTACHMENT – SURRY-SKIFFES CREEK ADDENDUM SURVEY
January 15, 2015
DHR File No. 2011-2071

DHR ID #	Resource Name/Address	Eligibility - Stantec October 2014	Eligibility - DHR January 2015
090-5045-0015	House, 117 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0016	House, 105 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0017	House, 91 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0018	House, 94 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0019	House, 138 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0020	House, 156 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0021	House, 122 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0022	House, 196 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0023	House, 210 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0024	House, 264 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0025	House, 288 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0026	House, 336 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0028	House, 374 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0029	House, 388 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0030	House, 398River View Dr.	Not individually eligible	Not individually eligible
090-5045-0031	House, 400 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0032	House, 379 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0033	House, 365River View Dr.	Not individually eligible	Not individually eligible
090-5045-0034	House, 349 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0035	House, 291 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0037	House, 265 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0038	House, 239 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0039	House, 145 River View Dr.	Not individually eligible	Not individually eligible

ATTACHMENT – SURRY-SKIFFES CREEK ADDENDUM SURVEY

January 15, 2015

DHR File No. 2011-2071

DHR ID #	Resource Name/Address	Eligibility - Stantec October 2014	Eligibility - DHR January 2015
090-5045-0040	House, 133 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0041	House, 77 River View Dr.	Not individually eligible	Not individually eligible
090-5045-0042	House, 200 River View Dr.	Not individually eligible	Not individually eligible
099-5282	Battle of Williamsburg	Section within APE is Not Individually Eligible	<i>Need analysis, photos, and survey form.</i>
121-0006	Matthew Jones House	VLR/NRHP-Listed	VLR/NRHP-Listed
121-0017	Crafford House Site/Earthworks (Fort Eustis)	Recommended Eligible under Criterion A and Potentially Eligible under Criterion D	VLR/NRHP-Listed as part of 121-0027/44NN0070



U.S. Army Corps of Engineers,
Norfolk District Regulatory Branch
May 7, 2015

**Dominion Virginia Power Surry-Skiffes Creek-Whealton
Proposed 500/230kV Line
NAO-2012-00080 / 13-V0408**

**National Register of Historic Places Eligibility of the
Captain John Smith National Historic Trail,
Washington-Rochambeau Revolutionary Route National Historic Trail,
and Other Potentially Eligible Cultural Landscapes
Within the Area of Potential Effect**

Synopsis: U.S. Army Corps of Engineers (USACE) is finalizing the identification phase of National Historic Preservation Act (NHPA) Section 106 compliance for permit consideration of the Dominion Virginia Power Surry-Skiffes Creek-Whealton Proposed 500/230kV Line.

Consulting parties including the Virginia State Historic Preservation Office (SHPO) and the National Park Service (NPS) have suggested that all or parts of the Captain John Smith National Historic Trail (CAJO) and Washington-Rochambeau Revolutionary Route National Historic Trail (W3R-NHT) are eligible for inclusion as landscapes or historic districts in the National Register of Historic Places (NRHP). In addition, the USACE considered the presence of cultural landscapes within the project Area of Potential Effect (APE), based on comments from the consulting parties and guidance from the SHPO. For the purpose of the Dominion Skiffes Creek project, the review area of the two trails is limited to the APE, which is depicted on map titled "Indirect APE Map-Architectural Resources, Dominion Virginia Power, Surry-Skiffes Creek-Whealton Proposed 500/230kV Line". The APE, in general, extends from just west of Jamestown Island, and includes portions of the James River downstream to the Pagan River near Smithfield, VA. The land based portion of the APE comprises primarily of an existing overhead utility right-of-way that extends generally from Skiffes Creek south to Hampton, Virginia.

The USACE has identified an eligible cultural landscape in the vicinity of Jamestown Island and Hog Island. For the purposes of this review, this historic site is recommended eligible under Criteria A and D. USACE finds that the CAJO and W3R-NHT trails do not meet criteria for NRHP eligibility due to the low number of documented historic properties associated with them and the compromised integrity of setting and feeling of many of the associated properties.

Jamestown Island-Hog Island Cultural Landscape Consideration

Historic Context: The upstream section of the James River within the project APE was the scene of the initial English settlement in Virginia at Jamestown in 1607. English settlers, backed by the Virginia Company, explored what is now Virginia for a location in which to prosper. On May 12, 1607 a point of land at the mouth of Archer's Hope Creek (now College Creek), east of Jamestown, was examined in detail as a location for the new settlement by English explorers. Capt. Gabriel Archer recommended it as the point of settlement, but it was not possible to bring the ships close to the shore, and consequently Archer's Hope was rejected. The next day, the settlers arrived at an island in the James River and constructed James Fort on the banks of the river to protect the new settlement. The settlement became known as "Jamestown" and was the primary location of the first permanent English settlement. A secondary settlement was Hog Island, located to the southeast, across the James River.

Jamestown is currently listed on the National Register as part of the Colonial National Historical Park. Hog Island (090-0121) (was evaluated during a Phase I architectural survey conducted by Stantec Consulting Services Inc. (Stantec 2014). Stantec recommended Hog Island as eligible for listing on the National Register under Criteria A and D and USACE and VDHR concurred with this determination:

"Hog Island, a secondary settlement to Jamestown across the James River, was so named in 1608 when colonists found it an easy place to keep their hogs. The island served a dual function as it was also selected to support a fort. Documents state that a "blockhouse" was constructed on the island to "give us notice of any shipping" and was constructed from "clapboard and wainscot, and cut down trees" (Bohannon 1927:14). The manner in which communications were relayed to the fort remains a mystery as Hog Island can only be seen from Jamestown Island's extreme east end. The hogs on the island thrived and the colonies original stock of three pigs had grown to sixty by the end of 1608 (Hume 1994:232)."

Given the significance of Jamestown there is no lack of Criterion A justification for identifying the portion of the James River immediately surrounding Jamestown and Hog Island an eligible cultural landscape. This landscape meets Criterion A for its association with early exploration and settlement, including the initial settlement of Jamestown by the Virginia Company during the early 17th century, and maritime approaches and departures in and around Jamestown and Hog Island. Criterion D is also appropriate as both Jamestown and Hog Island contain archeological sites related to this early settlement. The geographic areas of the river and immediate shorelines surrounding Jamestown and Hog Island are considered part of the cultural landscape. The James River and shorelines surrounding Jamestown and Hog Island form the core area of maritime uses and explorations during the initial settlement, prior to the establishment of Jamestown as an English colony.

Integrity: In addition to documented resources, USACE also evaluated the integrity of these resources, as well as the James River and its shoreline to help determine general boundaries of the cultural landscape.

Jamestown has been protected by the National Park Service and Preservation Virginia since the 1930's. Hog Island is also protected as a Wildlife Management Area by the Virginia Department of Game and Inland Fisheries, and while the focus is wildlife management rather than "free hog range", the landscape retains the overall setting of a large area of tidal wetlands. As protected sites, these areas will maintain their historic integrity as long as the protections by Virginia and the Federal government remain in place.

Norfolk District initially used desktop GIS as an initial evaluation to assess the integrity of the area. The GIS review categorized and quantified shoreline types on the section of the James River within the APE (Attachment A). The available satellite imagery was closely examined and polyline segments following the shorelines were plotted and labeled according to the following landscape types: Forest, Marsh, Agricultural, Park, Revetment, Residential, and Industrial. Only the forest and marsh types are similar to the shoreline conditions during the 17th century.

It should be noted that the GIS mapping only considered the current landscape, not zoning or development approved by localities. For example, a 3-mile stretch of the James River in Isle of Wight County contains the subdivision known as "Lawnes Point on the James." Most of this area is shown as "forest" on the mapping, but roads and other infrastructure are in place and the land has been subdivided. Future development will change this shoreline to "residential". Another detraction from the historic character of the James River landscape within the downstream portion of the APE is the presence of the James River Reserve Fleet (JRRF), commonly called the "Ghost Fleet." According to aerial photos, as of April 2014 there were 15 vessels moored there, however, during the April 28th boat trip, nine remaining vessels were counted. The Maritime Administration is making efforts to reduce the JRRF, there seems to be no plan to permanently eliminate it.

In order to verify integrity on-site, both USACE and VDHR conducted a boat trip on April 28, 2015 along the James River beginning at the southernmost boundary of the APE continuing upstream to a point between Jamestown Island, Hog Island, and Archers Hope. In addition, both parties visited Black Point at the eastern tip of Jamestown Island on May 4, 2015. Observations made from the river and multiple points on land find many sections of the James River near Jamestown and Hog Island to retain sufficient integrity to convey the appearance of the area during the early 17th century. The maritime approaches to Jamestown and between Jamestown and Hog Island convey the feeling and association with the significant historic event of the establishment of the settlement at Jamestown. Our desktop integrity evaluation concluded the presence of large segments of shoreline impacted by modern 20th century intrusions; however many of these areas in vicinity of the Jamestown-Hog

Island area, with exception of Kings Mill and Fort Eustis, were found to be low density intrusions that become relatively lost within the overall landscape.

Boundaries: The boundaries of this cultural landscape are depicted on Attachment B. The upstream boundary of the Jamestown Island-Hog Island Cultural Landscape was not fully evaluated past Black Point and was simply tied to the upper limits of the project APE. This landscape boundary may extend further upstream, but evaluation for the purpose of this review was not warranted. However, careful consideration was given to the downstream portion of the cultural landscape boundary, which is limited to those areas directly associated with early settlement at Jamestown and Hog Island and their maritime approaches. Continuing a boundary south of Skiffes Creek was found to be outside the limits of the early settlement era and would in turn include areas that no longer retain integrity associated with the early 17th century; such as Fort Eustis and Ghost Fleet.

Summary: The USACE finds that the cultural landscape in the vicinity of Jamestown Island and Hog Island is eligible for the National Register:

- a) The cultural landscape meets criterion A, due to the significant historic events associated with early exploration and settlement at Jamestown in the early 17th Century;
- b) The cultural landscape meets criterion D, due to the presence of archeological sites related to the early settlement;
- c) This cultural landscape retains integrity and has the ability to convey its significance.

Historic Triangle

The “Historic Triangle” has also been raised by many as a potential cultural/historic landscape. The “Historic Triangle” has no specific Section 106 designation and appears to be used primarily to advertise the area to visitors. There are no definitive boundaries, although an advertising pamphlet contains a sketch which depicts the triangle north of the proposed transmission line. While Jamestown, Colonial Williamsburg, and Yorktown Battlefield are located within the “Historic Triangle”, the area also contains many residential and commercial buildings, shopping areas, hotels and condominiums for visitors, a regional airport, a railroad, schools and many other community facilities. Similar to much of the James River, the land is interspersed with both undeveloped and highly developed landscapes. The “Historic Triangle”, as a whole, contains too many intrusive elements to retain integrity as a cultural landscape.

Captain John Smith National Historic Trail

The Captain John Smith Chesapeake National Historic Trail (CAJO) was designated by Congress in 2006 through an amendment to Section 5(a) of the National Trails System Act (16 U.S.C. 1244(a)) and is the first nationally designated water trail under the Act. The trail route extends throughout Chesapeake Bay and tributaries explored by Smith, and was further extended into four additional rivers considered as historic components of the CAJO by the Secretary of the Interior in May 2012. The stated purpose of the CAJO, per the National Park Service (NPS) documentation, is: "The purpose of the Captain John Smith Chesapeake National Historic Trail is to commemorate the exploratory voyages of Captain Smith on the Chesapeake Bay and its tributaries in 1607-1609; to share knowledge about the American Indian societies and cultures of the seventeenth century; and to interpret the natural history of the Bay (both historic and contemporary). Complementing the Chesapeake Bay Gateways and Watertrails Network, the Trail will provide new opportunities for education, recreation, eco-tourism, and heritage tourism in the Chesapeake Bay region. Commemoration alone does not support NRHP eligibility, although commemorative properties can be eligible under criteria consideration f, "if design, age, tradition, or symbolic value has invested it with its own historical significance" (36 CFR § 60.4(f)). The CAJO extends from Suffolk, Virginia, north to Cooperstown, New York, and includes many waterways, encompassing a total of over 3,800 miles. Extensions NPS has made to the CAJO into Pennsylvania and New York go far beyond the actual voyages of Smith.

Information and Comments: In reviewing the potential eligibility of the CAJO within the APE, Norfolk District Regulatory has considered numerous comments provided by consulting parties, including the following specific comments and letters:

- June 12, 2014 letter from the Virginia Department of Historic Resources (VDHR): "Finally, although not presented in the survey report, DHR strongly recommends the Captain John Smith Chesapeake Historic Trail as NRHP eligible".
- September 18, 2014 letter from the National Park Service with specific comments on the eligibility of the CAJO.
- November 10, 2014 Stantec letter with specific comments on the eligibility of the CAJO.
- February 13, 2015 letter from the Deputy Keeper regarding CAJO.
- March 11, 2015 letter from VDHR recommending consideration of the Deputy Keeper's comments on CAJO.
- April 17, 2015 letter from the ACHP recommending consideration of the Deputy Keeper's comments on CAJO.

In addition, on December 22, 2014, the Federal Highway Administration (FHWA) requested the Keeper of the National Register of Historic Places (Keeper) to provide a determination on the CAJO. The FHWA requested the Keeper determine whether the CAJO, "can be, in and of itself, a historic property type." The Keeper was also requested to review; a) a formal determination of eligibility as to whether CAJO as a whole is eligible for the National Register be provided in accordance with the provisions

of 36 CFR, Part 63, or b) if CAJO in its entirety is determined not to be eligible, if the portion of CAJO encompassed by the Central Susquehanna Valley Transportation Project (CSVT) Area of Project Effect (APE) is eligible for listing in the National Register in accordance with these same provisions. The Deputy Keeper responded in a letter dated February 13, 2015, which concluded that the documentation made available to date was insufficient for the Deputy Keeper to evaluate the historic significance and integrity of CAJO, either in whole or part. Therefore, no determination of eligibility was provided; however, the Deputy Keeper's letter did provide some guidance regarding review of the CAJO.

One comment made by the Deputy Keeper related to the issue of natural waterways: "The National Register of Historic Places has a longstanding policy that generally (emphasis Deputy Keeper) excludes natural waterways or bodies of water that were avenues of exploration or important as determinants in the location of communities or that were significant in the locality's subsequent economic development from the definition of "sites" (which along with districts, buildings, structures or objects comprise the five statutory property types that can be listed in the National Register). To include natural waterways or bodies of water in the definition of sites per se would mean that the National register would have to include large numbers of rivers, bays, lakes and bayous, etc., that were important in the exploration and development of major portions of this country. This would not be a practicable use of the National Register and would have the potential to overwhelm the evaluation and nomination activities of states, federal agencies and tribes."

The Deputy Keeper's letter continues: "Natural landscape features (including waterways such as bays, creeks, river, lakes, wetlands, etc.) are, however, often included within the boundary of districts and sites listed in, or eligible for listing in the National Register." "Landscapes included within the boundary may be considered contributing to the significance and integrity of a district of other National Register property types if they are described and justified as such in the documentation."

The Deputy Keeper's letter also commented on properties which may be associated with waterways and used to document the significance of waterways, and the particular CAJO-related historic resources. "While recognizing the important role that many natural waterways have played in our country's history, the properties considered most appropriate to document the significance of these waterways are usually a) districts, buildings, structures or objects built or used in association with the waterways, or b) sites that are significant for important historic events related to the waterways or that provide important information about a property's defined area of significance. In its 2011 *Comprehensive Management Plan and Environmental Assessment* for CAJO, the NPS identified seven types of CAJO-related historic resources 1) Smith Voyage Stops; 2) Evocative Landscapes with view of the Trail; 3) Indigenous Cultural Landscapes; 4) 17th Century American Indian Archeological Sites; 5) Historic American Indian Town Sites; 6) Landscape Features and Cultural Sites of Significance to modern American Indian tribes; 7) Smith Cross Sites. At least some of these resources, as well as

specific portions of the trail itself, may prove eligible for listing in the National Register, either individually or as integral, character-defining features of a larger site or district."

The NPS 2011 Comprehensive Management Plan (CMP) and Environmental Assessment for the CAJO, identified the seven types of trail-related historic resources. The resources are depicted on the NPS map (Attachment C) titled, "Figure 2.7f: High Potential Historic Sites, High Potential Route Segments, and Other Trail Related Resources". The actual CAJO Waterway Trail corridor, as shown on NPS maps, is located generally in the center of the James River. The NPS provided a description of these seven types of historic resources in their letter of September 18, 2014. The NPS description of the resources, and a list of any such resources located within the APE, as determined by reviewing the NPS Figure 2.7f noted above, are included below:

- (1) – *"John Smith voyage stops: Locations where Smith and his crew stopped during the 1607-1609 Voyages:"*
 - *Four mapped Voyage Stops at Jamestown Island*
 - *An "Other Voyage Stop" at the entrance to the Pagan River near Rescue, VA (south shore) ("Other Voyage Stop" includes all other voyage stops that do not meet criteria for designation as a high potential historic site in the CMP.)*
- (2) – *"Evocative landscapes: Visible shoreline generally evocative of the seventeenth century encompassing stretches where the shoreline is relatively free from intrusion by modern development and offers visitors an opportunity to vicariously share the experience of Smith and his crew. Such shorelines are primarily composed of wetland and forest vegetation."*
 - *Four "Significant Voyage Stops within a Setting that is Highly Evocative of the 17th Century" at Jamestown Island*
 - *Visible Shoreline Generally Evocative of the 17th Century- NPS map shows numerous, scattered areas of the shoreline (in green) where GIS data indicates shoreline areas "primarily composed of forests and wetlands".*
- (3) – *"Indigenous cultural landscapes: Landscapes generally encompassing cultural and natural resources that would have likely been associated with, and supported, the historic lifestyle and settlement patterns of American Indians and that exhibited their cultural or esthetic values at the time of early European contact"*
 - *NPS map legends for indigenous cultural landscapes indicates "to be determined". The NPS maps include broad "Focus Areas": Jamestown and Powhatan Creek, Chippokes Plantation State Park and Hog Island Wildlife Management Area and Pagan River and Town of Smithfield, which include areas with "stories of American Indian cultures of the time".*
 - *NPS maps of 17th century Native American Tribes within CAJO focus areas: Paspahegh, associated with Jamestown; Quiyoughcohannock, associated with Chippokes; and Warraskoyack associated with the Pagan River and Smithfield.*

- (4) – “*Historic American Indian town sites*: Historic American Indian town sites including, but not limited to, those mapped in *John Smith’s Chesapeake Voyages 1607 – 1609* (Rountree et al. 2007), *John Smith in the Chesapeake* (Haile 2008), and others”:
- *One mapped to the west of Jamestown Island (Mattapamient)*
 - *One mapped north of Smithfield, (Mathomauk, possibly 44IW0237- Basse’s Choice/Day’s Point)*
- (5) – “*Significant seventeenth-century American Indian archeological sites*: Sites listed on the National Register of Historic Places, or determined to be eligible for listing, which offer an opportunity to tell important stories of the native peoples who lived in the Chesapeake when John Smith arrived.”
- *One mapped to the west of Jamestown Island.*
- (6) – “*Landscape features and cultural sites of significance to modern American Indian tribes*: Sites which consultation or scholarly research has documented as culturally significant to modern Chesapeake Bay tribes, having an historical connection to a 17th century tribe and in proximity to the Smith voyage route.”
- *Indigenous Cultural Landscapes or Sites that are Culturally Significant to Modern Chesapeake Bay Tribes (NPS map-“to be determined”)*
- (7) – “*Cross sites*: Twenty-five general locations in proximity to the trail where Smith’s maps indicate that he or others placed a brass cross, marking the limits of their exploration. These sites are generally known on the basis of interpretation of Smith’s maps, his journal writings, and scholarly research.”
- *The only ‘Cross Site’ on the James River is at the falls*

Determination: A review of the information above indicates that the CAJO Trail Resources are clustered near Jamestown Island. The resources identified in the CAJO CPM located at or near Jamestown Island include four “voyage stops”, which were the beginnings and ends of the two voyages, an historic American Indian town site, and a seventeenth-century American Indian archeological site. In addition, Jamestown was a major starting and stopping point for Captain John Smith and his crew during many voyages. The voyage stops are located on Jamestown Island, which is already listed on the National Register of Historic Places. The two archeological sites located northwest of Jamestown Island are located outside the APE for direct effects, and as such, individual eligibility determinations are unnecessary for the purposes of this project.

The other trail-related resources identified by the NPS CMP are located much further downstream, at the edge of the Indirect APE near the Pagan River and Smithfield. An “Other Voyage Stop” at the entrance to the Pagan River near Rescue, VA is noted on the NPS CMP, but the NPS notes it does not meet CMP criteria for designation as a high potential historic site. One historic American Indian town site (archeological site) is also mapped north of Smithfield, however this is also located outside the APE for direct

effects, and as such, individual eligibility determinations are unnecessary for the purposes of this project.

The majority of the CAJO between Jamestown and the Pagan River, an approximate 16 mile stretch of river, is noted in the CMP as containing only “Evocative Landscapes” as trail-related historic resources. These evocative landscapes have no direct connection with the voyages of Captain John Smith and his crew, as there is no documentation that any significant events took place other than the crew sailing by these areas. Shorelines “generally evocative of the seventeenth century relatively free from intrusion by modern development” are certainly important from the standpoint of recreational use of the trail by visitors who “seek an opportunity to vicariously share the experience of Smith and his crew”. However, the majority of the shoreline characterized as evocative has no documented connection with the historic voyage and would therefore not meet National Register Criterion A.

In summary, the USACE finds that the CAJO, as a whole, within the APE is ineligible for inclusion in the National Register:

- a) the trail is a natural water body, which are generally excluded from listing in the National Register;
- b) the only trail-related historic resources identified in the CMP which might be eligible are located at Jamestown, not throughout the trail;
- c) evocative landscapes, which comprise the largest area of trail-related resources, have no significant historic events associated with the voyages of Captain John Smith apart from being along the route of the voyages.

Washington-Rochambeau Revolutionary Route National Historic Trail

The Washington-Rochambeau Revolutionary Route National Historic Trail (W3R-NHT) was designated by Congress (PL 111-11) and signed into law by President Obama in March 2009 under Section 5(a) of the National Trails System Act (16 U.S.C. 1244(a)). The W3R-NHT passes through 10 states, including Virginia. Over 680 miles of land and water trails commemorate the routes taken by General Washington and General Rochambeau to and from the siege of Yorktown, a pivotal event in the War for Independence. The purpose of the W3R-NHT is to identify, preserve, interpret, and celebrate the French and American alliance in the War for Independence and celebrate the historic march of American and French allied forces in the years of 1781-1783.

Information and Comments: Norfolk District Regulatory Branch has considered comments received in part from the Section 106 NHPA Historic Property Identification process, given careful consideration to a letter dated February 13, 2015 from the Deputy Keeper of the National Park Service which provides some guidance on a similar trail, as well as researched trail related information outlined on the National Park Service (NPS) and National Washington-Rochambeau Revolutionary Route Association, Inc. (W3R-US) webpages.

To date a Comprehensive Management Plan (CMP) for the W3R-NHT has not been completed; however a Draft Strategic Plan was developed in October 2010 and later updated in October 2011. From what we gather, this Strategic Planning is a continued work in progress, but is the first step in creating a CMP for the Trail. Our research has found it difficult to locate the boundaries established for the trail. The NPS is still in the process of defining the route(s) and has indicated that corresponding maps will be made available as the W3R-NHT progresses. In 2010, the National Park Service published nine maps detailing the network of land and water paths taken by the allied armies in 1781. Figure 9 “Detailed Map of the Potential National Historic Trail | Richmond to Yorktown” (Attachment D) shows the water and land routes used in Virginia. Information gathered from the NPS suggests that the water trail (Attachment E) is located generally in the center of the James River and comes ashore near College Creek, while the land route (Attachment F) follows Route 60 through Colonial Williamsburg and eventually becomes part Colonial National Historic Parkway leading into the Yorktown Battlefield Visitor Center. Based on this information, the water trail would fall within the corresponding APE, while the land based trail falls outside of the APE identified for this undertaking.

As discussed under the “Captain John Smith National Historic Trail” section above, the Deputy Keeper’s letter provided general guidance which was also used to assist with the decisions necessary for the W3R-NHT and its potential eligibility.

Since a CMP has not yet been developed for the W3R-NHT we are unable to use that as a resource for reference; however in October 2006 NPS completed a Resource Study & Environmental Assessment (EA) that was used by the Secretary of the Interior to address Congress and support a recommendation for designation as a NHT. This EA identified resources most directly associated with the events of the Washington Rochambeau Revolutionary Route and were divided into six categories; 1. Campsites and Bivouacs, 2. Historic Road Segments and Landscapes, 3. Buildings and Building Sites, 4. Archeological Resources, 5. Tombstones and Grave Markers, and 6. Plaques, Tablets, & Statues.

Determination: Although these resources are all significant in developing interpretive programs for the W3R-NHT, only the first four are property types on which NRHP nominations are based, and the last two are cited by NRHP guidance as generally not considered eligible or contributing. One “known campsite” for the W3R-NHT is documented as being present within the APE. We do not have enough information on its exact location but from what information we do have, it would appear it is near College Creek where the troops made landfall (“Archer’s Hope”). None of the three other categories potentially contributing to eligibility are specifically referenced, listed, or mapped within the APE for this undertaking. However, our research indicates there may be resources associated with W3R-NHT within the APE (Attachment G):

- 1) Trebell's Landing (047-5307) was associated with the siege at Yorktown in 1781, however, the VDHR Architectural Survey Form notes that the Primary Resource (pier/boat ramp) is no longer extant. While Trebell's Landing is considered potentially eligible under Criterion D, it has not been surveyed archaeologically to determine its individual eligibility under that criterion. Historical documentation of the events associated with Trebell's Landing may be its most important contribution as a discreet resource along the trail; however, evaluation of the site in October 2014 recommended that it did not retain the landscape features associated with the period of significance to be individually eligible under Criterion A.
- 2) Fort Boykin (046-0095/44IW0020) is listed on the National Register. It is an archeological site which consists of the remains of a Civil War fortification, including earthworks and a ditch. It is located atop a bluff overlooking the James River and was instrumental during the Revolutionary War in defense of the James River. It was named after Major Francis Boykin, who was a local merchant who served on General George Washington's staff (information from Isle of Wight County, Historic Resources website). It is located within a Historical Park, a facility of the Isle of Wight County Parks and Recreation. The site retains resources associated with the Civil War, but there are no indications of extant features from the Revolutionary War. As with Trebell's Landing, historical documentation of the events associated with Revolutionary War may be its most important contribution as a discreet resource along the trail.
- 3) Fort Crafford (121-0027/44NN0070) is the site of a Confederate fort built in 1861. It was listed on the NRHP in 1974. Fort Crafford served as the 'anchor' position on the James River for a line of defenses that stretched across the Peninsula to Yorktown. Although Fort Crafford was never in direct action, its presence proved to be a strategic factor slowing Gen. McClellan's development of the Peninsula Campaign. An 18th century house stood at the site, built after Carter Crafford's acquisition of the property in 1749, and was used as headquarters for the fort. The house stood until 1925 when the Army sold it to the College of William and Mary, which needed the bricks to repair the Wren Building at the college. According to the VDHR survey form it is believed that the site was also used for a fortification during the Revolutionary War, although this is not referenced. Crafford operated a ferry from adjacent Mulberry Point across the river to Isle of Wight County in the late 18th century.
- 4) Battle of Green Spring took place at Green Spring Plantation in James City County. Green Spring was a colonial era plantation developed by Royal Governor Sir William Berkeley in Virginia near the northwest tip of Jamestown Island, southwest of Williamsburg. On July 6, 1781, American and British forces collided in the last major battle of Virginia prior to the Siege of Yorktown as forces planned to cross the James River in route to Portsmouth. Areas of the original battle field have been impacted and encroached on by modern 20th century

development. Only approximately 200 acres have been preserved and are now part of the Colonial National Historic Park and fall inside the boundaries of Governors Land Archaeological District (047-0082 & 44JC0637). Based on available information, W3R-NHT Route does not appear to include this resource despite its connection and contribution to the Revolutionary War.

- 5) Yorktown Battlefield (099-5241 & 44YO0220) {099-5283 associated with Civil War} has ties to both Revolutionary and Civil War events; however W3R-NHT only commemorates the Revolutionary War. During the Revolutionary War, French and Continental forces eventually converged on Yorktown by land and water in October 1781. The James River was used solely as a mode of transportation during the revolutionary period. The core engagement area from the best information available is located inland away from the James River, but rather more adjacent to the York River. The Battle, known as the Siege of Yorktown, was the last major Revolutionary War battle and is the site where the British surrendered. Portions of the Battlefield and its overall landscape have been impacted by modern residential and commercial development, I-64 as well as other major transportation corridors, forested areas, reservoirs/lakes, and other water courses. The portion of Yorktown Battlefield within the APE is an American Battlefield Protection Program study area for the Civil War battle, and is not considered a core area or identified as potentially NRHP eligible for either battle.

In summary, the USACE finds that W3R-NHT, as a whole, within the APE, is ineligible for inclusion in the National Register:

- a) the trail is a natural water body, which are generally excluded from listing in the National Register;
- b) potential trail-related historic resources, as they exist today, have limited links with the W3R;
- c) potential trail-related historic resources are widely scattered throughout the APE and not within close proximity to each other or the trail as to form a distinct site or district.

Summary

For the purposes of this project, the USACE has identified a NRHP eligible cultural landscape in the vicinity of Jamestown Island and Hog Island. The cultural landscape is eligible under Criteria A and D for the reasons noted above. The cultural landscape site extends upriver past Jamestown Island to the upstream edge of the APE and downstream to Hog Island and Skiffes Creek.

Based on the information outlined above we cannot support a recommendation for individual eligibility for either CAJO or W3R-NHT within the project APE. As described by the NPS, National Historic Trails are part of the National Trail System which seeks to provide for the ever-increasing outdoor recreational needs of an expanding population

and promotes the preservation of, public access to, travel within, enjoyment, and appreciation of the open-air, outdoor areas, and historic resources of the United States. Further consideration of this aspect of the two trails will be addressed in the "Recreation" section of the Norfolk District's NEPA document for this project.

References

Bohannon, A.W.

1927 *Old Surry: Thumb-Nail Sketches of Places of Historic Interest in Surry County, Virginia*. Surry County Historical Society, Surry, VA.

Hume, Ivor Noel

1994 *The Virginia Adventure: Roanoke to James Towne, an Archaeological and Historical Odyssey*. University Press of Virginia, Charlottesville, VA.

Santec, Inc.

2014 Addendum to the Phase I Cultural Resources Survey of the Proposed Dominion Virginia Power Skiffes Creek to Surry 500 kV Transmission Line in James City, Isle of Wight and Surry Counties, Virginia. Santec Inc., Glen Allen, VA.



COMMONWEALTH of VIRGINIA

Molly Joseph Ward
Secretary of Natural Resources

Department of Historic Resources
2801 Kensington Avenue, Richmond, Virginia 23221

Julie V. Langan
Director

Tel: (804) 367-2323
Fax: (804) 367-2391
www.dhr.virginia.gov

May 11, 2015

Mr. Randy Steffey
US Army Corps of Engineers
803 Front Street
Norfolk, VA 23510

**US Army Corps of
Engineers
Norfolk District Regulatory
Office
Received by: RLS
Date: May 11, 2015**

Re: Surry-Skiffes Creek-Wheaton Proposed 500/230 kV Transmission Line and Switching Station
Surry, Charles City, James City, and York Counties; City of Williamsburg
DHR File No. 2011-2071

Dear Mr. Steffey:

The Virginia Department of Historic Resources (DHR) received on May 7, 2015 from the Army Corps of Engineers (Corps) the document entitled *National Register of Historic Places Eligibility of the Captain John Smith National Historic Trail, Washington-Rochambeau Revolutionary Route National Historic Trail, and Other Potentially Eligible Cultural Landscapes Within the Area of Potential Effect*. Thank you for your thoughtful consideration of these important resources.

The Corps recommends that the sections of the Captain John Smith Chesapeake National Historic Trail and Washington-Rochambeau Revolutionary Route National Historic Trail located within the Area of Potential Effects (APE) are not eligible for listing in the National Register of Historic Places. Based on the documentation provided and guidance from the Deputy Keeper of the National Register (December 22, 2014 letter to the Federal Highway Administration), DHR concurs that the trails, in their entirety within the APE are not eligible for National Register listing.

The Corps has identified a cultural landscape associated with the initial settlement of Jamestown that includes Jamestown Island, Hog Island, and their maritime approaches. This resource is bound on its southern (downstream) end by a line connecting Hog Island and Skiffes Creek and on its northern (upstream) end by the extents of the APE; however, the cultural landscape may extend further upstream. This cultural landscape is recommended by the Corps as eligible for listing in the National Register under Criteria A and D. Based on the documentation provided and guidance from the Deputy Keeper and applicable NPS National Register Bulletins, DHR concurs that the cultural landscape, as identified, is eligible for National Register listing.

These comments and those issued by DHR on May 1, 2015 recognize the Corps' completion of the identification of historic properties, as required by 36 CFR 800.4, for this undertaking. Please proceed to

Administrative Services
10 Courthouse Ave.
Petersburg, VA 23803
Tel: (804) 862-6408
Fax: (804) 862-6196

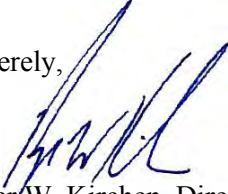
Eastern Region Office
2801 Kensington Avenue
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Fax: (804) 367-2391

Western Region Office
962 Kime Lane
Salem, VA 24153
Tel: (540) 387-5443
Fax: (540) 387-5446

Northern Region Office
5357 Main Street
PO Box 519
Stephens City, VA 22655
Tel: (540) 868-7029
Fax: (540) 868-7033

apply the criteria of adverse effect, as codified at 36 CFR 800.5, and provide to DHR and other consulting parties the Corps' finding of effect when available. If you have any questions concerning these comments or our review of this undertaking, please do not hesitate to contact me at roger.kirchen@dhr.virginia.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'R. Kirchen', is written over the word 'Sincerely,'.

Roger W. Kirchen, Director
Review and Compliance Division

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Reply to
Attention of

DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

July 2, 2015

Southern Virginia Regulatory Section
NAO-2012-00080, 13-V0408 (James River)

National Park Service
National Register of Historic Places
Attn: Mr. Patrick Andrus
1201 Eye Street, NW (2280)
Washington, DC 20005

Dear Mr. Andrus:

This letter requests a determination of eligibility for the National Register of Historic Places for a portion of the Captain John Smith National Historic Trail (CAJO) from the Keeper of the National Register, acting for the Secretary of the Interior, pursuant to 36 CFR Part 63.2 and 36 CFR Part 800.4 (c)(2).

This eligibility request is related to a Department of the Army permit application for Dominion Virginia Power (Dominion), referred to as the Surry-Skiffes Creek-Whealton aerial transmission line project. Dominion proposes the construction of 7.4-miles of new 500kV overhead transmission line from Surry to a proposed Skiffes Creek 500kV-230kV-115kV switching station in James City County, followed by upgrades to 20.2 miles of 230kV overhead transmission line easement that connects with the existing Whealton substation in Hampton, VA. The proposed work in waters of the U.S. requires a permit pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899, and therefore constitutes a Federal undertaking subject to Section 106 of the National Historic Preservation Act (NHPA).

The Virginia Department of Historic Resources (SHPO) has recognized our completion of the identification of historic properties, as required by 36 CFR 800.4, for this undertaking and has concurred with all eligibility determinations made to date. As part of the identification process, we submitted our May 7, 2015, document entitled "*National Register of Historic Places Eligibility of the Captain John Smith National Historic Trail, Washington-Rochambeau Revolutionary Route National Historic Trail, and Other Potentially Eligible Cultural Landscapes Within the Area of Potential Effect*" for SHPO consideration. Among other things in this document, we described our determinations that (1) a section of the James River and immediate shorelines from the western end of Jamestown Island to Skiffes Creek, and including Hog Island, is eligible as a cultural landscape (the Jamestown Island-Hog Island Cultural Landscape); and (2)

although a portion of the CAJO lies within the defined cultural landscape, the CAJO is not eligible under National Register criteria. On May 11, 2015, the SHPO concurred with our eligibility determinations.

In a letter dated June 19, 2015, the Advisory Council on Historic Preservation (ACHP) requested that we obtain a determination of eligibility for the portion of the CAJO within the undertaking's APE from the Keeper of the National Register.

For your consideration we have enclosed our May 7th determination of eligibility document with the supporting reference materials used to reach our decision that the portion of the CAJO within the project APE is ineligible for the National Register. This determination includes a description of the CAJO and information on significance. Other documents related to our determination are listed below as enclosures, and include maps and photos, along with the concurrence letter from the SHPO. We also have included recent materials received from Frank Hays, Acting Associate Regional Director with the National Park Service that were not available prior to our May 7th determination. We have reviewed and considered these new materials, but we do not feel any changes to the determinations receiving SHPO's concurrence are warranted.

Each of the items required by 36 CFR Part 63.2(d) are enclosed with this letter. We trust the information we have packaged is sufficient for you to determine the eligibility of the portion of the CAJO within the project APE. We look forward to your response within 45-days of your receipt. If you have any questions, please do not hesitate to contact Randy Steffey at (757) 201-7579 or by e-mail at randy.l.steffey@usace.army.mil

Sincerely,



FOR William T. Walker
Chief, Regulatory Branch

Enclosures:

1. Location Map/Indirect APE Exhibit
2. May 7, 2015 USACE National Register of Historic Places Eligibility of the Captain John Smith National Historic Trail, Washington-Rochambeau Revolutionary Route National Historic Trail, and Other Potentially Eligible Cultural Landscapes

Within the Area of Potential Effect Determination

- a. *June 12, 2014 letter from the Virginia Department of Historic Resources (VDHR): "Finally, although not presented in the survey report, DHR strongly recommends the Captain John Smith Chesapeake Historic Trail as NRHP eligible".*

- b. September 18, 2014 letter from the National Park Service with specific comments on the eligibility of the CAJO.*
 - c. November 10, 2014 Stantec letter with specific comments on the eligibility of the CAJO.*
 - d. February 13, 2015 letter from the Deputy Keeper regarding CAJO.*
 - e. March 11, 2015 letter from VDHR recommending consideration of the Deputy Keeper's comments on CAJO.*
 - f. April 17, 2015 letter from the ACHP recommending consideration of the Deputy Keeper's comments on CAJO.*
- 3. May 11, 2015 VDHR(SHPO) DOE concurrence letter
 - 4. May 28, 2015 Coalition letter with Enclosures to Director NPS
 - 5. June 9, 2015 NPS Letter w/ Addendum
 - 6. June 19, 2015 ACHP Request Referral to Keeper letter
 - 7. DVD w/ still photos and videos captured from the field
 - 8. DVD w/ interactive simulations
 - 9. DVD w/ Comments
 - 10. List of Consulting Parties
- cc: Advisory Council on Historic Preservation, John Eddins
Virginia Department of Historic Resources, Roger Kirchen
Dominion Virginia Power, Courtney Fisher
Stantec, Christine Conrad
Consulting Parties



United States Department of the Interior

NATIONAL PARK SERVICE

1849 C Street, N.W.
Washington, DC 20240

AUG 14 2015

H32(2280)

Mr. William T. Walker
Chief, Regulatory Branch
Department of the Army
U.S. Army Corps of Engineers
Norfolk District
Fort Norfolk
803 Front Street
Norfolk, VA 23510-1011

Dear Mr. Walker:

We have received your letter dated July 2, 2015 (arrived at the National Register of Historic Places on July 6, 2015), requesting a determination of eligibility for the National Register for properties located within the vicinity of the Dominion Virginia Power-proposed Surrey-Skiffes Creek-Whealton aerial transmission line project. The proposed project calls for construction of 7.4 miles of overhead transmission lines from Surry, Virginia, to a proposed switching station in James City County, Virginia. The proposal calls for the transmission line to cross the James River, thus requiring a permit from the U.S. Army Corps of Engineers, which would constitute a Federal undertaking subject to Section 106 of the National Historic Preservation Act.

You have requested that the National Register provide a determination of eligibility for properties located within the project's "Indirect Area of Potential Effect" (Indirect APE) which the Corps of Engineers defines as having both inland land-based and water-based components. The water-based section of the APE extends from just west of Jamestown Island to include portions of the James River downstream to the Pagan River near Smithfield, VA, and its boundary is drawn to include adjacent lands extending several thousand feet from the river's shoreline. The Indirect APE is defined in U.S. Army Corps of Engineers report *Dominion Virginia Power Surry-Skiffes Creek-Whealton Proposed 500/230kV Line*, NAO-2012-00080/13-V0408, May 7, 2015, p. 1, (hereafter referred to as *Corps of Engineers report*) and is shown as a blue line drawn on the map titled "Indirect APE Map, Surry-Skiffes Creek-Whealton Proposed 500/230kV line" included as Enclosure 1 with the Determination of Eligibility request.

This request for a determination of eligibility does not extend to the inland, land-based portion of the Indirect APE, which is comprised primarily of an existing overhead utility right-of-way that extends generally from Skiffes Creek south to Hampton, VA (*Corps of Engineers Report*, p. 1).

All further references in this letter to the Indirect APE should be understood to exclude the inland land-based portion referenced above. You have specifically requested a determination of eligibility for the portion of the Captain John Smith Chesapeake National Historic Trail (CAJO) and the Washington-Rochambeau Revolutionary Route National Historic Trail that are located within the Indirect APE.

The Captain John Smith Chesapeake National Historic Trail (CAJO) was established by Congress in 2006, following a feasibility study by the National Park Service and a determination by the National Park System Advisory Board that the trail was nationally significant. The initial trail route extended approximately 3,000 miles along the Chesapeake Bay and the tributaries of the Chesapeake Bay in the States of Virginia, Maryland, and Delaware, and the District of Columbia; it traced the 1607-1609 voyages of Captain John Smith to chart the land and waterways of the Chesapeake Bay. The trail was extended by order of the Secretary of the Interior in 2012 through designation of four rivers as historic components of CAJO. This action extended the trail by 841 miles to include: the Susquehanna River Component Connecting Trail (a 552-mile system of water trails along the main-stem and West Branch of the Susquehanna River in Maryland, Pennsylvania and New York); the Chester River Component Connecting Trail (a 46-mile system of the Chester River and its major tributaries); the Upper Nanticoke River Component Connecting Trail (23-miles of the Nanticoke River, Broad Creek and Deep Creek); and the Upper James River Component Trail (a 220-mile water trail of the James River in Virginia). CAJO, the first designated national historic trail that is composed primarily of a water trail route, now extends along waterways from Cooperstown, New York, to Norfolk, Virginia.

The Washington-Rochambeau Revolutionary Route National Historic Trail (designated in June 2007) includes over 680 miles of land and water trails that follow the route taken by General George Washington and the Continental Army and French General Jean-Baptiste de Rochambeau and the *Expédition Particulière* to and from the siege of Yorktown, a pivotal event in the American Revolution. The Washington-Rochambeau Revolutionary Route National Historic Trail passes through Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Washington, D.C., and Virginia.

After considering all documentation submitted, we have determined that the entire area encompassed by the Indirect APE is eligible for the National Register of Historic Places as a historic district under National Register Criteria A, B, C, and D, in the areas of significance of Exploration/Settlement, Ethnic Heritage, and Archeology. This historic district forms a significant cultural landscape associated with both the American Indian inhabitants of the area and the later English settlers.

The English colonization of North America was an extraordinary undertaking which had a profound impact on the Old World and the New and much of what was to come had its origins here along the James River: the establishment and growth of the first permanent English settlement in the New World; some of the earliest and most sustained interactions (both cooperative and antagonistic) between the original inhabitants of the area - the American Indians - and the Europeans; the initial English voyages of discovery which took them throughout the Chesapeake Bay and into the interiors following the numerous rivers and led to expanding

contact with the American Indians and the spread of English settlement; the foundation and development of the tobacco economy which would dominate the Chesapeake Bay world; the introduction and firm establishment of chattel slavery; the architectural evolution of buildings in the James River area from the first crude huts built by the English to the flowering of the dominant Georgian architectural style; and the growth of the unique political and social institutions which would lead to the development of representative democracy and the growing impulse of the colonists to gain independence and self-rule from the corporate founders of the colony and later their royal master the King.

The Indirect APE includes numerous significant historic properties already listed in the National Register of Historic Places including all or parts of: Colonial National Historical Park; Jamestown National Historic Site; Colonial Parkway; Yorktown Battlefield; Kingsmill Plantation (which includes a series of important archeological sites); Carter's Grove National Historic Landmark, one of colonial America's most impressive examples of Georgian architecture (built 1750-1755) noted for its exquisite brickwork and finely crafted, fully-paneled interior; the archeological site of Martin's Hundred located at Carter's Grove (established in 1619 as one of the earliest English settlements outside of Jamestown Island, it was destroyed in the American Indian uprising of 1622); and a number of other archeological sites. A significant contributing feature of the district is Hog Island, which was fortified in 1609 to help defend Jamestown Island. In a letter dated March 11, 2015, to the Corps of Engineers, the Virginia State Historic Preservation Office notes that three 17th century archeological sites have been identified on Hog Island and that in their opinion the island is individually eligible for the National Register. In addition to the properties enumerated above, the Virginia State Historic Preservation Office, in letters dated June 12, 2014, and June 19, 2015, to the Corps of Engineers, identify an additional twelve properties within the Indirect APE which are either listed in the National Register or they are considered to be potentially eligible (including the James River National Defense Reserve Fleet, also known as the Ghost Fleet).

The Indirect APE encompasses a portion of the Captain John Smith Chesapeake National Historic Trail (CAJO). The boundary of CAJO extends from shore to shore of the James River. Jamestown Island and Hog Island (an isthmus) are located within the James River and are thus within the boundary of CAJO.

The National Park System Advisory Board in March, 2006, found that the trail was nationally significant for its association with the following historic patterns of events:

- Captain John Smith's Chesapeake Bay voyages are nationally significant because they accelerated the process that destroyed the Powhatan polity and disrupted the native people's world throughout the region.

The Water Trail is significant as:

- a) the route that John Smith followed in his voyages to American Indian towns and territories;
- b) a symbol of the independence of the English colonists from Powhatan's control;
- c) a symbol of the impact on and eventual collapse of the Powhatan polity

and the native peoples' world of the Chesapeake Bay and beyond.

- Captain John Smith's Chesapeake Bay voyages are nationally significant because of their impact on the exploration and settlement of North America.

The Water Trail is significant as:

- a) the route that John Smith followed in his program of exploration and discovery in the Chesapeake Bay and its tributaries;
- b) a symbol of the spirit of adventure and wonder that were important components of Smith's voyages and the English exploration;
- c) the route by which Smith gathered information vital to the survival and growth of the English settlements in North America.

- Captain John Smith's Chesapeake Bay voyages are nationally significant because of their impact on the commerce and trade of North America.

The Water Trail is significant as:

- a) the route by which John Smith surveyed the Bay and explored for gold, silver, copper, and the Northwest Passage, for the benefit of the commerce and trade of the colony and England;
- b) the route by which Smith made contact with American Indian tribes, established trade agreements with them, and increased the chances that the English colony would survive;
- c) a symbol of England's trading power, soon to be increased by the production of tobacco for export from the colony;
- d) a symbol of the long-term impact on the cultural contact between the native peoples and European colonists.

This segment of CAJO is among the most historically significant portions of the overall National Historic Trail's 3,000 plus miles of waterways. Jamestown was the starting and ending point for all of Smith's voyages and was Smith's base of operations and center of political power over the new colony. Properties within and along this segment of the trail are directly associated with the historic patterns of events for which the trail was found to be nationally significant and thus this section of the trail itself is eligible for the National Register of Historic Places as a contributing element in the larger historic district defined by the Indirect APE boundary.

We note that the Virginia State Historic Preservation Office, in a letter to the Corps of Engineers dated May 11, 2015, advised that, in their opinion, what they describe as an eligible cultural landscape within the APE may extend further upstream beyond the boundary of the Indirect APE. We do not have sufficient information to evaluate properties upstream from the district at this time.

As to the Washington-Rochambeau Revolutionary Route National Historic Trail, no information has been provided with this determination of eligibility request regarding the trail section located within the APE, thus we cannot provide a determination of the trail's eligibility.

Please let us know if you have any questions concerning this determination of eligibility.

Sincerely,

A handwritten signature in blue ink that reads "Stephanie S. Toothman". The signature is fluid and cursive, with the first name "Stephanie" being more prominent than the last name "Toothman".

Stephanie S. Toothman, Ph.D.
Associate Director, Cultural Resources, Partnerships,
and Science
Keeper, The National Register of Historic Places

Enclosure

IDENTICAL LETTER SENT TO:

Cc: Ms. Julie Langan
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United States Department of the Interior
National Park Service
Northeast Region
United States Custom House
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Superintendent
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Appendix B INDIVIDUAL STRUCTURE HEIGHTS AND PROPOSED ACTIVITY

SURREY TO SKIFFES CREEK 500 kV SEGMENT (LINE 582; Line 7)			
Structure	Proposed Structure Type	Proposed Height	Proposed Work
582/1	DC A-Frame Backbone	117	New
582/2	Monopole	142	New
582/3	Monopole	167	New
582/4	Monopole	187	New
582/5	Monopole	197	New
582/6	Monopole	197	New
582/7	Monopole	157	New
582/8	Monopole	157	New
582/9	Monopole	157	New
582/10	Monopole	157	New
582/11	Monopole	172	New
582/12	Steel Lattice - DE (Angle)	138	New
582/13	Steel Lattice	134	New
582/14	Steel Lattice	134	New
582/15	Steel Lattice - DE (Angle)	128	New
582/16	Steel Lattice	134	New
582/17	Steel Lattice	134	New
582/18	Steel Lattice	159	New
582/19	Steel Lattice	159	New
582/20	Steel Lattice - DE (Angle)	138	New
582/21	Steel Lattice	297	New
582/22	Steel Lattice	297	New
582/23	Steel Lattice	189	New
582/24	Steel Lattice	189	New
582/25	Steel Lattice	277	New
582/26	Steel Lattice	277	New
582/27	Steel Lattice	179	New
582/28	Steel Lattice	179	New
582/29	500 kV 3 Pole Steel SC DDE	107	New
582/30	Monopole SC Suspension	132	New
582/31	Monopole SC DDE Steel Staggered Arms	107	New
582/32	Monopole SC Suspension	152	New
582/33	Monopole SC Suspension	135	New
582/34	Monopole SC Suspension	152	New
582/35	Monopole SC Suspension	137	New
582/36	Monopole SC Suspension	137	New
582/37	Monopole SC Suspension	137	New
582/38	Monopole SC DDE Steel Staggered Arms	132	New

SURRY TO SKIFFES CREEK 500 kV SEGMENT (LINE 582; Line 7)			
Structure	Proposed Structure Type	Proposed Height	Proposed Work
582/39	Monopole SC DDE Steel Staggered Arms	132	New
582/40	Monopole SC Suspension	127	New
582/41	Monopole SC DDE Steel Staggered Arms	137	New
582/42	500 kv/230 kV 3 Pole Steel SC DDE	102	New
582/43	Steel H-Frame	112	New
582/44	DC A-Frame Backbone	117	New
7/5	Double Dead End, 3-pole	47.5	Replacement
7/6	Double Dead End, single pole	65.5	Replacement
7/7	Running Angle, single pole	70.5	Replacement
7/8	Running Angle, single pole	65.5	Replacement
7/9	Double Dead End, single pole	65.5	Replacement
7/10	Running Angle, single pole	83.5	Replacement
7/11	Running Angle, single pole	92.5	Replacement
7/12	Running Angle, single pole	83.5	Replacement
7/13	Running Angle, single pole	65.5	Replacement
7/14	Double Dead End, single pole	70.5	Replacement
7/15	Double Dead End, Anchor H-frame	47.5	Replacement
7/16	Double Dead End, 3-pole	38.5	Replacement

SKIFFES CREEK TO WHEALTON 230 kV SEGMENT (LINE 2138)			
Structure	Proposed Structure Type	Proposed Height	Proposed Work
2138/5	Monopole	135	Replacement
2138/6	Monopole	110	Replacement
2138/7	Monopole	120	Replacement
2138/8	Monopole	127	Replacement
2138/9	Monopole	127	Replacement
2138/10	Monopole	127	Replacement
2138/11	Monopole	120	Replacement
2138/12	Monopole	127	Replacement
2138/13	Monopole	117	Replacement
2138/14	Monopole	127	Replacement
2138/15	Monopole	110	Replacement
2138/16	Monopole	120	Replacement
2138/17	Monopole	137	Replacement
2138/18	Monopole	137	Replacement
2138/19	Monopole	130	Replacement
2138/20	Monopole	155	Replacement
2138/21	Monopole	130	Replacement
2138/22	Existing Monopole	100	Reconductoring
2138/23	Existing Monopole	120	Reconductoring
2138/24	Existing Monopole	125	Reconductoring
2138/25	Existing Monopole	105	Reconductoring
2138/26	Existing Monopole	100	Reconductoring
2138/27	Existing Monopole	145	Reconductoring
2138/28	Existing Monopole	145	Reconductoring
2138/29	Existing Monopole	145	Reconductoring
2138/30	Existing Monopole	125	Reconductoring
2138/31	Existing Monopole	125	Reconductoring
2138/32	Existing Monopole	100	Reconductoring
2138/33	Existing Monopole	115	Reconductoring
2138/34	Existing Monopole	125	Reconductoring
2138/35	Existing Monopole	125	Reconductoring
288/451	Existing Monopole	100	Reconductoring
285/452	Existing Monopole	55	Reconductoring
285/453	Existing Monopole	55	Reconductoring
2138/36	Monopole	100	New
2138/37	Monopole	75	New
2138/38	Existing Monopole	135	Reconductoring
2138/39	Existing Monopole	135	Reconductoring
2138/40	Existing Monopole	110	Reconductoring

SKIFFES CREEK TO WHEALTON 230 kV SEGMENT (LINE 2138)			
Structure	Proposed Structure Type	Proposed Height	Proposed Work
2138/41	Existing Monopole	120	Reconductoring
2138/42	Existing Monopole	120	Reconductoring
2138/43	Monopole	130	Replacement
2138/44	Monopole	137	Replacement
2138/45	Monopole	137	Replacement
2138/46	Monopole	137	Replacement
2138/47	Monopole	142	Replacement
2138/48	Monopole	130	new
209/545	3-pole Wood	50	Reconductoring
209/546	DDE H-Frame	70	Replacement
209/548	Monopole	160	Replacement
209/549	existing weathering structure	130	Reconductoring
58/275	3 Pole	57	Replacement
2138/48	DDE	130	new
2138/49	Monopole	107	Replacement
2138/50	Monopole	107	Replacement
2138/51	Monopole	107	Replacement
2138/52	Monopole	107	Replacement
2138/53	Monopole	107	Replacement
2138/54	Monopole	107	Replacement
2138/55	Monopole	107	Replacement
2138/56	Monopole	107	Replacement
2138/57	Monopole	107	Replacement
2138/58	Monopole	107	Replacement
2138/59	Monopole	107	Replacement
2138/60	Monopole	107	Replacement
2138/61	Monopole	107	Replacement
2138/62	Monopole	107	Replacement
2138/63	Monopole	107	Replacement
2138/64	Monopole	110	Replacement
2138/65	Monopole	117	Replacement
2138/66	Monopole	107	Replacement
2138/67	weathering H-Frame	82	Replacement
2138/68	weathering H-Frame	87	Replacement
2138/69	weathering H-Frame	87	Replacement
2138/70	weathering H-Frame	82	Replacement
2138/71	weathering H-Frame	117	Replacement
2138/72	weathering H-Frame	137	Replacement
2138/73	Monopole	137	Replacement

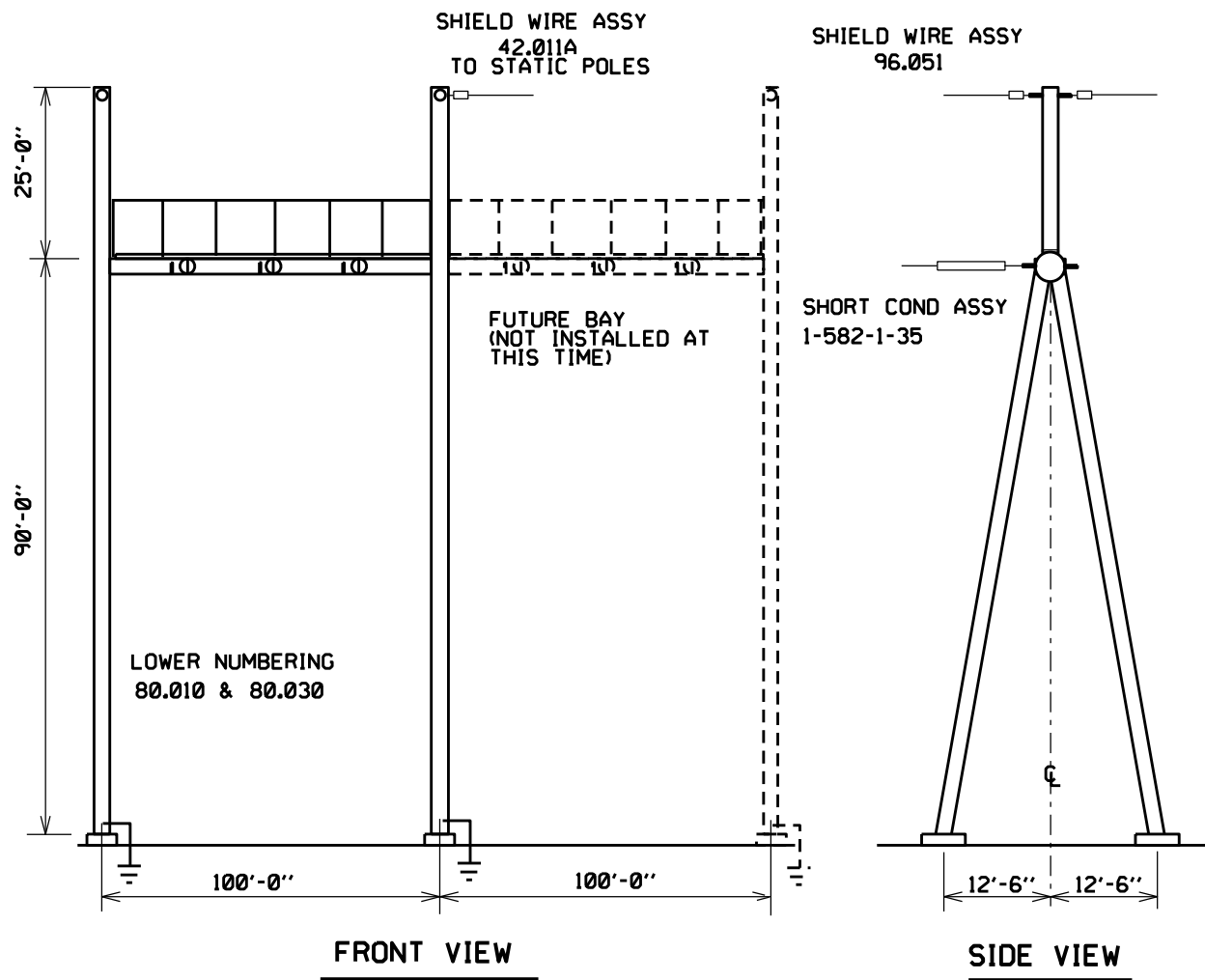
SKIFFES CREEK TO WHEALTON 230 kV SEGMENT (LINE 2138)			
Structure	Proposed Structure Type	Proposed Height	Proposed Work
2138/74	Monopole	137	Replacement
292/573	existing weathering structure	65	Reconductoring
2138/75	Monopole	120	Replacement
58/305	3 Pole	57	Replacement
58/306	3 Pole Wood	45	No work
288/37	existing weathering structure	65	Reconductoring
2138/76	Monopole	107	Replacement
2138/77	Monopole	117	Replacement
2138/78	Monopole	110	Replacement
2138/79	Monopole	107	Replacement
2138/80	DOM pole H-Frame	61	New
2138/81	DOM pole H-Frame	48	New
2138/82	DOM pole H-Frame	52	New
2138/83	DOM pole H-Frame	52	New
2138/84	DOM pole H-Frame	52	New
2138/85	DOM pole H-Frame	52	New
2138/86	DOM pole H-Frame	61	New
2138/87	DOM pole H-Frame	61	New
292/579	DOM pole H-Frame	61	Replacement
292/580	DOM pole H-Frame	48	Replacement
292/581	DOM pole H-Frame	52	Replacement
292/582	DOM pole H-Frame	52	Replacement
292/583	DOM pole H-Frame	52	Replacement
292/584	DOM pole H-Frame	52	Replacement
292/585	DOM pole H-Frame	61	Replacement
292/586	DOM pole H-Frame	61	Replacement
2138/88	3 Pole	72	Replacement
2138/89	Weathering H-frame	77	Replacement
2138/90	Monopole	107	Replacement
2138/91	Monopole	152	Replacement
2138/92	Monopole	120	Replacement
2138/93	Monopole	117	Replacement
2138/94	Monopole	117	Replacement
2138/95	Monopole	97	Replacement
2138/96	Monopole	117	Replacement
2138/97	Monopole	110	Replacement
2138/98	Monopole	117	Replacement
2138/99	Monopole	127	Replacement
2138/100	Monopole	110	Replacement

SKIFFES CREEK TO WHEALTON 230 kV SEGMENT (LINE 2138)			
Structure	Proposed Structure Type	Proposed Height	Proposed Work
2138/101	Monopole	117	Replacement
2138/102	Monopole	117	Replacement
2138/103	Monopole	117	Replacement
2138/104	Monopole	110	Replacement
2138/105	Monopole	117	Replacement
2138/106	Monopole	117	Replacement
2138/107	Monopole	110	Replacement
2138/108	Monopole	110	Replacement
2138/109	Monopole	120	Replacement
2138/110	Monopole	137	Replacement
2138/111	Monopole	135	Replacement
2138/112	Monopole	120	Replacement
2138/113	Monopole	117	Replacement
2138/114	Monopole	127	Replacement
2138/115	Monopole	117	Replacement
2138/116	Existing Monopole	100	Reconductoring
2138/117	Monopole	75	new
292/614A	Existing Monopole	96	Reconductoring
292/614B	Existing DC Backbone	95	Reconductoring
292/614C	Existing Monopole	96	Reconductoring
2138/118	monopole	100	Reconductoring
2138/119	monopole	117	Replacement
2138/120	monopole	117	Replacement
2138/121	monopole	127	Replacement
2138/122	monopole	127	Replacement
2138/123	Existing Monopole	117	Reconductoring
2138/124	Existing Backbone	65	Reconductoring
2138/125	Existing Monopole	96	Reconductoring
2138/126	Existing Backbone	65	Reconductoring
2138/127	monopole	75	new
2138/128	monopole	137	Replacement
2138/129	monopole	127	Replacement
2138/130	monopole	137	Replacement
2138/131	monopole	127	Replacement
2138/132	monopole	117	Replacement
2138/133	monopole	117	Replacement
2138/134	monopole	117	Replacement
2138/135	monopole	117	Replacement
2138/136	monopole	117	Replacement

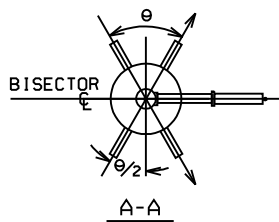
SKIFFES CREEK TO WHEALTON 230 kV SEGMENT (LINE 2138)			
Structure	Proposed Structure Type	Proposed Height	Proposed Work
2138/137	monopole	127	Replacement
2138/138	monopole	117	Replacement
2138/139	monopole	117	Replacement
2138/140	monopole	117	Replacement
2138/141	monopole	117	Replacement
2138/142	monopole	117	Replacement
2138/143	monopole	117	Replacement
2138/144	monopole	117	Replacement
2138/145	monopole	117	Replacement
2138/146	monopole	127	Replacement
2138/147	monopole	137	Replacement
2138/148	monopole	127	Replacement
2138/149	monopole	127	Replacement
2138/150	monopole	127	Replacement
2138/151	monopole	127	Replacement
2138/152	monopole	117	Replacement
2138/153	monopole	110	Replacement
292/646	Existing Concrete Backbone	75	Reconductoring
2138/154	Steel Backbone	66	New

Appendix C STRUCTURE TYPES –

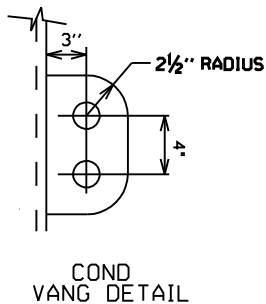
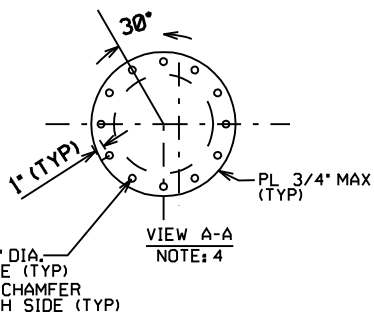
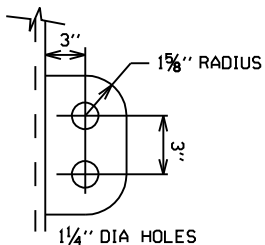
C.1 SURRY-SKIFFES CREEK



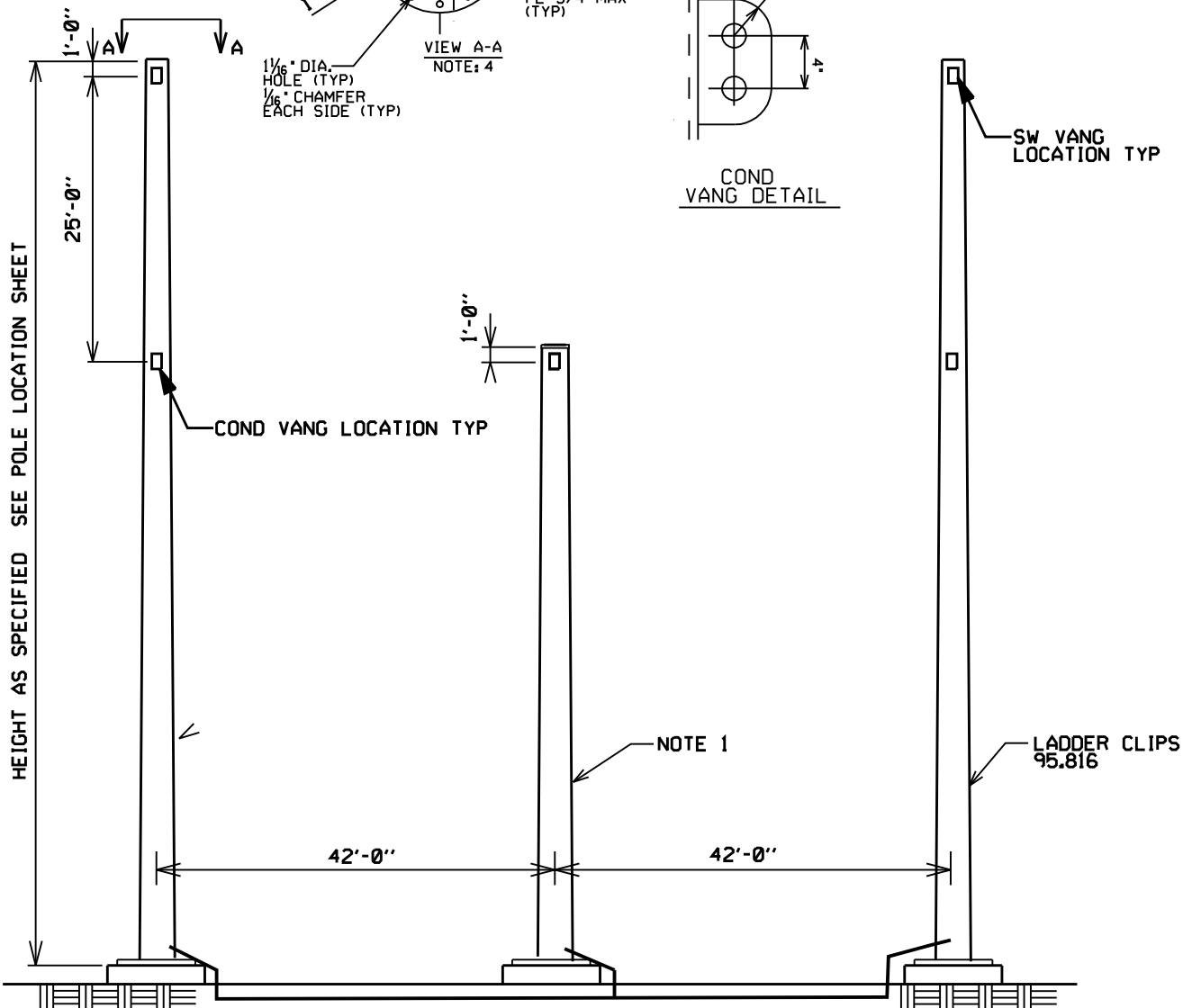
582/1 and 582/44
Terrestrial Crossing
Sheet 1



θ = LINE ANGLE
SEE VIEW A-A FOR POLE CAP



582 LINE

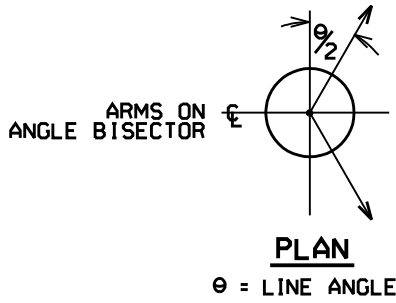


Proposed Tower Structure

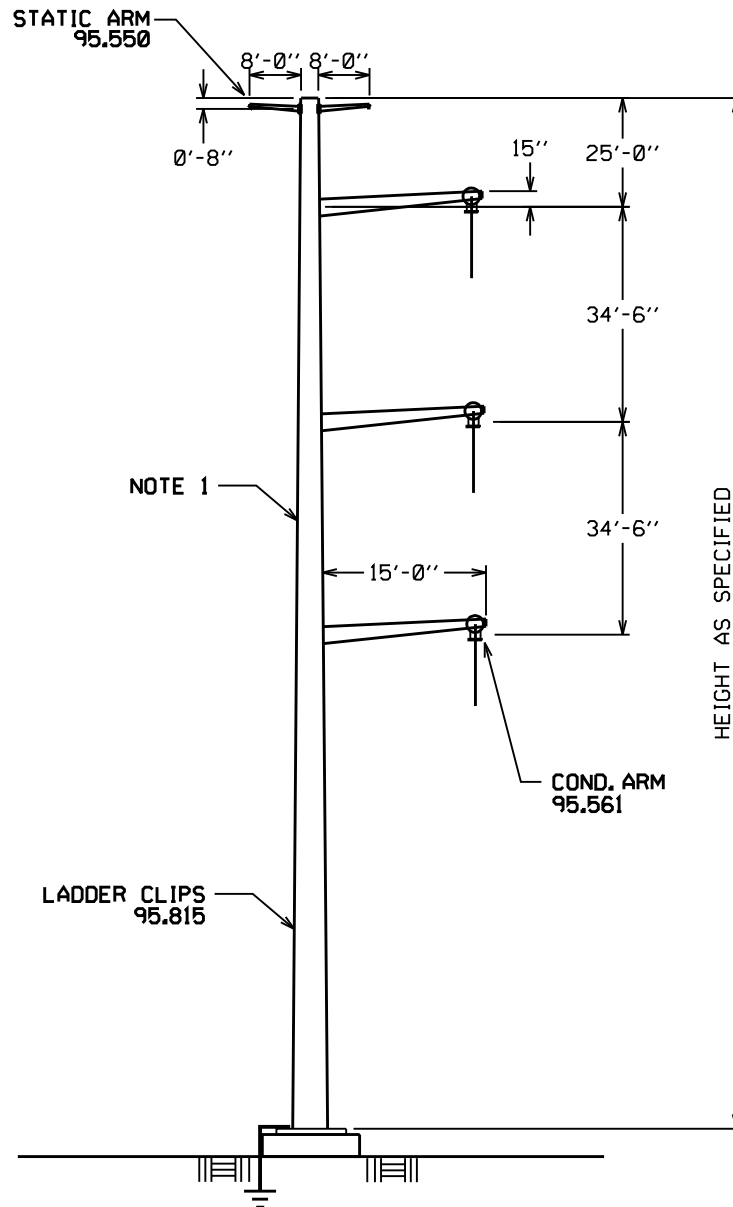
582/2

Terrestrial Crossing

Sheet 2



582 LINE



Proposed Tower Structure

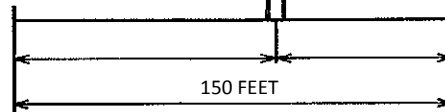
582/3

Terrestrial Crossing

Sheet 3

582 LINE

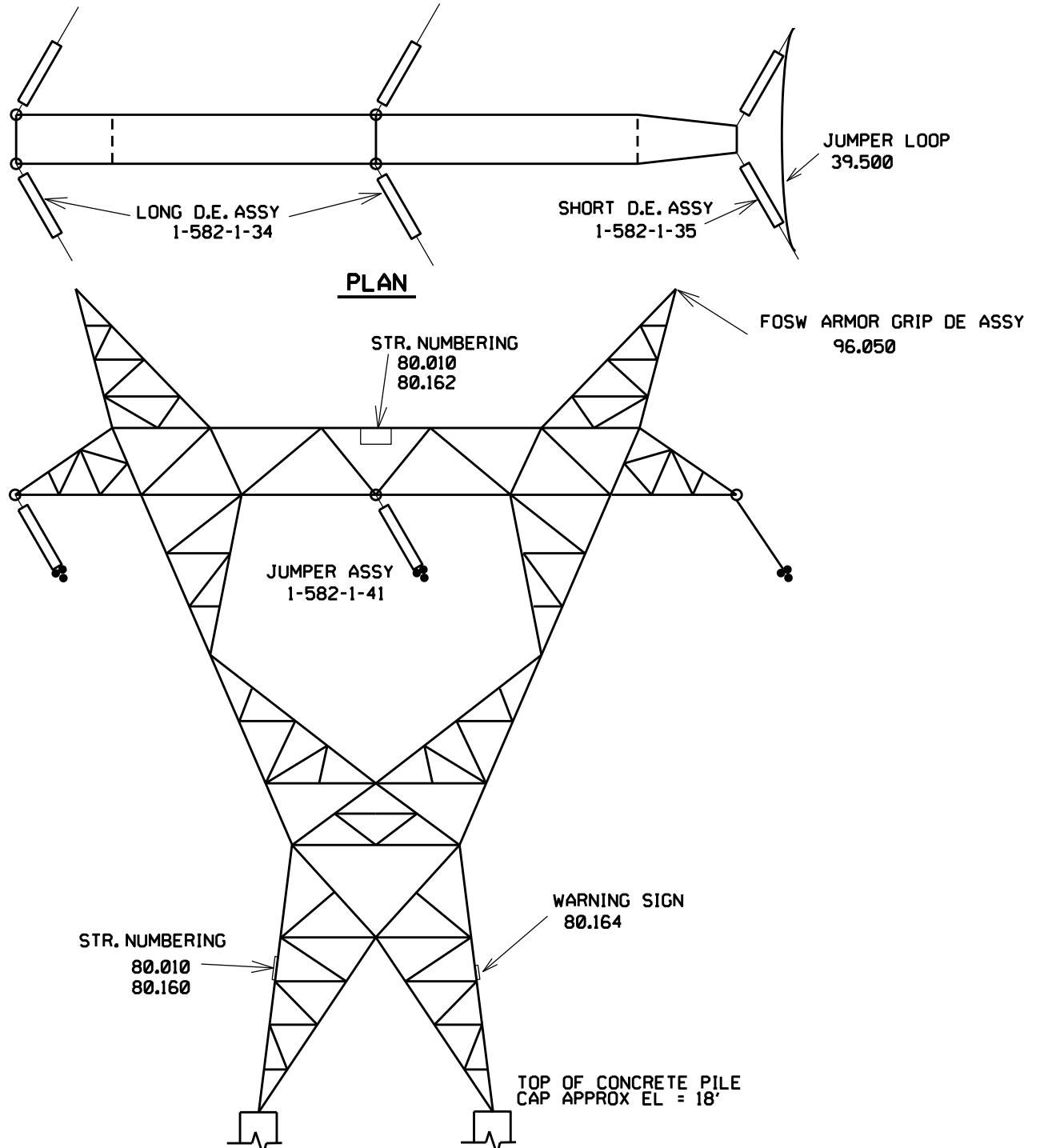
Proposed R/W



Proposed Tower Structures

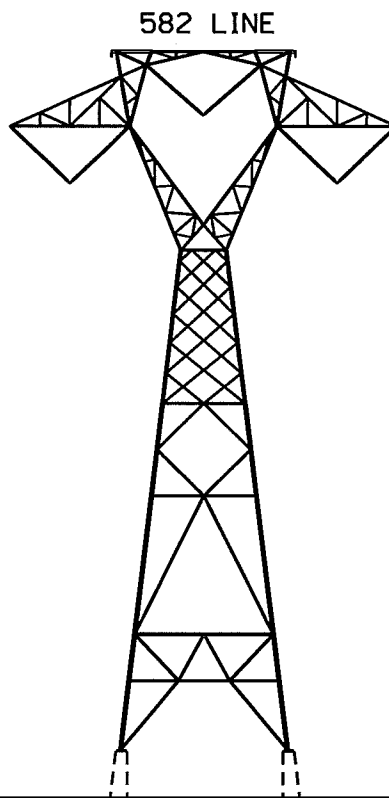
582/4 thru 582/11

Terrestrial Crossing



Proposed Tower Structures

582/12, 582/15 & 582 20
River Crossing
Sheet 5



Proposed Tower Structures

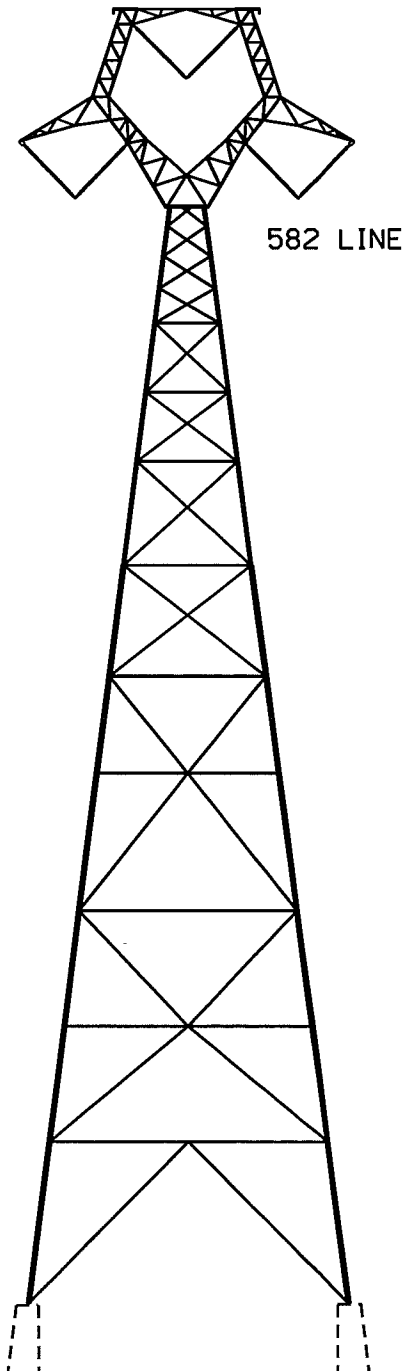
582/13 thru 582/14

582/16 thru 582/19

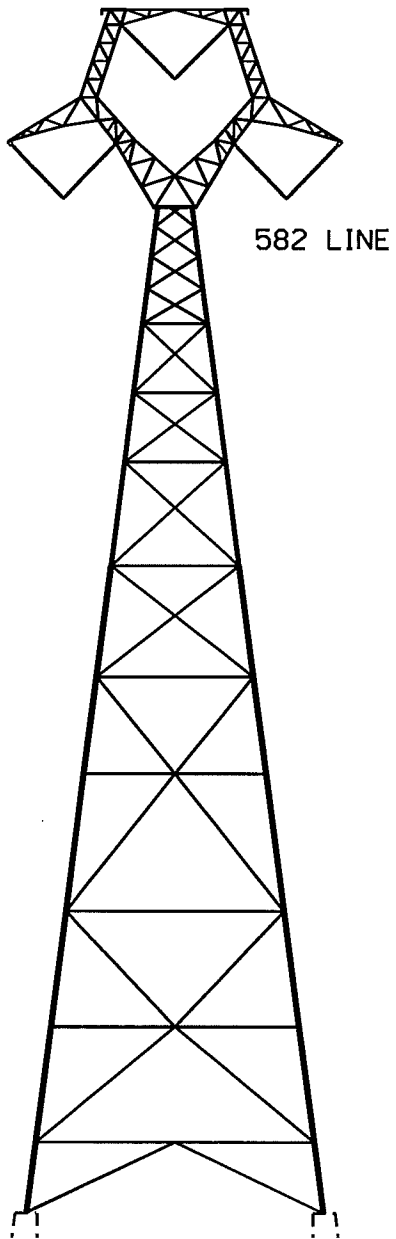
582/23 thru 582/24

582/27 thru 528/28

River Crossing



Proposed Tower Structures
582/21 thru 582/22
Secondary Navigational Channel Crossing
Sheet 7

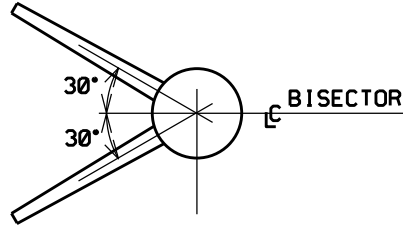


Proposed Tower Structures
582/25 thru 582/26
Federal Navigational Channel Crossing
Sheet 8

\$SYTIME\$

*REMOVE CHAIN LINK (ITEM 3 IN ASSEMBLY)
FOR THIS STRUCTURE ONLY BECAUSE OF
VERTICAL VANG.

AERIAL NUMBER
80.032



'A-A'

OPGW ASSY
96.050

16'-0"

TO
SKIFFES
CREEK

TO
SURRY

500KV TRAINING INSUL.
35.295

500KV JUMPER LOOP
39.500

500KV LONG DE ASSY 3 BDL
1-582-1-34

LOOKING TOWARDS
SKIFFES CREEK

36'-0"

36'-0"

GROUND WIRE
INSTALLATION
60.130

LOWER NUMBER
80.010 & 80.031

HEIGHT AS SPECIFIED SEE POLE LOCATION SHEET

Proposed Tower Structure

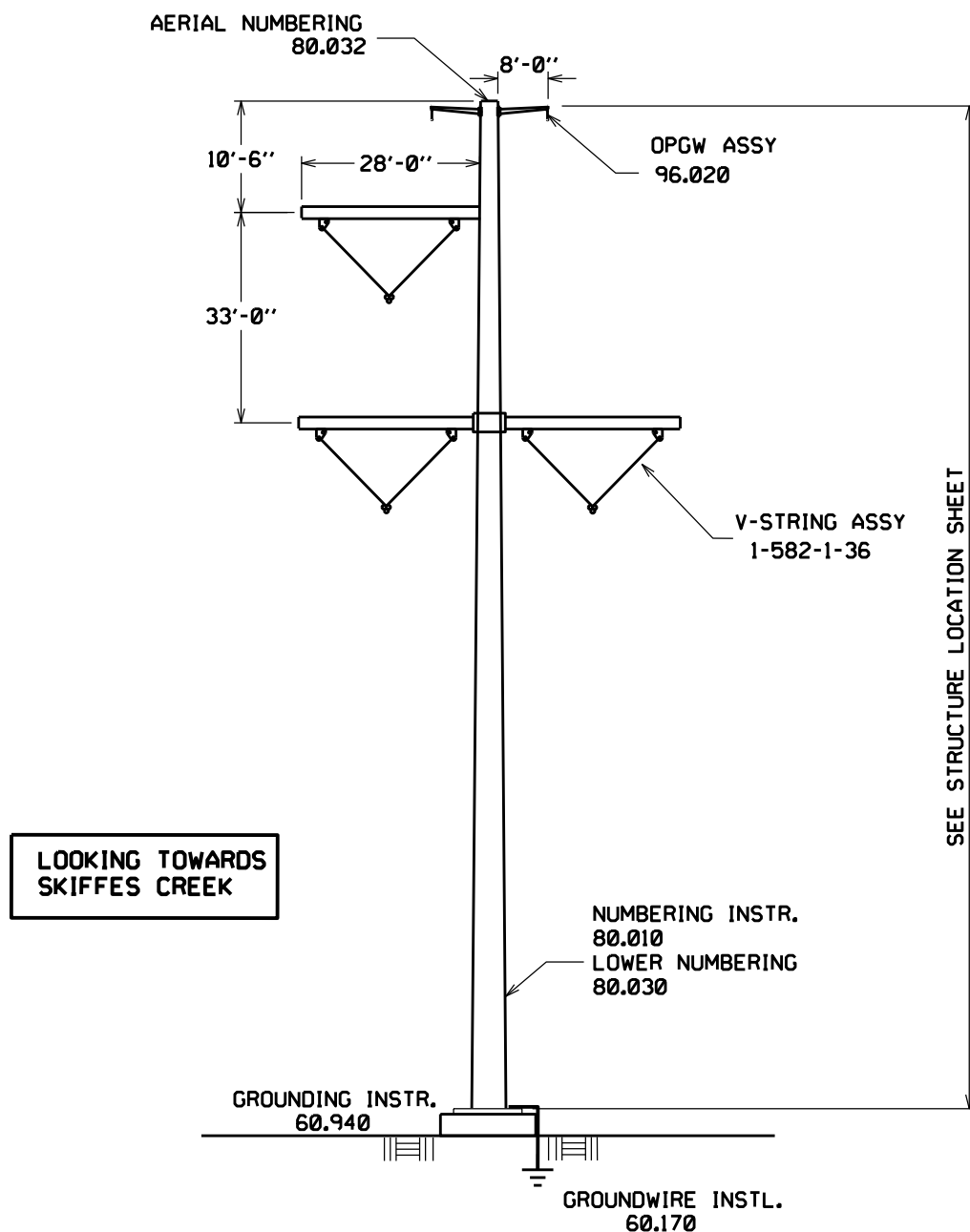
582/29, 582/31 & 582/33

Terrestrial Crossing

Sheet 9

\$DGN\$SPEC\$

TESBORDI

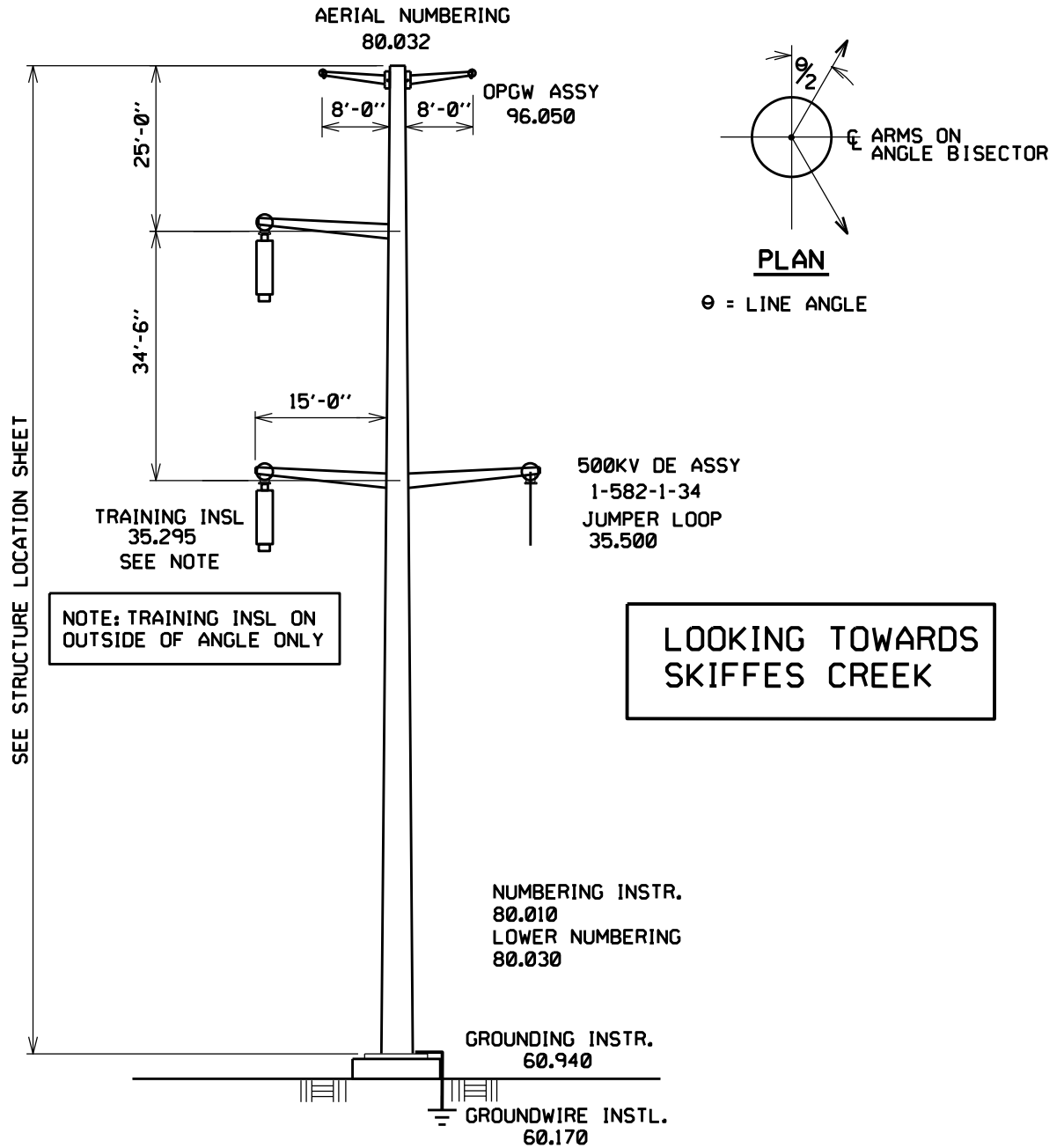


Proposed Tower Structures

582/30, 582/32, 582/34-37 & 582/40

Terrestrial Crossing

Sheet 10

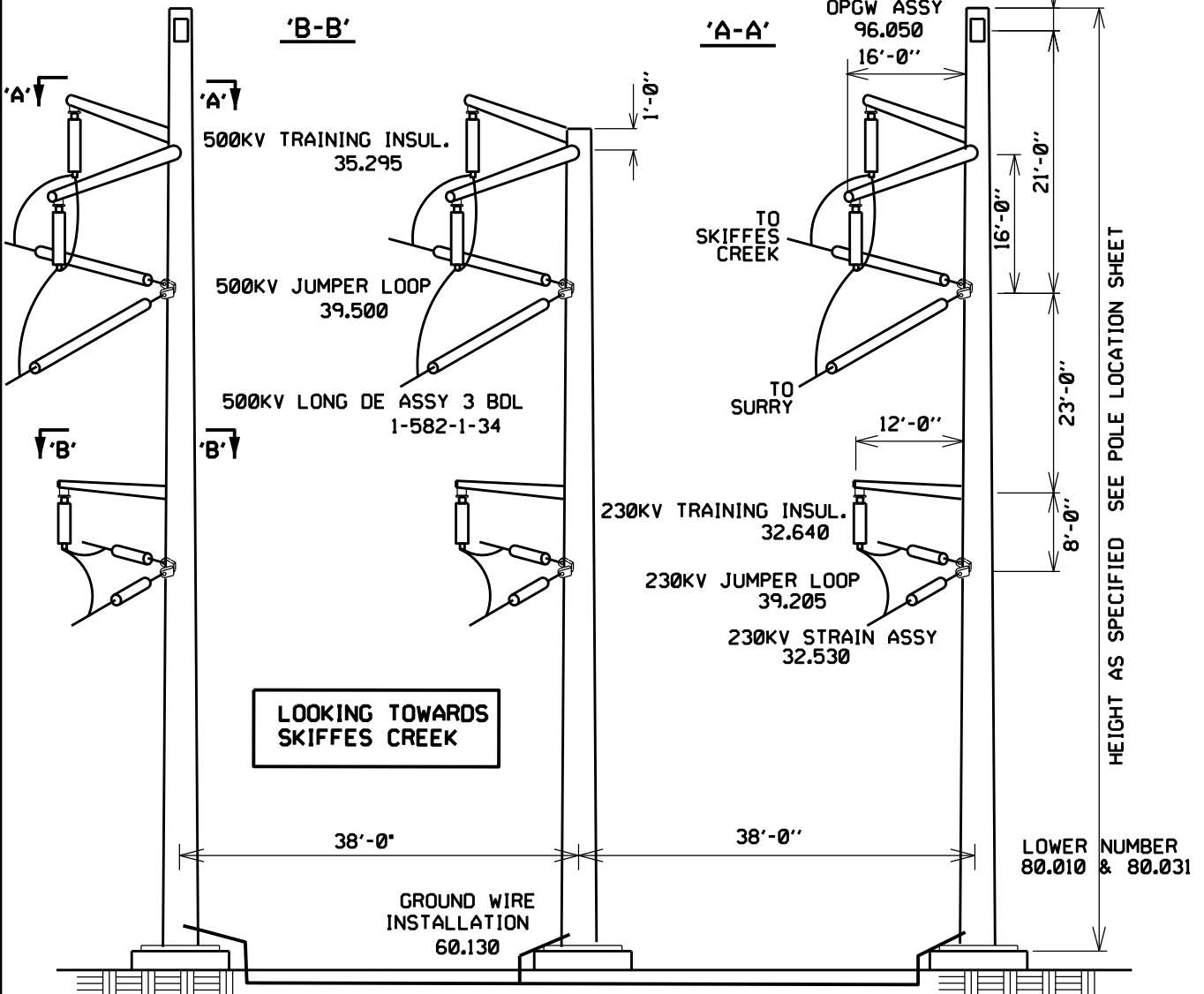
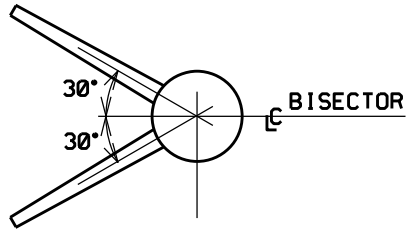
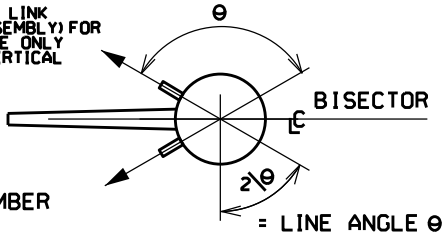


Proposed Tower Structures

582/38-39 & 582/41
Terrestrial Crossing
Sheet 11

•REMOVE CHAIN LINK
(ITEM 3 IN ASSEMBLY) FOR
THIS STRUCTURE ONLY
BECAUSE OF VERTICAL
VANG.

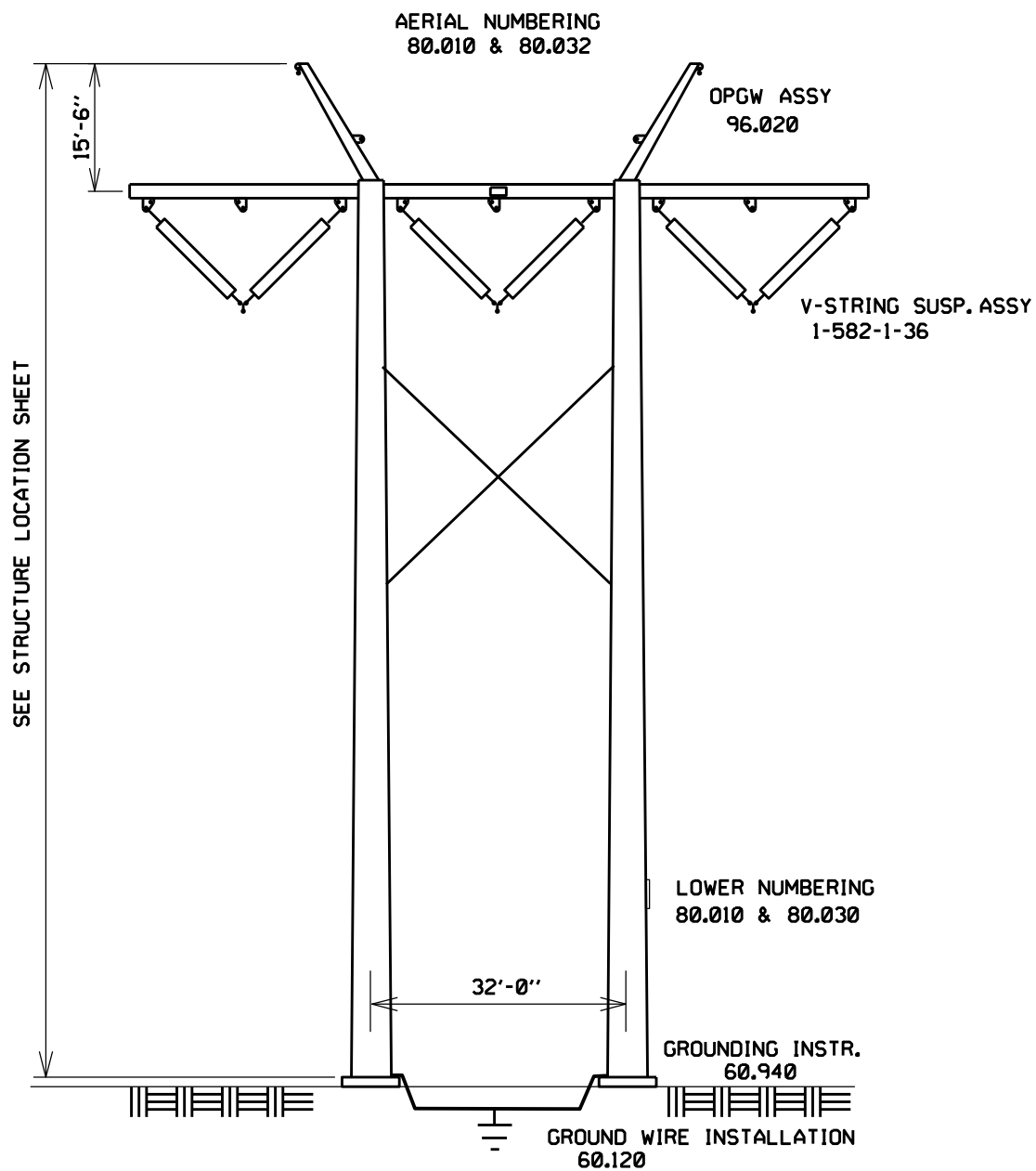
AERIAL NUMBER
80.032



Proposed Tower Structure

\$SYTIME\$

TESBORD1 \$DGN\$SPEC\$



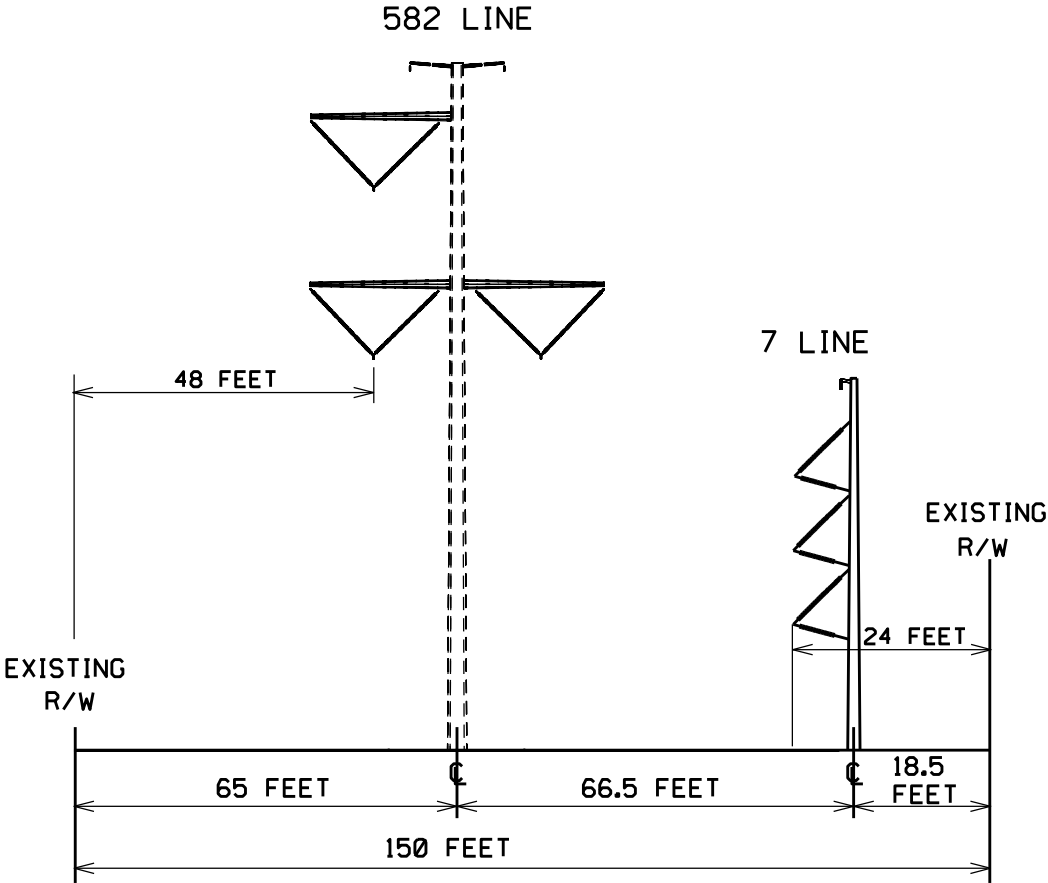
Proposed Tower Structure

582/43

Terrestrial Crossing

Sheet 13

FAB DWG 95.530

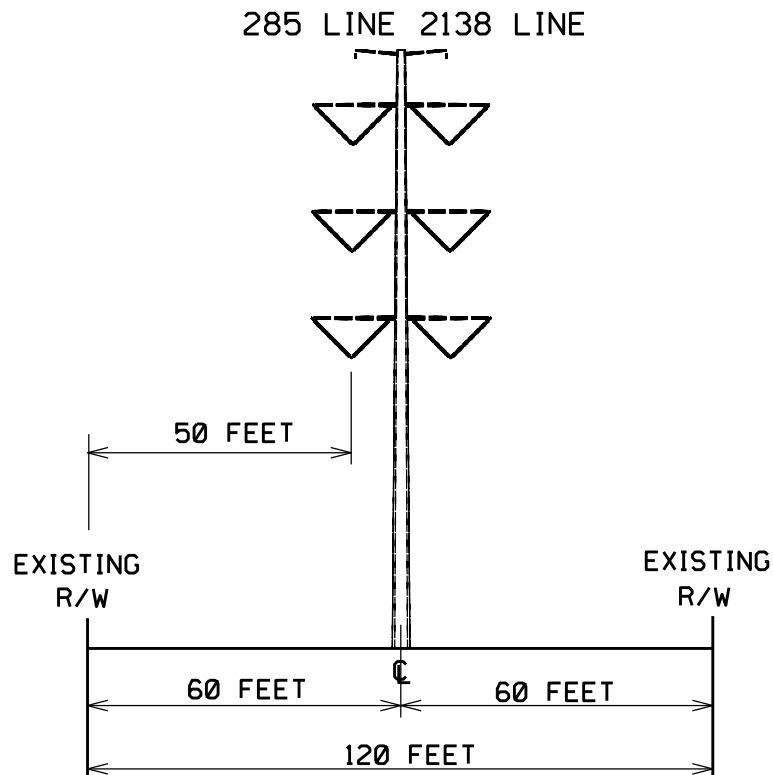


PROPOSED CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD SKIFFES CREEK

TYPE OF STRUCTURE :	GALVANIZED POLE	WEATHERING STEEL POLE
FOUNDATION :	PILES/CONCRETE	PILES/DIRECT BURIED
APPROX. AVERAGE HEIGHT :	135 FEET	70 FEET
WIDTH AT CROSSARM :	60 FEET	N/A
WIDTH AT BASE :	7 FEET	3 FEET
AVERAGE SPAN LENGTH :	900 FEET	330 FEET
CONDUCTOR TYPE :	ALUMINUM	ALUMINUM
RIGHT-OF-WAY WIDTH :	150 FEET	150 FEET
APPROXIMATE LENGTH:	0.76 MILES	0.76 MILES

C.2 SKIFFES CREEK - WHEALTON

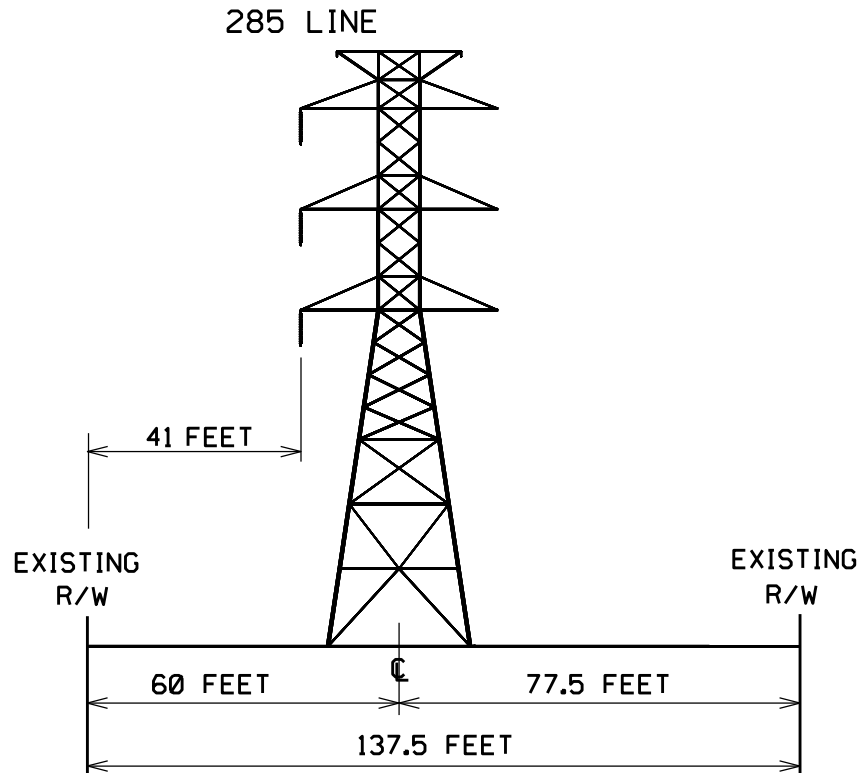


Proposed Structures
2138/6 thru 2138/11

PROPOSED CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE :	WEATHERING POLE
FOUNDATION :	PILES/CONCRETE
APPROX. AVERAGE HEIGHT :	125 FEET
WIDTH AT CROSSARM :	35 FEET
WIDTH AT BASE :	5 FEET
AVERAGE SPAN LENGTH :	850 FEET
CONDUCTOR TYPE :	ALUMINUM
RIGHT-OF-WAY WIDTH :	120 FEET
APPROXIMATE LENGTH:	1.18 MILES

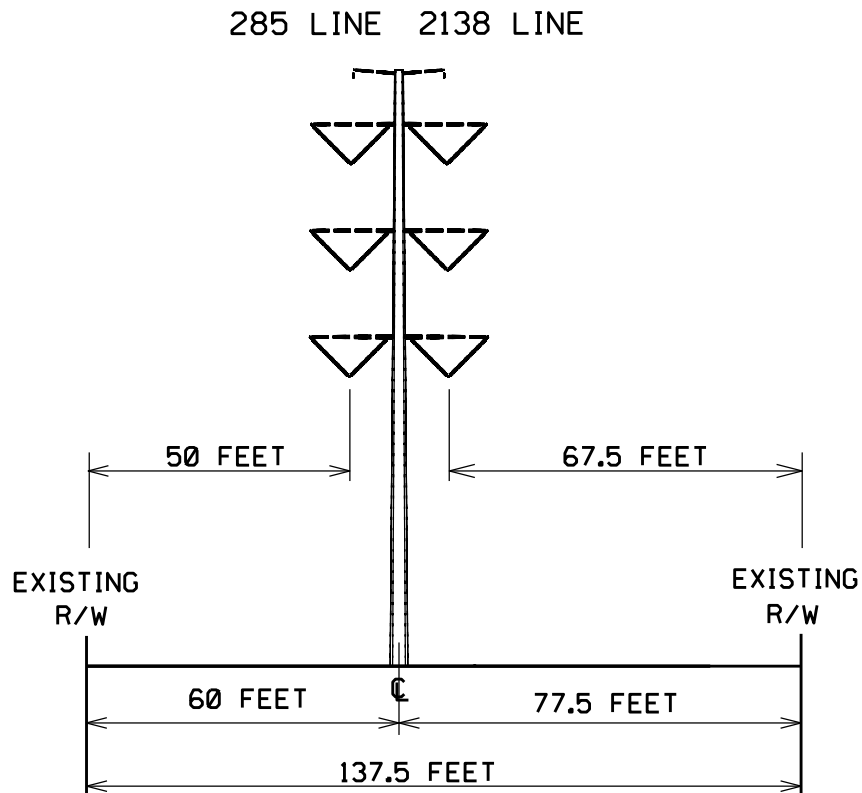


Existing Structures
285/427 thru 285/431

EXISTING CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE :	WEATHERING TOWER
FOUNDATION :	EXISTING
APPROX. AVERAGE HEIGHT :	115 FEET
WIDTH AT CROSSARM :	39 FEET
WIDTH AT BASE :	28 FEET
AVERAGE SPAN LENGTH :	857 FEET
CONDUCTOR TYPE :	ALUMINUM
RIGHT-OF-WAY WIDTH :	137.5 FEET
APPROXIMATE LENGTH:	0.82 MILES

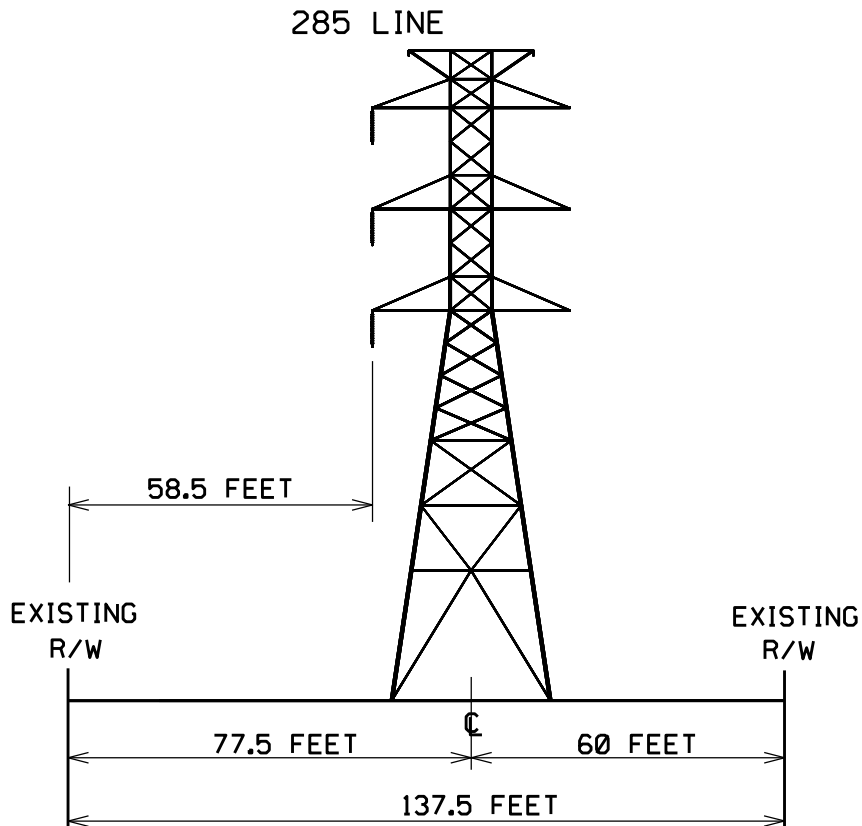


Proposed Structures
2138/12 thru 2138/16

PROPOSED CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE :	WEATHERING POLE
FOUNDATION :	PILES/CONCRETE
APPROX. AVERAGE HEIGHT :	122 FEET
WIDTH AT CROSSARM :	35 FEET
WIDTH AT BASE :	5 FEET
AVERAGE SPAN LENGTH :	850 FEET
CONDUCTOR TYPE :	ALUMINUM
RIGHT-OF-WAY WIDTH :	137.5 FEET
APPROXIMATE LENGTH:	0.82 MILES

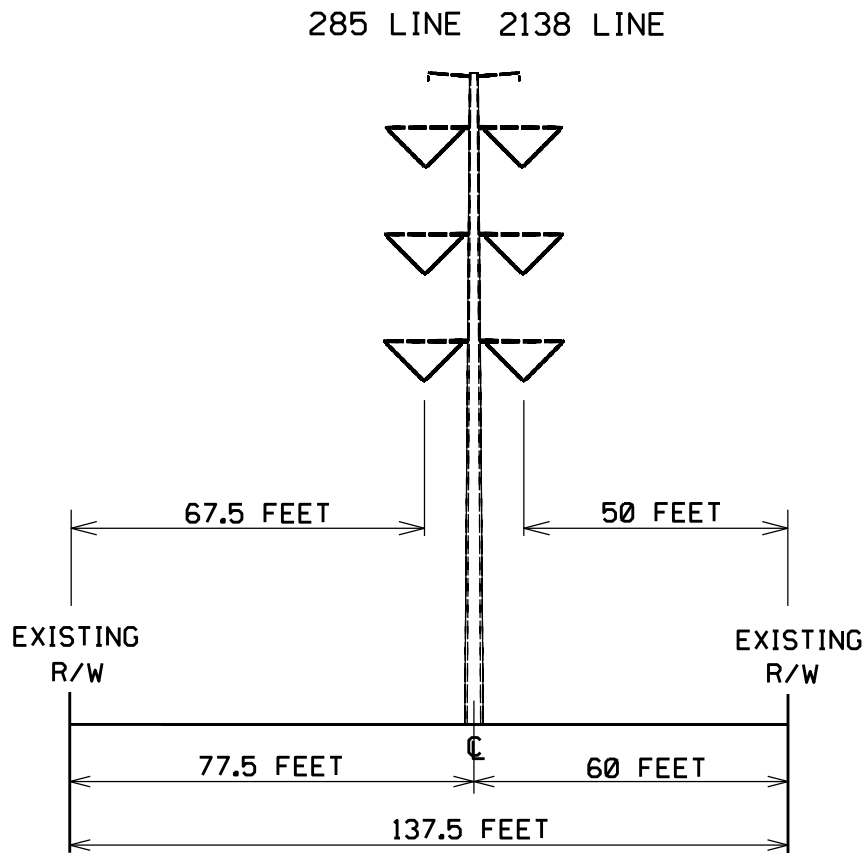


Existing Structures
285/432 thru 285/434

EXISTING CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE :	WEATHERING TOWER
FOUNDATION :	EXISTING
APPROX. AVERAGE HEIGHT :	125 FEET
WIDTH AT CROSSARM :	39 FEET
WIDTH AT BASE :	31 FEET
AVERAGE SPAN LENGTH :	1030 FEET
CONDUCTOR TYPE :	ALUMINUM
RIGHT-OF-WAY WIDTH :	137.5 FEET
APPROXIMATE LENGTH:	0.60 MILES

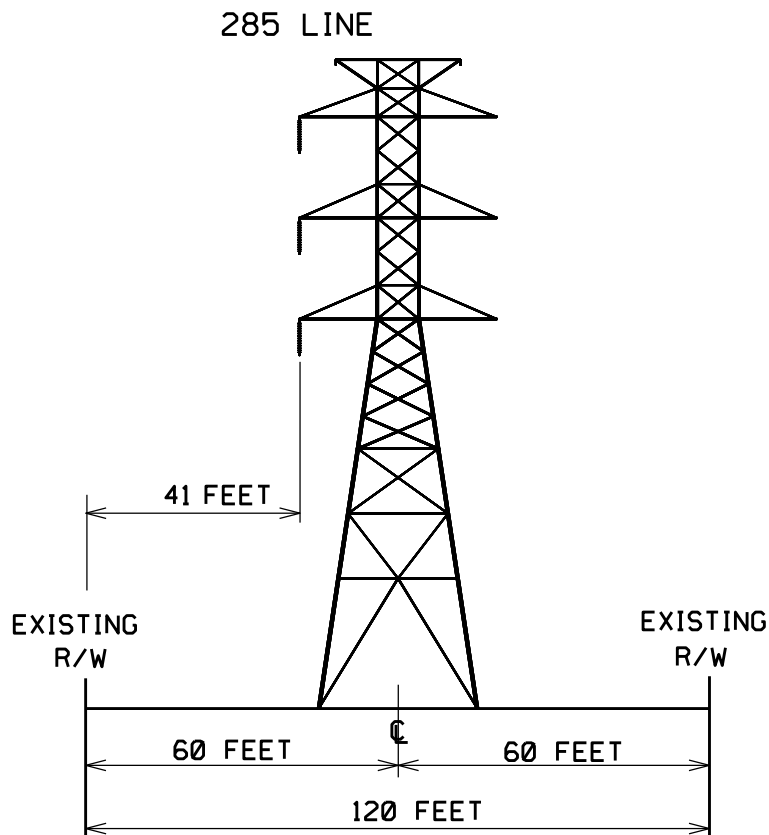


Proposed Structures
2138/17 thru 2138/19

PROPOSED CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE :	WEATHERING POLE
FOUNDATION :	PILES/CONCRETE
APPROX. AVERAGE HEIGHT :	135 FEET
WIDTH AT CROSSARM :	35 FEET
WIDTH AT BASE :	5 FEET
AVERAGE SPAN LENGTH :	1000 FEET
CONDUCTOR TYPE :	ALUMINUM
RIGHT-OF-WAY WIDTH :	137.5 FEET
APPROXIMATE LENGTH:	0.60 MILES

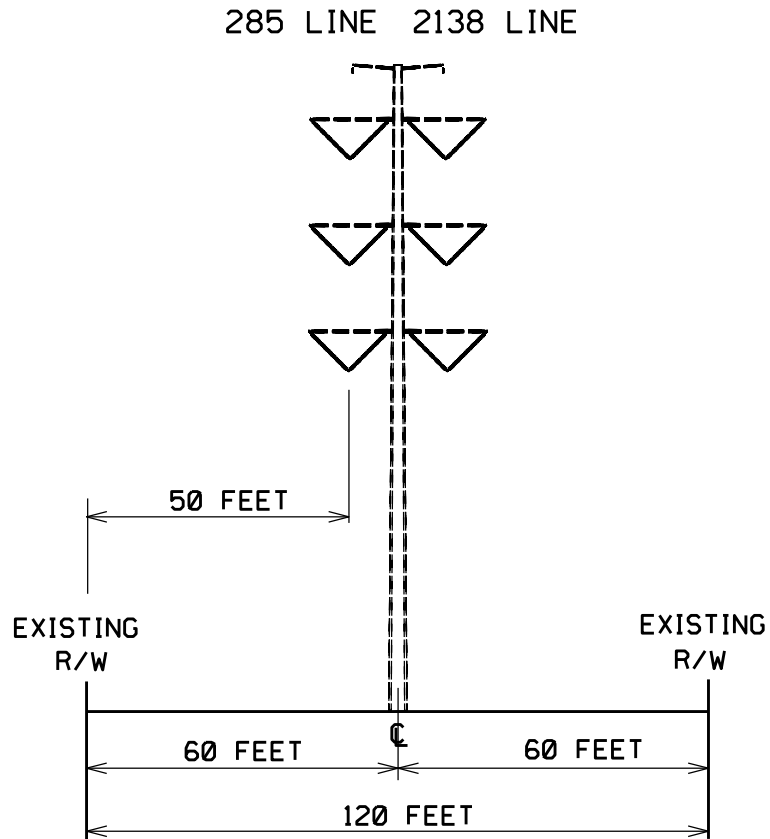


Existing Structures
285/435 thru 285/436

EXISTING CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE :	WEATHERING TOWER
FOUNDATION :	EXISTING
APPROX. AVERAGE HEIGHT :	125 FEET
WIDTH AT CROSSARM :	39 FEET
WIDTH AT BASE :	31 FEET
AVERAGE SPAN LENGTH :	982 FEET
CONDUCTOR TYPE :	ALUMINUM
RIGHT-OF-WAY WIDTH :	120 FEET
APPROXIMATE LENGTH:	0.35 MILES

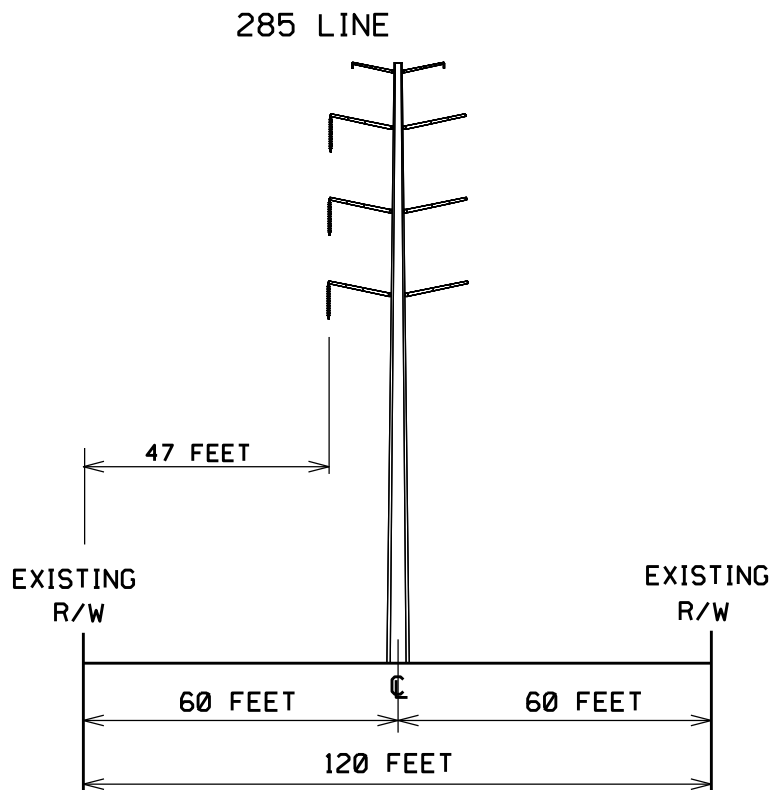


Proposed Structures
2138/20 thru 2138/21

PROPOSED CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE :	WEATHERING POLE
FOUNDATION :	PILES/CONCRETE
APPROX. AVERAGE HEIGHT :	145 FEET
WIDTH AT CROSSARM :	35 FEET
WIDTH AT BASE :	5 FEET
AVERAGE SPAN LENGTH :	1000 FEET
CONDUCTOR TYPE :	ALUMINUM
RIGHT-OF-WAY WIDTH :	120 FEET
APPROXIMATE LENGTH:	0.35 MILES

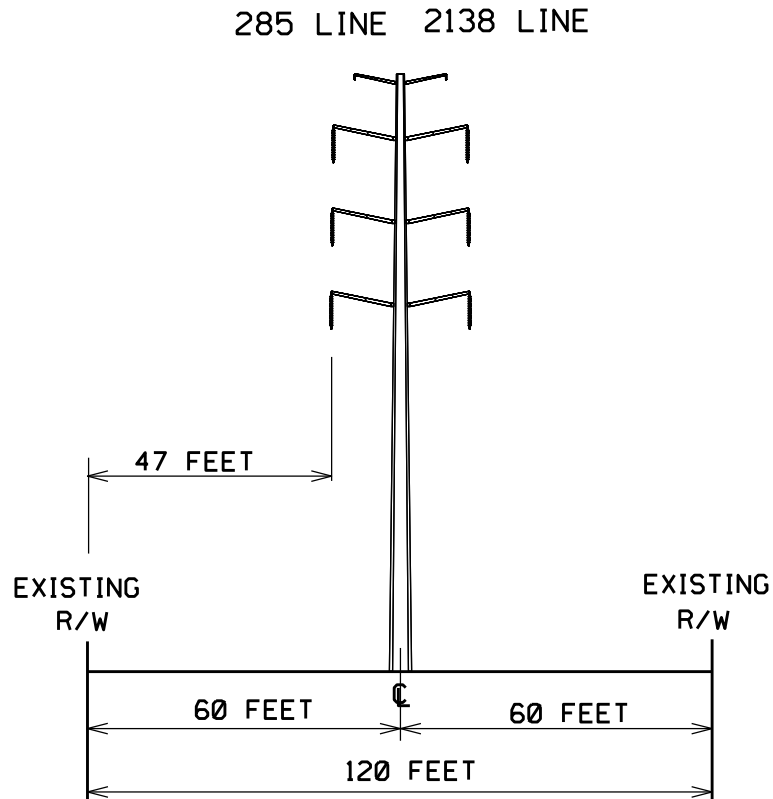


Existing Structures
285/437 thru 285/458

EXISTING CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE :	PAINTED POLE
FOUNDATION :	EXISTING
APPROX. AVERAGE HEIGHT :	120 FEET
WIDTH AT CROSSARM :	27 FEET
WIDTH AT BASE :	5 FEET
AVERAGE SPAN LENGTH :	1015 FEET
CONDUCTOR TYPE :	ALUMINUM
RIGHT-OF-WAY WIDTH :	120 FEET
APPROXIMATE LENGTH:	3.65 MILES



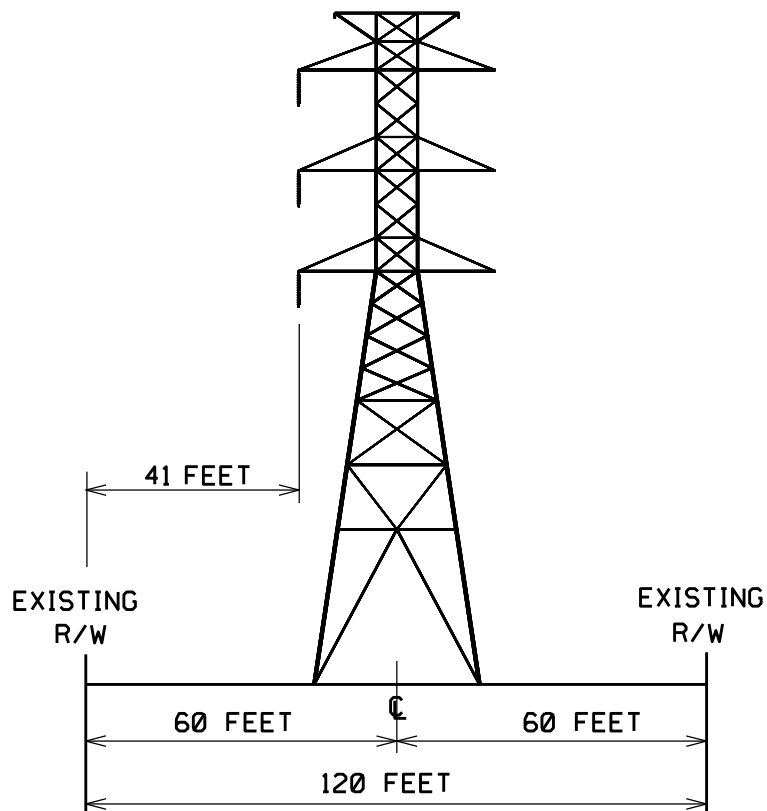
Reconductored Structures
2138/22 thru 2138/42

PROPOSED CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE :	PAINTED POLE
FOUNDATION :	EXISTING
APPROX. AVERAGE HEIGHT :	120 FEET
WIDTH AT CROSSARM :	27 FEET
WIDTH AT BASE :	5 FEET
AVERAGE SPAN LENGTH :	1015 FEET
CONDUCTOR TYPE :	ALUMINUM
RIGHT-OF-WAY WIDTH :	120 FEET
APPROXIMATE LENGTH:	3.65 MILES

285 LINE



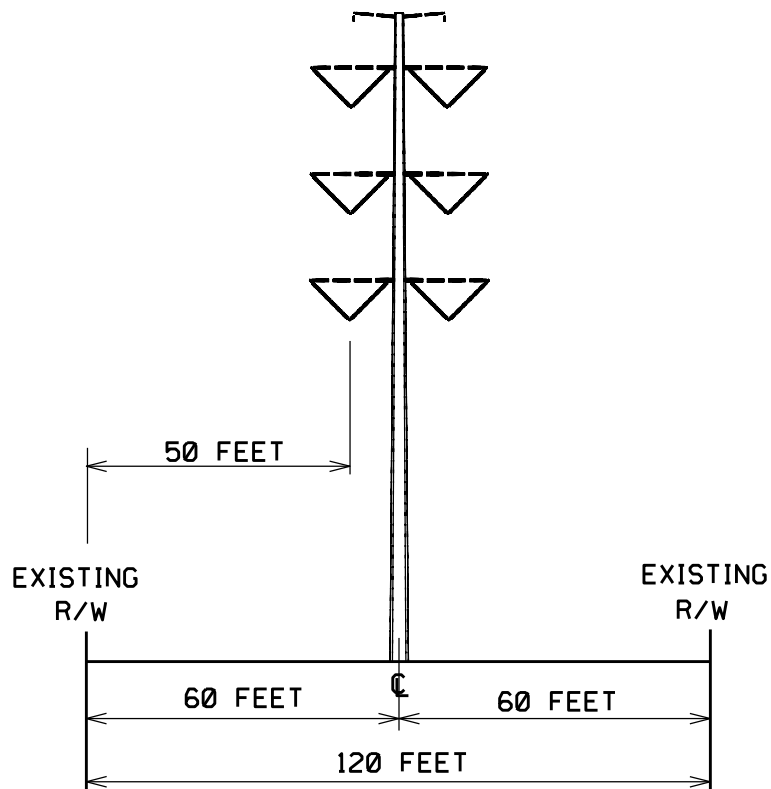
Existing Structures
285/459 thru 285/463 and 209/548

EXISTING CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE :	WEATHERING TOWER
FOUNDATION :	EXISTING
APPROX. AVERAGE HEIGHT :	130 FEET
WIDTH AT CROSSARM :	39 FEET
WIDTH AT BASE :	33 FEET
AVERAGE SPAN LENGTH :	1006 FEET
CONDUCTOR TYPE :	ALUMINUM
RIGHT-OF-WAY WIDTH :	120 FEET
APPROXIMATE LENGTH:	0.95 MILES

285 LINE 2138 LINE

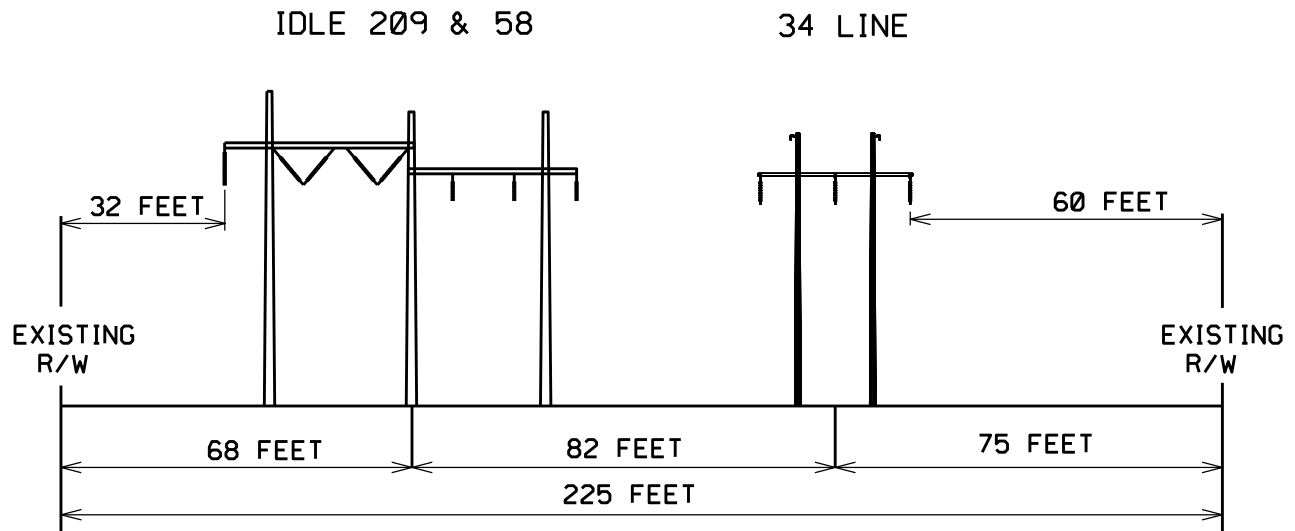


Proposed Structures
2138/43 thru 2138/48

PROPOSED CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE :	WEATHERING POLE
FOUNDATION :	PILES/CONCRETE
APPROX. AVERAGE HEIGHT :	138 FEET
WIDTH AT CROSSARM :	35 FEET
WIDTH AT BASE :	5 FEET
AVERAGE SPAN LENGTH :	1000 FEET
CONDUCTOR TYPE :	ALUMINUM
RIGHT-OF-WAY WIDTH :	120 FEET
APPROXIMATE LENGTH:	0.95 MILES

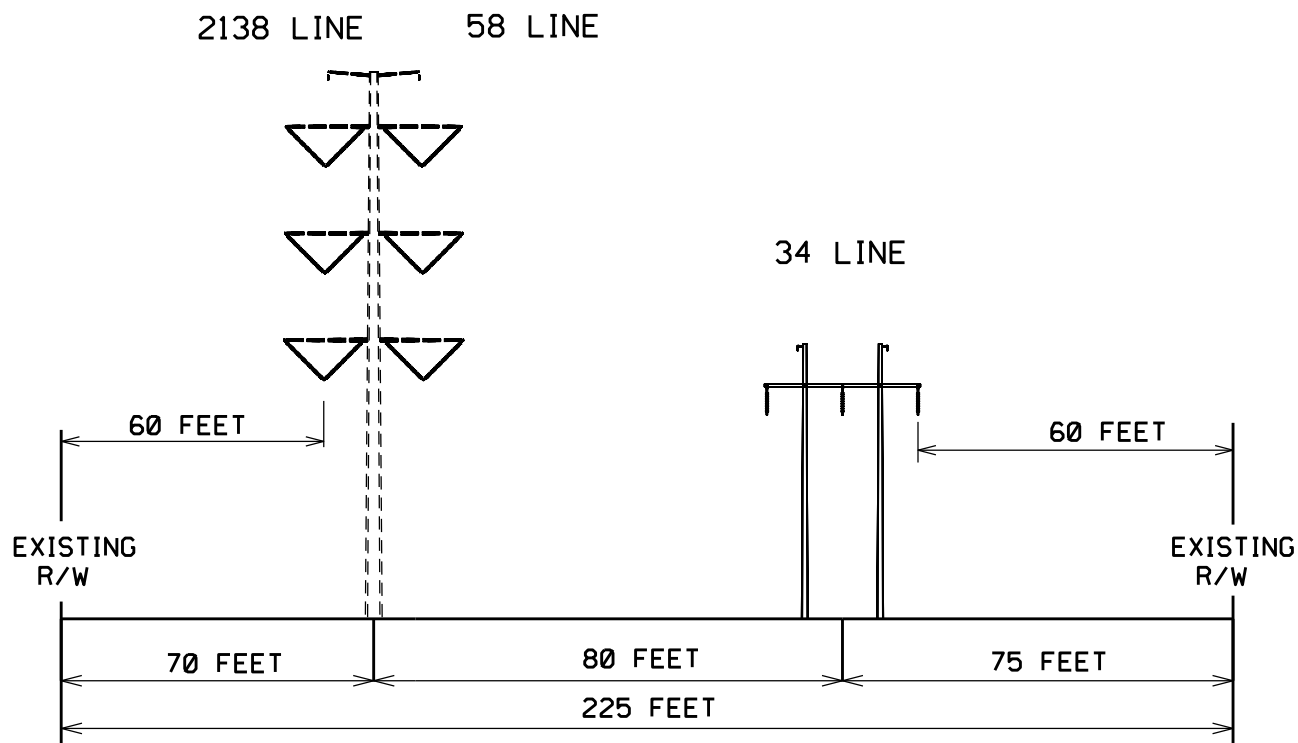


Existing Structure
58/275 thru 58/282

EXISTING CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	3 POLE WOOD	H FRAME WOOD
FOUNDATION :	DIRECT BURIED	DIRECT BURIED
APPROXIMATE HEIGHT:	61 FEET	52 FEET
WIDTH AT CROSSARM:	68 FEET	30 FEET
WIDTH AT BASE:	53 FEET	14 FEET
AVERAGE SPAN LENGTH:	568 FEET	535 FEET
CONDUCTOR TYPE:	ALUMINUM	COPPER
RIGHT OF WAY WIDTH:	225 FEET	225 FEET
APPROXIMATE LENGTH:	0.81 MILES	0.81 MILES

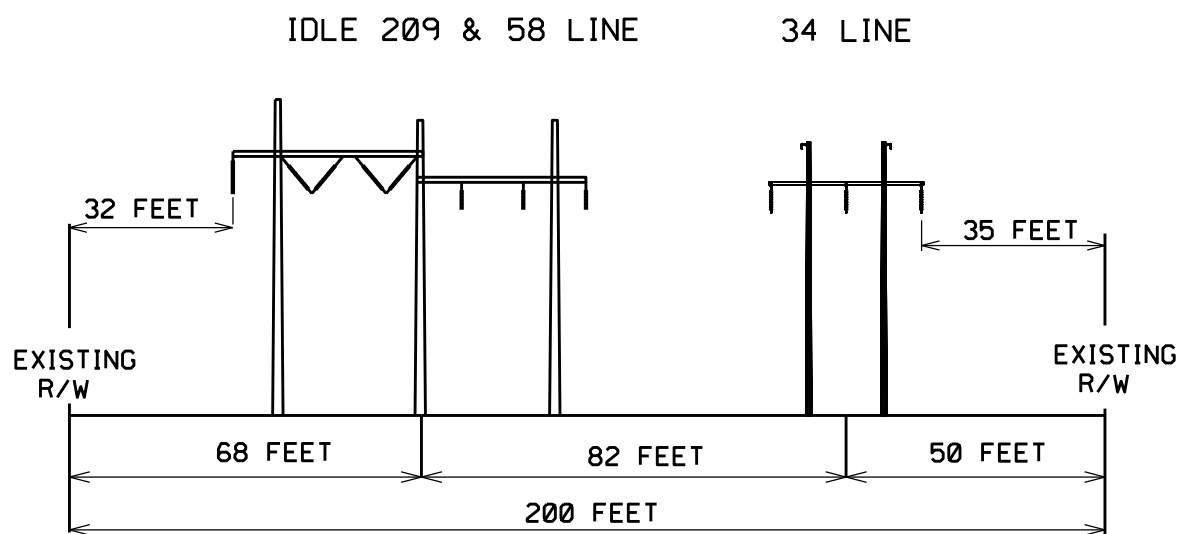


Proposed Structures
2138/49 thru 2138/55

PROPOSED CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	WEATHERING POLE	H FRAME WOOD
FOUNDATION :	PILES/CONCRETE	DIRECT BURIED
APPROXIMATE HEIGHT:	110 FEET	52 FEET
WIDTH AT CROSSARM:	35 FEET	30 FEET
WIDTH AT BASE:	5 FEET	14 FEET
AVERAGE SPAN LENGTH:	600 FEET	535 FEET
CONDUCTOR TYPE:	ALUMINUM	COPPER
RIGHT OF WAY WIDTH:	225 FEET	225 FEET
APPROXIMATE LENGTH:	0.81 MILES	0.81 MILES

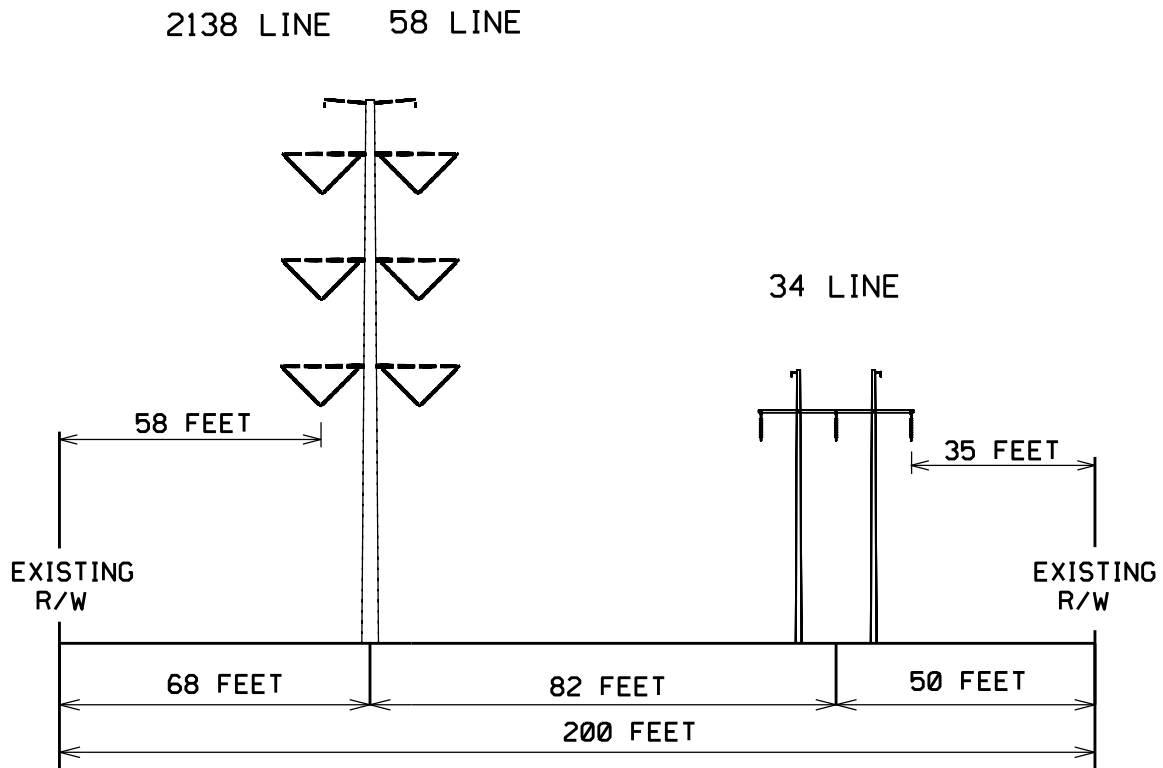


Existing Structures
58/283 thru 58/289

EXISTING CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

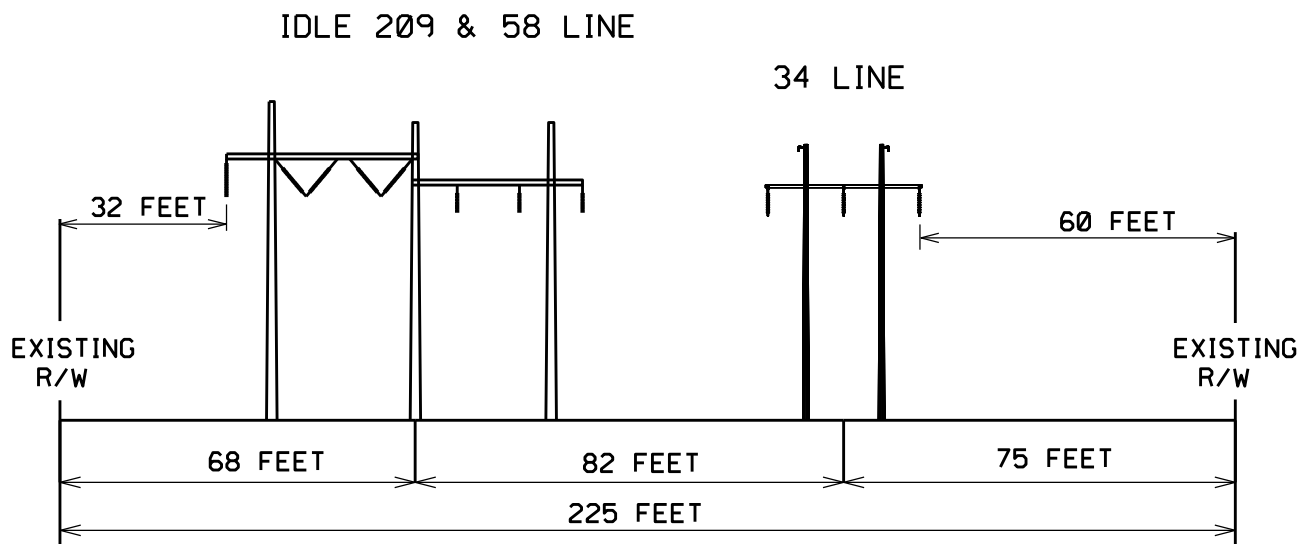
TYPE OF STRUCTURE:	3 POLE WOOD	H FRAME WOOD
FOUNDATION :	DIRECT BURIED	DIRECT BURIED
APPROXIMATE HEIGHT:	61 FEET	52 FEET
WIDTH AT CROSSARM:	68 FEET	30 FEET
WIDTH AT BASE:	53 FEET	14 FEET
AVERAGE SPAN LENGTH:	589 FEET	505 FEET
CONDUCTOR TYPE:	ALUMINUM	ALUMINUM
RIGHT OF WAY WIDTH:	200 FEET	200 FEET
APPROXIMATE LENGTH:	0.56 MILES	0.56 MILES



Proposed Structures
2138/56 thru 2138/62

PROPOSED CONFIGURATION
TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	WEATHERING POLE	H FRAME WOOD
FOUNDATION :	PILES CONCRETE	DIRECT BURIED
APPROXIMATE HEIGHT:	110 FEET	52 FEET
WIDTH AT CROSSARM:	35 FEET	30 FEET
WIDTH AT BASE:	5 FEET	14 FEET
AVERAGE SPAN LENGTH:	625 FEET	505 FEET
CONDUCTOR TYPE:	ALUMINUM	COPPER
RIGHT OF WAY WIDTH:	200 FEET	200 FEET
APPROXIMATE LENGTH:	0.56 MILES	0.56 MILES

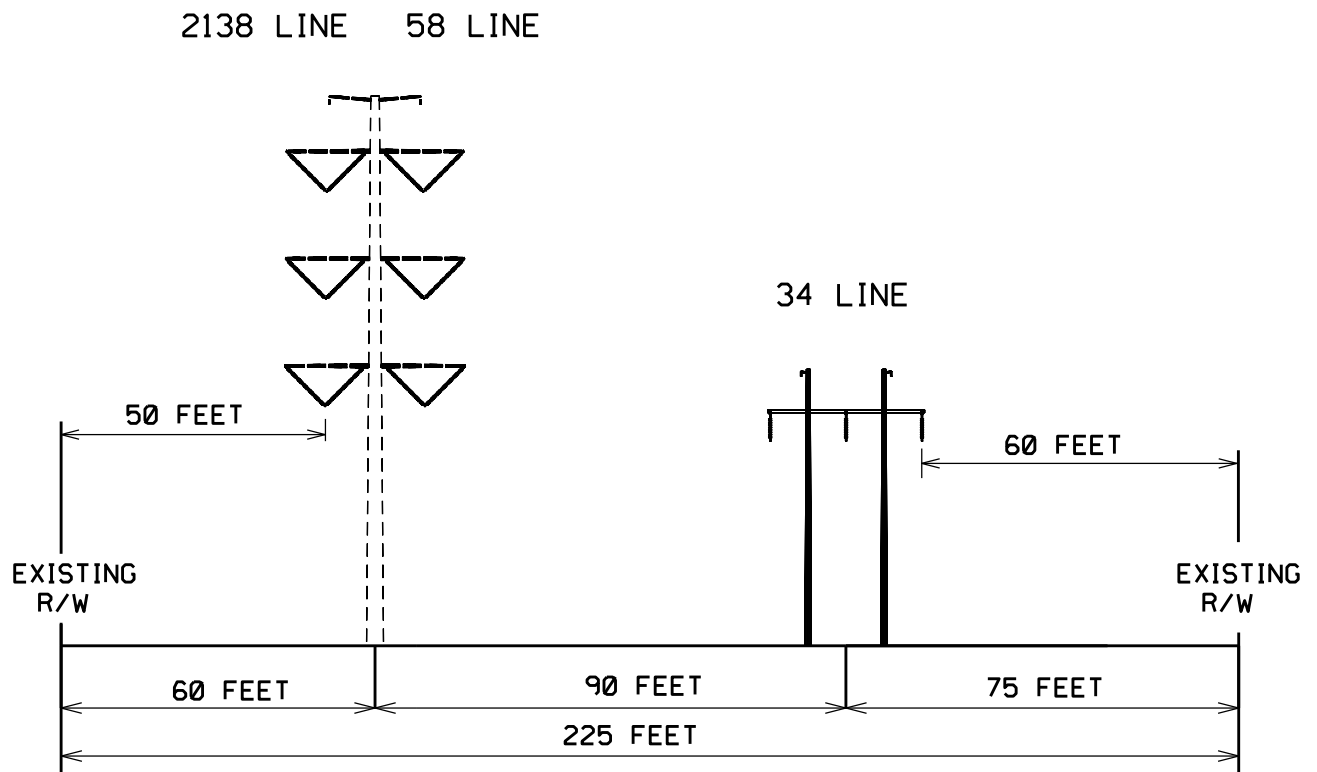


Existing Structures
58/290 thru 58/291
(209/563)

EXISTING CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	3 POLE WOOD	H FRAME WOOD
FOUNDATION :	DIRECT BURIED	DIRECT BURIED
APPROXIMATE HEIGHT:	61 FEET	52 FEET
WIDTH AT CROSSARM:	68 FEET	30 FEET
WIDTH AT BASE:	53 FEET	14 FEET
AVERAGE SPAN LENGTH:	519 FEET	792 FEET
CONDUCTOR TYPE:	ALUMINUM	COPPER
RIGHT OF WAY WIDTH:	225 FEET	225 FEET
APPROXIMATE LENGTH:	0.32 MILES	0.32 MILES

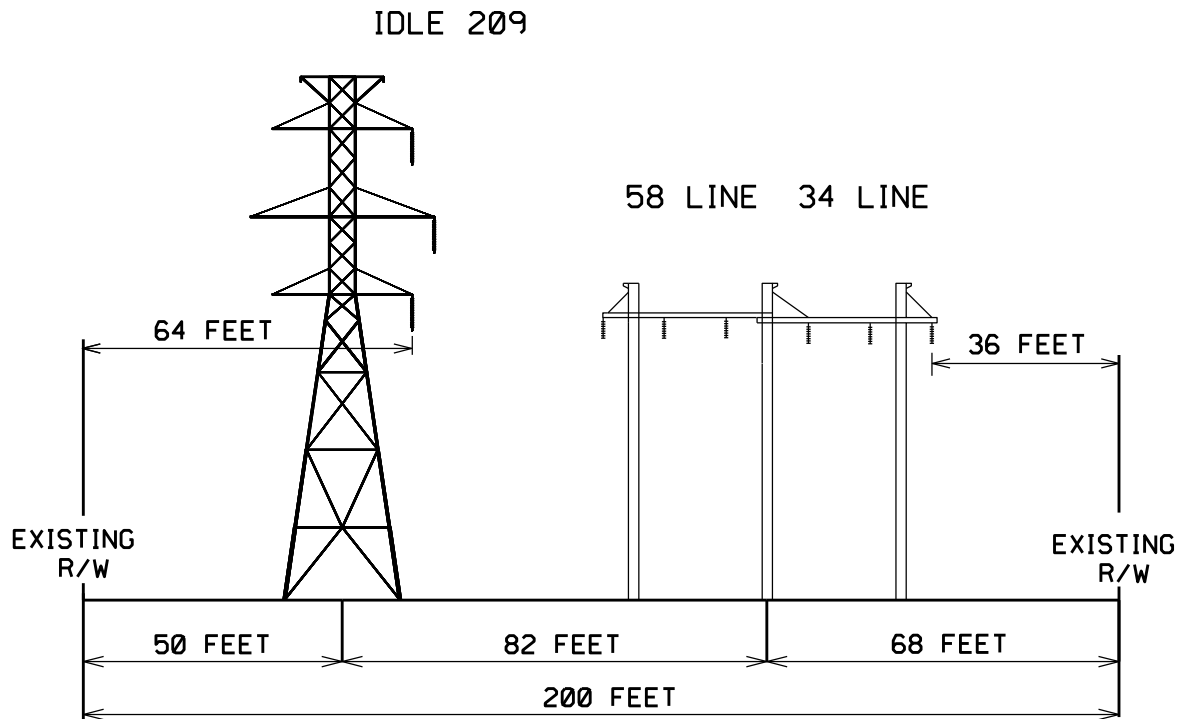


Proposed Structures
2138/63 thru 2138/64

PROPOSED CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

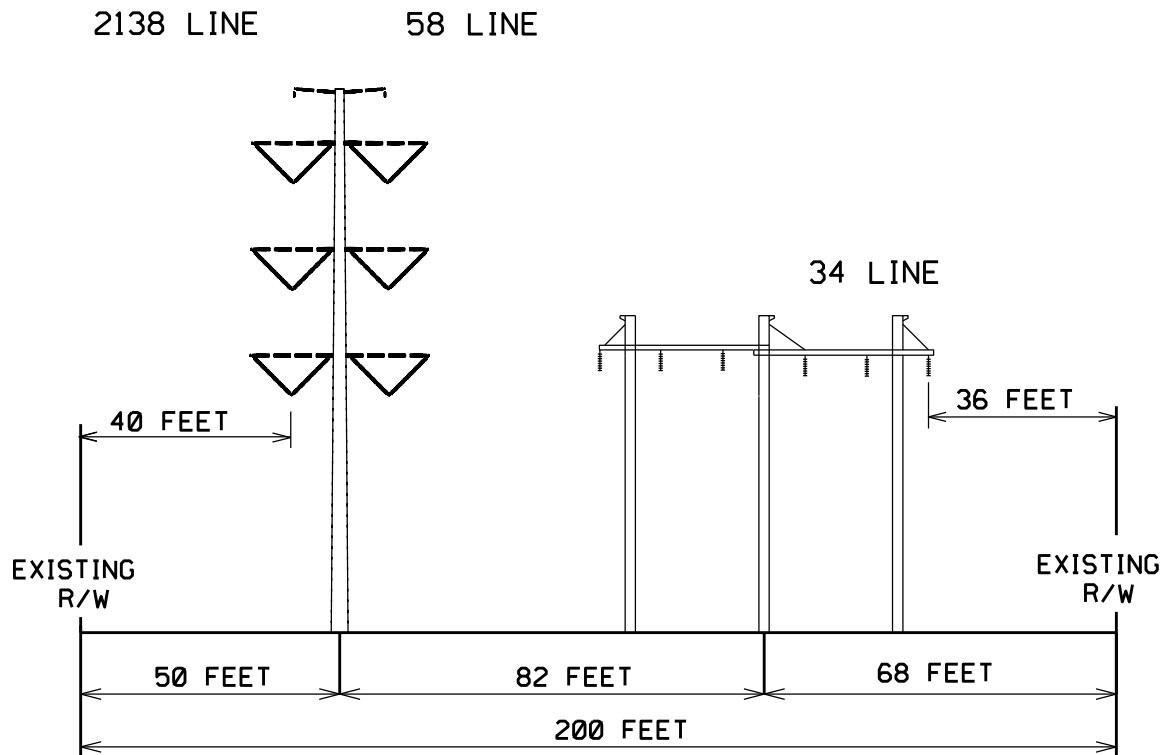
TYPE OF STRUCTURE:	WEATHERING POLE	H FRAME WOOD
FOUNDATION :	PILES/CONCRETE	DIRECT BURIED
APPROXIMATE HEIGHT:	110 FEET	52 FEET
WIDTH AT CROSSARM:	35 FEET	30 FEET
WIDTH AT BASE:	5 FEET	14 FEET
AVERAGE SPAN LENGTH:	625 FEET	792 FEET
CONDUCTOR TYPE:	ALUMINUM	COPPER
RIGHT OF WAY WIDTH:	225 FEET	225 FEET
APPROXIMATE LENGTH:	0.32 MILES	0.32 MILES



Existing Structures
58/292 thru 58/293 &
209/564 thru 209/565
EXISTING CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	WEATHERING TOWER	3 POLE WOOD
FOUNDATION :	EXISTING	DIRECT BURIED
APPROXIMATE HEIGHT:	100 FEET	61 FEET
WIDTH AT CROSSARM:	36 FEET	65 FEET
WIDTH AT BASE:	24 FEET	52 FEET
AVERAGE SPAN LENGTH:	653 FEET	572 FEET
CONDUCTOR TYPE:	ALUMINUM	ALUMINUM COPPER
RIGHT OF WAY WIDTH:	200 FEET	200 FEET
APPROXIMATE LENGTH:	0.25 MILES	0.25 MILES

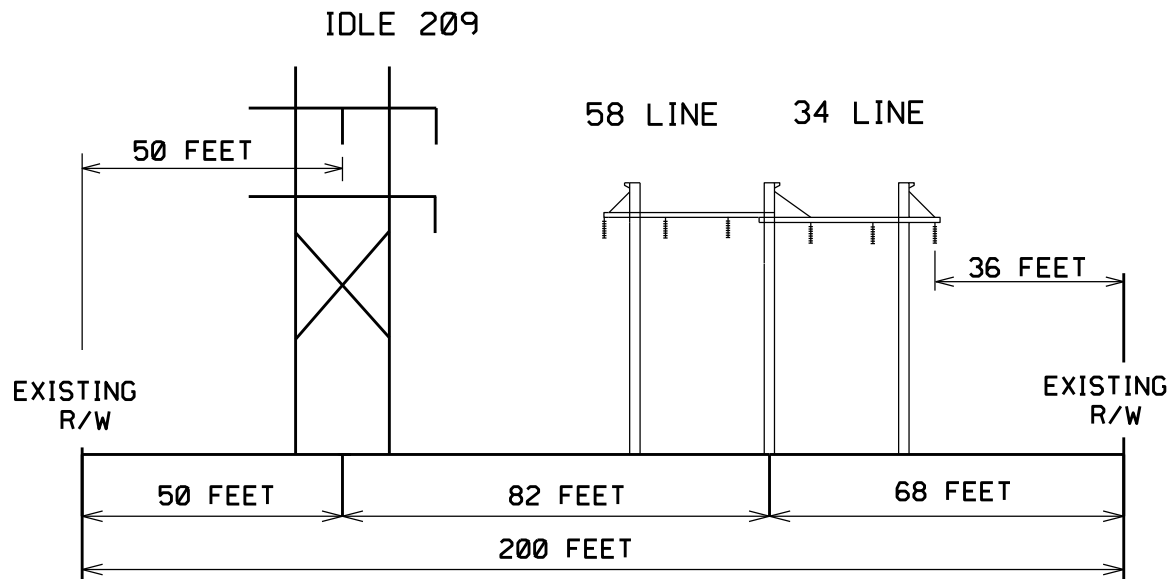


Proposed Structures
2138/65 thru 2138/66

PROPOSED CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	WEATHERING POLE	3 POLE WOOD
FOUNDATION :	PILES/CONCRETE	DIRECT BURIED
APPROXIMATE HEIGHT:	115 FEET	61 FEET
WIDTH AT CROSSARM:	35 FEET	65 FEET
WIDTH AT BASE:	5 FEET	52 FEET
AVERAGE SPAN LENGTH:	625 FEET	572 FEET
CONDUCTOR TYPE:	ALUMINUM	ALUMINUM
		COPPER
RIGHT OF WAY WIDTH:	200 FEET	200 FEET
APPROXIMATE LENGTH:	0.25 MILES	0.25 MILES

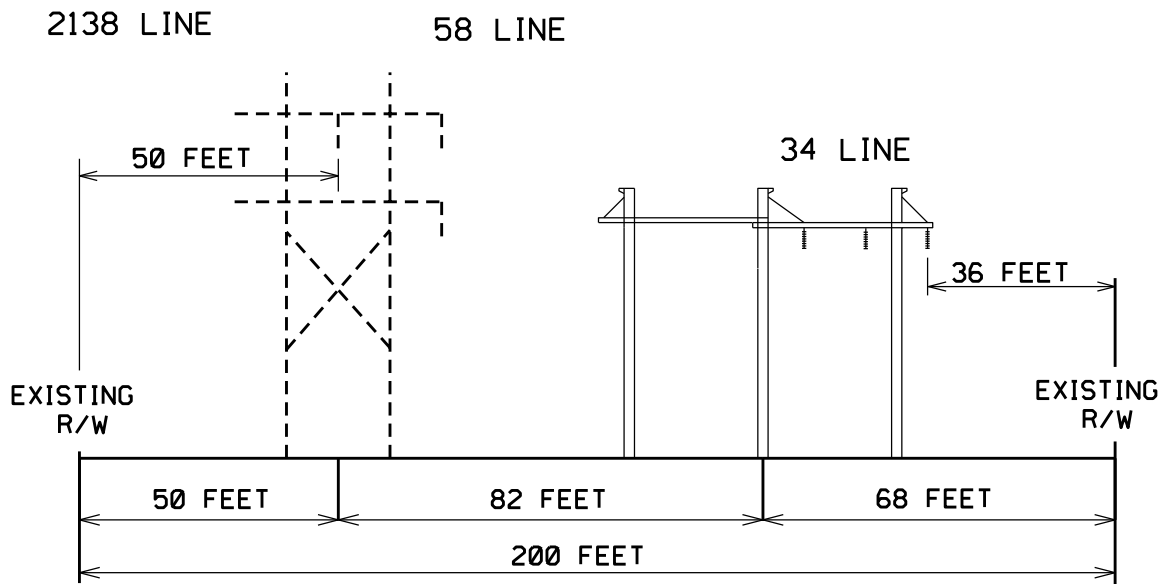


Existing Structures
209/566 thru 209/569
(58/294 thru 58/297)

EXISTING CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	H FRAME	3 POLE WOOD
FOUNDATION :	DIRECT BURIED	DIRECT BURIED
APPROXIMATE HEIGHT:	75 FEET	52 FEET
WIDTH AT CROSSARM:	38 FEET	65 FEET
WIDTH AT BASE:	18 FEET	52 FEET
AVERAGE SPAN LENGTH:	547 FEET	581 FEET
CONDUCTOR TYPE:	ALUMINUM	ALUMINUM COPPER
RIGHT OF WAY WIDTH:	200 FEET	200 FEET
APPROXIMATE LENGTH:	0.51 MILES	0.51 MILES



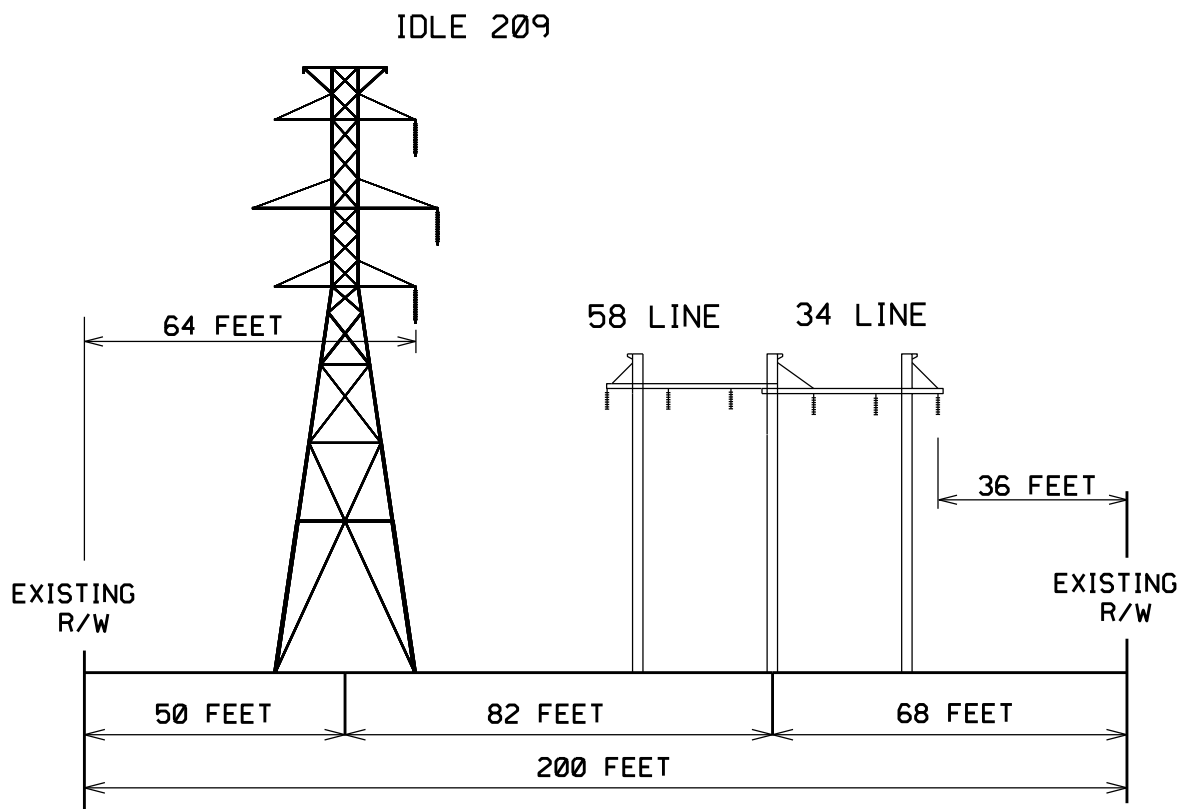
Proposed Structures
2138/67 thru 2138/70

PROPOSED CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	WEATHERING H-FRAME	3 POLE WOOD
FOUNDATION :	PILES/CONCRETE	DIRECT BURIED
APPROXIMATE HEIGHT:	88 FEET	52 FEET
WIDTH AT CROSSARM:	40 FEET	65 FEET
WIDTH AT BASE:	20 FEET	52 FEET
AVERAGE SPAN LENGTH:	550 FEET	581 FEET
CONDUCTOR TYPE:	ALUMINUM	ALUMINUM COPPER
RIGHT OF WAY WIDTH:	200 FEET	200 FEET
APPROXIMATE LENGTH:	0.51 MILES	0.51 MILES

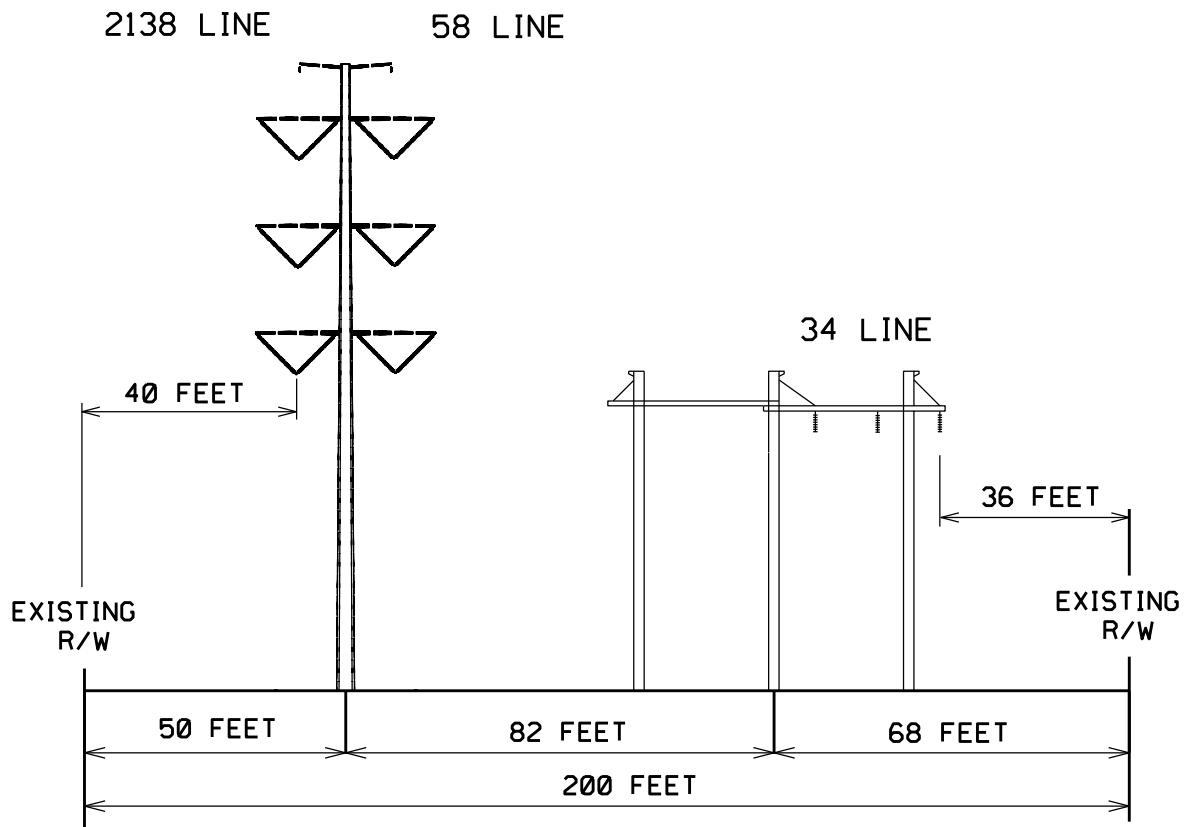
Existing Structures
209/570 thru 209/574 and 292/574
(58/298 thru 59/301)



EXISTING CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	WEATHERING TOWER	3 POLE WOOD
FOUNDATION :	EXISTING	DIRECT BURIED
APPROXIMATE HEIGHT:	115 FEET	61 FEET
WIDTH AT CROSSARM:	36 FEET	65 FEET
WIDTH AT BASE:	27 FEET	52 FEET
AVERAGE SPAN LENGTH:	906 FEET	596 FEET
CONDUCTOR TYPE:	ALUMINUM	ALUMINUM COPPER
RIGHT OF WAY WIDTH:	200 FEET	200 FEET
APPROXIMATE LENGTH:	0.70 MILES	0.70 MILES



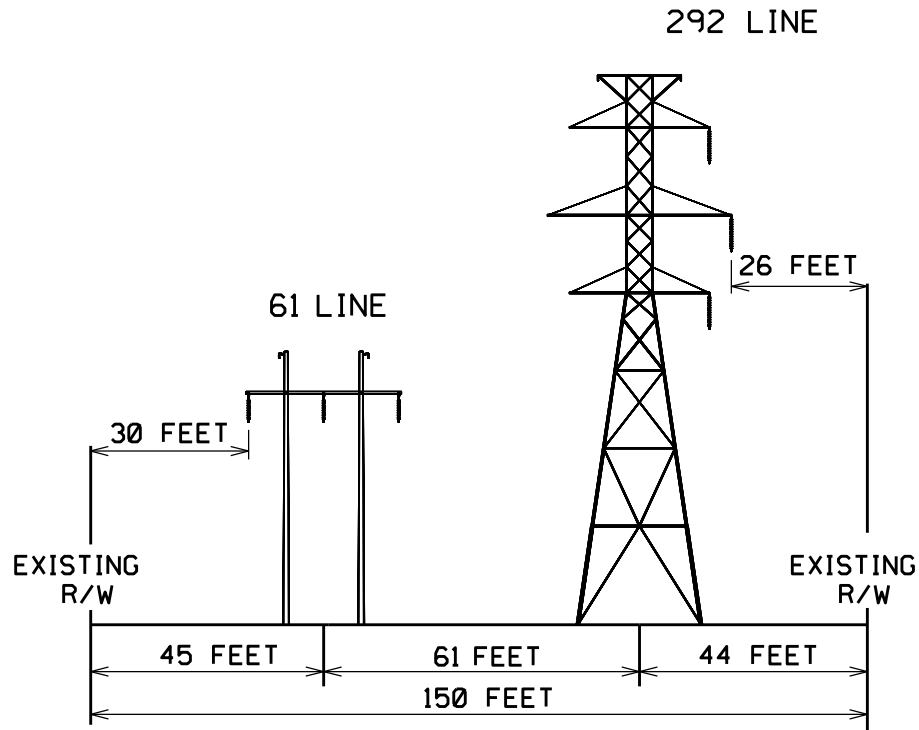
Proposed Structures
2138/71 thru 2138/75

PROPOSED CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

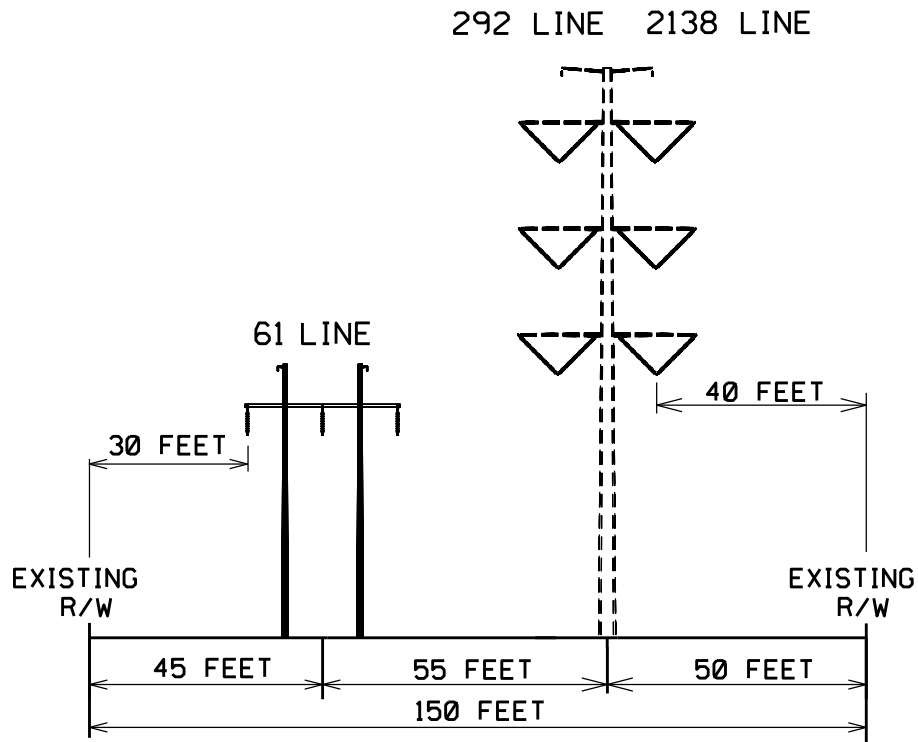
TYPE OF STRUCTURE:	WEATHERING POLE	3 POLE WOOD
FOUNDATION :	PILES/CONCRETE	DIRECT BURIED
APPROXIMATE HEIGHT:	135 FEET	61 FEET
WIDTH AT CROSSARM:	35 FEET	65 FEET
WIDTH AT BASE:	5 FEET	52 FEET
AVERAGE SPAN LENGTH:	900 FEET	596 FEET
CONDUCTOR TYPE:	ALUMINUM	ALUMINUM
		COPPER
RIGHT OF WAY WIDTH:	200 FEET	200 FEET
APPROXIMATE LENGTH:	0.70 MILES	0.70 MILES

Existing Structures
292/575 thru 292/578



EXISTING CONFIGURATION
TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	H FRAME WOOD	STEEL TOWER
FOUNDATION :	DIRECT BURIED	EXISTING
APPROXIMATE HEIGHT:	52 FEET	106 FEET
WIDTH AT CROSSARM:	30 FEET	36 FEET
WIDTH AT BASE:	14 FEET	25 FEET
AVERAGE SPAN LENGTH:	533 FEET	515 FEET
CONDUCTOR TYPE:	ALUMINUM	ALUMINUM
RIGHT OF WAY WIDTH:	150 FEET	150 FEET
APPROXIMATE LENGTH:	0.29 MILES	0.29 MILES

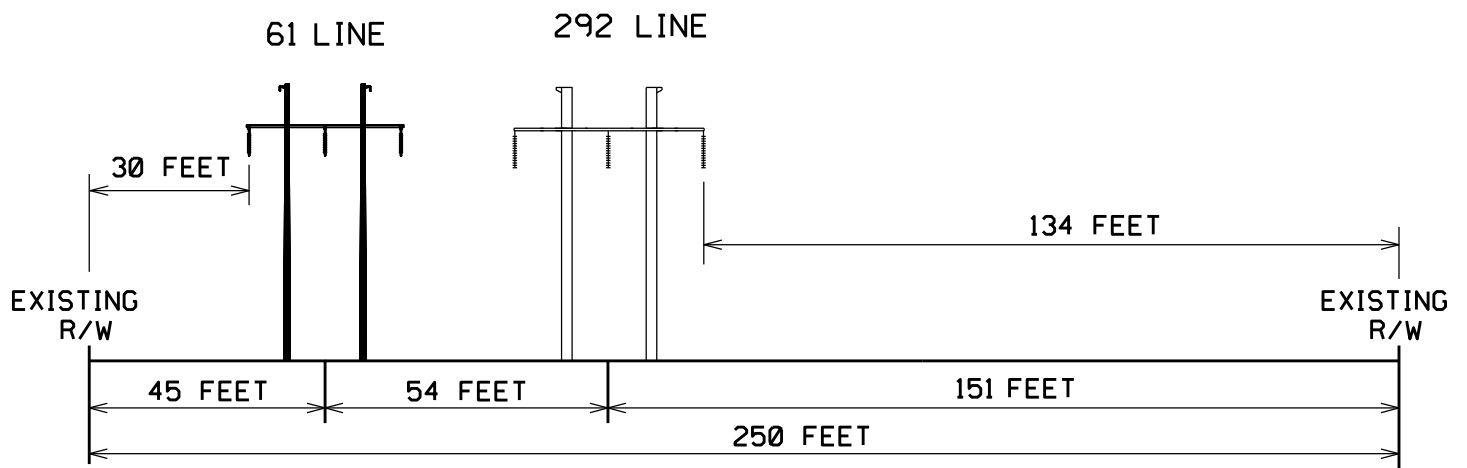


Proposed Structures
2138/76 thru 2138/79

PROPOSED CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	H FRAME WOOD	WEATHERING POLE
FOUNDATION :	DIRECT BURIED	PILES/CONCRETE
APPROXIMATE HEIGHT:	52 FEET	115 FEET
WIDTH AT CROSSARM:	30 FEET	35 FEET
WIDTH AT BASE:	14 FEET	5 FEET
AVERAGE SPAN LENGTH:	533 FEET	515 FEET
CONDUCTOR TYPE:	ALUMINUM	ALUMINUM
RIGHT OF WAY WIDTH:	150 FEET	150 FEET
APPROXIMATE LENGTH:	0.29 MILES	0.29 MILES

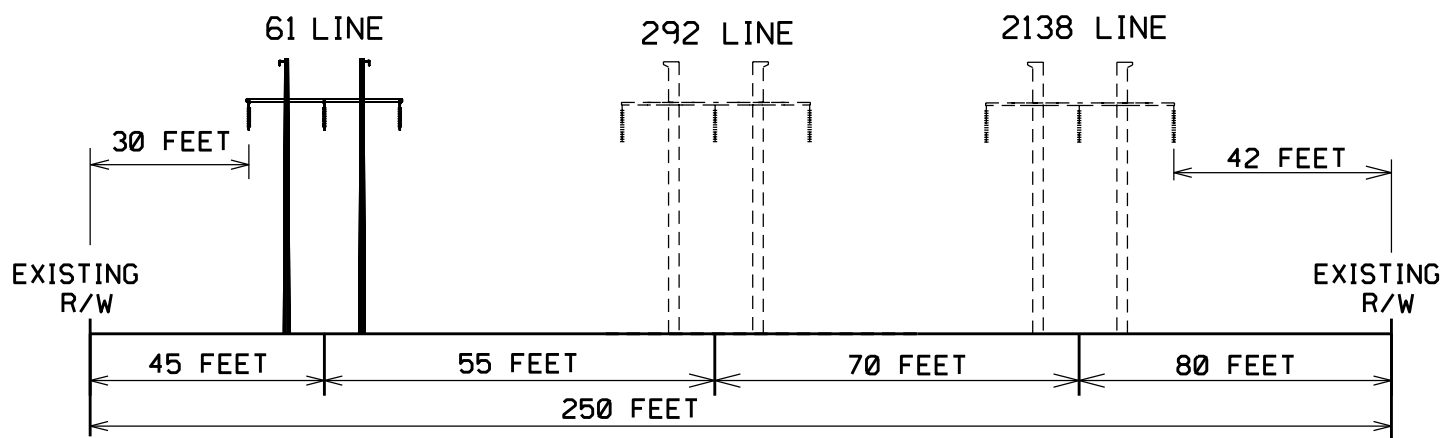


Existing Structures
292/579 thru 292/586

EXISTING CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	H FRAME WOOD	H FRAME WOOD
FOUNDATION :	DIRECT BURIED	DIRECT BURIED
APPROXIMATE HEIGHT:	52 FEET	52 FEET
WIDTH AT CROSSARM:	30 FEET	36 FEET
WIDTH AT BASE:	14 FEET	18 FEET
AVERAGE SPAN LENGTH:	690 FEET	500 FEET
CONDUCTOR TYPE:	ALUMINUM	ALUMINUM
RIGHT OF WAY WIDTH:	250 FEET	250 FEET
APPROXIMATE LENGTH:	0.93 MILES	0.93 MILES

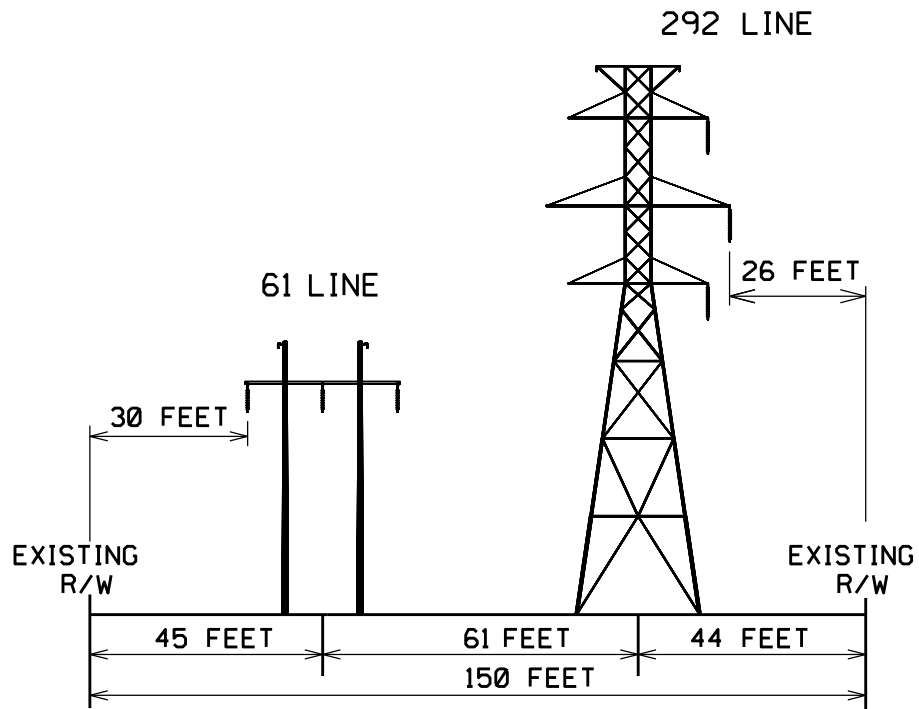


Proposed Structures
292/579 thru 282/586
2138/80 thru 2138/87

PROPOSED CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	H FR. ^{Sheet 27}	H FRAME	H FRAME
FOUNDATION :	DIRECT BURIED	DIRECT BURIED	DIRECT BURIED
APPROXIMATE HEIGHT:	52 FEET	55 FEET	55 FEET
WIDTH AT CROSSARM:	30 FEET	38 FEET	38 FEET
WIDTH AT BASE:	14 FEET	19 FEET	19 FEET
AVERAGE SPAN LENGTH:	690 FEET	500 FEET	500 FEET
CONDUCTOR TYPE:	ALUMINUM	ALUMINUM	ALUMINUM
RIGHT OF WAY WIDTH:	250 FEET	250 FEET	250 FEET
APPROXIMATE LENGTH:	0.93 MILES	0.40 MILES	0.40 MILES

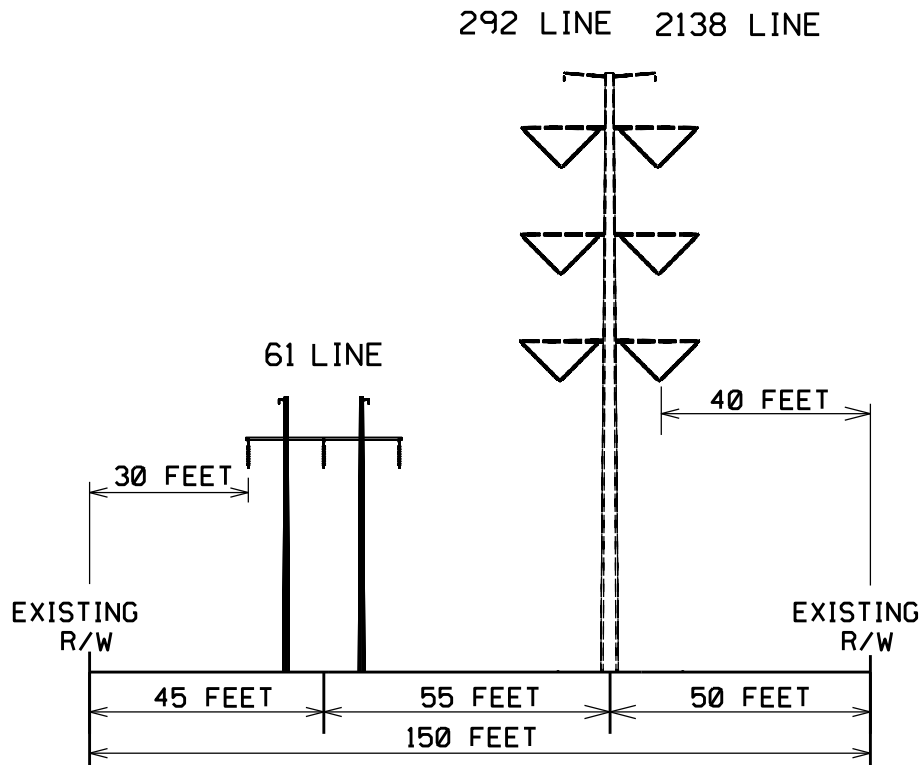


Existing Structures
292/590 thru 292/613 &
292/616 thru 292/622

EXISTING CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

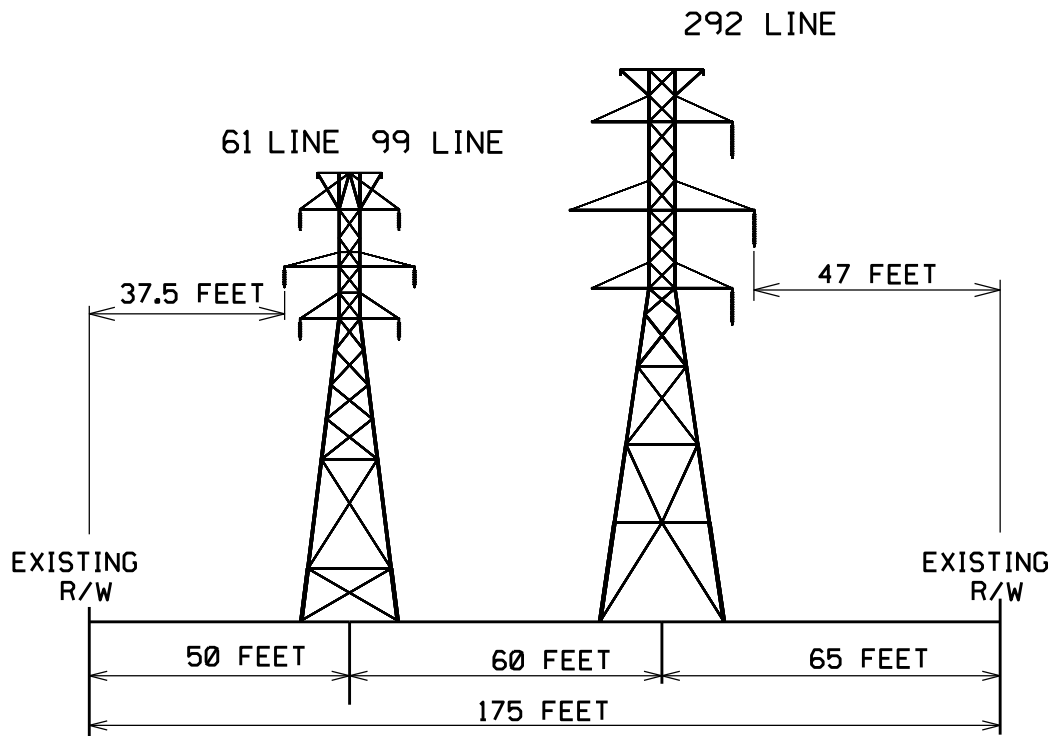
TYPE OF STRUCTURE:	H FRAME WOOD	WEATHERING TOWER
FOUNDATION :	DIRECT BURIED	EXISTING
APPROXIMATE HEIGHT:	52 FEET	106 FEET
WIDTH AT CROSSARM:	30 FEET	36 FEET
WIDTH AT BASE:	14 FEET	25 FEET
AVERAGE SPAN LENGTH:	614 FEET	762 FEET
CONDUCTOR TYPE:	ALUMINUM	ALUMINUM
RIGHT OF WAY WIDTH:	150 FEET	150 FEET
APPROXIMATE LENGTH:	4.90 MILES	4.90 MILES



Proposed Structures
2138/90 thru 2138/115 &
2138/119 thru 2138/122 &
2138/128 thru 2138/130
PROPOSED CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	H FRAME	WEATHERING POLE
FOUNDATION :	DIRECT BURIED	PILES/CONCRETE
APPROXIMATE HEIGHT:	52 FEET	123 FEET
WIDTH AT CROSSARM:	30 FEET	35 FEET
WIDTH AT BASE:	14 FEET	5 FEET
AVERAGE SPAN LENGTH:	614 FEET	800 FEET
CONDUCTOR TYPE:	ALUMINUM	ALUMINUM
RIGHT OF WAY WIDTH:	150 FEET	150 FEET
APPROXIMATE LENGTH:	4.90 MILES	4.90 MILES

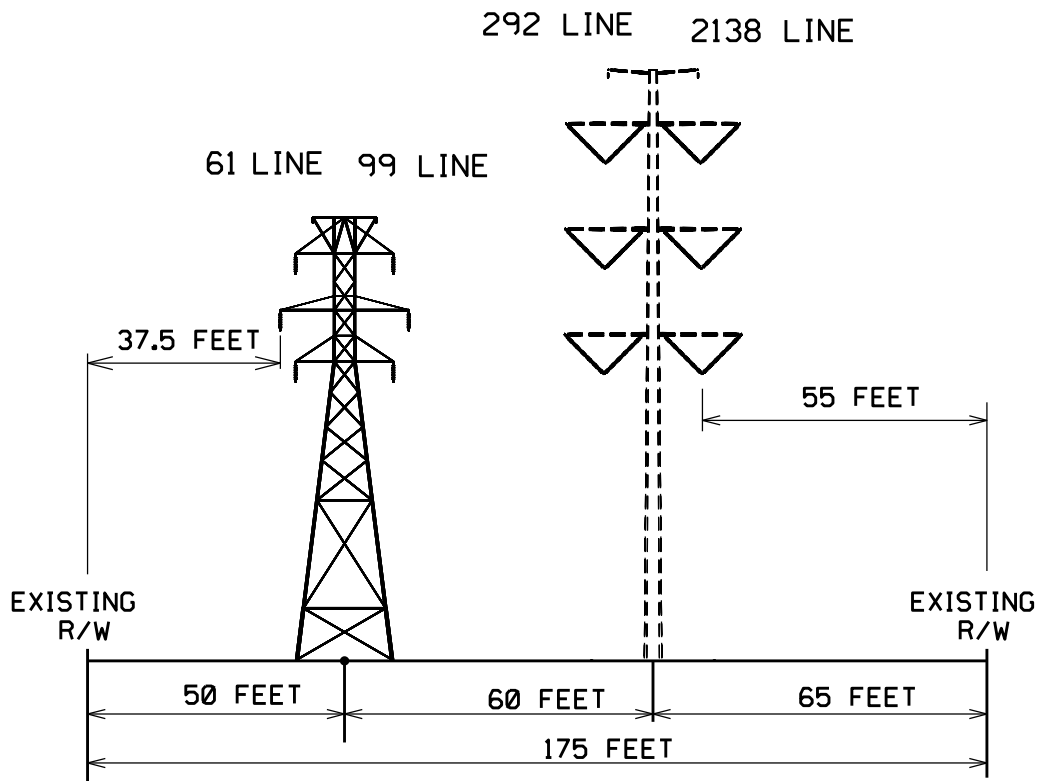


Existing Structures
292/623 thru 292/637

EXISTING CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	GALVANIZED TOWER	WEATHERING TOWER
FOUNDATION :	EXISTING	EXISTING
APPROXIMATE HEIGHT:	85 FEET	106 FEET
WIDTH AT CROSSARM:	26 FEET	36 FEET
WIDTH AT BASE:	20 FEET	25 FEET
AVERAGE SPAN LENGTH:	633 FEET	800 FEET
CONDUCTOR TYPE:	ALUMINUM	ALUMINUM
RIGHT OF WAY WIDTH:	175 FEET	175 FEET
APPROXIMATE LENGTH:	2.28 MILES	2.28 MILES

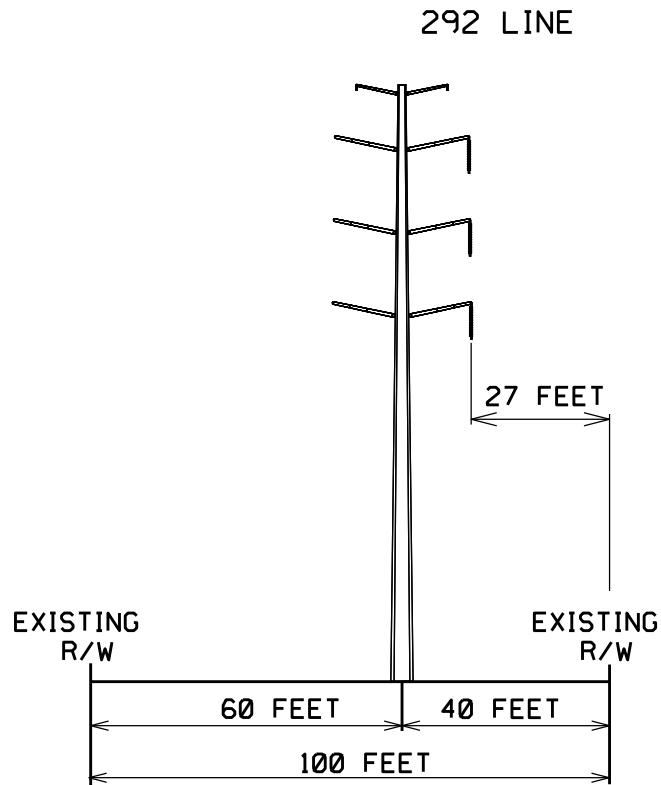


Proposed Structures
2138/131 thru 2138/145

PROPOSED CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	GALVANIZED TOWER	WEATHERING POLE
FOUNDATION :	EXISTING	PILES/CONCRETE
APPROXIMATE HEIGHT:	85 FEET	120 FEET
WIDTH AT CROSSARM:	26 FEET	35 FEET
WIDTH AT BASE:	20 FEET	5 FEET
AVERAGE SPAN LENGTH:	633 FEET	800 FEET
CONDUCTOR TYPE:	ALUMINUM	ALUMINUM
RIGHT OF WAY WIDTH:	175 FEET	175 FEET
APPROXIMATE LENGTH:	2.28 MILES	2.28 MILES



Existing Structures
292/638 thru 292/640

EXISTING CONFIGURATION

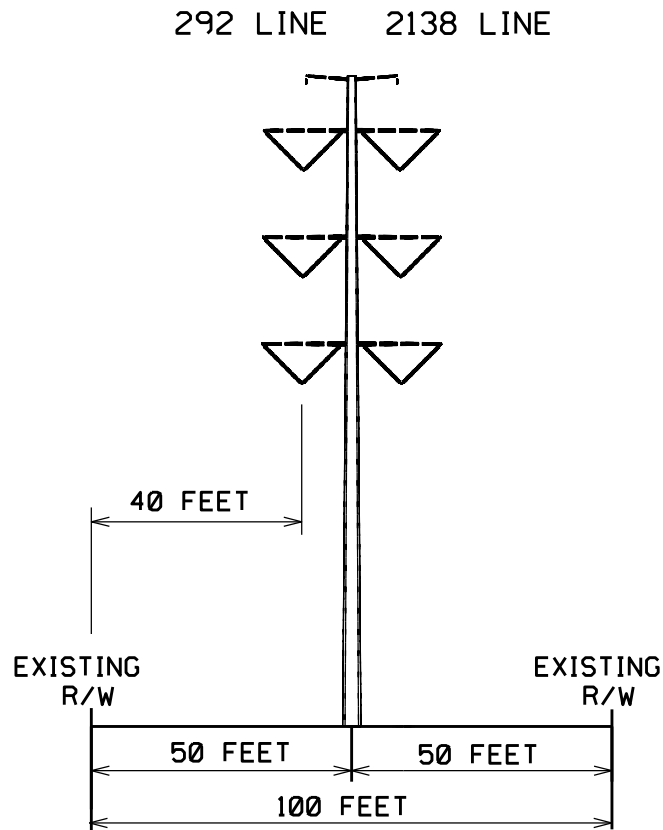
TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	PAINTED POLE
FOUNDATION :	EXISTING
APPROXIMATE HEIGHT:	115 FEET
WIDTH AT CROSSARM:	26 FEET
WIDTH AT BASE:	5 FEET
AVERAGE SPAN LENGTH:	850 FEET
CONDUCTOR TYPE:	ALUMINUM
RIGHT OF WAY WIDTH:	100 FEET
APPROXIMATE LENGTH OF LINE :	0.38 MILES

Sheet 34

Sheet 33

Proposed Structures
2138/146 thru 2138/148

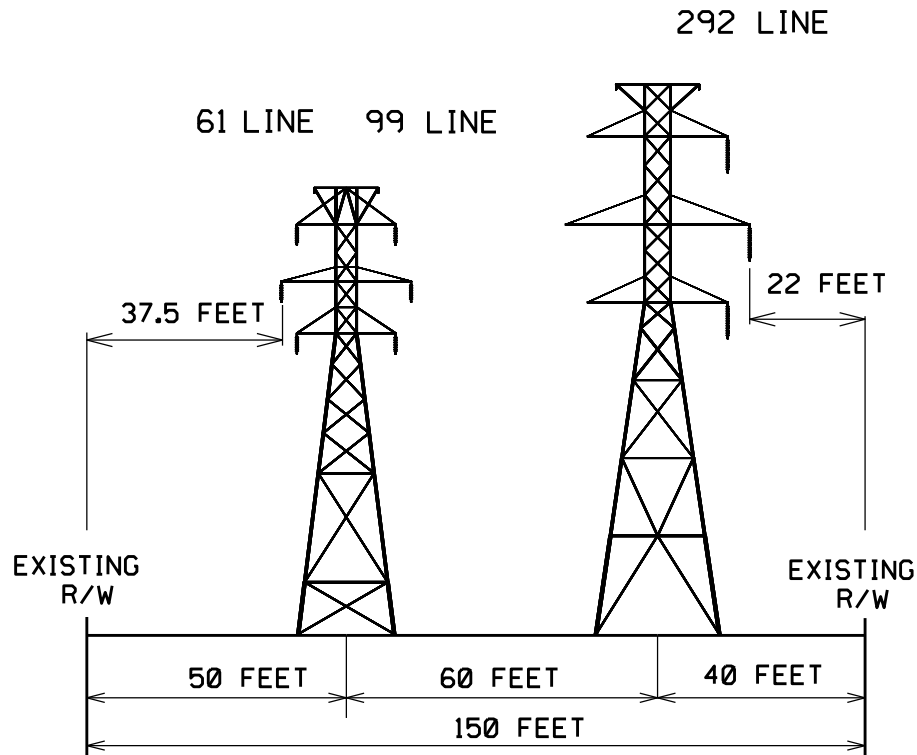


PROPOSED CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	WEATHERING POLE
FOUNDATION :	PILES/CONCRETE
APPROXIMATE HEIGHT:	133 FEET
WIDTH AT CROSSARM:	35 FEET
WIDTH AT BASE:	5 FEET
AVERAGE SPAN LENGTH:	850 FEET
CONDUCTOR TYPE:	ALUMINUM
RIGHT OF WAY WIDTH:	100 FEET
APPROXIMATE LENGTH OF LINE :	0.38 MILES

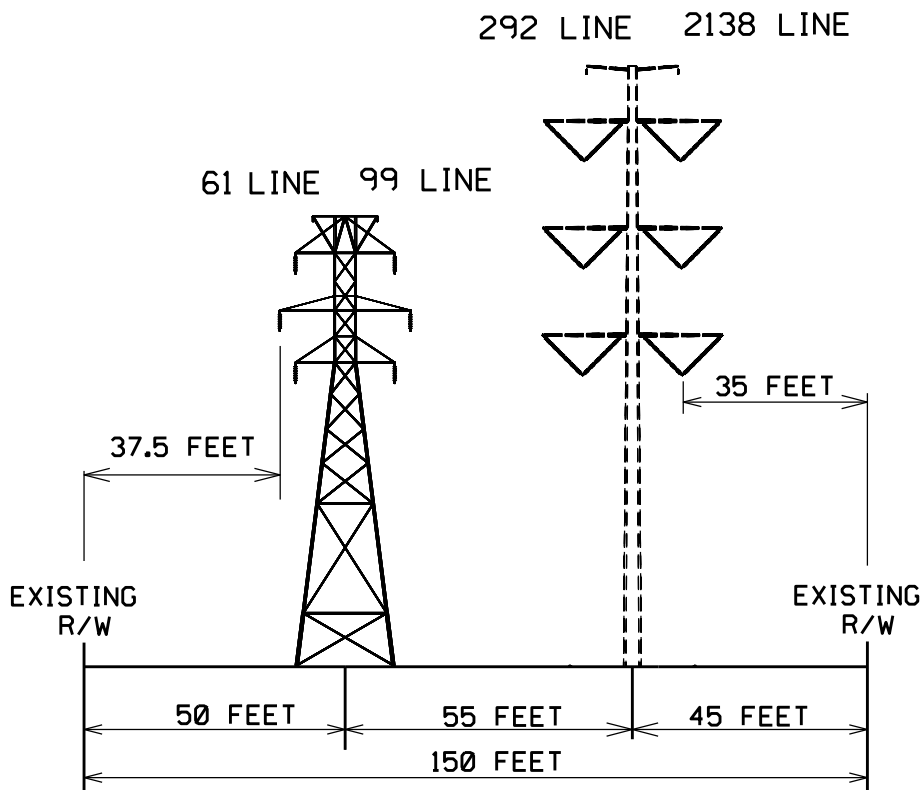
Existing Structures
292/641 thru 292/644



EXISTING CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	GALVANIZED TOWER	WEATHERING TOWER
FOUNDATION :	EXISTING	EXISTING
APPROXIMATE HEIGHT:	85 FEET	106 FEET
WIDTH AT CROSSARM:	26 FEET	36 FEET
WIDTH AT BASE:	20 FEET	25 FEET
AVERAGE SPAN LENGTH:	664 FEET	800 FEET
CONDUCTOR TYPE:	ALUMINUM	ALUMINUM
RIGHT OF WAY WIDTH:	150 FEET	150 FEET
APPROXIMATE LENGTH OF LINE :	0.37 MILES	0.37 MILES



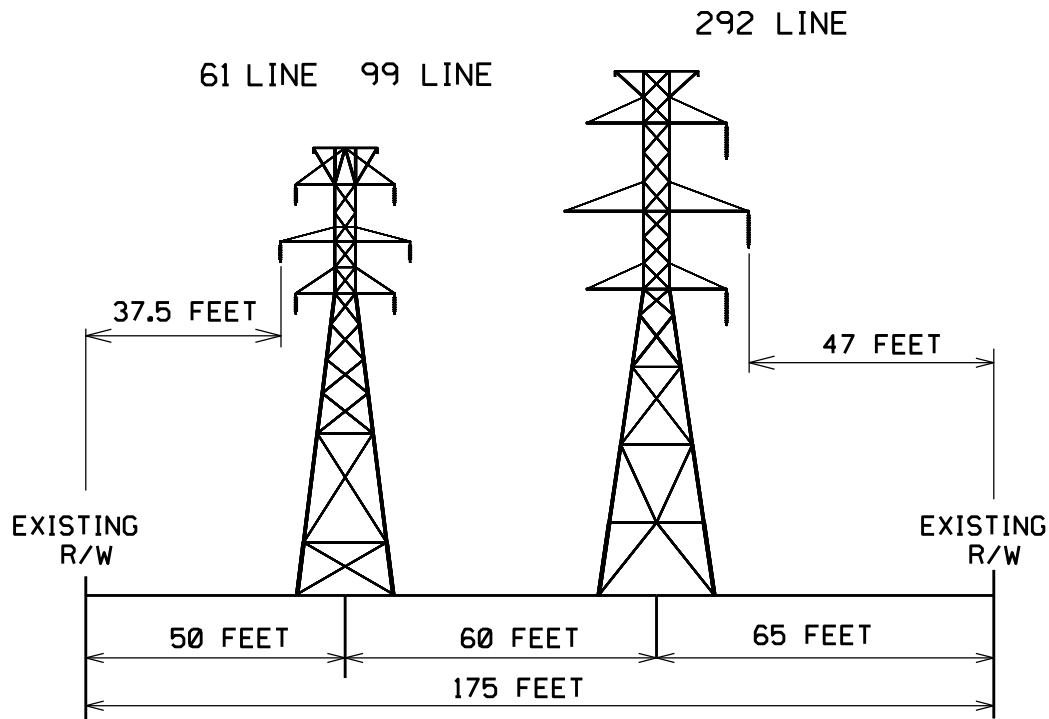
Proposed Structures
2138/149 thru 2138/152

PROPOSED CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	GALVANIZED TOWER	WEATHERING POLE
FOUNDATION :	EXISTING	PILES/CONCRETE
APPROXIMATE HEIGHT:	85 FEET	128 FEET
WIDTH AT CROSSARM:	26 FEET	35 FEET
WIDTH AT BASE:	20 FEET	5 FEET
AVERAGE SPAN LENGTH:	664 FEET	800 FEET
CONDUCTOR TYPE:	ALUMINUM	ALUMINUM
RIGHT OF WAY WIDTH:	150 FEET	150 FEET
APPROXIMATE LENGTH OF LINE :	0.37 MILES	0.58 MILES

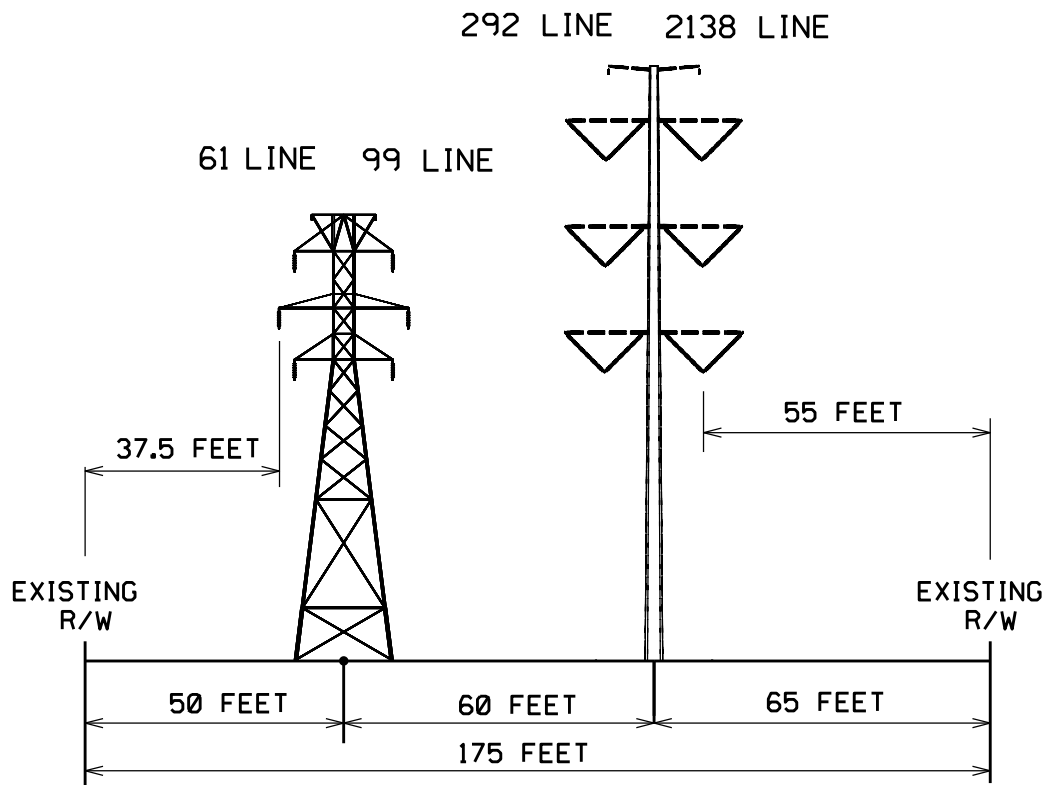
Existing Structure
292/645



EXISTING CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

TYPE OF STRUCTURE:	GALVANIZED TOWER	WEATHERING TOWER
FOUNDATION :	EXISTING	EXISTING
APPROXIMATE HEIGHT:	85 FEET	101 FEET
WIDTH AT CROSSARM:	26 FEET	36 FEET
WIDTH AT BASE:	20 FEET	22 FEET
AVERAGE SPAN LENGTH:	285 FEET	750 FEET
CONDUCTOR TYPE:	ALUMINUM	ALUMINUM
RIGHT OF WAY WIDTH:	175 FEET	175 FEET
APPROXIMATE LENGTH OF LINE :	0.37 MILES	0.37 MILES



Proposed Structure
2138/153

PROPOSED CONFIGURATION

TYPICAL RIGHT OF WAY LOOKING TOWARD WHEALTON

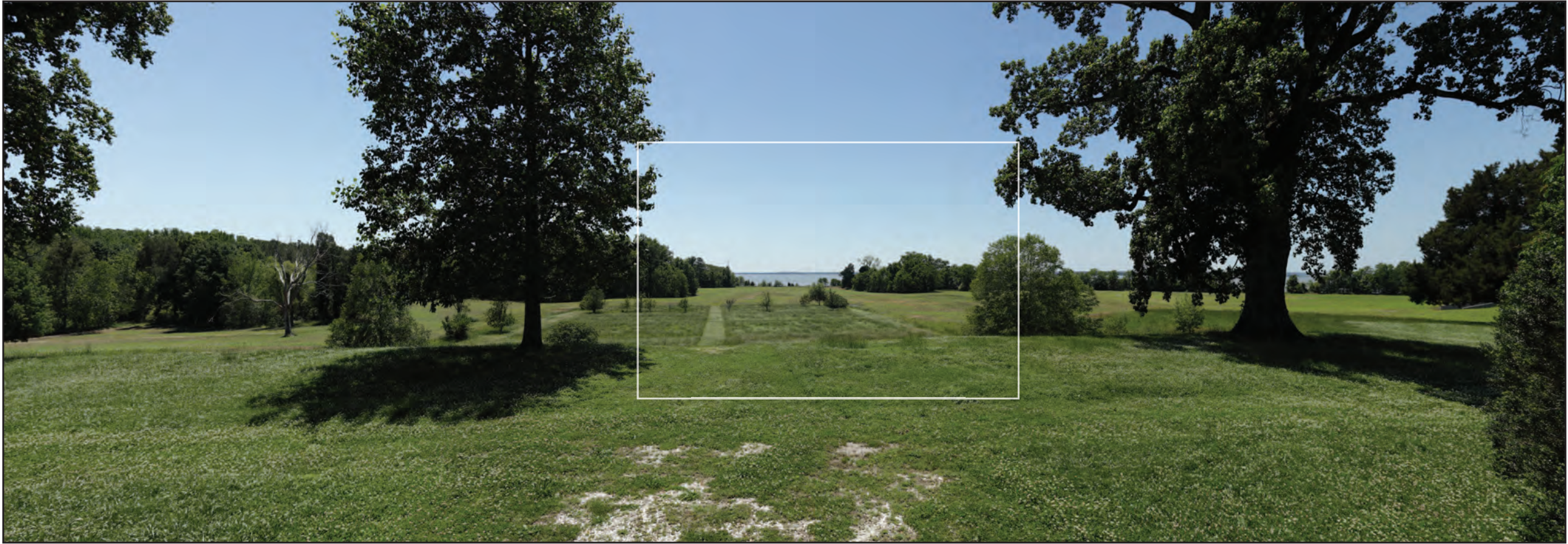
TYPE OF STRUCTURE:	GALVANIZED TOWER	WEATHERING POLE
FOUNDATION :	EXISTING	PILES/CONCRETE
APPROXIMATE HEIGHT:	85 FEET	110 FEET
WIDTH AT CROSSARM:	26 FEET	35 FEET
WIDTH AT BASE:	20 FEET	5 FEET
AVERAGE SPAN LENGTH:	285 FEET	800 FEET
CONDUCTOR TYPE:	ALUMINUM	ALUMINUM
RIGHT OF WAY WIDTH:	175 FEET	175 FEET
APPROXIMATE LENGTH OF LINE :	0.37 MILES	0.37 MILES

Appendix D VISUAL SIMULATIONS FOR SELECTED RESOURCES/VIEWPOINTS


D.1 VISUAL SIMULATIONS – CARTER’S GROVE



Viewpoint 15 - View from Main House at Carter’s Grove - Looking Southwest - Existing View



Viewpoint 15 - View from Main House at Carter’s Grove - Looking Southwest - James River Crossing Variation 1 - Proposed View



Dominion[®]
Surry-Skiffes Creek 500 kV Transmission Line
Skiffes Creek-Wheaton 230 kV Transmission Line
Skiffes Creek 500-230-115 kV Switching Station

Viewpoint 15

View from Main House at Carter's Grove
Looking Southwest


James River Crossing Variation 1

Existing and Proposed

● Viewpoint Location

● Tower Position

— James River Crossing Variation 1



Easting position (Virginia South Zone NAD83) 12028981.5

Northing position (Virginia South Zone NAD83) 3604320.9

Elevation of viewpoint position (NAD 83 / ft): 68.0

Height of camera above ground (ft): 5.4

Date of photography: 11-May-12 at 1:22 p.m.

Orientation of view: SW

Horizontal field of view: 124°

Vertical field of view: 55°

Distance to Closest Visible Tower (miles) 1.76

NOTES:

Viewpoint locations have been precision surveyed by

Dominion Virginia Power
Coordinator - Survey Services
Larry Hedblom, L.S.
701 East Cary Street
Richmond, Va. 23219

No part of this photosimulation shall be altered in any way.

Visual Assessments should be made from the full size TrueView™ only.

Photosimulation Created Using
TrueView™ Technology

Provided by

TRUESCAPE
VISUAL COMMUNICATION

www.truescape.com

DATE May 28, 2012

Tower placement in simulations is preliminary - final tower locations may change upon final design and survey




Viewpoint 15 - View from Main House at Carter's Grove - Looking Southwest – **James River Crossing Variation 1 - Proposed View**
Enlargement Area of previous page - enlarged to a representative view when printed on a 11 x 17 " page and viewed from approx. 20" distance.



Viewpoint 16 - View from field west of Main House at Carter’s Grove – Looking Southwest - Existing View



Viewpoint 16 - View from field west of Main House at Carter’s Grove - Looking Southwest – James River Crossing Variation 1 - Proposed View



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Surry-Skiffes Creek 500 kV Transmission Line
Skiffes Creek-Wheaton 230 kV Transmission Line
Skiffes Creek 500-230-115 kV Switching Station

Viewpoint 16


View from field west of Main House at Carter's Grove
Looking Southwest

James River Crossing Variation 1
Existing and Proposed

● Viewpoint Location

● Tower Position

— James River Crossing Variation 1



Easting position (Virginia South Zone NAD83) 12028059.2

Northing position (Virginia South Zone NAD83) 3604351.7

Elevation of viewpoint position (NAD 83 / ft): 57.7

Height of camera above ground (ft): 5.4

Date of photography: 11-May-12 at 2:08 p.m.

Orientation of view: SW

Horizontal field of view: 124°

Vertical field of view: 55°

Distance to Closest Visible Tower (miles) 1.65

NOTES:

Viewpoint locations have been precision surveyed by

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DATE

May 28, 2012

Tower placement in simulations is preliminary - final tower locations may change upon final design and survey




Viewpoint 16 - View from field west of Main House at Carter's Grove - Looking Southwest - **James River Crossing Variation 1 - Proposed View**
Enlargement Area of previous page - enlarged to a representative view when printed on a 11 x 17 " page and viewed from approx. 20" distance.



Viewpoint 17 - View from James River Shoreline at Carter’s Grove – Looking South - Existing View



Viewpoint 17 - View from James River Shoreline at Carter’s Grove – Looking South - James River Crossing Variation 1 - Proposed View



Dominion[®]

Surry-Skiffes Creek 500 kV Transmission Line
Skiffes Creek-Wheaton 230 kV Transmission Line
Skiffes Creek 500-230-115 kV Switching Station

Viewpoint 17


View from James River Shoreline at Carter's Grove
Looking South

James River Crossing Variation 1
Existing and Proposed

Viewpoint Location

Tower Position

James River Crossing Variation 1



Easting position (Virginia South Zone NAD83) 12028351.1
Northing position (Virginia South Zone NAD83) 3603163.3
Elevation of viewpoint position (NAD 83 / ft): 37.4
Height of camera above ground (ft): 5.4
Date of photography: 11-May-12 at 2:56 p.m.
Orientation of view: S
Horizontal field of view: 124°
Vertical field of view: 55°
Distance to Closest Visible Tower (miles) 1.33

NOTES:

Viewpoint locations have been precision surveyed by
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Coordinator - Survey Services
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Richmond, Va. 23219

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DATE

May 28, 2012

Tower placement in simulations is preliminary - final tower locations may change upon final design and survey



Viewpoint 17 - View from James River Shoreline at Carter's Grove – Looking South - **James River Crossing Variation 1** - **Proposed View**
Enlargement Area of previous page - enlarged to a representative view when printed on a 11 x 17 " page and viewed from approx. 20" distance.


D.2 VISUAL SIMULATIONS – COLONIAL PARKWAY



Viewpoint 09 - Colonial Parkway – Looking South East - Existing View



Viewpoint 09 - Colonial Parkway – Looking South East - James River Crossing Variation - Proposed View
White box indicates enlargement area (see next page)



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Surry-Skiffes Creek 500 kV Transmission Line
Skiffes Creek-Wheaton 230 kV Transmission Line
Skiffes Creek 500-230-115 kV Switching Station


Viewpoint 09
Colonial Parkway – Looking South East
to James River Crossing Variation

Existing and Proposed View

• Viewpoint Location

• Tower Position

James River Crossing Variation



Easting position (Virginia South Zone NAD83) 12007386.5

Northing position (Virginia South Zone NAD83) 3608577.6

Elevation of viewpoint position (NAD 83 / ft): 7.4

Height of camera above ground (ft): 5.4

Date of photography: 2nd February 2012 at 7:17 a.m.

Orientation of view: SE

Horizontal field of view: 124°

Vertical field of view: 55°

Distance to Closest Tower (miles) 3.57

NOTES:

Viewpoint locations have been precision surveyed by

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Coordinator - Survey Services
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DATE

April 20, 2012

Tower placement in simulations is preliminary - final tower locations may change upon final design and survey



Viewpoint 09 - Colonial Parkway – Looking South East - **James River Crossing Variation - Proposed View**

Enlargement Area of previous page - enlarged to a representative view when printed on a 11 x 17 " page and viewed from approx. 20" distance.


D.3 VISUAL SIMULATIONS – JAMESTOWN



Viewpoint 12 - East End of Jamestown Island - Looking South East - Existing View



Viewpoint 12 - East End of Jamestown Island - Looking South East - James River Crossing Variation - Proposed View
White box indicates enlargement area (see next page)



Dominion[®]
Surry-Skiffes Creek 500 kV Transmission Line
Skiffes Creek-Wheaton 230 kV Transmission Line
Skiffes Creek 500-230-115 kV Switching Station

Viewpoint 12
East End of Jamestown Island
- Looking South East
to James River Crossing Variation

Existing and Proposed View

• Viewpoint Location

• Tower Position

James River Crossing Variation



Easting position (Virginia South Zone NAD83) 11996924.8

Northing position (Virginia South Zone NAD83) 3602298.2

Elevation of viewpoint position (NAD 83 / ft): 1.4

Height of camera above ground (ft): 5.4

Date of photography: 28th February 2012 at 11:23 a.m.

Orientation of view: SE

Horizontal field of view: 124°

Vertical field of view: 55°

Distance to Closest Tower (miles) 3.52

NOTES:

Viewpoint locations have been precision surveyed by

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DATE

April 20, 2012

Tower placement in simulations is preliminary - final tower locations may change upon final design and survey

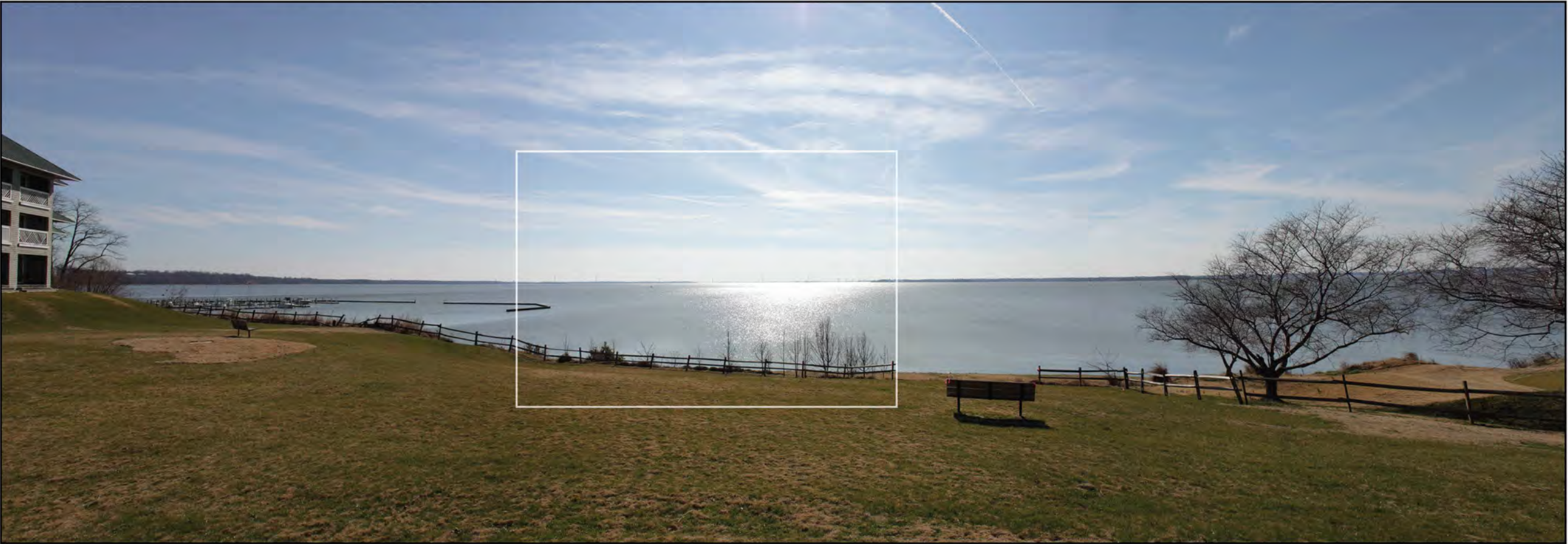


Viewpoint 12 - East End of Jamestown Island - Looking South East - **James River Crossing Variation - Proposed View**
Enlargement Area of previous page - enlarged to a representative view when printed on a 11 x 17 " page and viewed from approx. 20" distance.

D.4 VISUAL SIMULATIONS - KINGSMILL



Viewpoint 11 - Kingsmill Resort and Golf Club from Overlook - Looking South - Existing View



Viewpoint 11 - Kingsmill Resort and Golf Club from Overlook - Looking South - James River Crossing Variation - Proposed View
White box indicates enlargement area (see next page)



Dominion[®]
Surry-Skiffes Creek 500 kV Transmission Line
Skiffes Creek-Wheaton 230 kV Transmission Line
Skiffes Creek 500-230-115 kV Switching Station


Viewpoint 11
Kingsmill Resort and Golf Club from Overlook - Looking South to James River Crossing Variation

Existing and Proposed View

• Viewpoint Location

• Tower Position

James River Crossing Variation



Easting position (Virginia South Zone NAD83) 12016668.4

Northing position (Virginia South Zone NAD83) 3610148.9

Elevation of viewpoint position (NAD 83 / ft): 35.8

Height of camera above ground (ft): 5.4

Date of photography: 2nd February 2012 at 8:42 a.m.

Orientation of view: S

Horizontal field of view: 124°

Vertical field of view: 55°

Distance to Closest Tower (miles) 3.14

NOTES:

Viewpoint locations have been precision surveyed by

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Coordinator - Survey Services
Larry Heddom, L.S.
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Richmond, Va. 23219

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DATE

April 20, 2012

Tower placement in simulations is preliminary - final tower locations may change upon final design and survey



Viewpoint 11 - Kingsmill Resort and Golf Club from Overlook - Looking South - James River Crossing Variation - Proposed View
Enlargement Area of previous page - enlarged to a representative view when printed on a 11 x 17 " page and viewed from approx. 20" distance.

D.5 PHOTOGRAPHS – JAMES RIVER BRIDGE CROSSING

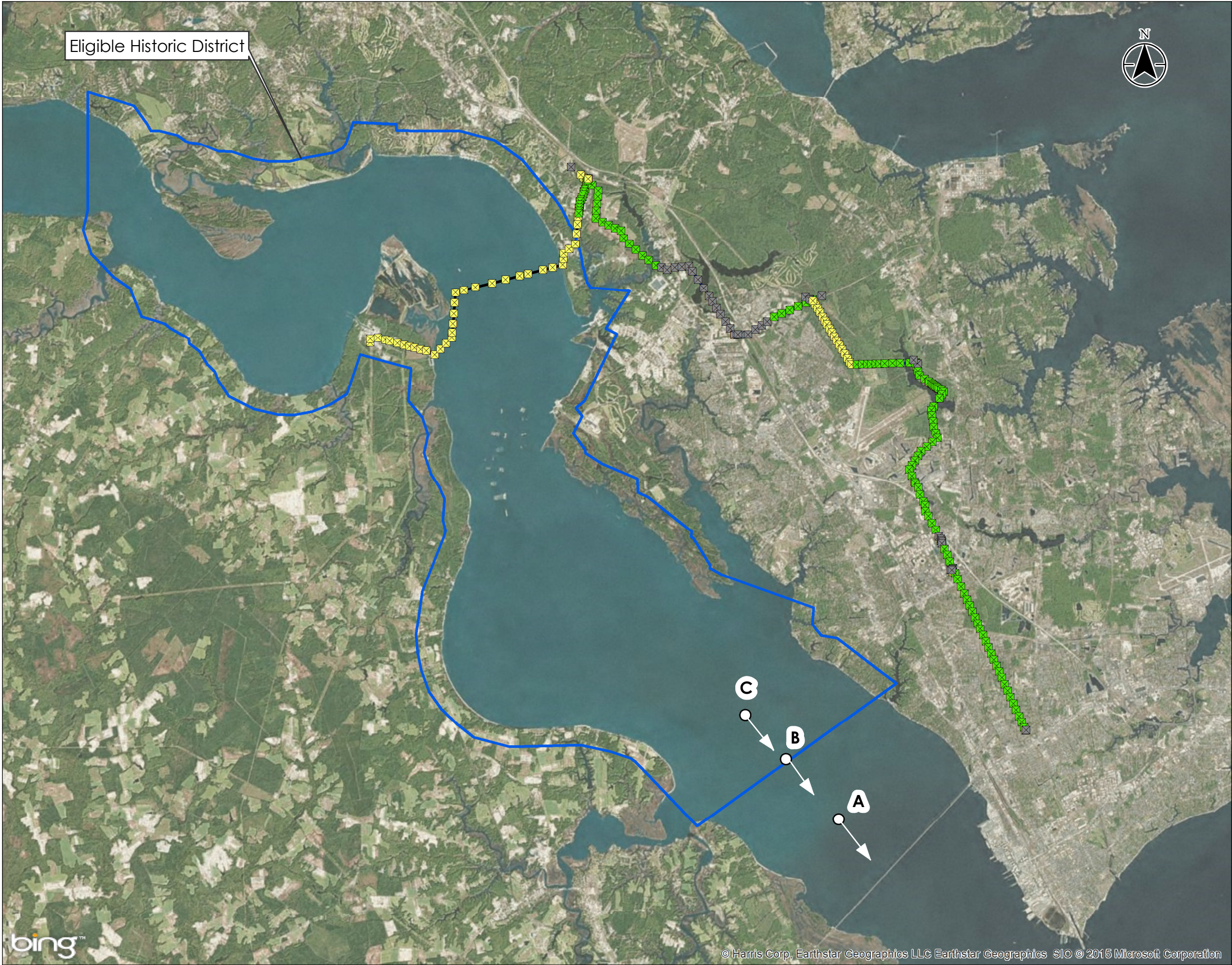
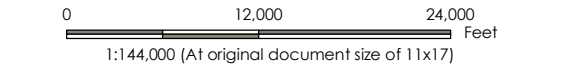
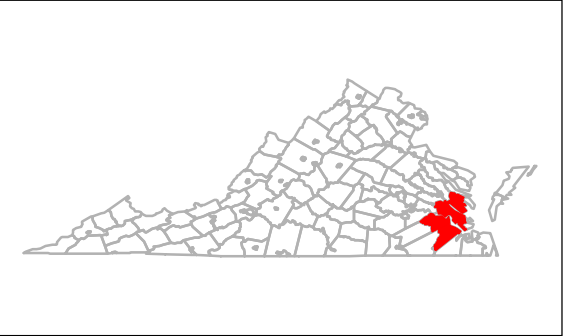


Figure No. **Appendix D.5**
Title
Client/Project
Dominion Virginia Power
Project Location 203416120
County: Gloucester, Williamsburg, James City, York, Surry, Newport News, Isle of Wight
USGS Quad: Norge, Williamsburg, Clay Bank, Surry, Hog Island, Yorktown, Runnymede, Bacons Castle, Mulberry Island, Newport News North, Raynor, Smithfield, Bennis Church, Newport News South
Prepared by SWS on 2015-09-14
Technical Review by AJL on 2015-09-14
Independent Review by EMB on 2015-09-14



- Legend
- Proposed New Structure
 - Reconductoring Existing Structure
 - Remove and Replace Existing Structure
 - Photograph Location
 - Architectural Resources
 - Skiffes Creek to Whealton 230kV Transmission Line
 - Skiffes Creek to Surry 500kV Transmission Line



Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Orthoimagery © Bing Maps





Photo D.5.1: View of the James River Bridge and Associated Structures from 1.5 miles North of the Bridge.



Photo D.5.2: Zoomed View of the James River Bridge and Associated Structures from 1.5 miles North of the Bridge.



Photo D.5.3: View of the James River Bridge and Associated Structures from 3.5 miles North of the Bridge.



Photo D.5.4: Zoomed View of the James River Bridge and Associated Structures from 3.5 miles North of the Bridge.



Photo D.5.5: View of the James River Bridge and Associated Structures from 4.5 miles North of the Bridge.



Photo D.5.6: Zoomed View of the James River Bridge and Associated Structures from 4.5 miles North of the Bridge.