NATIONAL REGISTER OF HISTORIC PLACES – LISTED PROPERTIES
BATTLEFIELDS, AND LANDSCAPES
Located within 1.0 Mile of the Project

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North Anna Battlefield (VDHR ID# 042-0123)

The North Anna River Campaign is one of the most important Civil War battles that occurred in Virginia. It was the culminating point of the 1864 overland campaign, which began with the battle of the Wilderness, and later the battles around Spotsylvania Courthouse. The army of Northern Virginia, commanded by General Robert E. Lee, had fought essentially a defensive struggle in both battles. Lee knew that his opponent, General Ulysses S. Grant and the Army of the Potomac, had an overwhelming superiority in numbers. Such a force could not be defeated in open battle, so Lee determined that he would fight Grant behind earthworks until an opportunity arose to crush the Union army. At some point during the campaign of May 1864, Grant would make an error, and leave himself open to attack. Until that time, Lee would conserve his army and wait. The battlefield was found to be potentially eligible for listing in the NRHP by the VDHR in 2007. Portions of the battlefield were acquired by the NPS in 2016.

In order to assess the potential impact of the proposed project, visual inspection was conducted of the setting around the portions of the battlefield boundary in the vicinity of the project, with emphasis on views towards the project area to document existing setting, sitelines, and viewshed. This assessment found that the battlefield is directly crossed by the project alignment where it abuts the south bank of the North Anna River. A total of approximately two miles of the project alignment extends directly through this portion of the battlefield between North Anna River and Little River. The landscape of the battlefield in this area is mostly wooded, with a patchwork of open field, recently timbered land, and farmscape. Verndon Road and the CSX Railroad corridor also extend through the battlefield, perpendicularly crossing the project alignment. The northern portion of the battlefield crossed by the project alignment, nearest the North Anna River, is owned by the NPS and will soon be opened to public interpretation.

Inspection from a variety of vantage points throughout the battlefield revealed that the existing transmission line may be seen within and across many of the portions of battlefield with open landscape, while the existing vegetation generally screens visibility of the line in more wooded areas. The existing line is most visible from points along Verndon Road where the roadway corridor itself, as well as open fields that abut much of the road in the vicinity allow wider and most distant views. Inspection from along Noel Road and the Fontaine House which are along the southern edge of the area owned by the NPS revealed more interrupted visibility of the existing line. The line itself may be seen as it is suspended over open field and a vineyard, however, the existing structures remain screened behind treelines. Inspection from a field located centrally within the NPS property revealed the existing line and structures are screened by vegetation. The existing transmission line structures in the vicinity of the property range from 95-feet to 130-feet tall and the proposed replacement structures will range from 134-feet to 164-feet tall. As such, there will be an increase in structure height, however structures will be replaced on a one-to-one basis in generally the same location. With the increase in height, it is anticipated that the structures that are currently visible will have increased visibility, and some structures that are currently screened by vegetation may slightly rise above the treelines, however, the intervening topography and vegetation will likely continue to screen wide and/or uninterrupted views of multiple structures. This was confirmed with photo simulation that shows the line will continue to be mostly screened from within the NPS property, although the replacement structures may rise to near or just above the treeline allowing minimal seasonal

visibility. Photo simulation also reveals that one structure currently visible from along Noel Road near the Fontaine House along the lower edge of the NPS property will be increasingly visible, while another structure currently screened from this vantage will rise above the treeline and become visible, however, visibility will be limited to these two structures as all others will remain beneath the treeline. From a vantage point along Verndon Road, east of the line, photo simulation reveals that one structure currently screened by vegetation may rise just above the treeline, but would be seen in isolation from other structures that will remain screened. From along Verndon Road, west of the project, all structures will continue to be screened by vegetation. As such, the project will introduce a slight change of viewshed from discrete vantage points within the battlefield, however, the transmission line will largely remain screened from most locations, where it is not currently visible, including those within the NPS-owned area to be publicly interpreted. Where increased visibility of existing structures or new visibility of currently screened structures is anticipated, visibility will be limited to one or two structures, and vegetation will continue to screen wide and/or uninterrupted views of multiple structures. It is therefore D+A's opinion that the Project will have no more than a ***minimal impact*** on the North Anna Battlefield.

Figure 5-17 depicts the location of North Anna Battlefield in relation to the project alignment and viewshed buffers with the location and direction of all representative photographs and photo simulations. Figures 5-18 through 5-25 are representative photographs of the battlefield, as well as those taken from locations within the battlefield towards the project alignment. Figures 5-26 through 5-37 provide photo simulation, including maps with the location, direction, and structures included in each photo simulation from the property, the existing view from each simulation location, and simulated views of the proposed structures.

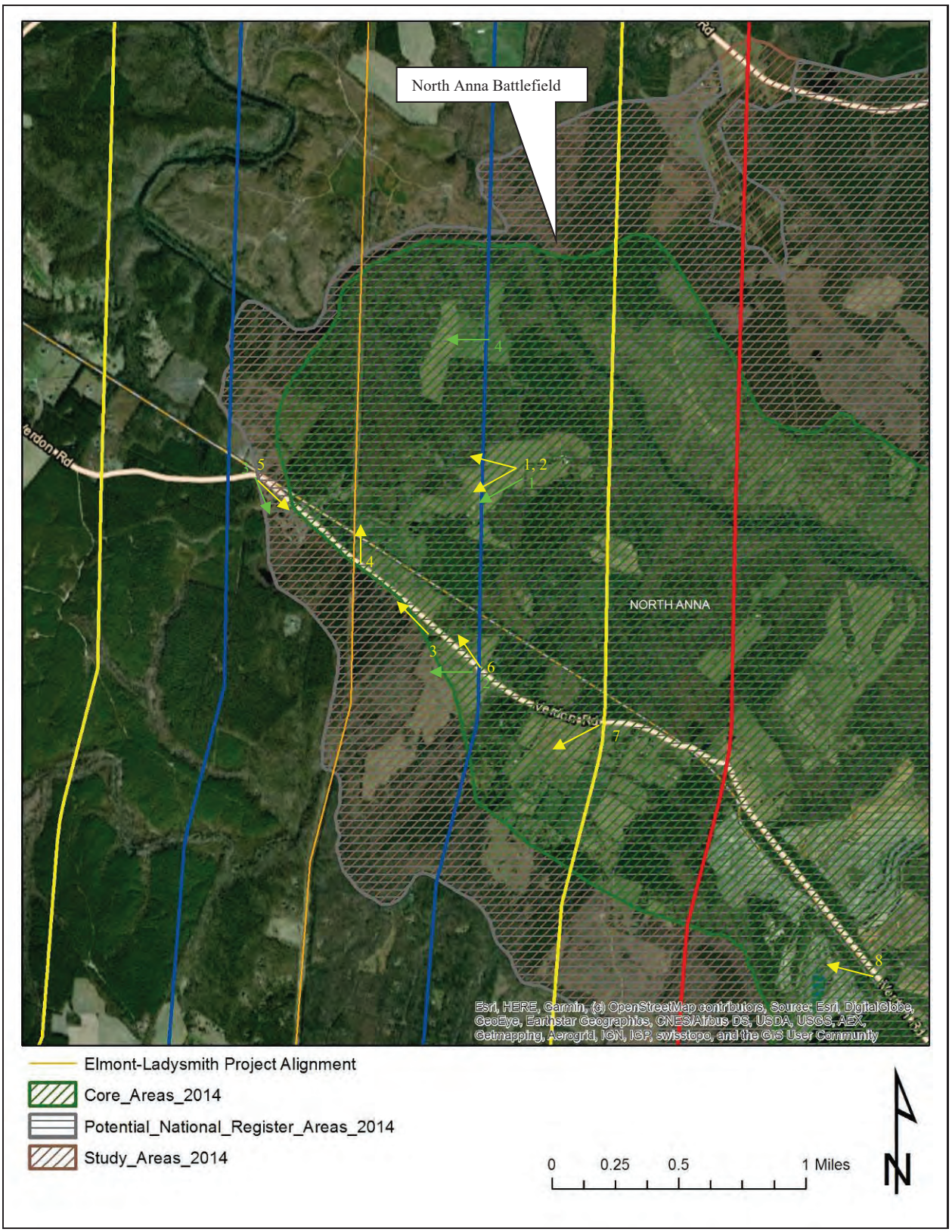

Figure 5-17: North Anna Battlefield, with ABPP tiers, in relation to the project area and tiered study buffers with location and direction of representative photography (shown in yellow) and photo simulations (shown in green).

Figure 5-18: Photo location 1- Representative view of battlefield terrain in the vicinity of the project area (Noel Road), facing northwest.

Figure 5-19: Photo location 2- View from NPS-owned battlefield property along Noel Road towards the project alignment (one structure visible through trees), facing west.

Figure 5-20: Photo location 3- View from Mount Carmel Baptist Church along Verndon Road towards the project alignment (two structures visible), facing northwest.

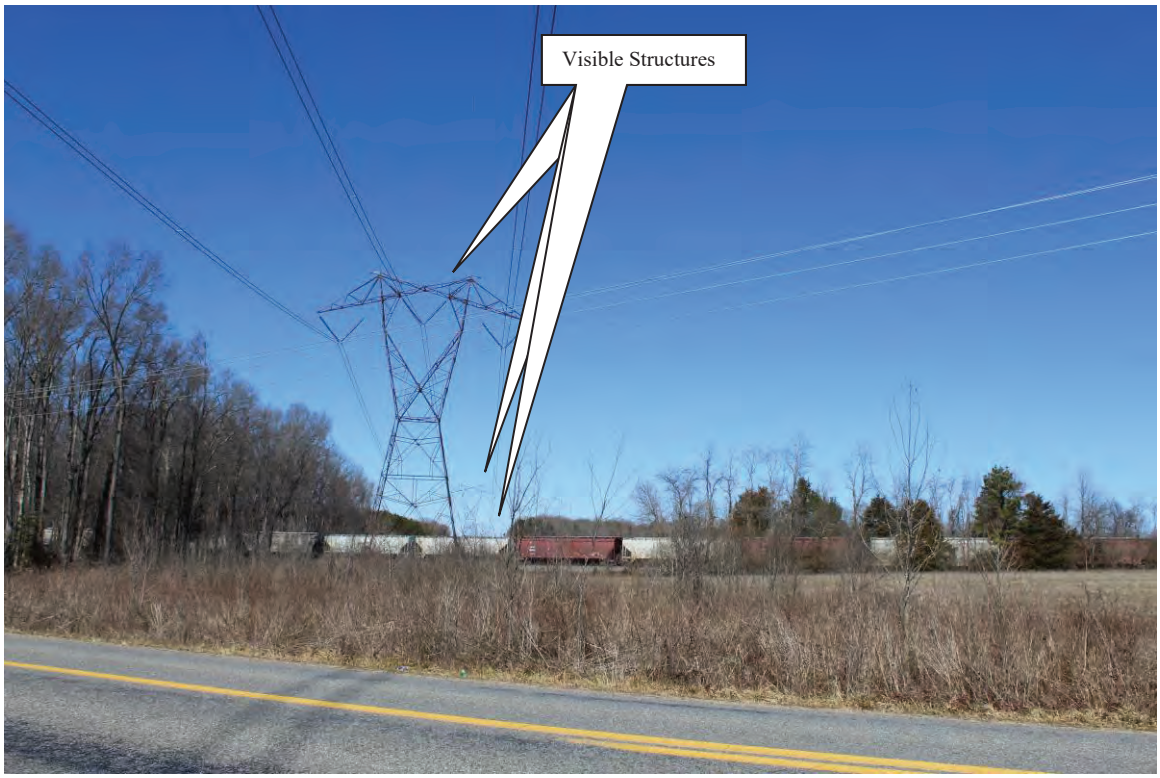

Figure 5-21: Photo location 4- View from Verndon Road at the project alignment crossing (multiple structures visible), facing north.

Figure 5-22: Photo location 5- View from Verndon Road at edge of Battlefield towards the project alignment (not visible), facing east.

Figure 5-23: Photo location 6- View from Verndon Road at 0.5 mile buffer towards the project alignment (one structure visible), facing northwest.

Figure 5-24: Photo location 7- View from Verndon Road at 1.0 mile buffer towards the project alignment (not visible), facing west.

Figure 5-25: Photo location 8- View from Verndon Road near entrance to North Anna Battlefield Park towards the project alignment (not visible), facing west.

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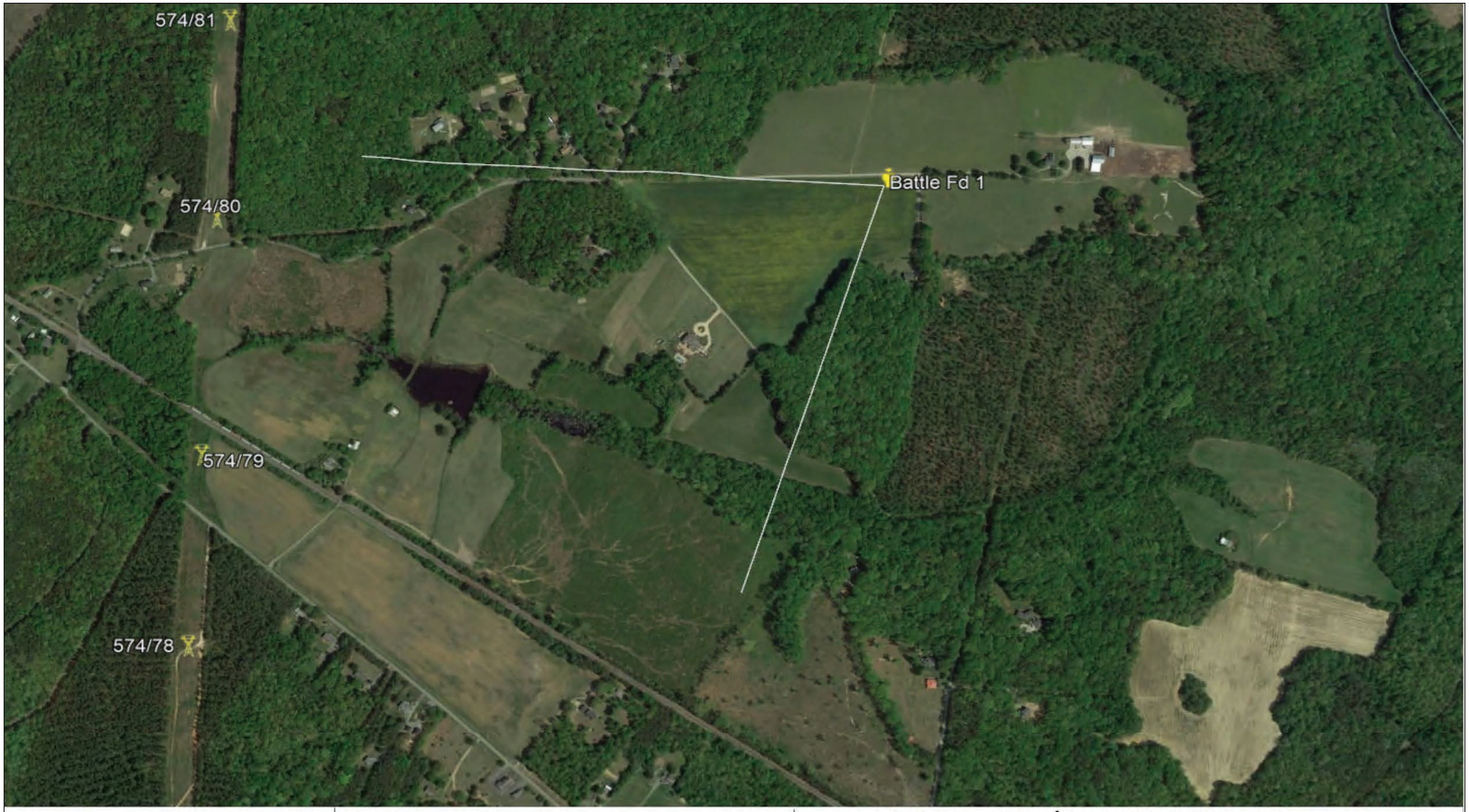

Photo simulations
prepared by:
GTTE LLC
email:
info@gttellc.com
703 447 1350

Location: Battlefield 1

Project: Elmont-Ladysmith

Name	Dist (ft)	Ht (ft)	Name	Dist (ft)	Ht (ft)
574/77	6920	154.0			
574/78	6047	134.0			
574/79	5160	144.0			
574/80	4158	149.0			

Figure 5-26: North Anna Battlefield Photo Simulation 1 – Simulation location, direction of view, and structures modeled. Source: GTTE, LLC

Photo simulations prepared by: GTTE LLC email: info@gttellc.com 703 447 1350	**Project: Elmont-Ladysmith**	**Location: Battlefield 1**	**Existing View**
	Photo Simulations and diagrams represent approximate heights for electric transmission structures from the conceptual design used for the proposed project. These illustrations do not necessarily depict exact structure design or location.		This simulation is designed for viewing on a computer monitor. To achieve the correct scale, the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 31" from the screen the image will have the same scale as if the viewer were standing at the camera location.

Figure 5-27: North Anna Battlefield Photo Simulation 1 – Existing view from Noel Road. Source: GTTE, LLC

Photo simulations prepared by: GTTE LLC email: info@gttellc.com 703 447 1350	**Project: Elmont-Ladysmith**	**Location: Battlefield 1**	**Proposed View** (Location of towers not visible are overlaid with yellow tower icon)
	Photo Simulations and diagrams represent approximate heights for electric transmission structures from the conceptual design used for the proposed project. These illustrations do not necessarily depict exact structure design or location.		This simulation is designed for viewing on a computer monitor. To achieve the correct scale, the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 31" from the screen the image will have the same scale as if the viewer were standing at the camera location.

Figure 5-28: North Anna Battlefield Photo Simulation 1 – Proposed view from Noel Road (visible structures shown as they would appear, structures not visible shown in yellow). Source: GTTE, LLC

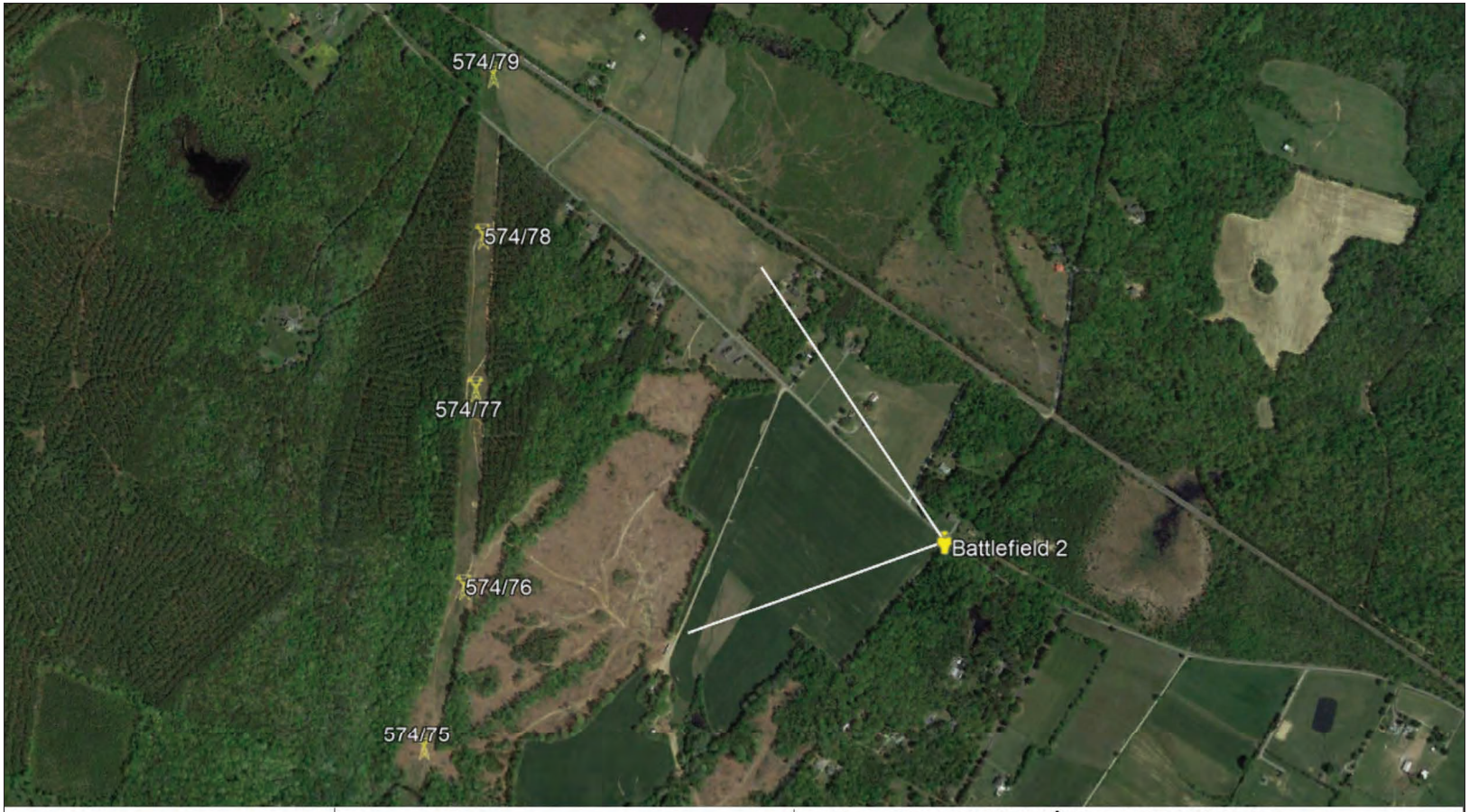

Figure 5-29: North Anna Battlefield Photo Simulation 2 – Simulation location, direction of view, and structures modeled. Source: GTTE, LLC

Photo simulations prepared by: GTTE LLC email: info@gttellc.com 703 447 1350	**Project: Elmont-Ladysmith**	**Location: Battlefield 2**	**Existing View**
	Photo Simulations and diagrams represent approximate heights for electric transmission structures from the conceptual design used for the proposed project. These illustrations do not necessarily depict exact structure design or location.		This simulation is designed for viewing on a computer monitor. To achieve the correct scale, the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 31" from the screen the image will have the same scale as if the viewer were standing at the camera location.

Figure 5-30: North Anna Battlefield Photo Simulation 2 – Existing view from Verndon Road (east of project). Source: GTTE, LLC

Photo simulations prepared by:
GTTE LLC
email:
info@gttellc.com
703 447 1350

Project: Elmont-Ladysmith

Location: Battlefield 2

Proposed View
(Location of towers not visible are overlaid with yellow tower icon)

Photo Simulations and diagrams represent approximate heights for electric transmission structures from the conceptual design used for the proposed project. These illustrations do not necessarily depict exact structure design or location.

This simulation is designed for viewing on a computer monitor. To achieve the correct scale, the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 31" from the screen the image will have the same scale as if the viewer were standing at the camera location.

Figure 5-31: North Anna Battlefield Photo Simulation 2 – Proposed view from Verndon Road (east of project) (visible structures shown as they would appear, structures not visible shown in yellow). Source: GTTE, LLC

Name	Dist (ft)	Ht (ft)	Name	Dist (ft)	Ht (ft)
574/75	6027	134.0	574/78	3176	134.0
574/76	5107	150.0	574/79	2480	144.0
574/77	3972	154.0	574/80	2068	149.0

Figure 5-32: North Anna Battlefield Photo Simulation 3 – Simulation location, direction of view, and structures modeled. Source: GTTE, LLC

Figure 5-33: North Anna Battlefield Photo Simulation 3 – Existing view from Verndon Road (west of project). Source: GTTE, LLC

Figure 5-34: North Anna Battlefield Photo Simulation 3 – Proposed view from Verndon Road (west of project) (visible structures shown as they would appear, structures not visible shown in yellow). Source: GTTE, LLC

Figure 5-35: North Anna Battlefield Photo Simulation 4 – Simulation location, direction of view, and structures modeled. Source: GTTE, LLC

Figure 5-36: North Anna Battlefield Photo Simulation 4 – Existing view from NPS Property. Source: GTTE, LLC

Photo simulations prepared by: GTTE LLC email: info@gttellc.com 703 447 1350	**Project: Elmont-Ladysmith**	**Location: Back Field**	**Proposed View** (Location of towers not visible are overlaid with yellow tower icon)
	Photo Simulations and diagrams represent approximate heights for electric transmission structures from the conceptual design used for the proposed project. These illustrations do not necessarily depict exact structure design or location.		This simulation is designed for viewing on a computer monitor. To achieve the correct scale, the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 31" from the screen the image will have the same scale as if the viewer were standing at the camera location.

Figure 5-37: North Anna Battlefield Photo Simulation 4 – Proposed view from NPS Property (visible structures shown as they would appear, structures not visible shown in yellow). Source: GTTE, LLC

NATIONAL REGISTER OF HISTORIC PLACES – ELIGIBLE PROPERTIES
Located within 0.5 Mile of the Project

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Cool Water (VDHR ID# 042-0075)

Cool Water is a two-story brick Georgian home believed to have been built circa 1735. Captain Thomas Price was born at Cool Water in 1754. He was an officer in the American Revolution and served under Patrick Henry in the march to Williamsburg in the gunpowder expedition. The property was determined eligible for listing in the NRHP by the VDHR in 1994 for its distinctive architecture.

In order to assess the potential impact of the proposed project, visual inspection was conducted of the setting around the resource property with emphasis on views towards the project area to document existing setting, sitelines, and viewshed. This assessment found that the Cool Water property immediately abuts the project area as the ROW extends along and slightly within the western edge of the property. The home itself is set centrally within the property, roughly 0.15 mile from the project alignment. It is oriented to the south with the project extending along the edge of the property to its west side. Set between the house and the project area is a complex of associated outbuildings and secondary resources. The landscape around the home is gently rolling, with shade trees and other vegetation scattered throughout the building complex. The property between the building complex and the project ROW is split, with an open field to the north and a wooded area to the south.

Inspection from the Cool Water property revealed that the existing transmission line is visible from some vantage points and screened by vegetation from others. Inspection from the front of the house revealed visibility of the transmission line as it is suspended across the field to the west, although neither of the adjacent structures are visible due to vegetation. One structure bordering the property is visible from other points throughout the homesite and building complex, although is seen behind or through vegetation from some points and unobstructed from others. A second existing structure that is in closer proximity to homesite is not visible due its location behind the thicker wooded area that provides complete screening in that direction. This structure is visible, however, from the driveway leading to the building complex that traverses a slightly more elevated portion of the property within open field. From this location, the existing structure is visible just above the treeline.

The existing transmission line structures in the vicinity of the property currently stand at 95-115- and 145-feet tall and the proposed replacement structures will be 124-, 134- and 169-feet tall respectively. As such, there will be an increase in structure height, however structures will be replaced on a one-to-one basis in generally the same location. As such, it is anticipated that there will be increased visibility of the structures that are currently visible above the treeline, and that there may be new visibility of structures currently screened by vegetation from discrete vantage points throughout the property. This was confirmed with photo simulation that shows the one structure currently visible from many vantages throughout the property will become increasingly more visible from these locations. One structure currently visible above the treeline only from the most elevated vantage on the property along the driveway will also become more visible, but will generally remain screened from most other locations. The third structure which is currently screened from all vantages on the property will also become visible, but only from the elevated driveway and will remain completely screened behind intervening vegetation from the home and building complex. As such, the project is anticipated to introduce a change of viewshed from the

property, however, that will be limited to increased visibility of structures that may already be seen with limited visibility of additional structures. It is therefore D+A's opinion that the project will have no more than a ***moderate impact*** on Cool Water.

Figure 5-38 depicts the location of Cool Water in relation to the project alignment and viewshed buffers, and Figure 5-39 depicts the location and direction of all representative photographs and photo simulations. Figures 5-40 through 5-49 are representative photographs of the property, as well as those taken from locations within the property towards the project alignment. Figures 5-50 through 5-55 provide photo simulation, including maps with the location, direction, and structures included in each photo simulation from the property, the existing view from each simulation location, and simulated views of the proposed structures.

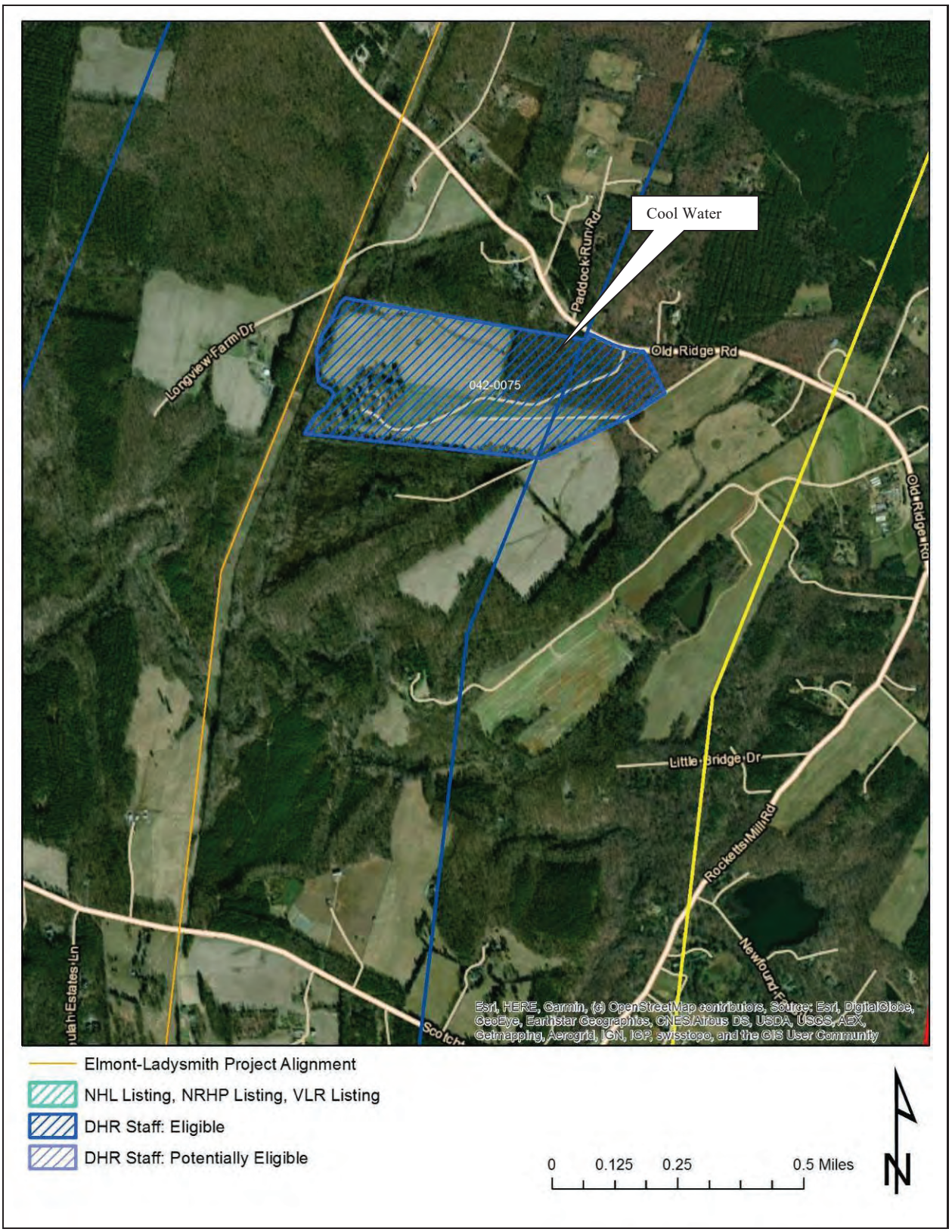

Figure 5-38: Cool Water in relation to the project area and tiered buffers.

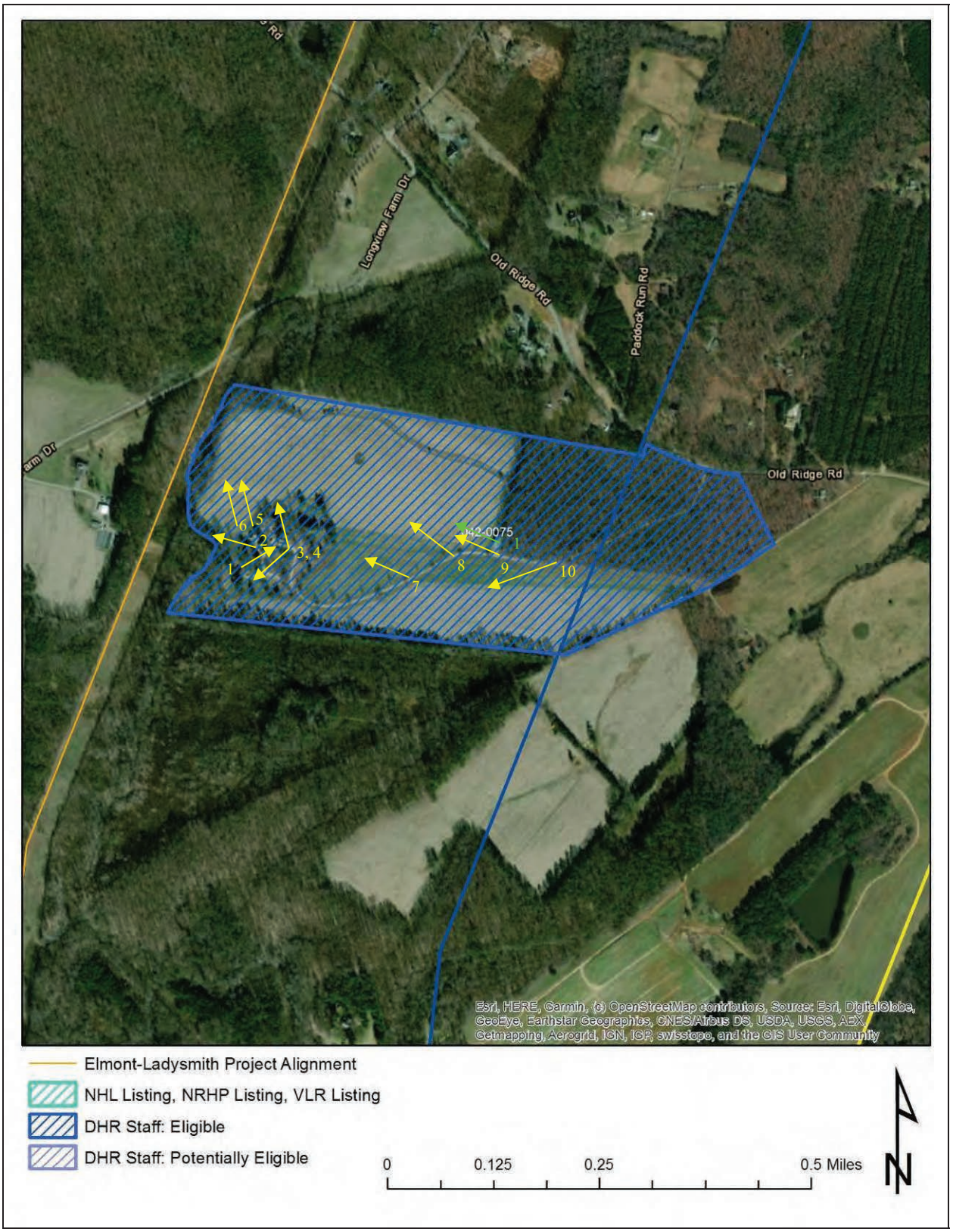

Figure 5-39: Cool Water in relation to the project area with location and direction of representative photography (shown in yellow) and photo simulations (shown in green).

Figure 5-40: Photo location 1- View of Cool Water front facade, facing northeast.

Figure 5-41: Photo location 2- View from Cool Water front towards the project alignment (line visible, no structures), facing west.

Figure 5-42: Photo location 3- View from Cool Water front towards the project alignment (one structure visible), facing northwest.

Figure 5-43: Photo location 4- View from Cool Water front towards the project alignment (not visible), facing southwest.

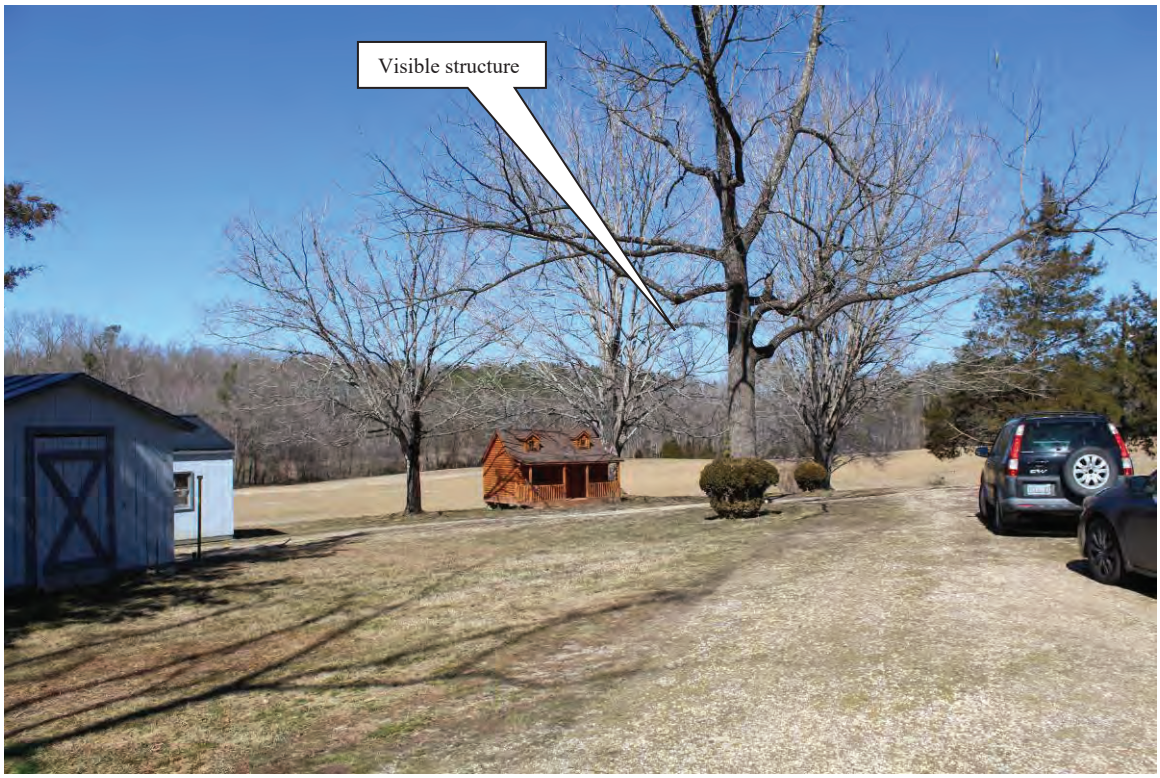

Figure 5-44: Photo location 5- View from Cool Water outbuilding complex towards the project alignment (one structure visible through vegetation), facing northwest.

Figure 5-45: Photo location 6- View from Cool Water outbuilding complex towards the project alignment (one structure visible), facing northwest.

Figure 5-46: Photo location 7- View from approach to Cool Water towards the project alignment (not visible), facing west.

Figure 5-47: Photo location 8- View from approach to Cool Water towards the project alignment (one structure visible), facing northwest

Figure 5-48: Photo location 9- View from Cool Water driveway towards the project alignment (one structure visible), facing west

Figure 5-49: Photo location 10- View from Cool Water driveway towards the project alignment (one structure visible through treeline), facing southwest

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Figure 5-50: Cool Water Photo Simulation 1 – Simulation location, direction of view, and structures modeled. Source: GTTE, LLC

Photo simulations prepared by: GTTE LLC email: info@gttellc.com 703 447 1350	**Project: Elmont-Ladysmith**	**Location: Coolwater 1**	**Existing View**
	Photo Simulations and diagrams represent approximate heights for electric transmission structures from the conceptual design used for the proposed project. These illustrations do not necessarily depict exact structure design or location.		This simulation is designed for viewing on a computer monitor. To achieve the correct scale, the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 31" from the screen the image will have the same scale as if the viewer were standing at the camera location.

Figure 5-51: Cool Water Photo Simulation 1 – Existing view from driveway. Source: GTTE, LLC

Photo simulations prepared by:
GTTE LLC
email:
info@gttellc.com
703 447 1350

Project: Elmont-Ladysmith

Location: Coolwater 1

Proposed View
(Location of towers not visible are overlaid with yellow tower icon)

Photo Simulations and diagrams represent approximate heights for electric transmission structures from the conceptual design used for the proposed project. These illustrations do not necessarily depict exact structure design or location.

This simulation is designed for viewing on a computer monitor. To achieve the correct scale, the image should be increased or decreased in size until the scale above measures 4". When viewed with the eye at 31" from the screen the image will have the same scale as if the viewer were standing at the camera location.

Figure 5-52: Cool Water Photo Simulation 1 – Proposed view from driveway (visible structures shown as they would appear, structures not visible shown in yellow). Source: GTTE, LLC

Name	Dist (ft)	Ht (ft)	Name	Dist (ft)	Ht (ft)
574/64	1490	134.0			
574/65	814	124.0			
574/66	1335	169.0			

Figure 5-53: Cool Water Photo Simulation 2 – Simulation location, direction of view, and structures modeled. Source: GTTE, LLC

Figure 5-54: Cool Water Photo Simulation 2 – Existing view from homesite. Source: GTTE, LLC

Figure 5-55: Cool Water Photo Simulation 2 – Proposed view from homesite (visible structures shown as they would appear, structures not visible shown in yellow). Source: GTTE, LLC

Richmond-Ashland Trolley Line (VDHR ID# 043-5347)

The Richmond-Ashland Trolley Line is an electric car system that dates to the late-nineteenth or early twentieth century. Richmond is known to have "the first commercial electric streetcar line in America," which started around 1887 (Lutz 1949). The line ran in a north-south direction from Richmond to Ashland. The line remained in use until 1938 (Lutz 1949). Today, the line is no longer continuous; rather it is broken into several sections as a result of development. The resource was determined potentially eligible for listing in the NRHP Criterion A (Transportation) by the VDHR in 2014 for its association to Richmond's early electric streetcar system and its subsequent suburbs.

In order to assess the potential impact of the proposed project, visual inspection was conducted of the setting around the resource property with emphasis on views towards the project area to document existing setting, sitelines, and viewshed. This assessment found that a portion of the former Richmond-Ashland Trolley Line corridor coincides with the existing project ROW just north of the Elmont substation. The substation itself is built within the former trolley line corridor and the existing transmission line extends within the former trolley line corridor for approximately 1.3 mile before the two corridors split. The landscape of the former trolley line corridor shared with the project ROW is generally cleared and grassy. It is crossed by several roads as well as private driveways and is bordered by residential development, including a larger modern subdivision. Where the two corridors split, the project area continues to the northwest within a cleared ROW similar to where it is shared with the trolley corridor, while the former trolley corridor turns to the northeast and is now utilized as a private lane before it transitions to a public hiking trail north of Gwathmey Church Road.

Inspection from the former Richmond-Ashland Trolley corridor revealed that the existing transmission line is highly visible as it shares the same ROW for over one mile. Within that length, the corridor/ROW is crossed by two public road corridors which permit public vantage and inspection. After the former trolley corridor and transmission line ROW split, the trolley corridor extends through thickly wooded private property for 1.25 mile before it crosses another public road corridor. At that point, the former trolley corridor has been repurposed as a public hiking trail with an interpretive sign on the history of the Richmond-Ashland Trolley. Assessment was conducted from each of the public road crossings in the vicinity. Inspection from Cedar Lane just north of the Elmont substation revealed unobstructed visibility of multiple structures in both directions up the ROW as it extends in a generally straight alignment. Inspection from Cobb Lane revealed similarly unobstructed views of multiple structures to the south, and just two structures to the north before the former trolley corridor veers off to the right and the transmission line corridor turns to the left. Inspection from Gwathmey Church Road revealed the former corridor remains to the south as a narrow cleared grassy strip bordered by thick woods. To the north side of the road the corridor has been repurposed as a public hiking trail with a small gravel parking lot and an interpretive sign at the head. Inspection from this point towards the project area revealed the intervening distance and thick wood screen all distant views and block views of the existing transmission line.

The existing transmission line structures in the vicinity of the property currently range from 82- to 117-feet tall and the proposed replacement structures will range from 120- to 160-feet tall

respectively. As such, there will be an increase in structure height, however structures will be replaced on a one-to-one basis in generally the same location. As such, it is anticipated that there will be increased visibility of the structures that are currently visible up and down the ROW shared with the former Richmond-Ashland Trolley Line, the line will still be screened from the head of the public hiking trail after the former corridor and the transmission line ROW split. This was confirmed with photo simulation that shows the replacement structures will have increased visibility, however, there will be no additional visibility of any structures that are currently screened, and the project will remain completely screened behind intervening vegetation from the public hiking trail and interpretive sign. As such, the project may introduce a slight change of viewshed from the property, however, that will be limited to where the corridor has already been compromised by collocation of the existing transmission line ROW. That segment of the corridor that remains more intact and is interpreted will continue to have no visibility of the project. It is therefore D+A's opinion that the project will have no more than a ***minimal impact*** on the Richmond-Ashland Trolley Line.

Figure 5-56 depicts the location of Richmond-Ashland Trolley Line in relation to the project alignment and viewshed buffers with the location and direction of all representative photographs and photo simulations. Figures 5-57 through 5-62 are representative photographs of the property, as well as those taken from locations within the property towards the project alignment. Figures 5-63 through 5-70 provide photo simulation, including maps with the location, direction, and structures included in each photo simulation from the property, the existing view from each simulation location, and simulated views of the proposed structures.

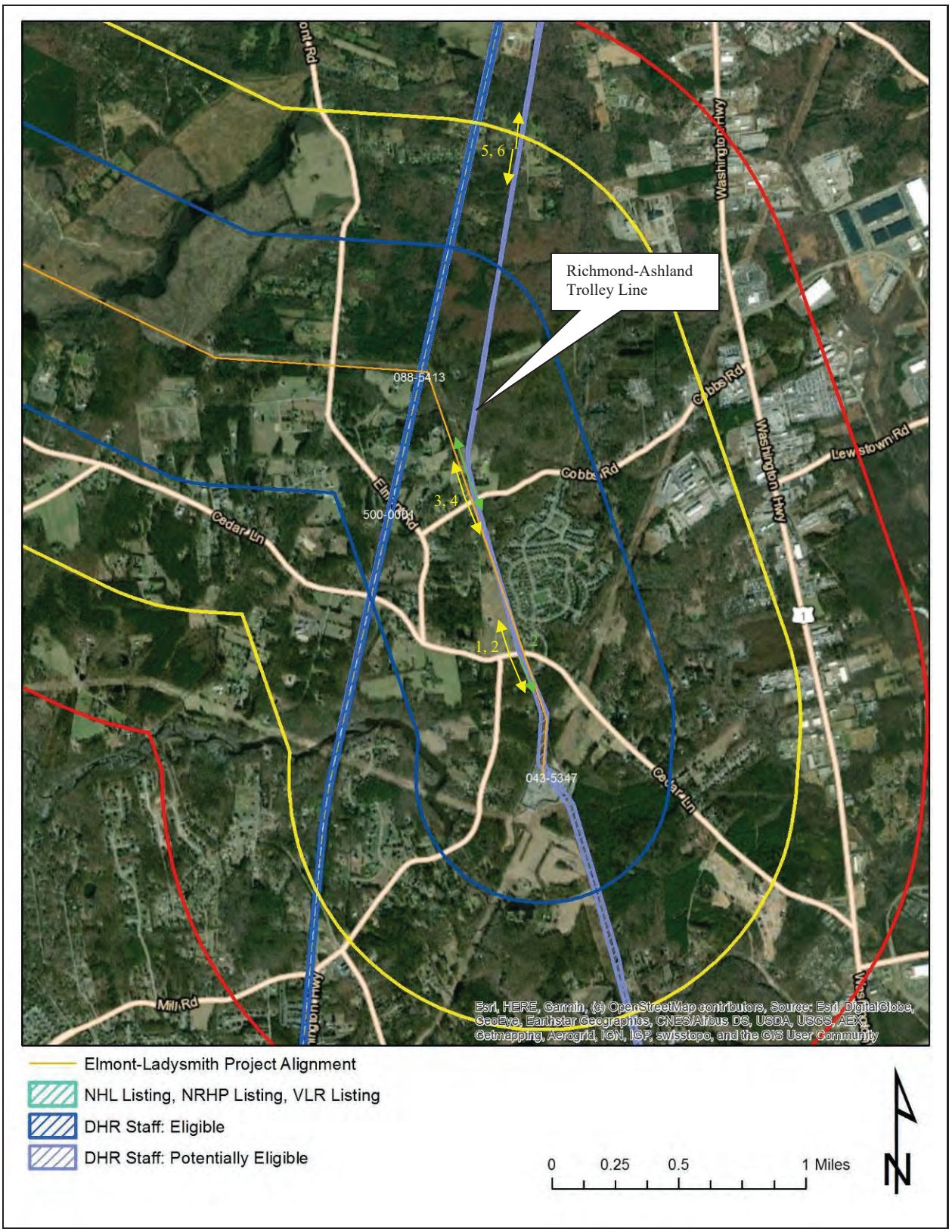

Figure 5-56: Richmond-Ashland Trolley Line in relation to the project area and tiered buffers with location and direction of representative photography (shown in yellow) and photo simulations (shown in green).

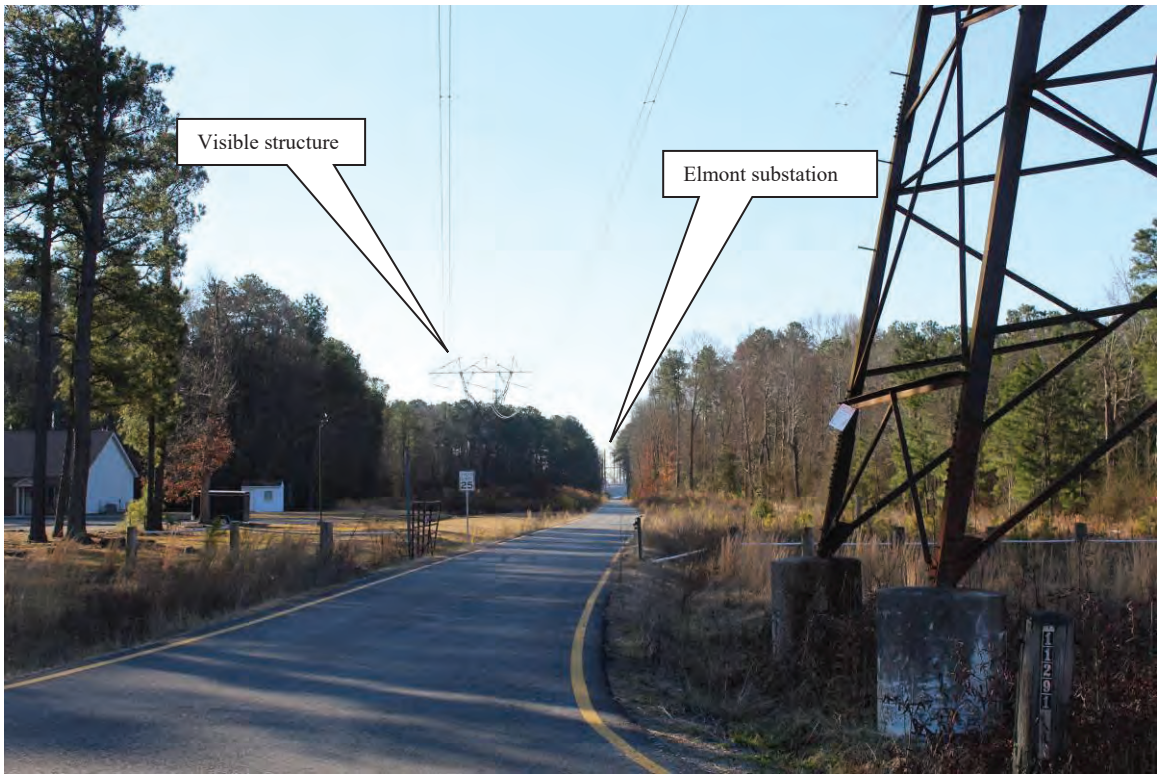

Figure 5-57: Photo location 1- View of Richmond-Ashland Trolley corridor with shared project area ROW from Cedar Lane, facing south.

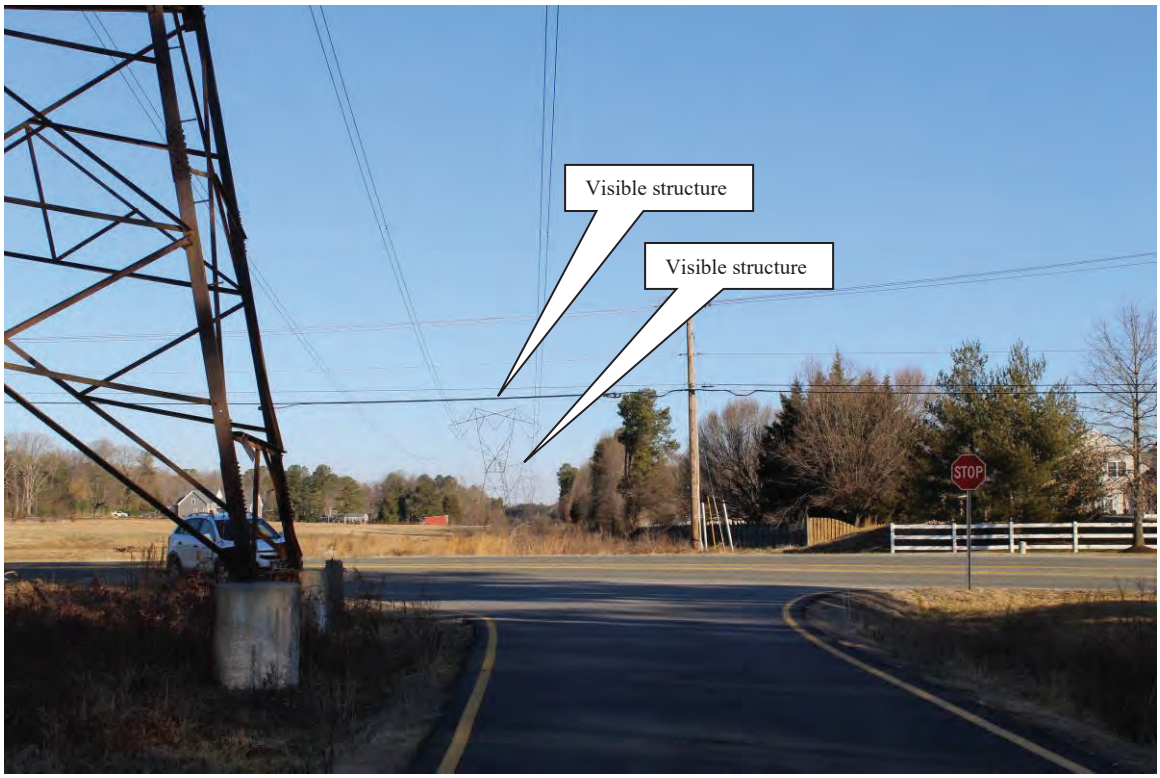

Figure 5-58: Photo location 2- View of Richmond-Ashland Trolley corridor with shared project area ROW from Cedar Lane, facing north.

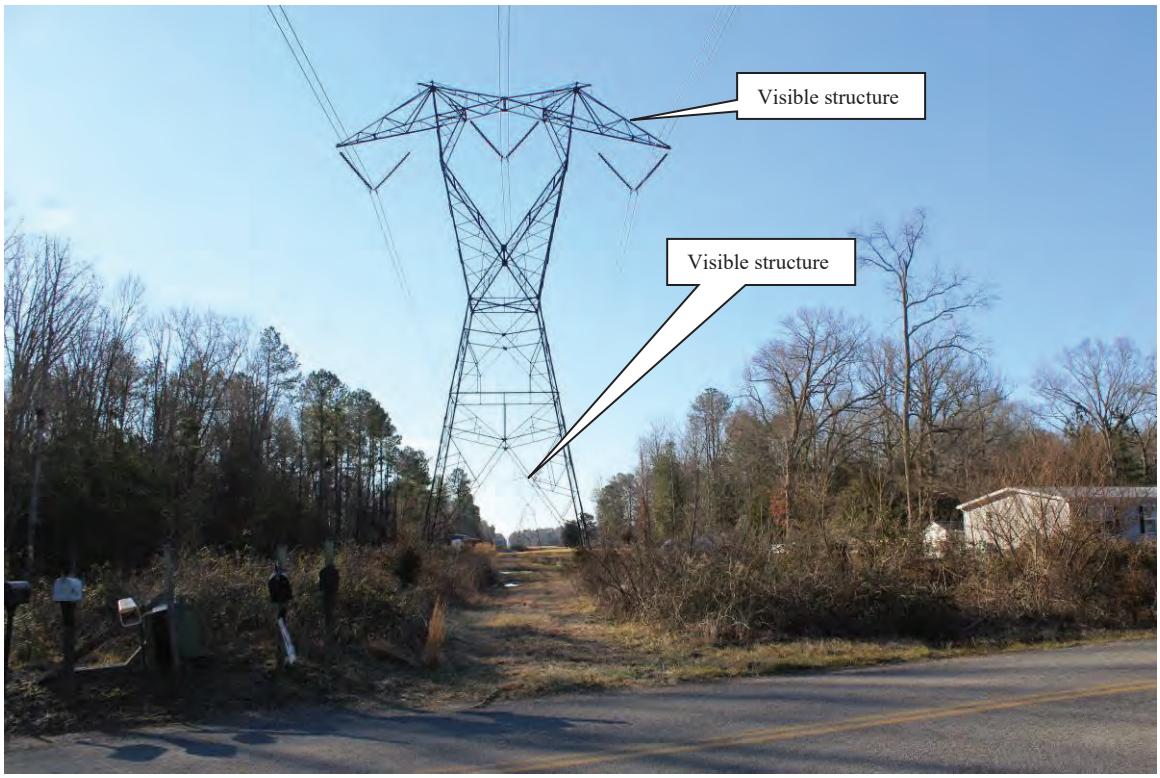

Figure 5-59: Photo location 3- View of Richmond-Ashland Trolley corridor with shared project area ROW from Cobb Lane, facing south.

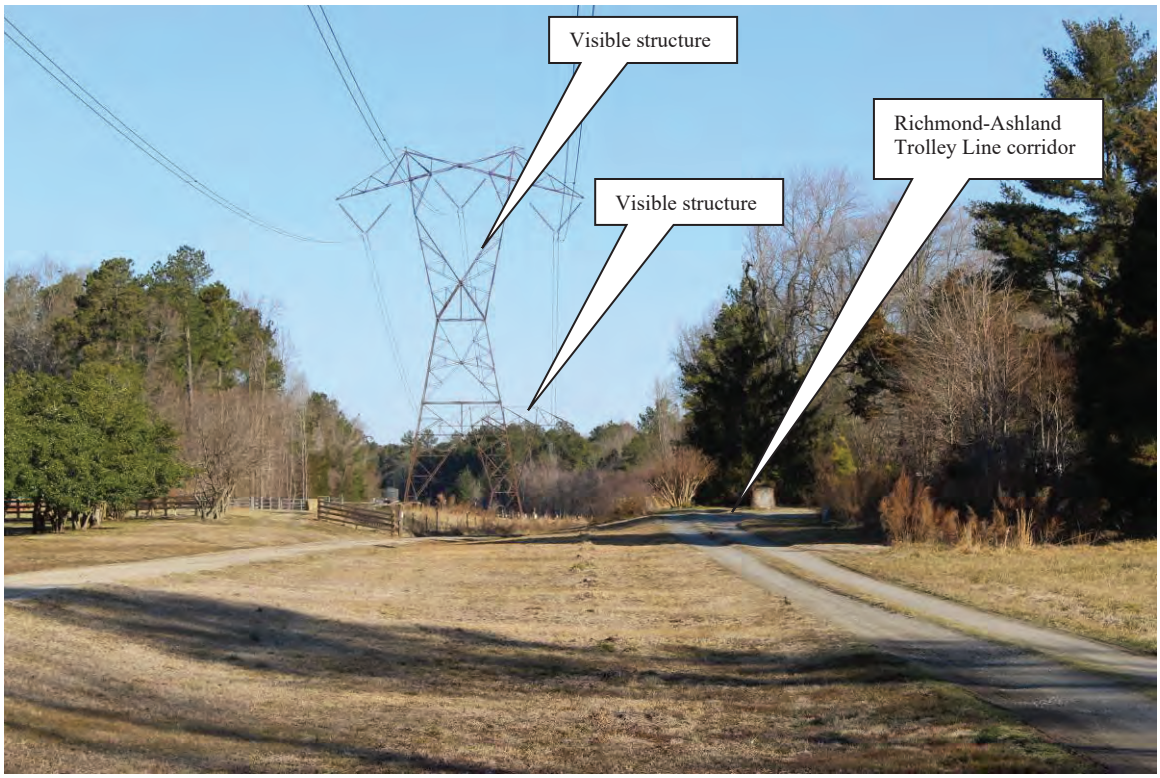

Figure 5-60: Photo location 4- View of Richmond-Ashland Trolley corridor where it splits from project area ROW from Cobb Lane, facing north.

Figure 5-61: Photo location 5- View of Richmond-Ashland Trolley corridor from Gwathmey Church Lane, facing north.

Figure 5-62: Photo location 6- View from Richmond-Ashland Trolley corridor towards the project area from Gwathmey Church Lane (not visible), facing south

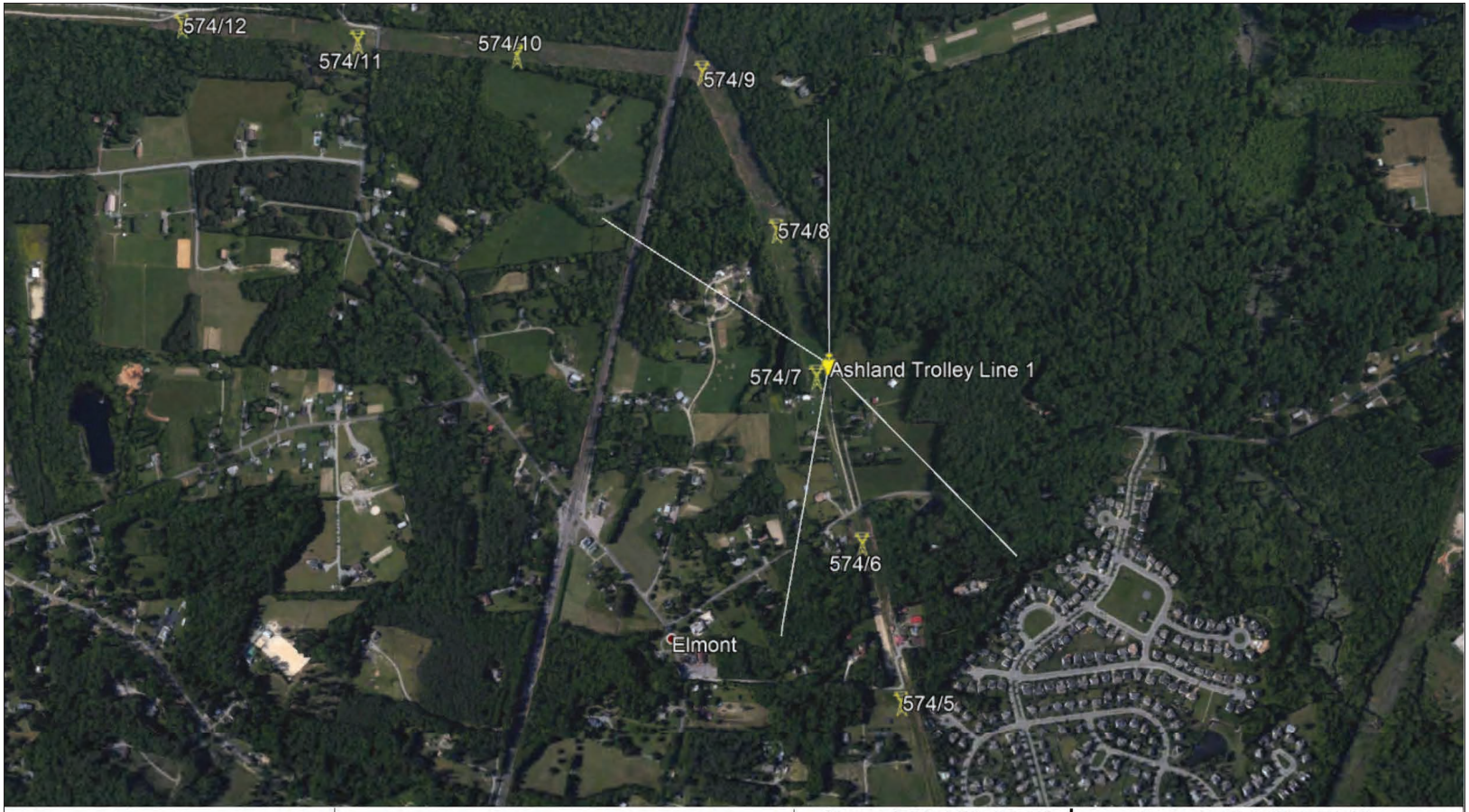

Photo simulations prepared by:
GTTE LLC
email:
info@gttellc.com
703 447 1350

Location:Ashland Trolley Line 1 North & South

Project: Elmont-Ladysmith

Name	Dist (ft)	Ht (ft)	Name	Dist (ft)	Ht (ft)
574/4	3106	139.0	574/8	907	125.0
574/5	2086	134.0	574/9	1971	135.0
574/6	1086	139.0	574/10	2706	154.0

Figure 5-63: Richmond-Ashland Trolley Photo Simulation 1 – Simulation location, direction of view, and structures modeled. Source: GTTE, LLC